July 14, 2025
PROJECT NAME: MULTI-FAMILY - 37 LAUREL PASS
PROJECT NUMBER: 2025030061
APPLICATION: MINOR SITE PLAN #32644

1 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.6 - Location of water and sewer. Does this need a special use permit? Verify if in primary springs protection zone. Will it need an enhanced septic system?
STATUS OF REVIEW: INFO
REMARKS: Within City of Belleview service area.

2 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.32 - Modified environmental assessment or exemption if information is available to the county to indicate no habitat or existence of endangered species or vegetation (Article 6, Division 5, Sec. 6.5.4)
STATUS OF REVIEW: INFO
REMARKS: Initial Review: Provide an environmental assessment consistent with LDC Div. 6.5; or provide a brief exemption request letter consistent with LDC Sec. 6.5.3
6/23/25: Submitted and transmitted to FWC

3 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 4.4.4 - Sign (provisions for advertising signage), if it is a multi occupancy complex like shopping centers they must submit a master sign plan.
STATUS OF REVIEW: INFO
REMARKS: Initial review: Will there be an on-site sign?
6/23/25: No sign proposed by applicant. Otherwise, separate sign permit will be required

4 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.12.4.K - List of approved waivers, conditions, date of approval
STATUS OF REVIEW: INFO
REMARKS: 3/25/25-add waivers if requested in future

5 DEPARTMENT: DOH - ENVIRONMENTAL HEALTH
REVIEW ITEM: Additional Health comments
STATUS OF REVIEW: INFO
REMARKS: Central Sewer/Central Water

6 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 2.12.25 - Marion Friendly Landscape Areas
STATUS OF REVIEW: INFO
REMARKS: MFLA not required on this site

7 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.7.4 - Shade tree requirements
STATUS OF REVIEW: INFO
REMARKS: No shade tree requirement on this site

8 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.7 - Parking areas and vehicular use areas
STATUS OF REVIEW: INFO
REMARKS: due to OHE, understory trees used in terminus island

9 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.11 - Landscape installation
STATUS OF REVIEW: INFO
REMARKS: All Landscape to be installed by landscape contractors licensed by Marion County Building Dept, or the State of Florida

10 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: Additional Landscape comments
STATUS OF REVIEW: INFO
REMARKS: What is sight line triangle shown through part of terminus island?

11 DEPARTMENT: LUCURR - LAND USE CURRENT REVIEW
REVIEW ITEM: 2.12.4.L(6) - Gross/wetland/floodplain acreage listed?
STATUS OF REVIEW: INFO
REMARKS: Not in flood zone.

12 DEPARTMENT: ENRAA - ACQ AGENT ENG ROW
REVIEW ITEM: Minor Site Plan
STATUS OF REVIEW: INFO
REMARKS: IF APPLICABLE:
Sec. 2.18.1.I - Show connections to other phases.
Sec.2.19.2.H – Legal Documents
Legal documents such as Declaration of Covenants and Restrictions, By-Laws, Articles of Incorporation, ordinances, resolutions, etc.
Sec. 6.3.1.B.1 – Required Right of Way Dedication (select as appropriate)
For Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated for the use and benefit of the public."
Sec. 6.3.1.B.2 – Required Right of Way Dedication
For Non-Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated privately to the [entity name]. All public authorities and their personnel providing services to the subdivision are granted an easement for access. The Board of County Commissioners of Marion County, Florida, shall have no responsibility, duty, or liability whatsoever regarding such streets. Marion County is granted an easement for emergency maintenance in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec. 6.3.1.D.3 - Cross Access Easements
For Cross Access Easements. "All parallel access easements shown on this plat are hereby dedicated for the use and benefit of the public, and maintenance of said easements is the responsibility of [entity name]."
Sec. 6.3.1.C.1 - Utility Easements (select as appropriate)
"[All utility easements shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction, installation, maintenance, and operation of utilities by any utility provider."
Sec. 6.3.1.C.2 – Utility Easements
"[All utility tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."
Sec.6.3.1.D(c)(1)(2)(3) - Stormwater easements and facilities, select as appropriate:
1 "[All stormwater and drainage easements as shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction and maintenance of such facilities."
2. "[All stormwater management tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."
3. When any stormwater easement and/or management tract is not dedicated to the public or Marion County directly, the following statement shall be added to the dedication language: "Marion County is granted the

right to perform emergency maintenance on the [stormwater easement and/or management tract, complete accordingly] in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec.6.3.1.D(f) –
If a Conservation Easement is required the following shall be provided: "A conservation easement [as shown or on tract and identify the tract, complete accordingly] is dedicated to [the Board of County Commissioners of Marion County, Florida or entity name, if not Marion County] for the purpose of preservation of [listed species, habitat, Karst feature and/or native vegetation, complete accordingly]."

13 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.20.2.B - $150.00 Minor Site Plan fee payable to Marion County BCC effective July 8, 2019
STATUS OF REVIEW: NO
REMARKS: Initial Review: Provide $150.00 for Growth Services' zoning review of minor site plan. This item will remain as [NO] until paid.
6/23/25: Not paid at this time

14 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.24 - Landscape requirements, (buffering) 6.8.6
STATUS OF REVIEW: NO
REMARKS: Initial review: Show required buffer areas labeled by type and dimensions. ROW buffers are not required for Juniper or Laurel Pass because they are classified as local roads. Buffers are not required between Multiple Family uses. Type A Buffer is required adjacent to the existing/vacant commercial properties. Refer to LDC Sec. 6.8.6 for Type A standards and other land use buffer information. Applicant may request a waiver to provide modified buffers or ask for exemption.
6/23/25: Buffers included. Will there be any garbage collection areas? Outdoor AC equipment indicated. In either case, buffering/screening shall be provided per LDC Sec. 6.8.9. Please indicate.

15 DEPARTMENT: ENGTRF - TRAFFIC REVIEW
REVIEW ITEM: 6.12.12 - Sidewalks
STATUS OF REVIEW: NO
REMARKS: 6/27/25 - Sidewalk fee in-lieu-of construction requires a DRC waiver. Contact OCE Customer Service (352) 671-8686 to schedule DRC review.
4/7/25 Sidewalks are required along Laurel Pass and Juniper Rd. Staff supports a waiver for sidewalks along Laurel Pass and a waiver for fee-in-lieu of construction along Juniper Rd. If approved, waiver for fee-in-lieu of construction comes out to $5,000.00.

16 DEPARTMENT: 911 - 911 MANAGEMENT
REVIEW ITEM: 6.2.1.F - North arrow and graphic drawing and written scale
STATUS OF REVIEW: NO
REMARKS: New Sheet TDC_LE_37LP_IR-01 is missing the North Arrow and Scale.

17 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.6 - Buffers
STATUS OF REVIEW: NO
REMARKS: 1. Type C buffers are required along roadways (Juniper Rd and Laurel Pass), please show on plan 2. If shade trees will conflict with OHE, evergreen understory trees may be used on a 1:1 basis. 3. Pine trees in buffers and near structures are not recommended, due to issues as they mature. Please consider alternative canopy trees.

Marion County
Board of County Commissioners
Office of the County Engineer
412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

AR 32644

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Date: 7/10/2025 Parcel Number(s): 9024-0541-01 Permit Number: 32644

A. PROJECT INFORMATION: Fill in below as applicable:

Project Name: Quadplex- 37 Laurel Pass Commercial ☐ Residential ☑
Subdivision Name (if applicable):
Unit Block 541 Lot 1 Tract

B. PROPERTY OWNER'S AUTHORIZATION: The property owner's signature authorizes the applicant to act on the owner's behalf for this waiver request. The signature may be obtained by email, fax, scan, a letter from the property owner, or original signature below.

Name (print): Jorge Collado
Signature:
Mailing Address: 5028 Saint Denis Ct City: Belle Isle
State: FL Zip Code: 32812 Phone # 407-575-8583
Email address: colladoworldwide@gmail.com

C. APPLICANT INFORMATION: The applicant will be the point of contact during this waiver process and will receive all correspondence.

Firm Name (if applicable): Linn Engineering and Design Contact Name: Chad Linn
Mailing Address: P.O. Box 140024 City: Orlando
State: FL Zip Code: 32814 Phone # 407-775-5194
Email address: clinn@linnengineering.com

D. WAIVER INFORMATION:
Section & Title of Code (be specific): Section. 6.12.12- Sidewalks
Reason/Justification for Request (be specific): Fee in lieu of construction

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DEVELOPMENT REVIEW USE:
Received By: Email 7/11/25 Date Processed: 7/14/25 BM Project # 2025030061 AR # 32644

ZONING USE: Parcel of record: Yes ☐ No ☐ **Eligible to apply for Family Division: Yes ☐ No ☐**
Zoned: ESOZ: P.O.M. Land Use: **Plat Vacation Required: Yes ☐ No ☐**
Date Reviewed: Verified by (print & initial):

MINOR SITE PLAN

FOR

QUAD PLEX

37 LAUREL PASS, OCALA, FLORIDA 34480

MARCH 2025

PARCEL ID# 9024-0541-01

SECTION 12, TOWNSHIP 16, RANGE 22

LEGAL DESCRIPTION

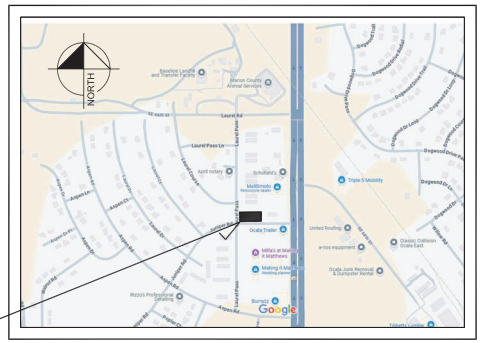
LOT 1 BLOCK 541 SILVER SPRINGS SHORES UNIT 24 ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK J, PAGE 188 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

FLOOD DISCLAIMER

BY PERFORMING A SEARCH WITH THE LOCAL GOVERNING MUNICIPALITY OR WWW.FEMA.GOV, THE PROPERTY APPEARS TO BE LOCATED IN ZONE X. THIS PROPERTY WAS FOUND IN MARION COUNTY UNINCORPORATED AREAS, COMMUNITY NUMBER 120160, PANEL 0735, SUFFIX D, DATED 08/28/2008.

I HEREBY CERTIFY THAT I, MY SUCCESSORS, AND ASSIGNS SHALL PERPETUALLY MAINTAIN THE IMPROVEMENTS AS SHOWN ON THIS PLAN

Signature	6/16/2025
	Date
Jorge Collado	Owner
Name	Title



LOCATION MAP

NTS

13-May-25

LINN ENGINEERING & DESIGN

P.O. Box 140024, Orlando, FL 32814
Phone: 407-252-8433 • Fax: 407-382-2776
clinn@linnengineering.com • www.LinnEngineering.com

ITE Trip Generation Rates - 11th Edition
Pass-by rates from ITE Trip Generation Handbook - 2nd Edition

Description/ITE Code	Units	ITE Vehicle Trip Generation Rates (peak hours are for peak hour of adjacent street traffic unless highlighted)							Units	Expected Units
		Weekday	AM	PM	Pass-By	AM In	AM Out	PM In	PM Out	Independent Variable	
Apartment 220	DU	6.74	0.40	0.51		24%	76%	63%	37%	DU	4.0

Total Generated Trips			Total Distribution of Generated Trips					
Daily	AM Hour	PM Hour	AM In	AM Out	Pass-By	PM In	PM Out	Pass-By
27	2	2	0	1	0	1	1	0

1

SITE DATA:

PROJECT AREA: 0.457 AC

ZONING: R-3

FLU: UR

PROPOSE USE: MULTIFAMILY APARTMENTS
2,400 SF/FLOOR

ADJACENT PROPERTIES:

NORTH: R-3; FLU-UR
EAST: B-4; FLU- COM
SOUTH: ROW
WEST: ROW

SITE REQUIREMENTS:

MIN. LOT WIDTH: 100 FT

MIN. LOT AREA: 12,500 SF

MAX DENSITY: MAX. 16 UNITS/AC
MIN. 8 UNITS/AC

BUILDING SETBACKS:
FRONT (WEST)- 25 FT
SIDE (NORTH,SOUTH)- 8 FT SIDE
REAR (EAST)- 25 FT

LANDSCAPE BUFFERS:
FRONT (ROW)- 0 FT
SIDE (R-3,ROW)- 0 FT SIDE
REAR (B-4)- TYPE A 30 FT

PARKING REQUIREMENTS:
2 SPACE/ DWELLING UNIT
24 FT AISLE LENGTH; TWO WAY TRAFFIC; 90°
MIN. 9FT WIDE BY 18 FT LONG PARKING SPACE

1

UTILITY PROVIDERS

CITY OF BELLEVIEW
5525 SE 119TH ST.
BELLEVIEW, FL 34420
OFFICE: 352-245-7021

ENGINEER:
LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
CONTACT: CHAD S LINN, P.E.
PHONE: 407-775-5194
EMAIL: CLINN@LINNENGINEERING.COM
FL LIC. NO. 57524

SURVEYOR :
LYNX SURVEYING CORP.
302 LAUREL ROAD EAST UNIT 291
LAUREL, FL 34272
OFFICE 833-721-2907
contact@lynxsureyors.com

OWNER/APPLICANT:
IDEAL HOUSING INVESTMENTS LLC
JORGE COLLADO
ADDRESS: 5028 SAINT DENIS CT
BELLE ISLE, FL 32812
EMAIL: COLLADOWORLDWIDE@GMAIL.COM

1

DRAWING INDEX

NOTE

1. CONSTRUCTION MATERIALS QUALITY AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH MARION COUNTY SPECIFICATIONS.
2. THE FOLLOWING PROPOSED FACILITIES SHOWN ON THE DEVELOPMENT PLANS ARE FOR REFERENCE PURPOSES ONLY AND EACH SHALL REQUIRE A SEPARATE BUILDING PERMIT. THE LIST INCLUDES, BUT IS NOT LIMITED TO: PROPOSED BUILDINGS, SANITARY LIFT STATIONS, LIGHT FIXTURES (POLES) THAT ARE INDEPENDENT FROM ANY BUILDING STRUCTURE, FENCES, GATES, MONUMENT SIGNS, DUMPSTER ENCLOSURES, AND DECORATIVE/RETAINING WALLS.
3. ANY PROPOSED ROADWAY LANE CLOSURE MUST BE SUBMITTED IN WRITING ACCOMPANIED BY A SPECIFIC MOT PLAN DETAILING THE SIGNAGE/DETOUR PLAN, DURATION OF THE ROAD CLOSURE, NOTIFICATION OF LOCAL EMERGENCY AND LAW ENFORCEMENT OFFICES, NOTIFICATION OF ORANGE COUNTY PUBLIC INFORMATION OFFICE AND ALL AFFECTED LOCAL RESIDENTS MUST BE NOTIFIED OF THE ROAD IN ADVANCE PRIOR TO THE BEGINNING OF ANY CONSTRUCTION ACTIVITY WITHIN THE ROADWAYS. ALL ROADWAY LANE CLOSURE MUST BE DONE IN STAGES WHEREIN ONLY SECTIONS OF ANY COUNTY ROAD WILL BE CLOSED AT A TIME. THIS IS TO KEEP EMERGENCY VEHICLES ROAD ACCESSIBILITY IMPACT TO A MINIMUM.

I HEREBY CERTIFY THAT THESE PLANS AND CALCULATIONS WERE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY LAND DEVELOPMENT CODE (LDC), EXCEPT AS WAIVED

CALL48 HOURS BEFORE YOUDIG
IT'S THE LAW! DIAL811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

No.	REVISIONS	DATE	BY
A	REVISED PER FDOT/COUNTY COMMENTS	04/2025	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
dlinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

SCALE: AS NOTED
DESIGNED BY: SAT
DRAWN BY: SAT
CHECKED BY: CSL

COVER SHEET

MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
1
MARION COUNTY FLORIDA

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C01

Drawing name: Z:\Projects\36300-Adan Investments\25-200 37 Laurel Pass-4 Plex\Civil\02 Notes.dwg Notes Jun 16, 2025 9:38am by: Shenika Thomas

GENERAL NOTES:

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE EXISTING UTILITY INFORMATION SHOWN IS BASED ON THE BOUNDARY & TOPOGRAPHIC SURVEY PROVIDED BY EFIRD SURVEYING GROUP. ALL EXISTING UTILITIES HAVE BEEN FIELD VERIFIED AT ALL POINTS OF CONNECTION AND AREAS OF INTEREST.

2. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, CABLE TV, COMMUNICATIONS, SANITARY SEWERS AND STORM DRAINAGE SYSTEMS, ON AND / OR ADJACENT TO THE SITE. REMOVE OR CAP AS NECESSARY.

3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION/REQUIREMENTS.

5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ON ALL PRECAST AND MANUFACTURED ITEMS, TO THE OWNER'S ENGINEER FOR APPROVAL. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

6. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, etc.) ARE TO BE INSTALLED WITHIN 5' OF BUILDING(S), UNLESS OTHERWISE NOTED ON PLANS.

7. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATION(S) OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PAD(S) AND ASSOCIATED ELECTRIC FACILITIES.

8. SAFETY:

A. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL.

B. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.

C. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.

D. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.

E. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN "ON-SITE PIPING PERMIT" (IF REQUIRED) FOR CONSTRUCTION OF THE PROPOSED UTILITIES. THIS PERMIT MUST BE OBTAINED BY A DULY LICENSED PLUMBING CONTRACTOR (OR CLASS A GENERAL CONTRACTOR) PRIOR TO THE START OF CONSTRUCTION. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THIS PERMIT.

10. THE GRAPHIC INFORMATION DEPICTED ON THESE PLANS HAS BEEN COMPILED TO PROPORTION BY SCALE AS ACCURATELY AS POSSIBLE. HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, AND/OR REVISIONS, INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SCALED FOR CONSTRUCTION PURPOSES.

11. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION.

12. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.

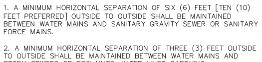
13. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH ANY OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS/SUBCONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE GENERAL CONTRACTOR TO COORDINATE AND SCHEDULE HIS/HER ACTIVITIES ACCORDINGLY.

14. WHERE APPLICABLE UTILITY TRENCHES CROSSING PAVEMENT AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIAL IN TWELVE INCH (12") LAYERS AND COMPACTED TO NINETY EIGHT PERCENT (98 %) MAXIMUM DENSITY AS DETERMINED BY AASHTO T-19 OR T-238.

15. ALL DIMENSIONS ARE TO FACE OF CURB.

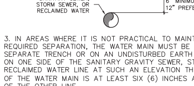
16. ALL DENSITIES AT UTILITY AND STORM STRUCTURES (INLET/MANHOLES WITHIN ROADWAY TO 3' IN BACK OF CURB) SHALL BE 98% WITHIN PAVEMENT AREAS, AND A DENSITY OF 95% FOR STRUCTURES OUTSIDE PAVED AREAS PER AASHTO-180 (MODIFIED) IS REQUIRED.

WATER SYSTEM NOTES:



1. A MINIMUM HORIZONTAL SEPARATION OF SIX (6) FEET [TEN (10) FEET PREFERRED] OUTSIDE TO OUTSIDE SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY GRAVITY SEWER OR SANITARY FORCE MAINS.

2. A MINIMUM HORIZONTAL SEPARATION OF THREE (3) FEET OUTSIDE TO OUTSIDE SHALL BE MAINTAINED BETWEEN WATER MAINS AND STORM SEWERS OR RECLAIMED WATER LINES CARRYING UNRESTRICTED PUBLIC ACCESS REUSE WATER.



3. IN AREAS WHERE IT IS NOT PRACTICAL TO MAINTAIN THE REQUIRED SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SANITARY GRAVITY SEWER, STORM SEWER OR RECLAIMED WATER LINE AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE OTHER LINE.

4. IF THE MINIMUM ALLOWABLE SIX (6) FOOT HORIZONTAL SEPARATION OR SIX (6) INCHES VERTICAL SEPARATION IN A SEPARATE TRENCH CANNOT BE MAINTAINED. UPGRADE THE WATER MAIN TO DUCTILE IRON IF THE OTHER LINE IS A STORM SEWER.

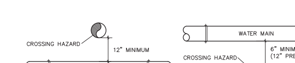
5. IF THE NON-CONFORMING LINE IS A GRAVITY SANITARY SEWER, AND SIX (6) FOOT HORIZONTAL SEPARATION OR SIX (6) INCHES VERTICAL SEPARATION IN A SEPARATE TRENCH CANNOT BE MAINTAINED. UPGRADE THE GRAVITY SANITARY SEWER (IF BEING NEWLY INSTALLED) TO AWWA C-900, D.R. 18 PVC AND HYDROSTATICALLY TEST IT TO 150 PSI.

6. IF THE OTHER LINE IS A RECLAIMED WATER LINE AND THE ABOVE SEPARATION REQUIREMENTS ARE NOT MET, UPGRADE THE RECLAIMED WATER LINE MATERIAL TO DUCTILE IRON OR ENCASED THE PIPE IN CONCRETE.

7. DEVIATIONS AND OTHER ALTERNATIVES SHALL BE CONSIDERED ON CASE-BY-CASE BASIS AND MUST RECEIVE SPECIFIC APPROVAL BY D.E.P. PRIOR TO IMPLEMENTATION.

8. THERE SHALL BE AT LEAST A SIX (6) FOOT SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER FORCE MAINS WITHOUT EXCEPTION. FIELD PROBLEMS SHALL BE REPORTED TO THE ENGINEER. SPECIAL SOLUTIONS MUST BE ACCEPTED BY D.E.P. PRIOR TO IMPLEMENTATION.

9. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY SEWER MANHOLE OR STORM SEWER STRUCTURE.



10. A MINIMUM OF VERTICAL SEPARATION OF SIX (6) INCHES [TWELVE (12) INCHES PREFERRED] OUTSIDE TO OUTSIDE SHALL BE MAINTAINED BETWEEN WATER MAIN, SANITARY GRAVITY SEWER, STORM SEWER OR RECLAIMED WATER LINES.

THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TWELVE (12) FEET BETWEEN ANY TWO JOINTS. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 12 FEET BETWEEN ANY TWO (2) JOINTS IN LIEU OF DIP. THE SANITARY SEWER MAY BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE, AND MECHANICALLY RESTRAINED. TWELVE (12) FEET BETWEEN JOINTS CENTERED AT THE POINT OF CROSSING SHALL BE REQUIRED. THE WATER MAIN SHALL BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (i.e. PIPES CENTERED ON THE CROSSING).

11. WHEN THERE IS LESS THAN 6" VERTICAL CLEARANCE BETWEEN THE WATER MAIN AND STORM SEWER. THE WATER MAIN SHALL BE UPGRADED TO DUCTILE IRON. ONE FULL LENGTH OF PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

12. IF THE NON-CONFORMING LINE IS A SANITARY GRAVITY SEWER WHERE THERE IS LESS THAN SIX (6) INCHES VERTICAL CLEARANCE FROM THE WATER MAIN, UPGRADE THE SANITARY GRAVITY SEWER TO AWWA C-90 D.R. 18 PVC AND HYDROSTATICALLY TEST IT TO 150 PSI. PIPE SHALL BE LOCATED SO THAT JOINTS ARE AS FAR AS POSSIBLE FROM EACH OTHER.

13. IF THE OTHER LINE IS A RECLAIMED WATER LINE AND THE ABOVE MINIMUM SEPARATION IS NOT MET, UPGRADE THE RECLAIMED WATER LINE MATERIAL TO DUCTILE IRON OR ENCASE THE PIPE IN CONCRETE.

14. SPECIAL STRUCTURAL SUPPORT OR CONCRETE SADDLES MAY BE NECESSARY AT THE CROSSING LOCATION.

15. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE CROSSING HAZARD. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM VERTICAL SEPARATION IS TWELVE (12) INCHES.

16. DEVIATIONS AND OTHER ALTERNATIVES SHALL BE CONSIDERED ON CASE- BY-CASE BASIS AND MUST RECEIVE SPECIFIC APPROVAL BY D.E.P. PRIOR TO IMPLEMENTATION.

17. THERE SHALL BE A SIX (6) INCH VERTICAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER FORCE MAINS AT CROSSINGS WITHOUT EXCEPTION. CONFLICTS WITH EXISTING LINES, WHERE IT IS NOT POSSIBLE TO MAINTAIN THE REQUIRED SEPARATION, SHALL BE REPORTED TO THE ENGINEER. SPECIAL SOLUTIONS MUST BE ACCEPTED BY D.E.P. PRIOR TO IMPLEMENTATION.

18. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 36 INCHES OF COVER.

19. CONTRACTOR TO INSTALL TEMPORARY BLOWOFFS, AT THE END(S) OF PROPOSED WATER MAINS AND SERVICE LATERALS TO BUILDING(S), TO ASSURE ADEQUATE FLUSHING AND DISINFECTION/CHLORINATION.

20. ALL WATER MAINS SHALL BE STERILIZED IN ACCORDANCE WITH THE APPLICABLE SECTION OF THE LATEST AWWA SPECIFICATION C651 AND MUNICIPALITY WATER DEPARTMENT SPECIFICATIONS.

21. THE LOCATION OF EXISTING UTILITIES, SUCH AS WATER MAINS, SEWERS, GAS LINES, ETC. AS SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. HOWEVER, THE ENGINEER AND OWNER DO NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF THE LOCATIONS SHOWN.

22. SSOCOF

FLORIDA LAW (F.S. 553.851) AND (F.S. 556) SSOCOF 1-800-432-4770 (SUNSHINE STATE ONE CALL OF FLORIDA) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION." THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACKFILLING, DEMOLITION, GRADING, DITCHING, DRILLING, BORING, AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).

TRENCH SAFETY

CONTRACTOR SHALL COMPLY WITH OSHA TRENCH SAFETY STANDARDS 29 C.F.R., S. 926.650, SUBPART P, AND ALL SUBSEQUENT REVISIONS OR UPDATES ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY AND WITH SECTION 553.62, FLORIDA STATUTES.

23. WHERE APPLICABLE UTILITY TRENCHES CROSSING PAVEMENT AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIAL IN TWELVE INCH (12") LAYERS AND COMPACTED TO NINETY EIGHT PERCENT (98%) MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.

24. ALL UNSUITABLE MATERIALS UNDER WATER PIPES THAT IS UNDER PAVEMENT SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL COMPACTED TO NINETY-EIGHT PERCENT (98%) OF ITS MAXIMUM DENSITY AT TWO PERCENT (2.0%) MORE OR LESS OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557). ALL UNSUITABLE MATERIALS UNDER WATER PIPES THAT IS NOT UNDER PAVEMENT SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL COMPACTED TO NINETY-FIVE PERCENT (95%) OF ITS MAXIMUM DENSITY AT TWO PERCENT (2.0%) MORE OR LESS OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557).

25. ANY DAMAGE TO UNDERGROUND UTILITIES AND/OR STRUCTURES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

26. ALL MATERIALS AND CONSTRUCTION ARE TO BE IN ACCORDANCE WITH THE CURRENT MUNICIPALITY STANDARDS AND SPECIFICATIONS.

27. WHERE APPLICABLE, SIX INCH (6") POLYVINYL CHLORIDE SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF ONE PERCENT (1.0%).

28. FIRE SERVICE PIPE SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE CONFORMING TO AWWA C900 WITH DIMENSION RATIO (DR) OF FOURTEEN (14) AND A MINIMUM PRESSURE CLASS OF TWO HUNDRED POUNDS PER SQUARE INCH (200 P.S.I.). WATER SERVICE PIPE SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE CONFORMING TO AWWA C900 WITH DIMENSION RATIO (DR) OF EIGHTEEN (18) AND A MINIMUM PRESSURE CLASS OF ONE HUNDRED FIFTY POUNDS PER SQUARE INCH (150 P.S.I.). ALL COUNTY OWNED WATERMAIN TO BE D.I.P.

29. ALL WATER PIPES WITH A DIAMETER EQUAL OR LESS THAN 4" SHALL BE AWWA C-901 POLYTUBING.

30. ALL WATER PIPE SHALL BE DISINFECTED AND HYDROSTATICALLY TESTED IN ACCORDANCE WITH AWWA STANDARDS C651, C600, OR M23 FOR POLYVINYL CHLORIDE AND COUNTY SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE, ALL NECESSARY TESTING EQUIPMENT, PRESSURE GAUGES, WATER METERS AND FACILITIES REQUIRED FOR PRESSURE AND LEAKAGE TESTING.

31. ALL ON-SITE WATER, SANITARY SEWER AND STORMWATER IMPROVEMENTS SHALL BE INSTALLED AND MAINTAINED BY THE OWNER IN CONFORMANCE WITH THE MUNICIPALITY STANDARDS.

32. CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN OUT MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.

33. ELECTRICAL, TELEPHONE, GAS AND CABLE TELEVISION SERVICE WILL BE PROVIDED BY THE APPROPRIATE UTILITY COMPANIES. THE CONTRACTOR SHALL COORDINATE LOCATIONS AND SERVICES FOR THESE UTILITIES WITH THE ENTITIES INVOLVED.

34. ALL UTILITIES CONSTRUCTION CONNECTING TO THE MUNICIPALITY SYSTEM SHALL CONFORM TO THE MUNICIPALITY MANUAL OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION.

35. THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY PUBLIC UTILITIES CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION.

36. ALL ABOVE GROUND EQUIPMENT NOT MOUNTED ON THE BUILDING MUST BE PAINTED BLACK AND SCREENED WITH LANDSCAPE, EXCEPT BACKFLOW PREVENTORS ARE TO BE COMPLETELY PAINTED THE COLOR OF THE CORRESPONDING UTILITY. POTABLE WATER IS BLUE, RECLAIMED WATER IS PURPLE, AND FIRE IS RED.

37. WHERE APPLICABLE UTILITY TRENCHES CROSSING PAVEMENT AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIAL IN TWELVE INCH (12") LAYERS AND COMPACTED TO NINETY EIGHT PERCENT (98%) MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.

38. ALL UNSUITABLE MATERIALS UNDER WATER PIPES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL COMPACTED TO NINETY-FIVE PERCENT (95%) OF ITS MAXIMUM DENSITY AT TWO PERCENT (2.0%) MORE OR LESS OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557).

39. CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN OUT MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.

40. A SIGN SHALL BE PLACED AT IRRIGATED AREAS WITH THE WORDS "IRRIGATION BY REUSE WATER. DO NOT DRINK".

41. CONTRACTOR SHALL NOTIFY THE MUNICIPALITY PUBLIC UTILITIES CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION.

TESTING AND INSPECTION REQUIREMENTS (WATER):

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER. PRESSURE TESTS TO BE IN ACCORDANCE WITH MARION COUNTY, LAND DEVELOPMENT CODE UTILITIES DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY THE OWNER'S ENGINEER AND APPLICABLE AGENCY INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.

2. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING, AND OBTAIN CLEARANCE OF DOMESTIC AND FIRE LINE WATER SYSTEM(S). COPIES OF ALL BACTERIOLOGICAL TEST RESULTS ARE TO BE SUBMITTED TO THE OWNER'S ENGINEER FOR CERTIFICATION PURPOSES.

AS-BUILT INFORMATION:

AS-BUILT DRAWINGS WILL BE REQUIRED WITH THE FOLLOWING INFORMATION:

WATER SYSTEM

1. ACTUAL LENGTHS OF PIPE BETWEEN BRANCHES AND VALVES IN THE RUN.
2. LOCATE WITH MEASURMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS/ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES).
3. LIST THE DEPTHS OF THE LINES AT ALL VALVES, FITTINGS AND FIRE HYDRANTS.

PAVING AND GRADING NOTES:

1. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS, ETC.) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE OWNER, THE OWNERS ENGINEERS, OR OWNERS SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.

3. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER'S SOILS TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS.

4. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES, UNLESS OTHERWISE NOTED.

5. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. CONTRACTOR TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES.

6. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.

7. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE LATEST EDITION OF F.D.O.T. "ROADWAY AND TRAFFIC DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL F.D.O.T. TYPE CURB AND GUTTERS CALLED FOR IN THESE PLANS.

8. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE SOILS ENGINEER FOR APPROVAL.

9. CONTRACTOR TO PROVIDE A 1/2" TO 1" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT ABUTMENT OF CONCRETE AND OTHER MATERIALS (STRUCTURES, OTHER POURED)

10. ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH F.D.O.T. STANDARD INDEX #17346.

11. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

12. THE CONTRACTOR SHALL RESTORE OFF-SITE CONSTRUCTION AREAS TO EQUAL AND/OR BETTER CONDITION THAN EXISTING PRIOR TO START OF CONSTRUCTION.

13. UNLESS OTHERWISE NOTED, GRADE TO MEET EXISTING ELEVATION AT PROPERTY LINES.

14. SURVEY MONUMENTS OR BENCHMARKS, WHICH HAVE TO BE DISTURBED BY THIS WORK, SHALL BE REPLACED UPON COMPLETION OF WORK BY A REGISTERED LAND SURVEYOR.

15. FINAL GRADES SHOWN INCLUDE SOD HEIGHT. ALL AREAS SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS.

16. CONTRACTOR TO PREPARE AND SUBMIT SIGNED AND SEALED AS-BUILT DRAWINGS TO COUNTY STAFF PRIOR TO PROJECT CLOSE-OUT.

17. REFER TO THE FDOT DESIGN STANDARDS FOR THE MANUFACTURE AND CONSTRUCTION OF REINFORCED CONCRETE PIPE AND CONCRETE DRAINAGE STRUCTURES.

TESTING AND INSPECTION REQUIREMENTS (PAVING/GRADING):

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE SOILS REPORT. UPON COMPLETION OF WORK THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

2. A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN-PLACE MATERIALS AS REQUIRED BY THESE PLANS, THE VARIOUS AGENCIES AND PERMIT CONDITIONS. SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.

BEST MANAGEMENT PRACTICES:

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), MUNICIPALITY LAND DEVELOPMENT REGULATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD). THE PLAN ADDRESSES THE FOLLOWING AREAS:

1. GENERAL EROSION CONTROL.
2. PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
3. CONTROL OF WIND EROSION.

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT INDEX #100 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION

SECTION 1 GENERAL EROSION CONTROL:

1.1 GENERAL EROSION CONTROL BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL POND SLOPE CAVE-INS. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.

1.2 SLOPES OF BANKS OF RETENTION/DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 5H:1V FROM TOP OF BANK TO TWO FEET BELOW THE CONTROL ELEVATION.

1.3 SOD SHALL BE PLACED FOR A MIN. 2-FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.

1.4 CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY SCHEDULED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY OR OVER SEEDED AND PERIODICALLY WATERED SUFFICIENTLY TO STABILIZE THE TEMPORARY GROUNDCOVER.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION:

2.1 SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST MANAGEMENT PRACTICES IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.

2.2 WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.

2.3 EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:

A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.
B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN ON THIS SHEET. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.

2.4 HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE, ABSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.

2.5 SILT BARRIERS, ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS, AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.

2.6 WHERE REQUIRED TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE, A TEMPORARY SEDIMENT SUMP SHALL BE CONSTRUCTED. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

2.7 ALL PAINT(S) AND OTHER HAZARDOUS MATERIALS SHALL BE CONTAINED WITHIN A SINGLE ON-SITE AREA WITHIN SEALED CONTAINERS.

2.8 INSPECTION AND MAINTENANCE PROCEDURES FOR CONTROL MEASURES IDENTIFIED IN THE PLAN:

A. THE CONTRACTOR IS REQUIRED TO PROVIDE A QUALIFIED INSPECTOR TO PERFORM AND DOCUMENT REQUIRED INSPECTIONS.
B. ALL DISTURBED AREAS, STORAGE AREAS, AND CONSTRUCTION EXITS MUST BE INSPECTED. THIS INCLUDES OFF-SITE CONSTRUCTION AREAS.
C. INSPECTIONS MUST BE COMPLETED ONCE EVERY SEVEN DAYS AND/OR WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER (CONTRACTOR TO PROVIDE AN ON-SITE RAIN GAUGE AND PROVIDE DAILY RECORDING OF RAIN EVENTS).
D. ALL AREAS OF UNSATISFACTORY CONTROLS (INCLUDING EXISTING CONTROL MEASURES OR AREAS REQUIRING ADDITIONAL CONTROL MEASURES) SHALL BE REPAIRED/MAINTAINED/INSTALLED WITHIN 24 HOURS OF THE OBSERVANCE OR PRIOR TO AN ANTICIPATED RAIN EVENT IF FORECAST SOONER THAN 24 HOURS.

2.9 ALL WATER RUNOFF RESULTING FROM SOURCES OTHER THAN RAINFALL EVENTS (I.E. BLOW-OFF FROM HYDRO-STATIC TESTING, PROCESS WATER FROM VEHICLE WASHDOWN, ETC.) SHALL BE DIRECTED TOWARDS THE ON-SITE SURFACE WATER MANAGEMENT SYSTEM, WHETHER IN TEMPORARY OR FINAL CONDITION, SO THAT IT HAS NO ADVERSE IMPACTS TO DOWNSTREAM WATER QUALITY CONDITIONS.

SECTION 3 CONTROL OF WIND EROSION:

3.1 WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:

A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

B. AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.

C. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE

CLEARING AND SITE PREPARATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE EROSION CONTROL DEVICES, AS SHOWN ON THE CONSTRUCTION PLANS, PRIOR TO ANY SITE CLEARING AND/OR DEMOLITION. REFER TO THE "EROSION CONTROL NOTES" SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS.

2. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES, AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE(S) SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.

3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL, IMMEDIATELY FOLLOWING CONSTRUCTION.

4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE, PROVIDED THE MATERIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BE STOCKPILED ON-SITE, AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING ANY EXCESS MATERIAL FROM THE SITE.

5. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.

6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT, COPIES OF WHICH ARE AVAILABLE THROUGH THE OWNER OR SOILS TESTING COMPANY DIRECTLY.

7. CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY CONSTRUCTION FENCE. TYPE OF FENCE TO BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR APPROVAL.

8. CONTRACTOR SHALL MAINTAIN STORMWATER MANAGEMENT SYSTEM TO INSURE NO DAMAGE TO ADJACENT PROPERTIES OCCURS DURING STORM EVENTS.

9. DISTURBED AREA(S) WITHIN THE ROW WILL COMPACTED TO 98% OF MAXIMUM DENSITY AND SODDED.

10. DO NOT DISTRUB EXISTING UNDERDRAIN OR STORM SYSTEMS.

11. NO STOCKPILING OF MATERIAL IN ROADWAY OR ON SIDEWALK; ALL DIRT AND DEBRIS WILL BE REMOVED FROM JOB SITE DAILY. ROADS AND SIDEWALK TO BE SWEPT DAILY AS PART OF DAILY CLEAN-UP.

12. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER. CONTRACTOR SHALL PROVIDE TO ENGINEER PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS REQUESTED BY ENGINEER.

13. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.

14. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF SITE IN A LEGAL MANNER.

15. DURING PREPARATION OF THE SUB GRADE AND UNTIL THE PAVING IS IN PLACE, THE CONTRACTOR SHALL PROMPTLY TAKE REASONABLE MEASURES TO OBTAIN AND MAINTAIN A DRY SITE CONDITION. SUCH MEASURES SHALL INCLUDE PUMPING OF FREE SURFACE WATER, MINOR HAND AND/OR MACHINE SHAPING OF FACILITATE WATER REMOVAL, AND OTHER OPERATIONS TO SPEED DRYING.

16. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS, ETC.) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE OWNER, THE OWNERS ENGINEERS, OR OWNERS SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.

18. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

EROSION AND SILTATION CONTROL:

1. GENERAL - ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION. DURING CONSTRUCTION, DENUDED AREAS SHALL BE COVERED BY MULCHES SUCH AS STRAW, HAY AND FILTER FABRIC. ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS OR HAY BALES. THESE SHALL BE MAINTAINED AND MODIFIED DURING THE CONSTRUCTION PROCESS TO MINIMIZE DOWNSTREAM SILTATION. WHEN CONSTRUCTION IS COMPLETED, DETENTION AREAS WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS, AND RE-SODDED TO PROPERLY DETAIN THE INTENDED STORM QUANTITIES.

2. PROTECTION AND STABILIZATION OF ON-SITE SOIL STOCKPILES - FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY UNSTOCKPILED MATERIAL REMAIN MORE THAN THIRTY (30) CALENDAR DAYS AFTER SUBSTANTIAL PROJECT COMPLETION.

3. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.

4. SEDIMENT BASINS AND TRAPS, SEDIMENT TRAPPING MEASURES: PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS, SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE WEEK OF INSTALLATION.

5. ALL SWALES, DITCHES AND CHANNELS: CHANNELS LEADING FROM THE SITE SHALL BE SODDED WITH ARGENTINE BAHIA WITHIN THREE (3) DAYS OF EXCAVATION.

6. THE CONSTRUCTION OF UNDERGROUND UTILITY CONSTRUCTION: UNDERGROUND UTILITY LINES AND OTHER STRUCTURES SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE OPEN AT ANY ONE TIME;
B. WHEREVER CONSISTENT WITH SAFETY AND SPACE CONSIDERATION, EXCAVATED MATERIAL SHALL BE CAST TO THE UPHILL SIDE OF TRENCHES. TRENCH MATERIAL SHALL NOT BE CAST INTO OR ONTO THE SLOPE OF ANY STREAM, CHANNEL, ROAD, DITCH OR WATERWAY.

7. ALL EROSION AND SILTATION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.

8. STAKED HAY BALES WILL NOT BE UTILIZED FOR EROSION, SEDIMENT AND TURBIDITY CONTROL.

DEWATERING NOTES:

1. DURING THE EXCAVATION OF THE STORMWATER PONDS, THE CONTRACTOR MUST CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE CELL IN THE PROPOSED EXCAVATION AREA OF A POND OR IT CAN BE A BERMED AREA ABOVE GROUND. ALL DEWATERING MUST BE HELD IN THE SEDIMENT AREA UNTIL THE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURBID DISCHARGE. AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN, THE WATER MAY BE RELEASED INTO THE ON-SITE POND PROVIDED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY.

2. UNDER NO CIRCUMSTANCES WILL THE DISCHARGE FROM THE DEWATERING BE DIRECTLY INTO THE CANAL.

3. DURING THE EXCAVATION THE CONTRACTOR SHALL NOT PENETRATE THE EXISTING CLAY LAYER. IF THE CONTRACTOR ENCOUNTERS THE CLAY LAYER, HE/SHE IS TO PLACE A MINIMUM OF 2 FEET OF SANDY MATERIAL OVER THE CLAY AND TERMINATE THE DEPTH OF THE EXCAVATION.

4. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH CHEMICAL ADDITIVE SUCH AS ALLUM IN ORDER TO PROMOTE THE COAGULATION OF THE PARTICLES WHICH ALLOW THE TO SETTLE AND THE WATER TO BECOME LESS TURBID. IF TURBID WATER ENCOUNTERED DURING EXCAVATION OF THE PONDS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY TO DETERMINE THE COURSE OF ACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBITY AND ALLOW DISCHARGE THAT MEET WATER QUALITY STANDARDS.

5. THE CONTRACTOR SHALL SEQUENCE THE EXCAVATION OF THE STORMWATER PONDS SUCH THAT A SEDIMENT BASIN WILL BE AVAILABLE AT ALL TIMES. THE SEDIMENT BASIN CAN BE RELOCATED AS NECESSARY SUBJECT TO THE WATER WITHIN THE SEDIMENT BASIN BEING NON-TURBID AND ACCEPTABLE FOR DISCHARGE OFF-SITE.

EROSION CONTROL NOTES:

1. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIERS (SILTATION CURTAINS) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.

2. THE CONTRACTOR SHALL LIMIT THE DISCHARGE OF TURBID WATERS OFF-SITE, OR INTO ON-SITE/OFF-SITE WETLANDS (IF APPLICABLE), TO NO MORE THAN 50 JTU's (JACKSON TURBIDITY UNITS) OR 29 NTU's (NEPHELOMETRIC TURBIDITY UNITS), ABOVE BACKGROUND LEVELS.

3. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.

4. CONTRACTOR SHALL INSPECT AND MAINTAIN ON A DAILY BASIS ALL EROSION/SEDIMENTATION CONTROL FACILITIES.

5. THE CONTRACTOR SHALL ENSURE THAT SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION CONTROL BARRIER SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLAND AREAS.

No.	REVISIONS	DATE	BY
1	REVISED PER FDOT/COUNTY COMMENTS	04/2025	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

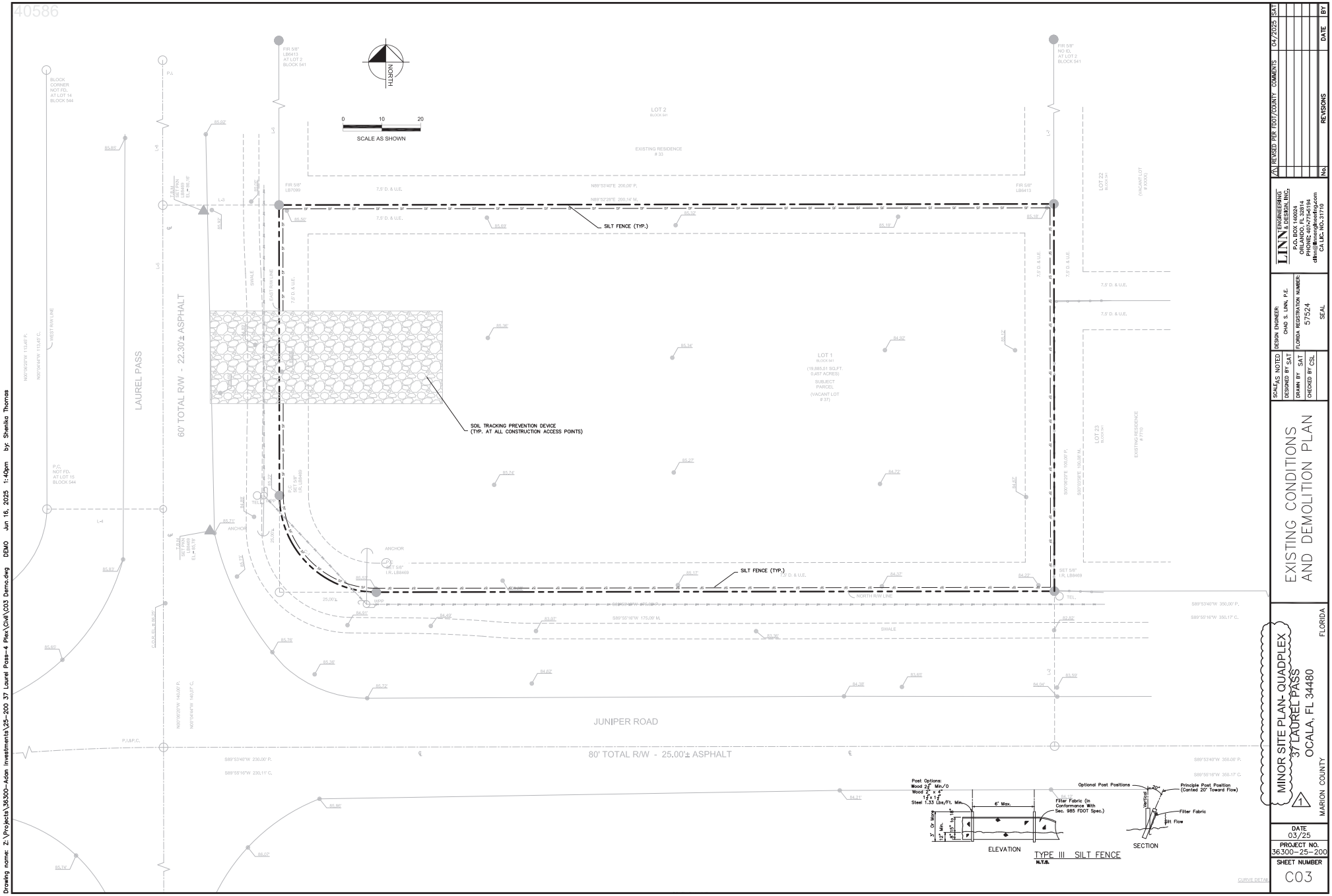
DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

SCALE AS NOTED
DESIGNED BY SAT
DRAWN BY SAT
CHECKED BY CSL

GENERAL NOTES

MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
MARION COUNTY FLORIDA

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C02



No.	REVISIONS	DATE	BY
A1	REVISED PER FDOT/COUNTY COMMENTS	04/2025	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
OCALA, FL 34484
PHONE: 407-774-5194
dlinn@linnengineering.com
CA Lic. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

SCALE: AS NOTED
DESIGNED BY: SAT
DRAWN BY: SAT
CHECKED BY: CSL

EXISTING CONDITIONS AND DEMOLITION PLAN

MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
1
MARION COUNTY FLORIDA

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C03

Drawing name: Z:\Projects\36300-Adan investments\25-200 37 Laurel Pass-4 Plex\Civil\C03 Demo.dwg DEMO Jun 16, 2025 1:40pm by: Shenika Thomas

SITE DATA

PARCEL ID#	9024-0541-01
PROJECT AREA:	0.457 ACRES 19,885 SF
EXISTING ZONING:	R-3
PROPOSED USE:	QUAD PLEX-APARTMENTS
BUILDING:	2,400 SF
MAX BUILDING HEIGHT:	40'-0"
PROVIDED BUILDING HEIGHT:	26'-0"
NUMBER OF STORIES:	2
DENSITY:	MAX. 16 UNITS/AC. MIN. 4 UNITS/AC.
DENSITY ALLOWED:	MAX. 7 UNITS/AC. MIN. 2 UNITS/AC.

PROPOSED UNITS:

3 BEDROOMS: 4 UNITS

TOTAL PROPOSED UNITS: 4 UNITS

PARKING REQUIRED:

3 BEDROOM: 2 SPACES/D.U.= 2 X 4 = 8 SPACES

TOTAL REQUIRED PARKING: 8 SPACES

PARKING PROVIDED

REGULAR SPACES (9'x18')	8 SPACES
TOTAL SPACES	8 SPACES

MAXIMUM IMPERVIOUS AREA:

MINOR SITE PLAN 35% IMPERVIOUS MAX. =6967 SF

PROPOSED IMPERVIOUS AREA:

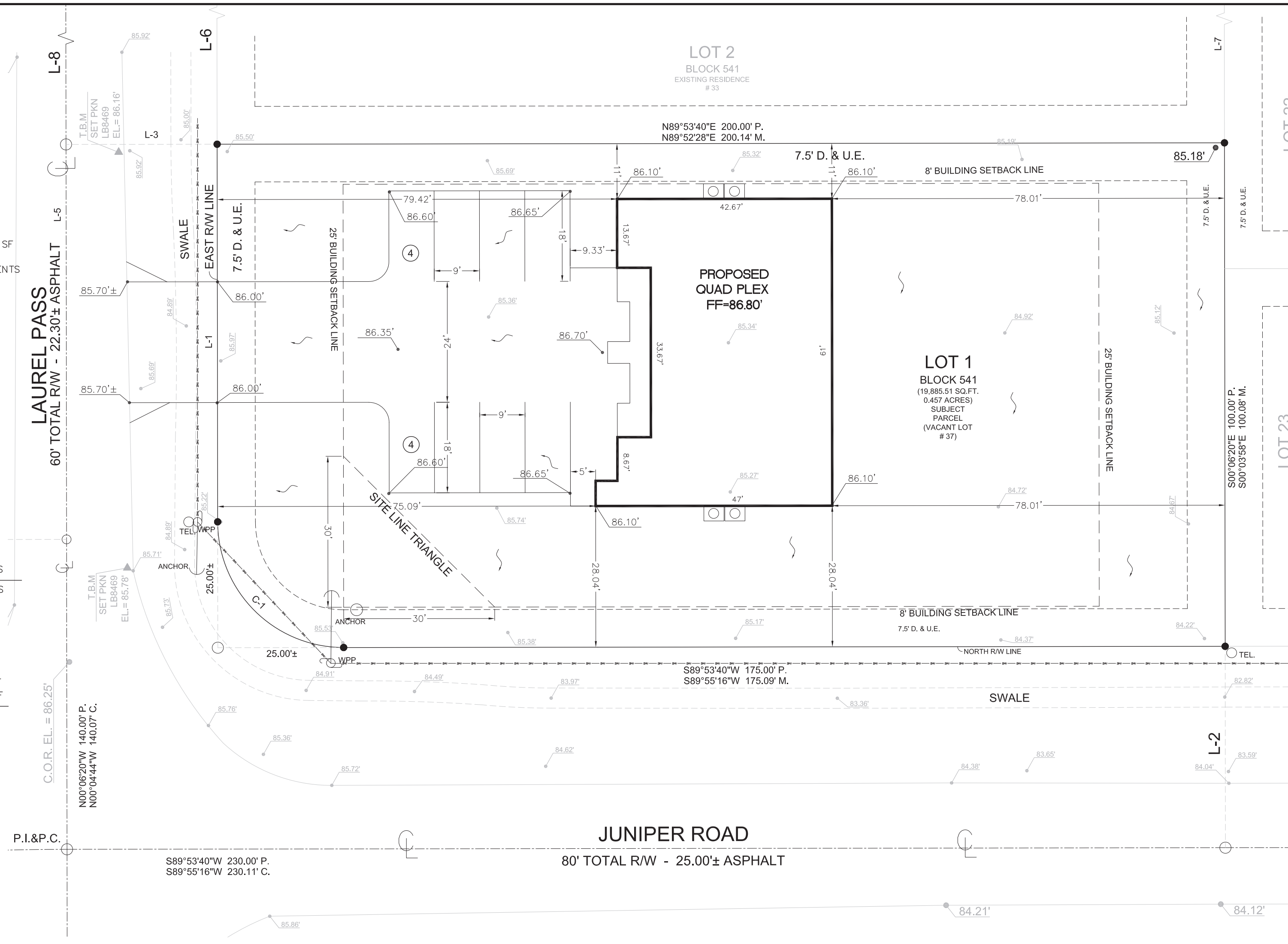
IMPERVIOUS AREA (PARKING, SIDEWALK, ETC.):	3,681 SF
BUILDING:	2,400 SF
TOTAL IMPERVIOUS AREA	6,081 SF

BUILDING SETBACKS:

FRONT	25 FEET
REAR	25 FEET
SIDE	8 FEET
SIDE	8 FEET

LANDSCAPE BUFFER:

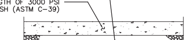
FRONT	15 FEET
REAR	0 FEET
SIDE	0 FEET
SIDE	0 FEET



TYPICAL PAVEMENT SECTION

N.T.S.

CONCRETE DRIVE ISLE DETAIL ON SITE



CONCRETE SIDEWALK DETAIL ON SITE

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

No.	REVISIONS
DATE	BY

SCALE AS NOTED
DESIGNED BY SAT
DRAWN BY SAT
CHECKED BY CSL

SITE/GRADING PLAN

QUAD PLEX
37 LAUREL PASS
OCALA, FL 34480
FLORIDA

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C04

Drawing name: Z:\Projects\36300-Adon Investments\25-200 37 Laurel Pass-4 Plex\Civil\37 Laurel Pass - Site Plan.dwg C04-Site Plan Mar 16, 2025 12:42pm by: Chad

SITE DATA

PARCEL ID:	9024-0541-01
PROJECT AREA:	0.457 ACRES (19,885 SF)
PROPOSED USE:	QUADPLEX APARTMENTS
EXISTING ZONING:	R-3
BUILDING:	2,400 SF/FLOOR
MAX BUILDING HEIGHT:	40'-0"
PROVIDED BUILDING HEIGHT:	26'-0"
NUMBER OF STORIES:	2
DENSITY: URBAN RESIDENTIAL	MAX. 16 UNITS/AC MIN. 8 UNITS/AC
DENSITY ALLOWED:	MAX. 7 UNITS MIN. 4 UNITS

BUILDING SETBACKS REQUIRED

FRONT SETBACK	25'
SIDE SETBACK	8'
REAR SETBACK	25'

LANDSCAPE BUFFERS

FRONT BUFFER	0' (WEST ROW)
SIDE BUFFER	0' (NORTH R-3) 0' (SOUTH ROW)
REAR BUFFER	30' TYPE A (EAST B-4)

REQUIRED PARKING SPACES:

4 UNITS: 2 SPACES/DU = 2 X 4 = 8 SPACES

REQUIRED SPACES : 8 SPACES

PARKING PROVIDED:

STANDARD 90° PARKING (9' X 18'):7
HANDICAP SPACES (12' X 18'): 1
TOTAL SPACES PROVIDED: 8 SPACES

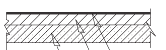
1

MAXIMUM IMPERVIOUS AREA:

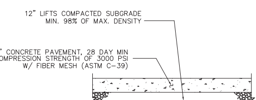
MINOR SITE PLAN 35% IMPERVIOUS MAX = 6,967 SF

PROPOSED IMPERVIOUS AREA:

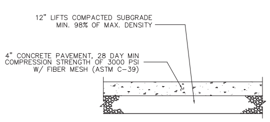
IMPERVIOUS AREA (PARKING, SIDEWALK, ETC.)	0.088 AC (3,837 SF)
BUILDING	0.055 AC (2,400 SF)
TOTAL IMPERVIOUS AREA:	0.143 AC (6,237 SF) (31%)



TYPICAL PAVEMENT SECTION
N.T.S.



CONCRETE DRIVE ISLE DETAIL ON SITE

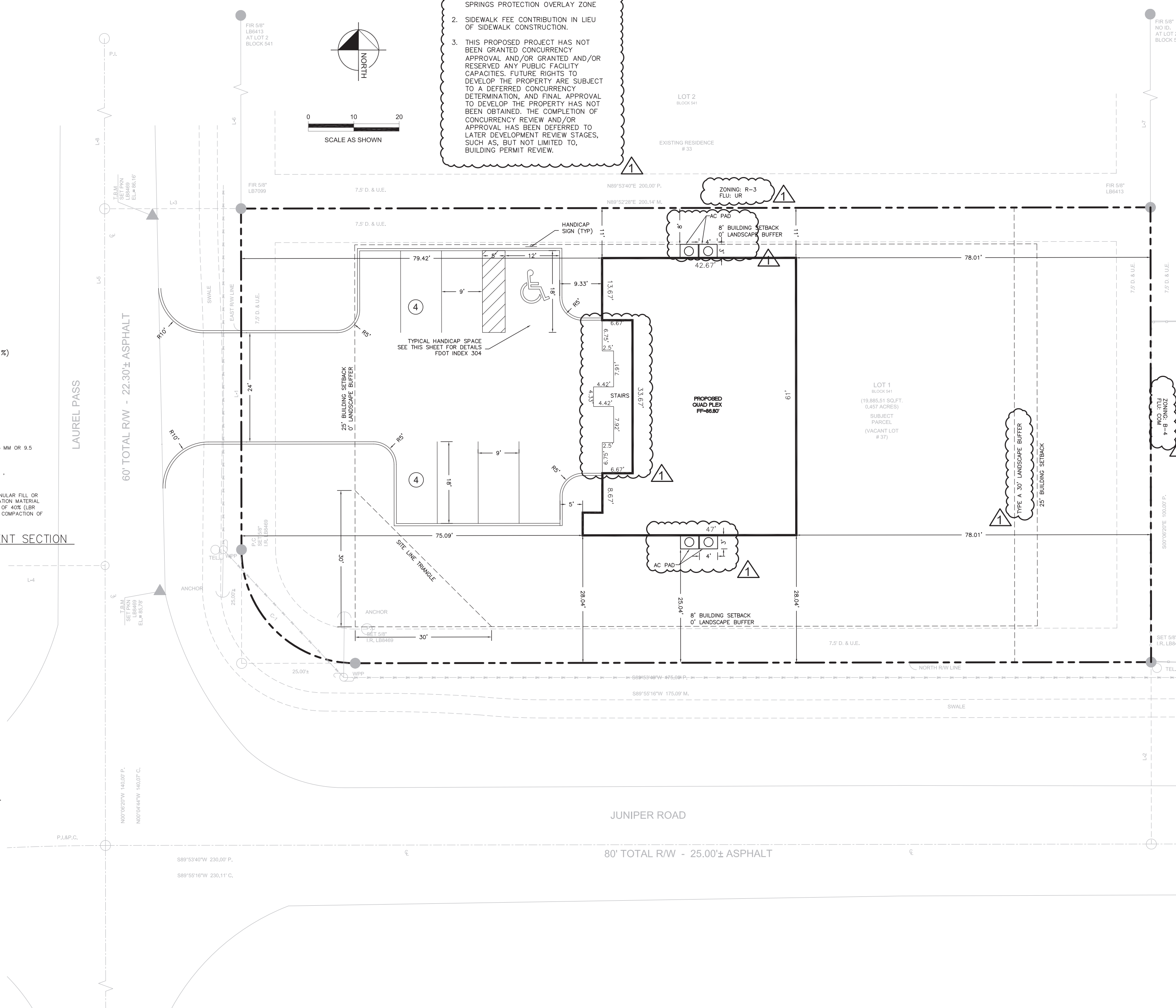


CONCRETE SIDEWALK DETAIL ON SITE

NOTE:

1. PROPERTY IS WITHIN THE PRIMARY SPRINGS PROTECTION OVERLAY ZONE
2. SIDEWALK FEE CONTRIBUTION IN LIEU OF SIDEWALK CONSTRUCTION.
3. THIS PROPOSED PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL AND/OR GRANTED AND/OR RESERVED ANY PUBLIC FACILITY CAPACITIES. FUTURE RIGHTS TO DEVELOP THE PROPERTY ARE SUBJECT TO A DEFERRED CONCURRENCY DETERMINATION, AND FINAL APPROVAL TO DEVELOP THE PROPERTY HAS NOT BEEN OBTAINED. THE COMPLETION OF CONCURRENCY REVIEW AND/OR APPROVAL HAS BEEN DEFERRED TO LATER DEVELOPMENT REVIEW STAGES, SUCH AS, BUT NOT LIMITED TO, BUILDING PERMIT REVIEW.

1



1	REVISED PER FDOT/COUNTY COMMENTS	04/2025 SAT
No.	REVISIONS	DATE BY

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

SCALE: AS NOTED
DESIGNED BY: SAT
DRAWN BY: SAT
CHECKED BY: CSL

SITE PLAN

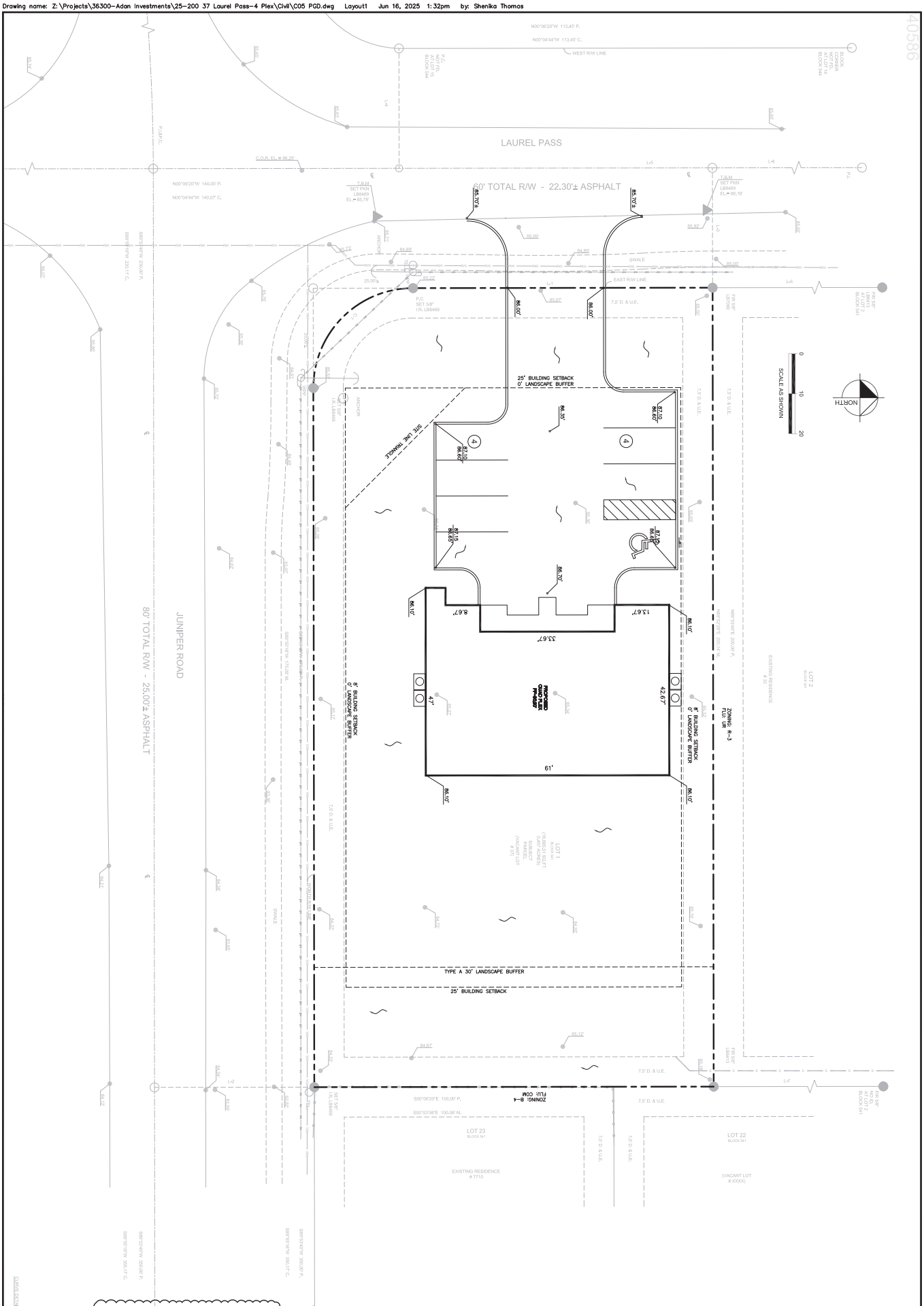
MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480

1

MARION COUNTY FLORIDA

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C04

Drawing name: Z:\Projects\36300-Adan Investments\25-200 37 Laurel Pass-4 Plex\Civil\C05 PGD.dwg Layout1 Jun 16, 2025 1:32pm by: Shenika Thomas



MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
MARION COUNTY FLORIDA

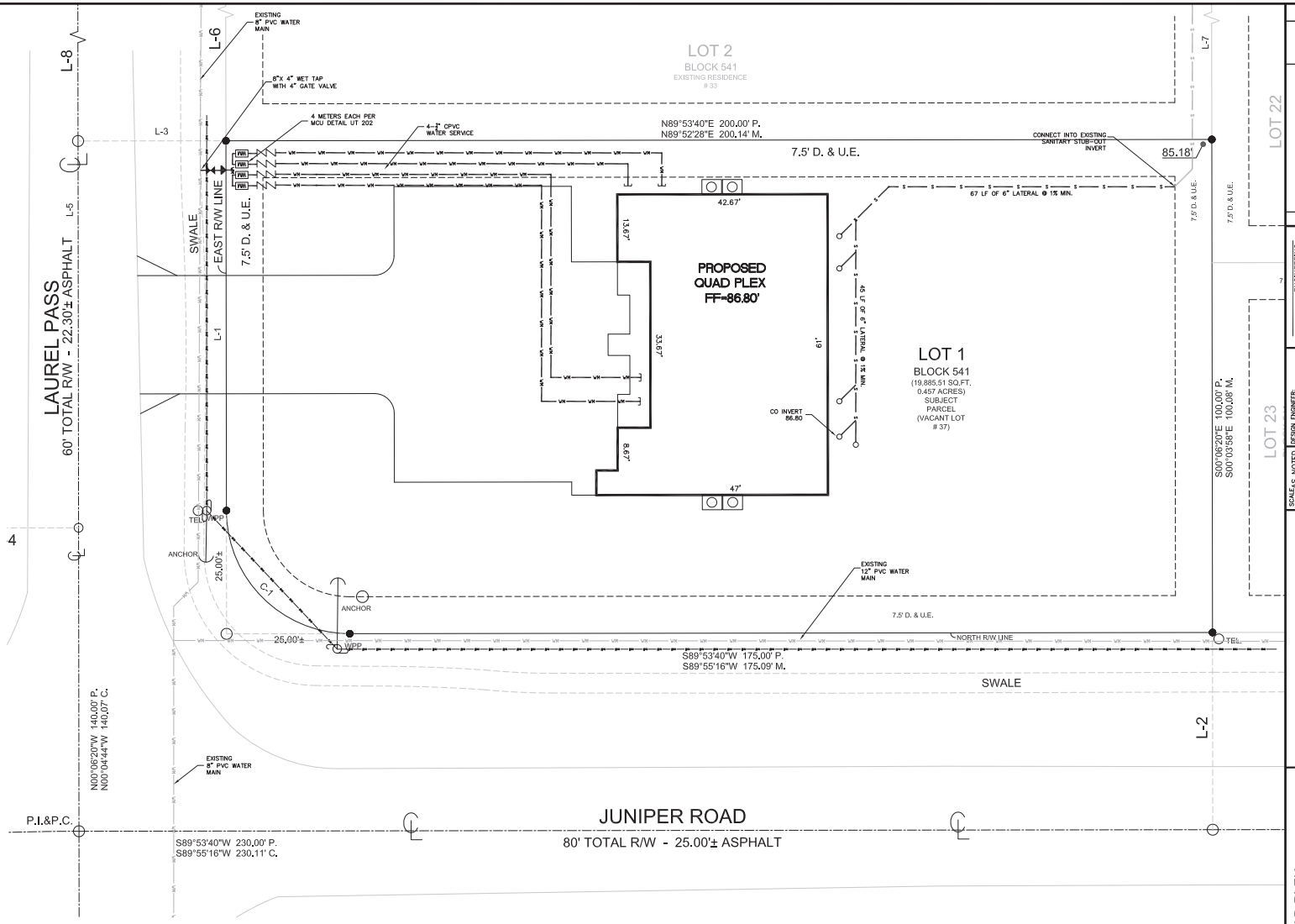
PAVING, GRADING AND DRAINAGE PLAN

SCALE	AS NOTED
DESIGNED BY	SAT
DRAWN BY	SAT
CHECKED BY	CSL
DESIGN ENGINEER:	CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER:	57524
SEAL	

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

No.	REVISIONS	DATE	BY
1	REVISED PER FDOT/COUNTY COMMENTS	04/2025	SAT

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C05



NOTE:

1. THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE AN ACCESS BOX(ES) TO BE INSTALLED IN AN ACCESSIBLE LOCATION WHERE ACCESS TO OR WITHIN A STRUCTURE OR AREA IS DIFFICULT BECAUSE OF SECURITY (OR ACCESS TO FIRE PROTECTION SYSTEMS OR APPLIANCES IS REQUIRED). THE ACCESS BOXES SHALL BE OF AN APPROVED TYPE LISTED IN ACCORDANCE WITH UL 1037 (NFPA 1, FIRE CODE, 2018 EDITION, SECTION 18.2.2.1). THE CITY OF DELTONA REQUIRES A KEY ACCESS BOX TO BE INSTALLED AND UTILIZES THE KNOX BOX SYSTEM. THE KNOX BOX CAN BE ORDERED THROUGH THE WEB SITE KNOXBOX.COM UNDER DELTONA FIRE DEPARTMENT. ALL COSTS ASSOCIATED WITH THE KEY BOXES ARE THE RESPONSIBILITY OF THE PURCHASING PROPERTY OWNER OR CONTRACTOR. THE ACCESS BOX SHALL BE INSTALLED AND LOCATED:

   a. AT OR NEAR THE RECOGNIZED MAIN PUBLIC ENTRANCE ON THE EXTERIOR OF THE STRUCTURE WITH LOCATIONS TO BE APPROVED BY THE FIRE SAFETY DIVISION.

   b. THE ACCESS BOX SHALL BE LOCATED AT A HEIGHT OF NOT LESS THAN SIX (6) FEET AND NOT MORE THAN EIGHT (8) FEET ABOVE FINAL GRADE.

   c. THE ACCESS BOX SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND LISTING.

   d. NO STEPS, DISPLAYS, SIGNS OR OTHER FIXTURES, OR STRUCTURAL PROTRUSIONS SHALL BE LOCATED UNDER THE ACCESS BOX, WHICH WOULD ALLOW INTRUDERS TO ACCESS THE BOX WITHOUT ASSISTANCE.

   A KNOX BOX SHALL BE LOCATED AT THE ENTRANCE TO THE BUILDINGS AND/OR ANY OTHER LOCATIONS WHERE ACCESS TO FIRE PROTECTION SYSTEMS OR APPLIANCES ARE REQUIRED. PROVIDED THE KNOX BOX LOCATION ON THE SITE PLAN.

2. IF A NEW HYDRANT IS INSTALLED SHALL BE INSTALLED, TESTED, AND PAINTED PER NFPA 291, BY A THIRD PARTY CONTRACTOR AND WITNESSED BY A MARION COUNTY FIRE INSPECTOR. PLEASE NOTE FIRE HYDRANT LOCATIONS SHALL BE INDICATED BY PLACEMENT OF A BLUE REFLECTOR IN THE MIDDLE OF THE ROADWAY LANE CLOSEST TO THE HYDRANT.

3. MCU PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MCU INFRASTRUCTURE. A PRE-CONSTRUCTION MEETING IS REQUIRED TO BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED. TO SCHEDULE, CONTACT MCU'S CONSTRUCTION OFFICER AT 352-307-6163.

No.	REVISIONS	DATE	BY

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-776-5194
dlinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

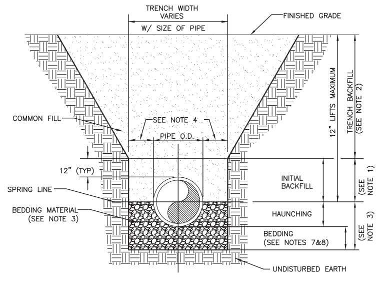
SCALE: AS NOTED
DESIGNED BY: SAT
DRAWN BY: SAT
CHECKED BY: CSL

UTILITY PLAN

QUAD PLEX
37 LAUREL PASS
OCALA, FL 34480
FLORIDA

DATE: 03/25
PROJECT NO.: 36300-25-200
SHEET NUMBER: C05

Drawing name: Z:\Projects\36300-Acton investments\25-200 37 Laurel Pass-4 Plex\Civil\37 Laurel Pass - Site Plan.dwg C05-Utility Plan Mar 16, 2025 12:43pm by: Chad



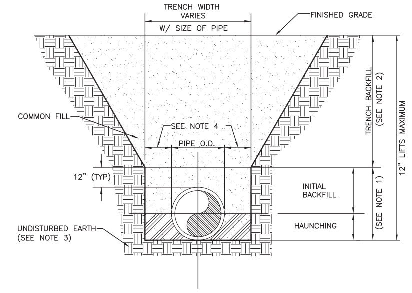
NOTES:

1. INITIAL BACKFILL: 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. BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
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. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
10. ONE COMPACTION TEST SHALL BE REQUIRED FOR EACH LIFT NOT TO EXCEED 200'.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2

BEDDING AND TRENCHING 1

7.3.2 UT 102



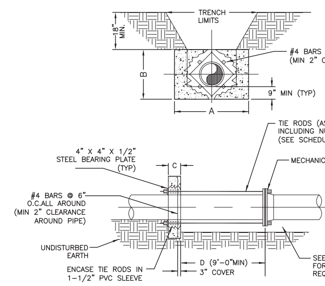
NOTES:

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 UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH BEDDING AND TRENCHING 1 DETAIL MAY BE REQUIRED AS DIRECTED BY MCU.
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. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
8. ONE COMPACTION TEST SHALL BE REQUIRED FOR EACH LIFT NOT TO EXCEED 200'.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2

BEDDING AND TRENCHING 2

7.3.2 UT 103



SCHEDULE OF DIMENSIONS AND MATERIALS						
PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	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 COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING.

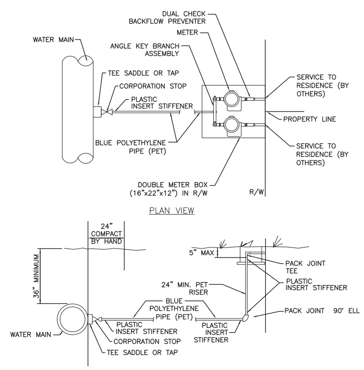
NOTES:

1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE LAND DEVELOPMENT CODE.
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 PSI.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA

THRUST COLLAR WATER MAINS

7.3.2 UT 201



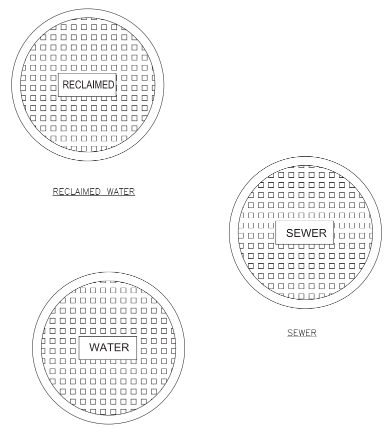
NOTES:

1. ALL RESIDENTIAL SERVICES SHALL HAVE A MINIMUM SIZE OF 1".
2. CURB STOP SHALL BE INSTALLED ON STREET SIDE OF THE SIDEWALK BETWEEN SIDEWALK AND CURB.
3. SCHEDULE 40 PVC CASING TO BE USED UNDER PAVEMENT, EXTENDING A MINIMUM OF 5' ON EITHER SIDE OF THE PAVEMENT WHERE POSSIBLE. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE A MINIMUM OF ONE INCH LARGER THAN THE OUTSIDE DIAMETER OF THE SERVICE PIPE.
4. CORP STOPS SHALL BE HORIZONTAL TO WATER MAINS.
5. LOCATE WIRE SHALL BE INSTALLED FROM MAIN TO SERVICE LINE.
6. PIPE AND FITTING SIZES TO BE DETERMINED BY SERVICE TYPE.
7. COMPACTION SHALL BE MADE UNDER AND AROUND THE CONNECTION TO THE SATISFACTION OF THE ENGINEER.
8. POTABLE WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "W" IN THE CURB DIRECTLY OVER THE SERVICE LINE.
9. RECLAIMED WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "RW" IN THE CURB DIRECTLY OVER THE SERVICE LINE.
10. SERVICE LINES SHALL NOT CONFLICT WITH OTHER UTILITIES. SERVICE LINES SHALL BE SLEEVED WITH SCH40 PVC IF UNDER OTHER UTILITIES.
11. ALL TAPS MUST BE LOCATED A MINIMUM OF 24" AWAY FROM ANY BELL AND/OR FITTING.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2

WATER AND RECLAIMED WATER SERVICES (TYPICAL)

7.3.2 UT 107



RECLAIMED WATER

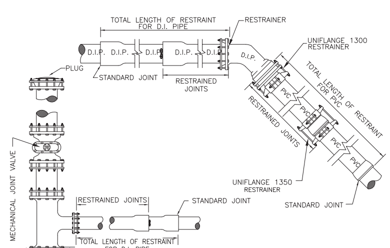
SEWER

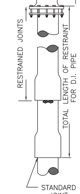
POTABLE WATER

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA

TYPICAL VALVE BOX COVER

7.3.2 UT 110





NOTES:

1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. IN-LINE VALVES SHALL BE RESTRAINED AS DEAD ENDS.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA.
7. THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.
8. FOR LENGTH OF PIPE AND NUMBER OF JOINTS TO BE RESTRAINED SEE TABLE.
9. ONLY DUCTILE IRON FITTINGS SHALL BE USED AT JOINTS TO BE RESTRAINED AND SHALL BE RESTRAINED ON BOTH SIDES OF FITTING UNLESS OTHERWISE SPECIFIED BY MCU.
10. REQUIRED RESTRAINED LENGTH FOR TEE FITTING VARIES WITH RUN LENGTH (FIRST JOINT).

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA

RESTRAINED PIPE TABLE

7.3.2 UT 116 A

MINIMUM RESTRAINED LENGTH (FT)
- EACH SIDE OF FITTING AND VALVE
FOR DIP, PE ENCASED DIP OR BARE PVC

H=HORIZONTAL
VU=VERTICAL-UP
VD=VERTICAL-DOWN

WATER MAIN: PRESSURE: 150 PSI. DEPTH OF COVER: 3.0 ft.

REQUIRED RESTRAINED LENGTH ON WATER MAIN									
Bend Type		Pipe Length (ft)							
		4"	6"	8"	10"	12"	16"	20"	24"
Angle	Orientation								
11-1/4°	H	2	3	4	5	5	6	8	9
	VU	2	3	4	5	5	6	8	9
	VD	6	9	11	13	16	20	24	28
22-1/2°	H	4	6	7	9	10	12	15	17
	VU	4	6	7	9	10	12	15	17
	VD	12	17	22	27	31	40	48	56
45°	H	8	11	15	17	20	25	30	35
	VU	8	11	15	17	20	25	30	35
	VD	25	35	46	55	65	82	99	115
90°	H	19	27	35	41	48	61	72	83
	VU	19	27	35	41	48	61	72	83
	VD	61	85	111	132	155	198	238	277
DEAD END PLUG AND VALVE		61	85	111	132	155	198	238	277

REQUIRED RESTRAINED LENGTH ON TEE BRANCH									
TEE FITTING		Pipe Length (ft) — Diameter of Run							
		4"	6"	8"	10"	12"	16"	20"	24"
Diameter of Branch	4"	39	28	18	6	0	0	0	0
	6"		63	55	48	40	22	4	0
	8"			89	82	77	63	49	34
	10"				110	105	95	84	71
	12"					133	124	115	105
	16"						175	168	161
	20"							215	209
	24"								254

REQUIRED RESTRAINED LENGTH ON LARGER PIPE								
REDUCER FITTING		Pipe Length (ft) — Diameter of Large Pipe						
		6"	8"	10"	12"	16"	20"	24"
Diameter of Small Pipe	4"	44	80	108	135	183	226	268
	6"		47	81	113	167	214	257
	8"			45	83	145	196	243
	10"				46	118	175	226
	12"					84	149	205
	16"						84	151
	20"							83

Minimum Design Criteria
Bedding Type: 4
Safety Factor: 1.5
Soil: Sand-Silt
Run Length (First Joint): 10 ft.

REQUIRED RESTRAINED LENGTH ON FORCE MAIN									
Bend Type		Pipe Length (ft)							
		4"	6"	8"	10"	12"	16"	20"	24"
Angle	Orientation								
11-1/4°	H	2	2	3	4	4	5	6	7
	VU	2	2	3	4	4	5	6	7
	VD	5	7	9	11	12	16	19	22
22-1/2°	H	3	5	6	7	8	10	12	14
	VU	3	5	6	7	8	10	12	14
	VD	10	13	17	21	24	31	38	44
45°	H	6	9	11	14	16	20	24	28
	VU	6	9	11	14	16	20	24	28
	VD	20	27	36	43	50	64	78	91
90°	H	15	21	27	32	38	48	57	66
	VU	15	21	27	32	38	48	57	66
	VD	46	65	85	102	121	155	187	219
DEAD END PLUG AND VALVE		46	65	85	102	121	155	187	219

REQUIRED RESTRAINED LENGTH ON TEE BRANCH									
TEE FITTING		Pipe Length (ft) — Diameter of Run							
		4"	6"	8"	10"	12"	16"	20"	24"
Diameter of Branch	4"	25	14	4	0	0	0	0	0
	6"		43	36	28	21	5	0	0
	8"			63	57	52	39	26	12
	10"				80	75	66	55	44
	12"					98	90	81	72
	16"						132	126	119
	20"							164	159
	24"								196

REQUIRED RESTRAINED LENGTH ON LARGER PIPE								
REDUCER FITTING		Pipe Length (ft) — Diameter of Large Pipe						
		6"	8"	10"	12"	16"	20"	24"
Diameter of Small Pipe	4"	34	61	83	105	143	178	212
	6"		36	63	88	131	168	204
	8"			35	64	113	155	192
	10"				36	92	138	179
	12"					66	118	162
	16"						66	120
	20"							66

FORCE MAIN:
PRESSURE: 100 PSI.
DEPTH OF COVER: 4.0 ft.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA

RESTRAINED PIPE TABLE

7.3.2 UT 116 B

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524

SEAL

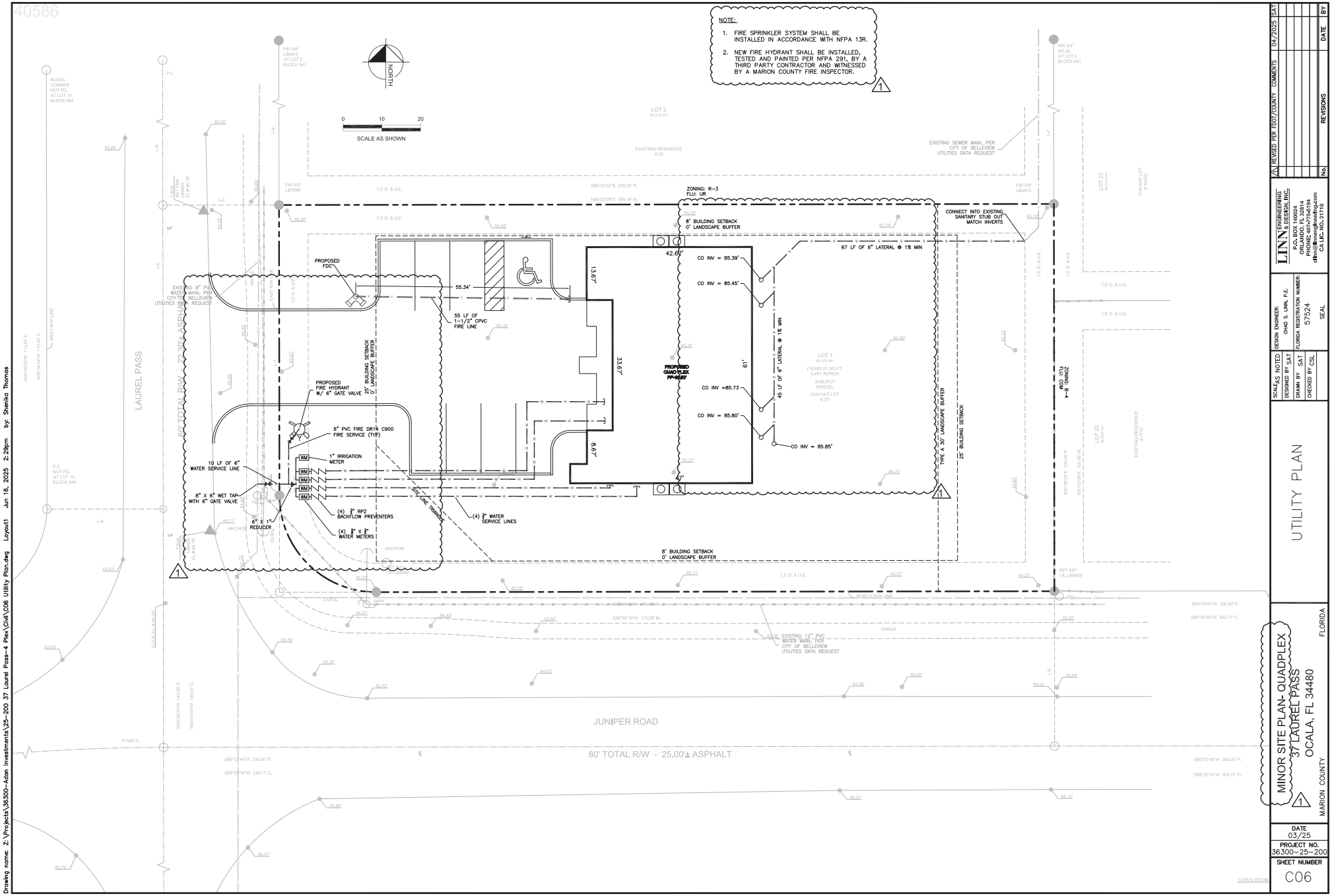
SCALE AS NOTED
DESIGNED BY SAT
DRAWN BY SAT
CHECKED BY CSL

No. | REVISIONS | DATE | BY

UTILITY DETAILS

QUAD PLEX
37 LAUREL PASS
OCALA, FL 34480
FLORIDA

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C06



No.	REVISIONS	DATE	BY
A1	REVISED PER FDOT/COUNTY COMMENTS	04/2025	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
OCALA, FL 34484
PHONE: 407-774-5194
dlinn@linnengineering.com
CA Lic. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

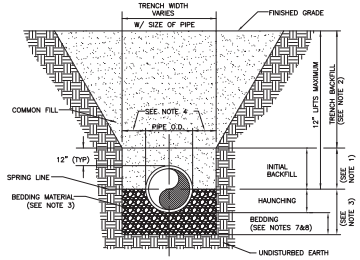
SCALE: AS NOTED
DESIGNED BY: SAT
DRAWN BY: SAT
CHECKED BY: CSL

UTILITY PLAN

MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
MARION COUNTY FLORIDA

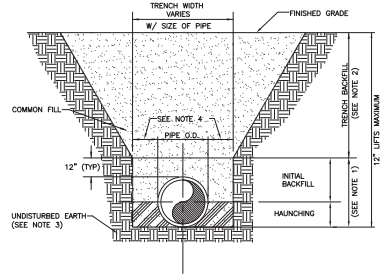
DATE: 03/25
PROJECT NO.: 36300-25-200
SHEET NUMBER: C06

Drawing name: Z:\Projects\36300-Acon investments\25-200 37 Laurel Pass-4 Plex\Civil\C06 Utility Plan.dwg Layout1 Jun 16, 2025 2:29pm by: Shenika Thomas



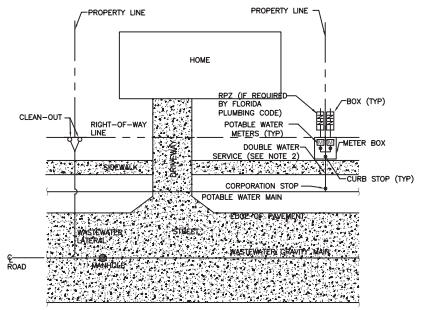
NOTES:
1. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
4. 15" 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. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
10. ONE COMPACTION TEST SHALL BE REQUIRED FOR EACH LIFT NOT TO EXCEED 200'.

Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	BEDDING AND TRENCHING 1	7.3.2 UT 102
	REVISION # 2		



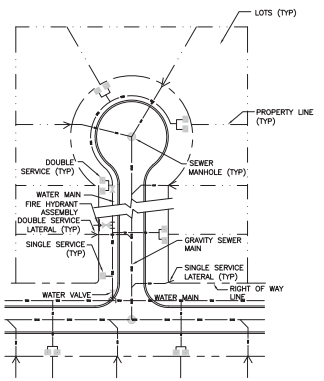
NOTES:
1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH BEDDING AND TRENCHING 1 DETAIL MAY BE REQUIRED AS DIRECTED BY MCU.
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. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
8. ONE COMPACTION TEST SHALL BE REQUIRED FOR EACH LIFT NOT TO EXCEED 200'.

Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	BEDDING AND TRENCHING 2	7.3.2 UT 103
	REVISION # 2		



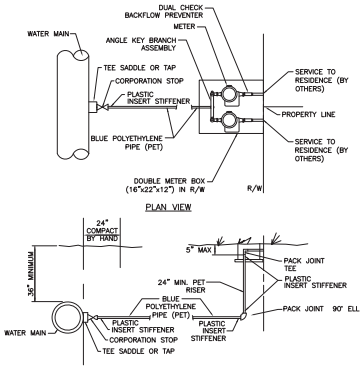
NOTES:
1. EACH POTABLE WATER SERVICE SHALL SERVE TWO LOTS.
2. EACH SERVICE SHALL BE EQUIPPED WITH A DUAL CHECK BACKFLOW PREVENTER.
3. EACH RESIDENTIAL UNIT SHALL BE INDIVIDUALLY METERED.
4. SITEWORK – CONTRACTOR SHALL INSTALL WATER, WASTEWATER AND RECLAIMED WATER SERVICES.
5. METER AND DUAL CHECK BACKFLOW DEVICE SHALL BE INSTALLED BY MCU. METER BOX SHALL BE INSTALLED BY A LICENSED CONTRACTOR.
6. AN APPROPRIATE BACKFLOW PREVENTION ASSEMBLY, PER THE COUNTY CROSS-CONNECTION ORDINANCE, SHALL BE REQUIRED WHERE OTHER PRESSURIZED WATER SOURCES, INCLUDING SWIMMING POOLS, ARE PRESENT.
7. SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "W", "S", OR "RW" IN THE CURB DIRECTLY OVER THE SERVICE LATERAL.

Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	RESIDENTIAL SERVICE LOCATIONS	7.3.2 UT 105
	REVISION # 2		



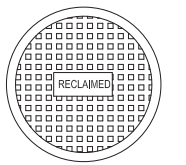
NOTES:
1. FIRE HYDRANTS ON DEAD-END STREETS SHALL REQUIRE A MINIMUM 8" WATER MAIN TO THE POINT OF CONNECTION OF THE FIRE HYDRANT.

Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	SINGLE FAMILY RESIDENTIAL CUL-DE-SAC UTILITY PLAN	7.3.2 UT 106
	REVISION # 1		

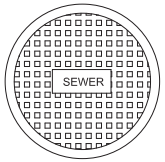


NOTES:
1. ALL RESIDENTIAL SERVICES SHALL HAVE A MINIMUM SIZE OF 1".
2. CURB STOP SHALL BE INSTALLED ON STREET SIDE OF THE SIDEWALK BETWEEN SIDEWALK AND CURB.
3. SCHEDULE 40 PVC CASING TO BE USED UNDER PAVEMENT, EXTENDING A MINIMUM OF 5' ON EITHER SIDE OF THE PAVEMENT WHERE POSSIBLE. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE A MINIMUM OF ONE INCH LARGER THAN THE OUTSIDE DIAMETER OF THE SERVICE PIPE.
4. CORP STOPS SHALL BE HORIZONTAL TO WATER MAINS.
5. LOCATE WIRE SHALL BE INSTALLED FROM MAIN TO SERVICE LINE.
6. PIPE AND FITTING SIZES TO BE DETERMINED BY SERVICE TYPE.
7. COMPACTION SHALL BE MADE UNDER AND AROUND THE CONNECTION TO THE SATISFACTION OF THE ENGINEER.
8. POTABLE WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "W" IN THE CURB DIRECTLY OVER THE SERVICE LINE.
9. RECLAIMED WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "RW" IN THE CURB DIRECTLY OVER THE SERVICE LINE.
10. SERVICE LINES SHALL NOT CONFLICT WITH OTHER UTILITIES. SERVICE LINES SHALL BE SLEEVED WITH SCH40 PVC IF UNDER OTHER UTILITIES.
11. ALL TAPS MUST BE LOCATED A MINIMUM OF 24" AWAY FROM ANY BELL AND/OR FITTING.

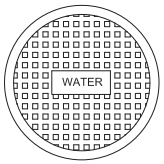
Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	WATER AND RECLAIMED WATER SERVICES (TYPICAL)	7.3.2 UT 107
	REVISION # 2		



RECLAIMED WATER

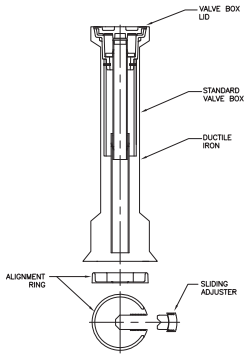


SEWER



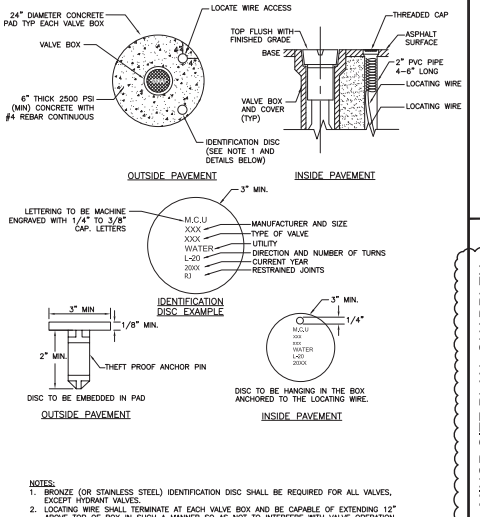
POTABLE WATER

Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	TYPICAL VALVE BOX COVER	7.3.2 UT 110
	REVISION # NA		



NOTES:
1. FOR ALL MAINS 6.0' DEEP OR GREATER, PVC PIPE EXTENSIONS SHALL BE USED ON VALVE BOX INSTALLATION.

Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	SEALED VALVE BOX, ADJUSTABLE	7.3.2 UT 111
	REVISION # 1		



NOTES:
1. BRONZE (OR STAINLESS STEEL) IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES, EXCEPT HYDRANT VALVES.
2. LOCATING WIRE SHALL TERMINATE AT EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.

Marion County Florida Utilities	MCBCC EFFECTIVE 04/13/2023	VALVE BOX PAD	7.3.2 UT 112
	REVISION # 1		

NO.	DATE	BY
A1	REVISED PER FDOT/COUNTY COMMENTS 04/2025	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-776-4194
dlinn@linnengineering.com
CA Lic. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

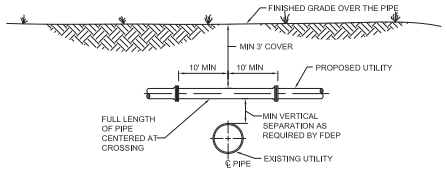
SCALE: AS NOTED
DESIGNED BY: SAT
DRAWN BY: SAT
CHECKED BY: CSL

UTILITY DETAILS

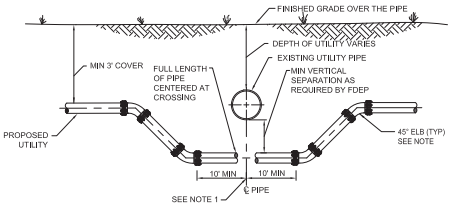
MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
MARION COUNTY FLORIDA

DATE: 03/25
PROJECT NO.: 36300-25-200
SHEET NUMBER: C07

Drawing name: Z:\Projects\36300-Acon investments\25-200 37 Laurel Pass-4 Plex\Civil\C07 Details.dwg c07 Jun 16, 2025 1:37pm by: Shenika Thomas



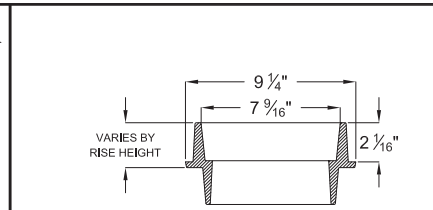
CONDITION 1 (SUFFICIENT COVER AND SEPARATION AVAILABLE)



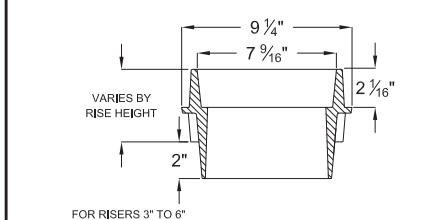
CONDITION 2 (SUFFICIENT SEPARATION AVAILABLE, SUFFICIENT COVER NOT AVAILABLE)

NOTES:
1. PIPING SHALL BE DUCTILE IRON WHEN CROSSING UNDER SANITARY SEWER OR STORMWATER UTILITIES.
2. IF NOT DIP, CONCRETE AND CASING PER FDEP.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	UTILITY CONFLICT	7.3.2 UT 113
	REVISION # NA		



FOR RISERS 1" TO 2 ½"



FOR RISERS 3" TO 6"

NOTES: 1. MUST BE SOLID CAST IRON CONSTRUCTION.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	VALVE BOX RISER	7.3.2 UT 115
	REVISION # NA		

MINIMUM RESTRAINED LENGTH (FT) – EACH SIDE OF FITTING AND VALVE FOR DIP, PE ENCASED DIP OR BARE PVC

H=HORIZONTAL
VU=VERTICAL–UP
VD=VERTICAL–DOWN

WATER MAIN: PRESSURE: 150 PSI. DEPTH OF COVER: 3.0 ft.

REQUIRED RESTRAINED LENGTH ON WATER MAIN

Bend Type		Pipe Length (ft) 4"	6"	8"	10"	12"	16"	20"	24"
Angle	Orientation								
11–1/4°	H	2	3	4	5	5	6	8	9
	VU	2	3	4	5	5	6	8	9
	VD	6	9	11	13	16	20	24	28
22–1/2°	H	4	6	7	9	10	12	15	17
	VU	4	6	7	9	10	12	15	17
	VD	12	17	22	27	31	40	48	56
45°	H	8	11	15	17	20	25	30	35
	VU	8	11	15	17	20	25	30	35
	VD	25	35	46	55	65	82	99	115
90°	H	19	27	35	41	48	61	72	83
	VU	19	27	35	41	48	61	72	83
	VD	61	85	111	132	155	198	238	277
DEMJ END PLUG AND VALVE		61	85	111	132	155	198	238	277

REQUIRED RESTRAINED LENGTH ON TEE BRANCH

TEE FITTING		Pipe Length (ft) Diameter of Run 4"	6"	8"	10"	12"	16"	20"	24"
Diameter of Branch	4"	39	28	18	6				
	6"		63	55	48				
	8"			89	82				
	10"				110				
	12"								
	16"								
	20"								
	24"								

REQUIRED RESTRAINED LENGTH ON LARGER PIPE

REDUCER FITTING		Pipe Length (ft) Diameter of Large Pipe 6"	8"	10"	12"
Diameter of Small Pipe	4"	44	80	108	135
	6"		47	81	113
	8"			45	83
	10"				46
	12"				
	16"				
	20"				

Minimum Design Criteria
Bedding Type: 4
Safety Factor: 1.5
Soil: Sand–Silt
Run Length (First Joint): 10 ft.

REQUIRED RESTRAINED LENGTH ON FORCE MAIN

Bend Type		Pipe Length (ft) 4"	6"	8"	10"	12"	16"	20"	24"
Angle	Orientation								
11–1/4°	H	2	2	3	4	4	5	6	7
	VU	2	2	3	4	4	5	6	7
	VD	5	7	9	11	12	16	19	22
22–1/2°	H	3	5	6	7	8	10	12	14
	VU	3	5	6	7	8	10	12	14
	VD	10	13	17	21	24	31	38	44
45°	H	6	9	11	14	16	20	24	28
	VU	6	9	11	14	16	20	24	28
	VD	20	27	36	43	50	64	78	91
90°	H	15	21	27	32	38	48	57	66
	VU	15	21	27	32	38	48	57	66
	VD	46	65	85	102	121	155	187	219
DEMJ END PLUG AND VALVE		46	65	85	102	121	155	187	219

REQUIRED RESTRAINED LENGTH ON TEE BRANCH

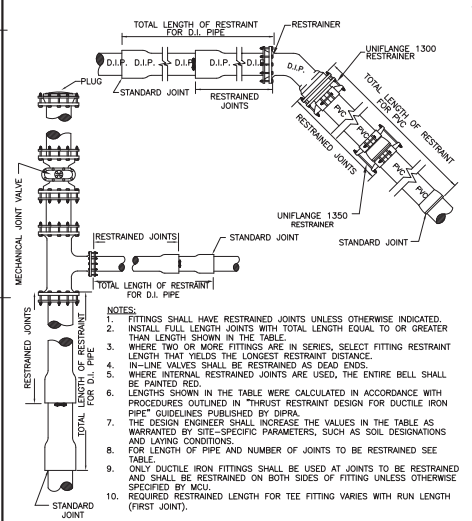
TEE FITTING		Pipe Length (ft) Diameter of Run 4"	6"	8"	10"	12"	16"	20"	24"
Diameter of Branch	4"	25	14	4	0				
	6"		43	36	28				
	8"			63	57				
	10"				80				
	12"								
	16"								
	20"								
	24"								

REQUIRED RESTRAINED LENGTH ON LARGER PIPE

REDUCER FITTING		Pipe Length (ft) Diameter of Large Pipe 6"	8"	10"	12"
Diameter of Small Pipe	4"	34	61	83	105
	6"		36	63	88
	8"			35	64
	10"				36
	12"				
	16"				
	20"				

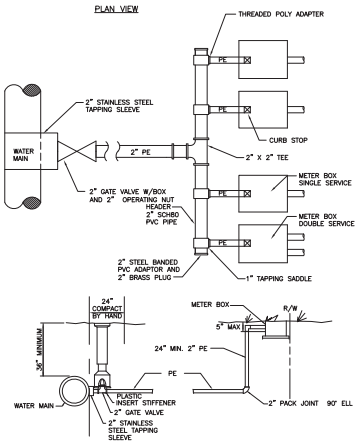
FORCE MAIN:
PRESSURE: 100 PSI.
DEPTH OF COVER: 4.0 ft.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	RESTRAINED PIPE TABLE	7.3.2 UT 116
	REVISION # NA		



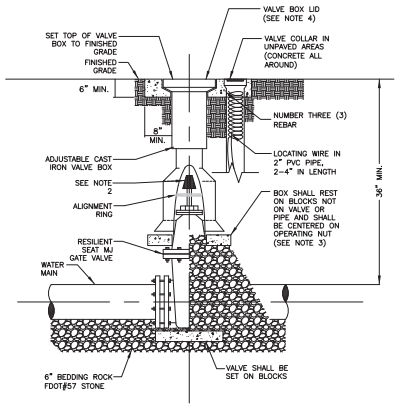
NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. IN–LINE VALVES SHALL BE RESTRAINED AS DEAD ENDS.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA.
7. THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE–SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.
8. FOR LENGTH OF PIPE AND NUMBER OF JOINTS TO BE RESTRAINED SEE TABLE.
9. ONLY DUCTILE IRON FITTINGS SHALL BE USED AT JOINTS TO BE RESTRAINED AND SHALL BE RESTRAINED ON BOTH SIDES OF FITTING UNLESS OTHERWISE SPECIFIED BY MCU.
10. REQUIRED RESTRAINED LENGTH FOR TEE FITTING VARIES WITH RUN LENGTH (FIRST JOINT).

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	RESTRAINED PIPE TABLE	7.3.2 UT 116 A
	REVISION # NA		



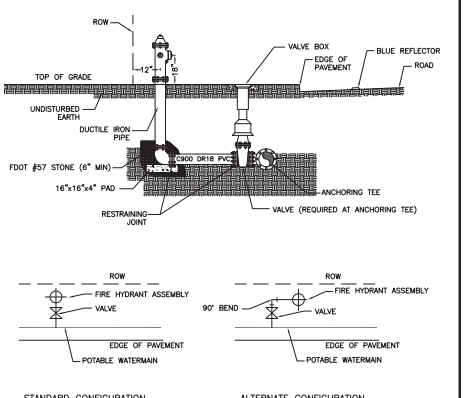
NOTES:
1. MAXIMUM OF 5 5/8" METERS
2. METER BOXES SHALL NOT BE LOCATED WITHIN DRIVING SURFACE. METER BOXES MUST BE LOCATED IN RIGHT–OF–WAY OR PRIVATE PROPERTY WITH A UTILITY EASEMENT.
3. NO MALE ADAPTERS ALLOWED AT VALVE; SHALL BE A BRASS NIPPLE WITH 2" SCH80 FEMALE STEEL BANDED ADAPTER.
4. ALL TAPS MUST BE LOCATED A MINIMUM OF 24" AWAY FROM ANY BELL AND/OR FITTING.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	METER BANK 2" SUPPLY	7.3.2 UT 202
	REVISION # 1		



NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION (SEE UT111).
2. THE ACTUATING NUT FOR VALVES DEEPER THAN SIX (6) FEET SHALL BE EXTENDED TO COME UP TO 3 FOOT DEPTH BELOW FINISHED GRADE.
3. VALVE BOX SHALL BE SET ON FIVE (5) SOLID COMMON BLOCKS.
4. VALVE BOX LID TO BE LETTERED WITH THE WORD "WATER" OR "RECLAIMED".
5. INSTALL BRASS ID TAG IN CONCRETE.

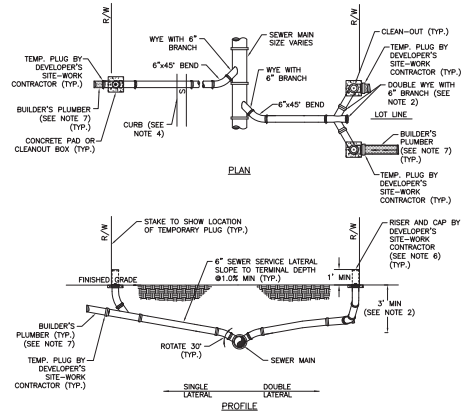
Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	GATE VALVE WATER AND RECLAIMED MAINS	7.3.2 UT 204
	REVISION # 2		



STANDARD CONFIGURATION ALTERNATE CONFIGURATION

NOTES:
1. BONNET COLORS SHALL BE IN ACCORDANCE WITH SEC. 6.18.2–G.
2. HYDRANT SHALL BE 1' INSIDE OF RIGHT–OF–WAY, WHEN POSSIBLE.
3. BLUE REFLECTOR SHALL BE PLACED IN THE MIDDLE OF THE ADJACENT TRAVEL LANE.
4. RADIUS OF CLEAR SPACE AROUND THE FIRE HYDRANT SHALL BE IN ACCORDANCE WITH NFPA STANDARDS (NFPA 1 SEC. 18.5.7, AS AMENDED).

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	FIRE HYDRANT ASSEMBLY	7.3.2 UT 210
	REVISION # 2		



NOTES:
1. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
2. WYE TO BE NO SHALLOWER THAN 3' AND NO DEEPER THAN 5'.
3. ALL FITTINGS SHOWN ARE TO BE INSTALLED.
4. SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING AN "S" IN THE CURB DIRECTLY OVER THE LATERAL. WHERE NO CURB EXISTS, LOCATION SHALL BE MARKED BY PLACEMENT OF ADHESIVE REFLECTIVE MARKERS AS SPECIFIED BY MCU.
5. CLEANOUT CAP SHALL BE SET A MINIMUM OF 2" ABOVE THE FINISHED GRADE. CLEANOUTS IN RV PARKS SHALL BE SET 6" ABOVE FINISHED GRADE WITH A CONCRETE COLLAR.
6. DURING CONSTRUCTION, SERVICE LATERAL AND CLEANOUTS SHALL BE STUBBED OUT A MINIMUM OF 1' ABOVE FINISHED GRADE AND SHALL BE CAPPED BY DEVELOPER'S SITE–WORK CONTRACTOR UNTIL PROPERTY IS DEVELOPED AND CONNECTION TO CENTRAL SEWER IS MADE BY PLUMBER.
7. BUILDER'S PLUMBER SHALL CUT RISER, INSTALL CLEANOUT CAP, REMOVE TEMPORARY PLUG, CONNECT SERVICE LATERAL TO HOUSE PLUMBING AND GROUT VOID BETWEEN CLEANOUT AND PAD.
8. ALL DEVELOPMENT SHALL BE DESIGNED AND BUILT IN A MANNER WHERE THE LOWEST WASTEWATER SERVICE LATERAL DOES NOT DROP BELOW THE GRAVITY SEWER GRADE LINE.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	SEWER SERVICE LATERAL	7.3.2 UT 312
	REVISION # 2		

No.	REVISIONS	DATE	BY
A1	REVISED PER FDOT/COUNTY COMMENTS	04/2025	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-776-6194
dlinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

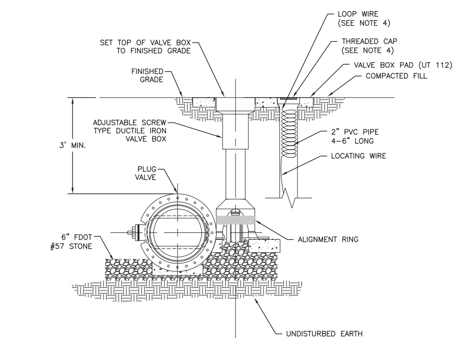
SCALE: AS NOTED
DESIGNED BY: SAT
DRAWN BY: SAT
CHECKED BY: CSL

UTILITY DETAILS

MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
1
MARION COUNTY FLORIDA

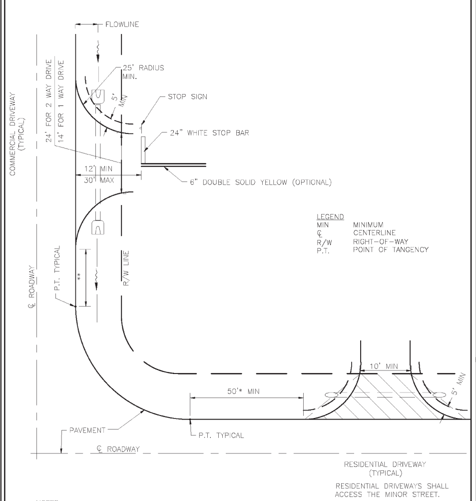
DATE 03/25
PROJECT NO. 36300–25–200
SHEET NUMBER C08

Drawing name: Z:\Projects\36300–Acton investments\25–200 37 Laurel Pass–4 Plex\Civil\C07 Details.dwg c08 Jun 16, 2025 9:57am by Shenika Thomas



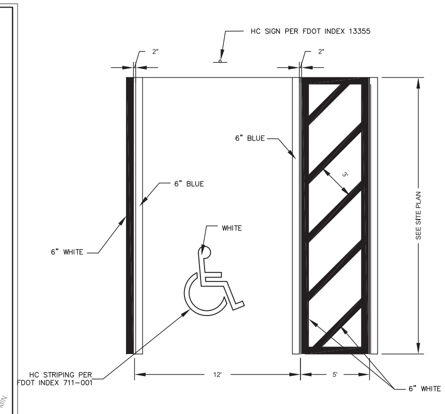
NOTES:
1. VALVE BOX INSTALLATION SHALL COMPLY WITH UT 111.
2. THE VALVE ACTUATING NUT SHALL BE EXTENDED UP TO BE WITHIN 3' OF FINISHED GRADE.
3. PROVIDE A PLASTIC DEBRIS SHIELD / ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE INFILTRATION.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 12" ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.
6. VALVE BOX SHALL BE SET ON SOLID COMMON BLOCKS

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023	PLUG VALVE AND BOX	7.3.2
	REVISION # 2		UT 304



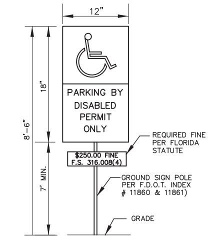
NOTES:
1. * THIS DISTANCE SHALL BE THE LESSER OF 1/2 THE LOT WIDTH OR 50 FT.
2. ** SEE TABLE 6.11-3 FOR SPACING REQUIREMENTS.
3. STOP SIGN AND STOP BAR SHALL BE PROVIDED WHEN PROJECTED DRIVEWAY DAILY TRAFFIC IS 25 VEHICLES PER HOUR OR GREATER.

Marion County FLORIDA OFFICE OF THE COUNTY ENGINEER	MCBCC EFFECTIVE 10/12/2013	COMMERCIAL & RESIDENTIAL DRIVEWAYS AT INTERSECTIONS	7.3.1
	REVISION # NA		TS 025



HANDICAP PARKING PAVEMENT MARKING

NTS



HANDICAP SIGN DETAIL

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

Drawing name: Z:\Projects\36300-Adon Investments\25-200 37 Laurel Pass-4 Plex\Civil\C07 Details.dwg c09 Jun 16, 2025 1:37pm by: Shenika Thomas

No.	REVISIONS	DATE	BY
1	REVISED PER FDOT/COUNTY COMMENTS	04/2025	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN, P.E.
FLORIDA REGISTRATION NUMBER: 57524
SEAL

SCALE AS NOTED
DESIGNED BY SAT
DRAWN BY SAT
CHECKED BY CSL

UTILITY DETAILS

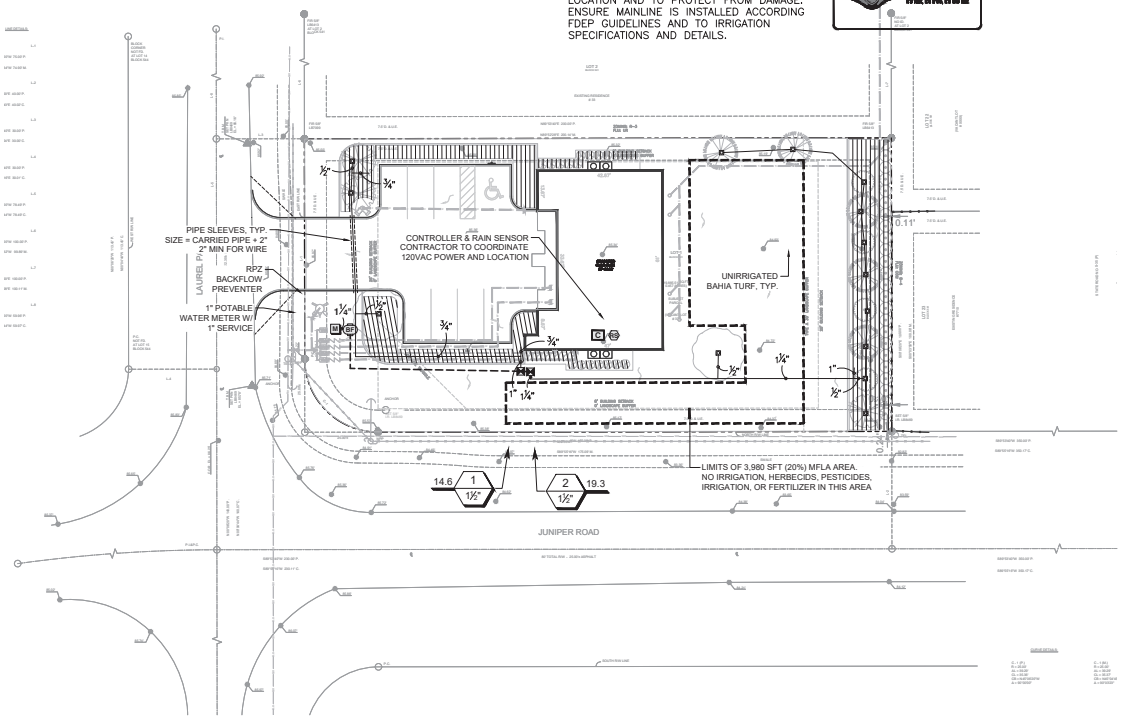
MINOR SITE PLAN- QUADPLEX
37 LAUREL PASS
OCALA, FL 34480
MARION COUNTY FLORIDA

DATE 03/25
PROJECT NO. 36300-25-200
SHEET NUMBER C09

JOB NUMBER: LS240586

MAINLINE AND LATERAL LOCATION, WHERE SHOWN, IS FOR GRAPHIC CLARITY PURPOSES ONLY. INSTALL AT THE BACK OF CURB, FRONT OF WALK, BACK OF WALK, OR ADJACENT TO OTHER HARDSCAPES TO FACILITATE FUTURE LOCATION AND TO PROTECT FROM DAMAGE. ENSURE MAINLINE IS INSTALLED ACCORDING FDEP GUIDELINES AND TO IRRIGATION SPECIFICATIONS AND DETAILS.

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast, it's free, it's the law.



LANDSCAPE AREA CALCULATIONS:
TOTAL SITE AREA: 19,888 +/- SQ. FT.
TOTAL UPLAND LANDSCAPED AREA: 13,648 +/- SQ. FT.
PLANTING/ MULCH AREAS: 3,506 +/- SQ. FT
UNIRRIGATED BAHIA TURF AREA: 10,142 +/- SQ. FT.

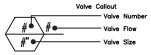
20% MFLA REQUIRED= 19,886 X 20% = 3,977 SQ. FT

IRRIGATED AREAS:
TOTAL IRRIGATED AREA: 1,876 +/- SQ. FT.
HIGH FLOW/ SPRAY AREA: 0 +/- SQ. FT.
LOW FLOW/ DRIP AREA: 1,876 +/- SQ. FT. (100%)

NOTE: IRRIGATION SHALL BE IN ACCORDANCE WITH MARION COUNTY CODE. THE SYSTEM IS PROPOSED AS PERMANENT.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Rain Bird 1800-1400 Flood 1402	14	360	30	0.5	3'
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**				
	Rain Bird XCZ-150-LCDR High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2" PESB-R Scrubber Globe Valve with single 1-1/2" Pressure Regulating (40psi) Quick-Check Basket Filters. Flow range: 15-62gpm.	2				
	Area to Receive Dripline Netafim TLCV-09-12 Techline Pressure Compensating Landscape Dripline with Check Valve. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern. 17mm.	1,795 lf				
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**				
BF	Febco 825Y 1-1/4" Reduced Pressure Backflow Preventer	1				
C	Rain Bird ESP4ME3 4 Station, Hybrid Modular Outdoor Controller. For Residential or Light Commercial Use. LNK WiFi Module and Flow Sensor Ready.	1				
RS	Rain Bird RSD-BEx Rain Sensor, with metal latching bracket, extension wire.	1				
M	Water Meter 1"	1				
	Irrigation Lateral Line: PVC Class 200 SDR 21	405.7 lf				
	Irrigation Mainline: PVC Schedule 40	79.8 lf				
	Pipe Sleeve: PVC Schedule 40	26.4 lf				



VALVE SCHEDULE (ALL ZONES SHALL RUN INDIVIDUALLY)

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	14.61	30.6	40.6	51.9	0.96 in/h
2	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	19.32	30.6	39.5	52.3	0.96 in/h
	Common Wire				79.8			

Sec. 6.9.6. - Completion inspection requirements.

A. Irrigation installation professionals shall be accountable for the proper installation and compliance with the conditions of the irrigation permit and approved plans.

B. Upon completion of the installation, the contractor or owner shall request an inspection by the irrigation design professional. Prior to the inspection, the irrigation installation professional shall produce a clear and legible as-built diagram which accurately represents the irrigation system was installed. The diagram shall be presented and reviewed during the final inspection. The diagram may be a marked-up copy of the approved irrigation plan and shall include at a minimum:
(1) Locations of all mainlines and mainline valves;
(2) Locations of all remote control valves;
(3) Water demand per zone in GPM, and
(4) Total water demand per operating cycle.

C. The irrigation installation professional shall also provide to the owner:
(1) Irrigation system scheduling information;
(2) A copy of the irrigation controller owner's manual;
(3) Irrigation system maintenance schedule, which includes:
(a) Instructions for seasonal adjustments of controller and sensors.
(b) Instructions covering how and when to check for leaks.
(c) A schedule for checking for proper irrigation distribution coverage.

D. Within 60 days after installation the irrigation controller shall be adjusted to be set in accordance with the applicable irrigation schedule set forth in this Code.

E. Upon completion of the irrigation system installation and the acceptance of the as-built diagram and operational information, a Final Inspection and Landscape/Irrigation Release shall be signed and sealed by the irrigation design professional and submitted to the County's Landscape Architect.

CRITICAL ANALYSIS

Generated:	2025-06-11 16:21
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	1"
Flow Available	20.27 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	60 PSI
Elevation Change:	5.00 ft
Service Line Size:	1"
Length of Service Line:	20 ft
Pressure Available:	56 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	19.32 GPM
Flow Available at POC:	20.27 GPM
Residual Flow Available:	0.95 GPM
Critical Station:	2
Design Pressure:	30 PSI
Friction Loss:	3.14 PSI
Fittings Loss:	0.31 PSI
Elevation Loss:	0 PSI
Loss through Valve:	6 PSI
Pressure Req. at Critical Station:	39.5 PSI
Loss for Fittings:	0.18 PSI
Loss for Main Line:	1.8 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	8.76 PSI
Loss for Water Meter:	2.06 PSI
Critical Station Pressure at POC:	52.3 PSI
Pressure Available:	56 PSI
Residual Pressure Available:	3.74 PSI

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-254-2625

PROJECT
37 LAUREL PASS
MARION COUNTY, FL
Prepared For:
IDEAL HOUSING INVESTMENTS

SEAL

CONSULTANTS

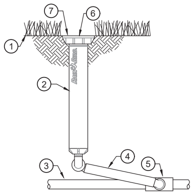
ISSUED FOR:
6/12/2025 PERMIT

PROJECT NO.	2025-09
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	6/11/2025
DRAWING SCALE	AS SHOWN

DRAWING TITLE
IRRIGATION PLAN

DRAWING NUMBER
IR-01
SHEET 1 OF 3

TURF SPRAY HEAD

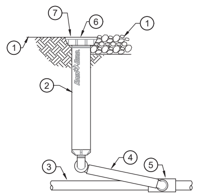


1. FINISHED GRADE / TOP OF MULCH.
2. RAIN BIRD RD06 BODY. SET IN CLEAN SOIL WITH NO ROCKS OR DEBRIS IN CONTACT WITH SPRINKLER BODY.
3. PVC LATERAL PIPE. SEE LEGEND/SPECIFICATIONS FOR TYPE.
4. SWING PIPE ASSEMBLY; SA-125050.
5. PVC SERVICE TEE, SEE SPECIFICATIONS FOR TYPE.
6. RAIN BIRD "MPR" SPRAY NOZZLES. SEE PLAN FOR SIZE AND PATTERN.
7. PURPLE TRIPLE-BLADE WIPER SEAL WITH NON-POTABLE COVER "DO NOT DRINK" WARNING AND SYMBOL.

NOTES:
1. COMPACT SOIL AROUND POP-UP HEAD TO 95% OF SURROUNDING SOIL DENSITY.
2. INSTALL POP-UP HEAD PERPENDICULAR AND FLUSH TO FINISHED GRADE.
3. PLACE POP-UP HEAD MINIMUM 12-INCHES OFF BUILDING STRUCTURES, 4" OFF SIDE WALKS AND 6-INCHES OFF FENCES.

(A) Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-125050 and MPR NOZZLES

TREE SPRAY HEAD

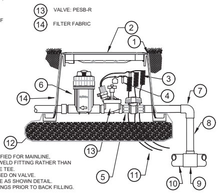


1. FINISHED GRADE / TOP OF MULCH.
2. RAIN BIRD RD06 BODY. SET IN CLEAN SOIL WITH NO ROCKS OR DEBRIS IN CONTACT WITH SPRINKLER BODY.
3. PVC LATERAL PIPE. SEE LEGEND/SPECIFICATIONS FOR TYPE.
4. SWING PIPE ASSEMBLY; SA-125050.
5. PVC SERVICE TEE, SEE SPECIFICATIONS FOR TYPE.
6. RAIN BIRD "BUBBLER". SEE PLAN FOR SIZE AND PATTERN.
7. PURPLE TRIPLE-BLADE WIPER SEAL WITH NON-POTABLE COVER "DO NOT DRINK "WARNING AND SYMBOL.

NOTES:
1. COMPACT SOIL AROUND POP-UP HEAD TO 95% OF SURROUNDING SOIL DENSITY.
2. INSTALL POP-UP HEAD PERPENDICULAR AND FLUSH TO FINISHED GRADE.
3. PLACE POP-UP HEAD MINIMUM 6-INCHES OFF TREE ROOT BALL.

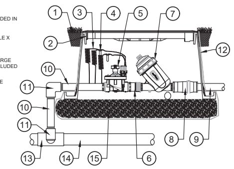
(B) Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-125050 and Bubbler

CONVENTIONAL WIRING APPLICATION



(D) RAIN BIRD XCZ-100-PRBR-COM
NTS

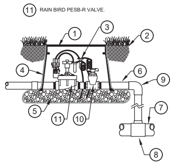
CONVENTIONAL WIRING APPLICATION



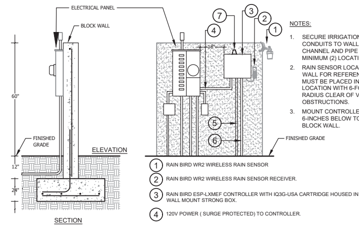
(G) RAIN BIRD XCZ-150-LCDR
NTS

CONVENTIONAL WIRING APPLICATIONS

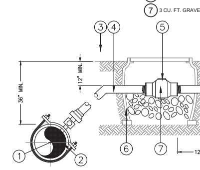
1. RAIN BIRD VB-STDPL PURPLE VALVE BOX WITH LID FLUSH WITH FINISHED GRADE
2. FINISHED GRADE
6. SCH-80 NIPPLES (1) OF (4), LENGTH AS REQUIRED.
7. MAINLINE, SEE SPECIFICATIONS FOR TYPE.



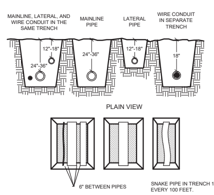
(H) RAIN BIRD 100/150/200-PESB-R PRS-D
NTS WITH GATE VALVE



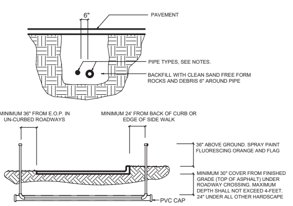
(I) RAIN BIRD ESP-LXMEF WALL MOUNT CONTROLLER
NTS IN HEAVY DUTY SB-16SSW STRONG BOX



(L) METER CONNECTION
NTS

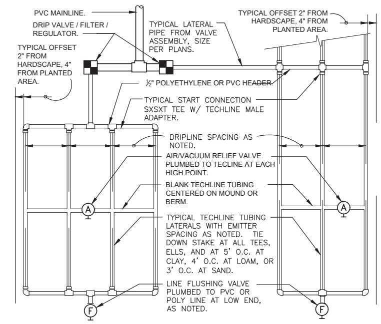


(M) PIPE TRENCH DETAIL
NTS



7. MECHANICALLY TAMP TO 95% PROCTOR.

(N) ROADWAY / HARDSCAPE SLEEVING
NTS



END FEED EXAMPLE

CENTER FEED EXAMPLE

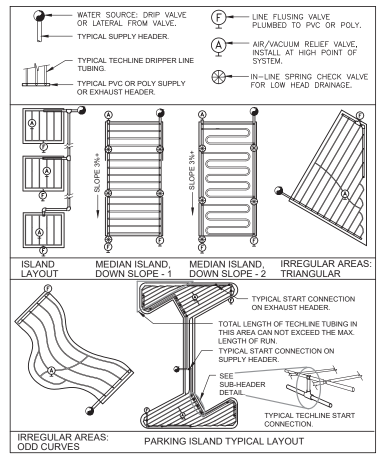
SLOPED CONDITION NOTES:
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE. 2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT. 3. TECHLINE NORMAL SPACING WITHIN THE TOP ⅔ OF SLOPE, 4. INSTALL TECHLINE AT NORMAL SPACING PLUS 25% AT THE BOTTOM ⅓ OF THE SLOPE. 5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM ⅓ ON A SEPARATE VALVE.

TECHLINE MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

DRIPPER SPACING		12"			18"			24"	
DRIPPER FLOW RATE (GPH)		0.4	0.6	0.9	0.4	0.6	0.9	0.6	0.9
INLET PRESSURE (PSI)	15	292	233	175	410	322	247	405	308
	25	397	321	238	558	438	335	553	423
	35	486	365	279	656	514	394	649	497
	45	520	407	311	732	574	439	725	555

TECHLINE FLOW PER 100 FEET

DRIPPER SPACING	0.4 GPH DRIPPER		0.6 GPH DRIPPER		0.9 GPH DRIPPER	
DRIPPER SPACING	GPH	GPM	GPH	GPM	GPH	GPM
12"	40.00	0.67	61.00	1.02	92.00	1.53
18"	26.67	0.44	41.00	0.68	61.00	1.02
24"	N/A	N/A	31.00	0.51	46.00	0.77



(1) TYPICAL NETAFIM TECHLINE REQUIREMENTS
3" = 1'-0" FX-IR-NETA-DRIP-05

GENERAL NOTES

1. THE DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC, AS IT MAY NOT HAVE BEEN POSSIBLE TO ACCURATELY DEPICT THE EXACT LOCATIONS FOR ALL MATERIAL, OR ALL JOBSITE ELEMENTS. THE INSTALLER SHALL BE EXPECTED TO MAKE MINOR ADJUSTMENTS ON THE SITE AS NEEDED, IN ORDER TO MAINTAIN COMPLETE AND ACCURATE COVERAGE, AND MAINTAIN THE INTENT OF THE DESIGN. MODIFICATIONS WHICH INCREASE THE SPACING OF HEADS, OR DECREASE THE SIZING OF PIPE, SHALL NOT BE MADE WITHOUT PRIOR CONSENT OF THE PROJECT MANAGER. THE FINAL LOCATIONS FOR ALL MAJOR EQUIPMENT, INCLUDING CONTROLLERS, VALVES, SUPPLY CONNECTIONS, MAINLINES, ETC. SHALL BE DETERMINED IN THE FIELD, STAKED OUT BY THE CONTRACTOR, USING THE DRAWINGS AS A GUIDE, AND APPROVED PRIOR TO INSTALLATION.

2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH PREVAILING CODES AND REGULATIONS. ALTHOUGH DUE DILIGENCE HAS BEEN EXERCISED IN THE PREPARATION OF THE DOCUMENTS TO AVOID CONFLICTS, IT SHALL REMAIN THE RESPONSIBILITY OF THE INSTALLER FOR VERIFICATION AND CONFORMANCE TO THE PARTICULAR CODES FOR THIS LOCATION. THE INSTALLER SHALL OBTAIN ANY NECESSARY PERMITS, LOCATES, AND INSPECTIONS.

3. ALL WORK SHALL BE CLOSELY COORDINATED WITH THAT OF OTHER TRADES, IN ORDER TO AVOID CONFLICTS. THE INSTALLATION SHALL BE COORDINATED WITH ALL NEW AND EXISTING IMPROVEMENTS, AND WITH THE ACTUAL INSTALLED BEDLINES, SOD LIMITS, AND PLANT LOCATIONS.

4. THE INSTALLER SHALL BE FAMILIAR WITH ALL APPLICABLE DOCUMENTS, INCLUDING ANY WRITTEN SPECIFICATIONS THAT MAY HAVE BEEN ISSUED. ANY CONFLICT FOUND BETWEEN THE VARIOUS DOCUMENTS SHALL BE SUBMITTED IN WRITING TO THE PROJECT MANAGER FOR DETERMINATION.

5. ALL MATERIAL AND LABOR NECESSARY TO PROVIDE A COMPLETE, FULLY OPERATIONAL, AND GUARANTEED SYSTEM SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT THEY ARE SPECIFICALLY INDICATED IN THE DOCUMENTS. THIS SHALL INCLUDE CONFORMANCE TO THE REQUIREMENTS AND RECOMMENDATIONS OF THE VARIOUS MANUFACTURERS OF THE EQUIPMENT, AND TO APPLICABLE TRAINING AND CERTIFICATION OF INSTALLATION PERSONNEL.

6. UNLESS SPECIFICALLY STATED TO THE CONTRARY, PIPING AND WIRING PASSING UNDER PAVED OR OTHER IMPERVIOUS SURFACES SHALL BE INSTALLED IN SLEEVING OF ADEQUATE SIZE AND STRENGTH. SIDEWALKS AND DECKS AND TURF PAVERS SHALL REQUIRE SLEEVING, EVEN IF NOT SHOWN ON THE DRAWINGS. CONTROL WIRING MAY BE RUN WITHIN A LARGER SLEEVE WITH MAINLINE PIPING, BUT ONLY IF PROTECTED BY A SMALLER CONDUIT. WIRE MAY NOT BE TAPED TO THE MAINLINE IN LIEU OF THIS CONDUIT, AS ABRASION OF THE WIRE JACKET IS LIKELY TO OCCUR.

7. SLEEVES UNDER PARKING AND DRIVEWAYS MAY BE THE RESPONSIBILITY OF OTHER THAN THE IRRIGATION CONTRACTOR (SUCH AS THE PAVING OR SITE CIVIL CONTRACTOR). CONSULT OTHER DOCUMENTS FOR ADDITIONAL INFORMATION. ANY NEEDED SLEEVE WHICH EITHER CANNOT BE FOUND OR IS DAMAGED BEYOND PRACTICAL USE SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY, ALONG WITH RECOMMENDATIONS FOR CORRECTIVE ACTION. SLEEVES UNDER SIDEWALKS, DECKS, ETC. ARE NORMALLY INSTALLED BY THE IRRIGATION CONTRACTOR.

8. CONTROL WIRING SHALL BE ROUTED WITH THE MAINLINE WHENEVER POSSIBLE. WIRE SHALL DIRECT BURIAL PE 14-GAUGE.

9. ALL SPRINKLER HEADS SHALL BE OF THE PROPER SIZE AND TYPE FOR THE LOCATION AND PLANT MATERIAL. HEADS SHALL BE INSTALLED IN THE PRESCRIBED MANNER, PLUMB, AND WITH THE PROPER HEIGHT WITH RESPECT TO GRADE AND/OR PLANT MATERIAL. ALL HEADS AND OTHER EQUIPMENT SHALL BE INSTALLED WITH ADEQUATE AND UNIFORM CLEARANCES FROM ALL PAVING, CURBS, SIDEWALKS, WALLS, AND OTHER OBSTACLES, SO THAT DAMAGE TO EQUIPMENT DOES NOT OCCUR DURING NORMAL LANDSCAPE MAINTENANCE OPERATIONS. ALL SPRINKLERS SHALL BE ADJUSTED TO OBTAIN OPTIMAL COVERAGE OF PLANT MATERIAL, WHILE MINIMIZING OVERSPRAY ONTO WINDOWS, WALLS PAVING OR OTHER IMPERVIOUS SURFACES, PARTICULARLY WOODWORK AND/OR TRIM. THE INSTALLER SHALL UTILIZE THE PROPER SPRAY NOZZLE PATTERN FOR THE LOCATION, AS WELL AS PRESSURE-COMPENSATING HEADS OR SCREENS, AND ADJUSTABLE-PATTERN NOZZLES WHERE A FIXED PATTERN IS NOT SUITABLE TO CONTROL COVERAGE OR OVERSPRAY.

10. RISER-MOUNTED HEADS SHALL BE INSTALLED WITHIN THE FIRST ROW OF PLANT MATERIAL, SO THAT THE HEAD IS PROTECTED AND CONCEALED BY THE MATERIAL. IT MAY BE REQUIRED TO RELOCATE HEADS NOT CONFORMING TO THIS STIPULATION AFTER PLANTS ARE INSTALLED. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER. RISERS SHALL BE STAKED AS SHOWN IN THE DETAILS, AND PAINTED A DURABLE FLAT COLOR, TO BE AGREED UPON BY THE PARTIES.

11. TREE BUBBLER HEADS SHALL BE CONSIDERED TEMPORARY, AND WILL BE CAPPED OFF ONCE MATERIAL IS ESTABLISHED.

12. THE CONTROLLER SHALL REQUIRE A STANDARD 120-VAC POWER FEED, WHICH SHALL BE COORDINATED BY THE INSTALLER, AND HOOKED UP BY A LICENSED ELECTRICIAN. IT IS PREFERRED THAT A DEDICATED CIRCUIT BE PROVIDED FOR THIS CONNECTION. A 3-WIRE POWER INPUT SURGE ARRESTOR SHALL BE PROVIDED ON THE POWER FEED, AND A DEDICATED GROUND ROD/PLATE NETWORK (SEE DETAIL) SHALL BE INSTALLED, HAVING A MEASURED EARTH GROUND RESISTANCE OF NOT GREATER THAN TEN (10) OHMS.

13. THE CONTROL SYSTEM IS A RAIN BIRD SYSTEM. THE INSTALLER SHALL UTILIZE PERSONNEL WHO ARE SPECIFICALLY TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF THIS SYSTEM. THE INSTALLER SHALL ENLIST THE SERVICES OF THE FIELD SERVICE REPRESENTATIVE FOR ANY REQUIRED COORDINATION. ALL RELEVANT MATERIAL AND LABOR TO INSTALL THIS SYSTEM IN ACCORDANCE WITH RAIN BIRD GUIDELINES SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT SPECIFICALLY CALLED OUT IN THESE DOCUMENTS.

14. THE CONTROLLER SHALL BE EQUIPPED WITH A PROPERLY LOCATED AND INSTALLED RAIN SENSOR. THE SENSOR SHALL BE LOCATED IN SUCH A MANNER SO THAT IT IS UNOBSTRUCTED AND DIRECTLY EXPOSED TO NATURAL RAINFALL FROM ALL DIRECTIONS, BUT NOT TO RUNOFF WATER FROM ROOFS, ETC.

15. THE MINIMUM SUPPLY REQUIREMENT FOR THE SYSTEM AS DESIGNED IS:
SEE POC CRITICAL ANALYSIS

16. THE INSTALLER SHALL BE EXPECTED TO BE FAMILIAR WITH ALL REQUIREMENTS FOR THE WORK, AND TO CONDUCT HIS WORK IN A CLEAN, SAFE, AND WORKMANLIKE MANNER. THE OWNER RESERVES THE RIGHT TO ACT TO PROTECT HIS PROPERTY AND THE OTHER PERSONNEL AT WORK THERE, AND TO MAKE EMERGENCY REPAIRS OR TAKE CORRECTIVE ACTION IF THE INSTALLER DOES NOT FULFILL HIS OBLIGATIONS IN A TIMELY MANNER. THE OWNER FURTHER RESERVES THE RIGHT TO BACK-CHARGE THE INSTALLER TO COVER SUCH EXPENSES, TO THE EXTENT ALLOWED UNDER APPLICABLE LAW.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
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DRAWING SCALE	AS SHOWN

DRAWING TITLE
IRRIGATION DETAILS

DRAWING NUMBER
IR-02

IRRIGATION NOTES & SPECIFICATIONS

Irrigation design based on the TDC Design Studio Landscape Plan dated 7/19/2021. Contractor shall refer to these plans to coordinate sprinkler and pipe locations.

The system has been designed to conform with the requirements of all applicable codes, laws, ordinances, rules, regulations and conventions. Should any conflict exist, the requirements of the codes shall prevail. It is the responsibility of the owner/installation contractor to ensure the entire system is installed as designed. Irrigation contractor responsible for obtaining all required permits according to federal, state and local laws.

The scope of work is shown on the plans, notes and details. The Irrigation Contractor shall be certified as a CERTIFIED IRRIGATION CONTRACTOR by the Irrigation Association. The certification shall be current and in good standing.

THE WORK

The work specified in this section consists of furnishing all components necessary for the installation, testing, and delivery of a complete, fully functional automatic landscape irrigation system that complies with the irrigation plans, specifications, notes, and details. This work shall include, but not be limited to, the providing of all required material if applicable (pump(s), backflows, pipes, valves, fittings, controllers, wire, primer, glue, etc.), layout, protection to the public, excavation, assembly, installation, back filling, compacting, repair of road surfaces, controller and low voltage feeds to valves, cleanup, maintenance, guarantee and as-built plans.

All irrigated areas shall provide 100% head-to-head coverage from a fully automatic irrigation system with a rain (and freeze as appropriate) shut off device. If the rain shut off device is a rain sensor, it shall be installed to prevent activation by adjacent heads. Zones are prioritized first by public safety and then by hydraulic concerns. This sequencing will be a mandatory punch list item.

These plans have been designed to satisfy/exceed the Florida Irrigation Society Standards and Specifications for Turf and Landscape Irrigation Systems, fourth edition. All products should be installed per manufacturer's recommendation. Contractor shall verify all underground utilities 72 hours prior to commencement of work.

It is the responsibility of the irrigation contractor to familiarize themselves with all grade differences, location of walls, retaining walls, structures and utilities. Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that unknown obstruction, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions, or differences, should be brought to the attention of the owner's authorized representative. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.

Irrigation contractor shall repair or replace all items damaged by their work. Irrigation contractor shall coordinate their work with other contractors for the location and installation of pipe sleeves and laterals through walls, under roadways and paving, etc.

The contractor shall take immediate steps to repair, replace, or restore all services to any utilities which are disrupted due to their operations. All costs involved in disruption of service and repairs due to negligence on the part of the contractor shall be their responsibility.

POINT OF CONNECTION (P.O.C.)

There is ONE P.O.C.('s)

#1-P.O.C. is a new 1" potable meter & RPZ Backflow (by others) with a 1" service line by others. The P.O.C. must be capable of delivering a minimum of 20.3 GPM at 60 PSI downstream of the water meter.

Contractor to verify these minimum conditions can be met prior to ordering of materials and the beginning of installation. If the conditions can not be met, the contractor must notify the designer prior to proceeding with the work. If the contractor does not do so, the contractor proceeds at their own risk and becomes responsible for any future work required to make the system perform as required.

THE PIPE

Pipe locations shown on the plan are schematic and shall be adjusted in the field. When laying out mainlines place a maximum of 18" away from either the back of curb, front of walk, back of walk, or other hardscape to allow for ease in locating and protection from physical damage. Install all lateral pipe near edges of pavement or against buildings whenever possible to allow space for plant root balls. Always install piping inside project property's boundary.

All pipes are to be placed in planting beds. If it is necessary to have piping under hardscapes, such as roads, walks, and patios, the pipes must be sleeved using Class 200 PVC with the sleeve diameter being twice the size of the pipe it is carrying with a minimum sleeve size of 2".

Pipe sizes shall conform to those shown on the drawings. No substitutions of smaller pipe sizes shall be permitted, but substitutions of larger sizes may be approved. All damaged and rejected pipe shall be removed from the site at the time of said rejection.

Mainline shall be Pantone Purple Sch 40 solvent-weld (sized per plan) PVC with Sch 40 PVC solvent-weld fittings.

Contractor to ensure all mainline piping is properly restrained using mechanical joint fittings, restraining collars, threaded rods, thrust blocks, etc.., as and where required. Contractor shall refer to pipe manufacturers recommended installation practices for further direction.

PVC pipe joint compound and primer: The PVC cement shall be Weld-On 711 (grey, slow-drying, heavy duty) and the primer shall be Weld-On P70 (purple tinted, compatible with cement), or approved equals.

ELECTRICAL POWER SUPPLY

Electrical supply for irrigation pumps, controllers, sensors, relaysto be provided by irrigation contractor. Contractor to coordinate with local utilities for the installation of, and connection to, site available power supplies for required electrical components as set forth in the irrigation plans.

All electrical work is to comply with the National Electrical Code and any, and all, other applicable electrical codes, laws and regulations. A licensed electrician shall perform all electrical hook-ups. Power for each controller/CCU shall be a dedicated 120 volt, 20 amp circuit unless otherwise specified in the plans. Power for each pump to be according to pump specifications indicated in these plans.

WIRING

Irrigation control wire shall be thermoplastic solid copper, single conductor, low voltage irrigation controller wire; suitable for direct burial and continuous operation at rated voltages.

Tape and bundle control wires every 10' and run alongside the mainline. At all turns in direction make a 2' coil of wire. At all valve boxes coil wire around a 3/4" piece of PVC pipe to make a coil using 30 linear inches of wire. Make electrical connections with 3MDBY/R connectors.

Number all wires, using an electrical book of numbers, according to the plans. Number wires in all valve boxes, junction boxes and at the controller.

Wire sized, numbered and colored as follows:
- #14 white for common
- #14 spare black common
- #14 individual color coded hot wire
- #14 yellow spare hot wire

Spare wires
Leaving each controller, run six spare wires in both directions (twelve spare wires total). Install as 2 common spares (4 total) and 4 hot wires (8 total). Loop these wires into each RCV along their path and terminate in the last valve box controlled by the wires respective controller. The loop into each valve box shall extend up into the valve box a minimum of 8" and be readily accessible by opening the valve box lid. These wires must be all numbered and color coded as required in these plans.

Controller and Pump station Control Panel grounding - Contractor to utilize 4"X8'X5/8" copper grounding plates, 5/8"X10' copper clad grounding rods, 'One Strike' CAD welds at all connection points, #6 bare copper wire, and earth contact material. Install these and other required components as outlined in the detail. Contractor to verify that the earth to ground resistance does not exceed 10 ohms. Contractor shall provide a written certification, on a licensed electrical contractors letter head, showing the date of the test, controller/pump location, and test results. Each controller/pump shall be so grounded and tested. Each component must have its own separate grounding grid, unless they are sitting side by side, in which case up to two controllers can share a common grounding grid.

LAYOUT

Lay out irrigation system mainlines and lateral lines. Make the necessary adjustments as required to take into account all site obstructions and limitations prior to excavating trenches.

Stake all sprinkler head locations. Adjust location and make the necessary modifications to nozzle types, etc. required to ensure 100% head to head coverage. Refer to the Edge of Pavement Detail on the Irrigation Detail Sheet.

Spray heads shall be installed 4" from sidewalks or curbed roadways and 12" from uncurbed roadways and building foundations. Rotors shall be installed 4" from sidewalks or curbed roadways, 12" from building foundations, and 36" from uncurbed roadways.

Shrub heads shall be installed on 3/4" Sch 40 PVC risers. The risers shall be set at a minimum of 18" off sidewalks, roadway curbing, building foundations, and/or any other hardscaped areas. Shrub heads shall be installed to a standard height of 4" below maintained height of plants and shall be installed a minimum of 6" within planted masses to be less visible and offer protection. Paint all shrub risers with flat black or forest green paint, unless irrigation system will utilize reuse water; in this case the risers shall be purple PVC and shall not be painted.

Locate valves prior to excavation. Ensure that their location provides for easy access and that there is no interference with physical structures, plants, trees, poles, etc. Valve boxes must be placed a minimum of 12" and a maximum of 15" from the edge of pavement, curbs, etc. and the top of the box must be 2" above finish grade. No valve boxes shall be installed in turf areas without approval by the irrigation designer - only in shrub beds. Never install in sport field areas.

VALVES

Sequence all valves so that the farthest valve from the P.O.C. operates first and the closest to the P.O.C. operates last. The closest valve to the P.O.C. should be the last valve in the programmed sequence.

Adjust the flow control on each RCV to ensure shut off in 10 seconds after deactivation by the irrigation controller.

Using an electric branding iron, brand the valve I.D. letter/number on the lid of each valve box. This brand must be 2"-3" tall and easily legible.

EQUIPMENT

All pop-up heads and shrub risers shall be pressure compensating. All pop-up heads shall be mounted on flex-type swing joints. All rotors shall be installed with PVC triple swing joints unless otherwise detailed.

All sprinkler equipment, not otherwise detailed or specified on these plans, shall be installed as per manufacturer's recommendations and specifications, and according to local and state laws.

TRENCHING

Excavate straight and vertical trenches with smooth, flat or sloping bottoms. Trench width and depth should be sufficient to allow for the proper vertical and horizontal separation between piping as shown in the pipe installation detail on the detail sheet.

Protect existing landscaped areas. Remove and replant any damaged plant material upon job completion. The replacement material shall be of the same genus and species, and of the same size as the material it is replacing. The final determination as to what needs to be replaced and the acceptability of the replacement material shall be solely up to the owner or owner's representative.

INSTALLATION

<u>Solvent Weld Pipe</u>: Cut all pipe square and deburr. Clean pipe and fittings of foreign material; then apply a small amount of primer while ensuring that any excess is wiped off immediately. Primer should not puddle or drip from pipe or fittings. Next apply a thin coat of PVC cement; first apply a thin layer to the pipe, next a thin layer inside the fitting, and finally another very thin layer on the pipe. Insert the pipe into the fitting. Insure that the pipe is inserted to the bottom of the fitting, then turn the pipe a 1/4 turn and hold for 10 seconds. Make sure that the pipe doesn't recede from the fitting. If the pipe isn't at the bottom of the fitting upon completion, the glue joint is unacceptable and must be discarded.

Pipes must cure a minimum of 30 minutes prior to handling and placing into trenches. A longer curing time may be required; refer to the manufacturer's specifications. The pipe must cure a minimum of 24 hours prior to filling with water.

<u>Gasketed Pipe:</u> With pipe in the trench, cut pipe square, deburr, and place beveled edge on male portion of pipe, if not using a piece with a factory bevel. Clean pipe and fittings of foreign material; then apply a small amount of pipe grease to the rubber gasket on the female end. Fully insert the male end of the pipe into the bell end of adjacent pipe until the bevel is fully seated into the bell. Restrain pipe as required.

BACK FILL

The Back fill 6" below, 6" above, and around all piping shall be of clean sand and anything beyond that in the trench can be of native material but nothing larger than 2" in diameter.

Main line pipe depth measured to the top of pipe shall be:
- 24" minimum for 3/4"-2 1/2" PVC with a 30" minimum at vehicular crossings;
- 30" minimum for 3" & 4" PVC with a 36" minimum at vehicular crossings;
- 36" minimum for 6" PVC with a 36" minimum at vehicular crossings;

Lateral line depths measured to top of pipe shall be:
- 18" minimum for 3/4"-3" PVC with a 30" minimum at vehicular crossings;
- 24" minimum for 4" PVC and above with a 30" minimum at vehicular crossings.

Contractor shall backfill all piping, both mainline and laterals, prior to performing any pressure tests. The pipe shall be backfilled with the exception of 2' on each side of every joint (bell fittings, 90's, tees, 45's, etc.). These joints shall not be backfilled until all piping has satisfactorily passed its appropriate pressure test as outlined below.

FLUSHING

Prior to the placement of valves, flush all mainlines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Prior to the placement of heads, flush all lateral lines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Use screens in heads and adjust heads for proper coverage avoiding excess water on walls, walks and paving.

TESTING

Soil: At a minimum of 2 locations on the site, soil tests for Infiltration and texture shall be performed according to the USDA Soil Quality Test Kit Guide. The tests shall be documented in a USDA Soil Worksheet. (All of the above is available at http://soils.usda.gov/sqi/assessment/test_kit.html) The completed worksheet shall be submitted to the owners representative for review/approval. Do not proceed without written direction from the owner/owner's representative.

Mainline: Remove all remote control valves and cap using a threaded cap on SCH 80 nipple. Fill mainline with water and pressurize the system to 125 PSI. Monitor the system pressure at two gauge locations; the gauge locations must be at opposite ends of the mainline. With the same respective pressures, monitor the gauges for two hours. There can be no loss in pressure at either gauge for solvent-welded pipe. For HDPE pipe, see HDPE notes. For gasketed pipe, testing requires measurement of the water pumped into the mainline system, using a hydrostatic pump, to maintain 125 PSI - this water volume shall be no more than the result of the following formula:

$L=(ND\sqrt{P})/7400$

where L=Allowable leakage in gallons per hour
N=Number of joints in pipe tested
D=Nominal diameter of pipe (in inches)
P=Average Test Pressure (in PSI)

If these parameters are exceeded, locate the problem; repair it; wait 24 hours and retry the test. This procedure must be followed until the mainline passes the test.

<u>Lateral Lines:</u> The lateral lines must be fully filled to operational pressure and visually checked for leaks. Any leaks detected must be repaired.

Operational Testing -Once the mainline and lateral lines have passed their respective tests, and the system is completely operational, a coverage test and demonstration of the system is required. The irrigation contractor must demonstrate to the owner, or his/her representative, that proper coverage is obtained and the system works automatically from the controller. This demonstration requires each zone to be turned on, in the proper sequence as shown on the plans, from the controller. Each zone will be inspected for proper coverage and function. The determination of proper coverage and function is at the sole discretion of the owner or owner's representative.

Upon completion of the operational test, run each zone until water begins to puddle or run off. This will allow you to determine the number of irrigation start times necessary to meet the weekly evapotranspiration requirements of the planting material in each zone. In fine sandy soils, it is possible no puddling will occur. If this is experienced, then theoretical calculations for run times will be required for controller programming.

SUBMITTALS

<u>Pre-Construction:</u> The contractor must submit for written approval, prior to installation, five (5) copies of the manufacturer's cut sheets/specifications for all components to be used in the irrigation system.

<u>After project completion</u>:
As a condition of final acceptance, the irrigation contractor shall provide the owner with:
1. Irrigations As-builts - shall be provided utilizing a sub-foot Global Positioning System (GPS) to accurately locate all mainlines, sleeves, remote control valves, gate valves, independent wire runs, wire splice boxes, controllers, high voltage supply sources/conduit path, control mechanisms, sensors, wells and water source connections in Florida East State Plane, NAD 83, and CORS 96 format. The data collected shall be in POINT format and include an ID for each data point with Manufacturer, Type, Size, and Depth. All mainline and independent runs of wire shall be located every 30' for straight runs and at every change of direction. Sleeves will be located at end points and every 20' of length. All underground items shall include depth in inch format. These POINTS once collected shall be imported into an AutoCAD DWG geo-referenced base file to be labeled accordingly. The completed AS-Built shall be a Geo-Referenced DWF file and delivered to the owner on a compact disk (CD).

2. Controller charts - Upon completion of "as-built" prepare controller charts; one per controller. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart shall be reduced to a size that will fit inside of the controller door. The reduction shall be hermetically sealed inside two 2ml pieces of clear plastic.

3. Grounding Certification - Provide ground certification results for each controller and pump panel grounding grid installed. This must be on a licensed electrician letter head indicating location tested (using IR plan symbols), date, time, test method, and testing results.

INSPECTIONS AND COORDINATION MEETINGS REQUIRED - Contractor is required to schedule, perform, and attend the following, and demonstrate to the owner and/or owners representative to their satisfaction, as follows:

1. Pre-construction meeting - Designer and contractor to review entire install process and schedule with owner/general contractor.
2. Mainline installation inspection(s) - all mainline must be inspected for proper pipe, fittings, depth of coverage, backfill. and installation method
3. Mainline pressure test - All mainline shall be pressure tested according to this designs requirements
4. Flow Meter calibration - All flow meters must be calibrated, provide certified calibration report for all flow meters.
5. USDA Soil Quality Tests for infiltration/texture
6. Coverage and operational test
7. Final inspection
8. Punch list inspection

FINAL ACCEPTANCE

Final acceptance of the irrigation system will be given after the following documents and conditions have been completed and approved. Final payment will not be released until these conditions are satisfied.

1. All above inspections are completed, documented, and approved by owner.
2. Completion and acceptance of `as-built' drawings.
3. Acceptance of required controller charts and placement inside of controllers.
4. All other submittals have be made to the satisfaction of the owner.

GUARANTEE: The irrigation system shall be guaranteed for a minimum of one calendar year from the time of <u>final acceptance</u>.

MINIMUM RECOMMENDED IRRIGATION MAINTENANCE PROCEDURES

1. Every irrigation zone should be checked monthly and written reports generated describing the date(s) each zone was inspected, problems identified, date problems repaired, and a list of materials used in the repair. At minimum, these inspections should include the following tasks:

- A. Turn on each zone from the controller to verify automatic operation.
- B. Check schedules to ensure they are appropriate for the season, plant and soil type, and irrigation method. Consult an I.A. certified auditor for methods used in determining proper irrigation scheduling requirements.
- C. Check remote control valve to ensure proper operation.
- D. Check setting on pressure regulator to verify proper setting, if present.
- E. Check flow control and adjust as needed; ensure valve closure within 10-15 seconds after deactivation by controller.
- F. Check for leaks - mainline, lateral lines, valves, heads, etc.
- G. Check all heads as follows:
  1. Proper set height (top of sprinkler is 1" below mow height)
  2. Verify head pop-up height - 6" in turf, 12" in ground cover, and pop-up on riser in shrub beds.
  3. Check wiper seal for leaks - if leaking, clean head and re-inspect. If still leaking, replace head with the appropriate head with pressure regulator and built-in check valve.
  4. All nozzles checked for proper pattern, clogging, leaks, correct make & model, etc. - replace as needed
  5. Check for proper alignment - perfectly vertical; coverage area is correct; minimize over spray onto hardscapes.
  6. Riser height raised/lowered to accommodate plant growth patterns and ensure proper coverage.
  7. verify the pop-up riser retracts after operation. If not, repair/replace as needed.

2. Check controller/C.C.U. grounds for resistance (10 ohms or less) once per year. Submit written reports.

3. Check rain shut-off device monthly to ensure it functions properly.

4. Inspect all filters monthly and clean/repair/replace as needed.

5. Inspect backflow devices by utilizing a properly licensed backflow inspector. This should be done annually, at minimum.

6. Inspect all valve boxes to ensure they are in good condition, lids are in place and locked.

7. Check pump stations for proper operation, pressures, filtration, settings, etc. - refer to pump station operations manual.

8. Check and clean intake screens on all suction lines quarterly, at minimum. Clean and/or repair, as needed.

9. Winterize, if applicable, as weather in your area dictates. Follow manufacturer recommendations and blow out all lines and equipment using compressed air. Perform seasonal startup of system as per manufacturer recommendations.

10. Conduct additional inspections, maintenance tasks, etc. that are particular for your site.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-256-2625

PROJECT
37 LAUREL PASS
MARION COUNTY, FL
Prepared For:
IDEAL HOUSING INVESTMENTS

SEAL

CONSULTANTS

ISSUED FOR:
6/12/2025 PERMIT

PROJECT NO.	2025-09
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	6/11/2025
DRAWING SCALE	AS SHOWN

DRAWING TITLE
IRRIGATION SPECIFICATIONS

DRAWING NUMBER
IR-03

SHEET 3 OF 3

GENERAL NOTES

1. SEE CIVIL ENGINEERING DRAWINGS FOR GENERAL GRADING OF THE SITE, INCLUDING FINISH GRADES FOR PARKING LOTS, ROADWAYS, SIDEWALKS, AND PLANTING AREAS.
2. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION.
3. LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO INITIATING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGE TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
4. THE OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
5. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON-SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE PRIOR TO START OF CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.
7. REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.
9. THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
10. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. DURING THE COURSE OF THIS WORK, EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY FROM THE SITE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE.
12. "FLORIDA LAW (F.S. 556) UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT MANDATES THAT EXCAVATOR/CONTRACTORS SHALL CONTACT SUNSHINE 811 (fka: SUNSHINE STATE ONE-CALL OF FLORIDA) BY CALLING 800-432-4770 OR 811 AT LEAST 2 FULL BUSINESS DAYS PRIOR TO THE BEGINNING ANY EXCAVATION OR DEMOLITION TO ALLOW MEMBER OPERATORS AN OPPORTUNITY TO IDENTIFY AND MARK THEIR UNDERGROUND FACILITIES AND APPROPRIATELY RESPOND TO THE POSITIVE RESPONSE SYSTEM.
13. ALL EXISTING SITE ROADS, PARKING LOTS, CURBS, UTILITIES, SEWERS, AND OTHER ELEMENTS TO REMAIN SHALL BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.
14. CONTRACTOR IS RESPONSIBLE TO INCLUDE ALL NECESSARY ITEMS TO FULLY COMPLETE AN ASSEMBLY, SYSTEM, OR ITEM OF WORK AS SHOWN IN THE DRAWINGS. ANY ITEMS NOT IDENTIFIED OR SPECIFIED IN THESE DRAWINGS, BUT REQUIRED TO COMPLETE THE WORK SHALL BE PROVIDED BY THE CONTRACTOR.
15. CONTRACTOR IS RESPONSIBLE FOR PLACING ALL ITEMS OF WORK IN THE CORRECT LOCATIONS PER THE DRAWINGS. THIS MAY INCLUDE SURVEYING THE PROJECT SITE. DIGITAL DRAWING INFORMATION AND/ OR NORTHING AND EASTING COORDINATES FOR USE BY THE CONTRACTOR CAN BE PROVIDED BY THE LANDSCAPE ARCHITECT UPON REQUEST.
THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR INACCURACIES IN THE BASE INFORMATION AND PROJECT COORDINATES PROVIDED BY THE CIVIL ENGINEER OR PROPERTY SURVEYOR THAT IS INCORPORATED BY REFERENCE IN THESE DRAWINGS.

LANDSCAPE NOTES

1. THE CONTRACTOR SHALL REVIEW ARCHITECTURE/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
2. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES IN WRITING TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION WITHIN TWO WEEKS OF CONTRACT AWARD AND PRIOR TO THE COMMENCEMENT OF WORK. ALL REQUESTS FOR SUBSTITUTION DUE TO LACK OF AVAILABILITY MUST BE MADE TO THE OWNER'S REPRESENTATIVE IN WRITING WITHIN THIS PERIOD. NO SUBSTITUTION SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR EXHAUSTING ALL MEANS POSSIBLE TO OBTAIN THE MATERIALS AS SPECIFIED PRIOR TO REQUESTING SUBSTITUTION. IN ORDER TO BE CONSIDERED BY THE OWNER'S REPRESENTATIVE AS VIABLE ALTERNATES PLANTS MUST SHARE THE SAME GENERAL APPEARANCE/ FORM, INSTALLATION SIZE, MATURE SIZE, COLOR, QUALITY AND GROWTH HABIT. MATERIALS MUST BE OFFERED AT NO ADDITIONAL COSTS TO THE OWNER.
3. ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK. CONTRACTOR SHALL ENSURE A MAINTAINED CLEARANCE OF ALL UTILITIES & FIRE HYDRANTS IN ACCORDANCE WITH THE FLORIDA FIRE PREVENTION CODE 18.5.7.1. CONTRACTOR SHALL ENSURE SIGHT TRIANGLE VISIBILITY IN ALL APPLICABLE ROADWAYS PER FDOT STANDARDS.
4. PRIOR TO PLANTING INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF TREE MATERIAL AND SPECIMEN PLANT MATERIAL TO THE OWNER'S REPRESENTATIVE FOR REVIEW.
5. ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. CONTAINER SIZE SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
6. IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AT NO ADDED COST TO THE OWNER AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED AND FOUND TO BE ACCEPTABLE.
7. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL. SEE SPECIFICATIONS FOR REQUIREMENTS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS, AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
9. THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE. IN WET OR POORLY DRAINING SOILS THE CONTRACTOR SHALL INSTALL ALL PLANTS TO MAXIMIZE DRAINAGE AND MINIMIZE POOLING OF WATER AROUND PLANTINGS. THIS MAY INCLUDE LOOSENING OF EXISTING SOILS AND PROVIDING SOIL AMENDMENTS TO ENSURE ADEQUATE DRAINAGE.
10. PEG SOD ON SLOPES GREATER THAN 1:3 (33% SLOPE).
11. THE CONTRACTOR SHALL ENGAGE A QUALIFIED ARBORIST WHO HAS SUCCESSFULLY COMPLETED TREE PROTECTION AND TREE TRIMMING WITH FIVE YEARS OR MORE EXPERIENCE, TO PERFORM THE FOLLOWING WORK:
    A. REMOVE BRANCHES FROM TREES THAT ARE TO REMAIN, IF REQUIRED, AS DIRECTED BY OWNER'S REPRESENTATIVE.
    B. PERFORM INITIAL PRUNING OF BRANCHES TO ACCOMMODATE NEW CONSTRUCTION.
    C. PERFORM TREE REPAIR WORK FOR DAMAGE INCURRED BY NEW CONSTRUCTION.
12. CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION SYSTEM FOR RELOCATED TREES.
13. CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AS SHOWN ON DRAWINGS OR BY MEANS APPROVED BY THE OWNER'S REPRESENTATIVE. ALL EXISTING PLANT BEDS TO REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHALL BE LEFT UNDISTURBED. EXISTING TREES TO REMAIN, AS NOTED ON THE DRAWINGS, SHALL BE LEFT UNDISTURBED AND PROTECTED BY WOODEN BARRICADES ERECTED AT THE PERIMETER OF THE TREE DRIP-LINE (S). NO VEHICLE SHALL TRAVERSE THIS AREA NOR SHALL ANY STORAGE OF MATERIALS OR EQUIPMENT BE PERMITTED WITHIN THE AREA OF THE TREE DRIP-LINE(S). ANY EXISTING PLANT BEDS OR TREES DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED BY THE RESPONSIBLE PARTY AT THEIR OWN EXPENSE.
14. CONTRACTOR TO CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EXISTING VEGETATION AS REQUIRED AND PREPARING PLANTING AREAS PRIOR TO INSTALLATION OF PLANT MATERIALS.
16. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ERADICATING WEEDS AND UNWANTED PERENNIAL VEGETATION WITHIN THE LIMITS OF ALL PLANTING AREAS PRIOR TO BEGINNING LANDSCAPE INSTALLATION. PERENNIAL WEEDS AND GRASSES TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO, NUT GRASS, PUNCTURE VINE, MORNING GLORY, DOG FENNEL, TORPEDO GRASS, BERMUDA GRASS, BAHIA GRASS, KIKUYU GRASS, CRAB GRASS, CARPET GRASS, SEDGE AND OTHER NOXIOUS AND/OR INVASIVE WEEDS. THE SITE IS TO BE MAINTAINED WEED FREE THROUGHOUT PLANTING OPERATIONS.
17. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PRE-TILLAGE TO SCARIFY SOILS IN ALL PLANTING AREAS TO A MINIMUM DEPTH OF 4". DENSELY COMPACTED AREAS BETWEEN 85% AND 90% ARE TO BE CROSS RIPPED TO A MINIMUM 8" DEPTH. IN THE PROCESS OF TILLING ARE UNACCEPTABLE MATERIALS INCLUDING, BUT NOT LIMITED TO, FOREIGN DEBRIS, CONSTRUCTION WASTE, ROOTS, CONCRETE, ASPHALT AND ROCKS GREATER THAN 1/2" DIAMETER ON AVERAGE. IN AREAS TO RECEIVE SOD TILL IN FERTILIZER TO A DEPTH OF 2" AT A RATE OF 12 POUNDS PER CUBIC FT.
18. ALL PLANTING BEDS SHALL BE STAKED IN ACCORDANCE WITH THE PLANS AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL PROVIDE STAKES OR IRRIGATION FLAGS TO LOCATE THE EDGES OF ALL SHRUB AND GROUNDCOVER PLANT BEDS AND INDIVIDUAL TREES AND PALMS. ALL SHRUB AND GROUNDCOVER MATERIALS MUST BE LAID OUT IN THEIR CONTAINERS WITH THE APPROPRIATE SPACING FOR OWNER'S REPRESENTATIVE REVIEW AND APPROVAL. THE OWNER RESERVES THE RIGHT TO MAKE FIELD ADJUSTMENTS TO PLANT LAYOUT AS PART OF THIS REVIEW. FAILURE BY THE LANDSCAPE CONTRACTOR TO OBTAIN LAYOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION MAY RESULT IN THE REMOVAL AND REINSTALLATION OF MATERIALS BY THE CONTRACTOR AT NO ADDITIONAL COSTS TO THE OWNER. IF EXISTING CONDITIONS DO NOT ALLOW THE DESIGN TO BE LAID OUT AS SHOWN, NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY
19. UNLESS EXPLICITLY SHOWN ON DRAWINGS, NO TREES SHALL BE PLANTED WITHIN DESIGNATED UTILITY CORRIDORS, PUBLIC RIGHTS OF WAY NOR LOCATED WITHIN FOUR FEET (4') OF ANY SWALE CENTERLINE, BUILDING, OR STRUCTURE IDENTIFIED ON THE DRAWINGS OR EXISTING IN THE FIELD. NO CANOPY TREES SHALL BE PLANTED WITHIN 5 FEET OF UNDERGROUND UTILITIES, 20 FEET OF EXISTING OVERHEAD POWER LINES, WITHIN 4 FEET OF ANY PAVED SURFACE, OR UNDER CANOPY TREES THAT LIMIT ACCESS TO LIGHT AND ROOM TO GROW. FIELD ADJUST AS NECESSARY AND REVIEW ADJUSTMENTS WITH THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. TREES SHALL BE MAINTAINED AT A MINIMUM OF 13'-6" VERTICAL CLEARANCE OVER ROADWAYS OR OTHER FIRE DEPARTMENT ACCESS ROADS.
20. ALL PROPOSED TREES SHALL BE INSTALLED EITHER ENTIRELY IN OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED OUTLINES SHALL NOT BE OBSTRUCTED AND SHALL BE SMOOTH AND FLOWING. IF TREES ARE LOCATED OUTSIDE PLANTING BEDS IN GRASS AREAS, MAINTAIN A MINIMUM THREE FEET 3' WIDE OFFSET TO ALLOW FOR MOWERS TO MANEUVER.
21. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE EXTENT OF SOD & TURF WORK IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SOD & TURF IN THE AREAS SHOWN ON THE PLAN IN SUFFICIENT QUANTITY TO PROVIDE FULL COVERAGE. ADDITIONAL GRASS REQUIRED WILL BE ADJUSTED BASED ON A SQUARE FOOTAGE UNIT PRICE. AREAS TO BE SODDED SHALL BE AMENDED PER SOILS REPORT TO PROVIDE REQUIRED NUTRIENTS AND SOIL PH OF BETWEEN 6.0 AND 7.0.
ALL SOD SHALL BE ONLY NURSERY GROWN, NON PASTURE RAISED, MACHINE CUT SOD RECTANGLES OF THE TYPE INDICATED ON THE DRAWINGS. SOD SHALL BE WELL-MATTED WITH ROOTS, FREE OF EXCESSIVE WEEDS & DEBRIS, AND SHALL BE GREEN, FRESH AND UNINJURED AT THE TIME OF PLANTING.
22. CONTRACTOR SHALL FIELD-ADJUST LOCATION OF PLANT MATERIAL FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INITIATING INSTALLATION.
23. ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE WITH FLORIDA NO. 1 GRADE, ACCORDING TO THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
24. ALL PLANTING BEDS SHALL BE TOP-DRESSED WITH A 3" LAYER OF MULCH AS SPECIFIED. ALL TREES SHALL HAVE A 1" DEEP, 24" RADIUS (FROM THE TRUNK) MULCH RING PLACED AROUND THE BASE OF THE TRUNK. ON WELL DRAINED SOIL,THE MULCH RING SHALL BE MOUNDED AT ITS EDGES TO RETAIN WATER WITHIN THE TREE RING. ON POORLY DRAINED SOIL, THE MULCH RING SHALL BE MOUNDED AT THE TRUNK TO SHED WATER AWAY FROM THE TREE.
25. SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED ON THE PLANT LIST. PLANT ACCENT SHRUBS AND TREES AS SHOWN ON THE LANDSCAPE PLANTING PLANS WHEN INDIVIDUAL PLANTS ARE DELINEATED.
26. PALM HEIGHTS, AS INDICATED ON THE PLANS, REFER TO CLEAR TRUNK (C.T.), GRAY WOOD (G.W.), OR OVERALL HEIGHT (O.A.) AS SPECIFIED ON THE PLANT LIST.
27. CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
29. CONTRACTOR SHALL REGRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
30. CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK. ALL WIRE BASKETS OR BURLAP SHALL BE REMOVED FROM ROOTBALLS PRIOR TO INSTALLATION.
31. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, MULCHING, REPLACEMENTS OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL.
32. UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
33. CONTRACTOR SHALL SUBMIT WRITTEN GUARANTEE OF SURVIVABILITY OF ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
34. CONTRACTOR MUST APPROVE ALL GRADED AREAS PRIOR TO THE COMMENCEMENT OF PLANTING.
35. THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
36. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER'S REPRESENTATIVE WITH RECORD COPIES OF ALL RECEIPTS, INVOICES, AND/ OR SHIPPING MANIFESTS FOR ALL MATERIALS, INCLUDING PLANTS AND SOD, DELIVERED TO THE PROJECT SITE BY THE CONTRACTOR OR A SUPPLIER TO THE CONTRACTOR. DELIVERY OF ALL FERTILIZER AND SOIL AMENDMENT MATERIALS MUST BE IN ORIGINAL, UNOPENED CONTAINER'S BEARING MANUFACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE MARK AND CONFORMANCE WITH STATE LAW.

HARDSCAPE NOTES

1. SEE CIVIL ENGINEERING DRAWINGS FOR GENERAL GRADING OF THE SITE, INCLUDING SIDEWALK AND FINISH GRADES FOR PARKING LOTS, ROADWAYS, SIDEWALKS, AND PLANTING AREAS.
2. ALL PAVEMENT SHALL BE STAKED IN THE FIELD FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION. ALIGNMENT MAY BE ADJUSTED UPON APPROVAL TO ACCOMMODATE EXISTING SITE ELEMENTS.
3. SLOPES OF WALKS TO BE NO GREATER THAN FIVE PERCENT, UNLESS EXPRESSLY NOTED OTHERWISE. CROSS-SLOPE OF WALKS NOT TO EXCEED TWO PERCENT. SEE CIVIL DRAWINGS FOR ADDITIONAL LAYOUT AND INSTALLATION DETAILS. SEE HARDSCAPE DRAWINGS FOR FINISH PATTERNS.
4. ALL COLORS AND MATERIALS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE. FOR THIS PURPOSE, THE CONTRACTOR SHALL CONSTRUCT OR SUBMIT AS DIRECTED BY THE OWNER'S REPRESENTATIVE PANELS DEPICTING PROPOSED FINISHES AND COLORS FOR REVIEW AND APPROVAL.
5. ALL NAILS, LAG SCREWS, BOLTS AND MISCELLANEOUS FASTENERS SHALL BE HOT DIPPED GALVANIZED OR A CORROSION RESISTANT ALLOY.

FOUNDATIONS

6. FOOTINGS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING VALUE OF 2000 PSF. IN-PLACE SOILS TO BE UNIFORMLY COMPACTED AND TESTED TO ENSURE MINIMUM SOIL BEARING PRESSURE CAPACITY OF 2,000 PSF.
7. PREPARATION FOR AND CONSTRUCTION OF WALL/COLUMN FOOTING(S) TO BE IN COMPLIANCE WITH THE APPLICABLE CHAPTERS AND SECTIONS OF ACI 332R
8. ANY ADDITIONAL FILL MATERIAL REQUIRED SHALL CONSIST OF SOILS THAT CONTAIN NOT MORE THAN 12% OF FINES (SILT OR CLAY PARTICLES) PASSING A NO. 200 SIEVE AND SHALL BE PLACED IN UNIFORM LAYERS NOT EXCEEDING 12.0 INCHES LOOSE. EACH LAYER SHALL BE SYSTEMATICALLY AND UNIFORMLY COMPACTED IN THE MANNER AND TO THE DEGREE SPECIFIED FOR THE IN-PLACE SOILS.

CONCRETE

9. STRUCTURAL CONCRETE, INCLUDING FOOTINGS, SHALL CONFORM TO THE REQUIREMENTS OF ACI 301 AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS OF 3000 PSI UNLESS OTHERWISE NOTED. CONCRETE FOR SLABS ON-GRADE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS OF 2500 PSI.
10. CONCRETE, WHEN PLACED, SHALL HAVE A MAXIMUM SLUMP OF 5 INCHES AND A MINIMUM OF 3 INCHES.
11. ALL REINFORCING SHALL CONFORM TO ASTM 615 FOR GRADE 60 STEEL; WELDED WIRE MESH TO ASTM A-185.
12. CHECK ALL DRAWINGS AND APPLICABLE MANUFACTURER'S SHOP DRAWINGS FOR LOCATION OF ALL EMBEDDED ITEMS SUCH AS PIPE SLEEVES, ANCHOR BOLTS, ETC., PRIOR TO PLACING CONCRETE.
13. #5 REINFORCEMENT FOR CONTINUOUS FOOTINGS SHALL BE CONTINUOUS AND SPLICED WITH A FULL 30-INCH LAP.
14. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. START INITIAL CURING AS SOON AS FREE WATER HAS DISAPPEARED FROM THE CONCRETE SURFACE AFTER PLACING AND FINISHING. KEEP CONTINUOUSLY MOIST FOR NOT LESS THAN 7 DAYS IN ACCORDANCE WITH ACI 301 PROCEDURES. PERFORM CURING OF THE CONCRETE BY CURING AND SEALING COMPOUND, BY MOIST CURING, BY MOISTURE RETAINING COVER CURING OR BY COMBINATION THEREOF.
15. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR THE REINFORCEMENT:
    A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH; 3 INCHES.
    B. FORMED CONCRETE EXPOSED TO EARTH OR WEATHER; #5 BARS AND SMALLER, 1 1/2 INCHES; #6 BARS AND LARGER, 2 INCHES.

MASONRY

16. CONCRETE MASONRY UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C90 FOR LOAD BEARING MASONRY WITH A MINIMUM F'M OF 1500 PSI. BRICK MASONRY UNITS SHALL CONFORM TO ASTM C-62 FOR STRUCTURAL AND NON-STRUCTURAL MASONRY. REFER TO DRAWINGS FOR SPECIFIC TYPE OF BRICK MASONRY LAYOUT PATTERNS.
17. MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM WITH ALL THE REQUIREMENTS OF THE "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1-95/ASCE 6-96/TMS 602-02), AS PUBLISHED BY THE MASONRY STANDARDS JOINT COMMITTEE.
18. MASONRY CONSTRUCTION SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A "CERTIFIED STRUCTURAL MASONRY CONTRACTOR" OR "CERTIFIED STRUCTURAL MASON" AS RECOGNIZED BY THE FLORIDA CONCRETE AND PRODUCTS ASSOCIATION (FC&PA). THE SENIOR MASONRY SUPERVISOR WILL BE RESPONSIBLE TO ASSURE THAT THE WORK IS ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
19. ALL MORTAR SHALL BE TYPE M OR S IN ACCORDANCE WITH ASTM C 270.
20. GROUT SHALL HAVE A MINIMUM SLUMP OF 8 INCHES AND A MAXIMUM SLUMP OF 11 INCHES, BE IN CONFORMANCE WITH ASTM C 476, AND ATTAIN A COMPRESSIVE STRENGTH OF 1800 PSI.
21. CONCRETE MASONRY UNITS SHALL BE PLUMB, TRUE TO LINE, WITH LEVEL COURSES ACCURATELY SPACED AND BUILT TO THE THICKNESS AND IN A RUNNING BOND AS INDICATED AND CONFORMING TO THE TOLERANCES SPECIFIED IN ACI 531.1 AND 530.1. CONCRETE UNITS SHALL BE STORED OFF OF THE GROUND SURFACE AND COVERED TO PROTECT THEM FROM ABSORBING RAIN OR BEING CONTAMINATED WITH OTHER FOREIGN MATTER. CONCRETE UNITS SHALL BE DRY WHEN LAID. EACH UNIT SHALL BE ADJUSTED TO FINAL POSITION IN THE WALL WHILE THE MORTAR IS STILL SOFT AND PLASTIC. ANY UNIT DISTURBED AFTER THE MORTAR HAS STIFFENED SHALL BE REMOVED AND RE-LAID WITH FRESH MORTAR. VERTICAL CELLS SHALL BE ALIGNED TO PROVIDE A CONTINUOUS, UNOBSTRUCTED OPENING. ALL ANCHORS, ACCESSORIES, FLASHING AND OTHER ITEMS TO BE BUILT-IN SHALL BE INSTALLED AS THE MASONRY WORK PROGRESSES. ALL CUTTING AND FITTING OF MASONRY, INCLUDING THAT REQUIRED TO ACCOMMODATE THE WORK OF OTHERS SHALL BE DONE BY MASONRY CRAFTSMEN WITH MASONRY SAWS. LOCATE CONTROL JOINTS AT 20 FEET ON CENTER MAXIMUM, AT ALL COLUMNS, AND AT CHANGES IN DIRECTION. CAULK THE EXPOSED SIDE OF ALL JOINTS WITH BACKER ROD AND SEALANT. COLOR OF SEALANT TO MATCH WALL COLOR.
22. HOLLOW UNITS SHALL BE LAID WITH FULL HEAD AND BED JOINTS TO THE THICKNESS OF THE FACE SHELL AS A MINIMUM. THE WEBS SHALL ALSO BE BEDDED IN ALL COURSES, STARTING AT THE FOUNDATION, ADJACENT TO CELLS TO BE REINFORCED AND/OR FILLED WITH GROUT OR CONCRETE. MORTAR JOINTS SHALL BE TOOLED WHEN THE MORTAR IS "THUMBPRINT" HARD, BOTH ON THE INSIDE AND OUTSIDE SURFACES OF THE BUILDING WALL, WITH A TOOL PRODUCING A CONCAVE SURFACE. BED JOINTS SHALL BE 3/8 " + 1/8" IN THICKNESS; HEAD JOINTS SHALL BE 3/8" (-1/4", +3/8").
23. ALL REINFORCING STEEL TO BE GRADE 60 PER ASTM A-615. REINFORCING BARS SHALL BE PLACED IN THE MIDDLE OF THE CELLS AND TIED OR OTHERWISE SECURELY SUPPORTED AT THE TOP AND BOTTOM TO ENSURE THAT THE BAR DOES NOT MOVE DURING GROUTING. MINIMUM LAP AT ALL SPLICES OR DOWELS SHALL BE 30 INCHES UNLESS OTHERWISE NOTED ON THE DRAWINGS.
24. GROUTING SHALL BE ACCOMPLISHED IN 4 FOOT LIFTS FOR CONCRETE MASONRY AND 2 FOOT LIFTS FOR BRICK MASONRY. EACH LIFT SHALL BE MECHANICALLY CONSOLIDATED INTO THE PREVIOUS LIFT, WHEN PLACED, SO AS TO PREVENT COLD JOINTS. RECONSOLIDATE AS REQUIRED. FOR CONCRETE MASONRY, A 12 SQUARE INCH CLEANOUT OPENING SHALL BE PLACED AT THE BOTTOM OF EACH CELL TO BE FILLED AND IT SHALL BE THOROUGHLY CLEANED OUT PRIOR TO FILLING OF THE CELL. FOR BRICK MASONRY, PUDDLE GROUT DURING AND AFTER PLACEMENT TO ENSURE COMPLETE FILLING OF GROUT SPACE. GROUT PLACEMENT STOPPED FOR MORE THAN ONE HOUR SHALL BE STOPPED BELOW THE TOP OF THE MASONRY UNIT 1-1/2" TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.
25. THE MINIMUM CONTINUOUS UNOBSTRUCTED CELL AREA IN CELL TO RECEIVE GROUT MUST NOT BE LESS THAN 2" X 3". MORTAR FINS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS. MORTAR DROPPINGS MUST BE KEPT OUT OF CELLS WHICH ARE TO BE GROUTED.
26. UNLESS SPECIFICALLY SHOWN OTHERWISE, PROVIDE #9 GA. "DUR-O-WALL" TRUSS TYPE REINFORCING IN EVERY OTHER COURSE OF CONTINUOUS WALLS FOR CONCRETE MASONRY, AND EVERY FOURTH COURSE FOR BRICK MASONRY. DO NOT LAY JOINT REINFORCEMENT ACROSS EXPANSION JOINTS.
27. TEMPORARY BRACING AND SHORING OF ALL CONCRETE MASONRY CONSTRUCTION, TO PROVIDE STABILITY DURING CONSTRUCTION, UNTIL CONSTRUCTION ACHIEVES IT'S PROPER STRENGTH, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

STRUCTURAL STEEL

28. ALL STRUCTURAL STEEL SHAPES AND PLATE SHALL CONFORM TO ASTM A-36 AND THE "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. ALL TUBE STEEL SHALL CONFORM TO ASTM A-500, GRADE B (FY = 46 KSI).
29. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX LOW HYDROGEN ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED UNLESS OTHERWISE SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF "THE STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.
30. ALL STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCHUP COAT OF APPROVED PAINT.
31. ALL BOLTED CONNECTIONS SHALL CONSIST OF ASTM A325 HIGH STRENGTH BOLTS AND HARDENED WASHERS AS SHOWN ON THE STRUCTURAL DRAWINGS. ALL BOLTED CONNECTIONS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
32. ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A36 OR A307 (THREADED ROD).
33. ERECT ALL STEEL TO CONFORM TO "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND "QUALITY CRITERIA AND INSPECTION STANDARDS". FRAME TO BE PLUMB, SQUARE AND TRUE TO LINE AND LEVEL, CHECKED BY SURVEYING INSTRUMENTS.
34. LOCATE FINISH HOLES PRECISELY TO INSURE PASSAGE THROUGH ASSEMBLED MATERIALS WITHOUT DRIFTING. ENLARGE HOLES BY REAMING IF NECESSARY. POOR MATCHING OF HOLES IS SUFFICIENT CAUSE FOR REJECTION.
35. GROUT FOR COLUMN BASE PLATES SHALL BE NON-SHRINK GROUT BY "EMBECO" OR APPROVED EQUAL, 5000 PSI MINIMUM.

LUMBER

36. ALL LUMBER SHALL BE SOUTHERN YELLOW PINE, GRADE NO.2 OR BETTER OR AS SPECIFIED ON THE DRAWINGS, KD19 (FB FOR LUMBER SIZES NOTED TO BE IN CONFORMANCE WITH VALUES LISTED IN THE NATIONAL FOREST PRODUCTS ASSOCIATION NATIONAL DESIGN STANDARD SUPPLEMENT), AND SHALL CONFORM TO THE NATIONAL GRADING RULE FOR DIMENSION LUMBER, THE SOUTHERN PINE INSPECTION BUREAU AND THE SOUTHERN FOREST PRODUCTS ASSOCIATION.
37. DO NOT LOCATE ANY HOLES CLOSER THAN FIVE (5) BOLT DIAMETERS FROM THE END OF ANY WOOD FRAMING MEMBER.
38. EXPOSED WOOD MEMBERS SHALL BE PRESSURE-TREATED WITH TYPE WATERBORNE PRESERVATIVE IN ACCORDANCE WITH THE AMERICAN WOOD-PRESERVERS STANDARD U1-03 FOR THE FOLLOWING APPLICATIONS:

	APPLICATION	AWPA USE CATEGORY	TREATMENT (LBS/CU.F.T)
A.	ABOVE-GROUND USE	UC3B	ACQ 0.25
B.	CONCRETE- OR GROUND-CONTACT, OR IN-GROUND USE	UC4A	ACQ 0.40
C.	FRESHWATER USE	UC4A	ACQ 0.40
D.	IN-GROUND OR FRESHWATER PILES	UC4C	CCA 0.80 (NOTE 1)
E.	SALTWATER USE, MARINE PILES	UC5C	CCA 2.50 (NOTE 2)

NOTE 1: CREOSOTE (12 LBS/CU.FT.) MAY BE USED IF APPROVED BY OWNER'S REPRESENTATIVE
NOTE 2: CREOSOTE (25 LBS/CU.FT.) MAY BE USED IF APPROVED BY OWNER'S REPRESENTATIVE

39. FASTENERS:
    A. ABOVE-GROUND METAL CONNECTORS IN CONTACT WITH ACQ:
        1) G185 HOT DIPPED GALVANIZED MEETING ASTM A653
        2) ASTM A123
        3) STAINLESS STEEL TYPE 304 OR 316
    B. ABOVE-GROUND SCREWS, NUTS, BOLTS & WASHERS IN CONTACT WITH ACQ:
        1) CLASS 55 MECHANICALLY DEPOSITED ZINC MEETING ASTM B695
        2) POST HOT DIPPED GALVANIZED MEETING ASTM A153
        3) STAINLESS STEEL TYPE 304 OR 316
    C. ABOVE-GROUND COMMON NAILS & GUN NAILS IN CONTACT WITH ACQ:
        1) G185 HOT DIPPED GALVANIZED MEETING ASTM A153
        2) STAINLESS STEEL TYPE 304 OR 316
    D. ALL FASTENERS FOR IN-GROUND, UNDERWATER OR MARINE APPLICATIONS
        1) STAINLESS STEEL TYPE 304 OR 316

ALUMINUM

40. ALUMINUM TUBING, PLATES, BARS, AND ANGLES SHALL BE 6061-T6 UNLESS NOTED OTHERWISE.
41. ALL WELDING TO BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY'S STANDARD AWS D1.2, STRUCTURAL WELDING CODE - ALUMINUM.
42. ISOLATE ALL ALUMINUM FROM STEEL AND CONCRETE BY THE USE OF NEOPRENE WASHERS, BUSHINGS, AND SHEET AS REQUIRED IN ORDER TO PREVENT GALVANIC ACTION OR CORROSION.
43. ALL FASTENERS, BOLTS, NUTS, ETC. IN CONTACT WITH ALUMINUM SHALL BE STAINLESS STEEL.

POOL/SPA/FOUNTAIN

44. THE POOL/SPA/FOUNTAIN CONTRACTOR WILL STAKE OUT THE POOL/SPA/FOUNTAIN AND SET THE FINISHED GRADE. THE OWNER'S REPRESENTATIVE WILL BE NOTIFIED FOR APPROVAL OF THIS WORK PRIOR TO INSTALLATION.
45. POOL/SPA/FOUNTAIN CONTRACTOR IS RESPONSIBLE FOR ALL POOL/SPA/FOUNTAIN EQUIPMENT, PIPING, POOL/SPA SHELL, FOUNTAIN WALLS, TILE, COPING, ELECTRICAL TO JUNCTION BOXES, PERMITS, AND CODE COMPLIANCE. SUBMIT SHOP DRAWINGS AND FINISH SAMPLES FOR REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
46. REQUIRED UTILITIES AT THE FILTER/PUMP LOCATION TO BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
47. FINISH PATTERN ON THE POOL DECK TO BE LAID OUT EXACTLY AS SHOWN. EXPANSION JOINTS, DECK DRAINS, ETC. TO COINCIDE WITH THE GRID. EXPANSION JOINT FILLER AND ANY DECK DRAIN MATERIALS ARE TO MATCH THE COLOR OF THE DECK.

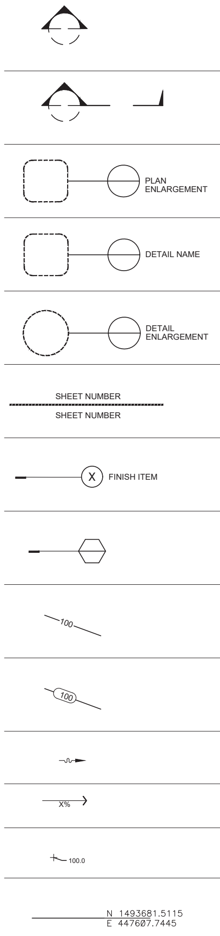
PRECAST/EIFS

48. PRECAST/EIFS MANUFACTURER IS RESPONSIBLE FOR DESIGN OF INDIVIDUAL COMPONENTS, INCLUDING VERIFICATION OF FIELD CONDITIONS AND DESIGN OF CONNECTIONS.
49. DESIGN, FABRICATION, AND INSTALLATION OF PRECAST/EIFS COMPONENTS SHALL COMPLY WITH APPLICABLE ACI, PCI, & ASTM STANDARDS.
50. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND FINISH SAMPLES FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION AND INSTALLATION
51. ALL CAST STONE PRODUCTS SHALL CONFORM WITH ALL REQUIREMENTS OF ASTM C1364.

FURNISHINGS

52. THE CONTRACTOR TO PROVIDE THE FOLLOWING SUBMITTALS,
    - ALL MANUFACTURER'S DATA INCLUDING DIRECTIONS OR RECOMMENDATIONS FOR INSTALLATION, METHODS, PROCEDURES AND MAINTENANCE.
    - COMPLETE SHOP DRAWINGS FOR ALL SITE FURNISHINGS INDICATING ALL DETAILS OF FABRICATION AND INSTALLATION INCLUDING SIZES, SHAPES, FINISHES, COLORS, THICKNESS, MATERIAL QUALITY AND ALL OTHER RELATED WORK APPLICABLE TO THE SITE FURNISHINGS.
    - SUBMIT COLOR SAMPLES FOR APPROVAL BY THE OWNER.
53. DELIVER ALL MATERIALS WITH MANUFACTURER'S TAGS AND LABELS INTACT IN CLEAN, DRY AND PROTECTED LOCATIONS.
54. STORE AND HANDLE ALL SITE FURNISHINGS SO AS TO AVOID DAMAGE. ALL SITE FURNISHINGS SHALL BE GUARANTEED BY THE CONTRACTOR FREE OF DEFECTS, CRACKS, CHIPS, STAINS AND SHALL BE COMPLETELY CLEAN AND FREE OF DAMAGES UPON FINAL PLACEMENT AND APPROVAL
55. ALL SITE FURNISHINGS SHALL BE PROVIDED BY THE CONTRACTOR INCLUDING ORDERING, SHIPPING, DELIVERY, UNPACKING, AND INSTALLING ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND AS DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY INSTALLATION PROCEDURE WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLING.
56. ALL SITE FURNISHINGS LOCATIONS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO BEING PLACED ON SITE. FAILURE TO SECURE OWNER'S APPROVAL MAY REQUIRE THE CONTRACTOR TO MOVE AND/ OR REINSTALL THE FURNISHINGS AT THE CONTRACTORS EXPENSE.

STANDARD DRAWING SYMBOLS



ELEVATION DETAIL REFERENCE
DETAIL NUMBER
SHEET NUMBER

SECTION DETAIL REFERENCE
DETAIL NUMBER
SHEET NUMBER

PLAN ENLARGEMENT REFERENCE

GENERAL DETAIL REFERENCE
DETAIL NUMBER
SHEET NUMBER

DETAIL ENLARGEMENT REFERENCE

MATCHLINE

FINISH REFERENCE
SEE FINISH SCHEDULE

PLANT TAG
SYMBOL
QUANTITY

EXISTING CONTOUR

PROPOSED CONTOUR

STORMWATER FLOW DIRECTION

SLOPE DIRECTION
PERCENTAGE OR RATIO

SPOT ELEVATION

COORDINATE REFERENCE

CONTRACTOR NOTES

NOT ALL ITEMS SHOWN ON THIS SHEET APPEAR IN THE CONSTRUCTION DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS RELATED TO CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, BUILDING, LANDSCAPE, IRRIGATION & RIGHT OF WAY UTILIZATION PERMITS.

CODE COMPLIANCE NOTES

1. IT IS THE INTENT OF THIS DESIGN TO COMPLY WITH ALL APPLICABLE LOCAL AND STATE BUILDING CODES.
ALL EDITIONS OF THE FLORIDA BUILDING CODE 2023 (8TH ED)
NATIONAL ELECTRIC CODE 2023

WINDLOAD NOTES

1. WIND DESIGN LOAD INFORMATION (TO BE CONFIRMED BY ENGINEER OF RECORD):
(PER FBC 2020 7th EDITION CHAPTER 16, REF. ASCE 7-16)

BASIC WIND SPEED (Vult) = 140 MPH (3 SECOND GUST)
(Vasd) = 108 MPH (3 SECOND GUST)
STRUCTURE CATEGORY = II (ASCE 7-16)
WIND EXPOSURE(ALL SIDES) =C (ASCE 7-16)
Cf = 1.4

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-256-2625

PROJECT
37 LAUREL PASS
MARION COUNTY, FL

Prepared For:
IDEAL HOUSING INVESTMENTS

SEAL

CONSULTANTS

ISSUED FOR:
6/12/2025 PERMIT

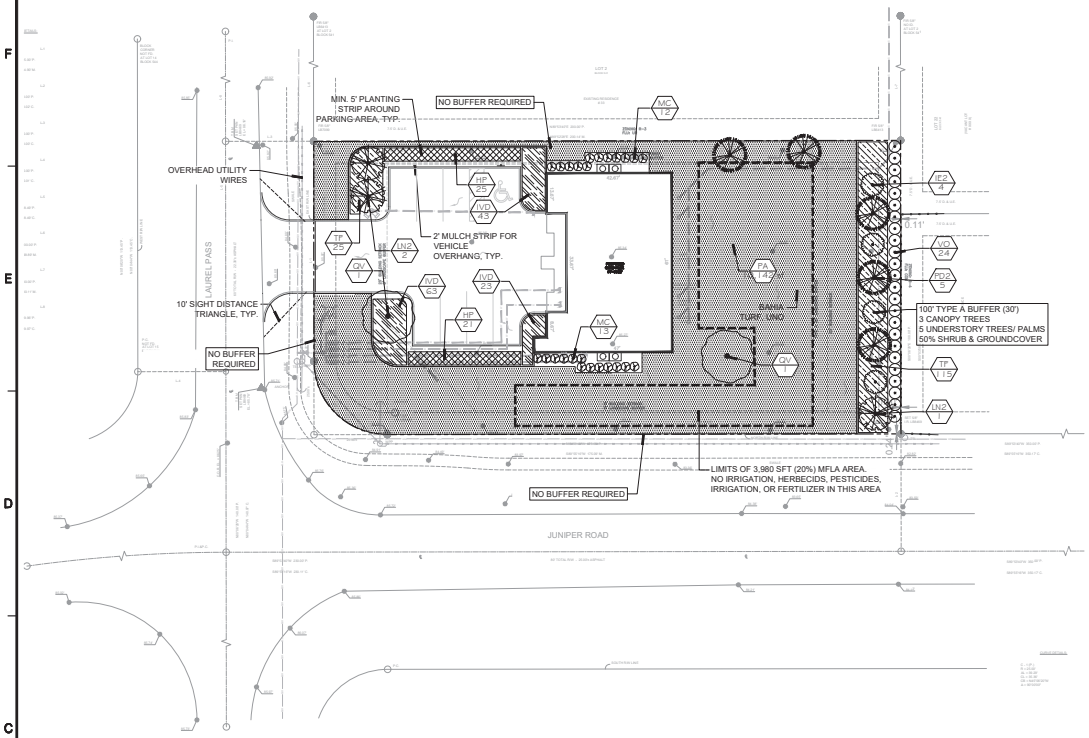
PROJECT NO.	2025-09
DESIGNED BY	TDC/TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	6/11/2025

DRAWING SCALE

DRAWING TITLE
INDEX SHEET

DRAWING NUMBER
ID-01

SHEET 1 OF 1



TREE REMOVAL SUMMARY:
NO TREES ON SITE

LANDSCAPE AREA CALCULATIONS:
TOTAL SITE AREA: 19,886 +/- SQ. FT.
TOTAL UPLAND LANDSCAPED AREA: 13,648 +/- SQ. FT.
PLANTING/ MULCH AREAS: 3,506 +/- SQ. FT
UNIRRIGATED/ BAHIA TURF AREA: 10,142 +/- SQ. FT.

20% MFLA REQUIRED= 19,886 X 20% = 3,977 SQ. FT

SHADE TREE CALCULATIONS:
TOTAL SITE AREA: 19,886 +/- SQ. FT.
SHADE TREES PRESERVED: 0
SHADE TREES PROVIDED: 7
19,886 SQ. FT/ 7 TREES= 1 TREE PER 2,840 SQ. FT.
(MINIMUM 1 PER 3,000 SQ. FT.)

TREE PROTECTION NOTE:

PER SEC. 7.6.3. E

TREE PROTECTION SHALL CONTINUE DURING THE COURSE OF CONSTRUCTION. THE FOLLOWING REQUIREMENTS SHALL BE CONDITIONS OF TREE REMOVAL PERMITS, ALL PERMITS FOR CONSTRUCTION IN PUBLIC RIGHTS-OF-WAY, AND ALL DEVELOPMENT PERMITS ISSUED UNDER AND PURSUANT TO THIS CODE:

(1) THE CLEANING OF CONSTRUCTION EQUIPMENT OR MATERIAL OR THE DISPOSAL OF WASTE MATERIALS INCLUDING BUT NOT LIMITED TO, PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, AND MORTAR WITHIN THE TPZ OF ANY TREE WHICH IS BEING PROTECTED IS NOT ALLOWED.

(2) THE MOVEMENT OF EQUIPMENT OR THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL WITHIN THE TPZ OF ANY TREE WHICH IS BEING PROTECTED IS NOT ALLOWED.

(3) THE CONTRACTOR SHALL INSPECT ALL TREE PROTECTION BARRICADES AND SIGNS ON A WEEKLY BASIS DURING THE COURSE OF CONSTRUCTION. ANY BARRICADE OR SIGN WHICH HAS BEEN DAMAGED OR IS MISSING SHALL BE REPLACED IMMEDIATELY.

(4) IF ANY TREE WHICH HAS NOT BEEN APPROVED TO BE REMOVED IS DESTROYED, OR RECEIVES MAJOR DAMAGE DURING CONSTRUCTION, WITH THE EXCEPTION OF NATURAL EVENTS, SO AS TO PLACE ITS LONG TERM SURVIVAL IN QUESTION, THE TREE(S) MUST BE REPLACED AT AN INCH-TO-INCH BASIS OF THE TOTAL (COMBINED) DBH OF THE TREE(S) SO DESTROYED OR DAMAGED. THE REPLACEMENT TREE(S) SHALL BE OF COMPARABLE SPECIES OF THE DESTROYED OR DAMAGED TREE(S) WITH A MINIMUM REPLACEMENT SIZE OF 3.5-INCH CALIPER. THE COUNTY RESERVES THE RIGHT TO ESTABLISH A REPLACEMENT VALUE FOR SUCH TREES AND PAYMENT INTO THE TREE MITIGATION FUND MAY BE AUTHORIZED BY THE COUNTY'S LANDSCAPE ARCHITECT.

SEC. 6.8.12. - LANDSCAPE COMPLETION INSPECTION REQUIREMENTS.

UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL REQUEST AN INSPECTION BY THE DESIGN PROFESSIONAL. A LANDSCAPE AND IRRIGATION AS-BUILT CERTIFICATION SHALL BE SIGNED AND SEALED BY THE DESIGN PROFESSIONAL AND SUBMITTED TO THE COUNTY LANDSCAPE ARCHITECT PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

PLANT SCHEDULE

(351/378) 93% NATIVE. THIS IS A "FLORIDA FRIENDLY LANSCAPE PLAN"

NATIVE	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	SPACING	QTY
	TREES						
Y	IE2	Ilex x attenuata 'Eagleston' / Eagleston Holly	30 gal	2" STANDARD	8'-10" H x 4'-5" W		4
N	LN2	Lagerstroemia indica x fauriei 'Natchez' / Natchez Crape Myrtle	30 gal	2" CAL. FTG	8'-10" H x 3'-4" W		3
Y	PD2	Pinus elliottii var. Densa / Densa Slash Pine	45 gal	3.5"Cal	10'-12" H X 5'-6"W		5
Y	QV	Quercus virginiana / Southern Live Oak	65 gal	3.5"Cal	12'-14' x 6'-8'		2
	CODE	**BOTANICAL / COMMON NAME**	**CONT**	**SIZE**		**SPACING**	**QTY**
	SHRUBS						
Y	MC	Myrcianthes fragrans / Simpson`s Stopper	3 gal	30"-36"		36" o.c.	25
N	VO	Viburnum odoratissimum / Sweet Viburnum	3 gal	24"-30" X 24"-30"		48" o.c.	24
	CODE	**BOTANICAL / COMMON NAME**	**CONT**	**SIZE**		**SPACING**	**QTY**
	SHRUB AREAS						
Y	HP	Hamelia patens 'Compacta' / Dwarf Scarlet Bush	3 gal@	18"-24" x 18"-24"		36" o.c.	46
Y	IVD	Ilex vomitoria 'Schillings Dwarf' / 'Schillings Dwarf' Holly	3 gal@	10-12" x 10-12"		24" o.c.	129
	GROUND COVERS						
	PA	Paspalum notatum 'Argentine' / Bahia Grass	sod				10,142 sf
Y	TF	Tripsacum floridanum / Dwarf Fakahatchee Grass	1 gal	18" height; full		36" o.c.	140

MITIGATION INCHES PROVIDED

17.5
7
TOTAL INCHES
24.5

PLANTING NOTES:
1. ALL PLANT MATERIAL SIZES ARE MINIMUM SIZES. CONTAINER SIZES SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZED SPECIFIED.
2. FINAL ARRANGEMENT OF PLANT MATERIAL SHALL BE STAKED BY THE CONTRACTOR FOR THE APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLMENT.
3. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
4. ALL MULCH SHALL BE MEDIUM PINE BARK NUGGETS MULCH 3 INCHES THICK WHEN COMPACTED.
5. CONTRACTOR RESPONSIBLE TO REMOVING ALL INVASIVE OR PROHIBITED PLANT SPECIES ONSITE.
6. ALL LANDSCAPING SHALL CONFORM TO CITY OF MARION COUNTY LANDSCAPE, BUFFER, AND TREE REQUIREMENTS.

SOD NOTE:
1. ALL SOD SHALL BE ARGENTINE BAHIA GRASS (paspalum notatum 'Argentine'). FINAL QUANITITU TO BE DETERMINED IN FIELD BY CONTRACTOR.

SIGHT DISTANCE NOTE:
1. ALL LANDSCAPING WITHIN SIGHT TRIANGLES SHALL CONFORM TO FDOT STANDARDS.
2. SHRUBS AND GROUNDCOVERS WITHIN SIGHT TRIANGLES SHALL NOT EXCEED 36" IN HIEGHT ABOVE PAVEMENT.
3. TREES IN SIGHT TRIANGLE SHALL HAVE A MINIMUM OF 6 FEET OF CLEAR TRUNK AT INSTALLATION, AND SHALL BE MAINTAINED AT 8 FEET AFTER ESTABLISHMENT.

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Prepared For:
IDEAL HOUSING INVESTMENTS

SEAL

CONSULTANTS

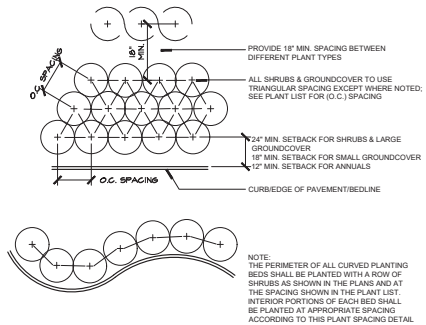
ISSUED FOR:
9/12/2025 PERMIT

PROJECT NO.	2025-09
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	6/11/2025
DRAWING SCALE	1"=20'

0 FT 10 20 North

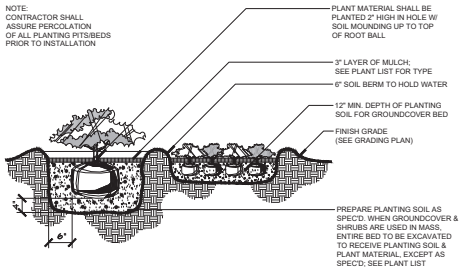
DRAWING TITLE
LANDSCAPE PLAN

DRAWING NUMBER
LS-01
SHEET 1 OF 2



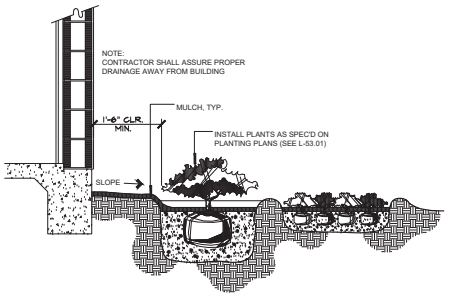
1 SHRUB & GROUNDCOVER SPACING

1/2" = 1'-0" P-LA-01



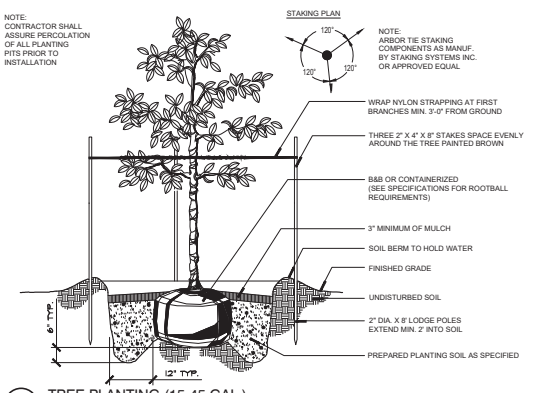
2 SHRUB & GROUNDCOVER PLANTING

1/2" = 1'-0" P-LA-02



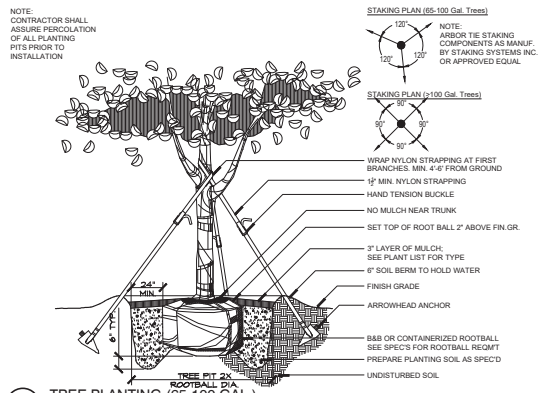
3 FOUNDATION PLANTING

1/2" = 1'-0" P-LA-03



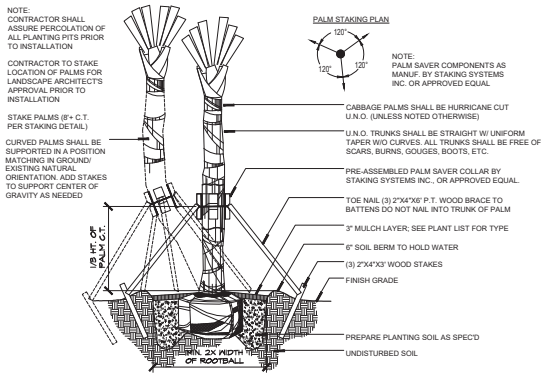
4 TREE PLANTING (15-45 GAL.)

1/2" = 1'-0" P-LA-05



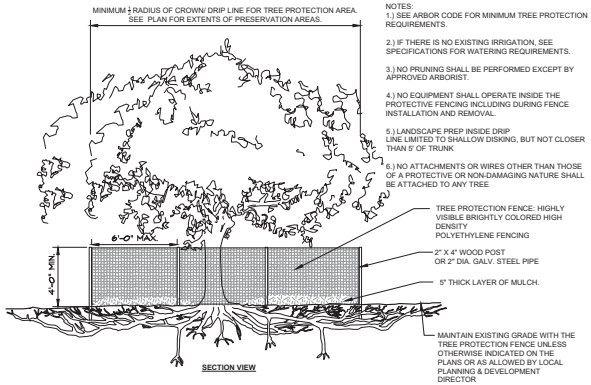
5 TREE PLANTING (65-100 GAL.)

1/2" = 1'-0" P-LA-06



6 PALM PLANTING DETAIL

1/2" = 1'-0" P-LA-07



7 TREE PROTECTION

N.T.S. P-CO1-WAT-W2C-30

LANDSCAPE SPECIFICATIONS:

PART 1 - GENERAL

1.01 WORK INCLUDED
A. INSTALLATION OF TREES, PALMS, SHRUBS, GROUNDCOVERS, AND GRASS SOD.
B. APPLICATION AND PAYMENT FOR REQUIRED REVIEWS.

1.02 REFERENCES
A. "GRADES AND STANDARDS FOR NURSERY PLANTS," FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
B. "AMERICAN STANDARD FOR NURSERY STOCK," ANSI Z60.1-2004, AMERICAN NURSERY & LANDSCAPE ASSOCIATION.

1.03 SUBMITTALS
A. RECORD DRAWINGS: FURNISH ONE SET OF REPRODUCIBLE RECORD DRAWINGS, CLEARLY SHOWING ALL CHANGED MADE TO THE ORIGINAL CONTRACT DRAWINGS DURING THE COURSE OF WORK.
B. SOIL ANALYSIS: SUBMIT SOIL TEST RESULTS FROM AN INDEPENDENT SOIL TESTING LABORATORY PRIOR TO PLANTING.

1.04 DELIVERY, STORAGE, AND HANDLING
A. INSPECTION: UPON DELIVERY TO THE SITE, INSPECT ALL PLANT MATERIALS FOR CONFORMITY TO THE SPECIFICATIONS AND FOR HANDLING DAMAGE. REMOVE FROM THE SITE ALL NON-CONFORMING AND DAMAGED PANT MATERIALS.
B. ON-SITE STORAGE: PROTECT ALL STORED PLANT MATERIALS FROM SUN AND WIND. WATER ALL STORED PLANT MATERIAL DAILY. OWNER TO INDICATE APPROPRIATE LOCATION FOR MATERIAL(S) AND EQUIPMENT STORAGE.

1.05 GUARANTEE
A. GUARANTEE ALL PLANTING WORK FOR A PERIOD OF ONE YEAR AFTER THE DATE OF FINAL APPROVAL AND ACCEPTANCE.
B. REPLACE AT NO COST TO THE OWNER ALL PLANT MATERIALS WHICH DIE OF ARE DETERMINED BY THE LANDSCAPE ARCHITECT , OR OWNERS REPRESENTATIVE TO BE UNACCEPTABLE, UNLESS THE DEATH OR UNACCEPTABLE CONDITION IS CLEARLY BEYOND THE CONTROL OF THE CONTRACTOR, AS DETERMINED BY THE OWNER. SUCH CIRCUMSTANCES MAY INCLUDE ACTS OF MOTHER NATURE, THEFT AFTER FINAL INSPECTION, OR VANDALISM. UNACCEPTABLE PLANTS SHALL INCLUDE THOSE THAT SHOW SIGNIFICANT DIE-BACK OR FAILURE TO EXHIBIT THE HEALTHY CHARACTERISTICS INDICATIVE OF THE SPECIES.

1.06 MAINTENANCE
A. MAINTAIN ALL LANDSCAPING UNTIL ONE YEAR AFTER FINAL APPROVAL AND ACCEPTANCE.
B. MAINTENANCE TO INCLUDE:
1. CULTIVATING AND WEEDING PLANT BEDS AND TREE PITS.
2. APPLICATION OF HERBICIDES AND PESTICIDES
3. IRRIGATION SUFFICIENT TO SATURATE ROOT SYSTEMS APPLIED DAILY.
4. TRIMMING AND PRUNING, INCLUDING REMOVAL OF CLIPPINGS AND DEAD OR BROKEN BRANCHES, AND TREATMENT OF PRUNED AREAS OR OTHER WOUNDS.
5. DISEASE CONTROL.
6. MAINTAINING GUYS AND STAKES IN A TIGHT CONDITION.
7. MAINTAINING TREES IN A PLUMB CONDITION.
8. WEEKLY MOWING AFTER SOD IS SUFFICIENTLY ROOTED.

PART 2 - PRODUCTS

2.01 PLANT MATERIALS
A. TREES AND SHRUBS: ALL PLANT MATERIALS SHALL BE FLORIDA #1 AS OUTLINED IN "GRADES AND STANDARDS FOR NURSERY PLANTS."
B. SOD: PROVIDE ONLY NURSERY GROWN, MACHINE CUT SOD OF THE TYPE INDICATED ON THE DRAWINGS. SOD SHALL BE WELL-MATTED WITH ROOTS, FREE OF EXCESSIVE WEEDS, AND SHALL BE GREEN, FRESH AND UNINJURED AT THE TIME OF PLANTING.

2.02 SOIL MATERIALS
A. TOPSOIL: FERTILE, AGRICULTURAL TOPSOIL, TYPICAL FOR PROJECT LOCALITY, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, TAKEN FROM DRAINED SITE, FREE OF SUBSOIL, CLAY, PLANTS, WEEDS AND ROOTS, pH RANGE OF 5.5 TO 7.0, MINIMUM 4 PERCENT, MAXIMUM 20 PERCENT ORGANIC MATTER.
B. PEAT MOSS: SHREDDED, LOOSE, SPHAGNUM MOSS, FREE OF LUMPS, ROOTS, INORGANIC MATERIAL, MINIMUM 85 PERCENT ORGANIC MATERIAL MEASURED BY OVEN DRY WEIGHT, 4 TO 5 pH RANGE, MOISTURE CONTENT OF 30 PERCENT.
C. SAND: COARSE, WASHED, BUILDERS SAND
D. PLANTING SOIL MIXTURE: PROVIDE MIXTURE OF IMPORTED TOPSOIL OR APPROVED TOPSOIL FROM SITE, PEAT, SAND, AND OTHER AMENDMENTS AS RECOMMENDED BY THE INDEPENDENT SOIL TESTING LABORATORY FOR THE SPECIFIED PLANTS.

2.03 OTHER MATERIALS
A. MULCH: PINE BARK MINI NUGGETS OR PINE STRAW 3" THICK COMPACTED UNDER ALL TREES, PALMS, SHRUBS, & GROUNDCOVER.
B. FERTILIZER:
1. FLOWERING ANNUALS AND BEDDING PLANTS: SIERRABLEN 18-7-10 (+IRON), RATE OF APPLICATION 2LBS PER 100 SQ.FT.
2. CONTAINER GROWN TREES, SHRUBS, AND GROUNDCOVER: AGRIFORM 21 GRAM TABLES, RATE OF APPLICATION AS FOLLOWS:
(1-2 GALLON PLANTS:1 TABLET) (30 GALLON PLANTS:6 TABLETS)
(3-5 GALLON PLANTS: 2 TABLETS) (65 GALLON PLANTS:8 TABLETS)
(7-10 GALLON PLANTS: 3 TABLETS) (100 GALLON PLANTS:10 TABLETS)
(15 GALLON PLANTS: 4 TABLETS) (200 GALLON PLANTS:15 TABLETS)
3. FIELD GROWN AND COLLECTED TREES: AGRIFORM 21 GRAM TABLETS, ONE TABLET PER 1" OF CALIPER FOR STANDARD TREES; ONE TABLET PER FOOT SPREAD FOR MULTI-TRUNK TREES.
4. NEWLY PLANTED SOD: 6-6-6 APPLIED PER MANUFACTURER'S INSTRUCTIONS.

2.04 TESTS
A. PROVIDE ANALYSIS OF IMPORTED TOPSOIL INDICATING pH VALUE AND PERCENTAGE OF NITROGEN, PHOSPORUS, POTASH, SOLUBLE SALT, AND ORGANIC MATTER.
PROVIDE ANALYSIS OF EXISTING SOIL IN REPRESENTATIVE PLANTING AREAS, INDICATING REPRESENTATIVE PLANTING AREAS, INCLUDING LABORATORY RECOMMENDATIONS FOR SOIL AMENDMENTS NECESSARY FOR OPTIMAL PLANT GROWTH.

PART 3 - EXECUTION

3.01 PREPARATION
A. FINE GRADING: FINE GRADE PLANTING AREA, AS INDICATED ON THE DRAWINGS, ELIMINATING LOW OR ROUGH AREAS, AND BUILDING DEBRIS, STONES AND RUBBLE. FINISH GRADES SHALL BE SLOPED IN THE SAME DIRECTION AS EXISTING DRAINAGE; NEW GRADES SHALL NOT REVIEW PONDING OR STANDING WATER.
B. ALERT THE OWNER OF POTENTIAL GRADING AND DRAINAGE PROBLEMS, INCLUDING DEPRESSED PLANTING AREAS WITH NO OUTFALL, SATURATED PLANTING AREAS, PLANTING PITS THAT HOLD WATER FOR PROLONGED PERIODS, AND ANY OTHER CONDITION DETRIMENTAL TO OPTIMUM PLANT GROWTH.

3.02 PLANTING
A. TAKE LOCATIONS OF ALL TREES AND SHRUBS. ALIGN WITH ARCHITECTURAL OR ENGINEERING REFERENCES FEATHERS AS INDICATED ON THE DRAWINGS. INFORM LANDSCAPE ARCHITECT OF UNFORESEEN OBSTACLES WHICH MAY AFFECT THE LOCATIONS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR APPROVAL OF ALL STAKED PLATINGS PRIOR TO INSTALLATION.
B. PLANT TREES AND SHRUBS, ROTATING AS NECESSARY FOR BEST APPEARANCE FROM THE PREDOMINANT VIEWPOINT.
C. LAY OUT SHRUB BEDS, SCALING THE LOCATIONS AND DIMENSIONS OF EACH BED, FOLLOWING THE CONFIGURATIONS INDICATED ON THE DRAWINGS. ADJUST THE BED DIMENSIONS TO THE QUANTITY AND SPACING OF PLANTS SHOWN ON THE PLANT LIST OR SCALED FROM THE DRAWINGS. INFORM THE LANDSCAPE ARCHITECT OF SIGNIFICANT DISCREPANCIES BETWEEN PLAN BED DIMENSIONS AND PLANT QUANTITIES.
D. PLANT SHRUBS AND ANNUALS, MAINTAINING UNIFORM SPACING AS INDICATED ON THE PLANT LIST OR SCALED FROM THE DRAWINGS.
E. DISTRIBUTE OR DISPOSE OF EXCAVATED SOIL FROM PLANTING HOLES, MAINTAINING THE DESIRED FINISH GRADES.
F. LAY SOD ON FINE-GRADED, MOISTENED SOIL, WITHOUT GAPS OR OVERLAPS. TAMP OR ROLL TO PROVIDE FIRM CONTACT WITH SOIL. SOD LINE AT PLANT BEDS SHALL BE CUT TO THE CONFIGURATION AND DIMENSIONS SHOWN ON THE DRAWINGS. A MINIMUM DIMENSION SHALL BE MAINTAINED BETWEEN PLANTS AND SOD EQUAL TO ONE-HALF THE PLANT SPACING, MEASURED FROM THE CENTER OF THE PLANT TO THE EDGE OF THE SOD. A CIRCULAR RING OF 12 INCH RADIUS SHALL BE MAINTAINED FREE OF GRASS AROUND TREES WITHIN SODDED AREAS.
G. APPLY FERTILIZER TABLETS, EQUALLY DISTRIBUTED AROUND ROOTBALL AT A DEPTH EQUAL TO ONE-HALF THE ROOTBALL DEPTH. APPLY GRANULAR FERTILIZERS TO SOD AND BEDDING PLANTS. SWEEP FERTILIZERS FROM WALKWAYS TO AVOID STAINING.
H. SATURATE SOIL THOROUGHLY DURING AND AFTER BACKFILLING OF PLANTS, AND AFTER LAYING OF SOD.
I. APPLY A LAYER OF MULCH, MINIMUM 3 INCHES AFTER SETTLEMENT, TO ALL PLANT BEDS AND TREE RINGS.
J. STAKE AND GUY ALL TREES SECURELY. ATTACH WHITE SURVEYOR'S RIBBON TO ALL GUY WIRES ADJACENT TO PEDESTRIAN AREAS.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-254-2625

PROJECT
37 LAUREL PASS
MARION COUNTY, FL
Prepared For:
IDEAL HOUSING INVESTMENTS

SEAL

CONSULTANTS

ISSUED FOR:
9/12/2025 PERMIT

PROJECT NO.	2025-09
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	6/11/2025
DRAWING SCALE	AS SHOWN

DRAWING TITLE
LANDSCAPE DETAILS & SPECIFICATIONS

DRAWING NUMBER
LS-02

SHEET 2 OF 2

lynx | Surveyors & Engineering

LYNX SURVEYORS CORP
LAND SURVEYORS
AND MAPPER LB 8469
302 LAUREL ROAD EAST UNIT 291
LAUREL, FLORIDA 34272

833-721-2907
contact@lynxsurveyors.com
www.lynxsurveyors.com

0 15' 30'

1" = 30'
GRAPHIC SCALE

PROPERTY AND OWNER INFORMATION

PROPERTY ADDRESS	PARCEL ID : 9024-0541-01
37 LAUREL PASS OCALA, FL 34480 USA	COUNTY / STATE : MARION COUNTY

FLOOD ZONE INFORMATION:

COMMUNITY NO	: 120160	FIELD DATE	: 04/17/2024
PANEL	: 0735	DRAWN DATE	: 04/22/2024
SUFFIX	: D	DRAWN BY	: A.V.
EFFECTIVE DATE	: 08/28/2008	CHECKED BY	: D.R.
FLOOD ZONE	: X		
B.F.E.	: N/A		

LEGAL DESCRIPTION :

LOT 1, BLOCK "541", SILVER SPRINGS SHORES UNIT NO. 24, according to the plat thereof, as recorded in Plat Book J, Pages 188 through 201, of the Public Records of MARION COUNTY, Florida.

CERTIFIED TO :

FREEDOM INVESTMENTS LLC

FREEDOM INVESTMENTS LLC, IT'S SUCCESSOR'S AND/OR ASSIGNS AND THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT AS THEIR INTERESTS MAY APPEAR.

SURVEYOR'S NOTES

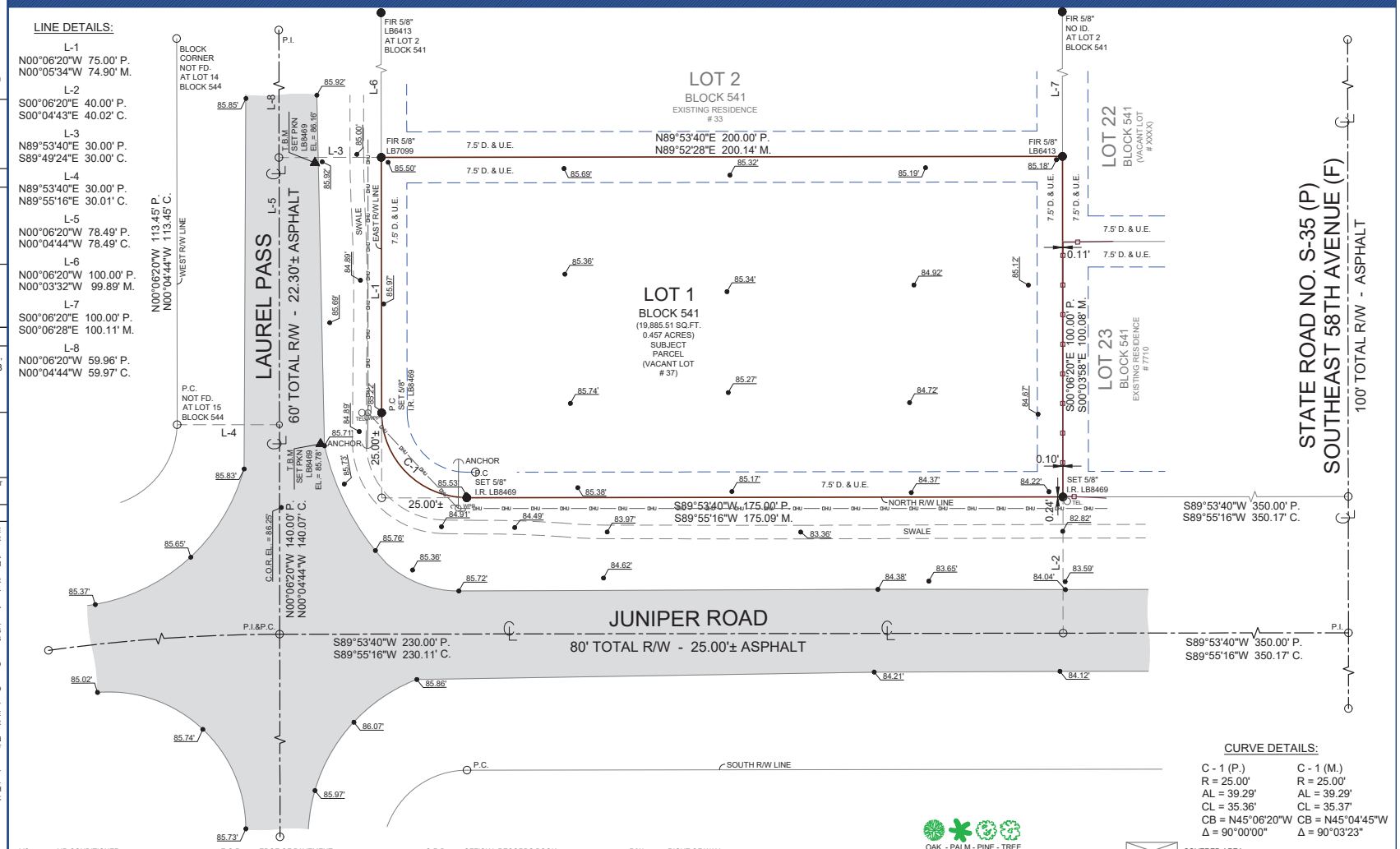
1. LEGAL DESCRIPTION PROVIDED BY OTHERS. NO EXAMINATION OF TITLE MADE BY SURVEYOR. THE LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR EASEMENTS OR OTHER RECORDED ENCUMBRANCES NOT SHOWN ON THE PLAT.
2. THIS CERTIFICATION IS ONLY FOR THE LANDS DESCRIBED. IT IS NOT A CERTIFICATION OF TITLE, ZONING, EASEMENTS OR FREEDOM FROM ENCUMBRANCES OWNERSHIP, OR RIGHTS-OF-WAY.
3. UNDERGROUND PORTIONS OF FOOTINGS, FOUNDATIONS OR OTHER IMPROVEMENTS WERE NOT LOCATED. WALL TIES ARE TO THE FACE OF THE WALL AND ARE NOT TO BE USED TO RECONSTRUCT BOUNDARY LINES.
4. NOT VALID WITHOUT THE SIGNATURE & ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ONLY VISIBLE ENCROACHMENTS LOCATED.
5. THIS SURVEY IS INTENDED FOR CONSTRUCTION PURPOSES ONLY. EXCLUSIVELY FOR THIS USE BY THOSE TO WHOM IT IS CERTIFIED. THIS SURVEY IS TO BE USED FOR CONSTRUCTION, PERMITTING OR DESIGN, ANY OTHER USE IS NOT VALID WITHOUT WRITTEN CONSENT.
6. NO EFFORT WAS MADE TO PROVE PLAT BOUNDARIES.
7. ONLY IMPROVEMENTS SHOWN WHERE LOCATED. WE DO NOT DETERMINE WHO OWNS THE FENCES, TREES OR ANY OTHER IMPROVEMENTS.
8. DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
9. PARCEL SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS, AND RIGHT-OF-WAYS OF RECORD.
10. EASEMENTS SHOWN ON THIS DRAWING ARE FROM THE RECORDED PLAT. ANY OTHER EASEMENT (S) PERTAINING TO THE HEREON DESCRIBED LAND (S) MUST BE FURNISHED TO THE SURVEYOR BY THE CLIENT OR THE CLIENTS AGENT PER FLORIDA STATUTE "CHAPTER 5J-17" OF THE FLORIDA ADMINISTRATIVE CODE.
11. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
12. PARCEL WAS SURVEYED FROM INFORMATION SUPPLIED BY THE CLIENT.
13. THE ACCURACY OF CONTROL SURVEY DATA SHALL BE VERIFIED BY REDUNDANT MEASUREMENTS OR TRAVERSE CLOSURES. ALL CONTROL MEASUREMENTS SHALL ACHIEVE THE FOLLOWING CLOSURES: COMMERCIAL/HIGH RISK LINEAR: 1' FOOT IN 10,000' FEET; SUBURBAN: LINEAR: 1 FOOT IN 7,500' FEET; RURAL: LINEAR: 1 FOOT IN 5,000' FEET.
14. BEARINGS AND DISTANCES SHOWN HEREON AS "M."(See Legend) ARE MEASURED BY GPS OBSERVATIONS (STATE PLANE COORDINATE SYSTEM NAD-83 FL-WEST).THE BASIS OF BEARING IS BASED UPON N 00°06'20" W ALONG THE CENTERLINE OF LAUREL PASS AS PLATTED.
15. ELEVATIONS SHOWN HEREON ARE BASED UPON NAVD1988 DATUM, BENCHMARK USED (ASSUMED BY GPS OBSERVATION) WITH ELEVATION OF 86.16'.

I HEREBY CERTIFY THAT THE SURVEY OF THE HEREON DESCRIBED PROPERTY WAS PREPARED UNDER MY DIRECT SUPERVISION AND MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.051 & .052 F.A.C., FLORIDA ADMINISTRATIVE CODE, PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES.

GUSTAVO INTERIAN
PROFESSIONAL SURVEYOR AND MAPPER PSM 6461

JOB NUMBER: LS240586

BOUNDARY & TOPOGRAPHIC SURVEY



CURVE DETAILS:

C - 1 (P.)	C - 1 (M.)
R = 25.00'	R = 25.00'
AL = 39.29'	AL = 39.29'
CL = 35.36'	CL = 35.37'
CB = N45°06'20"W	CB = N45°04'45"W
Δ = 90°00'00"	Δ = 90°03'23"

A/C	AIR CONDITIONER	E.O.P.	EDGE OF PAVEMENT	O.R.B.	OFFICIAL RECORDS BOOK	R/W	RIGHT OF WAY		WATER VALVE
A.E.	ACCESS EASEMENT	E.O.W.	EDGE OF WATER	O.U.E.	ORANGE TREE UTIL. ESMT.	S.	SOUTH		LIGHT POLE
B.R.	BEARING REFERENCE	F.H.	FIRE HYDRANT	P.	PLAT	S.D.	STORM DRAIN		F.H.
B.F.E.	BASE FLOOD ELEVATION	F.F.	FINISHED FLOOR	P.B.	PLAT BOOK	S/W	SIDEWALK		WELL
B.M.	BENCHMARK	FD.	FOUND	P.C.	POINT OF CURVATURE	SEC.	SECTION		SEWER
C.	CALCULATED	F.	FIELD	P.C.C.	POINT OF COMPOUND CURVATURE	T.B.M.	TEMPORARY BENCH MARK		DRAIN
C.M.	CONCRETE MONUMENT	I.E.	IRRIGATION EASEMENT	P.C.P.	PERMANENT CONTROL POINT	TEL.	TELEPHONE FACILITIES		MANHOLE
CONC.	CONCRETE	I.D.	IDENTIFICATION	PG.	PAGE	T.O.B.	TOP OF BANK		HANDICAP
CALC.	CALCULATED	I.P.	IRON PIPE	P.I.	POINT OF INTERSECTION	TX.	TRANSFORMER		UTILITY POLE
CATV	CABLE TELEVISION RISER	I.R.	IRON ROD	P.K.N.	PARKER-KAYLON NAIL	TYP.	TYPICAL		CENTER LINE
CB	CHORD BEARING	L.	ARC LENGTH	P.K.N.D.	PARKER-KAYLON NAIL & DISC	U.E.	UTILITY EASEMENT		BENCHMARK
CH.	CHORD	L.B.	LAND SURVEYING BUSINESS	P.L.S	PROFESIONAL LAND SURVEYOR	W.	WEST		
COR.	CORNER	L.B.E.	LANDSCAPE BUFFER ESMT.	P.P.	UTILITY POLE	W.M.	WATER METER		
C.O.R.	CROWN OF THE ROAD	L.C.U.E.	LEE COUNTY UTILITY EASEMENT	PVC	POLYVINYL CHLORIDE		CONCRETE MONUMENT		
C.V.G.	CONC VALLEY GUTTER	M.	FIELD MEASURED	P.O.B.	POINT OF BEGINNING		NAIL		
C/O	CLEAN OUT	M.A.F.L.	MEAN ANNUAL FLOOD LINE	P.O.C.	POINT OF COMMENCEMENT		IRON ROD		
C.U.E.	COUNTY UTILITY EASEMENT	M.E.	MAINTENANCE EASEMENT	P.R.C.	POINT OF REVERSE CURVE		NOT FOUND		
D.	DESCRIPTION OR DEED	M.H.W.L.	MEAN HIGH WATER LEVEL	P.R.M.	PERMANENT REFERENCE MONUMENT	00.00'	EXISTING ELEVATION		
D.E.	DRAINAGE EASEMENT	N/A	NOT APPLICABLE	P.S.M.	PROFESIONAL SURVEYOR AND MAPPER	00.00'	PROPOSED ELEVATION		
D.H.	DRILL HOLE	N.T.S.	NOT TO SCALE	P.T.	POINT OF TANGENCY		DISTANCE & BEARING LIMIT ARROW		
ELEC.	ELECTRIC BOX	N.	NORTH	P.U.E.	PUBLIC UTILITY EASEMENT				
EL.	ELEVATION	N&D	NAIL & DISC	R.	RADIUS				
E.	EAST	N.R.	NON RADIAL	RAD.	RADIAL				
ENCL.	ENCLOSURE	O.H.L.	OVERHEAD LINES	RAD. PT.	RADIUS POINT				

OAK - PALM - PINE - TREE

	ANCHOR
	BREAK LINE (NOT TO SCALE)
	SECONDARY PROPERTY LINE
	PRIMARY PROPERTY LINE
	SECONDARY STRUCTURE
	PRIMARY STRUCTURE
	EASEMENT LINE
	EDGE OF THE WATER LINE
DHU	OVERHEAD LINE
	CENTERLINE
	FENCE LINE
	CLOSURE
	TOP OF BANK
	MEAN HIGH WATER LEVEL
	MEAN ANNUAL FLOOD LINE
	FLOOD ZONE DIVIDE LINE

	COVERED AREA
	CONCRETE
	BRICK / PAVER
	WALL
	WOOD
	GRAVEL/STONE
	ASPHALT