



**City Commission  
Agenda  
City Hall Commission Chambers  
300 W. Plant Street  
Winter Garden, Florida**

**Regular Meeting**

**April 10, 2025**

**6:30 PM**

**Call to Order**

Determination of a Quorum

Opening Invocation and Pledge of Allegiance

**1. Approval of Minutes**

A. Regular Meeting Minutes – March 27, 2025

**2. Presentation**

A. **PROCLAMATION 25-04:** Pink Trumpet Tree – **Mayor Rees**

B. **PROCLAMATION 25-06:** Florida's Water Conservation Month – **Mayor Rees**

C. 2025 Drop Savers Poster Contest and Winners – **Sustainability & Community Liaison Corbus**

**3. First Reading and Public Hearing of Proposed Ordinance**

A. **ORDINANCE 25-12:** AN ORDINANCE OF THE CITY OF WINTER GARDEN, FLORIDA, AMENDING THE WINTER GARDEN COMPREHENSIVE PLAN BY ADDING A NEW PROPERTY RIGHTS ELEMENT; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE – **Second reading and public hearing April 24, 2025** – **Planning Director Carson**

**4. Regular Business**

A. Recommendation to waive formal procurement procedures, hire Control Services, LLC to replace routers and renovate 44 lift stations and purchase parts in the amount of **\$154,283.03** – **Assistant City Manager for Public Services Pash**

B. Recommendation to approve **SITE PLAN** for 630 Garden Commerce Pkwy (Quality Playing Cards), subject to conditions – **Planning Director Carson**



- C. Recommendation to approve **SITE PLAN** for 740 Garden Commerce Pkwy (General RV), subject to conditions – **Planning Director Carson**
  - D. Recommendation to approve **SITE PLAN** for 12565 West Colonial Drive (General RV – Expansion East), subject to conditions – **Planning Director Carson**
  - E. Recommendation to approve **FINAL PLAT** for Lakeview Village Estates – **Planning Director Carson**
  - F. Recommendation to approve Purchase Order for Construction Phase Services for Crest Avenue (WWTF) with AtkinsRealis in the amount of **\$3,497,610.63** – **City Engineer Monahan**
  - G. Recommendation to approve Purchase Order for one-year continued use of Thioguard (magnesium hydroxide) for Odor Control at Lift Stations 23 and 47 in the amount of **\$417,000**, which includes a 10% contingency – **City Engineer Monahan**
- 5. **Matters From Public (Limited to 3 minutes per speaker)**
  - 6. **Matters From City Attorney - A. Kurt Ardaman**
  - 7. **Matters From City Manager - Jon C. Williams**
  - 8. **Matters From Mayor and Commissioners**
  - 9. **ADJOURN to Regular Meeting on Thursday, April 24, 2025 at 6:30 p.m. in City Hall Commission Chambers, 300 W. Plant Street, 1st floor**

NOTICES:

In accordance with Florida Statutes 286.0105, if any person decides to appeal any decision made by said body with respect to any matter considered at such meeting, he/she will need a record of the proceedings and, for that purpose, he/she 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 Winter Garden does not prepare or provide such record.

Any opening invocation that is offered before the official start of the Commission meeting shall be the voluntary offering of a private person, to and for the benefit of the Commission. The views or beliefs expressed by the invocation speaker have not been previously reviewed or approved by the City Commission or the city staff, and the City is not allowed by law to endorse the religious or non-religious beliefs or views of such speaker. Persons in attendance at the City Commission meeting are invited to stand during the opening invocation and to stand and recite the Pledge of Allegiance. However, such invitation shall not be construed as a demand, order, or any other type of command. No person in attendance at the meeting shall be required to participate in any opening invocation that is offered or to participate in the Pledge of Allegiance. You may remain seated within the City Commission Chambers or exit the City Commission Chambers and return upon completion of the opening invocation and/or Pledge of Allegiance if you do not wish to participate in or witness the opening invocation and/or the recitation of the Pledge of Allegiance. (Reference Resolutions 15-04 and 16-02)

Pursuant to Florida Statutes 282.601, 286.603, and the Americans with Disabilities Act (ADA), the City of Winter Garden makes every effort to ensure that those with disabilities have access to electronic information provided to the public, except when compliance with those sections impose an undue burden on the agency. In the event of difficulty accessing this publicly provided information, please contact the City Clerk's Office at (407) 656-4111, Ext. 2297, for assistance.



Those needing assistance to participate in any of these proceedings should contact the City Clerk's Office at least 48 hours in advance of the meeting (407) 656-4111 Ext 2297.



Help for the hearing impaired is available through the Assistive Listening System. Receivers can be obtained at the meeting from the Information Technology Department (407) 656-4111 Ext. 5455.



# CITY OF WINTER GARDEN

## City Commission REGULAR MEETING MINUTES

March 27, 2025

**REGULAR MEETING** of the Winter Garden City Commission was called to order by Mayor Rees at 6:30 p.m. at City Hall, 300 West Plant Street, Winter Garden, Florida. An Opening Invocation and Pledge of Allegiance were given.

**Present:**

Mayor John Rees

Commissioner District 1 - Lisa L. Bennett

Commissioner District 2 - Iliana R. Jones

Commissioner District 3 - Chloe Johnson

Commissioner District 4 - Colin Sharman

**Also Present:**

City Manager Jon C. Williams

City Attorney A. Kurt Ardaman

Assistant City Clerk Ronisha Martin

1. **APPROVAL OF MINUTES**

**Motion by Commissioner Jones to approve regular meeting minutes of March 13, 2025, as submitted. Seconded by Commissioner Johnson and carried unanimously 4-0.**

2. **REGULAR BUSINESS**

A. **Recommendation to approve Amended and Restated Professional Services Agreement with Fishback Dominick, LLP with an effective date of April 1, 2025**

City Manager Jon C. Williams stated that this request is to amend and restate the professional services agreement with Fishback and Dominick LLP, which has provided legal services to the city since 2006. He stated that the proposed change includes an increase in the monthly retainer and adjustments to hourly rates for various legal services. Staff recommended approval. Discussion ensued on how rates compared to other cities.

City Attorney A. Kurt Ardaman expressed appreciation for the continued City partnership.

**Motion by Commissioner Bennett to approve Amended and Restated Professional Services Agreement with Fishback Dominick, LLP with an effective date of April 1, 2025. Seconded by Commissioner Johnson and carried unanimously 4-0.**

*Commissioner Sharman arrived at this point in the meeting at 6:36 p.m.*

B. **Recommendation to approve letter of Intent to continue conversations and negotiations with Federal Finance about potential development for properties located at 1500 and 1700 East Plant Street**

Planning Director Kelly Carson stated that the City was recently approached by Federal Finance regarding a potential development opportunity and partnership involving the Strates property. She provided background information on the 70-acre site, including its zoning, future land use designation, and past development proposals.

Ms. Carson outlined that, although the property is currently used for grazing animals, its zoning allows for significant development, including commercial, residential, and mixed-use projects. Several past proposals had been submitted over the years, including plans for retail, office space, multi-family housing, townhomes, and even a private resort. However, these previous plans lacked direct public benefits for the community.

Ms. Carson emphasized that, given the property's entitlements and inclusion in the East Plant Street Overlay, any new proposal that offers tangible public benefits should be considered. She recognized Economic Development Director Marc Hutchinson, to provide additional details on the current Federal Finance proposal.

Mr. Hutchinson noted that he would give an overview of the proposed Federal Finance development, shared potential benefits, gave history of the developer, noted some of the future projects, as well as those projects that have been completed. He shared that this would involve an estimated investment of over \$300 million on approximately 70 acres. He spoke of the proposed plan including a mix of commercial and residential spaces, with retail along Plant Street, live-work units, a 160-key hotel with convention space. He further noted a residential element including townhomes, multi-family residences, senior housing, and the possibility of an educational facility.

Furthermore, Mr. Hutchinson highlighted key public amenities, such as an open-air 5,000-seat soccer stadium, public recreational fields, a dog park, a park with trails, and picnic areas. He spoke of potential city-owned and managed sports courts and accessible public areas. Additional proposed items included a waterfront plaza, expanded bike trails, increased stormwater management capacity for the historic East Winter Garden community, opportunity for new senior affordable housing, educational facility, increased employment opportunities for local residents. He gave an overview of the developer, Federal Finance and their subsidiaries and functions. He spoke of their projects, projects in process, noted some next steps, and advised of an address change. Furthermore, Mr. Hutchinson emphasized the opportunities, potential benefits for both the community and the economy. Staff recommended approval.

Commissioner Bennett sought and received clarification that there were 5,000 seats for the soccer stadium and a 160-key hotel.

Mayor Rees spoke of the project and acknowledged that the conversation was still in the early stages, suggested a special referendum for increasing recreational fees to fund additional ball fields, and emphasized the need for further discussions.

Commissioner Johnson agreed with Mayor Rees, noted that this is just conversation.

Commissioner Bennett inquired if there would be public comments for this item.

Mayor Rees opened a public hearing.

There was clarification on the address and location of the project.

Heather Fraga, 1466 Spring Ridge Circle, Winter Garden, Florida, a fourth-generation resident, voiced concerns about the development's impact on infrastructure, particularly traffic congestion on major roads. She also raised noise concerns, referencing local events that already affect the area. While acknowledging the inevitability of growth, she urged the City to consider what public amenities it would own before committing to any agreement.

Gretchen Tope, 512 North Lakeview Avenue, Winter Garden, Florida, expressed concern that the development may not include affordable housing for the Historic East Winter Garden, emphasizing the City's responsibility to support all communities.

Allison Painter, 393 North Lakeview Avenue, Winter Garden, Florida, stated that she would support a referendum to fund development responsible but opposed the current proposal, believing it's excessive. She suggested relocating the stadium elsewhere.

Jeanine Wilson, 114 North Highland Avenue, Winter Garden, Florida, questioned the experience of the developer of the concept plan, the project's impact on neighborhoods and traffic.

Doug Laman, Owner of GIL Inc., expressed support for the City's planning efforts and advocated for discussing a letter of intent for the development, encouraged conversation, highlighting the importance of thoughtful growth and traffic considerations.

Jonathan Green, 303 West Bay Street, Winter Garden, Florida, raised concerns about the roads, flooding, community impact and the long-term sustainability of the development.

Lauren Flemister, 124 North Highland Avenue, Winter Garden, Florida, suggested finding a balance between development and community needs, expressing concerns about the 5,000-seat stadium, increased traffic, and the impact on residents and merchants.

Mayor Rees, after hearing and seeing no additional requests for public comment, closed the public hearing.

**Commissioner Jones** highlighted the importance of open communication to reach a compromise, agreeing that while the idea of development may not be perfect, discussing it through the letter of intent allows for further dialogue and potential adjustments until a mutually agreeable solution is found.

**Commissioner Sharman** shared his experience regarding the Winter Garden Village development project of 2006. He noted that, initially, there were concerns from citizens;

but over time, as discussions continued, compromises were reached, and the project evolved.

**Motion by Commissioner Sharman to continue discussions, have staff investigate the cost of purchasing the land, and then conduct a referendum, if necessary. Seconded by Commissioner Johnson and carried 4-1; Commissioner Bennett opposed.**

- C. Recommendation to approve Purchase Order with Mead and Hunt for Temporary On-Call Construction Engineering and Inspection Services for Crest Avenue (WWTP) in an amount not to exceed of \$325,000  
Mayor Rees noted that this item was withdrawn.

- D. Recommendation to approve Purchase Order with Middlesex Paving, LLC for resurfacing services in the amount of \$997,537.75  
City Engineer Jim Monahan stated that the request is to approve purchase order with Middlesex Paving for the annual street resurfacing project for fiscal year 2025. He listed the locations for the work. Furthermore, he noted that the work is a piggyback agreement from Orange County Contract Y23-119D, Amendment 1. Staff recommended approval.

Mayor Rees inquired if the cost for the road resurfacing project was included in the budget and asked if these were the roads most in need of repaving. Mr. Monahan responded, yes.

**Motion by Commissioner Jones to approve Purchase Order with Middlesex Paving, LLC for resurfacing services in the amount of \$997,537.75. Seconded by Commissioner Sharman and carried unanimously 5-0.**

- E. Recommendation to approve Deductive Change Order to Wharton Smith, Inc. for GMP-2 in the amount of \$3,747,170 for a total project cost of \$128,890,600, which includes \$5,107,615 approved for GMP-1 in February 2024  
City Engineer Jim Monahan stated that Wharton-Smith team re-evaluated bids to calculate final savings, tabulations were included in the agenda packet. Staff recommended approval.

City Manager Jon C. Williams noted that the deduction would be set aside for CEI services, which would be addressed at a later date.

**Motion by Commissioner Sharman to approve Deductive Change Order to Wharton Smith, Inc. for GMP-2 in the amount of \$3,747,170 for a total project cost of \$128,890,600, which includes \$5,107,615 approved for GMP-1 in February 2024. Seconded by Commissioner Jones and carried unanimously 5-0.**

**3. MATTERS FROM PUBLIC**

Allison Painter, 393 North Lakeview Avenue, Winter Garden, Florida, voiced concerns regarding ineffective speed bumps on Lakeview Avenue and a need for their reevaluation.

Ms. Painter also requested that the split between Crest Avenue and Lakeview Avenue be made a one-way road leading towards the lake, insisting that it be done for safety reasons, as she has witnessed near accidents. Furthermore, Ms. Painter indicated that she would continually bring this issue back to the City Commission until action is taken.

Barbie Pugh, 42 South Park Avenue, Winter Garden, Florida, spoke of concerns on Fifth Street, highlighting that it is unsafe for pedestrians to cross the street, and hopes the issue would be addressed.

Ken Brown, 432 Newhearth Circle, Winter Garden, Florida, shared his experience serving on the Crystal River City Council and shared a related story. He encouraged smart growth policies, and supports use of a referendum for community support.

Mr. Brown asked why the City discontinued recycling. Mayor responded by noting the high costs associated with it, million dollars spent annually only to recycle 1-5 percent of the materials, only to have most recyclables ultimately end up in landfills anyways. Mayor Rees assured that staff is still looking into alternative solutions.

Mr. Brown mentioned concerns about speeding in his neighborhood due to cut-through traffic from a nearby development and suggested that higher speed bumps be installed.

Gretchen Tope, 512 North Lakeview Avenue, Winter Garden, Florida, shared concerns about the potential noise and traffic impacts from a development project, noting that the eagles in the area have been there for a long time and should be prioritized.

**4. MATTERS FROM CITY ATTORNEY – There were no items.**

**5. MATTERS FROM CITY MANAGER**

Jon C. Williams stated that the City was asked to enter a 287(g) Agreement with U.S. Immigration and Customs Enforcement (ICE), designating task force officers (TFOs) to assist ICE, when requested. He spoke of officers remaining on their regular duties, receiving specific ICE training, and authorization to the Police Chief to proceed with executing the agreement.

City Manager Williams announce that Water Quality Grant informed that the City would receive two grants: \$6,640,000 for the Teacup Springs septic to sewer conversion project, and \$15 million for the Wastewater Treatment Facility (WWTF) expansion project, totaling \$21.64 million. He praised staff for their hard work and mentioned that the grant cycle would open again in June.

Mr. Williams gave an update on the Tucker Ranch noting the near completion of the sitework, footers being poured, and despite the challenging drought, there has been progress.

**6. MATTERS FROM MAYOR AND COMMISSIONERS**

**Commissioner Johnson** acknowledged the City for doing a good job and encouraged staff to keep up the good work.

**Commissioner Jones** thanked staff for their hard work and expressed excitement for the upcoming Spring Fever.

**Commissioner Bennett** stated that she echoes Commissioner Jones' statement.

**Mayor Rees** mentioned the upcoming Evening at the Pops event, recognized the Public Works Department for their efforts, particularly during and after the hurricane season and expressed that the City and all its resident's appreciate their hard work.

The meeting adjourned at 7:28 p.m.

APPROVED:

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Mayor John Rees

ATTEST:

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Assistant City Clerk Ronisha Martin





## Proclamation

25-04

**Whereas**, The Pink Trumpet Tree (*Handroanthus impetiginosus*) is one of the best flowering trees for Central Florida with its vase -shaped form and pink trumpet flowers in Spring; and

**Whereas**, the Bloom & Grow Garden Society in partnership with Duke Energy from 2022-2024 has planted over 150 Pink Trumpet Trees in schools, hospitals and parks throughout Winter Garden as part of its PLANT IT PINK program and given away 850 Pink Trumpet Trees to Winter Garden residents to plant at their homes; and

**Whereas**, The Bloom & Garden Society and Duke Energy have partnered with West Orange Habitat for Humanity to plant Pink Trumpet Trees at each of their new houses in the Historic East Winter Garden Neighborhood; and

**Whereas**, National Arbor Day is celebrated each year on the fourth Friday in April to recognize the value of trees; and

**Whereas**, Washington, DC, has cherry blossoms that bloom in the Spring, Winter Garden will have over 1000 Pink Trumpet Trees that bloom in the Spring; and

**Whereas**, Trees in our city increase property values, enhance the economic vitality of business areas, and beautify our community.

**Therefore**, it is my great pleasure and privilege as the Mayor of the City of Winter Garden, to hereby proclaim the

### PINK TRUMPET TREE

the official flowering tree of Winter Garden and urge all residents to take good care of their Pink Trumpet Trees and to plant Pink Trumpet Trees to gladden the heart and promote the well-being of this and future generations.



**In witness thereof**, I have hereunto set my hand and caused the City Seal to be affixed this 10th day of April, 2025.

  
Mayor John Rees

Attest:  
  
Angela Grinnage, City Clerk







## Proclamation 25-06

**Whereas,** water is a basic and essential need of every living creature; and

**Whereas,** The State of Florida, Water Management Districts and the City of Winter Garden are working together to increase awareness about the importance of water conservation; and

**Whereas,** the City of Winter Garden and the State of Florida has designated April, typically a dry month when water demands are most acute, Florida's Water Conservation Month, to educate citizens about how they can help save Florida's precious water resources; and

**Whereas,** the City of Winter Garden has always encouraged and supported water conservation, through various educational programs and special events; and

**Whereas,** every business, industry, school and citizen can make a difference when it comes to conserving water; and

**Whereas,** efficient irrigation design, programming, and maintenance can conserve water, the City of Winter Garden will encourage citizens and businesses to evaluate their irrigation systems for potential efficiency enhancements.

**Therefore,** it is my great pleasure and privilege as the Mayor of the City of Winter Garden to proclaim the month of April 2025 as

## Florida's Water Conservation Month

and call upon the residents and businesses of Winter Garden to do their share to protect this precious resource by practicing water-saving measures and becoming more aware of the need to save water. For this, the 27th year of Water Conservation Month, there will be a special focus on irrigation evaluations.



**In witness whereof,** I have hereunto set my hand and caused the City seal to be affixed this 10th day of April, 2025.

Mayor John Rees

Attest:  
  
Angela Grinnage, City Clerk





**The City of Winter Garden**  
**City Commission Agenda Item**

**From: Donna Corbus, Sustainability & Community Liaison**

**Via: Jon Williams, City Manager**

**Date: March 18, 2025 Meeting Date: April 10, 2025**

**Subject: 2025 – Drop Savers Poster Contest Winners**

Every year, the Florida Section of the American Water Works Association (FSAWWA) sponsors the “Drop Savers” Water Conservation Poster Contest. Students from Kindergarten - 12th grade are encouraged to create a poster depicting a water conservation idea in slogan form, drawing form or both. The contest allows students to promote water awareness and learn about the importance of water conservation in their daily lives. This year, 67 students participated. A panel of judges selected posters based on the following criteria: message, creativity and originality, not just artistic ability.

Division 1 Winner- Zane Brushwood, Dillard Street Elementary School

Division 3 Winner- Emmalynn Elliott, Creation Village World School

Division 4 Winner- Yasmine Makaron, Foundation Academy

Division 5 Winner- Emma Quintana, Foundation Academy

*(There were no Division 2 entries this year.)*

Four posters also received Honorable Mention recognition:

- Claire Helmick, Foundation Academy
- Emma McCleary, Foundation Academy
- Nathan Welch, Dillard Street Elementary School
- Avery Olesen, Foundation Academy

**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Kelly Carson, Planning Director

**Via:** City Manager Jon C. Williams

**Date:** April 3, 2025      **Meeting Date:** April 10, 2025

**Subject:**    **Ordinance 25-12**  
Comprehensive Plan Amendment – Adding a new Property Rights Element

**Issue:**        An ordinance of the City of Winter Garden, Florida, Amending the Winter Garden Comprehensive Plan by adding a new Property Rights Element..

**Discussion:**

The City has initiated an amendment that would add a new Property Rights element to the Comprehensive Plan. This is an amendment that the State requires local municipalities adopt per Section 163.3177(6)(i)1 of the Florida Statutes. The new element provides goals, objectives, and policies to confirm that the City respects judicially acknowledged and constitutionally protected private property rights; and to ensure that private property rights are considered in the City of Winter Garden's decision-making.

**Recommended Action:**

Staff recommends approval of Ordinance 25-12, requesting that staff be allowed to transmit the Comprehensive Plan Amendment to the State Land Planning Agency, adding a new Property Rights Element.

**Attachment(s)/References:**

Ordinance 25-12  
Business Impact Estimate



## **Business Impact Estimate**

*This form should be included in agenda packet for the item under which the proposed ordinance is to be considered, and must be posted on the City's website by the time notice of the proposed ordinance is published.*

Proposed ordinance's title/reference:

Ordinance 25-12 – Adding a Property Rights Element to the Winter Garden Comprehensive Plan

This Business Impact Estimate is provided in accordance with Section 166.041(4), *Florida Statutes*. If one or more of the boxes are checked below, the checked exception(s) to the Business Impact Estimate requirement apply to the above-referenced proposed ordinance, although, the City is implementing the procedure otherwise required by law to ensure that no inadvertent procedural issue could impact the enactment of the proposed ordinance.

- ☒ The proposed ordinance is required for compliance with Federal or State law or regulation;
- ☐ The proposed ordinance relates to the issuance or refinancing of debt;
- ☐ The proposed ordinance relates to the adoption of budgets or budget amendments, including revenue sources necessary to fund the budget;
- ☐ The proposed ordinance is required to implement a contract or an agreement, including, but not limited to, any Federal, State, local, or private grant, or other financial assistance accepted by the
- ☐ The proposed ordinance is an emergency ordinance;
- ☐ The ordinance relates to procurement; or
- ☐ The proposed ordinance is enacted to implement the following:
  - a. Part II of Chapter 163, *Florida Statutes*, relating to growth policy, county and municipal planning, and land development regulation, including zoning, development orders, development agreements and development permits;
  - b. Sections 190.005 and 190.046, *Florida Statutes*, regarding community development districts;
  - c. Section 553.73, *Florida Statutes*, relating to the *Florida Building Code*; or
  - d. Section 633.202, *Florida Statutes*, relating to the *Florida Fire Prevention Code*.

In accordance with the provisions of controlling law, even notwithstanding the fact that, an exemption noted above may apply, the City hereby publishes the following information:



1. Summary of the proposed ordinance (must include statement of the public purpose, such as serving the public health, safety, morals, and welfare):

*Ordinance 25-12 adds a new Property Rights Element to Winter Garden's Comprehensive Plan to ensure compliance with Florida Statutes, Section 163.3177(6)(i)1.*

2. Estimate of direct economic impact of the proposed ordinance on private, for-profit businesses in the City:

*This ordinance should have no direct economic impact on private, for-profit businesses in the City.*

3. Estimate of direct compliance costs that businesses may reasonably incur:

*Businesses should not incur any direct compliance costs as a result of this ordinance.*

4. Any new charge or fee imposed by the proposed ordinance:

*No new fees are imposed by this ordinance.*

5. Estimate of the City's regulatory costs, including estimated revenues from any new charges or fees to cover such costs:

*No regulatory costs should be incurred by the City as a result of this ordinance.*

6. Good faith estimate of the number of businesses likely to be impacted by the proposed ordinance:

*No businesses should be impacted by this ordinance.*

7. Additional information (if any, but may wish to include the methodology used to derive information for #1 and #2, above. For example: City staff solicited comments from businesses in the City as to the potential impact of the proposed ordinance by contacting the chamber of commerce, social media posting, direct mail or direct email, posting on City website, public workshop, etc. You may also wish to include efforts made to reduce the potential fiscal impact on businesses based on feedback from businesses. You may also wish to state here that the proposed ordinance is a generally applicable ordinance that applies to all persons similarly situated (individuals as well as businesses) and, therefore, the proposed ordinance does not impose costs only upon businesses.):

## ORDINANCE 25-12

### AN ORDINANCE OF THE CITY OF WINTER GARDEN, FLORIDA, AMENDING THE WINTER GARDEN COMPREHENSIVE PLAN BY ADDING A NEW PROPERTY RIGHTS ELEMENT; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE.

**WHEREAS**, on the 13<sup>th</sup> of June, 1991, the City Commission of the City of Winter Garden adopted Ordinance 91-16 which adopted a new Comprehensive Plan for the City of Winter Garden, and on the 24<sup>th</sup> of June, 2010, the City Commission of the City of Winter Garden adopted Ordinance 10-19 readopting and amending the Comprehensive Plan for the City of Winter Garden; and

**WHEREAS**, Section 163.3167, Florida Statutes, requires the City of Winter Garden to maintain a comprehensive plan to guide its future development and growth; and

**WHEREAS**, Section 163.3177(6)(i)1., Florida Statutes, requires the City of Winter Garden's comprehensive plan to include a property rights element; and

**WHEREAS**, The City of Winter Garden respects judicially acknowledged and constitutionally protected private property rights; and

**WHEREAS**, the City of Winter Garden respects the rights of all people to participate in land use planning processes; and

**WHEREAS**, this ordinance will amend the comprehensive plan by adding a property rights element; and

**WHEREAS**, the City of Winter Garden's Local Planning Agency and City Commission have conducted the prerequisite advertised public hearings pursuant to Chapter 163, Florida Statutes, regarding the adoption of this ordinance; now, therefore,

### BE IT ENACTED BY THE CITY OF WINTER GARDEN, FLORIDA:

**SECTION 1: Recitals.** The above recitals are hereby incorporated by reference and shall constitute the legislative findings of the City Commission of the City of Winter Garden.

**SECTION 2: Comprehensive Plan Amendment:** The City of Winter Garden Comprehensive Plan is hereby amended by adding the property rights element attached as **Exhibit 'A'** and made a part of this ordinance as if set forth in full.

**SECTION 3: Codification:** Section 2 of this Ordinance shall be codified and made part of the City of Winter Garden Comprehensive Plan.

**SECTION 4: Conflicts:** In the event of a conflict or conflicts between this ordinance and other ordinances, this ordinance controls to the extent of the conflict.

**SECTION 5: Severability:** If any portion of this Ordinance is determined to void, unconstitutional, or invalid by a court of competent jurisdiction, the remainder of this Ordinance shall remain in full force and effect.

**SECTION 6: Effective Date:** Once this Ordinance is adopted, the effective date of the comprehensive plan amendment (“Amendment”) set forth in this Ordinance shall be 31 days after the state land planning agency notifies the local government that the comprehensive plan amendment package is complete if the Amendment is not timely challenged. If timely challenged, this Amendment shall become effective on the date the state land planning agency or the Administrative Commission enters a final order determining the adopted amendment to be in compliance. If a final order of noncompliance is issued by the Administrative Commission, this Amendment may nevertheless be made effective by the adoption of a resolution affirming its effective status, a copy of which resolution shall be sent to the state land planning agency.

**FIRST READING:** \_\_\_\_\_, 2025.

**SECOND READING AND PUBLIC HEARING:** \_\_\_\_\_, 2025.

**ADOPTED** this \_\_\_\_ day of \_\_\_\_\_, 2025, by the City Commission of the City of Winter Garden, Florida.

APPROVED:

\_\_\_\_\_  
John Rees, Mayor/Commissioner

ATTEST:

\_\_\_\_\_  
Angela Grimmage, City Clerk



## Exhibit ‘A’

### **CHAPTER 10 - PROPERTY RIGHTS ELEMENT**

#### **Goals, Objectives, and Policies**

**GOAL 10-1:** To ensure that the City of Winter Garden respects judicially acknowledged and constitutionally protected private property rights; and to ensure that private property rights are considered in the City of Winter Garden’s decision-making.

**Objective 10-1.1:** The City of Winter Garden shall respect judicially acknowledged and constitutionally protected private property rights and shall ensure that private property rights are considered in Winter Garden’s decision-making.

**Policy 10-1.1.1:** The following rights shall be considered in the City of Winter Garden’s decision-making:

- 1) The right of a property owner to physically possess and control his or her interests in the property, including easements, leases, or mineral rights.
- 2) The right of a property owner to use, maintain, develop, and improve his or her property for personal use or for the use of any other person, subject to state law and local ordinances.
- 3) The right of the property owner to privacy and to exclude others from the property to protect the owner’s possessions and property.
- 4) The right of a property owner to dispose of his or her property through sale or gift.

**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Steve Pash, Assistant City Manager – Public Services

**Via:** City Manager Jon C. Williams

**Date:** April 3, 2025

**Meeting Date:** April 10, 2025

**Subject:** Waive formal procurement procedures and hire Process Control Services, LLC to replace the Routers and renovate 44 lift station control panels for \$118,228.00.

**Issue:**

Many of the City lift stations have outdated modems and routers and they are in need of being replaced and connecting the lift stations to the SmartCom network. Process Control Services, LLC has installed these on a couple of our lift stations, and they have worked well. In addition, they have agreed for us to purchase the equipment from Amazon, Grid Connect, and Motion AI. The equipment can be purchased for \$36,055.03 and the installation by Process Control Services, LLC is \$118,228.00 for a total of \$154,283.03. The project funding is in our current budget.

**Recommended Action:**

Staff recommends approval of Public Services purchasing the parts for \$36,055.03 and hiring Process Control Services, LLC for \$118,228.00 to install the equipment on 44 lift stations for a total of \$154,283.03.

**Attachment(s)/References:**

Process Controls Quote  
Amazon Parts List/Price  
Grid Connect, Inc. Quote  
Motion AI Quote

# Process Control Services LLC

**1205 Pinewood Lane  
Ocoee FL, 34761  
407.252.5033**

## **SCOPE OF SUPPLY**

Date: 2/26/25

Project: LC150 lift station SmartComm conversions

Customer: Winter Garden

In accordance with the attached Terms and Conditions, Process Control Services LLC is pleased to offer the following materials/services for the above referenced project. While our complete offering is detailed in this submission, purchase orders directly to manufacturers may be required when ordering.

**Install one new Teltonika modem, one new Unitronics V120 PLC at 44 lift stations in existing enclosures to replace the LC150 controller and put them on the SmartComm network.**

PCS's price includes:

- Removal of old LC150 controller and radio.
- Installation of new parts.
- Programming.
- Testing to SCADA.
- 3 months of cellular data after which the City will be responsible for the payment.

PCS's price does not include.



# Process Control Services LLC

**1205 Pinewood Lane**

**Ocoee FL, 34761**

**407.252.5033**

- Teltonika cellular modem's model RUT-956
- Unitronics V120 PLC's
- Waveform High gain antenna's
- New enclosures.
- Taxes

## **PRICE, DELIVERY AND TERMS OF OFFERING**

Prices submitted are for equipment/services specifically listed within this Scope of Supply which constitute our complete offering; Sections may be referenced for identification and clarification only and **does not imply the Section is offered in its entirety.**

**PRICE:** \$118,228.00 FOB factory with freight allowed to jobsite, shipped via standard commercial carrier.

**DELIVERY:** 6-12 weeks after complete and acceptable approval is received.

**SUBMITTAL FOR APPROVAL:** N/A after acceptable purchase Agreement is received.

## **TERMS OF PAYMENT**

# Process Control Services LLC

**1205 Pinewood Lane**

**Ocoee FL, 34761**

**407.252.5033**

Based on initial and continuing credit approval by Process Control Services LLC., the following payment terms apply:

- Net 30
- NO HOLDBACK (RETAINAGE) provision is offered or allowed

Thank you for the opportunity to offer this Scope of Supply, questions and/or comments regarding this offering should be directed to the salesperson whose name is affixed to the Scope of Supply.

*Wade Mathis*

*407-252-5033*

*Wade@processcontrolservicesllc.com*

Delivering to Orlando 32804  
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44

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Get a **\$50 Amazon Gift Card instantly** upon approval for Amazon Visa

Current Total: \$3,957.80  
Savings: - \$50.00  
Cost After Savings: **\$3,907.80**

Learn more

Your order qualifies for FREE Shipping.  
Choose this option at checkout. [See details](#)

Subtotal (44 items): **\$3,957.80**  
This order contains a gift

Proceed to checkout

Related products with fast delivery



Bingfu 4G LTE Antenna Adapter SMA Female to SMA Male Cable

525

**\$7.69**

Add to cart



Peplink Cellular Router MAX BR1 Mini Core

4

**\$295.49**

Add to cart



Outdoor Electrical Box, Cold-Rolled Steel Plate

135

**\$115.99**

Add to cart



Proxicast 12 inch TS9 to SMA Female External Cable

137

**\$12.95**

Add to cart



Proxicast Ultra Low Profile MIMO 4G / 5G Antenna

38

**\$49.95**

Add to cart



Proxicast High Gain 10 dBi Universal Wide-Angle Antenna

167

**\$129.95**

Add to cart



**InHand Networks IR302 Industrial IoT 4G LTE...**  
57

**\$178.00**

Add to cart



**onelinkmore RF Coax 4G LTE Antenna...**  
629

**\$6.68**

Add to cart

Shopping Cart

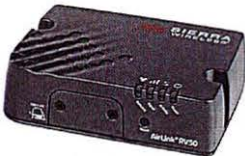
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Price |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <div></div> <div><p><b>Proxicast Vandal Resistant 2x2 MIMO Low Profile 4G/5G Omni-Directional Screw Mount Antenna - 10 ft Coax Leads - for Cisco,</b></p><p><b>\$89.95</b></p><p>In Stock</p><p>FREE delivery available at checkout</p><p>FREE Returns</p><p>This is a gift <a href="#">Learn more</a></p><p>Color: 2 Lead MIMO</p><div><div>Qty:</div><div>44</div></div><div><a href="#">Delete</a> <a href="#">Save for later</a> <a href="#">Compare with similar items</a> <a href="#">Share</a></div></div> |       |
| <b>Subtotal (44 items): \$3,957.80</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |

The price and availability of items at Amazon.com are subject to change. The Cart is a temporary place to store a list of your items and reflects each item's most recent price. [Learn more](#)

Do you have a gift card or promotional code? We'll ask you to enter your claim code when it's time to pay.

Customers who bought Proxicast Vandal Resistant 2x2 MIMO Low Profile 4G... also bought these items from other categories:

Page 1 of 3



**Sierra Wireless AirLink...**  
6

**\$47<sup>99</sup>**

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FREE Shipping

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**AirLink RV50X...**  
11

**\$708<sup>06</sup>**

Get it Mar 7 - 12

FREE Shipping

Only 2 left in stock - order...

Add to cart



**Sierra Wireless AirLink...**  
3

**\$709<sup>00</sup>**

Get it Mar 7 - 11

FREE Shipping

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**MOOKEERF SMA Male t...**  
37

**\$16<sup>99</sup>**

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**Morningstar**

**\$105<sup>00</sup>**

Get it as soon as Sunday, Mar 9

FREE Shipping

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- Shop with Points
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- Reload Your Balance
- Gift Cards
- Amazon Currency Converter

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- Your Orders
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- Amazon Prime
- Returns & Replacements
- Manage Your Content and Devices
- Recalls and Product Safety Alerts
- Registry & Gift List
- Help

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United States

Amazon Music  
Stream millions of songs

Amazon Ads  
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Book reviews & recommendations

IMDb  
Movies, TV & Celebrities

IMDbPro  
Get Info Entertainment Professionals Need

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Indie Digital & Print Publishing Made Easy

Amazon Photos  
Unlimited Photo Storage Free With Prime

Prime Video Direct  
Video Distribution Made Easy

Shopbop  
Designer Fashion Brands

Amazon Resale  
Great Deals on Quality Used Products

Whole Foods Market  
America's Healthiest Grocery Store

Woot!  
Deals and Shenanigans

Zappos  
Shoes & Clothing

Ring  
Smart Home Security Systems

eero WiFi  
Stream 4K Video in Every Room

Blink  
Smart Security for Every Home

Neighbors App  
Real-Time Crime & Safety Alerts

Amazon Subscription Boxes  
Top subscription boxes – right to your door

PillPack  
Pharmacy Simplified

Amazon Renewed  
Like-new products you can trust

Grid Connect Inc.  
1630 W. Diehl Rd.  
Naperville IL 60563

**Date** 2/26/2025  
**Quote #** 2025-49119  
  
**Sales Rep** Gary P Marrs  
**PO #**  
**Shipping Method** UPS® Ground  
**Requested Terms**  
**Shipping Code**

| Name / Address                                                        |
|-----------------------------------------------------------------------|
| City of Winter Garden<br>300 W Plant Street<br>Winter Garden FL 34787 |

| Part #         | Description                                                                                                                                         | Qty | Unit Price | Amount    |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|-----------|
| GC-TELT-RUT956 | Industrial Cellular Router, CAT 4 LTE, 4 Ethernet Port, 2 Sim Slots, 2.5 GHz WIFI, GPS, RS232, RS485, USB, North American Version MPN: RUT956A00A00 | 44  | 246.00     | 10,824.00 |

Quotes are valid for 30 days

|                                    |             |
|------------------------------------|-------------|
| <b>Subtotal</b>                    | 10,824.00   |
| <b>Shipping Cost (UPS® Ground)</b> | 153.23      |
| <b>Total</b>                       | \$10,977.23 |

- Quote valid for 30 days, prices in US Dollars, based on NET30, Wire Transfer, or Credit Card unless otherwise specified. When using a Credit card, a 3% processing fee will be added.  
- Terms and Conditions: <https://www.gridconnect.com/tos-section-1>



**1-800-AUTOMATE**

**This quote originated from Motion Ai branch MN72.  
Please route POs to [MN72.Sales@ai.motion.com](mailto:MN72.Sales@ai.motion.com)  
for timely service.**

Quote # **384206.2**  
Date **03/17/2025**  
  
Reference **Quote 384206.2 - City of Winter Garden**  
PO#  
  
Sales Rep **Timmy Hortaridis**  
**[timmy.hortaridis@ai.motion.com](mailto:timmy.hortaridis@ai.motion.com)**  
  
Created By **Linda Young**  
**[Linda.Young@ai.motion.com](mailto:Linda.Young@ai.motion.com)**

## Quotation

Customer **City of Winter Garden**  
Account #  
  
Bill To **880 W Bay St**  
**Winter Garden, FL 34787-2606**

Terms **QUOTE ONLY**  
Expires **04/16/2025**  
  
Ship To **City of Winter Garden**  
**Eric Williams**  
**[EWilliams1@cwgd.com](mailto:EWilliams1@cwgd.com)**  
**880 W Bay St**  
**Winter Garden, FL 34787-2606**

Vendor #:

### NOTE:

Pricing excludes any subsequent tariffs or fees which may be imposed. If new tariffs or fees are introduced, an order will be requoted/repriced, and an updated PO will be requested. If order cancellation is requested, cancellation fees may apply. If an order is non-cancellable, fees may include full-price and applicable tariffs and fees.

| Line # | Product                                                                                                                                                                                          | Qty   | Per  | Unit Price | Net Amt                   |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------------|---------------------------|
| 1      | <b>V120-22-RC-NG</b><br>Unitronics Unitronics 10 digital inputs, 2 Analog inputs, 6 relay outputs, RS232/485 x 2, CANbus, 12/24VDC with no graphic layer<br><i>Estimated leadtime 2-6+ weeks</i> | 44.00 | each | 480.00     | <b>21,120.00</b>          |
|        |                                                                                                                                                                                                  |       |      |            | <b>TOTAL: \$21,120.00</b> |

**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Kelly Carson, Planning Director

**Via:** City Manager Jon C. Williams

**Date:** April 3, 2025      **Meeting Date:** April 10, 2025

**Subject:** 630 Garden Commerce Pkwy (Quality Playing Cards)  
**Site Plan Approval**  
**PARCEL ID#** 24-22-27-9385-00-190

**Issue:** The applicant is requesting Site Plan Approval for the property located at 630 Garden Commerce Pkwy.

**Discussion:** The applicant is requesting site plan approval in order to construct a single-story 17,090 sf office/warehouse building, and the applicant proposes to connect with the warehouse/office building located at 620 Garden Commerce Pkwy (Lot 20), which is also owned by the applicant. Additional improvements include parking and enhanced landscaping.

The 1.96 +/- acre subject property is designated MOI (Multi Office Industrial) on the City's Future Land Use Map and is zoned PID (Planned Industrial Development).

**Recommended Action:**

Staff recommends approval of the proposed Site Plan subject to the conditions of the DRC staff report dated March 26, 2025. Development of the property is consistent with the City's Comprehensive Plan and the property's PID zoning requirements.

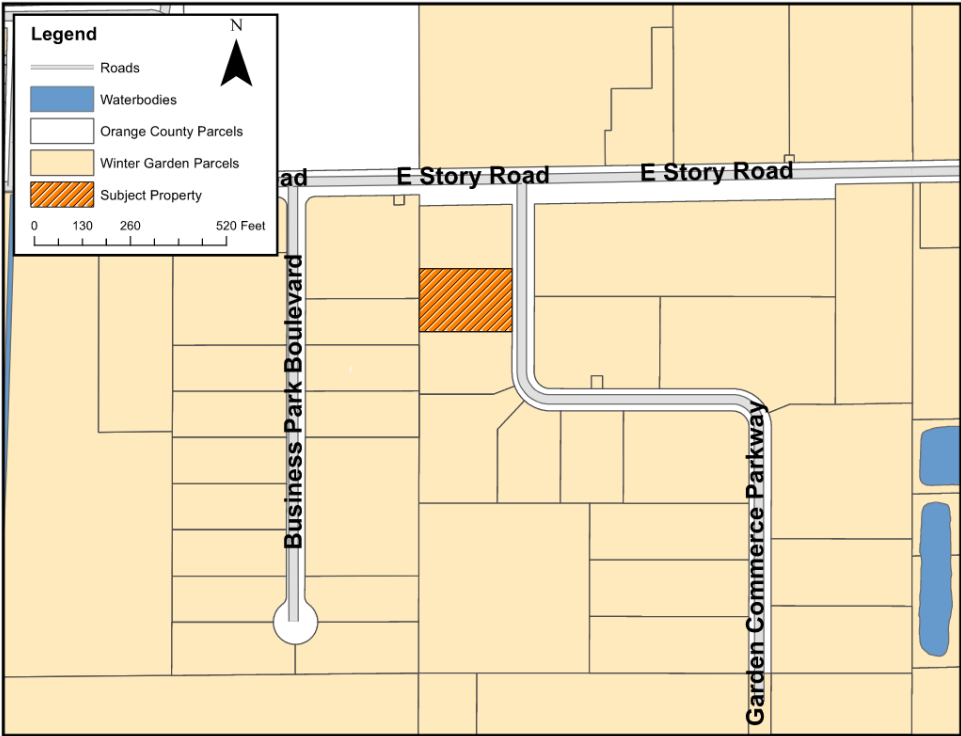
**Attachment(s)/References:**

Location Map  
Site Plan  
Building Elevations  
DRC Combined Comments



Location Map

630 Garden Commerce Pkwy



SECTION 24, TOWNSHIP 22 SOUTH, RANGE 27 EAST

# CIVIL CONSTRUCTION PLANS

# QUALITY PLAYING CARDS, INC.

# WINTER GARDEN COMMERCE CENTER

Pursuant to Section 106–7(k) of the City Code, the design and construction of the proposed stormwater management system shall be certified as meeting the requirements of chapter 106 of the City Code by a Florida Registered Professional Engineer. The aforesaid design and construction shall include meeting the requirements of the St. Johns River Water Management District for retention/detention facilities, providing for percolation, recovery, and other pertinent factors, and shall ensure that post–development runoff flow rates, quantities, peaks, and velocities shall be equal to or less than pre–development runoff flow rates, quantities, peaks, and velocities for the 25 year, 24 hour storm event. I

I, Laurence Poliner, a Florida Registered Professional Engineer, do hereby certify to the City of Winter Garden that the stormwater management system for QUALITY PLAYING CARDS, INC. has been designed by me or under my direct supervision, and meets all requirements of Section 106 of the City of Winter Garden Code. I will make certification of completion to the City of Winter Garden upon completion of the work.

Laurence Poliner, P.E. # 56974

Date: \_\_\_\_\_

620 GARDEN COMMERCE PARKWAY  
WINTER GARDEN, FL  
PARCEL ID: 24-22-27-9385-00-200 & 24-22-27-9385-00-190

MARCH 2024



VICINITY MAP  
N.T.S.

LEGAL DESCRIPTION:

LOT 20, WINTER GARDEN COMMERCE CENTER PHASE I, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 72, PAGE 133, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

LOT 19, WINTER GARDEN COMMERCE CENTER PHASE I, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 72, PAGE 133, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

STANDARD GENERAL CONDITIONS

1. The Owner is responsible for meeting all provisions of ADA and Florida Accessibility Code.
2. All work shall conform to City of Winter Garden standards and specifications.
3. Fencing, shall meet all City requirements for height, type, etc. Chain link fencing, if used, shall be vinyl coated per Code.
4. The City of Winter Garden will inspect private site improvements only to the extent that they connect to City owned/maintained systems (roadways, drainage, utilities, etc.). It is the responsibility of the Owner and Design Engineer to ensure that privately owned and maintained systems are constructed to the intended specifications. The City is not responsible for the operation and maintenance of privately owned systems, to include, but not be limited to, roadways, parking lots, drainage, stormwater ponds or on–site utilities.
5. The Contractor is responsible for the notification, location and protection of all utilities that may exist within the project limits.

SHEET INDEX

| SHEET | DESCRIPTION                 |
|-------|-----------------------------|
| C-1   | COVER SHEET                 |
| C-2   | GENERAL NOTES               |
| C-3   | SITE GEOMETRY PLAN          |
| C-4   | GRADING AND DRAINAGE PLAN   |
| C-5   | UTILITY PLAN                |
| C-6   | EROSION CONTROL PLAN        |
| C-7   | GENERAL DETAILS             |
| C-8   | UTILITY DETAILS             |
| C-9   | UTILITY DETAILS             |
| C-10  | UTILITY DETAILS             |
| C-11  | EROSION CONTROL DETAILS     |
| L-1   | LANDSCAPE PLAN              |
| L-2   | LANDSCAPE DETAILS           |
| I-1   | IRRIGATION PLAN             |
| I-2   | IRRIGATION DETAILS          |
| P-1   | PHOTOMETRIC PLAN            |
| S-1   | BOUNDARY/TOPOGRAPHIC SURVEY |

PROJECT TEAM:

**DEVELOPER:**  
QUALITY PLAYING CARDS, INC.  
3724 VINELAND ROAD  
ORLANDO, FL. 32811

**CIVIL ENGINEER:**  
LAURENCE POLINER  
RCE CONSULTANTS, LLC  
617 ARVERN DRIVE  
ALTAMONTE SPRINGS, FL 32701

**SURVEYOR:**  
SCOTT BECHIR  
SCOTT'S SURVEYING SERVICES, INC.  
8 S. CHARLES RICHARD BEALL BLVD.  
DEBARY, FL. 32713  
386-668-7332

**CONTRACTOR:**  
DAVID COX  
COX CONSTRUCTION AND DEVELOPMENT CORP.  
DMCUNDER@AOL.COM  
352-516-4401

UTILITY SERVICE PROVIDERS

|                             |                       |
|-----------------------------|-----------------------|
| WATER SERVICE:              | CITY OF WINTER GARDEN |
| SEWER SERVICE:              | CITY OF WINTER GARDEN |
| POWER SERVICE:              | TECO                  |
| TELEPHONE/INTERNET SERVICE: | SPECTRUM              |



RCE CONSULTANTS, LLC

617 ARVERN DRIVE  
ALTAMONTE SPRINGS, FL. 32701  
LARRY@RCECONSULTANTS.NET

06/01/2022 CITY COMMENTS

REV. DATE DESCRIPTION

WINTER GARDEN COMMERCE CENTER

COVER SHEET

DRAWN:  
DM  
DESIGNED:  
DM  
PROJECT NO.  
24.2022  
DATE:  
3/30/2022

Laurence Poliner  
#56974  
RCE CONSULTANTS, LLC  
Certificate of Authorization 29307



I. GENERAL NOTES

THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL PERMIT CONDITIONS. CONTRACTOR IS ADVISED THAT THE U.S. ENVIRONMENTAL PROTECTION AGENCY REQUIRES THAT ALL OPERATORS FILE A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES GENERAL PERMIT PRIOR TO BEGINNING WORK. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO OBTAIN THE SAME. IF NOT PROVIDED BY THE ENGINEER, CONTRACTOR SHALL PROVIDE ALL REQUIRED MONITORING REPORTS. A COPY SHALL BE SENT TO THE ENGINEER OF RECORD, ARCHITECT OF RECORD AND THE OWNER. FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF PROPOSED EXCAVATION. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATION EXCLUDING HOLIDAYS, SATURDAYS OR SUNDAYS. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARDS REQUIREMENTS, INCLUDING BUT NOT LIMITED TO, WATER, SANITARY SEWER, POWER, NATURAL GAS, TELEPHONE AND CABLE TV COMPANIES. IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITY COMPANY AND /OR THE APPROPRIATE POWER CORPORATION ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDER GROUND POWER LINES. CONTRACTOR SHALL VERIFY PROPER CLEARANCE BELOW EXISTING OVERHEAD POWER LINES PRIOR TO WORKING WITHIN THE VICINITY OF THE POWER LINES. ALL INSPECTIONS WILL BE MADE BY THE RESPECTIVE GOVERNING AGENCY. THE ENGINEER OF RECORD WILL PROVIDE CONSTRUCTION OBSERVATION SERVICE. ALL RECOMMENDATIONS AND REQUIREMENTS OF THE INSPECTION PERSONNEL OTHER THAN THE OWNERS SHALL BE REPORTED TO THE ENGINEER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY THE ENGINEER OR OWNER. WORK SHALL BE OPEN AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE COUNTY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER, AND THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE OWNER IN WRITING, NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF THE CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND THE OWNER. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND THE FIELD CONDITIONS PRIOR TO CONSTRUCTION IN THE AREA OF CONFLICT. NO EXISTING MATERIAL SHALL BE USED IN NEW CONSTRUCTION UNLESS APPROVED DURING THE SHOP DRAWING APPROVAL PROCESS. WORK SHALL BE PERFORMED IN ACCORDANCE WITH BOTH CITY OF WINTER GARDEN STANDARDS & THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND FOOT ROADWAY TRAFFIC DESIGN STANDARDS, LATEST EDITION. ALL FOOT INDEXES USED ARE REFERENCED HEREIN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COMPLETE COPIES OF THE LATEST EDITION OF FOOT STANDARD INDEXES AND SPECIFICATIONS. CONTRACTOR SHALL PROTECT ADJACENT WATER BODIES, WETLANDS AND PROPERTIES FROM DAMAGE BY SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED CAUSES. CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN ON THE PLAN OR DESIGNATED IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPER TRAFFIC MAINTENANCE AND CONTROLS IN ACCORDANCE WITH REGULATORY STANDARDS, WHERE A TRAFFIC MAINTENANCE PLAN IS REQUIRED, THE CONTRACTOR SHALL PREPARE AND SUBMIT THE PLAN FOR APPROVAL TO ALL APPLICABLE REGULATORY AGENCIES. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE BUILDING GEOMETRY SHOWN IN THE FINAL ARCHITECTURAL DRAWINGS PRIOR TO TAKE-OUT, AND SHALL NOTIFY THE OWNER AND ENGINEER IMMEDIATELY OF ANY DIFFERENCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY TESTING TO ASSURE THAT THE PROPER COMPACTION HAS BEEN ACHIEVED ON THE SUBGRADE, BASE MATERIAL, PIPE BASE MATERIAL AND ALL OTHER PERTINENT AREAS THAT HAVE BEEN COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH TESTING AND RETESTING THE AREAS AND SHALL PROVIDE THE OWNER AND THE ENGINEER COPIES OF ALL TEST RESULTS. ALL REPORTS ARE TO BE SIGNED AND SEALED BY A REGISTERED GEOTECHNICAL ENGINEER IN THE STATE OF FLORIDA. SSCOCF- CHAPTER 556, FLORIDA STATUTES, REQUIRES EXCAVATORS TO NOTIFY SUNSHINE STATE ON A CALL OF FLORIDA (SSOCOF) BEFORE BEGINNING ANY EXCAVATION IN THE STATE OF FLORIDA UNLESS A SPECIFIC EXEMPTION LISTED IN F.S. 556.108 APPLIES. AN EXCAVATOR MUST NOTIFY SSCOCF TWO FULL BUSINESS DAYS BEFORE EXCAVATING. EXCAVATORS MAY CALL 1-800-432-7770 DURING BUSINESS HOURS OR USE THE INTERNET TO PROVIDE NOTIFICATION INFORMATION. TRENCH SAFETY- CONTRACTOR SHALL COMPLY WITH OSHA TRENCH SAFETY STANDARDS 29 C.F.R. S. 926.650, SUBPART P, AND ALL SUBSEQUENT REVISIONS OR UPDATES ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY AND WITH SECTION 553.82, FLORIDA. II. PRE-CONSTRUCTION RESPONSIBILITIES UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND ITSELF. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A CONSTRUCTION SCHEDULE DEPICTING EACH PHASE OF THE WORK. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAKE ARRANGEMENTS FOR THE FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE IMPACT ON CONSTRUCTION SCHEDULE. ANY DELAY CAUSED BY THE CONTRACTOR BY THE RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED. SUNSHINE STATE ONE CALL OF FLORIDA, INC., CALL TWO FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) BEFORE TO FIND OUT WHERE BURIED FACILITIES (ELECTRICAL, GAS, TELEPHONE, CABLE, WATER) ARE LOCATED.

III. PROJECT CLOSEOUT

DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEP BROOM CLEAN. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER, THE COUNTY OR THE GOVERNING AGENCY, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY ITS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF ITS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF CONSTRUCTION. TO THIS END, THE CONTRACTOR SHALL DO ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK AND LANDSCAPING WORK, SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION. WHERE MATERIAL OR DEBRIS HAS WASHED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTORS OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS COMPLETED. ALL REQUIRED TESTING RESULTS PROVIDED TO THE ENGINEER. ALL REQUIRED AS-BUILT INFORMATION PROVIDED TO THE ENGINEER.

IV. REQUIRED AS-BUILT INFORMATION

CONTRACTOR SHALL PROVIDE ENGINEER WITH AS-BUILT DRAWING DOCUMENTATION CERTIFIED BY A REGISTERED FLORIDA LAND SURVEYOR DEPICTING THE FOLLOWING INFORMATION AT A MINIMUM: UTILITY CROSSING SEPARATION INFORMATION FOR THAT PROVIDED ON THE PLANS VERIFYING: SIZE AND MATERIAL OF CROSSING PIPES TOP ELEVATION OF BOTTOM PIPE BOTTOM ELEVATION OF TOP PIPE FINISH SURFACE ELEVATION OVER UTILITY CROSSING SANITARY SEWER: TOP ELEVATION OF EACH MANHOLE FRAME AND COVER, INVERT OF EACH LINE ENTERING AND LEAVING EACH MANHOLE / STRUCTURE LENGTH OF EACH RUN OF MAIN BETWEEN MANHOLES (INVERT TO INVERT) ACTUAL GRADE OF PIPE BETWEEN MANHOLES. LOCATE ALL SERVICE WYES FROM DOWNSTREAM MANHOLE WITH DEPTH AT LOT LINE AND DISTANCE FROM THE MAIN LINE. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS / ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES). STORM DRAINAGE: TOP ELEVATION OF EACH MANHOLE FRAME AND COVER / GRATE AS WELL AS ALL OTHER STRUCTURES (HEADWALLS, CONTROL STRUCTURES, ETC.). INVERT ELEVATION OF EACH LINE ENTERING AND LEAVING EACH STRUCTURE, INCLUDING UNDERDRAIN PIPES. INVERTS OF ALL MITERED END SECTIONS. ACTUAL GRADE OF PIPE BETWEEN THE STRUCTURES. (INVERT TO INVERT) INVERT ELEVATION AND TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS TO ALL STORM STUB-OUTS. CONTRACTOR SHALL PROVIDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORMWATER MANAGEMENT AREAS IMMEDIATELY AFTER FINAL GRADING AND PRIOR TO SEEDING OR SOODING OF THE SLOPES. AT A MINIMUM, THE CONTRACTOR SHALL PROVIDE CROSS SECTIONS ON ALL SIDES OF THE WATER MANAGEMENT AREAS AT 100-FOOT INTERVALS. THE CROSS SECTIONS SHALL BE PROVIDED FROM TOP OF BANK TO THE SLOPE BREAK BELOW CONTROL ELEVATION. THE ENGINEERS APPROVAL IS REQUIRED PRIOR TO GRASSING OF THE BANKS. IF ANY MODIFICATIONS ARE SPECIFIED, ADDITIONAL AS-BUILTS MAY BE REQUIRED. PRESSURE SYSTEMS (WATER, RECLAIMED, AND FORCE MAINS): ACTUAL LENGTHS BETWEEN BRANCHES AND VALVES ALONG THE MAIN RUN. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS / ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES). AS-BUILT INFORMATION ON THE FORCE MAIN, RECLAIMED AND WATER SYSTEMS SHALL INCLUDE LOCATIONS OF ALL FIRE HYDRANTS, WATER SERVICES AND TOP OF PIPE ELEVATIONS AT ALL FITTINGS AND AT A MINIMUM OF 100 FEET SPACING ALONG THE LENGTH OF MAINS. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD COMPLETE SETS OF "AS-BUILT" CONSTRUCTION DRAWINGS AS REQUIRED FOR SUBMITTAL AND APPROVAL. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR.

V. SHOP DRAWINGS AND SUBMITTALS

PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, 7 SETS OF SHOP DRAWINGS AND CATALOGUE LITERATURE SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER OF RECORD FOR SANITARY SEWER, POTABLE WATER AND STORM SEWER FACILITIES. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE THE DRAWINGS, AND SHALL NOTE IN RED ANY DEVIATIONS FROM THE ENGINEERS PLANS OR SPECIFICATIONS. SIX (6) SETS OF APPROVED SHOP DRAWINGS SHALL BE RETURNED TO THE CONTRACTOR FOR DISSEMINATION TO OWNER, UTILITY, LOCAL JURISDICTIONAL AGENCIES, ETC. THE CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING SHOP DRAWING AND MATERIALS ORDERING PHASE OF THE PROJECT AND ADVISE THE ENGINEER OF ANY DISCREPANCIES.

VI. CONSTRUCTION SAFETY

ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.

VII. TRENCH SAFETY ACT

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE OF FLORIDA TRENCH SAFETY ACT. WHERE EXCAVATIONS TO A DEPTH IN EXCESS OF FIVE FEET (5 FEET) ARE REQUIRED, THE CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION IN THE BID: A REFERENCE TO THE TRENCH SAFETY STANDARDS THAT WILL BE IN EFFECT DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.

WRITTEN ASSURANCES BY THE CONTRACTOR PERFORMING THE TRENCH EXCAVATION THAT SUCH CONTRACTOR WILL COMPLY WITH THE APPLICABLE TRENCH SAFETY STANDARDS. A SEPARATE ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY STANDARDS. WHEN A BID IS NOT SUBMITTED, THE CONTRACTOR SHALL SUBMIT THE INFORMATION LISTED IN ITEM B TO THE ENGINEER PRIOR TO STARTING WORK.

VIII. SURVEY DATA

ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NGVD). THE CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO SURVEY MARKERS DURING CONSTRUCTION. ANY SURVEY MARKERS DAMAGED DURING CONSTRUCTION WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. THE PROPOSED PLAT WAS PROVIDED BY A FLORIDA REGISTERED SURVEYOR. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.

IX. TEMPORARY FACILITIES

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND FDOT. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE COUNTY OR RESPECTIVE GOVERNING AGENCY.

X. INTERRUPTION OF EXISTING UTILITIES

ANY CONSTRUCTION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR NOTICE TO, AND WRITTEN APPROVAL BY, THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ANY INTERRUPTION AS SUCH, WHENEVER SUCH INTERRUPTION IS REQUIRED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR. EACH CUSTOMER AFFECTED BY THE SHUT DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

XI. EROSION CONTROL PLAN NOTES

FOR EROSION CONTROL NOTES PLEASE REFERENCE SHEET 3

XII. EARTHWORK

IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXISTING SITE CONDITIONS OF SOIL DURING THE BID PREPARATION TO DETERMINE IF ANY OFF-SITE MATERIALS WILL NEED TO BE IMPORTED TO ACHIEVE THE GRADES SPECIFIED ON THE PLANS. PRIOR TO BID PREPARATION, THE CONTRACTOR MUST BECOME FAMILIAR WITH THE OVERALL SITE, THE LIMIT AND DEPTH OF EXPECTED ORGANIC MATERIAL, ADEQUACY OF EXISTING MATERIALS AS FILL, DEWATERING REQUIREMENTS, CLEAN FILL REQUIRED FROM OFF SITE AND MATERIALS TO BE DISPOSED OF OFF SITE. ANY DELAY, INCONVENIENCE OR EXPENSE CAUSED TO THE CONTRACTOR DUE TO INADEQUATE INVESTIGATION OF EXISTING CONDITIONS SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED. THE MATERIALS ANTICIPATED TO BE ENCOUNTERED DURING CONSTRUCTION MAY REQUIRE DRYING PRIOR TO USE AS BACKFILL AND THE CONTRACTOR MAY HAVE TO IMPORT MATERIALS, AT NO EXTRA COST, FROM OFF SITE TO MEET THE REQUIREMENTS FOR COMPACTION AND PROPER FILL. CLEAR AREAS INDICATED SHALL BE COMPLETELY CLEAR OF ALL TIMBER, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER DEBRIS AND OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE GROUND. THIS DEBRIS SHALL BE DISPOSED OF IN A LEGAL MANNER. BURNING OF THIS MATERIAL IS NOT PERMITTED UNLESS THE CONTRACTOR OBTAINS SPECIFIC PERMITS ALLOWING SUCH ACTIVITY. ALL EXCESS FILL FROM THE SITE SHALL BE STOCKPILED BY THE CONTRACTOR, IN A LOCATION DETERMINED BY THE OWNER OR THE OWNERS REPRESENTATIVE AND THE ENGINEER. ALL ORGANIC AND OTHER UNSUITABLE MATERIAL IN BUILDING OR PAVEMENT AREAS SHALL BE REMOVED AND REPLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS AND SOUND CONSTRUCTION PRACTICES.

XIII. SIGNING AND PAVEMENT MARKING NOTES

ALL PAVEMENT MARKINGS WITHIN FOOT, COUNTY OR COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC. ALL STOP BARS SHALL BE THERMOPLASTIC. ALL OTHER STRIPING SHALL BE PAINTED UNLESS OTHERWISE SPECIFIED. ALL PAINT USED FOR PAVEMENT MARKINGS SHALL CONFORM TO SECTION 971-13 OF THE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION (SSRBC). ALL PAINTED MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH SECTION 710 OF THE FOOT SSRBC AND THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PAINT MAY ONLY BE USED FOR PRIVATE DEVELOPMENT IMPROVEMENTS OR AS TEMPORARY MARKINGS. THERMOPLASTIC TRAFFIC MARKINGS SHALL BE COMPLETELY CLEAR OF ALL TIMBER, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER DEBRIS AND OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE GROUND. THIS DEBRIS SHALL BE DISPOSED OF IN A LEGAL MANNER. BURNING OF THIS MATERIAL IS NOT PERMITTED UNLESS THE CONTRACTOR OBTAINS SPECIFIC PERMITS ALLOWING SUCH ACTIVITY. ALL EXCESS FILL FROM THE SITE SHALL BE STOCKPILED BY THE CONTRACTOR, IN A LOCATION DETERMINED BY THE OWNER OR THE OWNERS REPRESENTATIVE AND THE ENGINEER. ALL ORGANIC AND OTHER UNSUITABLE MATERIAL IN BUILDING OR PAVEMENT AREAS SHALL BE REMOVED AND REPLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS AND SOUND CONSTRUCTION PRACTICES.

XIV. PAVING, GRADING AND DRAINAGE NOTES

CONTRACTOR ACCEPTS SITE AS IS, ANY REPAIRS TO EXISTING SITE ELEMENTS INCLUDING PAVEMENT, SIDEWALKS, CURBING, DRAINAGE, SANITARY SEWER, WATER, SIGNAGE AND STRIPING SHALL BE INCLUDED IN THE BID PRICE. ALL CURB RADI AND DIMENSIONING ARE TO EDGE OF PAVEMENT. PRIOR TO BACKFILLING THE DRAINAGE SYSTEM, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND LOCAL JURISDICTIONAL AGENCIES FOR INSPECTION. ALL EXISTING AND PROPOSED UTILITIES SHALL BE ADJUSTED TO NEW FINISH GRADES AND PROPERLY SET TO PAVEMENT CROSS SLOPE AS REQUIRED. ALL UTILITIES SHALL BE COMPLETED OR SLEEVING PROVIDED BEFORE ANY PAVEMENT CONSTRUCTION BEGINS. GRADING FROM PROPOSED TO EXISTING CONDITIONS SHALL NOT BE STEEPER THAN 3H:1V NOR FLATTER THAN 20H:1V. ALL SWALES AND SLOPES SHALL BE SOODED AFTER GRADING. NOTE V-6. IF THE PLANS INDICATE A STABILIZED SUBGRADE IS TO BE USED, IT SHALL HAVE A MINIMUM LBR VALUE OF 40 OR A FBV OF 75 AND SHALL BE IN ACCORDANCE WITH F.D.O.T. SPECIFICATIONS, SECTION 160. IT IS THE CONTRACTORS RESPONSIBILITY TO SUBMIT TO THE ENGINEER FOR APPROVAL, THE MATERIAL TO BE USED FOR THE SUBGRADE, AND THEIR PROPORTIONS AND LABORATORY LBR, BEFORE DELIVERY TO THE SITE. QUALITY CONTROL LBR'S MAY BE REQUIRED BY THE ENGINEER TO PROVE THE IN-PLACE CONDITION. MATERIAL HAVING A PLASTICITY INDEX AT MORE THAN 10 OR A LIQUID LIMIT GREATER THAN 40 SHALL NOT BE USED. ALL MATERIAL USED FOR STABILIZING THE ROADBED SHALL PASS A 3-1/2 INCH SIEVE. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PLACING BASE COURSE MATERIAL. IF THE PLANS INDICATE A LIMEROCK BASE, THE CONSTRUCTION AND THE MATERIAL FOR THE LIMEROCK BASE SHALL CONFORM TO THE REQUIREMENTS OF THE F.D.O.T. SPECIFICATIONS, SECTION 200. THE LIMEROCK BASE SHALL BE COMPACTED TO A 98% MAXIMUM DENSITY AT OPTIMUM MOISTURE, ASHTO T-134, METHOD "D". THE GEOTECHNICAL ENGINEER SHALL SPECIFY THE LOCATION AND NUMBER OF DENSITY TESTS REQUIRED. THE TESTS RESULTS SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO THE APPLICATION OF THE PRIME AND TACK COATS. IF THE PLANS INDICATE A SOIL CEMENT BASE, THE CONSTRUCTION AND THE MATERIAL FOR THE SOIL CEMENT BASE SHALL CONFORM TO THE REQUIREMENTS OF THE F.D.O.T. SPECIFICATIONS, SECTION 270. THE SOIL CEMENT BASE SHALL BE COMPACTED TO A 98% MAXIMUM DENSITY AT OPTIMUM MOISTURE, ASHTO T-134, METHOD "D". THE GEOTECHNICAL ENGINEER SHALL SPECIFY THE LOCATION AND NUMBER OF DENSITY TESTS REQUIRED. THE TESTS RESULTS SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO THE APPLICATION OF THE PRIME AND TACK COATS. THE BASE SHALL BE TRANSPORTED TO THE POINT WHERE IT IS TO BE USED, OVER BASE PREVIOUSLY PLACED IF PRACTICABLE, AND DUMPED ON THE END OF THE PRECEDING SPREAD. HAULING OVER THE SUBGRADE AND DUMPING ON THE SUBGRADE WILL BE PERMITTED ONLY WHEN, IN THE ENGINEERS OPINION, THESE OPERATIONS WILL NOT BE DETRIMENTAL TO THE SUBGRADE. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR BASE COURSE SHALL BE PROVIDED TO THE ENGINEER & THE CITY OF WINTER GARDENS ENGINEERING INSPECTOR PRIOR TO PLACING ASPHALT.

THE PRIME COAT BITUMINOUS MATERIAL SHALL BE APPLIED BY MEANS OF PRESSURE DISTRIBUTOR. THE AMOUNT OF BITUMINOUS MATERIAL APPLIED SHALL BE AT A RATE NOT LESS THAN 0.15 GALS / SY FOR LIMEROCK BASES AND NOT LESS THAN 0.25 GALS / SY FOR SOIL-CEMENT BASES. THE RATE OF APPLICATION SHALL COAT THE SURFACE THOROUGHLY AND UNIFORMLY WITHOUT HAVING ANY EXCESS TO FORM POOLS OR FLOW OFF THE BASE. THE PRIME SHALL BE ALLOWED TO STAND WITHOUT COVER MATERIAL FOR A PERIOD OF 48 HOURS UNLESS OTHERWISE ORDERED BY THE ENGINEER. NO BITUMINOUS MATERIAL SHALL BE APPLIED WHEN THE TEMPERATURE OF THE AIR IS LESS THAN 40 DEGREES FAHRENHEIT IN THE SHADE AND FALLING, OR WHEN IN THE OPINION OF THE ENGINEER, THE WEATHER CONDITIONS OR THE CONDITION OF THE EXISTING SURFACE IS UNSUITABLE.

THE SURFACE TO BE PRIMED SHALL BE CLEAN AND DRY. FOR LIMEROCK BASES, THE GLAZED FINISH SHALL BE REMOVED BEFORE THE APPLICATION OF PRIME COAT. THE TEMPERATURE OF THE PRIME MATERIAL SHALL BE BETWEEN 100 DEGREES FAHRENHEIT AND 150 DEGREES FAHRENHEIT. ALL EXPOSED ENDS OF CURB SHALL TRANSITION TO FINISHED GRADE. ALL CONCRETE CURBS, SIDEWALKS, INLET TOPS, ETC., SHALL BE 3000 PSI CONCRETE, UNLESS OTHERWISE SPECIFIED. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL PAVEMENT TO DRAIN POSITIVELY. INTERSECTIONS SHALL TRANSITION TO PROVIDE SMOOTH DRIVING SURFACE WHILE MAINTAINING POSITIVE DRAINAGE. SHOULD AREAS OF FOOT DRAINAGE BE OBSERVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF CURBS OR PAVEMENT COURSES, SO THAT RECOMMENDATIONS FOR CORRECTION CAN BE MADE. PAVEMENT GRADING AT HANDICAP PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION. PROPOSED AND EXISTING SIDEWALKS SHALL BE RAMPED FLUSH WITH PAVEMENT. RAMPS SHALL NOT EXCEED A 12 HORIZONTAL TO 1 VERTICAL SLOPE.

SIDEWALK RAMPS SHALL BE TEXTURED IN CONFORMANCE WITH FDOT STANDARDS EXCEPT WHERE LOCAL CODES DICTATE OTHERWISE OR IF INDICATED OTHERWISE ON THE PLANS. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND THE MUNICIPAL AUTHORITY FOR FORM BOARD AND PRE POUR INSPECTIONS PRIOR TO ANY SIDEWALK AND / OR CONCRETE RAMP

INSTALLATION. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO ENSURE THAT ALL RAMP TEXTURED SURFACES AND SIDEWALK LONGITUDINAL AND CROSS SLOPES ARE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL ADA STANDARDS. ALL OFF-SITE DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER. ALL LANDSCAPE ISLANDS SHALL CONTAIN SUITABLE LANDSCAPE MATERIAL FOR LANDSCAPE INSTALLATION. ELEVATIONS OF GRASSED AREAS ARE GIVEN AT FINISHED SOO / SEED GRADE. ELEVATIONS GIVEN ADJACENT TO CURB OR FRONT OF SIDEWALK ARE CONSIDERED EDGE OF PAVEMENT GRADES. ALL SUBGRADE SHALL BE FREE OF MUCK, STUMPS, ROOTS, UNDERBRUSH, VEGETATIVE MATTER, GARBAGE, TRASH OR ANY MATERIAL THAT WILL NOT PROVIDE A SUITABLE STABLE, CLEAN SUBGRADE. ALL SUBGRADE, BASE COURSE, PRIME COAT, TACK COAT AND ASPHALT MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS (LATEST EDITION). BEFORE CONSTRUCTION OF ASPHALT SURFACIAL, A JOB MIX FORMULA SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF DEBRIS AND SILT WHERE TIE-INS TO EXISTING DRAINAGE STRUCTURES OR SWALES ARE TO BE PERFORMED. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF DRAINAGE STRUCTURES AND FROM INVERTS OF ENDWALLS AND / OR MITERED END SECTIONS. JOINTS FOR REINFORCED CONCRETE STORM DRAINS AND CULVERTS SHALL BE FOR ROUND PIPE. RUBBER GASKETS MEETING THE REQUIREMENTS OF SECTION 4307-2, 941-1.5 AND 942-1, FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, SHALL BE USED. REINFORCED CONCRETE PIPE SHALL BE PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. INSTALLATION OF REINFORCED CONCRETE PIPE SHALL BE IN ACCORDANCE WITH FDOT SSRBC (LATEST EDITION). ALL STORM STRUCTURES SHALL BE CONSTRUCTED AND INSTALLED PER FDOT SSRBC. GRATES SHALL BE CAST IRON. GRATES IN PAVEMENT SHALL BE FRAME AND GRATE CONSTRUCTION UNLESS OTHERWISE SPECIFIED OR APPROVED. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED AND SHALL HAVE A 4-FOOT MINIMUM DIAMETER. REINFORCED CONCRETE PIPE SHALL MEET THE REQUIREMENTS OF F.D.O.T. STANDARD SPECIFICATIONS SECTION 941. CONCRETE PIPE SHALL BE CLASS III OR AS SHOWN ON THE PLANS. PIPE GASKETS SHALL MEET F.D.O.T. STANDARD SPECIFICATIONS SECTION 942. ALL PIPE JOINTS SHALL BE WRAPPED PER FDOT STANDARD INDEX NUMBER 280. ALL PIPE SHALL BE CAREFULLY LAID, TRUE TO THE LINES AND GRADES GIVEN, WITH HUB UPLIFT AND TONGUE END FULLY ENTERED INTO THE HUB, WHEN PIPE WITH QUADRA REINFORCEMENT OR CIRCULAR PIPE WITH ELUTICAL REINFORCEMENT IS USED. THE PIPE SHALL BE INSTALLED IN A POSITION SUCH THAT THE MANUFACTURER'S MARKS DESIGNATING TOP AND BOTTOM OF THE PIPE SHALL NOT BE MORE THAN FIVE DEGREES FROM THE VERTICAL PLANE THROUGH THE LONGITUDINAL AXIS OF THE PIPE. ANY PIPE THAT IS NOT TRUE IN ALIGNMENT OR WHICH SHOWS ANY SETTLEMENT AFTER LAYING SHALL BE TAKEN UP AND RELAD WITHOUT ADDITIONAL COMPENSATION. PVC PIPE SHALL CONFORM TO ASTM D3034 SDR 26 WITH ELASTOMERIC JOINTS, NON-PERFORATED. PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE UNI-BELL PLASTIC PIPE ASSOCIATIONS' RECOMMENDED PRACTICE FOR INSTALLATION OF PVC SEWER PIPE". SDR 26 PVC DRAINAGE PIPE SHALL BE CONFORM TO THE CATCH BASIN WALLS WITH A COATED PVC ADAPTER, CEMENT COLLAR, RUBBER BOOT, OR AS APPROVED BY THE ENGINEER. POLYETHYLENE PIPE SHALL BE HDPE CONFORMING TO AASHTO M252 AND AASHTO M294 (WHERE APPLICABLE) EQUAL TO AASD WITH PIPE AND FITTINGS BY THE SAME MANUFACTURER. YARD INLETS SHALL BE ASD NYLOPLAST WITH 12-INCH DIAMETER CAST IRON GRATES (UNLESS OTHERWISE SPECIFIED). ROOF DRAIN CONNECTIONS SHALL TERMINATE 5 FEET OUTSIDE THE BUILDING ENVELOPE. ALL CONNECTIONS WITH FDOT, COUNTY OR COUNTY RIGHTS-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE JURISDICTION. ALL STORM STRUCTURES ARE TO BE PLACED ON A 12 INCH DEEP OF CRUSHED STONE OR EQUAL AS APPROVED BY THE COUNTY ENGINEER AND FULLY ENVELOPED WITH FILTER FABRIC.

XV. WATER AND SEWER DISTRIBUTION & COLLECTION SYSTEM NOTES

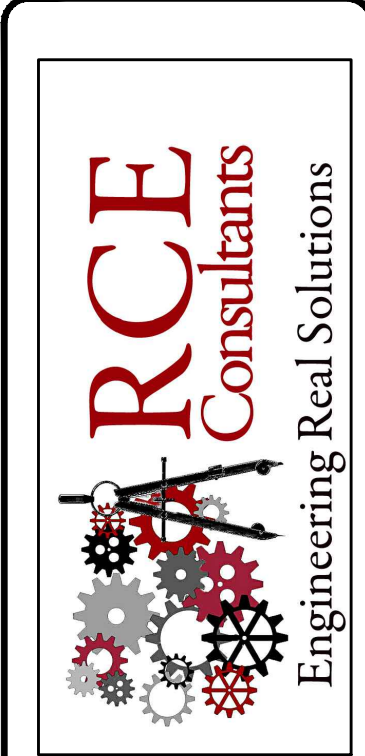
ALL WATER DISTRIBUTION SYSTEM, SANITARY SEWER AND RECLAIMED WATER MATERIALS (INCLUDING SERVICES) AND INSTALLATION SHALL CONFORM TO THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY AS PROVIDED IN THEIR STANDARD SPECIFICATIONS MANUAL. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST RECENT MATERIAL AND INSTALLATION SPECIFICATIONS FROM THE APPLICABLE MUNICIPALITY. ALL WATER AND SEWER MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MOST UPDATE SPECIFICATIONS FROM THE MUNICIPALITY UNLESS OTHERWISE SPECIFIED BY THE MUNICIPALITY. CONTRACTOR SHALL BID THE PROJECT AS SUCH, WHENEVER SUCH INTERRUPTION IS REQUIRED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR. EACH CUSTOMER AFFECTED BY THE SHUT DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR. WATER, SEWER AND REUSE PIPES SHALL HAVE A MINIMUM OF 3 FEET OF COVER UNLESS OTHERWISE SPECIFIED. WATER SERVICES SHALL BE POLYETHYLENE WITH APPLICABLE REUSE PIPES SHALL BE POLYETHYLENE WITH APPLICABLE REUSE PIPES SHALL BE AS DESCRIBED IN ASTM D-2737 AND HAVE A STANDARD DIMENSION RATIO (SDR) OF 9.0 AND SHALL CONFORM TO ANSI / AWWA STANDARD C-901. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY FOR CONNECTION OF WATER SYSTEM AND FOR CONNECTION OF SANITARY SEWER AND RECLAIMED SYSTEM. JOINTS FOR THE POLYETHYLENE TUBING SHALL BE OF THE COMPRESSION TYPE, UTILIZING A TOTALLY CONFINED GRIP SEAL AND COUPLING NUT. STAINLESS STEEL TUBE STIFFENER INSERTS SHALL ALSO BE USED FOR P.E. TUBING SERVICES. CONTRACTOR SHALL PROVIDE DISINFECTANT RESIDUE AND LEAKAGE TESTS AND TESTING IN ACCORDANCE WITH AWWA C600, C605 AND C651 AS APPLICABLE AND BACTERIOLOGICAL TEST REPORTS. ALL IN ACCORDANCE WITH GOVERNING SPECIFICATIONS, FDEP PERMIT CONDITIONS AND AWWA STANDARDS. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR. WATER MAIN TAPS SHALL BE WITNESSED BY THE GOVERNING MUNICIPALITY. WATER METER VALVES SHALL BE INSTALLED BY THE GOVERNING MUNICIPALITY. WATER METERS SHALL BE INSTALLED BY THE GOVERNING MUNICIPALITY UNLESS OTHERWISE SPECIFIED. BACKFLOW PREVENTERS SHALL BE INSTALLED BY THE CONTRACTOR. EXISTING WATER MAINS SHALL BE PROTECTED FROM DAMAGE DURING FILLING, FLUSHING AND TESTING OF NEW LINES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA C651-92. SEE JUMPER DETAIL. ALL FITTINGS 3 INCHES AND OVER SHALL BE PROPERLY ANCHORED W/RESTRAINED JOINT FITTINGS, CONFORMING WITH THE DETAILS OF THE PLANS. ALL PIPE SHALL BE LAID TO LINE AND GRADE WITH VALVES AND HYDRANT STEMS PLUMB. ALL PIPE MAINS SHALL BE INSTALLED THE WATER SYSTEM SHALL BE TESTED FOR A PERIOD OF NOT LESS THAN 2 HOURS AT 150 PSI IN ACCORDANCE WITH ANSI / AWWA STANDARD C600-99 AND PER AWWA MANUAL M25 WITH AN ALLOWABLE LEAKAGE AS DETERMINED BY THE FOLLOWING FORMULA FOR PVC MAINS:

L=SD\*10.5 / 133,200 WHERE  
L = ALLOWABLE LEAKAGE IN GALLONS PER HOUR  
S = PIPE LENGTH IN FEET  
D = NOMINAL DIAMETER OF PIPE IN INCHES  
P = AVERAGE TEST PRESSURE IN PSI

SITE UTILITY WORK SHALL TERMINATE 5 FEET OUTSIDE THE BUILDING ENVELOPE UNLESS OTHERWISE SPECIFIED. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF MANHOLE STRUCTURES. UNLESS OTHERWISE NOTED OR APPROVED, ALL GRAVITY MAINS AND SERVICES SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (PVC) NON-PRESSURE PIPE CONFORMING TO ASTM D-3034 AND SDR 26 WITH INTERGRAL BELL AND SHOOT JOINTS FOR PUSH-ON RUBBER GASKET TYPE JOINT SEALS CONFORMING TO ASTM D-1869. ALL GRAVITY MAINS ARE 8 INCHES PVC PIPE AT A 40% MINIMUM SLOPE AND ALL LATERALS ARE 6 INCHES PVC AT 1/8 INCHES PER FOOT MINIMUM SLOPE, UNLESS OTHERWISE SHOWN ON THE PLANS. MINIMUM COVER ON SANITARY SEWER MAINS SHALL BE 60 INCHES TO INVERT; MINIMUM COVER ON LATERALS SHALL BE 18 INCHES AT HIGH END OR AS SHOWN ON PLANS. ALL MANHOLES SHALL HAVE THE WORDS "SANITARY SEWER" CAST IN THE LIDS. CASTINGS SHALL BE CLEAN AND COATED WITH A COAL TAR PITCH VARNISH WHICH IS TOUGH WHEN COLD BUT NOT TACKY OR BRITTLE. PICK TYPE LIFTING HOLES WILL BE CAST INTO LIDS, BUT SHALL NOT GO CLEAR THROUGH THE LID. CONTRACTOR SHALL INSTALL ONE LENGTH OF DR14 PVC FOR ALL SANITARY SEWER MAINS OR LATERALS HAVING LESS THAN 18 INCHES SEPARATION FROM WATER MAIN. (SEE STANDARD SEWER SEPARATION STATEMENT AND DETAILS ON INSTALLATION). THERE SHALL BE NO DETECTABLE LEVEL OF INFILTRATION OR EXFILTRATION WITHIN THE SANITARY SEWER SYSTEM AT THE TIME OF INSPECTION. ANY EVIDENCE OF LEAKAGE MUST BE CORRECTED PRIOR TO ACCEPTANCE. ALL VISIBLE LEAKS, REGARDLESS OF RESULTS OF INFILTRATION OR EXFILTRATION TESTS, SHALL BE REPAIRED. ALL REPAIRS SHOWN NECESSARY BY THE TESTS ARE TO BE DONE BY BROKEN OR CRACKED PIPE REPLACED, ALL DEPOSITS REMOVED, THE SEWER LEFT TRUE TO LINE AND GRADE AND ENTIRELY CLEAN, FREE FROM LUMPS OF CEMENT, PROTRUDING GASKETS, BULKHEADS, ETC., AND READY FOR USE BEFORE FINAL ACCEPTANCE IS MADE. REPAIR OF ANY DEFECTS FOUND IN THE SYSTEM ARE TO BE COMPLETED AT THE EXPENSE OF THE CONTRACTOR. BEDDING OF THE PIPE SHALL BE F.D.O.T. CLASS "C" OR BETTER, REQUIRING THE BOTTOM OF THE TRENCH TO BE SHAPED TO FIT THE BOTTOM OF THE PIPE FOR A DISTANCE EQUAL TO ONE-HALF OF THE OUTSIDE DIAMETER OF THE PIPE. BELL HOLES SHALL BE DEEP ENOUGH TO INSURE PROPER BEARING OF THE PIPE BARREL ON THE BEDDING. CONTRACTOR SHALL IDENTIFY AND PAINT ALL FIRE HYDRANTS IN ACCORDANCE WITH THE UTILITY PROVIDING SERVICE AND NFPA SPECIFICATIONS. FIRE LINES TO BE TESTED AT 200 PSI. FLOW AND COLOR WILL BE BASED ON ACTUAL FLOW TEST CONDUCTED BY THE FIRE INSPECTOR. THIS ACTIVITY SHALL BE COORDINATED BY THE CONTRACTOR. THE OWNER AND ENGINEER SHALL BE GIVEN PRIOR NOTICE OF TESTING AND PROVIDED COPIES OF ALL TEST REPORTS. FIRE LINE MATERIAL TO BE C900 CLASS 200 PIPING. FIRE HYDRANTS WILL BE FURNISHED WITH A BREAKABLE FEATURE THAT WILL BREAK CLEANLY UPON IMPACT. THIS SHALL CONSIST OF A TWO PART BREAKABLE SAFETY FLANGE WITH A BREAKABLE STEM COUPLING. THE UPPER AND LOWER BARRELS SHALL BE FLUTED AND RIBBED ABOVE AND BELOW THE SAFETY FLANGE OR HAVE AN EXTRA STRENGTH LOWER BARREL. ALL FIRE HYDRANTS SHALL MEET THE LOCAL JURISDICTIONAL AGENCIES AND APPROVED MANUFACTURERS LIST AS STATED IN THE DEVELOPMENT CODE. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED OPPOSITE FIRE HYDRANTS IN THE CENTER OF THE NEAREST TRAVELED LANE TO MARK THEIR LOCATIONS. ALL FIRE HYDRANTS SHALL COMPLY WITH ANSI / AWWA STANDARD C502-94.

XVI. UTILITY SEPARATION NOTES

C. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT WILL BE LAID TO PROVIDE: ((FAC 62-555.314(1)&(2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(5))  
1. A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.  
2. A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND  
3. A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND  
4. A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM.  
B. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT:  
1. THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY, OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES ABOVE THE OTHER PIPELINE; AND  
2. THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.  
C. AT THE UTILITY CROSSINGS DESCRIBED IN PART A, ABOVE:  
1. ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND  
2. AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.



WINTER GARDEN COMMERCE CENTER  
NOTE & SPECIFICATIONS  
WINTER GARDEN, FLORIDA

| NO. | DATE:      | REVISION / ISSUE DATE:       | BY: |
|-----|------------|------------------------------|-----|
| 1   | 02/01/2024 | ADDED ACCESS / CITY COMMENTS | LMP |

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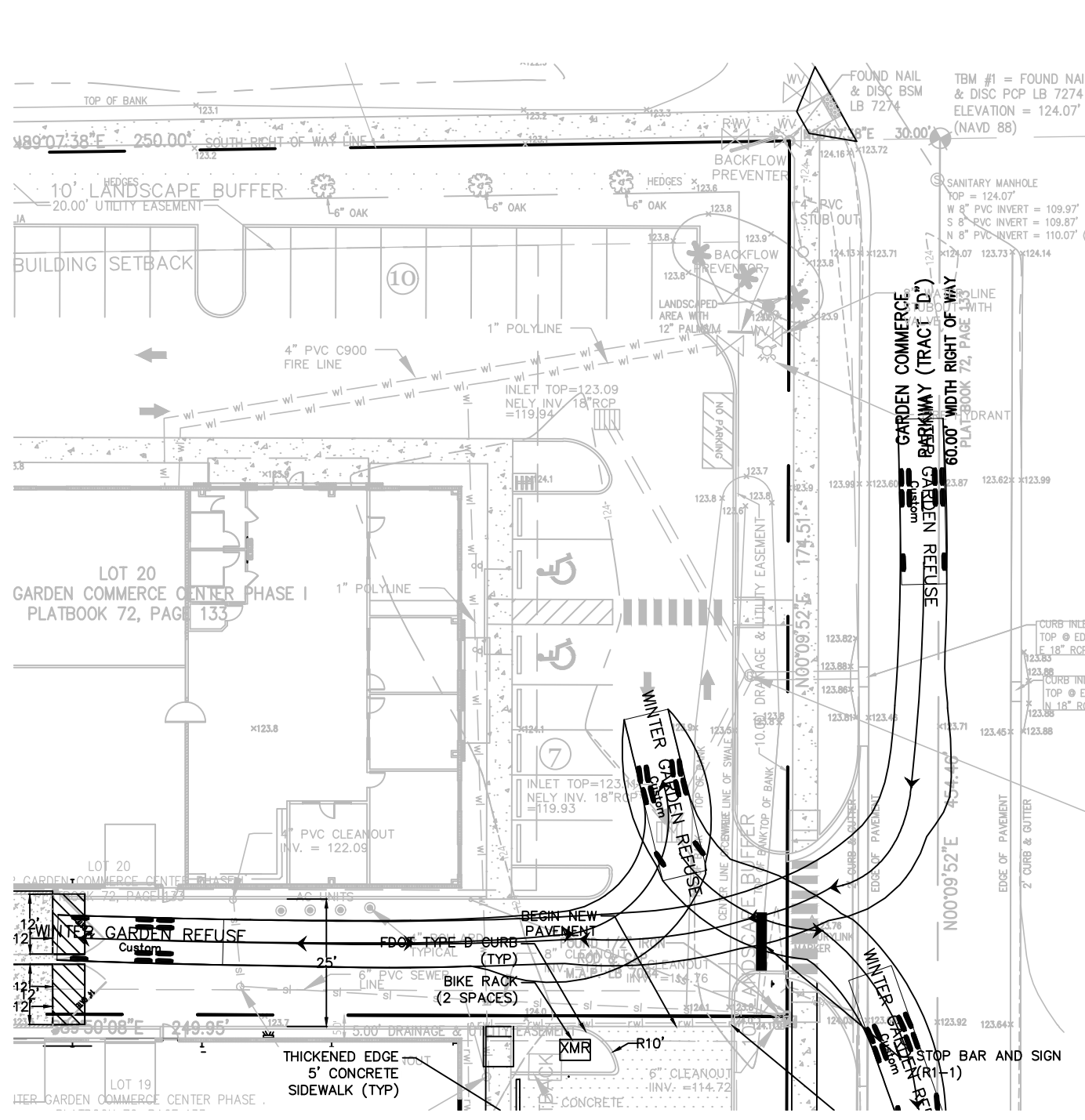
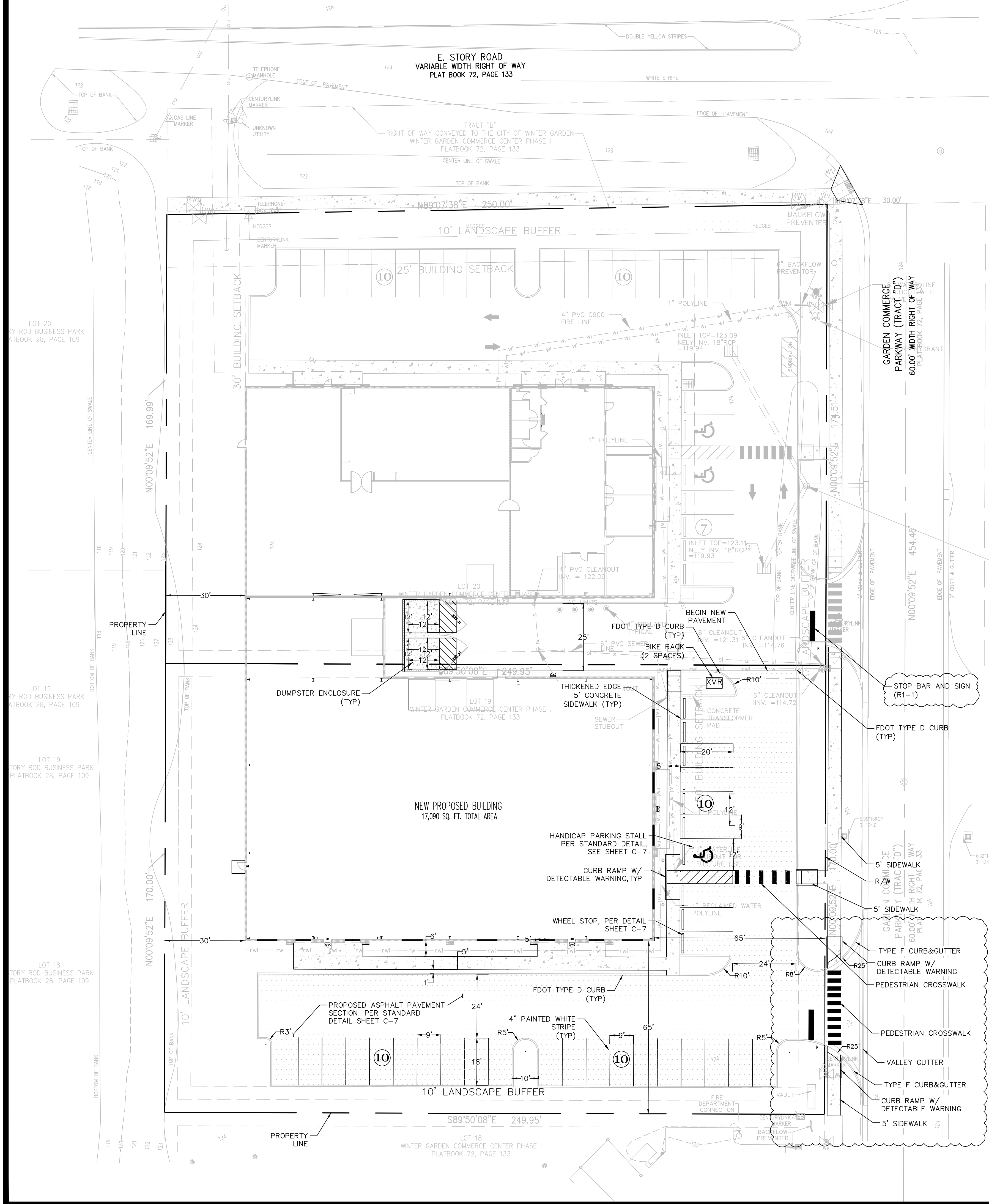
ENGINEER OF RECORD

LAURENCE M. POLNER, P.E.  
#50974

RCE CONSULTANTS, LLC

|                           |               |
|---------------------------|---------------|
| PROJECT #:<br>24-2022     |               |
| DRAWN:LMP CHECKED: LMP    |               |
| DATE:<br>-PRIL 2022       | SHEET:<br>C-2 |
| SCALE:                    |               |
| NOTES &<br>SPECIFICATIONS |               |





REFUSE TRUCK TEMPLATE

1"=30'

| SIGNAGE |                  |
|---------|------------------|
|         | R1-1 (30" X 30") |

|                        |                |            |  |
|------------------------|----------------|------------|--|
| EXISTING PROJECT AREA: |                |            |  |
| EXISTING BUILDING      | 0 Sq. Ft.      | 0.00 Acres |  |
| PAVEMENT/CURB          | 0 Sq. Ft.      | 0.00 Acres |  |
| GREEN AREA             | 42,493 Sq. Ft. | 0.98 Acres |  |
| TOTAL AREA:            | 42,493 Sq. Ft. | 0.98 Acres |  |

|                                 |                |            |  |
|---------------------------------|----------------|------------|--|
| PROPOSED ADDITION PROJECT AREA: |                |            |  |
| PROP. BUILDING                  | 17,090 Sq. Ft. | 0.39 Acres |  |
| PAVEMENT/CURB                   | 14,399 Sq. Ft. | 0.33 Acres |  |
| GREEN AREA                      | 11,004 Sq. Ft. | 0.26 Acres |  |
| TOTAL AREA:                     | 42,493 Sq. Ft. | 0.98 Acres |  |

|                        |                |            |  |
|------------------------|----------------|------------|--|
| EXISTING PROJECT AREA: |                |            |  |
| PROP. BUILDING         | 12,400 Sq. Ft. | 0.28 Acres |  |
| PAVEMENT/CURB          | 16,191 Sq. Ft. | 0.37 Acres |  |
| GREEN AREA             | 29,812 Sq. Ft. | 0.33 Acres |  |
| TOTAL AREA:            | 43,056 Sq. Ft. | 0.99 Acres |  |

|                     |                |            |  |
|---------------------|----------------|------------|--|
| TOTAL PROJECT AREA: |                |            |  |
| PROP. BUILDING      | 29,490 Sq. Ft. | 0.68 Acres |  |
| PAVEMENT/CURB       | 30,590 Sq. Ft. | 0.70 Acres |  |
| GREEN AREA          | 40,816 Sq. Ft. | 0.94 Acres |  |
| TOTAL AREA:         | 85,549 Sq. Ft. | 1.96 Acres |  |

|                          |        |
|--------------------------|--------|
| OPEN SPACE CALCULATIONS: |        |
| PROP. IMPERVIOUS         | 65.66% |
| PROP. PERVIOUS           | 34.34% |

SITE INFORMATION

PARCEL ID: 24-22-27-9385-00-200 & 24-22-27-9385-00-190  
ZONING: PID (PLANNED INDUSTRIAL)  
EXISTING USE: VACANT/OPEN  
LAND USE: MOI (MULTI OFFICE INDUSTRIAL)  
PROPOSED USE: COMMERCIAL/OFFICE/WAREHOUSE  
BUILDING HEIGHT: 35' (MAX 40')  
PROPERTY AREA: 1.96 Acres (85,549 SF)  
FAR: 0.34 (29,490/85,549)

BUILDING SETBACKS:

FRONT (EAST) REQUIRED = 50 FT, PROVIDED 65 FT  
SIDE (NORTH) REQUIRED = 0 FT, PROVIDED 0 FT  
SIDE (SOUTH) REQUIRED = 25 FT, PROVIDED 65 FT  
REAR (WEST) REQUIRED= 30 FT, PROVIDED 30 FT

LANDSCAPE BUFFER:

FRONT (EAST) REQUIRED = 15 FT  
SIDE (NORTH) REQUIRED = 0 FT  
SIDE (SOUTH) REQUIRED = 10 FT  
REAR (WEST) REQUIRED= 10 FT

REQUIRED PARKING:

OFFICE: 3 SPACES/1,000 SF OF GFA (ASSUMED 20%)  
WAREHOUSE: 1 SPACE/1,000 SF OF GFA  
(0.80\*29,490 SF) \* 1SPACE/1,000 SF = 24  
(0.20\*29,490 SF) \* 3 SPACE/1,000 SF = 18

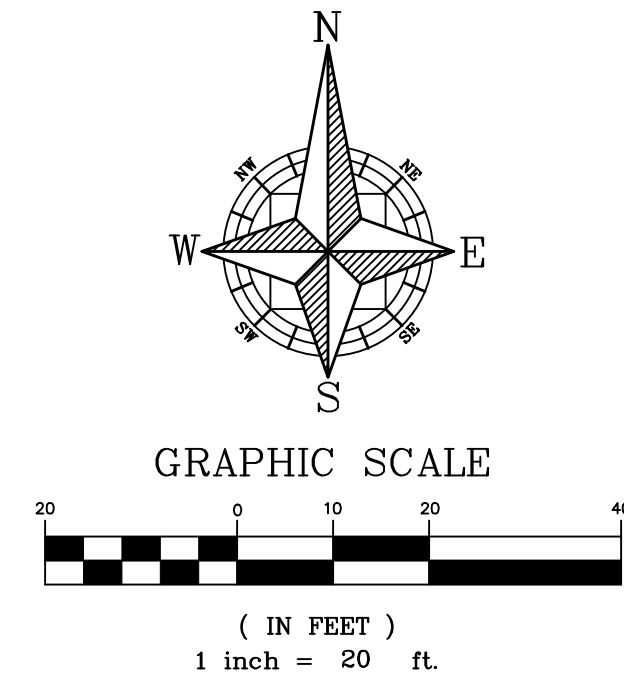
TOTAL REQUIRED = 42

PROVIDED PARKING:

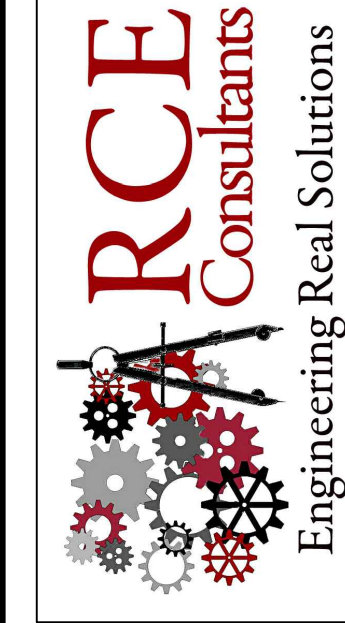
STANDARD = 53  
HANDICAP = 3  
TOTAL SPACES PROVIDED = 56

BICYCLE PARKING

5% OF REQUIRED STALLS = 3 STALLS REQUIRED  
4 STALLS PROVIDED.



WINTER GARDEN COMMERCE CENTER  
SITE PLAN  
WINTER GARDEN, FLORIDA



|                              |            |
|------------------------------|------------|
| BY:                          | LMP        |
| REVISION / ISSUE DATE:       |            |
| ADDED ACCESS / CITY COMMENTS |            |
| DATE:                        | 03/07/2024 |
| NO:                          | 1          |

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ENGINEER OF RECORD  
  
LAURENCE M. POLINER, P.E.  
#56974  
RCE CONSULTANTS, LLC

|                        |            |
|------------------------|------------|
| PROJECT #:             | 24-2022    |
| DRAWN/LMP CHECKED: LMP |            |
| DATE:                  | APRIL 2022 |
| SCALE:                 | 1"=20'     |
| SHEET:                 | C-3        |
| SITE PLAN              |            |

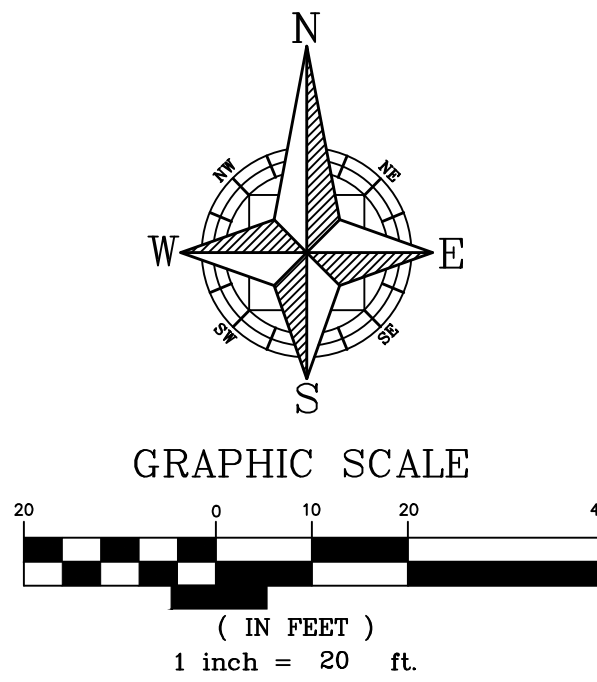
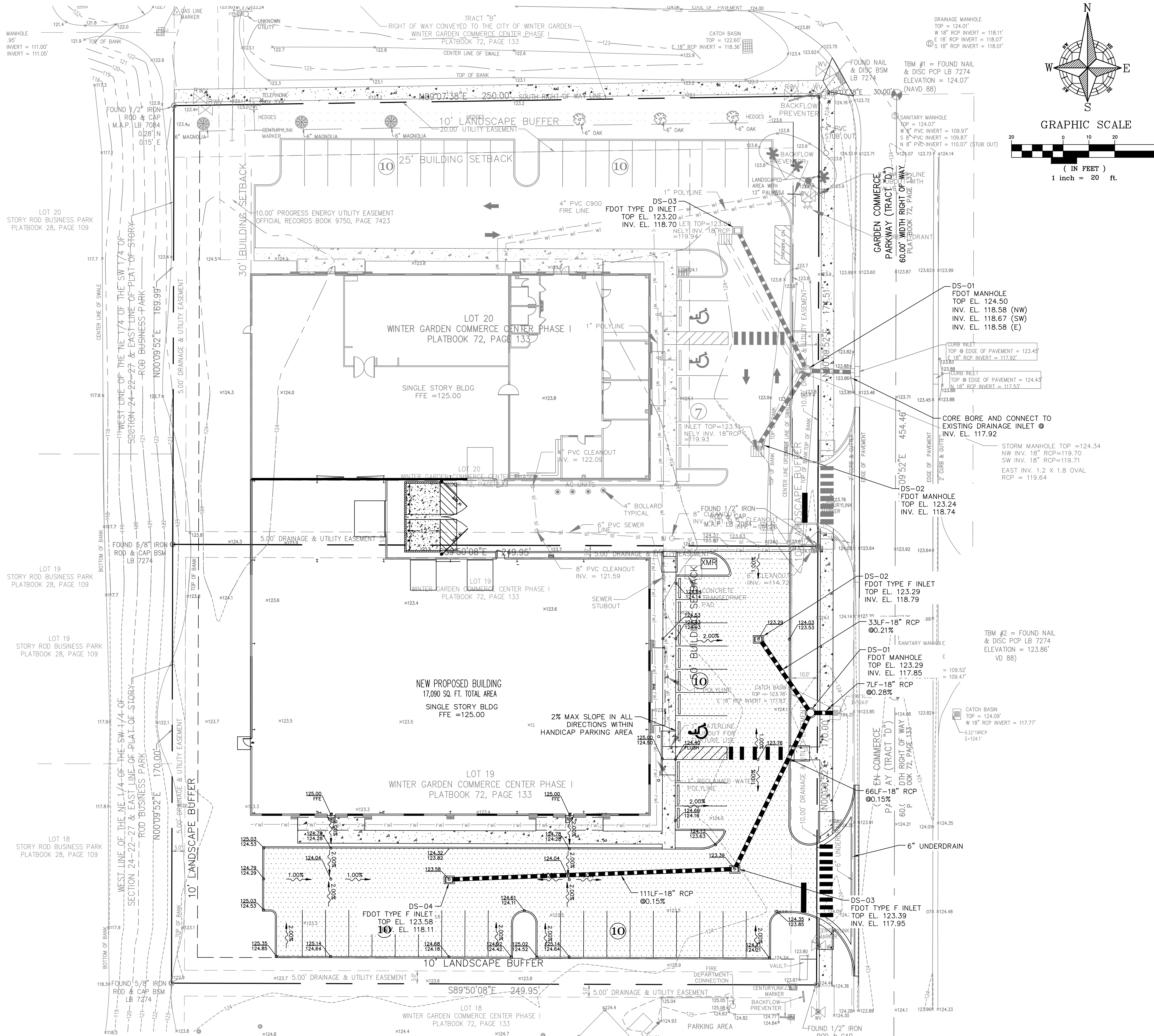
NOTE: ALL PUBLIC IMPROVEMENTS, INCLUDING ADJACENT SIDEWALKS, PAVEMENT, UTILITIES, STORM LINES, UNDERDRAIN, OR CURB, WILL BE CHECKED AT FINAL INSPECTION. ANY DAMAGED, BROKEN OR CRACKED SECTIONS SHALL BE REPLACED BY THE DEVELOPER PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

| SIGNAGE |                  |
|---------|------------------|
|         | R1-1 (30" X 30") |



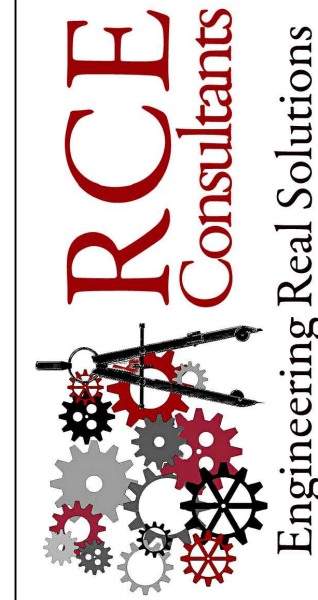
GRADING LEGEND

|                |                                                                   |
|----------------|-------------------------------------------------------------------|
| EL             | ELEVATION                                                         |
| TYP            | TYPICAL                                                           |
| CO             | CLEANOUT                                                          |
| INV            | INVERT ELEVATION                                                  |
| ME             | MATCH EXISTING GRADE                                              |
| FFE            | FINISH FLOOR ELEVATION                                            |
| S/W            | SIDEWALK                                                          |
| 49.58          | EXISTING GRADE ELEVATION                                          |
| XX.XX<br>XX.XX | PROPOSED TOP OF CURB ELEVATION<br>PROPOSED TOP OF PVMT. ELEVATION |
|                | DRAINAGE INLET                                                    |
|                | MITERED END SECTION                                               |
|                | PROPOSED SWALE STORMWATER FLOW                                    |
|                | STORM SEWER STRUCTURE NUMBER                                      |



NOTE TO CONTRACTOR:

DO NOT SCALE FROM DRAWING, IF REQUIRED DIMENSION, GRADE OR DETAIL IS NOT SHOWN OR ADDITIONAL CLARIFICATION IS REQUIRED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT AN RFI TO ENGINEER. THE CONTRACTOR SHALL NOT PROCEED UNTIL CLARIFICATION OR ADDITIONAL INFORMATION IS RECEIVED.



WINTER GARDEN COMMERCE CENTER  
GRADING PLAN  
WINTER GARDEN, FLORIDA

| NO. | DATE       | REVISION / ISSUE DATE | BY: | LMP |
|-----|------------|-----------------------|-----|-----|
| 1   | 03/01/2024 |                       |     |     |

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ENGINEER OF RECORD  
  
LAURENCE M. POLINER, P.E.  
#56974  
RCE CONSULTANTS, LLC

|              |              |
|--------------|--------------|
| PROJECT #:   | 24.2022      |
| DRAWN: LMP   | CHECKED: LMP |
| DATE:        | SHEET:       |
| APRIL 2022   |              |
| SCALE:       | C-4          |
| 1"=20'       |              |
| GRADING PLAN |              |



## Page 39 of 182



GENERAL NOTES

GENERAL EROSION SITES

CONTRACTOR IS ADVISED THAT THE U.S. ENVIRONMENTAL PROTECTION AGENCY REQUIRES THAT ALL OPERATORS FILE A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES GENERAL PERMIT PRIOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN THE SAME. IF NOT PROVIDED BY THE ENGINEER AND TO PROVIDE ALL REQUIRED MONITORING REPORTS. A COPY SHALL BE SENT TO THE ENGINEER OF RECORD, ARCHITECT OF RECORD AND THE OWNER.

THE STORMWATER POLLUTION PREVENTION PLAN IS COMPOSED OF THIS DRAWING (SITE MAP), THE STANDARD DETAILS AND THE PLAN NARRATIVE INCLUDED IN SPECIFICATIONS PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH THE STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND BECOME FAMILIAR WITH THEIR CONTENTS.

CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS INDICATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BUOYS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

DUST ON THE SITE SHALL BE CONTROLLED BY WATERING. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TONIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN AND IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE INITIATED AS SOON AS PRACTICABLE.

DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 30 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.

DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS, REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

ALL MATERIAL SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

ON-SITE AND OFF-SITE SOIL, STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ROCK BAGS, ETC.) TO PREVENT EROSION.

ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

CONTRACTOR SHALL PROVIDE TREE PROTECTION MEASURES AS NEEDED.

DEWATERING IS NOT ANTICIPATED FOR THE INSTALLATION OF UTILITIES.

ALL WORK SHALL BE IN COMPLIANCE WITH NPDES.

MAINTENANCE

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING.

INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.

SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED SEDIMENT SHALL BE REMOVED FROM THE FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

THE CONSTRUCTION ENTRANCE(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING ON THE TEMPORARY PARKING AS CONDITIONS DEMAND.

OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

SEQUENCE OF CONSTRUCTION

PHASE 1

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
3. CONSTRUCT THE SILT FENCES ON THE SITE.
4. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS.
5. CLEAR AND GRUB THE SITE.
6. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
7. BEGIN GRADING THE SITE.

PHASE II

1. TEMPORARY SEED DEMUCKED AREAS.
2. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
3. INSTALL RIP RAP AROUND OUTLET STRUCTURES.
4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
5. PREPARE SITE FOR PAVING.
6. PAVE SITE.
7. INSTALL INLET PROTECTION DEVICES.
8. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED).

DEVELOPER / OWNER

SITE OPERATOR / GENERAL CONTRACTOR:

NAME

SUPERINTENDENT:

NAME

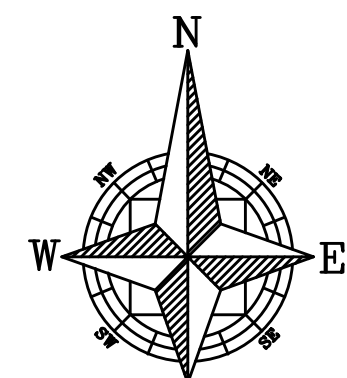
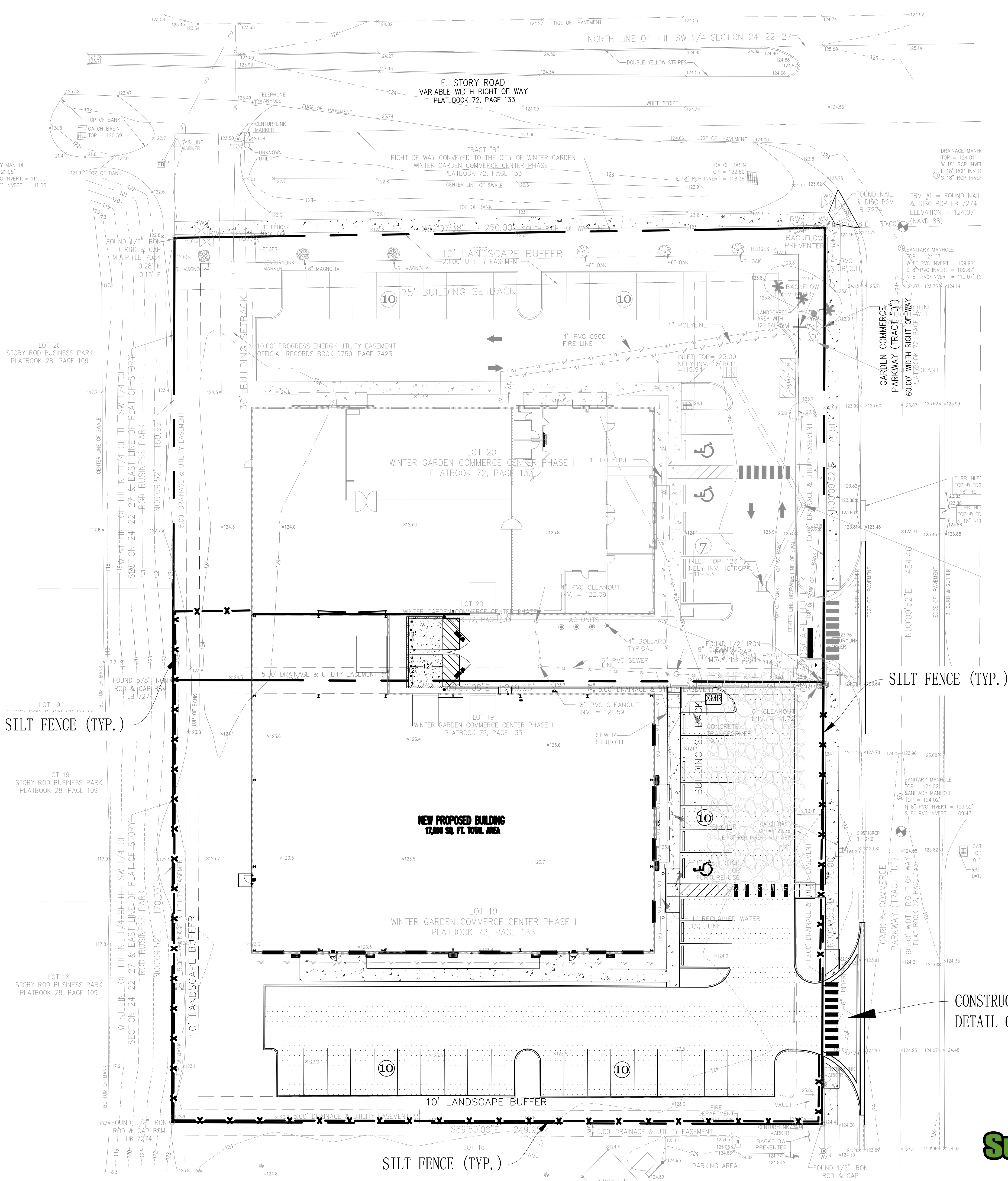
SYMBOLS LEGEND

|  |                                            |
|--|--------------------------------------------|
|  | DOUBLE SILT FENCE                          |
|  | SINGLE SILT FENCE                          |
|  | SCM-1 ROCK BAGS (USED ON ASPHALT SURFACES) |

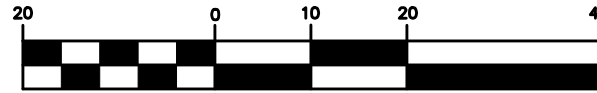
SOIL EROSION / SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

| CONSTRUCTION SEQUENCE                    | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J |
|------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROUGH GRADE / SEDIMENT CONTROL           | A | E | A | P | A | U | U | E | C | O | N | D | A | E | A | P | A | U |
| TEMPORARY CONTROL MEASURES               | N | B | R | R | Y | N | L | G | P | T | V | C | N | B | R | R | Y | N |
| STRIP & STOCKPILE TOPSOIL                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| STORM FACILITIES                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| TEMPORARY CONSTRUCTION ROADS             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| FOUNDATION / BUILDING CONSTRUCTION       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SITE CONSTRUCTION                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PERMANENT CONTROL STRUCTURES             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| FINISH GRADING                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| LANDSCAPING / SEED / FINAL STABILIZATION |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

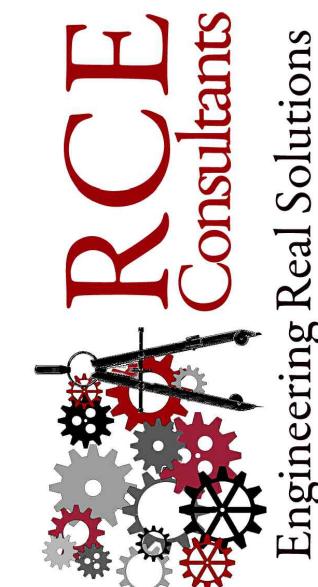
NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE



GRAPHIC SCALE



( IN FEET )  
1 inch = 20 ft.



WINTER GARDEN COMMERCE CENTER  
EROSION CONTROL PLAN  
WINTER GARDEN, FLORIDA

| NO. | DATE       | REVISION / ISSUE DATE | ADDED ACCESS / CITY COMMENTS | BY: | LMP |
|-----|------------|-----------------------|------------------------------|-----|-----|
| 1   | 03/01/2024 |                       |                              |     |     |

RCE CONSULTANTS, LLC  
617 ARVON DRIVE  
ALTA MONTI SPRINGS, FL 32701  
PHONE NO. 407-453-8633  
LARRY@RCECONSULTANTS.NET

ENGINEER OF RECORD

LAURENCE M. POLINER, P.E.  
#56974  
RCE CONSULTANTS, LLC

PROJECT #:  
24.2022

DRAWN/LMP CHECKED: LMP

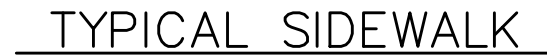
DATE: APRIL 2022 SHEET:

SCALE: 1"=20' C-6

EROSION CONTROL  
PLAN







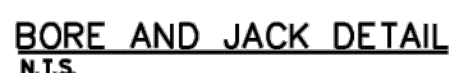
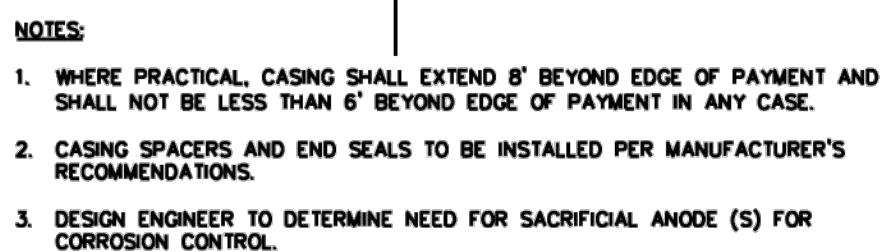
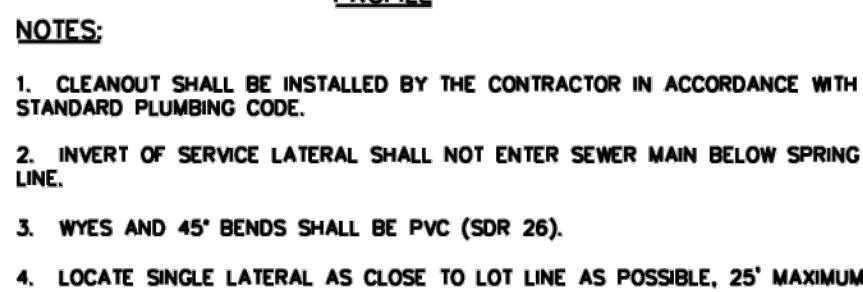
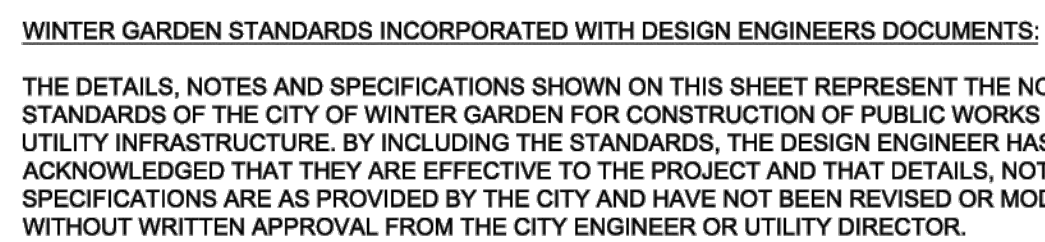
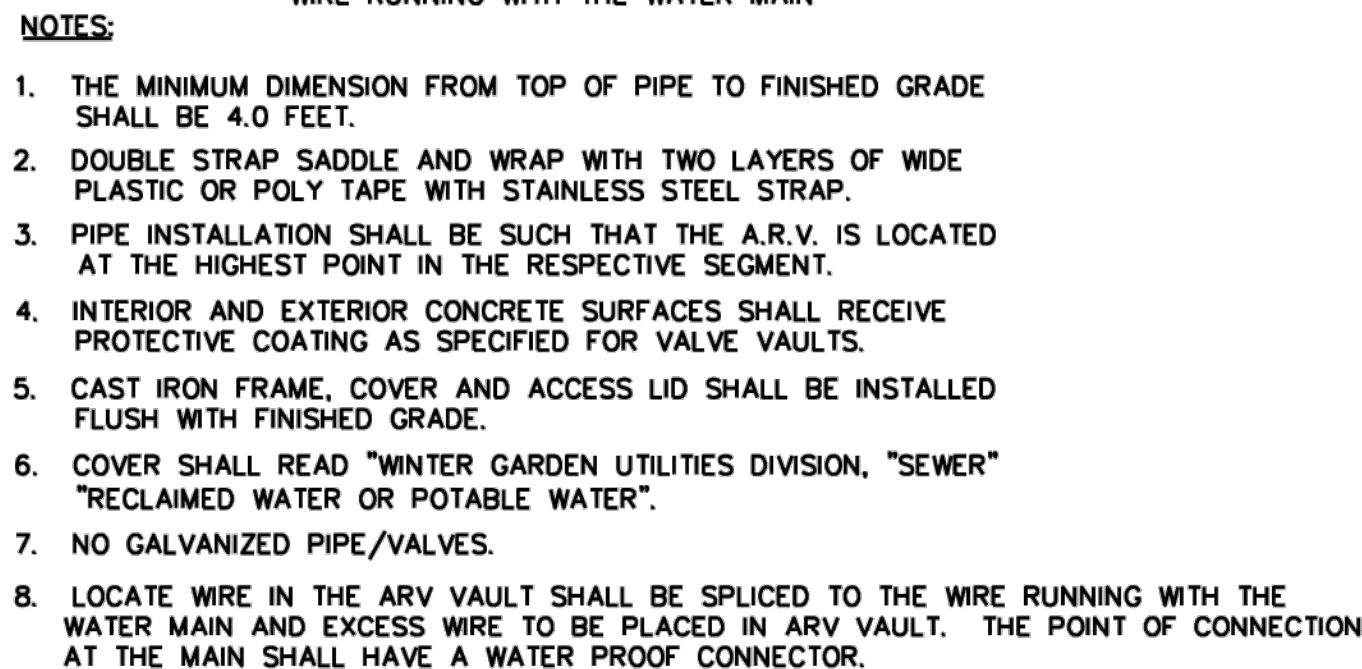
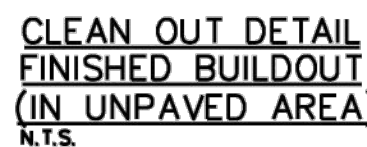
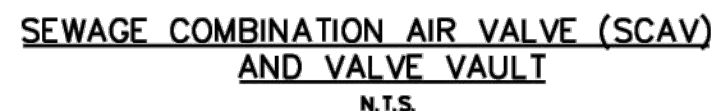
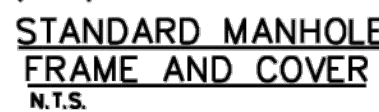
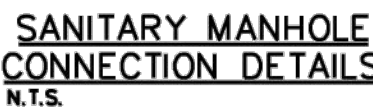
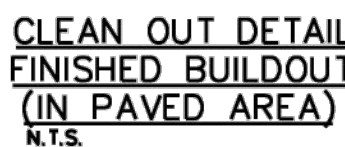
1. ALL CURBING SHALL BE CONSTRUCTED OF CONCRETE THAT WILL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS
2. ALL CONCRETE CURBS SHALL BE SPACED WITH A FULL-DEPTH, 3" WIDTH ISOLATION JOINT MATERIAL PRIOR TO PLACEMENT OF ADJACENT CONCRETE PAVEMENT
3. THERE SHALL BE NO JOINTS OR JOINTS OTHER THAN SAW-CUT JOINTS AT PAVEMENT JOINTS, UNLESS OTHERWISE SPECIFIED; JOINTS SHALL BE FORMED WITHIN 12 HOURS OF PLACEMENT
4. ALL CURB ENDS THAT DO NOT TIE INTO OTHER FACILITIES SHALL TRANSITION DOWN TO PAVEMENT GRADE
5. CONSTRUCTION JOINT SHALL BE TIED WITH A No.4 TIE BAR EXTENDED 6 INCHES INTO EACH CURB SECTION AND SHALL BE SPACED WITH A FULL-DEPTH 3" WIDTH ISOLATION JOINT MATERIAL

|                            |                      |
|----------------------------|----------------------|
| PROJECT #:<br>24.2022      |                      |
| DRAWN:LMP CHECKED: LMP     |                      |
| DATE:<br>APRIL 2022        | SHEET:<br><b>C-7</b> |
| SCALE:                     |                      |
| <b>GENERAL<br/>DETAILS</b> |                      |

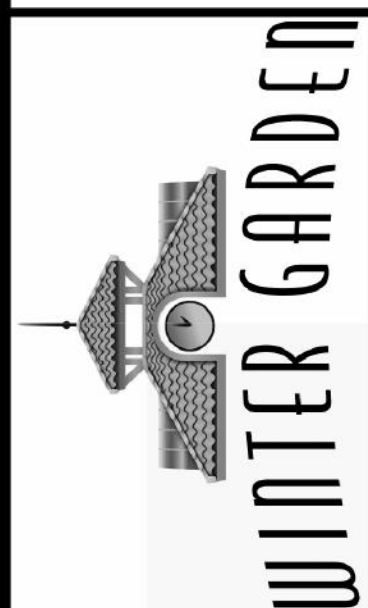








City of Winter Garden, Florida  
STANDARDS AND SPECIFICATIONS  
For Utilities Construction



# STANDARD DETAILS FOR WASTEWATER SYSTEMS

DATE  
JANUARY 2008  
SHEET  
3  
3 OF 10

**RCE CONSULTANTS, LLC**  
617 ARVERN DRIVE  
ALTAMONTE SPRINGS, FL. 32701  
PHONE NO. 407-452-8633  
LARRY@RCECONSULTANTS.NET

**ENGINEER OF RECORD**

---

**LAURENCE M. POLINER, P.E.**  
**#56974**

**RCE CONSULTANTS, LLC**

|                        |                   |
|------------------------|-------------------|
| PROJECT #:<br>24.2022  |                   |
| DRAWN:LMP CHECKED: LMP |                   |
| DATE:<br>-PRIL 2022    | SHEET:<br><br>C-9 |
| SCALE:                 |                   |
| UTILITY DETAILS        |                   |



WINTER GARDEN COMMERCE CENTER  
UTILITY DETAILS  
WINTER GARDEN, FLORIDA

| NO. | REVISION / ISSUE DATE | DATE | BY: |
|-----|-----------------------|------|-----|
| 1   | 03/01/2024            |      | LMP |

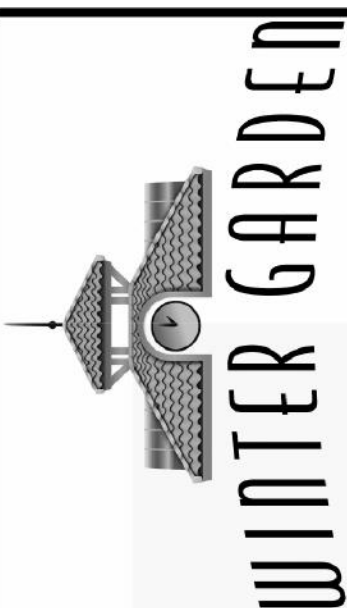
RCE CONSULTANTS, LLC  
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ALTAMONTE SPRINGS, FL 32701  
PHONE NO. 407-452-8633  
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ENGINEER OF RECORD

LAURENCE M. POLNER, P.E.  
#56974  
RCE CONSULTANTS, LLC

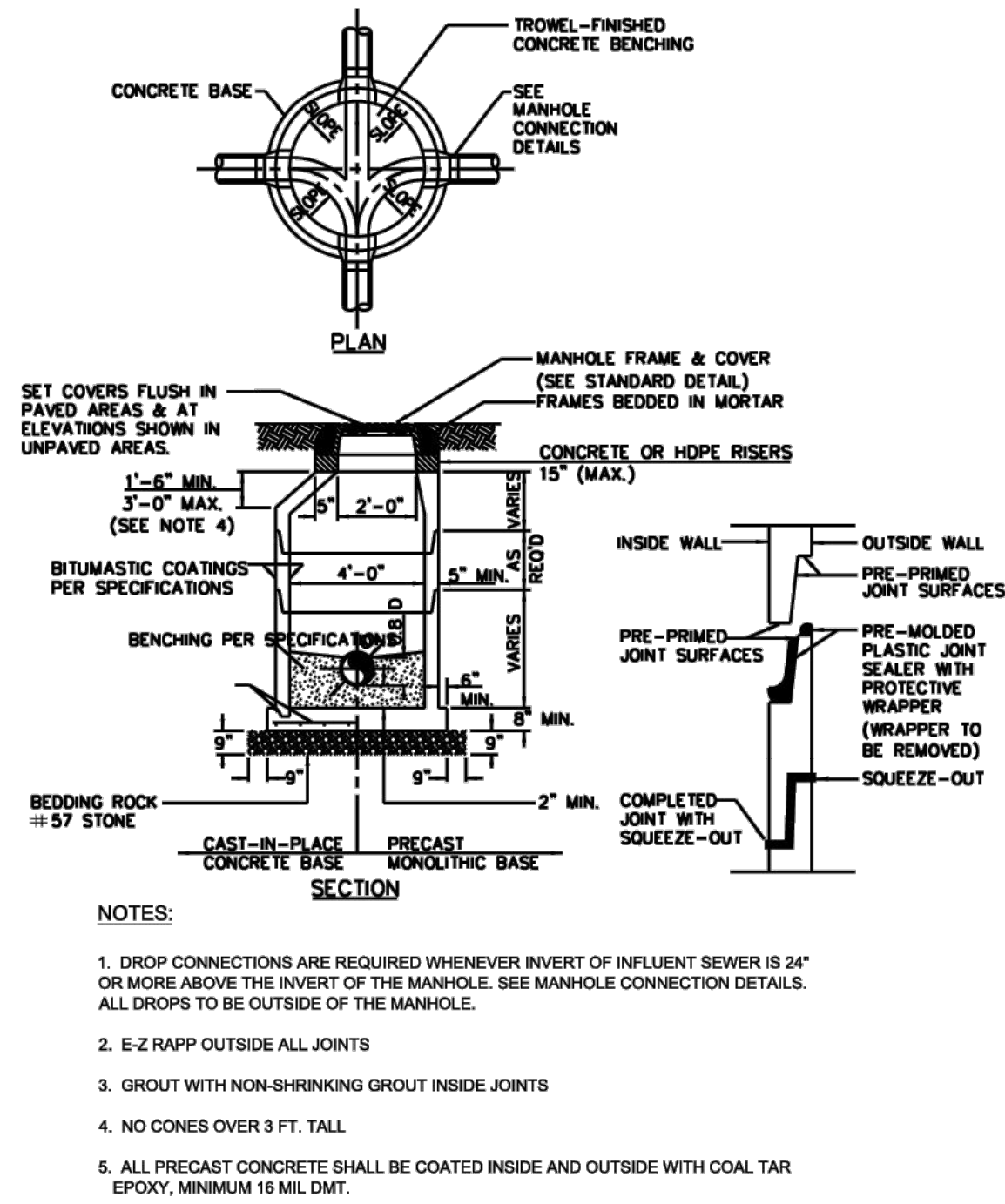
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| PROJECT #:<br>24-2022 | DRAWN/LMP CHECKED: LMP |
| DATE:<br>-PRIL 2022   | SHEET:<br>C-10         |
| SCALE:                | UTILITY DETAILS        |

City of Winter Garden, Florida  
STANDARDS AND SPECIFICATIONS  
For Utilities Construction

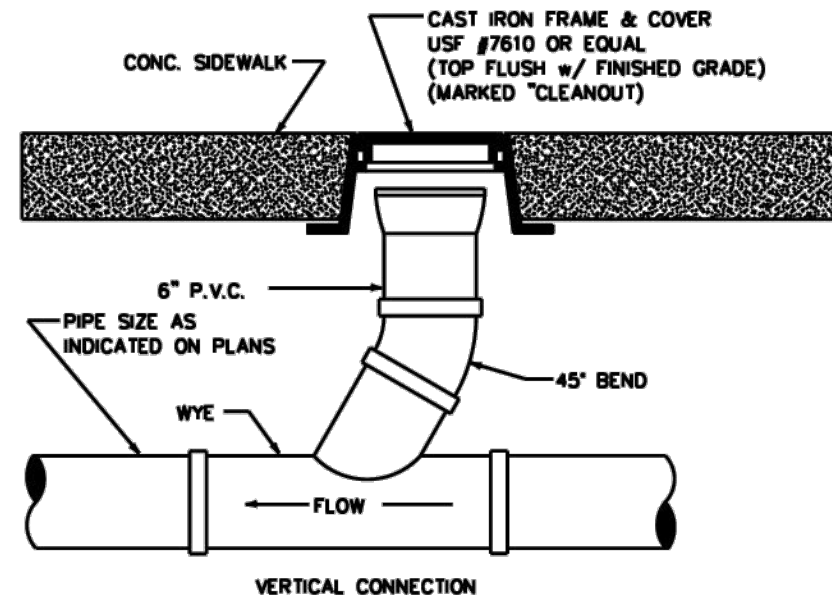


STANDARD DETAILS  
FOR  
WASTEWATER SYSTEMS

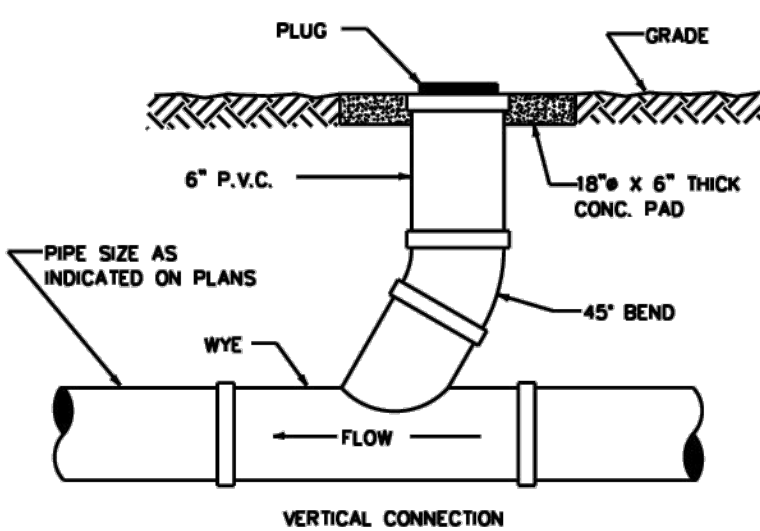
DATE  
JANUARY 2008  
SHEET  
3  
3 OF 10



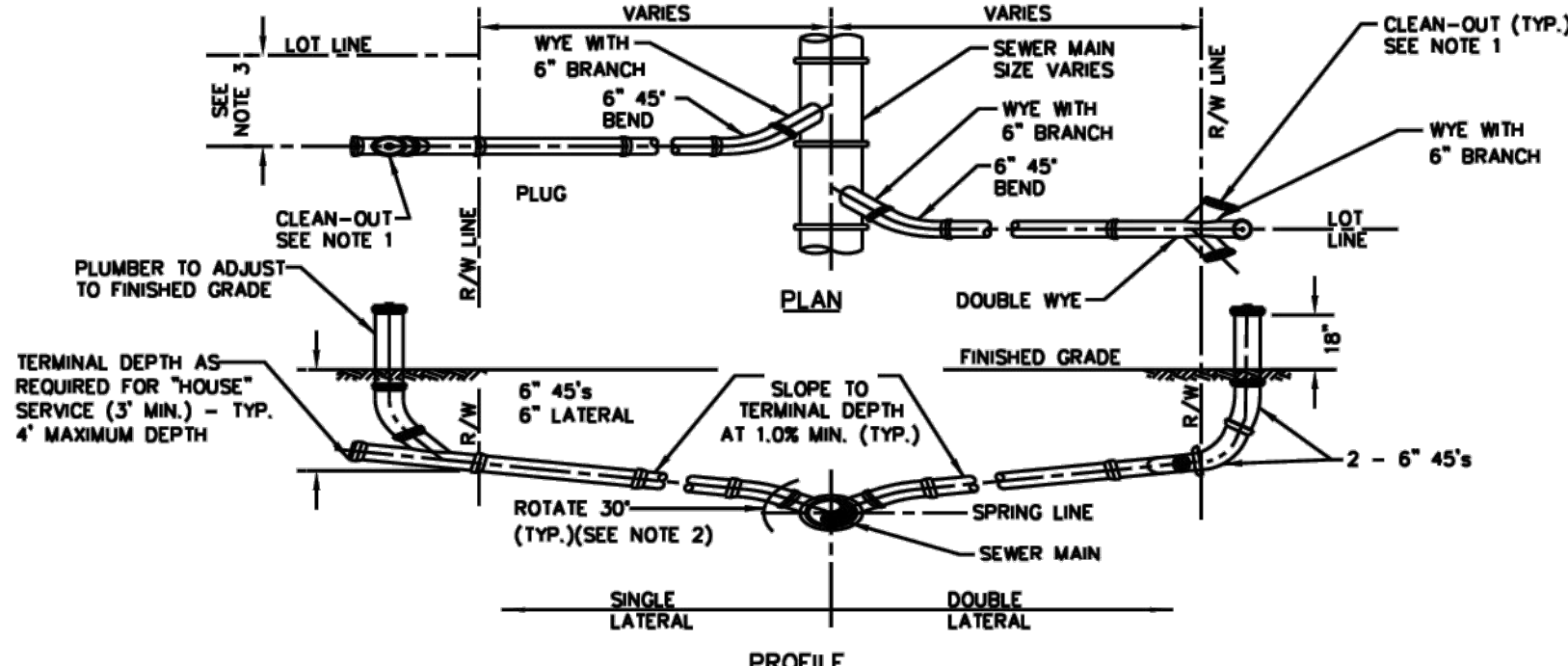
PRECAST CONCRETE SANITARY MANHOLE  
N.T.S.



CLEAN OUT DETAIL  
FINISHED BUILDOUT  
(IN PAVED AREA)  
N.T.S.

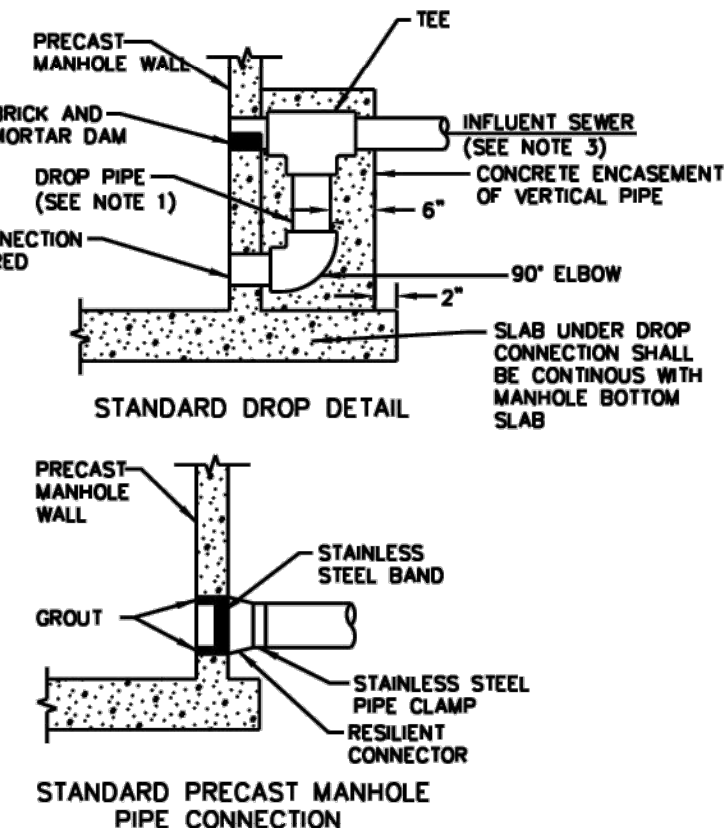


CLEAN OUT DETAIL  
FINISHED BUILDOUT  
(IN UNPAVED AREA)  
N.T.S.



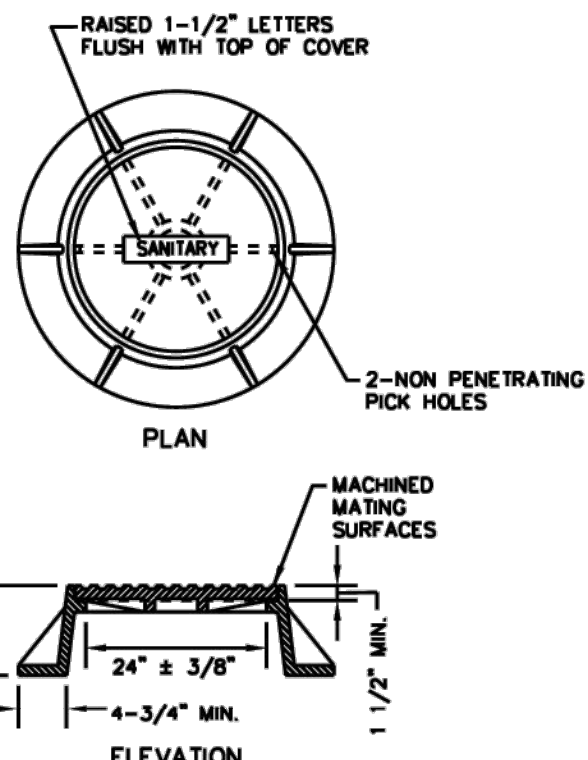
- NOTES:
- CLEANOUT SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH STANDARD PLUMBING CODE.
  - INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
  - WYES AND 45° BENDS SHALL BE PVC (SOR 26).
  - LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE, 25' MAXIMUM.

SANITARY SEWER  
SERVICE LATERAL DETAIL  
N.T.S.



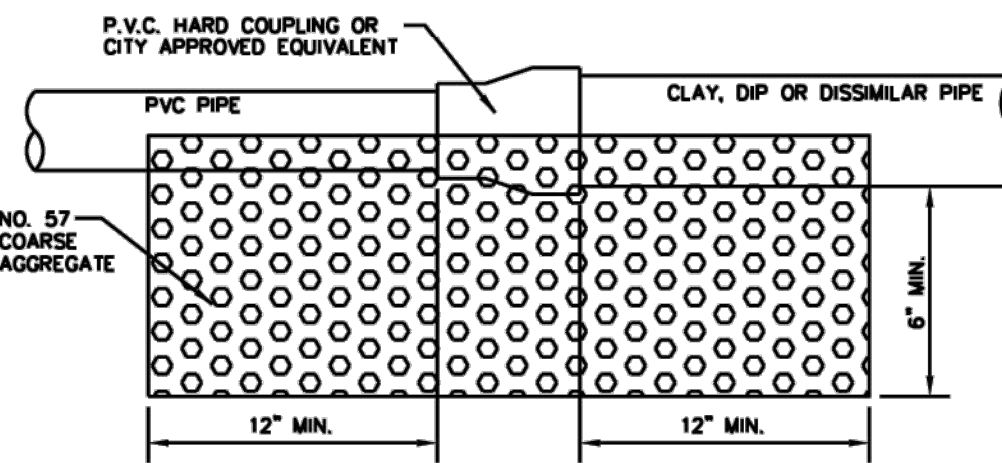
- NOTES:
- DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
  - AN OUTSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 2' OR MORE ABOVE THEN MANHOLE INVERT.

SANITARY MANHOLE  
CONNECTION DETAILS  
N.T.S.



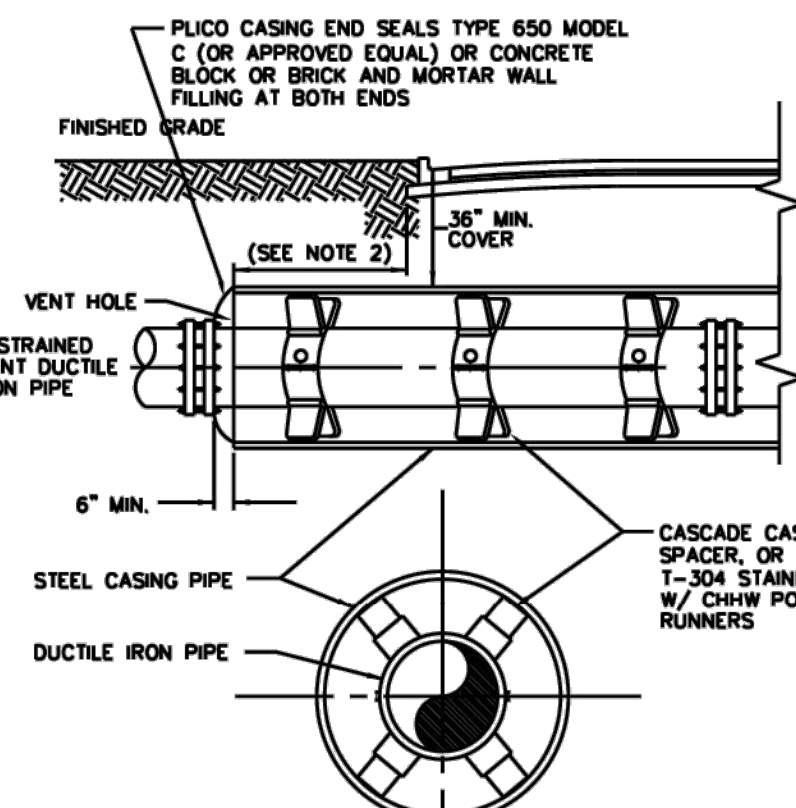
- NOTES:
- MANHOLE FRAME & COVER SHALL BE 24" OPENINGS, USE #AS-225 AS MANUFACTURED BY U.S. FOUNDRY & MFG. CORP. OR APPROVED EQUAL.
  - RAIN STOPPER LIDS OR RAIN GUARD LIDS (LIDS) REQUIRED.

STANDARD MANHOLE  
FRAME AND COVER  
N.T.S.



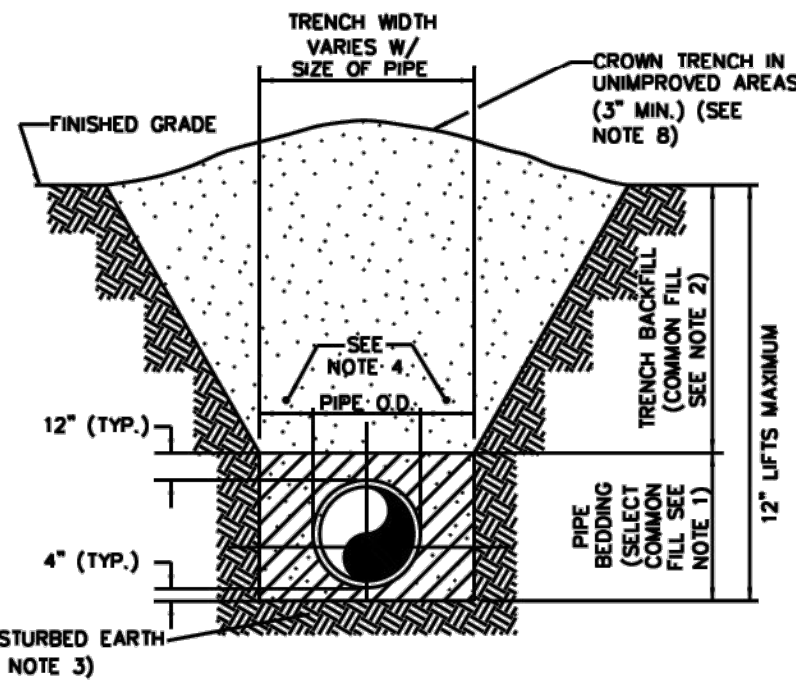
- NOTE:
- FIELD VERIFY MATERIALS OF EXISTING PIPES TO SELECT PROPER CONNECTOR.
  - HARBOR COUPLING OR APPROVED EQUIVALENT FOR ALL PIPE MATERIALS, UNLESS APPROVED IN WRITING BY THE CITY.

SEWER MAIN CONNECTION DETAIL  
N.T.S.



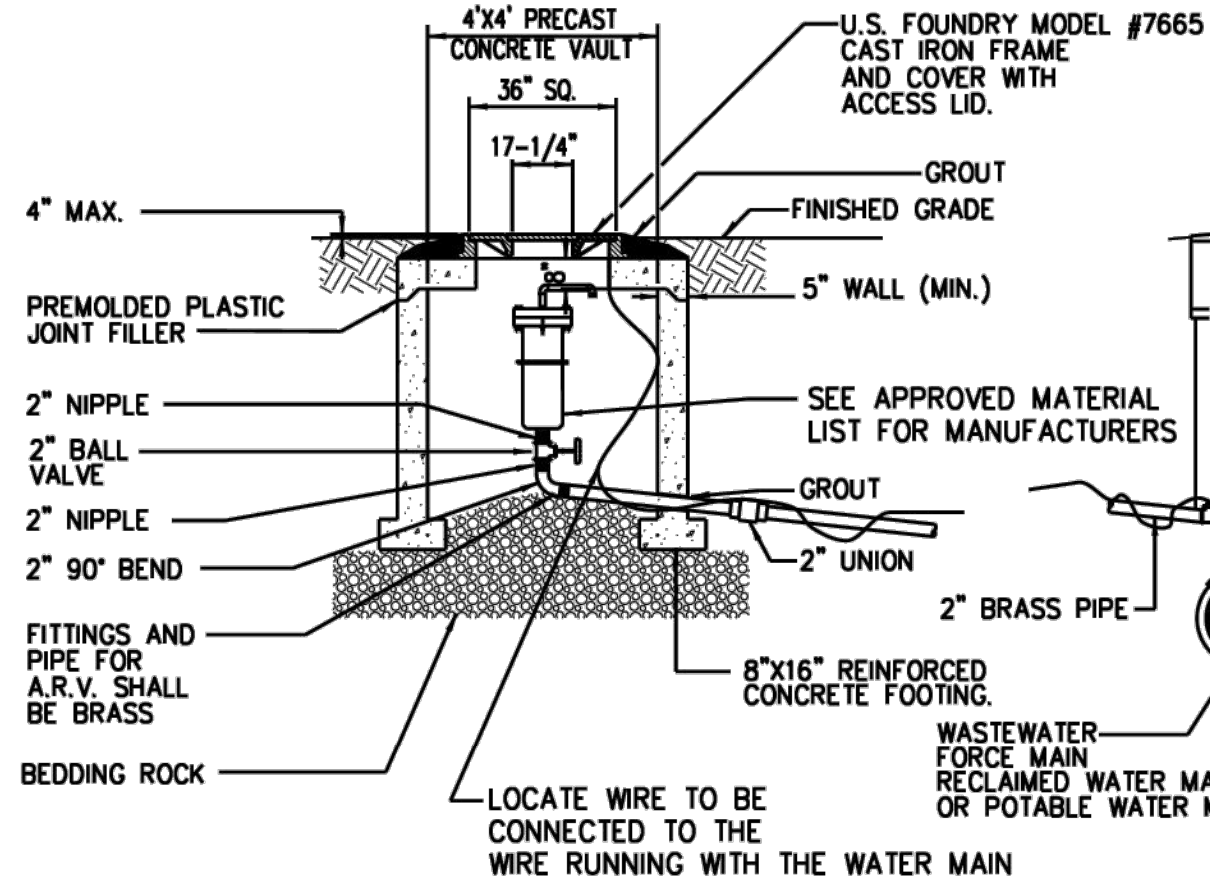
- NOTES:
- WHERE PRACTICAL, CASING SHALL EXTEND 8' BEYOND EDGE OF PAYMENT AND SHALL NOT BE LESS THAN 6' BEYOND EDGE OF PAYMENT IN ANY CASE.
  - CASING SPACERS AND END SEALS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
  - DESIGN ENGINEER TO DETERMINE NEED FOR SACRIFICIAL ANODE (S) FOR CORROSION CONTROL.

BORE AND JACK DETAIL  
N.T.S.



- NOTES:
- PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE THAN 5% PASSING #200 SIEVE.
  - TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE THAN 5% PASSING #200 SIEVE.
  - PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING MAY BE REQUIRED AS DIRECTED BY THE CITY OF WINTER GARDEN.
  - (1)- 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
  - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
  - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
  - REFER TO SECTION 32.5 OF THE ORANGE COUNTY MANUAL OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION FOR SHEETING AND BRACING IN EXCAVATIONS.
  - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY OF WINTER GARDEN RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

STANDARD BEDDING DETAIL  
N.T.S.



- NOTES:
- THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
  - DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
  - PIPE INSTALLATION SHALL BE SUCH THAT THE A.R.V. IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
  - INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR VALVE VAULTS.
  - CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
  - COVER SHALL READ "WINTER GARDEN UTILITIES DIVISION, "SEWER" "RECLAIMED WATER OR POTABLE WATER".
  - NO GALVANIZED PIPE/VALVES.
  - LOCATE WIRE IN THE ARV VAULT SHALL BE SPLICED TO THE WIRE RUNNING WITH THE WATER MAIN AND EXCESS WIRE TO BE PLACED IN ARV VAULT. THE POINT OF CONNECTION AT THE MAIN SHALL HAVE A WATER PROOF CONNECTOR.

OFFSET TYPE  
AIR RELEASE VALVE ASSEMBLY

WINTER GARDEN STANDARDS INCORPORATED WITH DESIGN ENGINEERS DOCUMENTS:  
THE DETAILS, NOTES AND SPECIFICATIONS SHOWN ON THIS SHEET REPRESENT THE NOTED STANDARDS OF THE CITY OF WINTER GARDEN FOR CONSTRUCTION OF PUBLIC WORKS AND UTILITY INFRASTRUCTURE. BY INCLUDING THE STANDARDS, THE DESIGN ENGINEER HAS ACKNOWLEDGED THAT THEY ARE EFFECTIVE TO THE PROJECT AND THAT DETAILS, NOTES, OR SPECIFICATIONS ARE AS PROVIDED BY THE CITY AND HAVE NOT BEEN REVISED OR MODIFIED WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER OR UTILITY DIRECTOR.



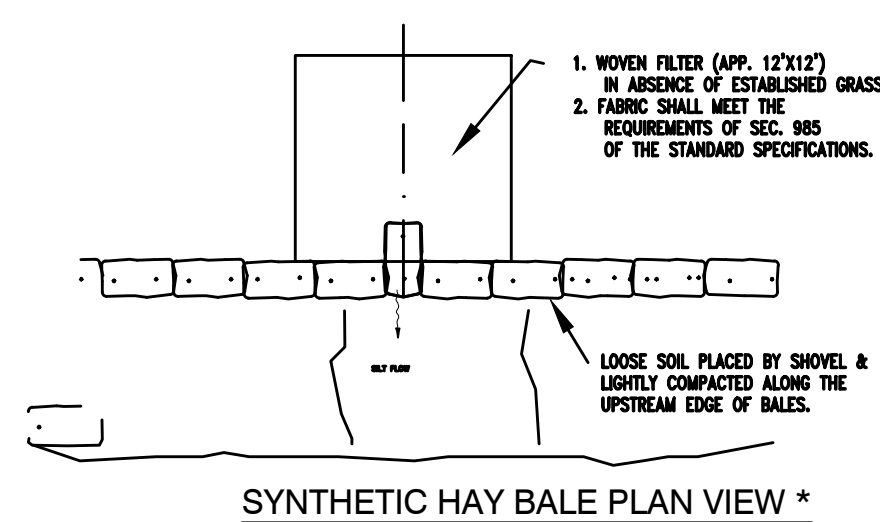
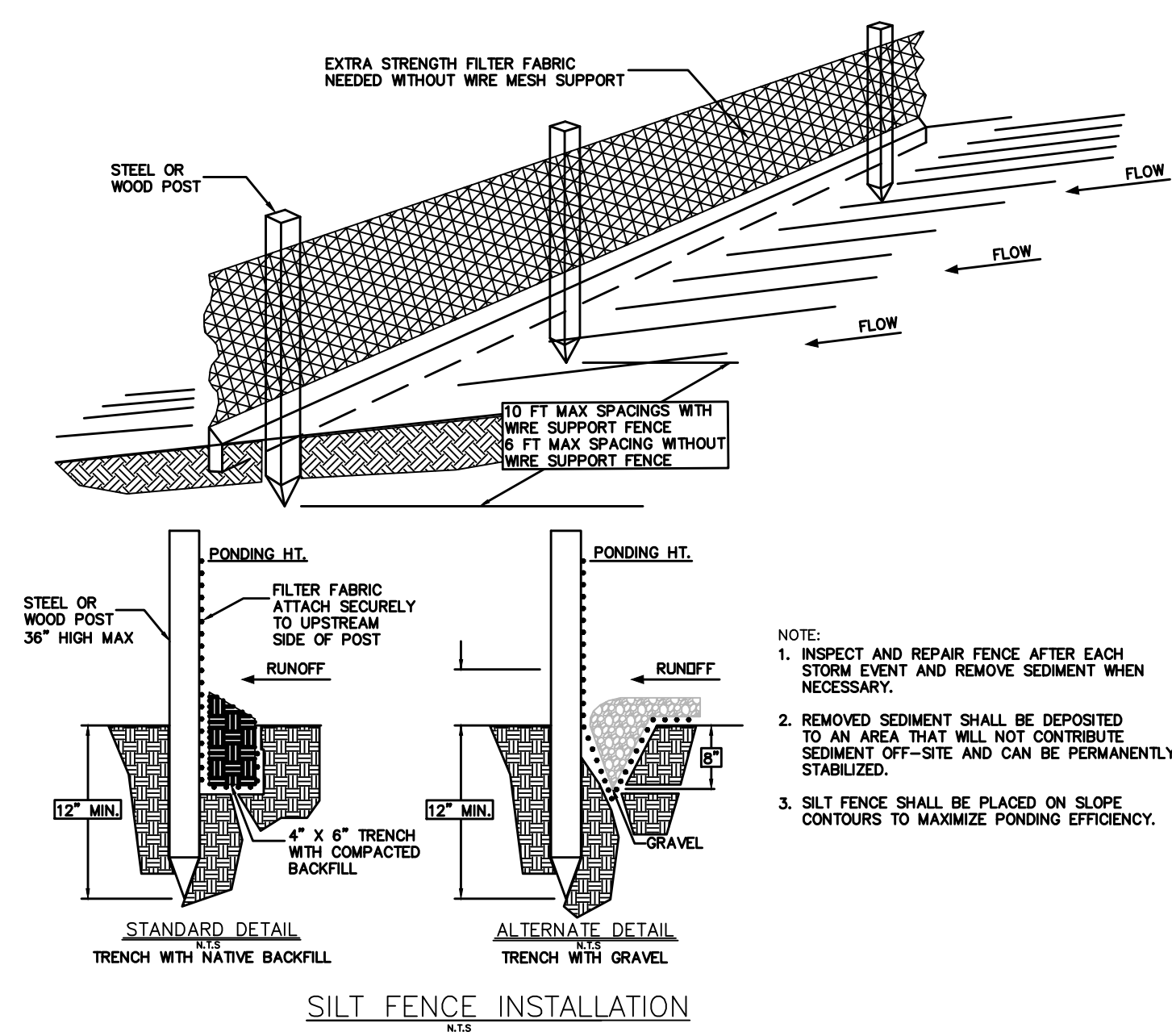
## EROSION CONTROL NOTES

DURING ALL PHASES OF CONSTRUCTION THE SITE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL EXERCISE MEASURES TO PREVENT THE EROSION OF SOILS DUE TO THE ACTION OF THE WATER AND WIND. THE CONTRACTS SHALL USE THE FOLLOWING MEASURES TO ACCOMPLISH THIS OBJECTIVE:

- A. SURFACE PROTECTION
1. CLEARING SHALL BE LIMITED SO AS TO EXPOSE THE SMALLEST POSSIBLE AREA OF LAND FOR THE SHORTEST POSSIBLE TIME.
2. EXPOSED AREAS SHALL BE IMMEDIATELY GRADED AND PROTECTED WITH TEMPORARY OR PERMANENT COVER, SUCH AS SOD, SEED AND MULCH, CROWWETCH, LESPEDEZA OR CREEPER. NEWLY GRADED CHANNELS OR STEEP SLOPES WILL REQUIRE THE USE OF FIBROUS MATTING, NETTING OF SEEDED AND MULCHED AREAS, OR THE STAKING OR SHINGLING OF SOD WHILE VEGETATION IS BECOMING ESTABLISHED.
- B. RUN-OFF CONTROL
1. LONG AND/OR STEEP SLOPES WILL REQUIRE CONTOUR BENCHING AND FURROWING, OR BERMS TO REDUCE RUN-OFF VELOCITIES.
- C. SEDIMENT TRAPPING
1. THE TRAPPING OF ERODED PARTICLES WILL BE ACCOMPLISHED BY THE DIVERSION OF RUN-OFF TO SEDIMENT BASINS, EXCAVATION TRAPS, BERMS, STAKED SYNTHETIC HAY BALES, OR FLOATING SILT CURTAINS.
2. THE PROPOSED RETENTION AND/OR DETENTION POND(S) ALONG WITH ANY ENVIRONMENTAL BERM(S)/REAR YARD SWALE(S) SHALL BE CONSTRUCTED FIRST. THE POND(S) AND OUTFALL STRUCTURE(S) MUST BE COMPLETE AND OPERATIONAL PRIOR TO THE PLACEMENT OF ANY IMPERVIOUS SURFACE.
3. TRAPPING DEVICES SHALL BE PERIODICALLY INSPECTED DURING DRY PERIODS AND AFTER EACH RAINFALL EVENT BY THE SITE CONTRACTOR. TRAPPING DEVICES SHALL BE REPLACED IF DETERMINED TO BE INCAPABLE OF PERFORMING INTENDED FUNCTION OF SEDIMENT TRAPPING.
4. TRAPPING DEVICES SHALL REMAIN IN PLACE UNTIL A VEGETATIVE COVER HAS ESTABLISHED SUFFICIENTLY TO STABILIZE THE SOILS AND PREVENT EROSION.
- D. SOIL MOISTURE
1. THE CONTRACTOR SHALL HAVE AVAILABLE ON THE CONSTRUCTION SITE A WATER SOURCE CAPABLE OF APPLYING WATER TO DRY EXPOSED SOIL IN ORDER TO PREVENT WIND EROSION. THE APPLICATION RATE AND MANNER SHALL BE SUCH THAT SOIL MOISTURE IS ATTAINED AND NO SURFACE RUN-OFF IS CREATED.
- E. RESPONSIBILITY
1. THE CONTRACTOR SHALL BE HELD RESPONSIBLE UNTIL THE CERTIFICATE OF COMPLETION IS ISSUED. AFTER THAT, THE OWNER WILL BE RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER COLLECTION AND RETENTION SYSTEM.

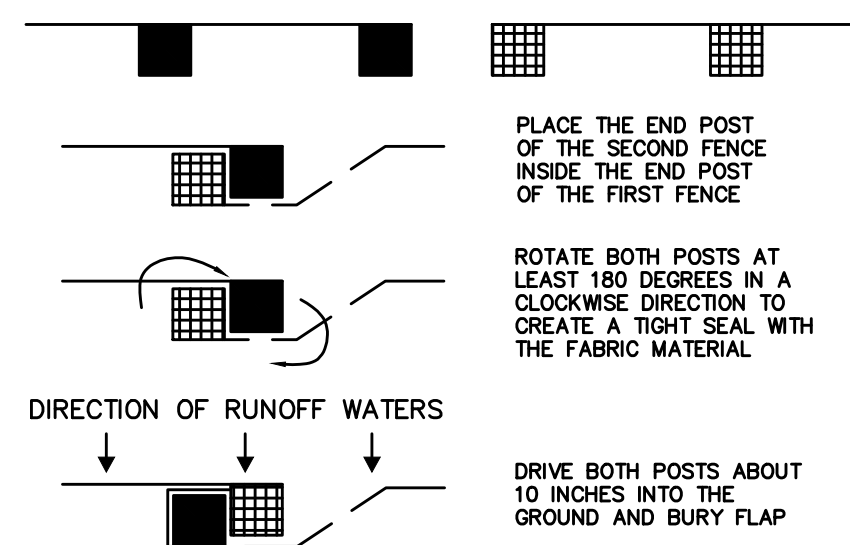
## CONSTRUCTION SEQUENCE

1. SET UP ON-SITE PRE-CONSTRUCTION CONFERENCE WITH CITY/COUNTY & ENGINEER .
2. INSTALL SILT FENCE, INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
3. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES CONTACT CYCOPR ENGINEERING IF ADDITIONAL MEASURES ARE REQUIRED DUE TO SITE SPECIFIC CONDITIONS.
4. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
5. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY/COUNTY AND THE WATER MANAGEMENT DISTRICT, AND NPDES CRITERIA.

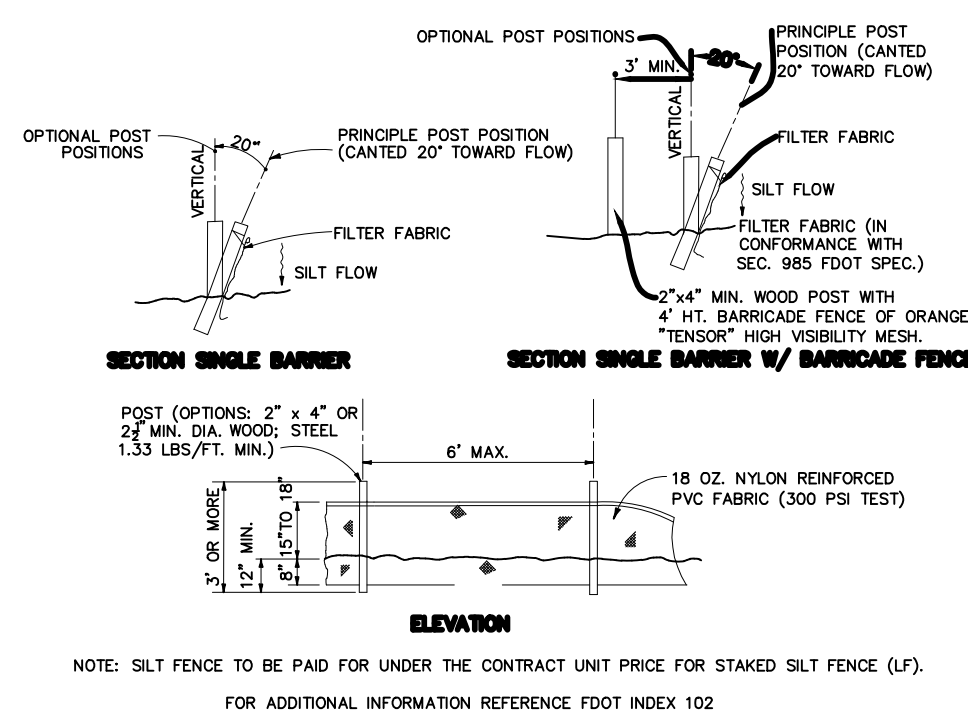


**GENERAL NOTES:**

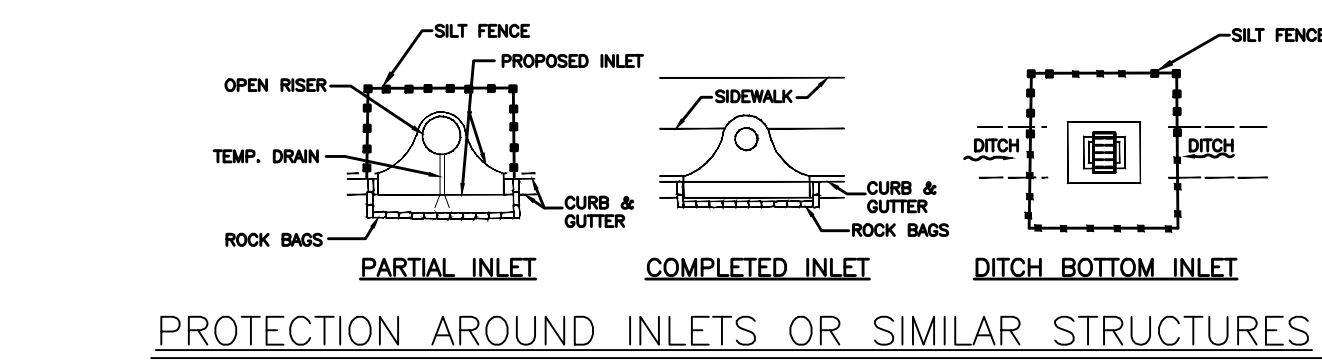
1. THE FIRST GOAL IS STIMULATED AND THE DESIGNED TO BE GENERAL, COMPREHENSIVE AND THE SECONDARY GOAL IS DESIGNED TO GIVE THE MAIN PART OF THE TOPIC.
2. THE SECOND GOAL IS STIMULATED AND THE DESIGNED TO BE GENERAL AND TO GIVE A BRIEF SUMMARY OF THE MAIN TOPIC.
3. THE THIRD GOAL IS STIMULATED AND THE DESIGNED TO BE THE MAIN PART OF THE TOPIC, THE SECONDARY GOAL IS STIMULATED AND THE DESIGNED TO GIVE A BRIEF SUMMARY OF THE MAIN TOPIC.
4. THE FOURTH GOAL IS STIMULATED AND THE DESIGNED TO BE THE MAIN PART OF THE TOPIC, THE SECONDARY GOAL IS STIMULATED AND THE DESIGNED TO GIVE A BRIEF SUMMARY OF THE MAIN TOPIC.
5. THE FIFTH GOAL IS STIMULATED AND THE DESIGNED TO BE THE MAIN PART OF THE TOPIC, THE SECONDARY GOAL IS STIMULATED AND THE DESIGNED TO GIVE A BRIEF SUMMARY OF THE MAIN TOPIC.



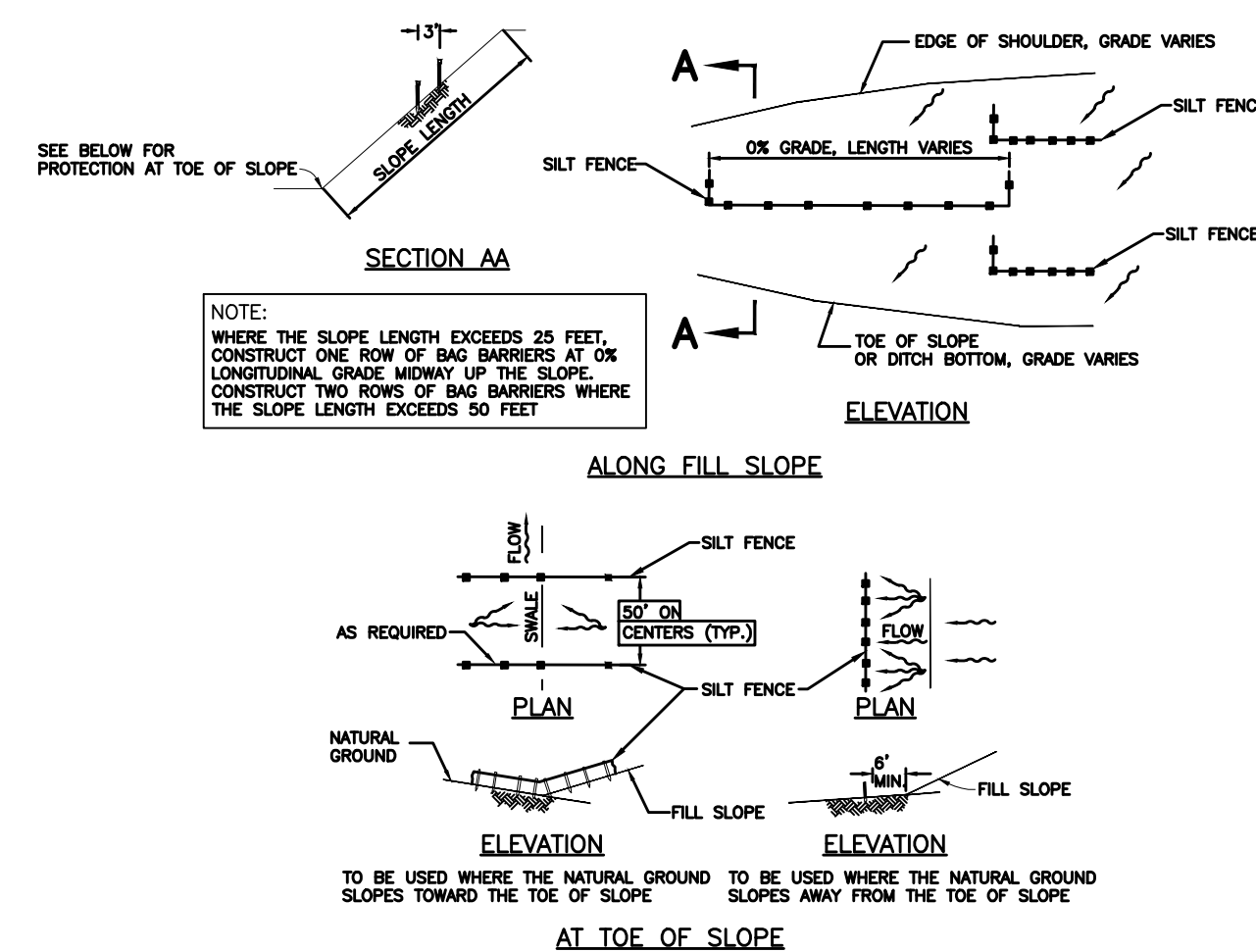
SILT FENCE ATTACHMENT DETAIL  
N.T.S



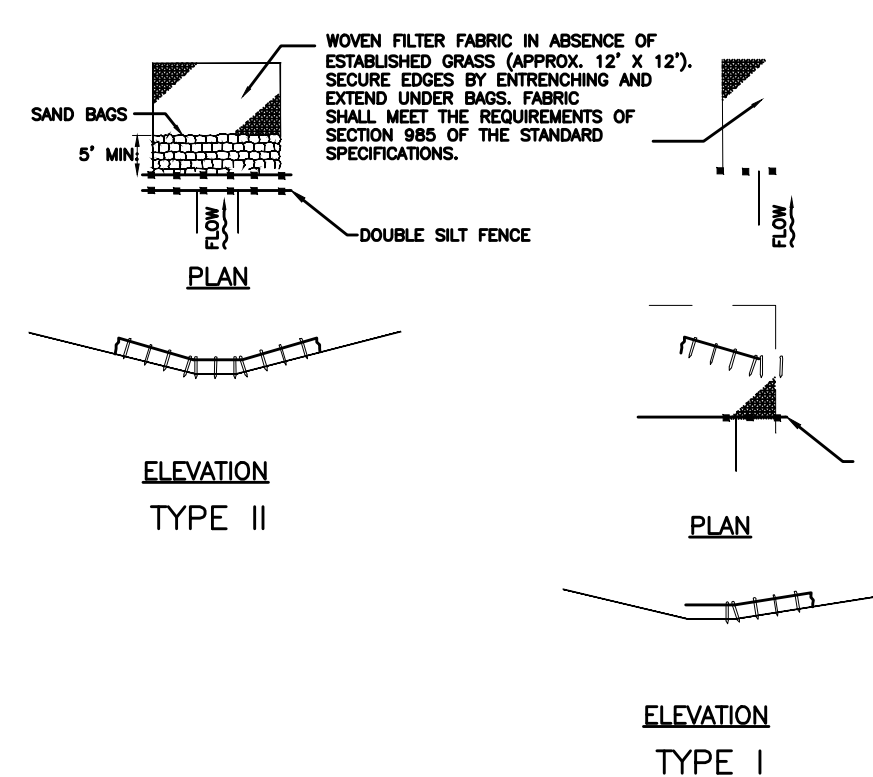
STAKED TURBIDITY BARRIER  
N.T.S.



## PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



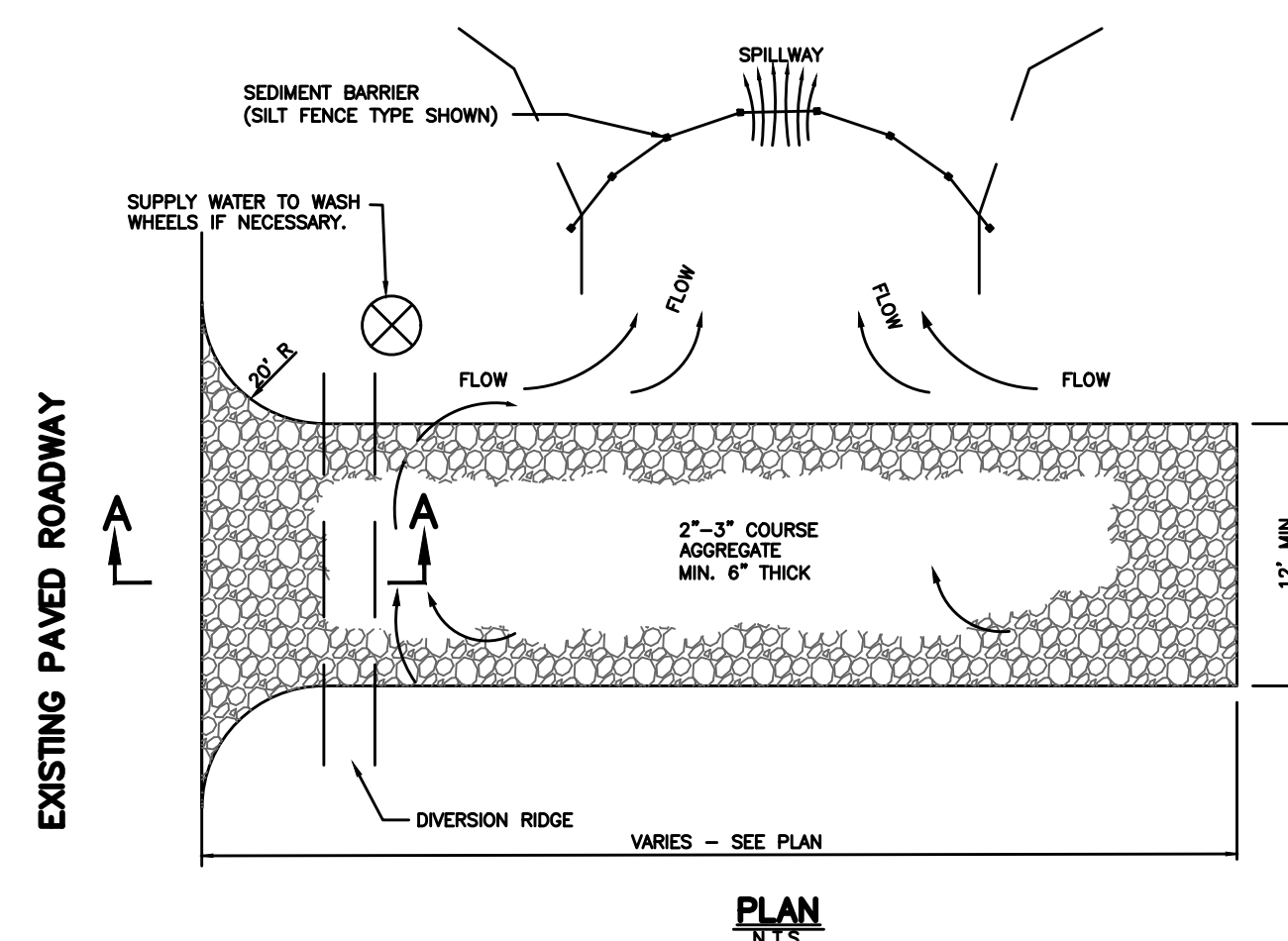
## BARRIERS FOR FILL SLOPES



## BARRIERS FOR UNPAVED DITCHES

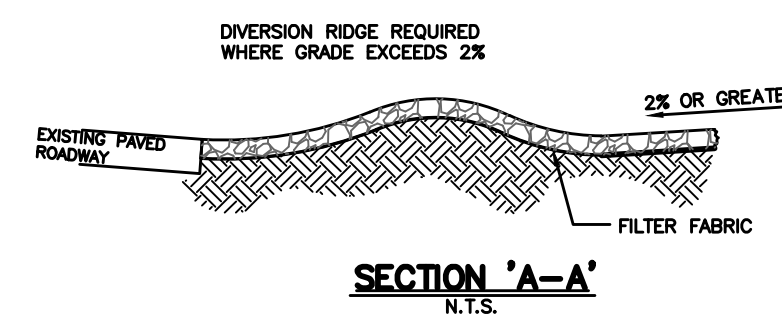
## BARRIERS LAYOUT DETAIL

NOT TO SCALE



**NOTE:**

|                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. | 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.<br>3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



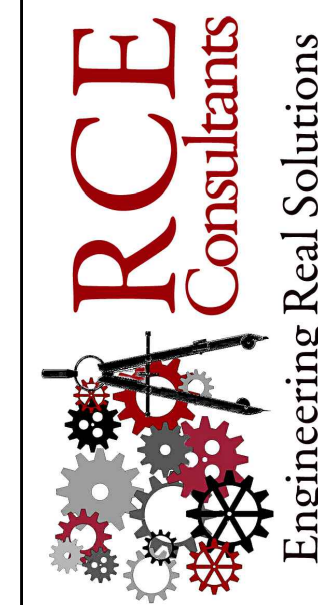
**NOTE:**  
USE SANDBAGS, SILT FENCES, OR  
OTHER APPROVED METHODS TO  
CHANNELIZE RUNOFF TO BASIN AS  
REQUIRED.

#### GENERAL NOTES

- TEMPORARY ACCESS, ROADS AND PARKING AREAS:**
1. TEMPORARY ROADS SHALL FOLLOW THE CONTOUR OF THE NATURAL TERRAIN TO THE EXTENT POSSIBLE. SLOPES SHOULD NOT EXCEED 10 PERCENT.
  2. TEMPORARY PARKING AREAS SHOULD BE LOCATED ON NATURALLY FLAT AREAS. MINOR GRADING OR THE COMPLETION OF UTILITY INSTALLATION DRAINAGE BUT SHOULD NOT EXCEED 4 PERCENT.
  3. ROADWAYS SHALL BE AT LEAST 14 FEET (5.5 m) WIDE FOR ONE-WAY TRAFFIC AND 20 FEET (8 m) WIDE FOR TWO-WAY TRAFFIC.
  4. ALL CUTS AND FILLS SHALL HAVE SIDE SLOPES THAT ARE STABLE FOR THE PARTICULAR SOIL. SLOPES OF 2:1 OR FLATTER ARE RECOMMENDED FOR CLAY SOILS, AND SLOPES OF 3:1 OR FLATTER ARE RECOMMENDED FOR SANDY SOILS.
  5. STORMWATER SYSTEM SHALL BE PROVIDED AS NEEDED AND SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO APPLICABLE REGULATIONS.
  6. THE ROADBED OR PARKING SURFACE SHALL BE CLEARED OF ALL VEGETATION ROOTS AND OTHER OBSTRUCTIONABLE MATERIAL.
  7. A 6 INCH (15 cm) COURSE OF FDOT NO. 1 AGGREGATE SHALL BE APPLIED GRADUALLY TO THE SUBGRADE. THE COMPLETION OF UTILITY INSTALLATION WITHIN THE RIGHT-OF-WAY, FILTER FABRIC MAY BE APPLIED TO THE ROADBED FOR ADDITIONAL STABILITY ACCORDING TO THE FABRIC MANUFACTURER'S SPECIFICATIONS.

TEMPORARY GRAVEL CONSTRUCTION EXIT

NATAS



**WINTER GARDEN COMMERCE CENTER  
EROSION CONTROL DETAILS  
WINTER GARDEN, FLORIDA**

[illegible]

**RCE CONSULTANTS, LLC**  
617 ARVERN DRIVE  
ALTAMONTE SPRINGS, FL. 3270  
PHONE NO. 407-452-8633  
LARRY@RCECONSULTANTS.NE

ENGINEER OF RECORD

LAURENCE M. POLINER, P.E.  
#56974  
RCE CONSULTANTS, LLC

PROJECT #:  
24.2022

DRAWN:LMP CHECKED: LMF

|       |        |
|-------|--------|
| DATE: | SHEET: |
|-------|--------|

APRIL 2022

SCALE:

## EROSION CONTROL DETAILS





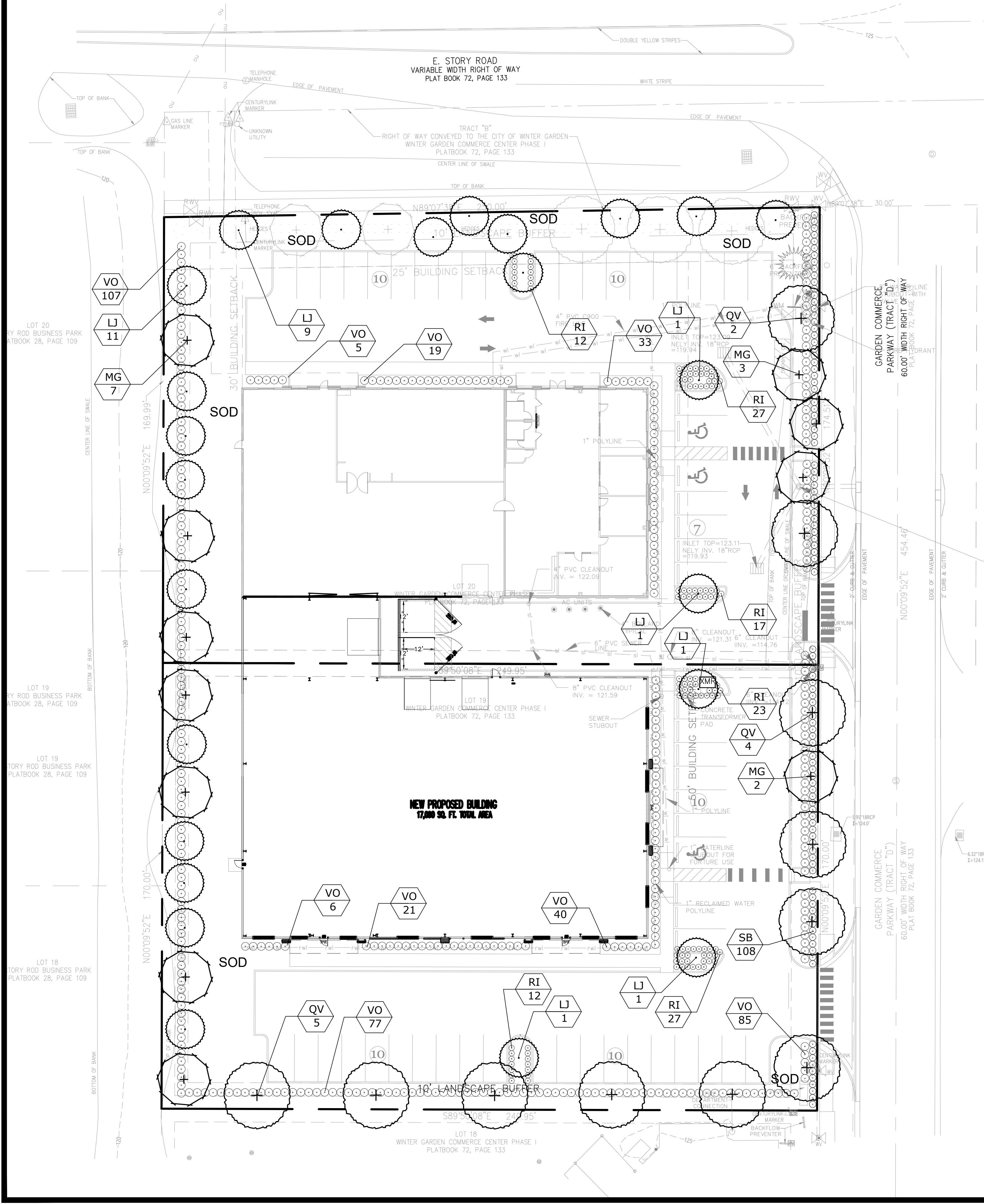


- (1) REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS.
- (2) ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
- (3) NO POP-UP SPRAYS SHALL BE USED, ENTIRE SYSTEM SHALL BE DRIP IRRIGATION.
- (4) ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES & WALLS.
- (5) THROTTLE ALL IRRIGATION CONTROL VALVES AS REQUIRED TO PREVENT FOGGING.
- (6) ALL CONTROL WIRE SPLICES SHALL BE MADE IN CONTROL VALVE BOXES USING KING "ONE STEP" CONNECTORS AND SEALANT WITH WIRE NUTS.
- (7) THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING IN A REPRODUCIBLE FORM SHOWING ALL IRRIGATION INSTALLATION. THE ORIGINAL PLAN MAYBE OBTAINED FROM THE LANDSCAPE ARCHITECT. THE DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES.
- (8) ALL CONTROL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES.
- (9) SOME PIPE LINES ARE DRAWN OFF SET IN ROADWAYS AND SIDEWALKS FOR CLARITY. INSTALL ALL IRRIGATION LINES NOT SHOWN IN SLEEVES IN LANDSCAPE AREAS.
- (10) THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.
- (11) ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.
- (12) ELECTRICAL SERVICE TO ALL EQUIPMENT SHALL BE PROVIDED TO A JUNCTION BOX AT THE EQUIPMENT LOCATION. (BY OTHERS. NOT A PART OF THIS CONTRACT)
- (13) IRRIGATION WATER CONNECTIONS AND SYSTEM CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL CODES.
- (14) SIZE ALL IRRIGATION LATERAL LINES AT VELOCITIES LESS THAN 5 FEET PER SECOND. 1/2"-6 GPM, 3/4"-9 GPM, 1"-16 GPM, 1.5"-35 GPM, 2"-55 GPM, 2.5"-80 GPM
- (15) THIS PROJECT, INCLUDING BOTH HORIZONTAL AND VERTICAL CONSTRUCTION, SHALL INCORPORATE WATERSENSE PLUMBING FIXTURES AND ENERGY STAR APPLIANCES AS REQUIRED BY CHAPTER 175 OF THE CITY OF OCCEE'S CODE OF ORDINANCES.
- (16) DEVELOPER/ CONTRACTOR SHALL COORDINATE WITH UTILITIES DEPARTMENT FOR WATER CONSERVATION INSPECTION OF PLUMBING AND IRRIGATION SYSTEM INSPECTION

|  |                                                                                                                                                                                                         |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | ELECTRIC IRRIGATION CONTROLLER, NUMBER OF STATIONS SHOWN ON THE PLAN.<br>PEDESTAL MOUNT, METAL CABINET WITH RAINSWITCH.<br>120VAC SINGLE PHASE ELECTRIC POWER BY OTHERS.<br>HUNTER ICC-XXX-M-PED        |
|  | ELECTRIC IRRIGATION VALVE. PLASTIC BODY WITH FLOW CONTROL MOUNTED<br>IN 15" PLASTIC VALVE BOX. SIZE INDICATED ON DRAWING.<br>RAINBIRD PEB-PRS, SCRUBBER VALVE SERIES                                    |
|  | ELECTRIC VALVE INDICATOR, SHOWS VALVE LOCATION, STATION NUMBER, SIZE,<br>AND ZONE GPM VOLUME.                                                                                                           |
|  | 1" BRONZE QUICK COUPLER VALVE IN VALVE BOX. MOUNT ON O-RING TYPE<br>SWING JOINT. MOUNT IN 15" RECTANGULAR VALVE BOX. PROVIDE<br>ONE 55K-1 QCV KEY PER FOUR QUICK COUPLER VALVES.<br>RAINBIRD 5RC SERIES |
|  | ISOLATION VALVE. PROVIDED 15" VALVE BOX WITH EXTENSIONS.<br>2.5" AND SMALLER - BRONZE THREAD ON TYPE WITH WHEEL HANDLE.                                                                                 |
|  | PVC MAINLINE PIPE. CLASS 200, PVC.<br>3" AND SMALLER, SOLVENT WELD PIPE AND PVC SOLVENT WELD FITTINGS.                                                                                                  |
|  | DRIP LINE                                                                                                                                                                                               |
|  | PVC SLEEVE PIPE, SCH. 40 PVC, SOLVENT WELD PIPE.                                                                                                                                                        |







PLANT LIST:

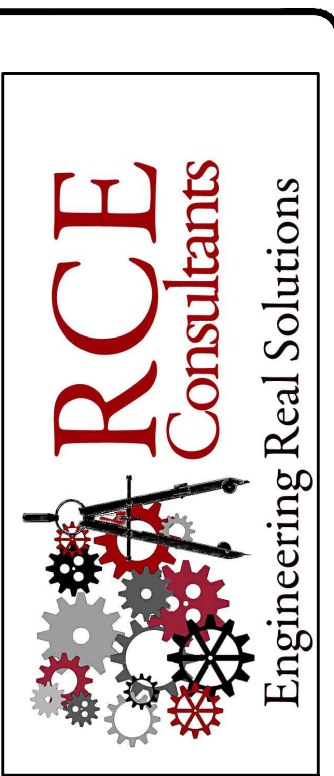
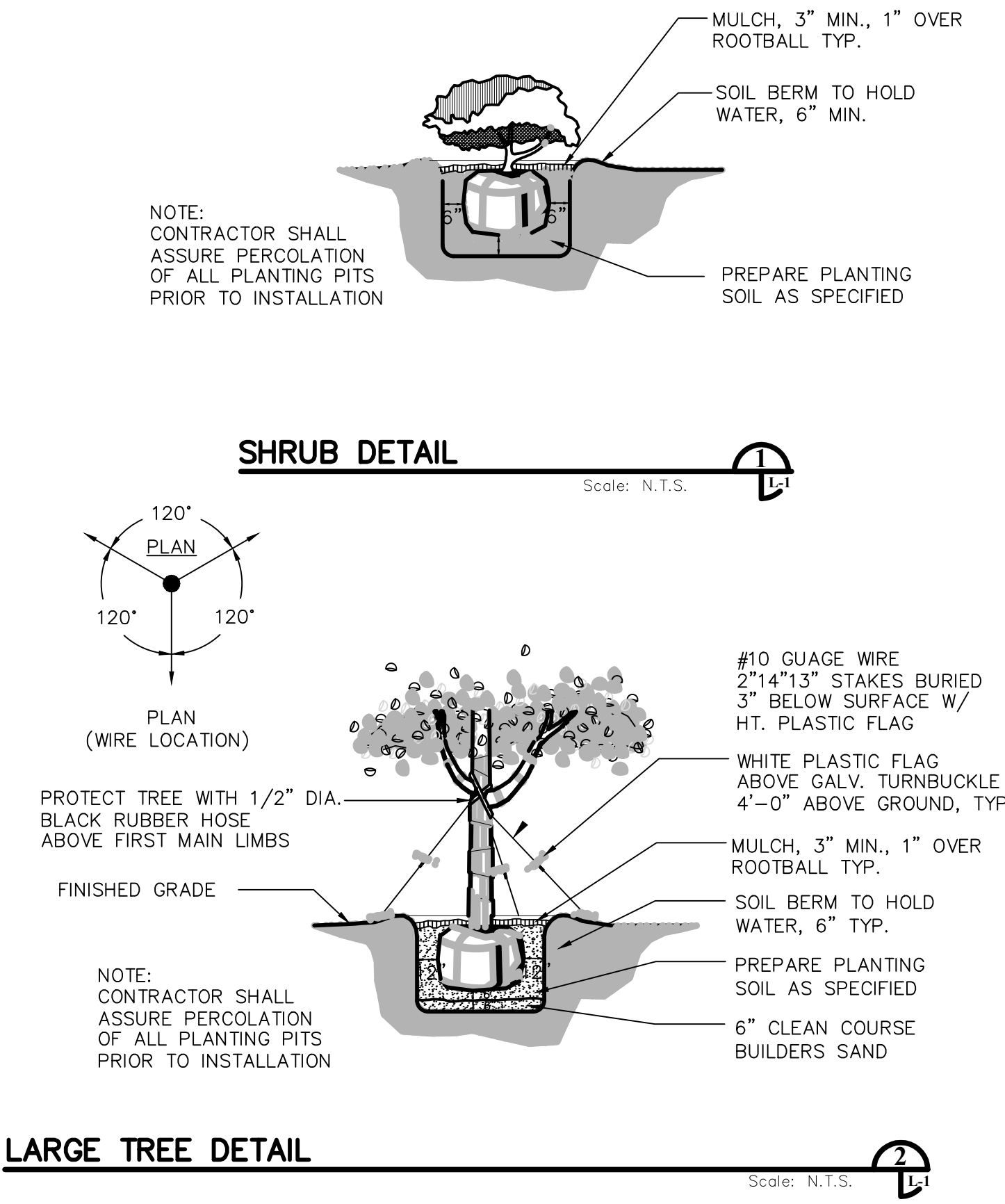
| QTY.                         | ABBREV.                  | BOTANICAL NAME                        | COMMON NAME               | SIZE & SPECIFICATION                          |
|------------------------------|--------------------------|---------------------------------------|---------------------------|-----------------------------------------------|
| TREES & SHRUBS               |                          |                                       |                           |                                               |
| 25                           | LJ                       | Lagerstroemia indica 'Muskogee'       | Lavender Crape Myrtle     | 15 Gal. or B&B, 1 1/2" - 2" cal., 7' ht. min. |
| 11                           | MG                       | Magnolia grandiflora 'D.D. Blanchard' | Magnolia 'D.D. Blanchard' | 65 Gal., 11' Ht. min.                         |
| 11                           | QV                       | Quercus virginiana                    | Live Oak                  | 65 Gal., 3" Cal. 13' Ht. min.                 |
| SHRUBS, VINES & GROUND COVER |                          |                                       |                           |                                               |
| 118                          | RI                       | Raphiolepis indica 'Alba'             | Indian Hawthorne          | 18" Min. Ht., 3 Gal., 24" O.C.                |
| 109                          | SB                       | Spartina bakeri                       | Cord Grass                | 18" Min. Ht., 3 Gal., 30" O.C.                |
| 392                          | VO                       | Viburnum odoratissimum                | Sweet Viburnum            | 24" Min. Ht., 3 Gal. 36" O.C.                 |
| SOD& MISCELLANEOUS ITEMS     |                          |                                       |                           |                                               |
| SOD                          | Paspalum notatum         | Bahia Solid Sod                       | SOLID SOD                 |                                               |
| MULCH                        | Shredded Melaleuca Mulch |                                       |                           |                                               |

LANDSCAPE NOTES:

- All plant material shall be Florida Grade No. 1 or better as specified in "Grades and Standards for Nursery Plants", "Parts 1 and 2, by Division of Plant Industry, Florida", Department of Agriculture and Consumer Services, and shall conform to current American Association of Nurserymen "Standards for Nursery Stock", latest edition.
- The landscape contractor shall be responsible for verification of quantities the plant list. In the event of a conflict between quantities on the plant list and the plans, the plans shall control and the discrepancy shall be brought to the attention of the landscape architect prior to bid. Any deviation from these plans must be approved by the Landscape Architect or owner's representative.
- Contractor is responsible for compliance with all applicable building codes, ordinances and local regulations. The contractor shall be responsible for obtaining all necessary permits to perform the work.
- The landscape contractor is responsible for inspection of existing conditions and promptly reporting all discrepancies and improper conditions (wetness, muck, debris, ect) to the Landscape Architect prior to bidding. Contractor is responsible for soil analysis prior to installation of plantings, and is responsible for all soil amendments to conform to specifications.
- All tree material shall be container grown unless otherwise specified.
- The landscape contractor shall acquaint himself with all civil drawings as they relate to paving, site grading, and all utilities, (including water, sewer and electrical supply) to preclude any misunderstanding and ensure trouble free installation. The exact location of all existing structures, underground utilities, existing underground sprinklers and pipe may not be indicated on drawings. The contractor shall conduct his work in a manner to prevent interruption or damage to existing systems which must remain operational. The contractor shall protect utility services which must remain operational and shall be responsible for there replacement if damaged by him.
- Mulch shall be organic and shall not be placed on top of the root ball or placed against the trunk. Mulch shall be applied a minimum of 12" to 18" from the trunk of any sized tree. Materials such as rock and shells that do not biodegrade, are not deemed acceptable. Failure to install mulch (and type of mulch) as provided in the specification above may result in a failed inspection. See <http://hort.ifas.ufl.edu/woody/over-mulching.html> for more information.
- Refer to specifications for complete requirements.
- In the event of a conflict between quantities on the plant list and the plans, the plan shall take precedent.

IRRIGATION NOTES:

- All landscaped areas shall be irrigated with a permanent automatic irrigation system providing 100% coverage.
- An automatic moisture sensor/shutoff shall be part of the system.
- All tree, shrub, and groundcover material proposed for this site is medium to low water use. Micro or drip irrigation will be installed in these beds.



WINTER GARDEN COMMERCE CENTER  
LANDSCAPE PLAN  
WINTER GARDEN, FLORIDA

| NO. | DATE       | REVISION / ISSUE DATE        | BY  | REVISION / ISSUE DATE | BY |
|-----|------------|------------------------------|-----|-----------------------|----|
| 1   | 03/07/2024 | ADDED ACCESS / CITY COMMENTS | LMP |                       |    |

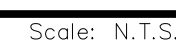
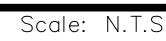
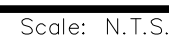
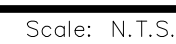
RCE CONSULTANTS, LLC  
617 ARVERN DRIVE  
ALTAMONTE SPRINGS, FL 32701  
PHONE NO. 407-452-8633  
LARRY@RCECONSULTANTS.NET

ENGINEER OF RECORD

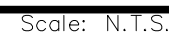
LAURENCE M. POLINER, P.E.  
#56974  
RCE CONSULTANTS, LLC

|                        |               |
|------------------------|---------------|
| PROJECT #:<br>24-2022  | SHEET:<br>L-1 |
| DRAWN/LMP CHECKED: LMP |               |
| DATE:<br>APRIL 2022    |               |
| SCALE:<br>1"=20'       |               |
| LANDSCAPE PLAN         |               |





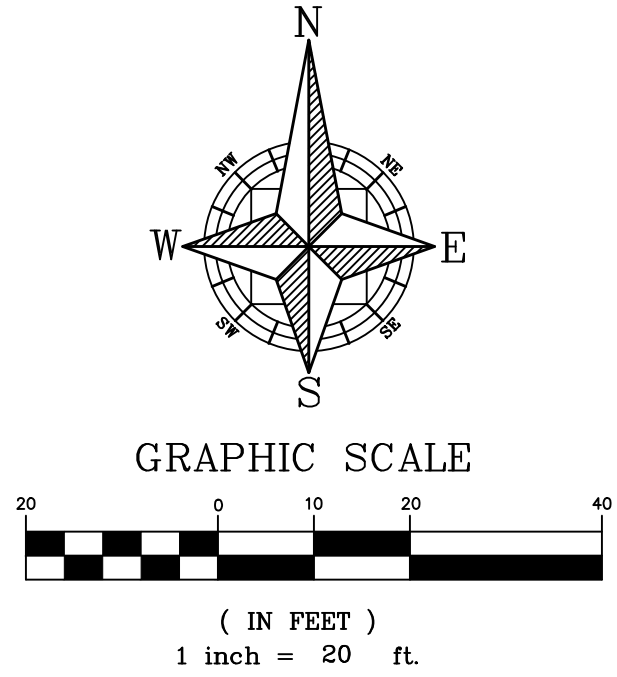
Scale: N.T.S.



Scale: N.T.S.



TOP = 121.95  
E 8" PVC INVERT = 111.00'  
W 8" PVC INVERT = 111.05'



WINTER GARDEN COMMERCE CENTER  
PHOTOMETRIC PLAN  
WINTER GARDEN, FLORIDA

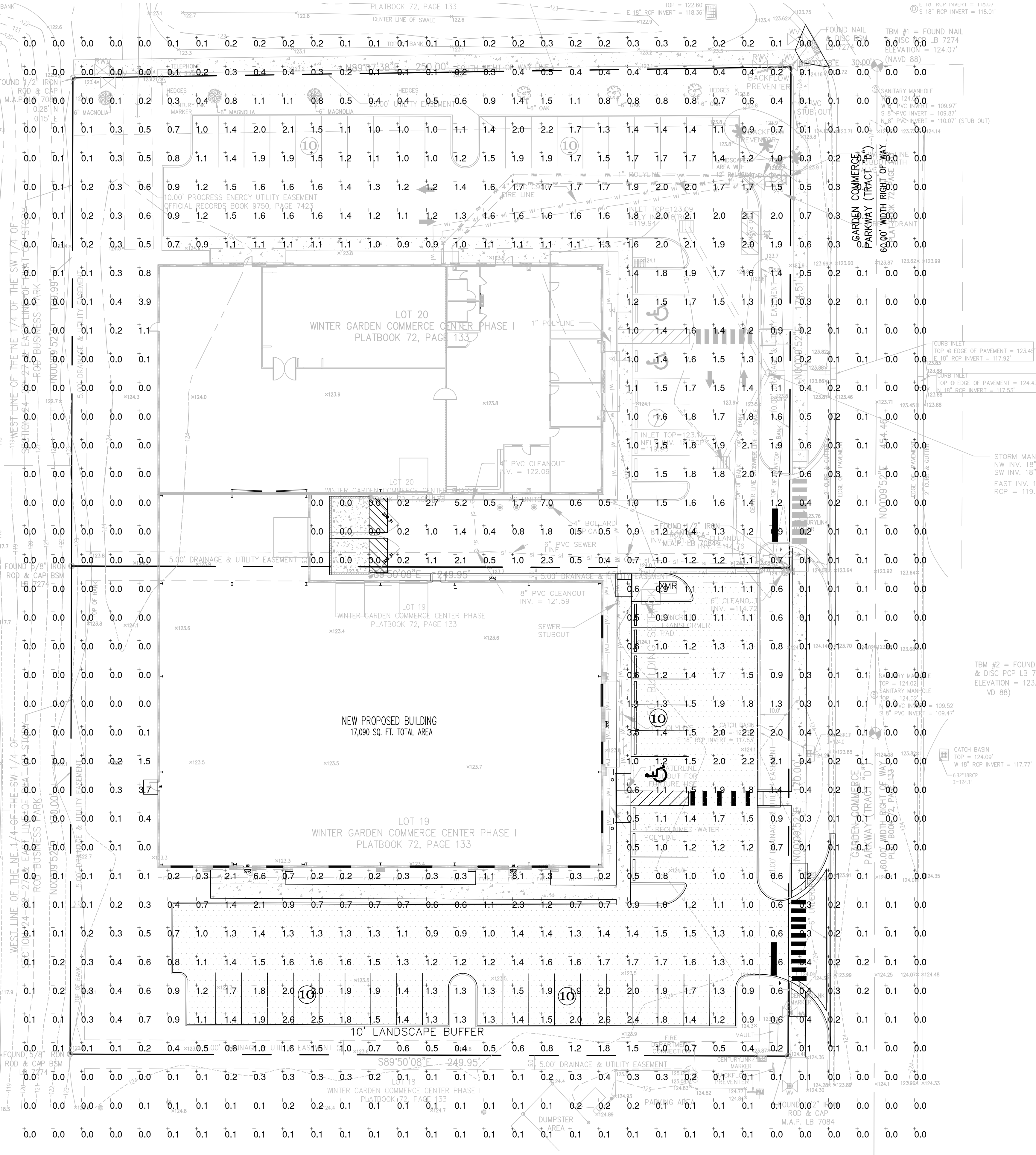
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|-----|------------|------------------------------|-----|-----|
| 1   | 03/01/2024 | ADDED ACCESS / CITY COMMENTS |     |     |

RCE CONSULTANTS, LLC  
617 ARVERN DRIVE  
ALTAMONTE SPRINGS, FL 32701  
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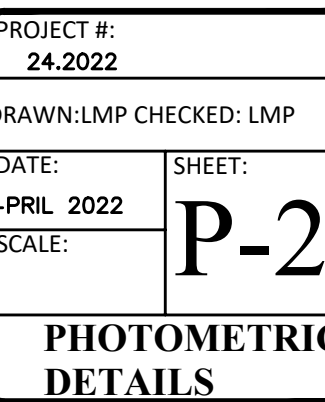
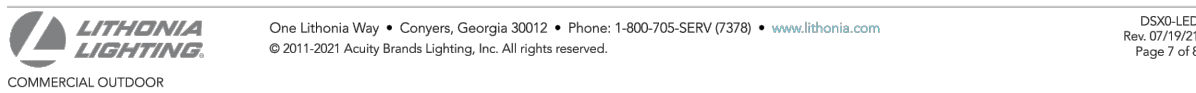
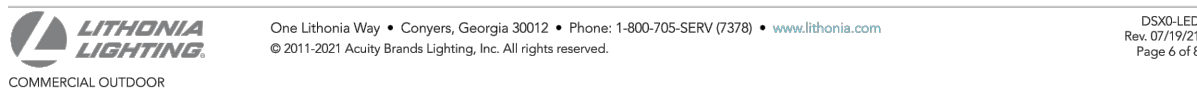
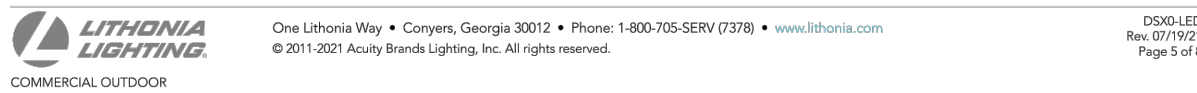
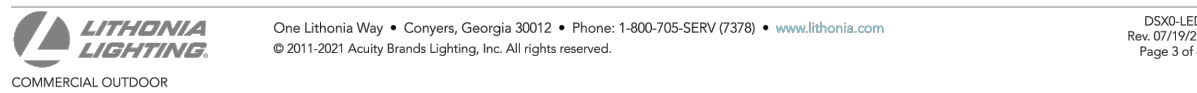
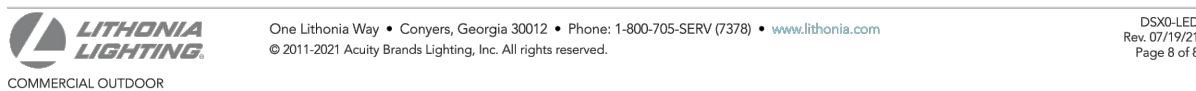
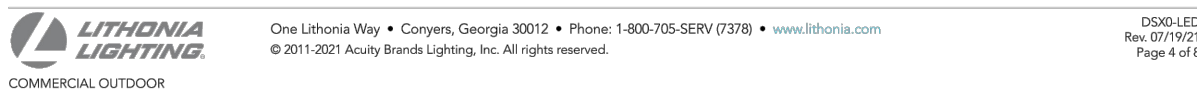
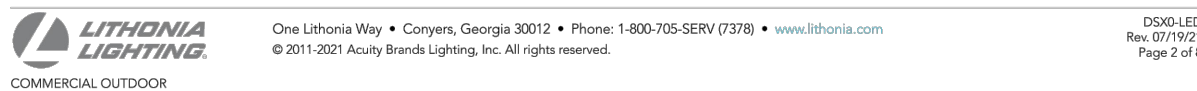
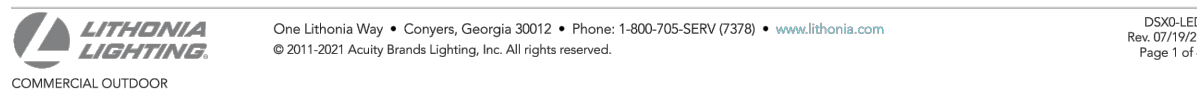
PROJECT #:  
24-2022  
DRAWN: LMP CHECKED: LMP  
DATE: APRIL 2022 SHEET:  
SCALE: P-1  
PHOTOMETRIC  
PLAN



| Landreth Lighting Luminaire Schedule |                   |     |         |             |                                                                        |       |            |
|--------------------------------------|-------------------|-----|---------|-------------|------------------------------------------------------------------------|-------|------------|
| Symbol                               | [MANUFAC]         | Qty | Label   | Arrangement | Description                                                            | LLF   | Bug Rating |
|                                      | Lithonia Lighting | 4   | EX-SLB3 | SINGLE      | Existing DSX0 LED P4 40K TFM MVOLT XPA HS DBBX; POLE MOUNTED @ 25' AFG | 1.000 | B1-U0-G2   |
|                                      | Lithonia Lighting | 3   | EX-SLW2 | SINGLE      | Existing OLWX1 LED 13W 40K DDB; WALL MOUNTED @ 8' AFG                  | 1.000 | B1-U0-G0   |
|                                      | Lithonia Lighting | 3   | SLA-HS  | Single      | DSX0 LED P5 40K T3M MVOLT XPA HS; POLE MOUNTED @ 25' AFG               | 1.000 | B1-U0-G2   |
|                                      | Lithonia Lighting | 6   | SLW     | SINGLE      | OLWX1 LED 13W 40K DDB; WALL MOUNTED @ 8' AFG                           | 1.000 | B1-U0-G0   |

| Landreth Lighting Calculation Summary |             |       |      |     |     |         |
|---------------------------------------|-------------|-------|------|-----|-----|---------|
| Label                                 | CalcType    | Units | Avg  | Max | Min | Avg/Min |
| Parking Lot                           | Illuminance | Fc    | 1.45 | 2.6 | 0.8 | 1.81    |







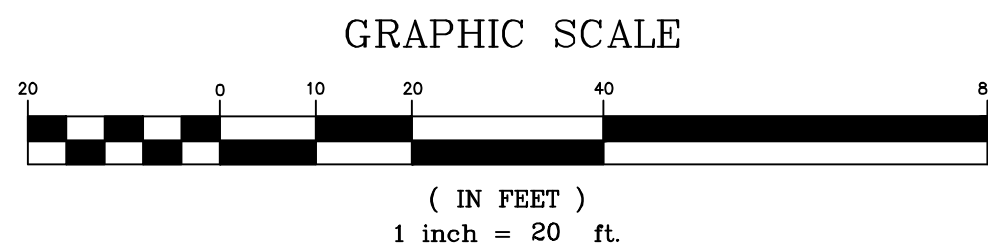
## FOR

SECTION 24, TOWNSHIP 22 SOUTH, RANGE 27 EAST  
ORANGE COUNTY, FLORIDA

Lot 20, WINTER GARDEN COMMERCE CENTER PHASE I, according to the map or plat thereof as recorded in Plat Book 72, Page 133, Public Records of Orange County, Florida.

- 1.) SURVEYOR HAS NOT ABSTRACTED LANDS SHOWN HEREON FOR EASEMENTS, RIGHTS-OF-WAY, OR ANY OTHER MATTER OF RECORD WHICH MIGHT AFFECT THE TITLE OR USE OF SAID LANDS.
- 2.) NO UNDERGROUND INSTALLATIONS OR VISIBLE IMPROVEMENTS LOCATED OTHER THAN SHOWN.
- 3.) BEARINGS ARE BASED ON THE NORTH LINE OF LOT 20 AS BEING N.89°07'38"E. PER PLAT.
- 4.) THE PROPERTY DESCRIPTION WAS PROVIDED TO THE SURVEYOR BY THE CLIENT.
- 5.) ELEVATIONS ARE TRUE BASED ON NGS B.M. # L-653-026 ELEV. = 118.72' NAVD 1988 DATUM AS PUBLISHED.
- 6.) ON SITE TBM #1 = FOUND NAIL & DISC PCP LB 7274 ELEVATION = 124.07' (NAVD 88) AS SHOWN.  
T.B.M. #2- TOP OF CONCRETE MONUMENT AT THE SOUTHWEST CORNER OF PROPERTY ELEVATION 69.12 AS SHOWN.
- 7.) CONTOURS INTERPOLATED FROM ELEVATION SPOT SHOTS AS SHOWN.
- 8.) HAVING CONSULTED THE NATIONAL FLOOD INSURANCE PROGRAM FIRM, I HAVE DETERMINED THAT THE SUBJECT PROPERTY LIES IN ZONE "X", NOT A SPECIAL FLOOD AREA PER FIRM PANEL # 12095C0215F, DATED SEPTEMBER 25, 2009, ORANGE COUNTY, FLORIDA.

|                               |                                |
|-------------------------------|--------------------------------|
| N = NORTH                     | O.R. = OFFICIAL RECORD         |
| S = SOUTH                     | D.B. = DEED BOOK               |
| E = EAST                      | P.O.B. = POINT OF BEGINNING    |
| W = WEST                      | P.O.C. = POINT OF COMMENCEMENT |
| SEC. = SECTION                | W/ = WITH                      |
| FND. = FOUND                  | P.L.S. # 3144 = PROFESSIONAL   |
| CONC. MON. = CONCRETE         | LAND SURVEYOR REGISTRATION     |
| MONUMENT                      | NUMBER 3144-                   |
| COR. = CORNER                 | TYP. = TYPICAL                 |
| NO. = NUMBER                  | PROP. = PROPERTY               |
| P.B. = PLAT BOOK              | R. = RADIUS                    |
| PG. = PAGE                    | Δ = DELTA                      |
| PP = PAGES                    | L. = ARC LENGTH                |
| REF. = REFERENCE              | P.C. = POINT OF CURVATURE      |
| MEAS. = MEASURED              | P.I. = POINT OF INTERSECTION   |
| INFO. = INFORMATION           | P.T. = POINT OF TANGENCY       |
| N.T.S. = NOT TO SCALE         | TAN. = TANGENT                 |
| C/L = CENTER LINE             | C. = CHORD                     |
| ELEV. = ELEVATION             | C.B. = CHORD BEARING           |
| CONC. = CONCRETE              | R/W = RIGHT-OF-WAY             |
| INV. = INVERT                 | (T) = TOP OF CURB              |
| NO # = NO IDENTIFICATION      | (B) = BOTTOM OF CURB           |
| NUMBER                        | (A) = ACTUAL                   |
| T = TOWNSHIP                  | (P) = PLAT                     |
| R = RANGE                     | (D) = DESCRIPTION              |
| MSL = MEAN SEA LEVEL          | (C) = COMPUTED                 |
| U.T. = UNDERGROUND TELEPHONE  | CALC. = CALCULATED             |
| W.L. = UNDERGROUND WATER LINE | CCR # = CERTIFIED CORNER       |
| R.L. = UNDERGROUND RECLAIMED  | RECORD NUMBER                  |
| WATER LINE                    | B.M. = BENCH MARK              |
| R.C.P. = REINFORCED           | O.U. = OVERHEAD UTILITY LINES  |
| CONCRETE PIPE                 | C.M.P. = CORRUGATED METAL PIPE |
| (D.O.T.) DEPARTMENT OF        | T.B.M. = TEMPORARY BENCH MARK  |
| TRANSPORTATION                | LB = LICENSE BUSINESS NUMBER   |
| (R.D.) = RADIAL               | (N.R.) = NON-RADIAL            |
| WV                            | R/W                            |
| ⊗ = WATER VALVE               | ⊗ = RECLAIMED WATER VALVE      |

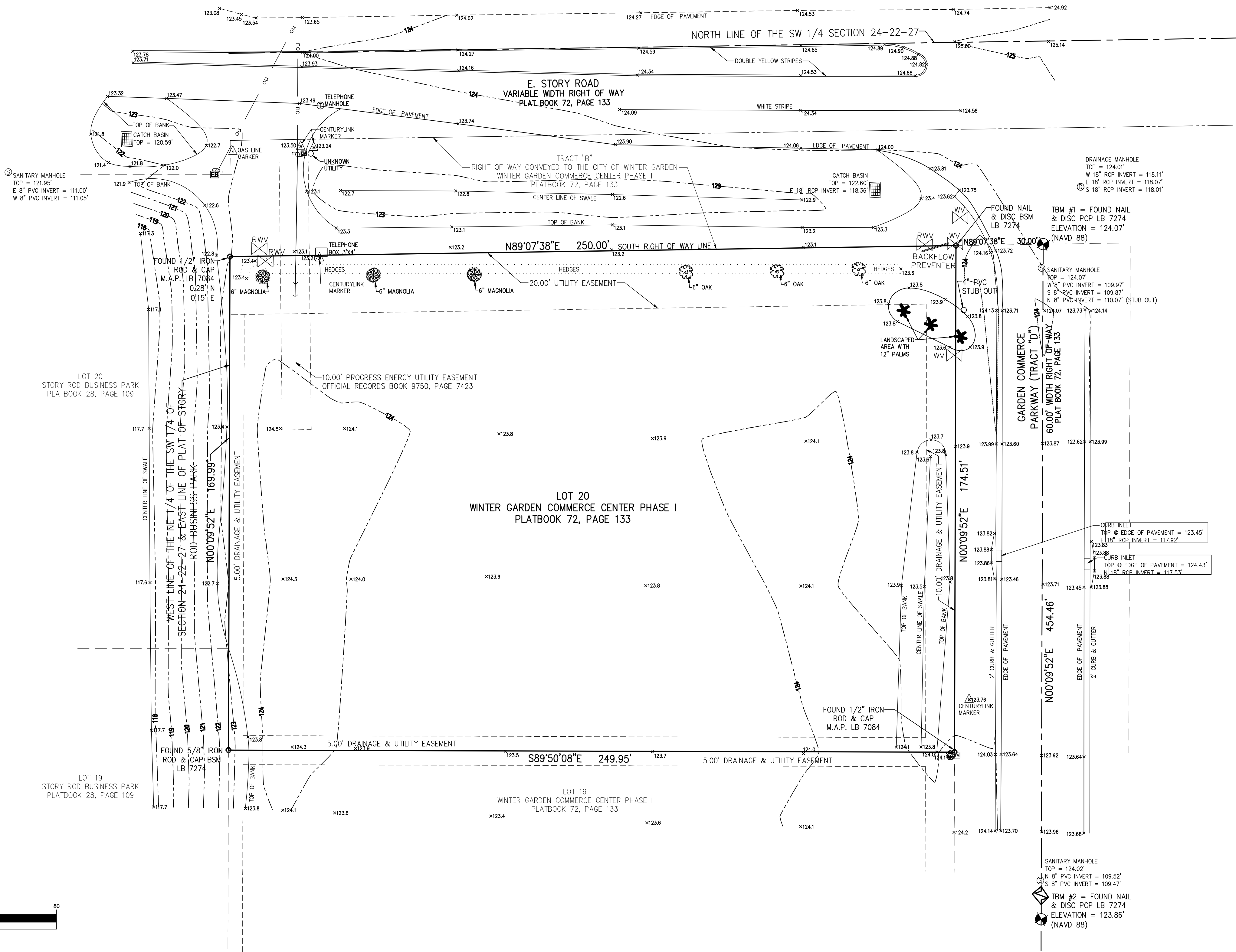
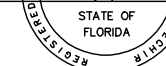


THIS IS TO CERTIFY THAT THIS SURVEY,  
AS SHOWN HEREON, MEETS THE STANDARDS OF PRACTICE AS  
SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS  
AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE,  
PURSUANT TO SECTION 22-027, FLORIDA STATUTES.

*Scott Becher*

SCOTT BECHER, P.S.M.  
FLORIDA REGISTRATION NUMBER 5807

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED  
SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.



LB # 7442

8 S. HWY. 17-92, SUITE 8-A  
DEBARY, FLORIDA 32713  
PH. (386) 668-7332 FAX 668-

COMPUTED BY:  
S R R

**DRAWN BY:**  
*S. R. B.*

CHECKED BY:  
S.R.E.

FIELD BY:

DATE: 1/3/19

FOR  
HAYDAY AT ARMAN  
20 GARDEN COMMERCE PARKWAY  
WINTER GARDEN

ORANGE COUNTY,

FLORIDA

PROJECT NUMBER:  
19-05

DATE: 2/6/19

SCALE:  
 $1'' = 20$

**SHEET 1 OF 1**



BOUNDARY & TOPOGRAPHIC SURVEY

FOR

HAYDAYAT ARMAN

SECTION 24, TOWNSHIP 22 SOUTH, RANGE 27 EAST  
ORANGE COUNTY, FLORIDA

REAL PROPERTY DESCRIPTION

Lot 20, WINTER GARDEN COMMERCE CENTER PHASE I, according to the map or plat thereof as recorded in Plat Book 72, Page 133, Public Records of Orange County, Florida.

SURVEYOR'S NOTES

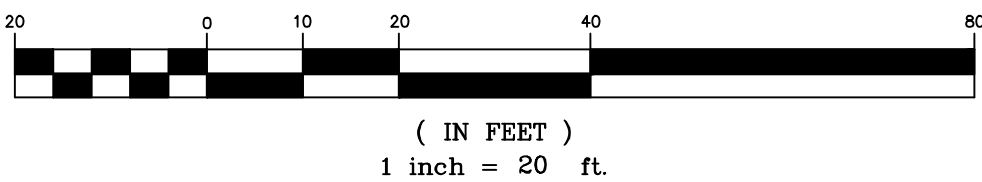
- 1.) SURVEYOR HAS NOT ABSTRACTED LANDS SHOWN HEREON FOR EASEMENTS, RIGHTS-OF-WAY, OR ANY OTHER MATTER OF RECORD WHICH MIGHT AFFECT THE TITLE OR USE OF SAID LANDS.
- 2.) NO UNDERGROUND INSTALLATIONS OR VISIBLE IMPROVEMENTS LOCATED OTHER THAN SHOWN.
- 3.) BEARINGS ARE BASED ON THE NORTH LINE OF LOT 20 AS BEING N.89°07'38"E. PER PLAT.
- 4.) THE PROPERTY DESCRIPTION WAS PROVIDED TO THE SURVEYOR BY THE CLIENT.
- 5.) ELEVATIONS ARE TRUE BASED ON NGS B.M. # L-653-026 ELEV. = 118.72' NAVD 1988 DATUM AS PUBLISHED.
- 6.) ON SITE TBM #1 = FOUND NAIL & DISC PCP LB 7274 ELEVATION = 124.07' (NAVD 88) AS SHOWN. T.B.M. #2 = TOP OF CONCRETE MONUMENT AT THE SOUTHWEST CORNER OF PROPERTY ELEVATION 69.12 AS SHOWN.
- 7.) CONTOURS INTERPOLATED FROM ELEVATION SPOT SHOTS AS SHOWN.
- 8.) HAVING CONSULTED THE NATIONAL FLOOD INSURANCE PROGRAM FIRM, I HAVE DETERMINED THAT THE SUBJECT PROPERTY LIES IN ZONE "X", NOT A SPECIAL FLOOD AREA PER FIRM PANEL # 12095C0215F, DATED SEPTEMBER 25, 2009, ORANGE COUNTY, FLORIDA.

ABBREVIATION LEGEND

N = NORTH  
S = SOUTH  
E = EAST  
W = WEST  
SEC. = SECTION  
FND. = FOUND  
CONC. MON. = CONCRETE MONUMENT  
COR. = CORNER  
NO. = NUMBER  
P.B. = PLAT BOOK  
PP. = PAGE  
REF. = REFERENCE  
MEAS. = MEASURED  
INFO. = INFORMATION  
N.T.S. = NOT TO SCALE  
C/L = CENTER LINE  
ELEV. = ELEVATION  
CONC. = CONCRETE  
INV. = INVERT  
NO. # = NO IDENTIFICATION NUMBER  
T = TOWNSHIP  
R = RANGE  
MSL = MEAN SEA LEVEL  
U.T. = UNDERGROUND TELEPHONE  
W.L. = UNDERGROUND WATER LINE  
R.L. = UNDERGROUND RECLAIMED WATER LINE  
R.C.P. = REINFORCED CONCRETE PIPE  
(D.O.T.) = DEPARTMENT OF TRANSPORTATION  
(RAD.) = RADIAL  
WV = WATER VALVE

O.R. = OFFICIAL RECORD  
D.B. = DEED BOOK  
P.O.B. = POINT OF BEGINNING  
P.O.C. = POINT OF COMMENCEMENT  
W/ = WITH  
P.L.S. # 3144 = PROFESSIONAL LAND SURVEYOR REGISTRATION NUMBER 3144  
TYP. = TYPICAL  
PROP. = PROPERTY  
R. = RADIUS  
Δ = DELTA  
L = ARC LENGTH  
P.C. = POINT OF CURVATURE  
P.I. = POINT OF INTERSECTION  
P.T. = POINT OF TANGENCY  
TAN. = TANGENT  
C. = CHORD  
C.B. = CHORD BEARING  
R/W = RIGHT-OF-WAY  
(T) = TOP OF CURB  
(B) = BOTTOM OF CURB  
(A) = ACTUAL  
(P) = PLAT  
(D) = DESCRIPTION  
(C) = COMPUTED  
CALC. = CALCULATED  
COR # = CERTIFIED CORNER RECORD NUMBER  
B.M. = BENCH MARK  
O.U. = OVERHEAD UTILITY LINES  
C.M.P. = CORRUGATED METAL PIPE  
T.B.M. = TEMPORARY BENCH MARK  
LB # = LICENSE BUSINESS NUMBER  
(N.R.) = NON-RADIAL  
RWV = RECLAIMED WATER VALVE

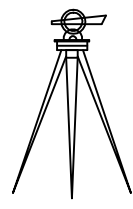
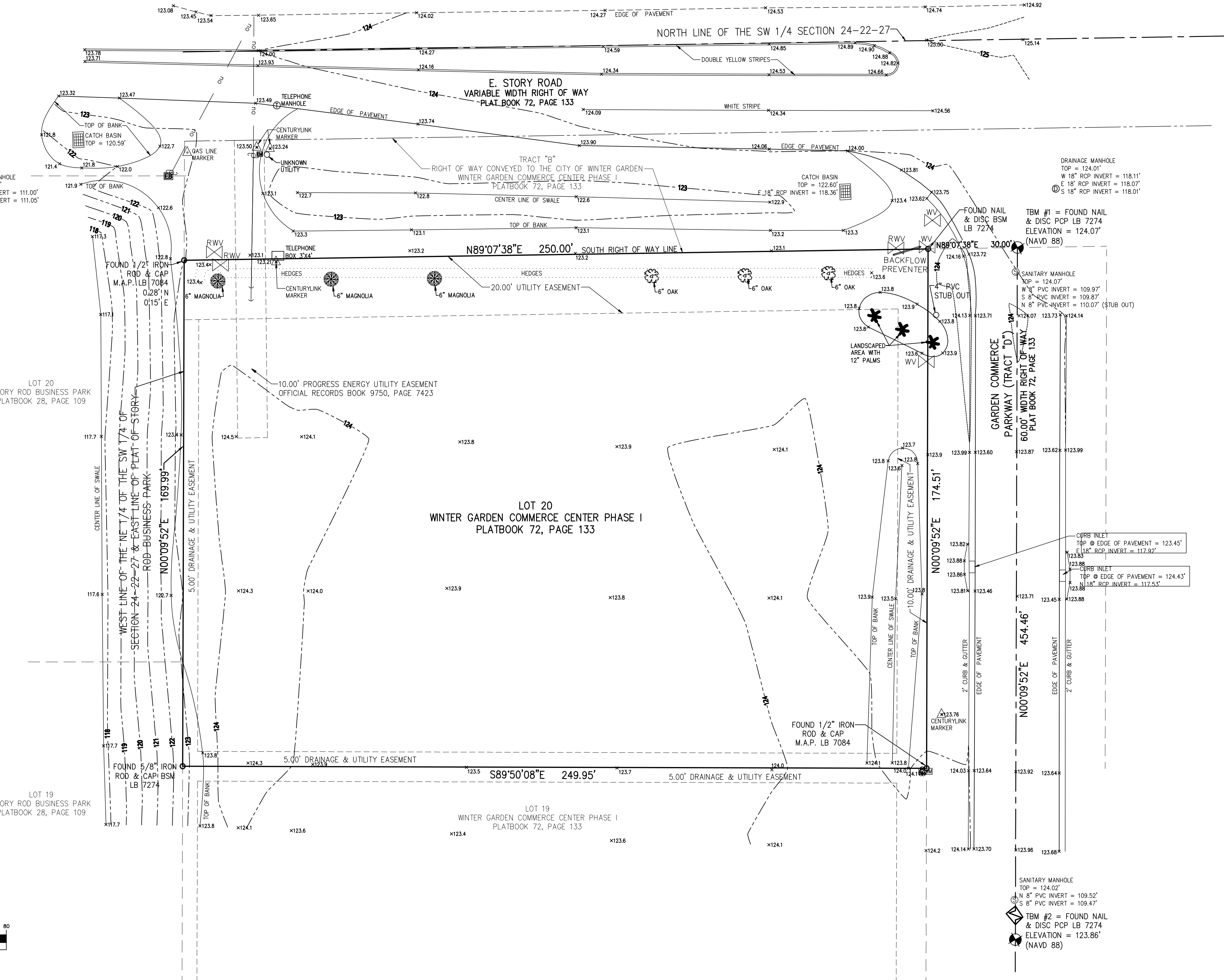
GRAPHIC SCALE



THIS IS TO CERTIFY THAT THIS SURVEY, AS SHOWN HEREON, MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

Scott Bechir

SCOTT BECHIR, P.S.M.  
FLORIDA REGISTRATION NUMBER 5807  
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.



SCOTT'S SURVEYING SERVICES, INC.  
LB # 7442  
8 S. HWY. 17-92, SUITE 8-A  
DEBARY, FLORIDA 32713  
PH. (386) 668-7332 FAX 668-7337

COMPUTED BY: S.R.B. DRAWN BY: S.R.B. CHECKED BY: S.R.B. FIELD BY: B.W. DATE: 1/3/19

BOUNDARY & TOPOGRAPHIC SURVEY

FOR  
HAYDAYAT ARMAN  
620 GARDEN COMMERCE PARKWAY  
WINTER GARDEN

ORANGE COUNTY,

FLORIDA

PROJECT NUMBER  
19-05

DATE  
2/6/19

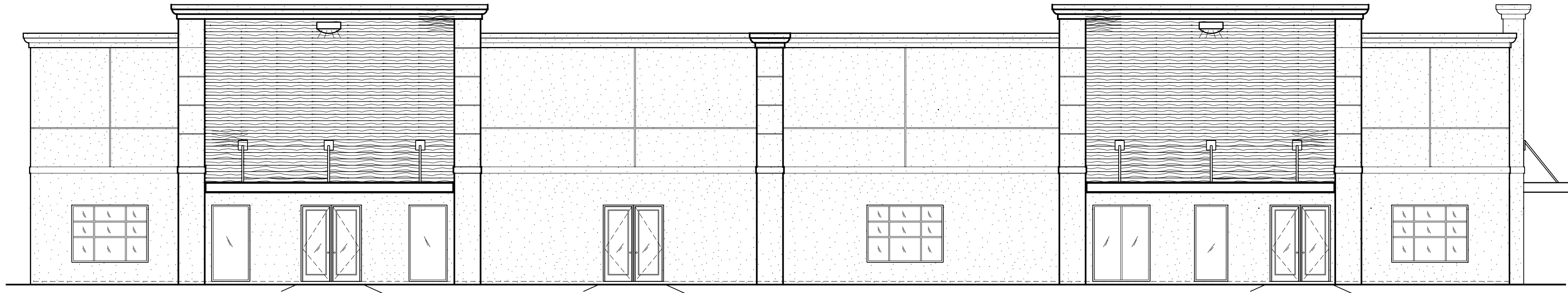
SCALE  
1" = 20'

SHEET 1 OF 1



"QUALITY PLAYING CARD'S INC" NEW MTL. BUILDING PROJECT PHASE-2

ADDRESS: 620 GARDEN COMMERCE PARK. , WINTER GARDEN FLORIDA 34787



CIVIL ENGINEERING & LANDSCAPE DESIGN:

RCE CONSULTANTS, LLC  
LAURENCE POLINER, P.E.

MECHANICAL CONTRACTOR

TO BE DETERMINED



ENGINEERED PERMITS, INC.  
311 SOUTH WOODLAND BVD.  
DELAND, FL 32720  
PHONE: 386-734-0830  
FAX: 386-734-8226  
CERT NO. 26298  
EMAIL: epi@epieng.net

MICHAEL WOJTUNIAK, P.E.  
P.E. NO. 60934  
EMAIL: MWOJTUNIAK@EPIENG.NET

GENERAL CONTRACTOR:  
COX CONSTRUCTION AND DEVELOPMENT CORP.  
PO BOX: 120597 CLEARMONT FLORIDA 34712  
CONTACT: MR. DAVID M. COX.  
PH: 352-394-6299 FAX: 352-394-8308 CELL: 352-516-4401  
CERT. GENERAL CONTRACTOR: LIC. #CGC031758

DATE: JUNE 27, 2023

100% CONSTRUCTION DOCUMENTS

PLUMBING CONTRACTOR

TO BE DETERMINED

ELECTRICAL CONTRACTOR

TO BE DETERMINED

APPLICABLE CODES

BUILDING: FBC 2020 EDITION ENERGY CONSERV.: FEC 2020 EDITION  
PLUMBING: FPC 2020 EDITION  
A.D.A.: FAC 2020 EDITION  
LIFE SAFETY: FFPC 7TH EDITION  
MECHANICAL: FMC 2020 EDITION  
GAS: FBC 2020 EDITION  
ELECTRICAL: NEC 2017 EDITION

OCCUPANCY GROUP

OCCUPANCY: "S-1" STORAGE

FUTURE TENANT #1

QUALITY PLAYING CARD'S BUILDING EXPANSION AREA

OCCUPANCY "S-1" STORAGE/WAREHOUSE AREA  
1 PERSON PER 300 SF GROSS / 4,435 S.F. GROSS=  
15 PERSONS IF BUILDING IS ALL OPEN

OCCUPANCY "S-1" STORAGE/WAREHOUSE AREA  
1 PERSON PER 300 SF GROSS / 6,783 S.F. GROSS=  
22 PERSONS IF BUILDING IS ALL OPEN

QUALITY PLAYING CARD'S BUILDING EXPANSION AREA

OCCUPANCY "S-1" STORAGE/WAREHOUSE AREA  
1 PERSON PER 300 SF GROSS / 5,872 S.F. GROSS=  
20 PERSONS IF BUILDING IS ALL OPEN

TOTAL PEOPLE: 57 COUNT

OCCUPANCY CAPACITY: 2.2 INCHES PER OCCUPANT X 57 = 11.4 INCHES MIN. REQUIRED  
PROVIDED EGRESS: (8) 36" EGRESS DOORS = 288" INCHES  
MAX. DISTANCE OF TRAVEL TO EXIT = 250' . (ALLOWED)

TOTAL UNDER ROOF AREA: 17,090 S.F. GROSS

CONSTRUCTION TYPE

ALLOWABLE AREA: 17,090 S.F. X 300%  
FIRE SPRINKLERED INCREASE AREA  
= 51,270 S.F. ALLOWABLE AREA

TABLE 503

TYPE V-B

UNPROTECTED

YES SPRINKLERED

DRAWING INDEX

- COVER SHEET, DRAWING INDEX
- S-1 STRUCTURAL FOUNDATION AND SLAB PLAN
- S-2 MASONRY CMU STRUCTURAL DETAILS
- S-3 MASONRY CMU AND STRUCTURAL STEEL DETAILS
- S-4 LIGHT STEEL FRAMING STRUCTURAL DETAILS
- S-5 STRUCTURAL PRE-CAST CONCRETE LINTEL PLAN
- S-6 OVERALL METAL ROOF PLAN
- A-1 LIFE SAFETY EGRESS KEY PLAN
- A-2 PROPOSED OVERALL BUILDING FLOOR PLAN
- A-3 PROPOSED BUILDING ELEVATIONS (4 VIEWS)
- A-4 ADA H.C. RESTROOM DETAILS
- A-5 EXTERIOR BUILDING WALL-SECTION DETAILS
- A-6 U465 FIRE-RATED WALL-SECTION DETAILS
- A-7 STORE-FRONT EXTERIOR WALL-SECTION DETAILS
- E-1 ELECTRICAL POWER PLAN
- E-2 ELECTRICAL LIGHTING PLAN
- M-1 HVAC DUCT MECHANICAL PLAN
- P-1 PLUMBING PLAN WITH RISER DIAGRAMS

REVISIONS:

| REVISION | DATE | BY | DESCRIPTION |
|----------|------|----|-------------|
|          |      |    |             |
|          |      |    |             |
|          |      |    |             |
|          |      |    |             |
|          |      |    |             |

DATE: 06-27-2023

PERMITTING

PLANNING

ENGINEERING

GENERAL NOTES:  
ALL GENERAL & SUB CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS.  
ALL DIMENSIONS TO BE GIVEN IN FEET AND INCHES.  
ALL DIMENSIONS TO BE GIVEN IN FEET AND INCHES.  
OF THE FLORIDA BUILDING CODE SET: 1609 / 1609 WIND LOAD  
OF 30 PSF FOR DOORS AND 30 PSF FOR WINDOWS  
WIND EXPOSURE: EXPOSURE B WIND IMPACT FACTOR (I)  
WIND SPEED: 140 MPH

COVER INDEX SHEET

PROJECT: "QUALITY PLAYING CARD'S INC" NEW MTL. BUILDING PROJECT PHASE-2  
ADDRESS: 620 GARDEN COMMERCE PARK, WINTER GARDEN FLORIDA 34787  
G.C.: COX CONSTRUCTION AND DEVELOPMENT CORP. PH # 352-516-4401



ENGINEERED PERMITS, INC.  
311 SOUTH WOODLAND BVD.  
DELAND, FL 32720  
PHONE: 386-734-0830  
FAX: 386-734-8226  
CERT NO. 26298  
EMAIL: epi@epieng.net

MICHAEL WOJTUNIAK, P.E.  
P.E. NO. 60934  
EMAIL: MWOJTUNIAK@EPIENG.NET

SHEET NO.

\*\*\*\*\*

\*\*\*THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL J. WOJTUNIAK, P.E. ON 06/28/2023. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED BY A 3RD PARTY CERTIFICATE AUTHORITY ON ANY ELECTRONIC COPY AS PER FAC 61G15-23.004. UNLESS THE RAISED SEAL HAS BEEN UTILIZED. \*\*\*











# CITY OF WINTER GARDEN

## DEVELOPMENT REVIEW COMMITTEE

300 West Plant Street - Winter Garden, Florida 34787-3011  
(407) 656-4111

### MEMORANDUM

**TO:** KELLY CARSON, PLANNING DIRECTOR  
**FROM:** DEVELOPMENT REVIEW COMMITTEE  
**DATE:** MARCH 26, 2025  
**SUBJECT:** QUALITY PLAYING CARDS - 630 GARDEN COMMERCE PARKWAY (LOT 19)  
SITE PLAN REVIEW (5th REVIEW)

Pursuant to your request, we have reviewed the revised site plan dated 3/01/24 for compliance with the City's stormwater and site requirements. This plan proposes one 17,090 s.f. office/warehouse building with associated parking, stormwater and utility improvements. It is noted that the adjacent lot to the north (Lot 20) was approved 9/30/19 as a stand-alone project. This was submitted in response to our comments of 2/01/24 and DRC meeting of 7/13/22 where it was referred to staff review only.

### ENGINEERING COMMENTS

We recommend approval of the site plan, subject to approval by all other departments, and the following conditions and comments (underlined comments shall be addressed prior to pre-con):

1. Planning Department shall review and comment on proposed use, parking count, setbacks, open space, landscaping, buffering, lighting and signage, including the PID Zoning requirements.
2. Although the Applicant previously requested that Lots 19 & 20 be reviewed separate and independent of each other. Based on DRC discussion, this plan showing both projects together shall have a lot combination and easement vacation approved prior to issuance of certificate of occupancy.
3. General Requirements (as noted):
  - a. All gravity sanitary pipe and fittings shall be SDR 26.
  - b. All compaction shall be 98% of the modified proctor maximum density (AASHTO T-180).
  - c. As-built record drawings shall comply with City of Winter Garden requirements available on-line (note on plan).
  - d. All Storm (>12") and Sanitary lines (>6") shall be inspected by CCTV prior to completion.
  - e. Use City Standard Detail sheets for utilities and public works in future submittals (see City website).
  - f. If Thermoplastic pipe is used it shall meet all City material and installation requirements as specified in the City's Standards & Specifications including Class I bedding, HP polypropylene pipe (**not HDPE; N-12**), laser profiling, installation per ASTM D2321, etc. (see under on-line forms on website).
  - g. All utilities shall be underground pursuant to Code (Sec. 18-33) including electrical power, cable, telephone, etc.
4. On-site lighting and along street frontages will be required pursuant to City Code, meeting dark skies requirements; a photometrics plan has been provided for Planning Department review.
5. Sheet C-5 Utility Plan:
  - a. The response states that sanitary, potable and fire systems will be served from the Lot 20 site – Contractor will be responsible to coordinate.
  - b. Remove the "Utility Notes" on C-5 as these appear to be from a different project.



- c. Buildings over 6,000 s.f. require fire sprinkler systems with Point of Service (POS) for fire line shown on the plans, with note stating that any work downstream of the Point of Service shall be performed by a licensed Fire Sprinkler Contractor. Review and approval by Fire & Building Departments is required.
6. All public improvements, including adjacent sidewalks, pavement, utilities, storm lines, underdrain, or curbs, will be checked at final inspection. Any damaged, broken or cracked sections shall be replaced by the developer prior to issuance of certificate of occupancy.
7. RCP is shown. If HDPE is substituted for RCP, the Engineer shall provide the City with a signed/sealed letter stating that he consents to this substitution and has made the necessary adjustments to the plans and specs to accommodate HDPE. The use of HDPE pipe shall meet all City material and installation requirements as specified in the City's Standards & Specifications including Class I bedding, HP polypropylene pipe, laser profiling, installation per ASTM D2321, etc. (see under on-line forms on website).
8. All on-site utilities shall be privately owned and maintained. 100% of all required water and sewer impact fees shall be paid prior to City execution of FDEP permits or issuance of site or building permits. Meter sizes shall be provided for review by the Utilities Department for verification of impact fees at time of Building Permit application. Final plans will not be approved for construction until utility impact fees have been paid and FDEP permits or exemptions have been issued.
9. All irrigation shall be designed to be connected to existing reclaimed water mains. Any irrigation lines within City R/W shall be purple in color. All points of connection to reclaimed water mains shall have appropriate meters, backflow preventors, etc. All irrigation mains within the City's R/W under the pavement shall be encased within a sleeve.
10. Any new water, sewer, or irrigation connections are required to pay utility impact fees, to be paid prior to issuance of site or building permits or execution of FDEP permits.
11. Landscaping shall not encroach on required sight lines at intersections or driveways. Design Engineer has provided certification that sight distance requirements are being met.
12. No trees may be planted over or within 5 feet of any utility lines. Only sod or shrubs may be planted over utility lines.
13. All dumpsters shall be enclosed and shall provide 12' minimum inside clearance (each way inclusive of bollards). Verify with Public Services Solid Waste Division that they have approved the dumpster location and size.
14. Permit modification from SJRWMD is required as well as permits or exemptions from FDEP for water, wastewater and NPDES.

### **PLANNING COMMENTS**

15. This will require a lot combination and easement vacation approval prior to any issuance of certificate of occupancy.
16. **Note:** Signs permitted separately. All signage shall adhere to City Code Chapter 102 – Signs.

### **STANDARD GENERAL CONDITIONS**

17. The Owner is responsible for meeting all provisions of ADA and Florida Accessibility Code.

18. All work shall conform to City of Winter Garden standards and specifications.
19. Fencing, shall meet all City requirements for height, type, etc. Chain link fencing, if used, shall be vinyl coated per Code.
20. The City of Winter Garden will inspect private site improvements only to the extent that they connect to City owned/maintained systems (roadways, drainage, utilities, etc.). It is the responsibility of the Owner and Design Engineer to ensure that privately owned and maintained systems are constructed to the intended specifications. The City is not responsible for the operation and maintenance of privately owned systems, to include, but not be limited to, roadways, parking lots, drainage, stormwater ponds or on-site utilities.
21. The Contractor is responsible for the notification, location and protection of all utilities that may exist within the project limits.
22. No fill or runoff will be allowed to discharge onto adjacent properties; existing drainage patterns shall not be altered. The applicant should note that if approval is granted, the City of Winter Garden is not granting rights or easements for drainage from, or onto, property owned by others. Obtaining permission, easements or other approvals that may be required to drain onto private property is the Owner/Developer's responsibility. Should the flow of stormwater runoff from, or onto adjacent properties be unreasonable or cause problems, the City will not be responsible and any corrective measures required will be the responsibility of the Owner. Site construction shall adhere to the City of Winter Garden erosion and sediment control requirements as contained in Chapter 106 - Stormwater. If approval is granted by the City of Winter Garden, it does not waive any permits that may be required by federal, state, regional, county, municipal or other agencies that may have jurisdiction.
23. After final plan approval, a preconstruction meeting will be required prior to any commencement of construction. The applicant shall provide an erosion control and street lighting plan at the preconstruction meeting and shall pay all engineering review and inspection fees prior to construction. Inspection fees in the amount of 2.25% of the cost of all site improvements shall be paid prior to issuance of the building permit.

Additional comments may be generated at subsequent reviews

Please review this information and contact our office if you have any questions. Thank you.

**END OF MEMORANDUM**



**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Kelly Carson, Planning Director

**Via:** City Manager Jon C. Williams

**Date:** April 3, 2025      **Meeting Date:** April 10, 2025

**Subject:** 740 Garden Commerce Pkwy (General RV)  
**Site Plan Approval**  
**PARCEL ID#** 24-22-27-9387-25-000

**Issue:** The applicant is requesting Site Plan Approval for the property located at 740 Garden Commerce Pkwy.

**Discussion:** The applicant is requesting site plan approval in order to construct a 42,070 sf office/maintenance building. Along with office and maintenance uses the site will consist of outside RV storage and parking that will be screened with enhanced landscaping and 6' precast wall. This site plan is running concurrently with the General RV site plan located at 12565 W Colonial Drive.

The 11.21 +/- acre subject property is designated MOI (Multi Office Industrial) on the City's Future Land Use Map and is zoned PID (Planned Industrial Development).

**Recommended Action:**

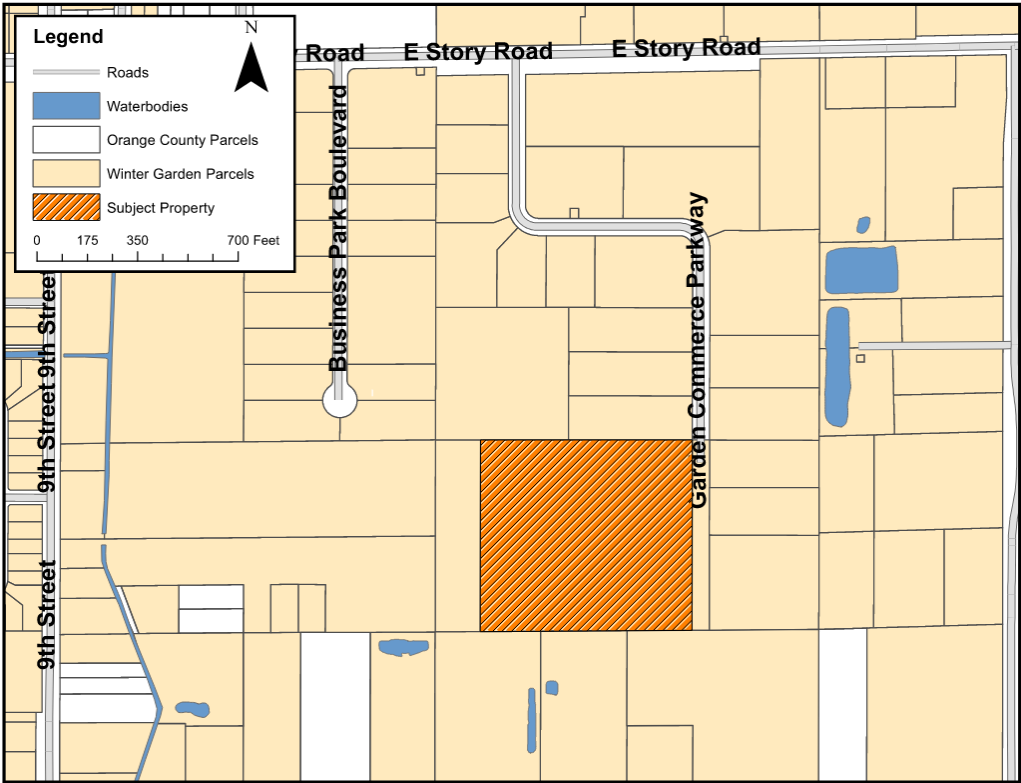
Staff recommends approval of the proposed Site Plan subject to the conditions of the DRC staff report dated March 20, 2025. Development of the property is consistent with the City's Comprehensive Plan and the property's PID zoning requirements.

**Attachment(s)/References:**

Location Map  
Civil Plans  
Building Elevations  
DRC Combined Comments

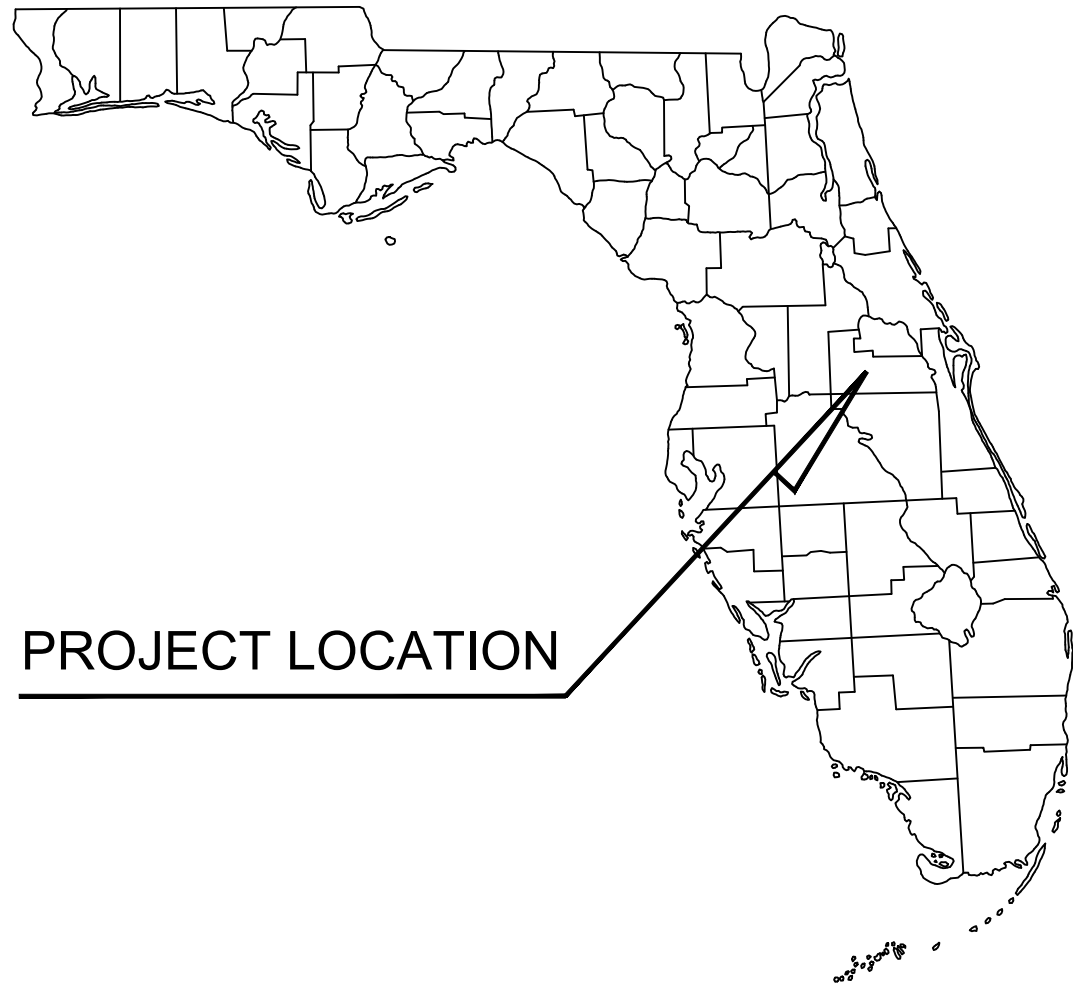
Location Map

740 Garden Commerce Pkwy

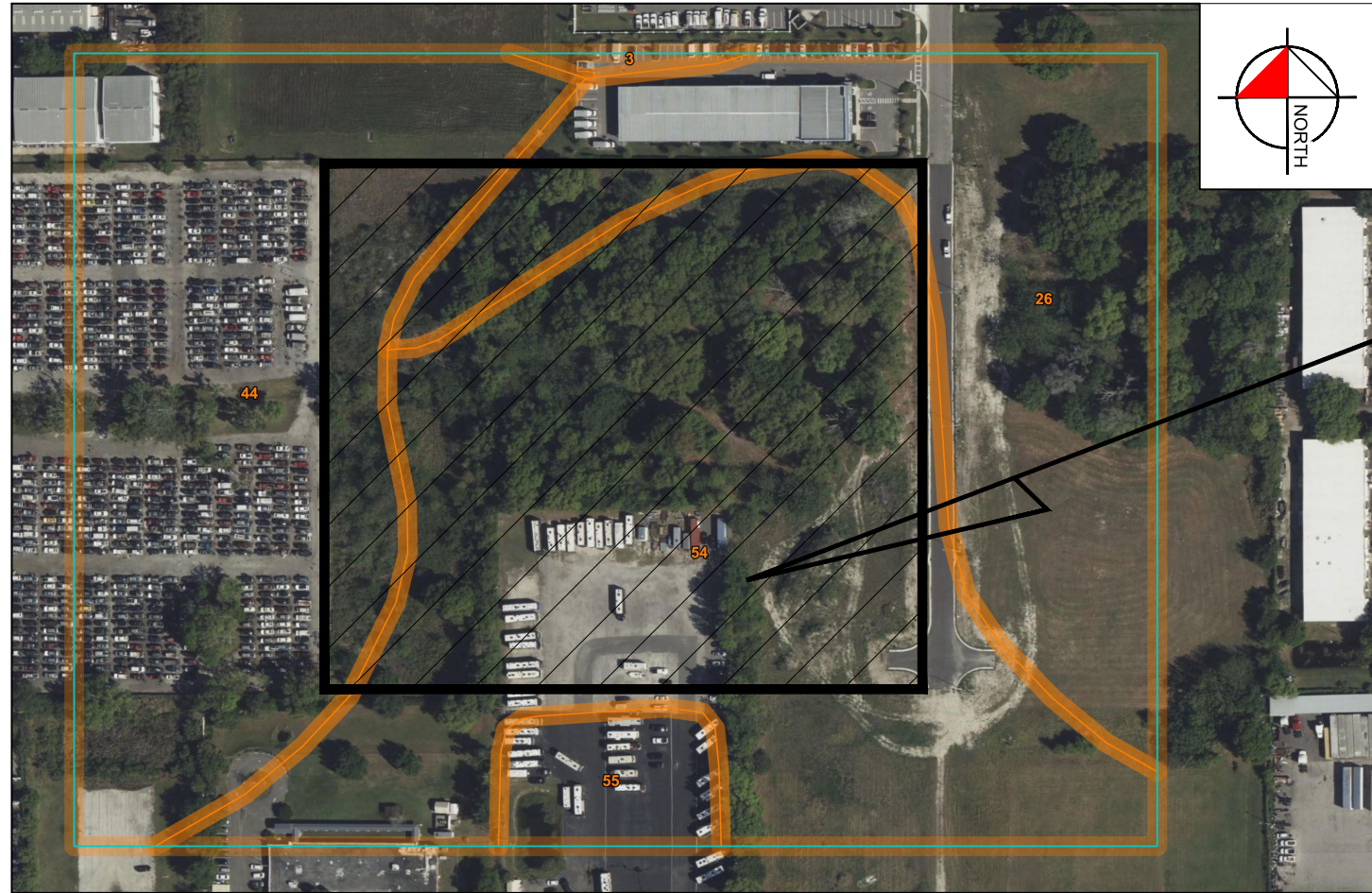




Drawing name: K:\orl\_civil\249536000-general rv expansion\CADD\CONST\plansheets\north site\CO.0-COVR.dwg CO.0 Mar 06, 2025 3:33pm by: cole,sauer  
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



PROJECT LOCATION



SOIL MAP

N.T.S.

- 26 ONA FINE SAND, 0 TO 2 PERCENT SLOPES  
44 SMYRNA-SMYRNA, WET, 0 TO 2 PERCENT SLOPES  
54 ZOLFO FINE SAND, 0 TO 2 PERCENT SLOPES

LEGAL DESCRIPTION:

PARCEL 1:

LOT 25, WINTER GARDEN COMMERCE CENTER PHASE 2 , ACCORDING TO THE PLAT THEREOF , AS RECORDED IN PLAT BOOK 106, PAGE 133, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

UTILITY PROVIDERS

**WATER, SEWER, AND RECLAIMED WATER :**  
WINTER GARDEN UTILITIES  
300 PLANT STREET  
WINTER GARDEN, FL 34787  
PHONE: (407) 656-2256

**GAS:**  
LAKE APOPKA NATURAL GAS DISTRICT  
P.O. BOX 771275  
WINTER GARDEN, FL 34777-1257  
PHONE: (407) 656-2734

**TELEPHONE:**  
ORLANDO TELEPHONE COMPANY, INC  
4558 SW 35TH ST  
ORLANDO, FL 32811

**ELECTRIC :**  
DUKE ENERGY  
2801 W SR 426  
OVIEDO, FL 332765  
PHONE: (407) 359-4447

# CONSTRUCTION DOCUMENTS FOR GENERAL RV EXPANSION - NORTH

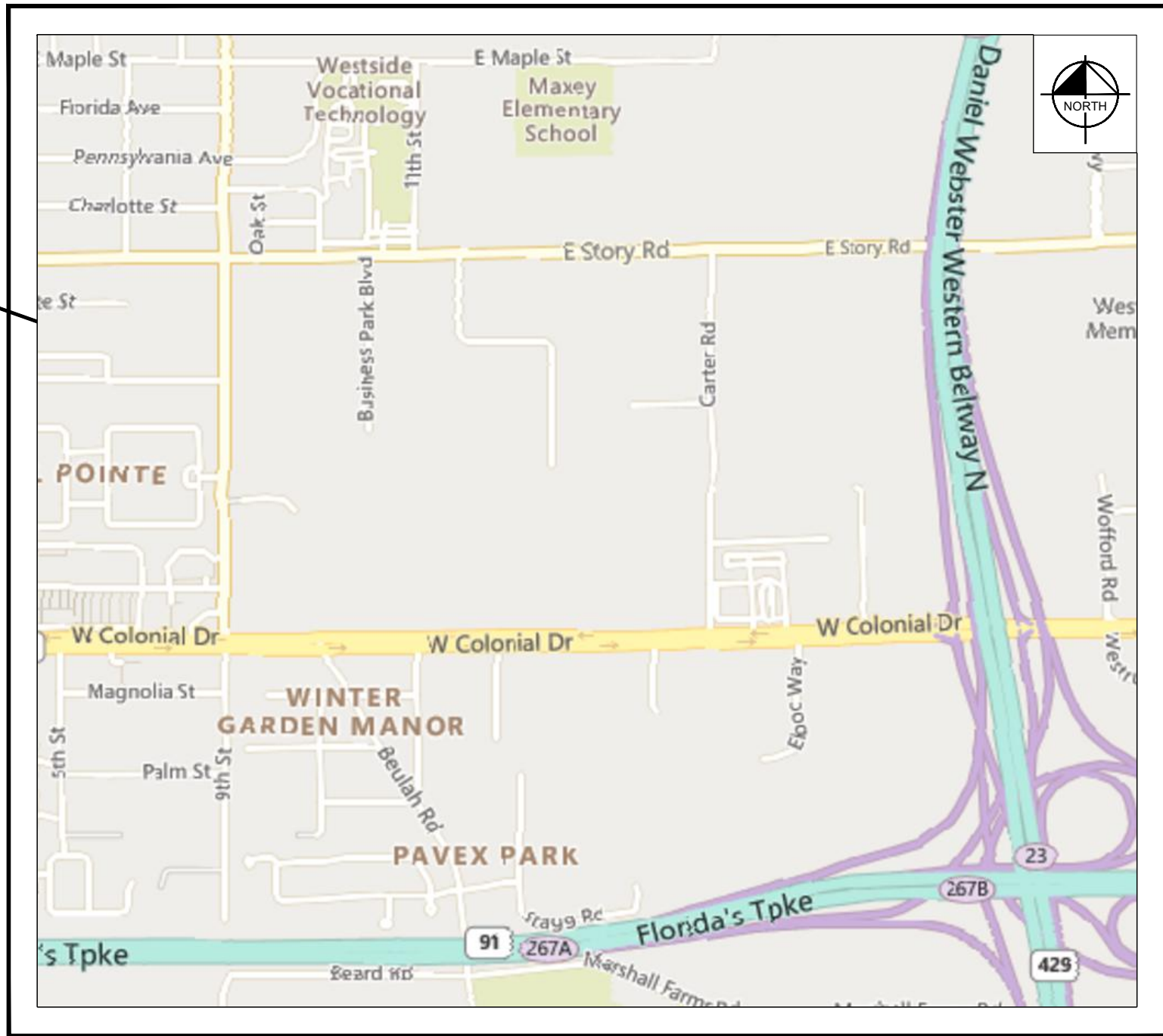
PARCEL #:  
24-22-27-9387-25-000

CITY OF WINTER GARDEN, FL  
March 6, 2025

SITE

SHEET LIST TABLE

| SHEET NUMBER |                                       |
|--------------|---------------------------------------|
| C0.0         | COVER SHEET                           |
| C1.0-C1.1    | GENERAL NOTES                         |
| C2.0         | SWPPP                                 |
| C3.0         | EXISTING CONDITIONS & DEMOLITION PLAN |
| C3.1         | EROSION CONTROL DEATILS               |
| C4.0         | SITE PLAN                             |
| C5.0         | PAVING GRADING & DRAINAGE             |
| C6.0         | UTILITY PLAN                          |
| C7.0-C7.1    | GENERAL CONSTRUCTION DETAILS          |
| C8.0-C8.4    | WINTER GARDEN DETAILS                 |
| L0.50        | TREE MITIGATION PLAN                  |
| L0.51        | TREE MITIGATION NOTES                 |
| L1.00        | LANDSCAPE PLAN OVERALL                |
| L1.01-L1.02  | LANDSCAPE PLAN                        |
| L1.50        | LANDSCAPE DETAILS                     |
| L1.51        | LANDSCAPE NOTES                       |
| L2.00        | IRRIGATION PLAN OVERALL               |
| L2.01-L2.02  | IRRIGATION PLAN                       |
| L2.50        | IRRIGATION DETAILS                    |
| L2.51        | IRRIGATION NOTES                      |
| L201         | PHOTOMETRIC CALCULATION NORTH SITE    |



SECTION 24 , TOWNSHIP 22, RANGE 27  
LOCATION MAP

N.T.S.

PROJECT TEAM

OWNER:

MR. KEVIN SCHONSHECK  
FL ORLANDO 4441, LLC  
2500 ASSEMBLY PARK DR.  
WIXOM, MI 48393  
CONTACT: KEVIN SCHONSHECK  
PHONE: (248) 787-4690

ALTA SURVEYOR:

MCNEAL ENGINEERING, INC.  
15957 N. FLORIDA AVE  
LUTS, FL 33549  
CONTACT: DENNIS J BENHAM  
PHONE: (813) 968-1081

CIVIL ENGINEER

KIMLEY-HORN AND ASSOCIATES, INC.  
200 S. ORANGE AVE., SUITE 600  
ORLANDO, FL 32801  
CONTACT: JORDAN DRAPER, P.E.  
PHONE: (407) 412-7741  
EMAIL: JORDAN.DRAPER@KIMLEY-HORN.COM

TOPO SURVEYOR:

LEADING EDGE LAND SERVICES, INC.  
8802 EXCHANGE DRIVE  
ORLANDO, FL 32089  
CONTACT: JEFFERY HOFIUS  
PHONE: (407) 351-6730

LANDSCAPE ARCHITECT:

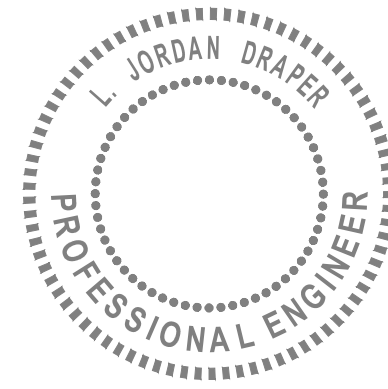
KIMLEY-HORN  
200 S ORANGE AVENUE SUITE 600  
ORLANDO, FL 32806  
CONTACT: MATT FRANKO  
PHONE: (407) 427-1629  
EMAIL: MATT.FRANKO@KIMLEY-HORN.COM

DEVELOPER:

MR. KEVIN SCHONSHECK  
FL ORLANDO 4441, LLC  
2500 ASSEMBLY PARK DR.  
WIXOM, MI 48393  
CONTACT: KEVIN SCHONSHECK  
PHONE: (248) 787-4690

PREPARED BY  
**Kimley»Horn**

© 2024 KIMLEY-HORN AND ASSOCIATES, INC.  
200 S Orange Ave, Suite 600, Orlando, FL 32801  
Phone: (407) 898-1511  
WWW.KIMLEY-HORN.COM Registry No. 35106



GENERAL RV EXPANSION - NORTH  
March 6, 2025  
ENGINEER'S PROJECT No. 249536000

SHEET NUMBER

| No. | REVISIONS                               | DATE       | BY |
|-----|-----------------------------------------|------------|----|
| 1   | CITY OF WINTER GARDEN COMMENT REVISIONS | 03/25/2024 | CS |
| 2   | CITY OF WINTER GARDEN COMMENT REVISIONS | 11/21/2024 | MM |







[illegible]



Plotted By: Sauer, Cole    Sheet: Set-GENERAL\_RV\_EXPANSION — NORTH    Layout: C2.0 SWPPP — March 06, 2025    03:33:59pm    k:\Veri\_eva\249536000-general\_rv\_expansion\CADD\CONSTR\plansheets\North\_site\C2.0 — SWPPP.dwg  
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# STORMWATER POLLUTION PREVENTION PLAN

## SITE DESCRIPTION

### PROJECT NAME AND LOCATION

GENERAL RV EXPANSION - NORTH  
TAX PARCEL: 24-22-27-9387-25-000  
PARCEL LOCATED WEST ALONG GARDEN COMMERCE PARKWAY WITHIN THE WINTER GARDEN COMMERCE PARK MASTER DEVELOPMENT  
WINTER GARDEN, FLORIDA 34787  
ORANGE COUNTY, FLORIDA

\*SEE COVER SHEET FOR LOCATION MAP

### DEVELOPER NAME AND ADDRESS

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### PROJECT DESCRIPTION

THE "GENERAL RV EXPANSION - NORTH" PROJECT IS A COMMERCIAL DEVELOPMENT ON A 11.21 AC SITE. THE SITE IS LOCATED WEST OF GARDEN COMMERCE PARKWAY. THE SITE DISCHARGES TO AN EXISTING STORMWATER MANAGEMENT SYSTEM.

PROJECT AREA: ±11.21 ACRES  
CONTRIBUTING DRAINAGE AREA: ±11.21 ACRES

ULTIMATE RECEIVING WATERS: EXISTING DRY POND

### ACTIVITIES THAT REQUIRE EROSION CONTROL

PROVIDING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; ; SITE GRADING; INSTALLATION OF STORM WATER, SANITARY SEWER, AND WATER STRUCTURES; CURB, ROADWAYS, AND PARKING FACILITIES.

\*SEE PLANS FOR THE LOCATION OF TEMPORARY SEDIMENT BARRIERS AND OTHER EROSION CONTROL METHODS.

### SOIL PARAMETERS

SOIL TYPES:

| HYDROLOGIC SOIL GROUP SUMMARY |                    |             |
|-------------------------------|--------------------|-------------|
| SOIL TYPE                     | SOIL NAME          | SOIL RATING |
| 26                            | ONA FINE SAND      | B/D         |
| 44                            | SMYRNA-SMYRNA, WET | A/D         |
| 54                            | ZOLFA FINE SAND    | A           |

## SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF CONSTRUCTION IS AS FOLLOWS:

1. PROVIDE STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND OTHER EROSION CONTROL METHODS
3. CONSTRUCT EARTH DIKE AND SEDIMENT BASIN
4. REMOVE AND STORE TOPSOIL
5. PROVIDE INITIAL GRADING AS REQUIRED
6. STABILIZE ALL DISTURBED AREAS AS SOON AS POSSIBLE
7. INSTALL UTILITIES, STORM SEWER, CURB AND GUTTER
8. INSTALL BASE TO ROAD AND PARKING AREAS
9. FINISH GRADING ENTIRE SITE
10. CONSTRUCT FINAL PAVING
11. REMOVE ACCUMULATED SEDIMENT
12. REMOVE ANY ITEMS THAT ARE NOT REQUIRED

### TIMING OF CONTROL MEASURES

THE INSTALLATION OF SILT FENCE (AND OTHER EROSION CONTROL MEASURES), A STABILIZED ENTRANCE AND SEDIMENT BASIN SHALL OCCUR PRIOR TO CLEARING AND GRUBBING ACTIVITY. AFTER CONSTRUCTION IS COMPLETE, THE ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE AREAS SHALL BE REGRADED AND PERMANENTLY STABILIZED AS SHOWN ON THE PLANS.

## EROSION AND SEDIMENT CONTROLS

BEST MANAGEMENT PRACTICES SHALL BE USED FOR THIS PROJECT TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN-OFF. THE LOCATION AND DETAILS OF EROSION CONTROL METHODS ARE SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING THESE CONTROL METHODS AS SHOWN ON THE PLANS OR AS REQUIRED. HE/SHE SHALL ALSO PROVIDE THE REQUIRED EROSION PROTECTION AS REQUIRED BY LOCAL, STATE AND FEDERAL LAW.

### STORM WATER MANAGEMENT

STORM WATER COLLECTION SHALL BE PROVIDED BY CATCH BASINS. THE SITE WILL DISCHARGE TO AN EXISTING STORMWATER MANAGEMENT POND.

### STABILIZATION PRACTICES:

TEMPORARY STABILIZATION - TOPSOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE, SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH WITHIN 7 DAYS OF THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED REQUIRED CAN BE FOUND IN TABLE 1.65 A OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, WHERE SOILS ARE ACIDIC 2 TONS OF PULVERIZED AGRICULTURAL LIMESTONE SHOULD BE ADDED PER ACRE AND 450 POUNDS OF 10-20-20 FERTILIZER SHALL BE APPLIED TO EACH ACRE. AFTER SEEDING, EACH AREA SHALL BE IMMEDIATELY MULCHED WITH STRAW OR EQUIVALENT EQUAL. AREAS OF THE SITE WHICH ARE TO BE PAVED SHALL BE TEMPORARILY STABILIZED BY APPLYING GEOTEXTILE AND STONE SUB-BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED.

PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE APPROPRIATE PERMANENT SEED MIX CAN BE FOUND IN TABLES 1.66A, 1.66B AND 1.66C OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, 2 TONS/ACRE OF FINELY GROUND AGRICULTURAL LIMESTONE AND THE PROPER FERTILIZER BASED ON THE TYPE OF SEEDING SHALL BE APPLIED TO EACH ACRE TO PROVIDE PLANT NUTRIENTS. AFTER SEEDING, EACH AREA SHALL BE MULCHED IMMEDIATELY. ALL RETENTION/DETENTION BASINS SHALL BE SODDED AT LEAST TO THE NORMAL WATER LINE. ALL EXPOSED AREAS WITHIN PUBLIC RIGHTS-OF-WAY SHALL BE SOLID SODDED, OTHER AREAS WITH SLOPES STEEPER THAN 4:1 SHALL BE SODDED.

### STRUCTURAL PRACTICES:

EARTH DIKE - IF REQUIRED, AN EARTH DIKE SHALL BE CONSTRUCTED ALONG THE SITE PERIMETER. A PORTION OF THE DIKE SHALL DIVERT RUN-ON AROUND THE CONSTRUCTION SITE. THE REMAINING PORTION OF THE DIKE SHALL COLLECT RUNOFF FROM THE DISTURBED AREA AND DIRECT THE RUNOFF TO THE SEDIMENT BASIN.

SEDIMENT BASIN - A SEDIMENT BASIN SHALL BE CONSTRUCTED IN THE COMMON DRAINAGE AREA FOR THE SITE. ALL SEDIMENT COLLECTED IN THE BASIN MUST BE REMOVED FROM THE BASIN UPON COMPLETION OF CONSTRUCTION. SEDIMENT FROM THE BASIN MAY BE USED AS FILL ON THE SITE IF IT IS SUITABLE SOIL.

### WASTE DISPOSAL

WASTE MATERIALS - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER WITH A SECURE LID IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITIES TO HAVE THE DUMPSTER EMPTIED AT LEAST TWICE A WEEK AND THE WASTE TAKEN TO AN APPROPRIATE LANDFILL. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE. THE SUPERINTENDENT SHALL ORGANIZE TRAINING FOR THE EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH WASTE MATERIALS. THE SUPERINTENDENT SHALL BE RESPONSIBLE FOR POSTING AND ENFORCING WASTE MATERIAL PROCEDURES.

HAZARDOUS WASTE - HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS OR AS DIRECTED BY THE MANUFACTURER. THE SUPERINTENDENT SHALL ORGANIZE THE PROPER TRAINING FOR EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH HAZARDOUS WASTE MATERIALS. THESE PROCEDURES SHALL BE POSTED ON THE SITE. THE PERSON WHO MANAGES THE SITE SHALL BE RESPONSIBLE FOR ENFORCING THE PROCEDURES.

SANITARY WASTE - SANITARY WASTE SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITY FOR COLLECTION OF THE SANITARY WASTE AT LEAST THREE TIMES A WEEK TO PREVENT SPILLAGE ONTO THE SITE.

### OFF-SITE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO REDUCE SEDIMENT TRACKING OFFSITE. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MUD, DIRT, OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES, DUE TO CONSTRUCTION. ALL TRUCKS HAULING MATERIALS OFFSITE SHALL BE COVERED WITH A TARPULIN.

DUST & DEBRIS CONTROL  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL WITHIN THE CONSTRUCTION LIMITS AS WELL AS ALONG HAUL ROUTES AND ROADWAYS USED BY THE EQUIPMENT AND VEHICLES. THE CONTRACTOR SHALL ENSURE THAT EXCESSIVE DUST IS NOT TRANSPORTED BEYOND THE LIMITS OF CONSTRUCTION IN POPULATED AREAS. THE CONTRACTOR MAY CONTROL DUST FOR EMBANKMENTS OR OTHER CLEARED OR UNSURFACED AREAS BY APPLYING WATER. INSTALL MULCH, SEED, SOD, OR TEMPORARY PAVING AS EARLY AS PRACTICAL. CONTROL DUST DURING STORAGE AND HANDLING OF DUSTY MATERIALS BY WETTING, COVERING, OR OTHER MEANS AS APPROVED BY THE ENGINEER.  
DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE ON THE PROJECT SITE.

## ITEMS REQUIRING POLLUTION PREVENTION

THE FOLLOWING ITEMS ARE EXPECTED TO BE PRESENT ON THE PROJECT SITE:

|                           |                        |
|---------------------------|------------------------|
| -ASPHALT                  | -CLEANING SUPPLIES     |
| -CONCRETE                 | -DETERGENTS            |
| -FERTILIZERS              | -MASONARY BLOCK/BRICKS |
| -METAL PIECES             | -PAINT                 |
| -PETROLEUM BASED PRODUCTS | -WOOD                  |
| -TAR                      |                        |

THE FOLLOWING ARE NON-STORM WATER SOURCES THAT WILL BE ENCOUNTERED AT THE SITE AND SHOULD BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE:

-UNCONTAMINATED GROUNDWATER EXPOSED DURING EXCAVATION  
-WATER FROM WATER LINE FLUSHING  
-PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

### SPILL PREVENTION AND CONTROL

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

### GOOD HOUSEKEEPING

-SUPERINTENDENT SHALL INSPECT PROJECT AREA DAILY FOR PROPER STORAGE, USE, AND DISPOSAL OF CONSTRUCTION MATERIALS.

-STORE ONLY ENOUGH MATERIAL ON SITE FOR PROJECT COMPLETION.

-ALL SUBSTANCES SHOULD BE USED BEFORE DISPOSAL OF CONTAINER.

-ALL CONSTRUCTION MATERIALS STORED SHALL BE ORGANIZED AND IN THE PROPER CONTAINER AND IF POSSIBLE, STORED UNDER A ROOF OR PROTECTIVE COVER.

-PRODUCTS SHALL NOT BE MIXED UNLESS DIRECTED BY THE MANUFACTURER.

-ALL PRODUCTS SHALL BE USED AND DISPOSED OF ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

### HAZARDOUS PRODUCTS

-MATERIALS SHOULD BE KEPT IN ORIGINAL CONTAINER WITH LABELS UNLESS THE ORIGINAL CONTAINERS CANNOT BE RESEALED. IF ORIGINAL CONTAINERS CANNOT BE USED, LABELS AND PRODUCT INFORMATION SHALL BE SAVED.

-PROPER DISPOSAL PRACTICES SHALL ALWAYS BE FOLLOWED IN ACCORDANCE WITH MANUFACTURER AND LOCAL/STATE REGULATIONS.

### PRODUCT SPECIFIC PRACTICES

-PETROLEUM PRODUCTS MUST BE STORED IN PROPER CONTAINERS AND CLEARLY LABELED. VEHICLES CONTAINING PETROLEUM PRODUCTS SHALL BE PERIODICALLY INSPECTED FOR LEAKS. PRECAUTIONS SHALL BE TAKEN TO AVOID LEAKAGE OF PETROLEUM PRODUCTS ON SITE.

-THE MINIMUM AMOUNT OF FERTILIZER SHALL BE USED AND MIXED INTO THE SOIL IN ORDER TO LIMIT EXPOSURE TO STORM WATER. FERTILIZERS SHALL BE STORED IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

-PAINT CONTAINERS SHALL BE SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT MUST BE DISPOSED OF IN AN APPROVED MANNER.

-CONCRETE TRUCKS SHALL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

### SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

-SPILL CLEANUP INFORMATION SHALL BE POSTED ON SITE TO INFORM EMPLOYEES ABOUT CLEANUP PROCEDURES AND RESOURCES.

-THE FOLLOWING CLEAN-UP EQUIPMENT MUST BE KEPT ON-SITE NEAR THE MATERIAL STORAGE AREA: GLOVES, MOPS, RAGS, BROOMS, DUST PANS, SAND, SAWDUST, LIQUID ABSORBER, GOGGLES, AND TRASH CONTAINERS.

-ALL SPILLS SHALL BE CLEANED UP AS SOON AS POSSIBLE.

-WHEN CLEANING A SPILL, THE AREA SHOULD BE WELL VENTILATED AND THE EMPLOYEE SHALL WEAR PROPER PROTECTIVE COVERING TO PREVENT INJURY.

-TOXIC SPILLS MUST BE REPORTED TO THE PROPER AUTHORITY REGARDLESS OF THE SIZE OF THE SPILL.

-AFTER A SPILL, THE PREVENTION PLAN SHALL BE REVIEWED AND CHANGED TO PREVENT FURTHER SIMILAR SPILLS FROM OCCURRING. THE CAUSE OF THE SPILL, MEASURES TO PREVENT IT, AND HOW TO CLEAN THE SPILL UP SHALL BE RECORDED.

-THE SUPERINTENDENT SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR AND IS RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS. THE SUPERINTENDENT ALSO OVERSEES THE SPILL PREVENTION PLAN AND SHALL BE RESPONSIBLE FOR EDUCATING THE EMPLOYEES ABOUT SPILL PREVENTION AND CLEANUP PROCEDURES.

## MAINTENANCE AND INSPECTION PRACTICES

THE FOLLOWING ARE MAINTENANCE AND INSPECTION PRACTICES THAT SHALL BE COMPLETED BY THE CONTRACTOR:

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE CHECKED DAILY AND AFTER EACH 0.5 INCH OR GREATER RAINFALL BY THE SUPERINTENDENT OR SOMEONE UNDER HIS/HER DIRECT SUPERVISION.

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE KEPT IN GOOD CONDITION. REPAIRS MUST BE MADE WITHIN 24 HOURS OF REPORT.

-THE SILT FENCE SHALL BE INSPECTED PERIODICALLY FOR HEIGHT OF SEDIMENT AND CONDITION OF FENCE.

-THE SILT FENCE SHALL BE CLEARED OF SEDIMENT WHEN SEDIMENT MEASURES ONE-THIRD THE HEIGHT OF THE FENCE.

-THE SEDIMENT BASINS/DITCHES SHALL BE CHECKED MONTHLY FOR DEPTH OF SEDIMENT. THEY SHALL BE CLEANED WHEN SEDIMENT REACHES 10% OF TOTAL CAPACITY AND AFTER CONSTRUCTION IS COMPLETE.

-DIVERSION DIKES SHALL BE INSPECTED MONTHLY. ANY BREACHES SHALL BE PROMPTLY REPAIRED.

-ALL SEEDING SHALL BE CHECKED FOR PROPER GROWTH AND UNIFORMITY. UNSTABILIZED AREAS SHALL BE RE-SODDED.

-A MAINTENANCE REPORT SHALL BE COMPLETED DAILY AFTER EACH INSPECTION OF THE SEDIMENT AND EROSION CONTROL METHODS. THE REPORTS SHALL BE FILED IN AN ORGANIZED MANNER AND RETAINED ON-SITE DURING CONSTRUCTION. AFTER CONSTRUCTION IS COMPLETED, THE REPORTS SHALL BE SAVED FOR AT LEAST THREE YEARS. THE REPORTS SHALL BE AVAILABLE FOR ANY AGENCY THAT HAS JURISDICTION OVER EROSION CONTROL.

-THE SUPERINTENDENT SHALL ORGANIZE THE TRAINING FOR INSPECTION PROCEDURES AND PROPER EROSION CONTROL METHODS FOR EMPLOYEES THAT COMPLETE INSPECTIONS AND REPORTS.

## POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

## CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FORM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

| SIGNATURE AND DATE |  |  |
|--------------------|--|--|
|                    |  |  |
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Kimley»Horn

L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER 81928  
3/6/2025

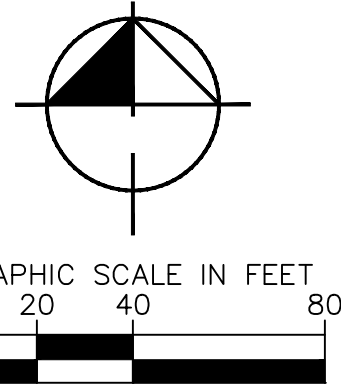
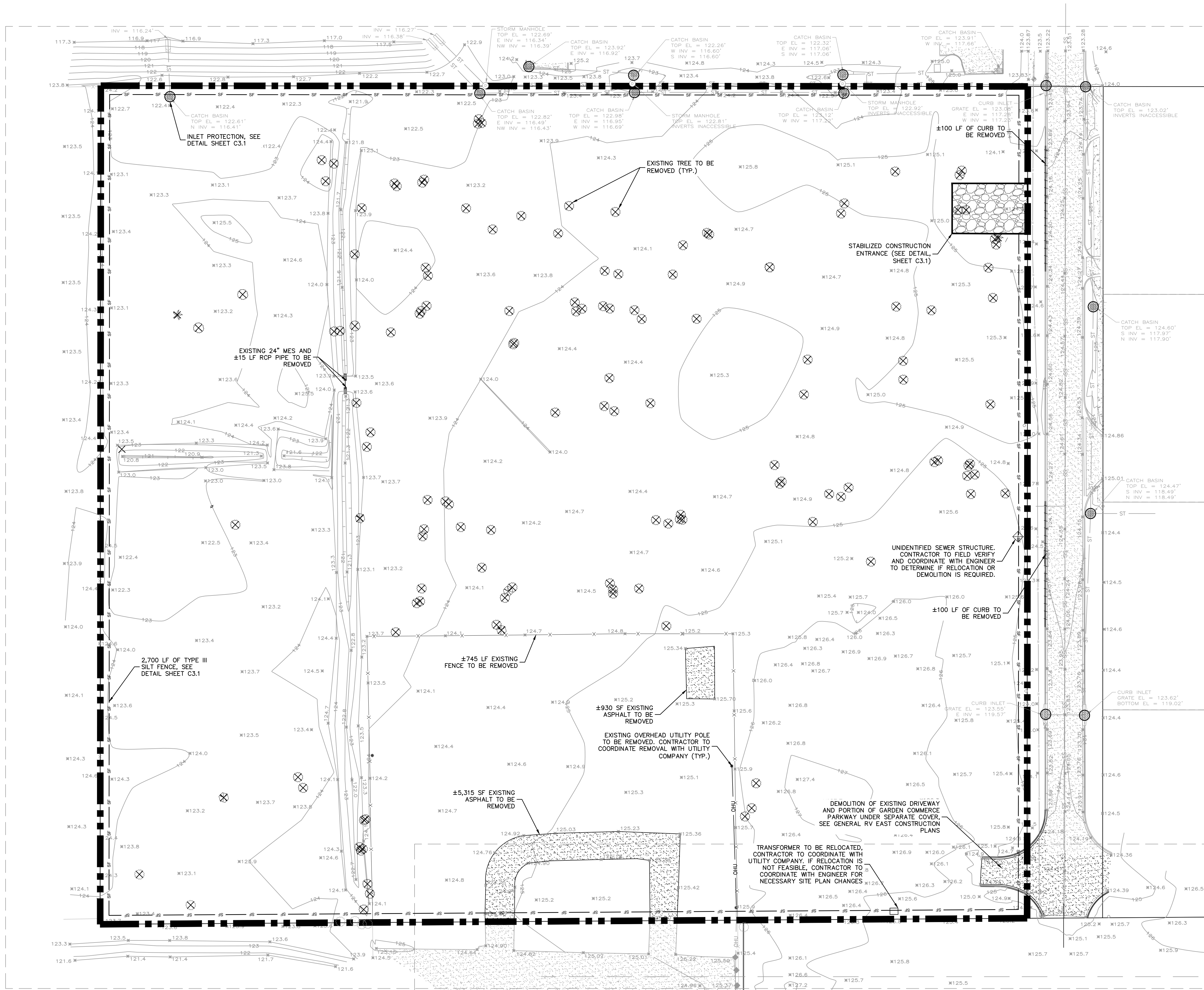
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FLORIDA

CITY OF WINTER GARDEN



Plotted By: Suer, Code Sheet Set: GENERAL RV EXPANSION - NORTH, Layout: C3.0 EXISTING CONDITIONS & DEMOLITION PLAN, March 06, 2023, 03:34:14pm, K:\ord\_civil\249536000-general rv expansion\CADD\CONSET\plansheets\north site\C3.0-ACOND.dwg  
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- PROPERTY BOUNDARY
- CURB TO BE REMOVED
- ASPHALT REMOVAL
- TREE PROTECTION FENCING (SEE DETAIL, SHEET C2.1)
- TYPE III SILT FENCE (SEE DETAIL, SHEET C2.1)
- STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL, SHEET C2.1)
- INLET PROTECTION (SEE DETAIL SHEET C2.1)
- TREE TO BE REMOVED

NOTES:

- CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES REGARDING LIMITS OF REMOVAL AND RELOCATION OF ALL ON-SITE AND OFF-SITE UTILITIES.
- CONTRACTOR SHALL UTILIZE BEST MANAGEMENT PRACTICES AS NEEDED TO PREVENT SYSTEM POLLUTION DURING TIME OF CONSTRUCTION.
- REFER TO SWPPP SHEET C2.0 FOR ADDITIONAL NOTES AND DETAILS.
- INSTALL AND MAINTAIN SILT FENCE AT LIMITS OF CONSTRUCTION. SEE DETAIL, SHEET C3.1.
- PROVIDE SOIL TRACKING PREVENTION DEVICE AT ALL CONSTRUCTION ACCESS POINTS. SEE DETAIL, SHEET C3.1.
- UTILIZE PERFORATED SOCK DRAIN (OR EQUIVALENT) IN FRONT OF EXISTING/PROPOSED CURB INLETS ADJACENT TO CONSTRUCTION ACTIVITIES. SEE DETAIL, SHEET C3.1.
- INSTALL AND MAINTAIN FILTER FABRIC UNDER GRATES OF EXISTING/PROPOSED INLETS, SEE DETAIL, SHEET C3.1.
- CONTRACTOR TO ENSURE ADEQUATE COVER REMAINS OVER ALL EXISTING UTILITIES.
- CONTRACTOR TO VERIFY EXISTING COVER OVER ALL UTILITIES BEFORE START OF CONSTRUCTION AND TO COORDINATE WITH THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION IF DESIGN DOES NOT PROVIDE 36" COVER.
- CONTRACTOR TO VERIFY ALL EXISTING SANITARY SEWER INVERTS PRIOR TO CONSTRUCTION ACTIVITIES.
- ANY UTILITIES OR IMPROVEMENTS NOT CALLED OUT TO BE REMOVED WILL BE RESTORED TO PRIOR CONDITIONS AT CONTRACTOR'S EXPENSE.
- ANY SIDEWALKS OR CURBING DISTURBED BY THE WORK SHALL BE RESTORED TO THE CONDITION OF THE ORIGINAL STRUCTURE. SIDEWALK PANELS SHALL BE RESTORED TO FULL PANEL WIDTHS AND LENGTHS (DEFINED BY EDGES OF THE SIDEWALK AND THE NEAREST CONTROL JOINTS OR EXPANSION JOINTS.) PARTIAL PATCHING OF SIDEWALKS SHALL NOT BE ACCEPTABLE. PAVEMENT FINISHES, THICKNESS, AND GRADES SHALL MATCH EXISTING SIDEWALKS.
- EXCESS FILL TO BE HAULED OFFSITE.
- EXCAVATING MATERIAL SHALL NOT BE STOCKPILED IN A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
- CONTRACTOR INSPECTION TO DETERMINE EFFECTIVENESS OF EROSION/SEDIMENT CONTROL EFFORTS TO BE CONDUCTED DAILY AND WITHIN 24 HOURS AFTER EACH 0.50 INCH OF GREATER RAINFALL EVENT; NECESSARY REMEDIES TO BE PERFORMED IMMEDIATELY.
- ALL TEMPORARY EROSION CONTROL MEASURES ARE TO REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION.
- NO PERSON SHALL CAUSE, LET, SUFFER, ALLOW, OR PERMIT THE EMISSIONS OF UNCONFINED PARTICULATE MATTER FROM ANY ACTIVITY, INCLUDING VEHICULAR MOVEMENT, TRANSPORTATION OF MATERIALS, CONSTRUCTION, ALTERATION, DEMOLITION OR RECKING; OR INDUSTRIALLY RELATED ACTIVITIES, SUCH AS LOADING, UNLOADING, STORING, OR HANDLING; WITHOUT TAKING REASONABLE PRECAUTIONS TO PREVENT SUCH EMISSIONS INCLUDING BUT NOT LIMITED TO APPLICATION OF WATER, DUST SUPPRESSANTS, PLANTING OF VEGETATION, POINT OF ACTIVITY CONTROLS (HOODS, FILTERS, ETC.) AND OTHER MEASURES.

VERTICAL DATUM:

ELEVATIONS SHOWN HEREON ARE BASED ON NAVD88

Always call 811 two full business days before you dig to have underground utilities located and marked.



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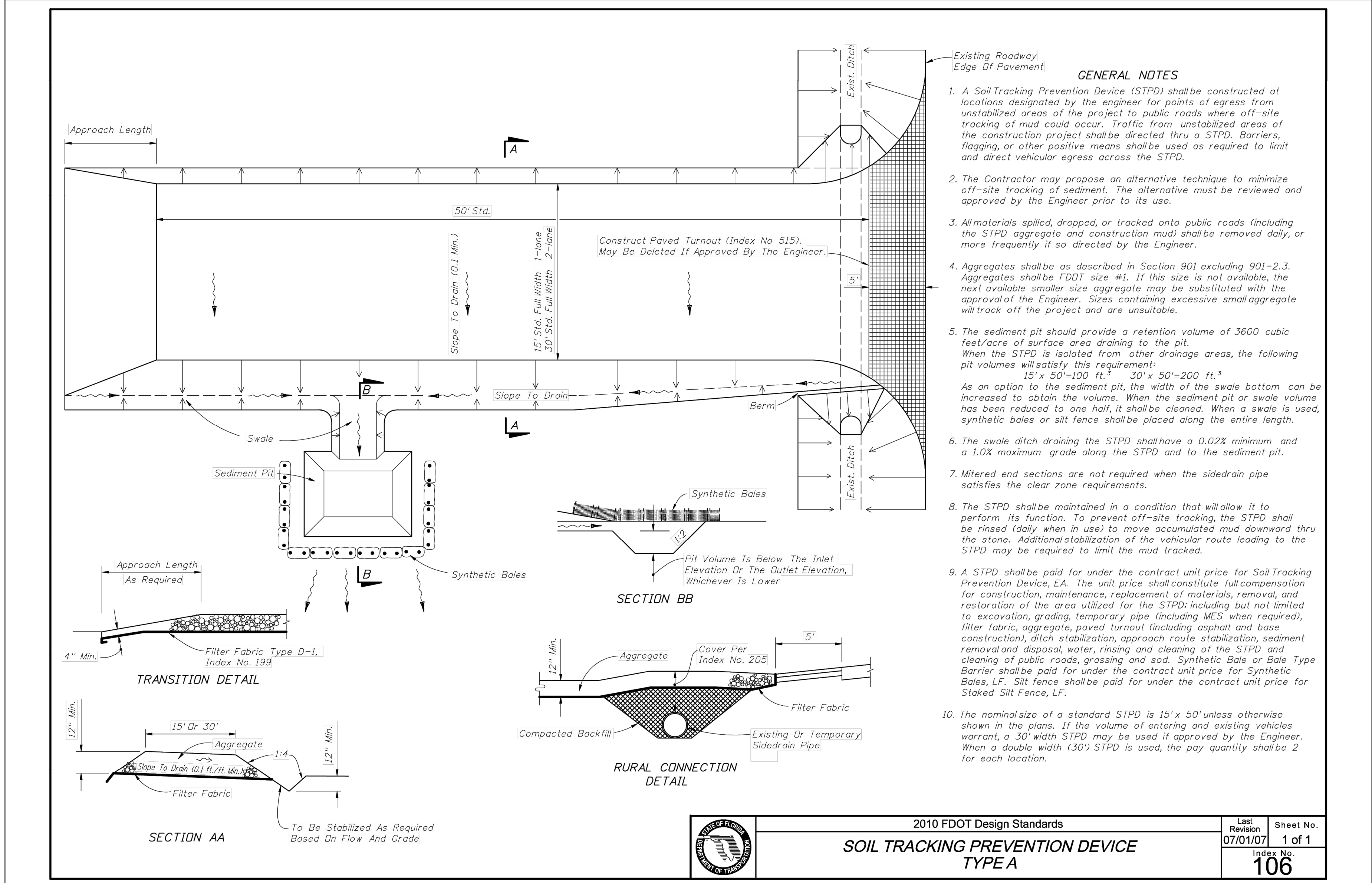
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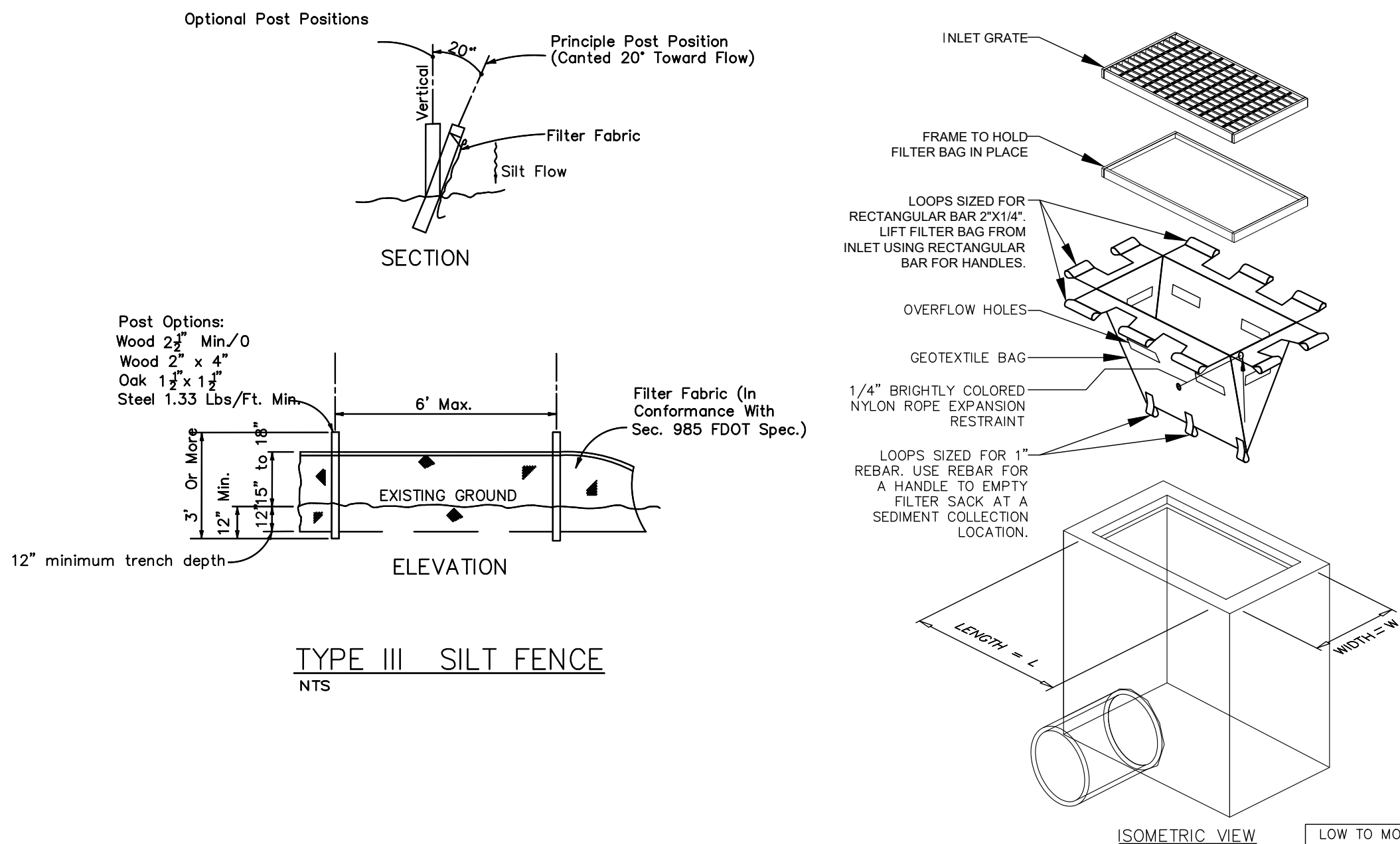
CITY OF WINTER GARDEN





2010 FDOT Design Standards  
**SOIL TRACKING PREVENTION DEVICE  
TYPE A**

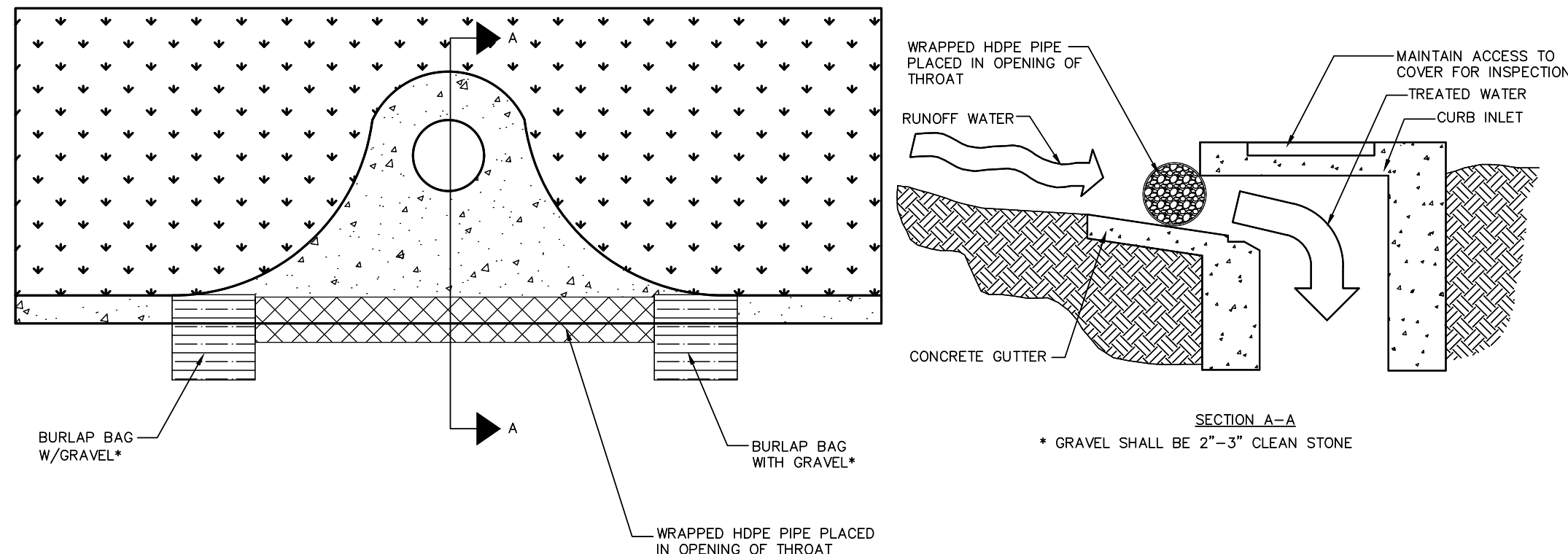
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07/01/07  
Sheet No.  
1 of 1  
Index No.  
**106**



| LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE |             |       |                  |
|------------------------------------------------------------|-------------|-------|------------------|
| PROPERTIES                                                 | TEST METHOD | UNITS |                  |
| GRAB TENSILE STRENGTH                                      | ASTM D-4632 | 300   | LBS              |
| GRAB TENSILE ELONGATION                                    | ASTM D-4632 | 20    | %                |
| PUNCTURE                                                   | ASTM D-4633 | 120   | LBS              |
| MULLEN BURST                                               | ASTM D-3786 | 800   | PSI              |
| TRAPEZOID TEAR                                             | ASTM D-4533 | 120   | LBS              |
| UV RESISTANCE                                              | ASTM D-4355 | 80    | %                |
| APPARENT OPENING SIZE                                      | ASTM D-4751 | 40    | US SIEVE         |
| FLOW RATE                                                  | ASTM D-4491 | 40    | GAL/MIN/50 SQ FT |
| PERMITTIVITY                                               | ASTM D-4491 | 0.55  | SEC -1           |

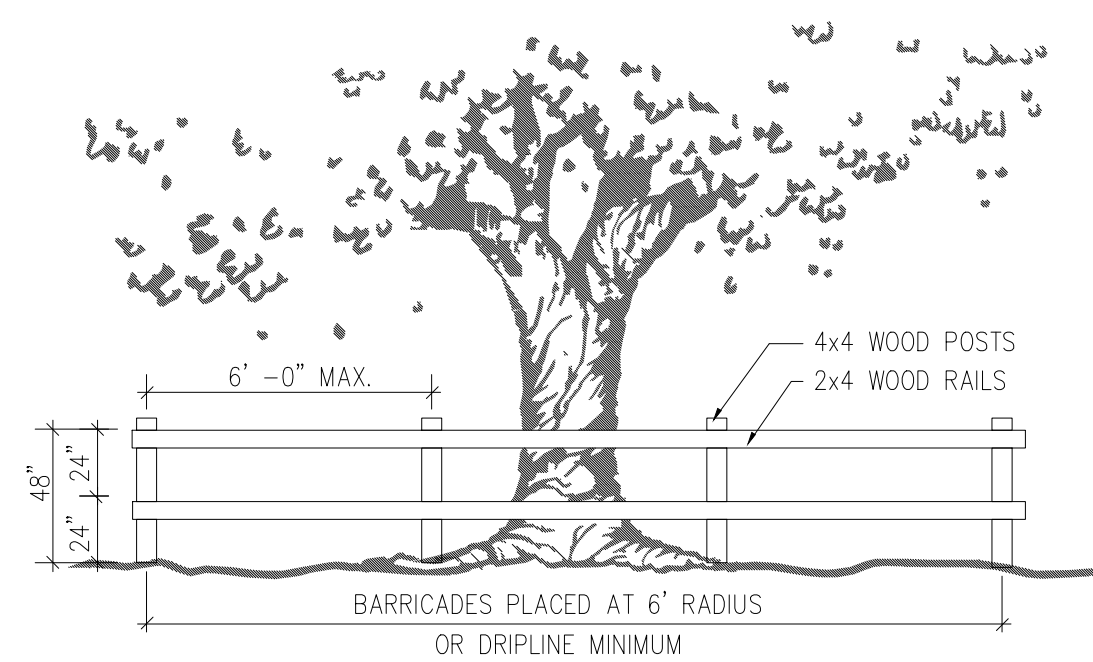
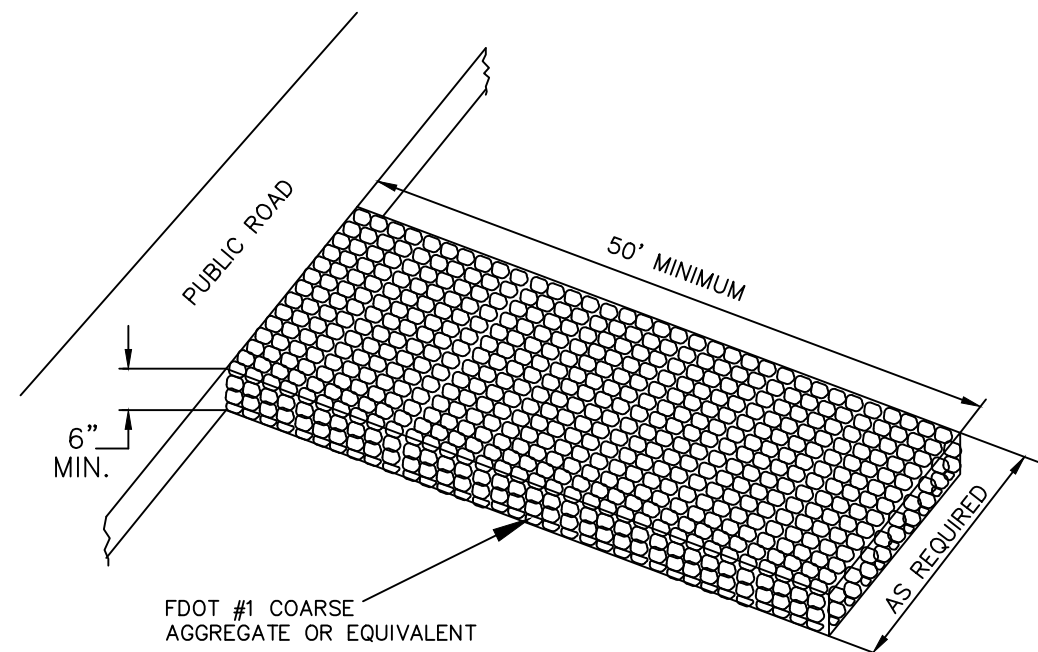
| MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE |             |       |                  |
|-------------------------------------------------------------|-------------|-------|------------------|
| PROPERTIES                                                  | TEST METHOD | UNITS |                  |
| GRAB TENSILE STRENGTH                                       | ASTM D-4632 | 265   | LBS              |
| GRAB TENSILE ELONGATION                                     | ASTM D-4632 | 20    | %                |
| PUNCTURE                                                    | ASTM D-4633 | 135   | LBS              |
| MULLEN BURST                                                | ASTM D-3786 | 420   | PSI              |
| TRAPEZOID TEAR                                              | ASTM D-4533 | 45    | LBS              |
| UV RESISTANCE                                               | ASTM D-4355 | 90    | %                |
| APPARENT OPENING SIZE                                       | ASTM D-4751 | 20    | US SIEVE         |
| FLOW RATE                                                   | ASTM D-4491 | 200   | GAL/MIN/50 SQ FT |
| PERMITTIVITY                                                | ASTM D-4491 | 1.5   | SEC -1           |

**INLET PROTECTION FILTER SACK**  
N.T.S.  
FOR USE ONLY IN PAVED AREAS WHERE SEDIMENT LOADS ARE EXPECTED TO BE VERY LOW. FILTER SACK MUST HAVE OVERFLOW HOLES TO PREVENT PONDING.



**SOCK DRAIN INLET SEDIMENT FILTER**  
NTS

NOTE: THE PERFORATED PIPE MUST EXTEND AT LEAST 1' BEYOND THE CURB OPENING ON EACH SIDE AND BE ANCHORED WITH GRAVEL BAGS, OR SIMILAR, ON EACH END. A SPACER MUST BE PROVIDED FOR BETWEEN THE INLET OPENING AND THE PIPE TO ALLOW FOR OVERFLOW, PREVENT FLOODING AND TO PREVENT THE PIPE FROM FALLING INTO THE INLET.



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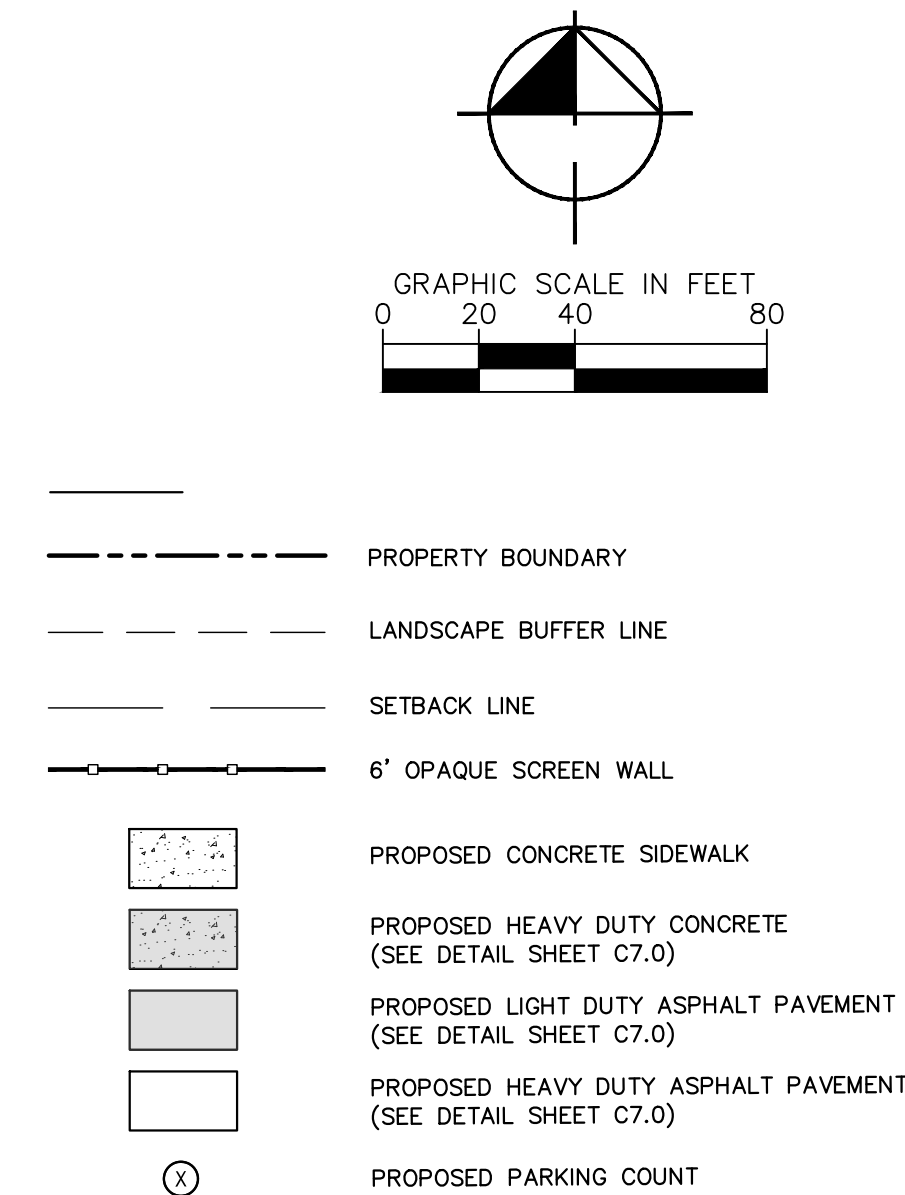
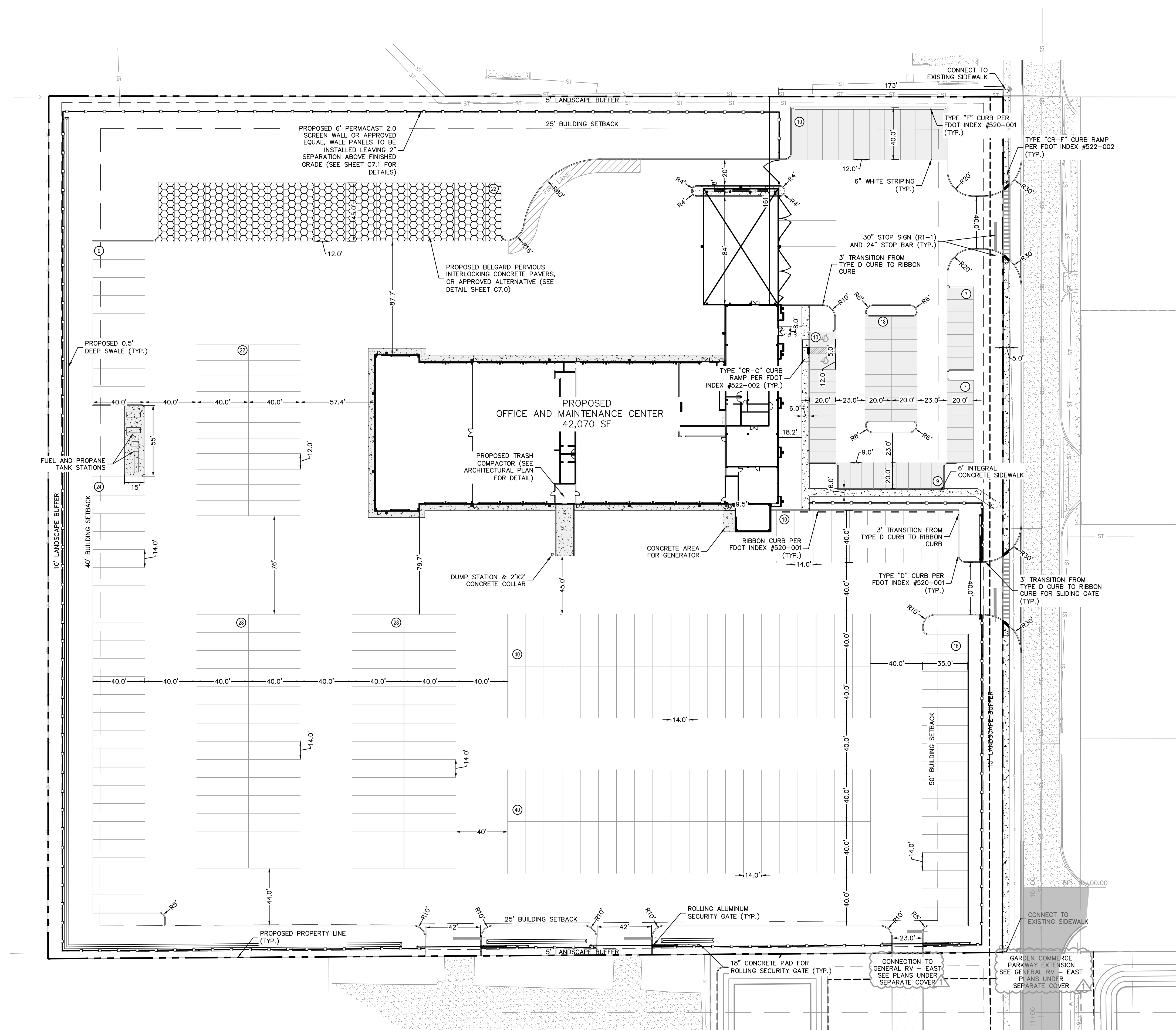
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3/6/2025

FLORIDA

CITY OF WINTER GARDEN





|                                                    |                    |                               |
|----------------------------------------------------|--------------------|-------------------------------|
| <u>SITE SUMMARY:</u>                               |                    |                               |
| TOTAL SITE AREA:                                   |                    | 11.21 ACRES                   |
| PARCEL ID:                                         |                    | 24-22-27-9387-25-000          |
| CURRENT ZONING:                                    | PID                | F01 (MULTI OFFICE INDUSTRIAL) |
| FUTURE LAND USE:                                   |                    |                               |
| MAX SITE IMPERVIOUS AREA (PER SJRWMD               |                    |                               |
| PERMIT #43034189-002):                             | 8.97 ACRES (80.0%) |                               |
| PROPOSED SITE IMPERVIOUS AREA:                     | 8.92 ACRES (79.5%) |                               |
| MAXIMUM ALLOWABLE FAR:                             | 0.70               |                               |
| PROPOSED FAR:                                      | 0.07               |                               |
| <u>BUILDING SETBACKS:</u>                          |                    |                               |
| FRONT (EAST):                                      | <u>REQUIRED</u>    | <u>PROVIDED</u>               |
| SIDE (WEST):                                       | 50 FT              | 173 FT                        |
| SIDE (SOUTH):                                      | 25 FT              | 200 FT                        |
| REAR (NORTH):                                      | 25 FT              | 344 FT                        |
|                                                    | 40 FT              | 261 FT                        |
| <u>LANDSCAPE BUFFER</u>                            |                    |                               |
| FRONT (EAST):                                      | <u>REQUIRED</u>    | <u>PROVIDED</u>               |
| SIDE (NORTH):                                      | 15 FT              | 22 FT                         |
| SIDE (SOUTH):                                      | 5 FT               | 7 FT                          |
| REAR (WEST):                                       | 5 FT               | 16 FT                         |
|                                                    | 10 FT              | 33 FT                         |
| <u>REQUIRED CUSTOMER PARKING:</u>                  |                    | <u>REQUIRED</u>               |
| OFFICE / MAINTENANCE CENTER:                       |                    |                               |
| OFFICE: 3 PER 1,000 SF GFA @ 6,200 SF              |                    | 19 SPACES                     |
| MAINTENANCE CENTER: 1 PER 1,000 SF GFA @ 30,397 SF |                    | 31 SPACES                     |
| INDUSTRIAL STORAGE: 1 PER 1,000 SF @ 5,473 SF      |                    | 6 SPACES                      |
| <u>TOTAL</u>                                       |                    | <u>56 SPACES</u>              |

**UTILITY SERVICE:**  
POTABLE WATER AND SANITARY SEWER SERVICES ARE PROVIDED BY CITY OF WINTER GARDEN UTILITIES.

**STORMWATER MANAGEMENT:**  
STORMWATER MANAGEMENT SYSTEM WILL BE DESIGNED TO MEET THE CITY OF WINTER GARDEN AND ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT STANDARDS.

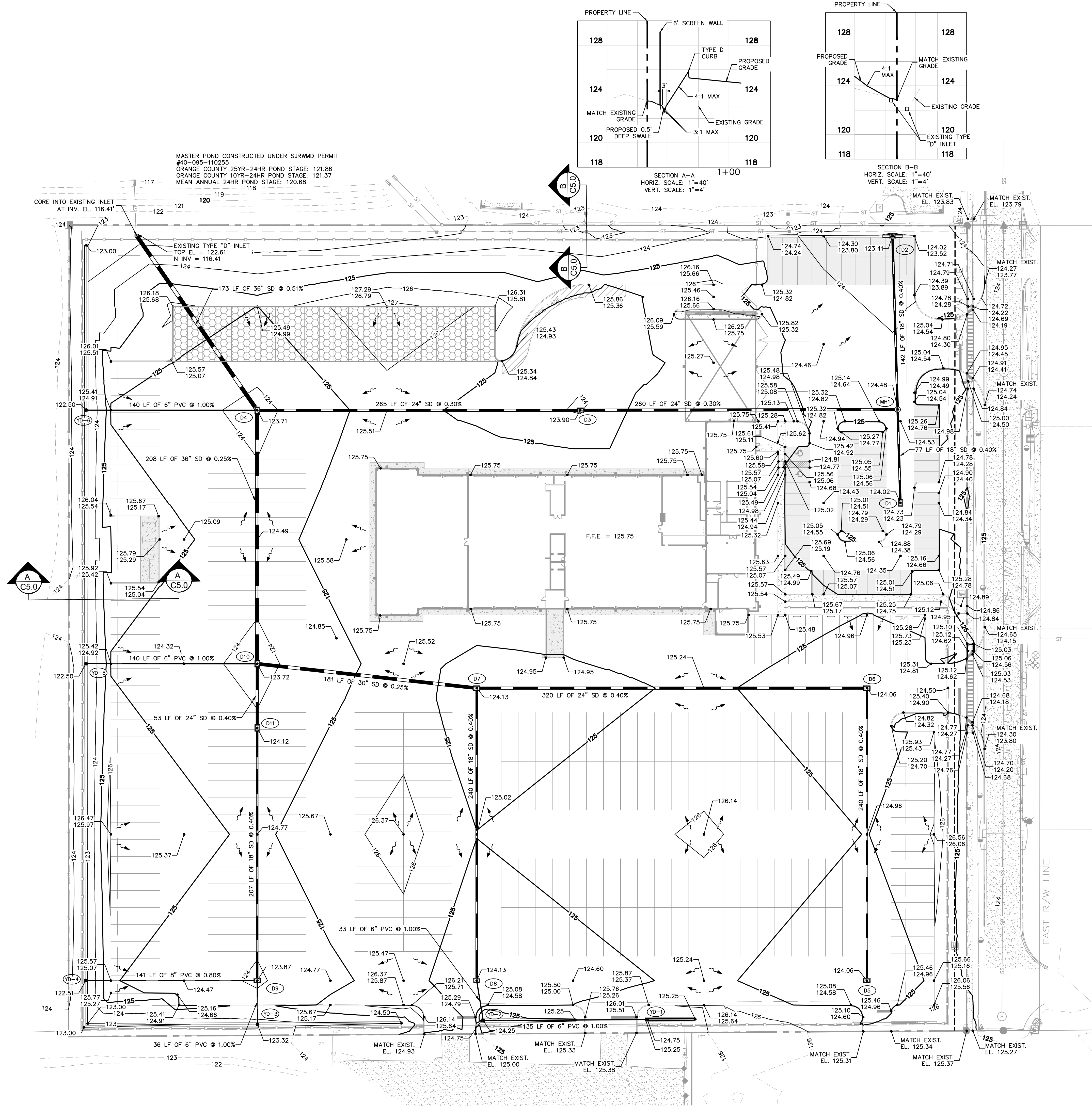
**LANDSCAPING:**  
ALL LANDSCAPING SHALL MEET OR EXCEED THE REQUIREMENTS OF CHAPTER 114, ARTICLE II OF THE CITY OF WINTER GARDEN LAND DEVELOPMENT CODE. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.

**GENERAL NOTES:**

1. ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
2. DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. GREEN WALL REQUIRES SEPARATE BUILDING PERMIT. CONTRACTOR SHALL OBTAIN PERMIT.



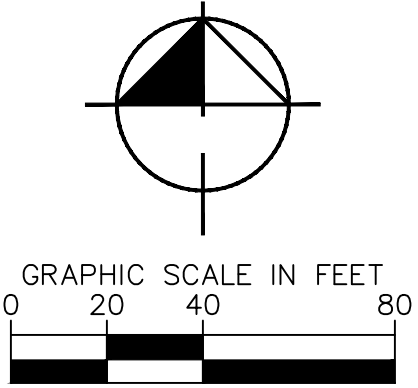
Plotted By: Sauer, Code Sheet: General RV Expansion - North, Layout: C5.0, March 08, 2025, 03:34:58pm, K:\proj\civil\249536000\general rv expansion\CADD\CONST\plansheets\short site\C5.0-PAVING GRADING & DRAINAGE.dwg  
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- NOTES:**
1. STORM PIPE MATERIALS SHALL BE A-2000 PVC, HP, OR RCP, AND CONFORM WITH THE LATEST EDITION OF THE FDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION AS WELL AS CITY OF WINTER GARDEN REQUIREMENTS.
  2. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS AND SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
  3. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
  4. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHIA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
  5. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.
  6. ALL PEDESTRIAN SIDEWALKS, PATHWAYS, AND CROSSWALKS SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE, MAX. 5.0% RUNNING SLOPE.
  7. ALL HANDICAP ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE IN ALL DIRECTIONS.
  8. PROPOSED GRADES TO MATCH EXISTING ELEVATIONS AT PROPERTY LINE.
  9. CONTRACTOR TO FIELD VERIFY ELEVATIONS AT ALL EXISTING SIDEWALK AND ROAD CONNECTION POINTS WITH ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY IMPROVEMENTS.
  10. FOR EROSION CONTROL NOTES REFER TO SHEET C2.0.
  11. ALL DRAINAGE PIPES SHALL BE FILTER FABRIC WRAPPED PER FDOT STANDARD PLAN #430-001.
  12. ALL FINAL STORM DRAIN MATERIALS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND NOTED ON THE RECORD DRAWINGS.
  13. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING ON ALL SIDES.
  14. ALL DENSITIES IN UTILITY AND STORM TRENCHES SHALL BE 98% MINIMUM.
  15. ALL SANITARY SEWER AND STORM SEWER SHALL BE VIDEO INSPECTED BEFORE PAVING AND AGAIN PRIOR TO THE END OF THE ONE YEAR WARRANTY PERIOD.
  16. ALL SANITARY AND STORM SEWERS WITH LESS THAN 5' OF COVER SHALL BE VIDEO INSPECTED AFTER BASE INSTALLATION.

| STORM STRUCTURE TABLE |                                                                                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                                                                               |
| D1                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.02<br>N. INV. OUT: 120.50 (18" SD)                                                                                               |
| D2                    | TYPE "E" INLET<br>PER FDOT INDEX #425-021<br>TOP: 123.41<br>S. INV. OUT: 119.85 (18" SD)                                                                                               |
| D3                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 123.90<br>E. INV. IN: 118.50 (24" SD)<br>W. INV. OUT: 118.50 (24" SD)                                                                |
| D4                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 123.71<br>S. INV. IN: 117.30 (36" SD)<br>E. INV. IN: 117.70 (24" SD)<br>W. INV. IN: 119.60 (6" PVC)<br>NW. INV. OUT: 117.30 (36" SD) |
| D5                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.06<br>N. INV. OUT: 120.50 (18" SD)                                                                                               |
| D6                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.12<br>S. INV. IN: 119.55 (18" SD)<br>W. INV. OUT: 119.55 (24" SD)                                                                |
| D7                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.12<br>E. INV. IN: 118.27 (24" SD)<br>S. INV. IN: 119.68 (18" SD)<br>W. INV. OUT: 118.27 (30" SD)                                 |
| D8                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.12<br>S. INV. IN: 121.57 (6" PVC)<br>N. INV. OUT: 120.62 (18" SD)                                                                |
| D9                    | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 123.87<br>S. INV. IN: 121.39 (6" PVC)<br>W. INV. IN: 120.25 (8" PVC)<br>N. INV. OUT: 120.25 (18" SD)                                 |

| STORM STRUCTURE TABLE |                                                                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                                                                              |
| D10                   | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 123.72<br>E. INV. IN: 117.82 (30" SD)<br>S. INV. IN: 119.20 (24" SD)<br>W. INV. IN: 119.60 (6" PVC)<br>N. INV. OUT: 117.82 (36" SD) |
| D11                   | TYPE "E" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.12<br>S. INV. IN: 119.41 (18" SD)<br>N. INV. OUT: 119.41 (24" SD)                                                               |
| MH1                   | MH<br>TOP: 124.48<br>N. INV. IN: 119.28 (18" SD)<br>S. INV. IN: 120.19 (18" SD)<br>W. INV. OUT: 119.28 (24" SD)                                                                       |
| YD-1                  | YARD DRAIN<br>TOP: 124.25<br>W. INV. OUT: 123.25 (6" PVC)                                                                                                                             |
| YD-2                  | YARD DRAIN<br>TOP: 124.25<br>E. INV. IN: 121.90 (6" PVC)<br>N. INV. OUT: 121.90 (6" PVC)                                                                                              |
| YD-3                  | YARD DRAIN<br>TOP: 123.32<br>N. INV. OUT: 121.75 (6" PVC)                                                                                                                             |
| YD-4                  | YARD DRAIN<br>TOP: 122.50<br>E. INV. OUT: 121.37 (8" PVC)                                                                                                                             |
| YD-5                  | YARD DRAIN<br>TOP: 122.50<br>E. INV. OUT: 121.00 (6" PVC)                                                                                                                             |
| YD-6                  | YARD DRAIN<br>TOP: 122.50<br>E. INV. OUT: 121.00 (6" PVC)                                                                                                                             |



- PROPERTY BOUNDARY  
EXISTING CONTOUR  
PROPOSED CONTOUR  
PROPOSED SPOT ELEVATION  
PROPOSED STORM PIPE  
PROPOSED STORM INLET  
PROPOSED STORM MANHOLE  
EXISTING STORM PIPE  
EXISTING STORM INLET

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L. JORDAN DRAPER, P.E.

FLORIDA LICENSE NUMBER  
81928

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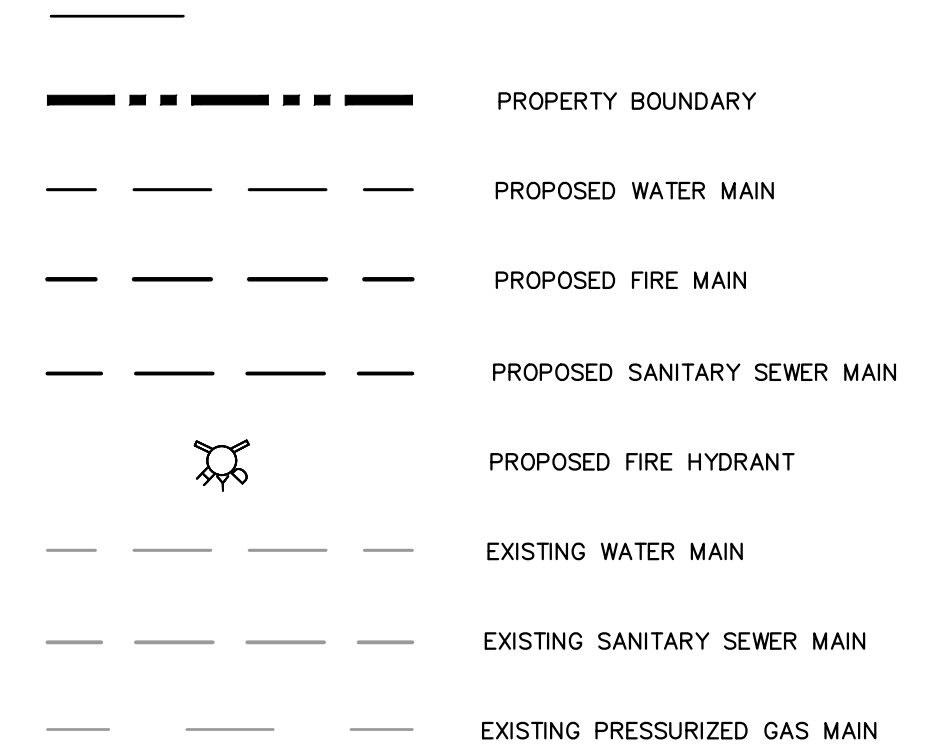
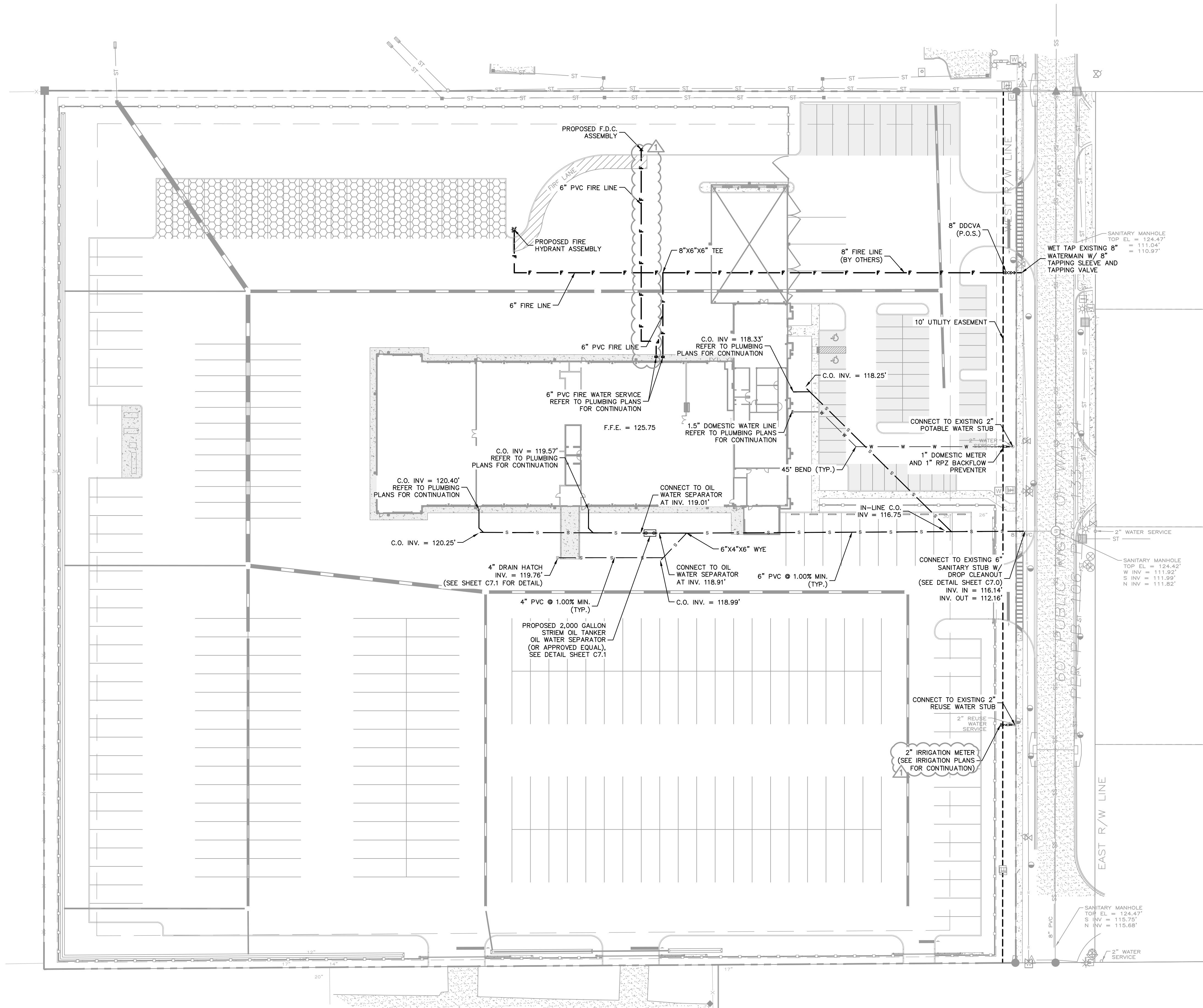
3/6/2025

FLORIDA

CITY OF WINTER GARDEN



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- NOTES:**
- ALL ONSITE UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED.
  - MAINTAIN A MINIMUM OF 3'-FT OF COVER OVER ALL PROPOSED UTILITIES.
  - ALL WATER MAINS, AND DOMESTIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HAINES CITY STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL.
  - CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
  - ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
  - CONTRACTOR TO CALL "SUNSHINE STATE ONE CALL OF FLORIDA" (1-800-432-4770) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
  - PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/ DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION. THE CITY OF WINTER GARDEN SHALL BE NOTIFIED OF ANY AND ALL CHANGES TO THE DESIGN PLANS.
  - CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
  - CONTRACTOR TO AVOID DISRUPTION OF ANY ADJACENT TENANT'S TRAFFIC OPERATIONS, TO THE MAXIMUM EXTENT, DURING INSTALLATION OF UTILITIES. IF TRAFFIC IS TO BE OBSTRUCTED CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL PLAN WITH THE LOCAL MUNICIPALITY.
  - ALL DIMENSIONS ARE TO CENTERLINE OF PIPE OR CENTER OF MANHOLE UNLESS NOTED OTHERWISE.
  - SEE PLUMBING PLANS FOR EXACT UTILITY CONNECTION LOCATIONS AT BUILDING.
  - ELECTRIC, TELEPHONE, AND OTHER DRY UTILITIES SHALL BE PLACED WITHIN CONDUIT, MEETING PRIVATE UTILITY STANDARDS, WHEN ROUTE CROSSES PAVED DRIVES AND PARKING AREAS.
  - ALL UNDERGROUND WATER MAINS AND HYDRANTS SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ONSITE.
  - CONTRACTOR TO ENSURE ADEQUATE COVER REMAINS OVER ALL EXISTING UTILITIES.
  - CONTRACTOR TO VERIFY EXISTING COVER OVER ALL UTILITIES BEFORE START OF CONSTRUCTION AND TO COORDINATE WITH THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION IF DESIGN DOES NOT PROVIDE 36" COVER.
  - PROJECT SHALL CONFORM TO FFPC 6TH EDITION (NFPA 1 AND 101 2015 EDITION)
  - PRIOR TO FIRE LINE INSTALLATION, THE FLORIDA LICENSED CONTRACTOR SHALL SUBMIT LAYOUT DESIGN DRAWINGS TO THE OFFICE OF THE FIRE MARSHAL. IF REQUIRED BY FLORIDA STATUTE 553.79, DRAWINGS MUST BE SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER. THE DRAWINGS MUST SHOW ALL UNDERGROUND FIRE LINES AND COMPONENTS STARTING FROM THE POINT OF SERVICE AS DEFINED UNDER FLORIDA STATUTE 633.102. THE DESIGN SHALL BE IN ACCORDANCE TO THE CURRENT FLORIDA FIRE PREVENTION CODE AND ALL ADOPTED NFPA CODES AND STANDARDS.
  - ALL DENSITIES IN UTILITY AND STORM TRENCHES SHALL BE 98% MINIMUM.
  - ALL SANITARY SEWER AND STORM SEWER SHALL BE VIDEO INSPECTED BEFORE PAVING AND AGAIN PRIOR TO THE END OF THE ONE YEAR WARRANTY PERIOD.
  - ALL SANITARY AND STORM SEWERS WITH LESS THAN 5' OF COVER SHALL BE VIDEO INSPECTED AFTER BASE INSTALLATION.
  - ALL UTILITIES SHALL BE UNDERGROUND PURSUANT TO CODE (SEC. 18-33) INCLUDING ELECTRICAL POWER, CABLE, TELEPHONE, ETC.

| General RV North                                                             |           |
|------------------------------------------------------------------------------|-----------|
| per FFPC 8th Edition (NFPA 1 & 101 Uniform Fire Code Handbook, 2023 Edition) |           |
|                                                                              | Service   |
| Building Fire Area (SF) =                                                    | 35,450    |
| Building Type (per NFPA 220) =                                               | II(000)   |
| Associated Min. Required Fire Flow=                                          | 2,250     |
| (per Table H.5.1 of the NFPA Uniform Fire Code Handbook)                     |           |
| Fire Sprinkler - Yes or No=                                                  | YES       |
| (75% fire sprinkler credit, if applicable)                                   |           |
| Minimum Fire Flow per NFPA=                                                  | 563 GPM   |
| Fire Flow Provided=                                                          | 1,000 GPM |

| OIL SEPARATOR CALCULATIONS                                                      |               |
|---------------------------------------------------------------------------------|---------------|
| SERVICE AREA                                                                    | 25500 SQ. FT. |
| OIL SEPARATOR SIZING                                                            |               |
| 6.0 CU. FT. FOR FIRST 100 SQ. FT. OF DRAINAGE AREA                              | 6 CU. FT.     |
| 1.0 CU. FT. FOR EACH ADDITIONAL 100 SQ. FT. OF DRAINAGE AREA                    | 254 CU. FT.   |
| CU. FT. REQUIREMENT                                                             | 260 CU. FT.   |
| GAL. REQUIREMENT                                                                | 1945 GAL      |
| Sizing methodology complies with UPC section 1017.2 and IPC section 1003.4.2.2. |               |

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|           |          |                        |                        |       |          |
|-----------|----------|------------------------|------------------------|-------|----------|
| 249536000 | 3/6/2025 | L. JORDAN DRAPER, P.E. | FLORIDA LICENSE NUMBER | 81928 | 3/6/2025 |
|-----------|----------|------------------------|------------------------|-------|----------|

FLORIDA

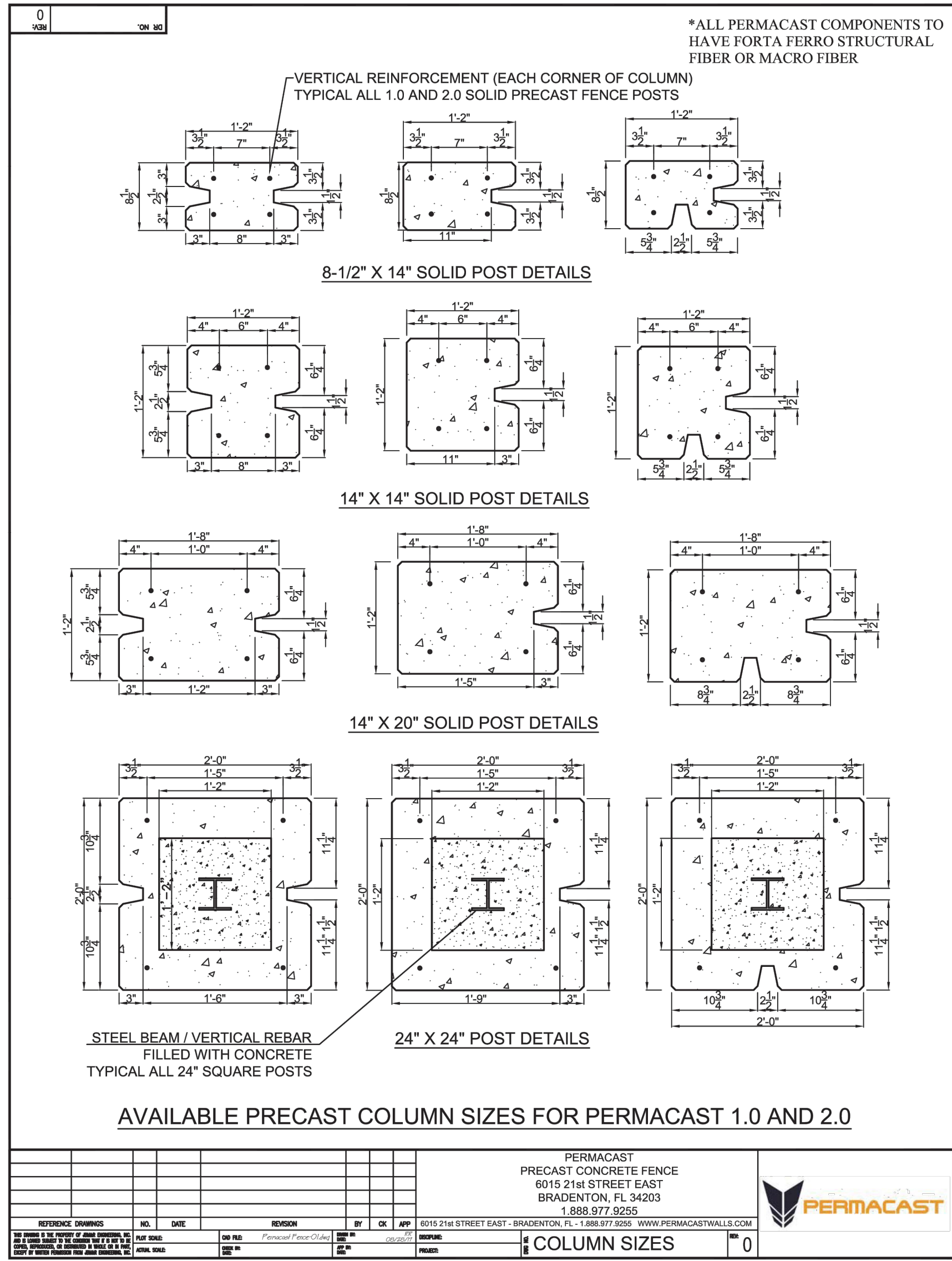
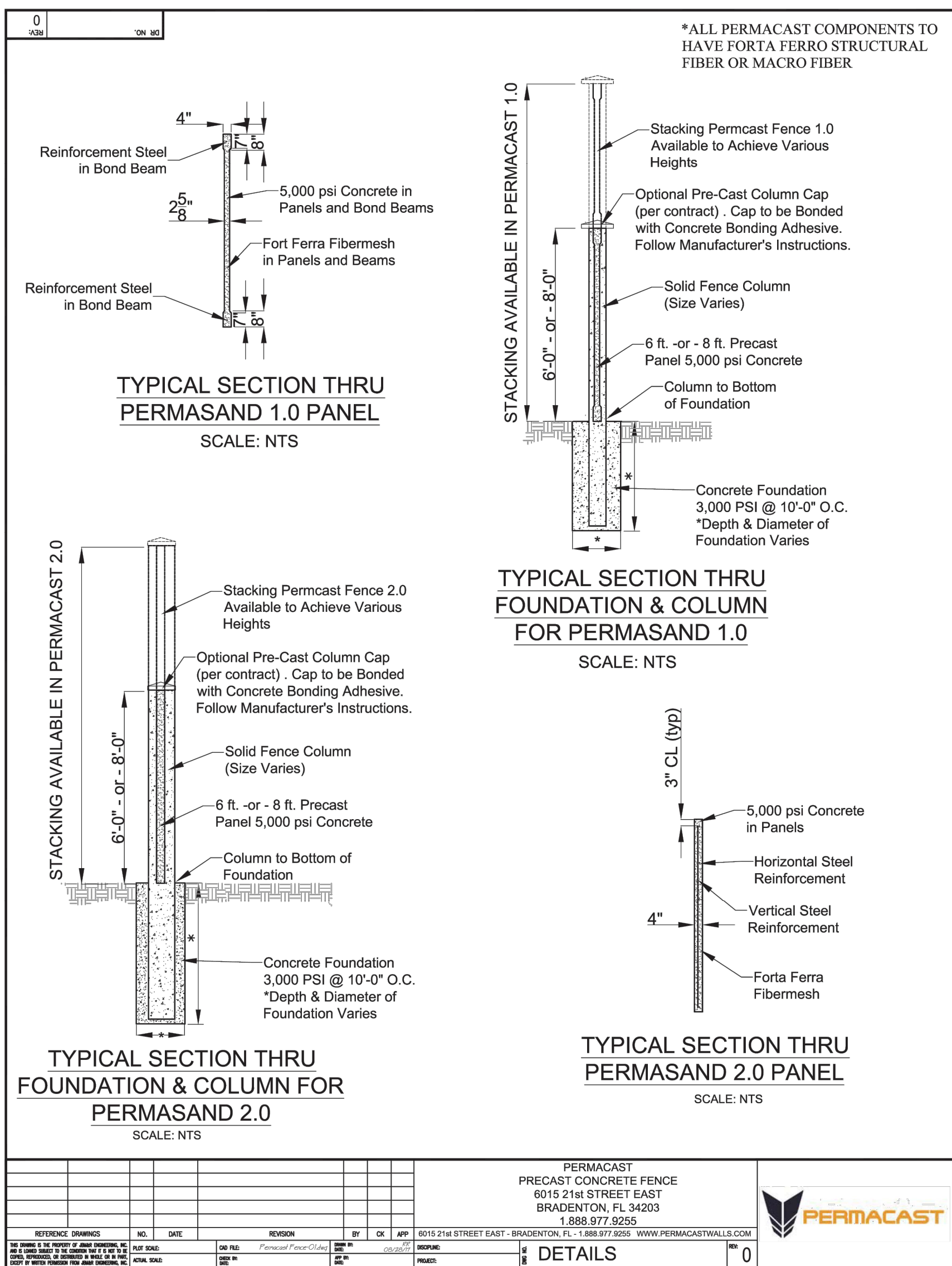
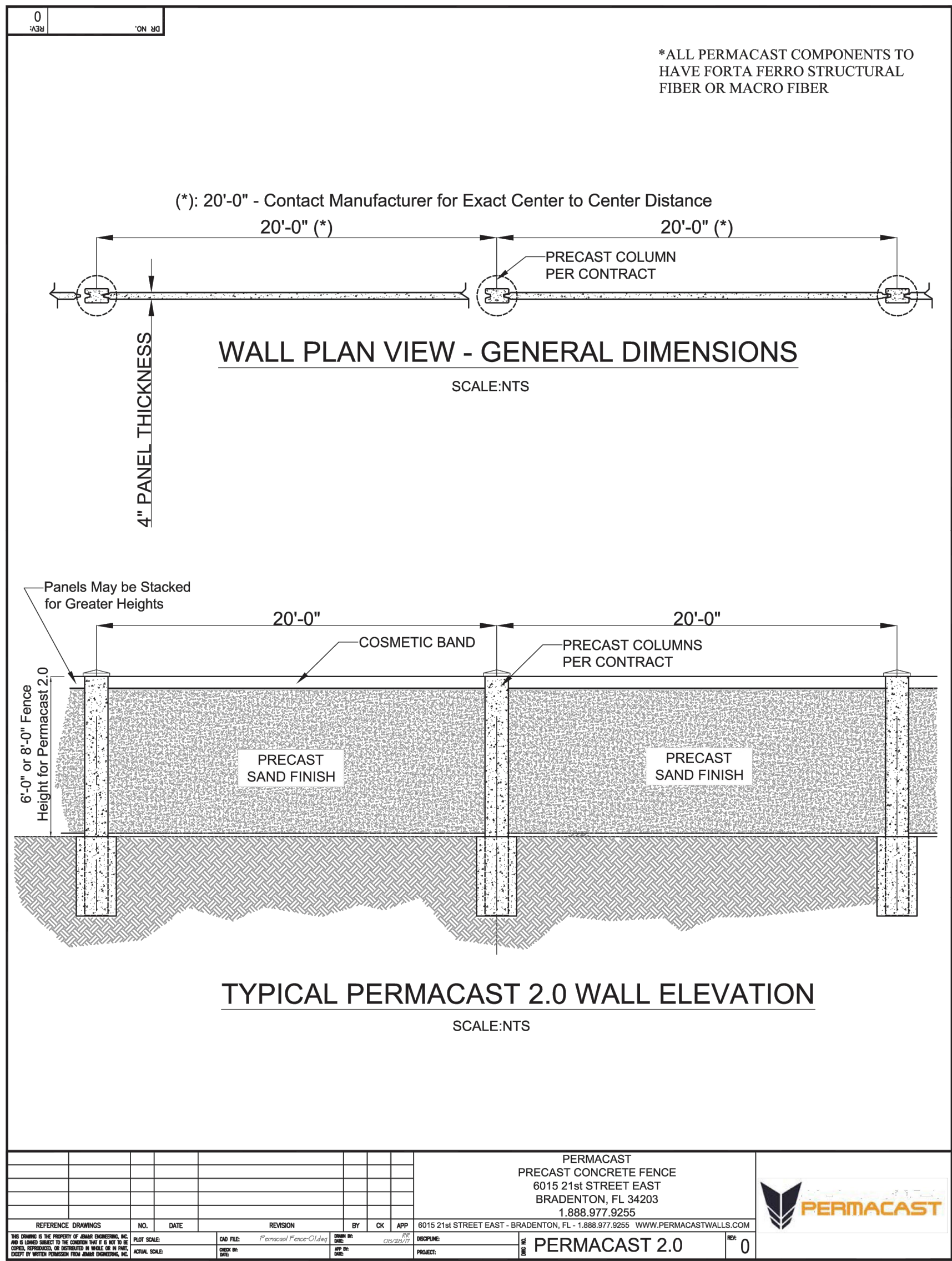
CITY OF WINTER GARDEN







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## Specification Sheet

Product: OPW 269 Sanitary Tank Hatch

### OPW 269 Sanitary Tank Hatch

The OPW 269 Sanitary Tank Hatch threads onto the fill pipe of an underground sanitary waste disposal tank. The 269 is foot-operated and quick-opening/closing for clean emptying of sanitary waste from RVs, campers and travel trailers.

The non-recessed design provides straight-through flow to eliminate entrapment of waste materials.

Body: Coated Ductile Iron  
Cap: Cast Zinc

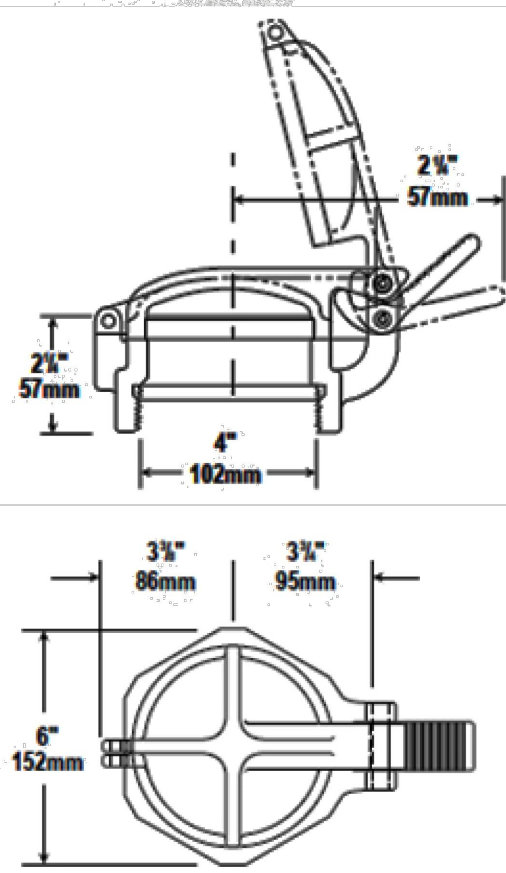


### Ordering Specifications

| Part Number | in. | Mm  | lbs.  | kg   |
|-------------|-----|-----|-------|------|
| 269-0085    | 4   | 102 | 10.92 | 4.91 |

### Replacement Parts

| Part Number | Description |
|-------------|-------------|
| D00800B     | Cap         |
| H05783DI    | Treadles    |
| H05784M     | Pin         |



OPW Fueling Containment Systems  
3250 US Highway 70 Business W.  
Smithfield, NC 27577  
Customer Service: 1-800-422-2525  
www.opwglobal.com

Publication: 269-SPEC  
Issue Date: 04/03/12

### SPECIFICATIONS

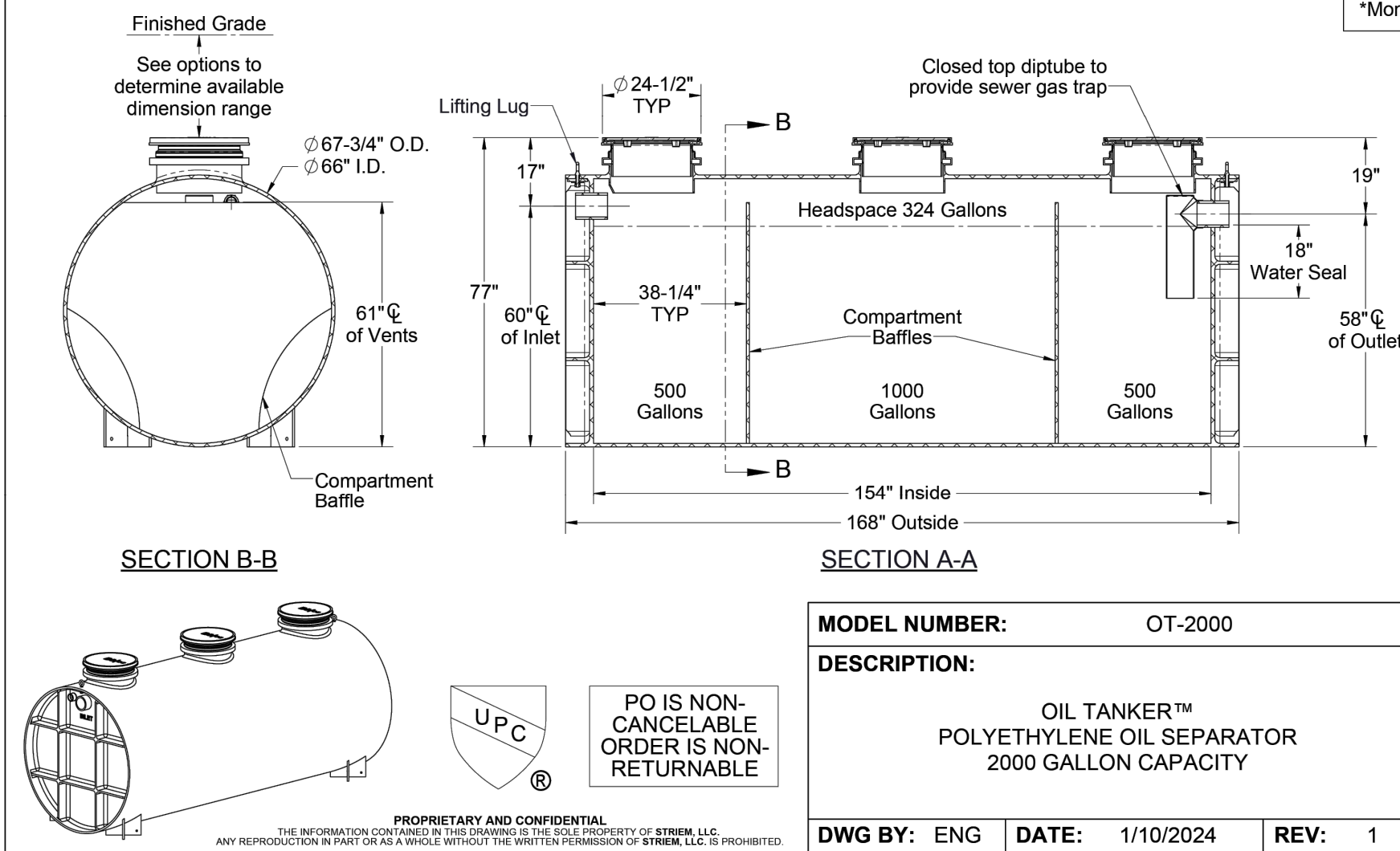
1. 6" Plain End inlet/outlet shown, 3" Plain End vents standard.
2. Max flow rate: 314 GPM.
3. Liquid capacity: 2000 Gallons (267 cu. ft.).
4. Oil capacity: 638 Gallons.
5. Solids capacity: 1077 Gallons.
6. Unit weight: 2000 lbs.
7. Maximum operating temperature 140° F continuous.

### NOTES

1. For gravity drainage applications only.
2. Do not use for pressure applications.
3. Cover placement allows full access to tank for proper maintenance.
4. Lifting lug set for easy install.

### ENGINEER SPECIFICATION GUIDE

Striem oil separator model OT-2000 shall be lifetime guaranteed and made in the USA. Separator shall be constructed of polyethylene with 7/8" nominal wall thickness. Separator shall be manufactured for below-grade installation. Field-adjustable riser system is available as an option to bring manhole covers to grade. Separator flow rate shall be 314 GPM. Separator liquid holding capacity shall be 2000 gallons and oil capacity shall be 638 gallons. Solids capacity shall be 1077 gallons. Covers shall be H20 rated pickable cast iron. Separator shall be certified to IAPMO IGC 163-2016 and carry a UPC listing.



### OPTIONS

Connection Options (Plain End Only)

Inlet / Outlet

☐ 4"

☐ 6"

☐ 8"

SELECTION REQUIRED

Riser Options

From Factory: Up to 5"

☐ Up to 24": SR24 (3)

☐ Up to 39": LR24 (3)

☐ Up to 43": SR24 (6)

☐ Up to 58": SR24 (3) + LR24 (3)

☐ Up to 72": LR24 (6)

☐ Up to 90": SR24 (3) + LR24 (6)

☐ Up to 100": LR24 (9)

-OR-

☐ CPRK (3): 11" - 106" (See specification for more detail.)

Additional Options

☐ HDK-7: High Water Table Hold Down Kit

☐ SS: Slick Stick™ Oil Level Monitoring System\*

\*Monitoring system will raise covers by 3".

### SPECIFICATION SHEET



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L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER  
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3/6/2025

FLORIDA

CITY OF WINTER GARDEN

FLORIDA

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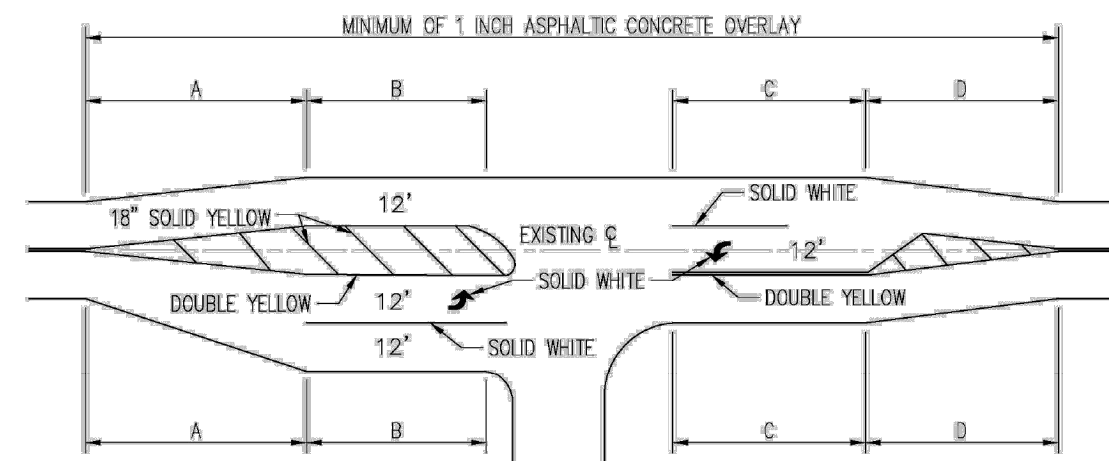






GENERAL NOTES:

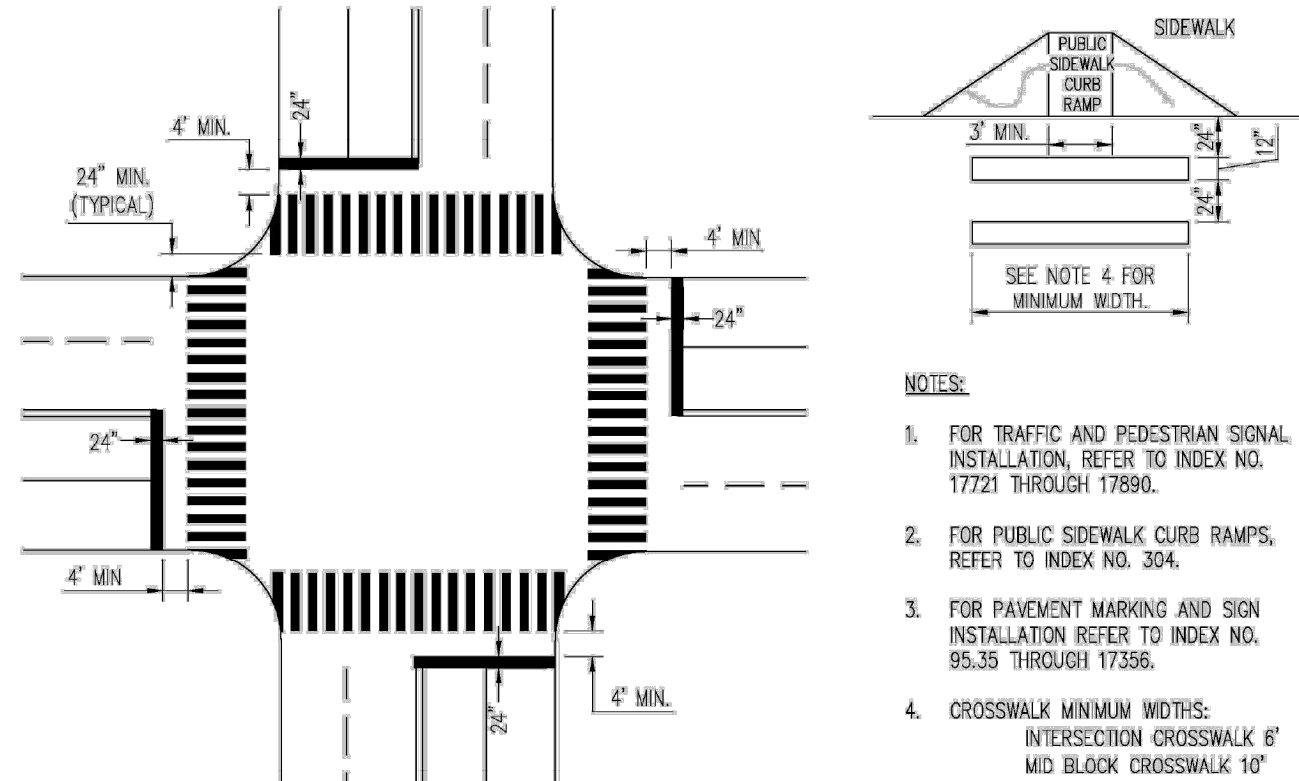
4. ALL NEW STORM AND SANITARY SEWER LINES IN THE CITY OF WINTER GARDEN SHALL BE SUBJECT TO CLOSED CIRCUIT TV INSPECTION PRIOR TO BEING ACCEPTED BY THE CITY, WHETHER PRIVATE OR CITY MAINTAINED. ALL STORM SEWER PIPE SHALL BE REINSPECTED AT THE YEAR END, COST TO BE PAID BY THE OWNER.
5. PIPE MATERIAL SHALL BE AS SHOWN ON THE CONSTRUCTION PLANS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
6. CONTRACTOR AND OWNER ARE RESPONSIBLE FOR ENSURING THAT ALL CITY, COUNTY, STATE (FDEP, FDOT, SURWMD, ETC.), AND FEDERAL PERMITS HAVE BEEN ISSUED FOR THE PROJECT.
7. ALL STORM SYSTEM MUST BE WATER-TIGHT WITH ALL JOINTS WRAPPED.
8. STORM SYSTEM WILL BE CLEANED PRIOR TO BEING TV'D.
9. THE OWNER SHALL KEEP A COPY OF THE WATER MANAGEMENT DISTRICT PERMIT, NPDES, NOI AND SWPP PLAN IN A CONSPICUOUS LOCATION ON THE JOB SITE AT ALL TIMES.
10. ALL STORM SEWER MANHOLES FRAME & COVER SHALL BE ASTM 225.
11. CLEAN SAND SHALL CONSIST OF MATERIAL HAVING LESS THAN 5% PASSING THE #200 SIEVE.
12. ONLY CONCRETE RISER RINGS WILL BE ALLOWED TO BE PLACED FOR STORM MANHOLES. ALL RISER RINGS SHALL BE SEALED TO THE STRUCTURE USING WRAPID SEAL. NO MORE THAN 15" WILL BE ALLOWED.
13. STORM SEWER PIPES SHALL MEET ASTM C76 & ASTM C507.
14. ALL STORM SEWER STRUCTURE SECTIONS SHALL BE SEALED WITH WRAPID SEAL.



- NOTES:**
- 1) STRIPING ACCORDING TO F.D.O.T. STANDARD INDEX #17346B.
  - 2) LANE WIDTHS TO MATCH EXISTING LANE WIDTHS.
  - 3) MINIMUM RADIUS SHALL BE 25 FEET (REFER TO ARTICLE 3 OF E.S.M.)
  - 4) ALL ROADWAY PAVEMENT MARKING SHALL BE THERMOPLASTIC.

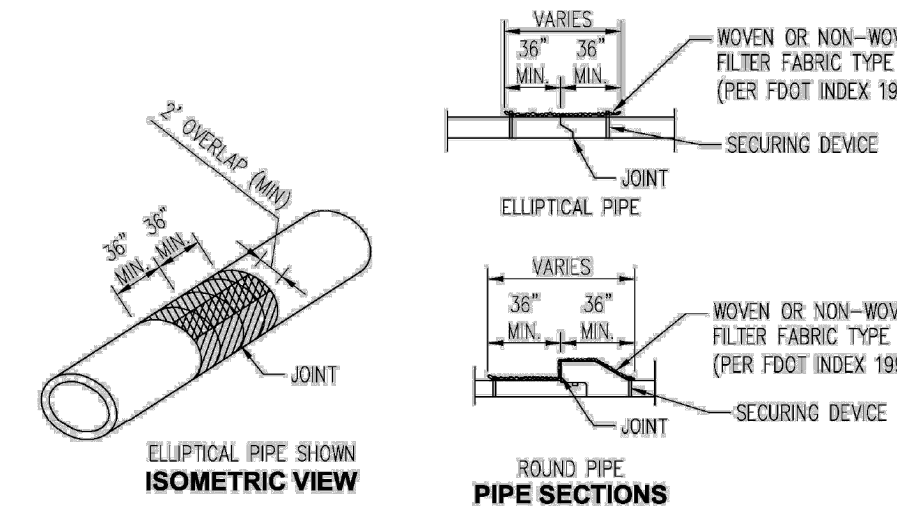
| PAVEMENT MARKING LENGTHS |      |      |      |      |
|--------------------------|------|------|------|------|
| SPEED                    | A    | B    | C    | D    |
| 40 MPH                   | 190' | 110' | 135' | 190' |
| 45 MPH                   | 210' | 140' | 165' | 210' |
| 50 MPH                   | 230' | 170' | 195' | 230' |
| 55 MPH                   | 250' | 200' | 210' | 250' |

**3 TYPICAL INTERSECTION**  
N.T.S.

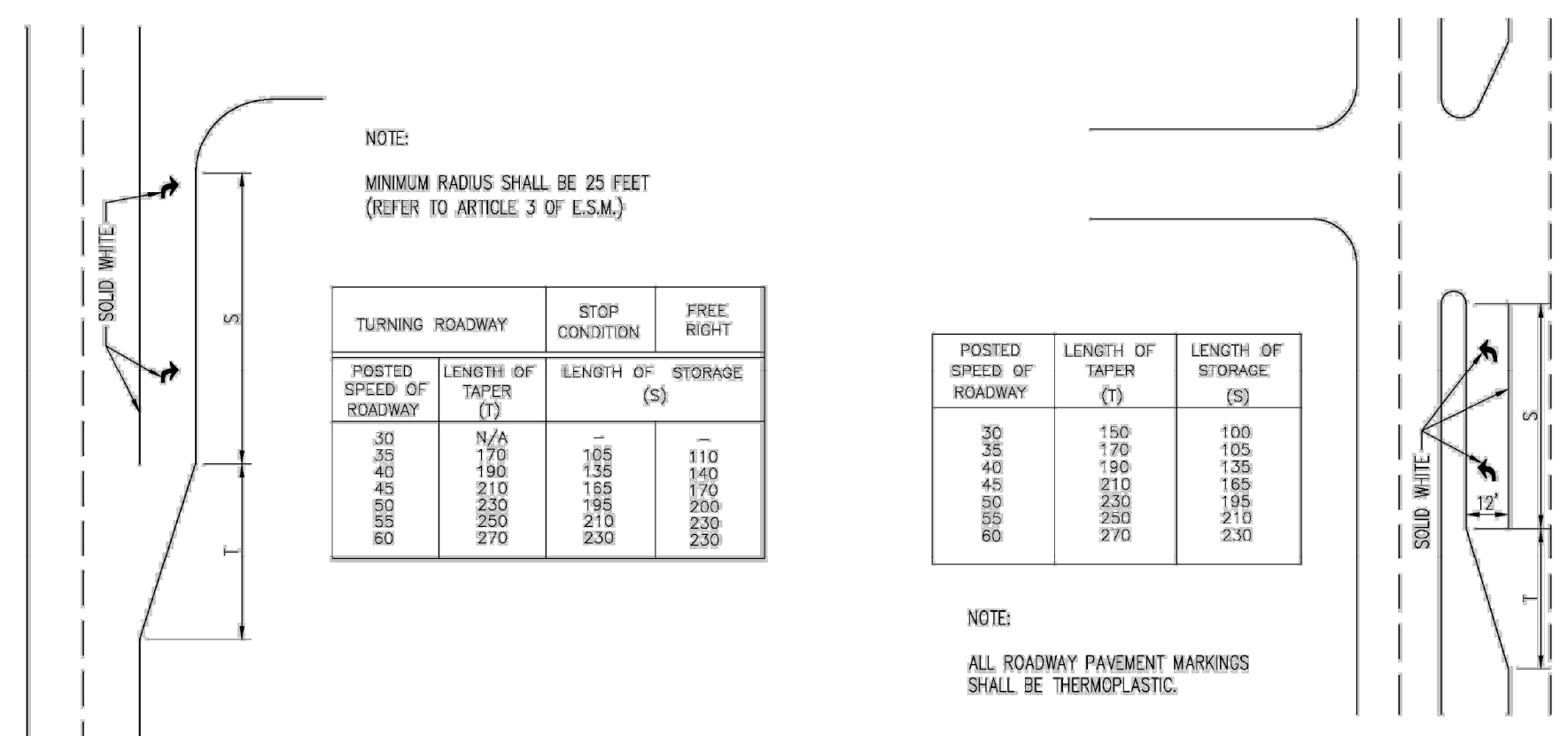


- NOTES:**
1. FOR TRAFFIC AND PEDESTRIAN SIGNAL INSTALLATION, REFER TO INDEX NO. 17721 THROUGH 17890.
  2. FOR PUBLIC SIDEWALK CURB RAMPS, REFER TO INDEX NO. 304.
  3. FOR PAVEMENT MARKING AND SIGN INSTALLATION REFER TO INDEX NO. 95.35 THROUGH 17356.
  4. CROSSWALK MINIMUM WIDTHS:  
INTERSECTION CROSSWALK 6'  
MID BLOCK CROSSWALK 10'

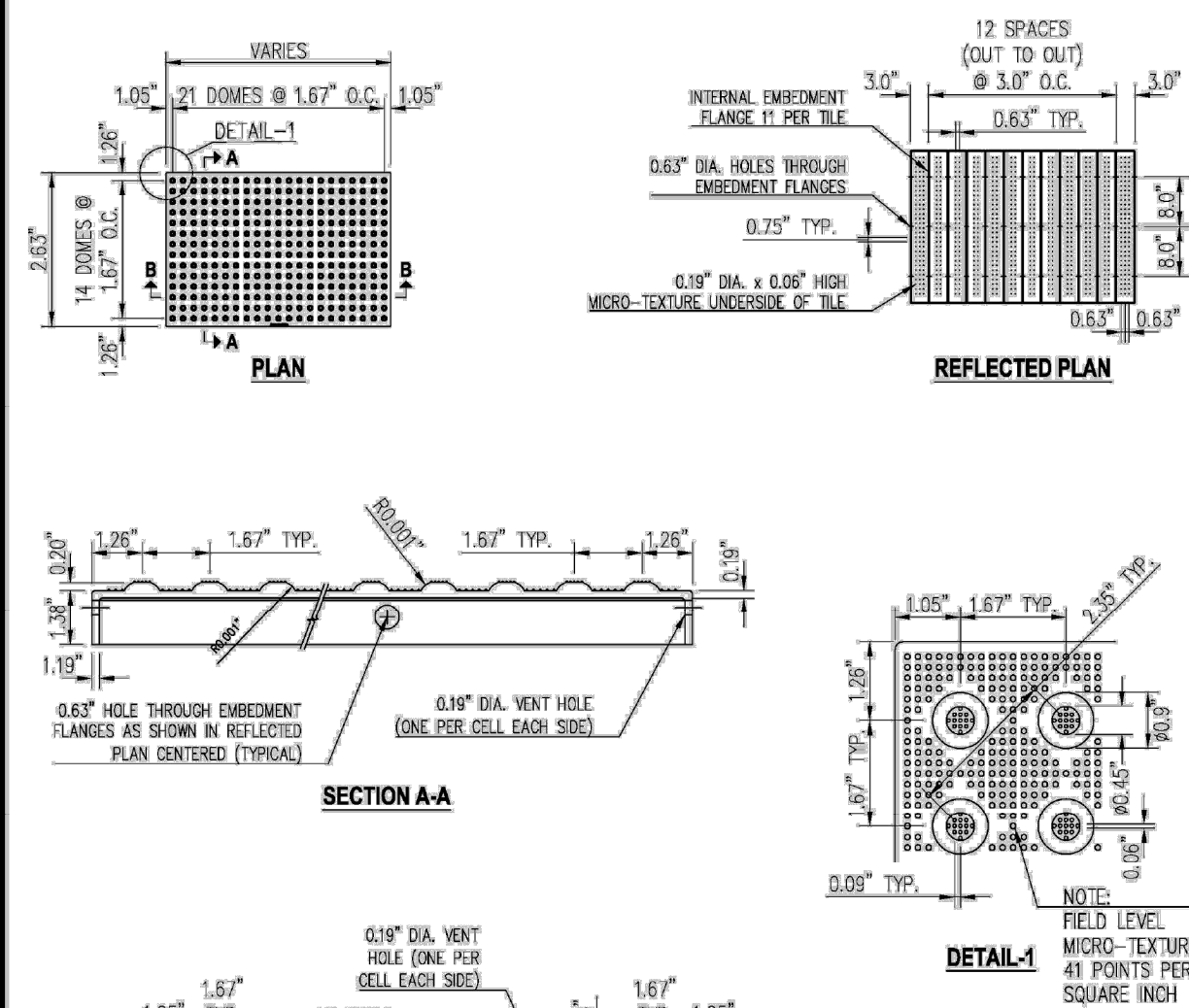
**1 TYPICAL CROSSWALK**  
N.T.S.



**2 FILTER FABRIC JACKET**  
N.T.S.



**RIGHT TURN  
DECELERATION LANE**  
N.T.S.



**8 DETECTABLE WARNING DETAIL**  
N.T.S.

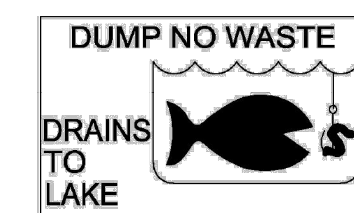
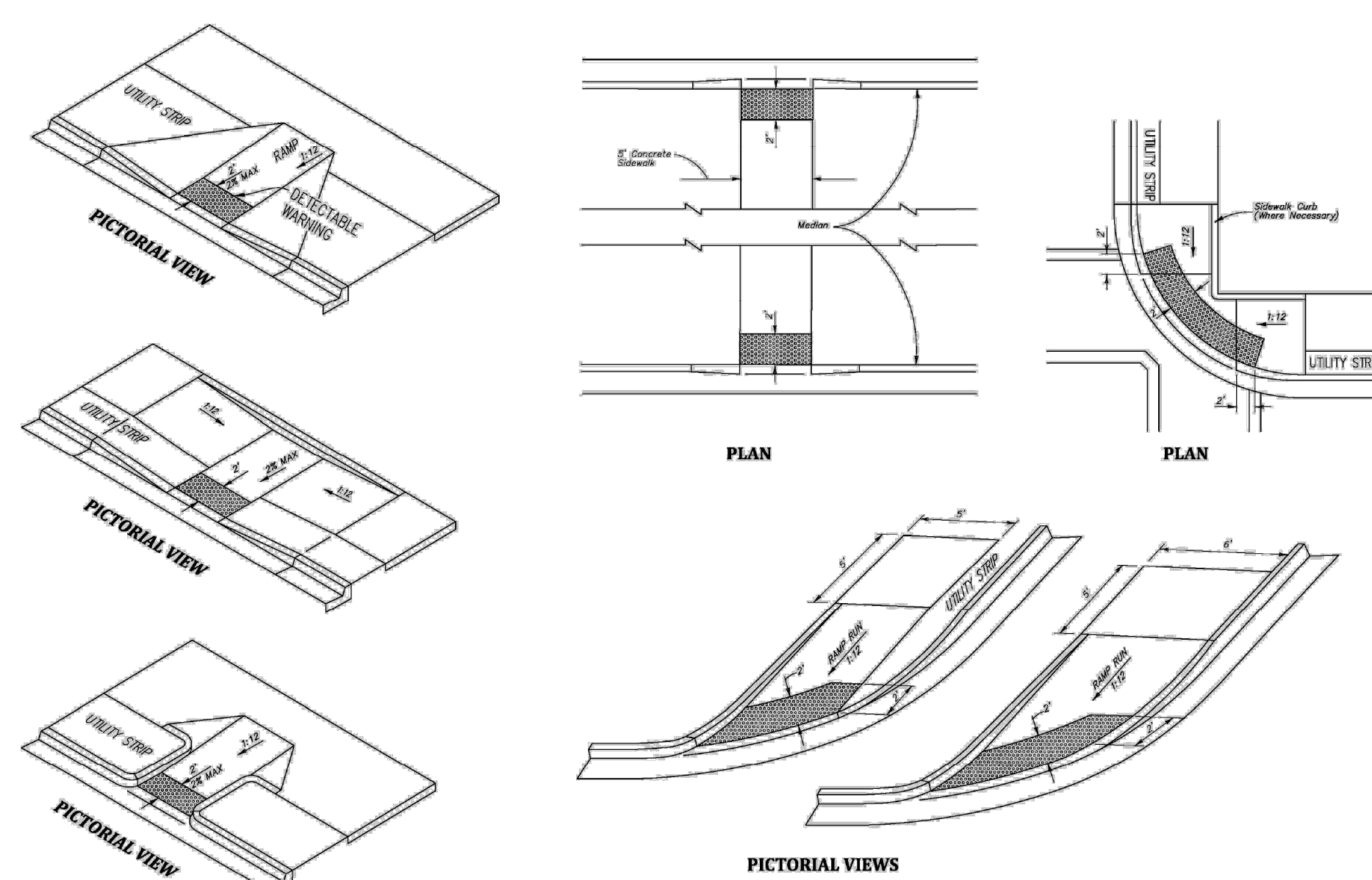


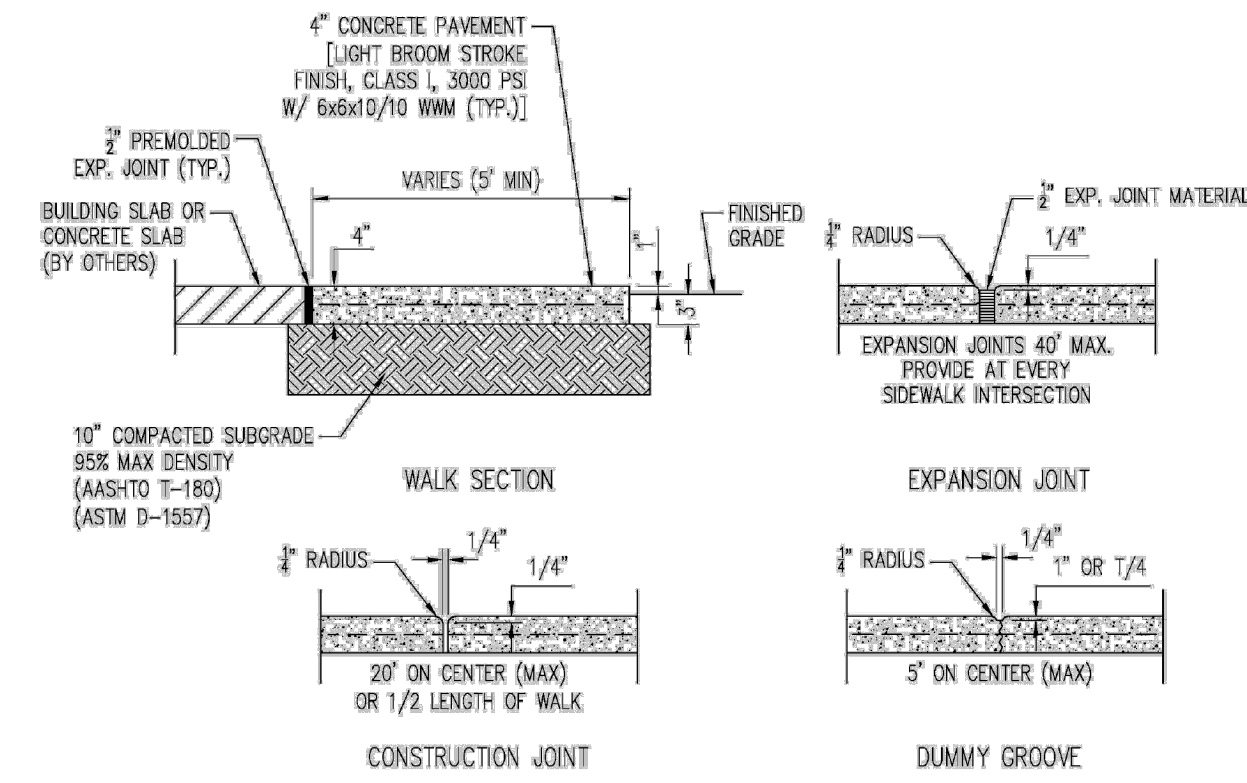
PLATE SHALL BE ADDED TO STORMWATER INLETS AS REQUIRED BY THE CITY.

WINTER GARDEN STANDARDS INCORPORATED WITH DESIGN ENGINEERS DOCUMENTS:

THE DETAILS, NOTES AND SPECIFICATIONS SHOWN ON THIS SHEET REPRESENT THE NOTED STANDARDS OF THE CITY OF WINTER GARDEN FOR CONSTRUCTION OF PUBLIC WORKS AND UTILITY INFRASTRUCTURE. BY INCLUDING THE STANDARDS, THE DESIGN ENGINEER HAS ACKNOWLEDGED THAT THEY ARE EFFECTIVE TO THE PROJECT AND THAT DETAILS, NOTES, OR SPECIFICATIONS ARE AS PROVIDED BY THE CITY AND HAVE NOT BEEN REVISED OR MODIFIED WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER OR UTILITY DIRECTOR.



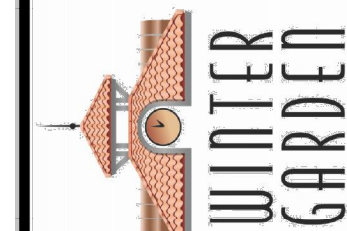
## 6 CURB RAMPS & DETECTABLE WARNING PLACEMENT



**7 SIDEWALK DETAILS**  
N.T.S.

[illegible]

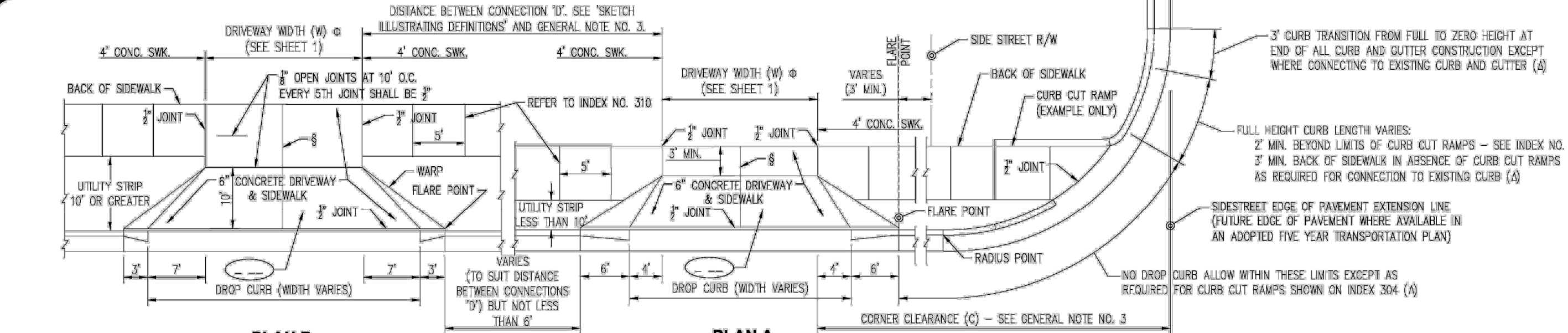
# CITY OF WINTER GARDEN, FLORIDA STANDARDS AND SPECIFICATIONS FOR ROADWAY & DRAINAGE CONSTRUCTION



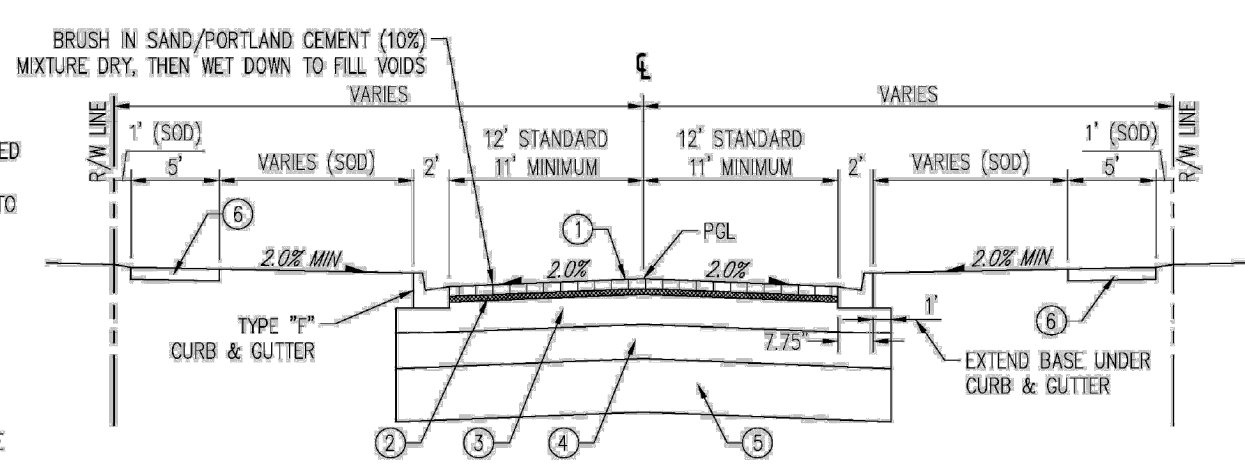
**STANDARD DETAILS**  
**FOR**  
**PUBLIC SERVICES**

DATE  
JANUARY 2024  
SHEET  
**9**  
9 OF 11

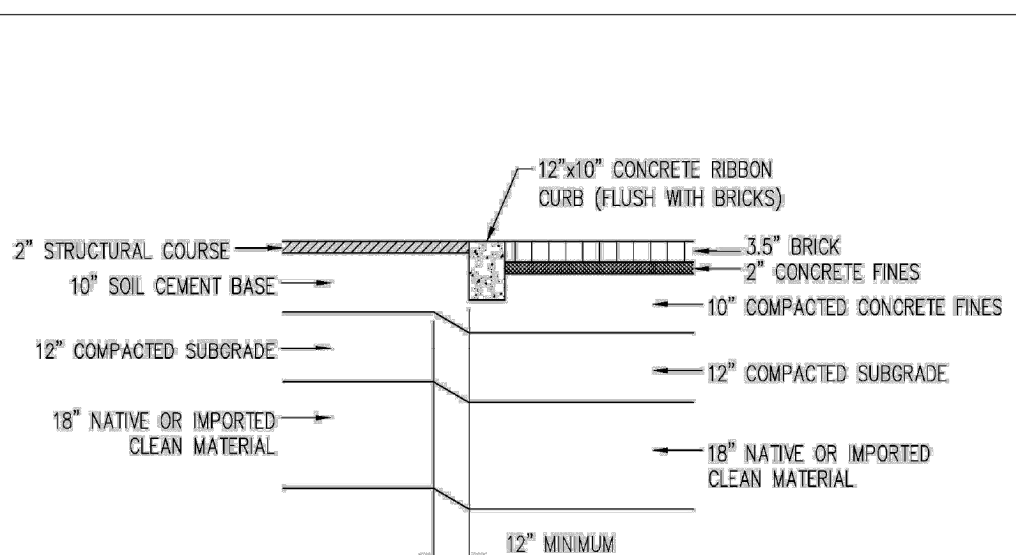
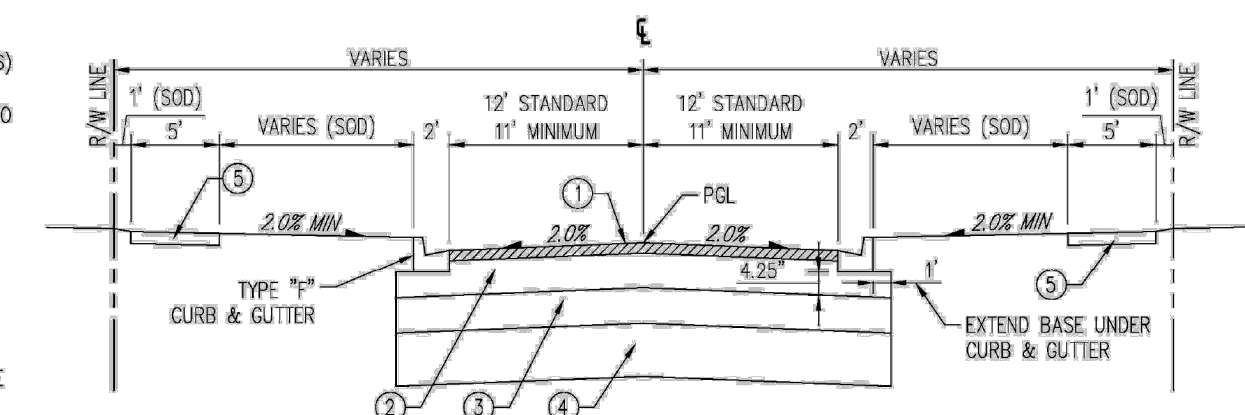




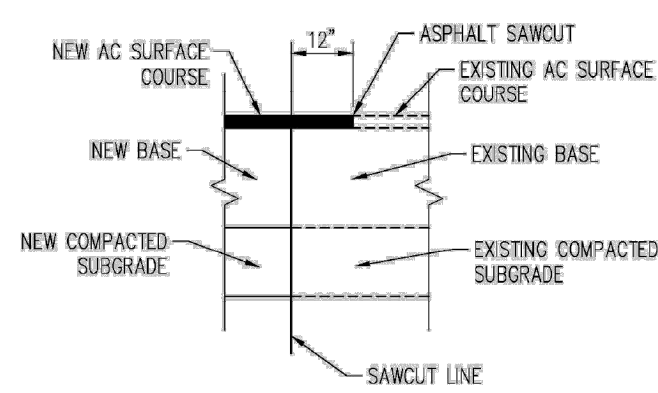
- PAVEMENT DESIGN
1. 3.5" BRICKS
  - 1" - 2" LOOSE CONCRETE FINES LEVELING BED
  - 10% BASE + COMPACTED CONCRETE FINES TO 98% MAX DENSITY (AASHTO T-134). ASPHALTIC PRIME COAT APPLIED AT 0.15 GAL/SF
  - 12" COMPACTED SUBGRADE (98% DENSITY) AASHTO T-180 AND LBR 40
  - 16" OF NATIVE OR IMPORTED MATERIAL. DRAINAGE SHALL BE ASSIGNED #20 SIEVE. COMPACTED TO 98% PER AASHTO T-180
  - 4" THICK CONCRETE SIDEWALK



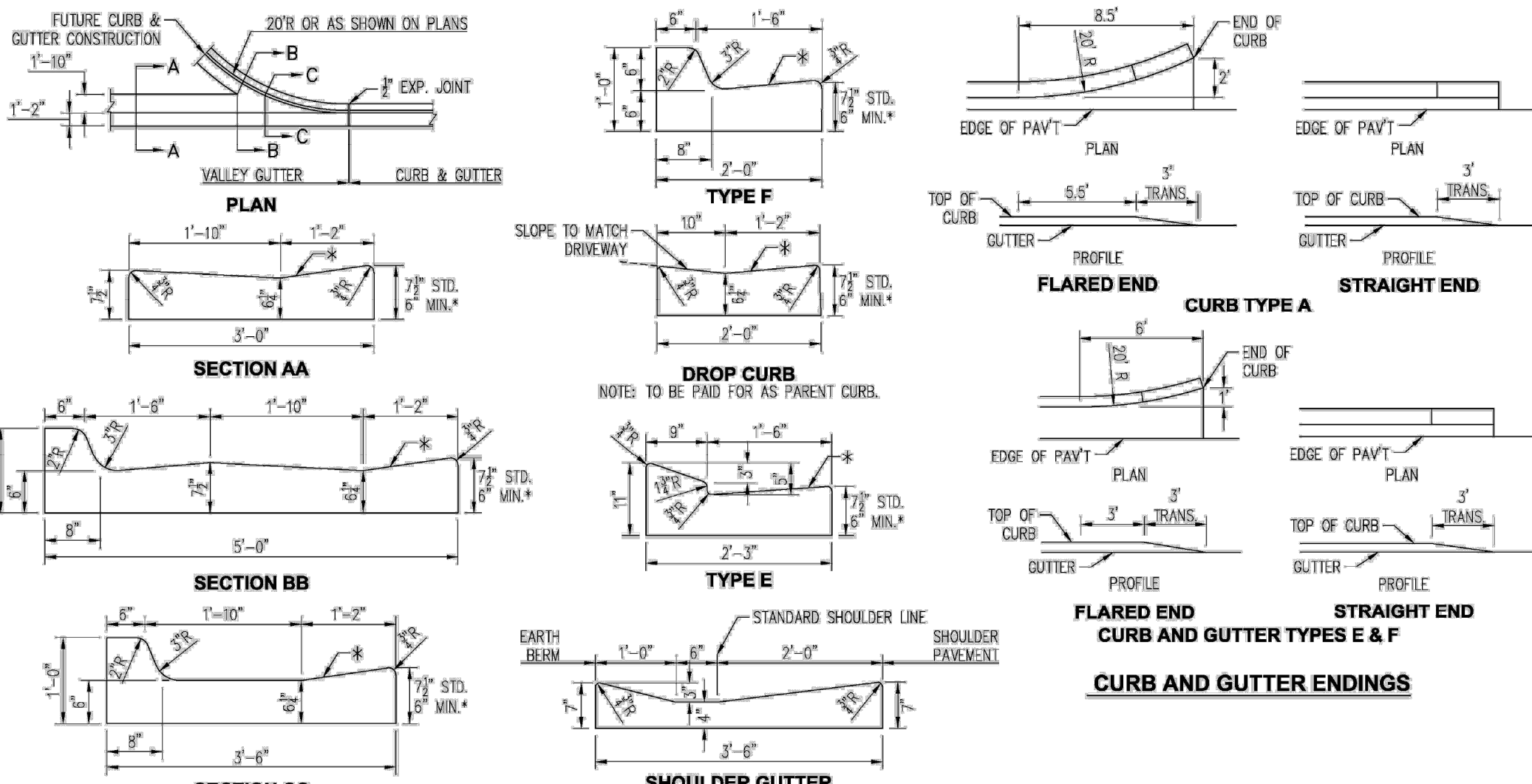
- ### ○ PAVEMENT DESIGN
1. 2" TYPE S-1 STRUCTURAL COURSE (2 LIFTS)
  2. 10" BASE TYPE SOIL CEMENT COMPACTED TO 98% MAX. DENSITY (ASHSTO T-134)  
ASPHALT PRIME COAT APPLIED AT 15 GAL./300 SQ YD 7-DAY COMPRESSIVE STRENGTH
  3. 12" COMPACT SUBGRADE (98% DENSITY)  
ASHSTO T-180 AND LBR 40
  4. 16" OF NATIVE OR IMPROVED MATERIAL  
HAVING LESS THAN 5% PASSING #200 SIEVE  
COMPACTED TO 98% PER ASHSTO T-180
  5. 4" THICK CONCRETE SIDEWALK



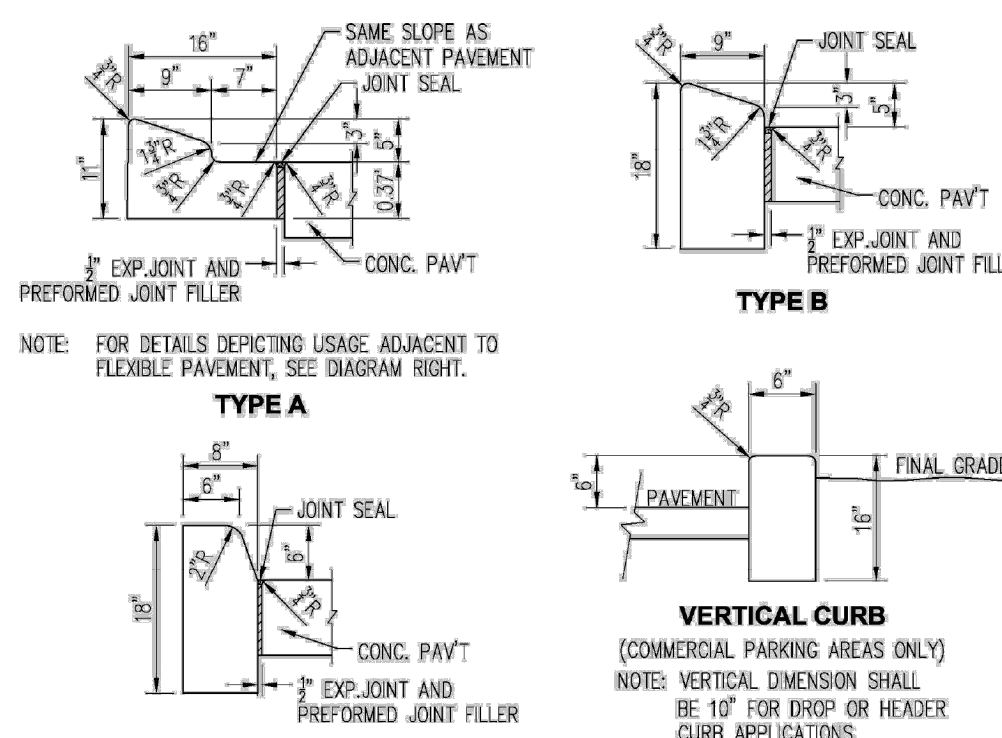
## 1 RIBBON CURB WITH BRICK PAVERS



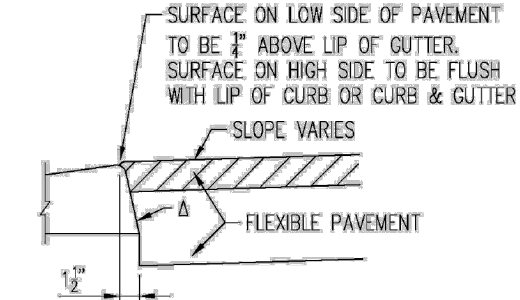
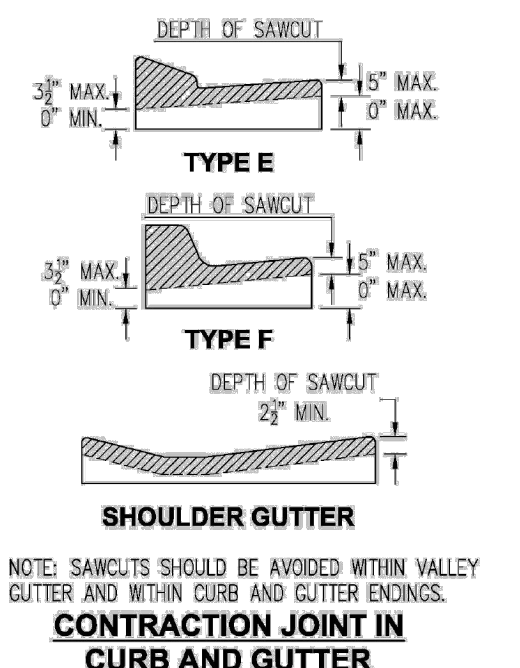
### 1 SAWCUT TYPICAL DETAIL



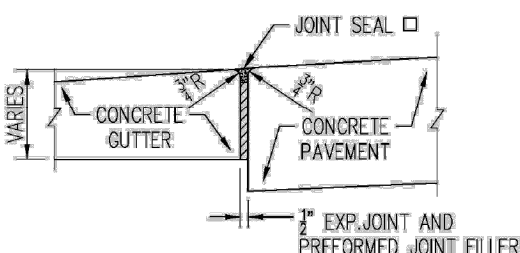
### CURB AND GUTTER ENDINGS



**CONCRETE CURB**



— APPLIES TO BOTH HIGH AND LOW SIDES OF PAVEMENT, LOW SIDE SHOWN.  
**CURB & GUTTER AND TYPE A CURB**  
**ADJACENT TO FLEXIBLE PAVEMENT**

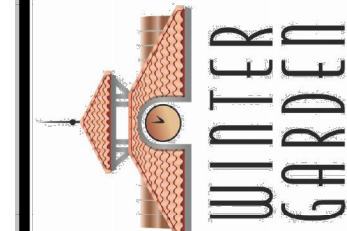


1 - APPLIES TO BOTH HIGH AND LOW SIDES OF PAVEMENT, LOW SIDE SHOWN.  
**EXPANSION JOINT BETWEEN GUTTER**  
**AND CONCRETE PAVEMENT**

GENERAL NOTE

1. FOR CURB, GUTTER, AND CURB AND GUTTER PROVIDE  $\frac{1}{4}$ " -  $\frac{1}{2}$ " CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS. CURB, GUTTER AND CURB & GUTTER EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS.
2. ENDS OF CURBS TYPES B AND D SHALL TRANSITION FROM FULL TO ZERO HEIGHTS IN 3 FEET

**CITY OF WINTER GARDEN, FLORIDA**  
**STANDARDS AND SPECIFICATIONS**  
**FOR ROADWAY & DRAINAGE**  
**CONSTRUCTION**



# STANDARD DETAILS FOR PUBLIC SERVICES

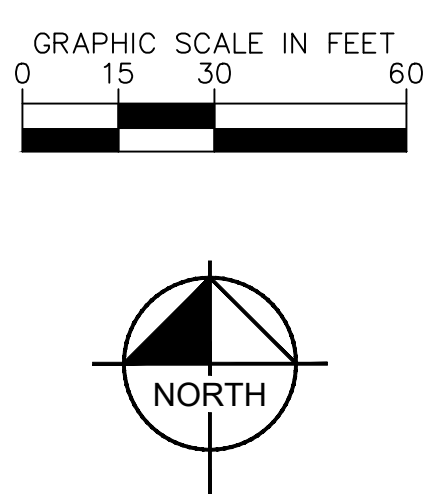
DATE  
JANUARY 2024  
SHEET  
**10**  
10 QF 11



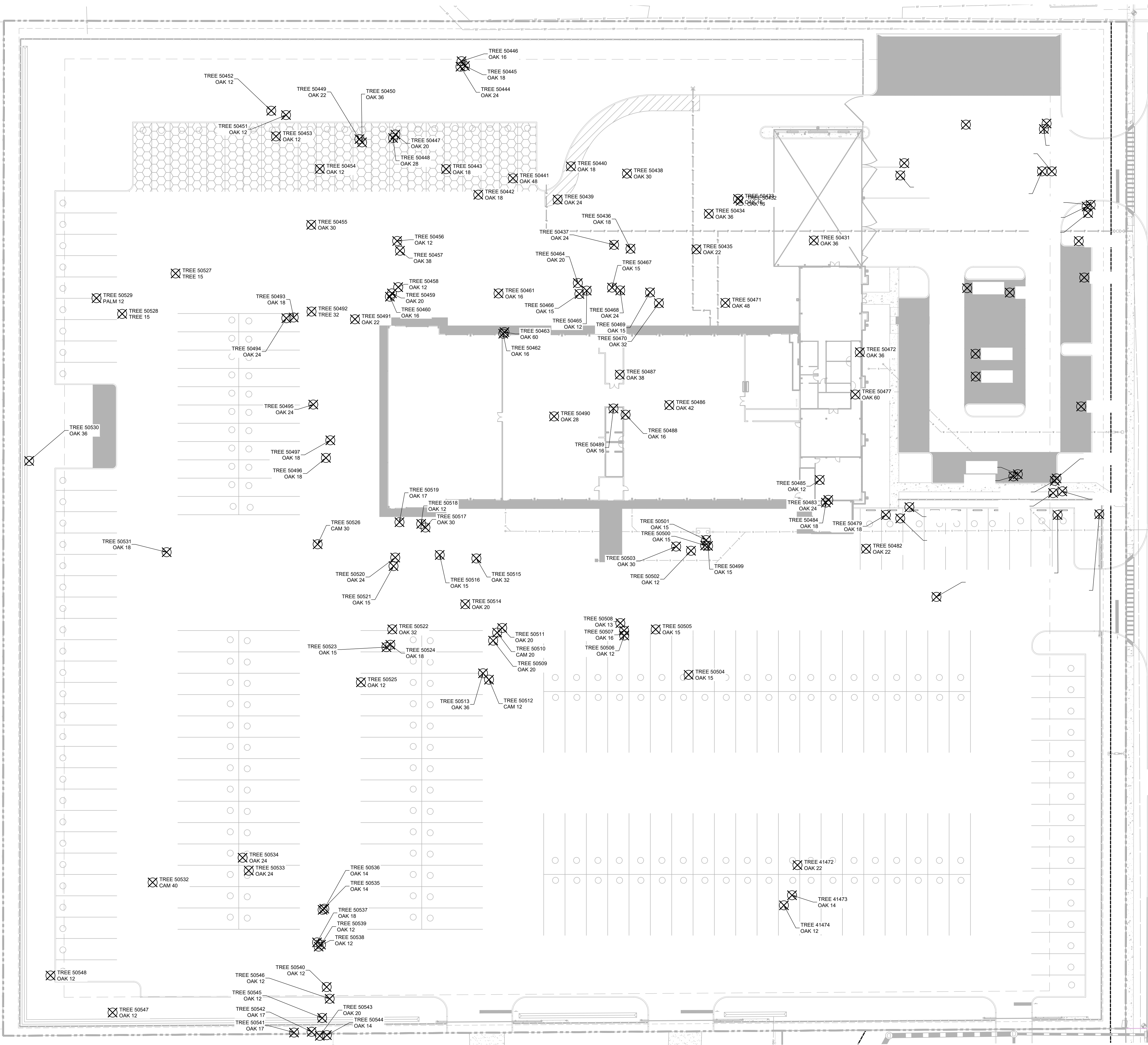
| NORTH TREE MITIGATION |         |     |        |  |
|-----------------------|---------|-----|--------|--|
| TREE ID               | SPECIES | DBH | ACTION |  |
| 41472                 | OAK     | 22  | DEMO   |  |
| 41473                 | OAK     | 14  | DEMO   |  |
| 41474                 | OAK     | 12  | DEMO   |  |
| 41537                 | OAK     | 26  | DEMO   |  |
| 41538                 | OAK     | 30  | DEMO   |  |
| 41539                 | OAK     | 14  | DEMO   |  |
| 41540                 | OAK     | 18  | DEMO   |  |
| 41541                 | OAK     | 14  | DEMO   |  |
| 41542                 | OAK     | 12  | DEMO   |  |
| 41543                 | OAK     | 14  | DEMO   |  |
| 41544                 | OAK     | 14  | DEMO   |  |
| 41545                 | OAK     | 18  | DEMO   |  |
| 41546                 | OAK     | 26  | DEMO   |  |
| 41547                 | OAK     | 30  | DEMO   |  |
| 41548                 | OAK     | 21  | DEMO   |  |
| 41549                 | OAK     | 34  | DEMO   |  |
| 41550                 | PALM    | 12  | DEMO   |  |
| 41551                 | OAK     | 16  | DEMO   |  |
| 41552                 | OAK     | 21  | DEMO   |  |
| 41553                 | OAK     | 18  | DEMO   |  |
| 41554                 | OAK     | 13  | DEMO   |  |
| 50428                 | OAK     | 13  | DEMO   |  |
| 50429                 | OAK     | 42  | DEMO   |  |
| 50430                 | OAK     | 22  | DEMO   |  |
| 50431                 | OAK     | 36  | DEMO   |  |
| 50432                 | OAK     | 16  | DEMO   |  |
| 50433                 | OAK     | 16  | DEMO   |  |
| 50434                 | OAK     | 36  | DEMO   |  |
| 50435                 | OAK     | 22  | DEMO   |  |
| 50436                 | OAK     | 18  | DEMO   |  |
| 50437                 | OAK     | 24  | DEMO   |  |
| 50438                 | OAK     | 30  | DEMO   |  |
| 50439                 | OAK     | 24  | DEMO   |  |
| 50440                 | OAK     | 18  | DEMO   |  |
| 50441                 | OAK     | 48  | DEMO   |  |
| 50442                 | OAK     | 18  | DEMO   |  |
| 50443                 | OAK     | 18  | DEMO   |  |
| 50444                 | OAK     | 24  | DEMO   |  |
| 50445                 | OAK     | 18  | DEMO   |  |
| 50446                 | OAK     | 16  | DEMO   |  |
| 50447                 | OAK     | 20  | DEMO   |  |
| 50448                 | OAK     | 28  | DEMO   |  |
| 50449                 | OAK     | 22  | DEMO   |  |
| 50450                 | OAK     | 36  | DEMO   |  |
| 50451                 | OAK     | 12  | DEMO   |  |
| 50452                 | OAK     | 12  | DEMO   |  |
| 50453                 | OAK     | 12  | DEMO   |  |
| 50454                 | OAK     | 12  | DEMO   |  |
| 50455                 | OAK     | 30  | DEMO   |  |
| 50456                 | OAK     | 12  | DEMO   |  |
| 50457                 | OAK     | 38  | DEMO   |  |
| 50458                 | OAK     | 12  | DEMO   |  |
| 50459                 | OAK     | 20  | DEMO   |  |
| 50460                 | OAK     | 16  | DEMO   |  |
| 50461                 | OAK     | 16  | DEMO   |  |
| 50462                 | OAK     | 16  | DEMO   |  |
| 50463                 | OAK     | 60  | DEMO   |  |
| 50464                 | OAK     | 20  | DEMO   |  |
| 50465                 | OAK     | 12  | DEMO   |  |
| 50466                 | OAK     | 15  | DEMO   |  |
| 50467                 | OAK     | 15  | DEMO   |  |
| 50468                 | OAK     | 24  | DEMO   |  |
| 50469                 | OAK     | 15  | DEMO   |  |
| 50470                 | OAK     | 32  | DEMO   |  |
| 50471                 | OAK     | 48  | DEMO   |  |
| 50472                 | OAK     | 36  | DEMO   |  |
| 50473                 | OAK     | 18  | DEMO   |  |
| 50474                 | OAK     | 24  | DEMO   |  |
| 50475                 | OAK     | 24  | DEMO   |  |
| 50476                 | OAK     | 20  | DEMO   |  |
| 50477                 | OAK     | 60  | DEMO   |  |
| 50478                 | OAK     | 18  | DEMO   |  |
| 50479                 | OAK     | 18  | DEMO   |  |
| 50480                 | OAK     | 18  | DEMO   |  |
| 50481                 | OAK     | 30  | DEMO   |  |
| 50482                 | OAK     | 22  | DEMO   |  |
| 50483                 | OAK     | 24  | DEMO   |  |
| 50484                 | OAK     | 18  | DEMO   |  |
| 50485                 | OAK     | 12  | DEMO   |  |
| 50486                 | OAK     | 42  | DEMO   |  |
| 50487                 | OAK     | 38  | DEMO   |  |
| 50488                 | OAK     | 16  | DEMO   |  |
| 50489                 | OAK     | 16  | DEMO   |  |

| NORTH TREE MITIGATION CALCULATION |                  |
|-----------------------------------|------------------|
| TOTAL CANOPY TREES REMOVED        | 141              |
| MITIGATION REQUIRED (2:1)         |                  |
| TOTAL REPLACEMENT TREES REQUIRED  | 282              |
| CANOPY TREES PROVIDED             | 66               |
| TREE MITIGATION BALANCE           | 219 TREE DEFICIT |
|                                   |                  |
| *COST OF CANOPY TREE INSTALLED*   | \$790            |
| \$790 x 219 = 173,010             |                  |
| 173,010                           |                  |

\*COST OF TREE PROVIDED BY CHERRY LAKE NURSERY\*  
 \*LIVE OAK 65 GAL / 11'-12' HT / SPRD 5'-5.5' / CAL 3.5"-3.75"  
 \*ERIKA MALDONADO : 352-429-2171\*



| NORTH TREE MITIGATION |         |     |        |
|-----------------------|---------|-----|--------|
| TREE ID               | SPECIES | DBH | ACTION |
| 50490                 | OAK     | 28  | DEMO   |
| 50491                 | OAK     | 22  | DEMO   |
| 50492                 | TREE    | 32  | DEMO   |
| 50493                 | OAK     | 18  | DEMO   |
| 50494                 | OAK     | 24  | DEMO   |
| 50495                 | OAK     | 24  | DEMO   |
| 50496                 | OAK     | 18  | DEMO   |
| 50497                 | OAK     | 18  | DEMO   |
| 50499                 | OAK     | 15  | DEMO   |
| 50500                 | OAK     | 15  | DEMO   |
| 50501                 | OAK     | 15  | DEMO   |
| 50502                 | OAK     | 12  | DEMO   |
| 50503                 | OAK     | 30  | DEMO   |
| 50504                 | OAK     | 15  | DEMO   |
| 50505                 | OAK     | 15  | DEMO   |
| 50506                 | OAK     | 12  | DEMO   |
| 50507                 | OAK     | 16  | ACTION |
| 50508                 | OAK     | 13  | DEMO   |
| 50509                 | OAK     | 20  | DEMO   |
| 50510                 | CAM     | 20  | DEMO   |
| 50511                 | OAK     | 20  | DEMO   |
| 50512                 | CAM     | 12  | DEMO   |
| 50513                 | OAK     | 36  | DEMO   |
| 50514                 | OAK     | 20  | DEMO   |
| 50515                 | OAK     | 32  | DEMO   |
| 50516                 | OAK     | 15  | DEMO   |
| 50517                 | OAK     | 30  | DEMO   |
| 50518                 | OAK     | 12  | DEMO   |
| 50519                 | OAK     | 17  | DEMO   |
| 50520                 | OAK     | 24  | DEMO   |
| 50521                 | OAK     | 15  | DEMO   |
| 50522                 | OAK     | 32  | DEMO   |
| 50523                 | OAK     | 15  | DEMO   |
| 50524                 | OAK     | 18  | DEMO   |
| 50525                 | OAK     | 12  | DEMO   |
| 50526                 | CAM     | 30  | DEMO   |
| 50527                 | PALM    | 15  | DEMO   |
| 50528                 | PALM    | 15  | DEMO   |
| 50529                 | PALM    | 12  | DEMO   |
| 50530                 | OAK     | 36  | DEMO   |
| 50531                 | OAK     | 18  | DEMO   |
| 50532                 | CAM     | 40  | DEMO   |
| 50533                 | OAK     | 24  | DEMO   |
| 50534                 | OAK     | 24  | DEMO   |
| 50535                 | OAK     | 14  | DEMO   |
| 50536                 | OAK     | 14  | DEMO   |
| 50537                 | OAK     | 18  | DEMO   |
| 50538                 | OAK     | 12  | DEMO   |
| 50539                 | OAK     | 12  | DEMO   |
| 50540                 | OAK     | 12  | DEMO   |
| 50541                 | OAK     | 17  | DEMO   |
| 50542                 | OAK     | 17  | DEMO   |
| 50543                 | OAK     | 20  | DEMO   |
| 50544                 | OAK     | 14  | DEMO   |
| 50545                 | OAK     | 12  | DEMO   |
| 50546                 | OAK     | 12  | DEMO   |
| 50547                 | OAK     | 12  | DEMO   |
| 50548                 | OAK     | 12  | DEMO   |

[illegible]



## TREE MITIGATION SPECIFICATIONS

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GENERAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A TWO (2) INCH LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS OF PROTECTED TREES DURING THE SITE CLEARING PHASE.                                                                                                                                                                                                                                      |
| 1. CONTRACTOR SHALL ADHERE TO ALL TREE PROTECTION REQUIREMENTS LISTED IN THESE SPECIFICATIONS AND/OR THOSE LISTED IN THE CITY OR COUNTY ZONING CODE, TREE PROTECTION (LATEST EDITION), WHICHEVER IS MORE STRINGENT SHALL APPLY.                                                                                                                                                                                                                                                                              | E. TREE CANOPY PRUNING                                                                                                                                                                                                                                                                                                                                                   |
| 2. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION PROCEDURES WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.                                                                                                                                                                                                                                                                                                                                                                                                | 1. TREE PRUNING SPECIFICATIONS SHALL BE DEFINED BASED ON SPECIFIC RECOMMENDATIONS OF THE PROJECT ARBORIST. INFORMATION PRESENTED BELOW SHOULD BE USED AS A GUIDELINE.                                                                                                                                                                                                    |
| 3. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATION MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE.                                                                                                                                                                                                                                                                                                                                                    | 2. CONTRACTOR SHALL VISIT THE SITE WITH THE PROJECT ARBORIST TO VERIFY THE EXTENT OF REQUIRED PRUNING.                                                                                                                                                                                                                                                                   |
| 4. NO SIGNS, BUILDING PERMITS, WIRES OR OTHER ATTACHMENTS OF ANY KIND SHALL BE ATTACHED TO ANY TREE OR PALM. GUY WIRES DESIGNED TO PROTECT TREES ARE EXCLUDED FROM THIS PROHIBITION.                                                                                                                                                                                                                                                                                                                         | 3. ALL PRUNING SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A QUALIFIED INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST OR AN AMERICAN SOCIETY OF CONSULTING ARBORISTS (ASCA) REGISTERED CONSULTING ARBORIST (RCA).                                                                                                                      |
| 5. EXISTING TREE LOCATIONS AND SIZES ARE ESTIMATES AND ARE BASED ON A SURVEY PROVIDED BY THE OWNER SELECTED SURVEYOR.                                                                                                                                                                                                                                                                                                                                                                                        | 4. AT LEAST ONE MEMBER OF THE PRUNING CREW SHALL BE AN ISA CERTIFIED ARBORIST.                                                                                                                                                                                                                                                                                           |
| 6. CONTRACTOR SHALL COORDINATE TREE REMOVAL WITH PERMITTING AGENCY AND PROJECT ARBORIST PRIOR TO CONSTRUCTION. NO PERSON MAY REMOVE OR CAUSE TO BE REMOVED ANY PROTECTED TREE OR PALM WITHOUT FIRST HAVING PROCURED A PERMIT AS PROVIDED BY THE APPROPRIATE PERMITTING AGENCY.                                                                                                                                                                                                                               | 5. WHILE IN THE TREE, THE ARBORIST SHALL PERFORM AN AERIAL INSPECTION TO IDENTIFY DEFECTS THAT REQUIRE TREATMENT. ANY ADDITIONAL WORK NEEDED SHALL BE REPORTED TO THE OWNER.                                                                                                                                                                                             |
| 7. FOR PROTECTED TREES OR PALMS BEING REMOVED, THE CONTRACTOR MUST GIVE THE PERMITTING AGENCY REASONABLE OPPORTUNITY TO RELOCATE TREES DESIGNATED FOR REMOVAL TO ANOTHER SITE AT THE PERMITTING AGENCY'S EXPENSE.                                                                                                                                                                                                                                                                                            | 6. PRUNING CUTS SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE ANSI A300 PRUNING STANDARD (AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS) AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI Z133.1 SAFETY STANDARD. PRUNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ISA'S "BEST MANAGEMENT PRACTICES: TREE PRUNING". |
| 8. CONTRACTOR IS RESPONSIBLE FOR POSSESSING ALL REQUIRED APPLICATOR LICENSES, BUSINESS REGISTRATIONS AND INSURANCE, PESTICIDE LABELS, AND MATERIAL DATA SAFETY SHEETS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR HAVING ALL SPILL CONTAINMENT MATERIALS AND REQUIRED PERSONAL PROTECTIVE EQUIPMENT FOR PESTICIDE APPLICATIONS AND ACCIDENTAL SPILLS ON SITE AT ALL TIMES. THE OWNER RESERVES THE RIGHT TO INSPECT EACH APPLICATOR AND HAVE THESE MATERIALS PRESENTED BEFORE AND DURING ANY PESTICIDE TREATMENT. | 7. WHERE TEMPORARY CLEARANCE IS NEEDED FOR ACCESS, BRANCHES SHALL BE TIED BACK TO HOLD THEM OUT OF THE CLEARANCE ZONE.                                                                                                                                                                                                                                                   |
| 9. WHERE TRAFFIC AREAS ARE PROPOSED WITHIN THE DRIP LINE OF PROTECTED TREES AND LESS THAN FOUR (4) INCHES OF GRADE CHANGE ARE PROPOSED, PERMEABLE SURFACES THAT ALLOW AIR AND WATER INTO THE SOIL SHOULD BE USED IN LIEU OF ASPHALT OR OTHER SUCH IMPERVIOUS SURFACES.                                                                                                                                                                                                                                       | 8. NO MORE THAN 20 PERCENT OF LIVE FOLIAGE SHALL BE REMOVED WITHIN ANY TREE.                                                                                                                                                                                                                                                                                             |
| 10. TREE WELLS OF AN APPROVED DESIGN SHALL BE CONSTRUCTED AROUND ALL TREES TO BE PRESERVED WHEN MORE THAN FOUR INCHES OF FILL IS TO BE DEPOSITED WITHIN THE DRIP LINE AREA OF THOSE TREES. COORDINATE WITH PROJECT ARBORIST.                                                                                                                                                                                                                                                                                 | 9. ALL TREES WITHIN THE PROJECT AREA SHALL BE PRUNED AS FOLLOWS:                                                                                                                                                                                                                                                                                                         |
| 11. THE SEQUENCE OF TREE MITIGATION AND PRESERVATION MEASURES IS IMPERATIVE TO THE HEALTH AND SURVIVABILITY OF THE SUBJECT TREES AND SHALL BE COORDINATED WITH THE OWNER SELECTED PROJECT ARBORIST. THE DESIRED SEQUENCE IS OUTLINED BELOW.                                                                                                                                                                                                                                                                  | a. LIVE BRANCH PRUNING SHOULD BE PERFORMED ONLY WHEN THE DANGER OF INSECT OR DISEASE INFESTATION IS NOT PRESENT.                                                                                                                                                                                                                                                         |
| a. TREE PROTECTION FENCING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | b. REMOVE STUBS, CUTTING OUTSIDE THE WOUND WOOD TISSUE THAT HAS FORMED AROUND THE BRANCH.                                                                                                                                                                                                                                                                                |
| b. ROOT PRUNING AND ROOT BARRIERS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | c. CLEANING, FOR THE SELECTIVE REMOVAL OF DEAD, DISEASED, BROKEN, OR CROSSING BRANCHES DOWN TO ONE INCH IN DIAMETER OR AS DIRECTED BY THE PROJECT ARBORIST.                                                                                                                                                                                                              |
| c. CLEARING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | d. PRUNING CUTS LARGER THAN 4 INCHES IN DIAMETER, EXCEPT FOR DEAD WOOD, SHALL BE AVOIDED.                                                                                                                                                                                                                                                                                |
| d. TREE CANOPY PRUNING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | e. PRUNING CUTS THAT EXPOSE HEARTWOOD SHALL BE AVOIDED WHENEVER POSSIBLE.                                                                                                                                                                                                                                                                                                |
| e. FERTILIZATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | f. ALL TREES WITH CROWNS THAT PROJECT INTO PARKING LOT/ROADWAY AREAS SHALL BE RAISED TO 14 FEET ABOVE FINISHED GRADE.                                                                                                                                                                                                                                                    |
| f. INSECTICIDE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | g. ALL TREES WITH CROWNS THAT PROJECT INTO SIDEWALK AREAS SHALL BE RAISED TO A HEIGHT OF 8 FEET ABOVE FINISHED GRADE.                                                                                                                                                                                                                                                    |
| g. IRRIGATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10. TREES, WHOSE ROOT SYSTEMS WILL BE IMPACTED SHALL RECEIVE THE FOLLOWING PRUNING TO COMPENSATE FOR ROOT LOSS:                                                                                                                                                                                                                                                          |
| B. TREE PROTECTION FENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | a. THE LOCATION AND SIZE OF BRANCHES FOR REDUCTION SHALL BE DEFINED BY THE PROJECT ARBORIST.                                                                                                                                                                                                                                                                             |
| 1. PRIOR TO THE ERECTION OF ANY TREE PROTECTION FENCING, ALL FOREIGN SURFACE MATERIAL, TRASH OR DEBRIS SHALL BE REMOVED FROM THE AREA TO BE ENCLOSED BY THE FENCING. AFTER ERECTION OF THE FENCING NO SUCH MATERIAL OR LITTER SHALL BE PERMITTED TO REMAIN WITHIN THE PROTECTED AREA.                                                                                                                                                                                                                        | b. REDUCTION, OR THE SELECTIVE PRUNING TO REDUCE TREE HEIGHT OR SPREAD.                                                                                                                                                                                                                                                                                                  |
| 2. TREE PROTECTION FENCING SHALL BE PLACED AROUND ALL PROTECTED TREES TO CREATE A PROTECTIVE ROOT ZONE AND SHALL REMAIN IN PLACE UNTIL SITE CLEARING, LAND ALTERATION, AND CONSTRUCTION ACTIVITIES ARE COMPLETE.                                                                                                                                                                                                                                                                                             | c. REDUCE END WEIGHT ON HEAVY, HORIZONTAL BRANCHES BY SELECTIVELY REMOVING SMALL DIAMETER BRANCHES, NO GREATER THAN 2 TO 3 INCHES, NEAR THE ENDS OF SCAFFOLD BRANCHES.                                                                                                                                                                                                   |
| 3. NATIVE GROUND COVER AND UNDERSTORY VEGETATION EXISTING WITHIN THE PROTECTED AREA SHALL REMAIN THROUGHOUT CONSTRUCTION. OTHER DESIGNATED VEGETATION AND INVASIVE PLANT SPECIES SHALL BE REMOVED ONLY BY MANUAL LABOR UTILIZING HAND TOOLS, OR BY OTHER METHODS APPROVED BY THE PROJECT ARBORIST.                                                                                                                                                                                                           | d. RAISING SHALL CONSIST OF SELECTIVE PRUNING TO PROVIDE VERTICAL CLEARANCE.                                                                                                                                                                                                                                                                                             |
| 4. TREE PROTECTION FENCING TYPES AND LOCATIONS SHALL BE ERECTED AS SHOWN ON THE TREE MITIGATION PLANS AND DETAILS, OR AS REQUESTED BY LOCAL AGENCY.                                                                                                                                                                                                                                                                                                                                                          | 10. PROPOSED/REPLACEMENT TREES                                                                                                                                                                                                                                                                                                                                           |
| 5. FINAL LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE PROJECT ARBORIST.                                                                                                                                                                                                                                                                                                                                                                                                                           | a. PRUNING SHALL BE LIMITED TO CLEANING.                                                                                                                                                                                                                                                                                                                                 |
| 6. NO MATERIALS, EQUIPMENT, SPOIL, WASTE OR WASHOUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN 20 FEET OF THE TREE PROTECTION ZONE.                                                                                                                                                                                                                                                                                                                                                                    | 11. BRUSH SHALL BE CHIPPED AND SPREAD (ONLY WHEN DISEASE OR INSECT INFESTATION IS NOT PRESENT) UNDERNEATH TREES WITHIN THE TREE PROTECTION ZONE TO A MAXIMUM DEPTH OF THREE (3) INCHES, LEAVING THE TRUNK CLEAR OF MULCH.                                                                                                                                                |
| 7. EROSION CONTROL DEVICES SUCH AS SILT FENCING, DEBRIS BASINS, AND WATER DIVERSION STRUCTURES SHALL BE INSTALLED TO PREVENT SILTATION AND/OR EROSION WITHIN THE TREE PROTECTION ZONE.                                                                                                                                                                                                                                                                                                                       | 12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EXCESS DEBRIS ON A DAILY BASIS.                                                                                                                                                                                                                                                                                     |
| 8. CONSTRUCTION ACTIVITY SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROTECTED TREES. POST HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES SHALL BE ADJUSTED TO AVOID DAMAGE TO MAJOR ROOTS.                                                                                                                                                                                                                                                                                               | F. FERTILIZATION                                                                                                                                                                                                                                                                                                                                                         |
| 9. DO NOT INSTALL CONDUIT, DRAIN OR IRRIGATION LINES, OR ANY UTILITY LINE WITHIN THE TREE PROTECTION ZONE WITHOUT THE APPROVAL OF THE PROJECT ARBORIST. IF LINES MUST TRAVERSE THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE.                                                                                                                                                                                                                                                          | 1. CONTRACTOR SHALL COORDINATE FERTILIZATION PLAN, FOLLOWING BEST MANAGEMENT PRACTICES WITH THE PROJECT ARBORIST PRIOR TO COMMENCEMENT OF WORK.                                                                                                                                                                                                                          |
| 10. CONTRACTOR'S ACCESS TO FENCED TREE PROTECTION AREAS WILL BE PERMITTED ONLY WITH APPROVAL OF THE PROJECT ARBORIST.                                                                                                                                                                                                                                                                                                                                                                                        | 2. EVERY EFFORT SHALL BE MADE TO UTILIZE CHEMICALS OF AN ORGANIC OR BIODEGRADABLE NATURE IN ORDER TO OFFER THE LEAST IMPACT TO THE NATURAL ENVIRONMENT. CONTRACTOR IS RESPONSIBLE FOR MIXING, APPLYING, AND DISPOSAL OF ALL CHEMICALS IN ACCORDANCE WITH STRICT ADHERENCE TO MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH PROJECT ARBORIST FOR FURTHER INSTRUCTION.    |
| 11. EXCAVATION OR GRADING REQUIRED WITHIN THE PROTECTED AREA SHALL BE LIMITED TO THREE (3) INCHES OF CUT OR FILL. COORDINATE WITH PROJECT ARBORIST.                                                                                                                                                                                                                                                                                                                                                          | 3. ONLY TREES AFFECTED BY CONSTRUCTION OR AS SHOWN ON THE TREE MITIGATION PLAN AND TREE INVENTORY SCHEDULE SHALL BE TREATED.                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                          |

SHALL BE CHIPPED AND PLACED IN THE TREE PROTECTION ZONE TO A DEPTH OF THREE (3) INCHES. ALL EXCESS WOOD CHIPS SHOULD BE HAULED OFF SITE AFTER TRANSPLANTING IS COMPLETE.

ALL BURN PITS IF APPLICABLE MUST BE APPROVED BY THE PROJECT ARBORIST AND OWNER.

TREES TO BE REMOVED THAT HAVE BRANCHES EXTENDING INTO THE CANOPY OF TREES TO REMAIN MUST BE REMOVED BY A QUALIFIED ISA CERTIFIED ARBORIST AND NOT BY DEMOLITION OR CONSTRUCTION CONTRACTORS. THE QUALIFIED ARBORIST SHALL REMOVE THE TREE IN A MANNER THAT CAUSES NO DAMAGE TO THE TREES AND UNDERSTORY VEGETATION TO REMAIN.

TREES TO BE REMOVED LOCATED WITHIN THE TREE PROTECTION ZONE SHALL BE REMOVED BY A QUALIFIED ISA CERTIFIED ARBORIST. THE TREES SHALL BE CUT NEAR GROUND LEVEL AND THE STUMP GROUND OUT.

SOIL

CONTRACTOR SHALL COORDINATE ALL EARTHWORK OPERATIONS WITHIN TREE PROTECTION AREAS WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.

ALL TOPSOIL SHALL BE NATURAL, FIBRILE, FERTILE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH.

ALL TOPSOIL, PH RANGE OF 6.5 TO 7.0-3.5 PERCENT ORGANIC MATERIAL, MINIMUM, FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, LITTER, RODS, STIFF CLAY, STONES LARGER THAN ONE (1) INCH IN DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES, OR ANY OTHER MATERIAL, WHICH MAY BE HARMFUL TO PLANT GROWTH.

VERIFY ANY MOIST STOCKPILE IF ANY, AND SUPPLY ADDITIONAL, AS NEEDED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST FOUR (4) INCHES DEEP. DO NOT OBTAIN TOPSOIL FROM BOGS OR MARSHES.

PROJECT ARBORIST SHALL APPROVE ALL TOPSOIL PRIOR TO PLACEMENT.

SOIL OF DAMAGED TREES

IF DAMAGE TO ANY TREE SHOULD OCCUR BY ACCIDENT OR NEGLIGENCE DURING THE CONSTRUCTION PERIOD, THE PROJECT ARBORIST SHALL APPRAISE THE DAMAGE AND MAKE RECOMMENDATIONS TO THE OWNER FOR REPAIR BY THE CONTRACTOR.

IF ANY TREE DESIGNATED TO BE SAVED IS REMOVED FROM THE SITE WITHOUT PERMISSION OF THE OWNER'S REPRESENTATIVE, THE PROJECT ARBORIST SHALL APPRAISE THE TREE AND MAKE RECOMMENDATIONS TO THE OWNER FOR REPLACEMENT BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE TREE AND ANY FEES THAT MAY BE ASSESSED TO THE OWNER BY THE GOVERNING AGENCY.

**Kimley»»Horn**

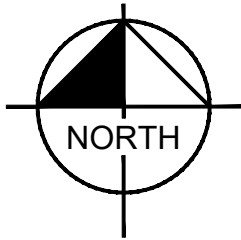
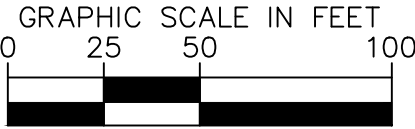
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CITY OF WINTER GARDEN  
FLORIDA



Plotted By: Sauer, Cole Sheet Set: GENERAL RV EXPANSION - NORTH Layout: L1.00 March 05, 2025 03:38:34pm K:\erl\_civil\249536000-general\_rv\_expansion\CADD\CONTS\plan sheets\North - L1.00 LANDSCAPE PLAN.dwg This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of any part of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



PLANT SCHEDULE

| SYMBOL        | CODE | QTY                           | COMMON NAME                                                                       | BOTANICAL NAME                                                     | CONT   | CAL          | SIZE             |
|---------------|------|-------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------|--------|--------------|------------------|
| TREES         |      |                               |                                                                                   |                                                                    |        |              |                  |
|               | ED   | 29                            | JAPANESE BLUEBERRY TREE<br>FL #1, FULL                                            | ELAEOCARPUS DECIPENS                                               | 30 GAL | 2" CAL MIN   | 11' HT           |
|               | IC   | 25                            | DAHOON HOLLY<br>FL #1, FULL, STRAIGHT                                             | ILEX CASSINE                                                       | 30 GAL | 2.5" CAL MIN | 11' HT           |
|               | MB   | 36                            | BRACKEN'S BEAUTY SOUTHERN MAGNOLIA<br>FL #1, FULL, STRAIGHT, SINGLE LEADER        | MAGNOLIA GRANDIFLORA 'BRACKENS BROWN BEAUTY'                       | FG     | 3" CAL MIN   | 10' HT., 5' SPR. |
|               | MC   | 46                            | WAX MYRTLE<br>FL #1, FULL TO BASE, STRAIGHT                                       | MORELLA CERIFERA                                                   | 30 GAL | 2" CAL MIN   | 11' HT           |
|               | QV   | 30                            | SOUTHERN LIVE OAK<br>FL #1, FULL, STRAIGHT, SINGLE LEADER                         | QUERCUS VIRGINIANA                                                 | FG     | 3" CAL MIN   | 10' HT., 5' SPR. |
| SYMBOL        | CODE | QTY                           | COMMON NAME                                                                       | BOTANICAL NAME                                                     | CONT   | SIZE         | SPACING          |
| SHRUBS        |      |                               |                                                                                   |                                                                    |        |              |                  |
|               | DE   | 49                            | GOLD MOUND DEWDROPS<br>FL #1, FULL                                                | DURANTA ERECTA 'GOLD MOUND'                                        | 3 GAL  | 24" FULL     | 30" OC           |
|               | ID   | 44                            | SCHILLINGS DWARF YAUPOH HOLLY<br>FULL, FL#1                                       | ILEX VOMITORIA 'SCHILLINGS DWARF'                                  | 3 GAL  | 18" FULL     | 30" OC           |
|               | IN   | 109                           | DWARF YAUPOH HOLLY<br>FL #1, FULL                                                 | ILEX VOMITORIA 'NANA'                                              | 3 GAL  | 24" FULL     | 30" OC           |
|               | RI   | 107                           | INDIAN HAWTHORNE<br>FL #1, FULL                                                   | RAPHIOLEPIS INDICA                                                 | 3 GAL  | 24" FULL     | 30" OC           |
|               | VO   | 903                           | WALTER'S VIBURNUM<br>FL #1, FULL                                                  | VIBURNUM OBOVATUM                                                  | 7 GAL  | 30" FULL     | 36" OC           |
| GROUND COVERS |      |                               |                                                                                   |                                                                    |        |              |                  |
|               | AG   | 844                           | PERENNIAL PEANUT<br>FL #1, FULL                                                   | ARACHIS GLABRATA                                                   | 1 GAL  | 12" FULL     | 12" OC           |
|               | EB   | 857                           | BRAZILIAN DWARF MORNING GLORY<br>FL #1, FULL                                      | EVOLVULUS GLOMERATUS 'BLUE DAZE'                                   | 1 GAL  | 12" FULL     | 14" OC           |
|               | PA   | 71,974 SF                     | ARGENTINE BAHIA GRASS<br>ROLLED TIGHT, 100% INSECT, WEED,<br>DISEASE, DEBRIS FREE | PASPALUM NOTATUM 'ARGENTINE'                                       | SOD    | SOD          | -                |
|               | PA2  | 4,347 SF                      | ARGENTINE BAHIA GRASS                                                             | PASPALUM NOTATUM 'ARGENTINE'                                       | SEED   | -            | -                |
| MISC.         | QTY  | BOTANICAL/COMMON NAME         |                                                                                   | SPECIFICATIONS                                                     |        |              |                  |
| MULCH         | TBD  | DESIGNER BROWN HARDWOOD MULCH |                                                                                   | 3" DEPTH MINIMUM, SHREDDDED, FREE OF WEEDS/INVASIVE PLANT MATERIAL |        |              |                  |

LANDSCAPE NOTES:

- ALL LANDSCAPE MATERIAL TO BE FLORIDA GRADE #1 OR BETTER QUALITY
- ALL LANDSCAPED AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL.
- ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
- ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
- ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
- ALL PLANTING AREAS SHALL BE COMPLETELY MULCHED AS SPECIFIED.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES ADJACENT TO THE WORK AREA 2) TO PROTECT ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING TO MAINTAIN HEALTHY PLANT CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR THE WARRANTY PERIOD.
- ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR WARRANTY PERIOD. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS DURING THE NORMAL PLANTING SEASON.
- STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES, AND SHALL BE FLORIDA NO. 1 OR BETTER AS GIVEN IN "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II," STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE.
- ALL INVASIVE / EXOTIC SPECIES AND PROHIBITED TREE SPECIES SHALL BE REMOVED FROM SITE, INCLUDING ROOT BALLS TO THE EXTENT POSSIBLE WITH NO DAMAGE TO ADJACENT EXISTING TREES.
- ALL LANDSCAPE AREAS WILL BE PROVIDED WITH PERMANENT AUTOMATIC IRRIGATION SYSTEM.
- TREE SUPPORT MATERIALS ARE TO BE REMOVED FROM EACH TREE ONCE IT IS "ESTABLISHED" (AS APPROVED BY THE LANDSCAPE ARCHITECT).
- ALL PLANT SPECIFICATIONS IN THE PLANT SCHEDULE SHALL BE CONSIDERED THE MINIMUM ALLOWABLE SPECIFICATIONS. CONTRACTOR SHALL PROCURE PLANT MATERIALS AND UPSIZE AS NECESSARY TO MEET THE MOST STRINGENT SPECIFICATION.
- ALL PLANTED LANDSCAPE AREAS TO HAVE 3" DEEP DESIGNER BROWN HARDWOOD MULCH TO FULLY COVER DRIP IRRIGATION & AMENDED SOILS. REPAIR AS NEEDED DURING CONSTRUCTION. SUBMIT ALTERNATIVE MULCH SPECIFICATION FOR LANDSCAPE ARCHITECT APPROVAL.

| WINTER GARDEN LANDSCAPE CODE                                                                                                                                                                                               |                                                                                                                             |                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| CODE                                                                                                                                                                                                                       | REQUIRED                                                                                                                    | PROPOSED                                                                                                                    |
| BUFFER REQUIREMENTS<br>ADJACENT TO OTHER PROPERTIES & RIGHT-OF-WAY<br>- 1 CANOPY TREE / 50 LF<br>- 2 UNDERSTORY TREES / 50 LF<br>PID, ORDINANCE 13-42, SECTION 2.(E)(B)<br><br>- CONTINUOUS SHRUB ROW<br>SEC. 118-1529.(B) | <b>NORTH BUFFER - 736 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>16 SHADE TREES<br>29 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW | <b>NORTH BUFFER - 736 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>16 SHADE TREES<br>29 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW |
|                                                                                                                                                                                                                            | <b>EAST BUFFER - 563 LF</b><br>(ADJ. TO R.O.W.)<br>11 SHADE TREES<br>22 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW            | <b>EAST BUFFER - 563 LF</b><br>(ADJ. TO R.O.W.)<br>11 SHADE TREES<br>22 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW            |
|                                                                                                                                                                                                                            | <b>SOUTH BUFFER - 625 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW | <b>SOUTH BUFFER - 625 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>27 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW |
|                                                                                                                                                                                                                            | <b>WEST BUFFER - 665 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW  | <b>WEST BUFFER - 665 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW  |
| <b>INTERIOR LANDSCAPE REQUIREMENT SECTION 114.34</b><br>1 SF LANDSCAPE / 50 SF OF PAVING<br>1 TREE / 100 SF OF INTERIOR LANDSCAPE                                                                                          | TOTAL PAVED AREA = 37,394<br>37,394 / 50 = 748 LANDSCAPE<br>748 / 100 = 7 TREES                                             | 1,757 LANDSCAPE<br>7 INTERIOR TREES                                                                                         |
| <b>BUILDING PERIMETER LANDSCAPE SECTION 24.4.D</b><br>5' LANDSCAPE AREA (MIN 30% SHRUBS/GROUND COVER)<br>1 SHADE TREE PER 50 LF                                                                                            | <b>MAIN BUILDING - 153 LF</b><br>450 SF SHRUBS/GROUND COVER<br>3 SHADE TREES                                                | <b>MAIN BUILDING - 153 LF</b><br>665 SF SHRUBS/GROUND COVER<br>3 SHADE TREES                                                |

| NORTH TREE MITIGATION CALCULATION |                  |
|-----------------------------------|------------------|
| TOTAL CANOPY TREES REMOVED        | 141              |
| MITIGATION REQUIRED (2:1)         |                  |
| TOTAL REPLACEMENT TREES REQUIRED  | 282              |
| CANOPY TREES PROVIDED             | 66               |
| TREE MITIGATION BALANCE           | 219 TREE DEFICIT |
| *COST OF CANOPY TREE INSTALLED*   | \$790            |
| \$790 x 219 = 173,010             |                  |
| 173,010                           |                  |

|       |      |    |      |
|-------|------|----|------|
| 50511 | OAK  | 20 | DEMO |
| 50512 | CAM  | 12 | DEMO |
| 50513 | OAK  | 36 | DEMO |
| 50514 | OAK  | 20 | DEMO |
| 50515 | OAK  | 32 | DEMO |
| 50516 | OAK  | 15 | DEMO |
| 50517 | OAK  | 30 | DEMO |
| 50518 | OAK  | 12 | DEMO |
| 50519 | OAK  | 17 | DEMO |
| 50520 | OAK  | 24 | DEMO |
| 50521 | OAK  | 15 | DEMO |
| 50522 | OAK  | 32 | DEMO |
| 50523 | OAK  | 15 | DEMO |
| 50524 | OAK  | 18 | DEMO |
| 50525 | OAK  | 12 | DEMO |
| 50526 | CAM  | 30 | DEMO |
| 50527 | TREE | 15 | DEMO |
| 50528 | TREE | 15 | DEMO |
| 50529 | PALM | 12 | DEMO |
| 50530 | OAK  | 36 | DEMO |
| 50531 | OAK  | 18 | DEMO |
| 50532 | CAM  | 40 | DEMO |
| 50533 | OAK  | 24 | DEMO |
| 50534 | OAK  | 24 | DEMO |
| 50535 | OAK  | 14 | DEMO |
| 50536 | OAK  | 14 | DEMO |
| 50537 | OAK  | 18 | DEMO |
| 50538 | OAK  | 12 | DEMO |
| 50539 | OAK  | 12 | DEMO |
| 50540 | OAK  | 12 | DEMO |
| 50541 | OAK  | 17 | DEMO |
| 50542 | OAK  | 17 | DEMO |
| 50543 | OAK  | 20 | DEMO |
| 50544 | OAK  | 14 | DEMO |
| 50545 | OAK  | 12 | DEMO |
| 50546 | OAK  | 12 | DEMO |
| 50547 | OAK  | 12 | DEMO |
| 50548 | OAK  | 12 | DEMO |

| NORTH TREE MITIGATION |         |     |        |
|-----------------------|---------|-----|--------|
| TREE ID               | SPEICES | DBH | ACTION |
| 41472                 | OAK     | 22  | DEMO   |
| 41473                 | OAK     | 14  | DEMO   |
| 41474                 | OAK     | 12  | DEMO   |
| 41537                 | OAK     | 26  | DEMO   |
| 41538                 | OAK     | 30  | DEMO   |
| 41539                 | OAK     | 14  | DEMO   |
| 41540                 | OAK     | 18  | DEMO   |
| 41541                 | OAK     | 14  | DEMO   |
| 41542                 | OAK     | 12  | DEMO   |
| 41543                 | OAK     | 14  | DEMO   |
| 41544                 | OAK     | 14  | DEMO   |
| 41545                 | OAK     | 18  | DEMO   |
| 41546                 | OAK     | 26  | DEMO   |
| 41547                 | OAK     | 30  | DEMO   |
| 41548                 | OAK     | 21  | DEMO   |
| 41549                 | OAK     | 34  | DEMO   |
| 41550                 | PALM    | 12  | DEMO   |
| 41551                 | OAK     | 16  | DEMO   |
| 41552                 | OAK     | 21  | DEMO   |
| 41553                 | OAK     | 18  | DEMO   |
| 41554                 | OAK     | 13  | DEMO   |
| 50428                 | OAK     | 13  | DEMO   |
| 50429                 | OAK     | 42  | DEMO   |
| 50430                 | OAK     | 22  | DEMO   |
| 50431                 | OAK     | 36  | DEMO   |
| 50432                 | OAK     | 16  | DEMO   |
| 50433                 | OAK     | 16  | DEMO   |
| 50434                 | OAK     | 36  | DEMO   |
| 50435                 | OAK     | 22  | DEMO   |
| 50436                 | OAK     | 18  | DEMO   |
| 50437                 | OAK     | 24  | DEMO   |
| 50438                 | OAK     | 30  | DEMO   |
| 50439                 | OAK     | 24  | DEMO   |
| 50440                 | OAK     | 18  | DEMO   |
| 50441                 | OAK     | 48  | DEMO   |
| 50442                 | OAK     | 18  | DEMO   |
| 50443                 | OAK     | 18  | DEMO   |
| 50444                 | OAK     | 24  | DEMO   |
| 50445                 | OAK     | 18  | DEMO   |
| 50446                 | OAK     | 16  | DEMO   |
| 50447                 | OAK     | 20  | DEMO   |
| 50448                 | OAK     | 28  | DEMO   |
| 50449                 | OAK     | 22  | DEMO   |
| 50450                 | OAK     | 36  | DEMO   |
| 50451                 | OAK     | 12  | DEMO   |
| 50452                 | OAK     | 12  | DEMO   |
| 50453                 | OAK     | 12  | DEMO   |
| 50454                 | OAK     | 12  | DEMO   |
| 50455                 | OAK     | 30  | DEMO   |
| 50456                 | OAK     | 12  | DEMO   |
| 50457                 | OAK     | 38  | DEMO   |
| 50458                 | OAK     | 12  | DEMO   |
| 50459                 | OAK     | 20  | DEMO   |
| 50460                 | OAK     | 16  | DEMO   |
| 50461                 | OAK     | 16  | DEMO   |
| 50462                 | OAK     | 16  | DEMO   |
| 50463                 | OAK     | 60  | DEMO   |
| 50464                 | OAK     | 20  | DEMO   |
| 50465                 | OAK     | 12  | DEMO   |
| 50466                 | OAK     | 15  | DEMO   |
| 50467                 | OAK     | 15  | DEMO   |
| 50468                 | OAK     | 24  | DEMO   |
| 50469                 | OAK     | 15  | DEMO   |
| 50470                 | OAK     | 32  | DEMO   |
| 50471                 | OAK     | 48  | DEMO   |
| 50472                 | OAK     | 36  | DEMO   |
| 50473                 | OAK     | 18  | DEMO   |
| 50474                 | OAK     | 24  | DEMO   |
| 50475                 | OAK     | 24  | DEMO   |
| 50476                 | OAK     | 20  | DEMO   |
| 50477                 | OAK     | 60  | DEMO   |
| 50478                 | OAK     | 18  | DEMO   |
| 50479                 | OAK     | 18  | DEMO   |
| 50480                 | OAK     | 18  | DEMO   |
| 50481                 | OAK     | 30  | DEMO   |
| 50482                 | OAK     | 22  | DEMO   |
| 50483                 | OAK     | 24  | DEMO   |
| 50484                 | OAK     | 18  | DEMO   |
| 50485                 | OAK     | 12  | DEMO   |
| 50486                 | OAK     | 42  | DEMO   |
| 50487                 | OAK     | 38  | DEMO   |
| 50488                 | OAK     | 16  | DEMO   |
| 50489                 | OAK     | 16  | DEMO   |
| 50490                 | OAK     | 28  | DEMO   |
| 50491                 | OAK     | 22  | DEMO   |
| 50492                 | TREE    | 32  | DEMO   |
| 50493                 | OAK     | 18  | DEMO   |
| 50494                 | OAK     | 24  | DEMO   |
| 50495                 | OAK     | 24  | DEMO   |
| 50496                 | OAK     | 18  | DEMO   |
| 50497                 | OAK     | 18  | DEMO   |
| 50499                 | OAK     | 15  | DEMO   |
| 50500                 | OAK     | 15  | DEMO   |
| 50501                 | OAK     | 15  | DEMO   |
| 50502                 | OAK     | 12  | DEMO   |
| 50503                 | OAK     | 30  | DEMO   |
| 50504                 | OAK     | 15  | DEMO   |
| 50505                 | OAK     | 15  | DEMO   |
| 50506                 | OAK     | 12  | DEMO   |
| 50507                 | OAK     | 16  | DEMO   |
| 50508                 | OAK     | 13  | DEMO   |
| 50509                 | OAK     | 20  | DEMO   |
| 50510                 | CAM     | 20  | DEMO   |

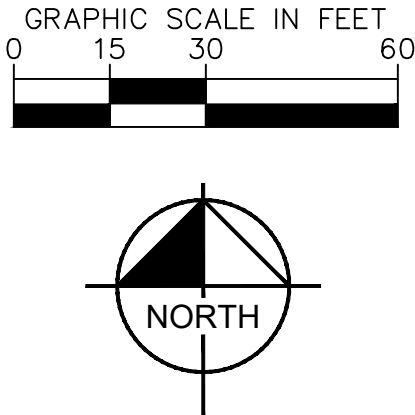
Kimley»Horn

|           |          |                   |          |
|-----------|----------|-------------------|----------|
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|           |          | SHF               | MTF      |

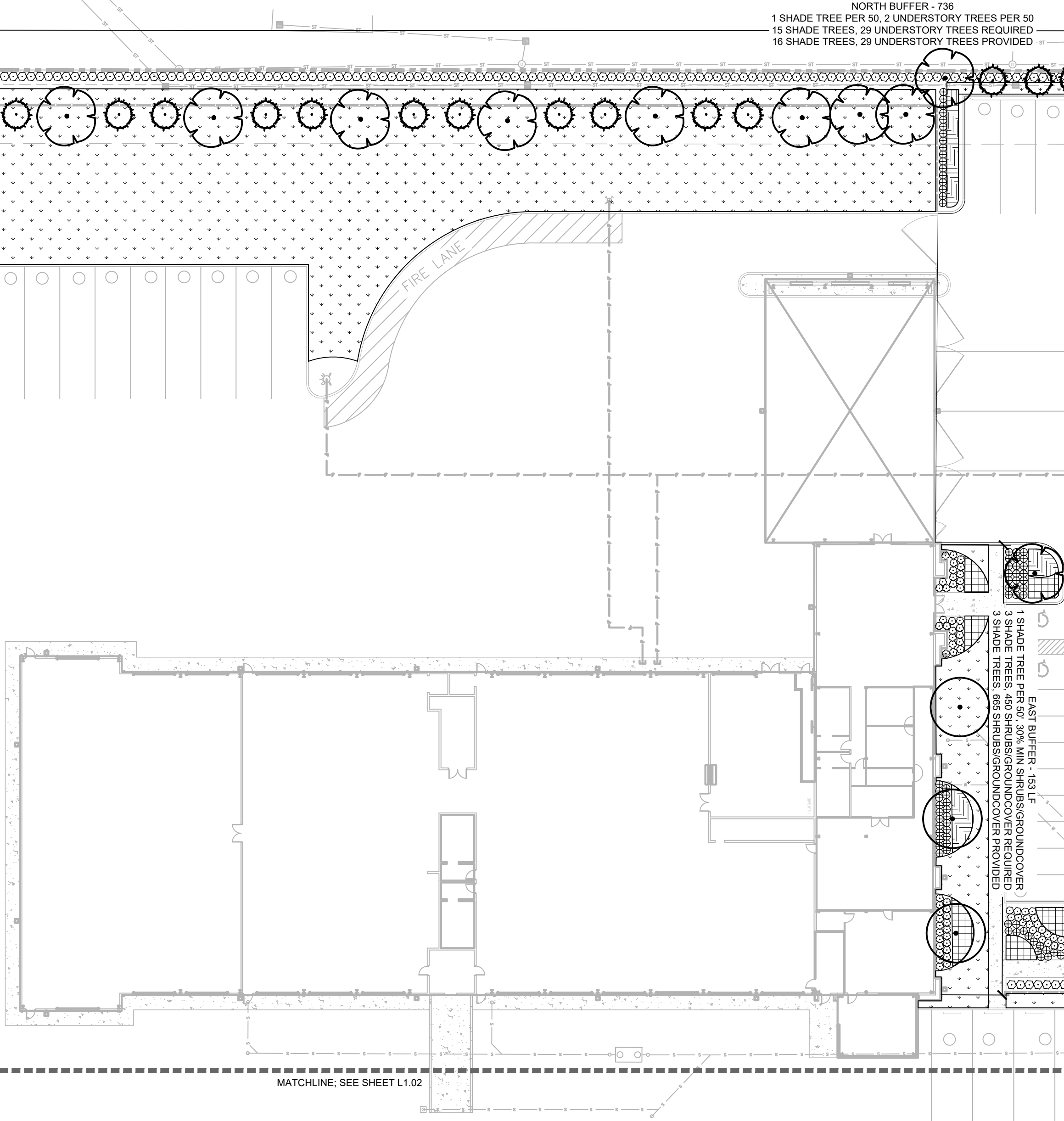
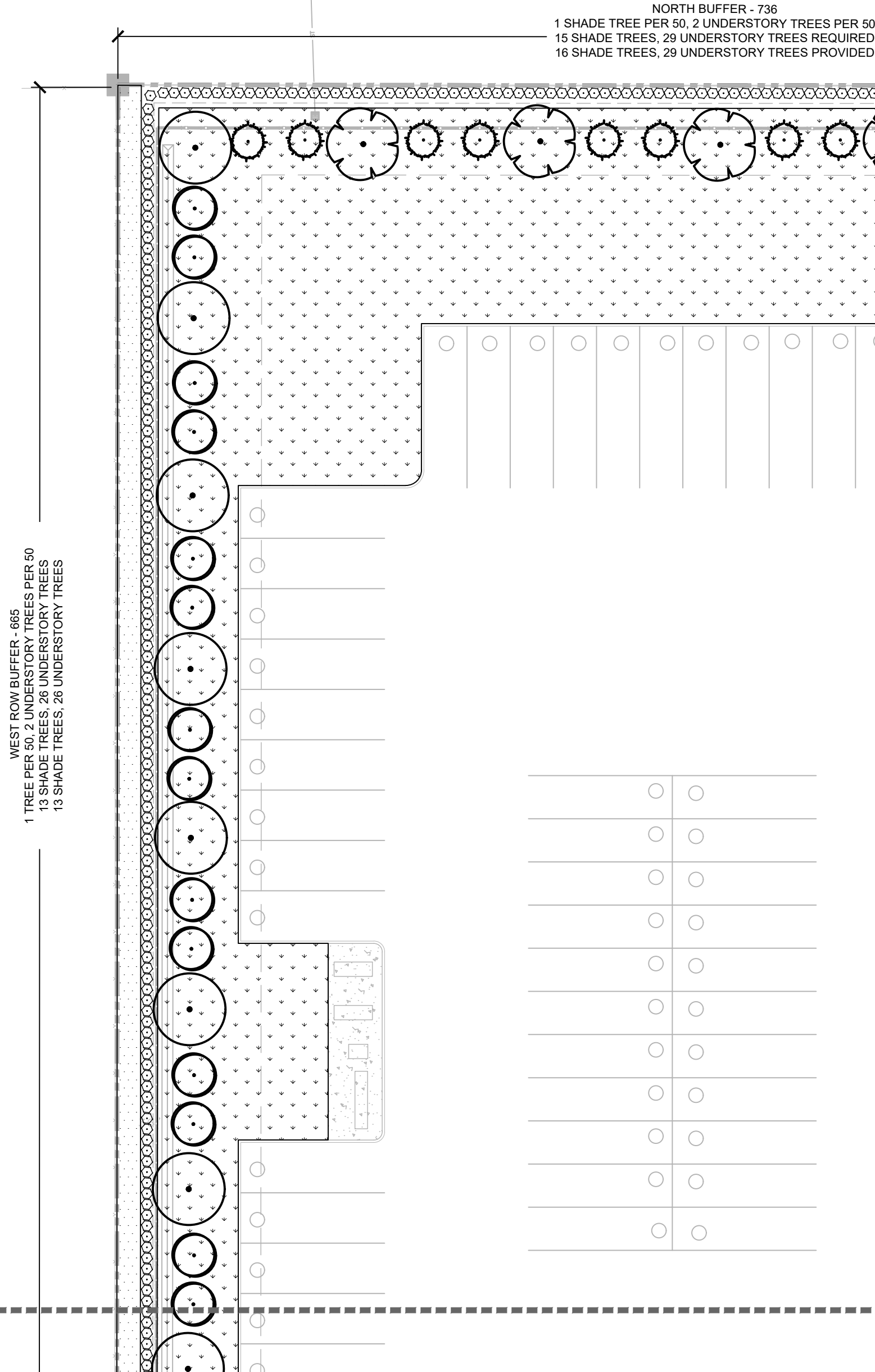
CITY OF WINTER GARDEN FLORIDA



Posted By: Sauer, Cole Sheet Set: GENERAL RV EXPANSION - NORTH Layout: L1.01 March 05, 2025 03:39:44pm K:\et\_civil\249536000-general rv expansion\CADD\CONST\plansheets\North at L1.01 LANDSCAPE PLAN.dwg  
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WEST ROW BUFFER - 665 LF  
1 TREE PER 50' MIN SHRUBS/GROUND COVER  
13 SHADE TREES, 25 UNDERSTORY TREES  
13 SHADE TREES, 25 UNDERSTORY TREES



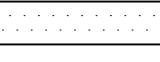
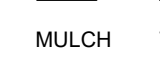
EAST BUFFER - 563 LF  
1 SHADE TREE PER 50', 30% MIN SHRUBS/GROUND COVER  
11 SHADE TREES, 22 UNDERSTORY TREES REQUIRED  
11 SHADE TREES, 22 UNDERSTORY TREES PROVIDED

SOUTH BUFFER - 625 LF  
1 SHADE TREE PER 50', 30% MIN SHRUBS/GROUND COVER  
13 SHADE TREES, 25 UNDERSTORY TREES REQUIRED  
13 SHADE TREES, 25 UNDERSTORY TREES PROVIDED

WEST BUFFER - 665 LF  
1 SHADE TREE PER 50', 30% MIN SHRUBS/GROUND COVER  
13 SHADE TREES, 25 UNDERSTORY TREES REQUIRED  
13 SHADE TREES, 25 UNDERSTORY TREES PROVIDED

MATCHLINE: SEE SHEET L1.02

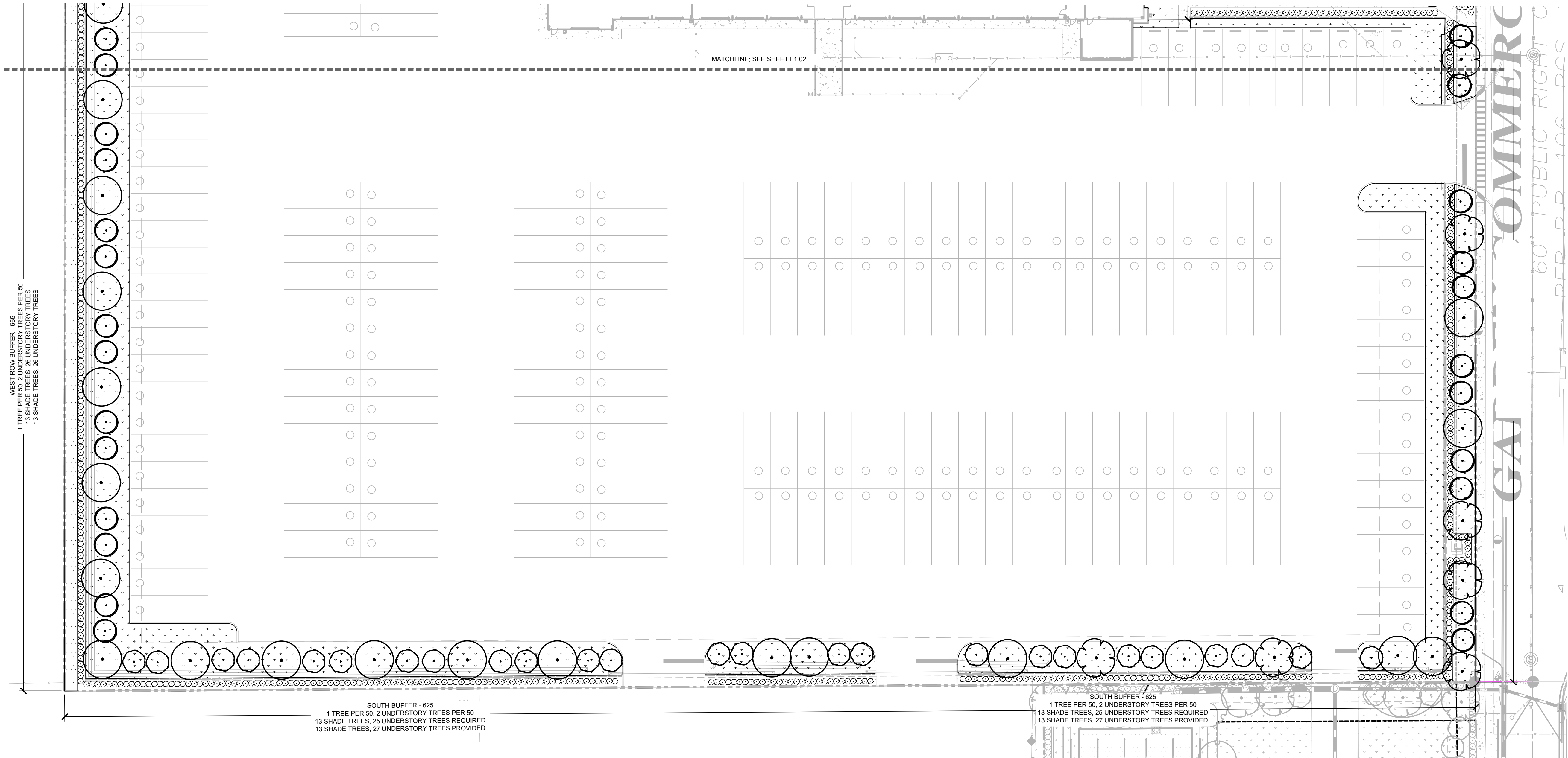
## PLANT SCHEDULE

| SYMBOL                                                                              | CODE | QTY                   | COMMON NAME                                                                       | BOTANICAL NAME                                                    | CONT   | CAL          | SIZE             |
|-------------------------------------------------------------------------------------|------|-----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------|--------|--------------|------------------|
| TREES                                                                               |      |                       |                                                                                   |                                                                   |        |              |                  |
|  | ED   | 29                    | JAPANESE BLUEBERRY TREE<br>FL #1, FULL                                            | ELAEOCARPUS DECIPENS                                              | 30 GAL | 2" CAL MIN   | 11' HT           |
|  | IC   | 25                    | DAHOO HOLLY<br>FL #1, FULL, STRAIGHT                                              | ILEX CASSINE                                                      | 30 GAL | 2.5" CAL MIN | 11' HT           |
|  | MB   | 36                    | BRACKEN'S BEAUTY SOUTHERN MAGNOLIA<br>FL #1, FULL, STRAIGHT, SINGLE LEADER        | MAGNOLIA GRANDIFLORA 'BRACKENS BROWN BEAUTY'                      | FG     | 3" CAL MIN   | 10' HT., 5' SPR. |
|  | MC   | 46                    | WAX MYRTLE<br>FL #1, FULL TO BASE, STRAIGHT                                       | MORELLA CERIFERA                                                  | 30 GAL | 2" CAL MIN   | 11' HT           |
|  | QV   | 30                    | SOUTHERN LIVE OAK<br>FL #1, FULL, STRAIGHT, SINGLE LEADER                         | QUERCUS VIRGINIANA                                                | FG     | 3" CAL MIN   | 10' HT., 5' SPR. |
| SYMBOL                                                                              | CODE | QTY                   | COMMON NAME                                                                       | BOTANICAL NAME                                                    | CONT   | SIZE         | SPACING          |
| SHRUBS                                                                              |      |                       |                                                                                   |                                                                   |        |              |                  |
|  | DE   | 49                    | GOLD MOUND DEWDROPS<br>FL #1, FULL                                                | DURANTA ERECTA 'GOLD MOUND'                                       | 3 GAL  | 24" FULL     | 30" OC           |
|  | ID   | 44                    | SCHILLINGS DWARF YAUJON HOLLY<br>FULL, FL#1                                       | ILEX VOMITORIA 'SCHILLINGS DWARF'                                 | 3 GAL  | 18" FULL     | 30" OC           |
|  | IN   | 109                   | DWARF YAUJON HOLLY<br>FL #1, FULL                                                 | ILEX VOMITORIA 'NANA'                                             | 3 GAL  | 24" FULL     | 30" OC           |
|  | RI   | 107                   | INDIAN HAWTHORNE<br>FL #1, FULL                                                   | RAPHIOLEPIS INDICA                                                | 3 GAL  | 24" FULL     | 30" OC           |
|  | VO   | 903                   | WALTER'S VIBURNUM<br>FL #1, FULL                                                  | VIBURNUM OBOVATUM                                                 | 7 GAL  | 30" FULL     | 36" OC           |
| GROUND COVERS                                                                       |      |                       |                                                                                   |                                                                   |        |              |                  |
|  | AG   | 844                   | PERENNIAL PEANUT<br>FL #1, FULL                                                   | ARACHIS GLABRATA                                                  | 1 GAL  | 12" FULL     | 12" OC           |
|  | EB   | 857                   | BRAZILIAN DWARF MORNING GLORY<br>FL #1, FULL                                      | EVOLVULUS GLOMERATUS 'BLUE DAZE'                                  | 1 GAL  | 12" FULL     | 14" OC           |
|  | PA   | 71,974 SF             | ARGENTINE BAHIA GRASS<br>ROLLED TIGHT, 100% INSECT, WEED,<br>DISEASE, DEBRIS FREE | PASPALUM NOTATUM 'ARGENTINE'                                      | SOD    | SOD          | -                |
|  | PA2  | 4,347 SF              | ARGENTINE BAHIA GRASS                                                             | PASPALUM NOTATUM 'ARGENTINE'                                      | SEED   | -            | -                |
| MISC.                                                                               | QTY  | BOTANICAL/COMMON NAME |                                                                                   | SPECIFICATIONS                                                    |        |              |                  |
| MULCH                                                                               | TBD  | ROCK MULCH            |                                                                                   | 3" DEPTH MINIMUM, SHREDDED, FREE OF WEEDS/INVASIVE PLANT MATERIAL |        |              |                  |

| WINTER GARDEN LANDSCAPE CODE                                                                                                                                            |                                                                                                                             |                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| CODE                                                                                                                                                                    | REQUIRED                                                                                                                    | PROPOSED                                                                                                                    |
| BUFFER REQUIREMENTS<br>ADJACENT TO OTHER PROPERTIES & RIGHT-OF-WAY<br>- 1 CANOPY TREE / 50 LF<br>- 2 UNDERSTORY TREES / 50 LF<br>PID, ORDINANCE 13-42, SECTION 2.(E)(B) | <b>NORTH BUFFER - 736 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>15 SHADE TREES<br>29 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW | <b>NORTH BUFFER - 736 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>16 SHADE TREES<br>29 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW |
|                                                                                                                                                                         | <b>EAST BUFFER - 563 LF</b><br>(ADJ. TO R.O.W.)<br>11 SHADE TREES<br>22 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW            | <b>EAST BUFFER - 563 LF</b><br>(ADJ. TO R.O.W.)<br>11 SHADE TREES<br>22 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW            |
|                                                                                                                                                                         | <b>SOUTH BUFFER - 625 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW | <b>SOUTH BUFFER - 625 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>27 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW |
| INTERIOR LANDSCAPE REQUIREMENT SECTION 114.34<br>1 SF LANDSCAPE / 50 SF OF PAVING<br>1 TREE / 100 SF OF INTERIOR LANDSCAPE                                              | <b>WEST BUFFER - 665 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW  | <b>WEST BUFFER - 665 LF</b><br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW  |
|                                                                                                                                                                         | <b>MAIN BUILDING - 153 LF</b><br>450 SF SHRUBS/GROUND COVER<br>3 SHADE TREES                                                | <b>MAIN BUILDING - 153 LF</b><br>450 SF SHRUBS/GROUND COVER<br>3 SHADE TREES                                                |

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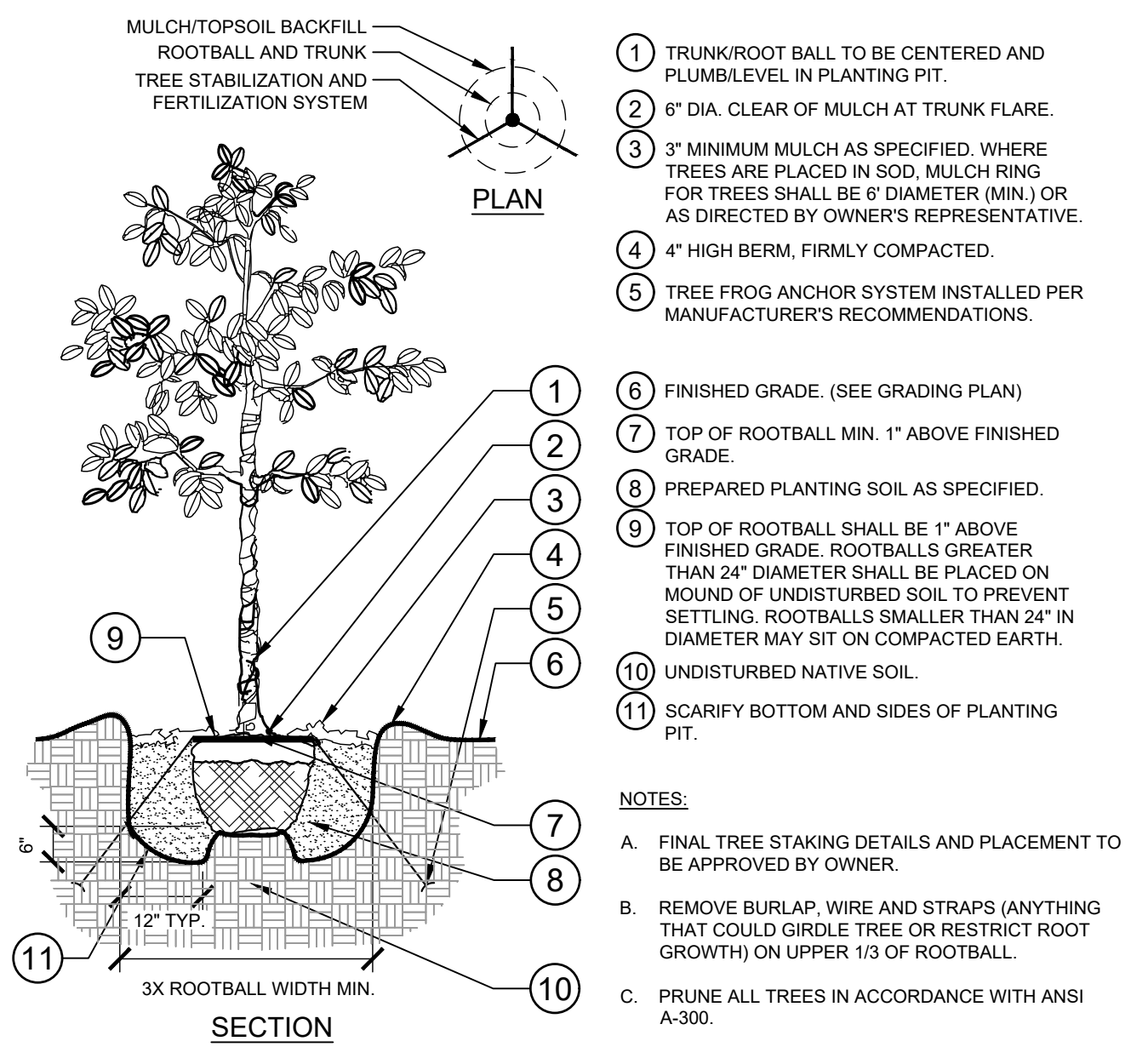
PLANT SCHEDULE

| SYMBOL        | CODE | QTY       | COMMON NAME                                                                     | BOTANICAL NAME                               | CONT   | CAL          | SIZE             |
|---------------|------|-----------|---------------------------------------------------------------------------------|----------------------------------------------|--------|--------------|------------------|
| TREES         |      |           |                                                                                 |                                              |        |              |                  |
|               | ED   | 29        | JAPANESE BLUEBERRY TREE<br>FL #1, FULL                                          | ELAEOCARPUS DECIPIENS                        | 30 GAL | 2" CAL MIN   | 11' HT           |
|               | IC   | 25        | DAHOON HOLLY<br>FL #1, FULL, STRAIGHT                                           | ILEX CASSINE                                 | 30 GAL | 2.5" CAL MIN | 11' HT           |
|               | MB   | 36        | BRACKEN'S BEAUTY SOUTHERN MAGNOLIA<br>FL #1, FULL, STRAIGHT, SINGLE LEADER      | MAGNOLIA GRANDIFLORA 'BRACKENS BROWN BEAUTY' | FG     | 3" CAL MIN   | 10' HT., 5' SPR. |
|               | MC   | 46        | WAX MYRTLE<br>FL #1, FULL TO BASE, STRAIGHT                                     | MORELLA CERIFERA                             | 30 GAL | 2" CAL MIN   | 11' HT           |
|               | QV   | 30        | SOUTHERN LIVE OAK<br>FL #1, FULL, STRAIGHT, SINGLE LEADER                       | QUERCUS VIRGINIANA                           | FG     | 3" CAL MIN   | 10' HT., 5' SPR. |
| SYMBOL        | CODE | QTY       | COMMON NAME                                                                     | BOTANICAL NAME                               | CONT   | SIZE         | SPACING          |
| SHRUBS        |      |           |                                                                                 |                                              |        |              |                  |
|               | DE   | 49        | GOLD MOUND DEWDROPS<br>FL #1, FULL                                              | DURANTA ERECTA 'GOLD MOUND'                  | 3 GAL  | 24" FULL     | 30" OC           |
|               | ID   | 44        | SCHILLINGS DWARF YAUPOON HOLLY<br>FULL, FL#1                                    | ILEX VOMITORIA 'SCHILLINGS DWARF'            | 3 GAL  | 18" FULL     | 30" OC           |
|               | IN   | 109       | DWARF YAUPOON HOLLY<br>FL #1, FULL                                              | ILEX VOMITORIA 'NANA'                        | 3 GAL  | 24" FULL     | 30" OC           |
|               | RI   | 107       | INDIAN HAWTHORNE<br>FL #1, FULL                                                 | RAPHIOLEPS INDICA                            | 3 GAL  | 24" FULL     | 30" OC           |
|               | VO   | 903       | WALTER'S VIBURNUM<br>FL #1, FULL                                                | VIBURNUM OBOVATUM                            | 7 GAL  | 30" FULL     | 36" OC           |
| GROUND COVERS |      |           |                                                                                 |                                              |        |              |                  |
|               | MISC | DWG       | REDKENIAL PEANUT<br>FL #1, FULL                                                 | ARDISCIPOLARIS                               | 1 GAL  | 12" FULL     | 12" OC           |
|               | EB   | MULCH     | BRAZILIAN DWARF MORNING GLORY<br>FL #1, FULL                                    | EVOLVENS MINIMA                              | 1 GAL  | 12" FULL     | 14" OC           |
|               | PA   | 71,974 SF | ARGENTINE BAHIAGRASS<br>ROLLED TIGHT, 100% INSECT, WEED,<br>DIEASE, DEBRIS FREE | PASPALUM NOTATUM 'ARGENTINE'                 | SOD    | SOD          | -                |
|               | PA2  | 4,347 SF  | ARGENTINE BAHIAGRASS                                                            | PASPALUM NOTATUM 'ARGENTINE'                 | SEED   | -            | -                |

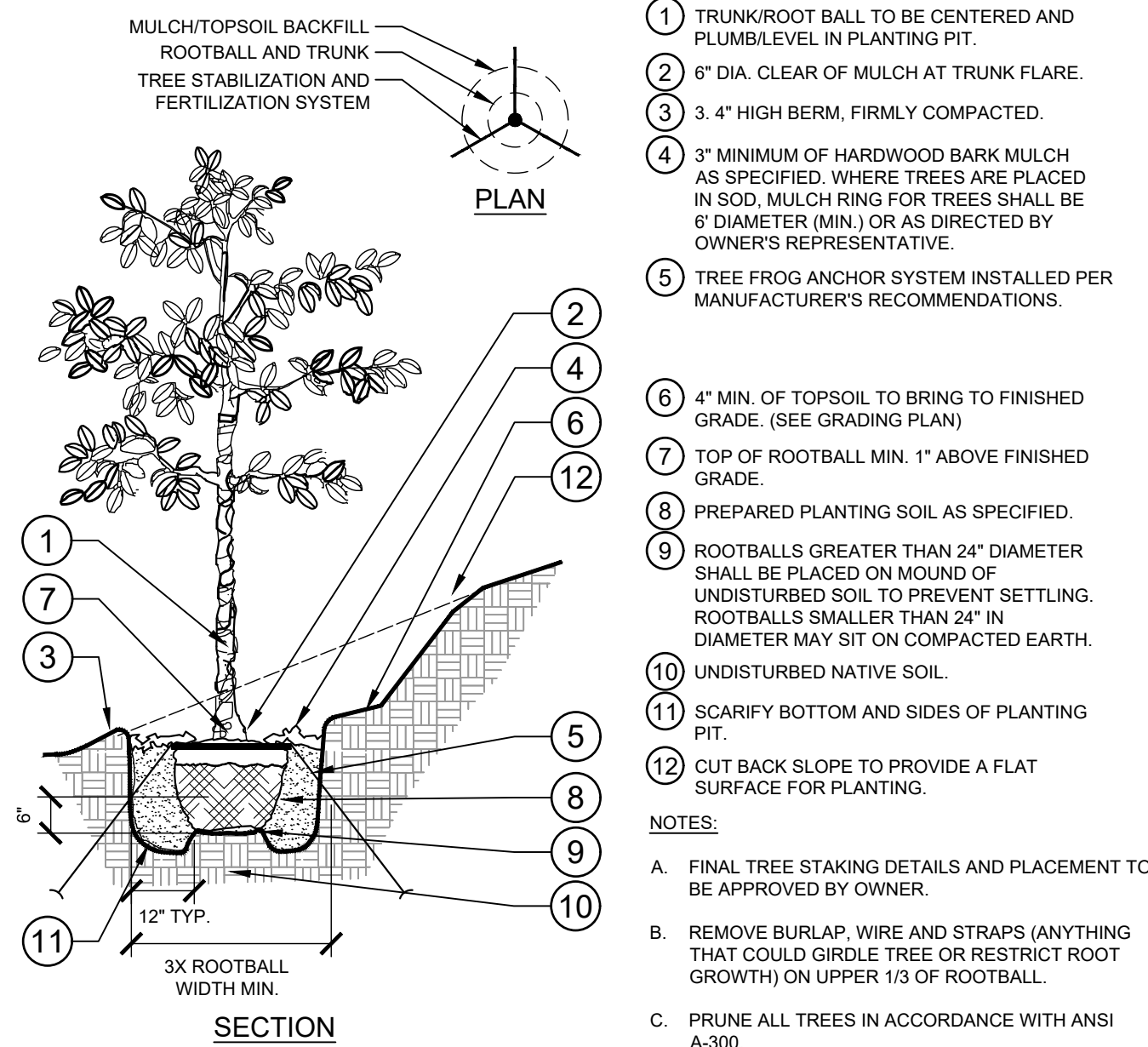
| WINTER GARDEN LANDSCAPE CODE                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE                                                                                                                                                                                                                                         | REQUIRED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PROPOSED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                              | <b>NORTH BUFFER</b> - 736 LF<br>(ADJ. TO OTHER PROPERTIES)<br>15 SHADE TREES<br>29 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW<br><br><b>EAST BUFFER</b> - 563 LF<br>(ADJ. TO R.O.W.)<br>11 SHADE TREES<br>22 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW<br><br><b>SOUTH BUFFER</b> - 625 LF<br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW<br><br><b>WEST BUFFER</b> - 665 LF<br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>25 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW | <b>NORTH BUFFER</b> - 736 LF<br>(ADJ. TO OTHER PROPERTIES)<br>16 SHADE TREES<br>29 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW<br><br><b>EAST BUFFER</b> - 563 LF<br>(ADJ. TO R.O.W.)<br>11 SHADE TREES<br>22 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW<br><br><b>SOUTH BUFFER</b> - 625 LF<br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>27 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW<br><br><b>WEST BUFFER</b> - 665 LF<br>(ADJ. TO OTHER PROPERTIES)<br>13 SHADE TREES<br>26 UNDERSTORY TREES<br>CONTINUOUS HEDGE ROW |
| <b><u>BUFFER REQUIREMENTS</u></b><br><br>ADJACENT TO OTHER PROPERTIES & RIGHT-OF-WAY<br>- 1 CANOPY TREE / 50 LF<br>- 2 UNDERSTORY TREES / 50 LF<br>PID, ORDINANCE 13-42, SECTION 2.(E)(B)<br><br>- CONTINUOUS SHRUB ROW<br>SEC. 119-1529.(B) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b><u>INTERIOR LANDSCAPE REQUIREMENT SECTION 114.34</u></b><br>1 SF LANDSCAPE / 50 SF OF PAVING<br>1 TREE / 100 SF OF INTERIOR LANDSCAPE                                                                                                     | TOTAL PAVED AREA = 37,394<br>37,394 / 50 = 748 LANDSCAPE<br>748 / 100 = 7 TREES                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1,757 LANDSCAPE<br>7 INTERIOR TREES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b><u>BUILDING PERIMETER LANDSCAPE SECTION 24.4.D</u></b><br>5' LANDSCAPE AREA (MIN 30% SHRUBS/GROUND COVER)<br>1 SHADE TREE PER 50 LF                                                                                                       | <b>MAIN BUILDING</b> - 153 LF<br>450 SF SHRUBS/GROUND COVER<br>3 SHADE TREES                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>MAIN BUILDING</b> - 153 LF<br>665 SF SHRUBS/GROUND COVER<br>3 SHADE TREES                                                                                                                                                                                                                                                                                                                                                                                                                                             |



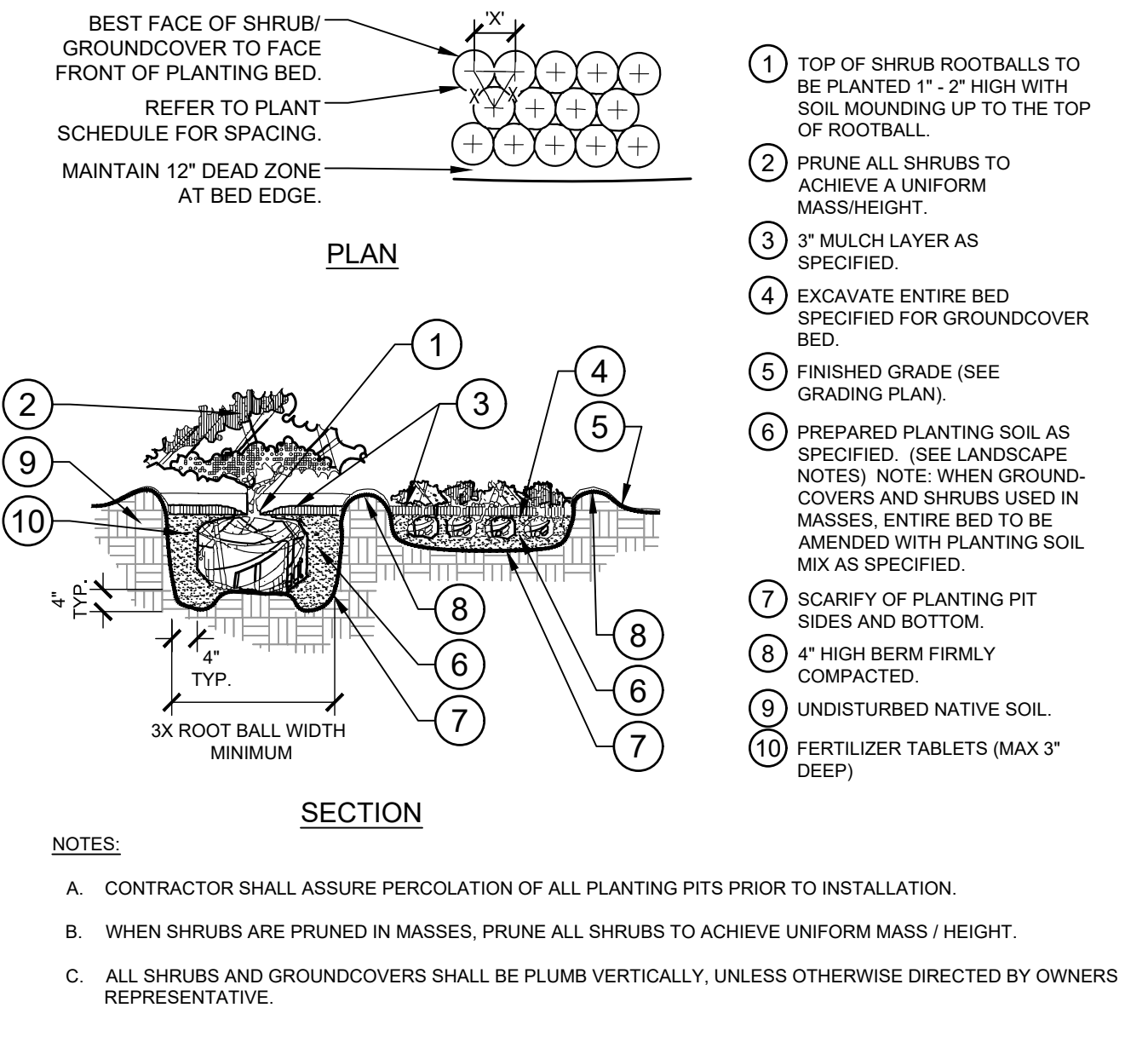
Ported By: Sauer, Cole Sheet Set: GENERAL RV EXPANSION - NORTH Layout: L1.50 March 06, 2025 03:38:59pm K:\erl\_civil\249536000-general\_rv\_expansion\CADD\CONSTRUCT\plansheets\North\_sheets\L1.50 LANDSCAPE PLAN.dwg  
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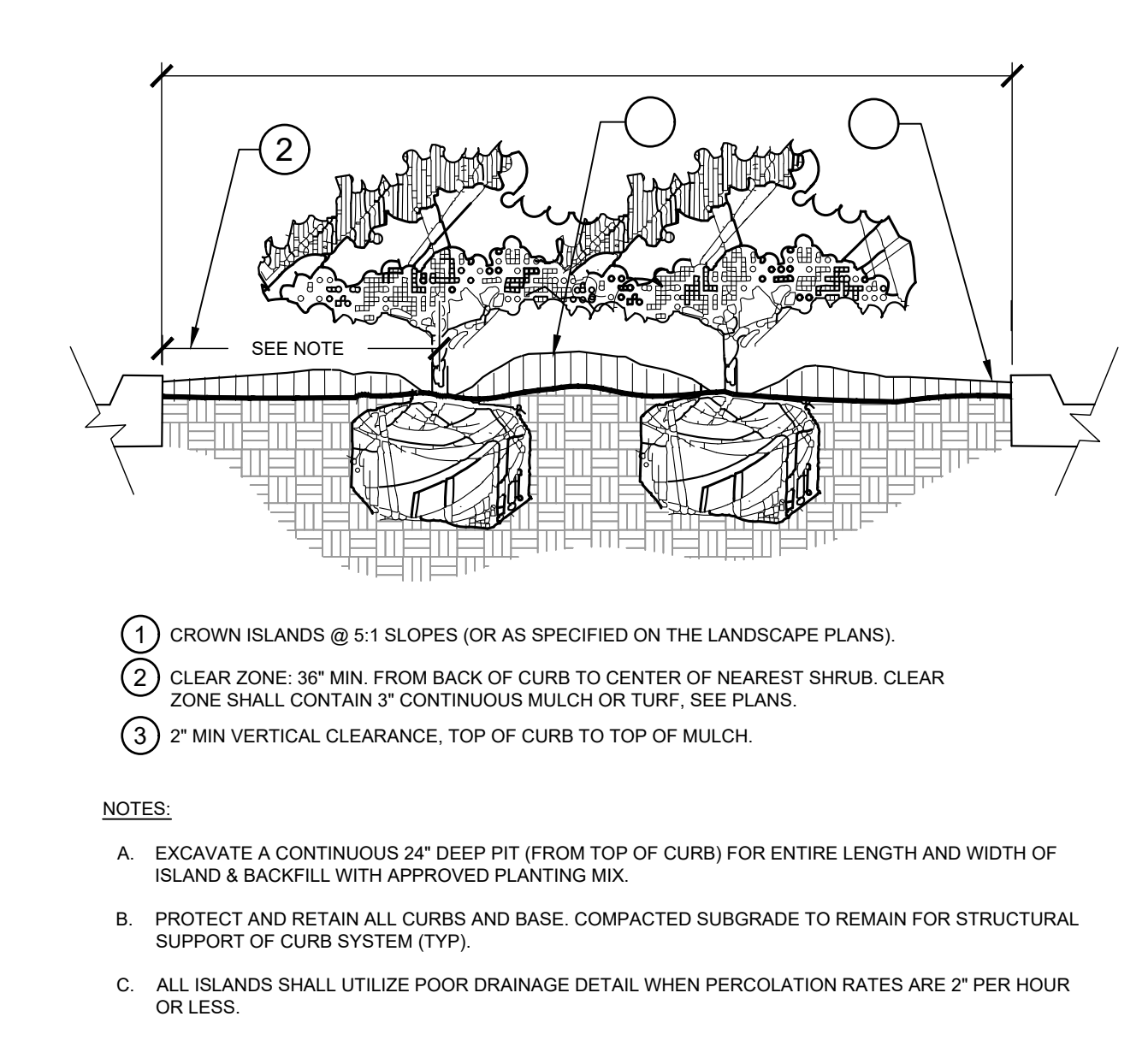
**1** TREE PLANTING  
L1.50 SECTION / PLAN NTS



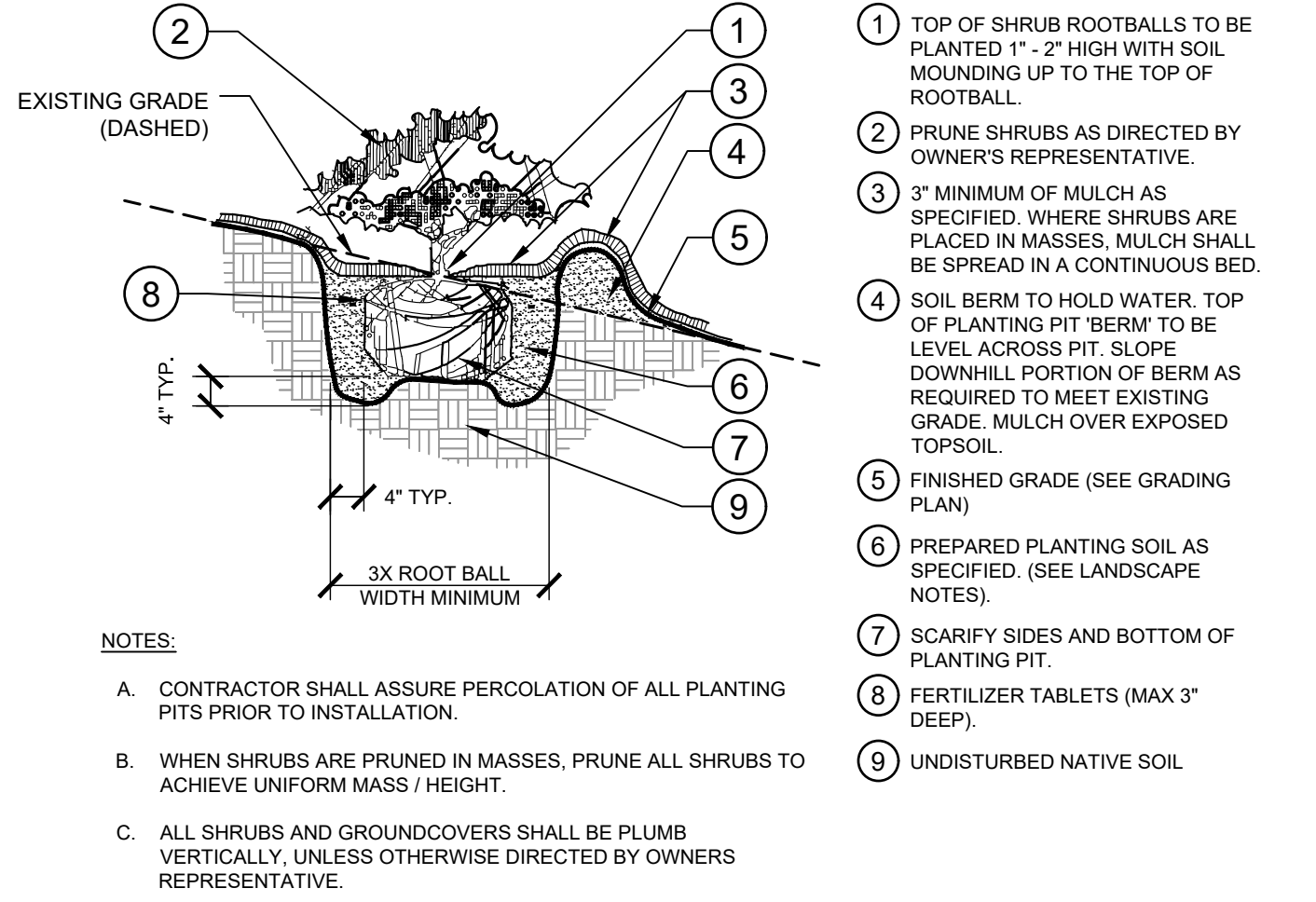
**2** TREE PLANTING ON A SLOPE  
L1.50 SECTION / PLAN NTS



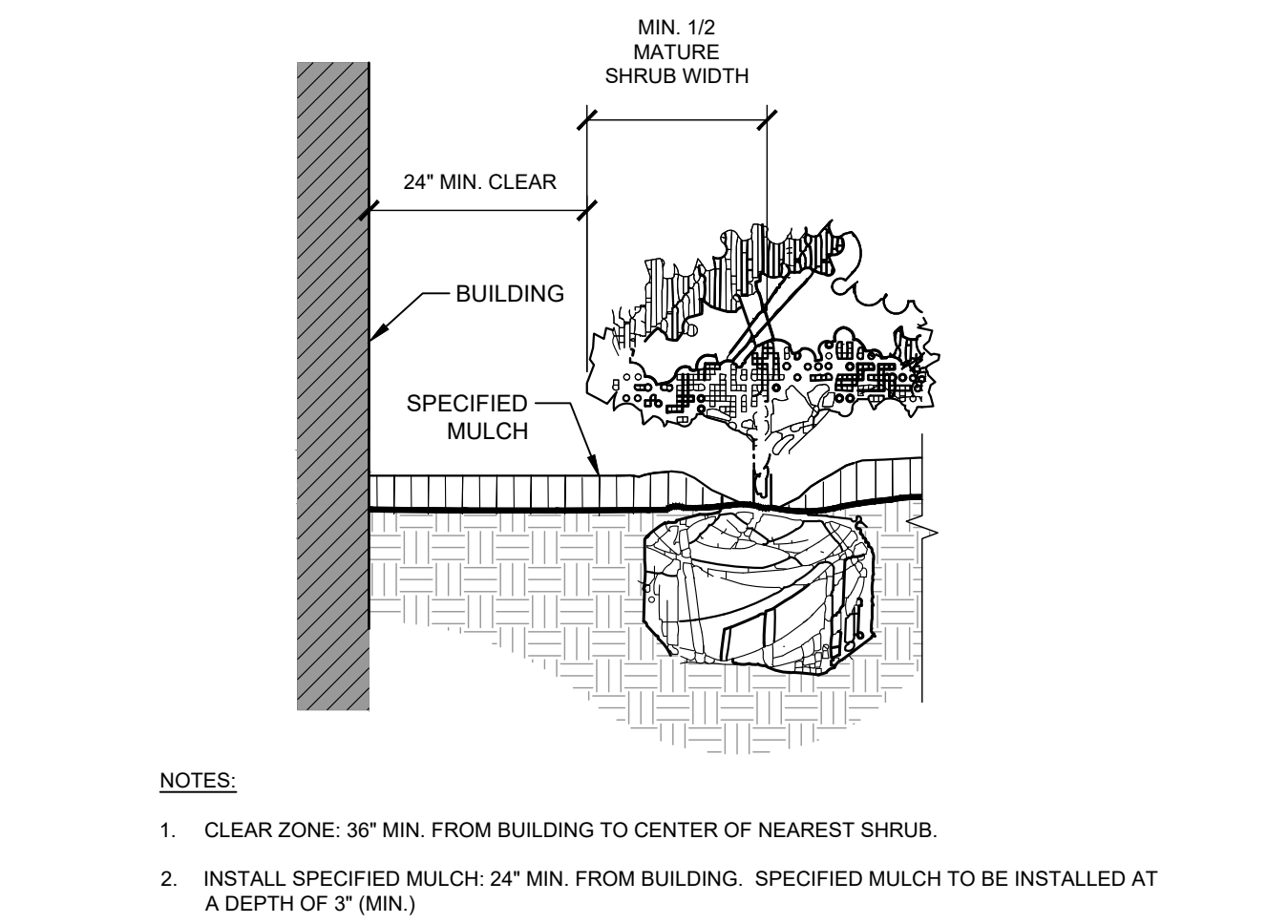
**3** SHRUB/GROUND COVER PLANTING  
L1.50 SECTION / PLAN NTS



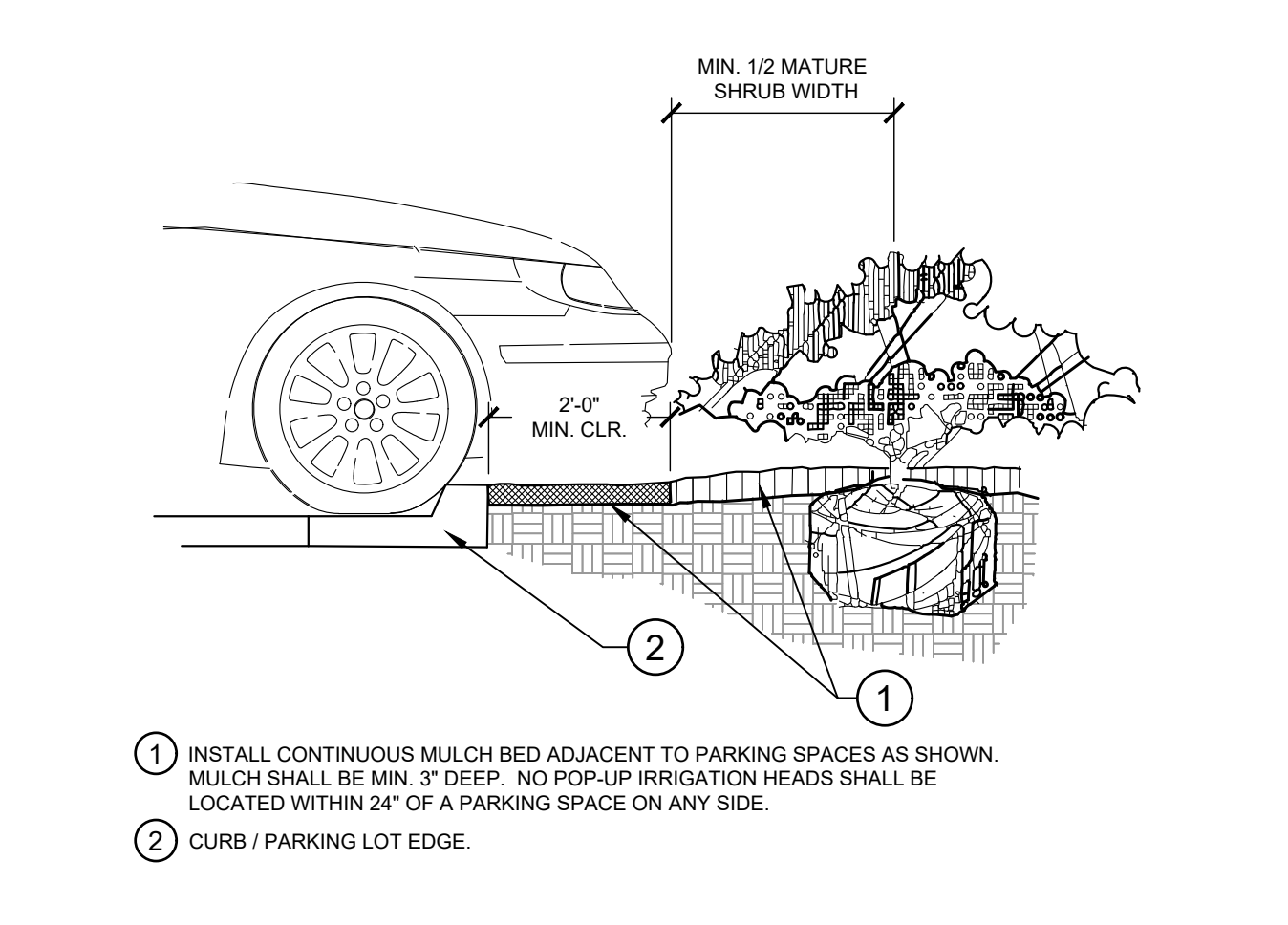
**4** PLANTED PARKING LOT ISLANDS/MEDIANS  
L1.50 SECTION NTS



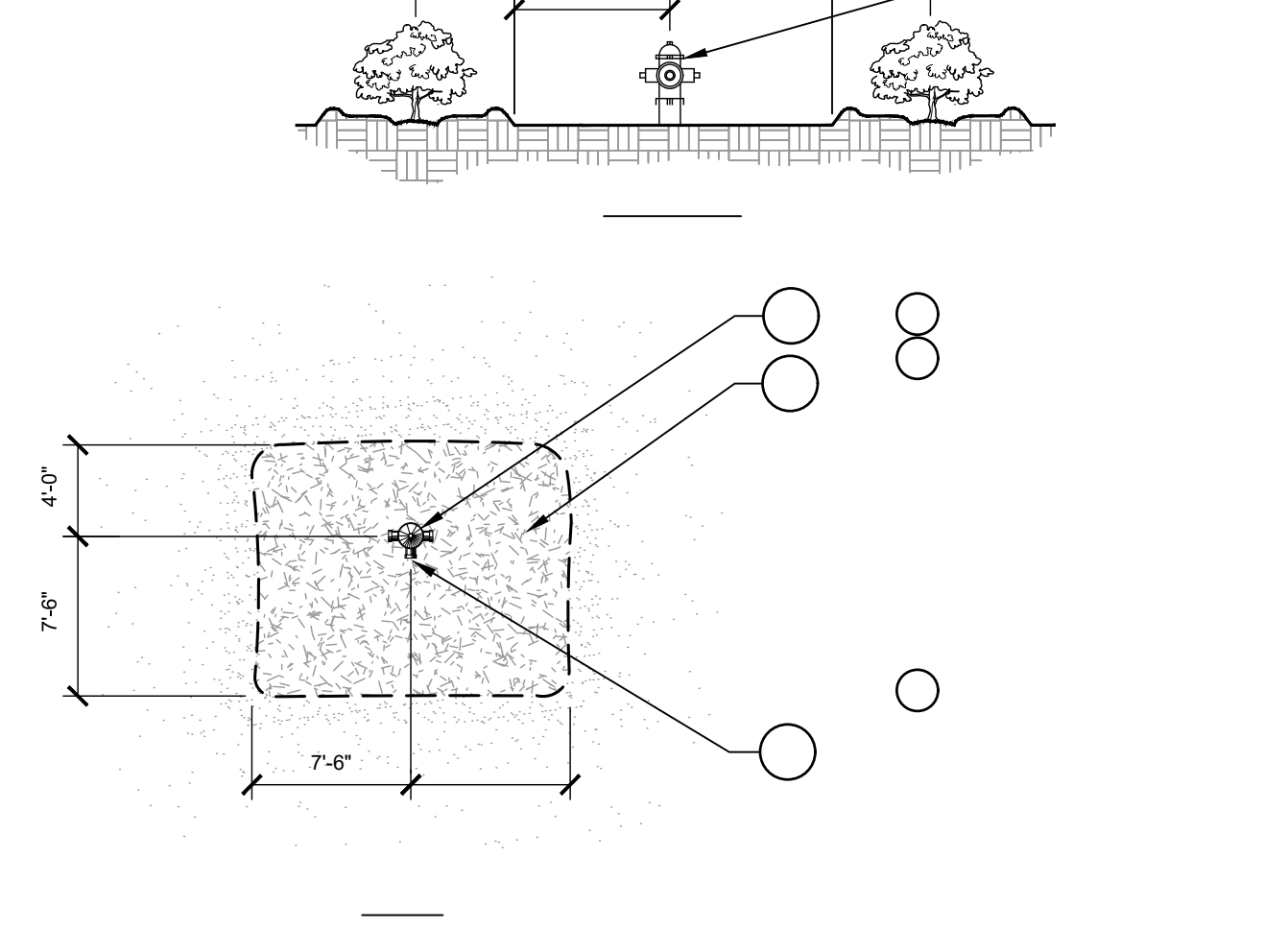
**5** SHRUB/GROUND COVER PLANTING ON A SLOPE  
L1.50 SECTION NTS



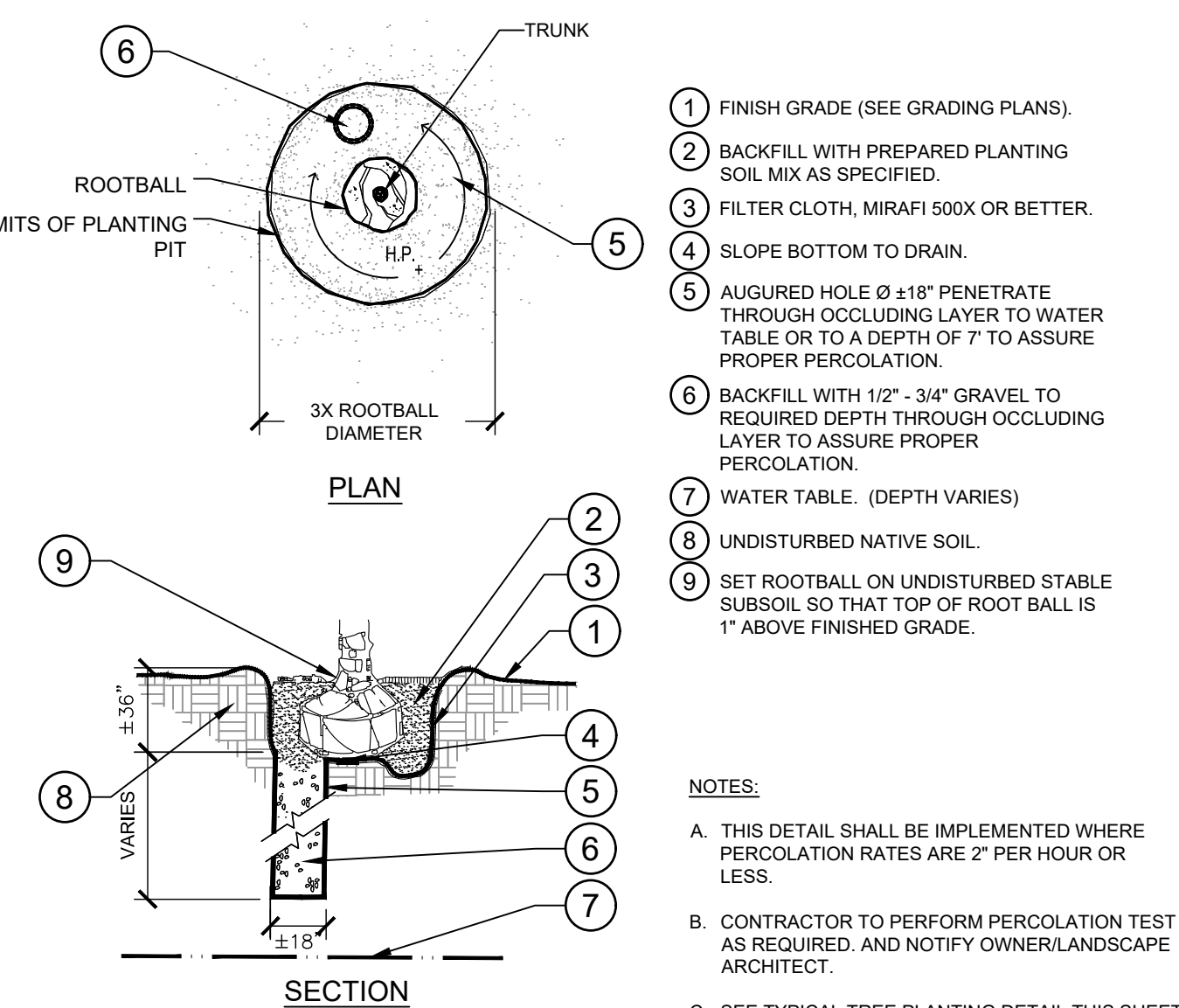
**6** PLANTINGS ADJACENT TO BUILDINGS  
L1.50 SECTION NTS



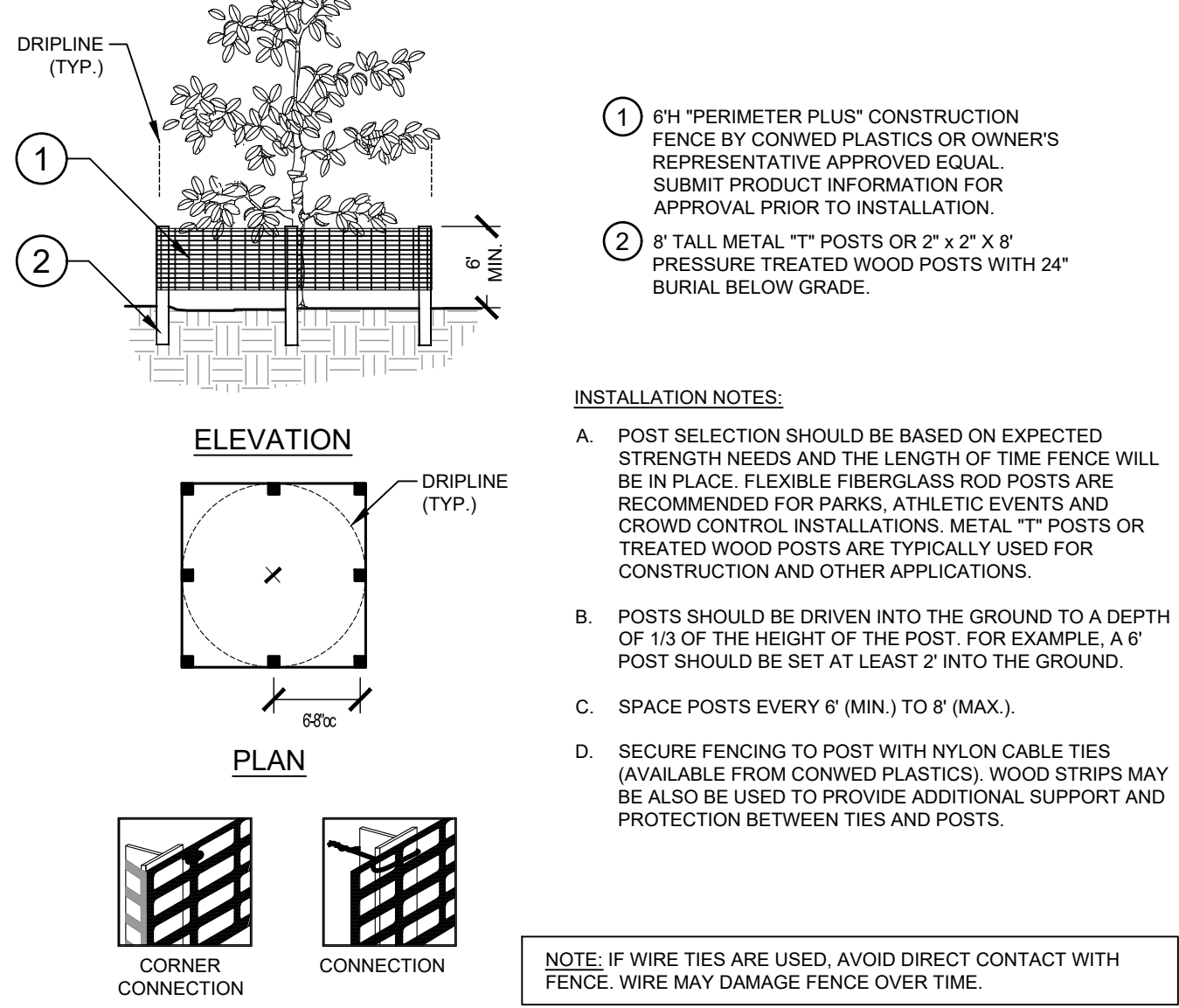
**7** PARKING SPACE/CURB PLANTING  
L1.50 SECTION NTS



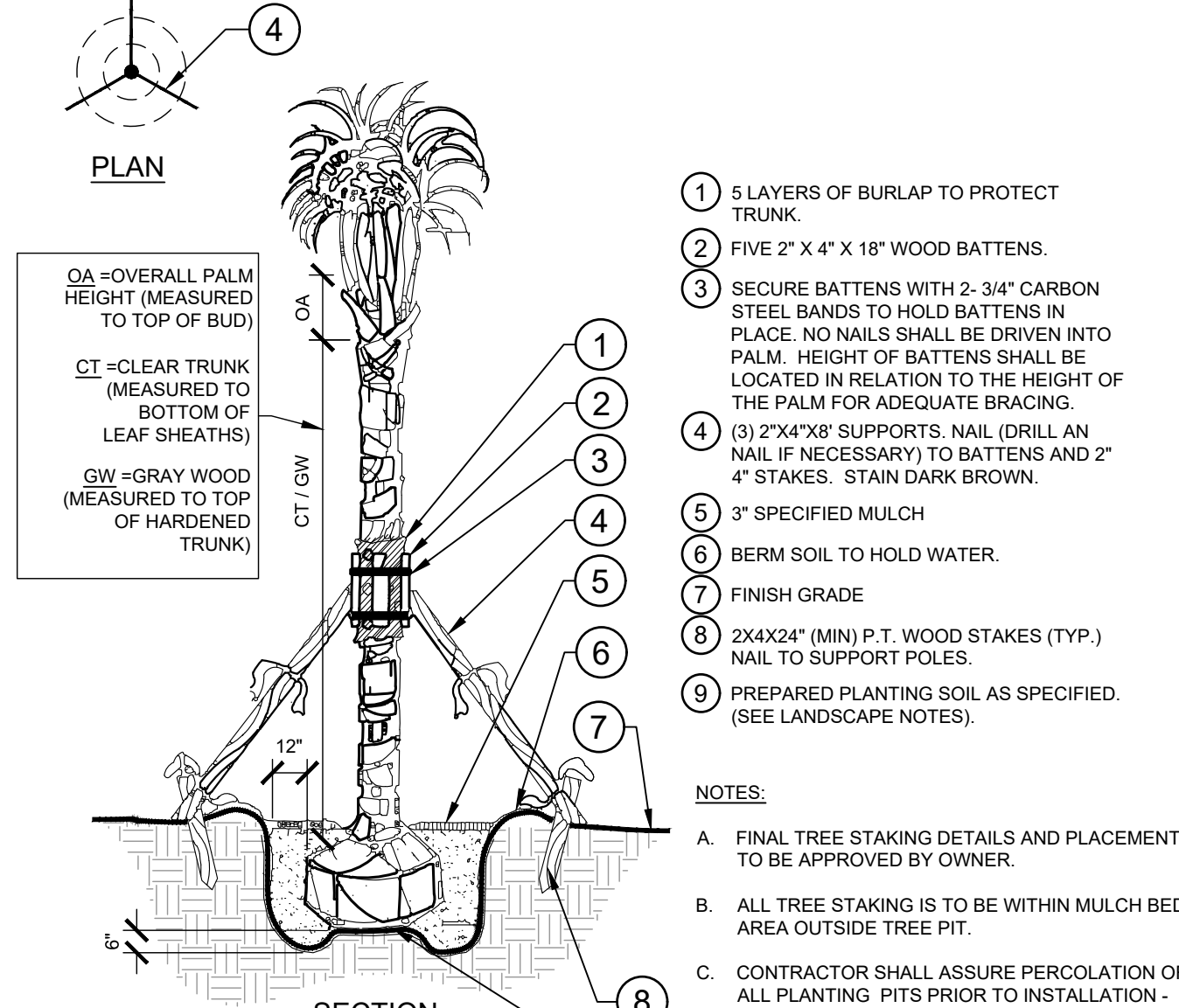
**8** SHRUB PLANTING AT FIRE HYDRANT  
L1.50 SECTION / PLAN NTS



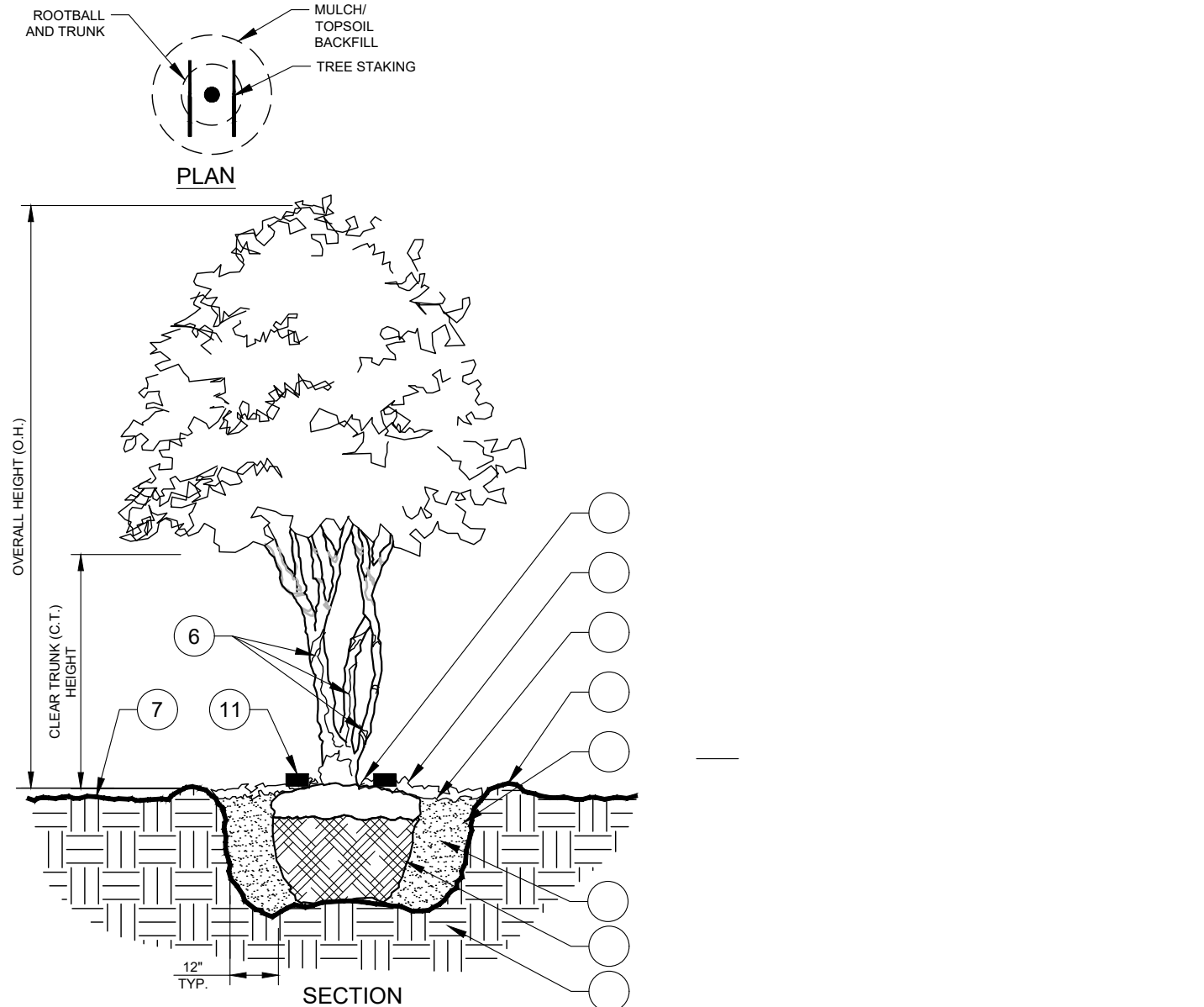
**9** POOR DRAINAGE CONDITION  
L1.50 SECTION / PLAN NTS



**10** TREE PROTECTION FENCING  
L1.50 ELEVATION / PLAN NTS



**11** PALM PLANTING  
L1.50 SECTION / PLAN NTS



**12** MULTI-TRUNK TREE PLANTING  
L1.50 SECTION/PLAN NTS

Kimley»Horn

|                   |          |     |     |     |
|-------------------|----------|-----|-----|-----|
| 249536000         | 4/1/2024 | SHF | SHF | MTF |
| PL LICENSE NUMBER | 3/6/2025 |     |     |     |

FLORIDA  
CITY OF WINTER GARDEN



### A. SCOPE OF WORK

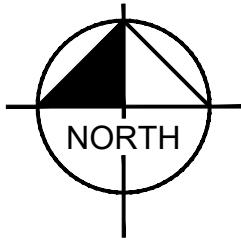
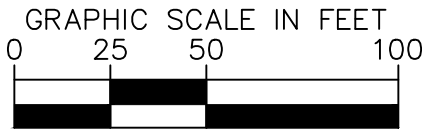
- THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLAN SET, AND AS SPECIFIED HEREIN.
2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER.
- B. PROTECTION OF EXISTING STRUCTURES**
1. ALL EXISTING BUILDINGS, WALLS, WALKS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED AND DESIGNATED TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BMP DEVICES ACCORDING TO ALL REGULATORY AGENCY'S STANDARDS THROUGH THE DURATION OF ALL CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR SHALL SUBMIT A DETAILED PROJECT SPECIFIC WORK ZONE TRAFFIC CONTROL PLAN UNLESS THE WORK REQUIRES NOTHING MORE THAN A DIRECT APPLICATION OF FDOT DESIGN STANDARDS, INDEX 600. IF A DIRECT APPLICATION OF INDEX 600 IS PROPOSED, THE CONTRACTOR SHALL SUBMIT IN WRITING A STATEMENT INDICATING THE STANDARD INDEX AND PAGE NUMBER NO LESS THAN 10 BUSINESS DAYS PRIOR TO START OF CONSTRUCTION. WHEN A DIRECT APPLICATION OF FDOT STANDARD INDEX 600 IS NOT ACCEPTABLE A PROJECT SPECIFIC WORK ZONE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY A FLORIDA PROFESSIONAL ENGINEER WHO HAS SUCCESSFULLY COMPLETED ADVANCED TRAINING IN MAINTENANCE OF TRAFFIC, AS DEFINED BY FDOT FOR APPROVAL BY THE COUNTY ENGINEER'S REPRESENTATIVE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO EXCAVATION. THE INFORMATION AND DATA SHOWN WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AT OR CONTIGUOUS TO THE SITE IS APPROXIMATE AND BASED ON INFORMATION PROVIDED BY THE OWNER OR SUCH UNDERGROUND FACILITIES OR ON PHYSICAL APPURTENANCES OBSERVED IN THE FIELD. THE OWNER AND DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ANY SUCH INFORMATION OR DATA. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR: REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA FOR LOCATING ALL UNDERGROUND FACILITIES DURING CONSTRUCTION, THE SAFETY AND PROTECTION THEREOF; REPAIRING ANY DAMAGE THERETO RESULTING FROM THE WORK. THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- C. PROTECTION OF EXISTING PLANT MATERIALS**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC.. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIp-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIp-LINE. NO MATERIALS SHALL BE BURNED ON SITE. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF THREE HUNDRED DOLLARS (\$300) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL, FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL, FOR TREES OVER FOUR (4) INCHES IN CALIPER.
2. SEE TREE MITIGATION PLAN AND NOTES, IF APPLICABLE.
- D. MATERIALS**
1. GENERAL
- MATERIAL SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON SITE OR AS DETERMINED BY THE OWNER, UPON APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.
- | MATERIAL    | SAMPLE SIZE                                    |
|-------------|------------------------------------------------|
| MULCH       | ONE (1) CUBIC FOOT                             |
| TOPSOIL MIX | ONE (1) CUBIC FOOT                             |
| PLANTS      | ONE (1) OF EACH VARIETY (OR TAGGED IN NURSERY) |
2. PLANT MATERIALS
- a. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY AND FEEDING ROOTS OF THE PLANTS. NO PLANTS SHALL BE VEGGIE, UNANCHORED, AND FREE OF DISEASE AND INSECTS. INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNER'S REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE.
- b. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITHIN THE NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OR EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.
- c. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR WOUNDS. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.
- E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)**
1. CONTRACTOR SHALL TEST EXISTING SOIL AND AMEND AS NECESSARY IN ACCORDANCE WITH THE GUIDELINES BELOW:
2. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT MIX) SHALL CONSIST OF TWO PARTS OF TOPSOIL AND ONE PART SAND, AS DESCRIBED BELOW. CONTRACTOR TO SUBMIT SAMPLES AND pH TESTING RESULTS OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.
- a. TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRABLE, AND OF A LOAMY CHARACTER, REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND HAVE A PH BETWEEN 5.5 AND 7.0.
- b. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND.
2. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE - AT WHICH POINT THE CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
- F. WATER**
1. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TASKS, HOSES, SPRINKLERS, ETC., IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.
- \* WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
- G. FERTILIZER**
- CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY-DERIVED.
- \* FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
- H. MULCH**
1. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPERAL AND APPLIED AT A DEPTH OF THREE (3) INCHES. CLEAR MULCH FROM EACH PLANT'S GROWN (BASE). MULCH SHALL BE "FLORMULCH," EUCALYPTUS MULCH, OR SIMILAR SUSTAINABLY HARVESTED MULCH UNLESS SPECIFIED OTHERWISE.
2. PROVIDE A THREE (3) INCH MINIMUM LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE (ET/ET MINIMUM) PLANTING UNDER THIS CONTRACT.
- I. DIGGING AND HANDLING**
1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WOUNDS ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO THE SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILT/PRU") OR EQUIVALENT TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
2. BALLED AND BURLEAPPED (B&B), AND FIELD GROWN (FG) PLANTS SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIRM, UNBROKEN BALLS OF THE PLANT. PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS SHALL NOT BE HANDLED BY STEMS.

- |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT DURING TRANSPORTATION AND PRIOR TO PLANTING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.  | PROTECTION OF PALMS: ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.  | EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB-BASES.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| J.  | CONTAINER GROWN STOCK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.  | ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2.  | AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3.  | ROOT BOUND PLANTS ARE NOT ACCEPTABLE AND WILL BE REJECTED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4.  | RPG+ "ROOTS PLUS GROWER" CONTAINER PRODUCTS SHALL BE USED WHERE SPECIFIED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| K.  | COLLECTED STOCK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|     | WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| L.  | NATIVE STOCK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|     | PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| M.  | MATERIALS LIST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|     | QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| N.  | FINE GRADING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1.  | FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2.  | THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOO AND/OR MULCH DEPTH. CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3.  | ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES, IF APPLICABLE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| O.  | PLANTING PROCEDURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1.  | CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER DAILY. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.                                                                                                                                                                                                                                                                                                     |
| 2.  | VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL SUNSHINE STATE ONE CALL OF FLORIDA, INC. (811) TO LOCATE UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3.  | SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36" OR TO NATIVE SOIL. CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE POOR DRAINAGE CONDITION PLANTING DETAIL.                                                                                                                                                                                                                                                                                                                            |
| 4.  | FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS SPECIFIED HEREIN. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.  | COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED OR APPROPRIATELY HEATED IN FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.                                                                                                                                                                                                                                                                                                                                                                                             |
| 6.  | THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7.  | ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACK FILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL PLANTING PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE. PERCOLATION IS AVAILABLE, NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE "POOR DRAINAGE CONDITION" PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FLOW HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER "JETING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STICK" OR EQUAL IS RECOMMENDED. |
| 8.  | TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 9.  | SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 10. | TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACK FILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 11. | AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 12. | FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE. ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS. BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 13. | TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY CERTIFIED ARBORIST, IN ACCORDANCE WITH ANSI A-300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 14. | SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. MATERIALS INSTALLED SHALL MEET MINIMUM SPECIMUM REQUIREMENTS OR QUANTITIES SHOWN ON PLANS, WHICHEVER IS GREATER. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6". REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" OF THE PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15. | TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE PROJECT LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 16. | ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY)                                                                                                                                                                                                                                                                                                                                                                                                                               |
| P.  | LAWN SODDING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1.  | THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2.  | ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS BY MEANS OF A SOD CUTTER TO A DEPTH OF THREE (3) INCHES, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NO MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.                                                                                                                                                                                                                                                                                                                                                                                 |

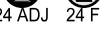
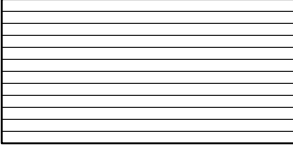
3. PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.
4. SODDING
- a. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
- b. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.
- SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES ALL CURBS AND OTHER HARDCAPE ELEMENTS. PAVED AND PLANTED AREAS ADJACENT TO BUILDINGS, A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZER INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.
5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.
6. LAWN MAINTENANCE
- a. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS (LARGER THAN 12"X12") UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADING IF NECESSARY).
- b. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.
- CLEANUP
- UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- PLANT MATERIAL MAINTENANCE
- ALL PLANTS AND PLANTING INCLUDING UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
- FINAL INSPECTION AND ACCEPTANCE OF WORK
- FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.
- WARRANTY
1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED (INCLUDING SOD) BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
2. ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE AND IRRIGATION MAINTENANCE, THE CONTRACTOR SHOULD VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS THAT THREATEN VISUAL APPEAL AND HEALTHY PLANT GROWTH. SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.



Posted By: Sauer, Cole    Sheet: Set: GENERAL RV EXPANSION    NORTH    Layout: L2.00    March 06, 2025    03:39:26pm    K:\envi\_civil\249536000-general\_rv\_expansion\CADD\CONSTRUCTION\plansheets\north-rls\L2.00-IRRIGATION\_PLAN.dwg    This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



### IRRIGATION SCHEDULE

| SYMBOL                                                                              | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                                            | QTY       | PSI |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----|
|    | RAIN BIRD R-VAN-STRIP RD-06-SAM-P45-NP<br>SHRUB ROTARY, 5FT X15FT. (LCS AND RCS), 5FT X30FT. (SST) HAND<br>ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                            | 19        | 30  |
|    | RAIN BIRD R-VAN14 RD-06-SAM-P45-NP<br>TURF ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES. HAND<br>ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                                 | 144       | 30  |
|    | RAIN BIRD R-VAN16 RD-06-SAM-P45-NP<br>TURF ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGREES. HAND<br>ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                                | 20        | 30  |
|    | RAIN BIRD R-VAN24 RD-06-SAM-P45-NP<br>TURF ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES. HAND<br>ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                                | 260       | 30  |
| SYMBOL                                                                              | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                                            | QTY       |     |
|    | RAIN BIRD XFD-09-12-NP DRIP RING                                                                                                                                                                                                                                                                                          | 145       |     |
|    | AREA TO RECEIVE DRIPLINE<br>RAIN BIRD XFD-09-12-NP<br>XFD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE, 0.9<br>GPM EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 12" APART,<br>WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, UV RESISTANT.<br>SPECIFY XF INSERT FITTINGS.                                        | 14,915 LF |     |
| SYMBOL                                                                              | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                                            | QTY       |     |
|    | RAIN BIRD PESB-PRS-D 2"<br>1IN., 1-1/2IN., 2IN., 3IN. PLASTIC INDUSTRIAL MASTER VALVES. LOW FLOW<br>OPERATING CAPABILITY, GLOBE CONFIGURATION, WITH PRESSURE<br>REGULATING MODULE, AND SCRUBBER TECHNOLOGY FOR RELIABLE<br>PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.                                            | 1         |     |
|    | RAIN BIRD ESPLXME2<br>12 STATION TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER.<br>INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE.                                                                                                                                                                                             | 1         |     |
|    | RAIN BIRD RSD-CEX<br>RAIN SENSING DEVICE, CONDUIT MOUNT, WITH THREADED ADAPTER,<br>EXTENSION WIRE.                                                                                                                                                                                                                        | 1         |     |
|  | RAIN BIRD FS-200-P<br>2IN. FLOW SENSOR, PLASTIC PVC MODEL, SUGGESTED OPERATING<br>RANGE: 10-100 GPM TO 200-0 GPM. SIZE FOR FLOW NOT ACCORDING TO<br>PIPE SIZE. COMPATIBLE W/ RAIN BIRD: ESPLX(M/P) (LXD) (LXME2(P)) (LXD)<br>ME3, OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET.<br>INSTALL IN RAIN BIRD VALVE BOX. | 1         |     |
|  | WATER METER 1"                                                                                                                                                                                                                                                                                                            | 1         |     |
|  | IRRIGATION MAINLINE: PVC SCHEDULE 40                                                                                                                                                                                                                                                                                      | 2,699 LF  |     |
|  | PIPE SLEEVE: PVC SCHEDULE 40 - LATERALS                                                                                                                                                                                                                                                                                   | 387.6 LF  |     |
|  | PIPE SLEEVE: PVC SCHEDULE 40 - MAINLINE                                                                                                                                                                                                                                                                                   | 265.5 LF  |     |

FLOW TOTALS  
Area for Dripline: 223.7  
Drip Ring: 67.4  
Turf Rotary: 461.0  
Total: 752.1 GPM



### IRRIGATION NOTES

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- WHERE APPLICABLE IRRIGATION HEADS ARE TO BE ADJUSTED FOR COMPLETE COVERAGE WITH MINIMUM OVER SPRAY BEYOND LANDSCAPE AREAS.
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- MATCH PRECIPITATION RATES WITH ANY HEADS THAT ARE REPLACED.

MAINLINE SHOWN FOR CLARITY. INSTALL  
MAINLINE 6" FROM B.O.C WHEN POSSIBLE.  
COORDINATE WITH OTHER DISCIPLINES TO  
AVOID CONFLICTS (TYP).

COORDINATE/DISCUSS PROJECT LIMITS  
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ENSURE ALL IRRIGATION EQUIPMENT IS  
INSTALLED WITHIN PROJECT AREA.

CONTROLLER & RAIN SENSOR TO BE LOCATED  
OUTSIDE IN GREEN SPACE, SCREENED FROM  
THE PUBLIC VIEW. AVOID OVERHEAD  
OBSTRUCTIONS AND OVERSPRAY ASSOCIATED  
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NOTE: IF SOURCE TO BE RECLAIMED (NON-POTABLE) ALL  
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CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FOLLOWING  
BUT NOT LIMITED TO AVAILABLE FLOW, AVAILABLE PRESSURE,  
CONNECTION ASSEMBLY, CAPACITY OF THE SYSTEM.

CONTRACTOR TO ADJUST ALL OVERHEAD  
SPRAY HEADS TO ENSURE MINIMAL  
OVER-SPRAY OCCURS ON ANY HARDSCAPE  
SURFACE (TYP).

PROPOSED IRRIGATION CONTROLLER -  
PROVIDE ELECTRICAL POWER & CONDUIT  
FROM POWER SOURCE, BETWEEN  
CONTROLLER & WATER METER AND TO ANY  
ASSOCIATED APPURTENANCES.

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# LICENSE NUMBER  
3/6/2025

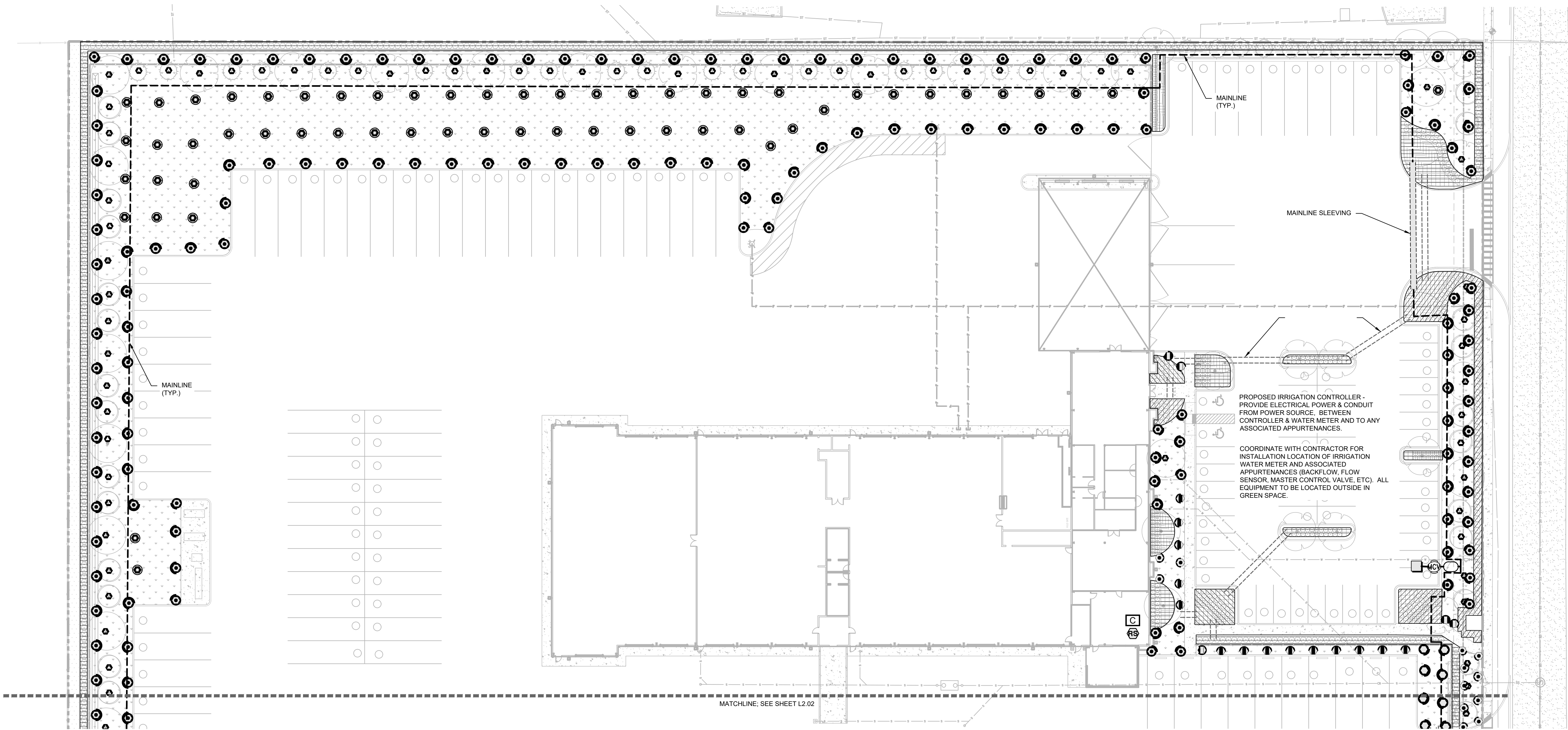
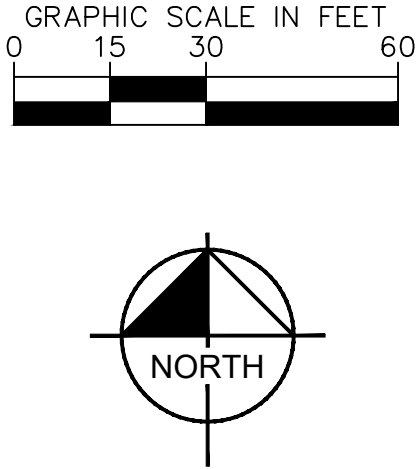
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FLORIDA

CITY OF WINTER GARDEN



Posted By: Sauer, Cole    Sheet: Set: GENERAL RV EXPANSION - NORTH    Layout: L2.01    March 06, 2025    03:39:22pm    K:\er\_civil\249536000-general\_rv\_expansion\CADD\CONSTRUCTIONsheets\North - L2.01 IRRIGATION PLAN.dwg    This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



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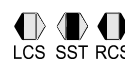
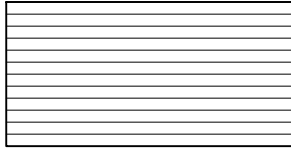
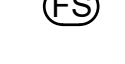
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## IRRIGATION SCHEDULE

| SYMBOL                                                                                | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                   | QTY       | PSI |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----|
|  | RAIN BIRD R-VAN-STRIP RD-06-SAM-P45-NP<br>SHRUB ROTARY, 5FT.X15FT. (LCS AND RCS), 5FT.X30FT. (SST) HAND ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP            | 19        | 30  |
|  | RAIN BIRD R-VAN14 RD-06-SAM-P45-NP<br>TURF ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                  | 144       | 30  |
|  | RAIN BIRD R-VAN18 RD-06-SAM-P45-NP<br>TURF ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                 | 20        | 30  |
|  | RAIN BIRD R-VAN24 RD-06-SAM-P45-NP<br>TURF ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                 | 260       | 30  |
| SYMBOL                                                                                | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                   | QTY       |     |
|  | RAIN BIRD XFD-09-12-NP DRIP RING                                                                                                                                                                                                                                                                 | 145       |     |
|  | AREA TO RECEIVE DRIPLINE<br>RAIN BIRD XFD-09-12-NP<br>XFD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE, 0.9 GPH EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, UV RESISTANT. SPECIFY XF INSERT FITTINGS.                        | 14,915 LF |     |
| SYMBOL                                                                                | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                   | QTY       |     |
|  | RAIN BIRD PESB-PRS-D 2" 1IN., 1-1/2IN., 2IN., 3IN. PLASTIC INDUSTRIAL MASTER VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION, WITH PRESSURE REGULATING MODULE, AND SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.                               | 1         |     |
|  | RAIN BIRD ESPLXME2 12 STATION TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER. INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE.                                                                                                                                                                          | 1         |     |
|  | RAIN BIRD RS0-CEX RAIN SENSING DEVICE, CONDUIT MOUNT, WITH THREADED ADAPTER, EXTENSION WIRE.                                                                                                                                                                                                     | 1         |     |
|  | RAIN BIRD FS-200-P 2IN. FLOW SENSOR, PLASTIC PVC MODEL. SUGGESTED OPERATING RANGE 10.0 GPM TO 200.0 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE. COMPATIBLE W/ RAIN BIRD ESPLXV(MP) (LX2) (LXME2(P)) ME3, OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET. INSTALL IN RAIN BIRD VALVE BOX. | 1         |     |
|  | WATER METER 1"                                                                                                                                                                                                                                                                                   | 1         |     |
|  | IRRIGATION MAINLINE: PVC SCHEDULE 40                                                                                                                                                                                                                                                             | 2,699 LF  |     |
|  | PIPE SLEEVE: PVC SCHEDULE 40 - LATERALS                                                                                                                                                                                                                                                          | 387.6 LF  |     |
|  | PIPE SLEEVE: PVC SCHEDULE 40 - MAINLINE                                                                                                                                                                                                                                                          | 265.5 LF  |     |

FLOW TOTALS  
Area for Dripline: 223.7  
Drip Ring: 67.4  
Turf Rotary: 461.0  
Total: 752.1 GPM

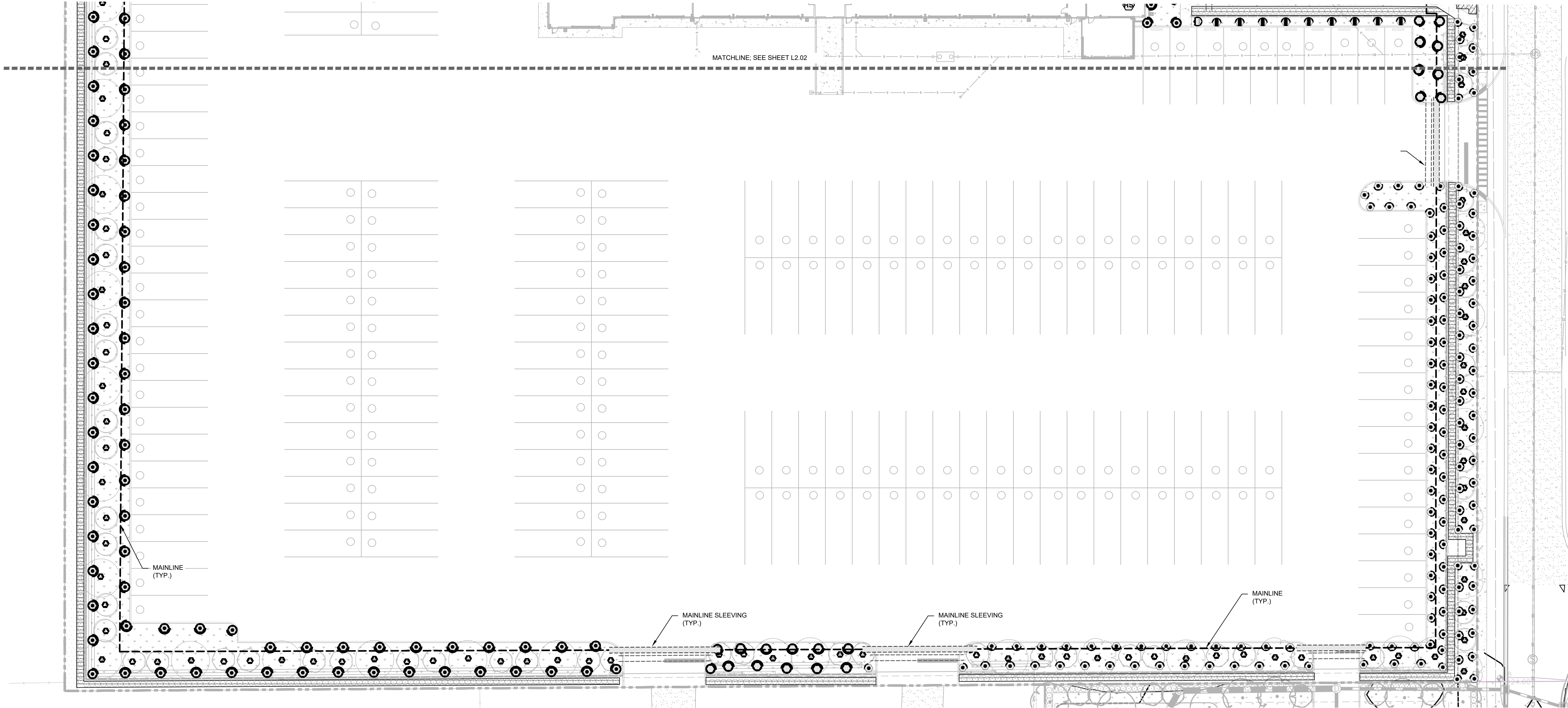
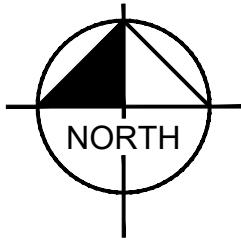
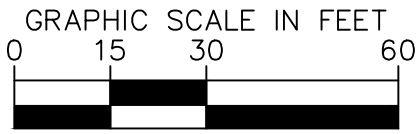
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| 249536000 | # LICENSE NUMBER | 3/6/2025 |
| 4/1/2024  | SHF              | MTF      |

CITY OF WINTER GARDEN    FLORIDA



Posted By: Sauer, Cole    Sheet: Set: GENERAL RV EXPANSION - NORTH    Layout: L2.02    March 06, 2025    03:39:37pm    K:\enr\_civil\249536000-general\_rv\_expansion\CADD\CONST\plansheets\north\_sheets\L2.02\_IRRIGATION\_PLAN.dwg    This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



### IRRIGATION SCHEDULE

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                                    | QTY       | PSI |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----|
|        | RAIN BIRD R-VAN-STRIP RD-06-SAM-P45-NP<br>SHRUB ROTARY, 5FT.X15FT. (LCS AND RCS), 5FT.X30FT. (SST) HAND<br>ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                    | 19        | 30  |
|        | RAIN BIRD R-VAN14 RD-06-SAM-P45-NP<br>TURF ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES. HAND<br>ADJUSTABLE MULTI-STREAM ROTARY WRD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                           | 144       | 30  |
|        | RAIN BIRD R-VAN18 RD-06-SAM-P45-NP<br>TURF ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGREES. HAND<br>ADJUSTABLE MULTI-STREAM ROTARY WRD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                          | 20        | 30  |
|        | RAIN BIRD R-VAN24 RD-06-SAM-P45-NP<br>TURF ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES. HAND<br>ADJUSTABLE MULTI-STREAM ROTARY WRD1800 TURF SPRAY BODY ON<br>6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE<br>REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                          | 260       | 30  |
|        | RAIN BIRD XFD-09-12-NP DRIP RING                                                                                                                                                                                                                                                                                  | 145       |     |
|        | AREA TO RECEIVE DRIPLINE<br>RAIN BIRD XFD-09-12-NP<br>XFD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE, 0.9<br>GPH EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 12" APART,<br>WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, UV RESISTANT.<br>SPECIFY XF INSERT FITTINGS.                                | 14,915 LF |     |
| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                                    | QTY       |     |
|        | RAIN BIRD PESB-PRS-D 2"<br>1IN., 1-1/2IN., 2IN., 3IN. PLASTIC INDUSTRIAL MASTER VALVES. LOW FLOW<br>OPERATING CAPABILITY, GLOBE CONFIGURATION, WITH PRESSURE<br>REGULATING MODULE, AND SCRIBER TECHNOLOGY FOR RELIABLE<br>PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.                                     | 1         |     |
|        | RAIN BIRD ESPLXME2<br>12 STATION TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER.<br>INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE.                                                                                                                                                                                     | 1         |     |
|        | RAIN BIRD RSD-CEX<br>RAIN SENSING DEVICE, CONDUIT MOUNT, WITH THREADED ADAPTER,<br>EXTENSION WIRE.                                                                                                                                                                                                                | 1         |     |
|        | RAIN BIRD FS-200-P<br>2IN. FLOW SENSOR, PLASTIC PVC MODEL, SUGGESTED OPERATING<br>RANGE 10.0 GPM TO 200.0 GPM. SIZE FOR FLOW NOT ACCORDING TO<br>PIPE SIZE. COMPATIBLE W/ RAIN BIRD: ESP-LXIVM(P) [LXD] [LXME2(P)]<br>ME3 OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET.<br>INSTALL IN RAIN BIRD VALVE BOX. | 1         |     |
|        | WATER METER 1"                                                                                                                                                                                                                                                                                                    | 1         |     |
|        | IRRIGATION MAINLINE: PVC SCHEDULE 40                                                                                                                                                                                                                                                                              | 2,699 LF  |     |
|        | PIPE SLEEVE: PVC SCHEDULE 40 - LATERALS                                                                                                                                                                                                                                                                           | 387.6 LF  |     |
|        | PIPE SLEEVE: PVC SCHEDULE 40 - MAINLINE                                                                                                                                                                                                                                                                           | 265.5 LF  |     |

### IRRIGATION NOTES

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, ETC. PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING OR CONTINUING WORK.
- THE CONTRACTOR SHALL MAKE NO SUBSTITUTIONS, DELETIONS, OR ADDITIONS TO THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS.
- THIS PLAN IS SCHEMATIC AND DUE TO THE NATURE OF CONSTRUCTION SLIGHT FIELD MODIFICATIONS MAY BE NECESSARY TO IMPLEMENT PLAN.
- CONTRACTOR TO VERIFY ACTUAL AVAILABLE WATER PRESSURE BEFORE BEGINNING INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE WATER PRESSURE WILL NOT ALLOW SYSTEM MODIFICATION TO BE POSSIBLE.
- IRRIGATION SYSTEMS CONNECTED TO POTABLE WATER SUPPLY, SHALL HAVE A BACKFLOW PREVENTER INSTALLED.
- WHERE APPLICABLE IRRIGATION HEADS ARE TO BE ADJUSTED FOR COMPLETE COVERAGE WITH MINIMUM OVER SPRAY BEYOND LANDSCAPE AREAS.
- EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
- ALL IRRIGATION SLEEVING TO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES.
- IRRIGATION CONTRACTOR SHALL REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNER'S REPRESENTATIVE.
- ALL PLANT MATERIAL IN TREE HOLDING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST UNTIL PLANTED.
- CONTRACTOR TO PROVIDE PERMANENT BENCH-MARKS ON ALL CURB LINES AT RELATED SLEEVE LOCATIONS (TYP).
- THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED TO MINIMIZE ROOT DISTURBANCE IN EXISTING TREES.
- IRRIGATION SPRAYS AND ROTORS ARE NOT COMBINED ON THE SAME CONTROL VALVE CIRCUIT - LANDSCAPE BEDS AND TURF ON SEPARATE CIRCUITS.
- MATCH PRECIPITATION RATES WITH ANY HEADS THAT ARE REPLACED.

MAINLINE SHOWN FOR CLARITY. INSTALL  
MAINLINE 6" FROM B.O.C WHEN POSSIBLE.  
COORDINATE WITH OTHER DISCIPLINES TO  
AVOID CONFLICTS (TYP).

COORDINATE/DISCUSS PROJECT LIMITS  
WITH GENERAL CONTRACTOR TO  
ENSURE ALL IRRIGATION EQUIPMENT IS  
INSTALLED WITHIN PROJECT AREA.

CONTROLLER & RAIN SENSOR TO BE LOCATED  
OUTSIDE IN GREEN SPACE, SCREENED FROM  
THE PUBLIC VIEW. AVOID OVERHEAD  
OBSTRUCTIONS AND OVERSPRAY ASSOCIATED  
WITH RAIN SENSOR.

NOTE: IF SOURCE TO BE RECLAIMED (NON-POTABLE) ALL  
EQUIPMENT TO BE INDICATED AS SUCH AND PURPLE IN COLOR.  
FOLLOW ALL LOCAL JURISDICTION STANDARDS FOR  
RECLAIMED IRRIGATION SYSTEMS.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL  
NECESSARY MODIFICATIONS REQUIRED TO MEET THE SCHEMATIC  
INTENT OF THESE PLANS PRIOR TO SUBMITTING PROPOSAL.  
THESE PLANS OUTLINE THE OVERALL LAYOUT THE SYSTEM AND  
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ZONE  
THE SYSTEM ACCORDINGLY BASED ON FLOW AND PRESSURE AVAILABLE.  
CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FOLLOWING  
BUT NOT LIMITED TO AVAILABLE FLOW, AVAILABLE PRESSURE,  
CONNECTION ASSEMBLY, CAPACITY OF THE SYSTEM.

CONTRACTOR TO ADJUST ALL OVERHEAD  
SPRAY HEADS TO ENSURE MINIMAL  
OVER-SPRAY OCCURS ON ANY HARDSCAPE  
SURFACE (TYP).

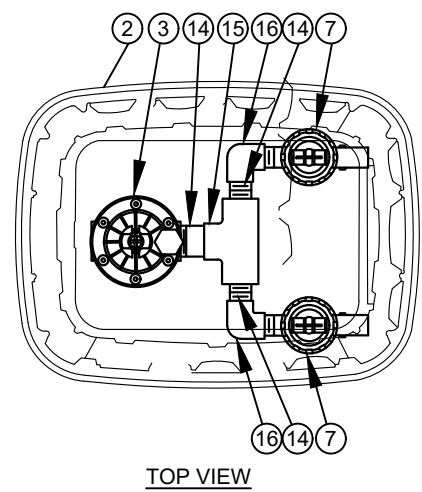
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| 249536000 | # LICENSE NUMBER | 3/6/2025 |
| 4/1/2024  | SHF              | MTF      |

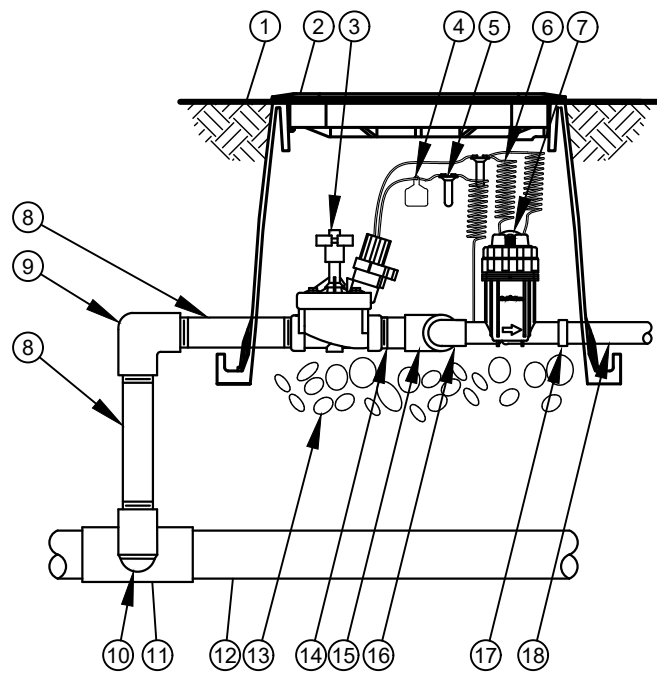
CITY OF WINTER GARDEN    FLORIDA



Posted By: Sauer, Cole Sheet Set: GENERAL RV EXPANSION - NORTH Layout: L2.50 March 06, 2025 03:39:32pm K:\Vol\_civil\249536000-general rv expansion\CADD\CONST\plansheets\North\_sht\L2.50-IRRIGATION\_PLAN.dwg  
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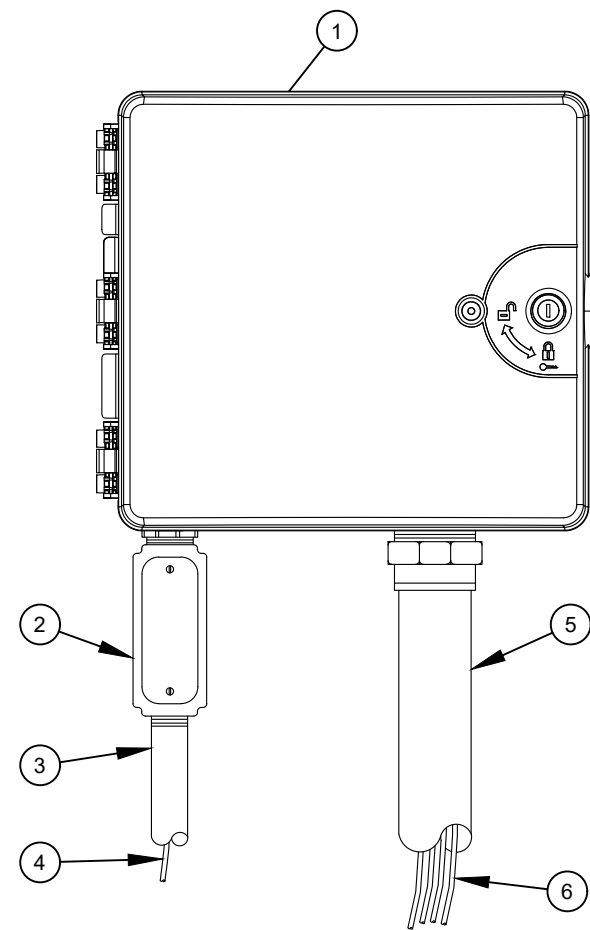
TOP VIEW



SIDE VIEW

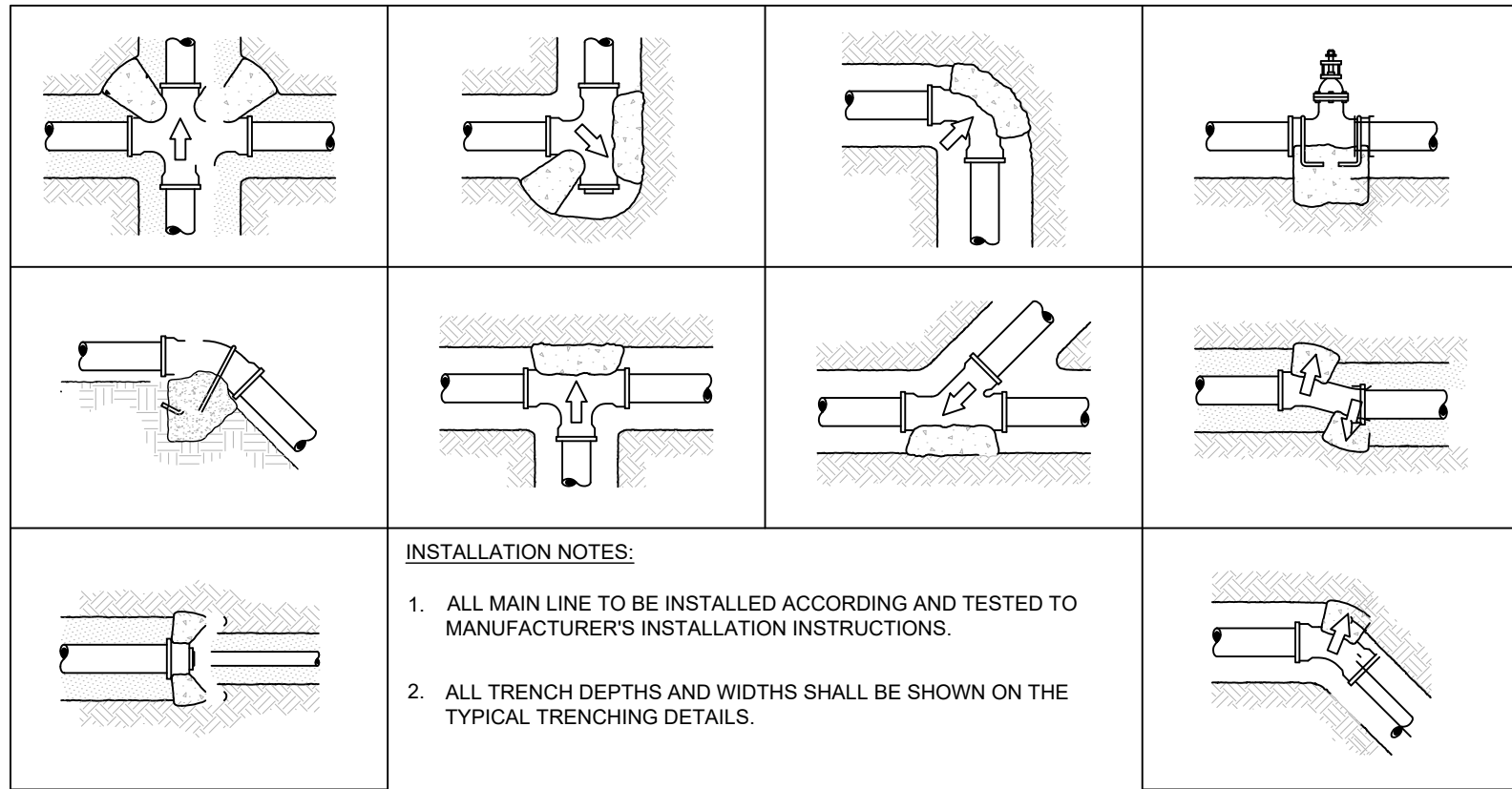
1 COMMERCIAL CONTROL DRIP ZONE VALVE KIT  
L2.50 SECTION / PLAN NTS

- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER:
- 3 REMOTE CONTROL VALVE:
- 4 ID TAG
- 5 WATERPROOF CONNECTION:
- 6 30-INCH LINEAR LENGTH OF WIRE, COILED
- 7 PRESSURE REGULATING QUICK CHECK BASKET FILTER:
- 8 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 9 PVC SCH 40 ELL
- 10 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 11 PVC SCH 40 TEE OR ELL
- 12 MAINLINE PIPE
- 13 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 14 PVC SCH 80 NIPPLE, CLOSE
- 15 PVC SCH 40 TEE
- 16 PVC SCH 40 ELL
- 17 PVC SCH 40 FEMALE ADAPTOR
- 18 LATERAL PIPE



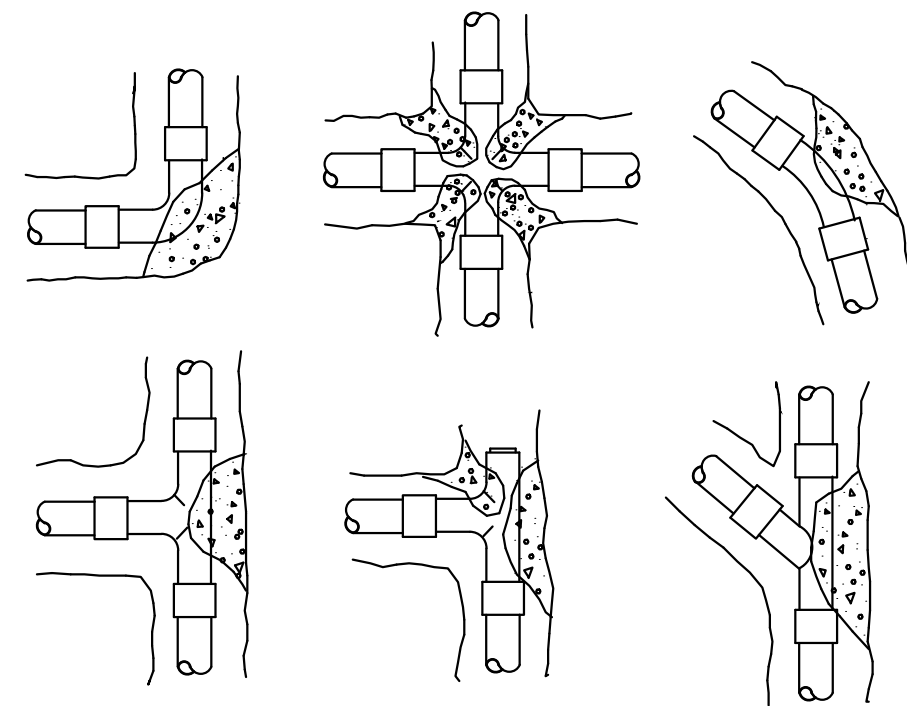
2 TYPICAL CONTROLLER  
L2.50 ELEVATION NTS

- 1 IRRIGATION CONTROLLER: CONTROLLER (OWNER TO SPECIFY WALL MOUNT OR STAINLESS STEEL PEDESTAL MOUNT). INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
  - 2 JUNCTION BOX
  - 3 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
  - 4 POWER SUPPLY WIRE
  - 5 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
  - 6 WIRES TO REMOTE CONTROL VALVES
- NOTES:
1. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
  2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
  3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.



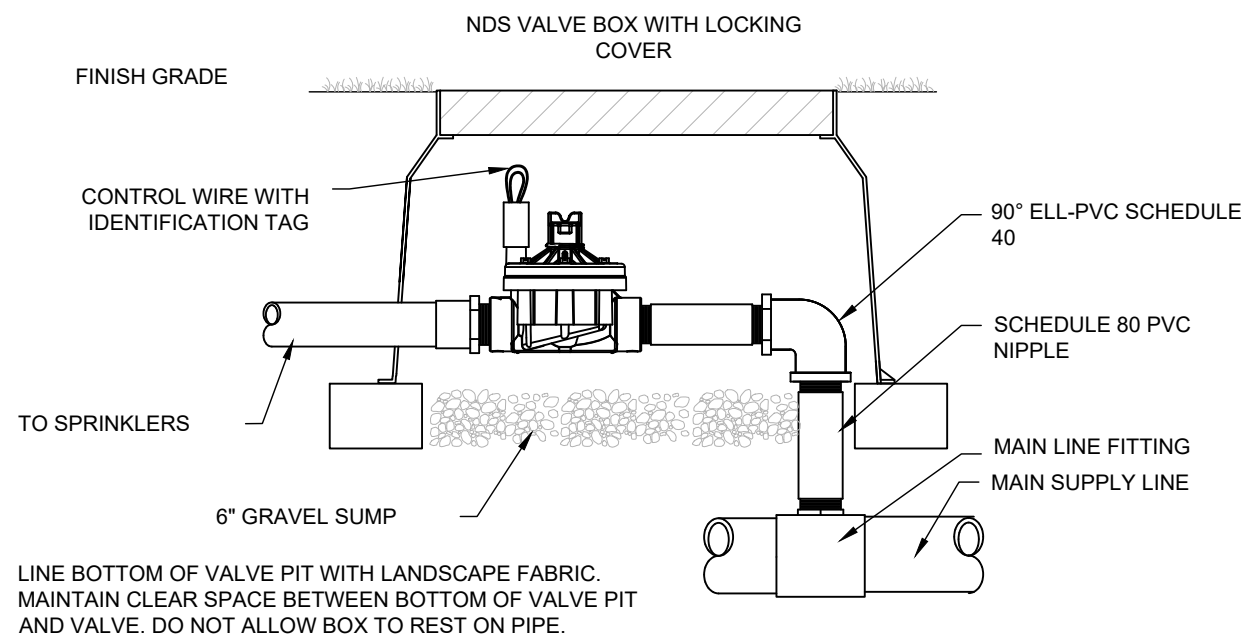
3 TYPICAL THRUST BLOCK  
L2.50 SECTION NTS

- INSTALLATION NOTES:
1. ALL MAIN LINE TO BE INSTALLED ACCORDING AND TESTED TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
  2. ALL TRENCH DEPTHS AND WIDTHS SHALL BE SHOWN ON THE TYPICAL TRENCHING DETAILS.

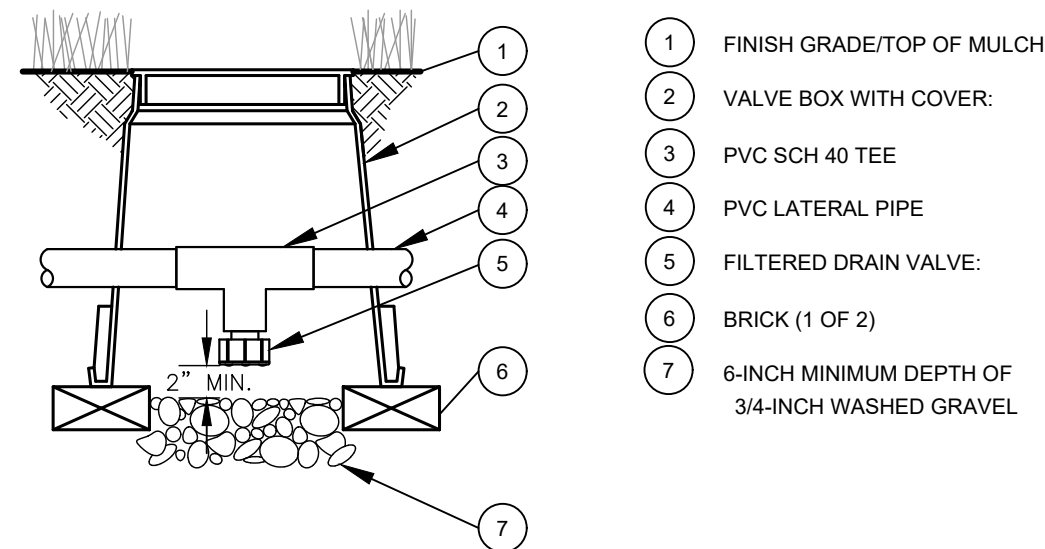


- INSTALLATION NOTES
1. 3000 PSI CONCRETE OR BETTER IS TO BE USED FOR THRUST BLOCKS.
  2. FOR 45°/90° FITTINGS, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED.
  3. FOR 22-1/2" FITTINGS, MINIMUM OF 0.5 CUBIC FEET OF CONCRETE TO BE USED.
  4. FOR TEES, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED. THRUST
- BLOCKS REQUIRED FOR IRRIGATION MAINLINE 2 1/2" AND LARGER.

4 THRUST BLOCK REINFORCEMENT  
L2.50 SECTION

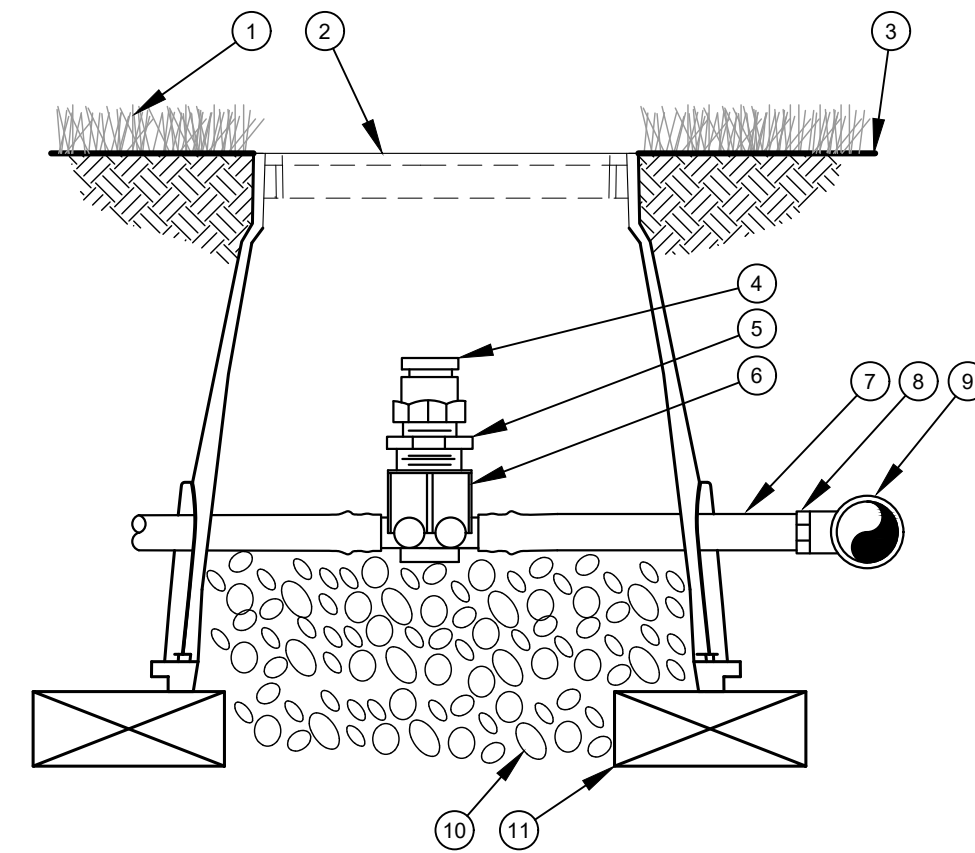


5 TYPICAL CONTROL VALVE  
L2.50 SECTION NTS



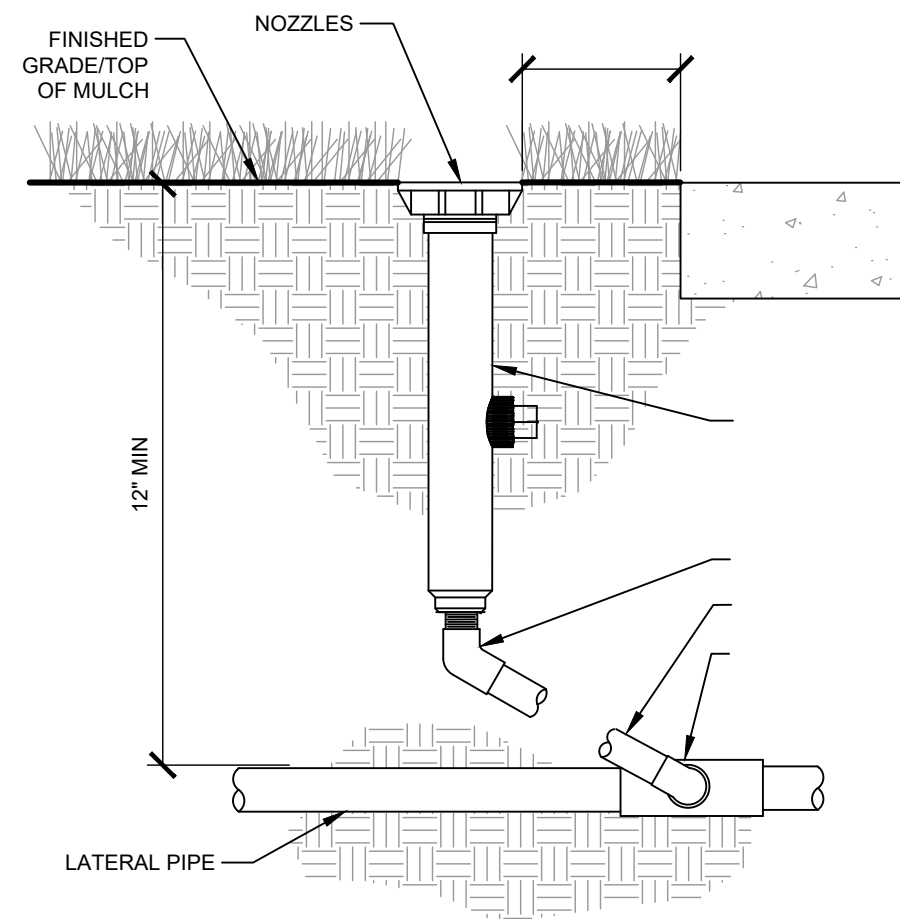
6 DRAIN VALVE  
L2.50 SECTION NTS

- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER:
- 3 PVC SCH 40 TEE
- 4 PVC LATERAL PIPE
- 5 FILTERED DRAIN VALVE:
- 6 BRICK (1 OF 2)
- 7 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL



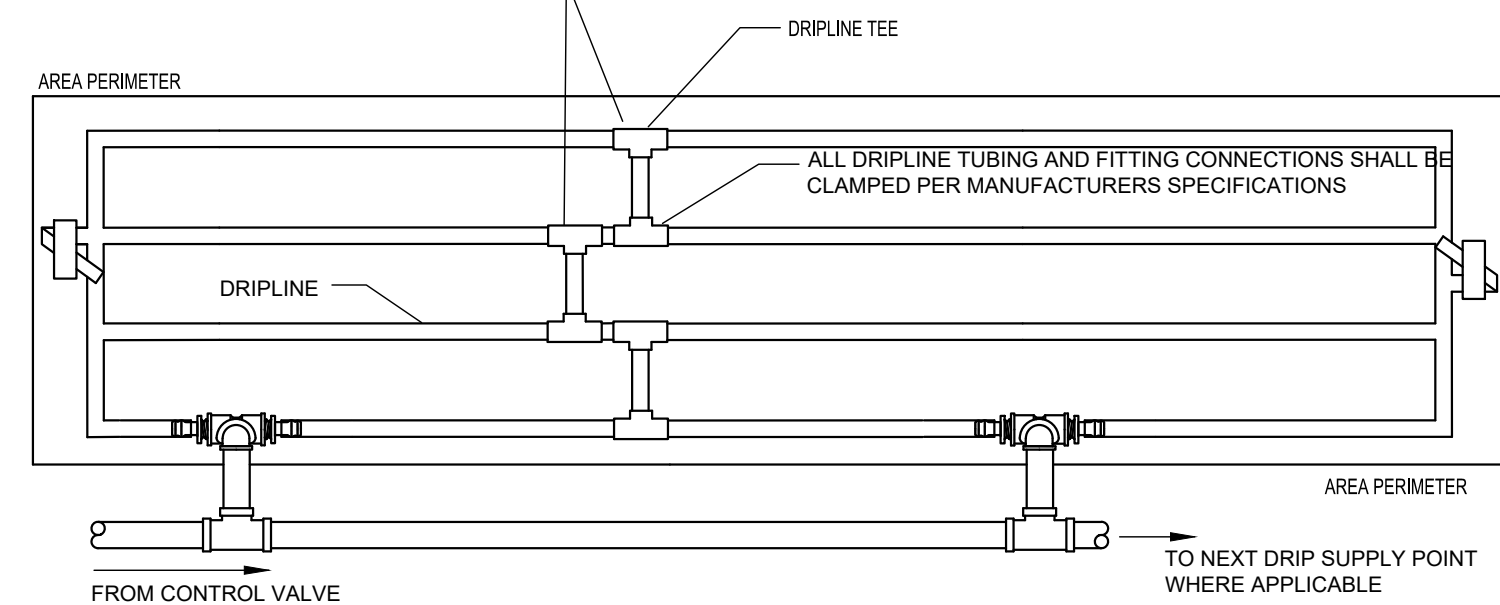
7 AIR RELIEF VALVE IN XFS DRIP LINE  
L2.50 SECTION NTS

- 1 TURF GRASS
- 2 VALVE BOX LID
- 3 FINISH GRADE
- 4 1/2" AIR RELIEF VALVE, TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
- 5 1/2" X 1/2" PVC REDUCER BUSHING
- 6 BARB X FEMALE THREAD CONNECTOR:
- 7 1/2" BLANK DRIPLINE TUBING:
- 8 BARB X MALE THREAD CONNECTOR:
- 9 PVC TEE CONNECTED TO PVC HEADER PIPE
- 10 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
- 11 BRICK (1 OF 2)



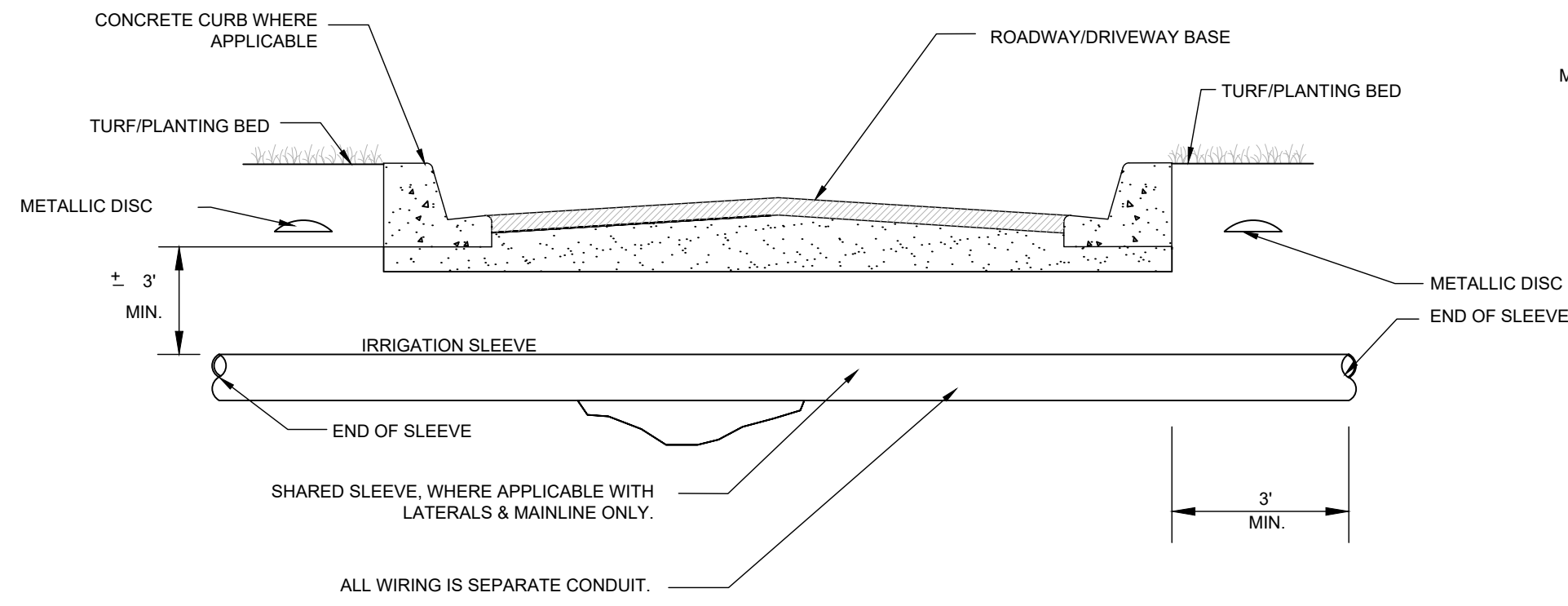
8 TYPICAL IRRIGATION HEAD  
L2.50 SECTION

WHEN DRIPLINE REQUIRES MULTIPLE SUPPLY POINTS EACH POINT SHALL BE CONNECTED UTILIZING RAINBIRD FITTINGS.

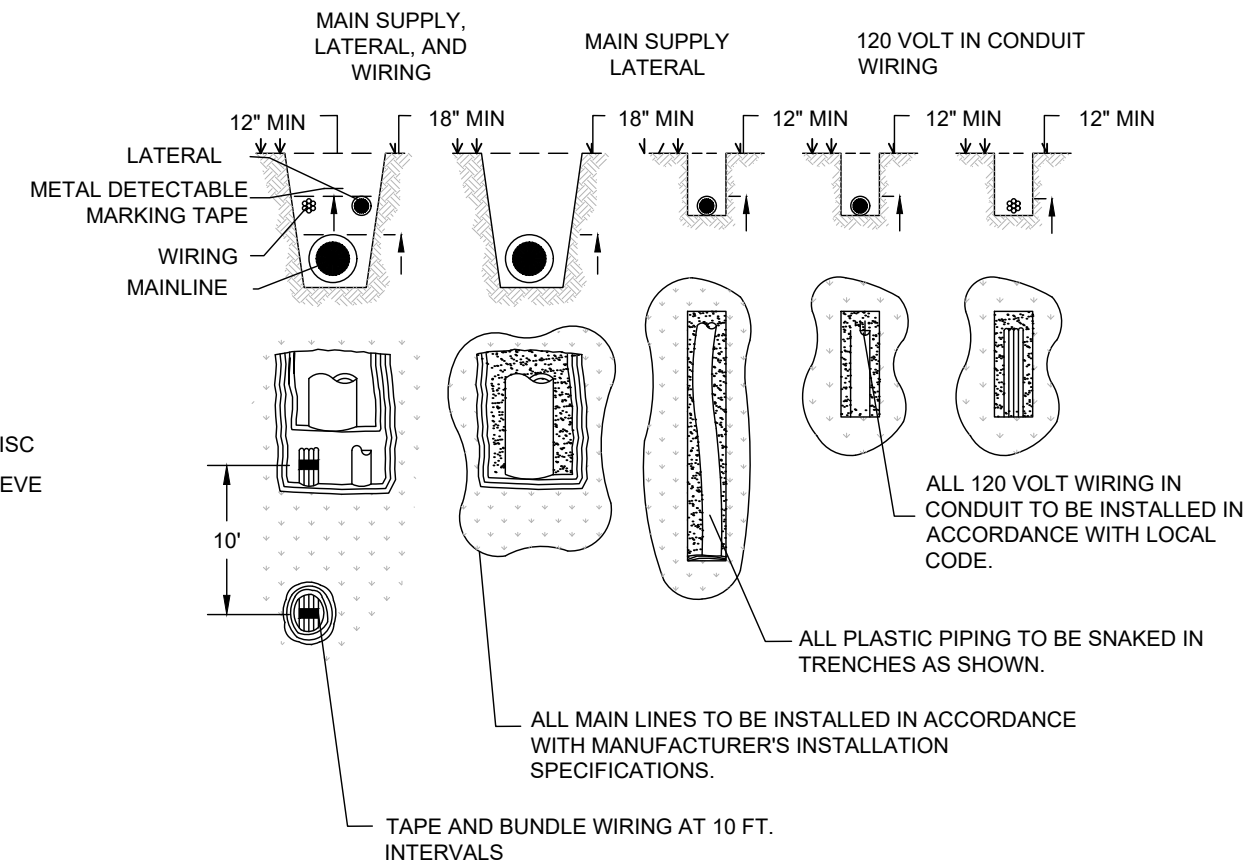


- NOTE:
1. DRIP TUBING TO BE ROUTED IN THE PLANT MATERIAL BED WITH AT MAXIMUM LATERAL SPACING OF 16 INCHES.
  2. DRIP TUBING TO BE INSTALLED IN A GRID PATTERN. DRIP TUBING SHALL NOT BE INSTALLED IN A LONG CONTINUOUS RUN.
  3. CONTRACTOR TO REFER TO IRRIGATION PLAN FOR LOCATION OF CONTROL VALVES THAT UTILIZE MULTIPLE DRIPLINE SUPPLY CONNECTIONS (IF SHOWN).
- CONTRACTOR TO REFER TO IRRIGATION PLAN FOR LOCATION OF CONTROL VALVES THAT UTILIZE MULTIPLE DRIPLINE SUPPLY CONNECTIONS. IF NOT SHOWN, INSTALL WITHIN ADJACENT GREEN AREA NOT IN A HIGHLY VISIBLE AREA.

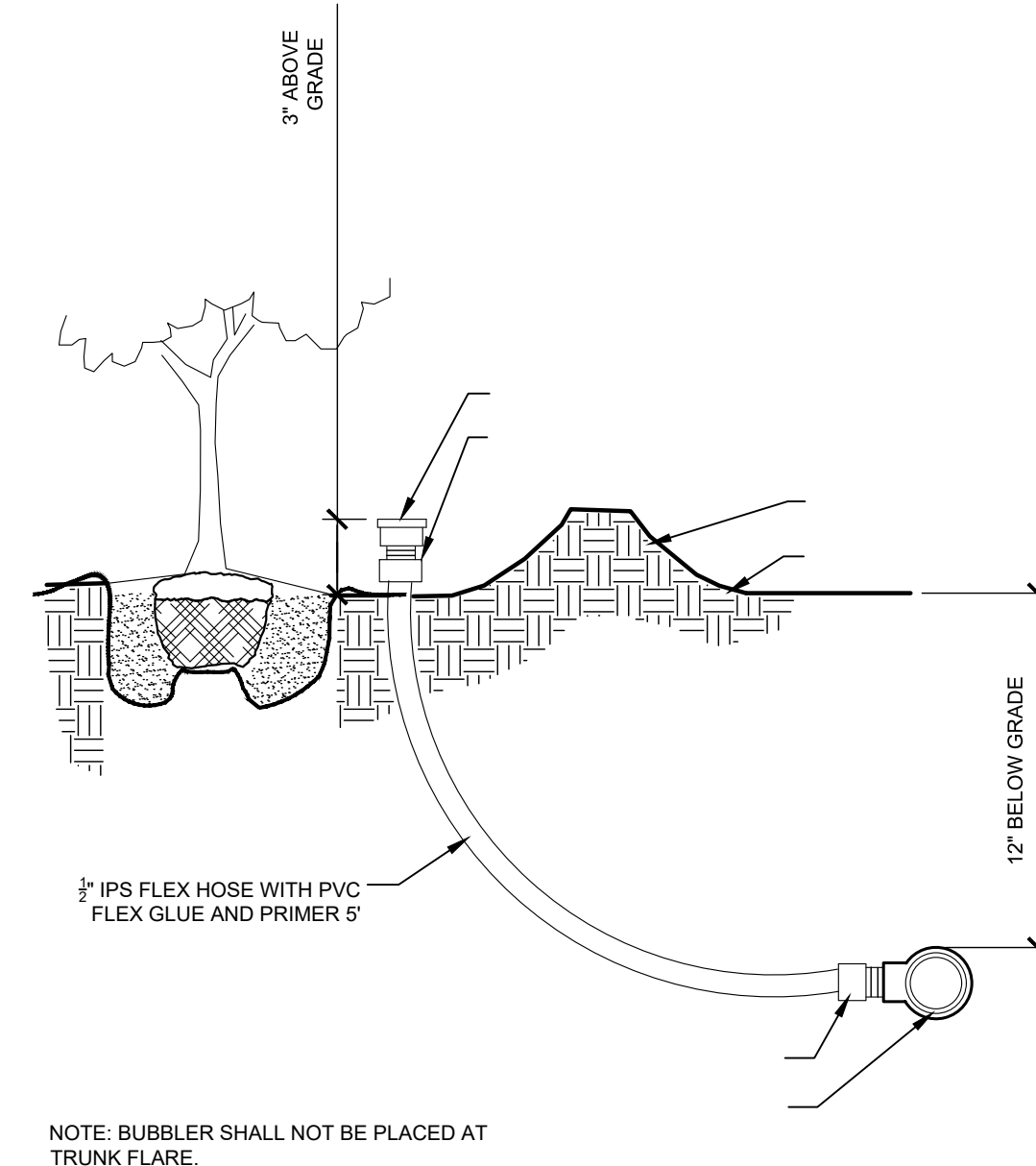
9 TYPICAL DRIP LINE  
L2.50 PLAN NTS



10 TYPICAL SLEEVEING  
L2.50 SECTION NTS



11 TYPICAL TRENCHING  
L2.50 SECTION / PLAN NTS



12 TYPICAL BUBBLER  
L2.50 SECTION

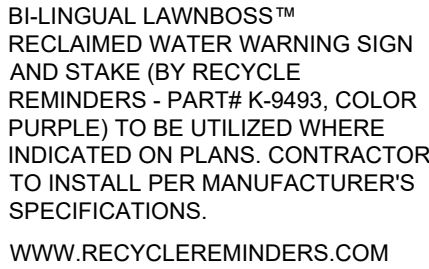
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| # LICENSE NUMBER 3/6/2025 |          |     |     |
| 249536000                 | 4/1/2024 | SHF | MTF |
| CITY OF WINTER GARDEN     |          |     |     |
| FLORIDA                   |          |     |     |



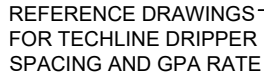
1. THE IRRIGATION MAINLINE LAYOUT IS DIAGRAMMATIC. ANY CHANGES MADE IN THE IRRIGATION MAINLINE DUE TO FIELD CONDITIONS OR CONTRACTOR'S SUBMITTED DESIGN SHALL BE IN ACCORDANCE WITH THESE STANDARDS.
2. SET SPRAY HEADS 6" AND ROTORS 12" IN FROM BACK OF CURB OR 24" IF PAVEMENT HAS NO CURB.
3. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL NECESSARY MODIFICATIONS REQUIRED TO MEET THE SCHEMATIC INTENT OF THESE PLANS PRIOR TO SUBMITTING PROPOSAL. THESE PLANS OUTLINE THE OVERALL LAYOUT THE SYSTEM AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ZONE THE SYSTEM ACCORDINGLY BASED ON FLOW AND PRESSURE AVAILABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FOLLOWING BUT NOT LIMITED TO AVAILABLE FLOW, AVAILABLE PRESSURE, CONNECTION ASSEMBLY, CAPACITY OF THE SYSTEM.
4. CONTRACTOR TO PROVIDE NEW AUTOMATIC CONTROLLER FOR PROPOSED SYSTEM (NO BATTERY OPERATED CONTROLLERS ALLOWED). COORDINATE LOCATION WITH OWNER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AUTOMATIC RAIN SENSOR. COORDINATE LOCATION W/ OWNER.
6. IRRIGATION SHALL NOT BE COMBINED ON A SINGLE ZONE AND SHALL BE ZONED ACCORDING TO IRRIGATION TYPE, PRECIPITATION RATE, AND THE SYSTEM'S AVAILABLE WATER / PRESSURE. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OWNER FOR REVIEW PRIOR TO INSTALLATION.
7. VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS-CONTRACTOR SHALL FIELD VERIFY.
8. CONTRACTOR TO FIELD VERIFY ALL POINT OF CONNECTION SOURCE INFORMATION INCLUDING PSI AND GPM PRIOR TO CONSTRUCTION.
9. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON-SITE.
10. CONTRACTOR SHALL COORDINATE WITH THE PLANTING PLAN FOR PLANTER BED AND TREE LOCATIONS TO ENSURE ALL PLANT MATERIAL IS COVERED BY 100% HEAD-TO-HEAD IRRIGATION.
11. CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT.
12. PRODUCTS SHALL BE AS SPECIFIED OR APPROVED EQUAL.

1. TORO
2. HUNTER
3. RAINBIRD

- IRRIGATION CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS MUST BE SENT TO THE OWNER/GENERAL CONTRACTOR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE JURISDICTION.
14. LOCATE ALL IRRIGATION LINES WITHIN LANDSCAPED AREAS WHENEVER POSSIBLE. ALL LINES UNDER PAVEMENT MUST BE SLEEVED WITHIN SCH. 40 2VC 2X SIZE OF PIPE AND FREE OF STONES/DEBRIS. ALL VALVES SHALL BE LOCATED WITHIN LANDSCAPED AREAS.
15. MAINLINE SHALL NOT BE LOCATED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.
16. THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR SLEEVEING AND DIRECTIONAL BORES.
17. ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF THE SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS. ALL SLEEVES ON PLAN FOR WALL PENETRATIONS AND UNDER SIDEWALKS SHALL BE SIZED TWO PIPE SIZES GREATER THAN THE PIPE IT CARRIES.
18. ALL PRESSURIZED MAINLINES AND LATERALS UNDER PAVEMENT SHALL BE WITHIN SCH. 40 PVC SLEEVES. WHERE ELECTRIC OR HYDRAULIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
19. NUMBER THE TOP OF ALL VALVE BOX LIDS WITH MINIMUM 1" HEIGHT BLACK LETTERS TO CORRESPOND TO AUTOMATIC AND GATE VALVE DESIGNATIONS. ALL HOSE BIBB VALVE BOXES SHALL BE LABELED IN A SIMILAR MANNER WITH THE DESIGNATION "HB". LETTER OUTSIDE OF TIME CLOCK CABINETS TO CORRESPOND WITH IRRIGATION CLOCK PROGRAM DESIGNATION.
20. THE IRRIGATION CONTRACTOR SHALL INSTALL A COLOR CODED METAL DETECTABLE MARKING TAPE WHICH CLEARLY NOTES: "CAUTION: IRRIGATION LINE BURIED BELOW." THE TAPE SHALL BE INSTALLED THE FULL LENGTH OF THE IRRIGATION MAINLINE.
21. ELECTRIC SERVICE TO THE CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
22. ALL 24 VAC WIRING FROM DECODER TO VALVE SHALL BE OF DIRECT BURIAL COPPER WIRE. MAXIMUM LENGTH OF WIRE FROM DECODER TO VALVE SHALL NOT EXCEED 400 FEET, AS FOLLOWS:  
CONTROL WIRES - #14  
COMMON WIRES - #14
23. ALL VALVES, SPLICES WITHIN CONTROL LINES, AND QUICK COUPLERS SHALL BE LOCATED WITHIN NDS VALVE BOXES AS FOLLOWS:  
-RECTANGULAR 12"x17" HEAVY DUTY BOX. (PURPLE COVER FOR REUSE TO BE PROVIDED WHERE APPROPRIATE).
24. ALL IRRIGATION HEADS/DRIP TUBING SHALL BE LOCATED ONE (1) FOOT FROM BACK OF CURB WHEN NEXT TO A ROADWAY. (THIS SHALL NOT INCLUDE PARKING AREAS OR DRIVE AISLES).
25. HEADS, LATERALS, EMITTERS, AND VALVES ARE NOT SHOWN, BUT ARE NECESSARY FOR A FULLY FUNCTIONING IRRIGATION SYSTEM.
26. LOCATE ALL VALVES IN PLANTING BEDS WITH A MINIMUM OF 3'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. PIPE SIZES ON EITHER SIDE OF SECTION VALVES CONNECTING MAINLINE TO SECTION LATERAL SHALL BE ONE (1) PIPE SIZE LARGER THAN VALVE SIZE. WHERE MAINLINES RUN PARALLEL TO PAVEMENT OR CURBING, THE MAINLINE SHALL BE OFFSET 2'-0" FROM THE EDGE OF PAVEMENT OR CURB.
27. IRRIGATION ZONES SHALL BE SEPARATED FOR HIGH AND LOW WATER USE REQUIREMENTS AND OPERATED ON DIFFERENT WATERING CYCLES. BUBBLERS, DRIPLINE, AND SPRAY HEADS SHALL BE SEPARATED ON DIFFERENT VALVES. AT NO TIME SHALL MULTIPLE IRRIGATION HEAD TYPES BE LOCATED ON THE SAME VALVE.
28. ALL DRIP ZONES SHALL BE INSTALLED WITH A FLUSH VALVE AND AIR RELIEF VALVE. IN THE EVENT THAT A DRIP ZONE HAS MORE THAN ONE HIGH OR LOW POINT, MORE THAN ONE AIR RELIEF VALVE OR FLUSH VALVE WILL BE REQUIRED FOR THAT ZONE. DRIPLINE SHALL PROVIDE 0.9 GPH EMITTERS, 12" O.C. WITH 12" LINE SPACING AT A MINIMUM.
29. ALL WIRING FOR CONNECTION OF THE VALVES TO THE CONTROLLER SHALL FOLLOW MANUFACTURERS SPECIFICATIONS. IF REQUIRED, ALL WIRING FOR A TWO WIRE PATH SHALL BE WITH RED/BLUE TWISTED PAIR 14 AWG. ELECTRIC CONTROL LINES FROM THE DECODER TO THE SOLENOID VALVES SHALL BE TWISTED PAIR 18 AWG. ALL DECODERS SHALL BE GROUNDED EVERY 1,000 L.F. OR EVERY 10 DEVICES. ALL WIRE SHALL BE FURNISHED IN MINIMUM 2,500 REELS AND SPLICING SHALL BE MINIMIZED. BURY SPLICE KIT, ALL 24 VOLT WIRING SHALL BE DONE IN ACCORDANCE WITH EXISTING CODES. SPLICING SHALL BE IN VALVE BOXES OR CONTROLLERS ONLY. IRRIGATION SYSTEM CONTROL SHALL BE TWO WIRE PATH. CONTRACTOR SHALL FOLLOW ALL MANUFACTURERS REQUIREMENTS FOR THIS INSTALLATION. TWO WIRE SYSTEM SHALL HAVE 2-WAY COMMUNICATIONS FIELD PROGRAMMABILITY, STATION SPECIFICATIONS AND INTEGRATED SURGE PROTECTION.
30. ALL CONTROL WIRE SHALL BE INSTALLED IN A 1 1/2" ELECTRICAL CONDUIT.
31. SMALLEST DIAMETER LATERAL PIPE SHALL BE 3/4".
32. IRRIGATION SYSTEM SHALL BE CAPABLE OF SUPPLYING AN AVERAGE OF 1.05" OF WATER PER WEEK WITHIN WATERING RESTRICTIONS AS APPLICABLE.
33. IRRIGATION SYSTEM SHALL NOT BE INSTALLED THROUGH EXISTING, OR PRESERVED PLANT COMMUNITIES. DO NOT TRENCH THROUGH EXISTING ROOT SYSTEMS OF ANY VEGETATION INTENDED TO BE PRESERVED.
34. CONTRACTOR TO MINIMIZE IRRIGATION OVERTHROW TO IMPERVIOUS AND NATURAL AREAS THROUGH FIELD ADJUSTMENTS TO INDIVIDUAL HEADS.
35. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THE CONDITION DENOTED ON THE LANDSCAPE PLAN.
36. IRRIGATION PIPING INSTALLED UNDER ROADS AND SIDEWALKS SHALL BE IN SCHEDULE 40 PVC SLEEVEING AT 2X THE PIPE SIZE. ALL SLEEVEING SHALL BE FREE OF STONES AND DEBRIS.
37. IRRIGATION SOURCE TO BE EITHER WELL, POTABLE, OR NON-POTABLE WATER. IRRIGATION CONTRACTOR TO VERIFY SOURCE PRIOR TO DESIGN.
38. POINT OF CONNECTION TO BE DETERMINED BY OWNER. IRRIGATION SYSTEM CONNECTIONS TO THE LOCAL JURISDICTION SERVICE SHALL COMPLY WITH ALL APPLICABLE CODES.
39. IRRIGATION CONNECTION MAY REQUIRE BACKFLOW PREVENTION, VERIFY WITH LOCAL JURISDICTION.
40. IRRIGATION SYSTEM SHALL COMPLY WITH THE LOCAL JURISDICTION LAND DEVELOPMENT CODE.



1  
L2.51



CANOPY TREES 3" CAL. AND LARGER  
TREE RING DETAILS

1  
L2.51

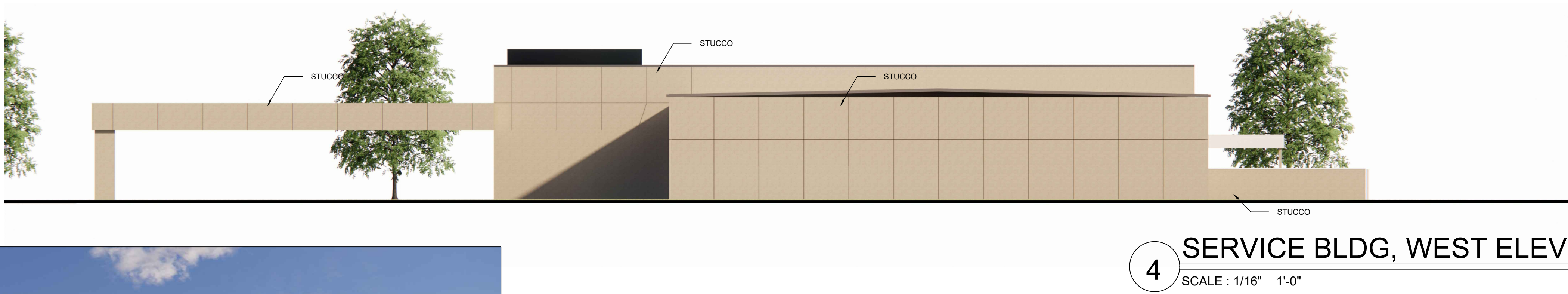
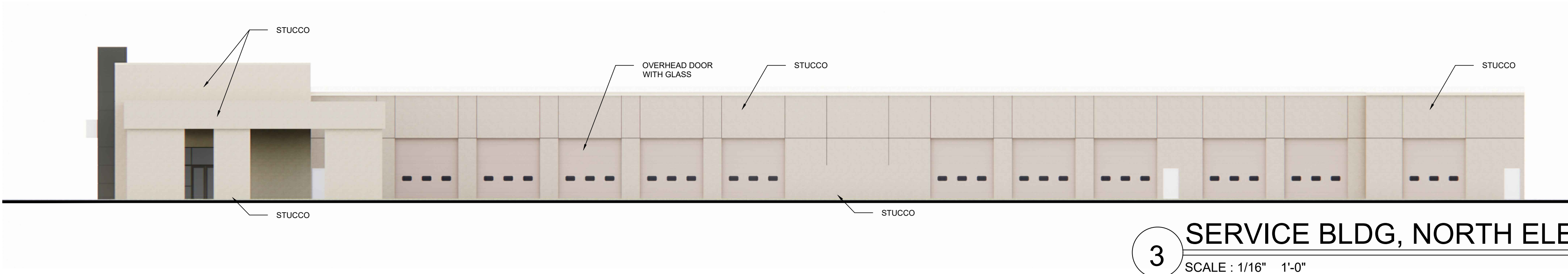
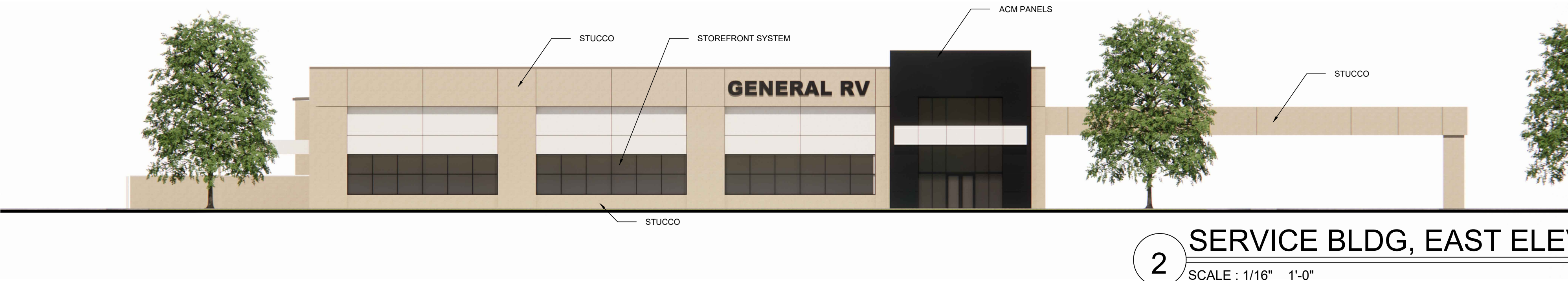
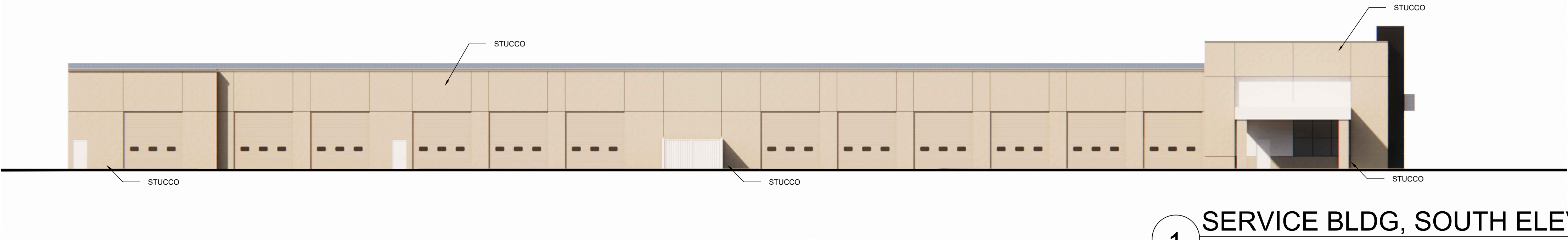
**Kimley»»Horn**

|           |     |                                   |
|-----------|-----|-----------------------------------|
| 249536000 | SHF | ## LICENSE NUMBER<br><br>3/6/2025 |
| 4/1/2024  | SHF |                                   |
|           | MTF |                                   |

1000 JOURNAL OF CLIMATE

CITY OF WINTER GARDEN FLORIDA







# CITY OF WINTER GARDEN

## *Development Review Committee*

300 West Plant Street - Winter Garden, Florida 34787-3011

(407) 656-4111 - FAX (407) 877-2363

### **MEMORANDUM**

**TO:** KELLY CARSON, PLANNING DIRECTOR  
**FROM:** DEVELOPMENT REVIEW COMMITTEE  
**DATE:** MARCH 20, 2025  
**SUBJECT:** SITE PLAN REVIEW – 2<sup>nd</sup> REVIEW  
740 GARDEN COMMERCE – GENERAL RV EXPANSION

Pursuant to your request, we have reviewed the revised site plan dated 10/14/24 for compliance with the City's subdivision, stormwater and site requirements. The property included in this project is part of the Winter Garden Commerce Center phased development. This was submitted in response to our feasibility review of 1/29/24, Special Exception review of 4/19/24, site plan review of 9/16/24 and DRC meeting of 9/25/24 where it was referred to staff review only. Reviews for development of this property have been ongoing for WG Commercial LLC (Scott Holder) and the General RV proposed overall development.

### **ENGINEERING**

We recommend approval of the site plan, subject to approval by all other departments, and the following conditions and comments (underlined comments shall be addressed prior to pre-con):

1. Planning Department shall review and comment on layout, setbacks, landscaping, buffering, lighting and signage, platting, including PID zoning requirements.
2. The proposed layout substantially deviates from the approved preliminary plat and drainage plan for the WG Commercial project. This will require new reviews for Preliminary plat, Construction plans and Final Plat.
3. General Requirements (as noted):
  - a. All gravity sanitary pipe and fittings shall be SDR 26 (SDR 35 shown).
  - b. All compaction shall be 98% of the modified proctor maximum density (AASHTO T-180).
  - c. As-built record drawings shall comply with City of Winter Garden requirements available on-line (note on plan).
  - d. All Storm (>12") and Sanitary lines (>6") shall be inspected by CCTV prior to completion.
  - e. Use City Standard Detail sheets for utilities and public works (see City website).
  - f. If Thermoplastic pipe is used it shall meet all City material and installation requirements as specified in the City's Standards & Specifications including Class I bedding, HP polypropylene pipe (**not HDPE or N-12**), laser profiling, installation per ASTM D2321, etc. (see under on-line forms on website).
  - g. All utilities shall be underground pursuant to Code (Sec. 18-33) including electrical power, cable, telephone, etc.
4. Tree removal shall adhere to the City's Tree Protection Ordinance – separate review, approval and permit is required. As required by Code (Sec. 114-70), submittal of the Tree Removal Permit application is required with the preliminary plat submittal. Coordinate with the Building Department on any tree removal and protection. Additional landscaping and tree replacement may be required with final plan.
5. 100% of the water/sewer impact fees shall be paid prior to site or building permit issuance or execution of FDEP permit applications by the City. Sanitary laterals, fittings, and pipes shall be SDR 26 per City standards. Use City Standard Detail Sheets for utilities and public works.



6. All utilities shall conform to Chapter 78 of the City Code. Impact fees will be required for any utility connections and shall be paid prior to issuance of building permit and City execution of FDEP permit applications. The site shall be served by City water, sewer and reuse. All utilities required for the development shall be run to the site at the Developer's expense, including potable water, reclaimed water and sanitary sewer. 100% of all required water, irrigation and sewer impact fees shall be paid prior to City execution of FDEP permits and issuance of site or building permits.

According to the plans there will be (1) 1" domestic meters and (1) 2" irrigation meter. Based on the above, the utility impact fees are as follows:

|                         |                    |   |                      |
|-------------------------|--------------------|---|----------------------|
| 1" Potable water meter  | 1 ea. @ \$2,715.00 | = | \$2,715.00           |
| Wastewater for 1" meter | 1 ea. @ \$4,418.00 | = | \$4,418.00           |
| 2" Irrigation meter     | 1 ea. @ \$8,688.00 | = | \$8,688.00           |
| <b>TOTAL</b>            |                    |   | <b>= \$15,821.00</b> |

(does not include connection/installation fee)

7. Permit or modification from SJRWMD for stormwater is required. Permits or exemptions shall also be required from FDEP for water and sewer and FDEP NPDES NOI as may be applicable.
8. Any signs, screen walls or retaining walls shall require a separate permit from the Building Department.
9. Streetlighting both internally and on all street frontages is required pursuant to City Code – dark skies lighting is required. A photometric plan has been provided for review by Planning Department.

### **PLANNING COMMENTS**

10. The tree mitigation cost in the amount of \$173,010.00, as provided by the applicant, will be paid to the City's Tree Fund at the preconstruction meeting. This will become a condition of approval.
11. All signage shall adhere to City Code Chapter 102 – Signs. Signs are not reviewed or approved through site plan approval. Signage will be reviewed and approved through the building permit process after site plan approval.

### **STANDARD GENERAL CONDITIONS**

12. The Owner is responsible for meeting all provisions of ADA and Florida Accessibility Code.
13. All work shall conform to City of Winter Garden standards and specifications.
14. Fencing, shall meet all City requirements for height, type, etc. Chain link fencing, if used, shall be vinyl coated per Code.
15. 5' wide concrete sidewalks shall be constructed along all street frontages pursuant to City Code.
16. The City of Winter Garden will inspect private site improvements only to the extent that they connect to City owned/maintained systems (roadways, drainage, utilities, etc.). It is the responsibility of the Owner and Design Engineer to ensure that privately owned and maintained systems are constructed to the intended specifications. The City is not responsible for the operation and maintenance of privately owned systems, to include, but not be limited to, roadways, parking lots, drainage, stormwater ponds or on-site utilities.
17. The Contractor is responsible for the notification, location and protection of all utilities that may exist within the project limits.
18. No fill or runoff will be allowed to discharge onto adjacent properties; existing drainage patterns shall not be altered. The applicant should note that if approval is granted, the City of Winter Garden is not granting rights or easements for drainage from, or onto, property owned by others. Obtaining permission, easements or other approvals that may be required to drain onto private property is the Owner/Developer's responsibility. Should the flow of stormwater runoff from, or onto adjacent properties be unreasonable or cause problems, the City will not be responsible and any corrective measures required will be the responsibility of the Owner. Site construction shall adhere to the City of Winter Garden erosion and sediment control requirements as contained in Chapter 106 - Stormwater. If approval is granted by the City of Winter Garden, it does not waive any permits that may be required by federal, state, regional, county,



municipal or other agencies that may have jurisdiction.

19. After final plan approval, a preconstruction meeting will be required prior to any commencement of construction. The applicant shall provide an erosion control and street lighting plan at the preconstruction meeting and shall pay all engineering review and inspection fees prior to construction. Inspection fees in the amount of 2.25% of the cost of all site improvements shall be paid prior to issuance of the building permit.
20. Additional comments will be generated at subsequent reviews.

Please review this information and contact our office if you have any questions. Thank you.

**END OF MEMORANDUM**



**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Kelly Carson, Planning Director

**Via:** City Manager Jon C. Williams

**Date:** April 1, 2025      **Meeting Date:** April 10, 2025

**Subject:** 12565 W Colonial Drive

**GENERAL RV – EXPANSION EAST - NEW CONSTRUCTION**

**Site Plan Approval**

**PARCEL ID# 24-22-27-0000-00-045**

**Issue:** The applicant is requesting approval to the Site Plan for a recreational vehicle sales office use with limited outdoor recreational vehicle storage and parking for the property located at 12565 W Colonial Drive.

**Discussion:**

The proposed project is to construct a 39,065 square foot recreational vehicle sales office with limited vehicle storage and parking on the proposed +/- 5.15 acre Lot 1. The stormwater management and roadway connections to the existing recreational vehicle lot located at 12705 W Colonial Drive and the forthcoming development for additional recreational vehicle storage at 740 Garden Commerce Parkway will be constructed on the +/- 1.72 acre Lot 2. The remainder of the site will become dedicated right of way to continue the development of Garden Commerce Parkway to W Colonial Drive (State Route 50). Site improvements include, completion of Garden Commerce Parkway, stormwater management, landscaping, and parking, in accordance with the State Route 50 overlay requirements.

A community meeting was held October 21, 2024. No concerns were expressed at the meeting.

The special exception permit application for the recreational vehicle sales office with limited vehicle storage and parking was approved December 2, 2024, by the Planning and Zoning Board.

The preliminary plat to create Lots 1 and 2 and the right of way was approved March 3, 2025, by the Planning and Zoning Board.

The property is designated COM (Commercial) on the City's Future Land Use Map, is zoned C-2 (Arterial Commercial).

**Recommended Action:**

Staff recommends approval of the proposed site plan.



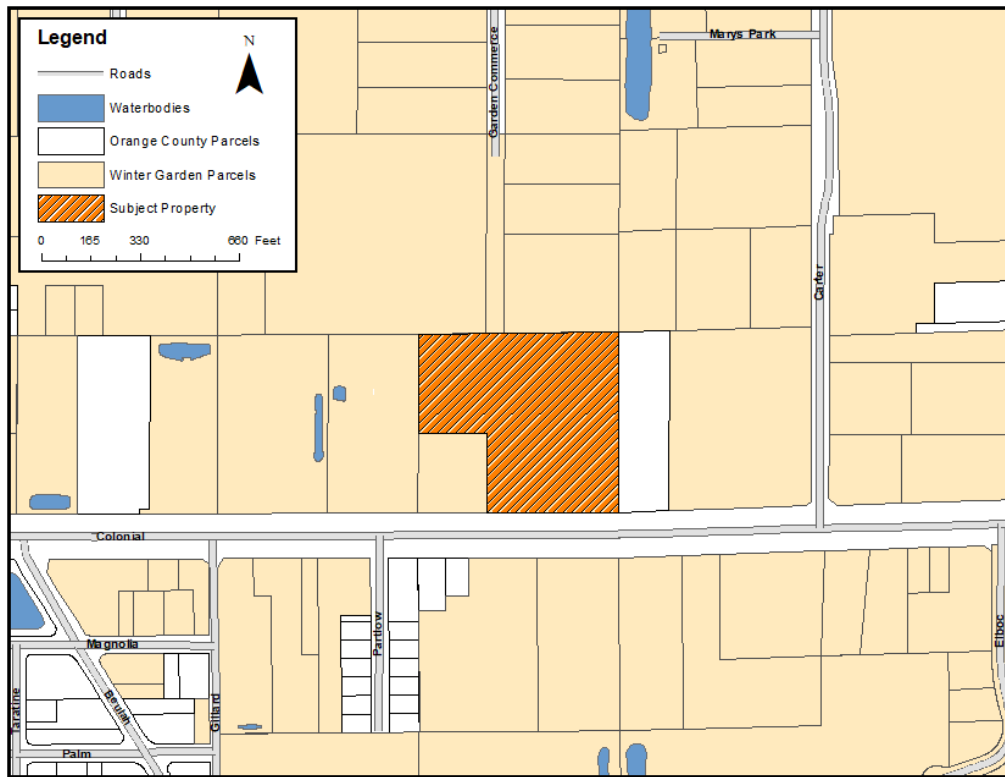
**Attachment(s)/References:**

Location Map  
Construction Plans with Preliminary Plat and Landscape Plans  
Survey  
Architectural Elevations  
Final DRC combined comments



# Location Map

12565 W Colonial Drive







26 ONA FINE SAND, 0 TO 2 PERCENT SLOPES  
44 SMYRNA-SMYRNA, WET, 0 TO 2 PERCENT SLOPES  
54 ZOLFO FINE SAND, 0 TO 2 PERCENT SLOPES

LEGAL DESCRIPTION:

PARCEL 1:

THAT PART OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 22 SOUTH, RANGE 27 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTH 1/4 CORNER OF SECTION 24, TOWNSHIP 22 SOUTH, RANGE 27 EAST; THENCE RUN N00°03'40"E ALONG THE EAST LINE OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 24, 75.00 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE NORTH RIGHT OF WAY LINE OF COLONIAL DRIVE (STATE ROAD NO. 50); THENCE RUN S89°57'06"W ALONG SAID NORTH RIGHT OF WAY LINE BEING 75.00 FEET NORTH OF AND PARALLEL WITH WHEN MEASURED PERPENDICULAR TO THE SOUTH LINE OF SAID SECTION 24, A DISTANCE OF 437.65 FEET; THENCE RUN N00°03'28"E, 265.00 FEET; THENCE RUN S89°57'06"W 230.00 FEET TO A POINT ON THE WEST LINE OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 24; THENCE RUN N00°04'53"E ALONG SAID WEST LINE 329.47 FEET TO THE NORTHWEST CORNER OF SAID SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 24; THENCE RUN N89°45'14"E ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 24, 667.13 FEET TO THE NORTHEAST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 24; THENCE RUN S00°03'40"W ALONG THE EAST LINE OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 24, 596.85 FEET TO THE POINT OF BEGINNING.

## UTILITY PROVIDERS

WATER, SEWER, AND RECLAIMED WATER :

WINTER GARDEN UTILITIES  
300 PLANT STREET  
WINTER GARDEN, FL 34787  
PHONE: (407) 656-2256

## TELEPHONE:

ORLANDO TELEPHONE COMPANY, INC.  
4558 SW 35TH ST  
ORLANDO, FL 32811

GAS:

LAKE APOPKA NATURAL GAS DISTRICT  
P.O. BOX 771275  
WINTER GARDEN, FL 34777-1257  
PHONE: (407) 656-2734

ELECTRIC :

DUKE ENERGY  
2801 W SR 426  
OVIEDO, FL 332765  
PHONE: (407) 359-4447

# CONSTRUCTION PLANS FOR GENERAL RV EXPANSION - EAST

PARCEL #:  
24-22-27-0000-00-045

CITY OF WINTER GARDEN, FL  
March 6, 2025



## LOCATION MAP

N.T.S.

## PROJECT TEAM

OWNER:

MR. KEVIN SCHONSHECK  
FL ORLANDO 4441, LLC  
2500 ASSEMBLY PARK DR.  
WIXOM, MI 48393  
CONTACT: KEVIN SCHONSHECK  
PHONE: (248) 787-4690

## CIVIL ENGINEER

KIMLEY-HORN AND ASSOCIATES, INC.  
200 S. ORANGE AVE., SUITE 600  
ORLANDO, FL 32801  
CONTACT: JORDAN DRAPER, P.E.  
PHONE: (407) 412-7741  
EMAIL: JORDAN.DRAPER@KIMLEY-HORN.COM

## LANDSCAPE ARCHITECT:

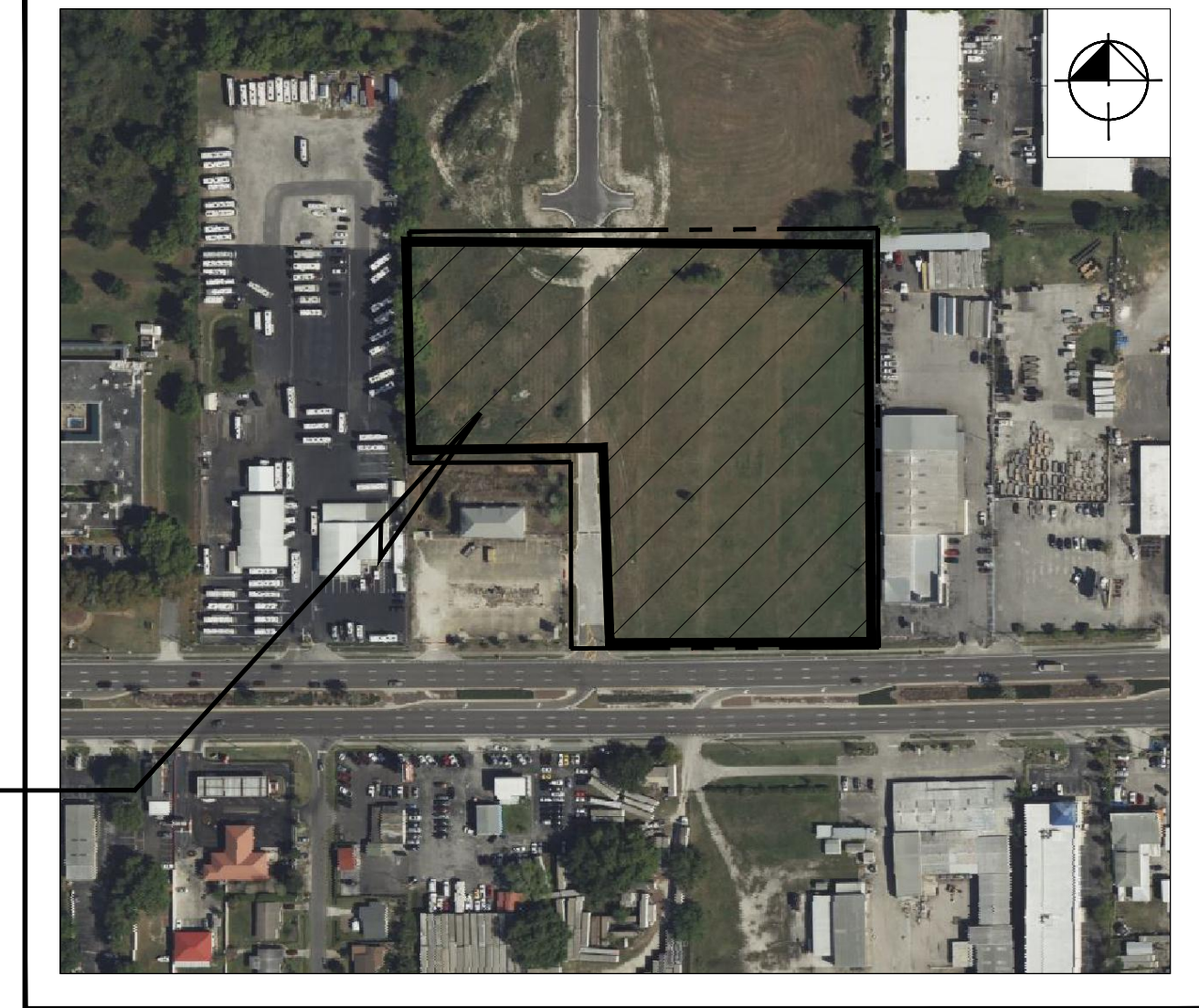
KIMLEY-HORN  
200 S ORANGE AVENUE SUITE 600  
ORLANDO, FL 32806  
CONTACT: MATT FRANKO  
PHONE: (407) 427-1629  
EMAIL: MATT.FRANKO@KIMLEY-HORN.COM

## DEVELOPER:

MR. KEVIN SCHONSHECK  
FL ORLANDO 4441, LLC  
2500 ASSEMBLY PARK DR.  
WIXOM, MI 48393  
CONTACT: KEVIN SCHONSHECK  
PHONE: (248) 787-4690

PREPARED BY  
**Kimley»»Horn**

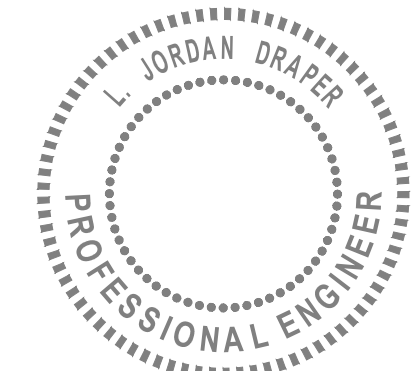
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200 S Orange Ave, Suite 600, Orlando, FL 32801  
Phone: (407) 898-1511  
WWW.KIMLEY-HORN.COM Registry No. 35106



| SHEET LIST TABLE |                                       |
|------------------|---------------------------------------|
| SHEET<br>NUMBER  |                                       |
| C0.0             | COVER SHEET                           |
| C1.0 - C1.1      | GENERAL NOTES                         |
| C2.0             | SWPPP                                 |
| C3.0             | EXISTING CONDITIONS & DEMOLITION PLAN |
| C3.1             | EROSION CONTROL DETAILS               |
| C3.2             | PRELIMINARY PLAT                      |
| C4.0             | SITE PLAN                             |
| C4.1             | GARDEN COMMERCE PARKWAY EXTENSION     |
| C5.0 - C5.4      | PAVING GRADING & DRAINAGE             |
| C6.0             | UTILITY PLAN                          |
| C7.0 - C7.1      | CONSTRUCTION DETAILS                  |
| C8.0 - C8.4      | WINTER GARDEN DETAILS                 |
| L0.50            | TREE MITIGATION PLAN                  |
| L0.51            | TREE MITIGATION DATA                  |
| L1.00            | LANDSCAPE PLAN                        |
| L1.01            | LANDSCAPE TABLE                       |
| L1.50            | LANDSCAPE DETAILS                     |
| L1.51            | LANDSCAPE NOTES                       |
| L2.00            | IRRIGATION PLAN                       |
| L2.50            | IRRIGATION DETIALS                    |
| L2.51            | IRRIGATION NOTES                      |

## SITE INFORMATION

PARCEL ID: 24-22-27-0000-00-045  
PROPERTY AREA: 7.73 AC  
FUTURE LAND USE: MOI  
PROPERTY ZONING: C-2  
NUMBER OF LOTS PROPOSED: 2  
EXISTING USE: OPEN SPACE



GENERAL RV EXPANSION – EAST  
3/6/2025  
ENGINEER'S PROJECT No. 249536000

SHEET NUMBER

[illegible]







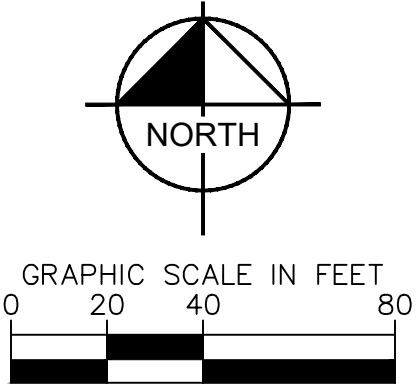
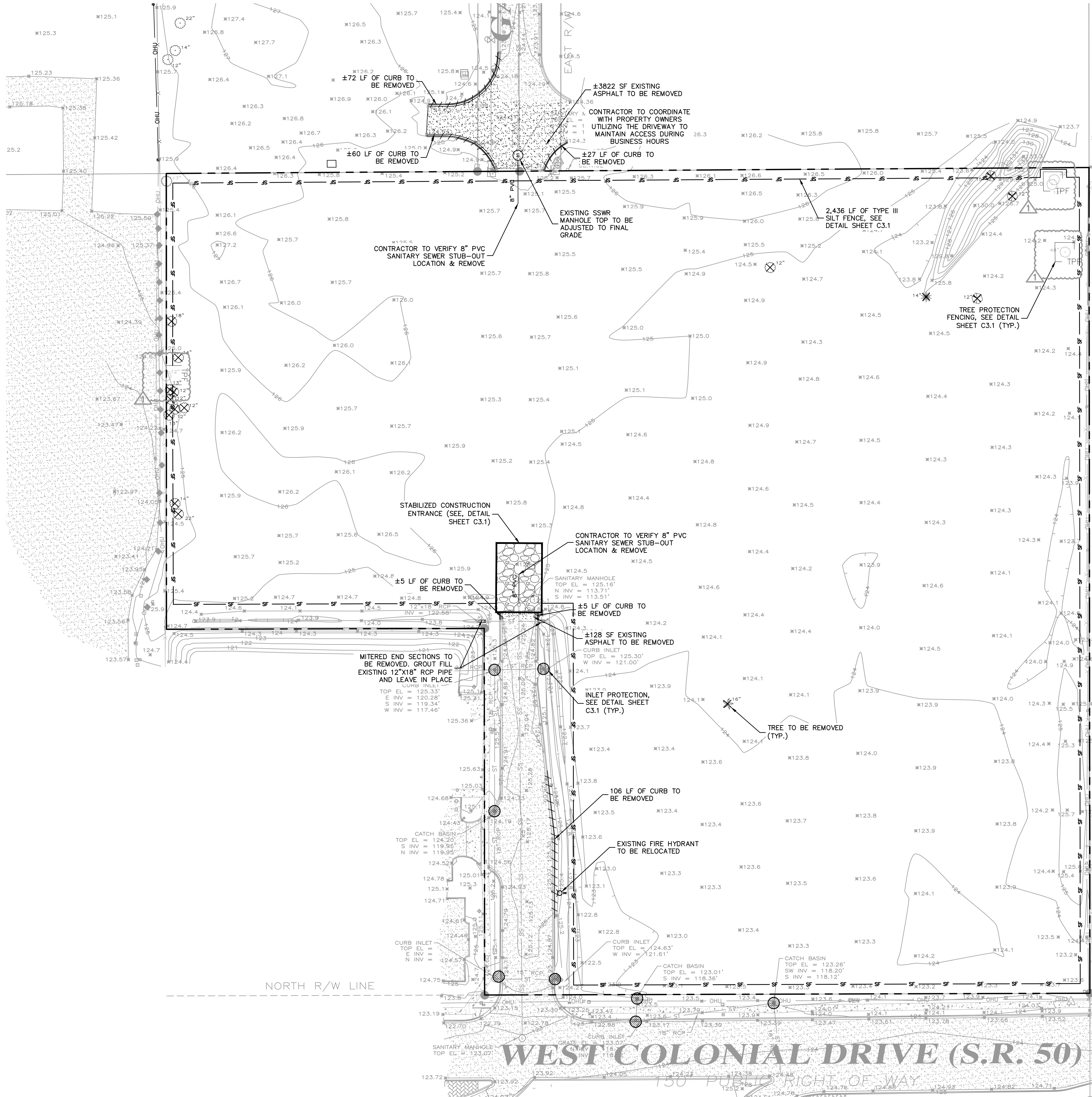
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 Date: 06/25/2025  
 Time: 05:41:10pm  
 User: K:\Vol\_Civil\249536000-general rv expansion\CADD\CONST\plansheets east site C2.0 - SWPPP.dwg  
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LEGEND

- PROPERTY BOUNDARY
- //// CURB TO BE REMOVED
- TPF TREE PROTECTION FENCE
- PIPE TO BE REMOVED
- SF TYPE III SILT FENCE (SEE DETAIL, SHEET C3.1)
- EXISTING ASPHALT TO BE REMOVED
- STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL, SHEET C3.1)
- INLET PROTECTION (SEE DETAIL, SHEET C3.1)
- × TREE TO BE REMOVED

NOTES

- CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES REGARDING LIMITS OF REMOVAL AND RELOCATION OF ALL ON-SITE AND OFF-SITE UTILITIES.
- CONTRACTOR SHALL UTILIZE BEST MANAGEMENT PRACTICES AS NEEDED TO PREVENT SYSTEM POLLUTION DURING TIME OF CONSTRUCTION.
- REFER TO SWPPP SHEET C2.0 FOR ADDITIONAL NOTES AND DETAILS.
- INSTALL AND MAINTAIN SILT FENCE AT LIMITS OF CONSTRUCTION. SEE DETAIL, SHEET C3.1.
- PROVIDE SOIL TRACKING PREVENTION DEVICE AT ALL CONSTRUCTION ACCESS POINTS. SEE DETAIL, SHEET C3.1.
- UTILIZE PERFORATED SOCK DRAIN (OR EQUIVALENT) IN FRONT OF EXISTING/PROPOSED CURB INLETS ADJACENT TO CONSTRUCTION ACTIVITIES. SEE DETAIL, SHEET C3.1.
- INSTALL AND MAINTAIN FILTER FABRIC UNDER GRATES OF EXISTING/PROPOSED INLETS. SEE DETAIL, SHEET C3.1.
- CONTRACTOR TO ENSURE ADEQUATE COVER REMAINS OVER ALL EXISTING UTILITIES.
- CONTRACTOR TO VERIFY EXISTING COVER OVER ALL UTILITIES BEFORE START OF CONSTRUCTION AND TO COORDINATE WITH THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION IF DESIGN DOES NOT PROVIDE 36" COVER.
- CONTRACTOR TO VERIFY ALL EXISTING SANITARY SEWER INVERTS PRIOR TO CONSTRUCTION ACTIVITIES.
- ANY UTILITIES OR IMPROVEMENTS NOT CALLED OUT TO BE REMOVED WILL BE RESTORED TO PRIOR CONDITIONS AT CONTRACTOR'S EXPENSE.
- ANY SIDEWALKS OR CURBING DISTURBED BY THE WORK SHALL BE RESTORED TO THE CONDITION OF THE ORIGINAL STRUCTURE. SIDEWALK PANELS SHALL BE RESTORED TO FULL PANEL WIDTHS AND LENGTHS (DEFINED BY EDGES OF THE SIDEWALK AND THE NEAREST CONTROL JOINTS OR EXPANSION JOINTS.) PARTIAL PATCHING OF SIDEWALKS SHALL NOT BE ACCEPTABLE. PAVEMENT FINISHES, THICKNESS, AND GRADES SHALL MATCH EXISTING SIDEWALKS.
- EXCESS FILL TO BE HAULED OFFSITE.
- EXCAVATING MATERIAL SHALL NOT BE STOCKPILED IN A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
- CONTRACTOR INSPECTION TO DETERMINE EFFECTIVENESS OF EROSION/SEDIMENT CONTROL EFFORTS TO BE CONDUCTED DAILY AND WITHIN 24 HOURS AFTER EACH 0.50 INCH OF GREATER RAINFALL EVENT. NECESSARY REMEDIES TO BE PERFORMED IMMEDIATELY.
- ALL TEMPORARY EROSION CONTROL MEASURES ARE TO REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION.
- NO PERSON SHALL CAUSE, LET, SUFFER, ALLOW, OR PERMIT THE EMISSIONS OF UNCONFINED PARTICULATE MATTER FROM ANY ACTIVITY, INCLUDING VEHICULAR MOVEMENT, TRANSPORTATION OF MATERIALS, CONSTRUCTION, ALTERATION OR WRECKING; OR INDUSTRIALLY RELATED ACTIVITIES, SUCH AS LOADING, UNLOADING, STORING, OR HANDLING, WITHOUT TAKING REASONABLE PRECAUTIONS TO PREVENT SUCH EMISSIONS INCLUDING BUT NOT LIMITED TO APPLICATION OF WATER, DUST SUPPRESSANTS, PLANTING OF VEGETATION, POINT OF ACTIVITY CONTROLS (HOODS, FILTERS, ETC.) AND OTHER MEASURES.

VERTICAL DATUM:

ELEVATIONS SHOWN HEREON ARE BASED ON NAVD88

Always call 811 two full business days before you dig to have underground utilities located and marked.



| CS                                                                   | 11/04/2024                                                 | CITY OF WINTER GARDEN COMMENT REVISIONS | BY |
|----------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|----|
| MW <td>11/20/2024<td>2 SURVMO COMMENT REVISIONS<td></td></td></td>   | 11/20/2024 <td>2 SURVMO COMMENT REVISIONS<td></td></td>    | 2 SURVMO COMMENT REVISIONS <td></td>    |    |
| MW <td>02/24/2025<td>3 BUILDING &amp; MEP CHANGES</td><td></td></td> | 02/24/2025 <td>3 BUILDING &amp; MEP CHANGES</td> <td></td> | 3 BUILDING & MEP CHANGES                |    |
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**Kimley»Horn**  
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.  
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL  
PHONE: (407) 888-1511  
WWW.KIMLEY-HORN.COM

**LICENCED PROFESSIONAL**  
L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER 81928  
DATE: 3/6/2025

|             |           |             |          |
|-------------|-----------|-------------|----------|
| KHA PROJECT | 249536000 | DATE        | 3/6/2025 |
| SCALE       | AS SHOWN  | DESIGNED BY | MWW      |
| DRAWN BY    | MWW       | CHECKED BY  | LJD      |

EXISTING CONDITIONS & DEMOLITION PLAN

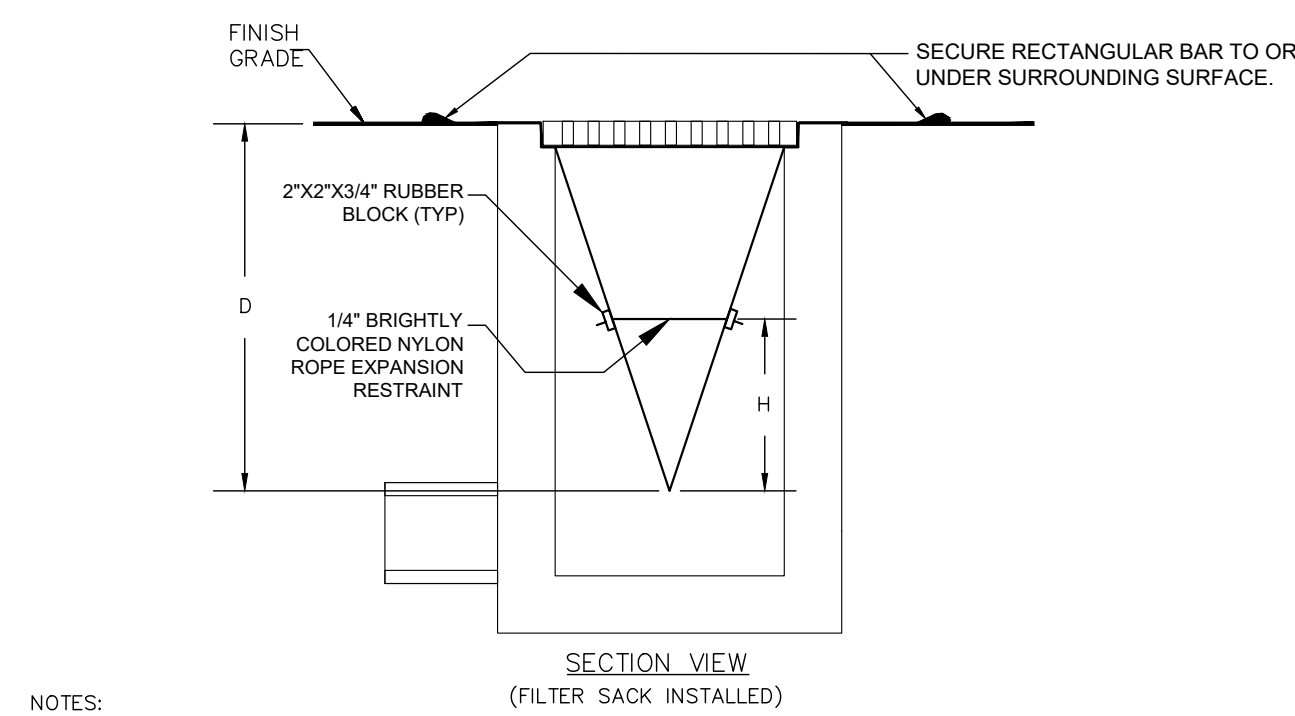
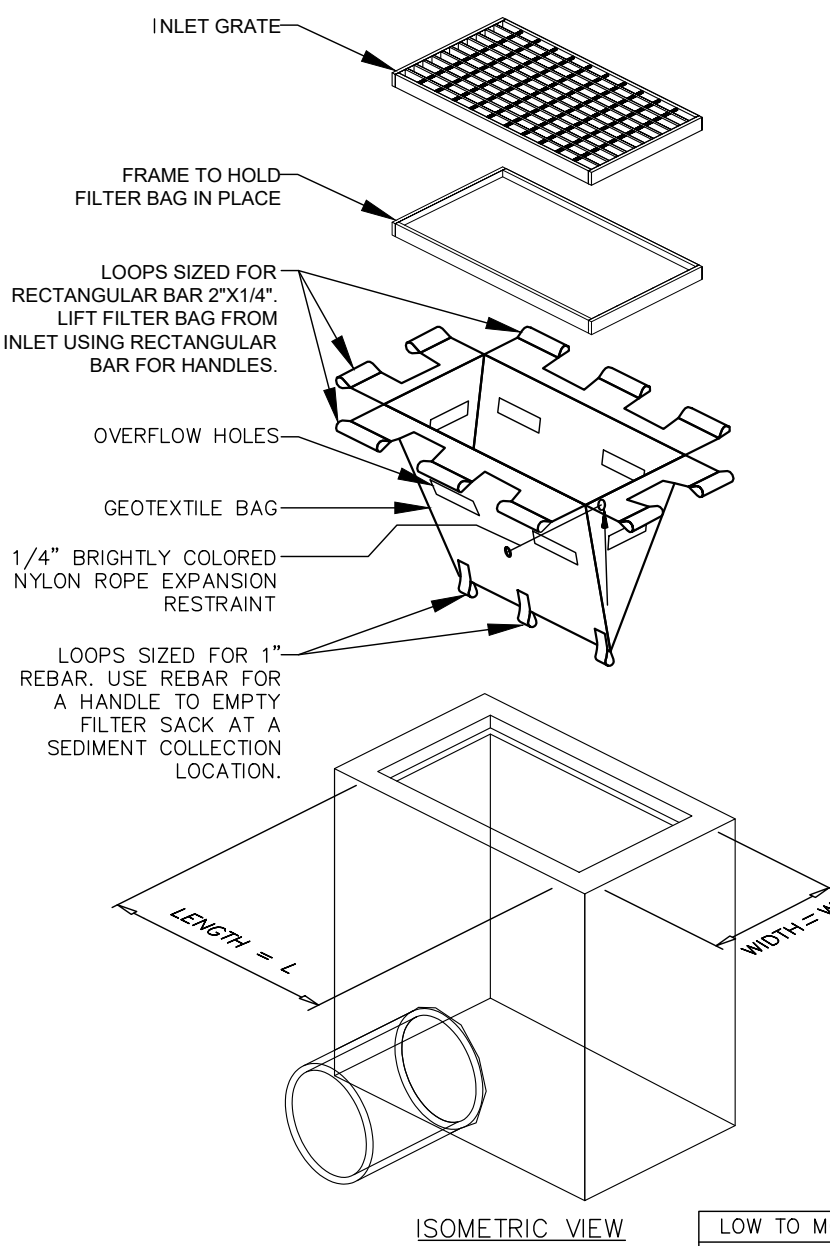
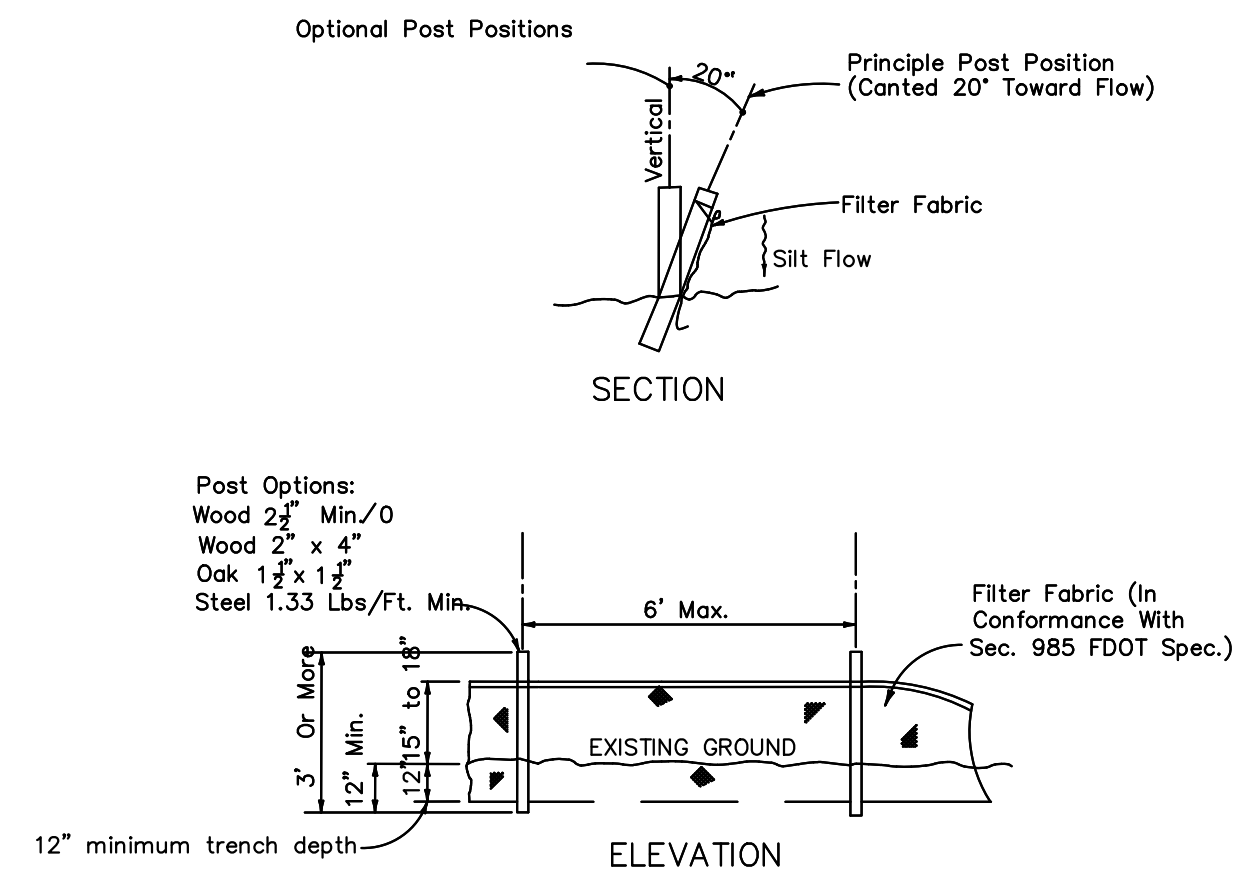
GENERAL RV EXPANSION - EAST

FLORIDA

CITY OF WINTER GARDEN

SHEET NUMBER C3.0





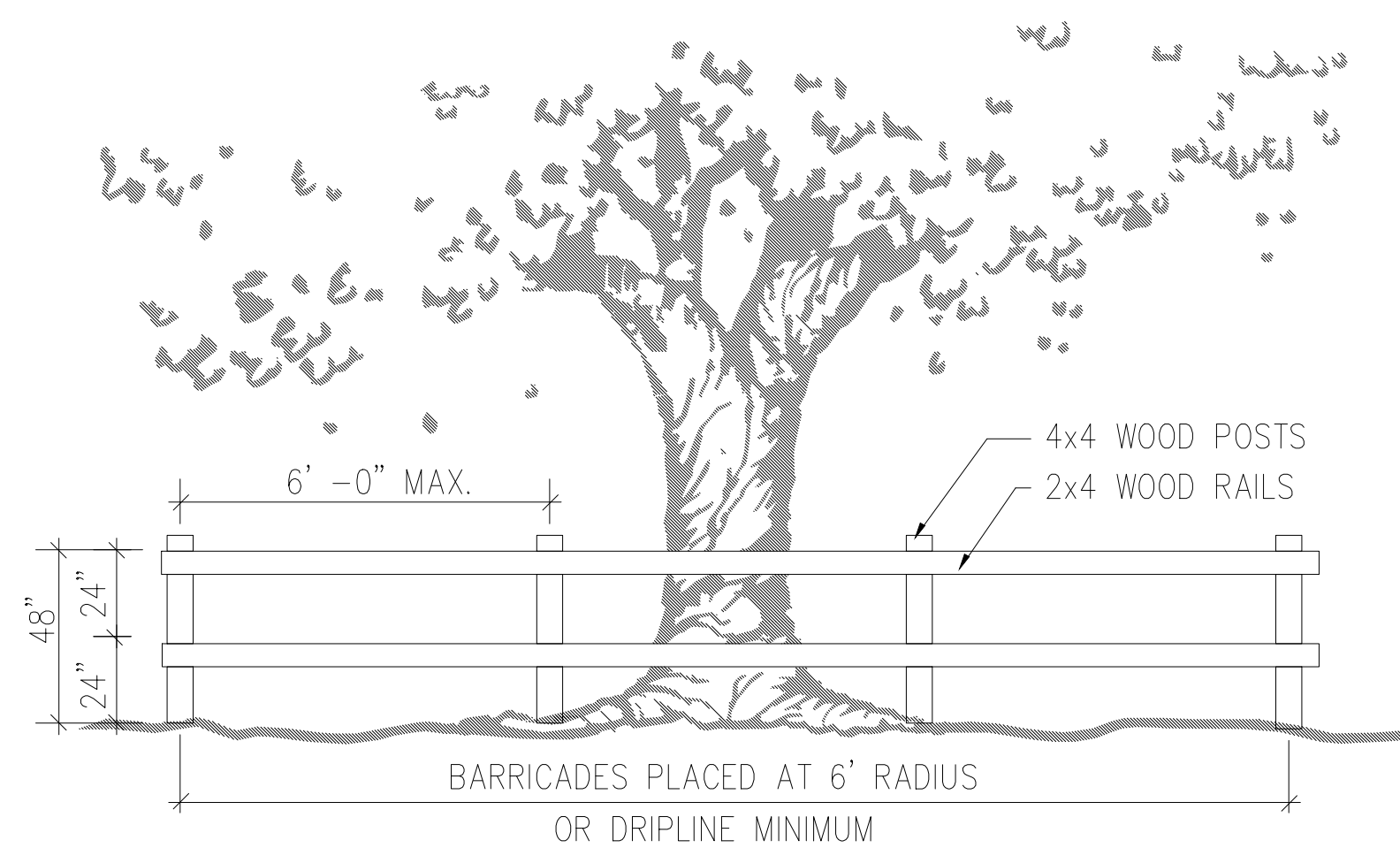
- (FILTER SACK INSTALLED)
- NOTES:
1. GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
  2. PLACE AN OIL ABSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
  3. THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
  4. THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 12 INCHES AND 36 INCHES.
  5. THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.
- MAINTENANCE NOTES:
1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN. REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPOSURE RESTRAINT CAN NO LONGER BE SEEN.
  2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
  3. INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROVED FLOWRATES THAT MAY CAUSE DOWNSTREAM FLOODING.
  4. CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPs, ADJACENT SLOPES OR, DUE TO PONDING ISSUES, ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED.
  5. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

| LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE |             |                  |
|------------------------------------------------------------|-------------|------------------|
| PROPERTIES                                                 | TEST METHOD | UNITS            |
| GRAB TENSILE STRENGTH                                      | ASTM D-4632 | 300 LBS          |
| GRAB TENSILE ELONGATION                                    | ASTM D-4632 | 20 %             |
| PUNCTURE                                                   | ASTM D-4933 | 120 LBS          |
| MULLEN BURST                                               | ASTM D-3786 | 800 PSI          |
| TRAPEZOID TEAR                                             | ASTM D-4533 | 120 LBS          |
| UV RESISTANCE                                              | ASTM D-4355 | 80 %             |
| APPROX OPENING SIZE                                        | ASTM D-4751 | 40" SIEVE        |
| FLOW RATE                                                  | ASTM D-4491 | 40 GAL/MIN/50 FT |
| PERMITTIVITY                                               | ASTM D-4491 | 0.55 SEC -1      |

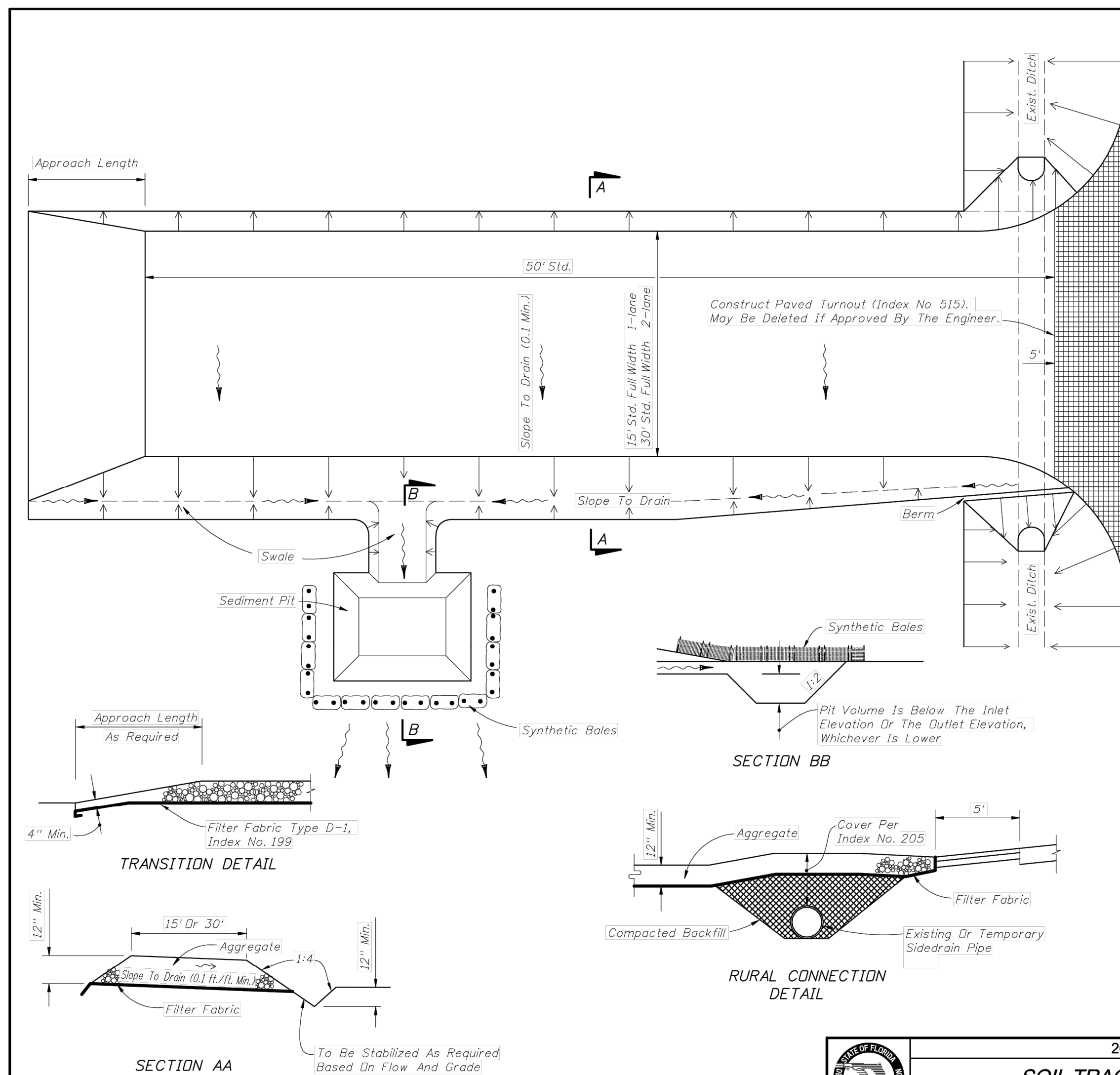
| MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE |             |                   |
|-------------------------------------------------------------|-------------|-------------------|
| PROPERTIES                                                  | TEST METHOD | UNITS             |
| GRAB TENSILE STRENGTH                                       | ASTM D-4632 | 260 LBS           |
| GRAB TENSILE ELONGATION                                     | ASTM D-4632 | 20 %              |
| PUNCTURE                                                    | ASTM D-4632 | 135 LBS           |
| MULLEN BURST                                                | ASTM D-3786 | 420 PSI           |
| TRAPEZOID TEAR                                              | ASTM D-4533 | 45 LBS            |
| UV RESISTANCE                                               | ASTM D-4355 | 90 %              |
| APPARENT OPENING SIZE                                       | ASTM D-4751 | 200 MICRON SIEVE  |
| FLOW RATE                                                   | ASTM D-4491 | 200 GAL/MIN/SQ FT |
| PERMITTIVITY                                                | ASTM D-4491 | 1.5 SEC - 1       |

INLET PROTECTION FILTER SACK  
N.T.S.

FOR USE ONLY IN PAVED AREAS WHERE SEDIMENT LOADS ARE  
EXPECTED TO BE VERY LOW. FILTER SACK MUST HAVE  
OVERFLOW HOLES TO PREVENT PONDING.

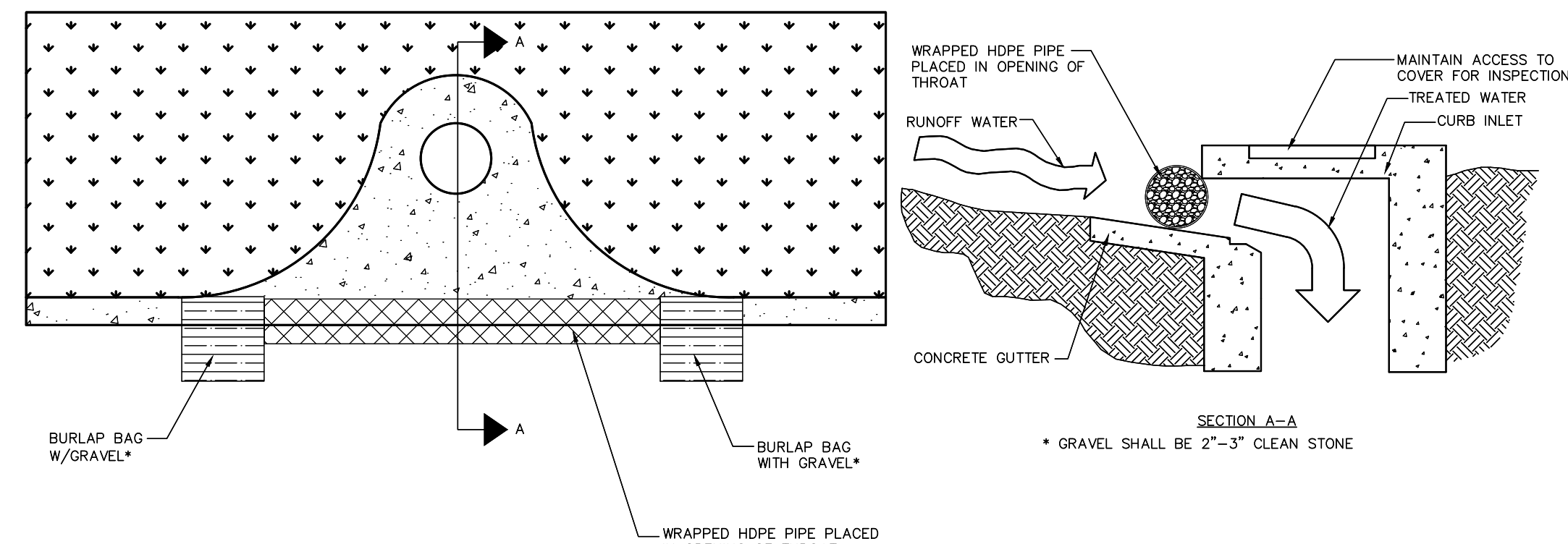


## TREE PROTECTION DETAIL



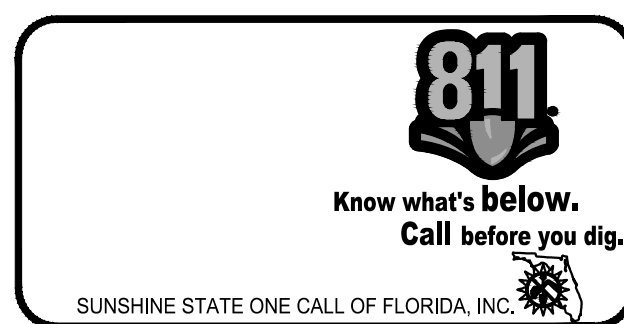
GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size 14. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit shall provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit.  
When the STPD is isolated from other drainage areas, the following pit volumes will satisfy the requirement:  
 $15' \times 50' 100 \text{ ft}^3$   
 $10' \times 50' 200 \text{ ft}^3$   
As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the side drain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and disposal of the stone utilized for the STPD-including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment retention and disposal, and cleaning of the STPD and the STPD and cleaning of public roads, grading and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When double width (30') STPD is used, the pay quantity shall be 2 for each location.



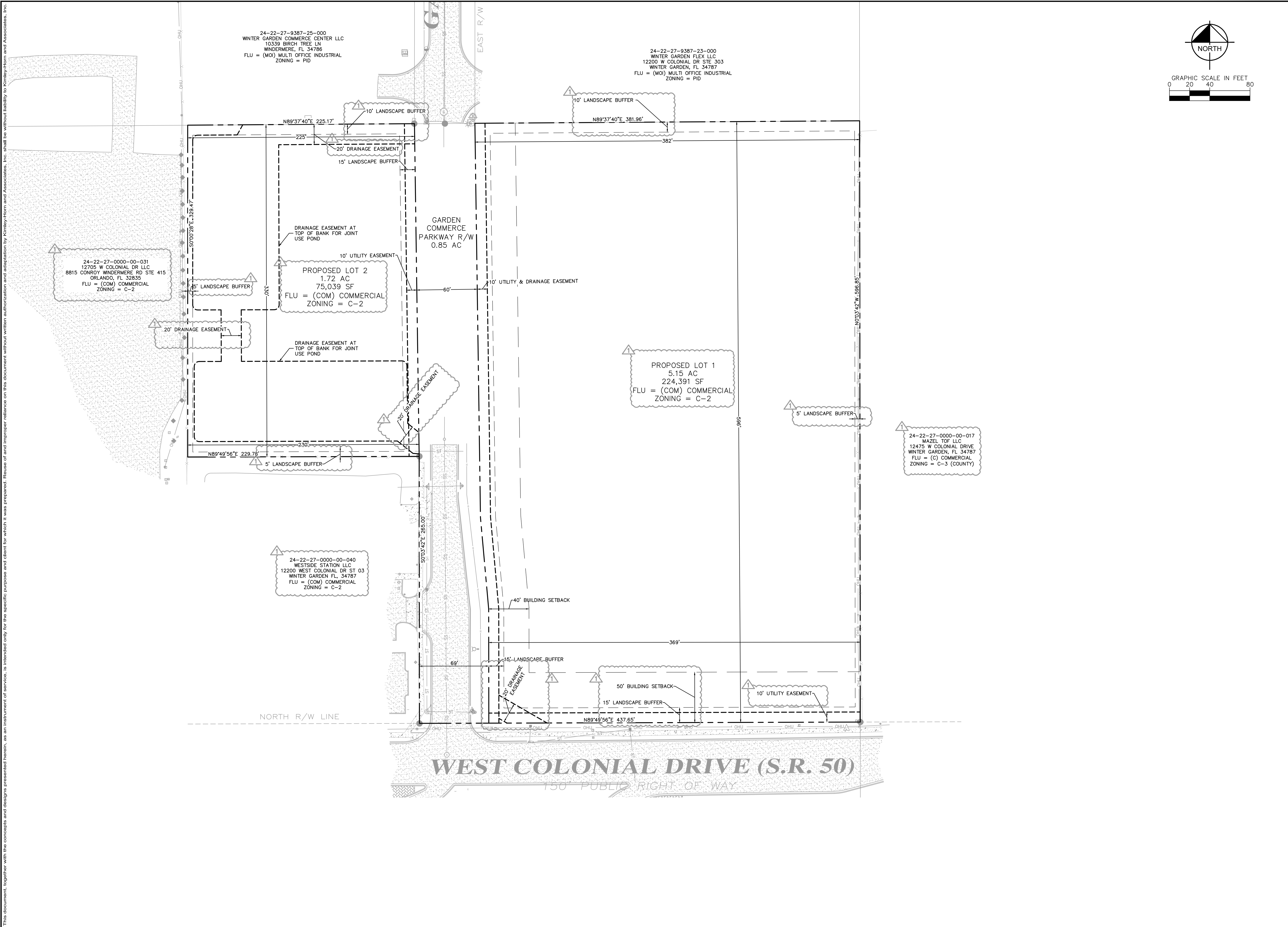
SOCK DRAIN INLET SEDIMENT FILTER

NOTE: THE PERFORATED PIPE MUST EXTEND AT LEAST 1' BEYOND THE CURB OPENING ON EACH SIDE AND BE ANCHORED WITH GRAVEL BAGS, OR SIMILAR, ON EACH END. A SPACER MUST BE PROVIDED FOR BETWEEN THE INLET OPENING AND THE PIPE TO ALLOW FOR OVERFLOW, PREVENT FLOODING AND TO PREVENT THE PIPE FROM FALLING INTO THE INLET.



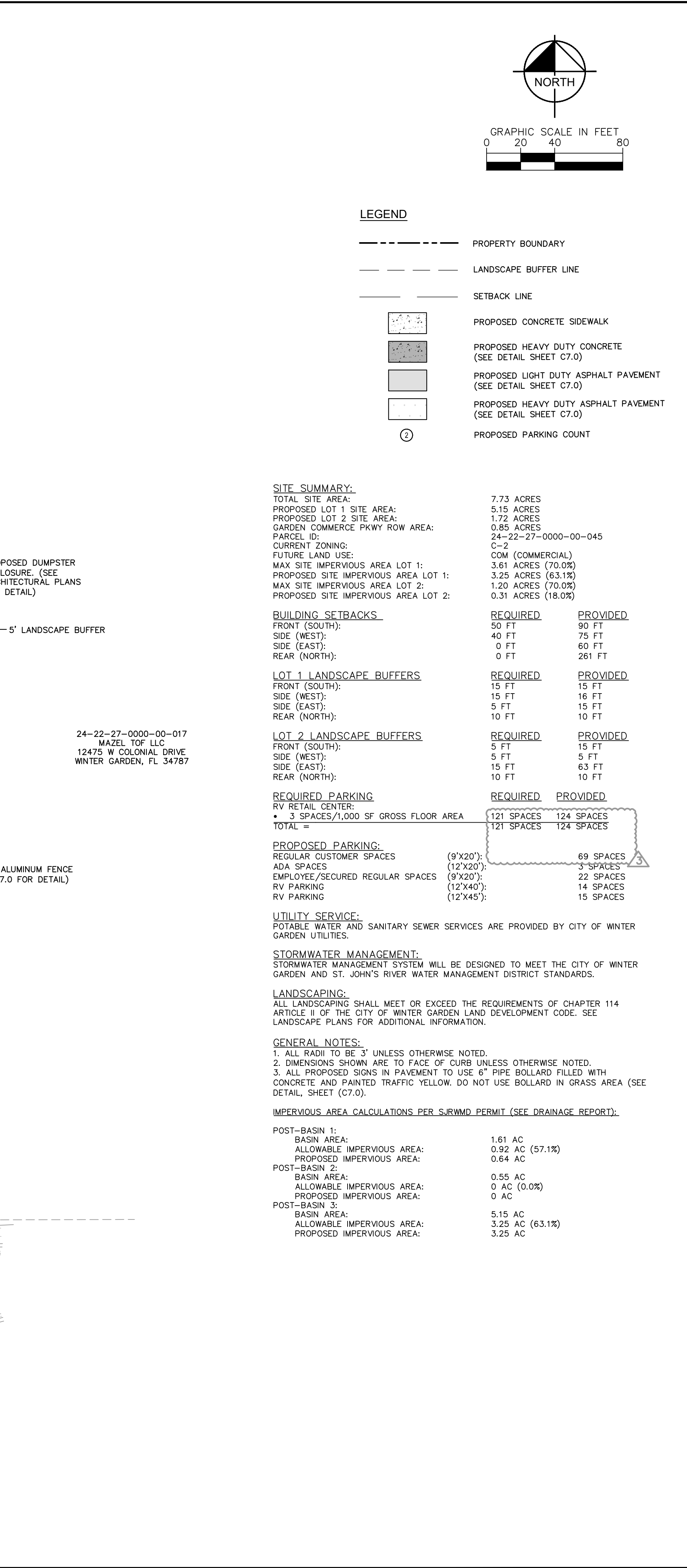


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|                      |  |                                |  |                  |  |                           |  |                                                 |  |                                                                                                                                                                           |  |                                                         |  |
|----------------------|--|--------------------------------|--|------------------|--|---------------------------|--|-------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------|--|
| SHEET NUMBER<br>C3.2 |  | GENERAL RV<br>EXPANSION - EAST |  | PRELIMINARY PLAT |  | KHA PROJECT<br>2495-36000 |  | LICENSED PROFESSIONAL<br>L. JORDAN DRAPER, P.E. |  | Kimley»Horn<br>© 2024 KIMLEY-HORN AND ASSOCIATES, INC.<br>200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL<br>PHONE: (407) 888-1511<br>WWW.KIMLEY-HORN.COM REGISTRY No. 35106 |  | 1 CITY OF WINTER GARDEN COMMENT REVISIONS CS 11/04/2024 |  |
|                      |  |                                |  |                  |  | DATE<br>3/6/2025          |  |                                                 |  |                                                                                                                                                                           |  | 2 SURWM COMMENT REVISIONS MW 11/22/2024                 |  |
|                      |  |                                |  |                  |  | SCALE AS SHOWN            |  | FLORIDA LICENSE NUMBER<br>81928                 |  |                                                                                                                                                                           |  | 3 BUILDING & MEP CHANGES MW 02/24/2025                  |  |
|                      |  |                                |  |                  |  | DESIGNED BY MWV           |  |                                                 |  |                                                                                                                                                                           |  |                                                         |  |
|                      |  |                                |  |                  |  | DRAWN BY MWV              |  |                                                 |  |                                                                                                                                                                           |  |                                                         |  |
|                      |  |                                |  |                  |  | CHECKED BY LJD            |  | DATE: 3/6/2025                                  |  |                                                                                                                                                                           |  |                                                         |  |
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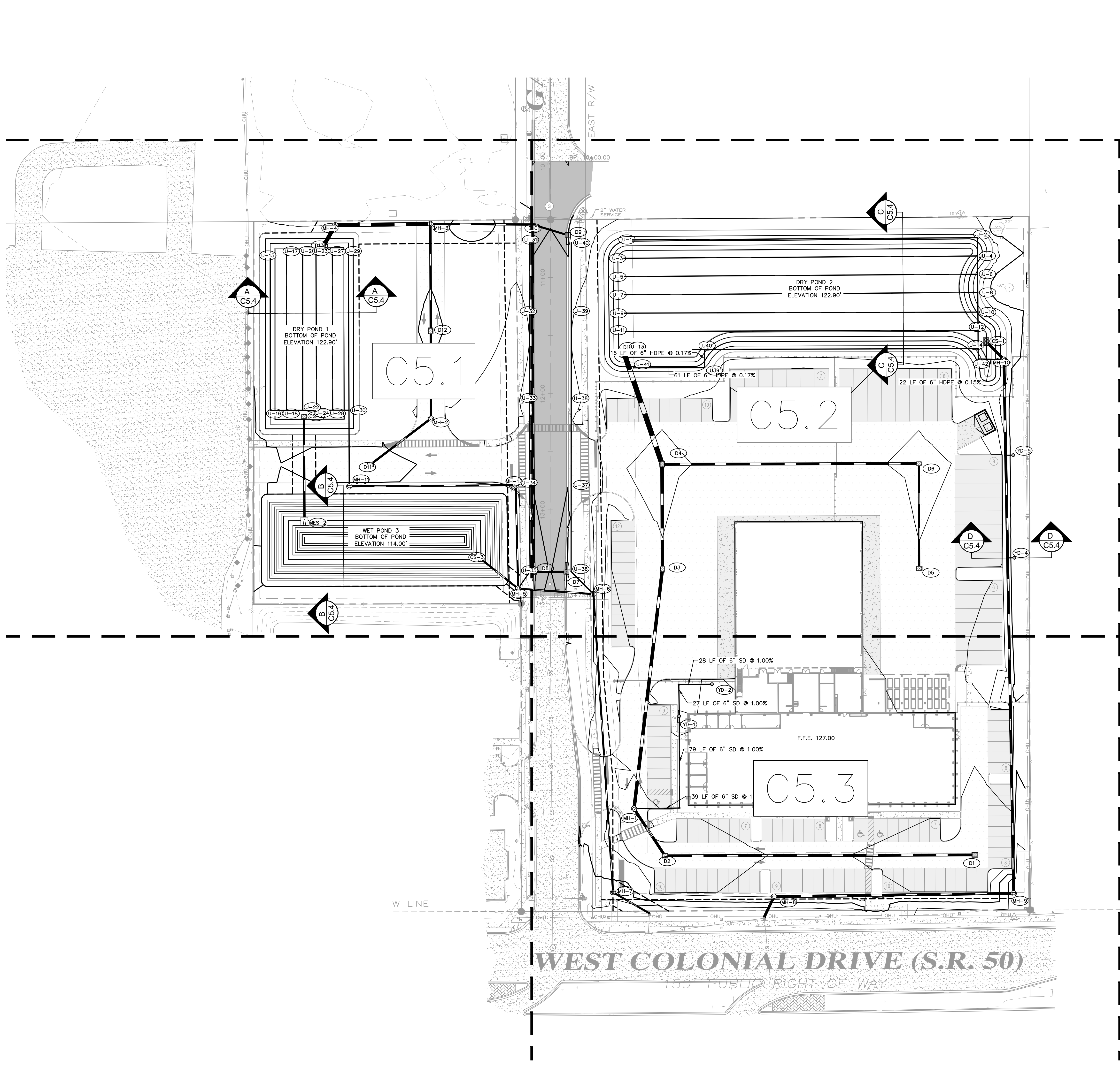








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NOTES:

- STORM PIPE MATERIALS SHALL BE A-2000 PVC, HP OR RCP, AND CONFORM WITH THE LATEST EDITION OF THE FDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION AS WELL AS CITY OF WINTER GARDEN REQUIREMENTS.
- PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS AND SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
- ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
- BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
- CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.
- ALL PEDESTRIAN SIDEWALKS, PATHWAYS, AND CROSSWALKS SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE, MAX. 5.0% RUNNING SLOPE.
- ALL HANDICAP ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE IN ALL DIRECTIONS.
- PROPOSED GRADES TO MATCH EXISTING ELEVATIONS AT PROPERTY LINE.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS AT ALL EXISTING SIDEWALK AND ROAD CONNECTION POINTS WITH ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY IMPROVEMENTS.
- FOR EROSION CONTROL NOTES REFER TO SHEET C2.0.
- ALL DRAINAGE PIPES SHALL BE FILTER FABRIC WRAPPED PER FDOT STANDARD PLAN #430-001.
- ALL FINAL STORM DRAIN MATERIALS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND NOTED ON THE RECORD DRAWINGS.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING ON ALL SIDES.
- THE UNDERDRAIN SYSTEM SHOULD BE CONSTRUCTED UNDER THE FULL-TIME OBSERVATION OF A REPRESENTATIVE OF UNIVERSAL ENGINEERING SCIENCES, LLC.

|                       |  |          |  |                        |  |                              |  |          |  |
|-----------------------|--|----------|--|------------------------|--|------------------------------|--|----------|--|
| 249536000             |  | 3/6/2025 |  | L. JORDAN DRAPER, P.E. |  | FLORIDA LICENSE NUMBER 81928 |  | 3/6/2025 |  |
| CITY OF WINTER GARDEN |  | FLORIDA  |  | Kimley»Horn            |  |                              |  |          |  |



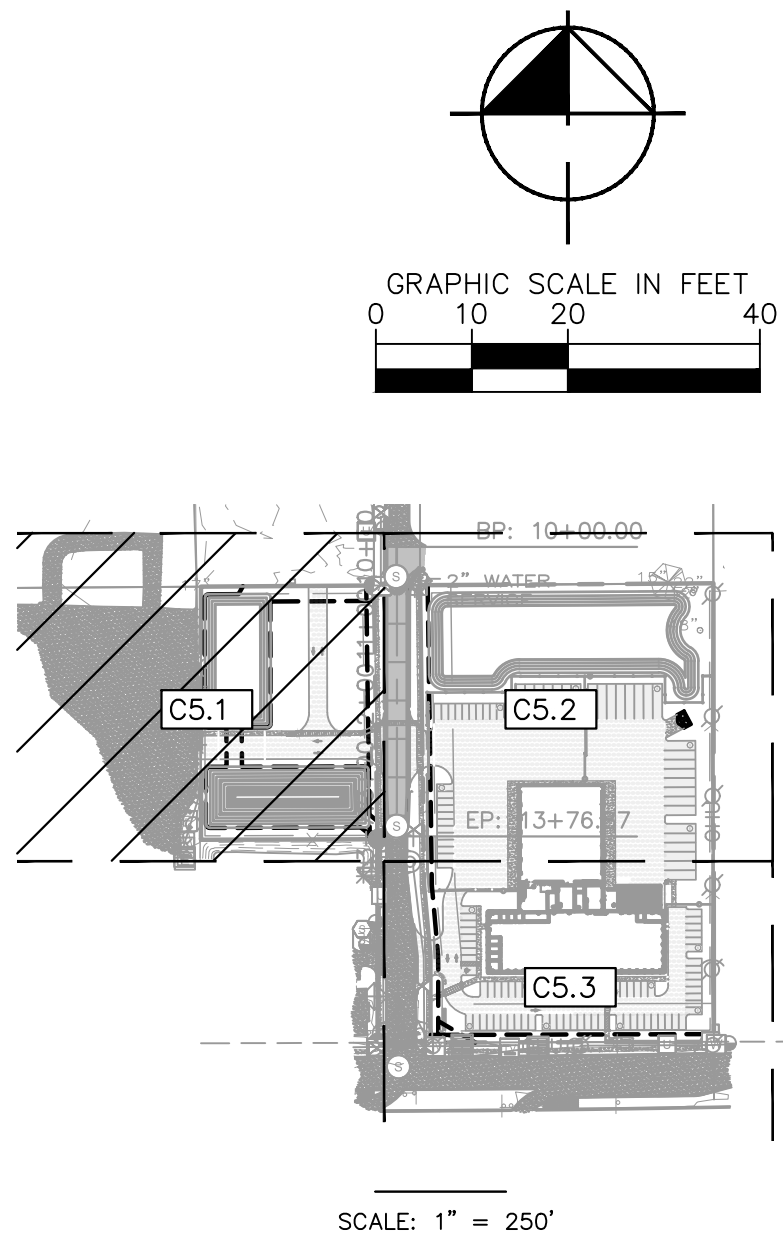
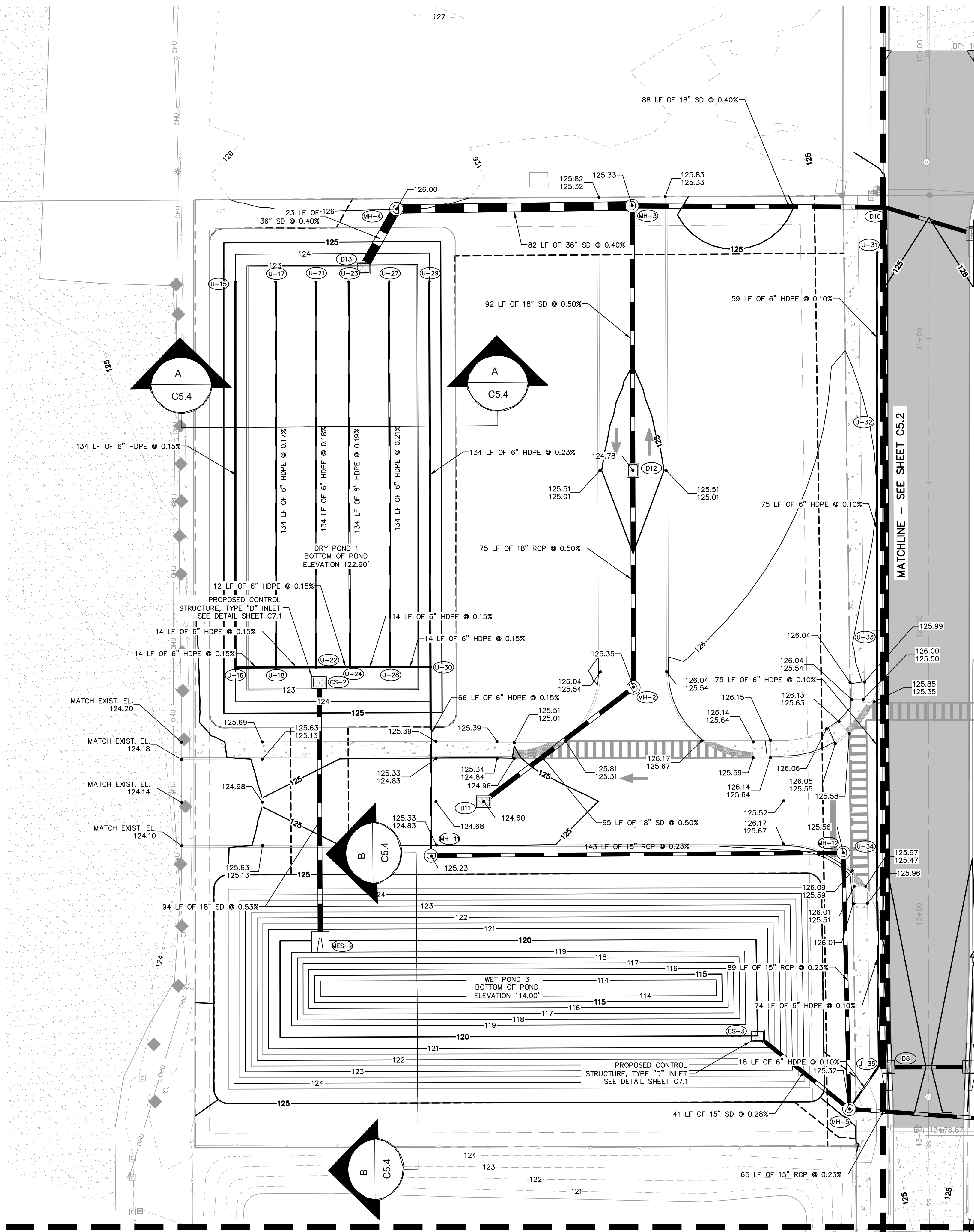
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| STORM STRUCTURE TABLE |                                                                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                                            |
| D11                   | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.60<br>NE. INV. OUT: 121.10 (18" SD)                                                           |
| D12                   | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 124.78<br>S. INV. IN: 120.40 (18" RCP)<br>N. INV. OUT: 120.40 (18" SD)                            |
| D13                   | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 123.24<br>NE. INV. IN: 118.99 (36" SD)                                                            |
| MH-2                  | MH<br>TOP: 125.35<br>SW. INV. IN: 120.77 (18" SD)<br>N. INV. OUT: 120.77 (18" RCP)                                                                  |
| MH-3                  | MH<br>TOP: 125.33<br>E. INV. IN: 119.41 (18" SD)<br>S. INV. IN: 119.94 (18" SD)<br>W. INV. OUT: 119.42 (36" SD)                                     |
| MH-4                  | MH<br>TOP: 126.00<br>E. INV. IN: 119.09 (36" SD)<br>SW. INV. OUT: 119.09 (36" SD)                                                                   |
| MH-5                  | MH<br>TOP: 125.32<br>NW. INV. IN: 119.43 (15" SD)<br>N. INV. IN: 119.22 (15" RCP)<br>NE. INV. IN: 121.41 (6" HDPE)<br>E. INV. OUT: 119.22 (15" RCP) |
| MH-11                 | MH<br>TOP: 125.23<br>N. INV. IN: 119.75 (6" HDPE)<br>E. INV. OUT: 119.75 (15" RCP)                                                                  |
| MH-12                 | MH<br>TOP: 125.56<br>W. INV. IN: 119.42 (15" RCP)<br>S. INV. OUT: 119.42 (15" RCP)                                                                  |

| STORM STRUCTURE TABLE |                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                  |
| U-15                  | CLEAN OUT<br>TOP: 124.00<br>S. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-16                  | CLEAN OUT<br>TOP: 124.00<br>N. INV. IN: 119.95 (6" HDPE)<br>E. INV. OUT: 119.95 (6" HDPE)                                 |
| U-17                  | CLEAN OUT<br>TOP: 122.90<br>S. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-18                  | CLEAN OUT<br>TOP: 122.90<br>W. INV. IN: 119.93 (6" HDPE)<br>N. INV. IN: 119.93 (6" HDPE)<br>E. INV. OUT: 119.93 (6" HDPE) |
| U-21                  | CLEAN OUT<br>TOP: 122.90<br>S. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-22                  | CLEAN OUT<br>TOP: 122.90<br>W. INV. IN: 119.91 (6" HDPE)<br>N. INV. IN: 119.91 (6" HDPE)<br>E. INV. OUT: 119.91 (6" HDPE) |
| U-23                  | CLEAN OUT<br>TOP: 122.90<br>S. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-24                  | CLEAN OUT<br>TOP: 122.90<br>W. INV. IN: 119.89 (6" HDPE)<br>N. INV. IN: 119.89 (6" HDPE)<br>E. INV. OUT: 119.89 (6" HDPE) |
| U-27                  | CLEAN OUT<br>TOP: 122.90<br>S. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-28                  | CLEAN OUT<br>TOP: 122.90<br>W. INV. IN: 119.87 (6" HDPE)<br>N. INV. IN: 119.87 (6" HDPE)<br>E. INV. OUT: 119.87 (6" HDPE) |
| U-29                  | CLEAN OUT<br>TOP: 124.00<br>S. INV. OUT: 120.15 (6" HDPE)                                                                 |

| STORM STRUCTURE TABLE |                                                                               |
|-----------------------|-------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                      |
| CS-2                  | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>S. INV. OUT: 119.50 (18" SD)     |
| CS-3                  | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>SE. INV. OUT: 119.54 (15" SD)    |
| MES-2                 | MITERED END SECTION<br>PER FDOT INDEX #430-021<br>N. INV. IN: 119.00 (18" SD) |

| STORM STRUCTURE TABLE |                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                  |
| U-30                  | CLEAN OUT<br>TOP: 124.00<br>W. INV. IN: 119.85 (6" HDPE)<br>N. INV. IN: 119.85 (6" HDPE)<br>S. INV. OUT: 119.85 (6" HDPE) |
| U-31                  | CLEAN OUT<br>TOP: 125.39<br>S. INV. OUT: 121.71 (6" HDPE)                                                                 |
| U-32                  | CLEAN OUT<br>TOP: 125.94<br>N. INV. IN: 121.65 (6" HDPE)<br>S. INV. OUT: 121.65 (6" HDPE)                                 |
| U-33                  | CLEAN OUT<br>TOP: 125.84<br>N. INV. IN: 121.58 (6" HDPE)<br>S. INV. OUT: 121.58 (6" HDPE)                                 |
| U-34                  | CLEAN OUT<br>TOP: 125.17<br>N. INV. IN: 121.50 (6" HDPE)<br>S. INV. OUT: 121.50 (6" HDPE)                                 |
| U-35                  | CLEAN OUT<br>TOP: 125.29<br>N. INV. IN: 121.43 (6" HDPE)<br>SW. INV. OUT: 121.43 (6" HDPE)                                |



- PROPERTY BOUNDARY  
PROPOSED LOT LINE  
EXISTING CONTOUR  
PROPOSED CONTOUR  
PROPOSED SPOT ELEVATION  
PROPOSED SWALE  
PROPOSED STORM PIPE  
PROPOSED STORM INLET  
PROPOSED STORM MANHOLE  
EXISTING STORM PIPE  
EXISTING STORM INLET

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  - CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.
  - ALL PEDESTRIAN SIDEWALKS, PATHWAYS, AND CROSSWALKS SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE, MAX. 5.0% RUNNING SLOPE.
  - ALL HANDICAP ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE IN ALL DIRECTIONS.
  - PROPOSED GRADES TO MATCH EXISTING ELEVATIONS AT PROPERTY LINE.
  - CONTRACTOR TO FIELD VERIFY ELEVATIONS AT ALL EXISTING SIDEWALK AND ROAD CONNECTION POINTS WITH ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY IMPROVEMENTS.
  - FOR EROSION CONTROL NOTES REFER TO SHEET C2.0.
  - ALL DRAINAGE PIPES SHALL BE FILTER FABRIC WRAPPED PER FDOT STANDARD PLAN #430-001.
  - ALL FINAL STORM DRAIN MATERIALS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND NOTED ON THE RECORD DRAWINGS.
  - PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING ON ALL SIDES.
  - THE UNDERDRAIN SYSTEM SHOULD BE CONSTRUCTED UNDER THE FULL-TIME OBSERVATION OF A REPRESENTATIVE OF UNIVERSAL ENGINEERING SCIENCES, LLC.
  - SEE SHEET C7.0 FOR UNDERDRAIN DETAIL.

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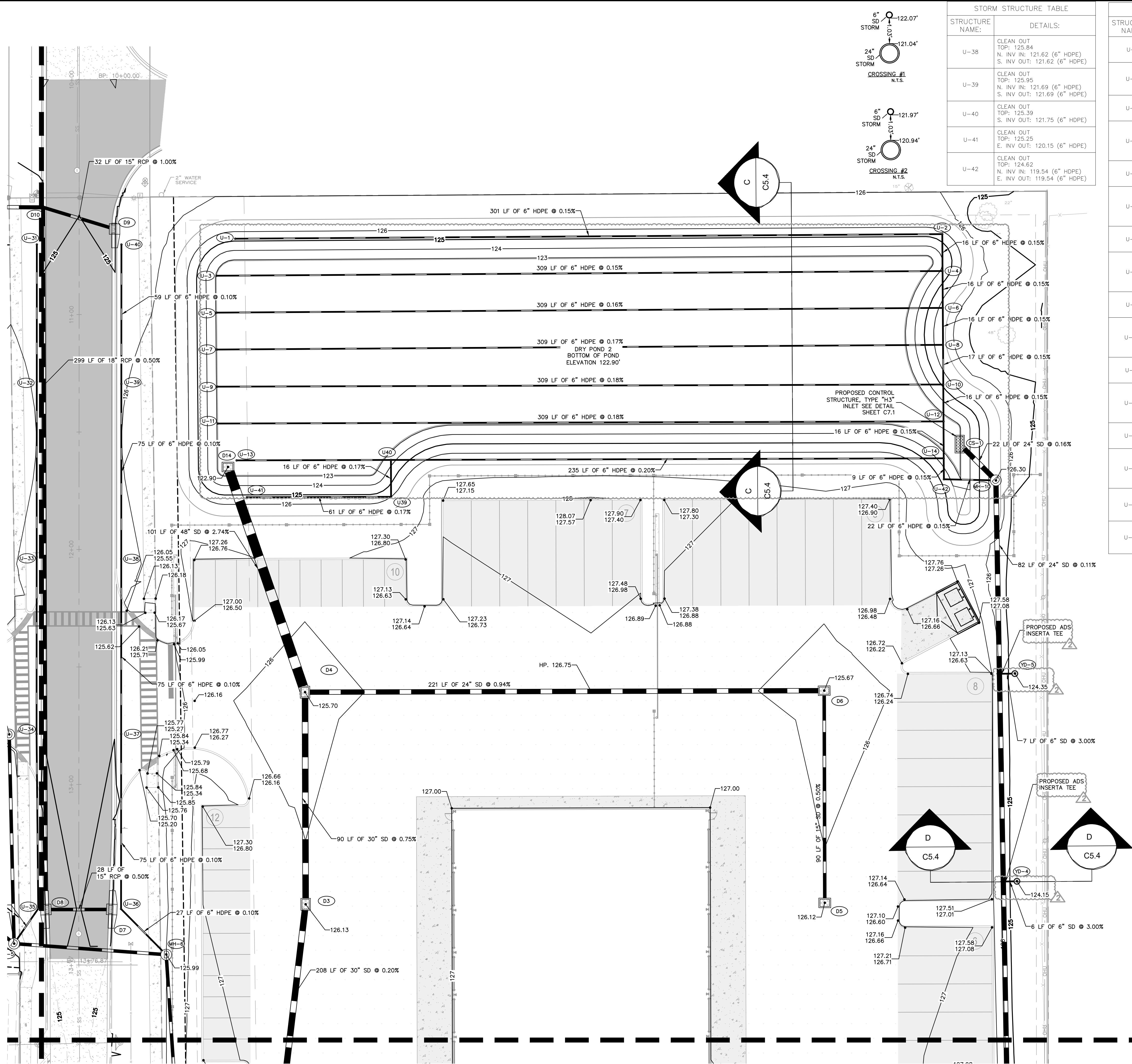
L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER  
81928  
3/6/2025

249536000  
3/6/2025

CITY OF WINTER GARDEN  
FLORIDA



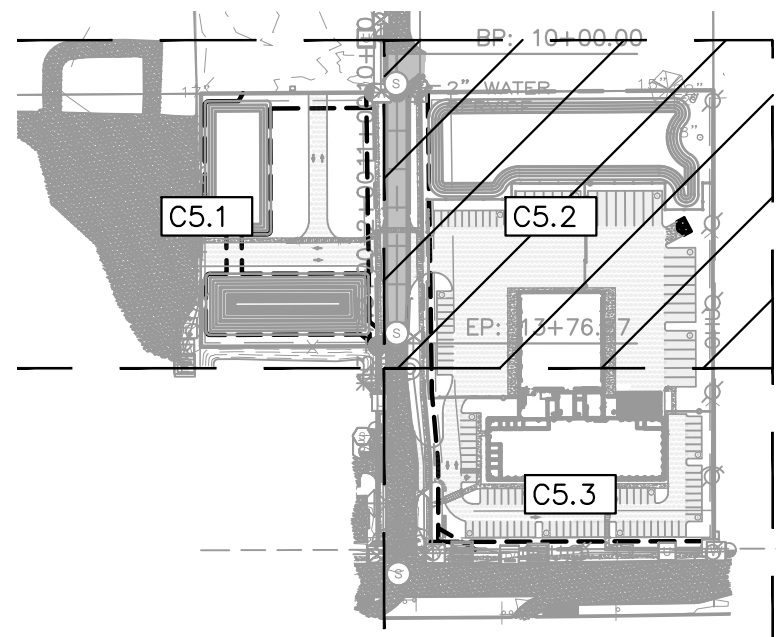
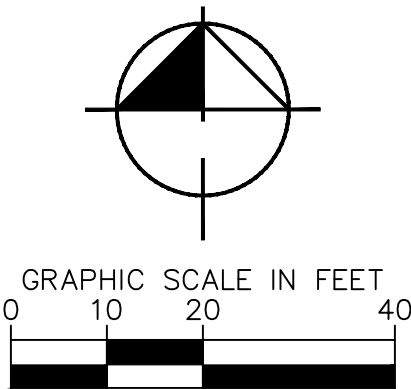
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| STORM STRUCTURE TABLE |                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                  |
| U-38                  | CLEAN OUT<br>TOP: 125.84<br>N. INV. IN: 121.62 (6" HDPE)<br>S. INV. OUT: 121.62 (6" HDPE) |
| U-39                  | CLEAN OUT<br>TOP: 125.95<br>N. INV. IN: 121.69 (6" HDPE)<br>S. INV. OUT: 121.69 (6" HDPE) |
| U-40                  | CLEAN OUT<br>TOP: 125.39<br>S. INV. OUT: 121.75 (6" HDPE)                                 |
| U-41                  | CLEAN OUT<br>TOP: 125.25<br>E. INV. OUT: 120.15 (6" HDPE)                                 |
| U-42                  | CLEAN OUT<br>TOP: 124.62<br>N. INV. IN: 119.54 (6" HDPE)<br>E. INV. OUT: 119.54 (6" HDPE) |

| STORM STRUCTURE TABLE |                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                  |
| U-1                   | CLEAN OUT<br>TOP: 125.25<br>E. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-2                   | CLEAN OUT<br>TOP: 125.73<br>W. INV. IN: 119.70 (6" HDPE)<br>S. INV. OUT: 119.70 (6" HDPE)                                 |
| U-3                   | CLEAN OUT<br>TOP: 122.92<br>E. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-4                   | CLEAN OUT<br>TOP: 124.23<br>W. INV. IN: 119.68 (6" HDPE)<br>N. INV. IN: 119.67 (6" HDPE)<br>S. INV. OUT: 119.67 (6" HDPE) |
| U-5                   | CLEAN OUT<br>TOP: 122.90<br>E. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-6                   | CLEAN OUT<br>TOP: 126.15<br>N. INV. IN: 119.65 (6" HDPE)<br>W. INV. IN: 119.65 (6" HDPE)<br>S. INV. OUT: 119.65 (6" HDPE) |
| U-7                   | CLEAN OUT<br>TOP: 122.90<br>E. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-8                   | CLEAN OUT<br>TOP: 126.36<br>N. INV. IN: 119.63 (6" HDPE)<br>W. INV. IN: 119.63 (6" HDPE)<br>S. INV. OUT: 119.63 (6" HDPE) |
| U-9                   | CLEAN OUT<br>TOP: 122.90<br>E. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-10                  | CLEAN OUT<br>TOP: 125.17<br>N. INV. IN: 119.60 (6" HDPE)<br>W. INV. IN: 119.60 (6" HDPE)<br>S. INV. OUT: 119.60 (6" HDPE) |
| U-11                  | CLEAN OUT<br>TOP: 122.90<br>E. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-12                  | CLEAN OUT<br>TOP: 122.90<br>N. INV. IN: 119.58 (6" HDPE)<br>W. INV. IN: 119.58 (6" HDPE)<br>S. INV. OUT: 119.58 (6" HDPE) |
| U-13                  | CLEAN OUT<br>TOP: 122.90<br>E. INV. OUT: 120.15 (6" HDPE)                                                                 |
| U-14                  | CLEAN OUT<br>TOP: 123.43<br>N. INV. IN: 119.56 (6" HDPE)<br>W. INV. IN: 119.56 (6" HDPE)<br>S. INV. OUT: 119.56 (6" HDPE) |
| U-36                  | CLEAN OUT<br>TOP: 123.30<br>N. INV. IN: 121.47 (6" HDPE)<br>SE. INV. OUT: 121.47 (6" HDPE)                                |
| U-37                  | CLEAN OUT<br>TOP: 125.15<br>N. INV. IN: 121.54 (6" HDPE)<br>S. INV. OUT: 121.54 (6" HDPE)                                 |

| STORM STRUCTURE TABLE |                                                                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                                                   |
| D3                    | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 126.13<br>S. INV IN: 120.36 (30" SD)<br>N. INV OUT: 120.36 (30" SD)                                      |
| D4                    | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 125.70<br>S. INV IN: 119.68 (30" SD)<br>E. INV IN: 119.68 (24" SD)<br>N. INV OUT: 119.68 (48" SD)        |
| D5                    | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 126.12<br>N. INV OUT: 123.00 (15" SD)                                                                    |
| D6                    | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 125.67<br>S. INV IN: 122.55 (15" SD)<br>W. INV OUT: 121.75 (24" SD)                                      |
| D7                    | TYPE "5" CURB INLET<br>PER FDOT INDEX #425-021<br>TOP: 124.74<br>W. INV OUT: 121.40 (15" RCP)                                                              |
| D8                    | TYPE "5" CURB INLET<br>PER FDOT INDEX #425-021<br>TOP: 124.74<br>E. INV IN: 121.26 (15" RCP)<br>N. INV OUT: 121.26 (18" RCP)                               |
| D9                    | TYPE "5" CURB INLET<br>PER FDOT INDEX #425-021<br>TOP: 124.77<br>W. INV OUT: 121.52 (15" RCP)                                                              |
| D10                   | TYPE "5" CURB INLET<br>PER FDOT INDEX #425-021<br>TOP: 124.65<br>E. INV IN: 121.20 (15" RCP)<br>S. INV IN: 119.77 (18" RCP)<br>W. INV OUT: 119.77 (18" SD) |
| D14                   | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 122.90<br>S. INV IN: 116.90 (48" SD)                                                                     |
| MH-6                  | MH<br>TOP: 125.99<br>W. INV IN: 119.07 (15" RCP)<br>NW. INV IN: 121.44 (6" HDPE)<br>S. INV OUT: 119.07 (15" SD)                                            |
| MH-10                 | MH<br>TOP: 126.30<br>NW. INV IN: 118.85 (24" SD)<br>W. INV IN: 119.51 (6" HDPE)<br>S. INV OUT: 118.88 (24" SD)                                             |
| YD-4                  | YARD DRAIN<br>TOP: 124.15<br>W. INV OUT: 118.87 (6" SD)                                                                                                    |
| YD-5                  | YARD DRAIN<br>TOP: 124.35<br>W. INV OUT: 118.99 (6" SD)                                                                                                    |



- 
- PROPERTY BOUNDARY  
 PROPOSED LOT LINE  
 EXISTING CONTOUR  
 160 PROPOSED CONTOUR  
 158.00 PROPOSED SPOT ELEVATION  
 PROPOSED SWALE  
 PROPOSED STORM PIPE  
 PROPOSED STORM INLET  
 PROPOSED STORM MANHOLE  
 EXISTING STORM PIPE  
 EXISTING STORM INLET

NOTES:

1. STORM PIPE MATERIALS SHALL BE A-2000 PVC, HP OR RCP, AND CONFORM WITH THE LATEST EDITION OF THE FDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION AS WELL AS CITY OF WINTER GARDEN REQUIREMENTS.
2. PRIVATE CURB RUMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS AND MAY HAVE DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
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15. SEE SHEET C7.0 FOR UNDERDRAIN DETAIL.

| STORM STRUCTURE TABLE |                                                                            |
|-----------------------|----------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                   |
| CS-1                  | TYPE "H4" INLET<br>PER FDOT INDEX #425-052<br>SE. INV OUT: 118.92 (24" SD) |

**Kimley»»Horn**

\_\_\_\_\_. JORDAN DRAPER, P.E.

LICENSE NUMBER  
01000

3/6/2025

249536000

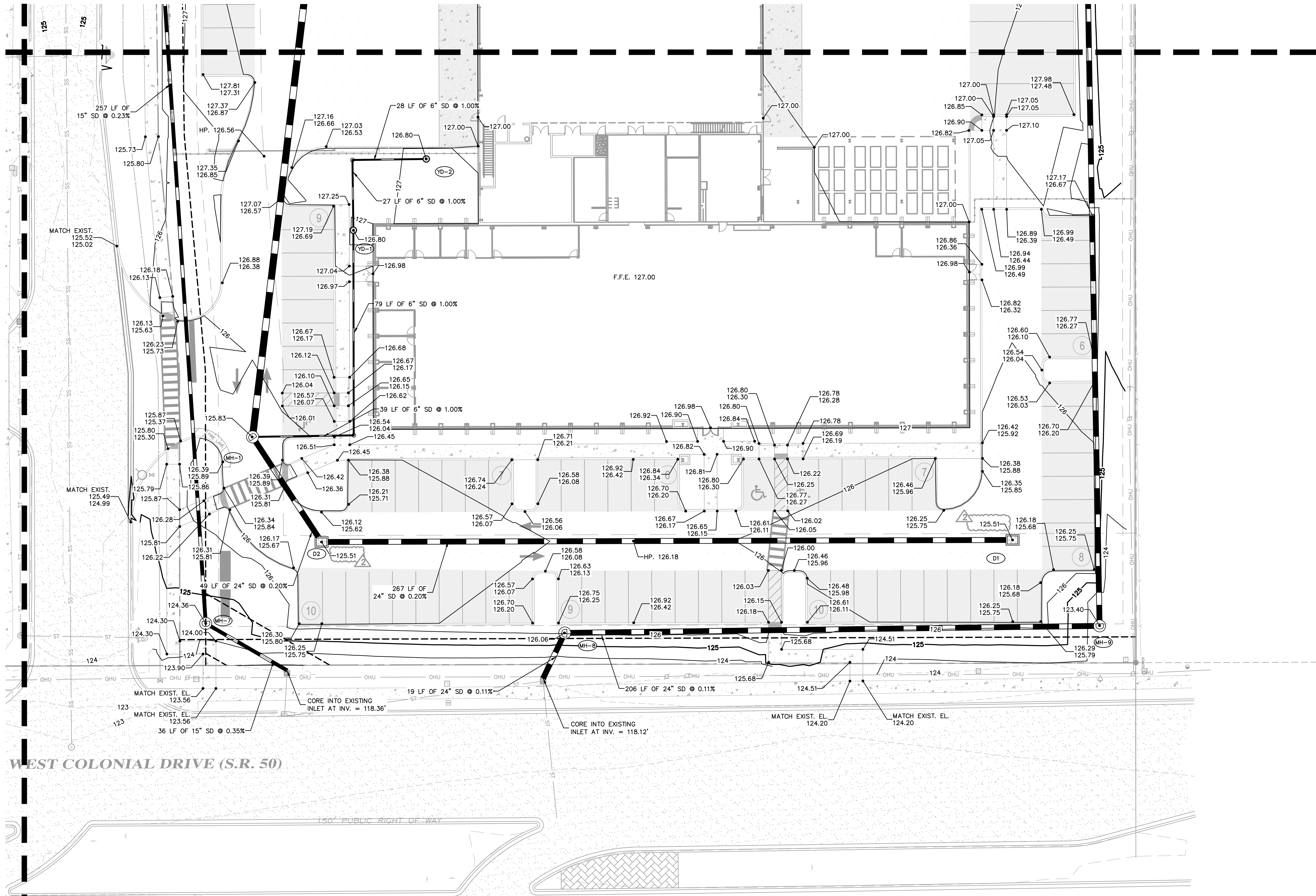
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FLORIDA

CITY OF WINTER GARDEN



Plotted By: Sauer, Code Sheet: Set: General RV Expansion - East, Layout: C5.3, March 08, 2024, 08:43:05pm, K:\a\c\m\24936000-general rv expansion\CADD\CONSTRUCTION\sheet\c5.3-PAVING GRADING & DRAINAGE.dwg  
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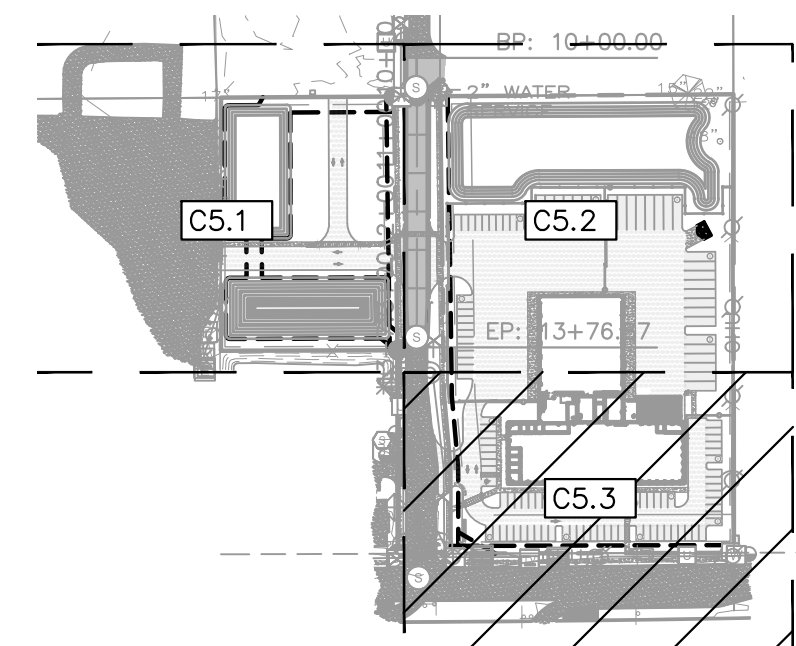
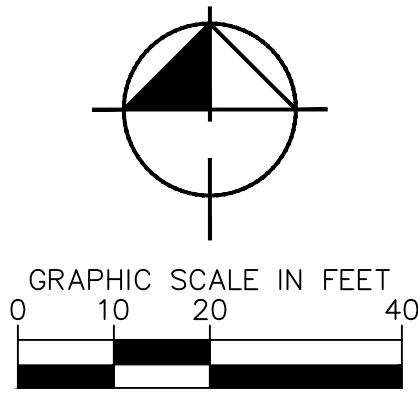
WEST COLONIAL DRIVE (S.R. 50)

150' PUBLIC RIGHT OF WAY

| STORM STRUCTURE TABLE |                                                                                                                          |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                                                                 |
| D1                    | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 125.51<br>W. INV. OUT: 121.40 (24" SD)                                 |
| D2                    | TYPE "D" INLET<br>PER FDOT INDEX #425-052<br>TOP: 125.51<br>E. INV. IN: 120.87 (24" SD)<br>NW. INV. OUT: 120.87 (24" SD) |
| MH-1                  | MH<br>TOP: 125.83<br>SE. INV. IN: 120.77 (24" SD)<br>E. INV. IN: 122.51 (6" SD)<br>N. INV. OUT: 120.77 (30" SD)          |

| STORM STRUCTURE TABLE |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                          |
| MH-7                  | MH<br>TOP: 124.36<br>N. INV. IN: 118.49 (15" SD)<br>SE. INV. OUT: 118.49 (15" SD) |
| MH-8                  | MH<br>TOP: 126.07<br>E. INV. IN: 118.14 (24" SD)<br>SW. INV. OUT: 118.14 (24" SD) |
| MH-9                  | MH<br>TOP: 123.40<br>N. INV. IN: 118.37 (24" SD)<br>W. INV. OUT: 118.37 (24" SD)  |

| STORM STRUCTURE TABLE |                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------|
| STRUCTURE NAME:       | DETAILS:                                                                               |
| YD-1                  | YARD DRAIN<br>TOP: 126.80<br>N. INV. IN: 123.69 (6" SD)<br>S. INV. OUT: 123.69 (6" SD) |
| YD-2                  | YARD DRAIN<br>TOP: 126.80<br>W. INV. OUT: 124.25 (6" SD)                               |



SCALE: 1" = 250'

- PROPERTY BOUNDARY
- PROPOSED LOT LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED SWALE
- PROPOSED STORM PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- EXISTING STORM PIPE
- EXISTING STORM INLET

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Kimley»Horn

L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER 81928

3/6/2025

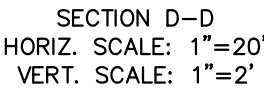
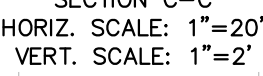
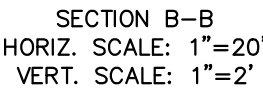
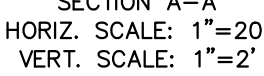
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FLORIDA

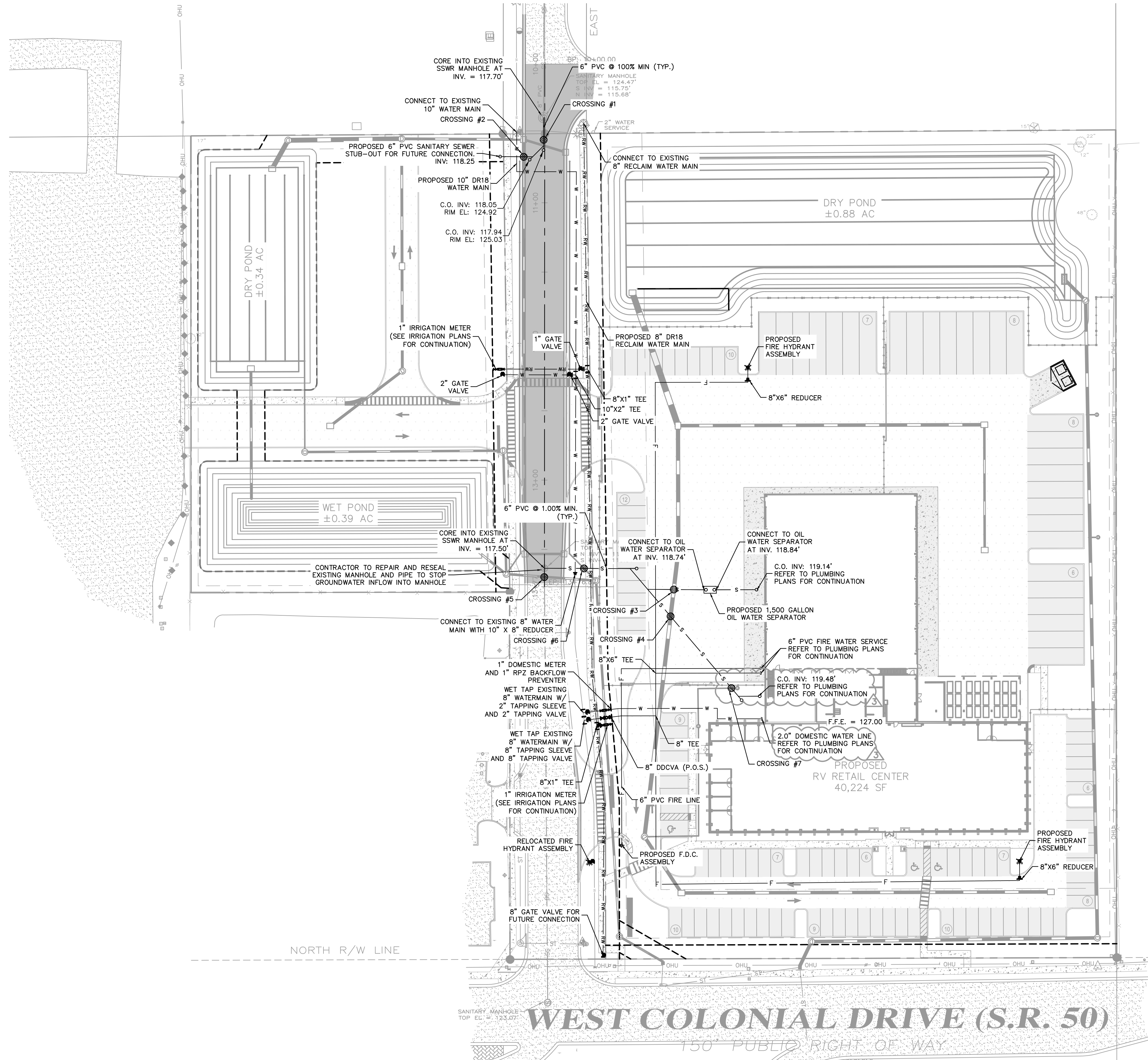
CITY OF WINTER GARDEN



CITY OF WINTER GARDEN



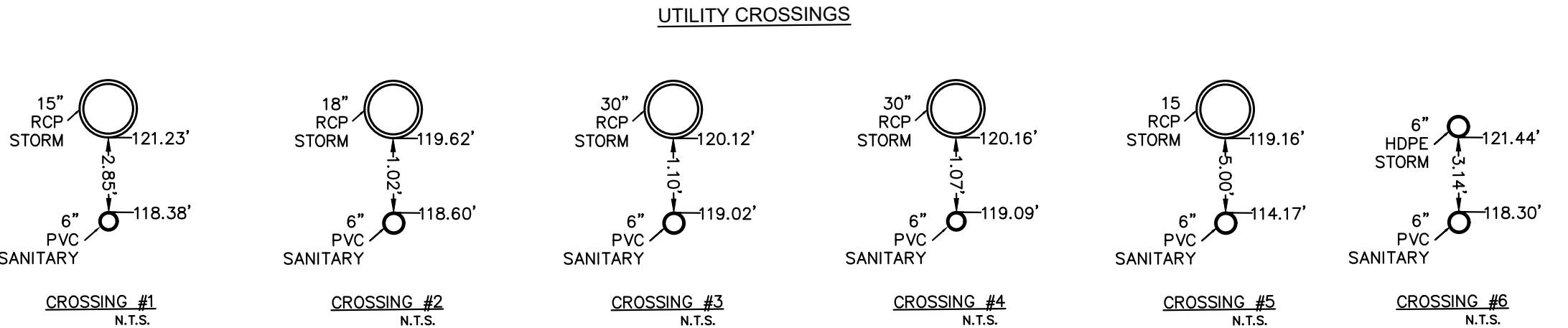
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|                                                              |               |
|--------------------------------------------------------------|---------------|
| OIL SEPARATOR CALCULATIONS                                   |               |
| SERVICE AREA                                                 | 13400 SQ. FT. |
| OIL SEPARATOR SIZING                                         |               |
| 6.0 CU. FT. FOR FIRST 100 SQ. FT. OF DRAINAGE AREA           | 6 CU. FT.     |
| 1.0 CU. FT. FOR EACH ADDITIONAL 100 SQ. FT. OF DRAINAGE AREA | 133 CU. FT.   |
| CU. FT. REQUIREMENT                                          | 139 CU. FT.   |
| GAL. REQUIREMENT                                             | 1040 GAL      |

Sizing methodology complies with UPC section 1017.2 and IPC section 1003.4.2.2.

|                                                                                                  |                  |
|--------------------------------------------------------------------------------------------------|------------------|
| General RV East                                                                                  |                  |
| per FFPC 8th Edition (NFPA 1 & 101 Uniform Fire Code Handbook, 2023 Edition)                     |                  |
| Building Fire Area (SF) =                                                                        | Retail<br>39,065 |
| Building Type (per NFPA 220) =                                                                   | II(000)          |
| Associated Min. Required Fire Flow =<br>(per Table H.5.1 of the NFPA Uniform Fire Code Handbook) | 2,250            |
| Fire Sprinkler - Yes or No =<br>(75% fire sprinkler credit, if applicable)                       | YES              |
| Minimum Fire Flow per NFPA =                                                                     | 563 GPM          |
| Fire Flow Provided =                                                                             | 2,500 GPM        |



LEGEND

- PROPERTY BOUNDARY
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER MAIN
- PROPOSED FIRE HYDRANT
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER MAIN
- EXISTING PRESSURIZED GAS MAIN

NOTES:

- ALL ON-SITE UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED.
- MAINTAIN A MINIMUM OF 3'-FT OF COVER OVER ALL PROPOSED UTILITIES.
- ALL WATER MAINS, AND DOMESTIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WINTER GARDEN STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL.
- CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
- ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY. SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
- CONTRACTOR TO CALL "SUNSHINE STATE ONE CALL OF FLORIDA" (1-800-432-4770) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
- PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION. THE CITY OF WINTER GARDEN SHALL BE NOTIFIED OF ANY AND ALL CHANGES TO THE DESIGN PLANS.
- CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED TO ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
- CONTRACTOR TO AVOID DISRUPTION OF ANY ADJACENT TENANT'S TRAFFIC OPERATIONS, TO THE MAXIMUM EXTENT, DURING INSTALLATION OF UTILITIES. IF TRAFFIC IS TO BE OBSTRUCTED, CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL PLAN WITH THE LOCAL MUNICIPALITY.
- ALL DIMENSIONS ARE TO CENTERLINE OF PIPE OR CENTER OF MANHOLE UNLESS NOTED OTHERWISE.
- SEE PLUMBING PLANS FOR EXACT UTILITY CONNECTION LOCATIONS AT BUILDING.
- ELECTRIC, TELEPHONE, AND OTHER DRY UTILITIES SHALL BE PLACED WITHIN CONDUIT, MEETING PRIVATE UTILITY STANDARDS, WHEN ROUTE CROSSES PAVED DRIVES AND PARKING AREAS.
- ALL UNDERGROUND WATER MAINS AND HYDRANTS SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ON-SITE.
- CONTRACTOR TO ENSURE ADEQUATE COVER REMAINS OVER ALL EXISTING UTILITIES.
- CONTRACTOR TO VERIFY EXISTING COVER OVER ALL UTILITIES BEFORE START OF CONSTRUCTION AND TO COORDINATE WITH THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION IF DESIGN DOES NOT PROVIDE 36" COVER.
- CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES AT ALL POINTS OF CONNECTION TO, AND AT ALL AREAS OF CONFLICT WITH CITY OF APOPKA MAINS.
- PROJECT SHALL CONFORM TO FFPC 8TH EDITION (NFPA 1 AND 101 2023 EDITION)
- PRIOR TO FIRE LINE INSTALLATION, THE FLORIDA LICENSED CONTRACTOR SHALL SUBMIT LAYOUT DESIGN DRAWINGS TO THE OFFICE OF THE FIRE MARSHAL. IF REQUIRED BY FLORIDA STATUTE 553.79, DRAWINGS MUST BE DRAWN AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER. THE DRAWINGS MUST SHOW ALL UNDERGROUND FIRE LINES AND COMPONENTS STARTING FROM THE POINT OF SERVICE AS DEFINED UNDER FLORIDA STATUTE 633.102. THE DESIGN SHALL BE IN ACCORDANCE TO THE CURRENT FLORIDA FIRE PREVENTION CODE AND ALL ADOPTED NFPA CODES AND STANDARDS.
- ALL DENSITIES IN UTILITY AND STORM TRENCHES SHALL BE 98% MINIMUM.
- ALL SANITARY SEWER AND STORM SEWER SHALL BE VIDEO INSPECTED BEFORE PAVING AND AGAIN PRIOR TO THE END OF THE ONE YEAR WARRANTY PERIOD.
- ALL SANITARY AND STORM SEWERS WITH LESS THAN 5' OF COVER SHALL BE VIDEO INSPECTED AFTER BASE INSTALLATION.
- ALL UTILITIES SHALL BE UNDERGROUND PURSUANT TO CODE (SEC. 18-33) INCLUDING ELECTRICAL POWER, CABLE, TELEPHONE, ETC.

CS

11/04/2024

CITY OF WINTER GARDEN COMMENT REVISIONS

MW

11/20/2024

SURVMO COMMENT REVISIONS

MW

02/24/2025

BUILDING & MEP CHANGES

No.

1

2

3

REVISIONS

DATE

BY

Kimley»Horn

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200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL  
PHONE: (407) 888-1511  
WWW.KIMLEY-HORN.COM

LICENCED PROFESSIONAL

L. JORDAN DRAPER, P.E.

FLORIDA LICENSE NUMBER  
81928

KHA PROJECT

249536000

DATE

3/6/2025

SCALE

AS SHOWN

DESIGNED BY

MWW

DRAWN BY

MWW

CHECKED BY

LJD

DATE

3/6/2025

UTILITY PLAN

GENERAL RV  
EXPANSION - EAST

CITY OF WINTER GARDEN

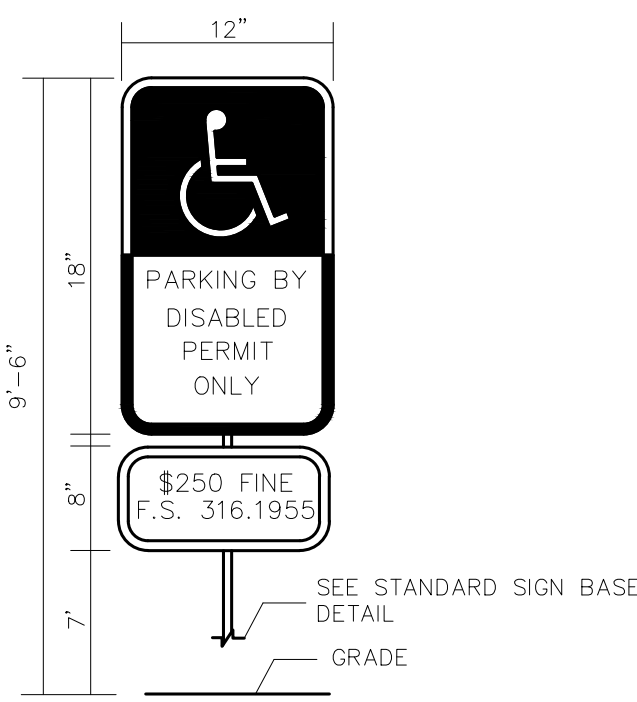
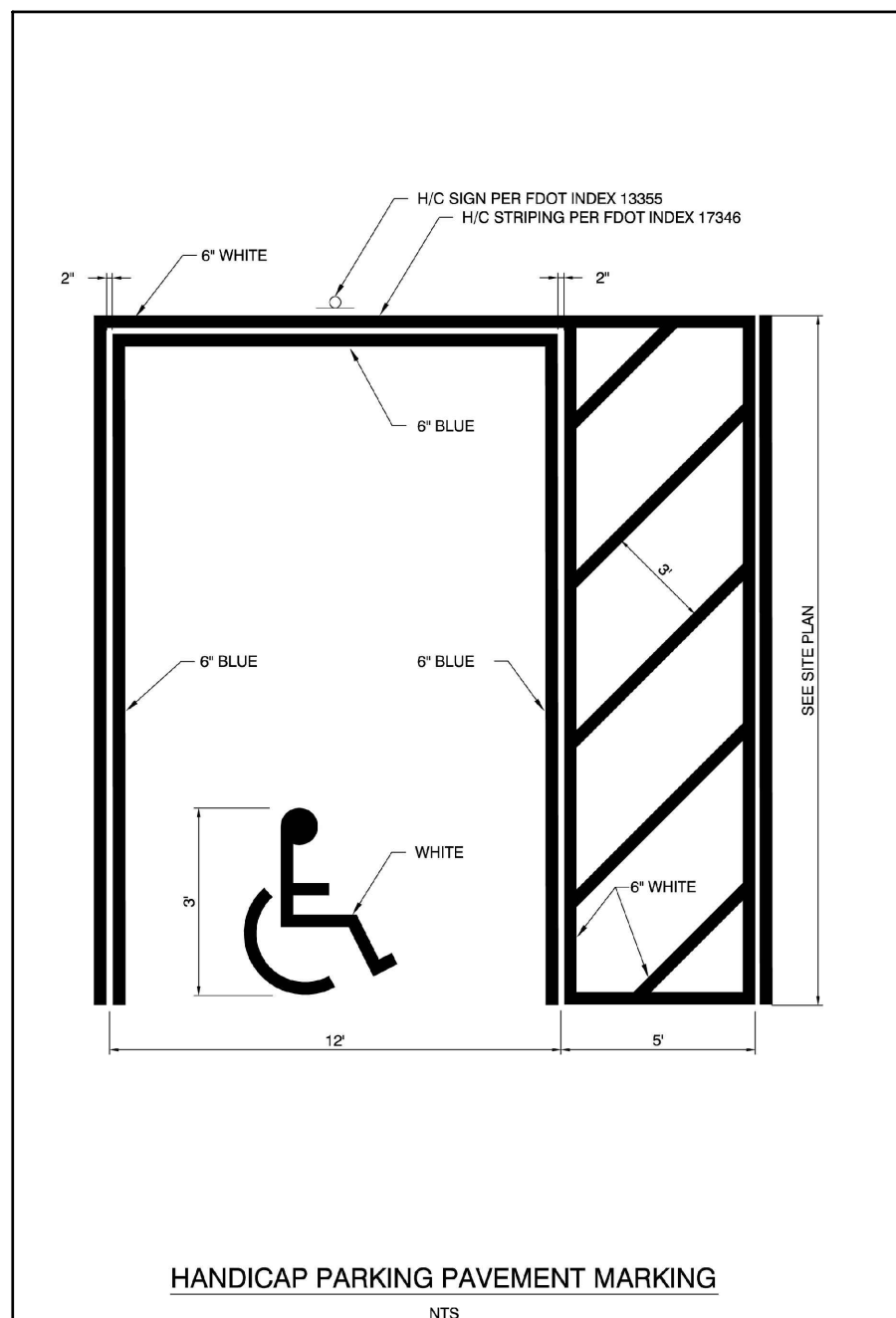
FLORIDA

SHEET NUMBER

C6.0

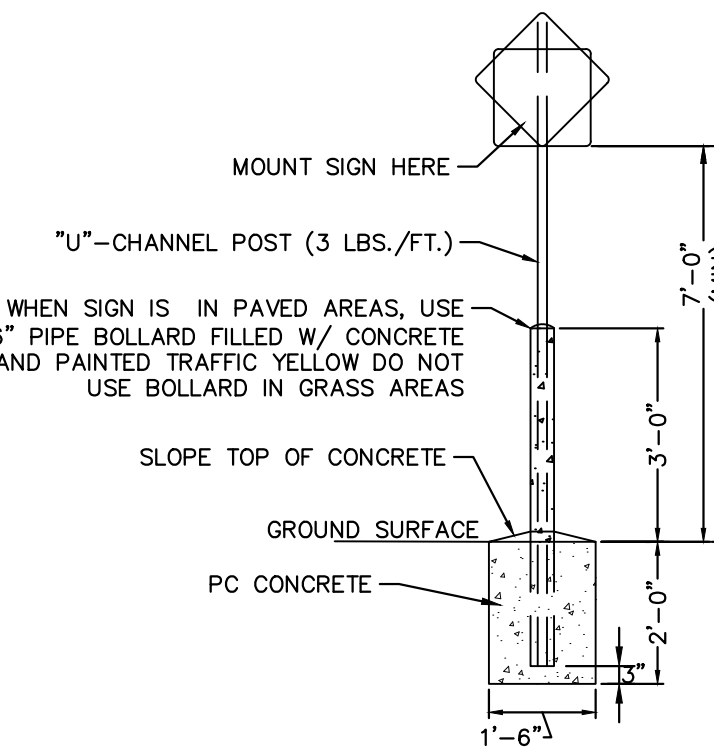
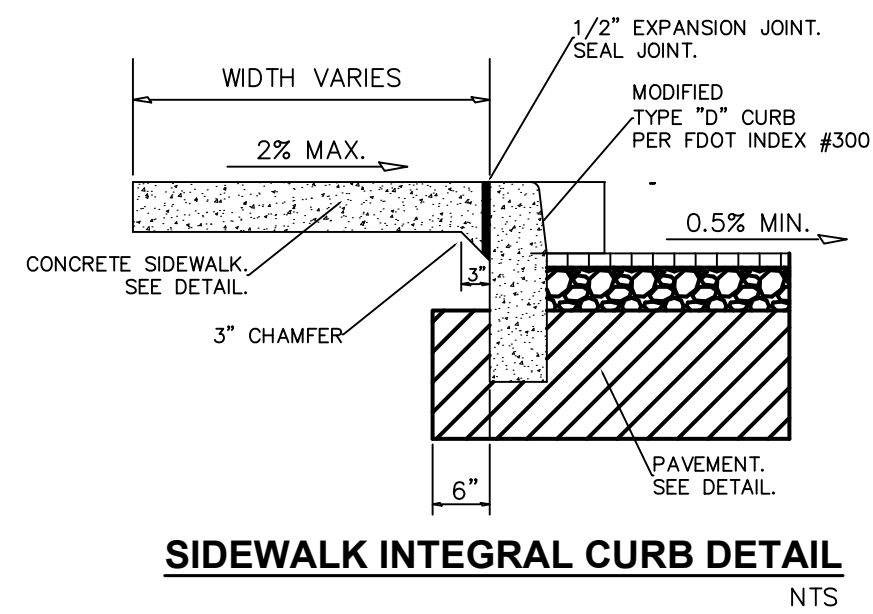
Page 113 of 182





- NOTES:
1. ALL LETTERS ARE 1" SERIES "6" PER MUTCD.
  2. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
  3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
  4. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
  5. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
  6. INSTALLATION HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

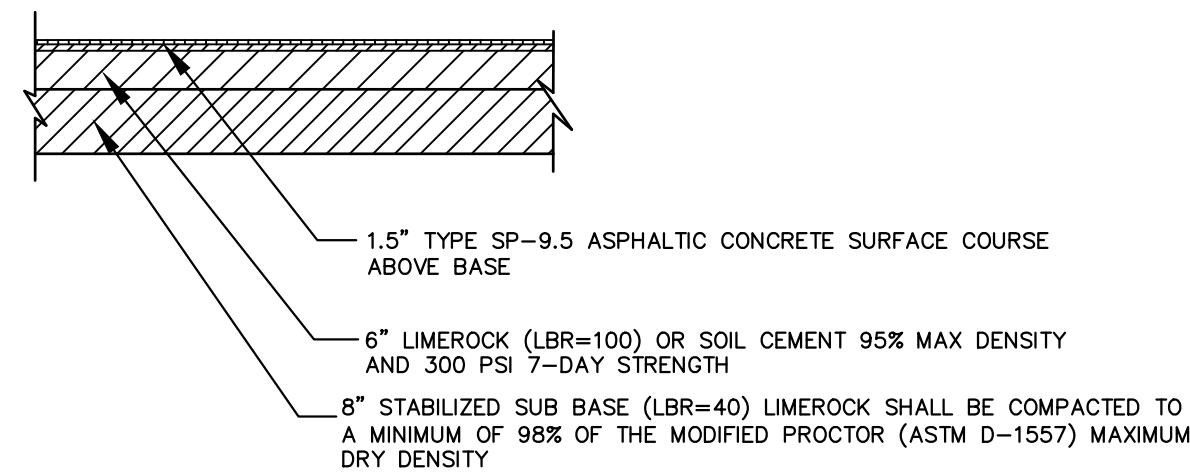
## HANDICAP SIGN DETAIL



- NOTES:
- POLE AND SIGN TO BE PROVIDED AND INSTALLED BY GENERAL CONTRACTOR.
- ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

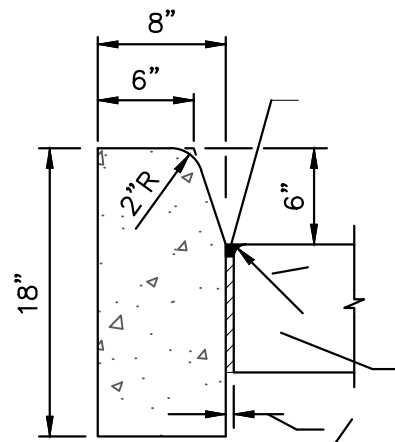
**STANDARD SIGN BASE**

N.T.S.

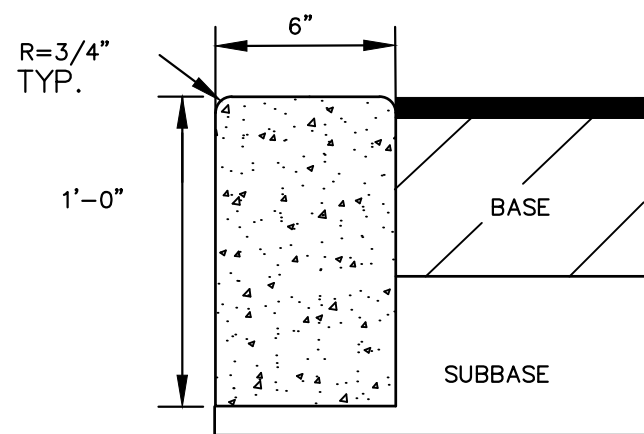


### LIGHT DUTY ASPHALT PAVEMENT SECTION

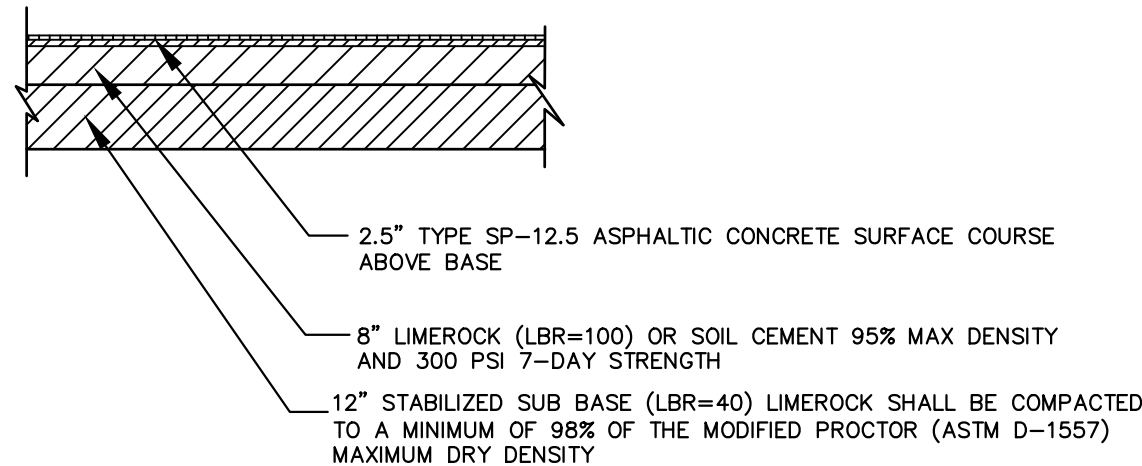
- NTS NOTE: PAVEMENT SECTION SHALL MEET THE RECOMMENDATION WITHIN THE GEOTECHNICAL REPORT PREPARED BY UNIVERSAL ENGINEERING SCIENCES, LLC DATED APRIL 23, 2024.



FDOT TYPE "D" CURB (INDEX #520-001)  
NTS

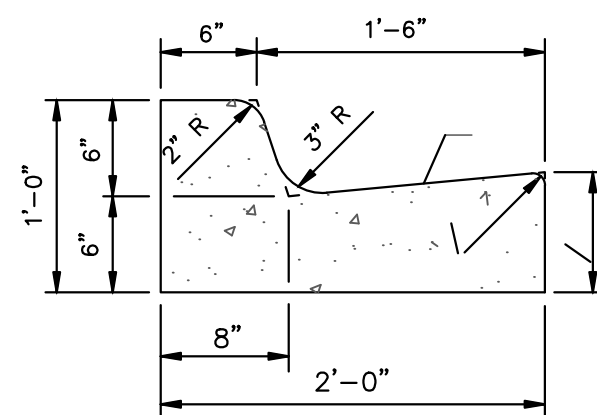


- NOTES:**
1. ALL CURBS TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE
  2. 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED EVERY 500', CONSTRUCTION JOINT REQUIRED EVERY 10' (MAXIMUM 4" MINIMUM).
  3. 6" SUBBASE TO BE COMPACTED AND TESTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST AND SHALL BE STABILIZED TO A MINIMUM L.B.R. 40.
  4. IN NO INSTANCE SHALL EXTRUDED CURBS (DEFINED AS HEADER-TYPE CURBS INSTALLED DIRECTLY ON TOP OF PAVEMENT) BE PERMITTED.

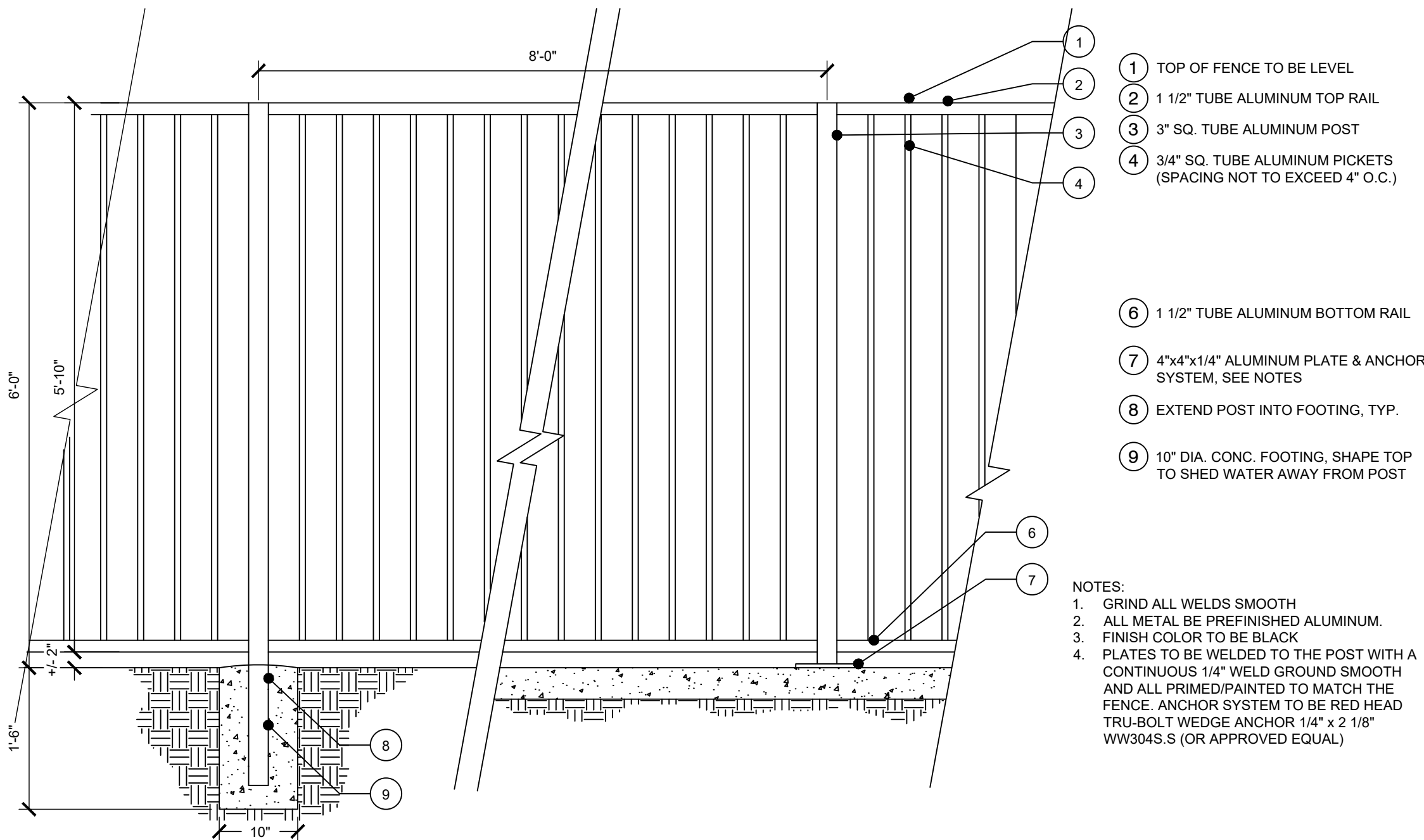


### HEAVY DUTY ASPHALT PAVEMENT SECTION

- NTS NOTE: PAVEMENT SECTION SHALL MEET THE RECOMMENDATION WITHIN THE GEOTECHNICAL REPORT PREPARED BY UNIVERSAL ENGINEERING SCIENCES, LLC DATED APRIL 23, 2024.



FDOT TYPE "F" CURB (INDEX #300)  
NTS



6' PERIMETER FENCE

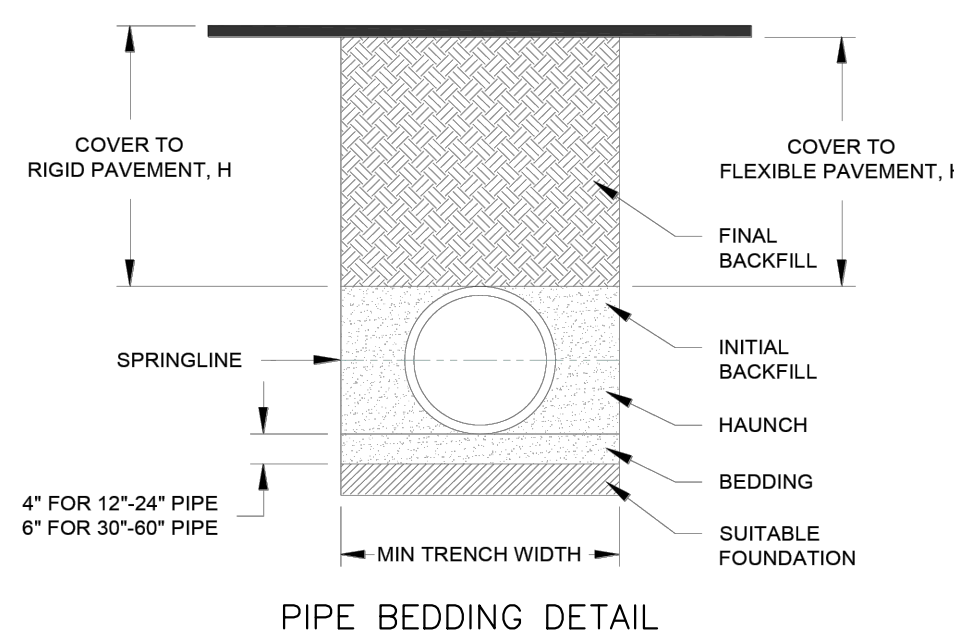
- 1 TOP OF FENCE TO BE LEVEL
- 2 1 1/2" TUBE ALUMINUM TOP RAIL
- 3 3" SQ. TUBE ALUMINUM POST
- 4 3/4" SQ. TUBE ALUMINUM PICKETS (SPACING NOT TO EXCEED 4" O.C.)

- ⑥ 1 1/2" TUBE ALUMINUM BOTTOM RAIL
- ⑦ 4"x4"x1/4" ALUMINUM PLATE & ANCHOR SYSTEM, SEE NOTES
- ⑧ EXTEND POST INTO FOOTING, TYP.
- ⑨ 10" DIA. CONC. FOOTING, SHAPE TOP TO SHED WATER AWAY FROM POST

- NOTES:
1. GRIND ALL WELDS SMOOTH
  2. ALL METAL BE PREFINISHED ALUMINUM.
  3. FINISH COLOR TO BE BLACK
  4. PLATES TO BE WELDED TO THE POST WITH A CONTINUOUS 1/4" WELD GROUND SMOOTH AND ALL PRIMED/PAINTED TO MATCH THE FENCE. ANCHOR SYSTEM TO BE RED HEAD TRU-BOLT WEDGE ANCHOR 1/4" x 2 1/8" WW304S (OR APPROVED EQUAL)

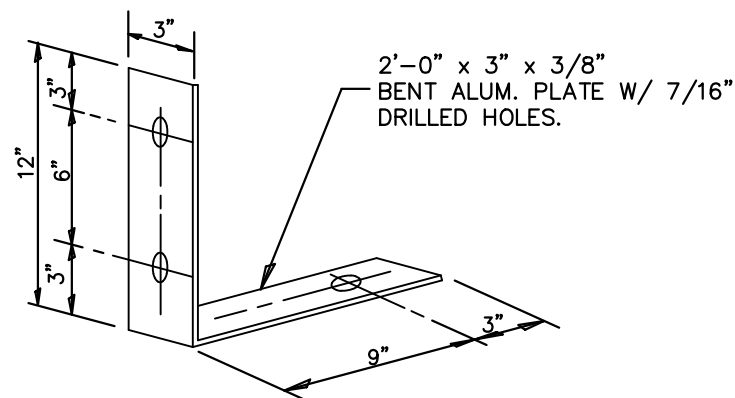
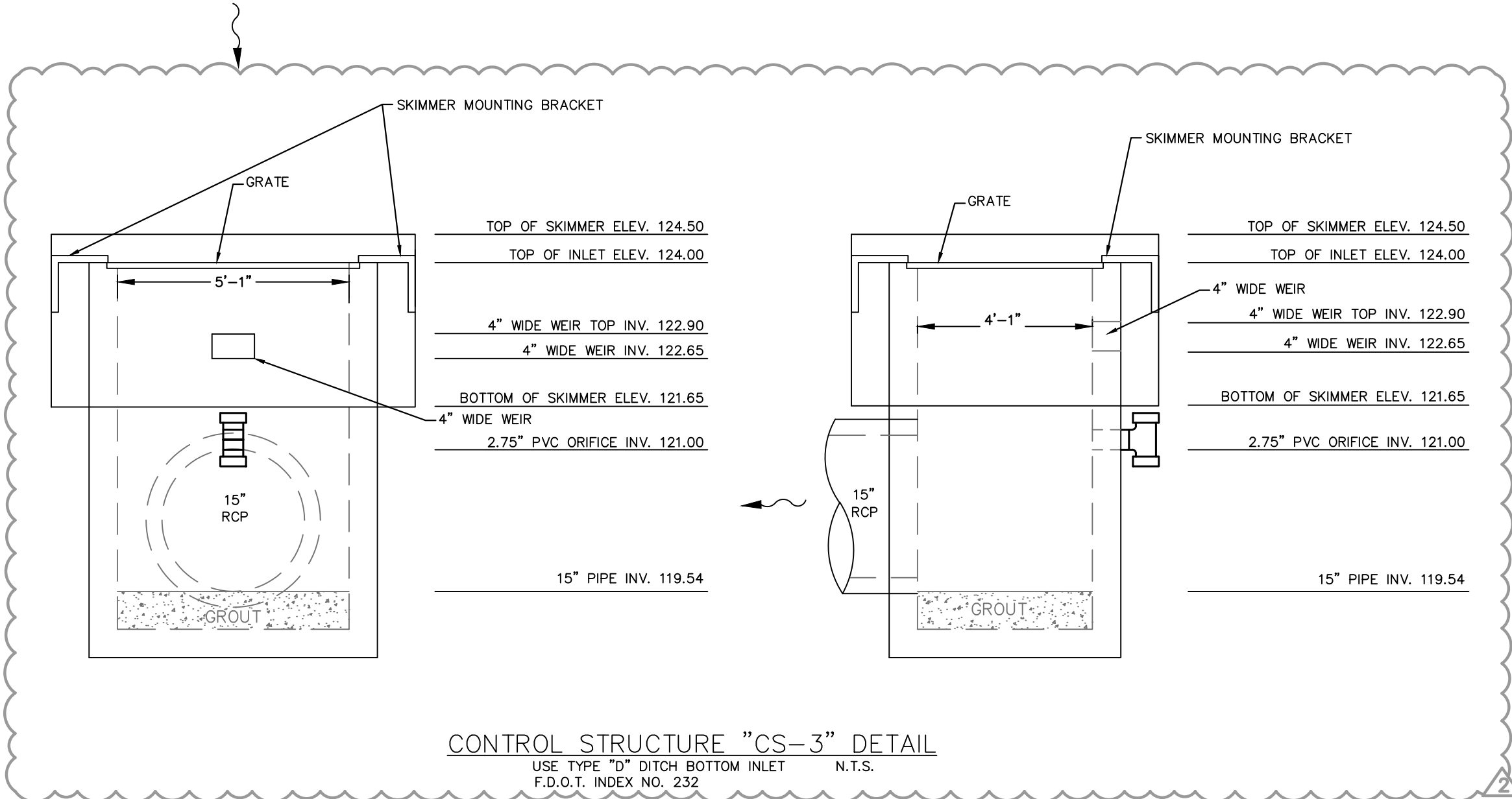
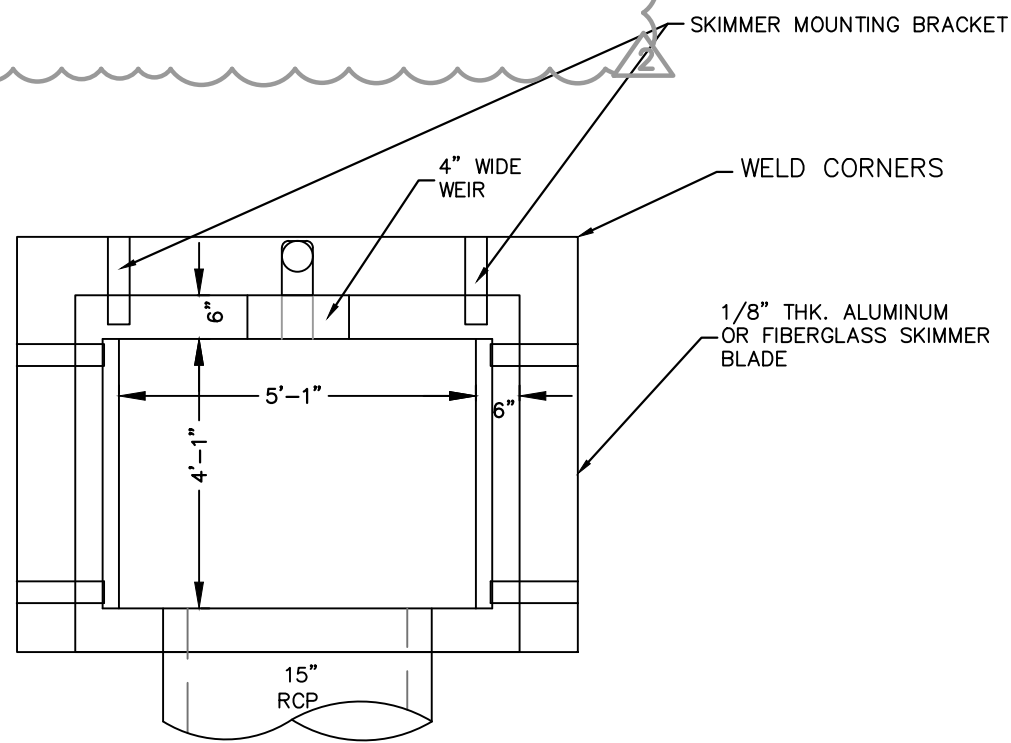
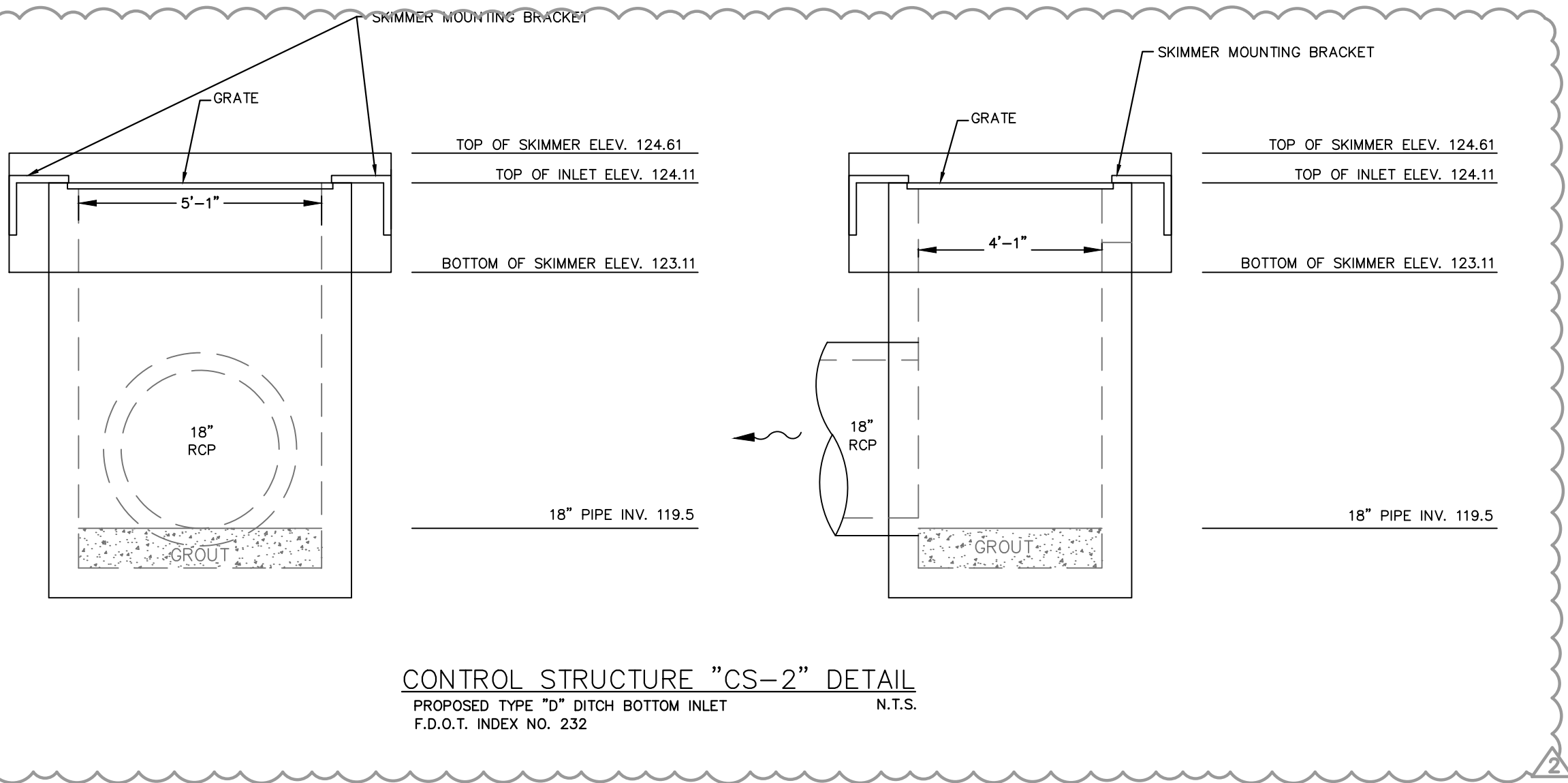
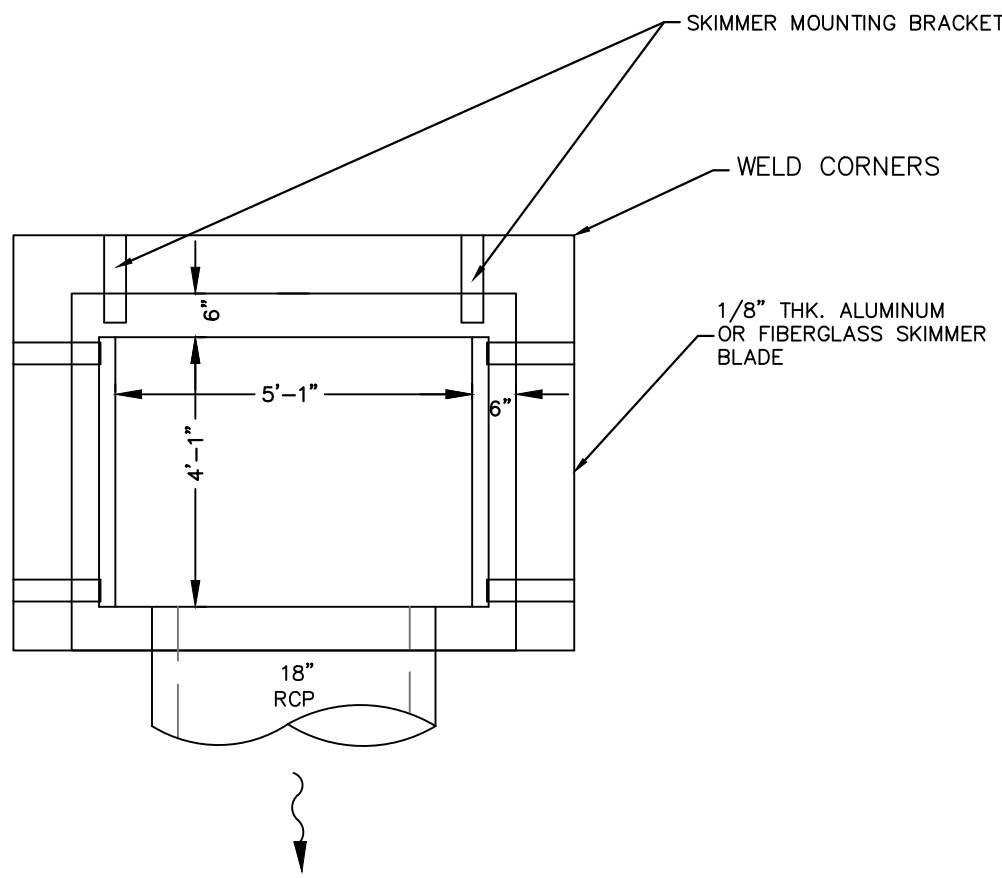
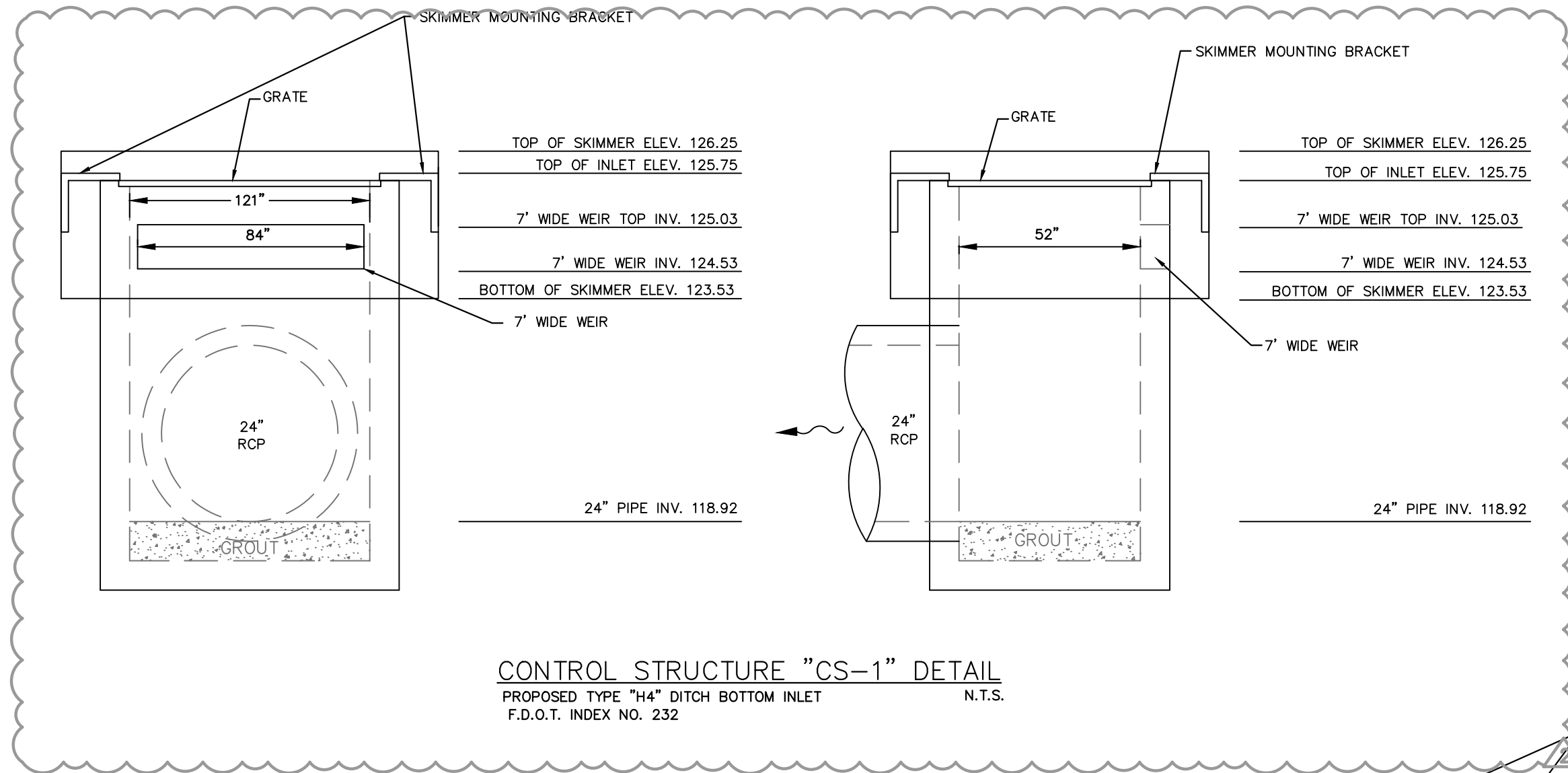
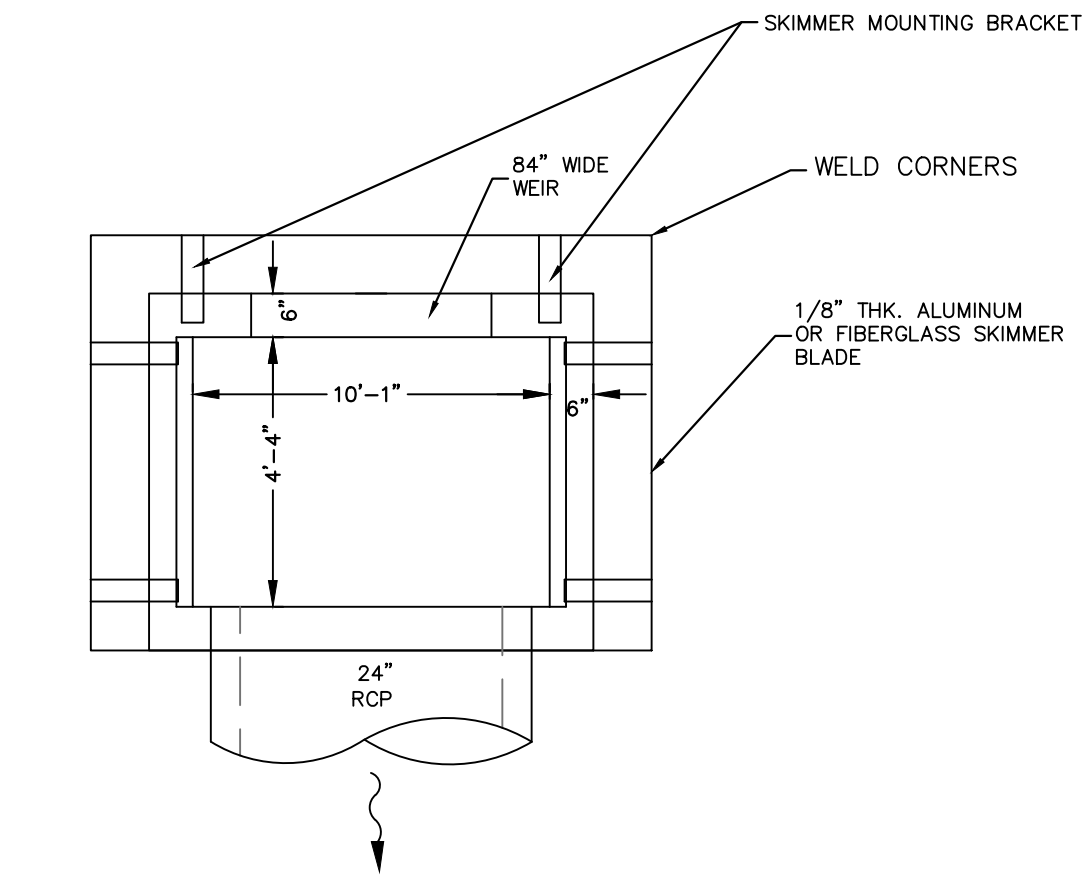
Installation shall be in accordance with ASTM D2321 and ADS recommended installation guidelines, with the exception that minimum cover in traffic areas for 12- through 48-inch (300 to 1200 mm) diameters shall be one foot (0.3 m) and for 60-inch (1500 mm) diameter the minimum cover shall be 2 ft. (0.6 m) in all run applications. Backfill for minimum cover situations shall consist of Class 1 (compacted), Class minimum 90% SPD), or Class 3 (minimum 95%) material. Maximum fill heights depend on embedment

**Figure 1**  
**ADS HP Storm Pipe Trench Detail with Uniform Backfill**  
**(Traffic and Non-Traffic Applications)**





Plotted By:Sauer, Code Sheet Set:General RV Expansion - East, Layout:DETAILS (2), March 06, 2025 09:44:24pm, K:\cvt\_dwg\248536000-general rv expansion\CADD\CONST\plansheets\east site\C2.D-CONSTRUCTION DETAILS.dwg  
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



- NOTE :
1. FASTEN SKIMMER BLADE TO MOUNTING STRAP W/3/8" GALV. BOLTS & FASTNERS.
  2. FASTEN MOUNTING BRACKETS TO STRUCTURE W/3/8"x4" EXPAN. ANCHOR BOLT & FASTNERS.

SKIMMER MOUNTING BRACKET  
NTS

Kimley»Horn

L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER  
81928  
3/6/2025

248536000  
3/6/2025

FLORIDA

CITY OF WINTER GARDEN



CITY OF WINTER GARDEN - GENERAL NOTES:

- ALL UTILITY SYSTEMS AND IMPROVEMENTS CONSTRUCTED IN THE CITY OF WINTER GARDEN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUAL OF STANDARDS AND SPECIFICATIONS FOR UTILITY CONSTRUCTION FOR THE CITY OF WINTER GARDEN, TO BE REFERRED TO AS MSS/CWG, THE LATEST EDITION AT THE TIME PERMITS ARE APPROVED SHALL BE EFFECTIVE FOR THE DURATION OF THE SUBJECT WORK OR PROJECT DEVELOPMENT.
- THE CITY OF WINTER GARDEN GENERAL NOTES AND DETAILS ARE PROVIDED FOR THE CONVENIENCE OF FIELD PERSONNEL. THEY DO NOT INCLUDE ALL REQUIREMENTS OF THE MSS/CWG. THE CONTRACTOR SHALL REFER TO THE FULL TEXT OF THE MSS/CWG FOR FURTHER DETAIL AND CLARITY WHEN NEEDED.
- ANY REQUEST FOR VARIANCE OR NONCOMPLIANCE FROM THE MSS/CWG NOTED ABOVE MUST BE APPROVED BY THE CITY ENGINEER OR UTILITIES DIRECTOR.
- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN CLOSE PROXIMITY TO WATER, WASTEWATER, RECLAIMED WATER AND OTHER UTILITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE UTILITY LOCATIONS WITH RESPECTIVE UTILITY OWNERS AND/OR CALL "SUNSHINE ONE CALL", 1-800-432-6770 A MINIMUM OF 72 HOURS IN ADVANCE.
- CONTRACTOR'S DAMAGE OF WINTER GARDEN UTILITY SYSTEM: THE CONTRACTOR SHALL IMMEDIATELY NOTIFY AND REPORT DAMAGE TO THE CITY OF WINTER GARDEN UTILITY DIVISION, (NO MESSAGE) PHONE # 407-656-4100.
- IMMEDIATE REPAIR OF DAMAGED UTILITY SYSTEM: THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY DAMAGE TO THE CITY OF WINTER GARDEN UTILITY SYSTEM AS REQUIRED BY THE UTILITY OWNER AT CONTRACTOR'S COST. IN CASE OF UNRESPONSIVE ACTION BY THE CONTRACTOR, THE CITY RESERVES RIGHT TO REPAIR DAMAGE. THE CONTRACTOR SHALL REIMBURSE THE CITY OF WINTER GARDEN OF ALL REPAIR COST.
- ADVANCE NOTIFICATION OF CONSTRUCTION: THE CONTRACTOR SHALL NOTIFY CITY OF WINTER GARDEN, UTILITY DIVISION, PH# 407-656-4100, AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY.
- ADVANCE NOTIFICATION OF UTILITY CONNECTION: THE CONTRACTOR SHALL NOTIFY THE CITY OF WINTER GARDEN AT LEAST SEVEN CALENDAR DAYS IN ADVANCE TO SCHEDULE CONNECTIONS TO UTILITY SYSTEM.
- UTILITY VALVE OPERATION: ONLY CITY OF WINTER GARDEN UTILITY PERSONNEL SHALL OPERATE VALVES AND THE HYDRANTS. THE CONTRACTOR, WHEN NEEDED, SHALL CALL THE CITY TO REQUEST VALVE OPERATIONS AT LEAST TWO (2) DAYS IN ADVANCE OF CONSTRUCTION WORK.
- OPERATIONS INVOLVING WATER OR WASTEWATER FACILITIES INCLUDING PUMPING STATIONS: THE CONTRACTOR SHALL COORDINATE AT LEAST TWO (2) WEEKS IN ADVANCE, ANY CONSTRUCTION OPERATION THAT MAY REQUIRE THE DISCONTINUATION OF SERVICE OR OPERATION OF A FACILITY. THE CITY WILL PROVIDE PERSONNEL TO OPERATE THE CITY FACILITIES.
- REQUIRED TESTING BY CONTRACTOR: THE CONTRACTOR SHALL NOTIFY THE CITY OF WINTER GARDEN AT LEAST TWO (2) DAYS PRIOR TO SAMPLING ACTIVITIES FOR PURPOSE OF TESTING AS REQUIRED BY THE CITY. THE CONTRACTOR SHALL NOT TEST OR SAMPLE WITHOUT OBSERVATION BY CITY INSPECTION PERSONNEL.
- TEMPORARY OR CONSTRUCTION WATER SERVICE CONNECTIONS PROVIDED BY FIRE HYDRANT CONNECTION: THE CITY WILL PROVIDE METER ON FIRE HYDRANT. THE CONTRACTOR SHALL PROVIDE NON-REFUNDABLE ACCOUNT INITIATION FEE, A REFUNDABLE SECURITY DEPOSIT FOR THE METER APPARATUS AND PAY ALL COST FOR WATER USED.
- ALL AS-BUILT MEASUREMENTS & ELEVATIONS ARE TO BE MADE BY A LICENSED LAND SURVEYOR.

CITY OF WINTER GARDEN - WATER SYSTEM NOTES:

- THE CONTRACTOR SHALL PROVIDE AND INSTALL A CITY APPROVED BACKFLOW DEVICE ASSEMBLY AT EACH CONNECTION POINT TO THE CITY WATER SYSTEM.
- THE CONTRACTOR SHALL HYDROSTATICALLY TEST ALL WATER MAINS AND SERVICE LATERALS AT 150 PSI FOR A TWO HOUR PERIOD. TESTING MUST BE OBSERVED BY A CITY INSPECTOR.
- THE CONTRACTOR SHALL INSTALL WARNING TAPE OVER ALL NEW WATER MAINS. WARNING TAPE SHALL BE AS FOLLOWS: NON-DETECTABLE, SIZE 3" WITH "WATER LINE BELOW", MUST BE PLACED 8" TO 12" BELOW FINISHED GRADE ON ALL PVC WATER MAINS, LATERALS AND HEADER TEES, NUMBER 10 GAUGE TRACER WIRE SHALL BE ATTACHED TO THE TOP OF THE PIPE WITH DUCT TAPE, AT LEAST FIVE TIMES PER JOINT. THE TRACER WIRE SHALL ALSO BE ATTACHED TO ALL PVC LATERALS AND ATTACHED TO THE OUTSIDE OF EACH VALVE BOX SO THAT A PIPE LOCATOR CAN BE CONNECTED TO IT.
- THE CONTRACTOR SHALL INSTALL WATER MAINS PER MSS/CWG SPECIFICATIONS. SOLVENT CEMENTED JOINTS AND THRUST BLOCKS ON PIPING SYSTEMS SHALL NOT BE ALLOWED.
- THE CONTRACTOR SHALL INSTALL ALL WATER MAINS TO A MINIMUM DEPTH OF 36 INCHES AND A MAXIMUM DEPTH OF 42 INCHES BELOW FINAL GRADE.
- THE CONTRACTOR SHALL INSTALL ALL SERVICE LATERALS A UNIFORM DISTANCE APART, LOCATED ON PROPERTY LOT LINE AT 90° FROM THE WATER MAIN. SERVICE LATERALS SHALL BE SEPARATELY CONNECTED TO THE WATER MAIN, NOT SPLICED TOGETHER.
- THE CONTRACTOR SHALL CUT A "W" INTO CONCRETE CURB, LOCATED INSIDE OF A PAINTED BLUE SQUARE, LOCATED DIRECTLY IN FRONT OF EACH SERVICE LATERAL.
- THE CONTRACTOR SHALL INSTALL CURB STOP, IN METER BOX, CURB STOP SHALL BE SET 8" BELOW FINISHED GRADE.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL IN-LINE VALVES ON WATER MAINS AT 1,000 FOOT MAXIMUM SPACING BETWEEN VALVES. VALVES SHALL BE LOCATED ON ALL TEES AND CROSSES. WATER MAINS SHALL BE PLACED UNDER SIDEWALKS WHERE POSSIBLE.
- ALL WATER MAINS SHALL BE CLEANED BY PIGGING THE LINE WITH A FOAM PIG (MINIMUM OF 2 IN SERIES, 1 FLUSH). A FULL BORE FLUSH MAY BE REQUIRED AFTER PIGGING TO ENSURE THE PIPE IS CLEAN AND READY FOR SERVICE. THE CONTRACTOR SHALL COORDINATE LINE PIGGING AND FULL BORE FLUSH WITH THE CITY INSPECTOR.
- THE CONTRACTOR SHALL DEMONSTRATE THAT LOCATION WIRE INSTALLED OVER ALL WATER MAINS IS IN WORKING CONDITION AT TIME OF ACCEPTANCE BY THE CITY.
- ALL NEW SUBDIVISION CONSTRUCTION SHALL INSTALL DOUBLE POTABLE WATER SERVICES AT THE PROPERTY LINES.

CITY OF WINTER GARDEN - WASTEWATER SYSTEM NOTES:

- SANITARY SEWER MAINS AND SERVICES SHALL BE PVC SDR-26 (MINIMUM). FITTINGS SHALL BE SDR-26. DUCTILE IRON IS NOT APPROVED FOR SANITARY SEWERS.
- ALL SERVICES SHALL BE 6" (MINIMUM) DIAMETER AND TERMINATE AT THE PROPERTY LINE WITH 6" CLEAN OUT, 36" TO 48" DEEP AT LOT LINE.
- MAGNETIC TAPE MUST BE PLACED 2' ABOVE THE TOP OF PIPE FOR THE ENTIRE LENGTH OF ALL MAINS AND SERVICES.
- ALL SANITARY MANHOLES SHALL BE PAINTED INSIDE AND OUT WITH "BIMLUSTAG SUPER SERVICE BLACK", BY KOPPERS OR APPROVED EQUAL. MANHOLES RECEIVING FLOW FROM FORCE MAINS SHALL BE LINED WITH FIBERGLASS, HOPE OR EPOXY AT THE PRECASTERS FACILITY.
- ALL PIPE CONNECTIONS TO PRE-CAST MANHOLES SHALL BE MADE USING A FLEXIBLE EPDM RUBBER BOOT AND STAINLESS STEEL STRAP OR CAST IN BOOT BY A-LOK, Z-LOK OR EQUAL.
- CONNECTIONS MADE TO EXISTING MANHOLES SHALL BE CORE BORED WITH A MINIMUM 6" BORE AND CONNECTION SEALED WITH FLEXIBLE BOOT AND STAINLESS STEEL CLAMP.
- DEAD END MANHOLES SHALL HAVE A MINIMUM OF 5 FEET OF COVER FROM FINISHED GRADE TO OUTLET PIPE INVERT.
- ALL PRECAST SEWER MANHOLES SHALL HAVE A 4 FOOT MINIMUM HIGH BARREL CONE SECTIONS SHALL BE 3 FOOT MAXIMUM. CONCRETE DONUTS FOR EXTENDING ARE ACCEPTABLE TO RAISE MANHOLES UP TO 1 FOOT MAXIMUM.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL BALANCEGIC PLUG VALVES IN FORCE MAINS AT 1000 FOOT MAXIMUM SPACING BETWEEN VALVES. VALVES SHALL BE LOCATED AT ALL TEES AND CROSSES.
- THE CONTRACTOR SHALL CUT A "S" INTO CONCRETE CURB LOCATED INSIDE OF A PAINTED GREEN SQUARE BOX, IN FRONT OF EACH SERVICE LOCATION.
- THE CONTRACTOR SHALL PROVIDE TV INSPECTION OF ALL SANITARY SEWER MAINS AFTER SYSTEM IS COMPLETED, THOROUGHLY CLEANED, DRAINED AND FULLY VISIBLE. TV INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS. FAULTY INSPECTION DUE TO POOR CONDITIONS WILL REQUIRE RESPECTION BY CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE A (WARRANTY) TV INSPECTION AT THE TWO YEAR IN SERVICE MILESTONE FOR EACH SYSTEM.
- THE CONTRACTOR SHALL PROVIDE SANITARY SEWER TESTING, EXFILTRATION OR AIR, AS REQUIRED BY DESIGN ENGINEER AND SUBMIT CERTIFIED RESULTS TO THE CITY ENGINEER.
- GRAVITY SEWERS DEPTHS SHALL NOT EXCEED 18 FEET.
- THE DESIGN ENGINEER SHALL PROVIDE A MINIMUM OF ONE FOOT OF FREEBOARD BETWEEN THE LOWEST FINISHED FLOOR ELEVATION AND THE TOP ELEVATION OF THE NET WELL.
- ALL PENETRATIONS INTO CONCRETE STRUCTURES SHALL BE PRE-CAST OR CORE-DRILLED.
- WARRANTY - ALL MATERIALS & EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR SHALL BE WARRANTED FOR A PERIOD OF TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE THEREOF AGAINST DEFECTIVE MATERIALS, DESIGN, AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE CITY OF FAILURE OF ANY PART OF THE WARRANTED EQUIPMENT OR MATERIALS DURING THE WARRANTY PERIOD, THE AFFECTED PART, PARTS, OR MATERIALS SHALL BE PROMPTLY REPLACED BY THE CONTRACTOR WITH NEW PARTS OR MATERIALS AT NO EXPENSE TO THE CITY. IN THE EVENT THE CONTRACTOR FAILS TO MAKE THE NECESSARY REPLACEMENT OR REPAIRS IMMEDIATELY AFTER NOTIFICATION, THE CITY MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.

CITY OF WINTER GARDEN - RECLAIMED WATER SYSTEM NOTES:

- ALL PRIVATE RECLAIMED WATER SYSTEMS SHALL HAVE A CITY APPROVED BACKFLOW DEVICE ASSEMBLY AT EACH CONNECTION POINT WHEN CONNECTED TO THE CITY POTABLE WATER SYSTEM.
- ALL MAINS AND SERVICE LATERALS SHALL BE HYDROSTATICALLY TESTED AT 150 PSI FOR A TWO HOUR PERIOD.
- WARNING TAPE, NON-DETECTABLE, SIZE 3" WITH "REUSE WATER LINE BELOW", MUST BE PLACED 8" TO 12" BELOW FINISHED GRADE ON ALL PVC WATER MAINS, LATERALS AND HEADER TEES, NUMBER 10 GAUGE TRACER WIRE SHALL BE ATTACHED TO THE TOP OF THE PIPE WITH DUCT TAPE, AT LEAST FIVE TIMES PER JOINT. THE TRACER WIRE SHALL ALSO BE ATTACHED TO ALL PVC LATERALS AND ATTACHED TO THE OUTSIDE OF EACH VALVE BOX SO THAT A PIPE LOCATOR CAN BE CONNECTED TO IT. THE CONTRACTOR SHALL DEMONSTRATE THE LOCATE WIRE TO BE IN WORKING CONDITION AT PROJECT COMPLETION.
- THE CONTRACTOR SHALL INSTALL RECLAIMED WATER MAINS PER MSS/CWG. SOLVENT CEMENTED JOINTS AND THRUST BLOCKS SHALL NOT BE ALLOWED.
- REUSE WATER MAIN SHALL BE BURIED TO A MINIMUM DEPTH OF 36" AND A MAXIMUM DEPTH 42" BELOW FINAL GRADE.
- SERVICE LATERALS MUST BE LOCATED A UNIFORM DISTANCE APART AND ALIGNED TO PROPERTY LOT LINE AT 90° FROM THE RECLAIMED WATERMAIN.
- CUSTOMER SERVICE LATERALS SHALL NOT BE SPLICED TOGETHER BETWEEN THE WATER MAIN AND CURB STOP.
- THE CONTRACTOR SHALL CUT CURB A "W" INTO CONCRETE CURB LOCATED INSIDE OF A PAINTED SQUARE (PURPLE), DIRECTLY IN FRONT OF EACH SERVICE LATERAL AND VALVE.
- THE CONTRACTOR SHALL SET DEPTH OF CURB STOP, IN METER BOX, 8" BELOW FINISHED GRADE.
- THE CONTRACTOR SHALL INSTALL VALVE(S) IN MAIN, NO MORE THAN 1,000 FEET APART IN BETWEEN TEES AND CROSSES. VALVES SHALL BE PROVIDED AT EACH TEE OR CROSS LOCATED IN MAIN LINE.
- RECLAIMED WATER MAINS MAY BE LOCATED UNDER SIDEWALKS. RECLAIMED MAINS LOCATED UNDER PAVEMENT SHOULD BE MINIMIZED.
- ALL WATER MAINS SHALL BE CLEANED BY PIGGING THE LINE WITH A FOAM PIG (MINIMUM OF 2 IN SERIES, 1 FLUSH). A FULL BORE FLUSH MAY BE REQUIRED AFTER PIGGING TO ENSURE THE PIPE IS CLEAN AND READY FOR SERVICE. THE CONTRACTOR SHALL COORDINATE LINE PIGGING AND FULL BORE FLUSH WITH THE CITY INSPECTOR.
- RECLAIMED WATERMAIN MAINS SHALL BE 8 INCH DIAMETER MINIMUM. 4 INCH IS ALLOWED ON DEAD END RUNS SERVING LESS THAN 20 HOMES. THE DESIGN ENGINEER SHALL SUBMIT HYDRAULIC CALCULATIONS THAT DEMONSTRATE THE PROPOSED SYSTEM WILL PROVIDE REQUIRED FLOWS AND MAINTAIN SYSTEM ABOVE MINIMUM PRESSURE. PEAK IRRIGATION RATE SHALL BE SIX(6) TIMES GREATER THAN THE AVERAGE IRRIGATION RATE OF FLOW.
- RECLAIMED WATER SYSTEM COMPONENTS INCLUDING PIPE, VALVE BOX TOPS AND METER BOX TOPS SHALL BE RECLAIMED PURPLE IN COLOR.

CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION OF SEWER LINES

- GENERAL:
- ALL NEW SANITARY SEWER LINES, PRIVATE OR CITY MAINTAINED, IN THE CITY OF WINTER GARDEN'S SERVICE AREA SHALL BE INSPECTED BY CLOSED CIRCUIT TV INSPECTION BY THE CONTRACTOR WITH A CITY INSPECTOR PRESENT PRIOR TO BEING ACCEPTED BY THE CITY.
- REQUIREMENTS PRIOR TO INSPECTION RELEASE:
- ALL ELEMENTS OF THE SEWER SYSTEM MUST BE INSTALLED AND BE COMPLETELY FINISHED, INCLUDING MAIN SEWER LINES, LATERALS, CLEAN OUTS, AND MANHOLES PRIOR TO CCTV INSPECTION.
  - ALL SEWER LINES SHALL BE COMPLETELY CLEANED OF ALL DEBRIS, SAND, WATER, ETC. PRIOR TO THE CCTV INSPECTION. ANY OBJECT OR MATTER THAT PREVENTS CCTV INSPECTION FROM VIEWING CONDITION OF PIPELINE IS CONSIDERED AN OBSTRUCTION REQUIRING ADDITIONAL CLEANING. WHEN CCTV VIEW IS OBSTRUCTED, INSPECTION SHALL BE TERMINATED. THE CONTRACTOR SHALL CLEAN THE SEWER SYSTEM COMPLETELY AND RESCHEDULE CCTV RE-INSPECTION WITH THE CITY.
  - A HYDRAULIC SEWER CLEANER SHALL NOT BE USED DURING THE CCTV INSPECTION, IF LINES ARE FOUND TO BE OBSCURED BY WATER OR DEBRIS DURING THE CCTV INSPECTION, THE INSPECTION SHALL BE TERMINATED AND RESCHEDULED TO A TIME WHEN SEWER CLEANING IS COMPLETE.
  - WHEN A SEWER LINE IS UNDER A PAVED AREA, THE AREA SHALL BE COMPACTED AND PRIMED BEFORE THE SYSTEM SHALL BE RELEASED FOR TV INSPECTION.
- TELEVISION EQUIPMENT MINIMUM REQUIREMENTS:
- THE CLOSED CIRCUIT TV CAMERA SHALL PRODUCE A CLEAR COLOR PICTURE ON THE MONITOR AND ON THE DVD RECORDINGS. THE CAMERA SHALL BE ABLE TO SHOW DETAIL TO THE POINT THAT ALL JOINTS AND ANY DEFECTS MAY BE READILY SEEN AT THE TIME OF THE INSPECTION. THE CAMERA SHALL STOP AND PAN AT EACH JOINT FOR COMPLETE 360 DEGREE INSPECTION.
  - REFER TO APPENDIX B OF THE REFERENCED STANDARDS FOR SPECIFICATION OF CLOSED CIRCUIT TELEVISION INSPECTION EQUIPMENT.
  - THE VIDEO RECORDER SHALL PROVIDE A NO NOISE STILL PICTURE, AND PROVIDE BOTH AUDIO AND VIDEO DURING THE INSPECTION.
  - A MEASURING DEVICE, APPROVED BY THE CITY, TO CHECK THE GRADE OF THE PIPE DURING THE INSPECTION, SHALL BE REQUIRED. GAUGE DEPTH, 0" TO 2" MIN. WITH 1/2" MARKINGS.
  - AUDIO OF THE INSPECTION SHALL BE SIMULTANEOUSLY RECORDED ON DVD DISC. THE AUDIO SHALL CONSIST OF ORDINARY DESCRIPTION AND COMMENTARY. A TAPE WILL BE GIVEN TO THE INSPECTOR ON SITE AT THE END OF THE DAY.
- PROCEDURE FOR TELEVISION:
- THE CITY'S ENGINEERING INSPECTION DIVISION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS NOTICE PRIOR TO THE TIME PLANNED FOR THE TV INSPECTION TO COMMENCE. A DEFINITE TIME AND DATE WILL BE AGREED UPON BY THE CONTRACTOR AND INSPECTOR AT THAT TIME.
  - NO INSPECTION SHALL COMMENCE WITHOUT THE PRESENCE OF THE INSPECTOR, EXCEPT WHEN PRIOR ARRANGEMENTS HAVE BEEN MADE BETWEEN THE CONTRACTOR, INSPECTOR, AND THE CITY. TV INSPECTION SHALL BE PERFORMED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
  - ALL CCTV INSPECTIONS SHALL COMMENCE UP STREAM OF THE SYSTEM TO PREVENT FOREIGN SUBSTANCES FROM ENTERING A SECTION PREVIOUSLY TELEVIEWED. THE CAMERA SHALL BE STARTED FROM THE DOWNSTREAM MANHOLE AND PROCEED UPSTREAM IN DIRECTION OPPOSING THE NORMAL FLOW IN THE LINE. THIS PROCEDURE WILL ALLOW FOR THE VIEWING OF THE SERVICE LATERALS.
  - BEFORE THE CAMERA IS PLACED IN THE SEWER LINE, WATER WITH YELLOW OR ORANGE DYE SHALL BE PUT INTO THE UPSTREAM MANHOLE OF THE SECTION BEING TELEVIEWED. CAMERA WILL HAVE A GAUGE SHOWING 1/2" MARKS FROM 1/2" TO 2-1/2". THIS WILL ENABLE THE CAMERA TO DETECT ANY CHANGES IN GRADE THAT MAY BE PRESENT IN THE SYSTEM.
  - THE CCTV AND DVD RECORDER SHALL BE TURNED ON BEFORE THE CAMERA IS PLACED IN THE MANHOLE FOR INSPECTION AND SHALL NOT BE TURNED OFF UNTIL THE CAMERA IS REMOVED FROM THE MANHOLE. THE CAMERA SHALL BE MOVED THROUGH THE LINE UNDER THE CONTROL OF THE CCTV CAMERA OPERATOR. THE CAMERA SHALL BE DRAWN THROUGH THE LINE AT A RATE NOT TO EXCEED THIRTY (30) FEET PER MINUTE AND SHALL STOP AT ALL SERVICE CONNECTIONS AND PIPE JOINTS IN THE PIPELINE.
  - A DVD RECORDING SHALL BE MADE OF THE ENTIRE SYSTEM BEING TELEVIEWED. THIS SHALL BECOME THE PROPERTY OF THE CITY UPON COMPLETION OF THE TV INSPECTION (NOT A COPY). THE TAPE(S) SHALL BE LABELED IN SUCH A MANNER THAT STATES THE PROJECT NAME, DATE OF INSPECTION AND LINE SECTION ACCORDING TO CONSTRUCTION PLANS CONTAINED ON EACH TAPE. A WRITTEN REPORT SHALL ACCOMPANY THE DVD DISC.

CITY OF WINTER GARDEN - TRUST RESTRAINT TABLE

| RESTRAINED FORCE MAIN PIPE TABLE                                |    |    |     |     |     |     |     |     |     |  |
|-----------------------------------------------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|--|
| MINIMUM LENGTH(FIT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S) |    |    |     |     |     |     |     |     |     |  |
| PIPE SIZE                                                       |    |    |     |     |     |     |     |     |     |  |
|                                                                 | 8" | 8" | 10" | 12" | 16" | 20" | 24" | 30" | 36" |  |
| 90° BEND                                                        | 19 | 23 | 30  | 34  | 44  | 52  | 60  | 70  | 80  |  |
| 45° BEND                                                        | 8  | 10 | 12  | 14  | 18  | 21  | 25  | 30  | 34  |  |
| 22-1/2° BEND                                                    | 4  | 5  | 6   | 7   | 9   | 10  | 12  | 14  | 16  |  |
| 11-1/4° BEND                                                    | 2  | 3  | 4   | 5   | 6   | 7   | 8   | 9   | 10  |  |
| PLUG, DEAD END OR BRANCH OF TEE                                 | 40 | 52 | 63  | 72  | 93  | 111 | 130 | 155 | 178 |  |
| VALVE                                                           | 20 | 25 | 32  | 36  | 47  | 56  | 78  | 116 | 89  |  |

| RESTRAINED WATER AND RECLAIMED PIPE TABLE                       |    |    |     |     |     |     |     |     |     |  |
|-----------------------------------------------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|--|
| MINIMUM LENGTH(FIT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S) |    |    |     |     |     |     |     |     |     |  |
| PIPE SIZE                                                       |    |    |     |     |     |     |     |     |     |  |
|                                                                 | 6" | 8" | 10" | 12" | 16" | 20" | 24" | 30" | 36" |  |
| 90° BEND                                                        | 29 | 37 | 44  | 51  | 65  | 77  | 88  | 105 | 120 |  |
| 45° BEND                                                        | 12 | 15 | 18  | 21  | 27  | 32  | 37  | 44  | 50  |  |
| 22-1/2° BEND                                                    | 6  | 7  | 9   | 10  | 13  | 15  | 18  | 21  | 24  |  |
| 11-1/4° BEND                                                    | 3  | 4  | 5   | 6   | 7   | 8   | 9   | 10  | 12  |  |
| PLUG, DEAD END OR BRANCH OF TEE                                 | 59 | 77 | 93  | 108 | 138 | 166 | 194 | 231 | 265 |  |
| VALVE                                                           | 59 | 77 | 93  | 108 | 138 | 166 | 194 | 231 | 265 |  |

THRUST RESTRAINT NOTES:

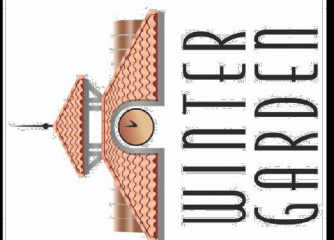
- THE TABLES INDICATE MINIMUM LENGTHS OF RESTRAINED JOINTS ON EACH SIDE OF FITTINGS AND CHANGES IN DIRECTION, WHERE PRACTICAL, FULL LENGTHS OF RESTRAINED PIPE SHALL BE LAID TO ACHIEVE THE REQUIRED MINIMUM RESTRAINT.
- WHERE COMBINATIONS OF FITTINGS ARE USED, THE PIPING BETWEEN THE FITTINGS SHALL BE RESTRAINED. THE MINIMUM RESTRAINED LENGTH OF PIPE REQUIRED UPSTREAM AND DOWNSTREAM OF THE COMBINATION OF FITTINGS SHALL BE DETERMINED ON THE BASIS OF ONE EQUIVALENT FITTING (I.E., 2-45 DEGREE BENDS WILL BE CONSIDERED AS THOUGH A 90° BEND WERE LOCATED MIDWAY BETWEEN THE TWO 45° BENDS).
- FOR PIPE THAT IS ENCASED IN POLYETHYLENE, RESTRAINED JOINTS MINIMUM LENGTHS SHALL BE INCREASED BY 50 PERCENT.
- FOR FITTINGS OTHER THAN THOSE PRESENTED IN THE ABOVE TABLES, RESTRAINED JOINT LENGTHS SHALL BE DETERMINED IN ACCORDANCE WITH "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION. RESTRAINED JOINT LENGTHS FOR A GIVEN PRESSURE RANGE SHALL BE BASED ON THE MAXIMUM PRESSURE FOR THE TEST PRESSURE RANGE, SM (SAND SILT) SOIL, 3-FEET DEPTH, LAYING CONDITION NO. 3 AND FACTOR OF SAFETY OF 1.5.
- IN-LINE VALVES: PROVIDE MECHANICAL RESTRAINT ON EACH SIDE OF THE VALVE.
- ALL RECLAIMED WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF 150 PSI. ALL WASTEWATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF 100 PSI.

WINTER GARDEN STANDARDS INCORPORATED WITH DESIGN ENGINEERS DOCUMENTS:

THE DETAILS, NOTES AND SPECIFICATIONS SHOWN ON THIS SHEET REPRESENT THE NOTED STANDARDS OF THE CITY OF WINTER GARDEN FOR CONSTRUCTION OF PUBLIC WORKS AND UTILITY INFRASTRUCTURE. BY INCLUDING THE STANDARDS, THE DESIGN ENGINEER HAS ACKNOWLEDGED THAT THEY ARE EFFECTIVE TO THE PROJECT AND THAT DETAILS, NOTES, OR SPECIFICATIONS ARE AS PROVIDED BY THE CITY AND HAVE NOT BEEN REVISED OR MODIFIED WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER OR UTILITY DIRECTOR.

| DATE   | REVISION | DESCRIPTION                 |
|--------|----------|-----------------------------|
| 4/4/14 | 1        | Revised General Notes       |
| 4/4/14 | 2        | Revised Water & Reuse Notes |

CITY OF WINTER GARDEN, FLORIDA  
STANDARDS AND SPECIFICATIONS  
FOR UTILITY CONSTRUCTION



STANDARD DETAILS  
FOR  
UTILITY SYSTEMS

| DATE         | SHEET |
|--------------|-------|
| JANUARY 2024 | 1     |
| 1 OF 11      |       |

249536000

3/6/2025

L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER 81928

3/6/2025

FLORIDA

Kimley»Horn

CITY OF WINTER GARDEN





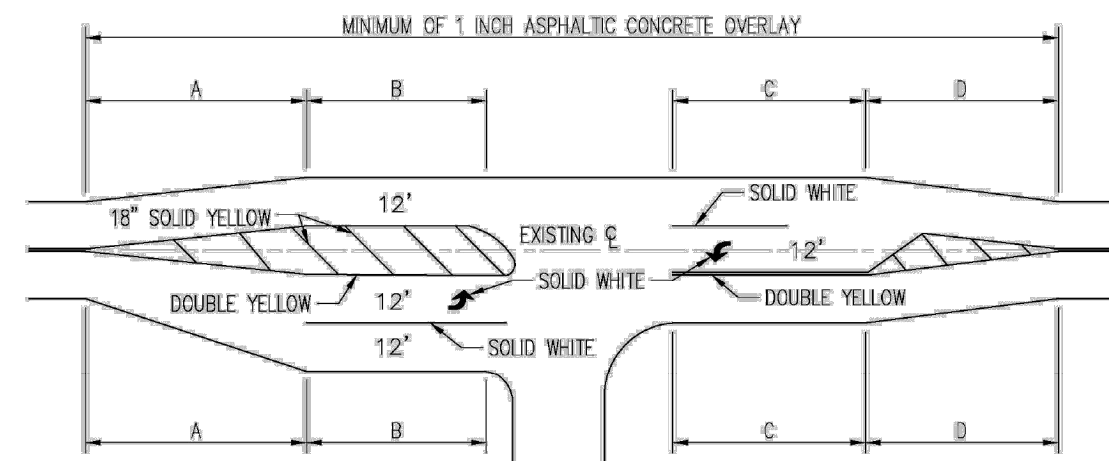






GENERAL NOTES:

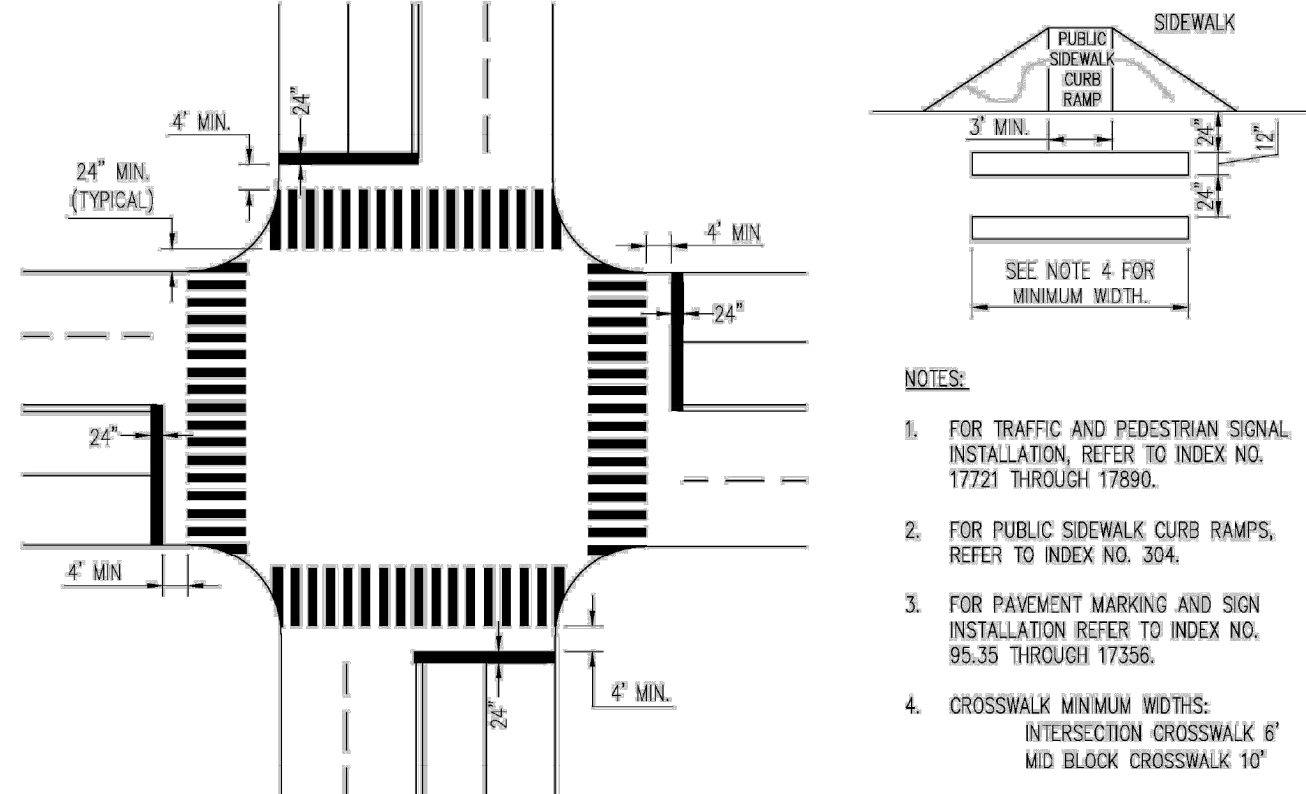
1. ALL NEW STORM AND SANITARY SEWER LINES IN THE CITY OF WINTER GARDEN SHALL BE SUBJECT TO CLOSED CIRCUIT TV INSPECTION PRIOR TO BEING ACCEPTED BY THE CITY, WHETHER PRIVATE OR CITY MAINTAINED. ALL STORM SEWER PIPE SHALL BE REINSPECTED AT THE YEAR END, COST TO BE PAID BY THE OWNER.
2. PIPE MATERIAL SHALL BE AS SHOWN ON THE CONSTRUCTION PLANS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. CONTRACTOR AND OWNER ARE RESPONSIBLE FOR ENSURING THAT ALL CITY, COUNTY, STATE (FDEP, FDOT, SJRWMD, ETC.), AND FEDERAL PERMITS HAVE BEEN ISSUED FOR THE PROJECT.
4. ALL STORM SYSTEM MUST BE WATER-TIGHT WITH ALL JOINTS WRAPPED.
5. STORM SYSTEM WILL BE CLEANED PRIOR TO BEING TV'D.
6. THE OWNER SHALL KEEP A COPY OF THE WATER MANAGEMENT DISTRICT PERMIT, NPDES, NOI AND SWPP PLAN IN A CONSPICUOUS LOCATION ON THE JOB SITE AT ALL TIMES.
7. ALL STORM SEWER MANHOLES FRAME & COVER SHALL BE ASTM 225.
8. CLEAN SAND SHALL CONSIST OF MATERIAL HAVING LESS THAN SIX PASSING THE #200 SIEVE.
9. ONLY CONCRETE RISER RINGS WILL BE ALLOWED TO BE PLACED FOR STORM MANHOLES. ALL RISER RINGS SHALL BE SEALED TO THE STRUCTURE USING WRAPD SEAL. NO MORE THAN 15" WILL BE ALLOWED.
10. STORM SEWER PIPES SHALL MEET ASTM C76 & ASTM C507.
11. ALL STORM SEWER STRUCTURE SECTIONS SHALL BE SEALED WITH WRAPD SEAL.



- NOTES:**
- 1) STRIPING ACCORDING TO F.D.O.T. STANDARD INDEX #173468.
  - 2) LANE WIDTHS TO MATCH EXISTING LANE WIDTHS.
  - 3) MINIMUM RADIUS SHALL BE 25 FEET (REFER TO ARTICLE 3 OF E.S.M.)
  - 4) ALL ROADWAY PAVEMENT MARKING SHALL BE THERMOPLASTIC.

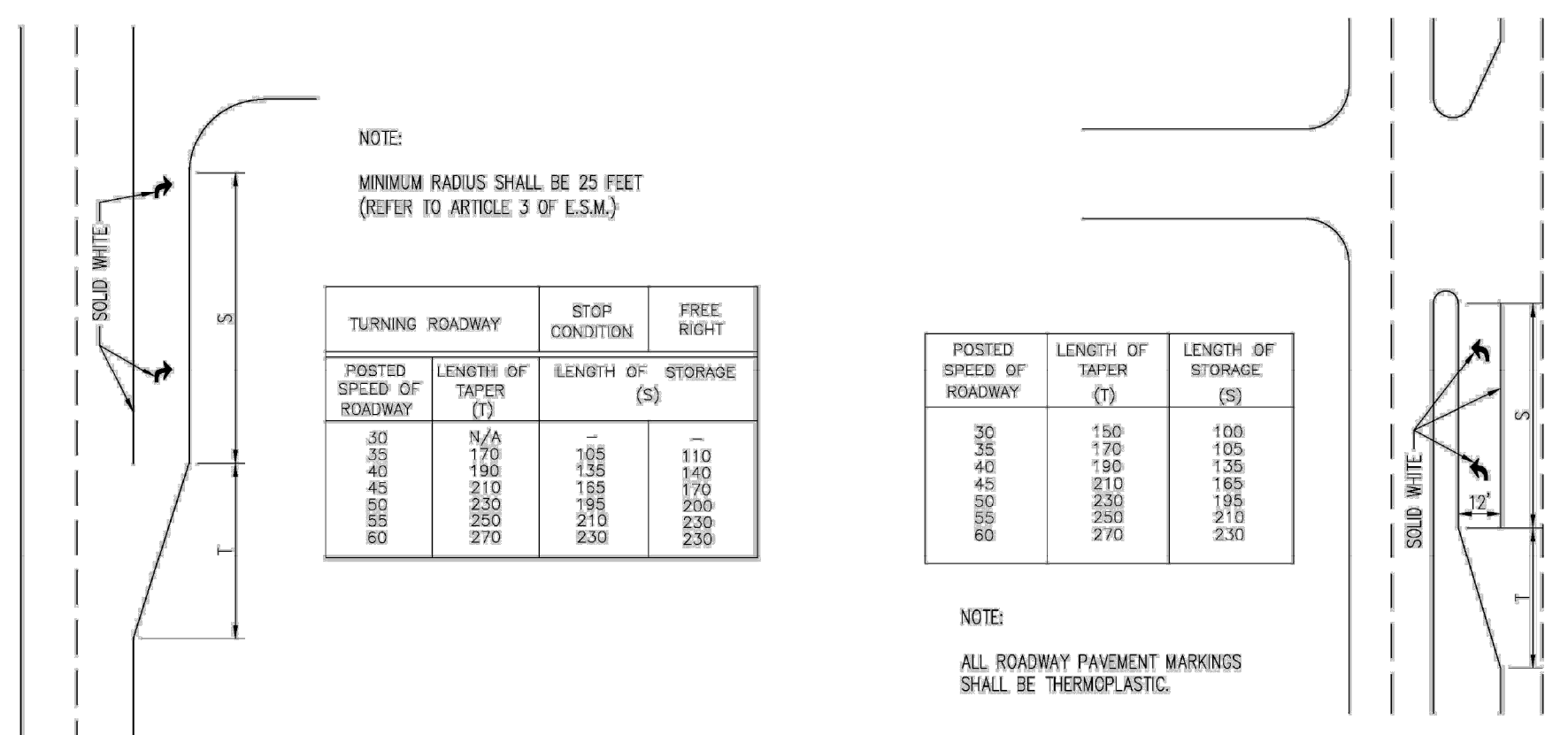
| PAVEMENT MARKING LENGTHS |      |      |      |      |
|--------------------------|------|------|------|------|
| SPEED                    | A    | B    | C    | D    |
| 40 MPH                   | 190' | 110' | 135' | 190' |
| 45 MPH                   | 210' | 140' | 165' | 210' |
| 50 MPH                   | 230' | 170' | 195' | 230' |
| 55 MPH                   | 250' | 200' | 210' | 250' |

**3 TYPICAL INTERSECTION**  
N.T.S.



- NOTES:
1. FOR TRAFFIC AND PEDESTRIAN SIGNAL INSTALLATION, REFER TO INDEX NO. 17721 THROUGH 17890.
  2. FOR PUBLIC SIDEWALK CURB RAMPS, REFER TO INDEX NO. 304.
  3. FOR PAVEMENT MARKING AND SIGN INSTALLATION REFER TO INDEX NO. 95.35 THROUGH 17356.
  4. CROSSWALK MINIMUM WIDTHS:  
INTERSECTION CROSSWALK 6'  
MID BLOCK CROSSWALK 10'

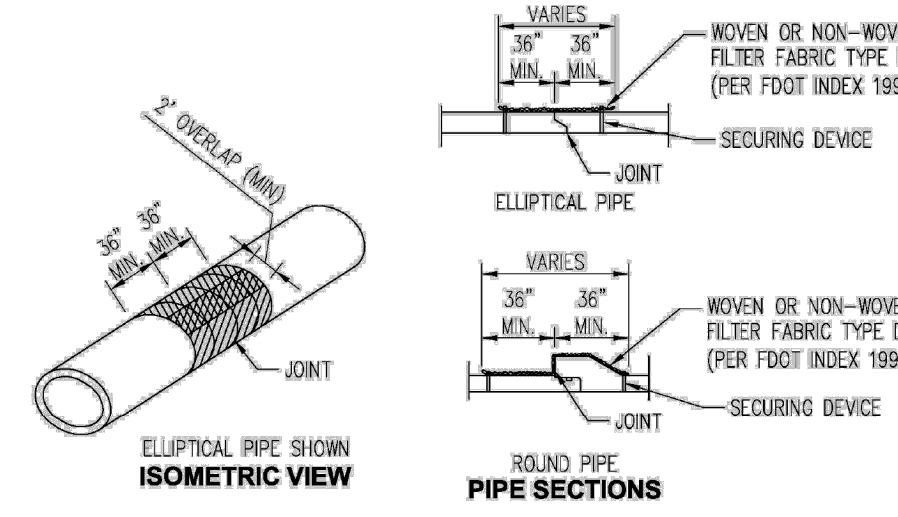
**1 TYPICAL CROSSWALK**  
N.T.S.



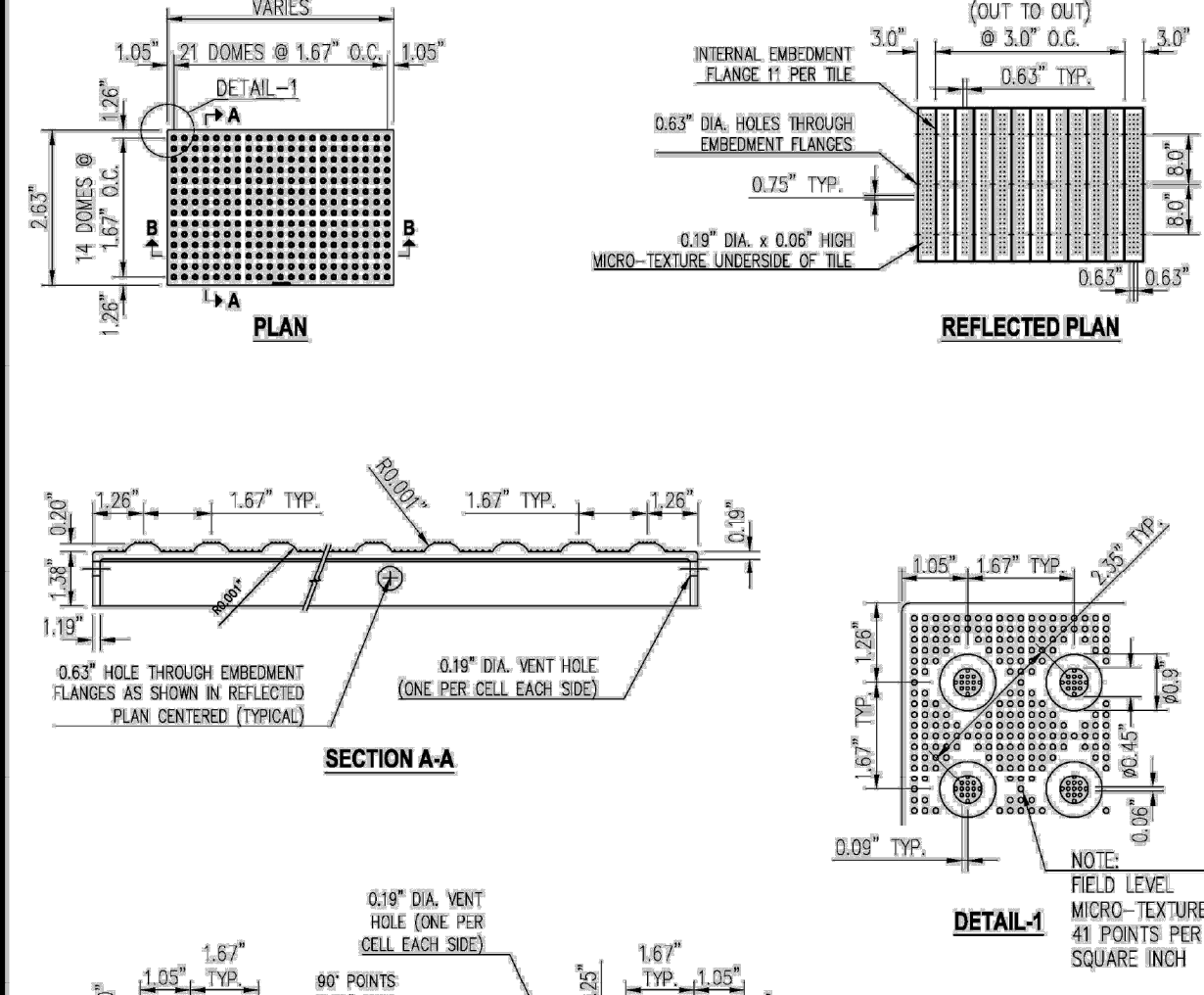
- NOTE:  
ALL ROADWAY PAVEMENT MARKINGS  
SHALL BE THERMOPLASTIC.

NOTE:  
ALL ROADWAY PAVEMENT MARKINGS  
SHALL BE THERMOPLASTIC.

**DIVIDED HIGHWAY  
LEFT TURN STORAGE LANE**  
N.T.S.



## 2 FILTER FABRIC JACKET



**8 DETECTABLE WARNING DETAIL**  
N.T.S.

- NOTE:
1. CURB RAMP DETECTABLE WARNING TILE SHALL BE ARMOR TILE OR EQUAL.
  2. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES (610 MM) FROM THE BACK OF CURB.

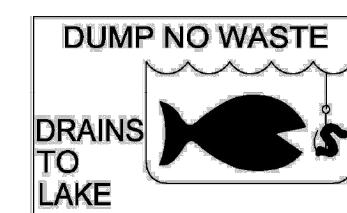
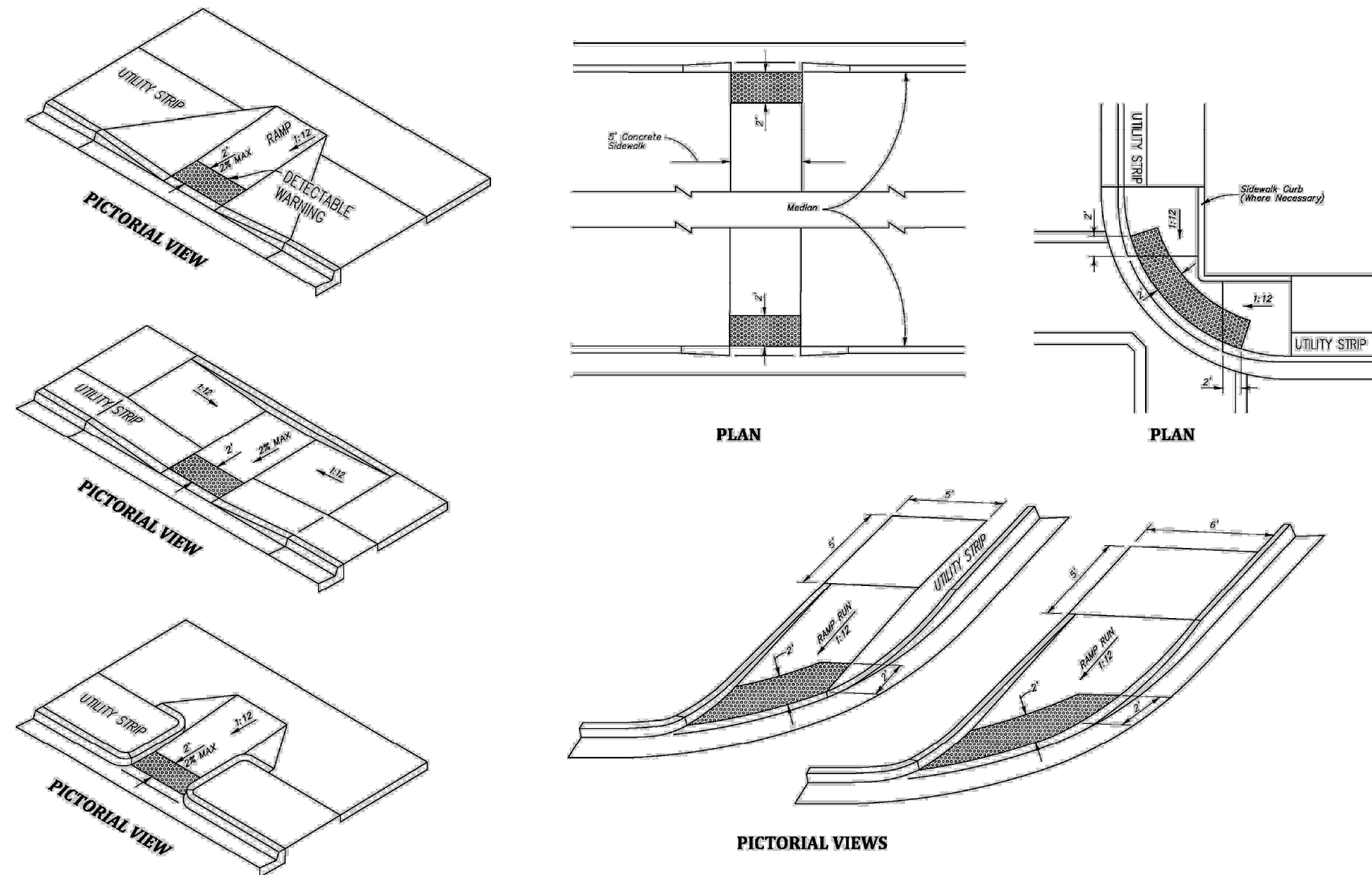


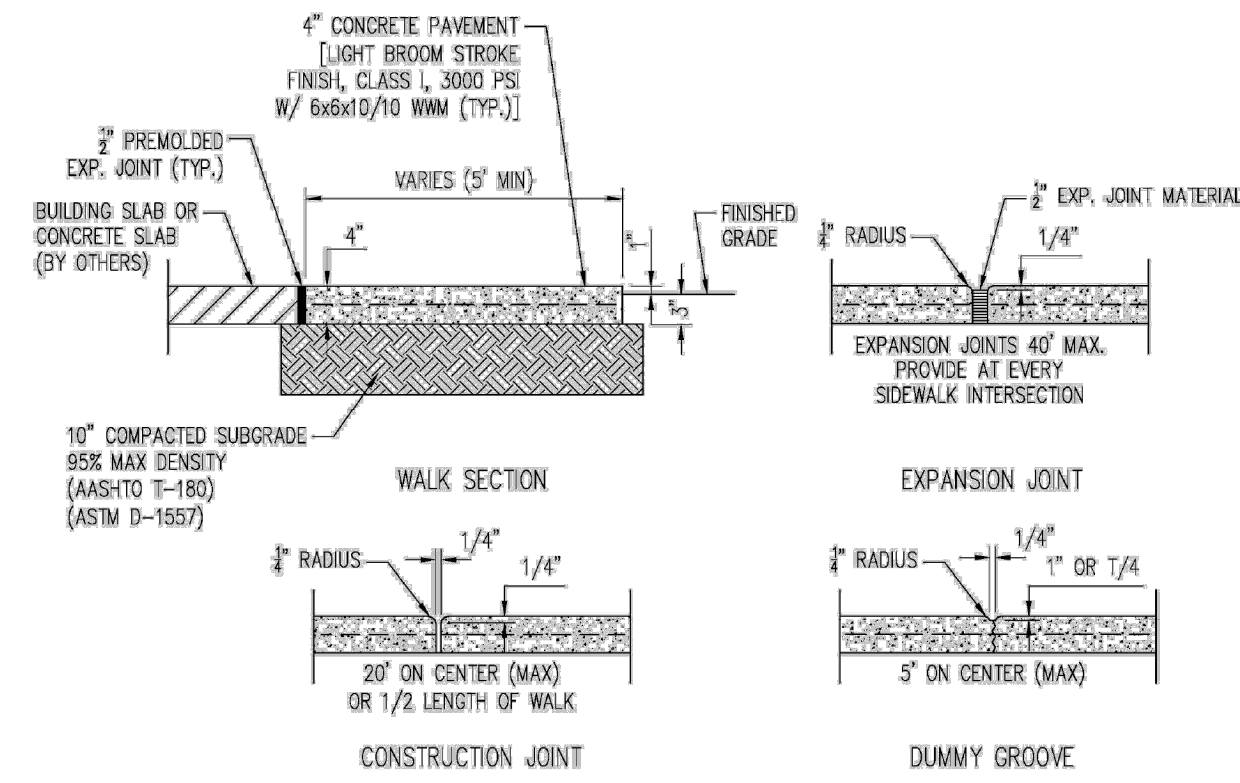
PLATE SHALL BE ADDED TO STORMWATER INLETS AS REQUIRED BY THE CITY.

WINTER GARDEN STANDARDS INCORPORATED WITH DESIGN ENGINEERS DOCUMENTS:

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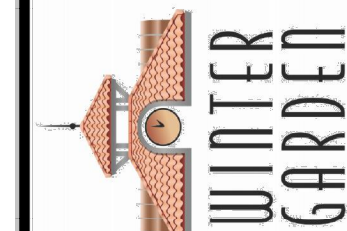
## 6 CURB RAMPS & DETECTABLE WARNING PLACEMENT



**7** **SIDEWALK DETAILS**  
N.T.S.

[illegible]

**CITY OF WINTER GARDEN, FLORIDA**  
**STANDARDS AND SPECIFICATIONS**  
**FOR ROADWAY & DRAINAGE**  
**CONSTRUCTION**



**STANDARD DETAILS**  
**FOR**  
**PUBLIC SERVICES**

DATE  
JANUARY 2024

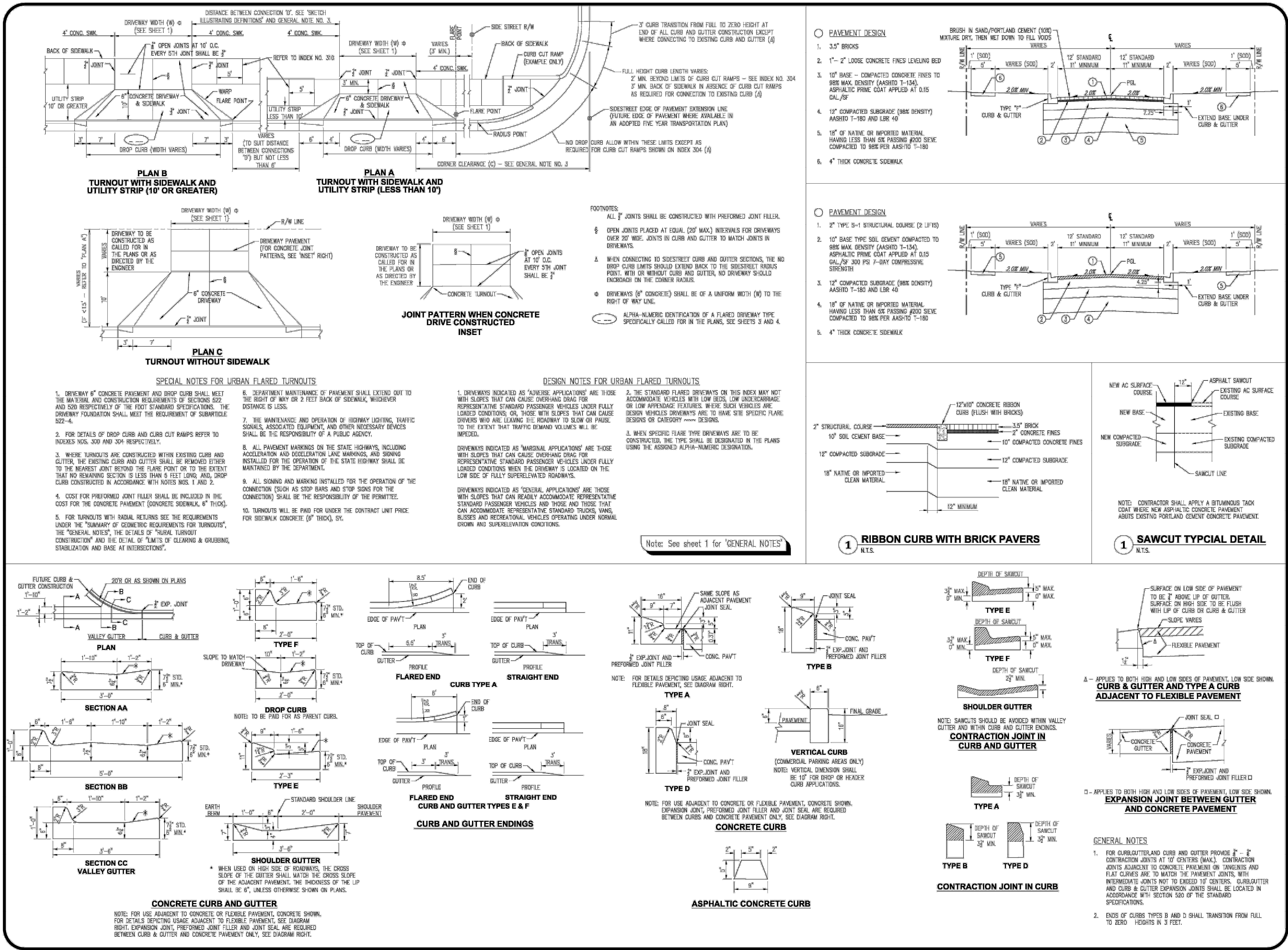
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SHEET  
**9**

9 OF 11



Plotted By: Sauer, Code Sheet Set: General RV Expansion - East, Layout: C8.4-WINTER SPRINGS DETAILS March 06, 2025 05:45:21 pm K:\ord\_civil\245836000-general rv expansion\CADD\CONSTRUCTION\sheet\sheet\c8.4-winter gardens standard details.dwg  
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| NO. | ITEM                  | DATE   |
|-----|-----------------------|--------|
| 1   | Brick Typical Section | 4/4/14 |

CITY OF WINTER GARDEN, FLORIDA  
STANDARDS AND SPECIFICATIONS  
FOR ROADWAY & DRAINAGE  
CONSTRUCTION



STANDARD DETAILS  
FOR  
PUBLIC SERVICES

|                                                        |
|--------------------------------------------------------|
| DATE<br>JANUARY 2024<br>SHEET<br><b>10</b><br>10 OF 11 |
|--------------------------------------------------------|

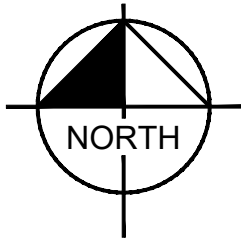
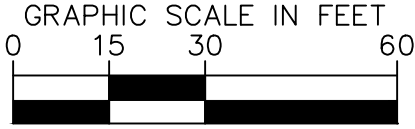
Kimley»Horn

L. JORDAN DRAPER, P.E.  
FLORIDA LICENSE NUMBER  
81928  
3/6/2025

245836000  
3/6/2025

CITY OF WINTER GARDEN  
FLORIDA



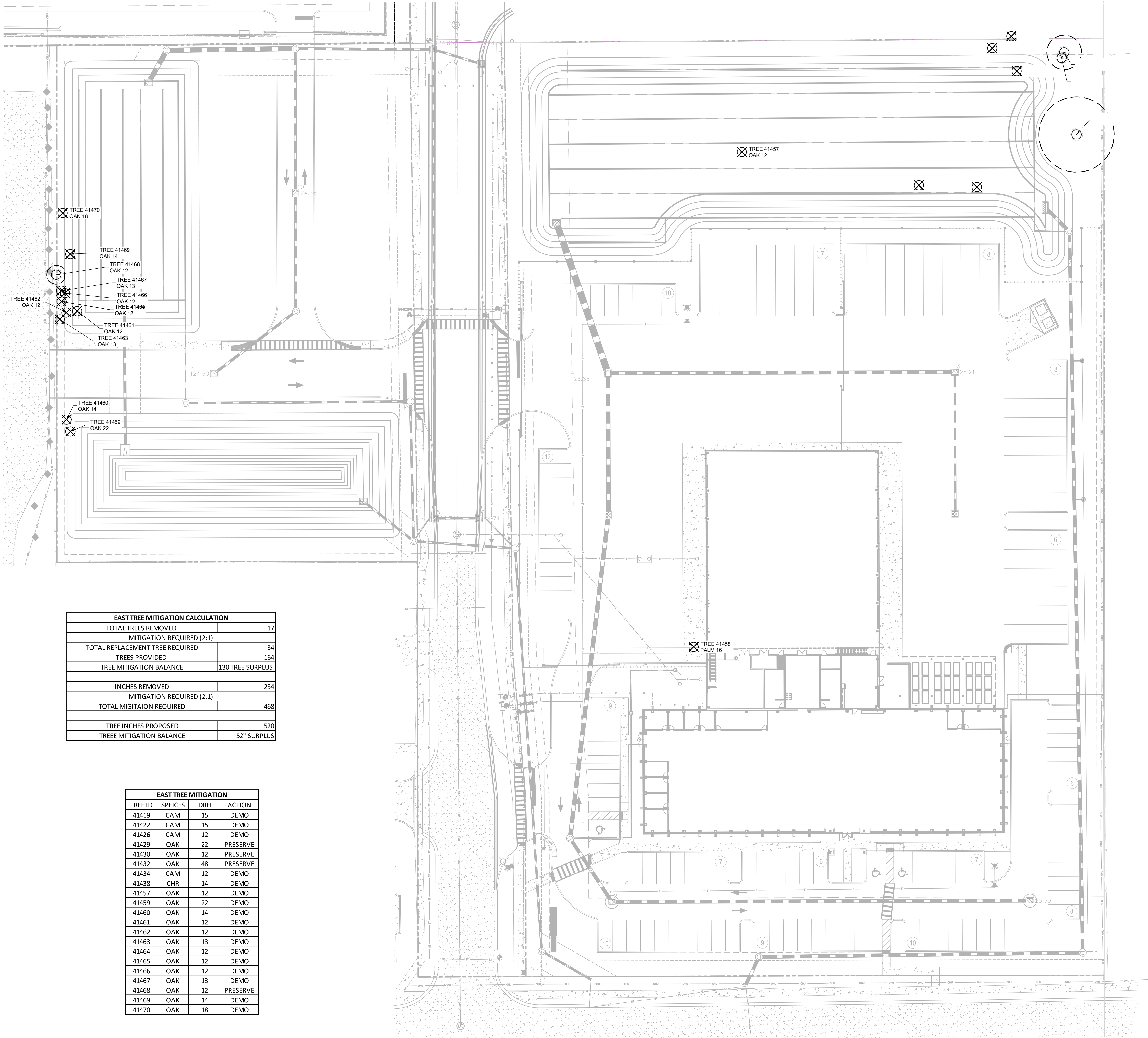


TREE PROTECTION FENCE



| EAST TREE MITIGATION CALCULATION |                  |
|----------------------------------|------------------|
| TOTAL TREES REMOVED              | 17               |
| MITIGATION REQUIRED (2:1)        |                  |
| TOTAL REPLACEMENT TREE REQUIRED  | 34               |
| TREES PROVIDED                   | 164              |
| TREE MITIGATION BALANCE          | 130 TREE SURPLUS |
|                                  |                  |
| INCHES REMOVED                   | 234              |
| MITIGATION REQUIRED (2:1)        |                  |
| TOTAL MITIGATION REQUIRED        | 468              |
|                                  |                  |
| TREE INCHES PROPOSED             | 520              |
| TREE MITIGATION BALANCE          | 52" SURPLUS      |

| EAST TREE MITIGATION |         |     |          |
|----------------------|---------|-----|----------|
| TREE ID              | SPEICES | DBH | ACTION   |
| 41419                | CAM     | 15  | DEMO     |
| 41422                | CAM     | 15  | DEMO     |
| 41426                | CAM     | 12  | DEMO     |
| 41429                | OAK     | 22  | PRESERVE |
| 41430                | OAK     | 12  | PRESERVE |
| 41432                | OAK     | 48  | PRESERVE |
| 41434                | CAM     | 12  | DEMO     |
| 41438                | CHR     | 14  | DEMO     |
| 41457                | OAK     | 12  | DEMO     |
| 41459                | OAK     | 22  | DEMO     |
| 41460                | OAK     | 14  | DEMO     |
| 41461                | OAK     | 12  | DEMO     |
| 41462                | OAK     | 12  | DEMO     |
| 41463                | OAK     | 13  | DEMO     |
| 41464                | OAK     | 12  | DEMO     |
| 41465                | OAK     | 12  | DEMO     |
| 41466                | OAK     | 12  | DEMO     |
| 41467                | OAK     | 13  | DEMO     |
| 41468                | OAK     | 12  | PRESERVE |
| 41469                | OAK     | 14  | DEMO     |
| 41470                | OAK     | 18  | DEMO     |



|           |          |     |     |     |                        |          |  |                       |         |
|-----------|----------|-----|-----|-----|------------------------|----------|--|-----------------------|---------|
| 249536000 | 4/1/2024 | SHF | SHF | MIT | FLORIDA LICENSE NUMBER | 3/6/2025 |  | CITY OF WINTER GARDEN | FLORIDA |
|           |          |     |     |     |                        |          |  |                       |         |
|           |          |     |     |     |                        |          |  |                       |         |
|           |          |     |     |     |                        |          |  |                       |         |



#### A. GENERAL

1. CONTRACTOR SHALL ADHERE TO ALL TREE PROTECTION REQUIREMENTS LISTED IN THESE SPECIFICATIONS AND/OR THOSE LISTED IN THE CITY OR COUNTY ZONING CODE, TREE PROTECTION (LATEST EDITION), WHICHEVER IS MORE STRINGENT SHALL APPLY.
2. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION PROCEDURES WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.
3. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATION MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE.
4. NO SIGNS, BUILDING PERMITS, WIRES OR OTHER ATTACHMENTS OF ANY KIND SHALL BE ATTACHED TO ANY TREE OR PALM. GUY WIRES DESIGNED TO PROTECT TREES ARE EXCLUDED FROM THIS PROHIBITION.
5. EXISTING TREE LOCATIONS AND SIZES ARE ESTIMATES AND ARE BASED ON A SURVEY PROVIDED BY THE OWNER SELECTED SURVEYOR.
6. CONTRACTOR SHALL COORDINATE TREE REMOVAL WITH PERMITTING AGENCY AND PROJECT ARBORIST PRIOR TO CONSTRUCTION AND NO PERSON MAY REMOVE OR CAUSE TO BE REMOVED ANY PROTECTED TREE OR PALM WITHOUT FIRST HAVING PROCURED A PERMIT AS PROVIDED BY THE APPROPRIATE PERMITTING AGENCY.
7. FOR PROTECTED TREES OR PALMS BEING REMOVED, THE CONTRACTOR MUST GIVE THE PERMITTING AGENCY REASONABLE OPPORTUNITY TO RELOCATE TREES DESIGNATED FOR REMOVAL TO ANOTHER SITE AT THE PERMITTING AGENCY'S EXPENSE.
8. CONTRACTOR IS RESPONSIBLE FOR POSSESSING ALL REQUIRED APPLICATOR LICENSES, BUSINESS REGISTRATIONS AND ALL SURFICIAL PESTICIDE LABELS, AND MATERIAL DATA SAFETY SHEETS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR HAVING ALL SPILL CONTAINMENT MATERIALS AND REQUIRED PERSONAL PROTECTIVE EQUIPMENT FOR PESTICIDE APPLICATIONS AND ACCIDENTAL SPILLS ON SITE AT ALL TIMES. THE OWNER RESERVES THE RIGHT TO INSPECT EACH APPLICATOR AND HAVE THESE MATERIALS PRESENTED BEFORE AND DURING ANY PESTICIDE TREATMENT.
9. WHERE TRAFFIC AREAS ARE PROPOSED WITHIN THE DRIP LINE OF PROTECTED TREES AND LESS THAN FOUR (4) INCHES OF GRADE CHANGE ARE PROPOSED, PERMEABLE SURFACES THAT ALLOW AIR AND WATER INTO THE SOIL SHOULD BE USED IN LIEU OF ASPHALT OR OTHER SUCH IMPERVIOUS SURFACES.
10. TREE WELLS OF AN APPROVED DESIGN SHALL BE CONSTRUCTED AROUND ALL TREES TO BE PRESERVED WHEN MORE THAN FOUR INCHES OF FILL IS TO BE DEPOSITED WITHIN THE DRIP LINE AREA OF THOSE TREES. COORDINATE WITH PROJECT ARBORIST.
11. THE SEQUENCE OF TREE MITIGATION AND PRESERVATION MEASURES IS IMPERATIVE TO THE HEALTH AND SURVIVABILITY OF THE URBAN TREES AND SHALL BE COORDINATED WITH THE OWNER SELECTED PROJECT ARBORIST. THE DESIRED SEQUENCE IS OUTLINED BELOW:
  - a. TREE PROTECTION FENCING.
  - b. ROOT PRUNING AND ROOT BARRIERS.
  - c. CLEARING.
  - d. TREE CANOPY PRUNING.
  - e. FERTILIZATION.
  - f. INSECTICIDE.
  - g. IRRIGATION.

## B. TREE PROTECTION FENCING

1. PRIOR TO THE ERECTION OF ANY TREE PROTECTION FENCING, ALL FOREIGN SURFACE MATERIAL, TRASH OR DEBRIS SHALL BE REMOVED FROM THE AREA TO BE ENCLOSED BY THE FENCING. AFTER ERECTION OF THE FENCING NO SUCH MATERIAL OR LITTER SHALL BE PERMITTED TO REMAIN WITHIN THE PROTECTED AREA.
2. TREE PROTECTION FENCING SHALL BE PLACED AROUND ALL PROTECTED TREES TO CREATE A PROTECTIVE ROOT ZONE AND SHALL REMAIN IN PLACE UNTIL SITE CLEARING, LAND ALTERATION, AND CONSTRUCTION ACTIVITIES ARE COMPLETE.
3. NATIVE GROUND COVER AND UNDERSTORY VEGETATION EXISTING WITHIN THE PROTECTED AREA SHALL REMAIN THROUGHOUT CONSTRUCTION. OTHER DESIGNATED VEGETATION AND INVASIVE PLANT SPECIES SHALL BE REMOVED ONLY BY MANUAL LABOR UTILIZING HAND TOOLS, OR BY OTHER METHODS APPROVED BY THE PROJECT ARBORIST.
4. TREE PROTECTION FENCING TYPES AND LOCATIONS SHALL BE ERECTED AS SHOWN ON THE TREE MITIGATION PLANS AND DETAILS OR AS REQUESTED BY LOCAL AGENCY.
5. FINAL LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE PROJECT ARBORIST.
6. NO MATERIALS, EQUIPMENT, SPOIL, WASTE OR WASHOUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN 20 FEET OF THE TREE PROTECTION ZONE.
7. EROSION CONTROL DEVICES SUCH AS SILT FENCING, DEBRIS BASINS, AND WATER DIVERSION STRUCTURES SHALL BE INSTALLED TO PREVENT SILTATION AND/OR EROSION WITHIN THE TREE PROTECTION ZONE.
8. CONSTRUCTION ACTIVITY SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROTECTED TREES. POST HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES SHALL BE ADJUSTED TO AVOID DAMAGE TO MAJOR ROOTS.
9. DO NOT INSTALL CONDUIT, DRAIN OR IRRIGATION LINES, OR ANY UTILITY LINE WITHIN THE TREE PROTECTION ZONE WITHOUT THE APPROVAL OF THE PROJECT ARBORIST. IF LINES MUST TRAVERSE THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE.
10. CONTRACTOR'S ACCESS TO FENCED TREE PROTECTION AREAS WILL BE PERMITTED ONLY WITH APPROVAL OF THE PROJECT ARBORIST.
11. EXCAVATION OR GRADING REQUIRED WITHIN THE PROTECTED AREA SHALL BE LIMITED TO THREE (3) INCHES OF CUT OR FILL. COORDINATE WITH PROJECT ARBORIST.
12. STRUCTURES AND UNDERGROUND FEATURES TO BE REMOVED WITHIN THE TREE PROTECTION ZONE SHALL BE COORDINATED WITH THE PROJECT ARBORIST.
13. TREE PROTECTION FENCING AROUND TREES TO BE RELOCATED SHALL BE ERECTED UNTIL THE TREE IS READY TO BE RELOCATED AND NEW FENCING SHALL BE ERECTED AT THE TREES NEW LOCATION AND WILL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETE.
14. IF ANY DAMAGE TO TREE PROTECTION FENCING SHOULD OCCUR BY ACCIDENT OR NEGLIGENCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE REPAIRS.
15. IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER THE PROTECTED AREA OF TREES TO BE PRESERVED, A ROAD BED OF SIX INCHES OF MULCH OR TRAVEL SHALL BE CREATED TO PROTECT THE SOIL. THE ROAD BED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A SIX (6) INCH ROAD BED AT ALL TIMES. CONTRACTOR SHALL REMOVE ALL SUCH MATERIALS FROM THE SITE AS SOON AS TEMPORARY ACCESS IS NO LONGER NECESSARY.
16. CONTRACTOR SHALL COORDINATE WITH THE PROJECT ARBORIST PRIOR TO THE REMOVAL OF ALL TREE PROTECTION FENCING.

### C. ROOT PRUNING/TRENCHING

1. TRENCHING LOCATIONS SHALL BE APPROVED IN THE FIELD BY THE PROJECT ARBORIST.
  2. TRENCHING EQUIPMENT THAT WILL TURN AT HIGH RPM'S IS PREFERRED, AND SHALL BE APPROVED BY THE PROJECT ARBORIST. APPROVED EQUIPMENT WILL BE USED TO PERFORM ALL ROOT PRUNING OPERATIONS. A MINIMUM DEPTH OF THREE FEET IS REQUIRED.
  3. INSTALL ROOT BARRIER WHERE DESIGNATED. SEE TREE MITIGATION PLAN AND DETAIL SHEETS.
  4. THE TRENCH SHALL BE BACKFILLED WITH PREVIOUSLY EXCAVATED SOIL AND COMPACTED IMMEDIATELY.
  5. TREES TO BE RELOCATED SHALL BE ROOT PRUNED A MINIMUM OF TWELVE (12) WEEKS PRIOR TO TREE RELOCATION.
  6. WHEN THE TREE ROOT ZONE WILL BE DISTURBED, AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS AT THE POIN WHERE CONSTRUCTION IMPACTS THE ROOTS.
- CLEARING
1. ANY BRUSH CLEARING REQUIRED WITHIN THE TREE PROTECTION ZONE SHALL BE ACCOMPLISHED WITH HAND-OPERATED EQUIPMENT.
  2. CONTRACTOR SHALL CLEAR ALL TREE PROTECTION AREAS OF VINES, SHRUBS, GROUND COVERS, WEEDS, SAPLINGS, AND INVASIVES LISTED ON THE LATEST EDITION OF THE FLORIDA EXOTIC PEST PLANT COUNCIL'S LIST OF INVASIVE SPECIES.
  3. PROJECT ARBORIST MUST APPROVE METHODS OTHER THAN HAND CLEARING.

4. A TWO (2) INCH LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS OF PROTECTED TREES DURING THE SITE CLEARING PHASE.

### E. TREE CANOPY PRUNING

3. TREE PRUNING SPECIFICATIONS SHALL BE DEFINED BASED ON SPECIFIC RECOMMENDATIONS OF THE PROJECT ARBORIST. INFORMATION PRESENTED BELOW SHOULD BE USED AS A GUIDELINE.
2. CONTRACTOR SHALL VISIT THE SITE WITH THE PROJECT ARBORIST TO VERIFY THE EXTENT OF REQUIRED PRUNING.
3. ALL PRUNING SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A QUALIFIED INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST OR AN AMERICAN SOCIETY OF CONSULTING ARBORISTS (ASCA) REGISTERED CONSULTING ARBORIST (RCA).
4. AT LEAST ONE MEMBER OF THE PRUNING CREW SHALL BE AN ISA CERTIFIED ARBORIST.
5. WHILE IN THE TREE, THE ARBORIST SHALL PERFORM AN AERIAL INSPECTION TO IDENTIFY DEFECTS THAT REQUIRE TREATMENT. ANY ADDITIONAL WORK NEEDED SHALL BE REPORTED TO THE OWNER.
6. PRUNING CUTS SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE ANSI A300 PRUNING STANDARD (AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS) AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI Z133.1 SAFETY STANDARD. PRUNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ISA'S "BEST MANAGEMENT PRACTICES: TREE PRUNING".
7. WHERE TEMPORARY CLEARANCE IS NEEDED FOR ACCESS, BRANCHES SHALL BE TIED BACK TO HOLD THEM OUT OF THE CLEARANCE ZONE.
8. NO MORE THAN 20 PERCENT OF LIVE FOLIAGE SHALL BE REMOVED WITHIN ANY TREE.
9. ALL TREES WITHIN THE PROJECT AREA SHALL BE PRUNED AS FOLLOWS:
  - a. LIVE BRANCH PRUNING SHOULD BE PERFORMED ONLY WHEN THE DANGER OF INSECT OR DISEASE INFESTATION IS NOT PRESENT.
  - b. REMOVE STUBS, CUTTING OUTSIDE THE WOUND WOOD TISSUE THAT HAS FORMED AROUND THE BRANCH.
  - c. CLEANING, FOR THE SELECTIVE REMOVAL OF DEAD, DISEASED, BROKEN, OR CROSSING BRANCHES DOWN TO ONE INCH IN DIAMETER OR AS DIRECTED BY THE PROJECT ARBORIST.
  - d. PRUNING CUTS LARGER THAN 4 INCHES IN DIAMETER, EXCEPT FOR DEAD WOOD, SHALL BE AVOIDED.
  - e. PRUNING CUTS THAT EXPOSE HEARTWOOD SHALL BE AVOIDED WHENEVER POSSIBLE.
  - f. ALL TREES WITH CROWNS THAT PROJECT INTO PARKING LOT/ROADWAY AREAS SHALL BE RAISED TO 14 FEET ABOVE FINISHED GRADE.
  - g. ALL TREES WITH CROWNS THAT PROJECT INTO SIDEWALK AREAS SHALL BE RAISED TO A HEIGHT OF 8 FEET ABOVE FINISHED GRADE.
9. TREES, WHOSE ROOT SYSTEMS WILL BE IMPACTED SHALL RECEIVE THE FOLLOWING PRUNING TO COMPENSATE FOR ROOT LOSS:
  - a. THE LOCATION AND SIZE OF BRANCHES FOR REDUCTION SHALL BE DEFINED BY THE PROJECT ARBORIST.
  - b. REDUCTION, OR THE SELECTIVE PRUNING TO REDUCE TREE HEIGHT OR SPREAD.
  - c. REDUCE END WEIGHT ON HEAVY, HORIZONTAL BRANCHES BY SELECTIVELY REMOVING SMALL DIAMETER BRANCHES, NO GREATER THAN 2 TO 3 INCHES, NEAR THE ENDS OF SCAFFOLD BRANCHES.
  - d. RAISING SHALL CONSIST OF SELECTIVE PRUNING TO PROVIDE VERTICAL CLEARANCE.
10. PROPOSED/REPLACEMENT TREES
  - a. PRUNING SHALL BE LIMITED TO CLEANING.
11. BRUSH SHALL BE CHIPPED AND SPREAD (ONLY WHEN DISEASE OR INSECT INFESTATION IS NOT PRESENT) UNDERNEATH TREES WITHIN THE TREE PROTECTION ZONE TO A MAXIMUM DEPTH OF THREE (3) INCHES, LEAVING THE TRUNK CLEAR OF MULCH.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EXCESS DEBRIS ON A DAILY BASIS.

## F. FERTILIZATION

1. CONTRACTOR SHALL COORDINATE FERTILIZATION PLAN, FOLLOWING BEST MANAGEMENT PRACTICES WITH THE PROJECT ARBORIST PRIOR TO COMMENCEMENT OF WORK.
2. EVERY EFFORT SHALL BE MADE TO UTILIZE CHEMICALS OF AN ORGANIC OR BIODEGRADABLE NATURE IN ORDER TO OFFER THE LEAST IMPACT TO THE NATURAL ENVIRONMENT. CONTRACTOR IS RESPONSIBLE FOR MIXING, APPLYING, AND DISPOSAL OF ALL CHEMICALS IN ACCORDANCE WITH STRICT ADHERENCE TO MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH PROJECT ARBORIST FOR FURTHER INSTRUCTION.
3. ONLY TREES AFFECTED BY CONSTRUCTION OR AS SHOWN ON THE TREE MITIGATION PLAN AND TREE INVENTORY SCHEDULE SHALL BE TREATED.
4. TREES SPECIFIED TO RECEIVE FERTILIZER SHALL BE TREATED AS FOLLOWS.
  - a. MIX FERTILIZER ACCORDING TO MANUFACTURER'S SPECIFICATIONS INTO A TANK WITH AGITATION CAPABILITY.
  - b. MIX WETTING AGENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS INTO SAME TANK WITH FERTILIZER. AGITATE MIX.
  - c. INJECT THE MIXTURE WITH A HYDRAULIC INJECTION SYSTEM INTO THE UPPER 6-12 INCHES OF SOIL WITH A SOIL PROBE. INJECT AT THE RATE OF ONE THIRD (1/3) GALLON AT EACH INJECTION SITE.
  - d. THE CRITICAL ROOT ZONE AREA PLUS 2' BEYOND THE CRITICAL ROOT ZONE SHALL BE INJECTED, BUT NOT BEYOND ROOT PRUNING LOCATIONS.
  - e. FERTILIZER SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF ANY AERATION SYSTEMS.
  - f. EMPTY PRODUCT CONTAINERS SHALL BE STOCKPILED FOR INSPECTION BY THE PROJECT ARBORIST PRIOR TO DISPOSAL.

### G. INSECTICIDE

7. NOTIFY PROJECT ARBORIST IF ANY INFESTATION IS NOTICED.
8. FOLLOW PROJECT ARBORIST'S RECOMMENDED PROCEDURES.
9. FOLLOW ALL MANUFACTURERS' RECOMMENDATIONS CONCERNING APPLICATION. READ ALL WARNING LABELS.
10. ANY PETS, AS WELL AS, THE PETS FOOD AND WATER BOWLS SHOULD BE REMOVED FROM THE AREA AND ANY SWIMMING POOLS SHOULD BE COVERED. COORDINATE WITH PROJECT ARBORIST FOR FURTHER INSTRUCTION.
11. ENSURE COMPLETE COVERAGE AND REAPPLY 2-3 MONTHS AFTER INITIAL APPLICATION UTILIZING SAME PROCEDURE.

## H. IRRIGATION

1. EVERY EFFORT SHALL BE MADE TO WATER THE PRESERVED TREES AND TRANSPLANTS. CONTRACTOR SHALL IRRIGATE BY HAND OR BY TEMPORARY IRRIGATION.
2. IRRIGATE AS REQUIRED BY PROJECT ARBORIST UNTIL PERMANENT IRRIGATION IS INSTALLED AND OPERATING.
3. UNDERGROUND IRRIGATION SHALL NOT BE INSTALLED WITHIN THE DRIP LINES OF EXISTING TREES UNLESS ROOT PROTECTION MEASURES ARE PROVIDED AND APPROVED BY PROJECT ARBORIST.

## I. TREE REMOVALS

1. PRIOR TO AND DURING LAND CLEARING, INCLUDING GRUBBING, ALL TREES TO BE REMOVED SHALL BE CLEARLY MARKED BY PROJECT ARBORIST WITH RED SURVEY RIBBONS AT 36 INCHES MINIMUM ABOVE GROUND.
2. CONTRACTOR SHALL REMOVE ALL TREES AS SHOWN ON THE TREE MITIGATION PLANS AFTER THE TREE PROTECTION FENCING IS INSTALLED.
3. ALL TREES SHOWN TO BE REMOVED SHALL BE FELLED WITH A CHAIN SAW AND STUMP GROUND 6" BELOW SURFACE. ANY TREE SHOWN TO BE REMOVED THAT IS IN AN AREA WHERE COMPACTION IS CRITICAL, SHALL BE FELLED WITH A CHAIN SAW AND STUMP REMOVED BY CONTRACTOR.
4. ALL WOOD AND STUMPS FROM REMOVALS SHALL BE HAULED FROM THE SITE THE SAME DAY, EXCEPT FOR TOPS. ALL TOPS ARE TO BE MULCHED AND STOCKPILED OR HAULED DIRECTLY TO MULCHED AREAS FOR RELOCATED TREES IF SCHEDULING PERMITS. TOPS

SHALL BE CHIPPED AND PLACED IN THE TREE PROTECTION ZONE TO A DEPTH OF THREE (3) INCHES. ALL EXCESS WOOD CHIPS SHOULD BE HAULED OFF SITE AFTER TRANSPLANTING IS COMPLETE.

5. ALL BURN PITS IF APPLICABLE MUST BE APPROVED BY THE PROJECT ARBORIST AND OWNER

6. TREES TO BE REMOVED THAT HAVE BRANCHES EXTENDING INTO THE CANOPY OF TREES TO REMAIN MUST BE REMOVED BY A QUALIFIED ISA CERTIFIED ARBORIST AND NOT BY DEMOLITION OR CONSTRUCTION CONTRACTORS. THE QUALIFIED ARBORIST SHALL REMOVE THE TREE IN A MANNER THAT CAUSES NO DAMAGE TO THE TREES AND UNDERSTORY VEGETATION TO REMAIN.

7. TREES TO BE REMOVED LOCATED WITHIN THE TREE PROTECTION ZONE SHALL BE REMOVED BY A QUALIFIED ISA CERTIFIED ARBORIST. THE TREES SHALL BE CUT NEAR GROUND LEVEL AND THE STUMP GROUND OUT.

L. TOPSOIL

10. CONTRACTOR SHALL COORDINATE ALL EARTHWORK OPERATIONS WITHIN TREE PROTECTION AREAS WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.
11. ALL TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL, POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH.
12. TOPSOIL, SHIF RANGE OF 5.5 TO 7.0, 3-5 PERCENT ORGANIC MATERIAL MINIMUM, FREE FROM SUBSOL, OBJECTIONABLE WEEDS, LITTER, SODS, STIFF CLAY, STONES LARGER THAN ONE (1) INCH IN DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES, ANY OTHER MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH.
13. VERIFY AMOUNT STOCKPILED IF ANY, AND SUPPLY ADDITIONAL, AS NEEDED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST FOUR (4) INCHES DEEP. DO NOT OBTAIN TOPSOIL FROM BOGS OR MARSHES.
14. PROJECT ARBORIST SHALL APPROVE ALL TOPSOIL PRIOR TO PLACEMENT.

M. REPAIR OF DAMAGED TREES

1. IF DAMAGE TO ANY TREE SHOULD OCCUR BY ACCIDENT OR NEGLIGENCE DURING THE CONSTRUCTION PERIOD, THE PROJECT ARBORIST SHALL APPRAISE THE DAMAGE AND MAKE RECOMMENDATIONS TO THE OWNER FOR REPAIR BY THE CONTRACTOR.
2. IF ANY TREE DESIGNATED TO BE SAVED IS REMOVED FROM THE SITE WITHOUT PERMISSION OF THE OWNER'S REPRESENTATIVE, THE PROJECT ARBORIST SHALL APPRAISE THE TREE AND MAKE RECOMMENDATIONS TO THE OWNER FOR REPLACEMENT BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE TREE AND ANY FEES THAT MAY BE ASSESSED TO THE OWNER BY THE GOVERNING AGENCY.

**Kimley»»Horn**

FLORIDA LICENSE NUMBER

3/6/2025

249536000

4/1/2024

FHS

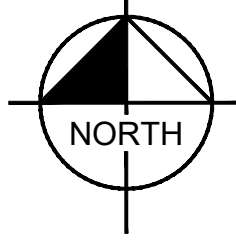
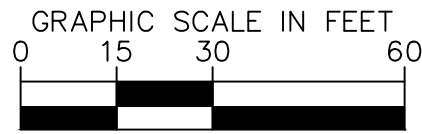
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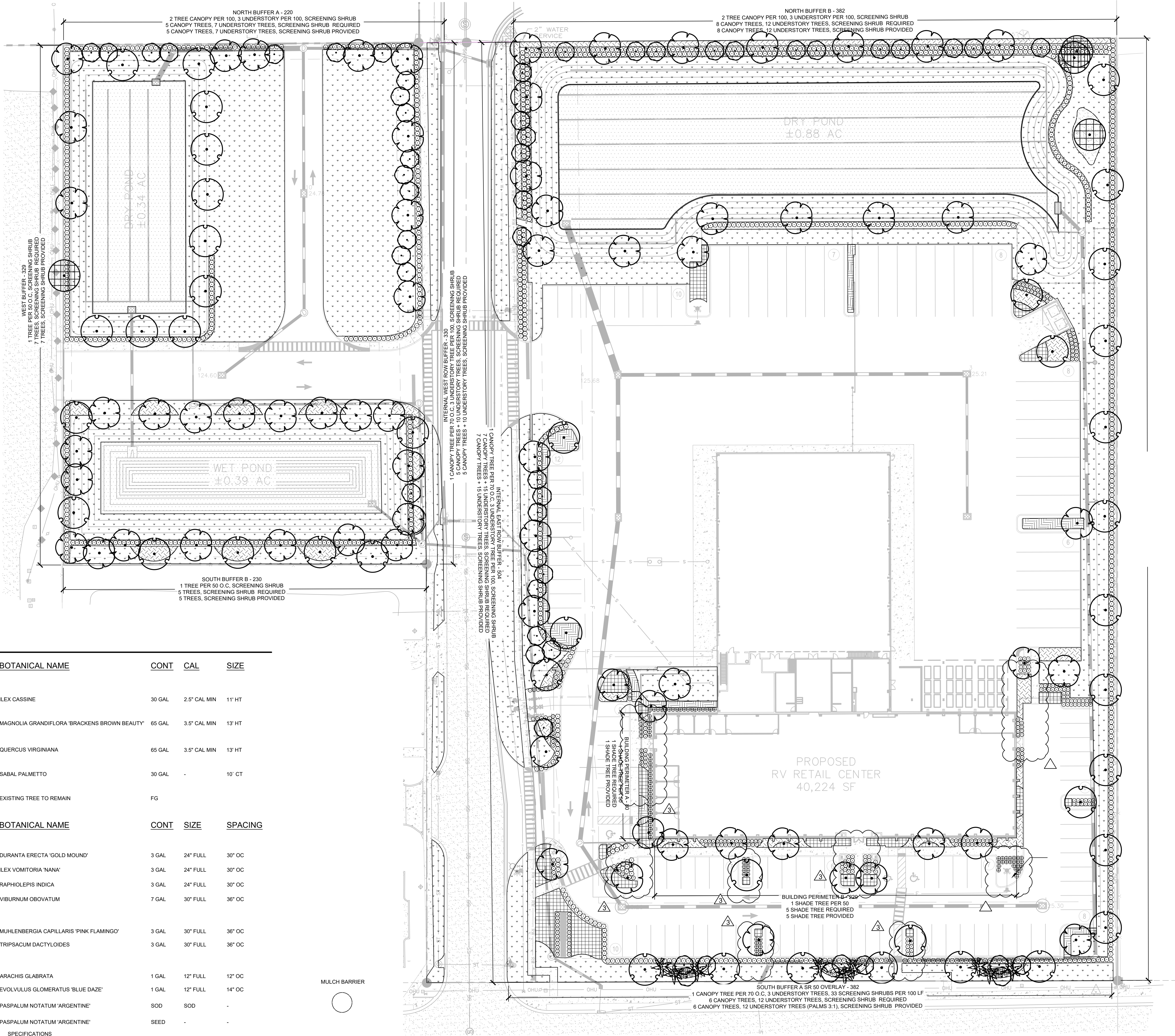
CITY OF WINTER GARDEN





## PLANT SCHEDULE

| SYMBOL        | CODE                  | QTY        | COMMON NAME                                                                             | BOTANICAL NAME                                                    | CONT   | CAL          | SIZE    |
|---------------|-----------------------|------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------|--------------|---------|
| TREES         |                       |            |                                                                                         |                                                                   |        |              |         |
|               | IC                    | 54         | DAHOON HOLLY<br>FL #1, FULL, STRAIGHT                                                   | ILEX CASSINE                                                      | 30 GAL | 2.5" CAL MIN | 11' HT  |
|               | MB                    | 43         | BRACKEN'S BEAUTY SOUTHERN MAGNOLIA<br>FL #1, FULL, STRAIGHT, SINGLE LEADER              | MAGNOLIA GRANDIFLORA 'BRACKENS BROWN BEAUTY'                      | 65 GAL | 3.5" CAL MIN | 13' HT  |
|               | QV                    | 68         | SOUTHERN LIVE OAK<br>FL #1, FULL, STRAIGHT, SINGLE LEADER                               | QUERCUS VIRGINIANA                                                | 65 GAL | 3.5" CAL MIN | 13' HT  |
|               | SS                    | 9          | CABBAGE PALMETTO<br>FL #1, STRAIGHT, SINGLE LEADER                                      | SABAL PALMETTO                                                    | 30 GAL | -            | 10' CT  |
|               | XI                    | 4          | EXISTING TREE TO REMAIN<br>CONTRACTOR RESPONSIBLE FOR ANY<br>DAMAGE DURING CONSTRUCTION | EXISTING TREE TO REMAIN                                           | FG     |              |         |
| SYMBOL        | CODE                  | QTY        | COMMON NAME                                                                             | BOTANICAL NAME                                                    | CONT   | SIZE         | SPACING |
| SHRUBS        |                       |            |                                                                                         |                                                                   |        |              |         |
|               | DE                    | 214        | GOLD MOUND DEWDROPS<br>FL #1, FULL                                                      | DURANTA ERECTA 'GOLD MOUND'                                       | 3 GAL  | 24" FULL     | 30" OC  |
|               | IN                    | 101        | DWARF YAUPOH HOLLY<br>FL #1, FULL                                                       | ILEX VOMITORIA 'NANA'                                             | 3 GAL  | 24" FULL     | 30" OC  |
|               | RI                    | 119        | INDIAN HAWTHORNE<br>FL #1, FULL                                                         | RAPHIOLEPIS INDICA                                                | 3 GAL  | 24" FULL     | 30" OC  |
|               | VO                    | 1,294      | WALTER'S VIBURNUM<br>FL #1, FULL                                                        | VIBURNUM OBOVATUM                                                 | 7 GAL  | 30" FULL     | 36" OC  |
| SHRUB AREAS   |                       |            |                                                                                         |                                                                   |        |              |         |
|               | MR                    | 4,301      | PINK FLAMINGO MUHLY GRASS<br>FL #1, FULL                                                | MUHLENBERGIA CAPILLARIS 'PINK FLAMINGO'                           | 3 GAL  | 30" FULL     | 36" OC  |
|               | TF                    | 608        | FAKAHATCHEE GRASS<br>FL #1, FULL                                                        | TRIPSACUM DACTYLOIDES                                             | 3 GAL  | 30" FULL     | 36" OC  |
| GROUND COVERS |                       |            |                                                                                         |                                                                   |        |              |         |
|               | AG                    | 1,882      | PERENNIAL PEANUT<br>FL #1, FULL                                                         | ARACHIS GLABRATA                                                  | 1 GAL  | 12" FULL     | 12" OC  |
|               | EB                    | 2,367      | BRAZILIAN DWARF MORNING GLORY<br>FL #1, FULL                                            | EVOLVULUS GLOMERATUS 'BLUE DAZE'                                  | 1 GAL  | 12" FULL     | 14" OC  |
|               | PA                    | 92,766 SF  | ARGENTINE BAHIA GRASS<br>ROLLED TIGHT, 100% INSECT, WEED,<br>DIEASE, DEBRIS FREE        | PASPALUM NOTATUM 'ARGENTINE'                                      | SOD    | SOD          | -       |
|               | PA2                   | 39,450 SF  | ARGENTINE BAHIA GRASS                                                                   | PASPALUM NOTATUM 'ARGENTINE'                                      | SEED   | -            | -       |
| MISC.         |                       |            |                                                                                         |                                                                   |        |              |         |
| QTY           | BOTANICAL/COMMON NAME |            |                                                                                         | SPECIFICATIONS                                                    |        |              |         |
| MULCH         | TBD                   | ROCK MULCH |                                                                                         | 3" DEPTH MINIMUM, SHREDDED, FREE OF WEEDS/INVASIVE PLANT MATERIAL |        |              |         |

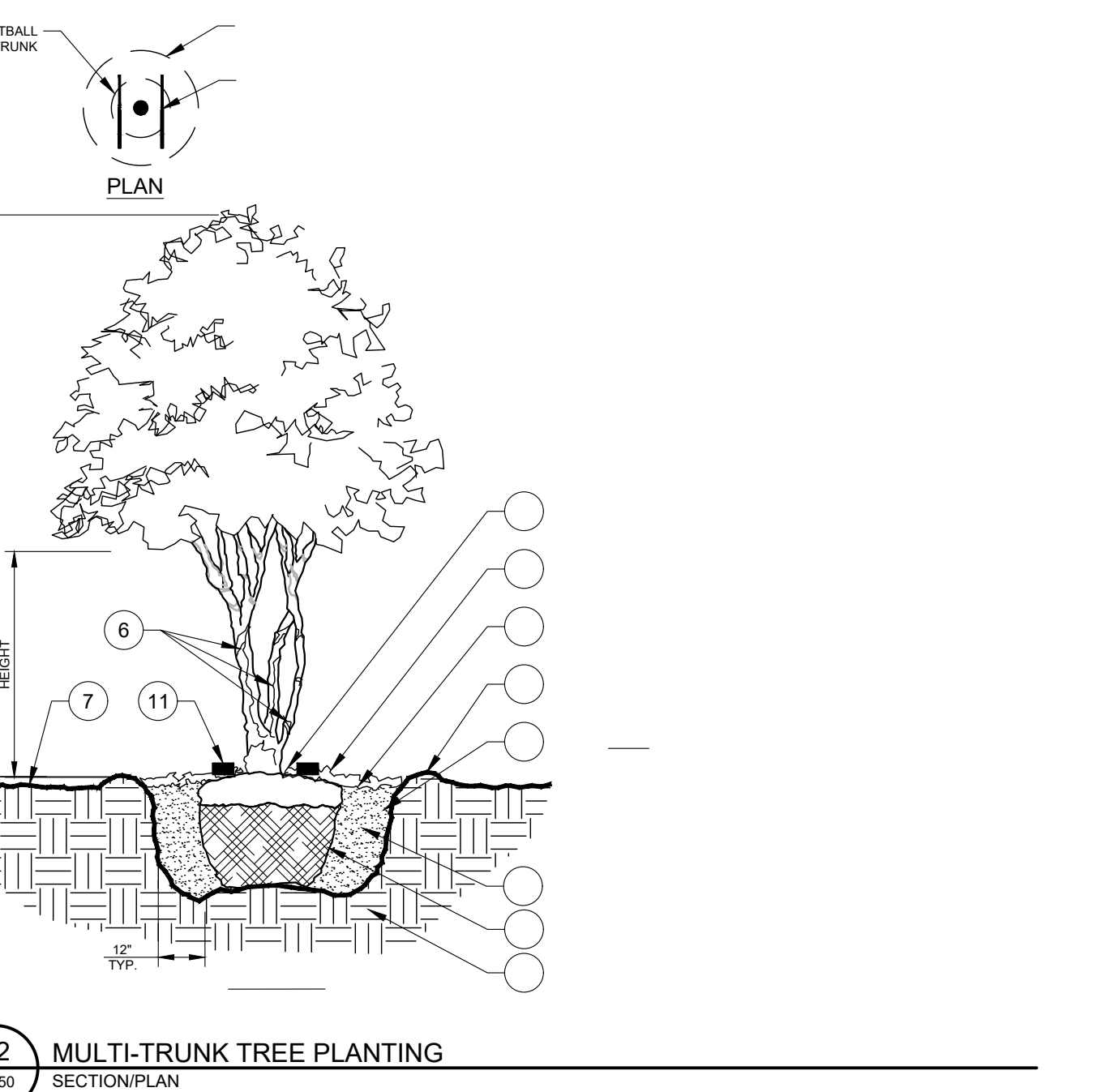
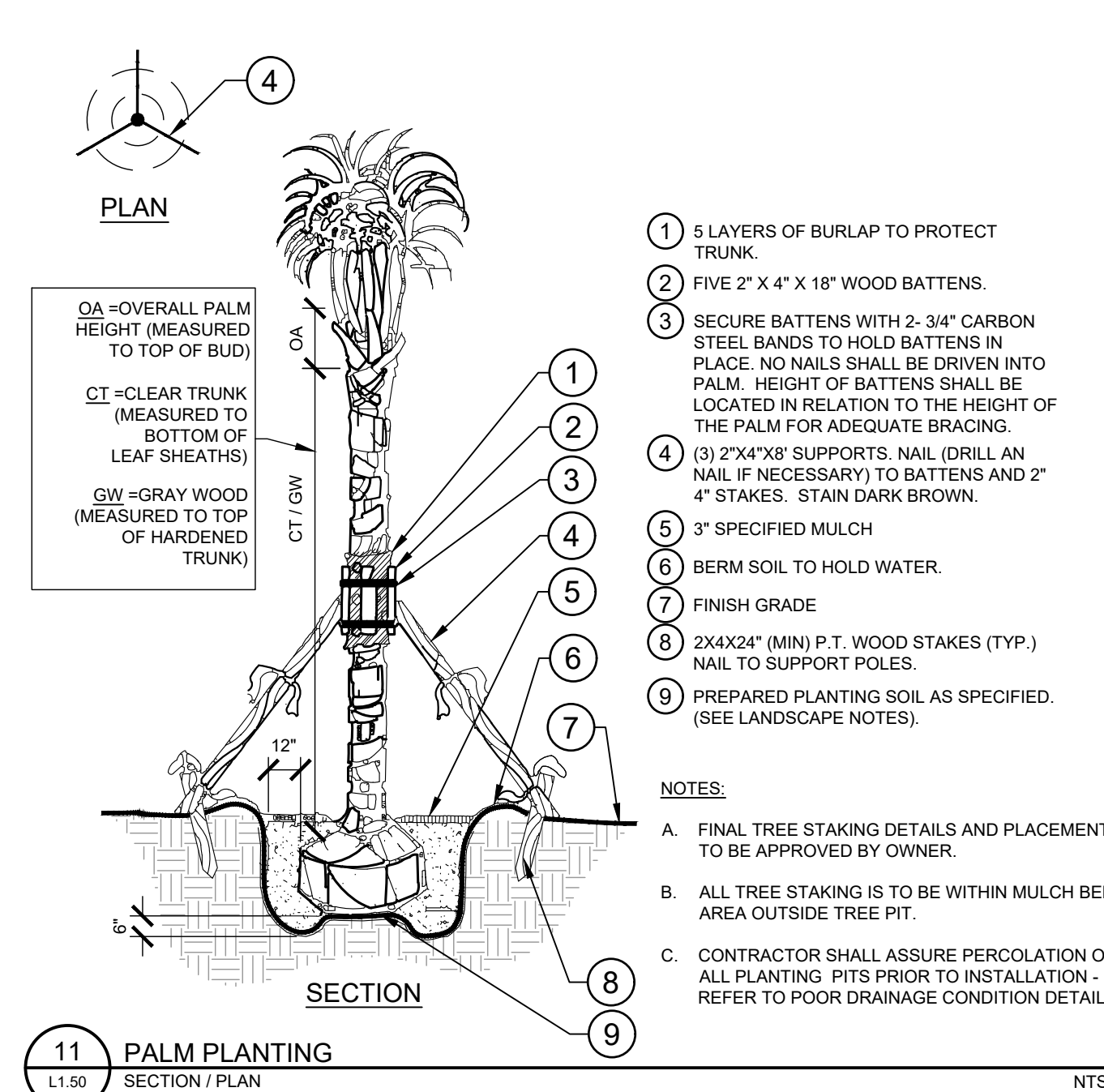
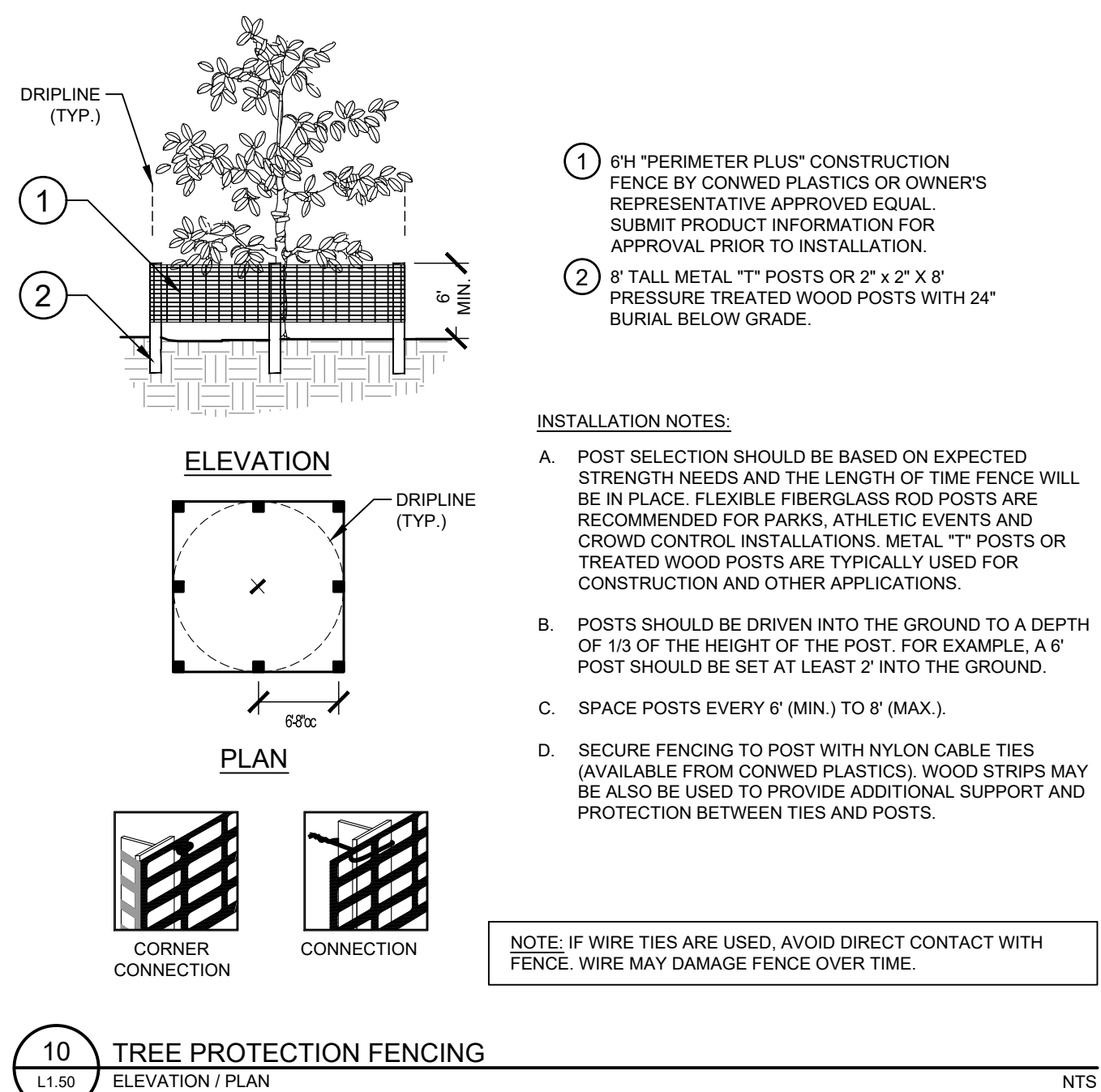
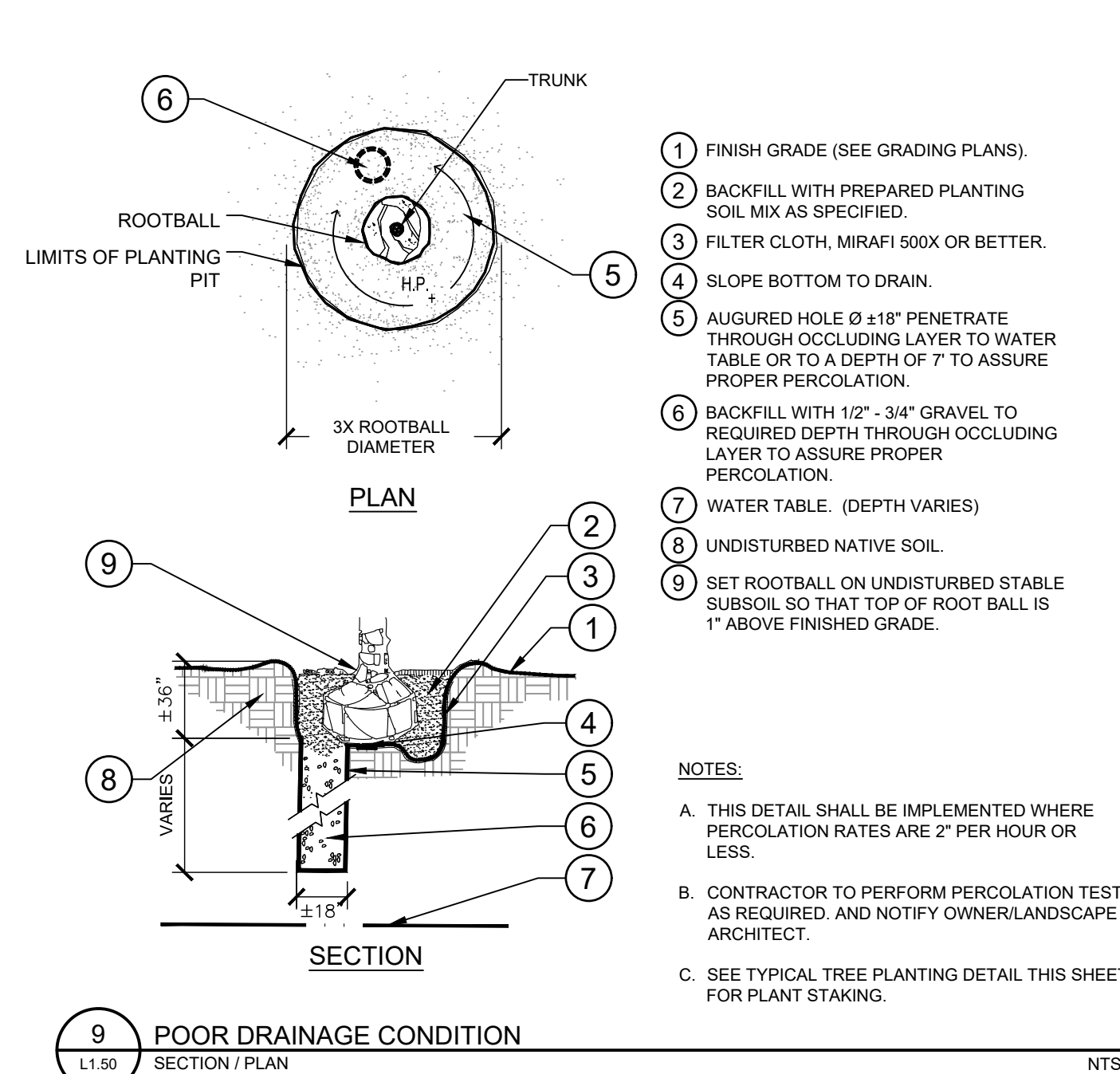
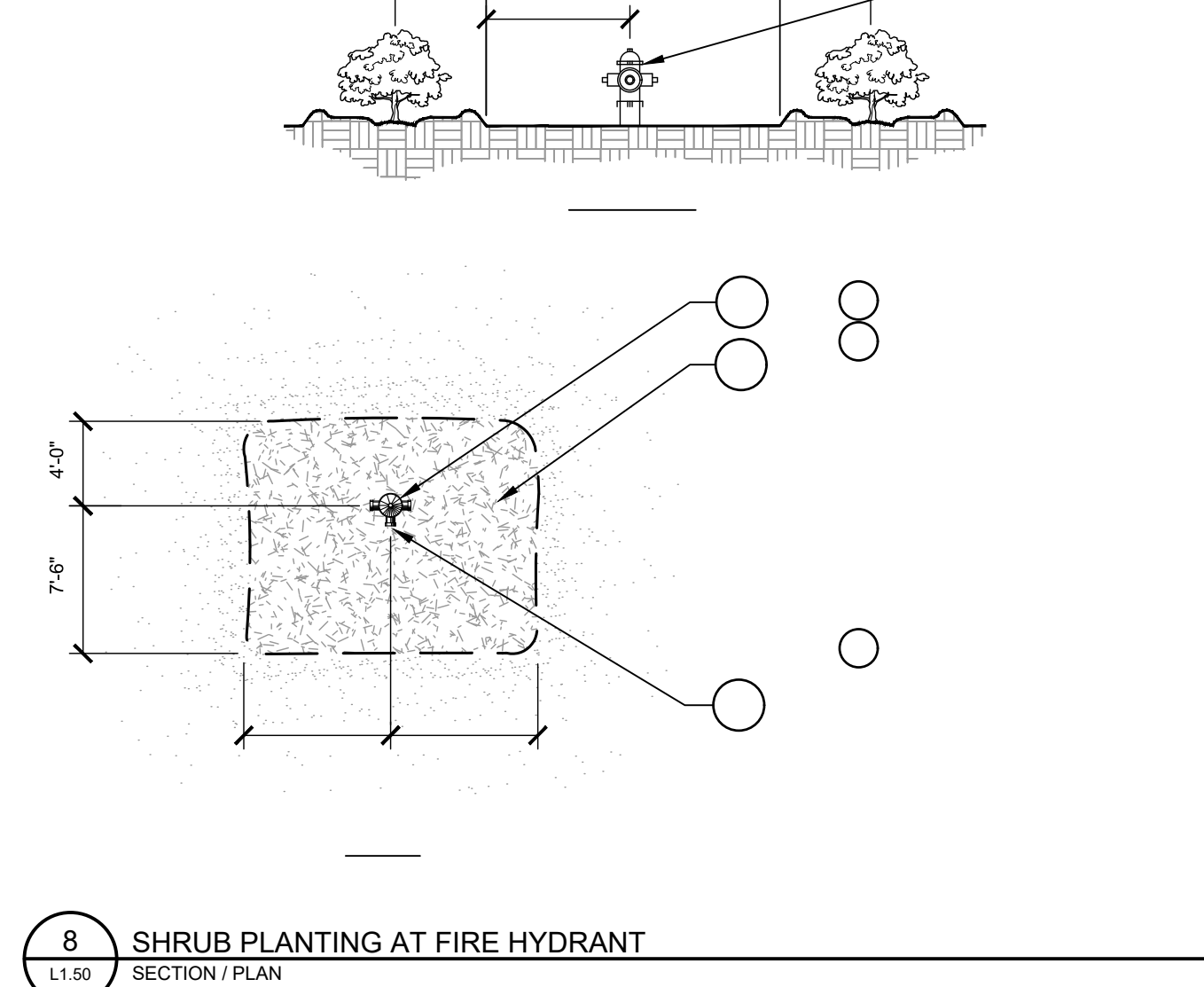
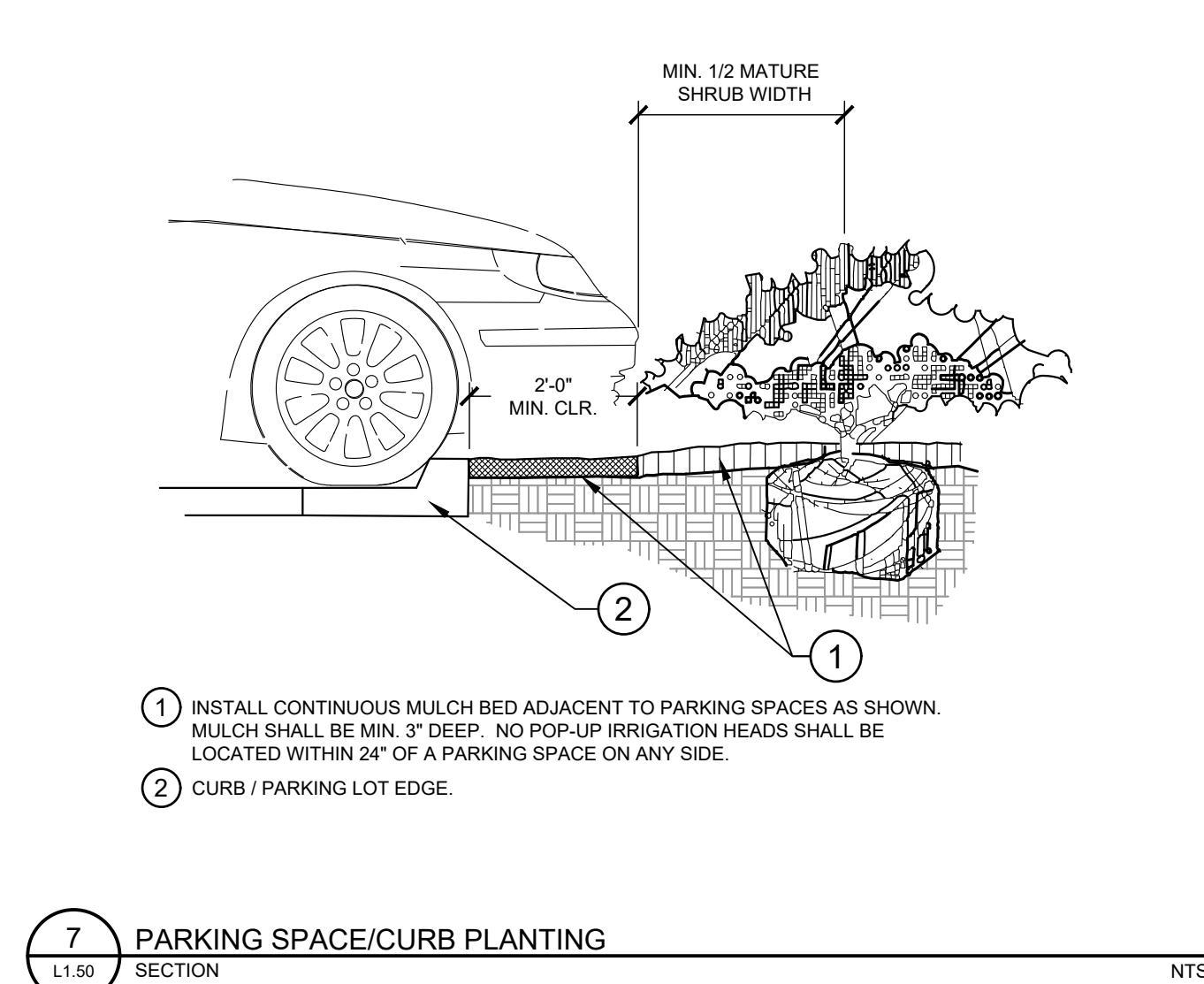
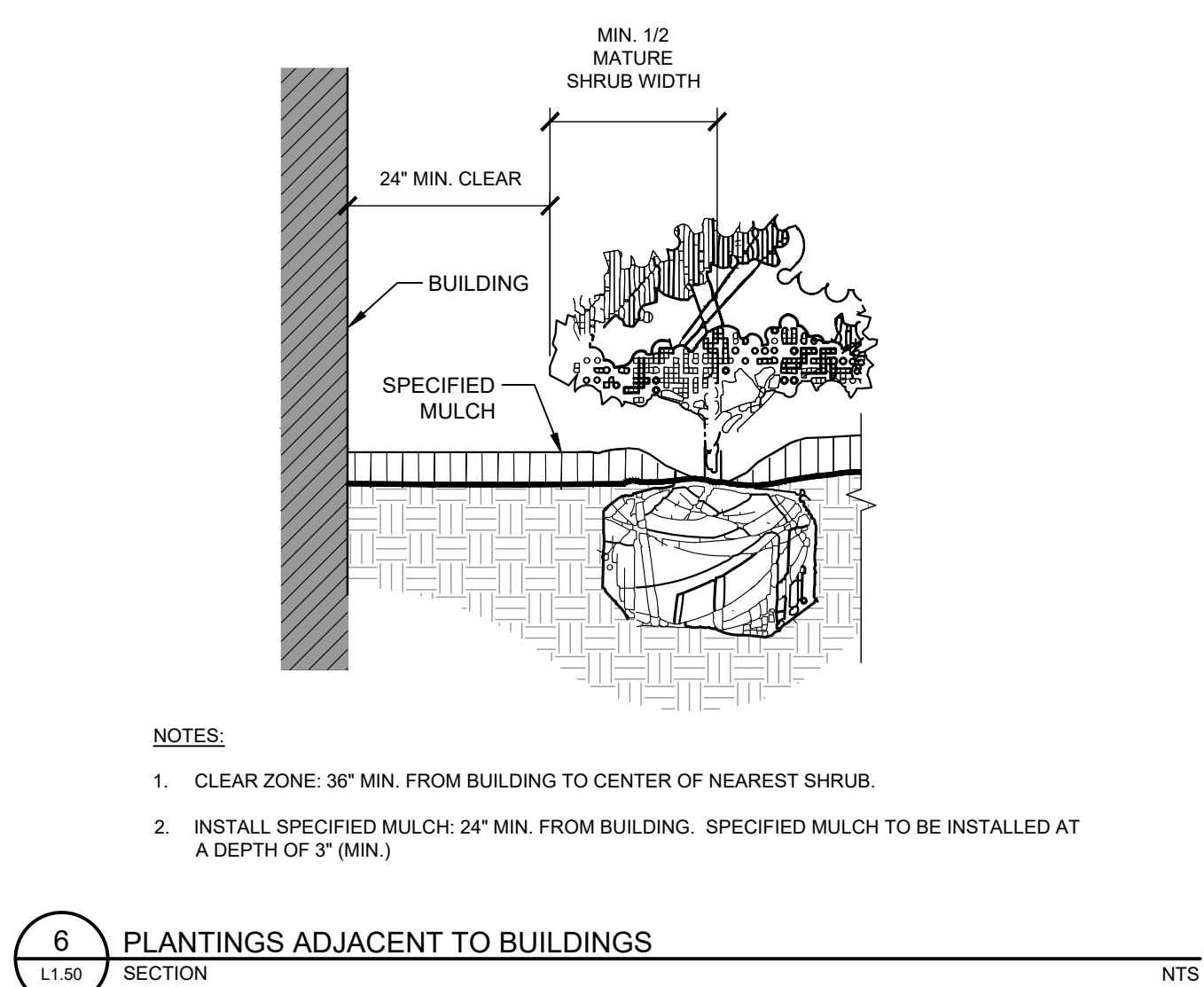
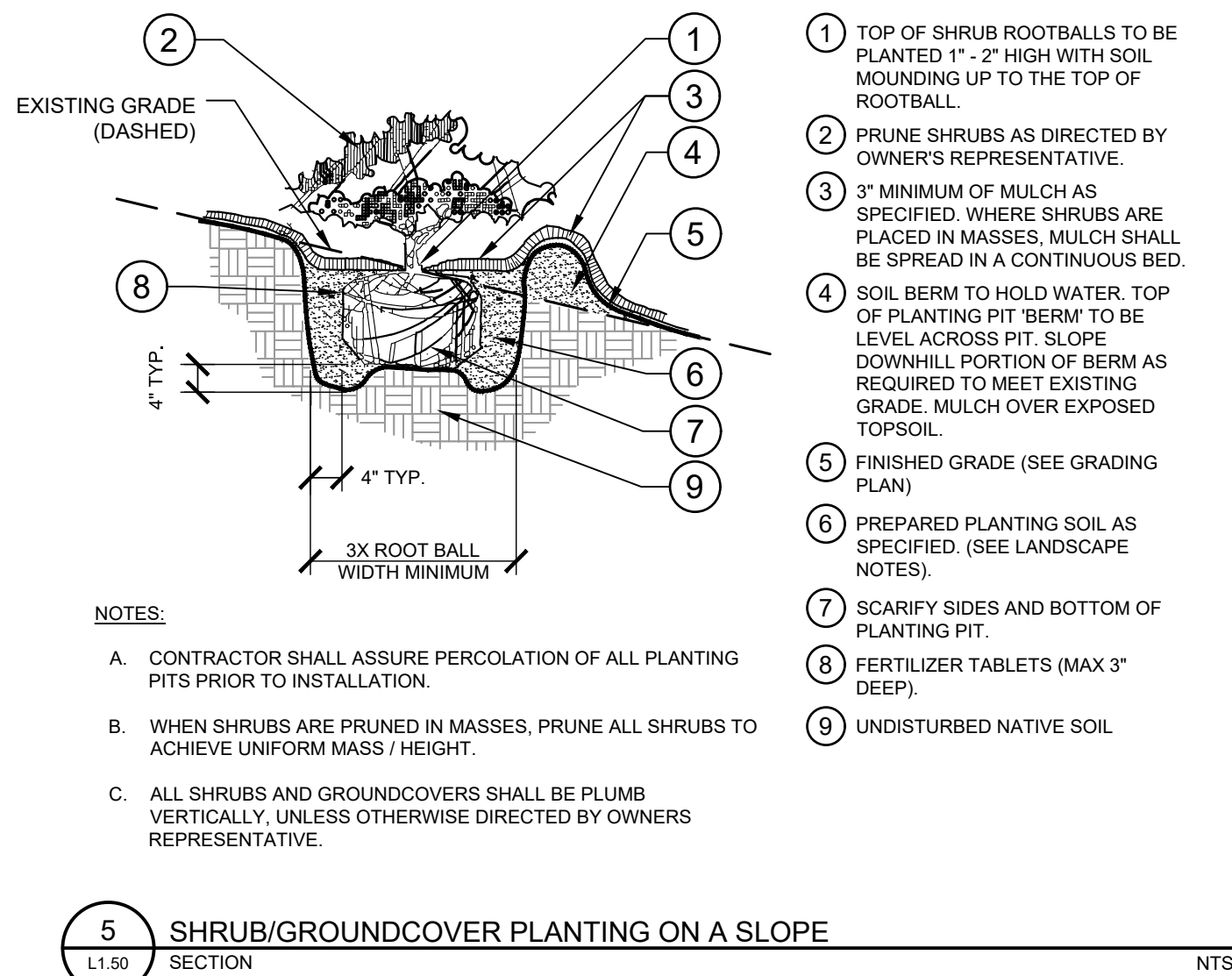
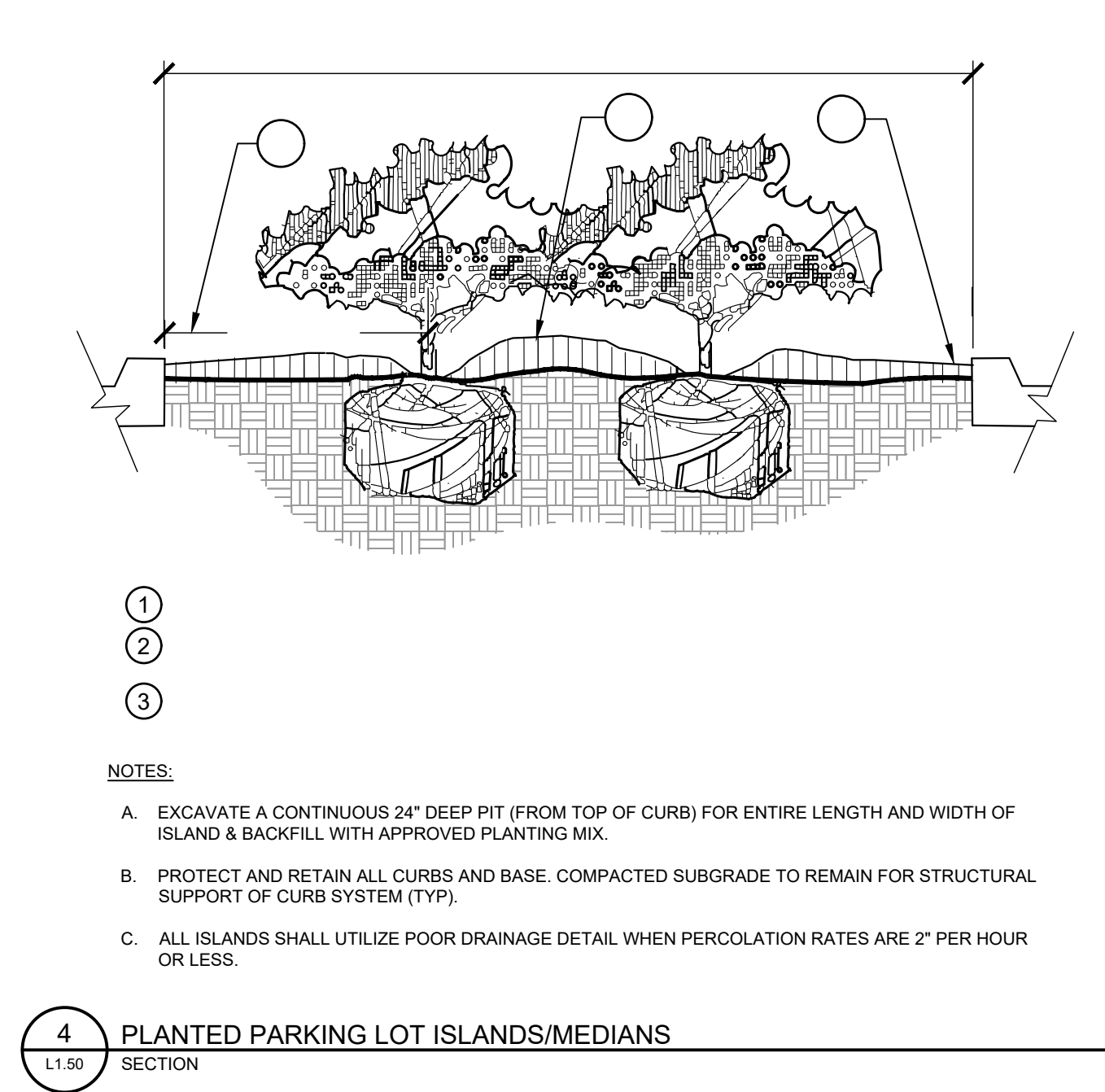
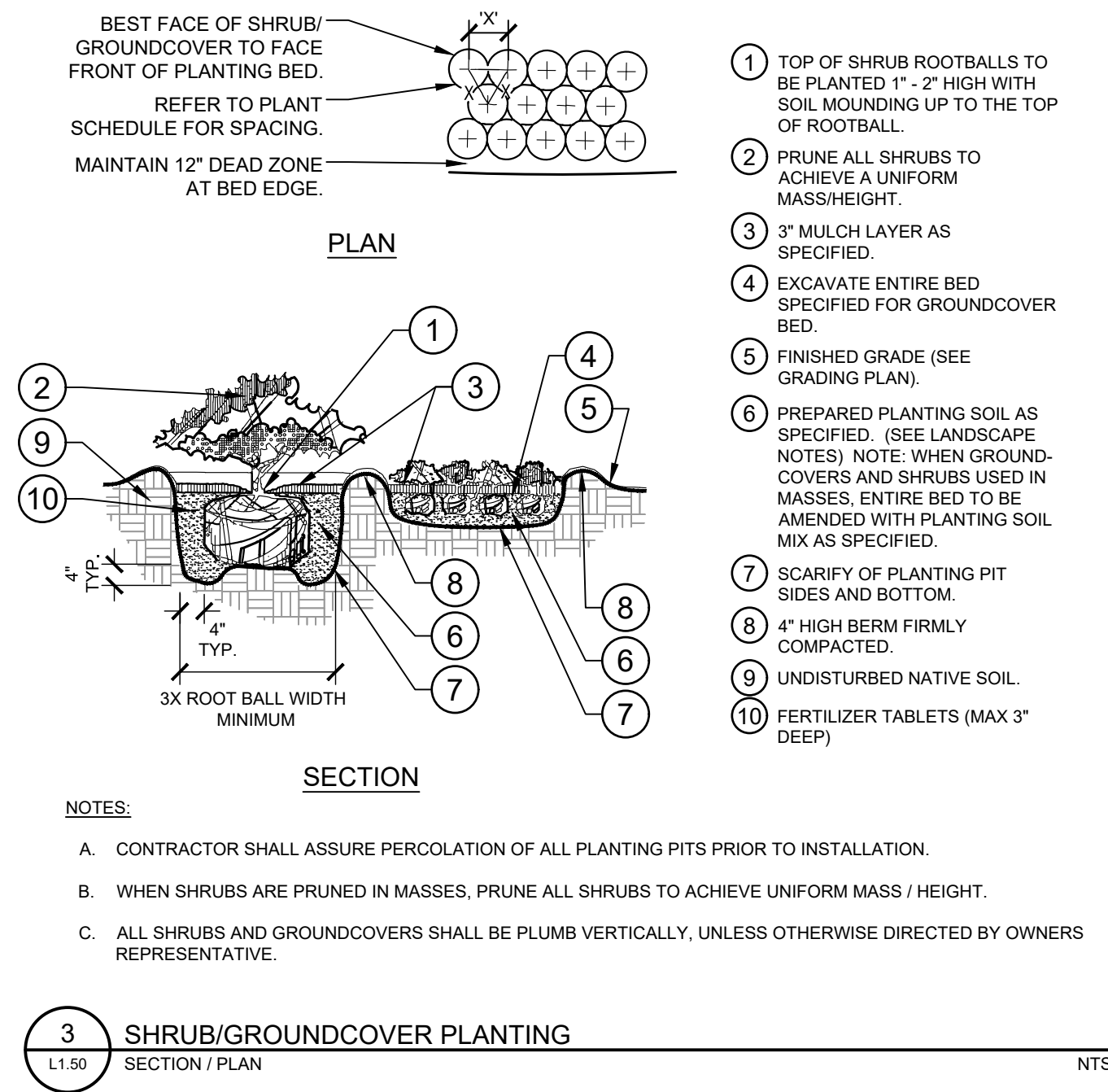
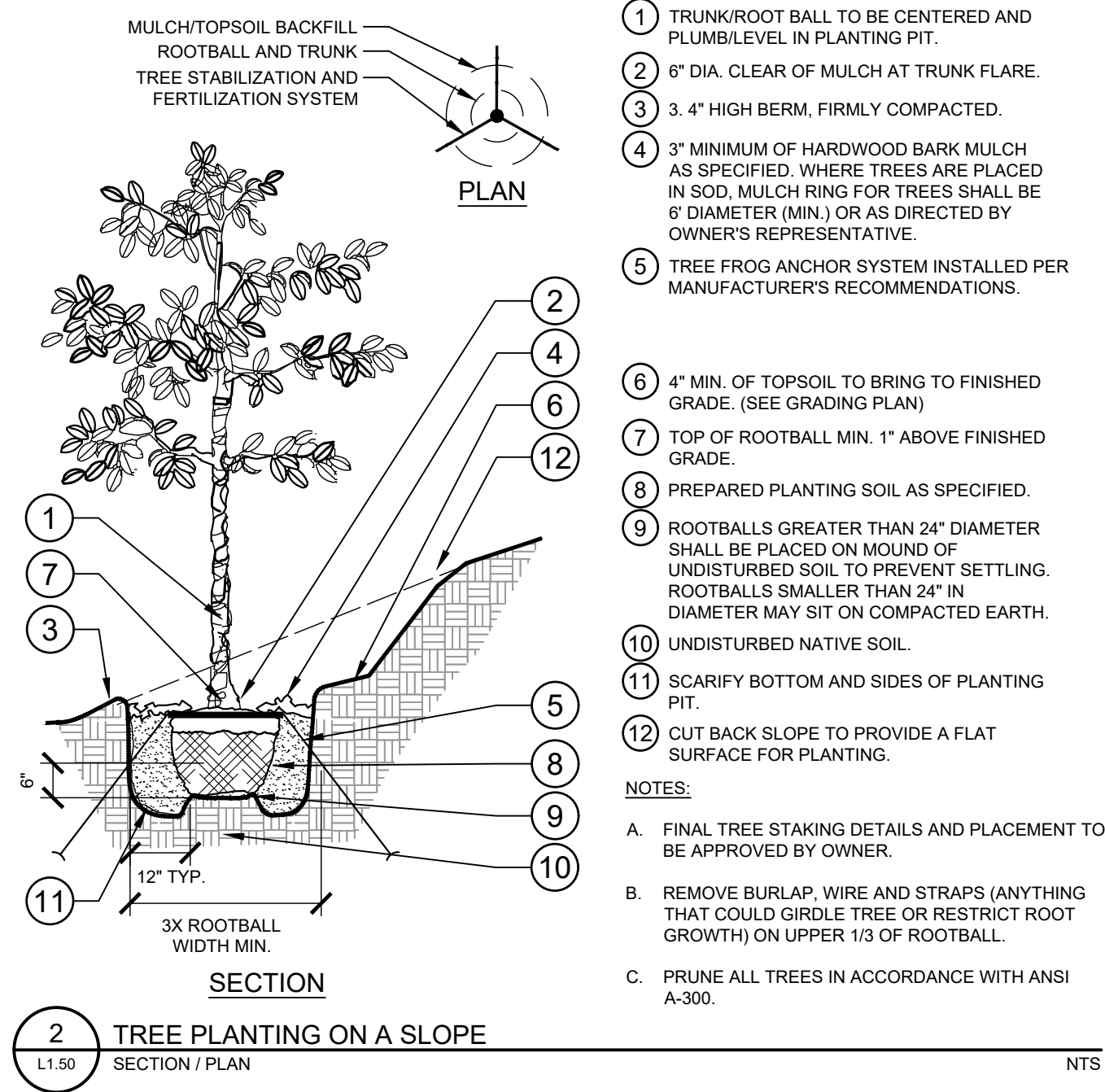
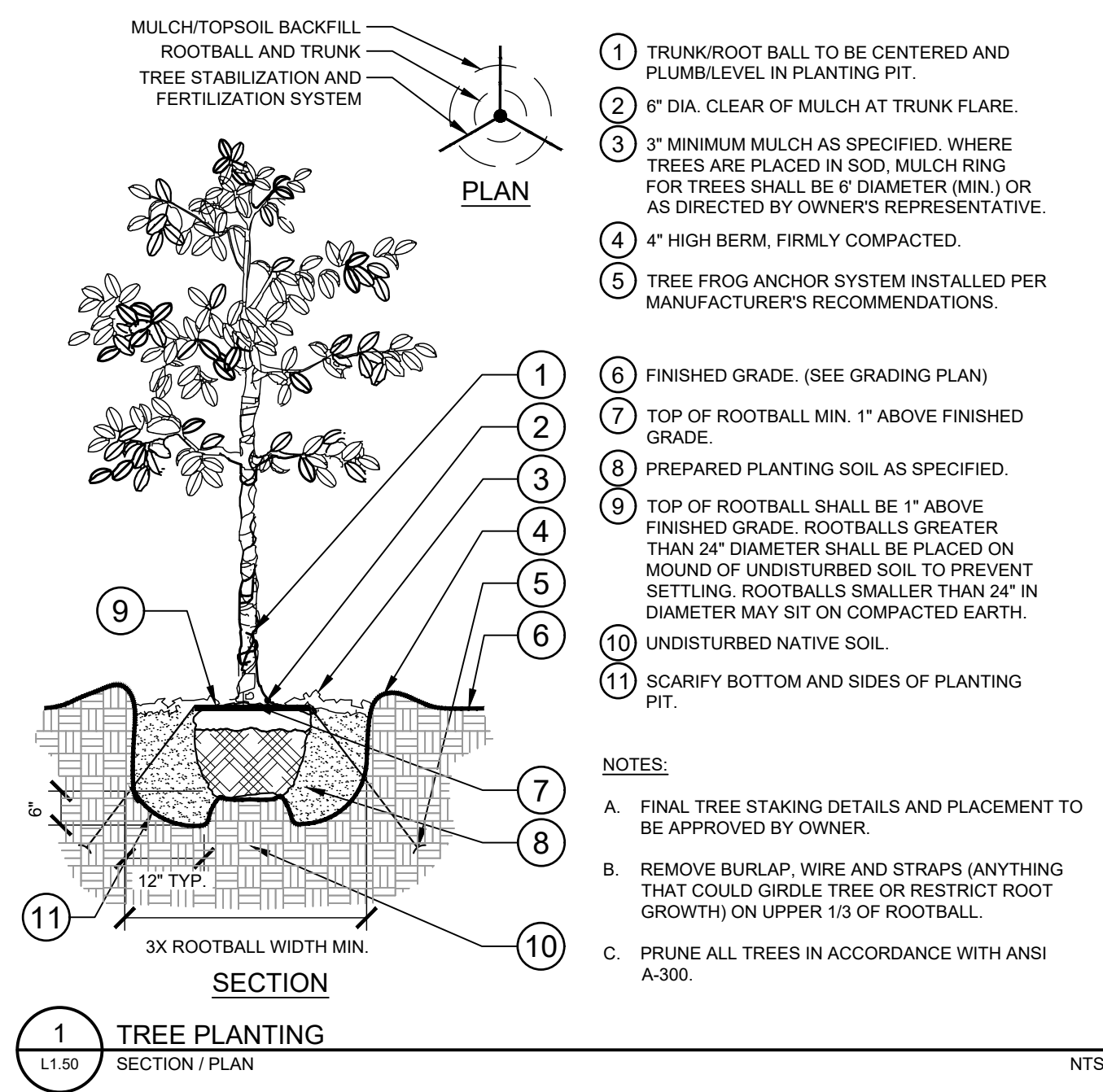








Plotted By: Stacie Cole Sheet Set: General RV Expansion - East Layout: L1.50 March 06, 2025 09:46:10pm K:\Vet\_civil\249536000-general\_rv\_expansion\CADD\CONSV\landscapes\east site\L1.50 LANDSCAPE PLAN.dwg  
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GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

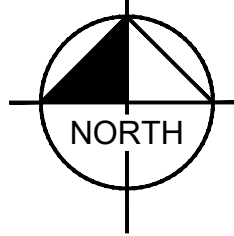
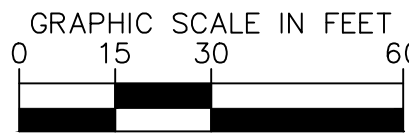
- A. SCOPE OF WORK
1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS SPECIFIED HEREIN.
2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER.
- B. PROTECTION OF EXISTING STRUCTURES
1. ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED AND DESIGNATED TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BMP DEVICES ACCORDING TO ALL REGULATORY AGENCY'S STANDARDS THROUGH THE DURATION OF ALL CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR SHALL SUBMIT A DETAILED PROJECT SPECIFIC WORK ZONE TRAFFIC CONTROL PLAN UNLESS THE WORK REQUIRES NOTHING MORE THAN A DIRECT APPLICATION OF FDOT DESIGN STANDARDS, INDEX 600. IF A DIRECT APPLICATION OF INDEX 600 IS PROPOSED, THE CONTRACTOR SHALL SUBMIT IN WRITING A STATEMENT INDICATING THE STANDARD INDEX AND PAGE NUMBER NO LESS THAN 10 BUSINESS DAYS PRIOR TO START OF CONSTRUCTION. WHEN A DIRECT APPLICATION OF FDOT STANDARD INDEX 600 IS NOT ACCEPTABLE A PROJECT SPECIFIC WORK ZONE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY A FLORIDA PROFESSIONAL ENGINEER WHO HAS SUCCESSFULLY COMPLETED ADVANCED TRAINING IN MAINTENANCE OF TRAFFIC, AS DEFINED BY FDOT FOR APPROVAL BY THE COUNTY ENGINEER'S REPRESENTATIVE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO EXCAVATION. THE INFORMATION AND DATA SHOWN WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AT OR CONTIGUOUS TO THE SITE IS APPROXIMATE AND BASED ON INFORMATION FURNISHED BY THE OWNER OF SUCH UNDERGROUND FACILITIES OR ON PHYSICAL APPURTENANCES OBSERVED IN THE FIELD. THE OWNER AND DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ANY SUCH INFORMATION OR DATA. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR: REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA; LOCATING ALL UNDERGROUND FACILITIES DURING CONSTRUCTION; THE SAFETY AND PROTECTION THEREOF; REPAIRING ANY DAMAGE THERETO RESULTING FROM THE WORK. THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- C. PROTECTION OF EXISTING PLANT MATERIALS
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC.. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIp-LINE AND SPILLING OF GASOLINE, OIL, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIp-LINE. NO MATERIALS SHALL BE BURNED ON SITE. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISshAPEN AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF THREE HUNDRED DOLLARS (\$300) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.
2. SEE TREE MITIGATION PLAN AND NOTES, IF APPLICABLE.
- D. MATERIALS
1. GENERAL
- MATERIAL SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON SITE OR AS DETERMINED BY THE OWNER, UPON APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.
- | MATERIAL    | SAMPLE SIZE                                    |
|-------------|------------------------------------------------|
| MULCH       | ONE (1) CUBIC FOOT                             |
| TOPSOIL MIX | ONE (1) CUBIC FOOT                             |
| PLANTS      | ONE (1) OF EACH VARIETY (OR TAGGED IN NURSERY) |
2. PLANT MATERIALS
- a. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNERS REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE.
- b. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.
- c. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER. FOR QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.
- E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)
1. CONTRACTOR SHALL TEST EXISTING SOIL AND AMEND AS NECESSARY IN ACCORDANCE WITH THE GUIDELINES BELOW:
2. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF TWO PARTS OF TOPSOIL AND ONE PART SAND, AS DESCRIBED BELOW. CONTRACTOR TO SUBMIT SAMPLES AND PH TESTING RESULTS OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.
- a. TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER, FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANTS. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND HAVE A PH BETWEEN 5.5 AND 7.0.
- b. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND.
2. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE - AT WHICH POINT THE CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
- F. WATER
1. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC., IF SUCH WATER IS NOT AVAILABLE AT THE SITE. THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.
- \* WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
- G. FERTILIZER
- CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY-DERIVED.
- \* FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
- H. MULCH
1. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF THREE (3) INCHES. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE). MULCH SHALL BE "FLORIMULCH," EUCALYPTUS MULCH, OR SIMILAR SUSTAINABLY HARVESTED MULCH UNLESS SPECIFIED OTHERWISE.
2. PROVIDE A THREE (3) INCH MINIMUM LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT (6" MINIMUM) PLANTED UNDER THIS CONTRACT.
- I. DIGGING AND HANDLING
1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO THE SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILTRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
2. BALLED AND BURLAPPED (B&B), AND FIELD GROWN (FG) PLANTS SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL, OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS SHALL NOT BE HANDLED BY STEMS.

3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT DURING TRANSPORTATION AND PRIOR TO PLANTING.
4. PROTECTION OF PALMS: ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL.
5. EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB-BASES.
- J. CONTAINER GROWN STOCK
1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.
3. ROOT BOUND PLANTS ARE NOT ACCEPTABLE AND WILL BE REJECTED.
4. RPG="ROOTS PLUS GROWER" CONTAINER PRODUCTS SHALL BE USED WHERE SPECIFIED.
- K. COLLECTED STOCK
- WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.
- L. NATIVE STOCK
- PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.
- M. MATERIALS LIST
- QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.
- N. FINE GRADING
1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.
3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES, IF APPLICABLE.
- O. PLANTING PROCEDURES
1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER DAILY. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.
2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUTITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL SUNSHINE STATE ONE CALL OF FLORIDA, INC. (811) TO LOCATE UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36" OR TO NATIVE SOIL. CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE POOR DRAINAGE CONDITION PLANTING DETAIL.
4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS SPECIFIED HEREIN. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.
5. COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON SITE SHALL NOT REMAIN UNPLANTED OR APPROPRIATELY HEALED IN FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.
6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACK FILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO INADEQUATE OR POOR DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE POOR DRAINAGE CONDITION PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER "JETTING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STICK" OR EQUAL IS RECOMMENDED.
8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.
9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS.
10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACK FILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).
11. AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.
12. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET, ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE. ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.
13. TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY CERTIFIED ARBORIST, IN ACCORDANCE WITH ANSI A-300.
14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. MATERIALS IN GRASS AREAS SHALL MEET MINIMUM SPECIMEN REQUIREMENTS OR QUANTITIES SHOWN ON PLANS, WHICHEVER IS GREATER. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6"; REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" THE PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
15. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE PROJECT LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.
16. ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY).
- P. LAWN SODDING
1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
2. ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS BY MEANS OF A SOD CUTTER TO A DEPTH OF THREE (3) INCHES, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.

3. PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.
4. SODDING
- a. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
- b. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.
- c. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS, ADJACENT TO BUILDINGS. A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.
5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.
6. LAWN MAINTENANCE
- a. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS (LARGER THAN 12"x12") UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRAIDING IF NECESSARY).
- b. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.
- Q. CLEANUP
- UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- R. PLANT MATERIAL MAINTENANCE
- ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
- S. FINAL INSPECTION AND ACCEPTANCE OF WORK
- FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.
- T. WARRANTY
1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED (INCLUDING SOD) BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
2. ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE AND IRRIGATION MAINTENANCE, THE CONTRACTOR SHOULD VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH. SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.



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## IRRIGATION SCHEDULE

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                          | QTY       | PSI |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----|
|        | RAIN BIRD R-VAN-STRIP RD-06-SAM-P45-NP SHRUB ROTARY, 5FT X16FT, (LCS AND RCS), 9FT X30FT, (SST) HAND ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                      | 9         | 30  |
|        | RAIN BIRD R-VAN14 RD-06-SAM-P45-NP TURF ROTARY, 8FT -14FT, 45-270 DEGREES AND 360 DEGREES, HAND ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                           | 222       | 30  |
|        | RAIN BIRD R-VAN18 RD-06-SAM-P45-NP TURF ROTARY, 13FT -18FT, 45-270 DEGREES AND 360 DEGREES, HAND ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                          | 19        | 30  |
|        | RAIN BIRD R-VAN24 RD-06-SAM-P45-NP TURF ROTARY, 17FT -24FT, 45-270 DEGREES AND 360 DEGREES, HAND ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON 6IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR, 1/2IN. NPT FEMALE THREADED INLET, PURPLE CAP                          | 216       | 30  |
| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                          | QTY       |     |
|        | RAIN BIRD XFD-09-12-NP DRIP RING                                                                                                                                                                                                                                                                        | 88        |     |
|        | AREA TO RECEIVE DRIPLINE<br>RAIN BIRD XFD-09-12-NP<br>XFD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE, 0.9 GPH EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, UV RESISTANT. SPECIFY XF INSERT FITTINGS.                               | 27,415 LF |     |
| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION                                                                                                                                                                                                                                                                          | QTY       |     |
|        | RAIN BIRD PESB-PRS-D 1" 1IN., 1-1/2IN., 2IN., 3IN. PLASTIC INDUSTRIAL MASTER VALVES, LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION, WITH PRESSURE REGULATING MODULE, AND SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.                                      | 1         |     |
|        | RAIN BIRD PESB-PRS-D 1" 1IN., 1-1/2IN., 2IN., 3IN. PLASTIC INDUSTRIAL MASTER VALVES, LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION, WITH PRESSURE REGULATING MODULE, AND SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.                                      | 1         |     |
|        | RAIN BIRD ESPLXME2 12 STATION TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE.                                                                                                                                                                                 | 1         |     |
|        | RAIN BIRD ESPLXME2 12 STATION TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE.                                                                                                                                                                                 | 1         |     |
|        | RAIN BIRD RSD-CEX RAIN SENSING DEVICE, CONDUIT MOUNT, WITH THREADED ADAPTER, EXTENSION WIRE.                                                                                                                                                                                                            | 2         |     |
|        | RAIN BIRD FS-100-P 1IN. FLOW SENSOR, PLASTIC PVC MODEL, SUGGESTED OPERATING RANGE 5.4 GPM TO 54 GPM, SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE. RAIN BIRD COMPATIBLE CONTROLLERS: ESPLXVM(P)   LXD   LXM2(P)   ME3, OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET. INSTALL IN RAIN BIRD VALVE BOX. | 1         |     |
|        | RAIN BIRD FS-100-P 1IN. FLOW SENSOR, PLASTIC PVC MODEL, SUGGESTED OPERATING RANGE 5.4 GPM TO 54 GPM, SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE. RAIN BIRD COMPATIBLE CONTROLLERS: ESPLXVM(P)   LXD   LXM2(P)   ME3, OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET. INSTALL IN RAIN BIRD VALVE BOX. | 1         |     |
|        | WATER METER 1"                                                                                                                                                                                                                                                                                          | 1         |     |
|        | WATER METER 1"                                                                                                                                                                                                                                                                                          | 1         |     |
|        | IRRIGATION MAINLINE: PVC SCHEDULE 40                                                                                                                                                                                                                                                                    | 2,174 LF  |     |
|        | PIPE SLEEVE: PVC SCHEDULE 40 - LATERALS                                                                                                                                                                                                                                                                 | 331.4 LF  |     |
|        | PIPE SLEEVE: PVC SCHEDULE 40 - MAINLINE                                                                                                                                                                                                                                                                 | 214.4 LF  |     |

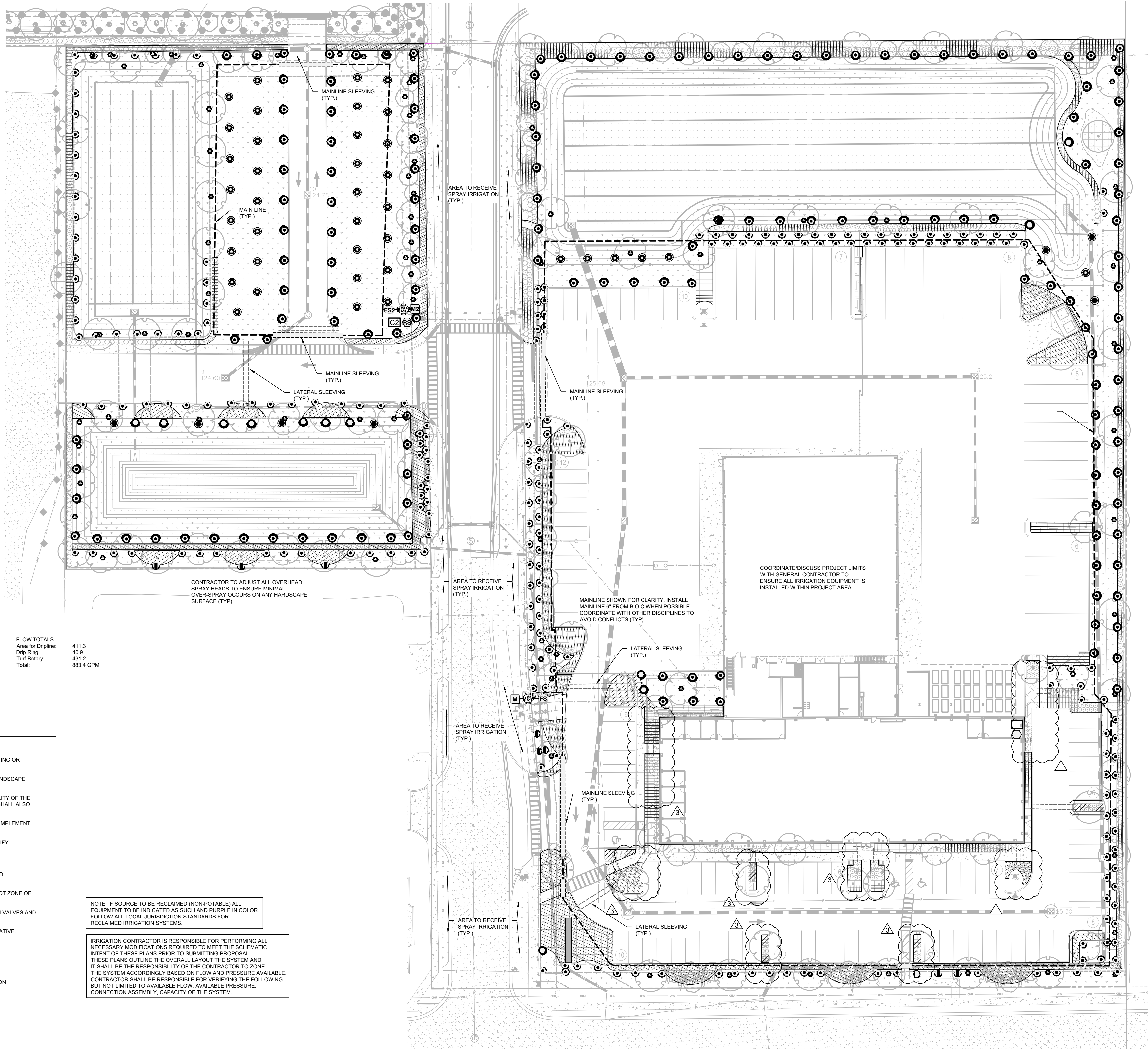
|                    |           |
|--------------------|-----------|
| FLOW TOTALS        |           |
| Area for Dripline: | 411.3     |
| Drip Ring:         | 40.9      |
| Turf Rotary:       | 431.2     |
| Total:             | 883.4 GPM |

## IRRIGATION NOTES

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, ETC. PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING OR CONTINUING WORK.
- THE CONTRACTOR SHALL MAKE NO SUBSTITUTIONS, DELETIONS, OR ADDITIONS TO THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS.
- THIS PLAN IS SCHEMATIC AND DUE TO THE NATURE OF CONSTRUCTION SLIGHT FIELD MODIFICATIONS MAY BE NECESSARY TO IMPLEMENT PLAN.
- CONTRACTOR TO VERIFY ACTUAL AVAILABLE WATER PRESSURE BEFORE BEGINNING INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE WATER PRESSURE WILL NOT ALLOW SYSTEM MODIFICATION TO BE POSSIBLE.
- IRRIGATION SYSTEMS CONNECTED TO POTABLE WATER SUPPLY, SHALL HAVE A BACKFLOW PREVENTER INSTALLED.
- WHERE APPLICABLE IRRIGATION HEADS ARE TO BE ADJUSTED FOR COMPLETE COVERAGE WITH MINIMUM OVER SPRAY BEYOND LANDSCAPE AREAS.
- EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
- ALL IRRIGATION SLEEVING TO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES.
- IRRIGATION CONTRACTOR SHALL REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNER'S REPRESENTATIVE.
- ALL PLANT MATERIAL IN TREE HOLDING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST UNTIL PLANTED.
- CONTRACTOR TO PROVIDE PERMANENT BENCH-MARKS ON ALL CURB LINES AT RELATED SLEEVE LOCATIONS (TYP).
- THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED TO MINIMIZE ROOT DISTURBANCE IN EXISTING TREES.
- IRRIGATION SPRAYS AND ROTORS ARE NOT COMBINED ON THE SAME CONTROL VALVE CIRCUIT - LANDSCAPE BEDS AND TURF ON SEPARATE CIRCUITS.

NOTE: IF SOURCE TO BE RECLAIMED (NON-POTABLE) ALL EQUIPMENT TO BE INDICATED AS SUCH AND PURPLE IN COLOR. FOLLOW ALL LOCAL JURISDICTION STANDARDS FOR RECLAIMED IRRIGATION SYSTEMS.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL NECESSARY MODIFICATIONS REQUIRED TO MEET THE SCHEMATIC INTENT OF THESE PLANS PRIOR TO SUBMITTING PROPOSAL. THESE PLANS OUTLINE THE OVERALL LAYOUT THE SYSTEM AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ZONE THE SYSTEM ACCORDINGLY BASED ON FLOW AND PRESSURE AVAILABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FOLLOWING BUT NOT LIMITED TO AVAILABLE FLOW, AVAILABLE PRESSURE, CONNECTION ASSEMBLY, CAPACITY OF THE SYSTEM.



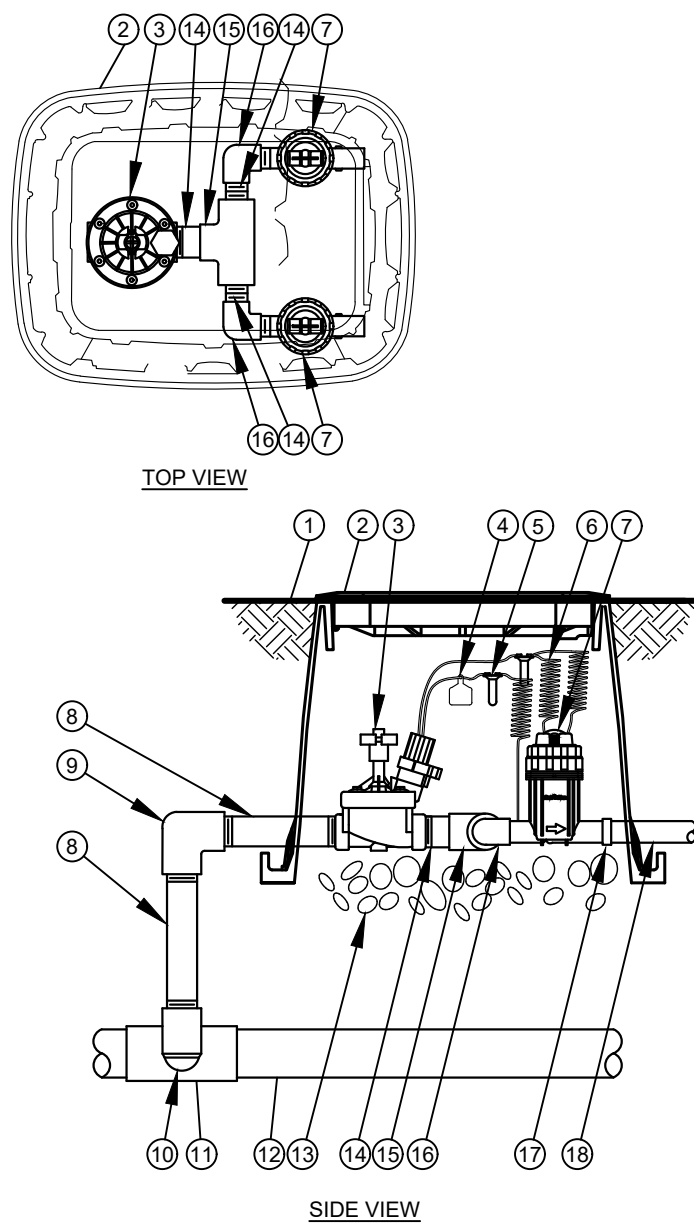
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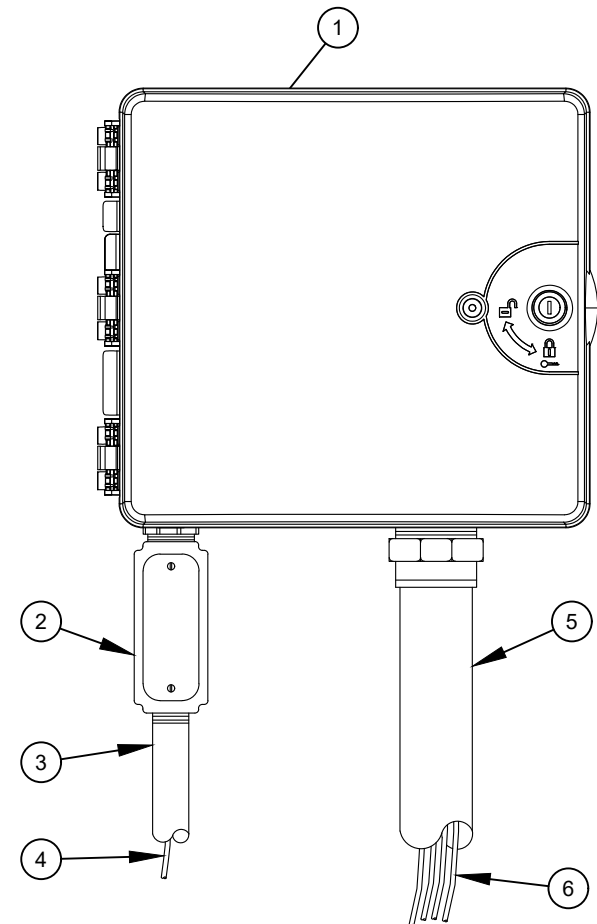
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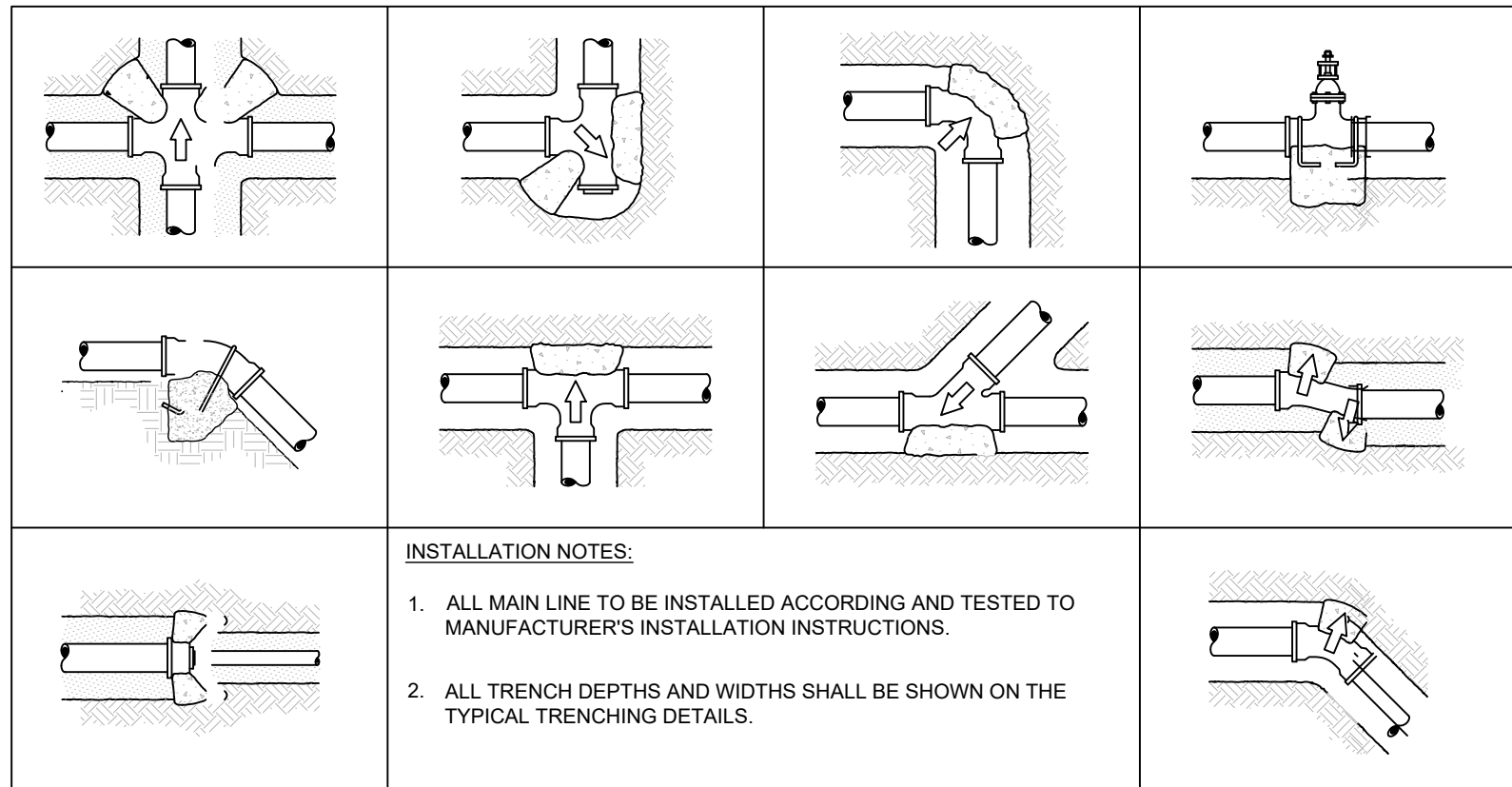


- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER:
- 3 REMOTE CONTROL VALVE:
- 4 ID TAG
- 5 WATERPROOF CONNECTION:
- 6 30-INCH LINEAR LENGTH OF WIRE, COILED
- 7 PRESSURE REGULATING QUICK CHECK BASKET FILTER:
- 8 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 9 PVC SCH 40 ELL
- 10 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 11 PVC SCH 40 TEE OR ELL
- 12 MAINLINE PIPE
- 13 3/4-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 14 PVC SCH 80 NIPPLE, CLOSE
- 15 PVC SCH 40 TEE
- 16 PVC SCH 40 ELL
- 17 PVC SCH 40 FEMALE ADAPTOR
- 18 LATERAL PIPE

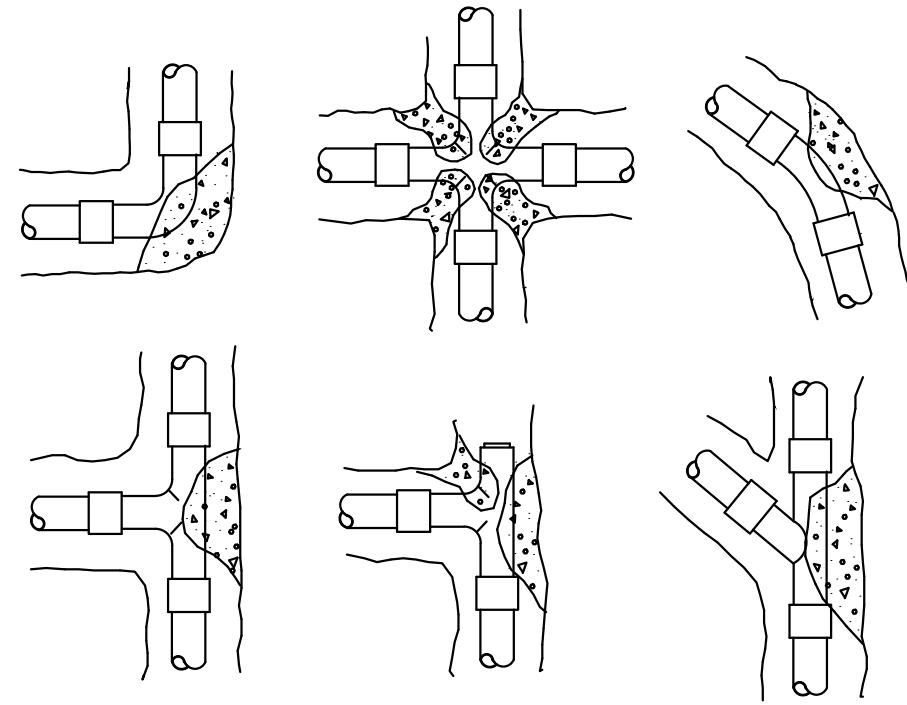


- 1 IRRIGATION CONTROLLER: CONTROLLER (OWNER TO SPECIFY WALL MOUNT OR STAINLESS STEEL PEDESTAL MOUNT), INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 2 JUNCTION BOX
- 3 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
- 4 POWER SUPPLY WIRE
- 5 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
- 6 WIRES TO REMOTE CONTROL VALVES

NOTES:  
1. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.  
2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.  
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.



INSTALLATION NOTES:  
1. ALL MAIN LINE TO BE INSTALLED ACCORDING AND TESTED TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.  
2. ALL TRENCH DEPTHS AND WIDTHS SHALL BE SHOWN ON THE TYPICAL TRENCHING DETAILS.



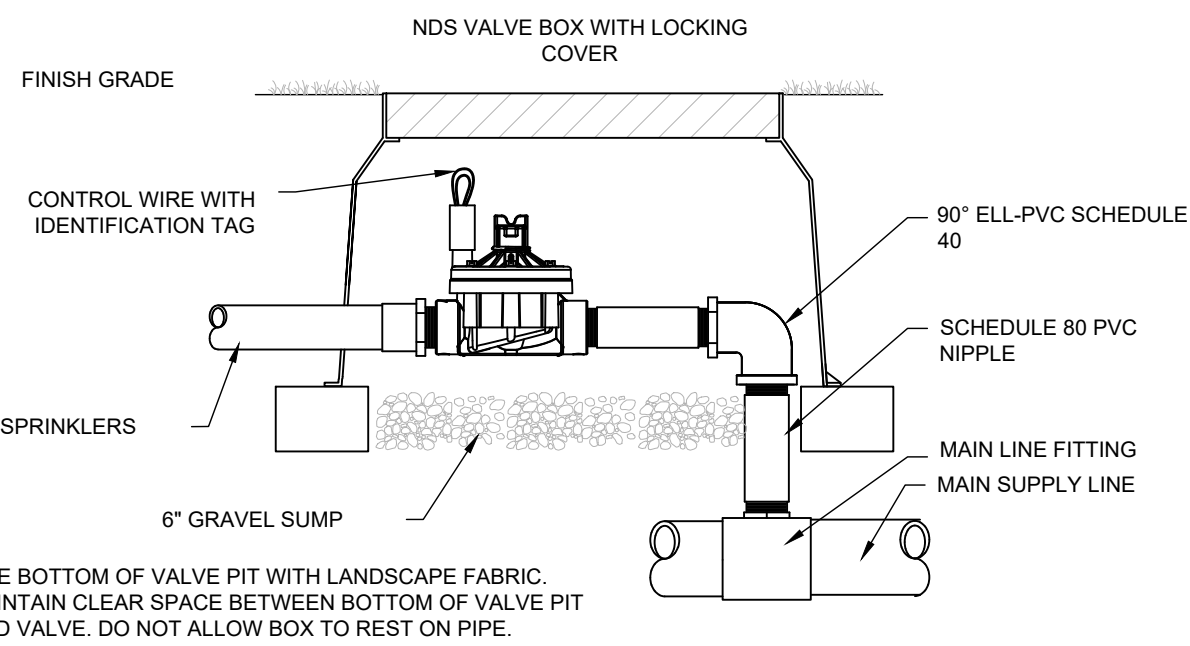
INSTALLATION NOTES:  
1. 3000 PSI CONCRETE OR BETTER IS TO BE USED FOR THRUST BLOCKS.  
2. FOR 45°/90° FITTINGS, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED.  
3. FOR 22-1/2° FITTINGS, MINIMUM OF 0.5 CUBIC FEET OF CONCRETE TO BE USED.  
4. FOR TEES, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED. THRUST  
BLOCKS REQUIRED FOR IRRIGATION MAINLINE 2 1/2" AND LARGER.

1 COMMERCIAL CONTROL DRIP ZONE VALVE KIT  
L2.50 SECTION / PLAN NTS

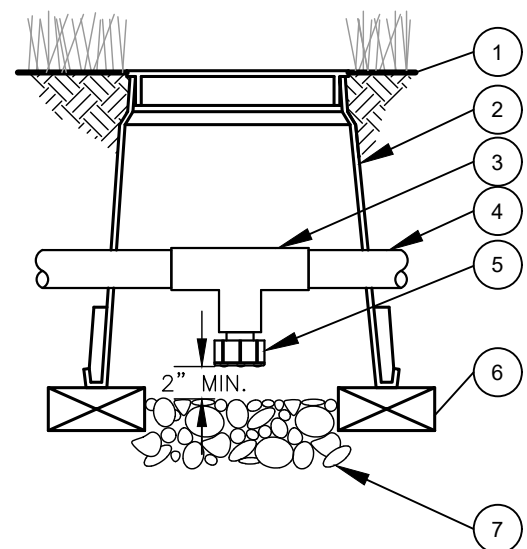
2 TYPICAL CONTROLLER  
L2.50 ELEVATION NTS

3 TYPICAL THRUST BLOCK  
L2.50 SECTION NTS

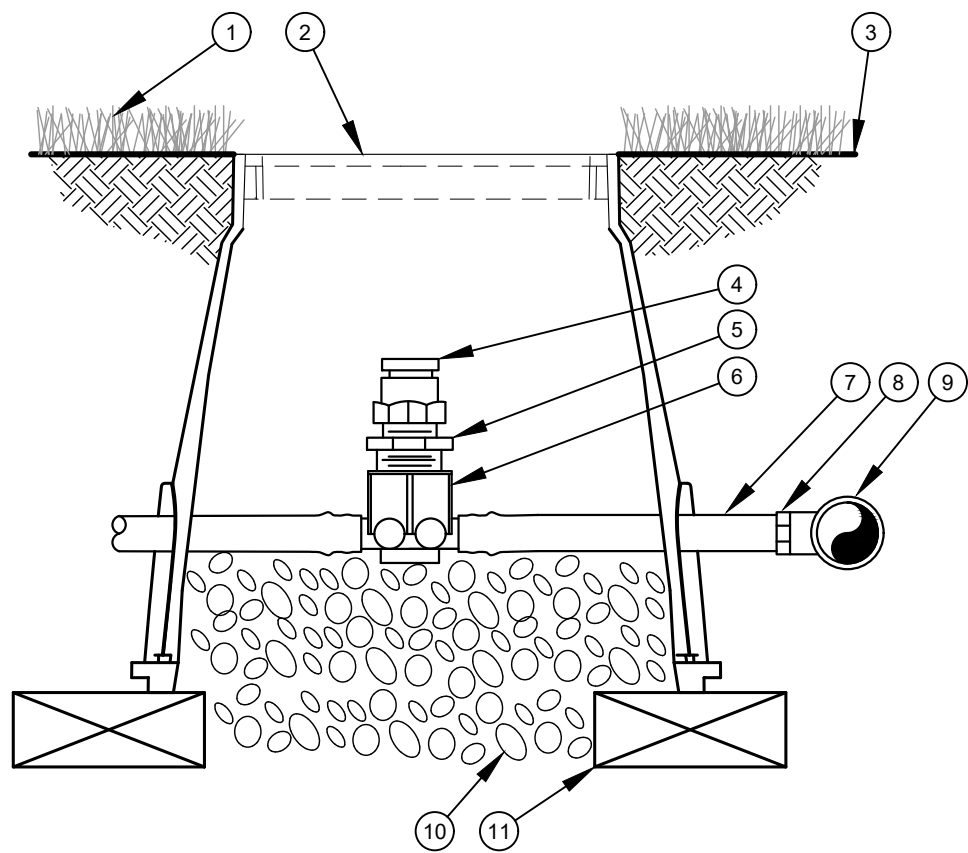
4 THRUST BLOCK REINFORCEMENT  
L2.50 SECTION



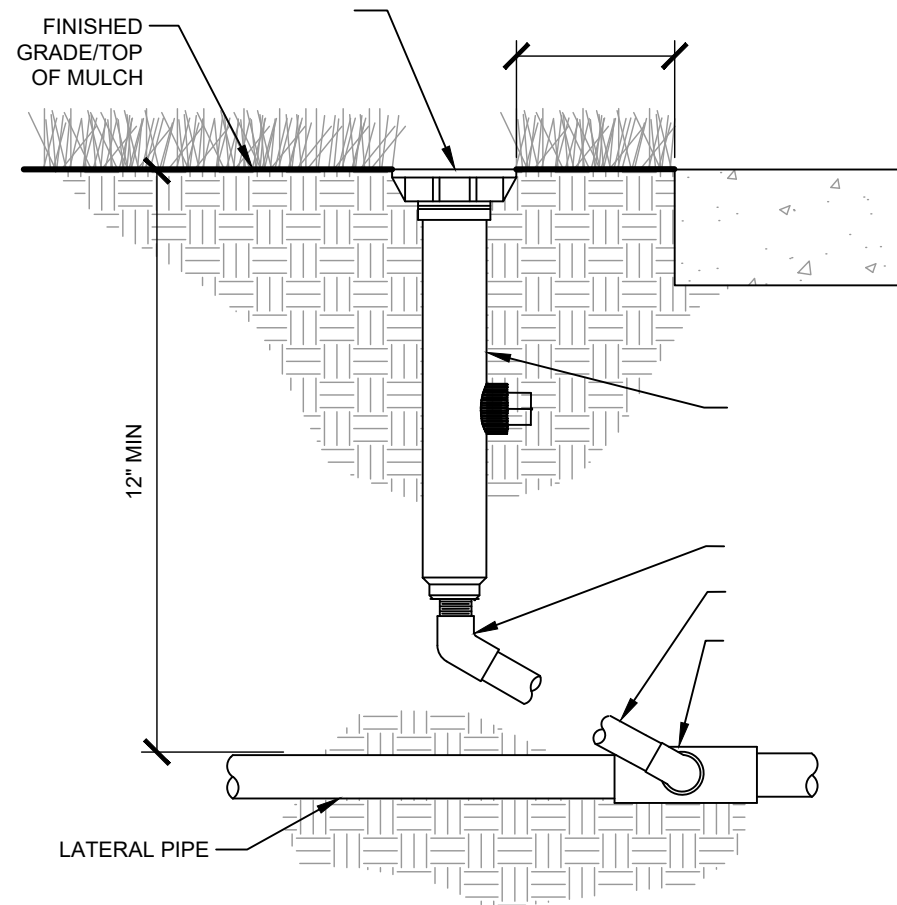
LINE BOTTOM OF VALVE PIT WITH LANDSCAPE FABRIC. MAINTAIN CLEAR SPACE BETWEEN BOTTOM OF VALVE PIT AND VALVE. DO NOT ALLOW BOX TO REST ON PIPE.



- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER:
- 3 PVC SCH 40 TEE
- 4 PVC LATERAL PIPE
- 5 FILTERED DRAIN VALVE:
- 6 BRICK (1 OF 2)
- 7 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL



- 1 TURF GRASS
- 2 VALVE BOX LID
- 3 FINISH GRADE
- 4 1/2" AIR RELIEF VALVE: TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
- 5 1/2" X 3/4" PVC REDUCER BUSHING
- 6 BARB X FEMALE THREAD CONNECTOR:
- 7 1/2" BLANK DRIPLINE TUBING:
- 8 BARB X MALE THREAD CONNECTOR:
- 9 PVC TEE CONNECTED TO PVC HEADER PIPE
- 10 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
- 11 BRICK (1 OF 2)

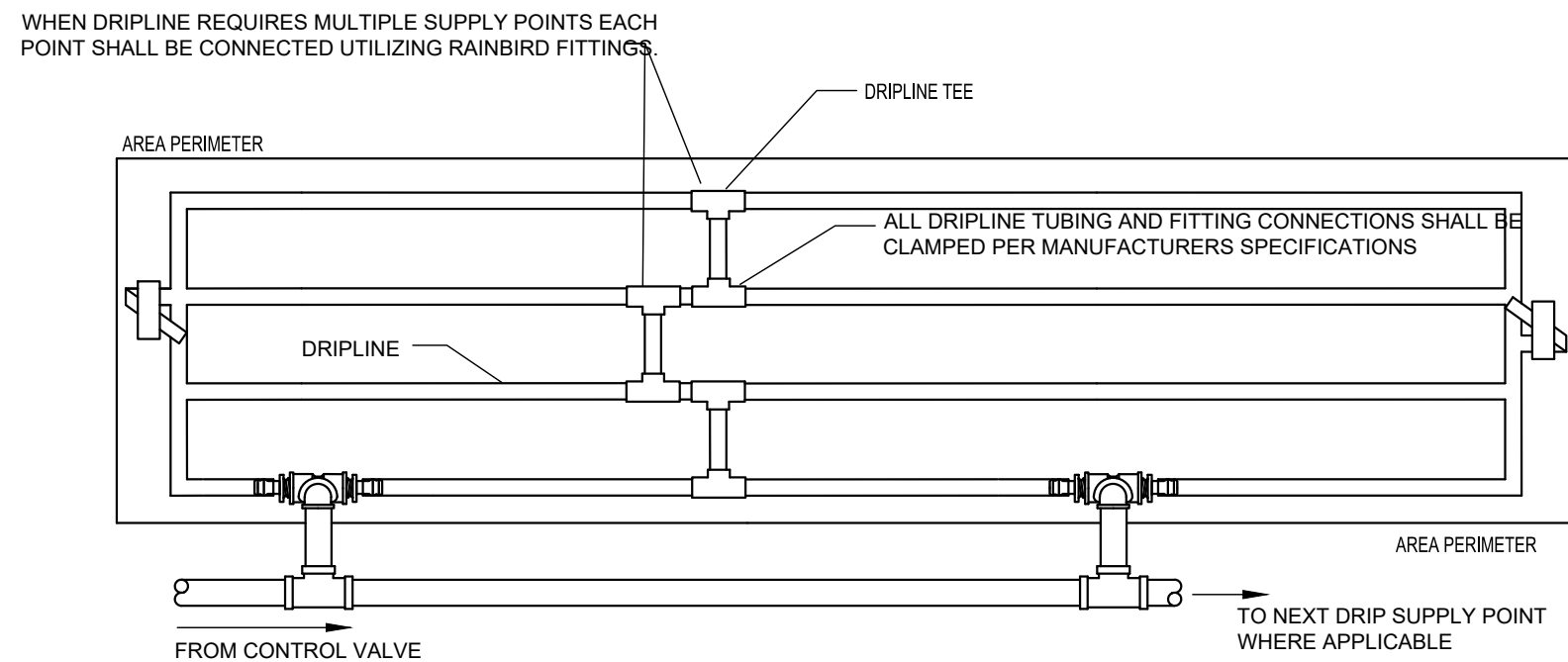


5 TYPICAL CONTROL VALVE  
L2.50 SECTION NTS

6 DRAIN VALVE  
L2.50 SECTION NTS

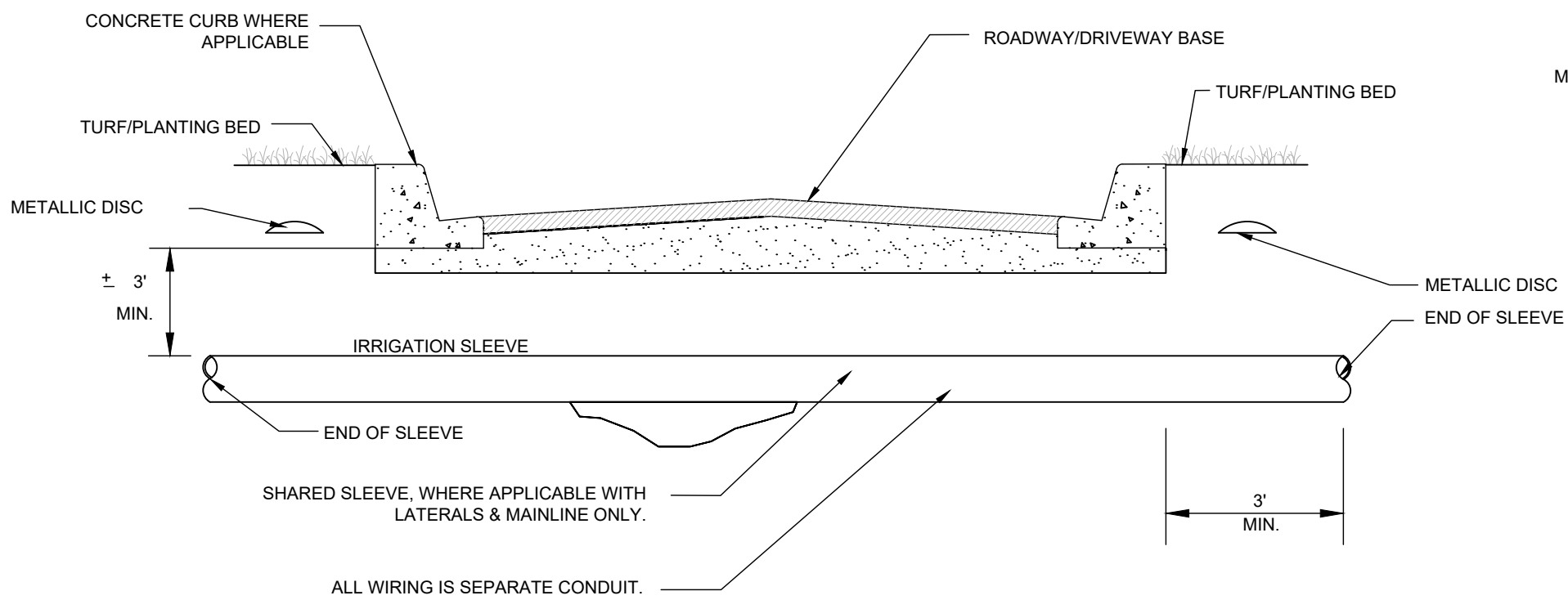
7 AIR RELIEF VALVE IN XFS DRIP LINE  
L2.50 SECTION NTS

8 TYPICAL IRRIGATION HEAD  
L2.50 SECTION

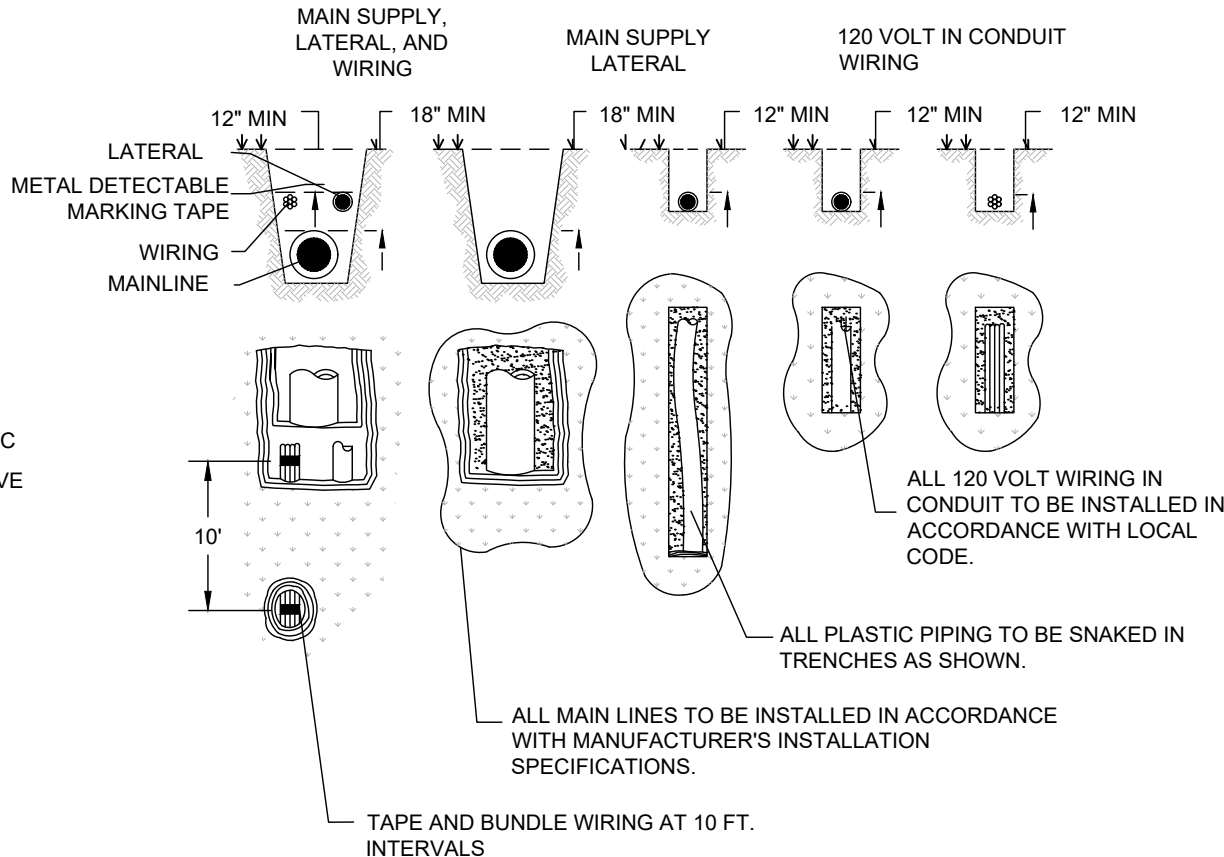


CONTRACTOR TO REFER TO IRRIGATION PLAN FOR LOCATION OF CONTROL VALVES THAT UTILIZE MULTIPLE DRIPLINE SUPPLY CONNECTIONS. IF NOT SHOWN, INSTALL WITHIN ADJACENT GREEN AREA NOT IN A HIGHLY VISIBLE AREA.

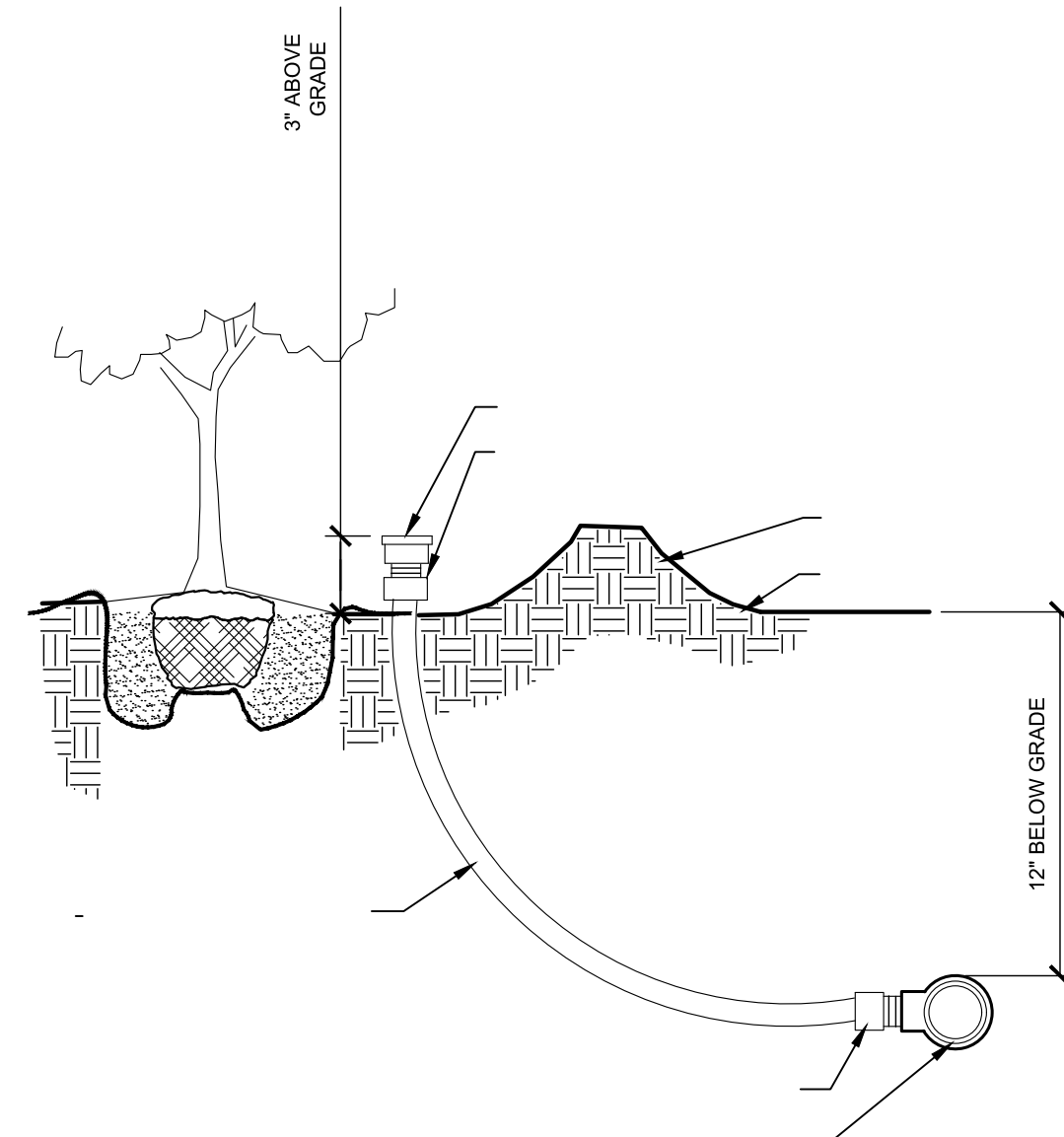
- NOTE:
1. DRIP TUBING TO BE ROUTED IN THE PLANT MATERIAL BED WITH AT MAXIMUM LATERAL SPACING OF 16 INCHES.
  2. DRIP TUBING TO BE INSTALLED IN A GRID PATTERN. DRIP TUBING SHALL NOT BE INSTALLED IN A LONG CONTINUOUS RUN.
  3. CONTRACTOR TO REFER TO IRRIGATION PLAN FOR LOCATION OF CONTROL VALVES THAT UTILIZE MULTIPLE DRIPLINE SUPPLY CONNECTIONS (IF SHOWN).



10 TYPICAL SLEEVE  
L2.50 SECTION NTS



11 TYPICAL TRENCHING  
L2.50 SECTION / PLAN NTS



12  
L2.50 SECTION NTS



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IRRIGATION SYSTEM NOTES:

1.

THE IRRIGATION MAINLINE LAYOUT IS DIAGRAMMATIC. ANY CHANGES MADE IN THE IRRIGATION MAINLINE DUE TO FIELD CONDITIONS OR CONTRACTOR'S SUBMITTED DESIGN SHALL BE IN ACCORDANCE WITH THESE STANDARDS.
2.

SET SPRAY HEADS 6" AND ROTORS 12" IN FROM BACK OF CURB OR 24" IF PAVEMENT HAS NO CURB.
3.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL NECESSARY MODIFICATIONS REQUIRED TO MEET THE SCHEMATIC INTENT OF THESE PLANS PRIOR TO SUBMITTING PROPOSAL. THESE PLANS OUTLINE THE OVERALL LAYOUT THE SYSTEM AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ZONE THE SYSTEM ACCORDINGLY BASED ON FLOW AND PRESSURE AVAILABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FOLLOWING BUT NOT LIMITED TO AVAILABLE FLOW, AVAILABLE PRESSURE, CONNECTION ASSEMBLY, CAPACITY OF THE SYSTEM.
4.

CONTRACTOR TO PROVIDE NEW AUTOMATIC CONTROLLER FOR PROPOSED SYSTEM (NO BATTERY OPERATED CONTROLLERS ALLOWED). COORDINATE LOCATION WITH OWNER.
5.

CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AUTOMATIC RAIN SENSOR. COORDINATE LOCATION W/ OWNER.
6.

IRRIGATION SHALL NOT BE COMBINED ON A SINGLE ZONE AND SHALL BE ZONED ACCORDING TO IRRIGATION TYPE, PRECIPITATION RATE, AND THE SYSTEM'S AVAILABLE WATER / PRESSURE. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OWNER FOR REVIEW PRIOR TO INSTALLATION.
7.

VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS-CONTRACTOR SHALL FIELD VERIFY.
8.

CONTRACTOR TO FIELD VERIFY ALL POINT OF CONNECTION SOURCE INFORMATION INCLUDING PSI AND GPM PRIOR TO CONSTRUCTION.
9.

INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON-SITE.
10.

CONTRACTOR SHALL COORDINATE WITH THE PLANTING PLAN FOR PLANTER BED AND TREE LOCATIONS TO ENSURE ALL PLANT MATERIAL IS COVERED BY 100% HEAD-TO-HEAD IRRIGATION.
11.

CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT.
12.

PRODUCTS SHALL BE AS SPECIFIED OR APPROVED EQUAL.
- PRE-APPROVED MANUFACTURERS:

1.

TORO

2.

HUNTER

3.

RAINBIRD
13.

IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE JURISDICTION.
14.

LOCATE ALL IRRIGATION LINES WITHIN LANDSCAPED AREAS WHENEVER POSSIBLE. ALL LINES UNDER PAVEMENT MUST BE SLEEVED WITHIN SCH. 40 PVC 2x SIZE OF PIPE AND FREE OF STONES/DEBRIS. ALL VALVES SHALL BE LOCATED WITHIN LANDSCAPED AREAS.
15.

MAINLINE SHALL NOT BE LOCATED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.
16.

THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR SLEEVEING AND DIRECTIONAL BORES.
17.

ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF THE SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS. ALL SLEEVES ON PLAN FOR WALL PENETRATIONS AND UNDER SIDEWALKS SHALL BE SIZED TWO PIPE SIZES GREATER THAN THE PIPE IT CARRIES.
18.

ALL PRESSURIZED MAINLINES AND LATERALS UNDER PAVEMENT SHALL BE WITHIN SCH. 40 PVC SLEEVES. WHERE ELECTRIC OR HYDRAULIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
19.

NUMBER THE TOP OF ALL VALVE BOX LIDS WITH MINIMUM 1" HEIGHT BLACK LETTERS TO CORRESPOND TO AUTOMATIC AND GATE VALVE DESIGNATIONS. ALL HOSE BIBB VALVE BOXES SHALL BE LABELED IN A SIMILAR MANNER WITH THE DESIGNATION "HB". LETTER OUTSIDE OF TIME CLOCK CABINETS TO CORRESPOND WITH IRRIGATION CLOCK PROGRAM DESIGNATION.
20.

THE IRRIGATION CONTRACTOR SHALL INSTALL A COLOR CODED METAL DETECTABLE MARKING TAPE WHICH CLEARLY NOTES: "CAUTION: IRRIGATION LINE BURIED BELOW." THE TAPE SHALL BE INSTALLED THE FULL LENGTH OF THE IRRIGATION MAINLINE.
21.

ELECTRIC SERVICE TO THE CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
22.

ALL 24 VAC WIRING FROM DECODER TO VALVE SHALL BE OF DIRECT BURIAL COPPER WIRE. MAXIMUM LENGTH OF WIRE FROM DECODER TO VALVE SHALL NOT EXCEED 400 FEET. AS FOLLOWS:  
CONTROL WIRES - #14  
COMMON WIRES - #14
23.

ALL VALVES, SPLICES WITHIN CONTROL LINES, AND QUICK COUPLERS SHALL BE LOCATED WITHIN NDS VALVE BOXES AS FOLLOWS:  
-RECTANGULAR 12"X17" HEAVY DUTY BOX. (PURPLE COVER FOR REUSE TO BE PROVIDED WHERE APPROPRIATE).
24.

ALL IRRIGATION HEADS/D RIP TUBING SHALL BE LOCATED ONE (1) FOOT FROM BACK OF CURB WHEN NEXT TO A ROADWAY. (THIS SHALL NOT INCLUDE PARKING AREAS OR DRIVE AISLES).
25.

HEADS, LATERALS, EMITTERS, AND VALVES ARE NOT SHOWN, BUT ARE NECESSARY FOR A FULLY FUNCTIONING IRRIGATION SYSTEM.
26.

LOCATE ALL VALVES IN PLANTING BEDS WITH A MINIMUM OF 3'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. PIPE SIZES ON EITHER SIDE OF SECTION VALVES CONNECTING MAINLINE TO SECTION LATERAL SHALL BE ONE (1) PIPE SIZE LARGER THAN VALVE SIZE. WHERE MAINLINES RUN PARALLEL TO PAVEMENT OR CURBING, THE MAINLINE SHALL BE OFFSET 2'-0" FROM THE EDGE OF PAVEMENT OR CURB.
27.

IRRIGATION ZONES SHALL BE SEPARATED FOR HIGH AND LOW WATER USE REQUIREMENTS AND OPERATED ON DIFFERENT WATERING CYCLES. BUBBLERS, DRIPLINE, AND SPRAY HEADS SHALL BE SEPARATED ON DIFFERENT VALVES. AT NO TIME SHALL MULTIPLE IRRIGATION HEAD TYPES BE LOCATED ON THE SAME VALVE.
28.

ALL DRIP ZONES SHALL BE INSTALLED WITH A FLUSH VALVE AND AIR RELIEF VALVE. IN THE EVENT THAT A DRIP ZONE HAS MORE THAN ONE HIGH OR LOW POINT, MORE THAN ONE AIR RELIEF VALVE OR FLUSH VALVE WILL BE REQUIRED FOR THAT ZONE. DRIPLINE SHALL PROVIDE 0.9 GPH EMITTERS, 12" O.C. WITH 12" LINE SPACING AT A MINIMUM.
29.

ALL WIRING FOR CONNECTION OF THE VALVES TO THE CONTROLLER SHALL FOLLOW MANUFACTURERS SPECIFICATIONS. IF REQUIRED, ALL WIRING FOR A TWO WIRE PATH SHALL BE WITH RED/BLUE TWISTED PAIR 14 AWG. ELECTRIC CONTROL LINES FROM THE DECODER TO THE SOLENOID VALVES SHALL BE TWISTED PAIR 18 AWG. ALL DECODERS SHALL BE GROUNDED EVERY 1,000 L.F. OR EVERY 10 DEVICES. ALL WIRE SHALL BE FURNISHED IN MINIMUM 2,500' REELS AND SPLICING SHALL BE MINIMIZED. BURY SPLICE KIT. ALL 24 VOLT WIRING SHALL BE DONE IN ACCORDANCE WITH EXISTING CODES. SPLICING SHALL BE IN VALVE BOXES OR CONTROLLERS ONLY. IRRIGATION SYSTEM CONTROL SHALL BE TWO WIRE PATH. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S REQUIREMENTS FOR THIS INSTALLATION. TWO WIRE SYSTEM SHALL HAVE 2-WAY COMMUNICATIONS FIELD PROGRAMMABILITY, STATION SPECIFICATIONS AND INTEGRATED SURGE PROTECTION.
30.

ALL CONTROL WIRE SHALL BE INSTALLED IN A 1 1/2" ELECTRICAL CONDUIT.
31.

SMALLEST DIAMETER LATERAL PIPE SHALL BE 3/4".
32.

IRRIGATION SYSTEM SHALL BE CAPABLE OF SUPPLYING AN AVERAGE OF 1.05" OF WATER PER WEEK WITHIN WATERING RESTRICTIONS AS APPLICABLE.
33.

IRRIGATION SYSTEM SHALL NOT BE INSTALLED THROUGH EXISTING, OR PRESERVED PLANT COMMUNITIES. DO NOT TRENCH THROUGH EXISTING ROOT SYSTEMS OF ANY VEGETATION INTENDED TO BE PRESERVED.
34.

CONTRACTOR TO MINIMIZE IRRIGATION OVERTHROW TO IMPERVIOUS AND NATURAL AREAS THROUGH FIELD ADJUSTMENTS TO INDIVIDUAL HEADS.
35.

ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THE CONDITION DENOTED ON THE LANDSCAPE PLAN.
36.

IRRIGATION PIPING INSTALLED UNDER ROADS AND SIDEWALKS SHALL BE IN SCHEDULE 40 PVC SLEEVEING AT 2X THE PIPE SIZE. ALL SLEEVEING SHALL BE FREE OF STONES AND DEBRIS.
37.

IRRIGATION SOURCE TO BE EITHER WELL, POTABLE, OR NON-POTABLE WATER. IRRIGATION CONTRACTOR TO VERIFY SOURCE PRIOR TO DESIGN.
38.

POINT OF CONNECTION TO BE DETERMINED BY OWNER. IRRIGATION SYSTEM CONNECTIONS TO THE LOCAL JURISDICTION SERVICE SHALL COMPLY WITH ALL APPLICABLE CODES.
39.

IRRIGATION CONNECTION MAY REQUIRE BACKFLOW PREVENTION, VERIFY WITH LOCAL JURISDICTION.
40.

IRRIGATION SYSTEM SHALL COMPLY WITH THE LOCAL JURISDICTION LAND DEVELOPMENT CODE.

249536000

4/1/2024

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FLORIDA UNDERSEAL NUMBER

3/6/2025

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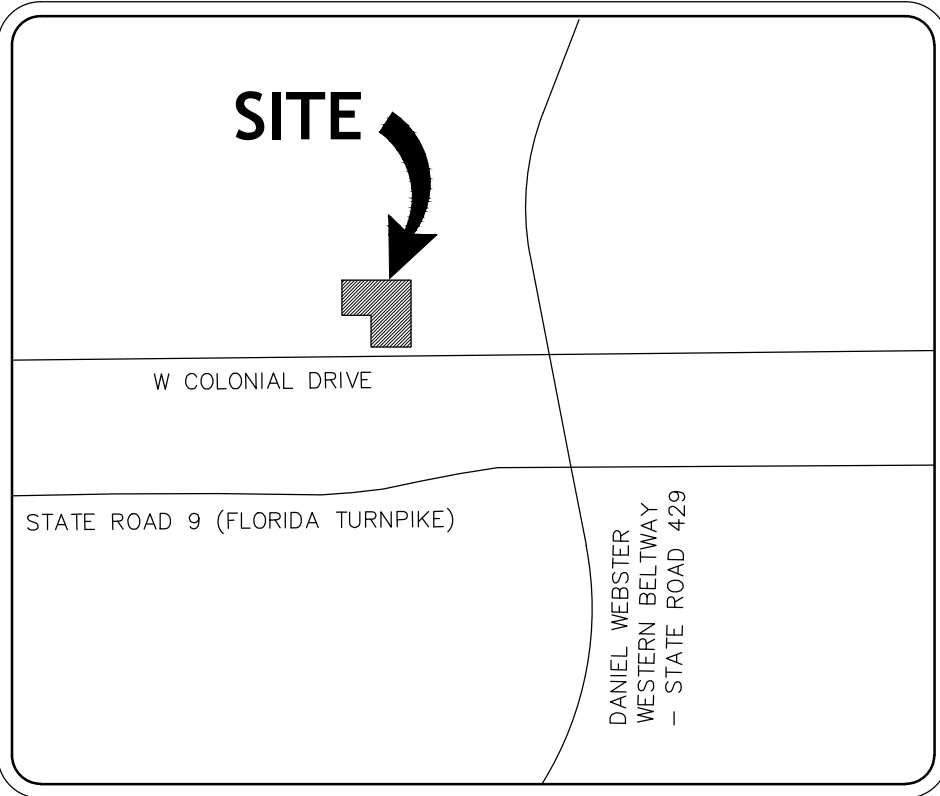
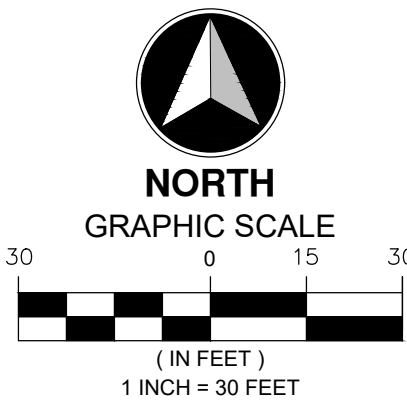
CITY OF WINTER GARDEN

FLORIDA



ALTA/NSPS LAND TITLE & SPECIFIC PURPOSE SURVEY

SECTION 24, TOWNSHIP 22, SOUTH RANGE 27 EAST  
ORANGE COUNTY, FLORIDA



LOCATION MAP  
(NOT TO SCALE)

LEGAL DESCRIPTION

Parcel 1:  
That part of the Southwest 1/4 of Section 24, Township 22 South, Range 27 East, Orange County, Florida, being more particularly described as follows:  
Commence at the South 1/4 corner of Section 24, Township 22 South, Range 27 East; Thence run N00°03'40"E along the East line of the Southeast 1/4 of the Southwest 1/4 of said Section 24, 75.00 feet to the Point of Beginning, said point being on the North Right of Way line of Colonial Drive (State Road No. 50); Thence run S89°57'09"W along said North Right of Way line being 75.00 feet North of and parallel with when measured perpendicular to the South line of said Section 24, a distance of 437.65 feet; Thence run N00°03'28"E, 265.00 feet; Thence run S89°57'09"W 230.00 feet to a point on the West line of the Southwest 1/4 of the Southeast 1/4 of said Section 24; Thence run N00°04'53"E along said West line 325.47 feet to the Northwest corner of said Southeast 1/4 of the Southwest 1/4 of said Section 24; Thence run N89°45'14"E along the South line of the Northeast 1/4 of the Southwest 1/4 of the Southwest 1/4 of said Section 24; 667.13 feet to the Northeast corner of the Southeast 1/4 of the Southwest 1/4 of the Southwest 1/4 of said Section 24; Thence run S00°03'40"W along the East line of the Southeast 1/4 of the Southwest 1/4 of the Southwest 1/4 of said Section 24, 596.85 feet to the Point of Beginning.

SURVEYORS REPORT

- This survey not valid unless embossed or stamped with a surveyor's seal.
- Underground encroachments such as utilities and foundations, that may exist, have not been located.
- Parcel numbers, owners name, address, shown hereon obtained from the Orange County Property Appraisers web site.
- Legal description shown hereon in accord with that shown in the Commitment for Title Insurance supplied for the preparation of this survey.
- Bearings shown hereon are relative to the Florida State Plane Coordinate System, West Zone, 1983-2011 adjustment, holding the South line of subject property also being the North Right of Line of W Colonial Drive (State Road No. 50) as being S 89 degrees 45'45"W.
- Subject property contains 7.73 acres, more or less.
- Subject property lies within Flood Zone "X", according to Flood Insurance Rate Map 12095C02157H prepared by the Federal Emergency Management Agency, last revised September 24, 2021.
- As of the date of this survey, there are no buildings within the limits of subject property.
- As of the date of this survey, there are no "party walls" within the limits of subject property.
- As of the date of this survey, there was no observed evidence that subject property was being utilized as a solid waste dump, dump or sanitary land fill.
- As of the date of this survey, there was no observed evidence of a cemetery or burial grounds within the limits of subject property.
- As of the date of this survey, vehicular access to subject property is by way W Colonial Drive (State Road No. 50) (A publically dedicated right of way maintained by the Florida Department of Transportation). The South line of subject property and the North right of way line of W Colonial Drive (State Road No. 50), are contiguous not gaps, gores, or overlaps between them.
- As of the date of this survey, there was no observed evidence of jurisdictional wetlands within the limits of subject property.
- As of the date of this survey, there was no observed evidence of building construction, building renovation or earth moving activities within the limits of subject property.
- As of the date of this survey, there was no observed evidence of parking striping or designated parking are in the area of subject property.
- As of the date of this survey, there was no observed evidence of street or sidewalk construction underway in the immediate vicinity of subject property. Right of Way acquisition is not anticipated.
- Only above ground evidence of utilities as been located. No effort was made uncover underground utilities.
- Commitment for Title Insurance supplied by First American Title Insurance Company, Issuing Agent: Asma & Asma, P.A., Commitment No. 110178530, Issuing Office File No. Sale to FL Orlando 4441, LLC, Property Address: 12565 W. Colonial Drive, Winter Garden, Florida 34787 and with a Commitment Date of November 29, 2023 at 8:00 A.M.
- Items 1, 2, 4, 6, 7 and 8 referenced in Schedule B Part II of the Commitment for Title Insurance have not been graphically depicted on the survey as they are not matters of survey.
- Field evidence of encroachments, encumbrances, violations, variations or other matters, if any, (Schedule B Part II No. 3) have been graphically depicted on the survey.
- In the opinion of the undersigned surveyor, any boundary line dispute caused by a change in the location of a water body on or in the vicinity of subject property is unlikely (Schedule B Part II No. 5).
- Drainage Easement Agreement as recorded in Official Records Book 5741 Page 671 (Schedule B Part II No. 9) has been graphically depicted on the survey.
- Ingress/Egress Easement Agreement as recorded in Official Records Book 5741 Page 683 (Schedule B Part II No. 10) has been graphically depicted on the survey.
- Road Extension Agreement as recorded in Instrument No. 20210711707 (Schedule B Part II No. 11) has not been graphically depicted on the survey as the document does not contain a legal description. In the opinion of the undersigned surveyor, this agreement appears to be the roadway within the limits of the Ingress/Egress Easement Agreement as recorded in Official Records Book 5741 Page 68, as recorded in the public records of Orange County, Florida.
- Progress Energy Florida, Inc. Distribution Easement as recorded in Official Records Book 9765 Page 60 (Schedule B Part II No. 12) has not been graphically depicted on the survey as it doesn't fall within the limits of subject property.
- Grant of Easement for Stormwater Drainage as recorded in Official Records Book 9783 Page 6563 (Schedule B Part II No. 13) has not been graphically depicted on the survey as it doesn't fall within the limits of subject property.
- Road Extension Agreement as recorded in Instrument No. 20210711707 (Schedule B Part II No. 14) has not been graphically depicted on the survey as the document does not contain a legal description. In the opinion of the undersigned surveyor this agreement appears to be Garden Commerce Parkway.
- Supplemental Declaration to the declaration of easements, covenants, conditions, and restrictions for Winter Garden Commerce Center as recorded in Instrument No. 202107696 (Schedule B Part II No. 15) has not been graphically depicted on the survey as it's not a matter of survey.
- Matters shown on the subdivision plat of WINTER GARDEN COMMERCE CENTER (Schedule B Part II No.16) have been graphically depicted on the survey.
- Subject property has a zoning classification "C-2"
- Specific Purpose of this Survey is to Delineate Trees 5 inches (5") and greater within the limits of survey.

| LEGEND    |                                     |
|-----------|-------------------------------------|
| (C)       | CALCULATED                          |
| (P)       | PLAT                                |
| (D)       | DEED                                |
| (F)       | FIELD                               |
| F.C.M.    | FOUND CONCRETE MONUMENT             |
| F.I.R.    | FOUND IRON ROD (SIZE AS NOTED)      |
| F.N. & D. | FOUND NAIL AND DISK (I.D. AS NOTED) |
| L.B.      | LICENSED BUSINESS                   |
| P.M.      | PERMANENT REFERENCE MONUMENT        |
| O.R.      | OFFICIAL RECORDS BOOK               |
| P.G.(S)   | PAGE(S)                             |
| R.L.S.    | REGISTERED LAND SURVEYOR            |
| S.C.I.R.  | SET CAPPED IRON ROD 5/8" L.B. #6384 |
| ●         | SET CAPPED IRON ROD 5/8" L.B. #6384 |
| ○         | FOUND IRON ROD (SIZE AS NOTED)      |
| □         | FOUND CONCRETE MONUMENT             |
| ⊕         | CABLE MARKER                        |
| ⊖         | RECLAM. WATER METER                 |
| ⊙         | CLEAN OUT                           |
| ⊞         | ELECTRIC PANEL                      |
| ⊟         | STORM SEWER MANHOLE                 |
| ⊠         | BACKFLOW PREVENTER                  |
| ⊡         | VALVE                               |
| ⊢         | DATA MARKER                         |
| ⊣         | CABLE MARKER                        |
| ⊤         | ELECTRICAL OUTLET                   |
| ⊥         | UTILITY POLE                        |
| ⊦         | GUY ANCHOR                          |
| ⊧         | LIGHT POLE                          |
| ⊨         | SIGN                                |

| TREE LEGEND   |                    |
|---------------|--------------------|
| ● 12"         | ASBESTOS TREE      |
| ● 14"         | BAY TREE           |
| ● 16"         | CAMPBELL TREE      |
| ● 18"         | CEDAR TREE         |
| ● 20"         | CHERRY LAUREL TREE |
| ● 22"         | CITRUS TREE        |
| ● 24"         | CYPRESS TREE       |
| ● 26"         | ELM TREE           |
| ● 28"         | HICKORY TREE       |
| ● 30"         | HOLLY TREE         |
| ● 32"         | JANIPER TREE       |
| ● 34"         | MAPLE TREE         |
| ● 36"         | MAGNOLIA TREE      |
| ● 38"         | MULBERRY TREE      |
| ● 40"         | OAK TREE           |
| ● 42"         | ORNAMENTAL TREE    |
| ● 44"         | UNKNOWN TREE       |
| ● 46"         | PINE TREE          |
| ● 48"         | PALM TREE          |
| ● 50"         | SWEET GUM TREE     |
| ● 52"         | UNKNOWN TREE       |
| ● 54"         | WILLOW TREE        |
| Tree Location |                    |

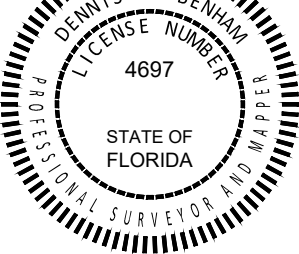
SURVEYOR'S CERTIFICATE

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 6(b), 7(a), 7(b)(1), 8, 9, 10(a), 11(a), 13, 14, 16, 17, 18, 19, and 20(a). The field work was completed on February 2, 2024.

Date of Plat or Map: March 7, 2024

I further certify that this ALTA/NSPS Land Title and Specific Purpose Survey was prepared under my direct supervision, that to the best of my knowledge, information and belief is a true and accurate representation of the land shown and described, and that it meets the Standards of Practice for Land Surveying in the State of Florida Chapter 53-17, Florida Administrative Code.

Dennis J. Benham  
Professional Surveyor and Mapper No. 4697  
State of Florida  
McNeal Engineering, Inc.  
Licensed Business No. 8384



NO. REVISION & DATE

GRV WINTER GARDEN (WGCC PARCEL)  
SECTION 24, TOWNSHIP 22 SOUTH, RANGE 27 EAST  
ORANGE COUNTY, FLORIDA

ALTA/NSPS LAND TITLE SURVEY

FL ORLANDO 4441 LLC

PROJECT

PREPARED FOR

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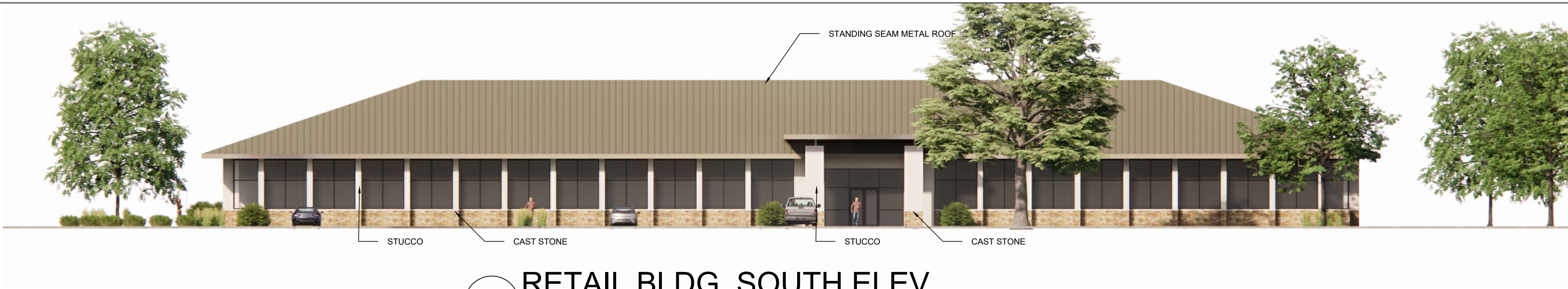
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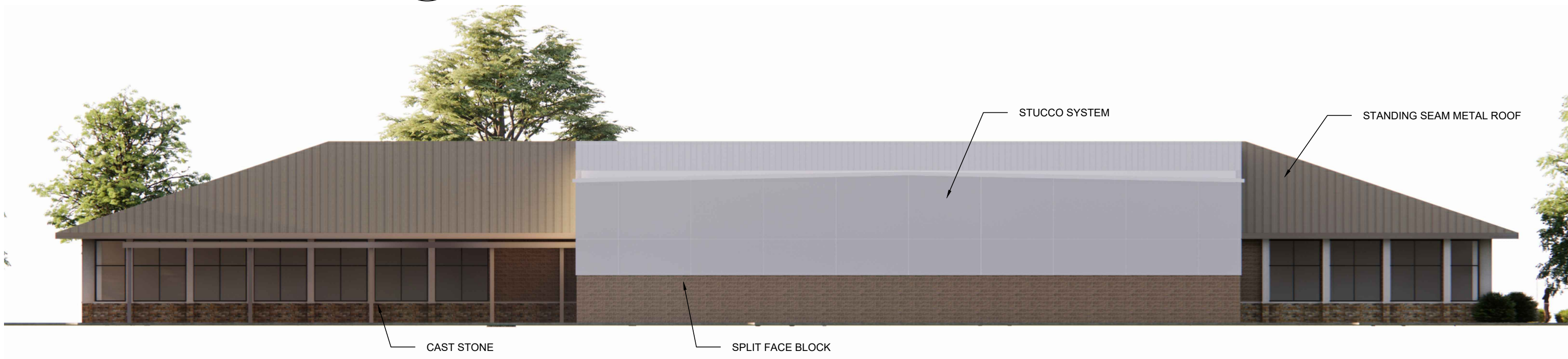




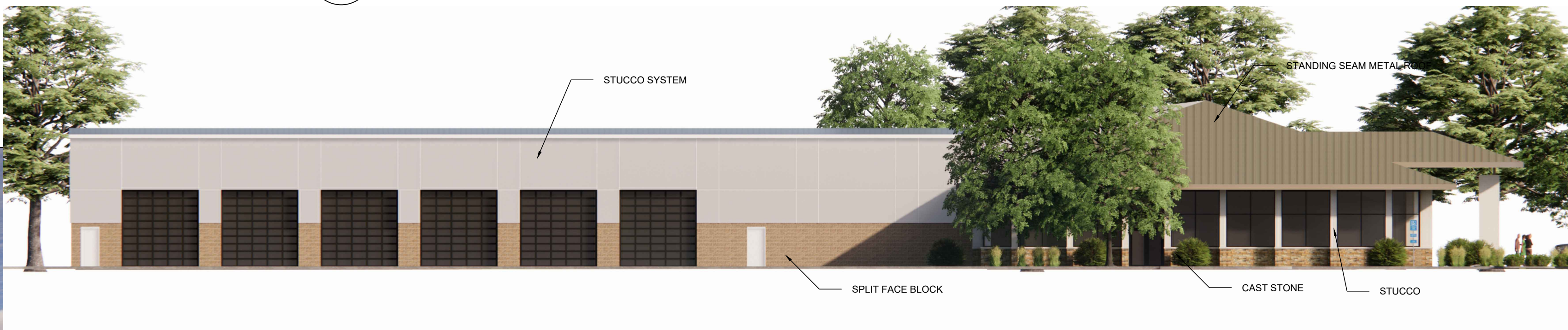
1 RETAIL BLDG, SOUTH ELEV.  
SCALE : 1/16" 1'-0"



2 RETAIL BLDG, EAST ELEV.  
SCALE : 1/16" 1'-0"



3 RETAIL BLDG, NORTH ELEV.  
SCALE : 1/16" 1'-0"



5 PERSPECTIVE  
NTS



# CITY OF WINTER GARDEN

## *DEVELOPMENT REVIEW COMMITTEE*

(407) 656-4111 - FAX (407) 877-2363

### MEMORANDUM

**TO:** KELLY CARSON, PLANNING DIRECTOR  
**FROM:** DEVELOPMENT REVIEW COMMITTEE  
**DATE:** MARCH 18, 2025  
**SUBJECT:** REVIEW OF SITE/CONSTRUCTION PLANS – GENERAL RV EXPANSION - EAST  
12565 W COLONIAL DRIVE - FL ORLANDO 4441, LLC

Pursuant to your request, we have reviewed the revised site plan dated 3/06/25 for compliance with the City's subdivision, stormwater and site requirements. The property included in this project is south of the Winter Garden Commerce Center phased development and will complete the extension of Garden Commerce Parkway to SR 50. This was submitted in response to our feasibility review of 1/29/24 and Special Exception review of 4/19/24. Reviews for development of this property have been ongoing for the General RV proposed overall development. This was submitted in response to our comments of 01/20/25 and DRC meeting of 11/06/24 where it was referred to staff review only.

### ENGINEERING

We again recommend approval of the site plan, subject to approval by all other departments, and the following conditions and comments (underlined comments shall be addressed prior to pre-con):

1. Planning Department shall review and comment on layout, setbacks, landscaping, buffering, lighting and signage, platting, including C-2 zoning requirements.
2. Final construction plans cannot be approved for construction until the preliminary plat (under review) has been approved.
3. General Requirements:
  - a. All gravity sanitary pipe and fittings shall be SDR 26.
  - b. All compaction shall be 98% of the modified proctor maximum density (AASHTO T-180).
  - c. As-built record drawings shall comply with City of Winter Garden requirements available on-line (note on plan).
  - d. All Storm (>12") and Sanitary lines (>6") shall be inspected by CCTV prior to completion.
  - e. Use City Standard Detail sheets for utilities and public works (see City website).
  - f. If Thermoplastic pipe is used it shall meet all City material and installation requirements as specified in the City's Standards & Specifications including Class I bedding, HP polypropylene pipe (**not HDPE or N-12**), laser profiling, installation per ASTM D2321, etc. (see under on-line forms on website).
  - g. All utilities shall be underground pursuant to Code (Sec. 18-33) including electrical power, cable, telephone, etc.



4. Tree removal shall adhere to the City's Tree Protection Ordinance – separate review, approval and permit is required. As required by Code (Sec. 114-70), submittal of the Tree Removal Permit application is required with the preliminary plat submittal. Coordinate with the Building Department on any tree removal and protection. Additional landscaping and tree replacement may be required with final plan.
5. 100% of the water/sewer impact fees shall be paid prior to site or building permit issuance or execution of FDEP permit applications by the City. Sanitary laterals, fittings, and pipes shall be SDR 26 per City standards. Use City Standard Detail Sheets for utilities and public works.
6. All utilities shall conform to Chapter 78 of the City Code. Impact fees will be required for any utility connections and shall be paid prior to issuance of building permit and City execution of FDEP permit applications. The site shall be served by City water, sewer and reuse. All utilities required for the development shall be run to the site at the Developer's expense, including potable water, reclaimed water and sanitary sewer. 100% of all required water, irrigation and sewer impact fees shall be paid prior to City execution of FDEP permits and issuance of site or building permits.

According to the plans there will be (1) 1" domestic meters and (2) 1" irrigation meters. Based on the above, the utility impact fees are as follows:

|                         |                    |   |                      |
|-------------------------|--------------------|---|----------------------|
| 1" Potable water meter  | 1 ea. @ \$2,715.00 | = | \$2,715.00           |
| Wastewater for 1" meter | 1 ea. @ \$4,418.00 | = | \$4,418.00           |
| 1" Irrigation meter     | 2 ea. @ \$2,715.00 | = | \$5,430.00           |
| <b>TOTAL</b>            |                    |   | <b>= \$12,563.00</b> |

(does not include connection/installation fee)

7. Permit or modification from SJRWMD and FDOT for stormwater is required. Permits or exemptions shall also be required from FDEP for water and sewer and FDEP NPDES NOI as may be applicable.
8. Any signs, screen walls or retaining walls shall require a separate permit from the Building Department.
9. Streetlighting both internally and on all street frontages is required pursuant to City Code – dark skies lighting is required. A photometric plan has been provided for review by the Planning Department.

#### **PLANNING COMMENTS**

10. The Special Exception Permit application for the RV dealership sales center use on the property was approved December 2, 2024, by the Planning and Zoning Board.

#### **STANDARD GENERAL CONDITIONS**

11. All construction shall conform to City of Winter Garden Standards, Specifications and Ordinances.
12. Fencing, if approved, shall meet all City requirements for height, type, etc. Chain link fencing, if approved, shall be vinyl coated per Code.
13. The City of Winter Garden will inspect private site improvements only to the extent that they connect to City owned/maintained systems (roadways, drainage, utilities, etc.). It is the responsibility of the Owner and Design Engineer to ensure that privately owned and maintained systems are constructed to the intended specifications. The City is not responsible for the operation



and maintenance of privately owned systems, to include, but not be limited to, roadways, parking lots, drainage, stormwater ponds or on-site utilities.

14. No fill or runoff will be allowed to discharge onto adjacent properties; existing drainage patterns shall not be altered. The applicant should note that if approval is granted, the City of Winter Garden is not granting rights or easements for drainage from, or onto, property owned by others. Obtaining permission, easements or other approvals that may be required to drain onto private property is the Owner/Developer's responsibility. Should the flow of stormwater runoff from, or onto adjacent properties be unreasonable or cause problems, the City will not be responsible and any corrective measures required will be the responsibility of the Owner. Site construction shall adhere to the City of Winter Garden erosion and sediment control requirements as contained in Chapter 106 - Stormwater. If approval is granted by the City of Winter Garden, it does not waive any permits that may be required by federal, state, regional, county, municipal or other agencies that may have jurisdiction.
15. The Owner and Contractor are responsible for meeting all provisions of ADA and Florida Accessibility Code, including accessible route sidewalks that will connect to public sidewalks on S.R. 50.
16. The Contractor is responsible for the notification, location and protection of all utilities that may exist within the project limits.
17. Approval by the City Commission (site plan) will be required prior to issuance of site or building permit(s).
18. After final plan approval, a preconstruction meeting will be required prior to any commencement of construction. The applicant shall provide an erosion control and street lighting plan at the preconstruction meeting and shall pay all engineering review and inspection fees prior to construction. Inspection fees in the amount of 2.25% of the cost of all site improvements shall be paid prior to issuance of the site or building permit.
19. Additional comments may be generated at subsequent reviews.

Please review this information and contact our office with any questions. Thank you.



**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Kelly Carson, Planning Director  
**Via:** City Manager Jon C. Williams  
**Date:** April 3, 2025      **Meeting Date:** April 10, 2025  
**Subject:** 616, 620, 628 & 634 S Lakeview Ave, W Story Rd, 215 W Cypress St, 224 W Lafayette St, 615 S Central Ave, S Central Ave

**LAKEVIEW VILLAGE ESTATES**

**Final Plat Approval**

**PARCEL ID# 12-22-27-6496-31-056, 12-22-27-6496-31-012, 12-22-27-6496-31-005, 12-22-27-6496-31-051, 12-22-27-6496-31-056, 12-22-27-6496-31-032, 12-22-27-6496-31-041, 23-22-27-6650-00-170, 12-22-27-6496-31-027 (+/- 7.251 ACRES)**

**Issue:** The applicant is requesting to record the Final Plat for 26 new single-family residential lots and 14 new single-family townhouse lots and common area tracts on the +/- 7.251 acre property located on the west side of S Lakeview Avenue.

**Discussion:**

The applicant is requesting Final Plat approval for the +/- 7.251 acre property located on the west side of S Lakeview Avenue. The property received Preliminary Plat approval August 1, 2022.

The proposed Final Plat is consistent with the approved preliminary plat, featuring the 26 single-family lots and 14 townhouse lots with common area tracts and associated easements.

The property is designated LD (Low Density Residential) on the City's Future Land Use Map and is zoned PUD per Ordinance 21-27 approved by the City Commission October 28, 2021. Development of the property is consistent with the City's Comprehensive Plan and the PUD ordinance requirements.

**Recommended Action:**

Staff recommends approval of the Final Plat subject to the conditions outlined in the attached DRC Report dated March 21, 2025.

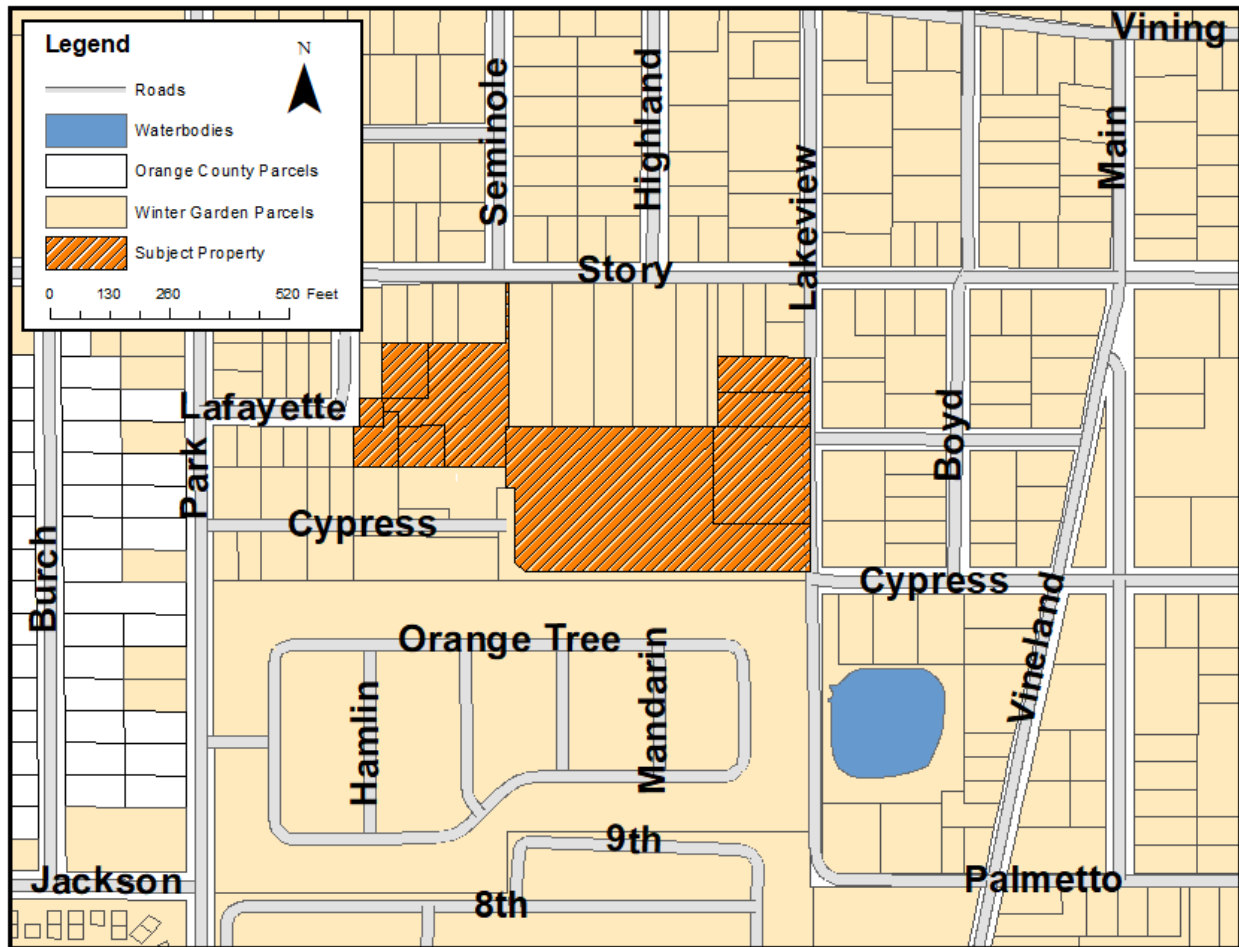
**Attachment(s)/References:**

Location Map  
Final Plat  
Development Review Committee Memo



# Location Map

## Lakeview Village Estates





LAKEVIEW VILLAGE ESTATES

A REPLAT OF LOT 17, PARK SUBDIVISION, PLAT BOOK S, PAGE 107 AND PARTIAL REPLAT OF BLOCK 5, OVERSTREET CRATE COMPANY'S SUBDIVISION PLAT BOOK F, PAGE 9, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA. LYING IN THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 22 SOUTH, RANGE 27 EAST CITY OF WINTER GARDEN, ORANGE COUNTY, FLORIDA

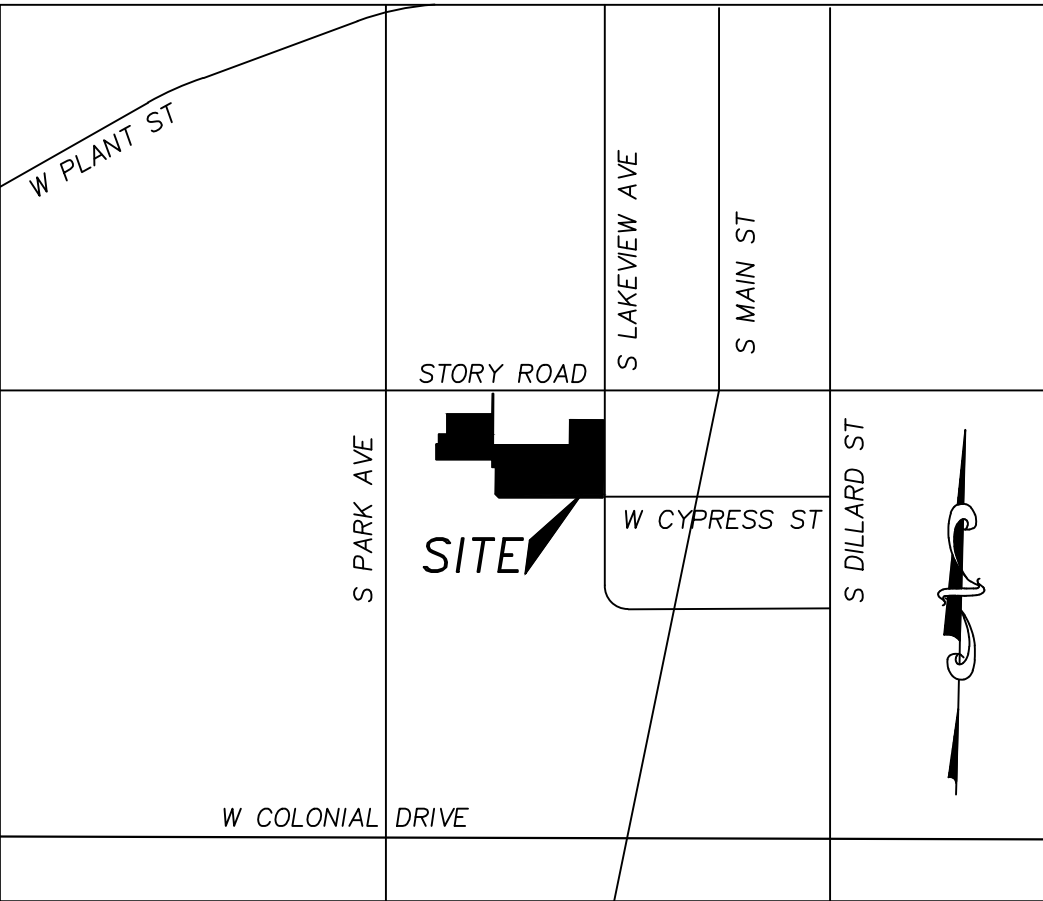
DESCRIPTION:

LOT 17, PARK SUBDIVISION, PLAT BOOK S, PAGE 107 AND A PART OF BLOCK 5, OVERSTREET CRATE COMPANY'S SUBDIVISION PLAT BOOK F, PAGE 9, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LYING IN THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 22 SOUTH, RANGE 27 EAST, CITY OF WINTER GARDEN, ORANGE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE WEST 1/4 CORNER OF SAID SECTION 23; THENCE RUN S89°53'25"E ALONG THE NORTH LINE OF SAID SOUTHWEST 1/4 OF SECTION 23, 398.65 FEET TO A POINT ON THE NORTHERLY EXTENSION OF THE EAST LINE OF LOT 19, OF SAID PARK SUBDIVISION; THENCE RUN S00°11'45"E ALONG THE EAST LINE OF SAID LOT 19, 150.05 FEET TO THE NORTHEAST CORNER OF LOT 18, OF SAID PARK SUBDIVISION FOR THE POINT OF BEGINNING; THENCE RUN S00°09'06"W ALONG SAID EAST LINE OF LOT 18, 120.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 18; THENCE RUN N89°50'54"W ALONG THE SOUTH LINE OF SAID LOT 18, 50.20 FEET TO THE SOUTHWEST CORNER OF SAID LOT 18 AND SAID POINT BEING ON THE EAST RIGHT OF WAY LINE OF CENTRAL AVENUE; THENCE RUN S00°02'39"E, 60.00 FEET TO THE SOUTH RIGHT OF WAY LINE OF LAFAYETTE STREET; THENCE RUN N89°50'54"W ALONG SAID SOUTH RIGHT OF WAY LINE, 15.00 FEET TO THE NORTHEAST CORNER OF LOT 16, OF SAID PARK SUBDIVISION; THENCE RUN S00°02'39"E ALONG THE EAST LINE OF SAID LOT 16, 90.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 16, SAID POINT BEING ON THE NORTH LINE OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 10784, PAGE 3188, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE RUN S89°50'54"E ALONG SAID NORTH LINE AND THE NORTH LINE OF LANDS DESCRIBED AS PARCEL 2 IN DOCUMENT# 20200403788, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, 333.54 FEET TO THE EAST LINE OF SAID DOCUMENT# 20200403788; THENCE RUN S00°06'15"W ALONG SAID EAST LINE, 46.31 FEET TO THE NORTH LINE OF A CITY OF WINTER GARDEN DRAINAGE CANAL; THENCE RUN S89°55'59"E, 20.00 FEET TO THE EAST LINE OF SAID CITY OF WINTER GARDEN DRAINAGE CANAL; THENCE RUN S00°06'15"W ALONG SAID EAST LINE, 160.00 FEET TO AN ANGLE BREAK IN SAID EAST LINE; THENCE RUN S44°54'52"E, 28.28 FEET TO A NORTH LINE OF SAID CITY OF WINTER GARDEN DRAINAGE CANAL; THENCE RUN S89°55'59"E ALONG SAID NORTH LINE, 619.70 FEET TO THE WEST RIGHT OF WAY LINE OF SOUTH LAKEVIEW AVENUE; THENCE RUN N00°24'02"E ALONG SAID WEST RIGHT OF WAY LINE, 462.45 FEET TO THE NORTH LINE OF THE SOUTH 150.00 FEET OF THE NORTH 1/2 OF THE NORTHEAST 1/4 OF AFORESAID BLOCK 5; THENCE RUN N89°55'12"W ALONG SAID NORTH LINE, 200.00 FEET TO THE WEST LINE OF THE EAST 200.00 FEET OF AFORESAID NORTH 1/2 OF THE NORTHEAST 1/4 OF BLOCK 5; THENCE RUN S00°24'02"W ALONG SAID WEST LINE, 150.00 FEET TO THE SOUTH LINE OF SAID NORTH 1/2 OF THE NORTHEAST 1/4 OF BLOCK 5; THENCE RUN N89°55'12"W ALONG SAID SOUTH LINE, 455.31 FEET TO THE EAST LINE OF THE WEST 6.00 FEET OF SAID NORTH 1/2 OF THE NORTHEAST 1/4 OF BLOCK 5; THENCE RUN N00°06'15"E ALONG SAID EAST LINE, 306.96 FEET TO THE SOUTH RIGHT OF WAY LINE OF STORY ROAD; THENCE RUN N89°53'25"W ALONG SAID SOUTH RIGHT OF WAY LINE, 6.00 FEET TO THE WEST LINE OF SAID NORTH 1/2 OF THE NORTHEAST 1/4 OF BLOCK 5; THENCE RUN S00°06'15"W ALONG SAID WEST LINE, 123.24 FEET; THENCE RUN N89°50'54"W, 268.61 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL OF LAND CONTAINS 7.251 ACRES MORE OR LESS.

LOCATION MAP  
NOT TO SCALE



LEGEND

|        |                              |       |                             |
|--------|------------------------------|-------|-----------------------------|
| DOC#   | DOCUMENT NUMBER              | POC   | POINT OF COMMENCEMENT       |
| D.B.   | DEED BOOK                    | POB   | POINT OF BEGINNING          |
| O.R.   | OFFICIAL RECORDS BOOK        | PG.   | PAGE                        |
| R/W    | RIGHT OF WAY                 | PB    | PLAT BOOK                   |
| LB     | LICENSED BUSINESS            | DUE   | DRAINAGE & UTILITY EASEMENT |
| P.S.M. | PROFESSION SURVEYOR & MAPPER | UE    | UTILITY EASEMENT            |
| PRM    | PERMANENT REFERENCE MONUMENT | DLS&U | DRAINAGE, LANDSCAPE         |
| PCP    | PERMANENT CONTROL POINT      |       | SIDEWALK & UTILITY EASEMENT |

- ☐ DENOTES SET PERMANENT REFERENCE MONUMENT, A 4"x4" CONCRETE MONUMENT "PRM LB 7274", UNLESS NOTED OTHERWISE
- DENOTES SET PERMANENT REFERENCE POINT, A NAIL AND DISC STAMPED "PCP LB 7274", UNLESS NOTED OTHERWISE

NOTICE: THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.



CERTIFICATE OF AUTHORIZATION  
LB 7274

301 N. TUBB STREET  
SUITE 106  
OAKLAND, FL 34760  
Phone No. 407.905.8877  
Fax No. 407.905.8875

SHEET 1 OF 3

PLAT  
BOOK

PAGE

LAKEVIEW VILLAGE ESTATES

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, LAKEVIEW REAL ESTATE FUND LLC, A FLORIDA LIMITED LIABILITY COMPANY BEING THE OWNER IN FEE SIMPLE OF THE LANDS DESCRIBED IN THE FOREGOING CAPTION TO THIS PLAT, HEREBY DEDICATES SAID LANDS AND PLAT FOR THE EASEMENTS, RIGHTS, USES AND PURPOSES HEREIN EXPRESSED, INCLUDING AS SET FORTH IN THE PLAT NOTES.

IN WITNESS WHEREOF, THE UNDERSIGNED LAKEVIEW REAL ESTATE FUND LLC, A FLORIDA LIMITED LIABILITY COMPANY HAVE CAUSED THESE PRESENTS TO BE EXECUTED AND ACKNOWLEDGED ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2024

LAKEVIEW REAL ESTATE FUND LLC  
A FLORIDA LIMITED LIABILITY COMPANY

By: MIKELE DEVELOPMENTS LLC  
A FLORIDA LIMITED LIABILITY COMPANY

By: MIKELE HOLDINGS GROUP LLC  
A FLORIDA LIMITED LIABILITY COMPANY

By: \_\_\_\_\_  
THIAGO J. DAVILA, MANAGER

SIGNED AND SEALED IN THE PRESENCE OF:

SIGNATURE \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
PRINT NAME: \_\_\_\_\_ PRINT NAME: \_\_\_\_\_

STATE OF FLORIDA  
COUNTY OF ORANGE

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY MEANS OF \_\_\_\_\_ PHYSICAL PRESENCE OR \_\_\_\_\_ ONLINE NOTARIZATION, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2024 BY THIAGO J. DAVILA, AS MANAGER OF MIKELE HOLDINGS GROUP LLC, A FLORIDA LIMITED LIABILITY COMPANY, WHO IS PERSONALLY KNOWN TO ME OR HAS PRODUCED \_\_\_\_\_ AS IDENTIFICATION. THE INDIVIDUAL AND MANAGER DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION AND ACKNOWLEDGE THE EXECUTION THEREOF TO BE THEIR FREE ACT AND DEED AS SUCH MANAGER THEREUNTO DULY AUTHORIZED, AND THE SAID CONVEYANCE IS THE ACT AND DEED OF SAID LIMITED LIABILITY COMPANY.

IN WITNESS WHEREOF, I HAVE HERETO SET  
MY HAND AND SEAL ON THE ABOVE DATE.

Notary Public  
Print Name: \_\_\_\_\_  
Commission No. \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, that on \_\_\_\_\_, 2024 the foregoing plat was approved by the City Commission of Winter Garden, Florida.

Mayor  
Attest: \_\_\_\_\_  
City Clerk

QUALIFICATION STATEMENT OF  
SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING A PROFESSIONAL SURVEYOR AND MAPPER CERTIFIES THAT I HAVE PREPARED THE FOREGOING PLAT AND IT WAS MADE UNDER MY DIRECTION AND SUPERVISION AND THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES; AND THAT SAID LAND IS LOCATED IN, WINTER GARDEN, ORANGE COUNTY, FLORIDA.

Dated: \_\_\_\_\_ Signed \_\_\_\_\_  
BISHMAN SURVEYING AND MAPPING, INC. ARON D. BISHMAN, P.S.M.  
301 N. TUBB STREET, SUITE 106 Florida Registration No. 5668  
OAKLAND, FL 34760 Licensed Business No. 7274

CERTIFICATE OF REVIEW BY CITY SURVEYOR

I HEREBY CERTIFY that I have examined the forgoing plat and find it to comply in form with all the requirements of Part 1 of Chapter 177, Florida Statutes.

Jeffrey M. Schwartz, PSM 6618 Date

CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY, that the foregoing plat was recorded in the Orange County Official Records on \_\_\_\_\_ as File No. \_\_\_\_\_

County Comptroller in and for Orange County, Florida

By \_\_\_\_\_

SHEET INDEX

SHEET 1 – LEGAL DESCRIPTION, DEDICATION,  
SURVEYOR'S NOTES AND LEGEND  
SHEETS 2 & 3 – BOUNDARY INFORMATION  
AND LOT GEOMETRY



## PAGE

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## PAGE

GRAPHIC SCALE

0 20 40 80 160

( IN FEET )

1 INCH = 40 FT.

301 N. TUBB STREET  
SUITE 106  
OAKLAND, FL 34760  
Phone No. 407.905.8877  
Fax No. 407.905.8875



# CITY OF WINTER GARDEN

## DEVELOPMENT REVIEW COMMITTEE

(407) 656-4111 – FAX (407) 877-2363

### MEMORANDUM

**TO:** KELLY CARSON, PLANNING DIRECTOR  
**FROM:** DEVELOPMENT REVIEW COMMITTEE  
**DATE:** MARCH 21, 2025  
**SUBJECT:** LAKEVIEW VILLAGE ESTATES - REVIEW OF FINAL PLAT – FINAL REVIEW

We recommend approval of the final plat subject to the following conditions and comments:

#### ENGINEERING COMMENTS

1. Final signed mylar, along with all other original executed documents, will be required prior to scheduling for the City Commission meeting, after Staff approval.
2. Planning Department shall review plat for compliance with the PUD zoning, Preliminary Plat, and Development Agreement, including lighting, buffers, signage, landscape/hardscape, etc.
3. City Attorney had no further comments.
4. All recording information needs to be inserted where appropriate once available.
5. Transfer of all common areas, tracts, and easements to the HOA and the City shall take place prior to, or with final plat recording (via deed). A draft deed has been provided for the City Attorney and City's Reviewing Surveyor to review.

A draft deed for tract RW-1 to be conveyed to the City via fee simple warranty deed has been provided for review by the City Attorney.

6. City Attorney shall review and approve the Dedication, HOA/CCR's, and Surveyors Notes for maintenance responsibilities and City's ability to lien individual lot owners if City performs maintenance, etc.
7. Performance Bond: The improvements are not completed (C of C not issued). A Performance bond or letter of credit in the amount of **120%** of the cost of all incomplete improvements shall be provided to the City, based on the Design Engineer's certification and executed construction contract (final pay application). Performance Bond/LOC amount shall include cost of street lighting from Duke Energy (if not already paid or installed); street and regulatory signs, final lift of asphalt, required landscaping, walls, amenities, etc. City Attorney shall approve the form of the bond or letter of credit prior to final plat recording. Provide Design Engineer's certification of cost of any incomplete improvements and contractor's contract for the work. Final plat will not be forwarded to the City Commission for approval without performance bond (unless C of C has been issued).

Based on the Design Engineer's certification, a Performance Bond (#018229257) has been provided in the amount of \$1,179,645.00 representing 120% of the cost of the incomplete improvements.

8. Maintenance Bond: A maintenance bond or letter of credit is required in the amount of **20%** of the cost of the improvements and shall comply with the City's ordinance concerning duration. This item can be delayed until the improvements have been installed as a condition of issuing the Certificate of Completion. Design Engineer shall provide certification of total cost of this phase, based on Contractor's final pay application, for determination of Maintenance Bond amount.



9. The Certificate of Completion has not been issued for this phase. Upon completion of all improvements, the Design Engineer shall provide signed and sealed as-built record drawings (2 sets), electronic copies of record drawings (pdf and CAD), all permitting clearances, and a certification letter stating that all improvements have been completed in substantial compliance with the approved plans and specifications. Copies of all clearances, certifications, etc. from other permitting agencies shall be provided to the City.
10. Approval of Certificate of Completion will be contingent upon having all improvements, fire protection, street lighting, street signs and regulatory signage and striping installed, approved and accepted by the City of Winter Garden. No additional building permits and no certificates of occupancy will be issued for any structure until the Certificate of Completion for the infrastructure has been issued.
11. Sidewalks internal to the development shall be constructed adjacent to all lands not containing building lots prior to final acceptance. This shall include all stormwater, conservation, lift station, or recreation tracts, abutting roadways, pedestrian walkways, etc. Sidewalks external to the development shall be constructed upon final completion.
12. Documentation that all outstanding fees owed the City for review by legal, surveying and engineering consultants shall be provided prior to final plat recording by the City's Finance Department.
13. Design Engineer has provided certification that he has reviewed the final plat and that it provides all necessary easements for drainage, access and utilities. Easement widths shall comply with City Code and approved construction plans.
14. Additional comments may be generated at subsequent reviews.

Please review this information and contact our office if you have any questions. Thank you.



**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Jim Monahan P.E., City Engineer – Public Services

**Via:** Jon C Williams, City Manager

**Date:** April 3, 2025

**Meeting Date:** April 10, 2025

**Subject:** Request to issue a Purchase Order for the Crest Avenue WWTF Construction Phase Services to AtkinsRealis.

**Issue:** The Crest Avenue WWTP is currently being built and construction phase services are necessary per the funding requirements and to ensure the plant is built and operates per the Engineer's design.

The Scope of Services include the following tasks:

- Task 09 – Construction Project Management
- Task 10 – Funding & Finance
- Task 11 – Engineer of Record Services
- Task 12 – Project Closeout

**Recommended Action:**

Recommend approving the Purchase Order for Construction Phase Services with AtkinsRealis in the amount of \$3,497,610.63

**Attachments/References:**

Exhibit A – Amendment 3 to Scope of Services for Atkins



482 South Keller Road  
Orlando, FL 32810-6101

Direct: 407.806.4178  
[yvonne.picard@atkinsrealis.com](mailto:yvonne.picard@atkinsrealis.com)

April 3, 2025

Your reference: RFQ 17-025

Jim Monahan, PE  
Rob Heaviside, PE  
City of Winter Garden  
300 West Plant Street  
Winter Garden, FL 34787

Dear Jim and Rob:

Attached for your review is the revised Amendment 3 to the Scope of Services and professional services fee for the City's RFQ 17-025, Crest Avenue WWTF Capacity Expansion & Process Optimization. This amendment includes tasks related to the services during construction.

We again thank you for the opportunity to serve the City. Please let us know if you have any questions or concerns.

Kind regards,

A handwritten signature in blue ink that reads "Yvonne Picard".

Yvonne Picard, PE  
Project Manager | [yvonne.picard@atkinsrealis.com](mailto:yvonne.picard@atkinsrealis.com) | 407.806.4178





EXHIBIT A | AMENDMENT 3  
TO SCOPE OF SERVICES

Crest Avenue WWTF Expansion

Construction Phase Services





Table of Contents

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Appendices:

- A Cost Details
- B Black and Veatch Proposal
- C Bailey Engineering Proposal
- D Anticipated Submittal List



## Crest Avenue WWTF Expansion Amendment 3

**Background**

The City of Winter Garden's (City) existing Wastewater Treatment Facility (WWTF) is located at 101 E. Crest Avenue. The Crest Ave WWTF is an advanced domestic wastewater treatment facility with 4.75 million gallon per day (MGD) annual average daily flow (AADF) design capacity.

In June 2021, the AtkinsRéalis Team (AtkinsRéalis) was awarded the contract RFQ #17-025, WWTF Capacity Expansion and Process Optimization by the City. Objectives of the RFQ are to design and construct the expansion of the treatment capacity at the Crest Ave WWTF through optimization of the treatment process to meet expected future effluent quality requirements.

Following the selection of the Construction Manager at Risk (CMAR), the design was split into three distinct packages. The first bid package was for the preselection of the Membrane System Supplier which led to the development of the CMAR's first Guaranteed Maximum Price (GMP-1) package which was accepted by the City in 2023. The project has now moved into the construction phase with the City's acceptance of GMP-2 which contained early construction activities and the pre-purchase of long-lead equipment. The final design package was provided by AtkinsRéalis to the City and CMAR in October 2024. Per the City's request for a final GMP number, and the CMAR's has combined with the final design package with the earlier GMP-2 bid package to create one final bid package. To assist with meeting the project schedule, the EOR efforts associated with the final bid package, early out submittals and the coarse screen design modifications as defined in this Amendment have begun and will be billed upon acceptance of the Amendment and receipt of the associated Purchase Order.

The current design phase services contract with the City includes the Tasks listed below.

- Task 01 Project Administration
- Task 02 Funding & Finance Support
- Task 03 Process Evaluation & Optimization
- Task 04 Survey, SUE, Geotechnical & Structural Assessment
- Task 05 Preliminary Engineering
- Task 06 Permitting Services
- Task 07 Final Design
- Task 08 CMAR Support Services

These Tasks are 96% complete as of the November 2024 invoice.

Under this amended Scope of Work, AtkinsRealis will provide Engineer of Record (EOR) services during the bidding and construction phases including CMAR submittal reviews, start-up assistance, and construction observation over a 42-month period. The project will continue with for an additional 6 months to complete project closeout services. Tasks 09 -12 have been created to document the scope and budget associated with these services. These tasks are listed here and further defined below.

- Task 09 Construction Phase Project Management
- Task 10 Funding and Finance



## Crest Avenue WWTF Expansion Amendment 3

Task 11 EOR Services During Construction

Task 12 Project Closeout

**Construction Phase Scope of Work****Task 09 Construction Phase Project Management****09.01 General Project Administration****09.01.1 General Project Coordination**

AtkinsRéalis shall perform general project coordination and management activities, including general administrative activities for this authorization, as well as specific coordination activities with the team members.

**09.01.2 Invoicing and Progress Reports**

AtkinsRéalis shall prepare and submit progress reports and invoices to the City on a monthly basis to advise and highlight the overall progress of the design, permitting, and construction administration tasks, as well as identify completed items and pending activities. The monthly progress reports will also include a summary description of the pending activities, any potential issues identified, any potential impact to the schedule, and any potential change in scope of services.

**09.01.3 Document Control**

Information management during construction phase will be critical to the success of the project. AtkinsRéalis will provide management of construction phase documents using multiple software platforms as defined below.

AutoDesk BIM 360 – AtkinsRéalis will continue to manage all CAD documents, including all changes to the models and drawing files. Plot files (pdf format) of all modified CAD documents will be stored in the project folder for historical documentation.

Microsoft Teams – AtkinsRéalis will continue to maintain the current project site on Microsoft Teams for management of non-CAD documents such as meeting agendas, summaries, specifications, and regulatory submittals.

Red Team Construction Software – The CMAR utilizes Red Team software for management of construction documents. AtkinsRéalis will be provided with access to the project team site for use in managing review documents.

**09.02 General Construction Coordination****09.02.1 Pre-Construction Conference**

AtkinsRéalis will prepare an agenda, schedule, and lead a pre-construction conference prior to contractor mobilization. Anticipated attendees include representatives from the CMAR, City, and



## Crest Avenue WWTF Expansion Amendment 3

AtkinsRéalis Team. A draft of the contractor's baseline construction schedule will be reviewed and marked up for improvement, as needed. AtkinsRéalis will prepare an attendance sheet and associated meeting minutes for distribution to all parties in attendance.

**09.02.2 CMAR Progress Meetings**

Up to three members of the AtkinsRéalis Team will attend bi-weekly progress meetings to review the project schedule, budget, schedule of values, construction progress, and prospective change order requests. It is anticipated up to one hundred (100) progress meetings will be held over the duration of the construction phase of 42 months. Provisions will be made for some participants to participate virtually, as required.

**09.02.3 Schedule and Cost Monitoring**

The CMAR will be required to develop a cost-loaded construction schedule to monitor work progress, evaluate prospective changes, coordinate work of subcontractors, and evaluate monthly progress payments. AtkinsRéalis will review the draft schedule for conformance with the contract documents and provide pertinent feedback to the City and CMAR, accordingly. Upon acceptance of the baseline schedule, the City will provide continual monitoring of the contractor's activities and identify prospective schedule slippage and necessary recovery activities to maintain the timely execution of the project.

**Task 10 Funding and Finance Support****10.01 Grant Funding Applications**

AtkinsRéalis will provide annual funding and finance support associated with applying for up to four grants for the next two grant cycles. The four grants anticipated are the SJRWMD Cost-share Program, FDEP Water Quality Improvement Grant, the Springs Grant, and the Alternative Water Supply Grant. Grant support will include preparing draft and final applications for City review, meeting the grant schedule and requirements, submitting applications via the online application system, and replying to four Requests for Additional Information (RAI). One review meeting per application cycle will be scheduled with the City.

**Task 11 EOR Services During Construction**

AtkinsRéalis will serve as the Engineer of Record (EOR) responsible for the review of technical components related to said construction work. Submittals, RFIs, and change order requests will be administrated through the project document control system.

**11.01 Conformed Contract Documents**

AtkinsRéalis will prepare Conformed Contract Documents, incorporating addenda from GMP-1 and GMP-2 for use by the City, CMAR, and AtkinsRéalis Team. Six (6) half-size sets and one full-size set of conformed Construction Drawings and Specifications will be provided to the CMAR. Two half-size sets will be provided to the City. Electronic versions of all documents will be provided to the City and the CMAR.



## Crest Avenue WWTF Expansion Amendment 3

## 11.02 Site Visits

Members of each discipline of the AtkinsRéalis design team will conduct site visits during the construction phase to evaluate general compliance with the requirements of the contract documents and design intent. The purpose of these site visits is to provide guidance and feedback to the CMAR field staff, assist in the resolution of RFIs, evaluate conformance with design requirements, and enable the EORs to execute final certifications upon completion of the project. A total of 140 site visits have been budgeted for this task. The anticipated breakdown of the site visits by discipline is shown below.

- Civil – 10
- Architecture and Building Services – 10
- Structural – 20
- Process Mechanical – 25
- HVAC – 5
- Electrical and I&C - 70

## 11.03 Shop Drawings, Material Submittals, and Equipment Review

AtkinsRéalis will review contractor submittals and resubmittals including shop drawings, material submittals, and equipment data to determine conformance with design concepts and compliance with the contract documents. The review of subsequent information will not extend to means, methods, techniques, sequences or procedures of construction, or to safety precautions and programs incident thereto. It will be the intent that all shop drawings, material, and equipment submittals will be reviewed and returned within thirty (30) days. For critical elements, if alerted in advance, AtkinsRéalis will endeavor to shorten the turnaround time. A submittal log will be prepared to track submittals and subsequent responses, and an electronic copy of the database will be provided to the City upon project closeout. See Attachment D for a breakdown of the anticipated submittals.

## 11.04 Requests for Information (RFIs)

AtkinsRéalis will prepare responses for RFIs as may be required throughout the project. An RFI log will be prepared to track RFI submittals and subsequent responses, and an electronic copy of the database will be provided to the City upon project closeout. For budgeting purposes, up to 10 site visits have been included in the budget for this task. Major design modifications beyond markups to existing drawings or hand sketches are not included in this task.

## 11.05 Change Order Proposals

AtkinsRéalis Electrical and Controls Team will support the City with technical evaluation of up to ten (10) CMAR-initiated and/or City-initiated change requests as part of Owner contingencies. The evaluation will include conformance to the contract documents and a review of the CMAR electrical and control cost estimates. Change order proposals will be administered through the CMAR document control system and a subsequent log will be prepared to track requests and responses. An electronic copy of the change order proposal log will be provided to the City upon project closeout.



## Crest Avenue WWTF Expansion Amendment 3

### 11.06 Design Modifications

AtkinsRéalis will provide design services for two major modifications as determined in the 90% Design Review Workshop. These modifications include 1) relocation of the proposed coarse screens and 2) modifications/rehabilitation of the existing manholes located adjacent to Process Train 2.

Major modifications will be defined as requiring the following:

- Multi-discipline engineering support
- Changes that require updates to the 3D model
- New and/or significantly revised construction drawings

### 11.07 Review of Manufacturers' Operation and Maintenance Manuals

AtkinsRéalis will review Operation and Maintenance (O&M) manuals to ensure sufficient information is available including, but not limited to, installation instructions, maintenance and troubleshooting logs, manufacturer contact information, and replacement parts lists are provided. A log will be generated for all pertinent parties to monitor progress. Upon project closeout, an electronic copy of the database and associated material will be provided to the City. See Attachment D for a breakdown of the anticipated submittals.

### 11.08 Commissioning and Process Operations Training Services

In order to maintain plant operations during construction, sequencing of construction activities is required. The four separate startup phases include:

- Phase 1: IPS and Coarse Screens
- Phase 2: Headworks, Chemical Facilities, and Process Train 2
- Phase 3: Process Train 1
- Phase 4: East Process Train and EQ Basin Modifications

The CMAR will facilitate the planning, scheduling and sequencing of activities, and manufacturer-provided training for Operations Staff. AtkinsRéalis will provide EOR services associated with commissioning and performance testing for each major facility and associated components once operational readiness has been verified by the CMAR.

AtkinsRéalis will provide 14 days of biological and process operations support required during the startup phase associated with Process Train 2 and as-needed virtual support during the startup phase associated with Process Train 1. Process operation and controls training by the EOR is included in this task.

### 11.09 Substantial Completion Activities

In order to release vendor retainage, AtkinsRéalis will coordinate with the City to perform a project walk through with the CMAR, Engineer, and City for each of the four phases of construction completion as described above. An AtkinsRéalis Team consisting of each discipline EOR will inspect the work completed, identify work deficiencies, and confirm disturbed areas have been adequately restored. A punch-list will be developed to document any unresolved items and submitted in writing for review by the City and CMAR.



## Crest Avenue WWTF Expansion Amendment 3

Upon notification by the CMAR, AtkinsRéalis and the City will verify the completion of the punch-list items. Once in agreement, AtkinsRéalis will coordinate with the City to notify the CMAR of Owner acceptance of the system.

**Task 12 Project Close-out****12.01 Project Close-Out**

In coordination with the RPR, AtkinsRéalis will work with the City and CMAR to provide post-construction services. This includes addressing the final administration of construction documents and record drawings, the issuance of recommendation to accept final completion, the transfer of associated databases and documents, close out of permits, and the confirmation of storage locations of spare materials.

**12.02 Final Completion**

The CMAR will provide notification when the punch-list items are completed and when work is considered to be at the state of Final Completion. Upon notification, AtkinsRéalis will perform a project walk through with the CMAR and City to verify that punch-list items have been adequately addressed. Any remaining deficiencies will be documented in writing to the CMAR and inspected upon CMAR completion.

**12.03 Record Drawings**

AtkinsRéalis will create record drawings that reflect differences in the construction drawings and actual work completed. The CMAR will be responsible for maintaining a set of “red-line” drawings throughout the course of work to reflect “as-built” conditions. AtkinsRéalis will update the construction drawings to reflect as-built conditions.

**Assumptions**

AtkinsRéalis makes the following assumptions in representing this amended scope of services to the City.

1. The construction period will last 42 months. An extension of the construction period beyond 42 months will be an Amendment to this scope.
2. Change Order Proposal reviews will be conducted by the City with electrical and instrumentation support from the AtkinsRéalis Team.
3. The City will provide direct compensation to the materials testing firm that provides tests for compliance with the specifications. Copies of those reports will be made available to AtkinsRéalis upon request.
4. The Contractor and/or City will provide all construction related layouts, survey, geotechnical services, material testing and other services during the construction phase of this project.



## Crest Avenue WWTF Expansion Amendment 3

5. The City will provide review of the CMAR's pay requests to ensure conformance with the contract documents, schedule of values, and to ensure adherence to SRF and grant requirements. A review of the schedule of values and material storage areas will be performed by the City to verify the existence, quantity, and compliance with the pay request.
6. Record Drawings, as required by the contract documents, will be prepared by AtkinsRéalis in electronic format (PDFs) and provided to the City.
7. Supplemental licensed Operations Staff is not included in this proposal.
8. The review of subsequent information or design modifications will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto.
9. Asset management services are not included in this Proposal.
10. Full-time construction services will be provided by the City. Deficient work, inaccurate quantities, improper storage, or other deficiencies will be tabulated for the CMAR's review and reconciliation with a copy to AtkinsRéalis. City Inspectors will coordinate with the AtkinsRéalis Team for site visits for EOR verification activities. Daily inspection logs and photographs will be made available to the AtkinsRéalis Team.
11. A comprehensive Operations and Maintenance Manual for the expansion of the WWTP is not required.
12. Additional permits beyond closure of the FDEP permit will be provided by the CMAR in coordination with the City.

### Quality Assurance

AtkinsRéalis places the highest importance on development and implementation of a robust Quality Assurance Plan (QAP) on each project. The QAP, as a core principle, provides independent review of all deliverables and significant calculations by a qualified professional not responsible for preparation of the deliverable or calculation. The AtkinsRéalis' QAP is included in the proposed services and will be available to the City upon request.

### Compensation

AtkinsRéalis proposes to perform the work described herein on a time and materials basis with budgets between the tasks and expenses being interchangeable as needed. Hourly bill rate will be based on a 3.0 multiplier, consistent with pricing herein. The estimated total professional services fee for this Amendment, including labor and expenses associated with the amended scope of services, is not to exceed \$3,497,610.63. The fee breakdown is shown in Table 1 with details in Attachments A, B, and C.



## Crest Avenue WWTF Expansion Amendment 3

Table 1. Fee for Construction Services

| Task No.                               | Task Description                      | Fee                    |
|----------------------------------------|---------------------------------------|------------------------|
| 9                                      | Construction Phase Project Management | \$ 606,346.95          |
| 10                                     | Funding and Finance                   | \$ 25,084.29           |
| 11                                     | EOR Services During Construction      | \$ 2,599,476.74        |
| 12                                     | Project Closeout                      | \$ 207,902.65          |
|                                        | Expenses                              | \$ 58,000.00           |
| <b>TOTAL CONSTRUCTION SERVICES FEE</b> |                                       | <b>\$ 3,497,610.63</b> |



## **Attachment A**

### **Cost Details**



|            |                                       | Labor Hours by Project Role |                        |                      |                |                    |                  |                 |                  |                 |                |                 |                |                   |             |                   | Submittal Date: Mar-31-2025 |                 |                           |              |              |                 |
|------------|---------------------------------------|-----------------------------|------------------------|----------------------|----------------|--------------------|------------------|-----------------|------------------|-----------------|----------------|-----------------|----------------|-------------------|-------------|-------------------|-----------------------------|-----------------|---------------------------|--------------|--------------|-----------------|
| Bill Rate: |                                       | \$ 429.11                   | \$ 325.85              | \$ 304.22            | \$ 293.56      | \$ 271.55          | \$ 251.47        | \$ 250.39       | \$ 243.38        | \$ 221.61       | \$ 208.48      | \$ 187.02       | \$ 170.35      | \$ 157.32         | \$ 132.62   | \$ 89.22          |                             |                 |                           |              |              |                 |
| Task#      | Description                           | Sr. Technical Advisor       | Principal Technologist | Sr. Process Engineer | Sr.Engineer IV | Sr.Project Manager | Delivery Manager | Sr.Architect IV | Sr. Engineer III | BIM Coordinator | Sr.Engineer II | Sr.Architect II | Sr. Engineer I | Sr.CAD Technician | Engineer II | Project Assistant | Total Hours                 | Labor           | Subcontract & Consultants | Travel       | ODCs         | Total Price     |
| 09         | Construction Phase Project Management | -                           | 148.00                 | -                    | 168.00         | 336.00             | 420.00           | -               | 84.00            | -               | -              | -               | -              | -                 | -           | 672.00            | 1,828.00                    | \$ 374,806.76   | \$ 231,540.19             | \$ -         | \$ -         | \$ 606,346.95   |
| 10         | Funding and Finance Support           | -                           | -                      | -                    | -              | 24.00              | -                | -               | -                | -               | -              | -               | -              | -                 | 140.00      | -                 | 164.00                      | \$ 25,084.29    | \$ -                      | \$ -         | \$ -         | \$ 25,084.29    |
| 11         | EOR Services During Construction      | 8.00                        | -                      | 40.00                | 991.00         | 142.20             | 422.90           | 76.30           | 1,896.00         | 154.00          | 180.00         | 204.75          | 1,620.50       | 160.00            | 684.00      | 249.75            | 7,029.40                    | \$ 1,460,071.74 | \$ 1,139,405.00           | \$ -         | \$ -         | \$ 2,599,476.74 |
| 12         | Project Close-out                     | -                           | -                      | -                    | 92.00          | 16.00              | 104.00           | 24.00           | 80.00            | 120.00          | 24.00          | -               | -              | 80.00             | 40.00       | 64.00             | 644.00                      | \$ 138,182.65   | \$ 69,720.00              | \$ -         | \$ -         | \$ 207,902.65   |
| 99         | Expenses                              |                             |                        |                      |                |                    |                  |                 |                  |                 |                |                 |                |                   |             |                   |                             | \$ -            | \$ -                      | \$ 20,900.00 | \$ 37,900.00 | \$ 58,800.00    |
|            |                                       |                             |                        |                      |                |                    |                  |                 |                  |                 |                |                 |                |                   |             |                   |                             | \$ 1,998,145.44 | \$ 1,440,665.19           | \$ 20,900.00 | \$ 37,900.00 | \$ 3,497,610.63 |



**Attachment B**

**Black and Veatch Proposal**





**BLACK & VEATCH**

**Black & Veatch Corporation**

201 S. Orange Ave., Ste 500, Orlando, FL 32801 USA

P +1 407-419-3562 E [ShahRR@bv.com](mailto:ShahRR@bv.com)

April 3, 2025

AtkinsRealis  
4082 South Keller Road  
Orlando, FL 32801

Crest Avenue WWTF Capacity Expansion & Process Optimization  
B&V Project 409716

Attention: Yvonne Picard, PE, Project Manager

Subject: Amendment 3 scope revision– Construction Services

Attached for your review is to Amendment 3 revision to the Scope of Services and professional services fee for the City's RFQ 17-025, Crest Avenue WWTF Capacity Expansion & Process Optimization. This amendment includes tasks related to the services during construction.

Please let us know if you have any questions or concerns.

Very truly yours,

Black & Veatch Corporation

Rasesh Shah

Rasesh R. Shah, P.E.  
Client Director

caw



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

#### Background

The City of Winter Garden's (City) existing Wastewater Treatment Facility (WWTF) is located at 101 E. Crest Avenue. The Crest Ave WWTF is an advanced domestic wastewater treatment facility with 4.75 million gallon per day (MGD) annual average daily flow (AADF) design capacity.

In June 2021, the AtkinsRéalis Team (AtkinsRéalis) was awarded the contract RFQ #17-025, WWTF Capacity Expansion and Process Optimization by the City. Objectives of the RFQ are to design and construct the expansion of the treatment capacity at the Crest Ave WWTF through optimization of the treatment process to meet expected future effluent quality requirements.

Following the selection of the Construction Manager at Risk (CMAR), the design was split into three distinct packages. The first bid package was for the preselection of the Membrane System Supplier which led to the development of the CMAR's first Guaranteed Maximum Price (GMP-1) package which was accepted by the City in 2023. The project has now moved into the construction phase with the City's acceptance of GMP-2 which contains early construction activities and the pre-purchase of long-lead equipment. The final design package will be provided by AtkinsRéalis to the City and CMAR by the end of September 2024 and the CMAR's associated GMP-3 is anticipated to be presented to the City in November 2024.

The current design phase services contract with the City includes the Tasks listed below.

Task 01 Project Administration

Task 02 Funding & Finance Support

Task 03 Process Evaluation & Optimization

Task 04 Survey, SUE, Geotechnical & Structural Assessment

Task 05 Preliminary Engineering

Task 06 Permitting Services

Task 07 Final Design

Task 08 CMAR Support Services

These Tasks will be complete following the delivery of final design documents.

Under this amended Scope of Work, AtkinsRealis will provide Engineer of Record (EOR) services during the bidding and construction phases including CMAR submittal reviews, start-up assistance, construction observation, and project closeout services. Tasks 09 -12 have been created to document the scope and budget associated with these services. Black & Veatch (B&V) has a subconsultant agreement with AtkinsRealis to perform the scope of services defined in the following sections. B&V is contracted to AtkinsRealis to lead the planning effort for biological process and MBR preliminary design. B&V will continue to support AtkinsRealis during construction phase of the project.

Task 09 Construction Phase Project Management

Task 10 Bid Phase Services

Task 11 EOR Services During Construction

Task 12 Project Closeout



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

#### Amended Scope of Work

#### Task 09 Construction Phase Project Management

##### 09.01 General Project Administration

##### 09.01.1 General Project Coordination

B&V shall perform project coordination and management activities, including general administrative activities with AtkinsRéalis and other team members as needed for this authorization. AtkinsRéalis is responsible for general project coordination for the project team, owner, and contractor.

##### 09.01.2 Invoicing and Progress Reports

B&V shall prepare and submit progress reports and invoices to AtkinsRéalis on a monthly basis to advise and highlight the overall progress, as well as identify completed items and pending activities. The monthly progress reports will also include a summary description of the pending activities, any potential issues identified, any potential impact to the schedule, and any potential change in scope of services.

##### 09.01.3 Document Control

Not in B&V scope.

##### 09.02 General Construction Coordination

##### 09.02.1 Pre-Construction Conference

B&V will attend the pre-construction meeting and provide comments for the meeting minutes prepared by AtkinsRéalis.

##### 09.02.2 CMAR Progress Meetings

One member of the B&V Team will attend bi-weekly CMAR progress meetings to review the project schedule, budget, schedule of values, construction progress, and prospective change order requests. It is anticipated up to one hundred (100) progress meetings will be held over the duration of the construction phase. The meetings will be virtual. B&V scope includes:

- One professional to attend all one hundred (100) progress meeting as requested by AtkinsRéalis

##### 09.02.3 Schedule and Cost Monitoring

Not in B&V scope.



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

#### Task 10 Bid Phase Services

##### 10.01 Bid Services

Not in B&V scope.

##### 10.02 Conformed Contract Documents

Not in B&V scope.

#### Task 11 EOR Services During Construction

AtkinsRéalis will serve as the Engineer of Record (EOR) responsible for the review of technical components related to said construction work. Submittals, RFIs, and change order requests will be administrated through the project document control system.

##### 11.01 Conformed Contract Documents

Not in B&V scope.

##### 11.02 Site Visits

B&V process team members will conduct site visits as requested during the construction phase to evaluate general compliance with the requirements of the contract documents and design intent. The purpose of these site visits is to provide guidance and feedback to AtkinsRéalis, assist in the resolution of RFIs, evaluate conformance with design requirements, and enable the EORs to execute final certifications upon completion of the project. B&V scope includes:

- A total of 24 hour budgeted for this task.

##### 11.03 Shop Drawings, Material Submittals, and Equipment Review

B&V will provide secondary submittal reviews from the process stand-point. AtkinsRéalis will have the primary responsibility for the review of contractor submittals including shop drawings, material submittals, and equipment data to determine conformance with design concepts and compliance with the contract documents. In addition to AtkinsRéalis, B&V will provide:

- secondary reviews for the following package: membrane equipment.

The review of subsequent information will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions and programs incident thereto. It will be the intent that all shop drawings, material, and equipment submittals will be reviewed and returned within thirty (30) days. For critical elements, if alerted in advance, B&V will endeavor to shorten the turnaround time.



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

#### 11.04 Requests for Information (RFIs)

B&V will assist AtkinsRéalis with preparing responses for CMAR's process/MBR related Request(s) for Information (RFIs) for

- a maximum of 40 hours as may be required throughout the project.

Any site visits associated with the resolution of RFIs have been included in Section 11.01 Site Visits. RFIs that result in design modifications beyond markups to existing drawings or hand sketches are addressed below in Section 11.05 Design Modifications.

#### 11.05 Change Order Proposals

B&V will assist AtkinsRéalis with review CMAR change orders related to process/MBR and verify their cost estimate for the work.

#### 11.06 Design Modifications

Not in B&V scope.

#### 11.07 Review of Manufacturers' Operation and Maintenance Manuals

Not in B&V scope.

#### 11.08 Commissioning and Process Operations Training Services

The commissioning and training support B&V will provide for this task is described in the following sections.

##### 11.08.1 Commissioning Support

Startup is defined as the phase where all the activities such as equipment, electrical I&C checkouts, SCADA functional testing (clean water to check out functionality of each process), functional acceptance testing (clean water running the systems together if possible) to ensure controls and all system equipment works prior to the introduction of process fluid (sludge, influent wastewater, fouled air etc.). Contractor is responsible for all the startup activities.

After all startup checks and clean water testing has been completed by the Contractor, B&V will participate in the commissioning process when the process fluid is introduced to the process or processes. The activities include seeding, process stabilization, and process monitoring. During this time, City operations would operate the plant with the support of the commissioning manager and commissioning support team in terms of reviewing data, troubleshooting process if needed and making sure commissioning happens according to plan without violations for all phases of the commissioning effort.

Operational acceptance testing for 14 day is typically performed as part of commissioning.



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

In order to maintain plant operations during construction, sequencing of construction activities will include four separate phases: Headworks, Process Train 1, Process Train 2, and East Process Train Modifications. A Commissioning manager and a full time RPR will coordinate with CMAR to facilitate the planning, scheduling and sequencing activities, and to start up and test the major facility components. Tasks that the Startup Coordinator will do is schedule and coordinate vendor testing, review the startup plan written by the contractor, witness functional testing with AtkinsRealis as sign off authorizer by their designated representative, assist with MOPO activities, and coordinate with B&V commissioning manager on timing of commissioning by phase. B&V will supply an onsite commissioning manager to assist the City with planning for the commissioning of each phase i.e. focusing on process seeding if needed, process stabilization, process control assistance, operational testing oversight, performance testing oversight as well as and bringing equipment and controls issues to the Startup Coordinator/CMAR attention so the correct party can rectify during commissioning.

B&V commissioning manager will lead the commissioning of Process Train 2 including MBR portions which will be limited to 14 days in the field. B&V will also provide 2 days of as-needed virtual support for Process Train 1 commissioning. In addition, B&V will provide remote support for the commissioning of two Process Trains including MBR portions. For the remote support, B&V will review the operating data provided by the City and provide process recommendations. AtkinsRéalisis commissioning manager will lead the commissioning of the rest of the project portions.

A commissioning plan will be coauthored by B&V and AtkinsRéalisis. B&V will write the Process Train 1 and Process Train 2 including MBR portions to the coauthored commissioning plan described below. AtkinsRéalisis will write the commissioning plan for the remaining portions of the project. B&V will also review AtkinsRéalisis portions and provide comments. The contents of this plan will include:

- Purpose of the plan
- Process flow diagrams showing process flow during each commission phase
- Roles and responsibilities of all parties during commissioning including contact information of key individuals
- Communications plan during commissioning
- All prerequisites that have to be met prior to the commissioning of each phase
- Procedure for the commissioning activity
- Sampling plan / data trending
- Issues log documenting issues during commissioning as well as how it was resolved and by which party

B&V will provide up to 4 training sessions (2 sessions per process area) to help accommodate training on all shifts. The training will include an in classroom including PowerPoint presentations as well as handouts. This training will be process centric and not covering maintenance topics or details about the equipment.

#### 11.08.2 Training

AtkinsRéalisis will setup all process training logistics with the City provide print out all handouts. B&V will lead the CEU approval process for the training and deliver CEUs to the operators if requested by the City. The B&V scope does not include this effort and associated fees for



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

obtaining CEUs. AtkinsRéalis will conduct the training on the headworks system and modified East Train and BV will provide process training on Process Train 1 and Process Train 2 including MBR portions. Substantial Completion Activities

#### 11.09 Substantial Completion Activities

Not in B&V scope.

### Task 12 Project Close-out

#### 12.01 Project Close-Out

Not in B&V scope.

#### 12.02 Final Completion

Not in B&V scope.

#### 12.03 Record Drawings

Not in B&V scope.

### Assumptions & Exclusions

AtkinsRéalis and B&V make the following assumptions in representing this amended scope of services to the City.

1. The construction period will last 42 months. An extension of the construction period beyond 42 months will be an Amendment to this scope.
2. Change Order Proposal reviews will be conducted by the City with electrical and instrumentation support from the AtkinsRéalis Team.
3. The City will provide direct compensation to the materials testing firm that provides tests for compliance with the specifications. Copies of those reports will be made available to AtkinsRéalis upon request.
4. The Contractor and/or City will provide all construction related layouts, survey, geotechnical services, material testing and other services during the construction phase of this project.



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

5. The City will provide review of the CMAR's pay requests to ensure conformance with the contract documents, schedule of values, and to ensure adherence to SRF and grant requirements. A review of the schedule of values and material storage areas will be performed by the City to verify the existence, quantity, and compliance with the pay request.
6. Record Drawings, as required by the contract documents, will be prepared by AtkinsRéalis in electronic format (PDFs) and provided to the City.
7. Supplemental licensed Operations Staff is not included in this proposal.
8. The review of subsequent information or design modifications will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.
9. Asset management services are not included in this Proposal.
10. Full-time construction services will be provided by the City. Deficient work, inaccurate quantities, improper storage, or other deficiencies will be tabulated for the CMAR's review and reconciliation with a copy to AtkinsRéalis. City Inspectors will coordinate with the AtkinsRéalis Team for site visits for EOR verification activities. Daily inspection logs and photographs will be made available to the AtkinsRéalis Team.
11. A comprehensive Operations and Maintenance Manual for the expansion of the WWTP is not required.
12. Additional permits beyond closure of the FDEP permit will be provided by the CMAR in coordination with the City.

### Contingency & Supplemental Services

B&V anticipates that approach modifications may be required during the construction phase to meet all of the City's project goals including miscellaneous facility rehabilitation objectives. B&V will attempt to support these changes generally consistent with the original approach but recognizes changes may be warranted in the event of such deviation. Supplemental services may be required for services not covered herein or as a result of unforeseen change requirements.

### Quality Assurance

B&V places the highest importance on development and implementation of a robust Quality Assurance Plan (QAP) on each project. The QAP, as a core principle, provides independent review of all deliverables and significant calculations by a qualified professional not responsible for preparation of the deliverable or calculation.

### Compensation

B&V has an inception to date fee of \$567,358.00 as of Amendment No.2 for Tasks 1 through 8. This Amendment No.3 B&V fee is 359,235.19 for Tasks 9 through 12 as shown in Table 1. The total fee for RFQ #17-025 following that acceptance of this amended Scope of Services for is \$926,593.19.



## SCOPE OF SERVICES

### **Crest Avenue WWTF Expansion Amendment 3**

B&V proposes to perform the work described herein on a lump sum basis with budgets between the tasks and expenses being interchangeable as needed. The estimated total professional services fee for this Amendment, including labor and expenses associated with the amended scope of services, is not to exceed \$926,593.19, as summarized in Tables 1 and 2 below and detailed in Attachment A.



## SCOPE OF SERVICES

### Crest Avenue WWTF Expansion Amendment 3

Table 1. Fee for Construction Services

| Task No.                    | Task Description                      | Fee          |
|-----------------------------|---------------------------------------|--------------|
| 9                           | Construction Phase Project Management | \$100,330.19 |
| 10                          | Bid Phase Services                    | \$0          |
| 11                          | EOR Services During Construction      | \$258,905.00 |
| 12                          | Project Closeout                      | \$0          |
|                             |                                       |              |
| Total Construction Services |                                       | \$359,235.19 |



|                              |                                                                 | Staffing Summary          |                              |                         |                     |                           |                           |                           |                                     |                                      |                                          | Hours  | Labor         | Subcontracts | Travel Expenses | Field/Misc Expenses | Project Total |
|------------------------------|-----------------------------------------------------------------|---------------------------|------------------------------|-------------------------|---------------------|---------------------------|---------------------------|---------------------------|-------------------------------------|--------------------------------------|------------------------------------------|--------|---------------|--------------|-----------------|---------------------|---------------|
| Client Position              |                                                                 | Principal Consultant      | Project Administration       | Billing                 | Senior Professional | Senior Specialist         | Staff Specialist          | Lead Specialist           | Operations Specialist               | Operations Specialist (Tech Editing) | Operations Specialist (Technical Review) |        |               |              |                 |                     |               |
| Discipline                   |                                                                 | PM&S - Project Management | PM&S - Project Admin Support | PM&S - Project Controls | PM&S - Estimating   | EDS - Process Engineering | EDS - Process Engineering | EDS - Process Engineering | Consulting - Operational Technology | Consulting - Operational Technology  | Consulting - Operational Technology      |        |               |              |                 |                     |               |
| Sub-Discipline               |                                                                 | PM - PD/CD                | Admin - Gen                  | PJC - General           | Estim - General     | Proc Eng - Wastewater     | Proc Eng - Wastewater     | Proc Eng - Wastewater     | Consult Mgt - Operational Tech      | Consult Mgt - Operational Tech       | Consult Mgt - Operational Tech           |        |               |              |                 |                     |               |
| Additional Information       |                                                                 |                           |                              |                         |                     |                           |                           |                           |                                     |                                      |                                          |        |               |              |                 |                     |               |
| HOURS\COST TOTALS IN USD \$: |                                                                 | 194                       | 89                           | 88                      | 32                  | 193                       | 54                        | 25                        | 514                                 | 34                                   | 106                                      | 1,329  |               | \$ -         |                 |                     |               |
| BILLING RATE IN USD \$:      |                                                                 | \$ 342.03                 | \$ 138.44                    | \$ 202.44               | \$ 286.44           | \$ 313.23                 | \$ 233.69                 | \$ 286.30                 | \$ 233.87                           | \$ 173.06                            | \$ 328.81                                |        |               |              |                 |                     |               |
| CONTRACT TOTALS IN USD \$:   |                                                                 | \$ 66,353.41              | \$ 12,321.59                 | \$ 17,814.80            | \$ 9,166.15         | \$ 60,453.65              | \$ 12,619.52              | \$ 7,157.60               | \$ 120,208.09                       | \$ 5,883.90                          | \$ 34,853.48                             |        | \$ 346,832.19 | \$ -         | \$ 12,403.00    | \$ -                | \$ 359,235.19 |
| Task                         | Description                                                     |                           |                              |                         |                     |                           |                           |                           |                                     |                                      |                                          |        |               |              |                 |                     |               |
| Task 9                       | Tasks 9 Project Management                                      |                           |                              |                         |                     |                           |                           |                           |                                     |                                      |                                          |        |               |              |                 |                     |               |
| 9/02                         | 9.01.1 General Project Corrodination                            | 44.00                     | 44.00                        |                         |                     | 46.00                     |                           |                           |                                     |                                      |                                          | 134.00 | \$ 35,549.44  |              |                 |                     | \$ 35,549.44  |
| 9/03                         | 9.01.2 Invoicing and Progress Reports                           | 17.00                     |                              | 88.00                   |                     | 19.00                     |                           |                           |                                     |                                      |                                          | 124.00 | \$ 29,580.67  |              |                 |                     | \$ 29,580.67  |
| 9/06                         | 9.02.2 CMAR Progress Meetings                                   | 102.00                    |                              |                         |                     |                           |                           |                           |                                     |                                      |                                          | 102.00 | \$ 34,886.84  |              |                 |                     | \$ 34,886.84  |
| Task 9 Subtotals             |                                                                 | 163.00                    | 44.00                        | 88.00                   |                     | 66.00                     |                           |                           |                                     |                                      |                                          | 361.00 | \$ 100,330.19 |              |                 |                     | \$ 100,330.19 |
| Task 11                      | Task 11 EOR Services During Construction                        |                           |                              |                         |                     |                           |                           |                           |                                     |                                      |                                          |        |               |              |                 |                     |               |
| 11/01                        | 11.01 Site Visits                                               | 5.00                      |                              |                         |                     | 25.00                     |                           |                           |                                     |                                      |                                          | 30.00  | \$ 9,540.92   |              | \$ 330.00       |                     | \$ 9,870.92   |
| 11/02                        | 11.02 Shop Drawings, Material Submittals, and Equipment Review  |                           | 7.00                         |                         |                     | 11.00                     |                           | 25.00                     |                                     |                                      |                                          | 43.00  | \$ 11,572.25  |              |                 |                     | \$ 11,572.25  |
| 11/03                        | 11.03 Requist for Information                                   | 3.00                      | 9.00                         |                         |                     | 9.00                      | 41.00                     |                           |                                     |                                      |                                          | 62.00  | \$ 14,672.66  |              |                 |                     | \$ 14,672.66  |
| 11/04                        | 11.04 Change Order Proposals                                    | 7.00                      | 5.00                         |                         | 32.00               | 13.00                     |                           |                           |                                     |                                      |                                          | 57.00  | \$ 16,324.58  |              |                 |                     | \$ 16,324.58  |
| 11/05                        | 11.08 Comissioning and Process Operations and Training Services | 17.00                     | 23.00                        |                         |                     | 69.00                     | 13.00                     |                           | 514.00                              | 34.00                                | 106.00                                   | 776.00 | \$ 194,595.17 |              | \$ 12,073.00    |                     | \$ 206,668.17 |
| Task 11 Subtotals            |                                                                 | 31.00                     | 45.00                        |                         | 32.00               | 127.00                    | 54.00                     | 25.00                     | 514.00                              | 34.00                                | 106.00                                   | 968.00 | \$ 246,502.00 |              | \$ 12,403.00    |                     | \$ 258,905.00 |



## **Attachment C**

### **Bailey Engineering Proposal**





April 2, 2025

Ms. Yvonne Picard, PE  
Atkins Réalis  
482 South Keller Road  
Orlando, FL 32810-6101

Re: Crest Avenue WWTF Capacity Expansion & Process Optimization  
Winter Garden, Florida

Dear Ms. Picard,

We are pleased to submit our proposal for general services during construction for the above project. The following serves to provide an overview of the engineering services Bailey Engineering Consultants, Inc. (BEC) intends to furnish on the referenced project to Atkins Réalis (AR). Our work includes construction services starting January 1<sup>st</sup>, 2025 and ending July 1<sup>st</sup>, 2028. Our work scope includes the following:

#### **Task 09 - Construction Phase Project Management**

##### **09.01 General Project Administration – By Others**

###### **09.01.1 General Project Coordination**

BEC shall perform general project coordination and management activities, including general administrative activities, as well as specific coordination activities with the team members.

###### **09.01.2 Invoicing and Progress Reports**

BEC shall prepare and submit progress reports and invoices to AR on a monthly basis to advise and highlight the overall progress of construction tasks, as well as identify items completed, and on-going and pending activities.

###### **09.01.3 Document Control – By Others.**

##### **09.02 General Construction Coordination**

###### **09.02.1 Pre-Construction Conference**

BEC will attend pre-construction conference(s) prior to Contractor mobilization. Anticipated attendees include BEC team members. The Contractor's baseline construction schedule will be reviewed.

###### **09.02.2 CMAR Progress Meetings**

Up to three members of the BEC Team will attend periodic progress meetings via Teams to review the project schedule, budget, schedule of values, construction progress, and prospective change order requests.



**09.02.3 Schedule and Cost Monitoring**

BEC will review the draft schedule for conformance with the contract documents and provide pertinent feedback to AR. Upon acceptance of the baseline schedule, BEC will provide the monitoring of the Contractor's activities and identify prospective schedule slippage and necessary recovery activities to maintain the timely execution of the project.

**09.02.4 Invoicing and Project Payments – By Others.****Task 10 - Funding and Finance Support – By Others.****Task 11 - EOR Services during Construction**

BEC will serve as the Engineer of Record responsible for the review of technical components related to said construction work. Submittals, RFIs and change order requests will be administrated through the project document control system.

**11.01 Conformed Contract Documents**

BEC will prepare Conformed Contract Documents, incorporating addenda from GMP-1, GMP-2 and GMP-3 for use by the City, CMAR, and AR Team. Electronic versions of all documents will be provided to AR.

**11.02 Site Visits – General Observation**

BEC will conduct site visits during the construction phase to evaluate general compliance with the requirements of the contract documents and design intent. The purpose of these site visits is to provide guidance and feedback to the CMAR field staff, evaluate conformance with design requirements, and enable the EORs to execute final certifications upon completion of the project.

**11.03 Shop Drawings, Material Submittal, and Equipment Review**

BEC will review contractor submittals including shop drawings, material submittals and equipment data to determine conformance with design concepts and compliance with the contract documents. The review of subsequent information will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto. It will be the intent that all shop drawings, material and equipment submittals will be reviewed and returned within thirty (30) days.

**11.04 Requests for Information**

BEC will support the City in preparing responses for CMAR's Request(s) for Information (RFIs) as may be required throughout the project.

**11.05 Change Order Proposals**

BEC will provide evaluation of CMAR-initiated change order requests and/or City-initiated change order requests for submittal to the CMAR. The evaluation will include conformance to the contract documents.

**11.06 Design Modifications – Not Provided****11.07 Operations Staff Support – Site Observations**



**Field Representative**

BEC will provide Field Representative(s) (FR) for portions of the construction activities. The responsibility of the FR will be to observe the performance and verify conformance to the requirements established in the contract documents. The FR will work with AR RPR.

- The FR will perform walk-throughs of the project site to review and document conditions prior to and after construction activities.
- Conduct on-site observations of work by the CMAR to observe progress, quality and determine if work is generally proceeding within conformance to the contract documents.
- Witness and/or schedule additional resources to witness material testing, including compaction, concrete composition, slump and strength.
- Report to AR whenever work is considered unsatisfactory, faulty or defective or does not conform to the contract documents, has been damaged, does not meet the requirements of any inspections, tests or approvals. The FR will advise AR when work should be corrected or rejected and/or requires special testing and inspection. .

**11.08 Review of Manufacturers' Operation and Maintenance Manuals**

O&M manuals will be received and reviewed by BEC.

**11.09 Testing and Startup Services**

In order to maintain plant operations during construction, sequencing or construction activities includes three separate phases: Headworks, Process Train 2 and Process Train 1. East Process Train services are not included herein. BEC will provide qualified, experienced staff to oversee the startup of equipment and facility operations. East train services are not included in this proposal.

**11.10 Substantial Completion Activities**

BEC will perform project walk throughs with the CMAR, and City for the three phases of construction completion as described above. BEC will observe the work completed, identify work deficiencies and confirm disturbed areas have been adequately restored. A punch-list will be developed to document any unresolved items and submitted in writing for review by AR and CMAR.

BEC will verify the completion of the punch-list items.

**Task 12 - Project Close-out****12.01 Post-Construction Services – Not Provided.****12.02 Final Completion – Not Provided****12.03 Record Drawings**

BEC will create record drawings which will reflect differences in the construction drawings and actual work completed. The CMAR will be responsible for maintaining a set of “red-line” drawings throughout the course of work to reflect “as-built” conditions. BEC will update the construction drawings to reflect as-built conditions.

**Task 13 - Asset Management – Not Provided****Task 14 - Supplemental Staff – Not Provided**

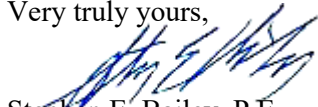


Our fee for this work shall be as follows:

|                                                 |               |
|-------------------------------------------------|---------------|
| Task 09 – Construction Phase Project Management | \$ 131,210.00 |
| Task 11 – EOR Services during Construction      | \$ 880,500.00 |
| Task 12 – Project Close-out                     | \$ 69,720.00  |

|                |                        |
|----------------|------------------------|
| <b>Total -</b> | <b>\$ 1,081,430.00</b> |
|----------------|------------------------|

Very truly yours,

  
Stephen E. Bailey, P.E.

ACCEPTED \_\_\_\_\_ DATE \_\_\_\_\_

ATK-25-002Grev3



**Crest Avenue WWTF Capacity Expansion & Process Optimization  
Winter Garden, Florida**

**Date: 3/28/2025**

**Estimate of Work Effort & Fee**

|                                                        | Principal   |                      | Sr. Electrical Engineer |                      | Instrumentation Engineer |                      | Field Supervisor |                      | Designer    |                     | Administrative |                     | Totals      |                        |
|--------------------------------------------------------|-------------|----------------------|-------------------------|----------------------|--------------------------|----------------------|------------------|----------------------|-------------|---------------------|----------------|---------------------|-------------|------------------------|
|                                                        | Hourly Rate | \$325.00             | Hourly Rate             | \$230.00             | Hourly Rate              | \$250.00             | Hourly Rate      | \$170.00             | Hourly Rate | \$160.00            | Hourly Rate    | \$140.00            |             |                        |
| <b>Task 09 - Construction Phase Project Management</b> | man-hours   | Total                | man-hours               | Total                | man-hours                | Total                | man-hours        | Total                | man-hours   | Total               | man-hours      | Total               | man-hours   | Total                  |
| 09.01.1 General Project Coordination                   |             | \$ -                 |                         | \$ -                 |                          | \$ -                 |                  | \$ -                 |             | \$ -                |                | \$ -                | 0           | \$ -                   |
| 09.01.2 Invoicing and Progress Reports                 | 50          | \$ 16,250.00         |                         | \$ -                 |                          | \$ -                 |                  | \$ -                 |             | \$ -                | 60             | \$ 8,400.00         | 110         | \$ 24,650.00           |
| 09.02.1 Pre-Construction Conference                    | 8           | \$ 2,600.00          |                         | \$ -                 | 8                        | \$ 2,000.00          | 8                | \$ 1,360.00          |             | \$ -                |                | \$ -                | 24          | \$ 5,960.00            |
| 09.02.2 CMAR Progress Meetings                         | 80          | \$ 26,000.00         | 40                      | \$ 9,200.00          | 40                       | \$ 10,000.00         | 200              | \$ 34,000.00         |             | \$ -                |                | \$ -                | 360         | \$ 79,200.00           |
| 09.02.3 Schedule and Cost Monitoring                   | 24          | \$ 7,800.00          |                         | \$ -                 |                          | \$ -                 | 80               | \$ 13,600.00         |             | \$ -                |                | \$ -                | 104         | \$ 21,400.00           |
| <b>Task 09 Subtotal:</b>                               | <b>162</b>  | <b>\$ 52,650.00</b>  | <b>40</b>               | <b>\$ 9,200.00</b>   | <b>48</b>                | <b>\$ 12,000.00</b>  | <b>288</b>       | <b>\$ 48,960.00</b>  | <b>0</b>    | <b>\$ -</b>         | <b>60</b>      | <b>\$ 8,400.00</b>  | <b>598</b>  | <b>\$ 131,210.00</b>   |
| <b>Task 11 - Bid Phase Services</b>                    | man-hours   | Total                | man-hours               | Total                | man-hours                | Total                | man-hours        | Total                | man-hours   | Total               | man-hours      | Total               | man-hours   | Total                  |
| 11.01 Bid Services                                     | 24          | \$ 7,800.00          | 24                      | \$ 5,520.00          | 24                       | \$ 6,000.00          |                  | \$ -                 | 40          | \$ 6,400.00         |                | \$ -                | 112         | \$ 25,720.00           |
| 11.02 Conformed Contract Documents                     | 4           | \$ 1,300.00          | 4                       | \$ 920.00            | 4                        | \$ 1,000.00          |                  | \$ -                 | 40          | \$ 6,400.00         |                | \$ -                | 52          | \$ 9,620.00            |
| <b>Task 11 Subtotal:</b>                               | <b>28</b>   | <b>\$ 9,100.00</b>   | <b>28</b>               | <b>\$ 6,440.00</b>   | <b>28</b>                | <b>\$ 7,000.00</b>   | <b>0</b>         | <b>\$ -</b>          | <b>80</b>   | <b>\$ 12,800.00</b> | <b>0</b>       | <b>\$ -</b>         | <b>164</b>  | <b>\$ 35,340.00</b>    |
| <b>Task 12 - EOR Services during Construction</b>      | man-hours   | Total                | man-hours               | Total                | man-hours                | Total                | man-hours        | Total                | man-hours   | Total               | man-hours      | Total               | man-hours   | Total                  |
| 12.01 Site Visits – General Observation                | 80          | \$ 26,000.00         | 40                      | \$ 9,200.00          | 100                      | \$ 25,000.00         | 173              | \$ 29,410.00         |             | \$ -                |                | \$ -                | 393         | \$ 89,610.00           |
| 12.02 Shop Drawings, Material Submittal, etc.          | 200         | \$ 65,000.00         | 200                     | \$ 46,000.00         | 240                      | \$ 60,000.00         | 240              | \$ 40,800.00         |             | \$ -                | 100            | \$ 14,000.00        | 980         | \$ 225,800.00          |
| 12.03 Requests for Information                         | 80          | \$ 26,000.00         | 180                     | \$ 41,400.00         | 140                      | \$ 35,000.00         | 80               | \$ 13,600.00         | 40          | \$ 6,800.00         | 100            | \$ 14,000.00        | 620         | \$ 136,800.00          |
| 12.04 Change Order Proposals                           | 30          | \$ 9,750.00          | 30                      | \$ 6,900.00          | 30                       | \$ 7,500.00          | 48               | \$ 8,160.00          | 40          | \$ 6,800.00         | 30             | \$ 4,200.00         | 208         | \$ 43,310.00           |
| 12.05 Design Modifications                             | 80          | \$ 26,000.00         | 80                      | \$ 18,400.00         | 80                       | \$ 20,000.00         | 0                | \$ -                 | 160         | \$ 27,200.00        | 20             | \$ 2,800.00         | 420         | \$ 94,400.00           |
| 12.06 Operations Staff Support                         |             | \$ -                 |                         | \$ -                 |                          | \$ -                 |                  | \$ -                 |             | \$ -                |                | \$ -                | 0           | \$ -                   |
| 12.07 Review of Manufacturers' O&M Manuals             | 24          | \$ 7,800.00          | 40                      | \$ 9,200.00          | 32                       | \$ 8,000.00          |                  | \$ -                 |             | \$ -                |                | \$ -                | 96          | \$ 25,000.00           |
| 12.08 Startup Services                                 |             |                      |                         |                      |                          |                      |                  |                      |             |                     |                |                     |             |                        |
| Headworks                                              | 16          | \$ 5,200.00          | 16                      | \$ 3,680.00          | 16                       | \$ 4,000.00          | 40               | \$ 6,800.00          |             | \$ -                |                | \$ -                | 88          | \$ 19,680.00           |
| Proess Train 2                                         | 48          | \$ 15,600.00         | 48                      | \$ 11,040.00         | 80                       | \$ 20,000.00         | 180              | \$ 30,600.00         |             | \$ -                |                | \$ -                | 356         | \$ 77,240.00           |
| Process Train 1                                        | 24          | \$ 7,800.00          | 32                      | \$ 7,360.00          | 60                       | \$ 15,000.00         | 80               | \$ 13,600.00         |             | \$ -                |                | \$ -                | 196         | \$ 43,760.00           |
| East Proess Train Modifications                        | 24          | \$ 7,800.00          | 32                      | \$ 7,360.00          | 60                       | \$ 15,000.00         | 80               | \$ 13,600.00         |             | \$ -                |                | \$ -                | 196         | \$ 43,760.00           |
| 12.09 Substantial Completion Activities                | 40          | \$ 13,000.00         | 40                      | \$ 9,200.00          | 40                       | \$ 10,000.00         | 80               | \$ 13,600.00         |             | \$ -                |                | \$ -                | 200         | \$ 45,800.00           |
| <b>Task 12 Subtotal:</b>                               | <b>646</b>  | <b>\$ 209,950.00</b> | <b>738</b>              | <b>\$ 169,740.00</b> | <b>878</b>               | <b>\$ 219,500.00</b> | <b>1001</b>      | <b>\$ 170,170.00</b> | <b>240</b>  | <b>\$ 40,800.00</b> | <b>250</b>     | <b>\$ 35,000.00</b> | <b>3753</b> | <b>\$ 845,160.00</b>   |
| <b>Task 13 - Project Close-out</b>                     | man-hours   | Total                | man-hours               | Total                | man-hours                | Total                | man-hours        | Total                | man-hours   | Total               | man-hours      | Total               | man-hours   | Total                  |
| 13.01 Post-Construction Services                       |             | \$ -                 |                         | \$ -                 |                          | \$ -                 |                  | \$ -                 |             | \$ -                |                | \$ -                | 0           | \$ -                   |
| 13.02 Final Completion                                 | 40          | \$ 13,000.00         | 40                      | \$ 9,200.00          | 40                       | \$ 10,000.00         | 40               | \$ 6,800.00          |             | \$ -                |                | \$ -                | 160         | \$ 39,000.00           |
| 13.03 Record Drawings                                  | 8           | \$ 2,600.00          | 16                      | \$ 3,680.00          | 16                       | \$ 4,000.00          | 32               | \$ 5,440.00          | 80          | \$ 13,600.00        | 10             | \$ 1,400.00         | 162         | \$ 30,720.00           |
| <b>Task 14 Subtotal:</b>                               | <b>48</b>   | <b>\$ 15,600.00</b>  | <b>56</b>               | <b>\$ 12,880.00</b>  | <b>56</b>                | <b>\$ 14,000.00</b>  | <b>72</b>        | <b>\$ 12,240.00</b>  | <b>80</b>   | <b>\$ 13,600.00</b> | <b>10</b>      | <b>\$ 1,400.00</b>  | <b>322</b>  | <b>\$ 69,720.00</b>    |
| <b>Task 15 - Supplemental Field Staff</b>              | man-hours   | Total                | man-hours               | Total                | man-hours                | Total                | man-hours        | Total                | man-hours   | Total               | man-hours      | Total               | man-hours   | Total                  |
| 15.01 Control System Field Staff                       |             | \$ -                 |                         | \$ -                 |                          | \$ -                 |                  | \$ -                 |             | \$ -                |                | \$ -                | 0           | \$ -                   |
| <b>Task 15 Subtotal:</b>                               | <b>0</b>    | <b>\$ -</b>          | <b>0</b>                | <b>\$ -</b>          | <b>0</b>                 | <b>\$ -</b>          | <b>0</b>         | <b>\$ -</b>          | <b>0</b>    | <b>\$ -</b>         | <b>0</b>       | <b>\$ -</b>         | <b>0</b>    | <b>\$ -</b>            |
| <b>Total:</b>                                          | <b>884</b>  | <b>\$ 287,300.00</b> | <b>862</b>              | <b>\$ 198,260.00</b> | <b>1010</b>              | <b>\$ 252,500.00</b> | <b>1361</b>      | <b>\$ 231,370.00</b> | <b>400</b>  | <b>\$ 67,200.00</b> | <b>320</b>     | <b>\$ 44,800.00</b> | <b>4837</b> | <b>\$ 1,081,430.00</b> |



**Attachment D**

**Anticipated Submittal Log**



Crest Ave WWTP Expansion  
Anticipated Submittals

| SPEC NUMBER | SPEC NAME                                | NO. OF INITIAL<br>SUBMITTALS | O&M Manuals | LEAD REVIEWER (EOR) | SECONDARY REVIEWER | THIRD REVIEWER | REVIEW TYPE                | REVIEW TYPE              |
|-------------|------------------------------------------|------------------------------|-------------|---------------------|--------------------|----------------|----------------------------|--------------------------|
|             |                                          |                              |             | DISCIPLINE          | DISCIPLINE         | DISCIPLINE     | PARALLEL OR<br>CONSECUTIVE | NOTES                    |
| 01010       | SUMMARY OF WORK                          | 0                            |             | Project Management  |                    |                |                            |                          |
| 01041       | COORDINATION OF WORK                     | 0                            |             | Project Management  |                    |                |                            |                          |
| 01050       | FIELD ENGINEERING AND SURVEYING          | 0                            |             | Project Management  |                    |                |                            |                          |
| 01150       | MEASUREMENT AND PAYMENT                  | 0                            |             | Project Management  |                    |                |                            |                          |
| 01152       | APPLICATION FOR PAYMENT                  | 0                            |             | Project Management  |                    |                |                            |                          |
| 01300       | SUBMITTALS                               | 0                            |             | Project Management  |                    |                |                            |                          |
| 01311       | CONSTRUCTION SCHEDULES AND MEETINGS      | 1                            |             | Project Management  |                    |                |                            |                          |
| 01380       | CONSTRUCTION PHOTOGRAPHS AND VIDEOGRAPHY | 1                            |             | Project Management  |                    |                |                            |                          |
| 01400       | QUALITY CONTROL                          | 1                            |             | Project Management  |                    |                |                            |                          |
| 01410       | TESTING LABORATORY SERVICES              | 0                            |             | Project Management  |                    |                |                            |                          |
| 01510       | TEMPORARY UTILITIES                      | 1                            |             | Project Management  |                    |                |                            |                          |
| 01520       | MAINTENANCE OF PLANT OPERATIONS          | 5                            |             | Process Mechanical  |                    |                |                            | 1 for each startup phase |
| 01562       | DUST CONTROL                             | 0                            |             | Project Management  |                    |                |                            |                          |
| 01590       | FIELD OFFICES                            | 1                            |             | Project Management  |                    |                |                            |                          |
| 01600       | DELIVERY, STORAGE, AND HANDLING          | 0                            |             | Project Management  |                    |                |                            |                          |
| 01640       | MANUFACTURER'S SERVICES                  | 0                            |             | Project Management  |                    |                |                            |                          |
| 01641       | GENERAL EQUIPMENT STIPULATIONS           | 0                            |             | Project Management  |                    |                |                            |                          |
| 01650       | FACILITY TESTING AND START-UP            | 12                           |             | Process Mechanical  | Electrical         |                | P                          | See equipment specs      |
| 01700       | CONTRACT CLOSEOUT                        | 5                            |             | Process Mechanical  | Electrical         |                |                            | 1 for each startup phase |
| 01730       | OPERATION AND MAINTENANCE MANUAL         | 0                            |             | Project Management  |                    |                |                            |                          |
| 01731       | AS-BUILT DRAWINGS                        | 1                            |             | Project Management  |                    |                |                            |                          |
| 01740       | WARRANTIES AND BONDS                     | 1                            |             | Project Management  | Electrical         |                |                            |                          |
| 02010       | SUBSURFACE CONDITIONS                    | 0                            |             | Civil               |                    |                |                            |                          |
| 02050       | DEMOLITION AND MODIFICATIONS             | 12                           |             | Civil               | Process Mechanical | Electrical     |                            |                          |
| 02100       | CLEARING AND GRUBBING                    | 0                            |             | Civil               |                    |                |                            |                          |
| 02200       | EARTHWORK                                | 24                           |             | Civil               |                    |                |                            | Includes test results    |
| 02210       | SOIL EROSION AND SEDIMENT CONTROL        | 1                            |             | Civil               |                    |                |                            |                          |
| 02240       | DEWATERING                               | 1                            |             | Civil               | Process Mechanical | Electrical     |                            |                          |
| 02260       | EXCAVATION, BACKFILL, AND TRENCHING      | 1                            |             | Civil               |                    |                |                            |                          |
| 02270       | TEMPORARY SILT FENCE                     | 1                            |             | Civil               |                    |                |                            |                          |
| 02486       | SODDING                                  | 0                            |             | Civil               |                    |                |                            |                          |
| 02513       | ASPHALT PAVING                           | 6                            |             | Civil               |                    |                |                            |                          |
| 02515       | WALKWAYS                                 | 2                            |             | Civil               |                    |                |                            |                          |
| 03100       | CONCRETE FORMWORK                        | 24                           |             | Structural          | Structural         |                |                            |                          |
| 03200       | CONCRETE REINFORCEMENT                   | 24                           |             | Structural          | Structural         |                |                            |                          |
| 03300       | CAST-IN-PLACE CONCRETE                   | 24                           |             | Structural          | Structural         |                |                            |                          |
| 03410       | PRESTRESSED HOLLOWCORE PLANK             | 6                            |             | Structural          | Structural         | Architecture   |                            |                          |
| 03440       | SUBGRADE SERVICE CONCRETE COATING        | 1                            |             | Structural          | Structural         |                |                            |                          |
| 03602       | NON-METALLIC GROUT                       | 4                            |             | Structural          | Structural         |                |                            |                          |
| 03720       | CONCRETE SURFACE REPAIR                  | 1                            |             | Structural          |                    |                |                            |                          |
| 04100       | MORTAR                                   | 6                            |             | Structural          |                    |                |                            |                          |
| 04150       | MASONRY REINFORCEMENT                    | 6                            |             | Structural          |                    |                |                            |                          |
| 04220       | MASONRY UNITS                            | 4                            |             | Structural          |                    |                |                            |                          |
| 05120       | STRUCTURAL STEEL                         | 24                           |             | Structural          | Structural         |                |                            |                          |
| 05200       | STEEL JOIST                              | 24                           |             | Structural          | Structural         |                |                            |                          |
| 05310       | STEEL DECK                               | 6                            |             | Structural          | Structural         |                |                            |                          |
| 05400       | COLD-FORMED METAL FRAMING                | 4                            |             | Structural          | Structural         |                |                            |                          |
| 05500       | METAL FABRICATIONS                       | 12                           |             | Structural          | Structural         |                |                            |                          |
| 05530       | ANCHOR BOLTS AND EXPANSION ANCHORS       | 6                            |             | Structural          | Structural         |                |                            |                          |
| 07210       | THERMAL INSULATION                       | 1                            |             | Architecture        |                    |                |                            |                          |
| 07211       | FOAMED-IN-PLACE INSULATION               | 1                            |             | Architecture        |                    |                |                            |                          |
| 07540       | THERMOPLASTIC MEMBRANE ROOFING           | 1                            |             | Architecture        |                    |                |                            |                          |
| 07920       | JOINT SEALANTS                           | 6                            |             | Architecture        | Structural         |                |                            |                          |
| 08111       | HOLLOW METAL DOORS AND FRAMES            | 2                            |             | Architecture        |                    |                |                            |                          |
| 08332       | OVERHEAD COILING DOORS                   | 1                            | 1           | Architecture        | Process Mechanical |                |                            |                          |
| 08431       | ALUMINUM-FRAMED STOREFRONTS              | 1                            |             | Architecture        |                    |                |                            |                          |
| 08800       | GLAZING                                  | 1                            |             | Architecture        |                    |                |                            |                          |



|          |                                                                |    |    |                    |                    |          |  |                                                         |
|----------|----------------------------------------------------------------|----|----|--------------------|--------------------|----------|--|---------------------------------------------------------|
| 09056    | COMMON WORK RESULTS FOR FLOORING PREPARATION                   | 1  |    | Architecture       |                    |          |  |                                                         |
| 09211    | GYPSON BOARD ASSEMBLIES                                        | 1  |    | Architecture       |                    |          |  |                                                         |
| 09221    | NON-STRUCTURAL METAL FRAMING                                   | 2  |    | Architecture       |                    |          |  |                                                         |
| 09223    | LATH                                                           | 1  |    | Architecture       |                    |          |  |                                                         |
| 09240    | CEMENT PLASTERING                                              | 1  |    | Architecture       |                    |          |  |                                                         |
| 09650    | RESILIENT FLOORING                                             | 1  |    | Architecture       |                    |          |  |                                                         |
| 09670    | FLUID-APPLIED FLOORING                                         | 1  |    | Architecture       |                    |          |  |                                                         |
| 09901    | SPECIALTY COATINGS                                             | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 09911    | EXTERIOR PAINTING                                              | 4  |    | Architecture       | Process Mechanical |          |  |                                                         |
| 09912    | INTERIOR PAINTING                                              | 1  |    | Architecture       |                    |          |  |                                                         |
| 09960    | HIGH-PERFORMANCE COATINGS – VAPOR BARRIER                      | 1  |    | Architecture       | Process Mechanical |          |  |                                                         |
| 10400    | IDENTIFICATION DEVICES                                         | 1  |    | Architecture       | Process Mechanical |          |  |                                                         |
| 10520    | FIRE PROTECTION SPECIALTIES                                    | 1  |    | Architecture       |                    |          |  |                                                         |
| 11010    | PRESSURIZED BLADDER TANK                                       | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11200    | SUBMERSIBLE PUMPS                                              | 6  | 1  | Process Mechanical | Electrical         | Controls |  | 6 sets                                                  |
| 11202    | SLIDE GATES                                                    | 2  | 1  | Process Mechanical | Electrical         | Controls |  | manual and actuated                                     |
| 11212    | VERTICAL TURBINE PUMPS                                         | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11213    | VERTICAL TURBINE PUMPS – PLANT REUSE WATER SYSTEM              | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11214    | SUMP PUMP                                                      | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11220    | COMPRESSED AIR MIXING SYSTEMS                                  | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11231    | CHEMICAL METERING PUMPS                                        | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11311    | HORIZONTAL SELF-PRIMING PUMPS                                  | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11321    | GRIT REMOVAL SYSTEM                                            | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11330    | MECHANICALLY CLEANED SCREENS                                   | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11331    | SCREENINGS WASHER COMPACTOR                                    | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11332    | PERFORATED-PLATE DRUM SCREENS                                  | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11372    | MULTI-STAGE CENTRIFUGAL BLOWERS                                | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11377    | COARSE BUBBLE DIFFUSER SYSTEM                                  | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11380    | ODOR CONTROL SYSTEM                                            | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11440    | DIFFUSED AERATION EQUIPMENT – AERATION BASINS                  | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 11591    | AUTOMATIC COMPOSITE SAMPLER                                    | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 13205    | FIBERGLASS REINFORCED PLASTIC TANKS                            | 1  | 1  | Process Mechanical | Electrical         | Controls |  |                                                         |
| 13210    | FLAT ALUMINUM COVERS                                           | 3  |    | Structural         | Process Mechanical |          |  | Separate for EQ Basin 1 in EQ Basins 2 and 3, headworks |
| 13300    | PICS - GENERAL REQUIREMENTS                                    | 1  |    | Controls           |                    |          |  |                                                         |
| 13301    | PICS – PHASING PLAN                                            | 1  |    | Controls           |                    |          |  |                                                         |
| 13302    | PICS – PHASE 1 WORK                                            | 1  |    | Controls           |                    |          |  |                                                         |
| 13310    | PICS - FIELD INSTRUMENTS                                       | 12 | 12 | Controls           |                    |          |  |                                                         |
| 13315    | PICS - CONTROL PANELS                                          | 12 | 1  | Controls           |                    |          |  |                                                         |
| 13320    | PICS - SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM | 4  |    | Controls           |                    |          |  |                                                         |
| 13325    | PICS - PLC SUBSYSTEM HARDWARE                                  | 4  | 1  | Controls           |                    |          |  |                                                         |
| 13326    | PICS - SYSTEM PROGRAMMING                                      | 12 |    | Controls           |                    |          |  |                                                         |
| 13360    | PICS - FIBER OPTIC SYSTEM                                      | 1  | 1  | Controls           |                    |          |  |                                                         |
| 14631    | TOP RUNNING BRIDGE CRANE SYSTEM                                | 2  |    | Process Mechanical | Electrical         | Controls |  | Blower                                                  |
| 15041    | DISINFECTION OF POTABLE WATER LINES                            | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15094    | PIPE SUPPORTS AND HANGERS                                      | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15100    | VALVES, HYDRANTS, AND OPERATORS                                | 4  | 4  | Process Mechanical | Electrical         |          |  |                                                         |
| 15120    | PIPES SPECIALTIES                                              | 2  | 2  | Process Mechanical |                    |          |  |                                                         |
| 15200-00 | PIPING - GENERAL                                               | 12 |    | Process Mechanical |                    |          |  | Includes pipe layout drawings                           |
| 15200-01 | CEMENT-LINED DUCTILE IRON PIPING                               | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15200-02 | STAINLESS STEEL PIPING                                         | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15200-03 | PVC PIPING                                                     | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15200-04 | COPPER PIPING                                                  | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15200-05 | DOUBLE WALLED CONTAINMENT PIPING                               | 1  | 1  | Process Mechanical |                    |          |  |                                                         |
| 15200-06 | TYGON TUBING                                                   | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15200-07 | SANITARY WASTE AND VENT PIPING                                 | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15200-08 | CARBON STEEL PIPE                                              | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15200-09 | EPOXY-LINED DUCTILE IRON PIPING                                | 1  |    | Process Mechanical |                    |          |  |                                                         |
| 15201    | FIBERGLASS REINFORCED PLASTIC DUCTWORK                         | 1  | 1  | Process Mechanical |                    |          |  |                                                         |
| 15250    | PIPING INSULATION                                              | 1  | 1  | Process Mechanical |                    |          |  |                                                         |



|       |                                                                           |    |   |                    |                    |  |  |  |
|-------|---------------------------------------------------------------------------|----|---|--------------------|--------------------|--|--|--|
| 15955 | PIPE LEAKAGE TESTING                                                      | 1  |   | Process Mechanical | Civil              |  |  |  |
| 16050 | ELECTRICAL GENERAL PROVISIONS                                             | 1  |   | Electrical         |                    |  |  |  |
| 16107 | SWITCHBOARDS MAIN BREAKERS                                                | 2  | 1 | Electrical         |                    |  |  |  |
| 16108 | MISCELLANEOUS EQUIPMENT                                                   | 4  | 2 | Electrical         |                    |  |  |  |
| 16110 | RACEWAYS AND FITTINGS                                                     | 2  |   | Electrical         |                    |  |  |  |
| 16120 | WIRES AND CABLES                                                          | 2  |   | Electrical         |                    |  |  |  |
| 16150 | MOTORS                                                                    | 1  | 1 | Electrical         |                    |  |  |  |
| 16160 | PANELBOARDS                                                               | 10 | 1 | Electrical         |                    |  |  |  |
| 16216 | DIESEL ENGINE DRIVEN GENERATORS WITH WEATHERPROOF WALK-IN TYPE ENCLOSURES | 2  | 3 | Electrical         | Process Mechanical |  |  |  |
| 16265 | STATIC UNINTERRUPTIBLE POWER SUPPLY – THREE PHASE                         | 2  | 1 | Electrical         |                    |  |  |  |
| 16370 | VARIABLE FREQUENCY DRIVES                                                 | 5  | 1 | Electrical         |                    |  |  |  |
| 16402 | UNDERGROUND SYSTEM                                                        | 4  |   | Electrical         |                    |  |  |  |
| 16450 | GROUNDING SYSTEM                                                          | 5  | 1 | Electrical         |                    |  |  |  |
| 16500 | LIGHTING SYSTEM                                                           | 5  | 1 | Electrical         |                    |  |  |  |
| 16670 | LIGHTNING PROTECTION SYSTEM                                               | 5  | 1 | Electrical         |                    |  |  |  |
| 16800 | SECURITY                                                                  | 5  | 1 | Electrical         |                    |  |  |  |
| 16921 | 480 VOLT MOTOR CONTROL CENTERS                                            | 4  | 1 | Electrical         |                    |  |  |  |
| 16950 | FIELD ELECTRICAL ACCEPTANCE TESTS                                         | 4  |   | Electrical         |                    |  |  |  |

|                         |        |       |
|-------------------------|--------|-------|
| Initial Reviews         | 457    | 59    |
| Secondary Reviews       | 24     |       |
|                         | 481    | 59    |
| Assume 25% Resubmittals | 120.25 | 14.75 |
|                         | 601.25 | 73.75 |
| O&M Manuals             | 73.75  |       |
|                         | 675    |       |

468

|                         |        |       |
|-------------------------|--------|-------|
| Initial Reviews         | 346    | 29    |
| Secondary Reviews       | 24     |       |
|                         | 370    | 29    |
| Assume 25% Resubmittals | 92.5   | 7.25  |
|                         | 462.5  | 36.25 |
| O&M Manuals             | 36.25  |       |
|                         | 498.75 |       |



**THE CITY OF WINTER GARDEN**  
**CITY COMMISSION AGENDA ITEM**

**From:** Jim Monahan, P.E., City Engineer – Public Services

**Via:** Jon C Williams, City Manager

**Date:** April 3, 2025

**Meeting Date:** April 10, 2025

**Subject:** Approve a Purchase Order for the Continued use of Thioguard (magnesium hydroxide) for Odor Control at Lift Station 23 and 47.

**Issue:** The addition of the Thioguard solution raises the pH of the wastewater which keeps Hydrogen Sulfide in a liquid state and therefore reduces odors in the piping system and subsequently the corrosion and odor in the manholes. The use of this chemical is in the current budget.

**Recommended Action:**

Recommend approving the use of the Thioguard solution for 1 year for an estimated amount of \$417,000.00 which includes a 10% contingency.

**Attachments:**

- Thioguard Cost Proposal for 1 Year estimated use





Premier Magnesia, LLC  
75 Giles Place  
Waynesville, NC 28786

Phone: 610-828-6929  
Fax 610-828-8142

April 3, 2025

Mr. Jim Monahan, P.E.  
City Engineer  
City of Winter Garden  
300 West Plant Street  
Winter Garden, Florida

Re: Projected Pricing for One Year

Dear Mr. Monahan:

This is in response to your request for projected pricing for one year. The usage of Thioguard for the period of January 1, 2024 through December 31, 2024 was 96,200 gallons. The current expenditure for this period was \$371,285.00. The current price is \$3.94 per gallon which was implemented on October 1, 2024. There will not be a price increase per gallon.

With that background the following projection of a 12 month cost for the new purchase order is given below:

- 96,200 gallons per year plus a 10% contingency if additional usage is needed = 105,820.00 gallons
- 105,820 gallons X \$3.94 = \$416,930.80

If this does not meet your needs on the projection, please contact David Pickard at (813)928-2793. We appreciate your business and hope to partner with you over the next year and beyond.

Best Regards,

*Todd Baker*

Todd Baker  
Southeast Sales Manager  
Premier Magnesia, LLC