APOPKA DEVELOPMENT REVIEW COMMITTEE AGENDA

May 1, 2024 9:00 AM

Apopka City Hall Council Chambers

SPECIAL EVENTS

1. Apopka/Altamonte Springs Veterans of Foreign Wars Post 10147 - A Tribute to the Beatles - Dinner and Show - Apopka Community Center - 519 South Central Avenue - May 18, 2024, 5:00 PM - 10:00 PM

2. ABC CF - ABC CF Chili Cook Off - Apopka Amphitheater - 3710 Jason Dwelley Parkway - November 20, 2024, 5:00PM - 7:30 PM

VARIANCE

1. VAR-24-1, 33 East Main Street - Variance (VAR), 1st Submittal
   Owner(s): Bank of America
   Applicant(s): Anchor Sign - Nick weathers
   Location: 33 East Main Street
   Proposed Use: Signage for building
   Project Manager: Jun Sohn
   Presented by: Jun Sohn, Planner

SITE PLAN:

CONSTRUCTION SITE PLAN

1. 229 East 5th Street - Construction Site Plan (CSP), 4th Submittal

SUBDIVISION:

CONSTRUCTION SITE PLAN

1. SP-24-35, Willow Run - Construction Site Plan (CSP), 1st Submittal
   Owner(s): Lent Rd Properties, LLC and Testamentary Trust FBO Amanda P Farrell
   Applicant(s): Appian Engineering, LLC - Ovidio S. Sanchez
   Location: 2601 Lent Road
   Proposed Use: Single Family Detached Homes
   Project Manager: Jean Sanchez
   Presented by: Jean Sanchez, Senior Planner

DISCUSSION

ADJOURNMENT

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk at least two (2) working days in advance of the meeting date and time at (407) 703-1704. F.S. 286.0105 If a person decides to appeal any decision or recommendation made by Council with respect to any matter considered at this meeting, he will need record of the proceedings, and that for such purposes he 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.

Any opening invocation that is offered before the official start of the Council meeting shall be the voluntary offering of a private person, to and for the benefit of the Council. The views or beliefs expressed by the invocation speaker have not been previously reviewed or approved by the City Council 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 Council meeting are invited to stand during the opening ceremony. 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 Council Chambers or exit the City Council 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.

VFW Beatles Tribute 5/18/24

DRC

Special Event Permit Application

A completed Special Event Permit application is required for all events with the City of Apopka. All events will be reviewed by our Development Review Committee for approval. The City of Apopka has the exclusive right to permit or deny an individual or organization facility use.

Once we have the complete special event application we will schedule for review and approval. Please note this may take time, as we suggest that all applications submitted at least 60 to 90 days prior to the event.

Incomplete applications will not be reviewed. After approval, an estimation of fees forms for your event based on the application and the approval is applicable.

Lexi Lahendro – Events Coordinator
events@apopka.net
407-703-1812

You must submit all required documents with your application.

Special Event Permit Application Checklist

Remember, we suggest that all applications submitted at least 60-90 days prior to the event.

Please review this checklist and make sure you have the items requested below available during this application process.

- Completed Special Event Permit Application
- Event Description
- A non-refundable application fee of $50.00 or completed application for waiver of permit fee is due when application is submitted. *Staff will contact you about this step.*
- A certificate of general liability insurance listing the "City of Apopka" as 'Additional Insured' must be submitted. Copy of the declaration sheet and endorsement page must be included. Additional insurance may be required, please see the event insurance requirements.
- A site plan (Map) or Parade/Race Route **MUST** be submitted with your application. Map must identify location of staging, tents, parking, barricades, vendors, and restrooms and must be to scale.
- Letter from the property owner granting permission for use of their property. (if on private property)
- If alcohol will be served at your event you must include the alcohol permit and insurance with the completed permit
- Copies of flyers and advertisements.
- Policies and protocols in regards to CDC Guidelines/COVID-19 & social distancing
- All renters and vendors must have a listing with the Florida Department of State Division of Corporations. Visit www.sunbiz.org for more information about the process of registering a business.
- All businesses must also must submit a copy of your Business Tax Receipt for the municipality/county that your business/organization is registered in.

Applicant must be present for duration of event.

Organization Name	Apopka / Altamonte Springs Veterans of Foreign Wars Post 10147

Name of Applicant	Commander Dwight Anderson
Mailing Address	519 S Central Ave
City	Apopka
State	FL-USA
Zip Code	32712
Cell Phone	689-309-3467
Email	vfwpost10147.events@gmail.com
Is your organization a Non – Profit (501C3) OR Tax Exempt Organization?	Yes
State of Florida Tax ID Number	85-8013834909C-1

A copy of your 501C3 non-profit certificate is required for non-profit status. Otherwise taxes will be charged.

Please attach a copy of your 501C3 non-profit certificate	SunBiz Florida Not For Profit 2024.pdf
Please attach a copy of your Business Tax Receipt for the municipality/county that your business/organization is registered in.	City Of Apopka Business License.pdf
Name of the Event	A Tribute to the Beatles - Dinner & Show
Date(s) of the Event	18 May 2024
Hours of the Event	1700-2100
Location of the Event	VFW Post 10147 / Apopka Community Center
Does the location of the event take place on Public or Private Property?	Yes
Anticipated attendance:	275
Briefly describe the event and all activities that will occur during the event:	Dinner, Live Music and Dancing
Event Category	• Other
Please specify	Fund Raising Event
Are there flyers or advertisements for this event?	Yes
Attach Flyer or Advertisement 1	Beatles Tribute 051824.pdf

Will there be admission fees to your event?	Yes
Will you be serving alcohol?	Yes
Copy of your liquor license & insurance	2023-2024 Liquor License.pdf

If yes for serving alcohol, a copy of your liquor license & insurance is required.

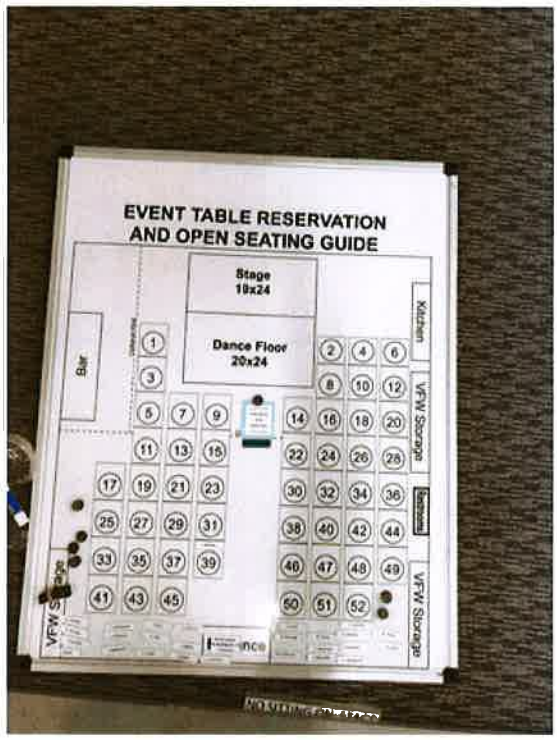
City Council approval is also required.

Is your event open to the public?	Yes
Does your event include food concession?	No
Do you intend to have food trucks at your event?	No
Will there be merchandising vending at your event?	No
Will they need electric?	No
Will you be hiring a private security company for the event?	No
Do you require overnight security?	No
Are there musical entertainment features related to your event?	Yes

Please attach a list of all stage performance schedules.

Please attach a list of all stage performance schedules.	Beatles Schedule.pdf
Will amplified sound be used during the event?	Yes
Will any streets be closed or will the flow of traffic be affected by the event?	No
Does your event include the use of tents?	No
Will inflatables be used at your event?	No
Will your event include any fireworks or pyrotechnics?	No

Layout map for event



Date/Time (on site load in and load out)

For events that are held on City Property, set up days and load out days may require additional fees.

Setup/Load In

Date	05/18/2024
Start Time	2:00 PM (EDT)
End Time	4:15 PM (EDT)

Event Dates

Date	05/18/2024
Start Time	5:00 PM (EDT)
End Time	9:00 PM (EDT)

Take Down/Load Out

Date	05/18/2024

Start Time	9:00 PM (EDT)
End Time	10:30 PM (EDT)

I, Being the Applicant/Event Organizer, have read and understand the guidelines contained within the City of Apopka's Special Event Permit Application and agree to conduct my event in accordance. I further understand that failure to abide by these guidelines may result in the denial or forfeiture of my Special Event Permit.

The City of Apopka is not responsible for lost, stolen or damaged items.

I acknowledge that the information contained in this application is true, correct, and complete to the best of my knowledge.

Applicant Signature	Dwight A. Anderson
Name of Applicant	Dwight Anderson
Title of Applicant	Commander - VFW Post 10147
Date Submitted	04/22/2024

The Applicant/Event Organizer shall maintain at all times throughout the duration of the event, a current insurance policy naming the City of Apopka as an additional insured providing coverage for all approved event activities and must be active on the date(s) of the event, including the set-up and break-down period. Failure to provide proof of adequate coverage will result in the denial of the special event permit or cancellation of the event. The City may require subcontractors acting on behalf of the Applicant/Event Organizer to provide proof of insurance or other related documents depending on the scope or location of the event.

- Comprehensive listing of all subcontractors, including but not limited to concessionaires, vendors, exhibitors, and entertainers must be submitted no later than forty-five (45) business days prior to the event.
- All certificates of insurance, required extensions to said insurance certificates, copies of insurance policies and insurance agreements must be submitted no later than **thirty (30) business days prior to the event**.

If insurance requirements are not met at least twenty (20) business days prior to the date of the event, your event will be cancelled!

Please provide a copy of your certificate of insurance.	Liability Insurance Certificate 2024.pdf

The City of Apopka defines an Applicant/Event Organizer as any individual or organization that is responsible for all aspects of an event to include advertising, marketing, talent costs, insurance, hold harmless agreement contracts, along with all the revenues and expenses for the event. The Applicant/Event Organizer agrees to conduct this event in accordance with the City of Apopka Code of Ordinances (Chapters 46 and 62).

REQUIREMENTS

- Applicant/Event Organizer recognizes the City's authority to halt the operation of the above listed event due to inclement weather or any other safety concern that may arise.
- The City is not responsible or liable for any damage, loss or theft to any vendor or event participant.
- Applicant/Event Organizer agrees that the City may use photographic images and video taken at the event in promotions and publications. These images may be used online or provided to media outlets and/or used in social media applications.

INSURANCE

Before activity setup, or any other site activity begins, Applicant/Event Organizer must have a Certificate of Liability Insurance **(including all extensions to the insurance certificate—to also include a copy of the complete insurance policy)** on file with the City's Risk Management Division. The cost of such insurance shall be the responsibility of the Applicant/Event Organizer and must meet ALL requirements as directed by the City of Apopka. The City reserves the right to increase coverage as determined for higher risk events or activities. This insurance policy must remain in effect throughout the entire duration of the property use beginning with load-in and ending at the conclusion of load-out.

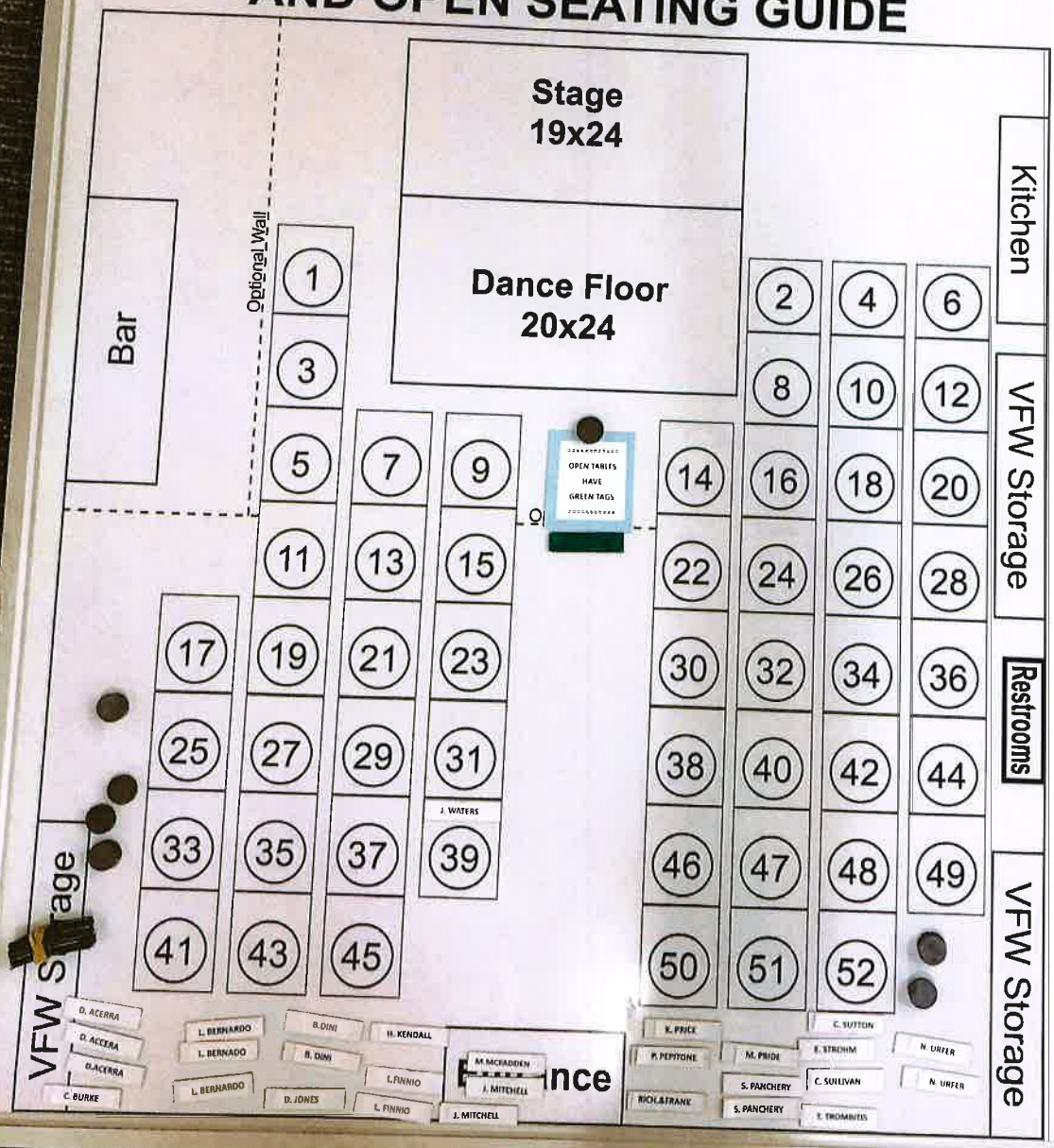
- Applicant/Event Organizer shall, at its sole cost and expense, procure and maintain throughout the term of this agreement, Commercial General Liability and Workers' Compensation insurance, including Employer Liability insurance, with minimum policy limits of $1,000,000 Combined Single Limits, or to the extent and in such amounts as required and authorized by Florida Law. If such GL insurance contains a general aggregate limit, it shall apply separately to this event in the amount of $2,000,000. Products and completed operations aggregate shall be $1,000,000. Damage to rented premises shall be included at $100,000. The event Applicant/Event Organizer and their representatives who wish to drive on City property to set up or tear down for events, and/or Food Trucks and/or any vehicle that functions as the workplace or is used to perform contracted work must provide an Automobile Liability insurance policy in the minimum amount of $300,000 Combined Single Limit. If alcohol is being served, the Applicant/Event Organizer shall provide evidence of coverage for liquor liability in the minimum amount of $1,000,000. The insurance policy must not exclude Personal Injury/Advertising Injury, Medical, volunteer coverage or spectator liability.
- All insurance policies shall: 1) provide that the insurance carrier shall not cancel, terminate or otherwise modify the terms and conditions of said policies except upon thirty days written notice to the City's contract administrator; 2) be evidenced by an endorsed Certificate of Insurance generated and executed by a licensed insurance broker, brokerage, or similar licensed insurance professional evidencing such coverage, and naming the City of Apopka as a named additional insured, as well as furnishing the City with a certified copy, or copies, of said insurance policies; and 3) be approved as to form and sufficiency by the City's contract administrator. The original insurance certificate(s) and all extensions to the insurance certificate(s) should be sent to: City of Apopka, Risk Management, 120 East Main Street, Apopka, FL 32703 or e-mailed to riskmanagement@apopka.net. All insurance coverage shall be written with a company having an A.M. Best Rating of at least the "A" category and size category of VIII.
- Applicant/Event Organizer is solely responsible for all applicable policy premiums, deductibles, and/or self-insured retention attached to any required coverages. Said insurance coverages procured by the Applicant/Event Organizer as required herein including but not limited to any excess and/or umbrella coverages, shall be considered, and the Applicant/Event Organizer agrees that said insurance coverages it procures as required herein shall be considered, as primary insurance over and above any other insurance, or self–insurance, available to the City, and that any other insurance, or self-insurance available to the City shall be considered secondary to, or in excess of, the insurance coverage(s) procured by the Applicant/Event Organizer as required herein.
- Applicant/Event Organizer shall require and verify that all subcontractors, including but not limited to concessionaires, vendors, exhibitors, and entertainers, maintain insurance meeting all of the requirements stated herein. Furthermore, the insurance policy held by the Applicant/Event Organizer shall have no endorsement(s) restricting, limiting or excluding the subcontractors or work on behalf of the Applicant/Event Organizer by a subcontractor. The Certificate of Insurance submitted by the Applicant/Event Organizer must clearly state that all such subcontractors are "Named Insureds".

Nothing herein shall be construed to extend the City of Apopka's liability beyond that provided in section 768.28, Florida Statutes.

By signing below, I acknowledge that I have read and understand the insurance requirements contained herein. I further understand that my permit application may be declined if I fail to provide the appropriate insurance coverage.

Signature of Applicant	Dwight Anderson
Name of Applicant	Dwight Anderson
Title of Applicant	Commander - VFW Post 10147
Sponsoring Organization Name	Apopka / Altamonte Springs Veterans of Foreign Wars Post 10147

EVENT TABLE RESERVATION AND OPEN SEATING GUIDE



2024 FLORIDA NOT FOR PROFIT CORPORATION ANNUAL REPORT

DOCUMENT# N01000000883

FILED
Feb 10, 2024
Secretary of State
5257105778CC

Entity Name: APOPKA/ALTAMONTE SPRINGS VETERANS OF FOREIGN WARS OF THE UNITED STATES POST 10147, INC.

Current Principal Place of Business:

519 S. CENTRAL AVENUE
APOPKA, FL 32703

Current Mailing Address:

PO BOX 912
APOPKA, FL 32704

FEI Number: 59-2917986

Certificate of Status Desired: No

Name and Address of Current Registered Agent:

ANDERSON, DWIGHT
407 ROCKBRIDGE COURT
APOPKA, FL 32712 US

The above named entity submits this statement for the purpose of changing its registered office or registered agent, or both, in the State of Florida.

SIGNATURE: DWIGHT ANDERSON 02/10/2024

Electronic Signature of Registered Agent — Date

Officer/Director Detail :

Title	PD	Title	S
Name	ANDERSON, DWIGHT	Name	PRATT, THOMAS
Address	407 ROCKBRIDGE COURT	Address	PO BOX 912
City-State-Zip:	APOPKA FL 32712	City-State-Zip:	APOPKA FL 32704
Title	D	Title	TD
Name	POPP, ROBERT JOHN	Name	PEREZ, TROY
Address	3313 GRAY FOX COVE	Address	PO BOX 912
City-State-Zip:	APOPKA FL 32703	City-State-Zip:	APOPKA FL 32704

I hereby certify that the information indicated on this report or supplemental report is true and accurate and that my electronic signature shall have the same legal effect as if made under oath; that I am an officer or director of the corporation or the receiver or trustee empowered to execute this report as required by Chapter 617, Florida Statutes; and that my name appears above, or on an attachment with all other like empowered.

SIGNATURE: ROBERT POPP QUARTERMASTER 02/10/2024

Electronic Signature of Signing Officer/Director Detail — Date

CITY OF APOPKA - ORGANIZATION/ASSOCIATION

CITY OF APOPKA
120 E MAIN ST
APOPKA, FL 32703
407-703-1712

License Id: 24-03561 **Issued Date:** 10/12/23
Effective Date: 10/01/23 **Expiration Date:** 09/30/24
License Type: ORGANIZATION/ASSOCIATION
N01000000883

Business Name: APOPKA/ALTAMONTE SPRINGS VETER
Business Location: 519 S CENTRAL AVE
Conditions:

VETERAND ORGANAZATION
EXEMPT ORG

Description
EXEMPT LICENSE
NEW BUSINESS LICENSE FEE

****Please note that this is verification that you have paid your City of Apopka business tax. This does not give you permission to operate your business.****

NON-TRANSFERABLE **TO BE PLACED IN A CONSPICUOUS PLACE**

License Id: 24-03561 **Issued Date:** 10/12/23
Effective Date: 10/01/23 **Expiration Date:** 09/30/24
License Type: ORGANIZATION/ASSOCIATION

Business Name: APOPKA/ALTAMONTE SPRINGS VETER
Business Location: 519 S CENTRAL AVE

APOPKA/ALTAMONTE SPRINGS VETER
DWIGHT ANDERSON
519 S CENTRAL AVENUE
APOPKA, FL 32703

FILE COPY

Summary of Services
Description
EXEMPT LICENSE
NEW BUSINESS LICENSE FEE

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto www.myfloridalicense.com. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BEV5813268 ISSUED: 08/19/2023
RETAILER OF ALCOHOLIC BEVERAGES
APOPKA/ALTAMONTE SPRINGS VFW OF THE OF THE US
VFW POST 10147
CONSUMPTION ON PREMISES ONLY

Signature
LICENSED UNDER CHAPTER 561, FLORIDA STATUTES
EXPIRATION DATE: SEPTEMBER 30, 2024

Ron DeSantis, Governor Melanie S. Griffin, Secretary

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
DIV OF ALCOHOLIC BEVERAGES & TOBACCO

LICENSE NUMBER: BEV5813268 **EXPIRATION DATE: SEPTEMBER 30, 2024**

THE RETAILER OF ALCOHOLIC BEVERAGES HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 561, FLORIDA STATUTES
SERIES: 11C
CONSUMPTION ON PREMISES ONLY

APOPKA/ALTAMONTE SPRINGS VFW OF THE OF THE US POST 10147 INC
VFW POST 10147
519 S CENTRAL AVE
APOPKA FL 32703

ISSUED: 08/19/2023

Always verify licenses online at MyFloridaLicense.com
Do not alter this document in any form.
This is your license. It is unlawful for anyone other than the licensee to use this document.

VFW POST 10147 PRESENTS

A TRIBUTE TO THE BEATLES

Dinner & Show

Saturday - 18 May 2024

$40 ONLINE AT

VFWPOST10147.ORG/ EVENTS

TICKETS $50 AT DOOR

DOORS OPEN AT 5 PM,

DINNER AT 6 PM,

SHOW AT 7 PM.

VFW POST 10147
519 S CENTRAL AVE
APOPKA, FL 32704

ABC CF Chili Cook Off
11/20/24

DRC 5/1

Special Event Permit Application

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Once we have the complete special event application we will schedule for review and approval. Please note this may take time, as we suggest that all applications submitted at least 60 to 90 days prior to the event.

Incomplete applications will not be reviewed. After approval, an estimation of fees forms for your event based on the application and the approval is applicable.

Lexi Lahendro – Events Coordinator
events@apopka.net
407-703-1812

You must submit all required documents with your application.

Special Event Permit Application Checklist

Remember, we suggest that all applications submitted at least 60-90 days prior to the event.

Please review this checklist and make sure you have the items requested below available during this application process.

- Completed Special Event Permit Application
- Event Description
- A non-refundable application fee of $50.00 or completed application for waiver of permit fee is due when application is submitted. *Staff will contact you about this step.*
- A certificate of general liability insurance listing the "City of Apopka" as 'Additional Insured' must be submitted. Copy of the declaration sheet and endorsement page must be included. Additional insurance may be required, please see the event insurance requirements.
- A site plan (Map) or Parade/Race Route **MUST** be submitted with your application. Map must identify location of staging, tents, parking, barricades, vendors, and restrooms and must be to scale.
- Letter from the property owner granting permission for use of their property. (if on private property)
- If alcohol will be served at your event you must include the alcohol permit and insurance with the completed permit
- Copies of flyers and advertisements.
- Policies and protocols in regards to CDC Guidelines/COVID-19 & social distancing
- All renters and vendors must have a listing with the Florida Department of State Division of Corporations. Visit www.sunbiz.org for more information about the process of registering a business.
- All businesses must also must submit a copy of your Business Tax Receipt for the municipality/county that your business/organization is registered in.

Applicant must be present for duration of event.

Organization Name ABC CF

Name of Applicant	Eva Pardo
Mailing Address	651 Danville Dr. Suite 200
City	Orlando
State	FL
Zip Code	32825
Cell Phone	4076835958
Email	meetings@abccf.org
Is your organization a Non – Profit (501C3) OR Tax Exempt Organization?	No
State of Florida Tax ID Number	591447179
Please attach a copy of your Business Tax Receipt for the municipality/county that your business/organization is registered in.	doc01387320240419123658.pdf
Name of the Event	ABC CF Chili Cook off
Date(s) of the Event	November 20, 2024
Hours of the Event	Set-up (9:00 AM - 5:00 PM) Event from 5:00-7:30 PM
Location of the Event	Amphitheater and Lawn
Does the location of the event take place on Public or Private Property?	Yes
Anticipated attendance:	250
Briefly describe the event and all activities that will occur during the event:	Membership organization event for members to network/do business in a related setting during a Chili Cook Off event. Companies set up booths to promote their companies to attendees. Attendees attend to network and try chili. Awards given at end of night for Best Chili.
Event Category	• Other
Please specify	Business Developtment/Networking
Are there flyers or advertisements for this event?	Yes
Will there be admission fees to your event?	No
Will you be serving alcohol?	Yes

If yes for serving alcohol, a copy of your liquor license & insurance is required.

City Council approval is also required.

Is your event open to the public?	No
Does your event include food concession?	No
Do you intend to have food trucks at your event?	Yes
How many? 1	
Will there be merchandising vending at your event?	No
Will they need electric?	Yes

Additional fees apply for electric use.

Will you be hiring a private security company for the event?	No
Do you require overnight security?	No
Are there musical entertainment features related to your event?	Yes

Please attach a list of all stage performance schedules.

Will amplified sound be used during the event?	Yes
Will any streets be closed or will the flow of traffic be affected by the event?	No
Does your event include the use of tents?	Yes

Please indicate tent location & size on layout. Permits and ground locates may be required.

What size of tents? 10 x 10

Will inflatables be used at your event?	No
Will your event include any fireworks or pyrotechnics?	No

Layout map for event

Date/Time (on site load in and load out)

For events that are held on City Property, set up days and load out days may require additional fees.

Setup/Load In

Date	11/20/2024
Start Time	8:30 AM (EDT)
End Time	4:00 PM (EDT)

Event Dates

Date	11/20/2024
Start Time	5:00 PM (EDT)
End Time	7:30 PM (EDT)

Take Down/Load Out

Date	11/20/2024
Start Time	7:30 PM (EDT)

End Time 8:30 PM (EDT)

I, Being the Applicant/Event Organizer, have read and understand the guidelines contained within the City of Apopka's Special Event Permit Application and agree to conduct my event in accordance. I further understand that failure to abide by these guidelines may result in the denial or forfeiture of my Special Event Permit.

The City of Apopka is not responsible for lost, stolen or damaged items.

I acknowledge that the information contained in this application is true, correct, and complete to the best of my knowledge.

Applicant Signature

Name of Applicant Eva Pardo

Title of Applicant Meetings & Events Coordinator

Date Submitted 04/19/2024

The Applicant/Event Organizer shall maintain at all times throughout the duration of the event, a current insurance policy naming the City of Apopka as an additional insured providing coverage for all approved event activities and must be active on the date(s) of the event, including the set-up and break-down period. Failure to provide proof of adequate coverage will result in the denial of the special event permit or cancellation of the event. The City may require subcontractors acting on behalf of the Applicant/Event Organizer to provide proof of insurance or other related documents depending on the scope or location of the event.

- Comprehensive listing of all subcontractors, including but not limited to concessionaires, vendors, exhibitors, and entertainers must be submitted no later than forty-five (45) business days prior to the event.
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Before activity setup, or any other site activity begins, Applicant/Event Organizer must have a Certificate of Liability Insurance **(including all extensions to the insurance certificate—to also include a copy of the complete insurance policy)** on file with the City's Risk Management Division. The cost of such insurance shall be the responsibility of the Applicant/Event Organizer and must meet ALL requirements as directed by the City of Apopka. The City reserves the right to increase coverage as determined for higher risk events or activities. This insurance policy must remain in effect throughout the entire duration of the property use beginning with load-in and ending at the conclusion of load-out.

- Applicant/Event Organizer shall, at its sole cost and expense, procure and maintain throughout the term of this agreement, Commercial General Liability and Workers' Compensation insurance, including Employer Liability insurance, with minimum policy limits of $1,000,000 Combined Single Limits, or to the extent and in such amounts as required and authorized by Florida Law. If such GL insurance contains a general aggregate limit, it shall apply separately to this event in the amount of $2,000,000. Products and completed operations aggregate shall be $1,000,000. Damage to rented premises shall be included at $100,000. The event Applicant/Event Organizer and their representatives who wish to drive on City property to set up or tear down for events, and/or Food Trucks and/or any vehicle that functions as the workplace or is used to perform contracted work must provide an Automobile Liability insurance policy in the minimum amount of $300,000 Combined Single Limit. If alcohol is being served, the Applicant/Event Organizer shall provide evidence of coverage for liquor liability in the minimum amount of $1,000,000. The insurance policy must not exclude Personal Injury/Advertising Injury, Medical, volunteer coverage or spectator liability.
- All insurance policies shall: 1) provide that the insurance carrier shall not cancel, terminate or otherwise modify the terms and conditions of said policies except upon thirty days written notice to the City's contract administrator; 2) be evidenced by an endorsed Certificate of Insurance generated and executed by a licensed insurance broker, brokerage, or similar licensed insurance professional evidencing such coverage, and naming the City of Apopka as a named additional insured, as well as furnishing the City with a certified copy, or copies, of said insurance policies; and 3) be approved as to form and sufficiency by the City's contract administrator. The original insurance certificate(s) and all extensions to the insurance certificate(s) should be sent to: City of Apopka, Risk Management, 120 East Main Street, Apopka, FL 32703 or e-mailed to riskmanagement@apopka.net. All insurance coverage shall be written with a company having an A.M. Best Rating of at least the "A" category and size category of VIII.
- Applicant/Event Organizer is solely responsible for all applicable policy premiums, deductibles, and/or self-insured retention attached to any required coverages. Said insurance coverages procured by the Applicant/Event Organizer as required herein, including but not limited to any excess and/or umbrella coverages, shall be considered, and the Applicant/Event Organizer agrees that said insurance coverages it procures as required herein shall be considered, as primary insurance over and above any other insurance, or self–insurance, available to the City, and that any other insurance, or self-insurance available to the City shall be considered secondary to, or in excess of, the insurance coverage(s) procured by the Applicant/Event Organizer as required herein.
- Applicant/Event Organizer shall require and verify that all subcontractors, including but not limited to concessionaires, vendors, exhibitors, and entertainers, maintain insurance meeting all of the requirements stated herein. Furthermore, the insurance policy held by the Applicant/Event Organizer shall have no endorsement(s) restricting, limiting or excluding the subcontractors or work on behalf of the Applicant/Event Organizer by a subcontractor. The Certificate of Insurance submitted by the Applicant/Event Organizer must clearly state that all such subcontractors are "Named Insureds".

Nothing herein shall be construed to extend the City of Apopka's liability beyond that provided in section 768.28, Florida Statutes.

By signing below, I acknowledge that I have read and understand the insurance requirements contained herein. I further understand that my permit application may be declined if I fail to provide the appropriate insurance coverage.

Signature of Applicant	
Name of Applicant	Eva Pardo
Title of Applicant	Meetings & Events Coordinator
Sponsoring Organization Name	ABC CF

Tax Collector Scott Randolph **Local Business Tax Receipt** **Orange County, Florida**

2023 **EXPIRES** **9/30/2024** 5000-0573502

5000 BUSINESS OFFICE $30.00 10 EMPLOYEES

TOTAL TAX	$30.00
PREVIOUSLY PAID	$30.00
TOTAL DUE	$0.00

WYLIE MARK P PRESIDENT

ASSOCIATED BUILDERS AND
CONTRACTORS OF FL INC
651 DANVILLE DR STE 200
ORLANDO FL 32825-6393

651 DANVILLE DR #200
U - ORLANDO, 32825

PAID: $30.00 0098-01117231 7/28/2023

Tax Collector Scott Randolph **Local Business Tax Receipt** **Orange County, Florida**

This local Business Tax Receipt is in addition to and not in lieu of any other tax required by law or municipal ordinance. Businesses are subject to regulation of zoning, health and other lawful authorities. This receipt is valid from October 1 through September 30 of receipt year. **Delinquent penalty is added October 1.**

2023 **EXPIRES** **9/30/2024** 5000-0573502

5000 BUSINESS OFFICE $30.00 10 EMPLOYEES

TOTAL TAX	$30.00
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ORLANDO FL 32825-6393

651 DANVILLE DR #200
U - ORLANDO, 32825

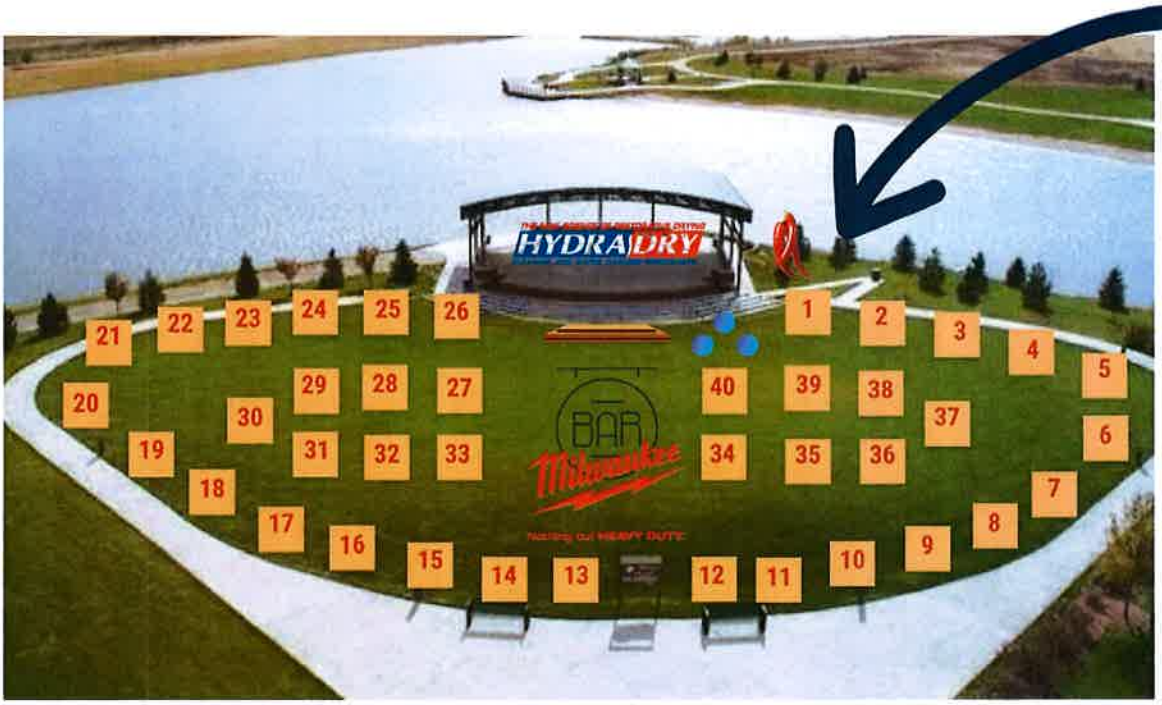
PAID: $30.00 0098-01117231 7/28/2023

SCOTT RANDOLPH, TAX COLLECTOR • ORANGE COUNTY, FLORIDA •

This receipt is official when validated by the Tax Collector.

ABC Central Florida

CHILI COOK OFF



Turn Chili Samples in to Volunteer

Stage for Annoucements/Awards

Voting - Attendees cast their votes for *People's Choice Best Chili & Best Booth*

1. Balfour Beatty
2. Bright Future Electric, LLC
3. Fire & Iron Organization
4. WELBRO Building Corporation
5. Superior Rigging & Erecting Co.
6. Rolling Plains Construction, Inc.
7. Trade Management, Inc.
8. Dreamcrete Custom Creations
9. P&A Roofing & Sheet Metal
10. T&G Constructors
11. Flagship Fire, Inc.
12. Titan America
13. ABC Student Chapter
14. L&W Supply
15. Country Boy Marine
16. Energy Air, Inc.
17. Aireko
18. Clancy & Theys Construction Co.
19. Enterprise Fleet Management
20. Sciens Orlando
21. WPC
22. High Reach 2
23. AJ Flooring
24. DOZR Ltd
25. CORE Construction
26. Cloud 9 Services, LLC
27. National Trench Safety, LLC
28. The Amphibious Group
29. Met-Con Inc.
30. Sunbelt Rentals
31. PCL Construction Services, Inc.
32. Tri-City Electrical Contractors, Inc.
33. Quality Metals, Inc.
34. Hensel Phelps
35. Tao Financial Inc.
36. Guignard Company
37. Williams Company Management Group
38. Hydra Dry, Inc.
39. Acousti Engineering Company of Florida

ACOUSTI

Quality Metals, Inc.
Architectural Metal Products
Serving Central Florida Since 1986

NTS NATIONAL TRENCH SAFETY

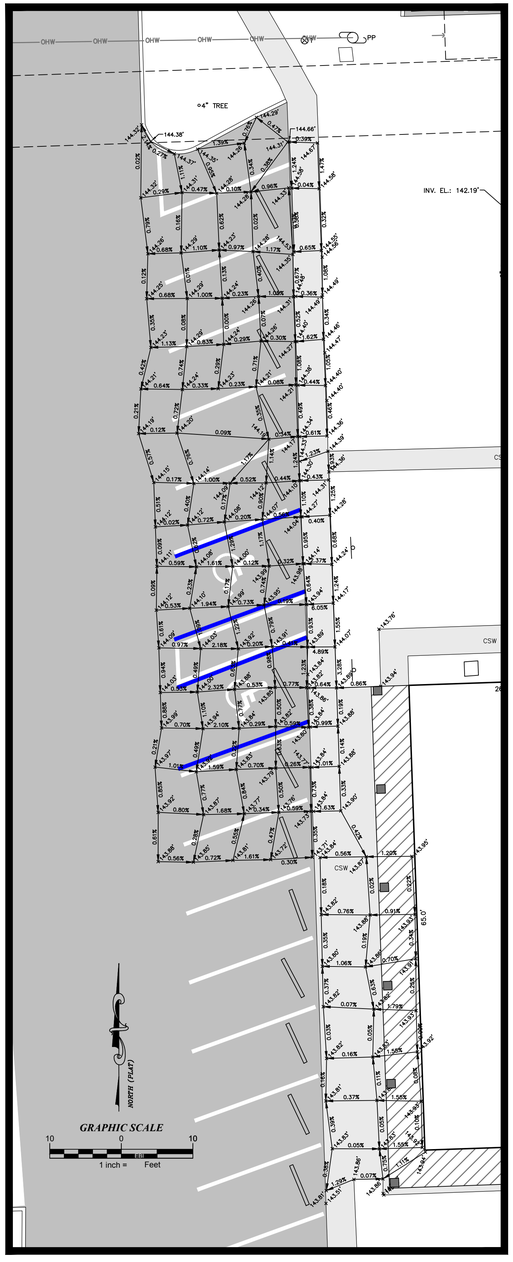
HP HENSEL PHELPS
Plan. Build. Manage.

LEGAL DESCRIPTION:

LOT 2, PARK AVENUE COMMERCIAL, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 47, PAGE 62 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

CERTIFIED TO:
INFINITY ENGINEERING GROUP, LLC

ADA DETAIL



SURVEY REPORT:

1. THIS SURVEY MAP AND/OR REPORT OR THE COPIES HEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES ARE PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.

2. THIS OFFICE HAS NOT ABSTRACTED THIS FOR ANY RECORDED CLAIMS OF TITLE EASEMENTS OR RESTRICTIONS. THE PRESENCE OR ABSENCE OF ANY SUCH CLAIMS IS NOT CERTIFIED HEREON.

3. NO UNDERGROUND IMPROVEMENTS OR UTILITIES WERE LOCATED EXCEPT THOSE SHOWN HEREON.

4. UNLESS NOTED OTHERWISE, NO UNDERGROUND FOUNDATIONS LOCATED.

5. THE PROPERTY SHOWN HEREON APPEARS TO LIE IN FLOOD ZONE "X" ACCORDING TO THE FLOOD INSURANCE RATE MAP, COMMUNITY NUMBER 120180, PANEL NUMBER 0120, SUFFIX F, REVISED SEPTEMBER 25, 2009, FOR THE CITY OF APOPKA, FLORIDA.

SITE PHOTOGRAPH

MAP OF SURVEY

MAP OF SURVEY

LINE TABLE		
LINE	BEARING	LENGTH
L1(F)	S1°55'33"E	24.85'
L1(P)	S1°55'00"E	24.84'

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BENCHMARKS:

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STATION IS AN ORNGE COUNTY CONTROL DISC ON THE WEST SIDE OF THE CENTERLINE OF A DROP INLET IN A SMALL RETENTION POND ON THE SOUTHWEST CORNER OF 3RD STREET AND PARK AVENUE AT THE NORTHEAST CORNER OF THE ECKERD STORE PROPERTY.

EL.: 139.48' (NAVD88)

TBM #1:
STATION IS A NAIL AND DISK STAMPED "EBI LB-7652" LOCATED IN THE CONCRETE SIDEWALK LOCATED ON THE SOUTH SIDE OF EAST THIRD STREET 42 FEET WEST OF THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED HEREON.

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ABBREVIATIONS

AC	AIR CONDITIONER	ID	IDENTIFICATION
(C)	CALCULATED MEASUREMENT	LB	LICENSED BUSINESS NUMBER
CO	CLEAN OUT	LP	LIGHT POLE
CONC	CONCRETE	LS	LICENSED SURVEYOR
CSW	CONCRETE SIDEWALK	MW	MONITORING WELL
(D)	DEED MEASUREMENT – CALL	NAVD	NORTH AMERICAN VERTICAL DATUM
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TRAFFIC SIGNAL POLE	WOOD FENCE
FIRE HYDRANT	METAL FENCE
SIGN	PVC FENCE
BOLLARD	

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECTION AND MEETS THE STANDARDS OF PRACTICE REQUIREMENTS OF CHAPTER 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE.

4/14/2016
DATE SIGNED

HENRY A. KILBURN, PSM
SURVEYOR AND MAPPER NUMBER: LS-6661

EBI Surveying
8415 Sunstate Street
Tampa, Florida 33634
Phone: (813) 886-6080 / Fax: (813) 886-6081
Certificate of Authorization Number: LB-7652

BOUNDARY AND TOPOGRAPHIC SURVEY

33 EAST MAIN STREET
LOT 2
PARK AVENUE COMMERCIAL
ORANGE COUNTY, FLORIDA

REVISIONS:	APPD.

DATE OF SURVEY: 4/7/2016
DRAWN: EWB
CHECKED: HAK
REVISION:
FILE: 3DIN74BDX.dwg

PROJECT NUMBER:
INFY0174

SHEET NO.

1

OF 1

LEGAL DESCRIPTION:

LOT 2, PARK AVENUE COMMERCIAL, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 47, PAGE 62 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

CERTIFIED TO:
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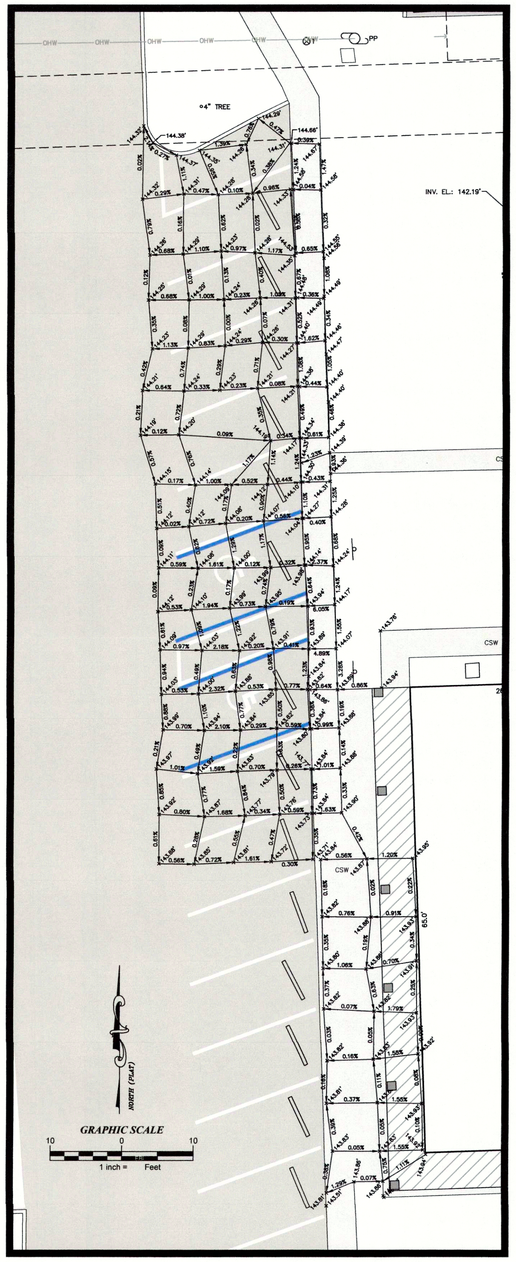
ADA DETAIL



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SITE PHOTOGRAPH

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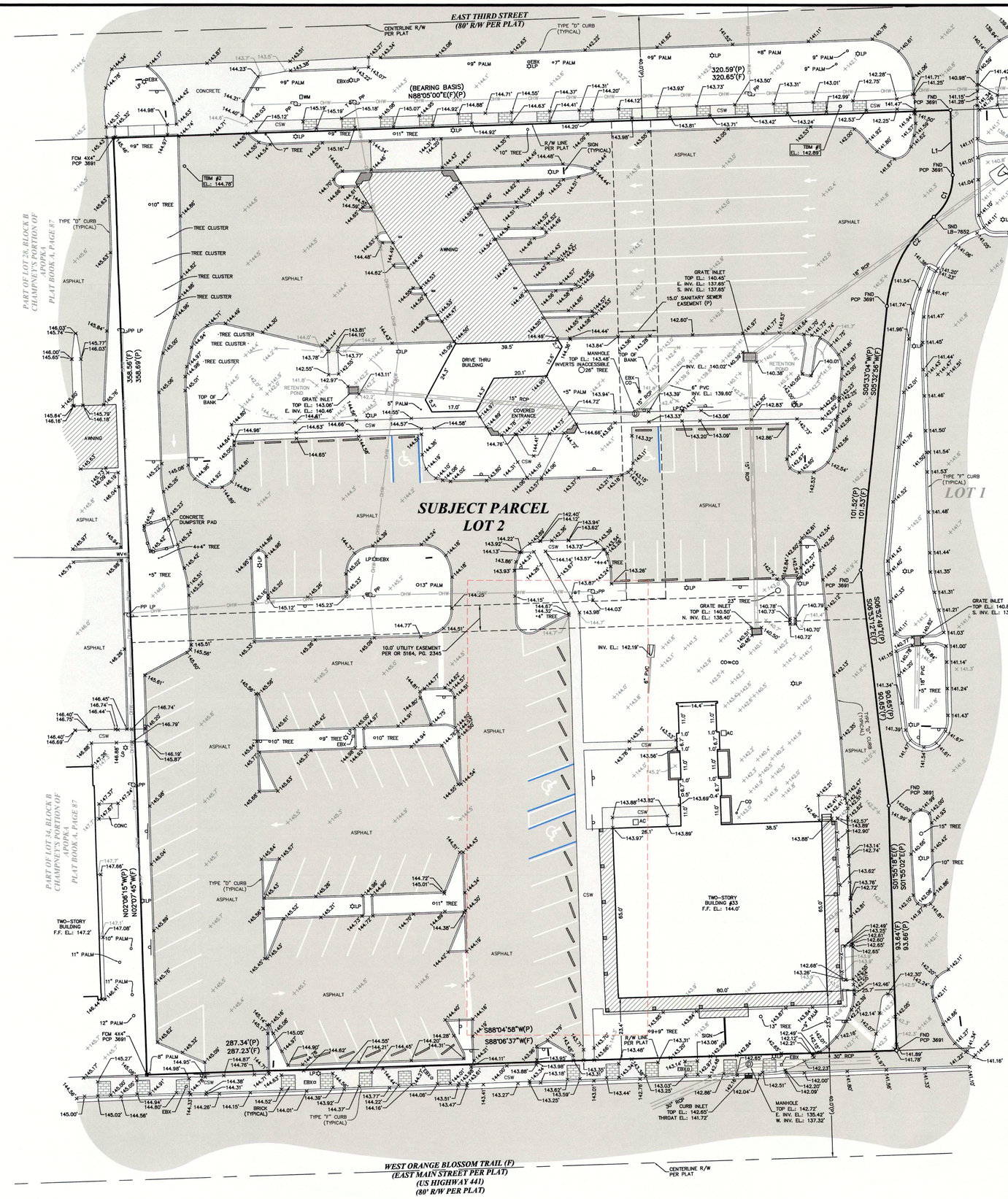

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TRAFFIC SIGNAL POLE	WOOD FENCE
FIRE HYDRANT	METAL FENCE
SIGN	PVC FENCE
BOLLARD	

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECTION AND MEETS THE STANDARDS OF PRACTICE REQUIREMENTS OF CHAPTER 61G17-6 OF THE FLORIDA ADMINISTRATIVE CODE.

HENRY A. KILBURN
LICENSE NUMBER 6661
STATE OF FLORIDA
PROFESSIONAL SURVEYOR & MAPPER

4/14/2016
HENRY A. KILBURN, PSM — DATE SIGNED
SURVEYOR AND MAPPER NUMBER: LS-6661

EBI Surveying
8415 Sunstate Street
Tampa, Florida 33634
Phone: (813) 886-6080 / Fax: (813) 886-6081
Certificate of Authorization Number: LB-7652

BOUNDARY AND TOPOGRAPHIC SURVEY

33 EAST MAIN STREET
LOT 2
PARK AVENUE COMMERCIAL
ORANGE COUNTY, FLORIDA

REVISIONS:	APPD.

DATE OF SURVEY: 4/7/2016
DRAWN: EWB
CHECKED: HAK
REVISION:
FILE: 3DIN74BDX.dwg

PROJECT NUMBER:
INFY0174

SHEET NO.

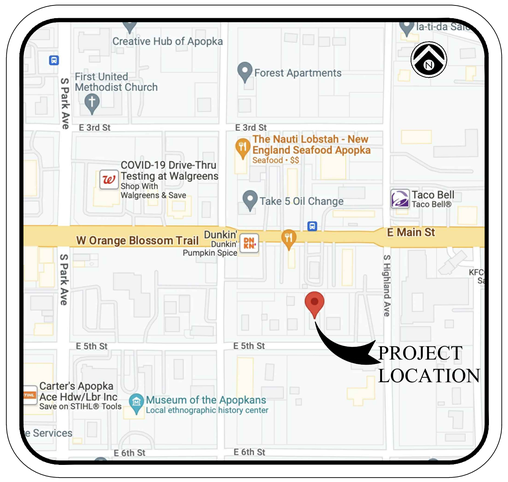
1 OF 1

MINOR DEVELOPMENT PLAN

BLUE JAY ACADEMY 4 KIDZ
229 E 5TH STREET
APOPKA FL 32703

PARCEL ID: 09-21-28-0196-60-190

NOVEMBER 2023



VICINITY MAP
N.T.S.

AERIAL MAP
N.T.S.

SHEET INDEX

SHEET	DESCRIPTION
C-1	COVER SHEET
C-2	GENERAL NOTES
C-3	SITE PLAN
C-4	LANDSCAPE PLAN
C-5	EROSION CONTROL PLAN
C-6	EROSION CONTROL DETAILS
C-7	GENERAL DETAILS
S-1	BOUNDARY/TOPOGRAPHIC SURVEY

PROJECT TEAM:

DEVELOPER:
TANIA ROSARIO
BLUE JAY ACADEMY 4 KIDZ
229 E 5TH STREET
APOPKA, FL 32703
TANIA.ROLSARIO14@GMAIL.COM
407-437-1602

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

UTILITY SERVICE PROVIDERS

POTABLE WATER	CITY OF APOPKA
NON-POTABLE WATER	CITY OF APOPKA
WASTEWATER	CITY OF APOPKA
POWER	DUKE ENERGY
TELECOMMUNICATIONS	SPECTRUM
GAS	LAKE APOPKA

LEGAL DESCRIPTION:

CHAMPNEY PORTION TOWN OF APOPKA A/87 THE E 30F OF LOT 18 AND ALL OF LOT 19 BLK F

RCE Consultants
Engineering Real Solutions

RCE CONSULTANTS, LLC

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

REV.	DATE	DESCRIPTION
1	12/13/2023	CITY OF APOPKA COMMENTS
2		
3		
4		
5		
6		
7		
8		
9		
10		

229 E 5TH STREET

COVER SHEET

DRAWN: DM
DESIGNED: LMP
PROJECT NO. 38.2023
DATE: 11/5/2023

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 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.

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 STANDARD REQUIREMENTS, INCLUDING BUT NOT LIMITED TO, WATER, SANITARY SEWER, POWER, NATURAL GAS, TELEPHONE AND CABLE TV COMPANIES.

IT SHALL BE THE CONTRACTOR'S 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 OWNER'S 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.

ALL WORK SHALL BE OPEN AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE COUNTY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER, AND REGULATORY AGENCIES.

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 FDOT ROADWAY TRAFFIC DESIGN STANDARDS, LATEST EDITION. ALL FDOT INDEXES USED ARE REFERENCED HEREIN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COMPLETE COPIES OF THE LATEST EDITION OF FDOT 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 STAKE-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.

SSOCOF- CHAPTER 556, FLORIDA STATUTES, REQUIRES EXCAVATORS TO NOTIFY SUNSHINE STATE ON E 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 SSOCOF 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 SUBSEQUS=ESNT REVISIONS OR UPDATES ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY AND WITH SECTION 553.62, 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 RELOCATION'S 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 SWEPT 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 OPERATIONS. 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 OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S 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 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 SODDING 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 ENGINEER'S 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 ENGINEER'S 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 CONTRACTOR'S RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICOUNTY 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 OR WALKWAYS 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 SCHEDULING THE SHUT DOWN TO ASSESS THE SCOPE OF WORK. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED 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 CONTRACTOR'S 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 OWNER'S 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 FDOT, 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 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION (SSRBC). ALL PAINTED MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH SECTION 710 OF THE FDOT 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 CONFORM TO SECTION 711-2 OF THE FDOT SSRBC. ONLY ALKYD BASED MATERIALS SHALL BE USED. THERMOPLASTIC TRAFFIC MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH SECTION 711 OF THE FDOT SSRBC AND THE MUTCD.

ALL REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 706 OF THE FDOT SSRBC.

ALL TRAFFIC SIGNS SHALL BE CONSTRUCTED OF HIGHLY REFLECTIVE MATERIAL AND BE "STANDARD" SIZE AS ESTABLISHED IN THE MUTCD.

STOP BARS TO BE A MINIMUM OF 4 FEET CLEAR BEHIND CROSSWALKS.

HANDICAP PARKING SPACES SHALL BE DESIGNATED BY APPROPRIATE PAVEMENT MARKINGS AND SIGNS.

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 RADII 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 SODDED AFTER GRADING (SEE NOTE IV.C.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 CONTRACTOR'S 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 PLASTICOUNTY 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, AASHTO T-180, 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, AASHTO 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 GARDEN'S 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 POOR 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 GRADES 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 CONTRACTOR'S 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 SOD / SEED GRADE.

ELEVATIONS GIVEN ADJACENT TO CURB OR FRONT OF SIDEWALK ARE CONSIDERED EDGE OF PAVEMENT GRADES.

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 SURFACE, 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 430-7.2, 941-1.5 AND 942-1, FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 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 UPGRADE AND TONGUE END FULLY ENTERED INTO THE HUB. WHEN PIPE WITH QUADRANT REINFORCEMENT OR CIRCULAR PIPE WITH ELLIPTICAL 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 RELAID 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 ASSOCIATION'S "RECOMMENDED PRACTICE FOR INSTALLATION OF PVC SEWER PIPE".

SDR 26 PVC DRAINAGE PIPE SHALL BE CONNECTED 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 ADS WITH PIPE AND FITTINGS BY THE SAME MANUFACTURER. YARD INLETS SHALL BE ADS 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 BED OF CRUSHED STONE OR EQUAL A 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 LOCAL SPECIFICATIONS DIFFER FROM THESE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

WATER, SEWER AND REUSE PIPES SHALL HAVE A MINIMUM OF 3 FEET OF COVER UNLESS OTHERWISE SPECIFIED.

WATER SERVICES SHALL BE POLYETHYLENE TUBING COMPLYING WITH APPLICABLE REQUIREMENTS OF PE-3034. MATERIAL 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 DISINFECTION, HYDROSTATIC PRESSURE AND LEAKAGE 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 CONTAMINATION 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 M23 WITH AN ALLOWABLE LEAKAGE AS DETERMINED BY THE FOLLOWING FORMULA FOR PVC MAINS:

L=SD*p0.5 /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 INTEGRAL BELL AND SPIGOT JOINTS FOR PUSH-ON RUBBER GASKET TYPE JOINT SEALS CONFORMING TO ASTM D-1869.

ALL GRAVITY MAINS ARE 8 INCHES PVC PIPE AT 0.40% 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 MAIN 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 MADE; 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 GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER;
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 BELOW THE OTHER PIPELINE; AND
2. THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER 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.

RCE Consultants
Engineering Real Solutions

229 E 5TH STREET
NOTE & SPECIFICATIONS
APAOPKA, FLORIDA

NO:	DATE:	REVISION / ISSUE DATE:	BY:

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Engineer of Record

Laurence Poliner
#56974

RCE CONSULTANTS, LLC
Certificate of Authorization 29307

PROJECT #: 38.2023

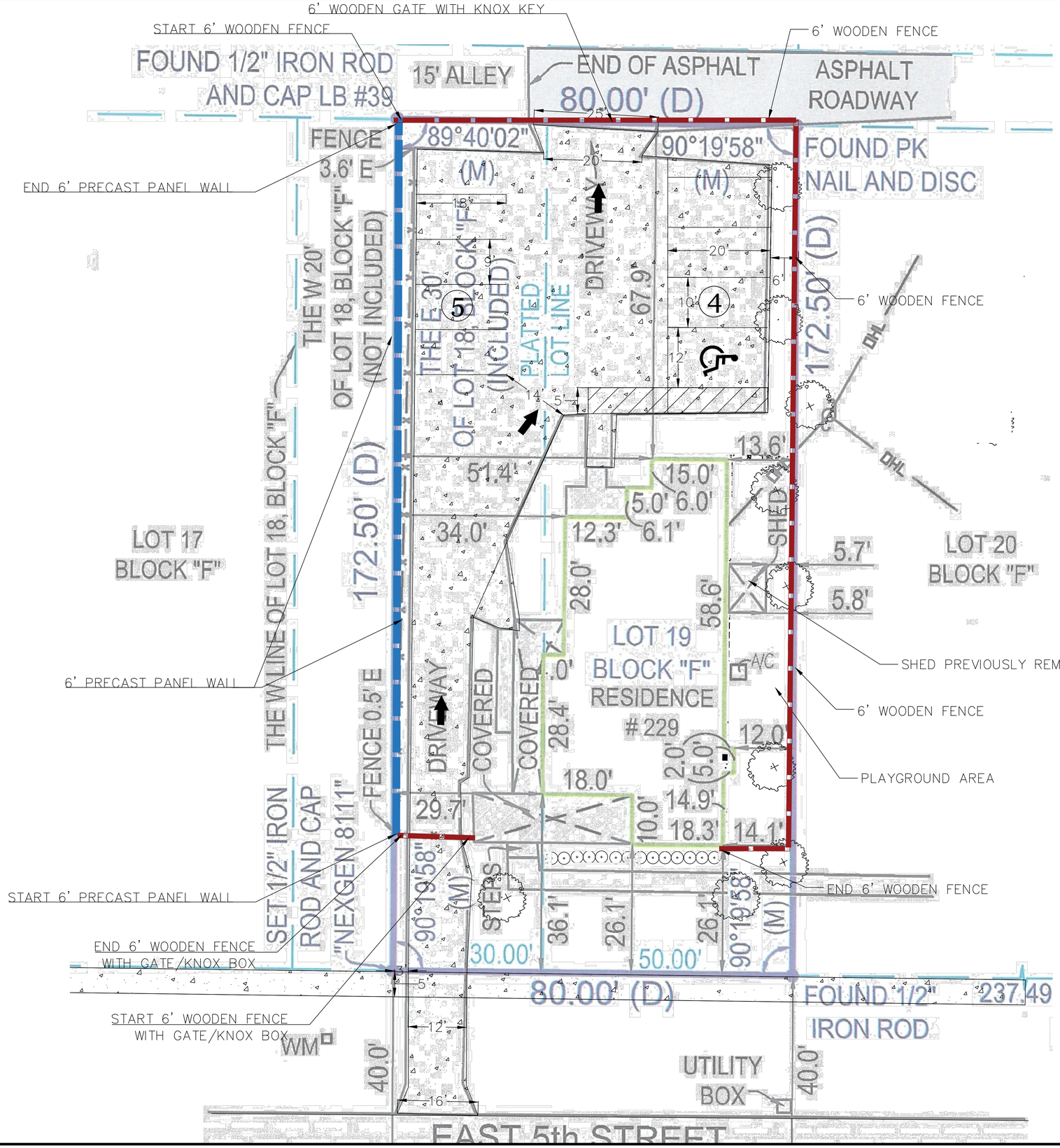
DRAWN:LMP CHECKED: LMP

DATE: JULY 2021

SCALE:

SHEET: C-2

NOTES & SPECIFICATIONS



SITE INFORMATION

PARCEL ID: 28-21-09-0196-0190

ZONING: MU-D (MIXED USE DOWNTOWN)

LAND USE: OFFICE

PROPERTY AREA: 0.31 Acres (13,641 SF)

REQUIRED PARKING:
1 SPACE PER 10 PERSONS PLUS 1 SPACE PER EMPLOYEE

TOTAL 39 CHILDREN, 4 SPACES REQUIRED
EMPLOYEES: 5

TOTAL PARKING REQUIRED = 9 SPACES

PROVIDED PARKING:
STANDARD = 8
HANDICAP = 1
TOTAL SPACES PROVIDED = 9

REQUIRED PLAYGROUND AREA: 15 SF/CHILD = 585 SF
PLAYGROUND AREA PROVIDED: 1,045 SF

TRAFFIC GENERATION PER ITE MANUAL, 11TH EDITION

CODE 565: 127 DAILY TRIPS, 24 AM PEAK TRIPS, 25 PM PEAK TRIPS.
:

PER LDC SECTION 5.4.5, 7.5% OF THE SITE SHALL BE OPEN SPACE SET ASIDE.

TOTAL SITE: 13,641 SF

LANDSCAPE SPACE: 3,277 SF -24%

BUILDING 1,990 SF -15.6%

PLAYGROUND 1,045 SF - 7.7%

PAVING: 7,329 SF- 54%

TOTAL OPEN SPACE : 31.7%

UTILITY USAGE

PER ORANGE COUNTY UTILITIES MANUAL- 0.025 ERU/ERU FACTOR

39 STUDENTS X 0.025 = 0.925

WATER: 0.925 X 350 GAL/DAY = 323.75 GPD

SEWER 0.925 X 300 GAL/DAY = 277.5 GPD

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GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

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.

RCE Consultants
Engineering Real Solutions

229 E. 5TH STREET
SITE PLAN
APOPKA, FLORIDA 32703

NO:	DATE:	REVISION / ISSUE DATE:	BY:
1	10/15/2023	CITY COMMENTS	LMP

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LAURENCE M. POLINER, P.E
#56974

RCE CONSULTANTS, LLC

PROJECT #: 38.2023

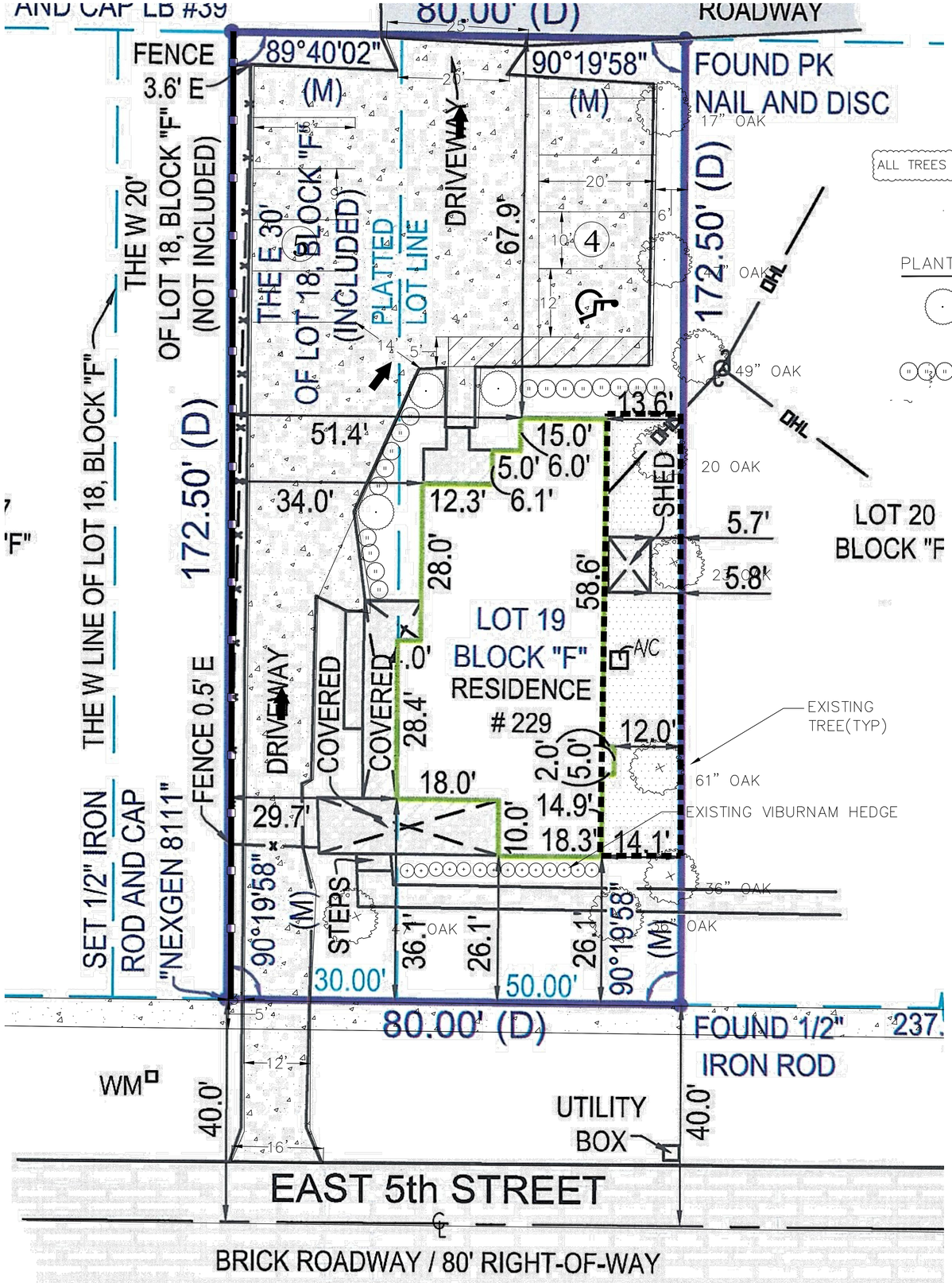
DRAWN:LMP CHECKED: LMP

DATE: OCT 2023

SHEET: C-3

SCALE: 1"=10'

SITE PLAN



ALL TREES SHOWN ARE EXISTING

PLANT LEGEND:

Crapemyrtle

Cordgrass

LANDSCAPE NOTES:

1. 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.

2. 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.

3. 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.

4. 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.

5. ALL TREE MATERIAL SHALL BE CONTAINER GROWN UNLESS OTHERWISE SPECIFIED.

6. THE LANDSCAPE CONTRACTOR SHALL AQUAINT 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.

7. 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.

8. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.

9. IN THE EVENT OF A CONFLICT BETWEEN QUANTITIES ON THE PLANT LIST AND THE PLANS, THE PLAN SHALL TAKE PRECEDENT.

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GRAPHIC SCALE

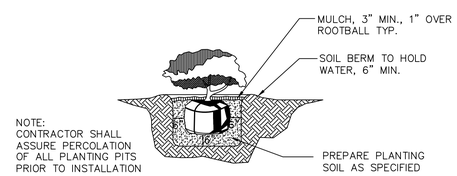
10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

PLANT LIST:

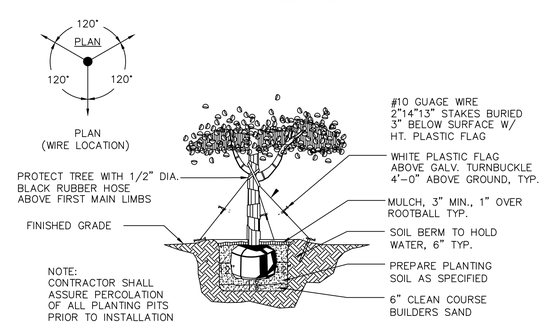
QTY.	ABBREV.	BOTANICAL NAME	COMMON NAME	SIZE & SPECIFICATION
3	LI	Lagerstroemia indica	Crapemyrtle	3" Cal., 10' Ht. x 4' Sprd.
17	SB	Spartina bakeri	Cord Grass	30" Min. Ht., 3 Gal., 36" O.C.

NOTE: WHERE EXISTING TREES AND SHRUBS ARE LOCATED, AND DUE TO SITE CONSTRAINTS, ADDITIONAL PLANTINGS ARE NOT PROPOSED. THEREFOR THE BUFFER TYPE B REQUIREMENTS CANNOT BE MET. AND THIS ALTERNATIVE LANDSCAPE PLAN IS PRESENTED.



SHRUB DETAIL

Scale: N.T.S.



LARGE TREE DETAIL

Scale: N.T.S.

1. All landscaped areas shall be irrigated with a permanent automatic irrigation system providing 100% coverage.

2. An automatic moister sensor/shutoff shall be part of the system.

3. 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.

RCE Consultants
Engineering Real Solutions

229 E. 5TH STREET
ALTERNATIVE LANDSCAPE PLAN
APOPKA, FLORIDA 32703

NO.	DATE:	REVISION / ISSUE DATE:	BY:
1	10/15/2023	CITY COMMENTS	LMP

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LAURENCE M. POLINER, P.E
#56974

RCE CONSULTANTS, LLC

PROJECT #: 38.2023

DRAWN:LMP CHECKED: LMP

DATE: OCT 2023

SHEET: C-4

SCALE: 1"=10'

ALTERNATIVE LANDSCAPE PLAN

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 (BMPS) 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_____

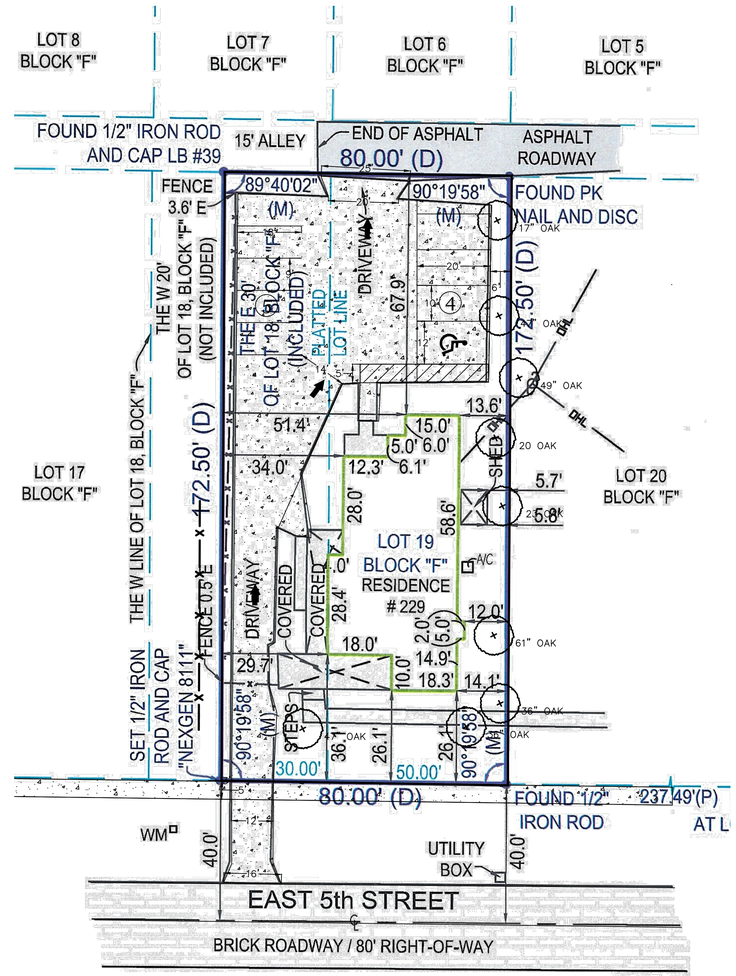
SYMBOLS LEGEND

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

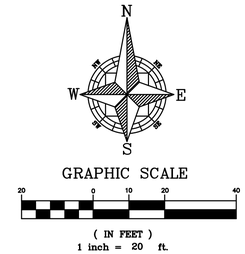
SOIL EROSION / SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
ROUGH GRADE / SEDIMENT CONTROL																		
TEMPORARY CONTROL MEASURES																		
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



SILF FENCE
INSTALLATION PER
CONTRACTOR FIELD
DETERMINATION



RCE Consultants
Engineering Real Solutions

229 E 5TH STREET EROSION CONTROL PLAN APAOPKA, FLORIDA

NO:	DATE:	REVISION / ISSUE DATE:	BY:

RCE CONSULTANTS, LLC
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Certificate of Authorization 29307

PROJECT #: 38.2023
DRAWN:LMP CHECKED: LMP
DATE: JULY 2021
SCALE: 1"=20'
SHEET: C-5
EROSION CONTROL PLAN

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, CROWVETCH, 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.

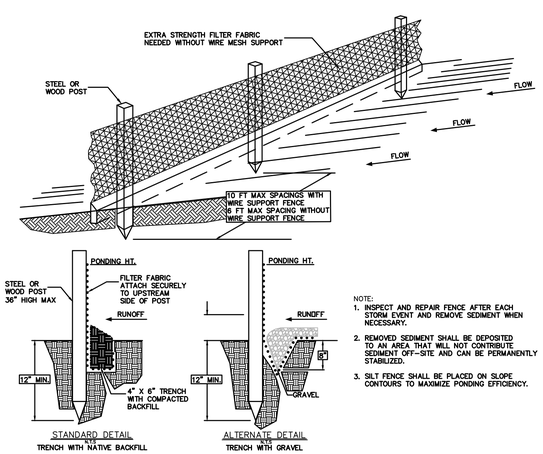
C. SEDIMENT TRAPPING
1. THE TRAPPING OF ERODED PARTICLES WILL BE ACCOMPLISHED BY THE DIVERSION OF RUN-OFF TO SEDIMENT BASINS, EXCAVATION TRAPS, BERMS, STAKED SYNTHETIC HAY BALES, OR FLOATING SILT CURTAINS.
2. THE PROPOSED RETENTION AND/OR DETENTION POND(S) ALONG WITH ANY ENVIRONMENTAL BERM(S)/REAR YARD 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 CYCORP 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.

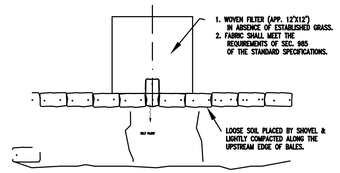


STANDARD DETAIL
N.T.S
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
N.T.S
TRENCH WITH GRAVEL

NOTE:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

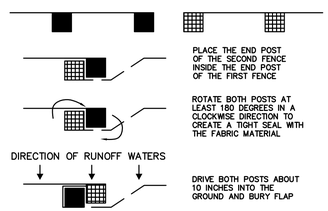
SILT FENCE INSTALLATION
N.T.S



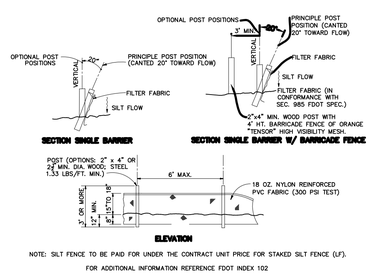
SYNTHETIC HAY BALE PLAN VIEW *

GENERAL NOTES:

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]



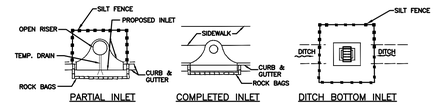
SILT FENCE ATTACHMENT DETAIL
N.T.S



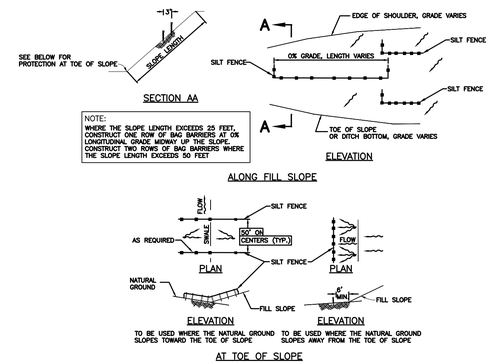
NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

FOR ADDITIONAL INFORMATION REFERENCE FDOT INDEX 102

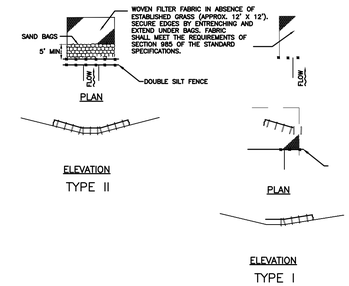
STAKED TURBIDITY BARRIER
N.T.S.



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

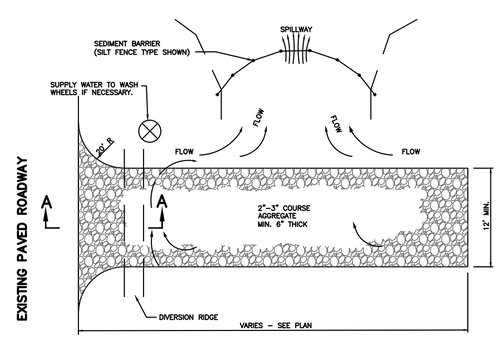


BARRIERS FOR FILL SLOPES



BARRIERS FOR UNPAVED DITCHES

BARRIERS LAYOUT DETAIL
NOT TO SCALE



PLAN
N.T.S.

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 OFANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
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.

SECTION 'A–A'
N.T.S.

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 TO MINIMIZE GRADING. GRADES SHOULD BE SUFFICIENT TO PROVIDE DRAINAGE BUT SHOULD NOT EXCEED 4 PERCENT.
3. ROADBEDS 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 APLICABLE REGULATIONS.
6. THE ROADBED OR PARKING SURFACE SHALL BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
7. A 6 INCH (15 cm) COURSE OF FDOT NO. 1 AGGREGATE SHALL BE APPLIED IMMEDIATELY AFTER GRADING OR 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
N.T.S.

RCE Consultants
Engineering Real Solutions

229 E 5TH STREET EROSION CONTROL DETAILS APAOPKA, FLORIDA

NO.	DATE:	REVISION / ISSUE DATE:	BY:

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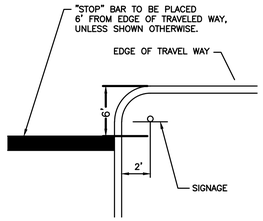
PROJECT #: 38.2023
DRAWN:LMP CHECKED: LMP
DATE: JULY 2021
SCALE:
SHEET: C-6

EROSION CONTROL DETAILS



"STOP" BAR SHALL BE 24" WIDE AND
12' FOOT LONG, OR AS SHOWN,
WHITE REFLECTORIZED PAINT.
(SEE PLAN VIEW FOR LOCATIONS)

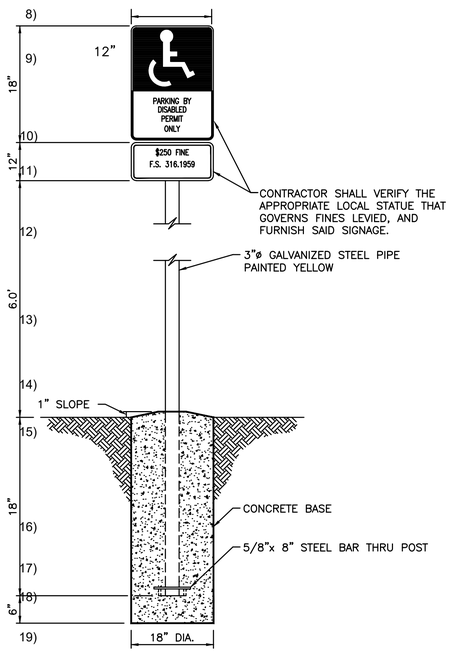
STOP BAR DETAIL WITH SIGNAGE

GENERAL NOTES:

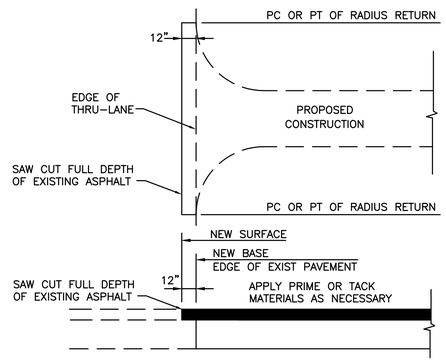
1. USE ACI OR FC&PA CERTIFIED FLATWORK FINISHER
2. USE ACI 330R-01 GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS
3. USE ACI 330.1-94 STANDARD SPECIFICATION FOR PLAIN CONCRETE PARKING LOTS
4. ALL CONCRETE USED IN PARKING LOT, UNLESS OTHERWISE INDICATED, SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
5. PREPARE THE SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS FOR RIGID PAVEMENTS. SUBGRADE SOIL DENSITY TESTING MUST BE COMPLETED AND VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
6. IMPORTED SOIL USE FOR BACK FILL SHOULD BE FREE OF HEAVY CLAY, SILTS, STONES, PLANT ROOT OR OTHER FOREIGN MATERIAL GREATER THAN 1" IN DIA
7. LAYOUT CONTROL JOINT BY STARTING WITH ANY DRAINAGE INLET WITHIN THE PAVEMENT SECTION AND WORK TOWARD EDGE OF PAVEMENT
8. KEEP ALL JOINTS CONTINUOUS
9. CONTROL JOINTS SHALL BE FORMED OR SAWED WITHIN 12 HOURS FROM TIME OF PLACEMENT;
   A. SIDEWALK-SPACING SHALL BE SAME AS WIDTH OF PAVEMENT AND LESS THAN 5 FEET IN LENGTH
   B. PAVEMENT-MAXIMUM SPACING SHALL BE 2.5 TIMES THICKNESS IN UNIT OF FEET AND LESS THAN 15 FEET IN LENGTH (E.G. T=4 INCH SPACING AT 10'x10')
10. CURE CONCRETE IMMEDIATELY AFTER FINISHING OPERATION IS COMPLETED BY USING ONE OF THE FOLLOWING METHODS: WATER, PIGMENTED WATER-BASED CURING COMPOUND OR VISQUEEN AND BURLAP

CURBS:

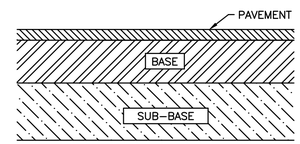
1. ALL CURBING SHALL BE CONSTRUCTED OF CONCRETE THAT WILL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS
2. ALL CONCRETE CURBS SHALL BE SPACED WITH A FULL-DEPTH, ½" WIDTH ISOLATION JOINT MATERIAL PRIOR TO PLACEMENT OF ADJACENT CONCRETE PAVEMENT
3. THERE SHALL BE CONTROL JOINTS, EITHER TOOL OR SAW-CUT, MATCH 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 IN 24 INCHES
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 ½" WIDTH ISOLATION JOINT MATERIAL



HANDICAP SIGN

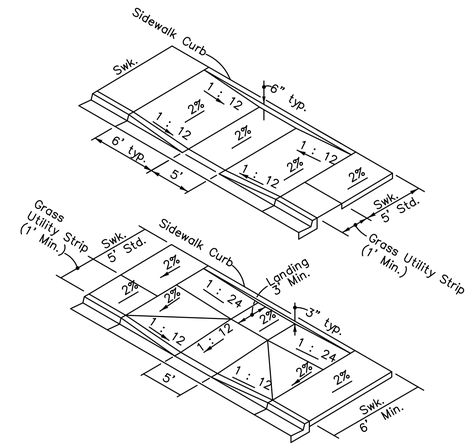


CONNECTION DETAIL AT EXISTING ASPHALT PAVEMENTS

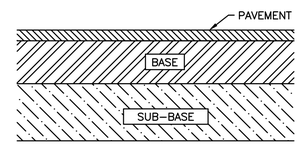


	1-1/4"	TYPE S-9.5 ASPHALTIC CONCRETE
BASE COURSE	6	CRUSHED CONCRETE 98% DENSITY STANDARD PROCTOR PER ASTM D-558
SUB-BASE	12"	STABILIZED SUBBASE WITH MIN. (FBV) OF 75 PSI

ASPHALT PAVEMENT DETAIL

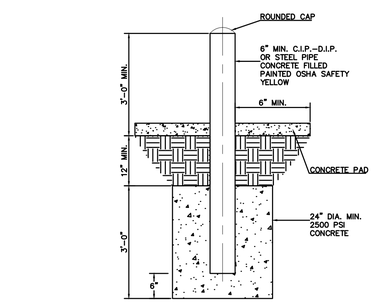


SIDEWALK RAMP DETAIL



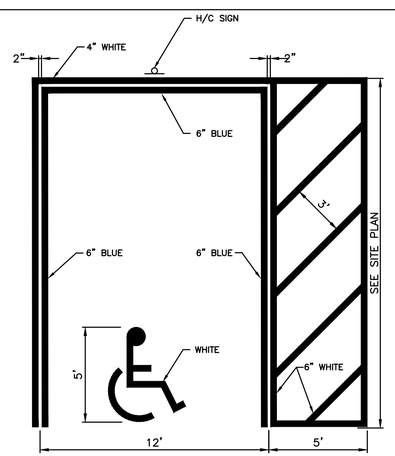
	6"	4.000 PSI CONCRETE
BASE COURSE	6	CRUSHED CONCRETE 98% DENSITY STANDARD PROCTOR PER ASTM D-558
SUB-BASE	10"	STABILIZED SUBBASE WITH MIN. (FBV) OF 75 PSI

CONCRETE PAVEMENT DETAIL

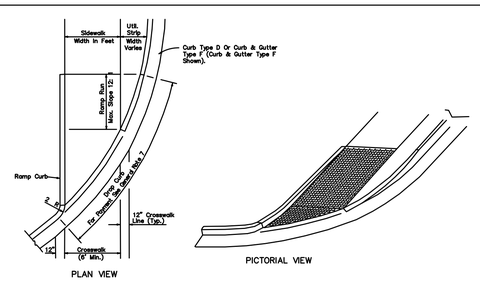


BOLLARD DETAIL
N.T.S.

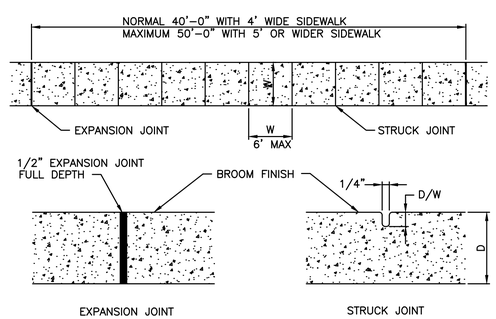
SEM. CO. FEB
2014
116



HANDICAP PARKING PAVEMENT MARKING



RAMPS FOR LINEAR PEDESTRIAN TRAFFIC



NOTES:
1. SIDEWALK EXPANSION JOINTS TO BE AT ALL TIES TO CONCRETE OTHER THAN DRIVEWAYS. MAXIMUM SPACING SHALL BE 60'.
2. EXPANSION JOINT MATERIAL SHALL BE ASPHALT FIBER IMPREGNATED PREFORMED JOINT FILLER, TO FILL DEPTH OF CONCRETE.

TYPICAL SIDEWALK

RCE Consultants
Engineering Real Solutions

229 E 5TH STREET
CONSTRUCTION DETAILS
APAOPKA, FLORIDA

NO:	DATE:	REVISION / ISSUE DATE:	BY:

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

Engineer of Record

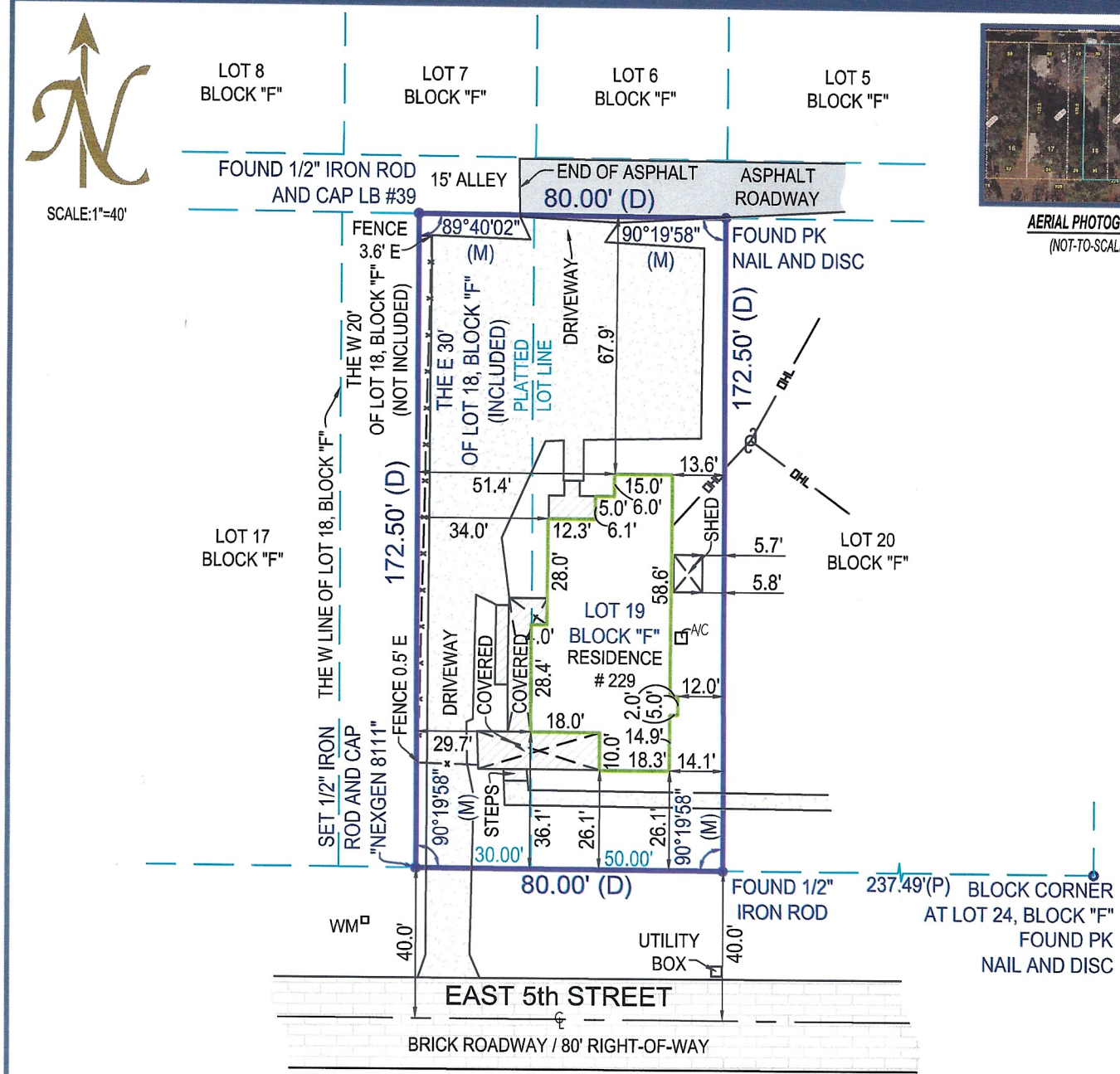
Laurence Poliner
#56974

RCE CONSULTANTS, LLC
Certificate of Authorization 29307

PROJECT #: 38.2023
DRAWN: LMP CHECKED: LMP
DATE: JULY 2021
SCALE: N/A
SHEET: C-7.0

CONSTRUCTION DETAILS

229 EAST 5th STREET, APOPKA, FL. 32703



AERIAL PHOTOGRAPH
(NOT-TO-SCALE)

- ALL ANGLES AND DISTANCES SHOWN HEREON ARE BOTH RECORD AND MEASURED UNLESS OTHERWISE NOTED

SHEET 1 OF 2 (SKETCH OF SURVEY) - SEE SHEET 2 OF 2 FOR LEGAL DESCRIPTION, AND OTHER SURVEY RELATED DATA. SURVEY IS NOT COMPLETE WITHOUT ALL SHEETS

The survey map & report or the copies thereof are not valid without the digital signature and seal of a Florida licensed surveyor and mapper

Date of Field Work : 03-14-2023
Drawn By: Oleg
Order #: 208862
Last Revision Date: None
Boundary Survey prepared by: LB8111
NexGen Surveying, LLC
561-508-6272
1547 Prosperity Farms Rd
West Palm Beach, FL 33403

NEXGEN SURVEYING, LLC.

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CLYDE D. MCNEAL PSM 2883 ON 03-15-2023 STATE OF FLORIDA Professional Surveyor and Mapper

LEGAL DESCRIPTION OF: 229 E 5TH ST, APOPKA, FL, 32703

THE EAST 30 FEET OF LOT 18 AND ALL OF LOT 19, BLOCK F, CHAMPNEY'S PORTION OF APOPKA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK "A", PAGE 87, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

CERTIFIED TO:

TANIA E ROSARIO AND DANIEL ROSARIO
THE CLOSING AGENT, LLC
MORTGAGE EQUITY PARTNERS, LLC ISAOA/ATIMA
CHICAGO TITLE INSURANCE COMPANY

FLOOD ZONE:

12095C0120H
ZONE: X
EFF: 09/24/2021

SURVEY NOTES:

- DRIVEWAY CROSSES THE BOUNDARY LINE ON SOUTHERLY SIDE OF LOT AS SHOWN.
- FENCES LIE NEAR BOUNDARY LINES AS SHOWN, OWNERSHIP NOT DETERMINED.
- COMMUNITY ASPHALT ROADWAY CROSSES THE BOUNDARY LINE ON NORTHERLY SIDE OF LOT AS SHOWN.
- COMMON CONCRETE WALK CROSSES THE BOUNDARY LINE ON EASTERLY SIDE OF LOT AS SHOWN.

LEGEND

A/C	-AIR CONDITIONER
WM	-WATER METER
AL	- ARC LENGTH
(C)	-CALCULATED
(M)	-MEASURED
P.O.B.	-POINT OF BEGINNING
P.O.C.	-POINT OF COMMENCEMENT
&	-AND
P.B.	-PLAT BOOK
PG	-PAGE
U.E.	-UTILITY EASEMENT
D.E.	-DRAINAGE EASEMENT
P.U.E.	- PUBLIC UTILITY EASEMENT
L.A.E.	-LIMITED ACCESS EASEMENT
L.M.E.	-LAKE MAINTENANCE EASEMENT
O.H.E	-OVERHEAD EASEMENT
R	-RADIUS
(R)	-RECORD
O.R.B.	-OFFICIAL RECORDS BOOK
Sq.Ft.	-SQUARE FEET
Ac.	-ACRES
DB	-DEED BOOK
(D)	-DEED
(P)	-PLAT
EOW	-EDGE OF WATER
TOB	-TOP OF BANK
OHL	-OVERHEAD LINE
C/O	-CLEAN OUT
ELEV	-ELEVATION
FF	-FINISHED FLOOR
LS	-LICENSED SURVEYOR
LB	-LICENSED BUSINESS
PSM	-PROFESSIONAL SURVEYOR & MAPPER
—x—	-FENCE
#	-NUMBER
±	-PLUS OR MINUS
	-ASPHALT
	-CONCRETE
	-PAVER/BRINCK
	-WOOD
	-LIGHT POLE
	-WELL
	-WATER VALVE
	-CENTER LINE
	-CATCH BASIN
	-FIRE HYDRANT
	-UTILITY POLE
	-MANHOLE
XX.X	-ELEVATION

SOME ITEMS IN LEGEND MAY NOT APPEAR ON DRAWING.

GENERAL NOTES:
1) THIS SURVEY IS BASED UPON RECORD INFORMATION BY CLIENT. NO SPECIFIC SEARCH OF THE PUBLIC RECORD HAS BEEN MADE BY THIS OFFICE UNLESS OTHERWISE NOTED.
2) IF THIS SURVEY HAS BEEN PREPARED FOR THE PURPOSES OF A MORTGAGE TRANSACTION, ITS SCOPE IS LIMITED TO THE DETERMINATION OF TITLE DEFICIENCIES. NO FUTURE CONSTRUCTION SHALL BE BASED UPON THIS SURVEY WITHOUT FIRST OBTAINING APPROVAL AND/OR UPDATES FROM NEXGEN SURVEYING, LLC. NEXGEN SURVEYING, LLC, ASSUMES NO RESPONSIBILITY FOR ERRORS RESULTING FROM FAILURE TO ADHERE TO THIS CLAUSE. 3) ANY FENCES SHOWN HEREON ARE ILLUSTRATIVE OF THEIR GENERAL POSITION ONLY. FENCE TIES SHOWN ARE TO GENERAL CENTERLINE OF FENCE. THIS OFFICE WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING SOLELY ON THEIR PHYSICAL RELATIONSHIP TO THE MONUMENTED BOUNDARY LINES. 4) GRAPHIC REPRESENTATIONS MAY HAVE BEEN EXAGGERATED TO MORE CLEARLY ILLUSTRATE MEASURED RELATIONSHIPS - DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED POSITIONS. 5) UNDERGROUND IMPROVEMENTS HAVE NOT BEEN LOCATED EXCEPT AS SPECIFICALLY SHOWN. 6) ELEVATIONS ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D. 1929) OR NORTH AMERICAN VERTICAL DATUM (N.A.V.D. 1988). 7) ALL BOUNDARY AND CONTROL DIMENSIONS SHOWN ARE FIELD MEASURED AND CORRESPOND TO RECORD INFORMATION UNLESS SPECIFICALLY NOTED OTHERWISE. 8) CORNERS SHOWN AS "SET" ARE 5/8" IRON RODS IDENTIFIED WITH A PLASTIC CAP MARKED LS (LICENSED SURVEYOR)

LB 8111
info@NexGenSurveying.com

561-508-6272
1421 Oglethorpe Rd
West Palm Beach
FL 33405

CONSTRUCTION SITE PLAN

FOR

WILLOW RUN

CITY OF APOPKA, FLORIDA

OCPA PARCEL ID:19-20-28-0000-00-002 & 19-20-28-0000-00-050

LEGAL DESCRIPTION PER ALLEN & COMPANY PROFESSIONAL SURVEYORS & MAPPERS DATED: NOVEMBER 8, 2023

LEGAL DESCRIPTION:

PARCEL 1:

THE NORTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA (LESS THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 AND LESS THE SOUTH 30 FEET AND THE NORTH 60 FEET AND THE WEST 30 FEET FOR ROAD PURPOSES AND LESS THE SOUTH 878 FEET OF THE EAST 1215.47 FEET AND THE EAST 600 FEET THEREOF.)

PARCEL 2:

THE SOUTH 878 FEET OF THE EAST 1215.47 FEET OF THE NORTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA (LESS THE SOUTH 30 FEET FOR ROAD PURPOSES AND LESS THE EAST 600 FEET THEREOF.)

ALSO DESCRIBED AS FOLLOWS:

A TRACT OF LAND LYING IN SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST, DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 19 FOR A POINT OF REFERENCE; THENCE RUN NORTH 85°38'18" EAST, ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 729.62 FEET TO THE WEST LINE OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 19; THENCE RUN SOUTH 00°04'35" EAST, ALONG SAID WEST LINE, 60.17 FEET TO THE A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF APPY LANE ACCORDING TO OFFICIAL RECORDS BOOK 9701, PAGE 2389 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA AND THE POINT OF BEGINNING; THENCE RUN NORTH 85°38'18" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, 1587.77 FEET; THENCE DEPARTING SAID SOUTH RIGHT-OF-WAY LINE, RUN SOUTH 00°24'08" EAST, PARALLEL WITH AND 600.00 FEET WEST OF (PERPENDICULAR MEASURE) OF THE EAST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 1288.73 FEET TO THE NORTH RIGHT-OF-WAY LINE OF LENT ROAD, ACCORDING TO RIGHT-OF-WAY AGREEMENT, RECORDED IN OFFICIAL RECORDS BOOK 4, PAGES 13 AND 14 OF SAID PUBLIC RECORDS; THENCE RUN SOUTH 86°34'19" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 2294.73 FEET TO THE EAST RIGHT-OF-WAY LINE OF PLYMOUTH-SORRENTO ROAD, ACCORDING TO DEED BOOK 402, PAGE 69 AND ROAD BIND BOOK 3, PAGE 43 OF SAID PUBLIC RECORDS; THENCE RUN NORTH 00°02'10" EAST, ALONG SAID EAST RIGHT-OF-WAY LINE, 641.04 FEET TO THE SOUTH LINE OF THE NORTHWEST QUARTER FO THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 19; THENCE RUN NORTH 86°06'20" EAST, ALONG SAID SOUTH LINE, 700.45 FEET TO THE AFORESAID TO THE WEST LIEN FO THE EAAST HALF OF NORTHWEST QUARTER OF SAID SECTION 19; THENCE RUN NORTH 00°04'35" WEST, ALONG SAID WEST LINE, 616.56 FEET TO THE POINT OF BEGINNING.

PROJECT TEAM:

PROPERTY OWNER
TESTAMENTARY TRUST FBO
AMANDA P FARRELL
2601 LEND ROAD APOPKA, FL 32703

LENT ROAD PROPERTIES LLC
2601 LEND ROAD APOPKA, FL 32703

DEVELOPER
M/I HOMES OF ORLANDO, LLC
CONTACT: ROBERT REYNOLDS
400 INTERNATIONAL PARKWAY, STE 470
LAKE MARY, FL 32746
PHONE: (407) 531-5122
EMAIL: RREYNOLDS@MIHOMES.COM

ENGINEER
APPIAN ENGINEERING, LLC
ENGINEER: OVIDIO S. SANCHEZ, P.E.
2221 LEE RD, SUITE 27
WINTER PARK, FL 32789
PHONE: (407) 960-5868
EMAIL: OSANCHEZ@APPIANFL.COM

SURVEYOR
ALLEN & COMPANY, INC.
SURVEYOR: JAMES L. RICKMAN, P.S.M.
16 EAST PLANT STREET
WINTER GARDEN, FL 34787
PHONE: (407) 654-5355
EMAIL: JIM@ALLEN-COMPANY.COM

LANDSCAPE ARCHITECT
LANDSCAPE DESIGNS, LLC
ARCHITECT: CARL J. KELLY JR., RLA
4463 TIFFANY WOODS CIR OVIEDO, FLORIDA 32765
PHONE: (407) 484-3414
EMAIL: CKELLY1@CFL.RR.COM

ENVIRONMENTAL CONSULTANT
BIO-TECH CONSULTING, INC.
ENVIRONMENTALIST: JAY BAKER, DIRECTOR
3025 EAST SOUTH STREET
ORLANDO, FL 32803
PHONE: (407) 894-5969
EMAIL:JAY@BIO-TECHCONSULTING.COM

GEOTECHNICAL ENGINEER
GEO-TECHNOLOGY ASSOCIATES, INC.
ENGINEER: GAUTHAM S. PILLAPPA, P.E.
4617 PARKBREEZE COURT
ORLANDO, FLORIDA 32808
PHONE: (321) 482-4239
EMAIL: GPILLAPPA@GTAENG.COM

TRAFFIC ENGINEER
TRAFFIC & MOBILITY CONSULTANTS, LLC
ENGINEER: AYMAN H. AS-ASADI, P.E.
3101 MAGUIRE BOULEVARD, SUITE 265
ORLANDO, FLORIDA 32803
PHONE: (407) 730-1473
EMAIL: AHA@TRAFFICMOBILITY.COM

UTILITY PROVIDERS

WATER/RECLAIMED:
CITY OF APOPKA
748 E. CLEVELAND STREET
ORLANDO, FL 32703
CONTACT: VLADIMIR SIMONOVSKI, P.E.
PHONE: (407) 703-1731

SOLID WASTE COLLECTION:
CITY OF APOPKA
748 E. CLEVELAND STREET
WINTER PARK, FL 32703
CONTACT: VLADIMIR SIMONOVSKI, P.E.
PHONE: (407) 703-1731

NATURAL GAS:
LAKE APOPKA NATURAL GAS DISTRICT
1320 WINTER GARDEN VINELAND
WINTER PARK, FLORIDA 34787
CONTACT:PATRICK NGUYEN
PHONE: (407) 656-2734

TELEPHONE/FIBER:
CENTURYLINK
33 NORTH MAIN STREET, ROOM 144
WINTER GARDEN, FL 34787
CONTACT: BILLY HAGER
PHONE: (407) 814-5329

CHARTER COMMUNICATION:
(A.K.A. SPECTRUM)
3767 ALL AMERICAN BOULEVARD
ORLANDO, FLORIDA 32810
CONTACT: TRACEY DOMOSTOY
PHONE: (407) 532-8509

POWER:
DUKE ENERGY
3250 BONNETT CREEK ROAD
LAKE BUENA VISTA, FLORIDA 32830
CONTACT: JENNIFER ZAZARIAN
PHONE: (407) 938-6611

PROJECT QUALIFIES FOR AN EXEMPTION TO THE GREEN BUILDING STANDARDS REQUIRED BY LDC SECTION 5.11.2. THIS EXEMPTION IS GRANTED BASED ON THE PROJECT'S USING HOME ENERGY RATING SYSTEM (H.E.R.S.) "FOR ALL PROPOSED RESIDENTIAL LOTS", A CERTIFICATION PROGRAM SIMILAR TO LEED REQUIREMENTS.

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6	C1.4	EXISTING CONDITIONS - NORTHEAST
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44	C6.3	DRAINAGE PLAN - SOUTHWEST
45	C6.4	DRAINAGE PLAN - SOUTHEAST
46	C6.5	OFFSITE DRAINAGE PLAN
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48	C7.1	PLAN & PROFILE - STREET A - STA. 11+00 TO SAT. 21+43
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50	C7.3	PLAN & PROFILE - STREET B - STA. 7+50 TO STA. 10+47
51	C7.4	PLAN & PROFILE - STREET C - STA. 0+00 TO STA. 8+36
52	C7.5	PLAN & PROFILE - STREET D - STA. 0+00 TO STA. 9+00
53	C7.6	PLAN & PROFILE - STREET D - STA. 9+00 TO SAT. 19+00
54	C7.7	PLAN & PROFILE - STREET D - STA. 19+00 TO SAT. 27+14
55	C7.8	PLAN & PROFILE - STREET E - STA. 0+00 TO STA. 7+71
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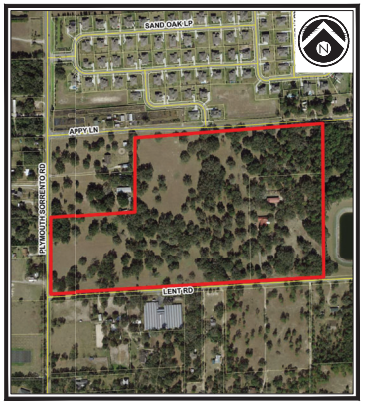
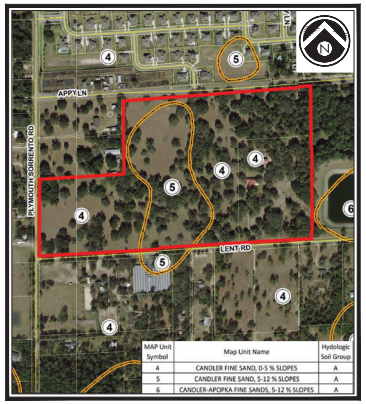
75-77	HS-01 - HS-03	HARDSCAPE SITE PLAN
78-82	IR-01 - IR-05	IRRIGATION SITE PLAN
		BOUNDARY, TOPOGRAPHIC AND TREE SURVEY

VICINITY MAP
SCALE: 1" = 2000'

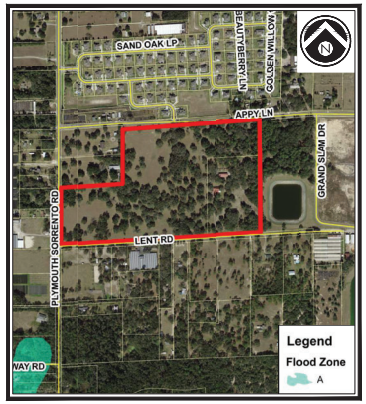


AERIAL MAP
SCALE: 1" = 500'



MAP Unit Symbol	Map Unit Name	Hydrologic Soil Group
4	CANDLER FINE SAND, 0-5 % SLOPES	A
5	CANDLER FINE SAND, 5-12 % SLOPES	A
6	CANDLER-APOPKA FINE SANDS, 5-12 % SLOPES	A

SOILS MAP
SCALE: 1" = 500'



FEMA FLOOD MAP
SCALE: 1" = 700'

SHEET 1 OF 82

APPIAN ENGINEERING
2221 LEE ROAD, SUITE 27
WINTER PARK, FLORIDA 32789
(407) 960-5868

BOARD OF PROFESSIONAL ENGINEERING CERTIFICATE NO. 32174

PERMITS REQUIRED

AGENCY	PERMIT TYPE	DATE APPLIED	DATE APPROVED	APPROVAL NO.
CITY OF APOPKA	CONSTRUCTION SITE PLAN (CSP)			
CITY OF APOPKA	ARBOR MITIGATION PERMIT			
ORANGE COUNTY	ROW IMPROVEMENT PLAN	02/02/2024		
S.J.R.W.M.D.	ENV. RESOURCE PERMIT (ERP)			
F.D.E.P.	WATER			
F.D.E.P.	WASTEWATER			
F.D.E.P.	NPDES			

REV.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		

STATE OF FLORIDA LICENSED PROFESSIONAL ENGINEER No. 86402 Ovidio S Sanchez

P:_PROJECT DRAWINGS\MIH405 Wolf Lake Run Subdivision\Drawings\CAD Civil\D3\Layout\04 Final Engineering\COVER SHEET.dwg Plotted:4/2/2024 By:tkilkela

GENERAL NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL WORK SHALL BE PERFORMED CONSISTENT WITH THE FOLLOWING SPECIFICATIONS:

- CITY OF APOPKA, FLORIDA
- ORANGE COUNTY, FLORIDA
- ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
- FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
- NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

2. THE GEOTECHNICAL REPORT SHALL BE REVIEWED BY THE CONTRACTOR, AND THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE, INCLUDING ALL SURFACE AND SUBSURFACE CONDITIONS, THE WORK REQUIRED, AND ALL OTHER CONDITIONS THAT MAY AFFECT THE SUCCESSFUL COMPLETION OF THE JOB PRIOR TO COMMENCEMENT OF WORK.

3. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND PERMIT CONDITIONS BEARING ON THE CONDUCT OF THE WORK, AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, HE SHALL PROMPTLY NOTIFY THE ENGINEER, IN WRITING, AND ANY NECESSARY CHANGES SHALL BE ADJUSTED, AS PROVIDED IN THE AGREEMENT FOR CHANGES IN THE WORK.

4. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER AND THE ENGINEER FOR THE ACTS AND OMISSIONS OF CONTRACTOR'S EMPLOYEES AND ALL HIS SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES AND OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTRACT WITH THE CONTRACTOR.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS WITH GOVERNMENTAL DEPARTMENTS, PUBLIC UTILITIES, PUBLIC CARRIERS, SERVICE COMPANIES, AND CORPORATIONS OWNING OR CONTROLLING ROADWAYS, RAILWAYS, WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, AND TELEGRAPH FACILITIES SUCH AS PAVEMENTS, TRACKS, PIPING, WIRES, CABLES, CONDUITS, POLES, GUYS, OR OTHER SIMILAR FACILITIES, INCLUDING INCIDENTAL STRUCTURES CONNECTED THEREWITH THAT ARE ENCOUNTERED IN THE WORK IN ORDER THAT SUCH ITEMS MAY BE PROPERLY SUPPORTED, PROTECTED OR LOCATED.

6. UNLESS OTHERWISE SPECIFIED IN THE GENERAL CONDITIONS, ALL CONSTRUCTION IS TO BE GOVERNED BY THE PLANS, APPLICABLE PERMITS, AND SPECIFICATIONS HEREIN, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING AND SAFETY CODES, LAWS AND ORDINANCES.

7. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC OR UTILITY RIGHT-OF-WAY, CONTRACTOR SHALL OBTAIN AUTHORIZATION AND PERMIT FROM JURISDICTION RESPONSIBLE FOR SUCH RIGHT-OF-WAY. IN ADDITION, CONTRACTOR SHALL OBTAIN GAS I.D. NUMBER FROM LOCAL GAS COMPANY AND NOTIFY SUNSHINE STATE ONE-CALL UTILITY NOTIFICATION CENTER AT 1-800-432-4770 AT LEAST 48 HOURS PRIOR TO START OF WORK.

8. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC RIGHT-OF-WAY, CONTRACTOR SHALL DEVELOP AND IMPLEMENT A TRAFFIC CONTROL PLAN CONSISTENT WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, AND SUBMIT TO THE COUNTY ENGINEER FOR APPROVAL.

9. IN THE EVENT THE CONTRACTOR DISCOVERS ANY ERRORS OR OMISSIONS IN THE PLANS HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND/OR OWNER OR OWNER'S AGENT.

10. CONTRACTOR SHALL PRESERVE AND PROTECT ALL PERMANENT REFERENCE MONUMENTS, PERMANENT CONTROL POINTS, PERMANENT BENCH MARKS AND PROPERTY CORNERS. IN THE EVENT THE MONUMENTS, POINTS OR MARKERS ARE DISTURBED THE CONTRACTOR SHALL EMPLOY A FLORIDA REGISTERED LAND SURVEYOR TO RESET OR REPLACE THEM.

11. THE OWNER, OWNER'S AGENT AND INSPECTORS OF APPLICABLE GOVERNMENT JURISDICTIONS, SHALL AT ALL TIMES HAVE ACCESS TO THE WORK WHEREVER AND WHENEVER IT IS IN PREPARATION OR PROGRESS; AND THE CONTRACTOR SHALL PROVIDE PROPER FACILITIES FOR SUCH ACCESS AND FOR THE INSPECTION.

12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ALL REASONABLE AND PRUDENT PRECAUTIONS TO INSURE THAT ALL COMPLETED WORK, MATERIALS AND EQUIPMENT STORED ON SITE ARE SAFE AND SECURED FROM UNAUTHORIZED ACCESS, USE, THEFT, OR VANDALISM. SUCH PRECAUTIONS MAY INCLUDE INSTALLATION OF SIGNS, FENCES, OR POSTING OF SECURITY GUARDS.

13. CONTRACTOR SHALL, AT ALL TIMES, UTILIZE ALL NORMALLY ACCEPTED AND REASONABLY EXPECTED SAFETY PRACTICES AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND GUIDELINES PERTAINING TO SAFE UTILIZATION OF EQUIPMENT OR MATERIALS AS PUBLISHED BY THEIR MANUFACTURER'S.

14. PRIOR TO INITIATING ANY EXCAVATION (INCLUDING BUT NOT LIMITED TO TUNNELS, DITCHES, STORM WATER PONDS, CANALS, ARTIFICIAL LAKES) CONTRACTOR SHALL INSTALL FENCES AND/OR TAKE ALL OTHER REASONABLE AND PRUDENT STEPS TO INSURE THAT ACCESS TO EXCAVATION BY UNAUTHORIZED PERSONNEL IS PREVENTED.

15. CONTRACTOR SHALL COMPLY IN EVERY RESPECT WITH THE PROVISIONS OF THE FLORIDA STATE TRENCH SAFETY ACT.

16. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE ALL REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO:

    A. ALL EMPLOYEES ON THE WORK AND ALL OTHER PERSONS WHO MAY BE AFFECTED THEREBY;

    B. ALL THE WORK AND ALL MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF THE SITE, UNDER THE CARE, CUSTODY OR CONTROL OF THE CONTRACTOR OR ANY OF ITS SUBCONTRACTORS;

    C. OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAY, STRUCTURES AND UTILITIES NOT DESIGNATED FOR DEMOLITION IN THE COURSE OF CONSTRUCTION.

17. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC, QUASI PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR FOR THEIR PROTECTION AGAINST DAMAGE, INJURY OR LOSS, OR DESIGNED TO PROTECT THE ENVIRONMENT. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY EXISTING CONDITIONS AND PROGRESS OF THE WORK, ALL REASONABLE SAFEGUARDS FOR SAFETY AND PROTECTION, INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS, PROMULGATING SAFETY REGULATIONS AND NOTIFYING OWNERS AND USERS OF ADJACENT UTILITIES OF THE EXISTENCE OF HAZARDS AND OF THE SAFETY REGULATIONS.

18. ALL DAMAGE OR LOSS TO ANY PROPERTY CAUSED IN WHOLE OR IN PART BY THE CONTRACTOR, A SUBCONTRACTOR, OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, SHALL BE REMEDIED BY THE CONTRACTOR, EXCEPT DAMAGE OR LOSS PROPERLY ATTRIBUTABLE SOLELY TO THE ACTS OR OMISSIONS OF THE OWNER, OR THE ENGINEER OR ANYONE EMPLOYED BY THEM, OR FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, AND NOT PROPERLY ATTRIBUTABLE IN WHOLE OR IN PART, TO THE FAULT OR NEGLIGENCE OF THE CONTRACTOR.

19. THOSE PARTS OF WORK IN PLACE WHICH ARE SUBJECT TO DAMAGE BECAUSE OF OPERATIONS BEING CARRIED ON ADJACENT THERETO SHALL BE COVERED, BOARDED UP OR SUBSTANTIALLY ENCLOSED WITH ADEQUATE PROTECTION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.

20. UNTIL FINAL ACCEPTANCE OF THE WORK BY OWNER, THE CONTRACTOR SHALL HAVE THE CHARGE AND CARE OF AND SHALL BEAR THE RISK OF INJURY OR DAMAGE, LOSS OR EXPENSE TO ANY PART THEREOF, OR TO ANY MATERIALS STORED ON SITE, BY THE ACTION OF THE ELEMENTS OR FROM ANY OTHER CAUSE WHETHER ARISING FROM THE EXECUTION OR NON-EXECUTION OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD ALL INJURIES OR DAMAGES TO ANY PORTION OF THE WORK OCCASIONED BY ANY OF THE ABOVE CAUSES BEFORE FINAL ACCEPTANCE AND SHALL BEAR THE EXPENSES THEREOF.

21. ADEQUATE TRAFFIC CONTROL, BARRICADES AND FLAGMAN SERVICES SHALL BE FURNISHED AND MAINTAINED BY THE CONTRACTOR AT ALL POINTS WHERE CONVEYING EQUIPMENT ENGAGED ON THE WORK REGULARLY ENTERS ONTO OR CROSSES TRAFFIC-CARRYING ROADS.

22. THE CONTRACTOR SHALL COMPLY IN EVERY RESPECT WITH THE FEDERAL OCCUPATIONAL HEALTH AND SAFETY ACT OF 1970 AND ALL RULES AND REGULATIONS NOW OR HEREAFTER IN EFFECT UNDER SAID ACT, AND THE CONTRACTOR FURTHER AGREES TO COMPLY WITH ANY AND ALL APPLICABLE STATE LAWS AND REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH.

23. CONTRACTOR AND ITS SUBCONTRACTORS SHALL USE, HANDLE, TRANSPORT, AND DISPOSE OF ALL MATERIALS (HAZARDOUS OR OTHERWISE) IN COMPLIANCE WITH ALL PRESENT FEDERAL, STATE AND LOCAL ENVIRONMENTAL, HEALTH OR SAFETY LAW, INCLUDING, BUT NOT LIMITED TO, ALL SUCH STATUTES, REGULATIONS, RULES, ORDINANCES, CODES, AND RULES OF COMMON LAW.

24. CONTRACTOR FURTHER AGREES THAT CONTRACTOR AND ITS SUBCONTRACTORS SHALL NOT CAUSE THE DISCHARGE, RELEASE OR DISPOSAL OF ANY HAZARDOUS MATERIAL CREATED BY ITS WORK ON OR ABOUT THE JOB SITE. IN THE EVENT OF ANY SPILL, RELEASE OR ANY OTHER REPORTABLE OCCURRENCE, CONTRACTOR SHALL NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCY AND SHALL TAKE SUCH ACTION AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECT OF SUCH SPILL ON PERSONS OR PROPERTY.

25. THE CONTRACTOR SHALL PROTECT AND KEEP OWNER (INCLUDING THEIR AGENTS AND EMPLOYEES) FREE AND HARMLESS FROM ANY AND ALL LIABILITY, PUBLIC OR PRIVATE, PENALTIES, CONTRACTUAL OR OTHERWISE, LOSSES, DAMAGES, COSTS, ATTORNEY'S FEES, EXPENSES, CAUSES OF ACTION, CLAIMS OR JUDGMENTS RESULTING FROM THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AS AMENDED OR ANY RULE OR REGULATION PROMULGATED THEREUNDER OR OF ANY STATE LAWS OR REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF WORK OR WORK TO BE PERFORMED UNDER THIS CONTRACT, AND CONTRACTOR SHALL INDEMNIFY OWNER FROM ANY SUCH CLAIMS, PENALTIES, SUITS OR ACTIONS, PUBLIC OR PRIVATE, ADMINISTRATIVE OR JUDICIAL, INCLUDING ATTORNEY'S FEES PAID OR INCURRED BY OR ON BEHALF OF OWNER, JOINTLY OR SEVERALLY, AND/OR THEIR AGENTS AND EMPLOYEES. THE CONTRACTOR FURTHER AGREES, IN THE EVENT OF A CLAIMED VIOLATION OF ANY FEDERAL OR STATE SAFETY AND HEALTH LAW OR REGULATION ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF WORK OR WORK TO BE PERFORMED UNDER THIS CONTRACT, OWNER MAY IMMEDIATELY TAKE WHATEVER ACTION IS DEEMED NECESSARY BY OWNER TO REMEDY THE CLAIMED VIOLATION. ANY AND ALL COSTS OR EXPENSES PAID OR INCURRED BY OWNER IN TAKING SUCH ACTION SHALL BE BORNE BY CONTRACTOR, AND CONTRACTOR AGREES TO PROTECT, HOLD HARMLESS AND INDEMNIFY OWNER AGAINST ANY AND ALL SUCH COSTS OR EXPENSES.

26. CONTRACTOR AND ITS SUBCONTRACTORS SHALL, UPON COMPLETION OF PERFORMANCE OF ALL DUTIES UNDER THIS CONTRACT, REMOVE ALL SUPPLIES, MATERIALS, AND WASTE CONTAINING AND HAZARDOUS MATERIAL FROM THE JOB SITE. CONTRACTOR SHALL BEAR FULL FINANCIAL RESPONSIBILITY, AS BETWEEN THE PARTIES OF THIS CONTRACT, FOR THE COMPLIANCE OF CONTRACTOR AND ITS SUBCONTRACTORS WITH THE PROVISIONS OF THIS CONTRACT.

27. CONTRACTOR AGREES TO INDEMNIFY, DEFEND, PROTECT AND HOLD THE OWNER HARMLESS FROM AND AGAINST ANY CLAIMS INCLUDING, WITHOUT LIMITATION, ACTUAL ATTORNEY'S FEES AND ANY COSTS OF INVESTIGATION, SOILS TESTING, GOVERNMENTAL APPROVALS, REMEDIATION AND CLEANUP ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FAILURE OF CONTRACTOR OR ITS SUBCONTRACTORS, OR THEIR AGENTS, EMPLOYEES, OFFICERS, OR REPRESENTATIVES, TO COMPLY WITH THE TERMS OF THESE CONSTRUCTION DOCUMENTS.

28. SHOULD CONTRACTOR OR ITS SUBCONTRACTORS DISCHARGE, RELEASE OR DISPOSE OF ANY HAZARDOUS MATERIAL ON OR ABOUT THE JOB SITE IN VIOLATION OF THESE CONSTRUCTION DOCUMENTS, CONTRACTOR SHALL IMMEDIATELY SO INFORM OWNER & ENGINEER IN WRITING. IN THE EVENT OF ANY SPILL, RELEASE OR ANY OTHER REPORTABLE OCCURRENCE, CONTRACTOR SHALL NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCY, OWNER & ENGINEER AND SHALL TAKE SUCH ACTION AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECT OF SUCH SPILL ON PERSONS OR PROPERTY.

29. IN THE EVENT CONTRACTOR OR ITS SUBCONTRACTORS ENCOUNTER ON THE PREMISES ANY PIPELINE, UNDERGROUND STORAGE TANK OR OTHER CONTAINER, OF ANY KIND, THAT MAY CONTAIN A HAZARDOUS MATERIAL, OR ENCOUNTER MATERIAL REASONABLY BELIEVED TO BE A HAZARDOUS MATERIAL, CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THE AREA AFFECTED AND REPORT THE CONDITION TO OWNER AND/OR ENGINEER IN WRITING.

30. "HAZARDOUS MATERIAL" MEANS ANY SUBSTANCE: (A) THE PRESENCE OF WHICH REQUIRES INVESTIGATION OR REMEDIATION UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, ORDINANCE, RULE, CODE, ORDER, ACTION, POLICY OR COMMON LAW, OR (B) WHICH IS OR BECOMES DEFINED AS A "HAZARDOUS WASTE," "HAZARDOUS SUBSTANCE," POLLUTANT OR CONTAMINANT UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, RULE OR ORDINANCE OR AMENDMENTS THERETO INCLUDING, WITHOUT LIMITATION, THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (42 U.S.C. SECTIONS 9601 ET SEQ.) AND/OR THE RESOURCE CONSERVATION AND RECOVERY ACT (42 U.S.C. SECTIONS 6901 ET SEQ.), OR (C) WHICH IS TOXIC, EXPLOSIVE, CORROSIVE, FLAMMABLE, INFECTIOUS, RADIOACTIVE, CARCINOGENIC, MUTAGENIC, OR OTHERWISE HAZARDOUS AND IS REGULATED BY ANY GOVERNMENTAL AUTHORITY, AGENCY, DEPARTMENT, COMMISSION, BOARD, AGENCY OR INSTRUMENTALITY OF THE UNITED STATES, THE STATE IN WHICH THE PREMISES ARE LOCATED OR ANY POLITICAL SUBDIVISION THEREOF, OR (D) THE PRESENCE OF WHICH ON THE PREMISES CAUSES OR THREATENS TO CAUSE A NUISANCE UPON THE PREMISES OR TO ADJACENT PROPERTIES OR POSES OR THREATENS TO POSE A HAZARD TO THE HEALTH OR SAFETY OF PERSONS ON OR ABOUT THE PREMISES, OR (E) WHICH CONTAINS GASOLINE, DIESEL FUEL OR OTHER PETROLEUM HYDROCARBONS, OR (F) WHICH CONTAINS POLYCHLORINATED BIPHENYLS (PCBS), ASBESTOS, LEAD OR UREA FORMALDEHYDE FOAM INSULATION.

31. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AS TO SIZE, LOCATION, AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS, DEVIATIONS OR OMISSIONS TO THESE CONSTRUCTION DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.

32. IF ANY TESTING, INSPECTION OR APPROVAL REVEAL DEFECTIVE WORK, CONTRACTOR SHALL NOT BE ALLOWED TO RECEIVE ANY ASSOCIATED COSTS AND THE OWNER SHALL BE ENTITLED TO DEDUCT FROM THE CONTRACT PRICE, BY ISSUING A CHANGE ORDER, OWNER'S COSTS ARISING OUT OF THE DEFECTIVE WORK, INCLUDING COSTS OF REPEATED PROCEDURES, COMPENSATION FOR ENGINEER'S AND DESIGN ENGINEER'S SERVICES AND ALL OTHER RELATED COSTS.

ADDITIONAL NOTES

1. BEARINGS SHOWN HEREON ARE ASSUMED AND RELATIVE TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST, BEING NORTH 85°38'18" EAST.

2. SUBJECT PROPERTY SHOWN HEREON LIE IN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 1201800110H, MAP NO. 12095C0110H, MAP REVISED 9/24/2021.

3. THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY ENGINEERING DEPARTMENT OF SURVEY VERTICAL DATUM, BENCHMARK S-137403, ELEVATION 106.46' NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

HANDICAP ACCESSIBILITY NOTES:

1. ALL CONSTRUCTION MUST MEET OR EXCEED ALL REQUIREMENTS AS OUTLINED IN THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE FLORIDA ACCESSIBILITY CODE, MOST RECENT EDITIONS. BOTTOM OF CURB RAMP ELEVATION (B.O. RAMP) IS RELATIVE TO EACH CURB RAMP CONDITION. ACTUAL ELEVATIONS SHALL BE BASED ON EXISTING GRADE OF CURB FLOW LINE AT THE B.O. RAMPS.

2. TOP OF CURB ELEVATION ADJACENT TO B.O. RAMP = 0.50 FT. MAX. UNLESS OTHERWISE NOTED.

3. ADA REQUIREMENTS SUPERSEDE SPOT GRADES AT LOT LINES. CONTRACTOR TO CUT BACK SLOPE AT 3:1 OR FLATTER AS NEEDED FOR RAMP AND SIDEWALK CONNECTION.

4. REFER TO PLAN SHEETS AND SECTIONS FOR LOCATIONS AND SIDEWALK WIDTHS.

5. THE DETECTABLE WARNING STRIP SHALL CONSIST OF A 24 INCH WIDE TACTILE PATTERN OF RAISED TRUNCATED DOMES (ALIGNED PATTERN). DOMES SHALL HAVE A DIAMETER OF 0.9 INCH, A HEIGHT OF 0.2 INCH, AND A CENTER TO CENTER SPACING OF 2.35 INCHES. THE RAMP DETECTABLE WARNING STRIP SHALL BE CONTRASTING IN COLOR. THE MATERIAL USED TO PROVIDE CONTRAST SHALL CONTRAST BY AT LEAST 70%.

6. THE CROSS SLOPE OF RAMP SURFACES AND ADJACENT STREET GRADES SHALL BE NO MORE THAN 1:50 OR 2% MAXIMUM.

7. CURB RAMPS CONSTRUCTED BY THE CONTRACTOR SHALL MEET ALL CURRENT APPLICABLE A.D.A. REQUIREMENTS AND SHALL HAVE DETECTABLE WARNING COMPLYING WITH A.D.A. REQUIREMENTS. ACCESSIBILITY ROUTES SHALL MEET ALL APPLICABLE A.D.A. REQUIREMENTS.

8. CONTRACTOR TO REFER TO MUNICIPALITY DETAILS AS NEEDED.

9. DRIVEWAY/ROADWAY CROSS SLOPES AT CROSSWALKS SHALL BE MAXIMUM 2% PER ADA REQUIREMENTS.

10. SIDEWALK CROSS SLOPES SHALL BE MAXIMUM 2% PER ADA REQUIREMENTS.

11. CURB RAMP FLARES & LANDINGS SHALL MEET ADA REQUIREMENTS.

12. ACCESSIBLE ROUTE WITH RUNNING SLOPES GREATER THAN 1:20 IS A RAMP AND SHALL COMPLY WITH ADA RAMP REQUIREMENTS.

13. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO MEET ALL CURRENT ADA STANDARDS. CONTRACTOR SHALL REFER TO FDOT STANDARDS. (INDEX 304, MOST CURRENT EDITION)

RECORD DRAWING AS-BUILT REQUIREMENTS:

AS-BUILT DRAWINGS SHALL BE PREPARED BY AND CERTIFIED (SIGNED AND SEALED) BY A REGISTERED SURVEYOR, AND SHALL BE PROVIDED TO THE ENGINEER OF RECORD UPON COMPLETION OF THE PROJECT SITE IMPROVEMENTS A MINIMUM OF 1 WEEK PRIOR TO CONTRACTORS ATTEMPT FOR FINAL CERTIFICATE OF OCCUPANCY (CO). AS-BUILT DRAWINGS SHALL REFLECT ANY CHANGES TO THE IMPROVEMENTS MADE DURING CONSTRUCTION AND MUST MEET THE MINIMUM REQUIREMENTS OF ALL REGULATORY AGENCIES HAVING JURISDICTION AS WELL AS THE CRITERIA OUTLINED BELOW. BOTH THE ORIGINAL DESIGN AND REVISED AS-BUILT DATA, AS APPLICABLE, MUST BE CLEARLY SHOWN. THE AS-BUILT DRAWINGS MUST BE CLEARLY LABELED AS AS-BUILT OR RECORD DRAWING. THE FOLLOWING INFORMATION, AT A MINIMUM, SHALL BE CERTIFIED ON THE AS-BUILT DRAWINGS:

WATER DISTRIBUTION SYSTEM:

A. LOCATION AND DIMENSIONS OF PIPES, VALVES, FITTINGS, CHANGE OF DIRECTION, AND OTHER ASSOCIATED FACILITIES.

WASTEWATER COLLECTION/TRANSMISSION SYSTEM:

A. LOCATION, DIMENSION, AND INVERT ELEVATIONS OF PIPES, MANHOLES (INCLUDING RIM ELEVATION), LIFTSTATION, FORCEMAIN, FITTINGS, CHANGE IN DIRECTION AND OTHER ASSOCIATED FACILITIES.

PAVING AND DRAINAGE SYSTEM:

A. DIMENSIONS AND ELEVATIONS OF ALL DISCHARGE STRUCTURES INCLUDING ALL WEIRS, SLOTS, GATES, PIPES, AND SKIMMERS;

B. LOCATIONS, DIMENSIONS, AND ELEVATIONS OF ALL FILTER, EXFILTRATION, OR UNDERDRAIN SYSTEMS INCLUDING CLEANOUTS, PIPES, CONNECTIONS TO CONTROL STRUCTURES, AND POINTS OF DISCHARGE TO THE RECEIVING WATERS;

C. DIMENSIONS, ELEVATIONS, CONTOURS, OR CROSS-SECTIONS OF ALL STORMWATER TREATMENT POND STORAGE AREAS SUFFICIENT TO DETERMINE STAGE-STORAGE RELATIONSHIPS OF THE STORAGE AREA, AND THE POND DEPTH AND VOLUME BELOW THE CONTROL WATER ELEVATION FOR NORMALLY WET SYSTEMS;

D. DIMENSIONS, ELEVATIONS, CONTOURS, FINAL GRADES, OR CROSS-SECTIONS OF THE DRAINAGE SYSTEM IMPROVEMENTS TO DETERMINE FLOW DIRECTIONS AND CONVEYANCE OF RUNOFF TO THE TREATMENT SYSTEM;

E. DIMENSIONS, ELEVATIONS, CONTOURS, FINAL GRADES, OR CROSS-SECTIONS OF ALL CONVEYANCE SYSTEMS UTILIZED TO CONVEY OFF-SITE RUNOFF AROUND THE SYSTEM;

F. EXISTING WATER ELEVATION OF SURFACE WATERS AND THE DATE DETERMINED;

G. ELEVATION AND LOCATION OF BENCHMARK'S FOR THE SURVEY.

ADA FACILITIES:

A. ELEVATIONS AT THE FOUR CORNERS OF ALL HANDICAP PARKING SPACES AND ADJACENT LOADING AISLES.

B. ELEVATIONS AND LOCATIONS FOR ALL ACCESSIBLE RAMPS WHICH ADEQUATELY REFLECT THE BUILT SLOPES.

C. ELEVATIONS AND LOCATIONS ALONG THE PATHS OF CONVEYANCE FOR PEDESTRIAN TRAFFIC AND ALL ADA ACCESSIBLE ROUTES EVERY 25 FT. WHICH ADEQUATELY REFLECT THE SLOPE AND CROSS SLOPE.

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SHEET 2 OF 82

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STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NO. 32174

REV.	DATE	DESCRIPTION	BY
			OSS

GENERAL NOTES
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C1.0

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Ovidio S. Sanchez, PE on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\GENERAL NOTES.dwg Modified: 2/5/2024 By: osanchez

ABBREVIATIONS

A

A	AREA
AB	ANCHOR BOLT
ABD	ABANDON(ED)
AC	ACRE(S)
AC-FT	ACRE FOOT/FEET
ACP	ASBESTOS CEMENT PIPE
ADDL	ADDITIONAL
ADT	AVERAGE DAILY TRAFFIC
AL	ALUMINUM
ALT	ALTERNATE
AM	BEFORE NOON
AMP	AMPERE(S)
APPROX	APPROXIMATE
ARV	AIR RELEASE VALVE
ARVV	AIR RELEASE VACUUM VALVE
ASPH	ASPHALT
ASSY	ASSEMBLY
AVE	AVENUE
AVG	AVERAGE
AZ	AZIMUTH

B

BFP	BACKFLOW PREVENTER
BL	BASELINE
BLDG	BUILDING
BLVD	BOULEVARD
BM	BENCH MARK
BND	BOUNDARY
BO	BLOWOFF
BOC	BACK OF CURB
BOT	BOTTOM
BRG	BEARING
BS	BOTTOM OF SLOPE
BV	BUTTERFLY VALVE

C

CAP	CAPACITY
CB	CATCH BASIN
CC	CENTER TO CENTER
CEM	CEMENT
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
C&G	CURB AND GUTTER
CI	CAST IRON
CIP	CAST IRON PIPE
CJ	CONSTRUCTION JOINT
C/L	CENTER LINE
CLP	CONCRETE LIGHT POLE
CLR	CLEAR/CLEARANCE
CLS	CLASS
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CMPA	CORRUGATED METAL PIPE ARCH
CND	CONDUIT
CO.	COUNTY
CO	CLEANOUT
COL	COLUMN
COMP	COMPLETE
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCT(ION)
CONT	CONTINUOUS
COORD	COORDINATE(S)
COR	CORNER
CPLG	COUPLING
CPP	CONCRETE POWER POLE
CS	CONTROL STRUCTURE
CTG	COATING
CTR	CENTER
CTV	CABLE TELEVISION
CULV	CULVERT
CY	CUBIC YARD
CYL	CYLINDER

D

DBL	DOUBLE
DEG OR °	DEGREE
DEFL	DEFLECT(ION)
DEPT	DEPARTMENT
DET	DETAIL
DHWL	DESIGN HIGH WATER LEVEL
DI	DUCTILE IRON
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DISCH	DISCHARGE
DIST	DISTANCE
DMH	DROP MANHOLE
DN	DOWN
DRN	DRAIN
DWG	DRAWING
DWY	DRIVEWAY

E

E	EAST
EA	EACH
EC	EDGE OF CONCRETE
ED	ENERGY DISSIPATOR
EF	EACH FACE
EFF	EFFLUENT
EG	EXISTING GRADE
E/L	EASEMENT LINE
ELB	ELBOW
ELEC	ELECTRIC
ELEV	ELEVATION
ELLIP	ELLIPSE/ELLIPTICAL
ENC	ENCASEMENT
ENG	ENGINEER(ING)
EOP	EDGE OF PAVEMENT
EQ	EQUAL/EQUATION
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESMT	EASEMENT
EST	ESTIMATE
EW	EACH WAY
EWL	ENDWALL
EXC	EXCAVATE/EXCAVATION
EXIST	EXISTING
EXP	EXPAND/EXPANSION
EXT	EXTEND/EXTENSION

F

F&C	FRAME AND COVER
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
F&I	FURNISH AND INSTALL
FIG	FIGURE
FIN	FINISHED
FIT	FITTING
FL	FENCE LINE
FLR	FLOOR
FLEX	FLEXIBLE
FLG	FLANGE
FM	FORCE MAIN
FND	FOUND
FPH	FEET PER HOUR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FEET/FOOT
FTG	FOOTING

G

GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GM	GAS MAIN
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GALLONS PER SECOND
GR	GUARD RAIL
GRD	GROUND/GRADE
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
GV&B	GATE VALVE AND BOX
GW	GUY WIRE
GWT	GROUND WATER TABLE

H

HB	HOSE BIBB
HDW	HARDWARE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HW	HEADWALL
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
HYD	HYDRAULIC

I

I-4	INTERSTATE HIGHWAY
IA	INTERSECTION ANGLE
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INL	INLET
INS	INSERT
INST	INSTALL
IP	IRON PIPE
IR	IRON ROD
INT	INTERSECT/INTERSECTION
INV	INVERT

J

JB	JUNCTION BOX
JCT	JUNCTION
JST	JOIST
JT	JOINT

L

L	LENGTH
LAT	LATITUDE
LATL	LATERAL
LB	POUND
LF	LINEAR FEET/FOOT
LG	LONG
LIM	LIMIT(S)
LP	LIGHT POLE
LONG	LONG
LT	LEFT
LWL	LOW WATER LEVEL

M

MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
ME	MITERED END
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MHC	MANHOLE COVER
MHWL	MEAN HIGH WATER LEVEL
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MLP	METAL LIGHT POLE
MLWL	MEAN LOW WATER LEVEL
MON	MONUMENT
MPH	MILES PER HOUR
MSL	MEAN SEA LEVEL
MTG	MOUNTING

N

N	NORTH
NA	NOT APPLICABLE
N&C	NAIL AND CAP
NE	NORTHEAST
NG	NATURAL GROUND
NIC	NOT IN CONTRACT
NO OR #	NUMBER
NOM	NOMINAL
NTP	NOTICE TO PROCEED
NTS	NOT TO SCALE
NW	NORTHWEST
NWL	NORMAL WATER LEVEL

O

OC	ON CENTER
OD	OUTSIDE DIAMETER
OE	OR EQUAL
OPNG	OPENING
OPP	OPPOSITE
ORCP	OVAL REINFORCED CONCRETE PIPE
OS	OUTFALL STRUCTURE
OVFL	OVERFLOW
OVHD	OVERHEAD

P

PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PEP	POLYETHYLENE PIPE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
POB	POINT OF BEGINNING
POJ	PUSH ON JOINT
POS	POINT OF SERVICE
PP	POWER POLE
PR	PHONE RISER
PRC	POINT OF REVERSE CURVATURE
PRESS	PRESSURE
PROJ	PROJECT
PROP	PROPOSED
PRVC	POINT OF REVERSE VERTICAL CURVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PWR	POWER

Q

Q	FLOW RATE

R

R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
RD	ROAD
RDY	ROADWAY
RED	REDUCER
REF	REFERENCE
REINF	REINFORCE(D)
REQD	REQUIRED
REV	REVISE/REVISION
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RT	RIGHT
RV	RELIEF VALVE
R/W	RIGHT-OF-WAY
RWM	REUSE WATER MAIN

S

S	SOUTH
SAN	SANITARY SEWER
SB	SPLASH BLOCK
SCH	SCHEDULE
SD	SIDE DRAIN
SDN	SHELF DRAIN
SE	SOUTHEAST
SEC	SECONDS
SECT	SECTION
SH	SHEET
SHGWT	SEASONAL HIGH GROUND WATER TABLE
SIM	SIMILAR
S/L	SETBACK LINE
SL	SLOPE
SM	SHEET METAL
SPEC	SPECIFICATION(S)
SQ	SQUARE
SQ IN	SQUARE INCH(ES)
SQ FT	SQUARE FOOT/FEET
SQ YD	SQUARE YARD(S)
SR	STATE ROAD
SS	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STR	STRUCTURE
STS	STORM SEWER
SUP	SUPPORT
SUSP	SUSPEND/SUSPENSION
SVC	SERVICE
SW	SOUTHWEST
SWK	SIDEWALK
SYM	SYMBOL(S)
SYMM	SYMMETRICAL
SYS	SYSTEM

T

T	TANGENT
TB	TURFBLOCK
T&B	TOP AND BOTTOM
TBM	TEMPORARY BENCH MARK
TC	TIME OF CONCENTRATION
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TECH	TECHNICIAN/TECHNICAL
TEMP	TEMPORARY
TL	TERMINAL LAMPHOLE
TOB	TOP OF BANK
TOC	TOP OF CURB
TOS	TOE OF SLOPE
TOT	TOTAL
TS	TOP OF SLOPE
TWP	TOWNSHIP
TYP	TYPICAL

U

UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UTC	UNDERGROUND TELEPHONE CABLE

V

VB	VALVE BOX
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY

W

W	WEST
W/	WITH
WM	WATER MAIN
W/O	WITHOUT
WP	WATER/WEATHER PROOF
WPP	WOOD POWER POLE
WS	WATER SURFACE
WSWT	WET SEASON WATER TABLE
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

Y

YD	YARD
YR	YEAR

MISC

&	AND
@	AT
Δ	DELTA

NOTES:
1. TREE TYPES SHALL BE REFERENCED BY LEGEND ON APPLICABLE DRAWING SHEETS.
2. EXISTING CONSTRUCTION FEATURES MAY BE SCREENED ON DRAWING SHEETS TO PROVIDE CLARITY.

EXISTING SYMBOLS

LINES

- C/L — CENTER LINE
- CHAIN LINK FENCE
- 81 — CONTOUR
- EASEMENT
- FENCE
- GUARDRAIL
- EXISTING PLATS
- RETAINING WALL
- R/W — RIGHT-OF-WAY LINE
- SHORELINE
- SWALE
- SOIL BOUNDARY

SANITARY SEWER

- SANITARY SEWER LINE
- CLEANOUT
- FM — FORCE MAIN
- MANHOLE

POTABLE WATER

- WM — WATER MAIN
- EXISTING VALVE
- FIRE HYDRANT
- WATER METER

STORM DRAIN

- STORM SEWER
- CURB INLET
- MANHOLE
- MITERED END
- STORM INLET
- 100.00 — SPOT ELEVATION
- FDOT TYPE 1 INLET
- FDOT TYPE 2 INLET
- FDOT TYPE 3 INLET
- FDOT TYPE 4 INLET
- FDOT TYPE 5 INLET
- FDOT TYPE 6 INLET

HIGHWAY & UTILITIES

- BENCHMARK
- BOUND CORNER
- CONCRETE
- 520 — COUNTY ROADS
- 95 — INTERSTATE ROADS
- LIGHT POLE
- SIGN
- EDGE OF PAVEMENT W/O CURB
- 50 — STATE ROADS
- GUY POLE
- UTILITY POLE
- YARD LIGHT
- GAS — GAS MAIN
- OHW — OVER HEAD WIRE
- elec — ELECTRIC CABLE OR CONDUIT, BURIED
- utc — UNDERGROUND TELEPHONE CABLE
- EDGE OF PAVEMENT W/CURB

PROPOSED SYMBOLS

LINES

- PROPERTY BOUNDARY
- LOT LINE
- CENTER LINE
- EASEMENT
- BUILDING SETBACK LINE
- WETLAND LINE
- WETLAND BUFFER LINE
- FENCE
- SF — SILT FENCE
- GUARDRAIL
- ENTRY WALL
- RETAINING WALL
- SWALE
- 81 — CONTOUR
- SHGW — SEASONAL HIGH GROUND WATER

SANITARY SEWER

- 100 LF OF 8" PVC @ 0.40% — SANITARY PIPE
- CLEANOUT
- SINGLE SANITARY SERVICE
- DOUBLE SANITARY SERVICE
- MANHOLE
- FM — FORCE MAIN
- PLUG VALVE

POTABLE WATER

- WM — WATER MAIN
- FIRE — FIRE MAIN
- SINGLE WATER SERVICE
- DOUBLE WATER SERVICE
- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION
- M — METER
- SP# — SAMPLE POINT

RECLAIMED WATER

- RU — RECLAIMED WATER MAIN
- SINGLE WATER SERVICE
- DOUBLE WATER SERVICE

GENERIC UTILITIES

- 11 1/4° BEND
- 22 1/2° BEND
- 45° BEND
- 90° BEND
- TEE
- CROSS
- GATE VALVE
- REDUCER

STORM

- 100 LF OF 24" RCP @ 0.20% — STORM PIPE
- DRAINAGE FLOW DIRECTION
- FDOT INLET TYPE 1
- FDOT INLET TYPE 2
- FDOT INLET TYPE 3
- FDOT INLET TYPE 4
- FDOT INLET TYPE 5
- FDOT INLET TYPE 6
- MANHOLE
- MITERED END SECTION
- STORM INLET

ROADWAY & GRADING

- CONCRETE
- PAVEMENT
- MULCH TRAIL
- OPEN SPACE
- BLDG OR STRUCTURE
- TYPE F CURB & GUTTER
- MIAMI CURB
- 10 / C1.0 — DETAIL REFERENCE
- 100.00 — SPOT ELEVATION
- LOT TYPE 'A' FFE=100.00 — FINISHED FLOOR ELEVATION W/ FHA LOT TYPE
- HANDICAP PARKING
- 95 — INTERSTATE ROADS
- LIGHT POLE
- 50 — STATE ROADS
- SIGN
- TRAFFIC FLOW PAVEMENT MARKING
- UTILITY POLE
- A — A — CROSS SECTION DETAIL

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SHEET 3 OF 82

REV.	DATE	DESCRIPTION	BY	OSS

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APPIAN ENGINEERING LLC.
APPIANFL.COM • 407.960.5868
2221 LEE ROAD, SUITE 27, WINTER PARK, FLORIDA 32789
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NO. 32174

ABBREVIATIONS & SYMBOLS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	N.T.S.
PROJECT	MIH-005
SHEET	C1.1

APPIAN ENGINEERING

OVIDIO SALVADOR SANCHEZ LICENSE No. 86492 STATE OF FLORIDA 4/2/24 PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Ovidio S. Sanchez, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

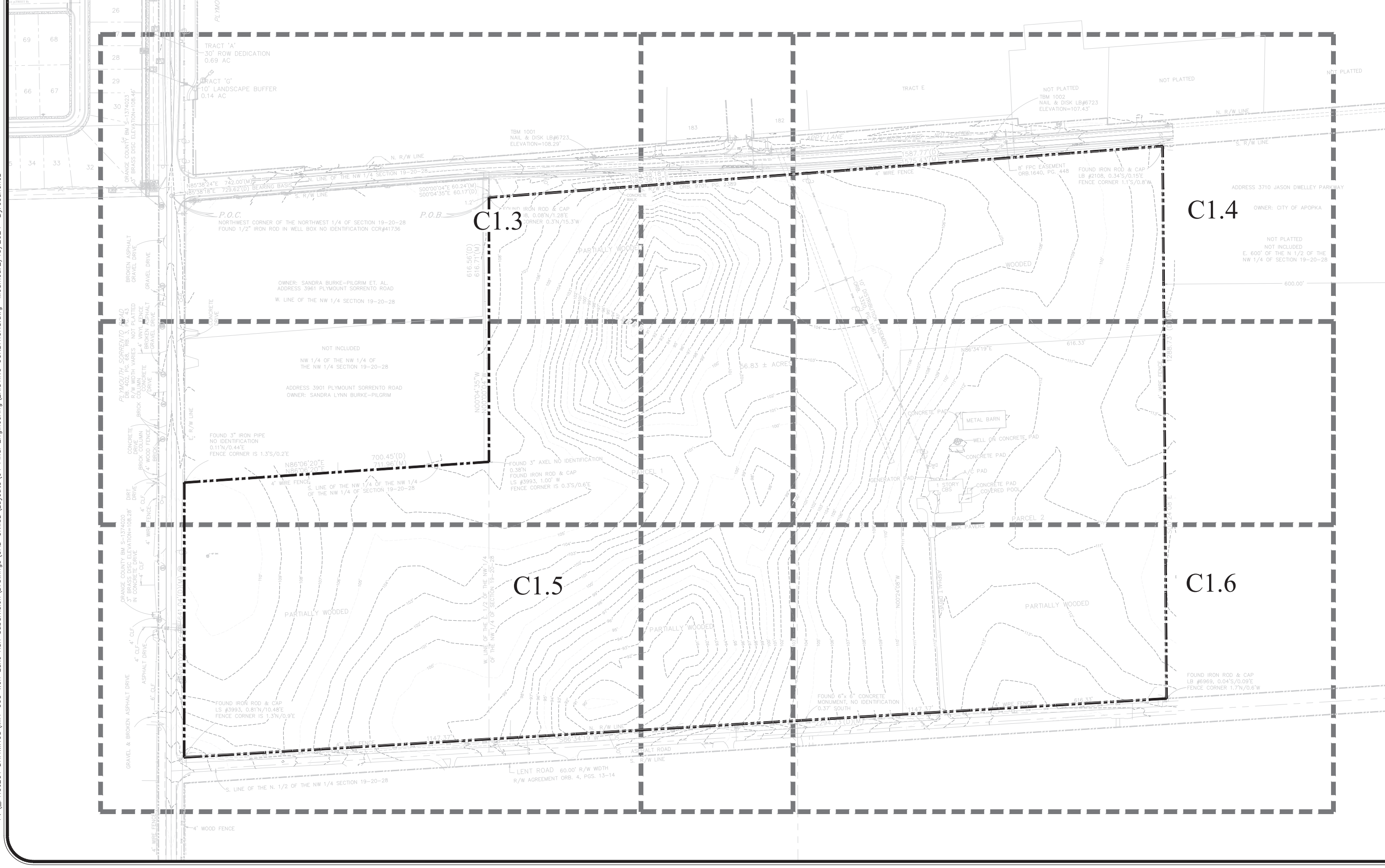
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\ABBREVIATIONS & SYMBOLS.dwg Modified: 3/18/2024 By: alopez

SURVEYOR'S NOTES:

1. BEARINGS SHOWN HEREON ARE ASSUMED AND RELATIVE TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST, BEING NORTH 85°38'18" EAST.
2. THE "LEGAL DESCRIPTION" HEREON AND THE LANDS SURVEYED ARE PARCELS 1 AND 2 AS PROVIDED IN THE COMMITMENT TO INSURE TITLE, COMMITMENT NO. 1088876-2, PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY. THE ALSO DESCRIBED AS LEGAL DESCRIPTION WAS PREPARED BY THE SURVEYOR AT THE CLIENT'S REQUEST.
3. THERE MAY BE ENVIRONMENTAL ISSUES AND/OR OTHER MATTERS REGULATED BY VARIOUS DEPARTMENTS OF FEDERAL, STATE OR LOCAL GOVERNMENTS AFFECTING THE SUBJECT PROPERTY NOT SHOWN ON THIS SURVEY.
4. THIS SURVEY WAS PERFORMED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES LISTED HEREON AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.
5. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
6. UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR VISIBLE, UNOBSTRUCTED, VISIBLE ABOVE GROUND IMPROVEMENTS WERE LOCATED. UNDERGROUND UTILITIES, FOUNDATIONS AND IMPROVEMENTS WERE NOT LOCATED, UNLESS SHOWN HEREON.
7. UNLESS OTHERWISE NOTED OR SHOWN HEREON, THERE ARE NO APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND ENCROACHMENTS. THE DISPOSITION OF ANY POTENTIAL ENCROACHING IMPROVEMENTS SHOWN IS BEYOND PROFESSIONAL PURVIEW AND SUBJECT TO LEGAL INTERPRETATION.
8. THE LANDS SHOWN HEREON LIE IN ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 1201800110H, MAP NO. 12095C0110H, MAP REVISED SEPTEMBER 24, 2021.
THE ABOVE STATEMENT IS FOR INFORMATION ONLY AND THIS SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP(S). IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THIS SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING.
9. THERE WAS NO VISUAL EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WITHIN THE SURVEYED LANDS.
10. WHILE CONDUCTING THE SURVEY, THERE WAS NO OBSERVED EVIDENCE OF WETLANDS WITHIN THE SURVEYED LANDS.
11. ADJOINING PARCEL OWNER AND RECORDING INFORMATION DELINEATED HEREON WAS OBTAINED FROM THE ORANGE COUNTY PROPERTY APPRAISER'S PUBLIC ACCESS SYSTEM.
12. THE SUBJECT PROPERTY IS ZONED RSF-1A. THE SURVEYOR WAS NOT PROVIDED A ZONING REPORT CONTAINING SETBACK, HEIGHT RESTRICTIONS, ETC. OR OTHER INFORMATION REGARDING ZONING RESTRICTIONS.
13. THE SUBJECT PROPERTY IS IMPROVED AND PARTIALLY WOODED,
14. THERE WAS NO VISUAL EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WITHIN THE SURVEYED LANDS. THE SURVEYOR IS UNAWARE OF ANY PROPOSED CHANGES IN THE RIGHT-OF-WAY.
15. THE SUBJECT PROPERTY HAS ACCESS TO PUBLIC UTILITIES FROM THE PUBLIC STREETS ADJACENT TO THE SUBJECT PROPERTY.
16. THE SUBJECT PROPERTY ABUTS, WITHOUT GAPS GORES OR STRIPS, AND HAS VEHICULAR AND PEDESTRIAN INGRESS TO AND EGRESS FROM APPY LANE, PLYMOUTH-SORRENTO ROAD AND LENT ROAD, WHICH IS COMPLETED, DEDICATED AND ACCEPTED PUBLIC RIGHT OF WAY.
17. EXCEPT AS SHOWN ON THE SURVEY, THE SUBJECT PROPERTY DOES NOT APPEAR TO SERVE ANY ADJOINING PROPERTY FOR UTILITIES, DRAINAGE, STRUCTURAL SUPPORT OR INGRESS OR EGRESS.
18. THERE IS NO OBSERVED EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
19. THE ELEVATIONS SHOWN HEREON ARE BASED ON THE ORANGE COUNTY ENGINEERING DEPARTMENT OF SURVEY VERTICAL DATUM, BENCHMARK S-1374023, ELEVATION 106.46' NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
20. THERE ARE SEVERAL FENCES INTERIOR TO THE SUBJECT PROPERTY BEING USED FOR LIVE STOCK THAT WERE NOT LOCATED.
21. PARCEL 1 AND PARCEL 2, WHERE THEY SHARE A COMMON LINE, ARE CONTIGUOUS WITH NO GAPS, GORES, HIATUS OR OVERLAPS.
22. WE HAVE EXAMINED THE FURNISHED COMMITMENT TO INSURE TITLE, COMMITMENT NO. 1088876-2, PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, EFFECTIVE DATE AUGUST 8, 2021. THOSE INSTRUMENTS INCLUDED IN SCHEDULE B-II, OF THE COMMITMENT HAVE BEEN EXAMINED AND ARE REFLECTED HEREON TO THE EXTENT THEY AFFECT THE LANDS SURVEYED.

EXCEPTIONS AS THEY APPEAR IN THE TITLE COMMITMENT:

6. EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED IN O.R. BOOK 1640, PAGE 448, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA. DOES NOT AFFECT THE SUBJECT PROPERTY BUT IS SHOWN HEREON.
7. DISTRIBUTION EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED IN O.R. BOOK 3320, PAGE 1061, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA. AFFECTS THE SUBJECT PROPERTY AND IS SHOWN HEREON.



GRAPHIC SCALE

120 0 60 120 240

(IN FEET)
1 inch = 120 ft.

EXISTING CONDITIONS PLAN BASED ON SURVEY PROVIDED BY:

ALLEN & COMPANY, INC
JAMES L. RICKMAN, P.S.M.
FLORIDA REGISTRATION NO. 5633
JANUARY 3, 2024

LEGEND
P.O.C. .... POINT OF COMMENCEMENT
P.O.B. .... POINT OF BEGINNING
R/W .... RIGHT-OF-WAY
PB .... PLAT BOOK
RB .... ROAD BOND
DB .... DEED BOOK
PG.(S) .... PAGE(S)
ORB .... OFFOCIAL RECORDS BOOK
CCR .... CERTIFIED CORNER RECORD
CBS .... CONCRETE BLOCK STRUCTURE
CI .... CURB INLET
CLF .... CHAIN LINK FENCE
LB .... LICENSED BUSINESS
PSM .... PROFESSIONAL SURVEYOR & MAPPER
(D) .... DESCRIBED
(M) .... MEASURED
CPP .... CORRUGATED PLASTIC PIPE
INV .... INVERT
ELEV .... ELEVATION
SGN .... SIGN
TBM .... TEMPORARY BENCHMARK
RCP .... REINFORCED CONCRETE PIPE
PVC .... POLYVINYL CHLORIDE
.... POWER POLE
.... GUY ANCHOR
.... SIGN
RWM .... RECLAIM WATER METER
RW .... RECLAIM WATER VALVE
G .... GAS VALVE
PR .... TELEPHONE SERVICE
W .... WELL
MB .... MAIL BOX
OHW .... OVERHEAD UTILITY LINE
.... FOUND 4"x4" CONCRETE MONUMENT LB 6723 OR AS NOTED
IRR .... IRRIGATION VALVE
IRR .... IRRIGATION BOX
WV .... WATER VALVE
CB .... CATCH BASIN
F .... FIBER OPTIC MARKER
G .... GAS MARKER
.... FIBER OPTIC VAULT
.... CONCRETE LIGHT POLE
.... MITERED END SECTION
D .... DRAINAGE MANHOLE
EM .... ELECTRIC METER
EB .... ELECTRIC BOX
.... FIRE HYDRANT
x 100.00' .... SPOT SHOT
FENCE
RIGHT OF WAY
EASEMENT
BURIED GAS
BURIED ELECTRIC
SECTION LINE

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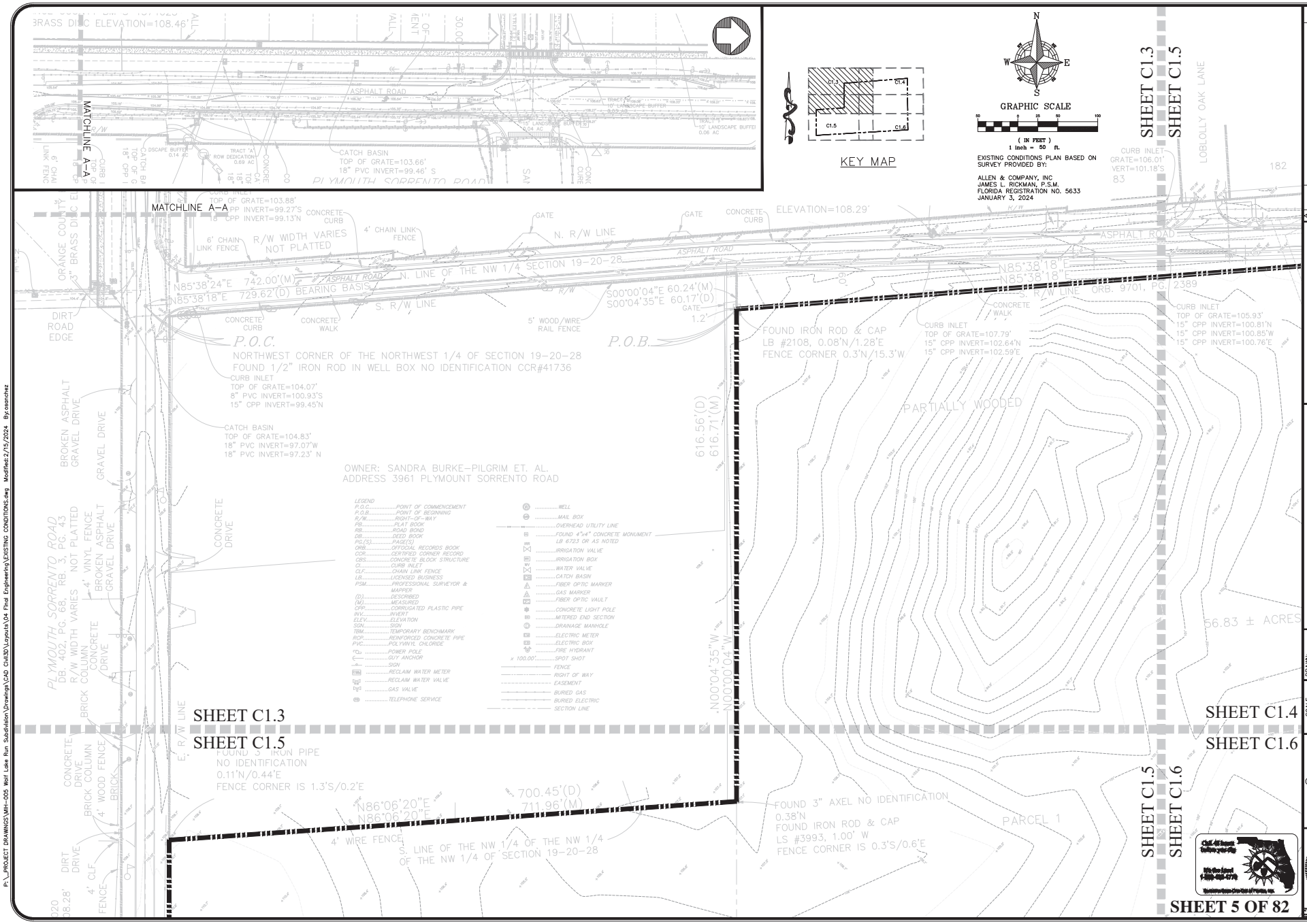
EXISTING CONDITIONS – OVERALL
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA	
DESIGNED: O. SANCHEZ	CHECKED: O. SANCHEZ
	DATE: 4/2/24
SCALE 1" = 120'	PROJECT MIH-005
SHEET C1.2	

OVIDIO SALVADOR SANCHEZ
LICENSE
No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\EXISTING CONDITIONS.dwg Modified:2/15/2024 By:osanchez


KEY MAP
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
EXISTING CONDITIONS PLAN BASED ON SURVEY PROVIDED BY:
ALLEN & COMPANY, INC
JAMES L. RICKMAN, P.S.M.
FLORIDA REGISTRATION NO. 5633
JANUARY 3, 2024
MATCHLINE A–A
SHEET C1.3
SHEET C1.5
SHEET C1.4
SHEET C1.6
SHEET 5 OF 82
ASPHALT ROAD
PLYMOUTH SORRENTO ROAD
N. R/W LINE
S. R/W LINE
N. LINE OF THE NW 1/4 SECTION 19-20-28
S. LINE OF THE NW 1/4 OF THE NW 1/4 OF SECTION 19-20-28
P.O.C.
NORTHWEST CORNER OF THE NORTHWEST 1/4 OF SECTION 19-20-28
FOUND 1/2" IRON ROD IN WELL BOX NO IDENTIFICATION CCR#41736
P.O.B.
OWNER: SANDRA BURKE-PILGRIM ET. AL.
ADDRESS 3961 PLYMOUNT SORRENTO ROAD
PARTIALLY WOODED
PARCEL 1
56.83 ± ACRES
LOBLOLLY OAK LANE
ORANGE COUNTY
LEGEND
P.O.C. ....POINT OF COMMENCEMENT
P.O.B. ....POINT OF BEGINNING
R/W ....RIGHT-OF-WAY
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CONCRETE LIGHT POLE
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DRAINAGE MANHOLE
ELECTRIC METER
ELECTRIC BOX
FIRE HYDRANT
x 100.00' ....SPOT SHOT
FENCE
RIGHT OF WAY
EASEMENT
BURIED GAS
BURIED ELECTRIC
SECTION LINE
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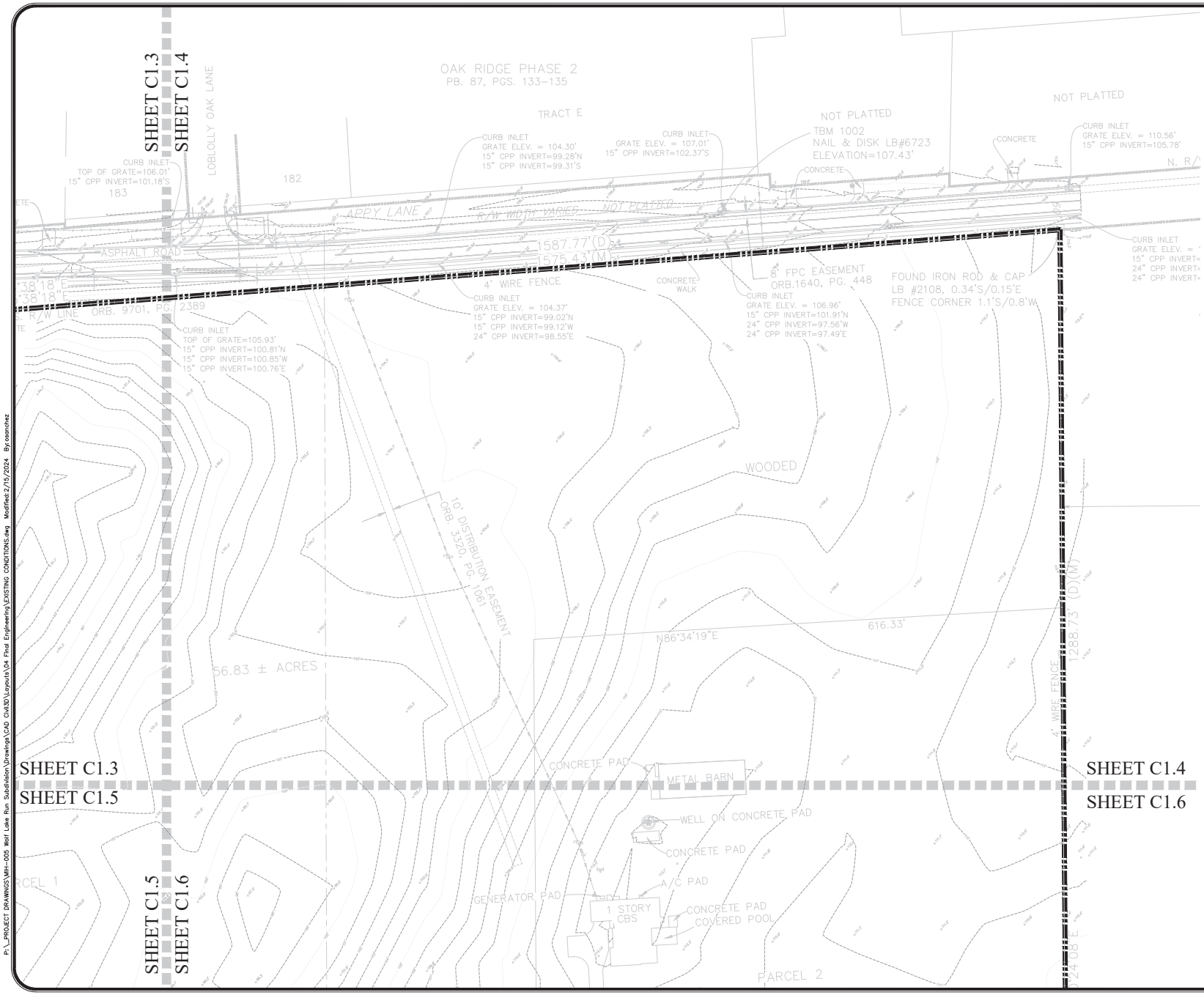
APPIAN ENGINEERING LLC.
APPIANFL.COM • 407.960.5868
2231 Lake Rosa, 32835 FL, Winter Park, Florida, 32789
DATE
DESCRIPTION
BY
EXISTING CONDITIONS – NORTHWEST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C1.3
OMAR SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24



N
W E
S

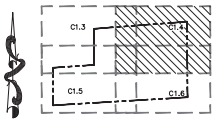
GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

EXISTING CONDITIONS PLAN BASED ON SURVEY PROVIDED BY:

ALLEN & COMPANY, INC
JAMES L. RICKMAN, P.S.M.
FLORIDA REGISTRATION NO. 5633
JANUARY 3, 2024



KEY MAP

LEGEND
P.O.C.....POINT OF COMMENCEMENT
P.O.B.....POINT OF BEGINNING
R/W.....RIGHT-OF-WAY
PB.....PLAT BOOK
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.....FIRE HYDRANT
x 100.00'.....SPOT SHOT
.....FENCE
.....RIGHT OF WAY
.....EASEMENT
.....BURIED GAS
.....BURIED ELECTRIC
.....SECTION LINE

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SHEET 6 OF 82

NO.	DATE	DESCRIPTION	BY

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2231 Lee Road, 32233-2?, Winter Park, Florida, 32789
LICENSED BUSINESS IN GOOD STANDING

EXISTING CONDITIONS – NORTHEAST
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

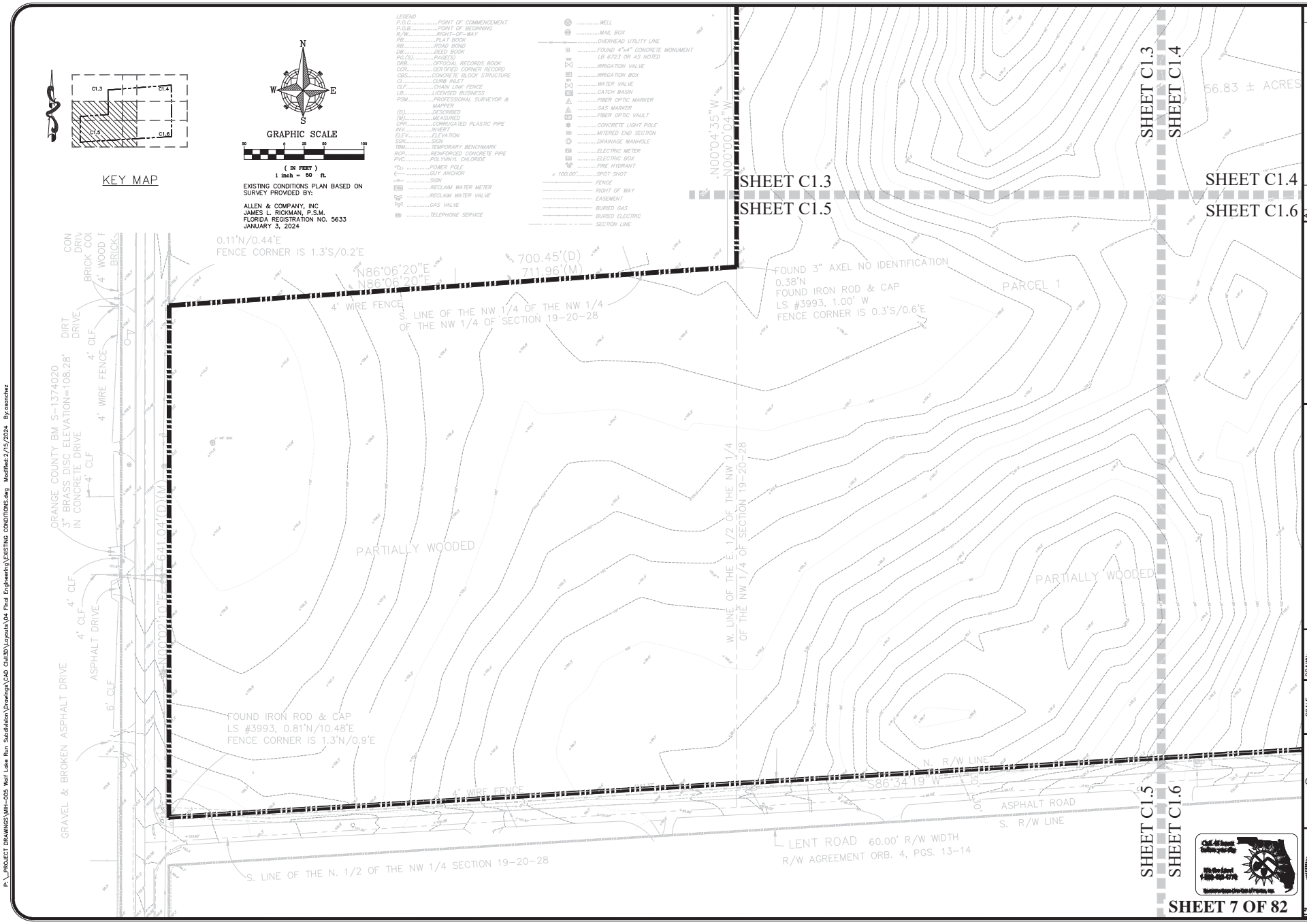
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C1.4

APPIAN ENGINEERING

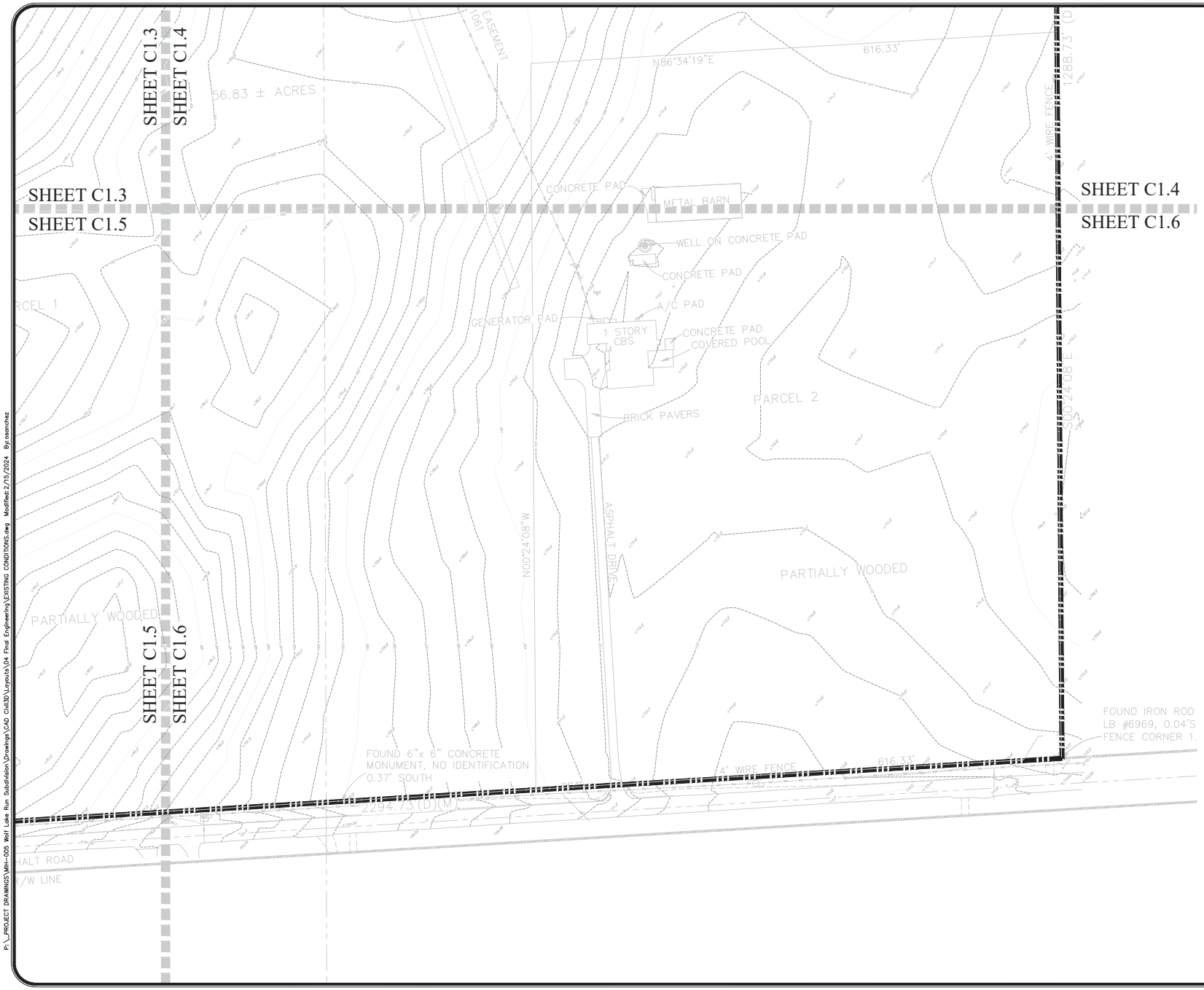
OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

This drawing has been digitally signed and sealed by Ovidio O. Sanchez, PE on the date adjacent to the seal. Printed copies of this drawing are not considered signed and sealed and the signature must be verified on any electronic copies.

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\EXISTING CONDITIONS.dwg Modified:2/15/2024 By:osanchez



P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\EXISTING CONDITIONS.dwg Modified:2/15/2024 By:osanchez



GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

EXISTING CONDITIONS PLAN BASED ON SURVEY PROVIDED BY:

ALLEN & COMPANY, INC
JAMES L. RICKMAN, P.S.M.
FLORIDA REGISTRATION NO. 5633
JANUARY 3, 2024

KEY MAP

LEGEND
P.O.C. ..... POINT OF COMMENCEMENT
P.O.B. ..... POINT OF BEGINNING
R/W ..... RIGHT-OF-WAY
PB ..... PLAT BOOK
RB ..... ROAD BOND
DB ..... DEED BOOK
PG.(S) ..... PAGE(S)
ORB ..... OFFICIAL RECORDS BOOK
CCR ..... CERTIFIED CORNER RECORD
CBS ..... CONCRETE BLOCK STRUCTURE
CI ..... CURB INLET
CLF ..... CHAIN LINK FENCE
LB ..... LICENSED BUSINESS
PSM ..... PROFESSIONAL SURVEYOR & MAPPER
(D) ..... DESCRIBED
(M) ..... MEASURED
CPP ..... CORRUGATED PLASTIC PIPE
INV ..... INVERT
ELEV ..... ELEVATION
SGN ..... SIGN
TBM ..... TEMPORARY BENCHMARK
RCP ..... REINFORCED CONCRETE PIPE
PVC ..... POLYVINYL CHLORIDE
..... POWER POLE
..... GUY ANCHOR
..... SIGN
..... RECLAIM WATER METER
..... RECLAIM WATER VALVE
..... GAS VALVE
..... TELEPHONE SERVICE
..... WELL
..... MAIL BOX
..... OVERHEAD UTILITY LINE
..... FOUND 4"x4" CONCRETE MONUMENT LB 6723 OR AS NOTED
..... IRRIGATION VALVE
..... IRRIGATION BOX
..... WATER VALVE
..... CATCH BASIN
..... FIBER OPTIC MARKER
..... GAS MARKER
..... FIBER OPTIC VAULT
..... CONCRETE LIGHT POLE
..... MITERED END SECTION
..... DRAINAGE MANHOLE
..... ELECTRIC METER
..... ELECTRIC BOX
..... FIRE HYDRANT
x 100.00' ..... SPOT SHOT
..... FENCE
..... RIGHT OF WAY
..... EASEMENT
..... BURIED GAS
..... BURIED ELECTRIC
..... SECTION LINE

SHEET 8 OF 82

NO.	DATE	DESCRIPTION	BY

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2251 Lee Road, 32233-2?, Winter Park, Florida, 32789
LICENSED BUSINESS IN GOOD STANDING

EXISTING CONDITIONS – SOUTHEAST
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C1.6
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

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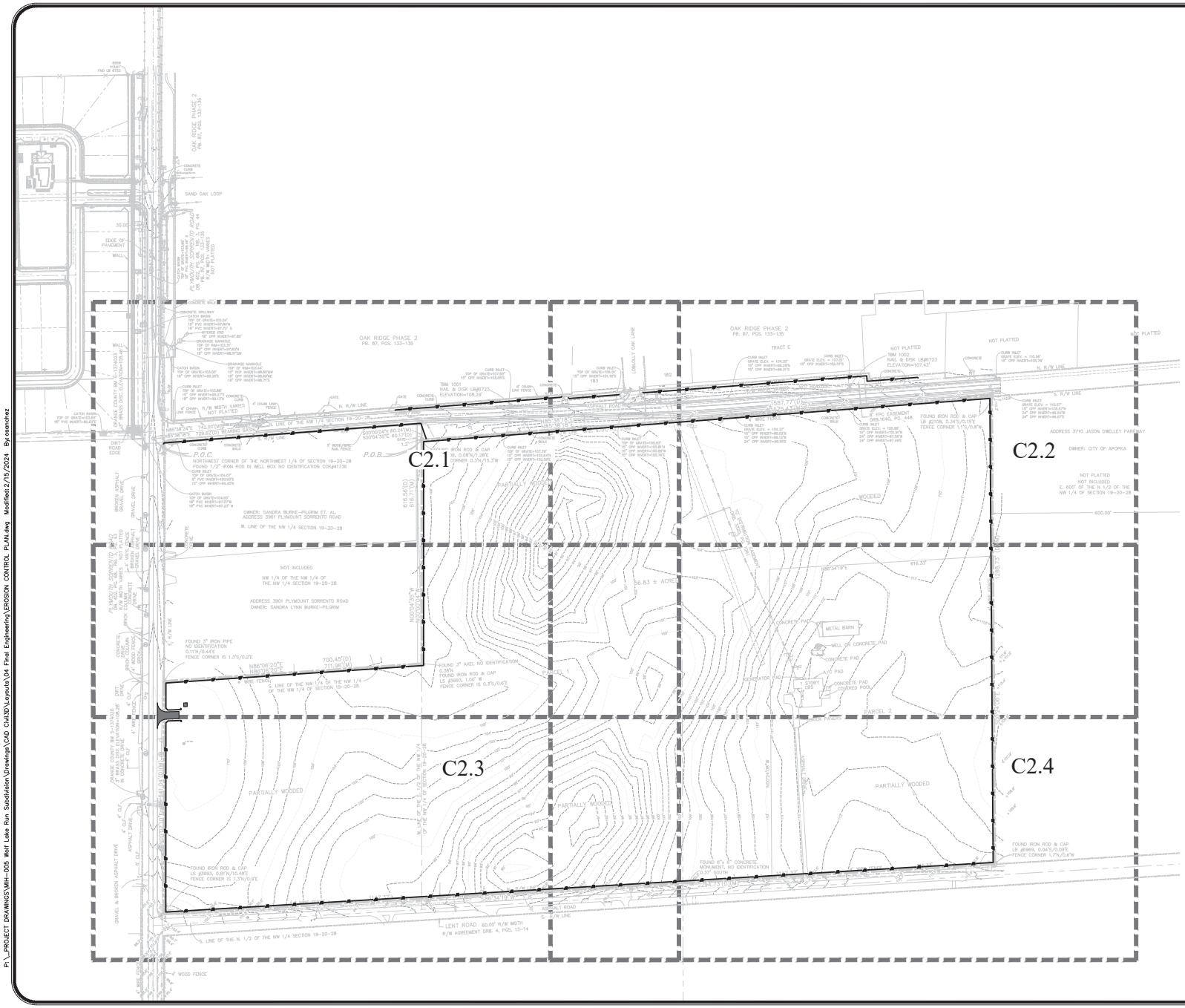

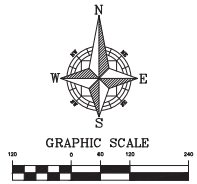

EROSION CONTROL NOTES:

AN EROSION CONTROL AGENDA SHALL BE PREPARED BY THE CONTRACTOR. CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF CHECK WEIRS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. CONTRACTOR SHALL PROVIDE SYNTHETIC BALES, SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRES TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION.

1. STOCKPILING MATERIAL:
   NO EXCAVATED MATERIAL SHALL BE STOCKED PILED IN SUCH MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
2. EXPOSED AREA LIMITATION:
   THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 5 ACRES SO LONG AS THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENT.
3. INLET PROTECTION:
   INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORM RUNOFF UNTIL THE COMPLETION OF CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
4. TEMPORARY SEEDING:
   AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN SEVEN DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED, AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 LBS. PER ACRE.
5. TEMPORARY SEEDING AND MULCHING:
   SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN 4 ABOVE, SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF FOUR INCHES.
6. TEMPORARY GRASSING:
   THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERS AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
7. TEMPORARY REGRASSING:
   IF, AFTER FOURTEEN DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATION COVER.
8. MAINTENANCE:
   ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.
9. DUST ABATEMENT:
   DUST SHALL BE CONTROLLED WITH USE OF WATER AND CALCIUM CHLORIDE.
10. SODDING OF RETENTION POND AND CONVEYANCE SWALE SIDE SLOPES SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF GRADING TO MINIMIZE EROSION POTENTIAL.
11. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED TO ROUGH GRADE PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OR IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES, ALL ACCUMULATED SEDIMENT MUST BE REMOVED FOR THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
12. AT A MINIMUM SILT BARRIERS SHALL BE PLACED AS SHOWN ON SHEETS C2.1-C2.4 OF THE CONSTRUCTION PLANS TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING WETLAND. IF DURING CONSTRUCTION THE PROPOSED EROSION CONTROL SYSTEM DOES NOT PERFORM SATISFACTORY, ALTERNATIVES AND ADDITIONAL MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH ORANGE COUNTY AND S.J.R.W.M.D. EROSION PROTECTION STANDARDS.
13. SILT FENCE TO BE INSTALLED A MINIMUM OF SIX INCHES (6") FROM PROPERTY LINE, WETLAND LINE, WETLAND BUFFER, ETC..
14. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL EROSION PROTECTION COSTS, INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
15. ANY EXISTING WELLS ON SITE MUST BE ABANDONED/CAPPED AS PER SJRWMD AND FDEP PROCEDURES.
16. REFER TO ORANGE COUNTY RIGHT-OF-WAY UTILIZATION PERMIT PLANS FOR PLYMOUTH SORRENTO ROAD OFFSITE EROSION CONTROL, MAINTENANCE OF TRAFFIC AND DEMO PLANS.

FDEP NPDES PERMIT NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NOI FDEP PERMIT.
2. THE CONTRACTOR IS RESPONSIBLE FOR CREATING AND MAINTAINING THE REQUIRED STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
3. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THE WEEKLY INSPECTION REPORTS AND REQUIRED INSPECTIONS AFTER THE SPECIFIED RAINFALL EVENTS PER THE NPDES PERMIT.

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811 Sunshine
1-800-432-4770
Sunshine State One-Call of Florida, Inc.

SHEET 9 OF 82

NO.	DATE	DESCRIPTION	BY
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LICENSE NUMBER EB-0026900 & LB-0026900

EROSION CONTROL, M.O.T. & DEMO PLAN – OVERALL
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	1" = 120'
PROJECT	MIH-005
SHEET	C2.0
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

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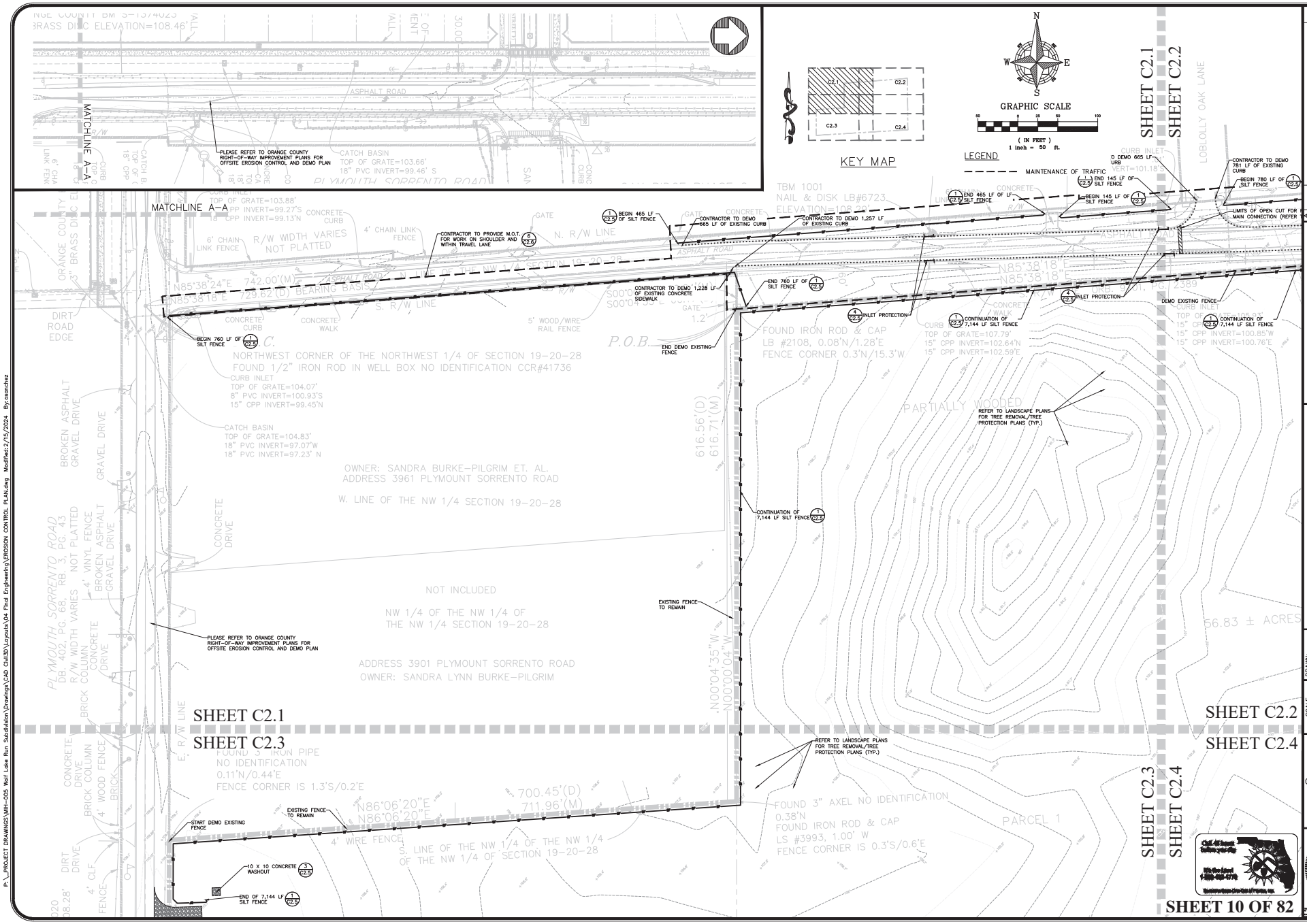

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NO.	DATE	DESCRIPTION	BY

EROSION CONTROL, M.O.T. & DEMO PLAN – NORTHWEST CONSTRUCTION SITE PLAN

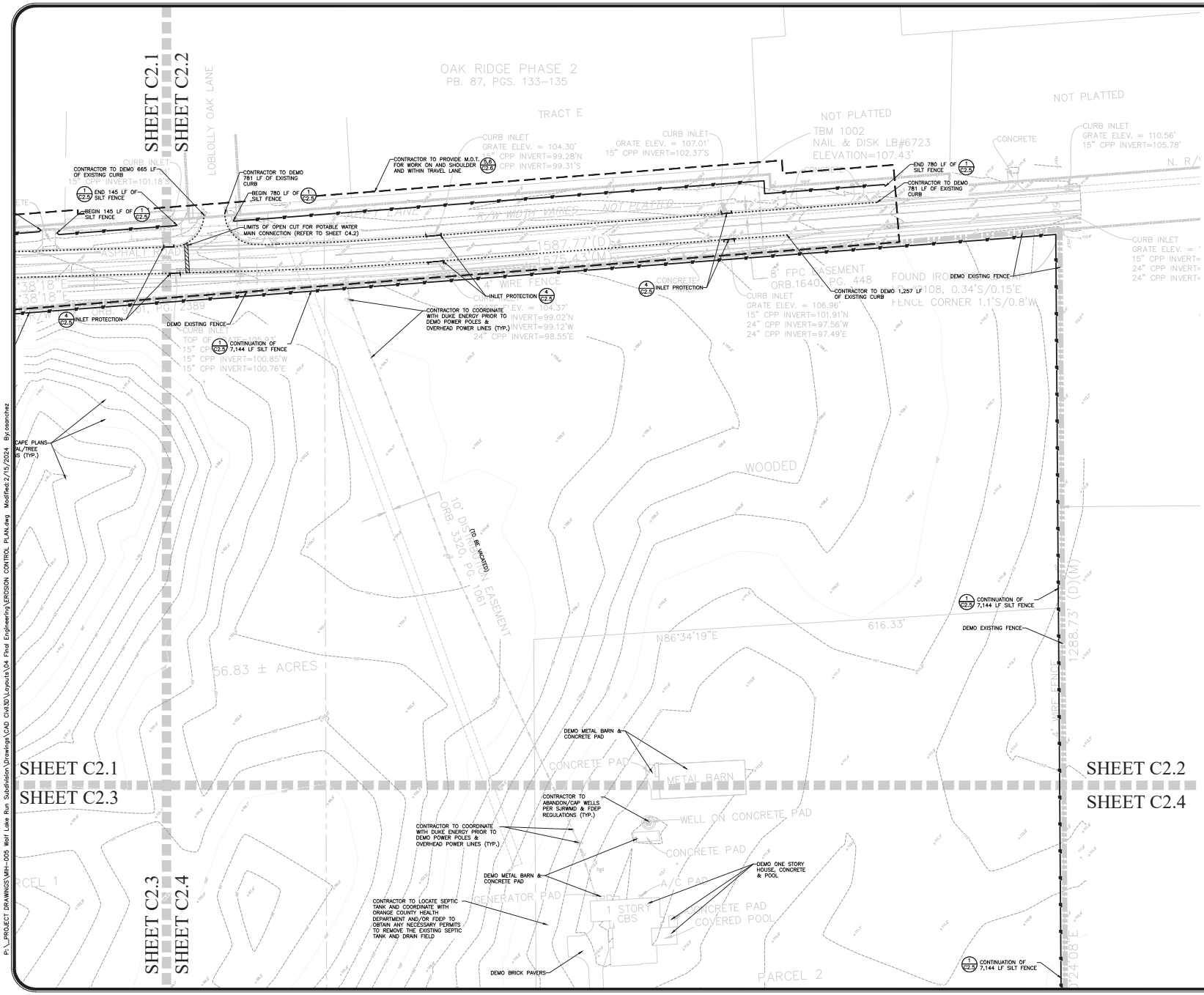
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: 1" = 50'
PROJECT: MIH–005
SHEET: C2.1

APPIAN ENGINEERING

ORLANDO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH–005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\EROSION CONTROL PLAN.dwg Modified:2/15/2024 By:osanchez



SHEET 11 OF 82

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2231 Lake Brooks, BOX 275, Winter Park, Florida, 32789

DATE	DESCRIPTION	BY

EROSION CONTROL, M.O.T. & DEMO PLAN – NORTHEAST CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C2.2

LICENSE No. 86492 STATE OF FLORIDA PROFESSIONAL ENGINEER

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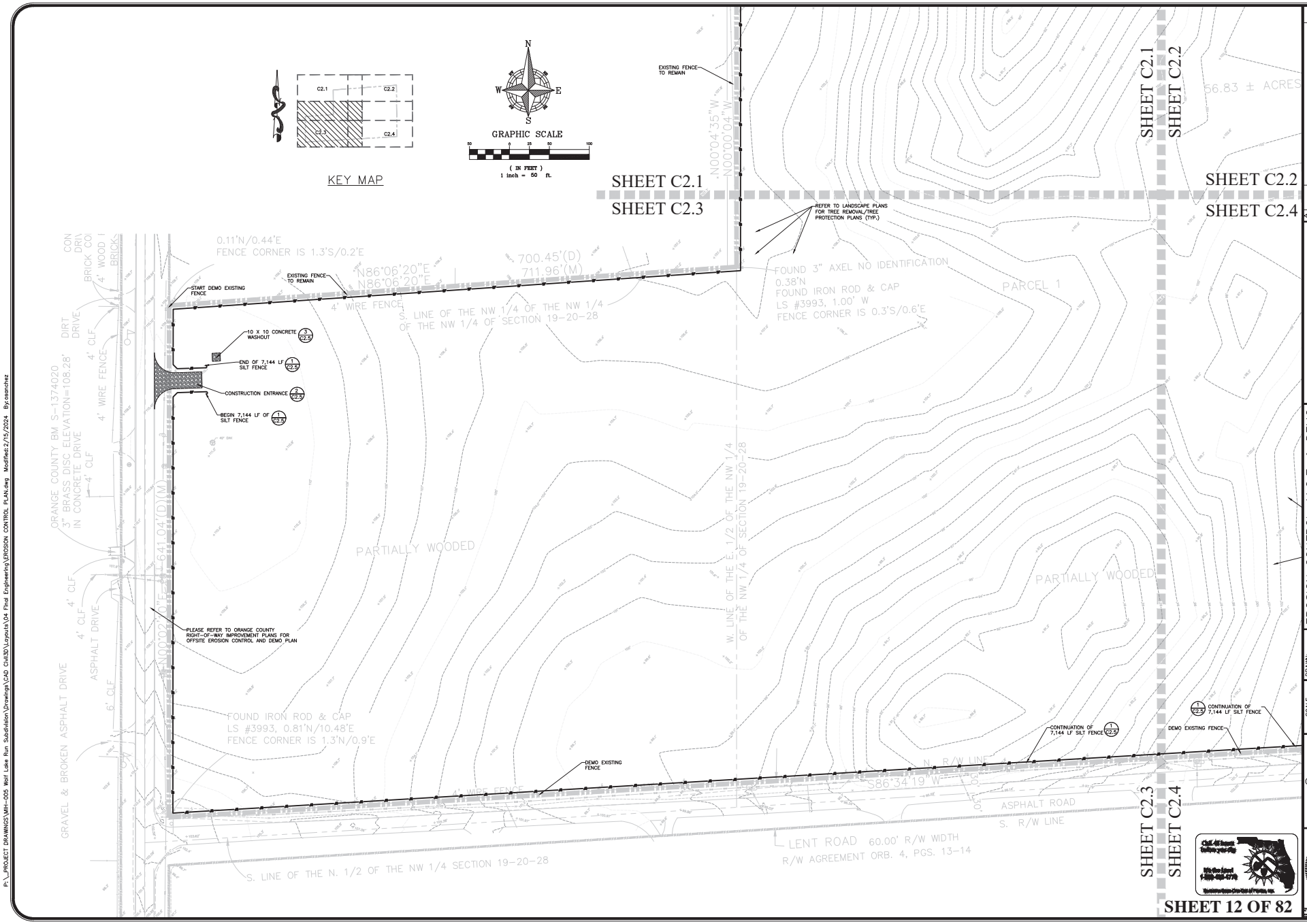

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2231 Lake Rosa, Suite 27, Winter Park, Florida, 32789

LICENSE No. 86492 STATE OF FLORIDA

EDDIO SALVADOR SANCHEZ

PROFESSIONAL ENGINEER

4/2/24

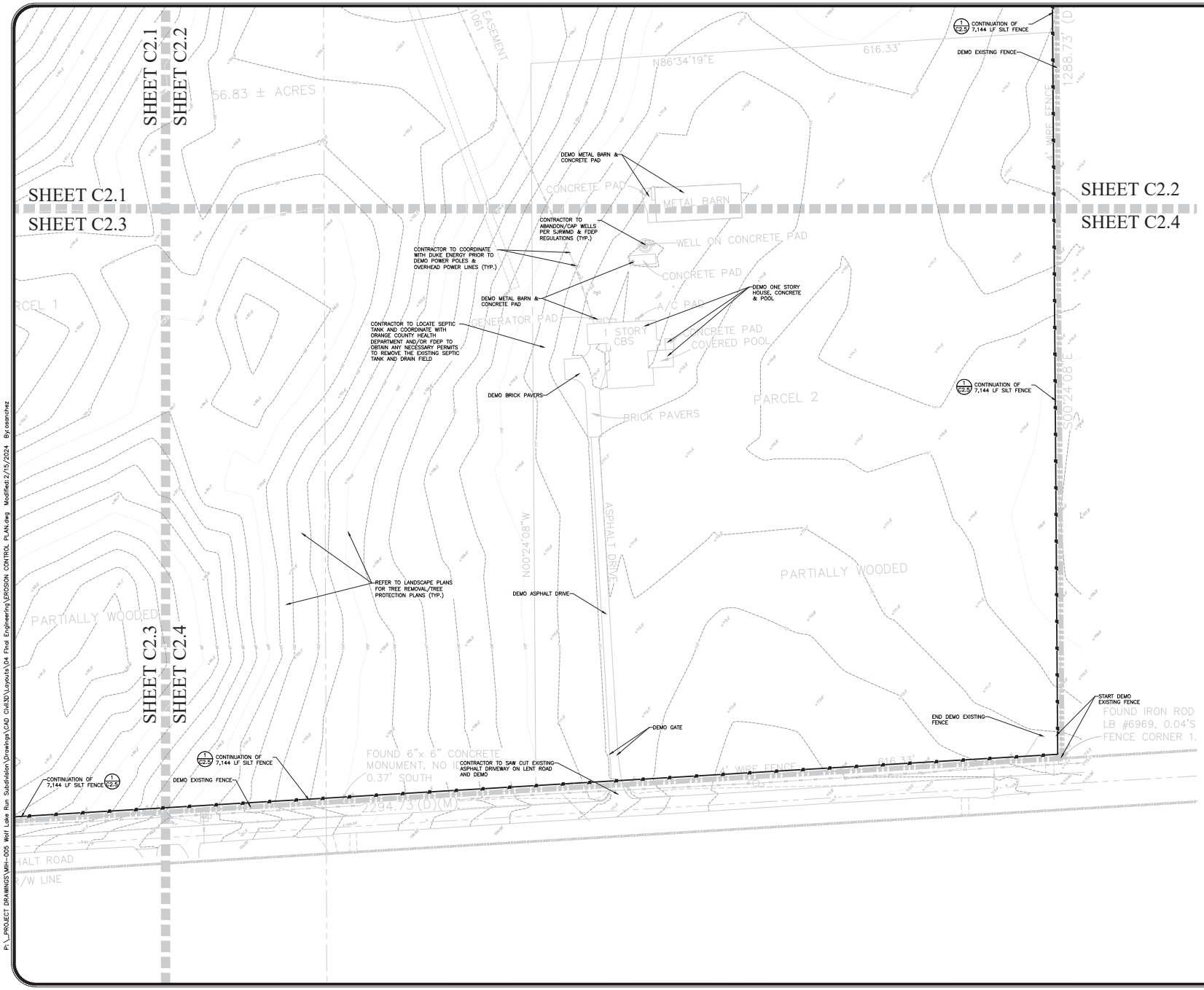
EROSION CONTROL, M.O.T. & DEMO PLAN – SOUTHWEST CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C2.3
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

SHEET 12 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\EROSION CONTROL PLAN.dwg Modified:2/15/2024 By:osanchez



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EROSION CONTROL, M.O.T. & DEMO PLAN – SOUTHEAST CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C2.4

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
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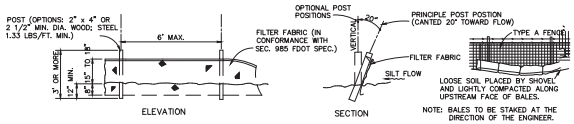
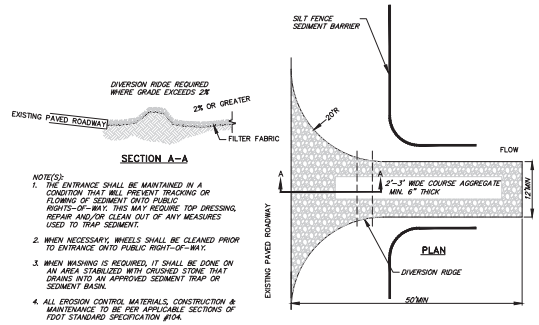
SHEET 13 OF 82



NOTE

SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF)

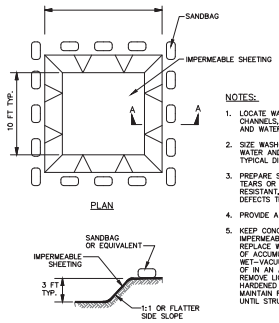
1 TYPE III SILT FENCE DETAIL
N.T.S.



NOTE(S):

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 CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
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.
4. ALL EROSION CONTROL MATERIALS, CONSTRUCTION & MAINTENANCE TO BE PER APPLICABLE SECTIONS OF FDOT STANDARD SPECIFICATION #104.
5. USE SANDBAGS OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN REQUIRED.
6. COURSE AGGREGATE & FILTER FABRIC TO BE PER SECTIONS OF FDOT STANDARD SPECIFICATION #901 & #985 RESPECTIVELY.

2 TEMPORARY CONSTRUCTION ENTRANCE DETAIL
N.T.S.

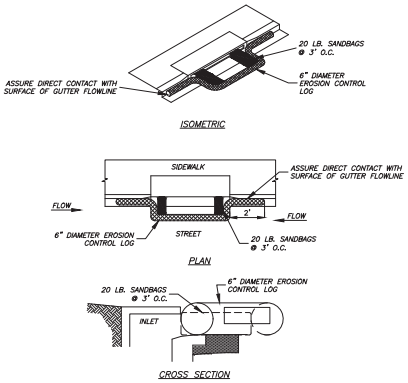


EXCAVATED WASHOUT STRUCTURE

NOTES:

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET–VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

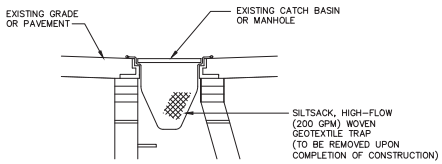
3 CONCRETE WASH OUT
N.T.S.



NOTES:

1. EROSION CONTROL LOG CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE; AND FILL MATERIAL SHALL CONSIST OF MULCH, ASPEN EXCELSIOR FIBERS, CHIPPED SITE VEGETATION, COCONUT FIBERS, 100% RECYCLABLE FIBERS, OR ANY OTHER ACCEPTABLE MATERIAL EXCLUDING STRAW AND HAY.
2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM WATER BEGINS TO OVERTOP THE CURB.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

4 EROSION CONTROL LOG DETAIL
N.T.S.



4A INLET TRAP AND FILTER
N.T.S.

NO.	DATE	DESCRIPTION	BY

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2231 Lake Rosa, 32803 FL, Winter Park, Florida, 32789

EROSION CONTROL & M.O.T. DETAILS

CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: N.T.S.
PROJECT: MIH–005
SHEET: C2.5

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

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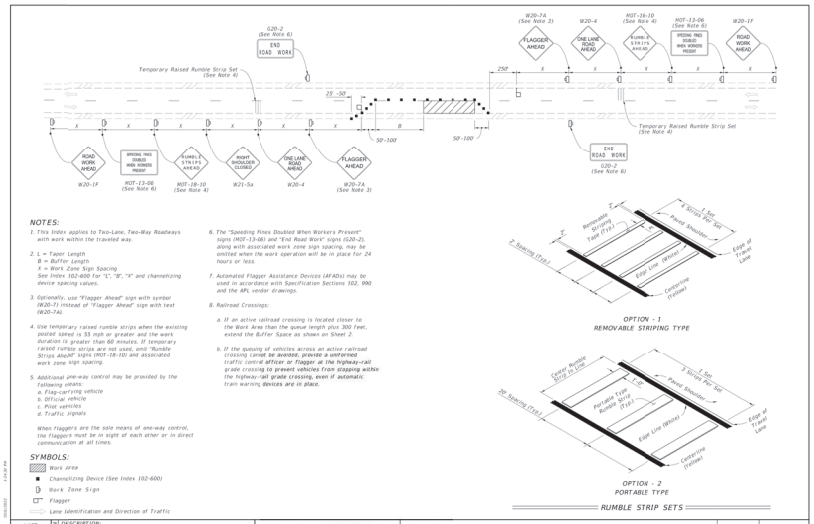
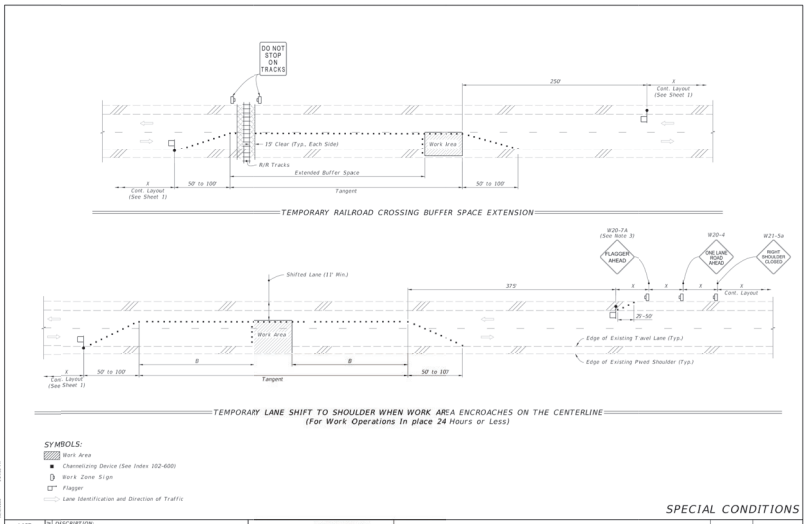
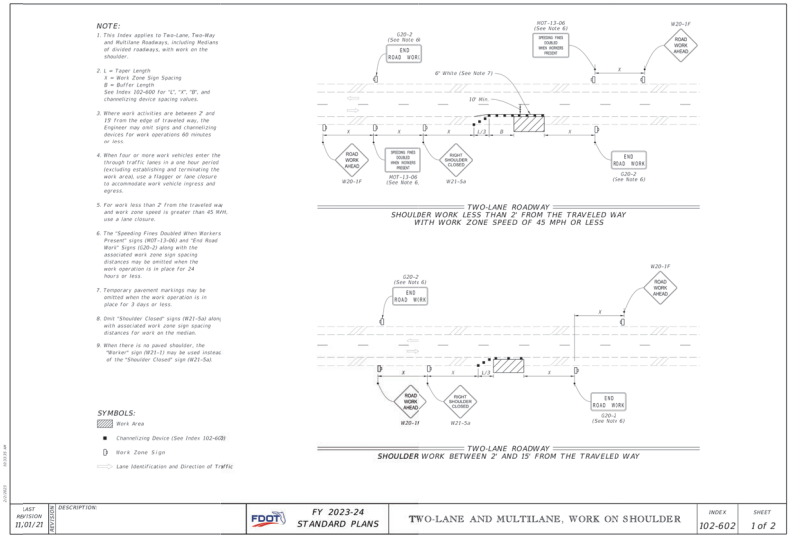
SHEET 14 OF 82

P:_PROJECT DRAWINGS\MIH–005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\EROSION CONTROL DETAILS.dwg Modified:3/18/2024 By:olopez





5 FDOT M.O.T. DETAIL – WORK WITHIN TRAVEL WAY
N.T.S.



6 MAINTENANCE OF TRAFFIC – WORK ON SHOULDER
N.T.S.

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2231 Lake Rosa, 32828 FL, Winter Park, Florida, 32789
LICENSED BUSINESS EB-0013900

REV.	DATE	DESCRIPTION	BY

EROSION CONTROL & M.O.T. DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C2.6

OMAR SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

Call 48 hours before you dig
811 Sunshine
1-800-432-4770
Underground Utilities Protection of Florida, Inc.

SHEET 15 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\EROSION CONTROL DETAILS.dwg Modified:3/18/2024 By:olopez

PROPOSED GREEN BUILDING STANDARDS:

VEGETATION	
- PRESERVE 5+ LARGE, NON-EXOTIC TREES ON SITE	1.00 pt.
TRANSPORTATION	
-PROVIDE MORE BICYCLE PARKING THAN REQUIRED BY SEC. 5.1.11	1.00 pt.
ENERGY CONSERVATION	
-USE VEGETATION OR VEGETATED STRUCTURES TO SHADE HVAC UNITS	0.25 pt.
RESILIENCY TO NATURAL HAZARDS	
- ELEVATE NEW AND/OR EXISTING STRUCTURES MORE THAN 3 FEET ABOVE BASE FLOOD ELEVATION	2.00 pt.
TOTAL	4.25 pt.

TRACT DATA

TRACT / LOT	DESCRIPTION	AREA (AC)	AREA (SF)	OWNERS
TRACT 'A'	30' DEDICATED RIGHT-OF-WAY	0.44 AC	19,235.05 SF	COUNTY
TRACT 'B'	PRIVATE RIGHT-OF-WAY	8.56 AC	372,806.60 SF	HOA
TRACT 'C'	NORTH POND	5.39 AC	234,577.59 SF	HOA
TRACT 'D'	SOUTH POND	3.66 AC	159,416.03 SF	HOA
TRACT 'E'	10' LANDSCAPE BUFFER	0.03 AC	1,434.61 SF	HOA
TRACT 'F'	10' LANDSCAPE BUFFER	0.14 AC	6,041.21 SF	HOA
TRACT 'G'	10' LANDSCAPE BUFFER	0.52 AC	22,646.37 SF	HOA
TRACT 'H'	LANDSCAPE BUFFER	1.25 AC	54,312.94 SF	HOA
TRACT 'I'	15' LANDSCAPE BUFFER	0.35 AC	15,356.05 SF	HOA
TRACT 'J'	15' LANDSCAPE BUFFER	0.17 AC	7,494.47 SF	HOA
TRACT 'K'	15' LANDSCAPE BUFFER	0.02 AC	754.76 SF	HOA
TRACT 'L'	LANDSCAPE BUFFER	0.05 AC	2,081.00 SF	HOA
TRACT 'M'	POCKET PARK/EXERCISE TRAIL	1.81 AC	78,679.83 SF	HOA
TRACT 'N'	OPEN SPACE	0.06 AC	2,584.61 SF	HOA
TRACT 'O'	OPEN SPACE	0.07 AC	3,165.87 SF	HOA
TRACT 'P'	LIFT STATION	0.04 AC	1,762.50 SF	HOA

GATE NOTES:

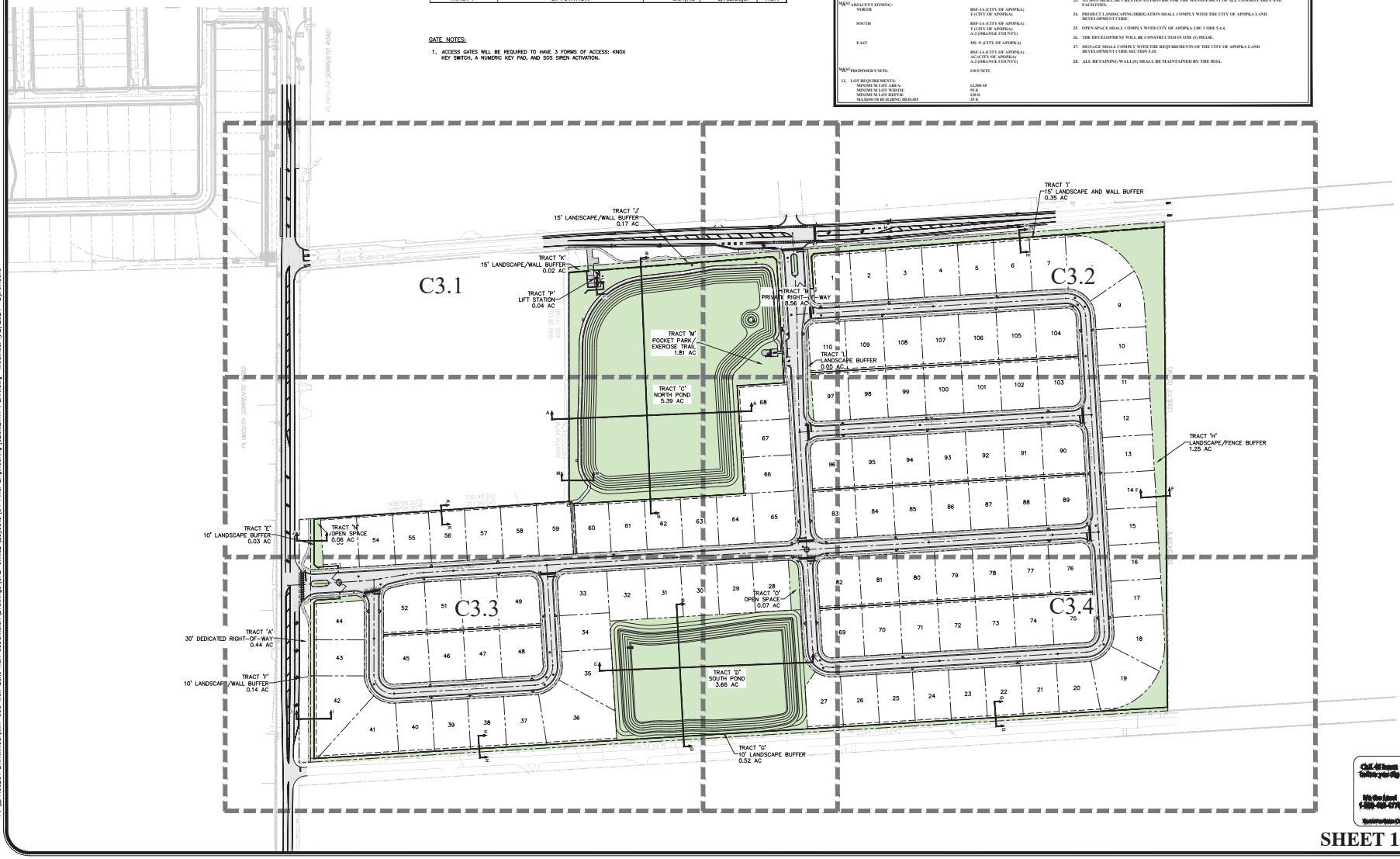
1. ACCESS GATES WILL BE REQUIRED TO HAVE 3 FORMS OF ACCESS: KNOX KEY SWITCH, A NUMERIC KEY PAD, AND SOS SIREN ACTIVATION.

SITE DATA

1. OCPA / PARCEL ID #'s: 19-20-28-0000-00-002, 19-20-28-0000-00-050
2. PROPERTY LOCATION: 2601 LENT ROAD, APOPKA, FL 32712
3. TOTAL PROPERTY AREA: 56.67 AC.
4. PLYMOUTH SORRENTO ROAD RIGHT-OF-WAY DEDICATION: 0.44 AC.
5. NET DEVELOPABLE AREA: 56.23 AC.
6. ALLOWABLE DENSITY: 2.00 DU/AC.
7. PROPOSED DENSITY: 1.96 DU/AC.
8. EXISTING FUTURE LAND USE: RVLS
9. EXISTING ZONING: RSF-1A
10. ADJACENT FUTURE LAND USE:
    - NORTH: RVLS (CITY OF APOPKA)
    - SOUTH: RVLS (CITY OF APOPKA), R (ORANGE COUNTY)
    - EAST: RVLS (CITY OF APOPKA)
    - WEST: RVLS (CITY OF APOPKA), RS (CITY OF APOPKA), R (ORANGE COUNTY)
11. ADJACENT ZONING:
    - NORTH: RSF-1A (CITY OF APOPKA), T (CITY OF APOPKA)
    - SOUTH: RSF-1A (CITY OF APOPKA), T (CITY OF APOPKA), A-2 (ORANGE COUNTY)
    - EAST: ME-N (CITY OF APOPKA)
    - WEST: RSF-1A (CITY OF APOPKA), AG (CITY OF APOPKA), A-2 (ORANGE COUNTY)
12. PROPOSED UNITS: 110 UNITS
13. LOT REQUIREMENTS:
    - MINIMUM LOT AREA: 12,500 SF
    - MINIMUM LOT WIDTH: 95 ft.
    - MINIMUM LOT DEPTH: 130 ft
    - MAXIMUM BUILDING HEIGHT: 35 ft
14. SINGLE-FAMILY DETACHED SETBACKS:
    - FRONT YARD: 25 ft
    - REAR YARD: 25 ft
    - SIDE YARD: 10 ft
    - CORNER YARD: 25 ft
15. REQUIRED OPEN SPACE: (56.23 AC.) x (20%) = 11.25 AC. *PER CITY OF APOPKA LAND DEVELOPMENT CODE 5.4.4.
16. PROPOSED OPEN SPACE:
    - LANDSCAPE ISLANDS: 2.52 AC.
    - MAIL KIOSKS: 0.07 AC.
    - LANDSCAPE BUFFERS: 0.06 AC.
    - SOCIAL PLAZA, DOG PARK: 0.06 AC.
    - STORMWATER PONDS (75% MAX): 1.82 AC.
    - TOTAL: 4.53 AC. (20.1%)
17. WATER SERVICE PROVIDED BY CITY OF APOPKA.
18. RECLAIMED WATER SERVICE PROVIDED BY CITY OF APOPKA.
19. SANITARY SEWER SERVICE PROVIDED BY CITY OF APOPKA.
20. STORMWATER SYSTEM WILL BE PROVIDED AND DESIGNED TO MEET CITY OF APOPKA AND SJRWMD DRAINAGE REQUIREMENTS.
21. ALL UTILITY LINES SHALL BE DESIGNED TO MEET FDEP AND CITY OF APOPKA REQUIREMENTS.
22. UTILITY EASEMENTS DEDICATED TO CITY OF APOPKA UTILITY SHALL BE PROVIDED OVER ALL WATER AND SEWER MAINS LOCATED OUTSIDE THE PUBLIC RIGHT OF WAY.
23. AN HOA SHALL BE CREATED TO PROVIDE FOR THE MANAGEMENT OF ALL COMMON AREA AND FACILITIES.
24. PROJECT LANDSCAPING/IRRIGATION SHALL COMPLY WITH THE CITY OF APOPKA LAND DEVELOPMENT CODE.
25. OPEN SPACE SHALL COMPLY WITH CITY OF APOPKA LDC CODE 5.4.4.
26. THE DEVELOPMENT WILL BE CONSTRUCTED IN ONE (1) PHASE.
27. SIGNAGE SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF APOPKA LAND DEVELOPMENT CODE SECTION 5.08.
28. ALL RETAINING WALL(S) SHALL BE MAINTAINED BY THE HOA.

N
W E
S

GRAPHIC SCALE
120 0 60 120 240
(IN FEET)
1 inch = 120 ft.



SHEET 16 OF 82

REV	DATE	DESCRIPTION	BY

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LICENSED BUSINESS FOR CIVIL ENGINEERING

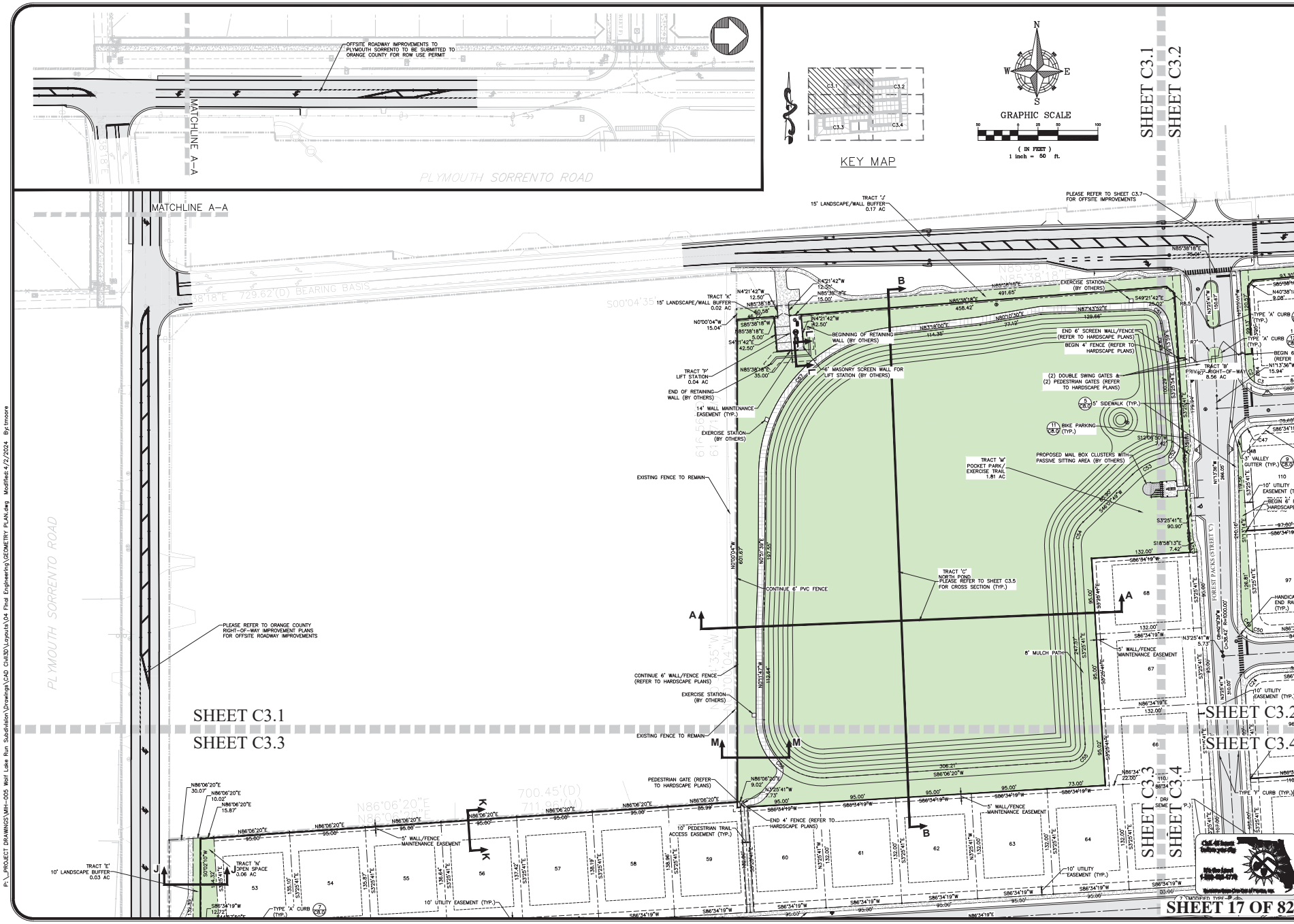
GEOMETRY PLAN – OVERALL
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: 1" = 120'
PROJECT: MIH-005
SHEET: C3.0

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

Call 48 hours before you dig
811 Sunshine
1-800-432-4770
Underground Utilities Other than those of Transmission, Inc.

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\GEOMETRY PLAN.dwg Modified:4/2/2024 By:lmoore


PLYMOUTH SORRENTO ROAD
MATCHLINE A–A
OFFSITE ROADWAY IMPROVEMENTS TO PLYMOUTH SORRENTO TO BE SUBMITTED TO ORANGE COUNTY FOR ROW USE PERMIT
KEY MAP
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
SHEET C3.1
SHEET C3.2
SHEET C3.3
SHEET C3.4
PLEASE REFER TO SHEET C3.7 FOR OFFSITE IMPROVEMENTS
TRACT 'J' 15' LANDSCAPE/WALL BUFFER 0.17 AC
TRACT 'K' 15' LANDSCAPE/WALL BUFFER 0.02 AC
TRACT 'P' LIFT STATION 0.04 AC
TRACT 'N' OPEN SPACE 0.06 AC
TRACT 'E' 10' LANDSCAPE BUFFER 0.03 AC
TRACT 'B' PRIVATE RIGHT-OF-WAY 8.56 AC
TRACT 'M' POCKET PARK/ EXERCISE TRAIL 1.81 AC
TRACT 'C' NORTH POND PLEASE REFER TO SHEET C3.5 FOR CROSS SECTION (TYP.)
PLEASE REFER TO ORANGE COUNTY RIGHT-OF-WAY IMPROVEMENT PLANS FOR OFFSITE ROADWAY IMPROVEMENTS
EXISTING FENCE TO REMAIN
CONTINUE 6' PVC FENCE
CONTINUE 6' WALL/FENCE FENCE (REFER TO HARDSCAPE PLANS)
EXERCISE STATION (BY OTHERS)
PEDESTRIAN GATE (REFER TO HARDSCAPE PLANS)
END 4' FENCE (REFER TO HARDSCAPE PLANS)
10' PEDESTRIAN TRAIL ACCESS EASEMENT (TYP.)
5' WALL/FENCE MAINTENANCE EASEMENT
10' UTILITY EASEMENT (TYP.)
TYPE 'A' CURB (TYP.)
8' MULCH PATH
5' SIDEWALK (TYP.)
BIKE PARKING (TYP.)
PROPOSED MAIL BOX CLUSTERS WITH PASSIVE SITTING AREA (BY OTHERS)
(2) DOUBLE SWING GATES & (2) PEDESTRIAN GATES (REFER TO HARDSCAPE PLANS)
END 6' SCREEN WALL/FENCE (REFER TO HARDSCAPE PLANS)
BEGIN 4' FENCE (REFER TO HARDSCAPE PLANS)
BEGINNING OF RETAINING WALL (BY OTHERS)
END OF RETAINING WALL (BY OTHERS)
6' MASONRY SCREEN WALL FOR LIFT STATION (BY OTHERS)
14' WALL MAINTENANCE EASEMENT (TYP.)
HANDICAP END RAMP (TYP.)
4' VALLEY GUTTER (TYP.)
FOREST PACKS (STREET C)
S00°04'35"E 729.62'(D) BEARING BASIS
700.45'(D)
711.51'(M)
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APPLIAN ENGINEERING LLC.
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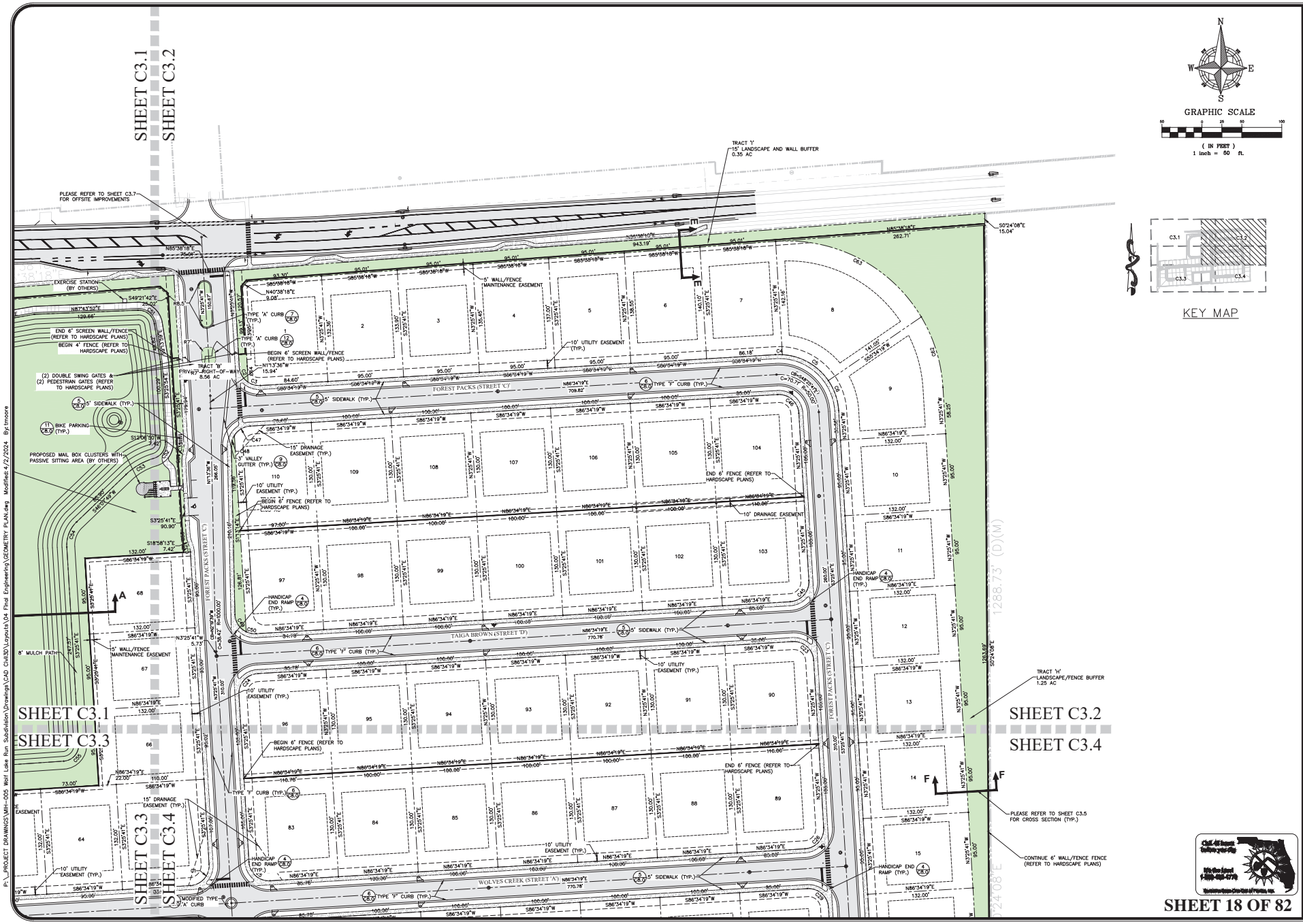
2231 Lake Rhona, 32828 FL, Winter Park, Florida, 32789
GEOMETRY PLAN – NORTHWEST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C3.1
OMAR SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SHEET 17 OF 82



SHEET 18 OF 82

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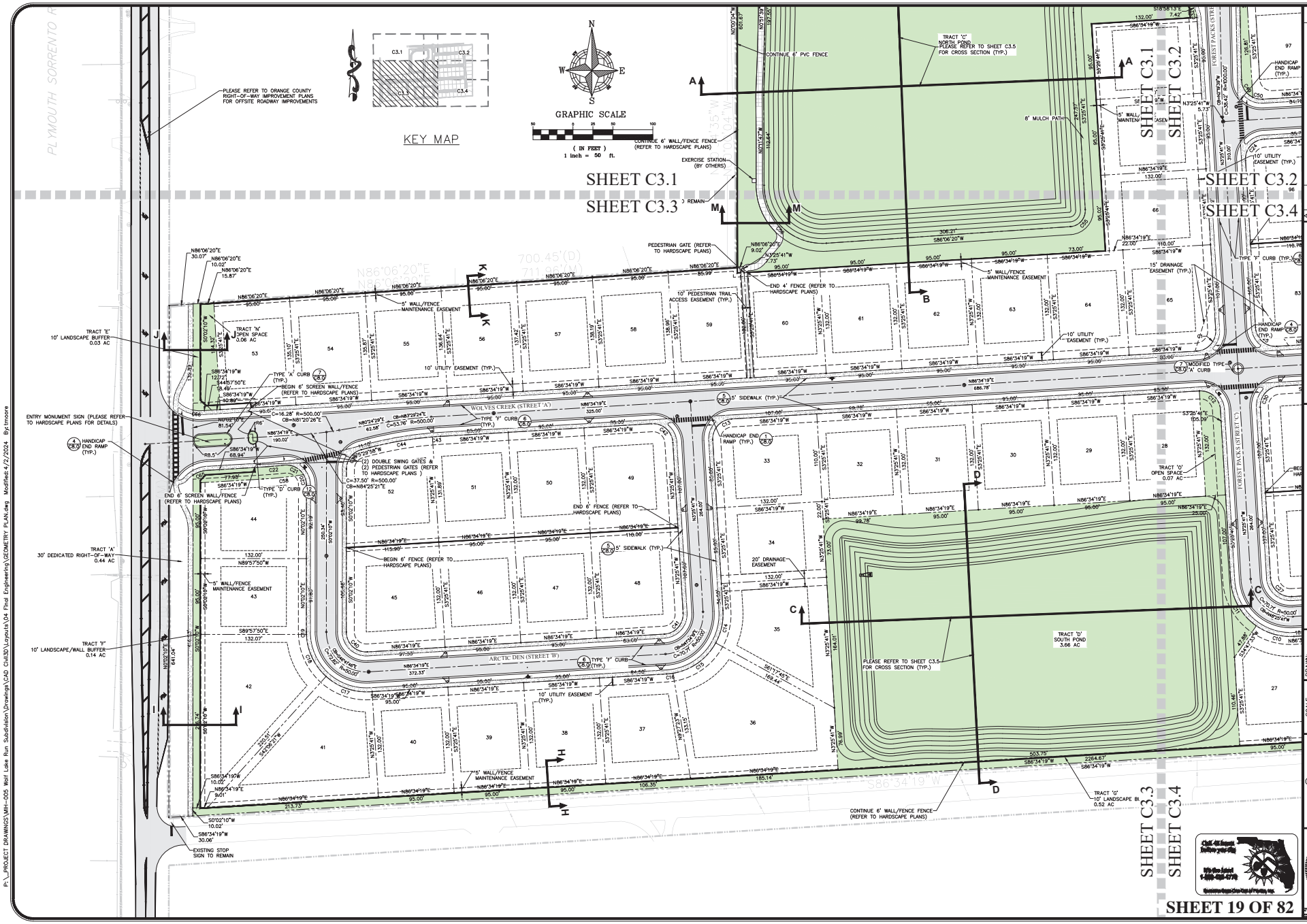
NO.	DATE	DESCRIPTION	BY

GEOMETRY PLAN – NORTHEAST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C3.2
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

LICENSE No. 86492 STATE OF FLORIDA
OVIDIO SALVADOR SANCHEZ
4/2/24
PROFESSIONAL ENGINEER


KEY MAP
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
PLEASE REFER TO ORANGE COUNTY RIGHT-OF-WAY IMPROVEMENT PLANS FOR OFFSITE ROADWAY IMPROVEMENTS
PLYMOUTH SORRENTO R
TRACT 'C' NORTH POND PLEASE REFER TO SHEET C3.5 FOR CROSS SECTION (TYP.)
CONTINUE 6' PVC FENCE
CONTINUE 6' WALL/FENCE FENCE (REFER TO HARDSCAPE PLANS)
EXERCISE STATION (BY OTHERS)
SHEET C3.1
SHEET C3.2
SHEET C3.3
SHEET C3.4
PEDESTRIAN GATE (REFER TO HARDSCAPE PLANS)
END 4' FENCE (REFER TO HARDSCAPE PLANS)
10' PEDESTRIAN TRAIL ACCESS EASEMENT (TYP.)
5' WALL/FENCE MAINTENANCE EASEMENT
15' DRAINAGE EASEMENT (TYP.)
10' UTILITY EASEMENT (TYP.)
HANDICAP END RAMP (TYP.)
TYPE 'F' CURB (TYP.)
TRACT 'E' 10' LANDSCAPE BUFFER 0.03 AC
TRACT 'N' OPEN SPACE 3.06 AC
TYPE 'A' CURB (TYP.)
BEGIN 6' SCREEN WALL/FENCE (REFER TO HARDSCAPE PLANS)
ENTRY MONUMENT SIGN (PLEASE REFER TO HARDSCAPE PLANS FOR DETAILS)
WOLVES CREEK (STREET 'A')
TYPE 'F' CURB (TYP.)
5' SIDEWALK (TYP.)
MODIFIED TYPE 'A' CURB
(2) DOUBLE SWING GATES & (2) PEDESTRIAN GATES (REFER TO HARDSCAPE PLANS)
END 6' SCREEN WALL/FENCE (REFER TO HARDSCAPE PLANS)
TYPE 'D' CURB (TYP.)
END 6' FENCE (REFER TO HARDSCAPE PLANS)
TRACT 'O' OPEN SPACE 0.07 AC
TRACT 'A' 30' DEDICATED RIGHT-OF-WAY 0.44 AC
BEGIN 6' FENCE (REFER TO HARDSCAPE PLANS)
20' DRAINAGE EASEMENT
TRACT 'D' SOUTH POND 3.66 AC
TRACT 'F' 10' LANDSCAPE/WALL BUFFER 0.14 AC
ARCTIC DEN (STREET 'B')
TYPE 'F' CURB
10' UTILITY EASEMENT (TYP.)
PLEASE REFER TO SHEET C3.5 FOR CROSS SECTION (TYP.)
TRACT 'G' 10' LANDSCAPE BU 0.52 AC
CONTINUE 6' WALL/FENCE FENCE (REFER TO HARDSCAPE PLANS)
EXISTING STOP SIGN TO REMAIN
FOREST PACKS (STREET 'C')
8' MULCH PATH
SHEET 19 OF 82
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2231 Lake Rhona, 32828 FL, Winter Park, Florida, 32789
GEOMETRY PLAN – SOUTHWEST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C3.3
OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24
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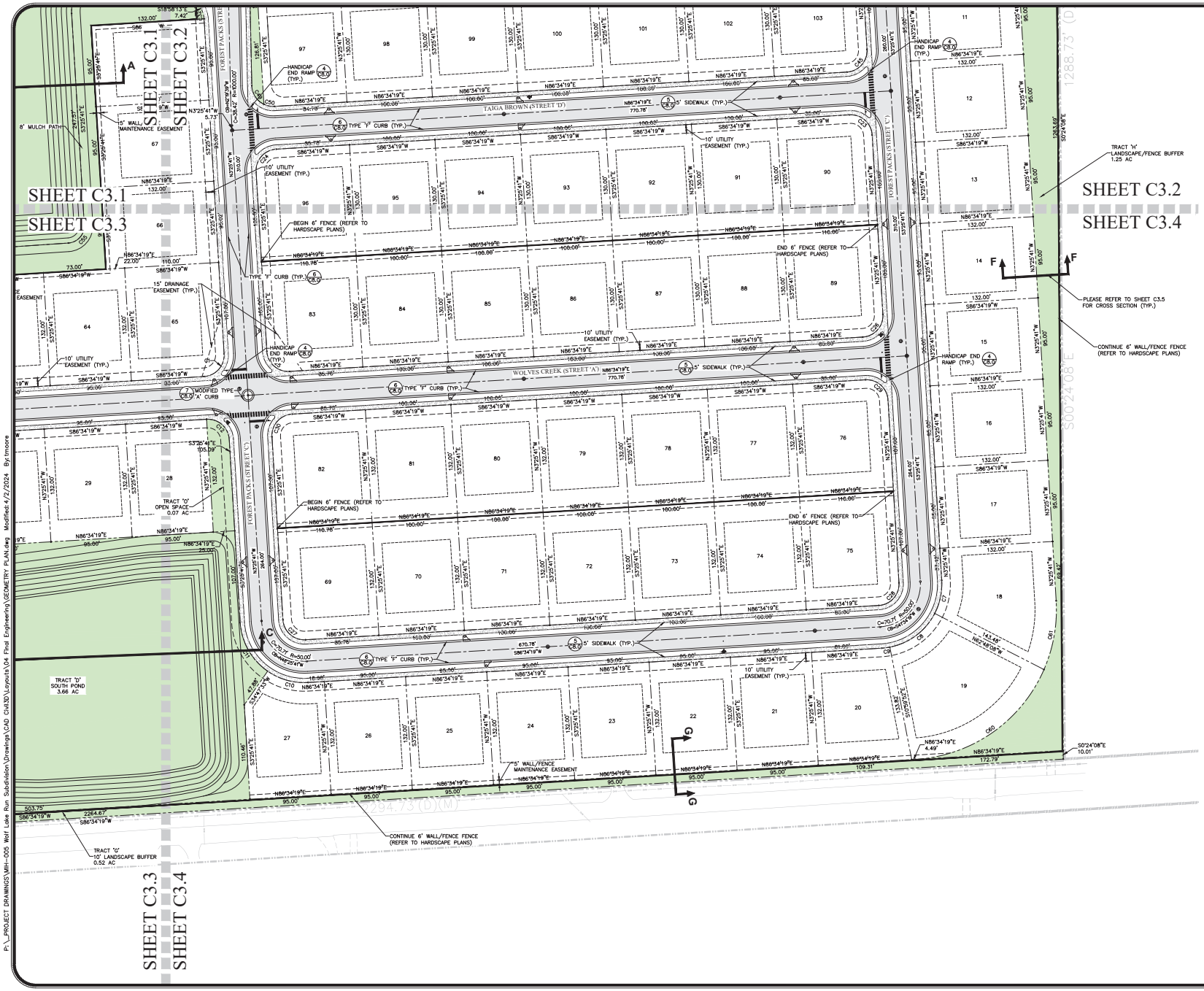

SHEET 20 OF 82

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APPIAN ENGINEERING LLC.
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2231 Lee Road, 32233 FL, Winter Park, Florida, 32789

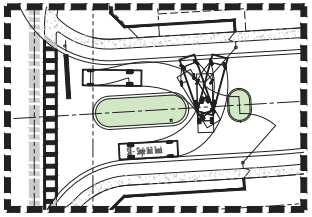
DATE	DESCRIPTION	BY

GEOMETRY PLAN – SOUTHEAST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

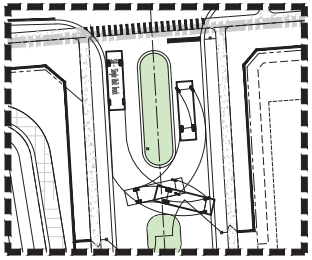
SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C3.4
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER

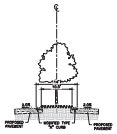
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\GEOMETRY PLAN.dwg Modified: 4/2/2024 By: tmoore



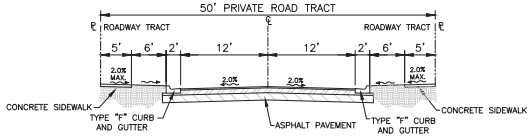
BOX TRUCK TURN AROUND
DETAIL - WESTERN ENTRANCE
SCALE 1" = 30'



BOX TRUCK TURN AROUND
DETAIL - NORTHERN ENTRANCE
SCALE 1" = 30'



TRAFFIC ISLAND
CROSS SECTION
N.T.S.



TYPICAL 50' ROW
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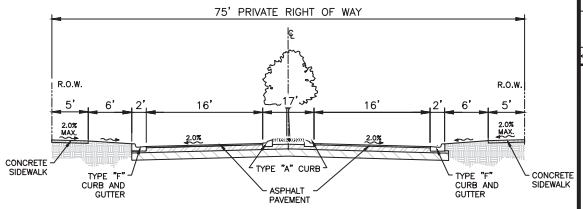

ENTRANCE 75' ROW
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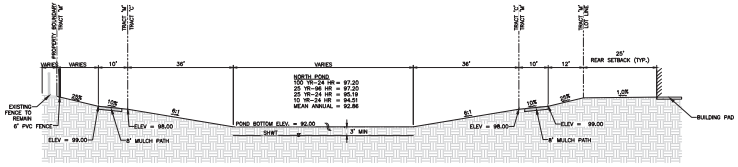

CROSS SECTION A-A
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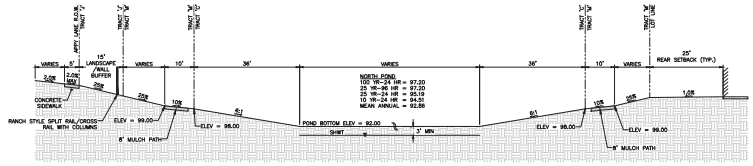

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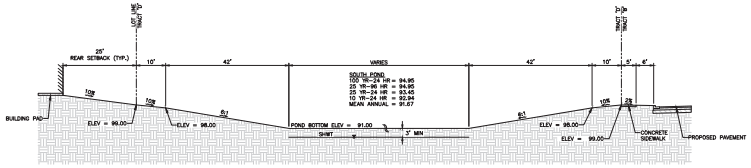
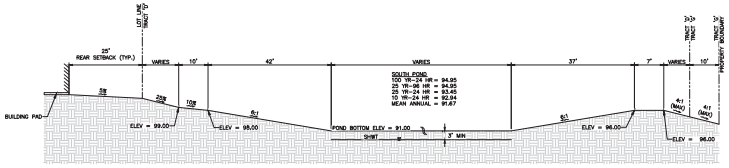


CROSS SECTION C-C
N.T.S.



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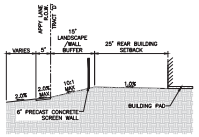
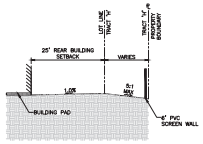


SECTION E-E
N.T.S.



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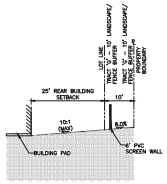

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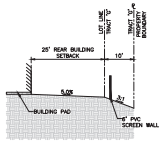

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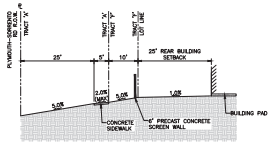

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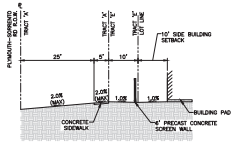

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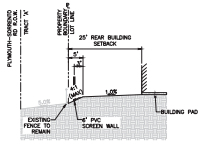

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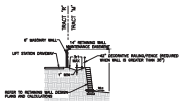

SECTION L-L
N.T.S.

SHEET 21 OF 82

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2231 Lake Rosa, 32839 FL, Winter Park, Florida, 32789

REV	DATE	DESCRIPTION	BY

CROSS SECTIONS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C3.5

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\GEOMETRY PLAN.dwg Modified: 4/2/2024 By: tmoore

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\GEOMETRY PLAN.dwg Modified: 4/2/2024 By: tmoore

LOT DATA

TRACT / LOT	DESCRIPTION	AREA	*BUILDABLE AREA	LOT FRONTAGE	OWNER
LOT 1	-	0.30 AC	6,119 SF	124.27 LF	PRIVATE
LOT 2	-	0.29 AC	6,235 SF	95.00 LF	PRIVATE
LOT 3	-	0.29 AC	6,351 SF	95.00 LF	PRIVATE
LOT 4	-	0.30 AC	6,467 SF	95.00 LF	PRIVATE
LOT 5	-	0.30 AC	6,583 SF	95.00 LF	PRIVATE
LOT 6	-	0.30 AC	6,699 SF	95.00 LF	PRIVATE
LOT 7	-	0.31 AC	6,815 SF	95.02 LF	PRIVATE
LOT 8	-	0.47 AC	11,451 SF	67.98 LF	PRIVATE
LOT 9	-	0.35 AC	7,961 SF	77.16 LF	PRIVATE
LOT 10	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 11	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 12	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 13	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 14	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 15	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 16	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 17	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 18	-	0.36 AC	8,040 SF	77.51 LF	PRIVATE
LOT 19	-	0.43 AC	10,395 SF	67.81 LF	PRIVATE
LOT 20	-	0.30 AC	6,597 SF	91.71 LF	PRIVATE
LOT 21	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 22	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 23	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 24	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 25	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 26	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 27	-	0.29 AC	6,517 SF	69.01 LF	PRIVATE
LOT 28	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 29	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 30	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 31	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 32	-	0.30 AC	6,150 SF	99.78 LF	PRIVATE
LOT 33	-	0.33 AC	6,150 SF	124.27 LF	PRIVATE
LOT 34	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 35	-	0.38 AC	8,447 SF	76.06 LF	PRIVATE
LOT 36	-	0.56 AC	14,429 SF	67.86 LF	PRIVATE
LOT 37	-	0.30 AC	6,505 SF	92.39 LF	PRIVATE
LOT 38	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 39	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 40	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 41	-	0.46 AC	10,763 SF	62.44 LF	PRIVATE
LOT 42	-	0.48 AC	11,420 SF	59.57 LF	PRIVATE
LOT 43	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 44	-	0.30 AC	6,483 SF	105.78 LF	PRIVATE
LOT 45	-	0.36 AC	6,957 SF	138.11 LF	PRIVATE
LOT 46	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 47	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 48	-	0.33 AC	6,150 SF	124.27 LF	PRIVATE
LOT 49	-	0.33 AC	6,150 SF	124.27 LF	PRIVATE
LOT 50	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 51	-	0.29 AC	6,150 SF	94.99 LF	PRIVATE
LOT 52	-	0.32 AC	5,980 SF	123.49 LF	PRIVATE
LOT 53	-	0.29 AC	6,353 SF	95.00 LF	PRIVATE
LOT 54	-	0.30 AC	6,411 SF	95.00 LF	PRIVATE
LOT 55	-	0.30 AC	6,469 SF	95.00 LF	PRIVATE

LOT DATA

TRACT / LOT	DESCRIPTION	AREA	*BUILDABLE AREA	LOT FRONTAGE	OWNER
LOT 56	-	0.30 AC	6,527 SF	95.00 LF	PRIVATE
LOT 57	-	0.30 AC	6,585 SF	95.00 LF	PRIVATE
LOT 58	-	0.30 AC	6,643 SF	95.00 LF	PRIVATE
LOT 59	-	0.30 AC	6,701 SF	95.00 LF	PRIVATE
LOT 60	-	0.29 AC	6,759 SF	95.00 LF	PRIVATE
LOT 61	-	0.29 AC	6,817 SF	95.00 LF	PRIVATE
LOT 62	-	0.29 AC	6,875 SF	95.00 LF	PRIVATE
LOT 63	-	0.29 AC	6,933 SF	95.00 LF	PRIVATE
LOT 64	-	0.29 AC	6,991 SF	95.00 LF	PRIVATE
LOT 65	-	0.33 AC	7,049 SF	124.27 LF	PRIVATE
LOT 66	-	0.29 AC	6,123 SF	95.02 LF	PRIVATE
LOT 67	-	0.29 AC	6,150 SF	95.00 LF	PRIVATE
LOT 68	-	0.33 AC	6,150 SF	95.00 LF	PRIVATE
LOT 69	-	0.30 AC	6,214 SF	125.05 LF	PRIVATE
LOT 70	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 71	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 72	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 73	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 74	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 75	-	0.33 AC	6,150 SF	124.27 LF	PRIVATE
LOT 76	-	0.33 AC	6,150 SF	124.27 LF	PRIVATE
LOT 77	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 78	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 79	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 80	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 81	-	0.30 AC	6,560 SF	100.00 LF	PRIVATE
LOT 82	-	0.33 AC	6,214 SF	125.05 LF	PRIVATE
LOT 83	-	0.33 AC	6,062 SF	125.05 LF	PRIVATE
LOT 84	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 85	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 86	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 87	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 88	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 89	-	0.33 AC	6,000 SF	124.27 LF	PRIVATE
LOT 90	-	0.33 AC	6,000 SF	124.27 LF	PRIVATE
LOT 91	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 92	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 93	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 94	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 95	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 96	-	0.33 AC	6,062 SF	125.05 LF	PRIVATE
LOT 97	-	0.29 AC	6,160 SF	97.58 LF	PRIVATE
LOT 98	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 99	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 100	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 101	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 102	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 103	-	0.33 AC	6,000 SF	124.27 LF	PRIVATE
LOT 104	-	0.33 AC	6,400 SF	124.87 LF	PRIVATE
LOT 105	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 106	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 107	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 108	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 109	-	0.30 AC	6,400 SF	100.00 LF	PRIVATE
LOT 110	-	0.29 AC	6,160 SF	100.40 LF	PRIVATE

Curve Table

Curve #	Chord Length	Chord Direction	Radius
C1	35.36'	S41°34'19"W	25.00'
C2	21.95'	N29°28'16"W	25.00'
C3	16.24'	N74°28'16"W	25.00'
C4	8.84'	S89°56'59"W	75.00'
C5	66.04'	N60°33'01"W	75.00'
C6	40.09'	N18°55'41"W	75.00'
C7	39.61'	N11°53'06"E	75.00'
C8	65.53'	N53°06'00"E	75.00'
C9	9.90'	N82°47'13"E	75.00'
C10	49.11'	S74°19'04"E	75.00'
C11	65.50'	S29°19'04"E	75.00'
C12	35.36'	S48°25'41"E	25.00'
C13	35.36'	S41°34'19"W	25.00'
C14	41.51'	S12°38'17"W	75.00'
C15	65.57'	S54°37'26"W	75.00'
C16	7.89'	S83°33'28"W	75.00'
C17	58.05'	N70°39'40"W	75.00'
C18	58.02'	N25°08'20"W	75.00'
C19	3.17'	N1°10'26"W	75.00'
C20	13.42'	N15°31'52"W	25.00'
C21	26.96'	N63°43'23"W	25.00'
C22	27.39'	S85°06'43"W	537.50'
C23	35.36'	N48°25'41"W	25.00'

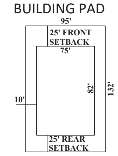
Curve Table

Curve #	Chord Length	Chord Direction	Radius
C24	35.36'	S41°34'19"W	25.00'
C25	35.36'	S48°25'41"E	25.00'
C26	35.36'	N41°34'19"E	25.00'
C27	35.36'	S48°25'41"E	25.00'
C28	35.36'	N41°34'19"E	25.00'
C29	35.36'	N48°25'41"W	25.00'
C30	35.36'	S41°34'19"W	25.00'
C32	6.76'	S11°11'57"E	25.00'
C33	8.11'	S11°11'57"E	30.00'
C34	8.11'	S4°20'34"W	30.00'
C35	6.76'	S4°20'34"W	25.00'
C39	30.60'	S37°46'04"W	25.00'
C40	36.41'	S46°41'46"E	25.00'
C41	35.36'	N41°34'19"E	25.00'
C42	35.36'	N48°25'41"W	25.00'
C43	10.00'	S85°57'09"W	462.50'
C44	79.28'	S80°24'58"W	462.50'
C45	35.36'	N41°34'19"E	25.00'
C46	35.36'	N48°25'41"W	25.00'
C47	22.84'	S59°23'10"W	25.00'
C48	14.38'	S15°29'24"W	25.00'
C49	26.10'	S32°41'16"E	25.00'
C50	12.63'	S78°47'30"E	25.00'

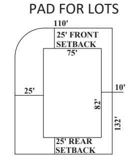
Curve Table

Curve #	Chord Length	Chord Direction	Radius
C51	26.51'	S50°45'04"E	20.00'
C52	24.91'	S35°05'17"W	20.00'
C53	40.37'	S59°52'08"W	85.00'
C54	33.53'	S21°21'04"W	40.00'
C55	28.17'	S41°20'19"W	20.00'
C56	106.51'	N47°02'43"W	73.00'
C57	230.63'	N42°04'50"E	175.00'
C58	50.85'	S83°56'04"W	552.50'
C60	183.02'	N55°02'40"E	175.00'
C61	81.54'	N10°02'40"E	175.00'
C62	92.22'	N17°06'22"W	195.00'
C63	205.45'	N62°34'23"W	195.00'
C64	19.91'	N2°23'11"W	547.50'
C65	19.10'	S71°36'50"W	37.00'
C66	10.41'	N85°20'32"W	37.00'

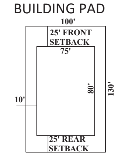
TYPICAL 95' LOT SIZE/PROPOSED BUILDING PAD



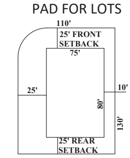
CORNER LOT SIZE/ BUILDING PAD FOR LOTS



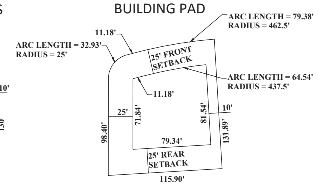
TYPICAL 100' LOT SIZE/PROPOSED BUILDING PAD



CORNER LOT SIZE/ BUILDING PAD FOR LOTS



LOT 52 SIZE/ PROPOSED BUILDING PAD



LOT AREA
0.32 AC. (14,105 SF)

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SHEET 22 OF 82

REV.	DATE	DESCRIPTION	BY
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APPIAN ENGINEERING LLC.
APPIANFL.COM · 407.960.5868
2221 LEE ROAD, SUITE 27, WINTER PARK, FLORIDA 32789
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NO. 32174

LOT DATA TABLE
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE N.T.S.
PROJECT MIH-005
SHEET C3.6

APPIAN ENGINEERING

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Ovidio S. Sanchez, PE on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

ROADWAY NOTES

1. RIGHT SIDE WIDENING WITHIN APPY LANE HAS A POSTED SPEED OF 35 MPH

KEY MAP

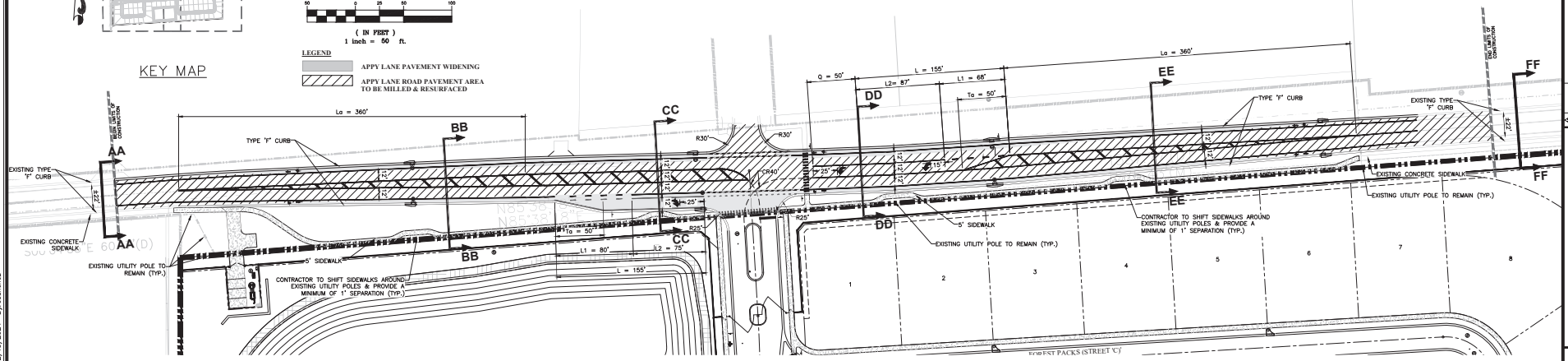
GRAPHIC SCALE

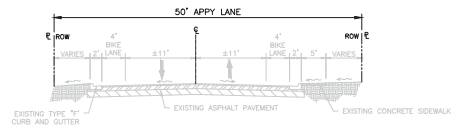
(IN FEET)
1 inch = 50 ft.

LEGEND

APPY LANE PAVEMENT WIDENING

APPY LANE ROAD PAVEMENT AREA TO BE MILLED & RESURFACED





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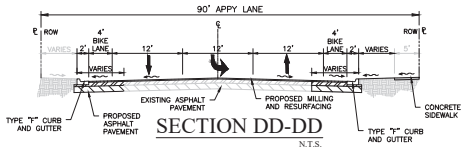

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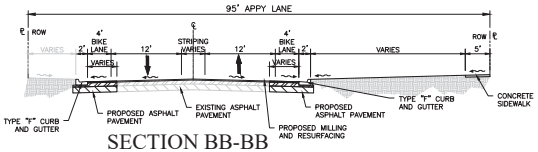

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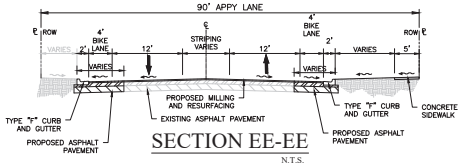

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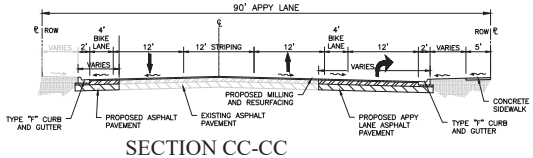

SECTION CC-CC
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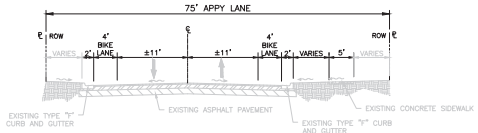
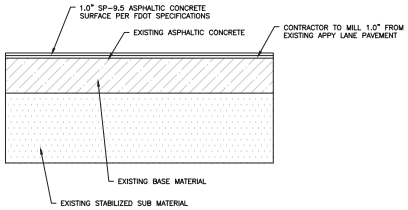
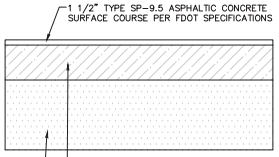


SECTION FF-FF
N.T.S.



1 APPY LANE ROAD PAVEMENT AREA TO BE MILLED AND RESURFACED



6" THICK LIMEROCK BASE COURSE COMPACTED TO A MINIMUM DENSITY OF 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AND EXHIBIT A MINIMUM LBR OF 100. THE LIMEROCK MATERIAL SHOULD COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS.

12" THICK STABILIZED SUBGRADE. SUBGRADE IMMEDIATELY BENEATH THE BASE COURSE (SUB-BASE) SHOULD BE COMPACTED TO AT LEAST 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) VALUE. FOR A LIMEROCK OR RCA BASE, THE UPPER 6 INCHES OF SUBGRADE SHOULD BE STABILIZED TO A MINIMUM LBR OF 40 AS SPECIFIED BY FDOT. COMPACTION TESTING OF THE SUBGRADE SHOULD BE PERFORMED TO FULL DEPTH AT A FREQUENCY OF AT LEAST ONE (1) TEST PER 10,000 SQ. FT., OR EVERY 500 LINEAL FEET OF ROADWAY, WHICHEVER IS GREATER.

2 APPY LANE ROAD PAVEMENT WIDENING SECTION

SHEET 23 OF 82

DATE	DESCRIPTION	BY

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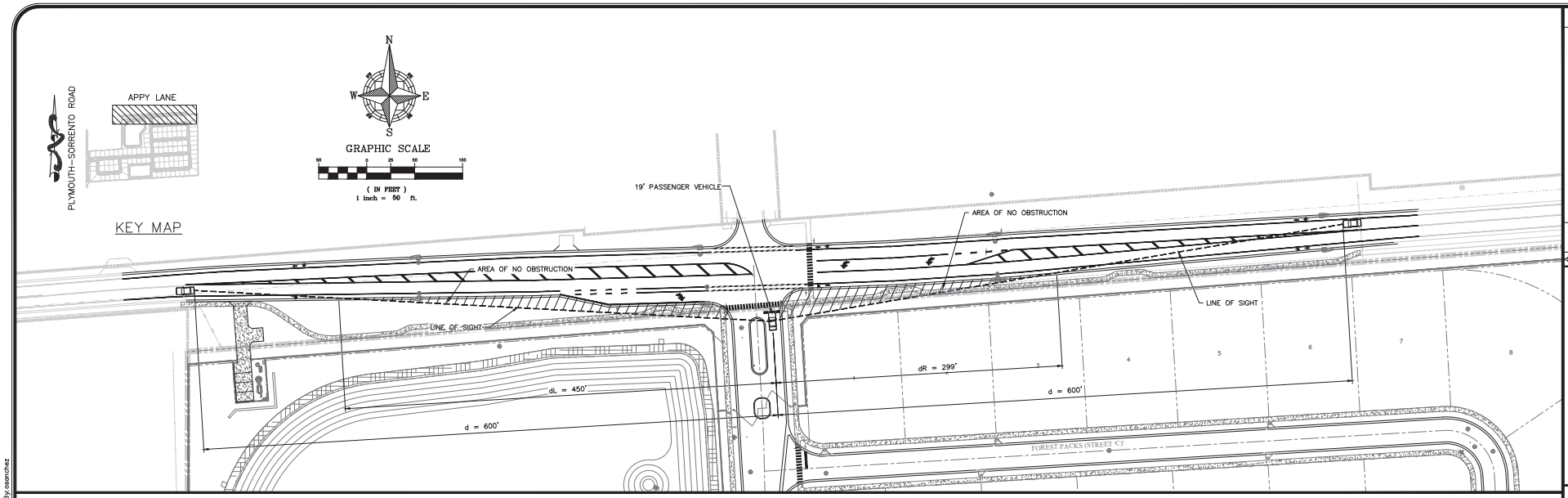
OFFSITE GEOMETRY PLAN – APPY LANE CONSTRUCTION SITE PLAN

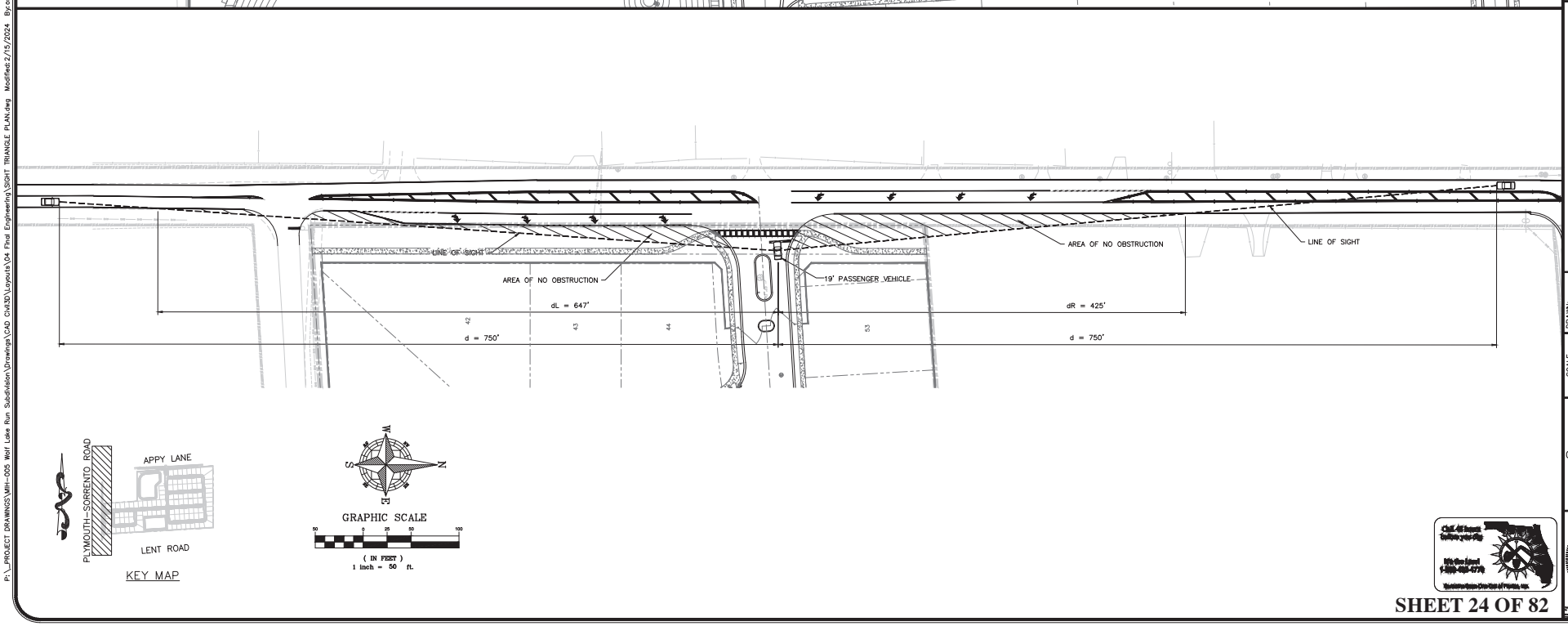
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA	DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ	DATE: 4/2/24
SCALE 1" = 50'	PROJECT MIH-005
SHEET C3.7	

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\APPY LANE OFFSITE IMPROVEMENTS.dwg Modified:2/15/2024 By:osanchez





SHEET 24 OF 82

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LICENSE # 30000 CERTIFICATE OF AUTHORIZATION

NO.	DATE	DESCRIPTION	BY

SIGHT TRIANGLE PLAN
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C3.8

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

Call 48 hours before you dig
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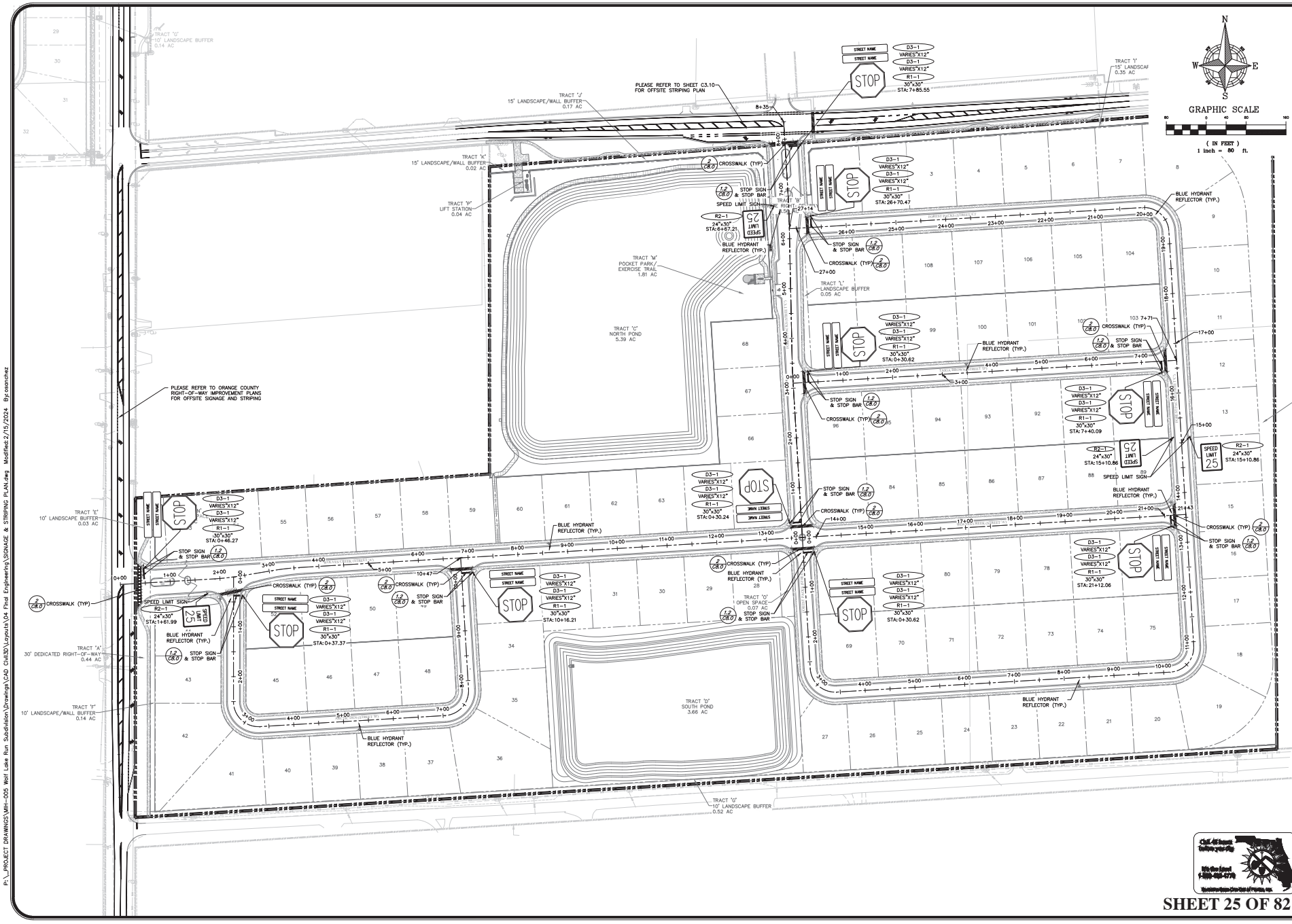
1-800-432-4770
Sunshine State One-Call of Florida, Inc.

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\SIGHT TRIANGLE PLAN.dwg Modified:2/15/2024 By:osanchez



SHEET 25 OF 82

NO.	DATE	DESCRIPTION	BY

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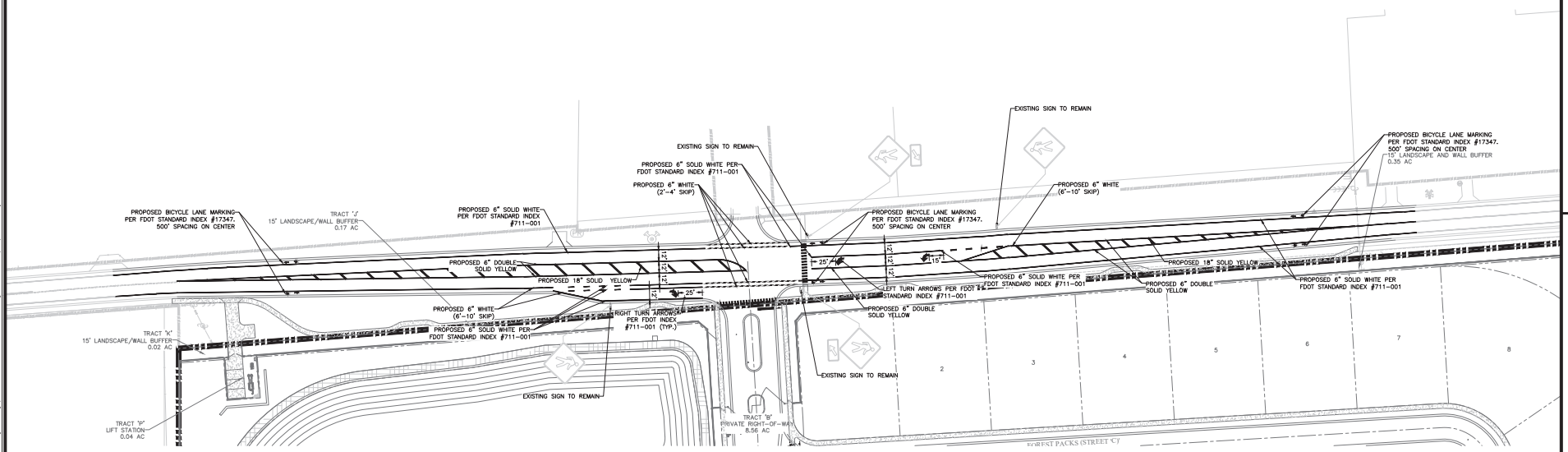
SIGNAGE & STRIPING PLAN
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

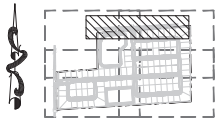
SCALE	1" = 80'
PROJECT	MIH-005
SHEET	C3.9
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24

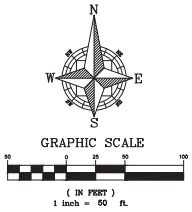
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\SIGNAGE & STRIPING PLAN.dwg Modified:2/15/2024 By:osanchez

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\SIGNAGE & STRIPING PLAN.dwg Modified:2/15/2024 By:osanchez





KEY MAP



REV	DATE	DESCRIPTION	BY

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APPIAN ENGINEERING LLC.

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2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789

LICENSE # 29 CERTIFICATE OF AUTHORIZATION

OFFSITE SIGNAGE & STRIPING PLAN

CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C3.10

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

Call 48 hours before you dig
811 Sunshine
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Underground Utilities Protection Center of Florida, Inc.

SHEET 26 OF 82

GENERAL UTILITY NOTES:

1. BACTERIOLOGICAL TESTS WITH CHLORINE RESIDUALS INDICATED (TAKEN ON TWO CONSECUTIVE DAYS) SHALL BE CONDUCTED AT EACH POTABLE WATER METER FOR EVERY BUILDING, AT EVERY WET-TAP CONNECTION AND EVERY LOCATION INDICATED WITHIN THESE PLANS. RESULTS OF THE BACTERIOLOGICAL TESTS SHALL BE PROVIDED TO THE ENGINEER OF RECORD IMMEDIATELY UPON COMPLETION. BACTERIOLOGICAL TEST RESULTS SHALL BE CONSIDERED UNACCEPTABLE IF THE TESTS WERE COMPLETED MORE THAN 30 DAYS BEFORE THE ENGINEER RECEIVED THE RESULTS.

SP#

2. ALL WATERMAINS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINISHED GRADE.
3. ALL WATERMAINS AND FIRELINES PIPES SHALL BE RESTRAINED VIA MECHANICAL JOINTS.
4. WATER MAIN PVC PIPES LESS THAN 4 INCHES MUST CONFORM TO THE SPECIFICATIONS OF ASTM 1785 (SCHEDULE 40, 80, 120) OR ASTM 2241 SDR21 AND MUST BEAR THE NSF LOGO ON EACH INSTALLED LENGTH.
5. UNDERGROUND MARKING TAPE FOR ALL SANITARY FORCEMAINS SHALL BE INSTALLED 4 TO 8 INCHES BELOW THE FINISHED GRADE SURFACE DIRECTLY OVER THE PIPELINE. MARKER TAPE SHALL BE MADE OF AN INERT POLYETHYLENE MATERIAL HAVING A MINIMUM THICKNESS OF 4 MILS AND BE COLOR CODED "SAFETY GREEN".
6. CONTRACTOR SHALL CONDUCT AND PROVIDE RESULTS IMMEDIATELY TO THE ENGINEER OF RECORD FOR PRESSURE AND LEAKAGE TESTS ON THE FORCE MAIN TRUNK LINE ONCE THE PRESSURE SEWER HAS BEEN INSTALLED AND PARTLY BACKFILLED. FINAL BACKFILL AND COMPACTION SHALL NOT COMMENCE UNTIL APPROVAL OF THE PRESSURE AND LEAKAGE TESTS HAS BEEN PROVIDED BY THE ENGINEER OF RECORD.
7. FOLLOWING SATISFACTORY PRESSURE TEST RESULTS, THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM, AND RECEIVE APPROVAL THEREOF FROM APPROPRIATE AGENCIES PRIOR TO PLACING THE SYSTEM INTO SERVICE.
8. FIRE HYDRANTS SHALL BE PLACED A MINIMUM OF 3 FT. AND A MAXIMUM OF 5 FT. FROM THE CURB OR PAVED ROAD SURFACE UNLESS OTHERWISE APPROVED. NO FENCE, TREE, POST, SHRUB, OR OTHER OBJECT WHICH COULD BLOCK THE HYDRANT FROM NORMAL VIEW OR OBSTRUCT THE HYDRANT'S USE SHALL BE LOCATED WITHIN FOUR (4) FEET OF THE HYDRANT. THE FOUR-AND-ONE-HALF INCH (4-1/2") LARGE VOLUME CONNECTION SHALL FACE THE NEAREST ROADWAY. THE CENTER OF THE STEAMER PORT SHALL BE 18 INCHES MINIMUM AND 24 INCHES MAXIMUM ABOVE FINISHED GRADE.
9. ALL FIRE HYDRANT LEADS SHALL HAVE AN INSIDE DIAMETER OF AT LEAST SIX INCHES AND INCLUDE AUXILARY VALVES.
10. WHEN NECESSARY, DEWATERING SHALL BE PROVIDED TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW MAIN BEING LAID.
11. ALL UTILITIES SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
12. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO CITY OF APOPKA WITH A MINIMUM COMPACTION OF 98% IN PAVED AREAS AND 95% IN UNPAVED AREAS IN ACCORDANCE WITH AASHTO T-180 MODIFIED PROCTOR TEST.
13. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 12 INCHES ABOVE THE PIPE AND AT 12 INCHES VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
14. ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH A 2" X 4" LUMBER (PRESSURE TREATED) EXTENDING 4 FEET ABOVE GRADE, WITH WATER SERVICES SECURED 12" MAXIMUM ABOVE THE GROUND.
15. ALL WATER VALVES, INCLUDING CONCRETE COLLAR (WITH DEBRIS CAP), SHALL BE ADJUSTED TO FINISHED GRADE AND THE VALVE BOX LID, PAINTED BLUE TO MAKE THEM PLAINLY VISIBLE.
16. UPON FINAL ACCEPTANCE OF NEW WATER SYSTEMS, WATER VALVES SHALL BE COMPLETELY OPENED BY PUBLIC UTILITIES PERSONNEL. AT NO TIME SHALL CONTRACTOR OPERATE ANY EXISTING VALVES WITHOUT CITY OF APOPKA INSPECTOR PRESENT.
17. ALL WATER MAINS SHALL BE NSF-APPROVED FOR POTABLE WATER USE.
18. PIPE USED IN WATER DISTRIBUTION SYSTEMS SHALL BE EITHER POLYVINYL CHLORIDE (PVC), OR DUCTILE IRON PIPE (DIP).

    (a) ALL PVC PIPE OF NOMINAL DIAMETER FOUR (4) INCHES THROUGH TWELVE (12) INCHES SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900, LATEST EDITION. THE PVC PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 150PSI AND SHALL HAVE A DIMENSION RATIO (DR) OF 18.
    (b) ALL DUCTILE IRON PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA A21.51/C151 AND HAVE A MINIMUM 350 PRESSURE CLASS RATING

19. PIPE USED IN GRAVITY SEWER CONSTRUCTION SHALL BE POLYVINYL CHLORIDE (PVC) OR DUCTILE IRON PIPE (DIP). WHERE REFERENCE IS MADE TO AN ASTM, ANSI, OR AASHTO DESIGNATION, IT SHALL BE THE LATEST REVISION.

    (a) PVC GRAVITY SEWER PIPE (4 INCH – 15 INCH), ASTM D3034, SDR 35 – UNIFORM MINIMUM "PIPE STIFFNESS" AT FIVE (5) PERCENT DEFLECTION SHALL BE 46PSI. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI-B-4. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL AND BE GREEN IN OVERALL COLOR. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE THIRTEEN (13) FEET.
    (b) DUCTILE IRON PIPE SHALL CONFORM TO ANSI/AWWA A21.51/C151, CLASS THICKNESS DESIGNED PER ANSI/AWWA A21.50/C150, WITH MECHANICAL OR PUSH ON JOINTS. AN INTERIOR PROTECTIVE LINING OF COAL TAR EPOXY SHALL BE PROVIDED WITH A MINIMUM DRY THICKNESS OF 30 MILS. DUCTILE IRON GRAVITY SEWERS, WHERE REQUIRED BY CITY OF APOPKA BASED ON GEOTECHNICAL INVESTIGATIONS, SHALL BE WRAPPED WITH POLYETHYLENE FILM, AWWA C105. SEE APPENDIX C. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE EIGHTEEN (18) FEET.

WATER SYSTEM TESTING REQUIREMENTS:

1. THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL WATER DISTRIBUTION SYSTEMS, AS SET FORTH IN THE FOLLOWING AND SHALL CONDUCT SAID TESTS IN THE PRESENCE OF REPRESENTATIVES FROM CITY OF APOPKA AND/OR OTHER AUTHORIZED AGENCIES. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE PRIOR TO TESTING OF THE WATER DISTRIBUTION SYSTEM.
2. ALL TESTING REQUIRED BY CITY OF APOPKA SHALL BE PAID FOR BY THE DEVELOPER / CONTRACTOR.
3. ALL PROPOSED WATER MAINS SHALL BE TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
4. PRIOR TO HYDROSTATIC TESTING A PRELIMINARY FLUSHING SHALL BE REQUIRED THROUGH FULL DIAMETER FLUSHING OR SWABBING. PRELIMINARY FLUSHING/SWABBING SHALL BE PERFORMED PER AWWA C651 STANDARD – "DISINFECTING WATER MAINS". ALL PIPING SHALL BE THOROUGHLY CLEANED AND FLUSHED PRIOR TO TESTING TO CLEAR THE LINES OF ALL FOREIGN MATTER. WHILE THE PIPING IS BEING FILLED WITH WATER, CARE SHALL BE EXERCISED TO PERMIT THE ESCAPE OF AIR FROM EXTREMITIES ALONG THE TEST SECTION.
5. HYDROSTATIC TESTING SHALL CONSIST OF PRESSURE TEST AND LEAKAGE TEST. PIPING AND APPURTENANCES TO BE TESTED SHALL BE WITHIN SECTIONS BETWEEN VALVES, NOT EXCEEDING 2,000 FEET, UNLESS ALTERNATE METHODS HAVE RECEIVED PRIOR APPROVAL FROM CITY OF APOPKA. TESTING SHALL NOT PROCEED UNTIL CONCRETE THRUST BLOCKS ARE IN PLACE AND CURED, OR OTHER RESTRAINING DEVICES INSTALLED.
6. HYDROSTATIC TESTING SHALL BE PERFORMED AT 150 POUNDS PER SQUARE INCH PRESSURE, UNLESS OTHERWISE APPROVED BY CITY OF APOPKA, FOR A PERIOD OF NOT LESS THAN TWO (2) HOURS.
7. THE ALLOWABLE RATE OF LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{SD*\sqrt{P}}{148,000}$$

WHERE:
L = ALLOWABLE LEAKAGE, IN GALLONS PER HOUR
S = LENGTH OF PIPE TESTED, IN FEET
D = NOMINAL DIAMETER OF PIPE, IN INCHES
P = AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST, IN POUNDS PER SQUARE INCH (GAUGE)

8. SHOULD THE TEST FAIL, NECESSARY REPAIRS SHALL BE ACCOMPLISHED BY THE CONTRACTOR AND THE TEST REPEATED UNTIL WITHIN PASSING LIMITS. THE CONTRACTOR SHALL FURNISH ALL THE NECESSARY LABOR, PUMPS, GAUGES AND ALL OTHER ITEMS NECESSARY TO CONDUCT THE REQUIRED WATER DISTRIBUTION SYSTEM TESTING AND PERFORM NECESSARY REPAIRS.

SEWER SYSTEM TESTING REQUIREMENTS:

1. THE CONTRACTOR SHALL PERFORM TESTING OF ALL SANITARY SEWAGE GRAVITY COLLECTION SYSTEMS, AS SET FORTH IN THE FOLLOWING AND SHALL CONDUCT SAID TESTS IN THE PRESENCE OF REPRESENTATIVES FROM CITY OF APOPKA AND/OR OTHER AUTHORIZED AGENCIES. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE PRIOR TO TESTING OF THE WASTEWATER DISTRIBUTION SYSTEM.
2. ALL TESTING REQUIRED BY CITY OF APOPKA SHALL BE PAID FOR BY THE DEVELOPER / CONTRACTOR.
3. GRAVITY MAINS SHALL BE INSPECTED WITH CCTV FOR ALIGNMENT, GRADE VARIATIONS, SEPARATED PIPES, LEAKS, DEFLECTION, CRACKED, BROKEN OR OTHERWISE DEFECTIVE PIPE TO ENSURE OVERALL PIPE INTEGRITY. THE APPROVED CCTV INSPECTION CONTRACTOR SHALL SUBMIT THE REPORT TO THE UTILITIES DEPARTMENT AS REQUIRED.
4. LEAKAGE TESTING FOR GRAVITY MAINS SHALL BE BY LOW-PRESSURE AIR TEST. LEAKAGE TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURE FOR "RECOMMENDED PRACTICE FOR LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" AS ESTABLISHED BY THE UNI-BELL PVC PIPE ASSOCIATION.
5. EACH GRAVITY MAIN LEAKAGE TEST SECTION SHALL NOT EXCEED 400 FEET IN LENGTH AND SHALL BE TESTED BETWEEN ADJACENT MANHOLES.

LOCATION OF PUBLIC WATER SYSYEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum Water Main
Vacuum Sanitary Sewer	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches preferred 6 inches minimum	Alternate 3 ft. minimum Water Main
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum Water Main
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

(1) Water main should cross above other pipe. When water main must be below other pipe, the minimum separation is 12 inches.
(2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
(3) 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.
(4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

Disclaimer – This document is provided for your convenience only. Please refer to F.A.C. Rule 62-555.314 for additional construction requirements.

FDEP UTILITY CONSTRUCTION NOTES:

1. NOTE TO THE UTILITY: PURSUANT TO 62-555.345; DO NOT PROVIDE WATER SERVICE TO THIS PROJECT (OTHER THAN FLUSHING/TESTING) UNTIL THE DEPARTMENT OF ENVIRONMENTAL PROTECTION HAS ISSUED A LETTER OF CLEARANCE OR THE UTILITY SHALL BE SUBJECT TO ENFORCEMENT ACTION.
2. THE PERMITTEE WILL PROMPTLY NOTIFY THE DEPARTMENT UPON SALE OR LEGAL TRANSFER OF THE PERMITTED FACILITY
3. ALL WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62-555.340, F.A.C.
4. ALL WATER MAIN PIPE, INCLUDING FITTINGS SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.

FDEP UTILITY SEPARATION REQUIREMENTS

(62-555.314, F.A.C. LOCATION OF PUBLIC WATER SYSTEM MAINS)

FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THEOUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE 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" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL 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 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.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.

(a) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(b) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR 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 AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

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UTILITY NOTES
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C4.0

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\UTILITY NOTES.dwg Modified: 3/18/2024 By: alopez

UTILITY NOTES:

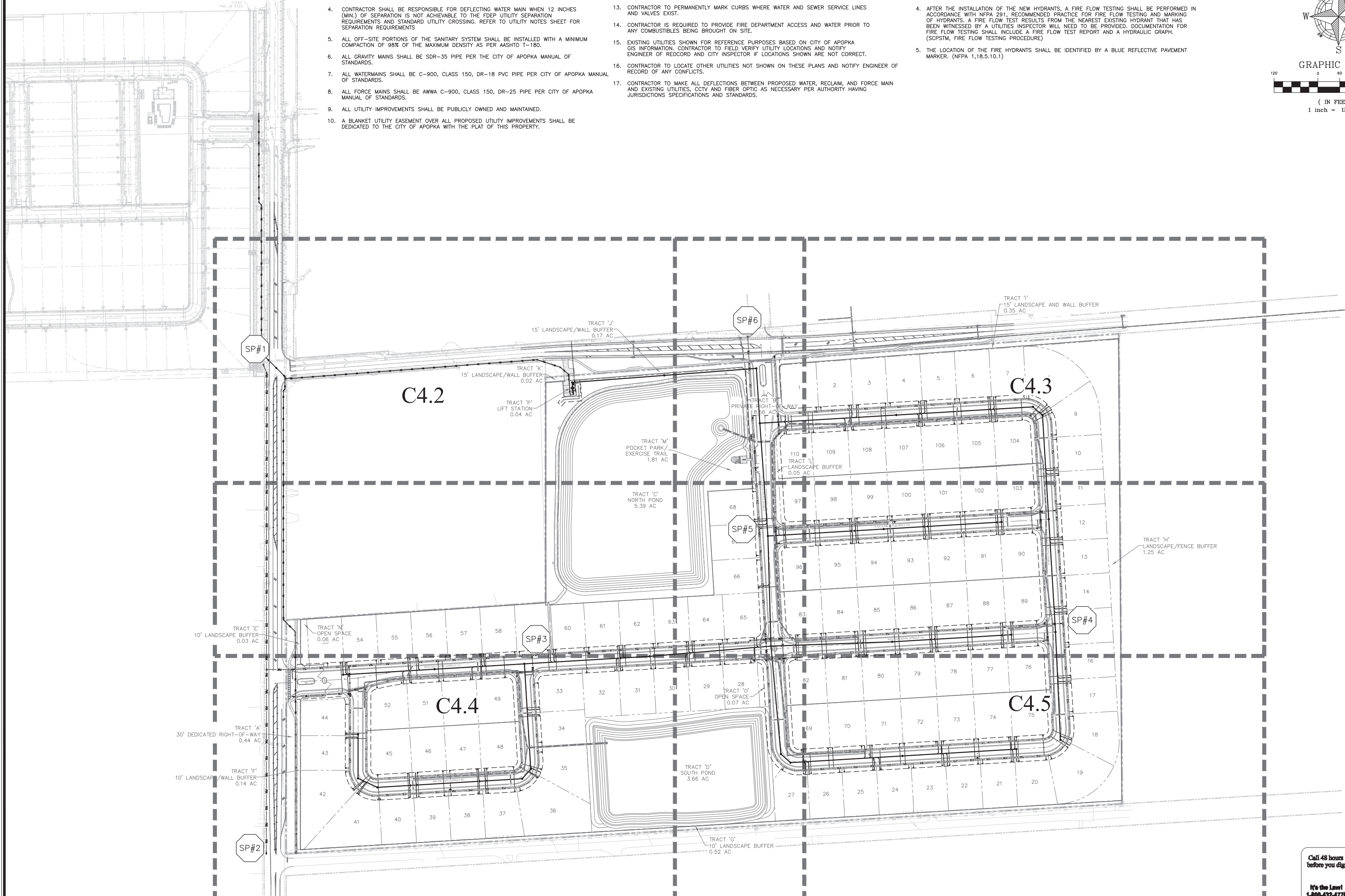
1. ALL WATER MAINS LEADING TO A PROPOSED FIRE HYDRANT SHALL BE A MINIMUM OF 8".
2. FIRE FLOW REQUIREMENTS FOR BUILDINGS SHALL BE IN ACCORDANCE WITH NFPA I, SECTION 18.4.
3. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW REPORT AND A HYDRAULIC GRAPH.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR DEFLECTING WATER MAIN WHEN 12 INCHES (MIN.) OF SEPARATION IS NOT ACHIEVABLE TO THE FDEP UTILITY SEPARATION REQUIREMENTS AND STANDARD UTILITY CROSSING. REFER TO UTILITY NOTES SHEET FOR SEPARATION REQUIREMENTS
5. ALL OFF–SITE PORTIONS OF THE SANITARY SYSTEM SHALL BE INSTALLED WITH A MINIMUM COMPACTION OF 98% OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
6. ALL GRAVITY MAINS SHALL BE SDR–35 PIPE PER THE CITY OF APOPKA MANUAL OF STANDARDS.
7. ALL WATERMAINS SHALL BE C–900, CLASS 150, DR–18 PVC PIPE PER CITY OF APOPKA MANUAL OF STANDARDS.
8. ALL FORCE MAINS SHALL BE AWWA C–900, CLASS 150, DR–25 PIPE PER CITY OF APOPKA MANUAL OF STANDARDS.
9. ALL UTILITY IMPROVEMENTS SHALL BE PUBLICLY OWNED AND MAINTAINED.
10. A BLANKET UTILITY EASEMENT OVER ALL PROPOSED UTILITY IMPROVEMENTS SHALL BE DEDICATED TO THE CITY OF APOPKA WITH THE PLAT OF THIS PROPERTY.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR DEFLECTING FORCE MAIN WHEN 12 INCHES (MIN.) OF SEPARATION IS NOT ACHIEVABLE TO THE FDEP UTILITY SEPARATION REQUIREMENTS AND STANDARD UTILITY CROSSING. REFER TO UTILITY NOTES SHEET FOR SEPARATION REQUIREMENTS.
12. ALL METERS ARE TO BE IN THE GREEN AREA BETWEEN THE DRIVEWAYS. NO METER BOXES ARE ALLOWED IN DRIVEWAYS OR SIDEWALKS.
13. CONTRACTOR TO PERMANENTLY MARK CURBS WHERE WATER AND SEWER SERVICE LINES AND VALVES EXIST.
14. CONTRACTOR IS REQUIRED TO PROVIDE FIRE DEPARTMENT ACCESS AND WATER PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ON SITE.
15. EXISTING UTILITIES SHOWN FOR REFERENCE PURPOSES BASED ON CITY OF APOPKA GIS INFORMATION. CONTRACTOR TO FIELD VERIFY UTILITY LOCATIONS AND NOTIFY ENGINEER OF REOCORD AND CITY INSPECTOR IF LOCATIONS SHOWN ARE NOT CORRECT.
16. CONTRACTOR TO LOCATE OTHER UTILITIES NOT SHOWN ON THESE PLANS AND NOTIFY ENGINEER OF RECORD OF ANY CONFLICTS.
17. CONTRACTOR TO MAKE ALL DEFLECTIONS BETWEEN PROPOSED WATER, RECLAIM, AND FORCE MAIN AND EXISTING UTILITIES, CCTV AND FIBER OPTIC AS NECESSARY PER AUTHORITY HAVING JURISDICTIONS SPECIFICATIONS AND STANDARDS.

FIRE HYDRANT NOTES:

1. FIRE HYDRANT LOCATION AND DISTRIBUTION SHALL FOLLOW NFPA 1.
2. A 36 INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE REQUIRED OR APPROVED. (NFPA 1, 18.5.7.1)
3. A CLEAR SPACE OF NOT LESS THAN 60 INCH SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING A DIAMETER GREATER THAN 2.5 INCH (NFPA 1, 18.5.7.2)
4. AFTER THE INSTALLATION OF THE NEW HYDRANTS, A FIRE FLOW TESTING SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 291, RECOMMENDED PRACTICE FOR FIRE FLOW TESTING AND MARKING OF HYDRANTS. A FIRE FLOW TEST RESULTS FROM THE NEAREST EXISTING HYDRANT THAT HAS BEEN WITNESSED BY A UTILITIES INSPECTOR WILL NEED TO BE PROVIDED. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW TEST REPORT AND A HYDRAULIC GRAPH. (SCPSTM, FIRE FLOW TESTING PROCEDURE)
5. THE LOCATION OF THE FIRE HYDRANTS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1,18.5.10.1)

GRAPHIC SCALE

(IN FEET)
1 inch = 120 ft.



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UTILITY PLAN – OVERALL
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

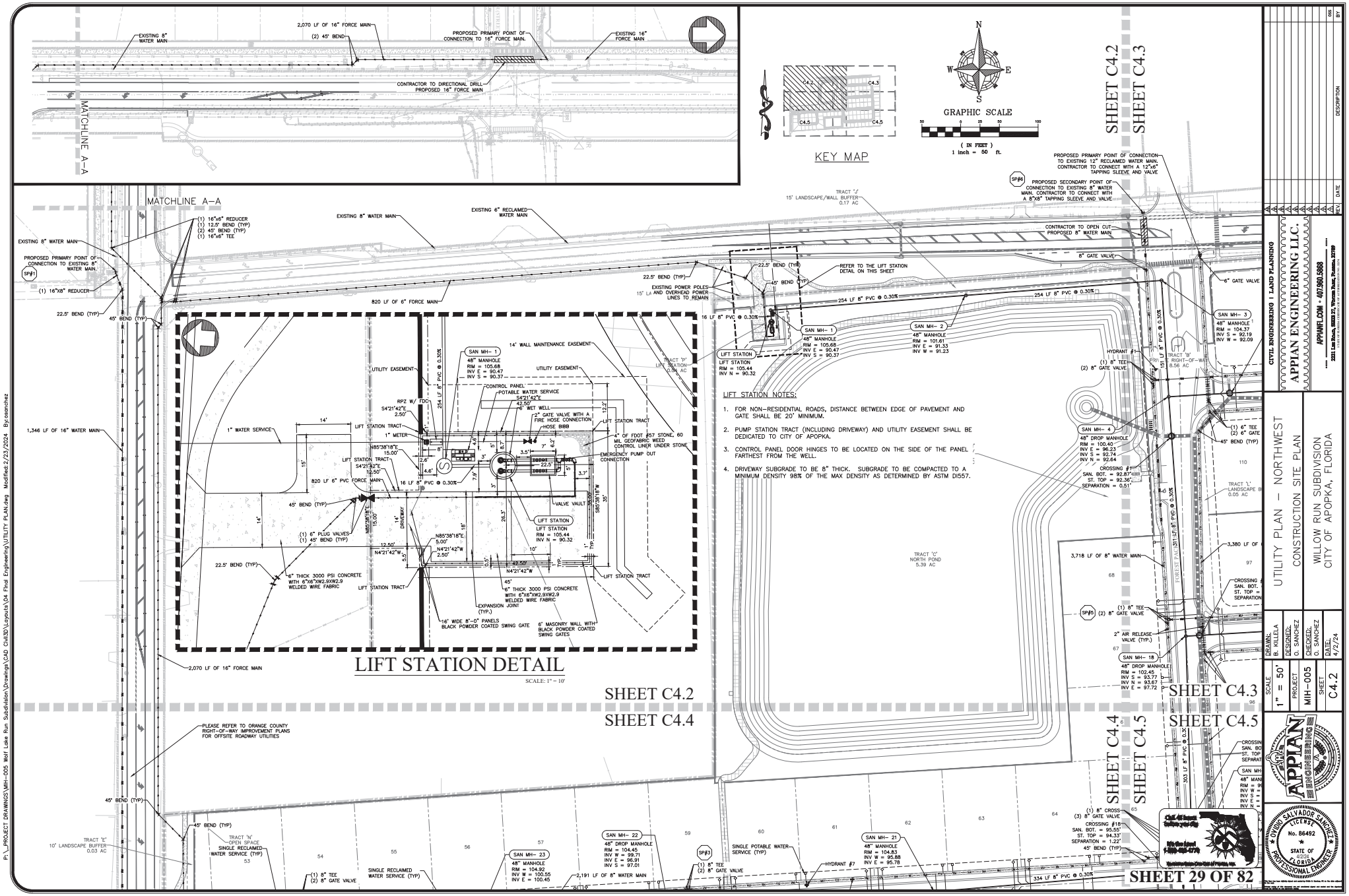
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: 1" = 120'
PROJECT: MIH–005
SHEET: C4.1

REV | DATE | DESCRIPTION | BY

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24

P:_PROJECT DRAWINGS\MIH–005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\UTILITY PLAN.dwg Modified: 2/23/2024 By: osanchez



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LICENSE NUMBER EC-0 FOR ENGINEERING SERVICES

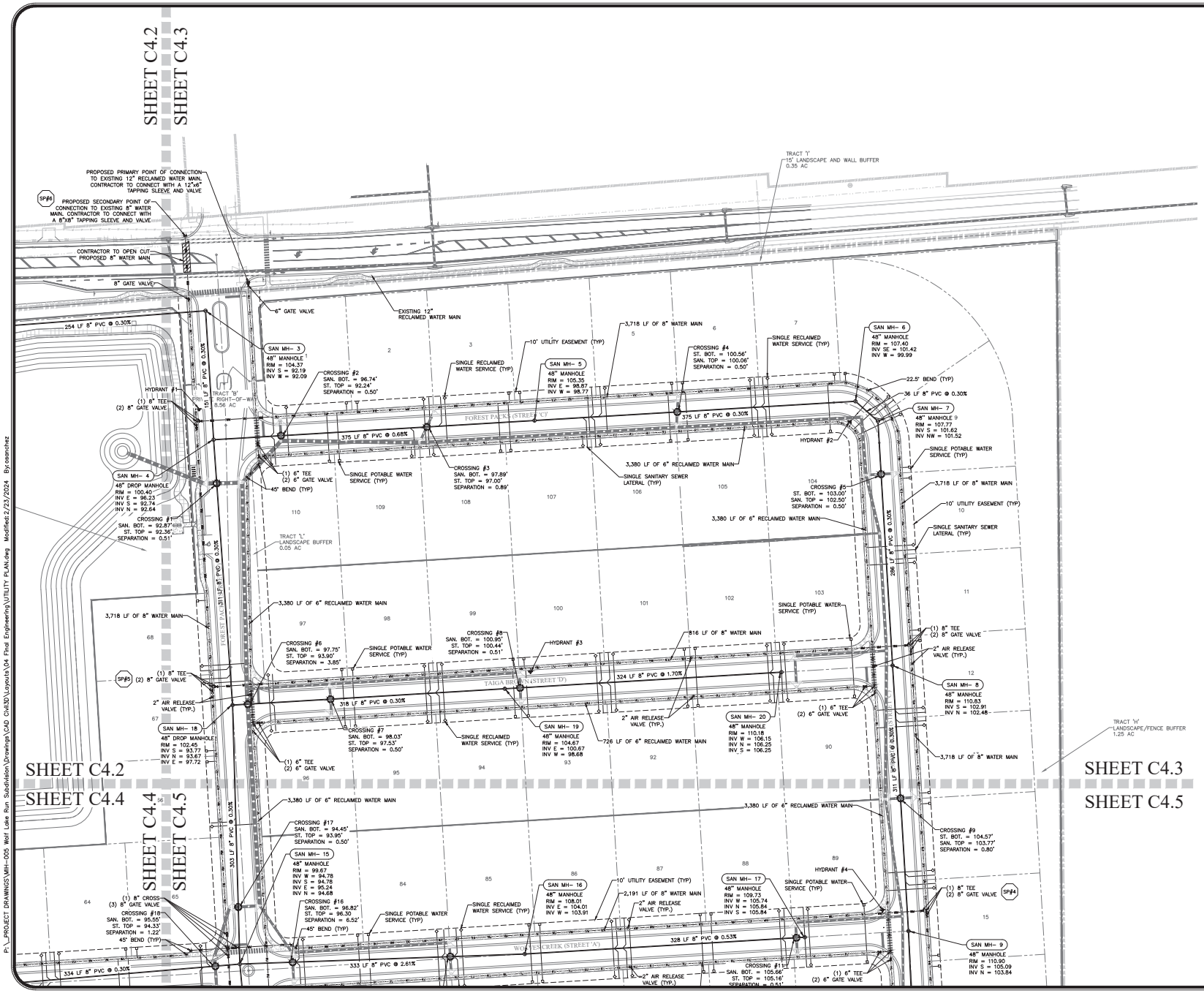
NO.	DATE	DESCRIPTION	BY

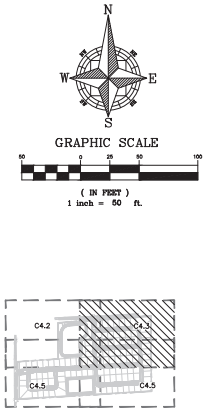
UTILITY PLAN – NORTHWEST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	1" = 50'
PROJECT	MIH–005
SHEET	C4.2

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH–005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\UTILITY PLAN.dwg Modified:2/23/2024 By:osanchez





KEY MAP

SHEET 30 OF 82

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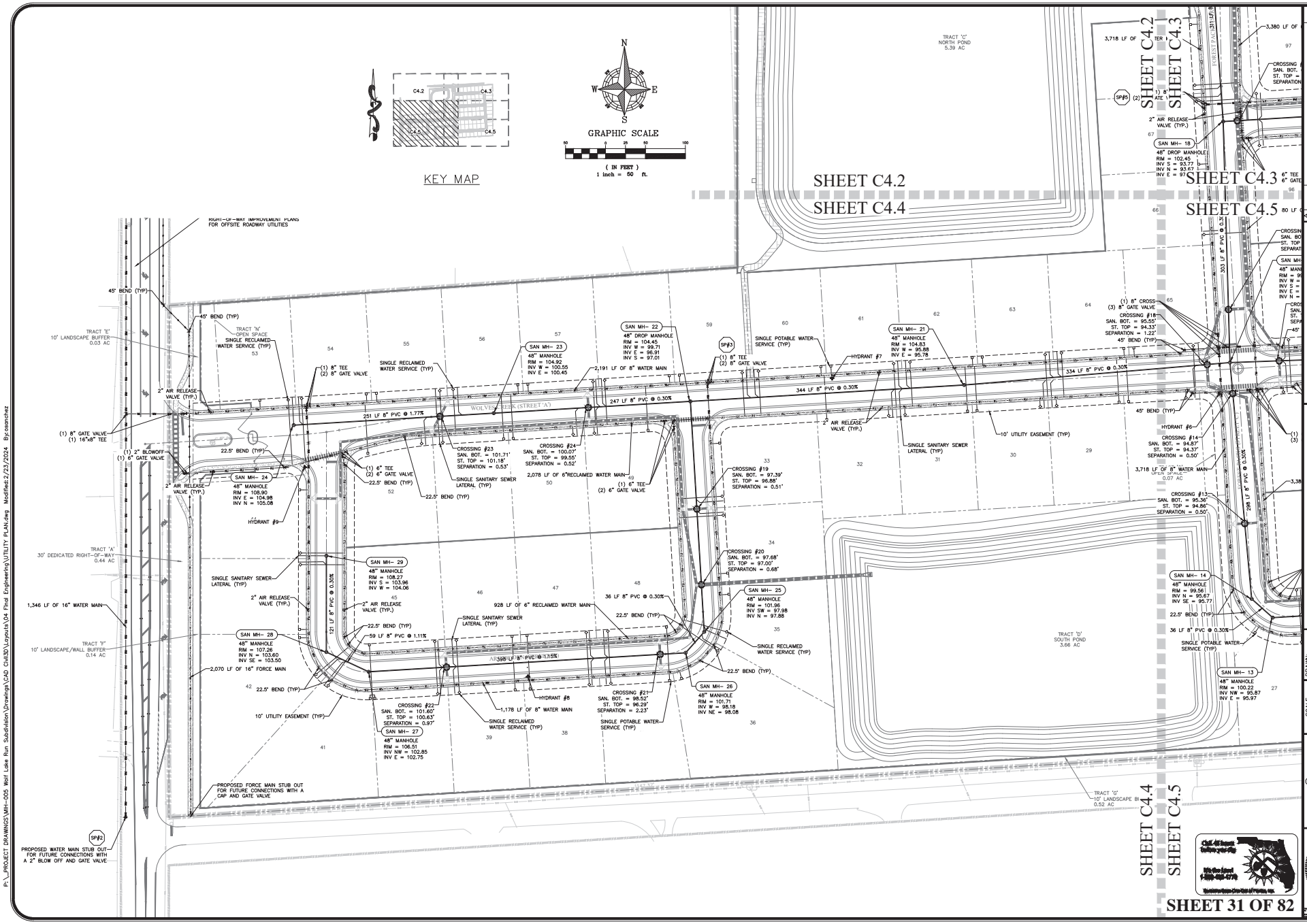
NO.	DATE	DESCRIPTION	BY

UTILITY PLAN – NORTHEAST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C4.3

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER


KEY MAP
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
SHEET C4.2
SHEET C4.3
SHEET C4.4
SHEET C4.5
TRACT 'C' NORTH POND 5.39 AC
TRACT 'D' SOUTH POND 3.66 AC
TRACT 'E' 10' LANDSCAPE BUFFER 0.03 AC
TRACT 'F' 10' LANDSCAPE/WALL BUFFER 0.14 AC
TRACT 'A' 30' DEDICATED RIGHT-OF-WAY 0.44 AC
WOLVES CREEK (STREET 'A')
RIGHT-OF-WAY IMPROVEMENT PLANS FOR OFFSITE ROADWAY UTILITIES
SAN MH- 22
48" DROP MANHOLE
RIM = 104.45
INV W = 99.71
INV E = 96.91
INV S = 97.01
SAN MH- 23
48" MANHOLE
RIM = 104.92
INV W = 100.55
INV E = 100.45
SAN MH- 21
48" MANHOLE
RIM = 104.83
INV W = 95.88
INV E = 95.78
SAN MH- 24
48" MANHOLE
RIM = 108.90
INV E = 104.98
INV N = 105.08
SAN MH- 29
48" MANHOLE
RIM = 108.27
INV S = 103.96
INV W = 104.06
SAN MH- 28
48" MANHOLE
RIM = 107.06
INV N = 103.60
INV SE = 103.50
SAN MH- 27
48" MANHOLE
RIM = 106.51
INV NW = 102.85
INV E = 102.75
SAN MH- 25
48" MANHOLE
RIM = 101.96
INV SW = 97.98
INV N = 97.88
SAN MH- 26
48" MANHOLE
RIM = 101.71
INV W = 98.18
INV NE = 98.08
SAN MH- 14
48" MANHOLE
RIM = 99.56
INV N = 95.67
INV SE = 95.77
SAN MH- 13
48" MANHOLE
RIM = 100.22
INV NW = 95.87
INV E = 95.97
SAN MH- 18
48" DROP MANHOLE
RIM = 102.45
INV S = 93.77
INV N = 93.67
INV E = 97
SP#2
PROPOSED WATER MAIN STUB OUT FOR FUTURE CONNECTIONS WITH A 2" BLOW OFF AND GATE VALVE
PROPOSED FORCE MAIN STUB OUT FOR FUTURE CONNECTIONS WITH A CAP AND GATE VALVE
1,346 LF OF 16" WATER MAIN
2,070 LF OF 16" FORCE MAIN
251 LF 8" PVC @ 1.77%
247 LF 8" PVC @ 0.30%
344 LF 8" PVC @ 0.30%
334 LF 8" PVC @ 0.30%
132 LF 8" PVC @ 0.30%
398 LF 8" PVC @ 1.15%
59 LF 8" PVC @ 1.11%
36 LF 8" PVC @ 0.30%
298 LF 8" PVC @ 0.30%
303 LF 8" PVC @ 0.3
2,191 LF OF 8" WATER MAIN
2,078 LF OF 6"RECLAIMED WATER MAIN
928 LF OF 6" RECLAIMED WATER MAIN
1,178 LF OF 8" WATER MAIN
3,718 LF OF 8" WATER MAIN
CROSSING #13 SAN. BOT. = 95.36' ST. TOP = 94.86' SEPARATION = 0.50'
CROSSING #14 SAN. BOT. = 94.87' ST. TOP = 94.37' SEPARATION = 0.50'
CROSSING #15 SAN. BOT. = 95.55' ST. TOP = 94.33' SEPARATION = 1.22'
CROSSING #19 SAN. BOT. = 97.39' ST. TOP = 96.88' SEPARATION = 0.51'
CROSSING #20 SAN. BOT. = 97.68' ST. TOP = 97.00' SEPARATION = 0.68'
CROSSING #21 SAN. BOT. = 98.52' ST. TOP = 96.29' SEPARATION = 2.23'
CROSSING #22 SAN. BOT. = 101.60' ST. TOP = 100.63' SEPARATION = 0.97'
CROSSING #23 SAN. BOT. = 101.71' ST. TOP = 101.18' SEPARATION = 0.53'
CROSSING #24 SAN. BOT. = 100.07' ST. TOP = 99.55' SEPARATION = 0.52'
HYDRANT #6
HYDRANT #7
HYDRANT #8
HYDRANT #9
45° BEND (TYP)
22.5° BEND (TYP)
2" AIR RELEASE VALVE (TYP.)
(1) 8" GATE VALVE
(1) 16"x8" TEE
(1) 2" BLOWOFF
(1) 6" GATE VALVE
(1) 8" TEE
(2) 8" GATE VALVE
(1) 6" TEE
(2) 6" GATE VALVE
(1) 8" CROSS
(3) 8" GATE VALVE
SINGLE RECLAIMED WATER SERVICE (TYP)
SINGLE POTABLE WATER SERVICE (TYP)
SINGLE SANITARY SEWER LATERAL (TYP)
10' UTILITY EASEMENT (TYP)
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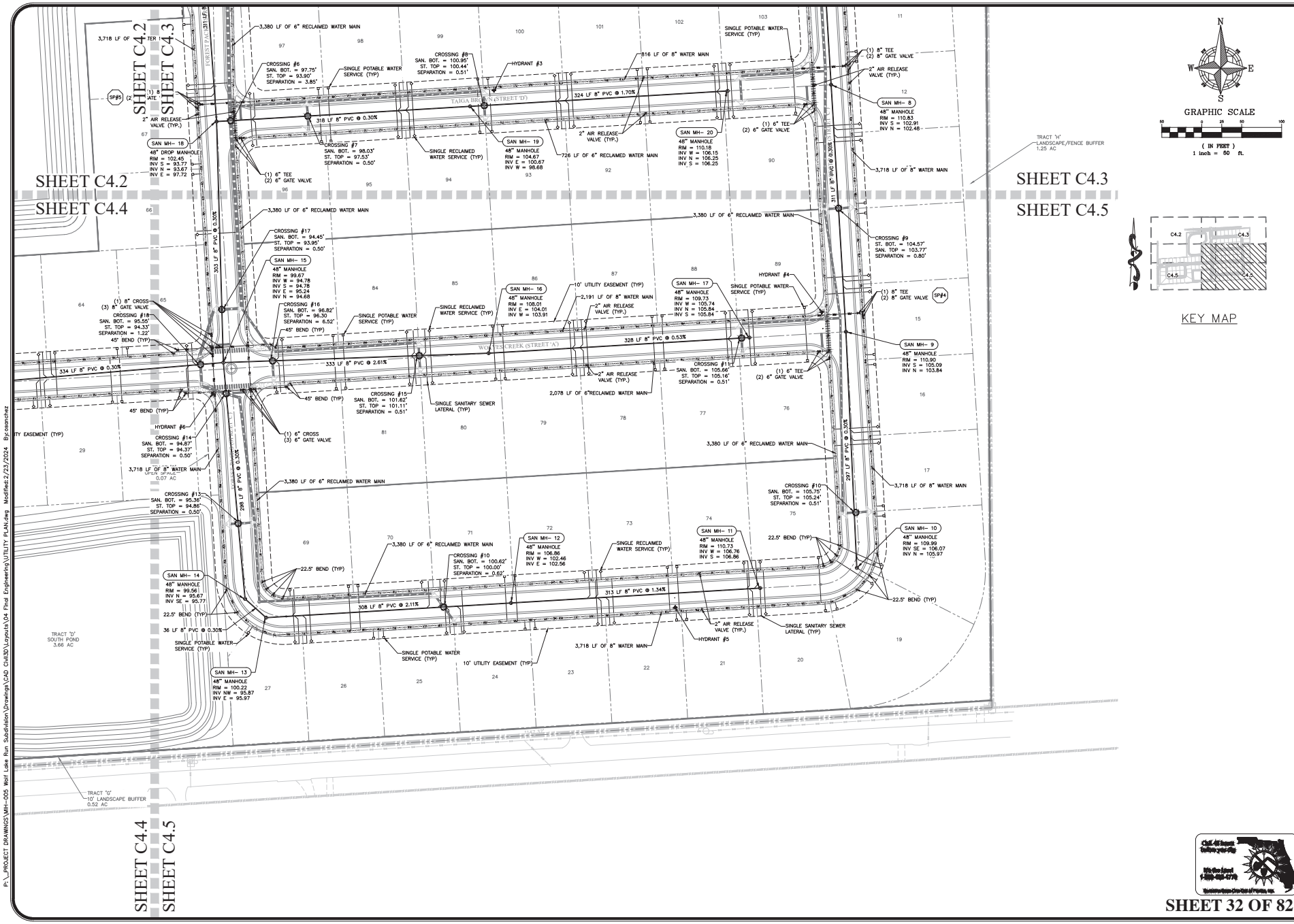
2251 Lee Road, 32233 FL, Winter Park, Florida, 32789
UTILITY PLAN – SOUTHWEST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C4.4
OSVALDO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER
SHEET 31 OF 82
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\UTILITY PLAN.dwg Modified:2/23/2024 By:osanchez


SHEET C4.2
SHEET C4.3
SHEET C4.4
SHEET C4.5
3,380 LF OF 6" RECLAIMED WATER MAIN
CROSSING #6
SAN. BOT. = 97.75'
ST. TOP = 93.90'
SEPARATION = 3.85'
SINGLE POTABLE WATER SERVICE (TYP)
CROSSING #8
SAN. BOT. = 100.95'
ST. TOP = 100.44'
SEPARATION = 0.51'
HYDRANT #3
816 LF OF 8" WATER MAIN
SINGLE POTABLE WATER SERVICE (TYP)
(1) 8" TEE
(2) 8" GATE VALVE
2" AIR RELEASE VALVE (TYP.)
TAIGA BROWN (STREET 'D')
324 LF 8" PVC @ 1.70%
318 LF 8" PVC @ 0.30%
SAN MH- 18
48" DROP MANHOLE
RIM = 102.45
INV S = 93.77
INV N = 93.67
INV E = 97.72
(1) 6" TEE
(2) 6" GATE VALVE
CROSSING #7
SAN. BOT. = 98.03'
ST. TOP = 97.53'
SEPARATION = 0.50'
SINGLE RECLAIMED WATER SERVICE (TYP)
SAN MH- 19
48" MANHOLE
RIM = 104.67
INV E = 100.67
INV W = 98.68
726 LF OF 6" RECLAIMED WATER MAIN
2" AIR RELEASE VALVE (TYP.)
SAN MH- 20
48" MANHOLE
RIM = 110.18
INV W = 106.15
INV N = 106.25
INV S = 106.25
(1) 6" TEE
(2) 6" GATE VALVE
SAN MH- 8
48" MANHOLE
RIM = 110.83
INV S = 102.91
INV N = 102.48
3,718 LF OF 8" WATER MAIN
TRACT 'H'
LANDSCAPE/FENCE BUFFER
1.25 AC
CROSSING #9
ST. BOT. = 104.57'
SAN. TOP = 103.77'
SEPARATION = 0.80'
SAN MH- 15
48" MANHOLE
RIM = 99.67
INV W = 94.78
INV S = 94.78
INV E = 95.24
INV N = 94.68
CROSSING #17
SAN. BOT. = 94.45'
ST. TOP = 93.95'
SEPARATION = 0.50'
(1) 8" CROSS
(3) 8" GATE VALVE
CROSSING #18
SAN. BOT. = 95.55'
ST. TOP = 94.33'
SEPARATION = 1.22'
45° BEND (TYP)
CROSSING #16
SAN. BOT. = 96.82'
ST. TOP = 96.30'
SEPARATION = 6.52'
SINGLE POTABLE WATER SERVICE (TYP)
SINGLE RECLAIMED WATER SERVICE (TYP)
SAN MH- 16
48" MANHOLE
RIM = 108.01
INV E = 104.01
INV W = 103.91
10' UTILITY EASEMENT (TYP)
2,191 LF OF 8" WATER MAIN
2" AIR RELEASE VALVE (TYP.)
SAN MH- 17
48" MANHOLE
RIM = 109.73
INV W = 105.74
INV N = 105.84
INV S = 105.84
HYDRANT #4
SINGLE POTABLE WATER SERVICE (TYP)
(1) 8" TEE
(2) 8" GATE VALVE
SAN MH- 9
48" MANHOLE
RIM = 110.90
INV S = 105.09
INV N = 103.84
WOLF'S CREEK (STREET 'A')
328 LF 8" PVC @ 0.53%
333 LF 8" PVC @ 2.61%
334 LF 8" PVC @ 0.30%
CROSSING #11
SAN. BOT. = 105.66'
ST. TOP = 105.16'
SEPARATION = 0.51'
(1) 6" TEE
(2) 6" GATE VALVE
2" AIR RELEASE VALVE (TYP.)
2,078 LF OF 6" RECLAIMED WATER MAIN
CROSSING #15
SAN. BOT. = 101.62'
ST. TOP = 101.11'
SEPARATION = 0.51'
SINGLE SANITARY SEWER LATERAL (TYP)
45° BEND (TYP)
(1) 6" CROSS
(3) 6" GATE VALVE
HYDRANT #6
CROSSING #14
SAN. BOT. = 94.67'
ST. TOP = 94.33'
SEPARATION = 0.50'
3,718 LF OF 8" WATER MAIN
0.07 AC
CROSSING #13
SAN. BOT. = 95.36'
ST. TOP = 94.86'
SEPARATION = 0.50'
298 LF 8" PVC @ 0.30%
297 LF 8" PVC @ 0.30%
CROSSING #10
SAN. BOT. = 105.75'
ST. TOP = 105.24'
SEPARATION = 0.51'
SAN MH- 10
48" MANHOLE
RIM = 109.99
INV SE = 106.07
INV N = 105.97
22.5° BEND (TYP)
SAN MH- 11
48" MANHOLE
RIM = 110.73
INV W = 106.76
INV S = 106.86
SINGLE RECLAIMED WATER SERVICE (TYP)
SAN MH- 12
48" MANHOLE
RIM = 106.86
INV W = 102.46
INV E = 102.56
CROSSING #12
SAN. BOT. = 100.62'
ST. TOP = 100.00'
SEPARATION = 0.62'
313 LF 8" PVC @ 1.34%
308 LF 8" PVC @ 2.11%
SAN MH- 14
48" MANHOLE
RIM = 99.56'
INV N = 95.67
INV SE = 95.77'
36 LF 8" PVC @ 0.30%
TRACT 'D'
SOUTH POND
3.66 AC
SAN MH- 13
48" MANHOLE
RIM = 100.22
INV NW = 95.87
INV E = 95.97
10' UTILITY EASEMENT (TYP)
2" AIR RELEASE VALVE (TYP.)
HYDRANT #5
SINGLE SANITARY SEWER LATERAL (TYP)
TRACT 'G'
10' LANDSCAPE BUFFER
0.52 AC
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
KEY MAP
CIVIL ENGINEERING | LAND PLANNING
APPIAN ENGINEERING LLC.
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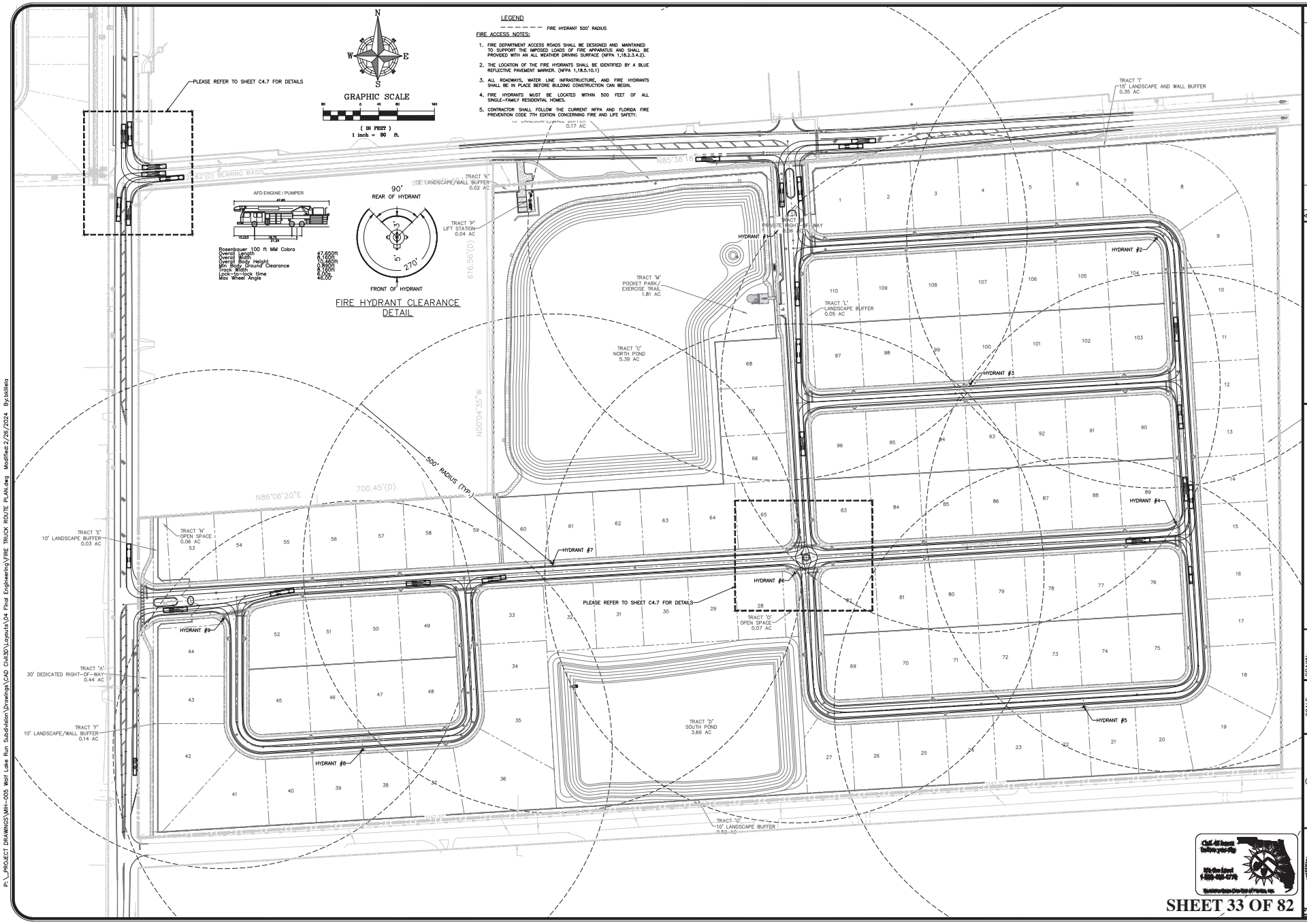
2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789
UTILITY PLAN – SOUTHEAST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C4.5
OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SHEET 32 OF 82



SHEET 33 OF 82

NO.	DATE	DESCRIPTION	BY

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2231 Lake Rowena, 32818 FL, Winter Park, Florida, 32789

FIRE TRUCK ROUTE PLAN

CONSTRUCTION SITE PLAN

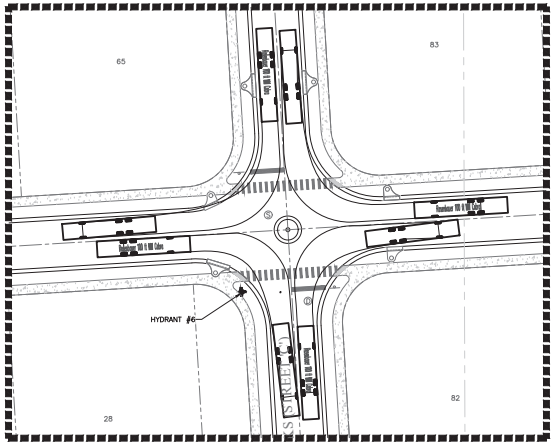
WILLOW RUN SUBDIVISION

CITY OF APOPKA, FLORIDA

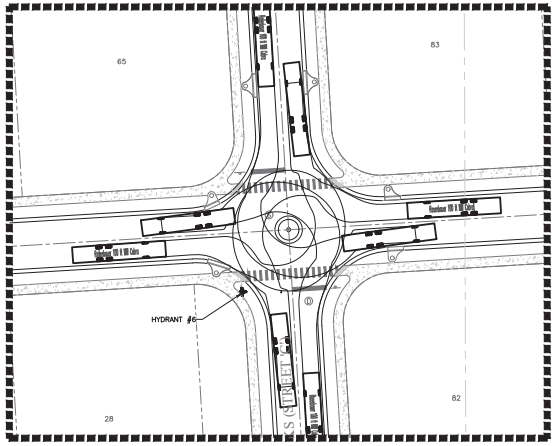
DRAWN: B. KILLELA	DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ	DATE: 4/2/24
SCALE 1" = 80'	PROJECT MIH-005
SHEET C4.6	

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

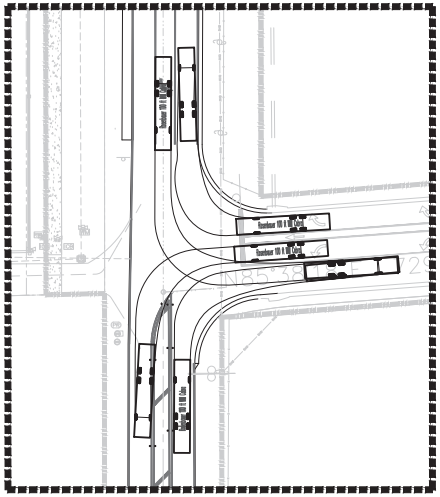
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\FIRE TRUCK ROUTE PLAN.dwg Modified: 2/26/2024 By: bkillela



FIRE TRUCK TRAFFIC ISLAND DETAIL #1.A – RIGHT TURNS



FIRE TRUCK TRAFFIC ISLAND DETAIL #1.B – LEFT TURNS



FIRE TRUCK TRAFFIC PLYMOUTH SORRENTO ROAD & APPY LANE DETAIL

SHEET 34 OF 82

CIVIL ENGINEERING | LAND PLANNING

APPIAN ENGINEERING LLC.

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2231 Lake Rosa, 32833 FL, Winter Park, Florida, 32789

REV.	DATE	DESCRIPTION	BY

FIRE TRUCK ROUTE DETAIL
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	N.T.S.
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
PROJECT	MIH-005
CHECKED:	O. SANCHEZ
SHEET	C4.7
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\FIRE TRUCK ROUTE PLAN.dwg Modified: 2/26/2024 By:billiela

SOILS LEGEND:

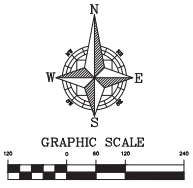
- SOILS LINE
- (4) CANDLER FINE SAND, 0 TO 5% SLOPES (HYD: A)
- (5) CANDLER FINE SAND, 5 TO 12% SLOPES (HYD: A)

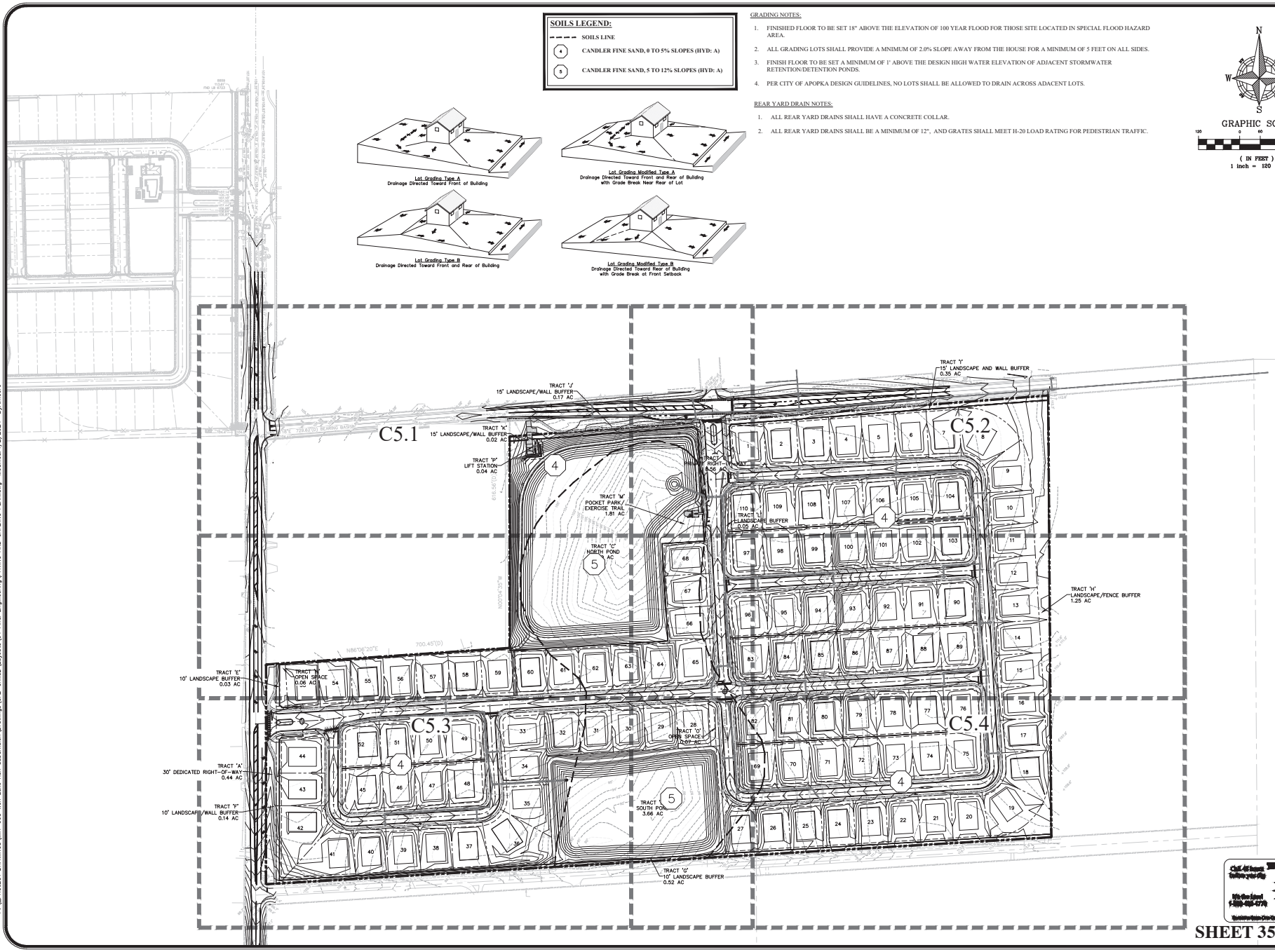
GRADING NOTES:

1. FINISHED FLOOR TO BE SET 18" ABOVE THE ELEVATION OF 100 YEAR FLOOD FOR THOSE SITE LOCATED IN SPECIAL FLOOD HAZARD AREA.
2. ALL GRADING LOTS SHALL PROVIDE A MNIMUM OF 2.0% SLOPE AWAY FROM THE HOUSE FOR A MINIMUM OF 5 FEET ON ALL SIDES.
3. FINISH FLOOR TO BE SET A MINIMUM OF 1' ABOVE THE DESIGN HIGH WATER ELEVATION OF ADJACENT STORMWATER RETENTION/DETENTION PONDS.
4. PER CITY OF APOPKA DESIGN GUIDELINES, NO LOTS SHALL BE ALLOWED TO DRAIN ACROSS ADACENT LOTS.

REAR YARD DRAIN NOTES:

1. ALL REAR YARD DRAINS SHALL HAVE A CONCRETE COLLAR.
2. ALL REAR YARD DRAINS SHALL BE A MINIMUM OF 12", AND GRATES SHALL MEET H-20 LOAD RATING FOR PEDESTRIAN TRAFFIC.





SHEET 35 OF 82

CIVIL ENGINEERING | LAND PLANNING
APPIAN ENGINEERING LLC.
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2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789
LICENSE # 29 CERTIFICATE OF AUTHORIZATION

REV	DATE	DESCRIPTION	BY

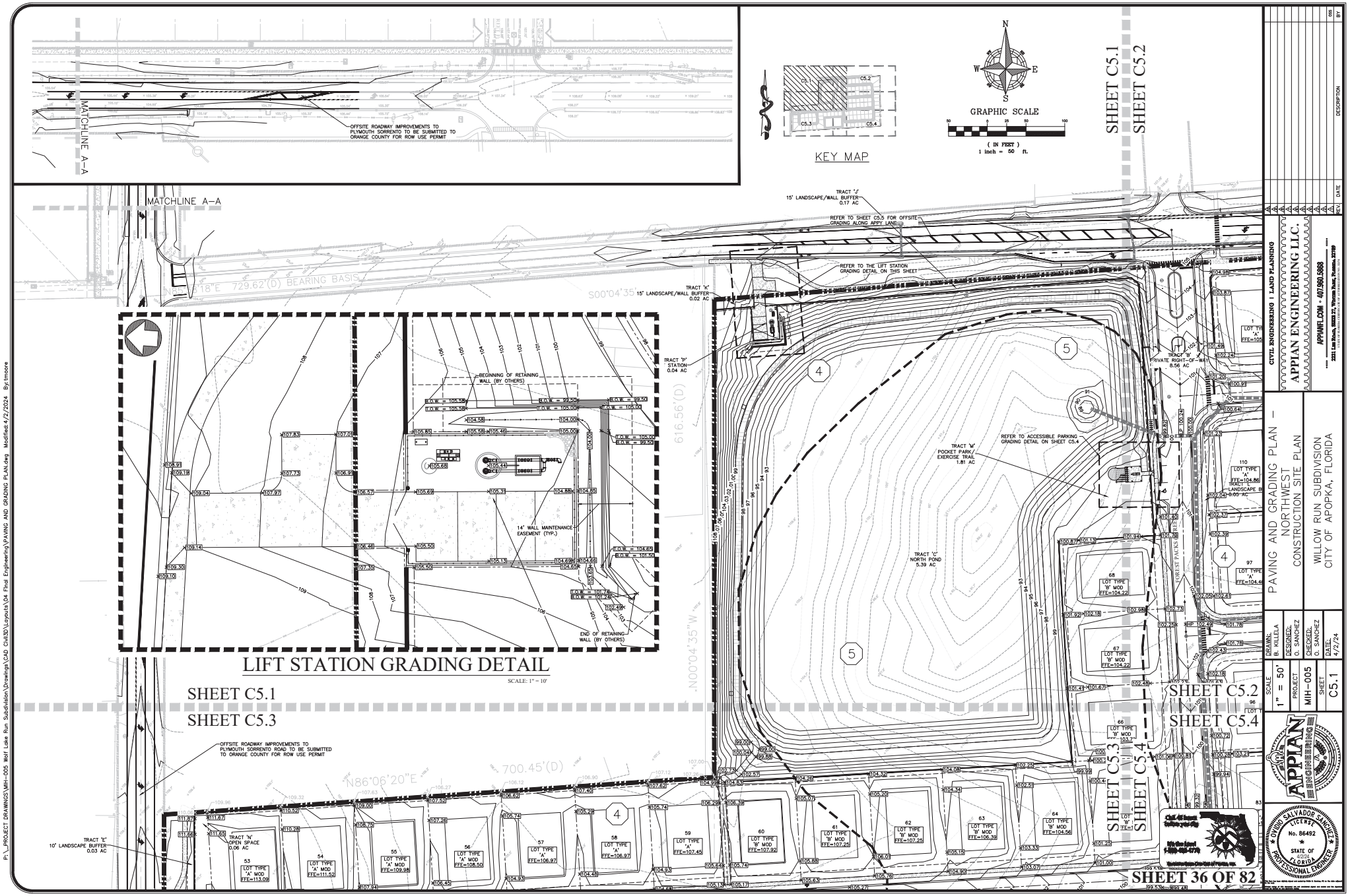
PAVING AND GRADING PLAN – OVERALL
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	1" = 120'
PROJECT	MIH-005
SHEET	C5.0

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PAVING AND GRADING PLAN.dwg Modified:4/2/2024 By:tmoore


MATCHLINE A–A
OFFSITE ROADWAY IMPROVEMENTS TO PLYMOUTH SORRENTO TO BE SUBMITTED TO ORANGE COUNTY FOR ROW USE PERMIT
KEY MAP
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
SHEET C5.1
SHEET C5.2
TRACT 'J' 15' LANDSCAPE/WALL BUFFER 0.17 AC
REFER TO SHEET C5.5 FOR OFFSITE GRADING ALONG APPY LANE
REFER TO THE LIFT STATION GRADING DETAIL ON THIS SHEET
TRACT 'K' 15' LANDSCAPE/WALL BUFFER 0.02 AC
TRACT 'P' STATION 0.04 AC
TRACT 'B' PRIVATE RIGHT-OF-WAY 8.56 AC
REFER TO ACCESSIBLE PARKING GRADING DETAIL ON SHEET C5.4
TRACT 'M' POCKET PARK/ EXERCISE TRAIL 1.81 AC
TRACT 'C' NORTH POND 5.39 AC
BEGINNING OF RETAINING WALL (BY OTHERS)
14' WALL MAINTENANCE EASEMENT (TYP.)
END OF RETAINING WALL (BY OTHERS)
LIFT STATION GRADING DETAIL
SCALE: 1" = 10'
SHEET C5.1
SHEET C5.3
SHEET C5.2
SHEET C5.4
TRACT 'E' 10' LANDSCAPE BUFFER 0.03 AC
TRACT 'N' OPEN SPACE 0.06 AC
SHEET 36 OF 82
CIVIL ENGINEERING | LAND PLANNING
APPIAN ENGINEERING LLC.
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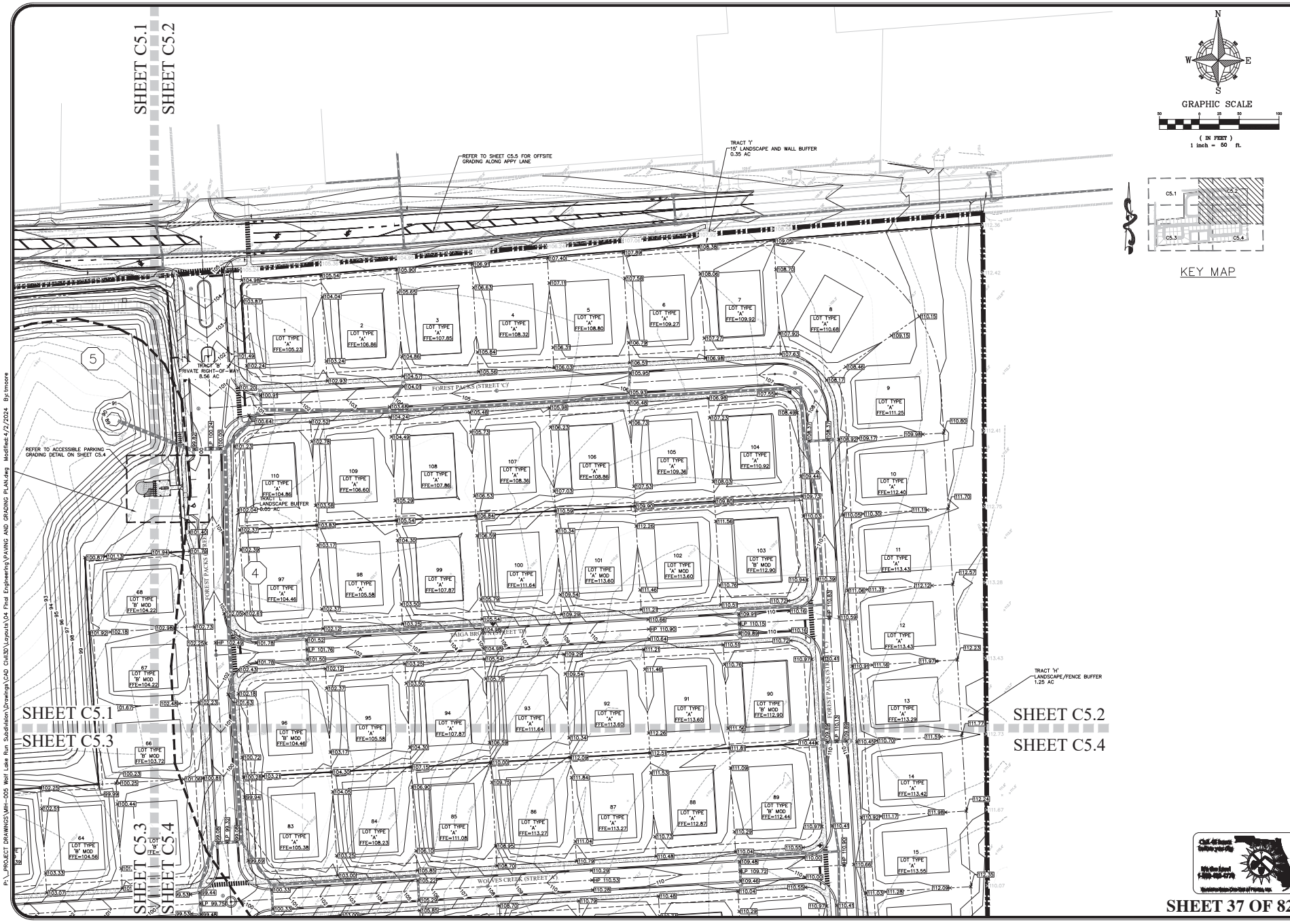
2231 Lee Road, 32233-2?, Winter Park, Florida, 32789
PAVING AND GRADING PLAN – NORTHWEST CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C5.1
No. 86492
STATE OF FLORIDA
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PAVING AND GRADING PLAN.dwg Modified:4/2/2024 By:tmoore



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APPIAN ENGINEERING LLC.

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2231 Lake Rhona, BOX 275, Winter Park, Florida, 32789

DATE	DESCRIPTION	BY

PAVING AND GRADING PLAN – NORTHEAST CONSTRUCTION SITE PLAN

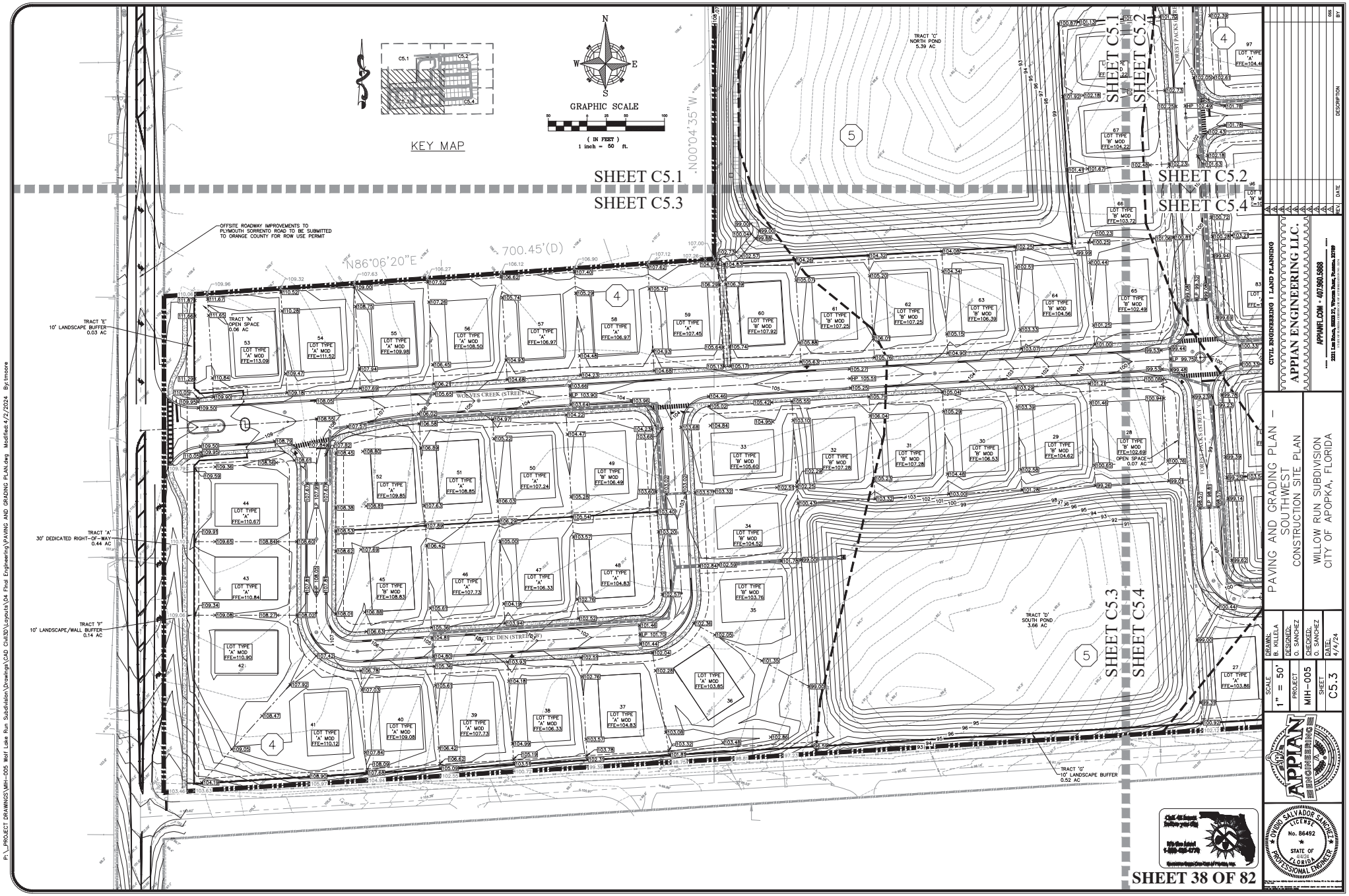
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

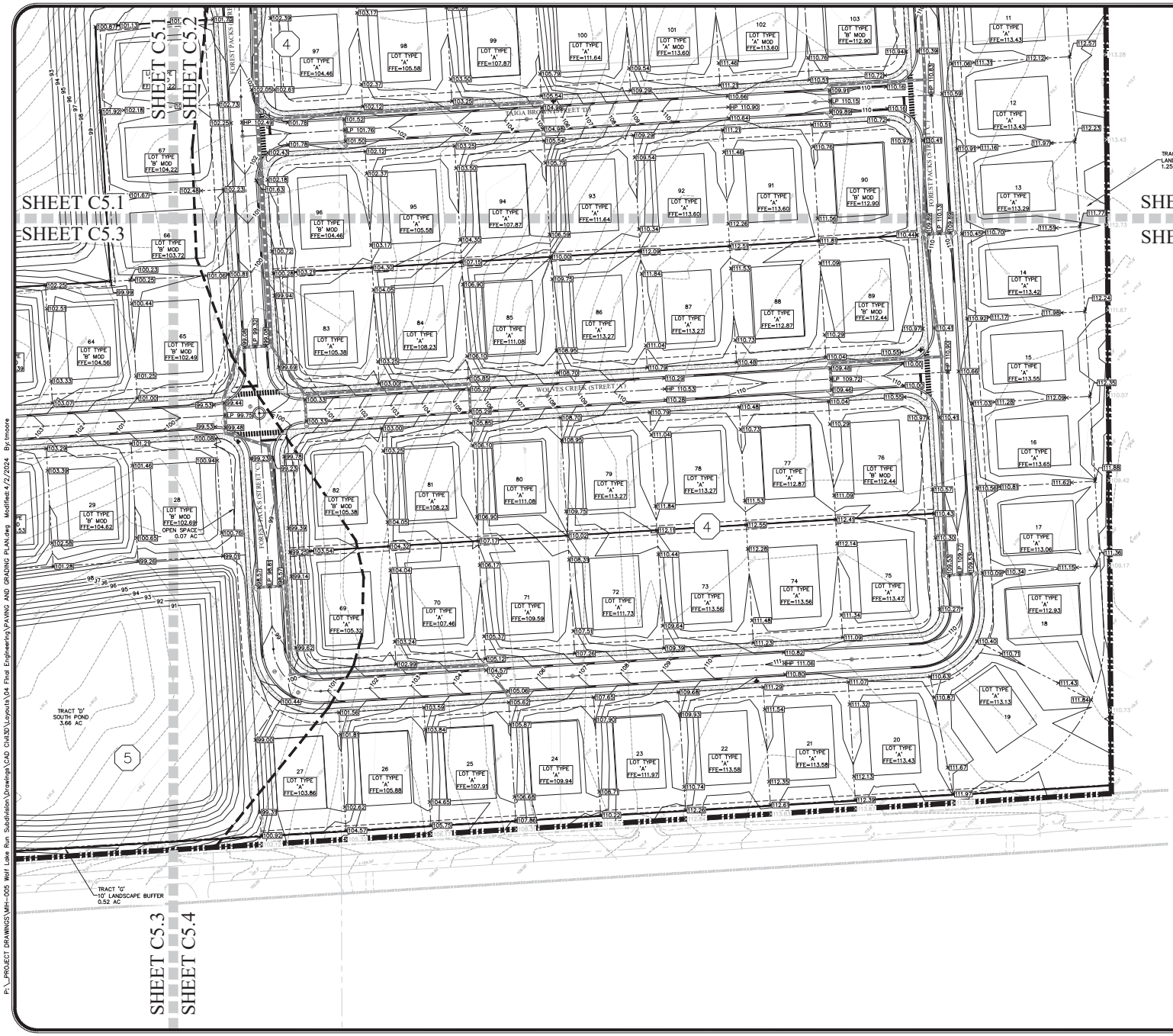
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C5.2

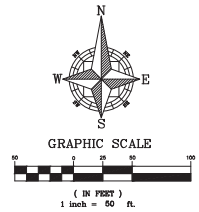
LICENSE No. 86492 STATE OF FLORIDA PROFESSIONAL ENGINEER

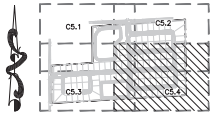
SHEET 37 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PAVING AND GRADING PLAN.dwg Modified:4/2/2024 By:tmoore

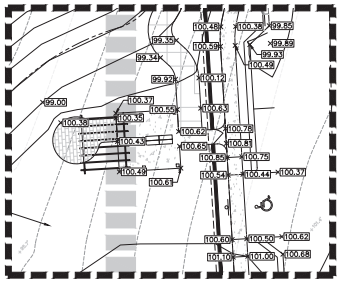

KEY MAP
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
SHEET C5.1
SHEET C5.3
SHEET C5.2
SHEET C5.4
OFFSITE ROADWAY IMPROVEMENTS TO PLYMOUTH SORRENTO ROAD TO BE SUBMITTED TO ORANGE COUNTY FOR ROW USE PERMIT
TRACT 'E' 10' LANDSCAPE BUFFER 0.03 AC
TRACT 'A' 30' DEDICATED RIGHT-OF-WAY 0.44 AC
TRACT 'F' 10' LANDSCAPE/WALL BUFFER 0.14 AC
TRACT 'N' OPEN SPACE 0.06 AC
TRACT 'C' NORTH POND 5.39 AC
TRACT 'D' SOUTH POND 3.66 AC
TRACT 'G' 10' LANDSCAPE BUFFER 0.52 AC
WOLVES CREEK (STREET 'A')
ARCTIC DEN (STREET 'B')
N00°04'35"W
N86°06'20"E
700.45'(D)
CIVIL ENGINEERING | LAND PLANNING
APPLIAN ENGINEERING LLC.
APPLIANFL.COM • 407.960.5868
2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789
PAVING AND GRADING PLAN – SOUTHWEST CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/4/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C5.3
OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SHEET 38 OF 82







KEY MAP



ACCESSIBLE PARKING GRADING DETAIL

SCALE: 1" = 20'

SHEET 39 OF 82

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APPIAN ENGINEERING LLC.
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2231 Lake Rhona, 32828 FL, Winter Park, Florida, 32789
LICENSED BUSINESS FOR ENGINEERING SERVICES

NO.	DATE	DESCRIPTION	BY

PAVING AND GRADING PLAN – SOUTHEAST CONSTRUCTION SITE PLAN

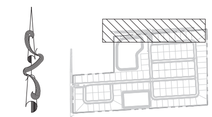
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

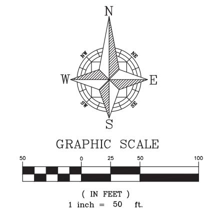
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C5.4

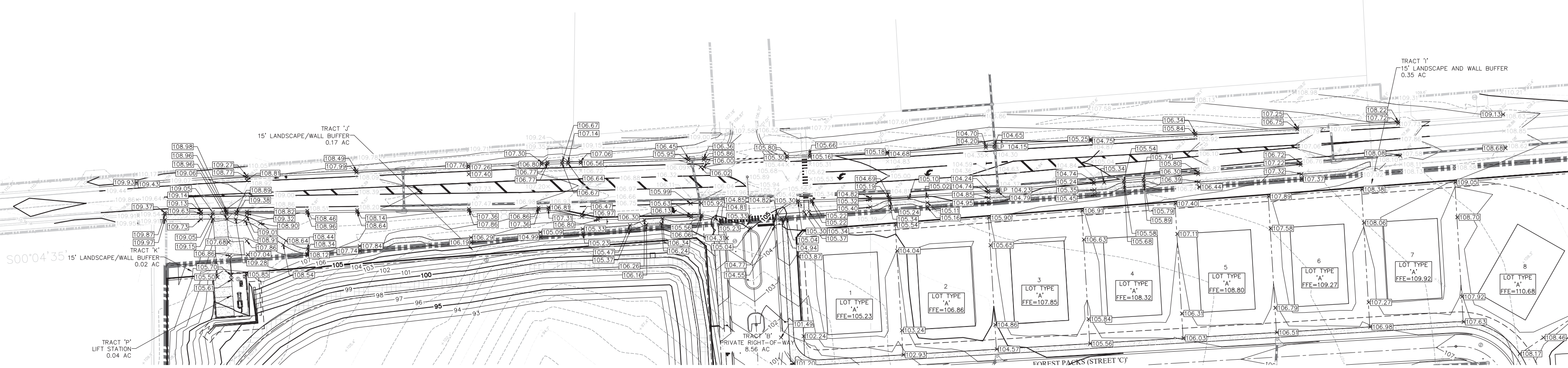
OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PAVING AND GRADING PLAN.dwg Modified:4/2/2024 By:tmoore

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\OFFSITE PAVING AND GRADING PLAN.dwg Modified:2/15/2024 By:osanchez







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Sunshine State One Call of Florida, Inc.

SHEET 40 OF 82

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2221 Lee Road, Suite 27, Winter Park, Florida 32789

OFFSITE PAVING AND GRADING PLAN – APPY LANE

CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

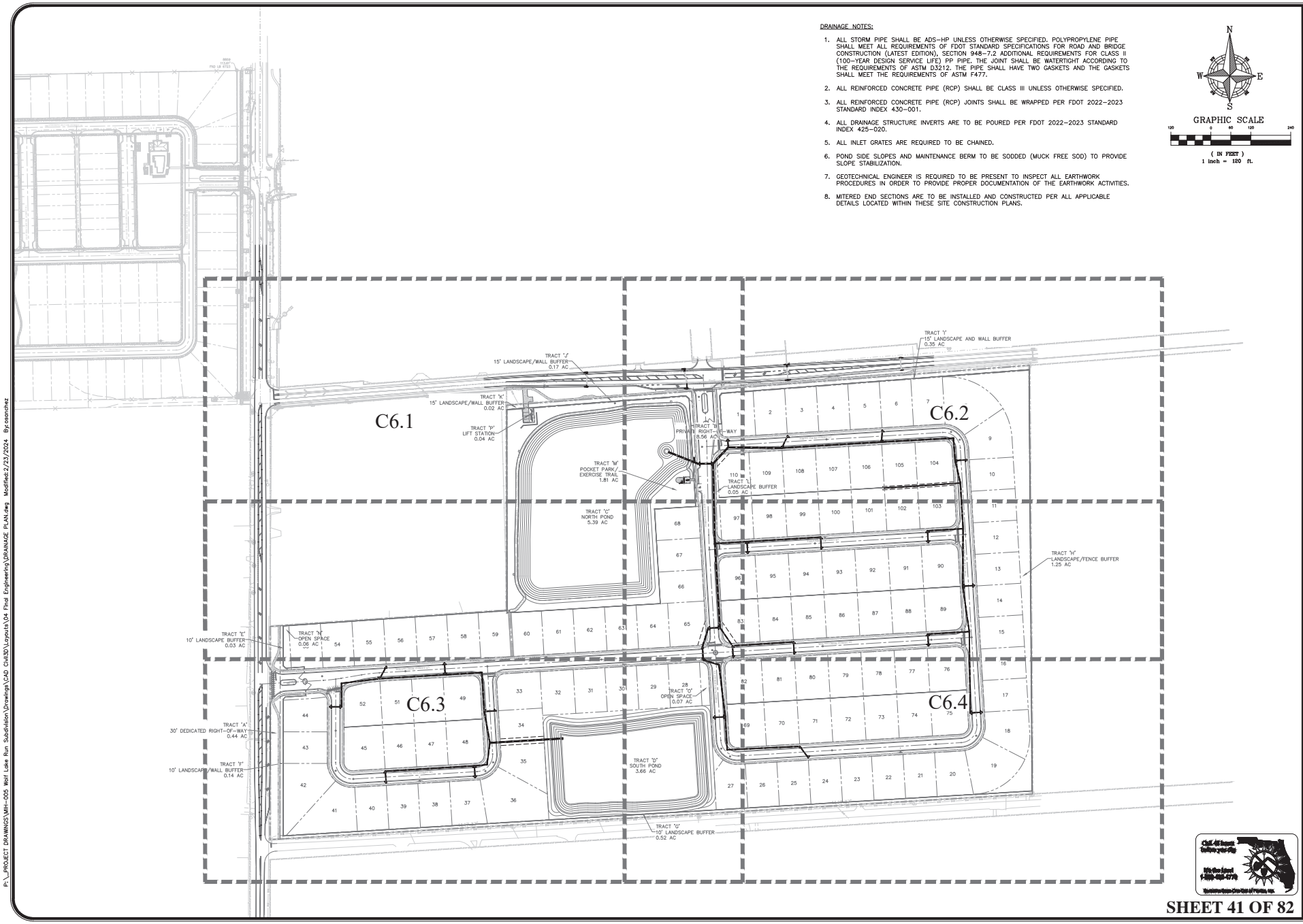
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE 1" = 50'
PROJECT MIH-005
SHEET C5.5

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24

DRAINAGE NOTES:

1. ALL STORM PIPE SHALL BE ADS-HP UNLESS OTHERWISE SPECIFIED. POLYPROPYLENE PIPE SHALL MEET ALL REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), SECTION 948-7.2 ADDITIONAL REQUIREMENTS FOR CLASS II (100-YEAR DESIGN SERVICE LIFE) PP PIPE. THE JOINT SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. THE PIPE SHALL HAVE TWO GASKETS AND THE GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.
2. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED.
3. ALL REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL BE WRAPPED PER FDOT 2022-2023 STANDARD INDEX 430-001.
4. ALL DRAINAGE STRUCTURE INVERTS ARE TO BE POURED PER FDOT 2022-2023 STANDARD INDEX 425-020.
5. ALL INLET GRATES ARE REQUIRED TO BE CHAINED.
6. POND SIDE SLOPES AND MAINTENANCE BERM TO BE SODDED (MUCK FREE SOD) TO PROVIDE SLOPE STABILIZATION.
7. GEOTECHNICAL ENGINEER IS REQUIRED TO BE PRESENT TO INSPECT ALL EARTHWORK PROCEDURES IN ORDER TO PROVIDE PROPER DOCUMENTATION OF THE EARTHWORK ACTIVITIES.
8. MITERED END SECTIONS ARE TO BE INSTALLED AND CONSTRUCTED PER ALL APPLICABLE DETAILS LOCATED WITHIN THESE SITE CONSTRUCTION PLANS.



SHEET 41 OF 82

CIVIL ENGINEERING | LAND PLANNING

APPIAN ENGINEERING LLC.

APPIANFL.COM • 407.960.5868

2231 Lake Rosa, 32828 FL, Winter Park, Florida, 32789

LICENSED BUSINESS FOR CIVIL ENGINEERING

REV	DATE	DESCRIPTION	BY

DRAINAGE PLAN – OVERALL
CONSTRUCTION SITE PLAN

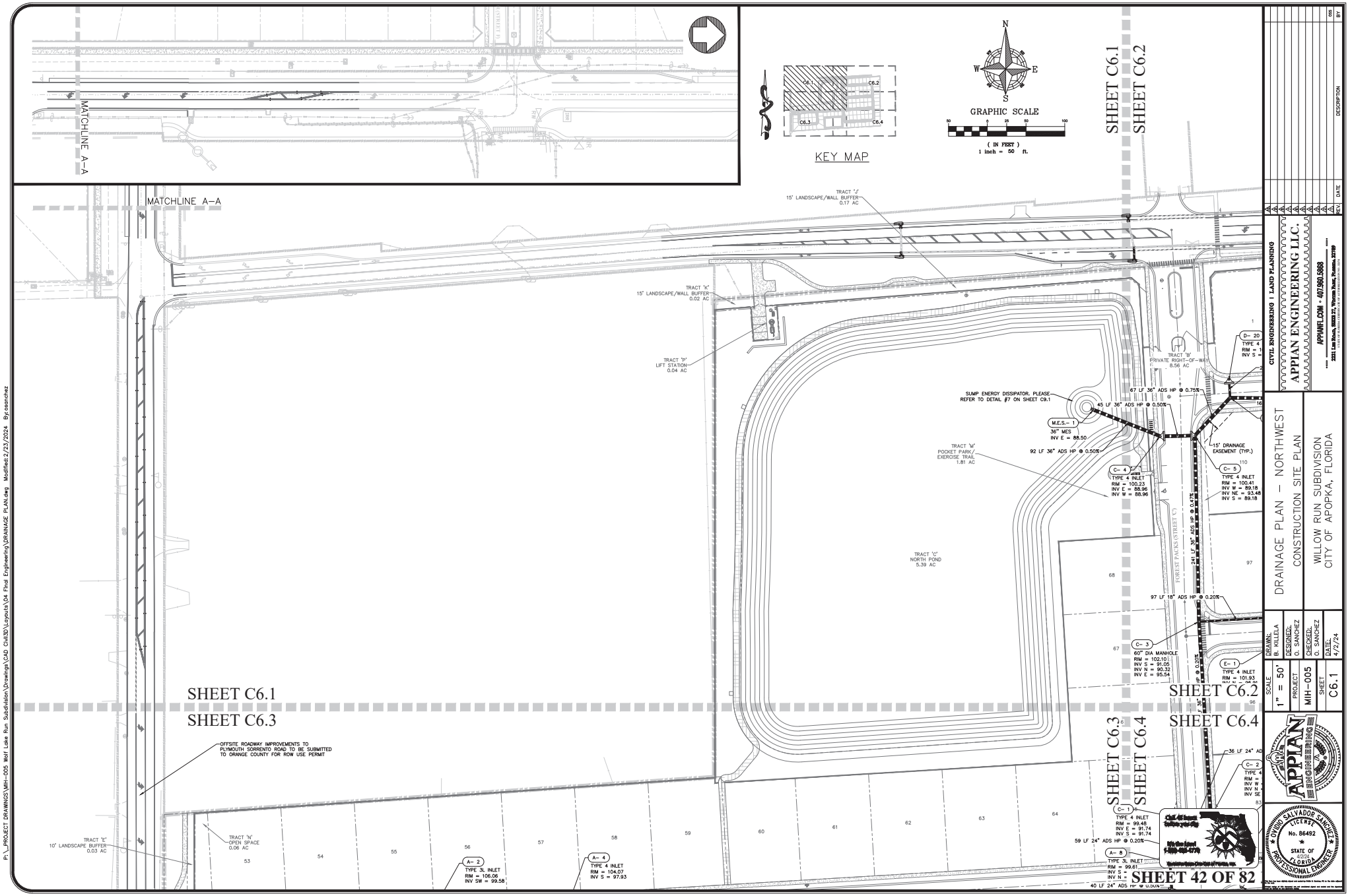
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

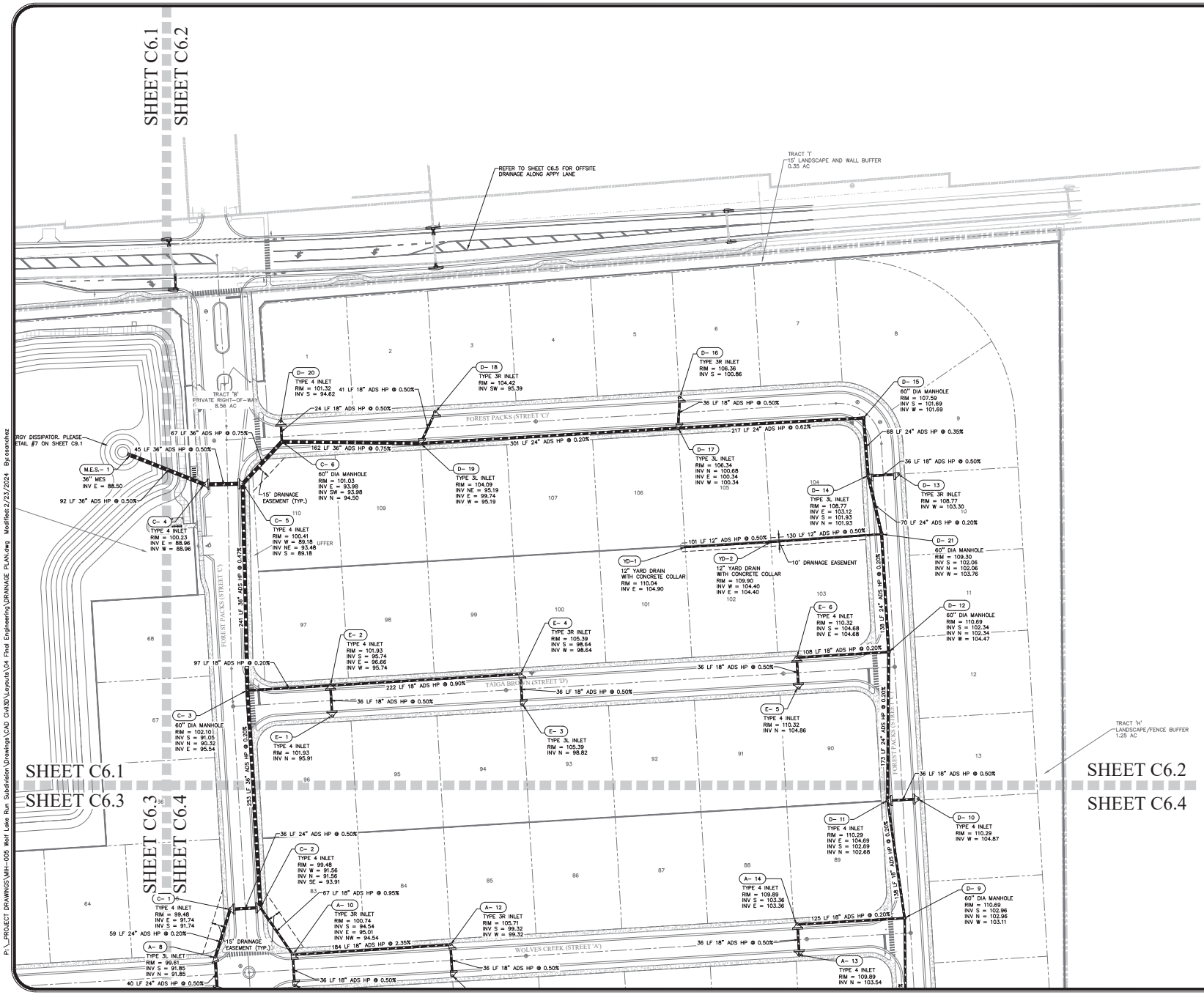
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: 1" = 120'
PROJECT: MIH-005
SHEET: C6.0

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\DRAINAGE PLAN.dwg Modified: 2/23/2024 By: osanchez


MATCHLINE A–A
KEY MAP
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
SHEET C6.1
SHEET C6.2
SHEET C6.3
SHEET C6.4
TRACT 'J' 15' LANDSCAPE/WALL BUFFER 0.17 AC
TRACT 'K' 15' LANDSCAPE/WALL BUFFER 0.02 AC
TRACT 'P' LIFT STATION 0.04 AC
TRACT 'B' PRIVATE RIGHT-OF-WAY 8.56 AC
TRACT 'M' POCKET PARK/ EXERCISE TRAIL 1.81 AC
TRACT 'C' NORTH POND 5.39 AC
SUMP ENERGY DISSIPATOR. PLEASE REFER TO DETAIL #7 ON SHEET C9.1
67 LF 36" ADS HP @ 0.75%
45 LF 36" ADS HP @ 0.50%
92 LF 36" ADS HP @ 0.50%
M.E.S.- 1 36" MES INV E = 88.50
C- 4 TYPE 4 INLET RIM = 100.23 INV E = 88.96 INV W = 88.96
15' DRAINAGE EASEMENT (TYP.)
C- 5 TYPE 4 INLET RIM = 100.41 INV W = 89.18 INV NE = 93.48 INV S = 89.18
D- 20 TYPE 4
FOREST PACKS (STREET C)
241 LF 36" ADS HP @ 0.47%
97 LF 18" ADS HP @ 0.20%
C- 3 60" DIA MANHOLE RIM = 102.10 INV S = 91.05 INV N = 90.32 INV E = 95.54
E- 1 TYPE 4 INLET RIM = 101.93
36 LF 24" AD
C- 2 TYPE 4 RIM = INV W INV N INV SE
C- 1 TYPE 4 INLET RIM = 99.48 INV E = 91.74 INV S = 91.74
59 LF 24" ADS HP @ 0.20%
A- 8 TYPE 3L INLET RIM = 99.61 INV S = INV N =
40 LF 24" ADS HP @ 0.20%
OFFSITE ROADWAY IMPROVEMENTS TO PLYMOUTH SORRENTO ROAD TO BE SUBMITTED TO ORANGE COUNTY FOR ROW USE PERMIT
TRACT 'E' 10' LANDSCAPE BUFFER 0.03 AC
TRACT 'N' OPEN SPACE 0.06 AC
A- 2 TYPE 3L INLET RIM = 106.06 INV SW = 99.58
A- 4 TYPE 4 INLET RIM = 104.07 INV S = 97.93
SHEET 42 OF 82
CIVIL ENGINEERING | LAND PLANNING
APPIAN ENGINEERING LLC.
APPIANFL.COM • 407.960.5868
2231 Lake Rhona, BOX 275, Winter Park, Florida, 32789
DATE
DESCRIPTION
BY
DRAINAGE PLAN – NORTHWEST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C6.1
OSVALDO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\DRAINAGE PLAN.dwg Modified:2/23/2024 By:osanchez



SHEET 43 OF 82

CIVIL ENGINEERING | LAND PLANNING
APPIAN ENGINEERING LLC.
APPIANFL.COM • 407.960.5868
2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789

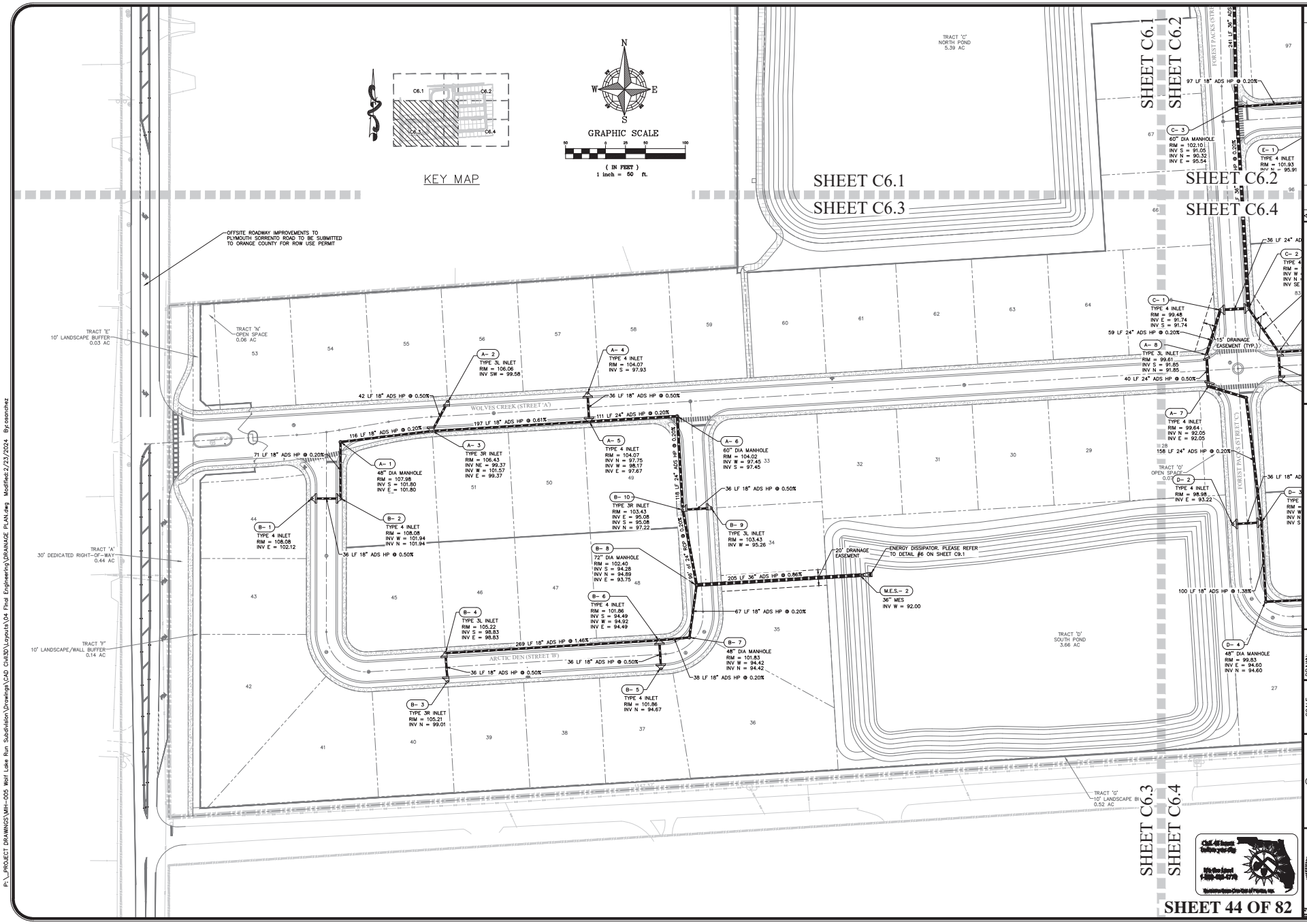
NO.	DATE	DESCRIPTION	BY

DRAINAGE PLAN – NORTHEAST
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE 1" = 50'
PROJECT MIH-005
SHEET C6.2

OMAR SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\DRAINAGE PLAN.dwg Modified:2/23/2024 By:osanchez



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DATE	DESCRIPTION	BY

DRAINAGE PLAN – SOUTHWEST

CONSTRUCTION SITE PLAN

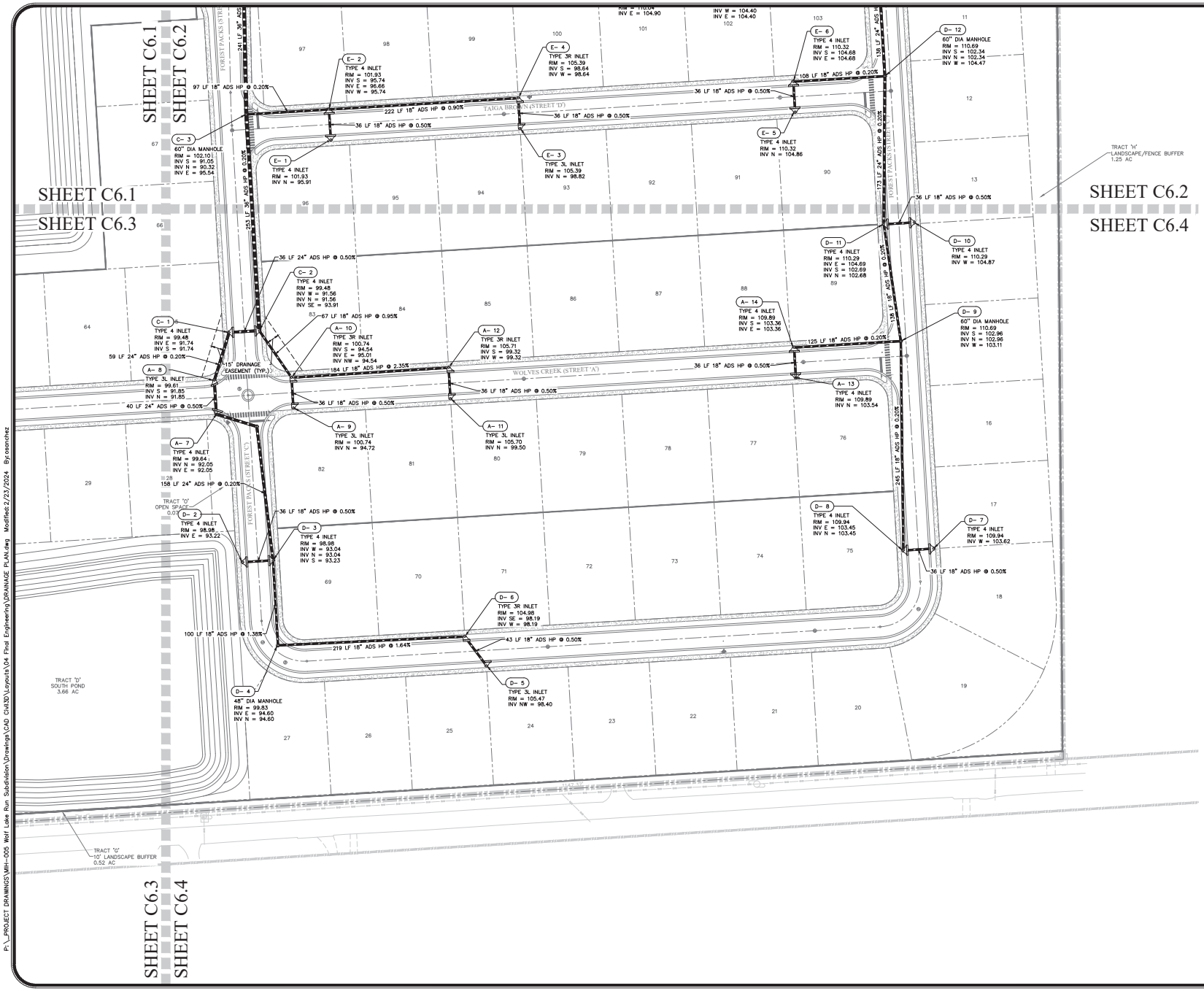
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C6.3

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\DRAINAGE PLAN.dwg Modified:2/23/2024 By:osanchez



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NO.	DATE	DESCRIPTION	BY

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DRAINAGE PLAN – SOUTHEAST
CONSTRUCTION SITE PLAN

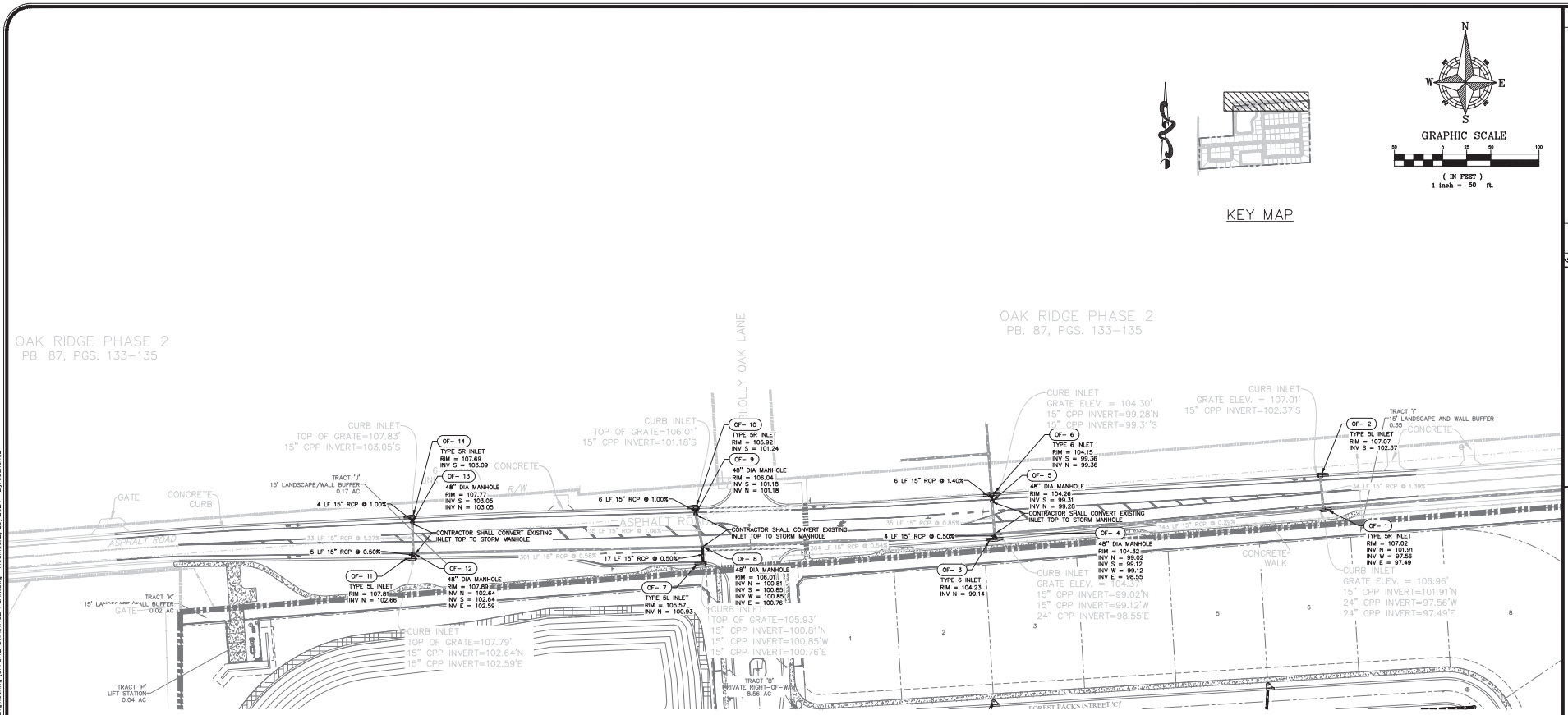
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C6.4

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

SHEET 45 OF 82



KEY MAP

REV	DATE	DESCRIPTION	BY

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2231 Lake Rosa, 32832 FL, Winter Park, Florida, 32789

LICENSE # 29 FOR ENGINEERING SERVICES

OFFSITE DRAINAGE PLAN
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C6.5

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
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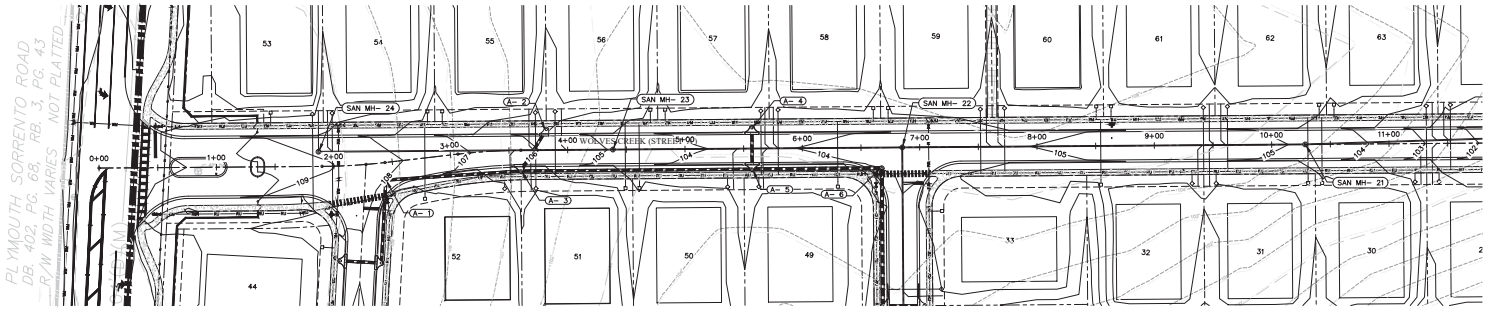
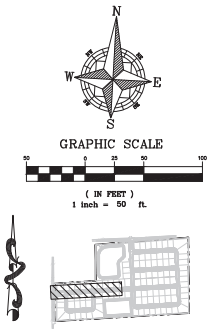
SHEET 46 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\OFFSITE DRAINAGE PLAN.dwg Modified: 2/23/2024 By:osanchez





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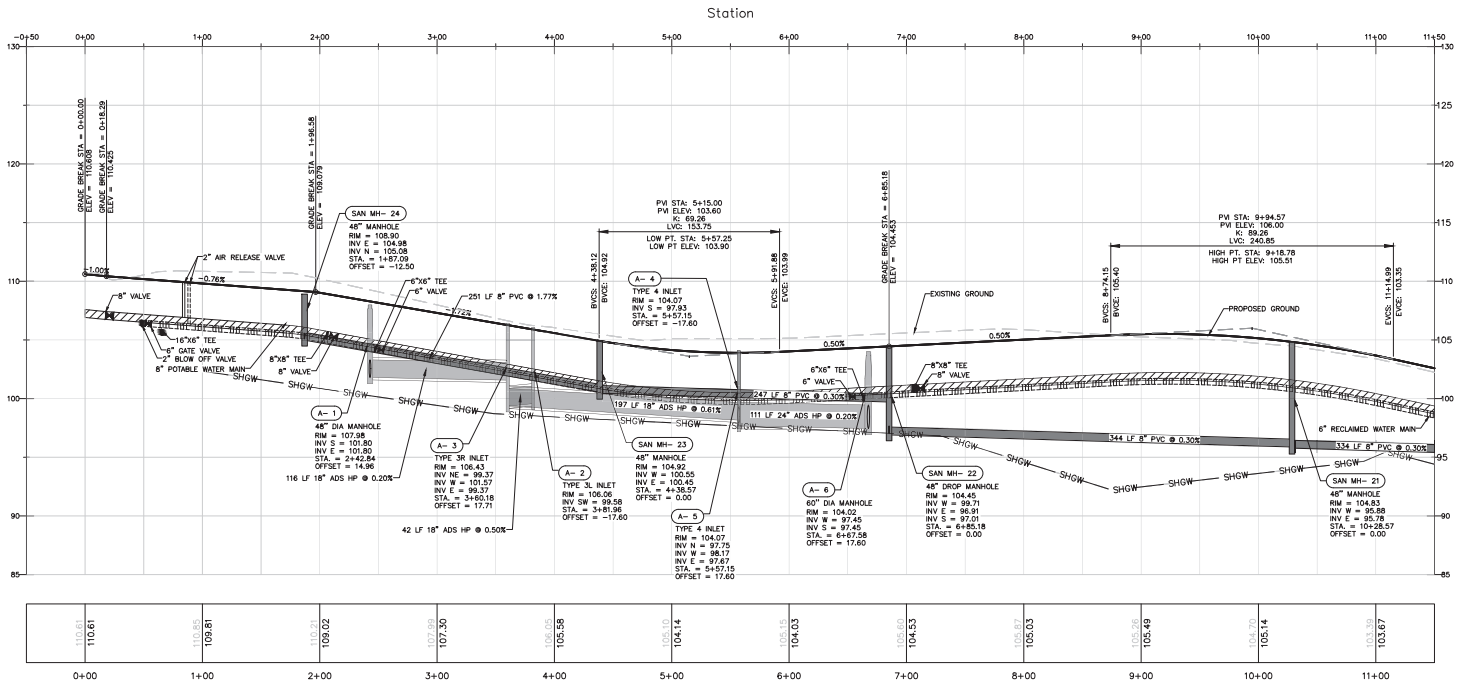

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'

PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

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(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX I NCHES ABOVE THE TOP OF THE SEWER.

(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE 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" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

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(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL 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 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.

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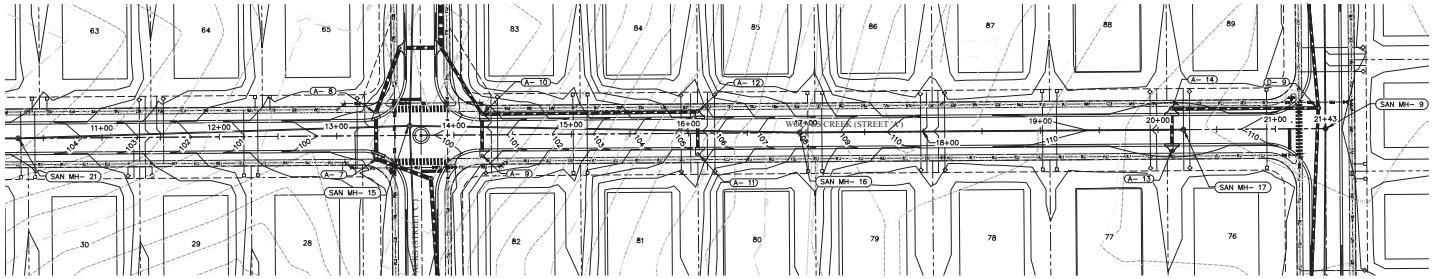
PLAN & PROFILE - STREET A -
STA. 0+00 TO STA. 11+00
CONSTRUCTION SITE PLAN

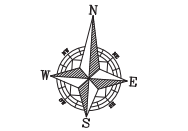
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

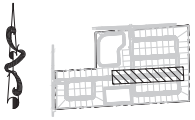
SCALE	1" = 50'
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
PROJECT	MIH-005
SHEET	C7.0
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

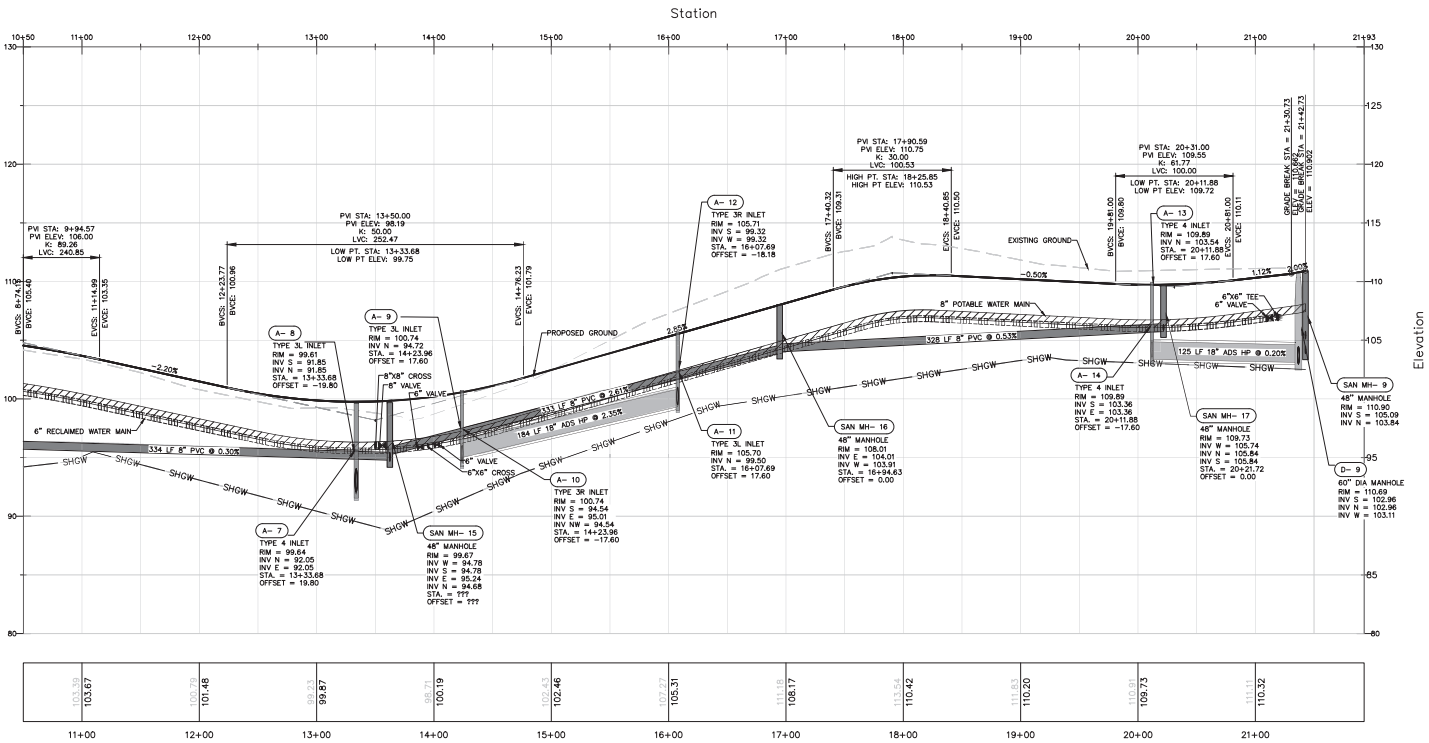
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PLAN & PROFILE - STREET A.dwg Modified:2/23/2024 By:osanchez







KEY MAP



PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

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PLAN & PROFILE - STREET A - STA. 11+00 TO SAT. 21+43
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C7.1
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
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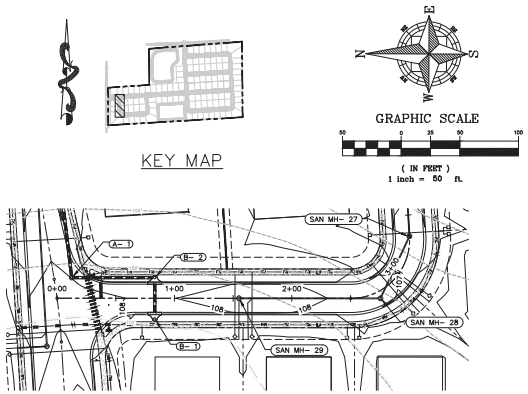
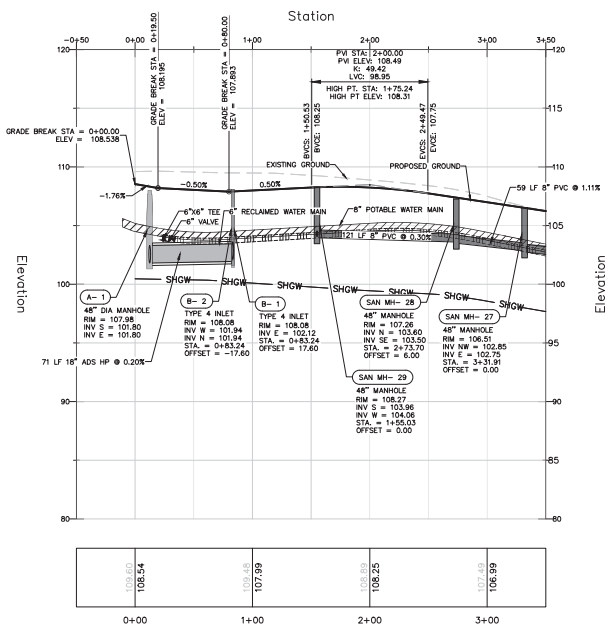
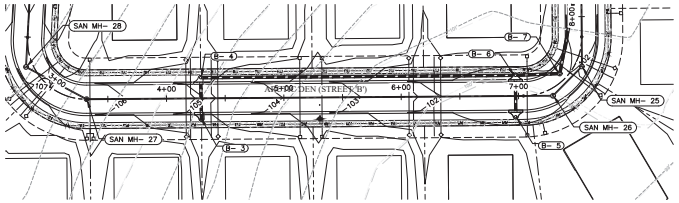
SHEET 48 OF 82

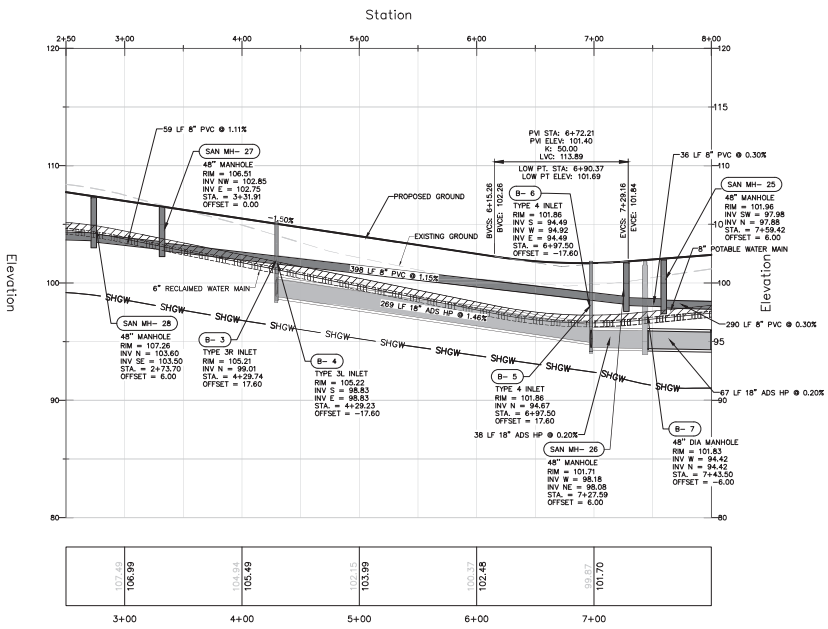
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PLAN & PROFILE - STREET A.dwg Modified:2/23/2024 By:osanchez





VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'





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PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

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SHEET 49 OF 82

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APPLIAN ENGINEERING LLC.
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2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789
LICENSE NUMBER EC-0000 8 CERTIFICATE OF AUTHORIZATION

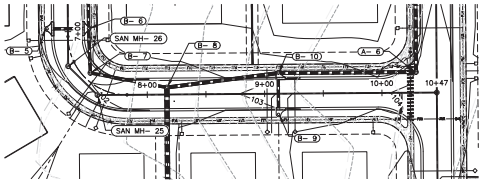
PLAN & PROFILE - STREET B -
STA. 0+00 TO STA. 7+50
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

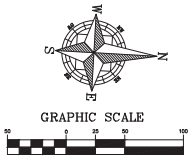
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: 1" = 50'
PROJECT: MIH-005
SHEET: C7.2

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PLAN & PROFILE - STREET B.dwg Modified:2/23/2024 By:osanchez



KEY MAP



PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

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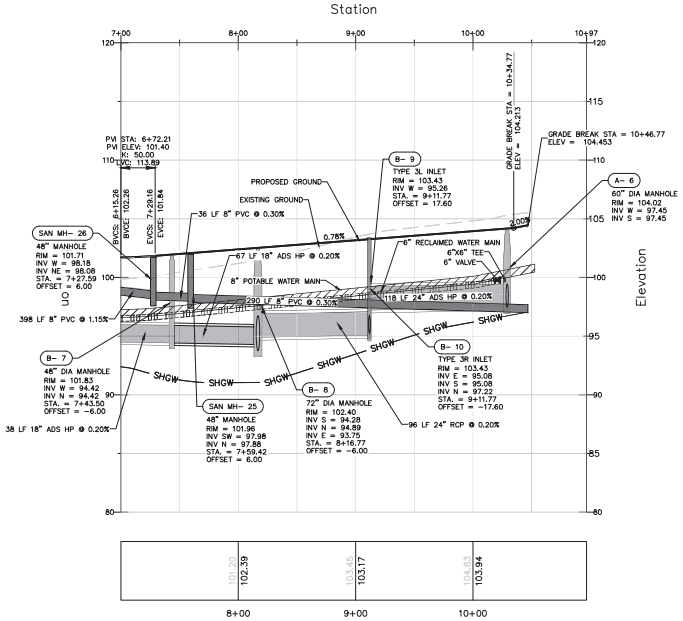
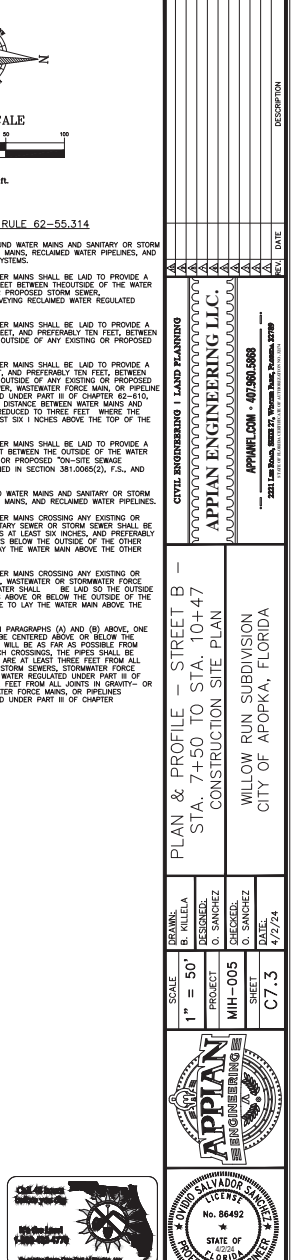
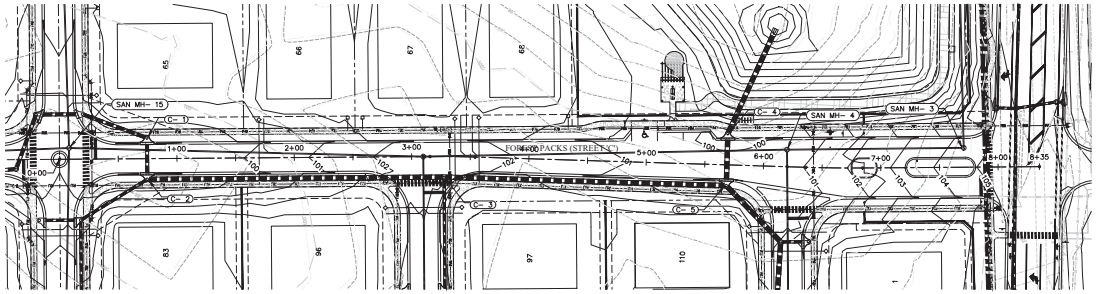
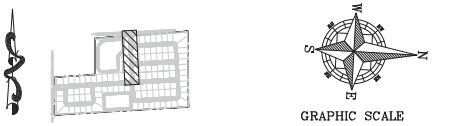


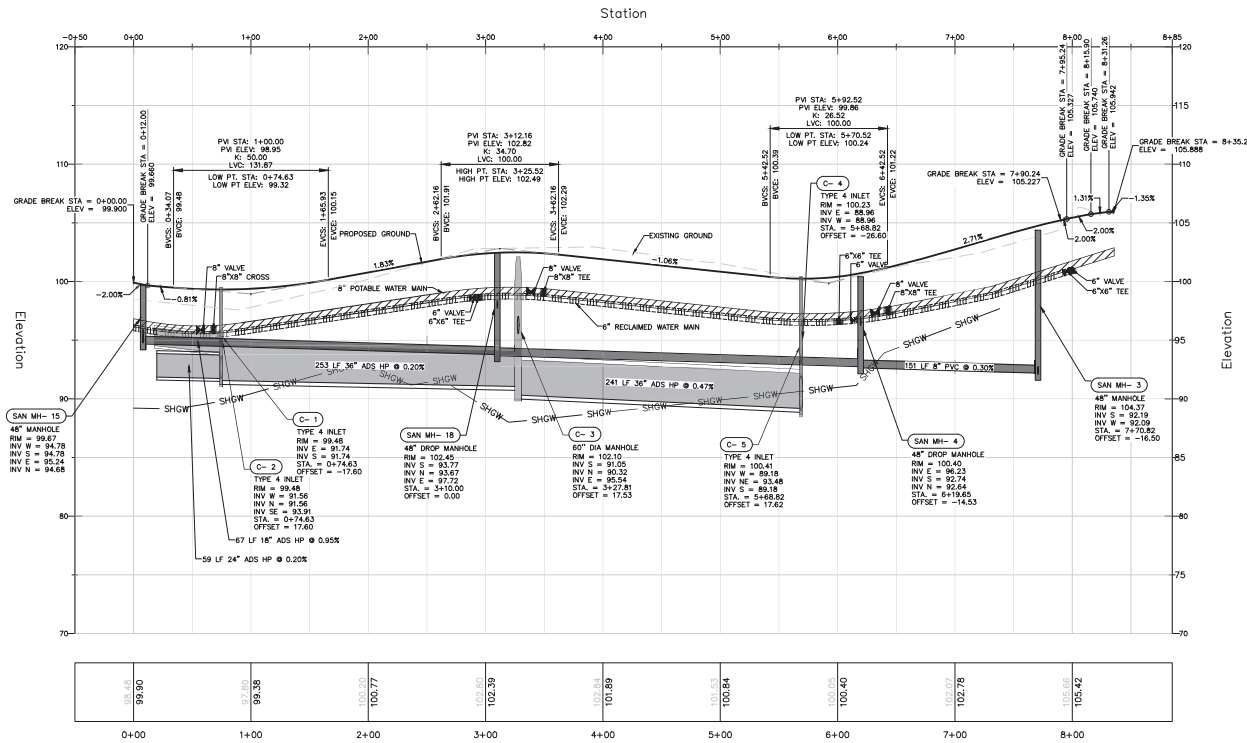
VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'



SHEET 50 OF 82







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PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

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2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789
LICENSE NUMBER EC-0-0-0000-0000-0000-0000

PLAN & PROFILE - STREET C - STA. 0+00 TO STA. 8+36
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	1" = 50'
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
PROJECT	MIH-005
CHECKED:	O. SANCHEZ
SHEET	C7.4
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

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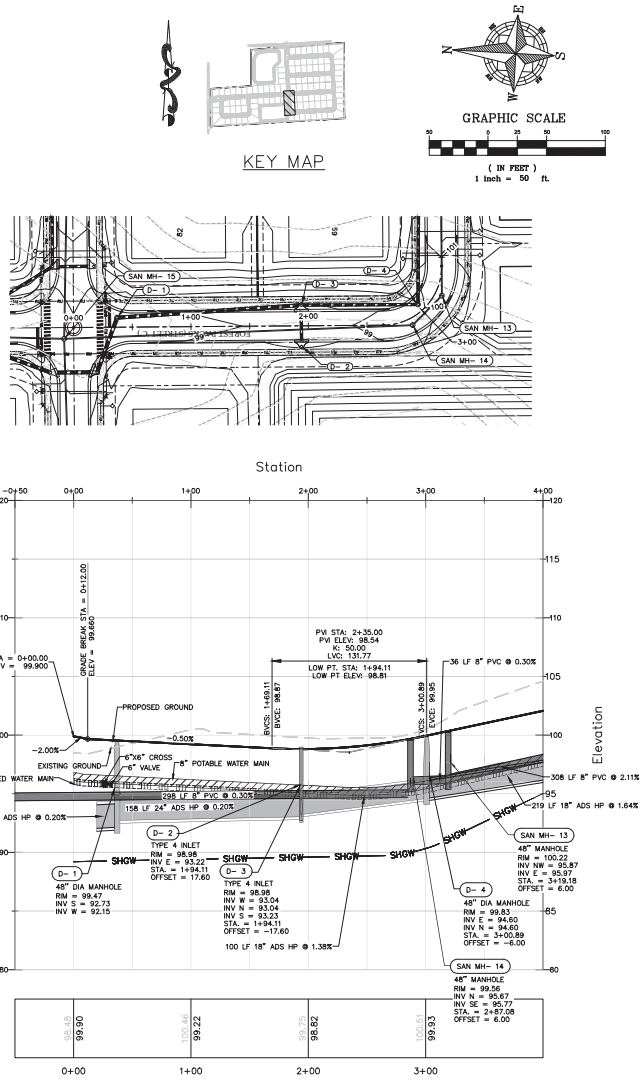
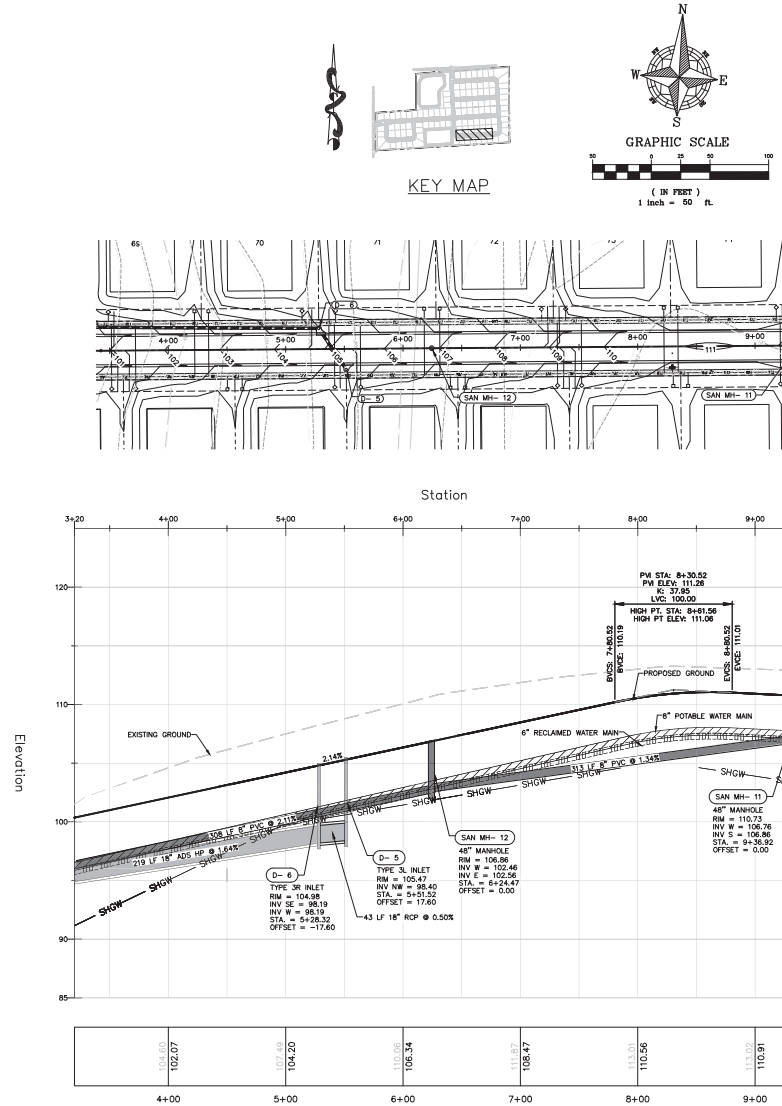
Underground Utilities Protection Center of Florida, Inc.

SHEET 51 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PLAN & PROFILE - STREET C.dwg Modified:2/23/2024 By:osanchez





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LICENSED BUSINESS ENTITY CERTIFICATE OF AUTHORIZATION

PLAN & PROFILE - STREET D -
STA. 0+00 TO STA. 9+00
CONSTRUCTION SITE PLAN

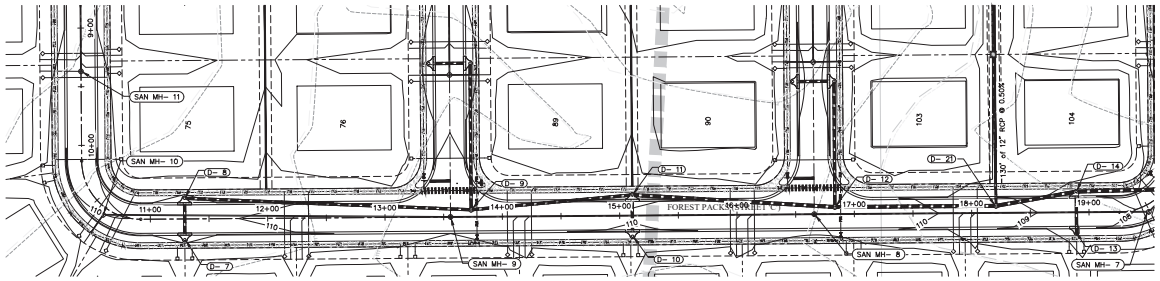
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

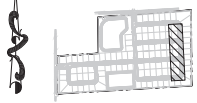
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C7.5

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

SHEET 52 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PLAN & PROFILE - STREET D.dwg Modified:2/23/2024 By:osanchez





KEY MAP

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
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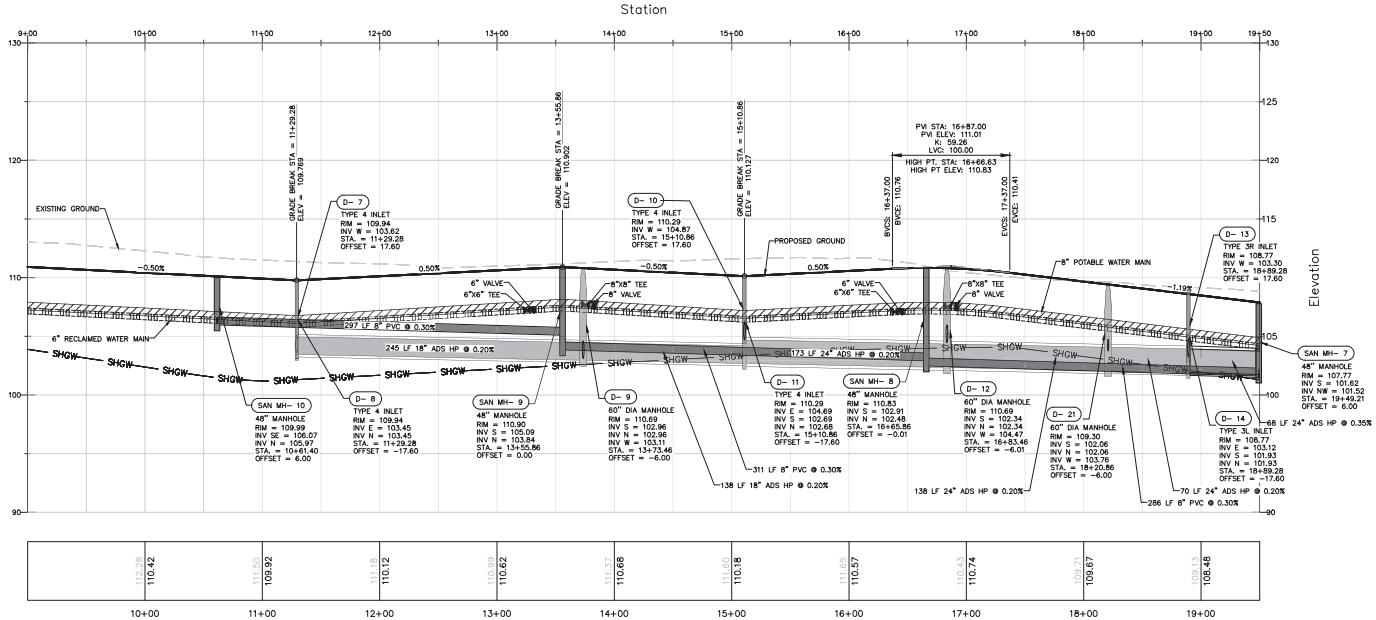

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HORIZONTAL SCALE: 1" = 50'

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SHEET 53 OF 82

NO.	DATE	DESCRIPTION	BY

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LICENSED BUSINESS NUMBER 8191 FOR ENGINEERING SERVICES

PLAN & PROFILE - STREET D -
STA. 9+00 TO SAT. 19+00
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	DRAWN: B. KILLELA	DESIGNED: O. SANCHEZ	CHECKED: O. SANCHEZ	DATE: 4/2/24
1" = 50'	PROJECT MIH-005			SHEET C7.6

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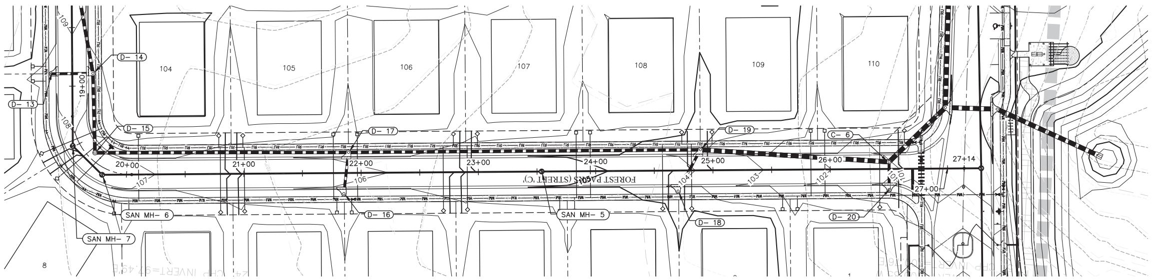

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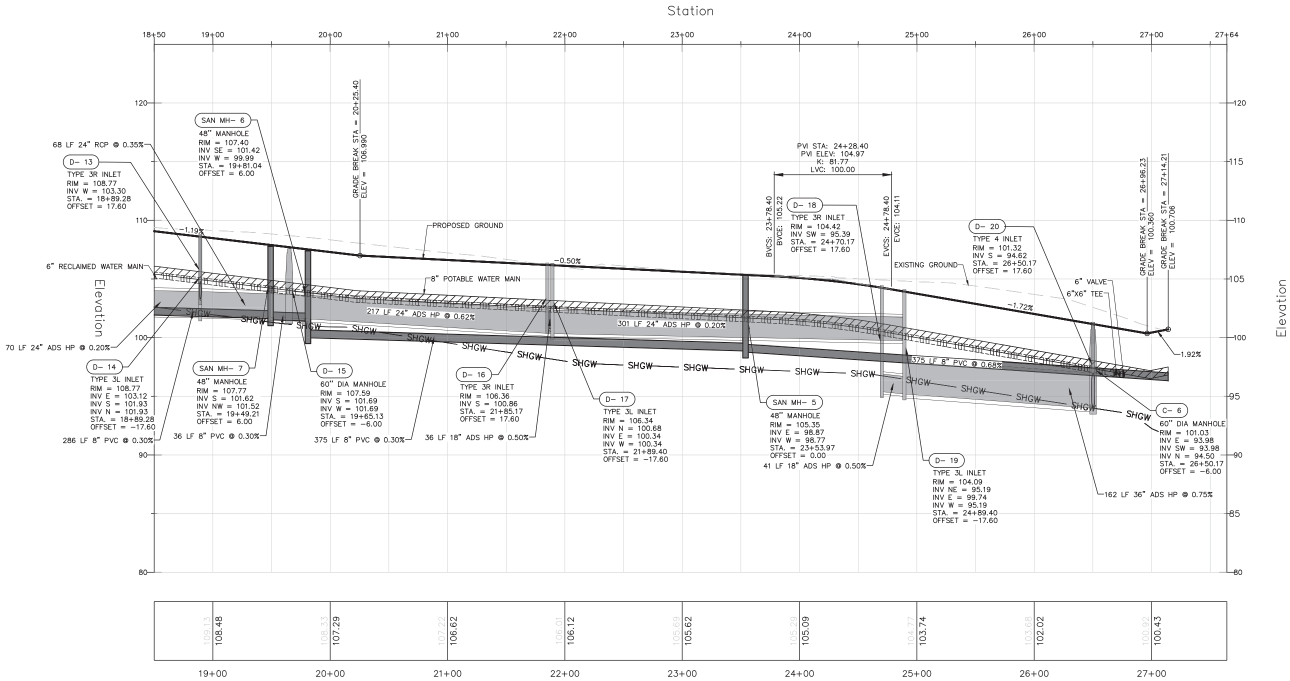
(IN FEET)
1 inch = 50 ft.



VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'

PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THEOUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX I NCHES ABOVE THE TOP OF THE SEWER.

(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE 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" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL 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 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.

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REV. | DATE | DESCRIPTION | BY (OSS)

PLAN & PROFILE – STREET D – STA. 19+00 TO SAT. 27+14
CONSTRUCTION SITE PLAN

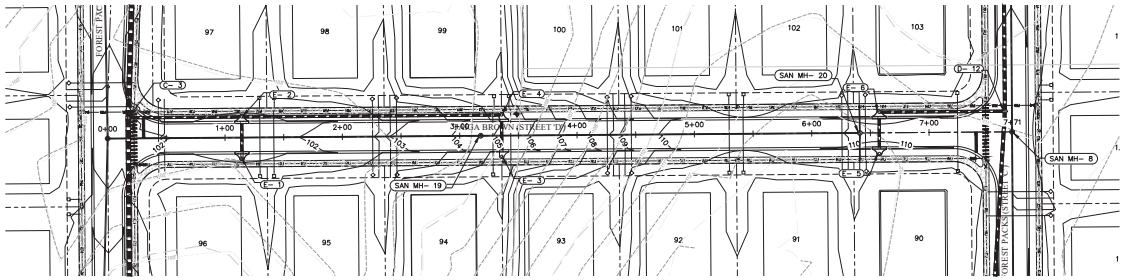
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

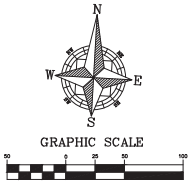
SCALE 1" = 50'
PROJECT MIH-005
SHEET C7.7

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA 4/2/24
PROFESSIONAL ENGINEER

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PLAN & PROFILE - STREET D.dwg Modified: 2/23/2024 By: osanchez



KEY MAP



PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

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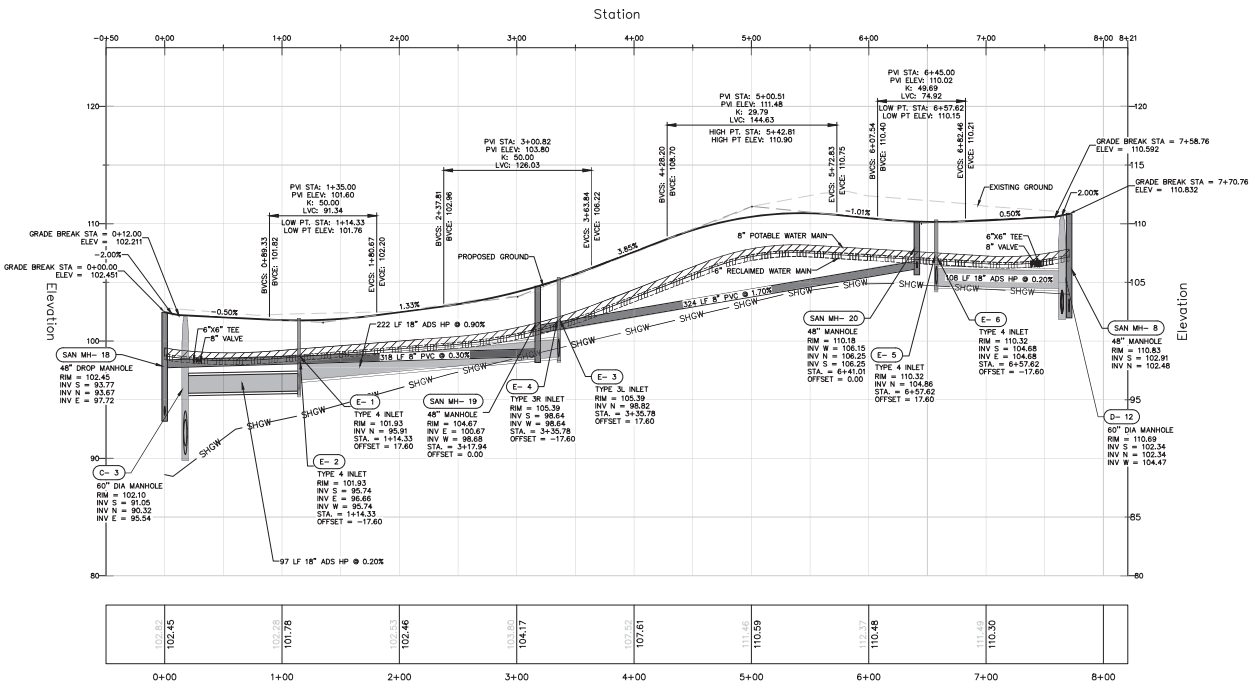

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'

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SHEET 55 OF 82

NO.	DATE	DESCRIPTION	BY

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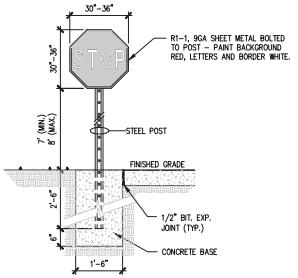
PLAN & PROFILE - STREET E - STA. 7+71
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

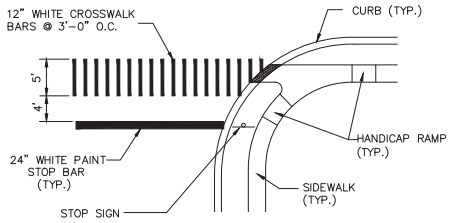
SCALE	1" = 50'
PROJECT	MIH-005
SHEET	C7.8
DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

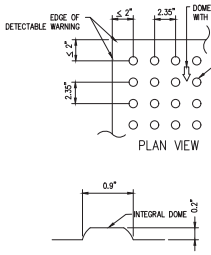
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\PLAN & PROFILE - STREET E.dwg Modified:2/23/2024 By:osanchez



1 STOP SIGN
N.T.S.



2 INTERSECTION CROSSWALK/ STOP BAR DETAIL
N.T.S.



3 DETECTABLE WARNING
N.T.S.

NOTE:

1. CURB RAMP RUNNING SLOPES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER.

2. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING OR APPLYING A TRUNCATED DOME MATERIAL IN CONFORMANCE WITH THE U.S. DEPARTMENT OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBLE DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.

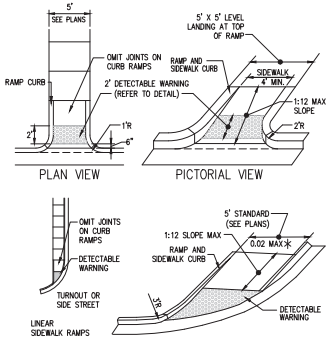
3. WHERE A CURB RAMP IS CONSTRUCTED WITHIN AN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5'.

4. WHERE ADJACENT WALKING SURFACES ARE COLORED OR ARE CONSTRUCTED WITH MATERIALS OTHER THAN STANDARD CLASS I PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH SECTION 522 OF THE SPECIFICATIONS, THE PLAN MUST PROVIDE FOR DETECTABLE WARNING SURFACE COLORS OR MATERIALS THAT PROVIDE THE NECESSARY CONTRAST, EITHER DARK–ON–LIGHT OR LIGHT–ON–DARK. (SAFETY YELLOW OR BRICK RED)

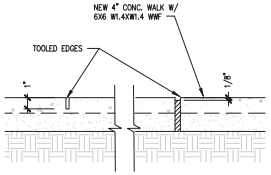
5. RECOMMENDED MANUFACTURER: ENGINEERED PLASTICS, INC. (ARMOR TILE) OLYMPIC TOWERS, 300 PEARL STREET, SUITE 200, BUFFALO, NY 14202. PHONE: (800) 682–2525

NOTE 1:
REFERENCE FDOT INDEX 304, PAGE 1, GENERAL AND DESIGN NOTES FOR RAMPS IN R.O.W.

NOTE 2:
CONSTRUCT RAMP TO LEAST POSSIBLE SLOPE (MAX = 1:12). CROSS SLOPE OF RAMP AND LANDING SHALL NOT EXCEED 1:50.



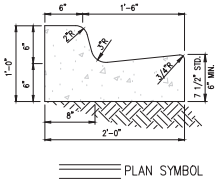
4 HANDICAP END RAMP
3000 PSI (MIN.) CONCRETE N.T.S.



NOTE:
EXPANSION JOINTS SHALL BE LOCATED AT ALL CONCRETE WALK INTERSECTIONS, AT ALL DOOR OPENINGS AND AT 12' O.C. MAXIMUM.

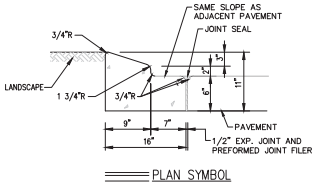
EXPANSION JOINT (1/4" PREMOLDED ASPHALT STRIP) SHALL BE SET 1/8" BELOW TOP OF WALK.
SCORE MARK (1" DEPTH) SHALL BE 4' (MAX.) O.C.

5 CONCRETE WALK
N.T.S.



NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

6 TYPE "F" CURB AND GUTTER
N.T.S.

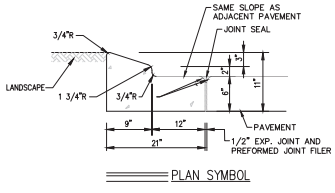


NOTES

1. CONSTRUCTION JOINTS SHALL BE PLACED AT EQUAL SPACES (10' MAX.) BETWEEN NORMAL EXPANSION JOINTS. CONSTRUCTION JOINTS SHALL BE SAW CUT WITHIN 24 HRS. OF PLACEMENT.

2. FOR CURB & GUTTER CONSTRUCTED ADJCENT TO CONCRETE PAVEMENT. 1/2" EXPANSION JOINT MATERIALS SHALL BE PLACED BETWEEN THE EDGE OF GUTTER AND EDGE OF PAVEMENT.

7 TYPE 'A' CURB
(3,500 PSI (MIN.)) N.T.S.



NOTES

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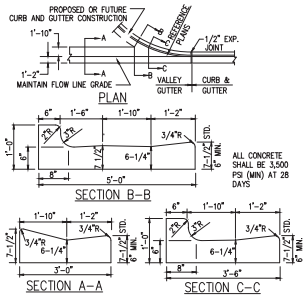
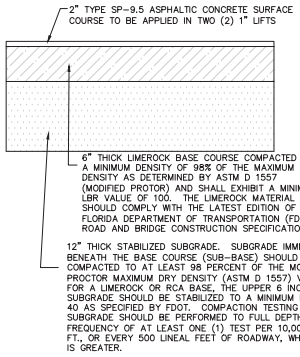
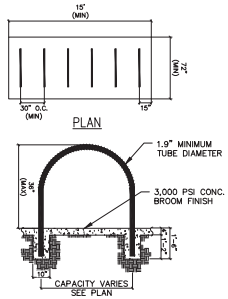
8 MODIFIED TYPE 'A' CURB
(3,500 PSI (MIN.)) N.T.S.



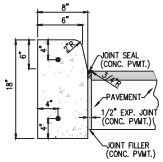
9 VALLEY GUTTER N.T.S.
(REFER TO F.D.O.T. INDEX 300)



10 TYPICAL PAVEMENT SECTION
N.T.S.



11 INVERTED "U" BIKE RACK
N.T.S.



NOTES:

1. COST OF 2–#4 BARS (CONT.) SHALL BE INCLUDED.
2. PROVIDE 2–#6 SMOOTH BARS W/ EXPANSION CAPS AT EACH EXPANSION JOINT, 20'–0" O.C. MAX.
3. CONTRACTION JOINTS – CONTRACTION JOINTS SHALL BE PLACED AT EQUAL SPACES (10' MAX.) BETWEEN NORMAL EXPANSION JOINTS. CONTRACTION JOINTS SHALL BE SAW CUT IN THE UPPER 1/3 OF CURB AND GUTTER WITHIN 24 HOURS OF PLACEMENT.
4. ENDS OF VERTICAL CURB SHALL TRANSITION FROM FULL TO ZERO HEIGHTS IN 3 FEET.

12 TYPE 'D' CURB
(3,500 PSI (MIN)) N.T.S.

SHEET 56 OF 82

NO.	DATE	DESCRIPTION	BY
1			
2			
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10			

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CIVIL DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN:	B. KILLELA
DESIGNED:	O. SANCHEZ
CHECKED:	O. SANCHEZ
DATE:	4/2/24
SCALE	N.T.S.
PROJECT	MIH–005
SHEET	C8.0

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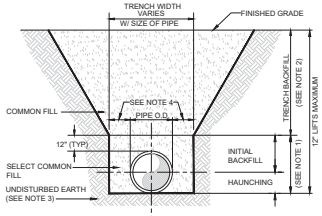
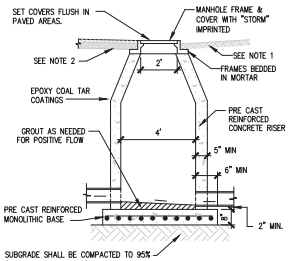
P:_PROJECT DRAWINGS\MIH–005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\CIVIL DETAILS.dwg Modified:4/1/2024 By:lmoore



NOTES:
1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. PIPE BEDDING SHALL BE COMPACTED TO 95% (MIN) OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. BEDDING ROCK CAN BE USED FOR BEDDING IF SUBGRADE SOILS ARE TOO WET TO COMPACT, OR AS DIRECTED BY THE ENGINEER.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.

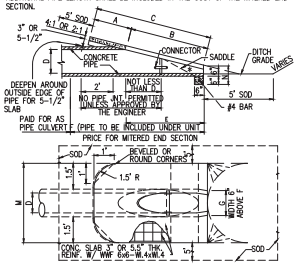
1 TRENCH DETAIL
N.T.S.



NOTE:
1. IN UNPAVED AREAS TOP OF FRAME SHALL BE 2" ABOVE FINISHED GRADE
2. ALL INPAVEMENT STRUCTURES MUST CONFORM TO H20 LOADING STANDARDS
3. 12 INCHES OF STONE BEDDING (FDOT #57 STONE, NON-CALCAREOUS) CAN BE USED FOR BEDDING IF SUBGRADE SOILS ARE TOO WET TO COMPACT.

2 MANHOLE
N.T.S.

STORM SEWER PIPE LENGTHS NOTED IN THE DRAWINGS REFLECT ONLY THE PIPE ITSELF. WHERE A MITERED END SECTION IS INSTALLED ON SAID PIPE, ITS ADDITIONAL PIPE LENGTH SHALL BE INCLUDED IN THE COST OF THE MITERED END SECTION.



		DIMENSIONS AND QUANTITIES									
								M			
	D	A	B	C	E	F	G	SINGLE PIPE	DOUBLE PIPE	TRIPLE PIPE	QUAD. PIPE
2:1 SLOPE	15"	1.92'	2.18'	4.10'	2.06'	5'	1.22'	4.63'	7.21'	9.79'	12.37'
	18"	1.97'	2.74'	4.71'	2.56'	6'	1.41'	4.92'	7.75'	10.58'	13.40'
	24"	2.06'	3.85'	5.91'	3.56'	7'	1.73'	5.50'	8.92'	12.33'	15.75'
	30"	2.15'	4.95'	7.10'	4.56'	8'	2.00'	6.08'	10.33'	14.58'	18.83'
	36"	2.25'	6.08'	8.33'	5.56'	9'	2.24'	6.67'	11.75'	16.83'	21.92'
	42"	2.34'	7.21'	9.55'	6.56'	10'	2.45'	7.25'	13.25'	19.25'	25.25'
	48"	2.43'	8.33'	10.76'	7.56'	11'	2.65'	7.83'	14.58'	21.33'	28.08'
	54"	2.52'	9.44'	11.98'	8.56'	12'	2.83'	8.42'	16.08'	23.75'	31.40'
	60"	2.62'	10.56'	13.18'	9.56'	14'	3.00'	9.00'	17.50'	26.00'	34.50'
	66"	2.71'	11.68'	14.39'	10.56'	15'	3.18'	9.58'	18.75'	27.92'	37.08'
	72"	2.80'	12.80'	15.60'	11.56'	16'	3.30'	10.16'	20.16'	30.16'	40.16'
4:1 SLOPE	15"	2.27'	4.09'	6.36'	4.03'	8'	1.22'	4.63'	7.21'	9.79'	12.37'
	18"	2.36'	5.12'	7.48'	5.03'	9'	1.41'	4.92'	7.75'	10.58'	13.40'
	24"	2.53'	7.18'	9.71'	7.03'	11'	1.73'	5.50'	8.92'	12.33'	15.75'
	30"	2.70'	9.25'	11.95'	9.03'	13'	2.00'	6.08'	10.33'	14.58'	18.83'
	36"	2.87'	11.31'	14.18'	11.03'	15'	2.24'	6.67'	11.75'	16.83'	21.92'
	42"	3.05'	13.37'	16.42'	13.03'	17'	2.45'	7.25'	13.25'	19.25'	25.25'
	48"	3.22'	15.43'	18.65'	15.03'	19'	2.65'	7.83'	14.58'	21.33'	28.08'
	54"	3.39'	17.49'	20.88'	17.03'	21'	2.83'	8.42'	16.08'	23.75'	31.40'
	60"	3.56'	19.55'	23.11'	19.03'	23'	3.00'	9.00'	17.50'	26.00'	34.50'
	66"	3.73'	21.62'	25.35'	21.03'	25'	3.18'	9.58'	18.75'	27.92'	37.08'
	72"	3.91'	22.68'	26.59'	23.03'	27'	3.30'	10.16'	20.16'	30.16'	40.16'

* SLOPE- 4:1 MITER – TO C PIPE FOR PIPES 18" AND SMALLER
2:1 FOR PIPES 24" AND LARGER
2:1 MITER – TO C PIPE FOR PIPES 18" AND SMALLER
1:1 FOR PIPES 24" AND LARGER

3 MITERED END SECTION (RCP)
FDOT STD. INDEX 430-021 N.T.S.

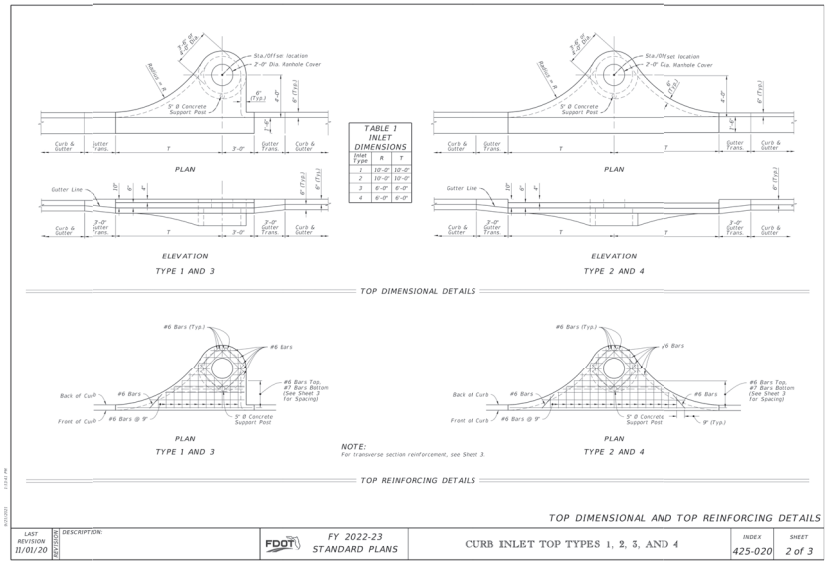
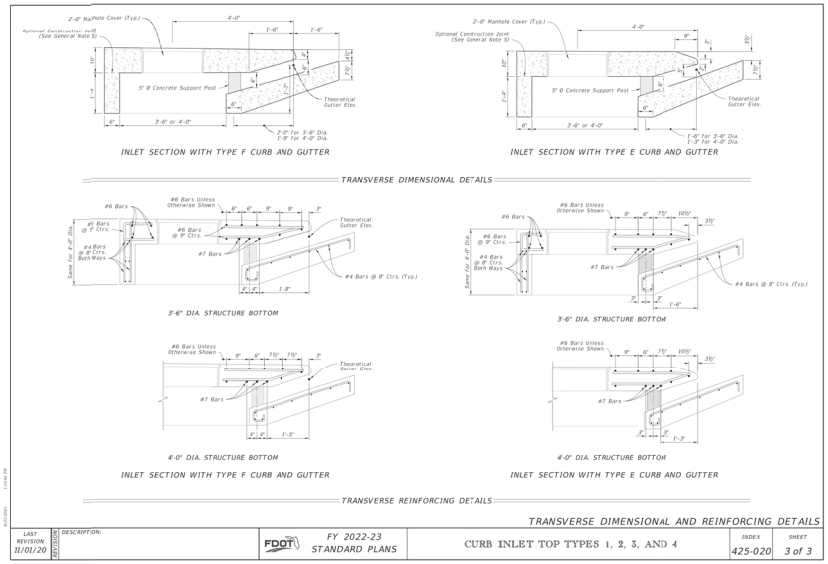


TABLE 1 INLET DIMENSIONS

Inlet Type	R	T
1	10'-0"	10'-0"
2	10'-0"	10'-0"
3	6'-0"	6'-0"
4	6'-0"	6'-0"

4 TYPE 1, 2, 3, AND 4 INLETS
N.T.S.



SHEET 57 OF 82

CIVIL ENGINEERING | LAND PLANNING
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2221 Lee Road, 32233 #2, Winter Park, Florida, 32789
LICENSED BUSINESS #8768 & #8768-8

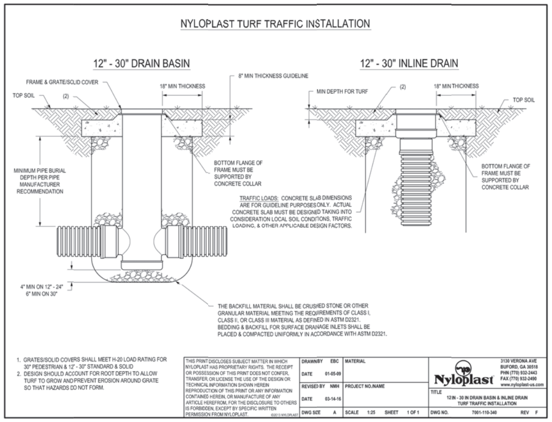
REV.	DATE	DESCRIPTION	BY

DRAINAGE DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

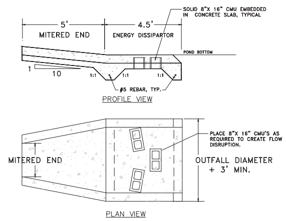
DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C9.0

OMAR SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

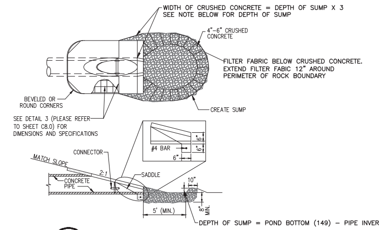
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\DRAINAGE DETAILS.dwg Modified:2/7/2024 By:osanchez



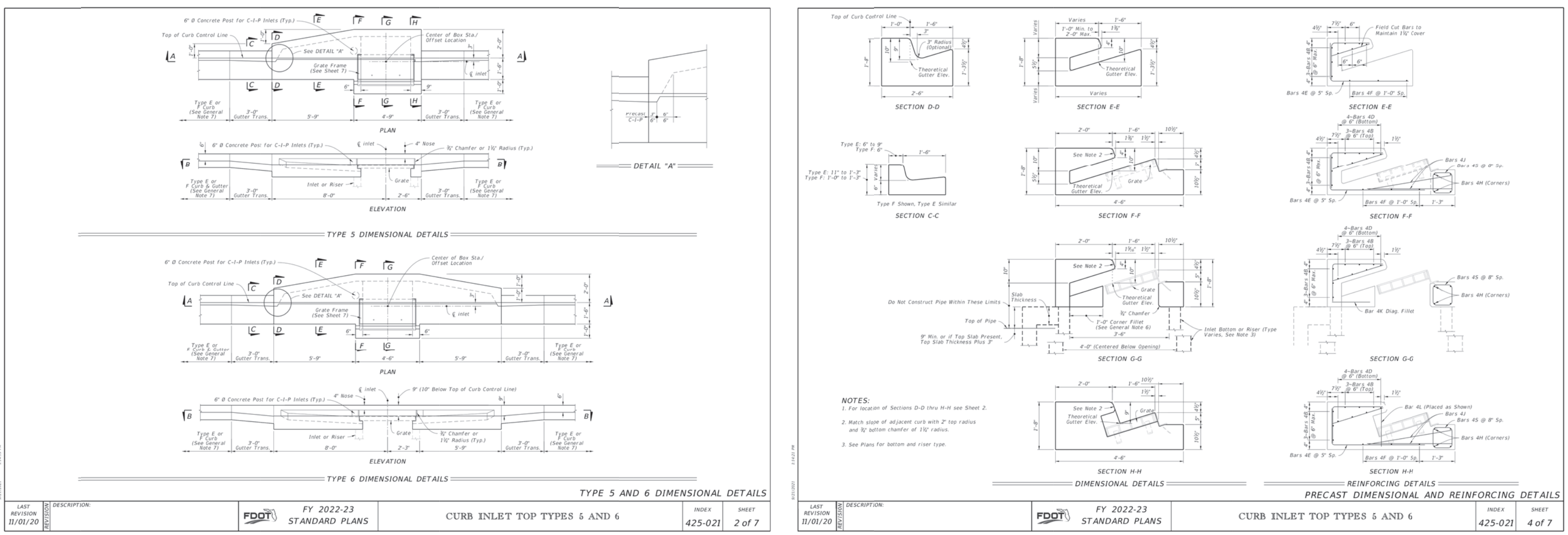
5 CONCRETE COLLAR
N.T.S.



6 ENERGY DISSIPATOR DETAIL
N.T.S.



7 SUMP ENERGY DISSIPATOR DETAIL
N.T.S.



8 TYPE 5, AND 6 INLETS
N.T.S.

SHEET 58 OF 82

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APPIANFL.COM • 407.960.5868

DRAINAGE DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C9.1

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/2/24

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\DRAINAGE DETAILS.dwg Modified: 2/7/2024 By:osanchez

GENERAL NOTES

1. Governing standards and specifications on this project are considered the Florida Department of Transportation (FDOT) Design Standards (2013 Edition), FDOT Standard Specifications for Road and Bridge Construction (2013 Edition), and City of Apopka Utilities Design and Construction Standards Manual (2014 Edition).
2. All personal property, except mail boxes located within the public right-of-way (not relocated by the property owner), shall be removed by the Contractor as necessary to construct the project in accordance with the Construction Plans. Mail boxes shall be relocated by the Contractor in accordance with FDOT Index No. 532.
3. The disposal of excess earthwork materials shall be the responsibility of the Contractor. Approval of disposal sites shall be obtained from the City of Apopka prior to disposal.
4. All existing trees and stumps within the right-of-way and limit of the project are to be removed as clearing and grubbing unless otherwise directed.
5. Seed and mulch all disturbed areas not covered by sod unless otherwise directed.
6. All pavement offsets shown are to the proposed centerline of construction, as where radius dimensions are to the edge of pavement, unless otherwise noted.
7. Turnout locations and widths shown in the Construction Plans are approximate and may be adjusted as necessary or as directed by the Engineer. All turnouts shall be constructed in accordance with FDOT Index No. 515.
8. The various permits included in the bid specifications payment are included in the bid price for Section 104. The Contractor shall perform his work in accordance with the requirements of Control, and Abatement of Erosion and Water excluding items specified elsewhere. Environmental controls shall be used at locations designated in the plans and/or designated by the Engineer.
9. The information shown on these drawings concerning type and location of underground and other utilities are based on available records and surveys, but is not guaranteed to be accurate or all inclusive. The Contractor shall make his own determination as to the type and location of utilities as may be necessary to avoid damage there to, and is responsible for coordinating utility relocation.
10. Prior to ordering drainage structures, the Contractor shall determine if drainage utility conflicts exist. Information about possible conflicts shall be submitted to the Engineer as soon as possible after discovery of such for resolution.
11. The Contractor shall notify all gas utility companies a minimum of two working days prior to excavation as required by Chapter 77-153 of the Florida Statutes.
12. All inlet/manhole - pipe joints shall be filled with non-shrink grout, covered with an asphaltic mastic coating, and wrapped with a filter fabric material per Section 13.03.03 of the Orange County Road Construction Specifications.
13. All curb inlets, ditch bottom inlets, and manholes shall have traffic bearing frames and covers or grates meeting AASHTO-20 loading requirements.
14. Changes of pipe inverts not exceeding plus or minus one foot will not be considered as a basis for additional compensation for the pertinent pipe bid item or for modification of precast structures.
15. All benchmarks (irons and monuments) shown in the Construction Plans, or found, shall be preserved. Those shown in proposed pavement shall be protected with a cast iron valve box.
16. Public land corners within the limits of construction shall be protected. If a corner monument is in danger of being destroyed or disturbed, the Contractor shall notify the Engineer, without delay, by telephone. The Contractor shall provide written follow up confirmation within 48-hours of telephone notification.
17. Prior to beginning of any construction, the Contractor shall submit to the Engineer a set of field notes verifying the benchmark elevations and the reference point connections on the plan and profile view sheets, and/or a set of field notes for all additional benchmark and reference point connections proposed to be used in constructing the project with their location, description and elevation, based on North American Vertical Datum (NAVD88). All submittals shall be signed and sealed by a Professional Land Surveyor registered in the State of Florida.
18. Within 21 calendar days after notice to proceed, the Contractor shall stake the public right-of-way at 50 foot intervals and the right-of-way breaks with corresponding stations shown on the stakes. No invoice for payment for mobilization (Pay Item No. 101-1) will be processed until the right-of-way has been staked to the satisfaction of the Engineer.
19. Any United States Code (USC) and National Geodetic Survey (NGS) monuments within the limits of construction shall be protected. If in danger of damage, the Contractor shall notify the Engineer, and both shall notify:
State Geodetic Advisor, NOAA
3900 Commonwealth Blvd. - MS105
Tallahassee, FL Phone (850) 245-2606
20. It shall be the responsibility of the Contractor to acquire all necessary right-of-way and maintenance of traffic permits. The City will waive all permits required for construction activities within the limits of public right-of-way owned and maintained by the City of Apopka. For construction activity within the limits of public right-of-way maintained by the City but owned by Orange County or the State of Florida, the Contractor shall acquire the required permits from the agencies. It shall be the responsibility of the Contractor to insure that all required permits are obtained and in-hand before beginning any construction.
21. The location of all existing utilities, storm drainage systems, and topographic features shown on the plans have been determined from the best available information and are provided for the convenience of the Contractor. The Engineer assumes no responsibility for their inaccuracy. Should a discrepancy arise between these plans and actual field conditions, which would appreciably affect the execution of these plans, the Contractor shall halt construction and notify the Engineer immediately.
22. The Contractor shall be responsible for notifying the City within 48 hours before any inspections. Also, the Contractor shall be responsible for meeting all inspection criteria, schedules and signing said inspections.
23. The Contractor shall not excavate, remove or otherwise disturb any material, structure or part of a structure which is located outside the lines, grades or grading section, established for this project, except where such excavations or removal is provided or in the Contract Construction Plans or Technical Specifications.
24. All work and all materials furnished shall be in conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified in the Contract Construction Plans or Technical Specifications.
25. All work shall be accomplished in strict accordance with all applicable federal, state and local codes, ordinances and regulations.
26. Apparent errors, discrepancies or omissions in the Construction Plans shall be brought to the Engineer's attention before bidding.
27. After completion of construction, the Contractor shall provide to the City a completed as-built plan one week prior to the final inspection. Before the final acceptance it shall be the Contractor's responsibility to perform a site cleanup for the removal of trash, debris, excess materials, and equipment to present the project site clean and in good order.
28. No extra payments shall be allowed for any work required due to misunderstanding of job or site conditions affecting the work as described in the Technical Specifications or shown on the Construction Plans. The Contractor shall not take advantage of any apparent error or omission in the Construction Plans or Technical Specifications and the Engineer shall be permitted to make corrections and interpretation as may be deemed necessary for the fulfillment of the intent of the Contract Documents. By entering the bidding process the bidders acknowledge acceptance of these conditions.
29. The Contractor shall submit four (4) sets of detailed shop drawings of all major items proposed for this project to the Engineer prior to ordering any of the equipment or material. Two (2) copies of the shop drawings will be returned to the Contractor. Upon the Contractor's receipt of approved shop drawings from the Engineer, the Contractor may proceed with the work.
30. The Contractor shall comply with the legal load restrictions in hauling of materials in public roads beyond the limits of construction work. A special permit will not relieve the Contractor of liability for damage which may result from the moving of material and equipment.
31. During construction, no direct discharge of water to downstream receiving waters will be allowed. The Contractor is responsible for maintaining water quality and route discharge water in such a manner as to adequately remove silt prior to runoff from the site.
32. Connection to existing lines to which utility pipe of the Contract must connect, the following work shall be performed:
A. Expose buried lines to confirm or determine end connection, pipe material and diameter.
B. Furnishing and installing piping and making proper connections.

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. GN

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY	POTABLE WATER		RECLAIMED WATER*		SANITARY SEWER FORCE MAIN		SANITARY SEWER GRAVITY MAIN		STORM SEWER	
	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
POTABLE WATER	–	–	3'	12"	6'	12"	6'	6"ABOVE 12"BELOW	3'	6"
RECLAIMED* WATER	3'	12"	–	–	3'	12"	3'	12"	–	–
SANITARY SEWER FORCE MAIN	6'	12"	3'	12"	–	–	–	–	–	–
SANITARY SEWER GRAVITY MAIN	6'	6"ABOVE 12"BELOW	3'	12"	–	–	–	–	–	–

GENERAL NOTES:

1. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.D.E.P. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED UTILITY LINES AND EXISTING OR PROPOSED UTILITY LINES.
*2. FOR THE PURPOSE OF THIS TABLE, RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 17-610. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER SHALL APPLY.
3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. CRITERION PRODUCING GREATER CLEARANCE SHALL BE USED.

   C/C – DENOTES CENTER OF PIPE TO CENTER OF PIPE.

   O/O – DENOTES OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
4. ACCEPTABLE VARIANCES:
   A. WHERE HORIZONTAL SEPARATION IS NOT ATTAINABLE, PVC-C-900 SDR-14 OR CONCRETE ENCASEMENT MUST BE USED FOR THE SANITARY SEWER LINE FOR AT LEAST ONE OF THE PIPES. PVC-C-900 SDR 14 OR CONCRETE ENCASEMENT MUST BE USED UNTIL MINIMUM CLEARANCE IS REGAINED.
   B. WHERE 18 INCH VERTICAL SEPARATION IS NOT ATTAINABLE AT CROSSINGS, USE ONE FULL LENGTH OF PVC-C-900 SDR-14 FOR SANITARY SEWERS OR ENCASED PIPE CENTERED AT THE POINT OF CROSSING SPECIAL SUPPORT MAY BE REQUIRED.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY OR STORM WATER MANHOLE OR STRUCTURE.
6. CONCRETE ENCASEMENT SHALL NOT BE USED UNLESS APPROVED BY PUBLIC SERVICES DIRECTOR OR HIS DESIGNEE.

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 104

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *	PIPE SIZE 6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60							
45° BEND	14	18	22	25							
22-1/2° BEND	7	9	11	12							
11-1/4° BEND	4	5	6	6							
TEE**	1	7	24	44							
REDUCER (ONE SIZE SMALLER)		41	39	40							
DEAD END	74	96	115	136							

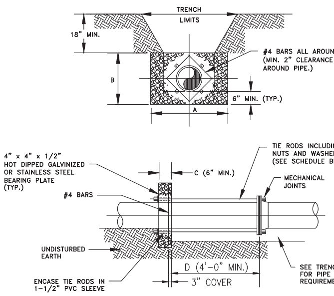
* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:
   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.** ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
   SOIL DESIGNATION: SM(SAND SILT)
   LAYING CONDITIONS: 3
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 105



NOTES:

1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 2500 P.S.I.
3. BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 P.S.I.

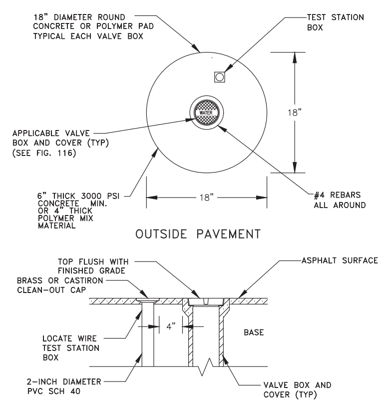
SCHEDULE OF DIMENSIONS AND MATERIALS *

PIPE SIZE (INCHES)	DIMENSIONS (FT.) A	B	C	D	TIE RODS REQ'D DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.5	3.0	1.0		3/4	4
12	5.0	3.0	1.0		3/4	4
16	6.0	4.0	1.5		3/4	4
20	8.0	5.0	1.5		3/4	6
24	9.0	6.0	1.5		3/4	8

NOTE: THRUST BLOCK AREAS TO BE COMPUTED ON BASIS OF 2,000 LBS. PER SQ. FT. SOIL RESTRAINT BEARING. (1,500 MIN) SEE NOTE 5
* TO BE COMPLETED BY ENGINEER.

WATER MAIN THRUST COLLAR DETAIL

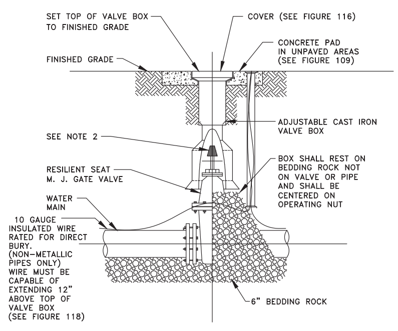
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 107



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109

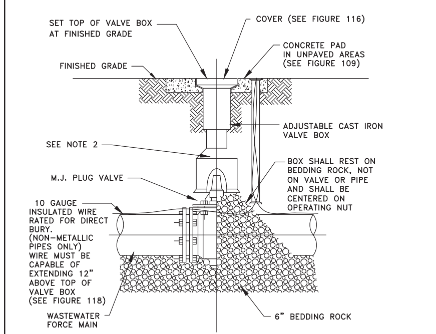


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400

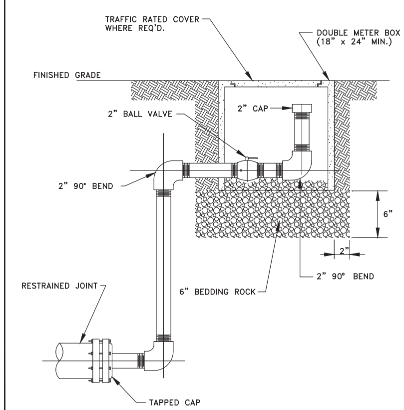


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN 3 FEET BELOW FINISHED GRADE.

PLUG VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400 A



NOTES:

1. ALL 2 INCH PIPE AND FITTINGS SHALL BE SCHEDULE 40 GALVANIZED STEEL OR BRASS WITH THREADED (NPT) JOINTS. USE TEFLON TAPE ON JOINTS.
2. COLOR SHALL BE APPROPRIATE FOR USE.

BLOWOFF VALVE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 403

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It's the Law! 1-800-432-4770
Sunshine State One Call of Florida, Inc.

SHEET 59 OF 82

REV.	DATE	DESCRIPTION	BY
1			OSS
2			
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2221 LEE ROAD, SUITE 27, WINTER PARK, FLORIDA 32789
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NO. 32174

UTILITY DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C10.0

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA 4/2/24
PROFESSIONAL ENGINEER

This Item has been digitally signed and sealed by Ovidio S. Sanchez, PE on the date adjacent to the seal.
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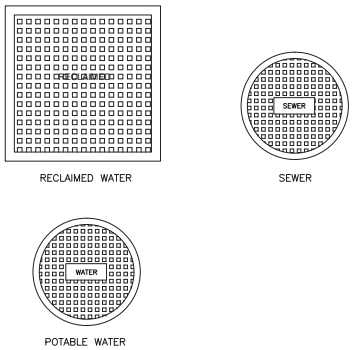
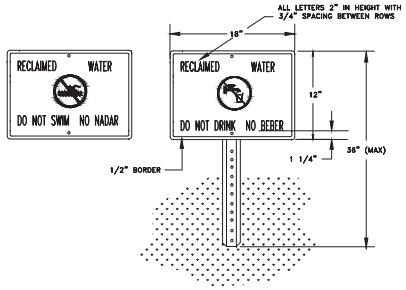
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\UTILITY DETAILS.dwg Modified: 2/27/2024 By: osanchez



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 116

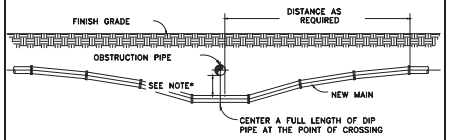


NOTES:

1. HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
2. BACKGROUND SHALL BE WHITE. LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
3. ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
4. POST SHALL BE U CHANNEL 12 FT. 2 LB. HOT ROLLED HIGH TENSILE RAIL OR BILLET STEEL, HOT DIP GALVANIZED PER ASTM A-123.
5. MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
6. SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 115



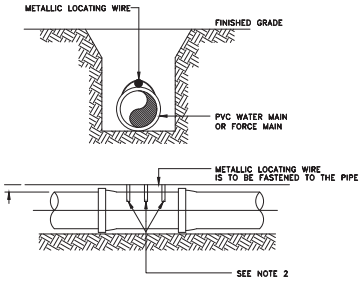
NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 117

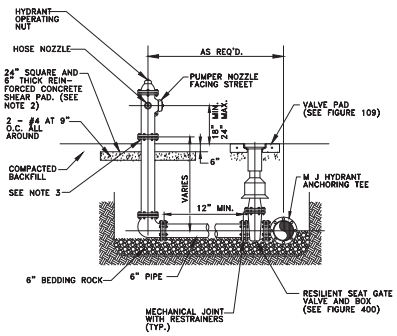


NOTES:

1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 118

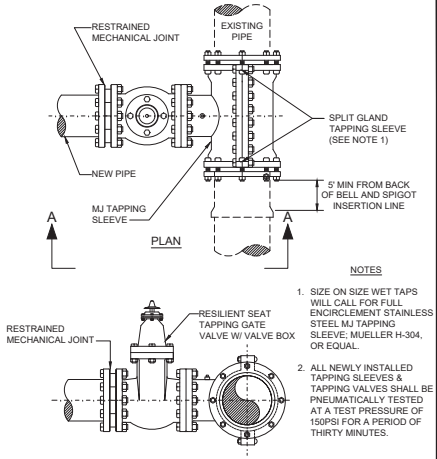


NOTES:

1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA UTILITIES DESIGN CONSTRUCTION STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402

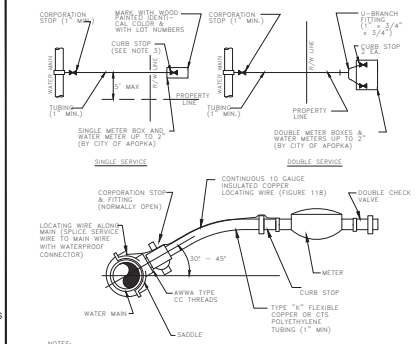


NOTES

1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE; MUELLER H-304, OR EQUAL.
2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406

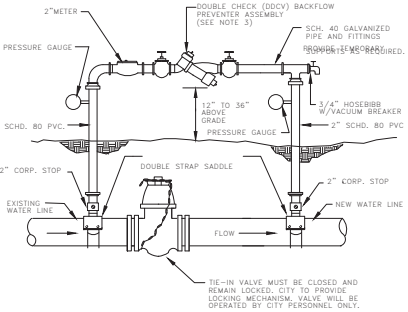


NOTES:

1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" x 2" x 18" STAKE WITH THE TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. RECLAIMED WATER SERVICES SHALL USE
5. PURPLE COLORED CTS POLYETHYLENE TUBING. POTABLE WATER SERVICES SHALL USE
6. BLUE COLORED CTS POLYETHYLENE TUBING. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 405



NOTE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, ASSEMBLY, AND THE INSTALLATION OF THE DEVICE.
2. SEE FIGURE 504C FOR PROCEDURES.
3. DDCV IS MINIMUM PROTECTION REQUIRED. A RPZ DEVICE MAY BE REQUIRED DEPENDING ON PROJECT. PROVIDE COPY OF LATEST CERTIFICATION TEST RESULTS.

TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 A

SHEET 60 OF 82

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UTILITY DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	DRAWN: B. KILLELA
N.T.S.	DESIGNED: O. SANCHEZ
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C10.1	

OVIDIO SALVADOR SANCHEZ
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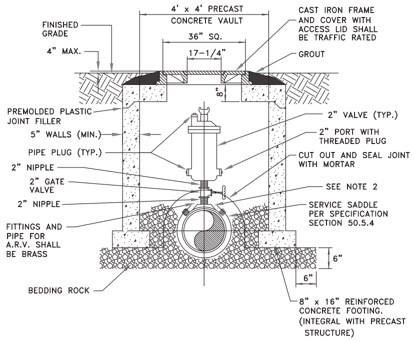
P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\UTILITY DETAILS.dwg Modified:2/27/2024 By:osanchez

TEMPORARY JUMPER CONNECTION NOTES:

1. A temporary jumper connection is required at all connections between existing active water mains and proposed new water main improvements.
2. Figures 504 A and 504 B to be used for filling any new water main of any size from existing active water mains and for flushing of new mains up to 8 inches in diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size. The jumper connection shall be maintained until after filling, flushing testing and disinfection of the new main has been successfully completed and cleared for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies have been received. The jumper connection shall also be used to maintain a minimum pressure of 20 psi in the new mains after disinfection and until the FDEP clearence letter is obtained. Thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651, 2005 edition. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per section II of AWWA C651-05.
3. Flushing of 10 inches in diameter and larger water mains may be done through the tie-in valve under very controlled conditions. The following procedures shall be followed:
   - A. The tie-in valves shall be operated and pressure tested in the presence of the City engineer to verify water tightness prior to tie-in. Valves which are not water tight shall be replaced with a new valve installed immediately adjacent to the leaking valve.
   - B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.
     - * Flushing shall not be attempted during peak demand hours of the existing water mains.
     - * All downstream valves in the system must be open prior to opening the tie-in valve.
     - * Provide for and monitor the pressure in the tie-in point. The pressure in the existing main must not drop below 35 psi.
     - * The tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is greater than 10 psi.
   - C. The tie-in valve shall be locked closed by the City personel until flushing begins.
   - D. The tie-in valve shall be opened only for flushing of the new main. The procedure shall be directed by the City and observed by the engineer.
   - E. After flushing, the tie-in valve shall be closed and locked in the closed position by the City personel.
4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation.
5. Except as required to flush lines of greater than 8 inches in diameter, the tie-in valve shall remain closed and shall be locked in the closed position by the City. The tie-in valve shall remain locked closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the temporary jumper connection. The corporation stops are to be closed and plugged with 2 inch brass plugs.
7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device, fittings, valve, etc. shall be the responsibility of the contractor.

PROCEDURES FOR TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 C

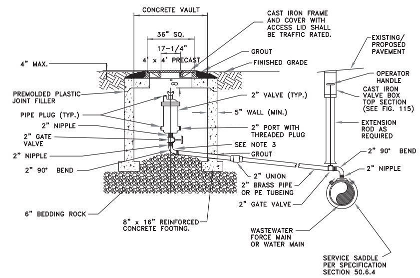


NOTES:

1. ABOVE DETAIL IS BASED ON 2 INCH COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
3. ALL STRUCTURES TO BE TRAFFIC BEARING RATED.

AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - UNDERGROUND

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 119

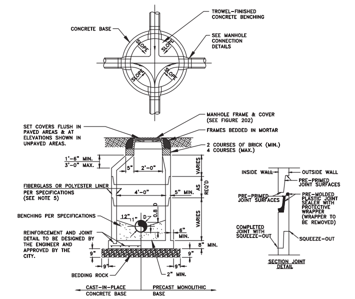


NOTES:

1. ABOVE DETAIL IS BASED ON 2 INCH COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. THE MINIMUM DIMENSION FROM ELBOW INVERT TO FINISHED GRADE SHALL BE 4.0 FEET.
3. THE AIR RELEASE VALVE SHALL BE ADEQUATELY SUPPORTED.
4. ALL FITTINGS ARE TO BE BRASS.

OFFSET AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - UNDERGROUND

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 120



FORCE MAIN MANHOLE LINER*

THICKNESS (INCHES)				MATERIAL	MANUFACTURER
DIAMETER (INCHES)	HEIGHT (FEET) 3-6	7-12	13-17		
48					
60					
72					

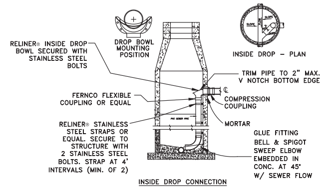
* TO BE COMPLETED BY THE ENGINEER

NOTES:

1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

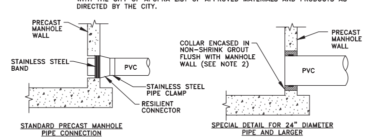
TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 200



NOTES:

1. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY:
   RELINER-DURAN, INC.
   53 MT. ARCHER RD,
   LYME, CT 06371
   (860)434-0277 FAX: (860)434-3195 OR EQUAL.
2. SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DURAN, INC STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.
3. FORCE MAIN RECEIVING MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

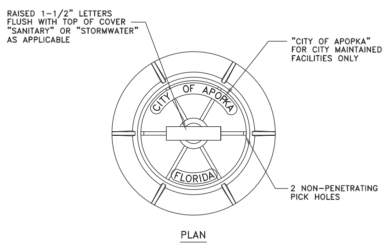


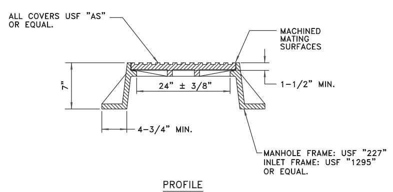
NOTES:

1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATERTIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 201



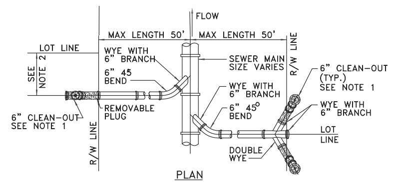


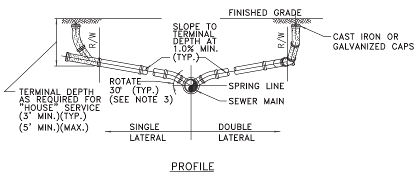
NOTES:

1. MANHOLE FRAME AND COVER ARE TO BE TRAFIC BEARING RATED H-20, CLASS 30 MEETING ASTM A 48.

STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202



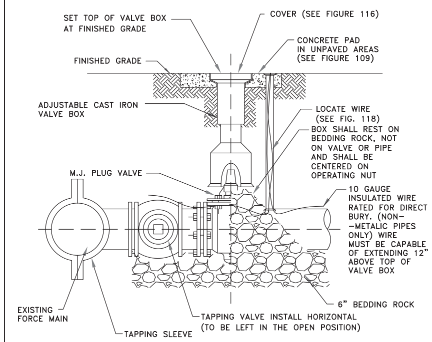


NOTES:

1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
4. RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON-RESIDENTIAL SERVICES SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
5. GALVANIZED, OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE.
6. LATERAL SHALL BE MARKED WITH AN "S" STAMPED OR CUT IN THE CURB.

SERVICE LATERAL DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 204



FORCE MAIN WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 206

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SHEET 61 OF 82

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STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NO. 32174

UTILITY DETAILS
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24

SCALE: N.T.S.
PROJECT: MIH-005
SHEET: C10.2

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PROFESSIONAL ENGINEER

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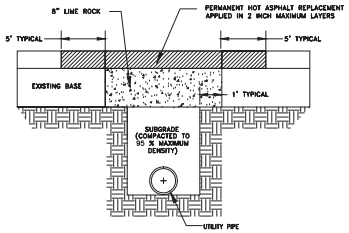
NOTE:
SUB-GRADE TO BE COMPACTED TO 95% MAX. DENSITY AS DETERMINED BY AASTHO T-180 CUT TO BE REPLACED WITH 8" LIME ROCK AND COMPACTED TO 98% MAX. DENSITY TO TOP OF EXISTING BASE. CUT AREA TO BE PLATED OR PROTECTED ON THE DAY OF POUR. EXISTING SURFACE TO BE SAW CUT TO AN AREA OF FIVE FEET (5') BEYOND BASE CUT.



GENERAL NOTES:

1. BASE REPLACEMENT SHALL BE 8" LIME ROCK COMPACTED TO 98% MAX. DENSITY.
2. ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL AT THE TIME OF REMOVAL.
3. MINIMUM ASPHALTIC CONCRETE SURFACE OVERLAY THICKNESS SHALL BE ONE (1) INCH.
4. ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.

PAVEMENT RESTORATION:

1. LONGITUDINAL CUTS MAY REQUIRE OVERLAY/RESURFACING OF THE COMPLETE WIDTH OF THE TRAVELED WAY.
2. CUTS AT INTERSECTIONS OF STREETS GENERALLY MAY REQUIRE A COMPLETE OVERLAY/RESURFACING TO THE END OF ALL RETURN RADII, AND ALSO TO A POINT TEN FEET (10') BEYOND THE CUT WHICHEVER IS GREATER.
3. ACTUAL REQUIREMENTS WILL BE AS STATED ON THE APPROVED PERMIT.

LIME ROCK

HOT PATCH

OPEN-CUT CROSS SECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 702

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REV	DATE	DESCRIPTION	BY

UTILITY DETAILS
CONSTRUCTION SITE PLAN

WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	N.T.S.
PROJECT	MIH-005
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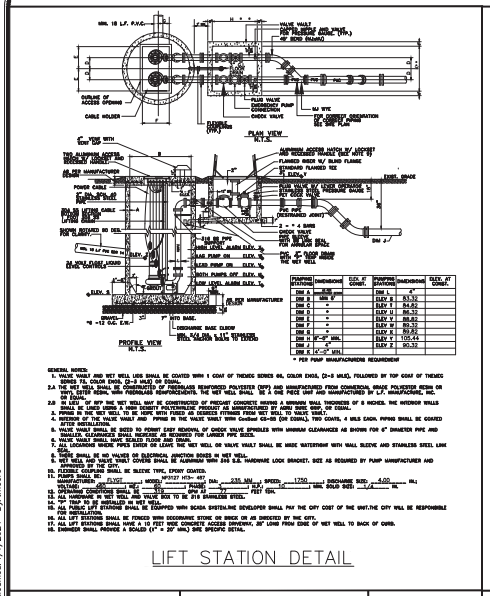
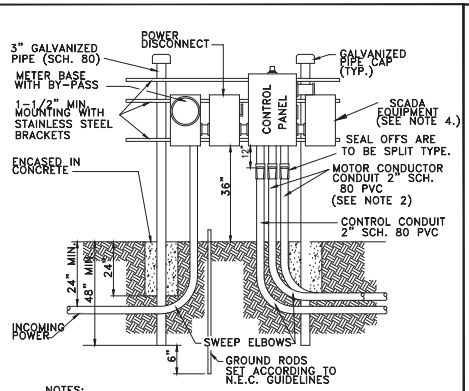
SHEET 62 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\UTILITY DETAILS.dwg Modified:2/27/2024 By:osanchez



LIFT STATION DETAIL

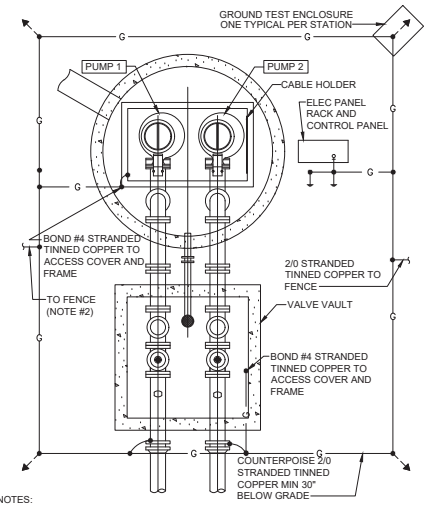
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 301



NOTES:
1. DRAWING IS SHOWN FOR 230 VOLT POWER SUPPLY. THE LOCATION OF METER AND MAIN POWER DISCONNECT SHALL BE REVERSED FOR 480 VOLT SUPPLY.
2. WHEN TWO (2) SEPARATE CONDUCTOR-TYPE MOTORS ARE USED, CONDUIT SHALL BE INCREASED TO THREE (3) INCH.
3. POWER SUPPLY SHALL BE UNDERGROUND TO THE PUMP STATION AND SHALL BE THREE (3) PHASE FROM A THREE (3) PHASE SOURCE ONLY.
4. STUB OUT UNISTRUT LONG ENOUGH TO ACCOMODATE A 24"x24" SCADA EQUIPMENT CABINET. CITY TO INSTALL SCADA EQUIPMENT CABINET.

DUPLEX PUMP STATION CONTROL PANEL INSTALLATION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 302



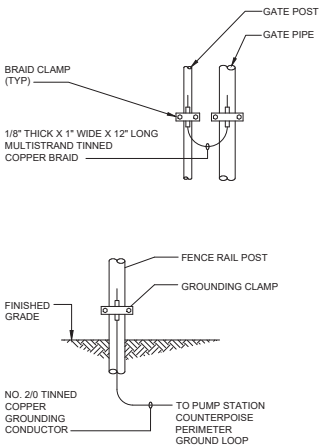
NOTES:
1. DETAIL IS GENERIC. SPECIFIC LOCATIONS OF EQUIPMENT MAY VARY.
2. TIE TO FENCE, MINIMUM 2 LOCATIONS. NOT REQUIRED WHERE PVC COATED OR BLOCK FENCE IS INSTALLED.
3. PROVIDE EXOTHERMIC WELDS UNLESS NOTED OTHERWISE.

PUMP STATION GROUNDING (TYPICAL)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307

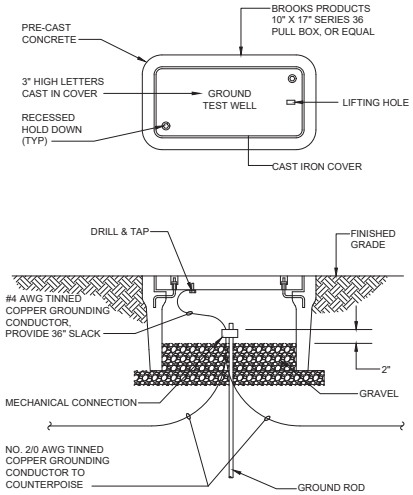
LIFT STATION MANUFACTURER IS REQUIRED TO PROVIDE SIGNED AND SEALED DRAWINGS FROM AN ELECTRICAL ENGINEER FOR CONTROL PANEL AND ELECTRICAL SPECIFICATIONS. PRIVATE LIFT STATION DESIGNED BY MESSINA & ASSOCIATES. THE ENGINEER OF RECORD'S SIGNATURE AND SEAL ON THIS SHEET IS ONLY FOR THE CIVIL ENGINEERING PORTION.

NOTES:
1. CONTRACTOR TO GRADE LIFT STATION SITE SUCH THAT WET WELL AND VALVE VAULT ARE A MIN OF 3" ABOVE SURROUNDING GRADE ELEVATION. ALSO, DRAINAGE IS SLOPED AWAY FROM THESE STRUCTURES.
2. THE ELECTRICAL DETAILS ARE SHOWN FOR CONCEPTUAL PURPOSES ONLY AND THE SUPPLIER SHALL PROVIDE FINAL SIGNED & SEALED DRAWINGS FOR ALL ELECTRICAL WORK.
3. CONTRACTOR TO VERIFY ELECTRICAL SERVICE PHASE, CURRENT AND VOLTAGE AVAILABILITY AND INCLUDE VERIFICATION OF SUCH IN SHOP DRAWING SUBMITTAL PRIOR TO PURCHASE AND/OR INSTALLATION OF PUMP AND CORRELATED ELECTRICAL LIFT STATION COMPONENTS.



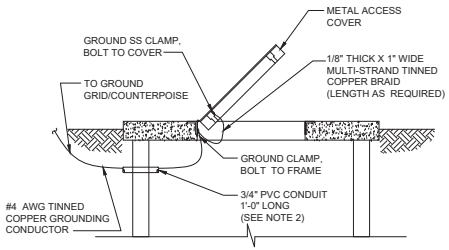
FENCE POST GROUNDING (TYPICAL)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307 A



GROUND TEST WELL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307 B



NOTES:
1. ON COVERS WITH MULTIPLE DOORS, PROVIDE BRAID FROM FRAME TO DOOR ON EACH DOOR. PROVIDE WATERPROOF CAULKING WHERE GROUND CABLE AND CONDUIT PENETRATES WETWELL TO PREVENT INTRUSION OF GROUNDWATER AND ESCAPE OF VAPORS FROM WETWELL.
2. INSTALL GROUND WIRE SO THAT IT WILL NOT CROSS CLEAR OPENING OR PREVENT OR IMPEDE NORMAL METHOD OF REMOVING FLOATS OR PUMPS.

COVER AND DOOR GROUNDING

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307 C

NO.	DATE	DESCRIPTION	BY
1			
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CIVIL ENGINEERING | LAND PLANNING
APPIAN ENGINEERING LLC.
APPIANFL.COM • 407.960.5868
2221 Lee Road, 32233-2?, Winter Park, Florida, 32789
LICENSED BUSINESS NUMBER 8?-?????

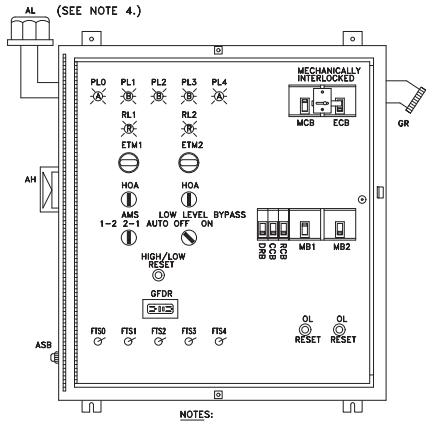
LIFT STATION DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	DRAWN: B. KILLELA	DESIGNED: O. SANCHEZ
N.T.S.	CHECKED: O. SANCHEZ	DATE: 4/2/24
PROJECT MIH-005	SHEET C10.4	

LICENSE No. 86492 STATE OF FLORIDA 4/2/24 OSVALDO SALVADOR SANCHEZ PROFESSIONAL ENGINEER

SHEET 63 OF 82

P:_PROJECT DRAWINGS\MIH-005 Wolf Lake Run Subdivision\Drawings\CAD Civil3D\Layouts\04 Final Engineering\CITY OF APOPKA LIFT STATION DETAILS.dwg Modified:4/1/2024 By:tmoore

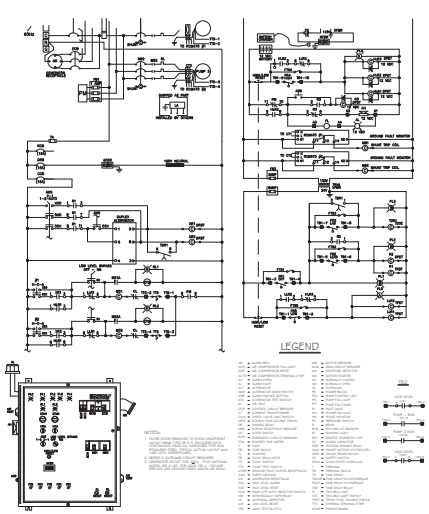


NOTES:

1. OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT NEMA TYPE 3R 304 S.S. ENCL. WITH CONTINUOUS HINGE ALL HARDWARE STAINLESS STEEL TYPICAL, ACTUAL LAYOUT MAY VARY WITH HORSEPOWER
2. SERIES 3 (Q-FRAME) CIRCUIT BREAKERS
3. GENERATOR OUTLET FOR 230V – PYLE NATIONAL MODEL JRE4100/460V – CROUSE HINDS MODEL AR 2042.
4. THE HEIGHT OF THE ALARM LIGHT WILL NEED TO BE MADE VISIBLE FROM OUTSIDE THE LIFT STATION.

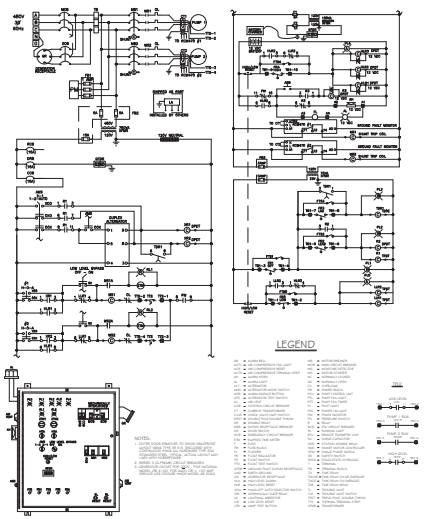
DUPLEX PUMP STATION CONTROL PANEL FRONT LAYOUT

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 303



DUPLEX PUMP CONTROL PANEL GENERAL LAYOUT & SCHEMATIC
(230V–3PH)
WITH GENERATOR RECEPTACLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 305 A



DUPLEX PUMP CONTROL PANEL GENERAL LAYOUT & SCHEMATIC
(480V–3PH)
WITH GENERATOR RECEPTACLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 305 C

AB – ALARM BELL
ACFL – AIR COMPRESSOR FAIL LIGHT
ACR – AIR COMPRESSOR RESET
ACTS – AIR COMPRESSOR TERMINAL STRIP
AH – ALARM HORN
AL – ALARM LIGHT
ALT – ALTERNATOR
AMS – ALTERNATOR MODE SWITCH
ASB – ALARM SILENCE BUTTON
ATS – ALTERNATOR TEST SWITCH
AV – AIR VENT
CCB – CONTROL CIRCUIT BREAKER
CT – CURRENT TRANSFORMER
CVLS – CHECK VALVE LIMIT SWITCH
DPDT – DOUBLE-POLE, DOUBLE-THROW
DR – DISABLE RELAY
DRB – DUPLEX RECEPTACLE BREAKER
DS – DOOR SWITCH
ECB – EMERGENCY CIRCUIT BREAKER
ETM – ELAPSED TIME METER
F – FUSE
FB – FUSE BLOCK
FL – FLASHER
FR – FLOAT REGULATOR
FS – FLOW SWITCH
FTS – FLOAT TEST SWITCH
GFDR – GROUND FAULT DUPLEX RECEPTACLE
GND – EARTH GROUND
GR – GENERATOR RECEPTACLE
HLA – HIGH LEVEL ALARM
HLR – HIGH LEVEL RESET
HOA – HAND–OFF–AUTO SELECTOR SWITCH
ISR – INTRINSICALLY SAFE RELAY
LA – LIGHTNING ARRESTOR
LLR – LOW LEVEL RESET
LTB – LAMP TEST BUTTON
MB – MOTOR BREAKER
MCB – MAIN CIRCUIT BREAKER
MD – MOISTURE DETECTOR
MS – MOTOR STARTER
NC – NORMALLY CLOSED
NO – NORMALLY OPEN
OL – OVERLOAD
PB – POWER BLOCK
PCU – PUMP CONTROL UNIT
PFL – PUMP FAIL LIGHT
PFT – PUMP FAIL TIMER
PL – PILOT LIGHT
POL – POWER ON LIGHT
PM – PHASE MONITOR
PS – PRESSURE SWITCH
R – RELAY
RCB – RTU CIRCUIT BREAKER
RL – RUNNING LIGHT
RTU – REMOTE TELEMETRY UNIT
SC – SURGE CAPACITOR
SDR – STATION DISABLE RELAY
SMC – SMART MOTOR CONTROLLER
SPM – SINGLE PHASE MODULE
SS – SAFETY SWITCH
SSOL – SOLID–STATE OVERLOAD
T – TERMINAL
TB – TERMINAL BLOCK
TD – TIME DELAY
TDODE – TIME DELAY ON DE–ENERGIZE
TDOE – TIME DELAY ON ENERGIZE
TDR – TIME DELAY RELAY
TL – TROUBLE LIGHT
TLS – TROUBLE LIGHT SWITCH
TPDT – TRIPLE–POLE, DOUBLE–THROW
TTS – THERMAL TERMINAL STRIP
XFMR – TRANSFORMER

COMPONENT LEGEND

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 306

CONTROL PANEL AND ELECTRICAL INFORMATION IS FOR CONCEPTUAL PURPOSES. LIFT STATION MANUFACTURER IS REQUIRED TO PROVIDE SIGNED AND SEALED DRAWINGS FROM AND ELECTRICAL ENGINEER FOR CONTROL PANEL AND ELECTRICAL SPECIFICATIONS. THE ENGINEER OF RECORD'S SIGNATURE AND SEAL ON THIS SHEET IS ONLY FOR THE CIVIL ENGINEERING PORTION.

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SHEET 64 OF 82

NO.	DATE	DESCRIPTION	BY

CIVIL ENGINEERING | LAND PLANNING
APPLIAN ENGINEERING LLC.
APPIANFL.COM • 407.960.5868
2231 Lake Rhona, 32703 FL, Winter Park, Florida, 32789
LICENSE NUMBER EC-0000 | LB-0000

LIFT STATION DETAILS
CONSTRUCTION SITE PLAN
WILLOW RUN SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: B. KILLELA
DESIGNED: O. SANCHEZ
CHECKED: O. SANCHEZ
DATE: 4/2/24
SCALE: N.T.S.
PROJECT: MIH–005
SHEET: C10.5

OVIDIO SALVADOR SANCHEZ
LICENSE No. 86492
STATE OF FLORIDA
4/2/24
PROFESSIONAL ENGINEER

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