

**AMENDED AGENDA
CITY COMMISSION MEETING
CITY HALL, 501 W MEADOW STREET
MONDAY, OCTOBER 23, 2023 5:30 PM**

1. CALL TO ORDER

INVOCATION

PLEDGE OF ALLEGIANCE TO THE FLAG OF THE UNITED STATES OF AMERICA

2. PROCLAMATIONS:

A. National American Indian Heritage Month

3. PRESENTATIONS:

A. Officer "Boomer" - K9 Retirement Recognition - Handler Corporal John Scheer

4. PUBLIC COMMENTS:

This section is reserved for members of the public to bring up matters of concern or opportunities for praise. Issues brought up will not be discussed in detail at this meeting. Issues will either be referred to the proper staff or will be scheduled for consideration at a future City Commission Meeting. Comments are limited to three minutes.

5. CONSENT AGENDA:

Routine items are placed on the Consent Agenda to expedite the meeting. If the Commission/Staff wish to discuss any item, the procedure is as follows: (1) pull the item(s) from the Consent Agenda; (2) vote on remaining items with one roll call vote, (3) discuss each pulled item and vote by roll call

A. CITY COMMISSION MEETING MINUTES:

1. Regular meeting held October 9, 2023

B. PURCHASING ITEMS:

1. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute Amendment Four with

Sissine's Business Solutions of Orlando, LLC., amending the contract term; and providing an effective date.

- 2. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute a Construction Services Agreement with Crom, LLC., for the installation and construction of a ground storage tank in Highland Lakes; and providing an effective date.**
- 3. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute an Agreement for natural gas distribution line installation and abandonment services with Precision Meter Repair, Inc. and Sabcon Underground; and providing an effective date.**
 - a. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute a Fixed Unit Price Agreement for Construction Services with Precision Meter Repair, Inc.; and providing an effective date.**
 - b. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute a Fixed Unit Price Agreement for Construction Services with SabCon Underground; and providing an effective date.**
- 4. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute Amendment 1 to Construction Services Agreement with Wharton-Smith, Inc.; and providing an effective date.**

C. RESOLUTIONS:

- 1. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Leesburg Police Department to apply for and, if awarded, accept an Edward Byrne FY 2023 Local Solicitation Grant from the U.S. Department of Justice (JAG) to pay costs associated with the purchase of department equipment; and providing an effective date.**
- 2. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Leesburg Police Department to apply for and, if awarded, accept an Edward Byrne FY 2022 (2023) Countywide Solicitation Grant from the U.S. Department of Justice (JAG) to pay costs associated with tuition and study material for law enforcement academy; and providing an effective date.**
- 3. Resolution of the City Commission of the City of Leesburg, Florida,**

authorizing the Mayor and City Clerk to execute a Third As-Needed Municipal Support Agreement between the City of Leesburg and Alpha International I, LLC; and providing an effective date.

- 4. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute Amendment No. 4 of the master services agreement with Paymentus, Inc. to provide electronic utility bill payment services to process City utility customer payments by credit and debit card and ACH/eCheck; and providing an effective date.**
 - 5. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute a Civic Organization Funding Agreement with Leesburg Cemeteries, Inc. for Fiscal Year 2023/24; and providing an effective date.**
 - 6. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Recreation Department to implement a waitlist deposit policy at the Venetian Cove Marina; and providing an effective date.**
 - 7. Resolution of the City Commission of the City of Leesburg, Florida authorizing amendments to Personnel Policy 800 - Non-Travel Meals and Refreshments; and providing an effective date.**
- 6. PUBLIC HEARINGS AND NON-ROUTINE ITEMS:
COMPREHENSIVE PLAN INFORMATION SIGN-UP SHEET (YELLOW)
AVAILABLE**
- A. SECOND READING OF ORDINANCES**
- 1. An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 17-07 pertaining to a change in the Future Land Use Element of City of Leesburg Comprehensive Plan to establish the Orange Bend Future Land Use designation and creating applicable Goals, Objectives and Policies, and ratifying and readopting Ordinance 17-08 pertaining to a change in Future Land Use on approximately 640 acres from Lake County Agriculture to City of Leesburg Orange Bend, for property generally situated in Section 33, Township 18 South, Range 25 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 17-07, 17-08 Orange Bend)**
 - 2. An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 15-46 pertaining to a change in Future Land Use on approximately 73 acres from Lake County Urban High Density to City of Leesburg Medium Density Residential for property generally situated in**

Section 16, Township 19 South, Range 24 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 15-46 Leesburg Fruit Co.)

3. **An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 15-51 pertaining to a change in Future Land Use on approximately 104 acres from Lake County Urban Low Density to City of Leesburg Estate Residential for property generally situated in Section 1, Township 19 South, Range 25 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (15-51 Silver Lake Estates)**
4. **An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 15-43 pertaining to a change in Future Land Use on approximately 216 acres from Lake County Rural to City of Leesburg Estate Residential for property generally situated in Sections 27 and 28, Township 20 South, Range 24 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 15-43 Ranches of Orlando)**
5. **An Ordinance of the city of Leesburg, Florida, ratifying and readopting Ordinance 17-16 pertaining to a change in Future Land Use on approximately 62.8 acres from Lake County Rural Transition to City of Leesburg Estate Residential for property generally situated in Section 25, Township 20 South, Range 24 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 17-16 Floribra)**

B. FIRST READING OF ORDINANCES

1. **An Ordinance of the City of Leesburg, Florida, annexing certain real property consisting of approximately 4.9 +/- acres; and being generally located southwest of Professional Drive and south of U.S. Highway 441, lying in Section 21, Township 19 South, Range 25 East, Lake County, Florida; providing that said property so annexed shall be liable for its proportionate share of the existing and future indebtedness of said city; providing that such annexed property shall be subject to all laws and**

ordinances of said city as if all such territory had been a part of the City of Leesburg at the time of passage and approval of said laws and ordinances; providing that such annexed territory shall be placed in City Commission District 5; and providing an effective date. (Electrical Works)

2. **An Ordinance amending the Future Land Use Map of the Comprehensive Plan of the City of Leesburg, changing the Future Land Use Map Designation of certain property containing 4.9 +/- acres from Lake County Urban Low Density to City of Leesburg General Commercial, for a property generally located southwest of Professional Drive and south of U.S. Highway 441, lying in Section 21, Township 19 South, Range 25 East, Lake County, Florida; and providing an effective date. (Electrical Works)**
3. **An Ordinance of the City of Leesburg, Florida, changing the zoning on approximately 4.9 +/- acres from Lake County LM (Light Industrial) to City of Leesburg SPUD (Small Planned Unit Development) to allow for commercial and light industrial uses for a property generally located southwest of Professional Drive and south of U.S. Highway 441, lying in Section 21, Township 19 South, Range 25 East, Lake County, Florida; and providing an effective date. (Electrical Works)**
4. **An Ordinance of the City of Leesburg, Florida, amending the boundaries of the Tara Oaks Community Development District established pursuant to Ordinance 21-17; providing a severability clause; addressing conflicts; and providing an effective date. (CDD rev Tara Oaks)**

C. NON-ROUTINE ITEMS:

1. **City Manager Evaluation**

7. INFORMATIONAL REPORTS:

The following reports are provided to the Commission in accordance with the Charter/Ordinances. No action required.

- A. **None**

8. CITY ATTORNEY ITEMS:

9. CITY MANAGER ITEMS:

10. ROLL CALL:

11. ADJOURN:

PERSONS WITH DISABILITIES NEEDING ASSISTANCE TO PARTICIPATE IN ANY

OF THESE PROCEEDINGS SHOULD CONTACT THE HUMAN RESOURCES DEPARTMENT, ADA COORDINATOR, AT 728-9740, 48 HOURS IN ADVANCE OF THE MEETING.

F.S.S. 286.0105 "If a person decides to appeal any decision made by the Commission with respect to any matter considered at this meeting, they will need a record of the proceedings, and that for such purpose they may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." The City of Leesburg does not provide this verbatim record.

**AGENDA MINUTES
CITY COMMISSION MEETING
CITY HALL, 501 W MEADOW STREET
MONDAY, OCTOBER 9, 2023 5:30 PM**

1. CALL TO ORDER

The City of Leesburg Commission held a regular meeting on Monday, October 9, 2023, at Leesburg City Hall. Mayor Burry called the meeting to order at 5:30 p.m. with the following members present:

Commissioner Allyson Berry
Commissioner Jay Connell
Commissioner Mike Pederson
Commissioner Alan Reisman
Mayor Jimmy Burry

Also present were City Manager (CM) Al Minner, City Clerk (CC) J. Andi Purvis, City Attorney (CA) Grant Watson, the news media, and others.

INVOCATION

Mayor Burry gave the invocation followed by the Pledge of Allegiance to the Flag of the United States of America.

PLEDGE OF ALLEGIANCE TO THE FLAG OF THE UNITED STATES OF AMERICA

2. PROCLAMATIONS:

A. None

3. PRESENTATIONS:

A. Venetian Cove Marina Project

Recreation Director (RD) Travis Rima stated he was excited to show what they have going on for the marina project because it is a project they have talked about for many years. The directive was to demolish and rebuild the Venetian Cove Marina. They wanted this to fit the aesthetics of the lakefront area and match the Venetian Center and the new paintwork done at Pat Thomas Stadium. Referring to a slide, he stated inside the building there would be a reception area with offices and restrooms. The restrooms will be accessible from both inside and outside. That way, when they lockup the marina at the end of the day, people will still have access to the restrooms from outside the building. These restrooms will be utilized by the people who use the boat ramp and they will not have to use the Pat Thomas

Stadium restrooms. They will have proper signage for people who use the boat ramp at the marina. They would also like to add some wetslips on a budget of two million dollars. This would be a design, bid, build and this is the first concept they wanted to present to the commission. After this, they would get deeper into the design. He provided a rendering of the building which resembled a mini Venetian Center. There were two pictures that showed one with a cupola and one without it. One showed an overhang at the front entrance. It is a small building and the inside will resemble the Venetian Center. He showed a rendering of the back of the building that included an overhang which would overlook the lake and docks. It would provide a shaded outdoor seating area. Looking at the marina now, they would have to shift it a bit to the west, so the existing sidewalk that currently leads up the side of the building will now take you to the front of the building. They currently have a big ugly gas tank near the entrance of the building. They would like to move it, so it will not be the first thing you see. However, by the way they are shifting the building to the sidewalk, it would be out of the way. Both buildings, whether we go with the cupola or not, the inside, would be the same. The restrooms would be on the west side and the offices and reception area would be on the east side of the building. He showed the cost estimates from Edgewater. Again, this would be a design, bid, build, and as they get through the design and start bidding this out, costs could change. However, this does include contingencies. The cost would be just over \$630,000 for the one that includes the cupola, and \$587,000 without the cupola. The costs include furniture, fixtures, and equipment (FF&E) and contingency permits.

The second part of this project includes additional wetslips. They are proposing to add an additional forty-two wetslips. There are currently forty-four wetslips and they would like to add another forty-two. The first section of costs is around \$230,000 to \$240,000, which includes repairs and changing out some areas that need to be repaired on the existing docks. The new slips would continue from the end of the current dock and that cost would be between \$500,000 and \$550,000. They added in contingencies which would take it to just under one million dollars. They talked to a couple of different commissioners who asked about the return on investment. The \$230,000 to \$240,000 is marked for fixing the existing slips, which need to be done regardless. There are some old wooden pilings and stuff that needs to be fixed or changed. For each added wetslip, it would provide a revenue each year of just under \$2,000. They currently generate about \$81,000 a year with the current forty-four slips. If they add forty-two more slips, that would provide another \$77,000 in revenue. Added together, it would be about \$158,000 per year of profit for eighty-six slips. The average monthly wet slip rate is one hundred and fifty-three dollars. There are three different sets of rates which are charged per foot; commercial, resident, and non-resident. Again, he provided two options for the marina building; one with a cupola and one without. The cost would be either 1.58 or 1.54 million; a difference of about \$40,000. The cupola does cost about forty grand, which provides more aesthetics. One thing that should have been included was the architectural and engineering costs. Those were not included, so option one with the architect and engineer is about 1.8 million and then the second option is 1.7 million.

Mayor Burry asked about the wet slips. Are they currently all occupied? **RD Rima** responded yes. They are currently full and always full. The wetslips are filled as soon as there is an opening. They have a waiting list of about fifty people for those. He has spoken with Commissioner Reisman about the idea of having a deposit system on the wetslips, like they do at the airport. That may be something to discuss. After speaking with the city manager, if they gave them six to twelve months, those wetslips would all be filled. **Commissioner Connell** inquired about the life expectancy of the new docks. Is it twenty-five years? **RD Rima** replied it would be twenty-five to thirty-five years. They talked with a representative from Edgewater who said it would be twenty-five plus years for the life expectancy. The product on their website says thirty-five years plus. They also talked about the need for some nuts and bolts to be changed. However, we are talking about a couple of hundred thousand dollars for fixing it. **Commissioner Connell** wanted to know if it would take eight to ten years to receive the initial investment back and if that would leave plus or minus fifteen years of no major maintenance. **RD Rima**

replied that was correct. **Commissioner Connell** continued to say after that we would collect the rent on the wetslips. **RD Rima** answered yes, that would be the expectation. **Commissioner Reisman** asked if the city was competitive on the rent for the wetslips. **RD Rima** responded yes. Each year they call the nine area marinas before budget time to check what their rates are and Leesburg is currently the second or third highest. We went from being at the bottom with the lowest rates to being the second or third highest. They also just made a 3% increase during the last budget. **Commissioner Reisman** inquired how the commission felt about having a similar wait list like they do at the airport, where they pay a deposit to get on the list. That way, they have a little skin in the game and they can prove that the wait list is a true list. **Mayor Burry** stated his position would be if they do that, they see if the list fills up and if there is money, then we know we can do the project. They just need to make sure the list is full before allocating the funds. **CM Minner** said Commissioner Reisman came and talked to him about this concept prior to the meeting. It is a two-step process and the biggest expenditure proposed for this project is the one million dollars for the slips. Then there is the question of filling up the slips. One difference that we had in the operations of the city is the airport having a waiting list for hangars. They are required to provide one month's rent, which is two hundred and fifty to five hundred dollars, depending on the type of hangar. That puts them on the waiting list, which puts a little skin in the game. Nineteen times out of twenty, even though it is a little more than 1%, there is one person who might not get that hangar. In this case, being that the largest expenditure is the docks, they could do it in a two-step fashion if they want that security. The two steps would be to pick the option they want for the marina building and move into the design phase. When that is done, they can go to bid and that project will be back before the commission for the construction contract. In the interim, we can adopt a policy for the marina that requires a deposit to be on the waiting list. He suggested that they make a one hundred and fifty dollar down payment, which represents one month's rent. The typical lease is about seven dollars and fifty cents per foot, so for a twenty-foot boat, that would be a one hundred and fifty dollars down payment. They could bring back a policy to a meeting for adoption so the recreation director can begin organizing that list. From that, we would have the forty-two people who are on the waiting list and they would give a deposit of one hundred and fifty dollars to the city. It would provide some validation that says we have people to slide right into the slip when it has completed construction. Then we would have that return on investment, as Commissioner Connell said. Worst case scenario is that folks do not want to make a deposit. If that happens, then the commission may question whether or not to go back to not requiring deposits. At this point, if the commission wants to look at a policy for deposits, they should just move forward with the design of the marina building. It is an inclusive contract with the marina and slips, but he does not think Edgewater would do both right now. They could probably wait on the slips and give them ninety days to flush this out. When they are finished with the other half of the project, they can come back and revisit it. **Mayor Burry** asked the representative from Edgewater if there were any problems doing it this way. From the audience, Ron Schultz, a representative from Edgewater, said that was fine. They could get the price on the marina building first, so they have that number. That way they will know if the estimates were low or high. They do not have to award it until they are ready. **CM Minner** added that the contractor would like to move ahead with design. He understands where he is coming from since these are estimated numbers and they hope the actual numbers are lower. If they want to save money and not do the marina slip concept at all due to concerns that they may not be able to fill them, then they will not want to spend any money on the design of them. They can get back with the contractor in the next sixty to ninety days to say they are good and that the slips are filled up. At that point, they can move forward with the design of the slips. It will not be a big delay, but that process is not foolproof. However, it would give some political coverage that says we have forty-four people on a waiting list for wetslips. They would also have some skin in the game, which represents some security that the slips will be filled once they complete that project. **Commissioner Pederson** remarked that the worst case would be that they only build half of them, but he is comfortable building all of them at this time. If the numbers come back bad, the compromise could be to build twenty-two of them instead of forty-four. The marina has had a waiting list forever. He has personally called there over the years to try

to get a wet slip and there has been no chance. **Commissioner Berry** questioned if this was based on existing boats and did it include the additional boats that will come once the marina slips are in. **CM Minner** replied that right now there are forty-four wet slips and this would add forty-two more wet slips. There would be a potential of eighty-six boat slips and they believed they would fill them.

Commissioner Pederson added that they would also make repairs to the old dock. **Mayor Burry** stated there is a waiting list already. **RD Rima** agreed and said that the Freedom Boat Club and Venture Boat Share are knocking on their doors all the time. They alone could fill the slips and they pay the full commercial rate, if they let them. However, they want to keep some for residents. **Mayor Burry** stated at this point they had the presentation and they needed to decide how to proceed.

Commissioner Reisman made a motion to move forward with the marina building with the cupola and to hold off on the wet slips until they had the wait list completed and Commissioner Pederson seconded the motion.

Mayor Burry asked if there were any further comments on the motion. **Commissioner Connell** said he was all for the marina building. It would be a good thing because we need some real public restrooms there. However, he was not sure spending forty thousand dollars on a cupola for aesthetic appearance was worth it. Unless you are down there, you will not see that building. He would not be able to support spending the extra forty thousand dollars. **Mayor Burry** asked if there was a cupola at the Venetian Center and if that was why they wanted to put one on the marina building. **RD Rima** answered there is a raised point at the entrance to the Venetian Center. He was not sure if architecturally that was considered a cupola. However, it does have a second story appearance above the entryway. **CM Minner** added that they had long discussions about the aesthetic qualities of the Venetian Center. They also had discussions about the spelling of the name. They had to decide on whether to call it the Venetian Center or the Venetian Centre. There were a bunch of different concepts they came up with and the biggest one was how they did the interior roof with the exposed metal work. Ultimately, in the end, they saved about one-point-five million dollars in the big room by not doing the tongue and groove type of material. There was a lot of consideration on extra architectural features that they wanted to put into that building. As they had done some of the other facilities with the restaurant, they imposed some concepts and they were able to pass off some of the concepts to the developer in that agreement. As Commissioner Pederson would say, if we are going to do it, let's do it right. **Commissioner Pederson** remarked that he was trying to avoid saying that and he knows they need to be fiscally responsible, but he does say that all the time. **CM Minner** said, anyway they look at this, the bottomline is that they need the new building. The floor in the current building is falling out and if they want to add a cupola as an alternate, they could or they could save a couple of dollars and not have it. However, the actual costs could come back at twenty thousand dollars verses forty thousand dollars. **Commissioner Connell** said he was in favor of building the building because we need it, but this is not going to be right in their face as they come into the city. This is located behind Pat Thomas, so unless they drive down to the marina they will not see it. It is not located on a major highway. Spending forty thousand dollars on a little cupola is a waste of money. **Commissioner Berry** asked if they could look at the building rendering again. **Commissioner Connell** said it does look better with the cupola, but for forty thousand dollars, that is not worth it.

The roll call vote was:

Commissioner Connell	No
Commissioner Reisman	Yes
Commissioner Pederson	Yes
Commissioner Berry	Yes
Mayor Burry	Yes

Four yeas, one nay, the Commission approved to move forward with the project.

Commissioner Reisman commented that he was looking forward to receiving a full wet slip waitlist. He was pretty sure it would be full, he just wanted some guarantees.

4. PUBLIC COMMENTS:

This section is reserved for members of the public to bring up matters of concern or opportunities for praise. Issues brought up will not be discussed in detail at this meeting. Issues will either be referred to the proper staff or will be scheduled for consideration at a future City Commission Meeting. Comments are limited to three minutes.

There were no public comments.

5. CONSENT AGENDA:

Routine items are placed on the Consent Agenda to expedite the meeting. If the Commission/Staff wish to discuss any item, the procedure is as follows: (1) pull the item(s) from the Consent Agenda; (2) vote on remaining items with one roll call vote, (3) discuss each pulled item and vote by roll call

CM Minner informed the public that procedurally they needed to withdraw item 5.C.3. The city attorney found some contractual errors in the continuing service agreement. That item is now off the table and will not be voted on at this meeting. They do not need to pull 5.C.4, because they have the appropriate number of applicants to fill the vacancies. However, they do need to pull item 5.C.5.

Items pulled for discussion:

5.C.4 - Appointing four members to the Leesburg Historic Preservation Board;
5.C.5 - Execute a Utility Construction Reimbursement (Pioneering) and Wastewater Capacity Reservation Agreement with NVR, Inc.

Commissioner Pederson moved to adopt the Consent Agenda except for 5.C.4 and 5.C.5, and Commissioner Reisman seconded the motion.

The roll call vote was:

Commissioner Reisman	Yes
Commissioner Pederson	Yes
Commissioner Berry	Yes
Commissioner Connell	Yes
Mayor Burry	Yes

Five yeas, no nays, the Commission adopted the Consent Agenda, as follows:
(Each item has its coordinated resolution number listed below the header)

A. CITY COMMISSION MEETING MINUTES:

1. Regular meeting held September 25, 2023

B. PURCHASING ITEMS:

1. **None**

C. RESOLUTIONS:

1. **Resolution of the City Commission of the City of Leesburg, Florida, approving the 1st of three As-Needed Municipal Support Agreements; and providing an effective date.**

ADOPTED RESOLUTION 11,711

2. **Resolution of the City Commission of the City of Leesburg, Florida, approving the 2nd of three As-Needed Municipal Support Agreements; and providing an effective date.**

ADOPTED RESOLUTION 11,712

3. **Resolution of the City Commission of the City of Leesburg, Florida, approving the 3rd of three As-Needed Municipal Support Agreements; and providing an effective date.**

This item was pulled from the agenda.

4. **Resolution of the City Commission of the City of Leesburg, Florida, appointing four members to the Leesburg Historic Preservation Board; and providing an effective date.**

ADOPTED RESOLUTION 11,713

Commissioner Reisman introduced the resolution to be read by title only. CC Purvis read the resolution by title only.

Commissioner Reisman made a motion to adopt the resolution and Commissioner Pederson seconded the motion.

Mayor Burry requested comments from the Commission and the audience.

Commissioner Reisman asked if there were any applicants present who wished to speak. **Mayor Burry** inquired if there were any applicants present for the historic preservation board. There were none. **Commissioner Reisman** questioned if they needed to just appoint one person. **Commissioner Pederson** replied that there were four applicants and four positions. **Commissioner Reisman** apologized, he misunderstood. **CM Minner** said they could make a motion to accept it as presented by staff.

Commissioner Pederson made a motion to accept the applicants for the open positions as presented by staff and Commissioner Reisman seconded the motion.

The roll call vote was:

Commissioner Pederson	Yes
Commissioner Berry	Yes
Commissioner Connell	Yes
Commissioner Reisman	Yes
Mayor Burry	Yes

Five yeas, no nays, the Commission adopted the resolution.

CM Minner noted that they now have a full historic preservation board. However, by the city charter, it is a seven-member board which includes two alternate positions that at this time are unfilled. He wanted to provide a general update. About a year ago, they started going through the concept of changing the composition of the historic preservation board. They wanted to pull back some of the key items the board handled and one was the authorization for final demolition. They wanted to see if they could potentially bring that authority back to the city commission. Upon research from the city attorney, it was determined that we could not do that. The charter of the city was set up to adopt the historic preservation board in accordance with the provisions of the state. The state says if we want their grant money for historic preservation purposes regarding preservation, we need to do it their way. They said the board has to have this many people on it and these are their duties. Part of the duties of the historic preservation board is to review and approve what is demolished or remodeled. Long story short, the commission cannot review or approve what buildings or structures are to be demolished. The action tonight brings on a full board with the exception of the alternates. As they receive more applications, they will bring those back.

Commissioner Pederson wanted to clarify that he said the board was full. However, one applicant checked the box for the historic preservation board, but in the comments it says they applied for the electric board. **Mayor Burry** commented that they check other board boxes on the applications. **CM Minner** added that many of the applicants check multiple boxes because they have multiple interests.

5. Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute a Utility Construction Reimbursement (Pioneering) and Wastewater Capacity Reservation agreement between the City of Leesburg and NVR, Inc.; and providing an effective date.

ADOPTED RESOLUTION 11,714

Commissioner Reisman introduced the resolution to be read by title only. CC Purvis read the resolution by title only.

Commissioner Reisman made a motion to adopt the resolution and Commissioner Pederson seconded the motion.

Mayor Burry requested comments from the Commission and the audience.

CA Watson wanted to clarify if they voted on the last item or if it was just introduced. **CC Purvis** answered there was a vote on that item. **CA Watson** apologized for not hearing that. He continued to say that for this item he needed to make a few points. The agreement that was in the agenda packet needed some modifications. He wanted to point them out so the commission was aware of the changes. The first change was to allow NVR, the developer, the ability to terminate the agreement if they did not end up purchasing the property. That was for general fairness, because if they do not end up owning the

property, they would not be interested in constructing the wastewater lines. It was somewhat implicated in the agreement, but they added that to make sure it was clear to everybody. The second change was with capacity reservation. The way it was drafted originally had capacity reserved until the city completes construction of the sewer plant that is currently under construction. The estimated time frame for that is about two years. It was not a very extensive period of reservation for the developer, so they requested to have a more extensive reservation period. The request was to tie the reservation period to the twenty-year term of the agreement. The reservation as proposed would change from the two-year estimated time period to twenty years, which is the term of the agreement. Under the pioneering agreement, the developer would be entitled to reimbursement for a twenty-year period. The concept was that the developers, through the pioneering agreement, were taking a risk of constructing the lines. They would be repaid as other developers hook in along the line over time. Their period to recoup their investment is twenty years. If they have not hooked on it within those twenty years, they do not get reimbursed for the costs. **Mayor Burry** asked in the original agreement was the timeframe up to the point where they recouped their investment? **CA Watson** answered in the original agreement, it was only up to the point that the city finished construction on the sewer plant. **Mayor Burry** inquired if twenty years would be enough time for them to recoup their money, and is it still only until they recoup their investment? **CA Watson** replied yes, there was no change to that term; the recoup period is twenty years. **CM Minner** explained in the original agreement that it says NVR gets to reserve .4 MGD or 400,000 gallons per day of sewer plant capacity up to the time that the city gets up to the 6 MGD capacity. The finalization of construction for that is about two years away. They also get to receive impact fees for the construction of the lines for twenty years. The modification of the agreement changes so that the .4 MGD capacity goes for twenty years from the date the contract is executed. With the changes to the agreement, staff still recommends accepting the agreement. The major shift was the capacity reservation of all homes and commercial entities that are scheduled or approved through some type of PUD in South Leesburg. The heartbeat of this project is that the further south we go, the more need we will have for the bypass. Back in January, there was a major meeting with all the developers, including those from Marsan/Whispering Hills, Hodges Reserve, Anthony property, Bar-Key, Lyden Nichols and the list goes on. It goes to the tune of about eight thousand units plus "x" square feet of commercial development PUDs. Almost ten months later, after that meeting, the only developer who said they were willing to front the cost of the interceptor was Bar-Key/NVR. Of all the developments proposed, Hodges Reserve, Anthony and Bar-Key, are the ones doing most of what he would call development saber rattling. In English, what does that mean? At this stage, the likelihood of development will be Bar-Key. If Bar-Key does not build, then we do not have a partner to build the interceptor. If we do not have a partner to build the interceptor, we will not have additional wastewater going into the plant except through lift station 72. Long story short, this is a reasonable request and if he was in their shoes it would be one that he would be making as well. They will be fronting somewhere between ten and fifteen million dollars. This development will most likely use that capacity, so it is a reasonable request. **Commissioner Pederson** asked if twenty years was normal for a pioneering agreement. **CM Minner** answered yes. **Commissioner Pederson** thought that seemed long. **CA Watson** added that all pioneering agreements are for a twenty-year term, which is pretty standard from city to city. **Commissioner Connell** stated he was okay with the twenty years on the pioneering agreement, but he was not in favor of reserving capacity up to twenty years on a project. **Commissioner Pederson** commented that he understood the risk. He wanted to know if there was a way to skin that while keeping the developer happy. **CM Minner** mentioned that the developers were in attendance and this was their request. However, he guessed this was pretty germane to their investment. They want to ensure that they have a place to take waste water once they spend fifteen million dollars. If the developers front that fifteen million dollars, they do not want other developers jumping in front of them because they put their investments into building the sewer main.

Kevin Rameriz, NVR, Inc. stated the city manager said it best, that was their position. They want to make sure that once the line is built and before all the development comes to the south of Leesburg, they can

continue developing and building Bar-Key the way it is designed. They want to make sure the capacity is there for them. **CM Minner** mentioned that at staff level, they do not take lightly reserving capacity for water or sewer capacity issues. They want that free because it has always been a first come first serve basis. To date, the city has only made one exception to the rule and that is The Villages. The Villages paid for their capacity of nine million dollars, which they anticipated would be needed to make some improvements. In this case, because we have been able to financially put together the other capacities and because we believe 6 MGD will suffice development in the south for a number of years and Bar-Key is in that area. With this developer fronting this, that is a reasonable quid pro quo for capacity reservation.

Commissioner Pederson remembered expanding the current expansion from 4.5 to 6MGD, but he remembered hearing about five to seven years being when they would need to expand again. How long do we think this 6MGD will last? **CM Minner** responded that he would say if we continue to grow, not including villages' growth, but if we continue to grow at eighty units a month, which is measured by the CO's issued, they will probably be back in 2030, asking to expand outside the 6MGD capacity. He also wanted to say that most of the development in the Leesburg ISBA box is filling up rather quickly. We have three major growth areas that are occurring in Leesburg: the Northwest Leesburg (44-Corridor), which is where wastewater will come down and go to the canal plant. It would then be shifted down to the turnpike plant, if needed. The southern corridor, which is what we are talking about, is pretty much everything from CR 48 south to the Turnpike. That area also includes the boot hill of Royal Highlands and Blue Cedar, which is east of the US 27 corridor. We also have The Villages. However, they are separate because, beyond the 3 MGD capacity that was already planned for, constructed and working, he does not see them entertaining another type of sewer treatment capacity deal in the future as they continue to grow in Sumter County. There are three other major parcels in Lake County, which include one in the Mascotte ISBA, which used to be the Renaissance Trails and Secret Promise. Those areas will be handled separately by The Villages. We will have to work more in a general fund capacity to get a franchise fee for those services. However, he did not think they needed to put that plan in the matrix for what goes into the tank. We did that for South Leesburg and Northeast Leesburg. He missed Tara Oaks, which is in Northwest Leesburg. All those considered, it should take us right to about 6 MGD. There are a couple special things that they are trying to do with the pilot program to try and extend the capacity of 6MGD with the treatment method where they are applying for some grant dollars to get that. He believed they would receive that grant. There are a lot of things that will happen and occur before needing to expand past 6MGD. At eighty units per month, that should put us to the 2030 time frame. Although we do not like to reserve capacity, the key to unlocking development in South Leesburg is this bypass and this developer has stepped up to the plate to work with us and they are taking on that risk. With the things they have talked about, this is a reasonable quid pro quo. **Commissioner Pederson** wanted to confirm that we needed that line and that we were almost at capacity now. **CM Minner** replied that we need that sewer bypass if they want to continue growing in South Leesburg.

Cynthia Tarapani of Tarapani Planning Strategies said she was there representing the developer NVR. This developer stepped up to the plate to build this line. As the city manager said, NVR is a national developer. They have the financial capability and accountability to be able to do this fifteen million dollar project. What they are asking for is the possibility that when their one thousand seven hundred units come online the capacity is there since NVR will be spending that money to make this happen. That is the reason they asked for the capacity for twenty years. They would most likely be built before then, but things do happen and there could be changes in the economy. However, they hope to be finished by then. Another reason why they asked for twenty years is because NVR will be going in for building permits and they will not have to pay for sewer impact fees. Those costs will be credited against the fifteen million dollars. As each unit comes on, that will be deducted. Another way they will be repaid, which could take up to twenty-years, is, as other developers come online and pay their tap in and impact fees to the city, quarterly that will be paid back to NVR. They do not know how long these projects will take to do, but this is a significant amount of money for just their seventeen hundred units. That is why they

asked for the courtesy of twenty years, which is the typical time period. They are very excited about the possibility of doing this project with the city and, with NVR being a national developer, they have the financial capability to do this. No other developer is asking to enter into this agreement with the city to make a significant contribution to the city's infrastructure. **Commissioner Connell** wanted to verify that they wanted to reserve capacity for up to twenty years on a project that they were not one hundred percent sure would start. **Ms. Terapani** responded they were not sure when they would start but they have started working on it and engineering is well under way. Mr. Ramirez expects to submit all the engineering plans and permit plans for the first phase of the project in November, so they are proceeding. What she said was, over a twenty-year period, there could be economic ups and downs. Things happen. If, in the first ten years, they build three quarters of the units and something happens which prevents them from continuing, they want the ability to continue since they spent the money upfront to build the line. They want the ability to come back and finish the rest of the units and know the capacity will be there. They hope everything goes great and all seventeen hundred units will come in a fairly quick period of time. However, no one has a crystal ball and they want to be sure they are protecting NVR with their fifteen million dollar investment. **Commissioner Connell** asked about anyone else who hooked up to that line. Would they receive the pioneering fee on that over the twenty years? **Ms. Terapani** responded yes, they would receive reimbursement up to the point that they have recouped their costs. If it is fifteen million dollars, they will only get back fifteen million dollars. If the cost is twelve and a half million dollars, they will only get twelve and half million dollars. Even if the city collects more impact fees during that time period and if everything goes gangbusters, if the cost was fifteen million dollars, that is all they are going to get back. The city would not owe them anything else. This is a courtesy of up to twenty years, because they do not know about other developers and how quickly they will come online. There are some that are rattling around who seem to be moving. **Commissioner Connell** asked about the amount they were looking to reserve. Is that just enough for the subdivision they want to build? **Ms. Terapani** said no, they are only asking for capacity for Bar-Key, the project that was approved last year. It was approved for seventeen hundred residential units and a commercial site. The commercial site will be built by others, so that has nothing to do with the NVR reimbursement. They are only asking for capacity for the seventeen hundred units in the Bar-Key project. This would be solely for Bar-Key, which is being built by NVR, because they are the ones fronting the fifteen million dollars for the line. **Mayor Burry** asked for any further questions or comments. There were none.

The roll call vote was:

Commissioner Berry	Yes
Commissioner Connell	No
Commissioner Reisman	Yes
Commissioner Pederson	Yes
Mayor Burry	Yes

Four yeas, one nay, the Commission adopted the resolution.

**6. PUBLIC HEARINGS AND NON-ROUTINE ITEMS:
COMPREHENSIVE PLAN INFORMATION SIGN-UP SHEET (YELLOW)
AVAILABLE**

A. SECOND READING OF ORDINANCES:

- 1. An Ordinance of the City of Leesburg, Florida, establishing the County Road 33 Community Development District pursuant to Chapter 190,**

Florida Statutes; providing for authority and power of the district; establishing the district; providing for the Board of Supervisors of the district; providing for the district budget; providing for functions of the district; providing for miscellaneous provisions; and providing an effective date.

ADOPTED ORDINANCE 23-58

Commissioner Reisman introduced the ordinance to be read by title only. CC Purvis read the ordinance by title only.

Commissioner Reisman made a motion to adopt the ordinance and Commissioner Pederson seconded the motion.

Mayor Burry requested comments from the Commission and the audience.

PZD Miller stated this was the County Road 33 Community Development District. It encompasses the Battaglia property, which is two hundred and seventy eight units, and the Banning Ranch, which is approximately five hundred units total. These developments are east and west of County Road 33. The background on CDDs is that they are a special purpose district that is designed or created to manage, finance, and deliver basic community services that include water, wastewater, roads, security, schools, landscaping, and parks. They are specific to a described area for the specific services in the CDD agreement. They have no zoning or police power and they cannot incur debt to the local government. This is a way to pay for the costs of infrastructure as a self-taxing unit. We already have several CDD's in Leesburg and The Villages has a number of them. We have Arlington Ridge, Tara Oaks, Eagle Tail Landing, and White Marsh. In Chapter 190 of the Florida Statute, it requires the government to sign off acknowledging that there is a CDD.

Michelle Rigoni said she was there on behalf of the petitioner. She was with Kutack Rock of 107 West College Avenue, Tallahassee, Florida 32301. They were there for any questions the commission may have, but otherwise city staff has done a great job leading them there. She wanted to show their appreciation of the staff.

Mayor Burry asked if there were any further questions or comments. There were none.

The roll call vote was:

Commissioner Connell	Yes
Commissioner Reisman	Yes
Commissioner Pederson	Yes
Commissioner Berry	Yes
Mayor Burry	Yes

Five yeas, no nays, the Commission adopted the ordinance.

- 2. An Ordinance of the City of Leesburg, Florida annexing certain real property consisting of approximately 12.5 acres, generally located west of County Road 468 and north of Jones Drive, as legally described in Section 21, Township 19 South, Range 24 East, Lake County, Florida; providing that said property so annexed shall be liable for its proportionate share of the existing and future indebtedness of said city; providing that such**

annexed property shall be subject to all laws and ordinances of said city as if all such territory had been a part of the City of Leesburg at the time of passage and approval of said laws and ordinances; providing that such annexed territory shall be placed in City Commission District 1; and providing an effective date. (Homes in Partnership/CWC)

ADOPTED ORDINANCE 23-55

Commissioner Reisman introduced ordinances 6.A.2, 6.A.3, and 6.A.4 to be read by title only. CC Purvis read the ordinances by title only.

Commissioner Reisman made a motion to adopt the ordinance and Commissioner Pederson seconded the motion.

Mayor Burry requested comments from the Commission and the audience.

CA Watson asked for anyone in the audience, including city staff, who wished to add any testimony to item 6.A.4, to stand. He swore them in.

PZD Miller stated this was the Homes in Partnership/Christian Worship Center annexation. It is a small scale comprehensive plan and SPUD zoning. He believed the development would be called the Christian Reserve. There are approximately 11.7 acres of PUD, plus about one more acre that will be zoned R-2. The site is generally located along the west side of County Road 468 and north and south of Veech Road. The comp plan goes from Lake County Urban Medium to City of Leesburg Low Density Residential. The zoning would go from Lake County Residential Professional to City of Leesburg Small Planned Unit Development and R-2. It will consist of twenty-five single family homes with a density of about 2.2 units per acre. The PUD allows for single-family-residential only. There would be sixty foot lots. They would be sixty by one hundred and twenty, which is seven thousand two hundred square feet per lot. The house size will be a minimum of fifteen hundred square feet. They will be two-story homes with the minimum standard setbacks, a two-car garage, and architectural standards. They have dark sky lighting, wetlands protection, and trees required in the front and backyards. There are some fencing options. The access points will come from Veech Road. There is a separate recreational requirement of five thousand square feet. All other standard PUD conditions are in place. This is a good project for West Leesburg. Mike Rankin from the Land Planning Group of Mount Dora and Pastor John Christian from the Christian Worship Center are in attendance if there are any questions. **Mayor Burry** asked if there were any further questions or comments. There were none.

Commissioner Reisman made a motion to approve item 6.A.2 and Commissioner Berry seconded the motion.

The roll call vote was:

Commissioner Reisman	Yes
Commissioner Pederson	Yes
Commissioner Berry	Yes
Commissioner Connell	Yes
Mayor Burry	Yes

Five yeas, no nays, the Commission adopted the ordinance.

3. An Ordinance amending the Future Land Use Map of the Comprehensive

Plan of the City of Leesburg, changing the Future Land Use Map Designation of certain property containing 12.5 +/- acres from Lake County Urban Medium Density to City of Leesburg Low Density Residential, for a property generally located west of County Road 468 and north of Jones Drive, lying in Section 21, Township 19 South, Range 24 East, Lake County, Florida; and providing an effective date. (Homes in Partnership/CWC)

ADOPTED ORDINANCE 23-56

Commissioner Reisman made a motion to adopt the ordinance and Commissioner Connell seconded the motion.

Mayor Burry requested comments from the Commission and the audience. There were none.

The roll call vote was:

Commissioner Pederson	Yes
Commissioner Berry	Yes
Commissioner Connell	Yes
Commissioner Reisman	Yes
Mayor Burry	Yes

Five yeas, no nays, the Commission adopted the ordinance.

4. **An Ordinance of the City of Leesburg, Florida, changing the zoning on approximately 12.5 +/- acres from Lake County RP (Residential Professional) to City of Leesburg SPUD (Small Planned Unit Development) and R-2 (Medium Density Residential) to allow for single family development for a property generally located west of County Road 468 and north of Jones Drive, lying in Section 21, Township 19 South, Range 24 East, Lake County, Florida; and providing an effective date. (Homes in Partnership/CWC)**

ADOPTED ORDINANCE 23-57

Commissioner Reisman made a motion to adopt the ordinance and Commissioner Pederson seconded the motion.

Mayor Burry requested comments from the Commission and the audience. There were none.

The roll call vote was:

Commissioner Berry	Yes
Commissioner Connell	Yes
Commissioner Reisman	Yes
Commissioner Pederson	Yes
Mayor Burry	Yes

Five yeas, no nays, the Commission adopted the ordinance.

Mike Rankin of LPG stated on behalf of the applicant thank you.

5. **An Ordinance of the City of Leesburg, Florida, correcting a scrivener's error on Ordinance 22-17, Hills at Leesburg; pertaining to side setbacks, and adding a requirement for gutters; for a property consisting of approximately 41.69 acres; and being generally located east of County Road 44 and north of Seng Road, as legally described in Section 01, Township 19 South, Range 25 East, Lake County, Florida; and providing an effective date. (Hills at Leesburg PUD scriveners)**

ADOPTED ORDINANCE 23-59

Commissioner Reisman introduced the ordinance to be read by title only. CC Purvis read the ordinance by title only.

Commissioner Reisman made a motion to adopt the ordinance and Commissioner Pederson seconded the motion.

Mayor Burry requested comments from the Commission and the audience. There were none.

The roll call vote was:

Commissioner Connell	Yes
Commissioner Reisman	Yes
Commissioner Pederson	Yes
Commissioner Berry	Yes
Mayor Burry	Yes

Five yeas, no nays, the Commission adopted the ordinance.

B. FIRST READING OF ORDINANCES:

1. **None**

C. NON-ROUTINE ITEMS:

1. **None**

7. INFORMATIONAL REPORTS:

The following reports are provided to the Commission in accordance with the Charter/Ordinances. No action required.

- A. **None**

8. CITY ATTORNEY ITEMS:

CA Watson had no items to address.

9. CITY MANAGER ITEMS:

CM Minner had no items to discuss.

10. ROLL CALL:

Commissioner Berry had no further comment.

Commissioner Connell commented he read the email that came out attached with the city manager evaluation forms. He questioned if any other employee in the city has their evaluations given to them a week before it is shared by their supervisors. The employee evaluations are presented at the time they sit down with the supervisor. He was not sure why they were being asked to provide their evaluations one week prior to the meeting. He believes they should hold the city manager to the same standards as every other employee in the city. They should not give it to him a week in advance. **Commissioner Pederson** said that is because they need to be included in the packet. **Commissioner Connell** remarked that he did not believe they had to be. **CM Minner** mentioned for clarification, the employment contract between the city manager and the commission calls for an evaluation. In paragraph eleven, it states the commission will do an evaluation and share it with the manager prior to review. They will then review it publicly. That is what the paragraph says. The city manager's evaluation has been done in multiple ways, but it is pretty much at the commission's desire. The commission can choose to do what they want with this. They can fill out the form and turn it in or they can review it individually with him if they choose so. Right now, he has received one form back from the mayor. However, it really is how they want to do it. All he noted in that email was that he was requested from Commissioner Reisman to do a self-evaluation, which he turned in and suggested that when they do the evaluation on October 23rd they make specific comments about how they would like to handle the evaluations moving forward. That way, everyone would be on the same page. The commission has interpreted that paragraph of the agreement several different ways. In the end, he works at their pleasure and however they want to approach him, address him or review him, is up to them. **Commissioner Connell** stated he knows the paragraph he was talking about and it says the city manager is to be evaluated every August. However, he does not recall it saying anything about presenting it to him prior to a commission meeting. He believes it says something to the effect of it being mutually agreed upon in that language, but the city manager should have the same standards as the rest of the employees. **Mayor Burry** wanted to clarify that he said the city manager would have to come to the meeting to be evaluated while every other employee is not evaluated in public. **Commissioner Connell** agreed. He did not think it was a great setting to perform an evaluation, but due to the Sunshine Law, they did not have any other way to do it. **Commissioner Berry** suggested holding this privately. After that, they could provide a summary publicly at a meeting. She wanted to know if that was possible. **CM Minner** answered yes, and that paragraph eleven states the city manager and the commission will work collectively to come up with a criterion to review the city manager. If the city manager and the city commission do not work collectively to come up with a process, then the commission will impose a review on the city manager however they choose. It states that the commission and the manager will review the comments individually and that is pretty much it. It does not specifically state that there would be a public review, which is what has typically been done. It is really up to the commission to decide with him collectively on how they want to handle the evaluation. **Commissioner Connell** stated that he wanted to do an evaluation and that was fine. His response back was they could do it however they wanted, the evaluation was up to them. It is also up to them if they want to discuss changing the process. If they do not want to do the evaluation form, they do not have to do the evaluation

form. If they want to meet with him before the meeting, they can. If they do not want to meet with him, they do not have to. If they do not want to review him publicly, they can make that decision amongst them. As he said in the memo, he would acquiesce to whatever evaluation form they wanted. In the past, they have done evaluations and they have not. In the past, they have also done it verbally. Again, Commissioner Connell requested an evaluation be done. He understands that request and he is willing to do the evaluation process. It is, however, what the commission deems appropriate. **Commissioner Berry** suggested that all commissioners complete the form and discuss it privately one-on-one with the city manager. Then they could come together collectively to have a discussion and do a public summary of what was decided amongst the group. **CA Watson** said they could all meet individually with the city manager and send the city manager the evaluations ahead of that meeting. If there is to be any kind of official action taken, a call for the various reviews or some type of summary that everybody approves, that would need to be done in a public forum. He did not see a problem with the commissioners seeing the evaluations beforehand as long as they did not discuss them or email them amongst each other. There can not be any real formal action taken, but they could do their individual evaluations, send them to the city manager and meet with him individually. They can then come back as a full body and come up with a summary that everybody approves. **Commissioner Connell** said he did not see anything in the email that would make him believe there was an option where they could choose to meet individually with the city manager. He believes the email said to submit the evaluations by October 18th for the October 23rd meeting and that was his point. Why would he get the evaluations prior to the meeting when no other employee gets theirs prior to their meeting? **Commissioner Pederson** mentioned that this does not bother him. **Commissioner Connell** asked if they were going to have two different standards, one for employees in the city and one for the city manager. **Commissioner Pederson** pointed out that the city manager is held to a different standard and he has been reviewed in public. He feels sorry for him having to be reviewed in public. He may do his review one on one and have no comments during the meeting. **Commissioner Berry** remarked that it would only be fair if everyone participated in the process. They can complete the form, but it is not fair if they do not complete the form and just do it verbally. **Commissioner Connell** agreed. He thinks everyone should have a written evaluation. Verbal would not work and it does not work with any other employee in the city. **Commissioner Berry** stated she trusts the commission to come together and make a decision, but it should not be a public review. **Commissioner Connell** said he agreed. He is all for it. He believes they should do their best not to air dirty laundry in public. However, at some point, it has to be done in public, as the city attorney said, due to the sunshine law. He did not think they should submit them a week in advance before they actually did the evaluation with the city manager. **Commissioner Pederson** questioned why this was so troubling to him. He must be missing something. He was looking around the room and he saw a lot of blank stares. **Commissioner Connell** responded that he was not troubled by this. They should not have one standard for five hundred plus employees and one standard for the city manager. No other employee receives their review a week in advance before they meet with the supervisor. That was his point in the story. **Commissioner Reisman** asked if HR would be at the meeting if they met with the city manager one-on-one. **CM Minner** responded, the simple answer is, this is how it has been done in the past. The evaluation form gets issued to the commission and the commissioners may or may not choose to fill it out. The commissioners may or may not choose to meet with the city manager prior to the meeting, the form may or may not be delivered to the city manager prior to the meeting. He suggested they stick to this process and do what they want. The evaluation is on the agenda and it is scheduled for October 23rd. However, the city manager is not like other employees of the city. The city manager is the CEO. The city manager has significantly more abstract issues that he is judged on. **Commissioner Pederson** pointed out that the reviews are public records. **CM Minner** agreed. He was trying to get Commissioner Connell off the hook, but it comes down to how they want to do the evaluation. It is on the agenda for October 23rd. If anyone wants to see him prior to that meeting, they are welcome to come in. If they would like to give him his evaluation before, give it to him. If they do not want to give it to him before, they do not have to. They can save it for the meeting. If they do not want to do it at all and just verbally, they can. This is

how it was done by other commissions in the past. The question was called to put the city manager's review on the agenda and they did that. He sent out an email today so that the process would be solidified for next year. That way, they do not have to have drawn out discussions next year. Hopefully, on the 23rd they will agree to that process that was proposed and they can move forward. **Mayor Burry** remarked that he had finished and submitted his evaluation. He would be glad to talk about that evaluation as a group when they come together. He encouraged everyone to fill out the form and talk to the city manager about it. That way they can sit there here in public and talk about it. **Commissioner Berry** said her understanding was that they complete the application, give it to the city manager, submit it as stated in the email and then they can discuss that privately with the city manager prior to coming in publicly to discuss. **CM Minner** said yes. If they want to do that, those are the options. Everything in this process is yes, comma, if you want to. They are the bosses, there are five of them and, individually, they get to do it however they want. **Commissioner Pederson** said he would turn his in early. He does not need to meet with him ahead of time. He looks forward to discussing this at the next meeting.

Commissioner Reisman had nothing to discuss.

Commissioner Pederson had no further comment.

Mayor Burry had no comment.

11. ADJOURN:

PERSONS WITH DISABILITIES NEEDING ASSISTANCE TO PARTICIPATE IN ANY OF THESE PROCEEDINGS SHOULD CONTACT THE HUMAN RESOURCES DEPARTMENT, ADA COORDINATOR, AT 728-9740, 48 HOURS IN ADVANCE OF THE MEETING.

F.S.S. 286.0105 "If a person decides to appeal any decision made by the Commission with respect to any matter considered at this meeting, they will need a record of the proceedings, and that for such purpose they may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." The City of Leesburg does not provide this verbatim record.

With a motion by Commissioner Reisman and a second by Commissioner Pederson, the meeting adjourned at 6:37 p.m.

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.B.1.

Meeting Date: October 23, 2023

From: Aaliyah Davis, (Purchasing Manager)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute Amendment Four with Sissine's Business Solutions of Orlando, LLC., amending the contract term; and providing an effective date.

Staff Recommendation:

Staff recommends approval of the resolution authorizing execution of Amendment Four to an existing Agreement with Sissine's Business Solutions of Orlando, LLC. for Managed Print Services.

Analysis:

On October 28, 2019, the City Commission approved Resolution 10,526 authorizing award of Request for Proposal (RFP) 190482 and execution of a Managed Print Services Program-Annual Requirements agreement with Sissine's Business Solutions of Orlando, LLC. for managed print services. Staff requests to amend the unit pricing and extend the contract term to September 30, 2024.

Procurement Analysis:

N/A

Options:

1. Approve the resolution authorizing execution of Amendment Four with Sissine's Business Solutions of Orlando, LLC.; or
2. Such alternative action as the Commission may deem appropriate.

Fiscal Impact:

None

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE
AMENDMENT FOUR WITH SISSINE'S BUSINESS SOLUTIONS OF
ORLANDO, LLC., AMENDING THE CONTRACT TERM; AND PROVIDING
AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk are hereby authorized to execute an agreement with SISSINE'S BUSINESS SOLUTIONS OF ORLANDO, LLC. whose address is 6123 PHILLIPS HIGHWAY, JACKSONVILLE, FLORIDA 32216, for MANAGED PRINTE SERVICES.

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

**FOURTH AMENDMENT OF FIXED UNIT PRICE
AGREEMENT FOR MANAGED PRINT SERVICES**

THIS AMENDMENT is made as of the 23rd day of October, 2023, between **THE CITY OF LEESBURG, FLORIDA** a Florida Municipal Corporation, whose address is 501 West Meadow Street, Post Office Box 490630, Leesburg, Florida 34749-0630 (hereinafter referred to as the “CITY”), and **SISSINE’S BUSINESS SOLUTIONS OF ORLANDO, LLC.** whose address is 6123 Phillips Highway, Jacksonville, Florida 32216 (hereinafter referred to as the “CONTRACTOR”).

WHEREAS, on October 28, 2019, the CITY and CONTRACTOR entered into a fixed unit price managed print services agreement whereby the CONTRACTOR agreed to provide CITY with a Managed Print Services (MPS) Program, also known as a Total Services & Supplies (TSS) Program (“Program”) in support of the CITY’s Printers (“Fleet”) services to the CITY (hereinafter referred to as the “Agreement”).

WHEREAS, on February 10, 2020, the CITY and CONTRACTOR executed Amendment One to amend the unit pricing of the Agreement to facilitate more efficient processing of invoices for suppliers by adding freight to the per image (page) unit price.

WHEREAS, on November 28, 2022, the CITY and CONTRACTOR executed Amendment Two to extend the term of the initial Agreement.

WHEREAS, on March 20, 2023 the CITY and CONTRACTOR executed Amendment Three to extend the term of the initial Agreement.

WHEREAS, the parties wish to amend copy charges and extend the term to the existing Agreement and have entered into this Amendment Four for that purpose.

WITNESSETH:

NOW, THEREFORE, in consideration of the mutual benefits accruing to the parties to this Agreement and from other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. **Recitals.** The above recitals are true and correct and are incorporated by reference herein and made a part hereof.

2. **Amendment.** The parties wish to amend the Agreement as follows:

- i. Price per image
 1. Black & White: \$0.01426
 2. Color: \$0.0076
- ii. Term will be extended until September 30, 2024.

3. **Modification.** Except as specifically modified by this Amendment, all terms and conditions of the prior agreement shall continue in full force and effect as originally executed. Nothing herein shall be deemed or construed to amend or modify any other contract or undertaking between the CITY and CONTRACTOR other than as defined above

IN WITNESS WHEREOF, the parties hereto have executed this Amendment to the Agreement on the date stated in the preamble.

SISSINE'S BUSINESS SOLUTIONS OF ORLANDO, LLC.

By: _____

Printed: _____

Its: _____
(Title)

CITY OF LEESBURG, FLORIDA

James A. Burry Jr., City Manager

ATTEST:

J. Andi Purvis, City Clerk

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.B.2.

Meeting Date: October 23, 2023

From: Cliff Kelsey, (Public Works Director), Aaliyah Davis, (Purchasing Manager)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute a Construction Services Agreement with Crom, LLC., for the installation and construction of a ground storage tank in Highland Lakes; and providing an effective date.

Staff Recommendation:

Staff recommends award of Invitation for Bid (IFB) 231701 to Crom, LLC., and approval of the Resolution authorizing the Construction Services Agreement for an amount of \$1,995,000.00.

Analysis:

The City of Leesburg wishes to expand and upgrade the existing Highland Lakes water treatment plant (HLWTP) with the addition of a new 1-million-gallon (MG) CROM ground storage tank (GST). The most recent upgrades at HLWTP were completed in 2012. With the tremendous growth in and around the City of Leesburg since these improvements and to maintain the level of services that its customers are accustomed to, the addition of the new 1 MG GST will be a critical component to support and maintain the water supply to this thriving area.

Procurement Analysis:

On August 29, 2023, the Procurement Division published Solicitation 231701 for Highland Lakes Ground Storage Tank. On October 12, 2023, three (3) bid responses were received. Responses were reviewed and staff has deemed Crom, LLC., as the Supplier submitting the lowest responsive bid. Summary of Bids is provided:

SUMMARY OF BIDS

Contractor	Bid Amount
Crom, LLC.	\$1,995,000.00
Carr & Collier Inc.	\$2,332,332.00
Prime Construction Group, Inc	\$2,339,000.00

Options:

1. Approve award of IFB 231701 and approval of the resolution authorizing execution of the agreement with Crom, LLC.; or
2. Such alternative action as the Commission may deem appropriate.

Fiscal Impact:

Funds are available in the Water Capital Projects budget.

Account No.	043-3099-533-6210
Project No.	430006
WF No.	WF1446340
Requisition	55697
Budget	\$3,614,500.00
Available	\$3,499,001.00

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE A
CONSTRUCTION SERVICES AGREEMENT WITH CROM, LLC., FOR THE
INSTALLATION AND CONSTRUCTION OF A GROUND STORAGE TANK IN
HIGHLAND LAKES; AND PROVIDING AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk are hereby authorized to execute an agreement with Crom, LLC, whose address is 2635 SW 36th Terrace, Gainesville, Florida 32608, for HIGHLAND LAKES GROUND STORAGE TANK (IFB 231701).

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

AGREEMENT FOR CONSTRUCTION SERVICES

THIS AGREEMENT is made as of the 23rd day of October in the year 2023, between The City of Leesburg, a Florida Municipal Corporation, whose address is 501 West Meadow Street, Post Office Box 490630, Leesburg, Florida 34749-0630 (hereinafter referred to as the “CITY”), and **CROM, LLC** whose address 2635 SW 36th Gainesville Florida 32608 (hereinafter referred to as the “CONTRACTOR”).

NOW, THEREFORE, in consideration of the mutual benefits accruing to the parties to this Agreement, and for other good and valuable considerations, the parties agree as follows:

1. **Contract Documents.** The following documents and information are incorporated by reference and made part hereof; and shall comprise the Contract Documents.

- a. This Agreement; and
- b. Invitation for Bid (IFB) 231701- Highland Lakes Ground Storage Tank Technical Specifications; and
- c. The Professional Drawings titled City of Leesburg Highland Lakes Ground Storage Tank prepared by Jones Edmunds dated July 2023; and
- d. Schedule of Contract Items included as Attachment ‘A’; and
- e. Supplemental Conditions – Construction as Attachment ‘B’; and

2. **Scope of Services.** The CONTRACTOR shall furnish the following services generally described as the “**HIGHLAND LAKES GROUND STORAGE TANK**” to the CITY as listed in Invitation for Bid 231701. Nothing herein shall limit the CITY’s right to obtain these services from other contractors for the same or similar work.

3. **Total Construction Cost.** The CONTRACTOR shall perform the Services for a total price not to exceed **\$1,995,000.00**. The cost of these services shall not exceed this amount unless the CITY has executed a written change order approving any increase in price.

4. **Labor and Materials.** The CONTRACTOR shall furnish all labor, material and equipment necessary for satisfactory contract performance. When not specifically identified in the technical specifications, such materials and equipment shall be of a suitable type and grade for the purpose. All material, workmanship, and equipment shall be subject to the inspection and approval of the CITY's representative.

5. **Professional License.** The CONTRACTOR will hold and maintain all required professional licenses required by regulatory agencies to perform the services covered by this Agreement.

6. **Term of Agreement.** This Agreement shall commence upon the date of execution and shall remain in effect until such time as the contracted services have been completed, and accepted by the CITY’s authorized representative, unless earlier terminated in accordance with its provisions. Those portions imposing warranty requirements on CONTRACTOR, together with any implied warranties under law, will continue to remain in effect until completion of the expressed and/or implied warranty periods.

7. **Commencement and Completion.** The CITY and the CONTRACTOR mutually agree time is of the essence with respect to the dates and times set forth in the Agreement Documents. To that end, the CONTRACTOR will commence work not later than **TWENTY ONE (21)** continuous calendar days after CITY issues a Notice to Proceed, and will diligently and continuously prosecute the work at such a rate, and with sufficient forces as will allow the CONTRACTOR to achieve Substantial Completion no later than **THREE HUNDRED SIXTY FIVE (365)** continuous calendar days after the CITY issues a Notice to Proceed and Final Completion no later **THIRTY (30)** days after the recorded substantial completion date, subject only to any adjustments in the contract time that may be authorized by change orders properly issued in accordance with the Agreement Documents. In executing this Agreement, CONTRACTOR affirms the time set for completion is reasonable.

8. **Liquidated Damages.** The CONTRACTOR shall consider all contingent work which has to be done by other parties arising from any cause whatsoever, and shall not plead his need of knowledge of said contingent work as an excuse for delay in his work or for non-performance.

If the work is not completed in full by the deadline specified, then for each day thereafter on which the work has not been completed, CONTRACTOR shall pay to the CITY liquidated damages in the amount of ONE-HUNDRED TWENTY FIVE DOLLARS (\$125.00) per calendar day, which CITY is hereby authorized to deduct from the final draw before paying any remaining amount to CONTRACTOR. The parties agree that it would be impossible or extremely difficult to compute the actual damages suffered by the CITY due to late completion of the work, that it is therefore appropriate to provide for liquidated damages in this Contract, and that the amount of liquidated damages specified is reasonable and bears a substantial relationship to the probable amount of actual damages the CITY would suffer, and therefore does not constitute a penalty or forfeiture. CONTRACTOR acknowledges that this provision is material to the CITY and that the Owner would not have entered into this Contract but for this provision and that as a result of the Owner's reliance on this provision, the CONTRACTOR shall be stopped to deny or dispute the validity or enforceability of this liquidated damage clause.

Nothing shall be construed as limiting the right of the CITY to declare the Contract forfeited, or to take over the work, or to claim damages for the failure of the CONTRACTOR to abide by each and every one of the terms of the Contract Documents. The completion date shall be construed as being the date on which the work is fully accepted by the CITY.

9. **Guaranty of Faithful Performance and Payment.** Performance and Payment Bonds (Separate bonds), written by a Surety firm satisfactory to the City of Leesburg on forms acceptable to the CITY which comply with Section 255.05(1), Florida Statutes, will be required of the successful Bidder to guarantee that CONTRACTOR will deliver a complete project under this Contract in strict accordance with the Contract Documents and will, after receiving payment from the CITY, pay promptly all persons supplying him with labor or materials for work.

The Performance and Payment Bonds will be equal to 100% of the Agreement amount for services. The cost of the bonds shall be borne by the CONTRACTOR. The bonds shall be written by a qualified Surety firm and through a reputable and responsible surety bond agency

licensed to do business in the State of Florida and Lake County and meet the following requirements:

- a. Rating: The Surety must be rated as "A" or better as to strength by Best's Insurance Guide, published by Alfred M. Best Company, Inc., 75 Fulton Street, New York, New York.
- b. Bonding Limit: Any One Risk: The Bonding Limit of the Surety shall not exceed ten (10) percent of the policy-holders surplus (capital and surplus) as listed by the aforementioned Best's Insurance Guide.

The completed Bonds will be executed in four (4) counterparts and delivered to the City of Leesburg Procurement Division with the required Power-of-Authority. The City must receive the Bonds before a Notice to Proceed will be issued.

10. **Termination for Convenience.** The CITY may terminate this Agreement at any time without cause by providing the CONTRACTOR with SEVEN (7) calendar days advance notice in writing, delivery by email is acceptable. In the event of termination for convenience, all finished or unfinished deliverable items prepared by the CONTRACTOR under this Agreement shall, at the option of the CITY, become the CITY's property. If the Agreement is terminated for convenience by the CITY as provided herein, the CONTRACTOR shall be paid for services satisfactorily completed, less payment or compensation previously made. The CONTRACTOR shall not incur any additional expenses after receiving the written termination notice.

11. **Termination for Default.** If, through any cause, the CONTRACTOR shall fail to fulfill in a timely and proper manner its obligations under this Agreement, other than for the instances listed below due to "Force Majeure," the CITY shall thereupon have the right to terminate this Agreement by providing a written notice (Show Cause Notice) to the CONTRACTOR requiring a written response due within FIVE (5) calendar days from receipt of the written notice as to why the Agreement should not be terminated for default. The CITY's Show Cause Notice shall include an Agreement termination date at least SEVEN (7) calendar days subsequent to the due date for the CONTRACTOR's response. Should the CONTRACTOR fail to respond to such Show Cause Notice, or if the CITY determines that the reasons provided by the CONTRACTOR for failure of the CONTRACTOR to fulfill its contractual obligations do not justify continuation of the contractual relationship, the Agreement shall be considered to have been terminated for default on the date indicated in the Show Cause Notice. Should the CITY determine that the CONTRACTOR provided adequate justification that a termination for default is not appropriate under the circumstances; the CITY shall have a unilateral option to either continue the Agreement according to the original contract provisions or to terminate the contract for convenience. In the event that the CITY terminates the contract for default, all finished or unfinished deliverable items under this contract prepared by the CONTRACTOR shall, at the option of the CITY, become CITY property, and the CONTRACTOR shall be entitled to receive just and equitable compensation for any satisfactory work completed on such materials. Notwithstanding this compensation, the CONTRACTOR shall not be relieved of liability to the CITY for damages sustained by the CITY by virtue of any breach of this Agreement, and the CITY may withhold any payment due the CONTRACTOR for the purpose of set-off until such time as the exact amount of damages due the CITY from such breach can be determined.

In case of default by the CONTRACTOR, the CITY may procure the services from other sources and hold the CONTRACTOR responsible for any excess cost occasioned thereby. The CITY reserves the right to require a performance bond or other acceptable alternative performance guarantees from the successor CONTRACTOR without expense to the CITY.

In addition, in the event of default by the CONTRACTOR under this Agreement, the CITY may immediately cease doing business with the CONTRACTOR, immediately terminate for cause all existing Agreements the CITY has with the CONTRACTOR, and debar the CONTRACTOR from doing future business with the CITY.

Upon the CONTRACTOR filing a petition for bankruptcy or the entering of a judgment of bankruptcy by or against the CONTRACTOR, the CITY may immediately terminate, for cause, this Agreement and all other existing agreements the CONTRACTOR has with the CITY, and debar the CONTRACTOR from doing future business with the CITY.

The CITY may terminate this Agreement for cause without penalty or further obligation at any time following Agreement execution, if any person significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on behalf of the CITY is at any time while the Agreement or any extension thereof is in effect, an employee or agent of any other party to the Agreement in any capacity or consultant to any other party of the Agreement with respect to the subject matter of the Agreement. Additionally, the CITY may recoup any fee or commission paid or due to any person significantly involved in initiating, negotiating, securing, drafting or creating the Agreement on behalf of the CITY from any other party to the Agreement.

Upon receipt of a termination action, for convenience or cause, the CONTRACTOR shall promptly discontinue all affected work (unless the notice directs otherwise) and deliver or otherwise make available to the City all data, drawings, reports specifications, summaries and other such information, as may have been accumulated by the CONTRACTOR in performing this contract, whether completed or in process.

12. **Force Majeure.** Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by any act of war, hostile foreign action, nuclear explosion, riot, strikes, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Should there be such an occurrence that impacts the ability of either party to perform their responsibilities under this contract, the nonperforming party shall give immediate written notice to the other party to explain the cause and probable duration of any such nonperformance.

13. **Insurance Requirements.**

- a. Scope of Insurance - The CONTRACTOR shall procure and maintain at its own expense, the following minimum insurance coverage, unless otherwise specified in the Contract Documents.
 - i. All required insurance shall be provided by insurers acceptable to the CITY with an A.M. Best rating of at least A: VII.
 - ii. The CONTRACTOR shall require, and shall be responsible for assuring that any and all of its subcontractors secure and maintain such insurance that are required by law to be provided on behalf of their employees and others until the completion of that subcontractors work.

- iii. The required insurance shall be secured and maintained for not less than the limits required by the CITY, or as required by law, whichever is greater.
 - iv. The required insurance shall not limit the liability of the CONTRACTOR. The CITY does not represent these coverages or amounts to be adequate or sufficient to protect the CONTRACTOR's interests or liabilities, but are merely required minimums.
 - v. The provisions of the required insurance are subject to the approval of the City's Risk Manager, and upon request, the CONTRACTOR shall make available certified copies of the various policies for inspection.
 - vi. All liability insurance, except professional liability, shall be written on an occurrence basis.
 - vii. The CONTRACTOR waives its right of recovery against the CITY to the extent permitted by its insurance policies.
 - viii. Insurance required of the CONTRACTOR, or any other insurance of the CONTRACTOR shall be considered primary, and insurance of the CITY, if any, shall be considered excess as applicable to any claims which arise out of the agreement, Contract or lease.
- b. Certificate of Insurance - The CONTRACTOR shall provide evidence of required minimum insurance by providing the CITY an ACORD or other Certificate of Insurance in forms acceptable to the Risk Manager for the CITY, before any work under the agreement, Contract or lease begins.
 - i. Except for workers' compensation and professional liability, the CONTRACTOR's insurance policies shall be endorsed to name the City of Leesburg as additional insured to the extent of the agreement, Contract or lease.
 - ii. The Certificate(s) of Insurance shall designate the CITY as certificate holder as follows: City of Leesburg, Attn: Purchasing Manager, P.O. Box 490630, Leesburg, Florida 34749-0630.
 - iii. The Certificate(s) of Insurance shall include a reference to the project and/or purchase order number.
 - iv. The Certificate(s) of Insurance shall indicate that the CITY shall be notified at least thirty (30) days in advance of cancellation.
 - v. The Certificate(s) of Insurance shall include all deductibles and/or self-insurance retentions for each line of insurance coverage.
 - vi. The CONTRACTOR, at the discretion of the Risk Manager for the CITY, shall provide information regarding the amount of claims payments or reserves chargeable to the aggregate amount of the CONTRACTOR's liability coverage(s).
- c. Comprehensive General Liability - The CONTRACTOR shall purchase and maintain Commercial General Liability coverage on forms no more restrictive than the latest editions of the Commercial General Liability policies of the Insurance Services Office (ISO). The Commercial General Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for bodily and personal injury and property

damage liability for premises, operations, products and completed operations*, independent Contractors, Contractual liability covering the agreement, Contract or lease, broad form property damage coverage, and property damage resulting from explosion, collapse or underground exposures (x, c, u).

- i. For remodeling and construction projects, the CONTRACTOR shall purchase and maintain products and completed operations coverage for a minimum of three (3) years beyond the CITY's acceptance of the project.
- d. Business Automobile Liability - The CONTRACTOR shall purchase and maintain Business Automobile Liability coverage on forms no more restrictive than the latest editions of the Business Automobile Liability policies of the Insurance Services Office (ISO). The Business Automobile Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for claims for bodily injury and property damage arising from the use of motor vehicles, including on-site and off-site operations, and owned, non-owned and hired vehicles, and employee non-ownership use.
- e. Workers' Compensation - The CONTRACTOR shall purchase and maintain Workers' Compensation insurance for all workers' compensation obligations imposed by state law and with employers liability limits of at least \$100,000 each accident and \$100,000 each employee with \$500,000 policy limit for disease.

14. **Waiver of Lien.** The CONTRACTOR agrees to make payment of all proper charges for labor and materials supplied and CONTRACTOR shall hold harmless the CITY against any claim arising out of any unpaid bills for labor, services, or materials furnished for the project covered by this Agreement.

15. **Indemnification.** The CONTRACTOR agrees to make payment of all proper charges for labor required in the aforementioned work and CONTRACTOR shall indemnify CITY and hold it harmless from and against any loss or damage, claim or cause of action, and any attorneys' fees and court costs, arising out of: any unpaid bills for labor, services or materials furnished to this project; any failure of performance of CONTRACTOR under this Agreement; or the negligence of the CONTRACTOR in the performance of its duties under this Agreement, or any act or omission on the part of the CONTRACTOR, his agents, employees, or servants. CONTRACTOR shall defend, indemnify, and save harmless the CITY or any of their officers, agents, or servants and each and every one of them against and from all claims, suits, and costs of every kind and description, including attorney's fees, and from all damages to which the CITY or any of their officers, agents, or servants may be put by reason of injury to the persons or property of others resulting from the performance of CONTRACTOR'S duties under this Agreement, or through the negligence of the CONTRACTOR in the performance of its duties under this Agreement, or through any act or omission on the part of the CONTRACTOR, his agents, employees, or servants.

If, however, this Agreement is a “construction contract” as defined in and encompassed by the provision of Florida Statutes § 725.06, then the following shall apply in place of the aforementioned indemnification provision:

The CONTRACTOR shall indemnify the CITY and hold it, its officers, and its employees harmless from liabilities, losses, and costs, including, but not limited to, reasonable attorney’s fees to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of this Agreement. The liability of the CONTRACTOR shall, however, be limited to one million and 00/100 dollars (\$1,000,000.00) per occurrence, and the obligation of the CONTRACTOR to indemnify the CITY shall be limited to acts, omissions, or defaults of the CONTRACTOR; any contractors, subcontractors, sub-subcontractors, material men, or agents or employees of any of them, providing labor, services or materials in connection with the project; and the CITY, its officers, agents and employees, provided however that the CONTRACTOR shall not be obligated to indemnify the CITY against losses arising from the gross negligence, or willful, wanton, or intentional misconduct of the CITY, its officers, agents and employees, or against statutory violations or punitive damages except to the extent caused by or resulting from the acts or omissions of the CONTRACTOR, or any contractors, subcontractors, sub-subcontractors, material men, or agents or employees of any of them, providing labor, services, or materials in connection with this Agreement.

16. **No Waiver of Sovereign Immunity.** Nothing herein is intended to waive sovereign immunity by the City to which sovereign immunity may be applicable, or of any rights or limits of liability existing under Florida Statute § 768.28. This term shall survive the termination of all performance or obligations under this Agreement and shall be fully binding until any proceeding brought under this Agreement is barred by any applicable statute of limitations.

17. **Severability of Illegal Provisions.** Wherever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under the applicable law. Should any portion of this Agreement be declared invalid for any reason, such declaration shall have no effect upon the remaining portions of this Agreement.

18. **Codes, Laws, and Regulations.** CONTRACTOR will comply with all applicable codes, laws, regulations, standards, and ordinances in force during the term of this Agreement.

19. **Permits, Licenses, and Fees.** CONTRACTOR will obtain and pay for all permits and licenses required by law that are associated with the CONTRACTOR'S performance of the Scope of Services. All permits and licenses required by law or requirements of the Request for Proposal will remain in force for the full duration of this Agreement and any extensions.

20. **Public Records Retention.** CONTRACTOR shall keep and maintain public records that ordinarily and necessarily would be required by the CITY in order to perform the services being provided by CONTRACTOR herein. CONTRACTOR shall provide the public with access to public records on the same terms and conditions that the CITY would provide the

records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes. CONTRACTOR shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law. CONTRACTOR shall meet all requirements for retaining public records and transfer, at no cost, to the CITY all public records in possession of the CONTRACTOR upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the CITY by CONTRACTOR in a format that is compatible with the information technology systems of the CITY.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 352-728-9731, 501 W. MEADOW STREET, LEESBURG, FLORIDA 34748.

21. **Access to Records.** The services provided under this Agreement may be funded in part by a grant from a government agency other than the CITY. As a requirement of grant funding CONTRACTOR shall make records related to this project available for examination to any local, state or federal government agency, or department, during CONTRACTOR'S normal business hours. Said records will be maintained for a period of five (5) years after the date of the invoice.

22. **Contingent Fees Prohibited.** The CONTRACTOR warrants that he or she has not employed or retained any company or person, other than a bona fide employee working solely for the CONTRACTOR, to solicit or secure this Agreement and that he or she has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the CONTRACTOR any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. In the event of a breach of this provision, the CITY shall have the right to terminate this Agreement without further liability and at its discretion, deduct from the contract price, or otherwise recover, the full amount of any such fee, commission, percentage, gift or consideration paid in breach of this Agreement.

23. **Acceptance of Goods or Services.** The goods delivered as a result of an award from this solicitation shall remain the property of the CONTRACTOR, and services rendered under the Agreement will not be deemed complete, until a physical inspection and actual usage of the product(s) and/or service(s) is (are) accepted by the CITY and shall be in compliance with the terms herein, fully in accord with the specifications and of the highest quality.

Any goods and/or services purchased as a result of this solicitation and/or Agreement may be tested and/or inspected for compliance with specifications. In the event that any aspect of the goods or services provided is found to be defective or does not conform to the specifications, the CITY reserves the right to terminate the solicitation or initiate corrective action on the part of the

CONTRACTOR, to include return of any non-compliant goods to the CONTRACTOR at the CONTRACTOR's expense, requiring the CONTRACTOR to either provide a direct replacement for the item, or a full credit for the returned item. The CONTRACTOR shall not assess any additional charge(s) for any conforming action taken by the CITY under this clause. The CITY will not be responsible to pay for any product or service that does not conform to the contract specifications.

In addition, any defective product or service or any product or service not delivered or performed by the date specified in the purchase order or contract, may be procured by the CITY on the open market, and any increase in cost may be charged against the awarded contractor. Any cost incurred by the CITY in any re-procurement plus any increased product or service cost shall be withheld from any monies owed to the CONTRACTOR by the CITY for any contract or financial obligation.

This project will be inspected by an authorized representative of the CITY. This inspection shall be performed to determine acceptance of work, appropriate invoicing, and warranty conditions.

24. **Ownership of Documents.** All data, specifications, calculations, estimates, plans, drawings, construction documents, photographs, summaries, reports, memoranda, and other documents, instruments, information and material prepared or accumulated by the CONTRACTOR (or by such sub-consultants and specialty consultants) in rendering services hereunder shall be the sole property of the CITY who may have access to the reproducible copies at no additional cost other than printing. Provided, that the CONTRACTOR shall in no way be liable or legally responsible to anyone for the CITY'S use of any such materials for another PROJECT, or following termination. All original documents shall be permanently kept on file at the office of the CONTRACTOR.

25. **Independent Contractor.** The CONTRACTOR agrees that he or she is an independent contractor and not an agent, joint venture, or employee of the CITY, and nothing in this Agreement shall be construed to be inconsistent with this relationship or status. None of the benefits provided by the CITY to its employees, including but not limited to, workers' compensation insurance, unemployment insurance, or retirement benefits, are available from the CITY to the CONTRACTOR. CONTRACTOR will be responsible for paying his own Federal income tax and self-employment tax, or any other taxes applicable to the compensation paid under this Agreement. The CONTRACTOR shall be solely and primarily responsible for his and her acts during the performance of this Agreement.

26. **Assignment.** Neither party shall have the power to assign any of the duties or rights or any claim arising out of or related to the Agreement, whether arising in tort, contract, or otherwise, without the written consent of the other party. These conditions and the entire Agreement are binding on the heirs, successors, and assigns of the parties hereto.

27. **No Third-Party Beneficiaries.** This Agreement gives no rights or benefits to anyone other than the CONTRACTOR and the CITY.

28. **Notices.** All notices, certifications or communications required by this Agreement shall be given in writing and shall be deemed delivered when personally served, or

when received if by facsimile transmission with a confirming copy mailed by registered or certified mail, postage prepaid, return receipt requested. Notices can be concurrently delivered by e-mail.

If to CONTRACTOR: Crom, LLC
Erica Driver
2635 SW 36th
Gainesville, Florida 32608
352-372-3436
edriver@cromcorp.com

If to City of Leesburg: Aaliyah Davis, MBA, FCCM, NIGP-CPP
Purchasing Manager
501 West Meadow Street
Leesburg, Florida 34748
352-728-9880
Aaliyah.Davis@leesburgflorida.gov

29. **Governing Law.** This Agreement is and shall be deemed to be a contract entered and made pursuant to the laws of the State of Florida and shall in all respects be governed, construed, applied and enforced in accordance with the laws of the State of Florida.

30. **Jurisdiction and Venue.** The parties acknowledge that a majority of the negotiations, anticipated performance and execution of this Agreement occurred or shall occur in Lake County, Florida. Any civil action or legal proceeding arising out of or relating to this Agreement shall be brought only in the courts of record of the State of Florida in Lake County or the United States District Court, Middle District of Florida, Ocala Division. Each party consents to the exclusive jurisdiction of such court in any such civil action or legal proceeding and waives any objection to the laying of venue of any such civil action or legal proceeding in such court or the right to bring an action or proceeding in any other court. Service of any court paper may be affected on such party by mail, as provided in this Agreement, or in such other manner as may be provided under applicable laws, rules of procedures or local rules.

31. **Approval of Personnel.** The CITY reserves the right to approve the contact person and the persons actually performing the services on behalf of CONTRACTOR pursuant to this Agreement. If CITY, in its sole discretion, is dissatisfied with the contact person or the person or persons actually performing the services on behalf of CONTRACTOR pursuant to this Agreement, CITY may require CONTRACTOR assign a different person or persons be designated to be the contact person or to perform the CONTRACTOR services hereunder.

32. **Disclosure of Conflict.** The CONTRACTOR has an obligation to disclose to the CITY any situation that, while acting pursuant to this Agreement, would create a potential conflict of interest between the CONTRACTOR and his duties under this Agreement.

33. **Warranty.** The CONTRACTOR agrees that, unless expressly stated otherwise in the bid or proposal, the product and/or service furnished as a result of an award from this solicitation shall be covered by the most favorable commercial warranty the CONTRACTOR

gives to any customer for comparable quantities of products and/or services and the rights and remedies provided herein are in addition to said warranty and do not limit any right afforded to the CITY by any other provision of this solicitation.

The CONTRACTOR hereby acknowledges and agrees that all materials, except where recycled content is specifically requested, supplied by the CONTRACTOR in conjunction with this Agreement shall be new, warranted for their merchantability, and fit for a particular purpose.

34. **Risk of Loss.** The CONTRACTOR assumes the risk of loss of damage to the CITY's property during possession of such property by the CONTRACTOR, and until delivery to, and acceptance of, that property to the CITY. The CONTRACTOR shall immediately repair, replace or make good on the loss or damage without cost to the CITY, whether the loss or damage results from acts or omissions (negligent or not) of the CONTRACTOR or a third party.

The CONTRACTOR shall indemnify and hold the CITY harmless from any and all claims, liability, losses and causes of action which may arise out of the fulfillment of this Agreement. The CONTRACTOR shall pay all claims and losses of any nature whatsoever in connection therewith, and shall defend all suits, in the name of the CITY when applicable, and shall pay all costs and judgments which may issue thereon.

35. **Employment Eligibility.** The CONTRACTOR is obligated to comply with the provisions of Section 448.095, Fla. Stat., "Employment Eligibility." This includes but is not limited to utilization of the E-Verify System to verify the work authorization status of all newly hired employees, and requiring all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply will lead to termination of this Agreement, or if a subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than TWENTY (20) calendar days after the date of termination. If this contract is terminated for a violation of the statute by the CONTRACTOR, the CONTRACTOR may not be awarded a public contract for a period of ONE (1) year after the date of termination.

36. **Illegal Alien Labor** - CONTRACTOR shall comply with all provisions of the Federal Immigration and Control Act of 1986 (8 U.S. Code § 1324 a) and any successor federal laws, as well as all provisions of Section 448.09, Florida Statutes, prohibiting the hiring and continued employment of aliens not authorized to work in the United States. CONTRACTOR shall not knowingly employ or contract with an illegal alien to perform work under this Agreement or enter into an Agreement with a subcontractor that fails to certify to the CONTRACTOR that the subcontractor complies with the terms stated within. The CONTRACTOR nor any subcontractor employed by him shall not knowingly employ or contract with an illegal alien to perform work under this Agreement. CONTRACTOR agrees that it shall confirm the employment eligibility of all employees through participation in E-Verify or an employment eligibility program approved by the Social Security Administration and will require same requirement to confirm employment eligibility of all subcontractors.

All cost incurred to initiate and sustain the aforementioned programs shall be the responsibility of the CONTRACTOR. Failure to meet this requirement may result in termination of the Agreement by the CITY.

37. **Counterparts.** Original signatures transmitted and received via facsimile or other electronic transmission of a scanned document, (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall bind the parties to the same extent as that of an original signature. Any such facsimile or electronic mail transmission shall constitute the final agreement of the parties and conclusive proof of such agreement. Any such electronic counterpart shall be of sufficient quality to be legible either electronically or when printed as hardcopy. The CITY shall determine legibility and acceptability for public record purposes. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original and all of which shall constitute the same instrument.

38. **Authority to Obligate.** Each person signing this agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and bind and obligate such party with respect to all provisions contained in this agreement.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date indicated in the preamble to the Agreement.

CROM, LLC

By: _____

Printed: _____

Its: _____
(Title)

CITY OF LEESBURG, FLORIDA

James A. Burry Jr., Mayor

ATTEST:

J. Andi Purvis, City Clerk

Approved as to form:

William Watson, City Attorney

Attachment 'A'
SCHEDULE OF CONTRACT ITEMS

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	Mobilization, Demobilization, and General Conditions	LS	1	\$200,000.00	\$200,000.00
2	One-Million-Gallon Ground Storage Tank	LS	1	\$1,723,000.00	\$1,723,000.00
3	Irrigation System	LS	1	\$5,000.00	\$5,000.00
4	Allowance - Ground Storage Tank Telemetry System	LS	1	\$67,000.00	\$67,000.00
	TOTAL BID AMOUNT				\$1,995,000.00

Attachment 'B'
SUPPLEMENTAL CONDITIONS – CONSTRUCTION

1. DEFINITIONS

The following definitions shall apply. Whenever the following terms (or pronouns in place of them) are used in the Contract Documents, the intent and meaning of such terms shall be interpreted as follows:

- a. **City Project Representative:** There shall be authorized representative(s) of the CITY assigned to make all necessary inspections of the work performed by the CONTRACTOR and for such other purposes as outlined in the Contract Documents.
- b. **City Technical Representative:** There may be a designated Project Representative assigned by the CITY to inspect the technical aspects of the project. To insure the project is being constructed as designed.
- c. **Engineer of Record:** The Engineer of Record designated by the CITY following Contract Execution.
- d. **Engineer:** The design professional (engineer, architect, landscape architect or surveyor) designated by the CITY to serve as the design professional representing the CITY.
- e. **Notice to Proceed (NTP):** The official Notice from the CITY to the CONTRACTOR providing the date work may begin and the date the performance period begins. The NTP date will be mutually agreed to at or following the pre-construction meeting. CONTRACTOR shall sign the acknowledgement section of the NTP and return to the Purchasing Division. The NTP shall become a part of the Contract Documents.
- f. **Subcontractor:** Includes only those having a direct contract with the CONTRACTOR and it includes one who furnished material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked.
- g. **Work:** The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.
- h. **Manual(s):** Equipment documentation meant for the end user/consumer of the equipment. CONTRACTOR shall provide all Manuals to the CITY upon substantial completion. Retainage may not be released until the CITY has received all Manuals relevant to the equipment incorporated into the project.
- i. **Surety:** The corporate body which is bound with and for the CONTRACTOR which is primarily liable and which guarantees the faithful performance of the bid and/or agreement.
- j. **Plans, Drawings and/or Sketches:** Graphic representations of the work to be performed or reproductions thereof.
- k. **Specifications:** Broadly defined, the specifications include all data bound together herein or referenced on the plans, including, but not limited to, General Conditions, Technical Specifications, Special Conditions, Geotechnical Investigation,

Supplemental Conditions (if any), other detailed technical specifications, exhibits and all addenda.

- l. **Defective:** An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by CITY at Substantial Completion or CITY has taken beneficial use of completed portions.
- m. **Shop Drawings:** All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.
- n. **Substantial Completion:** The Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
- o. **Underground Facilities:** All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

2. INSPECTION OF WORK

The Project Representative and his representatives shall, at all times, have access to the work whenever it is in preparation or progress and the CONTRACTOR shall provide proper facilities for such access and for inspection. The work will be conducted under the general direction of the Project Representative of the CITY and is subject to inspection by his appointed inspectors to insure compliance with the terms of the contract. No inspector is authorized to change any provisions of the specifications without written authorization of the CITY, nor shall the presence or absence of an inspector relieve the CONTRACTOR from any requirements of the contract.

If the specifications, the Project Representative's instructions, laws, ordinances or any public authority require any work to be specifically tested or approved, the CONTRACTOR shall give the CITY timely notice of its readiness for inspection, and if the inspection is by another authority than the Project Representative, of the date fixed for such inspection. Inspections by the Project Representative will be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of the CITY, it shall, if required by the Project Representative, be uncovered for examination at the CONTRACTOR's expense.

Re-examination of questioned work may be ordered by the Project Representative and, if so ordered, the work shall be uncovered by the CONTRACTOR. If such work is found in accordance with the contract documents, the CITY will pay the cost of re-examination and replacement. If such work is found not in accordance with the contract documents, the CONTRACTOR shall pay such cost.

3. TESTS

The Project Representative will have the right to require all materials to be submitted to test prior to incorporation in the work. In some instances, it may be expedient to make these tests at the source of supply and for this reason it is requested that the CONTRACTOR furnish the source

before incorporating material in the work. This does not in any way obligate the Project Representative to perform tests for acceptance of material and does not relieve the CONTRACTOR of his responsibility to furnish satisfactory material. The CONTRACTOR shall furnish two copies of manufacturer's certificate of compliance with these specifications covering manufactured items incorporated in the work.

All field tests for compaction of earthwork and of material incorporated in the sub grade and base will be performed by technicians of a materials testing laboratory approved by the CITY. All tests performed by the laboratory to ascertain that the material, as placed, meets the required specification will be at the expense of the CONTRACTOR and should be included in the bid items as such.

4. TOOLS, PLANT AND EQUIPMENT

If any time before the commencement or during the progress of the work, tools, plant or equipment appears to the Project Representative to be insufficient, inefficient or inappropriate to secure the quality of work required, or the proper rate of progress, the Project Representative will notify the CITY of such conditions. The Engineer will provide written notification to the CONTRACTOR of CITY's quality and/or schedule concerns. The CONTRACTOR will respond in writing within 5 business days of receiving the CITY's notice and will propose remedial actions to address the quality and/or schedule concerns.

5. COLLECTION AND DISPOSAL OF WASTE

The CONTRACTOR shall collect waste from construction areas and elsewhere; handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly; dispose of material in a lawful manner. The CONTRACTOR shall be responsible for the transportation and disposal costs of all waste construction materials.

6. BURNING OF DEBRIS

For any areas where the burning of debris is permitted, the CONTRACTOR will be required to request a permit therefore, from the fire authority having jurisdiction in the area in due advance time, and if such permission is granted he shall rigidly abide by all provisions and requirements of such permit. In no case will burning be permitted until the fire authorities have adequately checked the size of the pile to be burned, the weather conditions and any other factors which might affect the proper control of the burning operation.

7. TEMPORARY TRAFFIC CONTROL (TTC)

Where construction is located in public right of ways, traveled streets and roads, the CONTRACTOR shall exercise extreme care in seeing that sufficient area is provided and kept open for police, fire, ambulance, mail and private vehicular traffic.

The CONTRACTOR shall ensure that each person supervising the selection, placement and maintenance of Traffic Control Devices in the FDOT Work Zone shall be certified by attending an FDOT approved TTC training course. A copy of these certifications shall be submitted to the CITY of Leesburg upon request.

8. PROTECTION AGAINST POLLUTION

The CONTRACTOR shall comply with all legal regulations pertaining to pollution as are applicable to the site and he shall take all measures necessary to assure that no pollution, temporary or permanent, occurs to any lakes or other water areas as a result of runoff from the areas within which he is working.

This shall include the installation of temporary construction turbidity screens or hay bales along the edge of existing wetlands prior to the start of construction. These areas shall be as shown on the plans.

CONTRACTOR shall maintain the fuel storage area in accordance with local, state and federal regulations. Refueling vehicles and refueling techniques shall also comply with all applicable regulations. Clean-up of the fuel storage area shall be as required by the regulations and in accordance with these regulations.

9. TEMPORARY FENCING AND BARRICADES

The CONTRACTOR shall at his cost erect barricades sufficient to prevent injury to persons or damage to property, including the CONTRACTOR's personal property and materials. The CITY shall not be held responsible for the loss, theft, or vandalism of the CONTRACTOR's equipment or other personal property, including construction materials and supplies. Fences shall be constructed to prevent entry of unauthorized persons; cover trenches and holes when not in use; erect barriers at sharp changes in plane more than four (4) feet high. Should construction operations temporarily obstruct road passage, the CONTRACTOR shall at his cost provide suitable flagmen to control vehicular traffic on the road. Permits to use construction equipment on Florida Department of Transportation Right-of-Way shall be secured by the CONTRACTOR prior to actual beginning of work. The CONTRACTOR shall, at his cost, remove all temporary protection from the work site upon completion of the work.

10. WORKMANSHIP, MATERIALS, APPLIANCES, AND EMPLOYEES

All work will be done in a competent and workmanlike manner. All materials, equipment and supplies furnished by the CONTRACTOR for permanent incorporation in the work shall be new and of quality standards specified. Workmanship shall be first class and the finished product equal to the best-accepted standards of the trade for the category of work performed. It is the CITY's intent to obtain a high-quality job that will operate and function with least maintenance costs. The CONTRACTOR shall, if requested by CITY, furnish satisfactory evidence as to the kind and quality of materials.

Unless otherwise stipulated, the CONTRACTOR shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work.

The CONTRACTOR shall, at all times, enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

Neither party shall employ or hire any employees of the other party without his consent.

11. GENERAL QUALITY AND STANDARDS

To facilitate rapid examination, detailed specifications concerning basic requirements for labor, materials, equipment and/or incidentals to be used on the project are included under the various divisions in as brief a form as is consistent with clarity. The primary concern of the detailed specifications is for standards of performance expected for the finished work.

When in the detailed specifications reference is made to a particular code or specification, the latest edition of said code or specification shall apply.

The interests of the CITY, the CONTRACTOR and others concerned with the work require the inclusion of certain general governing requirements and standards, as a precaution against contingency and to provide for the conditions under which the construction and the administration of the work will be carried out.

General requirements for the quality of the work, when not otherwise covered in more specific detail in the specifications, will be governed by acceptable standards of the trade.

These specifications consider the project as a whole and assume it's completion under a general contract. Further, the scope of subcontracts and the quantities of materials and labor supplied to the CONTRACTOR by others are assumed to be matters governed by agreement between the CONTRACTOR and his Subcontractors and suppliers and not by agreement between the CITY and any Subcontractor or suppliers.

Various sections of the construction specifications are intended to govern only the quality of work and/or materials incidental to the particular branch of work mentioned in the section title. Sections are not intended as itemizations of the work materials to be furnished or to limit or define the scope of any subcontract or agreement to furnish material and labor.

The furnishing of all items of material, labor, equipment and/or incidentals necessary to the completion of the work as a whole will be expected when such items are called for on the drawings by diagram, note or schedule, are listed in the specifications, or are reasonably inferred by either or a combination of both.

During the construction operations under this contract, the CITY may elect to contract other work for the project. The CONTRACTOR shall coordinate his operations with those of any other such CONTRACTORS as well as any work of constructing or adjusting utilities by any

other authorities, to the end that the least practical handicap to the work of all such CONTRACTORS or authorities will result.

12. PROJECT COORDINATION

The CONTRACTOR shall coordinate construction operations that are dependent upon each other for proper installation, connection and operation. The CONTRACTOR shall make adequate provisions to accommodate items scheduled for later installation.

The CONTRACTOR shall inspect both the substrate and conditions under which the work is to be performed. The CONTRACTOR shall not proceed until unsatisfactory conditions have been corrected in an acceptable manner.

The CONTRACTOR shall inspect materials or equipment immediately upon delivery and again prior to installation. The CONTRACTOR shall reject damaged and defective items.

The CONTRACTOR shall supervise construction activities to ensure that no part of the construction is subject to deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following: Unprotected storage, Improper shipping and handling, Theft, Vandalism.

13. COORDINATION WITH UTILITY COMPANIES

CONTRACTOR shall coordinate with all utility installations. CONTRACTOR shall notify the appropriate utility companies, in writing, adequately in advance of the time frame set aside for such utility installation. The utility companies referred to herein shall include, but not be limited to, Power, Gas, Telephone, and Cable Television. CONTRACTOR shall coordinate the installation of “sleeves” for the utility companies as may be required.

CONTRACTOR shall supply the CITY with copies of all correspondence notifying the utility companies of his intended schedule of construction and the expected date for their respective utility installations. Written notices shall be sent to the utility companies at sixty (60) days, thirty (30) days and two (2) weeks prior to the time at which the utility installation should begin.

14. SUPERVISION

CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

If the CONTRACTOR, in the course of the work, finds any discrepancy between the drawings and the physical conditions of the locality, or any errors or omissions in the drawing or in layout as given by points and instructions, it shall be his duty to immediately inform the Project Representative, in writing, and the Project Representative will promptly verify the same. Any work done after such discovery, until authorized, will be done at the CONTRACTORS' risk.

15. CONSTRUCTION SUPERINTENDENT

CONTRACTOR shall employ a Construction Superintendent who shall be present on-site or available throughout the duration of the project and shall remain associated with the project until completion unless otherwise requested to be replaced by the CITY. The superintendent shall be experienced in the work required and perform all coordination activities generally conducted by project superintendents including, but not limited to, subcontractor coordination, utility installations, inspections, testing, material deliveries, etc. The superintendent shall be present at the pre-construction meeting and shall remain on the project until completion. The owner reserves the right to request a resume of experience for the superintendent including, but not limited to, requesting references from recent projects. Substitution of superintendents after the start of the work shall be approved by the owner in advance. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

16. WAGE RATES/EQUAL EMPLOYMENT OPPORTUNITY

Wage rates for laborers, mechanics and apprentices shall not be less than those established by the Florida Department of Labor and Employment Security and/or the United States Department of Labor for this work, as may be attached hereto. The CONTRACTOR must insure Equal Employment Opportunity as part of the awarded contract and also subcontracts awarded by the CONTRACTOR.

17. SUBCONTRACTS

The CONTRACTOR shall, as soon as practicable after signing the contract, notify the Project Representative in writing of any changes in the names of subcontractors proposed for the work as listed on the bid form. The CONTRACTOR shall not employ subcontractors, unless they are approved by the Project Representative.

The CONTRACTOR agrees that he is as fully responsible to the CITY for the acts and omissions of his subcontractors and of persons, either directly or indirectly, employed by them, as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the contract documents shall create any contractual relation between any subcontractors and the CITY.

18. PRE-CONSTRUCTION MEETING

The CITY shall schedule a meeting after the Notice of Award. The Project Representative, Engineer, and CONTRACTOR shall attend this mandatory meeting. The following items shall be completed:

- a. Submission of list of Subcontractors, Schedule of Values and Progress Schedule.
- b. Designation of Personnel representing the parties in Contract, and the Engineer.
- c. Use of premises by CITY and the CONTRACTOR.
- d. Survey layout and scheduling.
- e. Security and housekeeping procedures.
- f. Requirements for start-up of equipment.
- g. Inspection and acceptance of equipment put into service during construction period.

At least ten (10) days before submission of the first Application for Payment a conference attended by CONTRACTOR, Engineer and others as appropriate will be held to finalize the schedules submitted by CONTRACTOR. The finalized progress schedule will be acceptable to Engineer as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on Engineer responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility thereto. The finalized schedule of Shop Drawing submissions will be acceptable to Engineer as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to Engineer as to form and substance.

19. ORDER OF COMPLETION

The CONTRACTOR shall submit at such times as may be requested by the Project Representative, schedules which shall show the order in which the CONTRACTOR proposes to carry on the work with dates on which the CONTRACTOR will start the several parts of the work and estimated dates of completion of the several parts. The CITY retains the right to dictate to the CONTRACTOR the order of completion of the work.

20. MATERIALS AND EQUIPMENT SCHEDULES

As soon as practicable and within ten (10) days after the date of award of contract and before any material or equipment is purchased, the CONTRACTOR will submit to the CITY for approval a complete list, in triplicate, of materials to be incorporated in the work and samples of each listed material. The list shall include catalog numbers, cuts, diagrams; drawings and such other descriptive data as may be required. No consideration will be given to partial lists submitted from time to time. Approval of materials will be based on manufacturers' published ratings. Any materials listed that are not in accordance with the specification requirements may be rejected.

When one or more manufacturer's items are specified, it shall be understood that the item(s) so specified are hereby approved as to suitability and no substitutions will be permitted unless followed by such qualifying phrases as equal "approval equal" or "as approved" in which case the approval of the CITY for items not specified shall be obtained before they may be used.

21. CONTRACTOR'S REQUESTS FOR INTERPRETATION (RFIs)

Should CONTRACTOR be unable to determine from the Contract Documents the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of Work is described differently at more than one place in the Contract Documents; the CONTRACTOR shall request that the Architect/Engineer (AE), or CITY Representative, make an interpretation of the requirements of the Contract Documents to resolve such matters. CONTRACTOR shall comply with procedures specified herein to make Requests for Interpretation (RFIs).

- a. Submission of RFIs: RFIs shall be prepared and submitted on a form provided by the CITY.
 - i. Forms shall be completely filled in, and if prepared by hand, shall be fully legible after copying by xerographic process.
 - ii. Each RFI shall be given a discrete, consecutive number.

- iii. Each page of the RFI and each attachments to the RFI shall bear the CITY's project name, project number, date, RFI number and a descriptive title.
 - iv. CONTRACTOR shall sign all RFIs attesting to good faith effort to determine from the Contract Documents the information requested for interpretation. Frivolous RFIs shall be subject to reimbursement from CONTRACTOR to CITY for fees charged by A/E, A/E consultants and other design professionals engaged by the CITY.
- b. Subcontractor-Initiated and Supplier-Initiated RFIs: RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by and be attached to an RFI prepared, signed and submitted by CONTRACTOR. RFIs submitted directly by subcontractors or material suppliers will be returned unanswered to the CONTRACTOR.
 - i. CONTRACTOR shall review all subcontractor- and supplier-initiated RFIs and take actions to resolve issues of coordination, sequencing and layout of the Work.
 - ii. RFIs submitted to request clarification of issues related to means, methods, techniques and sequences of construction or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation. Such issues are solely the CONTRACTOR'S responsibility.
 - iii. CONTRACTOR shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.
- c. Requested Information: CONTRACTOR shall carefully study the Contract Documents to ensure that information sufficient for interpretation of requirements of the Contract Documents is not included. RFIs that request interpretation of requirements clearly indicated in the Contract Documents will be returned without interpretation.
 - i. In all cases in which RFIs are issued to request clarification of issues related to means, methods, techniques and sequences of construction, for example, pipe and duct routing, clearances, specific locations of Work shown diagrammatically, apparent interferences and similar items, the CONTRACTOR shall furnish all information required for the A/E or CITY's Representative to analyze and/or understand the circumstances causing the RFI and prepare a clarification or direction as to how the CONTRACTOR shall proceed.
 - ii. If information included with this type RFI by the CONTRACTOR is insufficient, the RFI will be returned unanswered.
- d. Unacceptable Uses for RFIs: RFIs shall not be used to request the following:
 - i. Approval of submittals
 - ii. Approval of substitutions
 - iii. Changes that entail change in Contract Time and Contract Sum
 - iv. Different methods of performing Work than those indicated in the Contract Drawings and Specifications

- e. Disputed Requirements: In the event the CONTRACTOR believes that a clarification by the CITY's A/E, or Representative, results in additional cost or time, CONTRACTOR shall comply with the method for requesting a Change Order.
- f. RFI Log: CONTRACTOR shall prepare and maintain a log of RFIs, and at any time requested by the CITY's Representative, the CONTRACTOR shall furnish copies of the log showing all outstanding RFIs.
- g. Review Time: Architect/Engineer or CITY Representative (CITY) shall return RFIs to CONTRACTOR and within five (5) calendar days of receipt. RFIs received after 12:00 noon shall be considered received on the next regular working day for the purpose of establishing the start of the five-calendar day response period.

22. SUBMITTAL REQUIREMENTS OF CONTRACTOR

After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, CONTRACTOR shall submit to Engineer for review in accordance with the accepted schedule of Shop Drawing submissions, or for other appropriate action if so indicated in the Special Conditions, five copies (unless otherwise specified in the General Requirements) of all Shop Drawings, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as Engineer may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable Engineer to review the information as required.

CONTRACTOR shall also submit to Engineer for review with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

Before submission of each Shop Drawing or sample CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

At the time of each submission, CONTRACTOR shall give Engineer specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and in addition, shall cause a specific notation to be made on each Shop Drawing submitted to Engineer for review of each such variation.

Engineer will review with reasonable promptness Shop Drawings and samples, but Engineer's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review of a separate item

as such will not indicate review of the assembly in which the item functions. CONTRACTOR shall make corrections required by Engineer, and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

Engineer's review of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called Engineer's attention to each such variation at the time of submission as required by this Article and Engineer has given written review each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample review; nor will any review by Engineer relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions herein.

Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to Engineer's review of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

23. CHANGES IN THE WORK

Any Change in the Work will be documented in writing and approved by the CITY in writing. Changes that increase the cost of the work may need to be approved by CITY Commission depending on the dollar value of the increase change order. No work may be performed prior to the change being approved by CITY.

The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the work. All duties, responsibilities and obligations assigned to or undertaken by the CONTRACTOR shall be at his expense without change in the Contract Price.

The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price, shall be delivered in writing to the CITY and the Engineer within fifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within forty-five days of such occurrence unless the Engineer allows an additional period of time to ascertain accurate cost data. All claims for adjustments in the Contract Price shall be determined by the Engineer if the CITY and CONTRACTOR cannot otherwise agree on the amount involved. The Engineer(s) decision shall be final and binding. Any change in the Contract Price resulting from any such claim shall be incorporated in a Change Order.

The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

- a. where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved, or ii. by mutual acceptance of a lump sum, or
- b. on the basis of the cost of the work plus a CONTRACTOR's fee for overhead and profit.

24. DETAIL DRAWINGS AND INSTRUCTIONS

The CITY will furnish, with reasonable promptness, additional instructions by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions will be consistent with the contract documents, true developments thereof and reasonably inferable therefrom.

25. OWNERSHIP OF DRAWINGS

All drawings, specifications and copies thereof furnished by the CITY are the property of the CITY. They are not to be used on other work and, with the exception of the signed contract set, are to be returned to the CITY, at the request of the CITY upon the completion of the work.

26. SURVEYS, PERMITS AND REGULATIONS

The CITY will furnish horizontal and vertical control necessary to layout the work in an orderly and workmanlike manner.

Horizontal Control furnished by the CITY shall consist of adequately marked property corners or offset corners, with dimensions as shown on the drawings. Vertical Control will consist of benchmarks established within the immediate area of the work.

It shall be the responsibility of the CONTRACTOR to furnish all construction layout of the work, including, but not limited to, layout and elevations for the construction and final grade of the site.

The CONTRACTOR shall maintain and preserve all stakes and marks established by the CITY and should such stakes or marks be carelessly or willfully destroyed or damaged by the CONTRACTOR, said stakes or marks shall be replaced by the CITY at the expense of the CONTRACTOR.

The CONTRACTOR will set the horizontal and vertical control only at the beginning of the job as specified above. Interim staking during the job and all staking and layout work not furnished by the CITY as specified above shall be the responsibility of the CONTRACTOR.

The CITY will furnish all personnel and equipment and materials to make such surveys as are necessary to determine the quantities of work performed.

The CITY will furnish environmental permits unless otherwise specified. The CONTRACTOR shall obtain any and all required permits from all appropriate government agencies.

Work permits and licenses necessary for the prosecution of the work shall be secured and paid for by the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be secured and paid for by the CITY unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the CONTRACTOR observes that the drawings and specifications are at variance therewith, he shall promptly notify the CITY in writing and any necessary changes shall be adjusted as provided in the contract for changes in the work. If the CONTRACTOR performs work knowing it to be contrary to such

laws, ordinances, rules and regulations and without such notice to the CITY, he shall bear all cost arising there from.

27. ROYALTIES AND PATENTS

There may be a design, device, material or process included in these plans and specifications which may be covered by letters, patent or copyright. Prior to use of any design, device, material or process, or its incorporation into the construction, the CONTRACTOR shall secure indemnity from his subcontractors or material suppliers that will protect and save harmless the CITY from all loss on account thereof.

The CONTRACTOR shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the CITY harmless from loss on account thereof, except that the CITY shall be responsible for all such loss when a particular process or the product of a particular manufacturer or manufacturers is specified, but if the CONTRACTOR has information that the process or article specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the CITY.

28. PROTECTION OF WORK AND PROPERTY

The CONTRACTOR shall continuously maintain adequate protection of all his work from damage and shall protect the CITY's property from injury or loss arising in connection with this contract. The CONTRACTOR shall at all times protect all public and privately-owned property, structures, utilities, and work of any kind against damage or interruption of service which may result from the operations of the CONTRACTOR. Damage or interruption to service resulting from failure to do so shall be repaired or restored by or at the expense of the CONTRACTOR except such as may be directly due to errors in the contract documents or caused by the agents or employees of the CITY.

29. DEDUCTIONS FOR UNCORRECTED WORK

If the Project Representative deems it inexpedient to correct work injured or done, not in accordance with the contract, an equitable deduction from the contract price will be made therefore.

30. DELAYS AND EXTENSION OF TIME

If the CONTRACTOR be delayed at any time, in the progress of the work by an act of neglect of the CITY or of his employees, or by any other CONTRACTOR employed by the CITY or by Changes ordered in the work or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the CONTRACTOR's control, or by delay authorized by the Project Representative, or by any cause which the Project Representative may decide to justify the delay, then the time of completion will be extended for any such reasonable time as the Project Representative may decide.

No such extension will be made for delay occurring more than seven (7) days before claim therefore is made in writing to the CITY. In the case of a continuing cause or delay, only one claim is necessary.

If no schedule or agreement stating the dates upon which drawings shall be furnished is made, then no claim for delay will be allowed on account of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claims be reasonable.

31. CORRECTION OF WORK BEFORE FINAL PAYMENTS

The CONTRACTOR shall promptly remove from the premises all materials condemned by the Project Representative as failing to conform to the contract, whether incorporated in the work or not, and the CONTRACTOR shall promptly replace and re-execute his own work in accordance with the contract and without expense to the CITY and shall bear the expense of making good all work of other CONTRACTORS destroyed or damaged by such removal or replacement.

If the CONTRACTOR does not correct such condemned work and material within a reasonable time fixed by written notice, the CITY may correct it at the expense of the CONTRACTOR. If the CONTRACTOR does not pay the expense of such correction within three (3) days thereafter, the CITY may, upon three (3) days written notice, deduct all the cost and expenses that should have been borne by the CONTRACTOR.

32. THE CITY'S RIGHT TO DO WORK

If the CONTRACTOR should neglect to prosecute the work properly or fail to perform any provision of this contract, the CITY after three (3) days written notice to the CONTRACTOR, may, without prejudice to any other remedy he may have, make good such deficiencies at the CONTRACTOR's expense.

33. SUSPENSION OF WORK

The CITY may at any time suspend the work or any part thereof by giving five (5) days notice to the CONTRACTOR in writing. The work shall be resumed by the CONTRACTOR within ten (10) days after the date fixed in a written notice to resume work from the

CITY to the CONTRACTOR. The CITY will reimburse the CONTRACTOR for expense incurred by the CONTRACTOR in connection with the work under this contract as a result of such suspension unless the suspension was recommended to the CITY by the Project Representative to enforce the contract or for any violation of the contract.

34. REMOVAL OF EQUIPMENT

In the case of annulment of this contract before completion, from any cause whatever, the CONTRACTOR, if notified to do so by the CITY, shall promptly remove any part or all of his equipment and supplies from the property of the CITY, failing which, the CITY will have the right to remove such equipment and supplies at the expense of the CONTRACTOR.

35. USE OF COMPLETED PORTIONS

Use by CITY of any finished part of the Work, which has specifically been identified in the Contract Documents, or which CITY, Engineer and CONTRACTOR agree constitutes a separately functioning and useable part of the Work that can be used by CITY without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

- a. CITY at any time may request CONTRACTOR in writing to permit CITY to use any such part of the Work which CITY believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to CITY and Engineer that said part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify CITY and Engineer in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, CITY, CONTRACTOR and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify CITY and CONTRACTOR in writing giving the reasons therefore. If Engineer considers that part of the Work to be substantially complete, the provisions of Substantial Completion will apply with respect to certification of that part of the Work and the division of responsibility in respect thereof and access thereto.
- b. CITY may at any time request CONTRACTOR in writing to permit CITY to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer and within a reasonable time thereafter CITY, CONTRACTOR and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to CITY and Engineer that such part of the Work is not ready for separate operation by CITY, Engineer will finalize the list of items to be completed or corrected and will deliver such list to CITY and CONTRACTOR together, with a written recommendation as to the division of responsibilities pending final payment between CITY and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work, which will become binding upon CITY and CONTRACTOR at the time when CITY takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, CITY shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.
- c. If CITY finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with this Article; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or lapse on account of any such partial use or occupancy.

36. PROMPT PAYMENT

It is the policy of the CITY that payment for all purchases by the CITY shall be made in a timely manner and that interest payments will be made on late payments in accordance with Part VII, Chapter 218, Florida Statutes, known as the Florida Prompt Payment Act.

37. APPLICATION FOR PAYMENT

The CONTRACTOR shall submit to the CITY, at least 20 days before the date established for each progress payment (but not more often than once a month), an Application for Payment filled out and signed by CONTRACTOR covering the work completed as of the date of the Application. Upon review and approval by the CITY and Engineer (if applicable).

The retained percentage (retainage) amount with respect to the progress payments shall initially be 10% unless stated otherwise in the Construction Services Agreement. Retainage amounts and retainage process shall be governed by Florida Statute 255.078 – Public Construction Retainage.

CONTRACTOR shall, before any draw is issued, provide a sworn statement to CITY attesting that all services, materials and labor, furnished to the project to the date of the draw request have been paid for in full, or listing the amounts due for such services, materials and labor, and if any amounts are listed as being due, the CITY shall have the right to pay those amounts directly to the persons to whom they are due, with the balance of the draw amount to be paid to CONTRACTOR, and if the draw is insufficient to pay the amounts then due for services, materials and labor, the CITY shall pay those to whom such amounts are due on a pro rata basis until the draw is exhausted, and any remaining amounts due others shall be paid first out the next draw due.

The CITY shall not be required to issue progress payments pursuant to the draw schedule until the CITY has verified, by on-site inspection, that construction has in fact progressed to the stage at which a draw is required and that the work done and materials furnished are in compliance with the Contract Documents, and all applicable technical codes. The final draw due upon “completion” shall not be payable until the CITY, its Project Representative or Engineer of Record has determined the work has been completed in accordance with the Contract Documents and a Certificate of Completion has been issued by the CITY.

38. PAYMENTS WITHHELD

The CITY may withhold or, on account of subsequently discovered evidence, recover the whole or part of any payment to such an extent as may be necessary to protect the CITY from loss on account of—

- a. Defective work not remedied.
- b. Claims filed or reasonable evidence indicating probable filing of claims.
- c. Failure of the CONTRACTOR to make payments properly to subcontractors or for materials or labor.
- d. The Project Representative's opinion that the contract cannot be completed for the balance then unpaid.
- e. Damage to another CONTRACTOR.

- f. Failure to maintain adequate progress. vii. Damage to the building resulting from the negligence of the CONTRACTOR.

When the above grounds are removed, payment will be made for amounts withheld because of them.

39. FINAL PAYMENT APPLICATION

Administrative actions and submittals that must precede or coincide with submittal of the final payment Application for Payment include the following:

- a. Completion of Project closeout requirements.
- b. Completion of items specified for completion after Substantial Completion.
- c. Assurance that unsettled claims will be settled.
- d. Transmittal of required project construction records to CITY.
- e. Final Clean Up as outlined in these General Conditions

Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, Engineer will make a final inspection with CITY and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

After CONTRACTOR has completed all such corrections to the satisfaction of Engineer and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, marked-up record documents and other documents--all as required by the Contract Documents, and after Engineer has indicated that the Work is acceptable (subject to the provisions under Waiver of Claims), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to CITY) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by CITY, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which CITY or CITY's property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to CITY to indemnify CITY against any Lien.

If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation--all as required by the Contract Documents, Engineer is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application to CITY for payment. Thereupon Engineer will give written notice to CITY and CONTRACTOR that the Work is acceptable subject to the provisions found under "Waiver of Claims". Otherwise, Engineer will return the Application to CONTRACTOR, indicating in writing the reasons for

refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after presentation to CITY of the Application and accompanying documentation, in appropriate form and substance, and with Engineer's recommendation and notice of acceptability, the amount recommended by Engineer will become due and will be paid by CITY to CONTRACTOR.

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if Engineer so confirms, CITY shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of Engineer, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by CITY for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

40. CONTRACTOR'S CONTINUING OBLIGATION

CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by Engineer, nor the issuance of a certificate of Substantial Completion, nor any payment by CITY to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by CITY, nor any act of acceptance by CITY nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by Engineer, nor any correction of defective Work by CITY will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents (except as provided under Waiver of Claims)

41. DAMAGES

Any claim for damage arising under a resulting Agreement shall be made in writing to the party liable within ten (10) days after the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials.

42. EQUIPMENT STARTUP

Equipment startup shall be in accordance of the manufacturer's recommendations, and as required to demonstrate performance to the Engineer and CITY in accordance with the specifications. The CONTRACTOR shall provide 30-days notice to the Engineer and CITY of the date on which all equipment and systems will be ready for startup. The startup date shall be arranged as required by the CITY's operational schedule with consideration of the schedule needs of the Engineer and CONTRACTOR.

43. COMPLETION OF WORK

The CONTRACTOR shall be considered "substantially complete" when the equipment and systems have been used without failure for seven (7) continuous days, and in the opinion of the CITY, it's Project Representative or Engineer of Record, all work has been completed in general

accordance with the plans and specifications and all test reports, inspections, etc. have been completed and delivered to the Engineer. Substantial completion shall also mean that degree of completion which allows the CITY to occupy and use the facilities. When the Engineer deems the work to be "substantially complete" he shall indicate this to the CITY in writing with copies to the CONTRACTOR. The date of contract completion shall be the same date at which the CONTRACTOR is considered substantially complete by the Engineer.

44. ACCEPTANCE OF FINISHED WORK

The CITY shall make final acceptance inspection of the Project covered by this Contract when the Project is completed and finished in all respects in accordance with the Contract Documents. CONTRACTOR shall furnish to the Engineer or CITY Representative a complete set of As-Built drawings. These drawings shall be prepared by a licensed Surveyor in the State of Florida and shall be submitted to the Engineer within five (5) days following the completion of the work.

45. FINAL CLEAN UP

The CONTRACTOR shall complete all cleaning operations before requesting final inspection.

The CONTRACTOR shall, as directed by the Project Representative, remove from the CITY's property and from all public and private property, at his own expense, all temporary structures, rubbish, and waste materials resulting from his operation.

The CONTRACTOR shall remove temporary protection and facilities installed for protection of the work during construction.

The CONTRACTOR shall comply with all regulations of authorities having jurisdiction and safety standards for cleaning. The CONTRACTOR shall not burn waste materials. The CONTRACTOR will not discharge volatile, harmful or dangerous materials into drainage systems. The CONTRACTOR will remove all waste materials from the site and dispose of in a lawful manner. Materials of value remaining after completion of associated work will become the owner's property. The CONTRACTOR will arrange for the disposition of these materials as directed by the CITY.

The CONTRACTOR shall rake the grounds that are neither paved nor planted to a smooth, even textured surface.

46. TREES

It shall be the responsibility of the CONTRACTOR to protect all trees within the limits of the work and as designated by the Project Representative.

47. GUARANTY

CONTRACTOR warrants and guarantees to CITY that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in the paragraph in this section labeled 'Inspections, Correction, Removal Of Defective Work'.

All equipment, materials and installation and workmanship furnished by the CONTRACTOR under the terms of the Contract, shall be guaranteed by the CONTRACTOR against defective workmanship, mechanical and physical defects, leakage, breakage and other damages and failure, under normal operation for a period of two (2) years or as otherwise specified in the Technical Specifications and after the date of acceptance thereof by the CITY, and each item of equipment or materials and installation proving to be defective within the specified period of guaranty shall be replaced, without cost to the CITY, by the CONTRACTOR or by the Surety. The period of guaranty of such replacement shall be from and after the date of final acceptance of the Project by the CITY, provided however, that where any item or equipment or material comes with a manufacturer's warranty of two (2) years or longer, that warranty shall take precedence over the warranty of CONTRACTOR hereunder.

48. INDEMNITY

The CONTRACTOR agrees to make payment of all proper charges for labor required in the aforementioned work and defend, indemnify, and save harmless the CITY and Engineer or any of their officers, agents, or servants and each and every one of them against and from all claims, suits, and costs of every kind and description, including attorney's fees, and from all damages to which the CITY and Engineer or any of their officers, agents, or servants may be put by reason of injury to the persons or property of others resulting from the performance of CONTRACTOR's duties under the Contract, or through the negligence of the CONTRACTOR in the performance of its duties under this Contract, or through any act or omission on the part of the CONTRACTOR, his agents, employees, or servants or subcontractors.

Provided, however, if this Contract is deemed, by a court of competent jurisdiction, to be a construction contract for the purposes of Section 725.06, Florida Statutes, any obligation of the CONTRACTOR to defend, indemnify or hold harmless an CITY and Engineer shall be limited to an obligation to indemnify and hold harmless the CITY and Engineer, and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of this Contract.

49. ASSIGNMENT

Neither party to the contract shall assign the contract or sublet it as a whole without the written consent of the other, nor shall the CONTRACTOR assign any moneys due, or to become due to him hereunder, without the previous written consent of the Project Representative.

50. RIGHTS OF VARIOUS INTERESTS

Wherever work being done by the CITY's forces, or by the other CONTRACTORs, is contiguous to work covered by this contract, the respective rights of the various interests involved will be established by the Project Representative, to secure the completion of the various portions of the work in general harmony.

51. SEPARATE CONTRACTS

The CITY reserves the right to let other contracts in connection with this work. The CONTRACTOR shall afford other CONTRACTORs reasonable opportunity for the introduction

and storage of their materials and the execution of their work, and shall properly conduct and coordinate his work with theirs.

If any part of the CONTRACTOR's work depends, for proper execution or results upon the work of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the Project Representative any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the other CONTRACTOR's work as fit and proper for the reception of his work, except as to defects which may develop in the other CONTRACTOR's work after the execution of the work.

To insure the proper execution of his subsequent work, the CONTRACTOR shall measure work already in place and shall at once report to the Project Representative any discrepancy between the executed work and the drawings.

52. LANDS FOR WORK

The CITY will provide the lands upon which the work under this contract is to be done, except that the CONTRACTOR shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to same.

53. ACCESS TO RECORDS

The CITY, the Florida Department of State, or any of their duly authorized representatives shall have access to any books, documents, papers or any other records prepared by the CONTRACTOR that are directly pertinent to the work produced under this Agreement for making audit, examination, excerpts and transcription. Such records will be maintained for five (5) years after the completion of the work and until claims or audit findings have been resolved which were initiated prior to the expiration of the five (5) year period.

54. EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The Agreement shall be signed in quadruplicate by the CITY and the CONTRACTOR. The Contract Documents comprise the entire agreement between CITY and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by

reference in the Contract Documents) shall be effective to change the duties and responsibilities of CITY, CONTRACTOR or Engineer, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Engineer, or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of these Supplemental Conditions. Clarifications and interpretations of the Contract Documents shall be issued by Engineer.

If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to Engineer in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from Engineer; however, CONTRACTOR shall not be liable to CITY or Engineer for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

55. CONTRACTOR'S UNDERSTANDING

CONTRACTOR has visited the site, has called for utility locates and has familiarized itself with the local conditions under which the work is to be performed, both underground and above ground and both on and off premises and has correlated these observations with the requirements of the proposed contract documents; all as considered necessary or pertinent to the work, and any failure to thus make all such prior investigations and studies shall in no way act as a waiver of any of the terms of the contract. No verbal agreement or conversation with any officer, agent or employee of the CITY, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained

56. FAMILIARITY WITH LAWS

The CONTRACTOR is required to be familiar with all Federal, State and Local laws, ordinances, rules and regulations that in any manner affect the work. Ignorance on the part of the CONTRACTOR will in no way relieve him from responsibility.

57. SALES TAX

The CONTRACTOR is required to pay Florida sales and use taxes on all materials purchased for this project unless otherwise specified in the document. All Florida sales and use taxes will be included in the submitted bid price(s).

58. CLARIFICATIONS AND INTERPRETATIONS OF CONTRACT DOCUMENTS

It is the duty of the CONTRACTOR to notify the Engineer, in writing, in the event of any doubt or question as to the true meaning of any provision in the Contract Documents. The Engineer's decision thereon shall be final. Annotated dimensions on drawings shall govern and work not dimensioned shall be as clarified by the Engineer. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Materials or work described in words which have a well-known technical or trade meaning shall be deemed to refer to such recognized standard.

Engineer will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as Engineer

may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or an extension of the Contract Time then CONTRACTOR shall notify CITY in accordance with the Agreement.

Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work there under. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims in respect of changes in the Contract Price or Contract Time will be referred initially to Engineer in writing with a request for a formal decision in accordance with this paragraph, which Engineer will render writing within a reasonable time. Written notice of each such claim, dispute and other matters will be delivered by the claimant to Engineer and the other party to the Agreement promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to Engineer and the other party within sixty days after such occurrence unless Engineer allows an additional period of time to ascertain more accurate data in support of the claim.

When functioning as interpreter and judge under this Article, Engineer will not show partiality to CITY or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by Engineer pursuant this Article with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as permitted by the Agreement.) will be a condition precedent to any exercise by CITY or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter.

59. LIMITATIONS ON ENGINEER'S RESPONSIBILITIES

Neither Engineer's authority to act nor any decision made by Engineer in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of Engineer to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of Engineer as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating other-wise). The use of any such term or adjective shall not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of this Article.

Engineer will not be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and Engineer will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

Engineer will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

60. SAFETY AND PRECAUTION

CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- a. all employees on the Work and other persons and organizations who may be affected thereby;
- b. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and iii. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph caused, directly or in this Article directly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of CITY or Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR). CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to CITY and CONTRACTOR that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to CITY.

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from Engineer or CITY, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give

Engineer prompt written notice that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Engineer determines that a change in the

Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

61. RECORD DOCUMENTS

CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, reviewed Shop Drawings, Change Orders, Work Directive Changes, Field Orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all reviewed samples and a counterpart of all reviewed Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents or as-builts, samples and Shop Drawings will be delivered to Engineer for CITY. Upon delivery of such documents to Engineer, the CONTRACTOR shall provide a written certification, signed and dated, that all documents accurately and completely reflect all deviations from or changes in the original Contract Documents made during construction of the project.

Record documents shall be up-to-date and available for review by the resident project representative prior to each application for progress payment. Payment will not be made for construction of items not shown on the record documents.

These requirements also supplement those of Item 66. Not less than two percent (2%) of the contract price shall be retained until correct record drawings, specifications, addenda, modifications and shop drawings are delivered to and reviewed by the Engineer.

62. PHYSICAL CONDITIONS-UNDERGROUND FACILITIES

Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site are based on information and data furnished to CITY or Engineer by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

- a. CITY and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
- b. CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Facilities shown or indicated in the Contract Documents, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

The word facility as used in this subsection titled "Utilities" includes any pipe conveying gases or liquids and appurtenances attached thereto; cables, conduits, wires, ducts and appurtenances; poles and appurtenances; any of which may be buried below grade or installed at or above grade level. A facility excludes irrigation pipes, service connections and traffic signal wiring. A service connection is a pipe (excluding irrigation pipes), cable, wire, duct or conduit that is intended to connect a facility with a user. The word Utility as used in this subsection titled

"Utilities" refers to the entity having legal ownership of the facility, service connection, irrigation pipe, or traffic signal wiring.

The Engineer has endeavored to determine the existence of underground facilities at the site of the work from the records of the utilities with known facilities in the vicinity of the work. The position of these facilities as derived from such records is shown on the plans. Service connections, irrigation pipes, and traffic signal wiring may not be shown on the plans. The CONTRACTOR shall make his own investigations, including exploratory excavations and contact with Utilities, to determine the exact locations and type of existing facilities, service connections, irrigation pipes, and traffic signal wiring prior to commencing work in the area and shall be responsible for any damage thereto.

Damage, injury, or loss resulting in whole or in part from the CONTRACTOR's failure to locate and preserve a facility, service connection, irrigation pipe, or traffic signal wiring shall under no circumstances be deemed attributable to the fault of the Drawings or Specifications or to the acts or omissions of the CITY or Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable.

With respect to underground facilities, no claim for a change in the contract price may be allowed unless the CONTRACTOR discovers an underground facility which is not indicated or referred to in the Contract Documents or which is in a position differing materially and significantly from that indicated or referred to in the Contract Documents. If such discovery is made, the CONTRACTOR shall promptly notify in writing the CITY, Engineer and the Utility. The CITY may make changes in the alignment and grade of the work.

At no additional cost to the CITY, the CONTRACTOR shall replace, remove, relocate, protect, or temporarily maintain a facility which is not in a position differing materially and significantly from that indicated or referred to in the Contract Documents. At no additional cost to the CITY, the CONTRACTOR shall adjust the top elevation of all valve boxes and manholes to match the finish grade or pavement surface and shall replace, remove, relocate, protect, or temporarily maintain all service connections, irrigation pipes, and traffic signal wiring. The work on the facility, service connection, irrigation pipe or traffic signal wiring shall be done in a manner satisfactory to the Utility, it being understood that the Utility has the option of doing such work with his own forces, or permitting the work to be done by the CONTRACTOR.

63. PHYSICAL CONDITIONS

- a. Exploration and Reports: Reference is made in the Special Conditions to those reports of exploration and tests of subsurface conditions at the site that have been utilized by Engineer in preparation of the Contract Documents. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.
- b. Unforeseen Conditions: CONTRACTOR shall promptly notify CITY and Engineer in writing of any subsurface or latent physical conditions at the site or in an existing structure differing materially from those indicated or referred to in the Contract Documents. Engineer will promptly review those conditions and advise CITY in writing if further investigation or tests are necessary.

Promptly thereafter, CITY shall obtain the necessary additional investigations and tests and furnish copies to Engineer and CONTRACTOR. If Engineer finds that the results of such investigations or tests indicate that there are subsurface or latent physical conditions which differ materially from those intended in the Contract Documents, and which could not reasonably have been anticipated by CONTRACTOR, a Change Order shall be issued incorporating the necessary revisions.

64. REVIEW OF APPLICATION FOR PROGRESS PAYMENT

Engineer will, within ten days after receipt of each Application for Payment, to either indicate in writing a recommendation of payment and present the Application to CITY, or return the Application to CONTRACTOR indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

Ten (10) days after presentation of the Application for Payment with Engineer's recommendation, the amount recommended will become due and when due will be paid by CITY to CONTRACTOR.

Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to CITY, based on Engineer's on-site observations of the Work in progress as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated; that, to the best of Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work, and to any other qualifications stated in the recommendation); and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment Engineer will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents or that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by CITY or CITY to withhold payment to CONTRACTOR.

Engineer's recommendation of final payment will constitute an additional representation by Engineer to CITY that the conditions precedent to CONTRACTOR's being entitled to final payment have been fulfilled.

Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make such representations to CITY. Engineer may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or test, nullify any such payment previously recommended; to such extent as may be necessary in Engineer's opinion to protect CITY from loss.

CITY may refuse to make payment of the full amount recommended by Engineer because claims have been made against CITY on account of CONTRACTOR's performance or furnishing of the

Work or Liens have been filed in connection with the Work or there are other items entitling CITY to a set-off against the amount recommended, but CITY must give CONTRACTOR immediate written notice (with a copy to Engineer) stating the reasons for such action.

65. SUBSTANTIAL COMPLETION

When CONTRACTOR considers the entire Work ready for its intended use, CONTRACTOR shall notify CITY and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that Engineer issue a certificate of Substantial Completion. Within a reasonable time thereafter, CITY, CONTRACTOR and Engineer shall inspect the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify CONTRACTOR in writing giving the reasons therefore. If Engineer considers the Work substantially complete, Engineer will prepare and deliver to CITY a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. CITY shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within fourteen days after submission of the tentative certificate to CITY notify CONTRACTOR in writing, stating the reasons therefore. If, after consideration of CITY's objections, Engineer considers the Work substantially complete, Engineer will within said fourteen days execute and deliver to CITY and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from CITY. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to CITY and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between CITY and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Unless CITY and CONTRACTOR agree otherwise in writing and so inform Engineer prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendations will be binding on CITY and CONTRACTOR until final payment.

CITY shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but CITY shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

66. INSPECTIONS, CORRECTION, REMOVAL OF DEFECTIVE WORK

Engineer and Engineer's representatives, other representatives of CITY, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

CONTRACTOR shall give Engineer timely notice of readiness of the Work for all required inspections or tests.

If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith and furnish Engineer the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with CITY's or Engineer's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. The cost of all inspections, tests and approvals in addition to the above which are required by the Contract Documents shall be paid by CITY (unless otherwise specified).

All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to CITY and CONTRACTOR (or by Engineer if so specified).

If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given Engineer timely notice of CONTRACTOR's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

Neither observations by Engineer nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at CONTRACTOR's expense.

If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, CONTRACTOR, at Engineer's request, shall uncover, expose or otherwise make available for observation, inspection or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided in Special Conditions. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Special Conditions.

If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, CITY may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this

right of CITY to stop the Work shall not give rise to any duty on the part of CITY to exercise this right for the benefit of CONTRACTOR or any other party.

If required by Engineer, CONTRACTOR shall promptly either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Engineer, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

67. ACCEPTANCE OF DEFECTIVE WORK; CORRECTION OF DEFECTIVE WORK BY THE CITY

If, instead of requiring correction or removal and replacement of defective Work, CITY (and, prior to Engineer's recommendation of final payment) prefers to accept it, CITY may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to CITY's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, CITY may make a claim. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to CITY.

If CONTRACTOR fails within a reasonable time after written notice of Engineer to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by Engineer, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, CITY may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph CITY shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, CITY may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which CITY has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow CITY, CITY's representatives, agents and employees such access to the site as may be necessary to enable CITY to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of CITY in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by Engineer, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, CITY may make a claim. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the

Contract Time because of any delay in performance of the Work attributable to the exercise by CITY of CITY's rights and remedies hereunder.

68. ARBITRATION

Before bringing any action in any court of competent jurisdiction pertaining to any claim, dispute or other matter in question arising out of or relating to the Contract Documents or the breach thereof, in an amount less than \$25,000, except for claims which have been waived by the making and acceptance of final payment, the claimant/objector (Party A) shall first offer to arbitrate the question(s) with the other party to the contract (Party B) by notifying him in writing and setting forth in such notice the question(s) to be arbitrated.

Party B can select to arbitrate or not. If Party B agrees to arbitrate he shall so advise Party A in writing within ten days after receipt of Party A's notice. Notice by Party B that he does not wish to arbitrate or failure of Party B to notify Party A within the ten-day period will give Party A the right to institute a court action.

If Party B agrees to arbitrate, the arbitration shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association except as modified herein. In such event, the agreement to arbitrate shall be specifically enforceable under the provisions of the Florida Arbitration Code, S682, Fla. Stat., as it may be from time to time amended. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

If Party B agrees to arbitrate, then Party A shall file its notice of demand for arbitration in writing with Party B and with the American Arbitration Association, and a copy shall be filed with the Engineer. Notice of demand for arbitration shall be served on the parties referred to herein no later than thirty days from the date Party B agrees to arbitrate the issues in question.

Failure to serve the notice of demand for arbitration shall constitute a waiver and abandonment of the claims for which arbitration is sought. Notice of demand for arbitration shall in no event be made on any claim, dispute or other matter in questions which would be barred by the applicable statute of limitations.

If the dollar amount of the claim exceeds \$25,000, arbitration may only be utilized if both Party A and party B agree to arbitrate.

The CONTRACTOR shall carry on the Work and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

The Florida Rules of Civil Procedure pertaining to discovery shall apply to both parties during arbitration, and, at the CITY's sole option, any and all arbitration arising out of or relating to any of the Contract Documents or any breach thereof shall include by consolidation, joinder, or joint filing any additional person or entity not a party to this Agreement to the extent necessary for the final resolution of the matter in controversy.

At least one of the members of the arbitration panel must be an attorney licensed to practice law in the State of Florida.

The surety shall be bound by the arbitration award to the same extent as the CONTRACTOR is bound.

The arbitration panel shall submit a written opinion with findings of fact and conclusions of law stating the basis for the decision made, and including an award of arbitration that may be confirmed by a court of competent jurisdiction.

Unless CITY agrees to the contrary, the location of any and all arbitration proceedings shall be in Lake County, Florida.

[End of Supplemental Conditions.]

**HIGHLAND LAKES WASTEWATER TREATMENT PLANT
1-MILLION-GALLON GROUND STORAGE TANK**

**BIDDING AND CONSTRUCTION
CONTRACT DOCUMENTS AND
TECHNICAL SPECIFICATIONS**

Project No. 07810-107-01

Owner:

CITY OF LEESBURG
PO Box 490630
Leesburg, Florida 34749-0630

Engineer:

JONES EDMUNDS & ASSOCIATES, INC.
3910 S. Washington Avenue, Suite 210
Titusville, Florida 32780

July 2023

**HIGHLAND LAKES WASTEWATER TREATMENT PLANT
1-MILLION-GALLON GROUND STORAGE TANK
TECHNICAL SPECIFICATIONS**

Kenneth Acie Fraser, PE, State of Florida Professional Engineer No. PE57452

This item has been digitally signed and sealed by Kenneth Acie Fraser on the date indicated here.
Printed copies of this document are not considered signed and sealed. The signature must be verified on
any electronic copies. The above named Professional Engineer shall be responsible for the following
Divisions in accordance with rule 61G15-23.004, F.A.C.:
Divisions 1, 2, and 3
Jones Edmunds & Associates, Inc.

Jafet Torres, PE, State of Florida Professional Engineer No. PE80247

This item has been digitally signed and sealed by Jafet Torres on the date indicated here.
Printed copies of this document are not considered signed and sealed. The signature must be verified on
any electronic copies. The above named Professional Engineer shall be responsible for the following
Divisions in accordance with rule 61G15-23.004, F.A.C.:
Divisions 9, 13, and 15
Jones Edmunds & Associates, Inc

**HIGHLAND LAKES WASTEWATER TREATMENT PLANT
1-MILLION-GALLON GROUND STORAGE TANK
TECHNICAL SPECIFICATIONS**

Michael L. Clark, PE, State of Florida Professional Engineer No. PE48898

This item has been digitally signed and sealed by Michael L. Clark on the date indicated here.
Printed copies of this document are not considered signed and sealed. The signature must be verified on
any electronic copies. The above named Professional Engineer shall be responsible for the following
Divisions in accordance with rule 61G15-23.004, F.A.C.:

Division 16

Jones Edmunds & Associates, Inc.

TABLE OF CONTENTS

DIVISION 1—GENERAL REQUIREMENTS

01000	PROJECT REQUIREMENTS
01100	SUMMARY OF WORK
01200	MEASUREMENT AND PAYMENT
01290	SCHEDULE OF VALUES
01310	CONSTRUCTION COORDINATION
01320	PROGRESS SCHEDULE
01325	CONSTRUCTION PHOTOS AND VIDEOS
01330	SUBMITTALS AND ACCEPTANCE
01350	ENVIRONMENTAL PROTECTION PROCEDURES
01355	SPECIAL PROVISIONS
01400	QUALITY REQUIREMENTS
01450	TESTING AND TESTING LABORATORY SERVICES
01500	TEMPORARY FACILITIES AND CONTROLS
01600	MATERIALS AND EQUIPMENT
01650	DELIVERY, STORAGE, AND HANDLING
01720	FIELD ENGINEERING
01730	CUTTING, CORING, AND PATCHING
01735	CONTROL OF WORK
01740	FINAL CLEANING
01745	MISCELLANEOUS WORK AND CLEANUP
01755	EQUIPMENT TESTING AND STARTUP
01770	PROJECT CLOSEOUT
01780	WARRANTIES AND BONDS
01785	RECORD DOCUMENTS
01810	WATERTIGHTNESS TEST FOR HYDRAULIC STRUCTURES
01815	MAINTENANCE OF PLANT OPERATION AND SEQUENCE OF CONSTRUCTION
01830	OPERATIONS AND MAINTENANCE MANUALS

DIVISION 2—SITE CONSTRUCTION

02220	DEMOLITION AND MODIFICATIONS
02230	SITE PREPARATION
02300	EARTHWORK FOR STRUCTURES
02305	EARTHWORK FOR UTILITIES
02370	EROSION AND SEDIMENTATION CONTROL
02531	CONNECTIONS TO AND WORK ON THE EXISTING SYSTEM
02920	SEEDING AND SODDING

DIVISION 3—CONCRETE

03301 CONCRETE AND REINFORCING STEEL
03600 GROUT

DIVISION 9—FINISHES

09900 PAINTING AND COATING

DIVISION 13—SPECIAL CONSTRUCTION

13200 PRESTRESSED CONCRETE TANKS

DIVISION 15—MECHANICAL

15050 BASIC MECHANICAL MATERIALS AND METHODS
15055 PIPING SYSTEMS—GENERAL
15060 PIPE SUPPORTS
15110 MANUAL, CHECK, AND PROCESS VALVES
15141 DISINFECTION OF PIPING AND WATER STORAGE FACILITIES
15144 PRESSURE TESTING OF PIPING
15155 DUCTILE IRON PIPE AND FITTINGS
15250 SMALL-DIAMETER PIPING

DIVISION 16—ELECTRICAL

16401 LOW-VOLTAGE ELECTRICAL WORK—GENERAL REQUIREMENTS

APPENDICES

APPENDIX A FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT
APPENDIX B ALLOWANCE DOCUMENTATION
APPENDIX C GEOTECHNICAL REPORT

DIVISION 1

GENERAL REQUIREMENTS

SECTION 01000
PROJECT REQUIREMENTS

PART 1 GENERAL

1.01 DEFINITIONS

- A. Owner – The term *Owner* when used in the Technical Specifications refers to the entity with whom the Contractor has entered into the Agreement for this project and for whom the Work is to be performed. The term *Owner* also encompasses representatives of the Owner including the Engineer.

1.02 SCOPE OF WORK

- A. The Work to be done consists of the furnishing of all labor, materials, and equipment and the performance of all Work included in this Contract. The summary of the Work is presented in Section 01100, Summary of Work.
- B. Work Included
1. The Contractor shall furnish all labor, superintendence, materials, plant power, light, heat, fuel, water, tools, appliances, equipment, supplies, and means of construction necessary for proper performance and completion of the Work. The Contractor shall obtain and pay for all necessary local building permits. The Contractor shall perform and complete the Work in the manner best calculated to promote rapid construction consistent with safety of life and property and to the satisfaction of the Owner and in strict accordance with the Contract Documents. The Contractor shall clean up the Work and maintain it during and after construction, until accepted, and shall do all Work and pay all costs incidental thereto. The Contractor shall repair or restore all structures and property that may be damaged or disturbed during performance of the Work.
 2. The cost of incidental work described in these Project Requirements for which there are no specific Contract Items shall be considered as part of the general cost of doing the Work and shall be included in the prices for the various Contract Items. No additional payment will be made therefor.
 3. The Contractor shall provide and maintain such modern plant, tools, and equipment as may be necessary, in the opinion of the Owner, to perform in a satisfactory and acceptable manner all the Work required by this Contract. Only equipment of established reputation and proven efficiency shall be used. The Contractor shall be solely responsible for the adequacy of his workmanship, materials, and equipment, prior approval of the Owner notwithstanding.

C. Public Utility Installations and Structures

1. Public utility installations and structures shall be understood to include all poles, tracks, pipes, wires, conduits, vaults, manholes, and all other appurtenances and facilities pertaining thereto whether owned or controlled by the Owner, other governmental bodies, or privately owned by individuals, firms, or corporations used to serve the public with transportation, traffic control, gas, electricity, telephone, sewerage, drainage, water, or other public or private property which may be affected by the Work shall be deemed included hereunder.
 - a. The Contract Documents contain data relative to existing public utility installations and structures above and below the ground surface. These data are not guaranteed as to their completeness or accuracy and it is the responsibility of the Contractor to make his own investigations to inform himself fully of the character, condition, and extent of all such installations and structures as may be encountered and as may affect the construction operations.
 - b. The Contractor shall protect all public utility installations and structures from damage during the Work. Access across any buried public utility installation or structure shall be made to avoid any damage to these facilities. All required protective devices and construction shall be provided by the Contractor at his expense. All existing public utilities damaged by the Contractor shall be repaired by the Contractor, at his expense. No separate payment shall be made for such protection or repairs to public utility installations or structures.
 - c. Public utility installations or structures owned or controlled by the Owner or other governmental body which are shown on the Drawings to be removed, relocated, replaced, or rebuilt by the Contractor shall be considered as a part of the general cost of doing the Work and shall be included in the prices bid for the various Contract Items. No separate payment shall be made therefor.
 - d. Where public utility installations or structures owned or controlled by the Owner or other governmental body are encountered during the Work and are not indicated on the Drawings or in the Specifications, and when, in the opinion of the Owner, removal, relocation, replacement, or rebuilding is necessary to complete the Work under this Contract, such Work shall be accomplished by the utility having jurisdiction, or such Work may be ordered, in writing by the Owner, for the Contractor to accomplish. If such work is accomplished by the utility having jurisdiction it will be carried out expeditiously, and the Contractor shall give full cooperation to

permit the utility to complete the removal, relocation, replacement, or rebuilding as required. If such work is accomplished by the Contractor, it will be paid for as extra work as provided in the Agreement.

- e. At all times in performance of the Work the Contractor shall employ acceptable methods and exercise reasonable care and skill so as to avoid unnecessary delay, injury, damage, or destruction of public utility installations and structures and shall at all times in the performance of the Work avoid unnecessary interference with or interruption of public utility services and cooperate fully with the owners thereof to that end.
- f. The Contractor shall give written notice to the Owner and other governmental utility departments and other owners of public utilities of the location of his proposed construction operations at least 48 hours in advance of breaking ground in any area or on any unit of the Work.
- g. The maintenance, repair, removal, relocation, or rebuilding of public utility installations and structures, when accomplished by the Contractor as herein provided, shall be done by methods approved by the owners of such utilities.

1.03 DRAWINGS AND PROJECT MANUAL

- A. Drawings: When obtaining data and information from the Drawings, figures shall be used in preference to scaled dimensions and large-scale drawings in preference to small-scale drawings.
- B. Supplementary Drawings
 - 1. When, in the opinion of the Owner, it becomes necessary to explain more fully the Work to be done or to illustrate the Work further or to show any changes that may be required, the Owner will prepare drawings known as Supplementary Drawings, with specifications pertaining to such Drawings, and the Contractor will be furnished one complete set of reproducible black-line prints (22 inches by 34 inches) and one reproducible copy of the specifications, or alternatively may be provided electronic files in PDF format, at the Contractor's option.
 - 2. The Supplementary Drawings shall be binding upon the Contractor with the same force as the Contract Drawings. Where such Supplementary Drawings require either less or more than the estimated quantities of Work, credit to the Owner or compensation therefor to the Contractor shall be subject to the terms of the Agreement.

C. Contractor to Check Drawings and Data

1. The Contractor shall verify all dimensions, quantities, and details shown on the Drawings, Supplementary Drawings, Schedules, Specifications, or other data received from the Owner, and shall notify the Owner of all errors, omissions, conflicts, and discrepancies found therein. Failure to discover or correct errors, conflicts, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work, faulty construction, or improper operation resulting therefrom, nor from rectifying such conditions at his own expense. He will not be allowed to take advantage of any errors or omissions, as full instructions will be furnished by the Owner should such errors or omissions be discovered.
2. All schedules are given for the convenience of the Owner and the Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility for making estimates of the size, kind, and quantity of materials and equipment included in the Work to be done under the Contract.

D. Specifications: The Technical Specifications each consist of three parts: General, Products, and Execution. The General part of a Specification contains General Requirements that govern the Work. The Products and Execution parts modify and supplement the General Requirements by detailed requirements for the Work and shall always govern whenever there appears to be a conflict.

E. Intent

1. All Work called for in the Specifications applicable to this Contract, but not shown on the Drawings in their present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the Drawings or in the Specifications but involved in carrying out their intent or in the complete and proper execution of the Work is required and shall be performed by the Contractor as though it were specifically delineated or described.
2. The apparent silence of the Specifications as to any detail or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used. The interpretation of these Specifications shall be made upon that basis.

1.04 MATERIALS AND EQUIPMENT

A. Manufacturer

1. All transactions with the manufacturers or subcontractors shall be through the Contractor, unless the Contractor shall request and at the Owner's option that the manufacturer or subcontractor deal directly with the Owner. Any such transactions shall not in any way release the Contractor from his full responsibility under this Contract.
2. Any two or more pieces of material or equipment of the same kind, type, or classification, and being used for identical types of service, shall be made by the same manufacturer.

B. Delivery

1. The Contractor shall deliver materials in ample quantities to ensure the most speedy and uninterrupted progress of the Work to complete the Work within the allotted time.
2. The Contractor shall also coordinate deliveries to avoid delay in or impediment of the progress of the work of any related Contractor.

C. Tools and Accessories

1. Unless otherwise stated in the Contract Documents, the Contractor shall furnish each type, kind, or size of equipment one complete set of suitably marked high-grade special tools and appliances that may be needed to adjust, operate, maintain, or repair the equipment. Such tools and appliances shall be furnished in approved painted-steel cases, properly labeled, and equipped with good-grade cylinder locks and duplicate keys.
2. Spare parts shall be furnished as specified herein and as recommended by the manufacturer necessary for the operation of the equipment, not including materials required for routine maintenance.
3. Each piece of equipment shall be provided with a substantial nameplate, securely fastened in place, and clearly inscribed with the manufacturer's name, year of manufacture, serial number, weight, and principal rate data.

D. Service of Manufacturer's Engineer

1. The Contract Prices for equipment shall include the cost of furnishing a competent and experienced engineer or superintendent who shall represent the manufacturer and shall help the Contractor, when required, install, adjust, test, and place in operation the equipment in conformity with the Contract Documents.

2. After the equipment is placed in permanent operation by the Contractor, the manufacturer's engineer or superintendent shall make all adjustments and tests required by the Owner to prove that the equipment is in proper and satisfactory operating condition and shall instruct such personnel as may be designated by the Owner in the proper operation and maintenance of such equipment.

1.05 INSPECTION AND TESTING

A. General

1. For tests specified to be made by the Contractor, the testing personnel shall make the necessary inspections and tests, and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Contract Documents. Reports shall be submitted and authoritative certification thereof must be furnished to the Owner as a prerequisite for the acceptance of any material or equipment.
2. If, in the making of any test of any material or equipment, the Owner ascertains that the material or equipment does not comply with the Contract Documents, the Contractor will be notified thereof and he will be directed to refrain from delivering said material or equipment, or to remove it promptly from the site or from the Work and replace it with acceptable material without cost to the Owner.
3. Tests of electrical and mechanical equipment and appliances shall be conducted in accordance with the recognized test codes of the ANSI, ASME, or the IEEE, except as may otherwise be stated herein.
4. The Contractor shall be fully responsible for the proper operation of equipment during testing and instruction periods and shall neither have nor make any claim for damage that may occur to the equipment before the time when the Owner formally takes over the operation thereof.

B. Costs

1. The Contractor shall provide all inspection and testing of materials furnished under this Contract, unless otherwise expressly specified.
2. The Contractor shall bear the cost of shop and field tests of equipment and of certain other tests specifically called for in the Contract Documents, and such costs shall be deemed to be included in the Contract Price.
3. The Owner may test materials and equipment submitted by the Contractor as the equivalent to those specifically named in the Contract for compliance. The Contractor shall reimburse the Owner for the expenditures incurred in making such tests of materials and equipment that are rejected for non-compliance.

C. Certificate of Manufacture

1. The Contractor shall furnish the Owner with authoritative evidence in the form of a certificate of manufacture that the materials to be used in the Work have been manufactured and tested in conformity with the Contract Documents.
2. These certificates shall be notarized and shall include copies of the results of physical tests and chemical analyses, where necessary, that have been made directly on the product or on similar products of the manufacturer.

D. Shop Tests

1. Each piece of equipment for which pressure, duty, capacity, rating, efficiency, performance, function, or special requirements are specified shall be tested in the shop of the maker in a manner that shall conclusively prove that its characteristics comply fully with the requirements of the Contract Documents.
2. Manufacturer's actual test data and interpreted results thereof, accompanied by a certificate of authenticity sworn to by a responsible official of the manufacturing company and/or independent laboratory, shall be submitted to the Owner for approval.
3. The Contractor shall bear the cost of shop tests and of furnishing manufacturer's preliminary and shop test data of operating equipment.

E. Start-up Tests

1. As soon as conditions permit, the Contractor shall furnish all labor, materials, and instruments and shall make start-up tests of equipment.
2. If the start-up tests disclose any equipment furnished under this Contract that does not comply with the requirements of the Contract Documents, the Contractor shall, before demonstration tests, make all changes, adjustments, and replacements required. The furnishing Contractor shall assist in the start-up tests as applicable.

F. Demonstration Tests

1. Before the Contractor's request for a Substantial Completion inspection, all equipment and piping installed under this Contract shall be subjected to demonstration tests as specified or required to prove compliance with the Contract Documents.
2. The Contractor shall furnish labor, fuel, energy, water, and all other materials, equipment, and instruments necessary for all demonstration tests at no additional cost to the Owner. The Contractor shall assist in the demonstration tests as applicable.

1.06 LINES AND GRADES

A. Grade

1. All Work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings or as given by the Owner. The full responsibility for keeping alignment and grade shall rest upon the Contractor.
2. The Contractor will establish benchmarks and coordination points using Surveys, where provided in the Contract Drawings. Where not provided in the Contract Drawings, the benchmarks and coordination points will be established by the Contractor at no additional cost to the Owner. Reference marks for lines and grades as the Work progresses will be located by the Contractor to cause as little inconvenience to the prosecution of the Work as possible. The Contractor shall place excavation and other materials so as to cause no inconvenience in the use of the reference marks provided. He shall remove any obstructions he places contrary to this provision.

B. Surveys

1. At his own expense, the Contractor shall furnish and maintain stakes and other such materials.
2. The Contractor shall check such reference marks by such means as he may deem necessary and, before using them, shall call the Owner's attention to any inaccuracies.
3. At his own expense, the Contractor shall establish all working or construction lines and grades as required from the reference marks set by the Contractor and shall be solely responsible for the accuracy of these lines and grades. He shall, however, be subject to check and review by the Owner.

C. Safeguarding Marks

1. The Contractor shall safeguard all points, stakes, grade marks, monuments, and benchmarks made or established on the Work; bear the cost of re-establishing them if disturbed; and bear the entire expense of rectifying Work improperly installed due to not maintaining or protecting or removing without authorization such established points, stakes, and marks.
2. The Contractor shall safeguard all existing and known property corners, monuments, and marks adjacent to but not related to the Work and shall bear the cost of re-establishing them if they are disturbed or destroyed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01100 SUMMARY OF WORK

PART 1 GENERAL

1.01 SCOPE OF WORK

Unless otherwise expressly provided in the Contract Documents, the Work must be performed in accordance with best modern practice, with materials and workmanship of the highest quality to the satisfaction of the Owner.

- A. The Project title is **Highland Lakes Water Treatment Plant 1-Million-Gallon Ground Storage Tank**.
- B. The Work of this Project is defined in the Agreement.
- C. The Specification divisions and Drawings are an integrated part of the Contract Documents and, as such, will not stand alone if used independently as individual sections, divisions, or drawing sheets. The Drawings and Specifications establish minimum standards of quality for this project. They do not purport to cover all details entering into the design and construction of materials and equipment.

1.02 REFERENCE STANDARDS

Reference standards and recommended practices referred to herein shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Association of State Highway and Transportation Officials (AASHTO) Formerly (AASHO)
- B. American Concrete Institute (ACI)
- C. American Institute of Steel Construction (AISC)
- D. American Iron and Steel Institute (AISI)
- E. American National Standards Institute (ANSI)
- F. American Standards Association (ASA)
- G. American Society of Mechanical Engineers (ASME)
- H. American Society of Testing and Material (ASTM)
- I. American Water Works Association (AWWA)
- J. American Welding Society (AWS)
- K. Anti-Friction Bearing Manufacturer's Association (AFBMA)
- L. Building Officials and Code Administrators International, Inc. (BOCA)
- M. Construction Specifications Institute (CSI)
- N. Federal Specification (FS)

- O. Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, Latest English Edition (Standard Specifications)
- P. FDOT Roadway and Traffic Design Standards Latest English Edition (FDOT Index)
- Q. Geosynthetics Institute (GSI)
- R. National Bureau of Standards (NBS)
- S. National Electrical Manufacturer's Association (NEMA)
- T. National Fire Protection Association (NFPA)
- U. Portland Cement Association (PCA)
- V. Occupational Safety and Health Act (Public Law 91-596), U.S. Department of Labor (OSHA)
- W. Steel Structures Painting Council (SSPC)
- X. Southern Standard Building Code (SSBC)
- Y. Underwriters' Laboratories, Inc. (UL)
- Z. United States of America Standards Institute (USASI)
- AA. Regulations of Florida Industrial Commission Regarding Safety
- BB. All local, state, county, or municipal building codes requirements of the Owner's Insurance

1.03 GENERAL REQUIREMENTS

- A. Unless otherwise specified on the Construction Drawings or Specifications, all work and the quality of materials shall conform to the referenced sections of the FDOT *Standard Specifications for Road and Bridge Construction*, *Supplementary Specifications*, and *Roadway and Traffic Design Standards*. The Contractor shall retain on the job site copies of these standard FDOT documents. The basis of payment shall conform to Section 01200, Measurement and Payment, of the General Requirements.

1.04 WORKING HOURS

- A. Workdays shall be between 7:00 am and 5:00 pm Monday through Friday. Work on the weekends will be on Saturdays only and shall be requested by the Contractor and receive prior approval from the Owner.

1.05 REIMBURSEMENT FEES

- A. The following rates shall be applied as the Owner's reimbursement of the Engineer's fee to be paid by the Contractor for expenses defined the Contract Documents.

1.	Senior Field Representative (Construction):	\$125.00
2.	Senior Construction Administrator:	\$175.00
3.	Engineering Consultant (Senior Project Manager):	\$240.00
4.	Administrative Assistant:	\$100.00

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01200
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section covers methods of measurement and payment for items of work under this Contract.
- B. The total Contract Price shall cover all work required by the Contract Documents. All cost in connection with the proper and successful completion of the work including furnishing all materials, equipment, and tools and performing all necessary labor and supervision to fully complete the work, shall be included in the unit price and lump-sum Bid prices. All work not specifically set forth as a pay item in the Bid Form or Bid Schedule shall be considered a subsidiary/ancillary obligation of the Contractor and all costs in connection with these subsidiary/ancillary obligations shall be included in the Bid(s) to provide a complete and functional Project.

1.02 EXCAVATION, TRENCHING, AND CLEARING

- A. Except where otherwise specified, the unit price or lump-sum price bid for each item of work which involves excavation, trenching, clearing, grubbing, or disposal of cleared and grubbed materials shall include all costs for such work. No direct payment shall be made for clearing, grubbing, disposal of cleared or grubbed materials, excavation, trenching, disposal of surplus excavated material, handling water (and groundwater), and purchasing and hauling of required fill material. All excavation and trenching shall be unclassified as to materials which may be encountered; in addition, trenches shall be unclassified as to depth, unless otherwise stated.

1.03 LUMP SUM

- A. For lump-sum items, payments shall be made to the Contractor in accordance with an accepted Progress Schedule of Values on the basis of actual work completed and accepted by the Owner at the final completion of the Project.

1.04 UNIT PRICE

- A. For unit price items, payment shall be made based on the actual amount of work accepted by the Owner and for the actual amount of materials in place at the final completion of the Project, as confirmed by the final measurements.

- B. After the work is completed and before final payment is made, the Engineer will make final measurements, with all required assistance from the Contractor, to determine the quantities of various items of work accepted as the basis for the final unit price payment.

1.05 PAYMENT FOR INCREASED OR DECREASED QUANTITIES

- A. When alterations in the quantities of unit price work not requiring a Change Order(s), as herein provided for, are ordered and performed, the Contractor shall accept payment in full at the Contract unit price multiplied by the actual quantities of work constructed and accepted by the Owner at the completion of the project.
- B. The actual percentage of each lump-sum bid item completed by the Contractor and accepted by the Owner at the final completion of the Project will be paid to the Contractor.

1.06 DELETED ITEMS

- A. Should any items contained in the Bid Schedule(s) be found unnecessary for the proper completion of the work contracted, the Engineer may eliminate such items from the Contract. This action shall in no way invalidate the Contract and no financial allowance or compensating payment for anticipated profit, overhead, etc., will be made for items so eliminated in making final payment to the Contractor.

1.07 PARTIAL PAYMENTS

- A. Partial payments shall be made monthly as the work progresses. Partial payment shall be made subject to the provisions of the General and Supplementary Conditions.

1.08 PAYMENT FOR STORED MATERIAL DELIVERED TO THE PROJECT

- A. When requested by the Contractor and at the discretion of the Owner, payment may be made for all or part of the value of acceptable materials and equipment to be incorporated into bid items, which have not been used, and which have been delivered to the construction site or placed in storage places acceptable to the Owner. The Contractor shall provide receipts for all stored material items requested for reimbursement which clearly identify the stored material item, where it is to be constructed, the unit cost of the item, as well as the total cost of the delivered item(s), the quantity of the item, the brand name of the item, and the supplier. Note that there are additional documentation requirements and storage

requirements within the Contract Documents that must also be met before the Contractor can be reimbursed for these stored materials.

- B. No payment shall be made for fuels, supplies, installation or connection hardware, lumber, false work, or other similar materials or on temporary structures or other work (items) of any kind which are not a permanent part of the Contract. Items having a value of less than \$2,500 shall not be compensated for as a stored material item.

1.09 FINAL PAYMENT

- A. If requested by the Engineer, the Contractor shall field verify all quantities in dispute by using visual observation, taped measurements, or other methods designated by the Engineer. The field verification shall be made in the presence of the Engineer and agreed to by both the Engineer and the Contractor. The Engineer will prepare a final adjusting Change Order that will adjust the final quantities of the project Bid Schedule to reflect the actual work accepted by the Owner and for which the Contractor will be compensated.

1.10 SCHEDULE OF VALUES

- A. A schedule of values for the lump-sum bid items and some of the unit-price bid items as required by the Engineer shall be submitted and accepted before the first pay request is approved by the Engineer. The schedule of values shall be based on the prices bid in the Bid Schedule(s). Prices bid in the Bid Schedule(s) cannot be changed in the schedule of values; they can only be broken down into more detail so that the Engineer can more accurately review and approve the Contractor's pay application for the completed work.

1.11 MISCELLANEOUS CONSTRUCTION ITEMS

- A. The Contractor shall take all precautions necessary to protect existing utilities, roads, and miscellaneous items from damage during construction.
- B. The Contractor shall repair, relocate, or replace existing utilities, roadways, and miscellaneous items to pre-construction conditions.
- C. All repairs, relocations, and replacements necessary are considered incidental to the work and will be at the Contractor's cost, with no cost to the Owner.
- D. The lump-sum bid items for all pipe items shall constitute full compensation for furnishing, laying, jointing, and testing of pipe; dewatering; excavation and backfill; and cleanup.

- E. The Contractor shall have the Owner's Representative observe and document the installation of each underground fitting on the project. If the installation of any fitting is not confirmed and documented by the Owner's Representative, it shall not be paid for by the Owner.

PART 2 PAY ITEM DESCRIPTIONS

2.01 BID

The descriptions provided in the following Paragraphs are to be used by the Bidder in preparing the Bid Schedule(s). They generally indicate how the major workscope items and their respective costs are to be separated into the line items listed in the Bid Schedule(s). These descriptions are not fully representative nor all-inclusive of the work required to complete the project in accordance with the Contract Documents. It is the Bidder's responsibility to include all required costs within the most appropriate line item(s).

Item 1. Mobilization, Demobilization, and General Conditions—This item shall include and cover the costs for performing construction, preparatory, and overhead operations, including but not limited to movement of personnel and equipment to and from the site, sanitary facilities, project administration and management, insurance, bonds, Owner and Engineer indemnification, temporary utilities, permits related to construction, and all other similar activities and facilities necessary for executing this project.

Item 2. One-Million-Gallon Ground Storage Tank—The lump-sum price shall include and be full compensation for furnishing all labor, materials, equipment, tools, and services, and performing all work necessary to construct the 1-million-gallon ground storage tank in accordance with the Construction Drawings, Specifications, and Contract Documents.

Item 3. Irrigation System—The lump-sum price shall include and be full compensation for furnishing all labor, materials, equipment, tools, and services, and performing all work necessary to construct the irrigation system in accordance with the Construction Drawings, Specifications, and Contract Documents.

Item 4. Allowance Ground Storage Tank Telemetry System—The lump-sum price shall include and be full compensation for furnishing all labor, materials, equipment, tools, and services, and performing all work necessary to construct the telemetry system upgrades at the water treatment plant, the Contractor shall contract with the City vendor for the allowance price as provided in the bid form to install the telemetry system in accordance with the Construction Drawings, Specifications, and Contract Documents.

END OF SECTION

SECTION 01290 SCHEDULE OF VALUES

PART 1 GENERAL

1.01 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. To the Owner, a proposed Schedule of Values allocated to the various portions of the Work, in accordance with Section 01000, Project Requirements, and Section 01200, Measurement and Payment.
- B. Upon request of the Owner, supporting data that will substantiate the values' correctness.
- C. The accepted Schedule of Values shall be used as the basis for the Contractor's Applications for Payment.
- D. An update and resubmittal of the Schedule of Values when Change Orders affect the listing or when the actual performance of the Work involves necessary changes of substance to values previously listed and approved.
- E. Schedule of Values
 - 1. Submit typed schedule on EJCDC 1910-8-E forms or another format as may be approved by the Owner.
 - 2. Submit Schedule of Values in PDF format via Owner-approved electronic transmittal method or on CD, or as duplicate hardcopies, within 10 days after the date of Owner-Contractor Agreement.
 - 3. Format – Use the schedule of prices in the Bid Proposal. Show the cost breakdown for each lump-sum item. The lump-sum breakdown shall, at a minimum, use the Table of Contents of this manual outline. Identify each line item with the number and title of the major Specification Section. Identify site mobilization and demobilization, bonds and insurance, Record Drawings, photographs, and operations and maintenance manuals, etc.
 - 4. Revise the schedule to list approved Change Orders with each Application for Payment.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01310
CONSTRUCTION COORDINATION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall coordinate Work with that of other construction projects as needed.
- B. Before starting Work and from time to time as the Work progresses, the Contractor and each subcontractor shall examine the work and materials installed by others as it applies to its own work and shall notify the Engineer immediately in writing if any conditions exist which will prevent satisfactory results in the installation of the system. Should the Contractor or subcontractor start work without such notification, it shall be construed as an acceptance of all claims or questions as to the suitability of the work of others to receive its Work. The Contractor shall remove and/or replace, at its own expense, all work under this Contract that may have to be removed on account of such defects or omissions.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. The Contractor shall ensure that all drawing, product data, and samples comply with Contract Documents and field dimensions and clearances.
- B. The Contractor shall submit requests for interpretation of Contract Documents in a timely fashion to ensure there are no disruptions with the Work as scheduled. Obtain instructions through the Engineer to resolve all queries.
- C. Process requests for substitutions and Change Orders through the Engineer.
- D. Deliver close-out submittals to the Engineer.

1.03 WORK SEQUENCE

- A. The Contractor shall submit a preliminary Progress Schedule, in accordance with Section 01320, Progress Schedule, to the Engineer. After review, the Contractor shall revise and resubmit the Progress Schedule to comply with requested revisions.

1.04 CONSTRUCTION MOBILIZATION

The Contractor shall do the following:

- A. Cooperate with the Owner in allocating mobilization areas on site for field offices and sheds, access, traffic, and parking facilities. During construction, the Contractor shall coordinate the use of the site and facilities through the Engineer.
- B. Comply with the Engineer's procedures for intra-project communications: submittals, reports and records, schedules, coordination drawings, recommendations, and resolution of ambiguities/conflicts.
- C. Comply with the Engineer's instructions for use of temporary utilities and construction facilities.
- D. Coordinate field engineering and layout work under instructions of the Engineer.
- E. Coordinate scheduling, submittals, and work of the various sections of Contract Documents to ensure the efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.
- F. Coordinate the sequence of Work to accommodate the Owner occupancy as specified in the Contract Documents.
- G. In addition to Progress Meetings specified in Section 01320, Progress Schedule, hold pre-construction conferences with personnel and Subcontractors to ensure coordination of Work. The Engineer shall be informed of such meetings and shall be allowed to attend.
- H. Coordinate the Work of various sections having interdependent responsibilities for installing equipment, connecting equipment, and placing such equipment in service.
- I. Coordinate the use of project space and the sequence of installing civil, architectural, mechanical, structural, instrumentation, systems, and electrical work. Follow practicable routings for pipes, ducts, and conduits, with due allowance for available physical space; make runs parallel with lines of building. Use space efficiently to maximize accessibility for other installations, maintenance, and repairs.
- J. Coordinate Work at existing facilities to minimize disruption of the Owner's operations.

- K. Assemble and coordinate close-out submittals specified in Section 01770, Project Closeout.

1.05 COORDINATION DRAWINGS

- A. The Contractor shall provide information required by the Engineer for preparing coordination drawings.
- B. The Contractor shall review drawings before submitting them to the Engineer.

1.06 CLOSE-OUT PROCEDURES

The Contractor shall do the following:

- A. Notify the Owner when Work is considered ready for Substantial Completion.
- B. Comply with the Owner's instructions to correct items of Work listed in executed Certificates of Substantial Completion.
- C. Notify the Owner when Work has reached Final Completion.
- D. Comply with the Owner's instructions for completing items of Work found incomplete in the Engineer's final inspection.
- E. Comply with Section 01770, Project Closeout.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. All vehicles on the property or easement must be operational.

3.02 UTILITIES

- A. The Contractor shall coordinate the activities of all utility companies with equipment in the construction area with the Contractor's and Subcontractor's Work.

3.03 CUTTING AND PATCHING

- A. No cutting and patching of new Work will be accepted. All Work must be new and continuous in its final form.

END OF SECTION

SECTION 01320
PROGRESS SCHEDULE

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. All work of this Contract shall be scheduled and monitored by the Contractor using the Critical Path Method (CPM) and shall use the Precedence Diagram Method (PDM) of scheduling. The Contractor shall prepare all schedules and all monthly updates described in this Section. The Contractor will prepare revisions of the schedule to reflect changes in the Contractor's plan of performance or changes in the Work and submit these revisions to the Engineer for acceptance. The Engineer's acceptance of the scheduling documents is to ensure that all CPM Scheduling documents prepared by the Contractor are in conformance with the Contract Documents and Specifications described herein. This acceptance will not impose on the Engineer or Owner the responsibility for the schedule or for the sequencing, scheduling, or progress of the Work, nor will the acceptance interfere with or relieve the Contractor of full responsibility for the schedule and the means, methods, procedures, and sequence of construction.
- B. The Contractor shall use the latest version of Primavera Scheduling software, or an approved equal, for all CPM Scheduling applications.
- C. The Engineer or Owner may retain the professional services of a CPM Scheduling Consultant to assist in the review and acceptance of the CPM Scheduling documents prepared by the Contractor. Therefore, any reference to the Engineer or Owner within this Section may also indicate the involvement of the Engineer's or Owner's CPM Scheduling Consultant.
- D. The Contractor shall prepare and maintain a detailed progress schedule throughout the construction of the Project. The schedule shall be the Contractor's working schedule and be used to plan, organize, and execute the Work, record and report actual performance and progress, and show how the Contractor plans to complete the Work. The schedule will be in the form of an activity-oriented network diagram (CPM).
- E. When the Contractor prepares the CPM Schedule and the schedule is accepted by the Engineer, it shall become part of the Contract Documents and will be used by Contractor and Engineer to monitor the progress of the Project. The CPM Schedule may be revised to show changes in the Contractor's method or manner of performance; delays, or authorized changes in the Work. All changes to the schedule will be made in accordance with Article 1.07 of this Section.

- F. The Contractor acknowledges that free float belongs to the Owner.

1.02 PRELIMINARY 90-DAY CPM SCHEDULE

- A. The Contractor shall develop a 90-Day CPM Schedule within 10 days after the date indicated in the Notice to Proceed. This schedule shall be a computerized CPM Schedule showing only the early start, early finish of each work activity. The 90-Day Schedule shall contain work activities over the first 90 days, and the estimated durations for each work activity shall be 15 workdays or less. The balance of the job shall be shown in summary log. The 90-Day Schedule shall include but not be limited to site work, hazardous material removal, demolition, key procurement activities (i.e. submissions, approvals, fabrication, and delivery), equipment, mechanical, electrical, and plumbing coordination and any other work that will occur during the first 90 days. This 90-Day Schedule shall become part of the Detailed CPM Schedule.

1.03 DEFINITIONS

The following terms used in this Section shall have the following meanings:

- A. *Activity.* A fundamental unit of work in a CPM Schedule establishing the time and resources required for performing or furnishing a part of the Work or a requisite step. Each Activity has defined geographical boundaries, time duration in days, and a detailed estimate of resources required to construct the task. Each activity is assigned a unique description, activity number, activity code, and a dollar value.
- B. *Record Schedule.* The Record Schedule will have actual start dates and actual finish dates for all work Activities and Milestones necessary to complete the Work.
- C. *Baseline Schedule.* The Engineer-accepted Proposed Baseline Schedule. The Baseline Schedule is the Contractor's plan which has been approved by the Engineer for completion of the Work in compliance with the Milestones listed in the Contract Documents and within the Contract Time. The Baseline Schedule may be revised only by the Engineer's approval of a Contractor-produced adjusted Baseline Schedule. The Baseline Schedule for the Work is the sole basis for (a) the monitoring of the Contractor's progress against Milestones and the Contract Time; (b) calculating Total Float or Contract Float; and (c) the evaluation and reconciliation of extensions in Contract Time, if any. The first Baseline Schedule shall be designated by all parties as the Baseline Schedule, Rev. 0. When Baseline Schedules are adjusted by the Contractor and approved by the Engineer, they shall be designated as Baseline Schedule, Rev. 1, 2, 3, etc. (as appropriate) and shall replace the previously approved Baseline Schedule.

- D. *Contract Float.* Workdays between the Contractor's expected date for early completion of the Work, or specified part, and the corresponding Contract Time.
- E. *CPM Network.* The structure of the computerized schedule. The CPM Network accounts for the entire Work and defines the construction logic in terms of all of the Activities with their logical dependencies.
- F. *Critical Path.* A series of Activities linked by dependencies that determine the shortest possible time to complete the Work.
- G. *Early Dates.* The early start dates and early finish dates, i.e., the dates each Activity will start and finish if each is started at the earliest end of the range of dates that the CPM indicates the Activities can be performed.
- H. *Excusable Delay.* An unforeseeable delay, beyond the control of the Contractor, experienced due to no fault or negligence by the Contractor, its subcontractors, or suppliers.
- I. *Free Float.* The amount of time that any activity can be delayed without adversely affecting the early start of the following activity.
- J. *Fragnet.* A predefined or individual segment of a network which represents a specified sequence of the Work. Fragnets shall be submitted which include all Activities, required resources, and costs and shall be submitted to the Engineer for approval of all Change Orders before their incorporation into the Baseline Schedule by the Contractor. A Fragnet shall be submitted before approval of any proposed logic changes. Fragnets are banded Activities representing a revised portion of the Baseline Schedule and shall be logically connected and constrained by previously existing predecessor and successor Activities, as applicable.
- K. *Late Dates.* The late start dates and the late finish dates; i.e., the dates each Activity will start and finish if each is started at the latest end of the range of dates that the CPM Network indicates the Activities can be performed and still achieve the Milestones and Contract Time.
- L. *Milestone.* A point of progress designated for the purpose of establishing start or finish times for a key aspect of the Work.
- M. *Predecessor Activity.* An Activity which precedes another Activity (to which it is logically tied) in the CPM Network.
- N. *Preliminary Schedule.* The Contractor's Baseline Schedule for the first 180 days of the Contract.

- O. *Proposed Baseline Schedule.* The Proposed Baseline Schedule shall represent the Contractor's plan for completion of the Work in compliance with Milestones listed in the Contract Documents and within the Contract Time. It represents the Contractor's first complete planned schedule submitted for review and approval by the Engineer. The Proposed Baseline Schedule shall take into account all foreseeable activities to be accomplished by any separate contractors, utility owners, or the Owner's operations. The Proposed Baseline Schedule shall anticipate all necessary manpower and resources to accomplish activities within the durations set forth in the Proposed Baseline Schedule. The Proposed Baseline Schedule shall address and indicate all submittals required by the Contract and indicate the times allowed for review, resubmittal, and approval of submittals. Upon approval by the Engineer, the first Proposed Baseline Schedule shall become the Baseline Schedule, Rev. 0.
- P. *Resource Loading.* The allocation of work force and equipment necessary for the completion of an Activity as scheduled.
- Q. *Six-Week Schedule.* A detailed progress schedule taken from the Working Schedule, which discloses the plan for the next 6 weeks' Work and the actual schedule for the previous 6 weeks' Work.
- R. *Successor Activity.* An Activity which follows another Activity (to which it is logically tied) in the CPM Network.
- S. *Total Float.* The number of workdays by which a part of the Work in the Baseline Schedule or Revised Baseline Schedule may be delayed from its Early Dates without necessarily extending the Contract Time.
- T. *Working Schedule.* When the Proposed Baseline Schedule (or a subsequent adjustment is made by the Contractor to the Baseline Schedule) is accepted by the Engineer and becomes the Baseline Schedule, Rev. 0, 1, 2, 3, etc., it shall be duplicated and become the Working Schedule. The Contractor shall update the Working Schedule monthly with a Data Date designated by the Engineer. The Working Schedule shall be updated monthly to reflect actual progress only and shall be the basis for determining monthly progress payments and the Contractor's performance in relation to the most recently approved Baseline Schedule. The Final Working Schedule shall be the Record Schedule.

1.04 DETAILED CPM SCHEDULE

- A. The Detailed Network Diagram shall provide sufficient detail and clarity of form and technique so that the Contractor can plan, schedule, and control his work properly and the Engineer can readily monitor and follow the progress for all

portions of the Work. The Detailed Network Diagram shall comply with the Contract Times of the Agreement and various limits imposed by the Contract Documents, including required sequencing of portions of the Work described in Section 01100, Summary of Work. The degree of detail shall be to the satisfaction of the Engineer, but the following factors shall have a bearing on the required depth of activity detail:

1. The structural breakdown of the Project.
 2. Project Phasing and/or Milestones.
 3. The type of work to be performed and the labor trades involved.
 4. All purchase, manufacture, and delivery activities for all major materials and equipment.
 5. Maintenance of Facilities in Operation.
 6. Submittal and approval of shop drawings and material samples.
 7. Plans for all subcontract work.
 8. Crew flows and sizes.
 9. Assignment of responsibility for performing all activities.
 10. Access and availability to work areas.
 11. Identification of interfaces and dependencies with preceding, concurrent, and follow-on subcontractors and contractors.
 12. Testing and start-up of systems.
 13. Planning for phased takeover by the Owner.
- B. Activities shown shall be in workdays and shall have a maximum duration of 5 days, except in the case of non-construction activities such as procurement of materials and delivery of equipment. All durations shall be the result of definitive manpower and resource planning by the Contractor.
- C. The Detailed Network Diagram shall be prepared using a computer plotter.

1.05 COMPUTERIZATION OF THE DETAILED CPM SCHEDULE

- A. The mathematical analysis of the Detailed Network Diagram shall be made by computer, and a tabulation for each activity shall include the following:
1. Unique event numbers.
 2. Activity descriptions.
 3. Durations in workdays for each activity.
 4. Earliest start date (by calendar date).
 5. Earliest finish date (by calendar date).
 6. Latest start day (by calendar date).
 7. Latest finish day (by calendar date).
 8. Slack or total float in workdays.
 9. Percentage of activity completed.

- B. The following computer outputs shall be prepared as part of the initial schedule submission and each update thereafter:
 - 1. Activity file sort.
 - 2. Eight-week "Look Ahead" detailed bar chart.
 - 3. Summary bar chart.
 - 4. Additional computer sorts to the schedule as required by the Owner.

1.06 COMPLETION REQUIREMENT

- A. The 90-Day Schedule shall be completed within 10 calendar days after the date indicated in the Notice to Proceed.
- B. The Detailed CPM Schedule shall be prepared within 30 calendar days after the date indicated in the Notice to Proceed.
- C. If the Contractor fails to provide the required CPM scheduling documents to the Engineer within the time prescribed and/or revisions of the scheduling documents within the required time, the Contractor shall be in default of the Contract requirements and the Engineer may withhold approval of progress payments until such time as the Contractor submits the required information.
- D. Notwithstanding the implementation of the Progress Schedule, it shall be the sole responsibility of the Contractor to complete the Work within the time of completion required by the Contract.

1.07 UPDATINGS

- A. The 90-Day CPM Schedule shall be updated monthly until the Engineer accepts the Detailed CPM Schedule.
- B. The first update of the Detailed CPM Schedule shall take place 60 calendar days after the Notice to Proceed with subsequent updates performed monthly at the jobsite for the duration of the contract.
- C. The Contractor shall update the Detailed CPM Schedule monthly, using a cutoff/data date agreeable to the Contractor and the Engineer. This cutoff/data date shall be consistent from month to month. The update information shall include but not be limited to the following:
 - 1. Actual start dates.
 - 2. Actual completion dates.

3. Activity percent completion.
 4. Remaining duration of activities in progress.
- D. The Contractor shall update all the scheduling documents and submit these documents to the Engineer within 5 workdays of the cutoff/data date.
- E. The Contractor shall submit seven copies of the CPM schedule and one electronic copy of the CPM schedule on a CD.
- F. As part of the normal CPM update, the Contractor shall prepare a written narrative report highlighting the progress during the past update period. The written narrative report shall include but not be limited to the following information:
1. Summary of work accomplished during the past update period.
 2. Milestone Comparison Chart.
 3. Analysis of Critical Path(s).
 4. Analysis of Secondary Critical Path(s). Secondary Critical Path is defined as float within 10 workdays of Critical Path.
 5. Analysis of time lost/gained during the update period.
 6. Identification of problem areas.
 7. Identification of change orders and/or any delay that is impacting/delaying the project schedule.
 8. Solutions to current problems.
- G. The Contractor is required to attend and participate in a CPM update review meeting with the Engineer. Attendance is mandatory. This meeting will take place 7 workdays after the cutoff/data date, or during progress meetings as decided by the Owner and the Engineer. The purpose of this meeting is to review past progress, current status, problem areas, and future progress. The Contractor's narrative report will be reviewed at this meeting.
- H. All schedule update information outlined above will be reviewed and accepted by the Engineer.

1.08 RECOVERY SCHEDULE

- A. If the Contractor fails to achieve the planned progress, as indicated in the approved/updated detailed CPM Schedule, and the Contractor's lack of progress delays the Critical path and/or an intermediate milestone by more than 10 workdays (monthly or cumulatively), the Contractor shall submit to the Engineer for review and acceptance a proposed Recovery Schedule indicating how the Contractor will recover the time lost.

- B. If the Contractor fails to submit a Recovery Schedule and/or fails to cooperate with the Engineer in the Recovery Schedule process, the Owner can immediately order the Contractor to accelerate completion of the late activities which have been delayed by whatever means necessary without any additional costs to the Owner. The Owner can withhold future progress payments until the Contractor's progress is in compliance with the Contract Schedule or until the Owner has approved by Change Order proposed adjustments to the contract milestones, extension of contract time, or modification of the Contract Schedule.

1.09 CHANGE ORDERS, DELAYS, AND EXTENSIONS OF TIME

- A. When proposed Change Orders, approved Change Orders, or any delays are experienced and the Contractor believes the Change Order/Delay is causing delay to an intermediate contract milestone or to the project completion, the Contractor shall submit to the Engineer a Time Impact Analysis, explaining the influence of each Change Order/Delay on the current updated Contract CPM Schedule. The Contractor shall prepare a "Fragnet" (network analysis) of each Change Order/Delay on the current updated Contract CPM Schedule. The analysis will demonstrate the time impact based on the date the change is given to the Contractor, the status of construction at that point in time, and the event time computation of all affected activities. The event times used in the analysis shall be those included in the latest updated copy of the detailed CPM Schedule closest to the time of delay or as accepted by the Engineer.
- B. For the Contractor to be entitled to an extension of Contract time to an intermediate contract milestone and/or to the project completion, the Time Impact Analysis must show that the Change Order/Delay impacts the intermediate contractual milestone date and/or the updated CPM Schedule's Critical Path, thereby directly impacting the project completion date. Change Orders/Delays that do not impact intermediate contractual milestones and/or the critical path and impact activities with float will not be considered as a delay to the project and no extension of time will be granted.
- C. The Contractor must submit a written analysis within 7 calendar days after a delay occurs or authorized change in work is given to the Contractor. If the Contractor does not submit a written analysis for specific Change Order(s) or Delay(s) within the specified period of time, then it is mutually agreed that the particular Change Order of Delay has no time impact on the Project CPM Schedule and no time extension is required.
- D. The Engineer will accept or reject each Time Impact Analysis within 14 calendar days after submittal unless subsequent meetings and negotiations are necessary. Upon the Engineer's acceptance, the Contractor will incorporate fragnets

illustrating the influence of the Change Orders and Delays into the Detailed CPM Schedule during the first update after agreement is reached.

1.10 PROGRESS MEETINGS

- A. The Owner will conduct progress meetings at least once per month to discuss the progress of the Work. The Contractor and any subcontractors the Contractor deems necessary shall attend these meetings. At the Owner's discretion, the frequency of the meetings may be increased if the progress of the Work is not satisfactory or if coordination problems should arise.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01325
CONSTRUCTION PHOTOS AND VIDEOS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall have digital photos and videos made of the Work from views and at such times as directed by the Owner. The photos and videos shall represent a visual history of the Project, from Contract Award through Contract Completion.
- B. The requirements of this Section constitute a minimum requirement, but the Owner may request additional photos or videos at their discretion for complete documentation of the work performed.
- C. The Contractor shall also use additional digital photography as necessary to record and facilitate resolution of on-site issues through the transmission of photos by e-mail or other electronic submittal forum from the site to the Owner's offices.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 DIGITAL PHOTO REQUIREMENTS

- A. Digital photos shall be in color. Provide one copy of each digital photo via electronic submittal to the Owner.
- B. Provide photos taken of each of the major items during construction.
- C. View and Quantities Required: A minimum of 30 photos per month clearly showing project status and key elements of construction.
- D. Deliver digital photos to the Owner with every pay request.
- E. Photos shall be from locations to illustrate the condition of construction and the state of progress adequately.
- F. The Contractor shall provide before and after photos of each portion of the site. The below-ground facilities shall include before, during, and after photos of all equipment, walls, floor, piping, utility crossings, and supports. At major locations,

photos shall include before, during, and after prints all submitted electronically in ascending date order to show the Work as it progresses.

3.02 DIGITAL VIDEO RECORDING REQUIREMENTS

- A. The Contractor shall provide to the Owner color digital video of each major facility and structures and facilities adjacent to the construction before construction starts, during construction, and when construction has been completed. Videos shall include the entire site and areas of adjacent properties within 100 feet of the limit of the Work. Special effort shall be made to show the existing improvements and features affected by the work.
- B. Approximately every 2 weeks, 5 minutes of digital video shall be submitted to the Owner showing Work completed, Work in progress, Work started, and problems that occurred since the last digital video was made.
- C. The Contractor shall maintain the master video of each portion of the facility on the Work site. The master video shall be a running chronicle of construction progress. The Contractor shall combine the bi-weekly video onto the master video.
- D. The bi-weekly video shall be submitted to the Owner within 10 working days after recording and the bi-weekly videos may include multiple locations.
- E. All videos shall be recorded with character generator operating with date, time, and location on screen. During video recording, the Contractor shall narrate the video, explaining what is being shown, problems that have occurred, and what is being done.
- F. All videos shall be delivered to the Owner before Final Completion is submitted.

3.03 PHOTO AND VIDEO INFORMATION

- A. Each digital photo and video file shall be digitally tagged with the following data or the file name shall be referenced from a log that contains the following information for each photo and video:
 - 1. Digital photo or video digital file name/number.
 - 2. Project name.
 - 3. Contract number.
 - 4. Name of Contractor.
 - 5. Date photo or video was taken.
 - 6. Photographer name.
 - 7. Description of location, view, and construction items the photo displays.

- B. All photos and videos shall be clear, unobstructed, sharply focused, and free of distortion.

END OF SECTION

SECTION 01330
SUBMITTALS AND ACCEPTANCE

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall submit documentation that describes the Work to be performed under the Contract as required in this Section. This documentation will be for the Owner's review and use. The documentation furnished by the Contractor must enable the Owner to verify the Contractor's performance and compliance with Contract requirements. The documentation shall cover all services and deliverables required and secured by the Contract Documents.

1.02 SUBMITTALS

- A. General—The Contractor shall submit the following:
1. Project documentation: For the Owner's internal use and shall include all information that will be essential for the facility's operations, maintenance, training, and repair of equipment and facilities supplied by the Contractor. The Contractor shall submit all documentation necessary to ascertain compliance with technical/contractual provisions.
 2. Shop drawings: Drawings, schedules, diagrams, warranties, and other data prepared specifically for this Contract by the Contractor or through the Contractor by way of subcontractor, manufacturer, supplier, distributor, or other lower-tier contractor to illustrate a portion of the Work.
 3. Product data: Preprinted materials such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data, and other data to illustrate a portion of the Work, but not prepared exclusively for this Contract.
 4. Samples: Physical examples of products, materials, equipment, assemblies, or workmanship that are physically identical to portions of the Work, illustrating portions of work, or establishing standards for evaluating appearance of finished work or both.
 5. Installation Lists: All manufacturers or equipment suppliers who propose to furnish equipment or products shall submit an installation list to the Owner with the required Shop Drawings. The installation list shall include all installations where identical equipment has been installed and has been operating for at least 1 year.
 6. Administrative submittals: Data presented for reviews and acceptance to ensure that administrative requirements of the project are adequately met

but not to ensure directly that work is in accordance with the design concept and in compliance with Contract Documents.

B. Coordination

1. Submittals and schedules shall be checked and coordinated with the Work of all trades involved before they are submitted and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.

C. Start of Work

1. Within 30 calendar days after the notice to proceed for the project, the Contractor shall submit to the Owner a Contract Data Requirements List that defines all data to be submitted under this Contract. Included in this list shall be the names of all proposed manufacturers furnishing specified items to the extent known. Review of this list by the Owner shall in no way relieve the Contractor from providing materials, equipment, systems, and structures fully in accordance with the Specifications.

D. General Requirements

1. The Contractor shall prepare, assemble, and submit all documents as described herein. The Contractor shall submit certification that the documents prepared conform to the Contract requirements and will result in a complete and operable project. The Owner shall review the Contractor's documents for conformance to the Contract requirements and may comment on the documents.
2. The Contractor shall approve and certify all project documents. The Contractor's failure to certify the documents or failure to provide documents that demonstrate conformance to the Contract requirements are grounds for rejection. The Contractor shall be responsible for and bear all costs for proceeding with any part of the Work that fails to meet the Contract requirements.
3. Submittal of documents for the Owner's review shall in no way relieve the Contractor of full responsibility for providing a complete, safe, reliable, operating, and coordinated Work (system/equipment/facilities) that comply with these Contract documents.

E. Requests for Substitution

1. All requests for substitution shall clearly and specifically indicate any and all differences or omissions between the products specified as basis of

design and the product proposed for substitution. Data shall include but not be limited to differences as follows for both the specified and substituted products:

- a. Principle of operation.
- b. Materials of construction or finishes.
- c. Thickness or gauge of materials.
- d. Weight of item.
- e. Deleted features or items.
- f. Added features or items.
- g. Changes in other work caused by the substitution.
- h. If the substitution contains differences or omissions not specifically called to the attention of the Owner, the Owner reserves the right to require equal or similar features to be added to the substituted product at the Contractor's expense.

F. Submittal Requirements and Procedures

1. Drawing Formats and Requirements

- a. Drawings—All Drawings and Shop Drawings shall be prepared in 11-x-17-inch or larger format and shall have a blank area of 3 x 4 inches in the lower right hand corner above the title block. Each Drawing shall indicate the following information in the title block:
 - (1) Title and Drawing Number.
 - (2) Date of Drawing or Revision.
 - (3) Name of Building or Facility.
 - (4) Name of Contractor or subcontractor.
 - (5) Drawing contents and locations.
 - (6) Specification Section and Subsection Numbers.
- b. All drawings shall be submitted via electronic transmittal in PDF format or other formats as may be required by the Owner for review.

2. Product Data

- a. Requirements—Product data shall include all catalog cuts, performance surveys, test reports, equipment lists, material lists, diagrams, pictures, and descriptive material. All product data shall be submitted in either 8.5-x-11-inch or 11-x-17-inch size formats. The submittal information shall show the standard and optional

product features, as well as all performance data and specifications. The manufacturer's recommendation for special tools shall be supplied.

- b. All product data shall be submitted via electronic transmittal in PDF format or other formats as may be required by the Owner for review.

3. Samples—The Contractor shall furnish samples required by the Contract Documents, for review by the Owner. Samples shall be delivered to the Owner as specified or directed.

- a. All samples shall be of sufficient size and quantity to clearly illustrate the functional characteristics of the product, with integrally related parts and attachment devices. The samples shall show the full range of color, texture, and pattern.
- b. The Contractor shall submit a minimum of four samples of items submitted. All samples shall be marked with required submittal information, as specified above.

4. Color, Texture, and Pattern Charts

- a. The Contractor shall submit color, texture, or pattern charts of all required finishes.
- b. A minimum of four charts of each item shall be submitted.

5. Submittal Information Requirements

- a. When used in the Contract Documents, the term "Submittal Information" shall be considered to mean the following information at a minimum:
 - (1) Contract Name.
 - (2) Contract Number.
 - (3) Location within Facility.
 - (4) Date Submitted.
- b. Drawings—The Contractor shall mark submittal information on all Drawings in the left half of the 3-x-4-inch block as described above.
- c. Product Data and Manufacturer's Literature—The Contractor shall mark all product data and manufacturer's literature with submittal information and note which item is being furnished. The Contractor shall mark the option and supplies to be furnished with

the item. Do not submit the manufacturer's general catalog: submit only items being installed or delivered. When manuals are being submitted, the Contractor shall mark submittal information on both the cover and title page. If manuals being submitted contain more than just one item, each item must be marked, and only Contract name and number is to be marked on the cover and title page.

6. Training, Operation and Maintenance Manuals

- a. The Contractor shall submit to the Owner for review and acceptance of manufacturer's installation, operations, lubrication, maintenance, and training manuals for all equipment installed or delivered under this Contract. All manuals shall have submittal information marked on the front cover, title page, and three places inside the manual. If the manual being submitted is for different components, mark the front cover and title page only. Each component section must be marked with the Specification Section and subsection numbers.
- b. Operations and Maintenance Manual shall conform to requirements defined in Section 01830, Operations and Maintenance Manuals.

G. Required Submittals

1. Structural Submittals

- a. This Section specifies general procedural requirements for contractual submittals for the following structural schedules, product data, samples, and manufacturer's certificates.
 - (1) Product Data—The Contractor shall provide product data for all architectural and structural items, options, and other data and provide supplemental manufacturer's standard data for information unique to the Work and installation. The submittals shall reflect all items delivered or installed under this Contract.
 - (2) Samples—The Contractor shall provide all samples required under this Specification including color charts and product samples.
 - (3) Material, equipment, and installation and demolition Specifications.

2. Mechanical System Submittals

- a. This Section specifies general procedural requirements for mechanical schedules, performance data, control diagrams, and other submittal data.
- b. The Contractor shall submit the following:
 - (1) Performance Data.
 - (2) Finished Data—Complete surface preparation and finished data for all mechanical and electrical unit/subsystems shall be provided, including a complete list of cleaning instructions.
 - (3) Factory Testing—Detailed description of factory testing procedures, reporting procedures and criteria for test passing or failing shall be provided for all mechanical and electrical units/subsystems. Testing shall comply with the General Requirements and Technical Requirements Sections.
 - (4) Site (Field) Testing and Acceptance—Detailed description of site testing and acceptance tests including descriptions of procedures, testing equipment, reporting procedures, and criteria for passing or failing tests shall be provided for all mechanical and electrical units/subsystems. Testing shall comply with General Requirements and Technical Requirements.
 - (5) Factory Test Report—After fabrication and testing, the Contractor shall submit the results of tests. No shipment of any mechanical and electrical unit/subsystem shall be allowed without the written certification from the Contractor that the equipment conforms to the Contract requirements.
 - (6) Site Test and Acceptance Report—Site test and acceptance reports shall be submitted to the Owner.
 - (7) Operations and Maintenance Manuals—The Contractor shall furnish manuals for all mechanical and electrical

equipment specified under this Contract. Each manual shall include the following at a minimum:

- (a) Description of equipment.
- (b) Record shop drawing.
- (c) Operation and maintenance instructions.
- (d) Part lists.
- (e) Equipment ratings.
- (f) Valve list.
- (g) Lubrication instructions.

H. Submittal Review

1. The Owner's review of the Contractor's documents shall not relieve the Contractor of the responsibility for meeting all of the requirements of the Contract nor of the responsibility for correcting the documents furnished. The Contractor shall have no claim for additional cost or extension in time because of delays due to revisions of the documents that may be necessary for ensuring compliance with the Contract.
2. The Owner will review a submittal or re-submittal once, after which the cost of review shall be borne by the Contractor. The cost of Engineering shall be equal to the Engineer's full cost.
3. No partial submittals will be reviewed. A submittal or re-submittal not complete will be returned to the Contractor for completing and re-submittal.
4. Documents submitted by the Contractor for approval by the Owner will be returned bearing a project-specific stamp bearing the dated signature of the reviewer and one of four boxes checked:
 - a. NO EXCEPTIONS NOTED—This indicates that the submittal appears to comply with the requirements of the performance specifications and that the Work may proceed.
 - b. MAKE CORRECTIONS NOTED—This indicates that the reviewer has added a minor correction to the submission and that the Work (modified in accordance with the correction comment) may proceed. The Contractor shall accept the responsibility of the modified document and resulting Work with no additional compensation.
 - c. AMEND AND RESUBMIT—This indicates that the submittal will require Contractor modifications based on the reviewer's comments that accompanied the returned submittal. The Contractor will be cautioned that work may not proceed under this review status.

- d. REJECTED—This indicates that the submittal is not in conformance with the requirements of the performance Specifications and cannot be modified to gain compliance. A new submittal will be required in the instance of a “reject” status and the Contractor will be cautioned that work may not proceed under this condition.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 SUBMITTAL PROCEDURES

- A. Before submitting documents for the Owner’s review, the Contractor shall review the documentation for conformance to the Contract requirements. Submittals shall be complete and comprise a logical division of the Contract Work.
- B. All documentation submitted by the Contractor to the Owner shall be accompanied by a letter of transmittal and shall be submitted in a sequence that allows the Owner to have all of the information necessary for checking and accepting a particular document at the time of submittal.
- C. Each document shall be identified by a document number, Contract number, Contract name, location, Specification Section, subsection numbers, and submittal date. Where a manual/drawing is revised to reflect a change in design or a change for any other reason, each such revision shall be shown by a revision number, date, and subject in a revision block. Indication of official approval by the Contractor's Project Manager shall also be included. To permit rapid location of the revision, additional notation shall be made in the manual opposite the line or area where the change was made and identified by the corresponding revision number.

3.02 DOCUMENTATION CONTROL AND SUBMITTAL SEQUENCING

- A. The Contract Data Requirements List shall be updated and resubmitted to the Owner monthly, throughout the duration of the Contract. This list shall identify the Contractor’s submittal number, proposed and actual submittal date, Contract Specification Section Number, Paragraph, Item of the Work, and type of document.
- B. The Contractor shall work with the Owner to provide a regulated flow of submittals that allows the Owner to review the submittals in the defined time frame without undue delays. Monthly the Contractor shall provide the Owner a schedule of the approximate quantities and delivery dates for all submittals due for the next 120 days.

3.03 FINAL RECORD DRAWINGS

- A. The Contractor shall submit the Final Record Drawing Package to the Owner for review at Substantial Completion. The Contractor shall be provided with CADD files of the Contract Drawings in AutoCAD 2018. Final Record Drawings shall also be prepared in AutoCAD 2018 and shall be provided electronically in AutoCAD. The Contractor may request to use a different version, but it must be approved by the Owner.
- B. Final Record Drawings shall also be provided in hard copy format, three copies, printed at the full size of the original Contract Drawings.
- C. Record Drawings shall be in accordance with Section 01785, Record Documents.

3.04 REQUIREMENTS FOR SUBMITTAL

- A. Additional documents, drawings, interface data, and other pertinent project submittal data are listed in specific sections of this Contract.

3.05 RECORD PRINTS

- A. The Contractor shall submit one set of all record prints before final completion. The record print or project records shall include submittals, catalog cuts, drawings, calculations, test reports, manufacturer's data, maintenance manuals, installation instructions, and operating manuals. All "record prints" shall be delivered to the Owner in three-ring binders with dividers and shall be placed in order by Specification Section.

END OF SECTION

SECTION 01350
ENVIRONMENTAL PROTECTION PROCEDURES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Work covered by this Section consists of furnishing all labor, materials, and equipment and performing all work required for the prevention of environmental pollution in conformance with applicable laws and regulations during and as the result of construction operations under this Contract. In this Section *environmental pollution* is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare, unfavorably alter ecological balances of importance to human life, affect other species of importance to man, or degrade the utility of the environment for aesthetic and/or recreational purposes.
- B. The control of environmental pollution requires considering air, water, and land and involves managing noise and solid waste as well as other pollutants.
- C. The Contractor shall schedule and conduct all work in a manner that will minimize the erosion of soils in the area of the Work. The Contractor shall provide erosion-control measures such as diversion channels, sedimentation or filtration systems, berms, staked silt fence, seeding, mulching or other special surface treatments that are required to prevent silting and muddying of streams, rivers, impoundments, lakes, etc. All erosion-control measures shall be in place in an area before any construction activity in that area. Specific requirements for erosion and sedimentation controls are specified in Section 02370, Erosion and Sedimentation Control.
- D. This Section is intended to ensure that construction is achieved with a minimum of disturbance to the existing ecological balance between a water resource and its surroundings. These are general guidelines. It is the Contractor's responsibility to determine the specific construction techniques to meet these guidelines.
- E. All phases of sedimentation and erosion control shall comply with and be subject to the laws of the State of Florida and the Project Environmental Resource Permit.

1.02 SUBMITTALS

- A. Contractor shall prepare a Stormwater Pollution and Prevention Plan (SWPPP) and a sedimentation and erosion-control drawing meeting the Florida Department of Environmental Protection (FDEP) requirements. The drawing shall clearly

indicate the construction entrance, delivery and storage area, in-stream turbidity controls and proposed locations for soil stockpiles. The Contractor shall furnish two copies to the Engineer and two copies to the Owner.

- B. The Contractor shall provide the Engineer with two copies of documentation that the Contractor filed with FDEP a “NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES” in accordance with Rule 62-621.300(4), FAC.
- C. The Contractor shall submit two copies of approved Spill Prevention Control and Countermeasures (SPCC) plans to the Owner and the Engineer.
- D. If the Contractor proposes to construct temporary roads or embankments and excavations for work areas, the Contractor shall submit the following to the Owner for approval at least 10 days before the scheduled start of such temporary work:
 - 1. A layout of all temporary roads, excavations, embankments, and drainage to be constructed within the work area.
 - 2. Details of temporary road construction.
 - 3. Drawings and cross-sections of proposed embankments and their foundations, including a description of proposed materials.
 - 4. Drawings showing the proposed restoration of the area. The proposed removal of any trees and shrubs must be indicated. The Contractor is responsible for obtaining necessary tree clearing permits with the local municipalities.
 - 5. Locations of guard posts or barriers required to control vehicular traffic and protect trees and shrubs to be maintained undamaged.
 - 6. The drawings shall provide for the obliteration of construction scars as such and shall provide for a natural appearing and functioning final condition of the area.
 - 7. Modification of the Contractor’s approved drawings shall be made only with the written approval of the Owner. No unauthorized road construction, excavation, or embankment construction including disposal areas will be permitted.
 - 8. The Contractor shall mark/flag the proposed temporary work in the field for review by the Owner prior to beginning such work.

1.03 WORK SEQUENCE

- A. Before beginning the Work, the Contractor shall meet with the Owner to establish agreed-upon compliance with these provisions and administration of the environmental pollution control program.

- B. The Contractor shall remove temporary environmental control features when approved by the Engineer and incorporate permanent control features into the project at the earliest practicable time.

1.04 REFERENCE STANDARDS

- A. Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.
- B. The Contractor shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 EROSION CONTROL

- A. The Contractor shall provide positive means of erosion control such as shallow ditches around construction to carry off surface water. Erosion-control measures, such as temporary vegetation, siltation basins, mulch check dams, mulching, jute netting, and other equivalent techniques shall be used as appropriate. Surface water shall be prevented from flowing into excavated areas. At the completion of the Work, erosion and sedimentation controls shall be removed and the ground surface restored to its original condition.

3.02 PROTECTION OF STREAMS AND SURFACE WATERS

- A. Care shall be taken to prevent or reduce to a minimum any damage to any stream or surface water from pollution by debris, sediment, or other material or from the manipulation of equipment and/or materials in or near such streams. Water that has been used for washing or processing or that contains oils or sediments that will reduce the quality of the water in the stream shall not be directly returned to the stream. Such waters shall be diverted through a settling basin or filter before being directed into streams or surface waters.
- B. All preventative measures shall be taken to avoid spillage of petroleum products and other pollutants. In the event of any spillage, prompt remedial action shall be taken in accordance with a contingency action plan approved by the FDEP. The Contractor shall submit two copies of approved contingency plans to the Engineer.

3.03 PROTECTION OF LAND RESOURCES

- A. After completion of construction, the Contractor shall restore land resources within the project boundaries and outside the limits of permanent work to a condition that will appear to be natural and not detract from the appearance of the project. All construction activities shall be confined to areas shown on the Drawings.
- B. The Contractor shall not deface, injure, or destroy trees or shrubs nor remove or cut them without prior approval. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the Engineer. Where such special emergency use is permitted, the Contractor shall first wrap the trunk with a sufficient thickness of burlap or rags over which softwood cleats shall be tied before any rope, cable, or wire is placed. The Contractor shall in any event be responsible for any damage resulting from such use.
- C. The Contractor shall protect trees that may possibly be defaced, bruised, injured, or otherwise damaged by the construction equipment, dumping, or other operations by placing boards, planks, or poles around them. Monuments and markers shall be protected similarly.
- D. Any trees or other landscape features scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to their original condition. The Owner will decide the method of restoration to be used and whether damaged trees shall be treated and healed or removed and disposed of.
 - 1. All scars made on trees by equipment, construction operations, or by the removal of limbs larger than 1 inch in diameter shall be coated as soon as possible with an approved tree wound dressing. All trimming or pruning shall be performed in an approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted.
 - 2. Climbing ropes shall be used where necessary for safety. Trees that are to remain, either within or outside established clearing limits, that are subsequently damaged by the Contractor and, in the opinion of the Owner, are beyond saving shall be immediately removed and replaced.
- E. The Contractor's storage and other construction buildings required temporarily in the performance of the work shall be located in cleared portions of the job site or areas to be cleared as shown on the Drawings and approved by the Owner and shall not be within wetlands or floodplains. Preserving the landscape shall be required in the selection of all sites and in the construction of buildings. Drawings showing storage facilities shall be submitted for the Owner's approval.

- F. The Contractor shall remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess waste materials, or any other vestiges of construction as directed by the Engineer. Excavating, filling, and plowing of roadways are expected to be required to restore the area to near natural conditions which will permit the growth of vegetation the roadway areas. The disturbed areas shall be prepared and seeded as approved by the Owner.
- G. All debris and excess material will be disposed of outside wetland or floodplain areas in an environmentally sound manner.

3.04 PROTECTION OF AIR QUALITY

- A. Burning—Burning will not be permitted at the project site for the disposal of refuse and debris.
- B. Dust Control—The Contractor shall maintain all excavations, embankment, stockpiles, access roads, waste areas, borrow areas, and all other work areas within or outside the project boundaries free from dust which could cause the standards for air pollution to be exceeded and which would cause a hazard or nuisance to others.
- C. An approved method of stabilization consisting of sprinkling or other similar methods will be permitted to control dust. The use of petroleum products is prohibited. The use of chlorides is prohibited.
- D. To be approved, sprinkling must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor shall have sufficient competent equipment on the job to accomplish this. Dust control shall be performed as the Work proceeds and whenever a dust nuisance or hazard occurs, as determined by the Owner.

3.05 NOISE CONTROL

- A. The Contractor shall make every effort to minimize noises caused by the construction operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with Federal and State regulations.

3.06 MAINTENANCE OF POLLUTION-CONTROL FACILITIES DURING CONSTRUCTION

- A. During the life of this Contract, the Contractor shall maintain all facilities constructed for pollution control as long as the operations creating the particular

pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created.

3.07 PERMIT COMPLIANCE REQUIREMENTS

A. The Contractor shall comply with all conditions of permits and agreements obtained by the Owner or required to be obtained by the Contractor, including but not limited to:

1. City of Leesburg.
2. Lake County.
3. Florida Department of Environmental Protection.

END OF SECTION

SECTION 01355
SPECIAL PROVISIONS

PART 1 GENERAL

1.01 SPARE PARTS

- A. Where spare parts are specified in the Specification Sections, the Contractor shall furnish all spare parts recommended by the manufacturer or system supplier for 1 year of service. In addition, the Contractor shall furnish all spare parts itemized in each Section.
- B. The Contractor shall collect and store all spare parts in an area to be designated by the Owner and shall furnish the Owner with an inventory listing all spare parts, the equipment they are associated with, the name and address of the supplier, and the delivered cost of each item. Copies of actual invoices for each item shall be furnished with the inventory to substantiate the delivery cost.
- C. Spare parts shall be packed in cartons properly labeled with indelible markings with complete descriptive information, including manufacturer, part number, part name, and equipment for which the part is to be used and shall be properly treated for 1 year of storage.

1.02 HURRICANE PREPAREDNESS PLAN

- A. Within 30 calendar days of the date of Notice to Proceed, the Contractor shall submit a Hurricane Preparedness Plan to the Owner for approval. The Plan shall describe in detail the necessary measures that the Contractor will perform, at no additional costs to the Owner, in case of a hurricane warning. The Contractor shall revise the Plan as required by the Owner.

1.03 WEATHER PROTECTION

- A. In the event of inclement weather, the Contractor shall protect the Work and materials from damage or injury from the weather. If, in the opinion of the Owner, any portion of the Work or materials has been damaged by reason of failure on the part of the Contractor to protect the Work, such Work and materials shall be removed and replaced with new materials and Work to the satisfaction of the Owner.

1.04 PROVISIONS FOR CONTROL OF EROSION

- A. The Contractor shall take sufficient precautions during construction to minimize the run-off of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride, or other polluting materials harmful to humans, fish, or other life, into the wetlands and surface waters of the State. Control measures must be adequate to ensure that turbidity in the receiving water will not be increased more than 10 nephelometric turbidity units (NTU), or as otherwise required by the State or other controlling body, in water used for public water supply or fish unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 NTU unless otherwise permitted. Special precautions shall be taken in the use of construction equipment to prevent operations that promote erosion.

1.05 PROVISIONS FOR THE CONTROL OF DUST AND LITTER

- A. The Contractor shall take sufficient precautions during construction to minimize the amount of dust created. Wetting down the Site may be required or as directed by the Owner to prevent dust as a result of vehicular traffic. Control of blowing litter caused by any regrading by the Contractor shall be the responsibility of the Contractor.

1.06 ON-SITE STORAGE

- A. The Contractor should note that there may be special storage requirements and possible charges for noncompliance of on-site storage requirements for materials and equipment as specified in Section 01600, Materials and Equipment.

1.07 ELECTRICAL POWER AND TESTING EQUIPMENT

- A. The Contractor shall furnish electric power and all equipment and tools required for testing equipment. The cost of this electric power, equipment, and tools shall be included in the prices quoted in the Bid Form.

1.08 DAMAGE DUE TO HIGH WATER

- A. The Contractor will be responsible for all damage done to his work by heavy rains or floods and he shall take all reasonable precautions to provide against damages by building such temporary dikes, channels, or shoring to carry off stormwater as the nature of the work may require.

1.09 EMERGENCY PHONE NUMBERS AND ACCIDENT REPORTS

- A. Emergency phone numbers (fire, medical, police) shall be posted at the Contractor's phone and the phone's location be made known to all.
- B. Accidents shall be reported immediately to the Owner by phone.
- C. The Contractor shall document all accidents and shall submit to the Owner a fully detailed written report about the accident after each accident.

1.10 ITEMS SPECIFIED ON DRAWINGS

- A. Items of material, equipment, machinery, and the like may be specified on the Drawings and not in the Specifications. The Contractor shall provide such items in accordance with the Specification on the Drawings.

1.11 SALVAGE

- A. Any existing equipment or material, including but not limited to valves, pipes, fittings, couplings, etc., which is removed or replaced as a result of construction under this project may be designated as salvage by the Owner and, if so, shall be excavated, if necessary, and shall be cleaned and stored on or adjacent to the Site in a protected place specified by the Owner or loaded onto trucks provided by the Owner. Any equipment or material not worthy of salvaging, as directed by the Owner, shall be disposed of by the Contractor at a suitable location at the Contractor's expense.

1.12 WORKMANSHIP, MATERIAL, AND EQUIPMENT

- A. When a particular product or products are specified or called for, it is intended and shall be understood that the proposal tendered by the Contractor include those products in his bid. Should the Contractor desire to substitute a product or products equal to those specified, the Contractor shall furnish information as described in the Standard General Conditions. The alternate product or products submitted by the Contractor shall meet the requirements of the Specifications and shall, in all respects, be equal to the product or products specified by name in the Specifications.
- B. All apparatus, mechanisms, equipment, machinery, and manufactured articles for incorporation into the Work shall be the new and unused standard products of recognized reputable manufacturers.

1.13 RESPONSIBILITY OF CONTRACTOR

- A. The Contractor shall be responsible for the entire Work determined by the Drawings, Specifications, and Contract from the date of the starting of the Work until it is accepted as evidence of approval of the Completion Certificate by the Owner. The Contractor shall be responsible for removals, renewals, and replacements due to action of the elements and all other causes except as otherwise provided in the Specifications. The Contractor shall keep the Contract under his own control and it shall be his responsibility to see that the Work is properly supervised and carried on faithfully and efficiently. The Contractor shall supervise the work personally or shall have a competent English-speaking superintendent or representative, who shall be on the site of the project at all working hours and who shall be empowered with full authority by the Contractor to direct the performance of the Work and make arrangement for all necessary materials, equipment, and labor without delay.
- B. Renewals or repairs required because of defective materials or workmanship or due to the action of the elements or other natural causes, including fire and flood, before the acceptance as determined by the Completion Certificate, shall be done in accordance with the Contract and Specifications at the expense of the Contractor.

1.14 CONSTRUCTION CONDITIONS AND SUBSURFACE INVESTIGATION

- A. The Contractor shall strictly adhere to the specific requirements of the governmental unit(s) or agency(ies) having jurisdiction over the Work. Wherever there is a difference in the requirements of a jurisdictional body and these Specifications, the more stringent shall apply.
- B. The Contractor shall be responsible for having determined to his satisfaction, before submitting his bid, the nature and location of the Work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater conditions, the character of equipment and facilities needed before and during the execution of the Work, the general and local conditions, and all other matters which can in any way affect the Work under this Contract. The prices established for the work to be done will reflect all costs pertaining to the Work. Any claims for extras based on substrata, groundwater table, and other such conditions will not be allowed.

1.15 SUSPENSION OF WORK DUE TO WEATHER

- A. During inclement weather, all work which might be damaged or rendered inferior by such weather conditions shall be suspended. The orders and decisions of the Owner as to suspensions shall be final and binding. The ability to issue such an

order shall not be interpreted as a requirement to do so. During suspension of the work from any cause, the Work shall be suitably covered and protected so as to preserve it from injury by the weather or otherwise, and if the Owner shall so direct, the rubbish and surplus materials shall be removed.

1.16 PERMITS

- A. Upon notice of award, the Contractor shall immediately apply for all applicable permits, including building permits, NPDES permits, dewatering permits, and any other required permits not previously obtained by the Owner to do the Work from the appropriate governmental agency or agencies. No work shall begin until all applicable permits have been obtained and copies delivered to the Owner. The Contractor shall bear all costs for obtaining all permits.

1.17 PUMPING

- A. The Contractor with his own equipment shall do all pumping necessary to prevent flotation of any part of the structures during construction operations.
- B. For the duration of the Contract and with his own equipment, the Contractor shall pump out water and wastewater which may seep or leak into the excavations or structures.

1.18 CLAIMS FOR PROPERTY DAMAGE

- A. Upon notification by the Owner, the Contractor shall investigate each claim for property damage and shall file, within 10 days of such notification, a statement with the Owner setting forth all facts and details relative to the claim.

1.19 DAILY REPORTS

- A. The Contractor shall submit daily reports of construction activities, including non-workdays. The report shall include the following:
 - 1. Manpower, number of workers by craft.
 - 2. Equipment on the project.
 - 3. Major deliveries.
 - 4. Activities work with reference to the CPM schedule activity numbers.
 - 5. New problems.
 - 6. Other pertinent information.
- B. A similar report shall be submitted for/by each subcontractor.

- C. The reports shall be submitted to the Owner within 2 days of the respective report date. Each report shall be signed by the Contractor's Superintendent or Project Manager.

1.20 CONNECTIONS TO EXISTING SYSTEMS

- A. The Contractor shall perform all work necessary to locate, excavate, and prepare for connections to the terminus of the existing systems all as shown on the Drawings or where directed by the Owner. The cost of this work and for the actual connection of the existing mains shall be included in the bid for the Project and shall not result in any additional cost to the Owner.

1.21 COORDINATION OF WORK

- A. The Contractor shall afford other contractors and the Owner reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work and shall properly connect and coordinate the Work with such other work. The Contractor shall coordinate his Work with the Owner and other contractors to store his apparatus, materials, supplies, and equipment in such orderly fashion at the site of the Work so that it will not unduly interfere with the progress of the Work or the work of any other contractors.
- B. If the execution or result of any part of the Work depends on any work of the Owner or of any separate contractor, the Contractor shall, before proceeding with the Work, inspect and promptly report to the Owner in writing any apparent discrepancies or defects in such work of the Owner or of any separate contractor that render it unsuitable for the proper execution or result of any part of the Work.
- C. Failure of the Contractor to inspect and report any deficiencies shall constitute an acceptance of the Owner's or separate contractor's work as fit and proper to receive the Work, except as to defects which may develop in the Owner's or separate contractor's work after completion of the Work and which the Contractor could not have discovered by his inspection before the Work was completed.
- D. If the Contractor damages the work or property of the Owner or of any separate contractor on the Project or other work on the Site, or delays or interferes with the Owner's work on ongoing operations or facilities or adjacent facilities or the separate contractor's work, the Contractor shall be liable for damage caused, and, in the case of another contractor, the Contractor shall attempt to settle the claim with the other contractor before the other contractor institutes litigation or other proceedings against the Contractor.
- E. If a separate contractor sues the Owner on account of any damage, delay, or interference caused or alleged to have been caused by the Contractor, the Owner

shall notify the Contractor, who shall defend the Owner in such proceedings at the Contractor's expense. If any judgment or award is entered against the Owner, the Contractor shall satisfy the same and shall reimburse the Owner for all damages, expenses, attorneys' fees, and other costs which the Owner incurs as a result of the judgment or award.

- F. If a separate contractor causes damage to the Work or to the property of the Contractor or causes delay or interference with the Contractor's performance of the Work, the Contractor shall present directly to the separate contractor any claims it may have as a result of such damage, delay, or interference (with an information copy to the Owner) and shall attempt to settle its claim against the separate contractor before instituting litigation or other proceedings against the separate contractor.
- G. In no event shall the Contractor seek to recover from the Owner or the Engineer, and the Contractor hereby represents to the Owner and the Engineer that he will not seek to recover from them, or either of them, any costs, expenses, (including, but not limited to, attorneys' fees) or losses of profit incurred by the Contractor as a result of any damage to the Work or property of the Contractor or any delay or interference caused or allegedly caused by any separate contractor.
- H. The Owner shall determine and adjust any difference or conflict which may arise between the Contractor and other contractors who may be performing work on behalf of the Owner or between the Contractor and workmen of the Owner in regard to their work. If the work of the Contractor is delayed because of any acts of omissions of any other contractor of the Owner, the Contractor shall on that account have no claim against the Owner other than for an extension of time.

1.22 FINAL GUARANTEE

- A. The Contractor shall guarantee all work for 1 year from the date of Substantial Completion of the Work by the Owner.
- B. If, within the guarantee period, repairs or changes are required in connection with guaranteed work, which, in the opinion of the Owner, are rendered necessary as the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the Contract, the Contractor shall do the following promptly upon receipt of notice from the Owner and without expense to the Owner:
 - 1. Place in satisfactory condition in every way all such guaranteed work and correct all defects in the guaranteed work.
 - 2. Make good all damage to the building or site, or equipment or piping, or their contents, which, in the opinion of the Owner, is the result of the use

of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the contract.

3. Make good any work or material or the equipment and contents of the building, structure, or site disturbed in fulfilling any such guarantee.

- C. If the Contractor, after notice, fails to proceed to comply with the terms of this guarantee within 10 days, the Owner may have the defects corrected and the Contractor and his surety shall be liable for all expenses incurred provided. However, that in case of an emergency where, in the opinion of the Owner, delay would cause loss or damage, repairs may be started without notice being given to the Contractor and the Contractor shall pay the cost of such repairs.
- D. All special guarantees or warranties applicable to specific parts of the Work as may be stipulated in the Contract Specifications or other papers forming a part of this Contract shall be subject to the terms of this Paragraph during the first year of life of each such guarantee. The Contractor shall assemble all special guarantees and manufacturers' warranties, along with a summary list of the special guarantees and warranties, and deliver these to the Owner before the Work is accepted.

1.23 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK

- A. With the approval of the Owner, the Contractor may use on the project such stone, gravel, sand, or other material determined suitable by the Owner as may be found in the excavation. The Contractor shall replace at his own expense, with other acceptable material, all of that portion of the excavation materials so removed and used which were needed for use in the embankments, backfills, approaches, or otherwise. No charge for the materials used will be made against the Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01400 QUALITY REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

A. General

1. This Section defines minimum requirements for the Quality Assurance (QA) Program to be provided by the Contractor. The deliverable documents are defined, along with the method of execution of the QA Program.
2. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with the Contract Document requirements.
3. Specified tests, inspections, and related actions do not limit the Contractor's Quality Control (QC) procedures that facilitate compliance with the Contract Documents.

B. Definitions

1. Quality Assurance services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with Contract requirements.
2. Quality Control services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction comply with requirements.

C. Payment

1. Separate payment will not be made for providing and maintaining an effective Quality Assurance and Quality Control Program, and all costs associated with such a program shall be included in the applicable unit prices, lump-sum prices, or allowances contained in the Contract Price Breakdown.

1.02 WORK SEQUENCE

- A. Where reference is made to a particular standard, the revision in effect at the time of Bid opening shall apply except where a specific date is established.

- B. For products or workmanship specified by association, trades, or other consensus standards, the Contractor shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable code.
- C. If specified reference standards conflict with Contract Documents, the Contractor shall request clarification from the Engineer before proceeding.

1.03 QUALITY ASSURANCE

- A. The Contractor shall install all materials and equipment in a neat and first-class workman-like manner.
- B. The Contractor shall replace all existing paving, stabilized earth, curbs, driveways, sidewalks, fences, signs, and other improvements with the same type of material that was removed during construction or as directed by the Engineer without increase in the Contract Price or Contract Time.
- C. The Engineer reserves the right to direct the removal and replacement of any items that, in the Engineer's opinion, do not present an orderly and reasonably neat or workman-like appearance, provided such an orderly installation can be made using customary trade methods. The removal and replacement shall be done when directed in writing by the Engineer at the Contractor's own expense and without additional expense to the Owner.

1.04 TOLERANCES

- A. Monitor tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. If manufacturers' tolerances conflict with Contract Documents, request clarification from the Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.05 FIELD SAMPLES

- A. The Contractor shall furnish field samples at the site as required by individual Specifications Sections for review.
- B. Acceptable samples represent a quality level for the Work.

- C. Where field sample is specified in individual sections to be removed, the Contractor shall clear the area after the field sample had been accepted by the Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor is responsible for quality control and shall establish and maintain an effective QC system in compliance with the Contract Documents. The QC system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the Contract requirements. The system shall cover all Work and shall be keyed to the proposed design and construction sequence. The project QC Officer will be held responsible for the quality of work on the job and is subject to removal by the Engineer for non-compliance with quality requirements specified in the Contract. The project QC Officer in this context shall mean the individual with the responsibility for the overall management of the project quality.

3.02 QUALITY CONTROL PLAN

- A. General: Not later than 30 calendar days after receipt of Notice to Proceed, the Contractor shall furnish for review by the Engineer the QC Plan proposed to implement the requirements of the Contract. The Plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Engineer will consider an interim plan for the first 30 calendar days of operation.
- B. Content of the QC Plan: The QC Plan shall include, at a minimum, the following to cover all construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers, and purchasing agents:
 - 1. A description of the quality control organization, including a chart showing lines of authority for all aspects of the Work specified. The staff shall include a Quality Control Officer who shall report to the Project Manager or executive.
 - 2. The name, qualifications (in résumé format), duties, responsibilities, and authorities of each person assigned a QC function.
 - 3. A copy of the letter to the Quality Control Officer signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the Quality Control Officer, including authority to stop work which is not in compliance with the Contract.

4. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents.
 5. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will verify that identified deficiencies have been corrected.
 6. Reporting procedures, including proposed reporting formats.
- C. Acceptance of Plan: Acceptance of the Contractor's plan is required before the start of Work. Acceptance is conditional and will be predicated on satisfactory performance during the Work. The Engineer reserves the right to require the Contractor to make changes in its QC Plan and operations, including removing personnel as necessary to obtain the quality specified.
- D. Notification of Changes: After acceptance of the QC Plan, the Contractor shall notify the Engineer in writing of any proposed change. Proposed changes are subject to acceptance by the Engineer.

3.03 SUBMITTALS

- A. Submittals shall be made as specified in Section 01330, Submittals and Acceptance. The QC organization shall be responsible for certifying that all submittals are in compliance with the Contract requirements.

3.04 TESTS

- A. Testing Services
1. All tests to determine compliance with the Contract Documents shall be performed by an independent commercial testing firm acceptable to the Owner. The testing firm's laboratory shall be staffed with experienced technicians, properly equipped, and fully qualified to perform the tests in accordance with the specified standards.
 2. Testing services provided by the Owner are for the sole benefit of the Owner; however, test results shall be available to the Contractor. Testing necessary to satisfy the Contractor's internal Quality Control Procedures shall be the sole responsibility of the Contractor.
 3. When necessary, the Contractor shall interrupt its Work for Owner sampling and testing. The Contractor shall have no Claim for increase in Contract Price or Contract Time due to such interruption. The Contractor shall cooperate in these testing activities as needed.
 4. Testing, including sampling, will be performed by the testing firm's laboratory personnel in the general manner indicated in the Specifications.

- B. Transmittal of Test Reports: Written reports of tests and engineering data furnished by the Contractor for the Engineer's review shall be submitted as specified for Shop Drawings.
- C. Manufacturer's Field Services
 - 1. The manufacturer's field services will be specified in the respective equipment sections.
 - 2. An experienced, competent, and authorized representative of the manufacturer of each item of equipment for which field services are indicated shall visit the site of the Work and inspect, check, adjust if necessary, and approve the equipment installation. In each case, the manufacturer's representative shall be present when the equipment is placed into operation. The manufacturer's representative shall revisit the site as often as necessary until any and all trouble is corrected and the equipment installation and operation are satisfactory in the opinion of the Engineer.
 - 3. Each manufacturer's representative shall furnish to the Owner, through the Engineer, a written report certifying that the equipment has been properly installed and lubricated, is in accurate alignment, is free from any undue stress imposed by connecting piping or anchor bolts, has been operated under full load conditions, and has operated satisfactorily.

3.05 COMPLETION INSPECTION

- A. Final Completion Punch List: Near the completion of all Work, the QC Officer shall inspect the Work and develop a "punch list" of items that do not conform to the approved Drawings and Specifications. Such a list of deficiencies shall be included in the QC documentation and shall include the estimated date by which the deficiencies shall be corrected. The QC Officer or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Engineer that the Facility is ready for the Engineer's final inspection.
- B. Final Inspection and Acceptance: The Contractor's QC Officer and the Engineer will be in attendance at this inspection. Additional Engineer personnel may also be in attendance. The final acceptance inspection will be formally scheduled by the Engineer when all punch list deficiencies have been corrected. Notice will be given to the Engineer at least 14 days before the final inspection and must include the Contractor's assurance that all punch list items will be complete and acceptable by the date scheduled for the final inspection. Failure of the Contractor to have all Contract Work acceptably complete for this inspection will be cause for noncertification of final payment by the Engineer.

3.06 NOTIFICATION OF NONCOMPLIANCE

- A. The Engineer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.07 REPAIR AND PROTECTION

- A. On completion of testing, inspection, sampling, and similar services, the Contractor shall repair damaged construction and restore substrates and finishes.
- B. The Contractor shall protect all construction exposed by or for Quality Control service activities.
- C. The repair and protection are the Contractor's responsibilities, regardless of the assignment of responsibility for Quality Control services.

END OF SECTION

SECTION 01450
TESTING AND TESTING LABORATORY SERVICES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor will pay for the costs of all laboratory tests required to determine soil density, concrete compressive strength, and other testing to determine compliance with the Contract Documents. All required testing shall be coordinated and scheduled by the Contractor.
 - 1. The Contractor shall cooperate with the laboratory to facilitate the execution of required services.
 - 2. The Owner shall approve the selection of the testing laboratory.
 - 3. Employment of a testing laboratory shall in no way relieve the Contractor of the obligation to perform work in accordance with the requirements of the Contract Documents.

1.02 RELATED WORK

- A. Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders, or approvals of public authorities.
- B. Respective Sections:
 - 1. Certification of products.
 - 2. Laboratory tests required and standards for testing.

1.03 SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance.
- B. Submit to the Engineer for review a list and schedule of all tests to be conducted.
- C. Describe test procedures along with the duration of tests.
- D. After each inspection and test, the Laboratory shall promptly submit two copies of the laboratory report to the Engineer, one copy to the Contractor, and one copy to the Owner.

E. Include the following:

1. Date issued.
2. Project title and number.
3. Name of field testing technician or inspector.
4. Date and time of sampling or inspection.
5. Identification of product and Specifications Section.
6. Location in the Project.
7. Type of inspection or test.
8. Date of test.
9. Results of test.
10. Conformance with Contract Documents.

F. When requested by the Engineer, provide interpretation of test results.

1.04 REFERENCE STANDARDS

A. Reference standards and recommended practices shall be the latest revision of any such document in effect at the bid time.

1.05 QUALITY ASSURANCE

A. The Laboratory is not authorized to do any of the following:

1. Release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Approve or accept any portion of the Work.
3. Perform any duties of the Engineer of Record or the Engineer.

B. The Contractor shall be responsible for the following:

1. Cooperating with laboratory personnel, providing access to work and to manufacturer's operations.
2. Securing and delivering to the laboratory adequate quantities of representative samples of materials proposed to be used and that require testing.
3. Providing to the laboratory the preliminary design mix proposed to be used for concrete and other materials mixes that require control by the testing laboratory.
4. Furnishing incidental labor and facilities:
 - a. To provide access to Work to be tested.

- b. To obtain and handle samples at the project site or at the source of the product to be tested.
 - c. To facilitate inspections and tests.
 - d. To store and cure test samples.
- 5. Notifying the Engineer and laboratory sufficiently in advance of operations to allow the laboratory time to assign personnel and schedule tests.
- 6. Employing and paying for the services of the same or a separate, equally qualified independent testing laboratory to perform additional inspections, sampling, and testing required for the Equipment Supplier or Contractor's (as applicable) convenience.
- C. Materials and equipment used in the performance of Work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. Standard requirements for quality and workmanship are indicated in the Contract Documents. The Engineer may require the equipment supplier or Contractor (as applicable) to provide statements or certificates from the manufacturers and fabricators that the materials and equipment provided by them are manufactured or fabricated in full accordance with the standard specifications for quality and workmanship indicated in the Contract Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.
- D. If the test and any subsequent retest results indicate that the materials or equipment fail to meet the requirements of the Contract Documents, the equipment supplier or Contractor (as applicable) shall pay for the laboratory costs.

1.06 QUALIFICATIONS

- A. Laboratory: Licensed to operate in Florida.
- B. Laboratory Staff: Maintain a full-time Florida-registered Professional Engineer on staff to review the services performed under this project.
- C. Testing Equipment: Calibrated at reasonable intervals with devices of accuracy traceable to either National Bureau of Standards (NBS) or accepted values of natural physical constants.
- D. Provide qualified personnel at the site. Cooperate with the Engineer and Contractor in performing services.

- E. Perform specified inspection, sampling, and testing of products in accordance with specified standards.
- F. Ascertain compliance of materials and mixes with requirements of Contract Documents.
- G. Promptly notify the Engineer and Contractor of observed irregularities or non-conformance of Work or Products.
- H. Perform additional inspections and tests required by Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01500
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 RESPONSIBILITY

- A. This Section specifies the minimum requirements for temporary facilities, utilities, and controls required to provide an adequate and safe work site at every stage during construction of the Project. The Contractor is solely responsible for the requirements set forth in this Section.

1.02 ONSITE TEMPORARY

- A. Except as otherwise indicated, the Contractor may, at his option, furnish stand-alone utility plants to provide needed services in lieu of connected services from available public utilities, provided such stand-alone plant facilities comply with all governing regulations. Before availability of temporary utility services, the Contractor will provide trucked-in/trucked-out containerized or unitized services for start-up of construction operations at the site.

1.03 COSTS

- A. Except as otherwise indicated, the costs of providing and using temporary utility services are included in the contract sum.

1.04 TEMPORARY FACILITIES

- A. The types of utility services required for temporary use at the project site include the following (other specific services may be required for specific construction methods of operations):
 - 1. Electrical Power Service.
 - 2. Water Service (potable for certain uses).
 - 3. Sanitary.
 - 4. Storm Sewer or Open Drainage/Run-off Control.
 - 5. Gas (fuel) Service.

1.05 TEMPORARY ELECTRICITY

- A. The Contractor shall make the necessary applications and arrangements and pay all fees and charges for electrical energy for power and light necessary for proper completion of the Work and during its entire progress up to time of final

acceptance by the Owner. The Contractor shall provide and pay for all temporary switches, connections, and meters.

1.06 TEMPORARY WATER

- A. The Contractor shall make all necessary application and arrangements and pay all fees and charges for water necessary for the proper completion of the Project up to the time of final acceptance. The Contractor shall provide and pay for any temporary piping and connections.

1.07 TEMPORARY SANITARY FACILITIES

- A. The Contractor shall provide adequate sanitary facilities for the use of those employed on the Work. Such facilities shall be made available when the first employees arrive on the site of the Work, shall be properly secluded from public observation, and shall be constructed and maintained during the progress of the Work in suitable numbers and at such points and in such manner as may be required or approved.

1.08 CLEANLINESS OF FACILITIES

- A. The Contractor shall maintain the sanitary facilities in a satisfactory and sanitary condition at all times and shall enforce their use. He shall rigorously prohibit the committing of nuisances on the site of the Work, on the lands of the Owner, or on adjacent property.

1.09 TERMINATION AND REMOVAL

- A. At the time the need for a temporary utility service has ended or has been replaced by use of permanent services, or no later than the time of final completion, the Contractor shall promptly remove the installation unless requested by the Engineer to retain it for a longer period. Any work that may have been delayed or affected by the installation and use of the temporary utility, including repairs to construction and grades and restoration and cleaning of exposed surfaces, shall be completed at this time. The Contractor shall replace any work damaged beyond acceptable restoration.

1.10 NOISE CONTROL

- A. The Contractor shall provide adequate protection against objectionable noise levels caused by the operation of construction equipment.

1.11 DUST CONTROL

- A. The Contractor shall provide for adequate protection against raising objectionable dust clouds caused by moving construction equipment, high winds, or any other cause.

1.12 WATER CONTROL

- A. The Contractor shall provide for satisfactory disposal of surplus water and shall submit a plan to the Engineer for review before initiating and implementing the plan. Approval shall be obtained from the proper authorities before the use of public or private lands or facilities for such disposal.

1.13 POLLUTION CONTROL

- A. The Contractor shall provide for adequate protection against polluting any public or private lands, lakes, ponds, rivers, streams, creeks, and other such areas by the disposal of surplus material in the form of solids, liquids, gases, or from any other cause.

1.14 ADVERSE IMPACT

- A. The Contractor shall evaluate and assess the impact of any adverse effects on the natural environment that may result from construction operations and shall operate to minimize pollution of air, ground, or surface waters vegetation, and afford the neighboring community the maximum protection during and up to completion of the construction project.

1.15 STREAMS, LAKES, AND OTHER BODIES OF WATER

- A. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, and reservoirs with fuels, oils, bitumens, calcium chloride, or other harmful materials. He shall conduct and schedule his operations to avoid or otherwise prevent pollution of siltation of streams, lakes, and reservoirs and to avoid interference with the movements of migratory fish.

1.16 CHEMICALS

- A. All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

1.17 EROSION CONTROL

- A. The Contractor shall not expose by construction operations a larger area of erosive land at any one time than the minimum necessary for efficient construction operations, and the duration of exposure of the uncompleted construction to the elements shall be as short as practicable. Erosion-control features shall be constructed concurrently with other work and at the earliest practicable time.

1.18 STORAGE FACILITIES

- A. All products, materials, and equipment shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible. Products subject to damage by the elements shall be stored in weathertight enclosures. Temperature and humidity shall be maintained within the ranges required by the manufacturer's instructions. Fabricated products shall be stored above the ground on blocking or skids. Products that are subject to deterioration shall be covered with impervious coatings with adequate ventilation to avoid condensation. Loose granular materials shall be stored in a well-drained area on solid surfaces to prevent mixing with foreign matter. Any products that will come in contact with water shall be stored off the ground to prevent contamination.

1.19 INSPECTION

- A. Storage shall be arranged in such a manner to provide easy access for inspection. Periodic inspections shall be made of all stored products to ensure that they are maintained under specified conditions and free from damage or deterioration.

1.20 TEMPORARY PROTECTION

- A. After installation, the Contractor shall provide substantial coverings as necessary to installed products to protect them from damage from traffic and subsequent construction operations. Coverings shall be removed when no longer needed.

1.21 ADJACENT TO WORK

- A. The Contractor shall protect from damage all property along the line of the Work or in the vicinity of or in any way affected by the Work, the removal or destruction of which is not called for by the Drawings. Wherever such property is damaged due to the activities of the Contractor, it shall be immediately restored to its original condition by the Contractor at no cost to the Owner.

1.22 REMEDY BY OWNER

- A. In case of failure on the part of the Contractor to restore such property or make good such damage or injury, the Owner may, after 48 hours' notice to the Contractor, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary and the cost of such repairs, rebuilding, or restoration will be deducted from any monies due or which may become due to the Contractor under this Contract.

1.23 PROTECTION FROM DAMAGE

- A. The Contractor shall be responsible for protecting property in the areas in the vicinity of the Project and for protecting his equipment, supplies, materials, and work against any damage resulting from the elements, such as flooding, rainstorm, wind damage, or other such damage, and shall be responsible for damage resulting from the same. The Contractor shall provide adequate drainage facilities, tie-downs, or other protection throughout the contract period for the protection of his, the Owner's, and other properties from such damage.

1.24 TRAFFIC REGULATION

- A. Signs, marking barricades, and procedures shall conform to the requirements of the Florida Department of Transportation Manual on Traffic Controls and Safe Practices for Street and Highway Construction, Maintenance, and Utility Operations.

1.25 SIGNAGE

- A. The Contractor shall provide and maintain adequate barricades around open excavations.

1.26 REMOVAL OF SIGNAGE

- A. On completion of the Work, the Contractor shall remove all debris, excess materials, barricades, and temporary work, leaving walkways and roads clear of obstructions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01600 MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

This Section includes the minimum requirements for the furnished materials and equipment for this project. The more stringent requirements in the Technical Specification sections shall take precedence over these requirements for any conflicts.

- A. Materials and equipment furnished by the Contractor shall be new and shall not have been in service at any other installation unless otherwise approved. They shall conform to applicable specifications approved in writing by the Owner.
- B. Unless restricted to a specific type by the Contract Documents or the Owner, the Contractor may perform the work using equipment, tools, machinery, etc., of his own choosing.
- C. The Contractor shall provide a unique alphanumeric identification number on all equipment (other than small tools) used on the project. This number shall be a minimum of 2 inches high and appear on both sides of the equipment. Place the number in such a manner so as to contrast sharply in color with the background on which it is placed. Ensure that the number, which may be painted or otherwise permanently affixed to the equipment, is clearly legible at all times.
- D. If the Contractor's equipment or procedures during construction damage any part of the facility, the Contractor shall replace or repair it as directed by the Owner at no expense to the Owner.
- E. Manufactured and fabricated products shall be designed, fabricated, and assembled in accordance with the best engineering and shop practices. Like parts of duplicate units shall be manufactured to standard sizes and gauges so as to be interchangeable.
- F. Use only factory-recommended exhaust mufflers on internal combustion engines. Remove from the job, alter, or repair equipment disapproved by the Owner. Ensure that the number of units, the sizes, etc., of the equipment on hand are adequate to complete the work within the Contract Time.
- G. Provide adequate equipment maintenance procedures to promote continuous satisfactory working condition and minimize noise pollution caused by construction equipment. Screen all stationary equipment such as pumps,

compressors, generators, etc., from noise sensitive receivers if that equipment is to operate beyond normal working hours. If it is feasible, screen this equipment during normal working hours to reduce noise impacts.

- H. Quantities of items that are identical shall be by the same manufacturer, regardless of the Design Package breakdown.
- I. Equipment sizes, capacities, and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
- J. Materials and equipment shall not be used for any purpose other than that for which they are designed or specified.
- K. Where materials or equipment are specifically shown or specified to be reused in the Work, special care shall be used in removing, handling, storing, and reinstalling to ensure their proper function in the completed Work.
- L. Material and equipment incorporated into the Work:
 - 1. Shall conform to applicable specifications and standards.
 - 2. Shall comply with size, make, type, and quality specified or as specifically approved in writing by the Owner.
 - 3. Manufactured and fabricated products:
 - a. Rotating machinery shall be designed and fabricated to provide satisfactory operation without excessive wear and without excessive maintenance during its operating life. Rotating parts shall be statically and dynamically balanced and shall operate without excessive vibration.

1.02 ACCEPTANCE OF MATERIAL AND EQUIPMENT

- A. Only new materials and equipment shall be incorporated in the Work. All materials and equipment furnished by the Contractor shall be subject to the inspection and acceptance of the Owner. No material shall be delivered to the site that does not meet the Contract Specifications.
- B. The Contractor shall submit data and samples sufficiently early to permit consideration and acceptance before materials are necessary for incorporating in the work. Any delay of acceptance resulting from the Contractor's failure to submit samples or data promptly shall not be used as a basis of claim against the Owner.

- C. The materials and equipment used in the Work shall correspond to the approved samples or other data.
- D. If requested, the Contractor shall be required to submit to the Owner ample evidence that each and every part of the materials, machinery, and equipment to be furnished is of a reliable make and of a type that has been in successful operation within the continental United States. No equipment will be considered unless the manufacturer has designed and manufactured equipment of a comparable type and size for at least 3 years. The Owner will not allow any experimental or untried type of material or machinery to be installed.
- E. The equipment specified shall be carefully designed and installed to ensure that it adequately performs all required functions within the specified degree of precision. Each unit shall operate with each of the other parts of the equipment to provide a completely integrated system that shall operate to the satisfaction of the Owner.
- F. All equipment, machinery, parts, and assemblies of equipment, machinery, or parts entering into the Work shall be tested as specified. Unless waived in writing by the Owner, all field and operating tests shall be made in the presence of the Owner or the Owner's authorized representative. When such a waiver is issued, the Contractor or manufacturer shall furnish sworn statements in duplicate of the tests conducted and the results of the tests to the Owner.
- G. The Contractor shall submit copies of welding procedures for all welding. Welders and welding operators shall be selected in accordance with the qualification requirements of the AWS Code. Welders and welding operators for stainless steel shall pass qualification tests using stainless steel filler metal and procedures developed for stainless steel. Procedures, welder, and operator qualifications shall be certified by an independent testing laboratory retained and paid by the Contractor.
- H. The Contractor shall not start fabrication of the Work until the Contractor receives written acceptance of the proof of welding procedures from the Owner for each type of weld.
- I. The Contractor shall submit copies of mill certificate for each type of rolled steel and as required in the Specifications. The Contractor shall not start fabrication of the work until the Contractor receives written acceptance of all mill certificates from the Owner.

1.03 MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION

- A. The equipment installation details shall suit the existing and furnished equipment and are subject to acceptance by the Owner.
- B. Any changes or revisions made necessary by the type and dimensions of the equipment furnished shall be made at the expense of the Contractor who shall furnish detailed drawings showing such changes or revision for the acceptance of the Owner.
- C. The installation of all work shall comply with the manufacturer's printed instructions. The Contractor shall obtain and distribute copies of such instructions to parties involved in the installation, including six copies to the Owner for distribution. One complete set of instructions shall be maintained at the job site during installation and until the Project is complete.
- D. All products and equipment shall be handled, installed, connected, cleaned, conditioned, and adjusted in accordance with the manufacturer's instructions and specified requirements. Should job conditions or specified requirements conflict with the manufacturer's instructions, such conflicts shall be called to the Owner's attention for resolution and revised instructions.
- E. The Contractor shall perform work according to the manufacturer's instructions and not omit any preparatory step or installation procedure unless the instructions are specifically modified or the step or procedure exempted by the Contract Documents.

1.04 INSTALLATION OF EQUIPMENT

- A. General: The Contractor shall install the equipment in accordance with the manufacturer's instructions and recommendations and approved submittals at the locations shown on the Drawings. If the equipment locations shown on the Drawings are in conflict with the manufacturer's recommendations or will interfere with the installation or operation of any other item indicated in the Contract Documents, the Contractor shall relocate this equipment and provide the necessary appurtenances to install the equipment in accordance with the manufacturer's recommendations at no additional cost to the Owner. The Contractor shall not install any equipment at locations not in accordance with the Contract Documents or approved submittals.
- B. The Contractor shall take special care to ensure proper alignment of all equipment including water control gates, pumping stations, water control structures, and appurtenances. The units shall be carefully aligned on their foundations by qualified millwrights after the units' sole plates have been shimmed to true

alignment at the anchor bolts. The anchor bolts shall be set in place and the nuts tightened against the shims. After the Manufacturer's Representative has approved the foundation alignments, the bedplates or wing feet of the equipment shall be securely bolted in place. The Contractor shall further check the alignment of the equipment after it is secured to the foundations and, after all alignments are confirmed, shall finally grout the sole plates in place. The Contractor shall be responsible for the exact alignment of equipment with associated piping and under no circumstances will "pipe springing" be allowed.

- C. The Contractor shall install equipment, slabs, walls level and plumb, parallel, and perpendicular to other building and components in exposed interior spaces, unless otherwise shown on the Drawings.
- D. The Contractor shall apply an anti-seize compound to threaded fasteners of equipment components that require removal, replacement, or adjustment as part of any maintenance or inspection procedure.
- E. The Contractor shall furnish and install the required oil and grease for initial operation in accordance with the manufacturer's recommendations.
- F. The Contractor shall provide means of oil lubrication for bearings and other metallic parts in sliding contact. Use alemite industrial-type fittings except where otherwise specified. The Contractor shall also perform the following work:
 - 1. Locate lubrication points on equipment readily accessible without the necessity of removing covers, plates, housings, or guards, or without creating safety hazards at installed equipment elevations.
 - 2. Exhaust pressure-lubricated units to the atmosphere to prevent excessive greasing.
 - 3. Extend grease fittings to locations that are readily accessible to the Owner. The Contractor shall coordinate the location of these grease fittings with the Owner before their installation.
- G. The Contractor shall furnish and apply touch-up paint to any equipment's factory painting finish that is chipped or damaged during installation. All factory-finish touch-up paint shall be mutually compatible with the factory finish on the equipment and shall be furnished by the manufacturer of the equipment to be touched up in the field.
- H. If equipment mounting heights are not shown on the Drawings, the Contractor shall install that piece of equipment to provide the maximum amount of headroom (defined as the distance from the bottom of the structure to the top of finished floor or grade) as possible. In such an instance, the Contractor shall obtain the

Owner's approval for this mounting location before installing that piece of equipment in the field.

- I. The Contractor shall furnish and install all mechanical equipment to facilitate service, maintenance, and repair or replacement of the equipment components. The Contractor shall connect equipment for ease of disconnecting, with minimum interference to other installations.
- J. A certificate from the manufacturer stating that the installation of the equipment is satisfactory, that the unit has been satisfactorily tested, is ready for operation, and that the operating personnel have been suitably instructed in the operation, lubrication, and care of the unit shall be submitted before Substantial Completion.
- K. The Contractor shall furnish the service of competent manufacturers' representatives for Contractor- or Owner-furnished equipment when evident malfunction or over-heating makes such services necessary or as determined by the Owner. All such equipment shall be installed by skilled mechanics and in accordance with the instructions of the manufacturer.
- L. The Contractor shall furnish all wedges, shims, filling pieces, keys, packing, grout, or other materials necessary to properly align, level, and secure an apparatus in place. All parts intended to be plumb or level must be proven exactly so. Any grinding necessary to bring parts to proper alignment after erection shall be done at the expense of the Contractor.
- M. The Contractor shall furnish the necessary materials and construct suitable concrete foundations or pads for all equipment installed by the Contractor, even though such foundations or pads may not be indicated on the Drawings. The tops of foundations shall be at such elevations as will permit grouting.

1.05 SPECIAL TOOLS

- A. Manufacturers of equipment and machinery shall furnish two sets of any special tools (including grease guns or other lubricating devices) required for normal adjustment, operations and maintenance, and disassembly, together with instructions for their use. The Contractor shall preserve and deliver to the Owner these tools and instructions in good order before completing the Contract. Tools shall be high-grade, smooth, forged, alloy tool steel. Grease guns shall be lever-type.
- B. Special tools are considered to be those tools which because of their limited use are not normally available, but which are necessary for the particular equipment.

- C. Special tools shall be delivered at the same time as the equipment to which they pertain. The Contractor shall properly store and safeguard such special tools until completion of the work, at which time they shall be delivered to the Owner.
- D. Tools shall be delivered in heavy steel tool-boxes complete with lock and duplicate keys.

1.06 TESTS AND TEST REPORTS

- A. When used in the Contract Documents, "Factory/Fabricating Shop Performance, Evaluation, Certification, and/or Acceptance Tests and Test Reports" shall be considered to mean the corresponding manufacturer's, fabricator's, and/or other builder's official test and tests reports. Included in these test reports shall be appropriate substantiating documentation/data ascertaining the correct and complete manufacture, fabrication, and "shop performance" (to the greatest extent normally practicable) of the particular material, equipment, system, and/or facilities proposed for eventual delivery. These are subdivided into three significant tests and test report types: 1) Certification Tests and Test Reports, 2) Factory Tests and Test Reports, and 3) Shop Performance/Evaluation Tests and Test Reports. Minimal requirements are described below.
- B. Certification Tests and Test Reports
 - 1. Standard specifications, code references, etc. for minimum quality and workmanship levels are indicated in the Contract Documents and Construction Documents. Statements, certificates, and other substantiating reporting data, called "Certification Test Reports" in this Section, of tests conducted on previously manufactured materials or equipment identical to that proposed for use shall be compiled by the Contractor.
 - 2. At a minimum all Certification Test Reports shall contain an official analysis of sufficient material composition or show evidence of meeting or exceeding the specified material standard(s) referenced, e.g., ASTM, ASME, or other designations. All reports shall also indicate from whom the material was/will be purchased.
 - 3. The Contractor shall pay all costs of certification tests and test reports.
- C. Factory Tests and Test Reports
 - 1. Additional tests and reports performed on material or equipment by the manufacturer or fabricator to ascertain quality or workmanship are referred to here as "Factory Tests and Test Reports."
 - 2. Before the delivery of any Factory Test Report, the Contractor shall first submit for review and approval a detailed description of the proposed testing, including reporting procedure and criteria. Such descriptions shall

also be delivered to the Owner for review as part of the first submission of the technical submittal.

3. Materials and equipment used in the performance of the Work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. If Work to be accomplished away from the construction site is to be inspected on behalf of the Owner during its fabrication or manufacture, the Contractor shall give prior notice to the Owner of the place and time where such fabrication or manufacture is to be done. Such notice shall be in writing and delivered to the Owner not less than 30 days before the Work is to be done so that the necessary arrangements for the particular factory inspection tests can be made.
4. Upon completion of the factory inspection tests and immediately following manufacture or fabrication, the Contractor shall compile a complete Factory Test Report following the approved format above. All such reports shall be delivered to the Owner for review as part of the technical submittal corresponding to such tested material or equipment.

D. Shop Performance/Evaluation Tests and Tests Reports

1. Material and equipment used in the performance of the Work of this Contract are also subject to evaluation and testing after the complete full-scale assembly into major equipment and/or systems. Shop Performance/Evaluation Tests, i.e., tests of simulated startup, steady-state, variable loading, and other normal operating conditions, for such assembled equipment/systems shall be accomplished in strict accordance with the standard testing practices specified or otherwise accepted by the Owner.
2. Before the delivery of any Shop Performance/Evaluation Test Report, the Contractor shall submit for review a detailed description of the proposed performance/evaluation tests, including anticipated reporting procedures, data reduction, and criteria used. Where appropriate, such descriptions shall also be delivered to the Owner for review as part of a first or subsequent submission of the technical submittal.
3. Should such performance/evaluation tests be accomplished away from the construction site, the Contractor shall give prior notice to the Owner of the places and times where such tests will be accomplished. Such prior notice shall be in writing and delivered not less than 30 days before such events so that necessary arrangements for the particular tests can be made.
4. The requirements above pertaining to Factory Tests and Test Reports shall be incorporated for shop Performance/Evaluation Tests and Test Reports. Unless factory tests are coincident with shop performance tests and vice versa for the same material or equipment, a minimum of 15 days shall be scheduled between such multiple equipment tests where extended travel is required.

E. Cost of Performance Shop Tests

1. The Contractor shall conduct shop performance full-scale tests at its expense on all equipment as specified. Each piece of equipment shall be tested completely assembled and the shop tests performed by the equipment manufacturer until successful tests are achieved.
2. If the performance tests are conducted outside the continental United States, the Contractor shall pay all transportation expenses incurred by the Owner's representatives in witnessing the tests at no additional cost to the Owner.

1.07 FIELD TESTING

- A. Field-testing shall be conducted when called for in the Technical Specification Sections and on all completed systems in general. The Contractor shall provide services of a factory-authorized service representative to perform, approve, and certify the field testing specified in this Section. Field testing shall generally consist of performing the pre-startup and startup tests as specified in the Contract Documents. The Contract Documents may require the Contractor to perform factory testing on equipment items before the Owner approves their use for this project.
- B. After completing the installation, the Contractor shall test the system in the presence of the Owner and under actual operating conditions. Tests shall be performed according to the manufacturer's recommendations.
- C. The Contractor shall include with its bid the services of the equipment manufacturer's field service technician for a period necessary to complete the Work to the satisfaction of the Owner.
- D. This service shall be for the purposes of checkout, initial start-up, certification, and instruction of facilities personnel.
- E. A written report covering the technician's findings and installation approval shall be submitted to the Owner covering all inspections and outlining in detail any deficiencies noted.

1.08 ACCEPTANCE OF INSTALLATION

- A. The Owner may accept an equipment system installation as ready for Substantial Completion when:
 1. The Owner has accepted all factory tests and all other component testing.

2. The Owner has accepted all performance shop tests.
3. All components of the system are installed and tested, including without limitation hydrostatic tests, leak tests, continuity tests, insulation resistance tests, phase rotation tests, bump tests, stroke testing, calibration, adjustment for proper operation, and all other component tests as appropriate.
4. Field start-up activities have been completed and approved by the Owner.
5. The appropriate certificates have been submitted.
6. All equipment has met the performance requirements.
7. The Owner has accepted integrated system tests and adjustments performed by the Contractor to demonstrate that the system as a whole functions reliably and meets the performance requirements, in manual and automatic modes, without failure, fault, or defect of any component or of the system as a whole.
8. The Owner has accepted integrated facilities tests performed by the Contractor to demonstrate that the entire Construction functions together reliably as an integrated facility and meets the performance requirements, in manual and automatic modes, without failure, fault, or defect of any component.
9. The Owner has accepted facilities performance tests which demonstrate that the design criteria and performance criteria are met.
10. The Owner has accepted the O&M Manuals.
11. All required Owner personnel have been trained.
12. All other Contract requirements for Substantial Completion have been satisfied.

1.09 GREASE, OIL, AND FUEL

- A. The Contractor shall furnish all grease, oil, and fuel required for start-up and testing of equipment. The Owner shall be furnished with a year's supply of required lubricants including grease and oil of the type recommended by the manufacturer with each item of equipment supplied.
- B. All grease, oil, and fuel required for start-up and testing of equipment shall be furnished with the respective equipment.
- C. The Contractor shall be responsible for changing the oil in all drives and intermediate drives of mechanical equipment no greater than 30 days after initial break-in of the equipment.

1.10 ELECTRICAL EQUIPMENT ENCLOSURES

- A. All items of electrical equipment that are furnished with process, heating, ventilating, or other equipment shall conform to the requirements specified under

the appropriate electrical sections of the Specifications. Enclosures for electrical equipment, such as switches and starters, shall conform to the requirements specified under the appropriate electrical sections of the Specifications.

1.11 EQUIPMENT DRIVE GUARDS

- A. Screens, guards, or cages shall be provided for all exposed rotating or moving parts in accordance with accepted practices of applicable governmental agencies. Unless specified otherwise in the Technical Specifications sections, guards shall be constructed of galvanized sheet steel or galvanized woven wires or expanded metal set in a frame of galvanized steel members. Guards shall be secured in position by steel braces or straps that will permit easy removal for servicing the equipment.

1.12 PROTECTION AGAINST ELECTROLYSIS

- A. Where dissimilar metals are used in conjunction with each other, suitable insulation shall be provided between adjoining surfaces so as to eliminate direct contact and any resultant electrolysis. The insulation shall be bituminous-impregnated felt, heavy -bituminous coatings, nonmetallic separators or washers, or other acceptable materials.

1.13 CONCRETE INSERTS

- A. Concrete inserts for hangers shall be designed to support safely, in the concrete that is used, the maximum load that can be imposed by the hangers used in the inserts. Inserts for hangers shall be of a type which will permit adjustment of the hangers both horizontally (in one plane) and vertically and locking of the hanger head or nut. All inserts shall be galvanized.

1.14 SLEEVES AND OPENINGS

- A. The Contractor shall provide all openings, channels, chases, etc., in new construction and furnish and install anchor bolts and other items to be embedded in concrete, as required to complete the Work under this Contract. The Contractor shall perform all cutting, coring, and rough and finish patching required in existing construction for the work of all trades.
- B. Subcontractors shall furnish all sleeves, inserts, hangers, anchor bolts, etc., required for the execution of their work. Before the work of the Contractor begins, the subcontractors shall be responsible for furnishing the Contractor with the above items and with templates, drawings, or written information covering chases, openings, etc., which they require and to follow up the work of the Contractor as it progresses, making sure that their drawings and written

instructions are carried out. If the subcontractors fail to do this, they shall be responsible for the cost of any corrective measures that may be required to provide necessary openings, etc. If the Contractor fails to carry out the directions given him, covering details and locations of openings, etc., he/she shall be responsible for any cutting and refinishing required to make the necessary corrections. In no case shall beams, lintels, or other structural members be cut without the approval of the Owner.

- C. Unless otherwise indicated on the Drawings or specified, openings for the passage of pipes through floors and walls shall be formed of sleeves of standard-weight, galvanized-steel pipe. Each sleeve shall be of ample diameter to pass the pipe and its insulation, if any, and to permit such expansion as may occur. Sleeves shall be of sufficient length to be flush at the walls and the bottom of the slabs and to project 2 inches above the finished floor surface. Threaded nipples shall not be used as sleeves.
- D. Sleeves in exterior walls below ground or in walls to have liquids on one or both sides shall have a 2-inch annular fin of 1/4-inch plate welded with a continuous weld completely around the sleeve at about mid-length. Sleeves shall be galvanized after the fins are attached.
- E. All sleeves shall be set accurately before the concrete is placed or shall be built-in accurately as the masonry is being built.

1.15 SERVICES OF MANUFACTURERS' FIELD SERVICE TECHNICIAN

- A. Bid prices of equipment furnished shall include the cost of a competent field service technician of the manufacturers of all equipment to supervise the installation, adjustment, and testing of the equipment and to instruct the Owner's operating personnel on operation and maintenance. The approved manufacturer's operation and maintenance data as specified in Section 01830, Operations and Maintenance Manuals, shall be delivered to the Owner before instructing the Owner's personnel. This supervision may be divided into two or more periods as required by the installation program or as directed by the Owner.
- B. After the equipment has been installed and the equipment is presumably ready for operation, but before it is operated by others, the manufacturers' field service technician shall inspect, operate, test, and adjust the equipment. The inspection shall include at least the following points where applicable:
 - 1. Soundness (without cracked or otherwise damaged parts).
 - 2. Completeness in all details, as specified and required.
 - 3. Correctness of setting, alignment, and relative arrangement of various parts.

4. Adequacy and correctness of packing, sealing, and lubricants.
 5. Calibration and adjustment of all related instrumentation and controls.
 6. Energize equipment.
 7. Deficiency correction.
 8. Demonstration of compliance with application performance specification.
- C. The operation, testing, and adjustment shall be as required to prove that the equipment has been left in proper condition for satisfactory operation under the conditions specified.
- D. Upon completion of this operation, testing, and adjustment, the manufacturers' field service technician shall submit to the Owner, in triplicate, a complete, signed report of the results of the inspection, operation, adjustments, and tests. The report shall include detailed descriptions of the points inspected, tests and adjustments made, quantitative results obtained if such are specified, and suggestions for precautions to be taken to ensure proper maintenance.
- E. Equipment manufacturer as necessary shall provide instruction to the Owner's operating personnel. Training shall not be performed until the requirements of Paragraphs B, C, and D above have been fully satisfied and any specified performance testing completed. Training shall be provided in an Owner-approved format. Training shall not be concurrent with on-going testing, debugging, or installation activities but shall be a separate activity devoted exclusively to the instruction of the Owner's personnel in the operation and maintenance of the manufacturers' equipment. Training shall be performed by qualified representatives of each equipment manufacturer specifically skilled in providing instruction to operation personnel. Training shall provide an overview of operations and maintenance requirements and shall include but not be limited to the following:
1. Description of unit and component parts.
 2. Operating capabilities and performance criteria.
 3. Operating procedures.
 4. Maintenance procedures.
 5. Servicing and lubrication schedules.
 6. Troubleshooting.
- F. A certificate from the manufacturer stating that the installation of the equipment is satisfactory; that the unit has been satisfactorily tested and is ready for operation; and that the operating personnel have been suitably instructed in the operation, lubrication, and care of the unit shall be submitted before start-up and acceptance by the Owner. The certificate shall indicate date and time the instruction was given and names of the operating personnel in attendance.

- G. See the detailed Specifications for additional requirements for furnishing the services of the manufacturers' field service technician.
- H. For equipment furnished, the Contractor, unless otherwise specified, shall furnish the services of accredited field service technicians of the manufacturer only when some evident malfunction or over-heating makes such services necessary in the opinion of the Owner.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01650
DELIVERY, STORAGE, AND HANDLING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies the general requirements for the delivery, handling, storage, and protection of all items required in the construction of the Work. Specific requirements, if any, are specified with the related item.

1.02 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in this Section for storing and protecting the items.
- B. The Contractor shall do the following:
 - 1. Materials and equipment shall be loaded and unloaded by methods affording adequate protection against damage. Every precaution shall be taken to prevent injury to the material or equipment during transportation and handling. Suitable power equipment shall be used and the material or equipment shall be under control at all times. Under no condition shall the material or equipment be dropped, bumped, or dragged. When a crane is used, a suitable hook or lift sling shall be used. The crane shall be so placed that all lifting is done in a vertical plane. Materials or equipment skid loaded, palletized, or handled on skidways shall not be skidded or rolled against material or equipment already unloaded.
 - 2. Material and equipment shall be delivered to the job site by means that will adequately support it and not subject it to undue stresses. Material and equipment damaged or injured in the process of transportation unloading or handling shall be rejected and immediately removed from the site.
 - 3. The Contractor shall coordinate the delivery of all materials, including those furnished by the Owner. The Contractor shall be responsible for the proper transport, handling, and storing of all materials, and materials shall be protected to ensure their expected performance. Delivery schedules shall be coordinated by the Contractor, in advance, so that the Work will be done in a timely manner.

4. The Contractor shall coordinate deliveries of products with construction schedules to avoid conflict with work and conditions at the site. The Contractor shall also do the following:
 - a. Deliver products in undamaged condition, in the manufacturer's original containers or packaging, with identifying labels intact and legible.
 - b. Immediately on delivery, inspect shipments to ensure compliance with requirements of the Contract Documents and approved submittals and to ensure that the products are properly protected and undamaged.
5. The Contractor shall provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.
6. All materials and equipment shall be stored on-site in complete compliance with the manufacturer's recommendations.
7. Store products subject to damage by the elements in weather-tight enclosures.
8. Maintain temperature and humidity within the ranges required by the manufacturer's instructions.
9. Store fabricated products above the ground, on blocking or skids to prevent soiling or staining. Cover products that are subject to deterioration with impervious sheet coverings, and provide adequate ventilation to avoid condensation.
10. All materials and equipment to be incorporated in the Work shall be handled and stored by the Contractor before, during, and after shipment in a manner that will prevent warping, twisting, bending, breaking, chipping, rusting, and any injury, theft, or damage of any kind to the material or equipment.
11. All materials which, in the opinion of the Owner, have become so damaged as to be unfit for the use intended or specified shall be promptly removed from the site of the Work, and the Contractor shall receive no compensation for the damaged material or its removal.
12. The Contractor shall arrange storage in a manner to provide easy access for inspection and make periodic inspections of stored products to ensure that products are maintained under specified conditions, free from damage or deterioration.

13. The Contractor shall provide substantial coverings as necessary to protect installed products from traffic damage and subsequent construction operations and shall remove these coverings when they are no longer needed.
14. Should the Contractor fail to take proper action on storage and handling of equipment supplied under this Contract, within 7 days after written notice to do so has been given, the Owner retains the right to correct all deficiencies noted in the previously transmitted written notice and deduct the cost associated with these corrections from the Contractor's Contract. These costs may include expenditures for labor, equipment use, administrative, clerical, engineering, and any other costs associated with making the necessary corrections.
15. Schedule delivery to reduce long-term onsite storage before installation and/or operation. Under no circumstances shall equipment be delivered to the site more than 1 month before installation without written authorization from the Owner.
16. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged, or sensitive to deterioration.
17. Deliver products to the site in the manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting, and installing.
18. Unload and place all items delivered to the site in a manner which will not hamper normal construction operation nor that of subcontractors and other contractors and will not interfere with the flow of necessary traffic.
19. Provide necessary equipment and personnel to unload all items delivered to the site.
20. The Contractor shall store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Follow storage instructions, review them with the Owner, and keep a written record of this. Arrange storage to permit access for inspection.
21. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

22. Store cement and lime under a roof and off the ground and keep it completely dry at all times. All structural, miscellaneous, and reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping, or cracking. Handle and store brick, block, and similar masonry products in a manner to keep breaking, cracking, and spilling to a minimum.
23. Store all mechanical and electrical equipment and instruments subject to corrosive damage by the atmosphere if stored outdoors (even though covered by canvas) in a weathertight building to prevent damage. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the Owner. The building shall be provided with adequate ventilation to prevent condensation. The Contractor shall ensure that temperature and humidity are maintained within the range required by the manufacturer.
 - a. All equipment shall be stored fully lubricated with oil, grease, and other lubricants unless otherwise instructed by the manufacturer.
 - b. Moving parts shall be rotated a minimum of once weekly to ensure proper lubrication and to avoid metal-to-metal "welding." Upon installation of the equipment, the Contractor shall start the equipment, at least at half load, once weekly for an adequate period to ensure that the equipment does not deteriorate from lack of use.
 - c. Lubricants shall be changed when installation is complete and as frequently as required thereafter during the period between installation and acceptance. The Contractor shall put new lubricants into the equipment at the time of acceptance.
 - d. Before accepting equipment that has been stored for some time, the Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested, and accepted in a minimum time period. As such, the manufacturer will guarantee the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the Contractor's expense.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01720
FIELD ENGINEERING

PART 1 GENERAL

1.01 SCOPE OF WORK

The Contractor shall do the following:

- A. Provide and pay for the following field engineering services required for the Project:
 - 1. Survey work required in the execution of the Project.
 - 2. Civil, structural, or other professional engineering services specified or required to execute the Contractor's construction methods.
- B. Coordinate with the City to mark the City's utilities in the field.
- C. Coordinate with other utilities (communication, power, gas, etc.) to mark utilities in the field.
- D. Retain the services of a registered land surveyor licensed in Florida to do the following:
 - 1. Identify existing control points and property line corner stakes as required.
 - 2. Verify all existing structure locations and all proposed structure corner locations, tank locations, and equipment locations within the Project site.
 - 3. Maintain an accurate location of all buried utilities, including utility markings made by others.

1.02 SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance.
- B. The Contractor shall submit to the Engineer the name and address of the registered land surveyor or professional engineer.
- C. On request of the Engineer, the Contractor shall submit documentation to verify the accuracy of field engineering work.

- D. The Contractor shall submit a certificate signed by a registered land surveyor certifying that elevations and locations of improvements are in conformance or non-conformance with Subcontract Documents.
- E. At the end of the Project and before final payment, submit the certified drawings listed below with the Surveyor's title block (signed and sealed by the registered land surveyor) of the items listed below. These drawings shall be included with and made a part of the project record documents.
 - 1. Certified site survey at 1-inch = 10-foot scale on sheets 24 inches by 36 inches, indicating the building corners, sidewalks, paved areas, and location of all above-ground structures for the project site.
 - 2. Certified drawing showing the location, lines, and grades of all lines 4 inches in diameter and larger buried and exterior to buildings and other buried facilities (e.g., valves, tanks, vaults) installed as a result of the work. This shall be at the same scale as the Engineer's yard piping drawing.
 - 3. Certified drawings showing elevations of all flow control points such as weirs, elevations of all existing and new structures, and equipment in the treatment plant.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. All work shall be performed in accordance with the Minimum Technical Standards set forth by the Board of Professional Surveyors and Mappers.

1.04 QUALITY ASSURANCE

- A. Existing basic horizontal and vertical control points for the project are those designated on Drawings.
- B. Locate and protect control points before starting site work and preserve all permanent reference points during construction:
 - 1. Make no changes or relocations without prior written notice to the Engineer.
 - 2. Report to the Engineer when any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations.

3. Require the surveyor to correctly replace project control points that may be lost or destroyed.
4. Establish replacements based on original survey control.

1.05 WARRANTIES

- A. Warranties shall be in accordance with General Conditions, Supplementary Conditions, and Section 01780, Warranties and Bonds, except as specified in this Section.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.

1.07 QUALIFICATIONS

- A. Registered land surveyor of the discipline required for the specific service on the project, currently licensed in Florida.

1.08 SYSTEM DESCRIPTION

- A. The Contractor shall establish a minimum of two permanent benchmarks on the site, referenced to data established by survey control points:
 1. Record locations, with horizontal and vertical data, on Record Documents.
- B. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means:
 1. Site improvements:
 - a. Stakes for grading, fill, and topsoil placement.
 - b. Utility slopes and invert elevations.
 2. Building foundation, column locations, and floor levels.
 3. Controlling lines and levels required for mechanical and electrical trades.
- C. From time to time, verify layouts by the same methods.
- D. Maintain a complete and accurate log of all control and survey work as the work progresses.

- E. As a condition for approval of monthly progress payment requests, update the project record drawings monthly based on the work performed during the month ending at the pay request. The Contractor shall coordinate this monthly with the Owner's representative on the site as part of the pay request.
- F. Maintain an accurate record of piping changes, revisions, and modifications.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01730
CUTTING, CORING, AND PATCHING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall provide all cutting, coring, fitting, and patching, including attendant excavation and backfill, required to complete the Work or to accomplish the following:
 - 1. Make the Work's several parts fit together properly.
 - 2. Uncover portions of the Work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of Subcontract Documents.
 - 5. Remove samples of installed work as specified for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installing piping and electrical conduit.

1.02 SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance.
- B. The Contractor shall submit a written request well in advance of executing any cutting or alteration that affects the following:
 - 1. Work of the Owner or any other Contractor.
 - 2. Structural value or integrity of any element of the Project.
 - 3. The integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 - 4. The efficiency, operational life, maintenance, or safety of operational elements.
 - 5. Visual qualities of elements exposed to view.
- C. The written request shall include the following:
 - 1. Identification of the Project.
 - 2. Description of affected Work.
 - 3. The necessity for cutting, altering, or excavating.

4. The effect on the work of the Owner or any other Contractor or on the structural or weatherproof integrity of the Project.
 5. Description of proposed Work:
 - a. Scope of cutting, patching, alteration, or excavation.
 - b. Trades which will execute the Work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.
 6. Alternatives to cutting and patching.
 7. Cost proposal, when applicable.
 8. Written permission of any other Contractor whose work will be affected.
- D. The Contractor shall submit written notice to the Engineer designating the date and the time the Work will be uncovered.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Concrete and grout for rough patching shall be as specified in Division 3, Concrete.
- B. Materials for finish patching shall be equal to those of adjacent construction.

PART 3 EXECUTION

3.01 INSPECTION

- A. The Contractor shall inspect existing conditions of project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering Work, the Contractor shall inspect conditions affecting installation of products or performance of the Work.
- C. The Contractor shall report unsatisfactory or questionable conditions to the Engineer in writing and shall not proceed with work until the Engineer has provided further instructions.

- D. All cutting and coring shall be performed in such a manner as to limit the extent of patching.
- E. All holes cut through concrete and masonry walls, slabs, or arches shall be core-drilled unless otherwise approved. No structural members shall be cut without approval of the Engineer, and all such cutting shall be done in a manner directed by the Engineer. No holes shall be drilled in beams or other structural members without obtaining prior approval. All work shall be performed by mechanics skilled in this type of work.
- F. Rough patching shall be such as to bring the cut or cored areas flush with existing construction unless otherwise shown. Finish patching shall match existing surfaces as approved.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to ensure the structural value or integrity of the affected portion of the Work.
- B. Provide devices and methods to protect other portions of the Project from damage.
- C. Provide protection from elements for that portion of the Project that may be exposed by cutting and patching work and maintain excavations free from water.
- D. Perform coring with an approved non-impact rotary tools with diamond core drills. The size of the holes shall be suitable for pipe, conduit, sleeves, and equipment or mechanical seals to be installed.
- E. Ensure that all equipment conforms to OSHA standards and specifications pertaining to plugs, noise and fume pollution, wiring, and maintenance.
- F. Provide protection for existing equipment, utilities, and critical areas against water or other damage cause by drilling operation.
- G. Following drilling, vacuum or otherwise remove from the area all slurry or tailings resulting from coring operations.

3.03 PERFORMANCE

- A. Cut and demolish by methods that will prevent damage to other work and will provide proper surfaces to receive installation of repairs.

- B. Excavate and backfill by methods which will prevent settlement or damage to other work.
- C. Employ the original installer or fabricator to perform cutting and patching for the following:
 - 1. Weather-exposed or moisture-resistant elements.
 - 2. Sight-exposed finished surfaces.
- D. Fit and adjust products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
- E. Cut with a concrete wall saw and diamond saw blades of proper size.
- F. Control slurry generated by sawing operation on both sides of wall.
- G. When cutting a reinforced concrete wall, cut so as not to damage the bond between the concrete and reinforcing steel left in structure. Make the cut so that steel neither protrudes nor is recessed from the face of the cut.
- H. Install adequate bracing of the area to be cut before cutting starts. Check the area during sawing operation for partial cracking and provide additional bracing as required to prevent a partial release of the cut area during sawing operations.
- I. Provide equipment of adequate size to remove cut panel.
- J. Restore work that has been cut or removed; install new products to provide completed work in accordance with requirements of Subcontract Documents.
- K. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- L. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to the nearest intersection.
 - 2. For an assembly, refinish the entire unit.

- M. Provide for Proper Pavement Restoration: The Contractor shall restore existing paving, including underdrains if any are encountered and broken into, and shall replace or rebuild the paving using the same type of construction as was in the original. The Contractor shall be responsible for restoring all such work, including subgrade and base courses where present. The Contractor shall obtain and bear the expense of such local or other governmental permits as may be necessary.

END OF SECTION

SECTION 01735
CONTROL OF WORK

PART 1 GENERAL

1.01 PLANT

- A. The Contractor shall furnish plant and equipment, which will be efficient, appropriate, and large enough to secure a satisfactory quality of work and a rate of progress that will ensure the completion of the work within the Contract Time. If at any time the Plant appears to be inefficient, inappropriate, or insufficient for securing the quality of work required or for producing the rate of progress stated above, the Engineer may order the Contractor to increase the efficiency, change the character, or increase the plant and equipment and the Contractor shall conform to such an order. Failure of the Engineer to give such an order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required.

1.02 PRIVATE LAND

- A. Do not enter or occupy private land outside of easements, except by permission of the landowner.

1.03 PIPE LOCATIONS

- A. Locate pipelines substantially as indicated on the Drawings. The Engineer reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons. Where fittings are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve him of laying and jointing different or additional items where required.

1.04 OPEN EXCAVATIONS

- A. Adequately safeguard all open excavations by providing temporary barricades, caution signs, lights, and other means to prevent accidents to persons and damage to property. Provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workers. Remove bridges provided for access during construction when no longer required. The length or size of excavation will be controlled by the particular surrounding conditions, but shall always be confined to the limits prescribed by the Engineer. If the excavation becomes a hazard or if it excessively restricts traffic at any point, the Engineer may require special construction procedures, such as limiting the length of the

open trench, prohibiting stacking excavated material in the street, and requiring that the trench be closed overnight.

- B. Take precautions to prevent injury to the public due to open trenches. Provide adequate light at all trenches, excavated material, equipment, or other obstacles that could be dangerous to the public at night.

1.05 TEST PITS

- A. Excavate test pits, at the direction of the Engineer, to locate underground pipelines or structures in advance of the construction. Backfill test pits immediately after their purpose has been satisfied and restore and maintain the surface in a manner satisfactory to the Engineer.

1.06 MAINTENANCE OF TRAFFIC

- A. Unless permission to close a street is received in writing from the proper authority, place all excavated material so that vehicular and pedestrian traffic may be maintained at all times. If the construction operations cause traffic hazards, repair the road surface, provide temporary ways, erect wheel guards or fences, or take other measures for safety satisfactory to the Engineer.
- B. Maintenance of traffic plans shall be reviewed and approved by the Owner. Detours around construction will be subject to the approval of the Owner and the Engineer. Where detours are permitted, provide all necessary barricades and signs as required to divert the flow of traffic. Expedite construction operations while traffic is detoured. The Owner will strictly control periods when traffic is being detoured.
- C. Take precautions to prevent injury to the public due to open trenches. Night watchmen may be required where special hazards exist or police protection provided for traffic while work is in progress. The Contractor shall be fully responsible for damage or injuries whether or not police protection has been provided.

1.07 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for preserving all public and private property and use every precaution necessary to prevent damage to this property. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, the Contractor shall restore such property to a condition similar or equal to that existing before the damage was done or make good the damage in other manner acceptable to the Engineer.

1.08 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall assume full responsibility for protecting all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains, and electric and telephone cables, whether or not they are shown on the Drawings. Carefully support and protect all such structures and utilities from injury of any kind. Immediately repair any damage resulting from the construction operations.
- B. Assistance will be given the Contractor in determining the location of existing services. The Contractor, however, shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines, and sewers). The Contractor shall maintain services to buildings and pay costs or charges resulting from damage to such services.
- C. Notify all utility companies in writing at least 72 hours (excluding Saturdays, Sundays, and legal holidays) before excavating in any public way. Also notify Sunshine State One Call of Florida, telephone 1-800-638-4097, at least 72 hours before starting work.
- D. If, in the opinion of the Engineer, permanent relocation of a utility owned by the City is required, the Engineer may direct the Contractor, in writing, to perform the work. Work so ordered will be paid for at the Contract unit prices, if applicable, or as extra work under the General Conditions. If relocation of a privately owned utility is required, the Engineer will notify the Utility to perform the work as expeditiously as possible. The Contractor shall cooperate with the Engineer and Utility. No claim for delay will be allowed due to such relocation.
- E. Protection and temporary removal and replacement of existing utilities and structures as described in this Section shall be part of the work under the Contract and all costs associated shall be included in the Contract Price.
- F. Coordinate the removal and replacement of traffic loops and signals, if required for the performance of the work, at no additional cost to the Owner.

1.09 WATER FOR CONSTRUCTION PURPOSES

- A. In locations where public water supply is available, the Contractor may be allowed to use water for construction purposes. The cost to obtain water shall be included in the Contract Price.
- B. The express approval of the Owner shall be obtained before water is used. Hydrants shall only be operated under the supervision of the Owner personnel.

- C. Waste of water by the Contractor shall be sufficient cause for withdrawing the use of water.

1.10 MAINTENANCE OF FLOW

- A. Provide for the flow of sewers, drains, and water courses interrupted during the progress of the work, and immediately cart away and remove all offensive matter. Discuss the entire procedure of maintaining existing flow with the Engineer well in advance of the interruption of any flow.

1.11 COOPERATION WITHIN THIS CONTRACT

- A. All firms or persons authorized to perform any work under this Contract shall cooperate with the General Contractor and subcontractors or trades and assist in incorporating the work of other trades where necessary or required.
- B. Cutting and patching and drilling and fitting shall be carried out where required by the trade or subcontractor having jurisdiction, unless otherwise indicated in this Section or directed by the Engineer.

1.12 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

- A. During the Work, keep the site of operations as clean and neat as possible. Dispose of all residue resulting from the construction work and at the conclusion of the work remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures, and any other refuse remaining from the construction operations and leave the entire site of the work in a neat and orderly condition.
- B. To prevent environmental pollution arising from the construction activities related to the performance of this Contract, comply with all applicable Federal, State, and local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this Section and in other related sections.
- C. Disposing of excess excavated material in wetlands, stream corridors, and plains is strictly prohibited even if the permission of the property owner is obtained. Any violation of this restriction by the Contractor or any person employed by the Contractor will be brought to the immediate attention of the responsible regulatory agencies, with a request that appropriate action be taken against the offending parties. The Contractor will be required to remove the fill and restore the area impacted at no increase in the Contract Price.

1.13 SPECIAL WORK HOUR LIMITATIONS

- A. The Contractor shall limit hours of operation in accordance with Section 01100, Summary of Work. No work shall be performed at night, on Sundays, or legal holidays except in cases of emergency. The Engineer must authorize all exceptions to this work-hour limitation in writing.

1.14 CHARACTER OF THE CONTRACTOR'S SUPERINTENDENT AND WORKERS

- A. The Contractor's superintendent and project manager shall conduct themselves in a professional manner. If, in the opinion of the Owner and the Engineer, the superintendent and project manager do not conduct themselves in a professional and courteous manner, the Engineer can recommend to the Owner that the superintendent and/or the project manager be relieved of their responsibilities and removed from the project. Upon written notice from the Owner, the Contractor shall immediately remove the superintendent and/or the project manager of their responsibilities and removed from the project. The work of this project must be conducted under the supervision of a full-time superintendent.
- B. Any person employed by the Contractor or by any subcontractor who in the opinion of the Engineer does not conduct him/herself in a professional and courteous manner or is intemperate or disorderly, shall at written request of the Engineer, be removed immediately by the Contractor or subcontractor employing such person, and that person shall not be allowed to work on any other portion of work in this Contract without written approval of the Engineer. Should the Contractor fail to remove such person(s) or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the Engineer may recommend to the Owner that the work be suspended until compliance with such orders has been met. Contract time will not be stopped during this time.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01740 FINAL CLEANING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall execute cleaning during progress of the Work and at the completion of the Work as required by General Conditions.

1.02 ENVIRONMENTAL CONCERNS

- A. Cleaning and disposal operations shall comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS

The Contractor shall do the following:

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by the manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

PART 3 EXECUTION

3.01 PERIODIC CLEANING

The Contractor shall do the following:

- A. Execute periodic cleaning to keep the work, the site, and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris.
- B. Provide onsite containers for the collection of waste materials, debris, and rubbish.

- C. Remove waste materials, debris, and rubbish from the site periodically and dispose of at legal areas away from the site.

3.02 DUST CONTROL

The Contractor shall do the following:

- A. Clean interior spaces before the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.

3.03 FINAL CLEANING

The Contractor shall do the following:

- A. Employ skilled workers for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from interior and exterior surfaces exposed to view.
- C. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
- D. Before final completion or Owner occupancy, inspect interior and exterior surfaces exposed to view and all work areas to verify that the entire Work is clean.

END OF SECTION

SECTION 01745
MISCELLANEOUS WORK AND CLEANUP

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, and incidentals required and perform the miscellaneous work not specified in other sections but obviously necessary for the proper completion of the work as shown on the Drawings.
- B. When applicable, perform the work in accordance with other related sections. When no applicable specification exists, perform the work in accordance with the best modern practice and/or as directed by the Engineer.
- C. The work of this Section includes but is not limited to the following:
 - 1. Crossing and relocating existing utilities.
 - 2. Restoring sidewalks.
 - 3. Cleaning up.
 - 4. Performing incidental work.
 - 5. Protecting and/or removing and reinstalling/replacing signs, lampposts, and existing appurtenances.
 - 6. Protecting and bracing utility poles and piping.
 - 7. Restoring easement and rights-of-way.
 - 8. Erecting construction signage.
 - 9. Obtaining and complying with construction permits.
- D. Submit to the Engineer a breakdown of the lump sum for miscellaneous work and cleanup, including the above items at a minimum. This breakdown shall be subject to the approval of the Engineer and when so approved shall be the basis for determining progress payments and for negotiating change orders, if required.

1.02 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of

this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. FDOT Design Standards for Design, Construction, Maintenance, and Utility Operations on the State Highway System

- 1. Index Series 600—Traffic Control Through Work Zones.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Materials required for this Section shall be the same quality of materials that are to be restored. Where possible, re-use existing materials that are removed.

PART 3 EXECUTION

3.01 CROSSING AND RELOCATING EXISTING UTILITIES

- A. Perform any extra work required in crossing culverts, watercourses including brooks and drainage ditches; storm drains; gas mains; water mains; electric, telephone, gas and water services; and other utilities. This work shall include bracing, hand excavation, backfill (except crushed stone), and any other work required for crossing the utility or obstruction not included for payment in other items in the Bid Form. Notification of Utility Companies shall be as specified in Section 01355, Special Provisions.
- B. In locations where existing utilities cannot be crossed without interfering with the construction of the work as shown on the Drawings, remove and relocate the utility as directed by the Engineer or cooperate with the Utility Companies concerned if they relocate their own utility.
- C. At pipe crossings and where designated by the Engineer, furnish and place crushed stone bedding so that the existing utility or pipe is firmly supported for its entire exposed length. The bedding shall extend to the mid-diameter of the pipe crossed. Payment for crushed stone at pipe crossings will be made according to the unit price bid in the Bid Form.

3.02 RESTORING BITUMINOUS CONCRETE DRIVEWAYS AND SIDEWALKS

- A. Existing public and private driveways disturbed by the construction shall be replaced. Paved drives shall be repaved to the limits and thicknesses existing before construction. Gravel drives shall be replaced and regraded in kind.

- B. Existing public and private sidewalks disturbed by the construction shall be replaced with sidewalks of equal quality and dimension.

3.03 CLEANING UP

- A. Remove all construction material, excess excavation, buildings, equipment, and other debris remaining on the job as a result of construction operations and restore the site of the work to a neat and orderly condition.

3.04 INCIDENTAL WORK

- A. Perform all incidental work not otherwise specified but obviously necessary to the proper completion of the work as shown on the Drawings and as specified in this Section.

3.05 PROTECTION AND/OR REMOVAL AND REINSTALLATION/REPLACEMENT OF SIGNS, LAMPPOSTS, AND MAILBOXES

- A. Existing signs, lampposts, and mailboxes that may be damaged or removed when installing the new pipelines shall be reinstalled in a vertical position in the same location from which they were removed. Replace damaged items with items of equal or better quality than the damaged items. Provide a concrete anchor as necessary to ensure a rigid alignment. Exercise care in reinstalling all items to prevent damage to the newly installed pipelines.

3.06 RESTORATION AND REPLACEMENT OF CURBING

- A. The Contractor shall protect concrete, bituminous, or timber curbing. If necessary, remove curbing and replace it after backfilling. Curbing that is damaged during construction shall be replaced with curbing of equal quality and dimension at the Contractor's expense.

3.07 PROTECTION AND BRACING OF UTILITY POLES

- A. Make all arrangements with the proper utility companies for bracing and protecting all utility poles that may be damaged or endangered by the operations. Work under this item shall include the related removal and reinstallation of guy wires or support poles whether shown on the Drawings or not.

3.08 RESTORING EASEMENTS AND RIGHTS-OF-WAY

- A. The Contractor shall be responsible for all damage to private property due to the operations. Protect from injury all walls, fences, cultivated shrubbery, vegetables, fruit trees, pavement, underground facilities such as water pipe, or other utilities

that may be encountered along the route. If removal and replacement are required, it shall be done in a workmanlike manner so that replacement is equivalent to that which existed before construction.

- B. Existing lawn and sod surfaces damaged by construction shall be replaced. Cut and replace the lawn and sod or restore the areas with an equivalent depth and quality of loam, seed, and fertilizer as necessary to produce a stand of grass at least equal to that existing before construction. These areas shall be maintained and reseeded, if necessary, until all work under this Contract has been completed and accepted. Any additional work required to restore the property to the original condition shall be performed.
- C. Existing trees, shrubs, plants, and bushes outside of easements shall be fully protected as specified in Section 01355, Special Provisions. The work shall also include removing and replacing those trees, shrubs, and bushes as indicated on the Drawings. It shall include the careful excavation of the root ball, which shall be wrapped with burlap while out of the ground. Replant the plants after backfilling the trench, stake them in an upright position, and periodically water replanted trees, bushes, and shrubs. The Contractor is fully responsible for ensuring that any and all trees, bushes, and shrubs removed and replanted "take" and return to a viable state. Any replanted item that fails to "take" or that is so damaged as to be unsuitable for replanting shall be replaced, at no additional cost to the Owner, with a tree, bush, or shrub equal to the one removed.
- D. As described in Section 02230, Site Preparation, trees damaged beyond repair through no fault of the Contractor shall be removed as directed by the Engineer. Replacement of these trees will be as directed by the Engineer and paid for by the Owner. For bidding purposes, the Contractor shall assume that removing three trees may be required.
- E. The Engineer will inspect all work for provisional acceptance upon the written request received at least 10 days before the expected date of inspection.
 - 1. At the end of this period, any plant that is missing, dead, or not in satisfactory growth, as determined by the Engineer, shall be replaced.
 - 2. All replacements shall be plants of the same kind and size. They shall be furnished and planted as specified in this Section. The cost of replacement shall be borne by the Contractor except where it can be definitely shown that loss resulted from vandalism or the Owner's failure to maintain plantings as instructed.
 - 3. At the end of the guarantee period, the Engineer will inspect the plantings upon written request submitted by the landscape contractor at least 10 days before the expected date.

4. After all necessary corrective work has been completed and tree staking has been removed, the Engineer will certify in writing the final acceptance of the planting.

3.09 CONSTRUCTION SIGNAGE

- A. Furnish, install, maintain, and remove warning devices and traffic and construction signs in accordance with FDOT Index Series 600 and as directed by the Engineer.

3.10 PERMITS

- A. The Contractor is responsible for obtaining and complying with all permits or their implementation, including the Minor Impact Wetlands Permit and the National Pollutant Discharge Elimination System (NPDES) Construction Dewatering Permit.

END OF SECTION

SECTION 01755
EQUIPMENT TESTING AND STARTUP

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall provide a competent field services technician of the manufacturers of all equipment furnished under the Contract Documents to supervise installation, adjustment, initial operation and testing, performance testing, final acceptance testing, and startup of the equipment.
- B. The Contractor shall perform specified equipment field performance tests, final acceptance tests, and startup services.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Submit name, address, and résumé of proposed field services technicians at least 30 days in advance of the need for such services.
- B. Submit for review detailed testing procedures for shop tests, field performance tests, and final acceptance tests as specified in the various equipment specification sections. Test procedures shall be submitted at least 30 days in advance of the proposed test dates and shall include at least the following information:
 - 1. Name of equipment to be tested, including reference to specification section number and title.
 - 2. Testing schedule of proposed dates and times for testing.
 - 3. Summary of power, lighting, chemical, water, sludge, gas, etc., needs and identification of who will provide them.
 - 4. An outline of specific assignments of the responsibilities of the Contractor and manufacturers' factory representatives or field service personnel.
 - 5. Detailed description of step-by-step testing requirements, with reference to appropriate standardized testing procedures and laboratory analyses by established technical organizations (e.g., ASTM, WPCF Standard Methods).
 - 6. Samples of forms to be used to collect and record test data and to present tabulated test results.

- C. Submit copies of test reports upon completion of specified shop, performance, and acceptance tests. Test reports shall incorporate the information provided in the test procedures submittals, modified to reflect the actual conducting of the tests and the following additional information:
 - 1. Copies of all test data sheets and results of lab analyses.
 - 2. Summary comparison of specified test and performance requirements vs. actual test results.
 - 3. Should actual test results fail to meet specified test and performance requirements, a description of actions to be taken before re-testing the equipment.
- D. Submit copies of the manufacturer's field service technician's report summarizing the results of the initial inspection, operation, adjustment, and pre-tests. The report shall include detailed descriptions and tabulations of the points inspected, tests and adjustments made, quantitative results obtained, suggestions for precautions to be taken to ensure proper maintenance, and the equipment supplier's Certificate of Installation in the format specified in this Section.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Water Works Association (AWWA)
 - 1. AWWA C653—Disinfection of Water Treatment Plants.
- B. American Society for Testing and Materials (ASTM)
- C. Water Pollution Control Federation (WPCF)
- D. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.04 QUALITY ASSURANCE

- A. Field service technicians shall be competent and experienced in the proper installation, adjustment, operation, testing, and startup of the equipment and systems being installed.

- B. Manufacturers' sales and marketing personnel will not be accepted as field service technicians.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 PRELIMINARY REQUIREMENTS

- A. After the equipment has been installed and the equipment is presumably ready for operation but before it is operated by others, the manufacturer's field service technician shall inspect, operate, test, and adjust the equipment. The inspection shall include at least the following points where applicable:
 - 1. Soundness (without cracks or otherwise damaged parts).
 - 2. Completeness in all details, as specified and required.
 - 3. Correctness of setting, alignment, and relative arrangement of various parts.
 - 4. Adequacy and correctness of packing, sealing, and lubricants.
- B. The operation, testing, and adjustment shall be as required to prove that the equipment has been left in proper condition for satisfactory operation under the conditions specified.
- C. Upon completion of this work, the manufacturer's field service technician shall submit a signed report of the results of his/her inspection, operation, adjustments, and tests.

3.02 WITNESS REQUIREMENTS

- A. Shop tests or factory tests may be witnessed by the Owner and/or the Owner's representatives, as required by the various equipment specifications.
- B. Field performance and acceptance tests shall be performed in the presence of the Owner, the Owner's designated personnel, and/or the Owner's representatives.

3.03 STARTUP AND ACCEPTANCE OF THE TREATMENT PLANT AND RELATED SYSTEMS

- A. General Requirements
 - 1. Successfully execute the step-by-step procedure of startup and performance demonstration specified in this Section.

2. The startup and performance demonstration shall be successfully executed before Substantial Completion and acceptance by the Owner of the treatment plant and its related systems.
3. All performance tests and inspections shall be scheduled at least 5 working days in advance or as otherwise specified with the Owner and the Engineer. All performance tests and inspections shall be conducted during Monday through Friday, unless otherwise specified.

B. Preparation for Startup

1. Upon completion of the wastewater treatment facility and all its related systems, all channels, basins, and tanks shall be flushed with reclaimed water and hydraulically checked for leaks, cracks, and defects in accordance with Section 01810, Watertightness Test for Hydraulic Structures.
2. All mechanical and electrical equipment shall be checked to ensure that it is in good working order and properly connected. Preliminary run-ins of the various pumps, compressors, and other remaining equipment shall be made. All systems shall be cleaned and purged as required. All sumps, tanks, basins, chambers, pump wells, and pipelines which are hydraulically checked shall be drained and returned to their original condition once the water testing is complete.
3. All instruments and controls shall be calibrated through their full range. All other adjustments required for proper operation of all instrumentation and control equipment shall be made.
4. The Contractor shall perform all other tasks needed for preparing and conditioning the treatment facilities for proper operation.
5. No testing shall be conducted or equipment operated until the Engineer has verified that all specified safety equipment has been installed and is in good working order.
6. No testing shall be conducted or equipment operated until the Engineer has verified that all lubricants, tools, maintenance equipment, spare parts, and approved equipment operation and maintenance manuals have been furnished as specified.

C. Facilities Startup

1. The startup period shall not begin until all new treatment facilities and equipment have been tested as specified and are ready for operation. The Owner shall receive spare parts, safety equipment, tools and maintenance equipment, lubricants, approved operation and maintenance data, and the specified operation and maintenance instruction before the startup with waste water. All valves shall be tagged before this startup.

2. Demonstrate 7 consecutive 24-hour days of successful operation of the facility as a prerequisite of Substantial Completion and Acceptance.
3. If the facility fails to demonstrate satisfactory performance on the first or any subsequent attempt, the Contractor shall make all necessary alterations, adjustments, repairs, and replacements. When the facility is again ready for operation, it shall be brought on line and a new test shall be started. This procedure shall be repeated as often as necessary until the facility has operated continuously to the satisfaction of the Owner and Engineer for the specified duration.
4. The Owner will furnish all operating personnel (other than vendor's or subcontractor's service personnel) needed to operate equipment during the final test period; however, these personnel will perform their duties under the Contractor's direct supervision. Until performance tests are completed and units and systems are accepted by the Owner as substantially complete, the Contractor shall be fully responsible for the operation and maintenance of all new facilities.
5. The Owner will provide all necessary chemicals and electricity. However, the Contractor shall provide all necessary personnel of the various construction trades, i.e., electricians, plumbers, etc., and field service personnel of the major equipment suppliers on an 8-hour-per-day basis at the facilities and on a 24-hour-per-day basis locally during the startup period. Major equipment suppliers shall include but not be limited to the following:
 - a. Telemetry, Instrumentation, and Control Equipment.
 - b. Treatment Units.
 - c. Chemical Feed Pumps.
 - d. All Pumping Equipment.
 - e. Boilers and Associated Control Systems.
6. At no time during startup shall the Contractor allow the facility to be operated in a manner that subjects equipment to conditions that are more severe than the maximum allowable operating conditions for which the equipment was designed.

END OF SECTION

SECTION 01770
PROJECT CLOSEOUT

PART 1 GENERAL

1.01 SUBSTANTIAL COMPLETION

- A. When the Contractor considers that the Work or designated portion of the Work is Substantially Complete, the Contractor shall submit written notice to the Engineer with a list of items to be completed or corrected.
- B. If the Engineer's review finds that the Work is not substantially complete, the Engineer will promptly notify the Contractor in writing, listing observed deficiencies.
- C. The Contractor shall remedy deficiencies and send a second written notice of Substantial Completion.
- D. When the Engineer finds the Work is Substantially Complete, the Engineer will prepare a Certificate of Substantial Completion.

1.02 FINAL COMPLETION

- A. When the Contractor considers that the Work or designated period of the Work is complete, the Contractor shall submit written certification to the Engineer indicating the following:
 - 1. The Contract Documents have been reviewed.
 - 2. The Work has been reviewed for compliance with the Contract Documents.
 - 3. The Work has been completed in accordance with the Contract Documents and deficiencies listed with Certificates of Substantial Completion have been corrected.
 - 4. The Work is complete and ready for final inspection.
 - 5. All required shop drawings, catalog cuts, operations and maintenance manuals, instruction manuals, test reports, samples, and all other submittals have been submitted and reviewed by the Engineer.
 - 6. All deliverables have been delivered or placed as accepted by the Engineer.
- B. If the Engineer's review reveals that the Work is incomplete, the Engineer will promptly notify the Contractor in writing listing observed deficiencies.

- C. The Contractor shall remedy deficiencies and send a second certification of Final Completion.
- D. When the Engineer finds that the Work is complete, the Engineer will consider closeout submittals.

1.03 ADDITIONAL REVIEW FEES

- A. If the status of Completion of Work requires more than two reviews of the Work by the Engineer due to failure of the Work to comply with the Contractor's claims on the first and second reviews, the Owner will deduct from the final payment to the Contractor the amount of the Engineer's compensation for additional review services.

1.04 CLOSEOUT SUBMITTALS

- A. Evidence of Compliance with Requirements of Governing Authorities:
 - 1. Certificate of Occupancy.
 - 2. All required Certificates of Government Inspections.
- B. Operation and Maintenance Manuals: Under provisions of Section 01830, Operations and Maintenance Manuals.
- C. Record Documents: Under provisions of Section 01785, Record Documents.
- D. Evidence of Payment and Release of Liens: In accordance with Conditions of the Contract.
- E. Consent of Surety to Final Payment.

1.05 STATEMENT OF ADJUSTMENT OF ACCOUNTS

- A. Submit final statement reflecting adjustments to total Contract Price, indicating the following:
 - 1. Original total Contract Price.
 - 2. Previous change orders.
 - 3. Changes under allowances.
 - 4. Changes under unit prices.
 - 5. Deductions for uncorrected Work.
 - 6. Penalties and bonuses.
 - 7. Deductions for liquidated damages.
 - 8. Deductions for Engineer's additional review fees.

9. Other adjustments to total Contract Price.
10. Total Contract Price as adjusted.
11. Previous payments.
12. Sum remaining due.

- B. Upon the Owner's review and approval, the Engineer will issue a final Change Order reflecting approved adjustments to the total Contract Price not previously made by change orders.

1.06 APPLICATION FOR FINAL PAYMENT

- A. Submit application for final payment in accordance with provisions of Conditions of the Contract.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01780
WARRANTIES AND BONDS

PART 1 GENERAL

1.01 SCOPE OF WORK

The Contractor shall do the following:

- A. Compile specified warranties and bonds.
- B. Co-execute submittals when so specified.
- C. Review submittals to verify compliance with Contract Documents.
- D. Submit submittals to the Owner for review.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Assemble warranties, bonds, and service and maintenance contracts executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: two each.
- C. Table of Contents: Neatly typed, in sequence of the Specifications. Provide completion information for each item as follows:
 - 1. Product or work item.
 - 2. Firm, address, telephone and fax numbers, and name and email of principal.
 - 3. Scope.
 - 4. Date of beginning of warranty, bond, or service and maintenance contract.
 - 5. Duration of warranty, bond, or service and maintenance contract.
 - 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances that might affect the validity of warranty or bond.

7. Contractor, with address, telephone and fax numbers, and the name and email of responsible principal.
- D. Submittal of warranties, bonds, and service and maintenance contracts shall be included in submittals for review and before Final Completion with actual dates included.
- E. The Contractor's obligation to correct defective or nonconforming Work shall run for 1 year (or such longer period may otherwise be specified in the Contract Documents) beginning from the date Substantial Completion is achieved.

1.03 WARRANTIES

- A. All mechanical and electrical equipment together with devices of whatever nature and all components which are furnished and/or installed by the Contractor shall be guaranteed.
- B. The guarantee shall be against the manufacturing and/or design inadequacies, materials, and workmanship not in conformity, improper assembly, hidden damage, failure of devices and/or components, excessive leakage, or other circumstances which would cause the equipment to fail under normal design and/or specific operating conditions for 1 year or such longer period as may be shown and/or specified from and after the date of Substantial Completion.
- C. The Contractor shall replace and install each piece of equipment, device, or component which shall fail within the term specified above of the guarantee with reasonable promptness without increase in the Contract Price. If the Contractor fails to provide timely repairs as specified in this Section, the Owner shall issue a claim against the Contractor's Bond. In some instances, if approved by the Owner, the Contractor may be allowed to repair the equipment.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01785
RECORD DOCUMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section details the minimum requirements for the Contractor for maintenance and recording of Record Documents and Record Drawings.
- B. The Contractor shall retain the services of a State of Florida licensed Professional Land Surveyor (PLS) to prepare Record Drawings.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance, and record documents as specified below:

- A. The Contractor shall institute a computerized record control program.
- B. The Contractor shall make documents and samples available at all times for inspection by the Owner.
- C. The Contractor shall submit to the Owner the name and address of the licensed PLS, along with the following:
 - 1. Documentation of current State of Florida licensure as a PLS.
 - 2. Documentation of a current State of Florida business license to practice surveying.
 - 3. Documentation demonstrating three projects within the past 5 years where the surveyor performed field engineering and record drawing preparation using AutoCAD 2018 or later for projects of a similar type and size as the work covered by the Contract Documents.
- D. At Substantial Completion, the Contractor shall submit for review and approval all Record Documents including Record Drawings with cover letter to the Owner, listing the following:
 - 1. Date.
 - 2. Project Title and Number.
 - 3. Contractor's Name and Addresses.
 - 4. PLS name and Florida license number.
 - 5. Number and Title of each Record Document.

6. Electronic file names.
 7. Signature of Contractor or its Authorized Representative.
 8. Contract Section and Subsection numbers.
 9. Location.
- E. Before assembling and submitting records, the Contractor shall review for completeness the records maintained by its subcontractors.
- F. Submit three sets of hard copy record drawings and electronic Record Drawings in PDF format, prepared and printed from updated AutoCAD 2018 Contract Drawings as discussed in this Section to the Owner for review and comment or approval. Deficiencies in the Record Drawings shall be corrected before final payment and contract closeout. Printed and electronic transmittals shall be clearly labeled with the appropriate project number, client name, date, and file names. If files are compressed, a description of the compression software must be included with a copy of the appropriate uncompressing software.
- G. Final Record Drawings shall be signed and sealed by the PLS. Electronic Record Drawing submittals in PDF format shall be digitally signed and sealed in accordance with State of Florida requirements.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 PROJECT RECORD

- A. The Contractor shall label and file Record Documents and samples in accordance with the corresponding Specification Section number. Each document shall be labeled "PROJECT RECORD" in neat, large, printed letters. Record Documents shall be maintained in a clean, dry, and legible condition. Record documents shall not be used for construction purposes.

3.02 RECORDING

The Contractor shall record construction information as follows (refer to the Record Drawing Checklist at the end of this Section for additional requirements):

- A. Record and update daily Record information from field notes on a set of opaque Contract Drawings and to the satisfaction of the Owner.
- B. Provide felt tip marking pens, maintaining separate colors for each major system, for recording information.

- C. Record information concurrently (daily) with construction progress. Work shall not be concealed until required information is recorded.
- D. The Contractor shall present the field logbook containing swing tie information and red-lined as-built drawings at each monthly construction meeting for review by the Owner. Failure to produce adequate as-built information will be grounds for withholding appropriate funds from the monthly payment applications.
- E. The Contractor's PLS shall perform all field surveying and Computer Assisted Design (CAD) Drawing preparation in AutoCAD necessary to prepare signed and sealed (certified) Record Drawings for all site improvements (stormwater, paving, grading, utilities, building corners, structures, signs, other surface and subsurface improvements, etc.) as detailed herein, as well as elsewhere in the Contract Documents and as may be required by applicable permits for as-built certification and closeout.
- F. The Contractor shall perform all other field recording for facilities and other improvements not covered by the PLS, and prepare CAD Drawings in AutoCAD showing as-built conditions of the improvements constructed under this project.

3.03 RECORD DRAWINGS

- A. Record Drawings shall be a special revision of the construction drawings and shall reflect the following:
 - 1. Measured horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements.
 - 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
 - 3. Field changes of dimension and detail.
 - 4. Changes made by modifications.
 - 5. Top-of-wall elevations, northing and easting coordinates, and slab elevations of all new and modified structures.
 - 6. For underground piping, northing and easting coordinates of valves elbows, tees, and invert elevations.
 - 7. Details not on original construction drawings.
 - 8. At locations where a top-of-pipe elevation or centerline is required for pipeline, a top-of-ground or top-of-pavement elevation shall also be measured and noted on the Drawings.
 - 9. On Record Drawings, at locations where the horizontal or vertical dimensions of constructed pipelines, structures, equipment, and other improvements deviate from the horizontal positions that were shown on the construction Drawings, the actual positions of the pipelines or structures shall be measured and redrawn to depict their actual positions

on the Record Drawings, and their original design positions shall be cross-hatched out, screened back to a lighter shade, or other notations to indicate the change between design and as-built.

10. Record information shall include a thorough description of the improvements that have been installed, including types of material, size, class, diameter, diameter ratio, deviations from the design, and other basic information.
11. For new valves, the manufacturer type (e.g., gate, plug, ball), size (pipe nominal diameter), and make (manufacturer) of each valve shall be noted on the Record Drawings.
12. The drawings scales used in the Record Drawings shall be the same as were used in the Contract Drawings, and the sheet number of each Record Drawing sheet shall be the same as the sheet numbers that were used on the Contract Drawings from which the Record Drawings originate.
13. Record Drawings shall accurately depict all existing improvements lying within the immediate vicinity of the constructed facilities. Existing improvements shall include but not be limited to sidewalks, fences, road surfaces, buildings, and other utilities. Immediate vicinity includes areas within utility easements, right-of-way corridors, and also includes areas within 15 feet of new potable water mains, force mains, gravity sewer mains, storm pipes, power and communications lines, gas piping, and other utilities. Immediate vicinity also includes areas within 10 feet of potable water meters, backflow preventers, and fire hydrants. Rights-of-way, easements, and property corners shall be shown and shall be of sufficient detail as to confirm that constructed facilities are within appropriate property boundaries, easements, or rights-of-way. A reference to the recording document (O.R. Book or Plat Book and Page) shall be included with any depiction of a right-of-way, easement, or property boundary.
14. Each roadway depicted on the Drawings shall have the correct roadway name noted on it.
15. Horizontal locations required for valves, fittings, services, and other utility structures shall be to the center of each installation. Top-of-ground or pavement elevations required along pipelines shall be reported to the nearest 0.1 foot. Top-of-pipe elevations shall be reported to the nearest 0.1 foot. Elevations of manhole rims and manhole pipe inverts shall be reported to the nearest 0.1 foot. Top-of-wall elevations shall be reported to the nearest 0.02 foot. Weir and gate elevations shall be reported to the nearest 0.02 foot.
16. All sheets that were used to depict locations and elevations of utility structures in the Construction Drawings shall be included in the Record Drawings set.
17. Record information shall be presented in a clear and comprehensible form.

18. Abandoned-in-place water main pipe shall be shown in their actual positions.

B. CAD Requirements for Record Drawings: The Contractor shall, upon completion of the work, provide the Owner with a complete set of Record Drawings that includes as-built information updated in AutoCAD on the original Contract Drawings. The Record Drawings shall include every drawing that is in the Contract Drawing set, plus any supplemental drawings necessary to convey the as-built information. Supplemental drawings shall use the same title block as the other Record Drawings with supplemental unique page numbers. No additional compensation will be allowed for the Contractor to provide the Record Drawings. The Contractor shall use the AutoCAD drawings furnished by the Owner for this purpose. Record Drawings must be submitted in the AutoCAD format of the Contract Drawings. No other CAD software or format will be accepted. The Contractor is solely responsible for ensuring that the Record Drawings conform to the following CAD requirements:

1. All changes to drawings must be done in accordance with the same scale of the drawing revised and shall be delineated by placing a "cloud" around the areas revised and adding a revision triangle indicating the appropriate revision number.
2. Each drawing must have the revision block completed to indicate the revision number, date, and initials of the person revising the drawing. The description of the revision must say "Record Drawing." This procedure must be followed for every drawing even when no changes are made to the drawing.
3. All revisions to drawings must be put on separate layers with the layer names prefixed Record followed by the appropriate existing layer name. The colors and line types of the appropriate existing layers shall be adhered to when creating new layers.

C. The Contractor's PLS shall sign and seal the Record Drawings certifying them as true, accurate, correct, and complete, and that all data were collected in the field by the PLS or by a representative under the direct supervision of the surveyor. All visible record features, including sewer and drainage inverts, must be measured and located by the surveyor or by personnel under his or her direct supervision. The certifying surveyor shall be fully responsible for the accuracy of the record locations and elevations shown on the Record Drawings.

1. The Contractor's surveyor shall resurvey all visible surface structures as part of the Record Drawings submittal, including, but not limited to, valve boxes, hydrants, relocated or new water meter boxes, automatic blow-off assemblies, walls, gates, and weirs.
2. Horizontal locations shall be tied to Geodetic Datum (NAD) 83.

3. Elevations shall be tied to North American Vertical Datum (NAVD) 88. Elevations tied to National Geodetic Vertical Datum (NGVD) 29 shall be converted to NAVD 88.
- D. Record Drawings for facilities and other improvements not covered by their PLS shall be signed by the Contractor certifying the Record Drawings as being an accurate representation of as-built conditions. The Owner reserves the right to reject record drawings that do not accurately represent as-built conditions, and the Contractor shall be responsible for correcting the record drawings at no additional cost to the Owner.

END OF SECTION

SECTION 01810
WATERTIGHTNESS TEST FOR HYDRAULIC STRUCTURES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, and incidentals required and perform tightness testing of water-containing structures as listed in this Section and all retesting until the structures meet the requirements as specified in this Section.

1.02 SUBMITTALS

- A. Submit shop drawings in accordance with Section 01330, Submittals and Acceptance.
- B. Submit to the Engineer the results of each watertightness test of each structure. The submittal format shall be similar to that shown in Figure A attached to the end of this Section.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. The testing of prestressed concrete and reinforced concrete tanks or water containment structures shall conform to the following standards and as modified in this Section:
 - 1. American Concrete Institute (ACI)
 - a. ACI 372R—Guide to Design and Construction of Circular Wire- and Strand-Wrapped Prestressed Concrete Structures.
 - b. ACI 350.1—Specification for Tightness Testing of Environmental Engineering Concrete Containment Structures (ACI 350.1-10) and Commentary.

2. American Water Works Association (AWWA)

- a. AWWA D110—Wire- and Strand-Wound, Circular, Prestressed Concrete Water Tanks.

1.04 QUALITY ASSURANCE

- A. Coordinate timing and procedures for obtaining testing water and structure testing with the Owner well in advance of the actual testing.
- B. Water Source and Disposal
1. Water for testing shall be provided by the Owner.
 2. Water shall be potable water. The Contractor shall supply all labor, equipment, and materials.
 3. Test water shall be disposed of by the Contractor in an approved manner. Water shall not be disposed of by discharging it onto the ground surface of public or private land.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall prepare structures for testing as follows:
1. Inspect the structure to be tested for potential leakage paths such as cracks, voids, etc. and repair any leakage paths in compliance with the provisions specified in this Section or as approved by the Engineer.
 2. Thoroughly clean the structure to be tested of dirt, mud, and construction debris before beginning watertightness tests. The floor and sumps shall be flushed with water to provide a clean surface ready for testing.
 3. Inlet and outlet pipes not required to be operational for the tests may be temporarily sealed or bulkheaded before testing.
 4. Confirm the adequacy of seals around valves and reset or seal as approved by the Engineer. Estimates of valve leakage will not be allowed as adjustments to the measured tank or structure leakage.
 5. Maintain groundwater level at least 2 feet below the bottom of the tank or water-retaining structure during leakage testing.
- B. The Contractor shall perform watertightness tests before backfilling around structures to allow observing and detecting leakage points. Walls may be backfilled before testing only when approved in writing by the Engineer. The

request to backfill before testing shall include a description of the method proposed to detect leakage points after the backfill is in place. Approval to place backfill before testing shall not relieve the Contractor of the responsibility of conducting watertightness tests.

3.02 TESTING PROCEDURES

A. Conditions of Testing

1. The Contractor shall not begin initial filling of concrete structures until all concrete elements of the structure have attained the designed compressive strength of the concrete nor less than 14 days after all concrete walls or base slabs have been placed.
2. Initial filling of reinforced concrete structures shall not exceed a rate of 4 feet in 24 hours. This rate of fill may be altered at the written approval of the Engineer only.
3. The Contractor shall fill unlined or partially lined concrete structures to the maximum operating water surface level and maintain the water at that level for at least 72 hours before beginning watertightness tests to minimize water absorption into the concrete during testing. The testing of fully lined concrete structures may be started as soon as the structure is filled.
4. Where individual portions of a given structure can be operated independently from the rest of the structure (e.g., individual trains within a structure), test those portions independently from the rest of the structure.

B. Testing Procedures

1. The duration of the test shall not be less than that required for a drop in the water surface of 3/8-inch based on the calculated maximum allowable leakage rate for 3 days.
2. Loss-of-volume measurements shall be taken at 24-hour intervals. The loss of volume is usually determined by measuring the drop in water surface elevation and computing the change in volume of the contained water. Measure water surface elevation at not less than two locations at 180° apart and preferably at four locations 90° apart. Record water temperature 18 inches below the water surface when taking the first and last sets of measurements.
3. Use a 24-inch-deep white watertight container that is no less than a 10-square-foot area to independently measure the change in water volume resulting from evaporation and precipitation. Position the container to experience environmental conditions similar to the structure being tested. Correct the volume change of the structure based on the water volume change in the sample container.

C. Reports

1. Submit to the Engineer watertightness test results for each structure tested on the form shown in Figure A or a form with a similar format.
2. Notify the Owner and Engineer of the scheduling of tests 3 working days before the tests. The Engineer and Owner may monitor any watertightness testing performed on the structures.

3.03 ACCEPTANCE

- A. The following conditions shall be considered as NOT meeting the criteria for acceptance regardless of the actual loss of water volume from the structure:
1. Groundwater leakage into the structure through floors, walls, or wall-floor joints.
 2. Structures that exhibit flowing water from joints, cracks, or from beneath the foundation (except for underdrain systems).
 3. Structures on which moisture can be picked up by a dry hand from the exterior surface of the walls.
- B. The watertightness of concrete tanks and structures shall be considered acceptable when loss of water volume is within the criteria listed below:
1. For unlined tanks with a sidewater depth of 25 feet or less, loss of volume not exceeding 0.05% in 24 hours.
 2. For completely lined tanks, loss of volume not exceeding 1/8-inch in 3 days.

3.04 REPAIRS AND RETESTING

- A. The Contractor may retest structures failing the watertightness test and not exhibiting visible leakage after an additional stabilization period of 7 days. Tanks failing this second test shall be repaired before further testing.
- B. The Contractor shall repair structures which fail the watertightness test and structures showing visible leakage in compliance with the provisions specified in this Section or as approved by the Engineer.
- C. Repairs and retesting of tanks shall be accomplished at no additional cost to the Owner.

3.05 SCHEDULE

A. The following structures, where applicable, shall be tested for watertightness:

1. Ground Storage Tank.

FIGURE A
WATERTIGHTNESS TEST REPORT

PROJECT _____ SUBMITTED BY _____

STRUCTURE* _____ TEST DATES _____

Allowable loss of water volume _____ percent in 24 hours.

Measured loss of water volume _____ percent in 24 hours.

TEST READINGS

Water temperature at start _____ degrees F. Water temperature at end _____ degrees F.

<u>Date</u>	<u>Time</u>	<u>Location</u> <u>1</u>	<u>Location</u> <u>2</u>	<u>Location</u> <u>3</u>	<u>Location</u> <u>4</u>	<u>Initials</u>
1. _____	_____	_____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____	_____	_____

Change in level _____

Average change in level _____

Correction for precipitation/evaporation _____

Corrected change in level = CL = _____

$(\text{CD} \times (\text{surface area}) \times (100)) = \text{measured percent water loss in 24 hours.}$

$(\text{initial water volume}) \times (\text{number of test days})$

Notes and field observations**

* Attach a sketch showing a plan of the structure and measurement locations.

** Place date and initials at the beginning of each entry.

END OF SECTION

SECTION 01815
MAINTENANCE OF PLANT OPERATION
AND SEQUENCE OF CONSTRUCTION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The existing water ground storage tank will be maintained in continuous operation by the Owner at all times during the entire construction period. The Contractor shall schedule and conduct his work such that it will not impede any treatment process, create potential hazards to operating equipment and/or personnel, reduce the quality of the plant effluent, or cause odor or other nuisance.
- B. The Contractor shall schedule his operations to conform to the requirements specified herein and shall include in his construction schedule all events which will impact operation of the existing treatment facilities.
- C. The Owner will continue to operate the treatment facilities during the construction period and will be responsible for maintaining effluent quality. The Contractor shall fully cooperate with the Owner, coordinate the construction schedule with the Owner and Engineer, and provide the necessary labor, equipment, and materials to prevent interruption to flow and treatment. The Owner and Engineer reserve the right to modify or expand the schedule during construction to meet prevailing conditions.
- D. The Contractor shall not make any alterations to affect operation of the treatment facility without giving two weeks prior written notice to the Owner and Engineer requesting authorization to proceed. Except as noted herein, the Owner will perform all operation of existing valves or equipment.
- E. Operation of valves or equipment by the Owner may be limited on specific occasions because of process limitations or unavailability of personnel. Delays caused by such limitations shall be expected and shall not be the basis for claim of extra costs by the Contractor.
- F. The work specified in this Section shall be accomplished at such times that will be convenient to the Owner. Overtime work by the Contractor to conform to these requirements shall be considered as normal procedure under this Contract, and the Contractor shall make no claim for extra compensation as a result of this overtime work.

- G. To maintain continuous treatment facilities operation during construction a phased removal and construction sequence shall be required. Specific constraints are outlined in this Section. The Contractor shall submit to the Engineer a detailed sequence of construction to complete the work while maintaining plant operation.
- H. The Contractor shall furnish all temporary materials and equipment that may be required to complete the work of this Contract.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Submit a complete description of procedures to maintain plant operation to supplement the construction schedule developed. The description shall include step-by-step procedures, required duration, and specific procedures required to be performed by the Owner's personnel.
- B. Submit complete plans of temporary systems required as part of this contract to maintain plant operations. The plans shall clearly delineate the intended location of these items and the Contractor's proposed method for phasing from existing to temporary to completed facilities.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. The following constraints shall be applied to all equipment, treatment units, and appurtenances and utility systems on the plant site.
 - 1. Vehicular access for the Owner's personnel to the plant site and to all operating treatment units shall be maintained at all times.
 - 2. Plant operating personnel shall have access to all areas that remain in operation.
 - 3. Potable water supply to the plant shall remain operational at all times.
 - 4. Sanitary facilities shall remain operational at all times.
 - 5. Electric power and lighting service shall be uninterrupted.
 - 6. If underground piping or utilities not shown on the Drawings are encountered, such piping or utilities shall not be disturbed without prior approval of the Engineer.
 - 7. Before making a change in existing piping, electrical, or control systems, the Contractor shall inform the Owner and Engineer of such change and

assist in instructing operations and maintenance personnel in any new operating procedures.

8. Portions of some pipelines must remain in service while alterations are being made on other portions. Piping systems that must remain in service shall be isolated by placing blind flanges, plugs, or caps on all open ends.
9. Flow to and through the treatment plant shall not be interrupted.
10. Before shutting down a piece of equipment to allow for rebuilding or re-piping, the Contractor shall have on hand all materials required to reconstruct the piping system in its new arrangement.
11. All temporary facilities provided by the Contractor must be demonstrated to be operational to the satisfaction of the Engineer before any existing systems can be removed from use. The temporary facilities are critical to the operation of the wastewater treatment facilities. Availability of these facilities must be maintained at all times. The Contractor must respond to requests from the Engineer for repair and maintenance immediately (7 days per week, 24 hours per day, including holidays). If the Contractor fails to immediately respond to requests for repair and maintenance, such repair and maintenance may be performed by the Owner. All costs associated with such repair and maintenance performed by the Owner shall be the responsibility of the Contractor.

END OF SECTION

SECTION 01830
OPERATIONS AND MAINTENANCE MANUALS

PART 1 GENERAL

1.01 SCOPE OF WORK

The Contractor shall do the following:

- A. Compile product data and related information appropriate for the Owner's maintenance and operation of products furnished under the Contract.
 - 1. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of the Specifications. The data presented in the O&M Manuals shall be specifically related to this Contract and application.
 - 2. Incorporate maintenance and operation data furnished by the Owner, if any.
- B. Furnish all labor, equipment, materials, and all other items to supply and deliver to the Owner O&M Manuals for the Work in accordance with the requirements of this Section.
- C. Provide O&M Manuals for all equipment, including instrumentation, electrical, and process control system equipment and software for the entire Facility.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Manuals which, in general, shall have two levels: a facilities-wide systems level and an individual-component level.
 - 1. The facilities-wide systems level shall do the following:
 - a. Describe the facilities-wide systems, including diagrams.
 - b. Explain start-up, shutdown, normal operations, and malfunctions of the facilities-wide systems.
 - c. Tabulate a lubrication schedule for the facilities-wide systems.
 - d. Describe preventive maintenance checking procedures for the facilities-wide systems.
 - e. Include a cross-reference to all individual component manuals.

2. The individual-component level shall contain the following:
 - a. Storage requirements.
 - b. Installation instructions.
 - c. Alignment instructions and tolerances.
 - d. Operating instructions.
 - e. Troubleshooting instructions.
 - f. Lubrication requirements.
 - g. Maintenance instructions.
 - h. Parts list.
 - i. Recommended spare parts list and how to obtain same.

B. Format

1. Electronic file format: PDF
2. Size: 8 1/2-x-11-inch format for narrative and figures. Larger standard sizes are acceptable for drawings.
3. Text: Manufacturer's printed data or neatly word-processed.
4. Provide a new page for each separate product or each piece of operation equipment.
 - a. Provide a word-processed description of the product and major component parts of equipment.
 - b. Provide indexed tabs.
5. Cover: Identify each volume with the typed title, "OPERATION AND MAINTENANCE INSTRUCTIONS," listing the following:
 - a. Title of Project.
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.
6. All word processing must be done using the latest version of Microsoft Word.
7. Arrange the data into related consistent groupings and cover all with a table of contents and index with page numbering of all sheets.

- C. The Contractor shall submit the following:
1. Equipment Manuals—O&M Instruction Manual for each piece of equipment shall be submitted to the Owner with delivery of the equipment.
 2. Systems O&M Manuals—Systems O&M Manuals, indexed and submitted to the Owner no later than 14 days before the Facility's start-up. Systems O&M Manuals will be complete except for field results and refinements added as result of demonstrations.
 3. Final O&M Manuals—Final Equipment and Systems O&M Manuals, indexed and submitted to the Owner before the Substantial Completion under this Contract.
 4. The cost of these Manuals shall be included in the total Contract Price.
- D. Any modifications required after final O&M submission shall be made to the manuals by issuance of complete replacement O&M manuals. Addenda with pages for insertion into manuals previously provided are not allowed. The updated manuals shall be accompanied by a written description of the changes made to the manual.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to herein shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. Florida Administrative Code (FAC)
1. Rule 62-555.350 FAC—Operation and Maintenance of Public Water Systems.

1.04 QUALITY ASSURANCE

- A. Data shall be prepared by personnel:
1. Trained and experienced in maintaining and operating the described products.
 2. Familiar with requirements of this Section.
 3. Skilled as a technical writer to the extent required to communicate essential data.
 4. Skilled as a person competent to prepare required drawings.

1.05 CONTENTS, EACH VOLUME

- A. Neatly word-processed table of contents for each volume, arranged in systematic order, to include the following:
 - 1. Contractor, name of responsible principal, address, fax number, and telephone number.
 - 2. A list of each product required to be included, indexed to content of the volume.
 - 3. A list with each product, name, address, fax number, and telephone number of the following:
 - a. Subcontractor or installer.
 - b. A list of each product to be included, indexed to content of the volume.
 - c. Identify area of responsibility of each subcontractor or installer, if more than one.
 - d. Local source of supply for parts and replacement.
 - e. Manufacturer.
 - 4. Identify each product by product name and other identifying symbols as set forth in the Contract Documents.
- B. Product Data
 - 1. Include only those sheets that are pertinent to the specific product.
 - 2. Annotate each sheet to achieve the following:
 - a. Clearly identify the specific product or part installed.
 - b. Clearly identify data applicable information.
 - c. Delete references to inapplicable information.
- C. Drawings
 - 1. Supplement product data with drawings as necessary to illustrate the following clearly:
 - a. Relations of component parts of equipment and systems.
 - b. Control and flow diagrams.
 - c. Owner Tag Numbers.

2. Coordinate drawings with information in Record Documents to ensure correct illustration of completed installation.
 3. Do not use Record Documents as maintenance drawings.
- D. Written text as required to supplement product data for the particular installation:
1. Organize in consistent format under separate headings for different procedures.
 2. Provide a logical sequence of instructions for each procedure.
 3. Describe how the complete system is to operate.
- E. Copy of pertinent information related to warranty, bond, and service Contract issued.
1. Provide information sheet for Owner's personnel with the following information:
 - a. Proper procedures in event of failure.
 - b. Instances that might affect the validity of warranties or bonds.
- F. Training manuals used in training courses will become part of this Manual.

1.06 MANUAL FOR MATERIALS AND FINISHES

- A. Content, for architectural products, applied materials, and finishes:
1. Manufacturer's data, giving full information on products:
 - a. Catalog number, size, composition.
 - b. Color and texture designations.
 - c. Information required for re-ordering special-manufactured products.
 2. Instructions for care and maintenance:
 - a. Manufacturer's recommendation for types of cleaning agents and methods.
 - b. Cautions against cleaning agents and methods that are detrimental to product.
 - c. Recommended schedule for cleaning and maintenance.

- B. Content, for moisture-protected and weather-exposed products:
 - 1. Manufacturer's data, giving full information on products:
 - a. Applicable standards.
 - b. Chemical composition.
 - c. Details of installation.
 - 2. Instructions for inspection, maintenance, and repair.
- C. Additional requirements for maintenance data as required by other sections of the Specifications.

1.07 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Content, for each electrical, mechanical, instrumentation, and communication system, as appropriate:
 - 1. A table identifying each piece of equipment, each associated control or instrument, the location of the control or instrument, and the function of the control or instrument.
 - 2. A description of the system and its component parts:
 - a. Function, normal operating characteristics, and limiting conditions for the system, the sub-system, and the component parts.
 - b. Performance curves, engineering data, and tests.
 - c. Complete nomenclature and commercial numbers of replaceable parts.
 - 3. Circuit directories of panel board:
 - a. Electrical service.
 - b. Controls.
 - c. Communications.
 - 4. As-installed color-coded wiring diagrams.
 - 5. Instrument loop diagrams showing the path that a control or instrumentation signal takes from its origin to the action it takes.
 - a. An electrical schematic for each item.
 - b. A chart listing the controls/instruments in a loop identifying the equipment's abbreviated symbol, a description of the symbol,

design criteria, process flow, quantity supplied, and manufacturer's model and serial number.

6. Operating procedures:
 - a. Routine and normal operating instructions.
 - b. Sequences required.
 - c. Special operating instructions.
 7. Maintenance procedures:
 - a. Routine operations.
 - b. Guide to "trouble-shooting."
 - c. Disassembly, repair, and re-assembly.
 - d. Alignment, adjustment, and checking.
 8. The manufacturer's operating and maintenance instructions.
 9. A list of the original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 10. Other data as required under other sections of the Specifications.
 11. Abnormal and emergency operations:
 - a. Potential overloads.
 - b. Procedures for equipment breakdown.
 - c. Action to be taken in a power outage.
 - d. Identity of alarms by equipment location and action to correct.
 - e. Equipment safety features, requirements, and potential hazards.
 12. Programming manuals for programmable devices including list of standard programming.
- B. Content, for each unit of equipment and system, as appropriate:
1. Description of unit and component parts:
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data, and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 - d. Model number and name plate data for each piece of equipment.
 - e. Assembly drawings.

- f. List of all special tools required to service equipment and/or systems including where the tools are stored.
2. Operating procedures:
 - a. Start-up, break-in, routine, and normal operating instructions.
 - b. Regulation, control, stopping, shut-down, and emergency instructions.
 - c. Summer and winter operating instructions.
 - d. Special operating instructions.
 - e. Control settings and ranges.
3. Maintenance procedures:
 - a. Type and frequency of preventive maintenance activities required for each piece of equipment.
 - b. Guide to "trouble-shooting."
 - c. Disassembly, repair, and re-assembly.
 - d. Alignment, adjusting, and checking.
4. Servicing and lubrication schedule:
 - a. List of lubricants required.
 - b. Period between lubrications.
5. Manufacturer's printed operating and maintenance instructions. (This is not to be a generalized catalog of the entire product line.)
6. Description of sequence of operation.
7. The original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance:
 - a. Predicted life of parts subject to wear.
 - b. Items recommended to be stocked as spare parts.
8. As-installed control diagrams.
9. Each Contractor's coordination drawings.
10. List of the original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
11. Other data as required under pertinent sections of the Specifications.

12. Charts of equipment, instrument, and valve tag numbers with location and function:
 - a. Reference drawing which shows equipment, instrument, or valve location.
 - b. Manufacturer's model and serial number.
 - c. Valve actuator type (manual, hydraulic, electric, or pneumatic).
 13. Local services (process water and air, drains, HVAC, natural gas and steam).
- C. The Contractor shall prepare and include additional data when the need for such data becomes apparent during instruction of the Owner's personnel.
- D. Additional requirements for O&M data required by other sections of the Specifications.

PART 2 PRODUCTS

2.01 O&M MANUALS

- A. Electronic Version: O&M Manuals shall be provided electronically. The manual files must be in PDF format capable of being read, annotated, and printed with Adobe Standard, Adobe Pro, or BlueBeam, unless other software and file format is approved by the Owner, at the time of the transmittal of documents. AutoCAD files for drawings shall be provided separately from PDF versions included in the manual.
- B. Printed in Binders: The manuals shall be printed and supplied in binders that are as follows:
1. Three ring binders with hard covers.
 2. Filled to not more than 75% capacity.
 3. When multiple binders are used, arrange the data into volumes containing related equipment, products and systems.
 4. Label each binder volume with a volume number, total number of volumes (e.g., 1 of 3), and descriptive volume title.
 5. Confirm binder arrangement and layout with Owner if clarification or guidance is needed.

PART 3 EXECUTION (NOT USED)

END OF SECTION

DIVISION 2

SITE CONSTRUCTION

SECTION 02220
DEMOLITION AND MODIFICATIONS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, and incidentals required and demolish, modify, remove, and dispose of work shown on the Drawings and as specified in this Section.
- B. The work includes but is not limited to demolishing, modifying, and removing existing materials, equipment, or work necessary to install the new work as shown on the Drawings and as specified in this Section and to connect with existing work in an approved manner.
- C. Demolition, modifications, and removals which may be specified under other Sections shall conform to requirements of this Section.
- D. Demolition and modifications include:
 - 1. Removal and disposal of existing concrete floor, pads, piping, and miscellaneous items as shown on the Drawings.
 - 2. Temporary relocation of bulk chemical storage tanks, chemical feed pumps, piping, and associated electrical and instrumentation systems.
 - 3. Off-site disposal of excess and unacceptable materials.
- E. Blasting and the use of explosives will not be permitted for any demolition work.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Submit to the Owner and/or Engineer six copies of proposed methods and operations of demolition of the structures and modifications before beginning work. Include in the schedule the coordination of shutoff, capping, and continuation of utility service as required.
- B. Furnish a detailed sequence of demolition and removal work to ensure the uninterrupted progress of the Owner's operations. The sequence shall be compatible with sequence of construction and shutdown coordination requirements.

- C. Before beginning demolition work, the Contractor shall complete all modifications necessary to bypass the affected structure. Actual work shall not begin until the Engineer has observed and approved the modifications and authorized beginning the demolition work in writing.

1.03 JOB CONDITIONS

A. Protection

- 1. The Contractor shall conduct the demolition and removal work to prevent damage or injury to structures, equipment, piping, instrumentation, conduit, light fixtures, etc., and occupants of the structures and to adjacent features that might result from falling debris or other causes, and not interfere with the use and free and safe passage to and from adjacent structures.

B. Scheduling

- 1. The Contractor shall carry out operations to avoid interference with operations and work in the existing facilities.

C. Notification

- 1. At least 48 hours before beginning demolition or removal, the Contractor shall notify the Engineer in writing of the proposed schedule of the demolition or removal. The Owner shall inspect the existing equipment and identify and mark those items that are to remain on the property of the Owner. No removals shall be started without the permission of the Engineer.

D. Conditions of Structures

- 1. The Owner and the Engineer assume no responsibility for the actual condition of the structures to be demolished or modified.
- 2. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner insofar as practicable. However, variations within a structure may occur before the start of demolition work.

E. Repairs to Damage

- 1. The Contractor shall promptly repair damage caused to adjacent facilities by demolition operation when directed by the Engineer and at no cost to

the Owner. Repairs shall be made to a condition at least equal to that which existed before construction.

F. Traffic Access

1. The Contractor shall conduct demolition and modification operations and remove equipment and debris to ensure minimum interference with roads onsite and to ensure minimum interference with occupied or used facilities.
2. Special attention is directed towards maintaining safe and convenient access to the existing facilities by plant personnel and plant associated vehicles.

1.04 RULES AND REGULATIONS

- A. The Florida Building Code or the City of Leesburg shall control the demolition, modification or alteration of the existing buildings or structures.
- B. No building or structure or any part thereof shall be demolished until an application has been filed with the Building Inspector and a permit issued. The fee for this permit shall be the Contractor's responsibility.

1.05 DISPOSAL OF MATERIAL

- A. Salvageable material and equipment shall become the property of the Owner. The Contractor shall dismantle all such items to a size that can be readily handled and deliver them to a designated storage area.
- B. All other material and items of equipment shall become the Contractor's property and must be removed from the site.
- C. Storing or selling removed items on the site will not be allowed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. All materials and equipment removed from existing work shall become the property of the Contractor, except for those which the Owner has identified and marked for his/her use. All materials and equipment marked by the Owner to remain shall be carefully removed so as not to be damaged and shall be cleaned

and stored on or adjacent to the site in a protected place specified by the Engineer or loaded onto trucks provided by the Owner.

- B. The Contractor shall dispose of all demolition materials, equipment, debris, and all other items—except those marked by the Owner to remain—off the site and in conformance with all existing applicable laws and regulations.
- C. Pollution Controls
 - 1. Use water sprinkling, temporary enclosures, and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Comply with governing regulations pertaining to environmental protection.
 - a. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.
 - b. Clean adjacent structures, facilities, and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to conditions existing before starting the work.

3.02 STRUCTURAL REMOVALS

- A. The Contractor shall remove structures to the lines and grades shown unless otherwise directed by the Engineer.
- B. All demolition debris shall be removed and taken from the site, unless otherwise approved by the Engineer.
- C. After parts or all of slabs and like work which tie into new work or existing work are removed, the point of junction shall be neatly repaired so as to leave only finished edges and surface exposed.

3.03 DEMOLITION, REPLACEMENT, AND REPAIR

- A. Structural elements shall not be overstressed. The Contractor shall be responsible for shoring and/or bracing as required and indicated on the Drawings for adequate structural support as a result of work performed.
- B. Before demolishing the slab the Contractor shall provide temporary shoring and/or bracing of the structure and hung utilities as indicated on the Drawings.
- C. The temporary shoring and/or bracing shall be used in specified locations during the phasing of sequence of construction indicated in Section 01815, Maintenance of Plant Operation and Sequence of Construction.

- D. The shoring and/or bracing shall remain in place until the repair mortar and/or concrete in each stage has attained design strength.

3.04 CLEAN-UP

- A. The Contractor shall remove from the site all debris resulting from the demolition operations as it accumulates. Upon completion of the work, the Contractor shall remove all materials, equipment, waste, and debris of every sort and shall leave the premises clean, neat, and orderly.

END OF SECTION

SECTION 02230 SITE PREPARATION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, and equipment required and perform all site preparation, complete as shown on the Drawings and as specified in this Section.
- B. The Contractor shall obtain all permits required for site preparation before proceeding with the work, including clearing and tree removal.
- C. The areas to be cleared, grubbed, and stripped within public rights-of-way and utility easements shall be minimized to the extent possible for the scope of pipeline work and in consideration of the actual means and methods of construction used. No unnecessary site preparation shall be performed within these areas.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance.

- A. Submit to the Engineer copies of all permits required before clearing, grubbing, and stripping work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 CLEARING

- A. The Contractor shall cut and remove all timber, trees, stumps, brush, shrubs, roots, grass, weeds, rubbish, and any other objectionable material resting on or protruding through the surface of the ground.
- B. The Contractor shall preserve and protect trees and other vegetation designated on the Drawings or directed by the Engineer to remain as specified below.

3.02 GRUBBING

- A. The Contractor shall grub and remove all stumps, roots in excess of 1-1/2 inches in diameter, matted roots, brush, timber, logs, concrete rubble, and other debris encountered to a depth of 18 inches below original grade or 18 inches beneath the bottom of foundations, whichever is deeper.
- B. The Contractor shall refill all grubbing holes and depressions excavated below the original ground surface with suitable materials and compact to a density conforming to the surrounding ground surface in accordance with Sections 02300, Earthwork for Structures, and Section 02305, Earthwork for Utilities.

3.03 STRIPPING

- A. The Contractor shall strip topsoil from all areas to be occupied by buildings, structures, and roadways and all areas to be excavated or filled.
- B. Topsoil shall be free from brush, trash, large stones, and other extraneous material. Avoid mixing topsoil with subsoil.
- C. The Contractor shall stockpile and protect topsoil until it is used in landscaping, loaming, and seeding operations and dispose of surplus topsoil after all work is completed.

3.04 DISPOSAL

- A. Dispose of material and debris from site preparation operations by hauling such materials and debris to an approved offsite disposal area. No rubbish or debris of any kind shall be buried on the site.
- B. Burning of cleared and grubbed materials or other fires for any reason will not be permitted.

3.05 PROTECTION

- A. Trees and other vegetation designated on the Drawings or directed by the Engineer to remain shall be protected from damage by all construction operations by erecting suitable barriers, guards and enclosures, or by other approved means. The Contractor shall conduct clearing operations in a manner to prevent falling trees from damaging trees and vegetation designated to remain and to the work being constructed. The Contractor shall provide for the safety of employees and others.

- B. The Contractor shall maintain protection until all work in the vicinity of the work being protected has been completed.
- C. The Contractor shall not operate heavy equipment or stockpile materials within the branch spread of existing trees.
- D. The Contractor shall immediately repair any damage to existing tree crowns, trunks, or root systems. Roots exposed and/or damaged during the work shall immediately be cut off cleanly inside the exposed or damaged area. Treat cut surfaces with an acceptable tree wound paint and topsoil spread over the exposed root area.
- E. When work is completed the Contractor shall remove all dead and downed trees. Live trees shall be trimmed of all dead and diseased limbs and branches. All cuts shall be cleanly made at their juncture with the trunk or preceding branch without injury to the trunk or remaining branches. Cuts over 1 inch in diameter shall be treated with an acceptable tree wound paint.
- F. The Contractor shall restrict construction activities to those areas within the limits of construction designated on the Drawings, within public rights-of-way, and within easements provided by the Owner. Adjacent properties and improvements on these properties, public or private, which become damaged by construction operations shall be promptly restored to their original condition to the full satisfaction of the property owner.
- G. The Contractor shall remove trees damaged beyond saving, through no fault of the Contractor, as directed by the Engineer.

END OF SECTION

SECTION 02300
EARTHWORK FOR STRUCTURES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, equipment, tools, appliances, and materials and perform all operations necessary for the following:
1. Preparing subgrades for slab-on-grade, walks, pavements, and lawns and grasses.
 2. Excavating and backfilling for buildings and structures.
 3. Laying the subbase course for concrete sidewalks and pavements.
 4. Excavating and backfilling for utility trenches.
 5. Excavating and backfilling for trenches for buried mechanical and electrical utilities and pits for buried utility structures, as indicated on the Contract Drawings and described in this Section.

1.02 SUBMITTALS

The Contractor shall submit the following shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
1. Classification according to ASTM D2487 of each onsite and borrow soil material proposed for fill and backfill.
 2. Laboratory compaction curve according to ASTM D1557 for each onsite and borrow soil material proposed for fill and backfill.
- B. The Contractor shall submit records before the start of this work. The Contractor shall verify that the existing conditions are correct as shown on the plans and mentioned in these Specifications. The Contractor shall note any discrepancies found immediately and notify the Owner and Engineer.

The records shall include the following:

1. The location of all underground utilities, structures, etc. surrounding the areas to be excavated that may be impacted by the work.
2. The location of test excavations.
3. The location of inspections.

- C. Testing Agency Invoices indicating if the invoice is for an initial test or a re-test of the Contractor's work.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Society for Testing and Materials (ASTM)

1. ASTM C33/C33M—Standard Specification for Concrete Aggregates.
2. ASTM D698—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
3. ASTM D1556/D1556M—Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
4. ASTM D1557—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
5. ASTM D2167—Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
6. ASTM D2487—Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
7. ASTM D2937—Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method.
8. ASTM D2940/D2940M—Standard Specification for Graded Aggregate Material For Bases or Subbases for Highways or Airports.
9. ASTM D3740—Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
10. ASTM D6938—Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
11. ASTM E329—Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.

- B. Occupational Safety and Health Administration (OSHA)

1. OSHA 2226—Trenching and Excavation Safety.

1.04 QUALITY ASSURANCE

- A. Geotechnical Testing Agency Qualifications: An independent testing agency qualified according to ASTM E329 to conduct soil materials and definition testing, as documented according to ASTM D3740.
- B. The Contractor shall do the following:
 - 1. Ensure that excavations provide adequate working space and clearance for the work to be performed and for installing piping and buried utilities. In no case shall excavation faces be undercut.
 - 2. Ensure that foundation surfaces are clean and free of loose material of any kind when pipelines and buried utilities are placed on them.
 - 3. Excavate, trench, and backfill in compliance with applicable requirements of governing authorities having jurisdiction.
 - 4. Ensure that shoring and sheeting for excavations are designed by a Florida-registered Professional Engineer and are in accordance with OSHA 2226.
 - 5. Before beginning any excavation or grading, ensure the accuracy of all survey data indicated on the Contract Drawings and in the Specifications and/or as provided. If the Contractor discovers any inaccuracies, errors, or omissions in the survey data, the Contractor shall immediately notify the Owner so that proper adjustments can be anticipated or ordered. If the Contractor begins any excavation or grading, this shall be considered an acceptance of the survey data by the Contractor, after which time the Contractor has no claim against the Owner resulting from alleged errors, omissions, or inaccuracies of the survey data.
 - 6. Ensure that tolerances for excavation are plus or minus 0.10 foot to the required line and to the required grade. Tolerance for compaction of in-place material shall be plus or minus 0.10 foot to the required grade, unless otherwise noted.
 - 7. Remove unsatisfactory materials and unsuitable materials including muck, silts, peat, and other loose and very loose compressible soils from excavations before placing pipe foundation, bedding, and buried utilities.

1.05 PROJECT CONDITIONS

- A. Existing Utilities: The Contractor shall not interrupt utilities serving facilities occupied by the Owner or others unless permitted to do so in writing by the Engineer and then only after arranging to provide temporary utility services according to requirements indicated.
 - 1. Notify the Engineer not less than 2 days in advance of proposed utility interruptions.

2. Do not proceed with utility interruptions without the Engineer's written permission.
 3. Contact a utility-locator service and obtain utility locations for the Project area before excavating.
- B. The Contractor shall demolish and completely remove from the site underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

1.06 DEFINITIONS

- A. *Backfill*: Soil material or controlled low-strength material used to fill an excavation.
1. *Initial Backfill*: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 2. *Final Backfill*: Backfill placed over initial backfill to fill a trench.
- B. *Base Course*: The course placed between the subbase course and hot-mix asphalt paving.
- C. *Bedding Course*: The course placed over the excavated subgrade in a trench before laying pipe.
- D. *Borrow Soil*: Satisfactory soil imported from off-site for use as fill or backfill.
- E. *Drainage Course*: The course supporting the slab-on-grade that also minimizes the upward capillary flow of pore water.
- F. *Excavation*: Removing material encountered above subgrade elevations and to lines and dimensions indicated.
1. *Authorized Additional Excavation*: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by the Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for unit prices.
 2. *Unauthorized Excavation*: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by the Engineer. Unauthorized excavation as well as remedial work directed by the Engineer shall be without additional compensation.
- G. *Fill*: Soil materials used to raise existing grades.

- H. *Structures*: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- I. *Subgrade*: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- J. *Utilities*: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

PART 2 PRODUCTS

2.01 SOIL MATERIALS

- A. General: The Contractor shall provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D2487 Soil Classification Groups SW and SP or a combination of these groups, free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsuitable Soils: Soil Classification Groups GW, GP, GM, GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487, or a combination of these groups.
 - 1. Unsuitable soils also include satisfactory soils not maintained within 2% of optimum moisture content at time of compaction.
- D. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 95% passing a 1-1/2-inch sieve and not more than 8% passing a No. 200 sieve.
- E. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90% passing a 1-1/2-inch sieve and not more than 12% passing a No. 200 sieve.
- F. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; except with 100% passing a 1-inch sieve and not more than 8% passing a No. 200 sieve.

- G. Sand: ASTM C33/C33M; fine aggregate, natural, or manufactured sand.
- H. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

PART 3 EXECUTION

3.01 PREPARATION

- A. The Contractor shall protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. The Contractor shall prepare subgrade for earthwork operations including removing vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface as specified in Section 02230, Site Preparation.
- C. The Contractor shall protect and maintain erosion and sedimentation controls, which are specified in Section 01350, Environmental Protection Procedures.

3.02 DEWATERING

- A. The Contractor shall prevent surface water and groundwater from entering excavations, from ponding on prepared subgrades, and from flooding the Project site and surrounding area.
- B. The Contractor shall protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
 - 2. Install a dewatering system to keep subgrades dry and convey groundwater away from excavations. Maintain until dewatering is no longer required.

3.03 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.04 EXCAVATION, GENERAL

- A. Unclassified Excavation: The Contractor shall excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered.

Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.

1. If excavated materials intended for fill and backfill include unsuitable soil materials, replace with satisfactory soil materials.

3.05 EXCAVATION FOR STRUCTURES

- A. The Contractor shall excavate to indicated elevations and dimensions within a tolerance of plus or minus 0.10 foot. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 1. Excavations for Footings and Foundations: Do not disturb the bottom of the excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 2. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 0.10 foot. Do not disturb the bottom of excavations intended as bearing surfaces.

3.06 EXCAVATION FOR WALKS AND PAVEMENTS

- A. The Contractor shall excavate surfaces under walks and pavements to indicated lines, cross-sections, elevations, and subgrades.

3.07 EXCAVATION FOR UTILITY TRENCHES

- A. The Contractor shall excavate trenches to indicated gradients, lines, depths, and elevations.
- B. The Contractor shall excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
 1. Clearance: 12 inches on each side of pipe or conduit.
- C. Trench Bottoms: The Contractor shall excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints,

fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.

1. For pipes and conduit less than 6 inches in nominal diameter and flat-bottomed multiple-duct conduit units, hand excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
2. For pipes and conduit 6 inches or larger in nominal diameter, shape the bottom of trench to support the bottom 90° of pipe circumference. Fill depressions with tamped sand backfill.
3. Alternately, excavate trenches 4 inches deeper than the bottom of pipe elevation to allow for the bedding course. Hand excavate for bell of pipe.

3.08 SUBGRADE INSPECTION

- A. The Contractor shall notify the Engineer when excavations have reached the required subgrade.
- B. If the Engineer determines that unsuitable soil is present, the Contractor shall continue excavation and replace with compacted backfill or fill material as directed.
- C. The Contractor shall proof-roll subgrade below the building slabs and pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 1. Completely proof-roll the subgrade in one direction, repeating proof-rolling in the direction perpendicular to the first direction. Limit vehicle speed to 3 miles per hour (mph).
 2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by the Engineer, and replace with compacted backfill or fill as directed.
- D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for unit prices or additional work.
- E. As directed by the Engineer, the Contractor shall reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities without additional compensation.

3.09 UNAUTHORIZED EXCAVATION

- A. The Contractor shall fill unauthorized excavation under foundations or wall footings by extending the bottom elevation of concrete foundation or footing to the excavation bottom without altering top elevation. Lean concrete fill, with

28-day compressive strength of 2,500 psi, may be used when approved by the Engineer.

1. Fill unauthorized excavations under other construction or utility pipe as directed by the Engineer.

3.10 STORAGE OF SOIL MATERIALS

- A. The Contractor shall stockpile excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water.

1. Stockpile soil materials away from edge of excavations. Do not store within the drip line of remaining trees.

3.11 BACKFILL

- A. The Contractor shall place and compact backfill in excavations promptly, but not before completing the following:

1. Constructing below finish grade, including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
2. Surveying locations of underground utilities for Record Documents.
3. Testing and inspecting underground utilities.
4. Removing concrete formwork.
5. Removing trash and debris.
6. Removing temporary shoring, bracing, and sheeting.
7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

- B. The Contractor shall place backfill on subgrades free of mud.

3.12 UTILITY TRENCH BACKFILL

- A. The Contractor shall place backfill on subgrades free of mud.
- B. The Contractor shall place and compact the bedding course on trench bottoms and where indicated. Shape the bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. The Contractor shall backfill trenches excavated under footings and within 18 inches of bottom of footings with suitable soil.
- D. The Contractor shall fill trenches with concrete to elevation of bottom of footings. Concrete is specified in Section 03301, Concrete and Reinforcing Steel.

- E. The Contractor shall place and compact initial backfill of satisfactory soil, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the utility pipe or conduit.
 - 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
- F. The Contractor shall backfill voids with satisfactory soil while installing and removing shoring and bracing.
- G. The Contractor shall place and compact final backfill of satisfactory soil to final subgrade elevation.

3.13 SOIL FILL

- A. The Contractor shall plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. The Contractor shall place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use satisfactory soil material.
 - 3. Under building slabs, use engineered fill.
 - 4. Under footings and foundations, use engineered fill.
- C. The Contractor shall place soil fill on subgrades free of mud.

3.14 SOIL MOISTURE CONTROL

- A. The Contractor shall uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compacting to within 2% of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy.
 - 2. Remove and replace or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2% and is too wet to compact to the specified dry unit weight.

3.15 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. The Contractor shall place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. The Contractor shall place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- C. The Contractor shall compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact the top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95%.
 - 2. Under walkways, scarify and recompact the top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92%.
 - 3. Under lawn or unpaved areas, scarify and recompact the top 6 inches below subgrade and compact each layer of backfill or fill soil material at 90%.
 - 4. For utility trenches, compact each layer of initial and final backfill soil material at 85% in unpaved lawn areas. Final backfill compaction shall meet the requirement listed above depending on the location of the trench.

3.16 GRADING

- A. General: The Contractor shall uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross-sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 1 inch.
 - 2. Walks: Plus or minus 1 inch.
 - 3. Pavements: Plus or minus 1/2 inch.

- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.17 FIELD QUALITY CONTROL

- A. The cost of all testing shall be included in the cost of the ground storage tank.
- B. The number and location of the tests shall be as specified in these Specifications and as directed by the Engineer/Owner during construction.
- C. The Contractor shall coordinate activity with the Engineer/Owner and the testing agency to permit testing as directed in the presence of the Engineer/Owner.
- D. The costs of any and all retests due to failure to achieve specified requirements shall be solely borne by the Contractor and are not reimbursable under this Contract.
- E. All materials proposed for use shall be tested as follows:

Material	Required Test	Min No. Tests
Satisfactory Soil Materials	Soil Classification using ASTM D2487 (including all tests contained therein)	One per source of materials to determine conformance with materials specified herein; additional test whenever there is any apparent change.
	Soil moisture-density relationship using Modified Proctor ASTM D1557	One per source of material or apparent change in material.

- F. The Contractor shall allow the testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after the test results for previously completed work comply with requirements.
- G. Footing Subgrade: At footing subgrades, the testing agency will perform at least one test of each soil stratum to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Engineer/Owner.
- H. The testing agency will test compaction of soils in place according to ASTM D1556/D1556M, ASTM D2167, ASTM D2937, and ASTM D6938 as applicable. Tests will be performed at the following locations and frequencies:
1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2,000 square feet or less of paved area or building slab, but in no case fewer than three tests.

2. Foundation Wall Backfill: At each compacted backfill layer, at least one test for each 100 feet or less of wall length but no fewer than two tests.
 3. Trench Backfill: At each compacted initial and final backfill layer, at least one test for each 400 feet or less of trench length but no fewer than two tests.
- I. When the testing agency reports that subgrades, fills, or backfills have not achieved the degree of compaction specified, the Contractor shall scarify and moisten or aerate or remove and replace soil to the depth required and recompact and retest until specified compaction is obtained.
- J. The approved testing agency shall transmit copies of field testing results as follows:
1. One copy to the Owner.
 2. Two copies to the Engineer.
 3. Two copies to the Contractor.

The field test reports shall include, at a minimum, project title; project location; location of sample(s) tested; time of testing; date of testing; testing person's full name; testing agency name, address, and telephone number; and test results.

- K. No soil material shall be used until (1) the Engineer/Owner has reviewed and approved test reports and (2) the Contractor submits certification that the soil material proposed for construction is clean and meets gradation and other parameters specified in this Specification.
- L. At no cost to the Owner, the Contractor shall remove and replace or correct all materials and work which tests indicate do not conform, in the opinion of the Engineer/Owner, to the requirements of these Specifications.
- M. The results of in-place density tests shall be considered satisfactory if the density in each instance is equal to or greater than the specified density. Soil moisture content at the time of testing shall conform to requirements of these Specifications.
- N. Where unsatisfactory compaction is revealed by the tests, the Contractor shall re-excavate, backfill, recompact, and/or rework the backfill as required to obtain the required degree of compaction over the entire depth of the excavation.

3.18 PROTECTION

- A. Protecting Graded Areas: The Contractor shall protect newly graded areas from traffic and erosion and keep them free of trash and debris.
- B. The Contractor shall repair and reestablish grades to the specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by the Engineer and reshape and recompact.
- C. Where settling occurs before the Project Correction Period elapses, The Contractor shall remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

3.19 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: The Contractor shall transport surplus satisfactory soil to designated storage areas on the Owner's property and stockpile and spread this soil as directed by the Engineer.
 - 1. Remove waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the Owner's property.

END OF SECTION

SECTION 02305
EARTHWORK FOR UTILITIES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall provide all materials, equipment, labor, and work necessary to completely construct the project in accordance with the Contract Documents. This work includes but is not limited to the following:
 - 1. Excavating and removing unsatisfactory materials.
 - 2. Preparing trench foundations.
 - 3. Providing satisfactory material for all trenches as specified and as required.
 - 4. Obtaining, storing, maintaining, and disposing of materials.
 - 5. Dewatering, shoring, and sheeting.
 - 6. Placing, compacting, testing, final grading, and demolishing subgrade.
 - 7. Performing all other work required by the Contract Documents.
- B. The Contractor is responsible for performing all work so as not to damage existing roadways, facilities, utilities, structures, etc. and shall repair and replace such damage to equal or better than its original undamaged condition without cost to the Owner.
- C. The Contractor shall examine the site before submitting a bid, taking into consideration all conditions that may affect the work.
- D. The Contractor shall coordinate all additional subsurface investigations and testing included with this work with the Engineer before performing the excavation and foundation preparation work. In general, if the Contractor finds different and unsuitable/unsatisfactory soil conditions during the work, the Contractor shall notify the Engineer and the Owner immediately.

1.02 SUBMITTALS

The Contractor shall submit the following shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
 - 1. Classification according to ASTM D2487 of each onsite and borrow soil material proposed for fill and backfill.
 - 2. Laboratory compaction curve according to ASTM D1557 for each onsite and borrow soil material proposed for fill and backfill.
- B. The Contractor shall submit records before the start of this work. The Contractor shall verify that the existing conditions are correct as shown on the plans and mentioned in these Specifications. The Contractor shall note any discrepancies found immediately and notify the Owner and Engineer. The records shall include the following:
 - 1. Location of all existing underground utilities, structures, etc. surrounding the areas to be excavated that may be impacted by the work.
 - 2. Location of test excavations.
 - 3. Location of inspections.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply:

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM D1556/D1556M—Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
 - 2. ASTM D1557—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
 - 3. ASTM D2487—Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
 - 4. ASTM D2937—Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method.
 - 5. ASTM D3282—Standard Practice for Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes.

6. ASTM D3740—Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used In Engineering Design and Construction.
 7. ASTM D6938—Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
 8. ASTM E329—Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
- B. Florida Statutes (FS)
1. Florida Trench Safety Act (90-96, Laws of Florida).
- C. Occupational Safety and Health Administration (OSHA)
1. 29 CFR 1926, Subpart P—Safety and Health Regulations for Construction, Excavations.
 2. OSHA 2226—Trenching and Excavation Safety.

1.04 QUALITY ASSURANCE

- A. Geotechnical Testing Agency Qualifications: An independent testing agency qualified according to ASTM E329 to conduct soil materials and definition testing, as documented according to ASTM D3740.
- B. The Contractor shall do the following:
1. Ensure that excavations provide adequate working space and clearance for the work to be performed and for installing piping and buried utilities. In no case shall excavation faces be undercut.
 2. Ensure that foundation surfaces are clean and free of loose material of any kind when pipelines and buried utilities are placed on them.
 3. Excavate, trench, and backfill in compliance with applicable requirements of governing authorities having jurisdiction.
 4. Ensure that shoring and sheeting for excavations are designed by a Florida-registered Professional Engineer and are in accordance with OSHA 2226.
 5. Before beginning any excavation or grading, ensure the accuracy of all survey data indicated on the Contract Drawings and in these Specifications and/or as provided. If the Contractor discovers any inaccuracies, errors, or omissions in the survey data, the Contractor shall immediately notify the Owner so that proper adjustments can be anticipated or ordered. If the Contractor begins any excavation or grading, this shall be considered an acceptance of the survey data by the Contractor, after which time the

Contractor has no claim against the Owner resulting from alleged errors, omissions, or inaccuracies of the survey data.

6. Ensure that tolerances for excavation are ± 0.10 foot to the required line and to the required grade. Tolerance for compaction of in-place material shall be ± 0.10 foot to the required grade.
7. Ensure that all trench materials derived from the project site and imported to this site are examined, tested, and classified by an Engineer-approved soils testing laboratory.
8. Remove unsatisfactory materials and unsuitable materials including muck, silts, peat, and other loose and very loose compressible soils from excavations before placing pipe foundation, bedding, and buried utilities.

1.05 PROJECT CONDITIONS

- A. Existing Utilities: The Contractor shall not interrupt utilities serving facilities occupied by the Owner or others unless permitted to do so in writing by the Engineer and then only after arranging to provide temporary utility services according to the requirements indicated.
 1. Notify the Engineer not less than 2 days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without the Engineer's written permission.
 3. Contact utility-locator service and obtain utility locations for the Project Area before excavating.
- B. The Contractor shall demolish and completely remove from the site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

1.06 DEFINITIONS

- A. *Backfill*: Soil material or controlled low-strength material used to fill an excavation.
 1. *Initial Backfill*: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 2. *Final Backfill*: Backfill placed over initial backfill to fill a trench.
- B. *Base Course*: The course placed between the subbase course and hot-mix asphalt paving.
- C. *Bedding Course*: The course placed over the excavated subgrade in a trench before laying pipe.

- D. *Borrow Soil*: Satisfactory soil imported from off-site for use as fill or backfill.
- E. *Drainage Course*: The course supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- F. *Excavation*: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. *Authorized Additional Excavation*: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by the Engineer. Authorized additional excavation and replacement material will be paid for according to the Contract provisions for unit prices.
 - 2. *Bulk Excavation*: Excavation more than 10 feet in width and more than 30 feet in length.
 - 3. *Unauthorized Excavation*: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by the Engineer. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be without additional compensation.
- G. *Fill*: Soil materials used to raise existing grades.
- H. *Structures*: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- I. *Subgrade*: The surface or elevation remaining after completing excavation, or the top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- J. *Utilities*: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.07 TESTING REQUIREMENTS

- A. The cost of all testing shall be included in the cost of the ground storage tank.
- B. The Contractor shall furnish a soil survey for satisfactory material and samples of materials.
- C. Testing for source material, for classification, and for prequalification of material (on or off site) shall be performed by an independent testing agency retained by the Contractor and approved by the Engineer/Owner.

- D. Testing for in-place compacted fill shall be performed by the same independent testing agency as approved by the Engineer/Owner and retained by the Contractor.
- E. The number and location of the tests shall be as specified in these Specifications and as directed by the Engineer/Owner during construction.
- F. The Contractor shall coordinate activity with the Engineer/Owner and the testing agency to permit testing as directed in the presence of the Engineer/Owner.
- G. The costs of any and all retests due to failure to achieve specified requirements shall be solely borne by the Contractor and are not reimbursable under this contract.
- H. All materials proposed for use shall be tested as follows:

Material	Required Test	Min. No. Tests
Satisfactory Soil Materials	Soil Classification using ASTM D2487 (including all tests contained therein)	One per source of materials to determine conformance with materials specified in these Specifications; additional tests whenever there is any apparent change.
	Soil moisture-density relationship using Modified Proctor ASTM D1557	One per source of material or apparent change in material.

- I. Soil materials shall be tested during construction as follows:

Material	Required Test	Min. No. Tests
Satisfactory Soil Material in-place after compaction	Field Density ASTM D1556/D1556M – Sand Cone Method, or ASTM D6938 – Nuclear Density Method, or ASTM D2937 – Drive Cylinder Method	For each layer of trench bottom subgrade before addition of soil materials, refill, bedding, and backfill, and for each 400 lineal feet of trench or fraction thereof, whichever is greater; two tests for each drainage, manhole, or wet well structure; additional test whenever there is any change in native soil, groundwater, or soil moisture conditions.

- J. The approved testing agency shall transmit copies of required laboratory test results as follows:
 - 1. One copy to the Owner.
 - 2. Two copies to the Engineer.
 - 3. Two copies to the Contractor.

The laboratory test reports shall include, at a minimum, project title; project location; location of sample; source, time, and date of testing; testing agency's

name, address, and telephone number; and test results. Each test report shall be signed and sealed by the Professional Engineer representing the testing agency as specified in these Specifications.

K. The approved testing agency shall transmit copies of field testing results as follows:

1. One copy to the Owner.
2. Two copies to the Engineer.
3. Two copies to the Contractor.

The field test reports shall include, at a minimum, project title; project location; location of sample(s) tested; time of testing; date of testing; testing person's full name; testing agency name, address, and telephone number; and test results.

L. No soil material shall be used until 1) the Engineer/Owner has reviewed and approved test reports and 2) the Contractor submits certification that the soil material proposed for construction is clean and meets gradation and other parameters specified in these Specifications.

M. At no cost to the Owner, the Contractor shall remove and replace or correct all materials and work that tests indicate do not conform, in the opinion of the Engineer/Owner, to the requirements of these Specifications.

N. The results of in-place density tests shall be considered satisfactory if the density in each instance is equal to or greater than the specified density. Soil moisture content at the time of testing shall conform to requirements of these Specifications.

O. Where the tests reveal unsatisfactory compaction, the Contractor shall re-excavate, backfill, recompact, and/or rework the backfill as required to obtain the required degree of compaction over the entire depth of the excavation.

PART 2 PRODUCTS

2.01 STRUCTURAL MATERIALS

A. Materials used for shoring and bracing, such as sheet piling, uprights, stringers, and crossbraces, shall be in good serviceable condition. Any timber used shall be sound and free from large or loose knots.

B. Pressure-treated timber shall be used where wood sheeting or piling is specified or indicated to be cut and left in place.

2.02 TRENCH SOIL MATERIALS

- A. Materials used for trench construction shall be free of clumps of clay, rock or gravel, debris, waste, frozen materials, and other deleterious matter as determined by the Engineer and shall be satisfactory soil materials as follows:

Area Classification	Soil Materials
In excavations and trenches	Excavated and borrow material that has been sampled, tested, and approved as "Satisfactory Soil Material."

B. Satisfactory Soil Materials

1. Soil Classification Groups: Satisfactory soil materials for each trench shall be as follows:

Satisfactory Soil Material (ASTM D3282, Soil Classification Groups)		
In-situ Foundation	Bedding, Haunching, and Initial Backfill	Final Backfill
SW SP	SW SP	SW SP

2. Maximum Particle Size Limitations for Satisfactory Soil Materials: The maximum allowable particle size for satisfactory soil materials within each trench for each type of utility shall be as follows:

Conduit	Maximum Allowable Particle Size		
	In-situ Foundation	Bedding, Haunching, and Initial Backfill	Final Backfill
Plastic Pipe (PVC, CPVC, HDPE, etc.) less than 6-inch-diameter	See Note 1	1/2 inch	3 inches
Plastic Pipe (PVC, CPVC, HDPE, etc.) 6-inch-diameter and Larger	See Note 1	3/4 inch	3 inches
Concrete Pipe			
Steel Pipe			
Ductile Iron Pipe			
Fiberglass Pipe	See Note 1	3/4 inch or three times the wall thickness, whichever is less	3 inches
Other Conduit Materials	See Note 2	See Note 2	See Note 2

- (1) There is no requirement when satisfactory undisturbed native soil material is used. Disturbed portions of the foundation and/or unsatisfactory native soil material shall be replaced with satisfactory soil materials meeting all the requirements for Bedding.
- (2) The maximum allowable particle size shall be in accordance with the manufacturer's written recommendation.

3. Additional Requirements of Satisfactory Materials: Satisfactory soil materials shall be free of debris, waste, frozen materials, vegetation, or other deleterious matter. Soils within 4 inches of the exterior surface of the pipe shall be free of gravel, stones, or other materials that may abrade the pipe surface.
- C. Unsatisfactory Materials: Unsatisfactory soil material shall mean ASTM D2487, Soil Classification Groups GW, GP, GM, GC, SC, CL, ML, OL, CH, MH, OH, PT, and other highly organic soils and soil materials of any classification that have a moisture content at the time of compaction beyond the range of 1 percentage point below and 3 percentage points above the optimum moisture content of the soil material as determined by moisture-density relations test.

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

The Contractor shall do the following:

- A. Carefully verify by hand methods the location of all surrounding underground utilities before performing utility excavations and trenches.
- B. Protect utilities to be left in place from damage.
- C. Do not interrupt existing utilities serving facilities occupied and used by the Owner, except when permitted in writing by the Owner.
- D. Protect benchmarks, survey points, and existing structures, roads, sidewalks, monitoring wells, paving, curbs, etc. against damage from equipment, vehicular or foot traffic, settlement, lateral movement, undermining, washout, and all construction-related activities.
- E. Repair and replace damage to existing facilities to equal or better than their original undamaged condition without cost to the Owner and to the approval of the Engineer.
- F. Excavate and trench in ways that will prevent surface water and subsurface water from flowing into excavations and will also prevent flooding of the site and surrounding area.
- G. Protect excavations and trenching by shoring, bracing, sheet piling, underpinning, or other methods as required to prevent cave-ins or loose dirt from falling into excavations and trenches.

- H. Do not operate earth-moving equipment within 5 feet of walls of concrete structures for depositing or compacting backfill material.
- I. Compact the backfill material placed next to concrete walls with hand-operated tampers or similar equipment that will not damage the structure.
- J. Excavate, fill, backfill, and grade to elevations required by the Contract Documents.
- K. Pile excavated materials suitable for backfill in an orderly manner a sufficient distance from excavations to prevent overloading, slides, and cave-ins.
- L. Do not obstruct access ways, roadways, and plant facilities.
- M. Dewater excavations and trenches.
- N. Refer to the Contract Drawings for additional requirements related to earthwork and protection of existing features.

3.02 TRENCH EXCAVATION

- A. Before excavating the trench, the Contractor shall prepare the surface including clearing and grubbing as specified in Section 02230, Site Preparation.
- B. The Contractor shall be required to fully comply with all applicable OSHA Excavation Safety Standards and to abide by them as covered by the most current version of the Florida Trench Safety Act (90-96, Laws of Florida).
- C. The Contractor shall ensure that mechanical equipment used for trench excavation shall be of a type, design, and construction and shall be so operated that conduit/utility, when accurately laid to specified alignment, will be centered in the trench with adequate clearance between the conduit/utility and sidewalls of the trench. Undercutting the trench sidewall to obtain clearance will not be permitted.
- D. The Contractor shall not use mechanical equipment in locations where its operation would cause damage to trees, buildings, culverts, other existing property, utilities, structures, etc. above or below ground. In all such locations, the Contractor shall use hand-excavating methods.
- E. The Contractor shall not use blasting.
- F. The Contractor shall cut trenches sufficiently wide to enable proper installation of services and to allow for testing and inspection. The Contractor shall also trim and

shape trench bottoms and leave them free of irregularities, lumps, and projections. Trench width shall be excavated as specified on the Contract Drawings.

- G. The Contractor shall construct trench walls to avoid side wall collapse or sloughing. Trenches shall be either braced or open construction in accordance with the Contract Documents. No separate payment will be made for any special procedure used in connection with the excavation.
- H. Where sheeting and bracing are not required, the Contractor shall construct trench walls in the bottom of the excavation as vertical as possible to the maximum height allowable by OSHA. Trench walls above this height shall be sloped to guard against side wall collapse or sloughing as specified on the Contract Drawings.
- I. Where sheeting and bracing are required, the sheeting and bracing system shall meet the requirements in these Specifications.
- J. Excavations shall be to the design elevations shown on the Contract Drawings or as specified, unless unsatisfactory or unsuitable foundation materials are encountered in the bottom of the excavation. Where unsatisfactory or unsuitable foundation materials are encountered, this material shall be undercut and removed as indicated on the Contract Drawings and replaced with satisfactory soil material meeting all the requirements for Bedding. The lift thicknesses and compaction requirements for the replacement soil shall also meet the requirements for Bedding.
- K. The Contractor shall be careful not to overexcavate except where necessary to remove unsatisfactory or unsuitable materials, irregularities, lumps, rock, and projections. Unnecessary overexcavation shall be replaced as specified in these Specifications at the Contractor's sole expense.
- L. The Contractor shall accurately grade bedding soil materials at the bottoms of the trenches to provide uniform bearing and support for each section of conduit/utility at every point along its entire length except where it is necessary to excavate the bedding for conduit/utility bells (e.g., pipe bells), etc. or for proper sealing of conduit/utility joints. Abrupt changes in grade of the trench bottom shall be avoided.
- M. The Contractor shall dig bell holes and depressions after the bedding has been graded to ensure that the conduit/utility rests on the prepared bedding for as much of its full length as practicable. Bell holes and depressions shall be only of such length, depth, and width as required to make the joint.

N. The Contractor shall do the following:

1. Pile all excavated material in a manner that will not endanger the work or erode the stormwater management facilities or water courses.
2. Avoid obstructing sidewalks, driveways, and plant facilities.
3. Leave hydrants, valve pit covers, valve boxes, or other utility controls unobstructed and accessible.
4. Keep gutters, drainage inlets, natural water courses, and miscellaneous drainage structures clear or make other satisfactory provisions for their proper operation.

O. The Contractor shall keep all satisfactory materials that are suitable for use/reuse in the trench construction separated from unsatisfactory materials.

P. Except where otherwise authorized, indicated, or specified, the Contractor shall replace, at the Contractor's own expense, all materials excavated below the bottom of concrete walls, footings, slabs on grade, and foundations with concrete or flowable fill, as directed by the Engineer.

Q. The Contractor shall adhere to these Additional Excavation Requirements for piping:

1. Excavate trenches so that the piping can be laid to the lines, grades, and elevations indicated on the Contract Drawings.
2. For piping designated to be laid to a minimum cover requirement, grade trenches to avoid high and low points to the extent practical. Record Drawings of such pipes shall present top-of-pipe and grade elevations at all high and low points along each pipe segment, at the end points of each pipe segments, and at intervals not to exceed 100 feet along each pipe segment. If, in the opinion of the Engineer, additional air release and/or vacuum relief valves are required, the Contractor shall install the additional items as directed by the Engineer.
3. Except at locations specifically indicated otherwise on the Contract Drawings, the required minimum cover over the top of the pipe from finished grade for various pipe diameters shall be as follows:

	Pipe Diameter			
	48-inch or less	66-inch	72-inch	96-inch
Minimum Cover	3 feet	4 feet	4.5 feet	5 feet

Continue dewatering operations along each pipe segment until the required minimum cover is provided. During the dewatering operations, the ground water level in the trench shall remain at all times a minimum of 1 foot below bottom of trench excavations.

R. The Contractor shall adhere to these Additional Excavation Requirements for Electrical Utilities:

1. Avoid abrupt changes in grade of the trench bottom.
2. The required minimum cover over the top of electrical conduits from finished grade shall be as follows:

	Electrical Conduits (Lines less than 5 kV)	Electrical Conduits (Lines 5 kV and up)
Minimum Cover	2 feet	3 feet

3. The required minimum clearance from the bottom of mat foundations and/or footings shall be 2 feet. Provide additional cover where necessary to satisfy the minimum clearance requirement.
4. Provide additional cover depth if necessary to avoid interference of other cables, ducts, piping, structures, and other utilities.

S. The Contractor shall adhere to this Additional Excavation Requirement for Appurtenances:

1. Ensure that excavations for valves and similar appurtenances shall be sufficient to leave at least 12 inches in the clear between the outer surfaces and the embankment or timber used to hold and protect the walls.

3.03 PROTECTION OF PERSONS AND PROPERTY

A. The Contractor shall do the following:

1. Barricade and post excavations with warning signs for the safety of persons. Provide warning lights during hours of darkness.
2. Protect structures, utilities, sidewalks, pavements, and other facilities immediately adjacent to excavations against damage including loading, settlement, lateral movement, undermining, and washout.

B. Conduct topsoil removal operations to ensure the safety of persons and to prevent damage to existing structures and utilities, construction in progress, trees and vegetation to remain standing, and other property.

3.04 SHEETING AND BRACING

- A. Where sheeting and bracing are required to support the side walls of the excavation, the Contractor shall retain a Professional Engineer, registered in Florida, to design sheeting and bracing. The design shall establish requirements for sheeting and bracing and shall comply with all applicable codes; authorities having jurisdiction; and federal, state, and local regulations.
- B. The sole responsibility for the design, methods of installation, and adequacy of sheeting and bracing shall be and shall remain that of the Contractor and the Contractor's Professional Engineer. The Contractor shall provide all necessary sheeting and bracing or other procedures as required to ensure safe working conditions and to protect the excavations.
- C. Sheeting and bracing shall consist of braced steel sheet piling, trench box, braced wood lagging, and soldier beams or other approved methods.
- D. The Contractor shall immediately fill and compact voids formed outside the sheeting. Where soil cannot be properly compacted to fill the void, the Contractor shall use Class B concrete as backfill at no additional cost to the Owner.
- E. The Contractor shall install sheeting outside the required clearances and dimensions. Sheeting shall be plumb, securely braced, and tied in position. Sheeting shall be adequate to withstand all pressure to which it may be subjected. The Contractor shall correct any movement or bulging at no expense to the Owner to provide the necessary clearances and dimensions.
- F. The Contractor shall maintain sheeting and bracing in excavations and trenches for the entire time excavations will be open.
- G. The Contractor shall not brace sheeting against pipe being laid. Sheeting shall be braced so that no concentrated load of horizontal thrust is transmitted to the pipe.
- H. Sheeting shall not be withdrawn if driven below the spring line of any pipe. The Contractor shall cut off tops as indicated on the Contract Drawings and leave bottoms permanently in place.

3.05 DEWATERING, WATER REMOVAL, AND DRAINAGE MAINTENANCE

- A. Water shall not be permitted to accumulate in excavations. The Contractor shall provide dewatering systems to convey water away from excavations so that softening of foundations bottoms, footing undercutting, and soil changes detrimental to subgrade stability and foundation will not occur. Dewatering systems and methods of disposal shall be in accordance with the Contract

Documents and as approved by the Owner/Engineer before being installed by the Contractor. Groundwater levels shall be maintained a minimum of 1 foot below bottom of trenches or excavations.

- B. Dewatering systems and equipment shall be in place as required to eliminate water during the excavation period until the work is completed. The Contractor shall provide ample means and equipment with which to remove promptly and dispose of properly all water entering any excavation. This includes the use of sand or gravel as required to maintain adequate flow during the pipe laying or installation of other items of work within the excavation.
- C. Water pumped or drained shall be disposed of in a suitable manner without damage to adjacent property, to other work under construction, or to roads. Water shall not be discharged onto surface improvements without adequate protection of the surface at the point of discharge. All gutter, drains, culverts, sewers, and inlets shall be kept clean and open for surface drainage. Water shall not be directed across or over pavements except through approved pipes or properly constructed troughs. The Contractor shall obtain permission from the Owner of any property involved before constructing water courses or installing discharge pipe or hose for removal of water and provide for disposal of the water without ponding or creating a public nuisance.
- D. All pumps used for dewatering shall have noise-reduction features and shall be able to run continuously with minimal attendance. If required by the Owner or Engineer, the pumps shall be enclosed on all sides with a plywood enclosure, with padded material suitable for outdoor conditions on the inside of the enclosure, to further reduce pump engine noise to an acceptable level. All applicable ordinances and codes for noise abatement shall be followed. The Contractor shall maintain pumps at all times, as necessary. When pumps are no longer required, the Contractor shall remove the pumps, wellpoints, pipes, and other apparatus from the area.
- E. It is essential that the discharge of the trench dewatering pumps be conducted to natural drainage channels, drains, or storm sewers.
- F. Trenches shall be constructed on the upstream side of the traffic way across roadways, driveways, or other traffic ways adjacent to drainage ditches or water to prevent impounding water after the pipe has been laid. The Contractor shall construct and maintain bridges and other temporary structures required to maintain traffic across such unfilled trenches. Backfilling shall be done so that water will not accumulate in unfilled or partially filled trenches. After backfilling is completed, the Contractor shall immediately remove all material deposited in roadway ditches or other water courses crossed by the line of trench and restore

the original section, grades, and contours of ditches or water courses. Surface drainage shall not be obstructed longer than necessary.

- G. Where trenches are constructed in ditches or other water courses, backfill shall be protected from surface erosion. Where the grade of the ditch exceeds 1%, the Contractor shall install ditch checks. Unless otherwise indicated on the Contract Drawings, ditch checks shall be concrete or as otherwise approved by the Engineer. Ditch checks shall extend not less than 2 feet below the original ditch or water course bottom for the full bottom width and at least 18 inches into the side slopes and shall be at least 12 inches thick.

3.06 BACKFILLING AND COMPACTION

- A. The Contractor shall not backfill trenches until required tests are performed.
- B. Trenches improperly backfilled shall be reopened to the depth required for proper compaction, then refilled and compacted as specified, or the condition shall be otherwise corrected as directed.
- C. The Contractor shall perform the following steps to ensure compaction at the bottom of the trench or excavation before bedding:
 - 1. Remove disturbed native soil material and/or any soils not meeting the requirement of satisfactory soil material as indicated on the Contract Drawings.
 - 2. Compact the bottom of the trench excavation (undisturbed native subsurface soil) to no less than 95% of the Modified Proctor maximum dry density in accordance with ASTM D1557, before placement of foundation, bedding, piping, and backfill.
- D. To backfill below and around pipe to the spring line of the pipe, the Contractor shall do the following:
 - 1. Construct foundation and bedding as indicated on the Contract Drawings before placement of pipe.
 - 2. Install each pipe at proper grade, alignment, and final position.
 - 3. Deposit satisfactory soil material uniformly and simultaneously on each side of pipe in completed course layers to prevent lateral displacement.
 - 4. Compact under pipe haunches and on each side of pipe to the pipe spring line as shown on the Contract Drawings to hold the pipe in the proper position during subsequent pipe backfilling and compaction operations.
 - 5. Construct haunching as indicated on the Contract Drawings.

E. To trench backfill above pipe spring line to finished grade, the Contractor shall do the following:

1. Deposit satisfactory soil material around and above pipe in uniform layers as shown on the Contract Drawings.
2. Backfill and compact trenches from the spring line of the pipe to the top of the trench in completed course layers as shown on the Contract Drawings.
3. Use material previously defined in these Specifications as satisfactory soil material.
4. Compact by hand or mechanical tampers.

3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. The Contractor shall remove and legally dispose of waste materials, including excavated material classified as unsatisfactory soil material, trash, and debris from the property at no additional cost to the Owner.

END OF SECTION

SECTION 02370
EROSION AND SEDIMENTATION CONTROL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall take every reasonable precaution throughout construction to prevent the erosion of soil and the sedimentation of streams, bays, storm systems, or other water impoundments, ground surfaces, or other property as required by federal, state, and local regulations.
- B. The Contractor shall provide protective covering for disturbed areas upon suspension or completion of land-disturbing activities. Permanent vegetation shall be established at the earliest practicable time. Temporary and permanent erosion-control measures shall be coordinated to ensure economical, effective, and continuous erosion and siltation control throughout the construction and post-construction period.

1.02 SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. Florida Department of Transportation (FDOT)
 - 1. FDOT Section 103—Temporary Work Structures.
 - 2. FDOT Section 104—Prevention, Control, and Abatement of Erosion and Water Pollution.
 - 3. FDOT Section 530—Revetment Systems.
 - 4. FDOT Section 982—Fertilizer.
 - 5. FDOT Section 985—Geosynthetic Materials.

1.04 REGULATORY REQUIREMENTS

- A. The Contractor shall prevent damage to properties outside the construction limits from siltation due to construction of the project and assume all responsibilities to the affected property owners for correction of damages which may occur. Erosion-control measures shall be performed conforming to the requirements of and in accordance with plans approved by applicable state and local agencies and as specified by the erosion-control portion shown on the Drawings and as required by these Specifications. The Contractor shall not allow mud and debris to accumulate in the streets or enter drainage ditches, canals, or waterways. Should the Contractor pump water from excavations during construction, appropriate siltation preventative measures shall be taken before the pumped water is discharged into any drainage ditch, canal, or waterway.

1.05 PRACTICES

The Contractor shall adhere to the following:

- A. Avoid dumping soil or sediment into any stream bed, pond, ditch, or watercourse.
- B. Maintain an undisturbed vegetative buffer where possible between a natural watercourse and trenching and grading operations.
- C. Avoid equipment crossings of streams, creeks, and ditches where practicable.

1.06 EROSION AND SEDIMENT-CONTROL DEVICES AND FEATURES

- A. The Contractor shall construct all devices (silt fences, retention areas, etc.) for sediment control at the locations required to protect federal, state, and local water bodies and water courses and drainage systems before beginning to excavate the site. All devices shall be properly maintained in place until a structure or paving makes the device unnecessary or until directed to permanently remove the device.
- B. The Contractor shall use mulch to temporarily stabilize areas subject to excessive erosion and to protect seed beds after planting where required.
- C. Filter fabric, hay bales, or other approved methods shall be placed and secured over the grates of each existing inlet, grating, or storm pipe opening near the area of excavation to prevent silt and debris from entering the storm systems.
- D. The Contractor shall use silt fences, hay bales, and floating turbidity barriers as shown on the plans or as directed by the Owner or Owner's Representative to restrict movement of sediment from the site.

- E. The Contractor shall establish vegetative cover on all unpaved areas disturbed by the work.

PART 2 PRODUCTS

2.01 GENERAL

- A. Open-mesh biodegradable mulching cloth.
- B. Fertilizer shall be 10-10-10 grade or equivalent.
- C. Lime shall be Dolomitic Agricultural Ground limestone, in accordance with FDOT Section 982.
- D. Grass shall be in accordance with Section 02920, Seeding and Sodding.
- E. Silt fence shall consist of non-biodegradable filter fabric (Trevira, Mirafi, etc.), in accordance with FDOT Section 985, wired to galvanized wire mesh fencing and supported by wood or metal posts.
- F. Floating or staked turbidity barriers as specified in FDOT Section 985 and FDOT Section 104.
- G. Erosion Stone: FDOT Section 530.
 - 1. Sand-Cement Riprap.
 - 2. Concrete Block.
 - 3. Rubble 20 to 300 pounds each.
- H. Filter Fabric for placing under Riprap shall meet the requirements of FDOT Section 985.
- I. Baled hay or straw in accordance with FDOT Section 104.

PART 3 EXECUTION

3.01 CLEARING

- A. The Contractor shall schedule and perform clearing and grubbing so that subsequent grading operation and erosion-control practices can follow immediately after. Excavation, borrow, and embankment operations will be conducted as a continuous operation. All construction areas not otherwise protected shall be planted with permanent vegetative cover within 30 working days after completing active construction.

3.02 STABILIZING

- A. The angle for graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate erosion-control devices or structures. All disturbed areas outside of embankment left exposed will, within 30 working days of completion of any phase of grading, be planted or otherwise provided with either temporary or permanent ground cover, devices, or structures sufficient to restrain erosion.

3.03 REGULATORY REQUIREMENTS

- A. Whenever land-disturbing activity is undertaken on a tract, a ground cover sufficient to restrain erosion must be planted or otherwise provided within 30 working days on that portion of the tract upon which further active construction is to be undertaken.
- B. If any earthwork is to be suspended for any reason for longer than 30 calendar days, the areas involved shall be seeded with vegetative cover or otherwise protected against excessive erosion during the suspension period. Suspension of work in any area of operation does not relieve the Contractor of the responsibility to control erosion in that area.

3.04 VEGETATIVE COVER

- A. Preparation of Seedbed. Areas to be seeded shall be scarified a depth of 4 inches until a firm, well-pulverized, uniform seedbed is prepared. Fertilizer shall be applied during the scarification process in accordance with the following rates:
 - 1. Fertilizer—10 to 15 pounds per 1,000 square feet.
- B. Seeding. Disturbed areas along embankments shall be permanently seeded with mix specified in Section 02920, Seeding and Sodding.
- C. The Contractor shall mulch all areas immediately after seeding. Mulch shall be applied and anchored as specified previously in this Section.

3.05 MAINTENANCE

- A. The Contractor shall maintain all temporary and permanent erosion-control measures in functioning order. Temporary structures shall be maintained until such time as vegetation is firmly established and grassed areas shall be maintained until completion of the project. Areas which fail to show a suitable stand of grass or which are damaged by erosion shall be immediately repaired. No additional

payment will be made to the Contractor for re-establishing erosion-control devices, which may become damaged, destroyed, or otherwise rendered unsuitable for their intended function during the construction of the project.

- B. The Contractor shall remove all silt, sediment, and debris buildup regularly to maintain functioning storm systems and erosion-control devices.

3.06 REMOVAL OF SEDIMENT CONTROL DEVICES

- A. Near completion of the project, when directed by the Engineer, the Contractor shall dismantle and remove the temporary devices used for sediment control during construction. All erosion-control devices in seeded areas shall be left in place until the grass is established. The Contractor shall seed areas around devices and mulch after removing or filling temporary control devices.
- B. The Contractor shall clean up all areas at the completion of the project.

END OF SECTION

SECTION 02531
CONNECTIONS TO AND WORK ON THE EXISTING SYSTEM

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, and equipment required and maintain flow in existing sewers and drains, handle existing sewer and drain flow, construct and maintain all temporary connections and bypasses, and construct the permanent connections to the new system as shown on the Drawings and as directed by the Engineer.
- B. The Contractor shall furnish all labor, materials, and equipment required to plug existing drains, complete all work on existing manholes (including all work and materials required to reshape existing manhole inverts with brick or concrete and connecting new drainpipes to existing manholes or drainpipes), and complete all additional work required.
- C. Should damage of any kind occur to the existing drain, the Contractor shall, at his own expense and as part of the work under this Item, make repairs to the satisfaction of the Engineer.
- D. Notify the Engineer immediately of any discrepancies in elevations of existing pipes and structures between those shown on the Drawings and those established during construction so the Engineer can make the necessary modifications.
- E. All new drainpipe for connection shall conform to the following specifications:
 - 1. Section 15155, Ductile Iron Pipe and Fittings.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 HANDLING WASTEWATER FLOWS

- A. The Contractor shall furnish all labor, equipment, and materials necessary to maintain existing flows, including temporary bypasses and all pumping of wastewater and drainage that may be required to prevent backing up of sewers and drains and shall immediately cart away and remove all offensive matter at the Contractor's own expense.

- B. Furnish all labor, equipment, and materials necessary to maintain existing drain, sewer, and sewer service connection flows, including temporary bypasses and all pumping of wastewater and drainage that may be required to prevent backing up of systems.
- C. The use of overflow, bypass, pump, or any other means of conveying drainage to any brook or other watercourse is not allowed without permission of the Engineer.
- D. Submit to the Engineer and the Owner, for approval, a detailed written plan of procedures for flow maintenance 10 days in advance of flow interruption.
- E. The Contractor shall make provisions to maintain water and sewer service connections during construction. Any damaged service connection shall be replaced from the main pipeline to a minimum of 3 feet beyond the point of damage.

3.02 PLUGGING AND ABANDONING FACILITIES

- A. The Contractor shall submit for review and approval to the Owner/Engineer the locations and proposed methods for plugging and abandoning existing facilities. In areas where pipes are to be removed from the existing sewer manholes, drain manholes, or catch basins, the point of connection shall be repaired with brick, mortar, and non-shrink grout to the satisfaction of the Owner/Engineer. Where direct connections to existing pipes are abandoned, the connection shall be sealed. This shall be done by removing lateral connections from the existing pipe and repairing the pipe section with an approved method.

END OF SECTION

SECTION 02920 SEEDING AND SODDING

PART 1 GENERAL

1.01 SCOPE OF WORK

A. This Section includes requirements for the following areas of work:

1. Fine grading.
2. Preparation of areas to receive seeding and sodding.
3. Fertilizing of areas to receive seeding and sodding.
4. Maintenance.
5. Seeding.
6. Hydroseeding.
7. Sodding of new areas to receive seeding and sodding.
8. Mulching.

1.02 SUBMITTALS

A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance.

B. Certificates:

1. Fertilizer, seed, hydroseed, and sod shall be accompanied by certificate from vendors certifying these items meet the requirements of these Specifications, stating botanical name, percentage by weight, and percentage of purity.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

A. Federal Specification (FS) O-F-241D—Fertilizer, Mixed, Commercial.

B. American Society for Testing and Materials (ASTM)—Equivalent AASHTO standards may be substituted as approved.

- C. The Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction (Standard Specifications) shall be referred to for both specific and general standards for materials, construction, workmanship, and quality control as specified in this Section with exceptions, as noted herein. Note that any reference in the Standard Specifications to the terms “Department” or “District Materials Engineer” shall be replaced by the term “Owner.”

1.04 QUALITY ASSURANCE

- A. The Contractor shall provide seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.
- B. Deliver, store, protect, and handle products to the site and prevent damage from wetness and weather conditions.
- C. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.
- D. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of the manufacturer.
- E. No sod that has been cut for more than 72 hours may be used unless specifically authorized. A letter of certification from the grassing Contractor as to when the sod was cut and what type shall be provided to the Engineer upon delivery of the sod to the job site.

1.06 MAINTENANCE

- A. Maintenance shall be as indicated under Part 3, Execution, of this Section.

1.07 DEFINITIONS

- A. *Weeds:* Weeds include but are not limited to Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.08 REGULATORY REQUIREMENTS

- A. The Contractor shall comply with regulatory agencies for fertilizer and herbicide composition.

PART 2 PRODUCTS

2.01 TOPSOIL

- A. The Contractor shall provide topsoil from off-site borrow or from project on-site excavation as approved by the Engineer.

2.02 SOD

- A. The Contractor shall provide strongly rooted sod, not less than 2 years old and free of weeds and undesirable native grasses. Provide only sod capable of growth and development when planted (viable, not dormant) and in strips not more than 18 inches wide x 4 feet long.

- 1. Argentine Bahia (Palletized Sod).

2.03 FERTILIZER FOR SOD

- A. The Contractor shall provide commercial fertilizer of neutral character, with some elements derived from organic sources, containing not less than 8% phosphoric acid, 8% potassium, and percentage of nitrogen required to provide 0.5 pound of actual nitrogen per 1,000 square feet of area. Provide nitrogen in form that will be available to the seeded and sodded area during initial period of growth. The chemical designation shall be 5-10-10.
- B. The Contractor shall ensure that the fertilizer is delivered to the site in labeled bags or containers.

2.04 FERTILIZER FOR SEED

- A. Fertilizer: FS O-F-241, Type I, Grade A; recommended for grass, with 50% of the elements derived from organic sources, of a proportion necessary to eliminate any deficiencies of topsoil to the following proportions:
 - 1. Seeded Areas – 5% nitrogen, 10% phosphoric acid, 10% soluble potash.

2.05 WATER FOR SEEDING AND SODDING

- A. Water shall be free of acid, alkali, or organic materials and shall have a pH of 7.0 to 8.5. The Contractor shall provide all water needed for grassing by providing permanent or temporary piping valves and temporary trucks to convey water from the source to the point of use. The Contractor shall provide any meters required and pay for water used if the water is taken from a public water system. Water shall be free of petroleum products, pesticides, and any other deleterious impurities.

2.06 EROSION-CONTROL FABRIC

- A. The Contractor shall provide 70% agricultural straw with 30% coconut fiber matrix stitches with degradable nettings designed to degrade within 18 months. Erosion-control anchors shall be as recommended by the manufacturer.

2.07 TACKIFIER

- A. Latex acrylic copolymer shall be Soil Sealant with coalescing agent as manufactured by Soil Stabilization Products Company, Inc., Merced, CA, or equal and shall be used as straw mulch tackifier.

PART 3 EXECUTION

3.01 COORDINATION OF WORK

- A. The Contractor shall coordinate all work activities to provide for establishing grass cover at the earliest possible time in the construction schedule to minimize erosion of topsoil.

3.02 SOIL PREPARATION

Concerning soil preparation, the Contractor shall do the following:

- A. Dispose of any existing sod, growth, rocks, or other obstructions that might interfere with tilling, seeding, sodding, or later maintenance operations. Remove stones over 1-1/2 inches in any dimensions and sticks, roots, rubbish, and other extraneous matter. Remove from work area or site; do not stockpile.
- B. Till to a depth of not less than 12 inches. Thoroughly loosen and pulverize topsoil.
- C. Grade areas to be seeded and sodded to a smooth, even surface with loose, uniformly firm texture. Roll and rake, remove ridges, and fill depressions to meet

finish grades. Limit fine grading to areas that can be planted in the immediate future.

- D. Moisten prepared areas to be seeded and sodded before planting if the soil is dry. Water thoroughly and allow the surface to dry off before seeding and sodding. Do not create a muddy soil condition.
- E. Restore prepared areas to specified condition if eroded or otherwise disturbed after the fine grading and before planting.
- F. Spread the planting soil mixture to depth required to meet thickness, grades, and elevations indicated after light rolling and natural settlement. Do not spread if the material is frozen or if the subgrade is frozen.
- G. Preparing Unchanged Grades:
 - 1. Where seeding and sodding in areas that have not been altered or disturbed by excavating, grading, or stripping operations, prepare soil as follows:
 - a. Till to a depth of not less than 12 inches.
 - b. Apply soil amendments and initial fertilizers.
 - c. Remove high areas and fill in depressions.
 - d. Till soil to a homogeneous mixture of fine texture, free of lumps, clods, stones, roots, and other extraneous matter.
- H. Allow for a 3-inch sod thickness in areas to be added next to paving.
- I. Before preparing unchanged areas, remove existing grass, vegetation, and turf. Dispose of such material outside of the Owner's property: do not turn over into soil being prepared for seeding and sodding.
- J. Place approximately one-half of the total amount of planting soil required. Work into the top of the loosened subgrade to create a transition layer and then place the remainder of the planting soil.

3.03 FERTILIZING FOR SEEDING

- A. Seeding: The Contractor shall spread fertilizer uniformly at a rate of 10 pounds per 1,000 square feet.
- B. Apply after smooth raking of topsoil and before roller compaction.
- C. Do not apply fertilizer at same time or with same machine as will be used to apply seed.

- D. Mix thoroughly into upper 2 inches of topsoil.
- E. Lightly water to aid the dissipation of fertilizer.

3.04 SEEDING

- A. Apply seed at the rate designated on the schedule evenly in two intersecting directions. Rake in lightly.
- B. Do not seed areas in excess of that which can be mulched on the same day.
- C. Do not sow immediately following rain, when ground is too dry, or during windy periods.
- D. Roll seeded area with appropriate equipment to achieve seed embedment and soil compaction.
- E. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.

3.05 HYDRO-SEEDING

- A. Apply seeded slurry with a hydraulic seeder at the rate designated on schedule evenly in two intersecting directions.
- B. Do not hydro-seed area in excess of that which can be mulched on the same day.
- C. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.

3.06 SODDING NEW AREAS

When sodding new areas, the Contractor shall do the following:

- A. Before laying sod, contact the Engineer to observe soil preparation work. Lay sod within 24 hours of the time of stripping. Do not plant dormant sod or if the ground is frozen.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger to offset joints in adjacent courses. Employ installation methods to avoid damage to subgrade or sod. On slopes, install the sod with an overlap that allows water to flow over the adjacent strip and not under it. Tamp or roll lightly to ensure contact with subgrade. Work sifted soil into

minor cracks between pieces of sod; remove excess to avoid smothering adjacent grass.

- C. Anchor sod on slopes greater than 3:1 with wood pegs as required to prevent slippage.
- D. Water sod thoroughly with a fine spray immediately after planting.

3.07 RECONDITIONING SEEDED AND SODDED AREAS

The Contractor shall ensure that seeded and sodded areas are properly reconditioned by doing the following:

- A. Recondition seeded and sodded areas that are damaged by work operations, including storage of materials or equipment and movement of vehicles. Also recondition seeded and sodded areas where settlement or washouts occur or where minor regrading is required. Recondition other existing seeded and sodded areas where indicated.
- B. Provide fertilizer, topsoil, seed, or sod amendments as specified for new seeded and sodded areas and as required to provide satisfactory reconditioning. Provide new planting soil as required to fill low spots and meet new finish grades.
- C. Cultivate bare and compacted areas thoroughly to provide a good deep planting bed.
- D. Remove diseased or unsatisfactory seeded and sodded areas; do not bury into soil. Remove topsoil containing foreign materials resulting from operations including oil drippings, stone, gravel, and other construction materials. Replace with new topsoil.
- E. Where substantial seeding and sodding remains (but is thin), mow, rake, aerate if compacted, fill low spots, remove humps and cultivate soil, fertilize, and seed. Remove weeds before seeding or, if extensive, apply selective chemical weed killers as required. Apply a seedbed mulch, if required, to maintain moist condition.
- F. Water newly planted areas and keep moist until new grass is established.

3.08 PROTECTION

- A. The Contractor shall erect barricades, warning signs, and fencing to protect newly planted areas from traffic. Maintain barricade fencing and warning signs throughout the maintenance period until project is substantially completed.

3.09 MAINTENANCE

To maintain the seeded and sodded area, the Contractor shall do the following:

- A. Mow sod to a height of 2 inches as soon as there is enough top growth to cut with a mower. Remove no more than 40% of grass leaf growth in initial or subsequent mowing. Do not delay mowing until grass blades bend over and become matted.
- B. Maintain grass growth by watering, fertilizing, weeding, mowing, trimming, and other operations such as rolling, re-grading, and replanting as required to establish a smooth, acceptable seeding and sodding, free from eroded or bare areas.
- C. Remove weeds by pulling or chemical treatment.
- D. Perform maintenance until the date of final completion of project.
- E. Apply the second fertilizer application after the first mowing and when grass is dry. Use fertilizer that will provide 0.5 pound of actual nitrogen per 1,000 square feet of seeded and sodded areas.
- F. Replant bare areas using the same materials specified for seeded and sodded areas.
- G. Watering: Provide and maintain temporary piping, hoses, and watering equipment as required to convey water from water sources and to keep seeded and sodded areas uniformly moist as required for proper growth. Do not apply more than 1 inch of water per week to sustain grass growth.
- H. Lay out temporary watering system and arrange watering schedule to avoid walking over muddy areas. Use equipment and water to prevent puddling and water erosion and displacing seed or mulch (if any).
- I. Apply water in sufficient quantities and as often as seasonal conditions require to keep the grassed areas moist.
- J. Provide supplemental water and irrigation to sod areas when the rainfall is not adequate to maintain soil moisture necessary for growth of the grass. The Contractor is responsible for determining the quantities of water required and when to irrigate. This obligation shall remain in full force and effect until final acceptance of the work by the Owner and shall be provided at no additional cost to the Owner.

- K. The Owner, at its discretion, may relieve the Contractor of this obligation at such time as the Owner is able to provide irrigation if available. This action, however, does not relieve the Contractor of the provisions and guarantees set forth in the Contract Documents.

3.10 ACCEPTANCE OF SEEDED OR SODDED AREAS

- A. When seeding or sodding work, including maintenance, is substantially complete, the Engineer and the Owner will, upon request, observe to determine satisfactory growth and acceptability:
 - 1. The term "Satisfactory Growth" as used in this Section is defined as even plant growth in healthy condition without bare spots larger than 1 square foot in seeded areas and without bare spots in sodded areas. Bare spots in sodded areas shall be resodded. The Contractor shall maintain all grassed and sodded areas until satisfactory growth has been demonstrated at project final completion. If the subsequent stand of grass is found contaminated with weeds or other obnoxious or undesirable growth, the Contractor shall eliminate such undesirable growth at the Contractor's own expense.
- B. The Contractor shall re-plant rejected work and continue specified maintenance until the work is accepted by the Engineer and the Owner and found to be acceptable.
- C. Sodded areas will be acceptable provided requirements, including maintenance, have been complied with and a healthy, well-rooted, even-colored, viable seeded or sodded area is established, free of weeds, open joints, bare areas, and surface irregularities.

3.11 CLEANUP

- A. The Contractor shall promptly remove soil and debris created by seeding and sodding work from paved areas. Clean wheels of vehicles before they leave the site to avoid tracking soil onto surfacing of roads, walks, or other paved areas.

END OF SECTION

DIVISION 3

CONCRETE

SECTION 03301
CONCRETE AND REINFORCING STEEL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, and incidentals required to perform all concrete work as ordered by the Engineer, as shown on the Drawings, and as specified in this Section.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance. Reproductions of contract drawing are unacceptable. Submit full fabrication drawings and technical data on all materials and components. Submit other data specified in this Section when required. Submittals shall include at least the followings:

- A. Shop Drawings and Technical Data
 - 1. Joints and joint accessories.
 - 2. Reinforcing steel including bar schedules and bending details.
 - 3. Concrete mix for each formulation of concrete proposed for use, including constituent quantities per cubic yard, water cementitious ratio, type, and manufacturer of cement.
 - 4. Formwork and accessories.
 - 5. Grout.
 - 6. Two samples of each type of mechanical reinforcing steel connectors.
- B. Samples
 - 1. Two samples of each type of mechanical reinforcing steel connections
- C. Test Reports
 - 1. Sieve analysis of fine and coarse aggregates.
 - 2. Concrete mix for each formulation of concrete proposed for use, including constituent quantities per cubic yard, water cementitious ratio, type and manufacturer of cement, and either a. or b. below:
 - a. Standard deviation data for each proposed concrete mix based on statistical records.

- b. Water cementitious ratio curve for each proposed concrete mix based on laboratory tests. Give average cylinder strength test results at 28 days for laboratory concrete mix designs. Provide results of 7- and 14-day tests if available.
3. Concrete compressive strength, air content, and slump tests.

D. Certifications

1. Certify that admixtures used in the same concrete mix are compatible with each other and the aggregates.
2. Material Safety Data Sheet (MSDS).
3. Curing concrete elements.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be in accordance with the currently effective Florida Building Code (FBC). The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

A. American Concrete Institute (ACI)

1. ACI 117—Specification for Tolerances for Concrete Construction and Materials and Commentary.
2. ACI 211.1—Standard Practice for Selecting proportions for Normal, Heavyweight, and Mass Concrete.
3. ACI 301—Specifications for Structural Concrete.
4. ACI 305R—Guide to Hot Weather Concreting.
5. ACI 306R—Guide to Cold Weather Concreting.
6. ACI 306.1—Standard Specification for Cold Weather Concreting.
7. ACI 315—Details and Detailing of Concrete Reinforcement.
8. ACI 318—Building Code Requirements for Structural Concrete and Commentary.
9. ACI 347R—Guide to Formwork for Concrete.
10. ACI 350R—Environmental Engineering Concrete Structures.
11. ACI COL-4—Volume 4 & Index Collection of Concrete Codes, Specifications, and Practices.

B. American Society for Testing and Materials (ASTM)

1. ASTM A615/A615M—Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.

2. ASTM A1064/A1064M—Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
3. ASTM C31/C31M—Standard Practice for Making and Curing Concrete Test Specimens in the Field.
4. ASTM C33/C33M—Standard Specification for Concrete Aggregates.
5. ASTM C94/C94M—Standard Specification for Ready-Mixed Concrete.
6. ASTM C143/C143M—Standard Test Method for Slump of Hydraulic-Cement Concrete.
7. ASTM C150/C150M—Standard Specification for Portland Cement.
8. ASTM C171—Standard Specification for Sheet Materials for Curing Concrete.
9. ASTM C173/C173M—Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
10. ASTM C231/C231M—Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
11. ASTM C260/C260M—Standard Specification for Air-Entraining Admixtures for Concrete.
12. ASTM C309—Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
13. ASTM C494/C494M—Standard Specification for Chemical Admixtures for Concrete.
14. ASTM C618—Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
15. ASTM C827/C827M—Standard Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures.
16. ASTM C881/C881M—Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
17. ASTM C920—Standard Specification for Elastomeric Joint Sealants.
18. ASTM C932—Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
19. ASTM C990—Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
20. ASTM C1107/C1107M—Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
21. ASTM C1116/C1116M—Standard Specification for Fiber-Reinforced Concrete.
22. ASTM D1751—Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
23. ASTM D1752—Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.

- 24. ASTM D2103—Standard Specification for Polyethylene Film and Sheeting.
 - 25. ASTM D4397—Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.
 - 26. ASTM D6690—Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
- C. Concrete Reinforcing Steel Institute (CRSI)
- 1. MSP—Manual of Standard Practice.
- D. National Sanitation Foundation (NSF)
- 1. NSF 61—Drinking Water System Components – Health Effects.

1.04 QUALITY ASSURANCE

- A. Reinforced concrete shall comply with ACI 318; the recommendations of ACI 350R; and other stated requirements, codes, and standards. The most stringent requirement of the codes, standards, and this Section shall apply when conflicts exist.
- B. Only one source of cement and aggregates shall be used on any one structure. Concrete shall be uniform in color and appearance.
- C. Thirty days in advance of placing concrete, the Contractor shall discuss with the Engineer the sources of individual materials and batched concrete proposed for use. Discuss placement methods, waterstops, and curing. Propose methods of hot and cold weather concreting as required. Before placing any concrete containing a high-range water-reducing admixture (plasticizer), the Contractor, accompanied by the plasticizer manufacturer, shall discuss with the Engineer the properties and techniques of batching and placing plasticized concrete.
- D. A firm providing field testing and inspection services will be approved by the Owner. The cost of such work, except as specifically stated otherwise, shall be paid by the Contractor. The following items shall be tested by the Owner to verify conformity with this Section:
- 1. Concrete placements—compressive strength (cylinders), compressive strength (cores), slump, and air content.
 - 2. Other materials or products that may come under question.
 - 3. All materials incorporated in the work shall conform to accepted samples.

E. Finishes

1. For concrete that will receive additional applied finishes or materials, the surface finish specified is required for the proper application of the specified manufacturer's products. Where alternate products are approved for use, determine if changes in finishes are required and provide the proper finishes to receive these products.
2. Changes in finishes made to accommodate products different from those specified shall be performed at no additional cost to the Owner. Submit the proposed new finishes and their construction methods to the Engineer for approval.

F. Services of Manufacturer's Representative

1. Upon 72 hours notification, make available at no extra cost to the Owner the services of a qualified field representative of the manufacturer of the curing compound, sealer, or hardener to instruct the user on the proper application of the product under prevailing job conditions.

1.05 WARRANTIES

- A. Warranties shall be in accordance with General Conditions, Supplementary Conditions, and Section 01780, Warranties and Bonds.
- B. Furnish the Owner with a written warranty that the mechanical splice system is free from manufacturing defects and will perform as represented.

PART 2 PRODUCTS

2.01 GENERAL

- A. The use of the manufacturer's name and model or catalog number is to establish the standard of quality and general configuration desired.
- B. Like items of materials shall be the end products of one manufacturer to provide standardization of appearance, maintenance, and manufacturer's service.
- C. Materials shall comply with this Section and any applicable State or local requirements.

2.02 MATERIALS

- A. Cement: Domestic Portland cement complying with ASTM C150/C150M. Air entraining cements shall not be used. The brand of cement shall be subject to

approval by the Engineer and one brand shall be used throughout the Work. The following cement type(s) shall be used:

1. Class A, B, C, D Concrete Type II with the addition of fly ash resulting in C3A being below 5% of total cementitious content, Type III limited to 5% C3A, or Type V.
- B. Aggregate: Washed inert natural sand conforming to the requirements of ASTM C33/C33M.
- C. Water: Potable water free from injurious amounts of oils, acids, alkalis, salts, organic matter, or other deleterious substances.
- D. Admixtures: Admixtures shall be free of chlorides and alkalis (except for those attributable to water). When more than one admixture is required to be used in a concrete mix, the admixtures shall be from the same manufacturer. Admixtures shall be compatible with the concrete mix, including other admixtures, and shall be suitable for use in contact with potable water after 30 days of concrete curing.
1. Air-Entraining Admixture—The admixture shall comply with ASTM C260/C260M.
 2. Water-Reducing Agent—The admixture shall comply with ASTM C494/C494M, Type A.
 3. High-Range Water-Reducer (Plasticizer)—The admixture shall comply with ASTM C494/C494M, Type F and shall result in non-segregating plasticized concrete with little bleeding and with the physical properties of low water/cement ratio concrete. The treated concrete shall be capable of maintaining its plastic state more than 2 hours.
 4. Admixtures causing retarded or accelerated setting of concrete shall not be used without written approval from the Engineer. When allowed, the admixtures shall be retarding or accelerating water-reducing or high-range water-reducing admixtures.
- E. Pozzolan (Fly Ash) shall be Class F fly ash complying with ASTM C618, except that the Loss on Ignition (LOI) shall be limited to 3% maximum.
- F. Materials for Curing Concrete:
1. Sheet Curing Materials—Waterproof paper, polyethylene film, or white burlap polyethylene sheeting shall comply with ASTM C171.
 2. Liquid Curing Compound—Liquid membrane forming curing compound shall comply with the requirements of ASTM C309, Type 1D (clear or translucent with fugitive dye) and shall contain no wax, paraffin, or oil. The curing compound shall be approved for use in contact with potable

water after 30 days according to NSF 61 (non-toxic and free of taste or odor).

- G. Chemical hardener shall be Lapidolith by Sonneborn, Hornolith by A.C. Horn, Penalith by W.R. Meadows, or equal fluosilicate base material.
- H. Concrete sealer shall be "Kure N Seal," by Sonneborn, Minneapolis, MN, or equal.

2.03 MIXES

- A. Select proportions of ingredients to meet the design strength and materials limits specified in Table 1 and to produce concrete having proper workability, durability, strength, appearance, and other required properties. Proportion ingredients to produce a homogenous mixture, which will readily work into corners and angles of forms and around reinforcement without permitting materials to segregate or allowing excessive free water to collect on the surface.
- B. The design mix shall be based on standard deviation data of prior mixes with essentially the same proportions of the same constituents or, if such data are not available, be developed by a testing laboratory acceptable to the Engineer and engaged by and at the expense of the Contractor. Mixes based on standard deviation shall be accepted based on the modification factors for standard deviation tests contained in ACI 318. The water content of the concrete mix, determined by laboratory testing, shall be based on a curve showing the relation between water cementitious ratio and 7- and 28-day compressive strengths of concrete made using the proposed materials. The curves shall be determined by four or more points, each representing an average value of at least three test specimens at each age. The curves shall have a range of values sufficient to yield the desired data, including the specified design strengths as modified below, without extrapolation. The water content of the concrete mixes to be used, as determined from the curve, shall correspond to strengths 16% greater than the specified design strengths. The resulting mix shall not conflict with the limiting values for maximum water cementitious ratio and net minimum cementitious content as specified in Table 1.
- C. Entrained air, as measured by ASTM C231/C231M, shall be as shown in Table 1.
 - 1. If the air-entraining agent proposed for use in the mix requires testing methods other than those in ASTM C231/C231M to accurately determine air content, make special note of this requirement in the concrete mix submittal.

- D. Slump of the concrete as measured by ASTM C143/C143M shall be as shown in Table 1. If a high-range water-reducer (plasticizer) is used, the slump indicated shall be that measured before plasticizer is added. Plasticized concrete shall have a slump ranging from 7 to 10 inches.

TABLE 1
CONCRETE MIX REQUIREMENTS

Class	Design Strength (1)	Cement (2)		Fine Aggregate (2)	Coarse Aggregate (3)	Cementitious Content (4)
A	2,500	C150 Type II		C33	57	440 min.
B	3,000	C150 Type II		C33	57	480 min.
C	4,000	C150 Type II		C33	57	560 min.
D	5,000	C150 Type II		C33	57	600 min.
Class	W/C Ratio (5)	Fly Ash	AE Range (6)	WR (7)	HRWR (8)	Slump Range (Inches)
A	0.60 max.	--	3.5 to 5	Yes	*	1-4
B	0.54 max.	--	2.5 to 5	Yes	*	1-3
C	0.44 max.	20 – 25%	2.5 to 5	Yes	*	3-5
D	0.40 max.	--	3.5 to 5	Yes	*	3-5

NOTES:

- (1) Minimum compressive strength in psi at 28 days.
- (2) ASTM designation.
- (3) Size Number in ASTM C33/C33M.
- (4) Cementitious content in pounds/cubic yard.
- (5) W/C is Water-Cementitious ratio by weight.
- (6) AE is percent air-entrainment.
- (7) WR is water-reducer admixture.
- (8) HRWR is high-range water-reducer admixture.
- * HRWR used at the Contractor's option.

2.04 CONCRETE REINFORCEMENT

- A. Reinforcing steel shall be deformed bars and shall comply with ASTM A615/A615M, Grade 60.
- B. Welded wire fabric shall be flat sheet and comply with ASTM A1064/A1064M.
- C. Fiber reinforcement shall be synthetic fibers with 100% polypropylene collated, fibrillated fibers and with a minimum tensile strength of 70 ksi. Fiber-reinforced concrete shall be in accordance with ASTM C1116/C1116M, Type III, Synthetic Fiber-Reinforced Concrete. Use a minimum of 1.5 pounds of fibers per cubic yard of concrete. Add fibers at the batch plant.

2.05 FORMS

- A. Forms for cast-in-place concrete shall be made of wood, metal, or other approved material. All forms shall be designed and constructed to provide a flat, uniform concrete surface requiring minimal finish or repairs.
- B. Forms shall be free from roughness and imperfections, substantially watertight, and adequately braced and tied to prevent motion when concrete is placed. No wooden spreaders will be allowed in the concrete.
- C. The form-release agent shall be coated on all surfaces in contact with concrete using effective, non-staining, non-residual, water-based, bond-breaking form coatings.
- D. Wire ties will not be allowed. Metal ties or anchorages necessary within the forms shall be so constructed that the metal work can be removed for a depth of at least 1 inch from the surface of the concrete without injury to such surface by spalling or otherwise. Forms shall be thoroughly cleaned before using and shall be treated with oil or other approved material.
- E. All exposed edges of the finished concrete shall be chamfered 3/4 inch.

2.06 EXPANSION/CONTRACTION JOINTS

- A. Pre-molded joint fillers for water holding structures shall be non-extruding and resilient non-bituminous type and comply with ASTM D1752, Type III. Joint fillers for sidewalk and roadway pavements shall be asphalt-impregnated fiber board conforming to ASTM D1751.
- B. Joint sealants shall comply with ASTM D6690, Type M Class 25 for horizontal surface, and ASTM C920, Type M Grade NS Class 25 for vertical surface greater than 3% slope.
- C. Bond breaker shall be an adhesive-backed glazed butyl or polyethylene tape.

2.07 WATERSTOPS

- A. Waterstops shall be flat dumbbell type and made of polyvinylchloride PVC no less than 3/8-inch thick and 6 inches wide and comply with ASTM C990.

2.08 BONDING MATERIALS

- A. The concrete bonding agent shall be an aqueous-phase, film-forming, non-oxidizing, freeze- and thaw-resistant compound agent suitable for brush or spray application conforming to ASTM C932.
- B. Epoxy adhesive binder shall be two-component, epoxy-polysulfide polymer-type bind with amine-type curing agent conforming to ASTM C881/C881M, Type II.

2.09 VAPOR BARRIER

- A. Vapor barrier shall be clear polyethylene sheeting, 6-mil conforming to ASTM D2103 or ASTM D4397.

2.10 GROUT

- A. Non-shrink, cementitious grout shall comply with ASTM C1107/C1107M, Grade B or C.
- B. Non-shrink, epoxy machinery grout shall conform to ASTM C827/C827M with compressive strength of 12,000 psi in 7 days.
- C. Concrete grout shall have a compressive average strength of 3,000 psi at 29 days. Synthetic fiber reinforcing fibers shall be added to the grout mix at rate of 1.5 pounds of fiber per cubic yard of grout.

PART 3 EXECUTION

3.01 REINFORCING STEEL

- A. Reinforcement shall be accurately fabricated to the dimensions shown. Bars shall be bent around a pin having a diameter not less than that recommended in ACI 318. All bars shall be bent cold.
- B. Reinforcement shall be shipped to the work with bars of the same size and shape fastened in bundles with metal identification tags giving size and mark securely wired on. The identification tags shall be labeled with the same designation as shown on submitted bar schedules and shop drawings.
- C. All bars shall be stored off the ground and shall be protected from moisture and be kept free from dirt, oil, or injurious coatings. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.

- D. Tension lap splices shall be provided at all laps in compliance with ACI 318. All bar splices shall be staggered wherever possible. When splicing bars of different diameters, the length of lap is based on the larger bar. Class B splices shall be used at all locations unless otherwise indicated on the Drawings.
- E. Before being placed in position, reinforcement shall be thoroughly cleaned of loose mill and rust scale, dirt, and other coatings that reduce or destroy bond. Where there is delay in depositing concrete after reinforcement is in place, bars shall be reinspected and cleaned when necessary.
- F. Reinforcement that is to be exposed for a considerable length of time after being placed shall be painted with a heavy coat of cement grout, if required.
- G. In no case shall any reinforcing steel be covered with concrete until the number and position of the reinforcements have been checked by the Engineer and his/her permission given to proceed with the concreting.

3.02 MECHANICAL COUPLER SYSTEM

- A. Use mechanical reinforcing steel coupling system only where indicated. Install in accordance with the manufacturer's written instructions and as specified in this Section.
- B. Upon receiving the coupler system, obtain the threaded length for the male ends and sample each lot for variation in thread length on male ends. Record the amount of actual thread (per lot).
- C. After formwork is removed, confirm cap is in position (female end).
- D. Before installing the male end, remove screwed cap and confirm that the female end (coupler) is clean and free of concrete splatter, dirt, burrs, or other matter which may foul threads.
- E. Tighten the dowel bar male end until the threads are fully engaged and no threads are exposed. Do not strip threads.
- F. Visually inspect all splice locations. A correctly installed splice will show no exposed threads on the threaded splice bars.

3.03 CONCRETE MIXING AND TRANSPORTING

- A. Concrete shall be ready-mixed concrete produced by equipment acceptable to the Engineer. No hand mixing will be permitted. Clean each transit mix truck drum and reverse drum rotation before the truck proceeds under the batching plant.

Equip each transit mix truck with a continuous, nonreversible, revolution counter showing the number of revolutions at mixing speeds.

- B. Ready mix concrete shall be transported to the site in watertight agitator or mixer trucks loaded not in excess of their rated capacities as stated on the name plate.
- C. Keep the water tank valve on each transit truck locked at all times. Any addition of water must be directed by the Engineer. Added water shall be incorporated by additional mixing of at least 35 revolutions. All added water shall be metered and the amount of water added shall be shown on each delivery ticket.
- D. All central plant and rolling stock equipment and methods shall comply with ACI 318 and ASTM C94/C94M.
- E. Select equipment of size and design to ensure continuous flow of concrete at the delivery end. Metal or metal-lined non-aluminum discharge chutes shall be used and shall have slopes not more than 1 vertical to 2 horizontal and not less than 1 vertical to 3 horizontal. Chutes more than 20 feet long and chutes not meeting slope requirements may be used if concrete is discharged into a hopper before distribution.
- F. Re-tempering (mixing with or without additional cement, aggregate, or water) of concrete or mortar which has reached initial set will not be permitted.
- G. Handle concrete from mixer to placement as quickly as practicable while providing concrete of required quality in the placement area. Dispatch trucks from the batching plant so they arrive at the work site just before the concrete is required, thus avoiding excessive mixing of concrete while waiting or delays in placing successive layers of concrete in the forms.
- H. Furnish a delivery ticket for ready-mixed concrete to the Engineer as each truck arrives. Each ticket shall provide a printed record of the weight of cement and each aggregate as batched individually. Use the type of indicator that returns for zero punch or returns to zero after a batch is discharged. Clearly indicate the weight of fine and coarse aggregate, cement, and water in each batch; the quantity delivered; the time any water is added; and the numerical sequence of the delivery. Show the time of day batched and time of discharge from the truck. Indicate the number of revolutions of the truck mixer.
- I. Temperature and Mixing Time Control
 - 1. In cold weather, do not allow the as-mixed temperature of the concrete and concrete temperatures at the time of placement in the forms to drop below 40°F.

2. If the water or aggregate has been heated, combine the water with aggregate in the mixer before cement is added. Do not add cement to mixtures of water and aggregate when the temperature of the mixture is greater than 90°F.
3. In hot weather, cool ingredients before mixing to maintain temperature of the concrete below the maximum placing temperature of 90°F. If necessary, substitute well-crushed ice for all or part of the mixing water.
4. The maximum time interval between adding mixing water and/or cement to the batch and placing concrete in the forms shall not exceed the values shown in Table 2.

TABLE 2
MAXIMUM TIME TO DISCHARGE OF CONCRETE

Air or Concrete Temperature (whichever is higher)	Maximum Time
80 to 90°F (27 to 32°C)	45 minutes
70 to 79°F (21 to 26°C)	60 minutes
40 to 69°F (5 to 20°C)	90 minutes

- J. If an approved high-range water-reducer (plasticizer) is used to produce plasticized concrete, the maximum time interval shall not exceed 90 minutes.

3.04 CONCRETE APPEARANCE

- A. Concrete mix showing either poor cohesion or poor coating of the coarse aggregate with paste shall be remixed. If this does not correct the condition, the concrete shall be rejected.
- B. Concrete for the work shall provide a homogeneous structure which, when hardened, will have the required strength, durability, and appearance. Mixtures and workmanship shall be such that concrete surfaces, when exposed, will require no finishing. When concrete surfaces are stripped, the concrete when viewed in good lighting from 10 feet away shall be pleasing in appearance and at 20 feet shall show no visible defects.

3.05 PLACING CONCRETE

- A. Reinforcement, where required, shall be accurately placed in the exact positions shown, shall be secured against displacement with annealed iron wire ties or suitable clips at intersections, and shall have a clear space of 2 inches between the steel and face of forms unless otherwise indicated. Wire ties passing through the forms to hold the steel in proper position will not be allowed. Concrete blocks

with wire ties cast in them may be used where approved by the Engineer to maintain the clearance between reinforcement and forms. Reinforcing bars shall be free from rust, scale, dirt, grease, and injurious contaminants.

- B. No concrete shall be placed until the Engineer has approved forms and method of placement. Before concrete is deposited, all debris, foreign matter, dirt, and water shall be removed from the forms. The surface of concrete previously placed, such as manhole bases or horizontal construction joints, shall be cleaned and brushed with cement paste. Concrete shall not be placed in water or submerged within 24 hours after placing, nor shall running water be permitted to flow over the surface of fresh concrete within 4 days after its placing.
- C. Deposit concrete as near its final position as possible to avoid segregation due to rehandling or flowing. Pumping of concrete will be permitted when an approved design mix and aggregate sizes, suitable for pumping, are used. Do not deposit concrete that has partially hardened or has been contaminated by foreign materials. If the section cannot be placed continuously, place construction joints as specified or as approved. Place concrete for walls using tremie tubes in 12- to 24-inch lifts, keeping the surface horizontal. Do not drop concrete more than 4 feet.
- D. High-frequency mechanical vibrators shall be used to the extent necessary to obtain proper consolidation of the concrete. Care shall be taken to avoid segregating aggregates by excessive vibration. Concrete adjacent to forms and around pipe stubs shall be carefully spaded or rodded.
- E. Concrete walls shall be deposited in one continuous operation with concrete brought up evenly on all sides. Chutes shall be of metal, "U" shaped, and provided with a baffle plate at the end, if necessary, to prevent segregation of materials. Chutes shall be placed at an angle of not less than 25 degrees, nor more than 45 degrees from horizontal and they shall be kept clean and free from hardened concrete.
- F. No concrete shall be mixed or placed during freezing weather without explicit permission. When placing concrete when the air temperature is below 40°F, heat the water, sand, and gravel so that the temperature of the concrete will be at least 50°F. This temperature shall be maintained for 72 hours after placing.

3.06 FIELD TESTS

- A. The Engineer will take sets of three field control cylinder specimens during the progress of the work, in compliance with ASTM C31/C31M. The number of sets of concrete test cylinders taken of each class of concrete placed each day shall not be fewer than one set nor fewer than one set for each 150 cubic yards of concrete

nor fewer than one set for each 5,000 square feet of surface area for slabs or walls. One cylinder shall be broken at 7 days and two cylinders shall be broken and their strengths averaged at 28 days. When the average 28-day compressive strength of the cylinders in any set falls below the specified compressive strength or below proportional minimum 7-day strengths (where the proper relation between 7- and 28-day strengths has been established by tests), the Engineer may reject the concrete represented by the set of cylinders and may require modification of the concrete and/or require modification of the proportions, water content, or temperature conditions of the design mix to achieve the required strengths.

- B. The Contractor shall cooperate in testing by allowing free access to the work for selecting samples, providing an insulated closed curing box for specimens, protecting the specimens against injury or loss through his/her operations, and furnishing material and labor required for taking concrete cylinder samples. All shipping of specimens will be paid for by the Owner.
- C. Slump tests will be made in the field by the Engineer in conformity with ASTM C143/C143M.
- D. Tests for air content shall be made in compliance with either the pressure method complying with ASTM C231/C231M or by the volumetric method complying with ASTM C173/C173M.

3.07 FORMED SURFACES

- A. Forms shall remain in-place for the time specified in ACI/COL-4. Do not remove forms and shores until the concrete has gained sufficient strength to support its weight and superimposed loads.
- B. Exercise care to prevent damaging edges or obliterating the lines of chamfers, rustications, or corners when removing the forms or performing any other work adjacent to such chamfers, rustications, or corners.
- C. Clean all exposed concrete surfaces and adjoining work stained by leakage of concrete.
- D. Rough Form Finish
 - 1. Immediately after stripping forms and before the concrete has changed color, carefully remove all fins and projections.
 - 2. Promptly fill holes left by tie cones and defects as specified.

E. Rubbed Finish

1. Immediately upon stripping forms and before the concrete has changed color, carefully remove all fins. While the wall is still damp, apply a thin coat of medium-consistency neat cement slurry by bristle brushes to provide a bonding coat within all pits, air holes, or blemishes in the parent concrete. Avoid coating large areas with the slurry at one time.
2. Before the slurry has dried or changed color, apply a dry (almost crumbly) grout proportioned by volume and consisting of 1 part cement to 1-1/2 parts of clean masonry sand having a fineness modulus of approximately 2.3 and complying with the gradation requirements of ASTM C33/C33M for such a material. Grout shall be uniformly applied by damp pads of coarse burlap approximately 6 inches square used as a float. Scrub grout into the pits and air holes to provide a dense mortar in all imperfections.
3. Allow the mortar to partially harden for 1 or 2 hours depending on the weather. If the air is hot and dry, keep the wall damp during this period using a fine fog spray. When the grout has hardened sufficiently so it can be scraped from the surface with the edge of a steel trowel without damaging the grout in the small pits or holes, cut off all that can be removed with a trowel. (Note: Grout allowed to remain on the wall too long will harden and will be difficult to remove.)
4. Allow the surface to dry thoroughly and rub it vigorously with clean dry burlap to completely remove any dried grout. No visible film of grout shall remain after this rubbing. The entire cleaning operation for any area must be completed the day it is started. Do not leave grout on surfaces overnight. Allow sufficient time for the grout to dry after it has been cut off with the trowel so it can be wiped off clean with the burlap.
5. On the day after the repair of pits, air holes, and blemishes, the walls shall again be wiped off clean with used dry pieces of burlap containing old hardened mortar that will act as a mild abrasive. After this treatment, there shall be no built-up film remaining on the parent surface. If, however, such a film is present, a fine abrasive stone shall be used to remove all such material without breaking through the surface film of the original concrete. Such scrubbing shall be light and sufficient only to remove excess material without changing the texture of the concrete.
6. A thorough wash down with stiff-bristle brushes shall follow the final bagging or stoning operation. No extraneous materials shall remain on the surface of the wall. The wall shall be sprayed with a fine fog spray periodically to maintain a continually damp condition for at least 3 days after the application of the repair grout.

F. Abrasive Blast Finish

1. Coordinate with Rubbed Finish application. Do not begin until the Rubbed Finish operation is complete or before the concrete has reached its minimum 7-day strength. The Rubbed Finish application may be deleted by the Engineer if the unfinished concrete surface is of superior quality. Apply the abrasive blast finish only where indicated on the Drawings.
2. Prepare a sample area a minimum of 4 feet high by 16 feet wide. Blast Finish as directed by the Engineer on a portion of new wall construction that will not be exposed in the final work. The sample area shall contain a variety of finishes obtained with different nozzles, nozzle pressures, grit materials, and blasting techniques for selection by the Engineer. Final accepted sample shall remain exposed until all Blast Finish operations are complete.
3. The Blast Finish operation shall meet all regulatory agency requirements. The Blast Finish contractor shall be responsible for obtaining all required permits and/or licenses.
4. Perform abrasive blast finishing in as continuous an operation as possible, using the same work crew to maintain continuity of finish on each surface or area of work. Maintain patterns or variances in depths of blast as present on the accepted sample.
5. Use an abrasive grit of proper type and gradation as well as equipment and technique to expose aggregate and surrounding matrix surfaces as follows:
 - a. Medium: Generally expose coarse aggregate 1/4-inch to 3/8-inch reveal.
6. Abrade blast corners and edge of patterns carefully, using back-up boards, to maintain uniform corner or edge line. Determine type of nozzle, nozzle pressure, and blasting techniques required to match the Architect's samples.
7. Upon completing the Blast Finish operation, thoroughly flush finished surfaces with clean clear water to remove residual dust and grit. Allow to air dry until curing of concrete is complete.
8. After the concrete has cured for a minimum of 28 days, apply a clear acrylic sealer as directed by the manufacturer.

3.08 FLOORS AND SLABS

A. Floated Finish

1. Machine Floating:

- a. Screed floors and slabs with straightedges to the established grades shown on the Drawings. Immediately after final screeding sprinkle a dry cement/sand shake in the proportion of two sacks of Portland cement to 350 pounds of coarse natural concrete sand evenly over the surface at the rate of approximately 500 pounds/1,000 square feet of floor. Do not sprinkle neat, dry cement on the surface.
- b. The application of the cement/sand shake may be eliminated at the discretion of the Engineer if the base slab concrete exhibits adequate fattiness and homogeneity and the need is not indicated. When the concrete has hardened sufficiently to support the weight of a power float without the float's digging into or disrupting the level surface, thoroughly float the shake into the surface with a heavy revolving disc-type power compacting machine capable of providing a 200-pound compaction force distributed over a 24-inch-diameter disc.
- c. Start floating along walls and around columns and then move systematically across the surface leaving a matte finish.
- d. The compacting machine shall be the "Kelly Power Float with Compaction Control" as manufactured by Kelley Industries of SSP Construction Equipment Inc., Pomona, CA or equal. Troweling machines equipped with float (shoe) blades that are slipped over the trowel blades may be used for floating. Floating with a troweling machine equipped with normal trowel blades will not be permitted. The use of any floating or troweling machine which has a water attachment for wetting the concrete surface during finishing will not be permitted.

2. Hand Floating:

- a. In lieu of power floating, small areas may be compacted by hand floating. The dry cement/sand shake previously specified shall be used unless specifically eliminated by the Engineer. Screed the floors and slabs with straightedges to the established grades shown on the Drawings. While the concrete is still green but sufficiently hardened to support a finisher and kneeboards with no more than 1/4-inch indentation, wood float to a true, even plane with no coarse aggregate visible. Use sufficient pressure on the wood floats to bring moisture to the surface.

3. Finishing Tolerances:

- a. Level floors and slabs to a tolerance of plus or minus 1/8 inch when checked with a 10-foot straightedge placed anywhere on the slab in any direction. Where drains occur, pitch floors to drains so that no low spots are left undrained. Failure to meet either of the above requirements shall be cause for removal, grinding, or other correction as directed by the Engineer.

B. Broom Finish

- 1. Screed slabs with straightedges to the established grades indicated on the Drawings. When the concrete has stiffened sufficiently to maintain small surface indentations, draw a stiff bristle broom lightly across the surface in the direction of drainage or, in the case of walks and stairs, perpendicular to the direction of traffic to provide a non-slip surface.

C. Steel Trowel Finish

- 1. Finish concrete as specified in Article 3.04. Then, hand steel trowel to a perfectly smooth, hard, even finish free from high or low spots or other defects.

D. Concrete Sealer

- 1. Prepare and seal surfaces indicated on the room finish schedule to receive a sealer as follows:
 - a. Finish concrete as specified in the preceding paragraphs and in accordance with the Schedule in Article 3.11.
 - b. Newly Placed Concrete: Surface must be sound and properly finished. Surface is application ready when it is damp but not wet and can no longer be marred by walking workmen.
 - c. Newly Cured Bare Concrete: Level any spots gouged out by trades. Remove all dirt, dust, droppage, oil, grease, asphalt, and foreign matter. Cleanse with caustics and detergents as required. Rinse thoroughly and allow to dry so that surface is no more than damp and not wet.
 - d. Aged Concrete: Restore surface soundness by patching, grouting, filling cracks and holes, etc. Surface must also be free of any dust, dirt, and other foreign matter. Use power tools and/or strippers to remove any incompatible sealers or coatings. Cleanse as required following the procedure indicated under cured concrete.

- e. Methods: Apply sealer to form a continuous, uniform film by spray, soft bristle pushbroom, long nap roller, or lambswool applicator. Ordinary garden type sprayers, using neoprene hose, are recommended for best results.
- f. Applications: For curing only, apply the first coat evenly and uniformly as soon as possible after final finishing at the rate of 200 to 400 square feet per gallon. Apply the second coat when all trades are completed and the structure is ready for occupancy at the rate of 400 to 600 square feet per gallon.
- g. To meet guarantee and to seal and dustproof, two coats are required. For sealing new concrete, both coats shall be applied full strength. On aged concrete, when renovating, dustproofing, and sealing, the first coat should be thinned 10 to 15% with reducer in accordance with the manufacturer's directions.

3.09 CONCRETE RECEIVING CHEMICAL HARDENER

- A. After 28 days minimum concrete cure, apply chemical hardener in three applications to a minimum total coverage of the undiluted chemical of 100 square feet per gallon and in accordance with the manufacturer's recommendations as reviewed.

3.10 APPROVAL OF FINISHES

- A. All concrete surfaces, when finished, will be examined by the Engineer.
- B. Surfaces which in the opinion of the Engineer are unsatisfactory shall be refinished or reworked.
- C. After finishing horizontal surfaces, regardless of the finishing procedure specified, the concrete shall be cured in compliance with this Section unless otherwise directed by the Engineer.

3.11 SCHEDULE OF FINISHES

- A. Concrete shall be finished as specified either to remain as natural concrete or to receive an additional applied finish or material under another section.
- B. Concrete for the following conditions shall be finished as noted on the Drawings and as further specified in this Section:
 - 1. Concrete to Receive Dampproofing: Rough form finish. See Paragraph 3.07D.

2. Concrete Not Exposed to View and Not Scheduled to Receive an Additional Applied Finish or Material: Rough form finish. See Paragraph 3.07D.
3. Exterior Vertical Concrete Above Grade Exposed to View: Rubbed finish. See Paragraph 3.07E.
4. Interior Vertical Concrete Exposed to View Except in Water Containment Areas: Rubbed finish. See Paragraph 3.07E.
5. Vertical Concrete in Water Containment Areas. Rubbed finish on exposed surfaces and extending to 2 feet below normal operating water level: Rough form finish on the remainder of submerged areas. See Paragraphs 3.07D and 3.07E.
6. Interior and Exterior Underside of Concrete Exposed to View: Rubbed finish. See Paragraph 3.07E.
7. Exterior surfaces exposed to view and indicated to have an abrasive blast finish. See Paragraph 3.07F.
8. Interior or Exterior Horizontal Concrete not Requiring Floor Hardener or Sealer: Floated finish. See Paragraphs 3.08D and 3.09A.
9. Concrete for Exterior Walks and Interior and Exterior Stairs: Broomed finish perpendicular to direction of traffic. See Paragraph 3.08B.
10. Concrete Slabs On Which Process Liquids Flow or In Contact with Sludge: Steel trowel finish. See Paragraph 3.08C.
11. Concrete to Receive Hardener: See Paragraph 3.09A.
12. Concrete to Receive Floor Sealer: See Paragraph 3.08D.

3.12 CURING AND PROTECTION

- A. The Contractor shall protect all concrete work against injury from the elements and defacements of any nature during construction operations.
- B. Curing Methods
 1. Curing Methods for Concrete Surfaces: Cure concrete to retain moisture and maintain specified temperature at the surface for a minimum of 7 days after placement. Curing methods to be used are as follows:
 - a. Water Curing: Keep entire concrete surface wet by ponding, continuous sprinkling, or by covering with saturated burlap. Begin wet cure as soon as concrete attains an initial set and maintain wet cure 24 hours a day.
 - b. Sheet Material Curing: Cover entire surface with sheet material. Securely anchor sheeting to prevent wind and air from lifting the sheeting or entrapping air under the sheet. Place and secure sheet as soon as initial concrete set occurs.

- c. Liquid Membrane Curing: Apply over the entire concrete surface except for surfaces to receive additional concrete. DO NOT place curing compound on any concrete surface where additional concrete is to be placed, where concrete sealers or surface coatings are to be used, or where the concrete finish requires an integral floor product. Apply curing compound as soon as the free water on the surface has disappeared and no water sheen is visible, but not after the concrete is dry or when the curing compound can be absorbed into the concrete. Application shall be in compliance with the manufacturer's recommendations.

2. Specified applications of curing methods:

- a. Slabs for Water Containment Structures: Water curing only.
- b. Slabs on Grade and Footings (not used to contain water): Water curing, sheet material curing, or liquid membrane curing.
- c. Structural Slabs (other than water containment): Water curing or liquid membrane curing.
- d. Horizontal Surfaces that will Receive Additional Concrete, Coatings, Grout, or Other Material that Requires Bond to the Substrate: Water curing.
- e. Formed Surfaces: None if nonabsorbent forms are left in place 7 days. Water cure if absorbent forms are used. Sheet cured or liquid membrane cured if forms are removed before 7 days. Exposed horizontal surfaces of formed walls or columns shall be water cured for 7 days or until the next placement of concrete.
- f. Concrete Joints: Water cured or sheet material cured.

- C. Finished surfaces and slabs shall be protected from the direct rays of the sun to prevent checking and crazing.

D. Cold Weather Concreting

- 1. *Cold weather* is defined as a period when the average daily outdoor temperature drops below 40°F for more than 3 successive days. The average daily temperature shall be calculated as the average of the highest and the lowest temperature during the period from midnight to midnight.
- 2. Cold weather concreting shall conform to ACI 306.1 and the additional requirements specified in this Section. Temperatures at the concrete placement shall be recorded at 12-hour intervals (minimum).
- 3. The Contractor shall discuss a cold weather work plan with the Engineer. The discussion shall encompass the methods and procedures proposed

for use during cold weather, including the production, transportation, placement, protection, curing, and temperature monitoring of the concrete. The procedures to be implemented upon abrupt changes in weather conditions or equipment failures shall also be discussed. Cold weather concreting shall not begin until the work plan is acceptable to the Engineer.

4. During periods of cold weather, concrete shall be protected to provide continuous warm, moist curing (with supplementary heat when required) for a total of at least 350 degree-days of curing.
 - a. *Degree-days* are defined as the total number of 24-hour periods multiplied by the weighted average daily air temperature at the surface of the concrete (e.g., 5 days at an average of 70°F = 350 degree-days).
 - b. To calculate the weighted average daily air temperature, sum hourly measurements of the air temperature in the shade at the surface of the concrete taking any measurement less than 50°F as 0°F. Divide the sum thus calculated by 24 to obtain the weighted average temperature for that day.
5. Salt, manure, or other chemicals shall not be used for protection.
6. The protection period for concrete being water cured shall not be terminated during cold weather until at least 24 hours after water curing has been terminated.

E. Hot Weather Concreting

1. *Hot weather* is defined as any combination of high air temperatures, low relative humidity, and wind velocity which produces a rate of evaporation estimated in accordance with ACI 305R, approaching or exceeding 0.2 pound/square foot/hour).
2. Concrete placed during hot weather shall be batched, delivered, placed, cured, and protected in compliance with the recommendations of ACI 305R and the additional requirements specified in this Section.
 - a. Temperature of concrete being placed shall not exceed 90°F and every effort shall be made to maintain a uniform concrete mix temperature below this level. The temperature of the concrete shall be such that it will cause no difficulties from loss of slump, flash set, or cold joints.

- b. All necessary precautions shall be taken to deliver the concrete promptly, to place the concrete promptly upon its arrival at the job, and to provide vibration immediately after placement.
 - c. The Engineer may direct the Contractor to immediately cover plastic concrete with sheet material.
- 3. The Contractor shall discuss with the Engineer a work plan describing the methods and procedures proposed to use for concrete placement and curing during hot weather. Hot weather concreting shall not begin until the work plan is acceptable to the Engineer.

3.13 STRIPPING AND FINISHING CONCRETE

- A. Forms shall not be stripped before the concrete has attained a strength of at least 30% of the specified design strength, unless otherwise approved by the Engineer. This is equivalent to approximately "100 day-degrees" of moist curing.
- B. Shores shall not be removed until the concrete has attained at least 70% of its specified design strength and also sufficient strength to support safely its own weight and construction live loads.
- C. Care shall be exercised to prevent damaging edges or obliterating the lines of chamfers, rustications, or corners when removing the forms or doing any other adjacent work.
- D. Clean all exposed concrete surfaces and adjoining work stained by leakage of concrete to the satisfaction of the Engineer.
- E. As soon as forms have been stripped, remove form ties, if employed, and fill the recess to ensure complete watertightness. Chip out and repair any defects in the surface of the walls in a workmanlike manner. Defective concrete where it occurs shall be cut to a minimum depth of 1 inch, thoroughly roughened, and neat cement brushed in. The hole shall then be filled with mortar in the proportion of 1 part cement and 2-1/2 parts sand with a minimum of water. Mortar for filling form tie recesses shall be mixed to a slightly damp consistency (just short of "balling"), pressed into the recess until dense, and troweled smooth. Mortar in larger patches shall be applied and allowed to assume a partial set following which it shall be struck off flush with the adjoining surface. Patches shall be kept moist for several days to ensure proper curing.
- F. Top surface of slabs shall be screeded to the established grades and shall be a true plane with a tolerance of 1/8 inch when checked with a 10-foot straightedge. The surface shall be finished to give a smooth, hard, even surface free from high or

low spots or other defects. Failure to meet the condition shall be cause for removal, grinding, or other correction as directed by the Engineer.

- G. Concrete to receive seamless flooring or Liner System shall be finished in strict accordance with the manufacturer's recommendations.

3.14 SCHEDULE

- A. The following (Table 3) are the general applications for the various concrete classes and design strengths:

TABLE 3
CONCRETE SCHEDULE

Class	Design Strength (psi)	Description
A	2,500	Concrete fill and duct encasement.
B	3,000	Concrete overlay slabs and pavements.
C	4,000	Walls, slabs on grade, suspended slab and beam systems, columns, grade beams, and all other structural concrete.
D	5,000	Prestressed concrete.

3.15 MISCELLANEOUS WORK

- A. Sleeve steel work required to be set in the concrete forms for attachment of structural and miscellaneous equipment shall be set or installed under this Section. The Contractor shall be fully responsible for the setting of such materials in the forms and shall correct all such materials not installed in a proper location or manner at his own expense.

END OF SECTION

SECTION 03600 GROUT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, and incidentals required and install grout complete as shown on the Drawings and as specified in this Section.

1.02 SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:
 - 1. Commercially manufactured nonshrink cementitious grout. The submittal shall include catalog cuts, technical data, storage requirements, product life, working time after mixing, temperature considerations, conformity to required ASTM standards, and Material Safety Data Sheet.
 - 2. Commercially manufactured nonshrink epoxy grout. The submittal shall include catalog cuts, technical data, storage requirements, product life, working time after mixing, temperature considerations, conformity to required ASTM standards, and Material Safety Data Sheet.
 - 3. Cement grout. The submittal shall include the type and brand of the cement, the gradation of the fine aggregate, product data on any proposed admixtures, and the proposed mix of the grout.
 - 4. Concrete grout. The submittal shall include data as required for concrete as delineated in Section 03301, Concrete and Reinforcing Steel. This includes the mix design, constituent quantities per cubic yard, and the water/cement ratio.
- B. Laboratory Test Reports: Submit laboratory test data as required under Section 03301, Concrete and Reinforcing Steel, for concrete to be used as concrete grout.
- C. Certifications: Certify that commercially manufactured grout products and concrete grout admixtures are suitable for use in contact with potable water after 30 days curing.
- D. Qualifications: Grout manufacturers shall submit documentation that they have at least 10 years of experience in the production and use of the proposed grouts which they will supply.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be in accordance with the currently effective Florida Building Code (FBC). The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

A. American Society for Testing and Materials (ASTM)

1. ASTM C33/C33M—Standard Specification for Concrete Aggregates.
2. ASTM C150/C150M—Standard Specification for Portland Cement.
3. ASTM C531—Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.
4. ASTM C579—Standard Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.
5. ASTM C827/C287M—Standard Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures.
6. ASTM C1107/C1107M—Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
7. ASTM D695—Standard Test Method for Compressive Properties of Rigid Plastics.

B. US Army Corps of Engineers Standard (CRD)

1. CRD C621—Corps of Engineers Specification for Non-Shrink Grout.

1.04 QUALITY ASSURANCE

A. Pre-installation Conference

1. Well in advance of grouting, the Contractor shall hold a pre-installation meeting to review the requirements for surface preparation, mixing, placing, and curing procedures for each product proposed for use. Parties concerned with grouting shall be notified of the meeting at least 10 days before its scheduled date.

B. Services of Manufacturer's Representative

1. A qualified field technician of the nonshrink grout manufacturer, specifically trained in installing the products, shall attend the pre-installation conference and shall be present for the initial installation of

each type of nonshrink grout. Additional services shall also be provided as required to correct installation problems.

C. Field Testing

1. All field testing and inspection services required shall be provided by the Owner. The Contractor shall assist in the sampling of materials and shall provide any ladders, platforms, etc., for access to the work. The methods of testing shall comply in detail with the applicable ASTM Standards.
2. The field testing of Concrete Grout shall be as specified in the Contract Documents.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.
- B. Deliver materials to the jobsite in original, unopened packages, clearly labeled with the manufacturer's name, product identification, batch numbers, and printed instructions.
- C. Store materials in full compliance with the manufacturer's recommendations. Total storage time from the date of manufacture to the date of installation shall be limited to 6 months or the manufacturer's recommended storage time, whichever is less.
- D. Material which becomes damp or otherwise unacceptable shall be immediately removed from the site and replaced with acceptable material at no additional expense to the Owner.
- E. Nonshrink-cement-based grouts shall be delivered as preblended, prepackaged mixes requiring only the addition of water.
- F. Nonshrink epoxy grouts shall be delivered as premeasured, prepackaged, three-component systems requiring only blending as directed by the manufacturer.

1.06 QUALIFICATIONS

- A. The grout manufacturer shall have a minimum of 10 years of experience in the production and use of the type of grout proposed for the work.

1.07 DEFINITIONS

- A. Nonshrink Grout: A commercially manufactured product that does not shrink in either the plastic or hardened state, is dimensionally stable in the hardened state, and bonds to a clean base plate.

PART 2 PRODUCTS

2.01 GENERAL

- A. The use of a manufacturer's name and product or catalog number is to establish the standard of quality desired.
- B. To standardize appearance, like materials shall be the products of one manufacturer or supplier.

2.02 MATERIALS

- A. Nonshrink Cementitious Grout

- 1. Nonshrink cementitious grouts shall meet or exceed the requirements of ASTM C1107/C1107M, Grades B or C and CRD C-621. Grouts shall be Portland-cement based, contain a pre-proportioned blend of selected aggregates and shrinkage compensating agents, and shall require only the addition of water. Nonshrink cementitious grouts shall not contain expansive cement or metallic particles. The grouts shall exhibit no shrinkage when tested in conformity with ASTM C827/C827M.
 - a. General purpose nonshrink cementitious grout shall conform to the standards stated above and shall be SikaGrout 212 by Sika Corp.; Set Grout by Master Builders, Inc.; Gilco Construction Grout by Gifford Hill & Co.; Euco NS by The Euclid Chemical Co.; NBEC Grout by U. S. Grout Corp.; or equal.
 - b. Flowable (Precision) nonshrink cementitious grout shall conform to the standards stated above and shall be Masterflow 928 by Master Builders, Inc.; Hi Flow Grout by the Euclid Chemical Co.; SikaGrout 212 by Sika Corp.; Supreme Grout by Gifford Hill & Co.; Five Star Grout by U. S. Grout Corp.; or equal.

- B. Nonshrink Epoxy Grout

- 1. Nonshrink epoxy based grout shall be a pre-proportioned, three-component, 100% solids system consisting of epoxy resin, hardener, and blended aggregate. It shall have a compressive strength of 14,000 psi in

7 days when tested in conformity with ASTM D695 and have a maximum thermal expansion of 30×10^{-6} when tested in conformity with ASTM C531. The grout shall be Ceilcote 648 CP by Master Builders Inc.; Five Star Epoxy Grout by US Grout Corp.; Sikadur 42 Grout Pak by Sika Corp.; High Strength Epoxy Grout by the Euclid Chemical Co.; or equal.

C. Cement Grout

1. Cement grouts shall be a mixture of 1 part Portland cement conforming to ASTM C150/C150M, Types I, II, or III and 1 to 2 parts sand conforming to ASTM C33/C33M with sufficient water to place the grout. The water content shall be sufficient to impart workability to the grout but not to the degree that it will allow the grout to flow.

D. Concrete Grout

1. Concrete grout shall conform to the requirements of Section 03301, Concrete and Reinforcing Steel, except as specified in this Section. It shall be proportioned with cement, coarse and fine aggregates, water, water reducer, and an air-entraining agent to produce a mix having an average strength of 2,900 psi at 28 days, or 2,500 psi nominal strength. Coarse aggregate size shall be 3/8 inch maximum. Slump should not exceed 5 inches and should be as low as practical yet still retain sufficient workability.
2. Synthetic reinforcing fibers shall be added in accordance with Section 03301, Concrete and Reinforcing Steel. Fibers shall be added from the manufacturer's premeasured bags and according to the manufacturer's recommendations in a manner that will ensure complete dispersion of the fiber bundles as single monofilaments within the concrete grout.

E. Water

1. Potable water, free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances.

PART 3 EXECUTION

3.01 PREPARATION

- A. Grout shall be placed over cured concrete which has attained its full design strength unless otherwise approved by the Engineer.

- B. Concrete surfaces to receive grout shall be clean and sound, free of ice, frost, dirt, grease, oil, curing compounds, laitance and paints, and free of all loose material or foreign matter which may affect the bond or performance of the grout.
- C. Roughen concrete surfaces by chipping, sandblasting, or other mechanical means to ensure bond of the grout to the concrete. Remove loose or broken concrete. Irregular voids or projecting coarse aggregate need not be removed if they are sound, free of laitance, and firmly embedded into the parent concrete.
 - 1. Air compressors used to clean surfaces in contact with grout shall be the oilless type or equipped with an oil trap in the air line to prevent oil from being blown onto the surface.
- D. Remove all loose rust, oil, or other deleterious substances from metal embedments or bottom of baseplates before installing the grout.
- E. Concrete surfaces shall be washed clean and then kept moist for at least 24 hours before the placing of cementitious or cement grout. Saturation may be achieved by covering the concrete with saturated burlap bags, using a soaker hose, flooding the surface, or other method acceptable to the Engineer. Upon completion of the 24-hour period, visible water shall be removed from the surface before grouting. An adhesive bonding agent should only be used in lieu of surface saturation when approved by the Engineer for each specific location of grout installation.
- F. Epoxy-based grouts do not require the saturation of the concrete substrate. Surfaces in contact with epoxy grout shall be completely dry before grouting.
- G. Construct grout forms or other leak-proof containment as required. Forms shall be lined or coated with release agents recommended by the grout manufacturer. Forms shall be of adequate strength, securely anchored in place, and shored to resist the forces imposed by the grout and its placement.
 - 1. Forms for epoxy grout shall be designed to allow the formation of a hydraulic head and shall have chamfer strips built into forms.
- H. Level and align the structural or equipment bearing plates in accordance with the structural requirements and the recommendations of the equipment manufacturer.
- I. Equipment shall be supported during alignment and installation of grout by shims, wedges, blocks, or other approved means. The shims, wedges, and blocking devices shall be prevented from bonding to the grout by appropriate bond breaking coatings and removed after grouting unless otherwise approved by the Engineer.

3.02 INSTALLATION—GENERAL

- A. The Contractor shall mix, apply, and cure products in strict compliance with the manufacturer's recommendations and this Section.
- B. Have sufficient manpower and equipment available for rapid and continuous mixing and placing. Keep all necessary tools and materials ready and close at hand.
- C. Maintain temperatures of the foundation plate, supporting concrete, and grout between 40 and 90°F during grouting and for at least 24 hours after or as recommended by the grout manufacturer, whichever is longer. Take precautions to minimize differential heating or cooling of baseplates and grout during the curing period.
- D. Take special precautions for hot weather or cold weather grouting as recommended by the manufacturer when ambient temperatures and/or the temperature of the materials in contact with the grout are outside of the 60 and 90°F range.
- E. Install grout in a manner which will preserve the isolation between the elements on either side of the joint where grout is placed in the vicinity of an expansion or contraction joint.
- F. Reflect all existing underlying expansion, contraction, and construction joints through the grout.

3.03 INSTALLATION—CEMENT GROUTS AND NONSHRINK CEMENTITIOUS GROUTS

- A. Mix in accordance with the manufacturer's recommendations. Do not add cement, sand, pea gravel, or admixtures without prior approval by the Engineer.
- B. Avoid mixing by hand. Mixing in a mortar mixer (with moving blades) is recommended. Pre-wet the mixer and empty excess water. Add premeasured amount of water for mixing, followed by the grout. Begin with the minimum amount of water recommended by the manufacturer and then add the minimum additional water required to obtain workability. Do not exceed the manufacturer's maximum recommended water content.
- C. Placements greater than 3 inches deep shall include the addition of clean, washed pea gravel to the grout mix when approved by the manufacturer. Comply with the manufacturer's recommendations for the size and amount of aggregate to be added.

- D. Place grout into the designated areas in a manner which will avoid segregation or entrapment of air. Do not vibrate grout to release air or to consolidate the material. Placement should proceed in a manner which will ensure the filling of all spaces and provide full contact between the grout and adjoining surfaces. Provide grout holes as necessary.
- E. Place grout rapidly and continuously to avoid cold joints. Do not place cement grouts in layers. Do not add additional water to the mix (retemper) after initial stiffening.
- F. Just before the grout reaches its final set, cut back the grout to the substrate at a 45° angle from the lower edge of the bearing plate unless otherwise approved by the Engineer. Finish this surface with a wood float (brush) finish.
- G. Begin curing immediately after form removal, cutback, and finishing. Keep grout moist and within its recommended placement temperature range for at least 24 hours after placement or longer if recommended by the manufacturer. Saturate the grout surface by use of wet burlap, soaker hoses, ponding, or other approved means. Provide sunshades as necessary. If drying winds inhibit the ability of a given curing method to keep grout moist, erect wind breaks until wind is no longer a problem or curing is finished.

3.04 INSTALLATION—NONSHRINK EPOXY GROUTS

- A. Mix in accordance with the procedures recommended by the manufacturer. Do not vary the ratio of components or add solvent to change the consistency of the grout mix. Do not overmix. Mix full batches only to maintain proper proportions of resin, hardener, and aggregate.
- B. Monitor ambient weather conditions and contact the grout manufacturer for special placement procedures to be used for temperatures below 60 or above 90°F.
- C. Place grout into the designated areas in a manner which will avoid trapping air. Placement methods shall ensure the filling of all spaces and provide full contact between the grout and adjoining surfaces. Provide grout holes as necessary.
- D. Minimize "shoulder" length (extension of grout horizontally beyond base plate). In no case shall the shoulder length of the grout be greater than the grout thickness.
- E. Finish grout by puddling to cover all aggregate and provide a smooth finish. Break bubbles and smooth the top surface of the grout in conformity with the manufacturer's recommendations.

- F. Epoxy grouts are self-curing and do not require the application of water. Maintain the formed grout within its recommended placement temperature range for at least 24 hours after placing, or longer if recommended by the manufacturer.

3.05 INSTALLATION—CONCRETE GROUT

- A. Screed underlying concrete to the grade shown on the Drawings. Provide the surface with a broomed finish, aligned to drain. Protect and keep the surface clean until placement of concrete grout.
- B. Remove the debris and clean the surface by sweeping and vacuuming all dirt and other foreign materials. Wash the tank slab using a strong jet of water. Flushing debris into tank drain lines will not be permitted.
- C. Saturate the concrete surface for at least 24 hours before placing the concrete grout. Saturation may be maintained by ponding, by the use of soaker hoses, or by other methods acceptable to the Engineer. Remove excess water just before placing the concrete grout. Place a cement slurry immediately ahead of the concrete grout so that the slurry is moist when the grout is placed. Work the slurry over the surface with a broom until it is coated with approximately 1/16- to 1/8-inch-thick cement paste.
- D. Place concrete grout to final grade using the scraper mechanism as a guide for surface elevation and to ensure that high and low spots are eliminated. Unless specifically approved by the equipment manufacturer, mechanical scraper mechanisms shall not be used as a finishing machine or screed.
- E. Provide grout contraction joints as indicated on the Drawings.
- F. Finish and cure the concrete grout as specified for cast-in-place concrete.

3.06 SCHEDULE

- A. The following list indicates where the particular types of grout are to be used:
 - 1. General purpose nonshrink cementitious grout: Use at all locations where nonshrink grout is called for on the plans except for base plates greater than 3 feet wide by 3 feet long and, except for the setting of anchor rods, anchor bolts or reinforcing steel in concrete.
 - 2. Flowable nonshrink cementitious grout: Use under all base plates greater in area than 3 feet by 3 feet. Use at all locations indicated to receive flowable nonshrink grout by the Drawings. The Contractor, at his/her

option and convenience, may also substitute flowable nonshrink grout for general purpose nonshrink cementitious grout.

3. Nonshrink epoxy grout: Use for setting anchor rods, anchor bolts, and reinforcing steel in concrete and for all locations specifically indicated to receive epoxy grout.
4. Cement grout: Cement grout may be used for grouting incidental base plates for structural and miscellaneous steel such as post base plates for platforms, base plates for beams, etc. It shall not be used when nonshrink grout is specifically called for on the Drawings or for grouting primary structural steel members such as columns and girders.
5. Concrete grout: Use for overlaying the base concrete under scraper mechanisms of clarifiers to allow more control in placing the surface grade.

END OF SECTION

DIVISION 9

FINISHES

SECTION 09900
PAINTING AND COATING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section includes materials for and application of painting and coating systems for the following surfaces:
 - 1. Submerged metal.
 - 2. Exposed metal.
 - 3. Buried metal.
 - 4. Exposed concrete and masonry.
 - 5. PVC and Fiberglass.
 - 6. Nonferrous, galvanized, and other miscellaneous metals.

1.02 SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance.
- B. Submit manufacturer's data sheets showing the following information:
 - 1. Percent solids by volume (sbv).
 - 2. Minimum and maximum recommended dry-film thickness per coat for prime, intermediate, and finish coats.
 - 3. Recommended surface preparation.
 - 4. Recommended thinners.
 - 5. Statement verifying that the specified prime coat is recommended by the manufacturer for use with the specified intermediate and finish coats.
 - 6. Application instructions including recommended equipment and temperature limitations.
 - 7. Curing requirements and instructions.
- C. Submit color swatches.
- D. Submit certificate identifying the type and gradation of abrasives used for surface preparation.
- E. Submit material safety data sheets for each coating.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Architectural Manufacturers Association (AAMA)
 - 1. AAMA 2604—Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
- B. American Association of State Highway and Transportation Officials (AASHTO)
 - 1. AASHTO T-259—Standard Method of Test for Resistance of Concrete to Chloride Ion Penetration.
- C. American Society for Testing and Materials (ASTM)
 - 1. ASTM A780/A780M—Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
 - 2. ASTM B117—Standard Practice for Operating Salt Spray (Fog) Apparatus.
 - 3. ASTM C67/C67M—Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
 - 4. ASTM C97/C97M—Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.
 - 5. ASTM C140/C140M—Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
 - 6. ASTM C307—Standard Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacing.
 - 7. ASTM C501—Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser.
 - 8. ASTM C518—Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Apparatus.
 - 9. ASTM C579—Standard Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.
 - 10. ASTM C580—Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concrete.
 - 11. ASTM C793—Standard Test Method for Effects of Laboratory Accelerated Weathering on Elastomeric Joint Sealants.

12. ASTM D520—Standard Specification for Zinc Dust Pigment.
13. ASTM D522/D522M—Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings.
14. ASTM D638—Standard Test Method for Tensile Properties of Plastics.
15. ASTM D695—Standard Test Method for Compressive Properties of Rigid Plastics.
16. ASTM D790—Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
17. ASTM D870—Standard Practice for Testing Water Resistance of Coatings Using Water Immersion.
18. ASTM D1002—Standard Test Method for Apparent Shear Strength of Single-Lap-Joint Adhesively Bonded Metal Specimens by Tension Loading (Metal-to-Metal).
19. ASTM D1014—Standard Practice for Conducting Exterior Exposure Tests of Paints and Coatings on Metal Substrates.
20. ASTM D1308—Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Coating Systems.
21. ASTM D2240—Standard Test Method for Rubber Property—Durometer Hardness.
22. ASTM D2370—Standard Test Method for Tensile Properties of Organic Coatings.
23. ASTM D2697—Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings.
24. ASTM D2794—Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
25. ASTM D3273—Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
26. ASTM D3734—Standard Specification for High-Flash Aromatic Naphthas.
27. ASTM D4060—Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
28. ASTM D4138—Standard Practices for Measurement of Dry Film Thickness of Protective Coating Systems by Destructive, Cross-Sectioning Means.
29. ASTM D4141/D4141M—Standard Practice for Conducting Black Box and Solar Concentrating Exposures of Coatings.
30. ASTM D4258—Standard Practice for Surface Cleaning Concrete for Coating.
31. ASTM D4260—Standard Practice for Liquid and Gelled Acid Etching of Concrete.
32. ASTM D4261—Standard Practice for Surface Cleaning Concrete Masonry Units for Coating.
33. ASTM D4263—Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.

34. ASTM D4541—Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
35. ASTM D4585/D4585M—Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation.
36. ASTM D4587—Standard Practice for Fluorescent UV-Condensation Exposures of Paint and Related Coatings.
37. ASTM D4787—Standard Practice for Continuity Verification of Liquid or Sheet Linings Applied to Concrete Substrates.
38. ASTM D5590—Standard Test Method for Determining the Resistance of Paint Films and Related Coatings to Fungal Defacement by Accelerated Four-Week Agar Plate Assay.
39. ASTM D5894—Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal, (Alternating Exposures in a Fog-Dry Cabinet and a UV/Condensation Cabinet).
40. ASTM D6386—Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting.
41. ASTM D6695—Standard Practice for Xenon-Arc Exposures of Paint and Related Coatings.
42. ASTM D6904—Standard Practice for Resistance to Wind-Driven Rain for Exterior Coatings Applied on Masonry.
43. ASTM D7091—Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals.
44. ASTM D7234—Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers.
45. ASTM E84—Standard Test Method for Surface Burning Characteristics of Building Materials.
46. ASTM F1869—Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
47. ASTM G210—Standard Practice for Operating the Severe Wastewater Analysis Testing Apparatus.

D. American Water Works Association (AWWA)

1. AWWA C203—Coal-Tar Protective Coatings and Linings for Steel Water Pipelines – Enamel and Tape – Hot Applied.
2. AWWA C209—Cold-Applied Tape Coatings for Steel Water Pipe, Special Sections, Connections, and Fittings.

- E. British Standards Institution (BSI)
1. BS EN 598—Ductile Iron Pipes, Fittings, Accessories, and their Joints for Sewerage Applications – Requirements and Test Methods.
- F. National Association of Corrosion Engineers International (NACE)
1. NACE SP0188—Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates.
 2. NACE TM0174—Laboratory Methods for the Evaluation of Protective Coatings and Lining Materials on Metallic Substrates in Immersion Service.
- G. NSF International (NSF)
1. NSF 61—Drinking Water System Components – Health Effects.
- H. Society for Protective Coatings (SSPC) and National Association of Corrosion Engineers (NACE)
1. SSPC PA-1—Shop, Field, and Maintenance Painting of Steel.
 2. SSPC PA-2—Procedure for Determining Conformance to Dry Coating Thickness Requirements.
 3. SSPC SP-1—Solvent Cleaning.
 4. SSPC SP-2—Hand Tool Cleaning.
 5. SSPC SP-3—Power Tool Cleaning.
 6. SSPC SP-5/NACE No. 1—White Metal Blast Cleaning.
 7. SSPC SP-6/NACE No. 3—Commercial Blast Cleaning.
 8. SSPC SP-7/NACE No. 4—Brush-Off Blast Cleaning.
 9. SSPC SP-8—Pickling.
 10. SSPC SP-10/NACE No. 2—Near-White Blast Cleaning.
 11. SSPC SP-11—Power Tool Cleaning to Bare Metal.
 12. SSPC SP-12/NACE No. 5—High- and Ultra-High-Pressure Water Jetting.
 13. SSPC SP-13/NACE No. 6—Surface Preparation of Concrete.
 - a. ICRI CSP1-6—Concrete Surface Profile 1 – 6.
 14. SSPC SP-14/NACE No. 8—Industrial Blast Cleaning.
 15. SSPC SP WJ-1—Waterjet Cleaning of Metals – Clean to Bare Substrate.
 16. SSPC SP WJ-2—Waterjet Cleaning of Metals – Very Thorough Cleaning.
 17. SSPC SP WJ-3—Waterjet Cleaning of Metals – Thorough Cleaning.
 18. SSPC SP WJ-4—Waterjet Cleaning of Metals – Light Cleaning.

I. US Department of Defense (MIL)

1. MIL-C-5541—Chemical Conversion Coatings on Aluminum and Aluminum Alloys.
2. MIL-C-18480B—Coating Compound, Bituminous, Solvent, Coal-Tar Base.
3. MIL-D-3134—Deck Covering Materials.
4. MIL-DTL-24441—General Specification for Paint, Epoxy-Polyamide.
5. MIL-P-21035—Paint High Zinc Dust Content, Galvanizing Repair.

PART 2 MATERIALS

2.01 PAINTING AND COATING SYSTEMS

The following index lists the various painting and coating systems by service and generic type:

PAINT COATINGS SYSTEM INDEX		
No.	Title	Generic Coating
Submerged Metal Coating Systems		
6.	Submerged Metal, Potable Water	Zinc-rich urethane/polyamide epoxy
Exterior/UV-Exposed Metal Coating Systems		
11.	Exposed Metal, Non-Immersion, Difficult to Maintain Areas with High UV Exposure	Zinc-rich urethane/epoxy/urethane/fluoropolymer
12.	Exposed Metal, Non-Immersion Environment	Epoxy/epoxy/aliphatic acrylic urethane
Buried Metal Coating Systems		
21.	Buried Metal, Valves Coating System	Epoxy/epoxy/epoxy
23.	Buried Metal, Bituminous (For Buried Pipe)	Thixotropic coal-tar pitch
Exterior/UV-Exposed Concrete and Masonry Coating Systems		
41.	New or Bare Concrete and Masonry, Atmospheric Weathering Environment	Modified waterborne acrylate/modified waterborne acrylate
PVC and Fiberglass Coating Systems		
51.	PVC and Fiberglass, Ultraviolet Exposure or Color Coding	Epoxy/aliphatic acrylic polyurethane
Nonferrous, Galvanized, and Other Miscellaneous Metals Coating Systems		
61.	Aluminum Insulation from Concrete and Carbon Steel	Polyamide epoxy-coal-tar primer and finish
62.	Galvanized Steel.	Low-Stress Epoxy/Aliphatic Polyurethane/Aliphatic Polyurethane.

- A. These systems are specified in detail in the following paragraphs. For each system, the required surface preparation, coating materials, and thickness are described. If the specified surface preparation, coating materials, or thickness differs from the coating manufacturer's written instructions at the time of application, the manufacturer's instructions shall govern.
- B. Only products of one manufacturer may be used throughout any particular coating system.
- C. The following products are listed as a reference standard for this Section. All high-performance coatings shall be a product of Tnemec International or Induron. No other manufacturers will be permitted with prior approval of the Engineer.
- D. To be considered for approval, potential alternate products must:
 - 1. Be submitted by the manufacturer a minimum of 10 days before the project bid date to allow time for review.
 - 2. Be the same generic type and have the same solids by volume (sbv).
 - 3. Maintain the specified total dry film thickness.
 - 4. Meet or exceed the performance criteria of the originally specified coatings in Article 2.02 of this Section.
 - 5. Include a side-by-side comparison of equality including generic coating description, volume solids, ASTM performance test results, etc.
 - 6. Be endorsed by the manufacturer for their intended use on the project.
- E. All dry film thicknesses in the coating systems below are listed in mils.
- F. Submerged Metal Coating Systems
 - 1. System No. 6—Submerged Metal, Potable Water:
 - a. Type: Tnemec Series 22 Polyamine Epoxy (100% sbv) or Series N140 Polyamidoamine Epoxy (67% sbv) with a Series 94-H₂O Hydro-Zinc Zinc-Rich Aromatic Urethane (62% sbv, 83% zinc) primer at a minimum total film thickness of 14 mils (Excluding Stripe Coat).
 - b. Service Conditions: For use with structures, valves, piping, or equipment immersed in potable water.
 - c. Surface Preparation: Solvent clean in accordance with SSPC SP-1 to remove contaminants from the surface. Abrasive blast in accordance with SSPC SP-10/NACE No. 2.
 - d. Prime Coat: Tnemec Series 94-H₂O Hydro-Zinc at 2.5 to 3.5 mils.

- e. Stripe Coat (Weld Seams and Edges): Tnemec Series N140 Pota-Pox Plus at 3.0 to 5.0 mils.
- f. Finish Coat (Option 1): Series 22 at 20.0 to 35.0 mils. Multiple passes may be required over difficult-to-reach locations.
- g. Finish Coat (Option 2): Multiple coats of Series N140 at 4.0 to 8.0 mils per coat, to achieve a total of 12.0 to 16.0 mils.

G. Exterior/UV-Exposed Metal Coating Systems

1. System No. 11—Exposed Metal, Non-Immersion, Difficult to Maintain Areas with High UV Exposure:
 - a. Type: Tnemec Series 700 Hydroflon Advanced Thermoset Solution Fluoropolymer finish (60% sbv) with a Series 90-97 Tneme-Zinc Zinc-rich aromatic urethane primer (63% sbv) and a Series 66 Hi-Build Epoxoline Polyamide Epoxy intermediate coat (56% sbv) at a total film thickness of 7.5 to 12.5 mils.
 - b. Service Conditions: For use with metal structures or pipes subjected to UV exposure, which are especially difficult to maintain or are otherwise in need of extremely long maintenance cycles (such as aerial crossings, elevated tanks, and surfaces with custom artwork).
 - c. Surface Preparation: Solvent clean in accordance with SSPC SP-1 to remove contaminants from the surface. Abrasive blast in accordance with SSPC SP-6/NACE No. 3.
 - d. Prime Coat: Tnemec Series 90-97 Tneme-Zinc at 2.5 to 3.5 mils. For a single-component solution, Series 90G-1k97 may be substituted as the primer at the same thickness.
 - e. Stripe Coat (Weld Seams, Edges): Tnemec Series 66 Hi-Build Epoxoline at 2.0 to 5.0 mils.
 - f. First Intermediate Coat: Tnemec Series 66 Hi-Build Epoxoline at 3.0 to 6.0 mils.
 - g. Second Intermediate Coat: Tnemec Series 1095 Endura-Shield at 2.0 to 5.0 mils.
 - h. Finish Coat: Tnemec Series 700 Hydroflon at 2.0 to 3.0 mils. Series 700 is gloss. For a semi-gloss sheen, Series 701 Hydroflon may be substituted for the finish coat at the same thickness.
2. System No. 12—Exposed Metal, Non-Immersion Environment:
 - a. Type: Tnemec Series 1095 Endura-Shield Aliphatic Acrylic Polyurethane finish (66% sbv) with a Series 66 Hi-Build Epoxoline Polyamide Epoxy (56% sbv) primer and intermediate coat at a total film thickness of 8.5 to 17.0 mils.

- b. Service Conditions: For use with metal structures or pipes subjected to non-immersion conditions, where high-performance corrosion resistance, high-performance color and gloss retention, or resistance to chemical vapors are desired. This system is not suitable for areas of high H₂S concentrations or other similar extremely corrosive atmospheres.
- c. Surface Preparation: Solvent clean in accordance with SSPC SP-1 to remove contaminants from the surface. Abrasive blast in accordance with SSPC SP-6/NACE No. 3.
- d. Prime Coat: Tnemec Series 66 Hi-Build Epoxoline at 3.0 to 6.0 mils.
- e. Intermediate Coat: Tnemec Series 66 Hi-Build Epoxoline at 3.0 to 6.0 mils.
- f. Finish Coat: Tnemec Series 1095 Endura-Shield at 2.5 to 3.0 mils. Series 1095 is semi-gloss. For a different sheen, apply Series 1094 (gloss) or Series 1096 (eggshell) at the same thickness.

H. Buried Metal Coating Systems

- 1. System No. 21—Buried Metal, Valves Coating System:
 - a. Type: Tnemec Series N140 Pota-Pox Plus Polyamidoamine Epoxy (67% sbv) primer, intermediate and finish coat with a UV-stable fourth coat for exposed non-immersion areas. Total film thickness without fourth coat is 8.0 to 22.0 mils.
 - b. Service Conditions: Buried metal, such as pipe exteriors, valves, flanges, bolts, nuts, structural steel, and fittings.
 - c. Surface Preparation: Solvent clean in accordance with SSPC SP-1 to remove contaminants from the surface. Abrasive blast in accordance with SSPC SP-10/NACE No. 2.
 - d. Prime Coat: Tnemec Series N140 at 2.0 to 10.0 mils.
 - e. Intermediate Coat: Tnemec Series N140 Pota-Pox Plus at 3.0 to 6.0 mils.
 - f. Finish Coat: Tnemec Series N140 Pota-Pox Plus at 3.0 to 6.0 mils.
 - g. UV-Stable Fourth Coat (UV-exposed, non-immersion areas): Tnemec Series 1095 Endura-Shield at 2.5 to 5.0 mils. Series 1095 is semi-gloss. For a different sheen, apply Series 1094 (gloss) or Series 1096 (eggshell) at the same thickness.
- 2. System No. 23—Buried Metal, Bituminous (For Buried Pipe):
 - a. Type: Thixotropic, coal-tar pitch having minimum volume solids of 68% and complying with MIL-C-18480B.

- b. Service Conditions: Buries metal, such as pipe exteriors, flanges, nuts, bolts, and fittings. This system is not to be used if there are areas aboveground or areas receiving additional coatings.
- c. Surface Preparation: Solvent clean in accordance with SSPC SP-1 to remove contaminants from the surface. Abrasive blast in accordance with SSPC SP-6/NACE No. 3.
- d. Multiple Coats: Apply two to three coats of Carboline Bitumastic 50 or Tnemec Series 46-465, to a total thickness of 30 mils.

I. Exterior/UV-Exposed Concrete and Masonry Coating Systems

- 1. System No. 41—New or Bare Concrete and Masonry, Atmospheric Weathering Environment:
 - a. Type: Tnemec Series 156 Enviro-Crete Modified Waterborne Acrylate (50.9% sbv) primer and finish coat with a Series 1254 EpoxoBlock WB inorganic hybrid water-based epoxy (100% sbv) block filler at a total dry film thickness of 8.0 to 16.0 mils.
 - b. Service Conditions: Exterior concrete or masonry, exposed to ultraviolet light and weathering, which requires protection from hairline cracking, driving rain, or mold and mildew.
 - c. Surface Preparation: In accordance with Article 3.04.
 - d. Masonry Block Filler: Tnemec Series 1254 EpoxoBlock WB at a rate of 100 to 150 square feet for dense substrates or 75 to 100 square feet for porous substrates.
 - e. Prime Coat: Tnemec Series 156 Enviro-Crete at 4.0 to 8.0 mils.
 - f. Finish Coat: Tnemec Series 156 Enviro-Crete at 4.0 to 8.0 mils.

J. PVC and Fiberglass Coating Systems

- 1. System No. 51—PVC and Fiberglass, Ultraviolet Exposure or Color Coding:
 - a. Type: Tnemec Series 1095 Endura-Shield Aliphatic Acrylic Polyurethane (66% sbv) finish with a Series 66 Hi-Build Epoxoline Polyamide Epoxy (56% sbv) prime coat at a total dry film thickness of 4.5 to 10.0 mils.
 - b. Service Conditions: Color coding of PVC, CPVC, or FRP exposed to sunlight.
 - c. Surface Preparation: Clean the surface in accordance with SSPC SP-1. Then, thoroughly and uniformly scarify and de-gloss the surface.
 - d. Prime Coat: Tnemec Series 66 at 2.0 to 3.0 mils.

- e. Finish Coat: Tnemec Series 1095 Endura-Shield at 2.5 to 5.0 mils. Series 1095 is semi-gloss. For a different sheen, apply Series 1094 (gloss) or Series 1096 (eggshell) at the same thickness.

K. Nonferrous, Galvanized, and Other Miscellaneous Metals Coating Systems

1. System No. 61—Aluminum Insulation from Concrete and Carbon Steel:

- a. Type: Tnemec Series 46H-413 Hi-Build Tneme-Tar (75% sbv) prime and finish coats at a total dry film thickness of 16.0 to 20.0 mils.
- b. Service Conditions: Coat areas of aluminum grating, stairs, structural members or aluminum fabrications, in contact with concrete or carbon steel with this system.
- c. Surface Preparation: Clean the surface in accordance with SSPC SP-1. Then, thoroughly and uniformly scarify and de-gloss the surface. Primer must be applied as soon as possible on the same day as surface preparation.
- d. Prime Coat: Tnemec Series 46H-413 at 8.0 to 10.0 mils.
- e. Finish Coat: Tnemec Series 46H-413 at 8.0 to 10.0 mils.

2. System No. 62—Galvanized Steel:

- a. Type: Tnemec Series 1095 Endura-Shield Aliphatic Acrylic Polyurethane (66% sbv) finish with a Series 3600 Probond (100% sbv) prime coat at a total dry film thickness of 5.0 to 10.0 mils.
- b. Service Conditions: Coat area of material using this system. Consult with coating manufacturer for immersion service requirements.
- c. Surface Preparation: Clean the surface in accordance with SSPC SP-1. Primer must be applied as soon as possible on the same day as surface preparation.
- d. Prime Coat: Tnemec Series 3600 at 1.0 to 2.0 mils.
- e. Intermediate Coat: Tnemec Series 1095 Endura-Shield at 2.0 to 44.0 mils. Series 1095 is semi-gloss. For a different sheen, apply Series 1094 (gloss) or Series 1096 (eggshell) at the same thickness.
- f. Finish Coat: Tnemec Series 66 at 2.0 to 4.0 mils.
- g. Finish Coat: Tnemec Series 1095 Endura-Shield at 2.0 to 4.0 mils. Series 1095 is semi-gloss. For a different sheen, apply Series 1094 (gloss) or Series 1096 (eggshell) at the same thickness.

2.02 PERFORMANCE CRITERIA

The following shall serve as a basis of comparison for material substitution requests. Any substitutions which decrease the total film thickness, change the generic type of coating, or fail to meet the performance criteria of the specified materials shall not be approved.

A. Series 1 Omnithane – Zinc/Micaceous Iron Oxide Urethane

1. Adhesion: ASTM D4541 (Method B, Type II) – No less than 1,433 psi (9.88 MPa) adhesion, average of three tests.
2. Salt Spray (Fog): ASTM B117 – No blistering, cracking, or delamination of film. No more than .03% rusting on plane and no more than 3/16-inch rust creepage at scribe after 10,000 hours exposure.

B. Series 22 Epoxoline – Modified Polyamine Epoxy

1. Special Qualification: Certified by NSF International in accordance with NSF 61.
2. Product must be able to be applied in one single-coat application from 16.0 to 40.0 mils dry film thickness.
3. VOC Content: 0.10 pound/gallon (12 grams/liter).
4. Immersion: ASTM 870 – No blistering, cracking, rusting, or delamination of film after 2,000 hours continuous immersion in deionized water at 140°F (60°C), average of three tests.

C. Series 46H-413 Hi-Build Tneme-Tar – Polyamide Epoxy-Coal Tar

1. Adhesion: ASTM D4541 – Exceeds the cohesive strength of the concrete substrate (400 psi), average of three tests.
2. Abrasion: ASTM D4060 (CS-17 wheel, 1,000 gram load) – No more than 142 mg loss after 1,000 cycles.
3. Salt Spray (Fog): ASTM B117 – No blistering, cracking, checking, rusting, or delamination of film. No rust creepage at scribe after 9,000 hours continuous exposure.

D. Series 66 Hi-Build Epoxoline – Polyamide Epoxy

1. Adhesion: ASTM D4541 – No less than 1,930 psi (13.31 MPa) pull, average of three tests.
2. Salt Spray: ASTM B117 – No blistering, cracking, checking, or delamination of film. No more than 1/8-inch rust creepage at scribe after 8,000 hours exposure.

- E. Series 90-07 Thene-Zinc – Aromatic Zinc-Rich Urethane
1. Zinc Pigment: 83% by weight in dried film.
 2. Adhesion: ASTM D4541 (Type II) – No less than 1,442 psi (9.94 MPa) adhesion, average of three tests.
 3. Salt Spray: ASTM B117 – No blistering, cracking, or delamination of film. No more than 1/8-inch creepage at scribe and no more than 1% rusting on plane after 50,000 hours exposure.
- F. Series 94H₂O Hydro-Zinc – Zinc-Rich Aromatic Urethane
1. Special Qualification: Certified in accordance with NSF 61 for use on interior potable water tanks of 500 gallons or greater.
 2. Zinc Pigment: 83% by weight in dried film.
 3. Adhesion: ASTM D4541 (Type V Self-Aligning Adhesion Tester) – No less than 1,713 psi adhesion, average of three tests.
 4. Salt Spray: ASTM B117 – No blistering, cracking, or delamination of film. No rusting on plane and no more than 1/16-inch rust creepage at scribe after 10,000 hours.
- G. Series 104 HS Epoxy – Cycloaliphatic Amine Epoxy
1. Adhesion: ASTM D4541 – No less than 900 psi (6.21 MPa) pull, average of three tests.
 2. Chemical Immersion: NACE TM0174, Procedure B – No blistering, cracking, or delamination of film after 7 days.
 3. Salt Spray (Fog): ASTM B117 – No blistering, cracking, rusting, or delamination of film. No more than 1/32-inch (0.8 mm) rust creepage at scribe after 1,500 hours exposure.
- H. Series 115 Uni-Bond DF – Self-Crosslinking Hydrophobic Acrylic
1. Adhesion: ASTM D4541 (Method C – Type V Tester) – No less than 1,472 psi pull (10.15 MPa), average of three tests.
 2. Salt Spray: ASTM B117 – No more than 1/64-inch rust creepage at scribe, no more than 3% rusting on plane, and no less than a blister rating of 8 after 500 hours exposure.
 3. Humidity: ASTM D4585/D4585M – No blistering, cracking, rusting, or delamination of film after 2,000 hours exposure.
- I. Series N140 Pota-Pox Plus – Polyamidoamine Epoxy
1. Adhesion: ASTM D4541 – No less than 1,943 psi (13.40 MPa) pull, average of three tests.

2. Exterior Exposure: ASTM D1014 – No blistering, cracking, checking, rusting, or delamination of film. No rust creepage at scribe after 5 years exposure.
3. Humidity: ASTM D4585/D4585M – No blistering, cracking, or delamination of film after 10,000 hours exposure.
4. Immersion: ASTM D870 – No blistering, cracking, rusting, or delamination of film after 2,000 hours continuous immersion in deionized water at 140°F, average of three tests.
5. Salt Spray (Fog): ASTM B117 (Two Coats Series N140) – No blistering, cracking, or delamination of film. No more than 1% rusting on plane. No more than 1/16-inch rust creepage at scribe after 6,700 hours exposure.
6. Salt Spray (Fog): ASTM B117 (Series 91H₂O and Two Coats Series N140) – No blistering, cracking, checking, or delamination of film. No more than 1% rusting on plane and no more than 3/16-inch rust creepage at scribe after 20,000 hours exposure.

J. Series 142 Epoxoline – Modified Polyamine Epoxy

1. Suitable for methanol immersion service.
2. Adhesion: ASTM D4541 – No less than 2,042 psi (14.08 MPa) pull, average of three tests.
3. Salt Spray (Fog): ASTM B117 – No blistering, cracking, rusting, or delamination of film and less than 1/32-inch creepage at the scribe after 5,000 hours exposure.
4. Abrasion: ASTM D4060 – No more than 59.3 mg loss after 1,000 cycles, average of two tests.

K. Series 156 Enviro-Crete – Modified Waterborne Acrylate

1. Adhesion: ASTM D7234 – Exceeds the cohesive strength of concrete substrate (400 psi), average of three tests.
2. Salt Spray: ASTM B117 – No blistering, cracking, or delamination of film. No visible damage to coating or substrate after 5,000 hours.
3. QUV Exposure: ASTM D4587 (UVA-340 bulbs, 8 hours UV, 4 hours condensation) – No blistering, cracking, chalking, or delamination of the film. No less than 69% gloss retention, no more than 1.1 units gloss loss, and no more than 3.59 DE (FMC-2) color change (white) after 5,000 hours QUV exposure.
4. Fungal/Mold/Mildew Resistance: ASTM D3273 – No More than slight mold growth after 5 weeks exposure.
5. Tensile Strength, Elongation, Modulus of Elasticity: ASTM D2370 – Elongation no less than 200%, average of five tests. Tensile strength no less than 250 psi (1.7 MPa), average of three tests.

6. Wind Driven Rain Resistance: ASTM D6904 – No damage to coating or substrate. No visible moisture on the back of lightweight block after 48 hours exposure.

L. Series 239SC Chemblock – Modified Novolac Polyamine Epoxy

1. Chemical Immersion: NACE TM0174, Procedure B – No blistering, cracking, rusting, or delamination of film after 72 hours continuous contact with chemical.
2. Compressive Strength: ASTM C579 – Not less than 11,195 psi (77.19 MPa) compressive strength, average of six tests.
3. Flexural Strength and Modulus of Elasticity: ASTM D790 – Not less than 6,270 psi (43.23 MPa) flexural strength and 323,900 psi (2,233 MPa) flexural modulus of elasticity, average of five tests.
4. Impact: MIL D3134 (modified using 2.5 pound steel ball) – No more than 1/16-inch permanent indentation. No cracking, checking, or delamination of film after 240 in-lb (27 J) direct impact, average of three tests.
5. Tensile Strength, Elongation, Modulus of Elasticity: ASTM D638 – No less than 7,913 psi (54.56 MPa) tensile strength, 222,975 psi (1,537 MPa) tensile modulus of elasticity and 6.14% elongation at break.

M. Series 241 Ultra-Tread MVT – Polyurethane Modified Concrete

1. Can be applied to 10-day old concrete.
2. Withstands moisture vapor transmission up to 20 pounds in accordance with ASTM F1869.
3. Withstands relative humidity up to 99% in accordance with ASTM F2170.
4. Adhesion: ASTM D7234 – Exceeds the cohesive strength of the concrete substrate (approximately 400 psi), average of three tests.
5. Compressive Strength: ASTM C579 – No less than 4,922 psi (33.94 MPa) compressive strength, average of six tests.
6. Flexural Strength and Modulus of Elasticity: ASTM C580 – No less than 2,438 psi (16.81 MPa) flexural strength and 313,614 psi (2,162 MPa) modulus of elasticity (tangent), average of five tests.
7. Tensile Strength: ASTM C307 – No less than 1,015 psi (7.00 MPa) tensile strength, average of six tests.

N. Series 248 Everthane – Aliphatic Moisture Cured Urethane

1. Chemical Resistance: Tnemec Test Method-59 (TTM-59) (ASTM D1308) (Covered Spot Test) – No blistering, cracking, checking, or delamination of film. No more than slight softening or very slight swelling and loss of gloss after 24 hours exposure to the following reagents: 30% Sulfuric Acid, 10% Hydrochloric Acid, 50% Phosphoric Acid, 10% Acetic Acid,

50% Sodium Hydroxide, 10% Ammonium Hydroxide, Methyl Ethyl Ketone, Ethyl Alcohol, Hexane, Xylene, Gasoline, Ethylene Glycol, Skydrol, Brake Fluid, Transmission Fluid, Aviation Gas, Jet Fuel (JP4).

2. Abrasion: ASTM D4060 (CS-17 Wheel, 1,000 gram load) – No more than 18 mg loss after 1,000 cycles, average of three tests.

O. Series 282 Tneme-Glaze – Polyamine Novolac Epoxy

1. Chemical Immersion: NACE TM0174, Procedure B – No blistering, cracking, rusting, or delamination of film after 72 hours continuous contact with chemical.
2. Compressive Strength: ASTM C579 – Not less than 11,195 psi (77.19 MPa) compressive strength, average of six tests.
3. Immersion: 140°F Deionized Water Immersion – No blistering, cracking, rusting, or delamination of film after 2,000 hours continuous immersion.
4. Impact: ASTM D2794 – No visible cracking or delamination of film after 59 in/lbs direct impact, average of three tests.
5. Salt Spray (Fog): ASTM B117 – No blistering, cracking, rusting, or delamination of film. No more than 1/16-inch rust creepage at scribe after 3,500 hours exposure.

P. Series 365 Tank Armor – Novolac Epoxy

1. Suitable for immersion service in 98% sulfuric acid.
2. Adhesion: ASTM D4541, Type II – No less than 1,650 psi (11.38 MPa) adhesion, average of three tests.
3. Hardness: ASTM D2240 (Shore D Durometer) – Not less than 90 Shore Type D hardness, average of five tests.

Q. Series 431 Perma-Shield PL – Modified Polyamine Ceramic Epoxy

1. Severe Wastewater Analysis Test: ASTM G210 – Initial impedance of 11.18 log-Z at 0.001 Hz (ohms cm²). No blistering, cracking, checking, or delamination. No less than 88.7% EIS retention or not more than 1.26 ohms cm² reduction in log-Z electrochemical impedance at 0.001 Hz after 28 days exposure. No less than 2,363 psi (16.30 MPa) adhesion or no loss of adhesion after 28 days in S.W.A.T., average of three tests.
2. Abrasion Resistance: ASTM D4060 (CS-17 Wheel, 1,000 cycles, 1,000 gram load) – No more than 41 mg loss, average of three tests.
3. Abrasion Resistance: BS EN 598: 2007+A1: 2009 (Rocking Abrasion) – No more than 0.14 mm (5.5 mils) thickness of coating loss after 1,000,000 cycles.

R. Series 434 Perma-Shield H₂S – Modified Aliphatic Amine Epoxy Mortar

1. Severe Wastewater Analysis Test: ASTM G210 – Initial impedance of 10.6 log-Z at 0.01 Hz (ohms cm²). No blistering, cracking, or checking. No less than 86.7% retention or not more than 1.4 ohms cm² reduction in log-Z electrochemical impedance at 0.01 Hz after 28 days exposure.
2. Abrasion Resistance: ASTM D4060 (CS-17 Wheel, 1,000 gram load) – No more than 88 mg loss after 1,000 cycles, average of three tests.
3. Impact: ASTM D2794 – No visible cracking or delamination after 160 inch-pounds (18.1 J) direct impact.
4. Compressive Strength: ASTM D695 – Not less than 12,331 psi (85.0 MPa) compressive strength, average of five tests.

S. Series 435 Perma-Glaze – Modified Polyamine Epoxy

1. Severe Wastewater Analysis Test: ASTM G210 – Initial impedance of 12.46 log-Z at 0.01 Hz (ohms cm²). No blistering, cracking, checking, or delamination. No less than 84.3% retention and no more than 1.95 ohms cm² reduction in electrochemical impedance after 28 days exposure. No less than 93% loss of tensile adhesion after 28 days in S.W.A.T. average of three tests.
2. Abrasion Resistance: ASTM D4060 (CS-17 Wheel, 1,000 gram load) – No more than 72 mg loss after 1,000 cycles, average of three tests.

T. Series 436 Perma-Shield FR – Fiber-Reinforced Modified Polyamine Epoxy

1. Severe Wastewater Analysis Test: ASTM G210 – Initial impedance of 10.2 log-Z at 0.01 Hz (ohms cm²). No blistering, cracking, or checking. No less than 83.7% retention or not more than 1.6 ohms cm² reduction in log-Z electrochemical impedance at 0.01 Hz after 28 days exposure.
2. Abrasion: ASTM D4060 (CS-17 Wheel, 1,000 gram load) – No more than 74.6 mg loss after 1,000 cycles, average of three tests.
3. Impact: ASTM D2794 – No visible cracking or delamination of film after 88 inch-pounds direct impact.
4. Compressive Strength: ASTM D695 – No less than 8,866 psi (6.13 MPa) compressive strength, average of five tests.

U. Series 626 Dur A Pell GS – RTV Silicone Rubber Water and Graffiti Protectant

1. Accelerated Weathering: ASTM C793 – No signs of deterioration except for dirt accumulation after 4,000 hours exposure.
2. Chloride Ion Penetration: AASHTO T-259 – No less than a 1500% reduction in the chloride ion content when compared to untreated concrete, average of two tests.

V. Series 662 Prime-A-Pell Plus – Modified Siloxane/Silane with Diffused Quartz Carbide

1. QUV Exposure: ASTM D4587 (UVA-340 bulbs, Cycle 4: 8 hours UV/4 hours condensation) – No reduction in water repellent performance after 5,000 hours exposure.
2. Water Absorption: ASTM C67/C67M (Applied to Ohio Sandstone) – No less than a 96% reduction in water absorption as compared to untreated samples following 24 hours of immersion.
3. Water Absorption: ASTM C97/C97M (Applied to Fire Clay Brick) – No less than a 93% reduction in water absorption as compared to untreated samples following 24 hours of immersion.
4. Water Absorption: ASTM C140/C140M (Applied to Cast Mortar Cubes) – No less than a 96% reduction in water absorption as compared to untreated samples following 24 hours of immersion.

W. Series 700 Hydroflon – Advanced Thermoset Solution Fluoropolymer

1. Exterior Exposure: ASTM D1014 (AAMA 2604) (South Florida Marine Exposure) – Exceeds the exterior weathering requirements of AAMA 2604 standard.
2. Exterior Exposure: ASTM D4141/D4141M, Method C (EMMAQUA) – No blistering, cracking, or chalking. No less than 100% gloss retention, no more than 1 unit gloss loss and no more than 0.23 DEHunter color change (white) after 1,500 MJ/m² (69,109MJ/m² total) EMMAQUA exposure.
3. QUV Exposure: ASTM D4587 – No blistering, cracking, or chalking. No less than 61% gloss retention (31.4 units gloss change) and 1.89 DEFMC2 (MacAdam units) color change (white) after 25,000 hours exposure.
4. Xenon Arc Weathering: ASTM D6695 – No blistering, cracking, or chalking. No less than 87% gloss retention (11.9 units gloss change) and no greater than 0.37 DE00 color change (white) after 8,000 hours Xenon Arc exposure.

X. Series 971 Aerolon – Fluid-Applied Acrylic Insulation Coating

1. Immersion: ASTM D870 – No blistering, cracking, rusting, or delamination of film after 2,000 hours continuous immersion in deionized water at 140°F (60°C), average of three tests.
2. Thermal Conductivity: ASTM C518 – Thermal conductivity shall not be greater than 0.0356 W/m-°K or 0.2468 BTU-in/ft²-hr-°F (R-value at 1 inch equals 4.1).

Y. Series 1026 Enduratone – Acrylic Emulsion

1. VOC Content: 0.38 pounds/gallon (1.4 grams/liter).
2. QUV Exposure: ASTM D4587 (UVA-340 bulbs, 8 hours UV, 4 hours condensation) – No blistering, cracking, chalking, or delamination of film. No less than 49% gloss retention (2.3 units gloss change) and 0.39 DE00 color change after 10,000 hours exposure.

Z. Series 1029 Enduratone – HDP Acrylic Polymer

1. Algal Resistance: ASTM D5590 – No more than traces of fungal growth (less than 10%) after 3 weeks continuous exposure.
2. Fungal/Mold/Mildew Resistance: ASTM D5590 – No more than traces of fungal growth (less than 10%) after 4 weeks continuous exposure.
3. QUV Exposure: ASTM D4587 (UVA-340 bulbs, 8 hours UV, 4 hours condensation) – No blistering, cracking, or delamination of film. No less than 100% gloss retention, no more than 0.45 DE00 color change and no unit gloss loss after 3,000 hours.

AA. Series 1095 Endura-Shield – Aliphatic Acrylic Polyurethane

1. Volatile Organic Compounds (Thinned 5%): 0.77 pounds/gallon (92 grams/liter).
2. QUV Exposure: ASTM D4587 (UVA-340 bulbs, 8 hours UV, 4 hours condensation) – No blistering, cracking, or delamination. No less than 52% gloss retention or 23 units gloss change and 0.59 DECIE2000 color change (white) after 2,000 hours exposure.

PART 3 EXECUTION

3.01 WEATHER CONDITIONS

- A. Do not paint in the rain, wind, snow, mist, or fog or when steel or metal surface temperatures are less than 5°F above the dew point.
- B. Do not apply paint when the relative humidity is above 85% or otherwise outside the manufacturer's recommended level.
- C. Do not paint when temperature of the substrate is outside of the manufacturers listed surface temperature requirement.

3.02 SURFACE PREPARATION PROCEDURES

- A. Remove oil and grease from metal surfaces in accordance with SSPC SP-1. Use clean cloths and cleaning solvents and wipe dry with clean cloths. Do not leave a film or greasy residue on the cleaned surfaces before abrasive blasting. Powerwashing with a biodegradable degreaser is also acceptable.
- B. Remove weld spatter and weld slag from metal surfaces and grind smoothly rough welds, beads, peaked corners, and sharp edges including erection lugs in accordance with SSPC SP-2 and SSPC SP-3. Grind 0.020 inch (minimum) off the weld caps on pipe weld seams. Grind outside sharp corners, such as the outside edges of flanges, to a minimum radius of 1/4 inch.
- C. Remove sharp edges, burrs, and weld spatter.
- D. Do not abrasive blast or prepare more surface area in 1 day than can be coated in 1 day; prepare surfaces and apply coatings the same day. For carbon steel, do not touch the surface between the time of abrasive blasting and the time the coating is applied. Prime all areas before rust bloom forms and within the same day.
- E. Surface preparation shall conform to the SSPC and NACE Standards as follows:

Solvent Cleaning	SP-1
Hand Tool Cleaning	SP-2
Power Tool Cleaning	SP-3
White Metal Blast Cleaning	SP-5/NACE No. 1
Commercial Blast Cleaning	SP-6/NACE No. 3
Brush-Off Blast Cleaning	SP-7/NACE No. 3
Pickling	SP-8
Near-White Blast Cleaning	SP-10/NACE No. 2
Power Tool Cleaning to Bare Metal	SP-11
High- and Ultra-High-Pressure Water Jetting	SP-12/NACE No. 5
Surface Preparation of Concrete	SP-13/NACE No. 6
Industrial Blast Cleaning	SP-14/NACE No. 8
Waterjet Cleaning of Metals – Clean to Bare Substrate	SP WJ-1
Waterjet Cleaning of Metals – Very Thorough Cleaning	SP WJ-2
Waterjet Cleaning of Metals – Thorough Cleaning	SP WJ-3
Waterjet Cleaning of Metals – Light Cleaning	SP WJ-4

- F. Wherever the words “solvent cleaning,” “hand tool cleaning,” “wire brushing,” or “blast cleaning” or similar words are used in these Specifications or in the paint manufacturer’s specifications, they shall be understood to refer to the applicable SSPC, surface preparation specifications listed above.
- G. *Brush-off blasting* of concrete and masonry surfaces is defined as opening subsurface holes and voids and etching the surface for a coating to bond.
- H. For carbon steel surfaces, after abrasive blast cleaning, the height of the surface profile shall be angular and from 2.0 to 3.0 mils unless specified otherwise. Verify the surface profile by measuring with an impresser tape acceptable to the Owner’s Representative. Perform a minimum of one test per 100 square feet of surface area. Testing shall be witnessed by the Owner’s Representative. The impresser tape used in the test shall be permanently marked with the date, time, and locations where the test was made. Test results shall be promptly presented to the Owner’s Representative.
- I. Do not apply any part of a coating system before the Owner’s Representative has reviewed the surface preparation. If coating has been applied without this review, if directed by the Owner’s Representative, remove the applied coating by abrasive blasting and reapply the coat in accordance with this Specification.

3.03 ABRASIVE BLAST CLEANING

- A. Use dry abrasive blast cleaning for metal surfaces. Do not use abrasives in automatic equipment that have become contaminated. When shop or field blast cleaning with handheld nozzles, do not recycle or reuse blast particles.
- B. After abrasive blast cleaning and before coating is applied, dry clean surfaces to be coated by dusting, sweeping, and vacuuming to remove residue from blasting.
- C. Apply the specified primer or touch-up coating within an 8-hour working day. Do not apply coating over damp or moist surfaces. Reclean any blast-cleaned surface not coated within the 8-hour period before applying primer or touch-up coating. If enough time has elapsed that a bare surface no longer meets the surface cleanliness requirement, that surface must be re-blasted until the surface cleanliness requirement is met.
- D. Keep the area of the work in a clean condition and do not permit blasting particles to accumulate and constitute a nuisance or hazard.
- E. During abrasive blast cleaning, prevent damage to adjacent coatings. Schedule blast cleaning and coating so that dust, dirt, blast particles, old coatings, rust, mill scale, etc., will not damage or fall upon wet or newly coated surfaces.

3.04 PREPARATION OF CONCRETE AND MASONRY SURFACES TO BE COATED

- A. Surface preparation of concrete and masonry surfaces shall be in accordance with SSPC SP-13/NACE No. 6 and the following.
- B. Do not apply coating until concrete has cured at least 28 days at 75°F. Finish concrete surfaces in accordance with Section 13200, Prestressed Concrete Tanks. Do not use curing compound on surfaces that are to be coated.
- C. Concrete and masonry surfaces on which coatings are to be applied shall be of even color, gray or gray-white. The surface shall have no pits, pockets, holes, or sharp changes of surface elevation. Scrubbing with a stiff-bristle fiber brush shall produce no dusting or dislodging of cement or sand. Sprinkling water on the surface shall produce no water beads or standing droplets. Concrete and masonry shall be free of laitance and slick surfaces.
- D. Detergent clean the concrete or masonry surface with Trisodium Phosphate in accordance with ASTM D4258. Then abrade or blast surfaces to the required surface profile. Floor slabs may be acid etched as specified in ASTM D4260 in lieu of sandblasting. After sandblasting, wash surfaces with water to remove dust and salts in accordance with ASTM D4258 or ASTM D4261. Use ICRI standards for concrete and masonry surface preparation.
- E. All concrete which has been subjected to low-pH or acidic conditions must be confirmed to have a pH of 9 or greater prior to application of coatings. If the desired surface profile has been achieved without a minimum pH of 9, that surface shall be considered contaminated and in need of further abrasion or blasting.
- F. Before coating concrete, plaster, and masonry that is below-grade, on-grade, or new, determine the presence of capillary moisture in accordance with ASTM D4263, except as modified below. Tape a 4-foot-by-4-foot sheet of polyethylene plastic to the concrete surface to be coated. Allow the plastic sheet to remain in place at least 24 hours. After the specified time has elapsed, remove the plastic sheet and visually examine both the underside of the plastic sheet and the concrete surface beneath it. There shall be no indication of moisture on either surface. If moisture is indicated, allow additional curing time for the concrete and then retest. Provide one test sheet for every 500 square feet of concrete surface to be coated. For walls, provide one test sheet for each 10 feet (or fraction thereof) of vertical rise in all elevations starting within 12 inches of the floor or base slab.
- G. Acceptance criteria for concrete surfaces shall be in accordance with SSPC SP-13, Table 1, "Severe Service" or this Section, whichever is more stringent.

- H. Do not apply coatings to concrete when the concrete is outgassing. Apply coatings only when the concrete surface temperature is stable or declining, not rising. Apply concrete coatings when the temperature is falling to reduce the potential of outgassing.

3.05 COATING STAINLESS STEEL, NONFERROUS, AND COPPER

- A. Solvent clean in accordance with SSPC SP-1. Solvents and cleaning solutions shall contain less than 200 mg/l of halogens. Then prepare in accordance with the specified coating system.
- B. All surfaces must be primed as soon as possible on the same day following surface preparation.

3.06 PROCEDURES FOR ITEMS HAVING SHOP-APPLIED PRIME COATS

- A. After applying primer to surfaces, allow coating to cure for a minimum of 2 hours before handling to minimize damage.
- B. When loading for shipment to the project site, use spacers and other protective devices to separate items to prevent damaging the shop-primed surfaces during transit and unloading. If wood spacers are used, remove wood splinters and particles from the shop-primed surfaces after separation. Use padded chains or ribbon binders to secure the loaded items and minimize damage to the shop-primed surfaces.
- C. Cover shop-primed items 100% with protective coverings or tarpaulins to prevent deposition of road salts, fuel residue, and other contaminants in transit.
- D. Handle shop-primed items with care during unloading, installation, and erection operations to minimize damage. Do not place or store shop-primed items on the ground or on top of other work unless the ground or work is covered with a protective covering or tarpaulin. Place shop-primed items above the ground upon platforms, skids, or other supports.

3.07 PAINTING SYSTEMS

- A. All materials of a specified painting system, including primer, intermediate, and finish coats, shall be produced by the same manufacturer. Thinners, cleaners, driers, and other additives shall be as recommended by the paint manufacturer for the particular coating system.
- B. Deliver paints to the jobsite in the original, unopened containers.

3.08 PAINT STORAGE AND MIXING

- A. Store and mix materials only in areas designated for that purpose by the Owner's Representative. The area shall be well ventilated, with precautionary measures taken to prevent fire hazards. Post "No Smoking" signs. Storage and mixing areas shall be clean and free of rags, waste, and scrapings. Tightly close containers after each use.
- B. Store paint in accordance with the manufacturer's latest written recommendations, or at an ambient temperature from 50°F to 100°F, whichever is more stringent.
- C. Prepare multiple-component coatings using all of the contents of the container for each component as packaged by the paint manufacturer. Do not use partial batches. Do not use multiple-component coatings that have been mixed beyond their pot life. Provide small quantity kits for touch-up painting and for painting other small areas. Mix only the components specified and furnished by the paint manufacturer. Do not intermix additional components for reasons of color or otherwise, even within the same generic type of coating.

3.09 PROCEDURES FOR THE APPLICATION OF COATINGS

- A. Conform to the requirements of SSPC PA-1. Follow the recommendations of the coating manufacturer, including the selection of spray equipment, brushes, rollers, cleaners, thinners, mixing, drying time, temperature and humidity of application, and safety precautions.
- B. Stir, strain, and keep coating materials at a uniform consistency during application. Power mix components. For multiple component materials, premix each component before combining. Apply each coating evenly, free of brush marks, sags, runs, and other evidence of poor workmanship. Use a different shade or tint on succeeding coating applications to indicate coverage where possible. Finished surfaces shall be free from defects or blemishes.
- C. Do not use thinners unless recommended by the coating manufacturer. If thinning is allowed, do not exceed the maximum allowable amount of thinner per gallon of coating material. Stir coating materials at all times when adding thinner. Do not flood the coating material surface with thinner before mixing. Do not reduce coating materials more than is absolutely necessary to obtain the proper application characteristics and to obtain the specified dry-film thicknesses.
- D. Remove dust, blast particles, and other debris from blast cleaned surfaces by dusting, sweeping, and vacuuming. Allow ventilator fans to clean airborne dust to provide good visibility in working area before applying coating. Remove dust

from coated surfaces by dusting, sweeping, and vacuuming before applying succeeding coats.

- E. Apply coating systems to the specified minimum dry-film thicknesses as determined in accordance with SSPC PA-2.
- F. Apply primer immediately after blast cleaning and before any surface rusting occurs, or any dust, dirt, or any foreign matter has accumulated. Before applying coating, re-clean surfaces that have surface colored or become moist by blast cleaning.
- G. Apply a brush coat of the specified primer on welds, sharp edges, nuts, bolts, and irregular surfaces before applying the prime coat. Apply the brush coat before and in conjunction with the spray coat application. Apply the spray coat over the brush coat.
- H. Before applying subsequent coats, allow the primer and intermediate coats to dry for the minimum curing time recommended by the manufacturer. In no case shall the time between coats exceed the manufacturer's recommendation.
- I. Each coat shall cover the surface of the preceding coat completely and there shall be a visually perceptible difference in applied shade or tint of colors.
- J. Applied coating systems shall be cured at 75°F or higher for 48 hours. If temperature is lower than 75°F, curing time shall be in accordance with printed recommendations of the manufacturer, unless otherwise allowed by the Owner's Representative.
- K. Assembled parts shall be disassembled sufficiently before painting or coating to ensure complete coverage by the required coating.

3.10 SURFACES NOT TO BE COATED

- A. Do not paint the surfaces listed below unless otherwise noted in the drawings or in other Specification sections. Protect the following surfaces during the painting of adjacent areas:
 - 1. Concrete walkways and driveways.
 - 2. Mortar-coated pipe and fittings.
 - 3. Stainless steel.
 - 4. Metal letters.
 - 5. Glass.
 - 6. Roofing.
 - 7. Fencing.

8. Copper tubing, red brass piping, and PVC piping except where such piping occurs in rooms where the walls are painted, or required for color coding.
9. Electrical fixtures except for factory coatings.
10. Nameplates, tags, and labels.
11. Grease fittings.
12. Brass and copper.
13. Buried pipe, unless specifically required in the piping specifications.
14. Fiberglass items, unless specifically required in the FRP specifications.
15. Aluminum handrail, stairs, and grating.
16. Insulated pipe.
17. Rubber surfaces.
18. Electrical equipment, cables, and sensors except for factory coatings.
19. Instrumentation except for factory coatings.
20. Chains and locks.

3.11 PROTECTION OF SURFACES NOT TO BE PAINTED

- A. Remove, mask, or otherwise protect hardware, lighting fixtures, switch plates, aluminum surfaces, machined surfaces, couplings, shafts, bearings, nameplates on machinery, and other surfaces not intended to be painted. Provide drop cloths to prevent paint materials from falling on or marring adjacent surfaces. Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting process. Mask openings in motors to prevent paint and other materials from entering the motors.

3.12 SURFACES TO BE COATED

- A. The exact coating to be applied in any location is not designated by the descriptive phrases in the coating system titles such as “corrosive environment,” “buried metal,” or “submerged metal.” Coat surfaces with the specific coating systems as described below:
 1. Coat aboveground and exposed piping or piping in vaults and structures as shown in the Piping Schedule in the Drawings. The color of the finish coat shall be as shown in the Piping Schedule in the Drawings.
 2. Coat exposed PVC and fiberglass as specified in System No. 51. The color of the finish coat shall be as specified by the Owner.
 3. Coat submerged ductile iron piping and pipe hangers and supports as specified in System No. 6.
 4. Coat buried metal valves at the place of manufacture as specified in System No. 21

5. Line the interior metal parts of metal valves 4 inches and larger, excluding seating areas and bronze stainless-steel pieces, as specified in System No. 6. Apply lining at the place of manufacture.
6. Coat exterior concrete surfaces of the ground storage tank. Apply System No. 41 on exposed exterior concrete.
7. Coat aluminum surfaces in contact with concrete as specified in System No. 61.
8. Coat buried ductile iron pipe and fittings, nuts, bolts, washers, rods, harnesses, clamps, sleeves, flexible pipe couplings, and valve boxes as specified in System No. 23.
9. Coat exposed indoor galvanized electrical conduit or exposed metallic pipe hangers and supports as specified in System No. 62. Color of finish coat shall match existing conduits.
10. Coat any ferrous metal attached to the ground storage tank exterior as specified in System No. 11, except for stainless steel.

3.13 DRY-FILM THICKNESS TESTING

- A. Measure coating thickness specified for carbon steel surfaces with a magnetic-type dry-film thickness gauge in accordance with SSPC PA-2. Measure coating thickness specified for stainless steel, aluminum, and copper surfaces with an eddy-current type thickness gauge in accordance with ASTM D7091. Provide certification that the gauge has been calibrated by a certified laboratory within the past 6 months. Provide dry-film thickness gauge as manufactured by Mikrotest or Elcometer.
- B. Test the finish coat of metal surfaces (except zinc primer and galvanizing) for holidays and discontinuities with an electrical holiday detector. Provide measuring equipment. Provide certification that the gauge has been calibrated by a certified laboratory within the past 6 months. Provide detector as manufactured by Tinker and Rasor, K-D Bird Dog, or similar. Test using voltages recommended by the coating manufacturer.
- C. If the Owner's representative suspects low film thickness, the coating thickness for concrete or masonry surfaces may be measured in accordance with ASTM D4138 (tooke gauge). Use of a "tooke" gauge is classified as a destructive test. Before performing any destructive tests on a newly applied coating system, the Owner and Contractor shall determine which of them is responsible for the cost of repairing the damaged coatings.
- D. For severe environments, test the finish coat of concrete and masonry surfaces in accordance with NACE SP0188 or ASTM D4787. Patch coatings at the points of thickness measurement or holiday detection.

- E. Check each coat for the correct dry-film thickness. Do not measure within 8 hours after application of the coating.
- F. For metal surfaces, make five separate spot measurements (average of three readings) spaced evenly over each 100 square feet of area (or fraction thereof) to be measured. Make three readings for each spot measurement of either the substrate or the paint. Move the probe or detector a distance of 1 to 3 inches for each new gauge reading. Discard any unusually high or low reading that cannot be repeated consistently. Take the average (mean) of the three readings as the spot measurement. The average of five spot measurements for each such 100-square-foot area shall not be less than the specified thickness. No single spot measurement in any 100-square-foot area shall be less than 80% nor more than 120% of the specified thickness. One of three readings which are averaged to produce each spot measurement may underrun by a greater amount as defined by SSPC PA-2.
- G. Perform tests in the presence of the Owner's Representative.

3.14 REPAIR OF IMPROPERLY COATED SURFACES

- A. If the item has an improper finish color or insufficient film thickness, clean and topcoat the surface with the specified paint material to obtain the specified color and coverage. Sandblast or power-sand visible areas of chipped, peeled, or abraded paint, feathering the edges. Then prime and finish the coat in accordance with the Specifications. The work shall be free of runs, bridges, shiners, laps, or other imperfections.

3.15 CLEANING

- A. During the work, remove discarded materials, rubbish, cans, and rags at the end of each day's work.
- B. Thoroughly clean brushes and other application equipment at the end of each period of use and when changing to another paint or color.
- C. Upon completion of painting work, remove masking tape, tarps, and other protective materials, using care not to damage finished surfaces.

END OF SECTION

DIVISION 13

SPECIAL CONSTRUCTION

SECTION 13200
PRESTRESSED CONCRETE TANKS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section includes work necessary for designing and constructing a reinforced and prestressed concrete tank as shown on the Drawings and as specified in this Section. The tank construction includes furnishing, installing, and constructing an AWWA D110 wire-wound prestressed concrete storage tank with a Type II core wall and galvanized steel diaphragm including reinforced concrete dome, membrane floor, and all reinforcing, concrete work, and accessory items shown on the Drawings, including disinfection and testing.
- B. The prestressed concrete tank manufacturer shall be responsible for structural design, coordinating all dimensions, special procedures, and placing any necessary embedment items including pipe supports.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Shop Drawings: The minimum size of shop drawings shall be 18 inches by 24 inches. The Contractor shall provide complete plan, elevation, and sectional views showing critical dimensions including:
 - 1. Size, location, and number of all reinforcing bars.
 - 2. Thickness of all parts of the tank structure, including floor, core wall, dome, and covercoat.
 - 3. Prestressing schedule, including number and placement of prestressing wires on the tank wall and total applied force per foot of wall height.
 - 4. Location and details of all accessories required.
- B. Product Data: Submit concrete design mixes, including ingredient proportions, minimum cementitious content, and water/cementitious ratio in accordance with these Specifications.
- C. Design Data: Submit complete structural design calculations for the tank signed and sealed by a Professional Engineer licensed in Florida in accordance with the Florida Administrative Code (FAC), Chapter 61G15, and this Section.

- D. Coating Data: Submit color charts for review by the Engineer and the Owner. Once a color is chosen, submit drawdown samples for final approval before the coating is applied.
- E. Test Reports: Submit concrete strength reports for 7-day and 28-day breaks.
- F. Warranty Document: Submit warranty document in the Owner's name in accordance with this Section.
- G. Cleaning and Disinfection Plan: Submit a cleaning and disinfection plan in accordance with this Section.
- H. Project Record Documents: Record actual location layout and final configuration of tank and accessories on shop drawings and submit the drawings to the Engineer after construction of the tank is complete.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Concrete Institute (ACI)
 - 1. ACI 117—Specification for Tolerances for Concrete Construction and Materials and Commentary.
 - 2. ACI 301—Specifications for Concrete Construction.
 - 3. ACI 305R—Guide to Hot Weather Concreting.
 - 4. ACI 306R—Guide to Cold Weather Concreting.
 - 5. ACI 347R—Guide to Formwork for Concrete.
 - 6. ACI 350—Code Requirements for Environmental Engineering Concrete Structures and Commentary.
 - 7. ACI 350.3—Code Requirements for Seismic Design of Liquid-Containing Concrete Structures and Commentary.
 - 8. ACI 372R—Guide to Design and Construction of Circular Wire- and Strand-Wrapped Prestressed Concrete Structures.
 - 9. ACI 506.2—Specification for Shotcrete.
 - 10. ACI CP-60—Craftsman Workbook for ACI Certification of Shotcrete Nozzleman.
 - 11. ACI PRC-506—Shotcrete – Guide.
 - 12. ACI SP-4—Formwork for Concrete.

- B. American Iron and Steel Institute (AISI)
 - 1. AISI Type 316—Stainless Ball Bearings – Corrosion Resistant Bearings.
- C. American National Standards Institute (ANSI)
 - 1. ANSI A10.32—Personal Fall Protection Used in Construction and Demolition Operations.
 - 2. ANSI Z359.1—The Fall Protection Code.
- D. American Society for Testing and Materials (ASTM)
 - 1. ASTM A416/A416M—Standard Specification for Low-Relaxation, Seven-Wire Steel Strand for Prestressed Concrete.
 - 2. ASTM A475—Standard Specification for Metallic-Coated Steel Wire Strand.
 - 3. ASTM A603—Standard Specification for Metallic-Coated Steel Structural Wire Rope.
 - 4. ASTM A615/A615M—Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
 - 5. ASTM A653/653M—Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - 6. ASTM A821/A821M—Standard Specification for Steel Wire, Hard-Drawn for Prestressed Concrete Tanks.
 - 7. ASTM A884/A884M—Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
 - 8. ASTM A1008/A1008M—Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable.
 - 9. ASTM A1064/A1064M—Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
 - 10. ASTM C31/C31M—Standard Practice for Making and Curing Concrete Test Specimens in the Field.
 - 11. ASTM C33/C33M—Standard Specification for Concrete Aggregates.
 - 12. ASTM C39/C39M—Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 - 13. ASTM C143/C143M—Standard Test Method for Slump of Hydraulic-Cement Concrete.
 - 14. ASTM C172/C172M—Standard Practice for Sampling Freshly Mixed Concrete.
 - 15. ASTM C231/C231M—Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.

16. ASTM C881/C881M—Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
17. ASTM D1056—Standard Specification for Flexible Cellular Materials – Sponge or Expanded Rubber.
18. ASTM D1557—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
19. ASTM D4397—Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.
20. ASTM F593—Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.

E. American Society of Engineers (ASCE)

1. ASCE 7—Minimum Design Loads for Buildings and Other Structures.

F. American Water Works Association (AWWA)

1. AWWA C652—Disinfection of Water-Storage Facilities.
2. AWWA D110—Wire- and Strand-Wound, Circular, Prestressed Concrete Water Tanks.

G. American Welding Society (AWS)

1. AWS D1.2/D1.2M—Structural Welding Code – Aluminum.

H. Occupational Safety and Health Administration (OSHA)

1. OSHA 29 CFR 1910—OSHA General Industry Regulations.
2. OSHA 1926.502—Fall Protection Systems Criteria and Practices.

I. US Army Corps of Engineers (USACE)

1. CRD-C-572-74—Specifications for Polyvinylchloride (PVC) Waterstops.

1.04 QUALITY ASSURANCE

A. Qualifications and Experience

1. Tank Construction Company: The tank construction company shall be a firm with 10 years' experience in designing and constructing ANSI/AWWA D110 wire-wound, circular prestressed concrete tanks with Type II core walls and dome roof with satisfactory evidence that it has the skill, quality control, reliability, and financial stability to build and

guarantee the tank in accordance with the quality required by these Specifications. The company constructing the tank shall have built completely in its own name in the past 5 years – and be presently responsible for – a minimum of 10 dome-covered prestressed tanks of equal or greater size than that required for this project which meet these Specifications and are now providing satisfactory service.

2. Design: All design work for the tank shall be performed by a Florida-licensed Professional Engineer with no fewer than 5 years of experience in designing and constructing ANSI/AWWA D110 wire-wound, circular prestressed concrete tanks with Type II core walls and dome roof. The Professional Engineer shall be a full-time staff member of the tank construction company and shall be licensed to work in the state where the project is located.
3. The steel diaphragm design and epoxy-injection procedure shall have been used in the 10 tanks required in the tank construction company's experience record.

B. Acceptable Tank Manufacturers: Subject to compliance with requirements, tank manufacturers offering products which may be incorporated in the work are limited to the following:

1. The Crom Corporation, Gainesville, Florida.
2. Or Engineer-approved equal.

1.05 WARRANTIES

- A. Warranties shall be in accordance with General Conditions, Supplementary Conditions, and Section 01780, Warranties and Bonds.
- B. Provide warranty for workmanship and materials on the complete structural portion and coatings of the tank for 5 years from date of acceptance of the work. If leakage or other defects appear within the 5-year period, the tank construction company shall promptly repair the tank at its own expense upon written notice by the Owner that such defects have been found. *Leakage* is defined as a stream flow of liquid appearing on the exterior of the tank, the source of which is from the inside of the tank. A coating system failure is defined as (1) delamination of the coating, (2) a breach of the coating exposing the substrate below, or (3) chipping and peeling of the coating system not caused by physical damage or abrasion to the tank. Changes in color shall not be deemed a coating failure. This warranty shall not apply to any accessory, equipment, or product that is not a structural part or coating of the tank and is manufactured by a company other than the tank construction company.

PART 2 PRODUCTS

2.01 PERFORMANCE

A. Design

1. The tank design shall be in conformance with applicable portions of American Concrete Institute (ACI) 372R, AWWA D110, and currently accepted engineering principles and practices for the design of such structures.
2. The thickness of the core wall shall be calculated so as to accept the initial compressive forces applied by prestressing, hydrostatic stresses induced by contents, and other applicable loads such as soil backfill and wind.
3. Tank design shall be consistent with the geotechnical information provided by the Engineer.

B. Tank Data

1. Highland Lakes WTF GST #2:
 - a. Quantity: One.
 - b. Useful Capacity: 1 Million Gallons.
 - c. Tank Inside Diameter: 70 feet.
 - d. Tank Sidewall Depth: 40 feet.

C. Loads

1. Fluid Loads: Fluid loads shall be the weight of all liquid when the reservoir is filled to the maximum roof overflow level. The unit weight of the liquid material shall be 62.4 pounds/ft³.
2. Roof Live Loads: Consideration shall be given to all applicable roof design loads in accordance with AWWA D110, Section 3.3 and ASCE 7. The minimum roof live load for the structure shall be 12 psf.
3. Dead Loads: Consideration shall be given to all permanently imposed loads, including concrete and steel.
4. Seismic Loads: Seismic load shall be calculated using the effective mass procedure as specified in AWWA D110. If sufficient freeboard height is not provided to prevent uplift forces due to sloshing, the impulsive participation shall be increased due to the constrained motion of liquid and the tank roof and its connection shall be designed to resist the uplift forces in accordance with P.K. Malhotra's *Earthquake Induced Sloshing in Tanks with Insufficient Freeboard*.

5. Earth Loads: Earth loads shall be determined by rational methods of soil mechanics. Soil pressure shall not be used in the design of the core wall to counteract hydraulic loads or provide residual compression in the wall.
6. Differential Backfill Loads: Forces from differential backfill loads shall be considered in the design and shall be based on the at-rest coefficient. Passive resistance shall not be used to resist differential backfill loads.
7. Wind Loads: Wind loads shall be considered in the design in accordance with ASCE 7.

D. Subbase

1. A granular base material shall be used beneath the membrane slab when the subgrade materials do not allow free drainage.
2. The base material shall consist of a clean, well-compacted, angular or sub-angular material with a minimum thickness of 6 inches.
3. The gradation of the base material shall be selected to permit free drainage without the loss of fines or intermixing with the subgrade material.
4. The maximum particle size of the base material shall be limited to provide a relatively level working surface without potential intrusion of the base materials into the membrane floor slab concrete.
5. Base material shall be compacted to 95% of the maximum laboratory density determined by ASTM D1557.

E. Concrete

1. Use Type I/II cement.
2. A maximum of 20% of cementitious material may be fly ash for all concrete mixes.
3. Admixtures other than air-entraining and water reducing admixtures will not be permitted unless approved by the engineer.
4. Coarse and fine aggregate shall meet the requirements of ASTM C33/C33M.
5. Floor Concrete: Minimum 4,000 psi compressive strength at 28 days, ASTM C33 #57 aggregate, maximum 5% air content, 4-inch +/-1-inch slump with maximum water-to-cement ratio of 0.45.
6. Dome Concrete: Minimum 4,000 psi compressive strength at 28 days, ASTM C33 #8 aggregate, maximum 5% air content, 4-inch +/-1-inch slump with maximum water-to-cement ratio of 0.45.

F. Non-Prestressed Mild Reinforcing Steel

1. Allowable design tensile stress, f_s shall be a maximum of 18,000 psi.
2. Minimum yield strength of reinforcing steel, f_y shall be 60,000 psi, in accordance with ASTM A615/A615M.

3. Welded wire reinforcing shall be plain wire conforming to the requirements of ASTM A1064/A1064M with a minimum yield strength, f_y , of 65,000 psi.

2.02 FLOOR

- A. Concrete membrane floors shall be a minimum of 4 inches thick and have a minimum thickness of 8 inches of concrete over all pipe encasements and around sumps.
- B. A minimum percentage of 0.60% reinforcing steel shall be used in the membrane floor. The minimum percentage shall apply to all thickened sections and shall extend a minimum of 2 feet into the adjacent membrane floor.

2.03 CORE WALL

- A. The wire-wound, prestressed concrete tank core wall shall be designed as a thin shell cylindrical element using shotcrete and an embedded, mechanically bonded, galvanized steel shell diaphragm.
- B. The core wall shall be constructed of shotcrete encasing a steel diaphragm continuous for the full wall height without horizontal splices.
- C. The thickness of the core wall shall be calculated so as to accept the initial compressive forces applied by prestressing, backfill, and other applicable loads, but in no case be less than 3-1/2 inches thick.
- D. Horizontal sections of the wall shall form true circles without flat areas, excessive bumps, or hollows.
- E. Interior and exterior surfaces of the core wall shall be water cured for a minimum of 7 days or until prestressing begins.
- F. To compensate for bending moments, shrinkage, differential drying, and temperature stresses, the following reinforcing steel shall be incorporated in the core wall:
 1. The top 2 feet of core wall shall have not less than 1% circumferential reinforcing.
 2. The bottom 3 feet of core wall shall have not less than 1% circumferential reinforcing.

3. Inside Face:

- a. 26-gauge steel shell diaphragm continuous for the full wall height without horizontal splices.
- b. Additional vertical and horizontal reinforcing steel bars as required by design computations.

4. Outside Face:

- a. Vertical reinforcing steel: Minimum of #4 bars at 12-inch center to center.
- b. Additional vertical and horizontal reinforcing steel bars as required by design computations.

2.04 GALVANIZED STEEL DIAPHRAGM

- A. A 26-gauge galvanized steel diaphragm with a minimum thickness of 0.017 inch, complying with ASTM A653/A653M, shall be used throughout the core wall, providing a waterstop. The galvanized steel shell diaphragm shall be encased and protected with shotcrete no less than 1 inch thick at all places. Weight of zinc coating shall be not less than G90 of Table 1 of ASTM A653/A653M.
- B. The diaphragm shall be formed with re-entrant angles and erected so that a mechanical key is created between the shotcrete and diaphragm.
- C. The sheets of steel diaphragm shall be continuous from top to bottom of the wall; horizontal joints or splices will not be permitted.
- D. All vertical joints in the diaphragm shall be sealed watertight by epoxy injection in accordance with this Section.
- E. Epoxy shall be injected from bottom to top of wall, using a pressure-pumping procedure, after the steel shell has been fully encased inside and outside with shotcrete.
- F. The sealant shall conform to the requirements of ASTM C881/C881M, Type III, Grade 1, and shall be 100% solids, moisture-insensitive, low-modulus epoxy system. When pumped, maximum viscosity of the epoxy shall be 10 poises at 77°F.
- G. The epoxy sealant shall be suitable for bonding to concrete, shotcrete, and steel.
- H. In all tanks designed to use a waterstop at the floor/wall joint; the steel shell diaphragm shall be epoxy-bonded to this waterstop.

2.05 PVC WATERSTOPS, BEARING PADS, AND SPONGE FILLER

- A. Plastic waterstops shall be extruded from an elastomeric plastic material of which the base resin is virgin polyvinyl chloride (PVC). PVC waterstops shall conform to the requirements of USACE CRD-C-572-74.
- B. The profile and size of the waterstop shall be suitable for the hydrostatic pressure and movements to which it is exposed.
- C. Bearing pads used in floor/wall joints shall consist of neoprene, natural rubber, or PVC.
- D. Sponge filler at the floor/wall joint shall be closed-cell neoprene.
- E. Epoxy used for placing the waterstop shall be Type II, Grade 2, and shall be 100% solids, moisture insensitive, low exotherm epoxy, in conformance with ASTM C881/C881M.

2.06 MOISTURE BARRIER

- A. The moisture barrier shall be polyethylene, Class A, conforming to ASTM D4397 with a minimum thickness of 6 mils.

2.07 SHOTCRETE

- A. All shotcrete shall be applied by an experienced nozzlemen certified by ACI as outlined in ACI CP-60.
- B. Shotcrete mixes shall have a minimum of 1 part cementitious material to 3 parts of sand.
 - 1. Use Type I/II cement.
 - 2. A maximum of 20% of cementitious material may be fly ash for all shotcrete mixes.
 - 3. All shotcrete in contact with diaphragm or prestressing wire shall be proportioned to consist of not more than three parts sand to one part Portland cement by weight. All other shotcrete shall be proportioned to consist of not more than four parts sand to one part Portland cement by weight.

4. Admixtures shall not contain more than trace amounts of chlorides, fluorides, sulfides, or nitrates.
5. Fine aggregate shall meet the requirements of ASTM C33/C33M.
6. Core Wall Shotcrete: Minimum 4,000 psi compressive strength at 28 days, 5-inch +/- 1-inch slump with maximum water-to-cement ratio of 0.42.
7. Covercoat Shotcrete: Minimum 3,500 psi compressive strength at 28 days, 5-inch +/- 1-inch slump with maximum water-to-cement ratio of 0.42.
8. Allowable compressive stress due to initial prestressing force, f_{gi} :
 - a. 1,250 psi + 75t psi/in. with 0.5 f_{gi} maximum or less (where f_{gi} is defined as compressive strength at the time that the initial prestressing force is applied and t is the thickness of the core wall in inches).
 - b. Maximum of 2,250 psi.
9. Allowable compressive stress due to final prestressing force, f_g :
 - a. 1,250 psi + 75t psi/in. with 0.45 f_g maximum (where f_g is defined as compressive strength required for final prestressing force and t is the thickness of the core wall in inches).
 - b. Maximum of 2,000 psi.
- C. Each shotcrete layer shall be broomed before final set to ensure satisfactory bonding of the following layer.
- D. No shotcrete shall be applied to reinforcing steel or diaphragm that is encrusted with overspray.
- E. No less than 1/8-inch-thick shotcrete shall separate reinforcing steel and prestressing wire.
- F. The diaphragm shall be encased and protected with no less than 1 inch of shotcrete in all locations.
- G. The interior shotcrete shall receive a light broom finish.

2.08 DOME ROOF

- A. The dome roof shall be constructed of reinforced concrete and circumferentially prestressed.

- B. Dome shell reinforcement shall consist of reinforcing bars or welded wire fabric meeting ASTM A1064/A1064M, not galvanized. Bolsters for wire fabric and reinforcing bars shall be plastic tipped. Wire ties shall be galvanized.
- C. The dome ring girder shall be prestressed with sufficient wire to withstand the dome dead load and design live loads. The ring girder shall have a cross-section suitable to accept the applied prestressing forces.
- D. The high water level in the tank shall be permitted to encroach on the dome shell no higher than the upper horizontal plane of the dome ring girder.
- E. Overflow outlets shall be able to provide an overflow open area three times the area of the largest tank pipe.
- F. The dome shall be designed as a free-span, spherical thin shell with a one-tenth rise in accordance with the following:
 - 1. Typical Dome Design: The typical dome thickness and steel reinforcement shall meet the requirements of AWWA D110, Section 3.6.3, Thickness and Reinforcement. In all cases the thickness of the dome shall be no less than 3 inches.
 - 2. Dome Edge Design: The dome edge and upper wall shall be designed to resist the moments, thrusts, and shears that occur in this region due to dome and wall prestressing and loading conditions. The following design parameters shall be used:
 - a. Dome Edge Thickness:
 - (1) A determination of the buckle diameter shall be made as defined by:

$$d_b = 2.5 \cdot \sqrt{r_d \cdot t_d} \text{ rounded up to the next foot.}$$
 Where: d_b = buckle diameter in feet.
 r_d = dome radius in feet.
 t_d = typical dome thickness in feet.
 - (2) Dome edge thickening shall begin at a radial location on the dome, defined as s_2 which is at least one buckle diameter away from the tank wall.

- (3) A springline haunch shall be provided, which extends radially from the inside face of the tank wall to radial location s_1 which is defined as:

$$s_1 = 0.6 \cdot \sqrt{1.5 \cdot r_d \cdot t_d} \text{ rounded up to the next foot.}$$

This springline haunch shall begin at the inside face of the tank wall with a springline thickness as required by Paragraph (6) below and shall end at radial location s_1 with the following thickness:

$$t_{d1} = 1.33 \cdot t_d$$

Where: t_{d1} = minimum thickness at s_1 in feet.
 t_d = typical dome thickness in feet at one buckle diameter from tank wall.

- (4) Beginning at s_1 and continuing to s_2 the dome shell shall be a straight-line taper.
- (5) Parameters (2), (3), and (4) above are not required for domes where the calculated typical dome thickness is less than 75% of the actual typical dome thickness.
- (6) Sufficient concrete thickness at the springline of the dome shall be provided so that no more than 2 feet of the springline haunch is considered in calculating the effective dome edge ring cross-sectional area. Compressive stress in this area shall not exceed 1,000 psi when subjected to initial prestressing offset by dead load only.

b. Dome Edge Steel Reinforcement:

- (1) Throughout the dome edge the percentage of steel reinforcement, both radially and circumferentially, shall be no less than 0.25% of the gross cross-sectional area of concrete.
- (2) Along the dome edge, steel reinforcement shall be distributed between the upper and lower layers unless finite element analysis calculations indicate that tensile stress does not exist in the concrete along the bottom face of the dome edge. In that case, only top bars are required radially and circumferentially. In addition, radial and

circumferential reinforcing bars will not be required along the bottom face of the dome edge where the calculated typical dome thickness is less than 75% of the actual typical dome thickness.

- (3) Where reinforcing bars are required in the bottom layer, they shall be anchored near the tank wall to ensure adequate development at the intersection between dome and wall.
- (4) In all cases the percentage of circumferential steel reinforcement in the first 2 feet of the dome edge shall be no less than 1% of the gross cross-sectional area of concrete.
- (5) Where bottom dome edge steel reinforcement is required, vertical steel reinforcement along the inside face of the tank wall shall be no less than 0.5% of the cross-sectional area of wall shotcrete.

2.09 PRESTRESSING

- A. The tank shall be circumferentially prestressed by applying cold-drawn, high-carbon steel wire complying with ASTM A821/A821M Type B, placed under high tension. A substantial allowance shall be made for prestressing losses due to shrinkage and plastic flow in the shotcrete and due to relaxation in the prestressing steel.
- B. The prestressing steel wire shall be placed in a continuous and uniform helix of such pitch as to provide in each lineal foot of core wall height an initial force and unit compressive stress equal to that shown on the design drawings. Splicing the wire shall be permitted only when completing the application of a full coil of wire or when removing a defective section of wire.
- C. Areas to be prestressed will contain not fewer than 10 wires per foot of wall for 8-gauge and 8 wires per foot of wall for 6-gauge. A maximum of 24 wires per layer per foot for 8-gauge and 20 wires per layer per foot for 6-gauge will be allowed. Shotcrete shall be used to completely encase each individual wire and to protect it from corrosion. To facilitate this encasement, the clear space between adjacent wires is to be no less than one wire diameter.
- D. Prestressing shall be accomplished by a machine capable of continuously inducing a uniform initial tension in the wire before it is positioned on the tank wall. Tension in the wire shall be generated by methods not dependent on cold working or re-drawing of the wire. In determining compliance with design requirements, the aggregate force of all tensioned wires per foot of wall shall be

considered rather than the force per individual wire, and such aggregate force shall be no less than that required by the Drawings.

- E. The tank construction company shall supply equipment at the construction site to measure tension in the wire after it is positioned on the tank wall. The stress measuring equipment shall include an electronic direct reading stressometer accurate to within 2%, calibrated dynamometers, and a test stand to verify the accuracy of the equipment.
- F. After circumferential prestressing wires have been placed, they shall be protected by being encased in shotcrete. This encasement shall completely encapsulate each wire and permanently bond the wire to the tank wall.
- G. When multiple layers of wire are required, shotcrete cover between layers shall be no less than 1/8-inch thick.
- H. After all circumferential prestressing wires have been placed, a shotcrete cover having a thickness of no less than 1 inch shall be placed over the prestressing wires.
- I. Prestressing Wire
 - 1. The prestressing wire shall conform to the requirements of ASTM A821/A821M, Type B.
 - 2. Wire size shall be 0.162-inch (8-gauge), 0.192-inch (6-gauge) or larger, but no larger than 0.250-inch.
 - 3. Working stress for the tank wall, f_s shall be a maximum of 115,000 psi.
 - 4. Working stress for the dome ring, f_{sd} shall be a maximum of 120,000 psi.
 - 5. Allowable design tensile stress before losses, f_{si} shall be 145,600 psi or no greater than $0.63 f_u$.
 - 6. Ultimate tensile strength, f_u shall be 231,000 psi or greater for 8-gauge wire, 222,000 psi or greater for 6-gauge.
 - 7. Areas to be prestressed will contain no fewer than 10 wires per foot of wall for 8-gauge and eight wires per foot of wall for 6-gauge.
 - 8. A maximum of 24 wires per layer per foot for 8-gauge and 20 wires per layer per foot for 6-gauge will be allowed.
 - 9. Splices for horizontal prestressed reinforcement shall be ferrous material compatible with the prestressing reinforcement and shall develop the full strength of the wire.

2.10 WALL OPENINGS

- A. When it is necessary for a pipe to pass through the tank wall, the invert of such pipe or sleeve shall be no less than 18 inches above the floor slab, and the

prestressing wires required at the pipe elevation shall be distributed above and below the opening leaving an unbanded strip around the entire tank.

- B. Unbanded strips shall have a vertical dimension of no more than 36 inches unless an axi-symmetric shell analysis is performed to account for shear and moments caused by displacement of the prestressing wires into adjacent bands.
- C. All wall pipes and sleeves passing through the wall shall be sealed to the steel shell diaphragm by epoxy injection.

2.11 TANK ACCESSORIES

- A. The tank manufacturer shall furnish and install the following accessories for the tank:
 - 1. Wall Manhole: AISI Type 316 stainless steel frame cover and bolts; minimum clear opening of 17 inches high x 52 inches wide.
 - 2. Exterior Ladder: T-6061 clear anodized aluminum with safety cage, keyed gate, and appropriate tie-off mechanisms (safety climb system) as shown on the Drawings. All brackets and fasteners shall be AISI Type 316 stainless steel. Cage and ladder shall be properly grounded and shall meet the minimum requirements of all national, state, and local standards, regulations, and code requirements, including OSHA.
 - 3. Interior Ladder: Fiberglass with appropriate safety climbing system. All fasteners shall be AISI Type 316 stainless steel. Interior safety ladder system shall meet the minimum requirements of all national, state, and local standards, regulations, and code requirements, including OSHA. Safety climb system shall have an extended grab bar at the top of the roof hatch such that the climber can stay attached to the safety climbing system while entering or exiting the roof hatch.
 - 4. Safety Climbing Belts: Provide three full-body harnesses (two size large and one size extra-large; the Owner reserves the right to amend sizes at the submittal review) each designed for and compatible with the rail-type safety climbing devices provided on the interior ladder. Safety climbing harnesses shall meet or exceed all applicable industry standards, including ANSI A10.32, ANSI Z359.1, OSHA 1910.66, and OSHA 1926.502. Provide four lanyards with shock-absorbing devices. Meet or exceed all applicable industry standards, including ANSI Z359.1, ANSI A10.32, OSHA 1910.66, and OSHA 1926.502.
 - 5. Precast Concrete Overflows: A minimum of 4 precast concrete overflows for total design overflow rate of 5.5 MGD. The openings shall be covered with polyester screen and fastened with Type 316 stainless-steel hardware.
 - 6. Roof Hatch Cover: All fiberglass with AISI Type 316 stainless-steel fasteners. Cover shall be one piece with integral stiffeners and shall have

- turned-down edges to direct surface water runoff beyond the support curb. The cover shall be equipped with stainless steel hinges and padlock hasp.
7. Roof Ventilator: All fiberglass with AISI Type 316 stainless-steel fasteners. Ventilation openings shall be equipped with replaceable 24/24 mesh fiberglass screens. The ventilator shall be designed and sized to prevent damage to the ground storage reservoir during reservoir filling or a draining rate of 9.6 MGD.
 8. Probe Dome Curb: Provide probe dome curbs shown on the Drawings for installing water level measurement equipment during construction. Provide pipe spools with blind flanges for probe dome curbs shown on the Drawings.
 9. Liquid Level Indicator: Fiberglass and/or stainless steel construction with gaskets and AISI Type 316 stainless-steel float, float cable, brackets, and fasteners. Target-reading type gauge board shall extend over half of the full height of the tank and be calibrated in feet of liquid depth. The board shall have a 2:1 compressed scale and shall be approximately 20 feet tall, showing a water level depth range from 0 to 40 feet. Markings shall be black on white background with even 2-foot increments numbered and 1-foot sub-increments marked. Float cable shall enter through the dome roof and shall be totally enclosed above the top of the reservoir sidewall.
 10. Handrail System: Clear anodized 6061 aluminum handrail and toeboard system with 2-inch-diameter rails and posts with 1/4-inch wall thickness. The aluminum toeboard shall be a minimum of 4 inches high when installed. Post spacing shall not exceed 8 feet. Rail joints shall be finished flush and shall occur only at posts. Fittings and brackets shall be fastened by concealed pins or by welding ground smooth. A base flange shall be rigidly connected to the bottom of each post. The base flange shall be anchor-bolted to the structure with the area below the base flange completely filled with non-shrink epoxy grout to provide a plumb post and constant rail height installation. All fasteners shall be AISI Type 316 stainless steel. The completed handrail system shall be rigid and completely free of play at all joints, connections, and attachments. The completed handrail system shall be capable of withstanding a load of at least 400 pounds applied in any direction at any point on the rails and posts. Handrails shall meet the minimum requirements of all national, state, and local standards, regulations, and code requirements, including OSHA.
 11. Barrier Rail System: A fiberglass barrier rail shall be provided around the perimeter of each sump, as indicated on the Drawings. All fasteners shall be AISI Type 316 stainless steel. The barrier rail systems shall meet the minimum requirements of all national, state, and local standards, regulations, and code requirements, including OSHA.

12. Pipe, Fittings, and Appurtenances: As shown on the Drawings and in accordance with Division 15, Mechanical. Coatings shall be in accordance with Section 09900, Painting and Coating.
 13. Perimeter Sidewalk: The Contractor shall construct a 5-foot-wide concrete perimeter sidewalk as shown on the Drawings.
 14. Through-Wall Pipe Sleeves: AISI Type 316 stainless-steel sleeves and neoprene modular (Link-Seal) units using stainless-steel tightening bolts. Waterstop rings on wall-pipes shall be Type 316 stainless steel.
 15. Accessory hardware, unless otherwise noted, shall be Type 316 stainless steel conforming to ASTM F593.
- B. All roof openings shall be continuously curbed to prevent surface water from entering the tank. Curbs shall extend at least 3 inches above the roof.
- C. All components, including ladders, safety climbing devices, handrails systems, and hatch cover, shall at a minimum comply with OSHA requirements.
- D. All fiberglass components shall contain an inhibitor to prevent ultraviolet degradation.

2.12 COATINGS AND PAINTING

- A. All tank coatings shall be included in the scope of the tank construction company. Subcontracting of this work is not allowed.
- B. Exterior paint system shall consist of the following system:
1. Two coats of Tnemec Series 156 Enviro-Crete Modified Waterborne Acrylate, 4.0 to 6.0 mils DFT per coat.
- C. Exterior tank colors shall be selected by Owner during the shop drawing process.

PART 3 EXECUTION

3.01 EXAMINATION

- A. The Contractor shall verify elevations, placement, and grading for tank before starting tank construction.

3.02 TANK CONSTRUCTION

- A. The entire tank, including all portions of the floor, wall, and dome, shall be built by the tank construction company using its own trained personnel and equipment.

3.03 INSTALLATION

A. Tank Floor

1. The subgrade shall be prepared by fine grading to ensure proper placement of reinforcing steel with proper bottom cover.
2. A 6-mil polyethylene vapor-barrier shall be placed after subgrade preparation has been completed.
3. Form and screed boards shall be of proper thickness and sufficiently braced to ensure that the floor is constructed within proper thickness tolerances.
4. Plate bolsters shall be used to support reinforcing steel supported directly on the subgrade to ensure positive control of placement of reinforcing steel.
5. The floor shall be vibratory screeded to consolidate concrete and proper encasement of floor-reinforcing steel.
6. The floor shall be continuously water cured for a minimum of 7 days after casting.
7. The floor shall receive a light broom finish.

B. Core Wall

1. The wall shall be constructed in a predesigned manner using galvanized steel shell diaphragm, layers of shotcrete, and prestressing wire.
2. The diaphragm shall be protected against damage before, during, and after erection. Nail or other holes shall not be made in the steel shell for erection or other purposes except for inserting wall pipes or sleeves, reinforcing steel, bolts, or other special appurtenances. Such penetrations shall be sealed with an approved epoxy sealant.
3. Interior and exterior portions of the shotcrete wall shall be water cured for a minimum of 7 days or until prestressing is started.

C. Roof

1. All concrete shall be consolidated by a vibrator for proper encasement of reinforcing steel and welded-wire fabric.
2. All surfaces at the joint between the wall and the dome shall be coated with an approved bonding epoxy.
3. Plastic bolsters shall be used to support reinforcing steel and welded wire reinforcement to ensure positive control on placement of steel.
4. The exterior surface of the dome shall receive a light broom finish.
5. The dome shall be water-cured for 7 days after casting or until prestressing is completed.

D. Epoxy Injection

1. Epoxy injection shall be carried out from bottom to top of wall using a pressure pumping procedure.
2. Epoxy injection shall proceed only after the diaphragm has been fully encased, inside and outside, with shotcrete.

E. Prestressing

1. The initial tension in each wire shall be read and recorded to verify that the total aggregate force is no less than that required by the design. Averaging or estimating the force of the wire on the wall shall not be considered satisfactory evidence of correct placement of prestressing wires.
2. Placement of the prestressing steel wire shall be in a continuous and uniform helix of such pitch as to provide in each lineal foot of core wall height an initial force and unit compressive force equal to that determined by design. Splicing of the wire shall be permitted only when completing the application of a full coil of wire or when removing a defective section of wire.
3. Shotcrete shall be used to completely encase each individual wire and to protect it from corrosion. To facilitate this encasement, the clear space between adjacent wires shall be no less than one wire diameter.
4. Prestressing shall be accomplished by a machine capable of continuously inducing a uniform initial tension in the wire before it is positioned on the tank wall. Tension in the wire shall be generated by methods not dependent on cold working or re-drawing of the wire. In determining compliance with design requirements, the aggregate force of all tensioned wires per foot of wall shall be considered rather than the force per individual wire, and such aggregate force shall be no less than that required by the design.
5. The tank construction company shall supply equipment at the construction site to measure tension in the wire after it is positioned on the tank wall. The stress measuring equipment shall include electronic direct reading stressometer accurate to within 2 percent, calibrated dynamometers, and a test stand to verify the accuracy of the equipment.
6. After circumferential prestressing wires have been placed, they shall be protected by encasement in shotcrete. This encasement shall completely encapsulate each wire and permanently bond the wire to the tank wall.
7. When multiple layers of wire are required, shotcrete cover between layers shall be no less than 1/8-inch-thick.

F. Covercoat

1. After all circumferential prestressing wires have been placed, a shotcrete cover having a thickness of no less than 1 inch shall be placed over the prestressing wires.
2. Horizontal sections of the wall shall form true circles without flat areas, excessive bumps, or hollows.
3. The covercoat shall receive a sliced trowel finish.

G. Painting and Coatings

1. Paintings and coatings shall be applied a minimum of 28 days after final application of shotcrete. All application procedures for paint shall be in accordance with the manufacturer's recommendations.

3.04 FIELD QUALITY CONTROL

A. Inspection and Testing

1. Hydrostatic Testing: The Contractor shall test the completed tank for liquid tightness by filling tank to its overflow elevation from a water source provided by the Owner.
2. Concrete and Shotcrete Testing: Test all concrete and shotcrete used in the tank structure in accordance with Section 03301, Concrete and Reinforcing Steel.

3.05 CLEANING AND DISINFECTION

- A. Clean the interior and exterior of tank to remove debris, construction items, and equipment before testing and disinfection.
- B. Disinfection Procedure: Use AWWA C652 Method 2 or 3. When Method 3 is used, the disinfection plan shall address any compatibility issues with the form of chlorine used for disinfecting the storage tank with the type of disinfectant used in the normal production of the water used to fill the tank.

END OF SECTION

DIVISION 15
MECHANICAL

SECTION 15050
BASIC MECHANICAL MATERIALS AND METHODS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section includes requirements for the following:
1. Piping materials and installation instructions common to most piping systems.
 2. Transition fittings.
 3. Mechanical sleeve seals.
 4. Sleeves.
 5. Grout.
 6. Painting and finishing.
 7. Concrete bases.
 8. Supports and anchorages.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Welding certificates.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Society for Testing and Materials (ASTM)
1. ASTM B32—Standard Specification for Solder Metal.
 2. ASTM B813—Standard Specification for Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube.
 3. ASTM B828—Standard Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings.
 4. ASTM C1173—Standard Specification for Flexible Transition Couplings for Underground Piping Systems.

5. ASTM D1785—Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
6. ASTM D2564—Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems.
7. ASTM D2657—Standard Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings.
8. ASTM D2661—Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings.
9. ASTM D2672—Standard Specification for Joints for IPS PVC Pipe Using Solvent Cement.
10. ASTM D2855—Standard Practice for the Two-Step (Primer and Solvent Cement) Method of Joining Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Piping Components with Tapered Sockets.
11. ASTM D3139—Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
12. ASTM D3212—Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
13. ASTM F402—Standard Practice for Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings.
14. ASTM F656—Standard Specification for Primers for Use in Solvent Cement Joints of Poly(Vinyl Chloride) (PVC) Plastic Pipe and Fittings.

B. American Society of Mechanical Engineers (ASME)

1. ASME B1.20.1—Pipe Threads, General Purpose, Inch.
2. ASME B16.21—Nonmetallic Flat Gaskets for Pipe Flanges.
3. ASME B18.2.1—Square, Hex, Heavy Hex, and Askew Head Bolts and Hex, Heavy Hex, Hex Flange, Lobed Head, and Lag Screws (Inch Series).
4. ASME B31—Code for Pressure Piping.
5. ASME BPVC—Boiler and Pressure Vessel Code.

C. American Water Works Association (AWWA)

1. AWWA C110/A21.10—Standard for Ductile-Iron and Gray-Iron Fittings.
2. AWWA C219—Bolted, Sleeve-Type Couplings for Plain-End Pipe.

D. American Welding Society (AWS)

1. AWS A5.8/A5.8M—Specification for Filler Metals for Brazing and Braze Welding.
2. AWS D1.1/D101M—Structural Welding Code – Steel.

3. AWS D10.12—Recommended Practices and Procedures for Welding Low Carbon Steel Pipe.
- A. Manufacturers Standard Society (MSS)
 1. MSS SP-107—Transition Union Fittings for Joining Metal and Plastic Products.

1.04 QUALITY ASSURANCE

- A. Steel Support Welding: Qualify processes and operators according to AWS D1.1/D1.1M, Structural Welding Code – Steel.
- B. Steel Pipe Welding: Qualify processes and operators according to ASME BPVC: Section IX, Welding and Brazing Qualifications.
 1. Comply with provisions in ASME B31 Series, Code for Pressure Piping.
 2. Certify that each welder has passed AWS qualification tests for the welding processes involved and that certification is current.
- C. Electrical Characteristics for Mechanical Equipment: Equipment of higher electrical characteristics may be furnished provided such proposed equipment is approved in writing by the Engineer and connecting electrical services, circuit breakers, and conduit sizes are appropriately modified. If minimum energy ratings or efficiencies are specified, equipment shall comply with requirements.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.
- B. Stored items shall be protected from the weather, humidity and temperature variations, dirt and dust, or other contaminants. Proper protection and care of all material before, during, and after installation shall be the Contractor's responsibility. Any materials found to be damaged shall be replaced at the Contractor's expense. During the installation, piping, ductwork, and similar openings shall be capped to keep out dirt and other foreign matter.
- C. The Contractor shall store plastic pipes protected from direct sunlight and supported to prevent sagging and bending.

1.06 COORDINATION

The Contractor shall do the following:

- A. Arrange for pipe spaces, chases, slots, and openings in building structure during construction to allow for mechanical installations.
- B. Coordinate the installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.
- C. Coordinate requirements for access panels and doors for mechanical items requiring access that are concealed behind finished surfaces.
- D. Provide coordination drawings at 1/4 inch = 1 foot, 0 inch scale illustrating the coordination of piping, ductwork, lighting, and structure for an interference-free installation.

1.07 DEFINITIONS

- A. *Finished Spaces*: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below the roof, spaces above ceilings, unexcavated spaces, crawlspaces, and tunnels.
- B. *Exposed, Interior Installations*: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- C. *Exposed, Exterior Installations*: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.
- D. *Concealed, Interior Installations*: Concealed from view and protected from physical contact by building occupants. Examples include above ceilings and in duct shafts.
- E. *Concealed, Exterior Installations*: Concealed from view and protected from weather conditions and physical contact by building occupants but subject to outdoor ambient temperatures. Examples include installations within unheated shelters.
- F. The following are industry abbreviations for plastic materials:
 - 1. PE: Polyethylene plastic.
 - 2. PVC: Polyvinyl chloride plastic.

G. The following are industry abbreviations for rubber materials:

1. EPDM: Ethylene-propylene-diene terpolymer rubber.
2. NBR: Acrylonitrile-butadiene rubber.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. In other Part 2 articles where paragraph titles below introduce lists, the following requirements apply for product selection:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include but are not limited to the manufacturers specified.
2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.02 PIPE, TUBE, AND FITTINGS

- A. Refer to individual Division 15 Piping Sections for pipe, tube, and fitting materials and joining methods.
- B. Pipe Threads: Refer to ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.03 JOINING MATERIALS

Joining materials shall be as follows:

- A. Refer to individual Division 15 Piping Sections for special joining materials not listed below.
- B. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents:
1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch maximum thickness unless thickness or specific material is indicated:
 - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
 - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.

2. AWWA C110/A21.10, rubber, flat face, 1/8-inch thick, unless otherwise indicated, and full-face or ring type, unless otherwise indicated.
- C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- D. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.
- E. Solder Filler Metals: ASTM B32, lead-free alloys. Include water-flushable flux according to ASTM B813.
- F. Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing, unless otherwise indicated, and AWS A5.8/A5.8M, BAg1, silver alloy for refrigerant piping, unless otherwise indicated.
- G. Welding Filler Metals: Comply with AWS D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- H. Solvent Cements for Joining Plastic Piping:
 1. PVC Piping: ASTM D2564. Include primer according to ASTM F656.
- I. Fiberglass Pipe Adhesive: As furnished or recommended by the pipe manufacturer.

2.04 TRANSITION FITTINGS

Transition fittings shall be as follows:

- A. AWWA Transition Couplings: The same size as and with pressure rating at least equal to and with ends compatible with the piping to be joined.
 1. Available Manufacturers:
 - a. Cascade Waterworks Mfg. Co.
 - b. Dresser Industries, Inc.; DMD Div.
 - c. Ford Meter Box Company, Incorporated (The); Pipe Products Div.
 - d. JCM Industries.
 - e. Smith-Blair, Inc.
 - f. Viking Johnson.
 2. Underground Piping NPS 1-1/2 (DN 40) and Smaller: Manufactured fitting or coupling.

3. Underground Piping NPS 2 (DN 50) and Larger: AWWA C219, metal sleeve-type coupling.
 4. Aboveground Pressure Piping: Pipe fitting.
- B. Flexible Transition Couplings for Underground Nonpressure Drainage Piping: ASTM C1173 with elastomeric sleeve, ends the same size as the piping to be joined, and a corrosion-resistant metal band on each end.
1. Available Manufacturers:
 - a. Cascade Waterworks Mfg. Co.
 - b. Fernco, Inc.
 - c. Mission Rubber Company.
 - d. Plastic Oddities, Inc.

PART 3 EXECUTION

3.01 PIPING SYSTEMS – COMMON REQUIREMENTS

- A. The Contractor shall install piping according to the following requirements and Division 15 Sections specifying piping systems.
- B. The Drawings, schematics, and diagrams indicate the general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on the Coordination Drawings.
- C. Install the piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
- D. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- E. Install piping to permit valve servicing.
- F. Install piping at indicated slopes.
- G. Install piping free of sags and bends.
- H. Install fittings for changes in direction and branch connections.

- I. Select system components with a pressure rating equal to or greater than the system operating pressure.
- J. Sleeves are not required for core-drilled holes.
- K. Permanent sleeves are not required for holes formed by removable PE sleeves.
- L. Install sleeves for pipes passing through concrete and masonry walls and concrete floor and roof slabs.

3.02 PIPING JOINT CONSTRUCTION

- A. Join pipe and fittings according to the following requirements and Division 15 Sections specifying piping systems.
- B. Ream the ends of pipes and tubes and remove burrs. Bevel the plain ends of steel pipe.
- C. Remove scale, slag, dirt, and debris from the inside and outside of the pipe and fittings before assembly.
- D. Soldered Joints: Apply ASTM B813, water-flushable flux, unless otherwise indicated, to the tube end. Construct joints according to ASTM B828 or CDA's *Copper Tube Handbook* using lead-free solder alloy complying with ASTM B32.
- E. Brazed Joints: Construct joints according to AWS's *Brazing Handbook*, "Pipe and Tube" Chapter, using copper-phosphorus brazing filler metal complying with AWS A5.8/A5.8M.
- F. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- G. Welded Joints: Construct joints according to AWS D10.12, using qualified processes and welding operators according to Part 1 "Quality Assurance" article.

- H. Flanged Joints: Select the appropriate gasket material, size, type, and thickness for service application. Install the gasket concentrically positioned. Use suitable lubricants on bolt threads.
- I. Plastic Piping Solvent-Cement Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:
 - 1. Comply with ASTM F402 for safe-handling practice of cleaners, primers, and solvent cements.
 - 2. PVC Pressure Piping: Join schedule number ASTM D1785, PVC pipe and PVC socket fittings according to ASTM D2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D2855.
 - 3. PVC Nonpressure Piping: Join according to ASTM D2855.
- J. Plastic Pressure Piping Gasketed Joints: Join according to ASTM D3139.
- K. Plastic Nonpressure Piping Gasketed Joints: Join according to ASTM D3212.
- L. PE Piping Heat-Fusion Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join according to ASTM D2657:
 - 1. Plain-End Pipe and Fittings: Use butt fusion.
 - 2. Plain-End Pipe and Socket Fittings: Use socket fusion.
- M. Fiberglass-Bonded Joints: Prepare pipe ends and fittings, apply adhesive, and join according to the pipe manufacturer's written instructions.

3.03 PIPING CONNECTIONS

- A. Make connections according to the following, unless otherwise indicated:
 - 1. Install unions in piping NPS 2 (DN 50) and smaller adjacent to each valve and at the final connection to each piece of equipment.
 - 2. Install flanges in piping NPS 2-1/2 (DN 65) and larger next to flanged valves and at final connection to each piece of equipment.
 - 3. Dry Piping Systems: Install dielectric unions and flanges to connect piping materials of dissimilar metals.
 - 4. Wet Piping Systems: Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals.

3.04 EQUIPMENT INSTALLATION – COMMON REQUIREMENTS

- A. Install equipment to allow the maximum possible headroom unless specific mounting heights are not indicated.

- B. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, unless otherwise indicated.
- C. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.
- D. Install equipment to allow the right of way for piping installed at the required slope.

3.05 PAINTING

- A. The painting of mechanical systems, equipment, and components is specified in Section 09900, Painting and Coating.
- B. Damage and Touchup: Repair marred and damaged factory-painted finishes with materials and procedures to match the original factory finish.

3.06 CONCRETE BASES

- A. Concrete Bases: Anchor the equipment to the concrete base according to the equipment manufacturer's written instructions.
 - 1. Construct concrete bases of the dimensions indicated, but not less than 4 inches larger in both directions than the supported unit.
 - 2. Install dowel rods to connect the concrete base to the concrete floor. Unless otherwise indicated, install dowel rods on 18-inch centers around the full perimeter of the base.
 - 3. Install epoxy-coated anchor bolts for supported equipment that extend through the concrete base and anchor into the structural concrete floor.
 - 4. Place and secure anchorage devices. Use the supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with the items to be embedded.
 - 5. Install anchor bolts to elevations required for proper attachment to the supported equipment.
 - 6. Install anchor bolts according to the anchor-bolt manufacturer's written instructions.
 - 7. Use 3,000 psi, 28-day compressive-strength concrete and reinforcement as specified in Section 03301, Concrete and Reinforcing Steel.

3.07 ERECTION OF METAL SUPPORTS AND ANCHORAGES

- A. Refer to Section 13200, Prestressed Concrete Tanks.
- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor mechanical materials and equipment.
- C. Field Welding: Comply with AWS D1.1/D1.1M.

3.08 GROUTING

The Contractor shall do the following:

- A. Mix and install grout for the mechanical equipment base bearing surfaces, pump and other equipment base plates, and anchors.
- B. Clean surfaces that will come into contact with grout.
- C. Provide forms as required for the placement of grout.
- D. Avoid air entrapment during the placement of grout.
- E. Place grout so as to completely fill the equipment bases.
- F. Place grout on the concrete bases and provide smooth bearing surface for the equipment.
- G. Place the grout around the anchors.
- H. Cure placed grout.

END OF SECTION

SECTION 15055
PIPING SYSTEMS—GENERAL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Specification describes responsibilities and requirements for Piping Systems including the following:
 - 1. Labor, materials, tools, equipment, and services to be furnished in accordance with the provisions of the Contract Documents. The materials to be used for the piping systems shown in the Drawings are listed by service in the Piping Schedule, included in the Contract Drawings.
 - 2. Coordination of work with other trades.
 - 3. Furnishing and installing all supplementary or miscellaneous items, appurtenances, and devices incidental to or necessary for a sound, secure, and complete installation, although such work is not specifically indicated.
 - 4. Furnishing Record Drawings and documents for piping systems.

1.02 SUBMITTALS

The Contractor shall submit the following in accordance with Section 01330, Submittals and Acceptance:

- A. If the Contractor deviates from the piping layout as shown on the Contract Drawings, the Contractor shall submit scaled piping drawings showing locations and dimensions to and from fittings, valves, tanks, equipment, structures, and related appurtenances. Provide scaled drawings to a minimum scale of 1 inch equals 10 feet. Provide details to minimum scale of 1/8 inch equals 1 foot. Elevations shall correspond to reference vertical elevation datum shown or provided for this project.
- B. Copies of any manufacturer's written directions regarding material handling, delivery, storage, and installation.
- C. Record piping drawings shall meet the requirements of Section 01785, Record Documents. During the work, the Contractor shall maintain accurate, up-to-date Record Drawings of piping systems installed in the project, including pre-existing piping discovered, relocated, or at locations other than as originally shown on the Drawings. When the work is completed and accepted by the Owner and the Engineer, the Contractor shall submit Record Drawings in accordance with Section 01785, Record Documents. The Contractor shall identify complete

location, elevations, and description of piping systems. Piping systems and fittings are to be identified from three points on structures and/or stationary appurtenances.

- D. Submit copies of forms documenting required field pressure testing work and results.
- E. Submit welding certificate copies.
- F. Submit certified copies of mill test reports for bolts and nuts, including coatings if specified. Provide recertification by an independent domestic testing laboratory for materials originating outside of the United States.
- G. Submit manufacturer's data sheet for gaskets supplied showing dimensions and bolting recommendations.
- H. Support Systems:
 - 1. Drawings of each piping system locating each support, guide, and anchor.
 - 2. Identify support, guide, and anchor type by catalog number and shop/contract drawing detail number

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Society of Mechanical Engineers (ASME)
 - 1. ASME B1.1—Unified Inch Screw Threads (UN and UNR Thread Forms).
 - 2. ASME B1.20.1—Pipe Threads, General Purpose (Inch).
 - 3. ASME B16.21—Nonmetallic Flat Gaskets for Pipe Flanges.
 - 4. ASME B18.2.1—Square, Hex, Heavy Hex, and Askew Head Bolts, and Hex, Heavy Hex, Hex Flange, Lobed Head, and Lag Screws (Inch Series).
 - 5. ASME B18.2.2—Nuts for General Applications: Machine Screw Nuts, Hex, Square, Hex Flange, and Coupling Nuts (Inch Series).
 - 6. ASME B31.1—Power Piping.
 - 7. ASME B31.3—Process Piping.
 - 8. ASME BPVC—Boiler and Pressure Vessel Code.

B. American Society for Testing and Materials (ASTM)

1. ASTM A183—Specification for Carbon Steel Track Bolts and Nuts.
2. ASTM A193/A193M—Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications.
3. ASTM A194/A194M—Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both.
4. ASTM A307—Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 PSI Tensile Strength.
5. ASTM D1330—Standard Specification for Rubber Sheet Gaskets.
6. ASTM F467—Standard Specification for Nonferrous Nuts for General Use.

C. American Water Works Association (AWWA)

1. AWWA C111/A21.11—Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
2. AWWA C207—Steel Pipe Flanges for Waterworks Service, Sizes 4-Inch through 144-Inch (100 mm through 3,600 mm).

D. Manufacturers Standardization Society of the Valve and Fittings Industry (MSS)

1. MSS SP-58—Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation.

E. NSF International (NSF)

1. NSF 61—Drinking Water System Components – Health Effects.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.
- B. The Contractor shall protect the pipe from kinks, cuts, end damage, and other defects when transporting all piping. Binding and tie-down methods shall not damage or deflect the pipes in any way. Pipe damaged during shipment shall be rejected.
- C. Pipe shall be stored on level ground, preferably turf or sand, free of sharp objects that could damage the pipe. Stacking of any pipe shall be limited to a height that

will not cause excessive deformation of the lower layers of pipe under anticipated temperature conditions. When necessary due to ground conditions, the pipe shall be stored on wooden sleepers, spaced suitably and of such widths to not allow deformation of the pipe at the point of contact with the sleeper or between supports. Pipe shall not be removed from storage until bedding or sub-grade work is complete and ready to receive the pipe.

- D. The joined pipe shall be handled in such a manner that the pipe is not damaged by dragging it over sharp and cutting objects. Ropes, fabric, or rubber-protected slings and straps shall be used when handling pipe. Chains, cables, or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe. Pipe or fittings shall not be dropped. Slings for handling joined pipe shall not be positioned at socket-welded joints. Sections of the pipes with cuts and gouges shall be removed and the ends of the pipe rejoined. In accordance with the pipe manufacturer's written instructions, the Contractor shall repair all pipe with damaged linings and pipe exterior coatings that have been damaged before the pipe is installed.
- E. The Contractor shall cover all pipe stored on the site with canvas or other opaque material to protect it from sunlight. Provide air circulation under the covering.
- F. The Contractor shall inspect all pipe, fittings, and other accessories upon delivery and during the work. Any defective or damaged materials found during field inspection or during tests shall be removed from the site and replaced by, and at the expense of, the Contractor.
- G. The interior of all pipe, fittings, and other accessories shall be kept free from dirt and foreign matter at all times. Fittings shall be drained and stored in a manner that will protect them from damage by freezing.
- H. Gaskets shall be placed in a cool location out of direct sunlight. Gaskets shall not come in contact with petroleum products. Gaskets shall be used on a first-delivered-to-site and first-to-be-installed rotation basis. Mechanical-joint glands, bolts, and washers shall be handled and stored in a manner that will ensure proper use with respect to types and sizes.

1.05 DEFINITIONS OF BURIED, EXPOSED, AND SUBMERGED PIPING

- A. Buried piping is piping buried in soil, beneath a structure and/or encased in concrete. Where an exterior pipe coating is specified to be factory- or field-applied, the Contractor shall provide the coating up to the penetration of a structure. Piping encased in concrete does not require an exterior coating other than what is factory furnished.

- B. Exposed piping is piping in any of the following conditions or locations:
 - 1. Above ground.
 - 2. Inside buildings, vaults, or other structures.
 - 3. In underground concrete trenches or galleries.
- C. Submerged piping is considered to be all piping within a liquid holding tank.

1.06 SYSTEM DESIGN REQUIREMENTS

- A. General
 - 1. The Specifications and Drawings are not all inclusive of explicit piping details; provide piping for intended use in compliance with laws and regulations, including ASME B31.1.
 - 2. Pressure ratings and materials specified represent minimum acceptable standards for piping systems.
 - 3. Piping Systems: Suitable for the services specified and intended.
 - 4. Piping shall be color coded in accordance with the Florida Department of Environmental Protection (FDEP) requirements.
- B. Support Systems
 - 1. The absence of pipe supports and details on the Drawings shall not relieve the Contractor of responsibility for sizing and providing supports for this project.
 - 2. Select and design within the specified spans and component requirements.
 - 3. Comply with requirements of MSS SP-58.
 - 4. Criteria for structural design and selection of pipe support system components:
 - a. Dead loads imposed by the weight of the pipes filled with water, within specified spans and component requirements, plus any insulation.
 - b. Safety factor: Minimum of 5.
 - 5. Design, size, and space support anchoring devices, including anchor bolts, inserts, and other devices used to anchor the support, to withstand the

shear and pullout loads imposed by loading and spacing on each particular support.

- a. Piping smaller than 30 inches: Supports are shown only where specific types and locations are required; additional pipe supports may be required and are to be provided and installed by the Contractor at no additional cost to the Owner.

C. Adapters

1. No attempt has been made to show all adapters, spool pieces, reducers, bushings, or other fittings required to accommodate the connection of pipes, fittings, and valves of various joint design and sizes throughout the project. The Contractor is completely responsible for providing, at his expense, all adapters, reducers, sleeves, spool pieces, and other fittings and appurtenances necessary for connection of pipe (for the same pipe material of or a transition of pipe materials), valves, fittings, and appurtenances throughout the project, which shall be constructed of appropriate materials, coated and lined to match the materials, coatings, and linings specified for the connected components. All adapters, reducers, sleeves, spool pieces, and other fittings shall be coated and lined in accordance with the specifications for each individual pipe system.

D. Unions

1. No attempt has been made to show all unions required for the project. The Contractor shall provide unions at all connections of threaded pipe to installed equipment unless deleted by the Engineer, in writing, at certain locations. The unions shall meet or exceed the quality of materials, pressure rating, service, and painting requirements of connected piping.

PART 2 PRODUCTS

2.01 PIPING SYSTEM GENERAL REQUIREMENTS SCHEDULE

- A. Unless noted otherwise in the Drawings, piping system materials, fittings, and appurtenances are subject to requirements of the individual Specifications for the piping systems.

2.02 PIPING SCHEDULE

- A. A piping schedule (flow stream identification) listing the piping identification abbreviations, piping materials, operating pressures, field test pressures, lining systems, and color coding associated with the flow streams is provided on the

Contract Drawings. In project locations where the piping system material referenced on the piping schedule is not appropriate, the required piping material is indicated on the Contract Drawings. Materials called out in the Contract Drawings shall govern over materials stated in the piping schedule.

2.03 THREAD FORMING FOR STAINLESS STEEL BOLTS

- A. Form threads for stainless steel bolts by rolling, not by cutting or grinding.

2.04 BOLTS AND NUTS FOR FLANGES FOR DUCTILE IRON PIPE FLANGES

- A. Bolts, washers, and nuts for pipe installed indoors, outdoors above and below ground, and in vaults and structures shall be as specified in Section 15155, Ductile Iron Pipe and Fittings.
- B. Bolts, washers, and nuts for submerged Class 150 flanges shall be Type 304 stainless steel conforming to ASTM A193/A193M (Grade B8) for bolts and ASTM A194/A194M (Grade 8) for nuts. Fit shall be Class 2A conforming to ASME B1.1 when connecting to cast-iron valves having body bolt holes.

2.05 LUBRICANT FOR STAINLESS STEEL BOLTS AND NUTS

- A. Anti-seize thread lubricant shall be applied to the thread portion of all (above grade and below grade) stainless steel bolts (stainless steel tie rods, etc.) during assembly. Anti-seize lubricant shall be chloride free and shall be nongalling NSF approved. Anti-seize thread lubricant shall be Jet-Lube “Nikal,” John Crane “Thred Gard Nickel,” Never-Seez “Pure Nickel Special,” or Permatex “Nickel Anti-Seize.”

2.06 FLANGE GASKETS FOR DUCTILE IRON PIPE

- A. Flange gaskets shall be in accordance with AWWA C207, except as modified in this Section. Gaskets shall be ring type. All gasket material shall be suitable for the fluid being conveyed and shall be resistant to free chlorine concentrations up to 10 mg/L. All gasket material shall be rated to the surge pressures listed in the pipe schedule. Gaskets shall be EPDM, Viton, or an approved equal.

2.07 POTABLE WATER PIPING SYSTEMS

- A. All potable water piping systems including pipe, valves, fittings, weld-solvents, linings, gaskets, lubricants, grout disinfection agents, and surfaces in contact with potable water shall meet all local and State of Florida regulations and requirements including NSF 61. The Contractor shall coordinate the color of the

potable water system piping color with the Owner's color standard and shall provide color as approved by the Owner.

2.08 DETECTABLE PIPELINE MARKING TAPE

- A. All 1-1/2-inch and larger buried non-metallic piping shall be laid with underground detectable caution tape, 2-inch tape for a maximum of 12-inch depth and 6-inch tape for a maximum of 24-inch depth.

PART 3 EXECUTION

3.01 PREPARATION

- A. Field Alignment
 - 1. The piping shown on the Contract Drawings is generally indicative of the work, with symbols and notations provided for clarity. However, the Contract Drawings are not an exact representation of all conditions involved; therefore, install piping to suit actual field conditions and measurements as approved by the Engineer. No extra compensation will be made for work due to differences between indicated and actual dimensions.
 - 2. The Contractor shall install all adapters, fittings, flanged connections, closures, restrained joints, etc. not specified but necessary for a complete installation acceptable to the Engineer.
 - 3. The Contract Drawings do not indicate all adapters, fittings, spool pieces, bushings, unions, supports, hangers, and other items required to accommodate the installing and connecting of pipe, fittings, valves, and equipment of various joint designs and sizes. Provide such required items of appropriate designs, materials, coatings, and linings.
 - 4. An extensive network of underground piping, duct, conduit, direct-buried conductors, and related structures of various sizes, materials, alignments, age, and function exist within the project site. Conclusive information concerning these facilities is not available. Consequently, the design of new piping indicated on the Contract Drawings is approximate. Adjust alignment, fitting, valve, and joint locations as required and as approved by the Engineer to accommodate and protect existing facilities and provide the intended functionality of new piping.

3.02 FIELD LAYOUT AND MODIFICATIONS

- A. Unless directed otherwise, the Contractor shall be responsible for setting construction layout stakes and/or offsets required to complete the designated work. The Contractor shall ensure that those stakes and/or offsets are protected

and any re-staking required for any reason including work stoppage shall be included in the bid price and no additional compensation to the Contractor will be made.

- B. The Engineer has the right to make any modifications the Engineer deems necessary due to field conditions, conflicts with other utilities, or to protect other properties.

3.03 PIPE PRODUCTS INSPECTION

- A. The Contractor shall obtain from the pipe manufacturer a certificate of inspection to the effect that the pipe, fittings, gaskets, glands, bolts, and nuts supplied for this Contract have been inspected at the plant and that they meet the requirements of these Specifications. The Contractor shall submit these certificates to the Engineer before installing the pipe materials. The Contractor shall visually inspect all pipe and fittings at delivery and before they are lowered into the trench to be installed. Pipe or fittings that do not conform to these Specifications or have been damaged in any manner will be rejected and the Contractor must remove them immediately. The entire product of any plant may be rejected when, in the opinion of the Engineer, the methods or quality assurance and uniformity of manufacturer fail to secure acceptable and uniform pipe products or where the materials used produce inferior pipe products.

3.04 REMOVAL OF EXISTING PIPE AND FITTINGS

- A. Pipe specifically identified on the Drawings to be removed or replaced from service shall be physically taken out of the ground. The limits of pipe to be removed shall be specifically called for in the plans or shall be approved in writing by the Engineer. Any other removal not specifically called for shall be approved in writing and shall be considered incidental to construction of other items in the contract and the Contractor will not receive compensation for such work.
- B. When removing pipe the Contractor shall excavate a trench wide enough to dislodge the pipe from the surrounding soil and long enough to be able to handle the pipe without causing any damage to nearby utilities, structures, or adjacent property.
- C. The removed pipe, fitting, and appurtenances will become the Contractor's property and the Contractor shall be responsible for proper disposal and any required permits for disposal.

- D. Regarding pipe remaining in the ground subsequent to removal of connected pipe or pipe fittings, the remaining buried pipes, openings, and fittings shall be plugged or capped as approved by the Engineer.
- E. Pipe that will be abandoned in place shall be plugged or capped as approved by the Engineer.

3.05 BURIED PIPING AND PIPE FITTINGS

- A. Trenching and backfilling for all pipe and fittings shall also be in accordance with Section 02305, Earthwork for Utilities.
- B. Installation
 - 1. Inspect all piping for defects and remove all lumps or excess coatings before installation. The inside of the mechanical joint and outside of plain-end pipe shall be cleaned before joining pipe. Caution shall be taken to prevent damage to the pipe during lowering into the trench. Remove all foreign matter that has entered the pipe during storage and installation. The Contractor shall cover the pipe ends during installation to prevent debris from entering the pipe. No debris, tools, clothing, or other material shall be placed in the pipe.
 - 2. After being placed in the trench, the pipe shall be brought to the proper line and grade by compacting the approved backfill material under it, except at the bell end. Joint deflection shall not exceed 75% of the manufacturer's limit.
 - 3. The Contractor shall install temporary water-tight plugs on the pipe ends during the time that the pipe is in the trench but no work is in progress. If there is water in the trench upon beginning work, this plug shall remain in place until the trench has been pumped dry, unless otherwise approved by the Engineer, the Engineer's Representative, or the Owner's Representative.
 - 4. Buried carbon steel bolts and nuts shall be coated in accordance with Section 09900, Painting and Coating.
 - 5. Coat threaded portions of stainless steel bolts and nuts with lubricant before assembly.
 - 6. Restrained plugs or caps shall be inserted into all buried dead end pipes, tees, or crosses. Provide blind flanges for all flanged exposed piping. Restrained plugs and caps installed for pressure testing shall be fully secured and blocked to withstand the test pressure.
 - 7. Where plugging is required because of contract division or phasing for later connection, the ends of such lines shall be equipped with a suitable cast-iron or ductile-iron plug/cap or blind flange with or without a blowoff cock, as shown on the Drawings. Installation or removal of such plugging

shall be considered incidental to the work and the Contractor shall not be compensated by the Owner for performing this work.

3.06 FLANGED JOINTS FOR EXPOSED PIPE AND FITTINGS

- A. When bolting flanged joints, the Contractor shall avoid restraint on the opposite end of the pipe or fitting, which would prevent uniform gasket compression or which would cause unnecessary stress in the flanges. One flange shall be free to move in any direction while the flange bolts are being tightened. Bolts shall be tightened gradually and at a uniform rate to ensure uniform compression of the gasket, in accordance with pipe and fitting manufacturer's recommendations.
- B. Coat threaded portions of stainless steel bolts and nuts with lubricant before assembly.

3.07 ANCHORING AND RESTRAINING

- A. Thrust blocks shall be used only when a new fitting has been installed in an existing line and field restraining joints are not feasible or when directed by the Engineer.

3.08 FLUSHING, CLEANING, TESTING AND INSPECTION OF PIPING

- A. See Section 15144, Pressure Testing of Piping, for the requirements of pipe flushing, cleaning, pressure testing, and inspection requirements.

3.09 DISINFECTION

- A. See Section 15141, Disinfection of Piping and Water Storage Facilities, for the disinfection requirements.

3.10 SPECIAL REQUIREMENTS AND PIPING SPECIALTIES

- A. Welding
 - 1. Use only certified welders meeting procedures and performance outlined in Section IX of the ASME BPVC and other codes and requirements in accordance with local building and utility requirements. Submit Welder's certificates to the Engineer for the project record before beginning any welding on the project. The Welder must be certified for all positions (flat, vertical, and overhead).
 - 2. Have all welds conform to highest industrial practice in accordance with ASME B31.1 and ASME B31.3 or other codes and requirements in accordance with local building and utility requirements.

3.11 PIPE COLOR CODING

- A. The pipe color shall be as identified on the Drawings. The Contractor shall coordinate with the Engineer and the Owner to generate a list of acceptable pipe colors for exposed piping systems. Where color-coding is achieved by painting exterior surfaces of the piping systems, painting shall be provided in accordance with Section 09900, Painting and Coating. On applicable pipes, color shall be in accordance with FDEP color-coding requirements.

END OF SECTION

SECTION 15060 PIPE SUPPORTS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section includes requirements for materials and installation of pipe supports, including accessory items such as anchor bolts and screws.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Provide line drawings of each piping system to the scale shown on the Drawings, locating each support. Identify each type of support by the manufacturer's catalog number or figure.
- B. Provide installation drawings and manufacturer's catalog information on each type of support used. Clearly indicate the actual pipe outside diameter (not just nominal pipe size) that is used for the supports.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM A36/A36M—Standard Specification for Carbon Structural Steel.
 - 2. ASTM A47/A47M—Standard Specification for Ferritic Malleable Iron Castings.
 - 3. ASTM A48/A48M—Standard Specification for Gray Iron Castings.
 - 4. ASTM A153/A153M—Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - 5. ASTM A194/A194M—Standard Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
 - 6. ASTM A276/A276M—Standard Specification for Stainless Steel Bars and Shapes.

7. ASTM A307—Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 psi Tensile Strength.
8. ASTM A575—Standard Specification for Steel Bars, Carbon, Merchant Quality, M-Grades.
9. ASTM A576—Standard Specification for Steel Bars, Carbon, Hot-Wrought, Special Quality.
10. ASTM A635/A635M—Standard Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Alloy, Carbon, Structural, High-Strength Low-Alloy, and High-Strength Low-Alloy with Improved Formability, General Requirements for.
11. ASTM A1011/A1011M—Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
12. ASTM D256—Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
13. ASTM E84—Standard Test Method for Surface Burning Characteristics of Building Materials.
14. ASTM F593—Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
15. ASTM F594—Standard Specification for Stainless Steel Nuts.

B. American Society of Mechanical Engineers (ASME)

1. ASME B31.1—Power Piping.

C. Manufacturer's Standardization Society

1. MSS SP-58—Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation.
2. MSS SP-127—Bracing for Piping Systems: Seismic – Wind – Dynamic Design, Selection, and Application.

D. NSF International (NSF)

1. NSF 61/600—Drinking Water System Components – Health Effects.

1.04 QUALITY ASSURANCE

- A. All supports and appurtenances shall conform to the latest applicable requirements of ASME B31.1, except as supplemented or modified by the requirements of this Section.
- B. All supports and appurtenances shall be of approved standard design where possible and shall be adequate to maintain the supported load in proper position

under all operating conditions. The minimum working factor of safety for all supporting equipment shall be five times the ultimate tensile strength of the material.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.
- B. All supports shall be crated, delivered, and uncrated to protect against any damage.
- C. All parts shall be properly protected so that no damage or deterioration shall occur during a prolonged delay from the time of shipment until installation is completed.
- D. Finished iron or steel surfaces not galvanized or painted shall be properly protected to prevent rust and corrosion.

PART 2 PRODUCTS

2.01 GENERAL

- A. Not all pipe supports required are shown on the Drawings. The Contractor shall provide pipe supports for every piping system installed.
- B. The Contractor shall ensure that pipe support components shall withstand the dead loads imposed by the weight of the pipes, fittings, and valves (all filled with water) plus valve actuators and any insulation and shall have a minimum safety factor of 5 based on the material's ultimate strength.
- C. All of the equipment specified in this Section is intended to support the various types of pipe and piping systems. The details shown on the Drawings are intended to indicate the generally desired methods of support under normal conditions. The Contractor shall develop final details and any details associated with special conditions not already covered to meet the system conditions specified in the respective Division 15 Pipe Sections.
- D. All pipe and tubing shall be supported as required to prevent significant stresses in the pipe or tubing material, valves, fittings, and other pipe appurtenances and to support and secure the pipe in the intended position and alignment. All supports shall be designed to adequately secure the pipe against excessive dislocation due to thermal expansion and contraction, internal flow forces, and all probable

external forces such as equipment, pipe, and personnel contact. Any structural steel members required to brace any piping from excessive dislocation shall conform to the applicable requirements of Section 13200, Prestressed Concrete Tanks, and shall be furnished and installed under this Section.

- E. Supports shall be spaced in accordance with ASME B31.1 except that the maximum unsupported span shall not exceed 10 feet unless otherwise specified in this Section.
- F. Where flexible couplings are required at equipment, tanks, etc., the end opposite to the piece of equipment, tank, etc. shall be rigidly supported.
- G. All rods, clamps, inserts, anchor bolts, brackets, and components for pipe supports shall be stainless steel Type 300, and NSF 61/600 approved.
- H. Supports shall be sufficiently close together so that the sag of the pipe is within limits that will permit drainage and avoid excessive bending stresses from concentrated loads between supports.
- I. Pipe supports shall be provided as follows:
 - 1. Cast-iron and ductile-iron piping shall be supported at a maximum support spacing of 10 feet with a minimum of one support per pipe section at the joints.
 - 2. Pipe supports shall not induce point loadings, but shall distribute pipe loads evenly along the pipe circumference.
 - 3. Supports shall be provided at changes in direction and elsewhere as shown on the Drawings or as specified in this Section. No piping shall be supported from other piping or from metal stairs, ladders, and walkways, unless specifically directed or authorized by the Engineer.
 - 4. Effects of thermal expansion and contraction of the pipe shall be accounted for in the pipe support selection and installation.
- J. Any required pipe support for which the supports specified in this Section are not applicable shall be fabricated or constructed from standard structural steel shapes and concrete and anchor hardware similar to items previously specified in this Section and shall be subject to the approval of the Engineer.

2.02 SUPPORT SYSTEMS

- A. Pipe supports shall be as manufactured by Anvil, Unistrut, Aikinstruct, Superstrut, or equal.

- B. Pipe supports shall comply with MSS SP-58 for the standard types referenced on the Drawings. The Contractor shall construct special supports if detailed in the Drawings.

2.03 ANCHOR BOLTS AND SCREWS

- A. Anchor bolts and screws for attaching pipe supports to walls shall be Type 316 stainless steel, ASTM A276/A276M or ASTM F593. Nuts shall be Type 316 stainless steel, ASTM A194/A194M, Grade 8M, or ASTM F594, Type 316 stainless steel.

PART 3 EXECUTION

3.01 PIPE WALL SUPPORT SPACING

- A. The Contractor shall install pipe wall supports on vertical runs at the spacing shown or detailed on the Drawings. Provide wall supports of the sizes shown or detailed on the Drawings. If no spacing or rod sizes are given on the Drawings or in the Specifications for a particular piping system, use the following:

1. Pipe Wall Support Spacing for Ductile-Iron Pipe:

Pipe Size (inches)	Maximum Support Spacing (feet)	Minimum Rod Size (inches)
3/8 and smaller	4	3/8
1/2 through 1	6	3/8
1-1/4 through 2	8	3/8
2-1/2 and 3	10	1/2
3-1/2 and 4	10	5/8
6	12	3/4
8	12	7/8
10 and 12	14	7/8
14 and 16	16	1
18	15	1
20 through 24	9	1
30	6	1

- B. For piping services not described, the Contractor shall provide supports according to MSS SP-58.

END OF SECTION

SECTION 15110
MANUAL, CHECK, AND PROCESS VALVES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, and incidentals required and install complete and ready for operation all valves as shown in the Drawings and as specified in this Section. All valves shall be complete with all necessary manual actuators, valve boxes, extension stems, and floor stands, which are required for proper valve operation and completion of the work.
 - 1. All valves shall be of the sizes shown in the Drawings. All equipment of the same type shall be from one manufacturer, unless authorized in writing by the Engineer.
 - 2. The valves shall include but not be limited to the following:
 - a. Gate Valves.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Product technical submittal data shall contain the following information and data:
 - 1. Acknowledgment that products submitted meet requirements of standards referenced.
 - 2. Manufacturer's installation instructions.
 - 3. Manufacturer's operation and maintenance manuals.
 - 4. Data of valves, actuators, and accessories:
 - a. Pressure and temperature rating.
 - b. Materials of construction, with ASTM reference and grade.
 - c. Linings and coatings.
 - d. Dimensions and weight.
 - e. Flow coefficient.

- f. Actuators and accessories details.
 - g. Manufacturer's product brochure, cut-sheets, and parts diagrams.
- B. Dimensions and orientation of valve actuators as installed on the valves. Show location of internal stops for gear actuators. State differential pressure and fluid velocity used to size actuators. For worm-gear actuators, state the radius of the gear sector in contact with the worm and state the handwheel diameter.
- C. The following test reports: Performance Tests; Leakage Tests; Hydrostatic Tests; and Proof-of-Design Tests as applicable or required.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Petroleum Institute (API)
 - 1. API SPEC 6D—Specification for Pipeline and Piping Valves.
 - 2. API SPEC 6FA—Specification for Fire Test for Valves.
 - 3. API STD 594—Check Valves: Flanged, Lug, Wafer, and Butt-Welding.
 - 4. API STD 607—Fire Test for Quarter-Turn Valves and Valves Equipped with Nonmetallic Seats.
- B. American Society for Testing of Materials (ASTM)
 - 1. ASTM A36/A36M—Standard Specification for Carbon Structural Steel.
 - 2. ASTM A47/A47M—Standard Specification for Ferritic Malleable Iron Castings.
 - 3. ASTM A48/A48M—Standard Specification for Gray Iron Castings.
 - 4. ASTM A105/A105M—Standard Specification for Carbon Steel Forgings for Piping Applications.
 - 5. ASTM A108—Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.
 - 6. ASTM A126—Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings.
 - 7. ASTM A148/A148M—Standard Specification for Steel Castings, High Strength, for Structural Purposes.
 - 8. ASTM A181/A181M—Standard Specification for Carbon Steel Forgings, for General-Purpose Piping.

9. ASTM A182/A182M—Standard Specification for Forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service.
10. ASTM A193/A193M—Standard Specification for Alloy-Steel and Stainless Steel Bolting Materials for High Temperature or High Pressure Service and Other Special Purpose Applications.
11. ASTM A194/A194M—Standard Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
12. ASTM A216/A216M—Standard Specification for Steel Castings, Carbon, Suitable for Fusion-Welding, for High-Temperature Service.
13. ASTM A240/A240M—Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
14. ASTM A269/A269M—Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
15. ASTM A276/A276M—Standard Specification for Stainless Steel Bars and Shapes.
16. ASTM A313/A313M—Standard Specification for Stainless Steel Spring Wire.
17. ASTM A322—Standard Specification for Steel Bars, Alloy, Standard Grades.
18. ASTM A351—Standard Specification for Castings, Austenitic, for Pressure-Containing Parts.
19. ASTM A395/A395M—Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures.
20. ASTM A436—Standard Specification for Austenitic Gray Iron Castings.
21. ASTM A439/A439M—Standard Specification for Austenitic Ductile Iron Castings.
22. ASTM A449—Standard Specification for Hex Cap Screws, Bolts and Studs, Steel, Heat Treated, 120/105/90 ksi Minimum Tensile Strength, General Use.
23. ASTM A479/A479M—Standard Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels.
24. ASTM A494/A494M—Standard Specification for Castings, Nickel and Nickel Alloy.
25. ASTM A516/A516M—Standard Specification for Pressure Vessel Plates, Carbon-Steel, for Moderate- and Lower-Temperature Service.
26. ASTM A536—Standard Specification for Ductile Iron Castings.
27. ASTM A564/A564M—Standard Specification for Hot-Rolled and Cold-Finished Age-Hardening Stainless Steel Bars and Shapes.
28. ASTM A582/A582M—Standard Specification for Free-Machining Stainless Steel Bars.

29. ASTM A666—Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
30. ASTM A743/A743M—Standard Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application.
31. ASTM A744/A744M—Standard Specification for Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service.
32. ASTM A890/A890M—Standard Specification for Castings, Iron-Chromium-Nickel-Molybdenum Corrosion-Resistant, Duplex (Austenitic/Ferritic) for General Application.
33. ASTM B16/B16M—Standard Specification for Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines.
34. ASTM B21/B21M—Standard Specification for Naval Brass Rod, Bar, and Shapes.
35. ASTM B61—Standard Specification for Steam or Valve Bronze Castings.
36. ASTM B62—Standard Specification for Composition Bronze or Ounce Metal Castings.
37. ASTM B98/B98M—Standard Specification for Copper-Silicon Alloy Rod, Bar, and Shapes.
38. ASTM B99/B99M—Standard Specification for Copper-Silicon Alloy Wire for General Applications.
39. ASTM B127—Standard Specification for Nickel-Copper Alloy (UNS N04400) Plate, Sheet, and Strip.
40. ASTM B148—Standard Specification for Aluminum-Bronze Sand Castings.
41. ASTM B150/B150M—Standard Specification for Aluminum Bronze Rod, Bar, and Shapes.
42. ASTM B164—Standard Specification for Nickel-Copper Alloy Rod, Bar, and Wire.
43. ASTM B169/B169M—Standard Specification for Aluminum Bronze Sheet, Strip, and Rolled Bar.
44. ASTM B193—Standard Test Method for Resistivity of Electrical Conductor Materials.
45. ASTM B371/B371M—Standard Specification for Copper-Zinc-Silicon Alloy Rod.
46. ASTM B427—Standard Specification for Gear Bronze Alloy Castings.
47. ASTM B443—Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625) and Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219) Plate, Sheet, and Strip.
48. ASTM B446—Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625), Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219), and Nickel-Chromium-Molybdenum-Tungsten Alloy (UNS N06650) Rod and Bar.

49. ASTM B462—Standard Specification for Forged or Rolled UNS N06030, UNS N06022, UNS N06035, UNS N06200, UNS N06059, UNS N10362, UNS N06686, UNS N08020, UNS N08367, UNS N10276, UNS N10665, UNS N10675, UNS N10629, UNS N08031, UNS N06045, UNS N06025, UNS R20033 Alloy Pipe Flanges, Forged Fittings, and Valves and Parts for Corrosive High-Temperature Service.
50. ASTM B463—Standard Specification for UNS N08020 Alloy Plate, Sheet, and Strip.
51. ASTM B472—Standard Specification for Nickel Alloy Billets and Bars for Reforging.
52. ASTM B584—Standard Specification for Copper Alloy Sand Castings for General Applications.
53. ASTM B763/B763M—Standard Specification for Copper Alloy Sand Castings for Valve Applications.
54. ASTM D1248—Standard Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable.
55. ASTM D1784—Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
56. ASTM D1785—Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
57. ASTM D2000—Standard Classification System for Rubber Products in Automotive Applications.
58. ASTM D3222—Standard Specification for Unmodified Poly (Vinylidene Fluoride) (PVDF) Molding Extrusion and Coating Materials.
59. ASTM D4101—Standard Specification for Polypropylene Injection and Extrusion Materials.
60. ASTM F441/F441M—Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80.
61. ASTM F467—Standard Specification for Non-Ferrous Nuts for General Use.
62. ASTM F468—Standard Specification for Non-Ferrous Bolts, Hex Cap Screws, Socket Head Cap Screws, and Studs for General Use.

C. American Society of Mechanical Engineers (ASME)

1. ASME B1.20.1—Pipe Threads, General Purpose (Inch).
2. ASME B1.20.7—Hose Coupling Screw Threads (Inch).
3. ASME B16.1—Gray Iron Pipe Flanges and Flanged Fittings Classes 25, 125, and 250.
4. ASME B16.5—Pipe Flanges and Flanged Fittings NPS 1/2 through NPS 24 Metric/Inch Standard.
5. ASME B16.10—Face-to-Face and End-to-End Dimensions of Valves.
6. ASME B16.11—Forged Fittings, Socket-Welding and Threaded.

7. ASME B16.18—Cast Copper Alloy Solder Joint Pressure Fittings.
8. ASME B16.24—Cast Copper Alloy Pipe Flanges, Flanged Fittings, and Valve Classes 150, 300, 600, 900, 1500, and 2500.
9. ASME B16.34—Valves – Flanged, Threaded, and Welding End.
10. ASME B16.42—Ductile Iron Pipe Flanges and Flanged Fittings Classes 150 and 300.
11. ASME B16.47—Large Diameter Steel Flanges NPS 26 through NPS 60 Metric/Inch Standard.
12. ASME B36.10M—Welded and Seamless Wrought Steel Pipe.

D. American Society of Safety Engineers (ASSE)

1. ASSE 1011—Performance Requirements for Hose Connection Vacuum Breakers.

E. American Water Works Association (AWWA)

1. AWWA C110/A21.10—Ductile-Iron and Gray-Iron Fittings.
2. AWWA C111/A21.11—Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
3. AWWA C115/A21.15—Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
4. AWWA C207—Steel Pipe Flanges for Waterworks Service, Sizes 4-Inch through 144-Inch (100 mm through 3,600 mm).
5. AWWA C500—Metal-Seated Gate Valves for Water Supply Service.
6. AWWA C504—Rubber-Sealed Butterfly Valves.
7. AWWA C507—Ball Valves 6-Inch through 60-Inch (150 mm through 1,500 mm).
8. AWWA C508—Swing-Check Valves for Waterworks Service, 2-Inch through 48-Inch (50 mm through 1,200 mm) NPS.
9. AWWA C509—Resilient-Seated Gate Valves for Water-Supply Service.
10. AWWA C512—Air Release, Air/Vacuum, and Combination Air Valves for Water and Wastewater Service.
11. AWWA C515—Reduced-Wall, Resilient-Seated Gate Valves for Water Supply Service.
12. AWWA C550—Protective Interior Coatings for Valves and Hydrants.
13. AWWA C606—Grooved and Shouldered Joints.
14. AWWA C800—Underground Service Line Valves and Fittings.

F. Fluid Controls Institute (FCI)

1. FCI 70-2—Control Valve Seat Leakage.

G. Manufacturers Standardization Society (MSS)

1. MSS SP-61—Pressure Testing of Valves.
2. MSS SP-67—Butterfly Valves.
3. MSS SP-68—High Pressure Butterfly Valves with Offset Design.
4. MSS SP-81—Stainless-Steel or Stainless-Steel-Lined Bonnetless, Knife Gate Valves with Flanged Ends.
5. MSS SP-83—Class 3000 Steel Pipe Unions Socket Welding and Threaded.
6. MSS SP-108—Resilient-Seated Cast Iron Eccentric Plug Valves.

H. National Association of Corrosion Engineers International (NACE)

1. NACE MR-0103/ISO 17945—Petroleum, Petrochemical, and Natural Gas Industries – Materials Resistant to Sulfide Stress Cracking in Corrosive Petroleum Refining Environments.
2. NACE MR-0175/ISO 15156—Petroleum, Petrochemical, and Natural Gas Industries – Materials for Use in H₂S-Containing Environments in Oil and Gas Production.

I. National Fluid Power Association (NFPA)

1. NFPA T3.6.7—Fluid Power Systems and Products – Square Head Industrial Cylinders – Mounting Dimensions.
2. NFPA T3.6.68—Fluid Power – Square Head Cylinders – Determination of the Static Failure Pressure Rating of Pressure-Containing Components.

J. NSF International (NSF)

1. NSF 61—Drinking Water System Components – Health Effects.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.
- B. All valves, unless otherwise directed, shall be loaded and unloaded by lifting, and under no circumstances shall valves be dropped, skidded, or rolled. Valves shall not be stacked or placed under pipe, fittings, or other valves in such a manner that damage could result.
- C. Slings, hooks, or tongs used for lifting shall be padded in such a manner as to prevent damage to exterior surface or interior linings and valve components. If

any part of the coating, lining, or components is damaged, the repairs or replacement shall be made by the Contractor at his expense and in a manner satisfactory to the Engineer before attempting to install such valves.

- D. Only new valves will be allowed for installation and shall be stored in a manner to prevent damage and be kept free of dirt, mud, or other debris.

1.05 QUALIFICATIONS

- A. All of the valves shall be products of well-established firms which are fully experienced, reputable, have been selling this product for a minimum of 10 years, and are qualified in the manufacture of the particular product furnished. The valves shall be designed, constructed, and installed in accordance with the requirements and procedures of applicable AWWA standards and shall comply with these Specifications as applicable.

1.06 VALVE TYPE CLASSIFICATIONS

- A. Gate Valves (Type 600 series)
 - 1. Type 682: Cast-Iron Resilient Wedge Gate Valves, 3 Inches through 20 Inches, for Buried Service (AWWA C509).

PART 2 PRODUCTS

2.01 GENERAL

- A. Valves are identified in the Drawings by size and type number. For example, a callout of 36V300 refers to a 36-inch-diameter Type 300 valve. A Type 300 valve is a flanged, rubber-seated butterfly valve that is 4 inches through 72 inches for exposed service.
- B. All valves shall be complete with all necessary geared actuators, chainwheels and chains, handwheels, levers, valve bonnets, valve boxes, extension stems, operating nuts, and T-handle wrenches, which are required for proper valve operating and completing of the work included under this Section. Renewable parts including discs, packing, and seats shall be of types specified in this Section and acceptable by valve manufacturer for the intended service. All units shall have the name of the manufacturer and the size of the valve cast on the body or bonnet or shown on a permanently attached stainless-steel plate in raised embossed letters. All isolation valves shall be suitable for the intended service with bubble-tight shutoff to flow in either direction.

- C. Bronze or brass components in contact with water shall comply with the following requirements:

Constituent	Content
Zinc	7% maximum
Aluminum	2% maximum
Lead	8% maximum
Copper + Nickel + Silicon	83% minimum

- D. Valves and valve operators shall be factory prepared and primed and field finish coated in accordance with Section 09900, Painting and Coating.

2.02 VALVE ACTUATORS

- A. The valve actuator shall be an integral part of a valve. The valve actuator shall be provided, installed, and adjusted by the valve manufacturer. Actuator mounting arrangements shall facilitate operation and maintenance and shall be determined by the valve manufacturer unless indicated otherwise on the Drawings or directed by the Engineer.
- B. All valves shall open counter clockwise as viewed from the top. Unless otherwise required by the Owner, the direction of rotation of the wheel or wrench nut to open each valve shall be to the left (counterclockwise). Each valve body or actuator shall have the word "Open" cast on it and an arrow indicating the direction to open.
- C. Actuators shall clearly indicate valve position and an adjustable stop shall be provided to set closing torque. All exposed nuts, bolts, and washers shall be AISI Type 304 stainless steel. Unless noted otherwise, valves shall be equipped with the following manual actuators:
1. Buried or Submerged Valves 8 Inches and Larger: Geared actuators with 2-inch-square operating nuts (with valve bonnets, valve boxes, and extension stems as required) and wrench.
- D. Gear actuators for valves 8 inches through 20 inches shall be of the worm-and-gear or of the traveling-nut type. Gear actuators for valves 24 inches and larger shall be of the worm-and-gear type.
1. Gear actuators should be designed assuming that the differential pressure across the valves is equal to the test pressure of the connecting piping and assuming a line fluid temperature range of 33°F to 125°F, unless otherwise required in the detailed valve specifications.

2. Gear actuators shall be enclosed and oil lubricated with seals provided on shafts to prevent entry of dirt and water into the actuator.
 3. Traveling nut and worm-and-gear actuators shall be of the totally enclosed design and proportioned to permit operation of the valve under full differential pressure rating of the valve with a maximum pull of 80 pounds on the handwheel or crank. Stop-limiting devices shall be provided in the actuators in the open and closed positions. Actuators shall be of the self-locking type to prevent the disc or plug from creeping. Design actuator components between the input and the stop-limiting devices to withstand without damage an input torque of 300 foot-pounds for operating nuts when operating against the stops.
 4. The self-locking worm gear shall be a one-piece design of gear bronze material (ASTM B427; or ASTM B584, Alloy C86200) that is accurately machine cut. Actuators for eccentric and lubricated plug valves may use ductile-iron gears provided the gearing is totally enclosed with spring-loaded rubber lip seals on the shafts. The worm shall be hardened alloy steel (ASTM A322, Grade G41500 or G41400; or ASTM A148/A148M, Grade 105-85) with thread ground and polished. Support worm-gear shafts at each end by ball or tapered roller bearings. The reduction gearing shall run in a proper lubricant. Worm-gear actuators shall be Limitorque Model HBC, EIM Series W, or equal.
- E. For buried or submerged service, provide watertight shaft seals and watertight valve and actuator cover gaskets. Provide totally enclosed actuators designed for buried or submerged service.
- F. All buried valves shall have non-rising stems. All buried valves 3 feet below grade or deeper as measured at the valve centerline shall be furnished with an operator stem extension to extend the operating nut within 6 inches from the top of the valve box cover.

2.03 VALVE END CONNECTIONS

- A. Provide valve end connections conforming to connected piping and as shown in the Drawings. Generally, all buried valves shall be mechanical joint type end connectors. Exposed valves shall be screwed-end, socket-weld end, or flanged to conform to adjacent exposed connected piping system.
- B. Comply with the following standards:
1. Threaded: ASME B1.20.1.
 2. Flanged: ASME B16.1 Class 125 unless other noted or AWWA C207.
 3. Mechanical (gland) Type: AWWA C111/A21.11.
 4. Soldered: ASME B16.18.

- C. Nuts, Bolts, and Washers: Wetted or internal to be bronze or stainless-steel. Exposed to be zinc or cadmium-plated.
- D. Epoxy Interior Coating: Provide epoxy coating for all interiors of ferrous valve body surfaces in accordance with AWWA C550. Coatings shall be NSF-approved for valves in all potable water piping services. Coatings shall not be required for stainless-steel valve interiors.

2.04 VALVE BOXES

- A. All buried valves 2-inch size and larger shall be equipped with a standard cast-iron roadway valve box. Valve boxes shall be of the slip or sliding type with a round lid marked "Water" for potable water valves or "Sewer" for wastewater and a square lid marked "Reclaimed Water" for reclaimed water valves. The box shall be designed to prevent transfer of the surface loads directly to the valve or piping. Valve boxes must have a minimum adjustable range of 12 inches and a minimum inner diameter of 6 inches. All valve boxes and lids shall be produced from grey cast-iron conforming to the latest revision of specification for grey iron castings, ASTM A48/A48M, Class 20A-25A. All castings shall be true and free of holes and shall be cleaned according to good foundry practice, chipped and ground as needed to remove fins and rough places on castings. Valve boxes have to be rated to sustain FDOT H-20 loadings and have a minimum depth of 8 inches. The valve box lid shall fit flush in the top of the box without forcing and shall not rock, tip, or rattle.
- B. Provide debris cap as required in the Drawings.
- C. Coat buried cast-iron pieces as specified in Section 09900, Painting and Coating, or with fusion-bonded epoxy.
- D. Valve boxes shall be as manufactured by Tyler Pipe, Geneco, Star Pipe Products, or equal.

2.05 EXTENSION STEMS

- A. Where the depth of the valve is such that its centerline is more than 4 feet below grade, provide operating extension stems to bring the operating nut to a point 6 inches below the surface of the ground and/or box cover. Where the valve is submerged, provide operating extension stems to bring the operating nut to 6 inches above the water surface. Extension stems shall be Type 316 stainless steel, solid core, and shall be complete with 2-inch-square operating nut. The connections of the extension stems to the operating nuts and to the valves shall withstand without damage a pull of 300 foot-pounds.

- B. Extension stem diameters shall be as tabulated below:

Valve Size (inches)	Minimum Extension Stem Diameter (inches)
2	3/4
3, 4	7/8
6	1
8	1-1/8
10, 12	1-1/4
14	1-3/8
16, 18	1-1/2
20, 24, 30, 36	1-3/4
42, 48, 54	2

- C. Provide buried valves or valves located inside manholes or vaults with valve boxes cast in the manhole or vault roof with a valve position indicator designed to fit standard 5-1/4-inch valve boxes. The indicators shall show valve position and the direction and number of turns required to fully open (or close). All internal gearing shall be sealed. Ship each unit ready for field installation complete with valve box cast-iron adapter, capscrews, guide bushing, position indicator, flexible washer, centering plate, and 2-inch AWWA nut. Valve box and indicator shall be provided by the valve manufacturer. Indicators shall be Westran Position Indicator, Pratt Diviner, or equal.

2.06 PAINTING AND COATING

- A. Coat metal valves located aboveground or in vaults and structures the same as the adjacent piping. If the adjacent piping is not coated, coat valves as specified in Section 09900, Painting and Coating. Apply the specified prime and finish coat at the place of manufacture.
- B. Coat buried metal valves at the place of manufacture as specified in Section 09900, Painting and Coating.
- C. Coat submerged metal valves, stem guides, extension stems, and bonnets at the place of manufacture as specified in Section 09900, Painting and Coating.
- D. Line the interior metal parts of metal valves 4 inches and larger, excluding seating areas and bronze and stainless-steel pieces, as specified in Section 09900, Painting and Coating. Apply lining at the place of manufacture.
- E. Test the valve interior linings and exterior coatings at the factory with a low-voltage (22.5 to 80 volts, with approximately 80,000-ohm resistance) holiday

detector, using a sponge saturated with a 0.5% sodium chloride solution. The lining shall be holiday free.

- F. Measure the thickness of the valve interior linings as specified in Section 09900, Painting and Coating. Repair areas having insufficient film thickness as specified in Section 09900, Painting and Coating.

2.07 GATE VALVES (TYPE 600 SERIES)

- A. Type 682—Cast-Iron Resilient Wedge Gate Valves, 3 Inches through 20 Inches, for Buried Service (AWWA C509):
 - 1. Valves 2 inches and larger for buried service operation shall be of cast-iron or ductile-iron body construction and conform to AWWA C509 for resilient seated gate valves. The valve design shall incorporate non-rising stems and "O" ring stem seals. Valves shall open counterclockwise. Valves shall be designed for bubbletight shutoff to flow in either direction. Before shipment, the valve manufacturer shall test each valve to 200 psi pressure differential in both directions and provide a certificate to the Engineer stating that each valve provided bubbletight shutoff during testing. The valve interior shall be epoxy coated on the entire ferrous surface of the waterway. The valve exterior shall be coated in accordance with Section 09900, Painting and Coating. Buried valves shall be equipped with standard 2-inch-square operating nuts.
 - 2. Buried valves 2 inches and larger shall have mechanical joint ends, conforming to AWWA C111/A21.11. Valves shall be furnished complete with bolts, nuts, and gaskets.
 - 3. Gate valves shall be manufactured by Mueller, American Flow Control, Kennedy, or approved equal.

PART 3 EXECUTION

3.01 JOINTS

- A. Bolt holes of flanged valves shall straddle the horizontal and vertical centerlines of the pipe run to which the valves are attached. Clean flanges by wire brushing before installing flanged valves. Clean flange bolts and nuts by wire brushing, lubricate threads with oil and graphite, and tighten nuts uniformly and progressively. If flanges leak under pressure testing, loosen or remove the nuts and bolts, reseal or replace the gasket, reinstall or retighten the bolts and nuts, and retest the joints. Joints shall be watertight.
- B. Install grooved-end couplings for valves in accordance with Section 15055, Piping Systems—General.

3.02 INSTALLING BURIED VALVES

- A. Connect the valve, coat the flanges, apply tape wrapping or polyethylene encasement as required on the Drawings, and place and compact the backfill to the height of the valve stem.
- B. Place block pads under the extension pipe to maintain the valve box vertical during backfilling and repaving and to prevent the extension pipe from contacting the valve bonnet.
- C. Mount the upper slip pipe of the extension in midposition and secure with backfill around the extension pipe. Pour the concrete ring allowing a depression so the valve box cap will be flush with the pavement surface.
- D. Install debris cap as close as possible under the cast-iron cover without interfering with the cover operation. Trim flexible skirt to provide a smooth contact with the interior or the extension pipe.

3.03 INSTALLING EXTENSION STEM GUIDE BRACKETS

- A. Install extension stem guide brackets at 6- to 8-foot centers. Provide at least two support brackets for stems longer than 10 feet, with one support near the bottom of the stem and one near the top.

3.04 FIELD COATING BURIED VALVES

- A. Coat flanges of buried valves and the flanges of the adjacent piping and the bolts and nuts of flanges and mechanical joints, as specified in Section 09900, Painting and Coating.
- B. Wrap buried metal valves 6 inches and larger with polyethylene sheet as specified in Section 15155, Ductile Iron Pipe and Fittings.

3.05 VALVE LEAKAGE AND FIELD TESTING

- A. Test valves for leakage at the same time that the connecting pipelines are tested. See Section 15144, Pressure Testing of Piping, for pressure testing requirements. Protect or isolate any parts of valves, actuators, or control and instrumentation systems whose pressure rating is less than the pressure test. Valves shall show zero leakage. Repair or replace any leaking valves and retest.
- B. Operate manual valves through three full cycles of opening and closing. Valves shall operate from full open to full close without sticking or binding. Do not

backfill buried valves until after verifying that valves operate from full open to full closed. If valves stick or bind or do not operate from full open to full closed, repair or replace the valve and repeat the tests.

- C. Test gear actuators through three full cycles from full-open to full-close without binding or sticking. The pull required to operate handwheel- or chainwheel-operated valves shall not exceed 80 pounds. The torque required to operate valves having 2-inch AWWA nuts shall not exceed 150 foot-pounds. If actuators stick or bind or if pulling forces and torques exceed the values stated previously, repair or replace the actuators and repeat the tests. Operators shall be lubricated in accordance with the manufacturer's recommendations before operating.

WATER SERVICE CARD

Date of Installation _____

Contract Drawing Number _____

Service Line Size (inches) _____

Length of Water Service Line (feet) _____

Meter Size (inches) _____

Name _____

House/Business Address or Location:

Phone # _____

GPS coordinate @ main _____

GPS coordinate @ meter _____

Confirm Photos are attached _____

Installation Foreman _____

Service Layout

Provide a brief sketch of the installed configuration. Indicate lengths, depths of the water service, and show three ties to meter box and to corporation stop:

Depth @ Main (feet) _____

Depth @ stub out (feet) _____

Contractor Signature

Resident Observer Signature

(Rev 2 – 15 Oct 2006)

ISOLATION VALVE CARD

Date of Installation _____

Contract Drawing Number _____

Closest Street Address to Valve or Location of Valve

Size of Valve (inches) _____

Circle Type of Valve: Gate Butterfly

GPS Coordinate @ Valve _____

Installation Foreman _____

Confirm Photos are attached _____

Isolation Valve Layout

Provide a brief sketch of the installed configuration. Show depths of the water line and show three ties to the isolation valve:

Depth @ Main (feet) _____

Contractor Signature

Resident Observer Signature

(Rev 2 – 15 Oct 2006)

FIRE HYDRANT CARD

Date of Installation _____

Contract Drawing Number _____

Closest Street Address to Fire Hydrant or Location of Fire Hydrant

Length of Hydrant Line (feet) _____

List any offset fittings required. _____

List Utilities requiring offset fittings _____

GPS coordinate @ main _____

GPS coordinate @ Hydrant _____

Installation Foreman _____

Confirm Photos are attached _____

Fire Hydrant Layout

Provide a brief sketch of the installed configuration. Indicate lengths, depths of the water line and hydrant, offset fittings, and show three ties to the fire hydrant isolation valve:

Depth @ Main (feet) _____

Depth @ hydrant (feet) _____

Contractor Signature

Resident Observer Signature

(Rev 2 – 15 Oct 2006)

END OF SECTION

SECTION 15141
DISINFECTION OF PIPING AND WATER STORAGE FACILITIES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section describes requirements for materials and procedures for disinfecting water mains by the continuous feed method and the slug method as well as for disinfecting water storage facilities. The Contractor shall disinfect piping in accordance with Rule 62-555.340, FAC, and AWWA C651 and disinfect water storage facilities in accordance with Rule 62-555.340, FAC, and AWWA C652, except as modified below.
- B. Use potable water for chlorination.
- C. Submit request for use of water from waterlines of the Owner at least 48 hours in advance.
- D. If water for disinfection and/or flushing is supplied from a temporary connection to the existing distribution system, appropriate backflow prevention methods shall be used.
- E. Proper disposal of the chlorinated disinfection water and the flushing water is the Contractor's responsibility. Disinfected water shall be neutralized in accordance with AWWA C651 and AWWA C652 before discharge.
- F. Before permit review and coordination with the Owner and appropriate regulatory authorities (i.e., FDEP and the Lake County Department of Health), the Contractor shall provide a schedule for the rate of flow and locations of discharges for the disinfection of piping and water storage facilities. The neutralized discharge water shall be disposed of by discharging to the nearest sanitary sewer (check with Owner), to the local stormwater system through onsite swales or by other approved means. Discharge to the local stormwater system shall be routed to avoid swale overflow and/or erosion. The Contractor shall be responsible for any damage that occurs related to the discharging process. The Contractor shall repair or replace any damage caused by discharging to the Owner's satisfaction at no additional expense to the Owner.
- G. It is the responsibility of the Contractor to implement and enforce strict adherence to safety guidelines which are addressed in AWWA C651 and AWWA C652 as well as safety and handling instructions from the manufacturer. The Contractor

shall comply with all applicable national, state, and local safety regulations and requirements, including OSHA.

1.02 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Water Works Association (AWWA)
 - 1. AWWA B300—Hypochlorites.
 - 2. AWWA B301—Liquid Chlorine.
 - 3. AWWA C651—Disinfecting Water Mains.
 - 4. AWWA C652—Disinfection of Water-Storage Facilities.
- B. Florida Administrative Code (FAC)
 - 1. FAC 62-555.340—Disinfection and Bacteriological Evaluation of Public Water System Components.

PART 2 PRODUCTS

2.01 LIQUID CHLORINE

- A. Liquid chlorine shall conform to AWWA B301 and shall be applied in strict accordance with AWWA C651 and AWWA C652.

2.02 CALCIUM HYPOCHLORITE (DRY)

- A. Calcium hypochlorite shall conform to AWWA B300 and shall be applied in strict accordance with AWWA C651 and AWWA C652. Calcium hypochlorite intended for swimming pool chlorination shall not be used under any circumstances.

2.03 SODIUM HYPOCHLORITE (SOLUTION)

- A. Sodium hypochlorite shall conform to AWWA B300 and shall be applied in strict accordance with AWWA C651 and AWWA C652.

2.04 CHLORINE RESIDUAL TEST KIT

- A. For measuring chlorine concentration, the Contractor shall supply and use a medium-range, drop count, DPD drop dilution method kit in accordance with AWWA C651 and AWWA C652. Maintain kits in good working order available for immediate test of residuals at point of sampling.

PART 3 EXECUTION

3.01 GENERAL DISINFECTION PROCEDURE

- A. Before disinfection, the Contractor shall inspect materials for quality. The Contractor shall use materials and equipment that are appropriate for the disinfection methods selected. The Contractor shall observe the precautionary guidelines given in AWWA C651 and AWWA C652.
- B. During construction, the Contractor shall take preventative measures in accordance with AWWA C651 to protect materials from contamination.
- C. Hydrostatic testing shall be successfully performed before disinfection.
- D. Before disinfection, the Contractor shall clear water mains and water storage facilities of foreign debris:
 - 1. Pipelines which are less than 24 inches in diameter shall be flushed, while pipelines which are greater than 24 inches in diameter may be cleared via broom-sweeping in accordance with AWWA C651 and as specified in Section 15144, Pressure Testing of Piping. Sweepings shall be removed from pipeline before the disinfection process begins.
 - 2. Water storage facilities shall be cleared of all materials that are not part of the structural or operating facilities of the tank and shall be cleared of all debris in accordance with AWWA C652. After the water storage facility has been cleaned, all screened openings shall be inspected for quality of materials and adequate condition to prevent the entry of insects, birds, and other possible contaminants into the tank. The Contractor shall properly disinfect any materials that enter the tank after cleaning in accordance with AWWA C652 before placement in the tank.
- E. In accordance with AWWA C651 and AWWA C652 procedures, the Contractor shall disinfect all newly constructed materials and existing materials which may have been contaminated during construction. The Contractor shall provide adequate documentation that the required disinfection level (i.e., required chlorine residual and contact time) was successfully achieved.

- F. In accordance with Rule 62-555.340, FAC, following disinfection the total chlorine residual in the water mains and water storage facilities shall be reduced to 4 milligrams per liter (mg/L). The chlorine residual may be reduced via flushing with potable water or by a neutralizing agent that conforms to AWWA C651 and AWWA C652.
- G. After the total chlorine residual has been reduced to 4 mg/L, the Contractor shall conduct bacteriological testing for water mains and water storage facilities. Bacteriological sampling and testing shall be performed in accordance with Rule 62-555.340, FAC.
- H. The Contractor shall dispose of residue from cleaning and other construction operations as well as water from dewatering operations in a manner satisfactory to FDEP and the Lake County Department of Health.

3.02 CONTINUOUS-FEED METHOD FOR PIPELINES

- A. Continuous-feed disinfection shall be performed in accordance with AWWA C651. The Contractor shall introduce potable water into the pipeline at a constant measured rate. Feed the chlorine solution into the same water at a measured rate. Proportion the two rates so that the free chlorine concentration in the pipeline is maintained at a minimum concentration of 25 mg/L. Inject chlorine into the main at a point no greater than 3 feet downstream of the start of the new water main. Using the appropriate test kits specified by AWWA C651, the Contractor shall check the concentration at points downstream during the filling to ascertain that sufficient chlorine is being added. The water main shall be completely filled with chlorinated water. The chlorine contact time shall be at least 24 hours. The water shall be chlorinated so that after 24 hours the concentration of free chlorine residual in the water main shall be not less than 10 mg/L.

3.03 SLUG METHOD FOR PIPELINES

- A. The Contractor shall perform slug method disinfection in accordance with AWWA C651. Introduce the water in the pipeline at a constant measured rate. At a point no greater than 3 feet downstream of the start of the new water main, feed the chlorine solution into the pipeline at a measured rate so that the free chlorine concentration created in the pipeline is 100 mg/L. Using the appropriate test kits specified by AWWA C651, the Contractor shall check the concentration at points downstream during the filling to ascertain that sufficient chlorine is being added. Feed the chlorine for a sufficient period to develop a solid column or "slug" of chlorinated water that will, as it passes through the line, expose all interior surfaces to a concentration of at least 100 mg/L for at least 3 hours.

3.04 DISINFECTION OF VALVES, BLIND FLANGES, AND APPURTENANCES

- A. During the period that the chlorine solution is in the pipeline or as the slug comes into contact with hydrants and valves, open and close valves at least three times to obtain a chlorine residual at hydrants and other pipeline appurtenances. Swab exposed faces of valves and blind flanges prior to bolting flanges in place with a 1% sodium hypochlorite solution.

3.05 DISINFECTION OF CONNECTIONS TO EXISTING PIPELINES

- A. The Contractor shall disinfect isolation valves, pipe, and appurtenances in accordance with AWWA C651, Section 4.7. Flush with potable water until discolored water, mud, and debris are eliminated. Swab interior of pipe and fittings with a 1% sodium hypochlorite solution. After disinfection, flush with potable water again until water is free of chlorine odor.

3.06 CONFIRMATION OF RESIDUAL

- A. After the chlorine solution applied by the continuous feed method has been retained in the pipeline for 24 hours, the Contractor shall confirm that a free chlorine residual of 10 mg/L minimum exists along the pipeline by sampling at air valves and other points of access, such as tapping valves.
- B. With the slug method, confirm by sampling as the slug passes each access point and as it leaves the pipeline that the free chlorine concentration in the slug is at least 50 mg/L. If the free chlorine residual is less than 50 mg/L, the flow shall be stopped and the slug residual concentration shall be increased to 100 mg/L before disinfection may resume.

3.07 PIPELINE FLUSHING

- A. After confirming the free chlorine residual and sufficient contact time, the Contractor shall flush the excess chlorine solution from the pipeline until the free chlorine concentration in the water leaving the pipe is no higher than 4 mg/L.

3.08 BACTERIOLOGICAL SAMPLING AND TESTING

- A. In accordance with Rule 62-555.340, FAC, the Contractor shall collect and deliver required samples to a certified laboratory and obtain a bacteriologic quality test to demonstrate the absence of coliform organisms in each separate

section of the pipeline and in each structure after chlorination and refilling. Samples shall be delivered to a certified laboratory within 6 hours of sampling:

1. For water mains, collect at least one set of samples from every 1,200 feet of the new water main, plus one set from the end of the line and at least one set from each branch. At each connection to an existing pipeline, take two additional samples.
 2. The Contractor shall take care in the sampling of water storage facilities to ensure that the water sampled is representative of the facility. To obtain a representative sample, the storage facility shall be sampled from a tap connected directly to the storage facility or at a sample tap located on the outlet piping.
- B. The Contractor shall take chlorine residual samples at the time bacteriological samples are taken. If the chlorine residual is greater than 4 mg/L, the bacteriological test shall be considered invalid and the residual shall be reduced to 4 mg/L and the bacteriological testing shall be performed until the required criteria are satisfied.
- C. In accordance with AWWA C652, the Contractor shall test the water in the storage facility to ensure that no offensive odor has been imparted from the disinfection process.

3.09 REPETITION OF PROCEDURE

- A. If the initial chlorination fails to produce required residuals and bacteriologic tests, the Contractor shall repeat the chlorination and testing until satisfactory results are obtained.

3.10 TEST FACILITY REMOVAL

- A. After satisfactory disinfection, the Contractor shall disinfect and replace air valves, restore the pipe coating, and complete the pipeline where temporary disinfection or test facilities were installed.

3.11 PIPING TO BE DISINFECTED

- A. Disinfect all piping as indicated on the Piping Schedule on the Drawings.
- B. Disinfect (internally and externally) any piping inside the following structures:
1. Ground Storage Reservoirs.

3.12 DISINFECTION OF STRUCTURES

- A. Disinfect in accordance with AWWA C652.
- B. Disinfect the interior of the following structures:
 - 1. Ground Storage Reservoirs.
- C. The Owner will provide potable water at no cost to the Contractor for the first disinfection effort. If bacteriological testing shows that the first disinfection effort was not successful, the Contractor will be charged the cost of additional water at the Owner's current rates.

END OF SECTION

SECTION 15144
PRESSURE TESTING OF PIPING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies the hydrostatic, pneumatic, and leakage testing of pressure piping for water treatment plants, and water distribution and transmission mains.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. Test bulkhead locations and design calculations, pipe attachment details, and methods to prevent excessive pipe wall stresses.
- B. Six copies of the test records to the Engineer upon completion of the testing.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Water Works Association (AWWA)
 - 1. AWWA C600—Installation of Ductile Iron Mains and Their Appurtenances.

1.04 TEST PRESSURES

- A. Test pressures for the various services and types of piping are shown in the Piping Schedule in the Drawings.

1.05 TESTING RECORDS

- A. The Contractor shall provide records of each piping installation during the testing. These records shall include the following information:
 - 1. Date and times of test.

2. Identification of process, pipeline, or pipeline section tested or retested.
 3. Identification of pipeline material.
 4. Identification of pipe specification.
 5. Test fluid.
 6. Test duration.
- B. Test pressure at low point in process, pipeline, or pipeline section.
- C. Remarks: Leaks identified (type and location), types of repairs, or corrections made.
- D. Certification by Contractor that the leakage rate measured conformed to the Specifications.

PART 2 PRODUCTS

2.01 MANUAL AIR-RELEASE VALVES FOR BURIED PIPING

- A. The Contractor shall provide temporary manual air-release valves at test bulkheads for pipeline test. Construct the pipe outlet in the same manner as for a permanent air valve and, after use, seal with a blind flange, pipe cap, or plug and coat the same as the adjacent pipe.

2.02 TEST BULKHEADS

- A. The Contractor shall design and fabricate test bulkheads in accordance with Section VIII of the ASME Boiler and Pressure Vessel Code. Materials shall comply with Part UCS of the code. Design pressure shall be at least 2.0 times the specified test pressure for the section of pipe containing the bulkhead. Limit stresses to 70% of yield strength of the bulkhead material at the bulkhead design pressure. Include air-release and water drainage connections.

2.03 TESTING FLUID

- A. The Owner will provide a source of supply from the existing treated water distribution system for the Contractor's use in filling the lines. An air break shall be maintained at all times between the Owner's distribution system and the Contractor's equipment to prevent cross-connection. The line shall be slowly filled with water and the specified test pressure shall be maintained in the pipe for the entire test period by means of a pump furnished by the Contractor. Provide accurate means for measuring the quantity of water required to maintain this pressure. The amount of water required is a measure of the leakage.

- B. Testing fluid shall be potable water unless a pneumatic test is indicated on the Piping Schedule.
- C. For potable water pipelines, obtain and use only potable water for hydrostatic testing.
- D. Submit request for use of water from waterlines of Owner 48 hours in advance.
- E. The Contractor shall provide back flow prevention control for temporary connections to existing water mains.

2.04 TESTING EQUIPMENT

- A. The Contractor shall provide calibrated pressure gauges, pipes, bulkheads, pumps, compressors, chart recorder, and meters to perform the hydrostatic testing. The Contractor shall provide any necessary assistance required for testing.

PART 3 EXECUTION

3.01 TESTING PREPARATION

- A. Pipes shall be in place, backfilled, and anchored before beginning pressure testing.
- B. The Contractor shall conduct pressure tests on exposed and aboveground piping after the piping has been installed and attached to the pipe supports, hangers, anchors, expansion joints, valves, and meters.
- C. For buried piping, the pipe may be partially backfilled and the joints left exposed for inspection during an initial leakage test. However, perform the final pressure test after completely backfilling and compacting the trench.
- D. Provide any temporary piping needed to carry the test fluid to the piping that is to be tested. After the test has been completed and demonstrated to comply with the Specifications, disconnect and remove temporary piping. Do not remove exposed vent and drain valves at the high and low points in the tested piping; remove any temporary buried valves and cap the associated outlets. Plug taps or connections to the existing piping from which the test fluid was obtained.
- E. Provide temporary drain lines needed to carry testing fluid away from the pipe being tested. Remove such temporary drain lines after completing the pressure testing.

- F. Before starting the test, the Contractor shall notify the Engineer and the Owner's Representative.

3.02 CLEANING

- A. Before conducting hydrostatic tests, the Contractor shall flush pipes with water to remove dirt and debris. For pneumatic tests, blow air through the pipes. Maintain a flushing velocity of at least 3 fps for water testing and at least 2,000 fpm for pneumatic testing. Flush pipes for the period given by the formula:

$$T = \frac{2L}{3}$$

in which:

T = flushing time (seconds)

L = pipe length (feet).

- B. For pipelines 24 inches or larger in diameter, acceptable alternatives to flushing are use of high-pressure water jet, sweeping, or scrubbing. Water, sediment, dirt, and foreign material accumulated during this cleaning operation shall be discharged, vacuumed, or otherwise removed from the pipe.

3.03 TESTING AND DISINFECTION SEQUENCE FOR POTABLE WATER PIPING

- A. Perform required disinfection after hydrostatic testing, unless otherwise indicated.
- B. Disinfection shall be performed as described in Section 15141, Disinfection of Piping and Water Storage Facilities.

3.04 LENGTH OF TEST SECTION FOR BURIED PIPING

- A. The maximum length of test section for buried pipe of 12 inches or smaller in diameter is 3,500 feet; for buried pipe larger than 12 inches, 1 mile. Provide intermediate test bulkheads where the pipeline length exceeds these limits.

3.05 INITIAL PIPELINE FILLING FOR HYDROSTATIC TESTING

- A. The maximum rate of filling shall not cause the water velocity in the pipeline to exceed 1 fps. Filling may be facilitated by removing automatic air valves and releasing air manually.

3.06 TESTING NEW PIPE WHICH CONNECTS TO EXISTING PIPE

- A. Before testing new pipelines that are to be connected to existing pipelines, the Contractor shall isolate the new line from the existing line by test bulkheads, spectacle flanges, or blind flanges. After the new line has been successfully tested, remove test bulkheads or flanges and connect to the existing piping.

3.07 HYDROSTATIC TESTING OF ABOVEGROUND OR EXPOSED PIPING

- A. Open vents at high points of the piping system to purge air while the pipe is being filled with water. Venting during system filling may also be provided by temporarily loosening flanges.
- B. Subject the piping system to the test pressure indicated on the Piping Schedule in the Drawings. Maintain the test pressure for a minimum of 2 hours. Examine joints, fittings, valves, and connections for leaks. The piping system shall show zero leakage or weeping. Correct leaks and retest until zero leakage is obtained.

3.08 HYDROSTATIC TESTING OF BURIED PIPING

- A. Where any section of the piping contains concrete thrust blocks or encasement, the Contractor shall not make the pressure test until at least 10 days after the concrete has been placed. When testing mortar-lined piping, fill the pipe to be tested with water and allow it to soak for at least 24 hours to absorb water before conducting the pressure test.
- B. Apply and maintain the test pressure by a positive displacement hydraulic force pump.
- C. Maintain the test pressure for the 2 hours by restoring the pressure whenever it falls 5 psi.
- D. After the test pressure is reached, use a meter to measure the additional water added to maintain the pressure. This amount of water is the loss due to leakage in the piping system. The allowable leakage volume is defined by the formulas:

Ductile Iron Pipe:

$$L = \frac{SD(P)^{1/2}}{C}$$

in which:

L = allowable leakage (gallons)
S = length of pipe tested (feet)
D = diameter of the pipe (inches)
P = specified test pressure (psig)
C = 133,200

- E. The leakage test shall be a separate test following the pressure test and shall not be less than 2 hours long. All leaks evident at the surface shall be repaired and leakage eliminated regardless of the total leakage as shown by test. Lines that fail to meet tests shall be repaired and retested as necessary until test requirements are complied with. Defective materials, pipes, valves, and accessories shall be removed and replaced.
- F. The allowable leakage for buried piping having threaded, brazed, or welded (including solvent welded) joints shall be zero.
- G. Submit plan for testing to the Engineer for review at least 10 days before starting the test.
- H. Peening shall not be used to repair pinhole leaks in welded pipes. Any leakage in welded pipes shall be repaired by appropriate welding techniques.
- I. Repair and retest any pipes showing leakage rates greater than that allowed in the criteria above.

3.09 REPETITION OF TEST

- A. If the actual leakage exceeds the allowable leakage, locate and correct the faulty work and repeat the test. Restore the work and all damage resulting from the leak and its repair. Eliminate visible leakage.

3.10 BULKHEAD AND TEST FACILITY REMOVAL

- A. After a satisfactory test, the Contractor shall remove the testing fluid, remove test bulkheads and other test facilities, and restore the pipe coatings/linings.

END OF SECTION

SECTION 15155
DUCTILE IRON PIPE AND FITTINGS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall provide all materials and incidentals, including piping, fittings, flanged joints, mechanical joints, retainer glands, polyethylene bagging for buried ductile iron piping, fittings, valves, and appurtenances for the ductile iron piping systems required for the work shown on the Drawings, in the Drawing—Piping Schedule, and described in Section 15060, Pipe Supports.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. All ductile iron pipe and fittings to be installed under this Contract shall be inspected and tested at the foundry where the material for this project is manufactured. The Contractor shall submit sworn certificates of such tests and their results.
- B. Shop Drawings, including layout drawings, shall be submitted as specified in Section 15055, Piping Systems—General.
- C. The Contractor shall submit the pipe manufacturer's certification of compliance with the applicable sections of the Specifications.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM A193/A193M—Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications.

2. ASTM A194/A194M—Standard Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
3. ASTM A307—Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 psi Tensile Strength.
4. ASTM A536—Standard Specification for Ductile Iron Castings.
5. ASTM A563—Standard Specification for Carbon and Alloy Steel Nuts.
6. ASTM B117—Standard Practice for Operating Salt Spray (Fog) Apparatus.
7. ASTM C150/C150M—Standard Specification for Portland Cement.
8. ASTM C283—Standard Test Methods for Resistance of Porcelain Enameled Utensils to Boiling Acid.
9. ASTM D714—Standard Test Method for Evaluating Degree of Blistering of Paints.
10. ASTM D792—Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
11. ASTM D1238—Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer.
12. ASTM E96—Standard Test Methods for Water Vapor Transmission of Materials.
13. ASTM F593—Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
14. ASTM F594—Standard Specification for Stainless Steel Nuts.
15. ASTM G95—Standard Test Method for Cathodic Disbondment Test of Pipeline Coatings (Attached Cell Method).

B. American Society of Mechanical Engineers (ASME)

1. ASME B1.1—Unified Inch Screw Threads (UN and UNR Thread Form).
2. ASME B16.1—Gray Iron Pipe Flanges and Flanged Fittings Classes 25, 125, and 250.
3. ASME B16.21—Nonmetallic Flat Gaskets for Pipe Flanges.

C. American Water Works Association (AWWA)

1. AWWA C104/A21.4—Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
2. AWWA C110/A21.10—Ductile-Iron and Gray-Iron Fittings.
3. AWWA C111/A21.11—Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
4. AWWA C115/A21.15—Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
5. AWWA C150/A21.50—Thickness Design of Ductile-Iron Pipe.
6. AWWA C151/A21.51—Ductile-Iron Pipe, Centrifugally Cast.

7. AWWA C153/A21.53—Ductile-Iron Compact Fittings.
8. AWWA C207—Steel Pipe Flanges for Waterworks Service, Sizes 4-Inch through 144-Inch (100 mm through 3,600 mm).
9. AWWA C600—Installation of Ductile-Iron Mains and their Appurtenances.
10. AWWA C651—Disinfecting Water Mains.

D. International Organization for Standardization (ISO)

1. ISO 9001—Quality Management Systems – Requirements.

E. NSF International (NSF)

1. NSF 61—Drinking Water System Components – Health Effects.

1.04 QUALITY ASSURANCE

A. Source Quality Control

1. The ductile iron pipe manufacturer shall submit certification that the pipe and fitting products meet all tests required by AWWA C151/A21.51.
2. All materials shall be new and have a manufacturer's certificate verifying compliance to all tests and inspections as required in this Section. The weight, class, and casting period shall be shown on each piece of pipe. The manufacturer's "mark," the year produced, and the word "Ductile" or the letters "DI" shall be cast or stamped on all pipe.

1.05 TESTING REQUIREMENTS

- A. See Section 15144, Pressure Testing of Piping, for testing requirements.

PART 2 PRODUCTS

2.01 GENERAL

- A. All ductile iron piping shall be designed and manufactured in accordance with AWWA C150/A21.50 and AWWA C151/A21.51 for the following minimum operating conditions:
1. The minimum internal design pressure shall be 150 psi with a 100-psi surge allowance, with a safety factor of 2, for a total internal design pressure of 500 psi.

2. The external loads design criteria shall be for the minimum cover indicated on the Drawings at 120 pounds per cubic feet soil weight and live load based on one AASHTO H-20 truck load. The thickness design of ductile iron pipe shall be in accordance with AWWA C150/A21.50.
3. The horizontal deflection of cement-mortar-lined ductile iron pipe resulting from external load conditions shall not exceed 3% of the pipe diameter based on the trench design shown on the Drawings.
4. Pressure Class: All ductile iron piping shall meet the following minimum working pressure classes:
 - a. 4 inches through 12 inches: 350 psi
 - b. Pipe greater than 12 inches: 250 psi

2.02 JOINTS

- A. Ductile iron pipe and fittings shall be furnished with push-on joints, mechanical joints, and flanged joint ends as shown on the Drawings and specified in this Section:
 1. Push-On Joints: Push-on joints shall conform to AWWA C111/A21.11 and be limited to joints between contiguous pipe segments longer than the standard pipe length. Gaskets shall be Viton.
 2. Mechanical Joints: All buried ductile iron fittings shall be furnished with mechanical joint ends unless noted otherwise. Mechanical joints shall conform to AWWA C111/A21.11. Glands shall be constructed of ductile iron.
 3. Flanged Joints: Pipe for threaded flange fabrication shall be Special Thickness Class 53 in accordance with AWWA C110/A21.10, AWWA C111/A21.11, and AWWA C115/A21.15. Bolt circle and bolt holes shall match those of ASME B16.1 Class 125 flanges. The flanges shall be rated for a maximum working pressure of 250 psi. Threaded flanges shall be individually fitted and machine tightened on the pipe ends. Flange facing shall be smooth or with shallow serrations in accordance with AWWA C115/A21.15. All exposed ductile iron fittings shall be furnished with flanged joint ends unless noted otherwise.

2.03 FITTINGS

- A. General: Ductile iron pipe fittings shall be the full body type meeting the requirements of AWWA C110/A21.10. Ductile iron fittings shall be cement lined and seal coated,. Lining of fitting shall conform to lining specified for piping and service as specified on the Drawing—Pipe Schedule. Fittings shall be

manufactured in accordance with AWWA C110/A21.10. Where taps are shown on fittings, tapping bosses shall be provided. At a minimum, fittings shall have the same pressure rating as the connecting pipe.

1. Flanged Joint: AWWA C110/21.10 and ASME B16.1, faced and drilled 125-pound ANSI standard.
 - a. Provide flanged joint fittings for all aboveground installations as shown in the Drawings, unless noted otherwise.
 - b. Provide specified gaskets.
2. Mechanical Joint: AWWA C110/A21.10
 - a. Provide mechanical joint fittings for all buried fittings as shown in the Drawings, unless noted otherwise.
 - b. Provide specified gaskets.

2.04 LINING AND COATING

- A. The Contractor shall provide lined ductile iron piping and fittings in accordance with the Drawing—Pipe Schedule. The Contractor shall perform all field measurements confirming the accuracy of the piping sizes and lengths shown on the Drawings. The Contractor shall notify the Engineer immediately before deviating from or altering the lining of ductile iron piping shown on the approved layout schedule.
- B. Cement-Lined Ductile Iron Pipe and Fittings: Interior surfaces of all cement-lined ductile iron pipe, fittings, and specials shall be cleaned and lined in the shop with a standard thickness cement-mortar lining applied in conformity with AWWA C104/A21.4, Portland cement mortar. Every precaution shall be taken to prevent damage to the lining. If lining is damaged or found faulty at delivery site, the Contractor shall repair or replace damaged or unsatisfactory portions with lining conforming to these Specifications at no additional cost to the Owner. Pipe linings for potable water lines shall be NSF 61 approved.
 1. All ductile iron pipe and fittings cement-mortar linings shall be surface sealed with an asphaltic seal coating, 1 mil, in accordance with AWWA C104/A21.4.

2.05 MANUFACTURERS

- A. Acceptable ductile iron pipe manufacturers include US Pipe, American Ductile Pipe, Griffin Pipe, or approved equal.

2.06 BOLTS

- A. General: The Contractor shall provide carbon steel, ASTM A307, Grade A hex head bolts and ASTM A563, Grade A hex head nuts. Threads shall be as specified in ASME B1.1 coarse thread series, Class 2A external and Class 2B internal. Nuts, bolts, and gaskets for flanged fittings and blind flanges shall be designed to withstand the design and test pressure ratings for the pipe.

2.07 GASKETS

- A. Gaskets for mechanical joints shall be compatible with potable water pipe service. See Section 15055, Piping Systems—General, for gasket requirements.
- B. Gaskets for flanged joints shall be 1/8-inch-thick, cloth-inserted rubber conforming to applicable parts of ASME B16.21 and AWWA C207. Gasket material shall be free from corrosive alkali or acid ingredients and suitable for use in potable water and drainage lines. Gaskets shall be full-face type for 125-pound flanges.

2.08 RETAINER GLANDS

- A. Retainer glands shall be provided for all buried ductile-iron mechanical joints, fitting, and ductile-iron pipe connections to buried valves. Retainer glands shall be designed for joint retaining through the use of a follower gland and set screw-anchoring devices that impart multiple wedging action against the pipe. The mechanical joint-restraint device shall be UL listed and shall have a working pressure of at least 250 psi with a minimum safety factor of 2.
 - 1. Gland: Manufactured of ductile iron conforming to ASTM A536. Gland dimensions shall match AWWA C111/A21.11 and AWWA C153/A21.53.
 - 2. Restraining Devices: Manufactured of ductile iron heat treated to a minimum hardness of 370 BHN. Restraining devices shall incorporate a set screw/twist-off nut bolt to ensure the proper actuating of the restraining device. The twist-off nut shall be designed to come off at the torque limit desired to anchor the restraining device in place on the pipe.
 - 3. Joint Deflection: Retainer gland joint deflection shall be limited to 75% of the manufacturer's recommended maximum deflection angle. Joint deflection shall be applied before the set screws are torqued.

4. Acceptable Manufacturers:
 - a. EBAA Iron, Inc. – Megalug 1100 Series.
 - b. Or approved equal.

2.09 EXTERNAL PIPE RESTRAINTS

- A. Ductile iron pipe push-on (bell and spigot) joint restraint shall be provided by a restraining harness consisting of a restraint ring, connecting tie-rods, and split-ring assembly installed at all push-on joints. The restraint ring shall consist of wedging components made from 60-42-12 ductile iron conforming to ASTM A536 and wedges heat treated to minimum 370 BHN. Torque limiting twist-off nuts shall be provided on each wedge to ensure proper applied installation torque. The split ring shall be made from 60-42-12 ductile iron conforming to ASTM A536. The connecting rods shall be made of steel conforming to AWWA C111/A12.11. Sizes 4- to 16-inch-diameter restraining harnesses shall have 350 psi maximum working pressure rating and 18- to 36-inch-diameter restraining harnesses shall have 250 psi maximum working pressure rating. All harnesses shall be designed with a 2-to-1 safety factor applied to the maximum working pressure rating.
- B. Acceptable Manufacturers:
 1. EBAA Iron, Inc. – Series 1700.
 2. Or approved equal.

2.10 INTERNAL PIPE RESTRAINT

- A. Acceptable Manufacturers:
 1. American Ductile Iron Pipe:
 - a. Fast Grip ® Gasket.
 - b. Flex Ring ® Joint.
 2. US Pipe:
 - a. Field Lok ® Gasket.
 - b. TR Flex Restrained Joint Pipe and Fittings.
 3. Or Engineer-approved equal.

2.11 POLYETHYLENE BAGGING

- A. Polyethylene bagging for buried ductile iron pipe, fittings, and valves shall be 8 mils thickness minimum polyethylene, manufactured in accordance with ASTM D1238, Type I, Class C, Grade E1.

2.12 COLOR CODING OR MARKING

- A. All potable water main pipe, including fittings, shall be color coded or marked using blue as a predominant color to differentiate drinking water from reclaimed or other water. Underground plastic pipe shall be solid-wall blue pipe, shall have a co-extruded blue external skin, or shall be white or black pipe with blue stripes incorporated into or applied to the pipe wall; and underground metal or concrete pipe shall have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90° intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipes with an internal diameter of 24 inches or greater, tape or paint shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Marking tape shall be 3 inches wide with adhesive backing. Paint stripe shall be 3 inches wide. Aboveground pipe at drinking water treatment plants shall be color coded and labeled in accordance with subsection 62-555-320(10), FAC, and all other aboveground pipe shall be painted blue or shall be color coded or marked like underground pipe.

PART 3 EXECUTION

3.01 HANDLING PIPE AND FITTINGS

- A. Care shall be taken in loading, transporting, and unloading to prevent injury to the pipe, fitting, lining, and coating. Pipe and fittings shall not be dropped. All pipe and fittings shall be examined before installation, and no piece that the Engineer finds defective shall be installed. The Contractor shall repair any damage to the pipe and fittings coating and/or lining as directed by the Engineer. If the Engineer determines that the coating and/or lining cannot be repaired, the Contractor shall replace the damaged pipe and fittings at no additional compensation.
- B. All pipe and fittings shall be subjected to a careful inspection immediately before installation.

- C. If any defective pipe is discovered after it has been installed, the Contractor shall remove and replace it with a pipe in satisfactory condition at no additional expense to the Owner.
- D. Pipe and fittings shall be handled only from the outside of the pipe and fittings. No forks, chains, straps, hooks, etc. shall be placed inside the pipe and fittings for lifting, positioning, or laying.

3.02 PIPE INSTALLATION

- A. The Contractor shall provide and use proper implements, tools, and facilities for the safe and convenient performance of the work. All pipe, fittings, valves, and appurtenances shall be lowered carefully into the trench and at above-grade locations to prevent damage to the pipe, protective coating, lining, and polyethylene bagging. Under no circumstances shall pipeline materials be dropped off or dumped. A trench shall be dewatered before the pipe is installed.
- B. The Contractor shall carefully examine all pipe fittings, valves, and other appurtenances for damage and other defects immediately before installation and before bagging buried ductile-iron pipe. The Contractor shall mark and hold defective materials for inspection by the Engineer, who may prescribe corrective repairs or reject the materials.
- C. The Contractor shall remove all lumps, blisters, and excess coating from the socket and plain ends of push-on joint pipe for buried service. The outside of the plain end and the inside of the bell shall be wiped clean and dry and be free from dirt, sand, grit, or any foreign material before the pipe is laid in trench.
- D. The Contractor shall prevent foreign material from entering the pipe while the pipe is being placed in the trench. During installation, no debris, tools, clothing, or other materials shall be placed in the pipe.
- E. As each length of buried pipe is placed in the trench, the joint shall be assembled and the pipe brought to correct line and grade. The pipe shall be secured in place with approved backfill material.
- F. When pipe is not being laid, the open ends of pipe shall be closed by a watertight plug or other means approved by the Engineer. When practical, the plug shall remain in place until the trench is pumped completely dry. Care shall be taken to prevent pipe flotation should the trench fill with water.
- G. Trench width at the top of pipe, bedding conditions, and backfill placement and compaction shall be such that design loadings on the pipe will not be exceeded.

- H. Joint Assembly: Pipe joints shall be assembled in accordance with the manufacturer's instructions and the requirements of AWWA C600.
1. Flanged Joint: Before connecting flanged pipe the Contractor shall thoroughly clean all faces of the flanges of all oil, grease, and foreign material. The rubber gaskets shall be checked for proper fit and thoroughly cleaned. Care shall be taken to ensure proper sealing of the flange gasket. Bolts shall be tightened so that the pressure on the gasket is uniform. Torque-limiting wrenches shall be used to ensure uniform bearing insofar as possible. If joints leak when the hydrostatic test is applied, the gaskets shall be removed and reset and bolts retightened.
 2. Push-On, Restrained Joint, or Mechanical Joint: The Contractor shall joint piping in accordance with the manufacturer's recommendations. Provide all special tools and devices, such as special jacks, chokers, and similar items required for proper installation. Lubricant for the pipe gaskets shall be furnished by the pipe manufacturer, and no substitutes will be permitted under any circumstance.
- I. Pipe Deflection: When it is necessary to deflect pipe from a straight line in either the vertical or horizontal plane or where long radius curves are permitted, the amount of deflection shall not exceed that shown in AWWA C600 and that recommended by the retainer gland manufacturer for mechanical joint pipe and fittings.
- J. Pipe Cutting: For inserting valves, fittings, or closure pieces pipe shall be cut in a neat, workmanlike manner without damaging the pipe or lining. Ductile cast iron may be cut using an abrasive pipe saw, rotary wheel cutter, guillotine pipe saw, milling wheel saw, or oxyacetylene torch. Cut ends and rough edges shall be ground smooth, and for push-on joint connections the cut end shall be beveled.

3.03 ABOVE-GROUND PIPE INSTALLATION

- A. The Contractor shall install pipe in horizontal or vertical planes, parallel or perpendicular to building surfaces unless otherwise shown. Support pipe and fittings to prevent strain on joints, valves, and equipment. Install flanged joints so that contact faces bear uniformly on the gasket. Tighten bolts in accordance with the pipe manufacturer's recommendations.

3.04 SURFACE PREPARATION AND PAINTING

- A. All exposed pipe and fittings shall be painted as specified in Section 09900, Painting and Coating.

- B. All buried steel bolts, nuts, washers, rods, harnesses, clamps, sleeves, and appurtenances shall be painted as specified in Section 09900, Painting and Coating.

3.05 INSPECTION, TESTING, AND DISINFECTION

- A. See Section 15055, Piping Systems—General; Section 15141, Disinfection of Piping and Water Storage Facilities; and Section 15144, Pressure Testing of Piping.

END OF SECTION

SECTION 15250
SMALL-DIAMETER PIPING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall provide small-diameter pipe and fittings (nominal diameters less than 4 inches unless noted otherwise on the Drawings) as shown on the Contract Drawings and described in Section 15055, Piping Systems—General.

1.02 SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance, and Section 15055, Piping Systems—General.

1.03 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM A53/A53M—Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 2. ASTM A90/A90M—Standard Test Method for Weight (Mass) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings.
 - 3. ASTM A105/A105M—Standard Specification for Carbon Steel Forgings for Piping Applications.
 - 4. ASTM A182/A182M—Standard Specification for Forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service.
 - 5. ASTM A193/A193M—Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and other Special Purpose Applications.
 - 6. ASTM A194/A194M—Standard Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
 - 7. ASTM A312/A312M—Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes.
 - 8. ASTM A320/A320M—Standard Specification for Alloy-Steel and Stainless Steel Bolting for Low-Temperature Service.

9. ASTM D1784—Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
10. ASTM D1785—Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
11. ASTM D2464—Standard Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
12. ASTM D2466—Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
13. ASTM D2467—Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
14. ASTM D2564—Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems.
15. ASTM F439—Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80.
16. ASTM F441/F441M—Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80.
17. ASTM F493—Standard Specification for Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings.
18. ASTM F656—Standard Specification for Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.

B. American Society of Mechanical Engineers (ASME)

1. ASME B1.20.1—Pipe Threads, General Purpose (Inch).
2. ASME B16.5—Pipe Flanges and Flanged Fittings NPS 1/2 through NPS 24 Metric/Inch Standards.
3. ASME B16.11—Forge Fittings, Socket-Welding and Threaded.
4. ASME B18.2.1—Square, Hex, Heavy Hex, and Askew Head Bolts and Hex, Heavy Hex, Hex Flange, Lobed Head, and Lag Screws (Inch Series).
5. ASME B36.10M—Welded and Seamless Wrought Steel Pipe.
6. ASME B36.19M—Stainless Steel Pipe.

C. Plastic Pipe Institute (PPI)

1. PPI TR-31—Underground Installation of Polyolefin Piping.

D. National Sanitation Foundation (NSF)

1.04 QUALITY ASSURANCE

- A. Piping materials and manufacturing shall adhere to the standards referenced in Section 15055, Piping Systems—General.

- B. The Contractor shall strictly adhere to the manufacturer's written storage, handling, installation, and joining.

PART 2 PRODUCTS

2.01 GENERAL

- A. All pipe joints and fittings shall have the same schedule, pressure ratings, thermal resistance, chemical resistance, and other pertinent properties as the pipe being joined or connected. Plastic fittings shall be manufactured of the same resin as used in the manufacture of the pipe being joined.
- B. Each pipe length shall be clearly marked with the manufacturer's name or trademark, applicable ASTM standards, size, pressure rating, and/or schedule.
- C. Provide line size reducing tees for connecting lateral or instrumentation to pipe systems. Seal threaded fittings with Teflon™ tape or Teflon™ paste. Engage threaded fittings in accordance with ASTM A53/A53M.
- D. All flange bolts, nuts, and washers shall be AISI Type 304 stainless steel, ASTM A193/A193M, Grade B8M hex head bolts and ASTM A194/A194M, Grade 8M hex head nuts unless noted otherwise. Bolts shall be fabricated in accordance with ASME B18.2.1 and shall be provided with washers. Treat all bolts with anti-galling compound before assembly.

2.02 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

- A. Pipe: ASTM D1785, manufactured from Class 12454-B rigid PVC compounds with a hydrostatic design stress of 13.8 MPa (2,000 psi) designated as PVC 1120. Provide Schedule 40 PVC piping and socket welded fittings and Schedule 80 PVC threaded fittings, unless noted otherwise on the Drawings or in the Specifications.
- B. Joints: Solvent-welded unless flanged or threaded joints are indicated on the Drawings or required for connection to equipment. Solvent cement shall be as specified in ASTM D2564.
- C. Fittings:
 - 1. Solvent-welded: ASTM D2466 or ASTM D2467, manufactured from Class 12454-B rigid PVC compound; solvent cement conforming to ASTM D2564. Solvent cement shall be as specified in ASTM D2564.

2. Threaded: ASTM D2464 manufactured from Class 12454-B rigid PVC compound; thread tape of Teflon. Only Schedule 80 PVC threaded pipe fittings shall be used.
- D. Flanges: PVC Schedule 80 ANSI Class 150 flanges manufactured from rigid PVC compounds conforming to ASTM D1784.
1. Gaskets: Flat-face elastomer as specified and compatible for pipe system service.
 2. Bolts: AISI Type 304 stainless steel conforming to ASTM A320/A320M, Grade B.
- E. Unions: ASTM D2467 manufactured from Class 12454-B rigid PVC compound with elastomer o-rings as specified and compatible for service. Schedule 40 or 80 to match adjacent piping.

2.03 GALVANIZED STEEL PIPE

- A. Pipe: Steel piping shall conform to the requirements of ASTM A53/A53M, Type S, Grade B, and ASME B36.10M, Schedule 40 as indicated on the Contract Drawings.
- B. Fittings: Forged steel conforming to ASTM A105/A105M and ASME B16.11, Class 2000.
- C. Joints: Threaded conforming to ASME B1.20.1.
- D. Galvanizing: Conform to ASTM A90/A90M.

2.04 STAINLESS STEEL PIPE

- A. Stainless Steel Pipe—Threaded Joints: Conforming to ASTM A312/A312M, Grade TP 304 and 316, and ASME B36.19M, Schedule 40S.
1. Fittings: Conforming to ASTM A182/A182M, Grade F 304 and 316, and ASME B16.11 Class 2000, or Class 3000 where indicated on the Drawings or in the Specifications.
 2. Threaded Joints: Conforming to ASME B1.20.1.

PART 3 EXECUTION

3.01 GENERAL INSTALLATION REQUIREMENTS

- A. The Contractor shall lay and maintain all pipes straight and true to line in conformance with the lines, grades, and elevations indicated on the Drawings.

Line and grade tolerances, where applicable, shall be in accordance with limits given for specific material.

- B. Trenching, bedding, and backfill shall be in accordance with Section 02305, Earthwork for Utilities, and shall be installed in accordance with Section 15055, Piping Systems—General.
- C. During laying operations, the Contractor shall not permit debris, tools, clothing, or similar items to be placed inside pipes. Pipe interior shall be free of mud and kept clean at all times. The Contractor shall secure the open ends of all piping at the end of construction each work day or any portion of a work day to prevent the intrusion of debris, precipitation, or soil from erosion. The proposed method of securing pipe open ends shall be approved by the Engineer. If the Contractor fails to secure piping or if the secured end is dislodged, the Engineer shall require the Contractor to flush all affected piping to remove accumulated debris and verify that the piping is free of debris using a method acceptable to the Engineer, at no additional cost to the Owner.
- D. Pipe ends shall be kept clear and clean and the Contractor shall ensure that inside surfaces are maintained smooth and free from any projections that may interfere with joint assembly or flow through the completed line.
- E. The Contractor shall be careful when lowering pipe into trenches or on subgrade to prevent damage or twisting of the pipe. After laying and before completing backfill or cover operations, pipe shall be protected from any vehicular traffic.
- F. Existing piping flanged joints that are disassembled by the Contractor shall be fitted with new gaskets, as specified, upon reassembly.

3.02 PRESSURE AND LEAKAGE TESTS

- A. Pressure Testing
 - 1. The Contractor shall pressure test and leak test all new PVC, stainless steel, and galvanized steel piping shown on the Drawings, the Flow Stream Identification Drawing, and Section 15055, Piping Systems—General, and Section 15144, Pressure Testing of Piping.

END OF SECTION

DIVISION 16
ELECTRICAL

SECTION 16401
LOW-VOLTAGE ELECTRICAL WORK—GENERAL REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, and incidentals necessary for a complete corrosion-resistant and operable electrical installation, including all fees, charges, and permits necessary. Work of this Section includes electrical installation requirements for equipment of other sections. This Section is general and may include specifications for materials and equipment not contained within the scope of this project.
- B. The Contractor shall provide temporary and permanent electrical services of proper voltage and phase as required for the Project. All single-phase temporary receptacle outlets shall be provided with ground fault protection in accordance with NEC Article 590.6 and installed in accordance with NEC 406.8.
- C. The Contractor shall coordinate the work of this Section with others involved in the construction of the project.
- D. The Contractor shall coordinate with the local power company to schedule and arrange for connection of the proposed electrical systems to the electrical distribution system.

1.02 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01330, Submittals and Acceptance:

- A. The Contractor shall submit a complete list of materials and equipment to be incorporated in the work to the Owner for review within 30 days after the Award of Contract.
- B. The list shall include catalog numbers, cut sheets, diagrams, and other descriptive data required to demonstrate conformance with the Specifications. Partial lists will not be acceptable.
- C. The basis of acceptance shall be the manufacturer's published ratings for the equipment. The manufacturer shall be regularly engaged in the manufacture of products specified.

D. Shop drawings shall be submitted for the following items of equipment (when used):

1. Wiring Devices.
2. Safety Switches.
3. Circuit Breakers.
4. Control Devices.
5. Concrete Posts/Poles.
6. Surge Protection Device.
7. Concrete Pull Boxes.

E. Contents of the shop drawings shall include the following:

1. Details of construction, outline and assembly drawings.
2. Dimensions.
3. Materials.
4. Finish.
5. Ratings.
6. Accessories.
7. Trim.
8. Engineering data.
9. Ladder-type schematic control diagrams and wiring diagrams.
10. Calculations for harmonic current and voltage distortion.
11. Test Equipment datasheets and proposed test procedures for testing the grounding system.

F. The Contractor shall submit the manufacturer's literature for the equipment listed in Paragraph 1.02D above to the Owner for review, including the following:

1. Written description of equipment function, normal operating characteristics and limiting conditions.
2. Recommended assembly, installation, alignment, adjustment, and calibration instructions.
3. Operating instructions.
4. Guide to troubleshooting.
5. Maintenance instructions and timetables.
6. Parts List and an assembly drawing with the parts identified.

G. Surge protection device submittals shall include the following:

1. UL 1449 peak let-through voltage documentation.
2. Category C3 peak let-through voltage test results.

1.03 REFERENCES

Reference standards and recommended practices referred to in this Section shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

A. American National Standards Institute (ANSI)

1. ANSI C2—National Electrical Safety Code (NESC).
2. ANSI C12.20—Electricity Meters 0.2 and 0.5 Accuracy Class.
3. ANSI C62.41—Guide on Surge Voltages in AC Power Circuits Rated up to 600V.
4. ANSI C62.45—Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1,000V and less) AC Power Circuits.
5. ANSI C80.1—Electrical Rigid Steel Conduit (ERSC).
6. ANSI C82.9—High-Intensity Discharge and Low-Pressure Sodium Lamps, Ballasts, and Transformers – Definitions.

B. American Society for Testing and Materials (ASTM)

1. ASTM A36—Standard Specification for Carbon Structural Steel.
2. ASTM A48—Standard Specification for Gray Iron Castings.
3. ASTM A153—Standard Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware.
4. ASTM B8—Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.

C. Anti-Friction Bearing Manufacturers Association (AFBMA)

1. AFBMA Std 20—Radial Bearings of Ball, Cylindrical Roller, and Spherical Roller Types, Metric Design.

D. Federal Specifications and Standards (FSS)

1. FSS A-A-50552—Fittings for Cable, Power, Electrical and Conduit, Metal, Flexible.
2. FSS A-A-50553A—Fittings for Conduit, Metal (Thick-Wall (Rigid) and Thin-Wall (EMT) Type).
3. FSS A-A-50563A—Conduit Outlet Boxes, Bodies and Entrance Caps, Electrical: Cast Metal.
4. FSS A-A-55809A—Insulation Tape, Electrical, 600V, Polyvinyl Chloride, Pressure-Sensitive Adhesive.
5. FSS A-A-55810—Conduit, Metal, Flexible.

6. FSS A-A-59213—Splice Connectors.
7. FSS A-A-59544—Cable and Wire, Electrical (Power, Fixed Installation).
8. FSS W-C-375C—Circuit Breakers, Molded Case: Branch Circuit and Service.
9. FSS W-C-375D—Circuit Breakers, Molded Case; Branch Circuit and Service.
10. FSS W-C-596G(2)—Connector, Electrical Power (General Specification).
11. FSS W-P-115C—Panel, Power Distribution.
12. FSS W-S-896F(1)—Switches, Toggle (Toggle and Lock), Flush-Mounted (General Specification).

E. National Electrical Manufacturers Association (NEMA)

1. NEMA ICS 1—Industrial Control and Systems: General Requirements.
2. NEMA ICS 6—Industrial Controls and Systems: Enclosures.
3. NEMA MG 1—Motors and Generators.
4. NEMA PB 1—Panelboards.
5. NEMA ST 20—Dry-Type Transformers for General Applications.
6. NEMA TC 2—Electric Polyvinyl Chloride (PVC) Conduit.
7. NEMA TC 3—Polyvinyl Chloride (PVC) Fittings for Use with Rigid PVC Conduit and Tubing.
8. NEMA WD 1—General Color Requirements for Wiring Devices.

F. National Fire Protection Association (NFPA)

1. NFPA 70—National Electrical Code (NEC).
2. NFPA 101—Life Safety Code.

G. Underwriters Laboratories, Inc. (UL)

1. UL 6—Electrical Rigid Metal Conduit – Steel.
2. UL 50—Enclosures for Electrical Equipment.
3. UL 67—Panelboards.
4. UL 83—Thermoplastic-Insulated Wires and Cables.
5. UL 360—Liquid-Tight Flexible Steel Conduit.
6. UL 467—Grounding and Bonding Equipment.
7. UL 489—Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit Breaker Enclosures.
8. UL 498—Attachment Plugs and Receptacles.
9. UL 508—Industrial Control Equipment.
10. UL 510—Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape.
11. UL 514A—Metallic Outlet Boxes.
12. UL 514B—Conduit, Tubing, and Cable Fittings.
13. UL 514C—Nonmetallic Outlet Boxes, Flush-Devices Boxes, and Covers.

14. UL 651—Schedule 40 and 80 Rigid PVC Conduit and Fittings.
15. UL 797—Electrical Metallic Tubing - Steel.
16. UL 1029—High-Intensity-Discharge Lamp Ballasts.
17. UL 1449—Surge Protective Devices.
18. UL 1660—Liquid-Tight Flexible Nonmetallic Conduit.

H. Institute of Electrical and Electronics Engineers (IEEE)

1. IEEE 112—Standard Test Procedure for Polyphase Induction Motors and Generators.
2. IEEE 117—Standard Test Procedure for Evaluation of Systems of Insulating Materials for Random-Wound AC Electric Machinery.
3. IEEE 519—Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.

I. Intertek

1. ETL-PVC-001—Independent third-party testing standard to signify compliance to coating adhesion performance.

1.04 QUALITY ASSURANCE

- A. PVC-coated metal conduit must comply with UL6 for safety and ETL PVC-001 for performance.

1.05 WARRANTIES

- A. Warranties shall be in accordance with Section 01780, Warranties and Bonds.
- B. All equipment and materials supplied shall be warranted against defective design, materials, and workmanship for a minimum of 1 year, or as specified in this Section, against normal use. The warranty period shall begin once the total project is accepted by the Owner and shall cover replacement of equipment and/or repair, including labor, travel time, and miscellaneous expenses at no cost to the Owner for the full warranty period.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storage and protection of the items specified in this Section.
- B. The Contractor shall deliver materials with manufacturer's tags and labels and UL labels intact. Packaged material shall be delivered in the manufacturer's original,

unopened containers bearing the manufacturer's name, brand, and UL label. Materials and equipment shall be stored in a dry, clean location. Handle and store so as to avoid damage. Items delivered in broken, damaged, rusted, or unlabeled condition shall be removed from the project site immediately and replaced with acceptable items. The Contractor shall provide suitable protection of materials and equipment from dust and moisture. The Contractor shall be responsible for the condition of materials and equipment until they are accepted by the Owner.

1.07 OPERATIONS AND MAINTENANCE (O&M) MANUALS

- A. O&M Manuals shall be in accordance with Section 01830, Operations and Maintenance Manuals.
- B. Before final acceptance of this project, an operation and maintenance manual shall be submitted to the Owner. The manual shall include manufacturer's literature as outlined in Paragraph 1.02.F above, drawings corrected in accordance with shop drawing review comments and including all modifications, and lists of suppliers and/or service shops that can provide parts and accessories and equipment repair for the items of equipment listed in Paragraph 1.02.D above. The lists shall include a contact name, telephone number, and address.
- C. A test report detailing the results of the grounding system test shall be provided with the O&M Manual.

1.08 CODES, INSPECTIONS, AND FEES

- A. The Contractor shall obtain all necessary permits and inspections required for the work of this Section and pay all charges incidental to this work. The Contractor shall deliver to the Owner all certificates of inspection issued by authorities having jurisdiction.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. All material and equipment shall be new and listed or labeled for use within the United States by a Nationally Recognized Testing Laboratory (NRTL). Equipment shall be provided with a specific listing, such as UL, when indicated in this Section or in other portions of the Contract Documents. Only products by manufacturers regularly engaged in the production of specified units will be acceptable.

- B. Where two or more units which perform the same function or are of the same class of equipment or materials are required, provide all units from a single manufacturer.
- C. Provide materials and equipment of suitable composition to perform satisfactorily when exposed to corrosive conditions of the project site.
 - 1. Provide breather and drain fittings in all raceways and enclosures where necessary to prevent condensation or trapping of moisture.
 - 2. Provide heaters in all control panels to prevent condensation.

2.02 CONDUIT

- A. Rigid Metal Conduit: Rigid metal conduit shall be zinc-coated steel and shall conform to UL 6. Fittings shall be cast or malleable iron, zinc-coated, and shall conform to FSS A-A-50563A and UL 514B.
 - 1. PVC-coated rigid steel conduit, elbows, and fittings shall be coated with a bonded polyvinylchloride which is permanently fused on at the factory.
 - a. Must meet UL6 safety standards and carry the ETL-PVC-001 verified label.
 - b. Aboveground conduit system PVC coating shall have a minimum thickness of 40 mils. Couplings and condulets shall have overlapping pressure sealing sleeves.
 - c. Below-ground conduit system PVC coating shall have a minimum thickness of 40 mils.
 - d. Below-ground conduit system PVC coating for extreme corrosive conditions shall have a minimum thickness of 40 mils and shall have external and internal bonded coatings.
- B. Rigid Nonmetallic Conduit: Rigid nonmetallic conduit shall be polyvinyl chloride compound and shall conform to NEMA TC-2 and UL 651. Conduit shall be sunlight resistant, rated for use with 90 °C conductors. Fittings shall be of the same polyvinyl chloride compound and from the same manufacture as the conduit and shall conform to NEMA TC-3 and UL 514B. Conduit and fittings shall be joined by a solvent cement. The type of cement and the procedure for application shall be as recommended by the conduit manufacturer. The conduit shall be Carlon Plus 80, or equal.
- C. Electrical Metallic Tubing: Electrical metallic tubing shall be zinc-coated steel and shall conform to UL 797. Fittings shall be compression type and shall conform to FSS A-A-50553A.

- D. Liquidtight Flexible Metal Conduit: Liquidtight flexible metal conduit shall be made with galvanized steel flexible conduit covered with an extruded PVC jacket. Fittings shall be compression type specifically designed for use with flexible conduit and shall form watertight connections. Box connectors shall have an “O” ring between the fitting body and the enclosure.

2.03 BOXES

- A. General: Boxes shall be sized as recommended by the NEC or as shown on the Drawings.
1. Boxes shall be nonmetallic or code-gauge galvanized steel, stainless steel, or cast metal, as specified or shown on the Drawings.
 2. Cast metal boxes shall be cast iron and shall be gasketed of the type indicated on the Drawings.
- B. Outlet Boxes: Outlet boxes shall be sheet steel, cast metal, or nonmetallic.
1. Sheet steel boxes shall be cadmium-coated or zinc-coated.
 2. Cast metal boxes shall conform to FSS A-A-50563A.
 3. Fixture outlet boxes and junction boxes shall be 4-inch, octagonal.
 4. Switch and receptacle outlet boxes shall be 2 inches wide by 4 inches high by 2 inches deep.
 5. Junction box extensions and covers shall conform to UL 514A.
 6. Boxes installed in wet locations or on exterior surfaces shall be cast metal with gasketed covers.

2.04 WIRING DEVICES

- A. Toggle Switches: Toggle switches shall be specification grade and shall conform to FSS W-S-896F(1) and shall be totally enclosed with bodies of molded compound and a mounting strap.
1. Handles shall be ivory.
 2. Wiring terminals shall be screw type, back- or side-wired.
 3. Switches shall be rated, quiet type, 20 amperes, 277 volts.
 4. Switches shall be suitable for control of tungsten filament lamp loads with “T” marking of UL.
 5. No more than one switch is allowed in a single gang position of a switch box.

- B. Receptacles: Receptacles shall be specification grade and shall conform to FSS W-C-596G(2), NEMA WD-1 and UL 498.
1. Single and duplex receptacles for general purpose use shall be heavy-duty specification grade, 20 amperes, 125 volts, three-wire grounding, NEMA configuration 5-20R.
 2. Special purpose single receptacles shall be heavy-duty specification grade, 20 amperes, 250 volts, three-wire grounding, NEMA configuration 6-20R, unless indicated otherwise on the Drawings.
 3. Ground fault circuit interrupter receptacles shall be duplex, 20 amperes, 125 volts, three-wire grounding, NEMA configuration 5-20R.
 - a. Receptacles shall have a nominal sensitivity to ground leakage current of 4 to 6 milliamps and shall interrupt the current supply for any value of ground leakage current exceeding the trip level of 4 to 6 milliamps on the load side of the receptacle with a maximum tripping time of 1/30th of a second.
 - b. Receptacles shall provide protection for any device connected to the circuit beyond the receptacle.
 - c. Receptacles shall have test and reset buttons accessible on the face of the receptacle.
 4. Receptacles shall be suitable for mounting in a standard outlet box and shall have a high-impact nylon face.
 5. Wiring terminals shall be screw type, back- or side-wired.
 6. Color of device face shall be ivory.
 7. Receptacles shall be Leviton, Hubbell, Pass & Seymour or approved equal.

2.05 DEVICE PLATES

Cover Plates: Cover plates shall conform to UL 514A.

- A. Furnish one-piece type to suit devices installed, with round or beveled edges.
- B. Weatherproof switch cover plates shall be spring-loaded gasketed type with individual cover for each switch. Receptacle covers shall be weatherproof with or without the attachment plug cap inserted.

- C. Waterproof receptacle cover plates shall have screw cap for each outlet. The plug shall have a matching screw attachment to maintain the rating when the plug is attached. The screw cap shall be permanently attached to the cover plate by a chain. A matching plug shall be provided for each cover plate.
- D. Zinc-coated steel or cast-metal plates shall be used on unfinished walls.
- E. Satin-finish stainless steel plates shall be used on finished walls.
- F. The Contractor shall provide metal screws with countersunk heads and finish to match the finish of the plate.

2.06 WIRE AND CABLE

- A. Conductors: All conductors shall be annealed soft drawn copper, conforming to ASTM B8, FSS A-A-59544, UL 83, and the latest requirements of the NEC. All conductors shall have THW or THWN type insulation, rated at 600 volts, unless specifically noted otherwise.
 - 1. Other types of insulation may be used as permitted by the NEC. The Contractor shall be responsible for change in conduit size and conductor size to maintain the ampacity of the circuit.
 - 2. Wire #8 AWG and larger shall be stranded concentric lay. Wire sizes #14, #12, and #10 AWG shall be stranded for control and motor power and solid for light and receptacle circuits.
 - 3. Conductors shall be as manufactured by Senator Wire & Cable Company, Larabee Wire Manufacturing Company, Inc., Southwire Company, or equal.
 - 4. Conductors installed between Adjustable Speed Drives (ASD) and motors shall be shielded ASD cables for conductor sizes AWG 4/0 and larger. ASD cables shall be rated for up to 1,000V and have cross-linked polyethylene (XLPE) Type XHHW-2 insulation on current-carrying conductors. ASD cables with current-carrying conductors of size No. 2 and smaller shall have an insulated grounding conductor. Larger cables may have insulated or bare grounding conductors. ASD cables shall have a braided or tape shield. The outer jacket shall be black sunlight and oil-resistant PVC. ASD cables shall be rated for 90°C in wet or dry locations and shall be suitable for direct burial. ASD cables shall be designed specifically for use in ASD applications. The Contractor shall install the ASD cables in accordance with the cable manufacturer's and the ASD manufacturer's recommendations. ASD cables shall be manufactured by Belden, or approved equal.

- B. Conductor splices shall only be permitted where indicated or with approval from the Engineer and shall conform to FSS A-A-59213. Acceptable: Scotchcast Splicing Kit, 3M Company. Plastic tape shall conform to FSS A-A-55809A.

2.07 SAFETY SWITCHES

- A. Safety switches shall be NEMA heavy-duty type and UL listed. Switches shall be rated as indicated on the Drawings.
 - 1. All switches shall have switch blades which are fully visible in the OFF position when the door is open. Switches shall have permanently attached arc suppressors, hinged or otherwise attached to permit easy access to line-side lugs without removal of the arc suppressor. Lugs shall be UL listed for copper and aluminum cables and front removable. All current-carrying parts shall be plated by electrolytic processes.
 - 2. Switches shall have a quick-make and quick-break operating handle and mechanism which shall be an integral part of the box, not the cover. Padlocking provisions shall be provided for padlocking in the OFF position only, with at least three padlocks. Switches shall have a dual-cover interlock to prevent unauthorized opening of the switch door in the ON position or closing of the switch mechanism with the door open.
- B. Enclosures: Switches installed indoors shall be furnished in NEMA 1 general-purpose enclosure with knockouts, unless otherwise specified. Switches located outdoors shall be furnished in NEMA 4X enclosures as indicated on the Drawings.
 - 1. Covers on NEMA 1 enclosures shall be attached with butt-type pin hinges.
 - 2. NEMA 4X switches shall be furnished in stainless steel enclosures without knockouts. The means of sealing the cover shall be positive, with 30- through 200-ampere switches having quick-release latches with pin-type hinges and gaskets. Enclosures shall be of Code-gauge stainless steel.
- C. The switch jaws shall be multi-spring type for positive grip of the switch blades. The fuse clips shall be spring-reinforced, positive-pressure type, or electrolytic copper.
- D. Switches shall be as manufactured by Square D, General Electric, Cutler-Hammer, or Siemens. All switches shall be by the same manufacturer.

2.08 CIRCUIT BREAKERS

- A. The Contractor shall provide molded-case thermal magnetic circuit breakers of the type, size, and electrical characteristics specified or indicated on the

Drawings. Circuit breakers used as service entrance disconnects shall be suitable and rated as service entrance equipment.

- B. Circuit breakers shall be of single-unit construction, and multi-pole circuit breakers shall have trip elements in each pole with common trip bar. Frame size 225 amperes or larger shall have adjustable magnetic instantaneous trip and shall have interchangeable thermal magnetic trip units.
- C. Shunt trip shall be installed in circuit breakers where required by the Drawings or Specifications.
- D. Circuit breaker interrupting ratings shall be equal to the available short circuit current at the point of installation with the minimum ratings as follows:

<u>Frame Size</u>	<u>240 V</u>	<u>480 V</u>
100 A	18,000	14,000
225 A	25,000	22,000
400 A	42,000	35,000
800 A	42,000	35,000
1,200 A	42,000	35,000

- E. Provide NEMA Type 1 enclosures for general duty indoor use. Enclosures shall be NEMA 4X stainless steel for exterior locations unless indicated otherwise.
- F. Circuit breakers shall be as manufactured by General Electric, Siemens, Square D, or Cutler-Hammer.

2.09 SURGE PROTECTION DEVICE

- A. Primary surge protection devices (SPDs) shall be installed at the main service on the load side of the main breaker or automatic transfer switch as indicated on the Drawings.
 - 1. Primary service SPDs shall be listed in accordance with UL 1449-3RD Edition and shall be tested to Category C3 (20 kV, 10 kA, 8/20 μ sec. Waveform) in accordance with ANSI/IEEE C62.41 and C62.45. Suppressors shall meet or exceed the following criteria:
 - a. Single impulse current rating of 160,000 amperes per phase (8/20 μ sec. waveform).
 - b. Pulse life rating of 1,000 occurrences with no clamping drift for Category C (8/20 μ sec. waveform).

- c. UL 1449 peak let-through voltage shall not exceed the following:

<u>Voltage</u>	<u>L-N</u>	<u>N-G</u>
120/208 or 120/240	500	500
277/480	800	800

- d. The test for Category C3 peak let-through voltage ANSI/IEEE C.62.41 (20 kV-1.2/50 μ s) shall be conducted by an independent testing laboratory. Documentation of the test shall be submitted with the shop drawings.
- e. Peak let-through voltage measured in UL and ANSI/IEEE testing shall include the effect of 6-inch leads connected to the complete unit.
- f. Turn-on and turn-off times shall be less than 1.0 nanosecond.

B. Secondary SPDs shall be installed on the secondary side of step-down transformers or at the associated panelboards, at control panels, and at motor disconnects or junction boxes as indicated on the Drawings. Suppressors at panelboards shall be connected to a 30-amp multi-pole breaker. All other suppressors shall be fused.

1. Secondary SPDs shall be listed in accordance with UL 1449-3RD Edition. Suppressors shall meet or exceed the following criteria:

- a. Single impulse current rating of 80,000 amperes per phase (8/20 μ sec. waveform).
- b. Pulse life rating of 1,000 occurrences with no clamping drift for Category C (8/20 μ sec. waveform).
- c. UL 1449 peak let-through voltage shall not exceed the following:

<u>Voltage</u>	<u>L-N</u>	<u>N-G</u>
120/208 or 120/240	500	500
277/480	800	800

- d. The test for Category C3 peak let-through voltage ANSI/IEEE C.62.41 (20 kV-1.2/50 μ s) shall be conducted by an independent testing laboratory. Documentation of the test shall be submitted with the shop drawings.

- e. Peak let-through voltage measured in UL and ANSI/IEEE testing shall include the effect of 6-inch leads connected to the complete unit.
 - f. Turn-on and turn-off times shall be less than 1.0 nanosecond.
- C. Minimum requirements for surge suppressors:
 - 1. Provide suppression elements between each phase or leg and the system neutral and between the neutral conductor and ground.
 - 2. Each module of modular type suppressors shall be externally fused. The status of each module shall be monitored on the front of the enclosure and on each module.
 - 3. The suppressor failure mode shall be of a “fail-short” design.
 - 4. Visible indication of proper connection and operation shall be provided.
 - 5. Modular-type suppressors shall have an internal disconnect and current limiting fuses. Encapsulated suppressors shall have external fuse or circuit breaker protection.
 - 6. Terminals shall be provided for all necessary power and ground connections and shall accommodate #10 to #1 AWG wire sizes.
 - 7. Suppressors shall be of solid-state componentry and shall operate bidirectionally.
 - 8. Suppressors shall have a warranty guarantee period of at least 5 years.
- D. All SPDs shall be of the same manufacture and shall be installed in accordance with the manufacturer’s installation instructions. The mounting position shall be selected to provide the shortest lead possible between the suppressor and the point of connection.
- E. SPDs shall be as manufactured by Advanced Protection Technologies, Inc., PQ Protection, LEA, or approved equal.

2.10 GROUNDING

- A. Ground rods shall be copper-clad steel, 3/4-inch-x-10-foot sectional type, with couplings and driving studs for installation.
- B. The conductor shall be bare, stranded copper, complying with ASTM B8, for main power ground and instrument ground, unless otherwise indicated. Grounding conductors run in conduit shall have green insulation.
- C. Connection to the ground rod shall be made with exothermic welding kits by Cadweld or approved equal. “Acorn” type clamps are not acceptable. Ground

connections to equipment frames, building steel, etc., shall be made with equipment grounding lugs or clamps intended for grounding purposes.

2.11 PLASTIC CAUTION TAPE

- A. The Contractor shall provide a continuous non-metallic caution tape, 12 inches below finished grade, above each duct or conduit run. The tape shall be 6 inches wide, imprinted to indicate underground electric utilities, as manufactured by Griffolyn, Terra-Tape, or equal.

2.12 PRECAST PRODUCTS

- A. Concrete Pull Box: The pull box shall be constructed of reinforced concrete or polymer concrete and shall be Brooks Products, Inc., Quazite, or equal. Covers shall be provided with lifting slot, bolts, and “ELECTRIC” logo.

PART 3 EXECUTION

3.01 LAYOUT OF CONDUIT AND WIRING SYSTEMS

- A. The Contractor shall lay out the work and shall be responsible for all necessary lines, levels, elevations, and measurements. The Drawings indicate the extent and general arrangement of the components. The Contractor shall become familiar with the work of other trades engaged in the construction. The exact routing of raceways and locations of equipment may be governed by structural conditions and obstructions. The Contractor shall coordinate with the details of equipment shop drawings for power and control connections to equipment furnished by others. This is not to be construed as permitting redesigning systems.
- B. Submit all requests for changes in the proposed layout due to structural features, equipment locations, and similar conditions to the Owner, with the following provisions:
 - 1. Detail the reasons for the changes.
 - 2. Submit requests within 30 days after award of Contract.
 - 3. Make no changes without written approval of the Owner.
- C. Examine areas scheduled to receive electrical equipment and material for conditions which will adversely affect the execution, permanence, or quality of the work. Determine field conditions by actual measurement. Do not proceed with installation until defects have been corrected.

3.02 INSTALLATION

- A. General: Comply with NEC, NESC, local codes, and rules and regulations of local agencies having jurisdiction. Coordinate electrical installation of systems and packaged equipment items specified in other sections of these Specifications.
 - 1. Conductors, circuit breakers, motor controllers, and protective devices indicated or specified shall be sized to serve the electrical equipment furnished and shall meet all requirements of the NEC. Voltage drop shall be limited to 3%, including main service, feeder, and branch circuit.
 - 2. Coordinate protective, control, and signaling devices.
- B. Grounding and Bonding: The Contractor shall establish a grounding and bonding system that electrically connects metal structural materials, equipment enclosures, conduits, outlet boxes, cabinets, motor frames, fixtures, devices, transformer cases, switchgear enclosures, incoming service neutral conductor, and the earth. The common point of attachment for the grounding and bonding system shall be at the main service disconnect unless otherwise indicate in this Section or in the Drawings. The grounding and bonding system shall be properly bonded and sized in accordance with NEC. Solidly bond all non-current-conducting metal parts to the electrical installation grounding bus. A green insulated grounding conductor shall be carried with each circuit.
 - 1. Provide common grounds throughout the system.
 - 2. Provide a ground grid consisting of driven copper-clad steel ground rods connected by bare copper conductor at the service entrance and/or as shown on the Drawings. Resistance to remote earth shall be 10 ohms or less before connection to the system.
- C. Identification: Equipment such as but not limited to disconnect switches, motor starters, control panels, etc., shall be clearly marked.
 - 1. Identify all devices operating at more than 250 VAC phase-to-phase or 125 VAC phase-to-ground with red enamel letters or numerals of appropriate height applied with a stencil.
 - 2. Except as otherwise noted, all equipment shall be marked with engraved nameplates of laminated two-color phenolic plastic having white letters. Attach each nameplate with stainless steel screws. Align nameplates on equipment being marked in the center near the top.
 - 3. Mark equipment mounted remotely from the source of power (such as pumps and fans) with equipment number, source of power, and starter

location. Where starters are remotely mounted, marking shall include equipment name, number, and location.

4. Conductors shall be identified at each termination, pull box, junction box, handhole, point of entry to or exit from wireways, panelboards, control panels, and other points of access. Tags or labels shall be securely affixed to the conductor in visible locations. Tags shall be durable plastic with the designation stamped on one side with suitable dies. Labels shall be permanent with legible black characters on white heat-shrink tubing or equivalent identification acceptable to the Owner.
 - a. Power conductors shall be color-coded to identify phases, neutral and switch legs, using plastic, self-sealing tape. Tags or labels shall identify the panel, etc., it is served from and the circuit number.
 - b. The control conductor (including monitor and instrumentation conductors) shall be identified by color coding and tag or label as to wire number (corresponding to the manufacturer's wiring diagram) and equipment name.
 - c. Power wiring and control wiring shall be identified in all handholes with a waterproof permanent tag attached to the cable with plastic cable ties.

D. Equipment Connections: Provide complete system with all power and control connections required for proper operation.

E. Conduit

1. PVC-coated rigid galvanized steel (RGS) conduit shall be used as follows:
 - a. Exposed.
 - b. Concealed in poured concrete.
 - c. Below grade to the first turn from vertical.
2. Electrical metallic tubing (EMT) shall be used as follows:
 - a. Exposed in buildings.
 - b. Concealed above ceilings, suspended ceilings, and within walls.
 - c. Exposed in buildings with non-corrosive atmospheres where acceptable to the Engineer and the Owner.
3. Rigid non-metallic (PVC) conduit shall be used as follows:
 - a. Concealed in floors, Schedule 40.
 - b. Below-grade direct burial, Schedule 80.

4. Burial depth of conduit shall be measured from the top of the conduit to the top surface of finished grade, pavement, concrete, or similar cover as follows:
 - a. 36 inches (minimum) below unpaved areas.
 - b. 36 inches (minimum) below stabilized subbase in paved areas.
5. For concrete slabs on grade and foundations, conduit burial depth shall be measured from the bottom of the concrete slab or foundation as follows:
 - a. 12 inches (minimum) below concrete slabs on grade or foundations.
6. It shall be the responsibility of the Electrical Contractor to coordinate the location and depths of all electrical conduits to be installed under this Contract with other trades. Particular attention shall be given to all locations where conduits enter a structure or building from underground. Proper clearances from the top of the conduits to the bottom of slabs and foundations shall be maintained.
7. Where conduits rise through slabs on grade, curved portion of bends shall not be visible above the finished slab.
8. Conduit stub-up to above grade and conduit stub-up out of or from below floor slab shall be rigid galvanized steel from and including the last 90° bend.
9. Stub-ups through concrete slabs for connection of future equipment or conduit runs shall be provided with couplings threaded inside for plugs and shall be set flush with the finished floor or slab. Install screwdriver-operated threaded flush plugs in couplings. Provide pull wire in all empty conduit runs.
10. Avoid bends and offsets, where possible. Make bends and offsets with an approved hickey or conduit bending machine. Install plastic (PVC) coated conduit and fittings in accordance with the manufacturer's installation manual using tools designed for installing plastic (PVC) coated conduit and fittings. Touch up any and all damaged areas with manufacturer-recommended coating compound. Do not install crushed or deformed conduit. Use expansion fittings or other approved devices where conduit or tubing crosses expansion joints. Prevent dirt or trash from lodging in conduits, boxes, and fittings. Free clogged conduit of all obstructions or replace conduit.

11. Installers of PVC-coated metal conduit must be certified by the manufacturer and be able to present a valid, unexpired, certified installer card prior to starting installation.
12. Supports:
 - a. Pipe straps, wall brackets, hangers, or ceiling trapeze.
 - b. Use wood screws or screw-type nails for fastening to wood. Use toggle bolts for fastening to hollow masonry units. Use concrete inserts or expansion anchors for fastening to concrete. Use machine screws, welded threaded studs, or spring-tension clamps for fastening to steel work.
 - c. Power-driven threaded studs may be used in lieu of expansion bolts or machine or wood screws where acceptable to the Owner.
 - d. Use threaded C-clamps on rigid steel conduit only.
 - e. Do not weld conduit or pipe straps to steel structures.
 - f. Non-metallic conduit through 1-inch size shall use one-hole snap-strap clamps and 1-1/4-inch through 2-inch shall use two-hole snap-strap clamps, with maximum spacing between supports as outlined in the NEC based on 50°C conductor temperature. Clamps shall be manufactured from a nylon compound.
13. Expansion couplings shall be used in all straight lengths of non-metallic conduit in exposed applications. Maximum spacing between expansion couplings shall be 100 feet.
14. Connections: All conduits, where they enter sheet metal enclosures such as panelboards, pull boxes or outlet boxes, shall be secured in place by galvanized locknuts and bushings, one locknut inside of box with bushing on conduit end and one locknut outside of box for rigid conduit. The locknuts shall be tightened against the box without deforming the box.
 - a. Conduit connections shall use fittings to maintain NEMA rating of enclosures.
 - b. All bushings and conduit box connectors shall have the insulating material permanently fastened to the fittings.
 - c. Grounding bushings shall be used in switchgear and motor control centers.
 - d. Conduit connections exposed in wet locations shall be by watertight threaded hub. Metallic conduit box connections may use a two-piece hub with built-in recessed neoprene gasket such as Appleton Uni-Seal. Non-metallic conduit box connectors may use

a neoprene flat washer or “O” ring placed over threads of the fitting between the shoulder of the fitting and the box.

F. Boxes

1. The Contractor shall provide outlet, pull, junction, or terminal boxes in wiring or conduit systems wherever required for pulling wires, making connections, and mounting devices or fixtures.
 - a. Indicated locations are approximate only. Coordinate actual location with all work to be performed in the space or area and for the equipment to be served.
 - b. Locate outlets so that fixtures and other items will be symmetrically located according to the space or area layout.
 - c. Outdoor switch and receptacle outlets shall use non-metallic boxes and covers.
2. Outlet boxes in exposed work or wet locations shall be cast metal. Sheet metal boxes shall be concealed in walls or ceiling. Non-metallic boxes shall be used with non-metallic conduit.
3. Supports:
 - a. In open overhead spaces, cast boxes threaded to rigid metallic conduit need not be separately supported unless used for fixture support.
 - b. Use wood screws or screw-type nails for fastening to wood. Use toggle bolts for fastening to hollow masonry units. Use concrete inserts or expansion anchors for fastening to concrete. Use machine screws or welded, threaded studs for fastening to steel work.
 - c. Power-driven threaded studs may be used in lieu of expansion bolts or machine or wood screws where acceptable to the Engineer and the Owner.

G. Wiring Devices: Receptacles installed outdoors shall be the ground-fault circuit-interrupter type.

H. Wiring

1. The Contractor shall provide a complete system of conductors as indicated.

2. Size shall be as required by the NEC and shall be #12 AWG minimum for power and lighting circuits and #14 AWG minimum for control and alarm circuits.
 3. Crimp-on insulated wire terminals shall be used on stranded wire for terminations.
 4. Splices shall be in accessible locations only and shall be insulated-pressure type for #10 AWG and smaller wires. For #8 AWG and larger, use solderless connectors covered with an insulation material equivalent to the conductor insulation.
- I. Appearance: All items shall be cleaned or touched up as necessary to ensure first-class condition.

3.03 FIELD TESTS AND OBSERVATION

- A. General: Do not enclose or cover any work until it has been observed, tested, and accepted.
1. Provide all personnel, equipment, and instruments required for observation and testing.
 2. Demonstrate that all circuits and devices are in operating condition. Tests shall include the following:
 - a. Megger all motor windings before operation for insulation resistance and, if found low, dry out windings to secure acceptable insulation resistance.
 - b. Check control center components, buses, starters, breakers, relays, alarms, interlocks, etc., and place in service in accordance with the manufacturer's instructions. Inspect and adjust electrical equipment before energization.
 - c. Megger all power cables and wiring for insulation resistance and record.
 - d. Check all motors for correct lubrication and lubricate, if required, in accordance with the manufacturer's instructions.
 - e. Check direction of rotation of all motors and reverse, if necessary.
 3. Assemble in binders and turn over to the Owner all instruction bulletins, lubrication schedules, operating instructions, pamphlets, parts lists, prints, etc. accompanying or attached to apparatus and equipment.
 4. Notify the Engineer and the Owner 1 week before the test date.

- B. Ground Rod Test: Before any wire is connected to ground rods, test each rod for resistance to ground.
1. The testing instrument shall be a direct reading, single test, portable ground testing megger.
 2. The test procedure shall be as recommended by the manufacturer of the test instrument used.
 3. The make and model of the test instrument and a copy of the test procedure shall be submitted to the Owner before the test is conducted.
 4. Do not conduct tests within 48 hours after rainfall or during foggy weather.
 5. If ground resistance exceeds 10 ohms, additional grounds shall be driven.
 6. The grounding test shall be witnessed by the Engineer or other representative of the Owner. A copy of the test results and method shall be included in the maintenance manual. Deliver one copy of the test results to the Engineer and the Owner within 1 week after the test.

3.04 ADJUST AND CLEAN

- A. The Contractor shall remove excess and waste materials from the project site.
- B. Remove defective work and replace with material that meets Specification requirements or repair to the satisfaction of the Owner.
- C. Touch up scratches, abrasions, voids and other defects in factory- or shop-finished surfaces.

END OF SECTION

APPENDIX A

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT



FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD, SUITE 232
ORLANDO FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

August 2, 2023

ELECTRONIC CORRESPONDENCE

In the matter of an Application for Permit by:

Al Purvis, Chief Operator
City of Leesburg
223 South 5th Street
Leesburg, FL 34748
Al.Purvis@leesburgflorida.gov

DEP File No. 0080592-022-WC
County: Lake

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number 0080592-022-WC to construct a new ground storage tank at City of Leesburg, Highland Lakes WTP, issued pursuant to Section 403.861(9), Florida Statutes.

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until a subsequent order of the Department. Because the administrative hearing process is designed to formulate final agency action, the subsequent order may modify or take a different position than this action.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;

- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver may not apply to persons who have not received a clear point of entry.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

EXECUTION AND CLERKING

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Reggie Phillips
Program Administrator
Permitting and Waste Cleanup Program

Enclosures: Permit No. 0080592-022-WC

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Kenneth A. Fraser, P.E., Jones Edmunds and Associates, Inc. [kfraser@jonesedmunds.com]
Jafet Torres, P.E., Jones Edmunds and Associates, Inc. [jtorresrivera@jonesedmunds.com]
Michael L. Clark, P.E., Jones Edmunds and Associates, Inc. [mclark@jonesedmunds.com]
Reggie Phillips, Jill Farris, Allison Chancy, Viviana Useche, Jenny Farrell, Drake Brown-FDEP

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

August 2, 2023

Date



FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD, SUITE 232
ORLANDO FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

August 2, 2023

ELECTRONIC CORRESPONDENCE

PERMITTEE:

City of Leesburg
223 South 5th Street
Leesburg, FL 34748

PWS ID NUMBER: 3354869

PERMIT NUMBER: 0080592-022-WC

DATE OF ISSUE: August 2, 2023

EXPIRATION DATE: August 1, 2028

COUNTY: Lake

PROJECT: Highland Lakes WTP 1.0 MG
Ground Storage Tank

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-550, 62-555 and 62-560. The above-named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

TO CONSTRUCT: A new 1.0 million Gallon ground storage tank (GST) **The rated maximum day design capacity of the WTP will remain the same at 3,380,000 gallons per day (GPD).**

PROPOSED CONSTRUCTION INCLUDES THE FOLLOWING COMPONENTS:

1. One new 1,000,000-gallon (Gal) domed top, circular ANSI/AWWA D110 Wire wound prestressed concrete potable water ground storage tank (GST), with Type II core wall and galvanized steel diaphragm. The Tank will have an inside diameter of 70'-0" and 39'-7" side wall height. **Existing 750,000-gallon GST to remain and be used in conjunction with new GST.**
 - a. One (1) stainless steel access manhole.
 - b. Fiberglass dome access hatch
 - c. Fiberglass liquid level indicator
 - d. 50-inch Fiberglass Dome ventilator
 - e. Fiberglass interior ladder and safety cage.
 - f. Stainless steel exterior ladder with cage and aluminum handrail around access hatch
 - g. 6-foot-deep sump
 - h. Four (4) 24/24 mesh screened precast overflow ports with polyester screen mesh.
 - i. 20-inch DIP tank inlet.
 - j. 24-inch DIP tank outlet.
 - k. 8-inch DIP tank drain
 - l. 20-inch DIP Overflow

2. As per the information provided by the engineer, the ground storage tank location coordinates are Latitude 28°44'10" N., Longitude 81°52'02" W.

Disinfection of the completed tank shall follow the criteria found in ANSI/AWWA C-652. **The disinfection procedure in AWWA C652, which allows use of the chlorinated water held in the storage tank for disinfection purposes is not allowed by the DEP. If that procedure is used, it is required that the initial heavily chlorinated water be properly disposed of in order to prevent release of water which may contain various chlorinated organic compounds into the distribution system. The engineer shall certify that no water resulting from the disinfection process is discharged into the distribution system for use by customers.**

IN ACCORDANCE WITH: This permit is issued based upon the dates and submissions during the application process as follows: Construction plans, specifications and details received on July 13, 2023.

LOCATION: Highland Lakes Water Treatment Plant, 26800 Cash Court, Leesburg, FL 34748

Work must be conducted in accordance with the General and Specific Conditions, attached hereto.

The permittee shall be aware of and operate under the Permit Conditions below. These applicable conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes. [F.A.C. Rule 62-555.533(1)]

A. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times (reasonable time may depend on the nature of the concern being investigated), access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department

as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (BACT)
 - b. Determination of Prevention of Significant Deterioration (PSD)
 - c. Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
 - d. Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - i. the date, exact place, and time of sampling or measurements;
 - ii. the person responsible for performing the sampling or measurements;
 - iii. the dates analyses were performed;
 - iv. the person responsible for performing the analyses;
 - v. the analytical techniques or methods used;
 - vi. the results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the

permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS

B. Construction Activities

1. Permit Modification

All construction must be in accordance with this permit. Before commencing work on project changes for which a construction permit modification is required pursuant to Rule 62-555.536(1), F.A.C., the permittee shall submit to the Department a written request for a permit modification. Each such request shall be accompanied by one copy of a revised construction permit application, the proper processing fee and one copy of either a revised preliminary design report or revised drawings, specifications and design data. [F.A.C. Rule 62-555.536].

2. Professional Engineer Supervision

Permitted construction or alteration of public water supply systems must be supervised during construction by a professional engineer registered in the State of Florida if the project was designed under the responsible charge of a professional engineer licensed in the State of Florida. The permittee must retain the service of a professional engineer registered in the State of Florida to observe that construction of the project is in accordance with the engineering plans and specifications as submitted in support of the application for this permit. [F.A.C. Rule 62-555.520(3)].

3. Artifacts

If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoe remains, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at 850.245.6333 or 800.847.7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources and the permitting agency. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately, and the proper authorities notified in accordance with Section 872.05, F.S.

4. Delays and Extension of Permit

If delays will cause project completion to extend beyond the expiration date of this permit, the permittee shall submit to the Department a request to extend the expiration date of this permit including the appropriate processing fee. This request shall specify the reasons for the delay and shall be submitted to the Department for approval prior to the expiration

date of this permit. Note that no specific construction permit shall be extended so as to remain in effect longer than five years. [F.A.C. Rule 62-555.536(4)].

5. Permit Transfer

In accordance with General Condition #11 of this permit, this permit is transferable only upon Department approval. Persons proposing to transfer this permit must apply jointly for a transfer of the permit within 30 days after the sale or legal transfer of ownership of the permitted project that has not been cleared for service by the Department using form, 62-555.900(8), Application for Transfer of a PWS Construction Permit along with the appropriate fee. [F.A.C. Rule 62-555.536(5)]

6. Obligation to Obtain Other Permits

This permit satisfies Drinking Water permitting requirements only and does not authorize construction or operation of this facility prior to obtaining all other necessary permits from other program areas within the Department, or required permits from other state, federal, or local agencies.

7. Limits on Authorizing Connections

This permit is for **CONSTRUCTION ONLY** of the components listed in the first page of this permit. This permit shall not infer that the clearance necessary for connection will be granted. Partial clearance may be granted, if required.

8. Gasoline Contamination

If gasoline contamination is found at the construction site, work shall be stopped and the proper authorities notified. With the approval of the Department, ductile iron pipe and fittings, and solvent resistant gaskets materials shall be used in the contaminated area. The ductile iron pipe shall extend 100 feet beyond any solvent noted. Any contaminated soil that is excavated shall be placed on an impermeable mat, covered with waterproof covering, and held for disposal. If the site cannot be properly cleaned, then consultation with the Department is necessary prior to continuing with the project construction.

9. Wetlands Jurisdiction

This permit does not constitute approval of construction on jurisdictional wetland areas; therefore such approval must be obtained separately from the Water Management District or from DEP ERP Section, as applicable, Permittee shall provide a copy of the permit approval to the Department if water main installation involves activities on wetlands.

C. Construction Standards

1. National Sanitation Foundation (NSF)

All products, including paints, which shall come into contact with potable water, either directly or indirectly, shall conform with National Sanitation Foundation (NSF) International, Water Chemicals Codex, Food Chemicals Codex, American Water Works Association (AWWA) Standards and the Food and Drug Administration, as provided in Rule 62-555.320(3), F.A.C.

2. American Water Works Association (AWWA)

Water supply facilities, including mains, pipe, fittings, valves, fire hydrants and other materials shall be installed in accordance with the latest applicable AWWA Standards and Department rules and regulations. The system shall be pressure and leak tested in accordance with AWWA Standard C600 C603, or C605, as applicable, and disinfected in accordance with AWWA Standard C651-653, as well as in accordance with Rule 62-555.340, F.A.C.

3. Lead Free

The installation or repairs of any public water system, or any plumbing in residential or nonresidential facilities providing water for human consumption, which is connected to a public water system shall be lead free in accordance with Rule 62-555.322, F.A.C.

4. Asbestos

If any existing asbestos cement (AC) pipes are replaced under this permit, the permittee shall do so in accordance with the applicable rules of Federal Asbestos Regulation and Florida DEP requirements. For specific requirements applicable to AC pipes, the permittee should contact the Central District Office prior to commencing any such activities at (407) 897-4100. Please be aware that a notification is required to be submitted to the Department at least 10 days prior to the start of a regulated project.

5. Hazard and Reuse Setbacks

Setback distances between potable water wells and sanitary hazards shall be in accordance with Rule 62-555.312, F.A.C. Reclaimed water land application areas, if applicable, must not be located within the setback distance from potable water supply wells established in Chapter 62-610, F.A.C.

6. Line Separation

Permittee shall maintain vertical clearance and horizontal separation between water mains and sanitary sewers, storm sewers, etc. unless approved otherwise by the Department, as provided in Rule 62-555.314, F.A.C., and Section 8.6 of *Recommended Standards for Water Works*, a manual adopted by reference in Rule 62-555.330(3), F.A.C.

7. Color Coding of Pipes

The new or altered aboveground piping at the drinking water treatment plant shall be color coded and labeled as recommended in Section 2.14 of "Recommended Standards for Water Works, 1997 Edition". [F.A.C. Rule 62-555.320(10)]

8. Cross Connections

Permittee shall ensure that there shall be no cross-connection with any non-potable water source in accordance with Rule 62-555.360, F.A.C.

D. Operational Requirements

1. Operation and Maintenance to comply with Water Quality Standards

The supplier of water shall operate and maintain the public water system so as to comply with applicable standards in Rules 62-550 and 62-555.350, F.A.C.

2. Record Drawings

The permittee shall have complete record drawings produced for the project in accordance with Rule 62-555.530(4), F.A.C.

3. State Watch Office

The permittee or suppliers of water shall telephone the State Watch Office (SWO), at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system in accordance with the Rule 62-555.350(10), F.A.C.

E. Monitoring Provisions

1. Chlorine Residual

The water treatment plant shall maintain throughout the distribution system, a minimum continuous and effective free chlorine residual of 0.2 mg/L (or its equivalent) or a minimum combined chlorine residual of 0.6 mg/L (or its equivalent), whichever is appropriate for the water treatment plant providing water to the project. A minimum system pressure of 20 psi must be maintained throughout the system. Also, safety equipment shall be provided and located outside of chlorine room.

F. Clearance Requirements

1. Clearance Letter

The permittee must instruct the engineer of record to request system clearance from the Department within sixty (60) days of completion of construction, testing and disinfecting the system. Bacteriological test results shall be considered unacceptable if the test were completed more than 60 days before the Department received the results. [F.A.C. Rule 62-555.340(2)(c)]

Permitted construction or alteration of a public water system may not be placed into service until a letter of clearance has been issued by this Department. [F.A.C. Rule 62-555.345]

2. Requirements to Obtain Clearance

Prior to placing this project into service, Permittee shall submit, at a minimum, all of the following to the Department for evaluation and approval for operation, as provided in Rules 62-555.340 and 62-555.345, F.A.C.:

- a. the engineer's *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components Into Operation* {DEP Form 62-555.900(9)};

- b. certified record drawings if there are any changes noted for the permitted project.
- c. analytical results from two consecutive days of satisfactory bacteriological samples from locations found in paragraph 3 below.
- d. copy of a satisfactory pressure test of the process piping performed in accordance with AWWA Standards. [F.A.C. Rule 62-555.320(21)(a)(1)]
- e. Submit photographs of above ground modifications.
- f. Submit a scanned copy of the O and M Manual pertaining to the newly installed component.[F.A.C. 62-555.350 (13)]

3. Cleaning, Disinfecting, and Bacteriological Samples

The new facilities shall be cleaned, disinfected, and bacteriologically cleared in accordance with Chapter 62-555, F.A.C. The bacteriological clearance data representative of the well discharge piping and distribution system (in accordance with the instructions for Bacteriological Sampling Locations shown below) shall be submitted to the Department with the engineer's certification of construction completion.
[Rules 62-555.340 and 62-555.315(6)(b), F.A.C.]

Bacteriological Sampling Locations: Copies of results from satisfactory bacteriological samples shall be submitted with the clearance package. Samples shall be taken from locations within the distribution system or water main extension to be cleared, in accordance with Rules 62-555.315 (6), 62-555.330, and 62-555.340, F.A.C. and American Water Works Association (AWWA) Standard C 651-92, at the following locations:

- **20-inch DIP influent water main at point of connection to existing valve WM**
- **24-inch DIP effluent water main at point of connection to existing valve WM**

Each location shall be sampled on two separate days (at least 6 hours apart) with sample point locations and chlorine residual readings **clearly indicated** on the report and/or drawings. **A sketch or description of all bacteriological sampling locations must be provided.**

Bacteriological sample results will be considered unacceptable if the tests were completed more than 60 days before the Department receives the results.

In order to facilitate the issuance of a letter of clearance, the Department requests that all of the above information be submitted as one package.

You may submit the entire clearance document package in electronic format to DEP_CD@dep.state.fl.us. If the file is very large, you may post it to the Water Electronic Submittal folder on the Central District's ftp site at:
ftp://ftp.dep.state.fl.us/pub/incoming/Central_District/Water%20Electronic%20Applications.

After posting the document, send an e-mail to DEP_CD@dep.state.fl.us, alerting us that it has been posted.

Any submitted drawings (should be sized 11" x 17") and the engineer of record's signed seal and dates on the required document must be legible for acceptance.

Forms: <http://www.dep.state.fl.us/water/drinkingwater/forms.htm>

Please be aware that requests to place Potable Water System components into operation may be made through the DEP Business Portal. Use of the Business Portal often results in shorter processing time. Permittees with frequent requests may find this function beneficial. Electronic Requests for PWS Component certification may be made at <https://www.fldeportal.com/DepPortal/go/submit-registration>.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

A handwritten signature in black ink, appearing to read 'Reggie Phillips', is written over a faint, circular official stamp.

Reggie Phillips
Program Administrator
Permitting and Waste Cleanup Program

APPENDIX B

ALLOWANCE DOCUMENTATION



TLS AUTOMATION

3398 SE 20th Lane
Sumterville, FL 33585

SCOPE OF SUPPLY

Date: June 27, 2023

Project: Highland Lakes Water Treatment Plant

Attention: Al Purvis

In accordance with the attached Terms and Conditions, TLS Automation is pleased to offer the following materials/services for the above referenced project.

PRICE, DELIVERY AND TERMS OF OFFERING

PCP PANEL

- (1) Allen Bradley CompactLogix processor, 5069-L330ER
- (5) Allen Bradley CompactLogix digital input module, 5069-IB16
- (1) Allen Bradley CompactLogix relay output module, 5069-OW16
- (2) Allen Bradley CompactLogix analog input module, 5069-IF8
- (1) Allen Bradley CompactLogix analog output module, 5069-OF8
- (1) Allen Bradley CompactLogix FPD module, 5069-FPD
- (9) Allen Bradley CompactLogix terminal block, 5069-RTB18-SCREW
- (1) Allen Bradley CompactLogix terminal block, 5069-RTB6-SCREW
- (1) Allen Bradley CompactLogix terminal block, 5069-RTB64-SCREW
- (1) Operator interface, 15" Maple Systems
- (1) Ethernet switch, 4 port
- (3) Ethernet cable
- (1) Prosoft module to convert Ethernet to Modbus for radio

REMOTE WELL AND CHEMICAL ROOM PANEL

- (1) Allen Bradley CompactLogix Ethernet adapter, 5069-AENTR
- (1) Allen Bradley CompactLogix digital input module, 5069-IB16
- (1) Allen Bradley CompactLogix relay output module, 5069-OW16
- (2) Allen Bradley CompactLogix analog input module, 5069-IF8
- (1) Allen Bradley CompactLogix FPD module, 5069-FPD
- (1) Allen Bradley CompactLogix terminal block, 5069-RTB5-SCREW
- (4) Allen Bradley CompactLogix terminal block, 5069-RTB18-SCREW
- (1) Allen Bradley CompactLogix terminal block, 5069-RTB6-SCREW

REMOTE WELL #2 PANEL

- (1) Allen Bradley Micrologic 1400 with analog input module
- (1) Operator interface, 10" Maple Systems

TLS's price includes:

Engineering with drawing updates



TLS AUTOMATION

3398 SE 20th Lane
Sumterville, FL 33585

1-Year Warranty
Factory Check Out
Field installation and termination
PLC/HMI programming

PRICE: \$ 67,000.00 PLUS TAX if applicable. FOB factory with freight allowed to jobsite, shipped via standard commercial carrier.

DELIVERY: 12 14 weeks After complete and acceptable approval is received in the offices of TLS Automation, LLC

TERMS OF PAYMENT

Based on initial and continuing credit approval, the following payment terms apply:
Net 30

- NO HOLDBACK (RETAINAGE) provision is offered or allowed
- TLS 4-2023 Terms and Conditions, which is attached, is an integral part of this offering.

Thank you for the opportunity to offer this Scope of Supply.
Please contact me with any questions and/or comments regarding this offering.

Ron Robinette

Cell (321) 229-7643 ron@tlsautomation.com



TLS AUTOMATION

3398 SE 20th Lane
Sumterville, FL 33585

Terms and Conditions 4-2023

LIMITATION OF PROPOSAL: The prices and terms quoted in this proposal are subject to acceptance by the Purchaser within a period of (30) calendar days from the date herein.

TLS Automation LLC (TLS) at the time of the writing of the proposal. General plans and specification not actually submitted shall not apply. This proposal, together with all annexed specifications, when accepted, shall be the complete agreement between the parties; and any alternations or unusual and undisclosed conditions or deviations from the above specifications involving extra costs shall be agreed upon in writing by both parties and shall become an additional charge over and above the proposal price set forth herein. Delays or impossibility of performance by TLS because of strikes, accidents, or other reasons beyond the control of TLS shall relieve us from all liability herein.

SHIPMENT: Time of shipment shall be as stated in the proposal after receipt of order and acceptance and final approval of all drawings and submittal.

TERMS OF PAYMENT: Terms are Net 30 days, with approved credit. Otherwise, alternate arrangements must be made. These terms and conditions have control over any terms presented by Buyer, through a purchase order or otherwise.

We reserve the right to cancel the contract or cease work if payments thereon are not received when due. 1.5% per month shall be charged on all unpaid balances.

TAXES: The Purchaser shall pay any local, state or federal sales, excise or use tax imposed on the equipment in addition to the prices quoted. Intellectual Property (programs, drawings) remains the property of SES and will grant the end user a lifetime license for their use. End user agrees to not share with a third party said property without written authorization by SES.

WARRANTY LIMITATION: There are no warranties that extend beyond the warranties herein after expressed.

WARRANTIES: All work shall be done in a workmanlike manner according to standard practices. We warrant performance against defects in materials and workmanship for a period of twelve (12) months from the date of shipment from TLS. We agree to pass on to the Purchaser such warranties, if any, as may be extended by the manufacturer for material supplied. Labor for replacing defective materials shall not be provided by us unless it is specifically spelled out in the proposal. We shall not be responsible for materials damaged, lost or stolen after delivery, through no fault of ours, or for failure to deliver and perform because of reasons beyond our control.

EXCLUSIVE REMEDIES: Remedies are limited to the repair or replacement at FOB point of delivery. Consequential damages are excluded. In no event shall SES be responsible for consequential damages of any such defective material or workmanship including, but not limited to, the Purchaser's loss of material or profits, increased expenses of operation, downtime or reconstruction of the work, and in no event shall TLS's obligation under this warranty exceed the original contract price of the defective item. It is agreed that any action for breach of express or implied warranty shall be initiated within fifteen (15) months of the date of shipment by TLS and only those defects that are documented to have occurred within twelve (12) months from the date of the equipment's start-up and acceptance or (18) eighteen months from the date of TLS's shipment will be covered by the warranty.

DISCLAIMER: TLS will not be responsible for damage to equipment or materials through improper installation, storage, improper services, or through attempts to operate it in excess of its rated capacity or recommended use, intentional or otherwise, by parties other than SES or its authorized representatives.

CONDITIONS OF SALE: Prices quoted are those now in effect. Seller reserves the right to bill at the prices in effect at the time of shipment if the proposal is not accepted in writing within thirty (30) days, unless a longer term of validity is in writing on the proposal.

LIMITATIONS OF LIABILITY

A. Neither Seller nor its suppliers of any tier will be liable to Purchaser, whether in contract, in tort (including negligence and strict liability), under any warranty or otherwise, for any special, indirect, incidental, or consequential loss or damage whatsoever, or for loss of or to the plant, loss of use of equipment or power system, cost of capital, loss of profits or revenue or the loss of use thereof, cost of environmental damage or clean-up, or claims of customers of Purchaser. The remedies set forth herein are exclusive, and the total cumulative liability of seller and its suppliers under any purchase order or any act or omission in connection therewith or related thereto, whether in contract, in tort (including negligence and strict liability), under any warranty, or otherwise, will be limited to the price of the contract.

B. The provisions of this Article shall survive termination, cancellation or expiration of the purchase order and shall apply, notwithstanding any other provisions of this Agreement or any related document thereto, to the fullest extent permitted by law. Prior to the transfer of any equipment or material furnished or for which work is furnished hereunder from the project site (except temporarily for repair work or permanently for disposal), or the transfer of any interest therein or in the plant, Purchaser shall obtain for Seller written assurances from the transferee of limitation of and protection against liability following the proposed transfer at least equivalent to that afforded seller and its suppliers under the purchase order.

APPENDIX C

GEOTECHNICAL REPORT



Engineering & Consulting, Inc.

**SUMMARY REPORT OF A
GEOTECHNICAL SITE EXPLORATION**

**LEESBURG – HIGHLAND LAKES GST
LEESBURG, LAKE COUNTY, FLORIDA**

GSE PROJECT NO. 15818 REV. 1

Prepared For:

JONES EDMUNDS, INC.

MARCH 2023



Engineering & Consulting, Inc.

March 17, 2023

Kenneth A. Fraser, P.E., Senior Engineer
Jones Edmunds, Inc.
8657 Baypine Road, Suite 300
Jacksonville, Florida 32256-8634

Subject: Summary Report of a Geotechnical Site Exploration
Leesburg – Highland Lakes GST
Leesburg, Lake County, Florida
GSE Project No. 15818 Rev. 1

GSE Engineering & Consulting, Inc. (GSE) is pleased to submit this geotechnical site exploration report for the above referenced project.

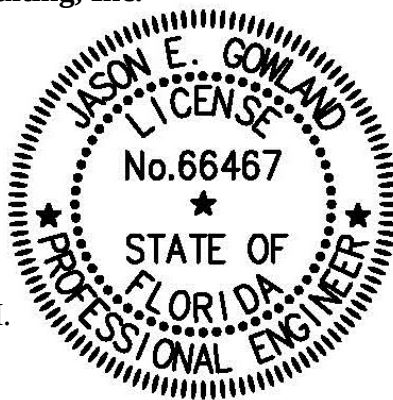
Presented herein are the findings and conclusions of our exploration, including the geotechnical parameters and recommendations to assist with tank foundation designs. This revision includes revised tank dimensions along with additional information requested by you.

GSE appreciates this opportunity to have assisted you on this project. If you have any questions or comments concerning this report, please contact us.

Sincerely,

GSE Engineering & Consulting, Inc.

Cassandra R. Lindeman, E.I.
Staff Engineer



This item has been digitally signed and sealed by

on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Jason E. Gowland, P.E.
Principal Engineer
Florida Registration No. 66467

CRL / JEG: aht
Q:\Projects\15818- rev 1 Leesburg - Highland Lakes GST\15818.docx

Distribution: Addressee (1 - Electronic)
File (1)

GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
(352) 377-3233 Phone ♦ (352) 377-0335 Fax
www.gseengineering.com

TABLE OF CONTENTS

LIST OF FIGURES	ii
1.0 INTRODUCTION	1-1
1.1 General	1-1
1.2 Project Description	1-1
1.3 Purpose	1-1
2.0 FIELD AND LABORATORY TESTS.....	2-1
2.1 General Description.....	2-1
2.2 Standard Penetration Test Borings.....	2-1
2.3 Soil Laboratory Tests	2-1
3.0 FINDINGS.....	3-1
3.1 Surface Conditions	3-1
3.2 Subsurface Conditions.....	3-1
3.3 Review of Published Data	3-1
3.4 Laboratory Soil Analysis.....	3-2
4.0 EVALUATION AND RECOMMENDATIONS.....	4-1
4.1 General	4-1
4.2 Groundwater	4-1
4.3 Foundation Recommendations	4-1
4.4 Site Preparation	4-2
4.5 Quality Control and Construction Materials Testing.....	4-3
4.6 Site Seismic Classification	4-4
4.7 Fill Suitability.....	4-4
5.0 FIELD DATA.....	5-1
5.1 Standard Penetration Test Soil Boring Logs.....	5-2
5.2 Laboratory Results	5-3
5.3 Key to Soil Classification.....	5-4
6.0 LIMITATIONS	6-1
6.1 Warranty	6-1
6.2 SPT Borings	6-1
6.3 Site Figures.....	6-1
6.4 Unanticipated Soil Conditions	6-1
6.5 Misinterpretation of Soil Engineering Report.....	6-1

LIST OF FIGURES

Figure

1. Project Site Location Map
2. Site Plan Showing Approximate Locations of Field Tests

1.0 INTRODUCTION

1.1 General

GSE Engineering & Consulting, Inc. (GSE) has completed this geotechnical exploration for the proposed pre-stressed concrete ground storage tank (GST) to service the Leesburg – Highland Lakes water treatment plant located in Leesburg, Lake County, Florida. This exploration was performed in accordance with GSE Proposal No. 2022-437 dated August 12, 2022. Mr. Stanley F. Ferreira, Jr. authorized our services on October 4, 2022.

1.2 Project Description

This project will consist of a new 1MG pre-stressed ground storage tank at the existing wastewater treatment facility located in Leesburg, Lake County, Florida (Figure 1). The site is located at Highland Lakes Water Treatment Plant at the west end of Cash Ct.

Jafet Torres, P.E. with Jones Edmunds, Inc. provided information about the project and site plans illustrating the locations of the proposed improvements. The tank will be 70 feet internal diameter and have a sidewall height of 40 feet with pipes beneath the tank. The finished floor elevation is expected to be 96.50 feet and will be on average 2.5 feet below ground and 2 feet below the lowest surrounding grade elevation. We understand that the location of the proposed tank previously had a raised tank that was demolished, but some of the previous foundations remain. We understand that these foundations could be on the order of 5 feet in depth.

A recent aerial photograph of the site was obtained and reviewed. The site plan and aerial photograph were used in preparation of this exploration and report.

1.3 Purpose

The purpose of this geotechnical exploration was to determine the general subsurface conditions, evaluate these conditions with respect to the proposed construction, and prepare geotechnical parameters and recommendations to assist with tank foundation designs.

2.0 FIELD AND LABORATORY TESTS

2.1 General Description

The procedures used for field sampling and testing are in general accordance with industry standards of care and established geotechnical engineering practices for this geographic region. This exploration consisted of performing one (1) Standard Penetration Test (SPT) boring to a depth of 60 feet below land surface (bls) and four (4) SPT borings to a depth of 30 feet bls at the location of the proposed GST structure.

The soil borings were performed at the approximate locations as shown on Figure 2. The borings were located at the site using the provided site plan, Global Positioning System (GPS) coordinates, and obvious site features as reference. The boring locations should be considered approximate. The soil borings were performed on November 8, 2022.

2.2 Standard Penetration Test Borings

The soil borings were performed with a drill rig employing mud rotary drilling techniques and Standard Penetration Testing (SPT) in accordance with ASTM D1586. The SPTs were performed continuously to 10 feet and at 5-foot intervals thereafter. Soil samples were obtained at the depths where the SPTs were performed. The soil samples were classified in the field, placed in sealed containers, and returned to our laboratory for further evaluation.

After drilling to the sampling depth and flushing the borehole, the standard two-inch O.D. split-barrel sampler was seated by driving it 6 inches into the undisturbed soil. The sampler was then driven an additional 12 inches by blows of a 140-pound hammer falling 30 inches. The number of blows required to produce the next 12 inches of penetration were recorded as the penetration resistance (N-value). These values and the complete SPT boring logs are provided in Section 5.1.

Upon completion of the sampling, the boreholes were abandoned in accordance with Water Management District guidelines.

2.3 Soil Laboratory Tests

The soil samples recovered from the soil borings were returned to our laboratory and examined to confirm the field descriptions. Representative samples were then selected for laboratory testing. The laboratory tests consisted of eight (8) percent soil fines passing the No. 200 sieve, eight (8) natural moisture content determinations, and four (4) Atterberg Limits tests. These tests were performed in order to aid in classifying the soils and to further evaluate their engineering properties. The laboratory tests are provided in Section 5.2.

3.0 FINDINGS

3.1 Surface Conditions

Ms. Cassandra R. Lindeman, E.I. with GSE visited the site on October 13, 2022, to observe the site conditions and mark the boring locations.

The water treatment facility site is fenced with existing infrastructure. The areas around the existing structures are open grass. The site is bordered by Cash Ct. to the south and by existing baseball field to the north and west. Residences border the site to the east.

The topography at the site is relatively level. Regional topography can be characterized as gently to moderately sloping. The Howey in the Hills USGS Topographic Map indicates the ground surface elevations at the site are near 95 to 100 feet¹ NAVD88.

3.2 Subsurface Conditions

The locations of the SPT borings are provided on Figure 2. Complete logs for the borings are provided in Section 5.1. Descriptions for the soils encountered are accompanied by the Unified Soil Classification System symbol (SM, SP-SM, etc.) and are based on visual examination of the recovered soil samples and the laboratory tests performed. Stratification boundaries between the soil types should be considered approximate, as the actual transition between soil types may be gradual.

The SPT borings located within the area of the proposed ground storage tank encountered relatively similar soil conditions across the site. The borings initially encountered 6 to 8.5 feet of poorly graded sand (SP) and sand with silt (SP-SM) underlain by interbedded layers of poorly graded sand (SP), sand with clay (SP-SC), clayey and very clayey sands (SC, SC/CL), sandy clay (CL), clay with sand (CH), and clay (CH) to the explored depths of 30 and 60 feet bls.

The layers of poorly graded sand (SP), sand with silt (SP-SM), and sand with clay (SP-SC) encountered are generally in a very loose to very dense condition with N-values ranging from 4 to 63 blows per foot. The clayey and very clayey sands (SC, SC/CL) encountered are generally in a loose to dense condition with N-values ranging from 6 to 35 blows per foot. The sandy clay, clay with sand, and clay (CL/CH) encountered are generally in a very stiff condition with N-values ranging from 21 to 30 blows per foot.

Due to the mud rotary methods of drilling the soil borings, the groundwater table was not able to be recorded at the time of our investigation.

3.3 Review of Published Data

3.3.1 Review of Soil Survey

The majority of the site is mapped as one soil series by the Soil Conservation Service (SCS) Soil Survey for Lake County². The following soil description is from the Soil Survey.

¹ United States Geological Survey, Howey in the Hills Quadrangle, 2021.

² Soil Survey of Lake County, Florida. Soil Conservation Service, U.S. Department of Agriculture.

Apopka sand, 0 to 5 percent slopes – This is a near level to gently sloping, well-drained sandy soil that has a sandy clay loam subsoil at a depth of about 55 inches. This soil has the profile described as representative for the series. The water table is at a depth of more than 84 inches.

The sandy surface and subsurface layers are rapidly permeable and have very low available water capacity and low organic matter content. Permeability in the subsoil is moderate or moderately rapid, and available water capacity is medium to high. Natural fertility is low.

Included in mapping are small areas that have a sandy clay loam subsoil at a depth of less than 40 inches, a few small areas that are sandy to a depth of more than 8 inches, small areas around sinks or on short breaks where slopes are more than 5 percent, and areas of fine sand.

3.3.2 Review of Regional Geology

The site of the proposed ground storage tank is located near the central portion of Lake County. This area of Lake County maps as the Cypresshead Formation³. The following description is from the Geological Survey.

Cypresshead Formation – The Cypresshead Formation named by Huddleston (1988), is composed of siliciclastics, and occurs only in the peninsula and eastern Georgia. It is at or near the surface from northern Nassau County southward to Highlands County forming the peninsular highlands. It appears that the Cypresshead Formation occurs in the subsurface southward from the outcrop region and similar sediments, the Long Key Formation, underlie the Florida Keys. The Cypresshead Formation is a shallow marine, near shore deposit equivalent to the Citronelle Formation deltaic sediments and the Miccosukee Formation prodeltaic sediments.

The Cypresshead Formation consists of reddish brown to reddish orange, unconsolidated to poorly consolidated, fine to very coarse grained, clean to clayey sands. Cross bedded sands are common within the formation. Discoid quartzite pebbles and mica are often present. Clay beds are scattered and not generally extensive. In general, the Cypresshead Formation in exposure occurs above 100 feet (30 meters) above mean sea level (msl).

Original fossil material is not present in the sediments although poorly preserved molds and casts of mollusks and burrow structures are occasionally present. The presence of these fossil “ghosts” and trace fossils documents marine influence on deposition of the Cypresshead sediments.

The permeable sands of the Cypresshead Formation form part of the surficial aquifer system.

3.4 Laboratory Soil Analysis

Selected soil samples recovered from the soil borings were analyzed for the percent soil fines passing the No. 200 sieve, natural moisture content, Atterberg Limits, and organic content. Samples selected for laboratory testing were collected at depths ranging from 5.5 to 20 feet bls. These tests were performed to confirm visual soil classification and evaluate their engineering properties. The complete laboratory report is provided in Section 5.2.

The laboratory tests indicate the tested soils consist of poorly graded sand (SP), clayey sand (SC), very clayey sand (SC/CL), sandy clay (CL), clay with sand (CH), and clay (CH). The tested poorly graded sand (SP) contains approximately 2.4 percent soil fines passing the No. 200 sieve with a natural moisture content of about 4.6 percent.

³ Open-File Report 80, Thomas M. Scott, P.G. No. 99, Text to Accompany the Geological Map of Florida, Florida Geological Survey, 2001.

The tested clayey sand (SC) contains approximately 22 to 26 percent soil fines passing the No. 200 sieve with natural moisture contents of about 9.6 to 13 percent. The tested very clayey sand (SC/CL) contains approximately 31 to 47 percent soil fines passing the No. 200 sieve with natural moisture contents of about 12 to 17 percent. The tested sandy clay (CL) contains approximately 65 percent soil fines passing the No. 200 sieve with a natural moisture content of about 28 percent. The tested clay with sand (CH) contains approximately 84 percent soil fines passing the No. 200 sieve with a natural moisture content of about 32 percent. The tested clay (CH) contains approximately 96 percent soil fines passing the No. 200 sieve with a natural moisture content of about 40 percent.

Atterberg Limits tests indicate the tested very clayey sand (SC/CL) has a Liquid Limit (LL) value of 30, a Plastic Limit (PL) value of 12, and a Plasticity Index (PI) value of 18. This corresponds to a material with low potential ($LL < 50$ and $PI < 25$) for expansive behavior⁴. The tested sandy clay (CH) has a LL value of 51, a PL value of 25, and a PI value of 26. This corresponds to a material with marginal potential ($50 < LL < 60$ and $25 < PI < 35$) for expansive behavior. The tested clay with sand (CH) has a LL value of 69, a PL value of 33, and a PI value of 36. This corresponds to a material with high potential ($LL > 60$ and $PI > 35$) for expansive behavior. The tested clay (CH) has a LL value of 72, and PL value of 39, and a PI value of 33. This corresponds to a material with high potential ($LL > 60$ and $PI > 35$) for expansive behavior.

⁴ U.S. Department of the Army USA, 1983, Foundations in Expansive Soils, TM 5-818-7, p. 4-1.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General

The following recommendations are made based upon our understanding of the proposed construction, a review of the attached soil borings and laboratory test data, and experience with similar projects and subsurface conditions. If plans or the location of proposed construction changes from those discussed previously, GSE requests the opportunity to review and possibly amend our recommendations with respect to those changes.

The final design of a foundation system is dependent upon adequate integration of geotechnical and structural engineering considerations. Consequently, GSE must review the final foundation design in order to evaluate the effectiveness and applicability of our initial analyses, and to determine if additional recommendations may be warranted. Without such a review, the recommendations presented herein could be misinterpreted or misapplied resulting in potentially unacceptable performance of the foundation system.

The performance of site improvements may be sensitive to their post-construction relationship to site groundwater levels, seepage zones, or soil/rock characteristics exposed at final site grades. GSE recommends that use of boring information for final design of all site improvements be predicated on proper horizontal and vertical control of borings.

In this section of the report, we present our geotechnical parameters and recommendations to assist with tank foundation designs as well as our general site preparation guidelines.

4.2 Groundwater

The groundwater table was encountered at a depth of 13.6 feet bls at boring location B-4. Due to the mud rotary method of drilling the soil borings, the groundwater table was not recorded at the remaining boring locations at the time of our exploration. Based on the results of the soil borings and the Soil Survey, we anticipate the seasonal high groundwater table to be at a depth of 10 feet bls.

4.3 Foundation Recommendations

The SPT borings located within the area of the proposed tank encountered relatively similar soil conditions across the site. The borings initially encountered 6 to 8.5 feet of poorly graded sand and sand with silt underlain by interbedded layers of poorly graded sand, sand with clay, clayey and very clayey sands, sandy clay, clay with sand, and clay to the explored depths of 30 and 60 feet bls.

Based upon the soil conditions encountered and our limited understanding of the structural loads and site grading, we recommend the tank be supported by conventional, shallow strip and/or spread foundations. We recommend the shallow foundations be designed for a maximum allowable gross bearing pressure of 2,500 psf. The gross bearing pressure is defined as the soil contact pressure that can be imposed from the maximum structural loads, weight of the concrete foundations, and weight of the soil above the foundations. The foundations should be designed based upon the maximum load that could be imposed by all loading conditions.

The foundations should be embedded a minimum of 24 inches below the lowest adjacent grade. Interior foundations or thickened sections should be embedded a minimum of 12 inches.

Due to the mostly sandy nature of the majority of the near-surface soils, we expect settlement to be mostly elastic in nature. The majority of the settlement will occur on application of the loads, during and immediately following construction, and filling of the water tank. Using the recommended maximum bearing pressure, the assumed maximum structural loads, and the field and laboratory test data which we have correlated into the strength and compressibility characteristics of the subsurface soils, we estimate the total settlements of the structure to be 1.75 inch or less, with approximately half of it occurring upon load application (during construction and tank filling).

Differential settlement results from differences in applied bearing pressures and the variations in the compressibility characteristics of the subsurface soils. For the tank pad prepared as recommended, we anticipate differential settlement of less than 3/4 inch. GSE recommends that the amount of total and differential settlement that can be tolerated by the structure be established by the Structural Engineer and/or tank manufacturer and confirmed with the geotechnical engineer for the assumptions indicated in this report.

We have assumed the tank floor will consist of a reinforced concrete slab. For design of the floor system, GSE recommends using a modulus of subgrade reaction of 150 pci assuming the bearing soils will be compacted per the site preparation recommendations of this report.

Post-construction settlement of the structures will be influenced by several interrelated factors, such as (1) subsurface stratification and strength/compressibility characteristics of the bearing soils; (2) footing size, bearing level, applied loads, and resulting bearing pressures beneath the foundation; (3) site preparation and earthwork construction techniques used by the contractor, and (4) external factors, including but not limited to vibration from off-site sources and groundwater fluctuations beyond those normally anticipated for the naturally-occurring site and soil conditions which are present.

Our settlement estimates for the structure are based upon our limited understanding of the structural loads and site grading and the use of successful adherence to the site preparation recommendations presented later in this report. Any deviation from our project understanding and/or our site preparation recommendations could result in an increase in the estimated post-construction settlement of the structure.

4.4 Site Preparation

The soils at this site should be suitable for supporting the proposed construction using normal, good practice site preparation procedures. The following recommendations are our general guidelines for site preparation.

4.4.1 Stripping

Strip the construction limits and 10 feet beyond the perimeter of all grass, roots, topsoil, and other deleterious materials. You should expect to strip to depths of 12 or more inches. Deeper stripping may be necessary where previous foundations may exist at the site.

4.4.2 Dewatering

Temporary dewatering is not expected to be necessary for this project. However, if needed, we anticipate dewatering can be accomplished with sumps placed near the construction area, or with underdrains connected to a vacuum pump.

In any case, the site should always be graded to promote runoff and limit the amount of ponding. Localized ponding of stormwater is expected without proper grading during construction and could render previously acceptable surfaces unacceptable.

4.4.3 Proof-Rolling

Proof-roll the subgrade with heavy rubber-tired equipment, such as a loaded front-end loader or dump truck, to identify any loose or soft zones not found by the soil borings. The proof-rolling should be monitored by a geotechnical engineer or qualified technician. Undercut or otherwise treat these zones as recommended by the geotechnical engineer in this report.

4.4.4 Proof Compaction

Compact the subgrade to a density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). The specified compaction should be obtained to a depth of 1 foot below the foundation bottoms and the existing grade prior to placing fill, or to the depth of disturbed soil during removal of the previous existing foundations. Vibratory roller equipment should not be used within approximately 100 feet of existing structures. Lighter “walk-behind” compaction equipment may be used to achieve the degree of compaction.

Should clayey sand be encountered at the bearing surface, this material should be probed and visually confirmed to be unyielding in the upper 12 inches in lieu of density testing. If the foundation excavations penetrate the clayey sand, the excavation should be performed in a manner that reduces soil disturbance. Clayey sand soils (with fines content in excess of 15 percent) that are removed and replaced or appreciably disturbed need to be re-compacted to 98 percent of the Standard Proctor maximum dry density (ASTM D698).

4.4.5 Fill Placement

Imported fill placed to raise the site grades should consist of clean sand having less than 10 percent passing the No. 200 sieve. On-site soils meeting the requirements of Section 4.7 may also be used as structural fill. The fill should be placed in maximum 12-inch loose lifts that are compacted to at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). If lighter “walk-behind” compaction equipment is used, this may require lifts of 4 inches or less to achieve the required degree of compaction.

4.5 Quality Control and Construction Materials Testing

It should be noted that the geotechnical engineering design does not end with the advertisement of the construction documents. As the geotechnical engineer of record, GSE is the most qualified to perform the construction materials testing that will be required for this project. The benefits of having the geotechnical engineer of record also perform the construction materials testing are numerous. If GSE continues to be involved with the project through construction, we will be able to constantly re-evaluate and possibly alter our geotechnical recommendations in a timely and cost-effective manner once final design and construction techniques are developed. This often results in cost savings for the project.

We recommend performing compaction testing beneath the concrete slab and the tank foundations. We recommend one test be performed every 50 linear feet of continuous footing and every other column footing, per foot depth of fill or native material. We recommend a compaction test be performed for each 2,500 square feet of slab area per foot of fill or native material, or a minimum of three tests each, whichever is greater. Test all footing excavations to a depth of 12 inches at the frequencies stated above.

4.6 Site Seismic Classification

The seismic site classification is determined based upon the average soil profile in the upper 100 feet beneath the site. When soil properties are not known in sufficient detail to determine the site class, Site Class D shall be used unless the building official determines that Site Class E or F soil is likely to be present at the site. GSE did not perform a 100-foot boring. GSE recommends using seismic site classification D.

4.7 Fill Suitability

The soils encountered at this site within the explored depths range from sands (SP) to clays (CL/CH). A discussion of the suitability for reuse as structural fill for each soil classification according to the Unified Soil Classification System (USCS) designation is provided below.

SP, SP/SM – Sands (SP) and sand with silt (SP/SM) have less than 5 percent and 12 percent soil fines passing the No. 200 sieve, respectively, and are typically well draining soils that are suitable for reuse as structural fill. The sands with silt may require moisture conditioning (drying) to make the material more workable. These soils will require stockpiling and drying before they are reused if they are excavated from below the water table.

SM – Silty sands (SM) can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Silty sands are typically non-plastic or have low plasticity and can be reused as structural fill with precautions. Silty sands can be moisture sensitive and difficult to work and compact and can rut if the moisture content is near or above the optimum moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable silty sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Silty sands with more than 30 percent soil fines are especially moisture sensitive and are not recommended for reuse as structural fill. These soils will behave more as sandy silt, and for this reason, very silty sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SM/ML. Silty sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

SC – Clayey sand (SC) soils can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Clayey sands can have a high range of plasticity, varying from a PI of 7 or greater and plotting above the A-line to highly plastic. Friable clayey sands are typically suitable for use as structural fill with precautions. Clayey sands will be moisture sensitive and difficult to work and compact and can rut during placement if the moisture content is near or above the natural moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable clayey sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Clayey sands with more than 30 percent soil fines passing the No. 200 sieve are especially moisture sensitive and are typically highly plastic, and are not recommended for reuse as structural fill. These soils will behave more as sandy clay, and for this reason, very clayey sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SC/CH or SC/CL.

Clayey sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

ML, MH, CL, CH – Silts and clays are not suitable materials for reuse as structural fill.

When using on-site soils as fill materials, we recommend the silty and clayey sand soils (SM, SC) be used in the lower depths of the fill. Sand and sand with silt (SP, SP-SM) should be used in the upper portions of the fill. We recommend a minimum of 2 feet of sand (SP, SP-SM) cover the silty and clayey sand fill materials to reduce the potential for soggy surface conditions due to the low permeability characteristics of the silty and clayey sand materials.

5.0 FIELD DATA

5.1 Standard Penetration Test Soil Boring Logs



GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

BORING NUMBER B-1

CLIENT Jones Edmunds, Inc. **PROJECT NAME** Leesburg - Highland Lakes GST

PROJECT NUMBER 15818 **PROJECT LOCATION** Leesburg, Lake County, Florida

DATE STARTED 11/8/22 **COMPLETED** 11/8/22 **GROUND ELEVATION** **HOLE SIZE**

DRILLING CONTRACTOR Whitaker Drilling, Inc. **GROUND WATER LEVELS:**

DRILLING METHOD Mud Rotary **▼ AT TIME OF DRILLING** NE

LOGGED BY WDI **CHECKED BY** CRL **▽ ESTIMATED SEASONAL HIGH**

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0											20 40 60 80
		(SP-SM) Loose to medium dense brown SAND with silt		SPT 1	10-8-8 (16)						
			4	SPT 2	4-3-3 (6)						
5		(SP) Loose tan SAND		SPT 3	3-3-3 (6)						
			6	SPT 4	3-4-10 (14)						
		(SC) Medium dense brown, gray, and orange clayey SAND		SPT 5	11-12-15 (27)						
				SPT 6	13-13-13 (26)						
10											
			13.5								
		(CL) Very stiff brown sandy CLAY		SPT 7	6-10-15 (25)	51	25	26	65	28	
15											
			18.5								
		(SP) Dense pale gray to white SAND		SPT 8	10-15-16 (31)						
20											
			23.5								
		(SP) Medium dense pale brown SAND		SPT 9	6-7-6 (13)						
25											
30			30	SPT 10	10-10-12 (22)						
		Bottom of borehole at 30.0 feet.									

SPT BORINGS - GINT STD US GDT - 12/22/22 09:38 - Q:\PROJECTS\15818 LEESBURG - HIGHLAND LAKES GST\15818 BORINGS\15818 BORINGS.GPJ



GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

BORING NUMBER B-3

CLIENT Jones Edmunds, Inc.

PROJECT NAME Leesburg - Highland Lakes GST

PROJECT NUMBER 15818

PROJECT LOCATION Leesburg, Lake County, Florida

DATE STARTED 11/8/22 COMPLETED 11/8/22

GROUND ELEVATION HOLE SIZE

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ AT TIME OF DRILLING NE

LOGGED BY WDI CHECKED BY CRL

▽ ESTIMATED SEASONAL HIGH

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0											20 40 60 80
		(SP-SM) Very loose to loose brown SAND with silt		SPT 1	3-4-4 (8)						
				SPT 2	2-3-2 (5)						
5		(SP) Very loose tan SAND	5	SPT 3	2-2-2 (4)				2.4	4.6	
				SPT 4	2-2-2 (4)						
		(SC) Loose to medium dense brown, gray, and orange clayey SAND	7.5	SPT 5	1-1-5 (6)						
				SPT 6	10-10-15 (25)						
10											
				SPT 7	5-8-8 (16)						
15											
		(CL/CH) Very stiff brown and gray CLAY	18.5	SPT 8	9-10-11 (21)						
20											
		(SC) Medium dense brown clayey SAND	23.5	SPT 9	4-5-7 (12)						
25											
				SPT 10	4-6-16 (22)						
30		Bottom of borehole at 30.0 feet.	30								



GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

BORING NUMBER B-5

CLIENT Jones Edmunds, Inc. **PROJECT NAME** Leesburg - Highland Lakes GST

PROJECT NUMBER 15818 **PROJECT LOCATION** Leesburg, Lake County, Florida

DATE STARTED 11/8/22 **COMPLETED** 11/8/22 **GROUND ELEVATION** **HOLE SIZE**

DRILLING CONTRACTOR Whitaker Drilling, Inc. **GROUND WATER LEVELS:**

DRILLING METHOD Mud Rotary **▼ AT TIME OF DRILLING** NE

LOGGED BY WDI **CHECKED BY** CRL **▽ ESTIMATED SEASONAL HIGH**

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0											20 40 60 80
5		(SP-SM) Very loose to medium dense brown SAND with silt		SPT 1	7-7-7 (14)						
				SPT 2	5-4-3 (7)						
				SPT 3	1-2-2 (4)						
7			7	SPT 4	3-3-4 (7)						
		(SC/CL) Medium dense to dense brown, gray, and orange very clayey SAND		SPT 5	7-10-14 (24)				31	12	
10				SPT 6	17-19-16 (35)						
13.5			13.5								
15		(CH) Very stiff brown and gray CLAY with sand		SPT 7	10-13-17 (30)	69	33	36	84	32	
18.5			18.5								
20		(SP) Medium dense brown SAND		SPT 8	8-9-7 (16)						
25				SPT 9	12-13-13 (26)						
28.5			28.5								
30		(SP) Medium dense pale gray SAND		SPT 10	8-9-10 (19)						

(Continued Next Page)



GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

BORING NUMBER B-5

CLIENT Jones Edmunds, Inc.

PROJECT NAME Leesburg - Highland Lakes GST

PROJECT NUMBER 15818

PROJECT LOCATION Leesburg, Lake County, Florida

SPT BORINGS - GINT STD US GDT - 12/22/22 09:38 - Q:\PROJECTS\15818 LEESBURG - HIGHLAND LAKES GST\15818 BORINGS\15818 BORINGS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
											20 40 60 80
35		(SP) Medium dense pale gray SAND (continued)		SPT 11	9-10-12 (22)						
40		(SP) Medium dense gray, brown, and orange SAND	38.5	SPT 12	7-10-11 (21)						
45		(SP) Very dense pale gray and brown SAND	43.5	SPT 13	17-22-29 (51)						
50		(SP) Dense brown SAND	48.5	SPT 14	13-16-21 (37)						
55				SPT 15	12-19-28 (47)						
60		(SP) Very dense pale gray SAND	58.5	SPT 16	20-24-39 (63)						
		Bottom of borehole at 60.0 feet.	60								

5.2 Laboratory Results



Engineering & Consulting, Inc.

SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 15818

Project Name: Leesburg - Highland Lakes GST

Boring Number	Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
B-1	13.5-15	Brown sandy CLAY	28	51	25	26	65			CL
B-2	8.5-10	Brown and orange clayey SAND	13				26			SC
B-2	18.5-20	Brown and gray CLAY	40	72	39	33	96			CH
B-3	5.5-7	Tan SAND	4.6				2.4			SP
B-4	5.5-7	Brown, gray, and orange clayey SAND	9.6				22			SC
B-4	8.5-10	Brown, orange, and gray very clayey SAND	17	30	12	18	47			SC/CL
B-5	7-8.5	Brown, gray, and orange very clayey SAND	12				31			SC/CL
B-5	13.5-15	Brown and gray CLAY with sand	32	69	33	36	84			CH

5.3 Key to Soil Classification

KEY TO SOIL CLASSIFICATION CHART

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests				SYMBOLS		GROUP NAME	
				GRAPHIC	LETTER		
COARSE-GRAINED SOILS	Gravels	Clean Gravels	$Cu \geq 4$ and $1 \leq Cc \leq 3$		GW	Well graded GRAVEL	
	More than 50% retained on No. 200 sieve	More than 50% of coarse fraction retained on No. 4 sieve	Less than 5% fines	$Cu < 4$ and/or $1 > Cc > 3$		GP	Poorly graded GRAVEL
			Gravels with fines	Fines classify as ML or MH		GM	Silty GRAVEL
			More than 12% fines	Fines classify as CL or CH		GC	Clayey GRAVEL
			Sands	Clean Sands	$Cu \geq 6$ and $1 \leq Cc \leq 3$		SW
	50% or more of coarse fraction passes No. 4 sieve		Less than 5% fines	$Cu < 6$ and/or $1 > Cc > 3$		SP	Poorly graded SAND
			Sand with fines	Fines classify as ML or MH		SP-SM	SAND with silt
			$5\% \leq \text{fines} < 12\%$	Fines classify as CL or CH		SP-SC	SAND with clay
			Sand with fines	Fines classify as ML or MH		SM	Silty SAND
			$12\% \leq \text{fines} < 30\%$	Fines classify as CL or CH		SC	Clayey SAND
			Sand with fines	Fines classify as ML or MH		SM	Very silty SAND
			30% fines or more	Fines classify as CL or CH		SC	Very clayey SAND
FINE-GRAINED SOILS			Clays	inorganic	$50\% \leq \text{fines} < 70\%$		CL/CH
	$70\% \leq \text{fines} < 85\%$				CL/CH	CLAY with sand	
	$\text{fines} \geq 85\%$				CL/CH	CLAY	
	Silts and Clays	inorganic	$PI > 7$ and plots on/above "A" line		CL	Lean CLAY	
			$PI < 4$ or plots below "A" line		ML	SILT	
	Liquid Limit less than 50	organic	Liquid Limit - oven dried	< 0.75		OL	Organic clay
			Liquid Limit - not dried				Organic silt
	Silts and Clays	inorganic	PI plots on or above "A" line		CH	Fat CLAY	
			PI plots below "A" line		MH	Elastic SILT	
	Liquid Limit 50 or more	organic	Liquid Limit - oven dried	< 0.75		OH	Organic clay
Liquid Limit - not dried					Organic silt		
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor				PT	PEAT	

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

No. OF BLOWS, N	RELATIVE DENSITY		No. OF BLOWS, N	CONSISTENCY
0 - 4	Very Loose		0 - 2	Very Soft
5 - 10	Loose		3 - 4	Soft
SANDS: 11 - 30	Medium dense	SILTS &	5 - 8	Firm
31 - 50	Dense	CLAYS:	9 - 15	Stiff
OVER 50	Very Dense		16 - 30	Very Stiff
			31 - 50	Hard
			OVER 50	Very Hard

No. OF BLOWS, N	RELATIVE DENSITY
0 - 8	Very Soft
9 - 18	Soft
LIMESTONE: 19 - 32	Moderately Hard
33 - 50	Hard
OVER 50	Very Hard

SAMPLE GRAPHIC TYPE LEGEND



Location
of SPT
Sample



Location
of Auger
Sample

PARTICLE SIZE IDENTIFICATION

BOULDERS:	Greater than 300 mm
COBBLES:	75 mm to 300 mm
GRAVEL:	Coarse - 19.0 mm to 75 mm
	Fine - 4.75 mm to 19.0 mm
SANDS:	Coarse - 2.00 mm to 4.75 mm
	Medium - 0.425 mm to 2.00 mm
	Fine - 0.075 mm to 0.425 mm
SILTS & CLAYS:	Less than 0.075 mm

LABORATORY TEST LEGEND

LL	=	Liquid Limit, %
PL	=	Plastic Limit, %
PI	=	Plasticity Index, %
% PASS - 200	=	Percent Passing the No. 200 Sieve
MC	=	Moisture Content, %
ORG	=	Organic Content, %
k_h	=	Horizontal Hydraulic Conductivity, ft/day

6.0 LIMITATIONS

6.1 Warranty

This report has been prepared for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

6.2 SPT Borings

The determination of soil type and conditions was performed from the ground surface to the maximum depth of the borings, only. Any changes in subsurface conditions that occur between or below the borings would not have been detected or reflected in this report.

Soil classifications that were made in the field are based upon identifiable textural changes, color changes, changes in composition or changes in resistance to penetration in the intervals from which the samples were collected. Abrupt changes in soil type, as reflected in boring logs and/or cross sections may not actually occur, but instead, be transitional.

Depth to the water table is based upon observations made during the performance of the SPT borings. This depth is an estimate and does not reflect the annual variations that would be expected in this area due to fluctuations in rainfall and rates of evapotranspiration.

6.3 Site Figures

The measurements used for the preparation of the figures in this report were made using the provided site plan and by estimating distances from existing structures and site features. Figures in this report were not prepared by a licensed land surveyor and should not be interpreted as such.

6.4 Unanticipated Soil Conditions

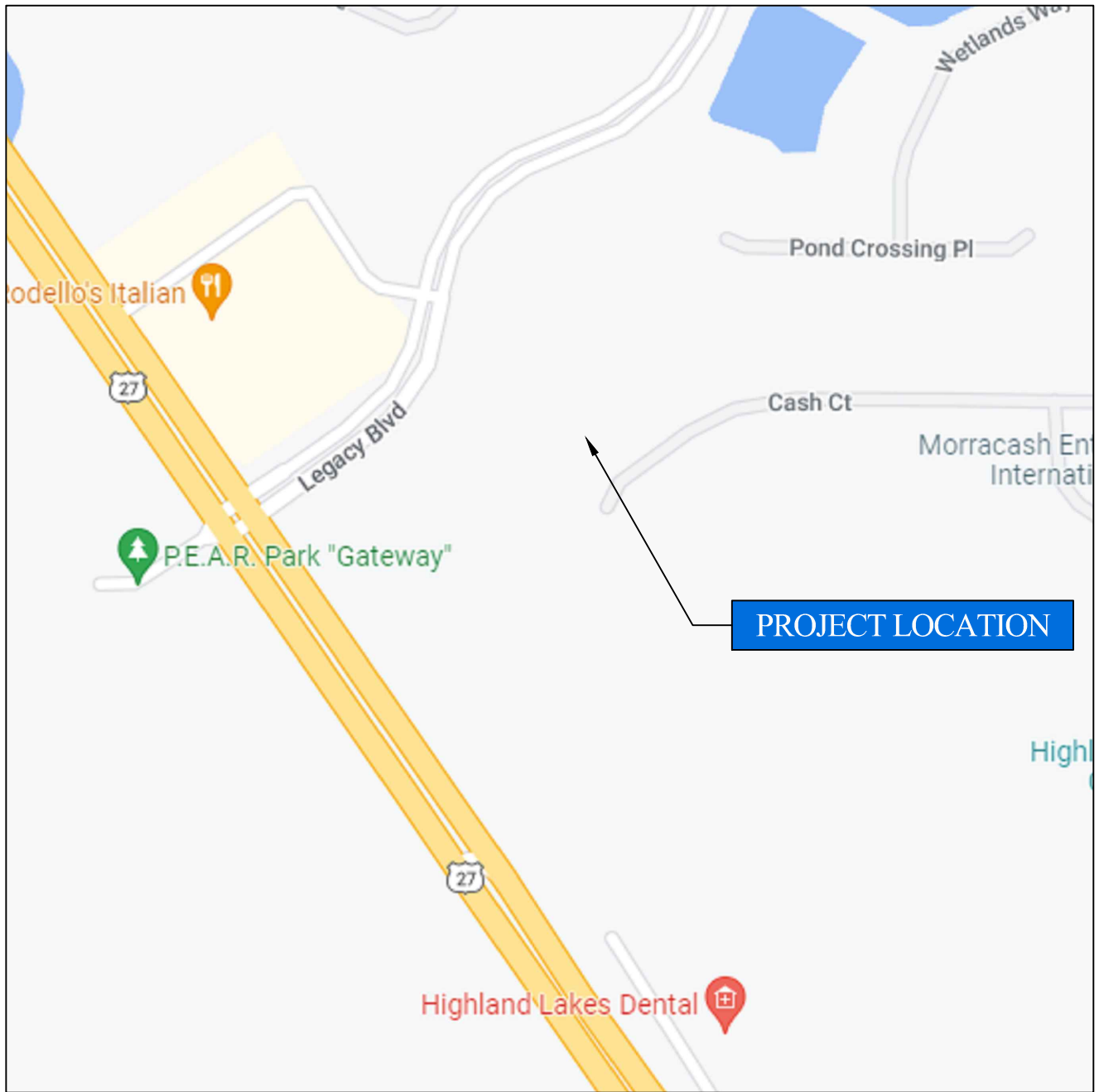
The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on Figure 2. This report does not reflect any variations that may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

6.5 Misinterpretation of Soil Engineering Report

GSE Engineering & Consulting, Inc. is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If others make the conclusions or recommendations based upon the data presented, those conclusions or recommendations are not the responsibility of GSE.

FIGURES



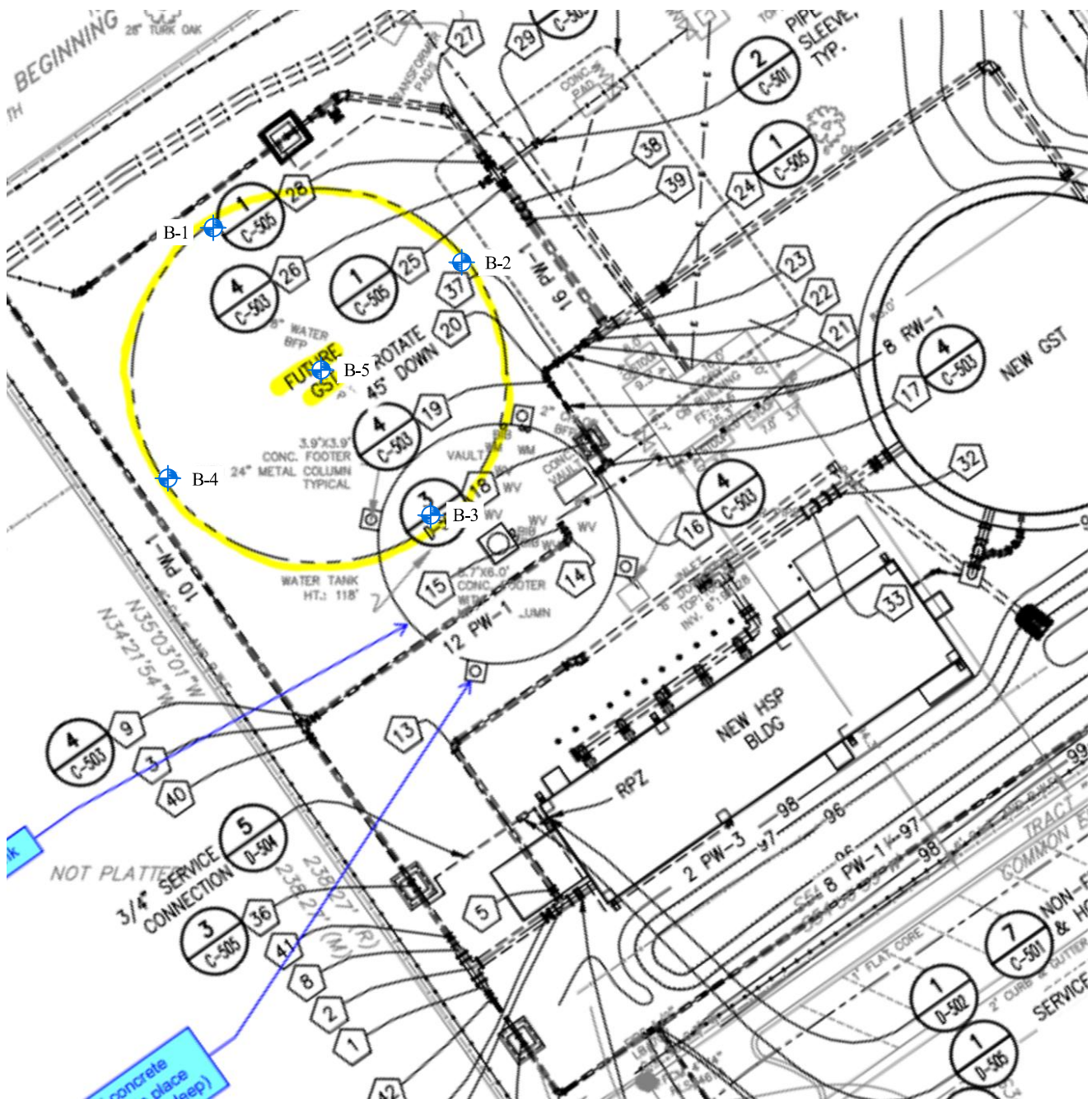
LEESBURG - HIGHLAND LAKES GST
LEESBURG, LAKE COUNTY, FLORIDA
GSE PROJECT NO. 15818

PROJECT SITE LOCATION MAP

DESIGNED BY: CRL
CHECKED BY : KLH
DRAWN BY : JNM



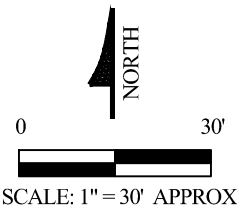
FIGURE
1



LEGEND:



SPT BORING



LEESBURG - HIGHLAND LAKES GST
LEESBURG, LAKE COUNTY, FLORIDA
GSE PROJECT NO. 15818

**SITE PLAN SHOWING APPROXIMATE LOCATIONS OF
FIELD TESTS**

DESIGNED BY: CRL
CHECKED BY: KLH
DRAWN BY: JNM

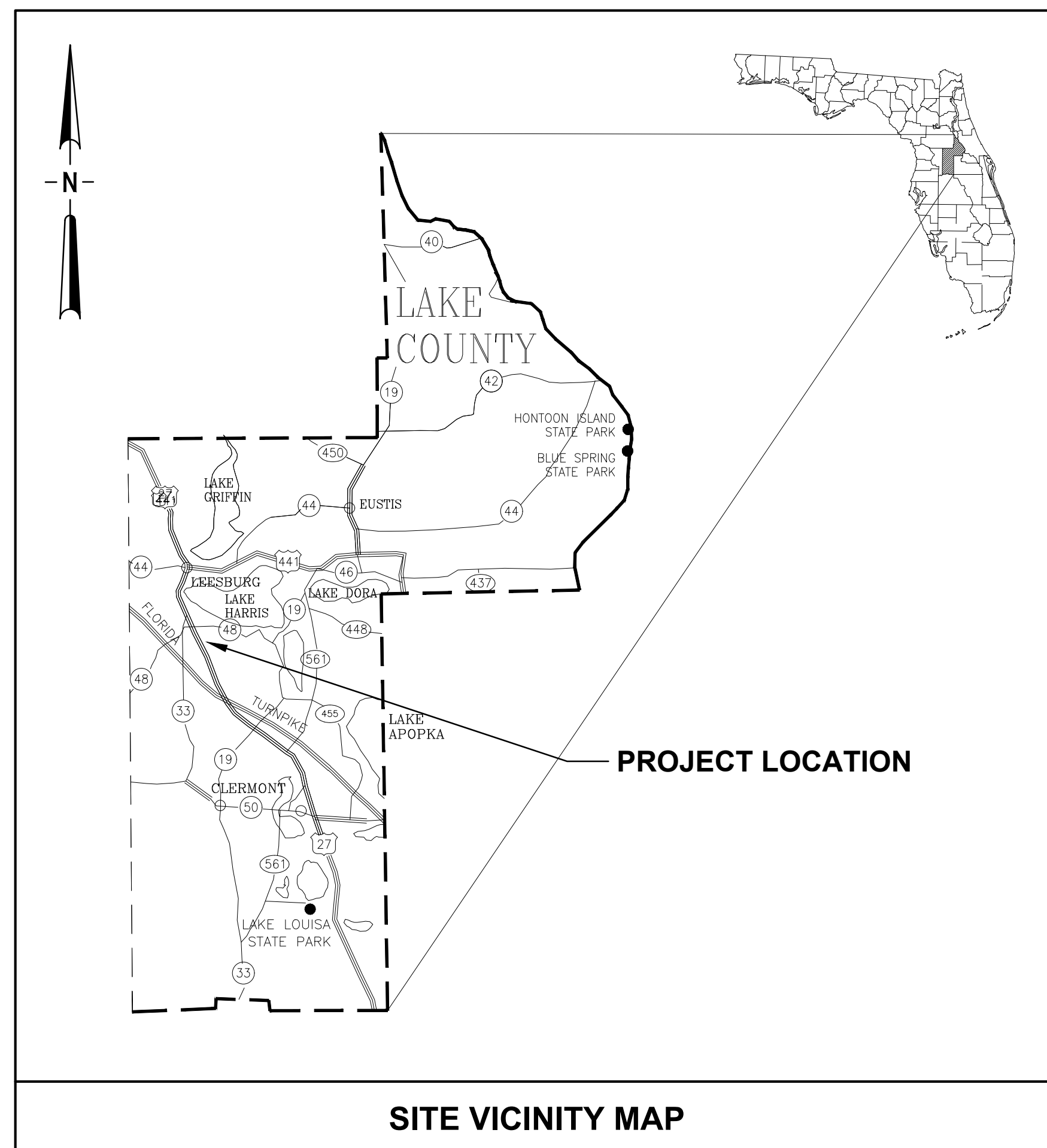


FIGURE
2

HIGHLAND LAKES WATER PLANT

GROUND STORAGE TANK

CITY OF LEESBURG, FLORIDA



PREPARED FOR:



PREPARED BY:

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401



PROJECT No. 07810-107-01

AUGUST 2023

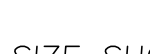
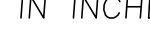
22x34

LAST SAVED: 8/4/2023 3:23 PM BY:KFRASER PLOTTED:8/4/2023 03:24 PM BY:KENNETH A. FRASER, PE

BID DOCUMENTS

SAVED: 8/4/2023 3:22 PM KFRASER Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\GENERAL\0781010701-G02.DWG

LEGEND & ABBREVIATIONS:

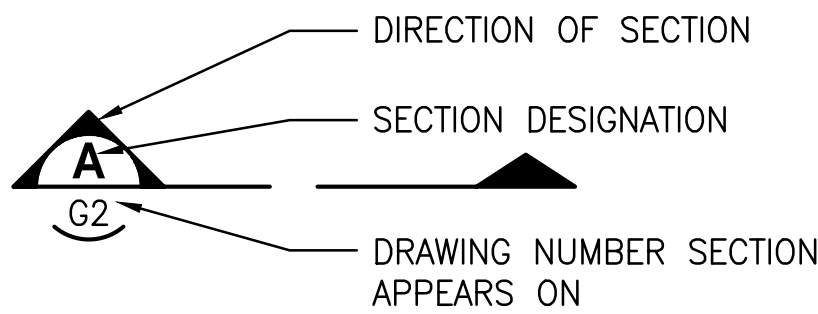
	= AIR CONDITIONING UNIT		= CHAINLINK FENCE
	= BURIED TELEPHONE PEDESTAL		= WATER LINE
	= ELECTRIC FIXTURE		= UNIDENTIFIED FEATURE OR OBJECT
	= ELECTRIC SERVICE METER		= FINISH FLOOR ELEVATION
	= FLAT GRATE INLET		= LICENSED BUSINESS
	= FIRE HYDRANT		= IDENTIFICATION
	= GREASE TRAP		= DUCTILE IRON PIPE
	= WATER SPIGOT		= CORRUGATED METAL PIPE
	= HAND HOLE		= REINFORCED CONCRETE PIPE
	= IRON ROD		= INVERT
	= NAIL W/DISC		= TRAVERSE POINT
	= POST/BOLLARD		= NORTH AMERICAN DATUM
	= NON-TRAFFIC SIGN		= NORTH AMERICAN VERTICAL DATUM
	= TRANSFORMER ON SLAB		= SOUTHEASTERN SURVEYING & MAPPING CORPORATION
	= UNIDENTIFIED FEATURE OR OBJECT	SIZE SHOWN IS TRUNK DIAMETER IN INCHES MEASURED AT CHEST HEIGHT	
	= UTILITY MARKER		= PALM
	= VAULT		= CABBAGE
	= WATER METER		= TREE
	= WATER VALVE		= LAUREL OAK

DESCRIPTION:

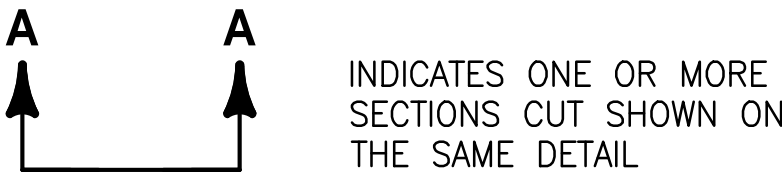
A PORTION OF THE NORTHWEST 1/4 OF SECTION 24, TOWNSHIP 20 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA.

SURVEYOR'S REPORT:

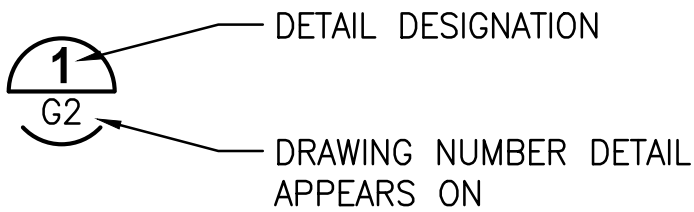
- UTILITY LOCATIONS IF SHOWN HEREON ARE BASED ON FIELD LOCATION OF MARKINGS BY UTILITY COMPANY REPRESENTATIVES, SURFACE FEATURES AND CONSTRUCTION PLANS FURNISHED TO THE SURVEYOR. ADDITIONAL SUB-SURFACE UTILITIES MAY EXIST THAT HAVE NOT BEEN FIELD LOCATED.
- EASEMENTS OR RIGHTS OF WAY THAT APPEAR ON RECORDED PLANS OR THAT HAVE BEEN FURNISHED TO THE SURVEYOR BY OTHERS HAVE BEEN INCORPORATED INTO THIS DRAWING WITH APPROPRIATE NOTATION.
- MINIMUM HORIZONTAL ACCURACY FOR THIS SURVEY IS IN ACCORDANCE WITH THE STANDARDS OF PRACTICE SET FORTH BY THE BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17 REQUIREMENTS OF FLORIDA ADMINISTRATION CODE. THE MAP AND MEASUREMENT METHODS USED FOR THIS SURVEY MEET OR EXCEED THIS REQUIREMENT. THE DIMENSIONS SHOWN HEREON ARE IN UNITED STATES STANDARD FEET AND DECIMALS THEREOF.
- THIS SURVEY DOES NOT DETERMINE OWNERSHIP OF THE LANDS SHOWN HEREON.
- UNDERGROUND FOUNDATIONS HAVE NOT BEEN LOCATED.
- SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. AND IF SHOWN HEREON IS IN COMPLIANCE WITH FLORIDA ADMINISTRATIVE CODE 5J-17.062 AND FLORIDA STATUTE 472.025.
- FEATURES SHOWN BY SYMBOL AS INDICATED IN THE LEGEND ARE NOT TO SCALE.
- ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- VERTICAL INFORMATION SHOWN HEREON REFERS TO A NATIONAL GEODETIC SURVEY (NGS) POINT WITH DESIGNATION "LC05", PID#AA1805 AND HAS A PUBLISHED ELEVATION OF 82.97 FEET NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- HORIZONTAL POSITIONS FOR ALL FEATURES SHOWN ON THE MAP ARE RELATIVE TO NORTH AMERICAN DATUM OF 1983 (NAD83), 2011 ADJUSTMENT, STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE. CONTROL POINT(S) USED FOR THIS SURVEY ARE NATIONAL GEODETIC SURVEY (NGS) POINT DESIGNATION "LC05", PID#AA1805, DISTANCES SHOWN ARE GRID DISTANCES.
- THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF AN ABSTRACT, TITLE SEARCH, TITLE OPINION OR TITLE COMMITMENT. A TITLE SEARCH MAY REVEAL ADDITIONAL INFORMATION AFFECTING THE PARCEL AS SHOWN.
- IMPROVEMENTS AND TOPOGRAPHIC FEATURES SHOWN HEREON ARE LIMITED TO AREAS PER SPECIFIC INSTRUCTIONS OF THE CLIENT.
- RIGHT OF WAY INFORMATION SHOWN HEREON WAS DETERMINED BY FOUND MONUMENTATION, RECORDED PLATS, AND INFORMATION OBTAINED ON THE LAKE COUNTY PROPERTY APPRAISERS WEB SITE.
- ADJACENT PROPERTY INFORMATION SHOWN HEREON WAS NOT FURNISHED TO THIS SURVEYOR, AND WAS COMPILED USING LATEST AVAILABLE DATA. NO ATTEMPT WAS MADE BY THIS SURVEYOR TO VERIFY ITS ACCURACY.



SECTION DESIGNATION



SECTION DESIGNATION



DETAIL DESIGNATION

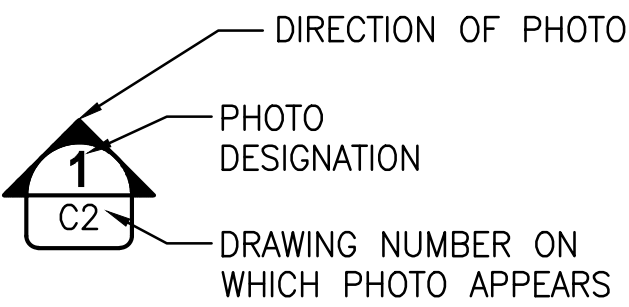


PHOTO DESIGNATION

Sheet List Table

SHEET NUMBER	SHEET TITLE
GENERAL	
G1	COVER
G2	DRAWING INDEX, SURVEY NOTES AND LEGEND
G3	ABBREVIATIONS
G4	GENERAL NOTES
G5	LEGEND
G6	PIPE AND VALVE SCHEDULE
G7	PROCESS FLOW DIAGRAM
G8	STORMWATER POLLUTION PREVENTION PLAN
GEOTECHNICAL	
B1	BORING PLAN
B2	BORING LOGS
DEMO	
D1	DEMOLITION PLAN
EROSION CONTROL	
EC1	EROSION CONTROL PLAN
EC2	STORMWATER POLLUTION PREVENTION DETAILS
EC3	STORMWATER POLLUTION PREVENTION DETAILS
EC4	STORMWATER POLLUTION PREVENTION DETAILS
CIVIL	
C1	SITE PLAN
C2	GRADING AND RESTORATION PLAN
C3	CIVIL DETAILS
C4	CIVIL DETAILS
MECHANICAL	
M1	MECHANICAL SITE PLAN
M2	GST SECTION ELEVATION
M3	GST PLANVIEW AND SECTION
M4	GST DETAILS
M5	GST DETAILS
M6	GST DETAILS
M7	GST DETAILS
M8	GST DETAILS
M9	GST DETAILS
M10	GST DETAILS
STRUCTURAL	
S1	GST SUMP PLAN AND SECTION
ELECTRICAL	
E1	ELECTRICAL NOTES, LEGEND, AND ABBREVIATIONS
E2	GROUND STORAGE TANK ELETRICAL PLAN
E3	ELECTRICAL DETAILS
E4	ELECTRICAL DETAILS
IRRIGATION	
I1	IRRIGATION PLAN

LTR.	DATE	REVISIONS	BY	APPRD.	CHECKED

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER



730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

DRAWING INDEX, SURVEY NOTES AND
LEGEND

KENNETH A. FRASER, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY KENNETH A. FRASER, PE. ON THE
DATE INDICATED ON COVER PAGE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: G2

PLOTTED: 8/4/2023 03:24 PM KENNETH A. FRASER, PE

GENERAL ABBREVIATIONS

&@	AND	COL	COLUMN	FOS	FAST—OFF—SLOW	ME	MATCH EXISTING	PSF	POUNDS PER SQUARE FOOT	TK	TANK
A	AT	COM	COMMUNICATION	FOSA	FAST—OFF—SLOW—AUTO	MECH	MECHANICAL	PSI	POUNDS PER SQUARE INCH	TOC	TOP OF CONCRETE
AA	AUTOMATIC	CON	CONCENTRIC	FOSR	FAST—OFF—SLOW—REMOTE	MES	MITERED END SECTION	PSIA	POUNDS PER SQUARE INCH	TOS	TOP OF STEEL
AA STD	ALUMINUM ASSOCIATION STANDARD	CONC	CONCRETE	FP	FULL PENETRATION, FIELD PANEL	MFR	MANUFACTURER		ABSOLUTE	TOSJ	TOP OF STEEL JOIST
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	CONSTR	CONSTRUCTION	FR	FORWARD—REVERSE	MH	MANHOLE	PSID	POUNDS PER SQUARE INCH	TOW	TOP OF WALL
ABW	AUTOMATIC BACKWASH	CONT	CONTINUOUS	FREQ	FREQUENCY	MIN	MINIMUM	PSIG	POUNDS PER SQUARE INCH GAUGE	TS	TUBULAR STEEL
AC	ASBESTOS CEMENT	CORP	CORPORATION	FRP	FIBER REINFORCED PLASTIC	MISC	MISCELLANEOUS	PSV	PRESSURE SUSTAINING VALVE	TSF	THICKENED SLAB FOOTING
AC	ALTERNATING CURRENT	CP	CONTROL PANEL	FS	FLORIDA STATUTES, FAR SIDE, FLOW	MJ	MECHANICAL JOINT	PT	PRESSURE TREATED, POTENTIAL TRANSFORMER	TSP	TWISTED SHIELDED PAIR
AC	AIR CONDITIONER	CPT	CONTROL POWER TRANSFORMER	FT	FOOT	MNPT	MALE NATIONAL PIPE THREAD	PV	PLUG VALVE	TURB	TURBIDITY
ACI	AMERICAN CONCRETE INSTITUTE	CRE	CORROSION RESISTANT	G	GROUND	MO	MOTOR OPERATOR	PVC	POLYVINYL CHLORIDE	TYP	TYPICAL
ADJ	ADJUSTABLE	CRSI	CONCRETE REINFORCING STEEL INSTITUTE	GAL	GALLON	MOT	MAINTENANCE OF TRAFFIC	PVMT	PAVEMENT	UCM	UNDERGROUND COMMUNICATIONS
AFF	ABOVE FINISHED FLOOR	CS	CARBON STEEL	GALV	GALVANIZED	MOV	MOTOR OPERATED VALVE	PWR	POWER	UG	UNDERGROUND
AFG	ABOVE FINISHED GRADE	CT	CURRENT TRANSFORMER, CABLE TRAY CONTACTOR	GEN	GENERATOR	MP	METERING PUMP	R	RADIUS	UL	UNDERWRITER’S LABORATORIES
AIP	ABANDONED IN PLACE	CTR	CENTERED	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	MS	MOTOR STARTER	R/W,	RIGHT—OF—WAY	ULC	ULTRASONIC LEVEL CONTROLLER
AISI	AMERICAN IRON STEEL INSTITUTE	CV	CHECK VALVE	GND	GROUND	MT	MANUFACTURER SUPPLIED CABLE	ROW	REINFORCED CONCRETE PIPE	UNO	UNLESS NOTED OTHERWISE
AIT	ANALYTICAL INDICATING TRANSMITTER	D	DRAIN	GPM	GALLONS PER MINUTE	MSC		RCP	RECEPACLE	UPS	UNINTERRUPTIBLE POWER SUPPLY
ALT	ALTERNATIVE	DB	DUCT BANK	GR	GRADE	MTD	MOUNT(ED)	RCPT	RECEPACLE	V	VOLTAGE, VOLTS
ALUM	ALUMINUM	DBI	DITCH BOTTOM INLET	GRTG	GRATING	MTL	METAL	RCW	RECLAIMED WATER	VERT	VERTICAL
AM	AUTO—MANUAL	DBC	DIRECT BURIED CABLE	GS	GALVANIZED STEEL	MV	MEDIUM VOLTAGE	RED	REDUCER	VFD	VARIABLE FREQUENCY DRIVE
AMPS	AMPERES	DC	DIRECT CURRENT	GST	GROUND STORAGE TANK	N	NORTHING, NEUTRAL, NORMAL	REF	REFERENCE	VH	VAPOR HEATER
ANSI	AMERICAN NATION STANDARDS INSTITUTE	DES	DESIGNATION	GV	GATE VALVE	N/A	NOT APPLICABLE	REINF	REINFORCEMENT, REINFORCING	VIB	VIBRATION
AP	ANALYZER PANEL	DET	DETAIL	H	HIGH	NAD	NORTH AMERICAN DATUM	REQ,	REQUIRED	VP	VAPORIZER
APP	APPROVE, APPROVED	DI	DUCTILE IRON	HD	HAND	NAVD	NORTH AMERICAN VERTICAL DATUM	REQ'D		W	WIDE, WATT
APPRO		DIA	DIAMETER	HDD	HORIZONTAL DIRECTIONAL DRILL	NC	NORMALLY CLOSED	RGS	RIGID GALVANIZED STEEL	W/	WITH
X	APPROXIMATE	DIP	DUCTILE IRON PIPE	HDNS	HARDNESS	NE	NORTH EAST	RJ	RESTRAINED JOINT	W/O	WITHOUT
AR	AIR RELEASE	DIPS	DUCTILE IRON PIPE SIZE	HDPE	HIGH DENSITY POLYETHYLENE	NEC	NATIONAL ELECTRICAL CODE	RM	REMOTE MULTIPLEXING MODULE	WCJ	WALL CONTROL JOINT
ARV	AIR RELEASE VALVE	DIV	DIVISION	HHWL	HIGH HIGH WATER LEVEL	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	RMS	ROOT MEAN SQUARE	WF	WALL FOOTING
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	DN	DOWN, DAMPER	HK	HOOK	NEUT	NEUTRAL	RPZ	REDUCED PRESSURE ZONE	WGT	WEIGHT
ASD	ADJUSTABLE SPEED DRIVE	DR	DRAIN, DIMENSION RATIO	HOA	HAND—OFF—AUTO	NGVD	NATIONAL GEODETIC VERTICAL DATUM	RS	RAW SEWAGE	WM	WATER MAIN
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	DWG	DRAWING	HOR	HAND—OFF—REMOTE	NIC	NOT IN CONTRACT	RT	RIGHT	WP	WORK POINT, WEATHERPROOF
ATS	AUTOMATIC TRANSFER SWITCH	DXS	DOUBLE EXTRA STRONG	HORIZ	HORIZONTAL	NO	NORMALLY OPEN	RTU	REMOTE TELEMETRY UNIT	WSE,	WATER SURFACE ELEVATION
AUTO	AUTOMATIC	E	ELECTRIC ACTUATOR	HP	HORSEPOWER	NOM	NOMINAL	RWL	RECLAIMED WATER LINE	WSEL	
AUX	AUXILIARY	EA	EACH	HPS	HIGH PRESSURE SODIUM	NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	SAN	SANITARY	WT	WEIGHT
AVE	AVENUE	EC	ELECTRICAL CONTRACTOR	HR	HANDRAIL	HSP	HIGH SERVICE PUMP	SARV	SURGE ANTICIPATOR RELIEF VALVE	WV	WATER VALVE
AWG	AMERICAN WIRE GUAGE	ECC	ECCENTRIC	HT	HEIGHT	NPT	NATIONAL PIPE THREAD	SBC	STANDARD BUILDING CODE	WWF	WELDED WIRE FABRIC
AWS	AMERICAN WELDING SOCIETY	EES	EMERGENCY EYEWASH AND SHOWER	HWL	HIGH WATER LEVEL	NRS	NONRISING STEM	SC	SCUM	XFMR	TRANSFORMER
AWWA	AMERICAN WATER WORKS ASSOCIATION	EF	EACH FACE, EXHAUST FAN	I&C	INSTRUMENTATION AND CONTROL	NS	NEAR SIDE	SCH	SCHEDULE	XS	EXTRA STRONG
B/	BOTTOM OF	EFF	EFFLUENT	IC	INTERRUPTING CAPACITY	NSF	NATIONAL SANITATION FOUNDATION	SCJ	SAW CUT JOINT		
B/L	BASELINE OF CONSTRUCTION	EG	SUCH AS	ID	INSIDE DIAMETER	NTS	NOT TO SCALE	SDI	STEEL DECK INSTITUTE		
BC	BARE COPPER	EJ	EXPANSION JOINT	IE	INVERT ELEVATION	NW	NORTH WEST	SE	SOUTH EAST		
BF	BLIND FLANGE	EL	ELEVATION	IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS	OC	ON CENTER(S), OPEN—CLOSE(D)	SEC	SECOND		
BFG	BELOW FINISHED GRADE	ELEV		IF	INSULATED FLANGE	OCA	OPEN—CLOSE—AUTO	SF	SLOWER—FASTER		
BFP	BACKFLOW PREVENTER	ELB	ELBOW	INC	INCORPORATED	OCR	OPEN—CLOSE—REMOTE	SFM	SANITARY FORCE MAIN		
BFV	BUTTERFLY VALVE	ELEC	ELECTRICAL	INV	INVERT	OD	OUTSIDE DIAMETER	SHEC	SHOULDERED—END COUPLING		
BKR	BREAKER	EOP	EDGE OF PAVEMENT	IPS	IRON PIPE SIZE	OE	OVERHEAD ELECTRIC	SHT	SHEET		
BLD	BLIND	EQ	EQUAL	J, JB	JOINT	OF	OVERFLOW	SIM	SIMILAR		
BLDG	BUILDING	ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE	JT	JOINT	OO	ON—OFF	SJI	STEEL JOINT INSTITUTE		
BLVD	BOULEVARD	EST	ELEVATED STORAGE TANK	KA	KILOAMPERES	OOA	ON—OFF—AUTO	SM	STATIC MIXER		
BM	BENCH MARK	ETC	ETCETERA	KB	KNEE BRACE	OOR	ON—OFF—REMOTE	SP	SPACING, SPACED		
BO	BLOW—OFF	EW	EACH WAY	KCMIL	THOUSAND CIRCULAR MILS	OPP	OPPOSITE	SPD	SURGE PROTECTIVE DEVICE		
BOT	BOTTOM OF TANK	EX	EXISTING	KV	KILOVOLT	ORP	OXIDATION REDUCTION POTENTIAL	SPTG	SEPTAGE		
BTM	BOTTOM	F, FU	FUSE	KVA	KILOVOLT AMPERES	OS&Y	OUTSIDE STEM AND YOKE	SQ	SQUARE		
BTM/	BOTTOM OF	FAB	FABRICATED	KW	KILOWATTS	OSC	OPEN—STOP—CLOSE	SR	STATE ROAD, SURGE RELIEF		
BV	BALL VALVE	FAC	FLORIDA ADMINISTRATIVE CODE	KWH	KILOWATT HOUR	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	SRV	SURGE RELIEF VALVE		
BYP	BYPASS	FCA	FLANGED COUPLING ADAPTER	L	LOWER	OSW	OTHER SURFACE WATER	SS	START—STOP		
C	CONDUIT, CONDUCTOR, CLOSE	FCV	FLOW CONTROL VALVE	LB	POUND(S)	PD	PLANT DRAIN	SS,	STAINLESS STEEL		
C/L	CENTERLINE	FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	LBS		P/L	PROPERTY LINE	SST	STEEL		
CAM	COMPUTER—AUTO—MANUAL	FDN	FOUNDATION	LE	LEVEL ELEMENT	PB	PULL BOX	SSHIM	STAINLESS STEEL HEX HEAD		
CAT	CATALOGUE	FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	LEL	LOWER EXPLOSIVE LIMIT	PCCP	PRESTRESSED CONCRETE CYLINDER	B	MACHINE BOLT		
CB	CIRCUIT BREAKER	FDR	FEEDER	LF	LINEAR FEET	PCV	PIPE	SSRV	SOLID STATE REDUCED VOLTAGE		
CC	CENTER TO CENTER	FE	FLOW ELEMENT	LG	LONG	PE	PRESSURE CONTROL VALVE	ST	SHUNT TRIP		
CCS	CENTRAL CONTROL SYSTEM	FF	FINISHED FLOOR	LIT	LEVEL INDICATING TRANSMITTER	PET	PLAIN END, POLYETHYLENE	STA	STATION		
CF	COLUMN FOUNDATION	FFE	FINISHED FLOOR ELEVATION	LIU	LIGHT INTERFACE UNIT	PF	POLYETHYLENE TUBING	STD	STANDARD		
CFWE	CABLE FURNISHED WITH EQUIPMENT	FG	FINISHED GRADE, FIBERGLASS	LLH	LONG LEG HORIZONTAL	pH	HYDROGEN ION CONCENTRATION	STL	STEEL		
CI	CAST IRON	FGH	FIRE HYDRANT	LLV	LONG LEG VERTICAL	PI	POWER FACTOR	STS	STORMWATER SEWER		
CIP	CAST IN PLACE, CAST IRON PIPE	FIG	FIGURE	LLWL	LOW LOW WATER LEVEL	PH	PHASE	SW	SOUTH WEST, SWITCH		
CISP	CAST IRON SLIP PIECE	FIN	FINISHED	LOS	LOCKOUT STOP	PI	PRESSURE INDICATOR/GAUGE	SWD	SIDE WATER DEPTH		
CJ	CONSTRUCTION JOINT	FIT	FLOW INDICATING TRANSMITTER	LR	LONG RADIUS, LOCAL—REMOTE	PID	PROPORTIONAL INTEGRAL DERIVATIVE	SWJ	SOLVENT WELD JOINT		
CLF	CHAIN LINK FENCE	FJ	FLANGED JOINT	LS	LIFT STATION	PIT	PRESSURE INDICATING TRANSMITTER	SY	SQUARE YARD		
CLR	CLEAR	FJ	FLANGED JOINT	LSIG	LONG SHORT INSTANTANEOUS	PIV	POST INDICATOR VALVE	T, THK	THICK		
CL2	CHLORINE GAS	FL	FLOOR	LWL	LOW WATER LEVEL	PL	PLATE	T/	TOP OF		
CM	COMPUTER—MANUAL	FLEX	FLEXIBLE	M	MAGNETIC CONTACTOR COIL, MOTOR, MANUAL	PLC	PROGRAMMABLE LOGIC CONTROLLER	T/B	TOP AND BOTTOM		
CMP	CORRUGATED METAL PIPE	FLG	FLANGE(D)	M/F	MALE/FEMALE	PLCS	PLACES	TBM	TEMPORARY BENCHMARK		
CMU	CONCRETE MASONRY UNIT	FND	FOUNDATION	MAX	MAXIMUM	POC	POINT OF CONNECTION	TEMP	TEMPERATURE		
CO	CLEANOUT	FNPT	FOUNDATION	MC	MODULATE—CLOSE	POE	POINT OF ENTRY	TGS	THREADED GALVANIZED STEEL		
CO	COMPANY	FO	FIBER OPTIC	MCC	MOTOR CONTROL CENTER	POJ	PUSH ON JOINT	TGSP	THREADED GALVANIZED STEEL PIPE		
COA	CERTIFICATE OF AUTHORIZATION	FOC	FIBER OPTIC CONDUIT	MCJ	MASONRY CONTROL JOINT	PP	POWER POLE	TH	TOTAL HEAD		
						PPE	PERSONAL PROTECTIVE EQUIPMENT	THD	THREADED		
						PRV	PRESSURE REDUCING VALVE	TJB	TERMINAL JUNCTION BOX		

NOTES:

1. SEE LEGENDS AND PIPE SCHED ABBREVIATIONS.

2. NOT ALL ABBREVIATIONS MAY BE PROJECT.

NOTES:

1. SEE LEGENDS AND PIPE SCHEDULE FOR ADDITIONAL ABBREVIATIONS.
2. NOT ALL ABBREVIATIONS MAY BE USED FOR THIS PROJECT.

						DESIGNED	JTORRES	 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401	HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA	ABBREVIATIONS	KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO:	DATE:
						DRAWN	RMARTIN					07810-107-01	AUG. 2023
						CHECKED	KFRASER					INDEX NO:	DWG NO:
LTR.	DATE	REVISIONS	BY	APPRD.									G3

Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-CST\DWGS\GENERAL\0781010701-G04.DWG
A
B
C
D
E
F
8
7
6
5
4
3
2
1
SAVED: 4/11/2023 11:05 AM JTORRESRIVERA
BID DOCUMENTS

REFERENCED DATA

1. TOPOGRAPHIC SURVEY PERFORMED BY SOUTHEASTERN SURVEYING AND MAPPING CORPORATION, A LICENSED PROFESSIONAL LAND SURVOR, DATED NOVEMBER 2022.
2. THE SURVEY INFORMATION CONTAINED HEREIN WAS OBTAINED FOR DESIGN PURPOSES AND MAY NOT BE AN ADEQUATE REPRESENTATION OF ACTUAL CONDITIONS FOR PROJECT CONSTRUCTION. EXISTING CONTOURS SHOWN REPRESENT INTERPOLATIONS/EXTRAPOLATIONS FROM THE BEST AVAILABLE SURVEY DATA. ALL RISKS RESULTING FROM THE USE OR INTERPRETATION OF THE SURVEY DATA SHOWN SHALL BE BORNE BY THE CONTRACTOR.

GENERAL

3. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS (FDEP, SWFWMD, ETC) OBTAINED FOR THIS PROJECT.
4. CONSTRUCTION MATERIALS QUALITY AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE PROJECT AND THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
5. THE CONTRACTOR IS ADVISED NOT TO SCALE FROM DRAWINGS BUT TO FIELD VERIFY ALL DIMENSIONS. THE DIMENSIONS OF SPECIFIED AND FURNISHED PRODUCTS AND MATERIALS TAKE PRECEDENCE OVER DIMENSIONS INDICATED ON THE DRAWINGS. IF SIGNIFICANT DEVIATIONS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO CONSTRUCTION FOR A DETERMINATION AND RESOLUTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED AS-BUILT RECORD DRAWINGS TO THE OWNER AND ENGINEER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR. ALL SURVEY COSTS WILL BE THE CONTRACTOR'S RESPONSIBILITY.

CONSTRUCTION LAYOUT/LIMITS OF CONSTRUCTION

7. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A FLORIDA LICENSED LAND SURVEYOR FOR LAYOUT. PROOF OF LICENSE SHALL BE SUBMITTED TO THE ENGINEER BEFORE BEGINNING LAYOUT.
8. NO DISTURBANCE SHALL BE ALLOWED OUTSIDE OF THE RIGHT OF WAYS, OWNER'S PROPERTY, AND/OR THE LIMITS OF CONSTRUCTION SHOWN ON THE DRAWINGS UNLESS APPROVED BY THE OWNER OR SPECIFICALLY NOTED ON THE DRAWINGS.

EXISTING CONDITIONS

9. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE DESIGN AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. NO GUARANTEE IS MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATIONS OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO PRECISELY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATED A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD OF USE FOR SUCH WORK.
10. PRIOR TO SHOP DRAWING PREPARATION AND SUBMITTAL AND PURCHASE OF RELATED MATERIALS, THE CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITIES (LOCATION, SIZE, MATERIALS OF CONSTRUCTION, OUTSIDE DIAMETER, WALL THICKNESS, ROUNDNESS, ELEVATIONS, ETC.) TO WHICH CONNECTION(S) WILL BE MADE. CONTRACTOR SHALL INCLUDE FIELD MEASUREMENTS ON SHOP DRAWINGS.

11. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER IN WRITING IMMEDIATELY IF CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED. THE CONTRACTOR SHALL ACCURATELY RECORD ANY SUCH CONFLICTS ON THE RECORD DRAWINGS.
12. ANY PROPERTY CORNERS, MONUMENTS, OR BENCH MARKS WITHIN THE PROJECT AREA SHALL BE PROTECTED UNLESS OTHERWISE INDICATED FOR DEMOLITION. IF ANY SUCH ITEMS ARE IN DANGER OF DAMAGE OR HAVE BEEN DAMAGED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER IMMEDIATELY AND REPLACE/RESTORE THESE ITEMS AT NO ADDITIONAL COST TO THE OWNER. IF OWNER CHOOSES TO SELF PERFORM THE WORK OR INCURS RELATED EXPENSES, THE CONTRACTOR SHALL REIMBURSE THE OWNER FOR ALL COSTS ASSOCIATED WITH THE EFFORT.

UTILITY COORDINATION

13. THE CONTRACTOR SHALL NOTIFY ALL UTILITIES NEAR THE PROJECT AREA AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE NOTIFYING "SUNSHINE STATE ONE CALL OF FLORIDA" AT LEAST 48 HOURS PRIOR TO ANY DIGGING WORK TO HAVE ALL EXISTING UTILITIES LOCATED. THE PHONE NUMBER IS 1-800-432-4770 AND THE WEB SITE IS WWW.CALLSUNSHINE.COM. IN INSTANCES WHERE DIGGING OCCURS IN WETLANDS, THE NOTIFICATION PERIOD SHALL BE INCREASED FROM AT LEAST 48 HOURS TO AT LEAST 10 DAYS.
14. FLORIDA LAW (FS 553.851) REQUIRES THAT PERSONS MAKING EXCAVATIONS IN PUBLIC STREETS, ALLEYS, RIGHT-OF-WAYS OR UTILITY EASEMENTS MUST FIRST OBTAIN INFORMATION ON LOCATIONS OF UNDERGROUND GAS PIPELINES.
15. THE CONTRACTOR SHALL PRESERVE AND MAINTAIN EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES WITHIN THE PROJECT AREA. ANY DAMAGE SHALL BE REPAIRED BY AND AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
16. THE CONTRACTOR IS RESPONSIBLE FOR BRACING, SHORING, OR PROVIDING OTHER MEANS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES (EXPOSED OR UNEXPOSED) THAT MAY BE IMPACTED BY HIS WORK.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING POWER/TELEPHONE COMPANIES AND ARRANGING TO HAVE UTILITIES POLES HELD AND/OR GUY WIRES REMOVED AND REPLACED, IF NECESSARY FOR CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER.

SAFETY

18. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH THE OSHA EXCAVATION SAFETY STANDARDS AND TO ABIDE BY THEM AS COVERED UNDER THE FLORIDA TRENCH SAFETY ACT.
19. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY.

RESTORATION

20. ALL PAVING, STABILIZED EARTH, DRIVEWAYS, CURBS, SIDEWALKS, FENCES, SOD, LANDSCAPING, CULVERTS, ETC. DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED BY AND AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
21. ALL SODDING, SEEDING AND MULCHING SHALL INCLUDE WATERING AND FERTILIZATION AND CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE AREAS UP TO AND INCLUDING THE INITIAL MOWING.

ACCESS/MAINTENANCE OF FACILITIES

22. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL EXISTING UTILITIES/FACILITIES AND MAINTAIN UNINTERRUPTED SERVICES THROUGHOUT THE CONTRACT PERIOD.

PIPING NOTES

23. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS. CONTRACTOR SHALL TAKE CARE TO PROVIDE PROPER GRADE ELEVATIONS AND ALIGNMENTS.

24. SIZE OF FITTINGS SHOWN ON PLANS SHALL CORRESPOND TO THE ADJACENT STRAIGHT RUN OF PIPE UNLESS NOTED OTHERWISE. TYPE OF JOINT AND FITTING MATERIAL SHALL BE AS SPECIFIED FOR THE ADJACENT STRAIGHT RUN OF PIPE UNLESS NOTED OTHERWISE.
25. PIPE HANGERS AND SUPPORTS SHOWN ARE THE MINIMUM REQUIRED. FINAL SUPPORTS, LOCATIONS, AND TYPES SHALL BE DETERMINED BY THE CONTRACTOR AND INCLUDED IN THE PIPELINE DRAWING SUBMITTALS FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. MAXIMUM SPACING SHALL BE AS SPECIFIED.
26. THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATION AND ELEVATION OF ALL EXISTING UTILITY CONNECTION POINTS PRIOR TO STARTING CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES FOUND.
27. ALL PIPE 4" AND LARGER SHALL BE RESTRAINED UTILIZING MECHANICAL RESTRAINT DEVICES.

UTILITY SEPARATION

28. EACH PROPOSED UTILITY SHALL BE LAID TO ACHIEVE THE MINIMUM HORIZONTAL SEPARATION BETWEEN IT AND OTHER UTILITIES IN ACCORDANCE WITH THE TYPICAL UTILITY HORIZONTAL SEPARATION DETAIL AND FDEP REQUIREMENTS.
29. AT LOCATIONS WHERE A PROPOSED UTILITY CROSSES ANOTHER UTILITY, THE PROPOSED UTILITY SHALL BE INSTALLED IN ACCORDANCE WITH THE TYPICAL UTILITY CONFLICT DETAIL AND FDEP REQUIREMENTS.
30. THE LOWEST PIPE SHALL BE INSTALLED FIRST WHERE PROPOSED UTILITIES CROSS.
31. IN THE EVENT THAT A UTILITY CONFLICT CAN NOT BE RESOLVED BY MAKING A MINOR ROUTE ADJUSTMENT OR BY UTILIZING THE TYPICAL UTILITY CONFLICT DETAIL, THE CONTRACTOR SHALL SUBMIT A RELOCATION PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK. ALL RELOCATIONS EFFORTS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND ANY AFFECTED UTILITY COMPANIES.

MAINTENANCE OF TRAFFIC

32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFE MAINTENANCE OF PEDESTRIAN AND VEHICULAR TRAFFIC AT ALL TIMES DURING THE DURATION OFTHE PROJECT.
33. THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH FDOT STANDARD INDEX 600 SERIES AND THE TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES THROUGHOUT THE PROJECT. ONE TRAFFIC LANE MUST BE MAINTAINED AT ALL TIMES WITH USE OF FLAGGER. ALL TRAFFIC LANES MUST BE OPEN FOR TRAFFIC AT THE CLOSE OF WORKDAYS. ALL SIGNING, BARRICADES, LIGHTING, AND FLAGGERS SHALL BE INCLUDED IN THE LUMP SUM COST.
34. ALL PAVEMENT MARKINGS SHALL MEET CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. STANDARDS, AND SHALL BE PAINTED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 710.
35. ALL EXISTING SIGNS AND MAILBOXES SHALL BE REMOVED AND REPLACED AS REQUIRED DURING CONSTRUCTION.

UTILITY CONTACT INFORMATION:

ORGANIZATION	CONTACT AND TITLE	ADDRESS	TELEPHONE NUMBER
SUNSHINE ONE--CALL	—	www.sunshine811.com	(800) 432-4770

DEMOLITION

36. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE.
37. UNLESS OTHERWISE NOTED, ALL DEMOLISHED BUILDINGS, STRUCTURE, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. CONFIRM THAT REGULATED TOXIC/HAZARDOUS WASTES OR MATERIALS ARE NOT PRESENT OR WILL BE PROPERLY MANAGED DURING THE DEMOLITION PROCESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.

TREE PROTECTION

38. THE CONTRACTOR SHALL PROTECT ALL TREES FROM DAMAGE DURING CONSTRUCTION.
39. IF ANY TREE NEEDS TO BE REMOVED OR RELOCATED TO FACILITATE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL RETAIN THE SERVICES FROM AN ARBORIST AND OBTAIN THE NECESSARY PERMITS FOR TREE REMOVAL. NO TREES SHALL BE REMOVED WITHOUT PRIOR APPROVAL FROM THE OWNER.

STORMWATER POLLUTION PREVENTION

40. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND ADHERING TO A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH EPA REGULATIONS AND BEST MANAGEMENT PRACTICES. ALL COSTS FOR THE DEVELOPMENT AND IMPLEMENTATION OF THE SWPPP SHALL BE BORNE BY THE CONTRACTOR, INCLUDING ALL INSPECTIONS AND REPORTS REQUIRED.

FUGITIVE DUST CONTROL

41. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND ADHERING TO A FUGITIVE DUST CONTROL PLAN IN ACCORDANCE WITH EPA REGULATIONS AND BEST MANAGEMENT PRACTICES. ALL COSTS FOR THE DEVELOPMENT AND IMPLEMENTATION OF THE PLAN SHALL BE BORNE BY THE CONTRACTOR, INCLUDING ALL INSPECTIONS AND REPORTS REQUIRED.

WASTE DISPOSAL

42. ALL WASTE AND PRODUCT OF DEMOLITION WORK, INCLUDING SOLID WASTE AND HAZARDOUS MATERIALS, IF ANY, SHALL BE PROPERLY DISPOSED ON AN APPROVED FACILITY. ALL COSTS FOR PROPER HANDLING, TRANSPORTATION, AND DISPOSAL SHALL BE BORNE BY THE CONTRACTOR.

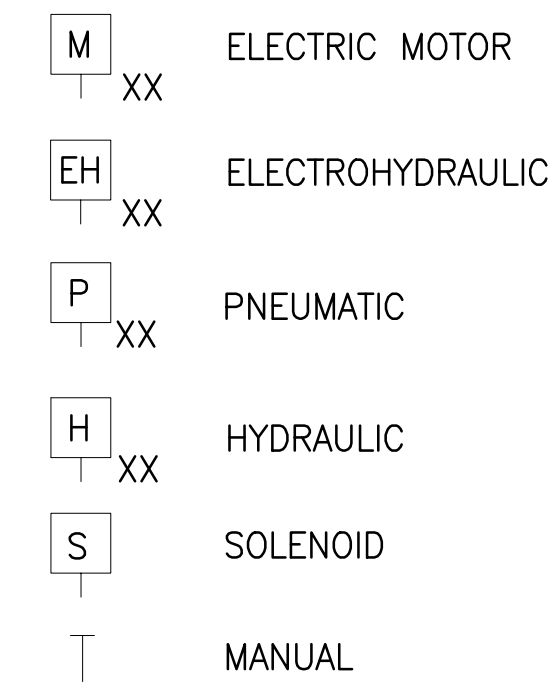
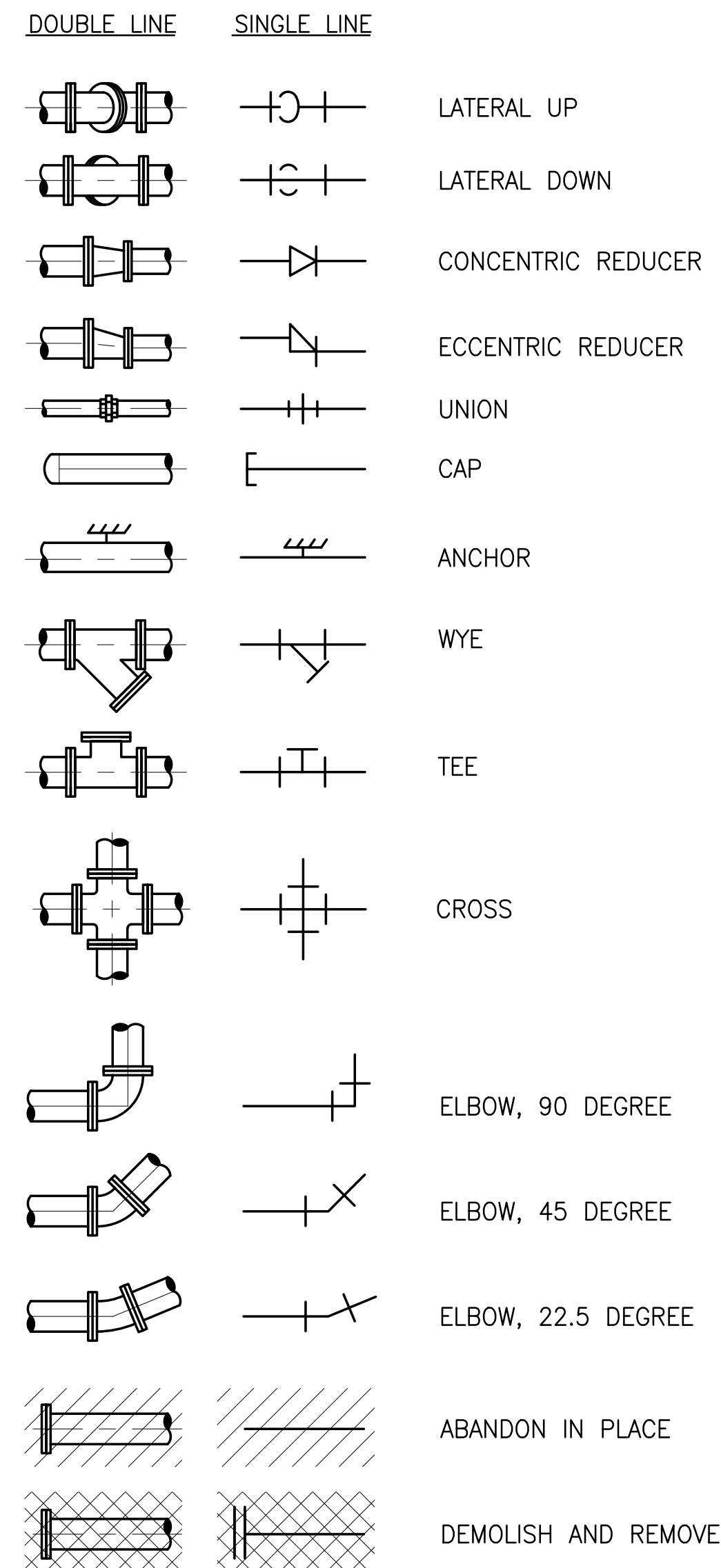
POTABLE WATER SYSTEMS

43. ALL PIPING, COATINGS, EQUIPMENT, AND MATERIALS TO BE IN CONTACT WITH POTABLE WATER, INCLUDING RAW MATERIALS SUCH AS AGGREGATES AND ADMIXTURES, SHALL BE NSF 61 COMPLIANT.
44. DISINFECT THE GROUND STORAGE TANK AND WATER MAINS BEFORE PUTTING IN SERVICE. SEE SPECIFICATIONS.

						DESIGNED	JTORRES	 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401	HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA	GENERAL NOTES	KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO:	DATE:
					DRAWN	RMARTIN	07810-107-01					AUG. 2023	
					CHECKED	KFRASER	INDEX NO:					DWG NO:	
												G4	
LTR.	DATE	REVISIONS		BY	APPRD.								

PIPING SYMBOLS

PIPE SUPPORT SYMBOLS



ON LOSS OF PRIMARY POWER
(PNEUMATIC, ELECTRICAL OR HYDRAULIC)
XX: FO = FAIL OPEN
FC = FAIL CLOSED
FLP = FAIL TO LAST POSITION

		EXISTING PIPE (ABOVE GRADE)
		PROPOSED PIPE (BELOW GRADE)
		EXISTING CONTOUR
		PROPOSED CONTOUR

						DESIGNED <u>JTORRES</u>		 JonesEdmunds 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401		HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA		LEGEND		KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.		PROJECT NO:		DATE:	
						DRAWN <u>RMARTIN</u>										07810-107-01		AUG. 2023	
						CHECKED <u>KFRASER</u>													
LTR. DATE		REVISONS		BY		APPRO.													

SAVED: 4/11/2023 10:40 AM JTORRESRIVERA Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\GENERAL\0781010701-G06.DWG

ABBREVIATION	FLOW STREAM IDENTIFICATION	PIPE/DUCT MATERIAL	PIPE/DUCT MATERIAL ABBREVIATION	SPECIFICATION NUMBER	PIPE LINING	MAXIMUM OPERATING PRESSURE (PSIG)	FIELD TEST PRESSURE (PSIG)	ABOVE GRADE PAINT SYSTEM	COLOR CODE	SPECIFIC NOTES	RESTRAINT SYSTEM NOTES
DR-1	DRAIN	DUCTILE IRON	DI (CLASS 250)	15155	CEMENT	20	150	NO. 6 (SUBMERGED) / NO. 12 (EXPOSED)	LIGHT BROWN	(A)	
WM-1	POTABLE WATER MAIN	DUCTILE IRON	DI (CLASS 250)	15155	CEMENT	20	150	NO. 6 (SUBMERGED)	BLUE	(A), (B)	(1)

- GENERAL NOTES:
- COAT BURIED AND SUBMERGED PIPE PER SPECIFICATIONS
 - TEST LINES PER PROCEDURE IN SECTION 15144 UNLESS SPECIFIED AND/OR NOTED OTHERWISE
 - PAINT SYSTEM PRESENTED IN SECTION 09900

- SPECIFIC NOTES:
- (A) BURIED FITTINGS SHALL BE AWWA C110 FULL BODY DI MJ, CEMENT MORTAR LINED PER SPECIFICATIONS. EXPOSED FITTINGS SHALL BE AWWA C110 FULL BODY DI FLANGED, CEMENT MORTAR LINED PER SPECIFICATIONS.
- (B) DISINFECT POTABLE WATER MAINS IN ACCORDANCE WITH SPECIFICATIONS.

- RESTRAINT NOTES:
- (1) RESTRAIN AT ALL FITTINGS AND VALVES, ETC. INCLUDING NEW TO EXISTING.

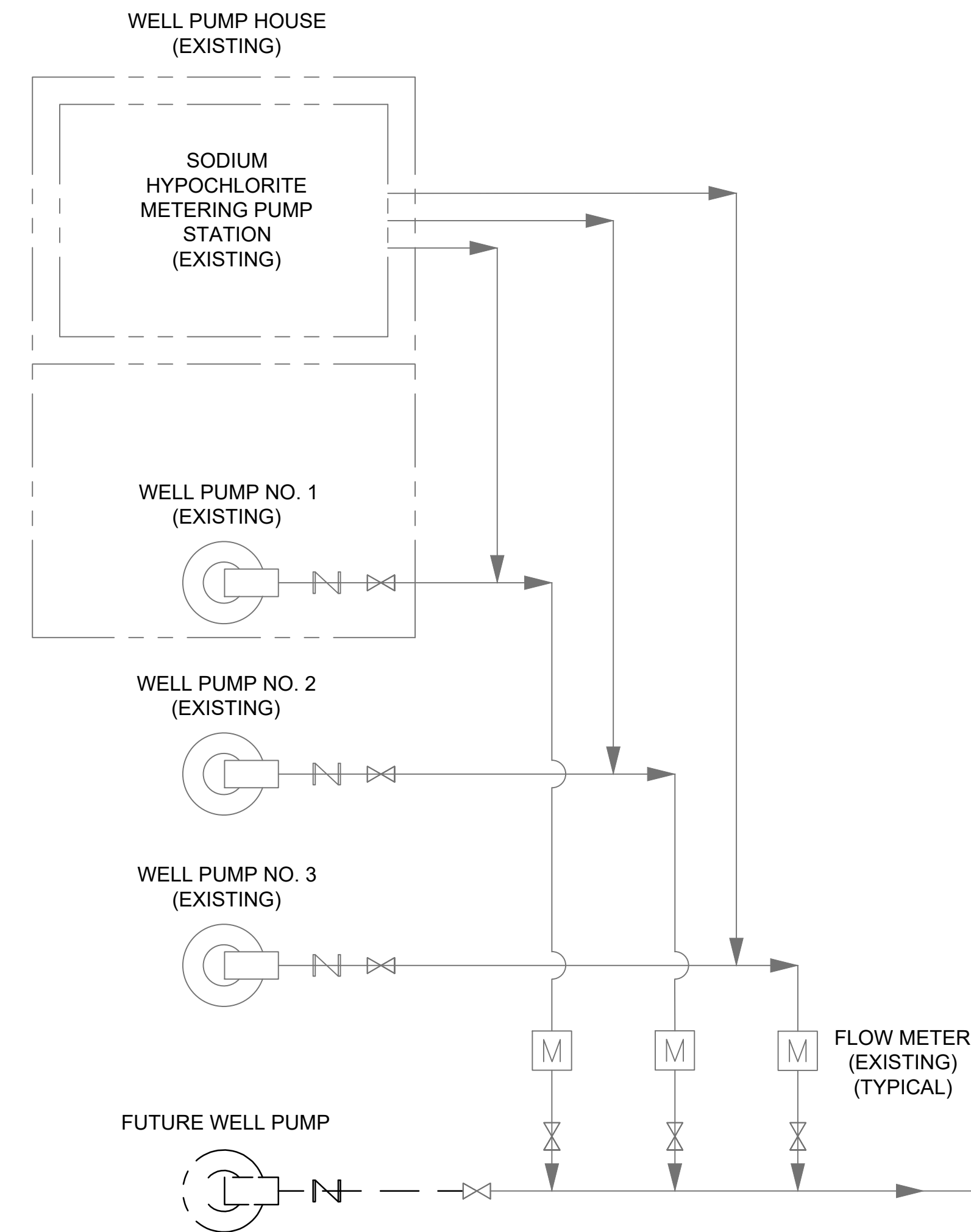
VALVE SCHEDULE		
CODE	TYPE	APPLICATION
V682	CAST IRON RESILIENT WEDGE GATE VALVE - BURIED	WATER

- GENERAL NOTES:
- REFER TO SECTION 15110 OF THE SPECIFICATIONS FOR DETAILS.

SAVED: 4/7/2023 7:09 AM SSIMS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\GENERAL\0781010701-G07.DWG

PLOTTED: 8/4/2023 03:25 PM KENNETH A. FRASER, PE

© Jones Edmunds 2234



LEGEND

EXISTING PIPE

EXISTING STRUCTURE

NEW STRUCTURE/PIPE

FUTURE STRUCTURE/PIPE

M

FLOW METER

▶

DIRECTION OF FLOW

G

WELL PUMP

G

HIGH SERVICE PUMP

G

GROUND STORAGE TANK

X

ISOLATION VALVE

Z

CHECK VALVE

LTR.	DATE	REVISIONS	BY	APPRD.	

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

PROCESS FLOW DIAGRAM

KENNETH A. FRASER, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY KENNETH A. FRASER, PE. ON THE
DATE INDICATED ON COVER PAGE.

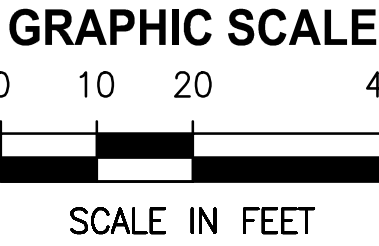
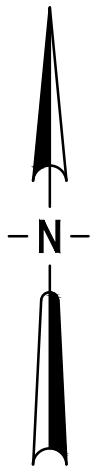
PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: G7

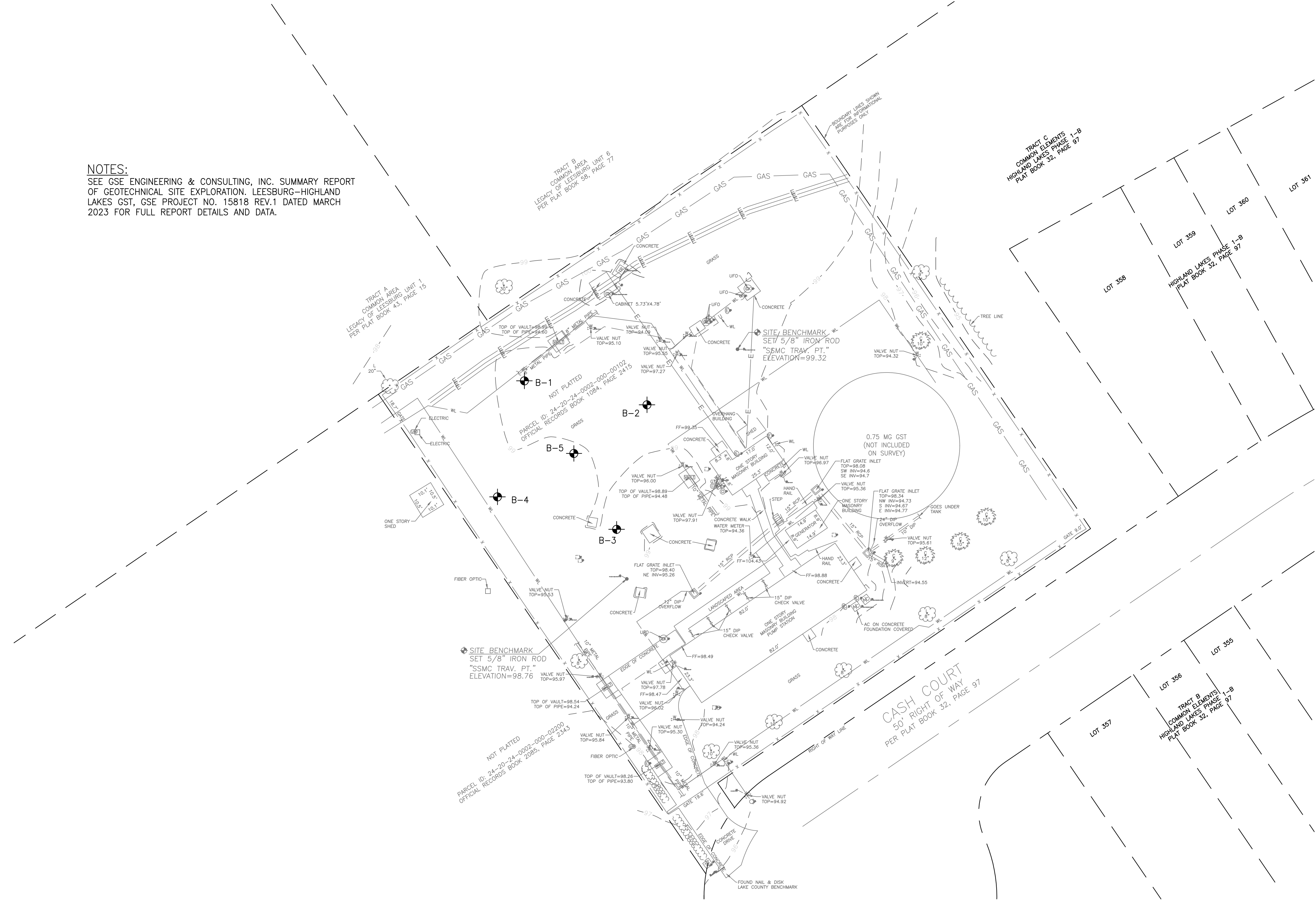
BID DOCUMENTS

SAVED: 4/11/2023 7:37 AM KFRASER Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\GENERAL\0781010701-G08.DWG

NOTES:
SEE GSE ENGINEERING & CONSULTING, INC. SUMMARY REPORT OF GEOTECHNICAL SITE EXPLORATION. LEESBURG-HIGHLAND LAKES GST, GSE PROJECT NO. 15818 REV.1 DATED MARCH 2023 FOR FULL REPORT DETAILS AND DATA.



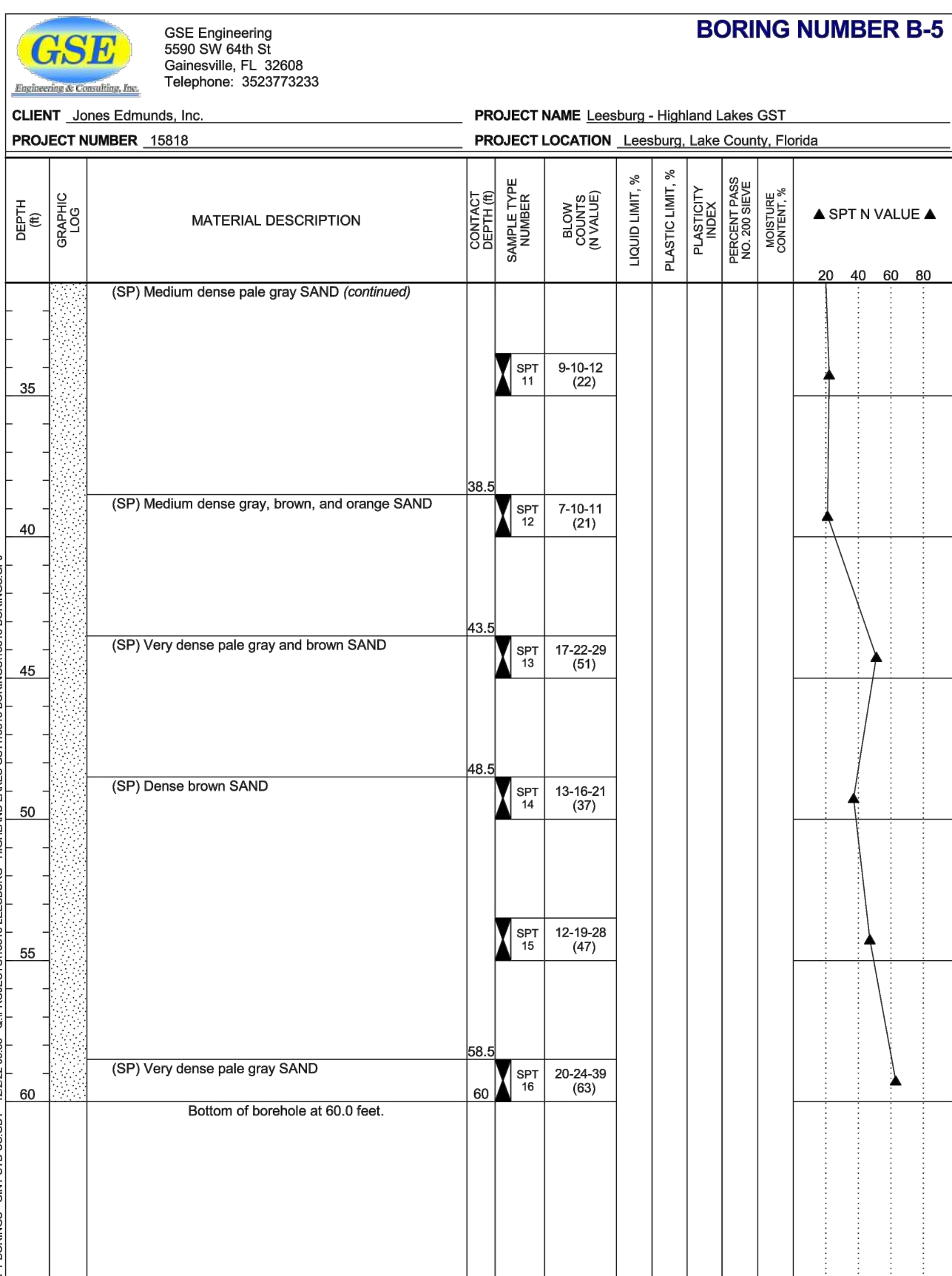
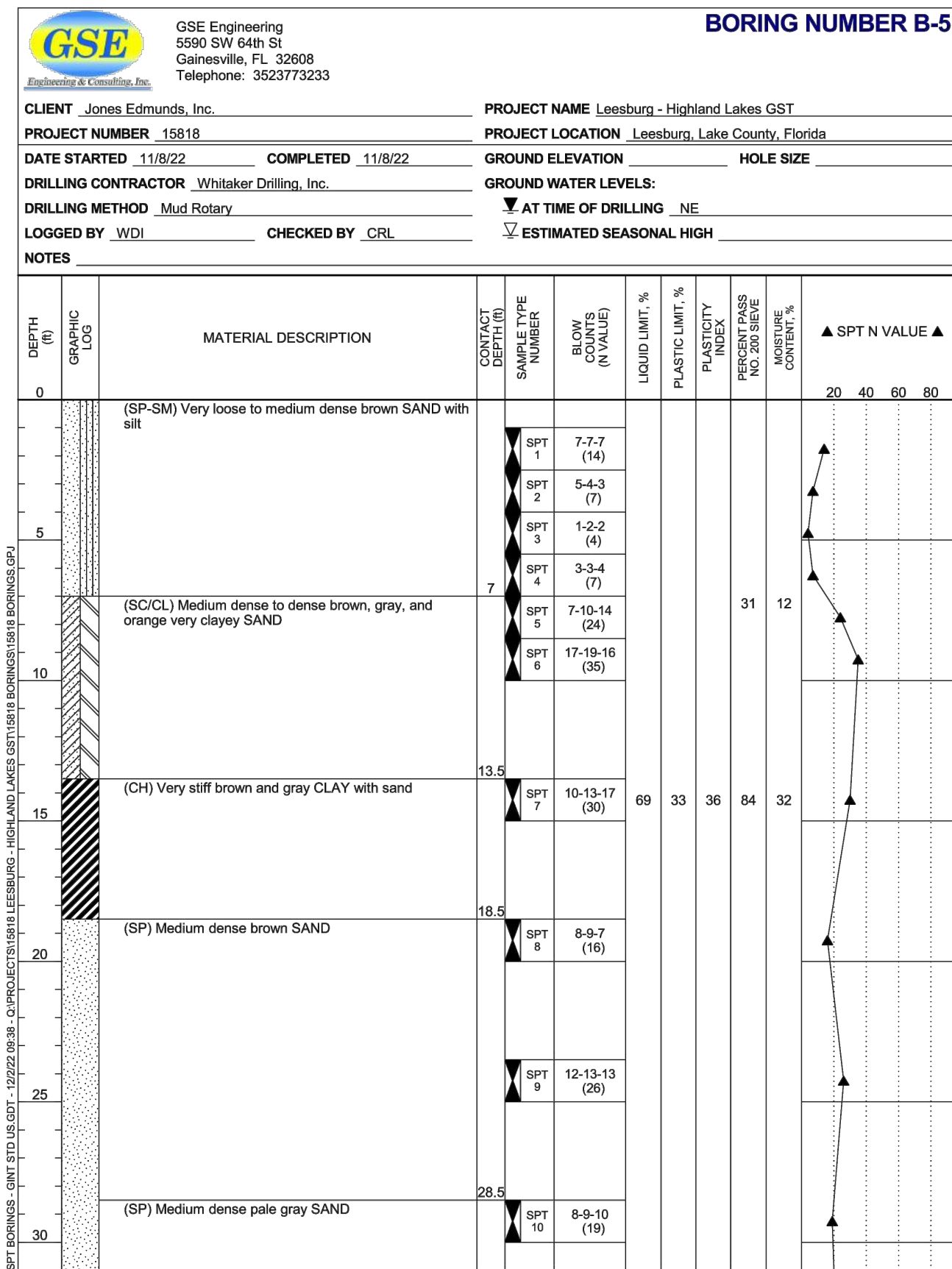
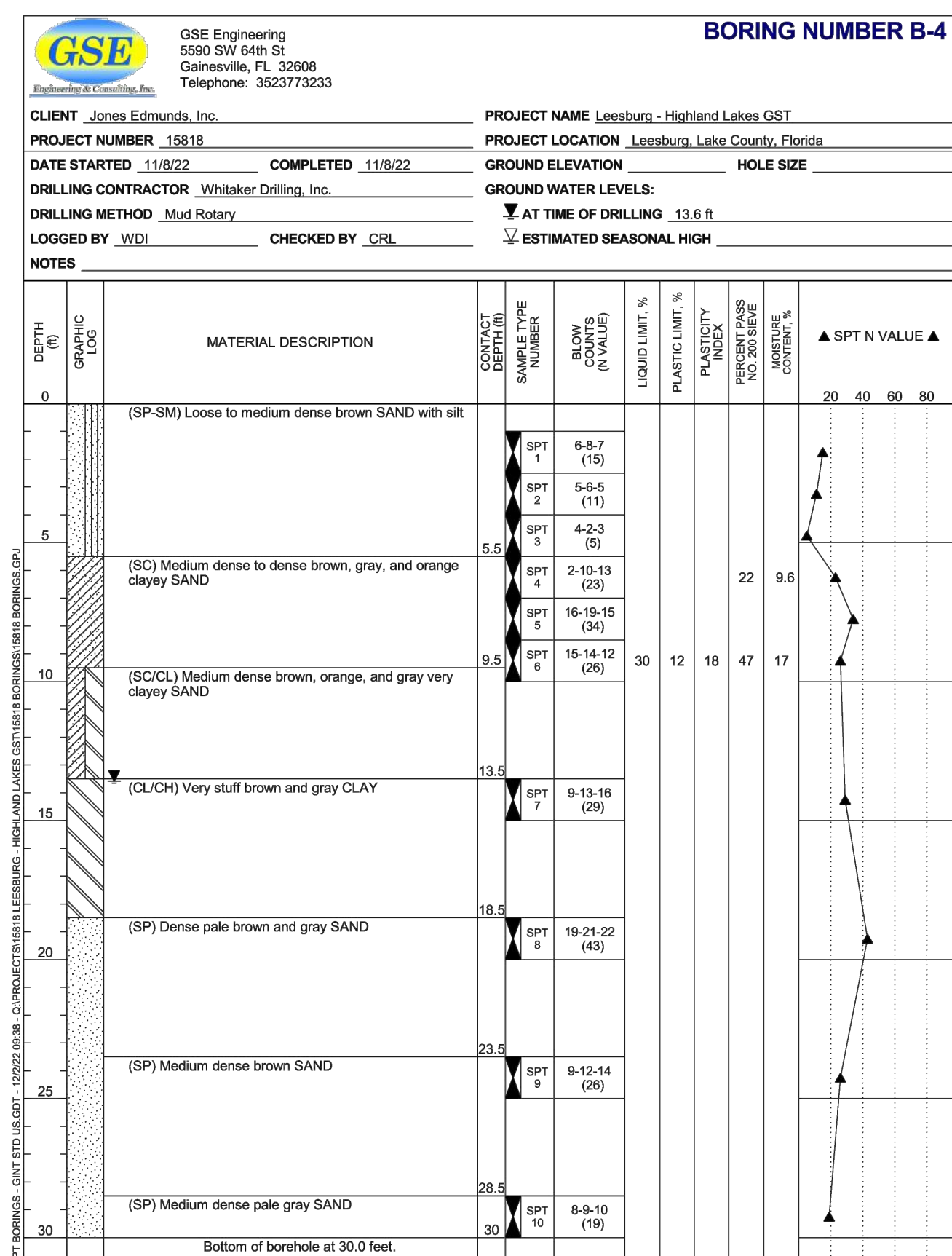
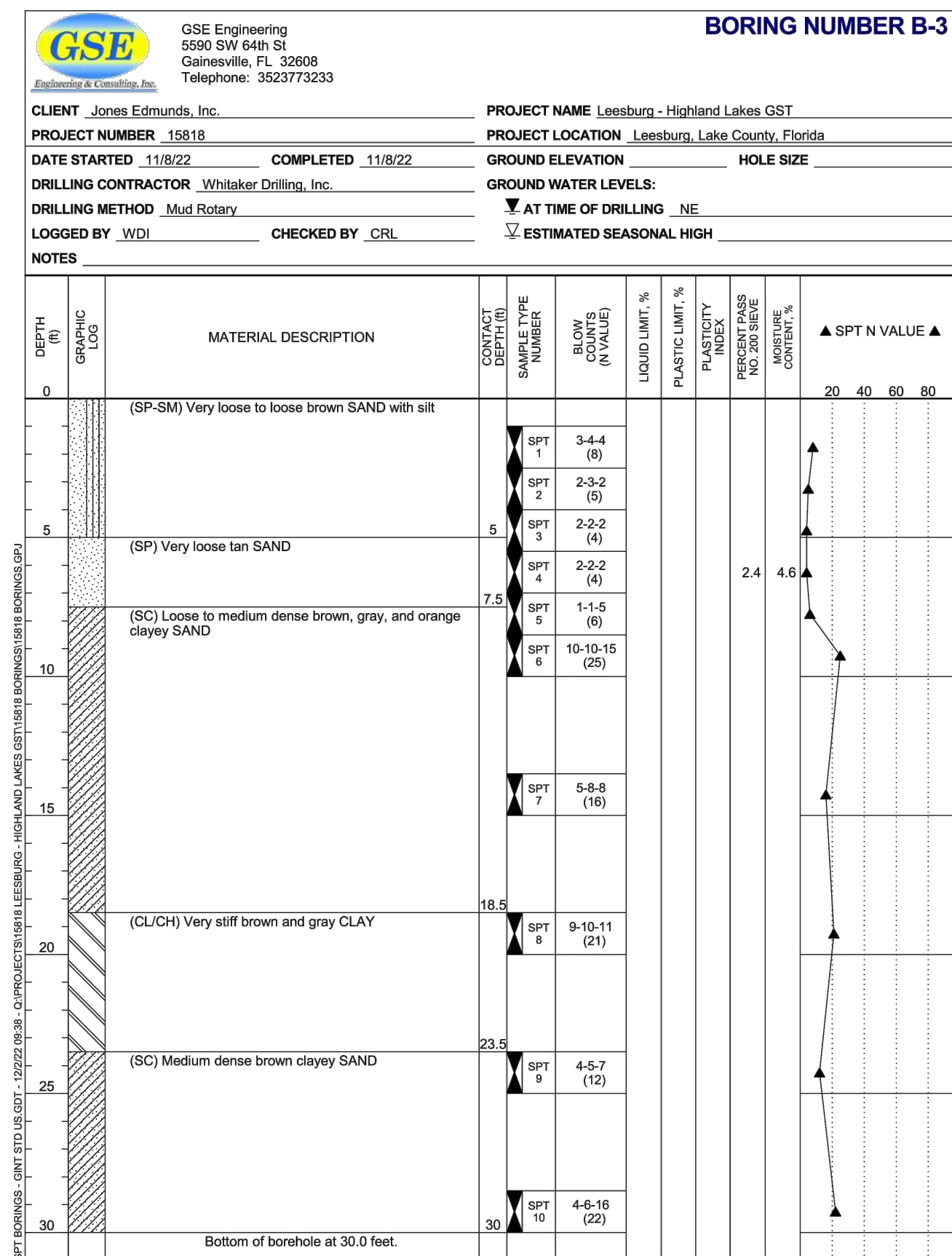
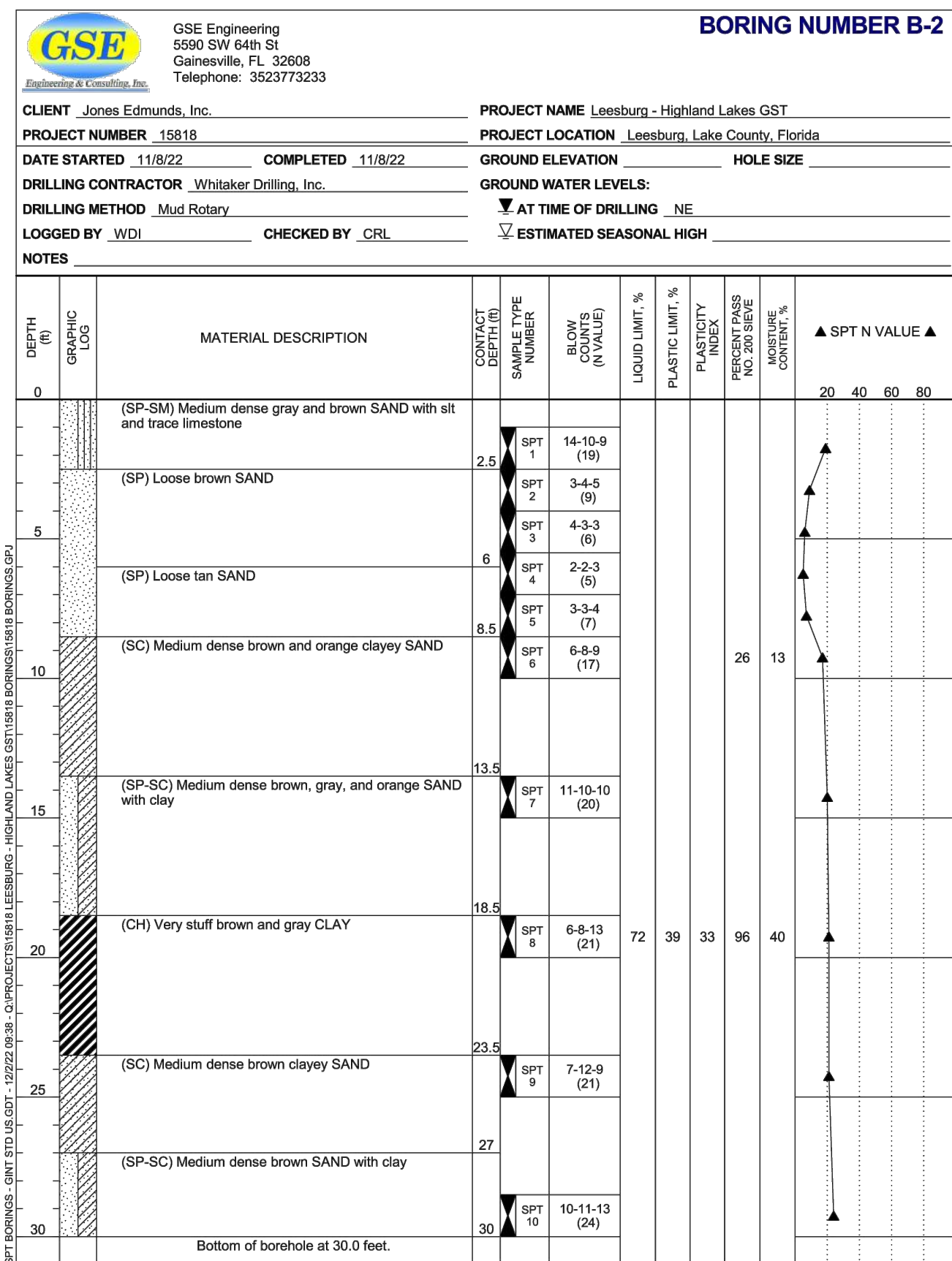
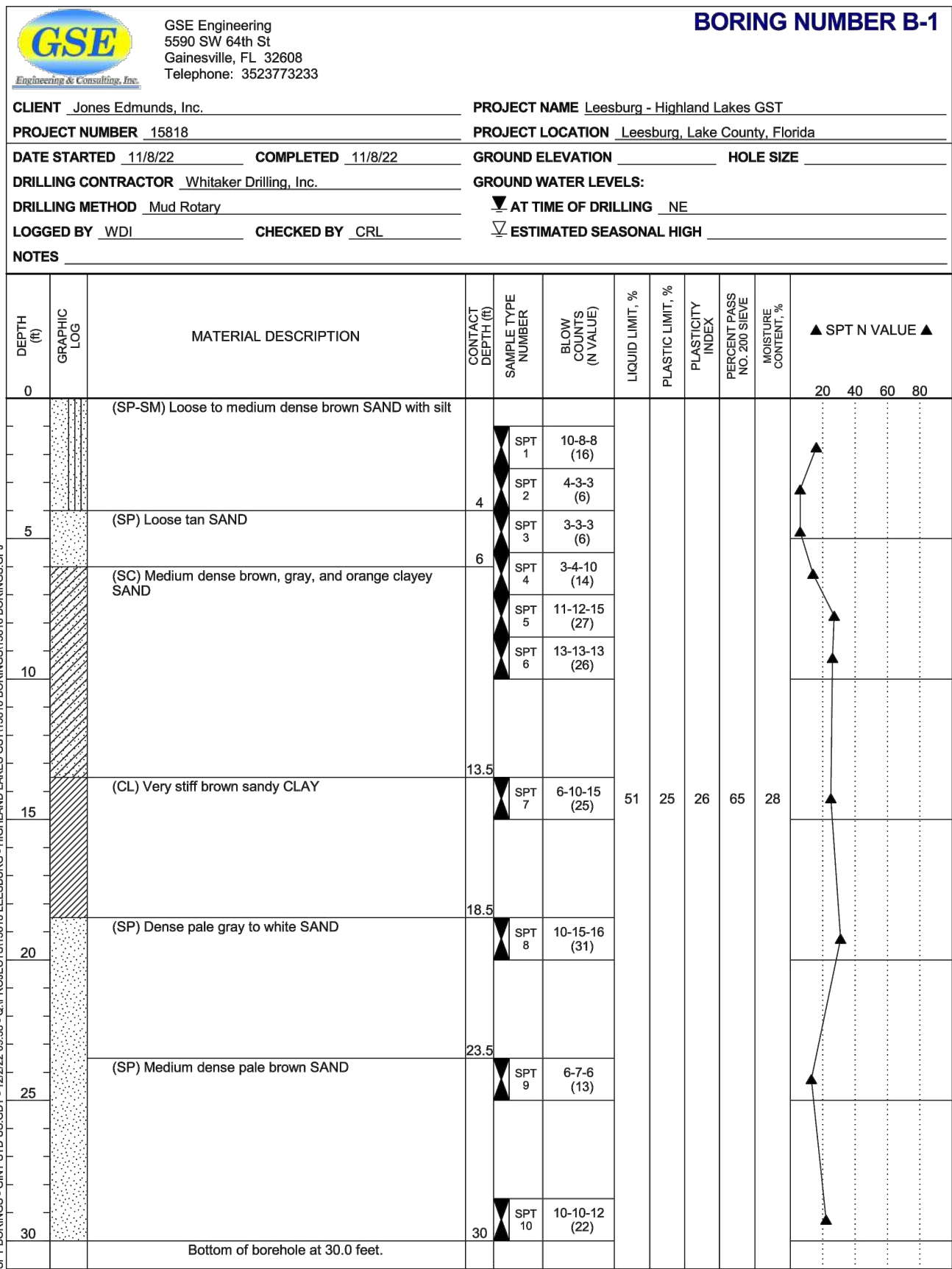
Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\BORING\0781010701-B01.DWG



					DESIGNED JTORRES	JonesEdmunds 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401	HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA	BORING PLAN	KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 07810-107-01	DATE: AUG. 2023
					DRAWN RMARTIN					INDEX NO:	DWG NO:
					CHECKED KFRASER						B1
LTR.	DATE	REVISIONS	BY	APPRD.							

SAVED: 4/7/2023 7:29 AM SSIMS Y:\07810--LEESBURG\PROJECTS\107-01--HIGHLAND LAKES-GST\CAD\DWGS\BORING\0781010701-B02.DWG

BID DOCUMENTS



NOTES:
SEE GSE ENGINEERING & CONSULTING, INC. SUMMARY REPORT OF GEOTECHNICAL SITE EXPLORATION. LEESBURG-HIGHLAND LAKES GST, GSE PROJECT NO. 15818 REV.1 DATED MARCH 2023 FOR FULL REPORT DETAILS AND DATA.

DESIGNED	JTORRES			
DRAWN	RMARTIN			
CHECKED	KFRASER			
LTR.	DATE	REVISIONS	BY	APPRD.

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK

CITY OF LEESBURG, FLORIDA

BORING LOGS

KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE.

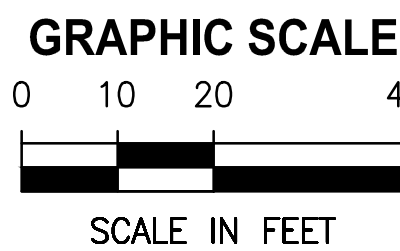
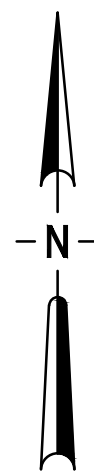
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO:
07810-107-01

INDEX NO:

DATE:
AUG. 2023

DWG NO:
B2

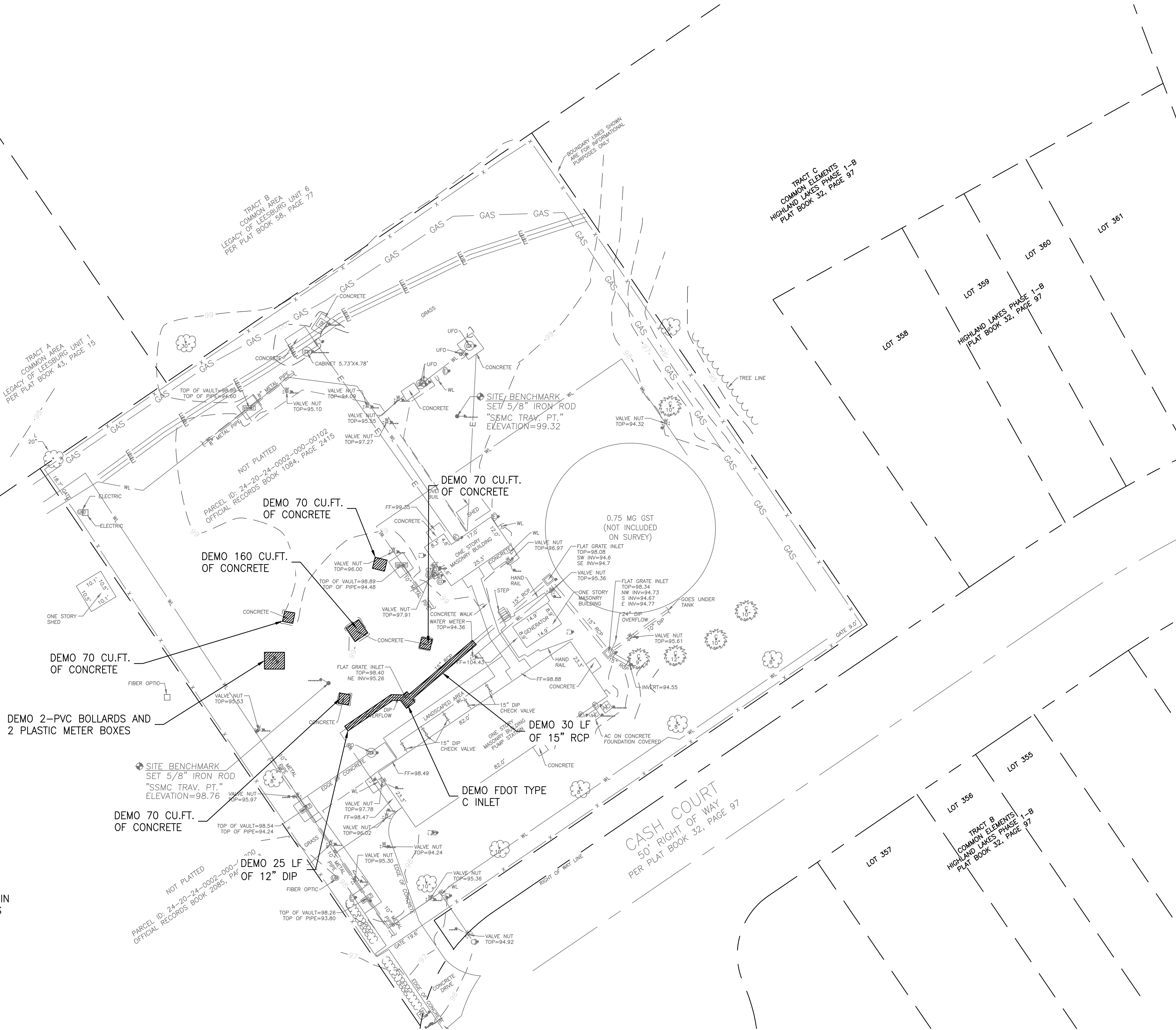


SAVED: 7/27/2023 9:31 AM SSIMS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\DWGS\DEMO\0781010701-D01.DWG

BID DOCUMENTS

SCOPE OF WORK:

1. DEMOLISH AND DISPOSE OLD CONCRETE FOOTINGS, APPROXIMATELY 5-FOOT DEEP. DEPTH TO BE FIELD VERIFIED BY CONTRACTOR.
2. FILL CAVITIES WITH SUITABLE SOIL AND COMPACT TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY IN 4-INCH LAYERS. FILL TO FOLLOW RECOMMENDATIONS IN GEOTECHNICAL REPORT.
3. REFER TO SHEET 11 FOR IRRIGATION SYSTEM DEMOLITION.



LTR.	DATE	REVISIONS	BY	APPRD.	

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER



730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

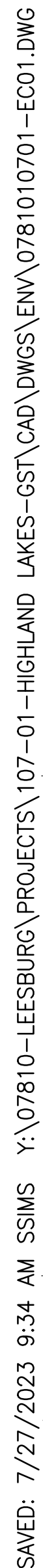
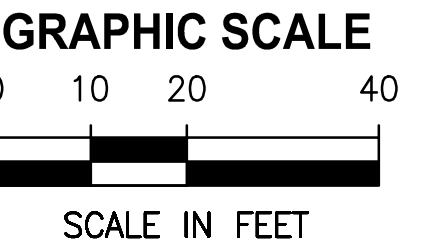
**HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA**

DEMOLITION PLAN

KENNETH A. FRASER, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY KENNETH A. FRASER, PE. ON THE
DATE INDICATED ON COVER PAGE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: D1



DESIGNED	<u>JTORRES</u>
DRAWN	<u>RMARTIN</u>
CHECKED	<u>KFRASER</u>

HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA

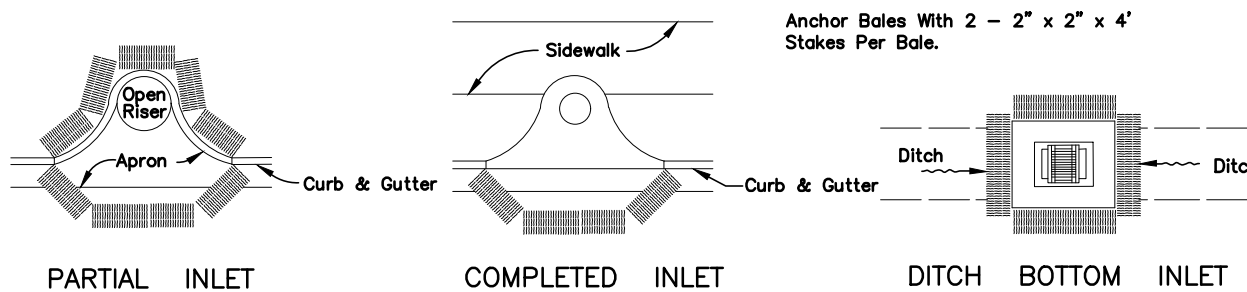
KENNETH A. FRASER, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY KENNETH A. FRASER, PE. ON THE
DATE INDICATED ON COVER PAGE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

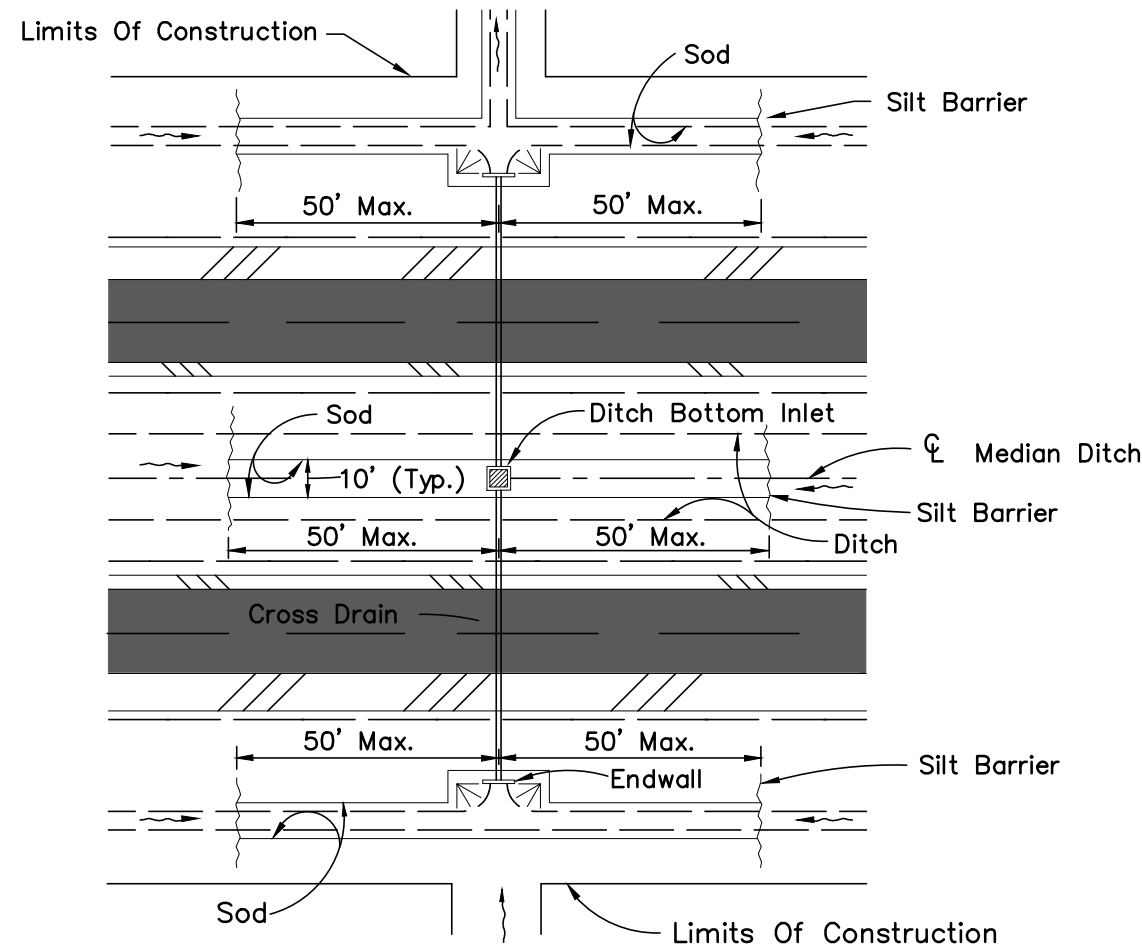
PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: EC1

EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
- THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
- ADDITIONAL PROTECTION – ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
- WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
- FOOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D-903. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
- IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
- BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
- BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
- THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
- EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
- LOOSE STRAW SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
- STRAW BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
- NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEED.
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
- SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
- FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL – A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.R.) CHAPTER 6.
- EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
- ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
- SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
- ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
- DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
- ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAY BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
- ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE STABILIZED.
- THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
- THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES RELATIVE TO COMPLIANCE OF SURFMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.



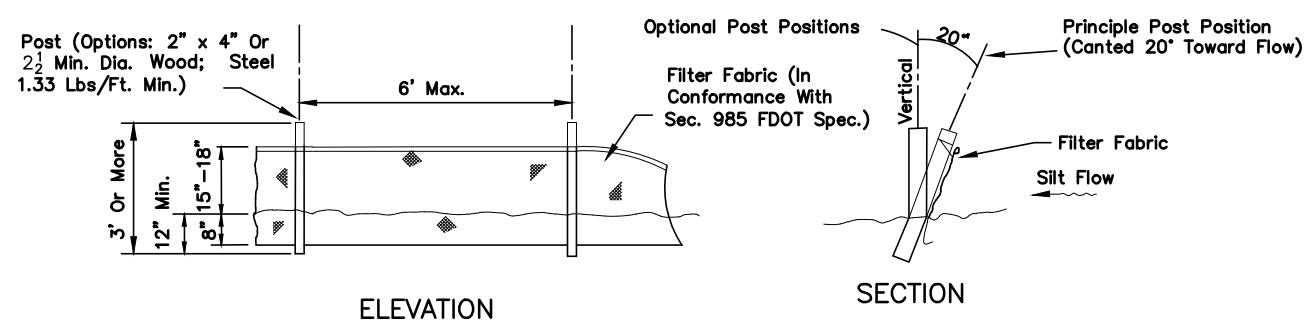
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



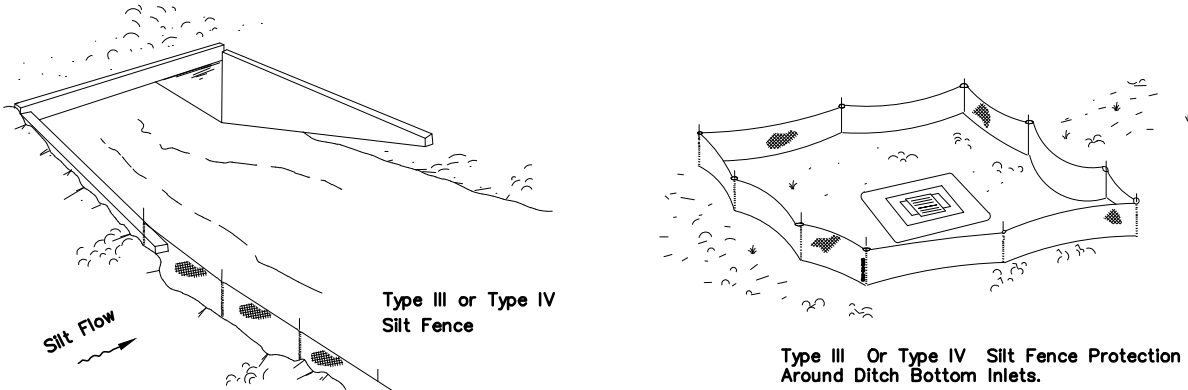
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES

HAY BALE LOCATION

(D-901)
N.T.S.



TYPE III SILT FENCE

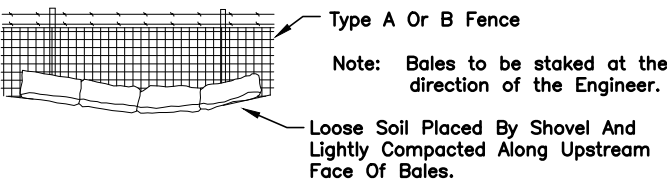


Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

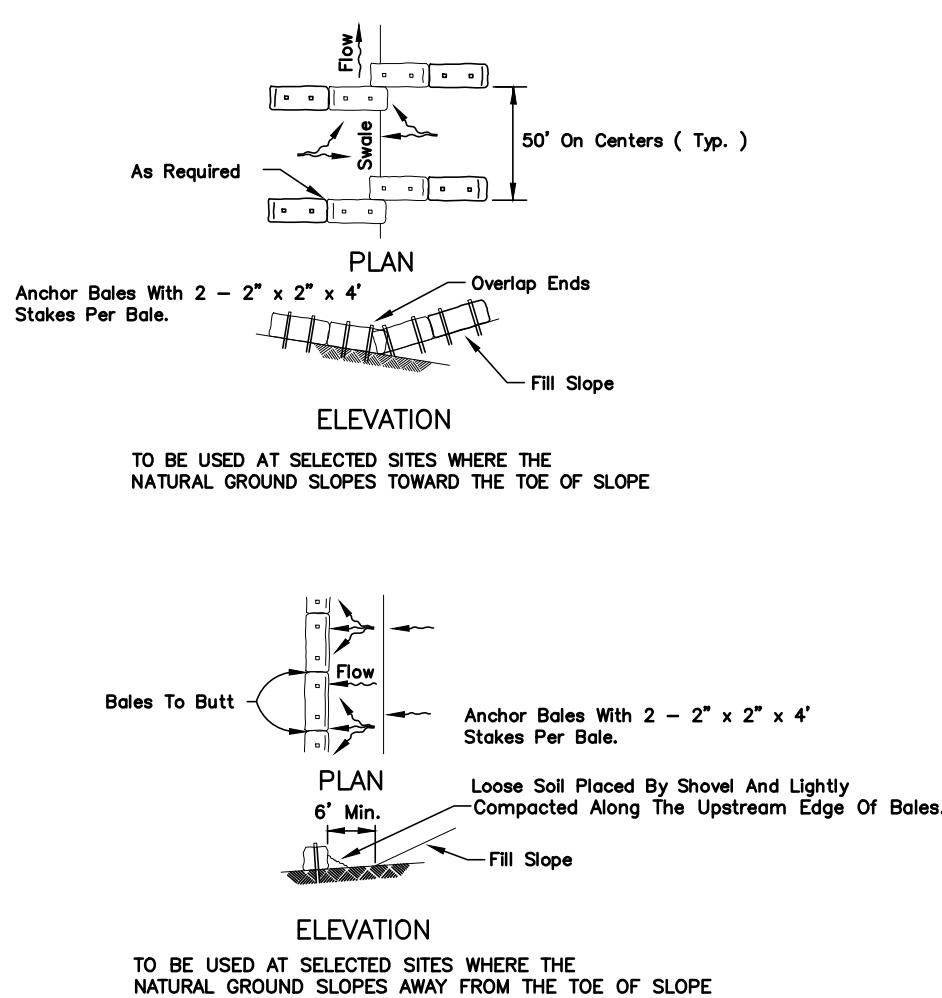
SILT FENCE APPLICATIONS

SILT FENCE TYPE III & IV

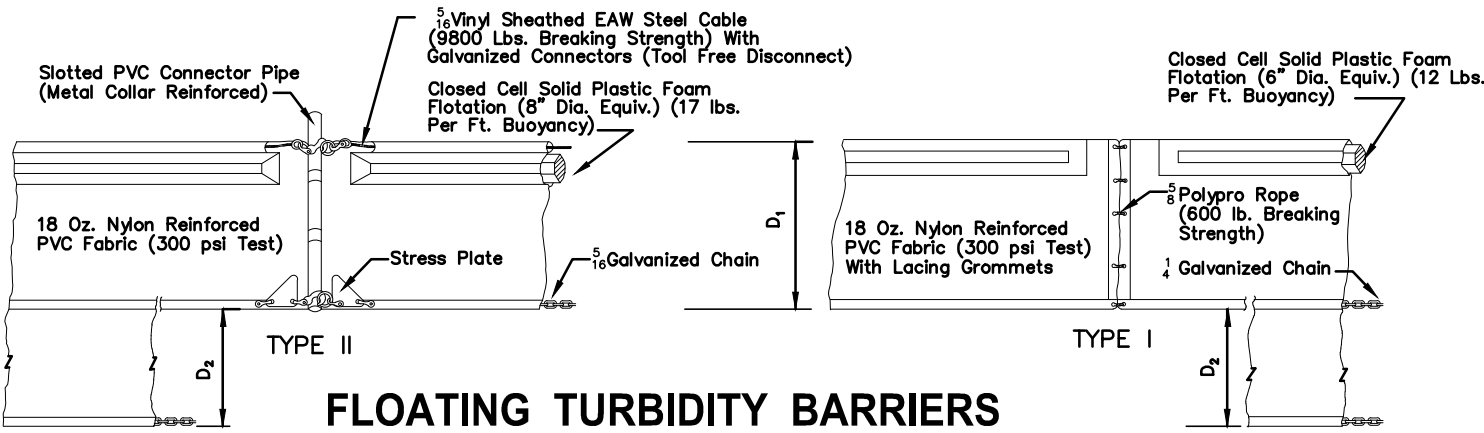
(D-908)
N.T.S.



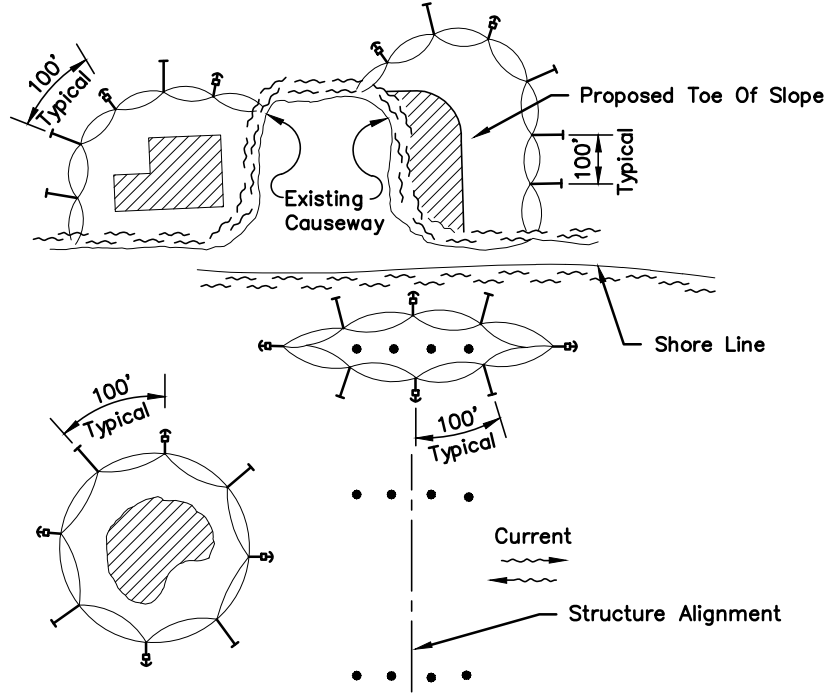
BALES BACKED BY FENCE



BARRIERS FOR FILL SLOPES



FLOATING TURBIDITY BARRIERS



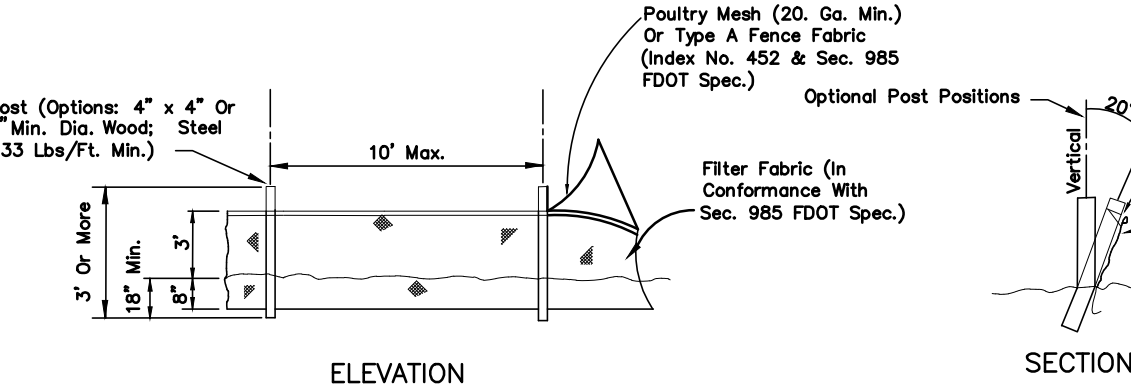
NOTES:

- Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
- Number and spacing of anchors dependent on current velocities.
- Deployment of barrier around pile locations may vary to accommodate construction operations.
- Navigation may require segmenting barrier during construction operations.
- For additional information see Section 104 of the FDOT Standard Specifications.

TURBIDITY BARRIER APPLICATIONS

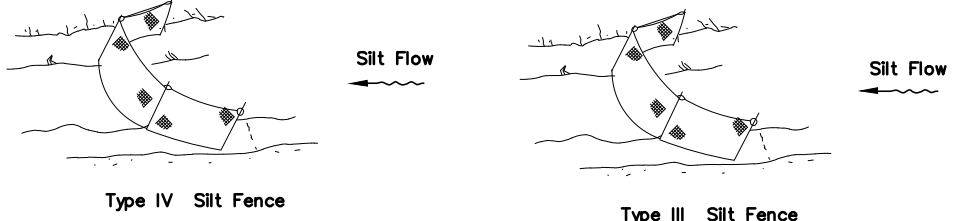
TURBIDITY BARRIERS

(D-907)
N.T.S.

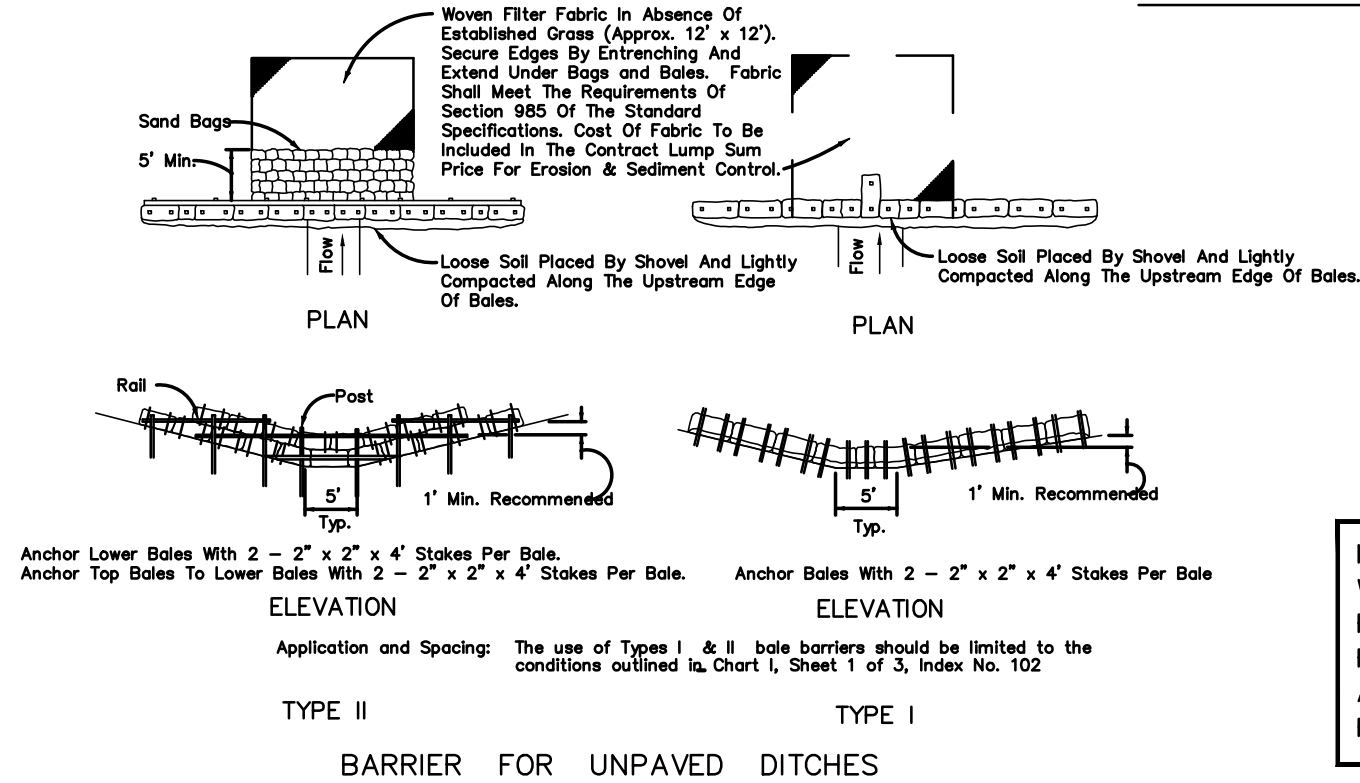


TYPE IV SILT FENCE

Note: Silt Fence to be paid for under the contract lump sum price for Erosion and Sediment Control.



Note: Spacing for Type III & Type IV Silt Fence to be in accordance with Chart 1, Sheet 1 of 3, FDOT Index No. 102 and ditch installations at drainage structures Sheet 2 of 3, FDOT Index No. 102.

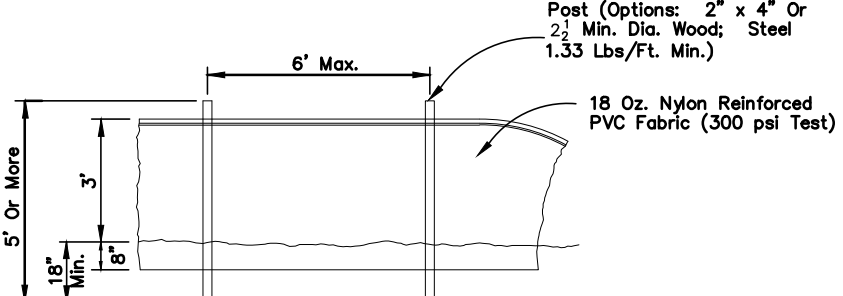


BARRIER FOR UNPAVED DITCHES

HAY BALE BARRIERS TYPE I & II

(D-912)
N.T.S.

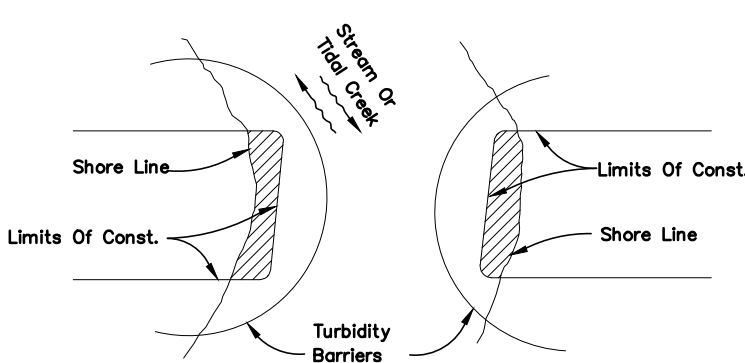
NOTICE: COMPONENTS OF TYPES I & TYPE II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



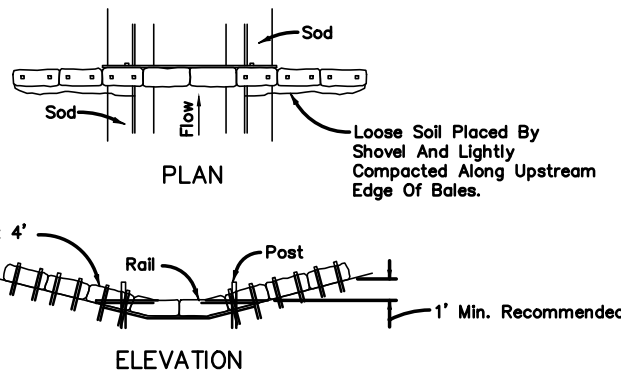
STAKED TURBIDITY BARRIER

LEGEND

- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action



Note: Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the contract lump sum price established in the bid proposal for Erosion & Sediment Control. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.



BARRIER FOR PAVED DITCH

NOTE: WHERE FDOT SPECS AND INDEX ARE REFERENCED, PLEASE REFER TO FDOT ROADWAY & TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

LTR.	DATE	REVISIONS	BY	APPRD.	CHECKED

DESIGNED JTORRES

DRAWN RMARTIN

CHECKED KFRASER

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK

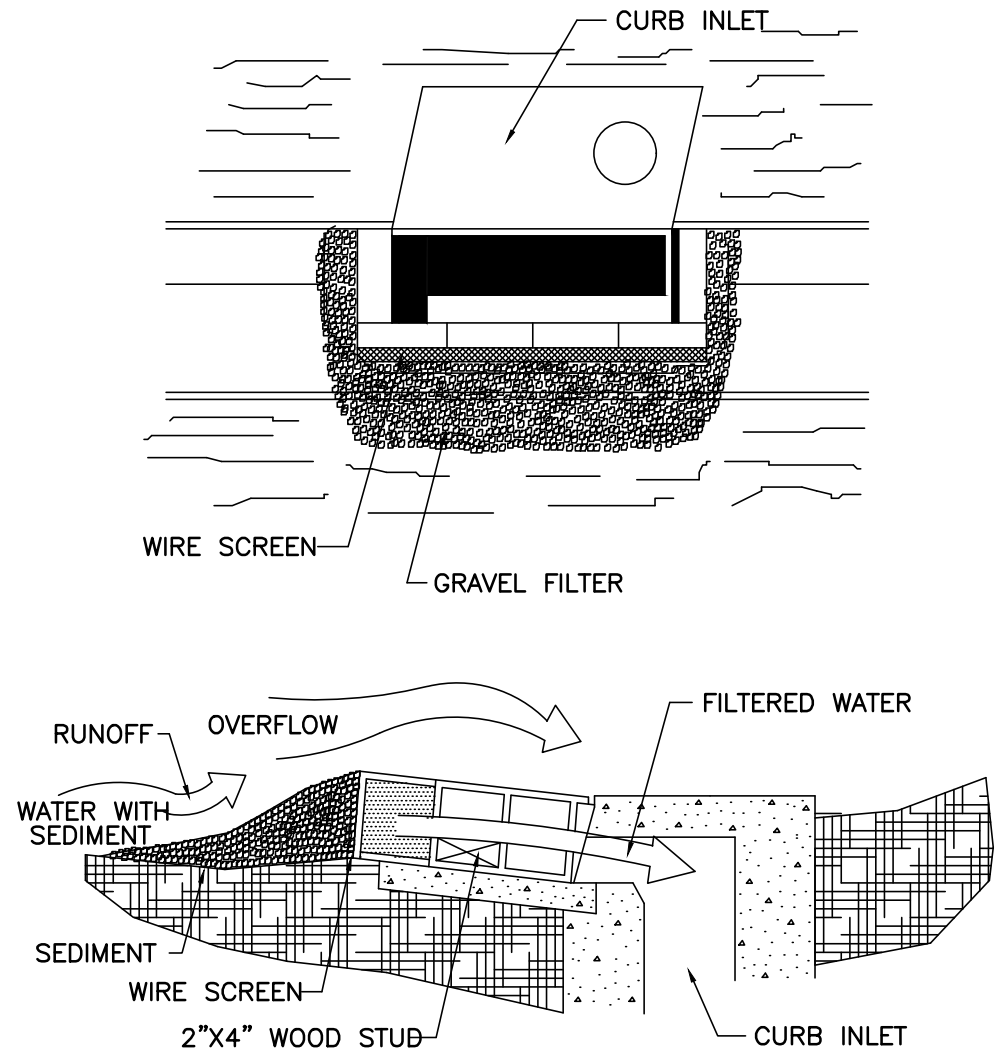
CITY OF LEESBURG, FLORIDA

STORMWATER POLLUTION PREVENTION DETAILS

KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

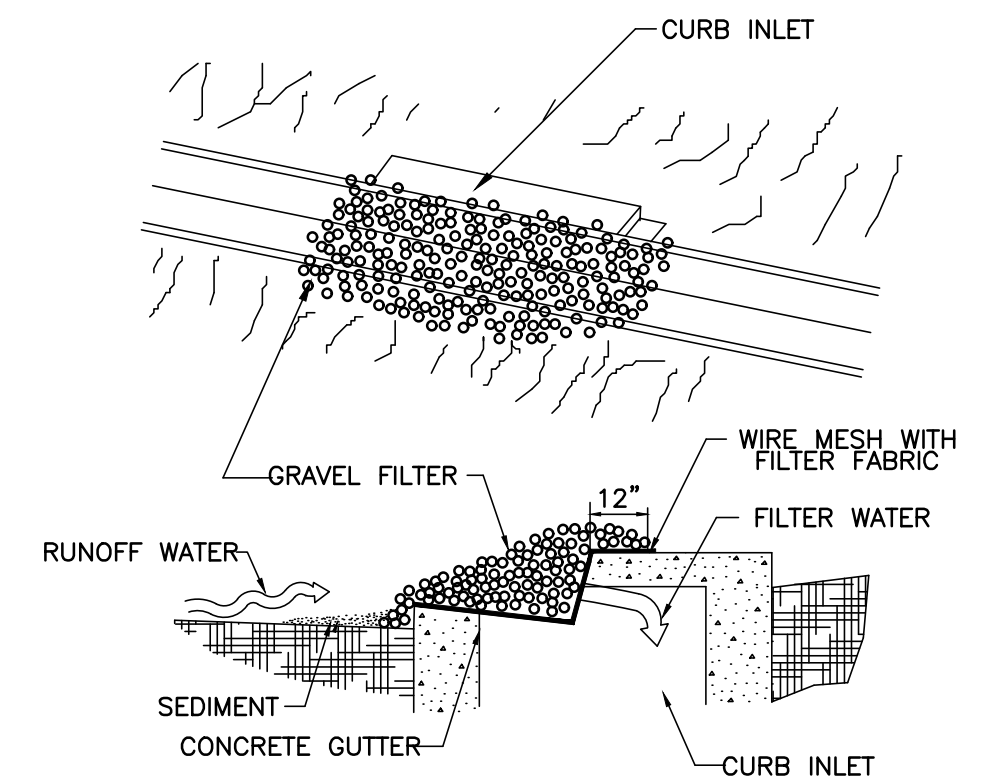
PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: EC2



SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER

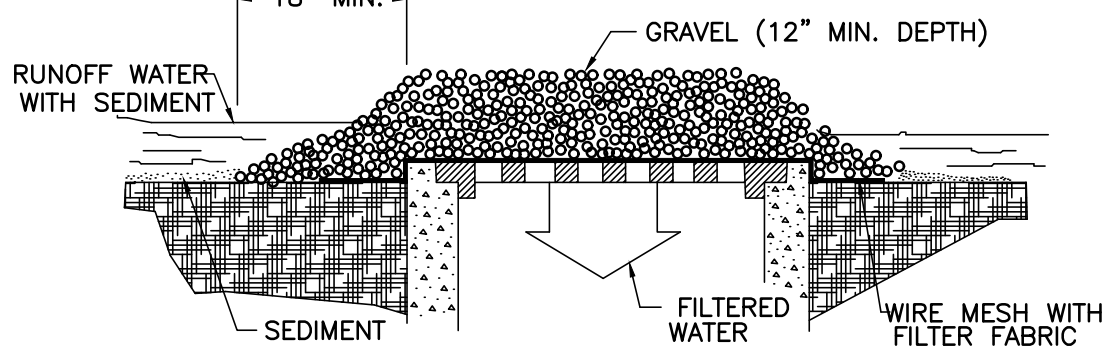
(D-902)
N.T.S.



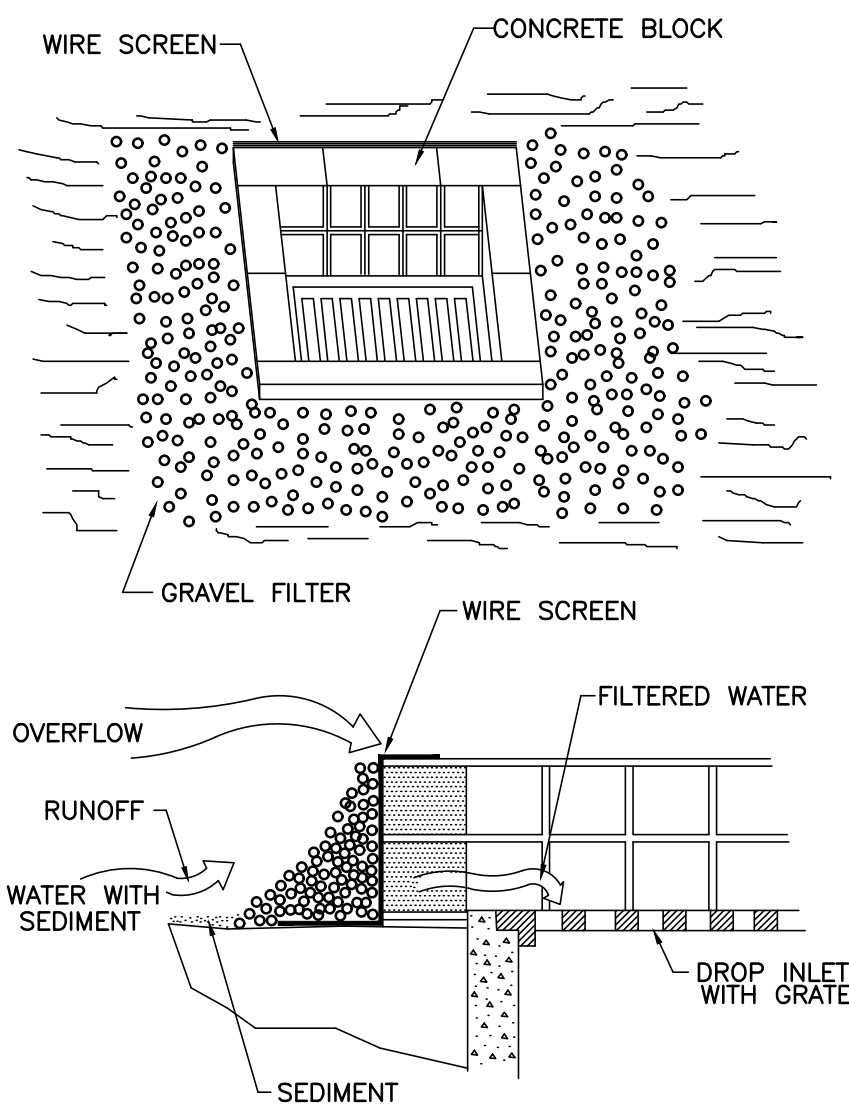
SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL INLET SEDIMENT TRAP

(D-903)
N.T.S.



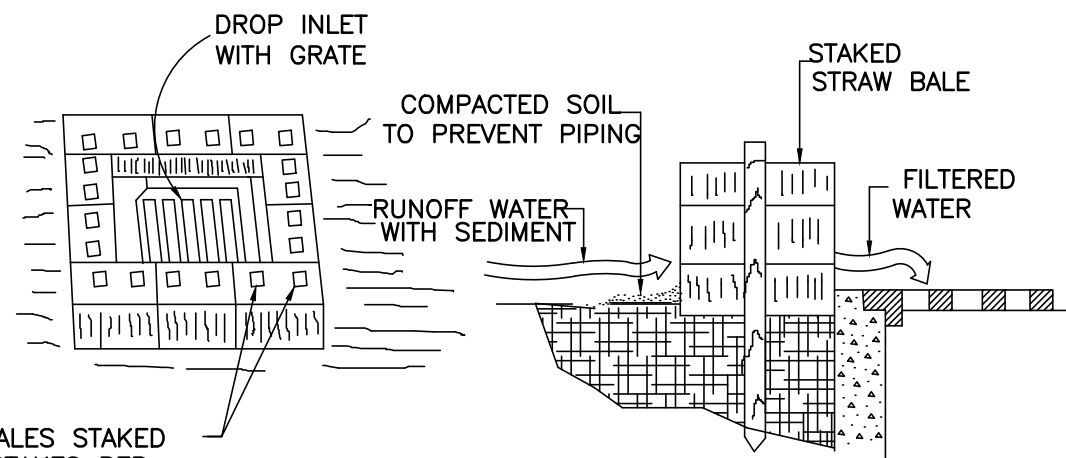
SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.



SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

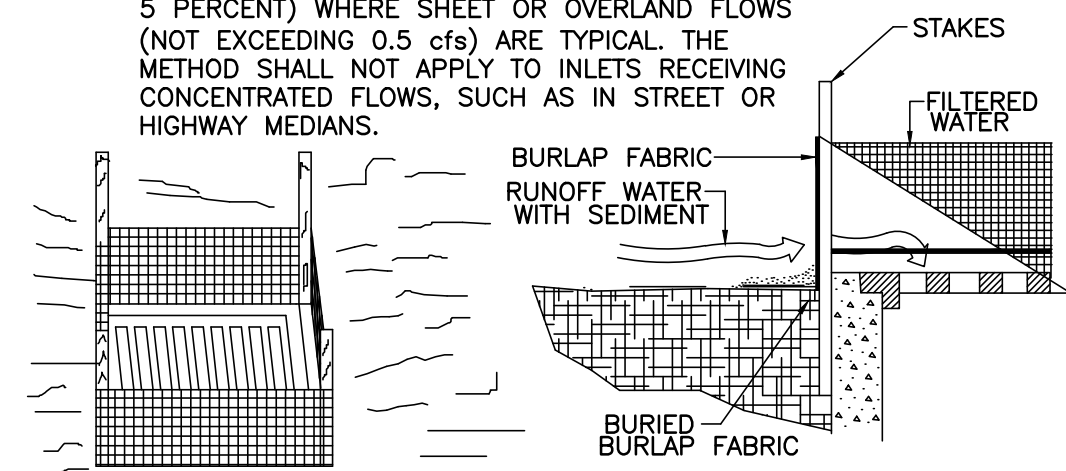
BLOCK & GRAVEL DROP INLET SEDIMENT FILTER

(D-904)
N.T.S.



HAY BALE SEDIMENT FILTER

SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

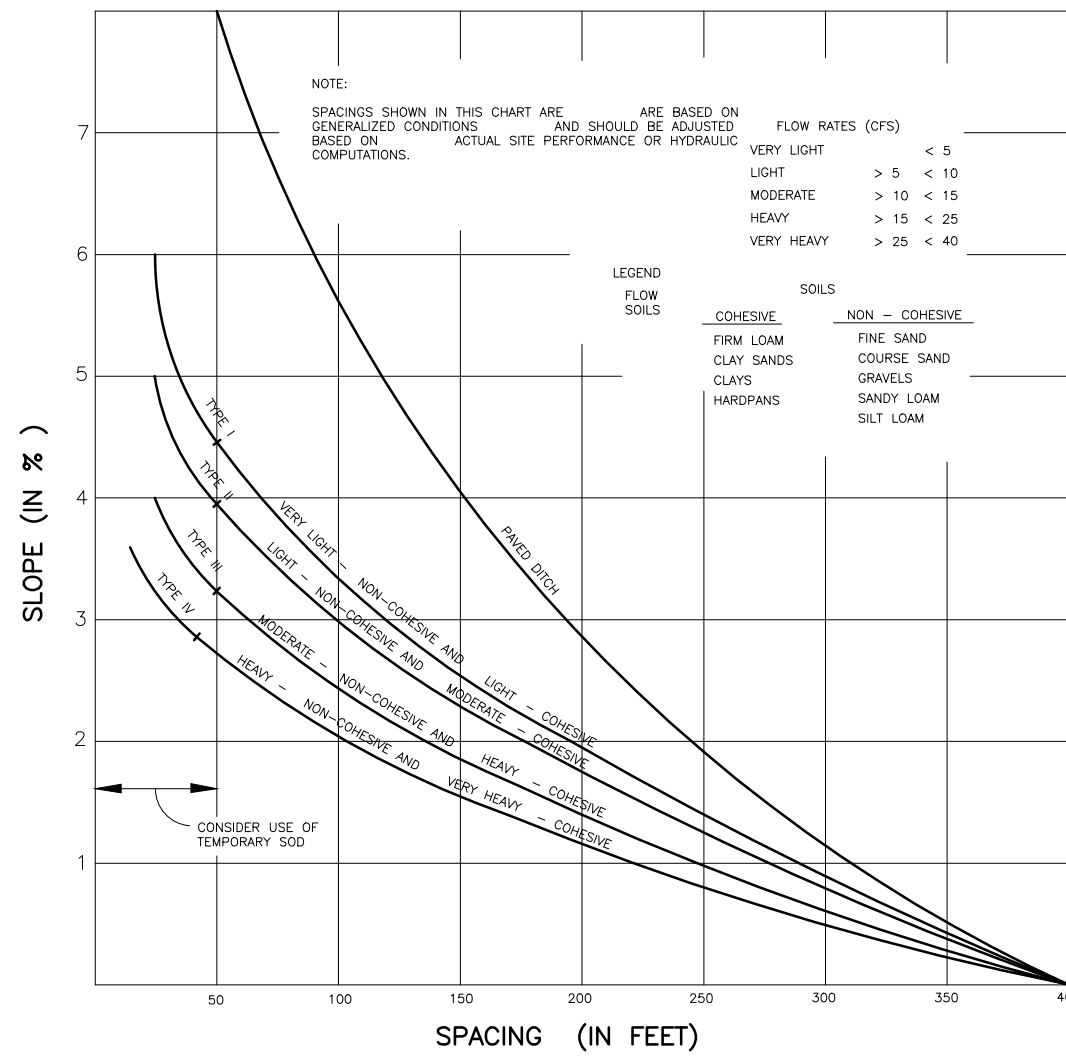


FABRIC SEDIMENT FILTER

SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

DROP INLET SEDIMENT TRAP

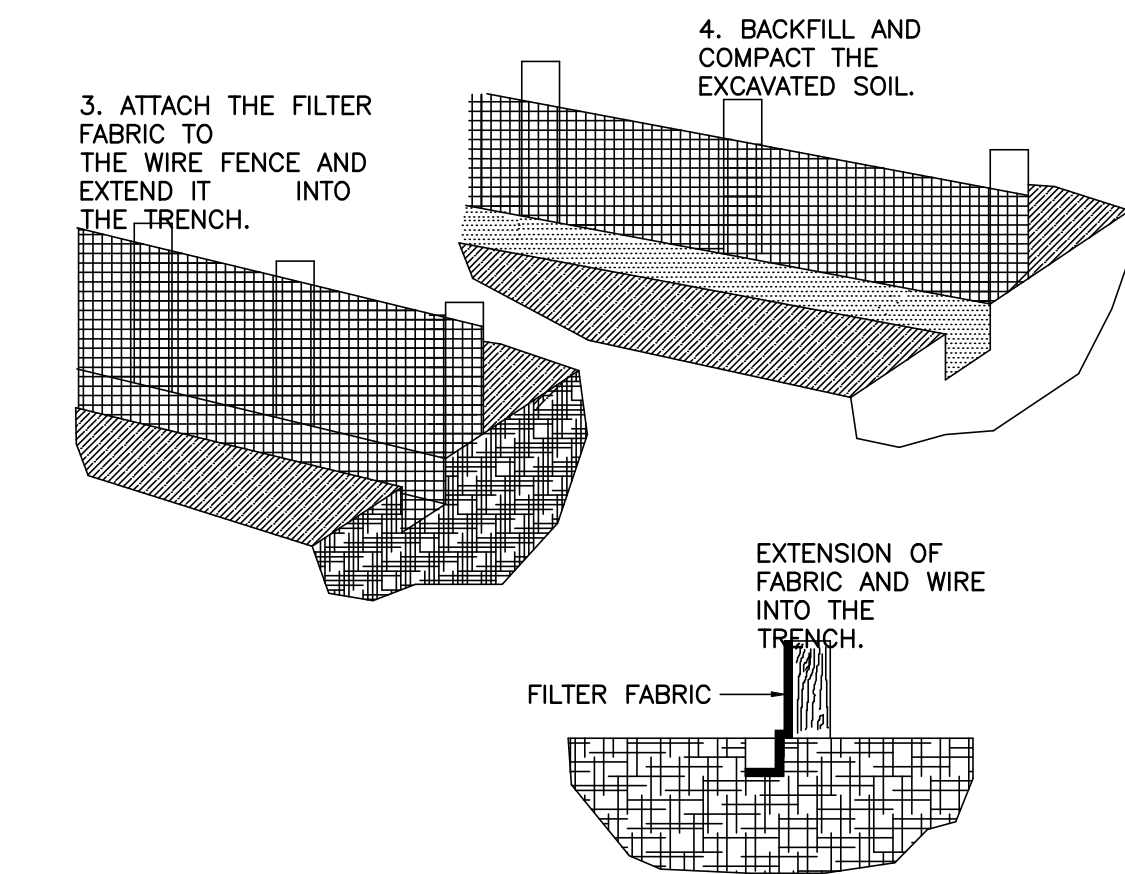
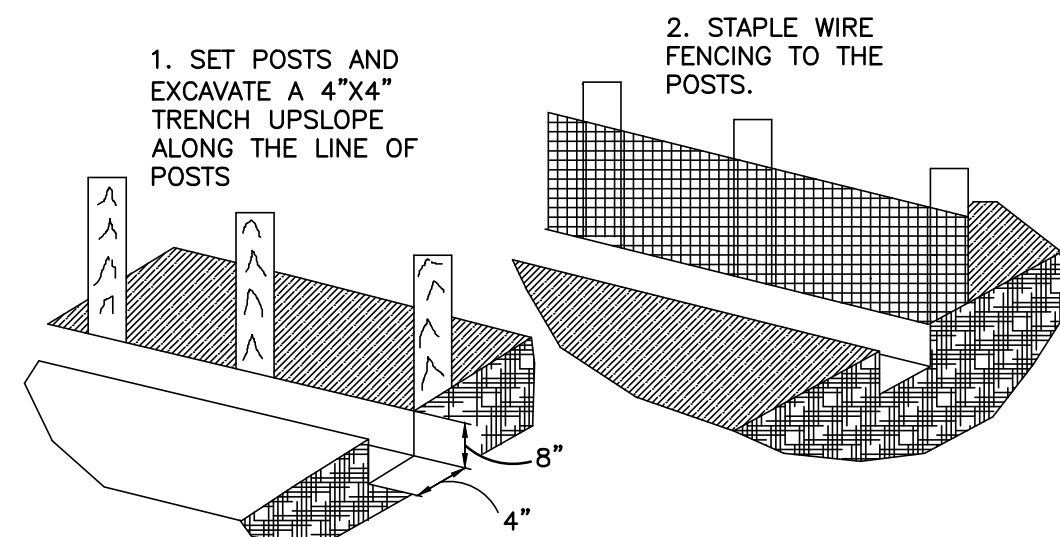
(D-905)
N.T.S.



RECOMMENDED SPACING FOR TYPE I AND TYPE II HAY BALE BARRIERS, AND TYPE III AND TYPE IV SILT FENCES AND PAVED DITCH HAY BALE BARRIERS

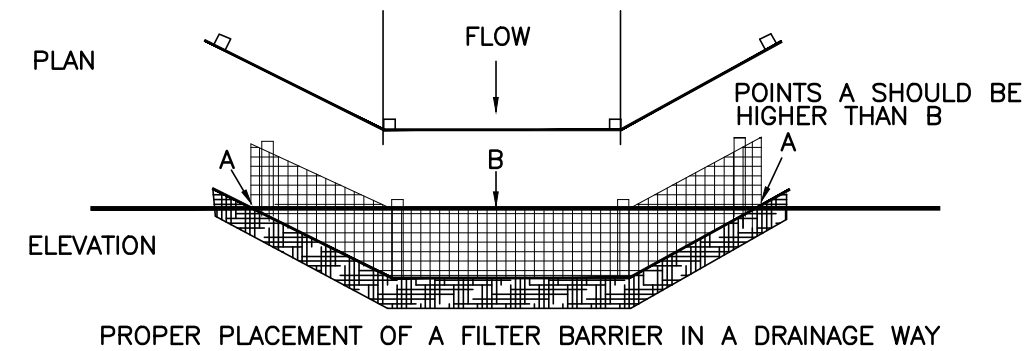
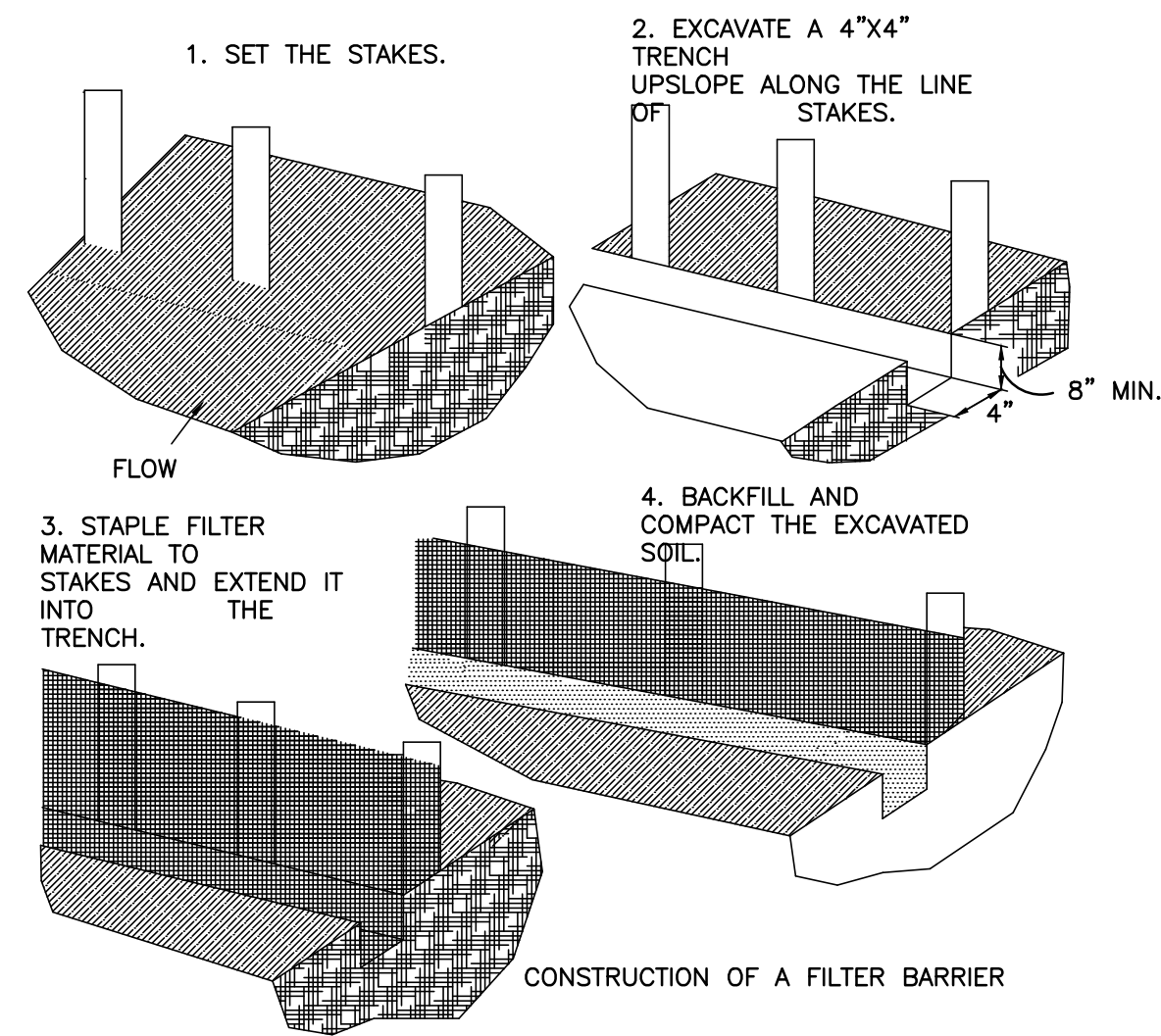
SPACING RECOMMENDATION FOR SILT FENCES & HAY BALES

(D-906)
N.T.S.



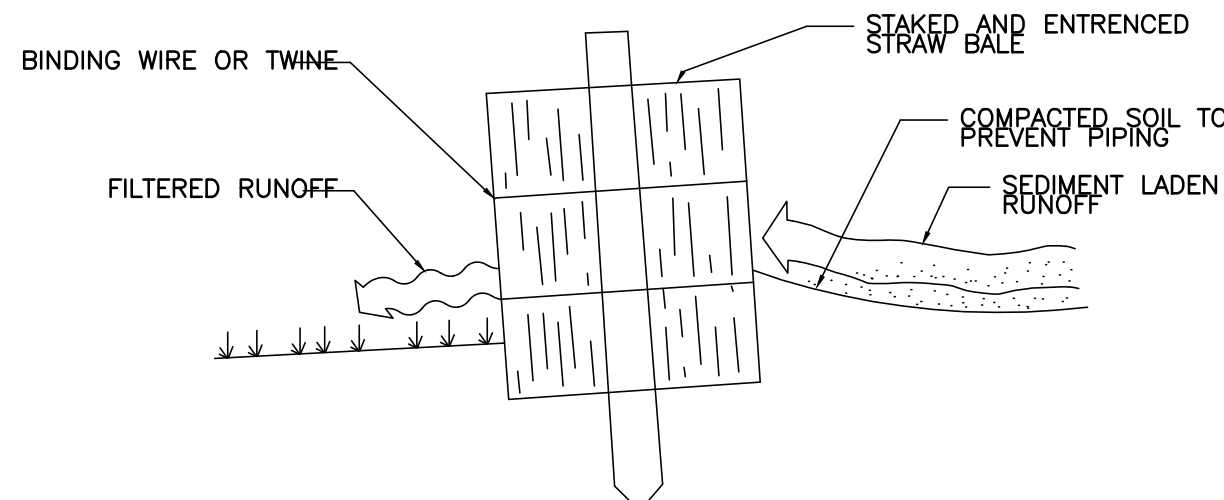
CONSTRUCTION DETAILS FOR SILT FENCES

(D-909)
N.T.S.



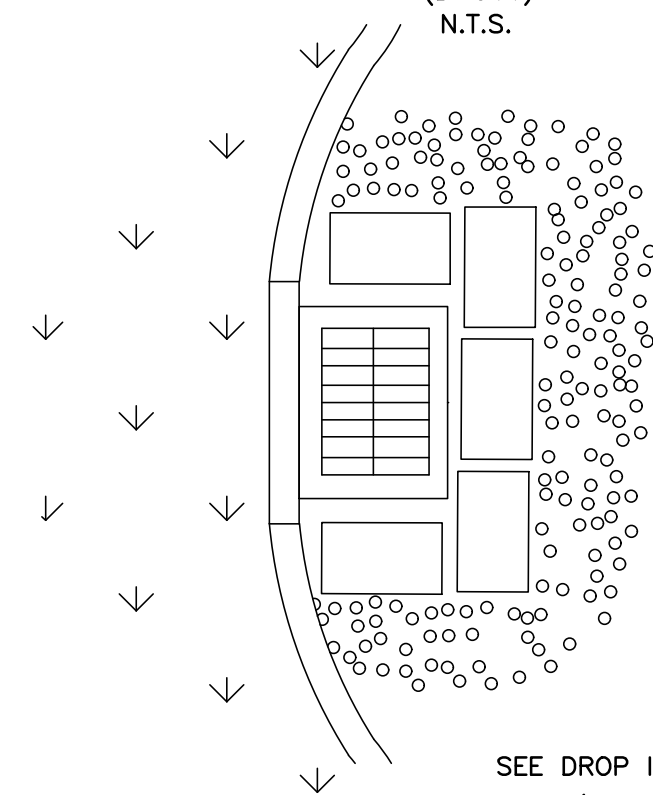
FILTER BARRIER CONSTRUCTION DETAIL

(D-910)
N.T.S.



CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE STAKED HAY BALE

(D-911)
N.T.S.



ERECT SEDIMENT BARRIERS AT CATCH BASINS

(TYPICAL)

					DESIGNED	JTORRES
					DRAWN	RMARTIN
					CHECKED	KFRASER
LTR.	DATE	REVISIONS		BY	APPRD.	

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

STORMWATER POLLUTION PREVENTION
DETAILS

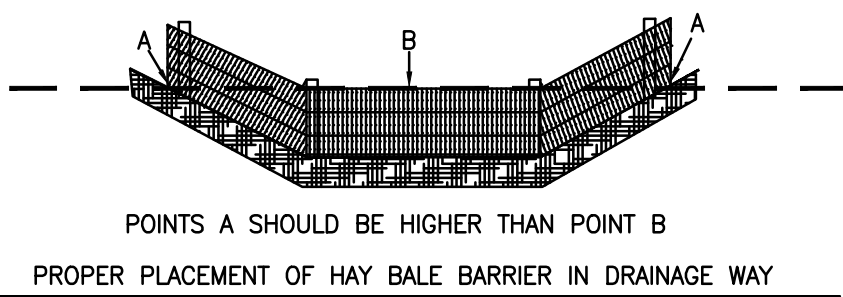
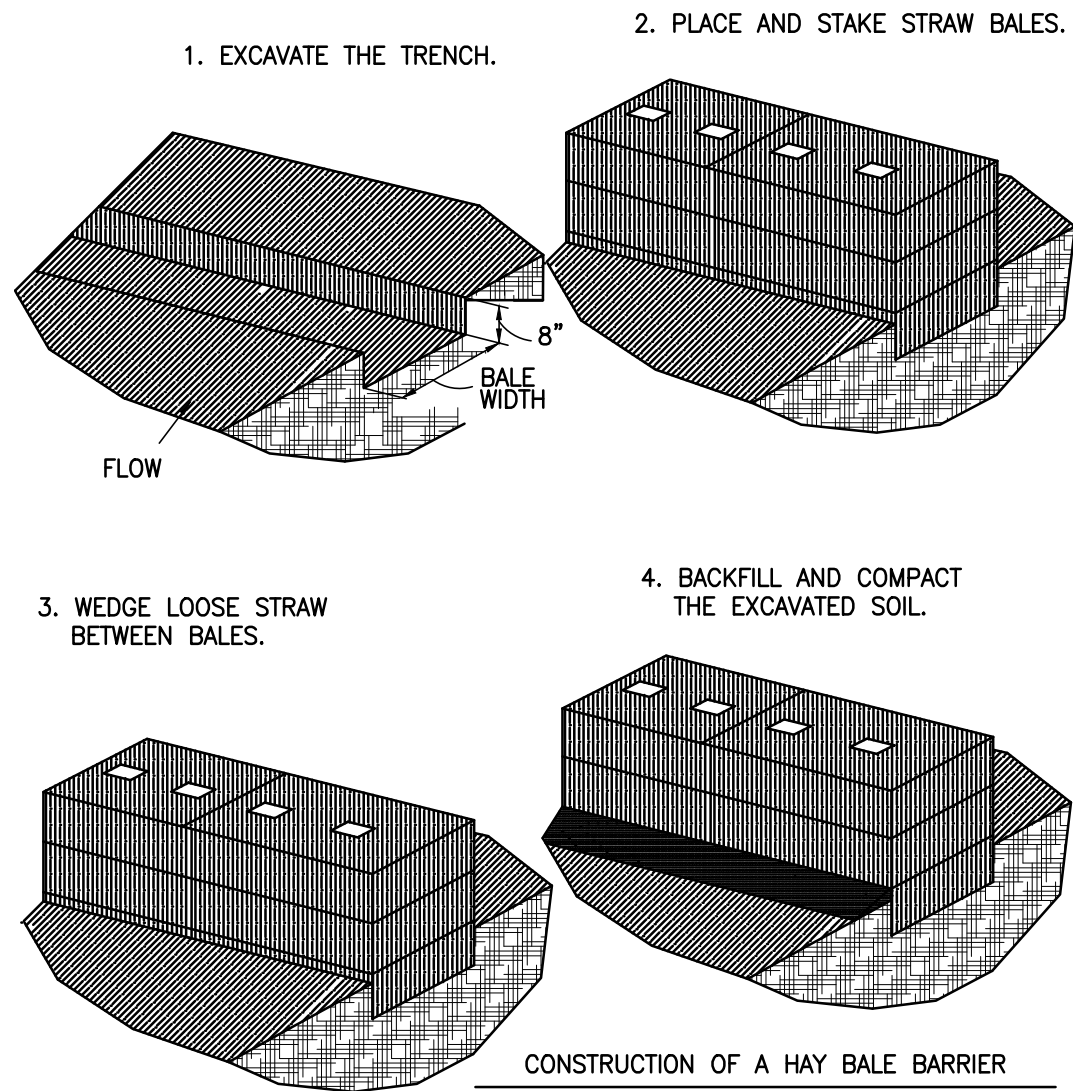
KENNETH A. FRASER, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY KENNETH A. FRASER, PE, ON THE
DATE INDICATED ON COVER PAGE.
PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO:	DATE:
07810-107-01	AUG. 2023
INDEX NO:	DWG NO:
	EC3

SAVED: 4/7/2023 7:50 AM SSIMS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-CST\DWGS\ENV\0781010701-EC03.DWG

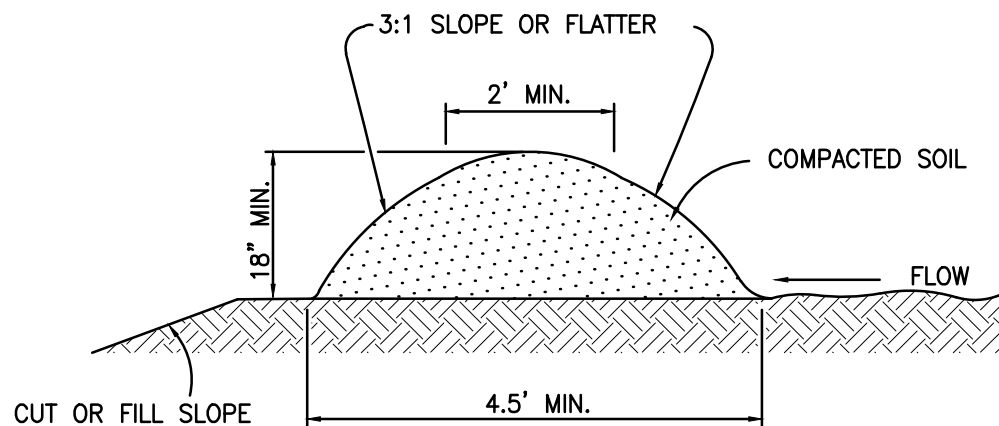
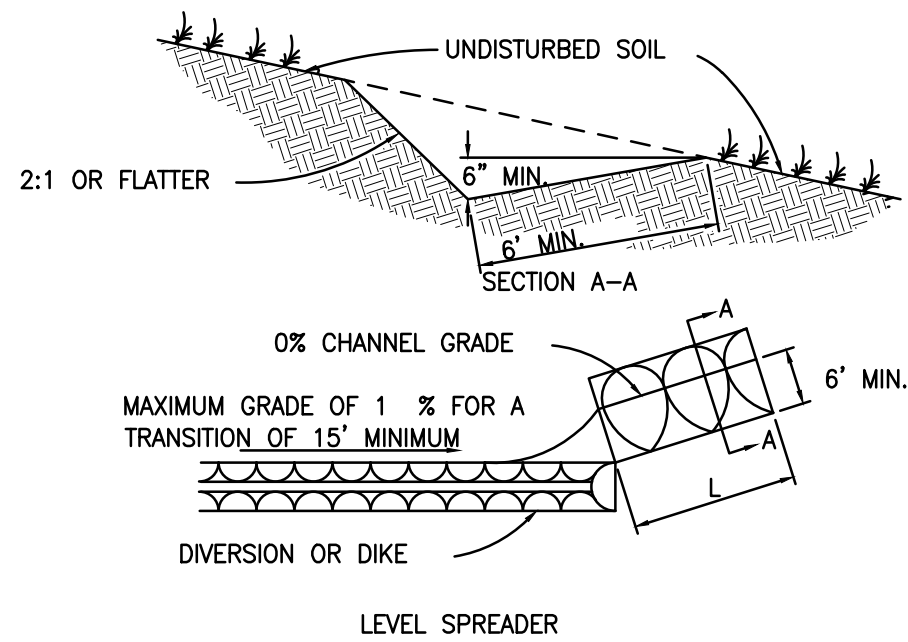
BID DOCUMENTS

SAVED: 4/7/2023 8:13 AM SSIMS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\ENV\0781010701-EC04.DWG



HAY BALE BARRIER CONSTRUCTION DETAILS

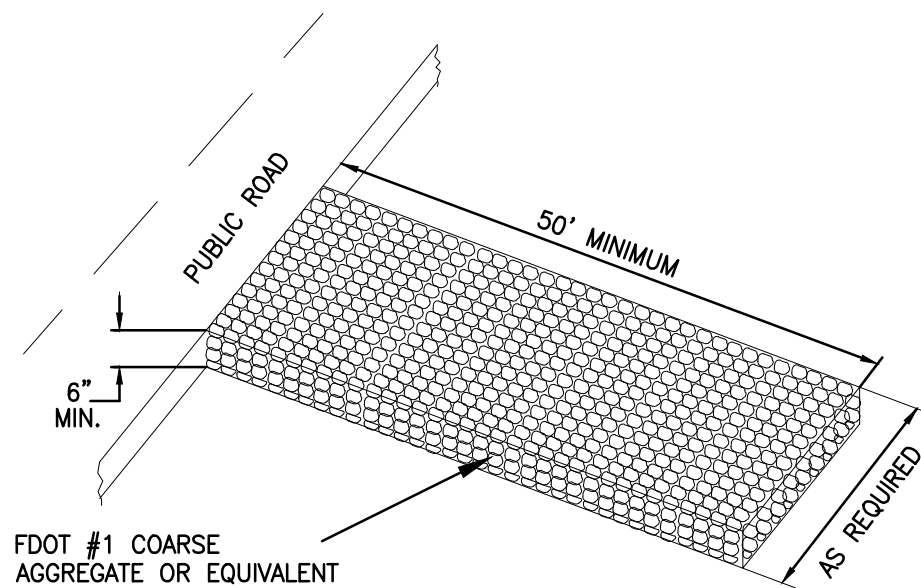
(D-913)
N.T.S.



TEMPORARY DIVERSION DIKE

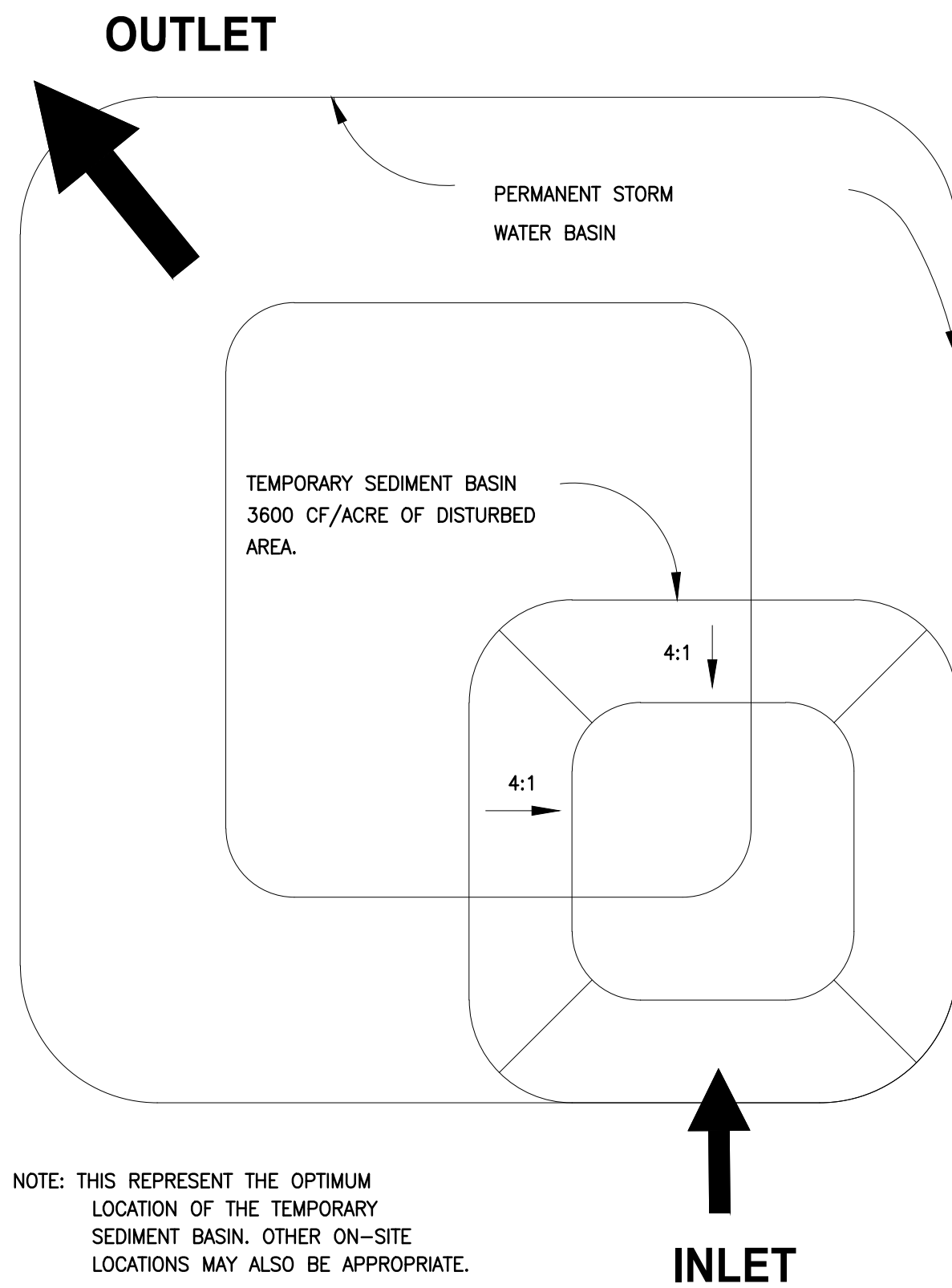
DIVERSION DIKE

(D-914)
N.T.S.



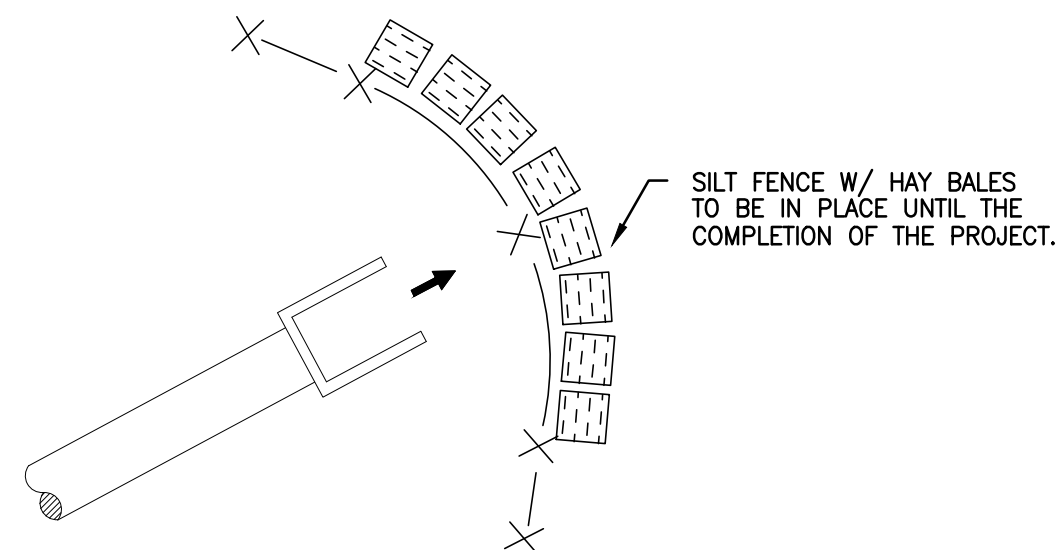
STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



TEMPORARY SEDIMENT BASIN

N.T.S.



OUTLET PROTECTION

N.T.S.

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

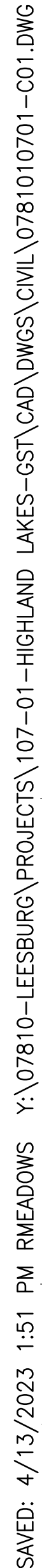
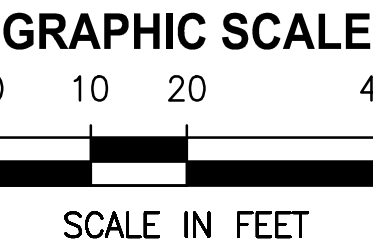
HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

STORMWATER POLLUTION PREVENTION
DETAILS

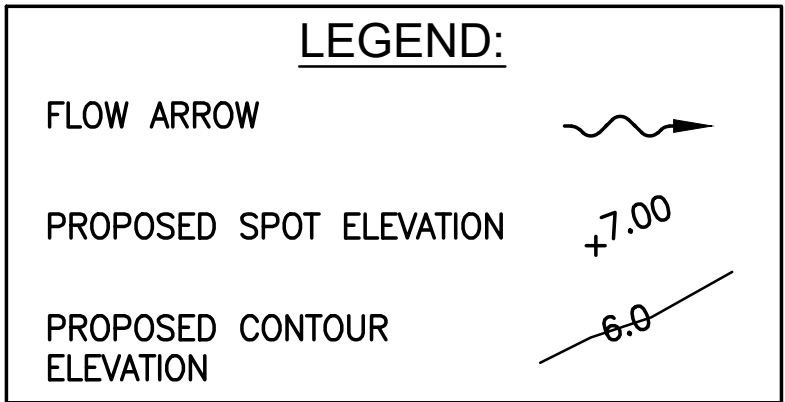
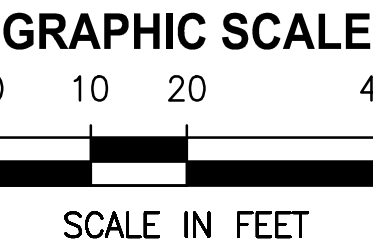
KENNETH A. FRASER, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY KENNETH A. FRASER, PE. ON THE
DATE INDICATED ON COVER PAGE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: EC4

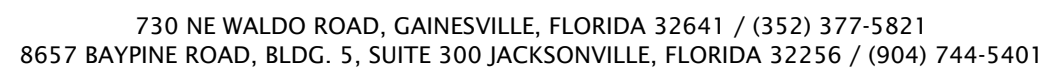


				DESIGNED	JTORRES		HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK	SITE PLAN	KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO:	DATE:
				DRAWN	RMARTIN					07810-107-01	AUG. 2023
				CHECKED	KFRASER					INDEX NO:	DWG NO:
LTR.	DATE	REVISIONS	BY	APPRD.							C1



LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED JTORRES
DRAWN RMARTIN
CHECKED KFRASER



HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA

GRADING AND RESTORATION PLAN

KENNETH A. FRASER, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY KENNETH A. FRASER, PE. ON THE
DATE INDICATED ON COVER PAGE.

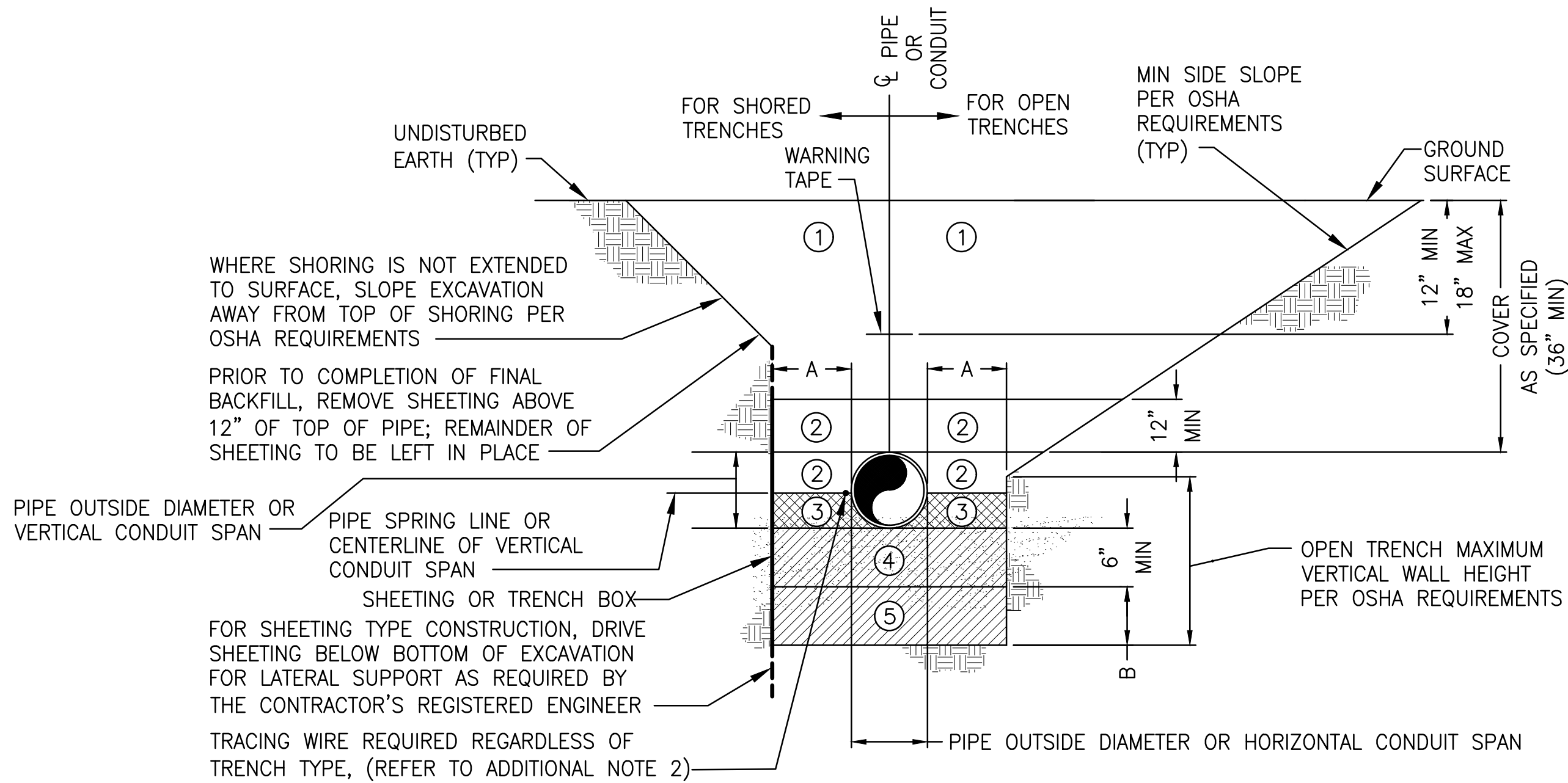
PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: C2

SAVED: 4/11/2023 12:01 PM KFRASER Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\CIVIL\0781010701-C03.DWG

PLOTTED: 8/4/2023 03:27 PM KENNETH A. FRASER, PE

© Jones Edmunds 2234



NOMINAL PIPE DIAMETER OR HORIZONTAL CONDUIT SPAN (INCHES)	MINIMUM SIDEWALK CLEARANCE	ADDITIONAL EXCAVATION DEPTH (1)
	A (INCHES)	B (INCHES)
LESS THAN 24	12	12
24 AND GREATER	18	18

(1) REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED.

ZONE NO.	ZONE NAME	MATERIAL	COMPACTION
①	FINAL BACKFILL	AS SPECIFIED	AT LEAST 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY ASTM D-1557
②	INITIAL BACKFILL		
③	HAUNCHING		
④	BEDDING		
⑤	FOUNDATION		

TRENCH ZONE NOTES:

- ① FINAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. REFER TO ADDITIONAL NOTE 3.
- ② INITIAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING OR AN APPROVED METHOD OF MECHANICAL TAMPING. REFER TO ADDITIONAL NOTE 3
- ③ HAUNCHING SHALL BE IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING. HAUNCHING SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE PIPE.
- ④ BEDDING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED BY HAND OR MECHANICAL TAMPING. PROPERLY SHAPED BELL HOLES SHALL BE EXCAVATED IN THE BEDDING TO PERMIT ASSEMBLY OF THE PIPE. REFER TO ADDITIONAL NOTE 3

NATIVE, UNDISTURBED MATERIAL IN COMPLETELY DEWATERED TRENCHES MEETING THE COMPACTION AND MATERIAL REQUIREMENTS FOR COMPACTED BEDDING MATERIAL NEED NOT BE REPLACED OR REWORKED, EXCEPT FOR SHAPING OF THE BELL HOLES, AND WHERE REFILL IS REQUIRED.

- ⑤ FOUNDATION SHALL BE REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED. FOUNDATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR BEDDING. REFER TO ADDITIONAL NOTE 3

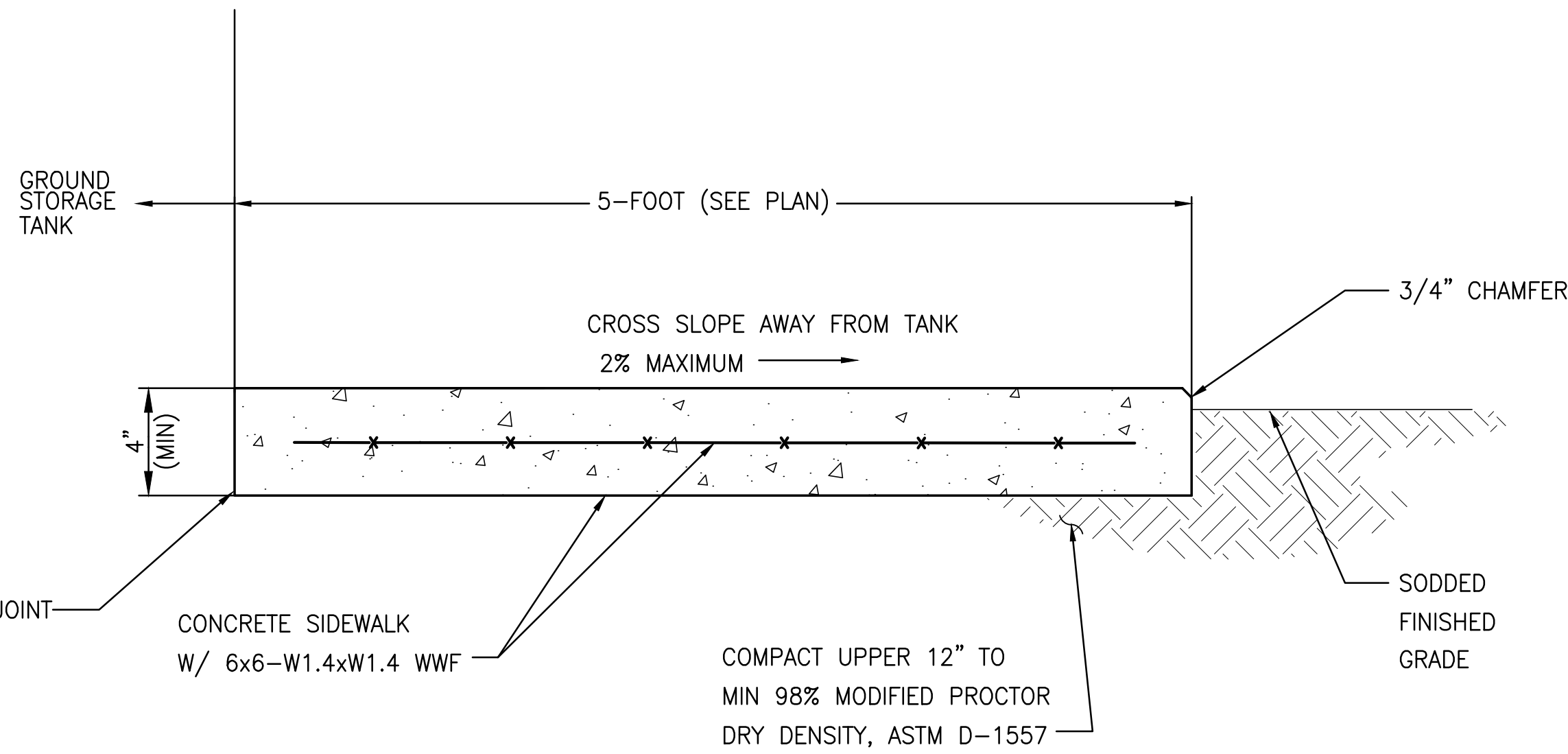
ADDITIONAL NOTES:

- FOR TRENCHES IN VEHICULAR TRAFFIC AREAS OR BENEATH SURFACE IMPROVEMENTS (EG, SLAB, ETC.) SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL COMPACTION REQUIREMENTS.
- TRACING WIRE SHALL BE INSTALLED ON THE SIDE OF THE PIPE AND ATTACHED TO THE PIPE EVERY 10' W/ A NYLON WIRE TIE. IF THE WIRE IS DAMAGED OR NEEDS TO BE EXTENDED A 3M WATERPROOF TYPE UF SPLICE SHALL BE INSTALLED TO REPAIR THE WIRE. THE ENDS OF THE TRACING WIRE SHALL BE BROUGHT UP IN EVERY VALVE BOX ON THE LINE AND AT THE HYDRANT VALVES. THERE SHALL BE A MINIMUM COIL OF 3' LEFT UNDER THE VALVE BOX COVER. THE WIRE SHALL BE TESTED TO VERIFY CONDUCTIVITY.
- ALTERNATIVE LIFT THICKNESSES, NOT EXCEEDING 12 INCHES LOOSE MEASUREMENT, ARE ACCEPTABLE IN TRENCH ZONES 1, 2, 4, AND 5 PROVIDED 1) THE LIFT THICKNESS DOES NOT EXCEED THE MAXIMUM VALUE RECOMMENDED IN WRITING BY THE APPLICABLE PIPE MANUFACTURER AND 2) FIELD TEST RESULTS CONFIRM THAT THE SPECIFIED COMPACTION REQUIREMENTS ARE BEING MET.

TYPICAL UTILITY TRENCH DETAIL

1

NTS



NOTES:

- TOOL JOINTS SHALL BE LOCATED 5' APART ALONG THE LENGTH OF THE SIDEWALK.
- CONTROL JOINTS SHALL BE LOCATED AT 10' SPACING ALONG LENGTH OF THE SIDEWALK.

CONCRETE SIDEWALK DETAIL

2

NTS

C1

LTR.	DATE	REVISIONS	BY	APPRD.	

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER



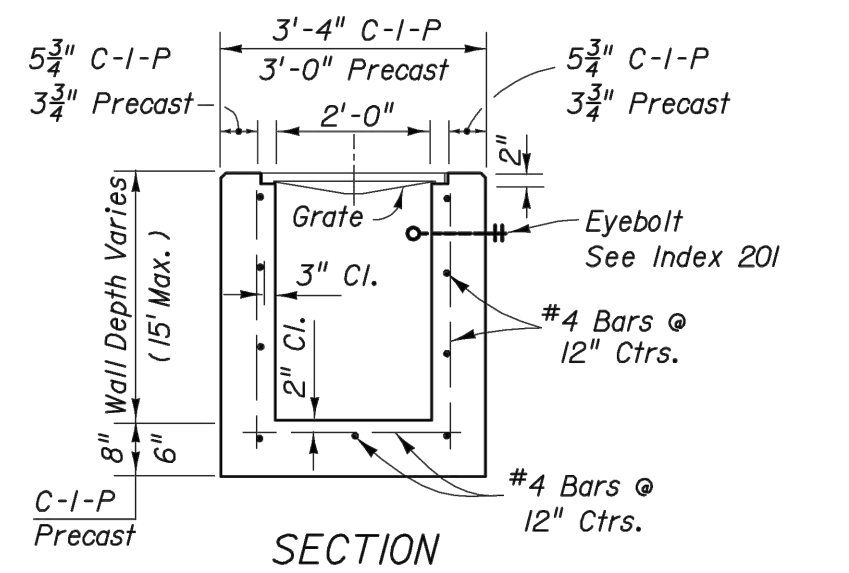
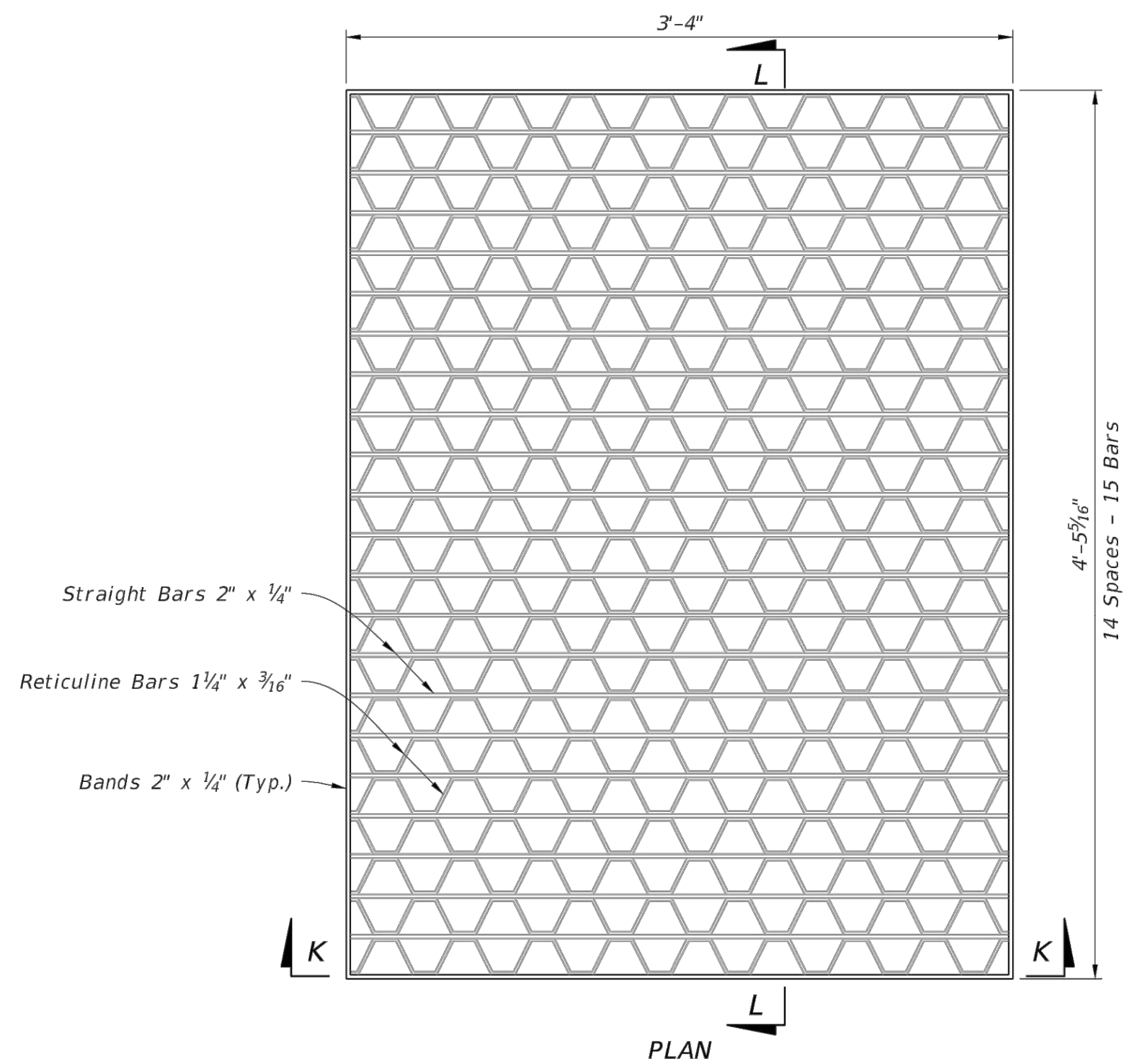
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

CIVIL DETAILS

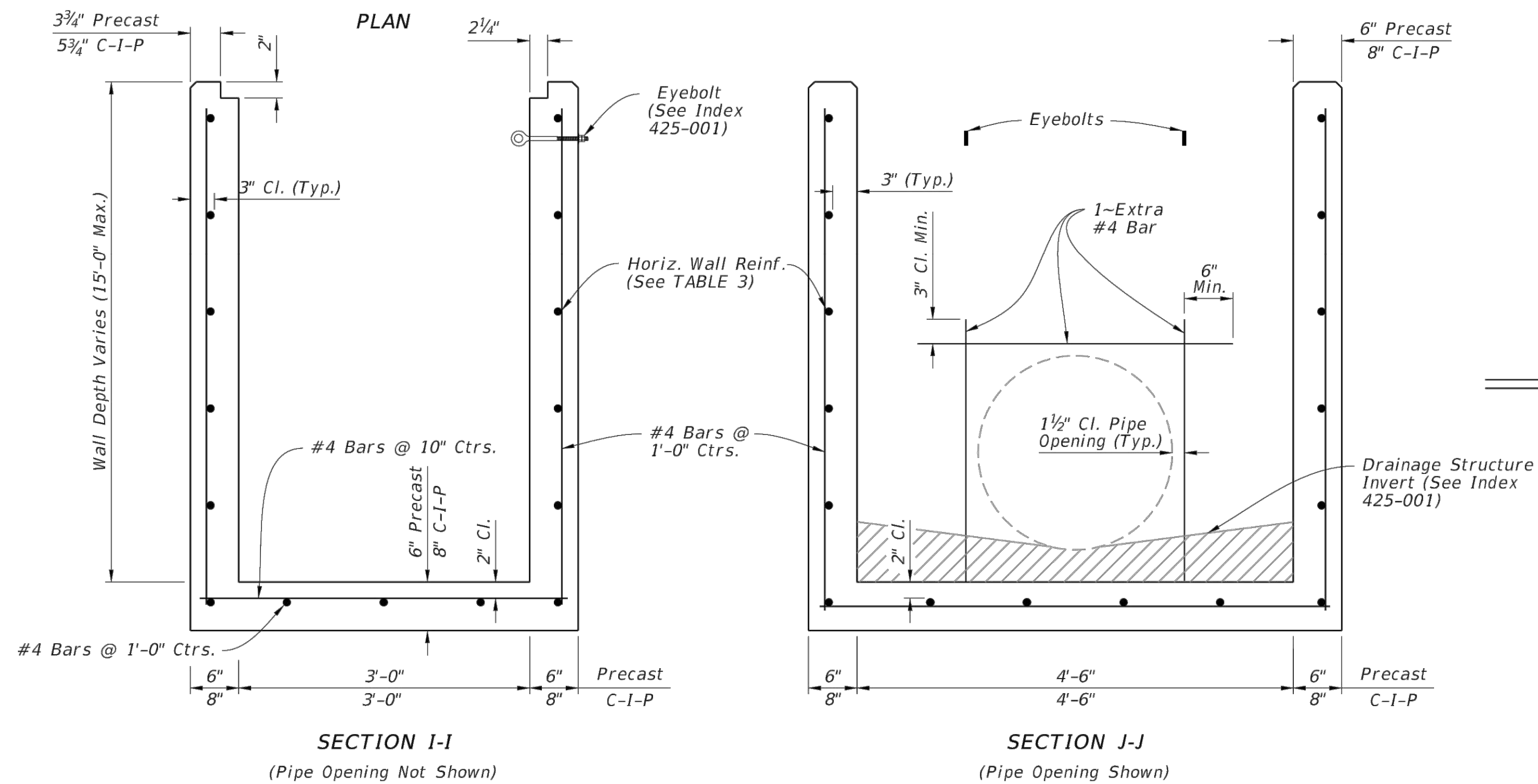
KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	
--	--

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: C3



WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	
			BARs	WWF
0'-15'	A/2	0.20	12"	8"

Recommended Maximum Pipe Size:
 2'-0" Wall - 18" Pipe
 3'-1" Wall - 24" Pipe (18" where an 18" pipe
 enters a 2'-0" wall)



Technical drawing of FDOT Type C detail showing two views: a side elevation and a top-down view.

Side Elevation View:

- Overall height: 3'-0"
- Bar spacing: 1 1/4"
- Bar width: 2"
- End zones: 2" on each side
- Number of bars: 14

Top-Down View:

- Overall width: 2'-4"
- Bar width: 2"
- Spacing between bars: 1 1/2"
- End zones: 2" on each side

TYPE C

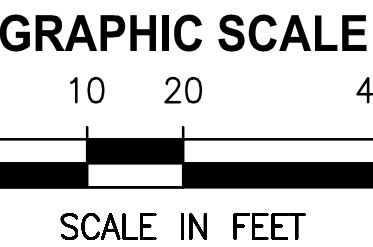
Straight Bars $2" \times \frac{1}{4}"$
 Reticulene Bars $\frac{1}{4}" \times \frac{3}{16}"$
 Bands $2" \times \frac{1}{4}"$
 Approx. Weight 104 Lbs.

WALL DEPTH	SCHEDULE	AREA (in.²/ft.)	MAX. SPACING	
			BARS	WWR
0' - 5'	A12	0.20	12"	8"
0' - 7.5'	A6	0.20	6"	5"
7.5' - 10'	B5.5	0.24	5½"	5"
10' - 15'	C6.5	0.37	6½"	6"

1. Grate, Concrete Apron, and Sod not shown on structure detail.
2. See Sheet 8, 9, and 10 for Concrete Apron and Sodded Area details.

* DENOTES APPROXIMATE ELEVATIONS. THE CONTRACTOR SHALL VERIFY ELEVATIONS PRIOR TO INSTALL ANY PIPING. IF ANY CHANGES IN ALIGNMENTS ARE NEEDED DUE TO ELEVATION DISCREPANCIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SUBMIT FOR APPROVAL A PROPOSED ACTION PLAN BEFORE INSTALLING ANY PIPING.

1. ALL FITTINGS SHALL BE DI FULL BODY AWWA C110, CEMENT LINED.
2. EXPOSED OR ABOVEGROUND FITTINGS SHALL BE FLANGE CONNECTED. BURIED FITTINGS AND VALVES SHALL BE RESTRAINED MECHANICAL JOINT.
3. COUPLINGS SHALL BE RESTRAINED.
4. PIPE DEFLECTION ON MECHANICAL JOINT FITTINGS SHALL NOT EXCEED 75 PERCENT OF THE MAXIMUM RECOMMENDED BY THE FITTING MANUFACTURER.



DESIGNED	<u>JTORRES</u>
DRAWN	<u>RMARTIN</u>
CHECKED	<u>KFRASER</u>

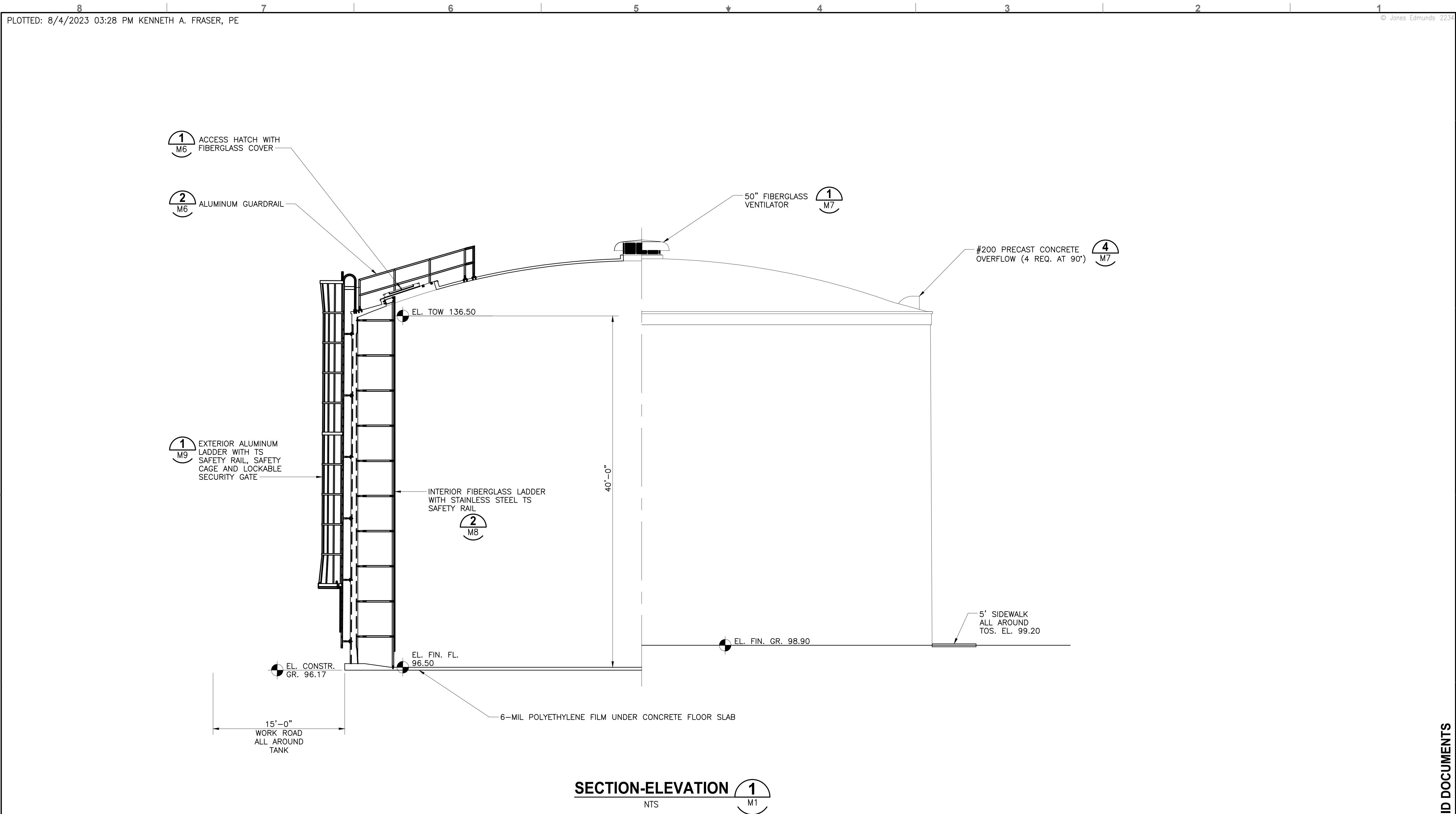
HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA

THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY JAFET T. RIVERA, PE #80247 ON THE
DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THIS SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: M1

SAVED: 5/31/2023 11:28 AM RMEADOWS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\MECH\0781010701-M02.DWG



LTR.	DATE	REVISIONS	BY	APPRD.	CHECKED

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER



730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

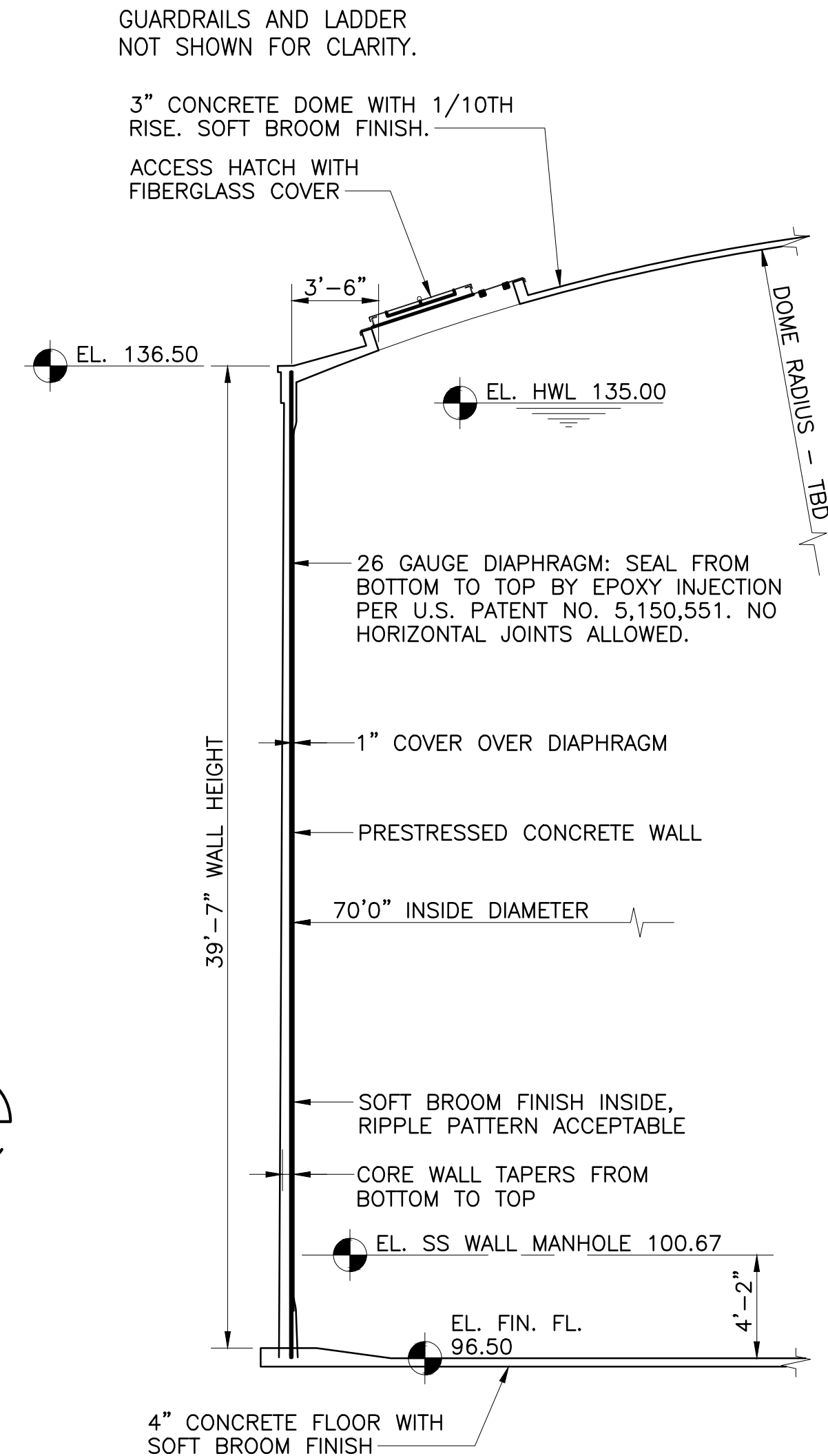
GST SECTION ELEVATION

THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY JAFET T. RIVERA, PE #80247 ON THE
DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THIS SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO:	07810-107-01	DATE:	AUG. 2023
INDEX NO:		DWG NO:	M2

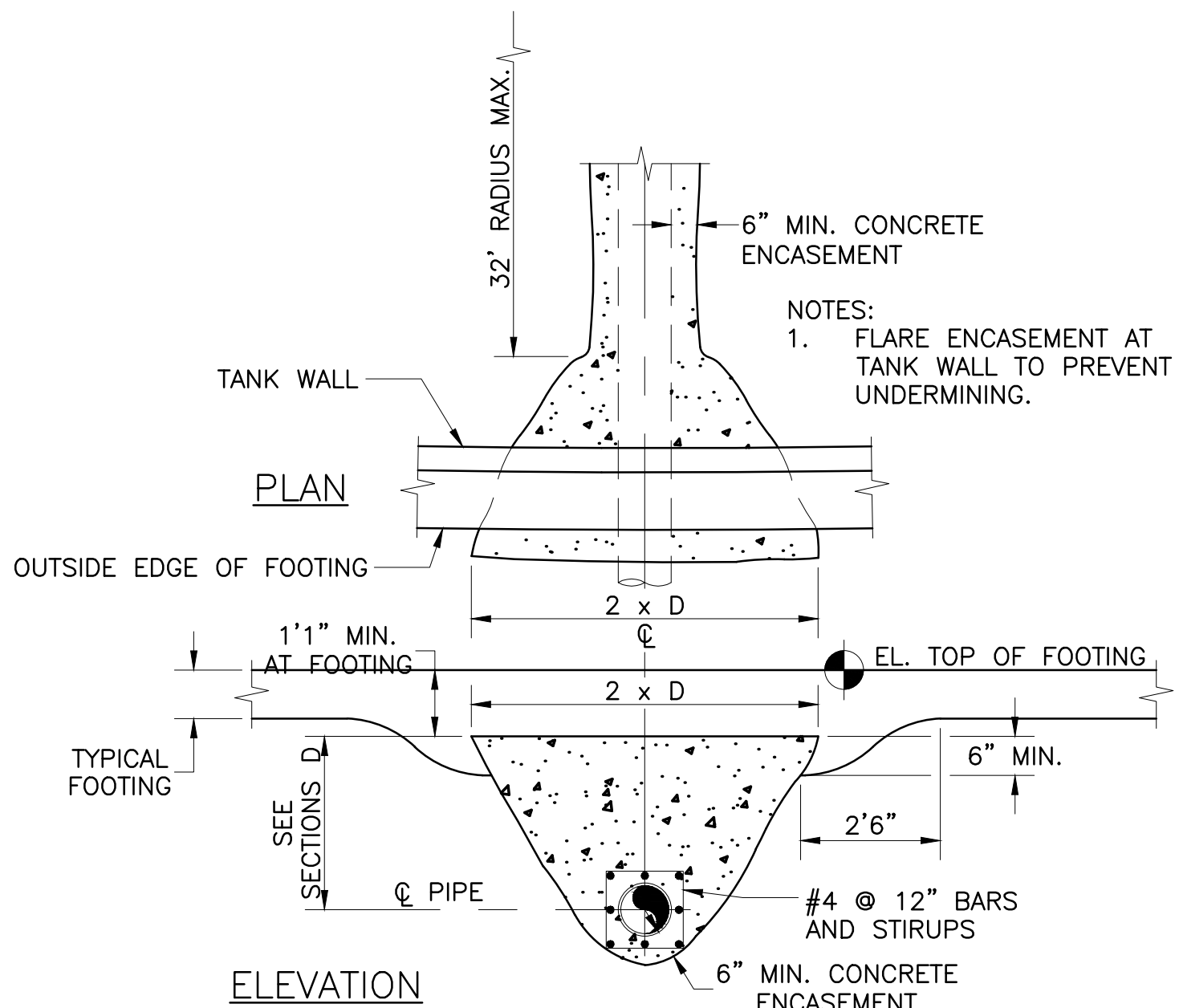
BID DOCUMENTS



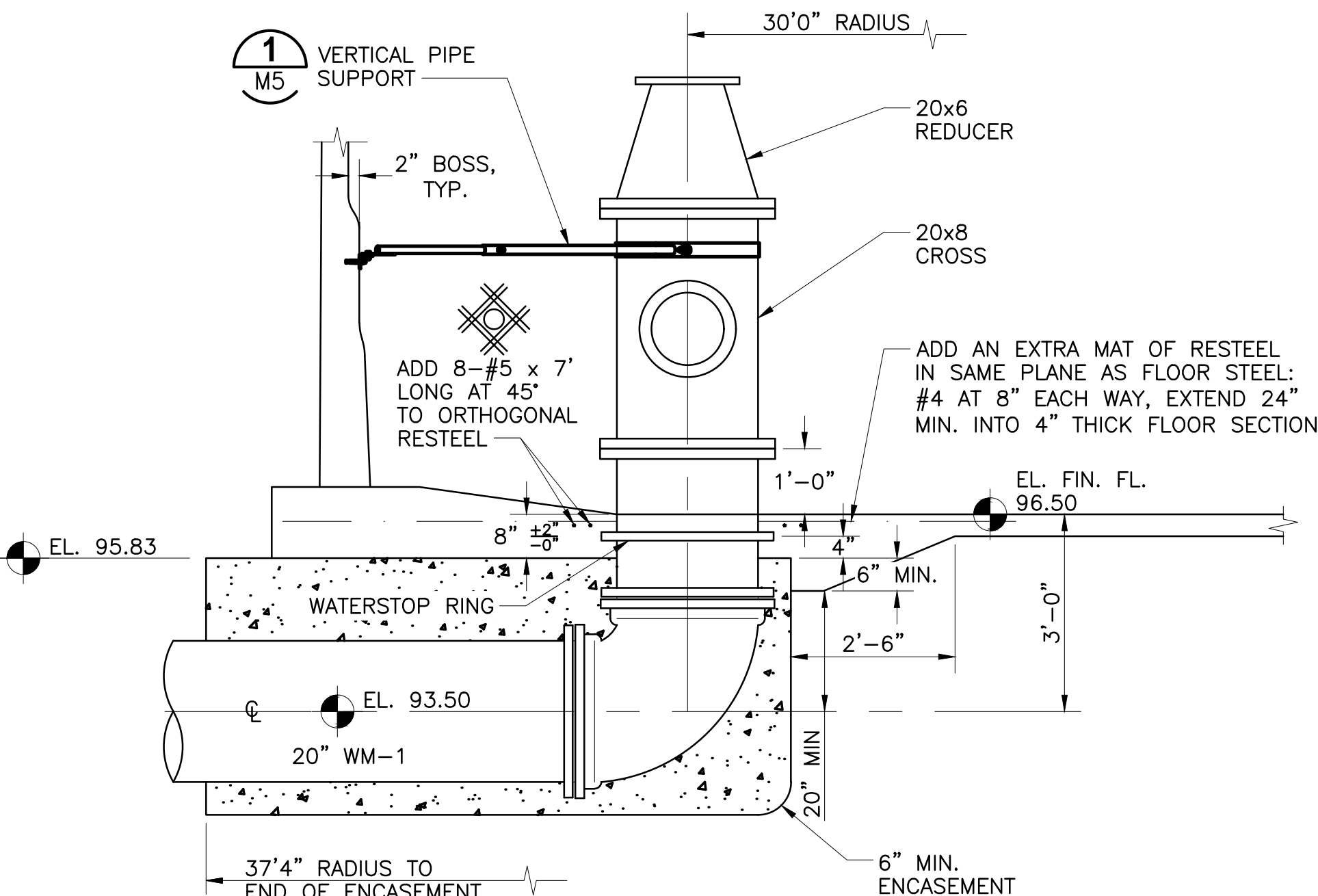
WALL SECTION 
NTS

BID DOCUMENTS

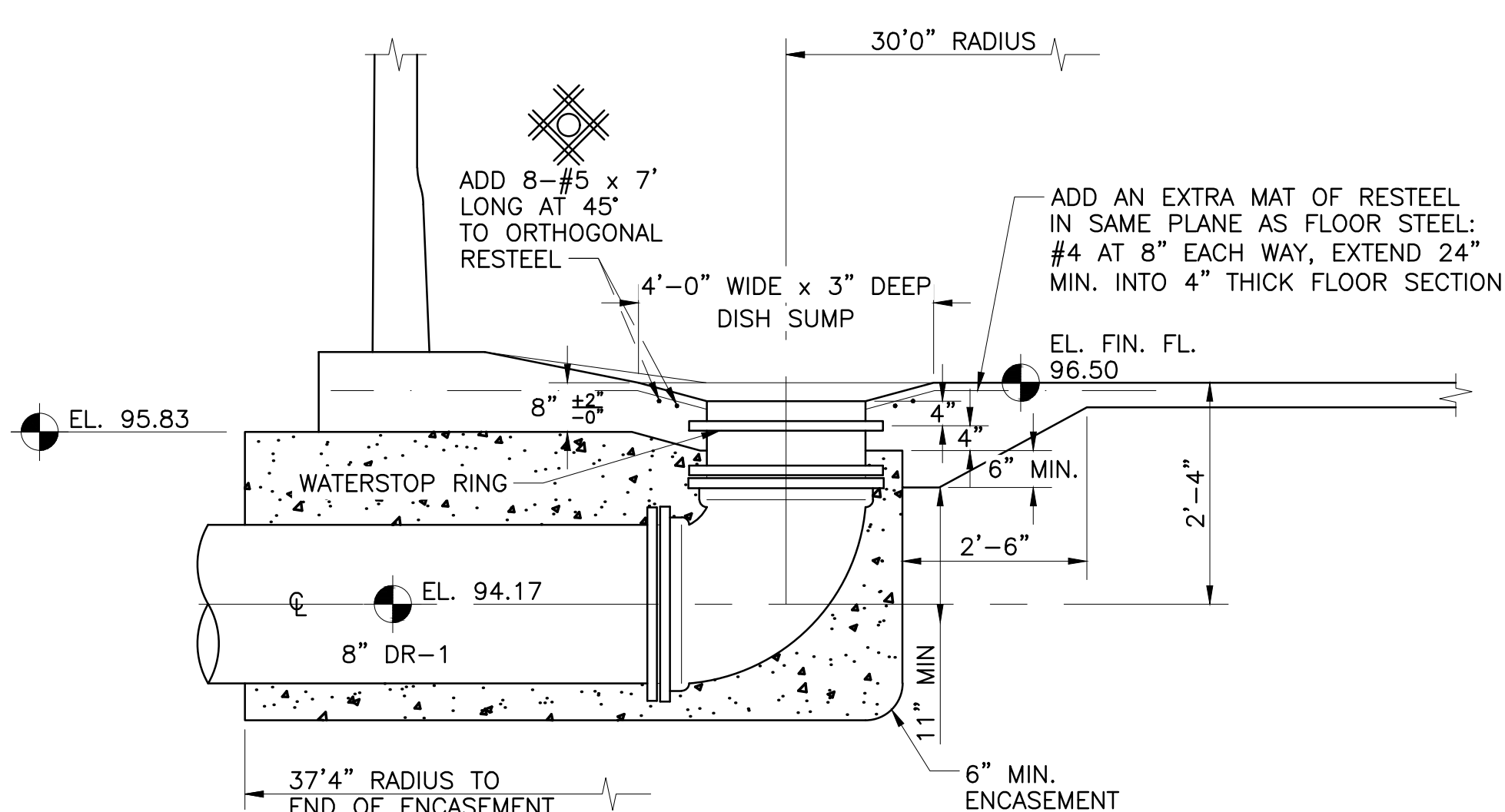
[illegible]



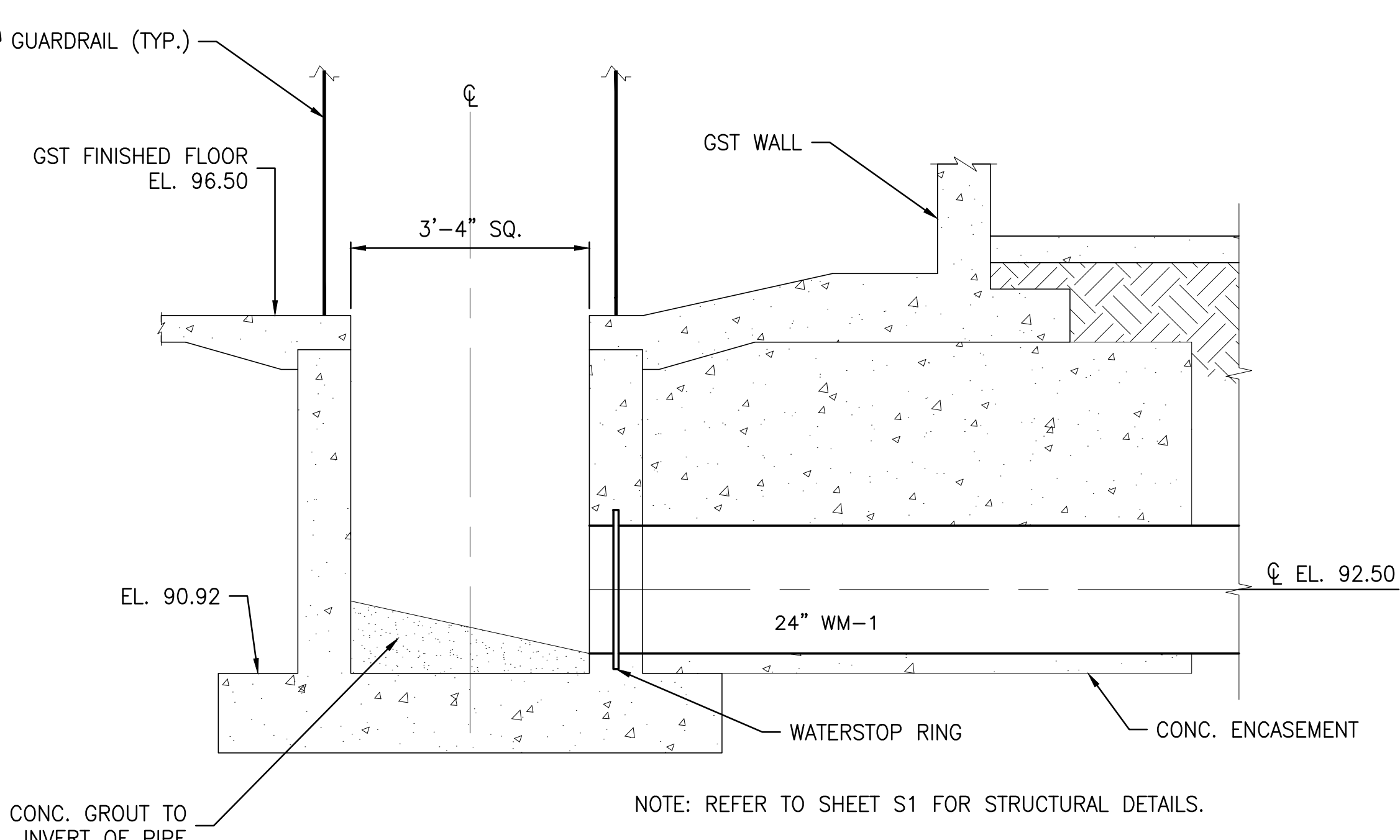
TYPICAL PIPE ENCASEMENT AT FOOTING 1



20" INLET DETAIL 2



8" DRAIN DETAIL 3



OUTFLOW SUMP DETAIL 4

- NOTES:
- DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY. THESE SHALL NOT BE CONSIDERED AS A STRUCTURAL DESIGN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA. REINFORCEMENT SPECIFIED SHALL BE CONSIDERED AS A MINIMUM REQUIREMENT.
 - REFER TO THE TECHNICAL SPECIFICATIONS, SECTION 13200.

SAVED: 5/31/2023 11:28 AM RMEADOWS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\MECH\0781010701-M02.DWG

LTR.	DATE	REVISIONS	BY	APPRD.	

DESIGNED JTORRES
DRAWN RMARTIN
CHECKED KFRASER

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

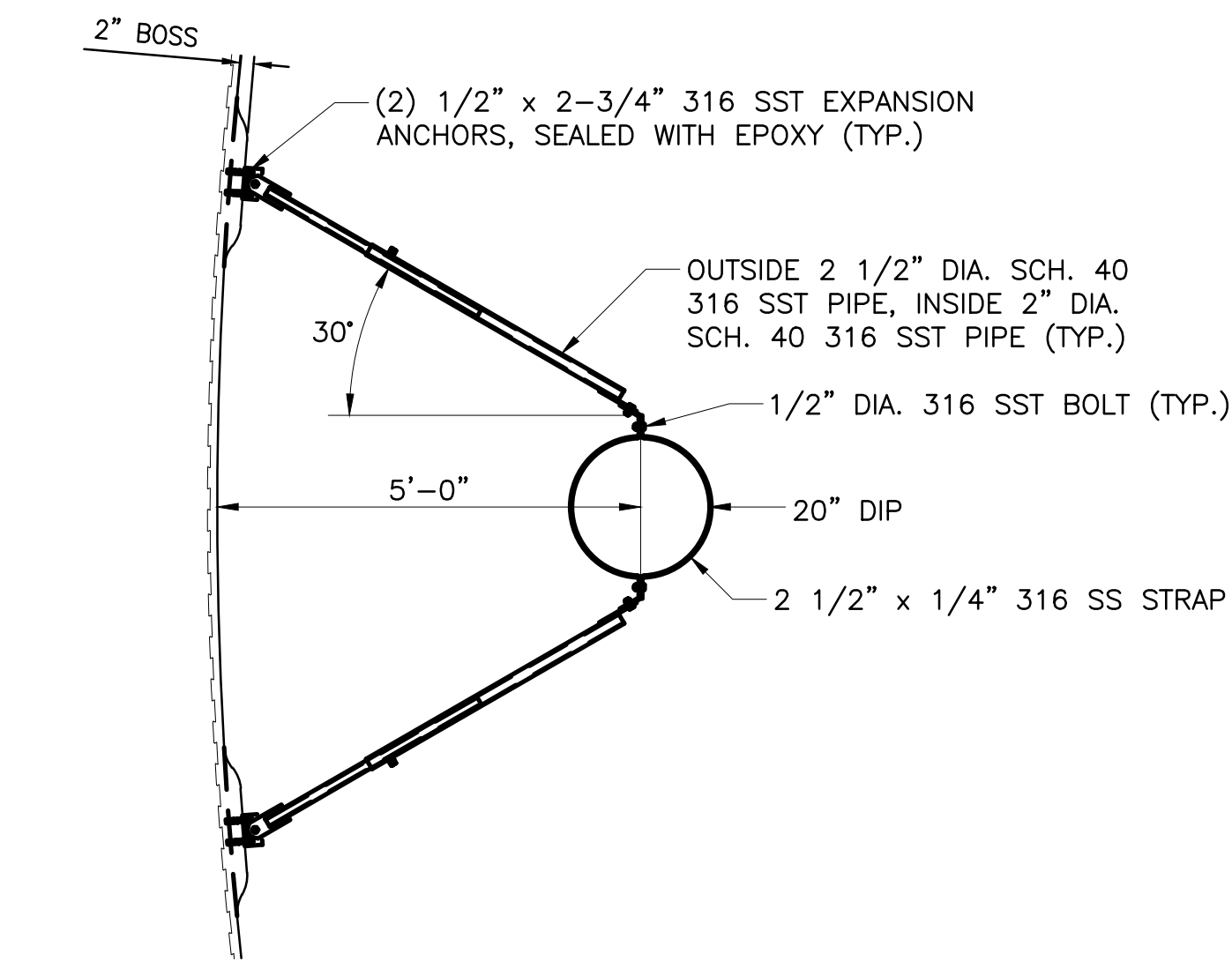
GST DETAILS

THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY JAFET T. RIVERA, PE #80247 ON THE
DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THIS SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: M4

BID DOCUMENTS



4'-4" x 4'-4"

1'-8" 10"

1 1/2" x 1/8" FG ROUND TUBE

3 SS FITTING SEE DETAIL

1'-9" 1'-9" 3'-6" MIN

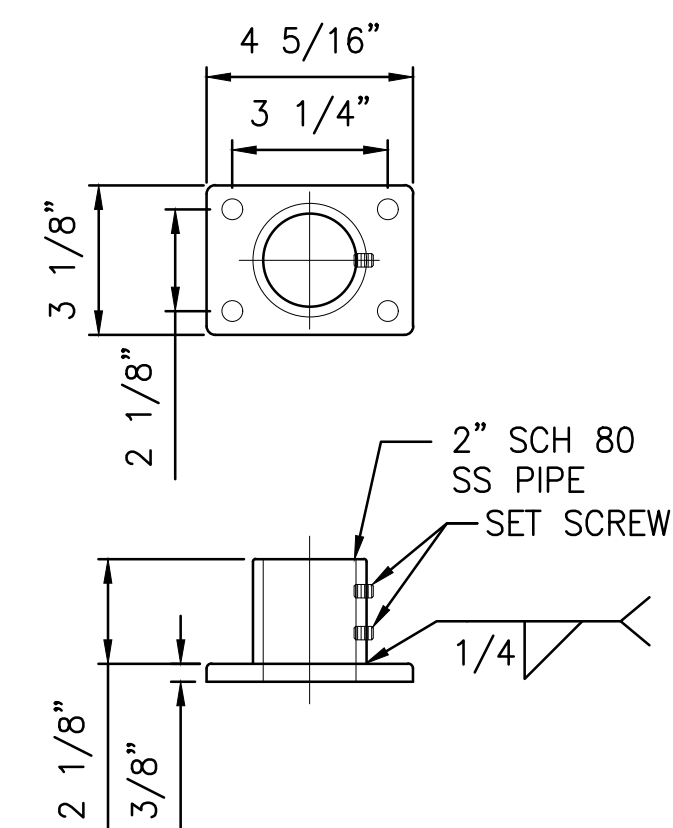
6" (TYP) TOP OF SUMP AT EDGE

ONE-WAY SAFETY SWING GATE (ONE SIDE ONLY)

6" (TYP)

3'-4" X 3'-4" SUMP

- ## FIBERGLASS GUARDRAIL AROUND SUMP DETAIL

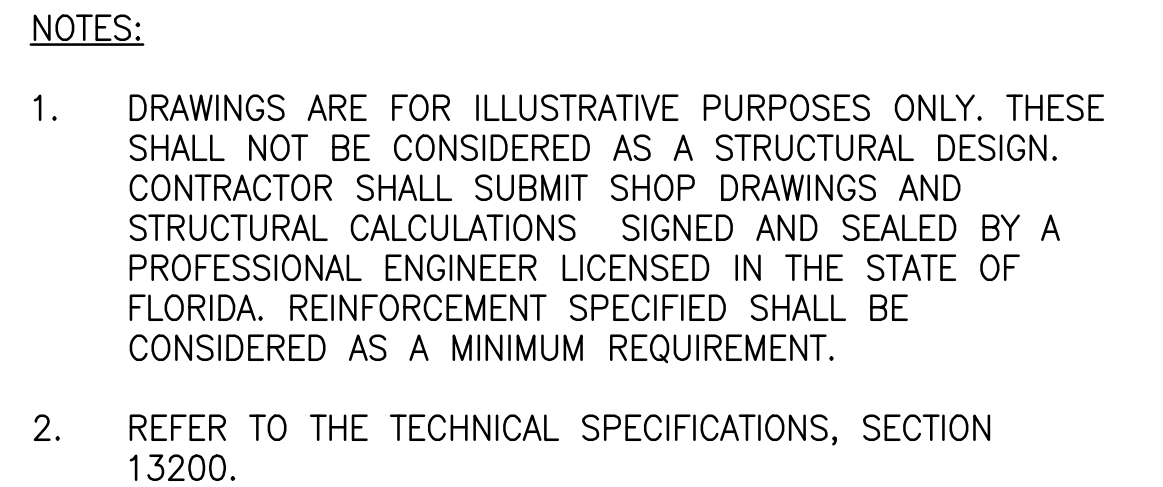


NOTES:

1. DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY. THESE SHALL NOT BE CONSIDERED AS A STRUCTURAL DESIGN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA. REINFORCEMENT SPECIFIED SHALL BE CONSIDERED AS A MINIMUM REQUIREMENT.
2. REFER TO THE TECHNICAL SPECIFICATIONS, SECTION 13200.

						DESIGNED	JTORRES	 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401	HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA	GST DETAILS	THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JAFET T. RIVERA, PE #80247 ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THIS SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO:	DATE:
				DRAWN	RMARTIN	07810-107-01	AUG. 2023						
				CHECKED	KFRASER	INDEX NO:	DWG NO:						
LTR.	DATE	REVISIONS	BY	APPRD.			M5						

BID DOCUMENTS



ALUMINUM GUARDRAIL DETAIL

NTS

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JAFET T. RIVERA, PE #80247 ON THE DATE ADJACENT TO THE SEAL.	PROJECT NO:	DATE:
	07810-107-01	AUG. 2023
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THIS SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	INDEX NO:	DWG NO:
		M6



1. DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY. THESE SHALL NOT BE CONSIDERED AS A STRUCTURAL DESIGN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA. REINFORCEMENT SPECIFIED SHALL BE CONSIDERED AS A MINIMUM REQUIREMENT.
2. REFER TO THE TECHNICAL SPECIFICATIONS, SECTION 13200.

DESIGNED	<u>JTORRES</u>
DRAWN	<u>RMARTIN</u>
CHECKED	<u>KFRASER</u>

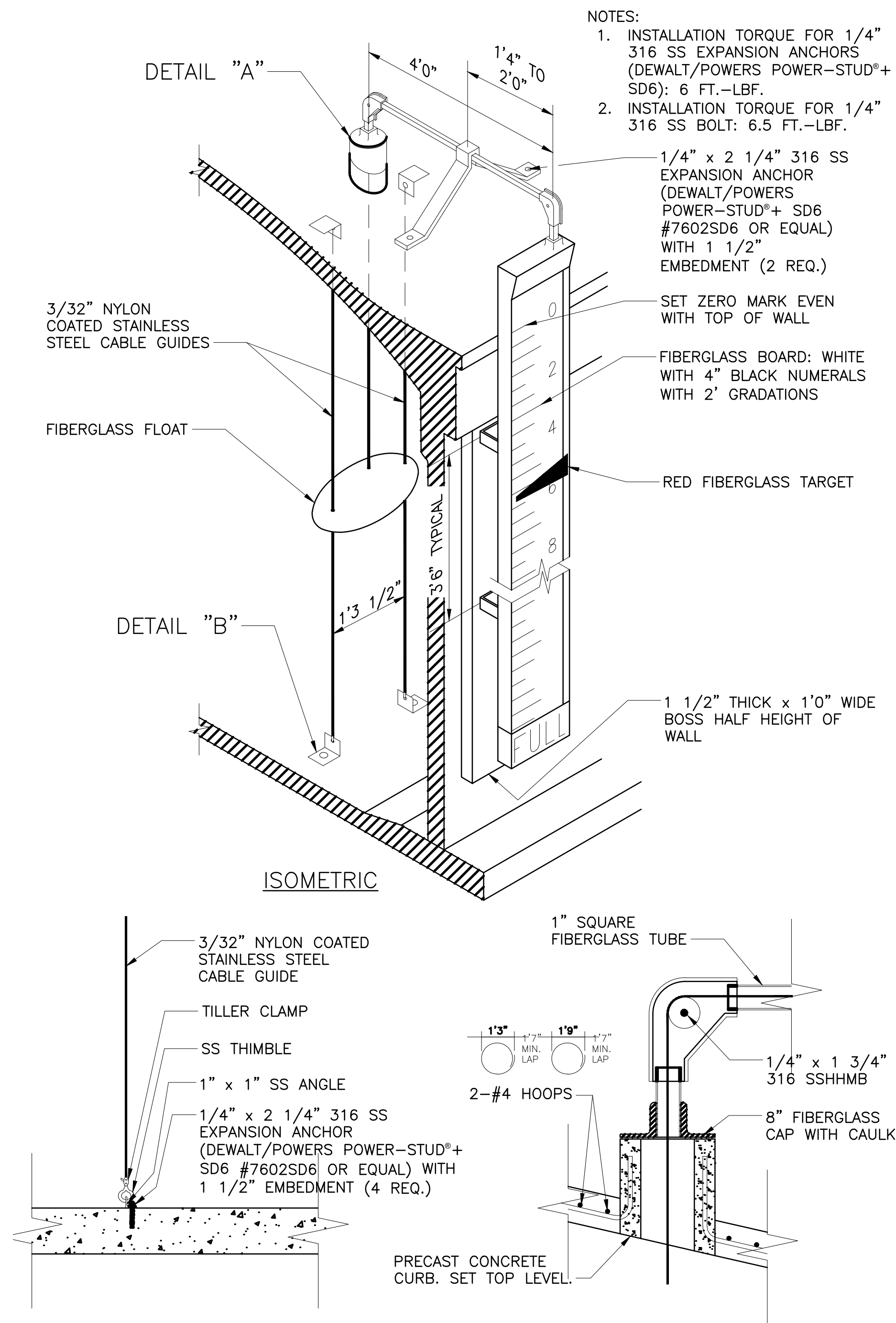
HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA

GST DETAILS

PROJECT NO:
07810-107-01

INDEX NO:

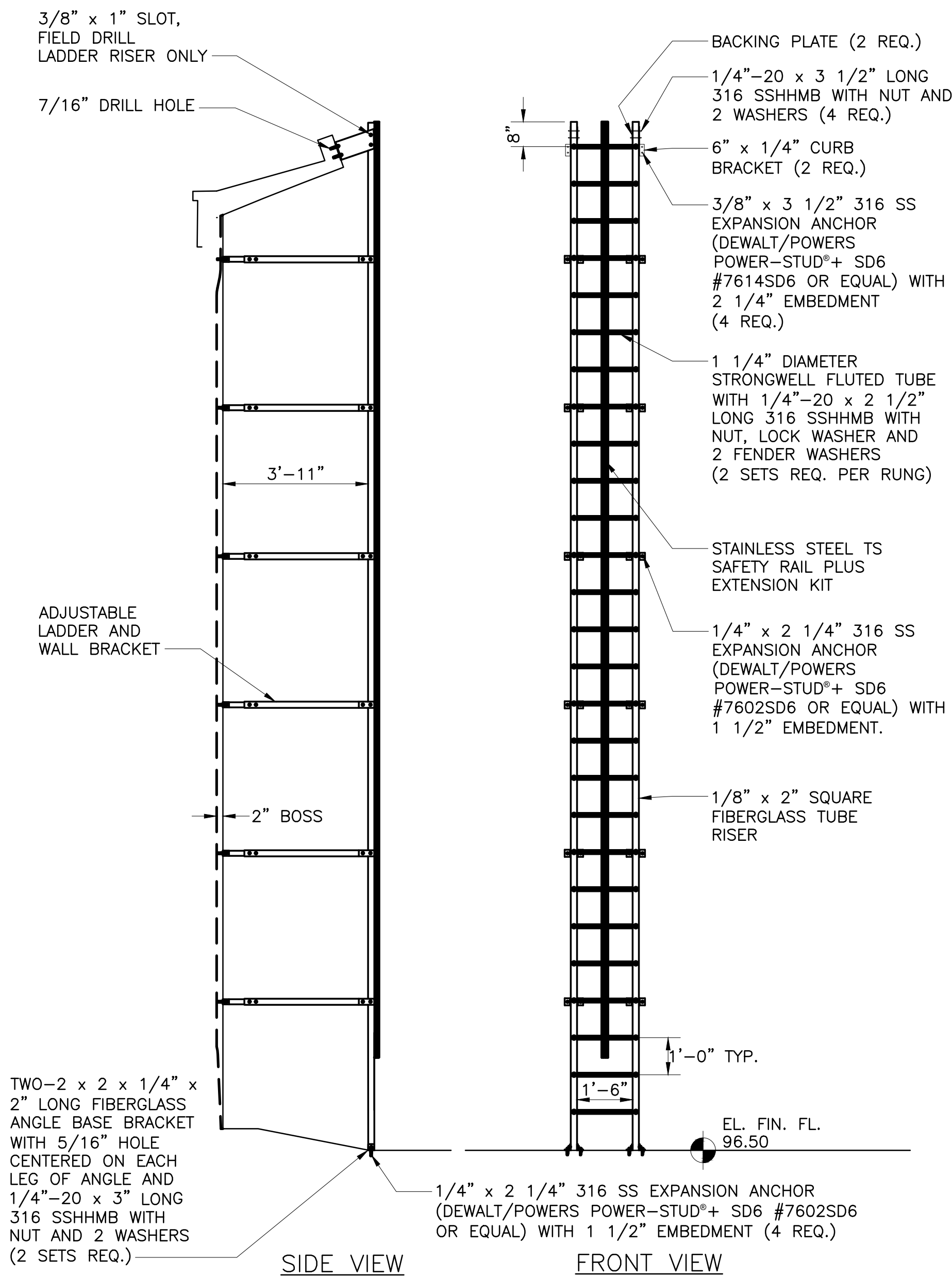
SAVED: 5/31/2023 11:28 AM RMEADOWS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\MECH\0781010701-M02.DWG



LIQUID LEVEL INDICATOR DETAIL

1

NTS



INTERIOR FIBERGLASS LADDER ELEVATION

2

NTS

NOTES:

1. DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY. THESE SHALL NOT BE CONSIDERED AS A STRUCTURAL DESIGN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA. REINFORCEMENT SPECIFIED SHALL BE CONSIDERED AS A MINIMUM REQUIREMENT.
2. REFER TO THE TECHNICAL SPECIFICATIONS, SECTION 13200.

LTR.	DATE	REVISIONS	BY	APPRD.

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

GST DETAILS

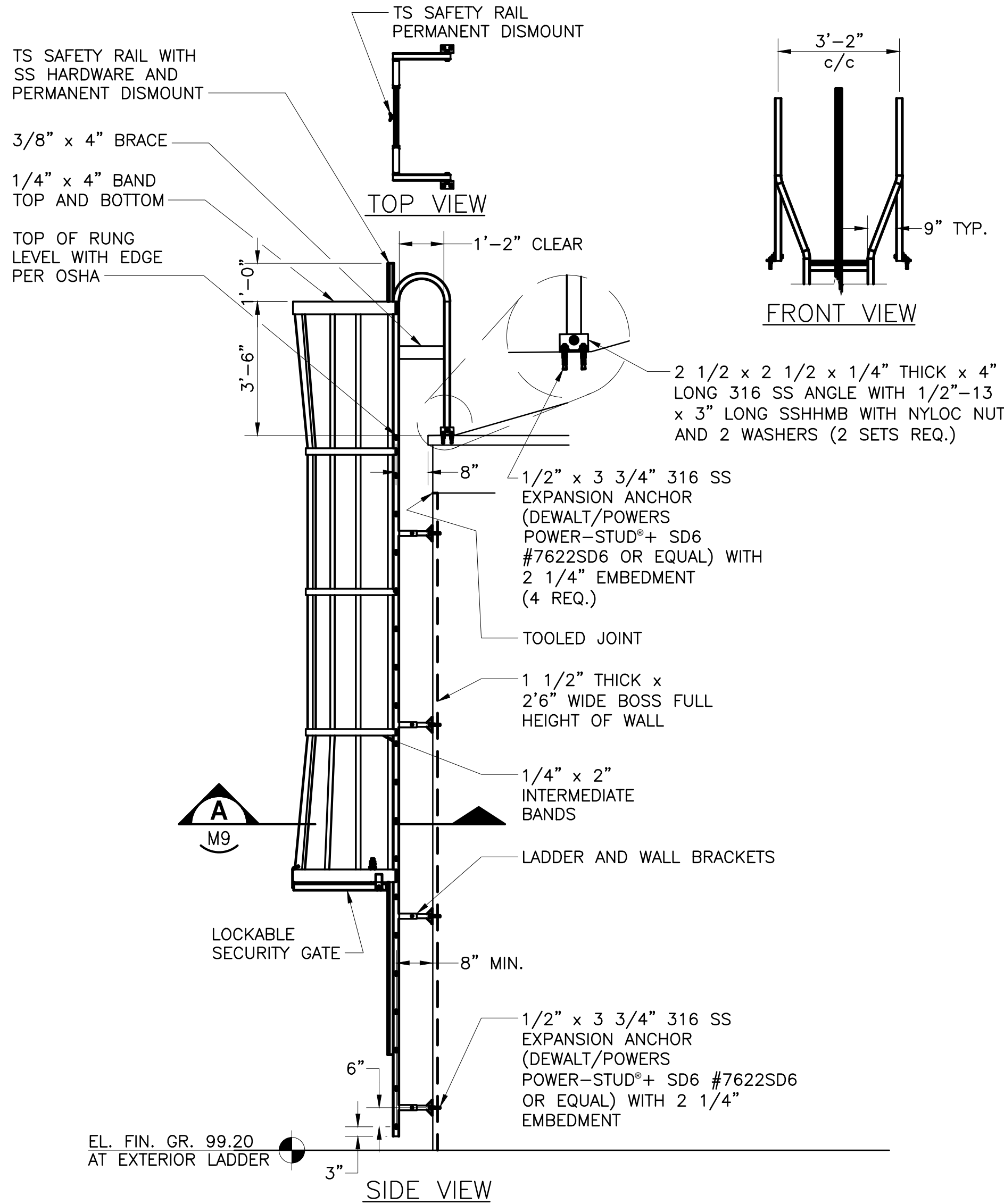
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY JAFET I. RIVERA, PE #80247 ON THE
DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT
CONSIDERED SIGNED AND SEALED AND THIS SIGNATURE
MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO:	07810-107-01	DATE:	AUG. 2023
INDEX NO:		DWG NO:	M8

BID DOCUMENTS

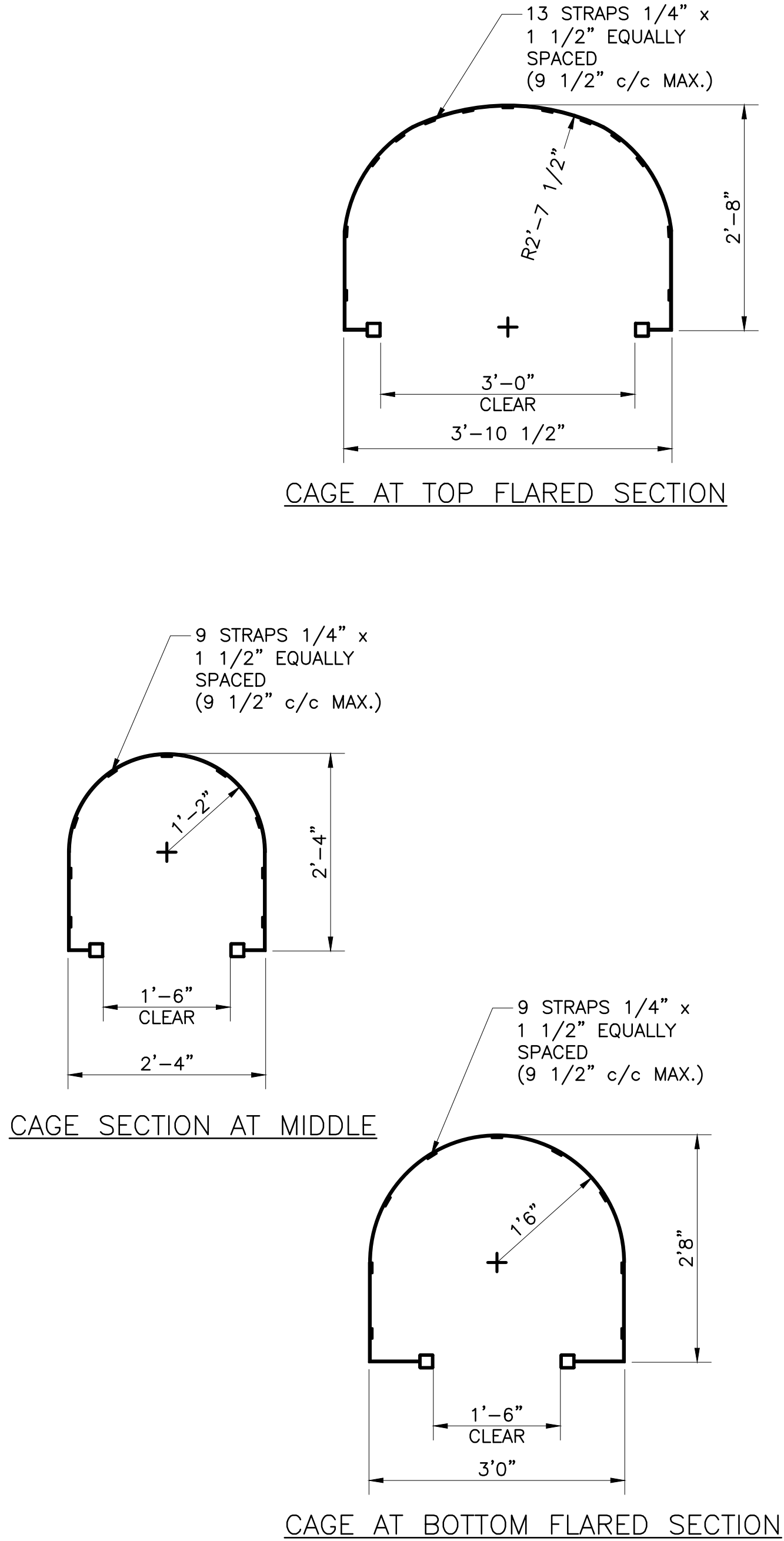
SAVED: 5/31/2023 11:28 AM RMEADOWS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\MECH\0781010701-M02.DWG



- NOTES:
- LADDER HAS 2 x 2 x 1/8" SQUARE TUBE RAILS WITH 1 1/4" DIAMETER EXTRUDED RUNGS SPACED AT 1'0" c/c.
 - ALL MATERIAL TO BE NOMINAL DIAMETER SCHEDULE 40 ALUMINUM PIPE OR SQUARE TUBE 6061-T6 OR 6063-T6.
 - PLATES AND GUSSETS TO BE STRUCTURAL GRADE ALUMINUM 6061-T6.
 - ALL ALUMINUM IN DIRECT CONTACT WITH CONCRETE SHALL BE COATED WITH A MINIMUM 8.0 DRY MIL THICKNESS SERIES 46-465 H.B. TNEMECOL OR EQUAL.
 - ALL RAILS WHEN PROPERLY INSTALLED SHALL MEET OR EXCEED OSHA REQUIREMENTS.
 - INSTALLATION TORQUE FOR 1/2" 316 SS EXPANSION ANCHORS (DEWALT/POWERS POWER-STUD®+ SD6): 40 FT.-LBF.
 - INSTALLATION TORQUE FOR 1/2" 316 SS BOLT: 46 FT.-LBF.

EXTERIOR ALUMINUM LADDER DETAIL 1

NTS



CAGE SECTIONS AT VARIOUS ELEVATIONS A

NTS

M9

- NOTES:
- DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY. THESE SHALL NOT BE CONSIDERED AS A STRUCTURAL DESIGN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA. REINFORCEMENT SPECIFIED SHALL BE CONSIDERED AS A MINIMUM REQUIREMENT.
 - REFER TO THE TECHNICAL SPECIFICATIONS, SECTION 13200.

					DESIGNED	JTORRES	 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401	HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA	GST DETAILS	THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JAFET T. RIVERA, PE #80247 ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THIS SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO:	DATE:
					DRAWN	RMARTIN					07810-107-01	AUG. 2023
					CHECKED	KFRASER					INDEX NO:	DWG NO:
LTR.	DATE	REVISIONS	BY	APPRD.								M9



NTS

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5458

HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA

GST SUMP PLAN AND SECTION

PROJECT NO: 07810-107-01	DATE: APRIL 2023
INDEX NO:	DWG NO: S1



SAVED: 4/18/2023 1:05 PM RMEADOWS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\ELEC\0781010701-E01.DWG

ELECTRICAL PLAN LEGEND

IN GENERAL, LIGHT OR SCREENED LINES INDICATE EXISTING OR WORK OF OTHER TRADES, BOLD LINES INDICATE NEW ELECTRICAL WORK.

SYMBOL	DESCRIPTION
	FLUORESCENT FIXTURE, TYPE INDICATED
	FLUORESCENT FIXTURE, TYPE INDICATED WITH EMERGENCY BALLAST AND BATTERY PACK
	HID FIXTURE, TYPE INDICATED
	HID FIXTURE, TYPE INDICATED WITH QUARTZ RESTRIKE
	EMERGENCY LIGHT UNIT
	EXIT SIGN
	POLE MOUNTED AREA LIGHTS
	INDICATES ELECT. CKT. #
	TOGGLE SWITCH, 1-POLE, 20 AMP, 120 VOLT (3 INDICATES 3-WAY, 4 INDICATES 4-WAY)
	JUNCTION BOX
	DUPLEX RECEPTACLE, 3 WIRE GROUNDING, NEMA 5-20R, 20 AMP, 125 VOLT
	MOTOR, HORSEPOWER INDICATED
	TELEPHONE OUTLET
	DATA OUTLET FOR LOCAL AREA NETWORK
	INSTRUMENTATION, TYPE INDICATED
	TORQUE/OVERLOAD DEVICE
	THERMOSTAT
	IN GROUND PULL BOX, SEE NOTE 10
	NEW HANDHOLE (NUMBER INDICATED), SEE NOTE 11
	GROUND ROD, 5/8"x10'-0" COPPER CLAD
	CONDUIT UP (MULTIPLE OR SINGLE)
	CONDUIT DOWN (MULTIPLE OR SINGLE)
	CONDUIT, CONCEALED ABOVE CEILING
	CONDUIT, EXPOSED
	CONDUIT IN FLOOR OR UNDERGROUND
	MULTIPLE CONDUIT RUN (UNDERGROUND UNLESS OTHERWISE INDICATED)
	OVERHEAD ELECTRIC LINE, 3-PHASE
	CONDUIT RUN
	CIRCUIT REFERENCE, SEE WIRING SCHEDULES
	ON SYMBOL INDICATES REMOVAL
	CABLE FURNISHED WITH EQUIPMENT
	INDICATES WEATHERPROOF
	GROUND FAULT CIRCUIT INTERRUPTER
	SURVEILLANCE CAMERA
	LOCAL CONTROL STATION
	HAND-OFF-AUTOMATIC
	IN NEMA 4X SS ENCL.
	NIGHT LIGHT (REMAINS ON AT ALL TIMES)
	SAFETY SWITCH NEMA 4X STAINLESS STEEL 3 POLE UNLESS OTHERWISE NOTED WITH 2 FORM "C" AUX. CONTACTS
	SECURITY SYSTEM CARD READER AND KEYPAD
	ENTRANCE PEDESTAL FOR CAMERA, HAND CEMETERY READER, HANDS FREE TELEPHONE & DOOR BELL BUTTON
	PHOTO CELL
	HYDRAULIC CRASH GATE
	MOTOR OPERATED VALVE
	SOLENOID VALVE
	EXISTING ELECTRIC EQUIPMENT & SERVICE TO BE REMOVED

ONE LINE DIAGRAM LEGEND

IN GENERAL, LIGHT OR SCREENED LINES INDICATE EXISTING OR WORK OF OTHER TRADES, BOLD LINES INDICATE NEW ELECTRICAL WORK.

SYMBOL	DESCRIPTION
	MOTOR, HORSEPOWER INDICATED
	TIME DELAY RELAY (0-180 SEC)
	ELAPSED TIME METER
	MOTOR SPACE HEATER
	TORQUE SWITCH
	PHASE MONITOR RELAY
	TIME CLOCK (24 HR, 15 MIN ON/OFF)
	THERMOSTAT
	SELECTOR SWITCH
	HAND OFF AUTOMATIC (HOA)
	ON-OFF (O-O)
	ON OFF REMOTE (OOR)
	VFD/BYPASS (V-B)
	TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS)
	MOTOR CIRCUIT PROTECTOR (MCP) OR CIRCUIT BREAKER (TRIP AMPS INDICATED)
	3 POLE UNLESS OTHERWISE INDICATED
	CURRENT TRANSFORMER
	POWER TRANSFORMER
	COMBINATION MOTOR STARTER WITH MCP
	FVR = FULL VOLTAGE REVERSING
	FVNR = FULL VOLTAGE NON-REVERSING
	RVSS = REDUCED VOLTAGE SOLID STATE
	RVAT = REDUCED VOLTAGE AUTOTRANSFORMER STARTER
	VFD = VARIABLE FREQUENCY DRIVE
	CONTROL POWER TRANSFORMER
	CONTROL PANEL
	EQUIPMENT OUTLINE

SCHEMATIC LEGEND

IN GENERAL, LIGHT OR SCREENED LINES INDICATE EXISTING OR WORK OF OTHER TRADES, BOLD LINES INDICATE NEW ELECTRICAL WORK.

SYMBOL	DESCRIPTION
	ELAPSED TIME METER
	MOTOR SPACE HEATER
	CIRCUIT BREAKER
	FUSE
	TERMINAL
	CONTROL POWER TRANSFORMER
	SELECTOR SWITCH, HAND-OFF-AUTO (HOA) UNLESS OTHERWISE INDICATED.
	TORQUE SWITCH
	FLOAT SWITCH
	INDICATING LIGHT, R=RED, G=GREEN, A=AMBER
	GROUND CONNECTION
	THERMAL OVERLOADS
	PHASE MONITOR RELAY CONTACT
	PUSH-BUTTON SWITCH
	N.C.T.O. CONTACT
	N.O.T.C. CONTACT
	NORMALLY OPEN INSTANTANEOUS CONTACT
	NORMALLY CLOSED INSTANTANEOUS CONTACT
	MOTOR STARTER COIL
	TIME DELAY RELAY (0-180 SEC)
	FIELD/INTERCONNECTION WIRING
	LOCAL/INTERNAL WIRING
	DEVICE AT MOTOR
	DEVICE IN CONTROL PANEL
	DEVICE IN OTHER MOTOR STARTER

ALL DEVICES SHOWN ON CONTROL SCHEMATICS ARE AT MOTOR STARTER UNLESS OTHERWISE INDICATED

GENERAL NOTES

- COORDINATE THE INSTALLATION WITH THE POWER COMPANY PRIOR TO BEGINNING WORK. CONTACT POWER COMPANY AND SUBMIT, ON BEHALF OF THE OWNER, AN APPLICATION FOR NEW SERVICE.
- ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC). GROUND ALL ELECTRICAL EQUIPMENT AND ENCLOSURES IN ACCORDANCE WITH THE NEC.
- THE EXISTING UTILITIES ARE SHOWN BASED ON BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL DETERMINE ACTUAL LOCATIONS OF EXISTING UTILITIES AND TAKE NECESSARY CARE TO AVOID DAMAGE TO THOSE UTILITIES. THE CONTRACTOR SHALL REPLACE ALL CIRCUITS AND REPAIR PIPING DAMAGED AS A RESULT OF HIS OPERATIONS AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE NEW CONDUIT RUNS WITH NEW FACILITIES AND PIPING RUNS. PROVIDE 6" CLEAR AT PIPE CROSSINGS.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS OF ALL SYSTEMS INCLUDING ROUTING OF HOME RUNS.
- INSTRUMENTATION CIRCUIT CONDUIT SHALL BE RIGID GALVANIZED STEEL AND SHALL BE PVC COATED IN EXTERIOR ABOVE AND BELOW GRADE LOCATIONS.
- CONNECTIONS ARE PERMITTED IN PULL BOXES FOR THE SITE LIGHTING AND RECEPTACLE CIRCUITS. CONNECTIONS FOR OTHER CIRCUITS SHALL NOT BE PERMITTED IN PULL BOXES UNLESS APPROVED BY THE ENGINEER. CONNECTIONS WHERE PERMITTED SHALL BE MADE USING MOISTURE-PROOF SPLICES, SCOTCHCAST OR EQUAL.
- ALL MOUNTING HARDWARE, ANCHORS, CHANNEL, PLATES, BRACKETS, CABLE HANGERS AND ENCLOSURES SHALL BE STAINLESS STEEL UNLESS OTHERWISE INDICATED.
- POWER CONDUIT SHALL BE RIGID GALVANIZED STEEL ABOVE GRADE AND SCH 40 PVC BELOW GRADE. PVC CONDUIT SHALL BE SUNLIGHT RESISTANT, RATED FOR 90°C CONDUCTORS. FLEXIBLE CONDUIT SHALL BE CARLON "CARFLEX" OR EQUAL.
- IN AREAS WHERE THERE ARE TRANSITIONS IN CONDUIT FROM BELOW GRADE TO ABOVE GRADE, THE TRANSITION FROM SCHEDULE 40 PVC TO GALVANIZED STEEL SHOULD BE 6" MINIMUM BELOW GRADE. THE PORTION OF THE STEEL CONDUIT THAT IS BELOW GRADE SHALL BE PVC COATED.
- CONDUCTORS SHALL BE ANNEALED SOFT DRAWN COPPER WITH TYPE XHHW OR THWN INSULATION RATED FOR 600 VOLTS.
- THE CONTRACTOR SHALL WORK WITH THE COUNTY'S SCADA INTEGRATOR PROVIDING LABOR AND MATERIALS AS NECESSARY TO INTEGRATE EQUIPMENT INTO THE COUNTY'S EXISTING SCADA SYSTEM. THE CONTRACTOR SHALL PROVIDE A COMPLETE AND WORKING SYSTEM.
- THE CONTRACTOR SHALL PROVIDE A MASTER LABEL CERTIFIED LIGHTNING PROTECTION SYSTEM AS INDICATED INCLUDING ALL MATERIALS AND LABOR NECESSARY TO PROVIDE A COMPLETE AND WORKING SYSTEM.

LTR.	DATE	REVISIONS	BY	APPRD.	

DESIGNED	MCLARK
DRAWN	RMEADOWS
CHECKED	JOPPOLD

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

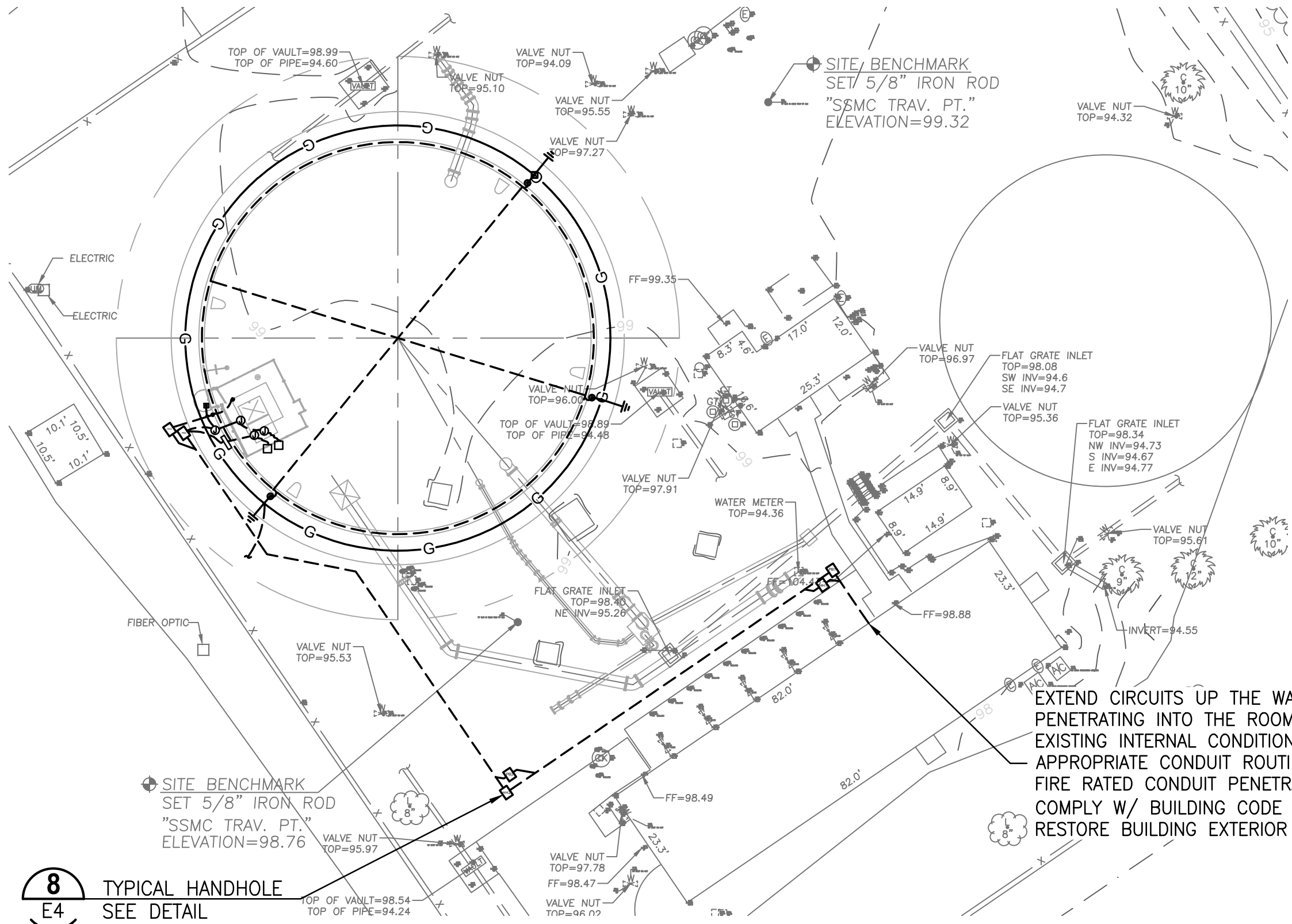
ELECTRICAL NOTES, LEGEND, AND
ABBREVIATIONS

MICHAEL L. CLARK, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 48898
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY MICHAEL L. CLARK, PE, ON THE DATE INDICATED
ON COVER PAGE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED
AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: E1

BID DOCUMENTS



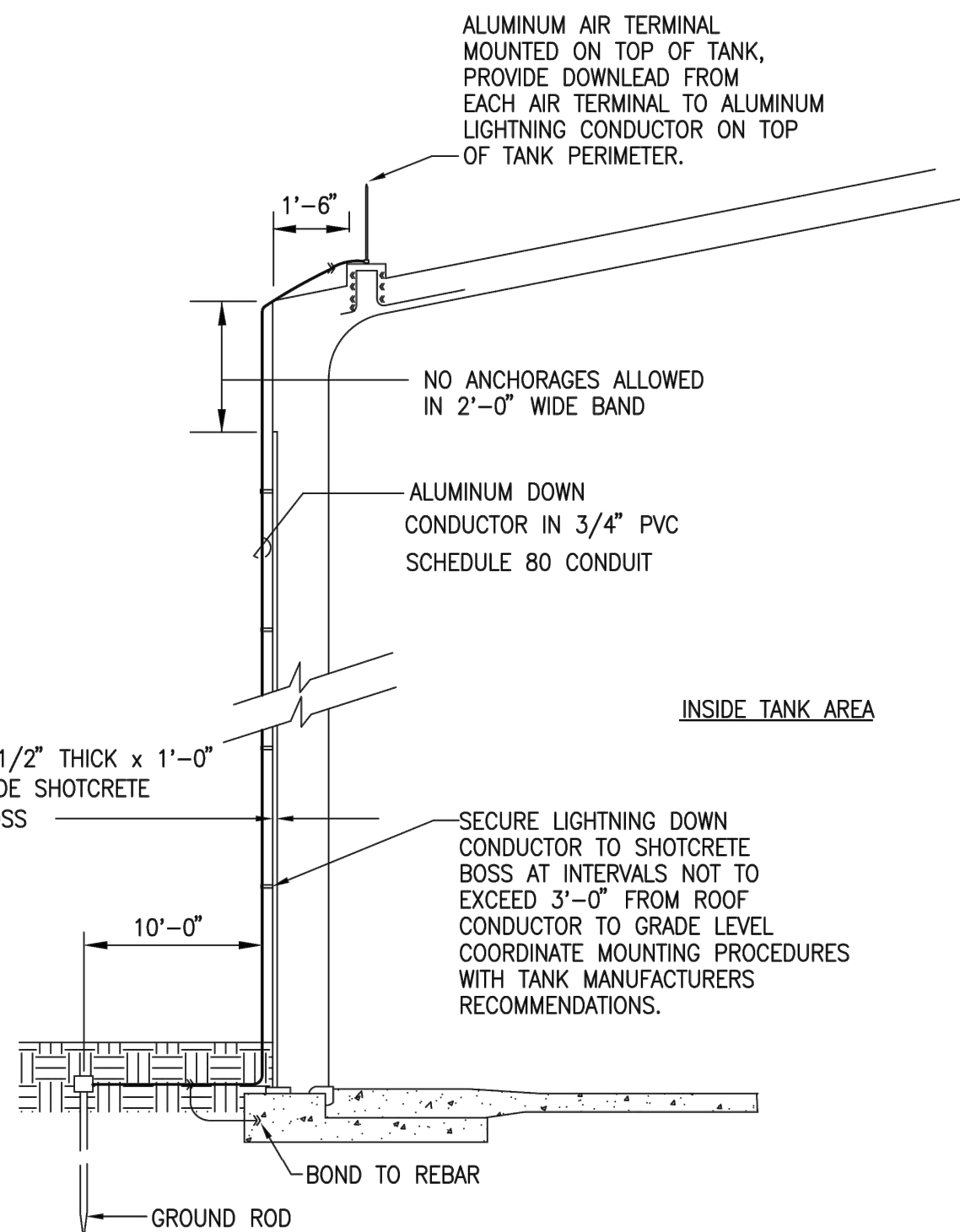
OVERALL ELECTRICAL SITE PLAN

1" = 20'

GRAPHIC SCALE

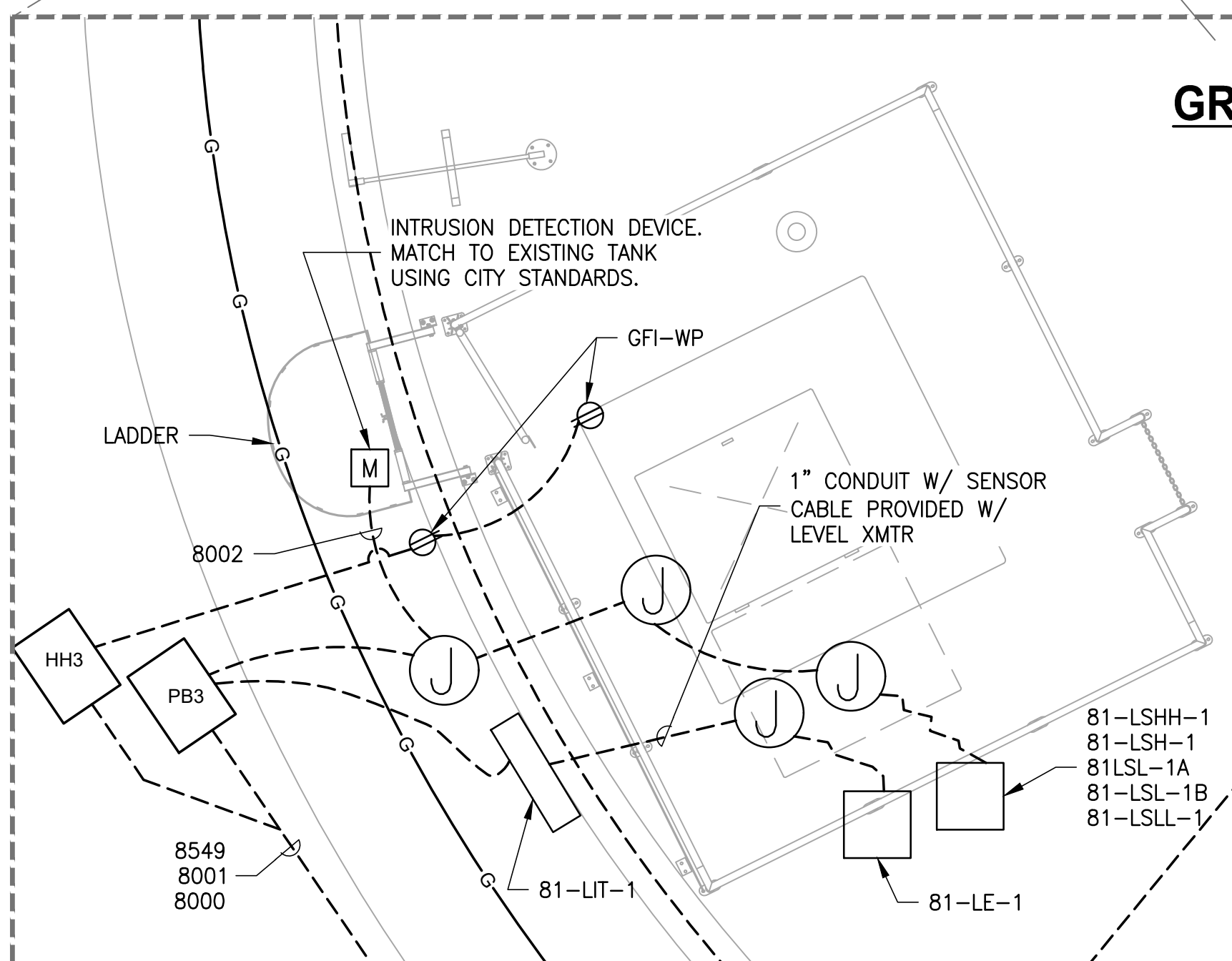
0 10 20 40

SCALE IN FEET



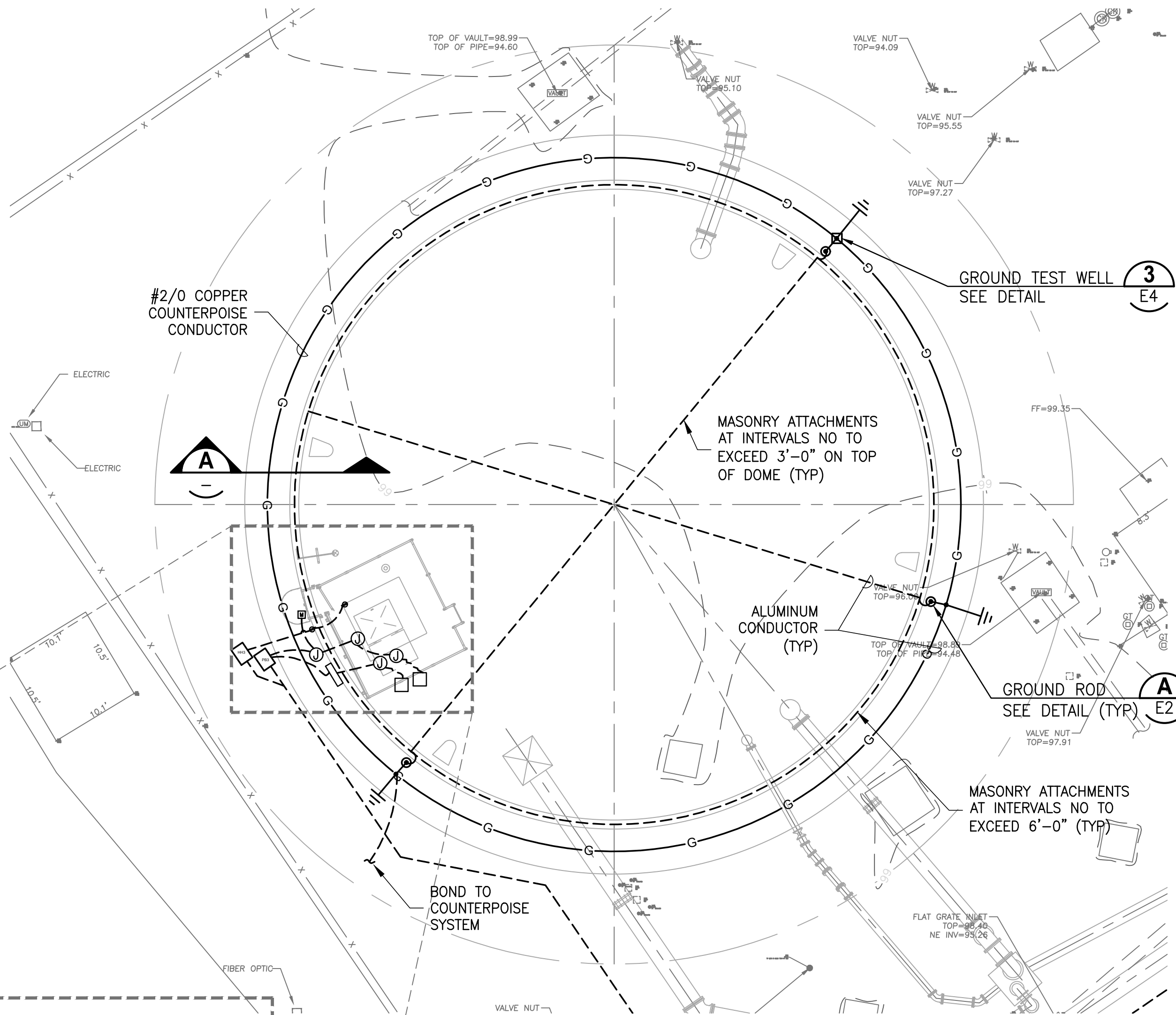
AIR TERMINAL ON TANK DETAIL

NTS



ENLARGED ELECTRICAL PLAN

1" = 3'



GROUND STORAGE TANK ELECTRICAL PLAN

1" = 10'

GRAPHIC SCALE

0 5 10 20

SCALE IN FEET

SAVED: 4/18/2023 1:05 PM RMEADOWS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\ELEC\0781010701-E02.DWG

BID DOCUMENTS

LTR.	DATE	REVISIONS	BY	APPRD.	

DESIGNED MCLARK
DRAWN RMEADOWS
CHECKED JOPPOLD

JonesEdmunds

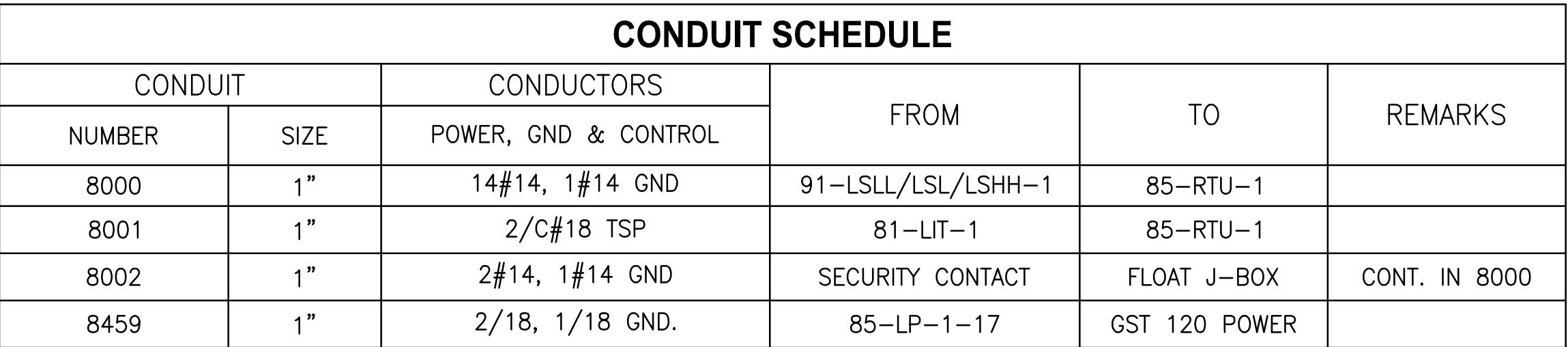
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

**HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA**

**GROUND STORAGE TANK
ELETRICAL PLAN**

MICHAEL L. CLARK, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 48898
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY MICHAEL L. CLARK, PE, ON THE DATE INDICATED
ON COVER PAGE.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED
AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES

PROJECT NO: 07810-107-01	DATE: AUG. 2023
INDEX NO:	DWG NO: E2



* TYPE HACR BREAKER

- # INSTRUMENTATION CONNECTION DIAGRAM 1

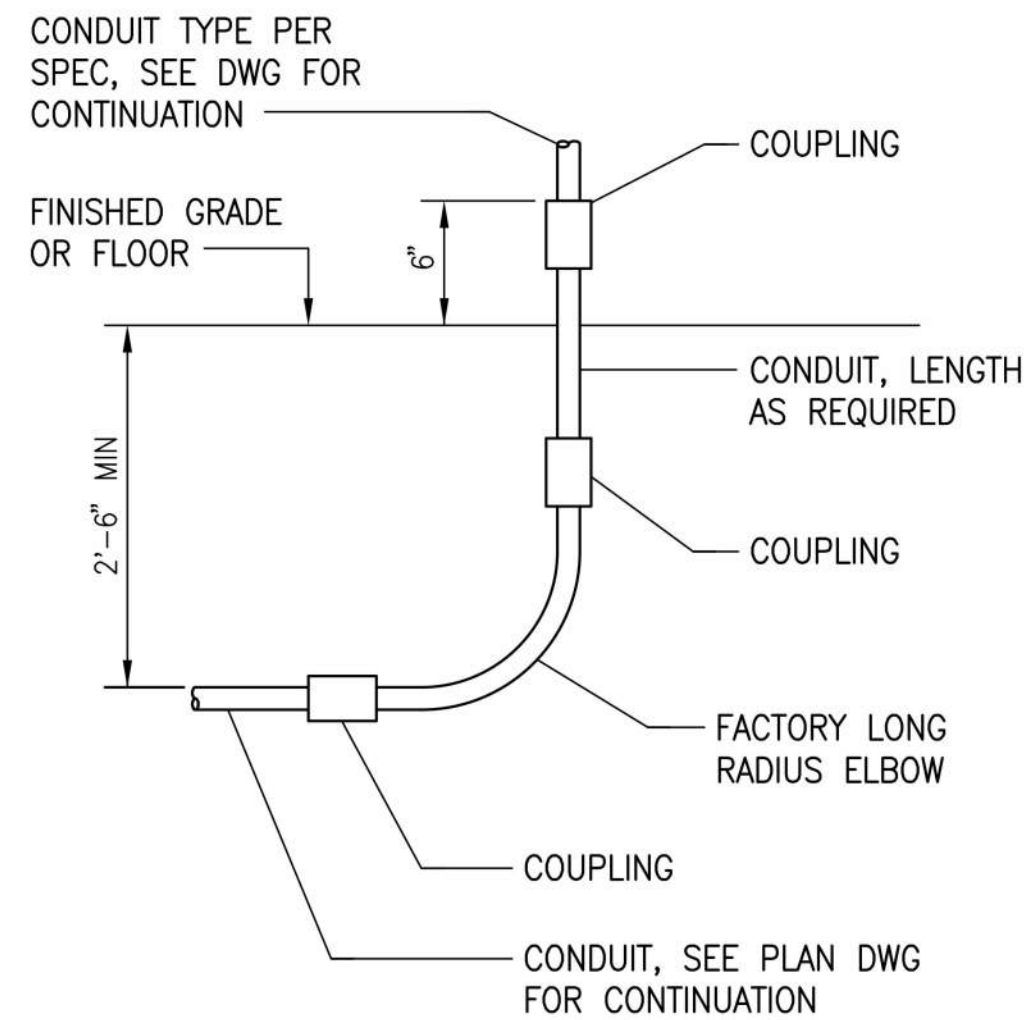
NTS

					DESIGNED	MCLARK	 730 NIE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401	HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK CITY OF LEESBURG, FLORIDA	ELECTRICAL DETAILS	MICHAEL L. CLARK, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 48898 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL L. CLARK, P.E. ON THE DATE INDICATED ON COVER PAGE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES	PROJECT NO:	DATE:
				DRAWN	RMEADOWS	07810-107-01					AUG. 2023	
				CHECKED	JOPPOLD	INDEX NO:					DWG NO:	
LTR.	DATE	REVISIONS	BY	APPRD.							E3	

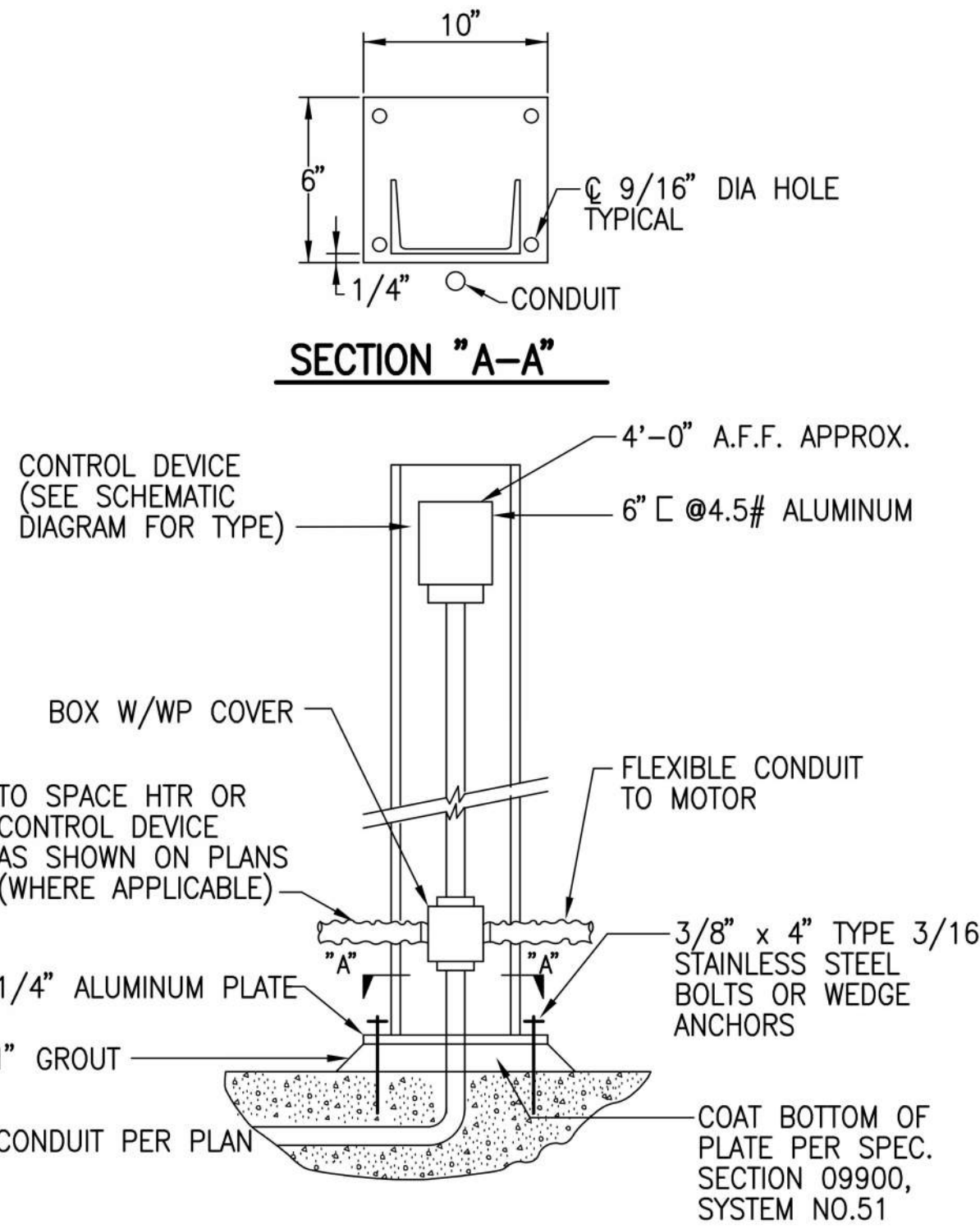
SAVED: 4/18/2023 1:05 PM RMEADOWS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\ELEC\0781010701-E04.DWG

PLOTTED: 8/4/2023 03:29 PM KENNETH A. FRASER, PE

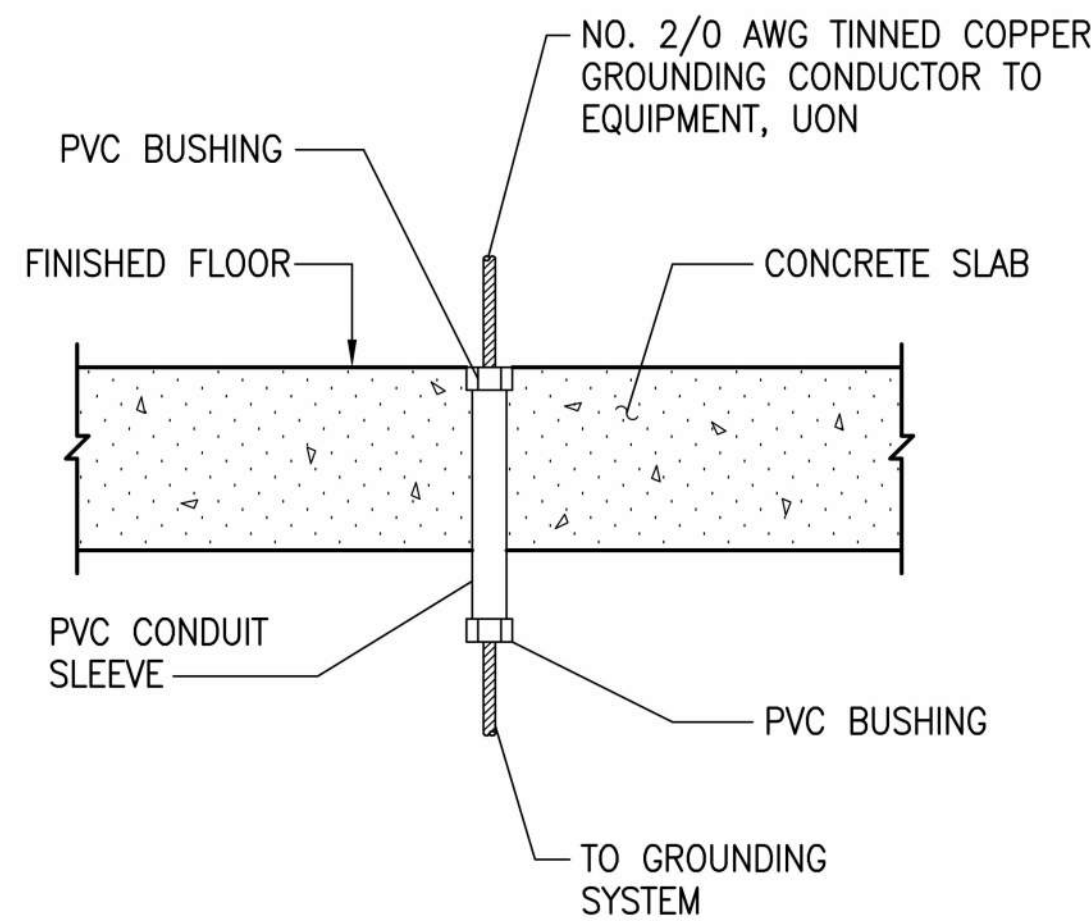
© Jones Edmunds 2234



CONDUIT TRANSITION DETAIL 1
NTS

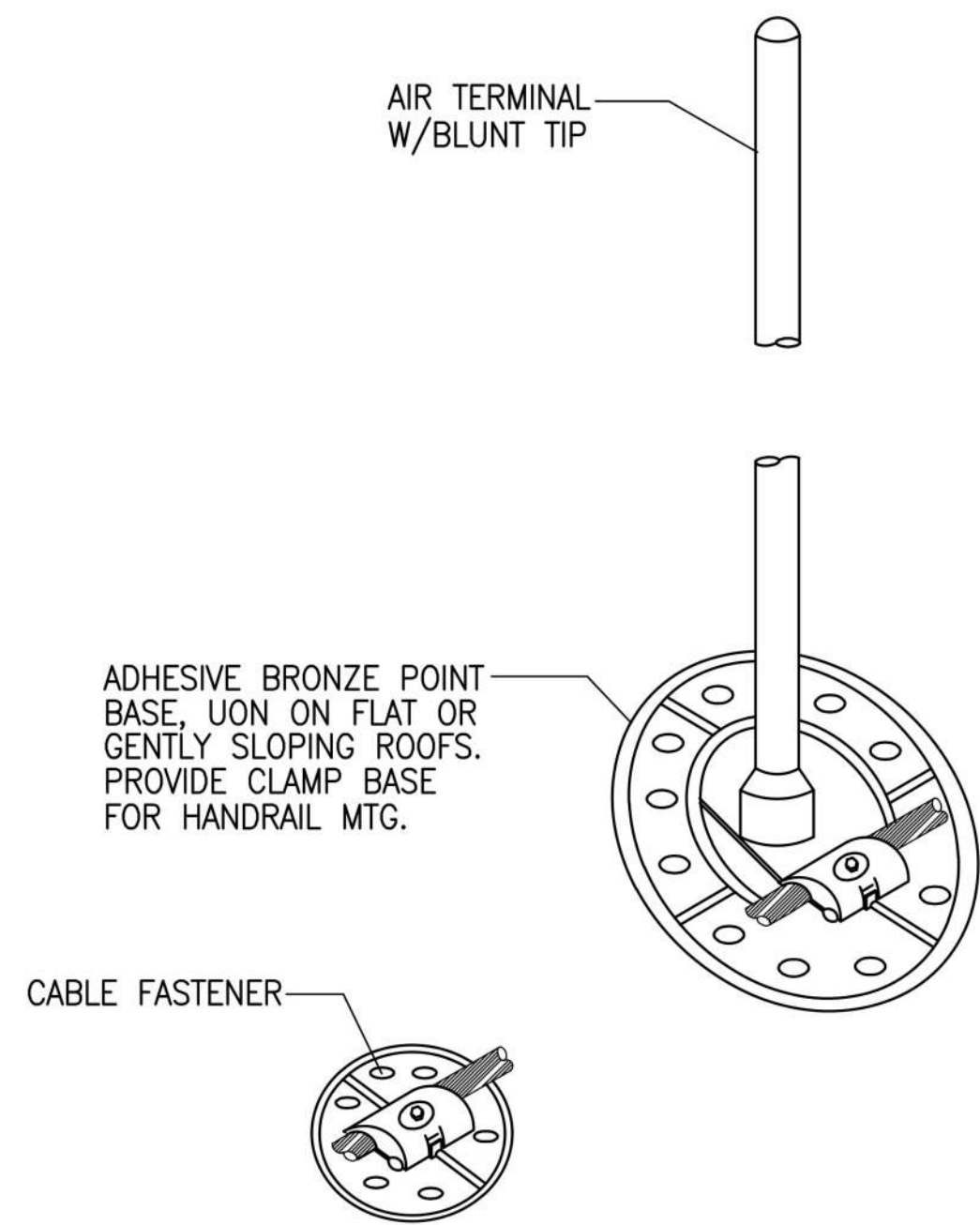


CONTROL STATION MOUNTING DETAIL 2
NTS

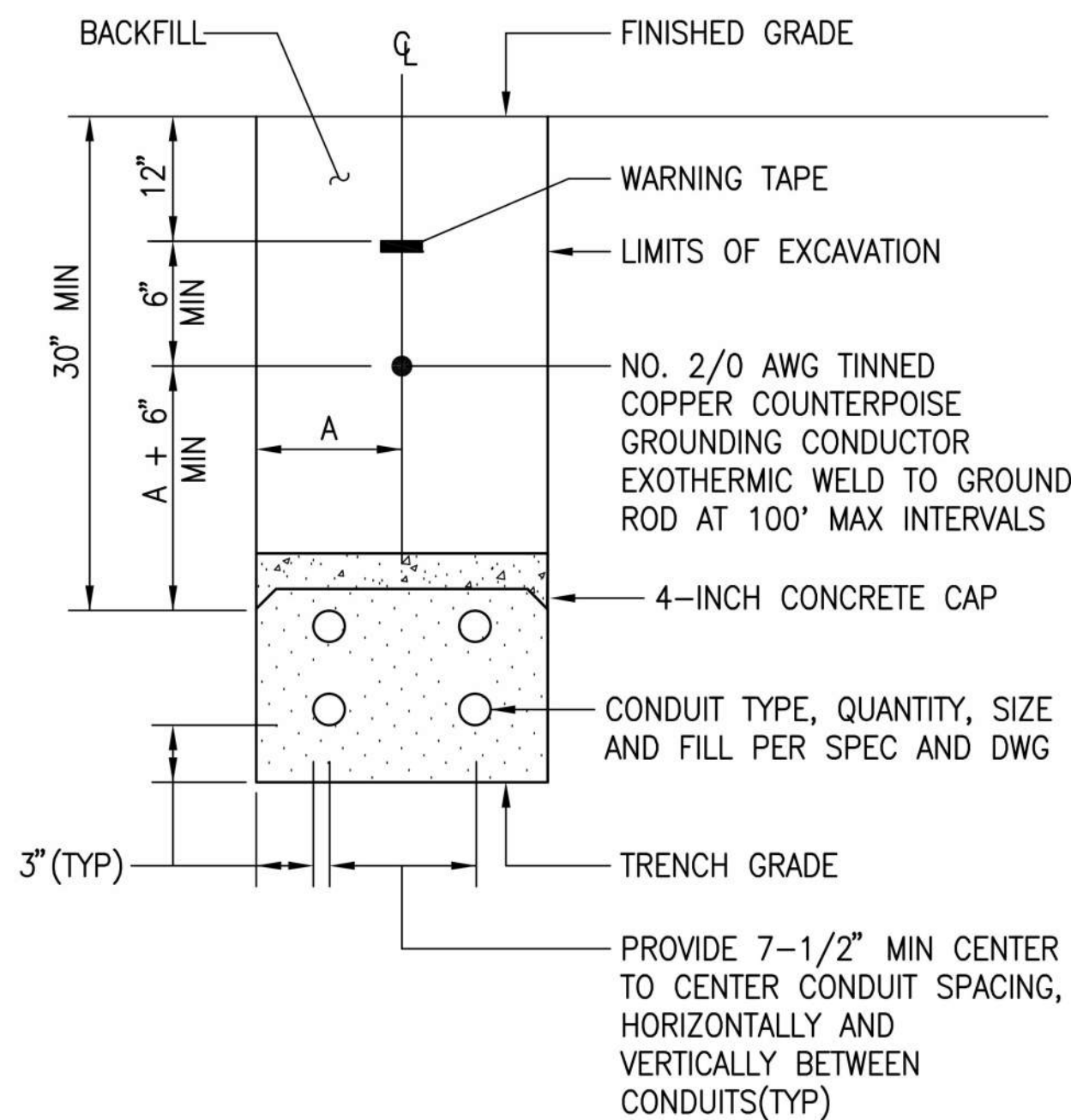


NOTES:
1. EXTEND PVC CONDUIT TO TOP OF BASE, OR PEDESTAL FOR BASE, OR PEDESTAL MOUNTED EQUIPMENT. SUPPORT AT (2) PLACES(MIN).

GROUNDING CONDUIT SLEEVE DETAIL 3
NTS

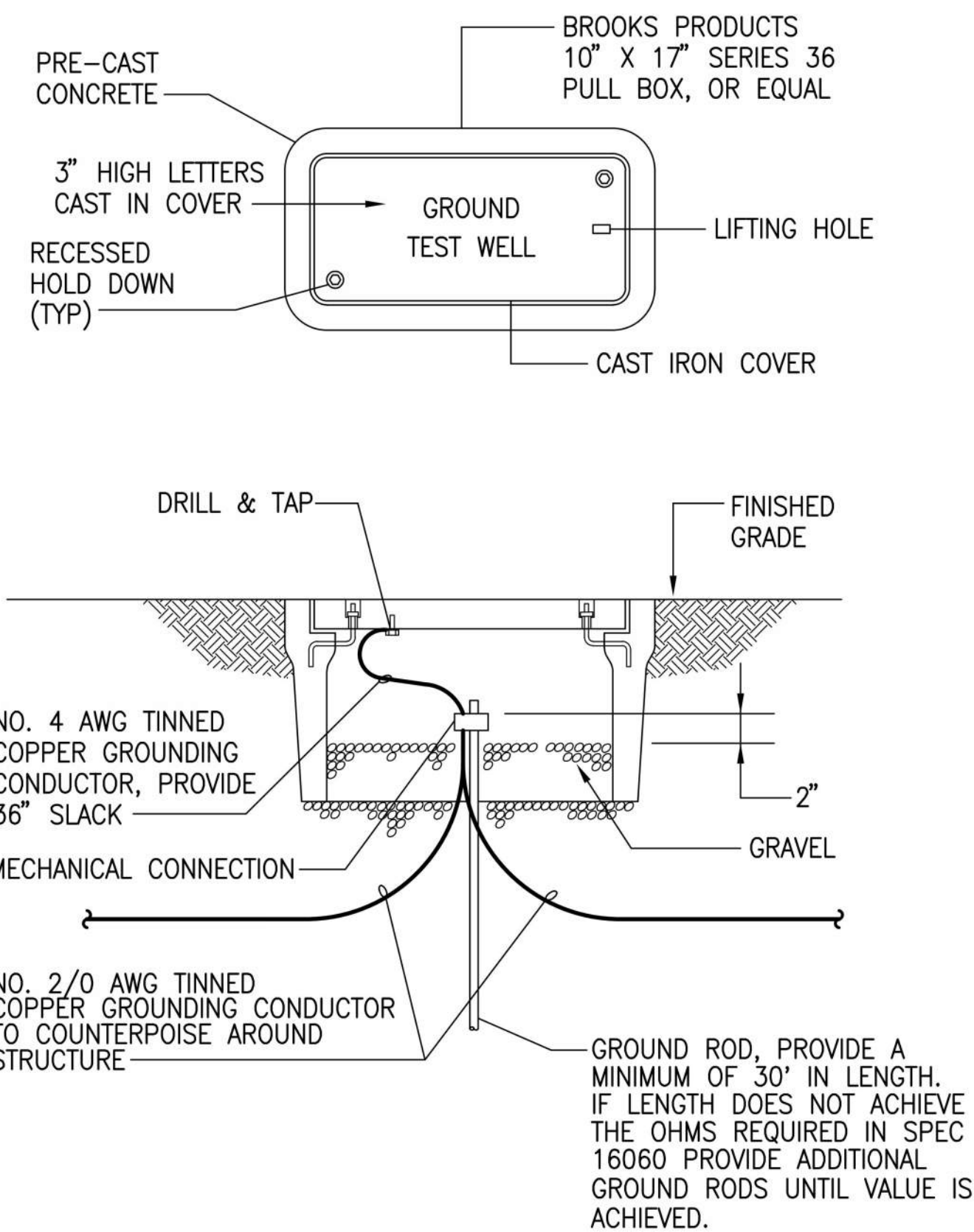


BASE MOUNTED AIR TERMINAL DETAIL 4
NTS

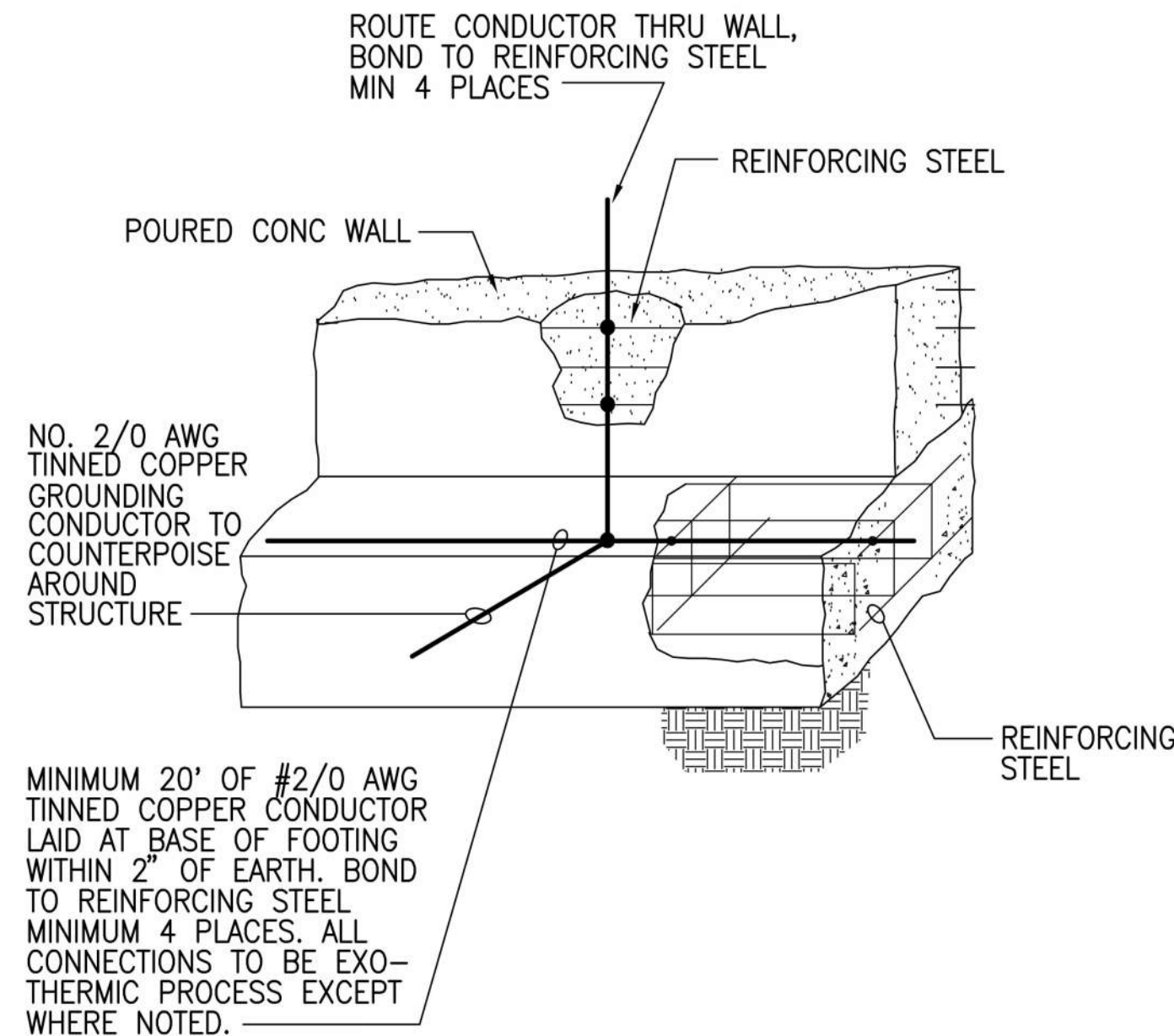


NOTES:
1. SEE "EARTHWORK AND TRENCHING" SPECIFICATION FOR EXCAVATION AND BACKFILL.
2. MINIMUM DISTANCE BETWEEN BOTTOM OF CONCRETE CAP AND TOP OF CONDUIT IS 3 INCHES.

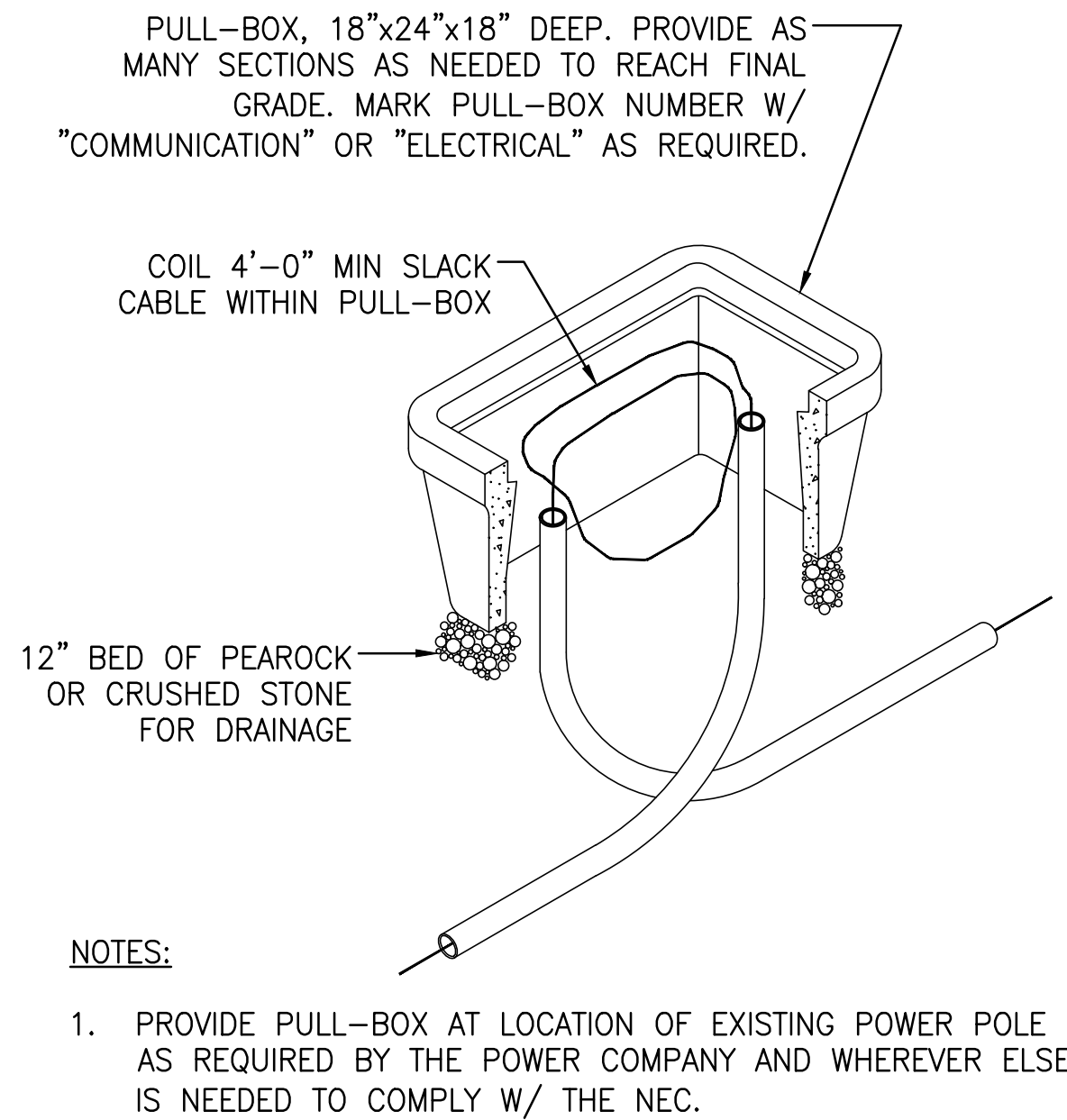
DUCT BANK CONCRETE CAP DETAIL 5
NTS



GROUND TEST WELL DETAIL 6
NTS



CONCRETE-ENCASED GROUND DETAIL 7
NTS



TYPICAL HAND-HOLE DETAIL 8
NTS

NOTE:
THE INFORMATION SHOWN UPON THIS SHEET REFLECTS THE OWNERS STANDARD PRACTICES AND PROCEDURES. THESE DO NOT REPRESENT THE WORK PRODUCT OF JONES EDMUNDS & ASSOCIATES, INC. THEY ARE INTENDED FOR REFERENCE ONLY AND TO ENSURE COMPLIANCE WITH CONTRACT REQUIREMENTS.

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	MCLARK
DRAWN	RMEADOWS
CHECKED	JOPPOLD

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

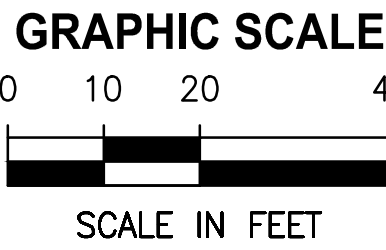
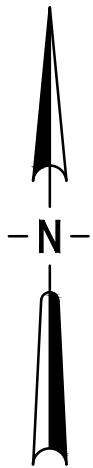
HIGHLAND LAKES WATER PLANT GROUND
STORAGE TANK
CITY OF LEESBURG, FLORIDA

ELECTRICAL DETAILS

MICHAEL L. CLARK, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 48898
THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY MICHAEL L. CLARK, PE. ON THE DATE INDICATED
ON COVER PAGE.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED
AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES

PROJECT NO:	DATE:
07810-107-01	AUG. 2023
INDEX NO:	DWG NO:
	E4

BID DOCUMENTS



NOTE:

- (1) PRIOR TO DEMOLITION, CONTRACTOR TO PREPARE AS-BUILT SKETCH OF EXISTING IRRIGATION ZONES/PIPING, WATER SUPPLY LINE AND ELECTRICAL POWER CONFIGURATION.
- (2) PREPARE A REVISED IRRIGATION SYSTEM LAYOUT (ZONES/PIPING, WATER SUPPLY LINE AND ELECTRICAL POWER AND RELOCATED SOLENOID VALVE CONTROL ADJUSTED TO ALLOW CONSTRUCTION OF THE NEW GROUND STORAGE TANK.
- (3) THIS REVISED IRRIGATION SYSTEM LAYOUT WILL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL.

HUNTER PGP ROTOR HEADS

PVC DRIP HEADER PIPES

EXISTING IRRIGATION SOLENOID VALVE CONTROLLER TO BE RELOCATED

NOT PLATTED
PARCEL ID: 24-20-24-0002-000-00102
OFFICIAL RECORDS BOOK 1084, PAGE 2415

NOT PLATTED
PARCEL ID: 24-20-24-0002-000-02200
OFFICIAL RECORDS BOOK 2085, PAGE 2343

CASH COURT
50' RIGHT OF WAY
PER PLAT BOOK 32, PAGE 97

SAVED: 7/27/2023 9:39 AM SSIMS Y:\07810-LEESBURG\PROJECTS\107-01-HIGHLAND LAKES-GST\CAD\DWGS\IRRIGATION\0781010701-101.DWG

LTR.	DATE	REVISIONS	BY	APPRD.	

DESIGNED	JTORRES
DRAWN	RMARTIN
CHECKED	KFRASER



730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

HIGHLAND LAKES WATER PLANT GROUND STORAGE TANK
CITY OF LEESBURG, FLORIDA

IRRIGATION PLAN

KENNETH A. FRASER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 57452
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH A. FRASER, PE. ON THE DATE INDICATED ON COVER PAGE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO:	DATE:
07810-107-01	AUG. 2023
INDEX NO:	DWG NO:
	11

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.B.3.

Meeting Date: October 23, 2023

From: Robert Thilmony, (Gas Director), Aaliyah Davis, (Purchasing Manager)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute an Agreement for natural gas distribution line installation and abandonment services with Precision Meter Repair, Inc. and Sabcon Underground; and providing an effective date.

Staff Recommendation:

Staff recommends awarding Request for Proposal (RFP) 230902 – Gas Department Contractor to Precision Meter Repair, Inc. and Sabcon Underground and approval of the resolution authorizing execution of a Fixed Unit Price Construction Services Agreement.

Analysis:

The purpose of this solicitation is to contract with a qualified and experienced contractor to provide natural gas utility piping installation, abandonment and similar services. The Contractor will be used on an as-needed basis by the City's Natural Gas Utility to supplement installation activities. There is a significant amount of development occurring in the City's service territory. It may be necessary for the gas utility to use a Contractor to supplement distribution and service line installation and abandonment.

Procurement Analysis:

The Procurement Division issued Request for Proposal 230902 on August 3, 2023. On September 7, 2023 the City received three (3) proposals. Evaluation Committee members evaluated the proposal and came to a consensus to award to the top two ranked firms: Precision Meter Repair, Inc. and Sabcon Underground. The following ranking was established:

Rank	Firm Name	Score (out of 100 points)
1	Precision Meter Repair, Inc.	93.25
2	SabCon Underground, LLC.	88.00
3	Miller Pipeline	69.50

Options:

1. Approve award of RFP 230902 and approval of the resolution authorizing execution of the agreement with Precision Meter Repair, Inc. and SabCon Underground; or
2. Such alternative action as the Commission may deem appropriate.

Fiscal Impact:

The current Gas Capital Projects budget includes funds for these services.

Account No. 042-2099-532-3410

Project No. 420002

Requisition 55139

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE A
FIXED UNIT PRICE AGREEMENT FOR CONSTRUCTION SERVICES WITH
PRECISION METER REPAIR, INC.; AND PROVIDING AN EFFECTIVE
DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk are hereby authorized to execute an agreement with PRECISION METER REPAIR, INC. whose address is 4701 REECE ROAD, PLANT CITY, FLORIDA 33566, for GAS DEPARTMENT CONTRACTOR (RFP 230902).

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

FIXED UNIT PRICE AGREEMENT FOR CONTRUCTION SERVICES

THIS AGREEMENT is made as of the 23rd day of October in the year 2023, between The City of Leesburg, a Florida Municipal Corporation, whose address is 501 West Meadow Street, Post Office Box 490630, Leesburg, Florida 34749-0630 (hereinafter referred to as the “CITY”), and **PRECISION METER REPAIR, INC.** whose principal address is 4701 Reece Road, Plant City, Florida 33566 (hereinafter referred to as the “CONTRACTOR”).

NOW, THEREFORE, in consideration of the mutual benefits accruing to the parties to this Agreement, and for other good and valuable considerations, the parties agree as follows:

1. **Contract Documents.** The following documents and information are incorporated by reference and made part hereof; and shall comprise the Contract Documents.
 - a. This Agreement; and
 - b. Fixed Unit Prices included here as Attachment ‘A’; and
 - c. Supplemental Conditions incorporated by reference and included here as Attachment ‘B’.
 - d. General Specifications from the Request for Proposal (RFP) 230902 included here as Attachment ‘C’.
2. **Scope of Services.** The CONTRACTOR shall furnish all labor, supervision, and equipment necessary for the installation/abandonment of gas mains and similar services for the Leesburg Natural Gas Utility on an as needed and ordered basis as specified in RFP 230902 **GAS DEPARTMENT CONTRACTOR**. The unit costs of the services shall not exceed those stated in Attachment ‘A’ except where the cost adjustment clause has been exercised. Nothing herein shall limit the CITY’S right to obtain bids or proposals for services from other contractors for same or similar work.
3. **Costs/Compensation.** The CONTRACTOR shall perform the Construction Services based on the Fixed Unit costs for the specified services as detailed in Attachment ‘B’.
4. **Invoices and Payment.** Payment will be made within thirty (30) days of the CITY’S receipt of the CONTRACTOR’S invoice and shall be based on accurate invoices submitted by the CONTRACTOR no more frequently than twice monthly. Invoice amount will be based on the quantity (feet) of pipe installed and accepted by the City, and any mobilization fees. The quantity of pipe installed for each size will be multiplied by the unit cost listed in Attachment ‘B’ for each size pipe.
5. **Materials.** The CITY will furnish all material necessary for the CONTRACTOR to construct the contract projects in accordance with the Construction Packages. Any surplus material, scrap material, and removed material will remain the property of the CITY and transported from the jobsite to the Material Yard setup by the CITY unless otherwise specified.

6. **Other Services.** The CITY may request Other Services related to Gas Utility Construction Services that may not specifically appear in the list of contracted unit prices. For any Other Services, the CITY will request the CONTRACTOR to prepare a Cost Proposal for the desired services. The CITY and CONTRACTOR will mutually agree to the Scope of Work and Cost for Other Services requested under this Agreement.

7. **Professional License.** The CONTRACTOR holds a Gas Installer/Gas Line Specialty Contractor License issued by the State of Florida. The CONTRACTOR must maintain all required license required by regulatory agencies to perform the services for the duration of this Agreement.

8. **Firm Fixed Price Period.** All Pricing will be firm and fixed through the Initial Term of the Agreement. Following the firm fixed price period the CONTRACTOR may request a price adjustment as provided for in the Cost Adjustments section.

9. **Term of Agreement.**

a. **Initial Term.** The Initial Term of the Agreement will be through September 30, 2026.

b. **Option to Renew.** The CITY may renew the Agreement for an additional term or terms ("Renewal Terms") not to exceed a total of three (3) additional years if mutually agreed upon by the CONTRACTOR and the CITY.

6. **Firm Fixed Price Period.** All Pricing will be firm and fixed during the Initial Term of the Agreement. For any Renewal Terms, the CONTRACTOR may request a price adjustment as provided for in the Cost Adjustments section.

10. **Cost Adjustment.** Pricing for any Renewal Terms will be subject to an adjustment only if increases in the industry can be documented. However, unless very unusual and significant changes have occurred in the industry, such increases shall not exceed 5% per year. The CONTRACTOR is responsible for requesting any Price Adjustment during the Contract renewal process. Any requested price increase shall be fully documented and submitted to the CITY at least sixty (60) days prior to the then current Contract term. Any approved Price Adjustment will become effective when the Contract is extended by written Amendment. The CITY may, after examination, refuse to accept the requested Price Adjustment if they are not properly documented, increases are considered to be excessive, or decreases are considered to be insufficient. In the event the CITY does not wish to accept the adjusted costs and the matter cannot be resolved to the satisfaction of the CITY, the Agreement will not be renewed.

11. **Commencement and Completion.** All services will be ordered by the CITY through the issuance of a Work Order. The CITY and the CONTRACTOR will mutually agree upon a project schedule for each Work Order issued by the CITY. The projects and work to be completed.

12. **Termination for Convenience or Cause.**

a. **For Convenience.** The CITY may terminate this Agreement at any time

without cause by providing the CONTRACTOR with FOURTEEN (14) calendar days advance notice in writing, delivery by email is acceptable. In the event of termination for convenience, all finished or unfinished deliverable items prepared by the CONTRACTOR under this Agreement shall, at the option of the CITY, become the CITY's property. If the Agreement is terminated for convenience by the CITY as provided herein, the CONTRACTOR shall be paid for services satisfactorily completed, less payment or compensation previously made. The CONTRACTOR shall not incur any additional expenses after receiving the written notice of termination.

b. **For Cause or Default.** If, through any cause, the CONTRACTOR should fail to fulfill in a timely and proper manner its obligations under this Agreement, other than for the instances listed below due to "Force Majeure," the CITY will have the right to terminate this Agreement by providing a written notice (Show Cause Notice) to the CONTRACTOR requiring a written response due within FIVE (5) calendar days from receipt of the written notice as to why the Agreement should not be terminated for default. The CITY's Show Cause Notice shall include an Agreement termination date at least SEVEN (7) calendar days subsequent to the due date for the CONTRACTOR's response. Should the CONTRACTOR fail to respond to such show cause notice, or if the CITY determines that the reasons provided by the CONTRACTOR for failure of the CONTRACTOR to fulfill its contractual obligations do not justify continuation of the contractual relationship, the Agreement shall be considered to have been terminated for default on the date indicated in the Show Cause Notice. Should the CITY determine that the CONTRACTOR provided adequate justification that a termination for default is not appropriate under the circumstances; the CITY shall have a unilateral option to either continue the Agreement according to the original contract provisions or to terminate the contract for convenience. In the event that the CITY terminates the contract for default, all finished or unfinished deliverable items under this contract prepared by the CONTRACTOR shall, at the option of the CITY, become CITY property, and the CONTRACTOR shall be entitled to receive just and equitable compensation for any satisfactory work completed on such materials. Notwithstanding this compensation, the CONTRACTOR shall not be relieved of liability to the CITY for damages sustained by the CITY by virtue of any breach of this Agreement, and the CITY may withhold any payment due the CONTRACTOR for the purpose of set-off until such time as the exact amount of damages due the CITY from such breach can be determined.

In case of default by the CONTRACTOR, the CITY may procure the services from other sources and hold the CONTRACTOR responsible for any excess direct cost occasioned thereby. The CITY reserves the right to require a performance bond or other acceptable alternative performance guarantees from the successor CONTRACTOR without expense to the CITY.

In addition, in the event of default by the CONTRACTOR under this Agreement, the CITY may immediately cease doing business with the CONTRACTOR, immediately terminate for cause all existing Agreements the CITY has with the CONTRACTOR, and debar the CONTRACTOR from doing future business with the CITY.

Upon the CONTRACTOR filing a petition for bankruptcy or the entering of a judgment of bankruptcy by or against the CONTRACTOR, the CITY may immediately terminate, for cause, this Agreement and all other existing agreements the CONTRACTOR has with the CITY, and debar the CONTRACTOR from doing future business with the CITY.

The CITY may terminate this Agreement for cause without penalty or further obligation at any time following Agreement execution, if any person significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on behalf of the CITY is at any time while the Agreement or any extension thereof is in effect, an employee or agent of any other party to the Agreement in any capacity or consultant to any other party of the Agreement with respect to the subject matter of the Agreement. Additionally, the CITY may recoup any fee or commission paid or due to any person significantly involved in initiating, negotiating, securing, drafting or creating the Agreement on behalf of the CITY from any other party to the Agreement.

Upon receipt of a termination action, for convenience or cause, the CONTRACTOR shall promptly discontinue all affected work (unless the notice directs otherwise) and deliver or otherwise make available to the City all data, drawings, reports specifications, summaries and other such information, as may have been accumulated by the CONTRACTOR in performing this contract, whether completed or in process.

13. **Force Majeure.** Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by any act of war, hostile foreign action, nuclear explosion, riot, strikes, civil insurrection, earthquake, hurricane, tornado, pandemic or other reason beyond its control, catastrophic natural event or act of God. Should there be such an occurrence that impacts the ability of either party to perform their responsibilities under this contract, the nonperforming party shall give immediate written notice to the other party to explain the cause and probable duration of any such nonperformance.

14. **Insurance Requirements.**

a. Scope of Insurance - The CONTRACTOR shall procure and maintain at its own expense, the following minimum insurance coverage, unless otherwise specified in the Contract Documents.

- i All required insurance shall be provided by insurers acceptable to the CITY with an A.M. Best rating of at least A: VII.
- ii The CONTRACTOR shall require, and shall be responsible for assuring that any and all of its subcontractors secure and maintain such insurance that are required by law to be provided on behalf of their employees and others until the completion of that subcontractor's work.
- iii The required insurance shall be secured and maintained for not less than the limits required by the CITY, or as required by law, whichever is greater. iv. The required insurance shall not limit the liability of the CONTRACTOR. The CITY does not represent these coverages or amounts to be adequate or sufficient to protect the CONTRACTOR's interests or liabilities, but are merely required minimums.
- iv The provisions of the required insurance are subject to the approval of the City's Risk Manager, and upon request, the CONTRACTOR shall make available certified copies of the various policies for inspection.
- v All liability insurance, except professional liability, shall be written on an occurrence basis.
- vi The CONTRACTOR waives its right of recovery against the CITY to the

extent permitted by its insurance policies. Insurance required of the CONTRACTOR, or any other insurance of the CONTRACTOR shall be considered primary, and insurance of the CITY, if any, shall be considered excess as applicable to any claims which arise out of the agreement, Contract or lease.

b. Certificate of Insurance - The CONTRACTOR shall provide evidence of required minimum insurance by providing the CITY an ACORD or other Certificate of Insurance in forms acceptable to the Risk Manager for the CITY, before any work under the agreement, Contract or lease begins.

- i Except for workers' compensation and professional liability, the CONTRACTOR's insurance policies shall be endorsed to name the City of Leesburg as additional insured to the extent of the agreement, Contract or lease.
- ii The Certificate(s) of Insurance shall designate the CITY as certificate holder as follows: City of Leesburg, Attn: Purchasing Manager, P.O. Box 490630, Leesburg, Florida 34749-0630.
- iii The Certificate(s) of Insurance shall include a reference to the project and/or purchase order number.
- iv The Certificate(s) of Insurance shall indicate that the CITY shall be notified at least thirty (30) days in advance of cancellation, except in the event of nonpayment of insurance premiums.
- v The Certificate(s) of Insurance shall include all deductibles and/or self-insurance retentions for each line of insurance coverage.
- vi The CONTRACTOR, at the discretion of the Risk Manager for the CITY, shall provide information regarding the amount of claims payments or reserves chargeable to the aggregate amount of the CONTRACTOR's liability coverage(s).

c. Comprehensive General Liability - The CONTRACTOR shall purchase and maintain Commercial General Liability coverage on forms no more restrictive than the latest editions of the Commercial General Liability policies of the Insurance Services Office (ISO). The Commercial General Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for bodily and personal injury and property damage liability for premises, operations, products and completed operations*, independent Contractors, Contractual liability covering the agreement, Contract or lease, broad form property damage coverage, and property damage resulting from explosion, collapse or underground exposures (x, c, u).

- i. For remodeling and construction projects, the CONTRACTOR shall purchase and maintain products and completed operations coverage for a minimum of three (3) years beyond the CITY's acceptance of the project.

d. Business Automobile Liability - The CONTRACTOR shall purchase and maintain Business Automobile Liability coverage on forms no more restrictive than the latest editions of the Business Automobile Liability policies of the Insurance Services Office (ISO). The Business Automobile Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for claims for bodily injury and property

damage arising from the use of motor vehicles, including on- site and off-site operations, and owned, non-owned and hired vehicles, and employee non-ownership use.

e. Workers' Compensation - The CONTRACTOR shall purchase and maintain Workers' Compensation insurance for all workers' compensation obligations imposed by state law and with employer's liability limits of at least \$100,000 each accident and \$100,000 each employee with \$500,000 policy limit for disease.

15. **Waiver of Lien.** The CONTRACTOR agrees to make payment of all proper charges for labor and equipment supplied and CONTRACTOR shall hold harmless the CITY against any claim arising out of any unpaid bills by the CONTRACTOR for labor, services, or materials furnished for the project covered by this Agreement.

16. **Indemnification.** The CONTRACTOR shall indemnify the CITY and hold it, its officers, and its employees harmless from liabilities, losses, and costs, including, but not limited to, reasonable attorney's fees to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of this Agreement. The liability of the CONTRACTOR shall, however, be limited to ONE MILLION and 00/100 dollars (\$1,000,000.00) per occurrence, and the obligation of the CONTRACTOR to indemnify the CITY shall be limited to acts, omissions, or defaults of the CONTRACTOR; any contractors, subcontractors, sub-subcontractors, material men, or agents or employees of any of them, providing labor, services or materials in connection with the project; and the CITY, its officers, agents and employees, provided however that the CONTRACTOR shall not be obligated to indemnify the CITY against losses arising from the negligence, or willful, wanton, or intentional misconduct of the CITY, its officers, agents and employees, or against statutory violations or punitive damages except to the extent caused by or resulting from the acts or omissions of the CONTRACTOR, or any contractors, subcontractors, sub-subcontractors, material men, or agents or employees of any of them, providing labor, services, or materials in connection with this Agreement.

17. **Codes, Laws, and Regulations.** CONTRACTOR will comply with all applicable codes, laws, regulations, standards, and ordinances in force during the term of this Agreement.

18. **Permits, Licenses, or Fees.** The CITY is not aware of any permits, licenses, or fees applicable to this work. Should any be identified in the future the CITY will be responsible for obtaining and paying for any permits, licenses, or fees.

19. **Public Records Retention.** CONTRACTOR shall keep and maintain public records that ordinarily and necessarily would be required by the CITY in order to perform the services being provided by CONTRACTOR herein. CONTRACTOR shall provide the public with access to public records on the same terms and conditions that the CITY would provide the records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes. CONTRACTOR shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law. CONTRACTOR shall meet all requirements for retaining public records and transfer, at no cost, to the CITY all public records in possession of the CONTRACTOR upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the CITY by CONTRACTOR in a format that is compatible with the

information technology systems of the CITY.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 352-728-9731, 501 W. MEADOW STREET, LEESBURG, FLORIDA 34748.

20. **Access to Records.** The services provided under this Agreement may be funded in part by a grant from a government agency other than the CITY. As a requirement of grant funding CONTRACTOR shall make records related to this project available for examination to any local, state or federal government agency, or department, during CONTRACTOR'S normal business hours. Said records will be maintained for a period of five (5) years after the date of the invoice.

21. **Independent Contractor.** The CONTRACTOR agrees that he or she is an independent contractor and not an agent, joint venture, or employee of the CITY, and nothing in this Agreement shall be construed to be inconsistent with this relationship or status. None of the benefits provided by the CITY to its employees, including but not limited to, workers' compensation insurance, unemployment insurance, or retirement benefits, are available from the CITY to the CONTRACTOR. CONTRACTOR will be responsible for paying his own Federal income tax and self-employment tax, or any other taxes applicable to the compensation paid under this Agreement. The CONTRACTOR shall be solely and primarily responsible for his and her acts during the performance of this Agreement.

22. **Assignment.** Neither party shall have the power to assign any of the duties or rights or any claim arising out of or related to the Agreement, whether arising in tort, contract, or otherwise, without the written consent of the other party. These conditions and the entire Agreement are binding on the heirs, successors, and assigns of the parties hereto.

23. **No Third-Party Beneficiaries.** This Agreement gives no rights or benefits to anyone other than the CONTRACTOR and the CITY.

24. **Contact Person.** The primary contact person under this Agreement for each party is listed here. Contact person and information may be updated as needed by written, electronic mail is acceptable, communication to the other party. The primary contact person under this Agreement for the CONTRACTOR shall be Jesse Blade. The primary contact person under this Agreement for the CITY shall be Corey Goepfert, Deputy Director of Gas.

25. **Approval of Personnel.** The CITY reserves the right to approve the contact person and the persons actually performing the services on behalf of CONTRACTOR pursuant to this Agreement. If CITY, in its sole discretion, is dissatisfied with the contact person or the person or persons actually performing the services on behalf of CONTRACTOR pursuant to this Agreement, CITY may require CONTRACTOR assign a different person or persons be designated to be the contact person or to perform the CONTRACTOR services hereunder.

26. **Disclosure of Conflict.** The CONTRACTOR has an obligation to disclose to the

CITY any situation that, while acting pursuant to this Agreement, would create a potential conflict of interest between the CONTRACTOR and his duties under this Agreement.

27. **Employment Eligibility.** The CONTRACTOR is obligated to comply with the provisions of Section 448.095, Fla. Stat., "Employment Eligibility." This includes but is not limited to utilization of the E-Verify System to verify the work authorization status of all newly hired employees, and requiring all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply will lead to termination of this Agreement, or if a subcontractor knowingly violates the statute, the subcontract must be terminated immediately.

If this contract is terminated for a violation of the statute by the CONTRACTOR, the CONTRACTOR may not be awarded a public contract for a period of ONE (1) year after the date of termination.

28. **Illegal Alien Labor** - CONTRACTOR shall comply with all provisions of the Federal Immigration and Control Act of 1986 (8 U.S. Code § 1324 a) and any successor federal laws, as well as all provisions of Section 448.09, Florida Statutes, prohibiting the hiring and continued employment of aliens not authorized to work in the United States. CONTRACTOR shall not knowingly employ or contract with an illegal alien to perform work under this Agreement or enter into an Agreement with a subcontractor that fails to certify to the CONTRACTOR that the subcontractor is following the terms stated within. The CONTRACTOR nor any subcontractor employed by him shall not knowingly employ or contract with an illegal alien to perform work under this Agreement. CONTRACTOR agrees that it shall confirm the employment eligibility of all employees through participation in E-Verify or an employment eligibility program approved by the Social Security Administration and will require same requirement to confirm employment eligibility of all subcontractors.

All cost incurred to initiate and sustain the aforementioned programs shall be the responsibility of the CONTRACTOR. Failure to meet this requirement may result in termination of the Agreement by the CITY.

29. **Counterparts.** This Agreement may be executed in multiple counterparts, each of which may be considered an original, but all of which together shall constitute but one and the same instrument. This Agreement when signed by a party may be delivered by electronic mail or facsimile transmission with the same force and effect as if the same were an executed and delivered original, manually-signed counterpart.

30. **Authority to Obligate.** Each person signing this agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and bind and obligate such party with respect to all provisions contained in this agreement.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date indicated in the preamble to the Agreement.

PRECISION METER REPAIR, INC.

By: _____

Printed: _____

Its: _____
(Title)

CITY OF LEESBURG, FLORIDA

James A. Burry Jr., Mayor

ATTEST:

J. Andi Purvis, City Clerk

Approved as to form:

William Watson, City Attorney

Attachment 'A'
Fixed Unit Cost Prices

ATTACHMENT A - PRECISION METER REPAIR, INC.

Item #	Size	Main Tie Ins	Price
1	2"	High Volume Tee (PE) ≤ 5'	\$1,585.00
2	2"	High Volume Tee (PE) > 5'	\$ 2,695.00
3	2"	In-Line Tee (PE) ≤ 5'	L&E
4	2"	In-Line Tee (PE) > 5'	L&E
5	2"	No-Blow (ST) ≤ 5'	\$ 1,875.00
6	2"	No-Blow (ST) > 5'	\$ 2,985.00
7	2"	Bottom Out (ST) ≤ 5'	\$ 3,186.05
8	2"	Bottom Out (ST) > 5'	\$ 3,186.05
9	4"	In-Line Tee (PE) ≤ 5'	L&E
10	4"	In-Line Tee (PE) > 5'	L&E
11	4"	Bottom Out (ST) ≤ 5'	\$ 12,459.95
12	4"	Bottom Out (ST) > 5'	\$ 12,459.95
13	6"	In-Line Tee (PE) ≤ 5'	L&E
14	6"	In-Line Tee (PE) < 5'	L&E
15	6"	Bottom Out (ST) ≤ 5'	\$ 12,459.95
16	6"	Bottom Out (ST) > 5'	\$ 12,459.95
17	8"	Bottom Out (ST) ≤ 5'	\$ 18,907.21
18	8"	Bottom Out (ST) > 5'	\$ 18,907.21

Item #	Size	Main Install	Price
19	3/4"	PE, Developed Areas, joint trench, ≤ 200'	\$ 1,696.00
20	3/4"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 4,015.00
21	3/4"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 5.00
22	3/4"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 14.75
23	3/4"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 1,696.00
24	3/4"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 2,450.00
25	3/4"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 5.00
26	3/4"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 7.95
27	3/4"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 3,950.00
28	3/4"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 6,185.00
29	3/4"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 17.25
30	3/4"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 26.00
31	3/4"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 3,950.00
32	3/4"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 3,950.00
33	3/4"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 17.25
34	3/4"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 17.25
35	2"	PE, Developed Areas, joint trench, ≤ 200'	\$ 1,696.00
36	2"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 4,015.00
37	2"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 5.00
38	2"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 14.75
39	2"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 1,696.00
40	2"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 2,450.00
41	2"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 5.00
42	2"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 7.95
43	2"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 3,950.00
44	2"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 6,185.00
45	2"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 17.25
46	2"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 26.00
47	2"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 3,950.00
48	2"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 3,950.00

COST/FEE PROPOSAL

49	2"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 17.25
50	2"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 17.25
51	4"	PE, Developed Areas, joint trench, ≤ 200'	\$ 1,850.00
52	4"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 4,400.00
53	4"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 6.75
54	4"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 16.00
55	4"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 1,850.00
56	4"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 3,300.00
57	4"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 6.75
58	4"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 10.00
59	4"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 4,765.00
60	4"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 6,185.00
61	4"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 28.25
62	4"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 36.00
63	4"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 4,765.00
64	4"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 4,765.00
65	4"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 28.25
66	4"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 28.25
67	6"	PE, Developed Areas, joint trench, ≤ 200'	\$ 2,300.00
68	6"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 6,350.00
69	6"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 8.50
70	6"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 25.00
71	6"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 2,300.00
72	6"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 3,550.00
73	6"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 8.50
74	6"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 13.50
75	6"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 5,280.00
76	6"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 8,650.00
77	6"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 41.75
78	6"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 45.00
79	6"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 5,280.00
80	6"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 5,280.00
81	6"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 41.75
82	6"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 41.75
83	8"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 5,280.00
84	8"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 8,650.00
85	8"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 58.85
86	8"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 65.00
87	8"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 5,280.00
88	8"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 5,280.00
89	8"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 58.85
90	8"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 58.85

Item #	Size	Service Install	Price
91	3/4"	PE, Developed Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 1,595.00
92	3/4"	PE, Developed Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 11.00
93	3/4"	PE, Developed Areas, Single service, ≤ 100' LF	\$ 700.00
94	3/4"	PE, Developed Areas, Single service, > 100' (per ft)	\$ 11.00
95	3/4"	PE, Developed Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 1,595.00
96	3/4"	PE, Developed Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 11.00
97	3/4"	Steel, Developed Areas, service, ≤ 100' LF	\$ 2,450.00
98	3/4"	Steel, Developed Areas, service, > 100' (per ft)	\$ 22.00

COST/FEE PROPOSAL

99	3/4"	PE, Undeveloped Areas, Joint service, ≤ 100' LF	\$ 700.00
100	3/4"	PE, Undeveloped Areas, Joint service, > 100' (per ft)	\$ 5.00
101	3/4"	PE, Undeveloped Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 850.00
102	3/4"	PE, Undeveloped Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 5.00
103	3/4"	PE, Undeveloped Areas, Joint with Whip service, ≤ 100' LF	\$ 700.00
104	3/4"	PE, Undeveloped Areas, Joint with Whip service, > 100' (per ft)	\$ 5.00
105	3/4"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, ≤ 100' LF	\$ 850.00
106	3/4"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, > 100' (per ft)	\$ 5.00
107	3/4"	PE, Undeveloped Areas, Next Door service, ≤ 100' LF	\$ 250.00
108	3/4"	PE, Undeveloped Areas, Next Door service, > 100' (per ft)	\$ 8.00
109	3/4"	PE, Undeveloped Areas, Single service, ≤ 100' LF	\$ 700.00
110	3/4"	PE, Undeveloped Areas, Single service, > 100' (per ft)	\$ 5.00
111	3/4"	PE, Undeveloped Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 8.50
112	3/4"	PE, Undeveloped Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 5.00
113	3/4"	Steel, Undeveloped Areas, service, ≤ 100' LF	\$ 1,200.00
114	3/4"	Steel, Undeveloped Areas, service, > 100' (per ft)	\$ 13.50
115	2"	PE, Developed Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 1,595.00
116	2"	PE, Developed Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 11.00
117	2"	PE, Developed Areas, Single service, ≤ 100' LF	\$ 9.00
118	2"	PE, Developed Areas, Single service, > 100' (per ft)	\$ 11.00
119	2"	PE, Developed Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 1,595.00
120	2"	PE, Developed Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 11.00
121	2"	Steel, Developed Areas, service, ≤ 100' LF	\$ 2,650.00
122	2"	Steel, Developed Areas, service, > 100' (per ft)	\$ 22.00
123	2"	PE, Undeveloped Areas, Joint service, ≤ 100' LF	\$ 700.00
124	2"	PE, Undeveloped Areas, Joint service, > 100' (per ft)	\$ 6.50
125	2"	PE, Undeveloped Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 950.00
126	2"	PE, Undeveloped Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 6.50
127	2"	PE, Undeveloped Areas, Joint with Whip service, ≤ 100' LF	\$ 700.00
128	2"	PE, Undeveloped Areas, Joint with Whip service, > 100' (per ft)	\$ 6.50
129	2"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, ≤ 100' LF	\$ 950.00
130	2"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, > 100' (per ft)	\$ 6.50
131	2"	PE, Undeveloped Areas, Next Door service, ≤ 100' LF	\$ 350.00
132	2"	PE, Undeveloped Areas, Next Door service, > 100' (per ft)	\$ 6.50
133	2"	PE, Undeveloped Areas, Single service, ≤ 100' LF	\$ 700.00
134	2"	PE, Undeveloped Areas, Single service, > 100' (per ft)	\$ 6.50
135	2"	PE, Undeveloped Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 950.00
136	2"	PE, Undeveloped Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 6.50
137	2"	Steel, Undeveloped Areas, service, ≤ 100' LF	\$ 2,450.00
138	2"	Steel, Undeveloped Areas, service, > 100' (per ft)	\$ 22.00

Item #	Size	Cut and Cap	Price
139	3/4"	PE ≤ 5'	\$ 690.00
140	3/4"	PE > 5'	\$ 1,380.00
141	3/4"	Steel ≤ 5'	\$ 900.00
142	3/4"	Steel > 5'	\$ 1,800.00
143	3/4"	Steel w/ Stop ≤ 5'	\$ 3,186.05
144	3/4"	Steel w/ Stop > 5'	\$ 3,186.05
145	1"	PE ≤ 5'	\$ 690.00
146	1"	PE > 5'	\$ 1,380.00
147	1"	Steel ≤ 5'	\$ 900.00
148	1"	Steel > 5'	\$ 1,800.00

COST/FEE PROPOSAL

149	1"	Steel w/ Stop ≤ 5'	\$ 3,186.05
150	1"	Steel w/ Stop > 5'	\$ 3,186.05
151	2"	PE ≤ 5'	\$ 690.00
152	2"	PE > 5'	\$ 1,380.00
153	2"	Steel ≤ 5'	\$ 900.00
154	2"	Steel > 5'	\$ 1,800.00
155	2"	Steel w/ Stop ≤ 5'	\$ 3,186.05
156	2"	Steel w/ Stop > 5'	\$ 3,186.05
157	4"	PE ≤ 5'	\$ 920.00
158	4"	PE > 5'	\$ 1,840.00
159	4"	Steel ≤ 5'	\$ 9,368.85
160	4"	Steel > 5'	\$ 9,368.85
161	4"	Steel w/ Stop ≤ 5'	\$ 9,368.85
162	4"	Steel w/ Stop > 5'	\$ 9,368.85
163	6"	PE ≤ 5'	\$ 920.00
164	6"	PE > 5'	\$ 1,840.00
165	6"	Steel ≤ 5'	\$ 12,459.95
166	6"	Steel > 5'	\$ 12,459.95
167	6"	Steel w/ Stop ≤ 5'	\$ 12,459.95
168	6"	Steel w/ Stop > 5'	\$ 12,459.95
169	8"	Steel ≤ 5'	\$ 18,907.21
170	8"	Steel > 5'	\$ 18,907.21
171	8"	Steel w/ Stop ≤ 5'	\$ 18,907.21
172	8"	Steel w/ Stop > 5'	\$ 18,907.21

Item #	Unit	Labor and Expense	Price
173	Each	2 Person Crew, Straight Time	\$ 200.00
174	Each	2 Person Crew, Over Time	\$ 300.00
175	Each	2 Person Crew, Emergency	\$ 400.00
176	Each	3 Person Crew, Straight Time	\$ 300.00
177	Each	3 Person Crew, Over Time	\$ 450.00
178	Each	3 Person Crew, Emergency	\$ 600.00
179	Each	4 Person Crew, Straight Time	\$ 400.00
180	Each	4 Person Crew, Over Time	\$ 600.00
181	Each	4 Person Crew, Emergency	\$ 800.00
182	Each	2 Person Drill Crew, Straight Time	\$ -
183	Each	2 Person Drill Crew, Over Time	\$ -
184	Each	2 Person Drill Crew, Emergency	\$ -
185	Each	Welder, Straight Time	\$ 132.50
186	Each	Welder, Over Time	\$ 198.75
187	Each	Welder, Emergency	\$ 265.00
188	Each	Operator, Straight Time	\$ 120.00
189	Each	Operator, Over Time	\$ 180.00
190	Each	Operator, Emergency	\$ 240.00
191	Each	Laborer, Straight Time	\$ 80.00
192	Each	Laborer, Over Time	\$ 120.00
193	Each	Laborer, Emergency	\$ 140.00

Item #	Qty	Misc. Item	Price
194	1	Install 250 class meter & regulator	\$ 50.00
195	1	Install 400-800 class meter & regulator	\$ 100.00

COST/FEE PROPOSAL

196	1	Install 1.5-5000 class meter & regulator	\$ 1,100.00
197	1	Small Well Point System	\$ 500.00
198	1	Anode Install 9-32 LBS	\$ 500.00
199	1	Sod Per SQ FT (after first 36 SQ FT)	\$ 2.75
200	1	Concrete SQ FT	\$ -
201	1	Asphalt SQ FT	\$ -
202	1	Seed and Mulch SQ FT (after first 36 SQ FT)	\$ 2.75

Attachment 'B'
SUPPLEMENTAL CONDITIONS – CONSTRUCTION

1. DEFINITIONS

The following definitions shall apply. Whenever the following terms (or pronouns in place of them) are used in the Contract Documents, the intent and meaning of such terms shall be interpreted as follows:

- a. **City Project Representative:** There shall be authorized representative(s) of the CITY assigned to make all necessary inspections of the work performed by the CONTRACTOR and for such other purposes as outlined in the Contract Documents.
- b. **City Technical Representative:** There may be a designated Project Representative assigned by the CITY to inspect the technical aspects of the project. To insure the project is being constructed as designed.
- c. **Engineer of Record:** The Engineer of Record designated by the CITY following Contract Execution.
- d. **Engineer:** The design professional (engineer, architect, landscape architect or surveyor) designated by the CITY to serve as the design professional representing the CITY.
- e. **Notice to Proceed (NTP):** The official Notice from the CITY to the CONTRACTOR providing the date work may begin and the date the performance period begins. The NTP date will be mutually agreed to at or following the pre-construction meeting. CONTRACTOR shall sign the acknowledgement section of the NTP and return to the Purchasing Division. The NTP shall become a part of the Contract Documents.
- f. **Subcontractor:** Includes only those having a direct contract with the CONTRACTOR and it includes one who furnished material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked.
- g. **Work:** The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.
- h. **Manual(s):** Equipment documentation meant for the end user/consumer of the equipment. CONTRACTOR shall provide all Manuals to the CITY upon substantial completion. Retainage may not be released until the CITY has received all Manuals relevant to the equipment incorporated into the project.
- i. **Surety:** The corporate body which is bound with and for the CONTRACTOR which is primarily liable and which guarantees the faithful performance of the bid and/or agreement.
- j. **Plans, Drawings and/or Sketches:** Graphic representations of the work to be performed or reproductions thereof.
- k. **Specifications:** Broadly defined, the specifications include all data bound together herein or referenced on the plans, including, but not limited to, General Conditions, Technical Specifications, Special Conditions, Geotechnical Investigation, Supplemental Conditions (if any), other detailed technical specifications, exhibits and all addenda.

- l. **Defective:** An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by CITY at Substantial Completion or CITY has taken beneficial use of completed portions).
- m. **Shop Drawings:** All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.
- n. **Substantial Completion:** The Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
- o. **Underground Facilities:** All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

2. INSPECTION OF WORK

The Project Representative and his representatives shall, at all times, have access to the work whenever it is in preparation or progress and the CONTRACTOR shall provide proper facilities for such access and for inspection. The work will be conducted under the general direction of the Project Representative of the CITY and is subject to inspection by his appointed inspectors to insure compliance with the terms of the contract. No inspector is authorized to change any provisions of the specifications without written authorization of the CITY, nor shall the presence or absence of an inspector relieve the CONTRACTOR from any requirements of the contract.

If the specifications, the Project Representative's instructions, laws, ordinances or any public authority require any work to be specifically tested or approved, the CONTRACTOR shall give the CITY timely notice of its readiness for inspection, and if the inspection is by another authority than the Project Representative, of the date fixed for such inspection. Inspections by the Project Representative will be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of the CITY, it shall, if required by the Project Representative, be uncovered for examination at the CONTRACTOR's expense.

Re-examination of questioned work may be ordered by the Project Representative and, if so ordered, the work shall be uncovered by the CONTRACTOR. If such work is found in accordance with the contract documents, the CITY will pay the cost of re-examination and replacement. If

such work is found not in accordance with the contract documents, the CONTRACTOR shall pay such cost.

3. COLLECTION AND DISPOSAL OF WASTE

The CONTRACTOR shall collect waste from construction areas and elsewhere; handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly; dispose of material in a lawful manner. The CONTRACTOR shall be responsible for the transportation and disposal costs of all waste construction materials.

4. BURNING OF DEBRIS

For any areas where the burning of debris is permitted, the CONTRACTOR will be required to request a permit therefore, from the fire authority having jurisdiction in the area in due advance time, and if such permission is granted he shall rigidly abide by all provisions and requirements of such permit. In no case will burning be permitted until the fire authorities have adequately checked the size of the pile to be burned, the weather conditions and any other factors which might affect the proper control of the burning operation.

5. MAINTENANCE OF TRAFFIC

Where construction is located in public right of ways, traveled streets and roads, the CONTRACTOR shall exercise extreme care in seeing that sufficient area is provided and kept open for police, fire, ambulance, mail and private vehicular traffic.

The CONTRACTOR shall ensure that each person supervising the selection, placement and maintenance of Traffic Control Devices in the FDOT Work Zone shall be certified by attending an FDOT approved MOT training course. A copy of these certifications shall be submitted to the CITY of Leesburg upon request.

6. PROTECTION AGAINST POLLUTION

The CONTRACTOR shall comply with all legal regulations pertaining to pollution as are applicable to the site and he shall take all measures necessary to assure that no pollution, temporary or permanent, occurs to any lakes or other water areas as a result of runoff from the areas within which he is working.

This shall include the installation of temporary construction turbidity screens or hay bales along the edge of existing wetlands prior to the start of construction. These areas shall be as shown on the plans.

CONTRACTOR shall maintain the fuel storage area in accordance with local, state and federal regulations. Refueling vehicles and refueling techniques shall also comply with all applicable regulations. Clean-up of the fuel storage area shall be as required by the regulations and in accordance with these regulations.

7. WORKMANSHIP, MATERIALS, APPLIANCES, AND EMPLOYEES

All work will be done in a competent and workmanlike manner. Workmanship shall be first class and the finished product equal to the best-accepted standards of the trade for the category of work

performed. It is the CITY's intent to obtain a high-quality job that will operate and function with least maintenance costs. The CONTRACTOR shall, if requested by CITY, furnish satisfactory evidence as to the kind and quality of materials.

Unless otherwise stipulated, the CONTRACTOR shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work.

The CONTRACTOR shall, at all times, enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

Neither party shall employ or hire any employees of the other party without his consent.

8. GENERAL QUALITY AND STANDARDS

To facilitate rapid examination, detailed specifications concerning basic requirements for labor, materials, equipment and/or incidentals to be used on the project are included under the various divisions in as brief a form as is consistent with clarity. The primary concern of the detailed specifications is for standards of performance expected for the finished work.

When in the detailed specifications reference is made to a particular code or specification, the latest edition of said code or specification shall apply.

The interests of the CITY, the CONTRACTOR and others concerned with the work require the inclusion of certain general governing requirements and standards, as a precaution against contingency and to provide for the conditions under which the construction and the administration of the work will be carried out.

General requirements for the quality of the work, when not otherwise covered in more specific detail in the specifications, will be governed by acceptable standards of the trade.

These specifications consider the project as a whole and assume its completion under a general contract. Further, the scope of subcontracts and the quantities of materials and labor supplied to the CONTRACTOR by others are assumed to be matters governed by agreement between the CONTRACTOR and his Subcontractors and suppliers and not by agreement between the CITY and any Subcontractor or suppliers.

Various sections of the construction specifications are intended to govern only the quality of work and/or materials incidental to the particular branch of work mentioned in the section title. Sections are not intended as itemizations of the work materials to be furnished or to limit or define the scope of any subcontract or agreement to furnish material and labor.

The furnishing of all items of material, labor, equipment and/or incidentals necessary to the completion of the work as a whole will be expected when such items are called for on the drawings by diagram, note or schedule, are listed in the specifications, or are reasonably inferred by either or a combination of both.

During the construction operations under this contract, the CITY may elect to contract other work for the project. The CONTRACTOR shall coordinate his operations with those of any other such CONTRACTORS as well as any work of constructing or adjusting utilities by any other authorities, to the end that the least practical handicap to the work of all such CONTRACTORS or authorities will result.

9. PROJECT COORDINATION

The CONTRACTOR shall coordinate construction operations that are dependent upon each other for proper installation, connection and operation. The CONTRACTOR shall make adequate provisions to accommodate items scheduled for later installation.

The CONTRACTOR shall inspect both the substrate and conditions under which the work is to be performed. The CONTRACTOR shall not proceed until unsatisfactory conditions have been corrected in an acceptable manner.

The CONTRACTOR shall inspect materials or equipment immediately upon delivery and again prior to installation. The CONTRACTOR shall reject damaged and defective items.

The CONTRACTOR shall supervise construction activities to ensure that no part of the construction is subject to deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following: Unprotected storage, Improper shipping and handling, Theft, Vandalism.

10. COORDINATION WITH UTILITY COMPANIES

CONTRACTOR shall coordinate with all utility installations. CONTRACTOR shall notify the appropriate utility companies, in by Florida one call law notice provisions, adequately in advance of the time frame set aside for such utility installation. The utility companies referred to herein shall include, but not be limited to, Power, Gas, Telephone, and Cable Television. CONTRACTOR shall coordinate the installation of "sleeves" for the utility companies as may be required and paid under agreed upon bid item(s).

CONTRACTOR shall supply the CITY with copies of all Florida one-call correspondence notifying the utility companies of its intended schedule of construction and the expected date for their respective utility installations.

11. SUPERVISION

CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

If the CONTRACTOR, in the course of the work, finds any discrepancy between the drawings and the physical conditions of the locality, or any errors or omissions in the drawing or in layout as given by points and instructions, it shall be his duty to immediately inform the Project

Representative, in writing, and the Project Representative will promptly verify the same. Any work done after such discovery, until authorized, will be done at the CONTRACTORS' risk.

12. CONSTRUCTION SUPERINTENDENT

CONTRACTOR shall employ a Construction Superintendent who shall be present on-site or available throughout the duration of the project and shall remain associated with the project until completion unless otherwise requested to be replaced by the CITY. The superintendent shall be experienced in the work required and perform all coordination activities generally conducted by project superintendents including, but not limited to, subcontractor coordination, utility installations, inspections, testing, material deliveries, etc. The superintendent shall be present at the pre-construction meeting and shall remain on the project until completion. The owner reserves the right to request a resume of experience for the superintendent including, but not limited to, requesting references from recent projects. Substitution of superintendents after the start of the work shall be approved by the owner in advance. All communications given to the superintendents shall be as binding as if given to CONTRACTOR.

13. WAGE RATES/EQUAL EMPLOYMENT OPPORTUNITY

Wage rates for laborers, mechanics and apprentices shall not be less than those established by the Florida Department of Labor and Employment Security and/or the United States Department of Labor for this work, as may be attached hereto. The CONTRACTOR must insure Equal Employment Opportunity as part of the awarded contract and also subcontracts awarded by the CONTRACTOR.

14. SUBCONTRACTS

The CONTRACTOR shall, as soon as practicable after signing the contract, notify the Project Representative in writing of any changes in the names of subcontractors proposed for the work as listed on the bid form. The CONTRACTOR shall not employ subcontractors, unless they are approved by the Project Representative.

The CONTRACTOR agrees that he is as fully responsible to the CITY for the acts and omissions of his subcontractors and of persons, either directly or indirectly, employed by them, as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the contract documents shall create any contractual relation between any subcontractors and the CITY.

15. PRE-CONSTRUCTION MEETING

The CITY shall schedule a meeting after the Notice of Award. The City Project Representative, and CONTRACTOR shall attend this mandatory meeting. The following items shall be completed:

- a. Submission of list of Subcontractors, Schedule of Values and Progress Schedule.
- b. Designation of Personnel representing the parties in Contract.
- c. Use of premises by CITY and the CONTRACTOR.
- d. Survey layout and scheduling.
- e. Security and housekeeping procedures.
- f. Requirements for start-up of equipment.

- g. Inspection and acceptance of equipment put into service during construction period.

At least ten (10) days before submission of the first Application for Payment a conference attended by CONTRACTOR, City Project Representative and others as appropriate will be held to finalize the schedules submitted by CONTRACTOR. The finalized progress schedule will be acceptable to City Project Representative as providing an orderly progression of the Work to completion within the agreed to Project Schedule, but such acceptance will neither impose on Engineer responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility thereto. The finalized schedule of Shop Drawing submissions will be acceptable to City Project Representative as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to City Project Representative as to form and substance.

16. ORDER OF COMPLETION

The CONTRACTOR shall submit at such times as may be requested by the Project Representative, schedules which shall show the order in which the CONTRACTOR proposes to carry on the work with dates on which the CONTRACTOR will start the several parts of the work and estimated dates of completion of the several parts. The CITY retains the right to dictate to the CONTRACTOR the order of completion of the work.

17. CONTRACTOR'S REQUESTS FOR INTERPRETATION (RFIs)

Should CONTRACTOR be unable to determine from the Contract Documents the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of Work is described differently at more than one place in the Contract Documents; the CONTRACTOR shall request that the Architect/Engineer (AE), or CITY Representative, make an interpretation of the requirements of the Contract Documents to resolve such matters. CONTRACTOR shall comply with procedures specified herein to make Requests for Interpretation (RFIs).

- a. Submission of RFIs: RFIs shall be prepared and submitted on a form provided by the CITY.
 - i. Forms shall be completely filled in, and if prepared by hand, shall be fully legible after copying by xerographic process.
 - ii. Each RFI shall be given a discrete, consecutive number.
 - iii. Each page of the RFI and each attachment to the RFI shall bear the CITY's project name, project number, date, RFI number and a descriptive title.
 - iv. CONTRACTOR shall sign all RFIs attesting to good faith effort to determine from the Contract Documents the information requested for interpretation. Frivolous RFIs shall be subject to reimbursement from CONTRACTOR to CITY for fees charged by A/E, A/E consultants and other design professionals engaged by the CITY.
- b. Subcontractor-Initiated and Supplier-Initiated RFIs: RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by and be attached to an RFI prepared, signed and submitted by CONTRACTOR. RFIs submitted directly by subcontractors or material suppliers will be returned unanswered to the CONTRACTOR.

- i. CONTRACTOR shall review all subcontractor- and supplier-initiated RFIs and take actions to resolve issues of coordination, sequencing and layout of the Work.
 - ii. RFIs submitted to request clarification of issues related to means, methods, techniques and sequences of construction or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation. Such issues are solely the CONTRACTOR'S responsibility.
 - iii. CONTRACTOR shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.
- c. Requested Information: CONTRACTOR shall carefully study the Contract Documents to ensure that information sufficient for interpretation of requirements of the Contract Documents is not included. RFIs that request interpretation of requirements clearly indicated in the Contract Documents will be returned without interpretation.
 - i. In all cases in which RFIs are issued to request clarification of issues related to means, methods, techniques and sequences of construction, for example, pipe and duct routing, clearances, specific locations of Work shown diagrammatically, apparent interferences and similar items, the CONTRACTOR shall furnish all information required for the A/E or CITY's Representative to analyze and/or understand the circumstances causing the RFI and prepare a clarification or direction as to how the CONTRACTOR shall proceed.
 - ii. If information included with this type RFI by the CONTRACTOR is insufficient, the RFI will be returned unanswered.
- d. Unacceptable Uses for RFIs: RFIs shall not be used to request the following:
 - i. Approval of submittals
 - ii. Approval of substitutions
 - iii. Changes that entail change in Contract Time and Contract Sum
 - iv. Different methods of performing Work than those indicated in the Contract Drawings and Specifications
- e. Disputed Requirements: In the event the CONTRACTOR believes that a clarification by the CITY's A/E, or Representative, results in additional cost or time, CONTRACTOR shall comply with the method for requesting a Change Order.
- f. RFI Log: CONTRACTOR shall prepare and maintain a log of RFIs, and at any time requested by the CITY's Representative, the CONTRACTOR shall furnish copies of the log showing all outstanding RFIs.
- g. Review Time: Architect/Engineer or CITY Representative (CITY) shall return RFIs to CONTRACTOR and within five (5) calendar days of receipt. RFIs received after 12:00 noon shall be considered received on the next regular working day for the purpose of establishing the start of the five-calendar day response period.

18. CHANGES IN THE WORK

Any Change in the Work will be documented in writing and approved by the CITY in writing. Changes that increase the cost of the work may need to be approved by CITY Commission depending on the dollar value of the increase change order. No work may be performed prior to the change being approved by CITY.

The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the work. All duties, responsibilities and obligations assigned to or undertaken by the CONTRACTOR shall be at his expense without change in the Contract Price.

The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price, shall be delivered in writing to the CITY within fifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within forty-five days of such occurrence unless the Engineer allows an additional period of time to ascertain accurate cost data. All claims for adjustments in the Contract Price shall be determined by the Engineer if the CITY and CONTRACTOR cannot otherwise agree on the amount involved. The Engineer(s) decision shall be final and binding. Any change in the Contract Price resulting from any such claim shall be incorporated in a Change Order.

The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

- a. where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved, or ii. by mutual acceptance of a lump sum, or
- b. on the basis of the cost of the work plus a CONTRACTOR's fee for overhead and profit.

19. DETAIL DRAWINGS AND INSTRUCTIONS

The CITY will furnish, with reasonable promptness, additional instructions by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions will be consistent with the contract documents, true developments thereof and reasonably inferable therefrom.

20. OWNERSHIP OF DRAWINGS

All drawings, specifications and copies thereof furnished by the CITY are the property of the CITY. They are not to be used on other work and, with the exception of the signed contract set, are to be returned to the CITY, at the request of the CITY upon the completion of the work.

21. SURVEYS, PERMITS AND REGULATIONS

The CITY will furnish horizontal and vertical control necessary to layout the work in an orderly and workmanlike manner.

Horizontal Control furnished by the CITY shall consist of adequately marked property corners or offset corners, with dimensions as shown on the drawings. Vertical Control will consist of benchmarks established within the immediate area of the work.

It shall be the responsibility of the CONTRACTOR to furnish all construction layout of the work, including, but not limited to, layout and elevations for the construction and final grade of the site.

The CONTRACTOR shall maintain and preserve all stakes and marks established by the CITY and should such stakes or marks be carelessly or willfully destroyed or damaged by the

CONTRACTOR, said stakes or marks shall be replaced by the CITY at the expense of the CONTRACTOR.

The CONTRACTOR will set the horizontal and vertical control only at the beginning of the job as specified above. Interim staking during the job and all staking and layout work not furnished by the CITY as specified above shall be the responsibility of the CONTRACTOR.

The CITY will furnish all personnel and equipment and materials to make such surveys as are necessary to determine the quantities of work performed.

The CITY will furnish environmental permits unless otherwise specified. The CONTRACTOR shall obtain any and all required permits from all appropriate government agencies.

Work permits and licenses necessary for the prosecution of the work shall be secured and paid for by the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be secured and paid for by the CITY unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the CONTRACTOR observes that the drawings and specifications are at variance therewith, he shall promptly notify the CITY in writing and any necessary changes shall be adjusted as provided in the contract for changes in the work. If the CONTRACTOR performs work knowing it to be contrary to such laws, ordinances, rules and regulations and without such notice to the CITY, he shall bear all cost arising there from.

22. PROTECTION OF WORK AND PROPERTY

The CONTRACTOR shall continuously maintain adequate protection of all his work from damage and shall protect the CITY's property from injury or loss arising in connection with this contract. The CONTRACTOR shall at all times protect all public and privately-owned property, structures, utilities, and work of any kind against damage or interruption of service which may result from the operations of the CONTRACTOR. Damage or interruption to service resulting from failure to do so shall be repaired or restored by or at the expense of the CONTRACTOR except such as may be directly due to errors in the contract documents or caused by the agents or employees of the CITY.

23. DEDUCTIONS FOR UNCORRECTED WORK

If the Project Representative deems it inexpedient to correct work injured or done, not in accordance with the contract, an equitable deduction from the contract price will be made therefore.

24. DELAYS AND EXTENSION OF TIME

If the CONTRACTOR be delayed at any time, in the progress of the work by an act of neglect of the CITY or of his employees, or by any other CONTRACTOR employed by the CITY or by Changes ordered in the work or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the CONTRACTOR's control, or by delay authorized by the Project Representative, or by any cause which the Project Representative may decide to justify the delay, then the time of completion will be extended for any such reasonable time as the Project Representative may decide.

No such extension will be made for delay occurring more than seven (7) days before claim therefore is made in writing to the CITY. In the case of a continuing cause or delay, only one claim is necessary.

If no schedule or agreement stating the dates upon which drawings shall be furnished is made, then no claim for delay will be allowed on account of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claims be reasonable.

25. THE CITY'S RIGHT TO DO WORK

If the CONTRACTOR should neglect to prosecute the work properly or fail to perform any provision of this contract, the CITY after three (3) days written notice to the CONTRACTOR, may, without prejudice to any other remedy he may have, make good such deficiencies at the CONTRACTOR's expense.

26. SUSPENSION OF WORK

The CITY may at any time suspend the work or any part thereof by giving five (5) days' notice to the CONTRACTOR in writing. The work shall be resumed by the CONTRACTOR within ten (10) days after the date fixed in a written notice to resume work from the

CITY to the CONTRACTOR. The CITY will reimburse the CONTRACTOR for expense incurred by the CONTRACTOR in connection with the work under this contract as a result of such suspension unless the suspension was recommended to the CITY by the Project Representative to enforce the contract or for any violation of the contract.

27. USE OF COMPLETED PORTIONS

Use by CITY of any finished part of the Work, which has specifically been identified in the Contract Documents, or which CITY, Engineer and CONTRACTOR agree constitutes a separately functioning and useable part of the Work that can be used by CITY without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

- a. CITY at any time may request CONTRACTOR in writing to permit CITY to use any such part of the Work which CITY believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to CITY and Engineer that said part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify CITY and Engineer in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, CITY, CONTRACTOR and Engineer shall inspect that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify CITY and CONTRACTOR in writing giving the reasons therefore. If Engineer considers that part of the Work to be substantially complete, the provisions of Substantial Completion

will apply with respect to certification of that part of the Work and the division of responsibility in respect thereof and access thereto.

- b. CITY may at any time request CONTRACTOR in writing to permit CITY to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer and within a reasonable time thereafter CITY, CONTRACTOR and Engineer shall inspect that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to CITY and Engineer that such part of the Work is not ready for separate operation by CITY, Engineer will finalize the list of items to be completed or corrected and will deliver such list to CITY and CONTRACTOR together, with a written recommendation as to the division of responsibilities pending final payment between CITY and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work, which will become binding upon CITY and CONTRACTOR at the time when CITY takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, CITY shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.
- c. If CITY finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with this Article; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or lapse on account of any such partial use or occupancy.

28. PROMPT PAYMENT

It is the policy of the CITY that payment for all purchases by the CITY shall be made in a timely manner and that interest payments will be made on late payments in accordance with Part VII, Chapter 218, Florida Statutes, known as the Florida Prompt Payment Act.

29. PAYMENTS WITHHELD

The CITY may withhold or, on account of subsequently discovered evidence, recover the whole or part of any payment to such an extent as may be necessary to protect the CITY from loss on account of

- a. Defective work not remedied.
- b. Claims filed or reasonable evidence indicating probable filing of claims.
- c. Failure of the CONTRACTOR to make payments properly to subcontractors or for labor.
- d. The Project Representative's opinion that the contract cannot be completed for the balance then unpaid.
- e. Damage to another CONTRACTOR.
- f. Failure to maintain adequate progress.

- g. Damage to CITY facilities or assets resulting from the negligence of the CONTRACTOR.

When the above grounds are removed, payment will be made for amounts withheld because of them.

30. FINAL PAYMENT APPLICATION

Administrative actions and submittals that must precede or coincide with submittal of the final payment Application for Payment include the following:

- a. Completion of Project closeout requirements.
- b. Completion of items specified for completion after Substantial Completion.
- c. Assurance that unsettled claims will be settled.
- d. Transmittal of required project construction records to CITY.
- e. Final Clean Up as outlined in these General Conditions

Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, Engineer will make a final inspection with CITY and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

After CONTRACTOR has completed all such corrections to the satisfaction of Engineer and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, marked-up record documents and other documents--all as required by the Contract Documents, and after Engineer has indicated that the Work is acceptable (subject to the provisions under Waiver of Claims), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to CITY) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by CITY, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which CITY or CITY's property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to CITY to indemnify CITY against any Lien.

If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation--all as required by the Contract Documents, Engineer is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application to CITY for payment. Thereupon Engineer will give written notice to CITY and CONTRACTOR that the Work is acceptable subject to the provisions found under "Waiver of Claims". Otherwise, Engineer will

return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after presentation to CITY of the Application and accompanying documentation, in appropriate form and substance, and with Engineer's recommendation and notice of acceptability, the amount recommended by Engineer will become due and will be paid by CITY to CONTRACTOR.

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if Engineer so confirms, CITY shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of Engineer, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by CITY for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

31. DAMAGES

Any claim for damage arising under a resulting Agreement shall be made in writing to the party liable within ten (10) days after the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials.

32. ACCEPTANCE OF FINISHED WORK

The CITY shall make final acceptance inspection of the Project covered by this Contract when the Project is completed and finished in all respects in accordance with the Contract Documents. CONTRACTOR shall furnish to the Engineer or CITY Representative a complete set of As-Built drawings. These drawings shall be prepared by a licensed Surveyor in the State of Florida and shall be submitted to the Engineer within five (5) days following the completion of the work.

33. FINAL CLEAN UP

The CONTRACTOR shall complete all cleaning operations before requesting final inspection.

The CONTRACTOR shall, as directed by the Project Representative, remove from the CITY's property and from all public and private property, at his own expense, all temporary structures, rubbish, and waste materials resulting from his operation.

The CONTRACTOR shall remove temporary protection and facilities installed for protection of the work during construction.

The CONTRACTOR shall comply with all regulations of authorities having jurisdiction and safety standards for cleaning. The CONTRACTOR shall not burn waste materials. The CONTRACTOR will not discharge volatile, harmful or dangerous materials into drainage systems. The CONTRACTOR will remove all waste materials from the site and dispose of in a lawful manner. Materials of value remaining after completion of associated work will become the owner's

property. The CONTRACTOR will arrange for the disposition of these materials as directed by the CITY.

The CONTRACTOR shall rake the grounds that are neither paved nor planted to a smooth, even textured surface.

34. TREES

It shall be the responsibility of the CITY to protect all trees within the limits of the work and as determined by the CITY.

35. GUARANTY

CONTRACTOR warrants and guarantees to CITY that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in the paragraph in this section labeled 'Inspections, Correction, Removal of Defective Work'.

All material installation and workmanship furnished by the CONTRACTOR under the terms of the Contract, shall be guaranteed by the CONTRACTOR against defective workmanship, and physical defects, for a period of ONE (1) year and after the date of acceptance thereof by the CITY, and each item of equipment or materials and installation proving to be defective within the specified period of guaranty shall be replaced, without cost to the CITY, by the CONTRACTOR. The period of guaranty of such replacement shall be from and after the date of final acceptance of the Project by the CITY, provided however, that where any item or equipment or material comes with a manufacturer's warranty of two (2) years or longer, that warranty shall take precedence over the warranty of CONTRACTOR hereunder.

36. ASSIGNMENT

Neither party to the contract shall assign the contract or sublet it as a whole without the written consent of the other, nor shall the CONTRACTOR assign any moneys due, or to become due to him hereunder, without the previous written consent of the Project Representative.

37. RIGHTS OF VARIOUS INTERESTS

Wherever work being done by the CITY's forces, or by the other CONTRACTORS, is contiguous to work covered by this contract, the respective rights of the various interests involved will be established by the Project Representative, to secure the completion of the various portions of the work in general harmony.

38. SEPARATE CONTRACTS

The CITY reserves the right to let other contracts in connection with this work. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly conduct and coordinate his work with theirs.

If any part of the CONTRACTOR's work depends, for proper execution or results upon the work of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the Project Representative any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the other

CONTRACTOR's work as fit and proper for the reception of his work, except as to defects which may develop in the other CONTRACTOR's work after the execution of the work.

To insure the proper execution of his subsequent work, the CONTRACTOR shall measure work already in place and shall at once report to the Project Representative any discrepancy between the executed work and the drawings.

39. LANDS FOR WORK

The CITY will provide the lands upon which the work under this contract is to be done, except that the CONTRACTOR shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to same.

40. ACCESS TO RECORDS

The CITY, the Florida Department of State, or any of their duly authorized representatives shall have access to any books, documents, papers or any other records prepared by the CONTRACTOR that are directly pertinent to the work produced under this Agreement for making audit, examination, excerpts and transcription. Such records will be maintained for five (5) years after the completion of the work and until claims or audit findings have been resolved which were initiated prior to the expiration of the five (5) year period.

41. EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The Agreement shall be signed in quadruplicate by the CITY and the CONTRACTOR. The Contract Documents comprise the entire agreement between CITY and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is

as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of CITY, CONTRACTOR or Engineer, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Engineer, or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of these Supplemental Conditions. Clarifications and interpretations of the Contract Documents shall be issued by Engineer.

If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to Engineer in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from Engineer; however, CONTRACTOR shall not be liable to CITY or Engineer for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

42. CONTRACTOR'S UNDERSTANDING

CONTRACTOR has visited the site, has called for utility locates and has familiarized itself with the local conditions under which the work is to be performed, both underground and above ground and both on and off premises and has correlated these observations with the requirements of the proposed contract documents; all as considered necessary or pertinent to the work, and any failure to thus make all such prior investigations and studies shall in no way act as a waiver of any of the terms of the contract. No verbal agreement or conversation with any officer, agent or employee of the CITY, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

CONTRACTOR shall not be liable for: (i) damage or injury to any subsurface structures (including, but not limited to, utilities, mains, pipes, tanks, and telephone cables) or any existing subsurface conditions, or the consequences of such damage or injury, if such structures or conditions were unknown and were not identified or shown, or were incorrectly shown, in information or on plans furnished to or obtained by CONTRACTOR; (ii) concealed conditions encountered in the performance of the Work; (iii) concealed or unknown conditions in an existing structure at variance with the conditions indicated by the scope of Work or information furnished to or obtained by the CONTRACTOR; or (iv) unknown subsurface physical conditions that differ materially from those ordinarily encountered. Should CONTRACTOR encounter such conditions, the parties shall agree

on a revised scope of Work providing for an equitable adjustment of the price and/or time of performance to account for such unknown or changed conditions.

43. FAMILIARITY WITH LAWS

The CONTRACTOR is required to be familiar with all Federal, State and Local laws, ordinances, rules and regulations that in any manner affect the work. Ignorance on the part of the CONTRACTOR will in no way relieve him from responsibility.

CLARIFICATIONS AND INTERPRETATIONS OF CONTRACT DOCUMENTS

It is the duty of the CONTRACTOR to notify the Engineer, in writing, in the event of any doubt or question as to the true meaning of any provision in the Contract Documents. The Engineer's decision thereon shall be final. Annotated dimensions on drawings shall govern and work not dimensioned shall be as clarified by the Engineer. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Materials or work described in words which have a well-known technical or trade meaning shall be deemed to refer to such recognized standard.

Engineer will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as Engineer may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or an extension of the Contract Time then CONTRACTOR shall notify CITY in accordance with the Agreement.

Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work there under. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims in respect of changes in the Contract Price or Contract Time will be referred initially to Engineer in writing with a request for a formal decision in accordance with this paragraph, which Engineer will render writing within a reasonable time. Written notice of each such claim, dispute and other matters will be delivered by the claimant to Engineer and the other party to the Agreement promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to Engineer and the other party within sixty days after such occurrence unless Engineer allows an additional period of time to ascertain more accurate data in support of the claim.

When functioning as interpreter and judge under this Article, Engineer will not show partiality to CITY or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by Engineer pursuant to this Article with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as permitted by the Agreement.) will be a condition precedent to any exercise by CITY or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter.

44. SAFETY AND PRECAUTION

CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- a. all employees on the Work and other persons and organizations who may be affected thereby; all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and iii. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph caused, directly or in this Article directly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of CITY or Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR). CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to CITY and CONTRACTOR that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to CITY.

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from Engineer or CITY, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give

Engineer prompt written notice that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Engineer determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

45. RECORD DOCUMENTS

CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, reviewed Shop Drawings, Change Orders, Work Directive Changes, Field Orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all reviewed samples and a counterpart of all reviewed Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents or as-builts, samples and Shop Drawings will be delivered to Engineer for CITY. Upon delivery of such

documents to Engineer, the CONTRACTOR shall provide a written certification, signed and dated, that all documents accurately and completely reflect all deviations from or changes in the original Contract Documents made during construction of the project.

Record documents shall be up-to-date and available for review by the resident project representative prior to each application for progress payment. Payment will not be made for construction of items not shown on the record documents.

These requirements also supplement those of Item 66. Not less than two percent (2%) of the contract price shall be retained until correct record drawings, specifications, addenda, modifications and shop drawings are delivered to and reviewed by the Engineer.

46. PHYSICAL CONDITIONS-UNDERGROUND FACILITIES

Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site are based on information and data furnished to CITY or Engineer by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

- a. CITY and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
- b. CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Facilities shown or indicated in the Contract Documents, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

The word facility as used in this subsection titled "Utilities" includes any pipe conveying gases or liquids and appurtenances attached thereto; cables, conduits, wires, ducts and appurtenances; poles and appurtenances; any of which may be buried below grade or installed at or above grade level. A facility excludes irrigation pipes, service connections and traffic signal wiring. A service connection is a pipe (excluding irrigation pipes), cable, wire, duct or conduit that is intended to connect a facility with a user. The word Utility as used in this subsection titled "Utilities" refers to the entity having legal owner-ship of the facility, service connection, irrigation pipe, or traffic signal wiring.

The Engineer has endeavored to determine the existence of underground facilities at the site of the work from the records of the utilities with known facilities in the vicinity of the work. The position of these facilities as derived from such records is shown on the plans. Service connections, irrigation pipes, and traffic signal wiring may not be shown on the plans. The CONTRACTOR shall make his own investigations, including exploratory excavations and contact with Utilities, to determine the exact locations and type of existing facilities, service connections, irrigation pipes, and traffic signal wiring prior to commencing work in the area and shall be responsible for any damage thereto.

With respect to underground facilities, no claim for a change in the contract price may be allowed unless the CONTRACTOR discovers an underground facility which is not indicated or referred to in the Contract Documents or which is in a position differing materially and significantly from that indicated or referred to in the Contract Documents. If such discovery is made, the CONTRACTOR shall promptly notify in writing the CITY, Engineer and the Utility. The CITY may make changes in the alignment and grade of the work.

At no additional cost to the CITY, the CONTRACTOR shall replace, remove, relocate, protect, or temporarily maintain a facility which is not in a position differing materially and significantly from that indicated or referred to in the Contract Documents. At no additional cost to the CITY, the CONTRACTOR shall adjust the top elevation of all valve boxes and manholes to match the finish grade or pavement surface and shall replace, remove, relocate, protect, or temporarily maintain all service connections, irrigation pipes, and traffic signal wiring. The work on the facility, service connection, irrigation pipe or traffic signal wiring shall be done in a manner satisfactory to the Utility, it being understood that the Utility has the option of doing such work with his own forces, or permitting the work to be done by the CONTRACTOR.

47. PHYSICAL CONDITIONS

- a. Exploration and Reports: Reference is made in the Special Conditions to those reports of exploration and tests of subsurface conditions at the site that have been utilized by Engineer in preparation of the Contract Documents. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.
- b. Unforeseen Conditions: CONTRACTOR shall promptly notify CITY and Engineer in writing of any subsurface or latent physical conditions at the site or in an existing structure differing materially from those indicated or referred to in the Contract Documents. Engineer will promptly review those conditions and advise CITY in writing if further investigation or tests are necessary.

Promptly thereafter, CITY shall obtain the necessary additional investigations and tests and furnish copies to Engineer and CONTRACTOR. If Engineer finds that the results of such investigations or tests indicate that there are subsurface or latent physical conditions which differ materially from those intended in the Contract Documents, and which could not reasonably have been anticipated by CONTRACTOR, a Change Order shall be issued incorporating the necessary revisions.

48. REVIEW OF APPLICATION FOR PROGRESS PAYMENT

Engineer will, within ten days after receipt of each Application for Payment, to either indicate in writing a recommendation of payment and present the Application to CITY, or return the Application to CONTRACTOR indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten (10) days after presentation of the Application for Payment with Engineer's recommendation, the amount recommended will become due and when due will be paid by CITY to CONTRACTOR.

Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to CITY, based on Engineer's on-site observations of the Work in progress as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated; that, to the best of Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work, and to any other qualifications stated in the recommendation); and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment Engineer will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents or that there

may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by CITY or CITY to withhold payment to CONTRACTOR.

Engineer's recommendation of final payment will constitute an additional representation by Engineer to CITY that the conditions precedent to CONTRACTOR's being entitled to final payment have been fulfilled.

Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make such representations to CITY. Engineer may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or test, nullify any such payment previously recommended; to such extent as may be necessary in Engineer's opinion to protect CITY from loss.

CITY may refuse to make payment of the full amount recommended by Engineer because claims have been made against CITY on account of CONTRACTOR's performance or furnishing of the Work or Liens have been filed in connection with the Work or there are other items entitling CITY to a set-off against the amount recommended, but CITY must give CONTRACTOR immediate written notice (with a copy to Engineer) stating the reasons for such action.

49. SUBSTANTIAL COMPLETION

When CONTRACTOR considers the entire Work ready for its intended use, CONTRACTOR shall notify CITY and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that Engineer issue a certificate of Substantial Completion. Within a reasonable time thereafter, CITY, CONTRACTOR and Engineer shall inspect the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify CONTRACTOR in writing giving the reasons therefore. If Engineer considers the Work substantially complete, Engineer will prepare and deliver to CITY a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. CITY shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within fourteen days after submission of the tentative certificate to CITY notify CONTRACTOR in writing, stating the reasons therefore. If, after consideration of CITY's objections, Engineer considers the Work substantially complete, Engineer will within said fourteen days execute and deliver to CITY and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from CITY. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to CITY and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between CITY and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Unless CITY and CONTRACTOR agree otherwise in writing and so inform Engineer prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendations will be binding on CITY and CONTRACTOR until final payment.

CITY shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but CITY shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

50. INSPECTIONS, CORRECTION, REMOVAL OF DEFECTIVE WORK

Engineer and Engineer's representatives, other representatives of CITY, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

CONTRACTOR shall give Engineer timely notice of readiness of the Work for all required inspections or tests.

If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith and furnish Engineer the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with CITY's or Engineer's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. The cost of all inspections, tests and approvals in addition to the above which are required by the Contract Documents shall be paid by CITY (unless otherwise specified). All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to CITY and CONTRACTOR (or by Engineer if so specified). If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given Engineer timely notice of CONTRACTOR's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

Neither observations by Engineer nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at CONTRACTOR's expense.

If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, CONTRACTOR, at Engineer's request, shall uncover, expose or otherwise make available for observation, inspection or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided in Special Conditions. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Special Conditions.

If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable

materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, CITY may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of CITY to stop the Work shall not give rise to any duty on the part of CITY to exercise this right for the benefit of CONTRACTOR or any other party.

If required by Engineer, CONTRACTOR shall promptly either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Engineer, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

51. ACCEPTANCE OF DEFECTIVE WORK; CORRECTION OF DEFECTIVE WORK BY THE CITY

If, instead of requiring correction or removal and replacement of defective Work, CITY (and, prior to Engineer's recommendation of final payment) prefers to accept it, CITY may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to CITY's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, CITY may make a claim. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to CITY.

If CONTRACTOR fails within a reasonable time after written notice of Engineer to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by Engineer, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, CITY may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph CITY shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, CITY may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which CITY has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow CITY, CITY's representatives, agents and employees such access to the site as may be necessary to enable CITY to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of CITY in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by Engineer, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, CITY may make a claim. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work

attributable to the exercise by CITY of CITY's rights and remedies hereunder.

52. ARBITRATION

Before bringing any action in any court of competent jurisdiction pertaining to any claim, dispute or other matter in question arising out of or relating to the Contract Documents or the breach thereof, in an amount less than \$25,000, except for claims which have been waived by the making and acceptance of final payment, the claimant/objector (Party A) shall first offer to arbitrate the question(s) with the other party to the contract (Party B) by notifying him in writing and setting forth in such notice the question(s) to be arbitrated.

Party B can select to arbitrate or not. If Party B agrees to arbitrate he shall so advise Party A in writing within ten days after receipt of Party A's notice. Notice by Party B that he does not wish to arbitrate or failure of Party B to notify Party A within the ten-day period will give Party A the right to institute a court action.

If Party B agrees to arbitrate, the arbitration shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association except as modified herein. In such event, the agreement to arbitrate shall be specifically enforceable under the provisions of the Florida Arbitration Code, S682, Fla. Stat., as it may be from time to time amended. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

If Party B agrees to arbitrate, then Party A shall file its notice of demand for arbitration in writing with Party B and with the American Arbitration Association, and a copy shall be filed with the Engineer. Notice of demand for arbitration shall be served on the parties referred to herein no later than thirty days from the date Party B agrees to arbitrate the issues in question.

Failure to serve the notice of demand for arbitration shall constitute a waiver and abandonment of the claims for which arbitration is sought. Notice of demand for arbitration shall in no event be made on any claim, dispute or other matter in questions which would be barred by the applicable statute of limitations.

If the dollar amount of the claim exceeds \$25,000, arbitration may only be utilized if both Party A and party B agree to arbitrate.

The CONTRACTOR shall carry on the Work and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

The Florida Rules of Civil Procedure pertaining to discovery shall apply to both parties during arbitration, and, at the CITY's sole option, any and all arbitration arising out of or relating to any of the Contract Documents or any breach thereof shall include by consolidation, joinder, or joint filing any additional person or entity not a party to this Agreement to the extent necessary for the final resolution of the matter in controversy.

At least one of the members of the arbitration panel must be an attorney licensed to practice law in the State of Florida.

The surety shall be bound by the arbitration award to the same extent as the CONTRACTOR is bound.

The arbitration panel shall submit a written opinion with findings of fact and conclusions of law stating the basis for the decision made, and including an award of arbitration that may be confirmed by a court of competent jurisdiction.

Unless CITY agrees to the contrary, the location of any and all arbitration proceedings shall be in Lake County, Florida.

[END OF ATTACHMENT 'B']



CHAPTER A

GENERAL SPECIFICATIONS

TABLE OF CONTENTS

<u>Section</u>	<u>Description</u>	<u>Corresponding Federal/State Regulation</u>	<u>Page</u>
A-1	INTRODUCTION		3
A-2	REGULATING AGENCIES AND STATUTES.....		4
A-3	CONTRACTOR PERSONNEL		5
A-4	CONTRACTOR SUPERVISION		6
A-5	CONTRACTOR PERFORMANCE		7
A-6	DELIVERY, UNLOADING, STRINGING PIPE, VALVES AND OTHER MATERIALS		8
A-7	UTILITY LOCATIONS.....	192.321	9
A-8	EXCAVATION.....	192.325/327/614	10
A-9	COATED PIPE INSTALLATION	192.319/461	12
A-10	PIPE NIGHT CAPS		13
A-11	INTERNAL LINE CLEANING	192.629.	14

A-12	BORING - CASED AND UNCASED	15
A-13	RAILROAD CROSSINGS.....	18
A-14	PAVEMENT/SIDEWALK REMOVAL AND REPLACEMENT	20
A-15	BACKFILLING192.319.	22
A-16	WARNING SIGNS AND TRAFFIC CONTROL.....	23
A-17	CARE OF EXISTING STRUCTURES	24
A-18	CLEAN UP AND RESTORATION.....	25
A-19	AS-BUILT DRAWINGS AND GPS.....	26
A-20	GAS OPERATOR QUALIFICATION	29

SECTION A-1 INTRODUCTION

This section addresses the various operations in the construction and repair of gas mains, gas services. It outlines the type, character, and quality of work required. Furthermore, it is imperative that the Contractor review and coordinate all activity with the respective departmental representative to avoid conflicts. It will also be the contractor's responsibility to strictly adhere to the individual specifications provided in this document.

SECTION A-2 REGULATING AGENCIES AND STATUTES

GENERAL:

The Contractor is responsible for ensuring that all work covered by this contract and specifications is done strictly in accordance with all applicable statutes, regulations, and Owner guidelines, as well as the Federal, state, and local governmental authorities or agencies having jurisdiction including, but not limited to, the Department of Labor-Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation, the State of Florida's Public Service Commission, Florida Department of Transportation, Lake or Sumter County, City of Leesburg.

The Contractor's Policies and Procedures are subject to, but are not limited to, those of the U.S. Department of Transportation, Title 49 Code of Federal Regulations (CFR), Part 192 relating to gas distribution system operation, Pipeline and Hazardous Materials Regulations Office of Pipeline Safety (PHMSA), Florida Public Service Commission (FPSC) Chapter 25-12 Florida Administrative Code (FAC) and Federal Energy Regulatory Commission (FERC).

SECTION A-3 CONTRACTOR PERSONNEL

GENERAL:

All Contractor personnel shall be competent and skilled in the kind of work that they are to execute and shall work in accord with other personnel. The Contractor shall immediately remove any employees that are not acceptable to the Owner. Prior to performing work for the Gas Utility, the Contractor, following the hiring of any of the key positions such as crew leader, foreman, supervisor, and area manager, should seek a written approval to perform work from the Owner. The Contractor is responsible to submit to the Owner detailed information pertained to the candidate's competency, qualifications, experience, and background.

SECTION A-4 CONTRACTOR SUPERVISION

GENERAL:

All work shall be subject to inspection and approval by the Owner's inspectors. It is the Contractor's responsibility to notify the Owner daily with the number of working crews, their location, name of the foreman and pipe welder/fuser, and type of work to be performed. Any work that is completed without the Owners presence is subject to inspection and approval.

Contractor is subject to verification of work quality post inspection. If any fuse is found to be unacceptable, five reference points by same employee will be unearthed for inspection at Contractor's expense. Proof of requalification of the employee must be presented before they may continue work for the City. If an additional fuse is found to be unacceptable, twenty-five additional reference points by same employee will be unearthed and inspected at Contractor's expense. A third unacceptable fuse means every fuse by that employee must be unearthed and inspected, and the employee may no longer work on a City project.

SECTION A-5 CONTRACTOR PERFORMANCE

GENERAL:

It is the Contractor's responsibility to always maintain adequate staffing, equipment, and construction materials to accommodate the Owner's projected workload, schedules, and deadlines in a satisfactory manner. During busy times this may require the Contractor to adjust resources or utilize alternate means to fulfill the Owner's project requirements.

The Contractor is responsible for the following:

- Maintaining a sufficient inventory or always have access to construction materials to complete scheduled projects; notify Owner in advance, a minimum of 2-weeks, and in writing of any material delays or shortages of materials.
- Increasing or adjusting staffing levels to meet Owner's schedules and deadlines.
- Adhering to the Owner's project deadlines. Project duration is determined based on the following criteria:
 1. New Gas Mains – The Owner will allow the Contractor one day at the beginning of the project for mobilization and set-up as well as two additional days at the end of the project for testing, demobilization, and site restoration.
 2. Relocation projects – The Owner will allow the Contractor one day at the beginning of the project for mobilization and set-up as well as two additional days for demobilization and site restoration after completion.
 3. Gas Service Taps – Should be completed within 14 calendar days following notification by Owner of service tap request. Tap completion entails but is not limited to pipe installation, testing and site restoration. (NOTE: At the discretion of the Owner, there may be taps that require immediate installation.)

**SECTION A-6 DELIVERY, UNLOADING, STRINGING PIPE,
VALVES AND OTHER MATERIALS**

Applicable Codes: CFR, Title 49, Part 192.328 & 461

GENERAL:

The Owner or Contractor will place the order for pipe, valves, and fittings required for this construction, at the discretion of the Owner. All material will be shipped to destinations designated by the Owner. The Contractor shall provide adequate equipment, space, and personnel to unload, receive, protect and store materials. The Contractor shall load and haul material from storage to construction sites in a manner that will avoid damage to the materials and is satisfactory to the Owner. The Contractor will pay for any demurrage or temporary storage for failure to unload material during the prescribed time allowed by the carrying company.

All materials having machine surfaces will be stored in a manner which prohibits contact with the earth. All materials including valves, fittings, and coating materials will be handled and stored in a manner to protect them against damage or corrosion.

Care will be taken in loading, transporting, and unloading pipe to prevent damage. Pipe will not be dropped. All pipe will be examined before installation and no piece will be installed which is found to be defective. If any pipe fails to meet specifications or is found to be defective, it will be removed and satisfactorily replaced at no additional expense to the Owner.

The Contractor will be responsible for all materials delivered to him/her and the disposition thereof until final acceptance of the completed work and release of the Contractor from its obligations hereunder. If ordered by the Contractor, the Contractor must report any pipe or other materials damaged by the carrier for inspection to the carrier in writing on the freight bills. Any pipe or material damaged by the Contractor will either be replaced or repaired and reconditioned at the Contractor's expense as the Owner may elect.

The Contractor will haul and string pipe in such a manner as to minimize interference with the normal use of streets, alleys, or land crossed by easements. Gaps will be left in pipe strings to permit the normal use of land (e.g. the passage of farm stock) and streets or alleys to not unnecessarily obstruct or inconvenience the traveling public.

All material furnished by the Owner and not used shall be returned to the utility within five (5) working days upon completion of the project.

SECTION A-7 UTILITY LOCATIONS

Applicable Codes: CFR, Title 49, Part 192.614

GENERAL:

The Contractor will be responsible for notifying Sunshine State One-Call, (811) and provide all the necessary information required for utility locations. The Contractor will schedule his/her work in accordance with the normally required advanced notification time period (a minimum of 2 full business days) to allow for proper utility location(s). This includes lines that have not been accepted by City, i.e., private utility company's line, water, sewer, or electric lines owned by a homeowner or business. Sufficient attention to sprinkler/irrigation systems, septic systems, and invisible fences installed by homeowners will be observed and avoided, if located by the owner, during the installation of service lines.

The Contractor will be responsible for locating installed utility facilities until they have been put into service and the as-built drawings, and valve ties, have been accepted by the respective utilities. The location of gas lines, including joint trench, is the responsibility of the Contractor until facilities are pressurized and accepted by the Owner.

The Contractor must have the correct location device for mains and valves. If the tracer wire is broken, it will be the Contractor's responsibility to provide location stations at each end of a bore thereby enabling plastic pipe to be located in both directions. Tracer wire must be verified by the City's inspector for full continuity before final payment will be made to Contractor.

SECTION A-8 EXCAVATION

Applicable Codes: CFR, Title 49, Part 192.325 & 327

GENERAL:

The Contractor shall excavate or dig all required trenches and pits as directed, specified, or shown on construction drawings. All materials not suitable for backfilling and required compaction shall be removed and disposed of in compliance with all applicable local codes/ordinances and/or environmental regulations. Unsuitable materials shall include, but not be limited to, rocks, pure clay, gravel, organic matter, hard pan, and shale. Suitable natural materials for backfilling shall be non-organic, homogenous, fine/small grained, and capable of achieving consistent, dense compaction. Suitable materials shall include uniform grain sand, native sand/clay mixes (when appropriate and ratio dependent), and topped with crushed limerock.

Unless otherwise specified or illustrated on accompanying drawings, the depth and width of all trenches will allow for the easy installation of all pipes, valves, etc. The bottom of a trench will be smooth and free of all hard dirt chunks, rocks, or other foreign objects.

The Contractor will furnish all materials and supplies necessary for the completion and maintenance of a trench; including water control, shoring, and any other materials that are needed to stabilize and maintain a trench line. The trench will be kept free from water in so far as practicable. **No extra payment will be made for shoring unless engineered shoring is required, which will be at the City's expense as a pass through.** Such sheeting will not be removed until backfilling has progressed to a stage such that no damage to pipelines, conduits, structures, or pavement will result from its removal.

The Contractor shall be solely responsible for providing ditch and/or trench safety retaining (shoring) devices or equipment in compliance with O.S.H.A. safety standards and the COL Gas Operations & Maintenance Manual. The Contractor shall also be responsible for providing and using all necessary equipment associated with manhole (confined space) and trench work such as water pumps, ventilating fans or blowers, personal protection, retrieval harnesses, etc.

Excavated earth will also be placed such that if there is a rainfall earth will flow back into the trench and not onto pavement or private property. Excavated material will be neatly piled at a sufficient distance back from the edge of the trench to avoid overloading and prevent slides or cave-ins and kept trimmed up to be of as little inconvenience as possible to the public and adjoining property owners. No extremely high earth mounds will be allowed which would impede the traffic flow (vertical/horizontal traffic site distances).

Whenever applicable, the Contractor shall take appropriate measures to properly secure all loose

excavated soil at the job site by whatever means are required/acceptable including, but not limited to, plastic coverings, hay bales, and/or silt fences. Loose soil cannot be washed away by rainfall. Excavations, especially in roadways, shall be secured to prevent erosion by rainfall and the development of hazards to vehicular and pedestrian traffic.

Excavations for underground trenches (and pits) shall be in accordance with construction specifications, drawings, Owner directions, and all applicable environmental/right-of-way utility permits. Excavations shall be done in a manner to minimize damage to trees and surrounding significant surface features/structures.

The Contractor shall avoid vertical and horizontal conflicts with other underground utilities including all associated subsurface or surface structures. Minimum separation distances shall be as prescribed by the respective utility Owners (City of Leesburg Gas) administering the work and reflected in the construction specifications/drawings. If said minimum separations cannot be achieved, then the Contractor shall notify the Owner and a satisfactory alternative route, installation method, or minimum separation distance will be determined. Excavation or boring work shall not undercut or destabilize any pre-existing facilities or structures. As necessary, the Contractor shall coordinate all excavation and boring work with the owners of said conflicting structures or facilities to prevent damage due to settling or shifting. The Contractor shall be responsible for notifying the Sunshine State One Call underground utility location service as well as using “pot hole” excavations by core drill only, as needed, to visually verify the exact depth, size, and type of an underground conflict at no cost to Owner.

Special circumstances, as identified in the construction specifications and/or by the Owner, may require the Contractor to provide and allow access across open trenches for the safe passage of livestock, vehicles, etc. Likewise, certain spoil banks may be required to have openings to prevent the confinement of water.

SECTION A-9 COATED PIPE INSTALLATION

Applicable Codes: CFR, Title 49, Part 192.319, 328, and 461

GENERAL:

The Contractor will be required to provide padded slings, calipers, and/or rubber tired dollies for handling coated pipe. The use of chains or belts reinforced with wire cable will not be permitted. The crew will not assemble more pipe than can easily be handled (lowered and positioned in the trench) by the available equipment and manpower.

Coated pipe will be carefully lowered into the trench to avoid damaging the coating. It should be lowered close to its final position to minimize movement in the trench.

Where the trench runs through rock, the sides and bottom of a trench will be cleared of all loose or projecting rock that might damage the protective coating or covering on the pipe. The Contractor will provide a continuous 6" thick bedding of earth and sand in the bottom of a trench before the pipe is lowered in. It may be necessary to purchase and haul in padding because use of agricultural topsoil will not be permitted.

SECTION A-10 PIPE NIGHT CAPS

GENERAL:

The open ends of the lines will be securely closed at the end of each day's work to prevent entrance of water, mud, trash or small animals and will not be reopened until work is resumed. Only manufactured pipe night caps may be used. In no events will rags, wastes, etc. be used to plug the ends of the pipe. Any obstructions remaining in the line after the completion thereof will be removed at the expense of the Contractor.

Where the line is welded in long segments as drag sections for lanes, driveways, highways, railroads, rivers, creeks, or drainage ditch crossings, or any other location where necessary, the ends of the long sections will be closed and kept closed in the above manner by the Contractor until such long sections are finally joined.

SECTION A-11 INTERNAL LINE CLEANING

Applicable Codes: CFR, Title 49, Part 192.629

GENERAL:

Each gas pipe joint, including casing, will be thoroughly cleaned to remove all dirt and foreign matter from inside the pipe. On pipe sizes 1 1/4" and smaller, the Owner will allow blowing down the line.

For gas pipe sizes 2" and larger only pigging of the line will be allowed. Rag swabbing will not be allowed. If pigging is used, the Inspector will designate the length of line to be pigged depending upon the size of the project, irregular fitting locations, etc. Pigs will meet City Specifications.

SECTION A-12 BORING - CASED AND UNCASED

Applicable Codes: CFR, Title 49, Part 192.323 & 461

GENERAL:

Whenever concrete walks, paved driveways, paved streets, or other paved surfaces are to be crossed by pipeline, the Contractor will, unless the Owner specifically consents to excavation, bore the pipe under such surfaces. Pushing the pipe will not be allowed except through open bores.

Steel casing pipe will conform to the requirements of ASTM Designation A139 Grade "B." For highway crossings, the casing shall have a minimum wall thickness of 0.188" and have a minimum nominal diameter of two inches (2") larger than the carrier pipe diameter. For railroad crossings, the minimum casing diameter will be four inches (4") larger for carrier pipes 6" diameter or greater. The casing pipe size shown or indicated on construction plans will be furnished. In addition, all insulators, casing end seals, casing vent pipes, vent cap and electrical testing will be performed using a standardized manufactured device. Vent pipes will be coated to prevent corrosion from occurring.

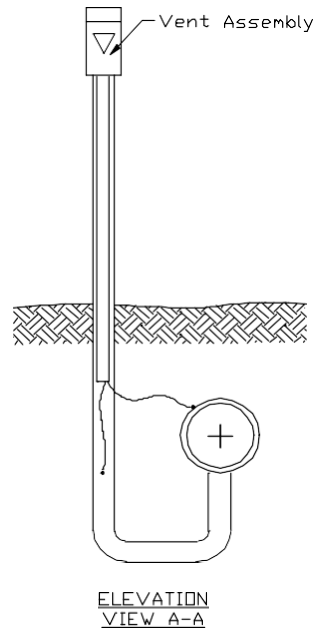
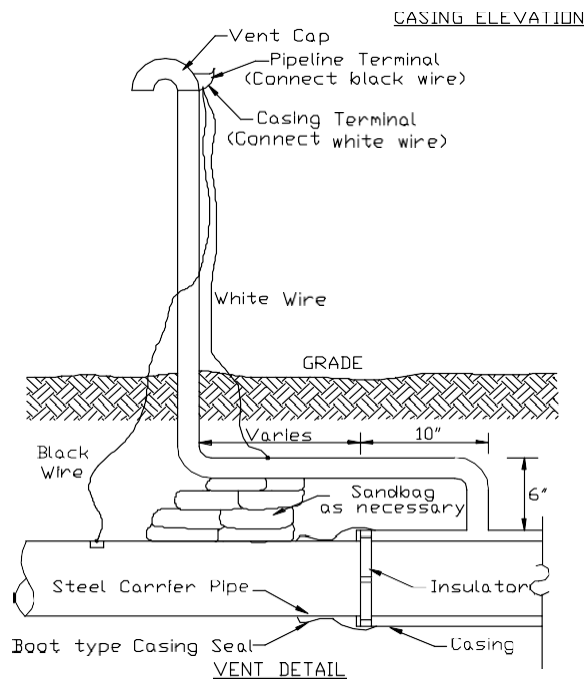
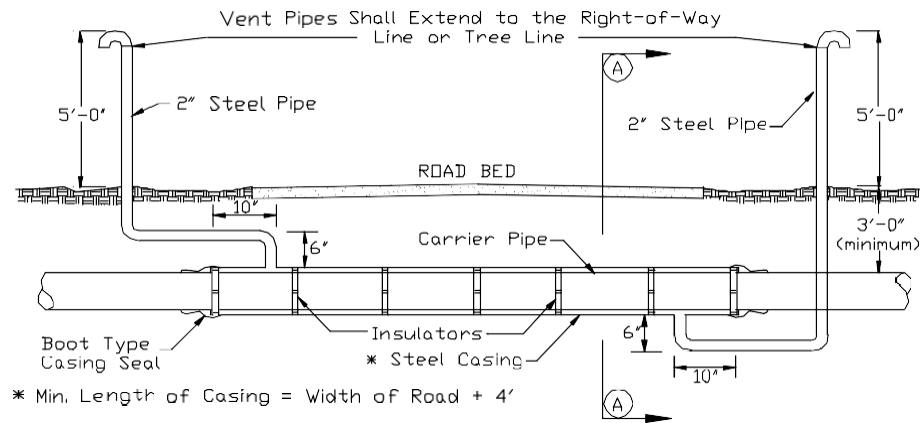
All work will be performed in conformance with the requirements of the agency having jurisdiction of the area or utility involved. Any special requirements of the agency such as insurance, flagmen, etc. will be strictly adhered to during the performance of the work on this Project.

A jacking pit will be excavated, backfilled, and compacted in compliance with the agency having jurisdiction. Sheet piling and bracing installed by the Contractor to maintain the stability of the pit walls are part of the Contractor's expense for a jacked crossing.

Casing pipe will be installed in accordance with approved jacking and boring methods. The Contractor will maintain the necessary line and grade as indicated on the construction plans. The installation of casing pipe will proceed with a pit excavated at a safe distance from the edge of the roadway or railroad. Construction will not interrupt traffic on the roadways or railroads. All utilities being crossed by casing pipe will be spot located with a minimum vertical and horizontal clearance of 12" between the crossing pipes. All casing vents will be placed within the right-of-way, unless approved by the Inspector and the affected private property owner.

Tolerance for installation of the casing pipe will be as follows:

1. Elevation - to grade or a maximum of 12" above or below grade measured at the far side of the bore regardless of the length of the bore.
2. Plan Location - plus or minus one foot measured at the far side of the bore regardless of the length of the bore.



NOTE: Terminal wires shall be Thermit welded.

Length of Casing-ft.	18	28	36	48	58	68	78	88	98	108	118	128	138
No. of Insulators	4	5	6	7	8	9	10	11	12	13	14	15	16

CASING ELEVATION, CROSS SECTION AND DETAILS

SPECS.DWG

SECTION A-13 RAILROAD CROSSINGS

Applicable Codes: CFR, Title 49, Part 192.111 & 467

GENERAL:

The construction of all railroad crossings, including all details incident to the installation of such crossings, will be in accordance with the drawings and/or will comply with such specifications as may be required by the railroad engineers, or other authority having jurisdiction.

All railroad crossings will be bored. Open trenching across railroad beds will not be permitted except in specific cases and then only after all means of boring have been exhausted and proper permission has been obtained by the Owner's representatives from authorities having jurisdiction.

In the event permission is granted to open trench across a railroad bed, all backfilling of such open trenching on the right-of-way will be accomplished by placing suitable material in layers of six inches (6") in thickness and each six-inch (6") layer mechanically tamped with a pneumatic tamping device (or equal) until the degree of compaction is equal to or more than the density of the surrounding undisturbed earth. If the material removed from the open trench is not suitable for backfill and tamping due to water saturation or nature of the material, then the Contractor is obligated to obtain suitable material. Backhoe buckets will not be used for tamping.

After backfilling, the surface of the railroad bed will be replaced with material suitable in quality and quantity in a manner satisfactory to authority having jurisdiction. The Contractor, in addition, will be bound to the construction specifications set forth in the various permits acquired by the Owner. Where the Contractor must cross over railroads with equipment at other than a public crossing, the Contractor will meet requirements of each railroad company and will acquire the necessary permission by application to the proper railroad officials and pay fees a reasonable length of time before such crossing is needed in order that the railroad company can clear any required licenses or agreements, install planking plus other materials, lift wires, and do other things necessary to protect railroad property and traffic.

All casings will be electrically insulated from the carrier pipe. A test of cased road crossings for electrical shorts will be made; however, if the Owner's technician is not available for making such tests at the time of installation, the Contractor will proceed with the installation. The use of welding machines to check the electrical insulation of the carrier pipe and casing is strictly prohibited. The Owner must first approve any instrument or device that the Contractor wishes to use any time for testing of electrical insulation. If a cased crossing shows an electrical short at any time prior to acceptance of a completed project, the Contractor will remove carrier pipe, make all repairs necessary, and reinstall the pipe. Casing will be tested for shorts immediately following:

- a) Installation of carrier pipe,

- b) At completion of the tie-in prior to backfilling, and
- c) After backfilling to ensure that the carrier pipe is insulated electrically from the casing.

Any shorts resulting from faulty insulating material will be the Contractor's responsibility.

Cathodic test station assemblies installed, as required by the drawings or by the Inspector, which are found defective in any way prior to acceptance of the total project will be repaired by the Contractor.

SECTION A-14 PAVEMENT/SIDEWALK REMOVAL AND REPLACEMENT

GENERAL:

Extreme care will be exercised to prevent pavement damage. Contractors will be responsible for pavement repair and/or resurfacing as per specifications of the authority responsible for the right-of-way. Pavement removal will only be allowed when appropriately permitted. Pavement, which is to be removed for open-cut trenching, will be cut vertically with a power-driven friction saw prior to removal. The surface will be scoured to sufficient depth to provide uniform, straight, break lines. All removal of the pavement will conform to local, County, State or Federal requirements where applicable. Under no condition will the pavements be cut with a trenching machine, power shovel, or backhoe. If the trench excavation becomes wider than the initial cut, the pavement or sidewalk will also be re-cut at least one foot back from all edges of actual excavation by the Contractor at his/her own expense.

Pavement, driveway or sidewalk material will be separated from excavated materials and will not be placed in backfill but will be satisfactorily disposed of by the Contractor. Base materials may be salvaged and stockpiled for reuse, but such reuse of base materials will be subject to the review of the right-of-way Owner.

All pavements and sidewalks removed will be replaced with base and surface materials which conform with local, County, and State road designs and, as required or feasible, in thickness and quality to materials removed. All painted street markings and other traffic control devices will be restored to former conditions. Pavements with traffic control devices and sidewalks will be replaced as soon as practicable after compaction of backfill. Compaction shall be per Owner specifications.

Workmanship and materials will be in accordance with best standards practice for work of this type and will conform to the requirements of the latest edition of the FDOT Standard Specifications for Road and Bridge Manual.

Pipe crossings and installations along all State highways will be made in accordance with details shown on the Plans and in full compliance with State Department of Transportation requirements. All materials and workmanship will be subject to the approval of the local maintenance engineer for the Florida DOT.

Curb or curb and gutter removals, where required in construction of this work, will be held to a minimum. Curb and gutter materials to be removed will be carefully separated from trench excavation material and will be satisfactorily disposed of by the Contractor.

The Contractor will replace all curb or curb and gutter, which have been removed. Curb and gutter will be replaced as soon as possible after backfill is placed and compacted and will be a duplicate in all respects to original construction. Workmanship will be in accordance with the authority having jurisdiction (City, County, State).

SECTION A-15 BACKFILLING

Applicable Codes: CFR, Title 49, Part 192.319

GENERAL:

Trenches will not be backfilled until all required tests are performed and the line installed conforms to the specified requirements. All natural gas lines will require the installation of tracer wire. Compaction shall be per Owner specifications.

Where the gas pipe has been newly coated or the coating otherwise repaired, the trench must not be backfilled until the coating has thoroughly hardened. Where the trench runs through rock, cinders, or rock fills, the excavation will be carried to an elevation, which will provide a bedding course of not less than six inches (6") below and around the body of the pipe. Care will be taken to prevent damage to the protective coating by any rock in the backfill. Any damage caused in this manner will be repaired by the Contractor at his expense. Large rocks or boulders, of such size the Owner's inspectors may direct to be taken out of a trench and not used in the backfill, will be removed, and disposed of at the Contractor's expense. All backfill will be laid in 6" layers and proper mechanical tamping equipment for that site will be used.

Backfill will consist of the following material, type "C" backfill.

Material may be clean natural sand or gravel, imported quarry waste, select excavation, or a mixture thereof and be free of debris.

Minimum required densities will be as follows for the indicated areas:

- 1) Florida Department of Transportation (FDOT) road right-of-way: Per FDOT Specifications
- 2) Lake and Sumter County Road right-of-way: Per Lake and Sumter County Specifications

After backfilling, the soil must be stabilized with hay and seed, or sod, to prevent erosion and will be returned to its original condition. Any landscaping disturbed will be restored to its original condition. The type of seed should concur with the season.

SECTION A-16 WARNING SIGNS AND TRAFFIC CONTROL

GENERAL:

The Contractor will supply and always utilize during the progress of construction an adequate number of red flags, barricades, warning signs, flagmen, or any other means of warning to prevent accident and injury to persons and property at the discretion of City personnel at the City's expense as a pass through. All such signing shall be in accordance with applicable OSHA regulations and the FDOT Manual on Uniform Traffic Control Devices. The Contractor will adhere with the requirements of the agency having jurisdiction of the area involved such as the time and Maintenance of Traffic, etc. The Contractor is responsible for providing maintenance of traffic for all construction jobs.

Contractor will post signs five (5) working days prior to any construction activity to inform the public. Signs will be installed on public right-of-way for projects lasting five working days or more.

SECTION A-17 CARE OF EXISTING STRUCTURES

GENERAL:

All existing trees, fences, pipes, conduits, wire, manholes, embankments, or other structures in the vicinity of the work will be supported and protected from damage by the Contractor during construction and until completion of the work. The Contractor will be liable for all damage done to such structures, as provided above and will save the Owner harmless from any liability for the expense of injuries, damages, or repairs. All damages should be resolved in a timely manner. Mailboxes, signs, newspaper boxes, etc. may be removed and replaced with the owner's permission.

SECTION A-18 CLEANUP AND RESTORATION

GENERAL:

Contractors will keep the right-of-way clear of barrels, skids, defective materials, and all other construction debris daily behind its operation to the satisfaction of the Inspector, landowners, county officials, state officials, or other authority having jurisdiction.

Restoration is an integral part of the work. Upon completion of the work, and before acceptance of final payment for the project by the Owner, the Contractor will restore all property, both public and private, which has been disturbed or damaged directly due to the construction work. The Contractor shall ensure that the construction site, where gas main is installed is restored, at a minimum, to preconstruction conditions within 10 business days. The Contractor shall ensure that the construction site, where gas service is installed is restored, at a minimum, to preconstruction conditions within 7 days of installation. The first 36 SF of soft surface will be at the Contractor's expense. Soft surface beyond 36 SF per job and all hard surface will be at the City's expense as a pass through.

In case of a dispute, delay in restoration, or inconvenience to the public, the Owner will restore and clean up the construction site plus charge the cost to the Contractor as the Owner determines to be appropriate.

SECTION A-19 AS-BUILT DRAWINGS AND GPS

GENERAL:

The Contractor will mark all newly buried pipes, valves, etc. The installed structures will be located by placing a temporary marker directly over the ground by use of stakes, flags, etc. All valve boxes and test stations must be visually identified through the use of markers or paint. Project as-built drawings or red lining for main extensions and service installation projects will conform to the standards and specifications for Contractor As-built deliverables to the Gas Utility listed in this section. The Owner may request the right to verify the marker location by having the main pot holed by the Contractor.

Project as-built drawings must be submitted by the Contractor to be reviewed and approved by the Owner before payment is authorized.

The following is to ensure that As-Built Deliverables submitted by contractors to the City of Leesburg Gas Division and GIS Division meet the requirements for quality and consistency of these same entities.

Prior to the issuance of final payment, the City of Leesburg Gas Division and the GIS Section shall approve the deliverables described herein.

A. As-Builts

1. The Gas As-Built field documents shall show type, size, material, and locations of gas valves, main, and fittings; length of main in feet; and depth of main in inches.
2. The As-Built deliverables shall be on hard copy and shall be clear, legible, concise, complete, and accurate.
3. The As-Builts shall accurately show and label all valves, main, fittings, field ties, and objects/structures from which reference points (RP) are measured.
4. RP shall be collected at 100-foot intervals along relatively straight segments of main.
5. RP shall be collected at all gas valves, end-of-main, tie-ins, elbows, and wherever the main changes direction or curves.
6. RP for each gas feature shall be “pulled” (distances shall be measured) from three (3) permanent, fixed, above ground objects/structures (as described in detail below). The gas feature and the objects/structures selected for each RP shall be clearly and accurately shown and labeled.
7. If variations and inconsistencies from the design plans occur, they shall be verified and clearly marked on the As-Builts.
8. Any abandoned and/or removed main, valves, and fittings shall be clearly indicated on the As-Builts.

SECTION A-19 AS-BUILT DRAWINGS AND GPS

B. Specifications for Pulling and Recording Reference Points (RP)

1. The following specifications are intended to address methods, guidelines, and requirements for pulling RP and measurements for underground gas facilities, including valves, main, fittings, and services.
2. The intent and purpose of this document is to establish unified standards and to ensure the quality and consistency of data received by requesting utilities and the GIS division.
3. All personnel are encouraged to use common sense while performing the work described herein and should consider that the documentation:
 - a. Must be easily interpreted by others
 - b. Will be utilized by other personnel to perform proper locating.
 - c. Will be utilized during emergency response as well as at night
 - d. May be accessed at a much later date
4. RP shall be pulled at all valves, end-of-main, tie-ins, elbows, and locations where the main changes direction, including gradual curves.
5. RP along a relatively straight segment of main should be pulled every 100 feet. Ties collected along main where it changes direction or curves are in addition to the ties collected every 100 feet.
6. All RP will be pulled from at least (3) of the nearest, most permanent, and/or accessible objects/structures such as: center lines, property lines, or other permanent structure.
7. When pulling a RP from a round object/structure (manhole), pull from the center / top point.
8. When pulling a R P from a square or rectangular shaped object (steel storm drain/grate, ground transformer), pull from the nearest corner.
9. Measurements should not exceed 100 feet and should not cross major roads/intersections, whenever possible.
10. All documents containing RP should be signed by the person who performed the work.
11. For tie to permanent structures, use typical field objects and label according to the following list of abbreviations:

SECTION A-19 AS-BUILT DRAWINGS AND GPS

BLDG - Point on Building	PL - Property Line
BOC - Back of Curb ^{1,2}	PP - Power Pole
CB - Catch Basin	RP - Reference Point
CL - Center Lune	SD - Storm Drain
CP - Concrete Pole	SDMH - Storm Drain Manhole
CPD - Concrete Pad	SDW - Point from Sidewalk ^{1,2}
CTV - Cable TV Pedestal	SG - Storm Grate
CULV - Culvert	SMH - Sewer Manhole
DITCH - Point on Concrete Ditch ^{1,2}	STL - Street Light
DRN - Drain	TMH - Telephone Manhole TP - Telephone Pole
EB - Electric Box	TPD - Telephone Pedestal
EMH - Electric Manhole	TSB - Traffic Signal Box
EOP - Edge of Pavement ^{1,2}	TSP - Traffic Signal Pole
ET - Electric Transformer	TSPD - Traffic Signal Pedestal
FH - Fire Hydrant	VP - Vent Pipe
FO – Fiber Optic Post	WALL - Wall ^{1,2}
FOC - Front of Curb ^{1,2}	WM -Water Meter ³
MEDIAN – Median	WV-Water Valve
MH - Manhole	
NoBlo - NoBlo surface marker	

¹These features should only be used for RP to valves or fittings when RP to two other permanent aboveground structures are also provided and when there is no other third suitable structure nearby to pull from.

These features should only be used for RP to main when a RP to another permanent aboveground structure is also provided perpendicular to the main at the location of the BOC/DITCH/EOP/FOC/WALL RP

²For FDOT projects, these features may be used without other RP when the feature location is referenced to the baseline stationing provided on the survey DWG.

³WM should only be used as a last resort along with two other suitable permanent aboveground structures as it is difficult to locate in GIS.

SECTION A-20 GAS OPERATOR QUALIFICATION

GENERAL:

Contractor shall provide to the City of Leesburg a copy of its Operator Qualification (OQ) plan, list of covered tasks, as well as the names of employees qualified for each task, date of qualification, date of qualification expiration, and verification that each employee has been qualified in accordance with the requirements of 49 CFR, Part 192 and the laws, rules, and regulations of the Florida Public Service Commission. The Contractor's OQ plan shall be in conformance with the City of Leesburg Gas Utility OQ plan.

The City of Leesburg Operator Qualification Plan Administrator will review all operator qualification documents submitted by the Contractor. Documents must be reviewed and approved by the City of Leesburg. The Contractor's OQ plan must be in conformity with that of the City of Leesburg. The Contractor shall provide OQ records upon request.

Any subcontractor hired by the Contractor must adhere to the same OQ standards as approved by the City of Leesburg.

Any Contractor employee that fails to maintain qualification during this contract must be either removed from the construction site until qualified; or supervised in accordance with the span of control designated in the Contractor's OQ Plan. Should the scope of the project change to include any covered tasks not noted in the preliminary phase of the project, the contractor will immediately provide documentation of these tasks and personnel qualified to perform said tasks.

Contractor employee qualifications will be maintained on file by the City of Leesburg for a period of five years after the project onset in compliance with federal regulations. All Contractor documents related to the OQ requirements outlined here shall be made available for review upon request.

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE A
FIXED UNIT PRICE AGREEMENT FOR CONSTRUCTION SERVICES WITH
SABCON UNDERGROUND; AND PROVIDING AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk are hereby authorized to execute an agreement with SABCON UNDERGROUND whose address is 1730 DUNDEE ROAD, WINTER HAVEN, FLORIDA 33884, for GAS DEPARTMENT CONTRACTOR (RFP 230902)

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

FIXED UNIT PRICE AGREEMENT FOR CONTRUCTION SERVICES

THIS AGREEMENT is made as of the 23rd day of October in the year 2023, between The City of Leesburg, a Florida Municipal Corporation, whose address is 501 West Meadow Street, Post Office Box 490630, Leesburg, Florida 34749-0630 (hereinafter referred to as the “CITY”), and **SABCON UNDERGROUND** whose principal address is 1730 Dundee Road, Winter Haven, Florida 33884 (hereinafter referred to as the “CONTRACTOR”).

NOW, THEREFORE, in consideration of the mutual benefits accruing to the parties to this Agreement, and for other good and valuable considerations, the parties agree as follows:

1. **Contract Documents.** The following documents and information are incorporated by reference and made part hereof; and shall comprise the Contract Documents.

- a. This Agreement; and
- b. Fixed Unit Prices included here as Attachment ‘A’; and
- c. Supplemental Conditions incorporated by reference and included here as Attachment ‘B’.
- d. General Specifications from the Request for Proposal (RFP) 230902 included here as Attachment ‘C’.

2. **Scope of Services.** The CONTRACTOR shall furnish all labor, supervision, and equipment necessary for the installation/abandonment of gas mains and similar services for the Leesburg Natural Gas Utility on an as needed and ordered basis as specified in RFP 230902 **GAS DEPARTMENT CONTRACTOR**. The unit costs of the services shall not exceed those stated in Attachment ‘A’ except where the cost adjustment clause has been exercised. Nothing herein shall limit the CITY’S right to obtain bids or proposals for services from other contractors for same or similar work.

3. **Costs/Compensation.** The CONTRACTOR shall perform the Construction Services based on the Fixed Unit costs for the specified services as detailed in Attachment ‘B’.

4. **Invoices and Payment.** Payment will be made within thirty (30) days of the CITY’S receipt of the CONTRACTOR’S invoice and shall be based on accurate invoices submitted by the CONTRACTOR no more frequently than twice monthly. Invoice amount will be based on the quantity (feet) of pipe installed and accepted by the City, and any mobilization fees. The quantity of pipe installed for each size will be multiplied by the unit cost listed in Attachment ‘B’ for each size pipe.

5. **Materials.** The CITY will furnish all material necessary for the CONTRACTOR to construct the contract projects in accordance with the Construction Packages. Any surplus material, scrap material, and removed material will remain the property of the CITY and transported from the jobsite to the Material Yard setup by the CITY unless otherwise specified.

6. **Other Services.** The CITY may request Other Services related to Gas Utility Construction Services that may not specifically appear in the list of contracted unit prices. For any Other Services, the CITY will request the CONTRACTOR to prepare a Cost Proposal for the desired services. The CITY and CONTRACTOR will mutually agree to the Scope of Work and Cost for Other Services requested under this Agreement.

7. **Professional License.** The CONTRACTOR holds a Specialty Gas and Underground Utility License issued by the State of Florida. The CONTRACTOR must maintain all required license required by regulatory agencies to perform the services for the duration of this Agreement.

8. **Firm Fixed Price Period.** All Pricing will be firm and fixed through the Initial Term of the Agreement. Following the firm fixed price period the CONTRACTOR may request a price adjustment as provided for in the Cost Adjustments section.

9. **Term of Agreement.**

a. **Initial Term.** The Initial Term of the Agreement will be through September 30, 2026.

b. **Option to Renew.** The CITY may renew the Agreement for an additional term or terms ("Renewal Terms") not to exceed a total of three (3) additional years if mutually agreed upon by the CONTRACTOR and the CITY.

6. **Firm Fixed Price Period.** All Pricing will be firm and fixed during the Initial Term of the Agreement. For any Renewal Terms, the CONTRACTOR may request a price adjustment as provided for in the Cost Adjustments section.

10. **Cost Adjustment.** Pricing for any Renewal Terms will be subject to an adjustment only if increases in the industry can be documented. However, unless very unusual and significant changes have occurred in the industry, such increases shall not exceed 5% per year. The CONTRACTOR is responsible for requesting any Price Adjustment during the Contract renewal process. Any requested price increase shall be fully documented and submitted to the CITY at least sixty (60) days prior to the then current Contract term. Any approved Price Adjustment will become effective when the Contract is extended by written Amendment. The CITY may, after examination, refuse to accept the requested Price Adjustment if they are not properly documented, increases are considered to be excessive, or decreases are considered to be insufficient. In the event the CITY does not wish to accept the adjusted costs and the matter cannot be resolved to the satisfaction of the CITY, the Agreement will not be renewed.

11. **Commencement and Completion.** All services will be ordered by the CITY through the issuance of a Work Order. The CITY and the CONTRACTOR will mutually agree upon a project schedule for each Work Order issued by the CITY. The projects and work to be completed.

12. **Termination for Convenience or Cause.**

a. **For Convenience.** The CITY may terminate this Agreement at any time without cause by providing the CONTRACTOR with FOURTEEN (14) calendar days

advance notice in writing, delivery by email is acceptable. In the event of termination for convenience, all finished or unfinished deliverable items prepared by the CONTRACTOR under this Agreement shall, at the option of the CITY, become the CITY's property. If the Agreement is terminated for convenience by the CITY as provided herein, the CONTRACTOR shall be paid for services satisfactorily completed, less payment or compensation previously made. The CONTRACTOR shall not incur any additional expenses after receiving the written notice of termination.

b. **For Cause or Default.** If, through any cause, the CONTRACTOR should fail to fulfill in a timely and proper manner its obligations under this Agreement, other than for the instances listed below due to "Force Majeure," the CITY will have the right to terminate this Agreement by providing a written notice (Show Cause Notice) to the CONTRACTOR requiring a written response due within FIVE (5) calendar days from receipt of the written notice as to why the Agreement should not be terminated for default. The CITY's Show Cause Notice shall include an Agreement termination date at least SEVEN (7) calendar days subsequent to the due date for the CONTRACTOR's response. Should the CONTRACTOR fail to respond to such show cause notice, or if the CITY determines that the reasons provided by the CONTRACTOR for failure of the CONTRACTOR to fulfill its contractual obligations do not justify continuation of the contractual relationship, the Agreement shall be considered to have been terminated for default on the date indicated in the Show Cause Notice. Should the CITY determine that the CONTRACTOR provided adequate justification that a termination for default is not appropriate under the circumstances; the CITY shall have a unilateral option to either continue the Agreement according to the original contract provisions or to terminate the contract for convenience. In the event that the CITY terminates the contract for default, all finished or unfinished deliverable items under this contract prepared by the CONTRACTOR shall, at the option of the CITY, become CITY property, and the CONTRACTOR shall be entitled to receive just and equitable compensation for any satisfactory work completed on such materials. Notwithstanding this compensation, the CONTRACTOR shall not be relieved of liability to the CITY for damages sustained by the CITY by virtue of any breach of this Agreement, and the CITY may withhold any payment due the CONTRACTOR for the purpose of set-off until such time as the exact amount of damages due the CITY from such breach can be determined.

In case of default by the CONTRACTOR, the CITY may procure the services from other sources and hold the CONTRACTOR responsible for any excess direct cost occasioned thereby. The CITY reserves the right to require a performance bond or other acceptable alternative performance guarantees from the successor CONTRACTOR without expense to the CITY.

In addition, in the event of default by the CONTRACTOR under this Agreement, the CITY may immediately cease doing business with the CONTRACTOR, immediately terminate for cause all existing Agreements the CITY has with the CONTRACTOR, and debar the CONTRACTOR from doing future business with the CITY.

Upon the CONTRACTOR filing a petition for bankruptcy or the entering of a judgment of bankruptcy by or against the CONTRACTOR, the CITY may immediately terminate, for cause, this Agreement and all other existing agreements the CONTRACTOR has with the CITY, and debar the CONTRACTOR from doing future business with the CITY.

The CITY may terminate this Agreement for cause without penalty or further obligation at any time following Agreement execution, if any person significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on behalf of the CITY is at any time while the Agreement or any extension thereof is in effect, an employee or agent of any other party to the Agreement in any capacity or consultant to any other party of the Agreement with respect to the subject matter of the Agreement. Additionally, the CITY may recoup any fee or commission paid or due to any person significantly involved in initiating, negotiating, securing, drafting or creating the Agreement on behalf of the CITY from any other party to the Agreement.

Upon receipt of a termination action, for convenience or cause, the CONTRACTOR shall promptly discontinue all affected work (unless the notice directs otherwise) and deliver or otherwise make available to the City all data, drawings, reports specifications, summaries and other such information, as may have been accumulated by the CONTRACTOR in performing this contract, whether completed or in process.

13. **Force Majeure.** Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by any act of war, hostile foreign action, nuclear explosion, riot, strikes, civil insurrection, earthquake, hurricane, tornado, pandemic or other reason beyond its control, catastrophic natural event or act of God. Should there be such an occurrence that impacts the ability of either party to perform their responsibilities under this contract, the nonperforming party shall give immediate written notice to the other party to explain the cause and probable duration of any such nonperformance.

14. **Insurance Requirements.**

a. Scope of Insurance - The CONTRACTOR shall procure and maintain at its own expense, the following minimum insurance coverage, unless otherwise specified in the Contract Documents.

- i All required insurance shall be provided by insurers acceptable to the CITY with an A.M. Best rating of at least A: VII.
- ii The CONTRACTOR shall require, and shall be responsible for assuring that any and all of its subcontractors secure and maintain such insurance that are required by law to be provided on behalf of their employees and others until the completion of that subcontractor's work.
- iii The required insurance shall be secured and maintained for not less than the limits required by the CITY, or as required by law, whichever is greater.
- iv The required insurance shall not limit the liability of the CONTRACTOR. The CITY does not represent these coverages or amounts to be adequate or sufficient to protect the CONTRACTOR's interests or liabilities, but are merely required minimums.
- iv The provisions of the required insurance are subject to the approval of the City's Risk Manager, and upon request, the CONTRACTOR shall make available certified copies of the various policies for inspection.
- v All liability insurance, except professional liability, shall be written on an occurrence basis.
- vi The CONTRACTOR waives its right of recovery against the CITY to the extent permitted by its insurance policies. Insurance required of the

CONTRACTOR, or any other insurance of the CONTRACTOR shall be considered primary, and insurance of the CITY, if any, shall be considered excess as applicable to any claims which arise out of the agreement, Contract or lease.

b. Certificate of Insurance - The CONTRACTOR shall provide evidence of required minimum insurance by providing the CITY an ACORD or other Certificate of Insurance in forms acceptable to the Risk Manager for the CITY, before any work under the agreement, Contract or lease begins.

- i Except for workers' compensation and professional liability, the CONTRACTOR's insurance policies shall be endorsed to name the City of Leesburg as additional insured to the extent of the agreement, Contract or lease.
- ii The Certificate(s) of Insurance shall designate the CITY as certificate holder as follows: City of Leesburg, Attn: Purchasing Manager, P.O. Box 490630, Leesburg, Florida 34749-0630.
- iii The Certificate(s) of Insurance shall include a reference to the project and/or purchase order number.
- iv The Certificate(s) of Insurance shall indicate that the CITY shall be notified at least thirty (30) days in advance of cancellation, except in the event of nonpayment of insurance premiums.
- v The Certificate(s) of Insurance shall include all deductibles and/or self-insurance retentions for each line of insurance coverage.
- vi The CONTRACTOR, at the discretion of the Risk Manager for the CITY, shall provide information regarding the amount of claims payments or reserves chargeable to the aggregate amount of the CONTRACTOR's liability coverage(s).

c. Comprehensive General Liability - The CONTRACTOR shall purchase and maintain Commercial General Liability coverage on forms no more restrictive than the latest editions of the Commercial General Liability policies of the Insurance Services Office (ISO). The Commercial General Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for bodily and personal injury and property damage liability for premises, operations, products and completed operations*, independent Contractors, Contractual liability covering the agreement, Contract or lease, broad form property damage coverage, and property damage resulting from explosion, collapse or underground exposures (x, c, u).

- i. For remodeling and construction projects, the CONTRACTOR shall purchase and maintain products and completed operations coverage for a minimum of three (3) years beyond the CITY's acceptance of the project.

d. Business Automobile Liability - The CONTRACTOR shall purchase and maintain Business Automobile Liability coverage on forms no more restrictive than the latest editions of the Business Automobile Liability policies of the Insurance Services Office (ISO). The Business Automobile Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for claims for bodily injury and property damage arising from the use of motor vehicles, including on- site and off-site operations, and owned,

non-owned and hired vehicles, and employee non-ownership use.

e. Workers' Compensation - The CONTRACTOR shall purchase and maintain Workers' Compensation insurance for all workers' compensation obligations imposed by state law and with employer's liability limits of at least \$100,000 each accident and \$100,000 each employee with \$500,000 policy limit for disease.

15. **Waiver of Lien.** The CONTRACTOR agrees to make payment of all proper charges for labor and equipment supplied and CONTRACTOR shall hold harmless the CITY against any claim arising out of any unpaid bills by the CONTRACTOR for labor, services, or materials furnished for the project covered by this Agreement.

16. **Indemnification.** The CONTRACTOR shall indemnify the CITY and hold it, its officers, and its employees harmless from liabilities, losses, and costs, including, but not limited to, reasonable attorney's fees to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of this Agreement. The liability of the CONTRACTOR shall, however, be limited to ONE MILLION and 00/100 dollars (\$1,000,000.00) per occurrence, and the obligation of the CONTRACTOR to indemnify the CITY shall be limited to acts, omissions, or defaults of the CONTRACTOR; any contractors, subcontractors, sub-subcontractors, material men, or agents or employees of any of them, providing labor, services or materials in connection with the project; and the CITY, its officers, agents and employees, provided however that the CONTRACTOR shall not be obligated to indemnify the CITY against losses arising from the negligence, or willful, wanton, or intentional misconduct of the CITY, its officers, agents and employees, or against statutory violations or punitive damages except to the extent caused by or resulting from the acts or omissions of the CONTRACTOR, or any contractors, subcontractors, sub-subcontractors, material men, or agents or employees of any of them, providing labor, services, or materials in connection with this Agreement.

17. **Codes, Laws, and Regulations.** CONTRACTOR will comply with all applicable codes, laws, regulations, standards, and ordinances in force during the term of this Agreement.

18. **Permits, Licenses, or Fees.** The CITY is not aware of any permits, licenses, or fees applicable to this work. Should any be identified in the future the CITY will be responsible for obtaining and paying for any permits, licenses, or fees.

19. **Public Records Retention.** CONTRACTOR shall keep and maintain public records that ordinarily and necessarily would be required by the CITY in order to perform the services being provided by CONTRACTOR herein. CONTRACTOR shall provide the public with access to public records on the same terms and conditions that the CITY would provide the records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes. CONTRACTOR shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law. CONTRACTOR shall meet all requirements for retaining public records and transfer, at no cost, to the CITY all public records in possession of the CONTRACTOR upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the CITY by CONTRACTOR in a format that is compatible with the information technology systems of the CITY.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 352-728-9731, 501 W. MEADOW STREET, LEESBURG, FLORIDA 34748.

20. **Access to Records.** The services provided under this Agreement may be funded in part by a grant from a government agency other than the CITY. As a requirement of grant funding CONTRACTOR shall make records related to this project available for examination to any local, state or federal government agency, or department, during CONTRACTOR'S normal business hours. Said records will be maintained for a period of five (5) years after the date of the invoice.

21. **Independent Contractor.** The CONTRACTOR agrees that he or she is an independent contractor and not an agent, joint venture, or employee of the CITY, and nothing in this Agreement shall be construed to be inconsistent with this relationship or status. None of the benefits provided by the CITY to its employees, including but not limited to, workers' compensation insurance, unemployment insurance, or retirement benefits, are available from the CITY to the CONTRACTOR. CONTRACTOR will be responsible for paying his own Federal income tax and self-employment tax, or any other taxes applicable to the compensation paid under this Agreement. The CONTRACTOR shall be solely and primarily responsible for his and her acts during the performance of this Agreement.

22. **Assignment.** Neither party shall have the power to assign any of the duties or rights or any claim arising out of or related to the Agreement, whether arising in tort, contract, or otherwise, without the written consent of the other party. These conditions and the entire Agreement are binding on the heirs, successors, and assigns of the parties hereto.

23. **No Third-Party Beneficiaries.** This Agreement gives no rights or benefits to anyone other than the CONTRACTOR and the CITY.

24. **Contact Person.** The primary contact person under this Agreement for each party is listed here. Contact person and information may be updated as needed by written, electronic mail is acceptable, communication to the other party. The primary contact person under this Agreement for the CONTRACTOR shall be Kellie Burns. The primary contact person under this Agreement for the CITY shall be Corey Goepfert, Deputy Director of Gas.

25. **Approval of Personnel.** The CITY reserves the right to approve the contact person and the persons actually performing the services on behalf of CONTRACTOR pursuant to this Agreement. If CITY, in its sole discretion, is dissatisfied with the contact person or the person or persons actually performing the services on behalf of CONTRACTOR pursuant to this Agreement, CITY may require CONTRACTOR assign a different person or persons be designated to be the contact person or to perform the CONTRACTOR services hereunder.

26. **Disclosure of Conflict.** The CONTRACTOR has an obligation to disclose to the CITY any situation that, while acting pursuant to this Agreement, would create a potential conflict of

interest between the CONTRACTOR and his duties under this Agreement.

27. **Employment Eligibility.** The CONTRACTOR is obligated to comply with the provisions of Section 448.095, Fla. Stat., "Employment Eligibility." This includes but is not limited to utilization of the E-Verify System to verify the work authorization status of all newly hired employees, and requiring all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply will lead to termination of this Agreement, or if a subcontractor knowingly violates the statute, the subcontract must be terminated immediately.

If this contract is terminated for a violation of the statute by the CONTRACTOR, the CONTRACTOR may not be awarded a public contract for a period of ONE (1) year after the date of termination.

28. **Illegal Alien Labor** - CONTRACTOR shall comply with all provisions of the Federal Immigration and Control Act of 1986 (8 U.S. Code § 1324 a) and any successor federal laws, as well as all provisions of Section 448.09, Florida Statutes, prohibiting the hiring and continued employment of aliens not authorized to work in the United States. CONTRACTOR shall not knowingly employ or contract with an illegal alien to perform work under this Agreement or enter into an Agreement with a subcontractor that fails to certify to the CONTRACTOR that the subcontractor is following the terms stated within. The CONTRACTOR nor any subcontractor employed by him shall not knowingly employ or contract with an illegal alien to perform work under this Agreement. CONTRACTOR agrees that it shall confirm the employment eligibility of all employees through participation in E-Verify or an employment eligibility program approved by the Social Security Administration and will require same requirement to confirm employment eligibility of all subcontractors.

All cost incurred to initiate and sustain the aforementioned programs shall be the responsibility of the CONTRACTOR. Failure to meet this requirement may result in termination of the Agreement by the CITY.

29. **Counterparts.** This Agreement may be executed in multiple counterparts, each of which may be considered an original, but all of which together shall constitute but one and the same instrument. This Agreement when signed by a party may be delivered by electronic mail or facsimile transmission with the same force and effect as if the same were an executed and delivered original, manually-signed counterpart.

30. **Authority to Obligate.** Each person signing this agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and bind and obligate such party with respect to all provisions contained in this agreement.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date indicated in the preamble to the Agreement.

SABCON UNDERGROUND

By: _____

Printed: _____

Its: _____
(Title)

CITY OF LEESBURG, FLORIDA

James A. Burry Jr., Mayor

ATTEST:

J. Andi Purvis, City Clerk

Approved as to form:

William Watson, City Attorney

Attachment 'A'
Fixed Unit Cost Prices

ATTACHMENT A - SABCON UNDERGROUND

Item #	Size	Main Tie Ins	Price
1	2"	High Volume Tee (PE) ≤ 5'	\$ 175.00
2	2"	High Volume Tee (PE) > 5'	\$ 300.00
3	2"	In-Line Tee (PE) ≤ 5'	\$ 75.00
4	2"	In-Line Tee (PE) > 5'	\$ 200.00
5	2"	No-Blow (ST) ≤ 5'	\$ 350.00
6	2"	No-Blow (ST) > 5'	\$ 475.00
7	2"	Bottom Out (ST) ≤ 5'	\$ 500.00
8	2"	Bottom Out (ST) > 5'	\$ 625.00
9	4"	In-Line Tee (PE) ≤ 5'	\$ 75.00
10	4"	In-Line Tee (PE) > 5'	\$ 200.00
11	4"	Bottom Out (ST) ≤ 5'	\$ 650.00
12	4"	Bottom Out (ST) > 5'	\$ 775.00
13	6"	In-Line Tee (PE) ≤ 5'	\$ 125.00
14	6"	In-Line Tee (PE) < 5'	\$ 250.00
15	6"	Bottom Out (ST) ≤ 5'	\$ 1,200.00
16	6"	Bottom Out (ST) > 5'	\$ 1,325.00
17	8"	Bottom Out (ST) ≤ 5'	\$ 1,200.00
18	8"	Bottom Out (ST) > 5'	\$ 1,325.00

Item #	Size	Main Install	Price
19	3/4"	PE, Developed Areas, joint trench, ≤ 200'	\$ 1,600.00
20	3/4"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 2,800.00
21	3/4"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 8.00
22	3/4"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 14.00
23	3/4"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 1,600.00
24	3/4"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 1,600.00
25	3/4"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 8.00
26	3/4"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 8.00
27	3/4"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 3,200.00
28	3/4"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 3,200.00
29	3/4"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 25.00
30	3/4"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 25.00
31	3/4"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 3,200.00
32	3/4"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 3,200.00
33	3/4"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 16.00
34	3/4"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 16.00
35	2"	PE, Developed Areas, joint trench, ≤ 200'	\$ 2,800.00
36	2"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 2,800.00
37	2"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 14.00
38	2"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 14.00
39	2"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 1,600.00
40	2"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 1,600.00
41	2"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 8.00
42	2"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 8.00
43	2"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 5,000.00
44	2"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 5,000.00
45	2"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 25.00
46	2"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 25.00

COST/FEE PROPOSAL

47	2"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 3,200.00
48	2"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 3,200.00
49	2"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 16.00
50	2"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 16.00
51	4"	PE, Developed Areas, joint trench, ≤ 200'	\$ 4,400.00
52	4"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 4,400.00
53	4"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 22.00
54	4"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 22.00
55	4"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 2,400.00
56	4"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 2,400.00
57	4"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 12.00
58	4"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 12.00
59	4"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 6,800.00
60	4"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 6,800.00
61	4"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 34.00
62	4"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 34.00
63	4"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 4,400.00
64	4"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 4,400.00
65	4"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 22.00
66	4"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 22.00
67	6"	PE, Developed Areas, joint trench, ≤ 200'	\$ 5,600.00
68	6"	PE, Developed Areas, NO joint trench, ≤ 200'	\$ 5,600.00
69	6"	PE, Developed Areas, joint trench, > 200' (per foot)	\$ 28.00
70	6"	PE, Developed Areas, NO joint trench, > 200' (per foot)	\$ 28.00
71	6"	PE, Undeveloped Areas, joint trench, ≤ 200'	\$ 3,200.00
72	6"	PE, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 3,200.00
73	6"	PE, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 16.00
74	6"	PE, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 16.00
75	6"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 8,800.00
76	6"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 8,800.00
77	6"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 44.00
78	6"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 44.00
79	6"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 6,400.00
80	6"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 6,400.00
81	6"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 32.00
82	6"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 32.00
83	8"	Steel, Developed Areas, joint trench, ≤ 200'	\$ 10,600.00
84	8"	Steel, Developed Areas, NO joint trench, ≤ 200'	\$ 10,600.00
85	8"	Steel, Developed Areas, joint trench, > 200' (per foot)	\$ 53.00
86	8"	Steel, Developed Areas, NO joint trench, > 200' (per foot)	\$ 53.00
87	8"	Steel, Undeveloped Areas, joint trench, ≤ 200'	\$ 7,200.00
88	8"	Steel, Undeveloped Areas, NO joint trench, ≤ 200'	\$ 7,200.00
89	8"	Steel, Undeveloped Areas, joint trench, > 200' (per foot)	\$ 36.00
90	8"	Steel, Undeveloped Areas, NO joint trench, > 200' (per foot)	\$ 36.00

Item #	Size	Service Install	Price
91	3/4"	PE, Developed Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 800.00
92	3/4"	PE, Developed Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 8.00
93	3/4"	PE, Developed Areas, Single service, ≤ 100' LF	\$ 2,225.00
94	3/4"	PE, Developed Areas, Single service, > 100' (per ft)	\$ 12.00

COST/FEE PROPOSAL

95	3/4"	PE, Developed Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 2,225.00
96	3/4"	PE, Developed Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 12.00
97	3/4"	Steel, Developed Areas, service, ≤ 100' LF	\$ 2,750.00
98	3/4"	Steel, Developed Areas, service, > 100' (per ft)	\$ 16.00
99	3/4"	PE, Undeveloped Areas, Joint service, ≤ 100' LF	\$ 800.00
100	3/4"	PE, Undeveloped Areas, Joint service, > 100' (per ft)	\$ 8.00
101	3/4"	PE, Undeveloped Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 800.00
102	3/4"	PE, Undeveloped Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 8.00
103	3/4"	PE, Undeveloped Areas, Joint with Whip service, ≤ 100' LF	\$ 800.00
104	3/4"	PE, Undeveloped Areas, Joint with Whip service, > 100' (per ft)	\$ 8.00
105	3/4"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, ≤ 100' LF	\$ 800.00
106	3/4"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, > 100' (per ft)	\$ 8.00
107	3/4"	PE, Undeveloped Areas, Next Door service, ≤ 100' LF	\$ 800.00
108	3/4"	PE, Undeveloped Areas, Next Door service, > 100' (per ft)	\$ 8.00
109	3/4"	PE, Undeveloped Areas, Single service, ≤ 100' LF	\$ 1,225.00
110	3/4"	PE, Undeveloped Areas, Single service, > 100' (per ft)	\$ 8.00
111	3/4"	PE, Undeveloped Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 1,225.00
112	3/4"	PE, Undeveloped Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 8.00
113	3/4"	Steel, Undeveloped Areas, service, ≤ 100' LF	\$ 1,750.00
114	3/4"	Steel, Undeveloped Areas, service, > 100' (per ft)	\$ 16.00
115	2"	PE, Developed Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 800.00
116	2"	PE, Developed Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 8.00
117	2"	PE, Developed Areas, Single service, ≤ 100' LF	\$ 2,675.00
118	2"	PE, Developed Areas, Single service, > 100' (per ft)	\$ 14.00
119	2"	PE, Developed Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 2,675.00
120	2"	PE, Developed Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 14.00
121	2"	Steel, Developed Areas, service, ≤ 100' LF	\$ 3,250.00
122	2"	Steel, Developed Areas, service, > 100' (per ft)	\$ 18.00
123	2"	PE, Undeveloped Areas, Joint service, ≤ 100' LF	\$ 800.00
124	2"	PE, Undeveloped Areas, Joint service, > 100' (per ft)	\$ 8.00
125	2"	PE, Undeveloped Areas, Joint (Main tie-in) service, ≤ 100' LF	\$ 800.00
126	2"	PE, Undeveloped Areas, Joint (Main tie-in) service, > 100' (per ft)	\$ 8.00
127	2"	PE, Undeveloped Areas, Joint with Whip service, ≤ 100' LF	\$ 800.00
128	2"	PE, Undeveloped Areas, Joint with Whip service, > 100' (per ft)	\$ 8.00
129	2"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, ≤ 100' LF	\$ 800.00
130	2"	PE, Undeveloped Areas, Joint with Whip (Main tie-in) service, > 100' (per ft)	\$ 8.00
131	2"	PE, Undeveloped Areas, Next Door service, ≤ 100' LF	\$ 800.00
132	2"	PE, Undeveloped Areas, Next Door service, > 100' (per ft)	\$ 8.00
133	2"	PE, Undeveloped Areas, Single service, ≤ 100' LF	\$ 1,225.00
134	2"	PE, Undeveloped Areas, Single service, > 100' (per ft)	\$ 8.00
135	2"	PE, Undeveloped Areas, Single (Main tie-in) service, ≤ 100' LF	\$ 1,225.00
136	2"	PE, Undeveloped Areas, Single (Main tie-in) service, > 100' (per ft)	\$ 8.00
137	2"	Steel, Undeveloped Areas, service, ≤ 100' LF	\$ 2,750.00
138	2"	Steel, Undeveloped Areas, service, > 100' (per ft)	\$ 18.00

Item #	Size	Cut and Cap	Price
139	3/4"	PE ≤ 5'	\$ 1,250.00
140	3/4"	PE > 5'	\$ 750.00
141	3/4"	Steel ≤ 5'	\$ 1,675.00
142	3/4"	Steel > 5'	\$ 1,175.00

COST/FEE PROPOSAL

143	3/4"	Steel w/ Stop ≤ 5'	\$ -
144	3/4"	Steel w/ Stop > 5'	\$ -
145	1"	PE ≤ 5'	\$ 1,250.00
146	1"	PE > 5'	\$ 750.00
147	1"	Steel ≤ 5'	\$ 1,675.00
148	1"	Steel > 5'	\$ 1,175.00
149	1"	Steel w/ Stop ≤ 5'	\$ -
150	1"	Steel w/ Stop > 5'	\$ -
151	2"	PE ≤ 5'	\$ 1,250.00
152	2"	PE > 5'	\$ 750.00
153	2"	Steel ≤ 5'	\$ 1,675.00
154	2"	Steel > 5'	\$ 1,175.00
155	2"	Steel w/ Stop ≤ 5'	\$ 4,250.00
156	2"	Steel w/ Stop > 5'	\$ 3,850.00
157	4"	PE ≤ 5'	\$ 2,100.00
158	4"	PE > 5'	\$ 1,600.00
159	4"	Steel ≤ 5'	\$ 2,425.00
160	4"	Steel > 5'	\$ 1,925.00
161	4"	Steel w/ Stop ≤ 5'	\$ 4,250.00
162	4"	Steel w/ Stop > 5'	\$ 3,850.00
163	6"	PE ≤ 5'	\$ 2,100.00
164	6"	PE > 5'	\$ 1,600.00
165	6"	Steel ≤ 5'	\$ 2,425.00
166	6"	Steel > 5'	\$ 1,925.00
167	6"	Steel w/ Stop ≤ 5'	\$ 6,375.00
168	6"	Steel w/ Stop > 5'	\$ 5,775.00
169	8"	Steel ≤ 5'	\$ 2,425.00
170	8"	Steel > 5'	\$ 1,925.00
171	8"	Steel w/ Stop ≤ 5'	\$ 7,450.00
172	8"	Steel w/ Stop > 5'	\$ 5,775.00

Item #	Unit	Labor and Expense	Price
173	Each	2 Person Crew, Straight Time	\$ 140.00
174	Each	2 Person Crew, Over Time	\$ 175.00
175	Each	2 Person Crew, Emergency	\$ 225.00
176	Each	3 Person Crew, Straight Time	\$ 250.00
177	Each	3 Person Crew, Over Time	\$ 285.00
178	Each	3 Person Crew, Emergency	\$ 335.00
179	Each	4 Person Crew, Straight Time	\$ 295.00
180	Each	4 Person Crew, Over Time	\$ 330.00
181	Each	4 Person Crew, Emergency	\$ 380.00
182	Each	2 Person Drill Crew, Straight Time	\$ 250.00
183	Each	2 Person Drill Crew, Over Time	\$ 285.00
184	Each	2 Person Drill Crew, Emergency	\$ 335.00
185	Each	Welder, Straight Time	\$ 130.00
186	Each	Welder, Over Time	\$ 145.00
187	Each	Welder, Emergency	\$ 160.00
188	Each	Operator, Straight Time	\$ 55.00
189	Each	Operator, Over Time	\$ 70.00
190	Each	Operator, Emergency	\$ 85.00

COST/FEE PROPOSAL

191	Each	Laborer, Straight Time	\$ 45.00
192	Each	Laborer, Over Time	\$ 60.00
193	Each	Laborer, Emergency	\$ 75.00

Item #	Qty	Misc. Item	Price
194	1	Install 250 class meter & regulator	\$ 150.00
195	1	Install 400-800 class meter & regulator	\$ 450.00
196	1	Install 1.5-5000 class meter & regulator	\$ 600.00
197	1	Small Well Point System	\$ 750.00
198	1	Anode Install 9-32 LBS	\$ 250.00
199	1	Sod Per SQ FT (after first 36 SQ FT)	\$ 1.75
200	1	Concrete SQ FT	\$ 19.00
201	1	Asphalt SQ FT	\$ 18.00
202	1	Seed and Mulch SQ FT (after first 36 SQ FT)	\$ 1.00

Attachment 'B'
SUPPLEMENTAL CONDITIONS – CONSTRUCTION

1. DEFINITIONS

The following definitions shall apply. Whenever the following terms (or pronouns in place of them) are used in the Contract Documents, the intent and meaning of such terms shall be interpreted as follows:

- a. **City Project Representative:** There shall be authorized representative(s) of the CITY assigned to make all necessary inspections of the work performed by the CONTRACTOR and for such other purposes as outlined in the Contract Documents.
- b. **City Technical Representative:** There may be a designated Project Representative assigned by the CITY to inspect the technical aspects of the project. To insure the project is being constructed as designed.
- c. **Engineer of Record:** The Engineer of Record designated by the CITY following Contract Execution.
- d. **Engineer:** The design professional (engineer, architect, landscape architect or surveyor) designated by the CITY to serve as the design professional representing the CITY.
- e. **Notice to Proceed (NTP):** The official Notice from the CITY to the CONTRACTOR providing the date work may begin and the date the performance period begins. The NTP date will be mutually agreed to at or following the pre-construction meeting. CONTRACTOR shall sign the acknowledgement section of the NTP and return to the Purchasing Division. The NTP shall become a part of the Contract Documents.
- f. **Subcontractor:** Includes only those having a direct contract with the CONTRACTOR and it includes one who furnished material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked.
- g. **Work:** The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.
- h. **Manual(s):** Equipment documentation meant for the end user/consumer of the equipment. CONTRACTOR shall provide all Manuals to the CITY upon substantial completion. Retainage may not be released until the CITY has received all Manuals relevant to the equipment incorporated into the project.
- i. **Surety:** The corporate body which is bound with and for the CONTRACTOR which is primarily liable and which guarantees the faithful performance of the bid and/or agreement.
- j. **Plans, Drawings and/or Sketches:** Graphic representations of the work to be performed or reproductions thereof.
- k. **Specifications:** Broadly defined, the specifications include all data bound together herein or referenced on the plans, including, but not limited to, General Conditions, Technical Specifications, Special Conditions, Geotechnical Investigation, Supplemental Conditions (if any), other detailed technical specifications, exhibits and all addenda.

- l. **Defective:** An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by CITY at Substantial Completion or CITY has taken beneficial use of completed portions).
- m. **Shop Drawings:** All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.
- n. **Substantial Completion:** The Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
- o. **Underground Facilities:** All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

2. INSPECTION OF WORK

The Project Representative and his representatives shall, at all times, have access to the work whenever it is in preparation or progress and the CONTRACTOR shall provide proper facilities for such access and for inspection. The work will be conducted under the general direction of the Project Representative of the CITY and is subject to inspection by his appointed inspectors to insure compliance with the terms of the contract. No inspector is authorized to change any provisions of the specifications without written authorization of the CITY, nor shall the presence or absence of an inspector relieve the CONTRACTOR from any requirements of the contract.

If the specifications, the Project Representative's instructions, laws, ordinances or any public authority require any work to be specifically tested or approved, the CONTRACTOR shall give the CITY timely notice of its readiness for inspection, and if the inspection is by another authority than the Project Representative, of the date fixed for such inspection. Inspections by the Project Representative will be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of the CITY, it shall, if required by the Project Representative, be uncovered for examination at the CONTRACTOR's expense.

Re-examination of questioned work may be ordered by the Project Representative and, if so ordered, the work shall be uncovered by the CONTRACTOR. If such work is found in accordance with the contract documents, the CITY will pay the cost of re-examination and replacement. If

such work is found not in accordance with the contract documents, the CONTRACTOR shall pay such cost.

3. COLLECTION AND DISPOSAL OF WASTE

The CONTRACTOR shall collect waste from construction areas and elsewhere; handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly; dispose of material in a lawful manner. The CONTRACTOR shall be responsible for the transportation and disposal costs of all waste construction materials.

4. BURNING OF DEBRIS

For any areas where the burning of debris is permitted, the CONTRACTOR will be required to request a permit therefore, from the fire authority having jurisdiction in the area in due advance time, and if such permission is granted he shall rigidly abide by all provisions and requirements of such permit. In no case will burning be permitted until the fire authorities have adequately checked the size of the pile to be burned, the weather conditions and any other factors which might affect the proper control of the burning operation.

5. MAINTENANCE OF TRAFFIC

Where construction is located in public right of ways, traveled streets and roads, the CONTRACTOR shall exercise extreme care in seeing that sufficient area is provided and kept open for police, fire, ambulance, mail and private vehicular traffic.

The CONTRACTOR shall ensure that each person supervising the selection, placement and maintenance of Traffic Control Devices in the FDOT Work Zone shall be certified by attending an FDOT approved MOT training course. A copy of these certifications shall be submitted to the CITY of Leesburg upon request.

6. PROTECTION AGAINST POLLUTION

The CONTRACTOR shall comply with all legal regulations pertaining to pollution as are applicable to the site and he shall take all measures necessary to assure that no pollution, temporary or permanent, occurs to any lakes or other water areas as a result of runoff from the areas within which he is working.

This shall include the installation of temporary construction turbidity screens or hay bales along the edge of existing wetlands prior to the start of construction. These areas shall be as shown on the plans.

CONTRACTOR shall maintain the fuel storage area in accordance with local, state and federal regulations. Refueling vehicles and refueling techniques shall also comply with all applicable regulations. Clean-up of the fuel storage area shall be as required by the regulations and in accordance with these regulations.

7. WORKMANSHIP, MATERIALS, APPLIANCES, AND EMPLOYEES

All work will be done in a competent and workmanlike manner. Workmanship shall be first class and the finished product equal to the best-accepted standards of the trade for the category of work

performed. It is the CITY's intent to obtain a high-quality job that will operate and function with least maintenance costs. The CONTRACTOR shall, if requested by CITY, furnish satisfactory evidence as to the kind and quality of materials.

Unless otherwise stipulated, the CONTRACTOR shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work.

The CONTRACTOR shall, at all times, enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

Neither party shall employ or hire any employees of the other party without his consent.

8. GENERAL QUALITY AND STANDARDS

To facilitate rapid examination, detailed specifications concerning basic requirements for labor, materials, equipment and/or incidentals to be used on the project are included under the various divisions in as brief a form as is consistent with clarity. The primary concern of the detailed specifications is for standards of performance expected for the finished work.

When in the detailed specifications reference is made to a particular code or specification, the latest edition of said code or specification shall apply.

The interests of the CITY, the CONTRACTOR and others concerned with the work require the inclusion of certain general governing requirements and standards, as a precaution against contingency and to provide for the conditions under which the construction and the administration of the work will be carried out.

General requirements for the quality of the work, when not otherwise covered in more specific detail in the specifications, will be governed by acceptable standards of the trade.

These specifications consider the project as a whole and assume its completion under a general contract. Further, the scope of subcontracts and the quantities of materials and labor supplied to the CONTRACTOR by others are assumed to be matters governed by agreement between the CONTRACTOR and his Subcontractors and suppliers and not by agreement between the CITY and any Subcontractor or suppliers.

Various sections of the construction specifications are intended to govern only the quality of work and/or materials incidental to the particular branch of work mentioned in the section title. Sections are not intended as itemizations of the work materials to be furnished or to limit or define the scope of any subcontract or agreement to furnish material and labor.

The furnishing of all items of material, labor, equipment and/or incidentals necessary to the completion of the work as a whole will be expected when such items are called for on the drawings by diagram, note or schedule, are listed in the specifications, or are reasonably inferred by either or a combination of both.

During the construction operations under this contract, the CITY may elect to contract other work for the project. The CONTRACTOR shall coordinate his operations with those of any other such CONTRACTORS as well as any work of constructing or adjusting utilities by any other authorities, to the end that the least practical handicap to the work of all such CONTRACTORS or authorities will result.

9. PROJECT COORDINATION

The CONTRACTOR shall coordinate construction operations that are dependent upon each other for proper installation, connection and operation. The CONTRACTOR shall make adequate provisions to accommodate items scheduled for later installation.

The CONTRACTOR shall inspect both the substrate and conditions under which the work is to be performed. The CONTRACTOR shall not proceed until unsatisfactory conditions have been corrected in an acceptable manner.

The CONTRACTOR shall inspect materials or equipment immediately upon delivery and again prior to installation. The CONTRACTOR shall reject damaged and defective items.

The CONTRACTOR shall supervise construction activities to ensure that no part of the construction is subject to deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following: Unprotected storage, Improper shipping and handling, Theft, Vandalism.

10. COORDINATION WITH UTILITY COMPANIES

CONTRACTOR shall coordinate with all utility installations. CONTRACTOR shall notify the appropriate utility companies, in by Florida one call law notice provisions, adequately in advance of the time frame set aside for such utility installation. The utility companies referred to herein shall include, but not be limited to, Power, Gas, Telephone, and Cable Television. CONTRACTOR shall coordinate the installation of “sleeves” for the utility companies as may be required and paid under agreed upon bid item(s).

CONTRACTOR shall supply the CITY with copies of all Florida one-call correspondence notifying the utility companies of its intended schedule of construction and the expected date for their respective utility installations.

11. SUPERVISION

CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

If the CONTRACTOR, in the course of the work, finds any discrepancy between the drawings and the physical conditions of the locality, or any errors or omissions in the drawing or in layout as given by points and instructions, it shall be his duty to immediately inform the Project

Representative, in writing, and the Project Representative will promptly verify the same. Any work done after such discovery, until authorized, will be done at the CONTRACTORS' risk.

12. CONSTRUCTION SUPERINTENDENT

CONTRACTOR shall employ a Construction Superintendent who shall be present on-site or available throughout the duration of the project and shall remain associated with the project until completion unless otherwise requested to be replaced by the CITY. The superintendent shall be experienced in the work required and perform all coordination activities generally conducted by project superintendents including, but not limited to, subcontractor coordination, utility installations, inspections, testing, material deliveries, etc. The superintendent shall be present at the pre-construction meeting and shall remain on the project until completion. The owner reserves the right to request a resume of experience for the superintendent including, but not limited to, requesting references from recent projects. Substitution of superintendents after the start of the work shall be approved by the owner in advance. All communications given to the superintendents shall be as binding as if given to CONTRACTOR.

13. WAGE RATES/EQUAL EMPLOYMENT OPPORTUNITY

Wage rates for laborers, mechanics and apprentices shall not be less than those established by the Florida Department of Labor and Employment Security and/or the United States Department of Labor for this work, as may be attached hereto. The CONTRACTOR must insure Equal Employment Opportunity as part of the awarded contract and also subcontracts awarded by the CONTRACTOR.

14. SUBCONTRACTS

The CONTRACTOR shall, as soon as practicable after signing the contract, notify the Project Representative in writing of any changes in the names of subcontractors proposed for the work as listed on the bid form. The CONTRACTOR shall not employ subcontractors, unless they are approved by the Project Representative.

The CONTRACTOR agrees that he is as fully responsible to the CITY for the acts and omissions of his subcontractors and of persons, either directly or indirectly, employed by them, as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the contract documents shall create any contractual relation between any subcontractors and the CITY.

15. PRE-CONSTRUCTION MEETING

The CITY shall schedule a meeting after the Notice of Award. The City Project Representative, and CONTRACTOR shall attend this mandatory meeting. The following items shall be completed:

- a. Submission of list of Subcontractors, Schedule of Values and Progress Schedule.
- b. Designation of Personnel representing the parties in Contract.
- c. Use of premises by CITY and the CONTRACTOR.
- d. Survey layout and scheduling.
- e. Security and housekeeping procedures.
- f. Requirements for start-up of equipment.

- g. Inspection and acceptance of equipment put into service during construction period.

At least ten (10) days before submission of the first Application for Payment a conference attended by CONTRACTOR, City Project Representative and others as appropriate will be held to finalize the schedules submitted by CONTRACTOR. The finalized progress schedule will be acceptable to City Project Representative as providing an orderly progression of the Work to completion within the agreed to Project Schedule, but such acceptance will neither impose on Engineer responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility thereto. The finalized schedule of Shop Drawing submissions will be acceptable to City Project Representative as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to City Project Representative as to form and substance.

16. ORDER OF COMPLETION

The CONTRACTOR shall submit at such times as may be requested by the Project Representative, schedules which shall show the order in which the CONTRACTOR proposes to carry on the work with dates on which the CONTRACTOR will start the several parts of the work and estimated dates of completion of the several parts. The CITY retains the right to dictate to the CONTRACTOR the order of completion of the work.

17. CONTRACTOR'S REQUESTS FOR INTERPRETATION (RFIs)

Should CONTRACTOR be unable to determine from the Contract Documents the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of Work is described differently at more than one place in the Contract Documents; the CONTRACTOR shall request that the Architect/Engineer (AE), or CITY Representative, make an interpretation of the requirements of the Contract Documents to resolve such matters. CONTRACTOR shall comply with procedures specified herein to make Requests for Interpretation (RFIs).

- a. Submission of RFIs: RFIs shall be prepared and submitted on a form provided by the CITY.
 - i. Forms shall be completely filled in, and if prepared by hand, shall be fully legible after copying by xerographic process.
 - ii. Each RFI shall be given a discrete, consecutive number.
 - iii. Each page of the RFI and each attachment to the RFI shall bear the CITY's project name, project number, date, RFI number and a descriptive title.
 - iv. CONTRACTOR shall sign all RFIs attesting to good faith effort to determine from the Contract Documents the information requested for interpretation. Frivolous RFIs shall be subject to reimbursement from CONTRACTOR to CITY for fees charged by A/E, A/E consultants and other design professionals engaged by the CITY.
- b. Subcontractor-Initiated and Supplier-Initiated RFIs: RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by and be attached to an RFI prepared, signed and submitted by CONTRACTOR. RFIs submitted directly by subcontractors or material suppliers will be returned unanswered to the CONTRACTOR.

- i. CONTRACTOR shall review all subcontractor- and supplier-initiated RFIs and take actions to resolve issues of coordination, sequencing and layout of the Work.
 - ii. RFIs submitted to request clarification of issues related to means, methods, techniques and sequences of construction or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation. Such issues are solely the CONTRACTOR'S responsibility.
 - iii. CONTRACTOR shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.
- c. Requested Information: CONTRACTOR shall carefully study the Contract Documents to ensure that information sufficient for interpretation of requirements of the Contract Documents is not included. RFIs that request interpretation of requirements clearly indicated in the Contract Documents will be returned without interpretation.
 - i. In all cases in which RFIs are issued to request clarification of issues related to means, methods, techniques and sequences of construction, for example, pipe and duct routing, clearances, specific locations of Work shown diagrammatically, apparent interferences and similar items, the CONTRACTOR shall furnish all information required for the A/E or CITY's Representative to analyze and/or understand the circumstances causing the RFI and prepare a clarification or direction as to how the CONTRACTOR shall proceed.
 - ii. If information included with this type RFI by the CONTRACTOR is insufficient, the RFI will be returned unanswered.
- d. Unacceptable Uses for RFIs: RFIs shall not be used to request the following:
 - i. Approval of submittals
 - ii. Approval of substitutions
 - iii. Changes that entail change in Contract Time and Contract Sum
 - iv. Different methods of performing Work than those indicated in the Contract Drawings and Specifications
- e. Disputed Requirements: In the event the CONTRACTOR believes that a clarification by the CITY's A/E, or Representative, results in additional cost or time, CONTRACTOR shall comply with the method for requesting a Change Order.
- f. RFI Log: CONTRACTOR shall prepare and maintain a log of RFIs, and at any time requested by the CITY's Representative, the CONTRACTOR shall furnish copies of the log showing all outstanding RFIs.
- g. Review Time: Architect/Engineer or CITY Representative (CITY) shall return RFIs to CONTRACTOR and within five (5) calendar days of receipt. RFIs received after 12:00 noon shall be considered received on the next regular working day for the purpose of establishing the start of the five-calendar day response period.

18. CHANGES IN THE WORK

Any Change in the Work will be documented in writing and approved by the CITY in writing. Changes that increase the cost of the work may need to be approved by CITY Commission depending on the dollar value of the increase change order. No work may be performed prior to the change being approved by CITY.

The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the work. All duties, responsibilities and obligations assigned to or undertaken by the CONTRACTOR shall be at his expense without change in the Contract Price.

The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price, shall be delivered in writing to the CITY within fifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within forty-five days of such occurrence unless the Engineer allows an additional period of time to ascertain accurate cost data. All claims for adjustments in the Contract Price shall be determined by the Engineer if the CITY and CONTRACTOR cannot otherwise agree on the amount involved. The Engineer(s) decision shall be final and binding. Any change in the Contract Price resulting from any such claim shall be incorporated in a Change Order.

The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

- a. where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved, or ii. by mutual acceptance of a lump sum, or
- b. on the basis of the cost of the work plus a CONTRACTOR's fee for overhead and profit.

19. DETAIL DRAWINGS AND INSTRUCTIONS

The CITY will furnish, with reasonable promptness, additional instructions by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions will be consistent with the contract documents, true developments thereof and reasonably inferable therefrom.

20. OWNERSHIP OF DRAWINGS

All drawings, specifications and copies thereof furnished by the CITY are the property of the CITY. They are not to be used on other work and, with the exception of the signed contract set, are to be returned to the CITY, at the request of the CITY upon the completion of the work.

21. SURVEYS, PERMITS AND REGULATIONS

The CITY will furnish horizontal and vertical control necessary to layout the work in an orderly and workmanlike manner.

Horizontal Control furnished by the CITY shall consist of adequately marked property corners or offset corners, with dimensions as shown on the drawings. Vertical Control will consist of benchmarks established within the immediate area of the work.

It shall be the responsibility of the CONTRACTOR to furnish all construction layout of the work, including, but not limited to, layout and elevations for the construction and final grade of the site.

The CONTRACTOR shall maintain and preserve all stakes and marks established by the CITY and should such stakes or marks be carelessly or willfully destroyed or damaged by the

CONTRACTOR, said stakes or marks shall be replaced by the CITY at the expense of the CONTRACTOR.

The CONTRACTOR will set the horizontal and vertical control only at the beginning of the job as specified above. Interim staking during the job and all staking and layout work not furnished by the CITY as specified above shall be the responsibility of the CONTRACTOR.

The CITY will furnish all personnel and equipment and materials to make such surveys as are necessary to determine the quantities of work performed.

The CITY will furnish environmental permits unless otherwise specified. The CONTRACTOR shall obtain any and all required permits from all appropriate government agencies.

Work permits and licenses necessary for the prosecution of the work shall be secured and paid for by the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be secured and paid for by the CITY unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the CONTRACTOR observes that the drawings and specifications are at variance therewith, he shall promptly notify the CITY in writing and any necessary changes shall be adjusted as provided in the contract for changes in the work. If the CONTRACTOR performs work knowing it to be contrary to such laws, ordinances, rules and regulations and without such notice to the CITY, he shall bear all cost arising there from.

22. PROTECTION OF WORK AND PROPERTY

The CONTRACTOR shall continuously maintain adequate protection of all his work from damage and shall protect the CITY's property from injury or loss arising in connection with this contract. The CONTRACTOR shall at all times protect all public and privately-owned property, structures, utilities, and work of any kind against damage or interruption of service which may result from the operations of the CONTRACTOR. Damage or interruption to service resulting from failure to do so shall be repaired or restored by or at the expense of the CONTRACTOR except such as may be directly due to errors in the contract documents or caused by the agents or employees of the CITY.

23. DEDUCTIONS FOR UNCORRECTED WORK

If the Project Representative deems it inexpedient to correct work injured or done, not in accordance with the contract, an equitable deduction from the contract price will be made therefore.

24. DELAYS AND EXTENSION OF TIME

If the CONTRACTOR be delayed at any time, in the progress of the work by an act of neglect of the CITY or of his employees, or by any other CONTRACTOR employed by the CITY or by Changes ordered in the work or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the CONTRACTOR's control, or by delay authorized by the Project Representative, or by any cause which the Project Representative may decide to justify the delay, then the time of completion will be extended for any such reasonable time as the Project Representative may decide.

No such extension will be made for delay occurring more than seven (7) days before claim therefore is made in writing to the CITY. In the case of a continuing cause or delay, only one claim is necessary.

If no schedule or agreement stating the dates upon which drawings shall be furnished is made, then no claim for delay will be allowed on account of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claims be reasonable.

25. THE CITY'S RIGHT TO DO WORK

If the CONTRACTOR should neglect to prosecute the work properly or fail to perform any provision of this contract, the CITY after three (3) days written notice to the CONTRACTOR, may, without prejudice to any other remedy he may have, make good such deficiencies at the CONTRACTOR's expense.

26. SUSPENSION OF WORK

The CITY may at any time suspend the work or any part thereof by giving five (5) days' notice to the CONTRACTOR in writing. The work shall be resumed by the CONTRACTOR within ten (10) days after the date fixed in a written notice to resume work from the

CITY to the CONTRACTOR. The CITY will reimburse the CONTRACTOR for expense incurred by the CONTRACTOR in connection with the work under this contract as a result of such suspension unless the suspension was recommended to the CITY by the Project Representative to enforce the contract or for any violation of the contract.

27. USE OF COMPLETED PORTIONS

Use by CITY of any finished part of the Work, which has specifically been identified in the Contract Documents, or which CITY, Engineer and CONTRACTOR agree constitutes a separately functioning and useable part of the Work that can be used by CITY without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

- a. CITY at any time may request CONTRACTOR in writing to permit CITY to use any such part of the Work which CITY believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to CITY and Engineer that said part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify CITY and Engineer in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, CITY, CONTRACTOR and Engineer shall inspect that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify CITY and CONTRACTOR in writing giving the reasons therefore. If Engineer considers that part of the Work to be substantially complete, the provisions of Substantial Completion

will apply with respect to certification of that part of the Work and the division of responsibility in respect thereof and access thereto.

- b. CITY may at any time request CONTRACTOR in writing to permit CITY to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer and within a reasonable time thereafter CITY, CONTRACTOR and Engineer shall inspect that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to CITY and Engineer that such part of the Work is not ready for separate operation by CITY, Engineer will finalize the list of items to be completed or corrected and will deliver such list to CITY and CONTRACTOR together, with a written recommendation as to the division of responsibilities pending final payment between CITY and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work, which will become binding upon CITY and CONTRACTOR at the time when CITY takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, CITY shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.
- c. If CITY finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with this Article; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or lapse on account of any such partial use or occupancy.

28. PROMPT PAYMENT

It is the policy of the CITY that payment for all purchases by the CITY shall be made in a timely manner and that interest payments will be made on late payments in accordance with Part VII, Chapter 218, Florida Statutes, known as the Florida Prompt Payment Act.

29. PAYMENTS WITHHELD

The CITY may withhold or, on account of subsequently discovered evidence, recover the whole or part of any payment to such an extent as may be necessary to protect the CITY from loss on account of

- a. Defective work not remedied.
- b. Claims filed or reasonable evidence indicating probable filing of claims.
- c. Failure of the CONTRACTOR to make payments properly to subcontractors or for labor.
- d. The Project Representative's opinion that the contract cannot be completed for the balance then unpaid.
- e. Damage to another CONTRACTOR.
- f. Failure to maintain adequate progress.

- g. Damage to CITY facilities or assets resulting from the negligence of the CONTRACTOR.

When the above grounds are removed, payment will be made for amounts withheld because of them.

30. FINAL PAYMENT APPLICATION

Administrative actions and submittals that must precede or coincide with submittal of the final payment Application for Payment include the following:

- a. Completion of Project closeout requirements.
- b. Completion of items specified for completion after Substantial Completion.
- c. Assurance that unsettled claims will be settled.
- d. Transmittal of required project construction records to CITY.
- e. Final Clean Up as outlined in these General Conditions

Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, Engineer will make a final inspection with CITY and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

After CONTRACTOR has completed all such corrections to the satisfaction of Engineer and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, marked-up record documents and other documents--all as required by the Contract Documents, and after Engineer has indicated that the Work is acceptable (subject to the provisions under Waiver of Claims), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to CITY) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by CITY, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which CITY or CITY's property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to CITY to indemnify CITY against any Lien.

If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation--all as required by the Contract Documents, Engineer is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application to CITY for payment. Thereupon Engineer will give written notice to CITY and CONTRACTOR that the Work is acceptable subject to the provisions found under "Waiver of Claims". Otherwise, Engineer will

return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after presentation to CITY of the Application and accompanying documentation, in appropriate form and substance, and with Engineer's recommendation and notice of acceptability, the amount recommended by Engineer will become due and will be paid by CITY to CONTRACTOR.

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if Engineer so confirms, CITY shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of Engineer, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by CITY for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

31. DAMAGES

Any claim for damage arising under a resulting Agreement shall be made in writing to the party liable within ten (10) days after the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials.

32. ACCEPTANCE OF FINISHED WORK

The CITY shall make final acceptance inspection of the Project covered by this Contract when the Project is completed and finished in all respects in accordance with the Contract Documents. CONTRACTOR shall furnish to the Engineer or CITY Representative a complete set of As-Built drawings. These drawings shall be prepared by a licensed Surveyor in the State of Florida and shall be submitted to the Engineer within five (5) days following the completion of the work.

33. FINAL CLEAN UP

The CONTRACTOR shall complete all cleaning operations before requesting final inspection.

The CONTRACTOR shall, as directed by the Project Representative, remove from the CITY's property and from all public and private property, at his own expense, all temporary structures, rubbish, and waste materials resulting from his operation.

The CONTRACTOR shall remove temporary protection and facilities installed for protection of the work during construction.

The CONTRACTOR shall comply with all regulations of authorities having jurisdiction and safety standards for cleaning. The CONTRACTOR shall not burn waste materials. The CONTRACTOR will not discharge volatile, harmful or dangerous materials into drainage systems. The CONTRACTOR will remove all waste materials from the site and dispose of in a lawful manner. Materials of value remaining after completion of associated work will become the owner's

property. The CONTRACTOR will arrange for the disposition of these materials as directed by the CITY.

The CONTRACTOR shall rake the grounds that are neither paved nor planted to a smooth, even textured surface.

34. TREES

It shall be the responsibility of the CITY to protect all trees within the limits of the work and as determined by the CITY.

35. GUARANTY

CONTRACTOR warrants and guarantees to CITY that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in the paragraph in this section labeled 'Inspections, Correction, Removal of Defective Work'.

All material installation and workmanship furnished by the CONTRACTOR under the terms of the Contract, shall be guaranteed by the CONTRACTOR against defective workmanship, and physical defects, for a period of ONE (1) year and after the date of acceptance thereof by the CITY, and each item of equipment or materials and installation proving to be defective within the specified period of guaranty shall be replaced, without cost to the CITY, by the CONTRACTOR. The period of guaranty of such replacement shall be from and after the date of final acceptance of the Project by the CITY, provided however, that where any item or equipment or material comes with a manufacturer's warranty of two (2) years or longer, that warranty shall take precedence over the warranty of CONTRACTOR hereunder.

36. ASSIGNMENT

Neither party to the contract shall assign the contract or sublet it as a whole without the written consent of the other, nor shall the CONTRACTOR assign any moneys due, or to become due to him hereunder, without the previous written consent of the Project Representative.

37. RIGHTS OF VARIOUS INTERESTS

Wherever work being done by the CITY's forces, or by the other CONTRACTORS, is contiguous to work covered by this contract, the respective rights of the various interests involved will be established by the Project Representative, to secure the completion of the various portions of the work in general harmony.

38. SEPARATE CONTRACTS

The CITY reserves the right to let other contracts in connection with this work. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly conduct and coordinate his work with theirs.

If any part of the CONTRACTOR's work depends, for proper execution or results upon the work of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the Project Representative any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the other

CONTRACTOR's work as fit and proper for the reception of his work, except as to defects which may develop in the other CONTRACTOR's work after the execution of the work.

To insure the proper execution of his subsequent work, the CONTRACTOR shall measure work already in place and shall at once report to the Project Representative any discrepancy between the executed work and the drawings.

39. LANDS FOR WORK

The CITY will provide the lands upon which the work under this contract is to be done, except that the CONTRACTOR shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to same.

40. ACCESS TO RECORDS

The CITY, the Florida Department of State, or any of their duly authorized representatives shall have access to any books, documents, papers or any other records prepared by the CONTRACTOR that are directly pertinent to the work produced under this Agreement for making audit, examination, excerpts and transcription. Such records will be maintained for five (5) years after the completion of the work and until claims or audit findings have been resolved which were initiated prior to the expiration of the five (5) year period.

41. EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The Agreement shall be signed in quadruplicate by the CITY and the CONTRACTOR. The Contract Documents comprise the entire agreement between CITY and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is

as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of CITY, CONTRACTOR or Engineer, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Engineer, or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of these Supplemental Conditions. Clarifications and interpretations of the Contract Documents shall be issued by Engineer.

If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to Engineer in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from Engineer; however, CONTRACTOR shall not be liable to CITY or Engineer for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

42. CONTRACTOR'S UNDERSTANDING

CONTRACTOR has visited the site, has called for utility locates and has familiarized itself with the local conditions under which the work is to be performed, both underground and above ground and both on and off premises and has correlated these observations with the requirements of the proposed contract documents; all as considered necessary or pertinent to the work, and any failure to thus make all such prior investigations and studies shall in no way act as a waiver of any of the terms of the contract. No verbal agreement or conversation with any officer, agent or employee of the CITY, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

CONTRACTOR shall not be liable for: (i) damage or injury to any subsurface structures (including, but not limited to, utilities, mains, pipes, tanks, and telephone cables) or any existing subsurface conditions, or the consequences of such damage or injury, if such structures or conditions were unknown and were not identified or shown, or were incorrectly shown, in information or on plans furnished to or obtained by CONTRACTOR; (ii) concealed conditions encountered in the performance of the Work; (iii) concealed or unknown conditions in an existing structure at variance with the conditions indicated by the scope of Work or information furnished to or obtained by the CONTRACTOR; or (iv) unknown subsurface physical conditions that differ materially from those ordinarily encountered. Should CONTRACTOR encounter such conditions, the parties shall agree

on a revised scope of Work providing for an equitable adjustment of the price and/or time of performance to account for such unknown or changed conditions.

43. FAMILIARITY WITH LAWS

The CONTRACTOR is required to be familiar with all Federal, State and Local laws, ordinances, rules and regulations that in any manner affect the work. Ignorance on the part of the CONTRACTOR will in no way relieve him from responsibility.

CLARIFICATIONS AND INTERPRETATIONS OF CONTRACT DOCUMENTS

It is the duty of the CONTRACTOR to notify the Engineer, in writing, in the event of any doubt or question as to the true meaning of any provision in the Contract Documents. The Engineer's decision thereon shall be final. Annotated dimensions on drawings shall govern and work not dimensioned shall be as clarified by the Engineer. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Materials or work described in words which have a well-known technical or trade meaning shall be deemed to refer to such recognized standard.

Engineer will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as Engineer may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or an extension of the Contract Time then CONTRACTOR shall notify CITY in accordance with the Agreement.

Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work there under. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims in respect of changes in the Contract Price or Contract Time will be referred initially to Engineer in writing with a request for a formal decision in accordance with this paragraph, which Engineer will render writing within a reasonable time. Written notice of each such claim, dispute and other matters will be delivered by the claimant to Engineer and the other party to the Agreement promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to Engineer and the other party within sixty days after such occurrence unless Engineer allows an additional period of time to ascertain more accurate data in support of the claim.

When functioning as interpreter and judge under this Article, Engineer will not show partiality to CITY or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by Engineer pursuant to this Article with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as permitted by the Agreement.) will be a condition precedent to any exercise by CITY or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter.

44. SAFETY AND PRECAUTION

CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- a. all employees on the Work and other persons and organizations who may be affected thereby; all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and iii. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph caused, directly or in this Article directly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of CITY or Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR). CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to CITY and CONTRACTOR that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to CITY.

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from Engineer or CITY, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give

Engineer prompt written notice that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Engineer determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

45. RECORD DOCUMENTS

CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, reviewed Shop Drawings, Change Orders, Work Directive Changes, Field Orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all reviewed samples and a counterpart of all reviewed Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents or as-builts, samples and Shop Drawings will be delivered to Engineer for CITY. Upon delivery of such

documents to Engineer, the CONTRACTOR shall provide a written certification, signed and dated, that all documents accurately and completely reflect all deviations from or changes in the original Contract Documents made during construction of the project.

Record documents shall be up-to-date and available for review by the resident project representative prior to each application for progress payment. Payment will not be made for construction of items not shown on the record documents.

These requirements also supplement those of Item 66. Not less than two percent (2%) of the contract price shall be retained until correct record drawings, specifications, addenda, modifications and shop drawings are delivered to and reviewed by the Engineer.

46. PHYSICAL CONDITIONS-UNDERGROUND FACILITIES

Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site are based on information and data furnished to CITY or Engineer by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

- a. CITY and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
- b. CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Facilities shown or indicated in the Contract Documents, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

The word facility as used in this subsection titled "Utilities" includes any pipe conveying gases or liquids and appurtenances attached thereto; cables, conduits, wires, ducts and appurtenances; poles and appurtenances; any of which may be buried below grade or installed at or above grade level. A facility excludes irrigation pipes, service connections and traffic signal wiring. A service connection is a pipe (excluding irrigation pipes), cable, wire, duct or conduit that is intended to connect a facility with a user. The word Utility as used in this subsection titled "Utilities" refers to the entity having legal owner-ship of the facility, service connection, irrigation pipe, or traffic signal wiring.

The Engineer has endeavored to determine the existence of underground facilities at the site of the work from the records of the utilities with known facilities in the vicinity of the work. The position of these facilities as derived from such records is shown on the plans. Service connections, irrigation pipes, and traffic signal wiring may not be shown on the plans. The CONTRACTOR shall make his own investigations, including exploratory excavations and contact with Utilities, to determine the exact locations and type of existing facilities, service connections, irrigation pipes, and traffic signal wiring prior to commencing work in the area and shall be responsible for any damage thereto.

With respect to underground facilities, no claim for a change in the contract price may be allowed unless the CONTRACTOR discovers an underground facility which is not indicated or referred to in the Contract Documents or which is in a position differing materially and significantly from that indicated or referred to in the Contract Documents. If such discovery is made, the CONTRACTOR shall promptly notify in writing the CITY, Engineer and the Utility. The CITY may make changes in the alignment and grade of the work.

At no additional cost to the CITY, the CONTRACTOR shall replace, remove, relocate, protect, or temporarily maintain a facility which is not in a position differing materially and significantly from that indicated or referred to in the Contract Documents. At no additional cost to the CITY, the CONTRACTOR shall adjust the top elevation of all valve boxes and manholes to match the finish grade or pavement surface and shall replace, remove, relocate, protect, or temporarily maintain all service connections, irrigation pipes, and traffic signal wiring. The work on the facility, service connection, irrigation pipe or traffic signal wiring shall be done in a manner satisfactory to the Utility, it being understood that the Utility has the option of doing such work with his own forces, or permitting the work to be done by the CONTRACTOR.

47. PHYSICAL CONDITIONS

- a. Exploration and Reports: Reference is made in the Special Conditions to those reports of exploration and tests of subsurface conditions at the site that have been utilized by Engineer in preparation of the Contract Documents. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.
- b. Unforeseen Conditions: CONTRACTOR shall promptly notify CITY and Engineer in writing of any subsurface or latent physical conditions at the site or in an existing structure differing materially from those indicated or referred to in the Contract Documents. Engineer will promptly review those conditions and advise CITY in writing if further investigation or tests are necessary.

Promptly thereafter, CITY shall obtain the necessary additional investigations and tests and furnish copies to Engineer and CONTRACTOR. If Engineer finds that the results of such investigations or tests indicate that there are subsurface or latent physical conditions which differ materially from those intended in the Contract Documents, and which could not reasonably have been anticipated by CONTRACTOR, a Change Order shall be issued incorporating the necessary revisions.

48. REVIEW OF APPLICATION FOR PROGRESS PAYMENT

Engineer will, within ten days after receipt of each Application for Payment, to either indicate in writing a recommendation of payment and present the Application to CITY, or return the Application to CONTRACTOR indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten (10) days after presentation of the Application for Payment with Engineer's recommendation, the amount recommended will become due and when due will be paid by CITY to CONTRACTOR.

Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to CITY, based on Engineer's on-site observations of the Work in progress as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated; that, to the best of Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work, and to any other qualifications stated in the recommendation); and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment Engineer will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents or that there

may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by CITY or CITY to withhold payment to CONTRACTOR.

Engineer's recommendation of final payment will constitute an additional representation by Engineer to CITY that the conditions precedent to CONTRACTOR's being entitled to final payment have been fulfilled.

Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make such representations to CITY. Engineer may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or test, nullify any such payment previously recommended; to such extent as may be necessary in Engineer's opinion to protect CITY from loss.

CITY may refuse to make payment of the full amount recommended by Engineer because claims have been made against CITY on account of CONTRACTOR's performance or furnishing of the Work or Liens have been filed in connection with the Work or there are other items entitling CITY to a set-off against the amount recommended, but CITY must give CONTRACTOR immediate written notice (with a copy to Engineer) stating the reasons for such action.

49. SUBSTANTIAL COMPLETION

When CONTRACTOR considers the entire Work ready for its intended use, CONTRACTOR shall notify CITY and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that Engineer issue a certificate of Substantial Completion. Within a reasonable time thereafter, CITY, CONTRACTOR and Engineer shall inspect the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify CONTRACTOR in writing giving the reasons therefore. If Engineer considers the Work substantially complete, Engineer will prepare and deliver to CITY a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. CITY shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within fourteen days after submission of the tentative certificate to CITY notify CONTRACTOR in writing, stating the reasons therefore. If, after consideration of CITY's objections, Engineer considers the Work substantially complete, Engineer will within said fourteen days execute and deliver to CITY and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from CITY. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to CITY and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between CITY and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Unless CITY and CONTRACTOR agree otherwise in writing and so inform Engineer prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendations will be binding on CITY and CONTRACTOR until final payment.

CITY shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but CITY shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

50. INSPECTIONS, CORRECTION, REMOVAL OF DEFECTIVE WORK

Engineer and Engineer's representatives, other representatives of CITY, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

CONTRACTOR shall give Engineer timely notice of readiness of the Work for all required inspections or tests.

If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith and furnish Engineer the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with CITY's or Engineer's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. The cost of all inspections, tests and approvals in addition to the above which are required by the Contract Documents shall be paid by CITY (unless otherwise specified). All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to CITY and CONTRACTOR (or by Engineer if so specified). If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given Engineer timely notice of CONTRACTOR's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

Neither observations by Engineer nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at CONTRACTOR's expense.

If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, CONTRACTOR, at Engineer's request, shall uncover, expose or otherwise make available for observation, inspection or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided in Special Conditions. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Special Conditions.

If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable

materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, CITY may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of CITY to stop the Work shall not give rise to any duty on the part of CITY to exercise this right for the benefit of CONTRACTOR or any other party.

If required by Engineer, CONTRACTOR shall promptly either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Engineer, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

51. ACCEPTANCE OF DEFECTIVE WORK; CORRECTION OF DEFECTIVE WORK BY THE CITY

If, instead of requiring correction or removal and replacement of defective Work, CITY (and, prior to Engineer's recommendation of final payment) prefers to accept it, CITY may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to CITY's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, CITY may make a claim. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to CITY.

If CONTRACTOR fails within a reasonable time after written notice of Engineer to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by Engineer, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, CITY may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph CITY shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, CITY may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which CITY has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow CITY, CITY's representatives, agents and employees such access to the site as may be necessary to enable CITY to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of CITY in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by Engineer, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, CITY may make a claim. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work

attributable to the exercise by CITY of CITY's rights and remedies hereunder.

52. ARBITRATION

Before bringing any action in any court of competent jurisdiction pertaining to any claim, dispute or other matter in question arising out of or relating to the Contract Documents or the breach thereof, in an amount less than \$25,000, except for claims which have been waived by the making and acceptance of final payment, the claimant/objector (Party A) shall first offer to arbitrate the question(s) with the other party to the contract (Party B) by notifying him in writing and setting forth in such notice the question(s) to be arbitrated.

Party B can select to arbitrate or not. If Party B agrees to arbitrate he shall so advise Party A in writing within ten days after receipt of Party A's notice. Notice by Party B that he does not wish to arbitrate or failure of Party B to notify Party A within the ten-day period will give Party A the right to institute a court action.

If Party B agrees to arbitrate, the arbitration shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association except as modified herein. In such event, the agreement to arbitrate shall be specifically enforceable under the provisions of the Florida Arbitration Code, S682, Fla. Stat., as it may be from time to time amended. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

If Party B agrees to arbitrate, then Party A shall file its notice of demand for arbitration in writing with Party B and with the American Arbitration Association, and a copy shall be filed with the Engineer. Notice of demand for arbitration shall be served on the parties referred to herein no later than thirty days from the date Party B agrees to arbitrate the issues in question.

Failure to serve the notice of demand for arbitration shall constitute a waiver and abandonment of the claims for which arbitration is sought. Notice of demand for arbitration shall in no event be made on any claim, dispute or other matter in questions which would be barred by the applicable statute of limitations.

If the dollar amount of the claim exceeds \$25,000, arbitration may only be utilized if both Party A and party B agree to arbitrate.

The CONTRACTOR shall carry on the Work and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

The Florida Rules of Civil Procedure pertaining to discovery shall apply to both parties during arbitration, and, at the CITY's sole option, any and all arbitration arising out of or relating to any of the Contract Documents or any breach thereof shall include by consolidation, joinder, or joint filing any additional person or entity not a party to this Agreement to the extent necessary for the final resolution of the matter in controversy.

At least one of the members of the arbitration panel must be an attorney licensed to practice law in the State of Florida.

The surety shall be bound by the arbitration award to the same extent as the CONTRACTOR is bound.

The arbitration panel shall submit a written opinion with findings of fact and conclusions of law stating the basis for the decision made, and including an award of arbitration that may be confirmed by a court of competent jurisdiction.

Unless CITY agrees to the contrary, the location of any and all arbitration proceedings shall be in Lake County, Florida.

[END OF ATTACHMENT 'B']



CHAPTER A

GENERAL SPECIFICATIONS

TABLE OF CONTENTS

<u>Section</u>	<u>Description</u>	<u>Corresponding Federal/State Regulation</u>	<u>Page</u>
A-1	INTRODUCTION		3
A-2	REGULATING AGENCIES AND STATUTES.....		4
A-3	CONTRACTOR PERSONNEL		5
A-4	CONTRACTOR SUPERVISION		6
A-5	CONTRACTOR PERFORMANCE		7
A-6	DELIVERY, UNLOADING, STRINGING PIPE, VALVES AND OTHER MATERIALS		8
A-7	UTILITY LOCATIONS.....	192.321	9
A-8	EXCAVATION.....	192.325/327/614	10
A-9	COATED PIPE INSTALLATION	192.319/461	12
A-10	PIPE NIGHT CAPS		13
A-11	INTERNAL LINE CLEANING	192.629.	14

A-12	BORING - CASED AND UNCASED	15
A-13	RAILROAD CROSSINGS.....	18
A-14	PAVEMENT/SIDEWALK REMOVAL AND REPLACEMENT	20
A-15	BACKFILLING192.319.	22
A-16	WARNING SIGNS AND TRAFFIC CONTROL.....	23
A-17	CARE OF EXISTING STRUCTURES	24
A-18	CLEAN UP AND RESTORATION.....	25
A-19	AS-BUILT DRAWINGS AND GPS.....	26
A-20	GAS OPERATOR QUALIFICATION	29

SECTION A-1 INTRODUCTION

This section addresses the various operations in the construction and repair of gas mains, gas services. It outlines the type, character, and quality of work required. Furthermore, it is imperative that the Contractor review and coordinate all activity with the respective departmental representative to avoid conflicts. It will also be the contractor's responsibility to strictly adhere to the individual specifications provided in this document.

SECTION A-2 REGULATING AGENCIES AND STATUTES

GENERAL:

The Contractor is responsible for ensuring that all work covered by this contract and specifications is done strictly in accordance with all applicable statutes, regulations, and Owner guidelines, as well as the Federal, state, and local governmental authorities or agencies having jurisdiction including, but not limited to, the Department of Labor-Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation, the State of Florida's Public Service Commission, Florida Department of Transportation, Lake or Sumter County, City of Leesburg.

The Contractor's Policies and Procedures are subject to, but are not limited to, those of the U.S. Department of Transportation, Title 49 Code of Federal Regulations (CFR), Part 192 relating to gas distribution system operation, Pipeline and Hazardous Materials Regulations Office of Pipeline Safety (PHMSA), Florida Public Service Commission (FPSC) Chapter 25-12 Florida Administrative Code (FAC) and Federal Energy Regulatory Commission (FERC).

SECTION A-3 CONTRACTOR PERSONNEL

GENERAL:

All Contractor personnel shall be competent and skilled in the kind of work that they are to execute and shall work in accord with other personnel. The Contractor shall immediately remove any employees that are not acceptable to the Owner. Prior to performing work for the Gas Utility, the Contractor, following the hiring of any of the key positions such as crew leader, foreman, supervisor, and area manager, should seek a written approval to perform work from the Owner. The Contractor is responsible to submit to the Owner detailed information pertained to the candidate's competency, qualifications, experience, and background.

SECTION A-4 CONTRACTOR SUPERVISION

GENERAL:

All work shall be subject to inspection and approval by the Owner's inspectors. It is the Contractor's responsibility to notify the Owner daily with the number of working crews, their location, name of the foreman and pipe welder/fuser, and type of work to be performed. Any work that is completed without the Owners presence is subject to inspection and approval.

Contractor is subject to verification of work quality post inspection. If any fuse is found to be unacceptable, five reference points by same employee will be unearthed for inspection at Contractor's expense. Proof of requalification of the employee must be presented before they may continue work for the City. If an additional fuse is found to be unacceptable, twenty-five additional reference points by same employee will be unearthed and inspected at Contractor's expense. A third unacceptable fuse means every fuse by that employee must be unearthed and inspected, and the employee may no longer work on a City project.

SECTION A-5 CONTRACTOR PERFORMANCE

GENERAL:

It is the Contractor's responsibility to always maintain adequate staffing, equipment, and construction materials to accommodate the Owner's projected workload, schedules, and deadlines in a satisfactory manner. During busy times this may require the Contractor to adjust resources or utilize alternate means to fulfill the Owner's project requirements.

The Contractor is responsible for the following:

- Maintaining a sufficient inventory or always have access to construction materials to complete scheduled projects; notify Owner in advance, a minimum of 2-weeks, and in writing of any material delays or shortages of materials.
- Increasing or adjusting staffing levels to meet Owner's schedules and deadlines.
- Adhering to the Owner's project deadlines. Project duration is determined based on the following criteria:
 1. New Gas Mains – The Owner will allow the Contractor one day at the beginning of the project for mobilization and set-up as well as two additional days at the end of the project for testing, demobilization, and site restoration.
 2. Relocation projects – The Owner will allow the Contractor one day at the beginning of the project for mobilization and set-up as well as two additional days for demobilization and site restoration after completion.
 3. Gas Service Taps – Should be completed within 14 calendar days following notification by Owner of service tap request. Tap completion entails but is not limited to pipe installation, testing and site restoration. (NOTE: At the discretion of the Owner, there may be taps that require immediate installation.)

SECTION A-6 DELIVERY, UNLOADING, STRINGING PIPE, VALVES AND OTHER MATERIALS

Applicable Codes: CFR, Title 49, Part 192.328 & 461

GENERAL:

The Owner or Contractor will place the order for pipe, valves, and fittings required for this construction, at the discretion of the Owner. All material will be shipped to destinations designated by the Owner. The Contractor shall provide adequate equipment, space, and personnel to unload, receive, protect and store materials. The Contractor shall load and haul material from storage to construction sites in a manner that will avoid damage to the materials and is satisfactory to the Owner. The Contractor will pay for any demurrage or temporary storage for failure to unload material during the prescribed time allowed by the carrying company.

All materials having machine surfaces will be stored in a manner which prohibits contact with the earth. All materials including valves, fittings, and coating materials will be handled and stored in a manner to protect them against damage or corrosion.

Care will be taken in loading, transporting, and unloading pipe to prevent damage. Pipe will not be dropped. All pipe will be examined before installation and no piece will be installed which is found to be defective. If any pipe fails to meet specifications or is found to be defective, it will be removed and satisfactorily replaced at no additional expense to the Owner.

The Contractor will be responsible for all materials delivered to him/her and the disposition thereof until final acceptance of the completed work and release of the Contractor from its obligations hereunder. If ordered by the Contractor, the Contractor must report any pipe or other materials damaged by the carrier for inspection to the carrier in writing on the freight bills. Any pipe or material damaged by the Contractor will either be replaced or repaired and reconditioned at the Contractor's expense as the Owner may elect.

The Contractor will haul and string pipe in such a manner as to minimize interference with the normal use of streets, alleys, or land crossed by easements. Gaps will be left in pipe strings to permit the normal use of land (e.g. the passage of farm stock) and streets or alleys to not unnecessarily obstruct or inconvenience the traveling public.

All material furnished by the Owner and not used shall be returned to the utility within five (5) working days upon completion of the project.

SECTION A-7 UTILITY LOCATIONS

Applicable Codes: CFR, Title 49, Part 192.614

GENERAL:

The Contractor will be responsible for notifying Sunshine State One-Call, (811) and provide all the necessary information required for utility locations. The Contractor will schedule his/her work in accordance with the normally required advanced notification time period (a minimum of 2 full business days) to allow for proper utility location(s). This includes lines that have not been accepted by City, i.e., private utility company's line, water, sewer, or electric lines owned by a homeowner or business. Sufficient attention to sprinkler/irrigation systems, septic systems, and invisible fences installed by homeowners will be observed and avoided, if located by the owner, during the installation of service lines.

The Contractor will be responsible for locating installed utility facilities until they have been put into service and the as-built drawings, and valve ties, have been accepted by the respective utilities. The location of gas lines, including joint trench, is the responsibility of the Contractor until facilities are pressurized and accepted by the Owner.

The Contractor must have the correct location device for mains and valves. If the tracer wire is broken, it will be the Contractor's responsibility to provide location stations at each end of a bore thereby enabling plastic pipe to be located in both directions. Tracer wire must be verified by the City's inspector for full continuity before final payment will be made to Contractor.

SECTION A-8 EXCAVATION

Applicable Codes: CFR, Title 49, Part 192.325 & 327

GENERAL:

The Contractor shall excavate or dig all required trenches and pits as directed, specified, or shown on construction drawings. All materials not suitable for backfilling and required compaction shall be removed and disposed of in compliance with all applicable local codes/ordinances and/or environmental regulations. Unsuitable materials shall include, but not be limited to, rocks, pure clay, gravel, organic matter, hard pan, and shale. Suitable natural materials for backfilling shall be non-organic, homogenous, fine/small grained, and capable of achieving consistent, dense compaction. Suitable materials shall include uniform grain sand, native sand/clay mixes (when appropriate and ratio dependent), and topped with crushed limerock.

Unless otherwise specified or illustrated on accompanying drawings, the depth and width of all trenches will allow for the easy installation of all pipes, valves, etc. The bottom of a trench will be smooth and free of all hard dirt chunks, rocks, or other foreign objects.

The Contractor will furnish all materials and supplies necessary for the completion and maintenance of a trench; including water control, shoring, and any other materials that are needed to stabilize and maintain a trench line. The trench will be kept free from water in so far as practicable. **No extra payment will be made for shoring unless engineered shoring is required, which will be at the City's expense as a pass through.** Such sheeting will not be removed until backfilling has progressed to a stage such that no damage to pipelines, conduits, structures, or pavement will result from its removal.

The Contractor shall be solely responsible for providing ditch and/or trench safety retaining (shoring) devices or equipment in compliance with O.S.H.A. safety standards and the COL Gas Operations & Maintenance Manual. The Contractor shall also be responsible for providing and using all necessary equipment associated with manhole (confined space) and trench work such as water pumps, ventilating fans or blowers, personal protection, retrieval harnesses, etc.

Excavated earth will also be placed such that if there is a rainfall earth will flow back into the trench and not onto pavement or private property. Excavated material will be neatly piled at a sufficient distance back from the edge of the trench to avoid overloading and prevent slides or cave-ins and kept trimmed up to be of as little inconvenience as possible to the public and adjoining property owners. No extremely high earth mounds will be allowed which would impede the traffic flow (vertical/horizontal traffic site distances).

Whenever applicable, the Contractor shall take appropriate measures to properly secure all loose

excavated soil at the job site by whatever means are required/acceptable including, but not limited to, plastic coverings, hay bales, and/or silt fences. Loose soil cannot be washed away by rainfall. Excavations, especially in roadways, shall be secured to prevent erosion by rainfall and the development of hazards to vehicular and pedestrian traffic.

Excavations for underground trenches (and pits) shall be in accordance with construction specifications, drawings, Owner directions, and all applicable environmental/right-of-way utility permits. Excavations shall be done in a manner to minimize damage to trees and surrounding significant surface features/structures.

The Contractor shall avoid vertical and horizontal conflicts with other underground utilities including all associated subsurface or surface structures. Minimum separation distances shall be as prescribed by the respective utility Owners (City of Leesburg Gas) administering the work and reflected in the construction specifications/drawings. If said minimum separations cannot be achieved, then the Contractor shall notify the Owner and a satisfactory alternative route, installation method, or minimum separation distance will be determined. Excavation or boring work shall not undercut or destabilize any pre-existing facilities or structures. As necessary, the Contractor shall coordinate all excavation and boring work with the owners of said conflicting structures or facilities to prevent damage due to settling or shifting. The Contractor shall be responsible for notifying the Sunshine State One Call underground utility location service as well as using “pot hole” excavations by core drill only, as needed, to visually verify the exact depth, size, and type of an underground conflict at no cost to Owner.

Special circumstances, as identified in the construction specifications and/or by the Owner, may require the Contractor to provide and allow access across open trenches for the safe passage of livestock, vehicles, etc. Likewise, certain spoil banks may be required to have openings to prevent the confinement of water.

SECTION A-9 COATED PIPE INSTALLATION

Applicable Codes: CFR, Title 49, Part 192.319, 328, and 461

GENERAL:

The Contractor will be required to provide padded slings, calipers, and/or rubber tired dollies for handling coated pipe. The use of chains or belts reinforced with wire cable will not be permitted. The crew will not assemble more pipe than can easily be handled (lowered and positioned in the trench) by the available equipment and manpower.

Coated pipe will be carefully lowered into the trench to avoid damaging the coating. It should be lowered close to its final position to minimize movement in the trench.

Where the trench runs through rock, the sides and bottom of a trench will be cleared of all loose or projecting rock that might damage the protective coating or covering on the pipe. The Contractor will provide a continuous 6" thick bedding of earth and sand in the bottom of a trench before the pipe is lowered in. It may be necessary to purchase and haul in padding because use of agricultural topsoil will not be permitted.

SECTION A-10 PIPE NIGHT CAPS

GENERAL:

The open ends of the lines will be securely closed at the end of each day's work to prevent entrance of water, mud, trash or small animals and will not be reopened until work is resumed. Only manufactured pipe night caps may be used. In no events will rags, wastes, etc. be used to plug the ends of the pipe. Any obstructions remaining in the line after the completion thereof will be removed at the expense of the Contractor.

Where the line is welded in long segments as drag sections for lanes, driveways, highways, railroads, rivers, creeks, or drainage ditch crossings, or any other location where necessary, the ends of the long sections will be closed and kept closed in the above manner by the Contractor until such long sections are finally joined.

SECTION A-11 INTERNAL LINE CLEANING

Applicable Codes: CFR, Title 49, Part 192.629

GENERAL:

Each gas pipe joint, including casing, will be thoroughly cleaned to remove all dirt and foreign matter from inside the pipe. On pipe sizes 1 1/4" and smaller, the Owner will allow blowing down the line.

For gas pipe sizes 2" and larger only pigging of the line will be allowed. Rag swabbing will not be allowed. If pigging is used, the Inspector will designate the length of line to be pigged depending upon the size of the project, irregular fitting locations, etc. Pigs will meet City Specifications.

SECTION A-12 BORING - CASED AND UNCASED

Applicable Codes: CFR, Title 49, Part 192.323 & 461

GENERAL:

Whenever concrete walks, paved driveways, paved streets, or other paved surfaces are to be crossed by pipeline, the Contractor will, unless the Owner specifically consents to excavation, bore the pipe under such surfaces. Pushing the pipe will not be allowed except through open bores.

Steel casing pipe will conform to the requirements of ASTM Designation A139 Grade "B." For highway crossings, the casing shall have a minimum wall thickness of 0.188" and have a minimum nominal diameter of two inches (2") larger than the carrier pipe diameter. For railroad crossings, the minimum casing diameter will be four inches (4") larger for carrier pipes 6" diameter or greater. The casing pipe size shown or indicated on construction plans will be furnished. In addition, all insulators, casing end seals, casing vent pipes, vent cap and electrical testing will be performed using a standardized manufactured device. Vent pipes will be coated to prevent corrosion from occurring.

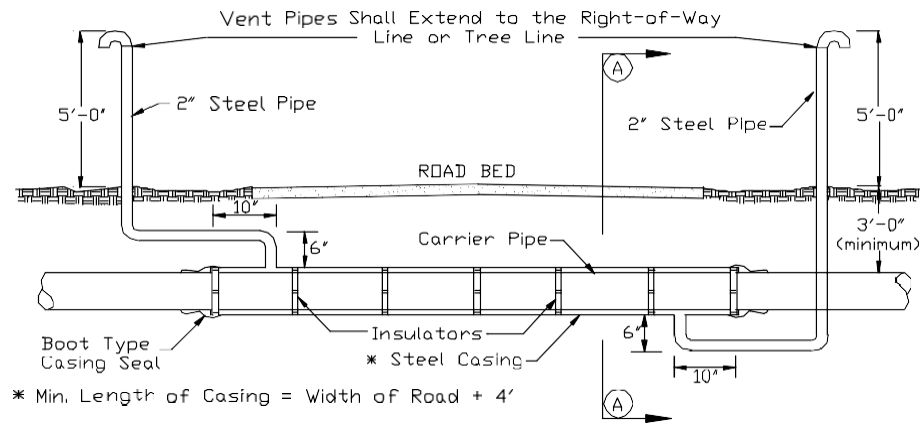
All work will be performed in conformance with the requirements of the agency having jurisdiction of the area or utility involved. Any special requirements of the agency such as insurance, flagmen, etc. will be strictly adhered to during the performance of the work on this Project.

A jacking pit will be excavated, backfilled, and compacted in compliance with the agency having jurisdiction. Sheet piling and bracing installed by the Contractor to maintain the stability of the pit walls are part of the Contractor's expense for a jacked crossing.

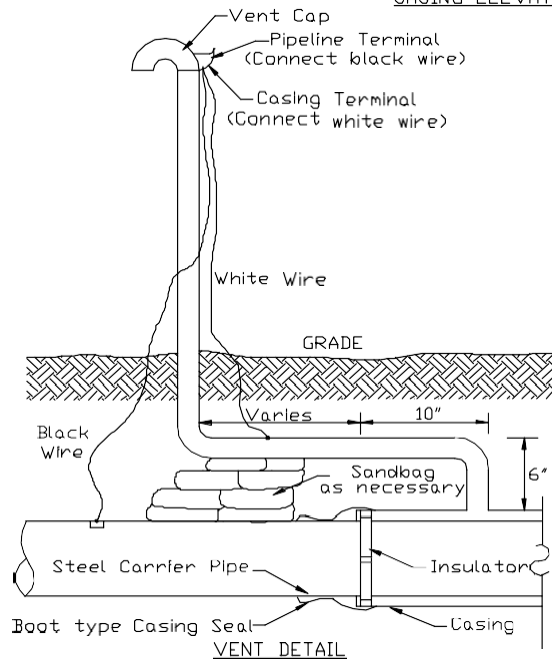
Casing pipe will be installed in accordance with approved jacking and boring methods. The Contractor will maintain the necessary line and grade as indicated on the construction plans. The installation of casing pipe will proceed with a pit excavated at a safe distance from the edge of the roadway or railroad. Construction will not interrupt traffic on the roadways or railroads. All utilities being crossed by casing pipe will be spot located with a minimum vertical and horizontal clearance of 12" between the crossing pipes. All casing vents will be placed within the right-of-way, unless approved by the Inspector and the affected private property owner.

Tolerance for installation of the casing pipe will be as follows:

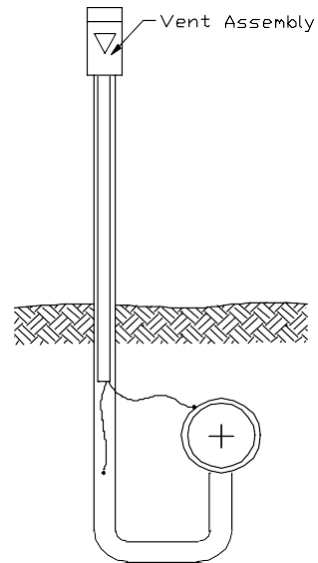
1. Elevation - to grade or a maximum of 12" above or below grade measured at the far side of the bore regardless of the length of the bore.
2. Plan Location - plus or minus one foot measured at the far side of the bore regardless of the length of the bore.



CASING ELEVATION



VENT DETAIL



NOTE: Terminal wires shall be Thermit welded.

Length of Casing-ft.	18	28	36	48	58	68	78	88	98	108	118	128	138
No. of Insulators	4	5	6	7	8	9	10	11	12	13	14	15	16

CASING ELEVATION, CROSS SECTION AND DETAILS

SPECS.DWG

SECTION A-13 RAILROAD CROSSINGS

Applicable Codes: CFR, Title 49, Part 192.111 & 467

GENERAL:

The construction of all railroad crossings, including all details incident to the installation of such crossings, will be in accordance with the drawings and/or will comply with such specifications as may be required by the railroad engineers, or other authority having jurisdiction.

All railroad crossings will be bored. Open trenching across railroad beds will not be permitted except in specific cases and then only after all means of boring have been exhausted and proper permission has been obtained by the Owner's representatives from authorities having jurisdiction.

In the event permission is granted to open trench across a railroad bed, all backfilling of such open trenching on the right-of-way will be accomplished by placing suitable material in layers of six inches (6") in thickness and each six-inch (6") layer mechanically tamped with a pneumatic tamping device (or equal) until the degree of compaction is equal to or more than the density of the surrounding undisturbed earth. If the material removed from the open trench is not suitable for backfill and tamping due to water saturation or nature of the material, then the Contractor is obligated to obtain suitable material. Backhoe buckets will not be used for tamping.

After backfilling, the surface of the railroad bed will be replaced with material suitable in quality and quantity in a manner satisfactory to authority having jurisdiction. The Contractor, in addition, will be bound to the construction specifications set forth in the various permits acquired by the Owner. Where the Contractor must cross over railroads with equipment at other than a public crossing, the Contractor will meet requirements of each railroad company and will acquire the necessary permission by application to the proper railroad officials and pay fees a reasonable length of time before such crossing is needed in order that the railroad company can clear any required licenses or agreements, install planking plus other materials, lift wires, and do other things necessary to protect railroad property and traffic.

All casings will be electrically insulated from the carrier pipe. A test of cased road crossings for electrical shorts will be made; however, if the Owner's technician is not available for making such tests at the time of installation, the Contractor will proceed with the installation. The use of welding machines to check the electrical insulation of the carrier pipe and casing is strictly prohibited. The Owner must first approve any instrument or device that the Contractor wishes to use any time for testing of electrical insulation. If a cased crossing shows an electrical short at any time prior to acceptance of a completed project, the Contractor will remove carrier pipe, make all repairs necessary, and reinstall the pipe. Casing will be tested for shorts immediately following:

- a) Installation of carrier pipe,

- b) At completion of the tie-in prior to backfilling, and
- c) After backfilling to ensure that the carrier pipe is insulated electrically from the casing.

Any shorts resulting from faulty insulating material will be the Contractor's responsibility.

Cathodic test station assemblies installed, as required by the drawings or by the Inspector, which are found defective in any way prior to acceptance of the total project will be repaired by the Contractor.

SECTION A-14 PAVEMENT/SIDEWALK REMOVAL AND REPLACEMENT

GENERAL:

Extreme care will be exercised to prevent pavement damage. Contractors will be responsible for pavement repair and/or resurfacing as per specifications of the authority responsible for the right-of-way. Pavement removal will only be allowed when appropriately permitted. Pavement, which is to be removed for open-cut trenching, will be cut vertically with a power-driven friction saw prior to removal. The surface will be scoured to sufficient depth to provide uniform, straight, break lines. All removal of the pavement will conform to local, County, State or Federal requirements where applicable. Under no condition will the pavements be cut with a trenching machine, power shovel, or backhoe. If the trench excavation becomes wider than the initial cut, the pavement or sidewalk will also be re-cut at least one foot back from all edges of actual excavation by the Contractor at his/her own expense.

Pavement, driveway or sidewalk material will be separated from excavated materials and will not be placed in backfill but will be satisfactorily disposed of by the Contractor. Base materials may be salvaged and stockpiled for reuse, but such reuse of base materials will be subject to the review of the right-of-way Owner.

All pavements and sidewalks removed will be replaced with base and surface materials which conform with local, County, and State road designs and, as required or feasible, in thickness and quality to materials removed. All painted street markings and other traffic control devices will be restored to former conditions. Pavements with traffic control devices and sidewalks will be replaced as soon as practicable after compaction of backfill. Compaction shall be per Owner specifications.

Workmanship and materials will be in accordance with best standards practice for work of this type and will conform to the requirements of the latest edition of the FDOT Standard Specifications for Road and Bridge Manual.

Pipe crossings and installations along all State highways will be made in accordance with details shown on the Plans and in full compliance with State Department of Transportation requirements. All materials and workmanship will be subject to the approval of the local maintenance engineer for the Florida DOT.

Curb or curb and gutter removals, where required in construction of this work, will be held to a minimum. Curb and gutter materials to be removed will be carefully separated from trench excavation material and will be satisfactorily disposed of by the Contractor.

The Contractor will replace all curb or curb and gutter, which have been removed. Curb and gutter will be replaced as soon as possible after backfill is placed and compacted and will be a duplicate in all respects to original construction. Workmanship will be in accordance with the authority having jurisdiction (City, County, State).

SECTION A-15 BACKFILLING

Applicable Codes: CFR, Title 49, Part 192.319

GENERAL:

Trenches will not be backfilled until all required tests are performed and the line installed conforms to the specified requirements. All natural gas lines will require the installation of tracer wire. Compaction shall be per Owner specifications.

Where the gas pipe has been newly coated or the coating otherwise repaired, the trench must not be backfilled until the coating has thoroughly hardened. Where the trench runs through rock, cinders, or rock fills, the excavation will be carried to an elevation, which will provide a bedding course of not less than six inches (6") below and around the body of the pipe. Care will be taken to prevent damage to the protective coating by any rock in the backfill. Any damage caused in this manner will be repaired by the Contractor at his expense. Large rocks or boulders, of such size the Owner's inspectors may direct to be taken out of a trench and not used in the backfill, will be removed, and disposed of at the Contractor's expense. All backfill will be laid in 6" layers and proper mechanical tamping equipment for that site will be used.

Backfill will consist of the following material, type "C" backfill.

Material may be clean natural sand or gravel, imported quarry waste, select excavation, or a mixture thereof and be free of debris.

Minimum required densities will be as follows for the indicated areas:

- 1) Florida Department of Transportation (FDOT) road right-of-way: Per FDOT Specifications
- 2) Lake and Sumter County Road right-of-way: Per Lake and Sumter County Specifications

After backfilling, the soil must be stabilized with hay and seed, or sod, to prevent erosion and will be returned to its original condition. Any landscaping disturbed will be restored to its original condition. The type of seed should concur with the season.

SECTION A-16 WARNING SIGNS AND TRAFFIC CONTROL

GENERAL:

The Contractor will supply and always utilize during the progress of construction an adequate number of red flags, barricades, warning signs, flagmen, or any other means of warning to prevent accident and injury to persons and property at the discretion of City personnel at the City's expense as a pass through. All such signing shall be in accordance with applicable OSHA regulations and the FDOT Manual on Uniform Traffic Control Devices. The Contractor will adhere with the requirements of the agency having jurisdiction of the area involved such as the time and Maintenance of Traffic, etc. The Contractor is responsible for providing maintenance of traffic for all construction jobs.

Contractor will post signs five (5) working days prior to any construction activity to inform the public. Signs will be installed on public right-of-way for projects lasting five working days or more.

SECTION A-17 CARE OF EXISTING STRUCTURES

GENERAL:

All existing trees, fences, pipes, conduits, wire, manholes, embankments, or other structures in the vicinity of the work will be supported and protected from damage by the Contractor during construction and until completion of the work. The Contractor will be liable for all damage done to such structures, as provided above and will save the Owner harmless from any liability for the expense of injuries, damages, or repairs. All damages should be resolved in a timely manner. Mailboxes, signs, newspaper boxes, etc. may be removed and replaced with the owner's permission.

SECTION A-18 CLEANUP AND RESTORATION

GENERAL:

Contractors will keep the right-of-way clear of barrels, skids, defective materials, and all other construction debris daily behind its operation to the satisfaction of the Inspector, landowners, county officials, state officials, or other authority having jurisdiction.

Restoration is an integral part of the work. Upon completion of the work, and before acceptance of final payment for the project by the Owner, the Contractor will restore all property, both public and private, which has been disturbed or damaged directly due to the construction work. The Contractor shall ensure that the construction site, where gas main is installed is restored, at a minimum, to preconstruction conditions within 10 business days. The Contractor shall ensure that the construction site, where gas service is installed is restored, at a minimum, to preconstruction conditions within 7 days of installation. The first 36 SF of soft surface will be at the Contractor's expense. Soft surface beyond 36 SF per job and all hard surface will be at the City's expense as a pass through.

In case of a dispute, delay in restoration, or inconvenience to the public, the Owner will restore and clean up the construction site plus charge the cost to the Contractor as the Owner determines to be appropriate.

SECTION A-19 AS-BUILT DRAWINGS AND GPS

GENERAL:

The Contractor will mark all newly buried pipes, valves, etc. The installed structures will be located by placing a temporary marker directly over the ground by use of stakes, flags, etc. All valve boxes and test stations must be visually identified through the use of markers or paint. Project as-built drawings or red lining for main extensions and service installation projects will conform to the standards and specifications for Contractor As-built deliverables to the Gas Utility listed in this section. The Owner may request the right to verify the marker location by having the main pot holed by the Contractor.

Project as-built drawings must be submitted by the Contractor to be reviewed and approved by the Owner before payment is authorized.

The following is to ensure that As-Built Deliverables submitted by contractors to the City of Leesburg Gas Division and GIS Division meet the requirements for quality and consistency of these same entities.

Prior to the issuance of final payment, the City of Leesburg Gas Division and the GIS Section shall approve the deliverables described herein.

A. As-Builts

1. The Gas As-Built field documents shall show type, size, material, and locations of gas valves, main, and fittings; length of main in feet; and depth of main in inches.
2. The As-Built deliverables shall be on hard copy and shall be clear, legible, concise, complete, and accurate.
3. The As-Builts shall accurately show and label all valves, main, fittings, field ties, and objects/structures from which reference points (RP) are measured.
4. RP shall be collected at 100-foot intervals along relatively straight segments of main.
5. RP shall be collected at all gas valves, end-of-main, tie-ins, elbows, and wherever the main changes direction or curves.
6. RP for each gas feature shall be “pulled” (distances shall be measured) from three (3) permanent, fixed, above ground objects/structures (as described in detail below). The gas feature and the objects/structures selected for each RP shall be clearly and accurately shown and labeled.
7. If variations and inconsistencies from the design plans occur, they shall be verified and clearly marked on the As-Builts.
8. Any abandoned and/or removed main, valves, and fittings shall be clearly indicated on the As-Builts.

SECTION A-19 AS-BUILT DRAWINGS AND GPS

B. Specifications for Pulling and Recording Reference Points (RP)

1. The following specifications are intended to address methods, guidelines, and requirements for pulling RP and measurements for underground gas facilities, including valves, main, fittings, and services.
2. The intent and purpose of this document is to establish unified standards and to ensure the quality and consistency of data received by requesting utilities and the GIS division.
3. All personnel are encouraged to use common sense while performing the work described herein and should consider that the documentation:
 - a. Must be easily interpreted by others
 - b. Will be utilized by other personnel to perform proper locating.
 - c. Will be utilized during emergency response as well as at night
 - d. May be accessed at a much later date
4. RP shall be pulled at all valves, end-of-main, tie-ins, elbows, and locations where the main changes direction, including gradual curves.
5. RP along a relatively straight segment of main should be pulled every 100 feet. Ties collected along main where it changes direction or curves are in addition to the ties collected every 100 feet.
6. All RP will be pulled from at least (3) of the nearest, most permanent, and/or accessible objects/structures such as: center lines, property lines, or other permanent structure.
7. When pulling a RP from a round object/structure (manhole), pull from the center / top point.
8. When pulling a R P from a square or rectangular shaped object (steel storm drain/grate, ground transformer), pull from the nearest corner.
9. Measurements should not exceed 100 feet and should not cross major roads/intersections, whenever possible.
10. All documents containing RP should be signed by the person who performed the work.
11. For tie to permanent structures, use typical field objects and label according to the following list of abbreviations:

SECTION A-19 AS-BUILT DRAWINGS AND GPS

BLDG - Point on Building	PL - Property Line
BOC - Back of Curb ^{1,2}	PP - Power Pole
CB - Catch Basin	RP - Reference Point
CL - Center Lune	SD - Storm Drain
CP - Concrete Pole	SDMH - Storm Drain Manhole
CPD - Concrete Pad	SDW - Point from Sidewalk ^{1,2}
CTV - Cable TV Pedestal	SG - Storm Grate
CULV - Culvert	SMH - Sewer Manhole
DITCH - Point on Concrete Ditch ^{1,2}	STL - Street Light
DRN - Drain	TMH - Telephone Manhole TP - Telephone Pole
EB - Electric Box	TPD - Telephone Pedestal
EMH - Electric Manhole	TSB - Traffic Signal Box
EOP - Edge of Pavement ^{1,2}	TSP - Traffic Signal Pole
ET - Electric Transformer	TSPD - Traffic Signal Pedestal
FH - Fire Hydrant	VP - Vent Pipe
FO - Fiber Optic Post	WALL - Wall ^{1,2}
FOC - Front of Curb ^{1,2}	WM - Water Meter ³
MEDIAN - Median	WV - Water Valve
MH - Manhole	
NoBlo - NoBlo surface marker	

¹These features should only be used for RP to valves or fittings when RP to two other permanent aboveground structures are also provided and when there is no other third suitable structure nearby to pull from.

These features should only be used for RP to main when a RP to another permanent aboveground structure is also provided perpendicular to the main at the location of the BOC/DITCH/EOP/FOC/WALL RP

²For FDOT projects, these features may be used without other RP when the feature location is referenced to the baseline stationing provided on the survey DWG.

³WM should only be used as a last resort along with two other suitable permanent aboveground structures as it is difficult to locate in GIS.

SECTION A-20 GAS OPERATOR QUALIFICATION

GENERAL:

Contractor shall provide to the City of Leesburg a copy of its Operator Qualification (OQ) plan, list of covered tasks, as well as the names of employees qualified for each task, date of qualification, date of qualification expiration, and verification that each employee has been qualified in accordance with the requirements of 49 CFR, Part 192 and the laws, rules, and regulations of the Florida Public Service Commission. The Contractor's OQ plan shall be in conformance with the City of Leesburg Gas Utility OQ plan.

The City of Leesburg Operator Qualification Plan Administrator will review all operator qualification documents submitted by the Contractor. Documents must be reviewed and approved by the City of Leesburg. The Contractor's OQ plan must be in conformity with that of the City of Leesburg. The Contractor shall provide OQ records upon request.

Any subcontractor hired by the Contractor must adhere to the same OQ standards as approved by the City of Leesburg.

Any Contractor employee that fails to maintain qualification during this contract must be either removed from the construction site until qualified; or supervised in accordance with the span of control designated in the Contractor's OQ Plan. Should the scope of the project change to include any covered tasks not noted in the preliminary phase of the project, the contractor will immediately provide documentation of these tasks and personnel qualified to perform said tasks.

Contractor employee qualifications will be maintained on file by the City of Leesburg for a period of five years after the project onset in compliance with federal regulations. All Contractor documents related to the OQ requirements outlined here shall be made available for review upon request.

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.B.4.

Meeting Date: October 23, 2023

From: Aaliyah Davis, (Purchasing Manager)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute Amendment 1 to Construction Services Agreement with Wharton-Smith, Inc.; and providing an effective date.

Staff Recommendation:

Staff recommends approval of the resolution authorizing execution of Amendment One with Wharton-Smith, Inc. for additional services to the Pine Street & CDC Parking Lot Project in the amount of \$263,673.52.

Analysis:

Improving the Pine Street District is an ongoing City goal and this project directly supports that initiative. The project represents a modified version of the full Pine Street Design that will allow the most critical portion of the project to proceed now and set the remainder of the work up to be incorporated into future phases.

This Amendment is to provide additional services for the replacement of the watermain and the sanitary sewer to include clearing, demolition, earthwork, and stabilization that was not in the original scope of the Pine Street & CDC Parking Lot Project.

At this time, it is also necessary to amend the Pine Street budget to include the following expenses:

Wharton-Smith, Inc. Change order proposed	\$263,673.52
Electric Department relocation expenses	<u>120,000.00</u>
Total adjustment to the current Pine Street Project	\$383,673.52

Funds are available in the unallocated American Rescue Plan Act funds.

Procurement Analysis:

On October 24, 2022, pursuant to Resolution 11,196, the City Commission approved execution of a Construction Manager at Risk Services Agreement on a Continuing Basis with Wharton-Smith, Inc. On March 13, 2023, an agreement was executed for the construction of the Pine Street & CDC Parking Lot Project in which this amendment is being made under the terms of that agreement. Public Works has reviewed the additional services and deemed them necessary to complete the project.

Options:

1. Approve the Resolution authorizing execution of Amendment One with Wharton-Smith, Inc. or;
2. Such alternative action as the Commision may deem appropriate.

Fiscal Impact:

As discussed in the Analysis, a budget adjustment will need to be processed to move a total of \$383,673.52 from the available remaining American Rescue Plan Act funds.

Account No.	031-5112-541-6310
Project No.	ARPACT
WF No.	WF1335703/2
Requisition	55990
Budget	\$2,485,100.00
Available	-0-

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE
AMENDMENT 1 TO CONSTRUCTION SERVICES AGREEMENT WITH
WHARTON-SMITH, INC.; AND PROVIDING AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk are hereby authorized to execute an amendment with WHARTON-SMITH, INC., whose address is 750 MONROE ROAD, SANFORD, FLORIDA 32771, for the CITY OF LEESBURG PINE STREET AND CDC PARKING LOT PROJECT.

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

**AMENDMENT ONE TO A
CONSTRUCTION SERVICES AGREEMENT
WITH GUARANTEED MAXIMUM PRICE (GMP)**

THIS AMENDMENT is made as of the 23rd day of October in the year 2023, between **THE CITY OF LEESBURG, FLORIDA**, a Florida Municipal Corporation, whose address is 501 West Meadow Street, Post Office Box 490630, Leesburg, Florida 34749-0630 (hereinafter referred to as the “CITY”, or “OWNER”), and **WHARTIN-SMITH, INC.** whose address is 750 Monroe Road, Sanford, FL 32771 (hereinafter referred to as the “CONSTRUCTION MANAGER”, or “CM”).

WITNESSTH:

WHEREAS, the CONSTRUCTION MANAGER was selected following a competitive solicitation process as the City’s Construction Manager at Risk (CMaR) to provide Construction Manager services on a continuing basis.

WHEREAS, on March 13, 2023, pursuant to Resolution 11283, the CITY and CONSTRUCTION MANAGER entered into a Construction Services Agreement whereas the CONSTRUCTION MANAGER will serve as the Construction Manager/General Contractor for the Pine Street and CDC Parking Lot Project (hereinafter referred to as the “Master Agreement”). The Master Agreement is referenced herein as though set forth in full text.

WHEREAS, the CITY and the CONSTRUCTION MANAGER desire to enter into an Amendment (hereinafter referred to as “Amendment”) for additional services on the Pine Street and CDC Parking Lot Project.

NOW THEREFORE, for and in consideration of the mutual covenants and promises contained in this Amendment, the CITY and the CONSTRUCTION MANAGER do hereby agree as set forth below:

1. Recitals.

The above recitals are true and correct and are incorporated herein.

2. Scope of Services.

The Parties agree to the Scope of Services and Fee pursuant to the terms and conditions set forth in the CONSTRUCTION MANAGER’S proposal(s) included as ATTACHMENT ‘A’ for the project generally described as:

**Project:
PINE STREET IMPROVEMENTS & CDC PARKING**

3. Compensation.

The CONSTRUCTION MANAGER shall perform the additional services for an amount of **\$263,673.52**. The cost of these services shall not exceed this amount unless the CITY has executed a written Change Order approving additional Services and additional compensation.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment on the date stated in the preamble.

WHARTON-SMITH, INC.

By: _____

Printed: _____

Its: _____
(Title)

THE CITY OF LEESBURG, FLORIDA

By: _____
Mayor

ATTEST:

J. Andi Purvis, City Clerk



FIXED PRICE CHANGE PROPOSAL

10/13/2023

John Folker
City of Leesburg
501 W. Meadow Street
Leesburg, FL 34748

Re: Our Change Proposal 23-053-04 for **Sanitary Sewer Replacement**

Project: Pine Street Improvements & CDC Parking

This Proposal is for the Change referenced above and more particularly defined by the Scope of Work comprised of this Proposal, its Attachments, and other Contract Documents incorporated by reference. Therefore, we propose to change the following:

01 - General Conditions

1. Builder's Risk
2. Bond
3. Additional Insurance

Price: **\$ 156,157.74** *One Hundred Fifty Six Thousand One Hundred Fifty Seven Dollars and Seventy Four Cents*

Time: The duration of the Work to achieve Substantial Completion will be **INCREASED by 14 days.**

Clarification(s): - None.

Expiration: This Proposal shall remain open for 30 calendar day(s).

Attachment(s): Additional Attachments

Please contact me at (407)321-8410 or via e-mail tscott@whartonsmith.com if you have any questions or require additional information.

Regards,

Wharton-Smith, Inc.

Travis Scott

Project Manager

ACCEPTANCE OF PROPOSAL

The Scope of Work described above supersedes any and all prior communication about this Change.

Customer Signature: _____ Date: _____

City of Leesburg



ADDITIONAL DOCUMENTS

Project: 23-053 - Sanitary Sewer Replacement

Date: 10/13/2023

Document: 23-053-04

Name

- 1 Sanitary Replacement Rev1 - 10.10.2023
<https://redteam.link/6ca6yfs>

Wharton-Smith, Inc.: _____

Customer: _____



MARLIN CONSTRUCTION COMPANY, INC.
 1304 CANOPY OAKS DRIVE
 MINNEOLA, FL 34715

CONTACT: JOSH HUYNH
EMAIL: JOSH@MARLINCONSTRUCTION.NET
PHONE: 407-863-1483
PROJECT: Pine Street Sanitary Replacement Rev 1

QUOTE TO: Travis Scott
COMPANY: Wharton Smith
ADDRESS:

PLAN DATE: N/A
REV. DATE: N/A
ADDENDUM: N/A
PROPOSAL DATE: 10/10/2023

PHONE:
EMAIL:

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Clearing/Demo/Earthwork/Stabilization				
300	Grout & Abandon Exsting SS	740.00	LF	26.89	\$ 19,898.60
305	Demo SS MH	3.00	EA	840.47	\$ 2,521.41
				Subtotal	\$ 22,420.01
	Sanitary Sewer				
600	Connect to Existing Sanitary Main	4.00	EA	648.83	\$ 2,595.32
605	Doghouse Sanitary MH 0'-6'	1.00	EA	7626.19	\$ 7,626.19
610	Sanitary MH 0'-6'	2.00	EA	6901.19	\$ 13,802.38
615	8" SDR35 0'-6' (Pine Street)	740.00	LF	62.83	\$ 46,494.20
620	8" SDR35 0'-6' (Childs St)	200.00	LF	71.59	\$ 14,318.00
625	8" SDR35 0'-6' (Aquatic Ctr)	40.00	LF	62.32	\$ 2,492.80
630	8" SDR 35 0'-6' (CDC Parking Lot)	28.00	LF	61.43	\$ 1,720.04
635	Sanitary Laterals & Existing Connection	8.00	EA	1924.72	\$ 15,397.76
640	Tankers Trucks for Childs Connection	1.00	LS	14725.00	\$ 14,725.00
				Subtotal	\$ 119,171.69
				Grand Total	\$ 141,591.70
	Add Alternate				
				Add Alt Subtotal	\$ -

Exclusions:

Permits, bypass pumping, cleaning or desilting of existng sanitarysystems, testing & CCTV, **Wrapid Seal of MH exterior joints (not in city details)**

Inclusions:

Saniatry mainline replacement on Pine Street from Childs St to Canal St. Includes sanitary mainline 100' north and south of Pine St & Childs intersection and stubouts for CDC parking, and the Aquatic Center to the extents of the new pavement section. Include connection sanitary laterals to businesses along Pine

Special Conditions:

Due to the unique and extremely volatile market conditions Marlin Construction reserves the right to re-evaluate pricing at the time of commencement. No cost forecasting is included in this proposal.

Pricing valid for 30 days from date of proposal

NET30 Payment Terms

Stored material billing to be part of any agreement

Tanker trucks assumed for the Childs St connections. No long term pump and piping bypass.

This installation/pricing assumes connecting the existing sanitary laterals as the mainline are installed to minimize any long term bypass pumping to keep all facilities active; as a result low pressure air testing and CCTV are excluded from this proposal.



CONSTRUCTION MANAGEMENT

10/13/2023

John Folker
City of Leesburg
501 W. Meadow Street
Leesburg, FL 34748

Re: Our Change Proposal 23-053-03 for **Watermain Replacement**

Project: Pine Street Improvements & CDC Parking

This Proposal is for the Change referenced above and more particularly defined by the Scope of Work comprised of this Proposal, its Attachments, and other Contract Documents incorporated by reference. Therefore, we propose to change the following:

01 - General Conditions

1. Builder's Risk
2. Bond
3. Additional Insurance

Price: \$ 107,515.78 *One Hundred Seven Thousand Five Hundred Fifteen Dollars and Seventy Eight Cents*

Time: The duration of the Work to achieve Substantial Completion will be **INCREASED by 14 days.**

Clarification(s): - None.

Expiration: This Proposal shall remain open for 30 calendar day(s).

Attachment(s): Additional Attachments

Please contact me at (407)321-8410 or via e-mail tscott@whartonsmith.com if you have any questions or require additional information.

Regards,

Wharton-Smith, Inc.

Travis Scott

Project Manager

ACCEPTANCE OF PROPOSAL

The Scope of Work described above supersedes any and all prior communication about this Change.

Customer Signature: _____ Date: _____

City of Leesburg



ADDITIONAL DOCUMENTS

Project: 23-053 - Watermain Replacement

Date: 10/13/2023

Document: 23-053-03

Name	
------	--

- 1
- WM Replacement Rev1 - 10.10.2023
<https://redteam.link/ng1digl>

Wharton-Smith, Inc.: _____

Customer: _____



MARLIN CONSTRUCTION COMPANY, INC.
 1304 CANOPY OAKS DRIVE
 MINNEOLA, FL 34715

CONTACT: JOSH HUYNH
EMAIL: JOSH@MARLINCONSTRUCTION.NET
PHONE: 407-863-1483
PROJECT: Pine Street WM Replacement & 12" Deflections

QUOTE TO: Travis Scott
COMPANY: Wharton Smith
ADDRESS:

PLAN DATE: N/A
REV. DATE: N/A
ADDENDUM: N/A
PROPOSAL DATE: 10/10/2023

PHONE:
EMAIL:

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Clearing/Demo/Earthwork/Stabilization				
300	Demo Existing WM	820.00	LF	5.91	\$ 4,846.20
305	Open Cut Temp Patch (If Required)	1.00	LS	2159.17	\$ 2,159.17
				Subtotal	\$ 4,846.20
	Potable Water				
400	16"x6" Wet Tap Assy & Gate Valve (Open Cut Roadway)	1.00	EA	9520.78	\$ 9,520.78
405	Connect to Existing 6" WM (Canal St)	1.00	EA	1529.12	\$ 1,529.12
410	Cut & Cap 6" WM (Childs St)	1.00	EA	2360.44	\$ 2,360.44
415	6" PVC C900 DR18 WM	820.00	LF	29.44	\$ 24,140.80
420	Relocate Existing FH Assy (New Tee & GV)	1.00	EA	3869.35	\$ 3,869.35
425	4" Service to Aquatic Ctr (New Tee & GV)	1.00	LS	2029.12	\$ 2,029.12
430	Misc Fittings	1.00	LS	3313.06	\$ 3,313.06
435	Temporary Jumper	1.00	EA	2059.58	\$ 2,059.58
440	Sample Points	2.00	EA	395.51	\$ 791.02
445	1" Water Service (Long)	10.00	EA	1328.29	\$ 13,282.90
450	Flush/Test/Chlorinate	1.00	LS	2575.00	\$ 2,575.00
				Subtotal	\$ 65,471.17
				Grand Total	\$ 70,317.37
	Add Alternate				
900	12" WM Deflection (incl restraining of existing WM)	2	EA	13584.79	\$ 27,169.58
				Add Alt Subtotal	\$ 27,169.58

Exclusions:

Permits, restraining of existing WM, as-builts

Inclusions:

Install new 6" C900 WM via 16x6" wet tap assy at Childs St to existing 6" WM at Canal St & Pine Street intersection, FH Assy, flushing, testing, chlorination, bac t's, demo of existing

Special Conditions:

Priced to connect to existing valve at Canal St

12" WM deflections priced to be swapped, and visually leak tested after connection; pricing does not include bac t's

Any road restoration beyond the paving limits due to restraining is not included

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.C.1.

Meeting Date: October 23, 2023

From: Robert Hicks, (Police Chief)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Leesburg Police Department to apply for and, if awarded, accept an Edward Byrne FY 2023 Local Solicitation Grant from the U.S. Department of Justice (JAG) to pay costs associated with the purchase of department equipment; and providing an effective date.

Staff Recommendation:

Staff recommends approval of the resolution authorizing the Leesburg Police Department to apply for, and if awarded, accept the FY 2023 Edward Byrne Memorial Justice Local Solicitation Grant, CFDA #: 15PBJA-23-GG-03234-JAGX, in the amount of \$15,572.00 to defray the cost of six (6) less lethal Conducted Energy Weapons (CEW) (Taser), charging systems, and cartridges.

<u>Item</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Cost</u>
Conducted Energy Weapon (Taser) bundle, which includes: CEW, Battery Pack, Wall Mount Bracket for download, Power Cord, dock and license.	\$2,560.20	6	\$15,361.20
	\$40.25	30	\$1,207.50
Close Quarter Cartridges	\$40.25	30	\$1,207.50
Standoff Cartridges			\$17,776.20
Total Cost			\$15,572.00
JAG Grant Award Amount			
Remaining Balance (Excess from current budget)			\$2,204.20

Analysis:

The department currently has CEW's in service for sworn members who engage suspects and others who may pose a risk to themselves and others, on a routine basis. The current CEW's are antiquated and nearing or have reached their serviceability life. Furthermore, the CEW's that are no longer serviceable, cannot be repaired due to part availability. By upgrading to newer CEW systems, officers will continue to have this less-lethal equipment available during incidents in which the suspect is actively and/or aggressively resisting officers' efforts to apprehend them or take into custody, those persons who pose a risk of harm to themselves or others.

Procurement Analysis:

N/A

Options:

1. Approve the resolution authorizing the application and acceptance of the FY2023 Edward Byrne JAG Local Solicitation grant of **\$15,572.00** and authorized source purchase; or
2. Such alternative action as the Commission may deem appropriate.

Fiscal Impact:

If awarded, a budget adjustment will be necessary to add this into the current budget. There is no local match required for this grant.

Account No. 001-0000-331-2100

Project No. JA0031

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE LEESBURG POLICE DEPARTMENT TO
APPLY FOR AND, IF AWARDED, ACCEPT AN EDWARD BYRNE FY 2023
LOCAL SOLICITATION GRANT FROM THE U.S. DEPARTMENT OF
JUSTICE (JAG) TO PAY COSTS ASSOCIATED WITH THE PURCHASE OF
DEPARTMENT EQUIPMENT; AND PROVIDING AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Leesburg Police Department is hereby authorized to submit an application, and if awarded, accept an Edward Byrne Memorial Justice Grant (JAG-Local) in the amount of **\$15,572.00** to defray costs associated with the purchase of certain department equipment.

THAT this resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.C.2.

Meeting Date: October 23, 2023

From: Robert Hicks, (Police Chief)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Leesburg Police Department to apply for and, if awarded, accept an Edward Byrne FY 2022 (2023) Countywide Solicitation Grant from the U.S. Department of Justice (JAG) to pay costs associated with tuition and study material for law enforcement academy; and providing an effective date.

Staff Recommendation:

Staff recommends approval of the resolution authorizing the Leesburg Police Department to apply for, and if awarded, accept the FY 2022 (2023) Edward Byrne Memorial Justice Countywide (JAGC) Grant Solicitation in the amount of \$9,748.00 to defray the cost of tuition and study material for three (3) Police Recruits hired by the police department.

<u>Item</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Cost</u>
Tuition and Study Material (approximate depending on which academy attended)	\$4,500.00	3	\$13,500.00
JAG Grant Award Amount			\$9,748.00
Remaining Balance (Excess to come from current budget)			\$3,752

Analysis:

Following current national trends, facilitating recruitment of certified law enforcement officers, the department has initiated a Police Recruit program. To further facilitate the Police Recruit initiative for the department, to hire certified law enforcement officers, grant funding can be utilized to defray the cost of academy tuition and study material associated with attendance by the hired Police Recruits.

Procurement Analysis:

N/A

Options:

1. Approve the resolution authorizing the application and acceptance of the FY2022 (2023) Edward

Byrne JAGC Countywide Solicitation grant of **\$9,748.00** and authorized academy attendance expenses; or
2. Such alternative action as the Commission may deem appropriate.

Fiscal Impact:

If awarded, a budget adjustment will be necessary to add this into the current budget. There is no local match required for this grant.

Account No. 001-0000-331-2100

Project No. JA0030

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE LEESBURG POLICE DEPARTMENT TO
APPLY FOR AND, IF AWARDED, ACCEPT AN EDWARD BYRNE FY 2022
(2023) COUNTYWIDE SOLICITATION GRANT FROM THE U.S.
DEPARTMENT OF JUSTICE (JAG) TO PAY COSTS ASSOCIATED WITH
TUITION AND STUDY MATERIAL FOR LAW ENFORCEMENT ACADEMY;
AND PROVIDING AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Leesburg Police Department is hereby authorized to submit an application, and if awarded, accept an Edward Byrne Memorial Justice Grant (JAGC-Countywide) in the amount of **\$9,748.00** to defray costs associated with state law enforcement academy attendance.

THAT this resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.C.3.

Meeting Date: October 23, 2023

From: Ann Kinsey, (Building Official)

Subject: Resolution of the City Commission of the City of Leesburg, Florida, authorizing the Mayor and City Clerk to execute a Third As-Needed Municipal Support Agreement between the City of Leesburg and Alpha International I, LLC; and providing an effective date.

Staff Recommendation:

Staff recommends approval of the attached Alpha International I, LLC as-needed municipal service agreement to supplement current staff during plan review and inspections to keep review and inspection times within the limitations of Florida Statute 553.

Analysis:

Florida law requires plan reviews and inspections to be completed within time limitations. Currently, the Building Department has sufficient staff for the current workflow. However, at times, staff shortages and times of unusually high inspection activity can make it difficult to meet the time limitations required by the state. The Interlocal Agreement with Lake County was supposed to fill that gap. However, shortages in their staff have shown that additional alternative options need to be available. This is one alternative source for occasional assistance to the city. It has been reviewed by the city attorney.

Procurement Analysis:

N/A

Options:

1. Approve the requested as-needed municipal service agreement with Alpha International I, LLC; or
2. Other action the commission may choose.

Fiscal Impact:

Funds for this request are supported by the Building Department Budget. No costs are incurred unless services are required by the city.

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA, AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE
A THIRD AS-NEEDED MUNICIPAL SUPPORT AGREEMENT BETWEEN
THE CITY OF LEESBURG AND ALPHA INTERNATIONAL I, LLC; AND
PROVIDING AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk are hereby authorized to execute an agreement with Alpha International I, LLC., whose address is 1683 N. Hancock Road, Building 103, Suite 120, Minneola, Florida 34715, for As-Needed Assistance with Plan Reviews and Inspections.

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk



Contract for Building Inspection Services

This Contract ("Contract") is entered into between the City of Leesburg, hereinafter referred to as the "City," and Alpha International I, LLC, hereinafter referred to as the "Contractor." Collectively referred to as the "Parties."

Effective Date: [Insert Effective Date] Termination Date: [Insert Termination Date]

1. **Scope of Services** The City of Leesburg requires a qualified inspection team to assist with building inspections in accordance with Florida Statute 468 part XII. All inspectors provided by the Contractor shall be licensed under the aforementioned statute.
2. **Contractor's Proposal** Alpha International I, LLC proposes to provide inspectors to fulfill the City of Leesburg's needs as outlined in Section 1 of this Contract.
3. **Compensation** The Contractor shall provide inspection services at a rate of \$150.00 per hour. Billing shall include travel time.
4. **Indemnification** To the maximum extent permitted by applicable statutes, Contractor shall indemnify and hold the City harmless from and against any and all claims, demands, damages, and liabilities arising out of or related to this Agreement, except to the extent caused by the negligence or willful misconduct of the City.
5. **Liability Insurance** Alpha International I, LLC agrees to maintain liability insurance coverage worth \$1 million and to name the City of Leesburg as an additional insured party.
6. **Independent Contractor Status** Alpha International I, LLC acknowledges and agrees that they are an independent contractor and not an employee of the City of Leesburg. The Contractor shall bear all costs and provide all materials required to perform the services.
7. **Contract Termination** Either Party may terminate this Contract by providing a minimum of 30 days' written notice to the other Party.
8. **Governing Law and Jurisdiction** Any disputes arising out of or related to this Contract shall be settled in the courts of Lake County, Florida. The laws of the State of Florida shall govern the interpretation and enforcement of this Contract.
9. **Severability** If any provision of this Contract is deemed unenforceable by a court of competent jurisdiction, the remaining provisions shall remain in full force and effect.
10. **Payment Terms** Invoices submitted by the Contractor must be paid within 30 days of submission. Late payments shall incur a penalty of 1.5% of the outstanding balance or \$150, whichever is greater.
11. In accordance with Chapter 119, Florida Statutes, each file and all papers pertaining to any activities performed for or on behalf of the City are public records available for inspection by any person even if the file or paper resides in Contractor's office or facility. Contractor shall maintain the files and papers for not less than three (3) complete calendar years after this Agreement has been completed or terminated. Contractor shall appoint a records custodian to handle any records request and provide the custodian's name and telephone number(s) to City. During the term of the Agreement, Contractor shall comply with the Florida Public Records Law, to the

extent such law is applicable to Contractor. If Section 119.0701 of the Florida Statutes is applicable, Contractor shall do the following: (1) keep and maintain public records required by City in order to perform this service; (2) upon request from City's custodian of public records, provide City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost allowed by law; (3) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if Contractor does not transfer the records to City; (4) upon completion of the Agreement, transfer, at no cost to City, all public records in possession of Contractor or keep and maintain public records required by City to perform the service. If Contractor transfers all public records to City upon completion of the Agreement, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of the Agreement, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to City upon request from City's custodian of public records, in a format that is compatible with the information technology systems of City.

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CITY CLERK AT (352) 728- 9786 x 1150; ANDI.PURVIS@LEESBURGFLORIDA.GOV; CITY HALL, 501 MEADOW STREET, Leesburg, FL 34748.

Contractor shall keep and make available to City for inspection and copying, upon written request by City, all records in Contractor's possession relating to the Agreement. Any document submitted to Customer may be a public record and is open for inspection or copying by any person or entity unless considered confidential and exempt. Public records are defined as all documents, papers, letters, maps, books, tapes, photographs, films, sound recordings, data processing software, or other material, regardless of physical form, characteristics, or means of transmission, made or received pursuant to law or ordinance or in connection with the transaction of official business by an agency. Any document in Contractor's possession is subject to inspection and copying unless exempted under Chapter 119 of the Florida Statutes. If Contractor fails to comply with the Public Records Law, Contractor shall be deemed to have breached a material provision of this Agreement.¹² Nothing contained in this Agreement shall be construed or interpreted as a waiver by City of any right, privilege or immunity, whether in contract or tort, that City may enjoy under the constitution and laws of the State of Florida, including the limitations of liability set forth in Section 768.28, Florida Statutes, as it now or may hereafter exist.

13. In accordance with Section 448.095, Florida Statutes, both parties shall register with and utilize the E-Verify system to verify the employment eligibility of all new employees hired during the term of this Agreement
14. Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Contractor to solicit or secure this Agreement, and that Contractor has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or formation of this Agreement. For breach or violation of this warranty, City shall have the right to annul this Agreement without liability or at its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
15. Contractor agrees that it will not discriminate against any employee or applicant for employment in connection with this Agreement because of race, color, religion, sex, age or national origin and will take affirmative steps to

ensure that applicants are employed and employees are treated during employment without regard to race, color, religion, sex, age or national origin.

Both Parties have read, understood, and agreed to the terms and conditions set forth in this Contract.

City of Leesburg:

[City Representative Name and Title]

Date: _____

Alpha International I, LLC:

Danny Bass, AMBR

Date: 10/19/2023

A handwritten signature in cursive script, appearing to read "Danny Bass", is written over the printed name and extends slightly to the right of the date line.

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.C.4.

Meeting Date: October 23, 2023

From: James Williams, (Finance Director)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute Amendment No. 4 of the master services agreement with Paymentus, Inc. to provide electronic utility bill payment services to process City utility customer payments by credit and debit card and ACH/eCheck; and providing an effective date.

Staff Recommendation:

Approve the resolution amending the Paymentus agreement to begin charging a fee for using credit and debit cards, ACH or eChecks for City utility payments.

Analysis:

During the July budget hearings, the City Commission requested a change in handling credit card fees.

Credit card fees for FYE September 30, 2023 are slightly over \$400,000. The City has absorbed the fees since September of 2015. Prior to 2015, the City charged \$5.00 for using a credit card online or through the phone. Credit cards used in City Hall were not charged due to the card companies' rules. The City stopped the credit card fees in order to encourage people to use other payment methods and lessen traffic into City Hall.

Amendment No. 4 will allow the City to add a fee for all credit/debit cards as well as ACH/eChecks including those paid in City Hall. Only the utility payment portion of the Paymentus agreement has changed. The non-utility payments and Building permits payments have not changed except the eCheck which went from \$0.40 to \$1.00 per check. The prices of all services are on Schedule A of Amendment No. 4 attached to the resolution:

	CREDIT CARD FEES	
	Residential	Commercial
Kississimmee Utility Authority	\$ 3.25	\$4.95/\$1,000
Orlando Utilities	\$ 2.50	\$ 5.00
Ocala Utilities	2.50%	2.50%
Lakeland Utilities	\$ 2.75	\$ 2.75
Leesburg	\$ 3.50	\$ 3.50
SECO - Sumter Electric	No Charge	
Mount Dora	No Charge	

Implementation will depend on software and printing changes and some equipment replacements for the swiping of cards in house. We plan on giving two months' notice on the utility bills and website upon approval by the City Commission. Estimated start with the January 2024 utility bills.

Procurement Analysis:

N/A

Options:

1. Accept and approve the Resolution as presented, or
2. Such alternative actions as the City Commission may deem appropriate.

Fiscal Impact:

The fiscal impact is a reduction of our credit/debit card fee of approximately \$400,000.
Account No. 001-1334-513-4920

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE
AMENDMENT NO. 4 OF THE MASTER SERVICES AGREEMENT WITH
PAYMENTUS, INC. TO PROVIDE ELECTRONIC UTILITY BILL PAYMENT
SERVICES TO PROCESS CITY UTILITY CUSTOMER PAYMENTS BY
CREDIT AND DEBIT CARD AND ACH/ECHECK; AND PROVIDING AN
EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk are hereby authorized to execute Agreement No. 4 with Paymentus Corporation, 11605 N. Community House Road, Suite 300, Charlotte, NC 28277, for credit and debit card and ACH and eCheck payment processing services and merchant services.

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

AMENDMENT NO. 4 TO MASTER SERVICES AGREEMENT EFFECTIVE AUGUST 10, 2015

This Amendment No. 4 (“Amendment”) amends the Master Services Agreement effective as of August 24, 2015 (“Effective Date”) which was modified by Amendment No. 1 effective November 18, 2016, Amendment No. 2 effective March 25, 2020, and Amendment No. 3 effective January 25, 2021 (collectively, the “Agreement”), between City of Leesburg, a Florida (“Client”) with a principal place of business located at 501 West Meadow St., PO Box 490630, Leesburg, FL 34749 and Paymentus Corporation, a State of Delaware Corporation with a principal place of business at 11605 N. Community House Rd, Suite 300, Charlotte, North Carolina 28277 (“Paymentus”). Client and Paymentus are also referred to as “Party” and collectively as the “Parties.” This Amendment is effective at the time of the last to sign of the Parties.

STATEMENT OF PURPOSE

Client and Paymentus entered into the Agreement for electronic bill payment services;

The parties agree to amend the Agreement to update Paymentus fees, and to extend the term through September 30, 2026.

AGREEMENT

In consideration of mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Client and Paymentus agree as follows:

1. Amendment. The Agreement is hereby amended as of the Effective Date of this Amendment as follows:
 - 1.1 Schedule A – Paymentus Service Fee Schedule (“Schedule A”) of the Agreement is hereby deleted and the new Schedule A attached here to is substituted in lieu thereof.
 - 1.2 The Parties agree to extend the term (“Term”) of the Agreement through September 30, 2026. At the end of the Term, this Agreement will automatically renew for successive three (3) year periods (“Renewal Term”) unless either Client or Paymentus provide the other party with not less than 6 (six) months prior written notice before such automatic renewal date that such party elects not to automatically renew the term of this Agreement.
 - 1.3 The Parties wish to amend Section 8.2 of the Paymentus Master Services Agreement (“MSA”) to fully indemnify and hold harmless Paymentus, its affiliates, officers, directors, stockholders, agents, employees, and representatives, (collectively, the “Paymentus Indemnitees”) from and against all liabilities, demands, losses, damages, costs or expenses (including without limitation reasonable attorney’s fees and expenses) incurred as a result of the Client’s decision to charge a fee to the End User for card-present payments made in-person through an over-the-counter payment channel. Paymentus has provided the Client with the most current Visa® Merchant Operating Guidelines for the charging of a convenience fee
 - 1.4 Paymentus will include \$5,000 in future implementation credits to be used towards new solutions like Scan-to-Pay, Disbursements, Secure Service SMS, or any other implementation request.
2. Miscellaneous:

2.1 This Amendment is binding and inures to the benefit of the Parties and their respective successors and assigns.

2.2 All other terms and conditions of the Agreement not modified by this Amendment remain in full force and effect.

2.3 This Amendment may be executed in two or more counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed by their duly authorized representatives.

CITY OF LEESBURG, FL

PAYMENTUS CORPORATION

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Schedule A – Paymentus Service Fee Schedule

The Services will initially consist of the Services indicated on the following table. The Paymentus Fee will be as specified below, and will be paid by the Client (“Absorbed Fee”), unless designated as a User paid fee.

Channels	Payment Methods	Payment Type	Paymentus Service Fee	Fee Model
Instant Payment Network™ Direct Payments (Web, IVR, Scheduled, Agent Dashboard)	Credit Cards, Debit Cards, and All payment channels and methods offered under IPN such as PayPal, Venmo, PayPal Credit, Secure PDF Push, Chatbot, Advanced Notification Service (ECM), Text 2 Pay, Voice Assistants, Mobile Apps and others as offered by Paymentus from time to time	Utility Payments	\$3.50 per transaction	User Fee
		Non-Utility Payments	2.45% per transaction or \$1.00, whichever is greater	User Fee
		Building Permit and Commercial Development Payments	2.90% per transaction or \$1.00, whichever is greater	User Fee
Direct Payments (Web, IVR, Scheduled, Agent Dashboard)	ACH/eCheck	Utility Payments	\$1.00 per transaction	User Fee
		Non-Utility Payments	\$1.00 per transaction	User Fee
		Building Permit and Commercial Development Payments	\$1.00 per transaction	User Fee
Direct Payments (In-Person Device Payments)	Credit/Debit Cards	Utility Payments	\$3.50 per transaction	User Fee
		Non-Utility Payments	2.45% per transaction or \$1.00, whichever is greater	User Fee
		Building Permit and Commercial Development Payments	2.90% per transaction or \$1.00, whichever is greater	User Fee

Payment Type	Average Bill Amount	Maximum Payment Amount
Utility Payments	\$270.00	\$2,500.00
Non-Utility Payments	\$270.00	\$9,999.00
Building Permit and Commercial Development Payments	Varies	\$50,000.00

Note:

- Multiple payments may be made.
- Paymentus may apply different limits per transaction for user adoption or to mitigate risk.
- Chargeback and Return items are at no cost to Client.

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.C.5.

Meeting Date: October 23, 2023

From: Al Minner, (City Manager)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Mayor and City Clerk to execute a Civic Organization Funding Agreement with Leesburg Cemeteries, Inc. for Fiscal Year 2023/24; and providing an effective date.

Staff Recommendation:

Staff recommends approval of the agreement with Leesburg Cemeteries for \$161,760.00 for fiscal year 2023/24 civic organization grant funding.

Analysis:

Historically, Leesburg Cemeteries, Inc. has been included as part of the City of Leesburg's overall civic organization grant funding process. Several years ago, at the direction of the City Commission, this funding was moved and is now specifically included in its own line in the budget. The funding is used to provide upkeep and maintenance at both Lone Oak and Shady Oak cemeteries.

In September, 2022, the City Commission approved an increase of \$50,000.00 for Leesburg Cemeteries, Inc. for fiscal year 2023, bringing the grant amount to \$161,760.00. That total includes a utility credit of \$15,000.00 as noted in Section I of the agreement. The funding amount remains the same for fiscal year 2024.

Procurement Analysis:

N/A

Options:

1. Approve the Civic Organization Funding Agreement with Leesburg Cemeteries, Inc. in the amount of \$161,760.00; or
2. Such alternate action as the Commission may deem appropriate.

Fiscal Impact:

Funds are specifically budgeted in fiscal year 2024 and paid out of the Solid Waste fund.
Account No. 046-6088-534-8215

Budget	\$161,760
Available	\$161,760

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE A
CIVIC ORGANIZATION FUNDING AGREEMENT WITH LEESBURG
CEMETERIES, INC. FOR FISCAL YEAR 2023/24; AND PROVIDING AN
EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

WHEREAS, it is permissible for cities to make contributions to non-profit corporations where the contributions further a public purpose; and

WHEREAS, Leesburg Cemeteries, Inc., is seeking contributions from the City of Leesburg to help provide a public service to City residents; and

WHEREAS, in the past there have been formal executed agreements between the City of Leesburg and agencies receiving such contributions; and

WHEREAS, the City of Leesburg desires to continue having such agreements with the various agencies which receive annual contributions.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the Mayor and City Clerk of the City of Leesburg are hereby authorized and directed to execute the Civic Organization Funding Agreement between the City of Leesburg and the entity listed above for the amount listed in the contract.

THAT this resolution shall take effect immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida at its regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

CIVIC ORGANIZATION FUNDING AGREEMENT

THIS AGREEMENT is entered into by and between the City of Leesburg, Florida (hereinafter referred to as "City"), and the Leesburg Cemeteries, Inc., a not for profit corporation (hereinafter referred to as "Agency").

WITNESSETH:

THAT, it is permissible for cities to make contributions to nonprofit corporations where the contributions further a public purpose. Agency is seeking a City contribution to help provide a public service to City residents and the City wishes to make such a contribution for the public purposes stated herein and in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the promises, mutual covenants, conditions and payments hereinafter contained, the parties agree as follows:

Section 1. City Obligations. City agrees to provide the Agency with a **\$161,760.00** funding contribution in fiscal year 2023/2024. The agency will receive quarterly installments of \$36,690.00. City also agrees to provide a maximum of \$15,000.00 to Agency as credit to utility bills for Customer ID Number 337195 and the following three (3) location ID Numbers 511490, 593310 and 429590 in the amounts of \$2,400.00, \$1,800.00 and \$10,800.00 respectively.

Section 2. Agency Obligations. Agency shall be responsible for providing the City with the most IRS Form 990 and quarterly financial statements (profit and loss), along with activity reports showing the uses for which the City's contribution was expended. The financial statements shall be mailed to: City Manager's Office, City of Leesburg, P.O. Box 490630, Leesburg, FL 34749-0630. No disbursements will be made until financial statements and activity reports are received.

Section 3. Use of Funds. Agency understands that Florida law prohibits the City from expending funds for other than bona fide public purposes. Agency agrees to use all funds received by it under this Agreement for the following bona fide public purpose(s): **Provide maintenance and upkeep of the Lone Oak and Shady Oak cemeteries.** To the extent Agency's financial reports do not document adequately that the funds were expended solely for this bona fide public purpose, Agency agrees to reimburse to the City all funds not documented as having been expended in accordance with this Agreement.

Section 4. Lapse. In the event the Agency does not spend the funding contribution from the City within the stated term of this Agreement for the purposes outlined in this Agreement, or in the event this Agreement is terminated prior to the one year term in accordance with Section 5 below, the Agency shall return all of the unspent funding contribution to the City on or before the end of the first business day following the termination of this Agreement.

Section 5. Duration of Agreement. This Agreement shall become effective upon the date executed by the last party and shall continue for a period of one (1) year, subject to availability of funds by the City. This Agreement may be terminated by either party with thirty (30) days written notice of its intent to terminate. Approval of this grant by the City does not obligate the City to approve funding for future fiscal years, and should not be relied on by Agency as evidence of any expectation of future

funding. Agency must apply for future funding during the budgetary cycle for the upcoming fiscal year, but is not assured of receiving funding.

Section 6. Modifications. No modifications, amendments or alterations of the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith, and approved by the Leesburg City Commission at a public meeting where a quorum was present and the modification of this Agreement was on the agenda for discussion and action.

Section 7. Entire Agreement. This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein and the parties agree that there are no commitments, agreements or undertakings concerning the subject matter of this Agreement that are not contained in this document. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements whether oral or written.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the respective dates under each signature.

THE CITY OF LEESBURG, FLORIDA

By: _____
Mayor

ATTEST:

City Clerk

Approved as to form and content:

City Attorney

Org name Leesburg Cemeteries, Inc.

By: [Signature]

Printed Name: Tracy Metcalf

Title: Executive Director

Mailing Address: P.O. Box 490804
Leesburg, FL 34749-0804

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.C.6.

Meeting Date: October 23, 2023

From: Travis Rima, (Recreation Director)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing the Recreation Department to implement a waitlist deposit policy at the Venetian Cove Marina; and providing an effective date.

Staff Recommendation:

Staff recommends the approval of the waitlist deposit policy.

Analysis:

At the direction of the City Commission, staff created a storage slip waitlist deposit policy for the Venetian Cove Marina. The VCM policy mirrors the waitlist policy of the Leesburg International Airport. Per the policy, potential customers must fill out an application, pay a \$150 deposit, and be added to the waitlist if a space is not available at the time of their inquiry. Once a space is available, the \$150 deposit will be utilized for the 1st months rent, or a portion of the 1st months rent, depending on size and location of the vessel. Customers may remove themselves from the waitlist by contacting VCM staff and receive a refund of the deposit at any time. Positions on the slip waiting list shall not be transferred, traded, or sold.

Procurement Analysis:

N/A

Options:

1. Accept and approve the Resolution as presented; or
2. Such alternative actions as the City Commission may deem appropriate.

Fiscal Impact:

There is no fiscal impact.

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING THE RECREATION DEPARTMENT TO
IMPLEMENT A WAITLIST DEPOSIT POLICY AT THE VENETIAN COVE
MARINA; AND PROVIDING AN EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the City Commission hereby authorizes approval of the attached policy for The Venetian Cove Marina, whose address is 250 Ball Park Road, Leesburg, FL, 34748.

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk



VENETIAN COVE MARINA WET AND DRY STORAGE WAITLIST POLICY

250 Ball Park Road, Leesburg, FL 34748 - 352.728.9870



1. Vacant slips will be offered to individuals on the wait list. For a person to appear on the slip waiting list they shall:
 - A. Complete and file a slip request application with Marina Administration. Applicants are solely responsible for maintaining a current address, email, and telephone numbers on their application.
 - B. Pay slip deposit fee.
 - 1) All persons on the Wet and Dry Storage waiting list, either existing or new, shall make a \$150.00 slip deposit.
 - 2) The slip deposit shall be applied to the first month's slip rent. The \$150.00 deposit will be refunded if an applicant removes their name from the storage wait list by choice, or if an applicant is removed from the list by Marina Administration for declining a slip.
2. Position on the slip waiting list. Waiting list position for new applications shall be determined by the date the correctly completed application and deposit is received by the Marina Administration either online or via walk-in at the Marina Office, 250 Ball Park Road, Leesburg, FL.
3. Slip offers shall be made chronologically (oldest date to the most recent). When a slip becomes available, an offer notification will be made by Marina Administration. To accept the offer, the applicant must:
 - A. Reply in the affirmative within 2 business days of the date when positive notification was made with the applicant.
 - B. Complete Marina storage contract.
 - C. Vessel acquisition: Have a vessel registered to the applicant in the slip within thirty (30) days from the date Marina Administration received the applicant's contract and slip rental payment. Failure to have a seaworthy vessel registered to the applicant in the slip within 30 days of acquiring the slip may result in termination of rental agreement and removal from the slip.
4. Marina Administration Staff shall make every effort to contact the person in the top position of the slip waiting list either by email or telephone when a storage space becomes available. It is the applicant's responsibility to provide the most current contact information.
5. No-contact, failure to respond, or a "not interested" response, to the slip offer notification after 2 business days, shall be interpreted as – applicant is no longer in need of a slip and the next individual on the list will be contacted. Applicant's deposit will be refunded and they will be removed from the waiting list.
6. Persons removed from the slip waiting list may restore their names to the bottom of the waiting list by filling out a new application. If a past deposit was returned, a new deposit will be required.
7. Slip fees listed on the waiting list application are subject to change. Applicant is not guaranteed the monthly rate stated on the application form. Rates may increase periodically.
8. Deposits shall be either check, credit, or money order. In the event a check is returned for NSF or other reason, the applicant will have 5 workdays to remedy or will be removed from the list.
9. Applications may be completed online, or delivered via walk-in to the Venetian Cove Marina at 250 Ball Park Road, Leesburg, FL.
10. Positions on the slip waiting list shall not be transferred, traded or sold.
11. The applicant must provide one deposit per vessel. Applicants may select a wet slip, dry slip, or both on the application. For example, if an applicant has one vessel to store in either wet or dry slip they may select both on the application and submit one deposit.

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 5.C.7.

Meeting Date: October 23, 2023

From: Al Minner, (City Manager)

Subject: Resolution of the City Commission of the City of Leesburg, Florida authorizing amendments to Personnel Policy 800 - Non-Travel Meals and Refreshments; and providing an effective date.

Staff Recommendation:

Staff recommends revising the Non-Travel Meals and Refreshment Policy to allow for meal reimbursements to be done through the payroll process, and outline when an employee is eligible for such reimbursement.

Analysis:

Updating this policy will eliminate the need for an employee to provide a receipt for reimbursement of meals when they may miss a meal due to emergency work that arises, requiring an employee to work unplanned/unscheduled hours.

The administrative burden will fall on each department when processing payroll. The employee entitled to a meal reimbursement, will receive this in their paycheck, and the necessary documentation to support such reimbursements will be included with payroll documentation by the department. This change eases the process for the employee, while still maintaining the proper checks and balances.

Procurement Analysis:

N/A

Options:

1. Approve Policy 800 as amended; or
2. Such alternative action as the Commission may deem appropriate.

Fiscal Impact:

There should be no additional funds required due to this change in language.

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LEESBURG,
FLORIDA AUTHORIZING AMENDMENTS TO PERSONNEL POLICY 800 -
NON-TRAVEL MEALS AND REFRESHMENTS; AND PROVIDING AN
EFFECTIVE DATE.**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA:

THAT the City Commission hereby approves the amended language to Policy 800 - Non-Travel Meals and Refreshments.

THAT this resolution shall become effective immediately.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

Mayor

ATTEST:

City Clerk

800 NON-TRAVEL MEALS AND REFRESHMENTS POLICY

Purpose and Applicability

This policy provides guidelines when meals and refreshments may be paid for with City funds. Applicability of this policy is limited to non-travel business meals and refreshments. Non-travel would include meetings, training sessions, conferences, or other City sponsored events to conduct official City business within the statutory limits of the City of Leesburg or Lake County. This policy does not apply to reimbursement or provision of meals and refreshments to employees or authorized individuals, including volunteers, and City Commission members, while the employee or individual is on travel status. This policy is intended to provide guidelines to help decision makers determine the prudence of purchasing non-travel meals and refreshments with City funds. The cost of non-travel meals and refreshments should be reasonable and conform to the Section related to Per Diem for Meals and Non-Meal Related Tips of the City of Leesburg Travel Policy.

Food While in a Non-Travel Status

1. Employees may be reimbursed for meal expenses in a non-travel status while in attendance at an official City function or hearing or when hosting an official guest of the City.
2. Requests for reimbursement of meal expenses for employees not in a travel status must be accompanied by the Department Head or their designee's approval.

Meal Expenses for an Official Guest of the City

Original receipts, a list of guests including names and positions, and an explanation of the purpose for the visit must be attached to the reimbursement request. For business/industrial prospects, for which confidentiality is required, information on guest names and positions may be omitted, however, the explanation for the visit must be included and must be marked "CONFIDENTIAL INFORMATION." Such confidential information shall not be provided to the public by the City. (Information that is considered public information may be released, such as the payee and payment amount.) If any disagreement occurs with the individual requesting the information on whether such information is confidential, the City Attorney's Office shall be consulted.

Reimbursement in an Emergency Situation

On occasion, the City asks employees to work unplanned and unscheduled overtime. Employees involved in such **emergency work** may be inconvenienced in the consumption of meals and other normal subsistence. The intent of this policy is to provide authorization to reimburse City employees for any out of pocket expenses they may incur for subsistence due to necessity of unscheduled work. Meals taken “on the fly” during these periods of **emergency work** activities will be reimbursed. The employee will not be required to provide a receipt for reimbursement. The amount of reimbursement will be based on the meal reimbursement schedule shown below. The reimbursement will be processed through payroll, with all applicable taxes withheld. The required backup documentation for the emergency work must be furnished by the department with payroll/timesheet records. Refreshments that support a continuing work effort may be reimbursed as outlined in the “Refreshments” section of this policy. **Department Heads or supervisors in charge of the emergency work are authorized to decide when the circumstances exist to approve subsistence reimbursement.** If the department provides meals during the emergency work, meal reimbursement to the employee would not apply.

Meal Reimbursement will be as follows:

- a. Breakfast – When employee is called back to work before 6:00 a.m. and work extends beyond 10:00 a.m. they will be provided \$10.00 which includes tip (up to 15%) and tax
- b. Lunch – When employee is called back to work before Noon and work extends beyond 2:00 p.m. they will be provided \$15.00 which includes tip (up to 15%) and tax
- c. Dinner – When employee is called back to work before 6:00 p.m. and work extends beyond 8:00 p.m. they will be provided \$25.00 which includes tip (up to 15%) and tax
- d. If an employee is asked to work beyond their shift due to emergency work, they may be reimbursed for a meal depending on the actual hours worked.

Certain Official Meetings

1. Reimbursement for meals, for certain business meetings, which include formal training sessions, involving elected and appointed officials, employee and others the City is legally authorized to reimburse regardless of travel status, the City Manager or authorized designee may approve reimbursement for the allowable cost of meals. This authority is intended

for use when the City requires a person to attend a meeting where business meals are served, and where the purpose of the meeting is to conduct official business or to provide training to employees or City officials; and the meals are an integral part of the business meeting, and the City Manager or authorized designee approves payment for the meals in advance of the meeting. Approvals must be in writing.

Refreshments

1. Refreshments are defined to include beverages such as coffee, tea, bottled water, juice, soda, and similar liquid refreshments as well as sugar and creamer. Food items such as fruit, pastries, chips, cookies, cake, candy, etc., are also considered refreshments.
2. At the discretion of the City Manager, City funds may be used to provide refreshments as follows:
 - a. Business meetings with industry representatives or the public. This may include events such as task force, advisory board, or commission meetings.
 - b. Business meetings involving City employees that are scheduled to last 4 hours or longer.
 - c. Business meetings or training events when the majority of personnel attending are called in from field locations to where the meeting or training is taking place.
 - d. Staff retreats held for the purpose of the agency's work-related planning, lasting more than four (4) hours in a single day for either single or multiple days, not to exceed one (1) retreat per quarter.
3. Departments may not make expenditures for meals in the following situations:
 - a. For anniversaries, receptions for new, existing, and/or retiring employees or officials; election celebrations, etc.
 - b. Any "hosting" activities. "Hosting" includes, but is not limited to, those activities that are intended either to lobby a legislator or a governmental official, or are to be a social rather than governmental business event, and include expenditures for meals for those whom agencies are not legally authorized to reimburse. Departments must

document the request and approval in advance for expenditures for meals with meetings. Departments may use a Travel Authorization form, an Invoice Voucher, or a formally written memorandum for this purpose. The documentation should provide support for the authorization, including:

- 1) The names of the departments or persons attending the meeting (includes conferences, conventions, and formal training sessions), and
- 2) The purpose or accomplishments of the meeting.

800 NON-TRAVEL MEALS AND REFRESHMENTS POLICY

Purpose and Applicability

This policy provides guidelines when meals and refreshments may be paid for with City funds. Applicability of this policy is limited to non-travel business meals and refreshments. Non-travel would include meetings, training sessions, conferences, or other City sponsored events to conduct official City business within the statutory limits of the City of Leesburg or Lake County. This policy does not apply to reimbursement or provision of meals and refreshments to employees or authorized individuals, including volunteers, and City Commission members, while the employee or individual is on travel status. This policy is intended to provide guidelines to help decision makers determine the prudence of purchasing non-travel meals and refreshments with City funds. The cost of non-travel meals and refreshments should be reasonable and conform to the Section related to Per Diem for Meals and Non-Meal Related Tips of the City of Leesburg Travel Policy.

Food While in a Non-Travel Status

1. Employees may be reimbursed for meal expenses in a non-travel status while in attendance at an official City function or hearing or when hosting an official guest of the City.
2. Requests for reimbursement of meal expenses for employees not in a travel status must be accompanied by the Department Head or their designee's approval.

Meal Expenses for an Official Guest of the City

Original receipts, a list of guests including names and positions, and an explanation of the purpose for the visit must be attached to the reimbursement request. For business/industrial prospects, for which confidentiality is required, information on guest names and positions may be omitted, however, the explanation for the visit must be included and must be marked "CONFIDENTIAL INFORMATION." Such confidential information shall not be provided to the public by the City. (Information that is considered public information may be released, such as the payee and payment amount.) If any disagreement occurs with the individual requesting the information on whether such information is confidential, the City Attorney's Office shall be consulted.

Reimbursement in an Emergency Situation

On occasion, the City asks employees to work unplanned and unscheduled overtime. Employees involved in such **emergency work** may be inconvenienced in the consumption of meals and other normal subsistence. The intent of this policy is to provide authorization to reimburse City employees for any out of pocket expenses they may incur for subsistence due to necessity of unscheduled work. Meals taken “on the fly” during these periods of **emergency work** activities will be reimbursed. The employee will not be required to provide a receipt for reimbursement. The amount of reimbursement will be based on the meal reimbursement schedule shown below. The reimbursement will be processed through payroll, with all applicable taxes withheld. The required backup documentation for the emergency work must be furnished by the department with payroll/timesheet records. Refreshments that support a continuing work effort may be reimbursed as outlined in the “Refreshments” section of this policy.

Department Heads or supervisors in charge of the emergency work are authorized to decide when the circumstances exist to approve subsistence reimbursement. If the department provides meals during the emergency work, meal reimbursement to the employee would not apply.

Meal Reimbursement will be as follows:

- a. Breakfast – When employee is called back to work before 6:00 a.m. and work extends beyond 10:00 a.m. they will be provided \$10.00 which includes tip (up to 15%) and tax
- b. Lunch – When employee is called back to work before Noon and work extends beyond 2:00 p.m. they will be provided \$15.00 which includes tip (up to 15%) and tax
- c. Dinner – When employee is called back to work before 6:00 p.m. and work extends beyond 8:00 p.m. they will be provided \$25.00 which includes tip (up to 15%) and tax
- d. If an employee is asked to work beyond their shift due to emergency work, they may be reimbursed for a meal depending on the actual hours worked.

Certain Official Meetings

1. Reimbursement for meals, for certain business meetings, which include formal training sessions, involving elected and appointed officials, employee and others the City is legally authorized to reimburse regardless of travel status, the City Manager or authorized designee may approve reimbursement for the allowable cost of meals. This authority is intended for use when the City requires a person to attend a meeting where

business meals are served, and where the purpose of the meeting is to conduct official business or to provide training to employees or City officials; and the meals are an integral part of the business meeting, and the City Manager or authorized designee approves payment for the meals in advance of the meeting. Approvals must be in writing.

Refreshments

1. Refreshments are defined to include beverages such as coffee, tea, bottled water, juice, soda, and similar liquid refreshments as well as sugar and creamer. Food items such as fruit, pastries, chips, cookies, cake, candy, etc., are also considered refreshments.
2. At the discretion of the City Manager, City funds may be used to provide refreshments as follows:
 - a. Business meetings with industry representatives or the public. This may include events such as task force, advisory board, or commission meetings.
 - b. Business meetings involving City employees that are scheduled to last 4 hours or longer.
 - c. Business meetings or training events when the majority of personnel attending are called in from field locations to where the meeting or training is taking place.
 - d. Staff retreats held for the purpose of the agency's work-related planning, lasting more than four (4) hours in a single day for either single or multiple days, not to exceed one (1) retreat per quarter.
3. Departments may not make expenditures for meals in the following situations:
 - a. For anniversaries, receptions for new, existing, and/or retiring employees or officials; election celebrations, etc.
 - b. Any "hosting" activities. "Hosting" includes, but is not limited to, those activities that are intended either to lobby a legislator or a governmental official, or are to be a social rather than governmental business event, and include expenditures for meals for those whom agencies are not legally authorized to reimburse. Departments must document the request and approval in advance for expenditures for

meals with meetings. Departments may use a Travel Authorization form, an Invoice Voucher, or a formally written memorandum for this purpose. The documentation should provide support for the authorization, including:

- 1) The names of the departments or persons attending the meeting (includes conferences, conventions, and formal training sessions), and
- 2) The purpose or accomplishments of the meeting.

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.A.1.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Kandi Harper, (Planner)

Subject: An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 17-07 pertaining to a change in the Future Land Use Element of City of Leesburg Comprehensive Plan to establish the Orange Bend Future Land Use designation and creating applicable Goals, Objectives and Policies, and ratifying and readopting Ordinance 17-08 pertaining to a change in Future Land Use on approximately 640 acres from Lake County Agriculture to City of Leesburg Orange Bend, for property generally situated in Section 33, Township 18 South, Range 25 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 17-07, 17-08 Orange Bend)

Staff Recommendation:

Staff recommends approval of the request to amend the City's Comprehensive Plan to ensure compliance with Chapter 163, Florida Statutes.

Analysis:

In 2017, Planning and Zoning staff prepared and forwarded to the City Commission, in compliance with Florida Statutes, Ordinances 17-07 and 17-08, for the purpose of creating and adopting the Orange Bend Future Land Use category for an area generally located north and west of County Road 44 and South of Haines Creek. At that time, the City Commission did approve these ordinances, after receiving written comments and affirmative recommendations from the City of Leesburg Planning Commission. Although the Ordinances 17-07 and 17-08 were properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinances were correctly transmitted to the reviewing agencies in accordance with the specific requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes. In an abundance of caution, Staff respectfully requests that the Commission ratify and readopt as shown herein. This action will ensure full compliance with all procedures for adopting large-scale amendments to the City's Comprehensive Plan as outlined in Section 163.3184 (3).

Procurement Analysis:

N/A

Options:

1. Approve the request to adopt the large-scale comprehensive plan amendments as presented; or
2. Other action as the Commission may choose.

Fiscal Impact:

No fiscal impact is anticipated as a result of this request.

ORDINANCE NO.: _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, RATIFYING AND READOPTING ORDINANCE 17-07 PERTAINING TO A CHANGE IN THE FUTURE LAND USE ELEMENT OF CITY OF LEESBURG COMPREHENSIVE PLAN TO ESTABLISH THE ORANGE BEND FUTURE LAND USE DESIGNATION AND CREATING APPLICABLE GOALS, OBJECTIVES AND POLICIES, AND RATIFYING AND READOPTING ORDINANCE 17-08 PERTAINING TO A CHANGE IN FUTURE LAND USE ON APPROXIMATELY 640 ACRES FROM LAKE COUNTY AGRICULTURE TO CITY OF LEESBURG ORANGE BEND, FOR PROPERTY GENERALLY SITUATED IN SECTION 33, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, TO ENSURE COMPLIANCE WITH THE PROCEDURES OF CHAPTER 163, FLORIDA STATUTES FOR ADOPTING LARGE SCALE COMPREHENSIVE PLAN AMENDMENTS RELATING TO SAID PROPERTY; DIRECTING TRANSMITTAL TO THE REVIEWING AGENCIES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on February 27, 2017, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 17-07 pertaining to a change in the future land use element of the Comprehensive Plan to establish the Orange Bend Future Land Use designation, and creating applicable Goals, Objectives, and Policies;

WHEREAS, on February 27, 2017, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 17-08 pertaining to a change in future land use on 640 acres from Lake County Rural and Lake County Rural Transition to City of Leesburg Orange Bend on certain real property generally situated in Section 33, Township 18 South, Range 25 East, Lake County, Florida

WHEREAS, Ordinances 17-07 and 17-08 were adopted by the City Commission after receiving written comments and affirmative recommendations to amend the City's Comprehensive Plan from the City of Leesburg Planning Commission, acting as the Local Planning Agency;

WHEREAS, Ordinances 17-07 and 17-08 were adopted by the City Commission after receiving written objections, recommendations, and comments from the general public at public hearings held in accordance with law;

WHEREAS, although Ordinances 17-07 and 17-08 were properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinances were transmitted to the Reviewing Agencies in accordance with the requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes;

WHEREAS, in an abundance of caution, the City Commission wishes to ratify and readopt Ordinances 17-07 and 17-08 consistent with the procedures of Section 163.3184(3), Florida Statutes, to ensure full compliance with all procedures of adopting large-scale amendments to the City's Comprehensive Plan;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEESBURG, FLORIDA:

Section 1. Recitals. The above recitals are hereby restated and are incorporated herein for all purposes.

Section 2. Ratification and Readoption of Ordinances. Ordinances 17-07 and 17-08 are hereby ratified and readopted.

Section 3. Transmittal to Reviewing Agencies. City staff is directed to transmit Ordinances 17-07 and 17-08, this Ordinance, and any other required or requested documents and information to the Reviewing Agencies in accordance with the procedures of Section 163.3184, Florida Statutes, regarding large-scale amendments to the City's Comprehensive Plan.

Section 4. Comprehensive Plan Amendment. The Growth Management Plan of the City of Leesburg, adopted by the City of Leesburg on December 10, 2012, pursuant to the Community Planning Act of 2011, Chapter 163, Part II, Florida Statutes, after public hearing by the City of Leesburg Planning Commission, is hereby amended in the following manner:

The Future Land Use Map is amended by changing the future land use designations on various properties in the city, legally described as:

SEE EXHIBIT "A" ATTACHED HERETO

Section 5. The provisions of this ordinance are severable, and it is the intention of the City Commission of the City of Leesburg, Florida, to confer the whole or any part of the powers herein provided. If any court of competent jurisdiction shall hold any of the provisions of this ordinance unconstitutional, the decision of such court shall not impair any remaining provisions of this ordinance.

Section 6. Effective Date. The effective date of this plan amendment, if the amendment is not timely challenged, shall be 31-days after the state land planning agency notifies the local government that the plan amendment package is complete. If the amendment is timely challenged, the amendment shall become effective on the date the state land planning agency or the Administration Commission enters a final order determining this adopted amendment to be in compliance.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held the _____ day of _____, 2023.

James A. Burry, Jr., Mayor

ATTEST:

J. Andi Purvis, City Clerk

EXHIBIT "A"

(legal description)

LEGAL DESCRIPTION:

BEGIN AT THE SOUTHEAST CORNER OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA, AND RUN THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 TO A POINT ON THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHWESTERLY ALONG SAID EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272 AND NORTHWESTERLY ALONG THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 3572, PAGE 1805, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE SOUTHWEST CORNER OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE NORTHWEST CORNER OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD; THENCE WESTERLY ALONG THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD TO A POINT ON THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SECTION 4, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SAID SECTION 4, TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33 TO A POINT ON THE EAST LINE OF THE LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHERLY, WESTERLY, NORTHWESTERLY, WESTERLY AND NORTHERLY ALONG THE EASTERLY LINE OF SAID LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032 TO A POINT ON THE SOUTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHEAST TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 TO THE NORTHWEST CORNER OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 TO A POINT ON THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK); THENCE SOUTHEASTERLY AND EASTERLY ALONG AND WITH THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK) TO A POINT ON THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, TO THE SOUTHEAST CORNER OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, SAID POINT ALSO BEING THE NORTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3, TO THE SOUTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTH 198 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE NORTH LINE OF THE SOUTH 198 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO A POINT ON THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3; THENCE SOUTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE SOUTHWEST CORNER

EXHIBIT "A"

(legal description continued)

OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE
EASTERLY ALONG SOUTH LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4
TO A POINT ON THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4
OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF
THE NORTHEAST 1/4 TO THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST
1/4 OF SAID SECTION 3, SAID POINT ALSO BEING ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF
SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHEAST 1/4 TO THE
NORTHEAST CORNER OF THE SOUTHEAST 1/4; THENCE SOUTHERLY ALONG THE EAST LINE OF
THE SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

LESS ROAD RIGHT OF WAYS.

Objective 1.15 Orange Bend Mixed-Use. The City shall apply the Orange Bend Mixed-Use Future Land Use designation where appropriate. The Orange Bend Mixed-Use land use designation requires a mixture of compatible uses, which reinforces an efficient pattern of development, reduces excessive travel demands, promotes multi-modal transportation opportunities, is bicycle and pedestrian friendly, seeks a jobs-housing balance, provides varied housing opportunities, protects and enhances sensitive environmental areas, and provides sites for parks, and other community services. The Orange Bend Mixed-Use designation is intended for a newly developing area which is suitable for urban development and under unified control for master planning. The purpose of the Orange Bend Mixed-Use designation is to encourage flexible and creative site design.

Policy 1.15.1 The Orange Bend Mixed-Use Land Use designation shall permit a mix of uses to include: a mix of residential structures, commercial, professional offices, personal services uses, light industrial (personal and business storage, distribution and assembly), hotel, institutional, medical uses to include ALFs, ILFs, activity and recreational land uses which shall include passive recreational opportunities. All development designated Orange Bend Mixed-Use shall be rezoned to a Planned Unit Development (PUD). The Orange Bend Mixed-Use designation may only apply to developments that are a minimum of 640 MOL gross acres.

The maximum floor area ratios and residential units for the Orange Bend Mixed-Use designation shall be as provided in *Policy 1.1.1 Future Land Use Map*. The Orange Bend Mixed-Use designation shall permit the following mix and range of uses, as enumerated in the chart below or calculated as a percentage of gross acreage:

Land Use	Minimum	Maximum
<i>Residential (total units):</i>		995
<i>Single Family Units:</i>		800
<i>Townhome/Multi-Family Units:</i>		195
<i>Commercial</i>		283,700 SF Floor Area
<i>Community Services (Institutional) site</i>		One (1) acre
<i>Open Space</i>	30%	
<i>Wetlands/Recreation/Conservation</i>	28% MOL	

Residential uses located over retail or office uses shall be permitted in mixed-use areas. but the residential component shall be excluded from the percentage calculation of gross acreage listed above.

Gross density shall not exceed 1.60 dwellings units per acre.

Policy 1.15.2 Residential uses shall be located so as to facilitate bicycle / pedestrian access to retail, office, and other non-residential uses, and to future transit links with the specific intent of reducing automobile dependence and promoting sustainable lifestyle habits. Residential uses may be vertically integrated with office and retail uses.

Policy 1.15.3 The Orange Bend Mixed-Use PUD ordinance shall include design guidelines that emphasize the pedestrian experience and promote a sense of place. Design guidelines shall include: building mass and form; pedestrian, bicycle, and vehicular circulation;

vehicular access; sidewalks; setbacks; open space; parking; service areas; architectural standards; materials; lighting; signage; and streetscapes.

Policy 1.15.4 Office / light industrial uses shall be positioned to attract high-tech/high-value employment. Design of office uses may include corporate campus style development.

Policy 1.15.5 The City of Leesburg shall adopt site-specific sub-policies for any property designated Orange Bend Mixed-Use on the Future Land Use Map. The site-specific sub-policies shall address the following items at a minimum:

1. Development program, including the maximum number of residential units and non-residential square footage allowed on the property;
2. Development phasing plan;
3. Public facilities analysis and mitigation, including strategies to address the supply of the following, at a minimum:
 - a. Transportation facilities,
 - b. Stormwater facilities,
 - c. Water and wastewater facilities,
 - d. Water supply, and
 - e. Public school facilities.

All development designated Orange Bend Mixed-Use shall be rezoned to a Planned Unit Development (PUD). The Orange Bend Mixed-Use PUD ordinance shall establish the permitted development program and may include a land use conversion matrix that will allow the developer to modify the approved acreages and/or square feet permitted for each land use, within certain defined thresholds. These conversions may be made to accommodate changes in market conditions etc., provided they do not exceed twenty-percent (20%) of the approved residential units, non-residential floor area ratio, and acreage of the corresponding land use and as long as there is no net increase in impacts as a result of the land use conversion (including transportation, potable water, water supply, wastewater, stormwater supply and public school impacts). These conversions must also remain within the range of minimum and maximum mixture of uses permitted for the Orange Bend Mixed-Use category (consistent with the *Future Land Use Element Policy 1.15.1*).

Policy 1.15.6 Fire Station Site Institutional. The developer and city shall negotiate the location of an institutional land use on the plat of the subdivision which may be used by the city and/or county for the purposes of housing a fire station, police substation, emergency medical services and other municipal services (i.e.: library, tag office, driver's license office, etc.). The institutional land use shall be located such that it shall service, not only the proposed development, but also the surrounding community. The city shall have the right to take title to the institutional site at any time after the plat of the subdivision is approved. The community center site shall not exceed one (1) acre.

Policy 1.15.7 The PUD shall make provisions to allow for agricultural use of the property to continue, in whole or in part until the Orange Bend development has reached substantial completion of seventy-five percent (75%) of the gross acreage. The agricultural uses shall include, but not be limited to; beef cattle and horse ranch, timber, sod, hay and row crops. Uses which shall be specifically prohibited are hog farms, dairy farms, and chicken farms. In as much as the City of Leesburg does not have an agricultural zoning classification, the rules and privileges which apply to agricultural property under the jurisdiction of Lake County shall apply.

Lowrie Brown Ranch / *Orange Bend Land Use*
Large Scale Comprehensive Plan Text Amendment
CPTA 16-124 Creating Orange Bend Development Standards

Agricultural uses within the Orange Bend Land Use designation shall operate pursuant to best management practices and procedures under the provisions of Florida Statutes, *Title XI, Chapter 163, §163.3162 Agricultural Lands and Practices* for the duration of such uses. Agricultural uses shall cease and desist upon completion of seventy-five percent (75%) of the gross area proposed as the Orange Bend (Lowrie Ranch) PUD (Planned Unit Development).

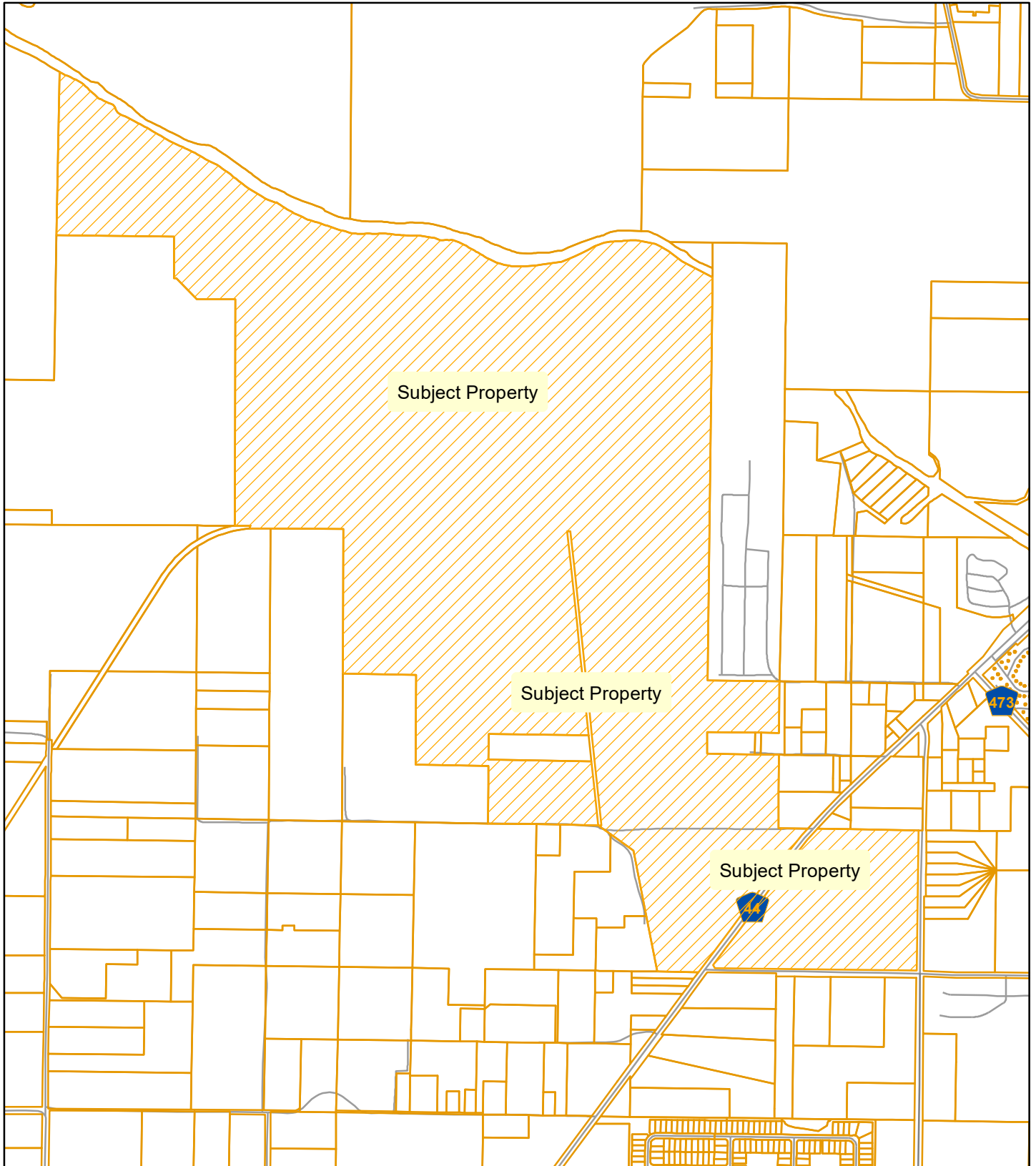
EXHIBIT A
LOWRIE BROWN/ORANGE BEND

LEGAL DESCRIPTION

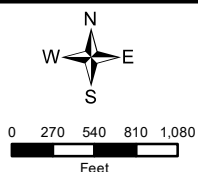
LEGAL DESCRIPTION:

BEGIN AT THE SOUTHEAST CORNER OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA, AND RUN THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 TO A POINT ON THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHWESTERLY ALONG SAID EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272 AND NORTHWESTERLY ALONG THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 3572, PAGE 1805, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE SOUTHWEST CORNER OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE NORTHWEST CORNER OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD; THENCE WESTERLY ALONG THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD TO A POINT ON THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SECTION 4, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SAID SECTION 4, TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33 TO A POINT ON THE EAST LINE OF THE LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHERLY, WESTERLY, NORTHWESTERLY, WESTERLY AND NORTHERLY ALONG THE EASTERLY LINE OF SAID LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032 TO A POINT ON THE SOUTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 TO THE NORTHWEST CORNER OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 TO A POINT ON THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK); THENCE SOUTHEASTERLY AND EASTERLY ALONG AND WITH THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK) TO A POINT ON THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, TO THE SOUTHEAST CORNER OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, SAID POINT ALSO BEING THE NORTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3, TO THE SOUTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTH 188 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE NORTH LINE OF THE SOUTH 188 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO A POINT ON THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3; THENCE SOUTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO A POINT ON THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3, SAID POINT ALSO BEING ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTHEAST 1/4; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHEAST 1/4 TO THE POINT OF BEGINNING.
LESS ROAD RIGHT OF WAYS.

Locator

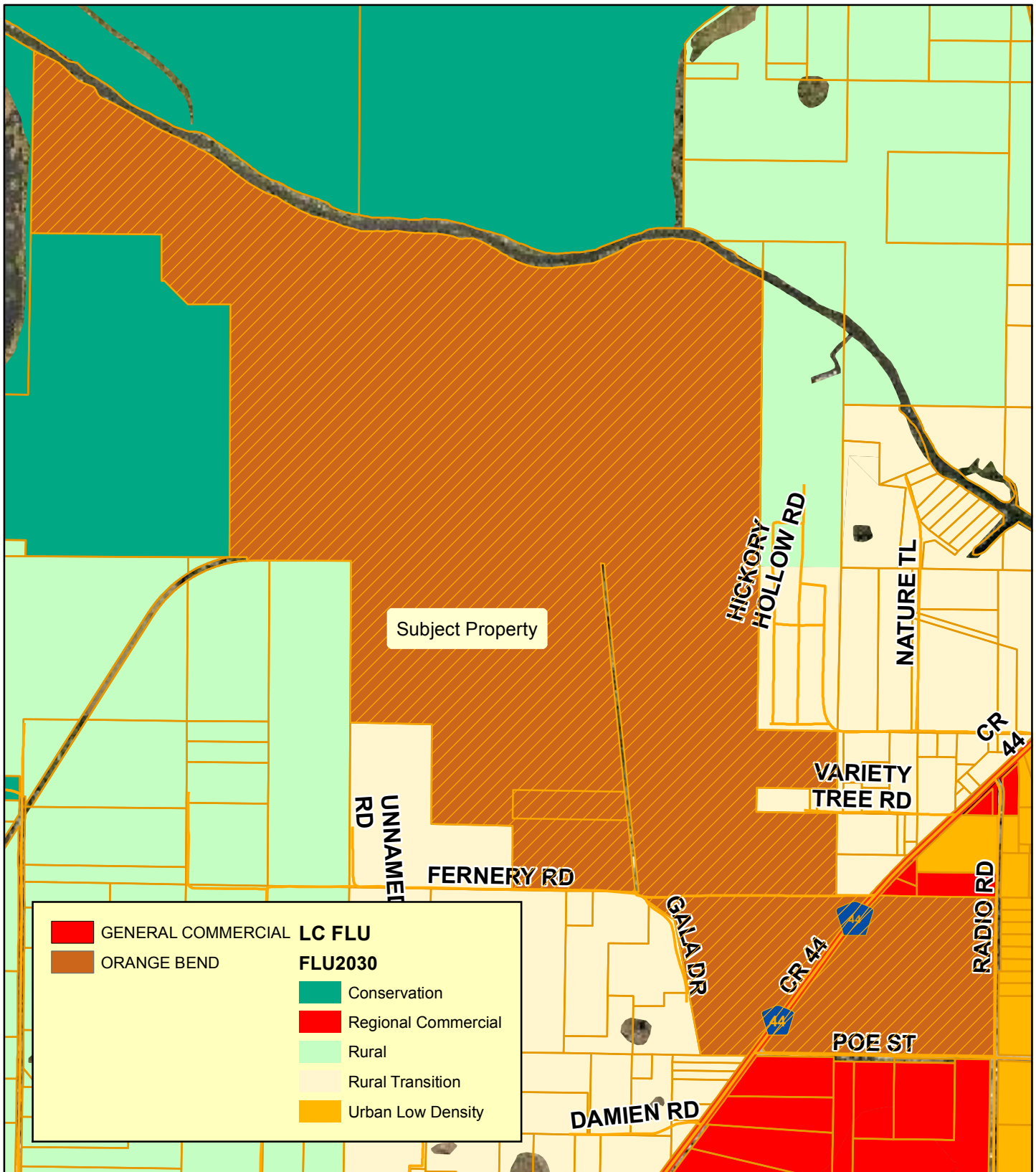


**Planning
& Zoning
Division**

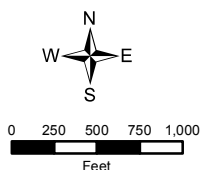


Ratify and Readopt
Ordinance 17-07 and Ordinance 17-08
Section 33, Township 18 South, Range 25 East
August 28, 2023

ADOPTED ORANGE BEND FUTURE LAND USE



**Planning
& Zoning
Division**



CPTA-16-124; LSCP-16-143; PUC-16-87
Orange Bend
Alternate Key(s): 1387060, 1535921
Section 33; Township 18 South; Range 25 East
Section 3; Township 19 South; Range 25 East
August 7, 2018



September 26, 2023

Florida Department of Commerce
Bureau of Comprehensive Planning
Attention: Barbara Powell, Plan Processing Administrator
State Land Planning Agency
Caldwell Building
107 East Madison St. – MSC 160
Tallahassee, FL 32399-4120

RE: *REVISED* TRANSMITTAL PHASE – Ratify and Readopt Ordinance 17-07 (Text) and Ordinance 17-08 (Map); Expedited State Review Proposed Comprehensive Plan Future Land Use Element Text Amendment Application No. CPTA-16-124 (Text) and Future Land Use Map Amendment Application No. LSCP-16-143

Dear Ms. Powell:

Enclosed herein is the proposed comprehensive plan Future Land Use Element Text amendment and Future Land Use Map amendment, referenced above, submitted in accordance with Subsection 163.3184(3), Florida Statutes.

- 1) Summary of the plan amendment including that the amendment is being submitted under the expedited state review process. The proposed comprehensive plan Future Land Use Element Text amendment and Future Land Use Map amendment is to establish Orange Bend Future Land Use on the subject property and Orange Bend Objectives and Policies in the Future Land Use Element of the City of Leesburg Comprehensive Plan. The application is being submitted under the expedited state review process pursuant to F.S. 163.3184(3).
- 2) Date(s) the local planning agency and the commission held public hearings: The Planning Commission heard this application on October 20, 2016. The Board of City Commissioners voted to ratify and readopt Ordinance 17-07 (text) and Ordinance 17-08 (map) and to transmit for state review on August 28, 2023.
- 3) Statement certifying that the proposed amendment has been submitted to the appropriate agencies. A revised, complete copy of the proposed amendment including supporting data and analysis has been sent via e-mail to Adrian Young, Planning Analyst, Division of Community Planning and Development, FloridaCommerce.

204 North 5th Street Leesburg, Florida 34748 – Phone: (352) 728-9786 X 1723, Fax: (352) 326-6617
E-mail: kandi.harper@leesburgflorida.gov

Regarding City of Leesburg's Interlocal Service Boundary Area (ISBA) in relationship to the Orange Bend lands, I have included Lake County Board of County Commissioners Agenda of December 20, 2016 where that certain acreage of the Orange Bend project, which in 2016 was contiguous to but outside (north) of the City's ISBA, was permitted on consent to be annexed into the City of Leesburg corporate limits. The City of Leesburg's policy, in annexation cases, is to review and analyze the property in terms of Future Land Use and zoning; the three applications move through the public review process together.

Ordinance 21-22 is provided for your reference as it is the implementing document for development in the Orange Bend project.

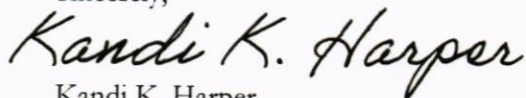
State of Florida reviewing agencies for the City of Leesburg are listed below.

- 4) The month the local government anticipates the amendment will be adopted: The amendment is tentatively scheduled for ratification and readoption in October 2023.
- 5) This amendment is not applicable to an area of critical state concern.
- 6) Name, title, address, telephone and fax number of the local contact:

Kandi K. Harper, Senior Planner
Community Development Department
Planning and Zoning Department
204 North 5th Street
Leesburg, FL 34749
Telephone: 352.728.9786 X1723, Fax: 352.326.6617
E-mail: kandi.harper@leesburgflorida.gov (primary)
dan.miller@leesburgflorida.gov (advisory)
dianne.yekel@leesburgflorida.gov (advisory)
max.vanallen@leesburgflorida.gov (advisory)
andi.purvis@leesburgflorida.gov (advisory)

Should you have questions or need further information, please contact me.

Sincerely,



Kandi K. Harper
Senior Planner
Planning and Zoning Department

KKH/kh

Enclosure: 1) Proposed Ordinance and supplemental information; 2) Maps: Lake County FLU, City of Leesburg Adopted FLU; 3) Text Amendment language (legislative format); 4) Lake County Agenda of December 20, 2016; 5) Ordinance 21-22 Orange Bend PUD

Cc: Dan Miller, Director, Planning and Zoning, City of Leesburg

Agencies notified of Adoption via email:

***Department of Economic Opportunity
Bureau of Comprehensive Planning***

ATTN: Barbara Powell
Plan Processing Administrator
State Land Planning Agency
Caldwell Building
107 East Madison – MSC 160
Tallahassee, Florida 32399-4120
E: Barbara.Powell@Commerce.fl.gov

Department of Education

ATTN: Morgan Runion, AICP
Office of Educational Facilities
325 West Gaines Street, Suite 1014
Tallahassee, Florida 32399-0400
E: CompPlans@fldoe.org

East Central Florida Regional Planning Council

ATTN: Tara McCue, AICP, Executive Director
455 N. Garland Avenue, Fourth Floor
Orlando, Florida 32801
E: Compplan@ecfrpc.org

St. Johns River Water Management District

ATTN: Steven Fitzgibbons, AICP
Intergovernmental Planner
Post Office Box 1429
Palatka, Florida 32178-1429
E: sfitzgibbons@sjrwmd.com

Florida Department of Transportation – District Five

ATTN: Growth Management Reviews
James Rodriguez, Systems Planning Coordinator
Florida Department of Transportation, D5
Planning Department (Mail Station: A2 501)
719 South Woodland Blvd.
DeLand, Florida 32720
E: CompPlans.D5@dot.state.fl.us (***Email is encouraged and preferred for ALL submissions.***)

Department of Environmental Protection

ATTN: Plan Review
Office of Intergovernmental Programs
3900 Commonwealth Boulevard, MS 47
Tallahassee, Florida 32399
E: Plan.Review@dep.state.fl.us

Department of Economic Opportunity
Attn: Barbara Powell, Plan Processing Administrator
Large Scale Comprehensive Plan Amendment – Ord.17-07 & Ord. 17-08
September 26, 2023
Page 4 of 4

Florida Department of State

ATTN: Alissa S. Lotane, State Historic Preservation Officer
Bureau of Historic Preservation,
500 S. Bronough Street
Tallahassee, FL 32399-0250
E: CompliancePermits@DOS.MyFlorida.com

Lake County Planning and Zoning Division

ATTN: Janie Barron, Chief Planner
315 West Main Street; Suite 510
Tavares, FL 32778
E: janie.barron@lakecountyfl.gov

United States Department of the Navy

ATTN: Community Planning Liaison Officer/Installation Planner
Naval Support Activity Orlando
12211 Science Drive
Orlando, Florida 32826
Phone: (407) 380-8415
E: ashley.m.sneed2.civ@us.navy.mil

Lake County Schools

ATTN: Helen LaValley
201 West Burleigh Boulevard
Tavares, FL 32778
E: lavalleyh@lake.k12.fl.us

Lake-Sumter Metropolitan Planning Agency

ATTN: Michael F. Woods, Executive Director
1300 Citizens Boulevard
Leesburg, Florida 34748
E: mwoods@LakeSumterMPO.com

ORDINANCE NO.: _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, RATIFYING AND READOPTING ORDINANCE 17-07 PERTAINING TO A CHANGE IN THE FUTURE LAND USE ELEMENT OF CITY OF LEESBURG COMPREHENSIVE PLAN TO ESTABLISH THE ORANGE BEND FUTURE LAND USE DESIGNATION AND CREATING APPLICABLE GOALS, OBJECTIVES AND POLICIES, AND RATIFYING AND READOPTING ORDINANCE 17-08 PERTAINING TO A CHANGE IN FUTURE LAND USE ON APPROXIMATELY 640 ACRES FROM LAKE COUNTY AGRICULTURE TO CITY OF LEESBURG ORANGE BEND, FOR PROPERTY GENERALLY SITUATED IN SECTION 33, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, TO ENSURE COMPLIANCE WITH THE PROCEDURES OF CHAPTER 163, FLORIDA STATUTES FOR ADOPTING LARGE SCALE COMPREHENSIVE PLAN AMENDMENTS RELATING TO SAID PROPERTY; DIRECTING TRANSMITTAL TO THE REVIEWING AGENCIES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on February 27, 2017, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 17-07 pertaining to a change in the future land use element of the Comprehensive Plan to establish the Orange Bend Future Land Use designation, and creating applicable Goals, Objectives, and Policies;

WHEREAS, on February 27, 2017, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 17-08 pertaining to a change in future land use on 640 acres from Lake County Rural and Lake County Rural Transition to City of Leesburg Orange Bend on certain real property generally situated in Section 33, Township 18 South, Range 25 East, Lake County, Florida

WHEREAS, Ordinances 17-07 and 17-08 were adopted by the City Commission after receiving written comments and affirmative recommendations to amend the City's Comprehensive Plan from the City of Leesburg Planning Commission, acting as the Local Planning Agency;

WHEREAS, Ordinances 17-07 and 17-08 were adopted by the City Commission after receiving written objections, recommendations, and comments from the general public at public hearings held in accordance with law;

WHEREAS, although Ordinances 17-07 and 17-08 were properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinances were transmitted to the Reviewing Agencies in accordance with the requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes;

WHEREAS, in an abundance of caution, the City Commission wishes to ratify and readopt Ordinances 17-07 and 17-08 consistent with the procedures of Section 163.3184(3), Florida Statutes, to ensure full compliance with all procedures of adopting large-scale amendments to the City's Comprehensive Plan;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEESBURG, FLORIDA:

Section 1. Recitals. The above recitals are hereby restated and are incorporated herein for all purposes.

Section 2. Ratification and Readoption of Ordinances. Ordinances 17-07 and 17-08 are hereby ratified and readopted.

Section 3. Transmittal to Reviewing Agencies. City staff is directed to transmit Ordinances 17-07 and 17-08, this Ordinance, and any other required or requested documents and information to the Reviewing Agencies in accordance with the procedures of Section 163.3184, Florida Statutes, regarding large-scale amendments to the City's Comprehensive Plan.

Section 4. Comprehensive Plan Amendment. The Growth Management Plan of the City of Leesburg, adopted by the City of Leesburg on December 10, 2012, pursuant to the Community Planning Act of 2011, Chapter 163, Part II, Florida Statutes, after public hearing by the City of Leesburg Planning Commission, is hereby amended in the following manner:

The Future Land Use Map is amended by changing the future land use designations on various properties in the city, legally described as:

SEE EXHIBIT "A" ATTACHED HERETO

Section 5. The provisions of this ordinance are severable, and it is the intention of the City Commission of the City of Leesburg, Florida, to confer the whole or any part of the powers herein provided. If any court of competent jurisdiction shall hold any of the provisions of this ordinance unconstitutional, the decision of such court shall not impair any remaining provisions of this ordinance.

Section 6. Effective Date. This Ordinance shall take effect immediately upon its final adoption by the City of Leesburg Commission.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held the _____ day of _____, 2023.

James A. Burry, Jr., Mayor

ATTEST:

J. Andi Purvis, City Clerk

EXHIBIT "A"

(legal description)

LEGAL DESCRIPTION:

BEGIN AT THE SOUTHEAST CORNER OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA, AND RUN THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 TO A POINT ON THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHWESTERLY ALONG SAID EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272 AND NORTHWESTERLY ALONG THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 3572, PAGE 1805, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE SOUTHWEST CORNER OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE NORTHWEST CORNER OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD; THENCE WESTERLY ALONG THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD TO A POINT ON THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SECTION 4, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SAID SECTION 4, TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33 TO A POINT ON THE EAST LINE OF THE LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHERLY, WESTERLY, NORTHWESTERLY, WESTERLY AND NORTHERLY ALONG THE EASTERLY LINE OF SAID LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032 TO A POINT ON THE SOUTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHEAST TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 TO THE NORTHWEST CORNER OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 TO A POINT ON THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK); THENCE SOUTHEASTERLY AND EASTERLY ALONG AND WITH THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK) TO A POINT ON THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, TO THE SOUTHEAST CORNER OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, SAID POINT ALSO BEING THE NORTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3, TO THE SOUTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTH 198 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE NORTH LINE OF THE SOUTH 198 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO A POINT ON THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3; THENCE SOUTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE SOUTHWEST CORNER

EXHIBIT "A"

(legal description continued)

OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE
EASTERLY ALONG SOUTH LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4
TO A POINT ON THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4
OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF
THE NORTHEAST 1/4 TO THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST
1/4 OF SAID SECTION 3, SAID POINT ALSO BEING ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF
SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHEAST 1/4 TO THE
NORTHEAST CORNER OF THE SOUTHEAST 1/4; THENCE SOUTHERLY ALONG THE EAST LINE OF
THE SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

LESS ROAD RIGHT OF WAYS.



**CITY OF LEESBURG PLANNING & ZONING DIVISION
RECOMMENDATIONS**

DATE: October 20, 2016
OWNER: Lowrie Brown Investment Co., Lowrie Brown, President
PETITIONER: Lowrie Brown Investment Co., Lowrie Brown, President
PROJECT: Orange Bend – Lowrie Brown Ranch
REQUEST: Large Scale Comprehensive Plan Map Amendment
CASE NO.: LSCP 16-143

THE PLANNING & ZONING DIVISION RECOMMENDS:

APPROVAL of the request

for the following reason(s):

1. This project meets the requirements of Chapter 163.3184 Florida Statutes, for Large Scale Comprehensive Plan Amendments.
2. The proposed Future Land Use designation of City of Leesburg Orange Bend is compatible with the adjacent properties with Future Land Use designations of County Rural Transition, Rural and Conservation to the north and west, and with property having an existing County Future Land Use of Rural, Rural Transition, Urban Low Density and Regional Commercial to the east and south.
3. The proposed Future Land Use Designation of Orange Bend is compatible with the existing future land use designation of County Rural Transition, Rural and Conservation to the north and west, and with property having an existing Future Land Use of County Rural, Rural Transition, Urban Low Density and Regional Commercial to the east and south.
4. The proposed future land use designation for the site is consistent with the City's Growth Management Plan, Future Land Use Element, Goal I, Objective 1.6.

Action Requested:

1. Vote to approve the Large Scale Comprehensive Plan designation from Lake County Neighborhood Mixed Use to City of Leesburg Orange Bend and forward the recommendation to the City Commission for consideration.

**CITY OF LEESBURG PLANNING & ZONING DIVISION
STAFF SUMMARY**

DATE: October 12, 2016

OWNER: Lowrie Brown Investment Co., Lowrie Brown, President
PETITIONER: Lowrie Brown Investment Co., Lowrie Brown, President
PROJECT: Orange Bend – Lowrie Brown Ranch
REQUEST: Large Scale Comprehensive Plan Map Amendment
CASE NO.: LSCP 16-143

GENERAL LOCATION: The property is generally located north of Poe Road at the intersection of CR-44, west of Radio Road and extending northwest to Haines Creek as shown on the attached map.

FUTURE LAND USE DESIGNATION: Neighborhood Mixed Use

SURROUNDING FUTURE LAND USE DESIGNATION:

North – Lake County Conservation and Rural
South – Lake County Conservation, Rural, Rural Transition, Regional Commercial
East – Lake County Conservation; Rural, Rural Transition, Urban Low Density
West – Lake County Conservation, Rural, Rural Transition

PROPOSED FUTURE LAND USE DESIGNATION: Neighborhood Mixed Use

EXISTING ZONING DESIGNATION: Lake County A (Agriculture) and R-3 (Medium Density Residential)

SURROUNDING ZONING DESIGNATIONS:

North – Lake County CFD (Community Facility District), A (Agriculture), R-7 (Mixed Residential Density), RMRP (Mobile Home Rental Park District)
South – Lake County CFD (Community Facility District), A (Agriculture), R-3 (Medium Residential District)
East – Lake County CFD (Community Facility District), A (Agriculture), R-7 (Mixed Residential Density), RMRP (Mobile Home Rental Park District), R-6 (Urban Residential District), R-3 (Medium Residential District)
West – Lake County A (Agriculture)

PROPOSED ZONING DESIGNATION: PUD (Planned Unit Development) – commercial and residential

EXISTING LAND USE: Ranch lands

SURROUNDING EXISTING LAND USE:

North – St. Johns River Water Management District lands; non-agriculture lands
South – TIITF/Forestry State of Florida lands; Single Family Residential lands; institutional land; pasture land
East – Mix of residential uses; agricultural lands; institutional lands
West – St. Johns River Water Management District lands; mix of agricultural uses

PROPOSED LAND USE: Mixed use residential and commercial development.



**CITY OF LEESBURG PLANNING & ZONING DIVISION
DEPARTMENTAL REVIEW SUMMARY**

DATE: October 20, 2016
OWNER: Lowrie Brown Investment Co., Lowrie Brown, President
PETITIONER: Lowrie Brown Investment Co., Lowrie Brown, President
PROJECT: Orange Bend – Lowrie Brown Investment Co., Mixed Use Development
REQUEST: LSCP 16-143 Comprehensive Plan Map Amendment
CASE NO.: LSCP 16-143

THE FOLLOWING COMMENTS RECEIVED FROM EACH DEPARTMENT:

POLICE

No comment received as of Wednesday, September 14, 2016.

FIRE

No comment received as of Wednesday, September 14, 2016.

ELECTRIC

No comment received as of Wednesday, September 14, 2016.

WATER DISTRIBUTION

No comment received as of Wednesday, September 14, 2016.

WATER BACKFLOW

No comment received as of Wednesday, September 14, 2016.

STORMWATER

No comment received as of Wednesday, September 14, 2016.

WASTEWATER

No comment received as of Wednesday, September 14, 2016.

GAS

Gas is readily available to service them and is required per City ordinance; Jessie Cummins, Field Operations Supervisor, Natural Gas Department, 09/14/2016.

DEPARTMENTAL REVIEW SUMMARY

Orange Bend – Lowrie Brown Investment Co., Mixed Use Development – LSCP-16-143

GIS

No comment received as of Wednesday, September 14, 2016.

BUILDING

No comment received as of Wednesday, September 14, 2016.

ENGINEERING/PUBLIC WORKS/SURVEY

No comment received as of Wednesday, September 14, 2016.

ADDRESSING

No comment received as of Wednesday, September 14, 2016.

ECONOMIC DEVELOPMENT

No comment received as of Wednesday, September 14, 2016.

COMMUNICATIONS UTILITY

No comment received as of Wednesday, September 14, 2016.

PUBLIC RESPONSES

Approval:

No comment received as of Wednesday, September 14, 2016.

Disapproval:

No comment received as of Wednesday, September 14, 2016.

General Comments:

No comment received as of Wednesday, September 14, 2016.

participation by persons filing a Notice of Appearance after the five (5) day deadline, upon a determination of excusable neglect. Any Notice of Appearance shall include the right to appear in person or by way of other authorized representative, whether or not mentioned in the Notice.

Persons with disabilities needing assistance to participate in any of these proceedings should contact the Personnel Department, ADA Coordinator, 48 hours in advance of the meeting at 352-728-9740.

Provided below please indicate your approval, disapproval, and/or any comments concerning this project. Please return your completed form no later than Friday, September 16th, 2016 in the self-addressed envelope provided.

You can also fax your comments attention Planning and Zoning to (352) 326-6617 or you can e-mail your comments to Community.Development@leesburgflorida.gov.

APPROVAL:



DISAPPROVAL:



COMMENTS:

Signature:

Margaret B. Fuller

Name:

Margaret B. Fuller
(Please print)

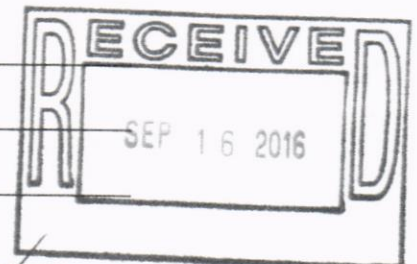
Address:

9317 Lerney Rd
Leesburg, FL 34788
352 728 1408

(Telephone Number)

(Email Address)

pfuller@gate.net



participation by persons filing a Notice of Appearance after the five (5) day deadline, upon a determination of excusable neglect. Any Notice of Appearance shall include the right to appear in person or by way of other authorized representative, whether or not mentioned in the Notice.

Persons with disabilities needing assistance to participate in any of these proceedings should contact the Personnel Department, ADA Coordinator, 48 hours in advance of the meeting at 352-728-9740.

Provided below please indicate your approval, disapproval, and/or any comments concerning this project. Please return your completed form no later than Friday, September 16th, 2016 in the self-addressed envelope provided.

You can also fax your comments attention Planning and Zoning to (352) 326-6617 or you can e-mail your comments to Community.Development@leesburgflorida.gov.

APPROVAL:



DISAPPROVAL:



COMMENTS:

I THINK IT WILL BE A GREAT
DEVELOPMENT FOR THE CITY.

Signature:

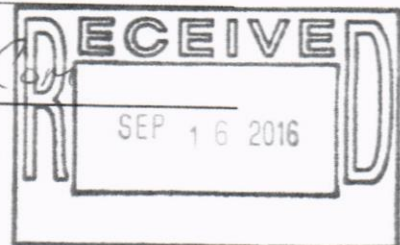
Name:

(Please print)

Address:

(Telephone Number)

(Email Address)



participation by persons filing a Notice of Appearance after the five (5) day deadline, upon a determination of excusable neglect. Any Notice of Appearance shall include the right to appear in person or by way of other authorized representative, whether or not mentioned in the Notice.

Persons with disabilities needing assistance to participate in any of these proceedings should contact the Personnel Department, ADA Coordinator, 48 hours in advance of the meeting at 352-728-9740.

Provided below please indicate your approval, disapproval, and/or any comments concerning this project. Please return your completed form no later than Friday, September 16th, 2016 in the self-addressed envelope provided.

You can also fax your comments attention Planning and Zoning to (352) 326-6617 or you can e-mail your comments to Community.Development@leesburgflorida.gov.

APPROVAL: ☒

DISAPPROVAL: ☐

COMMENTS:

*Separate note moved for Road / school
and city of Leesburg and TAXES
to approval*

Signature:

Name:

Emile FARRAN
(Please print)

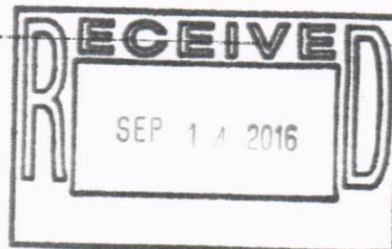
Address:

1577 KAMILLA Crest Dr.

Winter Park FL 32792

(407) 677 7877; or 407 417 0719
(Telephone Number)

Emile FARRAN
(Email Address)





City of Leesburg
Post Office Box 490630
Leesburg, FL, 34749-0630

RETURN SERVICE REQUESTED

ORLANDO FL 328

00 SEP 16 PM 8:1

\$ 000.00
0001170000 SEP 09 2016

*And 16-87
158-16-124
158-16-143*

YOUNG DONNA R TRUSTEE YOUNG DONNA R TRUSTEE

6732 TUSCAWILLA DR
LEESBURG, FL 34748
6151

3474889125
347490630

T 339 N7E 1 51610009/11/16
RETURN TO SENDER

YOUNG TEMPORARILY AWAY

RETURN TO SENDER
BC: 34749063030 *1174-11220-09-39



City of Leesburg
Post Office Box 490630
Leesburg, FL, 34749-0630

RETURN SERVICE REQUESTED



LEESBURG, FL 34749
\$000.88⁵
07 19
NOV 11 2016

Wm2
Pub-16-87
CPA-6-124
LSQ-16-145

MAILING LABEL

FINDLAY CURTIS FINDLAY CURTIS
9730 HICKORY HOLLOW RD
LEESBURG, FL 34788
6151

NIXIE

339 DE 1 0009/11/16

RETURN TO SENDER
NO MAIL RECEPTACLE
UNABLE TO FORWARD

34749>0630

BC: 34749063030

*2574-00204-11-28

Lowrie Brown Ranch / *Orange Bend Land Use*

**Large Scale Comprehensive Plan
Text Amendment**

CPTA 16-124 Establishing Orange Bend Development Standards
in City of Leesburg's Comprehensive Plan

Objective 1.15 Orange Bend Mixed-Use. The City shall apply the Orange Bend Mixed-Use Future Land Use designation where appropriate. The Orange Bend Mixed-Use land use designation requires a mixture of compatible uses, which reinforces an efficient pattern of development, reduces excessive travel demands, promotes multi-modal transportation opportunities, is bicycle and pedestrian friendly, seeks a jobs-housing balance, provides varied housing opportunities, protects and enhances sensitive environmental areas, and provides sites for parks, and other community services. The Orange Bend Mixed-Use designation is intended for a newly developing area which is suitable for urban development and under unified control for master planning. The purpose of the Orange Bend Mixed-Use designation is to encourage flexible and creative site design.

Policy 1.15.1 The Orange Bend Mixed-Use Land Use designation shall permit a mix of uses to include: a mix of residential structures, commercial, professional offices, personal services uses, light industrial (personal and business storage, distribution and assembly), hotel, institutional, medical uses to include ALFs, ILFs, activity and recreational land uses which shall include passive recreational opportunities. All development designated Orange Bend Mixed-Use shall be rezoned to a Planned Unit Development (PUD). The Orange Bend Mixed-Use designation may only apply to developments that are a minimum of 640 MOL gross acres.

The maximum floor area ratios and residential units for the Orange Bend Mixed-Use designation shall be as provided in *Policy 1.1.1 Future Land Use Map*. The Orange Bend Mixed-Use designation shall permit the following mix and range of uses, as enumerated in the chart below or calculated as a percentage of gross acreage:

Land Use	Minimum	Maximum
<i>Residential (total units):</i>		995
<i>Single Family Units:</i>		800
<i>Townhome/ Multi-Family Units:</i>		195
<i>Commercial</i>		283,700 SF Floor Area
<i>Community Services (Institutional) site</i>		One (1) acre
<i>Open Space</i>	30%	
<i>Wetlands/ Recreation/ Conservation</i>	28% MOL	

Residential uses located over retail or office uses shall be permitted in mixed-use areas, but the residential component shall be excluded from the percentage calculation of gross acreage listed above.

Gross density shall not exceed 1.60 dwellings units per acre.

Policy 1.15.2 Residential uses shall be located so as to facilitate bicycle / pedestrian access to retail, office, and other non-residential uses, and to future transit links with the specific intent of reducing automobile dependence and promoting sustainable lifestyle habits. Residential uses may be vertically integrated with office and retail uses.

Policy 1.15.3 The Orange Bend Mixed-Use PUD ordinance shall include design guidelines that emphasize the pedestrian experience and promote a sense of place. Design guidelines shall include: building mass and form; pedestrian, bicycle, and vehicular circulation;

vehicular access; sidewalks; setbacks; open space; parking; service areas; architectural standards; materials; lighting; signage; and streetscapes.

Policy 1.15.4 Office / light industrial uses shall be positioned to attract high-tech/high-value employment. Design of office uses may include corporate campus style development.

Policy 1.15.5 The City of Leesburg shall adopt site-specific sub-policies for any property designated Orange Bend Mixed-Use on the Future Land Use Map. The site-specific sub-policies shall address the following items at a minimum:

1. Development program, including the maximum number of residential units and non-residential square footage allowed on the property;
2. Development phasing plan;
3. Public facilities analysis and mitigation, including strategies to address the supply of the following, at a minimum:
 - a. Transportation facilities,
 - b. Stormwater facilities,
 - c. Water and wastewater facilities,
 - d. Water supply, and
 - e. Public school facilities.

All development designated Orange Bend Mixed-Use shall be rezoned to a Planned Unit Development (PUD). The Orange Bend Mixed-Use PUD ordinance shall establish the permitted development program and may include a land use conversion matrix that will allow the developer to modify the approved acreages and/or square feet permitted for each land use, within certain defined thresholds. These conversions may be made to accommodate changes in market conditions etc., provided they do not exceed twenty-percent (20%) of the approved residential units, non-residential floor area ratio, and acreage of the corresponding land use and as long as there is no net increase in impacts as a result of the land use conversion (including transportation, potable water, water supply, wastewater, stormwater supply and public school impacts). These conversions must also remain within the range of minimum and maximum mixture of uses permitted for the Orange Bend Mixed-Use category (consistent with the *Future Land Use Element Policy 1.15.1*).

Policy 1.15.6 Fire Station Site Institutional. The developer and city shall negotiate the location of an institutional land use on the plat of the subdivision which may be used by the city and/or county for the purposes of housing a fire station, police substation, emergency medical services and other municipal services (i.e.: library, tag office, driver's license office, etc.). The institutional land use shall be located such that it shall service, not only the proposed development, but also the surrounding community. The city shall have the right to take title to the institutional site at any time after the plat of the subdivision is approved. The community center site shall not exceed one (1) acre.

Policy 1.15.7 The PUD shall make provisions to allow for agricultural use of the property to continue, in whole or in part until the Orange Bend development has reached substantial completion of seventy-five percent (75%) of the gross acreage. The agricultural uses shall include, but not be limited to; beef cattle and horse ranch, timber, sod, hay and row crops. Uses which shall be specifically prohibited are hog farms, dairy farms, and chicken farms. In as much as the City of Leesburg does not have an agricultural zoning classification, the rules and privileges which apply to agricultural property under the jurisdiction of Lake County shall apply.

Lowrie Brown Ranch / *Orange Bend Land Use*
Large Scale Comprehensive Plan Text Amendment
CPTA 16-124 Creating Orange Bend Development Standards

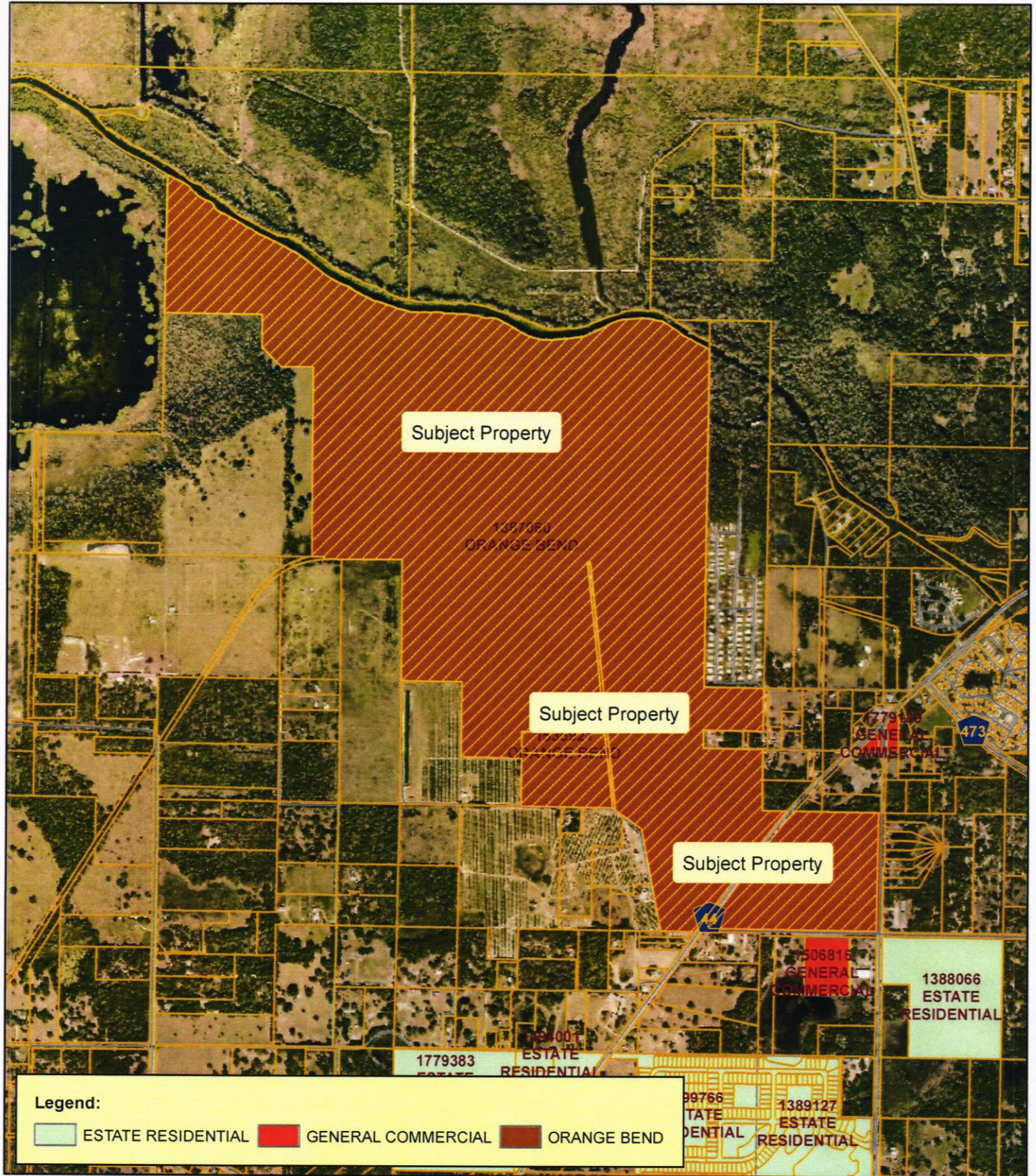
Agricultural uses within the Orange Bend Land Use designation shall operate pursuant to best management practices and procedures under the provisions of Florida Statutes, Title XI, Chapter 163, §163.3162 Agricultural Lands and Practices for the duration of such uses. Agricultural uses shall cease and desist upon completion of seventy-five percent (75%) of the gross area proposed as the Orange Bend (Lowrie Ranch) PUD (Planned Unit Development).

Lowrie Brown Ranch / *Orange Bend Future Land Use Designation*

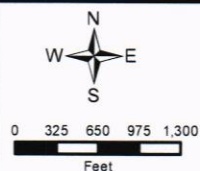
Large Scale Comprehensive Plan Map Amendment

CPTA 16-124 Establishing Orange Bend Development Standards on
City of Leesburg's Comprehensive Plan Future Land Use Map

ADOPTED Orange Bend Future Land Use

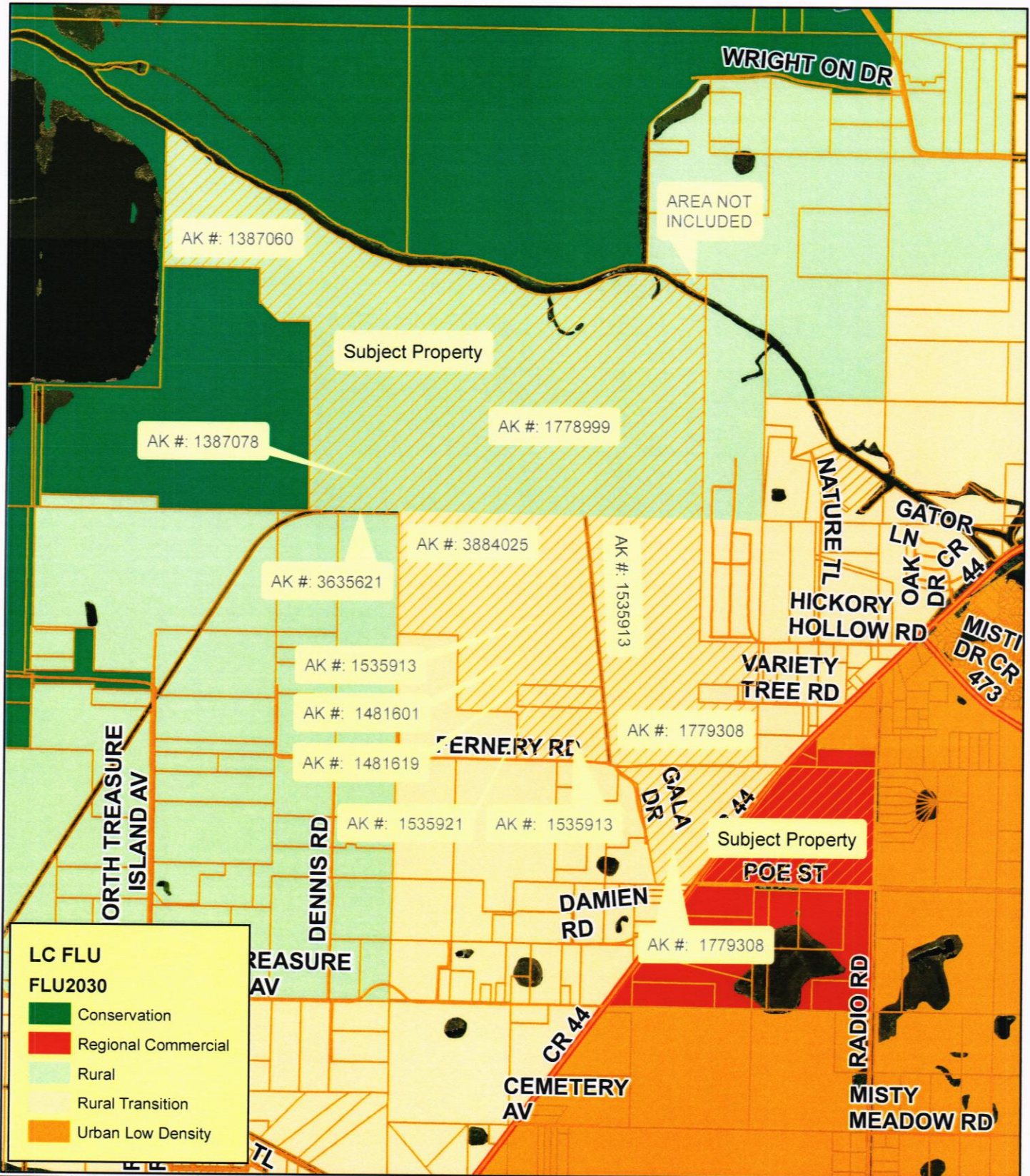


**Planning
& Zoning
Division**

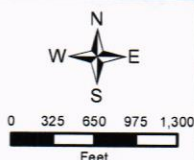


Ratify and Readopt
Ordinance 17-08
Sections 3, 4, and 5, Township 19 South: Range 25 East
August 28, 2023

Lake County Future Land Use



**Planning
& Zoning
Division**



LSCP-16-143 Future Land Use Map Amendment
Lowrie Brown Investments (Orange Bend)
AK #: 1779308, 1535913, 1778999, 3884025, 1387060,
 1387078, 1535921, 3635621, 1481601, 1481619
Sections 3, 4, & 5 Township 19 South Range 25 East

Lowrie Brown Ranch / *Orange Bend Land Use*

**Lake County Board of County
Commissioners Agenda of 12/20/2016**

Approving on consent annexation of 327 acres of Orange Bend property.

**BOARD OF COUNTY COMMISSIONERS
LAKE COUNTY, FLORIDA
OFFICE OF THE COUNTY MANAGER
AGENDA ITEM COVER SHEET**

DATE: 11/28/2016

MEETING DATE: 12/20/2016

TO: David Heath, County Manager

ITEM TYPE: Consent Item

THRU:

ITEM ID: 3276

BY: Debi Dyer, Tourism Program Supervisor

SUBJECT: Request approval of City of Leesburg's annexation request of the 640 acre Lowrie Brown Investment Co. property, located on the east and west sides of CR 44 and south of CR 473 in the Leesburg area. 313 acres of the subject property are located within the Lake County and Leesburg Interlocal Service Boundary Agreement (ISBA) while 327 acres of the subject property are located outside of the ISBA. Lake County must give approval of the annexation pursuant to Section 3(b) of the ISBA in order for Leesburg to annex any areas outside of the Leesburg ISBA. District 3.

RECOMMENDATION/REQUIRED ACTION: Approve

Request approval of City of Leesburg's annexation request of the 640 acre Lowrie Brown Investment Co. property, located on the east and west sides of CR 44 and south of CR 473 in the Leesburg area. 313 acres of the subject property are located within the Lake County and Leesburg Interlocal Service Boundary Agreement (ISBA), while 327 acres of the subject property are located outside of the ISBA. Lake County must give approval of the annexation pursuant to Section 3(b) of the ISBA in order for Leesburg to annex any areas outside of the Leesburg ISBA. Commission District 3

BACKGROUND SUMMARY: The subject property is 640 acres in size. A portion of the subject property is outside of the boundary of the ISBA between the City of Leesburg and Lake County. When the ISBA boundary was adopted (Ordinance #14-39) the Section line was utilized as the boundary in lieu of Haines Creek, thereby dividing the owner's property with 313 acres in the ISBA and 327 acres outside the ISBA. Per the ISBA, Lake County must approve any annexation that is outside of the ISBA.

The intent of the annexation is to develop a mixed use Planned Unit Development (PUD). The concept plan is attached. Approximately 122 acres of the property outside of the ISBA is identified as wetlands and is adjacent to Haines Creek. The Orange Bend PUD conceptual plan is proposing a density of 1.33 units per acre in portion of the subject property located outside of the ISBA.

Fiscal Impact:

Account No.:

Advertised Date:

Paper:

Attachments:

1.	Orange Bend PUD Concept Plan
2.	Leesburg Annexation request
3.	Akerman Ltr. and Enclosure

STAFF APPROVALS AND DATES:

Debi Dyer	Created/Initiated - 11/28/2016
Tim McClendon	Approved - 12/07/2016
Robert Chandler	Approved - 12/09/2016
Steve Koontz	Approved - 12/09/2016
Melanie Marsh	Approved - 12/12/2016
Niki Booth	Final Approval - 12/12/2016

ACTION TAKEN BY BOARD:

Action: New
Other:

Continued/Deferred Until:

**A REGULAR MEETING
OF THE BOARD OF COUNTY
COMMISSIONERS**

DECEMBER 20, 2016

The Lake County Board of County Commissioners met in regular session on Tuesday, December 20, 2016 at 9:00 a.m., in the Board of County Commissioners' Meeting Room, Lake County Administration Building, Tavares, Florida. Commissioners present at the meeting were: Timothy I. Sullivan, Chairman; Josh Blake; Wendy Breeden; Leslie Campione, Vice Chairman and Sean Parks. Others present were: David Heath, County Manager; Melanie Marsh, County Attorney; Wendy Taylor, Executive Office Manager, County Manager's Office; Neil Kelly, Clerk of Court; Kristy Mullane, Chief Deputy Clerk, County Finance; and Angela Harrold, Deputy Clerk.

INVOCATION AND PLEDGE

Dr. Alan Holden from the Midway Baptist Church in Leesburg gave the Invocation and led the Pledge of Allegiance.

AGENDA UPDATE

There were no updates to the agenda.

MINUTES APPROVAL

On a motion by Commr. Campione, seconded by Commr. Breeden, and carried unanimously by a 5-0 vote, the Board approved the Minutes of November 8, 2016 (Regular Meeting), November 16, 2016 (Special Meeting) and November 22, 2016 (Regular Meeting) as presented.

CITIZEN QUESTION AND COMMENT PERIOD

Mr. Thomas Madden, a resident of Clermont, encouraged the Board to approve Tab 21 regarding the completion of Sawgrass Bay Boulevard to the east. He stated that he and other area residents would be glad to see that happen because there were not a lot of good alternatives for egress to the east other than Hartwood Marsh Road and State Road 192. He pointed out that having Sawgrass Bay Boulevard as an option would be good for the residents.

PRESENTATION OF PROCLAMATION HONORING SHERIFF BORDERS

On a motion by Commr. Breeden, seconded by Commr. Parks, and carried unanimously by a 5-0 vote, the Board approved Proclamation 2016-142 honoring Sheriff Gary Borders for his years of service.

Commr. Sullivan presented and read Proclamation 2016-142 honoring Sheriff Borders.

Commr. Campione thanked Sheriff Borders for responding to the needs of the community and stated that she was really proud and appreciated all of the work that he has done in the county.

Commr. Breeden stated that she had worked previously with the Sheriff's office in other capacities and noted that the staff and deputies were always professional and reliable. She thanked him for his service to Lake County.

Commr. Parks recalled a time when he and Sheriff Borders were at Cagan Crossing and a resident came over to praise Sheriff Borders for all he had done in the community. He stated that Sheriff Borders had earned the respect and love the community has for him because of how much he cares for the residents and the County. He mentioned that he saw the respect the officers of the Lake County Sheriff's Office have for Sheriff Borders. He felt that the

vision of the Sheriff had always been in line with that of the Board's, and he was always proactive in providing a safe community. He thanked him for everything that he has done for the county, residents, and the Board.

Commr. Blake stated that he had worked with Sheriff Borders in a previous position and noted that the Sheriff's job approval ratings were always high due to the trust and support from the citizens of Lake County. He thanked the Sheriff for all of the work he has done and wished him the best.

Commr. Sullivan commented that the Sheriff had always had integrity and was professional, and he thanked him for his service to the community.

Sheriff Borders thanked the Board for the kind words. He stated that the good things in the county were not always portrayed in the media, but working with the Board and Constitutional Officers for 10 years had shown him that the goal had always been about doing the right thing for the county. He stated that he felt the elected officials throughout the county truly work hard to improve the quality of life in Lake County. He commended law enforcement for the job they do and asked that the support for them continue. He thanked his command staff that were present and commented that he was honored to work with them. He thanked everyone for giving him the opportunity to serve as Sheriff of Lake County.

PRESENTATION OF PROCLAMATION SUPPORTING ICAMR

On a motion by Commr. Parks, seconded by Commr. Campione, and carried unanimously by a 5-0 vote, the Board approved Proclamation 2016-131 supporting the International Consortium for Advanced Manufacturing Research (ICAMR).

Commr. Parks presented and read Proclamation 2016-131. He introduced Mr. Don Fisher, Osceola County Manager, and Mr. Chester Kennedy, the Chief Executive Officer of ICAMR.

Mr. Fisher thanked the Board and Commissioner Parks for the understanding and vision that Lake County has in regards to Osceola County and its goals. He commented that it is a tremendous recognition and that both counties can benefit from the investment that Osceola and the University of Central Florida (UCF) are making. He stated that Lake County has the commitment from the Osceola County Board of County Commissioners to work together, as there will be enough capacity as well as jobs that will come from the investment. He pointed out that a similar venture is happening in Austin, Texas, and the positive effects are felt many miles outside the borders of the county where the manufacturer is located. He commented that as things start to develop, they will continue to work with the Board and the Economic Growth Department by attending meetings and supporting Lake County in its mission to diversify the economy.

Mr. Kennedy thanked the Board as well for the recognition and noted that it was good to see regional cooperation between the two counties. He recalled that he was skeptical when he heard of the microelectronics foundry being built in Osceola County. He stated that there is a different skill level needed to be able to take advantage of that capability. He said as the conversation evolved, it was clear that Osceola County and UCF were partnering to recruit Imec, a global leader of nanotechnology, to come and run a design center that would be at the front end of the manufacturing capability. He commented that Imec chose to come here and establish a new United States entity and be the partner in the design center. He opined that ICAMR alone would not have been enough for Imec to make the decision to come to Central Florida to establish the partnership, but it also took into account the entire region's infrastructure, its emphasis on wellness through medical research, and what is happening on

the Space Coast of Florida as reasons to bring Imec to Central Florida. He reiterated that he is proud of the partnership and that working together will make it successful.

Commr. Sullivan thanked them for being there and stated that he looks forward to the partnership not only on behalf of the Board but also for the citizens and the job creation that will come to Lake County.

Commr. Parks thanked them for coming, and he encouraged the Board to spend time with Mr. Fisher, Mr. Kennedy and the Osceola County Commissioners to hear about ICAMR first hand and how it will benefit Lake County.

Commr. Campione commented that Lake County is working on its own manufacturing project at Lake Technical College with the leadership of Dr. Diane Culpepper, the Director of Lake Technical College. She mentioned that at first she was concerned how ICAMR would impact the project at Lake Tech, but she learned that both projects could together feed off of each other after speaking with Dr. Culpepper. She pointed out that it was the perfect opportunity for the type of manufacturing being promoted at the ICAMR facility and what Lake Tech hopes to accomplish. She encouraged them to stay in close contact with Dr. Culpepper to continue to facilitate the partnership.

CLERK OF COURTS' CONSENT AGENDA

On a motion by Commr. Campione, seconded by Commr. Parks and carried unanimously by a 5-0 vote, the Board approved the Clerk of Courts' Consent Agenda, Items 1 through 6, as follows:

List of Warrants

Request to acknowledge receipt of the list of warrants paid prior to this meeting, pursuant to Chapter 136.06 (1) of the Florida Statutes, which shall be incorporated into the Minutes as attached Exhibit A and filed in the Board Support Division of the Clerk's Office.

Inspector General Report BCC-149

Request to acknowledge receipt of Inspector General Report BCC-149 Audit of Fire Rescue.

Lands Available List – February 26, 2017

Request to acknowledge receipt of property placed on the Lands Available List. Lake County has until February 26, 2017 to purchase property from the Lands Available List before it is available to the public.

Ordinances; City of Fruitland Park

Request to acknowledge receipt of a letter from the City of Fruitland Park stating that its City Commission on November 10 enacted the following ordinances:

Ordinance 2016-024 amending the boundaries of the City of Fruitland Park to include within the city limits approximately one acre of land generally located north of CR 466A and west of Timbertop Lane.

Ordinance 2016-026 amending the boundaries of the City of Fruitland Park to include within the city limits approximately six acres of land generally located north of CR 466A and west of Timbertop Lane.

Lands Available List – March 01, 2017

Request to acknowledge receipt of property placed on the Lands Available List. Lake County has until March 01, 2017 to purchase property from the Lands Available List before it is available to the public.

Florida Public Service Commission Amendatory Order

Request to acknowledge receipt of the Amendatory Order before the Florida Public Service Commission to the application for increase in water and wastewater rates in Charlotte, Highlands, Lake, Lee, Marion, Orange, Pasco, Pinellas, Polk and Seminole Counties by

Utilities, Inc. of Florida. Docket No. 160101-WS. Order No. PSC-16-0526A-PCO-WS. Issued: December 2, 2016.

COUNTY MANAGER'S CONSENT AGENDA

Commr. Parks requested that Tab 7 be pulled and discussed on the regular agenda.

On a motion by Commr. Campione, seconded by Commr. Breeden and carried unanimously by a vote of 5-0, the Board approved the County Manager's Consent Agenda, Tabs 5, 6, and 8 through 21, as follows:

Proclamation

Request approval of Proclamation 2016-143 honoring Martin Luther King, per Commissioner Sullivan.

Community Services

Request approval and authorization for the Chairman of the Board of County Commissioners to sign the Agreement between Lake County and We Care of Lake County, Inc. for operation of the Lake County We Care program, effective 10/1/16 through 9/30/17 and approval of an Unanticipated Revenue Resolution 2016-144 for the receipt and appropriation of unexpended funds from FY 2015-2016. The fiscal impact is \$134,912 (Expense).

Request approval for the Chairman of the Board of County Commissioners to renew for a one year period the Agreement between Lake County and the Lake County School Board for continued funding to the Lake County Shared Services Network in the amount of \$25,000 for FY 2016-2017. Funding will be taken from the Crime Prevention Fund established by the County pursuant to Florida Statute 775.083(2). The fiscal impact is \$25,000 (Expense).

Request approval of the FY 2015-2016 Consolidated Annual Performance and Evaluation Report (CAPER) for the Community Development Block Grant (CDBG) Program. There is no fiscal impact.

Community Safety and Compliance

Request approval to seek FDOT Drive It Home grant for the Keep Lake Beautiful program and approval for the County Manager to sign any associated documents if awarded. The fiscal impact is up to \$15,000 (Revenue).

Economic Growth

Request approval of City of Leesburg's annexation request of the 640 acre Lowrie Brown Investment Co. property, located on the east and west sides of CR 44 and south of CR 473 in the Leesburg area. 313 acres of the subject property are located within the Lake County and Leesburg Interlocal Service Boundary Agreement (ISBA), while 327 acres of the subject property are located outside of the ISBA. Lake County must give approval of the annexation pursuant to Section 3(b) of the ISBA in order for Leesburg to annex any areas outside of the Leesburg ISBA. Commission District 3

Facilities Development and Management

Request approval of purchase contract for one (1) 4x4 utility tractor under Request for Quotation (RFQ) Q2017-00031 to Fields Equipment Company, Inc. (Minneola) for use by the Lake County Sheriff's Office Inmate Work Detail and funded by the Facilities and Fleet Management Department. Also authorize execution of all procurement supporting documentation by the Procurement Office. The total fiscal impact is \$29,290.00 (Expenditure).

Facilities Development and Management

Request approval of the Supervisor of Elections' request for a budget transfer moving funds from the repair and maintenance account to the printing and binding account. The fiscal impact is \$60,000.

Information Technology

Request approval and signature of the Microsoft Premier Support Services Agreement. The agreement will provide Microsoft technical support and assistance to the Information Technology Department. The fiscal impact is \$63,320.

Public Resources

Request approval of Interlocal Agreement Between Lake County and the City of Fruitland Park Regarding Joint Development of a Soccer Field at Northwest Lake Community Park, and authorization for the Chairman to execute the Agreement. The fiscal impact is \$50,000 in FY 2017 (Expenditure, with additional \$50,000 in FY 2018). Commission District 5

Request approval to award contract 17-0403, Court Resurfacing for County Parks contract to Elite Court Construction (Winter Springs), and authorize Procurement Services to execute all supporting documentation. The estimated annual fiscal impact is \$30,000.

Request approval of the University of Florida's recommendation that Juanita Popenoe be employed as Extension Agent IV, Fruit Crops, in the Lake County Extension Services Division, and request approval for the position to be designated as a 23E pay grade. The fiscal impact is \$16,739.80 (Expenditure).

Public Works

Request approval and execution of the Economic Development Transportation Project Fund (Off-System Specific Appropriations) Agreement between Lake County and Florida Department of Transportation (FDOT), and the supporting Resolution 2016-145, for the construction of Citrus Grove Road (Grassy Lake Road to North Hancock Road); and approve an Unanticipated Revenue Resolution 2016-146 (URR) to amend the Lake County FY 2017 budget. FPN# 435541-1-54-01. The fiscal impact is \$1,500,000.00 (100% Grant Funded in FY 2017). Commission District 2

Request approval of purchase of debris/waste roll-off containers under Request for Quotation (RFQ) Q2017-00027 from Iron Container (Boca Raton, FL) and Wastequip (Charlotte, NC) for use by the Solid Waste Division of Public Works, authorize execution of all procurement supporting documentation by the Procurement Office, and approve the attached budget transfer moving available funds out of the repair & maintenance account and into the capital equipment account. The total fiscal impact is \$31,510.88 (Expenditure).

Request approval of the Economic Development Transportation Project Fund (Off-System Specific Appropriations) Agreement between Lake County and Florida Department of Transportation (FDOT), and the supporting Resolution 2016-147, for the construction of the 4-laning of CR 466A (Miller Street), from Poinsettia Avenue to Century Avenue with drainage pipe and storm water pond construction continuing west to Pond 5; and request Approval to Advertise for Bids, and approve an Unanticipated Revenue Resolution 2016-148 (URR) to amend the Lake County FY 2017 budget. (FPN# 430253-4-54-01). The fiscal impact is \$2,750,000.00 (100% Grant Funded in FY 2017). Commission District 5

Request approval to accept the final plats for Sawgrass Bay Phase 2A, Sawgrass Bay Phase 2B, and Sawgrass Bay Phase 2C, accept all areas dedicated to the public as shown on the Sawgrass Bay Phases 2A, 2B, and 2C final plats, accept a performance bond in the amount of \$168,901.41 posted for these three (3) plats, and execute a Developer's Agreement for Construction of Improvements between Lake County and D.R. Horton, Inc. for Sawgrass Bay Phases 2A, 2B, and 2C. Sawgrass Bay Phase 2A consists of 62 lots, Sawgrass Bay Phase 2B consists of 50 lots, and Sawgrass Bay Phase 2C consists of 40 for a total of 152 lots. The subdivisions are located East of US Highway 27 off Sawgrass Bay Boulevard in Section 14, Township 24 South, Range 26 East. There is no fiscal impact. Commission District 1

2016 ANNUAL TRANSIT DEVELOPMENT PLAN UPDATE

Commr. Parks stated he wanted to review Tab 7 regarding the 2016 Annual Transit Development Plan, specifically regarding page 12 and page 25 of the plan. He pointed out that on page 12 there was no mention of looking for additional revenue sources, such as advertising or sponsorships, listed under the goals. He opined that this could help even a small amount and should be an important objective. He stated that there was a paragraph on page 25 which listed many reasons as to why ride sharing services cannot be done, but he would like to see the County remain open to the possibility of utilizing those services.

Commr. Sullivan clarified that the action to approve the updated plan was time sensitive.

Mr. Heath responded that the update was slightly behind. He asked whether Commissioner Parks would like a public discussion on the topics or if he just wanted language placed in the update. He explained that both would be brought back before the Board in the department update and wondered if that would be enough or if a hold needed to be put on it.

Ms. Dorothy Keedy, Director of Community Services, explained that it was a minor update that has to be done each year, and it would be brought back to the Board in 2017. She stated that it could wait for approval until the next Board meeting to allow for changes or further discussion.

Mr. Heath did not feel like the discussion about ride sharing would be crucial at that time and stated that there would be a larger upcoming discussion.

Commr. Parks stated that he was fine with having a discussion on the ride sharing at a future date; however, he wanted the goals section on page 12 to include additional revenue sources, such as advertising.

Mr. Heath recommended that the plan be approved and sent as is and then have the Community Services Department bring back those two particular issues to the Board for additional discussion.

Commr. Sullivan clarified that the Board would approve it and then discuss it again prior to the next update being due.

Commr. Parks asked if the discussion would take place before the budget meetings.

Mr. Heath replied that he intended on having the discussion in late spring 2017, because the Community Services Department would be coming back before the Board with the budget presentation and goals.

Commr. Parks respectfully requested that they become agenda items.

Commr. Campione asked for clarification on the advertising that was being discussed, because to her recollection advertisements at bus stops or on buses were already in place.

Commr. Parks replied that he was referencing both.

Ms. Keedy stated that the contract for the bus and bus stop advertising recently expired, and there was not a new contract in place.

Commr. Breeden asked if there was trouble implementing a new contract.

Mr. Heath stated that there needed to be further discussion with the Board on which direction to go on the advertising.

On a motion by Commr. Campione, seconded by Commr. Breeden and carried unanimously by a vote of 5-0, the Board approved Tab 7 to adopt the 2016 Annual Transit Development Plan Update, with the understanding that there would be a general discussion regarding the transit system prior to the FY 2018 budget sessions specifically discussing additional goals and objectives for funding sources such as advertising and the possibility of ride sharing and implementing a pilot program.

PUBLIC HEARINGS: REZONINGS

REZONING CONSENT AGENDA

Mr. Tim McClendon, Planning and Zoning Manager, Economic Growth Department, presented the advertisements for that day's public hearings on the overhead monitor. He related that there were four rezoning cases this month identified as Tabs 1 through 4 in their staff rezoning book, which he noted were unanimously recommended for approval by the Planning and Zoning Board at their meeting on November 30. He relayed that staff's recommendation was for the Board to approve the Consent Agenda as recommended by the Planning and Zoning Board.

The Chairman opened the public hearing.

There being no one who wished to address the Board regarding the Rezoning Consent Agenda, the Chairman closed the public hearing.

On a motion by Commr. Breeden, seconded by Commr. Blake and carried unanimously by a vote of 5-0, the Board approved the Rezoning Consent Agenda, Tabs 1 through 4, as follows:

Tab 1. Ordinance No. 2016-59

Rezoning Case #RZ-16-29-5

Nila A. Baker and Jason Baker Property

Request to rezone property from Mixed Home Residential (RM) to Agriculture (A) to undertake General Agricultural uses on the property.

Tab 2. Ordinance No. 2016-60

Rezoning Case #RZ-16-28-5

Black Bear Reserve PUD Amendment

Request of establishment of new Planned Unit Development (PUD) zoning district ordinance to **revoke and replace** PUD Ordinances #2005-39, #57-91 and #102-89 to include a new rear setback of 10-feet rather than 25-feet, as previously established.

Tab 3. Ordinance No. 2016-61

Rezoning Case #RZ-16-30-4

Cople Property

Request to rezone 11.49 acres from Agriculture Residential (AR) to Agriculture (A) to increase permitted Agricultural Uses.

Tab 4. Ordinance No. 2016-62

Rezoning Case #FLU-16-12-3

Cooper Property

Request to amend the Future Land Use Map (FLUM) on approximately 1.16+/- acres, located on Country Road 561 in the Tavares area from the Regional Office Future Land Use Category to the Regional Commercial Future Land Use Category, to allow vehicular sales to be conducted on the property.

PUBLIC HEARING – VACATION PETITION NO. 1230 – HOLIFIELD

Mr. Jim Stivender, Public Works Director, explained that Vacation Petition No. 1230 was a request to vacate two platted lot line utility easements in the Greenbriar Subdivision located east of Eustis off of State Road 44. He pointed out that infrastructure was already put in place, that they are side lot easements that do not affect other properties, and that the lot title had been cleared so it is now one piece of property. He stated that it was staff recommendation to vacate and requested approval from the Board.

The Chairman opened the public hearing.

There being no one who wished to address the Board regarding the vacation petition, the Chairman closed the public hearing.

On a motion by Commr. Campione, seconded by Commr. Parks and carried unanimously by a vote of 5-0, the Board approved Vacation Petition No. 1230 to vacate platted lot line utility easements in the Greenbriar Subdivision in the Mt. Dora-Eustis area.

PUBLIC HEARING – VACATION PETITION NO. 1229 – WARD

Mr. Stivender explained that the request for Vacation Petition No. 1229 was for a Cross-Access Easement in the City of Leesburg, and a different easement would be put in its place if approved, which was documented separately. He stated that it was staff recommendation to vacate and requested approval from the Board.

The Chairman opened the public hearing.

Mr. Peter Dora, a resident of Leesburg, stated that he lives adjacent to the property and wanted to clarify where the eventual ingress and egress of the property would be. He was concerned that an exit would be planned for the residential street and wondered if there were site plans available that would show where the exit was to be located.

Mr. Stivender replied that there was a separate access document located with the City of Leesburg that solved the access issue. He clarified that the requested action was to decide if the Cross-Access Easement served a public purpose.

Mr. Dora stated that his and the other residents' concern is that the drive-through of the business would be exiting onto their residential street.

Mr. Stivender clarified that access was solved through a city site plan and was approved previously.

Mr. Fred Schneider, Engineer, Public Works, stated that this had been worked on for many months between the property owner, the County, and the City of Leesburg. He reviewed the plans that would be taking place and noted that the new easement would no longer be over where the building was because the building would be reconfigured. He clarified that the easement would be in the same location, centered in the parking lot, and would retain the same access as before.

Mr. Dora clarified that the access would be at the same place and would not exit on to Pringle Avenue but stay exiting onto Skinner Avenue.

There being no one else who wished to address the Board regarding this vacation petition, the Chairman closed the public hearing.

On a motion by Commr. Breeden, seconded by Commr. Blake and carried unanimously by a vote of 5-0, the Board approved Vacation Petition No. 1229 to vacate a Cross-Access Easement in the City of Leesburg.

DEPARTMENTAL BUSINESS

KEEP LAKE BEAUTIFUL

Mr. Brian Sheahan, Director of Community Safety and Compliance, gave an overview on the Keep Lake Beautiful program and upcoming activities and noted it was the first complete year of the program. He recapped that in April 2015 the Board approved the creation of Keep Lake Beautiful (KLB) to fill in the gaps between government services and volunteer organizations and to provide focus on areas that were not being served. He explained that the KLB Advisory Committee is made up of elected officials, School Board members, civic organizations, citizen representatives, a local business representative, and a Board liaison. He stated that it was set up this way to ensure that it is all inclusive and touches every aspect of the community. He commented that the Community Litter Index benchmarks show how well the county is doing, where the problem areas are, and what progress is being made. He pointed out that the index average was 1.6 for both 2015 and 2016; however, the 2016 index score included more sites, and there was improvement in the number of areas going from slightly littered to no litter. He mentioned that there have been additional areas identified that really need attention, which would be benchmarked for follow up.

Mr. Sheahan reported that KLB achieved its Keep America Beautiful (KAB) Affiliate Accreditation, was recognized as a member in Good Standing for 2016, and won a 2016 NACO (National Association of Counties) Award for Volunteer Programs. He reviewed the KLB Litter Application, which was developed completely in-house and featured in the international journal Esri ArcNews in spring 2016. He showed the listing of the sponsors and partners that had played a large role in the program's success. He pointed out that an important

partnership had been formed with the Florida Department of Health as concern had grown for the Zika Virus, a virus spread by mosquitos, and a beneficial side effect of the KLB clean-up had been the removal of old tires, which is a known breeding source for the mosquitos carrying the virus. He presented letters of positive feedback for several community events and highlighted all of the activities that took place over the year. He reported that 18 events took place during the year; there were 38,000 pounds of litter removed; 13,000 pounds of hazardous waste were removed; 526 trees and 500 shrubs were planted; and there were over 1,250 hours of volunteer time, which was an estimated labor value of \$28,000. He played an audio advertisement for the Board and noted that the ad was funded by the Drive it Home Grant given through the Florida Department of Transportation (FDOT.) He noted that the grant also funded the purchase of litter grabbers, printing of promotional material, purchase of bottle refilling stations for parks, and the payment of dues for KAB and KLB memberships. He reviewed the community outreach events that took place such as the Wings and Wildflower Festival and the Florida Wildlife Festival.

Mr. Sheahan listed the upcoming activities planned for 2017, noting that there would be continued promotion of the Adopt a Road and Adopt a Lake programs, four Community Clean Up Events, attendance at festivals, coordination of public facility beautification projects, and implementation of a cooperative program with the Extension Service for training school facilities groundskeepers. He reviewed that a Special Event Coordinator would be hired to expand the program, and they would continue to build the volunteer base, work with the KLB Advisory Board to plan and conduct more events, continue to seek grant funding for supplies to benefit community projects and continue to seek corporate partners for events.

Commr. Campione thanked everyone for being involved and noted that it is a working committee with everyone contributing new ideas. She stated that there are opportunities that present themselves to help improve areas when attending events, and she encouraged the Board to participate when the events come up. She commented that the recent lake cleanup was very rewarding and noted that several boaters thanked them for the work they were doing. She mentioned that she hoped the outreach was making residents more aware of the situation and in particular noted partnering with convenience stores and gas stations to keep the areas around the businesses cleaned up.

Commr. Parks stated that he was very impressed with the volunteer hours and dollar amount figures that were presented. He commented that he appreciated Commissioner Campione's leadership and the staff's help on the program. He suggested getting in touch with local high school students to help with gaining volunteers, because high school seniors need volunteer hours for college applications.

Commr. Campione replied that Mr. Sheahan had gone to high school guidance counselors and worked with Mr. Mark Dodd, Chairman of the Lake County School Board, and he was able to give a presentation on the opportunities of volunteering for KLB.

Commr. Parks opined that was wonderful and that the community is strong, and he thanked everyone for their work.

Commr. Campione pointed out that the KLB program keeps to the goal of "Real Florida, Real Close" by keeping the areas clean for ecotourism.

Commr. Blake clarified that the dues paid to be a part of KAB and KLB came from the FDOT grant.

Mr. Sheahan stated that there were dues involved to be a member of the KAB but that they were paid through the grant and not through local tax funds. He noted that it also pays for

travel to conferences as well as radio advertising.

Commr. Breeden thanked Mr. Sheahan and Commissioner Campione for their hard work. She asked if the cities were partnering with KLB when an event takes place there.

Mr. Sheahan replied that the City of Minneola and the City of Umatilla both partnered with KLB for the events that took place in their area, and overall each city that has been approached has been very receptive and positive.

Commr. Sullivan pointed out that the waste contractors have stepped in to be a large part of the process, and he thanked them. He commented that the community events are great because they allow the residents to get involved.

Commr. Campione noted that there is a great opportunity for organizations that want to do a project but maybe don't have the funds to partner with KLB for support. She wondered if a strike team had been created in Public Works that could call out problem areas.

Mr. Sheahan responded that it had been put in place and was a good resource.

Mr. Heath stated that a request had been put in place with a contractor, and there is a process Mr. Sheahan follows that starts with contacting the appropriate department first to help with the issue and then contacting the contractor for assistance if that department is unable to help.

INFRASTRUCTURE SALES TAX PRIORITIES

Mr. Steve Koontz, Assistant County Manager, presented to the Board the five-year funding plan for Infrastructure Sales Tax priorities. He recapped that Florida State Statute 212.055(2) authorizes a county to levy a discretionary sales surtax of up to one percent and specifies the approved uses for that funding. He elaborated that this sales surtax is pursuant to an ordinance enacted by the Board and approved by the majority of the electors of the county voting in referendum. He stated that the current authorization was under Lake County Ordinance 2001-123, which authorized the extension of the Infrastructure Sales Tax, the special election that took place November 6, 2001, and the 15-year term of the levy from January 1, 2003 to December 31, 2017. He noted that it was distributed evenly among the Lake County Board of County Commissioners (BCC), the School Board, and the municipalities. He pointed out that a citizen committee was created to monitor the expenditure of sales tax proceeds, 50 percent of which are to be used for transportation purposes and 50 percent for other purposes as allowed by Section 212.055(2) of the Florida State Statute. He stated that the new authorization under Lake County Ordinance 2015-41, which will take place January 1, 2018, authorized the extension of the Infrastructure Sales Tax, placed the referendum on the November 3, 2015 ballot, and was approved by the voters as a 15-year term from January 1, 2018 to December 31, 2032. He commented that the surtax will be evenly distributed again between the Lake County BCC, the School Board and the municipalities. He said that it authorized the continuation of the citizen committee to monitor the sales tax proceeds and pointed out that the proceeds of the surtax cannot be pledged for any future bond issues without first holding a public hearing, adding that an additional item in the new ordinance was that Lake County has no designated funding allocations. He specified that based on the statute, the County can use the sales tax for law enforcement vehicles, fire trucks and ambulances, and public safety equipment; parks, trails, recreation and libraries; roads, sidewalks, and transportation; water quality, utilities, and drainage improvements; and other public infrastructure needs.

Mr. Koontz related that the current authorized projects for FY 2017 in the other purposes section were the expansion and improvements at many of the parks and a debt

service that is tied to the sales tax for the radio tower project, which is the last debt service payment on that project. He stated that another authorized purpose was the Capital Improvement Bonds debt service. He explained that the Board issued debt in 2007 for \$80 million that was used for the courthouse, parking garage, and other projects in the downtown complex. He added that the debt service was approximately \$5.4 million, which was set based off of the refinancing that took place in 2016. He noted that the debt service extends to 2037 as it was a 30-year bond issue. He pointed out that infrastructure sales tax funding can only be used during the period that it was initially authorized, which meant that after December 31, 2017 the sales tax funding could not be used to pay the debt service and will go back to being paid out of the General Fund. He explained that the infrastructure sales tax was used to help with the debt service during the years of the recession, as well as other purposes including the new Tax Collector Building, sheriff vehicles, the Judicial Center renovation, the Fruitland Park Athletic Fields Grant and reserves. He presented a list of the Transportation projects for FY 2017 and noted that they are either in process or completed.

Mr. Koontz reviewed the new authorization priorities for the first five years of 2018-2022, noting that it was a rolling five-year plan and started the process. He recalled that in May 2015 there was a BCC regular meeting to discuss the reauthorization of the infrastructure sales tax, and the presentation included background, priorities, ballot language, revenue projections, and the potential utilization of revenue. He pointed out that the utilization of the revenue was divided into 30 percent for public safety, 30 percent for quality of life, 30 percent for public works, and 10 percent for other infrastructure. He stated that priorities within public safety uses were vehicle replacement for the sheriff's office, ambulance and equipment replacement for Lake Emergency Medical Services (EMS), and fire apparatus, station renovations, repairs and replacement for Lake County Fire and Rescue (LCFR). He related that the priorities for quality of life were expansions and completions of several parks, the Cagan Crossings Community Library, and Marion Baysinger Memorial Library. He noted that the priorities within public works were road resurfacing, sidewalks, intersection improvements, water quality projects and vehicles and equipment. He pointed out that priorities for other public infrastructure were building renovation and development, vehicles and fleet, telephone system modernization and fiber optic network expansion. He reported that some additional needs have been identified and mandated in the last year, including the required closure of the six-acre cell at the landfill, which is regulated by the Department of Environmental Protection, and the requirement for new ADA (Americans with Disabilities Act) accessible voting machines for the Supervisor of Elections. He reviewed several other projects that came up since the May 2015 meeting.

Mr. Koontz stated that the revenue projections for the first five years that were given to the Board in May 2015 were based on FY 2014 actuals and FY 2015 estimates; however, in December of 2016 the updated projections were based on FY 2015 actuals and FY 2016 estimates. He explained that in May of 2015 the revenue projections were shown using calendar years starting in January 2018 through December 2022, but in December 2016 the updated projections were shifted to the account for fiscal years and have used a three-percent growth factor from year to year, which is fairly conservative. He reviewed the May 2015 projection amounts for each area with a total estimated County funding of \$74,300,000, and he presented the comparison of May 2015 and December 2016 estimates, which shows that the actual amount will be about \$81 million as opposed to the original \$74.3 million. He pointed

out that staff tried to stay conservative because it is better to have some extra funding as opposed to being short.

Mr. Koontz went over the funding strategy that staff had put together, and he explained that the first quarter for the FY 2018 from October through December of 2017 must be divided based on the current authorization of 50 percent for transportation purposes and 50 percent for other purposes allowed by statute, which will be for debt service for the Capital Improvement Bonds. He specified that he estimates that figure to be at 1.9 million, with the rest being absorbed through the General Fund, where it is pledged. He elaborated that the remaining funding of the five-year plan will be under the new authorization beginning January 2018 through September 2022. He noted that they will use the four funding categories that align with the Sales Tax Ordinance and that were discussed in May with the same priority projects, and additional funding is to be allocated to projects that have been identified as additional projects when feasible. He presented a chart illustrating the five-year updated revenue projections. He explained that the 5 Year Plan provides a framework for the Board to fund projects and priorities in one-year increments, noting that every August the Board will be able to reconcile what has been done and make any changes as needed in a public hearing forum.

Mr. Koontz specified that there was \$21.2 million total for public safety uses, and he presented a chart breaking that funding into three categories of Lake County Fire Rescue, Lake Emergency Medical Services (EMS), and the Sheriff's Office. He mentioned that vehicle replacement was mentioned as a priority for the Sheriff's Office, and funding was allocated for that purpose at \$1.5 million for the first year and \$1.5 million for each year after that. He added that Lake EMS funding of \$2.5 million was to be used toward ambulance, equipment, and CAD replacement, although it was expected that there would be additional capital funding available through the Ambulance MSTU (Municipal Service Taxing Unit) fund. He listed three fire stations that were identified as ones built in the 1970's or 1980's that needed to be replaced at a total cost estimate of \$4.12 million, which were Station 39 in Mt. Plymouth-Sorrento, Station 71 in Bassville Park, and Station 76 in Yalaha, as well as four fire stations that needed expansions of the existing station using a total of \$2 million, which were Station 111 in Bay Lake, Station 15 in Pine Lakes, Station 27 in Mount Dora, and Station 109 in the Lakeshore area. He also gave a list of stations that were due to receive renovations and repairs using a total of \$880,000 of the funding over the five-year period, including roof repairs, plumbing, exterior building improvements, septic systems, and bringing buildings up to building code standards. He pointed out that this plan is expected to affect 18 of the 24 Lake County stations. He added that the five-year plan also includes fire apparatus and vehicle replacement for vehicles ranging in age from 12 to 33 years old, including pumpers, squad trucks, brush trucks, and command vehicles.

Mr. Koontz went over the Quality of Life Five-Year Plan for 2018 through 2022 for Parks, Trails, Recreation and Libraries, showing graphs for the expected five-year funding plan for the construction, amenities, and/or expansion of the East Lake Community Park, North Lake Community Park, PEAR Park, Lake Idamere Park, Minneola Athletic Complex, South Lake Regional Park, Ferndale Preserve, Ellis Acres, and other community parks; renovation and rehabilitation of the South Lake/Hancock Trails and other trail properties; expansion of the Cagan Crossings Community Library and Marion Baysinger Memorial Library; and replacement of the Astor Library. He noted that impact fees could also be used for the library projects. He presented graphs and discussed funding in the five-year plan for various public works infrastructure projects such as resurfacing and sidewalk projects,

information technology replacement of old and obsolete equipment, fleet vehicle replacement, capital building maintenance, design and construction of an Animal Services facility, and additional projects, including the aforementioned voting machines with ADA compliance, landfill closure, and purchase of a Tax Collector Building. He summarized that the funding strategy was based on the priorities presented to the Board in May 2015, and staff had tried to keep those priorities consistent. He pointed out that the current authorization ended December 31, 2017, and the proceeds from the first quarter of 2018, which is the last quarter of the current authorization, would be evenly divided among public works and debt service. He elaborated that the proceeds of the new authorization would fund the remainder of the five-year plan from January 1, 2018 through September 30, 2022. He listed the next steps, which would be the budget process between March and June of 2017, the first public hearing for the new authorization in August 2017, and the public hearings to adopt the budget in September.

Mr. Heath commented that the purpose of the presentation was to give the Board a framework for ideas that would be discussed at the retreat on January 17, 2017, and he cautioned the Board that although this funding plan could be changed, anything that is added would necessitate something being taken out of the plan. He explained that the Board approves a list of sales tax projects every year as part of the budget, and there was constant dialogue during the year with the community about the funding and timeframe of specific projects. He opined that the plan was the result of balancing community and organizational needs such as maintenance costs for telephones and heavy equipment.

Commr. Campione clarified that 2019 would be the first year that they would not use sales tax for debt service, noting that the funding that had been taken out of sales tax to help absorb some of the debt service had fluctuated over the last five years.

Mr. Koontz responded that the funding of the debt service out of the sales tax proceeds started off at about \$2 million and went to a high of \$4.5 million, with \$3.1 million being used this year for that purpose and \$1.9 expected to be used next year.

Commr. Campione suggested that they start using less money for that purpose in the future to prepare for the time when it could no longer be used for debt service.

Mr. Heath pointed out that there would still be a \$1.2 million reduction from this year to next year.

Commr. Sullivan clarified that it would affect the General Fund.

Commr. Campione opined that the performance contracting sounded very promising in light of the fact that they would have other shifting priorities to find a good source to take care of some of the capital needs and free up some funding for other projects, such as the Animal Shelter, which is in dire need of facility improvements.

Commr. Parks asked whether there was any consideration of the feasibility of TDT (Tourist Development Tax) funding being used for some of the trail projects.

Mr. Heath responded that they were still looking at that and recapped that at the last meeting it was mentioned that staff had done an RFP to gauge interest in using TDT funding, which garnered underwhelming interest. However, he opined that the Coast-to-Coast Trail would be able to be used for tourism purposes and "putting heads in beds."

Mr. Koontz added that the rehabilitation of the trails they were currently looking at would probably not be eligible for TDT funding, but they would need to look at development of new trails and connections to complete the Coast-to-Coast Trail in order to be able to use that funding.

Commr. Parks suggested that they look at municipalities such as Clermont for help in funding trail needs as well.

Commr. Campione added that the Central Florida Loop could also affect the North Lake trails. She expressed concern about a caveat that could be added to the purchase of the lease from the Florida Central Railroad.

Mr. Heath replied that County staff and Mr. T. J. Fish, Executive Director of the Lake-Sumter Metropolitan Planning Organization (MPO), had met with the City Manager of Mount Dora, who indicated that she would look at that issue, although she could not make a quick decision about that. He added that the County Attorney's Office has rendered an opinion about not being able to use sales tax to buy the railroad out, but he has been looking into having FDOT help them with that purchase.

Commr. Parks asked whether some projects will take longer to complete than others.

Mr. Heath answered that cash flow and project development guided this exercise, and he listed some of the aspects of development associated with some of the projects, including finding and purchasing property and design of the project.

Commr. Campione elaborated that the timing and funding of the projects could be adjusted at the annual hearings if that was necessary to get something accomplished sooner.

Mr. Heath added that this would be a fluid process, since there were many things currently happening that could change those priorities, including an EMS study, the consultant's recommendation regarding Animal Services, and performance contracting.

Commr. Parks clarified that staff was conservatively projecting a three-percent increase of sales revenues on a yearly basis, but he asked what they could do if the actual revenue that came in was higher than projected.

Mr. Heath cautioned the Board about overestimating and over-projecting the revenue, and he assured them that staff would be monitoring that so that they could reconcile the actuals with the projected numbers.

Commr. Sullivan commented that they have learned from past experiences that some costs increase as well as revenues during good economic times.

RECESS AND REASSEMBLY

The Chairman announced at 11:07 a.m. that there would be a fifteen-minute recess.

ORDINANCE REGARDING PAYMENT AND USE OF IMPACT FEES

Mr. Heath related that this is a request for approval to advertise an ordinance amending Section 22-8 and Section 22-11 of the Lake County Code. He explained that under the existing County Code, a developer can prepay impact fees at the existing rate to ensure certainty of the amount to be paid for up to one year, and the County has interlocal agreements with all of the cities to do that. However, he noted that there was currently a dispute between Mr. Jeffrey Cagan and the City of Tavares regarding the city impact fees for the Atwater Apartments in Tavares. He stated that Mr. Cagan paid his prepaid impact fees for the Atwater Apartment project and then continued to go through the process; however, this dispute resulted in Mr. Cagan not picking up his building permit and the expiration of his prepaid certificate, resulting in being subject to the existing rate, which was a huge impact for a project of this size. He elaborated that the intent of the prepaid impact fees was to enable developers to fix their costs and proceed in good faith. He referred to a letter from Mr. John Drury, Manager for the City of Tavares, stating that it is indisputable that Mr. Cagan was going through the process and would have gotten his building permit had this issue with the city fees not transpired. He further explained that the code change request would give the County Manager

authority to reinstate the amount of the prepaid impact fees totaling less than \$25,000 in situations where those fees expire through no fault of the applicant, whereas the County Commission could reinstate those fees over \$25,000. He reported that this ordinance will also provide two additional ways for a developer to defer impact fees from a building permit to a Certificate of Occupancy, which were to record a lien against the property to ensure payment or to require a letter of credit from the developer allowing the County to recoup the fee from the bank in the event of a default. He recapped that if an applicant wants to defer their impact fees from the building permit to Certificate of Occupancy under the existing code, he could have his contractor sign an affidavit giving the County authority to suspend his license until the fees are paid. However, in situations like this where the impact fees owed would be \$1.5 million, the amount was too large for most contractors to guarantee and posed little security for the County. He requested that the Board approve the advertisement for the above-mentioned code change.

Commr. Campione clarified that this ordinance would require the developers who prepaid the fees to demonstrate that it was not their fault that they were not able to get their permit issued within that time period. She opined that this was a good solution to deal with those types of inequities when and if they arise.

On a motion by Commr. Breeden, seconded by Commr. Parks and carried unanimously by a vote of 5-0, the Board approved to advertise an ordinance amending Section 22-8, Lake County Code, entitled Payment and Use of Impact Fees and Section 22-11, Lake County Code, entitled Prepayment of Impact Fees. The fiscal impact is unable to be determined at this time.

PRESENTATION – CR437 REALIGNMENT AND MULTI-MODAL CORRIDOR

Mr. Fred Schneider, County Engineer, Public Works, stated that this presentation would give the Board an update on the CR 437 Realignment Project and Multi-Modal Corridor Study in Sorrento, and he noted that this would not require any action from the Board.

Mr. Don Griffey, Griffey Engineering, a consultant who was hired by the County to manage and lead the project, listed who was on the project team, including his firm, the Lake County Departments of Public Works and Community Services, and a group of local consultants including Amanda Wettstein, a Public and Government Relations Consultant who was handling public relations for the project; Traffic Engineering Data Solutions, traffic data collection; Hoke Design, the multi-modal consultant; Modica & Associates for environmental work; Booth, Ern, Straughan & Hiott, surveyor; and Central Testing Laboratory, the geo-consultant for the project. He displayed a map on the overhead monitor of the project corridor, which he noted was almost five-miles long starting on the south end of Adair Avenue going north to SR 46 and to CR 437 and then north to SR 44. He commented that there were some external factors in the area that were affecting the study, which were the Wekiva Parkway construction, the upcoming transfer of SR 46 to Lake County, the work being done on the Wekiva Trail, and the Community Redevelopment Area (CRA) in the Mt. Plymouth-Sorrento area. He displayed a map which also showed the location of the project in relation to the Wekiva Parkway and the changes that were happening in the community. He recapped that they went through a process working with the CRA Advisory Committee last year to develop a concept plan for what they would like to see done with SR 46 after FDOT turns it over to Lake County, and he displayed a slide illustrating those recommended changes within their study area, pointing out that they discovered that the eastern CR 437 intersection had been proposed

with a roundabout in the concept plan. He noted, however, that when they put the realignment in and looked at the future traffic numbers, they realized that a roundabout would not work and was not a good option at that intersection.

Mr. Griffey presented a map of a portion of the Wekiva Trail with some of the segments identified, which showed that the Wekiva Trail runs through their project area as well, and he mentioned that the County was currently advertising for the design consultants for Segment 2 of the Wekiva Trail, a part of which runs along their project corridor. He displayed an aerial view of the boundary of the Mt. Plymouth-Sorrento Community Redevelopment Area showing that their project goes through the middle of it. He opined that there was a very active community in that area which was excited about the changes going on in that community and was providing them with good input on this project, and one of their goals and objectives was to identify and develop transportation plans. He listed the public input meetings they have had regarding this project, including the introductory meetings in July, where they received a lot of great input which was useful in developing their alignment alternatives, and the community meetings in November to get input on the proposed alignments. He listed some of the concerns and desires he has heard from the community, including concern about the roundabout, a desire for connectivity with the Wekiva Trail, a request for sidewalks from the school to the Publix store on SR 44, enhancement of the business district, desire to keep the realignment close to Sorrento Avenue, maintenance of the beauty and quality of the community, and a desire for a trail-oriented community similar to Winter Garden.

Mr. Griffey reported that the project includes three components, which were to evaluate the multi-modal uses in the area and any improvements to that system, determine the best route for the realignment of CR 437, and identify short-term improvements that would be possible for a relatively low cost. He pointed out that there were accommodations built for cyclists and pedestrians near the new Publix store in the area near CR 437, but connections are needed to extend that further, since there was a definite need to accommodate pedestrians throughout the area and specifically on CR 437. He showed illustrations of a piece of sidewalk near Sorrento Elementary School, noting that was the first part of the Wekiva Trail that has been constructed. He opined that East Lake Community Park would be a good place for a trailhead as well as for a Park & Ride commuter lot rather than for the parking lot to sit idle on weekdays during commuting hours. He pointed out that they would see growth as the community changes and expands in that area, and there was potential for extending the transit route out there to accommodate the population and a greater need for those services. He reviewed the realignment section, noting that they were looking at using a 100-foot right of way, as well as green space with landscaped opportunities as requested by the CRA Advisory Committee. He also pointed out that there would be a multi-use trail on the north side of the road, which would provide a loop to run on 437 between Wolf Branch and Sorrento Avenue, along the realignment, and back to Sorrento Avenue, which would provide a good opportunity for businesses to attract customers and encourage the trail-based community that was requested by the residents. He presented some of the realignment alternatives, including a no-build option which would result in those roads having an unacceptable level of service by 2040, Alternative 1 with improved intersections and a trail which favored the through traffic, and Alternative 2 containing roundabouts and right-turn bypass lanes that would handle the traffic, provide a good level of service, and better accommodate what the community requested. He listed the next steps in the study, which were finalizing the environmental

assessment, stormwater and geotechnical evaluation of the alternatives, looking at the right of way needs and property impacts, cost analysis of the alternatives, development of a multi-modal and streetscape plan for the study area, conducting small group meetings, identification of short-term improvement options, and continuation of their public involvement.

Mr. Schneider went over the project funding estimates, noting that there was an ongoing contract for the corridor study with Griffey Engineering in the amount of \$197,700. He reported that there were funds in the adopted five-year work program and the impact fee program for the realignment section of CR 437 in the amount of \$500,000 for design of the realignment, \$700,000 for right of way, and about \$435,000 for construction. However, he noted that there was additional funding needed for construction of the realignment and other improvements along Sorrento Avenue of about \$3 million, but there was both a state and federal legislative request in order to fill that gap. He added that funding was also being requested through the Lake-Sumter MPO on the local priority projects list, and they will have more refined cost estimates after the study process on the realignment and the other segments of CR 437 north and south of the realignment, including sidewalks, for the entire length of the project. He recapped that they have already had some community meetings in July and November, and he related that the next scheduled public meeting is tentatively scheduled for January 10 with the CRA Advisory Committee, with a community meeting tentatively scheduled for January 26. He reported that they would come back to the Board in March for a public hearing and request the Board's approval of a recommendation at that time. He displayed the project's website, which was www.LAKECR437.com.

Commr. Sullivan expressed concern about traffic around the Sorrento Elementary School and the East Lake Community Park and asked whether that was taken into consideration during the planning process.

Mr. Schneider responded that they converted the results of their study into more of a realignment and multi-modal corridor study taking into consideration the needs and desires of the community and the interaction of pedestrians, bicyclists, and vehicle traffic. He stated that he believed the two interchanges on either side would intercept quite a bit of the traffic, but they would manage the north-south traffic to keep it at a lower speed in order to fit in with the community, taking into account the pedestrians, bicycles, and the trail. He elaborated that they are looking at putting in wide sidewalks and paved shoulders up to SR 44 north from the intersection of Sorrento Avenue intersecting with the Wekiva Trail as well as from Sorrento Avenue south to Oak Lane where there is a projected future road connecting at Round Lake. He summarized that they are trying their best to incorporate pedestrian and bicycle-friendly aspects into the project.

Commr. Breeden asked if they had looked at levels of service at the intersection of Wolf Branch and Wallick Roads.

Mr. Griffey assured her that it was included in their traffic analysis, but they mostly focused on the realignment portion. He elaborated that currently that intersection was working at a good level of service.

Commr. Breeden asked whether there was anything that would improve the levels of service at Hunter Avenue and CR 437, since it was rated at a "C" level.

Mr. Griffey responded that they had recommended putting in a separate lane for every movement and a signal at that location. He further explained that the County has adopted level of service "D" or better as the acceptable standard.

Commr. Sullivan mentioned that the streetscape program using FDOT funding could possibly be an opportunity to make further improvements and to be combined with this project.

REPORTS – COUNTY MANAGER

CITY OF FRUITLAND PARK FIRE SERVICE

Mr. Heath recapped that the County negotiated an agreement with the City of Fruitland Park in August and September for the city to opt into the County's fire system and to be subject to their fire assessment, which was approved by both the City of Fruitland Park and the Board and then subsequently rescinded by both parties. He related that Fruitland Park has created an advisory board to vet the issue of fire service, and the city requested that Lake County attend a meeting on Tuesday, January 24, 2017 to discuss this issue. He informed the Board that he has arranged for Mr. Koontz to attend that meeting in order to educate them on the County's fire assessment and for Chief John Jolliff to speak about the operational aspect of that service. He commented that he believed Fruitland Park's participation as part of an integrated County system would strengthen their system. He related that the County would be willing to enter into an automatic aid agreement with the City similar to what they have with some of the other cities if the City chose to create their own fire department; however, the County would not be interested in negotiating automatic aid if Fruitland Park chose to retain the status quo with the use of volunteers, but the County would continue to honor the mutual aid agreement they currently have with them in that case.

REPORTS – COMMISSIONER PARKS –DISTRICT 2

FIRE COMMITTEE

Commr. Parks requested to have a discussion regarding implementing a fire advisory committee for Lake County in the future.

Mr. Heath responded that Mr. Koontz would make a presentation at the next meeting on the budget outlook and millages which would give an update on the fire budget, and they will have a closed session on that day regarding the bargaining unit. He elaborated that two weeks after that meeting, the Board will hear a presentation by Tindale Oliver on the fire assessment and the vacant land alternative that was previously discussed, and in the near future they would also hear the results of a study about EMS and fire services. He recommended that the Board hear those presentations before they create a committee, since a fire advisory board might be a good platform to vet some of those issues after being given a time period in which to work, and to wait until at least the first meeting in February before deciding what to do.

Commr. Campione asked whether there was a draft plan that had been done in the past.

Mr. Heath responded that it was determined that the cost of that initial long-range plan would exceed \$70 million, so they had prepared a two-phase plan based on the availability of SAFER (Staffing for Adequate Fire and Emergency Response) grants.

Commr. Campione suggested that they formalize a 5-, 10-, and 15-year plan where they create a blueprint based on what they anticipate the needs to be in the future by looking at where the growth is projected and where they have deficiencies and realistically try to plan for those deficiencies over time.

Mr. Heath responded that he believed that was a great suggestion, but he recommended having an objective entity to do the study and then have the committee vet those findings rather than having the individuals on the committee come up with recommendations on their own.

REPORTS – COMMISSIONER BREEDEN – DISTRICT 3FLORIDA NATIONAL CEMETERY QUARTERLY MEMORIAL SERVICE

Commr. Breedon stated that on Wednesday December 14, 2016 she had the opportunity to attend the quarterly memorial service at the Florida National Cemetery in Bushnell. She commented that Pastor Felix Ramirez officiated, and it was a moving ceremony that included the presentation of the flag to the family of a deceased veteran.

REPORTS – COMMISSIONER CAMPIONE – DISTRICT 4KEEP LAKE BEAUTIFUL EVENT

Commr. Campione relayed that she attended a Keep Lake Beautiful event to help clean up Lake Eustis and noted that it was a successful event that felt very satisfying. She encouraged the other commissioners to attend one of the upcoming Keep Lake Beautiful events.

REPORTS – COMMISSIONER BLAKE - DISTRICT 5STAFF TOURS

Commr. Blake reported that he had been on orientation tours during the previous two weeks, including a tour of the landfill with Mr. Stivender and a tour of the larger parks in the county with Mr. Jeff Cole, Public Resources Director, and Mr. Bobby Bonilla, Parks and Trails Manager.

REPORTS – COMMISSIONER SULLIVAN – CHAIRMAN AND DISTRICT 1UPCOMING RETREAT

Commr. Sullivan requested that the commissioners send their priorities and discussion items for the Board Retreat to Mr. Heath no later than January 10, 2017.

COMMISSION LIAISON FORM

Commr. Sullivan reminded the commissioners to turn in their forms for Commission Liaison positions to him as soon as possible.

LAKE LEGISLATIVE DAYS

Commr. Sullivan encouraged the Board to attend and participate in the Lake Legislative Days in February 2017.

LEGISLATIVE PRIORITIES

Commr. Sullivan mentioned that he spoke to their federal lobbyist. He noted that he plans to take a trip to Washington D.C. in March 2017 to ensure that the County's priorities are kept in mind, and he hoped to visit with some agencies there to promote some of those priorities and funding mechanisms.

ADJOURNMENT

There being no further business to be brought to the attention of the Board, the meeting was adjourned at 12:11 p.m.

TIMOTHY I. SULLIVAN, CHAIRMAN

ATTEST:

NEIL KELLY, CLERK

Lowrie Brown Ranch / *Orange Bend Land Use*

Ordinance Number 21-22

PUD Zoning

Implementing zoning regulations

ORDINANCE NO. 21-22

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, AMENDING THE MIXED-USE PUD (PLANNED UNIT DEVELOPMENT) ON APPROXIMATELY 640 +/- ACRES TO EXTEND THE TIMEFRAME OF THE DEVELOPMENT FOR A PROPERTY GENERALLY LOCATED NORTH OF POE ROAD AT THE INTERSECTION OF COUNTY ROAD 44, WEST OF RADIO ROAD AND EXTENDING NORTHWEST TO HAINES CREEK, AS LEGALLY DESCRIBED IN SECTIONS 3, 4, AND 5, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; AND PROVIDING AN EFFECTIVE DATE. (ORANGE BEND)

BE IT ENACTED BY THE PEOPLE OF THE CITY OF LEESBURG, FLORIDA, that:

Section 1.

Based upon the petition of Lowrie Brown Investment Co., John M. Brown, Vice President, (Greg Beliveau, agent) petitioner of the property hereinafter described, which petition has heretofore been approved by the City Commission of the City of Leesburg Florida, pursuant to the provisions of the Laws of Florida, the said property located in Lake County, Florida, is hereby amended to extend the timeframe of the development, to-wit:

(Legal Description)
(See Exhibit B)

Section 2.

This ordinance shall become effective upon its passage and adoption, according to law.

PASSED AND ADOPTED at the regular meeting of the City Commission of the City of Leesburg, Florida, held on the 24th day of May 2021.

THE CITY OF LEESBURG, FLORIDA


Mayor

ATTEST:


City Clerk

BROWN RANCH
(Orange Bend)
PLANNED UNIT DEVELOPMENT CONDITIONS
March 18, 2021

This Planned Unit Development Conditions for a PUD (Planned Unit Development) District is granted by the City of Leesburg Planning Commission, Lake County, Florida to Lowrie Brown Investment Company "Permittee" for the purposes and subject to the terms and conditions as set forth herein pursuant to authority contained in Chapter 25 "Zoning", Section 25-278 "Planned Unit Development" of the City of Leesburg Code of Ordinances, as amended.

BACKGROUND: The "Permittee" has requested a Planned Unit Development (PUD) zoning district to allow construction of a proposed mixed use development comprised of a maximum of 799 single family and 196 townhouse and multifamily residential units, and 283,700 square feet of mixed use (commercial & government/institutional uses) on approximately 640 acres generally located north of County Road 44 and south of Haines Creek, on a site annexed into the City of Leesburg in accordance with their PUD application and supplemental information.

1. **PERMISSION** is hereby granted to Lowrie Brown Investment Company to construct, operate, and maintain a Planned Unit Development in and on real property in the City of Leesburg, in accordance with the requirements set forth herein. The property is more particularly described as follows:

2. **LEGAL DESCRIPTION:**

See attached legal Exhibit B.

3. **LAND USES**

The above-described property, containing approximately 640 acres, shall be used for single family, townhouse and multi-family residential uses, along with a mix of commercial and institutional/government uses, as described below. The property is currently in agricultural uses and shall be allowed to remain in such use until such time as each phase is developed.

A. **Permitted Uses**

1. Detached single family residential units
2. Townhouse single family residential units
3. Multi-family residential units
4. Retail shops
5. Banking and investment services
6. Restaurants/Diners
7. Bakeries
8. Liquor/package stores
9. Indoor recreation and entertainment
10. Medical/ dental offices and services
11. Personal Services
12. Music/dance/gymnasium uses
13. Community Centers
14. Mini-storage/flex space
15. Churches/houses of worship
16. Art galleries

17. Hotels
18. General office uses
19. Lounges/bars
20. Government offices and uses
21. Education facilities
22. Day Care
23. Residential Uses
24. Youth Activity centers
25. ACLF/Assisted living/nursing homes
26. RV/Boat Storage
27. Accessory structures for residential uses.
28. Temporary sales center offices (modular or site-built) shall be allowed during construction and sales in all areas.
29. Interim Agricultural uses as noted above, to include timber, citrus, cattle, horses, hay and sod production. These uses shall be allowed to continue until such time as the nearest pod has achieved either 50% build out of the square footage for commercial uses or 50% of the total residential units are constructed for the nearest residential pod. Should any disagreement over use arise, City Staff may consult Lake County Agriculture zoning district regulations.

B. Support Services

1. A site, not to exceed one (1) acre, shall be dedicated to the City of Leesburg for support services, i.e. fire station, police substation, emergency services or other municipal uses.

C. Prohibited Uses

1. All uses not specifically permitted within these conditions under Permitted Uses above shall be prohibited.

D. Other Related Uses

1. Other related uses may be included by written determination of the Planning & Zoning Manager. Such uses shall be consistent with the intent and purpose of the zoning requirements set forth in these PUD conditions, and shall meet the parking standards as required herein. Parking availability may limit the permitted uses.

2. Development/Land Use Matrix

Pod #	Acreage	Land Use	Building SF	Density	MF Units	SF Units
Pod 1	11.69	Commercial	100,000	8500 sf/ acre		
Pod 2	19.73	MUC	165,000	8500 sf/ acre		
Pod 3	13.06	MF		8.0	100	
Pod 4A	5.70	MF		6.0	34	
Pod 4B	10.16	MF		6.0	62	
Pod 5	9.65	SF		4.0		38
Pod 6	29.19	SF		5.5		161
Pod 7	28.46	SF		4.0		113
Pod 8	23.46	SF		3.0		70
Pod 9	8.83	Club		0.0		
Pod 10	18.08	SF		2.0		36
Pod 11	16.35	SF		3.0		49
Pod 12	5.76	SF		2.0		12
Pod 13	10.67	SF		2.0		21
Pod 14	7.68	SF		2.0		15
Pod 15	47.56	SF		1.5		71
Pod 16	27.18	SF		3.0		82
Pod 17	27.27	SF		2.0		55
Pod 18	12.86	SF		6.0		76
Pod 19	2.20	Commercial	18,700	8500 sf/ acre		
TOTAL	335.54		283,700		196	799

Phases may be developed in any order depending on engineering and market demand.

4. DEVELOPMENT STANDARDS

A. General Development Standards

1. Where not addressed by these Planned Unit Development Conditions, the minimum development standards for all development shall default to the requirements City of Leesburg Code of Ordinances as amended.
2. Minimum distance between structures shall be 10 feet; measured from building wall to building wall and the roof overhang shall not exceed 40 percent of the distance between the building wall and the property line.
3. Accessory structures shall have a minimum rear and side setback of 5 feet and single accessory structures that are not attached to the principal structure shall not occupy more than 30 percent of the required rear yard.
4. An attached screened enclosure (no solid roof) must maintain a minimum setback of five (5) feet from the side and rear property line.
5. As part of the site plan approval process, city staff shall review final site design standards in accordance with the approved PUD (Planned Unit Development) zoning conditions set forth herein.

B. Residential Development Standards

1. The project shall contain a maximum gross density not to exceed 1.6 units per acre on the approximately 640 acre site, as shown in the Development/Land Use Matrix in Section 3 above.
2. The minimum residential lot development standards shall be as follows:
 - a. For detached single family units:
 - i. Minimum house size: 1,400 square feet. Each additional bedroom to added above the minimum house size shall be a minimum of 120 square feet.
 - ii. Each residential structure shall have a minimum two car garage
 - iii. Minimum lot size shall be 6,250 square feet.
 - iv. Minimum lot width for all interior lots shall be no less than 50 feet.
 - v. Maximum impervious surface for residential lots shall be sixty-five (65) percent.
 - vi. Maximum building height: two (2) stories and 35 feet
 - vii. Minimum building setbacks for detached single family units shall be:
 - Front setback – 20 minimum (may be staggered);
 - Rear setback – 20 feet;
 - Side setback – 10 feet as stated in 4.A.2
 - Street side setback - 15 feet
 - Accessory structures – 5 feet
 - b. For single family townhouse units:
 - i. Minimum house size: 1,100 square feet
 - ii. Minimum lot size shall be 2,200 sq. ft.
 - iii. Minimum lot width shall be no less than 22 feet.
 - iv. Maximum impervious surface for residential lots shall be sixty-five (65) percent.
 - v. Maximum building height: two (2) stories and 35 feet
 - vi. Minimum building setbacks for single family townhouse units shall be:
 - Front setback – 20 minimum (may be staggered);
 - Rear setback – 20 feet;

Side setback – 10 feet as stated in 4.A.2; common wall setback is 0 feet.

Street side setback - 15 feet

Accessory structures – 5 feet

c. Multi-family residential units

- i. Shall meet the minimum lot and standards as prescribed under the C-3 (Highway Commercial) zoning designation for residential units.
- ii. Shall be consistent with the Architectural and Design Standards noted in section 5.C shown herein.

d. Platting

- i. All lots shall be required to be platted through the City of Leesburg subdivision plan approval process.

C. Commercial Development Standards

1. Commercial Development Standards shall follow the C-3 (Highway Commercial) development standards except as amended herein.
2. Impervious surface coverage for commercial, government/ institutional areas within this site shall not exceed eighty (80) percent of the gross site area.
3. A minimum of twenty (20) percent of the site within the commercial, government/institutional areas shall be developed as open space, including retention areas, buffer and landscaped areas. Parking areas and vehicle access areas shall not be considered in calculating open space.
4. Maximum Building Height:
Two (2) stories and 45 feet for commercial.

D. Spatial Requirements

1. Spatial requirements set forth herein shall be deemed satisfied provided as-built measurements do not deviate from such requirement by more than five (5) percent.
2. Signage: All signs placed or constructed on the property shall comply with *Article VI- Sign Regulations, Section 25-421 through Section 25-426*, City of Leesburg Code of Ordinances, as amended.
3. Parking
 - a. The permittee shall have off-street parking spaces within the property per an approved site plan pursuant to the City of Leesburg Code of Ordinances, which shall include the required number of handicapped parking spaces.
 - b. The location and design of the proposed parking areas will be reviewed during the site plan review process to provide for adequate parking, which may limit the permitted uses of the site.

5. DESIGN STANDARDS AND REQUIREMENTS

A. Residential Design

1. All buildings shall utilize at least three (3) of the following design features including garage vehicle doors to provide visual relief along all elevations of the single-family units. Designs may vary throughout the development.
 - a) Dormers
 - b) Gables
 - c) Recessed or raised entries
 - d) Covered porch entries
 - e) Cupolas
 - f) Pillars or decorative posts
 - g) Bay window (minimum 12 inch projections)
 - h) Eaves (minimum 6-inch projections)
 - i) Front windows with arched glass tops and minimum 4-inch trim.
 - j) Garage vehicle doors shall incorporate the following elements: raised decorative panels, decorative glass panels or panes, decorative hinges, etc.
 - k) Front doors shall incorporate the following decorative elements: raised decorative panels, decorative glass panels or panes, decorative handles, etc.
2. Exterior building materials contribute significantly to the visual impact of a building on the community. These materials shall be well designed and integrated into a comprehensive design style for the project. The total exterior wall area of each building elevation shall be composed of one of the following:
 - a) At least thirty-five percent (35%) full-width brick or stone (not including window and door areas and related trim areas), with the balance being any type of lap siding and/or stucco.
 - b) At least thirty percent (30%) full-width brick or stone, with the balance being stucco and/or a "cementitious" lap siding. (A "cementitious" lap siding product is defined as a manufactured strip siding composed of cement-based materials rather than wood fiber-based or plastic-based materials. For example, Masonite or vinyl lap siding would not be allowed under this option.)
 - c) All textured stucco, provided there are unique design features such as recessed garages, tile or metal roofs, arched windows etc. in the elevations of the buildings or the buildings are all brick stucco. Unique design features shall be reviewed by the Community Development Director for compliance.

B. Commercial Design

1. The City of Leesburg has recently adopted Architectural Standards under Ordinance 16-35. These standards, as amended, shall govern the design of all structures within the commercial and government/institutional areas.

C. Design Variations

1. Other similar design variations meeting the intent of this section may be approved by the Community Development Director or designee.

6. LANDSCAPING AND BUFFER REQUIREMENTS

- A. Except as otherwise provided herein, a minimum twenty-five (25) foot landscape buffer, as shown on the attached Conceptual Site Plan (Exhibit C) shall be provided along the all boundaries (south, west and east) of the property. The northern boundaries of Pods 10,

12, 13, 14, 15 and 19 and the western boundary of Pod 15 shall be exempt from the landscape buffer. The northern boundary of Pod 5 and eastern boundary of Pods 7 and 10 shall be exempt from this buffer requirement and remain in an undisturbed condition except as noted in 6.B. below.

- B. In order to shield, both visually and physically, the property currently described as Alt Key #1702593 from any negative impacts associated with abutting uses, a minimum fifty (50) foot buffer shall be provided along the eastern boundary of Pods 7 and 10 and along the northern boundary of Pod 5 (Exhibit D). The buffer shall be completely opaque from the ground up to a minimum height of six (6) feet in the areas along the perimeter of said buffer. The balance of the buffer width will be a combination of planted and natural vegetation as shown in Exhibit D. The buffer shall not be considered to be part of the abutting residential lot, nor shall buffer be used a part of the required recreation area or drainage system for the property. The perimeter of the buffer may utilize a masonry wall, vinyl fence or planted hedge or any combination thereof which maintains a completely opaque buffer. The buffer must be at least three (3) feet in height at installation capable of attaining full height and opacity within twenty-four (24) months thereafter. No roads may be constructed adjacent to the buffer.
- C. Land uses allowed within the upland buffers are limited to overlooks, boardwalks, hiking trails, walkways, passive recreation activities and stormwater facilities as permitted by St. Johns River Water Management District, except that such uses shall not be allowed in the buffer described in 6.B. above.
- D. An upland buffer shall be placed along Haines Creek as required by the City of Leesburg, Florida Department of Environmental Protection, St. Johns River Water Management District and/or U.S. Army Corp of Engineers, whichever is more restrictive.
- E. All other property shall meet all landscaping and buffering requirements in accordance with regulations contained within the City of Leesburg Code of Ordinances, and at a minimum shall contain the following plantings as noted in Figures A and B below:

Figure A

Canopy Trees (per 100 l.f.)	2 per 100 linear ft
Tree CAL/Height	2" cal, 12' overall height
Optional Ornamental Trees (per 100 l.f.)	3 per 100 linear ft
Tree CAL/Height	2" cal, 7' overall height
Shrub Screen (per 100 l.f.)	
Square Ft. of Shrubs	(33) 3 gal plants, 18"—24" minimum at installation (depending on species); hedges to be 36"—42" high by thirty-six (36) inches wide hedge or continuous landscape screen with a ninety (90) percent opacity within one (1) year of planting
Container size	3 gal

Figure B



- C. Variations to the landscape requirements of the code may be approved by the Community Development Director or designee, as long as the intent of the PUD and the Landscaping Code are maintained, including consideration of existing fencing on adjacent properties and existing natural vegetative buffers.

7. SITE ACCESS

- A. Main access to the property from County Road 44 will be the one boulevard type (divided landscaped roadway) as shown on the conceptual plan, and as approved through the City of Leesburg development and permitting processes. Any additional access shall be subject to the City of Leesburg, Florida Department of Transportation and Lake County permitting and review processes.
- B. All internal or external access points for the development are subject to review and approval by the appropriate permitting agency, including FDOT, Lake-Sumter Metropolitan Planning Organization, Lake County and the City of Leesburg as applicable.
- C. Each internal access along the main entry road as shown on the Conceptual plan attached hereto shall provide a decorative entry feature to include a concrete, brick or stucco wall, fencing or signage at least five (5) feet in height, on each side of the entryway. This feature may be used for signage per City of Leesburg Code of Ordinances, as amended.
- D. Subject to approval by the City and/or Lake County, Pod 5 may access Hickory Hollow Road. No other portion of the property may access Hickory Hollow Road. Prior to any portion of Pod 5 accessing Hickory Hollow Road, the Permittee shall at a minimum: (1) be required to obtain all appropriate connection permits and approvals from the City and/or Lake County; (2) cause Hickory Hollow Road to be improved to City or County standards for a public road; and (3) cause Hickory Hollow Road to be dedicated to the City or County for use as a public road.

8. TRANSPORTATION IMPROVEMENTS

- A. All future transportation improvements requirements shall be based on a current traffic analysis and shall be contingent upon Site Plan approval of the project site by City staff during the development review and permitting process. All required transportation improvements shall comply with all regulations and permitting requirements of the City

of Leesburg, Lake County, Lake-Sumter MPO and/or the Florida Department of Transportation as applicable. Said improvements will be the responsibility of the Permittee

- B. Any right-of-way that may be required shall be based on projected needs and shall be contingent upon site plan approval by City staff during the development review and permitting process.
- C. The Permittee shall provide all necessary improvements/signalization within and adjacent to the development as required by Lake County, the Lake-Sumter MPO and City of Leesburg.
- D. All roads within the development shall be designed and constructed to meet the City of Leesburg requirements.
- E. The Permittee shall be responsible for obtaining all necessary Lake County permits and a copy of all permits shall be provided to the City of Leesburg.
- F. The City of Leesburg will not be responsible for the maintenance or repair of any of the roads or transportation improvements. The Permittee shall establish an appropriate legal entity that will be responsible to pay the cost and perform the services to maintain the roads and transportation improvements. However, should the Permittee desire to dedicate the proposed project's internal road system to the City of Leesburg; the City, at its discretion, may accept or not accept the road system. Prior to acceptance, the Permittee shall demonstrate to the City that the road system is in suitable condition and meets City of Leesburg requirements. As a condition of accepting the roadway system the City may create a special taxing district or make other lawful provisions to assess the cost of maintenance of the system to the residents of the project, and may require bonds or other financial assurance of maintenance for some period of time.

9. **STORMWATER MANAGEMENT/UTILITIES**

- A. Prior to receiving final development approval for each phase, the Permittee shall submit a stormwater management plan and utility plan acceptable to the City of Leesburg. Prior to any clearing, grubbing, or disturbance of natural vegetation in any phase of the development, the Permittee shall provide:
 - 1. A detailed site plan that demonstrates no direct discharge of stormwater runoff generated by the development into any wetlands or onto adjacent properties.
 - 2. A stormwater management system designed and implemented to meet all applicable St. Johns River Water Management District and City of Leesburg requirements.
 - 3. A responsible legal entity for the maintenance of the stormwater management system on the plat prior to the approval of the final plat of record. A homeowners or property owners association is an acceptable maintenance entity.
 - 4. The 100-year flood plain shown on all plans and lots.
 - 5. The appropriate documentation that any flood hazard boundary has been amended in accordance with Federal Emergency Management Agency requirements, if the 100 year flood plain is altered and /or a new 100 year flood elevation is established in reference to the applicable flood insurance rate map.
 - 6. A copy of the Management and Storage of Surface Waters permit obtained from St. Johns River Water Management District shall be provided to the City during the site plan review process.

7. Should the Permittee desire to dedicate the proposed project's stormwater management system to the City of Leesburg; the City, at its discretion, may accept or not accept the stormwater management system. Prior to acceptance, the Permittee shall demonstrate to the City the stormwater management system is in a suitable condition and meets City of Leesburg and St. Johns River Water Management District requirements. As a condition of accepting the system the City may create a special taxing district or make other lawful provisions to assess the cost of maintenance of the system to the residents of the project.
- B. The drainage system shall be designed to prevent runoff or other drainage from flowing from any portion of the property to the abutting property described as Alt Key #1702593.

10. **WETLANDS AND FLOOD ZONES**

- A. All wetlands on the project site shall be identified by a jurisdictional wetland boundary line, and the location and extent of each wetland shall be determined by the Department of Environmental Protection, St. Johns River Water Management District and/or U.S. Army Corp of Engineers. Each wetland shall be placed on a suitable map, signed and sealed by a surveyor registered to practice in Florida and shall be submitted as part of the preliminary plat application. Any notice of violation from any affected agency shall be cause for a cease and desist order on permits issued by the City of Leesburg until such time as the violation has been resolved with the appropriate agency(s).
- B. Buildings or structures shall be a minimum of 50 feet from any wetland jurisdiction boundary.
- C. Wetlands shall have a minimum upland buffer as established by the Department of Environmental Protection, St. Johns River Water Management District and/or U.S. Army Corp of Engineers; whichever is more restrictive. All upland buffers shall be naturally vegetated and upland buffers that are devoid of natural vegetation shall be re-planted with native vegetation or as required by St. Johns River Water Management District and/or U.S. Army Corp of Engineers.
- D. Land uses allowed within the upland buffers for wetlands are limited to stormwater facilities as permitted by St. Johns River Water Management District.
- E. If wetland alteration is permitted by St. Johns River Water Management District and/or U.S. Army Corp of Engineers, wetland mitigation shall be required in accordance with permit approvals from St. Johns River Water Management District or U.S. Army Corp of Engineers, whichever is more restrictive.
- F. A wildlife management plan for the project site shall be prepared based on the results of an environmental assessment of the site and any environmental permit required from applicable governmental agencies. The wildlife management plan shall be submitted to the City as part of the site plan application process.
- G. A map indicating the location of the 100-year flood plain.
- H. The appropriate documentation that any flood hazard boundary has been amended in accordance with Federal Emergency Management Agency requirements, if the 100 year flood plain is altered and/or a new 100 year flood elevation is established in reference to the applicable flood insurance rate map.

11. DRAINAGE AND UTILITIES

- A. Prior to receiving Final Development Plan Approval, the "Permittee" shall submit, if applicable, a Master Site Drainage Plan and Utility Implementation Plan acceptable to the City of Leesburg. Prior to removal, renovation or demolition of any existing development on the site, the permittee shall provide:
- 1) A detailed site plan demonstrating no direct discharge of stormwater runoff generated by the development into any natural surface waters or onto adjacent properties shall be required.
 - 2) A detailed site plan indicating all provisions for electric, water, sewer, and natural gas in accordance with the site plan review process as required by the City of Leesburg Code of Ordinances.
 - 3) The City of Leesburg intends to service the property with water and wastewater services at this time. At the time of connection, all regulations in place at the time of the request shall be required, including but not limited to impact fees, connection and utility service deposit charges. The cost of supplying all water and wastewater lines and other necessary infrastructure such as lift stations to the development shall be the responsibility of the developer or property owner.

12. MAINTENANCE

- A. With the exception of any public utilities, streets and sidewalks, maintenance of all site improvements, including but not limited to roadways, drives, internal sidewalks, landscaping and stormwater retention/drainage shall be the responsibility of the property owner. A property owners' association shall serve as an appropriate entity for all common properties within the development.

13. DEVELOPMENT PHASING

- A. The proposed project may be constructed in phases in accordance with the Planned Unit Development Conditions and Conceptual Plan. Each phase may be subdivided in to multiple sub-phases as needed by the Permittee. Changes to the development conditions or conceptual plan, other than those conditions described in this agreement, shall be revised in accordance with the Planned Development review process.
- B. As the project may be constructed in multiple phases, each phase shall have infrastructure necessary to support and serve that phase.
- C. Implementation of the project shall commence within 120 months (May 25, 2031) of approval of this PUD (Planned Unit Development). In the event that the conditions of the PUD have not been substantially implemented during the required time period, the PUD shall be scheduled with due notice for reconsideration by the Planning Commission at their next available regular meeting. The Planning Commission will consider whether to extend the PUD approval or rezone the property to another appropriate zoning classification.

14. **MISCELLANEOUS CONDITIONS**

- A. The uses of the proposed project shall only be those uses identified in the approved Planned Unit Development Conditions. Any other proposed use must be specifically authorized in accordance with the Planned Development amendment process.
- B. There shall be no changes to the buffering requirements as set forth in paragraph 6.B. above, nor shall a change to the Conceptual Plan or other Planned Unit Development Conditions be allowed which would affect the property currently described as Alt Key #1702593, unless such change is approved by the City Commission no sooner than ten (10) days after notice of such proposed variation has been mailed to the record owner of the property currently described as Alt Key #1702593. All other changes to either the Conceptual Plan or the Planned Unit Development Conditions shall be processed in accordance with the Planned Development review process.
- C. No person, firm or corporation shall erect, construct, enlarge, alter, repair, remove, improve, move, convert, or demolish any building structure, or alter the land in any manner without first submitting the necessary plans and obtaining appropriate approvals in accordance with the City of Leesburg Codes.
- D. Construction and operation of the proposed use(s) shall at all times comply with the Planned Unit Development conditions set forth herein, and with all City and other governmental agencies rules and regulations.
- E. The transfer of ownership or lease of any or all of the property described in this PUD Agreement shall include in the transfer or lease agreement, a provision that the purchaser or lessee is made good and aware of the conditions pertaining to the Planned Unit Development established and agrees to be bound by these conditions. The purchaser or lessee may request a change from the existing plans and conditions by following the procedures as described in the City of Leesburg Land Development Code, as amended.
- F. These PUD Conditions shall inure to the benefit of, and shall constitute a covenant running with the land and the terms, conditions, and provisions hereof, and shall be binding upon the present owner and any successor, and shall be subject to each and every condition as set forth herein.
- G. A wildlife management plan for the project site shall be prepared based on the results of the environmental permit approvals obtained from applicable governmental agencies.
- H. All operations shall be carried on entirely within an enclosed structure, except as permitted under accessory uses of Section 25-284, City of Leesburg Code of Ordinances, as amended.

15. **LEVELS OF SERVICE**

A. Levels of Service

- 1. As submitted the proposed zoning change, when developed, will result in demands on public facilities which would exceed the current capacity of some public facilities, such as, but not limited to water, wastewater, roads, drainage, and solid waste. However, no final development order (site plan and building permits) shall be granted for proposed development until there is a finding that all public facilities and services required for the development have sufficient capacity at or above the adopted level of service (LOS) to accommodate the impacts of the development, or that improvements

necessary to bring facilities up to their adopted LOS will be in place concurrent with the impacts of the development.

B. Utilities

1. Projected Capacities

- a. The City's utility planning efforts draw upon phasing, capacity and service requirements, based upon information provided by the applicant. The City develops its plans consistent with sound engineering principles, prudent fiscal practices and due regard for regulatory compliance.
- b. If the development requires construction of new distribution or collection lines, the developer will be required to construct such facilities to provide service. The developer will bear the cost of design, permitting and construction. Any such facilities must be constructed in a fashion consistent with the City's master plans and to the City standards and specifications.

2. Commitment of Capacity

There are no previous commitments of any existing or planned excess capacity.

3. Ability to Provide Services

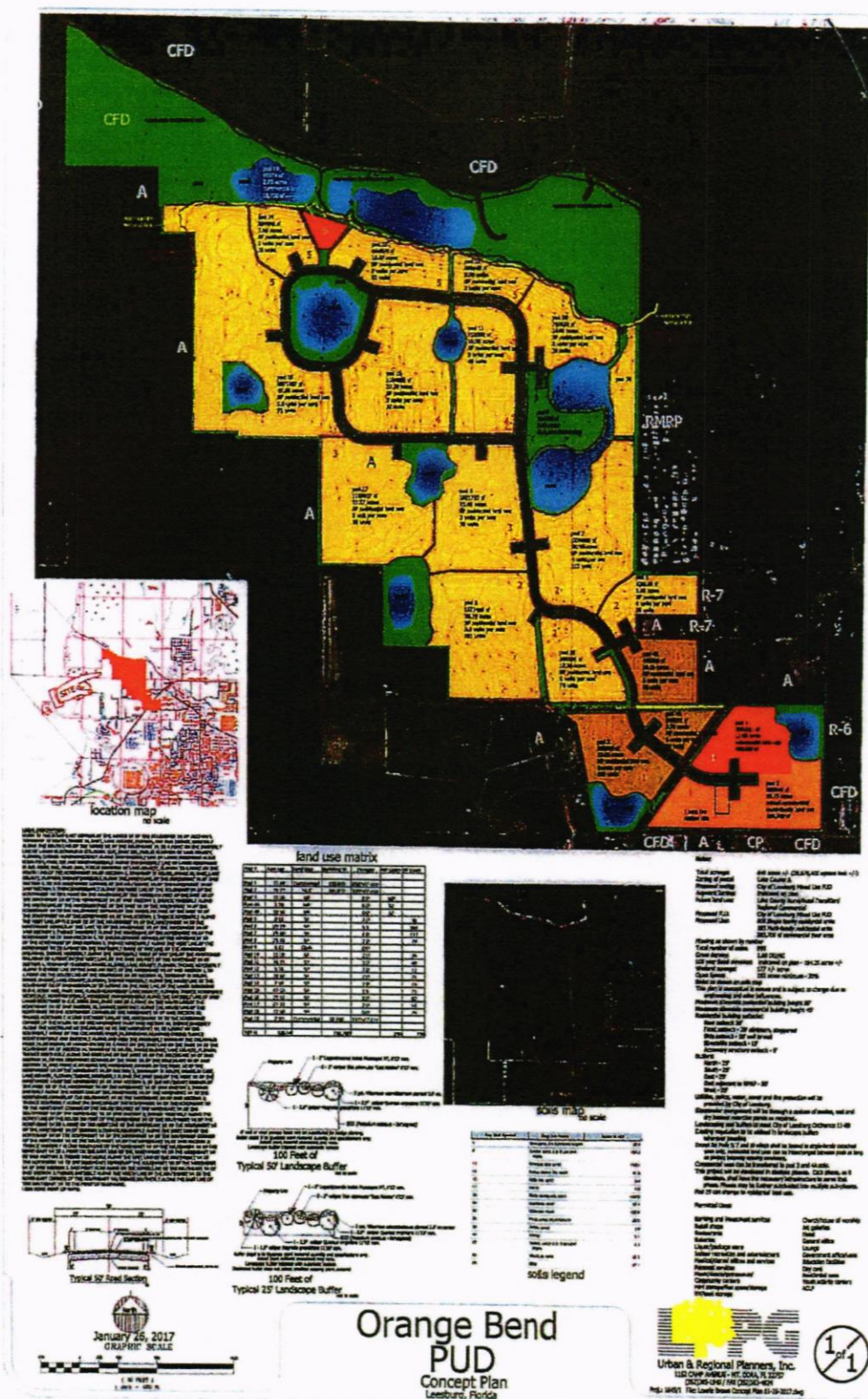
At this time, the City intends to provide water, wastewater and reclaimed water service to this development.

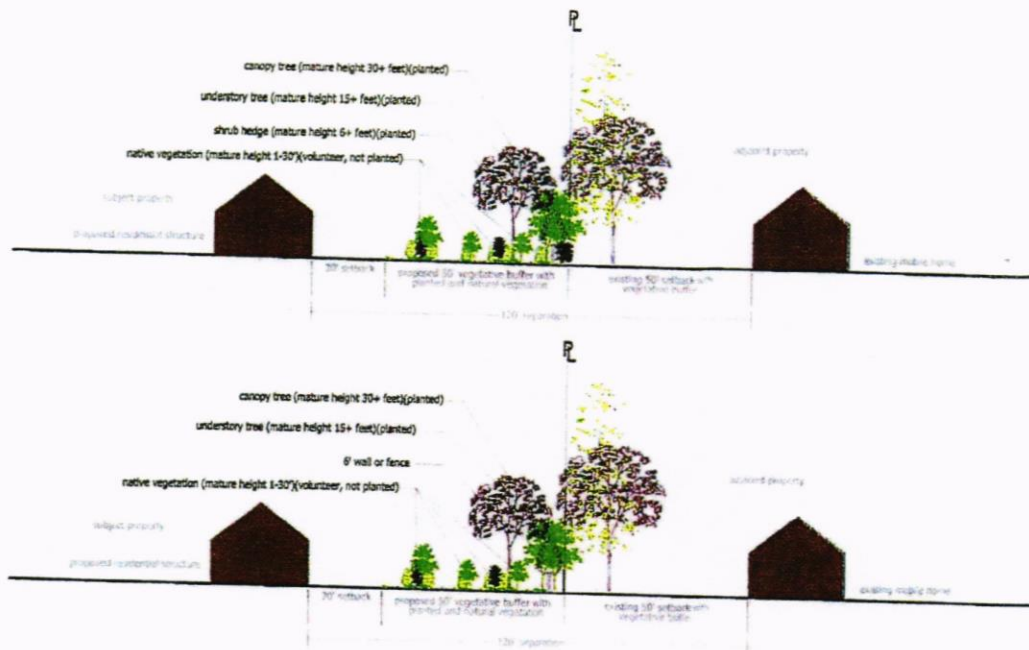
Legal Description

LEGAL DESCRIPTION:

BEGIN AT THE SOUTHEAST CORNER OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 3, TOWNSHIP 18 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA, AND RUN THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 TO A POINT ON THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHWESTERLY ALONG SAID EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 1121, PAGE 272 AND NORTHWESTERLY ALONG THE EASTERLY LINE OF LANDS DESCRIBED IN O.R. BOOK 3572, PAGE 1805, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SECTION 3, TOWNSHIP 18 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE SOUTHWEST CORNER OF THE NORTH 815 FEET OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 TO THE NORTHWEST CORNER OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 3, TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHWEST 1/4 TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD; THENCE WESTERLY ALONG THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED RAILROAD TO A POINT ON THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SECTION 4, TOWNSHIP 19 SOUTH, RANGE 25, EAST, LAKE COUNTY, FLORIDA; THENCE NORTHERLY ALONG THE WEST LINE OF THE EAST 850 FEET OF THE NORTHEAST 1/4 OF SAID SECTION 4, TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE WESTERLY ALONG THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 33 TO A POINT ON THE EAST LINE OF THE LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTHERLY, WESTERLY, NORTHWESTERLY, WESTERLY AND NORTHERLY ALONG THE EASTERLY LINE OF SAID LANDS DESCRIBED IN O.R. BOOK 1639, PAGE 1032 TO A POINT ON THE SOUTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE WESTERLY ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE NORTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 TO THE NORTHWEST CORNER OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF SAID SECTION 33; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 TO A POINT ON THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK); THENCE SOUTHEASTERLY AND EASTERLY ALONG AND WITH THE SOUTHERLY BANKS OF THE OKLAWAHA RIVER (ALSO KNOWN AS HAINES CREEK) TO A POINT ON THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 18 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, TO THE SOUTHEAST CORNER OF THE WEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 34, SAID POINT ALSO BEING THE NORTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG THE EAST LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3, TO THE SOUTHEAST CORNER OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE WESTERLY ALONG THE NORTH LINE OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO A POINT ON THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3; THENCE SOUTHERLY ALONG THE WEST LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG SOUTH LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO A POINT ON THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 TO THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 3, SAID POINT ALSO BEING ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHEAST CORNER OF THE SOUTHEAST 1/4; THENCE SOUTHERLY ALONG THE EAST LINE OF THE SOUTHEAST 1/4 TO THE POINT OF BEGINNING.

LESS ROAD RIGHT OF WAYS.





City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.A.2.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Kandi Harper, (Planner)

Subject: An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 15-46 pertaining to a change in Future Land Use on approximately 73 acres from Lake County Urban High Density to City of Leesburg Medium Density Residential for property generally situated in Section 16, Township 19 South, Range 24 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 15-46 Leesburg Fruit Co.)

Staff Recommendation:

Staff recommends approval of the request to amend the City's Comprehensive Plan to ensure compliance with Chapter 163, Florida Statutes.

Analysis:

In 2015, Planning and Zoning staff prepared and forwarded to the City Commission, in compliance with Florida Statutes, Ordinance 15-46, for the purpose of changing the Future Land Use for an area generally located north of Griffin Road and west of Thomas Avenue. At that time, the City Commission did approve this ordinance, after receiving written comments and affirmative recommendations from the City of Leesburg Planning Commission. Although Ordinance 15-46 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinances were correctly transmitted to the reviewing agencies in accordance with the specific requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes. In an abundance of caution, Staff respectfully requests that the Commission ratify and readopt as shown herein. This action will ensure full compliance with all procedures for adopting large-scale amendments to the City's Comprehensive Plan as outlined in Section 163.3184 (3).

Procurement Analysis:

N/A

Options:

1. Approve the request to adopt the large-scale comprehensive plan amendment; or
2. Other action as the Commission may choose.

Fiscal Impact:

No fiscal impact is anticipated due to this request.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, RATIFYING AND READOPTING ORDINANCE 15-46 PERTAINING TO A CHANGE IN FUTURE LAND USE ON APPROXIMATELY 73 ACRES FROM LAKE COUNTY URBAN HIGH DENSITY TO CITY OF LEESBURG MEDIUM DENSITY RESIDENTIAL FOR PROPERTY GENERALLY SITUATED IN SECTION 16, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, TO ENSURE COMPLIANCE WITH THE PROCEDURES OF CHAPTER 163, FLORIDA STATUTES FOR ADOPTING LARGE SCALE COMPREHENSIVE PLAN AMENDMENTS RELATING TO SAID PROPERTY; DIRECTING TRANSMITTAL TO THE REVIEWING AGENCIES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE. (ORD 15-46 LEESBURG FRUIT CO.)

WHEREAS, on November 23, 2015, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 15-46 pertaining to a change in future land use from City of Leesburg Urban High Density to City of Leesburg Medium Density Residential on certain real property generally situated in Section 16, Township 19 South, Range 24 East, Lake County, Florida;

WHEREAS, Ordinance 15-46 was adopted by the City Commission after receiving written comments and affirmative recommendations to amend the City's Comprehensive Plan from the City of Leesburg Planning Commission, acting as the Local Planning Agency;

WHEREAS, Ordinance 15-46 was adopted by the City Commission after receiving written objections, recommendations, and comments from the general public at public hearings held in accordance with law;

WHEREAS, although Ordinance 15-46 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinance was transmitted to the Reviewing Agencies in accordance with the requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes;

WHEREAS, in an abundance of caution, the City Commission wishes to ratify and readopt Ordinance 15-46 consistent with the procedures of Section 163.3184(3), Florida Statutes, to ensure full compliance with all procedures of adopting large-scale amendments to the City's Comprehensive Plan;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEESBURG, FLORIDA:

Section 1. Recitals. The above recitals are hereby restated and are incorporated herein for all purposes.

Section 2. Ratification and Readoption of Ordinances. Ordinance 15-46 is hereby ratified and readopted.

Section 3. Transmittal to Reviewing Agencies. City staff is directed to transmit Ordinance 15-46, this Ordinance, and any other required or requested documents and information to the Reviewing Agencies in accordance with the procedures of Section 163.3184, Florida Statutes, regarding large-scale amendments to the City's Comprehensive Plan.

Section 4. Comprehensive Plan Amendment. The Growth Management Plan of the City of Leesburg, adopted by the City of Leesburg on December 10, 2012, pursuant to the Community Planning Act of 2011, Chapter 163, Part II, Florida Statutes, after public hearing by the City of Leesburg Planning Commission, is hereby amended in the following manner:

The Future Land Use Map is amended by changing the future land use designations on various properties in the city, legally described as:

SEE EXHIBIT "A" ATTACHED HERETO

Section 5. The provisions of this ordinance are severable, and it is the intention of the City Commission of the City of Leesburg, Florida, to confer the whole or any part of the powers herein provided. If any court of competent jurisdiction shall hold any of the provisions of this ordinance unconstitutional, the decision of such court shall not impair any remaining provisions of this ordinance.

Section 6. Effective Date. This Ordinance shall take effect immediately upon its final adoption by the City of Leesburg Commission.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

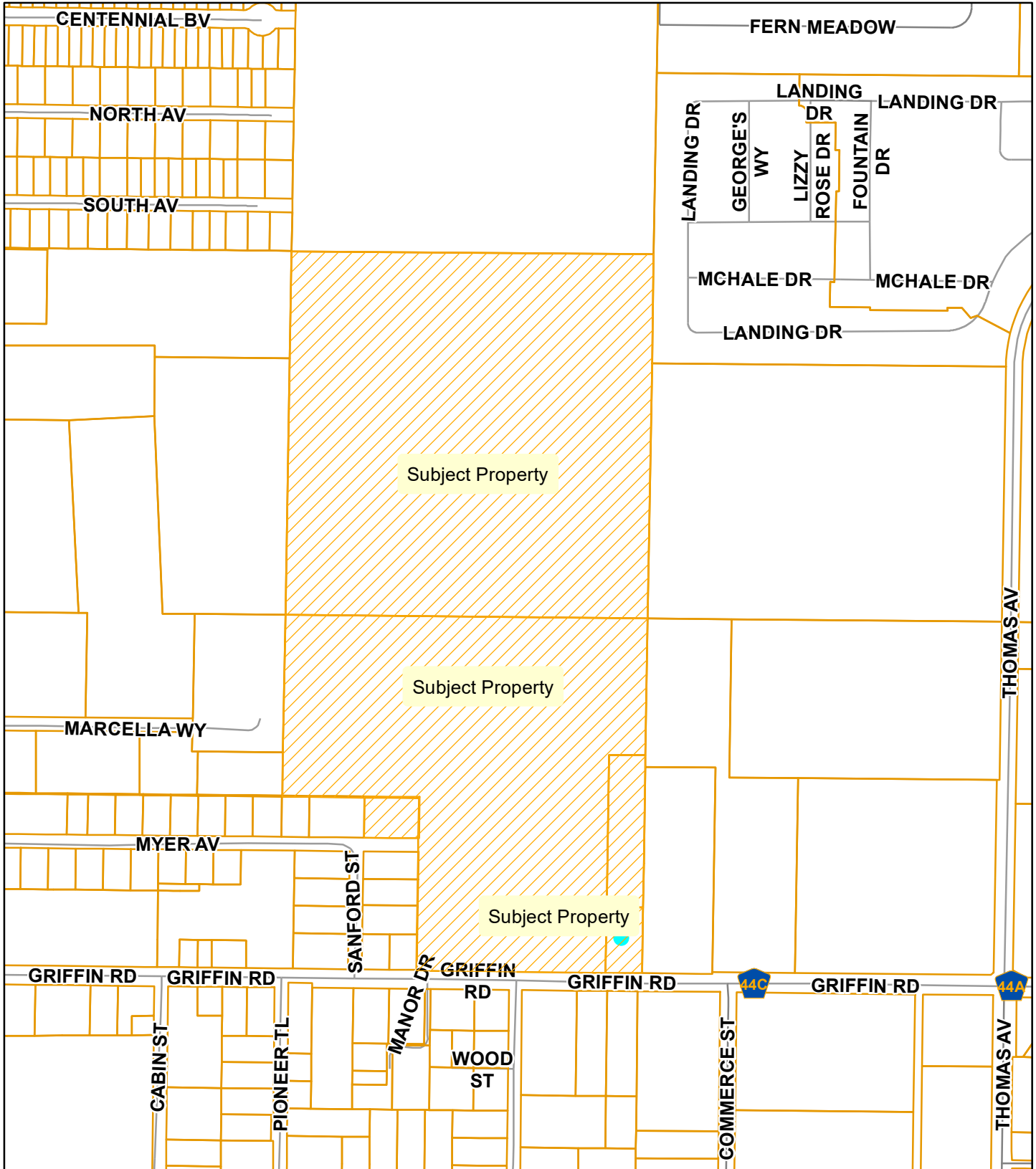
City Clerk

EXHIBIT "A"
(legal description)

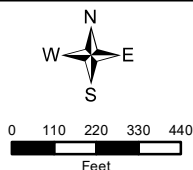
PARCEL OF LAND LYING IN A PORTION OF SECTION 16, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 16, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTH ALONG THE EAST LINE OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 16, TO THE NORTHEAST CORNER OF THE NORTH 495.00 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 16; THENCE CONTINUE SOUTH ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 16 TO THE SOUTHEAST CORNER OF THE NORTH 495.00 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 16; THENCE CONTINUE SOUTH ALONG SAID EAST LINE OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 TO THE NORTHEAST CORNER OF THE SOUTH 272.50 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 16; THENCE SOUTH ALONG SAID EAST LINE OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 16 A DISTANCE OF 272.50 FEET TO THE NORTH RIGHT-OF-WAY LINE OF GRIFFIN ROAD; THENCE WEST ALONG SAID NORTH RIGHT-OF-WAY LINE OF GRIFFIN ROAD TO THE EAST LINE OF SAID EDGEWOOD PARK, ADDITION NO. 2, AS RECORDED IN PLAT BOOK 12, PAGE 61, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE NORTH ALONG THE EAST LINE OF SAID EDGEWOOD PARK, ADDITION NO. 2 TO THE SOUTHEAST CORNER OF LOT 17, OF SAID EDGEWOOD PARK, ADDITION NO. 2; THENCE WEST ALONG THE SOUTH LINE OF LOTS 17 AND 16, OF SAID EDGEWOOD PARK, ADDITION NO. 2 TO THE SOUTHWEST CORNER OF LOT 16 OF EDGEWOOD PARK, ADDITION NO. 2; THENCE NORTH ALONG THE WEST LINE OF SAID LOT 16 TO THE NORTHWEST CORNER OF SAID LOT 16, SAID POINT BEING ON THE NORTH LINE OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 16; THENCE WEST ALONG SAID SOUTH LINE TO THE WEST LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 16; THENCE NORTH 1594.20 FEET MORE OR LESS TO A POINT THAT IS WEST OF THE POINT OF BEGINNING; THENCE EAST 1320 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 16 AND THE POINT OF TERMINUS OF THIS DESCRIPTION.

Locator

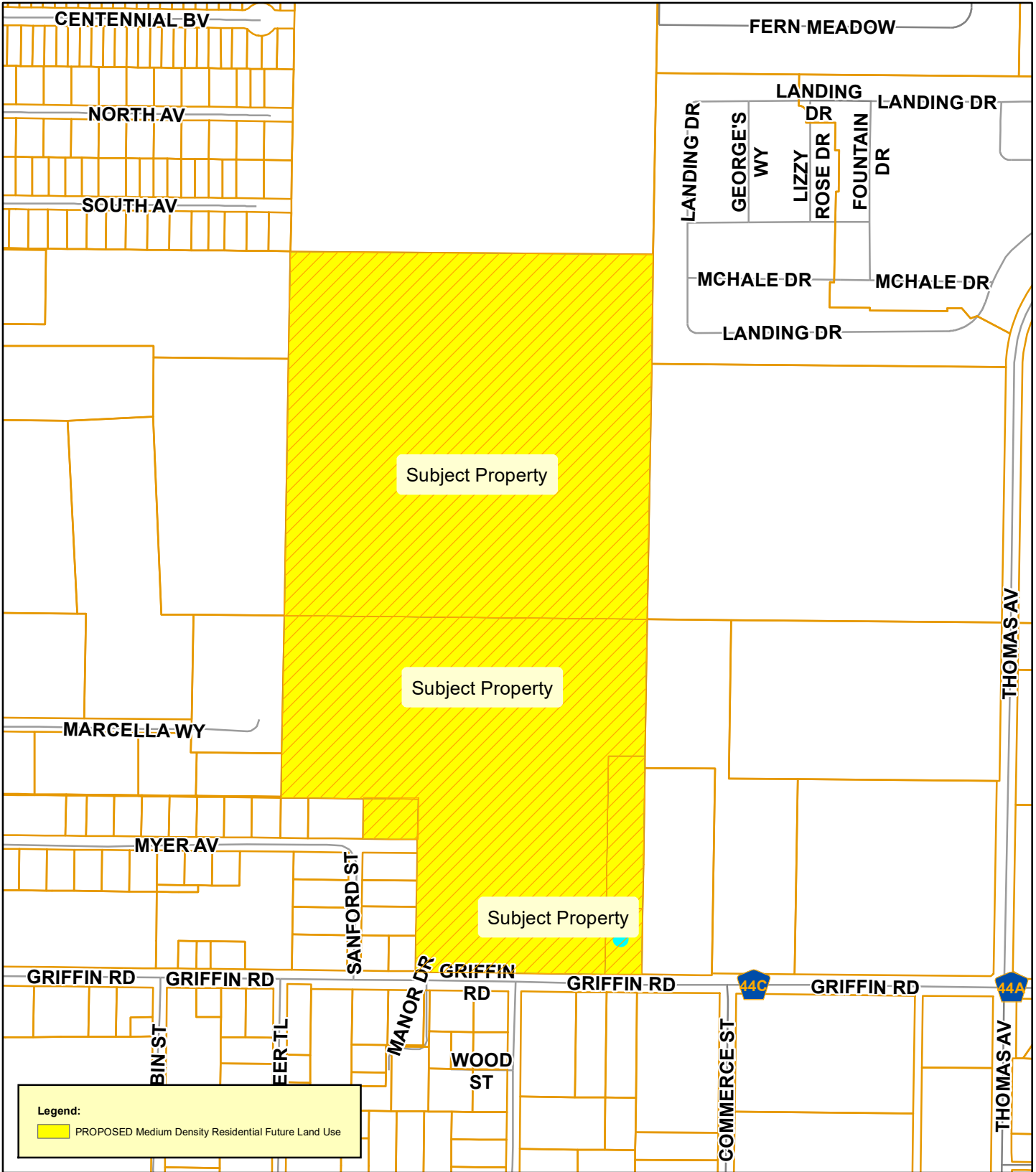


Planning
& Zoning
Division

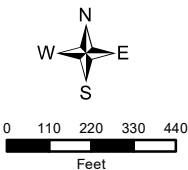


Ratify and Readopt
Ordinance 15-46
Section 16, Township 19 South, Range 24 East
August 28, 2023

PROPOSED Future Land Use



**Planning
& Zoning
Division**



Ratify and Readopt
Ordinance 15-46
Section 16, Township 19 South, Range 24 East
August 28, 2023

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.A.3.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Kandi Harper, (Planner)

Subject: An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 15-51 pertaining to a change in Future Land Use on approximately 104 acres from Lake County Urban Low Density to City of Leesburg Estate Residential for property generally situated in Section 1, Township 19 South, Range 25 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (15-51 Silver Lake Estates)

Staff Recommendation:

Staff recommends approval of the request to amend the City's Comprehensive Plan to ensure compliance with Chapter 163, Florida Statutes.

Analysis:

In 2015, Planning and Zoning staff prepared and forwarded to the City Commission, in compliance with Florida Statutes, Ordinance 15-51, for the purpose of changing the Future Land Use for an area generally located east of Silver Lake and north of Morningside Drive. At that time, the City Commission did approve this ordinance, after receiving written comments and affirmative recommendations from the City of Leesburg Planning Commission. Although Ordinance 15-51 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinances were correctly transmitted to the reviewing agencies in accordance with the specific requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes. In an abundance of caution, Staff respectfully requests that the Commission ratify and readopt as shown herein. This action will ensure full compliance with all procedures for adopting large-scale amendments to the City's Comprehensive Plan as outlined in Section 163.3184 (3).

Procurement Analysis:

N/A

Options:

1. Approve the request to adopt the large-scale comprehensive plan amendment; or
2. Other action as the Commission may choose.

Fiscal Impact:

No fiscal impact is anticipated as a result of this request.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, RATIFYING AND READOPTING ORDINANCE 15-51 PERTAINING TO A CHANGE IN FUTURE LAND USE ON APPROXIMATELY 104 ACRES FROM LAKE COUNTY URBAN LOW DENSITY TO CITY OF LEESBURG ESTATE RESIDENTIAL FOR PROPERTY GENERALLY SITUATED IN SECTION 1, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, TO ENSURE COMPLIANCE WITH THE PROCEDURES OF CHAPTER 163, FLORIDA STATUTES FOR ADOPTING LARGE SCALE COMPREHENSIVE PLAN AMENDMENTS RELATING TO SAID PROPERTY; DIRECTING TRANSMITTAL TO THE REVIEWING AGENCIES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE. (15-51 SILVER LAKE ESTATES)

WHEREAS, on December 14, 2015, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 15-51 pertaining to a change in future land use from Lake County Urban Low Density to City of Leesburg Estate Residential on certain real property generally situated in Section 1, Township 19 South, Range 25 East, Lake County, Florida;

WHEREAS, Ordinance 15-51 was adopted by the City Commission after receiving written comments and affirmative recommendations to amend the City's Comprehensive Plan from the City of Leesburg Planning Commission, acting as the Local Planning Agency;

WHEREAS, Ordinance 15-51 was adopted by the City Commission after receiving written objections, recommendations, and comments from the general public at public hearings held in accordance with law;

WHEREAS, although Ordinance 15-51 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinance was transmitted to the Reviewing Agencies in accordance with the requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes;

WHEREAS, in an abundance of caution, the City Commission wishes to ratify and readopt Ordinance 15-51 consistent with the procedures of Section 163.3184(3), Florida Statutes, to ensure full compliance with all procedures of adopting large-scale amendments to the City's Comprehensive Plan;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEESBURG, FLORIDA:

Section 1. Recitals. The above recitals are hereby restated and are incorporated herein for all purposes.

Section 2. Ratification and Readoption of Ordinances. Ordinance 15-51 is hereby ratified and readopted.

Section 3. Transmittal to Reviewing Agencies. City staff is directed to transmit Ordinance 15-51,

this Ordinance, and any other required or requested documents and information to the Reviewing Agencies in accordance with the procedures of Section 163.3184, Florida Statutes, regarding large-scale amendments to the City's Comprehensive Plan.

Section 4. Comprehensive Plan Amendment. The Growth Management Plan of the City of Leesburg, adopted by the City of Leesburg on December 10, 2012, pursuant to the Community Planning Act of 2011, Chapter 163, Part II, Florida Statutes, after public hearing by the City of Leesburg Planning Commission, is hereby amended in the following manner:

The Future Land Use Map is amended by changing the future land use designations on various properties in the city, legally described as:

SEE EXHIBIT "A" ATTACHED HERETO

Section 5. The provisions of this ordinance are severable, and it is the intention of the City Commission of the City of Leesburg, Florida, to confer the whole or any part of the powers herein provided. If any court of competent jurisdiction shall hold any of the provisions of this ordinance unconstitutional, the decision of such court shall not impair any remaining provisions of this ordinance.

Section 6. Effective Date. This Ordinance shall take effect immediately upon its final adoption by the City of Leesburg Commission.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

City Clerk

EXHIBIT "A"

(legal description)

PARCEL "A":

THAT PART OF SECTIONS 10, 11, 14 AND 15, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 15, SAME BEING THE NORTHWEST CORNER OF SAID SECTION 14; RUN THENCE S.00°05'20"E. ALONG A LINE DIVIDING SAID SECTIONS 14 AND 15, A DISTANCE OF 162.64 FEET TO THE POINT OF BEGINNING; FROM SAID POINT OF BEGINNING, CONTINUE S.00°05'20"E. ALONG THE AFOREMENTIONED LINE DIVIDING SECTIONS 14 AND 15, A DISTANCE 2,472.19 FEET A POINT THAT IS N.00°05'20"W. AND 30.00 FEET FROM THE EAST 1/4 CORNER OF SAID SECTION 15; THENCE N.89°54'47"W., 654.04 FEET; THENCE N.26°12'00"W., 153.32 FEET; THENCE S.89°38'13"W., 309.36 FEET; THENCE N.01°54'03"E., 183.76 FEET; THENCE N.03°41'20"W., 321.50 FEET; THENCE N.22°20'50"W., 23.50 FEET; THENCE N.55°30'40"W., 546.04 FEET; THENCE S.64°20'50"W., 114.00 FEET TO A CONCRETE MONUMENT; THENCE CONTINUE S.64°20'50"W., 180.00 FEET, MORE OR LESS, TO THE WATERS OF SILVER LAKE AND A POINT HEREBY DESIGNATED AS POINT "A"; RETURN TO POINT OF BEGINNING, RUN THENCE N.89°48'40"E. ALONG THE NORTH LINE OF LOTS 1 THROUGH 4, INCLUSIVE, GOLFPVIEW, A SUBDIVISION IN LAKE COUNTY, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 16 PAGE 49, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA, 297.91 FEET TO THE NORTHEAST CORNER OF SAID LOT 4; THENCE RUN N.00°10'10"W. ALONG THE WEST LINE OF LOTS 5 THROUGH 14, INCLUSIVE, OF SAID GOLFPVIEW FOR 869.92 FEET; THENCE RUN N.45°07'55"W. ALONG THE SOUTHWESTERLY LINE OF LOTS 14 THROUGH 21, INCLUSIVE, IN THE SAID GOLFPVIEW, FOR 553.82 FEET TO THE SOUTHWEST CORNER OF SAID LOT 21; THENCE RUN S.89°56'40"W. ALONG THE SOUTH LINE OF LOTS 22 THROUGH 29, INCLUSIVE, IN SAID GOLFPVIEW FOR 803.59 FEET TO THE SOUTHWEST CORNER OF SAID LOT 29, THENCE N.00°03'47"W. ALONG THE WEST LINE OF SAID LOT 29 A DISTANCE OF 25 FEET TO THE SOUTHEAST CORNER OF LOT 30 OF SAID GOLFPVIEW; THENCE RUN S.89°56'40"W ALONG THE SOUTH LINE OF SAID LOT 30 A DISTANCE OF 100.00 FEET TO THE SOUTHWEST CORNER OF SAID LOT 30, THENCE S.00°03'47"E. ALONG THE EAST LINE OF LOT 31 OF SAID GOLFPVIEW 25 FEET TO THE SOUTHEAST CORNER OF SAID LOT 31; THENCE S.89°56'40"W. ALONG THE SOUTH LINE OF SAID LOT 31 A DISTANCE OF 87.37 FEET TO THE NORTHEAST CORNER OF LOT 34 OF SAID GOLFPVIEW; THENCE RUN S.21°00'06"W. ALONG THE EASTERLY LINE OF SAID LOT 34 AND AN EXTENSION THEREOF 591.55 FEET TO A POINT 25.00 FEET EAST OF THE WEST LINE OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 10; THENCE RUN S.00°03'47"E. AND PARALLEL TO SAID WEST LINE OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 A DISTANCE OF 590.76 FEET TO A POINT ON THE NORTH LINE OF GREENVIEW, A SUBDIVISION IN LAKE COUNTY, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 23, PAGE 43, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA, RUN THENCE N.89°48'00"E. ALONG THE NORTH LINE OF SAID GREENVIEW A DISTANCE OF 632.28 FEET; THENCE S.00°02'40"E. ALONG THE EAST LINE OF SAID GREENVIEW A DISTANCE OF 574.00 FEET; THENCE S.26°13'10"W. ALONG A SOUTHEASTERLY LINE OF SAID GREENVIEW SUBDIVISION FOR 51.76 FEET; THENCE S.68°11'50"W. ALONG A SOUTHEASTERLY LINE OF SAID GREENVIEW SUBDIVISION FOR 81.07 FEET, THENCE S.89°55'00"W. ALONG THE SOUTH LINE OF SAID GREENVIEW SUBDIVISION 470.00 FEET TO THE SOUTHWEST CORNER OF LOT 16 OF SAID GREENVIEW SUBDIVISION; THENCE NORTH ALONG THE WEST LINE OF SAID LOT 16 A DISTANCE OF 30.00 FEET; THENCE CONTINUE ALONG SAID WEST LINE OF LOT 16 N.00°05'45"W., 162.16 FEET TO A POINT ON A CURVE CONCAVE TO THE SOUTHWESTERLY AND HAVING A RADIUS OF 50.00 FEET (SAID POINT BEING ON A RADIAL BEARING OF N.36°40'47"E.); THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 36°51'54" AND A DISTANCE OF 32.17 FEET TO THE END OF SAID CURVE, THENCE

S.89°48'53"W., 169.70 FEET TO THE NORTHEAST CORNER OF LOT 17 OF SAID GREENVIEW SUBDIVISION; THENCE S.00°01'00"E ALONG THE EAST LINE OF SAID LOT 17 A DISTANCE OF 172.04 FEET, THENCE S.00°28'16"E., 474.10 FEET; THENCE S.58°44'00"W., 527.00 FEET, MORE OR LESS, TO THE WATERS OF SILVER LAKE; THENCE RUN SOUTHERLY ALONG AND WITH THE WATERS OF SAID SILVER LAKE TO THE AFOREMENTIONED POINT "A", AND THE END OF THIS DESCRIPTION;

AND

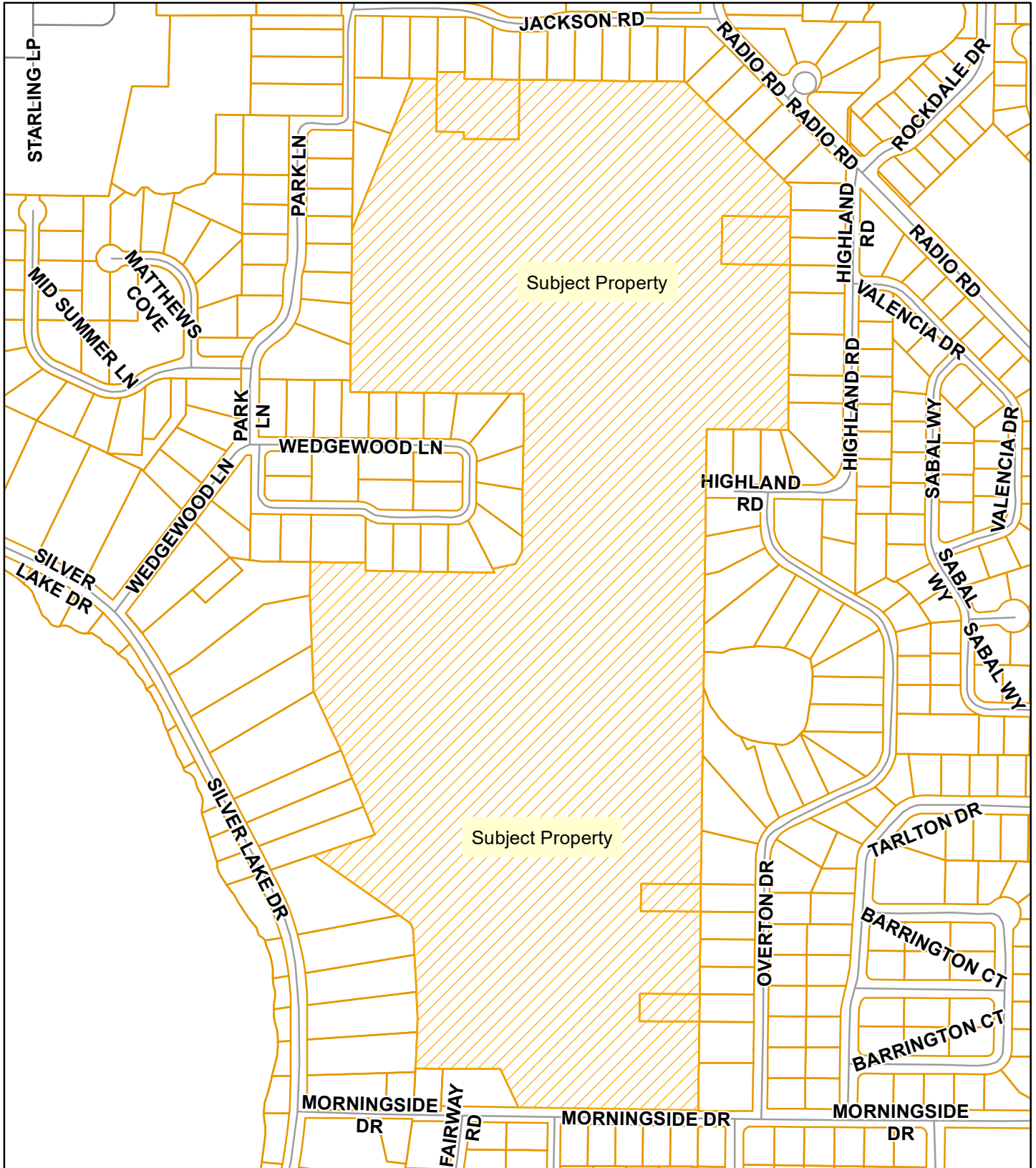
BEGIN AT THE MOST SOUTHERLY CORNER OF LOT 12 OF GREENVIEW SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 23, PAGE 43, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; RUN THENCE N.28°00'00"W. ALONG THE WESTERLY LINE OF SAID LOT 12 A DISTANCE OF 14.05 FEET; THENCE N.76°47'34"E., 84.95 FEET TO A POINT ON THE SOUTHEASTERLY LINE OF LOT 12; THENCE RUN S.26°13'10"W, ALONG THE SOUTHEASTERLY LINE OF LOT 12 A DISTANCE OF 1.90 FEET; THENCE S.68°11'50"W. ALONG SAID LINE OF LOT 12 A DISTANCE OF 81.07 FEET TO THE POINT OF BEGINNING.

PARCEL "B":

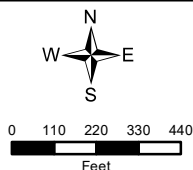
THAT PART OF LOTS 23 AND 24 IN BLOCK "24" IN RESUBDIVISION OF SUBDIVISION OF SILVER LAKE ESTATES, IN LAKE COUNTY, FLORIDA, ACCORDING TO THE REVISED AND CORRECTED PLAT THEREOF RECORDED IN PLAT BOOK 10, PAGES 66 TO 69, INCLUSIVE, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: FROM THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 19 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA, RUN N.89°54'47"W. ALONG THE SOUTH LINE OF SAID NORTHEAST 1/4 A DISTANCE OF 1,036.62 FEET; THENCE N.01°54'03"E., 349.02 FEET; THENCE N.03°41'20"W., 321.50 FEET; THENCE N.22°20'50"W., 23.50 FEET; THENCE N.55°30'40"W., 410.04 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION FROM SAID POINT OF BEGINNING CONTINUE N.55°30'40"W., 136.00 FEET; THENCE S.64°20'50"W., 275.00 FEET, MORE OR LESS, TO THE WATERS OF SILVER LAKE; THENCE SOUTHEASTERLY ALONG AND WITH THE WATERS OF SILVER LAKE TO A POINT THAT IS S.71°39'17"W. OF THE POINT OF BEGINNING; THENCE N.71°39'17"E., 335.00 FEET, MORE OR LESS, TO THE POINT OF BEGINNING;

LESS AND EXCEPT RIGHT-OF-WAY FOR STATE ROAD 449.

Locator

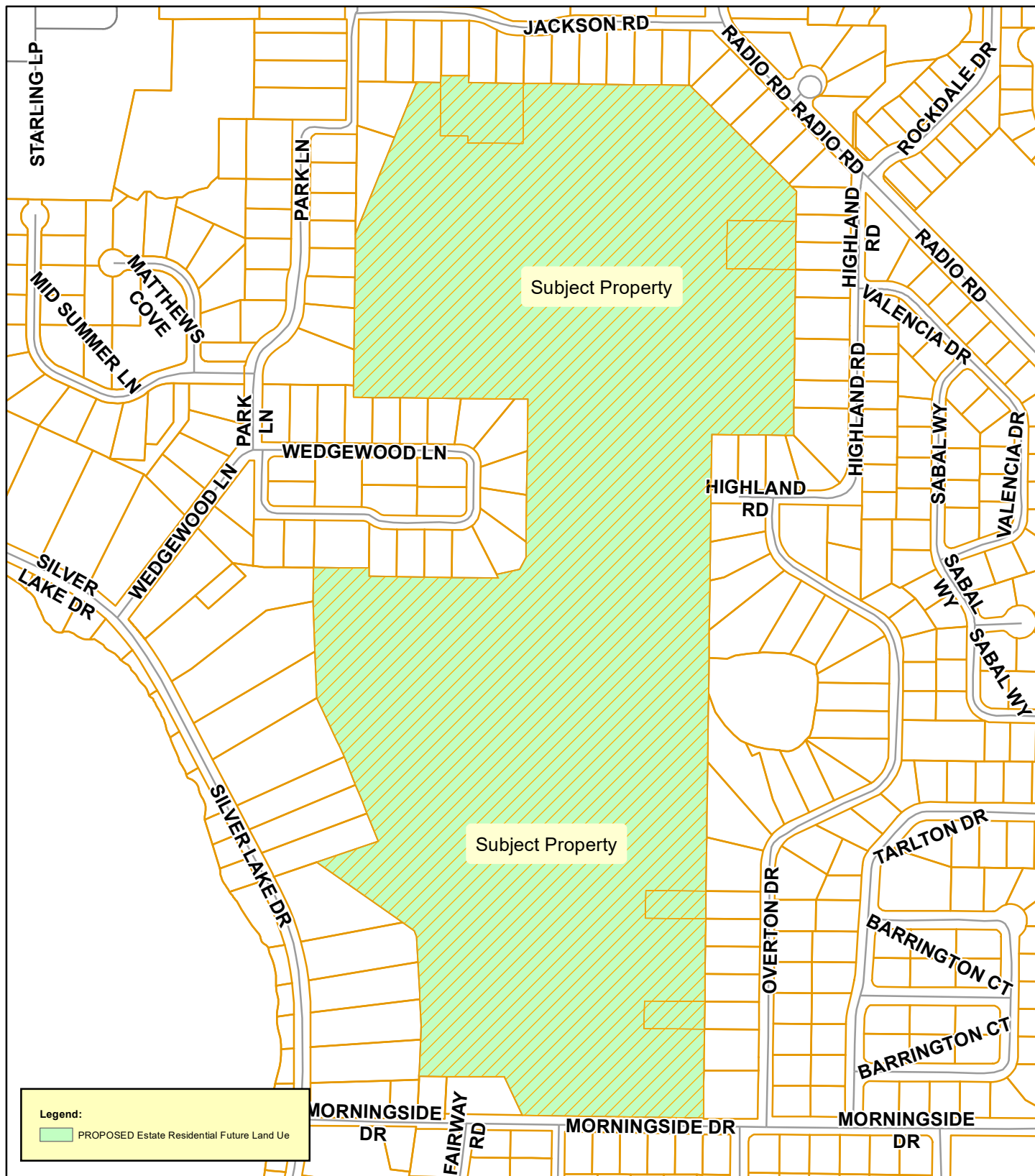


**Planning
& Zoning
Division**

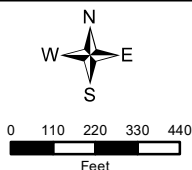


Ratify and Readopt
Ordinance 15-51
Section 01, Township 19 South, Range 25 East
August 28, 2023

PROPOSED Estate Residential Future Land Use



**Planning
& Zoning
Division**



Ratify and Readopt
Ordinance 15-51
Section 01, Township 19 South, Range 25 East
August 28, 2023

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.A.4.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Kandi Harper, (Planner)

Subject: An Ordinance of the City of Leesburg, Florida, ratifying and readopting Ordinance 15-43 pertaining to a change in Future Land Use on approximately 216 acres from Lake County Rural to City of Leesburg Estate Residential for property generally situated in Sections 27 and 28, Township 20 South, Range 24 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 15-43 Ranches of Orlando)

Staff Recommendation:

Staff recommends approval of the request to amend the City's Comprehensive Plan to ensure compliance with Chapter 163, Florida Statutes.

Analysis:

In 2015, Planning and Zoning staff prepared and forwarded to the City Commission, in compliance with Florida Statutes, Ordinance 15-43, for the purpose of changing the Future Land Use for an area generally located west of County Road 33 and south of the Florida Turnpike. At that time, the City Commission did approve this ordinance, after receiving written comments and affirmative recommendations from the City of Leesburg Planning Commission. Although Ordinance 15-43 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it is unclear whether the ordinances were correctly transmitted to the reviewing agencies in accordance with the specific requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes. In an abundance of caution, Staff respectfully requests that the Commission ratify and readopt as shown herein. This action will ensure full compliance with all procedures for adopting large-scale amendments to the City's Comprehensive Plan as outlined in Section 163.3184 (3).

Procurement Analysis:

N/A

Options:

1. Approve the request to adopt the large-scale comprehensive plan amendment; or

2. Other action as the Commission may choose.

Fiscal Impact:

No fiscal impact is anticipated as a result of this request.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, RATIFYING AND READOPTING ORDINANCE 15-43 PERTAINING TO A CHANGE IN FUTURE LAND USE ON APPROXIMATELY 216 ACRES FROM LAKE COUNTY RURAL TO CITY OF LEESBURG ESTATE RESIDENTIAL FOR PROPERTY GENERALLY SITUATED IN SECTIONS 27 AND 28, TOWNSHIP 20 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, TO ENSURE COMPLIANCE WITH THE PROCEDURES OF CHAPTER 163, FLORIDA STATUTES FOR ADOPTING LARGE SCALE COMPREHENSIVE PLAN AMENDMENTS RELATING TO SAID PROPERTY; DIRECTING TRANSMITTAL TO THE REVIEWING AGENCIES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE. (ORD 15-43 RANCHES OF ORLANDO)

WHEREAS, on November 23, 2015, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 15-43 pertaining to a change in future land use from Lake County Rural to City of Leesburg Estate Residential on certain real property generally situated in Section 27, Township 20 South, Range 24 East, Lake County, Florida;

WHEREAS, Ordinance 15-43 was adopted by the City Commission after receiving written comments and affirmative recommendations to amend the City's Comprehensive Plan from the City of Leesburg Planning Commission, acting as the Local Planning Agency;

WHEREAS, Ordinance 15-43 was adopted by the City Commission after receiving written objections, recommendations, and comments from the general public at public hearings held in accordance with law;

WHEREAS, although Ordinance 15-43 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it is unclear whether the ordinance was transmitted to the reviewing agencies in accordance with the requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes;

WHEREAS, in an abundance of caution, the City Commission wishes to ratify and readopt Ordinance 15-43 consistent with the procedures of Section 163.3184(3), Florida Statutes, to ensure full compliance with all procedures of adopting large-scale amendments to the City's Comprehensive Plan;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEESBURG, FLORIDA:

Section 1. Recitals. The above recitals are hereby restated and are incorporated herein for all purposes.

Section 2. Ratification and Readoption of Ordinances. Ordinance 15-43 is hereby ratified and readopted.

Section 3. Transmittal to Reviewing Agencies. City staff is directed to transmit Ordinance 15-43, this Ordinance, and any other required or requested documents and information to the Reviewing Agencies in accordance with the procedures of Section 163.3184, Florida Statutes, regarding large-scale amendments to the City's Comprehensive Plan.

Section 4. Comprehensive Plan Amendment. The Growth Management Plan of the City of Leesburg, adopted by the City of Leesburg on December 10, 2012, pursuant to the Community Planning Act of 2011, Chapter 163, Part II, Florida Statutes, after public hearing by the City of Leesburg Planning Commission, is hereby amended in the following manner:

The Future Land Use Map is amended by changing the future land use designations on various properties in the city, legally described as:

SEE EXHIBIT "A" ATTACHED HERETO

Section 5. The provisions of this ordinance are severable, and it is the intention of the City Commission of the City of Leesburg, Florida, to confer the whole or any part of the powers herein provided. If any court of competent jurisdiction shall hold any of the provisions of this ordinance unconstitutional, the decision of such court shall not impair any remaining provisions of this ordinance.

Section 6. Effective Date. This Ordinance shall take effect immediately upon its final adoption by the City of Leesburg Commission.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

City Clerk

EXHIBIT "A"

(legal description)

THAT PART OF SECTIONS 21, 27, AND 28 OF TOWNSHIP 20 SOUTH, RANGE 24 EAST, IN LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCE AT THE SOUTHWEST CORNER OF THE NW 1/4 OF THE NW 1/4 OF SAID SECTION 28, TOWNSHIP 20 SOUTH, RANGE 24 EAST, AND RUN NORTH 00°12'05" EAST ALONG THE WEST LINE OF THE NW 1/4 A DISTANCE OF 1,029.78 FEET TO A POINT ON THE SOUTHEASTERLY RIGHT OF WAY LINE OF COUNTY ROAD NO. C-48, SAID POINT BEING ON A CURVE CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 8,878.88 FEET AND A RADIAL BEARING OF NORTH 48°31'02" WEST; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND SAID SOUTHEASTERLY RIGHT OF WAY LINE THROUGH A CENTRAL ANGLE OF 03°31'31" AN ARC LENGTH OF 548.29 FEET TO THE END OF SAID CURVE; THENCE NORTH 45°00'28" EAST ALONG SAID SOUTHEASTERLY RIGHT OF WAY LINE OF COUNTY ROAD NO. C-48 A DISTANCE OF 2,589.23 FEET TO A POINT ON THE SOUTHWESTERLY RIGHT OF WAY LINE OF FLORIDA'S TURNPIKE; THENCE SOUTH 43°02'13" EAST ALONG SAID SOUTHWESTERLY RIGHT OF WAY LINE A DISTANCE OF 804.75 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 43°02'13" EAST ALONG SAID SOUTHWESTERLY RIGHT OF WAY LINE OF FLORIDA'S TURNPIKE A DISTANCE OF 1,862.41 FEET TO A POINT ON THE NORTH LINE OF THE NE 1/4 OF THE AFOREMENTIONED SECTION 28; THENCE NORTH 89°43'55" WEST ALONG THE NORTH LINE OF THE NE 1/4 A DISTANCE OF 219.06 FEET; THENCE SOUTH 00°14'06" WEST, 1,325.25 FEET TO A POINT ON THE NORTH LINE OF THE SW 1/4 OF THE NE 1/4 OF SAID SECTION 28; THENCE SOUTH 89°48'11" EAST ALONG THE NORTH LINE OF THE SW 1/4 OF THE NE 1/4 A DISTANCE OF 165.40 FEET TO THE SOUTHWEST CORNER OF THE NE 1/4 OF THE NE 1/4 OF SAID SECTION 28; THENCE NORTH 00°14'13" EAST ALONG THE WEST LINE OF THE NE 1/4 OF THE NE 1/4 A DISTANCE OF 331.29 FEET; THENCE SOUTH 89°45'37" EAST, 330.83 FEET; THENCE NORTH 00°14'27" EAST, 232.23 FEET THENCE NORTH 48°57'47" EAST, 320.23 FEET TO A POINT ON THE SOUTHWESTERLY RIGHT OF WAY LINE OF FLORIDA'S TURNPIKE; THENCE SOUTH 43°02'13" EAST ALONG THE SOUTHWESTERLY RIGHT OF WAY LINE OF FLORIDA'S TURNPIKE, 4,704.66 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 1/2 OF THE SW 1/4 OF THE AFOREMENTIONED SECTION 27, TOWNSHIP 20 SOUTH, RANGE 24 EAST; THENCE NORTH 89°53'48" WEST ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE SW 1/4 OF SAID SECTION 27 A DISTANCE OF 2,466.14 FEET TO THE SOUTHEAST CORNER OF THE NE 1/4 OF THE SE 1/4 OF THE AFOREMENTIONED SECTION 28; THENCE NORTH 89°50'40" WEST ALONG THE SOUTH LINE OF THE NE 1/4 OF THE SE 1/4 A DISTANCE OF 1,322.68 FEET; THENCE NORTH 00°13'48" EAST

ALONG THE WEST LINE OF THE NE 1/4 OF THE SE 1/4 OF SAID SECTION 28 A DISTANCE OF 662.43 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 1/2 OF THE NW 1/4 OF THE SE 1/4 OF SAID SECTION 28; THENCE NORTH 69°49'34" WEST ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE NW 1/4 OF THE SE 1/4 A DISTANCE OF 935.89 FEET; THENCE NORTH 00°12'41" EAST, 662.73 FEET; THENCE NORTH 11°55'18" WEST, 1356.70 FEET; THENCE NORTH 00°12'41" EAST, 2880.71 FEET TO THE POINT OF BEGINNING.

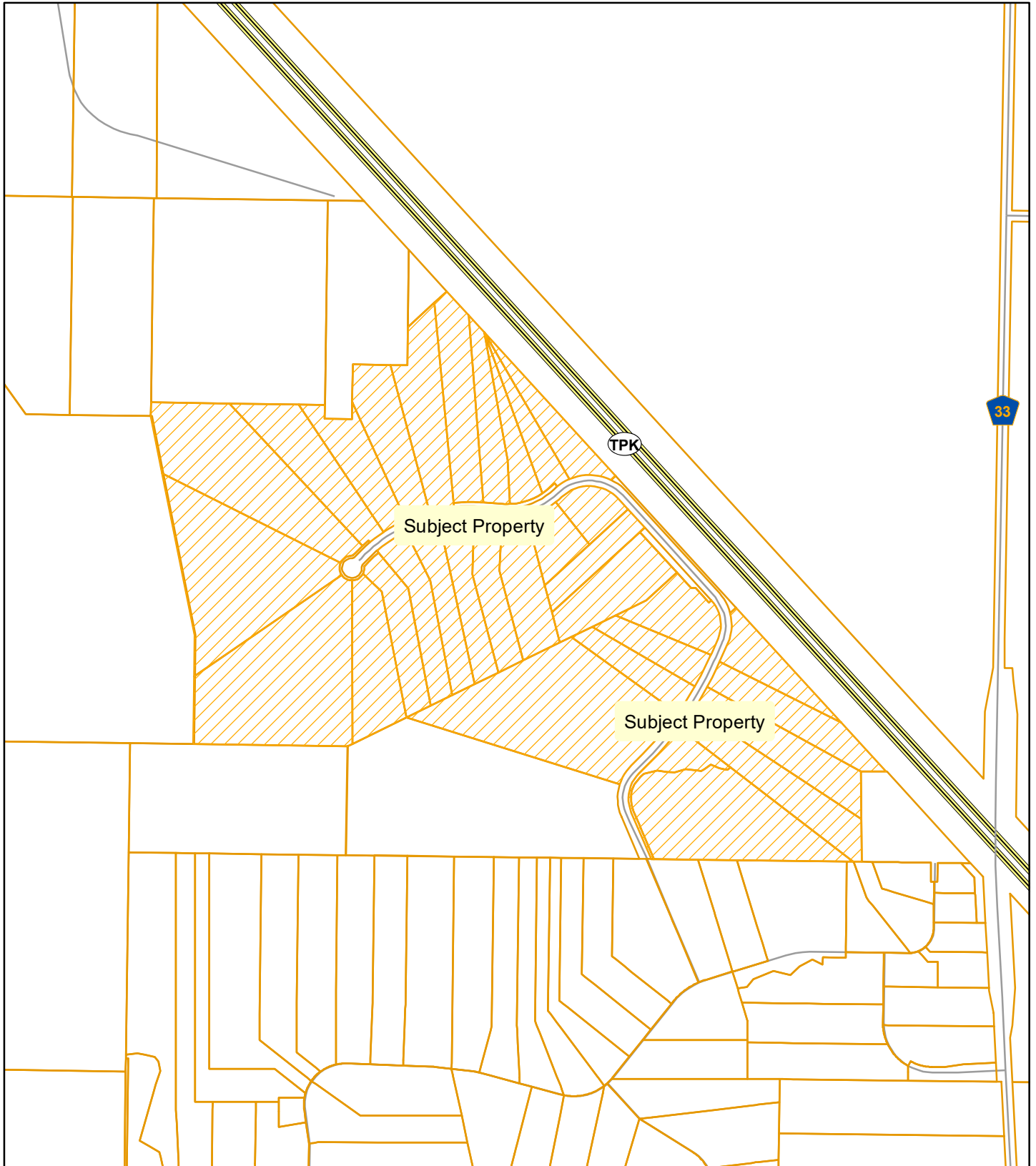
LESS THAT PART OF CLEARWATER RESERVE PHASE 1, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 57, PAGES 89 THROUGH 94, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA, LOCATED IN THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 27, SOUTH OF THE FLORIDA TURNPIKE SUNSHINE STATE PARKWAY.

LESS:

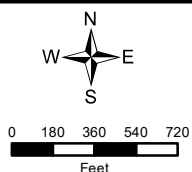
That part of Sections 21, and 26 of Township 20 South, Range 24 East, in Lake County, Florida, bounded and described as follows: Commence at the Southwest corner of the Northwest 1/4 of the Northwest 1/4 of said Section 26, Township 20 South, Range 24 East, and run North 00°12'05" East along the West line of the Northwest 1/4 a distance of 1,029.78 feet to a point on the Southeasterly right of way line of County Road No. C-48, said point being on a curve concave Southeasterly and having a radius of 8,878.68 feet and a radial bearing of North 48°31'02" West; thence Northeasterly along the arc of said curve and said Southeasterly right of way line through a central angle of 03°31'31" an arc length of 546.29 feet to the end of said curve; thence North 45°00'29" East along said Southeasterly right of way line of County Road No. C-48 a distance of 2,589.23 feet to a point on the Southwesterly right of way line for Florida's Turnpike; thence South 43°02'13" East along said Southwesterly right of way line a distance of 804.75 feet to the Point of Beginning of this description; from said Point of Beginning, continue South 43°02'13" East along said Southwesterly right of way line of Florida's Turnpike a distance of 1,862.41 feet to a point on the North line of the Northeast 1/4 of the aforementioned Section 28; thence North 89°43'55" West along the North line of the Northeast 1/4 a distance of 219.06 feet; thence South 00°14'06" West, 1,242.70 feet; thence North 89°44'26" West a distance of 1,056.48 feet; thence North 00°12'41" East, 2,589.16 feet to the Point of Beginning.

TOGETHER WITH AND SUBJECT TO EASEMENT "A" DESCRIBED AS FOLLOWS, TO WIT: A 50- foot wide easement for ingress and egress lying over, upon and through the following described parcel of land: Commence at the Southwest corner of the Northwest 1/4 of the Northwest 1/4 of Section 28, Township 20 South, Range 24 East, in Lake County, Florida, and run North 00°12'05" East along the West line of the Northwest 1/4 of said Section 28 a distance of 1029.78 feet to a point on the Southeasterly right-of-way line of County Road No. C-48, said point being on a curve concave Southeasterly and having a radius of 8,878.68 feet and a radial bearing of North 48°31'02" West; thence Northeasterly along the arc of said curve and said Southeasterly right-of-way line through a central angle of 03°31'31" an arc length of 546.29 feet to the end of said curve; thence North 45°00'29" East, along said Southeasterly right-of-way line of County Road No. C-48 a distance of 2138.98 feet to the Point of Beginning of this easement description; from said Point of Beginning, continue North 45°00'29" East along said Southeasterly right-of-way line a distance of 50.12 feet; thence South 49°02'16" East, 37.18 feet; thence South 87°03'19" East, 569.89 feet to a point on the Southwesterly right-of-way line of Florida's Turnpike; thence South 43°02'13" East along said Southwesterly right-of-way line of Florida's Turnpike a distance of 2,206.72 feet to a point on the North line of the Northeast 1/4 of the aforementioned Section 28; thence North 89°43'55" West along the North line of the Northeast 1/4 of said Section 28 a distance of 68.71 feet; thence North 43°02'13" West parallel with the Southwesterly right-of-way line of Florida's Turnpike a distance of 2,139.39 feet; thence North 87°03'19" West 568.90 feet; thence North 49°02'16" West, 57.94 feet to the Point of Beginning.

Locator

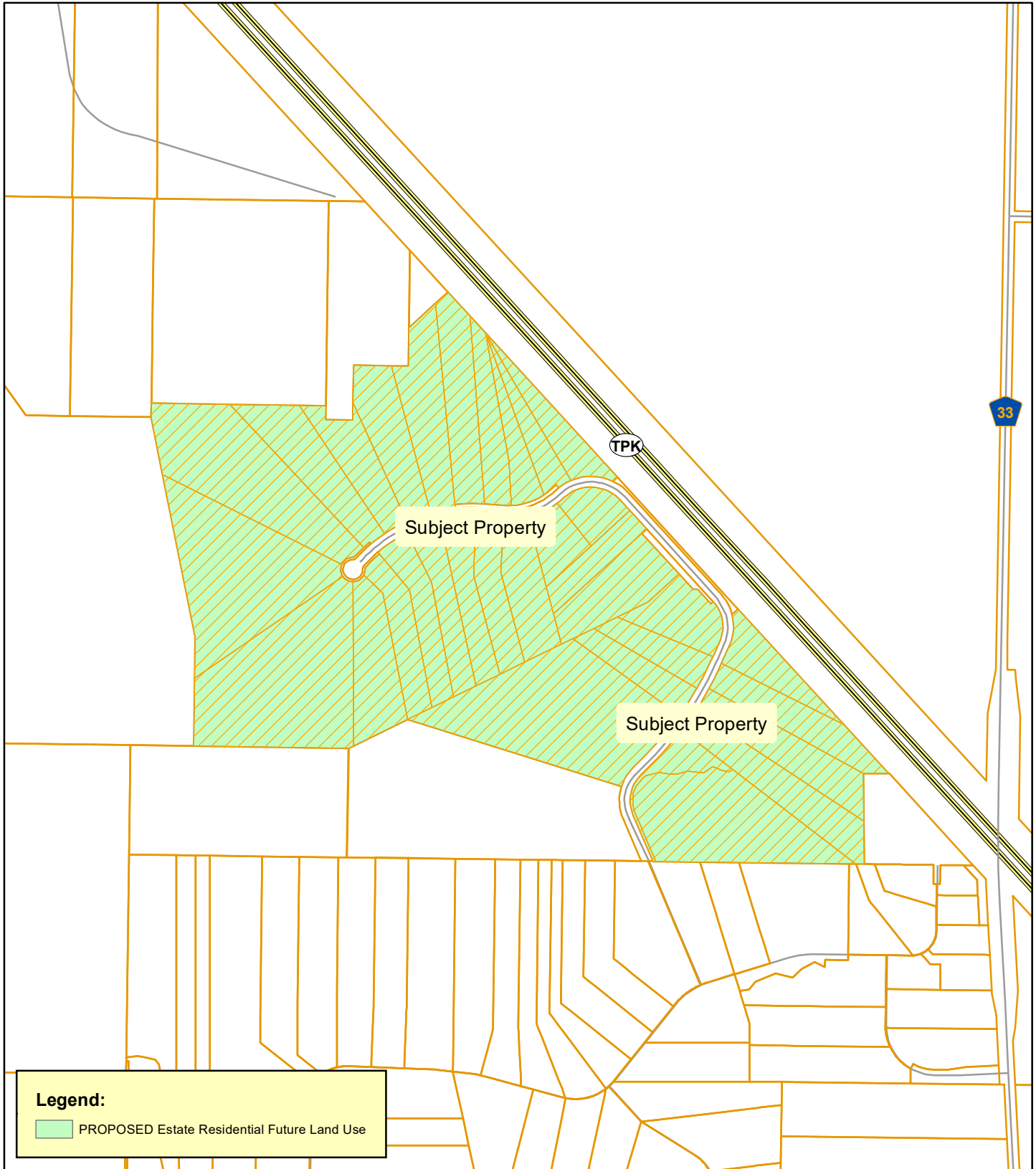


**Planning
& Zoning
Division**

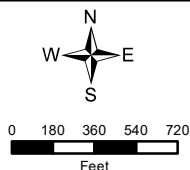


Ratify and Readopt
Ordinance 15-43
Section 27, 28, Township 20 South, Range 24 East
August 28, 2023

Proposed Future Land Use



**Planning
& Zoning
Division**



Ratify and Readopt
Ordinance 15-43
Section 27, 28, Township 20 South, Range 24 East
August 28, 2023

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.A.5.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Kandi Harper, (Planner)

Subject: An Ordinance of the city of Leesburg, Florida, ratifying and readopting Ordinance 17-16 pertaining to a change in Future Land Use on approximately 62.8 acres from Lake County Rural Transition to City of Leesburg Estate Residential for property generally situated in Section 25, Township 20 South, Range 24 East, Lake County, Florida, to ensure compliance with the procedures of Chapter 163, Florida Statutes for adopting large scale comprehensive plan amendments relating to said property; directing transmittal to the reviewing agencies; providing for severability; and providing an effective date. (Ord 17-16 Floribra)

Staff Recommendation:

Staff recommends approval of the request to amend the City's Comprehensive Plan to ensure compliance with Chapter 163, Florida Statutes.

Analysis:

In 2017, Planning and Zoning staff prepared and forwarded to the City Commission, in compliance with Florida Statutes, Ordinance 17-16, for the purpose of changing the Future Land Use for an area generally located east of U.S. Highway 27 and north and south of Windmill Road. At that time, the City Commission did approve this ordinance, after receiving written comments and affirmative recommendations from the City of Leesburg Planning Commission. Although Ordinance 17-16 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it is unclear whether the ordinances were correctly transmitted to the reviewing agencies in accordance with the specific requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes. In an abundance of caution, Staff respectfully requests that the Commission ratify and readopt as shown herein. This action will ensure full compliance with all procedures for adopting large-scale amendments to the City's Comprehensive Plan as outlined in Section 163.3184 (3).

Procurement Analysis:

N/A

Options:

1. Approve the proposed large scale comprehensive plan amendment; or
2. Other action as the Commission may choose.

Fiscal Impact:

No fiscal impact is anticipated as a result of this request.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, RATIFYING AND READOPTING ORDINANCE 17-16 PERTAINING TO A CHANGE IN FUTURE LAND USE ON APPROXIMATELY 62.8 ACRES FROM LAKE COUNTY RURAL TRANSITION TO CITY OF LEESBURG ESTATE RESIDENTIAL FOR PROPERTY GENERALLY SITUATED IN SECTION 25, TOWNSHIP 20 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, TO ENSURE COMPLIANCE WITH THE PROCEDURES OF CHAPTER 163, FLORIDA STATUTES FOR ADOPTING LARGE SCALE COMPREHENSIVE PLAN AMENDMENTS RELATING TO SAID PROPERTY; DIRECTING TRANSMITTAL TO THE REVIEWING AGENCIES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE. (ORD 17-16 FLORIBRA)

WHEREAS, on May 8, 2017, and after compliance with the procedures of ordinance adoption as set forth in Section 166.041, Florida Statutes, the City Commission of the City of Leesburg adopted Ordinance 17-16 pertaining to a change in future land use from Lake County Rural Transition to City of Leesburg Estate Residential on certain real property generally situated in Section 25, Township 20 South, Range 24 East, Lake County, Florida;

WHEREAS, Ordinance 17-16 was adopted by the City Commission after receiving written comments and affirmative recommendations to amend the City's Comprehensive Plan from the City of Leesburg Planning Commission, acting as the Local Planning Agency;

WHEREAS, Ordinance 17-16 was adopted by the City Commission after receiving written objections, recommendations, and comments from the general public at public hearings held in accordance with law;

WHEREAS, although Ordinance 17-16 was properly adopted in accordance with the procedures of Section 166.041, Florida Statutes, it's unclear whether the ordinance was transmitted to the Reviewing Agencies in accordance with the requirements for large-scale comprehensive plan amendments as set forth in Section 163.3184(3), Florida Statutes;

WHEREAS, in an abundance of caution, the City Commission wishes to ratify and readopt Ordinance 17-16 consistent with the procedures of Section 163.3184(3), Florida Statutes, to ensure full compliance with all procedures of adopting large-scale amendments to the City's Comprehensive Plan;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEESBURG, FLORIDA:

Section 1. Recitals. The above recitals are hereby restated and are incorporated herein for all purposes.

Section 2. Ratification and Readoption of Ordinances. Ordinance 17-16 is hereby ratified and readopted.

Section 3. Transmittal to Reviewing Agencies. City staff is directed to transmit Ordinance 17-16, this Ordinance, and any other required or requested documents and information to the Reviewing Agencies in accordance with the procedures of Section 163.3184, Florida Statutes, regarding large-scale amendments to the City's Comprehensive Plan.

Section 4. Comprehensive Plan Amendment. The Growth Management Plan of the City of Leesburg, adopted by the City of Leesburg on December 10, 2012, pursuant to the Community Planning Act of 2011, Chapter 163, Part II, Florida Statutes, after public hearing by the City of Leesburg Planning Commission, is hereby amended in the following manner:

The Future Land Use Map is amended by changing the future land use designations on various properties in the city, legally described as:

SEE EXHIBIT "A" ATTACHED HERETO

Section 5. The provisions of this ordinance are severable, and it is the intention of the City Commission of the City of Leesburg, Florida, to confer the whole or any part of the powers herein provided. If any court of competent jurisdiction shall hold any of the provisions of this ordinance unconstitutional, the decision of such court shall not impair any remaining provisions of this ordinance.

Section 6. Effective Date. This Ordinance shall take effect immediately upon its final adoption by the City of Leesburg Commission.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the 23rd day of October 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

City Clerk

EXHIBIT "A"

(legal description)

DESCRIPTION (FURNISHED BY CLIENT):

That portion of the North 1/2 of the Southeast 1/4 lying East of the Right-of-Way of State Road No. 25, also known as U.S. Highway No. 27, in Section 25, Township 20 South, Range 24 East, Public Records of Lake County, Florida.

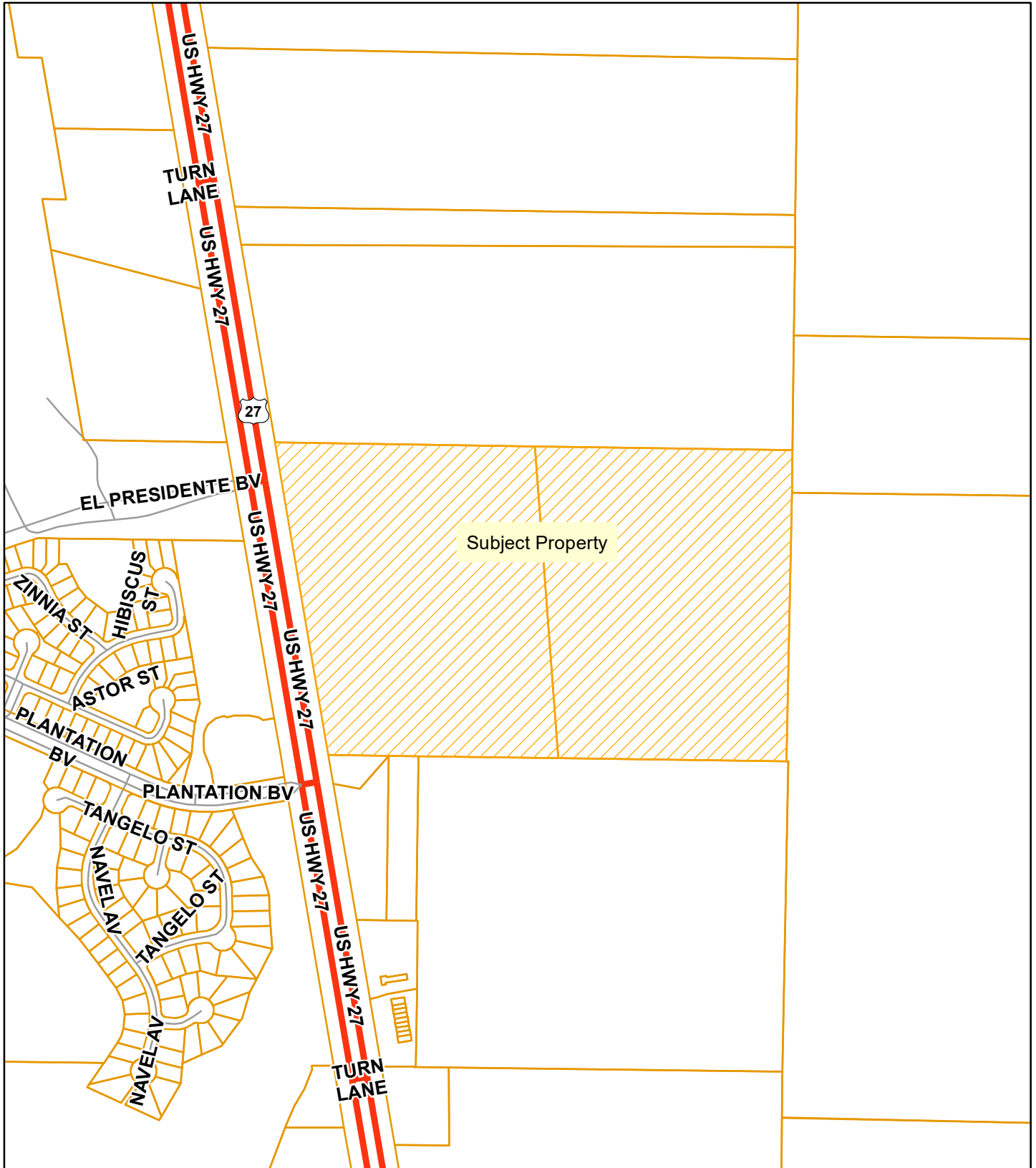
ALSO DESCRIBED AS:

DESCRIPTION (PREPARED BY DONALD W. McINTOSH ASSOCIATES, INC.):

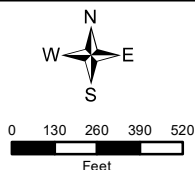
Commence at a 4" diameter concrete monument (no identification number) as referenced in Certified Corner Record No. 34403 at the Southeast corner of Section 25, Township 20 South, Range 24 East, Lake County, Florida, and run N00°42'44"E for a distance of 1327.06 feet to a point lying S00°42'44"W a distance of 1315.70 feet from a 4" x 4" concrete monument (no identification number) as referenced in Certified Corner Record No. 34404 at the Northeast corner of the Southeast 1/4 of said Section 25; thence run N89°15'35"W for a distance of 14.60 feet to the POINT OF BEGINNING, said point being a 4" x 4" concrete monument (no identification number); thence continue N89°15'35"W for a distance of 1946.57 feet to a 5/8" iron rod with cap No. LB68 at the Easterly right-of-way line of U. S. Highway No. 27 (State Road No. 25); thence run N09°40'57"W along said right-of-way line for a distance of 1343.64 feet to a 5/8" iron rod with cap No. LB68; thence run S89°06'35"E for a distance of 2189.75 feet to a 4" x 4" concrete monument (no identification number); thence run S00°44'41"W for a distance of 1315.74 feet to the POINT OF BEGINNING.

Containing 62.597 acres more or less and being subject to any rights-of-way, restrictions and easements of record.

Locator

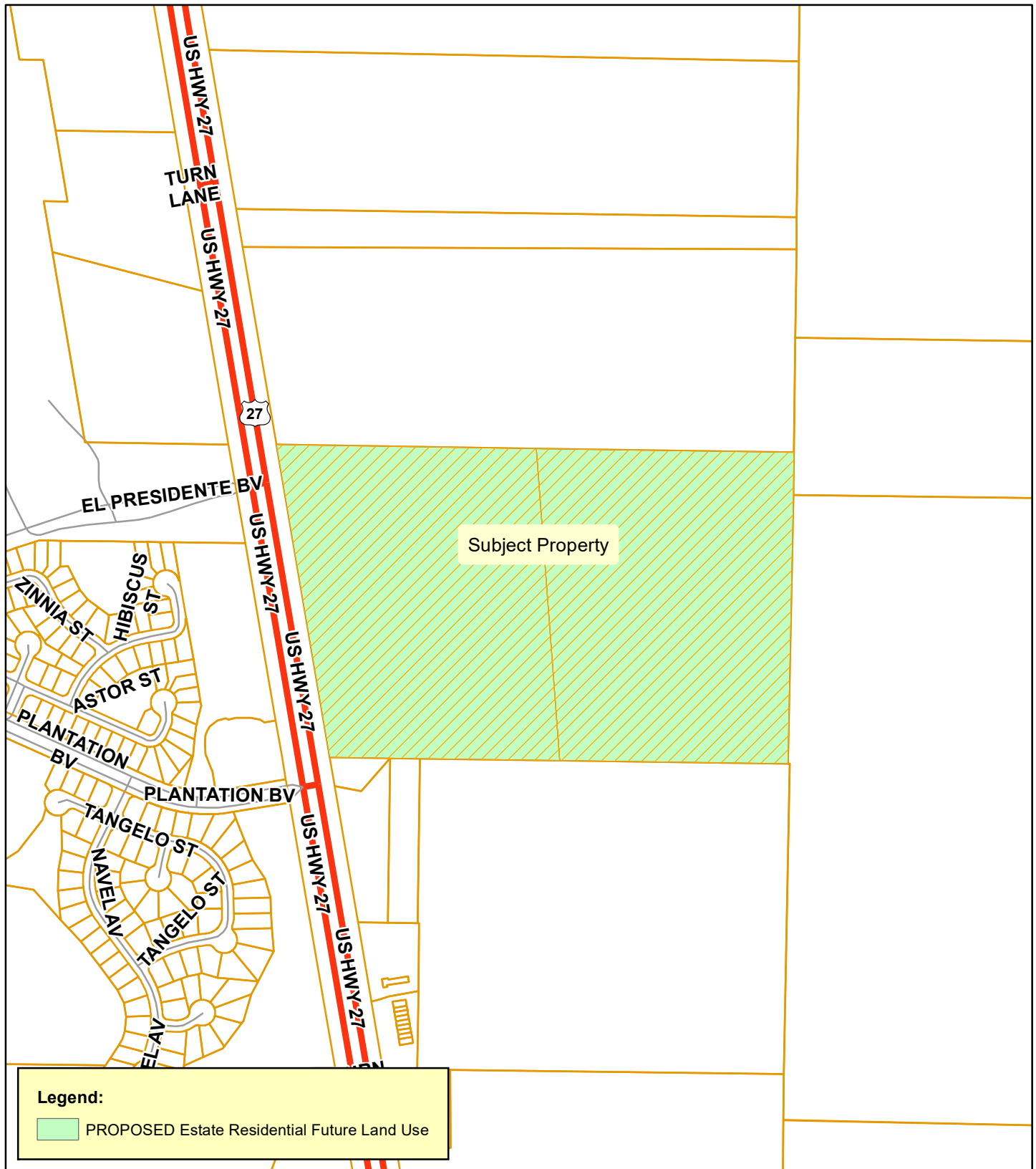


**Planning
& Zoning
Division**

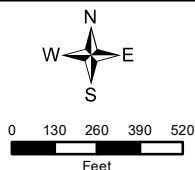


Ratify and Readopt
Ordinance 17-16
Section 25, Township 20 South, Range 24 East
August 28, 2023

PROPOSED Estate Residential Future Land Use



**Planning
& Zoning
Division**



Ratify and Readopt
Ordinance 17-16
Section 25, Township 20 South, Range 24 East
August 28, 2023

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.B.1.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Christine Rock, (Senior Planner)

Subject: An Ordinance of the City of Leesburg, Florida, annexing certain real property consisting of approximately 4.9 +/- acres; and being generally located southwest of Professional Drive and south of U.S. Highway 441, lying in Section 21, Township 19 South, Range 25 East, Lake County, Florida; providing that said property so annexed shall be liable for its proportionate share of the existing and future indebtedness of said city; providing that such annexed property shall be subject to all laws and ordinances of said city as if all such territory had been a part of the City of Leesburg at the time of passage and approval of said laws and ordinances; providing that such annexed territory shall be placed in City Commission District 5; and providing an effective date. (Electrical Works)

Staff Recommendation:

The Planning and Zoning staff and the Planning Commission recommend approval of the proposed ordinance for annexation of 4.9 +/- acres.

Analysis:

The applicant has submitted a request for annexation of approximately 4.9 +/- acres, generally located southwest of Professional Drive and south of U.S. Highway 441, as shown on the attached General Location Map. At this time, the property is developed with the existing business. The current zoning is Lake County LM (Light Industrial); the proposed zoning is City SPUD (Small Planned Unit Development). The reason for this request is to connect to city utilities. The proposal of the property is to maintain existing uses.

The property is surrounded by Leesburg C-3 (Highway Commercial), RE-1 (Estate Residential), C-3 (Highway Commercial, P (Public), and SPUD (Small Planned Unit Development) as well as Lake County R-1 (Rural Residential) and LM (Light Industrial). Under the conditions of the SPUD (Small Planned Unit Development) zoning case which is also on this agenda, no negative impacts are anticipated to adjacent properties.

Also, on this City Commission agenda, is a Small-Scale Comprehensive Plan Amendment, which along with the Small Planned Unit Development Application, had recommendations for approval from the staff

and Planning Commission at the public hearing held on September 21, 2023.

Procurement Analysis:

N/A

Options:

1. Approve the requested annexation. This would give the City jurisdiction over the use and future development of the subject site and provide for the application of City standards to this property; or
2. Disapprove the proposed annexation and allow the property to remain in the County.

Fiscal Impact:

A positive fiscal impact will result from the annexation of this property due to increased tax revenue added to the General Fund.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, ANNEXING CERTAIN REAL PROPERTY CONSISTING OF APPROXIMATELY 4.9 +/- ACRES; AND BEING GENERALLY LOCATED SOUTHWEST OF PROFESSIONAL DRIVE AND SOUTH OF U.S. HIGHWAY 441, LYING IN SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; PROVIDING THAT SAID PROPERTY SO ANNEXED SHALL BE LIABLE FOR ITS PROPORTIONATE SHARE OF THE EXISTING AND FUTURE INDEBTEDNESS OF SAID CITY; PROVIDING THAT SUCH ANNEXED PROPERTY SHALL BE SUBJECT TO ALL LAWS AND ORDINANCES OF SAID CITY AS IF ALL SUCH TERRITORY HAD BEEN A PART OF THE CITY OF LEESBURG AT THE TIME OF PASSAGE AND APPROVAL OF SAID LAWS AND ORDINANCES; PROVIDING THAT SUCH ANNEXED TERRITORY SHALL BE PLACED IN CITY COMMISSION DISTRICT 5; AND PROVIDING AN EFFECTIVE DATE. (ELECTRICAL WORKS)

NOW, THEREFORE, BE IT ENACTED BY THE PEOPLE OF THE CITY OF LEESBURG, FLORIDA, that;

Section 1

Based upon the petition of Joseph Ciceri, Petitioner, "Permittee" for the property hereinafter described, shall be annexed into the city limits of the City of Leesburg, Florida, which petition has heretofore been approved by the City Commission of the City of Leesburg, Florida, pursuant to the provisions of the Laws of Florida, the hereinafter described property is hereby annexed and made a part of the city limits of the City of Leesburg, Florida. The subject property lying and situated in Lake County, Florida, is more particularly described as:

**Legal Description
(See Exhibit A);**

Section 2.

All of the property, real and personal, within said annexed territory, described in Section 1 above, as provided by this ordinance, and the inhabitants thereof, shall be subject to the government, jurisdiction, powers, franchises, duties, and privileges of the City of Leesburg, Florida, and the said annexed property shall be liable, proportionately, for all of the present outstanding and existing, as well as future, indebtedness of the City of Leesburg, Florida; that all of the ordinances of the City of Leesburg, and all the laws heretofore passed by the Legislature of the State of Florida relating to and which now or hereafter constitute its Charter, shall apply to and have the same force and effect on such annexed territory as if all such annexed territory had been a part of the City of Leesburg, Florida, at the time of the passage and approval of said laws and ordinances. The property annexed here by is assigned to City Commission District 5.;

Section 3.

All ordinances or parts of ordinances in conflict with any of the provisions of this ordinance are hereby repealed;

Section 4.

This ordinance shall become effective immediately upon approval at second reading.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the _____ day of _____ 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

City Clerk

Legal Description

PARCEL NO. 1

BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, RUN NORTH 0°25'55" EAST, ALONG THE WEST LINE OF SAID NORTHWEST 1/4 OF THE NORTHWEST 1/4, A DISTANCE OF 956.83 FEET TO THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441; THENCE NORTH 56°27'00" EAST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 79.59 FEET; THENCE SOUTH 0°25'55" WEST, 301.49 FEET; THENCE NORTH 83°39'18" EAST, 328.10 FEET; THENCE SOUTH 15°00'00" WEST, 762.57 FEET TO THE SOUTH LINE OF AFORESAID NORTHWEST 1/4 OF THE NORTHWEST 1/4; THENCE NORTH 89°42'30" WEST, ALONG SAID SOUTH LINE, 200.00 FEET TO THE POINT BEGINNING.

AND

A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET TO A POINT IDENTIFIED AS POINT "A" FOR LATER DESCRIPTION PURPOSES; THENCE NORTH 83°39'18" EAST, 95.88 FEET; THENCE NORTH 33°33'00" WEST, 293.83 FEET TO THE POINT OF BEGINNING.

AND ALSO

FROM THE AFORESAID POINT "A", RUN SOUTH 32°38'13" WEST, 123.84 FEET TO THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, AND THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 56°27'00" WEST, 30 FEET; THENCE SOUTH 57°21'47" EAST, TO THE EAST LINE OF THE SAID SECTION 20; THENCE NORTH, ALONG THE SAID EAST LINE OF SAID SECTION 20, TO THE POINT OF BEGINNING.

SUBJECT TO AN EASEMENT FOR INGRESS AND EGRESS ON, OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY; A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS; FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S.

HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET; THENCE SOUTH 32°38'13" WEST, 123.84 FEET; THENCE SOUTH 56°27'00" WEST, 30.00 FEET; THENCE SOUTH 57°21'47" EAST, 42.11 FEET; THENCE NORTH 32°38'13" EAST, 231.25 FEET; THENCE NORTH 33°33'00" WEST, 245.16 FEET TO THE POINT OF BEGINNING.

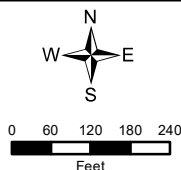
LESS AND EXCEPT THAT PART GIVEN TO J.C. BURKE, JR. AND DELORIS C. BURKE, HIS WIFE, RECORDED IN OFFICIAL RECORDS BOOK 888, PAGE 1120, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

LESS AND EXCEPT THAT PART GIVEN TO C.W. SHEPHERD, III, AND RECORDED IN OFFICIAL RECORDS BOOK 957, PAGE 78, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

Aerial

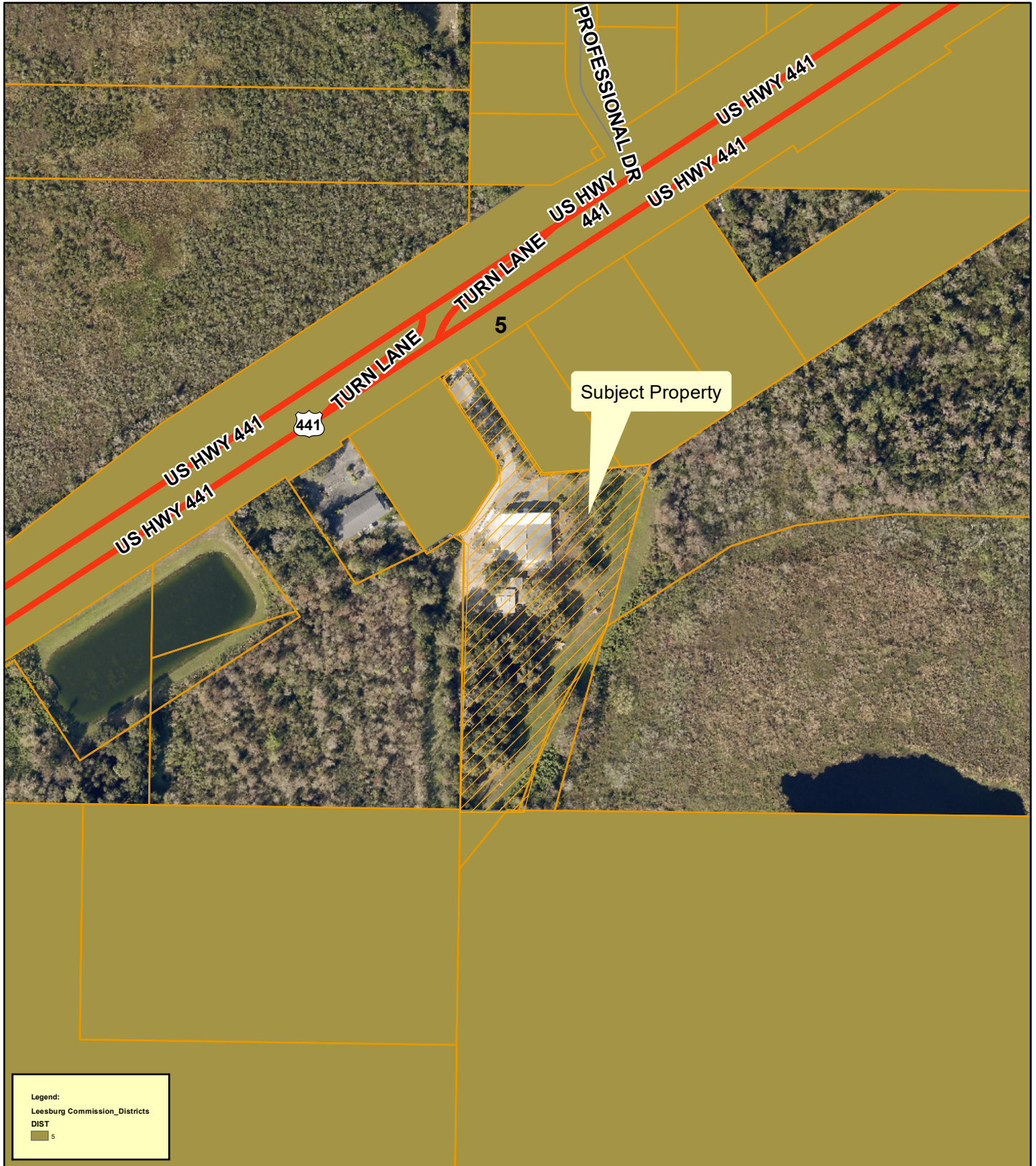


**Planning
& Zoning
Division**

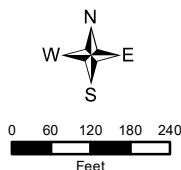


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Commission District



**Planning
& Zoning
Division**



Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.B.2.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Christine Rock, (Senior Planner)

Subject: An Ordinance amending the Future Land Use Map of the Comprehensive Plan of the City of Leesburg, changing the Future Land Use Map Designation of certain property containing 4.9 +/- acres from Lake County Urban Low Density to City of Leesburg General Commercial, for a property generally located southwest of Professional Drive and south of U.S. Highway 441, lying in Section 21, Township 19 South, Range 25 East, Lake County, Florida; and providing an effective date. (Electrical Works)

Staff Recommendation:

An Ordinance amending the Future Land Use Map of the Comprehensive Plan of the City of Leesburg, changing the Future Land Use Map Designation of certain property containing 4.9 +/- acres from Lake County Urban Low Density to City of Leesburg General Commercial, for a property generally located southwest of Professional Drive and south of U.S. Highway 441, lying in Section 21, Township 19 South, Range 25 East, Lake County, Florida; and providing an effective date. (Electrical Works)

Analysis:

The project site is approximately 4.9 acres. The property is generally located southwest of Professional Drive and south of U.S. Highway 441. Currently, the property is developed with an existing business. The request is to allow commercial and light industrial uses. The surrounding Future Land Use Map designations of Leesburg General Commercial, Conservation, and Estate Residential as well as Lake County Urban Low Density and Conservation are compatible, as conditioned in the SPUD zoning, with the proposed future land use designation of City General Commercial. The proposed zoning designation of Leesburg SPUD (Small Planned Unit Development) will provide for development that is consistent with the City's adopted Growth Management Plan and would allow an appropriate use for the property.

This property lies within the ISBA (Interlocal Service Boundary Area) agreement. This agreement, which was approved by City Commission on November 24, 2014, allows property within the ISBA area but outside the current city limits to be annexed and obtain City of Leesburg utility services.

The Planning Commission held a public hearing on the application on September 21, 2023 and recommended approval.

Procurement Analysis:

N/A

Options:

1. Approve the requested small-scale comprehensive plan amendment from Lake County Urban Low Density to City of Leesburg General Commercial; or
2. Other such action as the Commission may deem appropriate.

Fiscal Impact:

Existing development on this site will create a positive fiscal impact on the City of Leesburg, in the form of impact and utility fees, plus ad valorem taxes.

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE FUTURE LAND USE MAP OF THE COMPREHENSIVE PLAN OF THE CITY OF LEESBURG, CHANGING THE FUTURE LAND USE MAP DESIGNATION OF CERTAIN PROPERTY CONTAINING 4.9 +/- ACRES FROM LAKE COUNTY URBAN LOW DENSITY TO CITY OF LEESBURG GENERAL COMMERCIAL, FOR A PROPERTY GENERALLY LOCATED SOUTHWEST OF PROFESSIONAL DRIVE AND SOUTH OF U.S. HIGHWAY 441, LYING IN SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; AND PROVIDING AN EFFECTIVE DATE. (ELECTRICAL WORKS)

WHEREAS, the City Commission has received written objections, recommendations, and comments from the City of Leesburg Planning Commission, acting as the Local Planning Agenda, regarding amendment of the Comprehensive Plan of the City of Leesburg, and has made recommendations to the City Commission for amendment of the Plan; and

WHEREAS, the City Commission of the City of Leesburg has held public hearings on the proposed amendment to the plan, in light of written comments, proposals and objections from the general public;

NOW, THEREFORE,

BE IT ENACTED BY THE PEOPLE OF THE CITY OF LEESBURG, FLORIDA, that;

Section 1.

The Growth Management Plan of the City of Leesburg, adopted by the City of Leesburg on December 10, 2012, pursuant to the Community Planning Act of 2011, Chapter 163, Part II, Florida Statutes, after public hearings by the City of Leesburg Planning Commission, is hereby amended in the following manner;

The Future Land Use Map is amended by changing the designation of approximately 4.9 +/- acres of land generally located southwest of Professional Drive and south of US Highway 441 from Lake County Urban Low Density to City of Leesburg General Commercial, as shown on the revised map of said area, lying in Section 21, Township 19 South, Range 25 East, Lake County Florida;

Section 2.

All ordinances or parts of ordinances in conflict with any of the provisions of this ordinance are hereby repealed;

Section 3.

This ordinance shall become effective upon its passage and adoption, according to law.

PASSED AND ADOPTED by the City Commission of the City of Leesburg, Florida, at a regular meeting held on the _____ day of _____ 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

City Clerk

Legal Description

PARCEL NO. 1

BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, RUN NORTH 0°25'55" EAST, ALONG THE WEST LINE OF SAID NORTHWEST 1/4 OF THE NORTHWEST 1/4, A DISTANCE OF 956.83 FEET TO THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441; THENCE NORTH 56°27'00" EAST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 79.59 FEET; THENCE SOUTH 0°25'55" WEST, 301.49 FEET; THENCE NORTH 83°39'18" EAST, 328.10 FEET; THENCE SOUTH 15°00'00" WEST, 762.57 FEET TO THE SOUTH LINE OF AFORESAID NORTHWEST 1/4 OF THE NORTHWEST 1/4; THENCE NORTH 89°42'30" WEST, ALONG SAID SOUTH LINE, 200.00 FEET TO THE POINT BEGINNING.

AND

A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET TO A POINT IDENTIFIED AS POINT "A" FOR LATER DESCRIPTION PURPOSES; THENCE NORTH 83°39'18" EAST, 95.88 FEET; THENCE NORTH 33°33'00" WEST, 293.83 FEET TO THE POINT OF BEGINNING.

AND ALSO

FROM THE AFORESAID POINT "A", RUN SOUTH 32°38'13" WEST, 123.84 FEET TO THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, AND THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 56°27'00" WEST, 30 FEET; THENCE SOUTH 57°21'47" EAST, TO THE EAST LINE OF THE SAID SECTION 20; THENCE NORTH, ALONG THE SAID EAST LINE OF SAID SECTION 20, TO THE POINT OF BEGINNING.

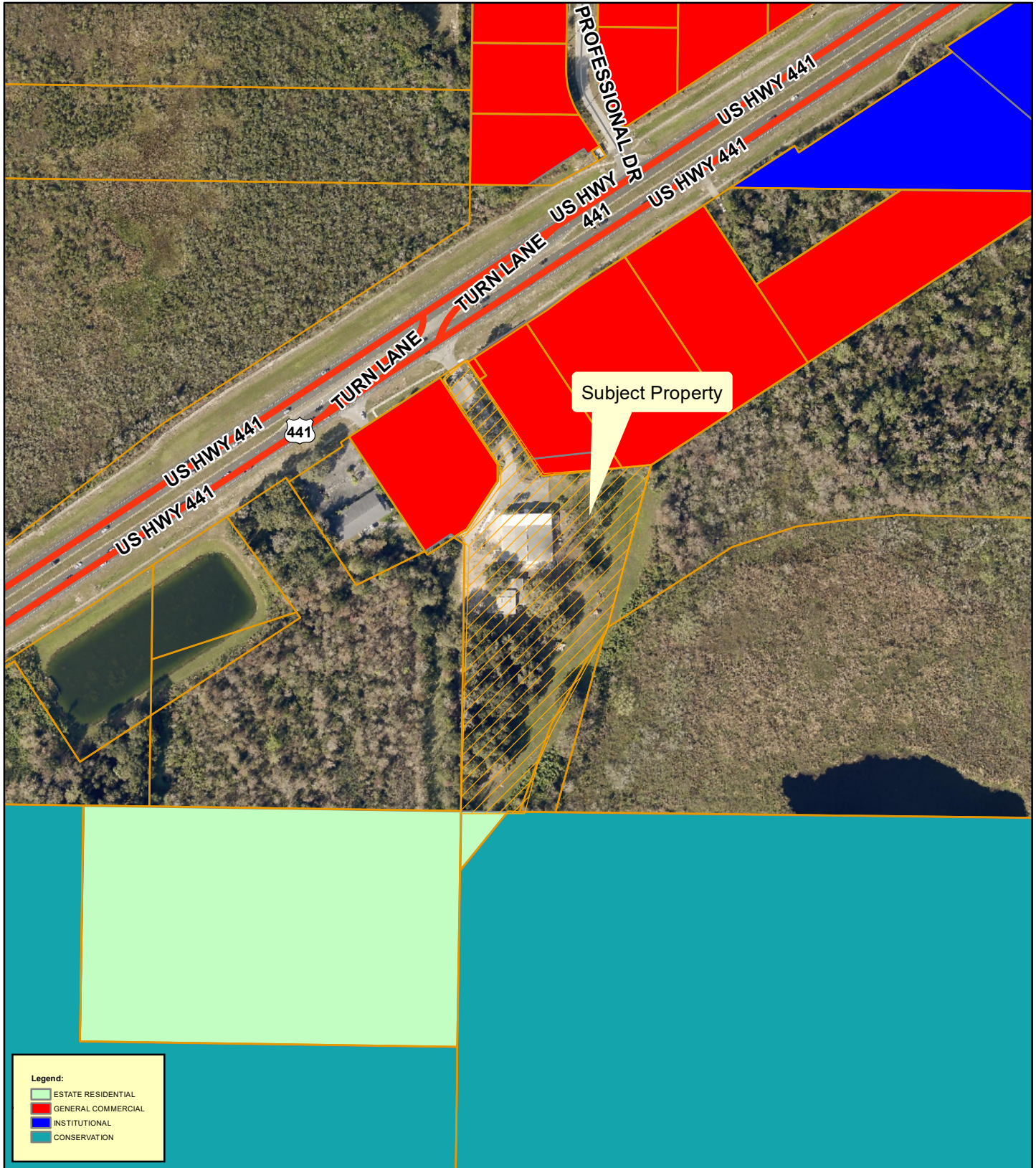
SUBJECT TO AN EASEMENT FOR INGRESS AND EGRESS ON, OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY; A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS; FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S.

HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET; THENCE SOUTH 32°38'13" WEST, 123.84 FEET; THENCE SOUTH 56°27'00" WEST, 30.00 FEET; THENCE SOUTH 57°21'47" EAST, 42.11 FEET; THENCE NORTH 32°38'13" EAST, 231.25 FEET; THENCE NORTH 33°33'00" WEST, 245.16 FEET TO THE POINT OF BEGINNING.

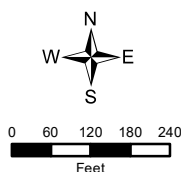
LESS AND EXCEPT THAT PART GIVEN TO J.C. BURKE, JR. AND DELORIS C. BURKE, HIS WIFE, RECORDED IN OFFICIAL RECORDS BOOK 888, PAGE 1120, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

LESS AND EXCEPT THAT PART GIVEN TO C.W. SHEPHERD, III, AND RECORDED IN OFFICIAL RECORDS BOOK 957, PAGE 78, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

Future Land Use

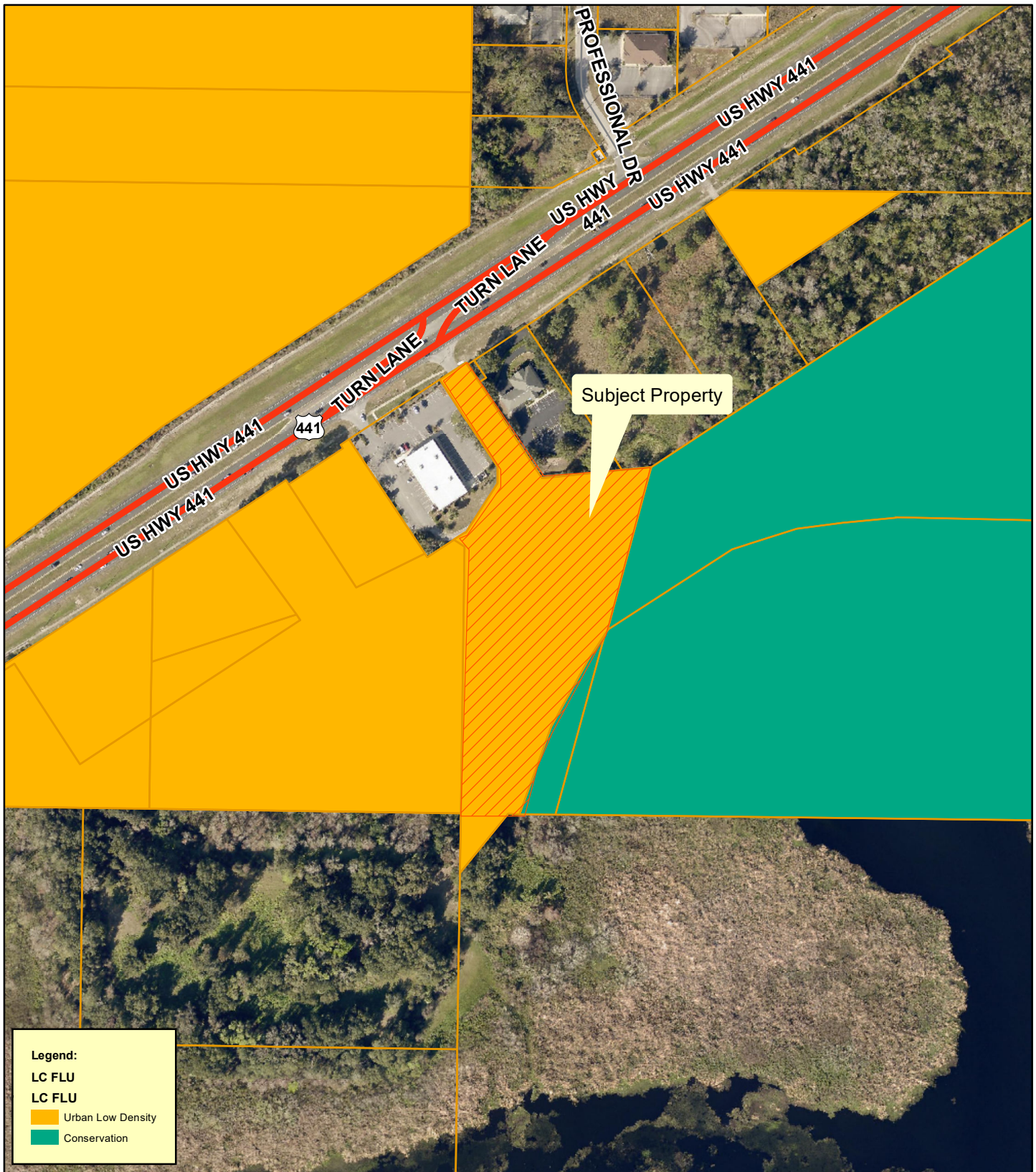


**Planning
& Zoning
Division**

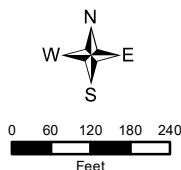


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Lake County Future Land Use

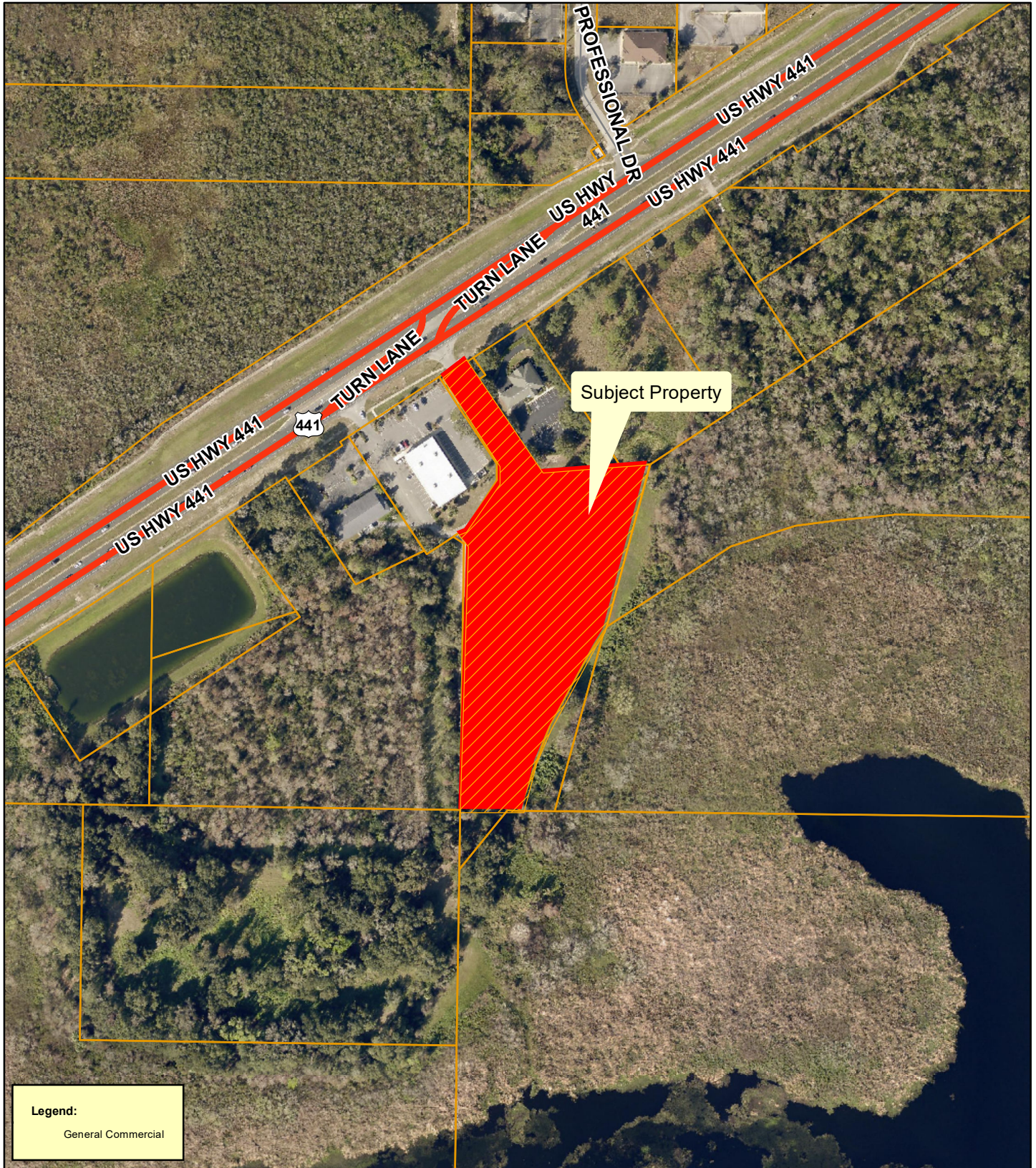


**Planning
& Zoning
Division**



Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Proposed Future Land Use

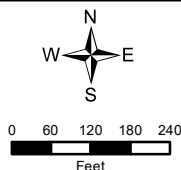


Legend:

General Commercial

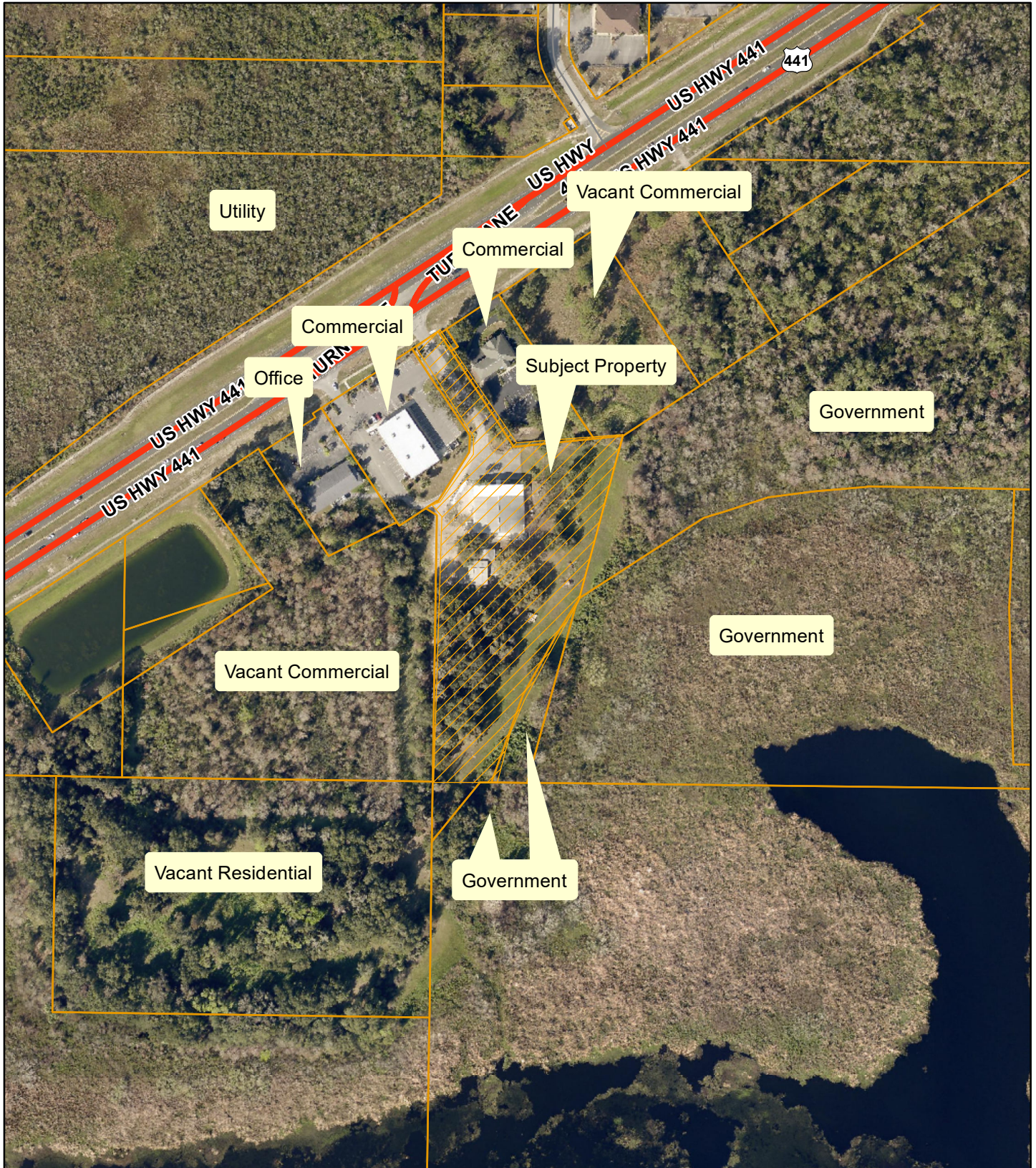


**Planning
& Zoning
Division**

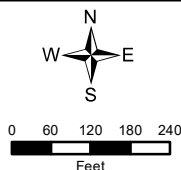


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Surrounding Land Uses

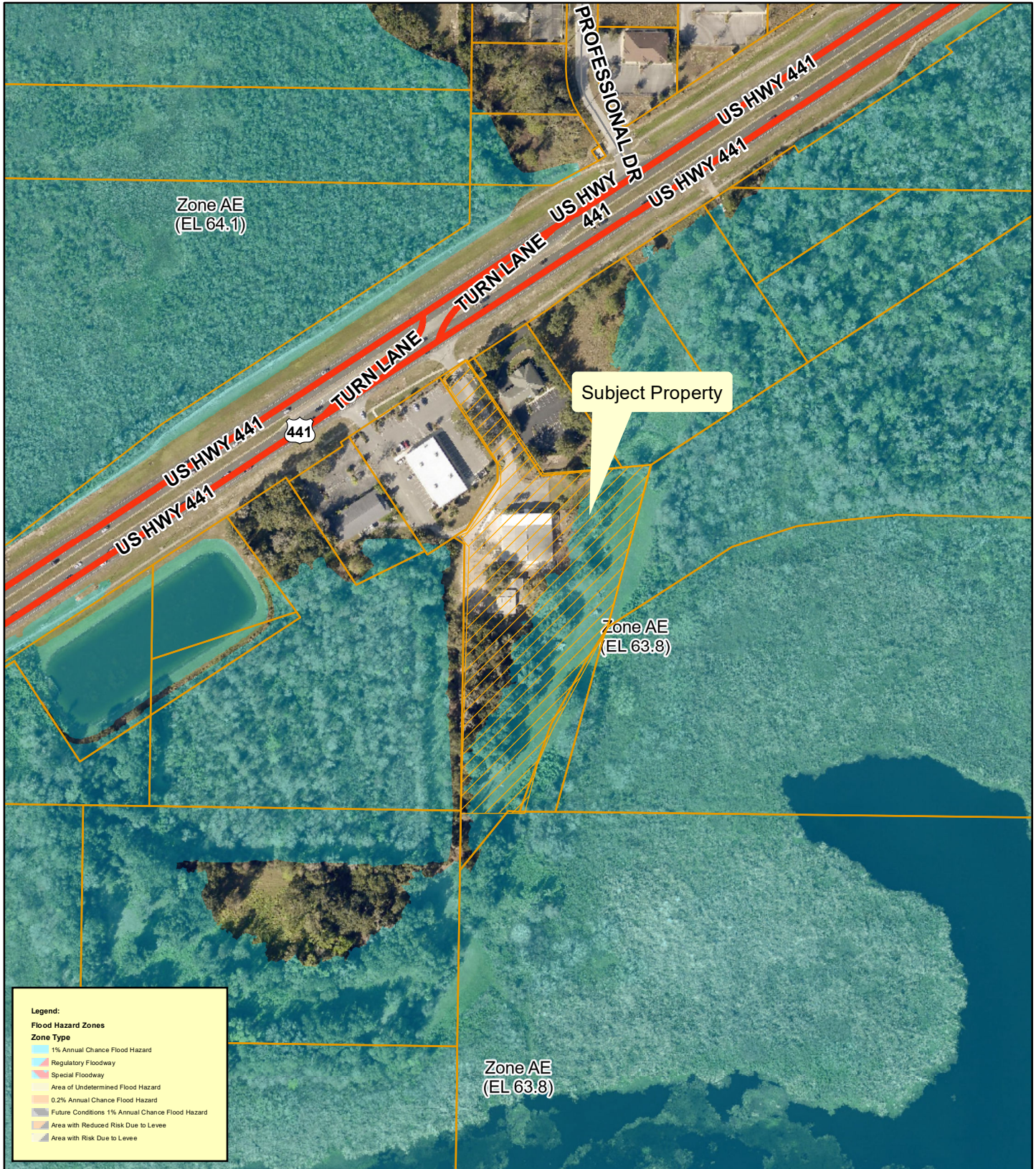


**Planning
& Zoning
Division**

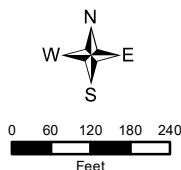


Electrical Works
 ANN-23-343; SSCP-23-344; RZ-23-345
 AK #2603925
 8010 US Highway 441
 Section 21, Township 19 South, Range 25 East
 August 31, 2023

Flood

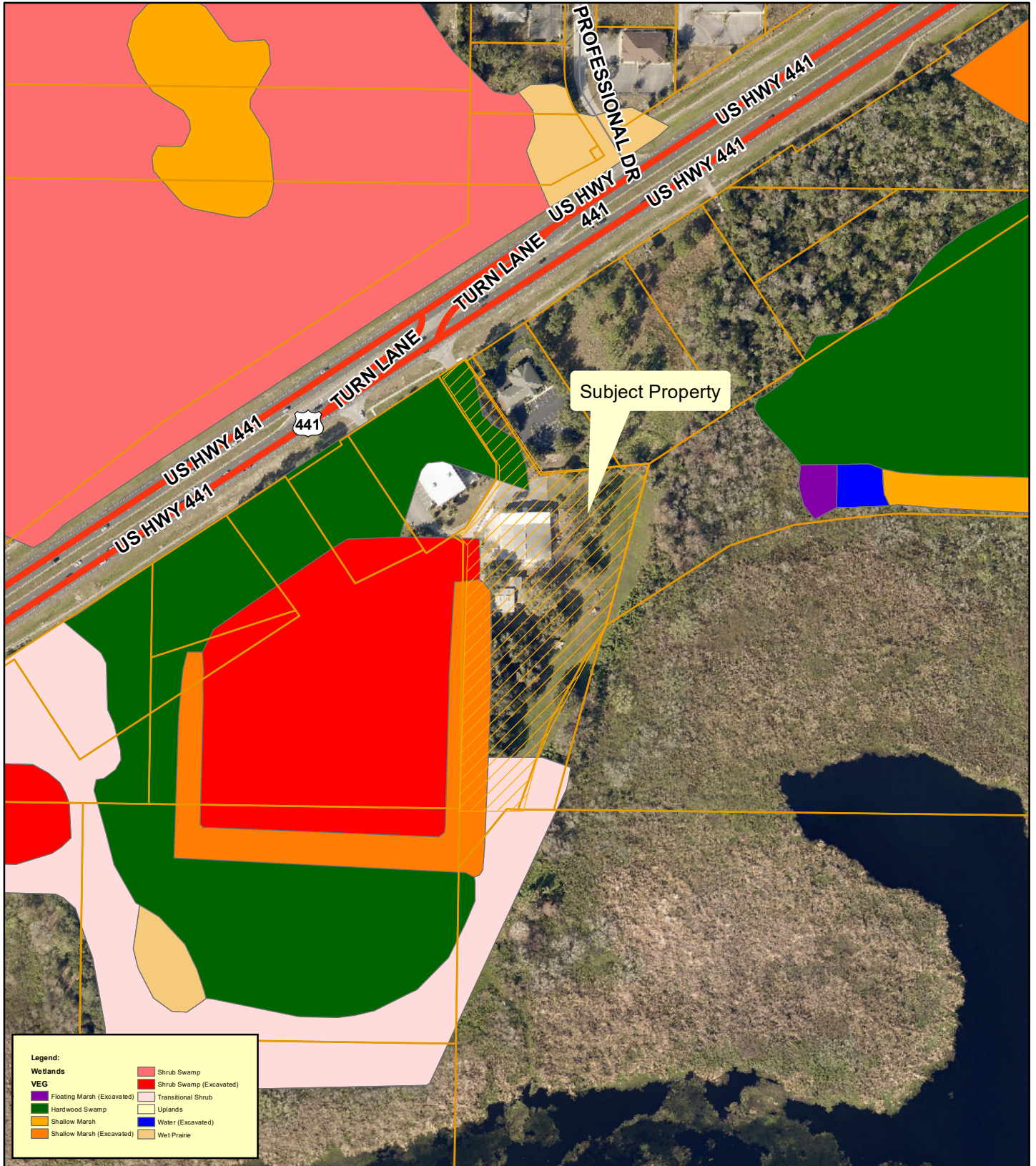


**Planning
& Zoning
Division**

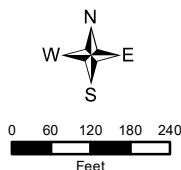


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Wetlands

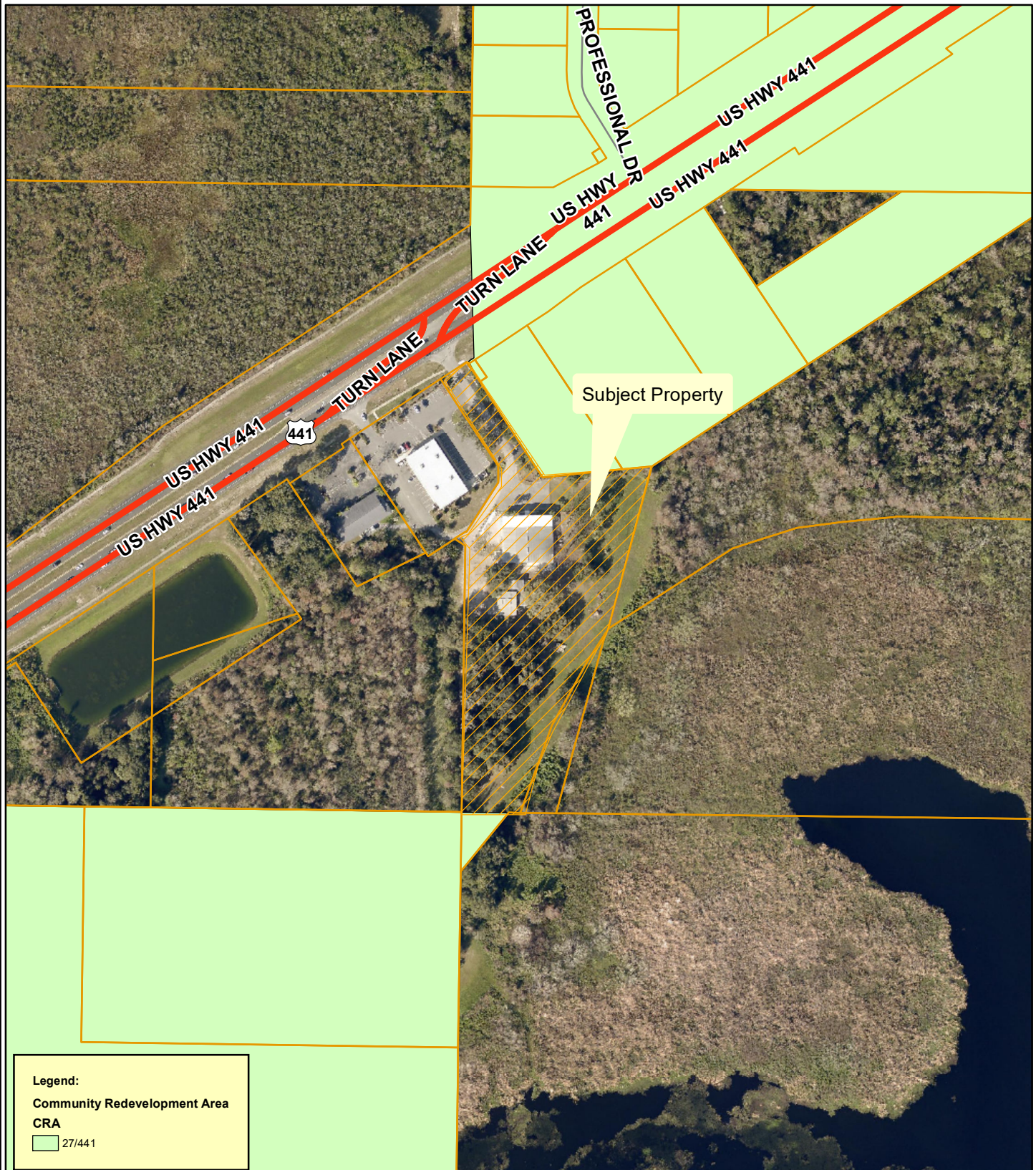


**Planning
& Zoning
Division**

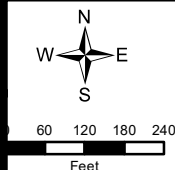


Electrical Works
 ANN-23-343; SSCP-23-344; RZ-23-345
 AK #2603925
 8010 US Highway 441
 Section 21, Township 19 South, Range 25 East
 August 31, 2023

Community Redevelopment Area

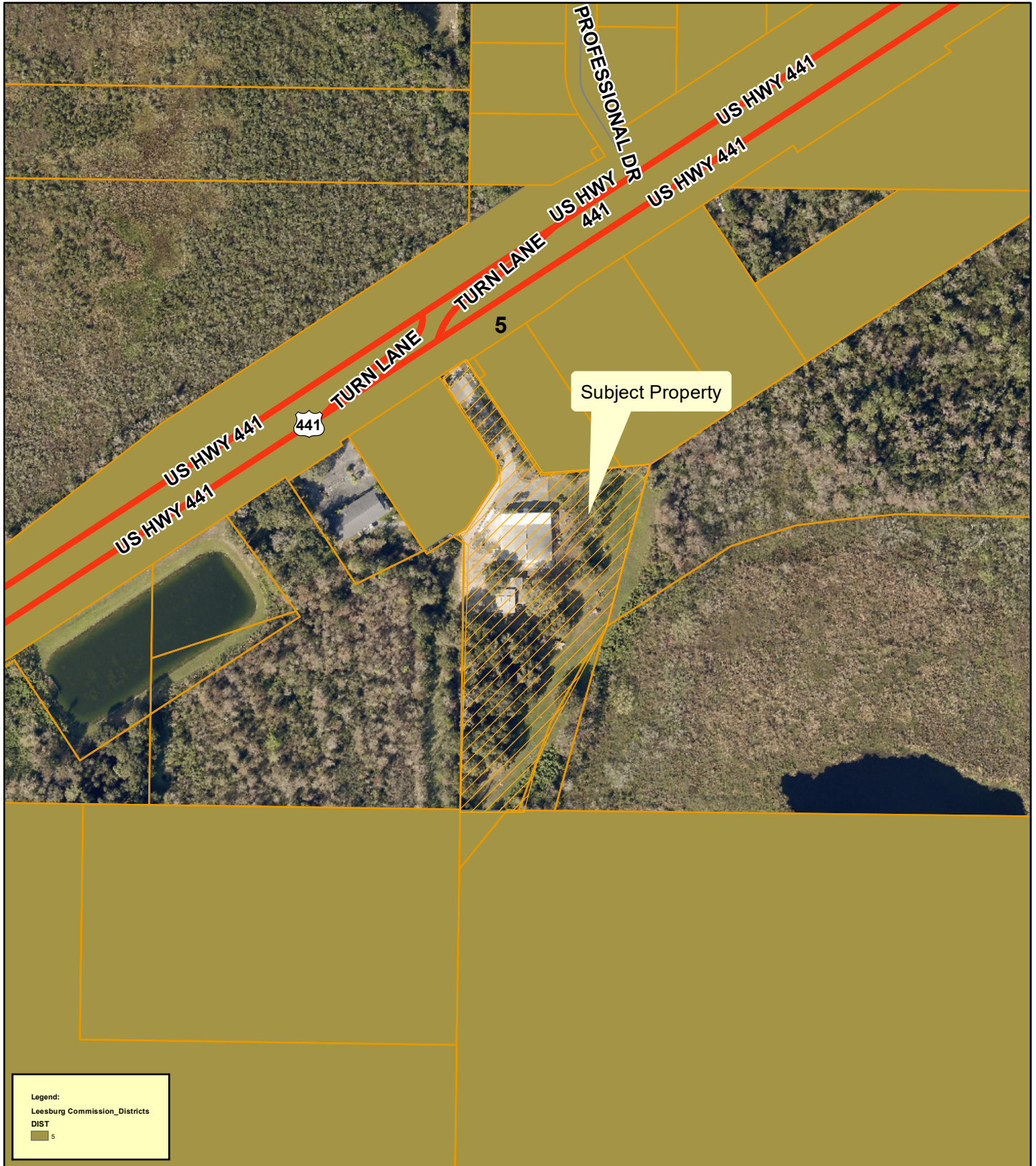


**Planning
& Zoning
Division**

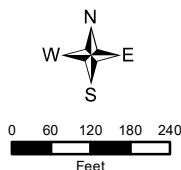


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Commission District



**Planning
& Zoning
Division**



Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023



DRAFT SUMMARY MINUTES OF THE REGULAR MEETING
OF THE PLANNING COMMISSION
CITY HALL
THURSDAY, SEPTEMBER 21ST, 2023 - 4:30 P.M.

The Planning Commission of the City of Leesburg held its regular meeting Thursday, September 21st, 2023, at City Hall.

Chairman Tim Sennett called the meeting to order at p.m.

The following Commission members were present:

Tim Sennett - Chairman
Nathaniel Sanders – Vice-Chairman
Ted Bowersox
Frazier Marshall
John O’Kelley
Stewart Kaplan
Ken Simeone
Rosalind Peeples-Johnson

The following Commission members were absent:

Ze’ Shieca Carter

City staff that was present included Dan Miller, Planning & Zoning Director, Sabrina Mitchell, Executive Assistant I, Christine Rock, Senior Planner, Dianne Yekel, Senior Planner, Max Van Allen, Planner, and Melissa Medders, Planner. City Attorney Grant Watson was also present.

The meeting opened with an invocation given by Commissioner Bowersox, followed by the Pledge of Allegiance to the Flag.

Dan Miller informed the audience of the rules of participation and the need to sign the speaker’s registry. He also informed Commissioners and the audience that the City Commission meeting dates are tentatively scheduled.

MINUTES OF THE PLANNING COMMISSION MEETING FOR THURSDAY,

AUGUST 24TH, 2023.

Commissioner Kaplan moved to APPROVE the minutes from the August 24TH, 2023 meeting. Vice-Chairman Sanders SECONDED the motion.

The roll call vote was:

Commissioner Marshall	Yes
Commissioner Sanders	Yes
Commissioner Sennett	Yes
Commissioner Bowersox	Yes
Chairman O'Kelley	Yes
Commissioner Kaplan	Yes

Six yeas, no nays, the Planning Commission approved the minutes from the August 24, 2023 meeting.

Sabrina Mitchell swore in staff as well as anyone wishing to speak.

Chairman Sennett called for the first case under new business be brought forward.

NEW BUSINESS

1) PUBLIC HEARING CASE # SSCP-23-344 – ELECTRICAL WORKS – SMALL SCALE COMPREHENSIVE PLAN

AN ORDINANCE AMENDING THE COMPREHENSIVE PLAN OF THE CITY OF LEESBURG, FLORIDA, CHANGING THE FUTURE LAND USE DESIGNATION OF CERTAIN PROPERTY CONTAINING APPROXIMATELY 4.9 +/- ACRES FROM LAKE COUNTY URBAN LOW DENSITY TO CITY OF LEESBURG GENERAL COMMERCIAL, FOR A PROPERTY GENERALLY LOCATED SOUTHWEST OF PROFESSIONAL DRIVE AND SOUTH OF US HIGHWAY 441, AS LEGALLY DESCRIBED IN SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; AND PROVIDING AN EFFECTIVE DATE. **(CITY COMMISSION DATES ARE TENTATIVELY SCHEDULED FOR FIRST READING ON MONDAY, OCTOBER 23RD, 2023 AND SECOND READING IS TENTATIVELY SCHEDULED FOR MONDAY, NOVEMBER 27TH, 2023)** (Electrical Works)

Dan Miller stated if we could discuss the first two cases together, and then have the votes taken at the end of discussion for each case.

Dan Miller introduced case number #SSCP-23-344 – Electrical Works – Small Scale Comprehensive Plan and case number #SPUD-23-345 Small Planned Unit Development

into the record and entered the exhibits into the record with maps and photo exhibits including aerial, zoning, future and surrounding land use, wetlands/flood zone maps, CRA maps, staff summary, and staff recommendations.

Grant Watson, City Attorney stated for the record to discuss both cases together and vote taken separate for each case.

Dan Miller gave a background and explanation of the subject property, location, zoning, requests, and went over SPUD (Small Planned Unit Development) conditions and stated the permitted uses include commercial uses such as office, to include general and medical offices, daycare uses, personal services (hair/nails), light industrial uses such as the current use for Electrical Works, storage and warehouse uses; prohibited uses include internet cafes, tattoo parlor, check cashing stores, adult uses, etc., development standards will be drawn from the C-3 zoning district, all other requirements of the PUD are the standard PUD language.

Christine Rock, Senior Planner utilized a power point presentation to demonstrate the area of the proposed site for both cases.

Department Review Summary: This case was sent out to all the different City departments, and Lake County Public Works there were no substantiative comments from the City Departments or the County. Public responses – no comments were received from the State of Florida and City of Leesburg notice requirements, posted signs, and newspaper.

Dan Miller read the Staff Recommendations into the record for the case; Staff supports both cases; recommended approval.

Brett Jones, of Brett Jones P.A. introduced himself for the record and stated to the Commission he is here to answer any questions they may have.

Chairman Sennett stated if the Commission have any questions of the applicant.

Commissioners' and Dan Miller discussed adding veterinary to the permitted uses under the PUD conditions with the motion.

Chairman Sennett closes discussion from the Public, entertained a motion, and then the voting took place.

Commissioner O'Kelley made a motion to APPROVE case # SSCP-23-344 – ELECTRICAL WORKS – SMALL SCALE COMPREHENSIVE PLAN
Commissioner Bowersox SECONDED the motion.

The roll call vote was:

Commissioner Kaplan	Yes
Commissioner Peeples-Johnson	Yes
Commissioner Marshall	Yes
Commissioner Sanders	Yes

Commissioner Sennett	Yes
Chairman Bowersox	Yes
Commissioner O'Kelley	Yes

Seven yeas, no nays, the Planning Commission approved case # SSCP-23-344 – ELECTRICAL WORKS – SMALL SCALE COMPREHENSIVE PLAN.

Chairman Sennett called for a vote on the second case.

2) PUBLIC HEARING CASE # RZ-23-345 – ELECTRICAL WORKS – SMALL PLANNED UNIT DEVELOPMENT

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, CHANGING THE ZONING OF APPROXIMATELY 4.9 +/- ACRES FROM LAKE COUNTY LM (LIGHT INDUSTRIAL) TO CITY OF LEESBURG SPUD (SMALL PLANNED UNIT DEVELOPMENT), FOR A PROPERTY GENERALLY LOCATED SOUTHWEST OF PROFESSIONAL DRIVE AND SOUTH OF US HIGHWAY 441, AS LEGALLY DESCRIBED IN SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; AND PROVIDING AN EFFECTIVE DATE. **(CITY COMMISSION DATES ARE TENTATIVELY SCHEDULED FOR FIRST READING ON MONDAY, OCTOBER 23RD, 2023 AND SECOND READING IS TENTATIVELY SCHEDULED FOR MONDAY, NOVEMBER 27TH, 2023)**
(Electrical Works)

Commissioner Kaplan made a motion to APPROVE case # RZ-23-345 – ELECTRICAL WORKS and add veterinary to the permitted uses under the PUD conditions – SMALL PLANNED UNIT DEVELOPMENT with the amendment. Commissioner Bowersox SECONDED the motion.

The roll call vote was:

Commissioner O'Kelley	Yes
Commissioner Bowersox	Yes
Chairman Sennett	Yes
Commissioner Sanders	Yes
Commissioner Marshall	Yes
Commissioner Peeples-Johnson	Yes
Commissioner Kaplan	Yes

Seven yeas, no nays, the Planning Commission approved case # RZ-23-345 – ELECTRICAL WORKS – SMALL PLANNED UNIT DEVELOPMENT.

DISCUSSION ITEMS

ANNOUNCEMENTS

Dan Miller announced to the Commission that the Leesburg Planning Commission is a 9-member board, with 7 regular members, depending on the date of appointment, we generally have 2-3 Planning Commissioners' terms expiring each September 30. This year we have three slots with expiring terms; each year, the City Clerk's office advertises through the newspaper, city website and social media, and the City Clerk's office received a total of 11 applicants for the three seats on the Planning Commission, and 1 other Board. This year the terms of Chairman Sennett, and our two alternate members, Commissioner Rosalind Peebles-Johnson, and Commissioner Ken Simeone will expire on September 30 and all three have re-applied for the job; he encouraged each member to attend the City Commission meeting on Monday night, and be prepared with a brief statement to indicate their continued interest in the Planning Commission, applications are submitted; City Commission choice to replace/remove. Staff can't offer any recommendations; Staff is very pleased with how this group work together; and wish each member the best and hope that we can see you all again next month.

Chairman Sennett entertained a motion to adjourn.

ADJOURNMENT

Meeting was adjourned at 4:55 p.m.

Tim H. Sennett, Chairman

Sabrina Mitchell, Executive Assistant I

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.B.3.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director), Christine Rock, (Senior Planner)

Subject: An Ordinance of the City of Leesburg, Florida, changing the zoning on approximately 4.9 +/- acres from Lake County LM (Light Industrial) to City of Leesburg SPUD (Small Planned Unit Development) to allow for commercial and light industrial uses for a property generally located southwest of Professional Drive and south of U.S. Highway 441, lying in Section 21, Township 19 South, Range 25 East, Lake County, Florida; and providing an effective date. (Electrical Works)

Staff Recommendation:

Planning and Zoning Staff and Planning Commission recommend approval of the request to rezone the subject property from Lake County LM (Light Industrial) to City of Leesburg SPUD (Small Planned Unit Development) to allow for commercial and light industrial uses.

Analysis:

The project site is approximately 4.9 +/- acres, and is generally located southwest of Professional Drive and south of U.S. Highway 441 as shown on the attached maps. At this time, the property is developed with an existing business. The proposal will allow for the continuation of the existing use as well as commercial and light industrial uses. The existing land uses surrounding the property are commercial, utility, government, vacant residential. City of Leesburg utilities are available nearby.

The Planning Commission held a public hearing on the application on September 21, 2023 and recommended approval.

Procurement Analysis:

N/A

Options:

1. Approve the proposed rezoning to SPUD (Small Planned Unit Development); or
2. Other such action as the Commission may deem appropriate.

Fiscal Impact:

Existing development on this site will create a positive fiscal impact on the City of Leesburg, in the form

of impact and utility fees, plus ad valorem taxes.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, CHANGING THE ZONING ON APPROXIMATELY 4.9 +/- ACRES FROM LAKE COUNTY LM (LIGHT INDUSTRIAL) TO CITY OF LEESBURG SPUD (SMALL PLANNED UNIT DEVELOPMENT) TO ALLOW FOR COMMERCIAL AND LIGHT INDUSTRIAL USES FOR A PROPERTY GENERALLY LOCATED SOUTHWEST OF PROFESSIONAL DRIVE AND SOUTH OF U.S. HIGHWAY 441, LYING IN SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; AND PROVIDING AN EFFECTIVE DATE. (ELECTRICAL WORKS)

BE IT ENACTED BY THE PEOPLE OF THE CITY OF LEESBURG, FLORIDA, that:

Section 1.

Based upon the petition of Joseph Ciceri, Petitioner, "Permittee" of the property hereinafter described, which petition has heretofore been approved by the City Commission of the City of Leesburg Florida, pursuant to the provisions of the Laws of Florida, the said property located in Lake County, Florida, is hereby rezoned from Lake County LM (Light Industrial) to City of Leesburg SPUD (Small Planned Unit Development), to-wit:

**(Legal Description)
(See Exhibit A)**

Section 2.

This ordinance shall become effective upon its passage and adoption, according to law.

PASSED AND ADOPTED at the regular meeting of the City Commission of the City of Leesburg, Florida, held on the _____ day of _____ 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

City Clerk

**ELECTRICAL WORKS
SMALL PLANNED UNIT DEVELOPMENT CONDITIONS
SEPTEMBER 21, 2023**

This Small Planned Unit Development Conditions for a SPUD (Small Planned Unit Development) District is granted by the City of Leesburg Planning Commission, Lake County, Florida to **Joseph Ciceri, Petitioner**, "Permittee" for the purposes and subject to the terms and conditions as set forth herein pursuant to authority contained in Chapter 25 "Zoning", Section 25-278 "Planned Unit Development" of the City of Leesburg Code of Ordinances, as amended.

BACKGROUND

The "Permittee" has submitted an application requesting a SPUD (Small Planned Unit Development) zoning district to allow office with associated storage and warehouse on an approximately 4.9 +/- acre site within the City of Leesburg in accordance with their Planned Development application and supplemental information.

PURPOSE

The purpose of this document is to provide appropriate zoning standards for a high quality built environment through the application of flexible and diversified land development requirements, which shall be implemented in conjunction with a master site development plan and the City of Leesburg Code of Ordinances, therefore allowing for more efficient and optimal use of the subject property, and to increase the overall economic opportunity and employment base of Leesburg, Florida.

CONDITIONS

The following conditions shall apply to the development proposed herein. If any instance where the conditions of this document may conflict with the City of Leesburg Code of Ordinances, this document shall prevail as the determining requirement.

1. **PERMISSION** is hereby granted to **Joseph Ciceri, Petitioner, 8010 US Highway 441, Leesburg, FL 34788, "Permittee" (Bret Jones, PA, 700 Almond Street, Clermont, FL 34711, Bret Jones - Agent)** to construct, operate, and maintain a Small Planned Unit Development in and on real property in the City of Leesburg, in accordance with the requirements set forth herein. The property is more particularly described below.
2. **LEGAL DESCRIPTION**
See attached **Exhibit B, Legal Description**.
3. **LAND USE**
The above-described property, containing approximately 4.9 acres shall be used for office with associated storage and warehouse pursuant to City of Leesburg development codes and standards, see attached **Exhibit C, Conceptual Plan**.
 - A. **Permitted Uses**
 1. Commercial Uses
 - a. General Office to include Medical and Veterinary
 - b. Daycare
 - c. Personal services (except as prohibited under Section 3 B "Prohibited Uses.")
 2. Light industrial Uses
 - a. Associated storage/warehouse

B. Prohibited Uses

1. Internet cafes
2. Tattoo Parlor
3. Check Cashing Store
4. Adult Uses
5. Second Hand (thrift) Store
6. Consignment shop
7. Pawn Shop
8. Smoke Shop
9. Junk or Scrap Collection/Distribution
10. Recycling Facility
11. Package Store
12. All uses not specifically permitted within these conditions under Permitted Uses above shall be prohibited.

C. Other Related Uses

1. Other related uses may be included by written determination of the Planning & Zoning Director. Such uses shall be consistent with the intent and purpose of the zoning requirements set forth in these SPUD conditions, and shall meet the parking standards as required herein. Parking availability may limit the permitted uses.

4. **DEVELOPMENT STANDARDS**

- A. Commercial Development Standards shall follow the C-3 (Highway Commercial) development standards except as amended herein.
- B. General Standards
 1. Building height shall not exceed two (2) stories.
 2. Minimum Building Setbacks:
 - a. Front: 30 feet
 - b. Rear: 20 feet
 - c. Side: 20 feet
 3. Impervious surface coverage shall not exceed 80 percent of the total property.
 4. The development shall be subject to the City of Leesburg Architectural Standards Ordinance, (Ord. 16-35) as amended, which limits the use of metal as a predominant exterior material.
 5. All lighting installed shall meet City of Leesburg standards and details, shall be constructed in a manner that is directed to the interior of the property, and does not cause excessive light pollution on neighboring properties.
 6. Exterior lighting shall incorporate "Dark Sky Standards" in the lighting plan for the development, see attached **Exhibit D, Typical Dark Sky Lighting Fixtures**. This will include, but not be limited to shielded fixtures, lower levels of blue light, directional lighting, timed and/or sensor activated light fixtures, and other methods which can reduce impact on adjacent and nearby properties.
 7. Areas of property not occupied by structures, displays or paving shall be landscaped and maintained in accordance with City of Leesburg Code of Ordinances, as amended.

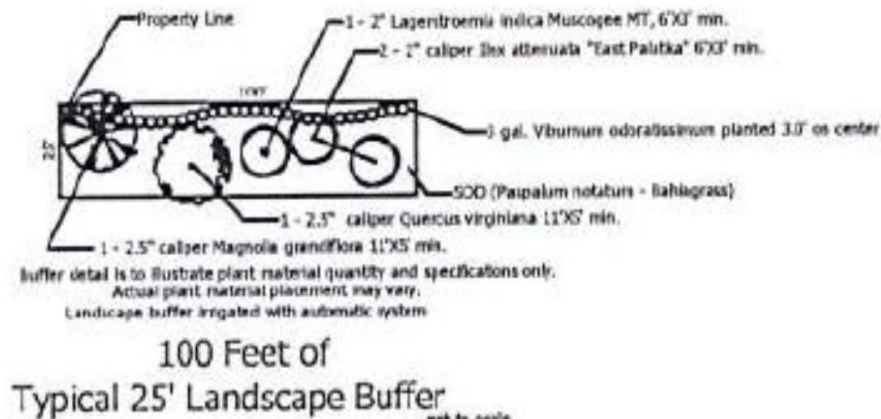
5. OPEN SPACE, LANDSCAPING, & BUFFER REQUIREMENTS

- A. A minimum of 20% open space shall be provided.
- B. All landscaping and buffering shall be in accordance with regulations contained within the City of Leesburg Code of Ordinances, Section 25-329, and at a minimum shall contain the following plantings as noted in Figures A and B below.
- C. Land uses allowed within the upland buffers are limited to hiking trails, walkways, passive recreation activities and stormwater facilities as permitted by St. Johns River Water Management District.
- D. All landscaping and buffering shall be in accordance with regulations contained within the City of Leesburg Code of Ordinances, Section 25-329, and at a minimum shall contain the following plantings as noted in Figures A and B below.

Figure A

Canopy Trees (per 100 l.f.)	2 per 100 linear ft
Tree CAL/Height	2" cal, 12' overall height
Optional Ornamental Trees (per 100 l.f.)	3 per 100 linear ft
Tree CAL/Height	2" cal, 7' overall height
Shrub Screen (per 100 l.f.)	
Square Ft. of Shrubs	(33) 3 gal plants, 18"—24" minimum at installation (depending on species); hedges to be 36"—42" high by thirty-six (36) inches wide hedge or continuous landscape screen with a ninety (90) percent opacity within one (1) year of planting
Container size	3 gal

Figure B.



- F. Variations to the landscape requirements of the code may be approved by the Planning and Zoning Director or designee, to the extent that the overall intent of the PUD and the Landscaping Code are maintained, including consideration of existing fencing on adjacent properties and existing natural vegetative buffers.

6. SITE ACCESS AND SIGNAGE

- A. All access points are subject to review and approval by the appropriate permitting agency, including FDOT, Lake-Sumter Metropolitan Planning Organization, Lake County and the City of Leesburg as applicable. The developer shall be responsible for

on and offsite improvements required as a result of any access points. The developer shall be responsible for all on and offsite improvements required as a result of any access points.

- B. All ground signage for the property shall be monument style signs consistent with the requirements of the sign regulations of the City of Leesburg.
- C. Alternative designs for the ground enclosure supports and bases of a monument sign may be approved by the Planning and Zoning Director where the architectural style would be in keeping with the intent of these sign regulations.
- D. Landscaping around all monument signs shall comply with the standards and requirements of the sign regulations of the City of Leesburg Code of Ordinances, as amended.
- E. All wall signage for the property shall be designed and constructed to comply with the standards and requirements of the sign regulations of the City of Leesburg Code of Ordinances, as amended.

7. TRANSPORTATION IMPROVEMENTS

- A. Any transportation improvements or rights-of-way that may be required shall be based on projected needs and shall be contingent upon site plan approval by City staff during the development review and permitting process. The plan review process shall include consideration of required sidewalks, recreation paths etc.
- B. A traffic/transportation study shall be submitted for review and determination of any necessary access improvements, and including any off-site improvements legally required by Lake County, the Lake-Sumter MPO or the City of Leesburg. Said improvements will be the responsibility of the Permittee.
- C. The Permittee shall provide necessary traffic improvements within and adjacent to the development which are legally required by Lake County, the Lake-Sumter MPO and City of Leesburg.
- D. The Permittee shall be responsible for obtaining all necessary legally required Lake County permits and a copy of all permits shall be provided to the City of Leesburg.
- E. The City of Leesburg shall not be responsible for the construction of any roads or transportation improvements.

8. UTILITIES

Prior to receiving final development approval, the Permittee shall submit a stormwater management plan and utility plan acceptable to the City of Leesburg. Water, wastewater and natural gas services will be provided by the City of Leesburg. Prior to any clearing, grubbing, or disturbance of natural vegetation in any phase of the development, the Permittee shall provide:

- A. A detailed site plan that indicates all the provisions for electric, water, sewer, and/or natural gas in accordance with the City of Leesburg Land Development Codes.
- B. Developer shall bear all responsibility, financial and otherwise, for the construction and installation of all utility infrastructure and other improvements related to the use and development of the property, consistent with the typical pioneering agreement approved on new home projects in the city, including such off-site improvements required by the City and all other appropriate government agencies. All such requirements shall be constructed to the applicable specifications imposed by the ordinances and regulations of the City in effect at the time of construction.
- C. The City of Leesburg intends to service the property with water and wastewater services at this time. At the time of connection, all regulations in place at the time of

the request shall be required, including but not limited to impact fees, connection and utility service deposit charges. The cost of supplying water and wastewater lines and other necessary infrastructure such as lift stations to the development shall be the responsibility of the applicant.

9. PARKING

The permittee shall construct off-street parking spaces within the development per the conceptual site plan, pursuant to the City of Leesburg Code of Ordinances, as amended, which shall include the required number of handicapped parking spaces.

10. STORMWATER/DRAINAGE MANAGEMENT

All drainage shall be designed and constructed in a manner to meet all State of Florida and City of Leesburg codes, including the requirement that all stormwater runoff is contained within the boundaries of the properties, and does not create a detriment to surrounding properties. Prior to receiving final development approval, the Permittee shall submit a stormwater management plan and utility plan acceptable to the City of Leesburg. Prior to any clearing, grubbing, or disturbance of natural vegetation in any phase of the development, the Permittee shall provide:

- A. A detailed site plan that demonstrates no direct discharge of stormwater runoff generated by the development into any wetlands or onto adjacent properties.
- B. A stormwater management system designed and implemented to meet all applicable St. Johns River Water Management District and City of Leesburg requirements.
- C. A responsible legal entity for the maintenance of the stormwater management system on the plat prior to the approval of the final plat of record. A homeowner's or property owners association is an acceptable maintenance entity.
- D. The existing 100-year flood plain on the property shall be shown on all plans and lots.
- E. The appropriate documentation that any flood hazard boundary has been amended in accordance with Federal Emergency Management Agency requirements, if the 100-year flood plain is altered and /or a new 100-year flood elevation is established in reference to the applicable flood insurance rate map.
- F. A copy of the Management and Storage of Surface Waters permit obtained from St. Johns River Water Management District shall be provided to the City during the site plan review process.
- G. Should the Permittee desire to dedicate the proposed project's stormwater management system to the City of Leesburg; the City, at its discretion, may accept or not accept the stormwater management system.
 1. Prior to acceptance, the Permittee shall demonstrate to the City the stormwater management system is in a suitable condition and meets City of Leesburg and St. Johns River Water Management District requirements.
 2. As a condition of accepting the system the City may create a special taxing district or make other lawful provisions to assess the cost of maintenance of the system to the residents of the project.

11. WETLANDS, FLOOD ZONES & WILDLIFE

- A. All wetlands on the project site shall be identified by a jurisdictional wetland boundary line, and the location and extent of each wetland shall be determined by the Department of Environmental Protection, St. Johns River Water Management District and/or U.S. Army Corp of Engineers. Each wetland shall be placed on a suitable map, signed and sealed by a surveyor registered to practice in Florida and shall be submitted as part of the site plan application process.

- B. To the extent practicable, wetlands shall be placed in a conservation easement, which shall run in favor of, and be enforceable by, the St. Johns River Water Management District or another legal entity such as a homeowner's association. The conservation easement shall require that the wetlands be maintained in their natural and unaltered state. Wetlands shall not be included as a part of any platted lot, other than a lot platted as a common area, which shall be dedicated to the St. Johns River Water Management District or another legal entity such as a homeowner's association for ownership and maintenance.
- C. Buildings or structures shall be a minimum of 50 feet from any wetland jurisdiction boundary.
- D. Wetlands shall have an average upland buffer of 25 feet, with a minimum of 15 feet or the upland buffer established by St. Johns River Water Management District and/or U.S. Army Corp of Engineers; whichever is more restrictive. All upland buffers shall be naturally vegetated and upland buffers that are devoid of natural vegetation shall be re-planted with native vegetation or as required by St. Johns River Water Management District and/or U.S. Army Corp of Engineers.
- E. Land uses allowed within the upland buffers for wetlands are limited to stormwater facilities as permitted by St. Johns River Water Management District.
- F. If wetland alteration is permitted by St. Johns River Water Management District and/or U.S. Army Corp of Engineers, wetland mitigation shall be required in accordance with permit approvals from St. Johns River Water Management District or U.S. Army Corp of Engineers, whichever is more restrictive.
- G. A wildlife management plan for the project site shall be prepared based on the results of an environmental assessment of the site and any environmental permit required from applicable governmental agencies. The wildlife management plan shall be submitted to the City as part of the site plan application process.
- H. A map indicating the location of the 100-year flood plain.
- I. The appropriate documentation that any flood hazard boundary has been amended in accordance with Federal Emergency Management Agency requirements, if the 100-year flood plain is altered and/or a new 100-year flood elevation is established in reference to the applicable flood insurance rate map.
- J. Through the Site Plan Review process, the developer shall coordinate with the City of Leesburg, Lake County and all impacted government agencies regarding elevation determinations, compensatory storage and overall design of the subdivision within and near flood hazard boundary areas, to ensure compliance with all regulations.

12. IRRIGATION & WATER USAGE

- A. All landscaped areas shall be irrigated and designed to meet Section 25-327, Waterwise and Florida Friendly Landscaping, City of Leesburg Code of Ordinances.
- B. The use of St. Augustine grass, or other varieties of grass which require significant amounts of water are prohibited. The use of Bahia, Bermuda, Zoysia or other grasses which are more drought tolerant are permitted.

13. DEVELOPMENT PHASING & IMPLEMENTATION

- A. The proposed project may be constructed in phases in accordance with the Small Planned Unit Development Conditions and Conceptual Plan. Changes to the development conditions or conceptual plan, other than those conditions described in these SPUD Conditions of Approval, shall be revised in accordance with the Small Planned Development review process, City of Leesburg Code of Ordinances.
- B. Implementation of the project shall substantially commence one-hundred twenty (120)

months after approval of this Small Planned Development. In the event, the conditions of the SPUD have not been substantially implemented during the required time period, the City of Leesburg shall have the option of scheduling the SPUD, with due notice to the owner and surrounding property owners, for reconsideration by the Planning Commission at their next available regular meeting. The Planning Commission will consider whether to extend the SPUD approval or rezone the property to another appropriate zoning classification.

- C. As part of the overall development process, if the project is constructed in phases, then plat of the lots for each approved phase shall contain only portions of the development approved under the Site Plan Review Process, i.e. each phase platted shall match each phase submitted for site plan review.

14. MISCELLANEOUS CONDITIONS

- A. The uses of the proposed project shall only be those uses identified in the approved Small Planned Unit Development Conditions. Any other proposed use must be specifically authorized in accordance with the Planned Development amendment process.
- B. No person, firm or corporation shall erect, construct, enlarge, alter, repair, remove, improve, move, convert, or demolish any building structure, or alter the land in any manner without first submitting the necessary plans and obtaining appropriate approvals in accordance with the City of Leesburg Codes.
- C. Construction and operation of the proposed use(s) shall at all times comply with the Planned Unit Development conditions set forth herein, and with all City and other governmental agencies rules and regulations.
- D. The transfer of ownership or lease of any or all of the property described in these SPUD Conditions of Approval shall include in the transfer or lease agreement, a provision that the purchaser or lessee is made good and aware of the conditions pertaining to the Planned Unit Development established and agrees to be bound by these conditions. The purchaser or lessee may request a change from the existing plans and conditions by following the procedures as described in the City of Leesburg Land Development Code, as amended.
- E. These SPUD Conditions shall inure to the benefit of, and shall constitute a covenant running with the land and the terms, conditions, and provisions hereof, and shall be binding upon the present owner and any successor, and shall be subject to each and every condition as set forth herein.

15. LEVELS OF SERVICE

- A. Levels of Service
 - 1. As submitted, the development resulting from the proposed zoning change may result in demands on public facilities which would exceed the current capacity of some public facilities, such as, but not limited to water, wastewater, roads, drainage, and solid water. No final development order (site plan and building permits) shall be granted for proposed development until there is a finding that all public facilities and services required for the development have sufficient capacity at or above the adopted level of service (LOS) to accommodate the impacts of the development, or that improvements necessary to bring facilities up to their adopted LOS will be in place concurrent with the impacts of the development.
- B. Utilities
 - 1. Projected Capacities
 - a. The City's utility planning efforts draw upon phasing, capacity and service requirements, based upon information provided by the applicant. The City develops its plans consistent with sound engineering principles, prudent fiscal practices and due regard for regulatory compliance.

- C. If the development requires construction of new distribution or collection lines, or other infrastructure needed to develop the subdivision, the developer will be required to construct such facilities to provide service. The developer will bear the cost of design, permitting and construction. Any such facilities must be constructed in a fashion consistent with the City's master plans and to the City standards and specifications.
- D. Commitment of Capacity
 - 1. There are no previous commitments of any existing or planned excess capacity for this property.
- E. Ability to Provide Services
 - 1. At this time, the City intends to provide water, wastewater and reclaimed water services within its service area for the foreseeable future.
 - 2. Future development within the City of Leesburg utility service areas may impact the provision of utility services.

Legal Description

PARCEL NO. 1

BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, RUN NORTH 0°25'55" EAST, ALONG THE WEST LINE OF SAID NORTHWEST 1/4 OF THE NORTHWEST 1/4, A DISTANCE OF 956.83 FEET TO THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441; THENCE NORTH 56°27'00" EAST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 79.59 FEET; THENCE SOUTH 0°25'55" WEST, 301.49 FEET; THENCE NORTH 83°39'18" EAST, 328.10 FEET; THENCE SOUTH 15°00'00" WEST, 762.57 FEET TO THE SOUTH LINE OF AFORESAID NORTHWEST 1/4 OF THE NORTHWEST 1/4; THENCE NORTH 89°42'30" WEST, ALONG SAID SOUTH LINE, 200.00 FEET TO THE POINT BEGINNING.

AND

A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET TO A POINT IDENTIFIED AS POINT "A" FOR LATER DESCRIPTION PURPOSES; THENCE NORTH 83°39'18" EAST, 95.88 FEET; THENCE NORTH 33°33'00" WEST, 293.83 FEET TO THE POINT OF BEGINNING.

AND ALSO

FROM THE AFORESAID POINT "A", RUN SOUTH 32°38'13" WEST, 123.84 FEET TO THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, AND THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 56°27'00" WEST, 30 FEET; THENCE SOUTH 57°21'47" EAST, TO THE EAST LINE OF THE SAID SECTION 20; THENCE NORTH, ALONG THE SAID EAST LINE OF SAID SECTION 20, TO THE POINT OF BEGINNING.

SUBJECT TO AN EASEMENT FOR INGRESS AND EGRESS ON, OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY; A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET; THENCE SOUTH 32°38'13" WEST, 123.84 FEET; THENCE SOUTH 56°27'00" WEST, 30.00 FEET; THENCE SOUTH 57°21'47" EAST, 42.11 FEET; THENCE NORTH 32°38'13" EAST, 231.25 FEET; THENCE NORTH 33°33'00" WEST, 245.16 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PART GIVEN TO J.C. BURKE, JR. AND DELORIS C. BURKE, HIS WIFE, RECORDED IN OFFICIAL RECORDS BOOK 888, PAGE 1120, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

LESS AND EXCEPT THAT PART GIVEN TO C.W. SHEPHERD, III, AND RECORDED IN OFFICIAL RECORDS BOOK 957, PAGE 78, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

This is a detailed cadastral map of a rural area, likely in the Czech Republic. The map shows a network of roads, railways, and land parcels. Key features include:

- Administrative Boundaries:** The map is divided into several administrative units, including "Město Blatná" (City of Blatná), "Město Písek" (City of Písek), and "Město Vodňany" (City of Vodňany).
- Land Parcels:** Numerous land parcels are shown, each with a unique identification number and a label indicating the owner or the type of land. For example, "Parcel 1" is owned by "Město Písek" and has an area of "1,700 m²".
- Roads and Railways:** A network of roads and railways is shown, connecting the various administrative units and land parcels.
- Topographical Features:** The map also shows various topographical features, including rivers, streams, and forests.
- Scale and Orientation:** The map includes a scale bar and a north arrow, indicating that the map is oriented with North at the top.

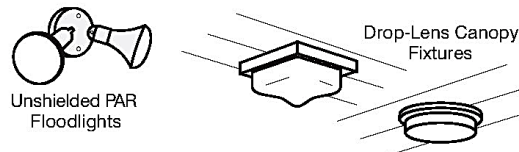
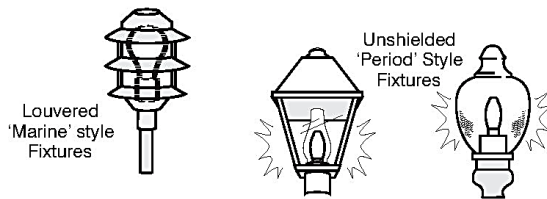
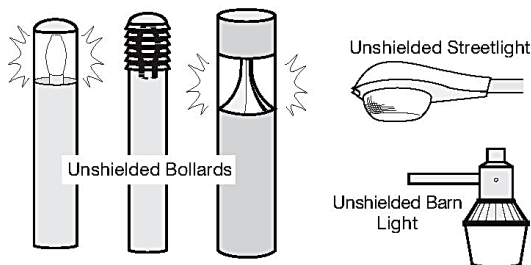
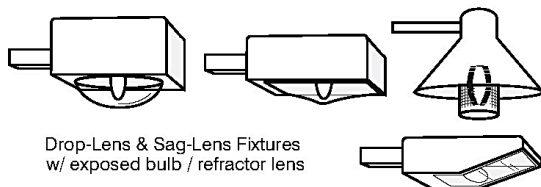
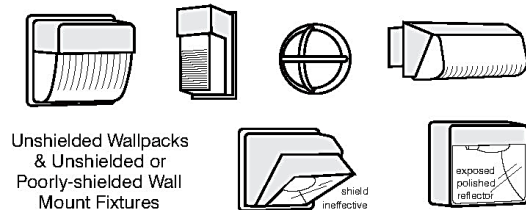
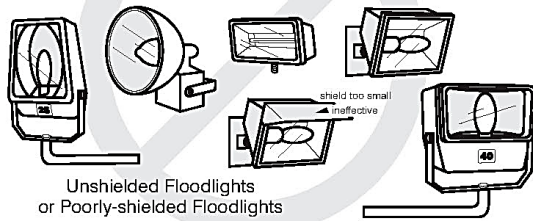
The map is a technical drawing, likely a reproduction of an original map, and is used for land management and planning purposes.

Typical Dark Sky Lighting Fixtures

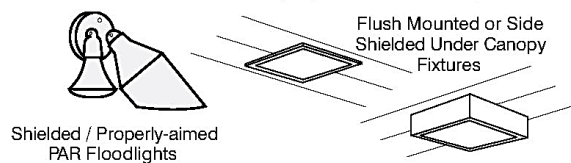
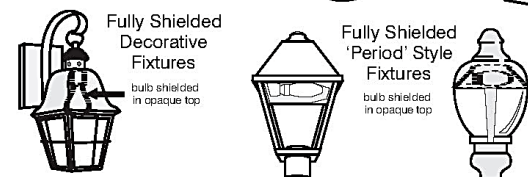
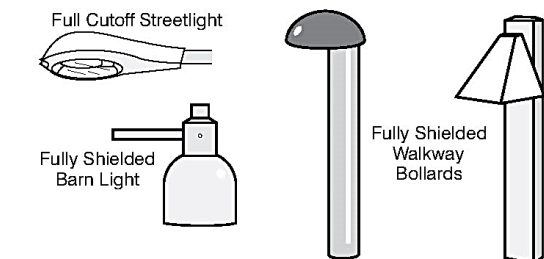
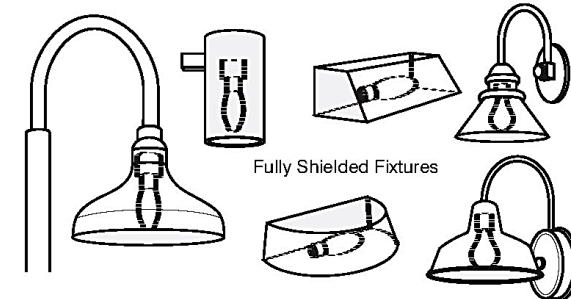
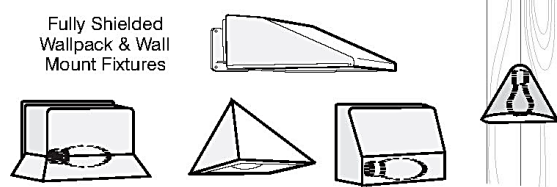
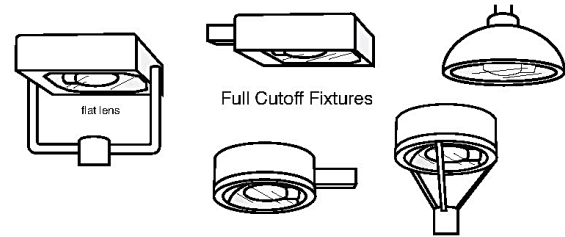
Examples of Acceptable / Unacceptable Lighting Fixtures

Unacceptable / Discouraged

Fixtures that produce glare and light trespass

**Acceptable**

Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



Illustrations by Bob Crelin © 2005. Rendered for the Town of Southampton, NY. Used with permission

Legal Description

PARCEL NO. 1

BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, RUN NORTH 0°25'55" EAST, ALONG THE WEST LINE OF SAID NORTHWEST 1/4 OF THE NORTHWEST 1/4, A DISTANCE OF 956.83 FEET TO THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441; THENCE NORTH 56°27'00" EAST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 79.59 FEET; THENCE SOUTH 0°25'55" WEST, 301.49 FEET; THENCE NORTH 83°39'18" EAST, 328.10 FEET; THENCE SOUTH 15°00'00" WEST, 762.57 FEET TO THE SOUTH LINE OF AFORESAID NORTHWEST 1/4 OF THE NORTHWEST 1/4; THENCE NORTH 89°42'30" WEST, ALONG SAID SOUTH LINE, 200.00 FEET TO THE POINT BEGINNING.

AND

A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S. HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET TO A POINT IDENTIFIED AS POINT "A" FOR LATER DESCRIPTION PURPOSES; THENCE NORTH 83°39'18" EAST, 95.88 FEET; THENCE NORTH 33°33'00" WEST, 293.83 FEET TO THE POINT OF BEGINNING.

AND ALSO

FROM THE AFORESAID POINT "A", RUN SOUTH 32°38'13" WEST, 123.84 FEET TO THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, AND THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 56°27'00" WEST, 30 FEET; THENCE SOUTH 57°21'47" EAST, TO THE EAST LINE OF THE SAID SECTION 20; THENCE NORTH, ALONG THE SAID EAST LINE OF SAID SECTION 20, TO THE POINT OF BEGINNING.

SUBJECT TO AN EASEMENT FOR INGRESS AND EGRESS ON, OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY; A PART OF SECTIONS 20 AND 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS; FROM THE INTERSECTION OF THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 20, AND THE SOUTHEASTERLY RIGHT OF WAY OF U.S.

HIGHWAY NO. 441, RUN SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 3.65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING, CONTINUE SOUTH 56°27'00" WEST, ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 66.00 FEET; THENCE LEAVING SAID RIGHT OF WAY, RUN SOUTH 33°33'00" EAST, 221.41 FEET; THENCE SOUTH 0°25'55" WEST, 34.47 FEET; THENCE SOUTH 32°38'13" WEST, 123.84 FEET; THENCE SOUTH 56°27'00" WEST, 30.00 FEET; THENCE SOUTH 57°21'47" EAST, 42.11 FEET; THENCE NORTH 32°38'13" EAST, 231.25 FEET; THENCE NORTH 33°33'00" WEST, 245.16 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PART GIVEN TO J.C. BURKE, JR. AND DELORIS C. BURKE, HIS WIFE, RECORDED IN OFFICIAL RECORDS BOOK 888, PAGE 1120, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

LESS AND EXCEPT THAT PART GIVEN TO C.W. SHEPHERD, III, AND RECORDED IN OFFICIAL RECORDS BOOK 957, PAGE 78, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.



**CITY OF LEESBURG PLANNING & ZONING DIVISION
RECOMMENDATIONS**

DATE: September 21, 2023
OWNER: JSC Real Estate, LLC
PETITIONER: Joseph Ciceri
PROJECT: Electrical Works
REQUEST: Rezoning from Lake County LM (Light Industrial) to City of Leesburg SPUD (Small Planned Unit Development)
CASE NO.: RZ-23-345

THE PLANNING & ZONING DIVISION RECOMMENDS:

APPROVAL of the request

for the following reason(s):

1. The proposed request for a SPUD (Small Planned Unit Development) zoning is compatible with the current surrounding zoning districts of Leesburg C-3 (Highway Commercial), RE-1 (Estate Residential), SPUD (Small Planned Unit Development); and Lake County R-1 (Rural Residential) and LM (Light Manufacturing).
2. The proposed Future Land Use designation of City of Leesburg General Commercial is compatible with future land use designations of Leesburg General Commercial, Estate Residential, and Conservation and Lake County Urban Low Density and Conservation.
3. The site is located near existing City utilities near US Highway 441.
4. The proposed request does not appear to create a detriment to surrounding properties, based on the location and proximity to compatible development.

Action Requested:

1. Vote to approve the proposed rezoning from Lake County LM (Light Industrial) to City of Leesburg SPUD (Small Planned Unit Development) and forward this recommendation to the City Commission for consideration.

**CITY OF LEESBURG PLANNING & ZONING DIVISION
DEPARTMENTAL REVIEW SUMMARY**

DATE: September 15, 2023
OWNER: JSC Real Estate, LLC
PETITIONER: Joseph Ciceri
PROJECT: Electrical Works
REQUEST: Small Scale Comprehensive Plan Amendment to General Commercial and Rezoning to SPUD (Small Planned Unit Development)
CASE NO.: (ANNX-23-343); SSCP-23-344; RZ-23-345

THE FOLLOWING COMMENTS RECEIVED FROM EACH DEPARTMENT:

POLICE

No comments received as of 9/15/2023.

FIRE

In reference to Case Number (ANNX-23-343); SSCP-23-344; RZ-23-345

NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, 2020 Edition. The subject property referenced in Case Number (ANNX-23-343); SSCP-23-344; RZ-23-345 is outside the recommended four-minute response time for initial responding fire apparatus. – Amanda Stevenson 9/14/23

4.1 Fire Department Organizational Statement.

4.1.2.1

The fire department shall establish the following performance objectives for the first-due response zones that are identified by the AHJ:

- (1) Alarm handling time completion in accordance with 4.1.2.3
- (2) 80 seconds turnout time for fire and special operations response and 60 seconds turnout time for EMS response
- (3)* 240 seconds or less travel time for the arrival of the first engine company at a fire suppression incident
- (4) 360 seconds or less travel time for the arrival of the second company with a minimum staffing of 4 personnel at a fire suppression incident
- (5) For other than high-rise, 480 seconds or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident
- (6) For high-rise, 610 seconds or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident
- (7) 240 seconds or less travel time for the arrival of a unit with first responder with automatic external defibrillator (AED) or higher-level capability at an emergency medical incident
- (8) 480 seconds or less travel time for the arrival of an advanced life support (ALS) unit at an emergency medical incident, where this service is provided by the fire department provided a first responder with an AED or basic life support (BLS) unit arrived in 240 seconds or less travel time

ELECTRIC

Electric has no objections. - Steve Davis, 9/6/2023

GAS

City of Leesburg Gas is available in this area. If desired. No objection to the zoning change. – Wayne Williams, 9/6/2023

GIS

GIS has no comments. – Tammy Magamoll, 9/6/2023

BUILDING

No comments received as of 9/15/2023.

PUBLIC WORKS

Public Works has no issues with this request. – Cliff Kelsey, 9/6/2023

ADDRESSING

No comments received as of 9/15/2023.

HOUSING & REDEVELOPMENT

No comments received as of 9/15/2023.

LAKE COUNTY PUBLIC WORKS

I have no comment. – Seth Lynch, 9/6/2023

LAKE COUNTY SCHOOLS

No comments received as of 9/15/23

PUBLIC RESPONSES

Approval

Disapproval

No comment

Notice of Appearance filed:

PUBLIC COMMENTS (APPROVAL WITH REQUESTS)

PUBLIC COMMENTS (DISAPPROVAL)

**CITY OF LEESBURG PLANNING & ZONING DIVISION
STAFF SUMMARY**

DATE: August 28, 2023

OWNER: JSC Real Estate, LLC

PETITIONER: Joseph Ciceri

PROJECT: Electrical Works

REQUEST: Small Scale Comprehensive Plan Amendment; Rezoning

CASE NO.: (*ANNX-23-343*); SSCP-23-344; RZ-23-345

GENERAL LOCATION: Southwest of Professional Drive and south of US Highway 441

FUTURE LAND USE DESIGNATION: Lake County Urban Low Density

SURROUNDING FUTURE LAND USE DESIGNATION:

North – Leesburg General Commercial; Lake County Urban Low Density
South – Leesburg Estate Residential; Leesburg Conservation
East – Leesburg General Commercial; Lake County Conservation
West – Leesburg General Commercial; Lake County Urban Low Density

PROPOSED FUTURE LAND USE DESIGNATION: City General Commercial

EXISTING ZONING DESIGNATION: Lake County LM (Light Industrial)

SURROUNDING ZONING DESIGNATIONS:

North – Leesburg C-3 (Highway Commercial); Lake County R-1 (Rural Residential)
South – Leesburg RE-1 (Estate Residential); P (Public)
East – Leesburg C-3 (Highway Commercial); Lake County LM (Light Manufacturing)
West – Leesburg SPUD (Small Planned Unit Development); Lake County LM (Light Manufacturing)

PROPOSED ZONING DESIGNATION: Leesburg SPUD (Small Planned Unit Development)

EXISTING LAND USE: Office building with associated storage and warehouse.

SURROUNDING LAND USE:

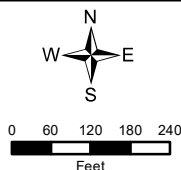
North – Utility
South – Government; Vacant Residential
East – Commercial; Government
West – Commercial

PROPOSED LAND USE: Office building with associated storage and warehouse.

Aerial

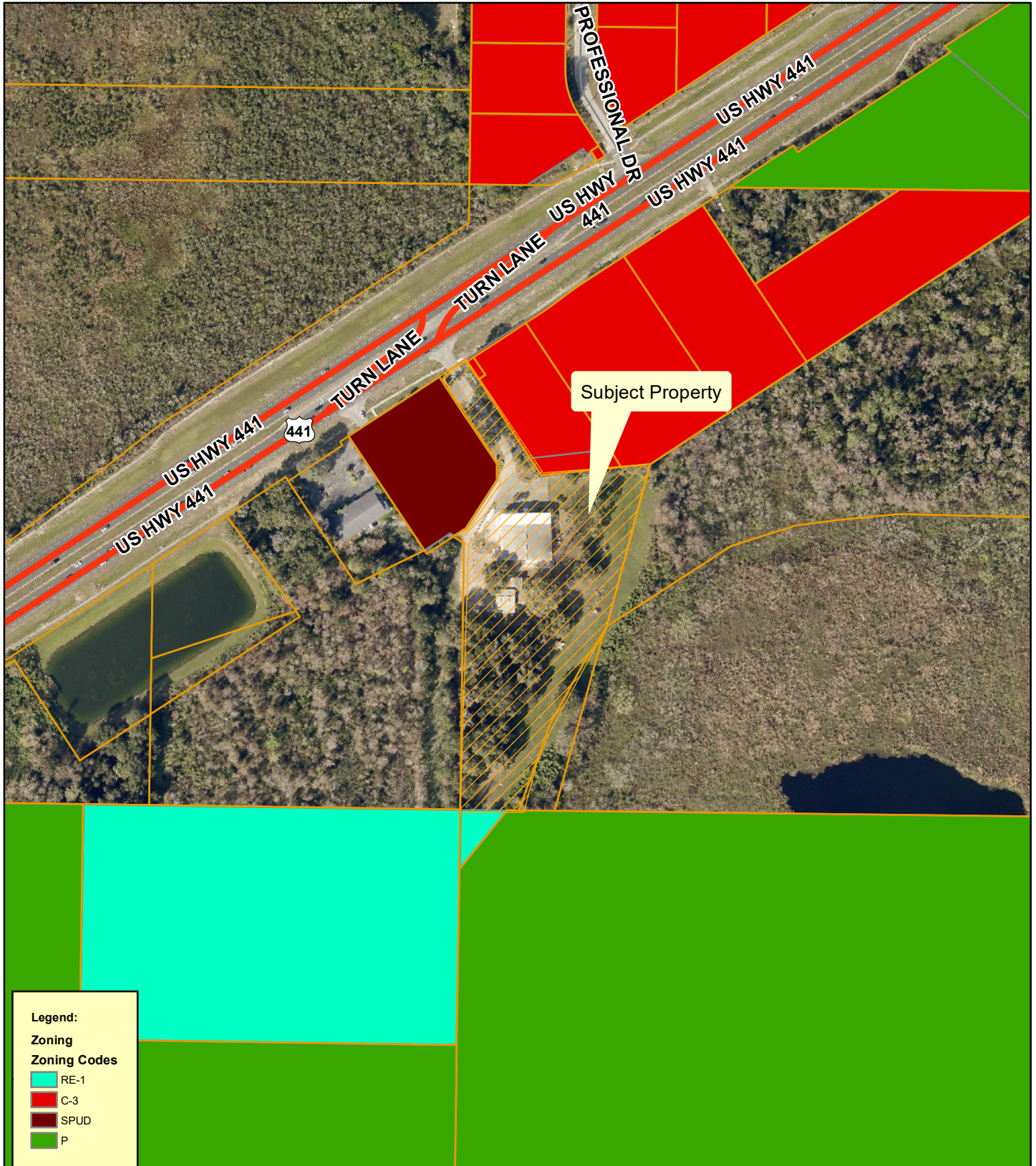


**Planning
& Zoning
Division**

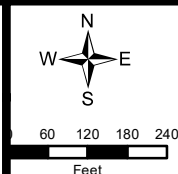


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Zoning

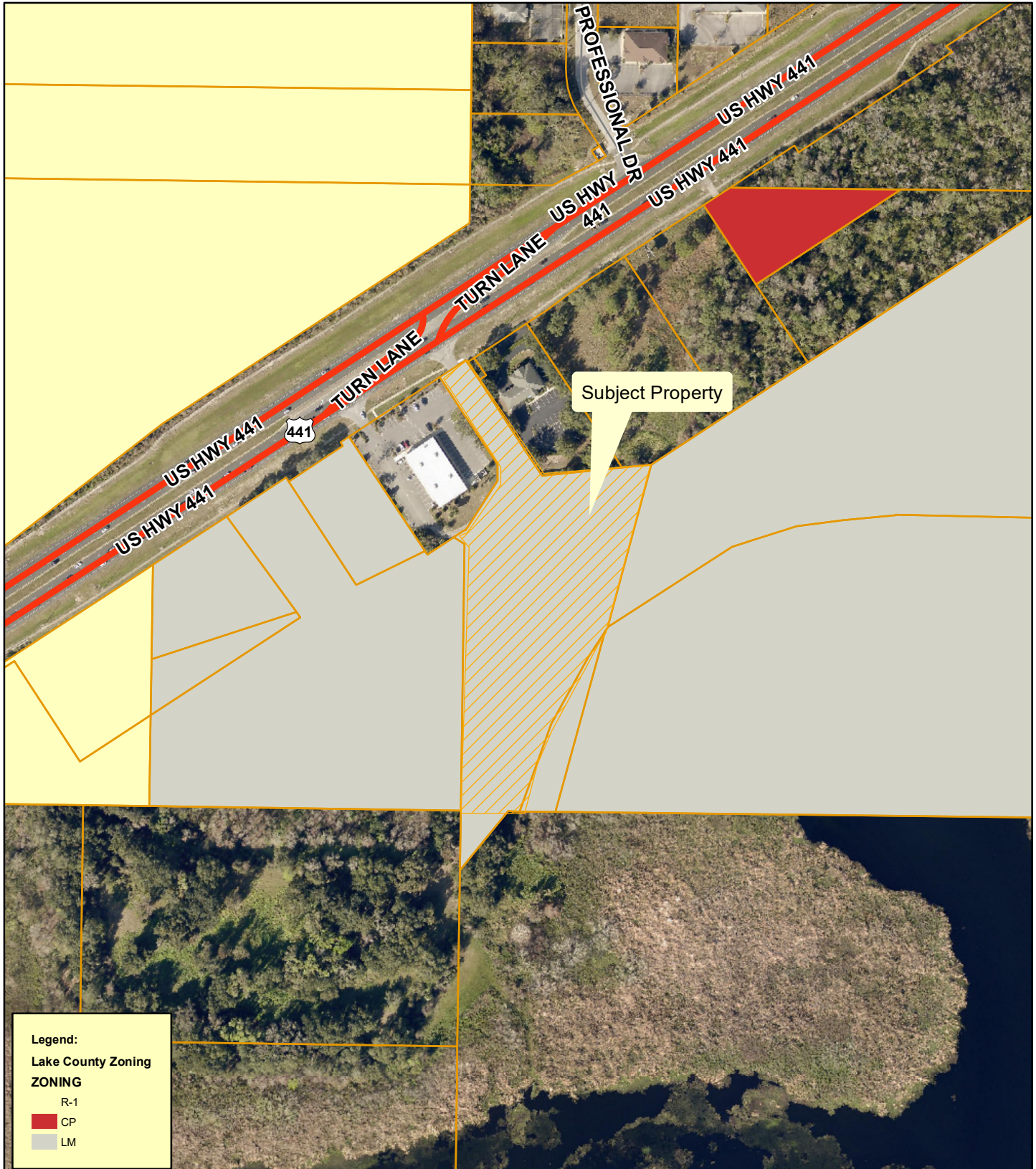


**Planning
& Zoning
Division**

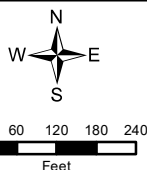


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Lake County Zoning



**Planning
& Zoning
Division**



Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

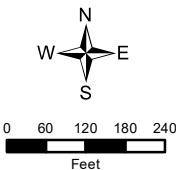
Proposed Zoning



Legend:
SPUD (Small Planned Unit Development)

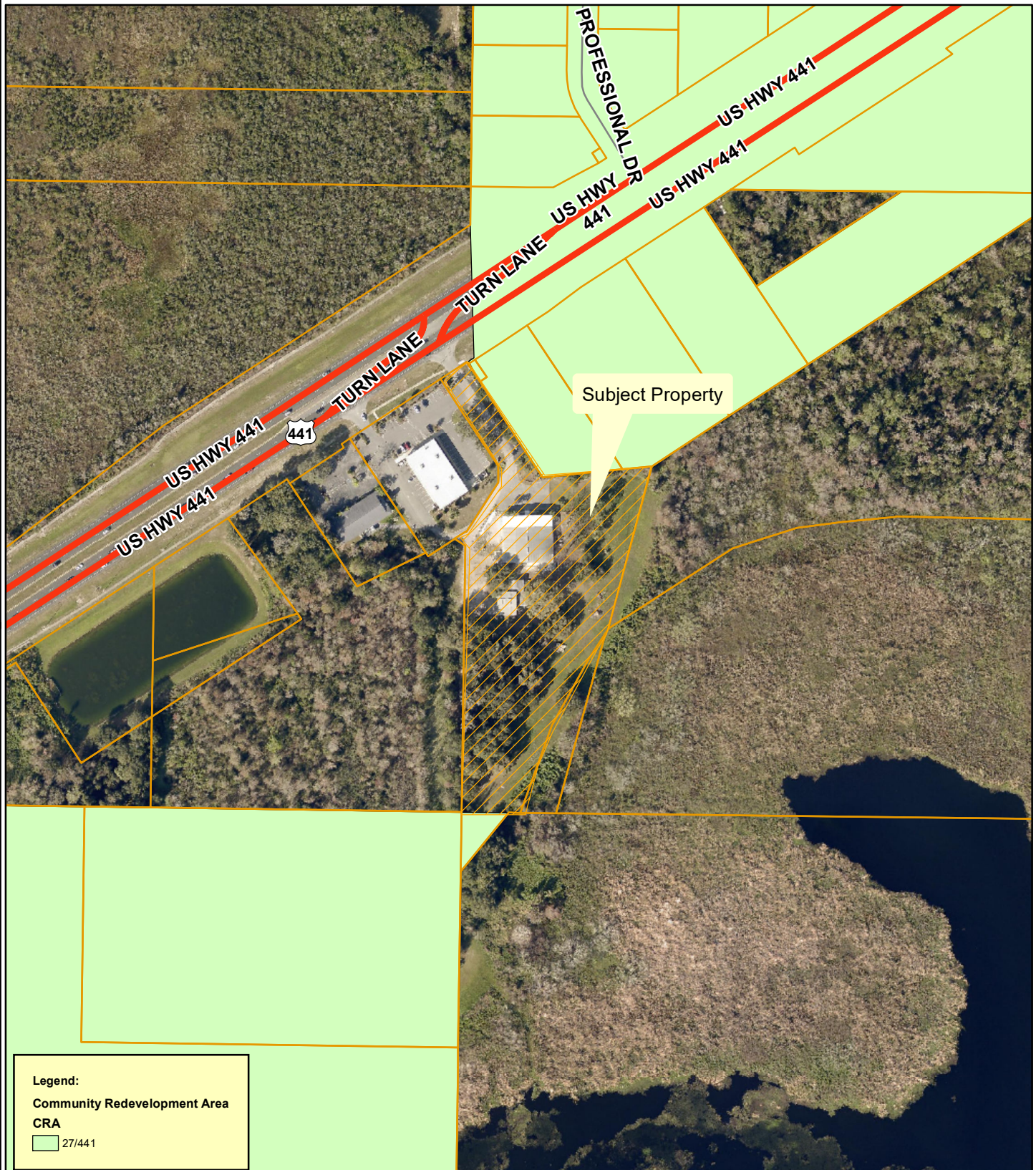


**Planning
& Zoning
Division**

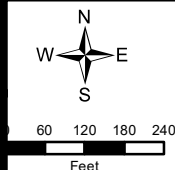


Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023

Community Redevelopment Area



**Planning
& Zoning
Division**



Electrical Works
ANNX-23-343; SSCP-23-344; RZ-23-345
AK #2603925
8010 US Highway 441
Section 21, Township 19 South, Range 25 East
August 31, 2023



Looking north across US Highway 441.



Looking northeast along US Highway 441.



Looking south towards the subject property from US Highway 441.



Looking southwest along US Highway 441.



DRAFT SUMMARY MINUTES OF THE REGULAR MEETING
OF THE PLANNING COMMISSION
CITY HALL
THURSDAY, SEPTEMBER 21ST, 2023 - 4:30 P.M.

The Planning Commission of the City of Leesburg held its regular meeting Thursday, September 21st, 2023, at City Hall.

Chairman Tim Sennett called the meeting to order at p.m.

The following Commission members were present:

Tim Sennett - Chairman
Nathaniel Sanders – Vice-Chairman
Ted Bowersox
Frazier Marshall
John O’Kelley
Stewart Kaplan
Ken Simeone
Rosalind Peeples-Johnson

The following Commission members were absent:

Ze’ Shieca Carter

City staff that was present included Dan Miller, Planning & Zoning Director, Sabrina Mitchell, Executive Assistant I, Christine Rock, Senior Planner, Dianne Yekel, Senior Planner, Max Van Allen, Planner, and Melissa Medders, Planner. City Attorney Grant Watson was also present.

The meeting opened with an invocation given by Commissioner Bowersox, followed by the Pledge of Allegiance to the Flag.

Dan Miller informed the audience of the rules of participation and the need to sign the speaker’s registry. He also informed Commissioners and the audience that the City Commission meeting dates are tentatively scheduled.

MINUTES OF THE PLANNING COMMISSION MEETING FOR THURSDAY,

AUGUST 24TH, 2023.

Commissioner Kaplan moved to APPROVE the minutes from the August 24TH, 2023 meeting. Vice-Chairman Sanders SECONDED the motion.

The roll call vote was:

Commissioner Marshall	Yes
Commissioner Sanders	Yes
Commissioner Sennett	Yes
Commissioner Bowersox	Yes
Chairman O'Kelley	Yes
Commissioner Kaplan	Yes

Six yeas, no nays, the Planning Commission approved the minutes from the August 24, 2023 meeting.

Sabrina Mitchell swore in staff as well as anyone wishing to speak.

Chairman Sennett called for the first case under new business be brought forward.

NEW BUSINESS

1) PUBLIC HEARING CASE # SSCP-23-344 – ELECTRICAL WORKS – SMALL SCALE COMPREHENSIVE PLAN

AN ORDINANCE AMENDING THE COMPREHENSIVE PLAN OF THE CITY OF LEESBURG, FLORIDA, CHANGING THE FUTURE LAND USE DESIGNATION OF CERTAIN PROPERTY CONTAINING APPROXIMATELY 4.9 +/- ACRES FROM LAKE COUNTY URBAN LOW DENSITY TO CITY OF LEESBURG GENERAL COMMERCIAL, FOR A PROPERTY GENERALLY LOCATED SOUTHWEST OF PROFESSIONAL DRIVE AND SOUTH OF US HIGHWAY 441, AS LEGALLY DESCRIBED IN SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; AND PROVIDING AN EFFECTIVE DATE. **(CITY COMMISSION DATES ARE TENTATIVELY SCHEDULED FOR FIRST READING ON MONDAY, OCTOBER 23RD, 2023 AND SECOND READING IS TENTATIVELY SCHEDULED FOR MONDAY, NOVEMBER 27TH, 2023)** (Electrical Works)

Dan Miller stated if we could discuss the first two cases together, and then have the votes taken at the end of discussion for each case.

Dan Miller introduced case number #SSCP-23-344 – Electrical Works – Small Scale Comprehensive Plan and case number #SPUD-23-345 Small Planned Unit Development

into the record and entered the exhibits into the record with maps and photo exhibits including aerial, zoning, future and surrounding land use, wetlands/flood zone maps, CRA maps, staff summary, and staff recommendations.

Grant Watson, City Attorney stated for the record to discuss both cases together and vote taken separate for each case.

Dan Miller gave a background and explanation of the subject property, location, zoning, requests, and went over SPUD (Small Planned Unit Development) conditions and stated the permitted uses include commercial uses such as office, to include general and medical offices, daycare uses, personal services (hair/nails), light industrial uses such as the current use for Electrical Works, storage and warehouse uses; prohibited uses include internet cafes, tattoo parlor, check cashing stores, adult uses, etc., development standards will be drawn from the C-3 zoning district, all other requirements of the PUD are the standard PUD language.

Christine Rock, Senior Planner utilized a power point presentation to demonstrate the area of the proposed site for both cases.

Department Review Summary: This case was sent out to all the different City departments, and Lake County Public Works there were no substantiative comments from the City Departments or the County. Public responses – no comments were received from the State of Florida and City of Leesburg notice requirements, posted signs, and newspaper.

Dan Miller read the Staff Recommendations into the record for the case; Staff supports both cases; recommended approval.

Brett Jones, of Brett Jones P.A. introduced himself for the record and stated to the Commission he is here to answer any questions they may have.

Chairman Sennett stated if the Commission have any questions of the applicant.

Commissioners' and Dan Miller discussed adding veterinary to the permitted uses under the PUD conditions with the motion.

Chairman Sennett closes discussion from the Public, entertained a motion, and then the voting took place.

Commissioner O'Kelley made a motion to APPROVE case # SSCP-23-344 – ELECTRICAL WORKS – SMALL SCALE COMPREHENSIVE PLAN
Commissioner Bowersox SECONDED the motion.

The roll call vote was:

Commissioner Kaplan	Yes
Commissioner Peeples-Johnson	Yes
Commissioner Marshall	Yes
Commissioner Sanders	Yes

Commissioner Sennett	Yes
Chairman Bowersox	Yes
Commissioner O’Kelley	Yes

Seven yeas, no nays, the Planning Commission approved case # SSCP-23-344 – ELECTRICAL WORKS – SMALL SCALE COMPREHENSIVE PLAN.

Chairman Sennett called for a vote on the second case.

2) PUBLIC HEARING CASE # RZ-23-345 – ELECTRICAL WORKS – SMALL PLANNED UNIT DEVELOPMENT

AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, CHANGING THE ZONING OF APPROXIMATELY 4.9 +/- ACRES FROM LAKE COUNTY LM (LIGHT INDUSTRIAL) TO CITY OF LEESBURG SPUD (SMALL PLANNED UNIT DEVELOPMENT), FOR A PROPERTY GENERALLY LOCATED SOUTHWEST OF PROFESSIONAL DRIVE AND SOUTH OF US HIGHWAY 441, AS LEGALLY DESCRIBED IN SECTION 21, TOWNSHIP 19 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; AND PROVIDING AN EFFECTIVE DATE. **(CITY COMMISSION DATES ARE TENTATIVELY SCHEDULED FOR FIRST READING ON MONDAY, OCTOBER 23RD, 2023 AND SECOND READING IS TENTATIVELY SCHEDULED FOR MONDAY, NOVEMBER 27TH, 2023)**
(Electrical Works)

Commissioner Kaplan made a motion to APPROVE case # RZ-23-345 – ELECTRICAL WORKS and add veterinary to the permitted uses under the PUD conditions – SMALL PLANNED UNIT DEVELOPMENT with the amendment. Commissioner Bowersox SECONDED the motion.

The roll call vote was:

Commissioner O’Kelley	Yes
Commissioner Bowersox	Yes
Chairman Sennett	Yes
Commissioner Sanders	Yes
Commissioner Marshall	Yes
Commissioner Peeples-Johnson	Yes
Commissioner Kaplan	Yes

Seven yeas, no nays, the Planning Commission approved case # RZ-23-345 – ELECTRICAL WORKS – SMALL PLANNED UNIT DEVELOPMENT.

DISCUSSION ITEMS

ANNOUNCEMENTS

Dan Miller announced to the Commission that the Leesburg Planning Commission is a 9-member board, with 7 regular members, depending on the date of appointment, we generally have 2-3 Planning Commissioners' terms expiring each September 30. This year we have three slots with expiring terms; each year, the City Clerk's office advertises through the newspaper, city website and social media, and the City Clerk's office received a total of 11 applicants for the three seats on the Planning Commission, and 1 other Board. This year the terms of Chairman Sennett, and our two alternate members, Commissioner Rosalind Peebles-Johnson, and Commissioner Ken Simeone will expire on September 30 and all three have re-applied for the job; he encouraged each member to attend the City Commission meeting on Monday night, and be prepared with a brief statement to indicate their continued interest in the Planning Commission, applications are submitted; City Commission choice to replace/remove. Staff can't offer any recommendations; Staff is very pleased with how this group work together; and wish each member the best and hope that we can see you all again next month.

Chairman Sennett entertained a motion to adjourn.

ADJOURNMENT

Meeting was adjourned at 4:55 p.m.

Tim H. Sennett, Chairman

Sabrina Mitchell, Executive Assistant I

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.B.4.

Meeting Date: October 23, 2023

From: Dan Miller, (Planning and Zoning Director)

Subject: An Ordinance of the City of Leesburg, Florida, amending the boundaries of the Tara Oaks Community Development District established pursuant to Ordinance 21-17; providing a severability clause; addressing conflicts; and providing an effective date. (CDD rev Tara Oaks)

Staff Recommendation:

Staff recommends approval of the request from the Tara Oaks Community Development District to amend the boundaries of the district.

Analysis:

The request is to approve the amendment of the boundaries of the Tara Oaks Community Development District, which is generally located south and east of Lewis Road, west of US 441 and north of Pruitt Street, as shown on the attached map.

Community Development Districts are permitted under Chapter 190, Florida Statutes, and are a form of special purpose district which can be created to manage, finance and deliver basic community development services. The District is comprised of 194.15 acres, more or less. The District has submitted a petition to amend the boundary of the District by removing 85.37 acres, more or less, and adding 89.87 acres, more or less, for an amended total of approximately 198.88 acres, more or less.

A CDD's services may include, but are not limited to, the financing, funding, construction and operation of water and wastewater systems, roads, bridges, transit, shelters, environmental, conservation and mitigation areas, parks, plus schools and security measures. These services may vary from district to district. CDD's are specific to a described area, and have no zoning, development permitting or police power, and have no authority to encumber debt to a local government. Each district must remain in compliance with the local government's comprehensive plan.

Approval of this request does not create a negative impact for the City's comprehensive plan or the surrounding property owners.

Procurement Analysis:

N/A

Options:

1. Approve the proposed ordinance amending the boundaries of the Tara Oaks Community Development District; or
2. Other such action as the Commission may deem appropriate.

Fiscal Impact:

Property owners within the Tara Oaks Community Development District areas are solely responsible for the funding, financing, and maintenance of activities of the district; therefore, no direct fiscal impact is anticipated.

ORDINANCE NO. _____

**AN ORDINANCE OF THE CITY OF LEESBURG, FLORIDA, AMENDING THE
BOUNDARIES OF THE TARA OAKS COMMUNITY DEVELOPMENT
DISTRICT ESTABLISHED PURSUANT TO ORDINANCE 21-17; PROVIDING
A SEVERABILITY CLAUSE; ADDRESSING CONFLICTS; AND PROVIDING
AN EFFECTIVE DATE. (CDD REV TARA OAKS)**

WHEREAS, effective May 24, 2021, and pursuant to Chapter 190, Florida Statutes, the City Commission for the City of Leesburg, Florida ("City"), previously adopted Ordinance No. 21-17 establishing the Tara Oaks Community Development District ("District");

WHEREAS, the District has petitioned the City to adopt an ordinance amending the boundaries of the District pursuant to Chapter 190, Florida Statutes ("Boundary Amendment"); and

WHEREAS, the City, in determining whether to amend the District's boundaries, has considered and finds that all statements contained in the *Petition to Amend the Boundaries of the Tara Oaks Community Development District* ("Petition") are true and correct; and

WHEREAS, as set forth in the Petition, the landowners of the Contraction Parcels and the Expansion Parcels have provided their consent to the Boundary Amendment; and

WHEREAS, a public hearing has been conducted by the City on November 13, 2023, in accordance with the requirements and procedures of Section 190.046, Florida Statutes, and all interested persons and affected units of general-purpose local government were afforded an opportunity to present oral and written comments on the Petition at said duly noticed public hearing; and

WHEREAS, the City has considered and finds that the amendment of the District's boundaries is not inconsistent with any applicable element or portion of the applicable Comprehensive Plan; and

WHEREAS, the City has considered and finds that the area of land within the District, as amended, is a sufficient size, is sufficiently compact, and is sufficiently contiguous to be developed as a functional interrelated community; and

WHEREAS, the City has considered and finds that the District, as amended, is the best alternative for delivering the community development services and facilities to the area that will be served by the District; and

WHEREAS, the City has considered and finds that the community development services and facilities of the District, as amended, will not be incompatible with the capacity and uses of existing local and regional community development services and facilities; and

WHEREAS, the City has considered and finds that the area that will be served by the District, as amended, is amenable to separate special-district government; and

WHEREAS, a duly noticed public hearing on the Petition was held prior to the adoption of this Ordinance amending the boundaries of the District.

NOW, THEREFORE, BE IT ORDAINED by the City Commission of the City of Leesburg, Florida, as follows:

SECTION 1: AUTHORITY. This ordinance is adopted in compliance with and pursuant to the Uniform Community Development Act of 1980, Chapter 190, Florida Statutes (2022).

SECTION 3: EXTERNAL BOUNDARIES OF THE DISTRICT, AS AMENDED. The external boundaries of the District, as amended, are described in **Exhibit A** attached hereto, the overall parcel containing 198.88 acres of land.

SECTION 4: SEVERABILITY. If any provision of this Ordinance, or the application thereof, is finally determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, such provision shall be deemed to be severable and the remaining provisions shall continue in full force and effect provided that the invalid, illegal or unenforceable provision is not material to the logical and intended interpretation of this Ordinance.

SECTION 5. CONFLICTING ORDINANCES. Except to the extent expressly stated herein, Ordinance No. 21-17 remains in full force and effect. All other ordinances or part thereof, in conflict herewith are, to the extent of such conflict, repealed.

SECTION 6: EFFECTIVE DATE. This Ordinance shall take effect upon its passage and adoption pursuant to general law.

PASSED AND ADOPTED at the regular meeting of the City Commission of the City of Leesburg, Florida, held on the ____ day of _____, 2023.

THE CITY OF LEESBURG, FLORIDA

Mayor

ATTEST:

City Clerk

EXHIBIT A

SKETCH OF DESCRIPTION FOR: TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE N.W. 1/4 OF THE S.W. 1/4 OF SECTION 16, TOWNSHIP 19 SOUTH, RANGE 24 EAST, A PORTION OF THE NORTH 1/2 OF THE S.E. 1/4 AND THE EAST 3/4 OF THE S.E. 1/4 OF SECTION 17 TOWNSHIP 19 SOUTH, RANGE 24 EAST AND THE NORTH 1/2 OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE N.E. CORNER OF SAID SECTION 20, THENCE ALONG THE EAST BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, S.00°44'07"W., A DISTANCE OF 1329.94 FEET TO THE S.E. CORNER OF THE NORTH 1/2 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING SAID EAST BOUNDARY, ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 2642.64 FEET TO THE S.W. CORNER OF THE NORTH 1/2 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, N.00°53'26"E., A DISTANCE OF 1330.26 FEET TO THE N.W. CORNER OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING SAID WEST BOUNDARY, ALONG THE NORTH BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, S.89°20'30"E., A DISTANCE OF 1649.39 FEET TO A POINT ON THE WEST BOUNDARY OF THE EAST 3/4 OF THE S.E. 1/4 OF THE S.E. 1/4 OF AFOREMENTIONED SECTION 17; THENCE DEPARTING THE NORTH BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE WEST BOUNDARY OF THE EAST 3/4 OF THE S.E. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, N.00°48'11"E., A DISTANCE OF 1318.73 FEET TO A POINT ON THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID WEST BOUNDARY, ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17, N.89°13'19"W., A DISTANCE OF 1647.04 FEET TO THE S.W. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°51'51"E., A DISTANCE OF 1297.18 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID SOUTH RIGHT OF WAY LINE, S.89°06'07"E., A DISTANCE OF 2166.76 FEET; THENCE DEPARTING SAID SOUTH RIGHT OF WAY LINE, S.00°45'17"W., A DISTANCE OF 441.33 FEET; THENCE S.89°06'07"E., A DISTANCE OF 466.33 FEET TO A POINT ON THE WEST BOUNDARY OF THE S.W. 1/4 OF AFOREMENTIONED SECTION 16; THENCE ALONG SAID WEST BOUNDARY S.00°45'16"W., A DISTANCE OF 192.09 FEET; THENCE DEPARTING SAID WEST BOUNDARY, S.89°40'04"E., A DISTANCE OF 657.69 FEET; THENCE S.00°45'25"W., A DISTANCE OF 330.37 FEET; THENCE S.89°33'48"E., A DISTANCE OF 634.00 FEET TO A POINT ON THE WEST RIGHT OF WAY LINE OF COUNTY ROAD 468 (BEING A SIXTY SIX FOOT RIGHT OF WAY); THENCE ALONG SAID WEST RIGHT OF WAY LINE, S.00°51'28"W., A DISTANCE OF 331.60 FEET TO A POINT ON THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE S.W. 1/4 OF SAID SECTION 16; THENCE DEPARTING SAID WEST RIGHT OF WAY LINE ALONG SAID SOUTH BOUNDARY, N.89°27'05"W., A DISTANCE OF 1291.07 FEET TO THE S.W. CORNER OF THE N.W. 1/4 OF THE S.W. 1/4 OF SAID SECTION 16; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE AFOREMENTIONED WEST BOUNDARY OF THE S.W. 1/4 OF SECTION 16, S.00°45'17"W., A DISTANCE OF 1316.66 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 198.88 ACRES, MORE OR LESS.

NOTES:

1. DATE OF SKETCH: APRIL 11, 2023.
2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
4. BEARINGS ARE ASSUMED BASED ON THE NORTH BOUNDARY OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING S.89°20'30"E.
5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

***NOTE* ~ THIS IS NOT A SURVEY!**

**SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER**

LEGEND UNLESS OTHERWISE NOTED

- ⊙ = CENTERLINE OF RIGHT OF WAY
O.R. = OFFICIAL RECORDS OF LAKE COUNTY
C.B. = CHORD BEARING
—/— = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/24/2023
SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau
TRAVIS P. BARRINEAU, P.S.M. -- LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

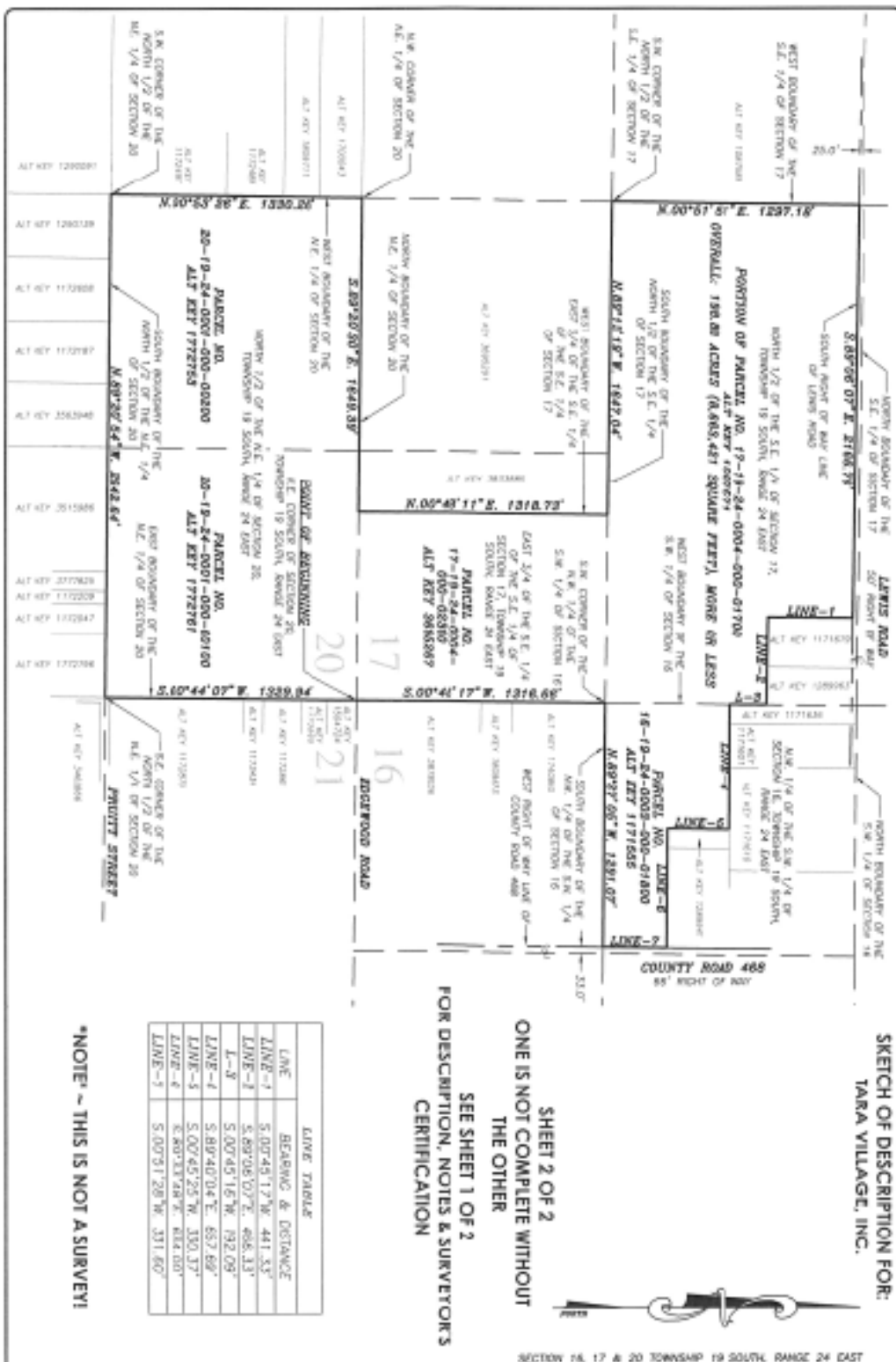


R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS

Oakhurst Professional Park • 1309 S.E. 28th Loop • Suite 103 • Ocala, FLORIDA 34471
PHONE (352) 622-3133 • FAX (352) 369-3771 • www.rmbarrianeau.com

REGINALD M. BARRINEAU, P.S.M., FOUNDER • CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. -- LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK CDD
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 600'	COPYRIGHT © APRIL, 2023	



 R.M. BARRINEAU AND ASSOCIATES PROFESSIONAL SURVEYORS & MAPPERS COURTESY PROFESSIONAL PARK • 1300 S.E. 25th Loop/Suite 103 • Ocala, FLORIDA 34471 PHONE (352) 822-3155 • FAX (352) 365-3711 • www.rmbarrean.com REGISTRATION: BARRINEAU, P.E.M., F.C.M. • CERTIFICATE OF AUTHORIZATION NO. 0000000 TRADE PROFESSIONAL, P.E.M., 12-0000	DRAWN:	S.W.M.	J.O.# 21043
	REVISED:		DWG.# 21043SK CDD
	CHECKED:	T.P.B.	
	APPROVED:	T.P.B.	SHEET 2 OF 2
	SCALE: 1" = 600'	COPYRIGHT © APRIL, 2023	

PETITION TO AMEND THE BOUNDARIES OF TARA OAKS COMMUNITY DEVELOPMENT DISTRICT

Submitted by: Jere Earlywine, Esq.
Florida Bar No. 155527
Jere.Earlywine@KutakRock.com
KUTAK ROCK LLP
107 West College Avenue
Tallahassee, Florida 32301
Ph: (850) 528-6152

BEFORE THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA

**PETITION TO AMEND THE BOUNDARIES OF
TARA OAKS COMMUNITY DEVELOPMENT DISTRICT**

Petitioner, Tara Oaks Community Development District, a unit of special-purpose local government established pursuant to the provisions of Chapter 190, Florida Statutes, and Ordinance No. 21-17, and located entirely within the boundaries of the City of Leesburg, Florida (“District”), hereby petitions the Board of City Commissioners of the City of Leesburg, Florida, pursuant to the “Uniform Community Development District Act of 1980,” Chapter 190, Florida Statutes, and specifically Sections 190.046 and 190.005, Florida Statutes, to adopt an amendment to Ordinance No. 21-17 to add approximately 89.78 acres to the District and remove approximately 85.37 acres from the District. In support of this petition, the District states:

1. Location and Size. The District is located entirely within the City of Leesburg, Florida (“County”). **Exhibit 1** depicts the general location of the existing District. The District currently covers approximately 194.15 acres of land and is located south and east of Lewis Road, west of US 441 and North of Pruitt Street. The current metes and bounds description of the external boundary of the District is set forth in **Exhibit 2**. The metes and bounds of the lands to be added to the District (“Expansion Parcels”) which comprise approximately 89.78 acres are set forth in **Exhibit 3**. The metes and bounds of the lands to be removed from the District (“Contraction Parcel”) which comprise approximately 85.37 acres are set forth in **Exhibit 4**. Subsequent to the proposed amendment of the District, the District will encompass approximately 198.88 acres in total. **Exhibit 5** contains the metes and bounds description of the District boundary, as amended (“Amended District”).

2. Excluded Parcels. There are no parcels within the external boundary of the Expansion Parcel which are to be excluded.

3. Landowner Consent. Petitioner has obtained written consent to amend the boundary of the District from the owners of one hundred percent of property subject to the proposed amendment. Documentation of this consent is contained in **Exhibit 6**. The favorable action by the Board of Supervisors of the District, as reflected in Resolution 2023-02 at **Exhibit 6**, constitutes consent for all other lands pursuant to Section 190.046(1)(f), Florida Statutes.

4. Board Members. The five persons designated by the Ordinance as the original Board of Supervisors met and scheduled an election of the landowners as required by Section 190.006, Florida Statutes. The current members of the Board of Supervisors of the District are Silvia Moukhtara Nemer, Chris Potts, Clifton Fischer, Jacob Essman. One seat is currently vacant.

5. Future Land Uses. The designation of future general distribution, location, and extent of the public and private land uses proposed for the Amended District by the future land use plan elements of the local government comprehensive plan are shown on **Exhibit 7**. Amendment of the District in the manner proposed is consistent with the adopted local government comprehensive plan.

6. District Facilities and Services. **Exhibit 8** describes the type of facilities District presently expects to finance, construct, acquire and/or install, as well as the anticipated owner and entity responsible for maintenance. The estimated costs of constructing the infrastructure serving lands within the Amended District are also identified in **Exhibit 8**. Currently, these improvements are estimated to be made, acquired, constructed, and/or from 2024 to 2026. Actual construction timetables and expenditures will likely vary, due in part to the effects of

future changes in the economic conditions upon costs such as labor, services, materials, interest rates and market conditions.

7. Statement of Estimated Regulatory Costs. **Exhibit 9** is the statement of estimated regulatory costs ("SERC") prepared in accordance with the requirements of Section 120.541, Florida Statutes. The SERC is based upon presently available data. The data and methodology used in preparing the SERC accompany it.

8. Agent Authorization. **Exhibit 10** is an authorization of agent authorizing Jere Earlywine to act as the District's agents in all matters related to the Petition. Copies of all correspondence should be sent to:

Jere Earlywine, Esq.
Jere.Earlywine@KutakRock.com
KUTAK ROCK LLP
107 West College Avenue
Tallahassee, Florida 32301
Ph: (850) 528-6152

9. Chapter 190, Florida Statutes Requirements Are Met. This petition to amend the boundary of the District should be granted for the following reasons:

a. Amendment of the District's boundary and all land uses and services planned within the Amended District are not inconsistent with applicable elements or portions of the adopted state comprehensive plan or the effective local government comprehensive plan.

b. The area of land within the Amended District is part of a planned community. The Amended District will continue to be of sufficient size and sufficiently compact and contiguous to be developed as one functional and interrelated community.

c. Existence of the Amended District will prevent the general body of taxpayers in the County from bearing the burden for installation of the infrastructure and the maintenance of

certain facilities within the development encompassed by the Amended District. The Amended District is the best alternative for delivering community development services and facilities to the Amended District without imposing an additional burden on the general population of the County. Amendment of the District to include such lands within a comprehensively planned community, as proposed, allows for a more efficient use of resources.

d. The community development services and facilities of the Amended District will not be incompatible with the capacity and uses of existing local and regional community development services and facilities.

e. The area to be served by the Amended District is amenable to separate special-district government.

WHEREFORE, the District respectfully requests that the Board of City Commissioners of the City of Leesburg:

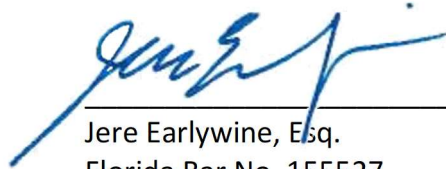
a. Schedule a public hearing in accordance with the requirements of Section 190.046(1)(f), Florida Statutes; and

b. Grant the petition and amend Ordinance No. 21-17 to amend the boundary of the District pursuant to Chapter 190, Florida Statutes.

[CONTINUED ON FOLLOWING PAGE]

RESPECTFULLY SUBMITTED, this 28th day of June, 2023.

KUTAK ROCK LLP

A handwritten signature in blue ink, appearing to read 'Jere Earlywine', is positioned above a horizontal line.

Jere Earlywine, Esq.

Florida Bar No. 155527

Jere.Earlywine@KutakRock.com

KUTAK ROCK LLP

107 West College Avenue

Tallahassee, Florida 32301

Ph: (850) 528-6152

EXHIBIT 1

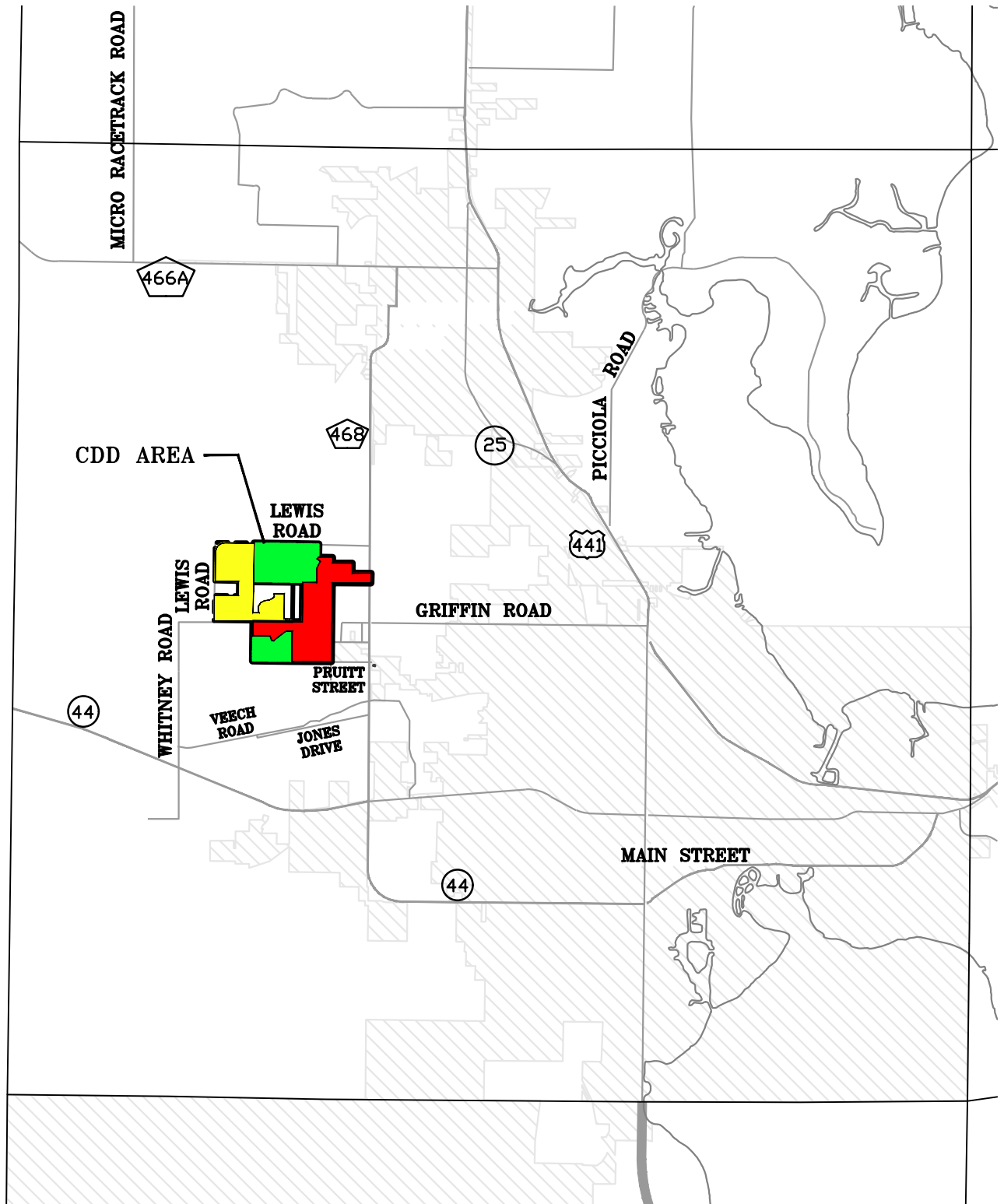
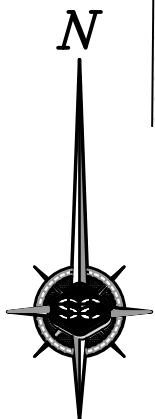


EXHIBIT 1



SCALE:
NTS

- | | |
|---|------------------|
|  | EXPANSION AREA |
|  | EXISTING BALANCE |
|  | CONTRACTION AREA |



**Springstead
Engineering, Inc.**
Consulting Engineers
Planners

CA-0001723
LB-0001723
727 South 14th Street
Leesburg, FL 34748
(352) 787-1414

**TARA OAKS
COMMUNITY DEVELOPMENT DISTRICT
LOCATION MAP**

1810028.107 DESIGN: DWS DRAWN: SKK DATE: 03/08/2023

EXHIBIT 2

TARA OAKS PARCEL 1 CDD DESCRIPTION

In Sections 16, 17 and 20, Township 19 South, Range 24 East, Lake County, Florida
November 11, 2020

That part of Sections 16, 17 and 20, Township 19 South, Range 24 East, Lake County, Florida, described as follows; Begin at the northeast corner of said Section 20 and run S 00°44'07" W, along the east boundary of the Northeast ¼ of the Northeast ¼ of said Section 20, a distance of 1329.94 feet, to the southeast corner of said Northeast ¼ of the Northeast ¼; thence N 89°20'54" W, along the south boundary of said Northeast ¼ of the Northeast ¼, a distance of 1321.28 feet, to the southwest corner of said Northeast ¼ of the Northeast ¼; thence N 00°48'53" E, along the west boundary of said Northeast ¼ of the Northeast ¼, a distance of 1012.38 feet; thence leaving said west boundary, run N 89°09'53" W, a distance of 176.59 feet, to the Point of Curvature of a curve concave southerly and having a radius of 100.00 feet; thence westerly, along the arc of said curve, through a central angle of 38°25'50", a distance of 67.07 feet, to the Point of Tangency; thence S 52°24'17" W, a distance of 438.47 feet, to the Point of Curvature of a curve concave southeasterly and having a radius of 100.00 feet; thence southwesterly, along the arc of said curve, through a central angle of 32°24'48", a distance of 56.57 feet, to the Point of Tangency; thence N 70°00'31" W, a distance of 81.87 feet; thence N 16°51'51" W, a distance of 141.97 feet; thence N 89°06'34" W, a distance of 585.15 feet, to the west boundary of the Northwest ¼ of the Northeast ¼ of the aforesaid Section 20; thence N 00°53'26" E, along said west boundary, a distance of 490.69 feet, to the northwest corner of the Northwest ¼ of the Northeast ¼ of Section 20, same being the southeast corner of the Southeast ¼ of the Southwest ¼ of the aforesaid Section 17, Township 19 South, Range 24 East; thence N 89°16'40" W, along the south boundary of said Southeast ¼ of the Southwest ¼, a distance of 1286.29 feet, to the proposed east right-of-way of LEWIS ROAD; thence N 00°50'17" E, along said proposed east right-of-way, a distance of 851.15 feet; thence leaving said east right-of-way, run S 89°11'24" E, a distance of 780.00 feet; thence N 00°50'17" E, a distance of 473.00 feet; thence N 89°11'24" W, a distance of 780.00 feet, to the aforesaid proposed east right-of-way of LEWIS ROAD; thence N 00°50'17" E, along said east right-of-way, a distance of 973.83 feet, to the Point of Curvature of a curve concave southeasterly and having a radius of 310.00 feet; thence northeasterly, along the arc of said curve, and proposed right-of-way for LEWIS ROAD, through a central angle of 90°03'36", a distance of 487.27 feet, to the Point of Tangency, said point being on the proposed south right-of-way of said LEWIS ROAD; thence S 89°06'07" E, along said proposed south right-of-way, a distance of 978.02 feet, to the east boundary of the Southwest ¼ of the aforesaid Section 17; thence S 00°53'00" W, along said east boundary, a distance of 2319.36 feet; thence leaving said east boundary, run S 89°21'29" E, a distance of 198.29 feet; thence N 14°48'59" W, a distance of 106.18 feet; thence N 02°50'55" E, a distance of 117.80 feet; thence N 33°46'27" E, a distance of 145.42 feet; thence N 61°36'52" E, a distance of 143.29 feet; thence N 84°49'11" E, a

distance of 148.86 feet; thence N 63°57'29" E, a distance of 125.92 feet; thence N 45°46'02" E, a distance of 84.32 feet; thence N 00°47'01" E, a distance of 95.38 feet; thence S 89°12'59" E, a distance of 343.11 feet; thence S 00°50'07" W, a distance of 828.05 feet; thence S 89°09'53" E, a distance of 55.00 feet; thence S 00°50'07" W, a distance of 23.05 feet, to the Point of Curvature of a curve concave northeasterly and having a radius of 20.00 feet; thence southeasterly, along the arc of said curve, through a central angle of 70°28'12", a distance of 24.60 feet, to a Point of Reverse Curve; thence run easterly, along the arc of said reverse curve concave southwesterly and having a radius of 430.00 feet, through a central angle of 04°46'55", a distance of 35.89 feet, to a Point of Reverse Curve; thence run easterly along the arc of said reverse curve concave northerly and having a radius of 370.00 feet, through a central angle of 15°56'43", a distance of 102.97 feet, to the Point of Compound Curve; thence along the arc of said compound curve concave northerly and having a radius of 20.00 feet; thence northeasterly, along the arc of said curve, through a central angle of 98°21'59", a distance of 34.34 feet, to the Point of Tangency; thence S 89°11'04" E, a distance of 55.50 feet, to the east boundary of the Southwest ¼ of the Southeast ¼ of the aforesaid Section 17; thence S 00°48'56" W, along said east boundary, a distance of 29.05 feet, to the southeast corner of said Southwest ¼ of the Southeast ¼, same being the southwest corner of the Southeast ¼ of the Southeast ¼ of Section 17; thence S 89°20'30" E, along the south boundary of said Southeast ¼ of the Southeast ¼, a distance of 329.80 feet; thence N 00°48'11" E, a distance of 1318.73 feet, to the north boundary of said Southeast ¼ of the Southeast ¼; thence S 89°13'19" E, along said north boundary, a distance of 460.51 feet; thence N 00°46'41" E, a distance of 485.12 feet; thence N 28°14'24" E, a distance of 249.98 feet; thence N 49°56'59" W, a distance of 134.15 feet; thence N 40°46'55" E, a distance of 77.63 feet; thence S 89°06'07" E, a distance of 466.33 feet, to the east boundary of said Northeast ¼ of the Southeast ¼, of Section 17, same being the west boundary of the Northwest ¼ of the Southwest ¼ of Section 16, Township 19 South, Range 24 East; thence S 00°45'17" W, along said boundary line, a distance of 192.09 feet; thence S 89°40'04" E, a distance of 657.70 feet; thence S 00°45'25" W, a distance of 330.37 feet; thence S 89°33'48" E, a distance of 634.00 feet, to the west right-of-way of COUNTY ROAD 468; thence S 00°51'28" W, along said west right-of-way, a distance of 331.60 feet; thence leaving said west right-of-way, run N 89°27'05" W, a distance of 1291.07 feet, to the southwest corner of the Northwest ¼ of the Southwest ¼, of the aforesaid Section 16, same being the northeast corner of the Southeast ¼ of the Southeast ¼ of the aforesaid Section 17, Township 19 South, Range 24 East; thence S 00°45'17" W, along the east boundary of said Southeast ¼ of the Southeast ¼, a distance of 1316.66 feet, to the Point of Beginning and end of this description.

Area described contains 194.15 acres.

EXHIBIT 3

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE NORTH 1/2 OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE S.E. CORNER OF SAID SECTION 17, THENCE ALONG THE EAST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°45'17"E., A DISTANCE OF 1316.66 FEET TO THE S.E. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING THE EAST BOUNDARY OF SAID S.E. 1/4 OF SECTION 17, ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17, N.89°13'19"W., A DISTANCE OF 528.01 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID SOUTH BOUNDARY, N.89°13'19"W., A DISTANCE OF 2107.57 FEET TO THE S.W. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°51'51"E., A DISTANCE OF 1297.18 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID SOUTH RIGHT OF WAY LINE, S.89°06'07"E., A DISTANCE OF 2166.76 FEET; THENCE DEPARTING SAID SOUTH RIGHT OF WAY LINE, S.00°45'17"W., A DISTANCE OF 441.33 FEET; THENCE S.40°46'55"W., A DISTANCE OF 77.63 FEET; THENCE S.49°56'59"E., A DISTANCE OF 134.15 FEET; THENCE S.28°14'24"W., A DISTANCE OF 117.80 FEET; THENCE S.00°46'41"W., A DISTANCE OF 485.12 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 63.71 ACRES, MORE OF LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING N.89°13'19"W.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2

ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

℄ = CENTERLINE OF RIGHT OF WAY
O.R. = OFFICIAL RECORDS OF LAKE COUNTY
C.B. = CHORD BEARING
—|— = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/29/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

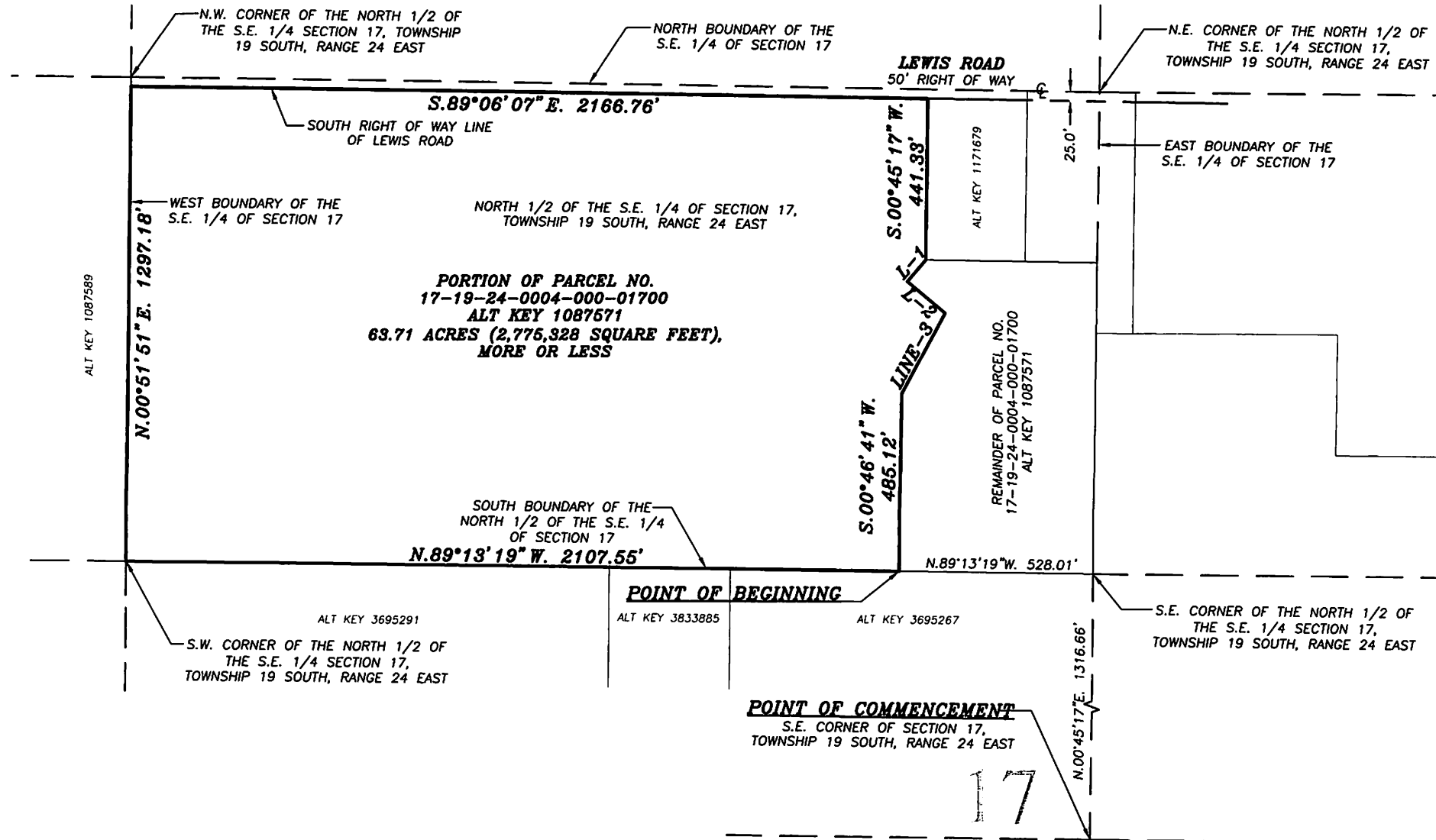
TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK EXP
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 400'		COPYRIGHT © APRIL, 2023



SHEET 2 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES & SURVEYOR'S CERTIFICATION

LINE TABLE	
LINE	BEARING & DISTANCE
L-1	S.40°46'55"W. 77.63'
L-2	S.49°56'59"E. 134.15'
LINE-3	S.28°14'24"W. 117.80'

SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST

DRAWN:	S.W.M.
REVISED:	
CHECKED:	T.P.B.
APPROVED:	T.P.B.
SCALE: 1" = 400'	

R.M. BARRINEAU
— AND ASSOCIATES —

PROFESSIONAL SURVEYORS & MAPPERS

Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 368-3771 + www.rmBarrineau.com

BEGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5097
TRAVIS P. BARRINEAU, P.S.M. - LS 6897



SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE NORTH 1/2 OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE N.E. CORNER OF SAID SECTION 20, THENCE ALONG THE EAST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.00°44'07"W., A DISTANCE OF 1329.94 FEET TO THE S.E. CORNER OF N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING THE EAST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 1321.28 FEET TO THE S.W. CORNER OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING THE S.E. CORNER OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING THE POINT OF BEGINNING. THENCE DEPARTING THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 1321.36 FEET TO THE S.W. CORNER OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE WEST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.00°53'26"E., A DISTANCE OF 839.57 FEET; THENCE DEPARTING THE WEST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.89°06'34"E., A DISTANCE OF 585.15 FEET; THENCE S.16°51'51"E., A DISTANCE OF 141.97 FEET; THENCE S.70°00'31"E., A DISTANCE OF 81.87 FEET TO A POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 32°24'48" AND A CHORD BEARING AND DISTANCE OF N.36°11'53"E., 55.82 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 56.57 FEET TO THE END OF SAID CURVE; THENCE N.52°24'17"E., A DISTANCE OF 438.47 FEET TO A POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 38°25'50" AND A CHORD BEARING AND DISTANCE OF N.71°37'12"E., 65.82 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 67.07 FEET TO THE END OF SAID CURVE; THENCE S.89°09'53"E., A DISTANCE OF 176.59 FEET TO A POINT ON THE EAST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING ON THE WEST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE ALONG SAID EAST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 AND THE WEST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.00°48'53"W., A DISTANCE OF 1012.38 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 26.07 ACRES MORE OR LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE NORTH BOUNDARY OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING S.89°20'30"E.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

- ℄ = CENTERLINE OF RIGHT OF WAY
- O.R. = OFFICIAL RECORDS OF LAKE COUNTY
- C.B. = CHORD BEARING
- √- = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/14/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU

AND ASSOCIATES

PROFESSIONAL SURVEYORS & MAPPERS

Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471

PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com

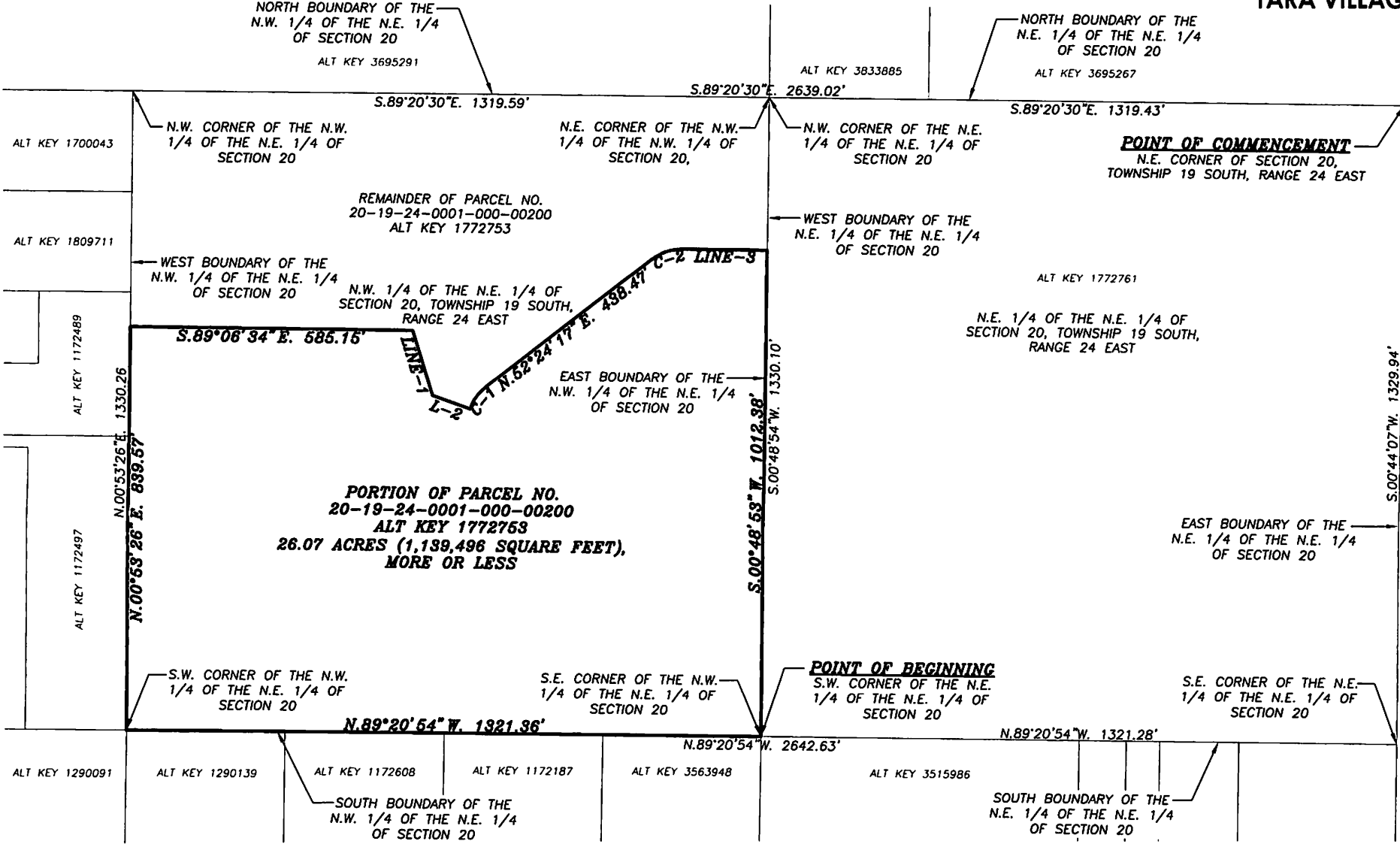
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091

TRAVIS P. BARRINEAU, P.S.M. - LS 6897

EST 1988

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK SCPA
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 300'		COPYRIGHT © APRIL, 2023

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.



LINE TABLE	
LINE	BEARING & DISTANCE
LINE-1	S.16°51'51"E. 141.97'
L-2	S.70°00'31"E. 81.87'
LINE-3	S.89°09'53"E. 176.59'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD	C.B.
C-1	32°24'48"	100.00'	56.57'	55.82'	N.36°11'53"E.
C-2	38°25'50"	100.00'	67.06'	65.82'	N.71°37'12"E.

***NOTE* ~ THIS IS NOT A SURVEY!**
SHEET 2 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES & SURVEYOR'S CERTIFICATION



SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK SCPA
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 2 OF 2
SCALE: 1" = 300'		
COPYRIGHT © APRIL, 2023		

R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 28th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 389-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5081
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

EXHIBIT 4

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

PORTIONS OF THE S.W. 1/4 OF THE S.E. 1/4, THE S.E. 1/4 OF THE S.W. 1/4 AND THE N.E. 1/4 OF THE S.W. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE S.E. CORNER OF SAID SECTION 17, THENCE ALONG THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.89°20'30"W., A DISTANCE OF 1319.43 FEET TO THE S.E. CORNER OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID SOUTH BOUNDARY, N.89°20'30"W., A DISTANCE OF 1319.59 FEET TO THE SOUTH 1/4 CORNER OF SAID SECTION 17; THENCE DEPARTING THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, ALONG THE SOUTH BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17, N.89°16'40"W., A DISTANCE OF 1301.29 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID EAST RIGHT OF WAY LINE, N.00°50'17"E., A DISTANCE OF 851.17 FEET; THENCE DEPARTING SAID EAST RIGHT OF WAY LINE S.89°11'24"E., A DISTANCE OF 795.00 FEET; THENCE N.00°50'17"E., A DISTANCE OF 473.00 FEET TO A POINT ON THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE S.W. 1/4 OF SAID SECTION 17; THENCE ALONG SAID SOUTH BOUNDARY, N.89°11'24"W., A DISTANCE OF 779.95 FEET TO A POINT ON THE PROPOSED EAST RIGHT OF WAY LINE OF AFOREMENTIONED LEWIS ROAD; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID PROPOSED EAST RIGHT OF WAY LINE, N.00°50'14"E., A DISTANCE OF 973.82 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 310.00 FEET, A CENTRAL ANGLE OF 90°03'39" AND A CHORD BEARING AND DISTANCE OF N.45°52'04"E., 438.64 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND PROPOSED EAST RIGHT OF WAY LINE, A DISTANCE OF 487.28 FEET TO A POINT ON THE PROPOSED SOUTH RIGHT OF WAY LINE OF SAID LEWIS ROAD; THENCE DEPARTING THE PROPOSED EAST RIGHT OF WAY LINE OF SAID LEWIS ROAD, ALONG THE PROPOSED SOUTH RIGHT OF LINE OF SAID LEWIS ROAD, S.89°06'07"E., A DISTANCE OF 979.10 FEET TO A POINT ON THE EAST BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID PROPOSED SOUTH RIGHT OF WAY LINE, ALONG SAID EAST BOUNDARY, S.00°54'40"W., A DISTANCE OF 1621.75 FEET TO THE S.E. CORNER OF THE N.E. 1/4 OF THE S.W. 1/4 OF SAID SECTION 17; THENCE CONTINUE ALONG THE EAST BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17, S.00°54'44"W., A DISTANCE OF 697.61 FEET; THENCE DEPARTING SAID EAST BOUNDARY, S.89°21'29"E., A DISTANCE OF 198.30 FEET; THENCE N.14°48'59"W., A DISTANCE OF 106.18 FEET; THENCE N.02°50'55"E., A DISTANCE OF 117.80 FEET; THENCE N.33°46'27"E., A DISTANCE OF 145.42 FEET; THENCE N.61°36'52"E., A DISTANCE OF 143.29 FEET; THENCE N.84°49'11"E., A DISTANCE OF 148.86 FEET; THENCE N.63°57'39"E., A DISTANCE OF 125.92 FEET; THENCE N.45°46'02"E., A DISTANCE OF 84.32 FEET; THENCE N.00°47'01"E., A DISTANCE OF 95.38 FEET; THENCE S.89°12'59"E., A DISTANCE OF 343.11 FEET; THENCE S.00°50'07"W., A DISTANCE OF 828.05 FEET; THENCE S.89°09'53"E., A DISTANCE OF 55.00 FEET; THENCE S.00°50'07"W., A DISTANCE OF 23.05 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 70°28'12" AND A CHORD BEARING AND DISTANCE OF S.34°23'59"E., 23.08 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 24.60 FEET TO THE POINT OF REVERSE CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 430.00 FEET, A CENTRAL ANGLE OF 04°46'55" AND A CHORD BEARING AND DISTANCE OF S.67°14'38"E., 35.88 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 35.89 FEET TO THE POINT OF REVERSE CURVATURE OF A CURVE, CONCAVE NORTHERLY, HAVING A RADIUS OF 370.00 FEET, A CENTRAL ANGLE OF 15°56'43" AND A CHORD BEARING AND DISTANCE OF S.72°49'32"E., 102.64 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 102.97 FEET TO THE POINT OF COMPOUND CURVATURE OF A CURVE, CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 98°21'59" AND A CHORD BEARING AND DISTANCE OF N.50°01'08"E., 30.27 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 34.34 FEET TO THE END OF SAID CURVE; THENCE S.89°11'04"E., A DISTANCE OF 55.50 FEET TO A POINT ON THE EAST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, THENCE ALONG SAID EAST BOUNDARY, S.00°48'56"W., A DISTANCE OF 29.05 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 85.37 ACRES, MORE OR LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING N.89°20'30"W.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

- CL = CENTERLINE OF RIGHT OF WAY
- O.R. = OFFICIAL RECORDS OF LAKE COUNTY
- C.B. = CHORD BEARING
- = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/24/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

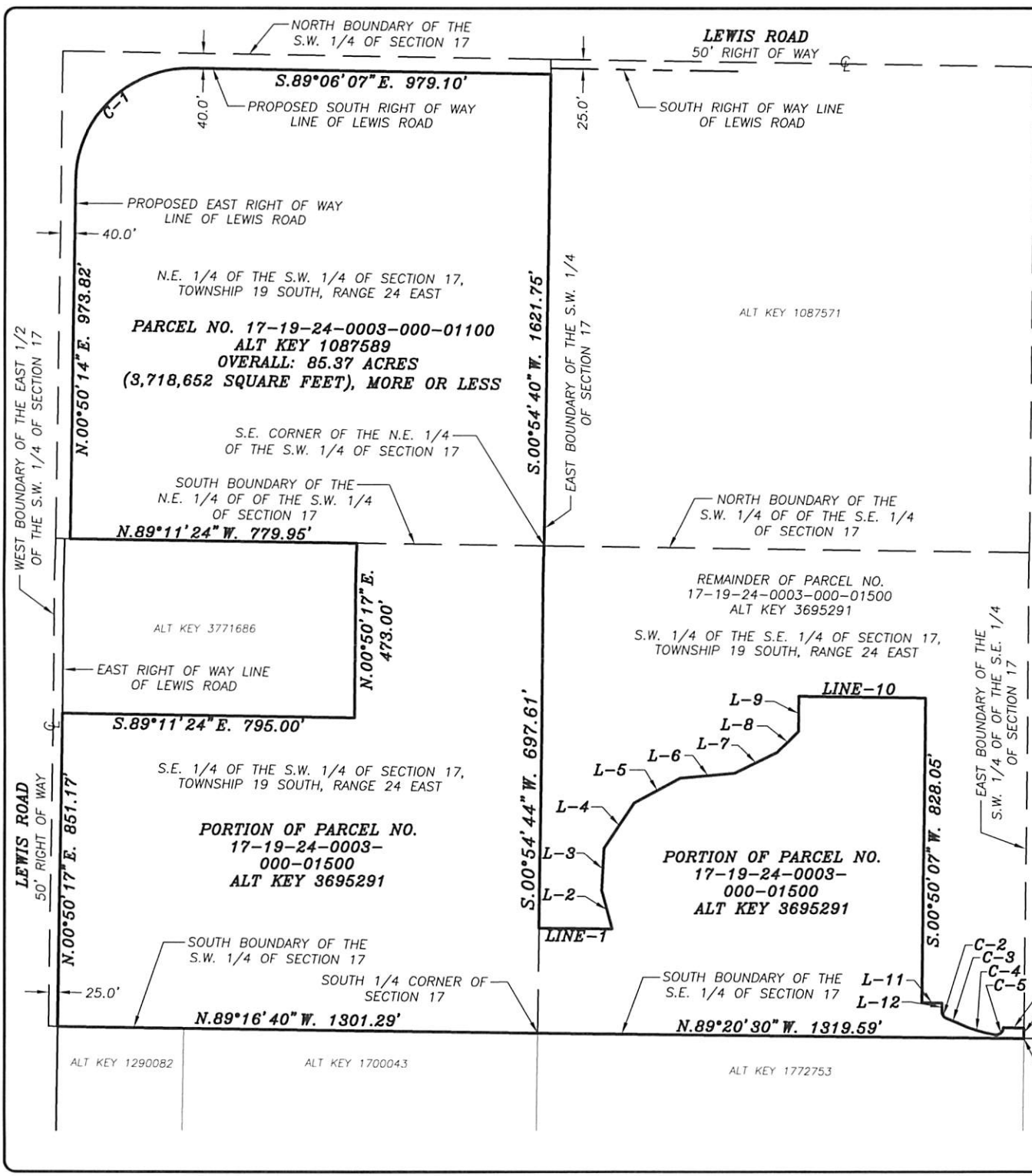
TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK CON
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 400'		COPYRIGHT © APRIL, 2023



SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

LINE TABLE	
LINE	BEARING & DISTANCE
LINE-1	S.89°21'29"E. 198.30'
L-2	N.14°48'59"W. 106.18'
L-3	N.02°50'55"E. 117.80'
L-4	N.33°46'27"E. 145.42'
L-5	N.61°36'52"E. 143.29'
L-6	N.84°49'11"E. 148.86'
L-7	N.63°57'39"E. 125.92'
L-8	N.45°46'02"E. 84.32'
L-9	N.00°47'01"E. 95.38'
LINE-10	S.89°12'59"E. 343.11'
L-11	S.89°09'53"E. 55.00'
L-12	S.00°50'07"W. 23.05'
L-13	S.89°11'04"E. 55.50'
L-14	S.00°48'56"W. 29.05'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD	C.B.
C-1	90°03'39"	310.00'	487.28'	438.64'	N.45°52'04"E.
C-2	70°28'12"	20.00'	24.60'	23.08'	S.34°23'59"E.
C-3	04°46'55"	430.00'	35.89'	35.88'	S.67°14'38"E.
C-4	15°56'43"	370.00'	102.97'	102.64'	S.72°49'32"E.
C-5	98°21'59"	20.00'	34.34'	30.27'	N.50°01'08"E.



SHEET 2 OF 2
ONE IS NOT COMPLETE
WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES &
SURVEYOR'S CERTIFICATION

NOTE ~ THIS IS NOT A SURVEY!

SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST

DRAWN: S.W.M.

REVISED:

CHECKED: T.P.B.

APPROVED: T.P.B.

SCALE: 1" = 400'

J.O.# 21043

DWG.# 21043SK CON

SHEET 2 OF 2

COPYRIGHT © APRIL, 2023

EST. 1980

R.M. BARRINEAU

AND ASSOCIATES

PROFESSIONAL SURVEYORS & MAPPERS

Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471

PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com

REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091

TRAVIS P. BARRINEAU, P.S.M. - LS 6897

EXHIBIT 5

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE N.W. 1/4 OF THE S.W. 1/4 OF SECTION 16, TOWNSHIP 19 SOUTH, RANGE 24 EAST, A PORTION OF THE NORTH 1/2 OF S.E. 1/4 AND THE EAST 3/4 OF THE S.E. 1/4 OF THE S.E. 1/4 OF SECTION 17 TOWNSHIP 19 SOUTH, RANGE 24 EAST AND THE NORTH 1/2 OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE N.E. CORNER OF SAID SECTION 20, THENCE ALONG THE EAST BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, S.00°44'07"W., A DISTANCE OF 1329.94 FEET TO THE S.E. CORNER OF THE NORTH 1/2 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING SAID EAST BOUNDARY, ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 2642.64 FEET TO THE S.W. CORNER OF THE NORTH 1/2 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, N.00°53'26"E., A DISTANCE OF 1330.26 FEET TO THE N.W. CORNER OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING SAID WEST BOUNDARY, ALONG THE NORTH BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, S.89°20'30"E., A DISTANCE OF 1649.39 FEET TO A POINT ON THE WEST BOUNDARY OF THE EAST 3/4 OF THE S.E. 1/4 OF THE S.E. 1/4 OF AFOREMENTIONED SECTION 17; THENCE DEPARTING THE NORTH BOUNDARY OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE WEST BOUNDARY OF THE EAST 3/4 OF THE S.E. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, N.00°48'11"E., A DISTANCE OF 1318.73 FEET TO A POINT ON THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID WEST BOUNDARY, ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17, N.89°13'19"W., A DISTANCE OF 1647.04 FEET TO THE S.W. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°51'51"E., A DISTANCE OF 1297.18 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID SOUTH RIGHT OF WAY LINE, S.89°06'07"E., A DISTANCE OF 2166.76 FEET; THENCE DEPARTING SAID SOUTH RIGHT OF WAY LINE, S.00°45'17"W., A DISTANCE OF 441.33 FEET; THENCE S.89°06'07"E., A DISTANCE OF 466.33 FEET TO A POINT ON THE WEST BOUNDARY OF THE S.W. 1/4 OF AFOREMENTIONED SECTION 16; THENCE ALONG SAID WEST BOUNDARY S.00°45'16"W., A DISTANCE OF 192.09 FEET; THENCE DEPARTING SAID WEST BOUNDARY, S.89°40'04"E., A DISTANCE OF 657.69 FEET; THENCE S.00°45'25"W., A DISTANCE OF 330.37 FEET; THENCE S.89°33'48"E., A DISTANCE OF 634.00 FEET TO A POINT ON THE WEST RIGHT OF WAY LINE OF COUNTY ROAD 468 (BEING A SIXTY SIX FOOT RIGHT OF WAY); THENCE ALONG SAID WEST RIGHT OF WAY LINE, S.00°51'28"W., A DISTANCE OF 331.60 FEET TO A POINT ON THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE S.W. 1/4 OF SAID SECTION 16; THENCE DEPARTING SAID WEST RIGHT OF WAY LINE ALONG SAID SOUTH BOUNDARY, N.89°27'05"W., A DISTANCE OF 1291.07 FEET TO THE S.W. CORNER OF THE N.W. 1/4 OF THE S.W. 1/4 OF SAID SECTION 16; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE AFOREMENTIONED WEST BOUNDARY OF THE S.W. 1/4 OF SECTION 16, S.00°45'17"W., A DISTANCE OF 1316.66 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 198.88 ACRES, MORE OR LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE NORTH BOUNDARY OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING S.89°20'30"E.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

- CL = CENTERLINE OF RIGHT OF WAY
- O.R. = OFFICIAL RECORDS OF LAKE COUNTY
- C.B. = CHORD BEARING
- = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/29/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK CDD
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 600'		COPYRIGHT © APRIL, 2023

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.



SECTION 16, 17 & 20 TOWNSHIP 19 SOUTH, RANGE 24 EAST

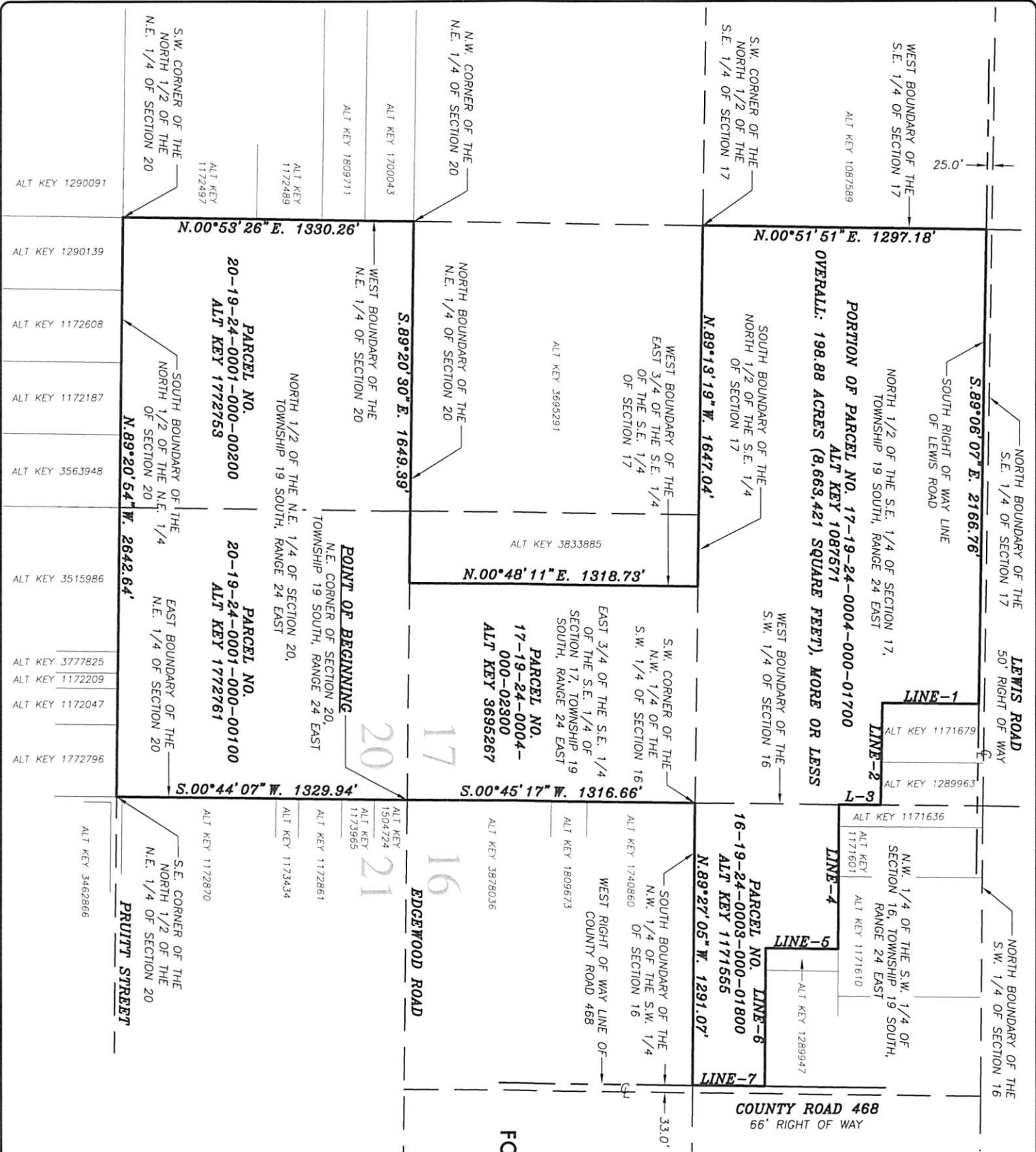
DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK CDD
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 2 OF 2
SCALE: 1" = 600'		COPYRIGHT © APRIL, 2023

SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES & SURVEYOR'S
CERTIFICATION

ONE IS NOT COMPLETE WITHOUT
THE OTHER

LINE	BEARING & DISTANCE
LINE-1	S.00°45'17"W. 441.33'
LINE-2	S.89°06'07"E. 466.33'
L-3	S.00°45'16"W. 192.09'
LINE-4	S.89°40'04"E. 657.69'
LINE-5	S.00°45'25"W. 330.37'
LINE-6	S.89°33'48"E. 634.00'
LINE-7	S.00°51'28"W. 331.60'

NOTE ~ THIS IS NOT A SURVEY!



R.M. BARRINEAU

AND ASSOCIATES

PROFESSIONAL SURVEYORS & MAPPERS

Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471

PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com

REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091

TRAVIS P. BARRINEAU, P.S.M. - LS 6897

EXHIBIT 6

This instrument was prepared by:

KUTAK ROCK LLP
107 West College Avenue
Tallahassee, Florida 32301

**CONSENT AND JOINDER OF LANDOWNER FOR THE
AMENDMENT OF THE BOUNDARIES OF THE
TARA OAKS COMMUNITY DEVELOPMENT DISTRICT
[CONTRACTION PARCEL]**

The undersigned is the owner of certain lands which are more fully described as the "Contraction Parcel" in **Exhibit A** attached hereto and made a part hereof ("Property"). The undersigned understands and acknowledges that the Board of Supervisors of the Tara Oaks Community Development District ("Petitioner" or "District") intends to submit a petition amending the boundaries of the District in accordance with the provisions of Chapter 190, Florida Statutes.

As the owner of lands that are intended to constitute lands to be removed from the District, the undersigned understands and acknowledges that pursuant to the provisions of Section 190.005 and Section 190.046, Florida Statutes, Petitioner is required to include the written consent to the amendment of the boundaries of the District of one hundred percent (100%) of the owners of the lands to be removed from the District.

The undersigned hereby requests and consents to removal of the Property from the District and agrees to further execute any documentation necessary or convenient to evidence this consent and joinder during the petition process for the amendment of the boundaries of the District. The undersigned further acknowledges that the consent will remain in full force and effect for three years from the date hereof. The undersigned further agrees that it will provide to the next purchaser or successor in interest of all or any portion of the Property a copy of this consent form and obtain, if requested by Petitioner, consent to amendment of the boundaries of the District in substantially this form.

The undersigned hereby represents and warrants that it has taken all actions and obtained all consents necessary to duly authorize the execution of this consent and joinder by the officer executing this instrument.

[signatures on following page]

Executed this 9th day of March, 2023.

WITNESS

A.A. MOUKHTARA COMPANY, INC.

By: [Signature]
Name: LADONNA WINSTOCK

Aline M Moukhtara
By: Aline M. Moukhtara
Name: President

By: [Signature]
Name: LASHANTHA GREEN

STATE OF VIRGINIA

COUNTY OF Fairfax

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 09th day of March, 2023, by ALINE M MOUKHTAR, as PRESIDENT of A.A. MOUKHTAR COMPANY, INC. on its behalf. He ☐ is personally known to me or ☒ produced Virginia Drivers License as identification.

Chaitanya S Rana
Notary Public, State of Virginia

EXHIBIT A: Legal Description

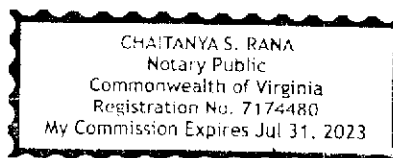


EXHIBIT A:
Legal Description

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

PORTIONS OF THE S.W. 1/4 OF THE S.E. 1/4, THE S.E. 1/4 OF THE S.W. 1/4 AND THE N.E. 1/4 OF THE S.W. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE S.E. CORNER OF SAID SECTION 17, THENCE ALONG THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.89°20'30"W., A DISTANCE OF 1319.43 FEET TO THE S.E. CORNER OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID SOUTH BOUNDARY, N.89°20'30"W., A DISTANCE OF 1319.59 FEET TO THE SOUTH 1/4 CORNER OF SAID SECTION 17; THENCE DEPARTING THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, ALONG THE SOUTH BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17, N.89°16'40"W., A DISTANCE OF 1301.29 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID EAST RIGHT OF WAY LINE, N.00°50'17"E., A DISTANCE OF 851.17 FEET; THENCE DEPARTING SAID EAST RIGHT OF WAY LINE S.89°11'24"E., A DISTANCE OF 795.00 FEET; THENCE N.00°50'17"E., A DISTANCE OF 473.00 FEET TO A POINT ON THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE S.W. 1/4 OF SAID SECTION 17; THENCE ALONG SAID SOUTH BOUNDARY, N.89°11'24"W., A DISTANCE OF 779.95 FEET TO A POINT ON THE PROPOSED EAST RIGHT OF WAY LINE OF AFOREMENTIONED LEWIS ROAD; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID PROPOSED EAST RIGHT OF WAY LINE, N.00°50'14"E., A DISTANCE OF 973.82 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 310.00 FEET, A CENTRAL ANGLE OF 90°03'39" AND A CHORD BEARING AND DISTANCE OF N.45°52'04"E., 438.64 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND PROPOSED EAST RIGHT OF WAY LINE, A DISTANCE OF 487.28 FEET TO A POINT ON THE PROPOSED SOUTH RIGHT OF WAY LINE OF SAID LEWIS ROAD; THENCE DEPARTING THE PROPOSED EAST RIGHT OF WAY LINE OF SAID LEWIS ROAD, ALONG THE PROPOSED SOUTH RIGHT OF LINE OF SAID LEWIS ROAD, S.89°06'07"E., A DISTANCE OF 979.10 FEET TO A POINT ON THE EAST BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID PROPOSED SOUTH RIGHT OF WAY LINE, ALONG SAID EAST BOUNDARY, S.00°54'40"W., A DISTANCE OF 1621.75 FEET TO THE S.E. CORNER OF THE N.E. 1/4 OF THE S.W. 1/4 OF SAID SECTION 17; THENCE CONTINUE ALONG THE EAST BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17, S.00°54'44"W., A DISTANCE OF 697.61 FEET; THENCE DEPARTING SAID EAST BOUNDARY, S.89°21'29"E., A DISTANCE OF 198.30 FEET; THENCE N.14°48'59"W., A DISTANCE OF 106.18 FEET; THENCE N.02°50'55"E., A DISTANCE OF 117.80 FEET; THENCE N.33°46'27"E., A DISTANCE OF 145.42 FEET; THENCE N.61°36'52"E., A DISTANCE OF 143.29 FEET; THENCE N.84°49'11"E., A DISTANCE OF 148.86 FEET; THENCE N.63°57'39"E., A DISTANCE OF 125.92 FEET; THENCE N.45°46'02"E., A DISTANCE OF 84.32 FEET; THENCE N.00°47'01"E., A DISTANCE OF 95.38 FEET; THENCE S.89°12'59"E., A DISTANCE OF 343.11 FEET; THENCE S.00°50'07"W., A DISTANCE OF 828.05 FEET; THENCE S.89°09'53"E., A DISTANCE OF 55.00 FEET; THENCE S.00°50'07"W., A DISTANCE OF 23.05 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 70°28'12" AND A CHORD BEARING AND DISTANCE OF S.34°23'59"E., 23.08 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 24.60 FEET TO THE POINT OF REVERSE CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 430.00 FEET, A CENTRAL ANGLE OF 04°46'55" AND A CHORD BEARING AND DISTANCE OF S.67°14'38"E., 35.88 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 35.89 FEET TO THE POINT OF REVERSE CURVATURE OF A CURVE, CONCAVE NORTHERLY, HAVING A RADIUS OF 370.00 FEET, A CENTRAL ANGLE OF 15°56'43" AND A CHORD BEARING AND DISTANCE OF S.72°49'32"E., 102.64 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 102.97 FEET TO THE POINT OF COMPOUND CURVATURE OF A CURVE, CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 98°21'59" AND A CHORD BEARING AND DISTANCE OF N.50°01'08"E., 30.27 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 34.34 FEET TO THE END OF SAID CURVE; THENCE S.89°11'04"E., A DISTANCE OF 55.50 FEET TO A POINT ON THE EAST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, THENCE ALONG SAID EAST BOUNDARY, S.00°48'56"W., A DISTANCE OF 29.05 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 85.37 ACRES, MORE OR LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING N.89°20'30"W.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

- CL = CENTERLINE OF RIGHT OF WAY
- O.R. = OFFICIAL RECORDS OF LAKE COUNTY
- C.B. = CHORD BEARING
- = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/24/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

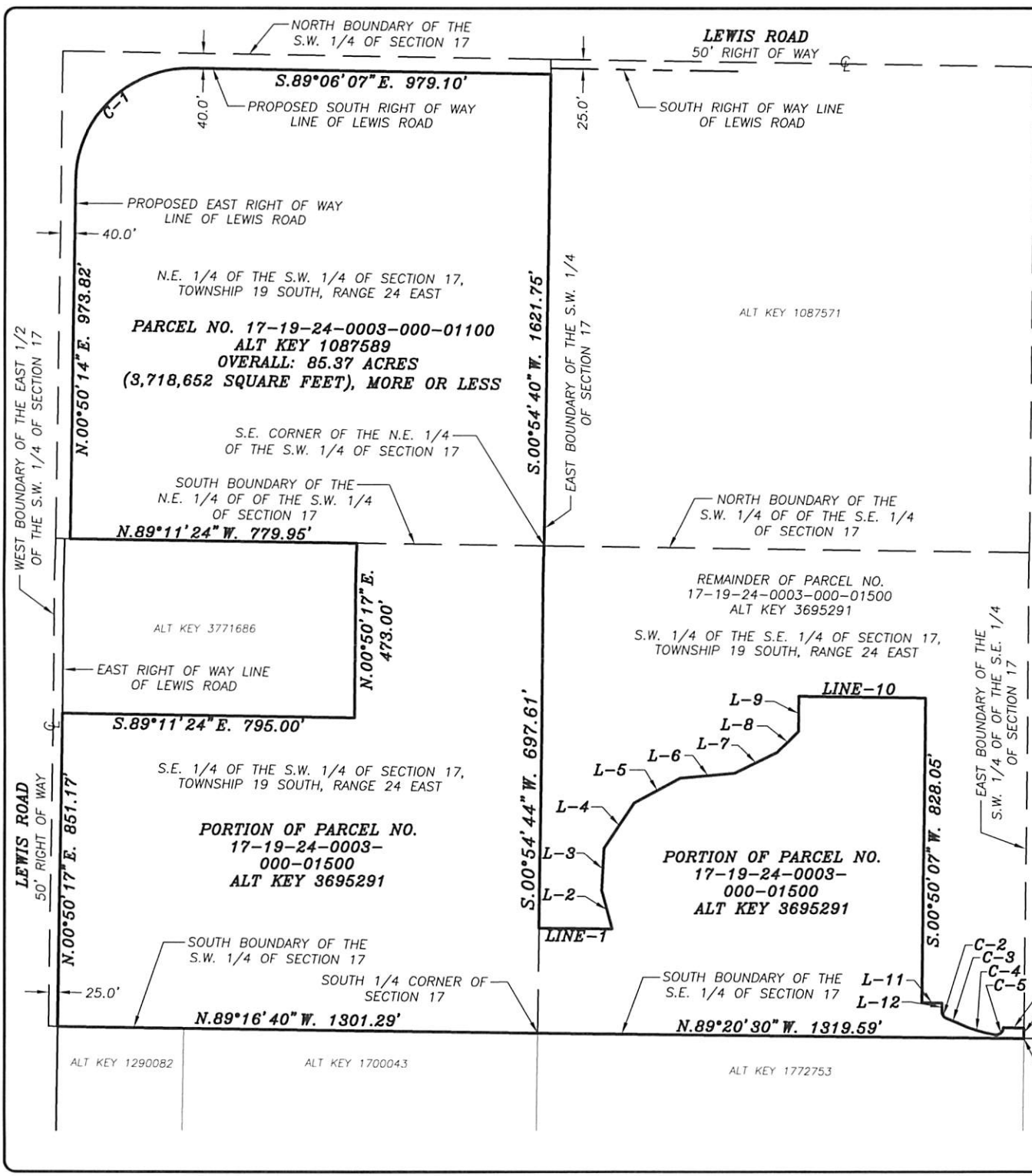
TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK CON
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 400'		COPYRIGHT © APRIL, 2023



SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

LINE TABLE	
LINE	BEARING & DISTANCE
LINE-1	S.89°21'29"E. 198.30'
L-2	N.14°48'59"W. 106.18'
L-3	N.02°50'55"E. 117.80'
L-4	N.33°46'27"E. 145.42'
L-5	N.61°36'52"E. 143.29'
L-6	N.84°49'11"E. 148.86'
L-7	N.63°57'39"E. 125.92'
L-8	N.45°46'02"E. 84.32'
L-9	N.00°47'01"E. 95.38'
LINE-10	S.89°12'59"E. 343.11'
L-11	S.89°09'53"E. 55.00'
L-12	S.00°50'07"W. 23.05'
L-13	S.89°11'04"E. 55.50'
L-14	S.00°48'56"W. 29.05'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD	C.B.
C-1	90°03'39"	310.00'	487.28'	438.64'	N.45°52'04"E.
C-2	70°28'12"	20.00'	24.60'	23.08'	S.34°23'59"E.
C-3	04°46'55"	430.00'	35.89'	35.88'	S.67°14'38"E.
C-4	15°56'43"	370.00'	102.97'	102.64'	S.72°49'32"E.
C-5	98°21'59"	20.00'	34.34'	30.27'	N.50°01'08"E.

SHEET 2 OF 2
ONE IS NOT COMPLETE
WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES &
SURVEYOR'S CERTIFICATION

NOTE ~ THIS IS NOT A SURVEY!



SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST	
DRAWN:	S.W.M.
REVISED:	
CHECKED:	T.P.B.
APPROVED:	T.P.B.
SCALE: 1" = 400'	

R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

This instrument was prepared by:

KUTAK ROCK LLP
107 West College Avenue
Tallahassee, Florida 32301

**CONSENT AND JOINDER OF LANDOWNER FOR THE
AMENDMENT OF THE BOUNDARIES OF THE
TARA OAKS COMMUNITY DEVELOPMENT DISTRICT
[EXPANSION PARCEL]**

The undersigned is the owner of certain lands which are more fully described as the "Expansion Parcel" in **Exhibit A** attached hereto and made a part hereof ("Property"). The undersigned understands and acknowledges that the Board of Supervisors of the Tara Oaks Community Development District ("Petitioner" or "District") intends to submit a petition amending the boundaries of the District in accordance with the provisions of Chapter 190, Florida Statutes.

As the owner of lands that are intended to constitute lands to be added to the District, the undersigned understands and acknowledges that pursuant to the provisions of Section 190.005 and Section 190.046, Florida Statutes, Petitioner is required to include the written consent to the amendment of the boundaries of the District of one hundred percent (100%) of the owners of the lands to be added to the District.

The undersigned hereby requests and consents to addition of the Property to the District and agrees to further execute any documentation necessary or convenient to evidence this consent and joinder during the petition process for the amendment of the boundaries of the District. The undersigned further acknowledges that the consent will remain in full force and effect for three years from the date hereof. The undersigned further agrees that it will provide to the next purchaser or successor in interest of all or any portion of the Property a copy of this consent form and obtain, if requested by Petitioner, consent to amendment of the boundaries of the District in substantially this form.

The undersigned hereby represents and warrants that it has taken all actions and obtained all consents necessary to duly authorize the execution of this consent and joinder by the officer executing this instrument.

[signatures on following page]

Executed this _____ day of _____, 2023.

WITNESS

TARA VILLAGE, INC.

By: John Gurean
Name: JOHN GUREAN

By: [Signature]
Name: SAYED MOUKHTARA

By: Christin Bell
Name: Christin Bell

STATE OF FLORIDA
COUNTY OF Alachua

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 26 day of May, 2023, by Sayed Moukhtara as President of Tara Village Inc on its behalf. He ☒ is personally known to me or ☐ produced _____ as identification.



CHRISTIN BELL
Notary Public
State of Florida
Comm# HH373392
Expires 3/14/2027

Christin Bell
Notary Public, State of Florida

EXHIBIT A: Legal Description

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE NORTH 1/2 OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE S.E. CORNER OF SAID SECTION 17, THENCE ALONG THE EAST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°45'17"E., A DISTANCE OF 1316.66 FEET TO THE S.E. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING THE EAST BOUNDARY OF SAID S.E. 1/4 OF SECTION 17, ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17, N.89°13'19"W., A DISTANCE OF 528.01 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID SOUTH BOUNDARY, N.89°13'19"W., A DISTANCE OF 2107.57 FEET TO THE S.W. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°51'51"E., A DISTANCE OF 1297.18 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID SOUTH RIGHT OF WAY LINE, S.89°06'07"E., A DISTANCE OF 2166.76 FEET; THENCE DEPARTING SAID SOUTH RIGHT OF WAY LINE, S.00°45'17"W., A DISTANCE OF 441.33 FEET; THENCE S.40°46'55"W., A DISTANCE OF 77.63 FEET; THENCE S.49°56'59"E., A DISTANCE OF 134.15 FEET; THENCE S.28°14'24"W., A DISTANCE OF 117.80 FEET; THENCE S.00°46'41"W., A DISTANCE OF 485.12 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 63.71 ACRES, MORE OF LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING N.89°13'19"W.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2

ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

℄ = CENTERLINE OF RIGHT OF WAY

O.R. = OFFICIAL RECORDS OF LAKE COUNTY

C.B. = CHORD BEARING

—|— = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/29/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

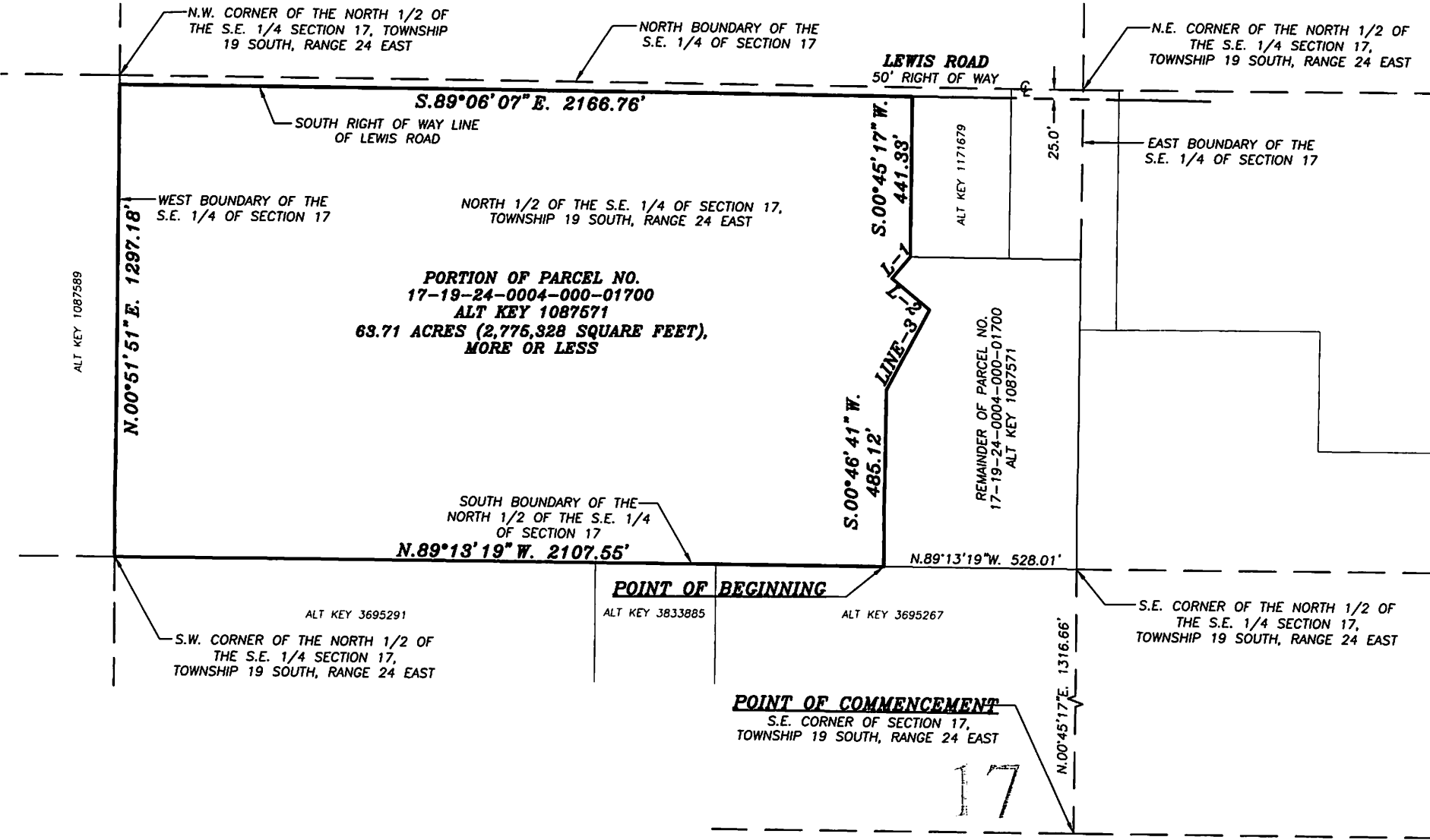
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK EXP
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 400'		COPYRIGHT © APRIL, 2023

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.



LINE TABLE	
LINE	BEARING & DISTANCE
L-1	S.40°46'55"W. 77.63'
L-2	S.49°56'59"E. 134.15'
LINE-3	S.28°14'24"W. 117.80'

***NOTE* ~ THIS IS NOT A SURVEY!**

SHEET 2 OF 2

ONE IS NOT COMPLETE WITHOUT THE OTHER

SEE SHEET 1 OF 2

FOR DESCRIPTION, NOTES & SURVEYOR'S CERTIFICATION



SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST



**R.M. BARRINEAU
AND ASSOCIATES**
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park • 1308 S.E. 25th Loop • Suite 103 • Ocala, FLORIDA 34471
PHONE (352) 622-3133 • FAX (352) 369-3771 • www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER - CERTIFICATE OF AUTHORIZATION NO. LB 5991
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK EXP
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 2 OF 2
SCALE: 1" = 400'		COPYRIGHT © APRIL, 2023

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE NORTH 1/2 OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE N.E. CORNER OF SAID SECTION 20, THENCE ALONG THE EAST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.00°44'07"W., A DISTANCE OF 1329.94 FEET TO THE S.E. CORNER OF N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING THE EAST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 1321.28 FEET TO THE S.W. CORNER OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING THE S.E. CORNER OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING THE POINT OF BEGINNING. THENCE DEPARTING THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 1321.36 FEET TO THE S.W. CORNER OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE WEST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.00°53'26"E., A DISTANCE OF 839.57 FEET; THENCE DEPARTING THE WEST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.89°06'34"E., A DISTANCE OF 585.15 FEET; THENCE S.16°51'51"E., A DISTANCE OF 141.97 FEET; THENCE S.70°00'31"E., A DISTANCE OF 81.87 FEET TO A POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 32°24'48" AND A CHORD BEARING AND DISTANCE OF N.36°11'53"E., 55.82 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 56.57 FEET TO THE END OF SAID CURVE; THENCE N.52°24'17"E., A DISTANCE OF 438.47 FEET TO A POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 38°25'50" AND A CHORD BEARING AND DISTANCE OF N.71°37'12"E., 65.82 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 67.07 FEET TO THE END OF SAID CURVE; THENCE S.89°09'53"E., A DISTANCE OF 176.59 FEET TO A POINT ON THE EAST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING ON THE WEST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE ALONG SAID EAST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 AND THE WEST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.00°48'53"W., A DISTANCE OF 1012.38 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 26.07 ACRES MORE OR LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE NORTH BOUNDARY OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING S.89°20'30"E.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

- ℄ = CENTERLINE OF RIGHT OF WAY
- O.R. = OFFICIAL RECORDS OF LAKE COUNTY
- C.B. = CHORD BEARING
- √- = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/14/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

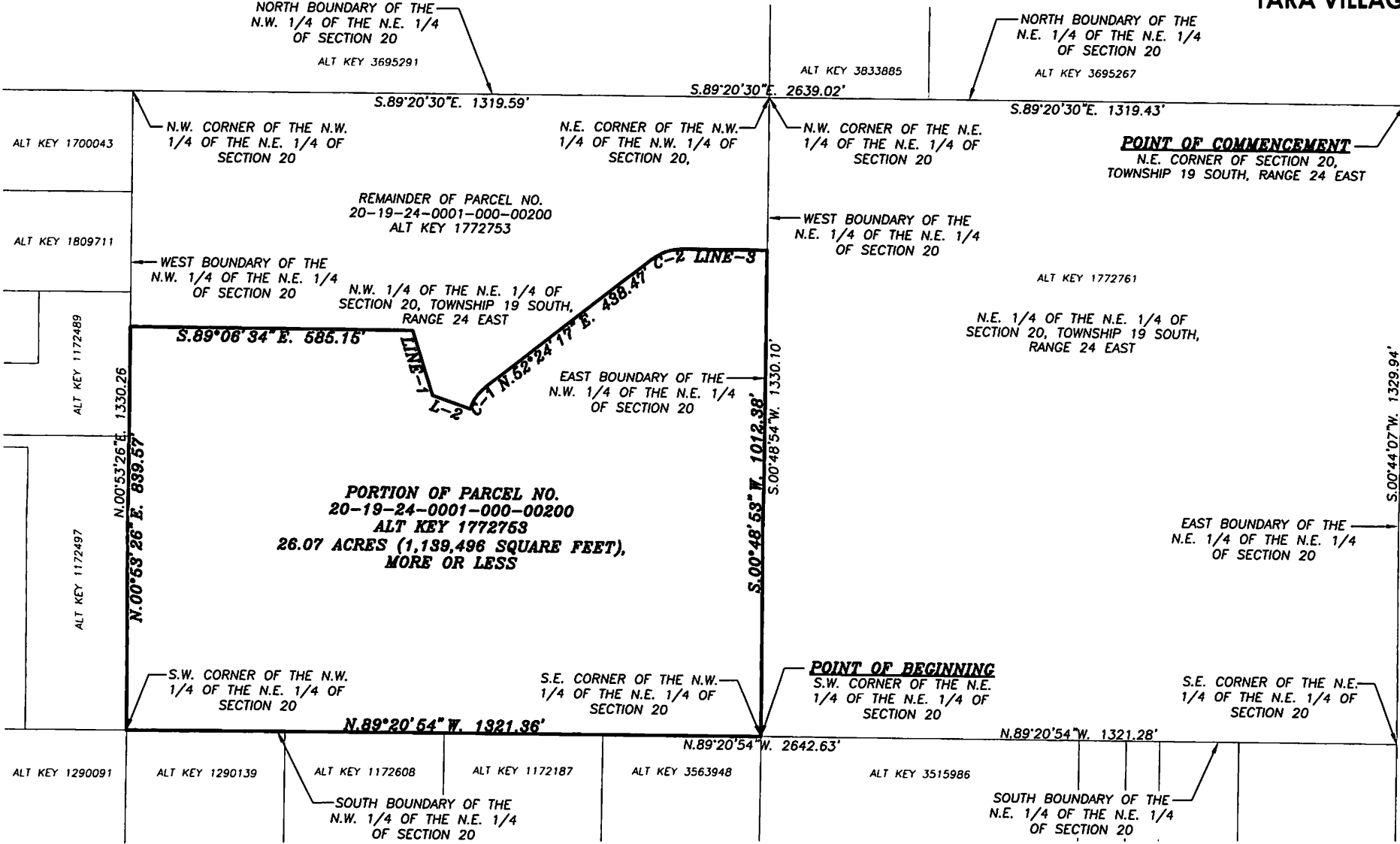
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK SCPA
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 300'		COPYRIGHT © APRIL, 2023

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.



LINE TABLE	
LINE	BEARING & DISTANCE
LINE-1	S.16°51'51"E. 141.97'
L-2	S.70°00'31"E. 81.87'
LINE-3	S.89°09'53"E. 176.59'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD	C.B.
C-1	32°24'48"	100.00'	56.57'	55.82'	N.36°11'53"E.
C-2	38°25'50"	100.00'	67.06'	65.82'	N.71°37'12"E.

***NOTE* ~ THIS IS NOT A SURVEY!**
SHEET 2 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES & SURVEYOR'S CERTIFICATION



SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK SCPA
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 2 OF 2
SCALE: 1" = 300'		
COPYRIGHT © APRIL, 2023		



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 28th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 389-3771 + www.rmBarrineau.com

REGINALD M. BARRINEAU, P.S.M. - FOUNDER - CERTIFICATE OF AUTHORIZATION NO. LB 5081
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

RESOLUTION 2023-02

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE TARA OAKS COMMUNITY DEVELOPMENT DISTRICT DIRECTING THE CHAIRMAN AND DISTRICT STAFF TO REQUEST THE PASSAGE OF AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF LEESBURG, FLORIDA, AMENDING THE DISTRICT'S BOUNDARIES, AND AUTHORIZING SUCH OTHER ACTIONS AS ARE NECESSARY IN FURTHERANCE OF THAT PROCESS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Tara Oaks Community Development District ("**District**") is a unit of special-purpose government established pursuant to the Uniform Community Development District Act of 1980, as codified in Chapter 190, *Florida Statutes* ("**Uniform Act**"), and City Commission Ordinance No. 21-17 ("**Ordinance**"); and

WHEREAS, pursuant to the Uniform Act, the District is authorized to construct, acquire, and maintain infrastructure improvements and services; and

WHEREAS, the District presently consists of approximately 194.15 acres, more or less, as more fully described in the Ordinance; and

WHEREAS, the District desires to amend its boundaries to add certain lands ("**Expansion Parcel**"), as described in the attached **Exhibit A**, and remove certain lands ("**Contraction Parcel**"), as described in the attached **Exhibit B**, resulting in an amended boundary ("**Boundary Amendment**"); and

WHEREAS, the Boundary Amendment is in the best interest of the District, and the area of land within the amended boundaries of the District will continue to be of sufficient size, sufficiently compact, and sufficiently contiguous to be developable as one functionally related community; and

WHEREAS, the Boundary Amendment of the District's boundaries will allow the District to continue to be the best alternative available for delivering community development services and facilities to the lands within the District, as amended; and

WHEREAS, Boundary Amendment is not inconsistent with either the State or local comprehensive plan and will not be incompatible with the capacity and uses of existing local and regional community development services and facilities; and

WHEREAS, the area of land that will lie in the amended boundaries of the District will continue to be amenable to separate special district government; and

WHEREAS, in order to seek a Boundary Amendment ordinance pursuant to Chapter 190, *Florida Statutes*, the District desires to authorize District staff, including but not limited to legal, engineering, and managerial staff, to provide such services as are necessary throughout the pendency of the process; and

WHEREAS, the retention of any necessary consultants and the work to be performed by District staff may require the expenditure of certain fees, costs, and other expenses by the District as authorized by the District's Board of Supervisors ("**Board**"); and

WHEREAS, the Developer has agreed to provide sufficient funds to the District to reimburse the District for any expenditures including, but not limited to, legal, engineering and other consultant fees, filing fees, administrative, and other expenses, if any; and

WHEREAS, the District hereby desires to request a Boundary Amendment in accordance with Chapter 190, *Florida Statutes*, by taking such actions as are necessary in furtherance of the same.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF THE TARA OAKS COMMUNITY DEVELOPMENT DISTRICT:

1. RECITALS. The recitals as stated above are true and correct and by this reference are incorporated into and form a material part of this Resolution.

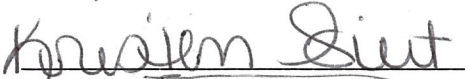
2. AUTHORIZATION FOR BOUNDARY AMENDMENT. Pursuant to Chapter 190, *Florida Statutes*, the Board hereby authorizes the Chairman and District Staff to proceed in an expeditious manner with the preparation and filing of any documentation with the City of Leesburg, Florida, as necessary to seek the amendment of the District's boundaries and to add those lands depicted in **Exhibit A** and remove those lands depicted in **Exhibit B**. The Board further authorizes the prosecution of the procedural requirements detailed in Chapter 190, *Florida Statutes*, for the Boundary Amendment.

3. AUTHORIZATION FOR AGENT. The Board hereby authorizes the District Chairman, District Manager and District Counsel to act as agents of the District with regard to any and all matters pertaining to the petition to the City of Leesburg, Florida, to amend the boundaries of the District. District Staff, in consultation with the District Chairman, is further authorized to revise **Exhibit A** and **Exhibit B**, in order to address any further boundary adjustments as may be identified by the District Engineer. The District Manager shall ensure that the final versions of **Exhibit A** and **Exhibit B** as confirmed by the Chairman are attached hereto.

4. EFFECTIVE DATE. This Resolution shall become effective upon its passage.

PASSED AND ADOPTED this 13th day of March, 2023.

ATTEST:


Secretary/Assistant Secretary

**TARA OAKS COMMUNITY DEVELOPMENT
DISTRICT**

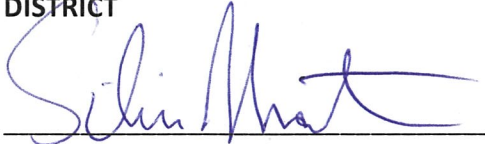

Chair/Vice Chair, Board of Supervisors

Exhibit A: Legal Description of Expansion Parcel
Exhibit B: Legal Description of Contraction Parcel

Exhibit A:
Legal Description of Expansion Parcel

.

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE NORTH 1/2 OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE S.E. CORNER OF SAID SECTION 17, THENCE ALONG THE EAST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°45'17"E., A DISTANCE OF 1316.66 FEET TO THE S.E. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING THE EAST BOUNDARY OF SAID S.E. 1/4 OF SECTION 17, ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17, N.89°13'19"W., A DISTANCE OF 528.01 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID SOUTH BOUNDARY, N.89°13'19"W., A DISTANCE OF 2107.57 FEET TO THE S.W. CORNER OF THE NORTH 1/2 OF THE S.E. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.00°51'51"E., A DISTANCE OF 1297.18 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID SOUTH RIGHT OF WAY LINE, S.89°06'07"E., A DISTANCE OF 2166.76 FEET; THENCE DEPARTING SAID SOUTH RIGHT OF WAY LINE, S.00°45'17"W., A DISTANCE OF 441.33 FEET; THENCE S.40°46'55"W., A DISTANCE OF 77.63 FEET; THENCE S.49°56'59"E., A DISTANCE OF 134.15 FEET; THENCE S.28°14'24"W., A DISTANCE OF 117.80 FEET; THENCE S.00°46'41"W., A DISTANCE OF 485.12 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 63.71 ACRES, MORE OF LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING N.89°13'19"W.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2

ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

℄ = CENTERLINE OF RIGHT OF WAY
O.R. = OFFICIAL RECORDS OF LAKE COUNTY
C.B. = CHORD BEARING
- - - = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/29/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

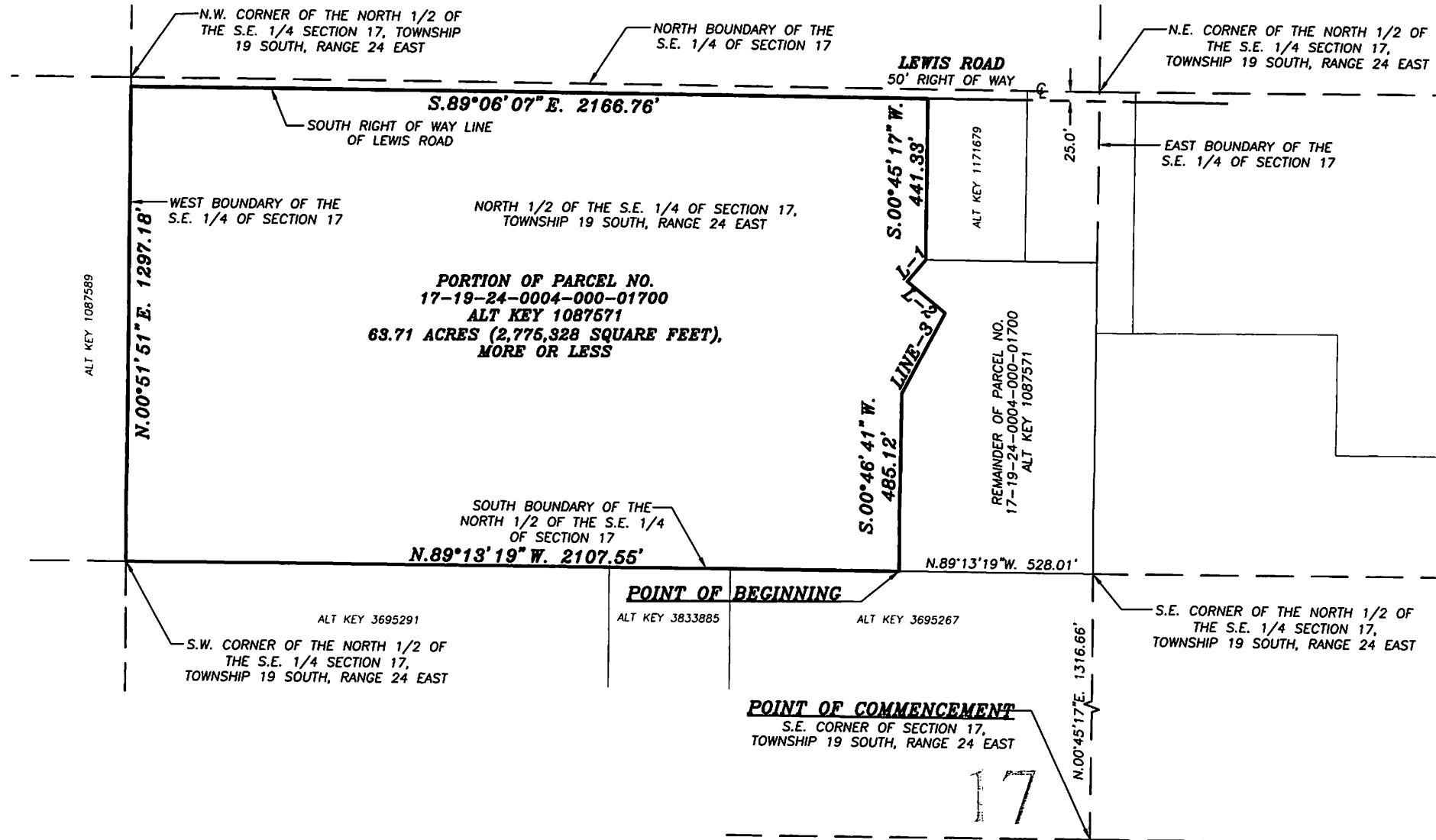
TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK EXP
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 400'		COPYRIGHT © APRIL, 2023



SHEET 2 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES & SURVEYOR'S CERTIFICATION

LINE TABLE	
LINE	BEARING & DISTANCE
L-1	S.40°46'55"W. 77.63'
L-2	S.49°56'59"E. 134.15'
LINE-3	S.28°14'24"W. 117.80'

SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST

DRAWN:	S. W. M.
REVISED:	
CHECKED:	T. P. B.
APPROVED:	T. P. B.
SCALE: 1" = 400'	

R.M. BARRINEAU
— **AND ASSOCIATES** —
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 368-3771 + www.rmBarrineau.com

BEGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5097
TRAVIS P. BARRINEAU, P.S.M. - LS 6697

TRAVIS P. BARRINEAU, P.S.M. - LS 6897

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

A PORTION OF THE NORTH 1/2 OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE N.E. CORNER OF SAID SECTION 20, THENCE ALONG THE EAST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.00°44'07"W., A DISTANCE OF 1329.94 FEET TO THE S.E. CORNER OF N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING THE EAST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 1321.28 FEET TO THE S.W. CORNER OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING THE S.E. CORNER OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING THE POINT OF BEGINNING. THENCE DEPARTING THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.89°20'54"W., A DISTANCE OF 1321.36 FEET TO THE S.W. CORNER OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE DEPARTING THE SOUTH BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, ALONG THE WEST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, N.00°53'26"E., A DISTANCE OF 839.57 FEET; THENCE DEPARTING THE WEST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.89°06'34"E., A DISTANCE OF 585.15 FEET; THENCE S.16°51'51"E., A DISTANCE OF 141.97 FEET; THENCE S.70°00'31"E., A DISTANCE OF 81.87 FEET TO A POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 32°24'48" AND A CHORD BEARING AND DISTANCE OF N.36°11'53"E., 55.82 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 56.57 FEET TO THE END OF SAID CURVE; THENCE N.52°24'17"E., A DISTANCE OF 438.47 FEET TO A POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 38°25'50" AND A CHORD BEARING AND DISTANCE OF N.71°37'12"E., 65.82 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 67.07 FEET TO THE END OF SAID CURVE; THENCE S.89°09'53"E., A DISTANCE OF 176.59 FEET TO A POINT ON THE EAST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, SAID POINT ALSO BEING ON THE WEST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20; THENCE ALONG SAID EAST BOUNDARY OF THE N.W. 1/4 OF THE N.E. 1/4 AND THE WEST BOUNDARY OF THE N.E. 1/4 OF THE N.E. 1/4 OF SAID SECTION 20, S.00°48'53"W., A DISTANCE OF 1012.38 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 26.07 ACRES MORE OR LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE NORTH BOUNDARY OF THE N.E. 1/4 OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING S.89°20'30"E.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

- ℄ = CENTERLINE OF RIGHT OF WAY
- O.R. = OFFICIAL RECORDS OF LAKE COUNTY
- C.B. = CHORD BEARING
- √- = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/14/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

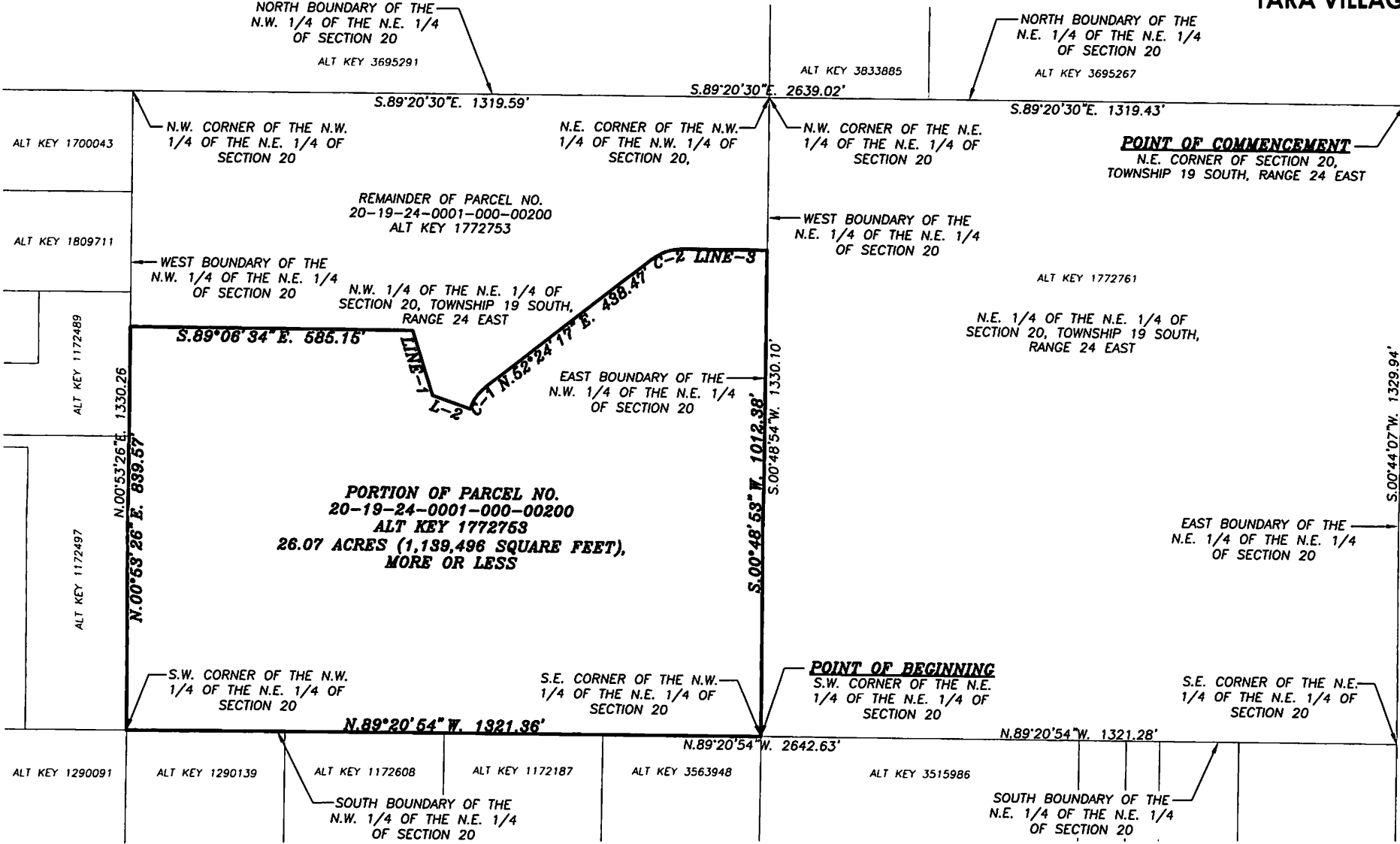
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK SCPA
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 300'		COPYRIGHT © APRIL, 2023

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.



LINE TABLE	
LINE	BEARING & DISTANCE
LINE-1	S. 16° 51' 51" E. 141.97'
L-2	S. 70° 00' 31" E. 81.87'
LINE-3	S. 89° 09' 53" E. 176.59'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD	C.B.
C-1	32° 24' 48"	100.00'	56.57'	55.82'	N. 36° 11' 53" E.
C-2	38° 25' 50"	100.00'	67.06'	65.82'	N. 71° 37' 12" E.

***NOTE* ~ THIS IS NOT A SURVEY!**
SHEET 2 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES & SURVEYOR'S CERTIFICATION



SECTION 20, TOWNSHIP 19 SOUTH, RANGE 24 EAST

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK SCPA
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 2 OF 2
SCALE: 1" = 300'		
COPYRIGHT © APRIL, 2023		

R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 28th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 389-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5081
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

Exhibit B:
Legal Description of Contraction Parcel

SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

DESCRIPTION:

PORTIONS OF THE S.W. 1/4 OF THE S.E. 1/4, THE S.E. 1/4 OF THE S.W. 1/4 AND THE N.E. 1/4 OF THE S.W. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST, LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE S.E. CORNER OF SAID SECTION 17, THENCE ALONG THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, N.89°20'30"W., A DISTANCE OF 1319.43 FEET TO THE S.E. CORNER OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID SOUTH BOUNDARY, N.89°20'30"W., A DISTANCE OF 1319.59 FEET TO THE SOUTH 1/4 CORNER OF SAID SECTION 17; THENCE DEPARTING THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SAID SECTION 17, ALONG THE SOUTH BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17, N.89°16'40"W., A DISTANCE OF 1301.29 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF LEWIS ROAD (BEING A FIFTY FOOT RIGHT OF WAY); THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID EAST RIGHT OF WAY LINE, N.00°50'17"E., A DISTANCE OF 851.17 FEET; THENCE DEPARTING SAID EAST RIGHT OF WAY LINE S.89°11'24"E., A DISTANCE OF 795.00 FEET; THENCE N.00°50'17"E., A DISTANCE OF 473.00 FEET TO A POINT ON THE SOUTH BOUNDARY OF THE N.E. 1/4 OF THE S.W. 1/4 OF SAID SECTION 17; THENCE ALONG SAID SOUTH BOUNDARY, N.89°11'24"W., A DISTANCE OF 779.95 FEET TO A POINT ON THE PROPOSED EAST RIGHT OF WAY LINE OF AFOREMENTIONED LEWIS ROAD; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID PROPOSED EAST RIGHT OF WAY LINE, N.00°50'14"E., A DISTANCE OF 973.82 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 310.00 FEET, A CENTRAL ANGLE OF 90°03'39" AND A CHORD BEARING AND DISTANCE OF N.45°52'04"E., 438.64 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND PROPOSED EAST RIGHT OF WAY LINE, A DISTANCE OF 487.28 FEET TO A POINT ON THE PROPOSED SOUTH RIGHT OF WAY LINE OF SAID LEWIS ROAD; THENCE DEPARTING THE PROPOSED EAST RIGHT OF WAY LINE OF SAID LEWIS ROAD, ALONG THE PROPOSED SOUTH RIGHT OF LINE OF SAID LEWIS ROAD, S.89°06'07"E., A DISTANCE OF 979.10 FEET TO A POINT ON THE EAST BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17; THENCE DEPARTING SAID PROPOSED SOUTH RIGHT OF WAY LINE, ALONG SAID EAST BOUNDARY, S.00°54'40"W., A DISTANCE OF 1621.75 FEET TO THE S.E. CORNER OF THE N.E. 1/4 OF THE S.W. 1/4 OF SAID SECTION 17; THENCE CONTINUE ALONG THE EAST BOUNDARY OF THE S.W. 1/4 OF SAID SECTION 17, S.00°54'44"W., A DISTANCE OF 697.61 FEET; THENCE DEPARTING SAID EAST BOUNDARY, S.89°21'29"E., A DISTANCE OF 198.30 FEET; THENCE N.14°48'59"W., A DISTANCE OF 106.18 FEET; THENCE N.02°50'55"E., A DISTANCE OF 117.80 FEET; THENCE N.33°46'27"E., A DISTANCE OF 145.42 FEET; THENCE N.61°36'52"E., A DISTANCE OF 143.29 FEET; THENCE N.84°49'11"E., A DISTANCE OF 148.86 FEET; THENCE N.63°57'39"E., A DISTANCE OF 125.92 FEET; THENCE N.45°46'02"E., A DISTANCE OF 84.32 FEET; THENCE N.00°47'01"E., A DISTANCE OF 95.38 FEET; THENCE S.89°12'59"E., A DISTANCE OF 343.11 FEET; THENCE S.00°50'07"W., A DISTANCE OF 828.05 FEET; THENCE S.89°09'53"E., A DISTANCE OF 55.00 FEET; THENCE S.00°50'07"W., A DISTANCE OF 23.05 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 70°28'12" AND A CHORD BEARING AND DISTANCE OF S.34°23'59"E., 23.08 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 24.60 FEET TO THE POINT OF REVERSE CURVATURE OF A CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 430.00 FEET, A CENTRAL ANGLE OF 04°46'55" AND A CHORD BEARING AND DISTANCE OF S.67°14'38"E., 35.88 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 35.89 FEET TO THE POINT OF REVERSE CURVATURE OF A CURVE, CONCAVE NORTHERLY, HAVING A RADIUS OF 370.00 FEET, A CENTRAL ANGLE OF 15°56'43" AND A CHORD BEARING AND DISTANCE OF S.72°49'32"E., 102.64 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 102.97 FEET TO THE POINT OF COMPOUND CURVATURE OF A CURVE, CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 98°21'59" AND A CHORD BEARING AND DISTANCE OF N.50°01'08"E., 30.27 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 34.34 FEET TO THE END OF SAID CURVE; THENCE S.89°11'04"E., A DISTANCE OF 55.50 FEET TO A POINT ON THE EAST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 17, THENCE ALONG SAID EAST BOUNDARY, S.00°48'56"W., A DISTANCE OF 29.05 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 85.37 ACRES, MORE OR LESS.

NOTES:

- 1. DATE OF SKETCH: APRIL 11, 2023.
- 2. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD.
- 3. PUBLIC RECORDS NOT SEARCHED BY R.M. BARRINEAU & ASSOCIATES, INC.
- 4. BEARINGS ARE ASSUMED BASED ON THE SOUTH BOUNDARY OF THE S.E. 1/4 OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST AS BEING N.89°20'30"W.
- 5. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 6. THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM R.M. BARRINEAU & ASSOCIATES, INC.

NOTE ~ THIS IS NOT A SURVEY!

SHEET 1 OF 2
ONE IS NOT COMPLETE WITHOUT THE OTHER

LEGEND UNLESS OTHERWISE NOTED

- CL = CENTERLINE OF RIGHT OF WAY
- O.R. = OFFICIAL RECORDS OF LAKE COUNTY
- C.B. = CHORD BEARING
- - - = BROKEN LINE; NOT DRAWN TO SCALE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THE SKETCH REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

4/24/2023

SIGNATURE DATE

TRAVIS@RMBARRINEAU.COM

Travis P. Barrineau

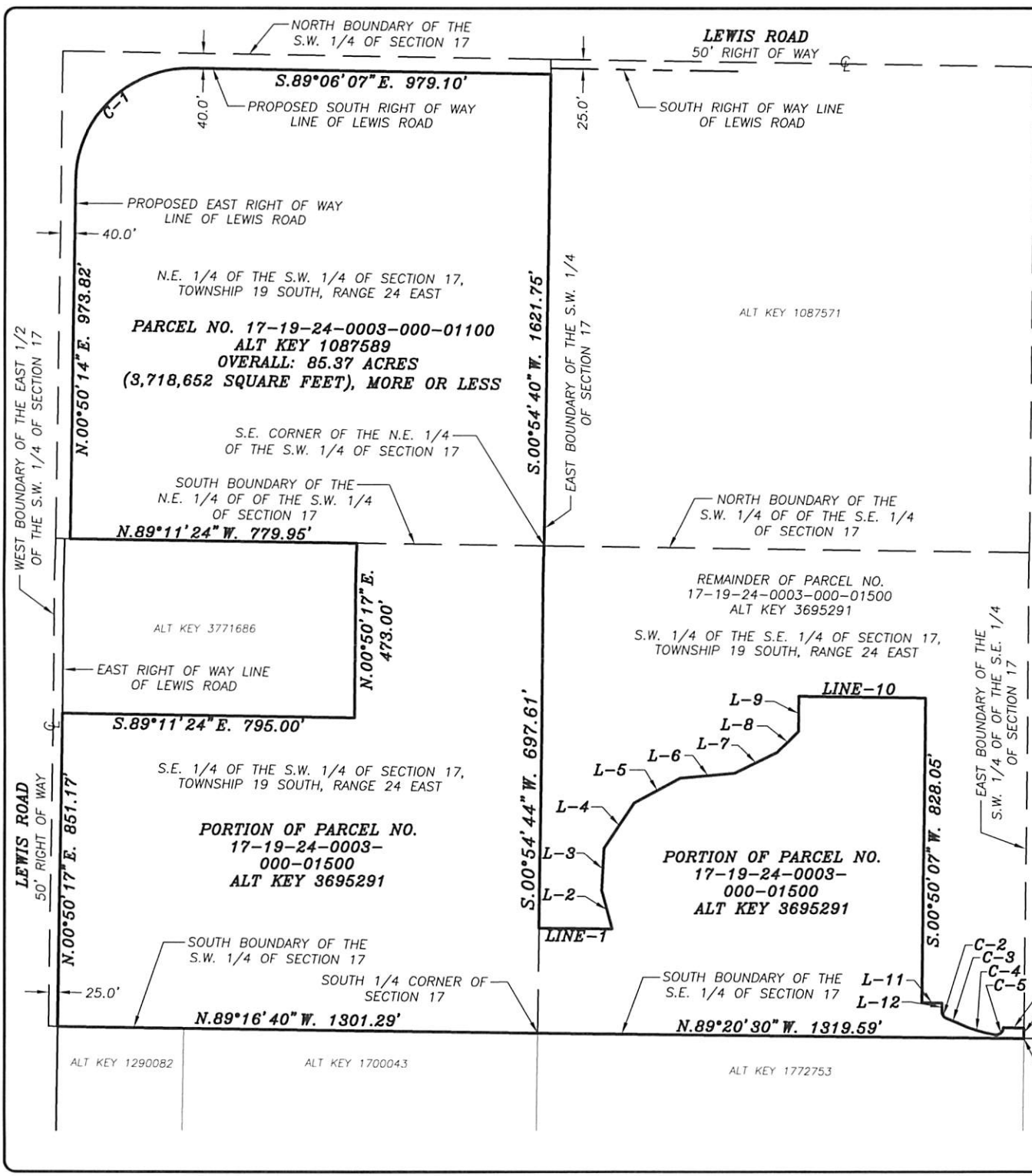
TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471
PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

DRAWN:	S.W.M.	J.O.# 21043
REVISED:		DWG.# 21043SK CON
CHECKED:	T.P.B.	
APPROVED:	T.P.B.	SHEET 1 OF 2
SCALE: 1" = 400'		COPYRIGHT © APRIL, 2023



SKETCH OF DESCRIPTION FOR:
TARA VILLAGE, INC.

LINE TABLE	
LINE	BEARING & DISTANCE
LINE-1	S.89°21'29"E. 198.30'
L-2	N.14°48'59"W. 106.18'
L-3	N.02°50'55"E. 117.80'
L-4	N.33°46'27"E. 145.42'
L-5	N.61°36'52"E. 143.29'
L-6	N.84°49'11"E. 148.86'
L-7	N.63°57'39"E. 125.92'
L-8	N.45°46'02"E. 84.32'
L-9	N.00°47'01"E. 95.38'
LINE-10	S.89°12'59"E. 343.11'
L-11	S.89°09'53"E. 55.00'
L-12	S.00°50'07"W. 23.05'
L-13	S.89°11'04"E. 55.50'
L-14	S.00°48'56"W. 29.05'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD	C.B.
C-1	90°03'39"	310.00'	487.28'	438.64'	N.45°52'04"E.
C-2	70°28'12"	20.00'	24.60'	23.08'	S.34°23'59"E.
C-3	04°46'55"	430.00'	35.89'	35.88'	S.67°14'38"E.
C-4	15°56'43"	370.00'	102.97'	102.64'	S.72°49'32"E.
C-5	98°21'59"	20.00'	34.34'	30.27'	N.50°01'08"E.

SHEET 2 OF 2
ONE IS NOT COMPLETE
WITHOUT THE OTHER
SEE SHEET 1 OF 2
FOR DESCRIPTION, NOTES &
SURVEYOR'S CERTIFICATION

NOTE ~ THIS IS NOT A SURVEY!



SECTION 17, TOWNSHIP 19 SOUTH, RANGE 24 EAST

DRAWN: S.W.M.

REVISED:

CHECKED: T.P.B.

APPROVED: T.P.B.

SCALE: 1" = 400'

J.O.# 21043

DWG.# 21043SK CON

SHEET 2 OF 2

COPYRIGHT © APRIL, 2023

R.M. BARRINEAU
AND ASSOCIATES

PROFESSIONAL SURVEYORS & MAPPERS

Oakhurst Professional Park + 1309 S.E. 25th Loop+Suite 103+Ocala, FLORIDA 34471

PHONE (352) 622-3133 + FAX (352) 369-3771 + www.rmBarrineau.com

REGINALD M. BARRINEAU, P.S.M. - FOUNDER + CERTIFICATE OF AUTHORIZATION NO. LB 5091

TRAVIS P. BARRINEAU, P.S.M. - LS 6897

EXHIBIT 7

J:\Ovi 3d Projects\1810028.107 CDD CONTRACTION\dwg\Plans\CDD EXHIBITS.dwg, EXHIBIT 5 FUTURE FLU, 6/2/2023 2:30:56 PM, ***VL***

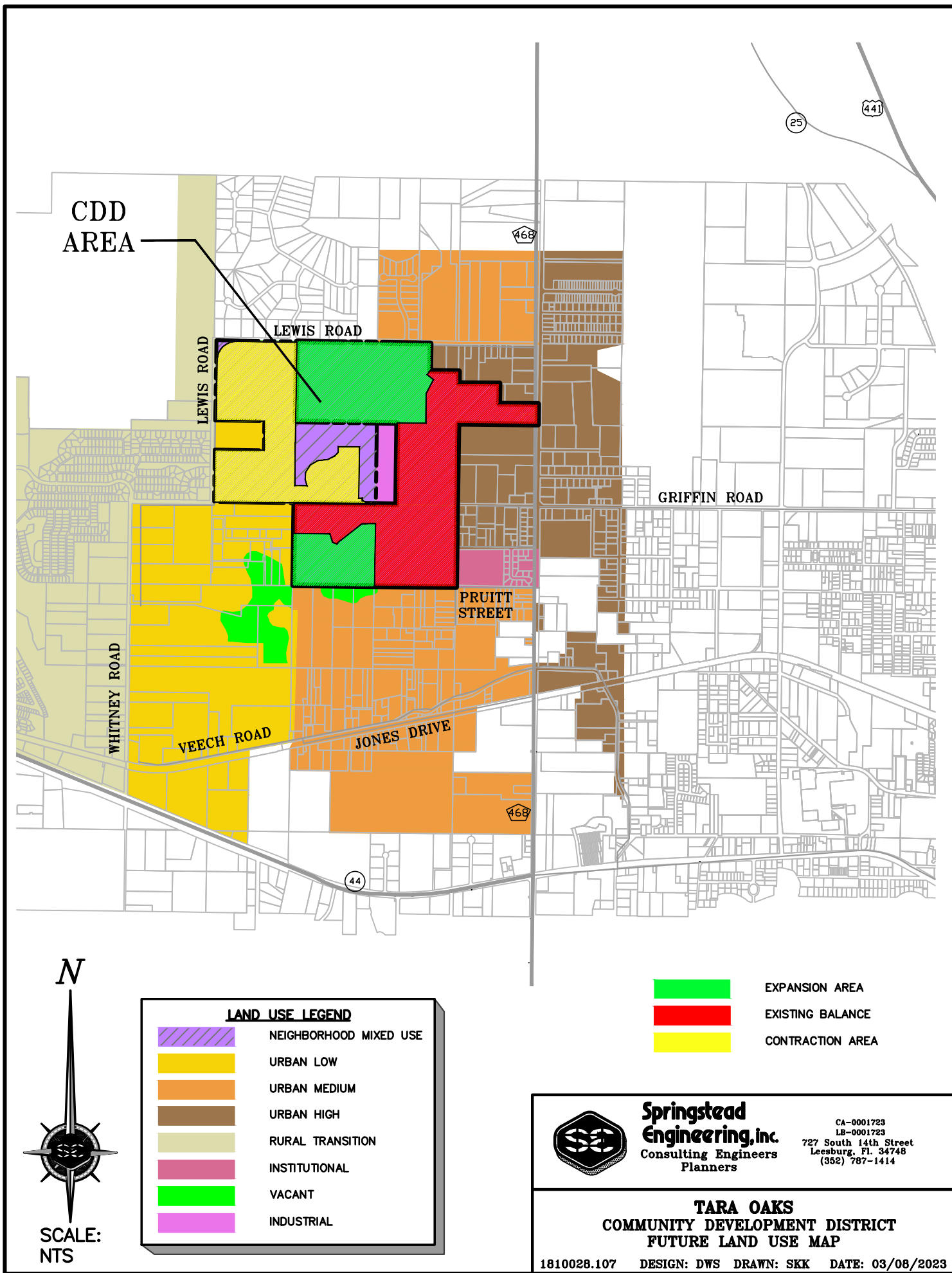


EXHIBIT 8

**TARA OAKS COMMUNITY DEVELOPMENT DISTRICT
PROPOSED FACILITIES & ESTIMATED COSTS**

Improvement	Estimated Cost	Financing Entity	Operations Entity
Stormwater/Drainage/Earthwork	\$ 6,614,379	CDD	CDD
Roads/Curbing	\$ 5,454,428	CDD	City of Leesburg
Water, Sewer & Wastewater Utilities	\$ 7,679,993	CDD	City of Leesburg
Hardscape, Landscape & Irrigation	\$ 377,017	CDD	CDD
Street Lights*	\$ 63,521	CDD	CDD
Undergrounding of Electric	\$ 1,384,000	CDD	City of Leesburg
Natural Gas Distribution	\$ 715,217	CDD	City of Leesburg
Professional Services	\$ 2,415,098	CDD	CDD
10% Contingency	\$ 2,012,582	CDD	CDD

Total: \$ 26,716,235

* The CDD may alternatively elect to lease the lights, in which case the lights would be owned by the Leesburg Electric Department.

The Developer may alternatively elect to privately finance certain of the improvements above and have an HOA own and operate such improvements instead of the District.

EXHIBIT 9

Tara Oaks

COMMUNITY DEVELOPMENT DISTRICT

Statement of Estimated Regulatory Costs

May 26, 2023



Provided by

Wrathell, Hunt and Associates, LLC

2300 Glades Road, Suite 410W

Boca Raton, FL 33431

Phone: 561-571-0010

Fax: 561-571-0013

Website: www.whhassociates.com

STATEMENT OF ESTIMATED REGULATORY COSTS

1.0 Introduction

1.1 Purpose and Scope

This Statement of Estimated Regulatory Costs ("SERC") supports the petition to amend the boundaries of the Tara Oaks Community Development District ("District"). The District was established by Ordinance No. 21-17, passed by the Board of City Commissioners of the City of Leesburg, Florida on May 24, 2021. The current size of the District is approximately 194.15 +/- acres and the District is located entirely within the City of Leesburg, Florida (the "City"). The petition to amend the boundaries of the District seeks to add approximately 89.78 +/- acres to and remove approximately 85.37 +/- acres located in the City to the District ("Amendment Area"). After the amendment, the District will be projected to contain approximately 198.88 +/- acres. The limitations on the scope of this SERC are explicitly set out in Section 190.002(2)(d), Florida Statutes ("F.S.") (governing District establishment) as follows:

"That the process of establishing such a district pursuant to uniform general law be fair and based only on factors material to managing and financing the service delivery function of the district, so that any matter concerning permitting or planning of the development is not material or relevant (emphasis added)."

1.2 Overview of the Tara Oaks Community Development District

The District is designed to provide public infrastructure, services, and facilities along with operation and maintenance of the same to a master planned residential development.

A community development district ("CDD") is an independent unit of special purpose local government authorized by the Act to plan, finance, construct, operate and maintain community-wide infrastructure in planned community developments. CDDs provide a "solution to the state's planning, management and financing needs for delivery of capital infrastructure in order to service projected growth without overburdening other governments and their taxpayers." Section 190.002(1)(a), F.S.

A CDD is not a substitute for the local, general purpose government unit, i.e., the City or County in which the CDD lies. A CDD does not have the permitting, zoning or policing powers possessed by general purpose governments. A CDD is an alternative means of financing, constructing, operating and maintaining public infrastructure for developments, such as Tara Oaks.

1.3 Requirements for Statement of Estimated Regulatory Costs

Section 120.541(2), F.S., defines the elements a statement of estimated regulatory costs must contain:

- (a) An economic analysis showing whether the rule directly or indirectly:
 1. Is likely to have an adverse impact on economic growth, private sector job creation or employment, or private sector investment in excess of \$1 million in the aggregate within 5 years after the

implementation of the rule;

2. Is likely to have an adverse impact on business competitiveness, including the ability of persons doing business in the state to compete with persons doing business in other states or domestic markets, productivity, or innovation in excess of \$1 million in the aggregate within 5 years after the implementation of the rule; or

3. Is likely to increase regulatory costs, including any transactional costs, in excess of \$1 million in the aggregate within 5 years after the implementation of the rule.

(b) A good faith estimate of the number of individuals and entities likely to be required to comply with the rule, together with a general description of the types of individuals likely to be affected by the rule.

(c) A good faith estimate of the cost to the agency, and to any other state and local government entities, of implementing and enforcing the proposed rule, and any anticipated effect on state or local revenues.

(d) A good faith estimate of the transactional costs likely to be incurred by individuals and entities, including local government entities, required to comply with the requirements of the rule. As used in this section, "transactional costs" are direct costs that are readily ascertainable based upon standard business practices, and include filing fees, the cost of obtaining a license, the cost of equipment required to be installed or used or procedures required to be employed in complying with the rule, additional operating costs incurred, the cost of monitoring and reporting, and any other costs necessary to comply with the rule.

(e) An analysis of the impact on small businesses as defined by s. 288.703, and an analysis of the impact on small counties and small cities as defined in s. 120.52. The impact analysis for small businesses must include the basis for the agency's decision not to implement alternatives that would reduce adverse impacts on small businesses. (City of Leesburg, according to the Census 2020, has a population of 27,000; therefore, it is not defined as a small City for the purposes of this requirement.)

(f) Any additional information that the agency determines may be useful.

(g) In the statement or revised statement, whichever applies, a description of any regulatory alternatives submitted under paragraph (1)(a) and a statement adopting the alternative or a statement of the reasons for rejecting the alternative in favor of the proposed rule.

Note: the references to "rule" in the statutory requirements for the Statement of Estimated Regulatory Costs also apply to an "ordinance" under section 190.005(2)(a), F.S.

- 2.0 An economic analysis showing whether the ordinance directly or indirectly:**
- 1. Is likely to have an adverse impact on economic growth, private sector job creation or employment, or private sector investment in excess of \$1 million in the aggregate within 5 years after the implementation of the ordinance;**
 - 2. Is likely to have an adverse impact on business competitiveness, including the ability of persons doing business in the state to compete with persons doing business in other states or domestic markets, productivity, or innovation in excess of \$1 million in the aggregate within 5 years after the implementation of the ordinance; or**
 - 3. Is likely to increase regulatory costs, including any transactional costs, in excess of \$1 million in the aggregate within 5 years after the implementation of the ordinance.**

The ordinance amending the boundaries of the District is not anticipated to have any direct or indirect adverse impact on economic growth, private sector job creation or employment, private sector investment, business competitiveness, ability of persons doing business in the state to compete with persons doing business in other states or domestic markets, productivity, or innovation. Any increases in regulatory costs, principally the anticipated increases in transactional costs as a result of imposition of special assessments by the District on the Amended Area will be the direct result of facilities and services provided by the District to the landowners within the Amendment Area. However, as property ownership in the District is voluntary and all additional costs will be disclosed to prospective buyers prior to sale, such increases should be considered voluntary, self-imposed and offset by benefits received from the infrastructure and services provided by the District.

2.1 Impact on economic growth, private sector job creation or employment, or private sector investment in excess of \$1 million in the aggregate within 5 years after the implementation of the ordinance.

The sole reason for the amending of the District's boundaries is to provide public facilities and services to support the development of a new, master planned residential development. The development of the larger, approximately 198.88 +/- acres, parcel will promote local economic activity, create local value, lead to local private sector investment and is likely, at least in the short term, to support local private sector employment and/or lead to local new job creation to a degree likely similar to that of a smaller, pre-amendment, approximately 194.15 +/- acre, parcel contained within the existing District boundaries.

Amending the boundaries of the District will allow it to plan, fund, implement, operate and maintain, for the benefit of the landowners within the amended and smaller District, various public facilities and services for a larger-sized development. Such facilities and services, as further described in Section 5, will allow for the development of the land within the amended District. The provision of District's infrastructure and the subsequent development of land will generate private economic activity, economic growth, investment and employment, and job creation. The District intends to use proceeds of indebtedness to fund construction of public infrastructure, which will be constructed by private firms, and once constructed, is likely to use private firms to operate and maintain such infrastructure and provide services to the landowners and residents of the amended and larger District. The private developer of the land in the amended and larger District will use its private funds to conduct the private land development and construction of residential dwelling units the construction, sale, and continued use/maintenance of which will involve private firms. While similar economic growth, private sector job creation or employment, or private sector investment could be achieved without amending the District's boundaries by the private sector alone, the fact that the amendment of the District's boundaries is initiated by the private developer means that the private developer considers the amendment of the District's boundaries

and continued operation of the District as beneficial to the process of land development and the future economic activity taking place within the amended and larger District, which in turn will lead directly or indirectly to economic growth, likely private sector job growth and/or support private sector employment, and private sector investments.

2.2 Impact on business competitiveness, including the ability of persons doing business in the state to compete with persons doing business in other states or domestic markets, productivity, or innovation in excess of \$1 million in the aggregate within 5 years after the implementation of the ordinance.

When assessing the question of whether the amending of the boundaries of the District is likely to directly or indirectly have an adverse impact on business competitiveness, including the ability of persons doing business in the state to compete with persons doing business in other states or domestic markets, productivity, or innovation, one has to compare these factors in the presence and in the absence of the amended District boundaries in the development. When the question is phrased in this manner, it can be surmised that the amendment of the District's boundaries is likely to not have a direct or indirect adverse impact on business competitiveness, productivity, or innovation versus that same development without the amended and larger District. Similar to a purely private solution, District contracts will be bid competitively as to achieve the lowest cost/best value for the particular infrastructure or services desired by the landowners, which will insure that contractors wishing to bid for such contracts will have to demonstrate to the District the most optimal mix of cost, productivity and innovation. Additionally, the amendment of the District's boundaries for the development is not likely to cause the award of the contracts to favor non-local providers any more than if there was a larger District. The amended and larger District, in its purchasing decisions, will not vary from the same principles of cost, productivity and innovation that guide private enterprise.

2.3 Likelihood of an increase in regulatory costs, including any transactional costs, in excess of \$1 million in the aggregate within 5 years after the implementation of the ordinance.

The amendment of the District's boundaries will not increase any regulatory costs of the State or the City by virtue that the District has already been established and amending its size does not change the regulatory requirements that the District will be subject to after the initial review of the petition to amend its boundaries by the City and approval of such petition by the City. As described in more detail in Section 4, the District will pay a one-time filing fee to the City to offset any expenses that the City may incur in the processing of this petition to amend the District's boundaries.

The amending of the District's boundaries will, however, directly increase regulatory costs to the landowners within the Amendment Area. Such increases in regulatory costs, principally the anticipated increases in transactional costs as a result of likely imposition of special assessments and use fees by the District, will be the direct result of facilities and services provided by the District to the landowners within the Amendment Area. However, as property ownership in the District is completely voluntary, all current property owners within the Amendment Area must consent to the amendment of the District's boundaries and the likelihood of additional transaction costs, and all initial prospective buyers will have such additional transaction costs disclosed to them prior to sale, as required by State law. Such costs, however, should be considered voluntary, self-imposed, and as a tradeoff for the service and facilities provided by the District. As to the anticipated amount of the transactional costs in the aggregate within 5 years, they are anticipated to not exceed \$5,000,000.

3.0 A good faith estimate of the number of individuals and entities likely to be required to comply with the ordinance, together with a general description of the types of individuals likely to be affected by the ordinance.

The proposed amended District will serve land that comprises an approximately 198.88 +/- acre master planned residential development. The City and certain state agencies will not be affected by or required to comply with the ordinance as more fully discussed hereafter.

4.0 A good faith estimate of the cost to the agency, and to any other state and local government entities, of implementing and enforcing the proposed ordinance, and any anticipated effect on state or local revenues.

There is no state agency promulgating any rule relating to this project and there is no anticipated effect of the ordinance amending the District's boundaries on state or local revenues.

4.1 Costs to Governmental Agencies of Implementing and Enforcing Ordinance

Because the result of adopting the ordinance is the amendment of the boundaries of an existing independent local special purpose government, there will be no additional enforcing responsibilities of any other government entity, but there will be various implementing responsibilities which are identified with their costs herein.

State Governmental Entities

Amending the boundaries of an already existing independent local special purpose government will result in no costs to any State governmental entities to implement and enforce the proposed amended and enlarged District.

City of Leesburg, Florida

The existing District as well as the Amendment Area are both located within the City of Leesburg, Florida. The City and its staff may process, analyze, conduct a public hearing, and vote upon the petition to amend the boundaries of the District. These activities will absorb some resources; however, these costs incurred by the City will be modest for a number of reasons. First, the City approved ordinance establishing the District in 2021 and that petition possessed much information about the District and City staff should be generally familiar with the District. Second, review of the petition to amend the boundaries of the District does not include analysis of the project itself. Third, the petition itself provides much of the information needed for a staff review. Fourth, the City already possesses the staff needed to conduct the review without the need for new staff. Fifth, there is no capital required to review the petition. Sixth, the potential costs are offset by a filing fee included with the petition to offset any expenses the City may incur in the processing of this petition. Finally, the City already processes similar petitions, though for entirely different subjects, for land uses and zoning changes that are far more complex than the petition to amend the boundaries of a community development district.

Further, there will be no increase in the very small annual costs to City, because of the amendment of the District's boundaries. The District is an independent unit of local government. The only annual costs the City faces, which will not change with the amendment of the District's boundaries, are the minimal costs of receiving and reviewing the various reports that the District is required to provide to the City, or any

monitoring expenses the City may incur if it maintains a monitoring program for this District.

4.2 Impact on State and Local Revenues

Adoption of the proposed ordinance will have no negative impact on state or local revenues. The District is an independent unit of local government. It is designed to provide infrastructure facilities and services to serve the development project and it has its own sources of revenue. No state or local subsidies are required or expected.

Any non-ad valorem assessments levied by the District will not count against any millage caps imposed on other taxing authorities providing services to the lands within the District. It is also important to note that any debt obligations the District may incur are not debts of the State of Florida or any other unit of local government. By Florida law, debts of the District are strictly its own responsibility.

5.0 A good faith estimate of the transactional costs likely to be incurred by individuals and entities, including local government entities, required to comply with the requirements of the ordinance.

Table 1 provides an outline of the various facilities and services the proposed District may provide. Financing for these facilities is projected to be provided by the District.

Table 2 illustrates the estimated costs of construction of the capital facilities, outlined in Table 1. Total costs of construction for those facilities that may be provided are estimated to be approximately \$26,716,235. The District may levy non-ad valorem special assessments (by a variety of names) and may issue special assessment bonds to fund the costs of these facilities. These bonds would be repaid through non-ad valorem special assessments levied on all developable properties in the District that may benefit from the District's infrastructure program as outlined in Table 2.

Prospective future landowners in the proposed District may be required to pay non-ad valorem special assessments levied by the District to provide for facilities and secure any debt incurred through bond issuance. In addition to the levy of non-ad valorem special assessments which may be used for debt service, the District may also levy a non-ad valorem assessment to fund the operations and maintenance of the District and its facilities and services. However, purchasing a property within the District or locating in the District by new residents is completely voluntary, so, ultimately, all landowners and residents of the affected property choose to accept the non-ad valorem assessments as a tradeoff for the services and facilities that the District will provide. In addition, state law requires all assessments levied by the District to be disclosed by the initial seller to all prospective purchasers of property within the District.

Table 1

**TARA OAKS COMMUNITY DEVELOPMENT DISTRICT
Proposed Facilities and Services**

FACILITY	FUNDED BY	OWNED BY	MAINTAINED BY
Stormwater/Drainage/Earthwork	CDD	CDD	CDD
Roads/Curbing	CDD	City of Leesburg	City of Leesburg
Water, Sewer & Wastewater Utilities	CDD	City of Leesburg	City of Leesburg
Hardscape, Landscape & Irrigation	CDD	CDD	CDD
Street Lights*	CDD	CDD	CDD
Undergrounding of Electric	CDD	City of Leesburg	City of Leesburg
Natural Gas Distribution	CDD	City of Leesburg	City of Leesburg

*The CDD may alternatively elect to lease the lights, in which case the lights would be owned by the Leesburg Electric Department.

A CDD provides the property owners with an alternative mechanism of providing public services; however, special assessments and other impositions levied by the District and collected by law represent the transactional costs incurred by landowners as a result of the establishment of the District. Such transactional costs should be considered in terms of costs likely to be incurred under alternative public and private mechanisms of service provision, such as other independent special districts, City or its dependent districts, or City management but financing with municipal service benefit units and municipal service taxing units, or private entities, all of which can be grouped into three major categories: public district, public other, and private.

With regard to the public services delivery, dependent and other independent special districts can be used to manage the provision of infrastructure and services, however, they are limited in the types of services they can provide, and likely it would be necessary to employ more than one district to provide all services needed by the development.

Table 2

**TARA OAKS COMMUNITY DEVELOPMENT DISTRICT
Estimated Costs of Construction**

CATEGORY	COST
Stormwater/Drainage/Earthwork	\$6,614,379
Roads/Curbing	\$5,454,428
Water, Sewer & Wastewater Utilities	\$7,679,993
Hardscape, Landscape & Irrigation	\$377,017
Street Lights*	\$63,521
Undergrounding of Electric	\$1,384,000
Natural Gas Distribution	\$715,217
Professional Services	\$2,415,098
10% Contingency	\$2,012,582
Total	\$26,716,235

Other public entities, such as cities, are also capable of providing services, however, their costs in connection with the new services and infrastructure required by the new development and, transaction costs, would be borne by all taxpayers, unduly burdening existing taxpayers. Additionally, other public entities providing services would also be inconsistent with the State's policy of "growth paying for growth".

Lastly, services and improvements could be provided by private entities. However, their interests are primarily to earn short-term profits and there is no public accountability. The marginal benefits of tax-exempt financing utilizing CDDs would cause the CDD to utilize its lower transactional costs to enhance the quality of infrastructure and services.

In considering transactional costs of CDDs, it shall be noted that occupants of the lands to be included within the District will receive three major classes of benefits.

First, those residents in the District will receive a higher level of public services which in most instances will be sustained over longer periods of time than would otherwise be the case.

Second, a CDD is a mechanism for assuring that the public services will be completed concurrently with development of lands within the development. This satisfies the revised growth management legislation, and it assures that growth pays for itself without undue burden on other consumers. Establishment of the District will ensure that these landowners pay for the provision of facilities, services and improvements to these lands.

Third, a CDD is the sole form of local governance which is specifically established to provide District landowners with planning, construction, implementation and short and long-term maintenance of public infrastructure at sustained levels of service.

The cost impact on the ultimate landowners in the development is not the total cost for the District to provide infrastructure services and facilities. Instead, it is the incremental costs above, if applicable, what the landowners would have paid to install infrastructure via an alternative financing mechanism.

Consequently, a CDD provides property owners with the option of having higher levels of facilities and services financed through self-imposed revenue. The District is an alternative means to manage necessary development of infrastructure and services with related financing powers. District management is no more expensive, and often less expensive, than the alternatives of various public and private sources.

6.0 An analysis of the impact on small businesses as defined by Section 288.703, F.S., and an analysis of the impact on small counties and small cities as defined by Section 120.52, F.S.

There will be little impact on small businesses because of the establishment of the District. If anything, the impact may be positive because the District must competitively bid all of its contracts and competitively negotiate all of its contracts with consultants over statutory thresholds. This affords small businesses the opportunity to bid on District work.

City of Leesburg has a population of 27,000 according to the Census 2020 conducted by the United States Census Bureau and is therefore not defined as a "small" City according to Section 120.52, F.S.

7.0 Any additional useful information.

The analysis provided above is based on a straightforward application of economic theory, especially as it relates to tracking the incidence of regulatory costs and benefits. Inputs were received from the Petitioner's Engineer and other professionals associated with the Petitioner.

In relation to the question of whether the Tara Oaks Community Development District with amended boundaries is the best possible alternative to provide public facilities and services to the project, there are several additional factors which bear importance. As an alternative to an independent district, the City could establish a dependent Special District for the Amendment Area.

There are a number of reasons why a dependent district is not the best alternative for providing public facilities and services to the Tara Oaks. First, an existing District that was established specifically to serve as the Tara Oaks development. It would be inefficient to have the existing Tara Oaks development provided with improvements and services by a dependent Special District.

Second, unlike a CDD, this alternative would require the City to administer the project and its facilities and services. As a result, the costs for these services and facilities would not be directly and wholly attributed to the land directly benefiting from them, as the case would be with a CDD. Administering a project of the size and complexity of the development program anticipated for the Tara Oaks development is a significant and expensive undertaking.

Third, a CDD is preferable from a government accountability perspective. With a CDD, residents and landowners in the District would have a focused unit of government ultimately under their direct control. The CDD can then be more responsive to resident needs without disrupting other City responsibilities. By contrast, if the City were to establish and administer a dependent Special District for the Amendment Area, then the some of the residents and landowners of the Tara Oaks development would take their grievances and desires to the City Commission meetings, and some others to the CDD Board, leading to confusion as to the which party is responsible for what area.

Fourth, any debt of an independent CDD is strictly that District's responsibility. While it may be technically true that the debt of a City-established, dependent Special District is not strictly the City's responsibility, any financial problems that a dependent Special District may have may reflect on the City. This will not be the case if a CDD is established.

Another alternative to a CDD would be for a Property Owners' Association (POA) to provide the infrastructure as well as operations and maintenance of public facilities and services for that portion of the Tara Oaks development that would not be within the CDD. A CDD is superior to a POA for a variety of reasons. First, unlike a POA, a CDD can obtain low cost funds from the municipal capital markets. Second, as a government entity a CDD can impose and collect its assessments along with other property taxes on the County's real estate tax bill. Therefore, the District is far more assured of obtaining its needed funds than is a POA. Third, the proposed District is a unit of local government. This provides a higher level of transparency, oversight and accountability. Finally, it would be inefficient to have the Tara Oaks development to change from getting the improvements and services by a CDD to a POA.

8.0 A description of any regulatory alternatives submitted under section 120.541(1)(a), F.S., and a statement adopting the alternative or a statement of the reasons for rejecting the alternative in favor of the proposed ordinance.

No written proposal, statement adopting an alternative or statement of the reasons for rejecting an alternative have been submitted.

Based upon the information provided herein, this Statement of Estimated Regulatory Costs supports the petition to amend the boundaries of the Tara Oaks Community Development District.

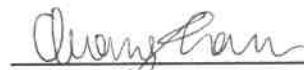
EXHIBIT 10

AUTHORIZATION OF AGENT

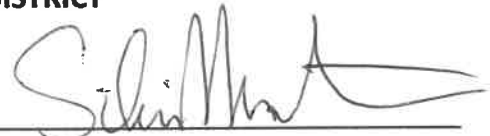
This letter shall serve as a designation of Jere Earlywine of Kutak Rock LLP, to act as agent for Petitioner, Tara Oaks Community Development District, with regard to any and all matters pertaining to the Petition to the City Commission of the City of Leesburg, Florida, to Amend the Boundaries of the Tara Oaks Community Development District pursuant to the "Uniform Community Development District Act of 1980," Chapter 190, *Florida Statutes*, Section 190.156(1), *Florida Statutes*. This authorization shall remain in effect until revoked in writing.

WITNESSES:


Name: Travis Hansen


Name: Quang Pham

TARA OAKS COMMUNITY DEVELOPMENT DISTRICT

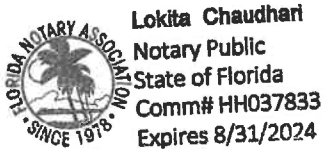

By: SILVIA MOUKHTARA NEME
Chairman, Board of Supervisors

Date: MARCH 23, 2023

STATE OF FLORIDA

COUNTY OF Alachua

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 23 day of March, 2023, by Silvia Moukhtara Neme Chairman of Tara Oaks CBD, who appeared before me this day in person, and who is either personally known to me, or produced Driver's license as identification.



Lokita Chaudhari
Notary Public
State of Florida
Comm# HH037833
Expires 8/31/2024


NOTARY PUBLIC, STATE OF FLORIDA

Name: Lokita Chaudhari
(Name of Notary Public, Printed, Stamped or
Typed as Commissioned)

NOTICE OF PUBLIC HEARING
By the City Commission for the City of Leesburg, Florida
to Consider a Petition to Amend the Boundaries of the
Tara Oaks Community Development District

DATE: **October 23, 2023 (First Reading)**
 November 13, 2023 (Second Reading/Public Hearing)

TIME: **5:30 P.M.**

LOCATION: **City Hall, Third Floor Commission Chambers**
 501 West Meadow Street
 Leesburg, Florida 34748

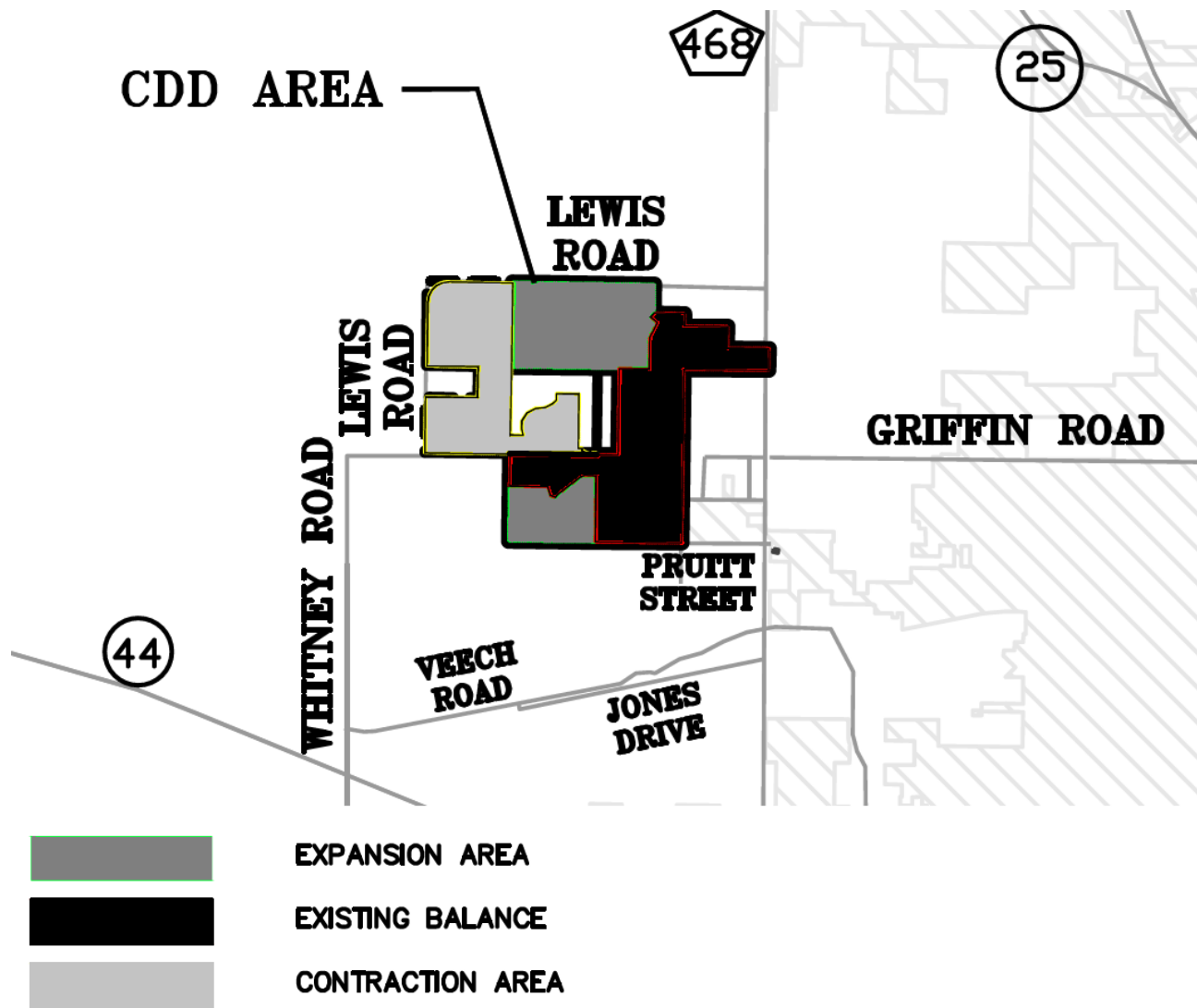
In compliance with the provisions of Chapter 190, Florida Statutes, a public hearing will be held by the City Commission for the City of Leesburg, Florida, to consider an ordinance to adopt an amendment to Ordinance No. 21-17 and amend the boundaries of the Tara Oaks Community Development District ("District").

The District is comprised of 194.15 acres, more or less, generally located south and east of Lewis Road, west of US 441 and north of Pruitt Street, entirely within the City of Leesburg, Florida. The District has submitted a petition to amend the boundary of the District by removing 85.37 acres, more or less, and adding 89.87 acres, more or less, for an amended total of approximately 198.88 acres, more or less.

Copies of the petition and the proposed ordinance are open to public inspection at the City Clerk's Office, 501 West Meadow Street, Leesburg, Florida 34748, during regular business hours. For more information, call (352)728-9786.

All interested persons and affected units of general-purpose government shall be given an opportunity to appear at the hearing and present oral or written comments on the petition. Any persons or affected unit of general-purpose local government, who wish to appeal any decision made by the Board with respect to any matter considered at this public hearing will need a record of the proceedings. For that purpose the person or unit of general-purpose local government may need to insure that a verbatim record of the proceedings is made that includes the testimony and evidence upon which the appeal is to be based.

If you are a person with a disability who needs any accommodation in order to participate in this proceeding, you are entitled, at no cost to you, to the provision of certain assistance. Within five working days of receipt of this notice, please contact the ADA Coordinator, at (352)728-9786, ext. 1210, or at City Hall, 501 West Meadow Street, Leesburg, Florida 34748.



PUBLISH: October 30, 2023

PUBLICATION REQUIREMENT UNDER S. 190.046(1)(b), F.S.: "A public hearing shall be held in the same manner and with the same public notice as other ordinance amendments."

City of Leesburg Lake Front City

Agenda Memorandum

Item No: 6.C.1.

Meeting Date: October 23, 2023

From: Al Minner, (City Manager)

Subject: City Manager Evaluation

Staff Recommendation:

As may be determined by the City Commission.

Analysis:

The purpose of this item is to provide a performance review for the City Manager.

Procurement Analysis:

Options:

Fiscal Impact:



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

Please rate the City Manager using the following scale:

RATING	DESCRIPTION
1	Unacceptable – Unsatisfactory Performance
2	Conditional – Requires Improvement
3	Satisfactory – Meets Commission Expectations
4	High Level of Performance – Generally Exceeds Commission Expectations
5	Exceptional – Substantially Exceeds Commission Expectations

After completing the evaluation, please provide the form to Andi Purvis, City Clerk, or Melissa Arriaga, Human Resources by Tuesday, October 18, 2023 to enable the record to be placed in the agenda package. A public review will then be conducted of the City Manager's performance at the October 23, 2023 Regular Meeting of the City Commission.

SUPERVISION

Does the City Manager maintain a standard of respect for Department Heads' abilities and encourage their initiative? Does the City Manager challenge them to perform at their highest level?

RATING:

5

COMMENTS:

LEADERSHIP

Does the City Manager inspire others to succeed? Does the City Manager actively promote efficiency in operations? Does the City Manager demonstrate a high regard for personal ethics?

RATING:

5

COMMENTS:



CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023

COMMUNITY RELATIONS		
Does the City Manager work well with citizens and properly handle their complaints?	RATING: 5	COMMENTS:

INTERGOVERNMENTAL RELATIONS		
Does the City Manager cooperate cordially with neighboring communities and citizens while looking after the interests of the City?	RATING: 5	COMMENTS:

CITY COMMISSION RELATIONS		
Does the City Manager consistently work to ensure that the Commission is well informed on all City activities? Does the City Manager work to build positive relationships with individual Commissioners, as well as develop a collective consensus? Does the City Manager positively represent the City Commission?	RATING: 5	COMMENTS:



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

EXECUTIVE POLICY		
Does the City Manager execute the collective direction of the City Commission? Does the City Manager understand the laws and ordinances of the City and cause them to be fairly enforced?	RATING: 5	COMMENTS:

ADMINISTRATIVE DUTIES		
Does the City Manager properly handle administrative duties?	RATING: 5	COMMENTS:

FINANCIAL MANAGEMENT/BUDGET		
Does the City Manager ensure that the budget is prepared and executed in the manner approved by the City Commission? Has the City Manager been a good steward of the City's finances?	RATING: 5	COMMENTS:



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

OVERALL CITY OPERATIONS		
Does the City Manager effectively supervise and seek ways to improve overall City services?	RATING: 5	COMMENTS:

ADDITIONAL COMMENTS

I have had an excellent relationship with our city manager. I would also comment that several leaders in the business community have given high regards to Al. Keeping Al as our city manager is very important to the overall growth and success of Leesburg in my opinion.



CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023

Signature of Rater: James H. Long Jr.

Date: 9/29/23



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

Please rate the City Manager using the following scale:

RATING	DESCRIPTION
1	Unacceptable – Unsatisfactory Performance
2	Conditional – Requires Improvement
3	Satisfactory – Meets Commission expectations
4	High Level of Performance – Generally exceeds Commission Expectations
5	Exceptional – Substantially Exceeds Commission Expectations

After completing the evaluation, please provide the form to Andi Purvis, City Clerk, by Tuesday, October 18, 2023 to enable the record to be placed in the agenda package. A public review will then be conducted of the City Manager's performance at the October 23, 2023 Regular Meeting of the City Commission.

SUPERVISION

Does the City Manager maintain a standard of respect for Department Heads abilities and encourage their initiative? Does the City Manager challenge them to perform at their highest level?	RATING:	COMMENTS:
---	----------------	------------------

LEADERSHIP

Does the City Manager inspire others to succeed? Does the City Manager actively promote efficiency in operations? Does the City Manager demonstrate a high regard for personal ethics?	RATING:	COMMENTS:
--	----------------	------------------



CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023

COMMUNITY RELATIONS

Does the City Manager work well with citizens and properly handle their complaints?	RATING:	COMMENTS:
---	----------------	------------------

INTERGOVERNMENTAL RELATIONS

Does the City Manager cooperate cordially with neighboring communities and citizens while looking after the interests of the City?	RATING:	COMMENTS:
--	----------------	------------------

CITY COMMISSION RELATIONS

Does the City Manager consistently work to ensure that the Commission is well informed on all City activities? Does the City Manager work to build positive relationships with individual Commissioners, as well as develop a collective consensus? Does the City Manager positively represent the City Commission?	RATING:	COMMENTS:
---	----------------	------------------



CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023

EXECUTIVE POLICY

Does the City Manager execute the collective direction of the City Commission? Does the City Manager understand the laws and ordinances of the City and cause them to be fairly enforced?	RATING: 3	COMMENTS:
---	-------------------------	------------------

ADMINISTRATIVE DUTIES

Does the City Manager properly handle administrative duties?	RATING:	COMMENTS:
--	----------------	------------------

FINANCIAL MANAGEMENT/BUDGET

Does the City Manager ensure that the budget is prepared and executed in the manner approved by the City Commission? Has the City Manager been a good steward of the City's finances?	RATING:	COMMENTS:
---	----------------	------------------



CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023

OVERALL CITY OPERATIONS		
Does the City Manager effectively supervise and seek ways to improve overall City services?	RATING:	COMMENTS:

ADDITIONAL COMMENTS

SEE ATTACHED COMMENTS

Signature of Rater:

Date:

10/18/23

Annual Evaluation of City Manager

Areas of Evaluation	Score	Comments
Supervision	1	The CM has on many occasions used unacceptable language towards subordinates, while not allowing them to have dialogue about the issue at hand.
Leadership	3	Personally, I have not witnessed the CM inspire others to succeed.
Community Relations	2	The CM needs to improve his speech and body language when speaking with citizens. At times, the CM can come across as being aggressive and condescending.
Intergovernmental Relations	3	I personally do not have any knowledge of how the CM cooperates with neighboring communities or its citizens.
City Commission Relations	1	The CM most often is not helpful when asked to look into an issue pertaining to citizens, or providing the answers. The CM entered into an agreement with the mall to postpone payment for utilities for approximately one year. I have no knowledge of an agreement ever coming for approval, and to my knowledge this never came before the commission for approval. I am only aware of this because I read the City Audit. The CM entered into a payment agreement with the mall after he was questioned about the audit. The CM took it upon himself to enter into an agreement to have the mall repay the fees over a period of time. Again, this was not brought to the commission prior to the agreement.
Executive Policy	3	The CM follows the collective direction of the Commission.
Administrative Duties	1	Out of the fifteen Department Heads, the CM is only current on one annual evaluation. One Department Head has not had an annual evaluated since 2016 and there are many Department Heads that haven't had an annual evaluation since 2017.
Financial Management	3	I have no issue with the preparation of the budget.
Overall City Operations	3	No comment.

Signature

Date



CITY OF LEESBURG

CITY MANAGER EVALUATION – AL MINNER

OCTOBER 2023

Please rate the City Manager using the following scale:

RATING	DESCRIPTION
1	Unacceptable – Unsatisfactory Performance
2	Conditional – Requires Improvement
3	Satisfactory – Meets Commission Expectations
4	High Level of Performance – Generally Exceeds Commission Expectations
5	Exceptional – Substantially Exceeds Commission Expectations

After completing the evaluation, please provide the form to Andi Purvis, City Clerk, or Melissa Arriaga, Human Resources by Tuesday, October 18, 2023 to enable the record to be placed in the agenda package. A public review will then be conducted of the City Manager's performance at the October 23, 2023 Regular Meeting of the City Commission.

SUPERVISION		
Does the City Manager maintain a standard of respect for Department Heads' abilities and encourage their initiative? Does the City Manager challenge them to perform at their highest level?	RATING: 4.75	COMMENTS: The CM does a commendable job blending his talents with the DH team to promote creativity, efficiencies and achieve overall organizational goals. Every member of the DH Team knows specifically their target goals (financially or performance related) and what is not reasonable performance. When issues arise, the CM is quick to point them out and he looks to correct problems and not issue blame.

LEADERSHIP		
Does the City Manager inspire others to succeed? Does the City Manager actively promote efficiency in operations? Does the City Manager demonstrate a high regard for personal ethics?	RATING: 4.75	COMMENTS: Each DH knows exactly where their performance stands with the CM and this is demonstrated in that there are no organizational complaints generated at the DH level. Further, the overall message that comes from the CM office and DH offices is generally the same.



CITY OF LEESBURG

CITY MANAGER EVALUATION – AL MINNER

OCTOBER 2023

COMMUNITY RELATIONS

Does the City Manager work well with citizens and properly handle their complaints?

RATING:

4.0

COMMENTS:

To CM's credit, he has developed a very commendable relationship with the diverse community that is Leesburg. This relationship has developed over the years because the CM has garnered a reputation for being candid, honest and helpful.

With that being said, the CM's biggest error over the past year was the CM's failure to have better outreach with regard to increasing the PCA during Fall 2022. While the management and fiscal actions behind the decision were sound, the CM should have been more communicative with the public prior to ordering the increase.

To the CM's credit however, he was quick to publicly take responsibility for the error and then correct the error by providing detailed reporting and lowering the PCA as soon as it was possible.

INTERGOVERNMENTAL RELATIONS

Does the City Manager cooperate cordially with neighboring communities and citizens while looking after the interests of the City?

RATING:

5.0

COMMENTS:

The CM has an outstanding reputation for professionalism, creativity and approachability. The CM regularly receives positive feedback from other communities, residents and consultants. The greatest affirmation of the CM's performance in this category is being the 2023 Community Service Award recipient in Public Service.



CITY OF LEESBURG

CITY MANAGER EVALUATION – AL MINNER

OCTOBER 2023

CITY COMMISSION RELATIONS		
Does the City Manager consistently work to ensure that the Commission is well informed on all City activities? Does the City Manager work to build positive relationships with individual Commissioners, as well as develop a collective consensus? Does the City Manager positively represent the City Commission?	RATING: 4.75	COMMENTS: The CM has historically excelled with Commission relations because of his ability to bifurcate individual Commission requests, while building/executing the collective direction, of a sometimes non-harmonious Commission. The CM provides clear direction to Commissioners on (1) when he can be sympathetic to individual requests or, (2) when issues need to come before the entire body. If the CM has a weakness, it is to overly please individual Commissioner(s) issues at the expense of building a collective legislative direction.
EXECUTIVE POLICY		
Does the City Manager execute the collective direction of the City Commission? Does the City Manager understand the laws and ordinances of the City and cause them to be fairly enforced?	RATING: 4.75	COMMENTS: The CM provides clear advice on policy, is forthcoming about issues that will need to be directed to the entire body, and provides insight into how to work and modify existing local policy to gain achievements.
ADMINISTRATIVE DUTIES		
Does the City Manager properly handle administrative duties?	RATING: 4.5	COMMENTS: The CM does a good job of cutting through red tape and receives periodic complements from the community about helping businesses and residents through the regulatory process. While the CM may avoid documentation and needless paper work, he still manages to deliver a clear and consistent policy message to the Commission and his subordinates. His management style has modified policies, provided sound advice on potential pitfalls, and he has helped the City avoid litigation or encourage it, and won litigation, when it was in the City's best interest.



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

FINANCIAL MANAGEMENT/BUDGET

Does the City Manager ensure that the budget is prepared and executed in the manner approved by the City Commission? Has the City Manager been a good steward of the City's finances?

RATING:

5.0+

COMMENTS:

Without question, this is the CM's strongest attribute. For nearly a decade the City has completed impactful CIPs, balanced the budget, maintained good reserve levels, low utility fees, and found new and diverse funding mechanisms. The CM's accomplishments in this sector have showcased Leesburg as one of the most cost conscious and effective municipal corporations.

OVERALL CITY OPERATIONS

Does the City Manager effectively supervise and seek ways to improve overall City services?

RATING:

5.0

COMMENTS:

The collective body of work speaks for itself. Additional comments section is applicable.

ADDITIONAL COMMENTS

Whether it is handling tricky Commission issues, managing personnel, executing SOP, or finding creative solutions, like partnering with the Villages to expand the Natural Gas System; for nearly a decade the CM has productively served the City of Leesburg. From the beginning goals of addressing the "Smart Grid" catastrophe, to developing an Electric Rate Reduction Plan, to the Main Street Project, and encouraging the sale of the Fiber System (which was the catalyst for nearly \$20 million of CIPs), the City of Leesburg has consistently moved forward under the leadership of the CM and how he has facilitated the collective direction of the City Commission. The above points, are just a short list of accomplishments. More recently, the CM has begun to work with a relatively new Commission to establish new goals/directives and the same positive results are starting to occur - passing an FY 24 Budget that places funding fire services with its own dedicated revenue, delivering the lowest tax rate the City has imposed in over 40 years, and moving forward with a new group of CIPs (Marina, Pine Street, Susan/Sleepy Hollow Sports Complex, addressing blight issues in Carver Heights and even fixing up Pat Thomas Field).

It would be inappropriate not to recognize the many people involved with the success of the past decade, yet behind most every accomplishment has been the CM's consistent performance, good judgment, amicability, providing the right management style when needed and overall leadership.

Signature of Rater: _____

Date: 9 OCT 23

CITY OF ALAMOGordo
CITY MANAGER
OCTOBER 2023

October 19, 2023

Re: City Manager Evaluation

Dear Commissioners and City Manager,

As a new commissioner, I found this process very frustrating. There was not enough information given to give a meaningful assessment of Mr. Minner's job performance. In my opinion, the assessment format is substantially flawed and is in desperate need and requires an immediate need of being revamped. Until this happens, I don't see it possible for Mr. Minner to receive a fair assessment.

Regards,

Allyson Berry
Allyson Berry,

Commissioner, District 1

Category	Rating	Comments
Does the City Manager maintain a standard of respect for Board members' abilities and encourage their involvement? Does the City Manager challenge them to perform at their highest level?	3	Comments: It seems as if there were helpful to engage the public more as well as department heads. Demonstrating a high level of respect and interaction with the Board members is a positive sign.

Category	Rating	Comments
Does the City Manager maintain a standard of respect for Board members' abilities and encourage their involvement? Does the City Manager challenge them to perform at their highest level?	4	Comments: The City Manager has been helpful to engage the public more as well as department heads. Demonstrating a high level of respect and interaction with the Board members is a positive sign.



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

Please rate the City Manager using the following scale:

RATING	DESCRIPTION
1	Unacceptable – Unsatisfactory Performance
2	Conditional – Requires Improvement
3	Satisfactory – Meets Commission Expectations
4	High Level of Performance – Generally Exceeds Commission Expectations
5	Exceptional – Substantially Exceeds Commission Expectations

After completing the evaluation, please provide the form to Andi Purvis, City Clerk, or Melissa Arriaga, Human Resources by Tuesday, October 18, 2023, to enable the record to be placed in the agenda package. A public review will then be conducted of the City Manager's performance at the October 23, 2023 Regular Meeting of the City Commission.

SUPERVISION

Does the City Manager maintain a standard of respect for Department Heads' abilities and encourage their initiative? Does the City Manager challenge them to perform at their highest level?

RATING:
3

COMMENTS:
It would have been helpful to review the annual reviews of all department heads. Unfortunately, I have only observed interaction with the Department of Housing, which I found unsatisfactory.

LEADERSHIP

Does the City Manager inspire others to succeed? Does the City Manager actively promote efficiency in operations? Does the City Manager demonstrate a high regard for personal ethics?

RATING:
4

COMMENTS:
Again, this requires qualification. I have not witnessed interaction with others. He has been incredibly supportive and encouraging to me.



CITY OF LEESBURG CITY MANAGER EVALUATION – AL MINNER OCTOBER 2023

COMMUNITY RELATIONS		
Does the City Manager work well with citizens and properly handle their complaints?	RATING: 4	COMMENTS: Several of my constituents have contacted Mr. Minner with concerns and he has responded timely and appropriately.

INTERGOVERNMENTAL RELATIONS		
Does the City Manager cooperate cordially with neighboring communities and citizens while looking after the interests of the City?	RATING: 4	COMMENTS: No systems were established to evaluate this area.

CITY COMMISSION RELATIONS		
Does the City Manager consistently work to ensure that the Commission is well informed on all City activities? Does the City Manager work to build positive relationships with individual Commissioners, as well as develop a collective consensus? Does the City Manager positively represent the City Commission?	RATING: 4	COMMENTS: I have been impressed by the amount of knowledge Mr. Minner manages and how well he keeps the commissioners informed.



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

EXECUTIVE POLICY		
Does the City Manager execute the collective direction of the City Commission? Does the City Manager understand the laws and ordinances of the city and cause them to be fairly enforced?	RATING: 5	COMMENTS: Mr. Minner is extremely knowledgeable of the laws of the City of Leesburg and does a respectable job of working in tandem with the mayor and city attorney.

ADMINISTRATIVE DUTIES		
Does the City Manager properly handle administrative duties?	RATING: 4	COMMENTS: Mr. Minner successfully manages administrative duties and keeps the commission well organized.

FINANCIAL MANAGEMENT/BUDGET		
Does the City Manager ensure that the budget is prepared and executed in the manner approved by the City Commission? Has the City Manager been a good steward of the City's finances.	RATING: 5	COMMENTS: Mr. Minner does an outstanding job. Budget management skills are impressive.



**CITY OF LEESBURG
CITY MANAGER EVALUATION – AL MINNER
OCTOBER 2023**

OVERALL CITY OPERATIONS		
Does the City Manager effectively supervise and seek ways to improve overall City services?	RATING:	COMMENTS: I have no information to provide an assessment.

ADDITIONAL COMMENTS

Given the nature of these areas of assessment, it would have been beneficial to have more information.

Signature of Rater: Allyson E. Berg

Date: 10/19/23