August 12, 2024

PROJECT NAME: MIDWAY TERRACE APARTMENTS 9007-0101-27

PROJECT NUMBER: 2023120072

APPLICATION: MAJOR SITE PLAN #30983

1 DEPARTMENT: ENRAA - ACQ AGENT ENG ROW

REVIEW ITEM: Major Site Plan STATUS OF REVIEW: INFO

REMARKS: Verified owner with Sunbiz and checked project list. HR 7.24.24

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]."

2 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW

REVIEW ITEM: Additional Development Review Comments

STATUS OF REVIEW: INFO

REMARKS: After approval, plans will be electronically stamped by the County. The applicant will receive an email indicating that approved plans are available for download and are located in the ePlans project Approved folder. For Development Review submittals, with the exception of Final Plats and Minor Site Plans, applicants are required to print, obtain required signatures, and sign and seal two 24"x 36" sets of the electronically stamped approved plan and deliver them to the Office of County Engineer, Development Review Section, located at 412 SE 25th Avenue Ocala, FL 34471. Upon receipt, a development order will be issued. Until such time as that development order is issued, the project does not have final approval and construction, if applicable, shall not commence. For plans requiring As-Builts, As-Builts and associated documentation shall be submitted on paper in accordance with current county requirements.

3 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW

REVIEW ITEM: 2.12.4.K - List of approved waivers, their conditions, and the date of approval

STATUS OF REVIEW: INFO

REMARKS: 1/30/24 - add waivers if requested in the future

4 DEPARTMENT: DOH - ENVIRONMENTAL HEALTH

REVIEW ITEM: Additional Health comments

STATUS OF REVIEW: INFO

REMARKS: Central sewer/Central water

5 DEPARTMENT: UTIL - MARION COUNTY UTILITIES

REVIEW ITEM: Utilities Plan Review Fee per Resolution 15-R-583 - payable to Marion County Utilities

STATUS OF REVIEW: INFO

REMARKS: as of 5/28/24 review, fee not paid; checklist item will not be cleared until this fee is paid,

regardless of whose responsible for paying it.

\$130 to pay this by phone call 352-671-8686 and advise for plan AR# 30983 "Utility Review Fee"

6 DEPARTMENT: ENGDRN - STORMWATER REVIEW

REVIEW ITEM: 6.13.6 - Stormwater Quality Criteria

STATUS OF REVIEW: NO

REMARKS: If seed and mulch is desired in the bottom of the DRA, a waiver must be applied for and go before the Development Review Committee. Please contact Development Review staff at 352-671-8686 for requirements to apply for the waiver. If you don't want to go through the waiver process please update the DRA bottom stabilization to sod. Please indicate the proposed DRA stabilization method on the DRA cross section. If the waiver is pursued and granted, it will come with the condition that establishment will need to be in compliance with FDOT Standard Specification section 570.

7 DEPARTMENT: ENGDRN - STORMWATER REVIEW

REVIEW ITEM: 6.13.12 - Operation and Maintenance

STATUS OF REVIEW: NO

REMARKS: Updated O&M manual letter was addressed to Mr. Vickers instead of the owner's

representative, Adan Ordonez. Please update, sign and resubmit.



Marion County Board of County Commissioners

Office of the County Engineer

AR 30983

412 SE 25th Ave. Ocala, FL 34471 Phone: 352-671-8686 Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

	Date: 10/18/23	Parcel Number(s): 90)07-0101-27		Permit Number: A	AR #30983		
A.	PROJECT INFO	RMATION: Fill in be	low as applicable:					
	Project Name: Mu	Ilti-Family Midway Terra		Commercial Residential				
		e (if applicable):						
	UnitBlo	ck 101 Lot 27	Tract	_				
В.	PROPERTY OW	NER'S AUTHORIZA	TION: The proper	ty owner's signa	ature authorizes the a	pplicant to act on the		
	owner's behalf fo	r this waiver request. T	The signature may b	be obtained by e	mail, fax, scan, a lett	ter from the property		
	owner, or original	signature below.						
	Name (print): Ada	n Ordonez						
	Signature:							
	Mailing Address:	1911 Morning Dr			City: Orland	do		
	State: FL	Zip Code: 32809	Phone # 407-96	67-2867				
	Email address: ad	aninvestments@adano	rdonez.com					
	Firm Name (if app Mailing Address:	plicable): Linn Enginee	ing and Design		Name: Greg Chatelain City: Orland			
		Zip Code: 32814	Phone # 407-77					
		eg@linnengineering.com		0 0104				
	Eman address. g.v	<u> </u>	··					
D.	WAIVER INFO	RMATION:						
	Section & Title of	f Code (be specific):		2.12.8 - Topog	raphical Contours			
	Reason/Justification for Request (be specific): 2.12.8 - Topographical Contours states,							
	, "LDC requires that one-foot contours extend 100 feet beyond the project boundary." Topo. Contours 100' beyond property lines is excessive, since that would require a survey of the entirety of adjacent lots.							
						ety of adjacent lots.		
	In lieu of 100', the	e client will provide 50' v	when possible, which	ch is standard pr	actice.			
DE	EVELOPMENT R	FVIFW USF:						
Re	ceived By Fmail	8/8/24 Date Processed	d: 8/12/24 BM	Project #	2023120072	AR # 30983		
		<u> </u>						
ZO	NING USE: Par	cel of record: Yes 🗆 N	о□	Eligible to appl	y for Family Divisio	n: Yes □ No □		
Zoi	ned:ES	OZ: P.O.M	Land Use:	Pla	at Vacation Require	d: Yes □ No □		
Da	te Reviewed:	Verified by	(print & initial):					

Revised 6/2021 3



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

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Section & Title of Code (be specific) 6.13.6 - Stormwater Quality Criter 13.6 - Stormwater Quality Criteria
Reason/Justification for Request (be specific): DRAs is 5' deep and is required to be sodded on sides and bottom.
Alternatively, seed and mulch may be pursued via waiver.
applicant must adhere to FDOT Specification section 570 for establishment requirements.
Proposed DRA stabilization method is included on the DRA cross section.
Section & Title of Code (be specific)
Reason/Justification for Request (be specific):
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Legal Description: LOT 27, BLOCK 101, SILVER SPRINGS SHORES UNIT NO. 7, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK J, PAGES 94-102, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA

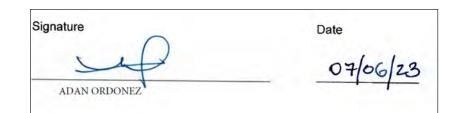
CONSTRUCTION PLANS

MULTI-FAMILY MIDWAY TERRACE LOT 27 OCALA, FL 34472

TOTAL IMPERVIOUS AREA TOTAL PERVIOUS AREA NO OFFSITE DRAINAGE AREA

0.47 ACRES 20,584 SF (56%) 0.38 ACRES 20,584 SF (44%)

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



UTILITY PROVIDERS

WATER/SEWER MARION COUNTY UTILITIES 11800 SE US HIGHWAY 441 BELLEVIEW, FL 34420 (352) 307-6000

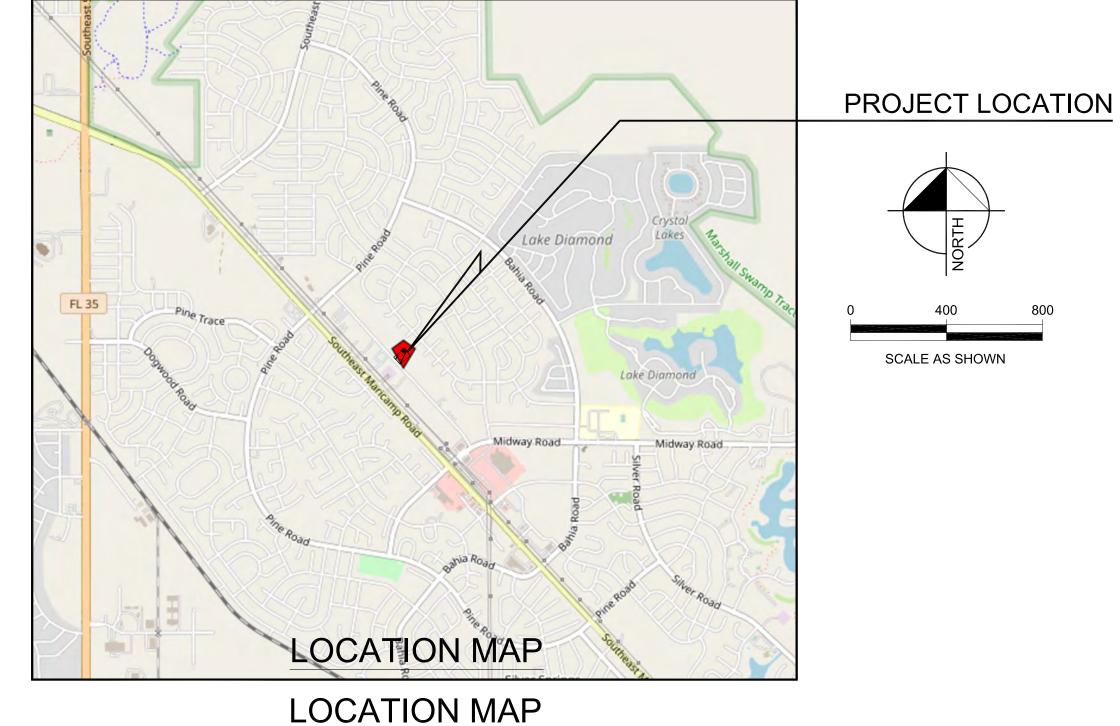
ENGINEER: LINN ENGINEERING & DESIGN P.O. BOX 140024 ORLANDO, FL 32814 CONTACT: GREGORY T. CHATELAIN, P.E. PHONE: 407-775-5194 EMAIL: greg@linnengineering.com

SURVEYOR: HARTLEY SURVEYING, INC 283 TIGERLILLY COURT **ALTAMONTE SPRINGS, FL 32714** 407-383-6978 407-788-9415 (FAX) LB #7197

OWNER/APPLICANT:

ACRISTO INVESTMENTS LLC 1911 MORNING DR ORLANDO FL 32809-7936 PHONE: ADAN ORDONEZ - (407)223-2109

PRIME KEY: # 1347513 SECTION 5, TOWNSHIP 16S, RANGE 23E



9007-0101-27

C01 **COVER PAGE** GENERAL NOTES

C03 EXISTING CONDITIONS AND DEMOLITION PLAN

C04 SITE PLAN **AERIAL MAP** C04A

PARCEL ID:

C05 PAVING, GRADING AND DRAINAGE PLAN

UTILITY PLAN LIFT STATION DÉTAILS UTILITY DETAILS

FIRE TRUCK ROUTE SWPPP-1 **EROSION CONTROL & STORMWATER POLLUTION**

SWPPP-2 PREVENTION PLAN & DETAILS SL-1 SITE LIGHING AND PHOTOMETRICS

L-101 LANDSCAPE PLAN

L-501 LANDSCAPE DETAILS AND NOTES PLAN IRRIGATION SITE PLAN LI-101

IRRIGATION DETAILS AND NOTES LI-501 SURVEY **S**1

CALL48 HOURS **BEFORE YOUDIG**

IT'S THE LAW! Know what's below. DIAL811 Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

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

- FDOT SPECIFICATIONS AND STANDARDS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

- . PEAK HOUR TRIPS ADDED BY PROJECT: 7 TRIPS PER HOUR 9. APPLICATION TYPE IS MAJOR SITE PLAN

COVE SHEE

3/2023 PROJECT NO

SHEET NUMBER C01

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 SHALL EXERCISE CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL "SUNSHINE" AT 1-800-432-4770 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO ARRANGE FOR

4. 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 TH CONTRACTOR OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENT

5. 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.

6. 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. 7. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, etc.) ARE TO BE INSTALLED WITHIN

8. 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.

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

5' OF BUILDING(S), UNLESS OTHERWISE NOTED ON PLANS.

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. 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.

10. 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

1. 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.

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

13. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION. 14. 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. 15. ALL DISTURBED AREAS WITHIN THE FDOT R/W SHALL BE SODDED WITH ARGENTINE BAHIA SOD.

16. 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.

17. ALL DIMENSIONS ARE TO FACE OF CURB.

18. ALL CONSTRUCTION SHALL MEET MUNICIPALITY STANDARDS AND SPECIFICATIONS.

UPON COMPLETION OF CONSTRUCTION. THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION, CERTIFIED BY A REGISTERED LAND SURVEYOR. THIS AS-BUILT INFORMATION SHALL INCLUDE INVERT FLEVATIONS. LOCATIONS OF STRUCTURES FOR ALL UTILITIES INSTALLED. AS WELL AS GRADE BREAK LOCATIONS AND ELEVATIONS FOR PROPOSED CONSTRUCTION. NO ENGINEER'S CERTIFICATIONS FOR CERTIFICATE OF OCCUPANCY (C.O.) PURPOSES WILL BE MADE UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER'S

AS-BUILTS SHALL COMPLY WITH MUNICIPALITY REQUIREMENTS.

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

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 OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE, PROVIDED THE MATERIAL IS DEFMED 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.

5. 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 AROUND ENTIRE PERIMETER OF PROPERTY. TYPE OF FENCE TO BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR APPROVAL.

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

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.

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

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, TH 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.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL B 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

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) 0. ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH F.D.O.T. STANDARD INDEX

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

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

<u>TESTING AND INSPECTION REQUIREMENTS (PAVING/GRADING):</u>

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 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.

STORM DRAINAGE SYSTEM NOTES:

1. STANDARD INDEXES REFER TO THE LATEST EDITION OF F.D.O.T. "ROADWAY AND TRAFFIC DESIGN

2. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS. ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS UNLESS OTHERWISE NOTED ON PLANS.

3. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO CENTER OF DRAINAGE STRUCTURES, WITH THE EXCEPTION OF MITERED END AND FLARED END SECTIONS, WHICH ARE NOT INCLUDED IN LENGTHS. 4. ALL DRAINAGE STRUCTURE GRATES AND COVERS, EITHER EXISTING OR PROPOSED SHALL BE TRAFFIC RATED FOR H-20 LOADINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY UPGRADES TO EXISTING DRAINAGE STRUCTURES.

5. CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM MUST BE COMPLETE AND ALL DISTURBED AREAS STABILIZED IN ACCORDANCE WITH THE PERMITTED PLANS AND CONDITIONS PRIOR TO ANY OF THE FOLLOWING: ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY; INITIATION OF INTENDED USE OF THE INFRASTRUCTURE; OR TRANSFER OF RESPONSIBILITY FOR MAINTENANCE OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.

6 NON-MUCK GROWN SOD WILL BE LITILIZED FOR STABILIZATION OF THE PROPOSED STORMWATER RETENTION FACILITY. MUCK-GROWN SOD MAY IMPEDE THE PERCOLATION OF RUNOFF INTO THE GROUND AND IS NOT RECOMMENDED FOR THE STABILIZATION OF RETENTION POND BOTTOMS.

TESTING AND INSPECTION REQUIREMENTS (DRAINAGE):

1. THE STORM DRAINAGE PIPING SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.

2. THE CONTRACTOR SHALL MAINTAIN AND PROTECT FROM MUD, DIRT, DEBRIS, ETC. THE STORM DRAINAGE SYSTEM UNTIL FINAL ACCEPTANCE OF THE PROJECT. THE STORM SYSTEM WILL BE REINSPECTED BY THE OWNER'S ENGINEER PRIOR TO APPROVAL FOR CERTIFICATE OF OCCUPANCY PURPOSES. THE CONTRACTOR MAY BE REQUIRED TO RECLEAN PIPES AND INLETS FOR THESE

SANITARY SYSTEM NOTES:

1. SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS SHOULD ALWAYS CROSS UNDERNEATH WATER MAINS. INSTALLATIONS OF SANITARY SEWERS, FORCE MAINS AND STORM SEWERS, AT CROSSINGS OF WATER MAINS, SHALL BE PERFORMED SO AS TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHENEVER POSSIBLE. THE CROSSING SHALL BE ARRANGED TO THAT THE SEWER JOINTS AND WATER JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE, AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSINGS.

WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER WATER MAINS. THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES. AND 10 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).

2. A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER (INCLUDING FORCE MAINS) AND EXISTING OR PROPOSED WATER MAINS, IN PARALLEL INSTALLÀTIONS WHENEVER POSSIBLE. THE DISTANCE FOR SEPARATION SHALL BE MEASURED EDGE TO

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE INSTALLED IN A SEPARATE TRENCH, OR IN AN UNDISTURBED EARTH SHELF, LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN, AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE, AND WATER AND SEWER JOINTS SHALL BE STAGGERED.

THE WATER MAIN SHOULD ALWAYS BE LOCATED ABOVE THE SEWER. JOINTS ON THE WATER MAIN

SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (i.e. 3. ALL PVC PIPE SHALL BE SOLID WALL POLYVINYL CHLORIDE PIPE AND COMPLY WITH ASTM D

3034 AND ALL APPLICABLE ASTM DOCUMENTS AS COVERED IN SECTION NO. 2 OF ASTM D 3034. MAIN LINES SHALL BE A MINIMUM OF 8" DIAMETER, AND LATERALS SHALL BE A MINIMUM 6" 4. ALL SANITARY SEWER MAINS, LATERALS AND FORCE MAINS SHALL HAVE A MINIMUM OF 36

INCHES OF COVER, UNLESS OTHERWISE NOTED ON PLANS. 5. ALL GRAVITY SEWERS MUST BE SDR 26 PVC, EXCEPT FOR PIPE DEEPER THAN 14 FEET, IN WHICH CASE SDR 26 PIPE SHALL BE USED. ELASTOMERIC GASKET JOINTS SHALL BE UTILIZED FOR PVC PIPE, AND SHALL COMPLY WITH ASTM F477, ASTM D3034 & ASTM F679. JOINTS SHALL COMPLY

6. ALL SANITARY MANHOLES SHALL BE LOCATED NO MORE THAN 400 FEET APART AND SHALL CONFORM TO THE DETAILS CONTAINED HEREIN, AS WELL AS WITH ASTM C478. 7. ALL SLOPES FOR GRAVITY SEWER MAINS AND SERVICE CONNECTIONS SHALL COMPLY WITH THE FOLLOWING MINIMUM GRADES: 4" @ 1.00%; 6" @ 1.00%; AND 8" @ 0.40%. 8. ALL SANITARY SEWER WORK SHALL CONFORM WITH APPLICABLE MUNICIPALITY ENGINEERING 9. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING PROPOSED FACILITIES TO EXISTING

LINES OR APPURTENANCES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION(S) OF

EXISTING CONNECTION POINT(S) AND NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR

11. SANITARY SEWER MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST

12. FORCE MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE WATER MAIN. 13. ON SITE WASTEWATER COLLECTION SYSTEM AND PUMP STATION IS PRIVATELY OWNED AND MAINTAINED.

14. PLUG VALVE TO BE INSTALLED VERTICALLY AND TAPPING VALVE TO BE INSTALLED HORIZONTALLY AND ABANDONED IN THE OPEN POSITION.

TESTING AND INSPECTION REQUIREMENTS (SANITARY):

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S FNGINFFR AND APPLICABLE MUNICIPALITY/AGENCY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH A TELEVISED INSPECTION (TV) OF THE PROPOSED GRAVITY SEWER LIN CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE COPIES OF THE TV INSPECTION TAPE TO THE ENGINEER, THE OWNER AND THE APPLICABLE MUNICIPALITY/AGENCY.

2. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATON TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. THE SCHEDULING, COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.

3. LEAKAGE TESTS ARE SPECIFIED REQUIRING THAT: A. THE LEAKAGE EXFILTRATION OR INFILTRATION DOES NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM. B. EXFILTRATION OR INFILTRATION TESTS BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF C. AIR TESTS, AS A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828 FOR CLAY PIPE, ASTM C 924 FOR CONCRETE PIPE, ASTM F-1417 FOR PLASTIC PIPE, AND FOR OTHER MATERIALS APPROPRIATE TEST PROCEDURES.

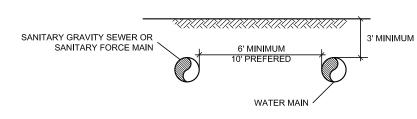
4. CONTRACTOR TO PERFORM APPROPRIATE DEFLECTION TESTS FOR ALL FLEXIBLE PIPE. TESTING IS REQUIRED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM. TESTING REQUIREMENTS SPECIFY: A. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. B. USING A RIGID BALL OR MANDREL FOR THE DEFLECTION TEST WITH A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE, DEPENDING ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE

APPENDIX, TO WHICH THE PIPE IS MANUFACTURED.

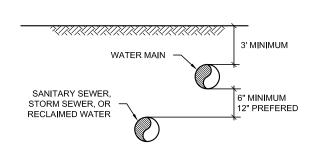
C. PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.

5. CONTRACTOR TO INSPECT & TEST MANHOLE FOR WATERTIGHTNESS OR DAMAGE PRIOR TO PLACING INTO SERVICE. AIR TESTING, IF SPECIFIED FOR CONCRETE SEWER MANHOLES, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.

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.



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 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.

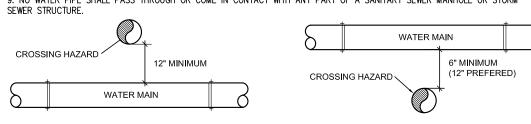
3. IN AREAS WHERE IT IS NOT PRACTICAL TO MAINTAIN THE REQUIRED SEPARATION, THE WATER MAIN MUST BE LAID IN A

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

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.



10. A MINIMUM OF VERTICAL SEPARATION OF SIX (6) INCHES [TWELVE (12) INCHES PREFERRED] OUTSIDE TO OUTSIDE SHALL BE MAINTAINED BETWEEN WATER MAIN, SANITARY GRANTY 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 ROVIDE 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 FEE 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

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 ANI 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

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT

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

WATER LINE MATERIAL TO DUCTILE IRON OR ENCASE THE PIPE IN CONCRETE.

25. ALL HYDRANTS SHALL MEET THE CRITERIA SET FORTH BY MUNICIPALITY

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

18. ALL DIP PIPE SHALL BE CLASS 50 OR HIGHER. REFER TO NOTE #24 BELOW FOR ADDITIONAL DIP SPECIFICATIONS. ADEQUATE MEASURES AGAINST CORROSION SHALL BE UTILIZED. 19. ALL WATER MAIN PIPE FITTINGS AND APPURTENANCES SHALL DUCTILE IRON AND BE INSTALLED TO COMPLY WITH MUNICIPALITY 20. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 36 INCHES OF COVER.

21. ALL WATER SERVICE LINES, VALVES AND METERS SHALL BE INSTALLED TO COMPLY WITH APPLICABLE MUNICIPALITY/AGENCY DEPARTMENT STANDARDS AND SPECIFICATIONS. 22. ALL DUCTILE IRON PIPE, 4" TO 24", SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA M51/A21.51. PIPE SHALL BE FURNISHED IN 18 OR 20 FOOT SECTIONS, PIPE THICKNESS SHALL BE CLASS 50, UNLESS

23. ALL WATER SYSTEM CONSTRUCTION, UP TO AND INCLUDING POINT OF METERING AND BACK FLOW PREVENTION (IF REQUIRED), SHALL BE BUILT ACCORDING TO THE PREVIOUSLY REFERENCED STANDARDS AND SPECIFICATIONS 24. FIRE HYDRANTS SHALL BE OF A TYPE OR STYLE SHALL COMPLY WITH THE REQUIREMENTS OF THE WATER UTILITY THAT SUPPLIES THE DEVELOPMENT. PRIVATE HYDRANTS SHALL ALSO COMPLY WITH NATIONAL FIRE PROTECTION ASSOCIATION STANDARD NFPA 24, PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES.

26. 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. ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA MANUAL M23, CONCERNING HYDROSTATIO TESTING OF PVC PIPING. OFF-SITE UTILITIES HYDROSTATIC TESTING TO BE WITNESSED BY MUNICIPALITY WATER DEPARTMENT

28. ALL WATER MAINS SHALL BE STERILIZED IN ACCORDANCE WITH THE APPLICABLE SECTION OF THE LATEST AWWA SPECIFICATION C651 AND MUNICIPALITY WATER DEPARTMENT SPECIFICATIONS. 29. ALL PVC WATER MAIN, 4" TO 8" DIAMETER PIPING, SHALL CONFORM TO ASTM D2241 AND ASTM 1784. PIPE SHALL BE AWWA C-900 DR-18. JOINTS SHALL BE RUBBER GASKETED PUSH-ON CONFORMING TO ASTM D1869. FOR PIPES LESS THEN 4". THEY SHALL MEET THE REQUIREMENTS OF SECTION 50.5.1 OF THE CITY'S STANDARD SPECIFICATIONS FOR UTILITIES CONSTRUCTION 30. ALL POLYVINYL CHLORIDE PIPE SHALL BE LAID WITH AN INSULATED 12 GAUGE A.W.G. SOLID STRAND COPPER WIRE WOUND AROUND THE PIPE FORMING ONE COMPLETE SPIRAL PER JOINT OF PIPE. THIS WIRE IS TO BE CONTINUOUS WITH SPLICES MADE ONLY BY METHODS APPROVED BY THE ENGINEER. THIS WIRE IS TO BE SECURED TO ALL VALVES, TEES AND ELBOWS. 31. FIRE LINES SHALL BE INSTALLED BY A CONTRACTOR, DULY LICENSED BY THE STATE OF FLORIDA FIRE MARSHALL'S OFFICE. CONTRACTOR TO VERIFY REQUIREMENTS PRIOR TO CONSTRUCTION OF THE FIRE PROTECTION SYSTEM. 32. FIRE PROTECTION SHALL MEET ALL THE REQUIREMENTS OF THE APPLICABLE MUNICIPALITY OR COUNTY.

33. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WASTEWATER FORCE MAINS AND GRAVITY SEWERS. FORCE MAIN AND SEWER LOCATIONS SHOWN ON PLANS ARE NOT EXACT OR GUARANTEED. CONTRACTOR IS 34. THE MUNICIPALITY DISPATCH OPERATOR SHALL BE NOTIFIED OF ANY BREAK OR DAMAGE TO THE GRAVITY SEWER OR WATER 35. ALL DAMAGE TO MUNICIPALITY 'S MAINS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT THE CONTRACTOR'S

EXPENSE. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY THE MUNICIPALITY UTILITIES INSPECTOR, MUNICIPALITY MAY PERFORM REPAIRS AND THE CONTRACTOR WILL BE CHARGED FOR REPAIRS. 36. MUNICIPALITY UTILITIES GENERAL TELEPHONE NUMBER: MUNICIPALITY UTILITIES (656-4110) 37. THE MUNICIPALITY UTILITIES CONSTRUCTION SECTION SHALL BE NOTIFIED AT LEAST SEVEN (7) DAYS PRIOR TO ANY

38. THE MUNICIPALITY WATER DIVISION AND THE MUNICIPALITY WASTEWATER DIVISION SHALL BE NOTIFIED AT LEAST (7) DAYS IN

39. OPERATION OF MUNICIPALITY VALVES WATER, WASTEWATER, AND REUSE VALVES ARE TO BE OPERATED ONLY BY MUNICIPALITY UTILITIES INSPECTOR. ALL VALVES BEING INSTALLED ARE TO REMAIN CLOSED DURING CONSTRUCTION. 40. THE CONTRACTOR SHALL COORDINATE ALL PUMP STATION OPERATION AND SHUT DOWN WITH AN MUNICIPALITY UTILITIES

42. ON-SITE WATER DISTRIBUTION SYSTEM IS PRIVATELY OWNED AND MAINTAINED.

ADVANCE TO SCHEDULE MAIN TIE-INS AND VALVE OPERATIONS.

41. N/A

WATER SYSTEM NOTES CONTINUED:

43. 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.

44. 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). 45. 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. 46. A SIGN SHALL BE PLACED AT IRRIGATED AREAS WITH THE WORDS "IRRIGATION BY REUSE WATER.

47. CONTRACTOR SHALL NOTIFY THE MUNICIPALITY PUBLIC UTILITIES CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION. PHONE (407) 836-7274 48. ALL UTILITIES CONSTRUCTION CONNECTING TO THE OCPU SYSTEM SHALL CONFORM TO

MUNICIPALITY MANUAL OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN

49. ALL UNDERGROUND MAINS SERVING FIRE HYDRANTS OR FIRE PROTECTION SYSTEMS ON PRIVATE PROPERTY MUST BE PERMITTED PRIOR TO INSTALLATION. THE DRAWING SHALL INDICATE THAT ALL UNDERGROUND FIRE MAINS WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24, 2016 EDITION. "STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES"

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 UNTILTHE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURRID DISCHARGE AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN. THE WATER MAY BE RELEASED INTO THE ON-SITE WETLANDS PROVIDED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY.

2. UNDER NO CIRCUMSTANCES WILL THE DISCHARGE FROM THE DEWATERING BE DIRECTLY INTO 3. DURING THE EXCAVATION THE CONTRACTOR SHALL NOT PENETRATE AN 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 O ACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBITY AND ALLOW DISCHARGE THAT MEET WATER

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.

BEST MANAGEMENT PRACTICES:

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF MUNICIPALITY DEVELOPMENT REGULATIONS AND SFWMD. THE PLAN ADDRESSES THE FOLLOWING

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

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. ALSO IDENTIFIED IS A CROSS-REFERENCE TO A DIAGRAM OR FIGURE REPRESENTING THE TECHNIQUE. 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 BMPS 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

1.2 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. 1.3 SLOPES OF BANKS OF RETENTION/DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 5H:1V FROM TOP OF BANK TO TWO FEET BELOW CONTROL ELEVATION.

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

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

2.1 SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BMPS 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 A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM

B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION 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.

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 MUNICIPALITY 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.

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

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 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 WALE, 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.

SECTION 3 CONTROL OF WIND EROSION:

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

. 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 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 WITH THE DETAIL FOR A SILT FENCE EXCEPT THE MINIMUM

EROSION AND SILTATION CONTROL:

HEIGHT SHALL BE 4 FEET.

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 AND FILTER FABRIC. ALL STORM SEWER INLETS IN THE VICINITY OF THE 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 SLICH STOCKPILES MAY BE REQUIRED. DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY UNSTOCKPILES MATERIAL REMAIN MORE THAN THIRTY (30)

CALENDAR DAYS AFTER SUBSTANTIAL PROJECT COMPLETION. 5. 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 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 ICLUDING 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. NOT MORE THAN 100 FEET OF TRENCH SHALL BE OPEN AHEAD OF PIPE LAYING

OPERATIONS AT ONE TIME UNLESS A GREATER LENGTH OF OPEN TRENCH IS APPROVED BY THE

OWNER'S ENGINEER. 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 MAINTENANCE: TO REQUIRE DAILY

INSPECTIONS BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF EROSION/SEDIMENT

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

CONTROL EFFORTS. ANY NECESSARY REMEDIES SHALL BE PERFORMED IMMEDIATELY

SOLID WASTE:

1. CONSISTENT WITH ORDINANCE NO. 06-2019 THE CITY HAS GRANTED A WASTE HAULER EXCLUSIVE RIGHTS TO HAUL WASTE AND REFUSE (RESIDENTIAL AND NON-RESIDENTIAL USES) WITHIN THE CITY LIMITS OF DELTONA. THEREFORE, ALL WASTE MANAGEMENT, INCLUDING BUT NOT LIMITED TO. DEBRIS AND OTHER REFUSE GENERATED DURING THE LAND CLEARING AND CONSTRUCTION PHASE SHALL BE HAULED BY THE SOLE HAULER GRANTED EXCLUSIVE RIGHTS BY THE CITY

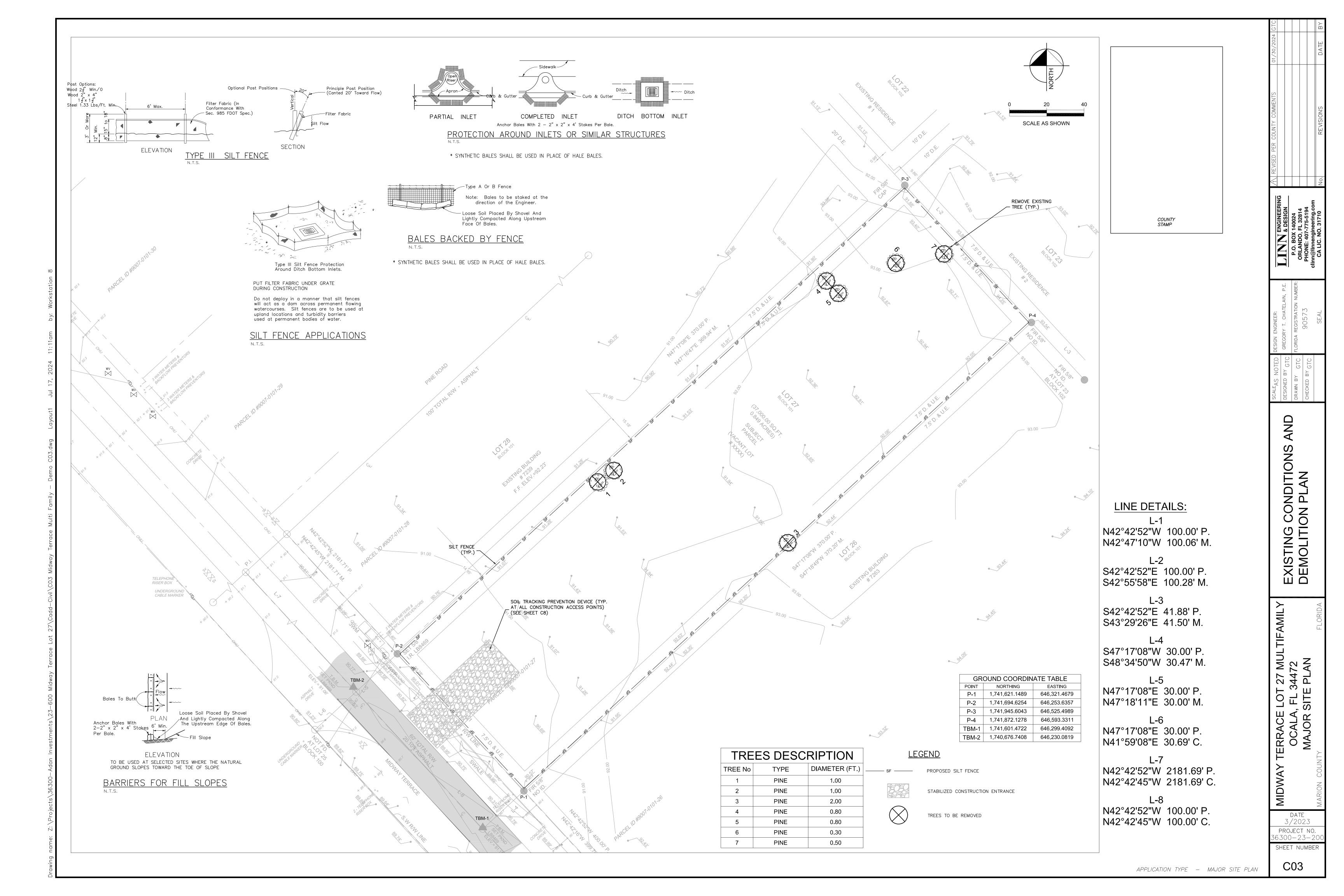
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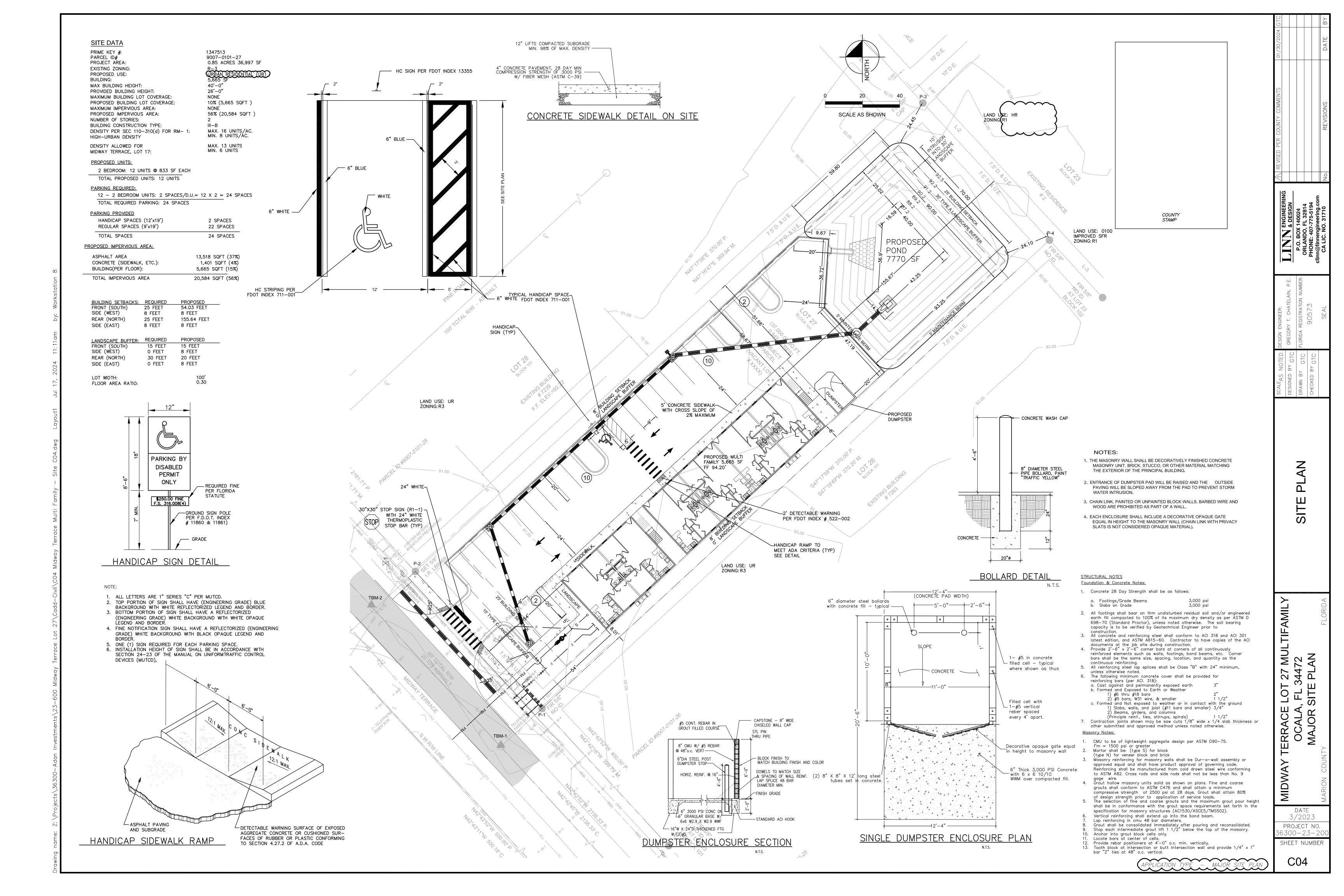
3/2023

PROJECT NO

300 - 23 - 6SHEET NUMBER

APPLICATION TYPE - MAJOR SITE PLAN





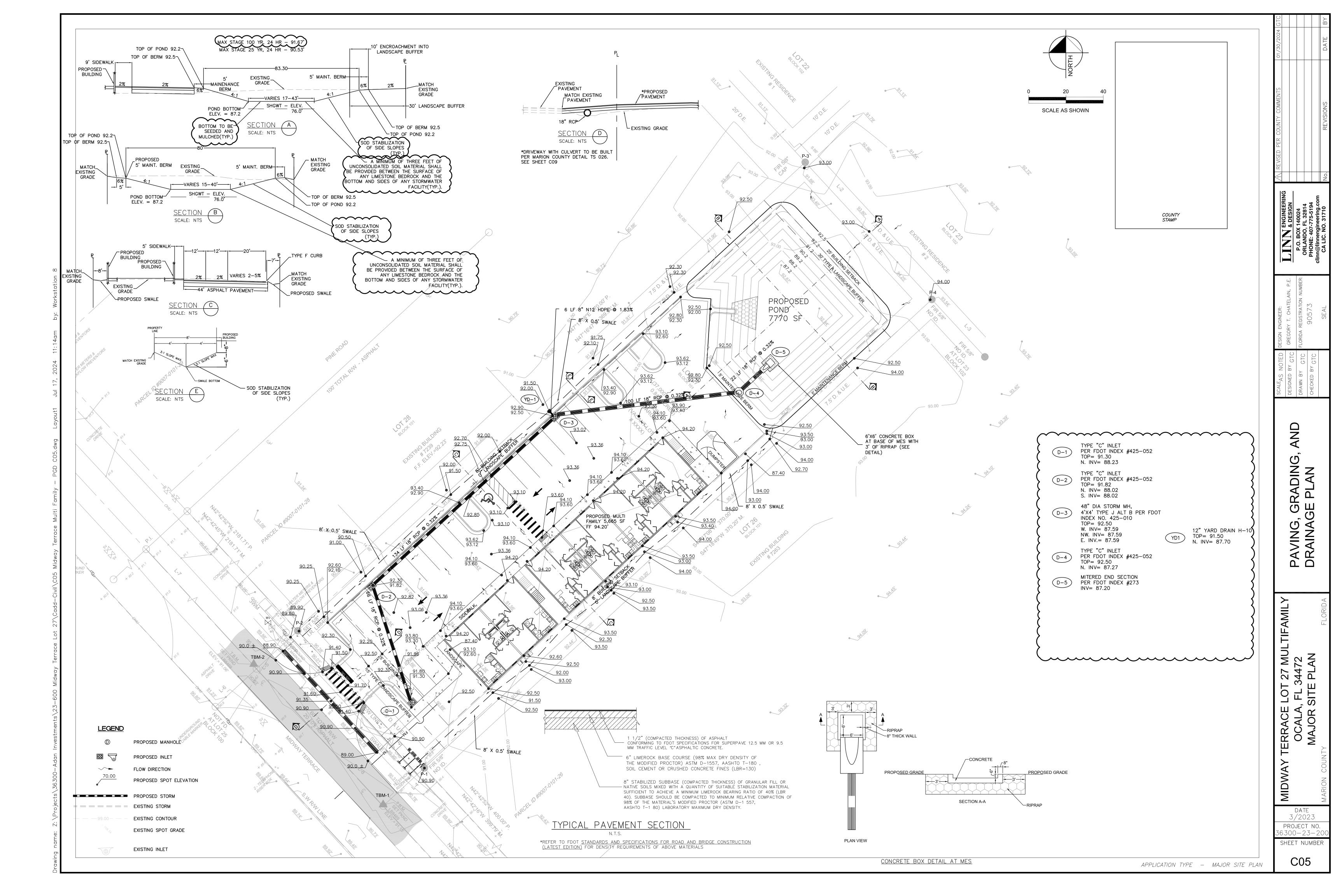


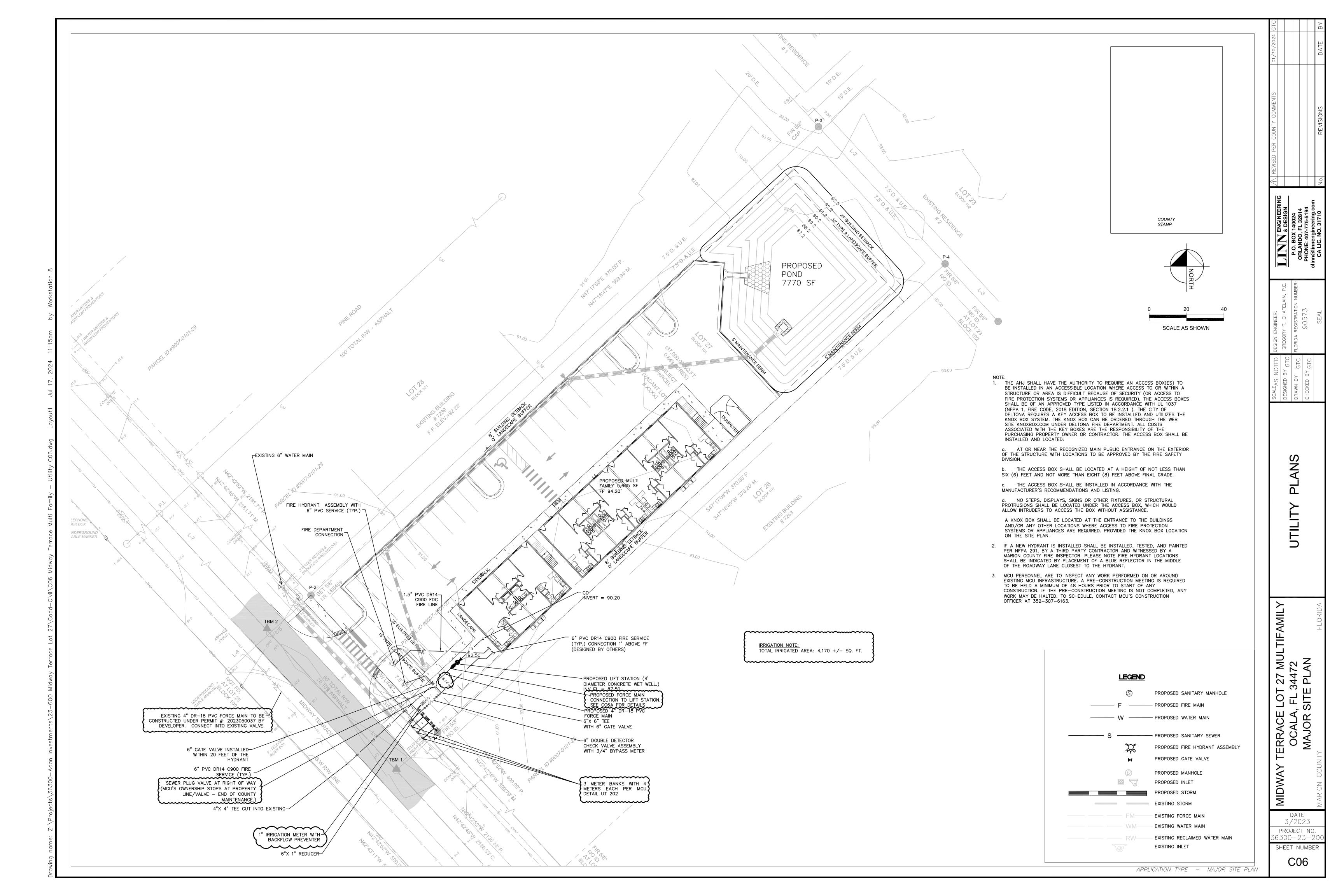
SITE PLA MIDWAY TERRACE LOT 27 MULTIFAMILY OCALA, FL 34472 MAJOR SITE PLAN

DATE 3/2023 PROJECT NO. 36300-23-200 SHEET NUMBER

C04A

APPLICATION TYPE - MAJOR SITE PLAN





NOTE: PUMP CONTROL PANEL SHALL BE LOCATED 3 FEET FROM WETWELL PERIMETER AT POINT "A" OR "B"

WETWELL:

SPECIFICATION

Wet well FRP Wall Laminate must be designed to withstand wall collapse or buckling based on these assumptions and Third

Hydrostatic Pressure 62.4 lbs. Per SQ Ft. Saturated soil weight 120 lbs. Per Cubic Ft. Soil Modulus of 700 lbs Per SQ Ft.

Pipe Stiffness As specified in ASTM D 3753

The wet well FRP laminate must be constructed to with stand or exceed two times the assumed loading on any depth of the

The cover shall be constructed of $\frac{1}{4}$ inch thick material finish aluminum diamond plate pattern with 300 series stainless steel hardware. The hatch shall have a positive means of holding door open in the vertical position (Locking hold open arm) made of non-corrosive material. The cover shall be mounted with minimum of six 300 series stainless steel fasteners. The access hatch cover shall have a lift handle and a means of locking.

The prefabricated FRP lift station manufacture shall guarantee the prefabricated lift station as approved drawings for a period of One year from the date of delivery.

EXECUTION:

Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the drawing.

STATION DESIGN CONDITION PRIMARY PUMP CAPACITY PRIMARY TDH **RUN-OUT PUMP CAPACITY** 31.3 'TDH PRIMARY TDH RC20056 **PUMP MODEL #** 3450 R.P.M. **HORSEPOWER** 2.5 230V/3 ELECTRICAL/ VOLTS / PHASE PUMP DISCHARGE SIZE STATION ELEVATIONS AND DIMENSIONS 48" WETWELL DIAMETER PER EOR INVERT DIAMETER 92.50" TOP OF WETWELL 87.50' INLET / INVERT HIGH LEVEL ALARM (HLA) 87.00' 86.50' 2nd PUMP ON (LAG) 86.00' 1st PUMP ON (LEAD) 85.50' PUMPS OFF (OFF) 83.50' **BOTTOM OF WETWELL** DISCHARGE PIPE DIAMETER (J **GUIDE RAIL DIAMETER** 4" F.M. PIPE DIAMETER STATION MANUFACTURING MATERIALS DISCHARGE PIPE HDPE INLET PIPE XXXXX 304 SS GUIDE RAIL WETWELL FRP ASTM D-3753 l300 LBS. PSI ALUM WETWELL HATCH COVER 304 SS CABLE BRACKET 304 SS LIFTING CHAIN 304 SS BALL VALVE SWING CHECK VALVE 304 SS VALVEBOX VALVEBOX HATCH COVER 300 LBS. PSI ALUM

WETWELL DIA. 36" 27" x 20" 32" x 22" 36" x 24" (DETAIL WBB) WETWELL BOTTOM BOLT & SUPPORT DETAIL PUMP DISCHARGE

STATION VALVEBOX SIZES

STATION HATCH OPENINGS

FOR 2" DISCHARGE

FOR 3" DISCHARGE

(32" x 30" x 24" DEEP)

(36" x 36" x 36" DEEP)

TO BE INSTALLED IN WATER SUPPLY LINE TO

MIN. 1/2" DIA. x 3" SS BOLTS WELDED TO A (2" x 24" x 1/4") SS ANCHOR PLATE EMBEDDED IN FIBERGLASS

RILEY & Company, Inc. (H-20 GP) w/BATTERY BACK-UP FOR AUDIO AND VISUAL ALARMS ©

SPECIFICATION

Submersible grinder pumps shall be: Manufacturer HOMA - Model RC20056.

The pumps shall be installed in the FRP wetwell utilizing a dual slide rail system. The grinder system shall be capable of grinding the waste materials normally found in domestic

and commercial sewage into a fine slurry which will pass through the pump and discharge piping. Stator winding shall be open type with Class H insulation and shall be heat shrink fitted into the stator housing. Shall withstand a continous operating temperature of 155* C.

A heat sensor (2) thermal switches shall be attached to the motor windings.

The pump motor grinder shaft shall be EN 1.4301 / AISI 304SS connection to take the pump impeller and the grinder assembly.

Semi Axial Centrifugal Impeller shall be Cast Iron EN-GJL-200 / ASTM A48 30B.

Cutter/Grinder Assembly shall be Stainless Steel EN 1.4301 / AISI 304. Double mechanical cartridge shaft seals shall be provided. The seal springs located inside the oil housing should be fully protected from the pumped liquid. The mechanical seals should be able to

Moisture sensor (2) shall be included in the motor housing assembly.

Power and Control cables shall be clamped against tensile loads and have a serviceable inlet to the motor, with hermetically sealed polyurethane filled, stainless steel cable plug connection. The pump and electric cables shall be capable of continuance submergance, witout loss of waterproof integrity to a depth of 65 ft.

CONTROL PANEL: SPECIFICATION

withstand rotation on either side.

The Enclosure shall be NEMA 4X, minimum 30" high x 20" wide x 10" deep with 3 point latching system.

The enclosure shall have external mounting feet to allow for wall mounting.

The following components shall be mounted through the enclosure: 1- ea. Red Alarm Beacon (Light) LED 360 Degree viewable range

1- ea. Alarm Horn (minimum 95 DCB)

1- ea. Generator Receptacle w/ weatherproof cover 60A Minimum. Shall meet UL 1682 and UL 1686 Configuration.

The back panel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel

The following components shall be mounted to back panel:

1- ea. Volt Monitor (1 Ph) Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts

1- ea. Control Transformer (480 Volt Only) (Min. 500VA)

1- ea. Model RCBB5AH Battery Back-Up w/ Smart Charger (UPS)

20- ea. Terminals For Field Connections 6- ea. Terminals For Motor Connections (Single Phase Only)

7- ea. Grounding Lugs

1-ea. Lightning and Surge Protection shall meet the UL 1449 2nd Edition

aluminum. The inner door shall have a continuous aluminum piano

The inner door shall be fabricated from .080, 5052-H32 marine alloy

The following components shall be mounted through the inner door:

1- ea. Main Circuit Breaker

1- ea. Emergency Circuit Breaker

2- ea. IEC style Motor Contactors

1- ea. Mechanical Interlock For Emergency And Main Breakers (UL Listed) 2- ea. Short Circuit Protectors w/ Auxiliary Contacts

1- ea. Control Circuit Breaker

1- ea. GFI Duplex Convenience Outlet

MISCELLANEOUS: All wiring on the back panel shall be contained within the wiring duct. All wiring between the inner door and the back panel shall be contained with in a plastic spiral wrap.

Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting. The control panel must be manufactured in-house by lift station supplier and be a TUV (UL508A Certified) facility.

INSPECTION & TESTING: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance of complete system. Megger the motors. The pump motors shall be megged out prior to the start-up to ensure that the insulation of the pump motor/cable is intact. The pump controls and pumps shall be checked for mechanical reliability and proper operation.

SWITCH DISCONNECT -**ELECTRIC METER OR PULL POWER FROM BUILDING CONTROL PANEL GENERATOR RECEPTOR** -LIGHTNING ARRESTOR FIELD MOUNTED MODEL A3042 (O.A.E.) BY ELECTRICIAN **GALVANIZED UNISTRUT** 2- SEAL-OFFS (2") BY ELECTRICIAN 3/4" HOSE BIB FLOAT SWITCHES (2" CONDUIT) 3/4"GALV. RISER _ SLEEVE REQUIRED -- 2" RIGID GALV. POSTS TO WATER SUPPLY_ - CONCRETE AROUND POSTS TO SERVICE LOCATION REDUCED PRESSURE (RPZ) BACKFLOW PREVENTER

ELECTRICAL RISER FOR ILLUSTRATION PURPOSES ONLY

NOTES:

1. DRAWING NOT TO SCALE

2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES

3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS

4. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT 5. NEUTRAL TO BE SUPPLIED FOR 230V-3 PHASE OR 230V-SINGLE PHASE POWER.

PRIVATE **SANITARY SEWER PUMP STATION** FOLLOWING NUMBERS: FACILITY OWNED BY: **FACILITY MAINTAINED BY:** PHONE NUMBER: STATION NUMBER NOTE: CONTRACTOR MUST SUPPLY INFORMATION SIGN AT START-U

LIFT STATION WILL BE PRIVATELY OWNED AND MAINTAINED.

NO SUBSTITUTIONS - NO ALTERNATES

THIS IS A COPYRIGHTED DRAWING. ANY CHANGES OR MODIFICATIONS WITHOUT WRITTEN APPROVAL FROM RILEY & COMPANY, INC. IS STRICTLY PROHIBITED. (C)

10/11/23 SR

C06A

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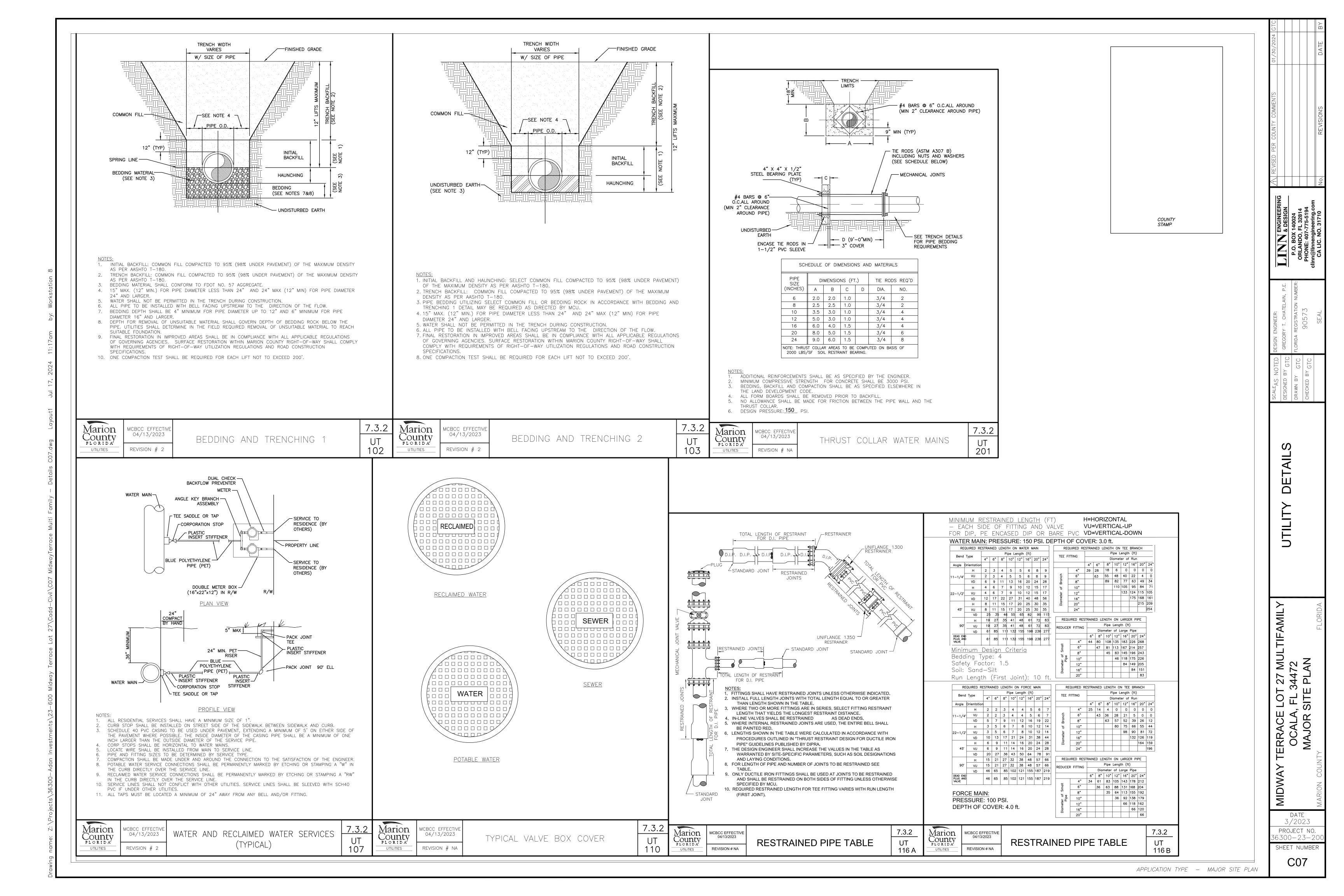
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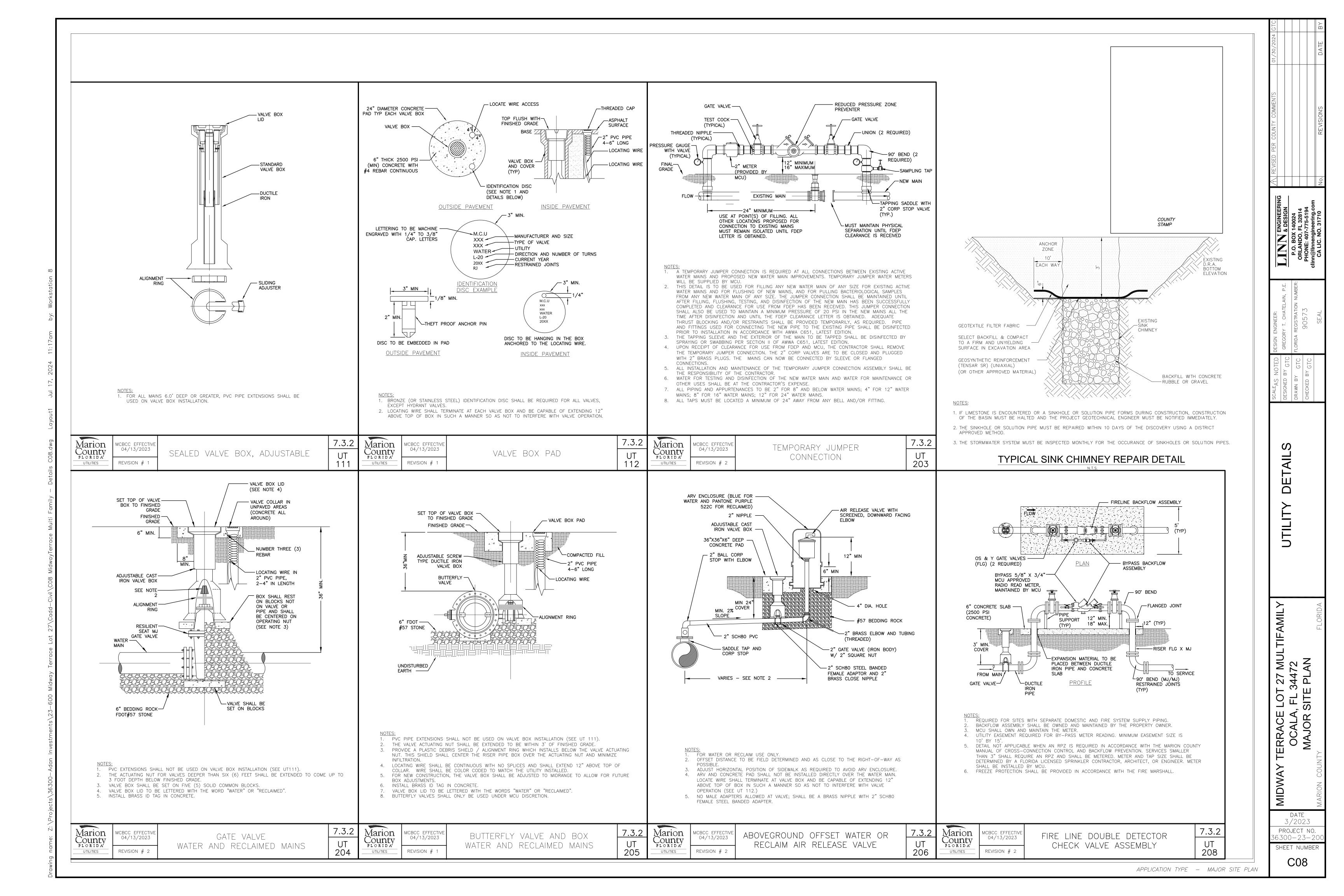
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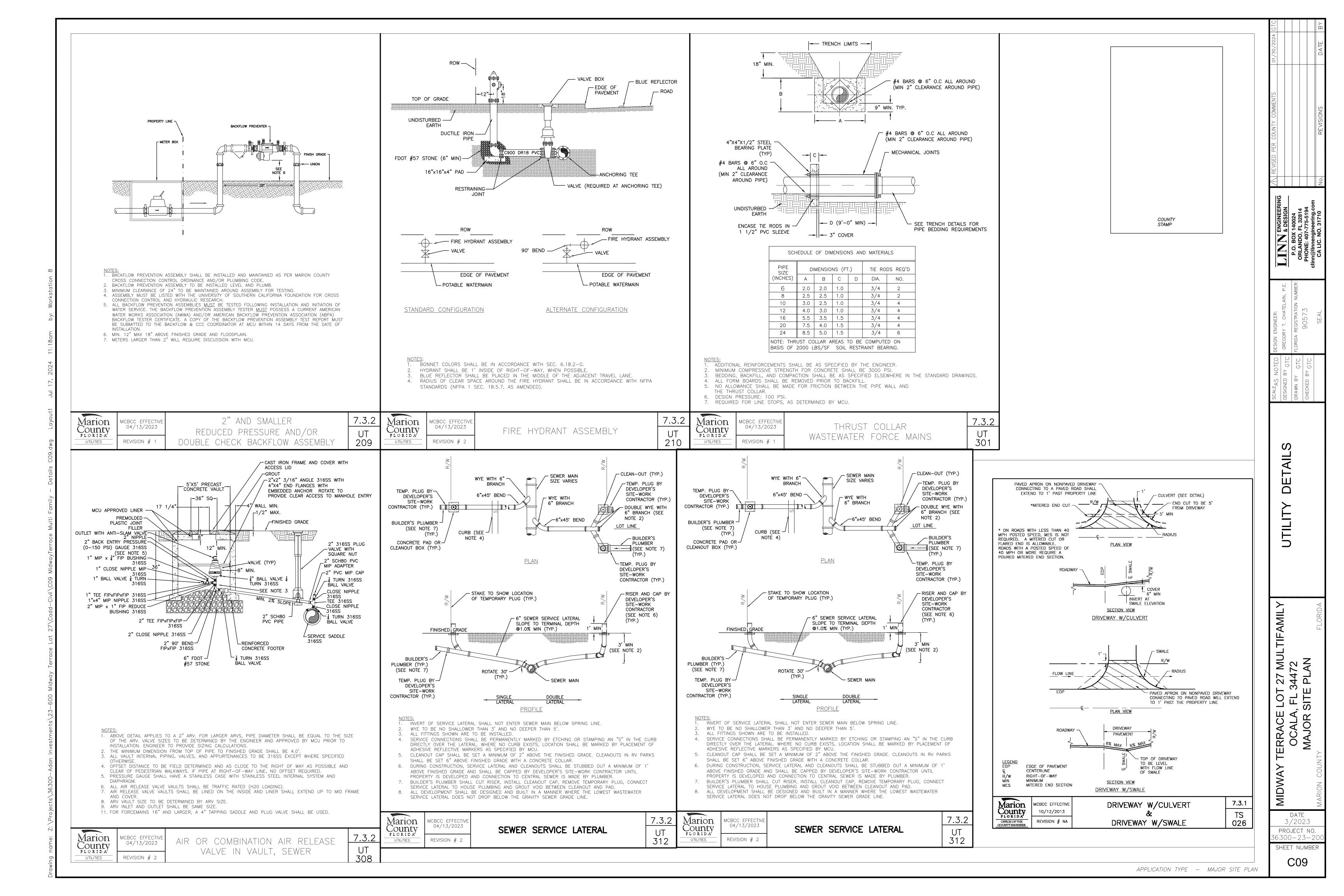
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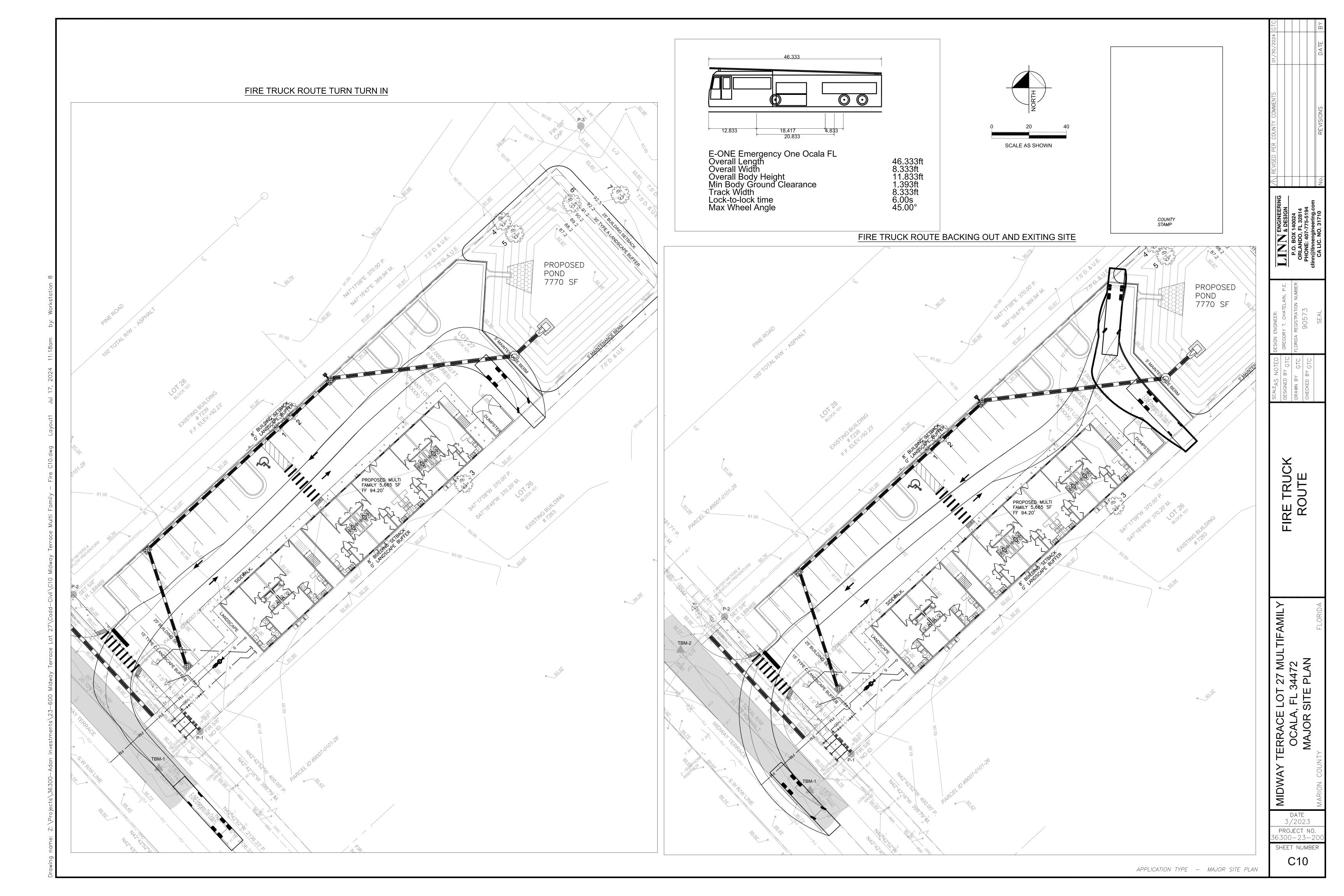
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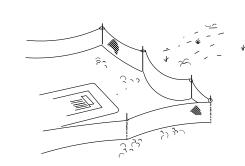
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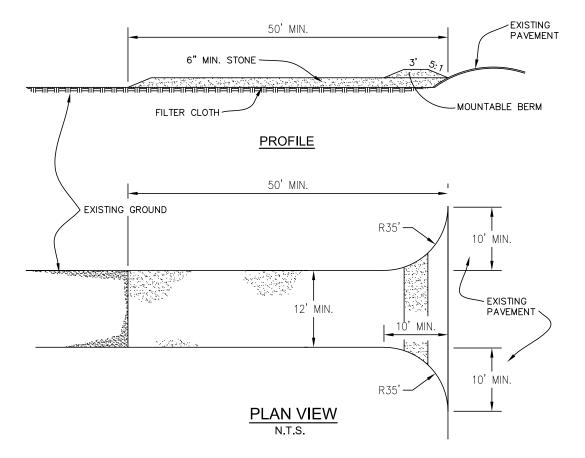


Type III Silt Fence Protection Around Ditch Bottom Inlets.

PUT FILTER FABRIC UNDER GRATE

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS

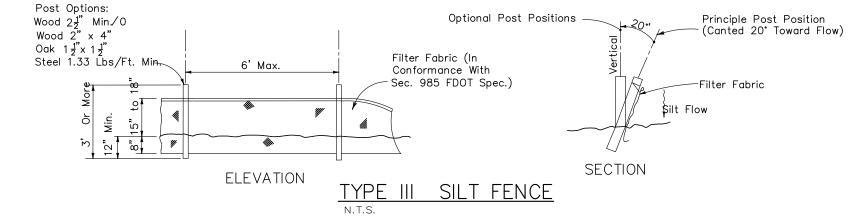


STABILIZED CONSTRUCTION ENTRANCE

- 1. STONE SIZE USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2. LENGTH AS REQUIRED, BUT NOT LESS THAN 50 FEET.

A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- 5. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- 6. SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE . IF PIPING IS IMPRACTICAL,
- 7. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS—OF—WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS—OF—WAY MUST BE REMOVED
- 8. WASHING WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS—OF—WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



BEST MANAGEMENT PRACTICES:

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

GENERAL EROSION CONTROL.
 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
 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 3H: 1V FROM TOP OF BANK TO POND BOTTOM.

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.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION:
2.1 SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST

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 WITH APPLICABLE

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 AROUND ENTIRE PERIMETER OF PROPERTY. 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.

FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.

13. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER

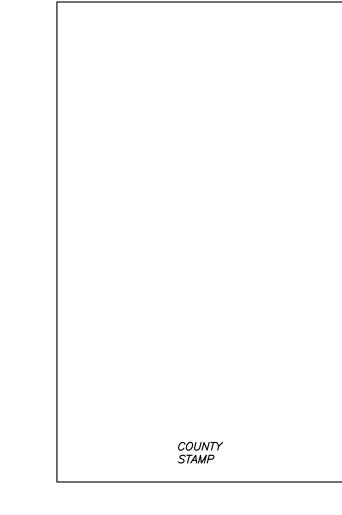
14. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF SITE IN A LEGAL MANNER.

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. <u>GENERAL</u> — 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. <u>PROTECTION AND STABILIZATION OF ON-SITE SOIL STOCKPILES</u> — 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. <u>Protection of Existing Storm sewer systems</u>: 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. <u>SEDIMENT BASINS AND TRAPS, SEDIMENT TRAPPING MEASURES</u>: 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. <u>ALL SWALES, DITCHES AND CHANNELS:</u> 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

NG REVISED PER COUNTY COMMENTS 01/30/20

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CA LIC. NO. 31710

FLORIDA REGISTRATION NUMBER:
90573

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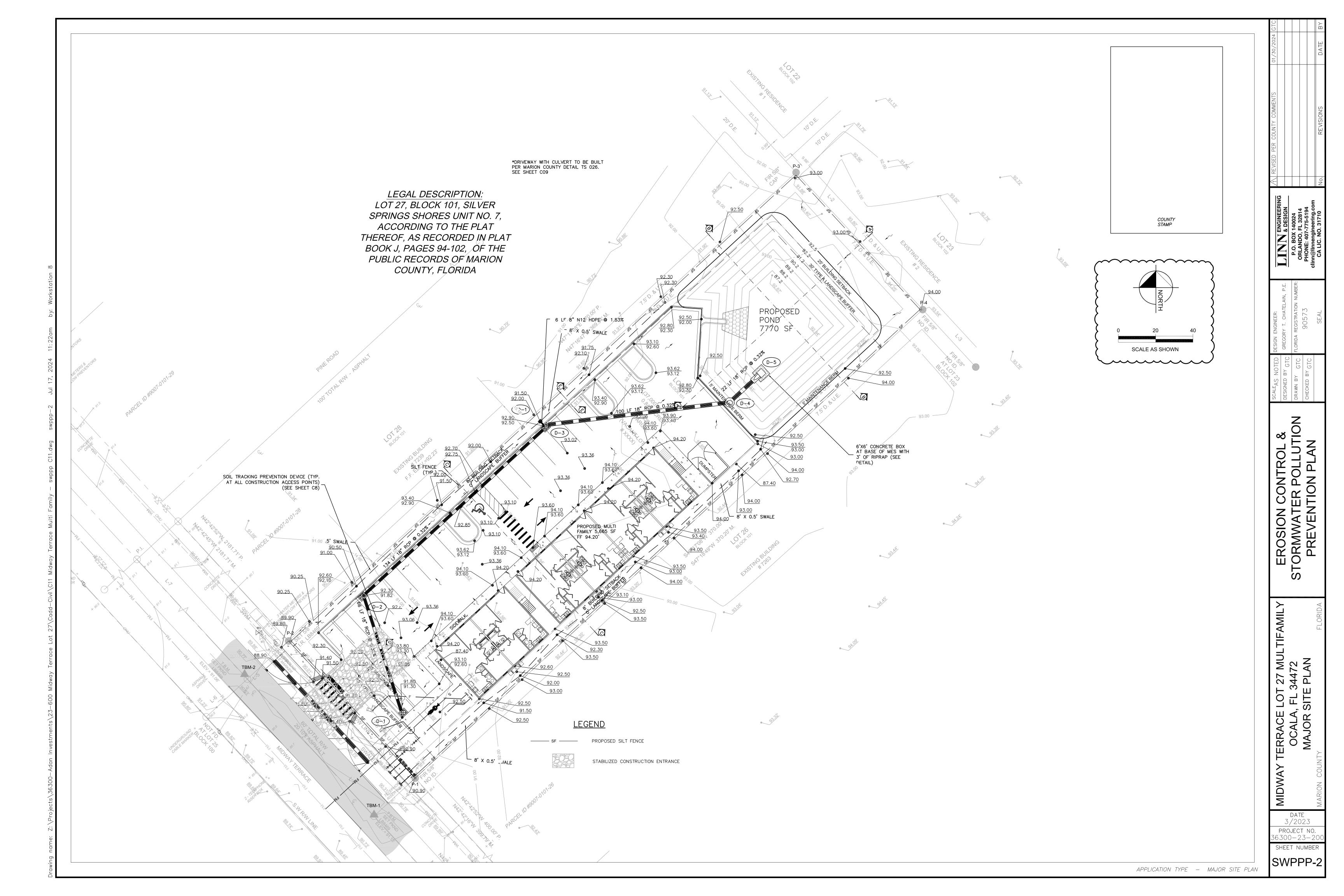
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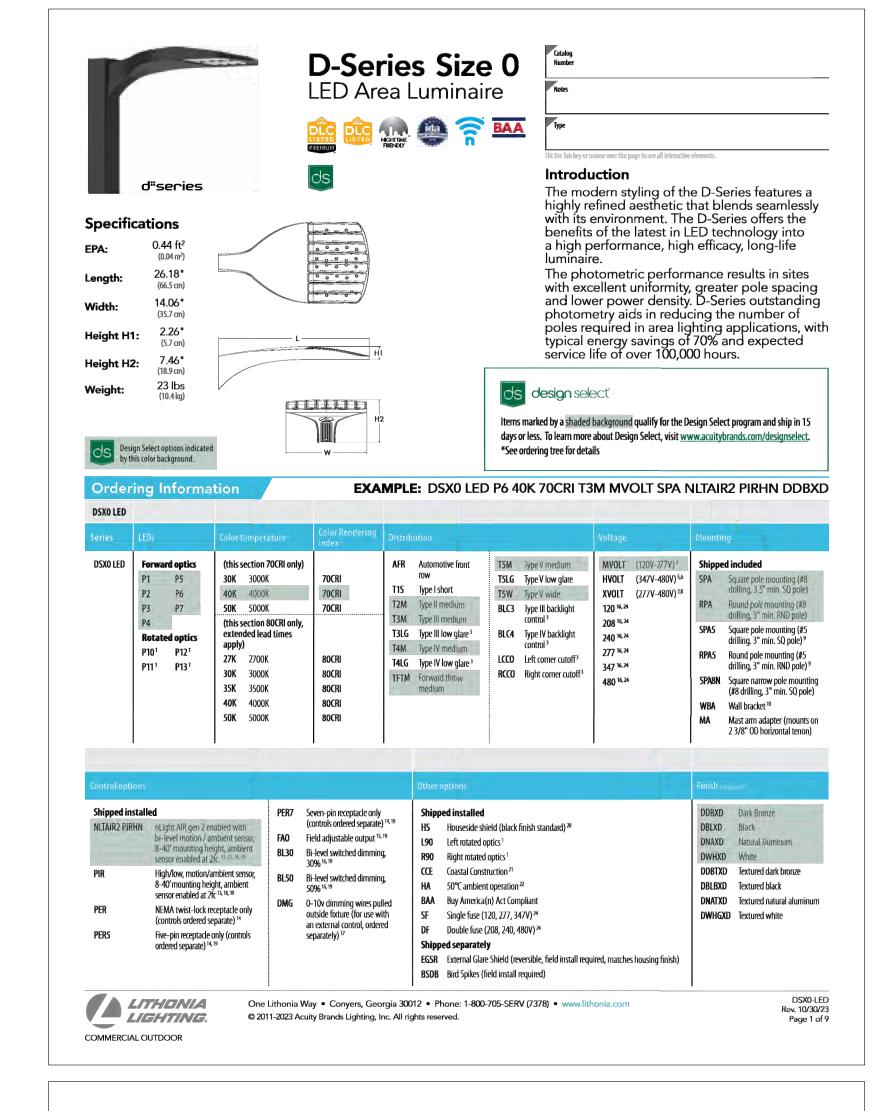
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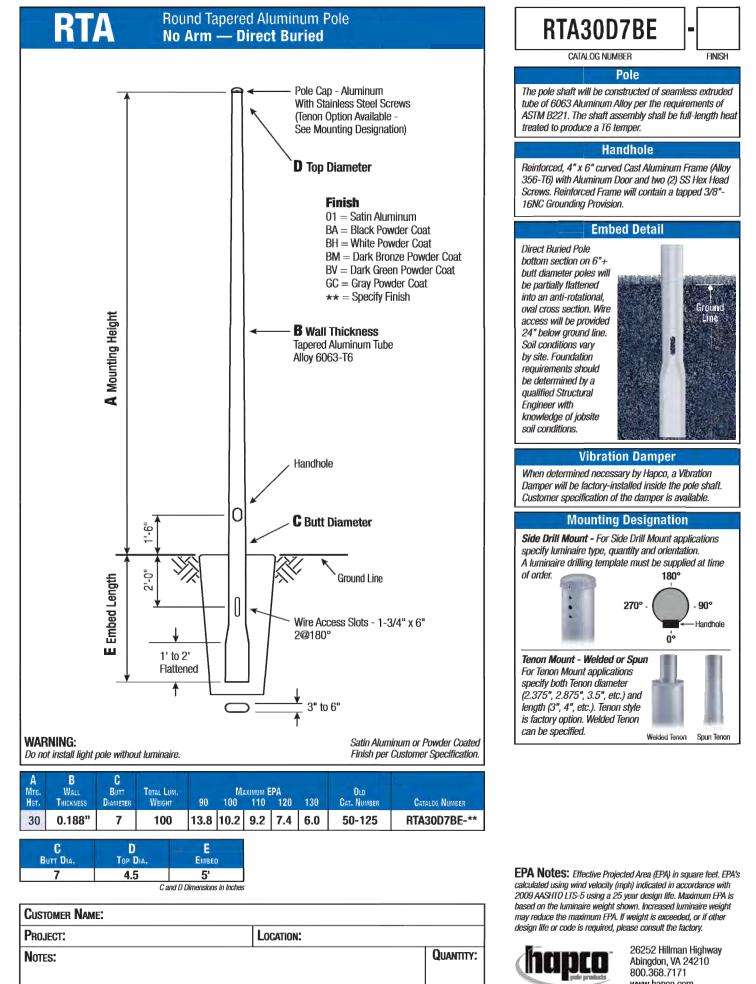
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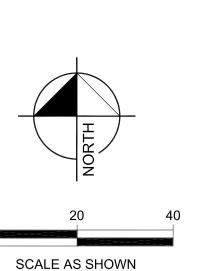
DATE
3/2023
PROJECT NO.
6300-23-200

SHEET NUMBER









MIDWAY TERRACE LOT 27 MULTIFAMILY OCALA, FL 34472 MAJOR SITE PLAN

ENGINEE & DESIGNED BOX 140024

SITE LIGHTING PHOTOMETRIC

DATE 06/2024 PROJECT NO. 36300-23-200 SHEET NUMBER

SL-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
- 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
- CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF AN VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.

ACCORDANCE WITH ALL APPLICABLE FEDERAL. STATE. AND LOCAL CODES

BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.

- 7. REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
- 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

8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO

- 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
- 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
- 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

LANDSCAPE NOTES

TRADES AND THE OWNER'S REPRESENTATIVE.

- 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.
- . 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
- 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
 - ORK:
 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 POLINDS PER CURIC ET
- 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 15 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 3" 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
- 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.
- 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

WORK.

- 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.
- ONCRETE

 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.
- 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

ASSOCIATION.

37. DO NOT LOCATE ANY HOLES CLOSER THAN FIVE (5) BOLT DIAMETERS FROM THE END OF ANY WOOD FRAMING

FOR DIMENSION LUMBER, THE SOUTHERN PINE INSPECTION BUREAU AND THE SOUTHERN FOREST PRODUCTS

- 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:

 AWPA USE

 APPLICATION

 A. ABOVE-GROUND USE

 TREATMENT

 (LBS/CU.F.T)

 ACQ 0.25
 - ABOVE-GROUND USE

 CONCRETE- OR GROUND-CONTACT, OR IN-GROUND USE

 FRESHWATER USE

 IN-GROUND OR FRESHWATER PILES

 SALTWATER USE, MARINE PILES

 UC3B

 ACQ 0.25

 ACQ 0.25

 ACQ 0.40

 UC4A

 ACQ 0.40

 CCA 0.80 (NOTE 1)

 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
- A. ABOVE-GROUND METAL CONNECTORS IN CONTACT WITH ACQ:
- G185 HOT DIPPED GALVANIZED MEETING ASTM A653
 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
- 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.

THE FURNISHINGS AT THE CONTRACTORS EXPENSE.

<u>FURNISHINGS</u>

PRIOR TO INSTALLATION.

MEMBER.

- 52. THE CONTRACTOR TO PROVIDE THE FOLLOWING SUBMITTALS,
 ALL MANUFACTURER'S DATA INCLUDING DIRECTIONS OR RECOMMENDATIONS FOR INSTALLATION, METHODS,
- 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

STANDARD DRAWING SYMBOLS



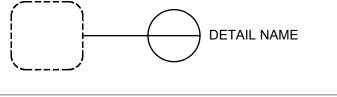
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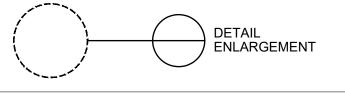
SECTION DETAIL REFERENCE DETAIL NUMBER SHEET NUMBER



PLAN ENLARGEMENT REFERENCE



DETAIL NUMBER SHEET NUMBER



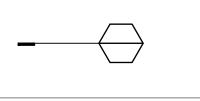
DETAIL ENLARGEMENT REFERENCE



SHEET NUMBER

FINISH REFERENCE
SEE FINISH SCHEDUL

MATCHLINE



QUANTITY

PLANT TAG

SYMBOL



PROPOSED CONTOUR

EXISTING CONTOUR

-∿-**►**

STORMWATER FLOW DIRECTION

X%

100.0

SPOT ELEVATION

SLOPE DIRECTION

PERCENTAGE OR RATIO

<u>N 149368</u>1.511 E 447607.7445

COORDINATE REFERENCE

CONTRACTOR NOTES

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

CODE COMPLIANCE NOTES

 IT IS THE INTENT OF THIS DESIGN TO COMPLY WITH ALL APPLICABLE LOCAL AND STATE BUILDING CODES. ALL EDITIONS OF THE FLORIDA BUILDING CODE 2020 (7TH ED) NATIONAL ELECTRIC CODE 2020

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

DESIGN
STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN

ORLANDO, FL 32803 PH: 407-256-2625

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1516 E. HILLCREST STREET STE. 105

MIDWAY TERRACE AP
LOT 27
MARION COUNTY, FL
PROJECT

MARION COUNTY, FL
LINN ENGINEERING

PROJECT NO. 2023-17
DESIGNED BY TDC/TFW
DRAWN BY TFW

TDC/TFW

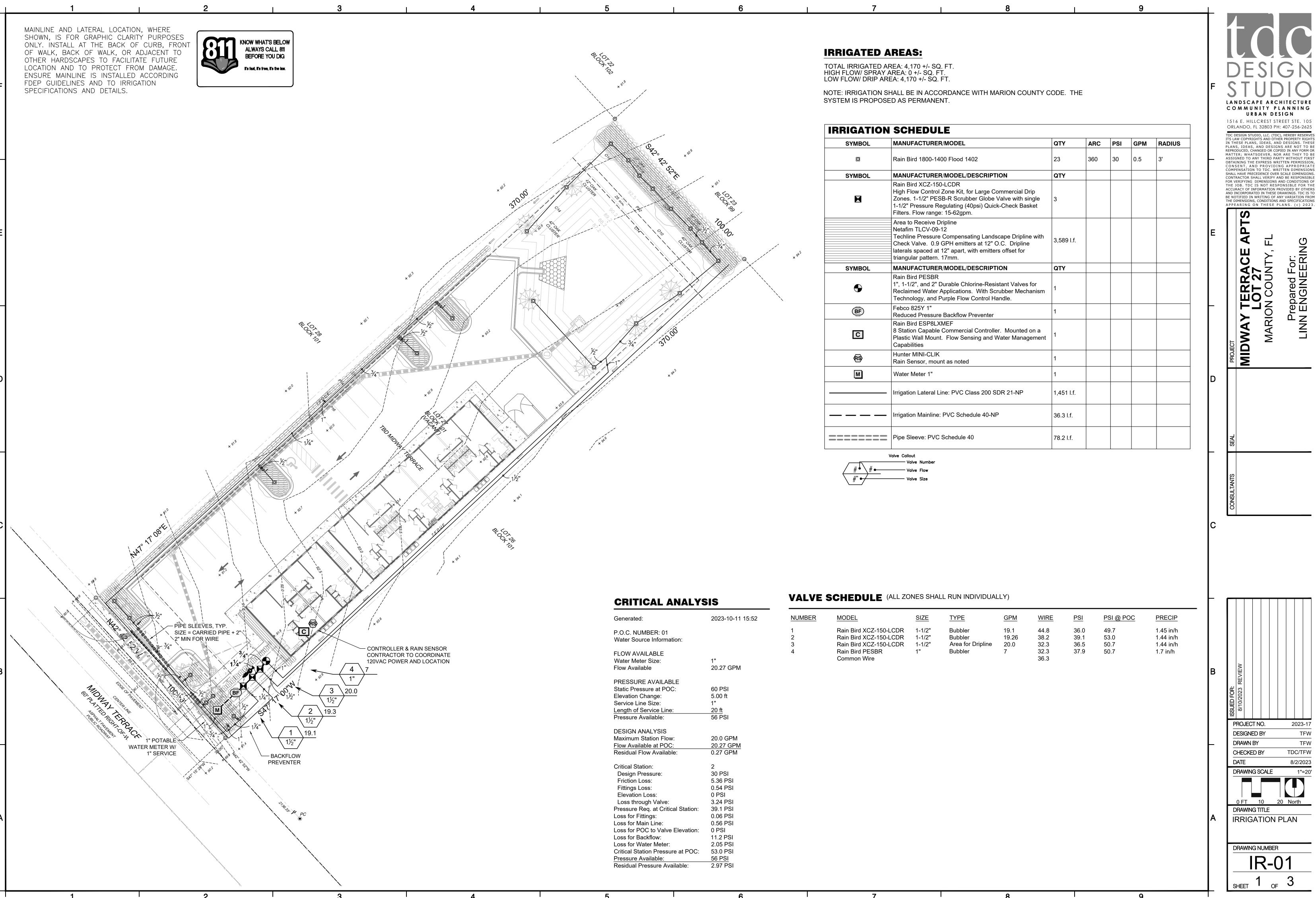
8/2/2023

DRAWING TITLE
INDEX SHEET

CHECKED BY

DRAWING SCALE

ID-01
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COMMUNITY PLANNING

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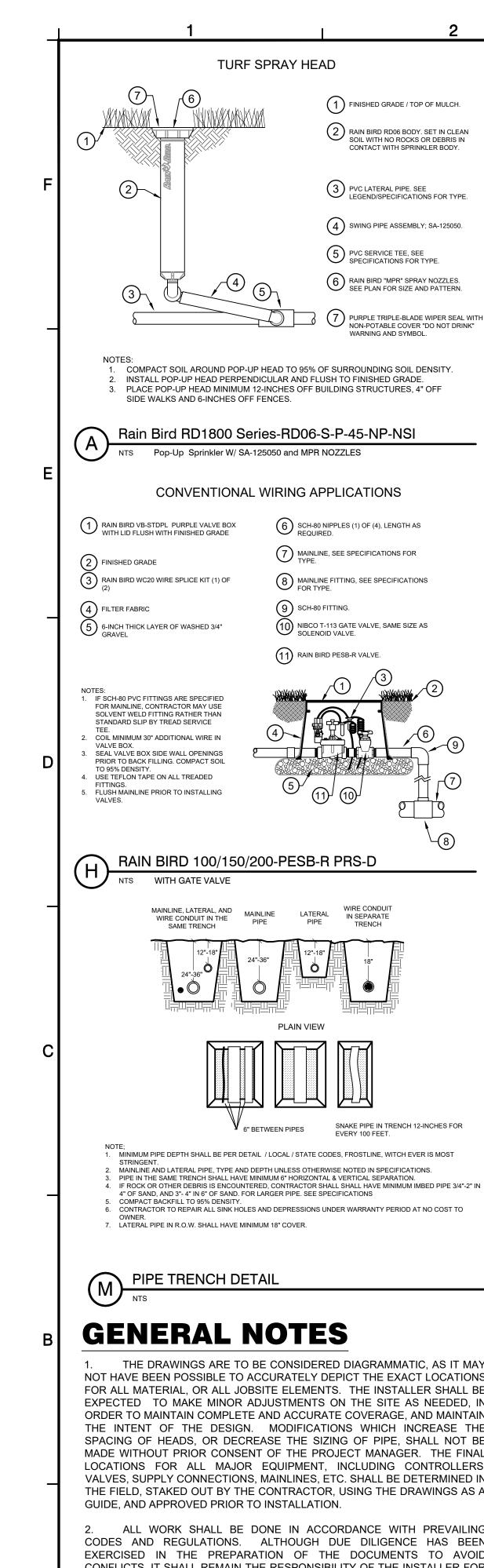
Prepared For: LINN ENGINEERIN

2023-17 TFW TFW TDC/TFW 8/2/2023

20 North

IRRIGATION PLAN

DRAWING NUMBER IR-01



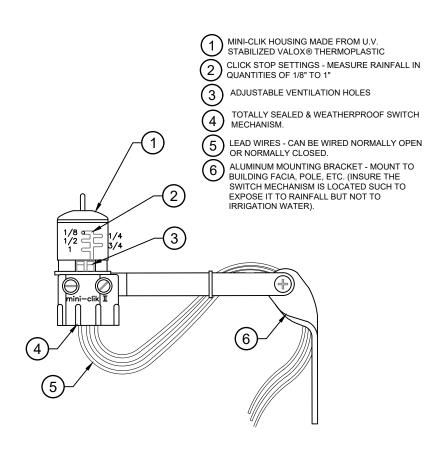
TURF SPRAY HEAD TREE SPRAY HEAD

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

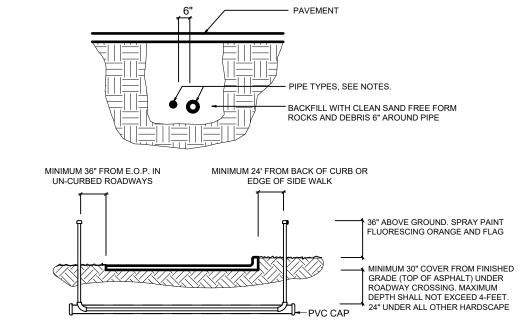
> COMPACT SOIL AROUND POP-UP HEAD TO 95% OF SURROUNDING SOIL DENSITY. INSTALL POP-UP HEAD PERPENDICULAR AND FLUSH TO FINISHED GRADE.

Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI

PLACE POP-UP HEAD MINIMUM 6-INCHES OFF TREE ROOT BALL.



MINI-CLIK II RAIN SENSOF



- . UNDER ROADWAY; ALL PVC SLEEVING SHALL BE SCH-40 PIPE FOR SIZES UP TO 4". SLEEVING 6" OR LARGER SHALL BE CL200. UNDER COUNTY AND STATE ROADWAY, ALL SLEEVES TO BE SCH-80.
- UNDER SIDEWALK AND OTHER HARDSCAPE: ALL SLEEVING TO BE SCH-40
- SLEEVING TO BE TWO PIPE SIZES LARGER THAN OF CARRYING PIPE. ONLY ONE PIPE PER SLEEVE. ALL JOINTS TO BE SOLVENT WELD. 5. WHERE THERE IS MORE THAN ONE SLEEVE IN TRENCH, EXTEND THE SMALLER SLEEVE TO 36" ABOVE FINISHED
- 6. WHEN MULTIPLE PIPES ARE LAID IN THE SAME TRENCH, MAINTAIN MINIMUM 6" SEPARATION BETWEEN PIPE BELL
- 7. MECHANICALLY TAMP TO 95% PROCTOR.

ROADWAY / HARDSCAPE SLEEVING

GENERAL NOTES

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

6 SCH-80 NIPPLES (1) OF (4), LENGTH AS REQUIRED.

(7) MAINLINE, SEE SPECIFICATIONS FOR

MAINLINE FITTING, SEE SPECIFICATIONS FOR TYPE.

NIBCO T-113 GATE VALVE, SAME SIZE AS SOLENOID VALVE.

SNAKE PIPE IN TRENCH 12-INCHES FOR

9 SCH-80 FITTING.

(11) RAIN BIRD PESB-R VALVE.

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.

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.

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

CONVENTIONAL WIRING APPLICATION

(10) MAINLINE, SEE SPECIFICATIONS

6-INCH THICK LAYER OF WASHED 3/4" GRAVEL

(11) ZONE CONTROL WIRES

(13) VALVE: PESB-R

(14) FILTER FABRIC

(1) FINISHED GRADE/ TOP OF MULCH

RAIN BIRD VB-STDPL PURPLE VALVE BOX SET FLUSH WITH FINISHED GRADE

3) 30-INCH LINEAR LENGTH OF WIRE,

(4) RAIN BIRD WC20 SPLICE KIT (1) OF

5 1-INCH BALL VALVE INCLUDED IN VALVE KIT

6 PRESSURE REGULATING QUICK

CHECK BASKET FILTER

(A) SCH-80 NIPPLES (1) OF (5)

9 MAINLINE TEE, SEE SPECIFICATIONS FOR TYPE

IF SCH-80 PVC FITTINGS ARE SPECIFIED FOR MAINLINE

NO MALE ADAPTORS ARE TO BE USED ON VALVE.

USE TEFLON TAPE ON ALL TREADED FITTINGS

FLUSH MAINLINE PRIOR TO INSTALLING VALVES.

STANDARD SLIP BY TREAD SERVICE TEE

COMPACT SOIL TO 95% DENSITY

MAXIMUM FLOW: 20 GPM

GRADE

CONTRACTOR MAY USE SOLVENT WELD FITTING RATHER THAN

3. COIL MINIMUM 30" ADDITIONAL WIRE AS SHOWN DETAIL.
4. SEAL VALVE BOX SIDE WALL OPENINGS PRIOR TO BACK FILLING.

---- ELECTRICAL PANEL -

- BLOCK WALL

RAIN BIRD XCZ-100-PRBR-COM

7 SCH-80 FITTING

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.

CONVENTIONAL WIRING APPLICATION

13) PVC SCH-40 TEE OR ELBOW

MAINLINE, SEE SPECIFICATIONS

6-INCH THICK LAYER OF WASHED 3/4" GRAVEL

IF SCH-80 PVC FITTINGS ARE SPECIFIED FOR MAINLINE. CONTRACTOR MAY USE SOLVENT WELD FITTING

METER CONNECTION

PVC MAINLINE PIPE (SIZE AND TYPE PER PLANS)

(4) POLY SERVICE LINE, SIZED AS NOTED.

 $(\ 7\)$ 3 CU. FT. GRAVEL SUMP (3/4" CRUSHED)

FINISHED GRADE

5 WATER METER

6) COMMON RED BRICK (TYP.)

DOUBLE STRAP CLAMP W/ CORP. STOP (ALL SIZES)

SEAL VALVE BOX SIDE WALL OPENINGS PRIOR TO BACK FILLING. COMPACT SOIL TO 95% DENSIT

finished grade/ TOP OF MULCH

JUMBO VALVE BOX

RAIN BIRD VBJMBPL

30-INCH LINEAR LENGTH OF WIRE, COILED

RAIN BIRD WC20 SPLICE KIT (1) OF (2)

XCZ-150-LCDR KIT

5 1 1/2" PESB-R VALVE (INCLUDED IN XCZ-150-LCDR KIT)

7 1 1/2" FILTER - RAIN BIRD LARGE CAPACITY DISC FILTER (INCLUDED

IN XCZ-150-LCDR KIT)

8 1 1/2" HIGH FLOW PRESSURE REGULATOR (INCLUDED IN

(0) PVC SCH-80 NIPPLE 1-1/2"

MAXIMUM FLOW: 60 GPM

RATHER THAN STANDARD SLIP BY TREAD SERVICE TEE.

RAIN BIRD XCZ-150-LCDR

COIL MINIMUM 30" ADDITIONAL WIRE AS SHOWN DETAIL

NO MALE ADAPTORS ARE TO BE USED ON VALVE.

USE TEFLON TAPE ON ALL TREADED FITTINGS

FLUSH MAINLINE PRIOR TO INSTALLING VALVES

11) PVC SCH-40 ELBOW

(12) FILTER FABRIC

SECURE IRRIGATION

CONDUITS TO WALL USING "C

HANNEL AND PIPE CLAMPS

MINIMUM (2) LOCATIONS.

MUST BE PLACED IN A

LOCATION WITH 6-FOOT

OBSTRUCTIONS.

3. MOUNT CONTROLLER 6-INCHES BELOW TOP OF

BLOCK WALL.

1) RAIN BIRD WR2 WIRELESS RAIN SENSOR

WALL MOUNT STRONG BOX.

RAIN BIRD ESP-LXMEF WALL MOUNT CONTROLLER

RAIN BIRD WR2 WIRELESS RAIN SENSOR RECEIVER.

(4) 120V POWER (SURGE PROTECTED) TO CONTROLLER.

2-INCH SCH-40 CONDUIT FOR ZONE CONTROL WIRES.

 $(\,7\,)$ RAIN BIRD IQEXTANTGP (ANTENNA EXTENSION)

(6) 1-INCH SCH-40 CONDUIT FOR #6 GROUND WIRE (TO GROUNDING GRID).

3) RAIN BIRD ESP-LXMEF CONTROLLER WITH IQ3G-USA CARTRIDGE HOUSED IN SB-16SSW

RAIN SENSOR LOCATED ON

WALL FOR REFERENCE ONLY

RADIUS CLEAR OF VERTICA

XCZ-150-LCDR KIT)

9 LATERAL PIPE

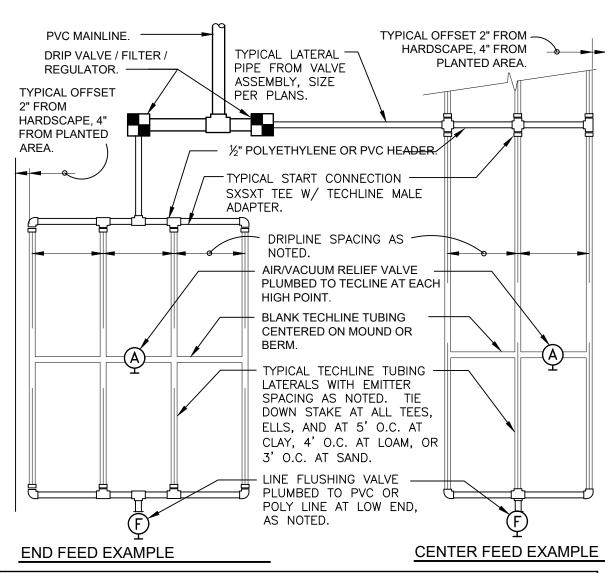
6 1 1/2" SCH 40 ADAPTER (MALE X FEMALE) INCLUDED IN

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



SLOPED CONDITION NOTES:

1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE

WHENEVER POSSIBLE 2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT.

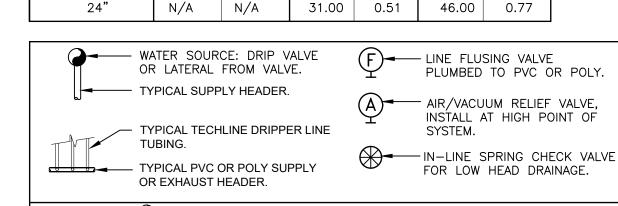
3. TECHLINE NORMAL SPACING WITHIN THE TOP 3/4 OF SLOPE 4. INSTALL TECHLINE AT NORMAL SPACING PLUS 25% AT THE BOTTOM 1/3 OF

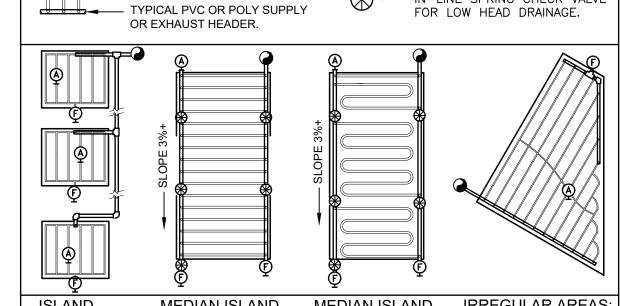
5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM 1/3 ON A

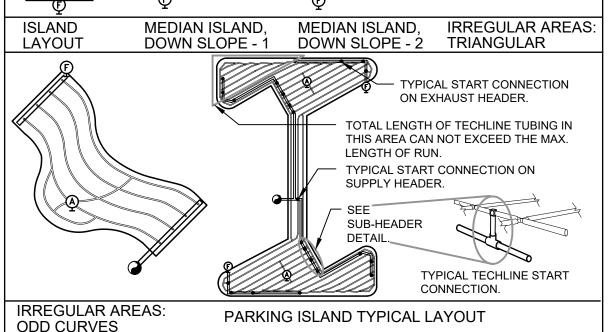
SEPARATE VALVE. TECHLINE MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

TEOTIENAE INVOLVIONI EELAOTTI OI ONAOEE EATEIAAE (I EET)										
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
	T PRESSURE)	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
	INLET (PSI)	45	520	407	311	732	574	439	725	555

TECHLINE FLOW PER 100 FEET								
DRIPPER SPACING	0.4 GPH	0.6 GF		DRIPPER	RIPPER 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		









PROJECT NO. 2023-17 TFW DESIGNED BY DRAWN BY TDC/TFW CHECKED BY 8/2/2023

COMMUNITY PLANNING

1516 E. HILLCREST STREET STE. 105

ORLANDO, FL 32803 PH: 407-256-2625

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SHALL HAVE PRECEDENCE OVER SCALE DIMENSIONS

FOR VERIFYING DIMENSIONS AND CONDITIONS OF

ACCURACY OF INFORMATION PROVIDED BY OTHERS

BE NOTIFIED IN WRITING OF ANY VARIATION FROM

APPEARING ON THESE PLANS. (c) 202

NTRACTOR SHALL VERIFY AND BE RESPONSIBLE

E JOB. TDC IS NOT RESPONSIBLE FOR THE

INCORPORATED IN THESE DRAWINGS. TDC IS TO

Prepared INN ENGINE

URBAN DESIGN

DRAWING TITLE **IRRIGATION DETAILS**

DRAWING SCALE AS SHOWN

DRAWING NUMBER

UNDER APPLICABLE LAW.

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 a new 1" potable meter (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 spare black common #14 individual color coded hot wire

#14 spare yellow 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 wells 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

Solvent Weld Pipe: 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.

Gasketed Pipe: 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√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.

After project completion:

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

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:

location tested (using IR plan symbols), date, time, test method, and testing results.

- 1. Pre-construction meeting Designer and contractor to review entire install process and schedule with owner/general contractor.
- Mainline installation inspection(s) all mainline must be inspected for proper pipe, fittings, depth of coverage, backfill. and installation method
 Mainline pressure test All mainline shall be pressure tested according to this designs
- 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 test7. 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 final acceptance.

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:

as needed.

- 1. Proper set height (top of sprinkler is 1" below mow height)
- Verify head pop-up height 6" in turf, 12" in ground cover, and pop-up on riser in shrub beds.
- 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.
- All nozzles checked for proper pattern, clogging, leaks, correct make
 model, etc. replace as needed
- Check for proper alignment perfectly vertical; coverage area is correct; minimize over spray onto hardscapes.
 Diser height reject/levered to accommodate plant growth patters
- 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
- 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.

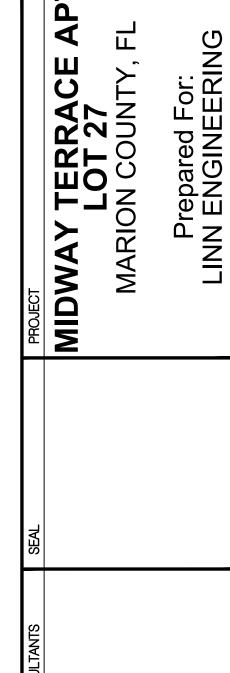
DESIGN STUDIO LANDSCAPE ARCHITECTURE COMMUNITY PLANNING

URBAN DESIGN

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IRRIGATION DETAILS

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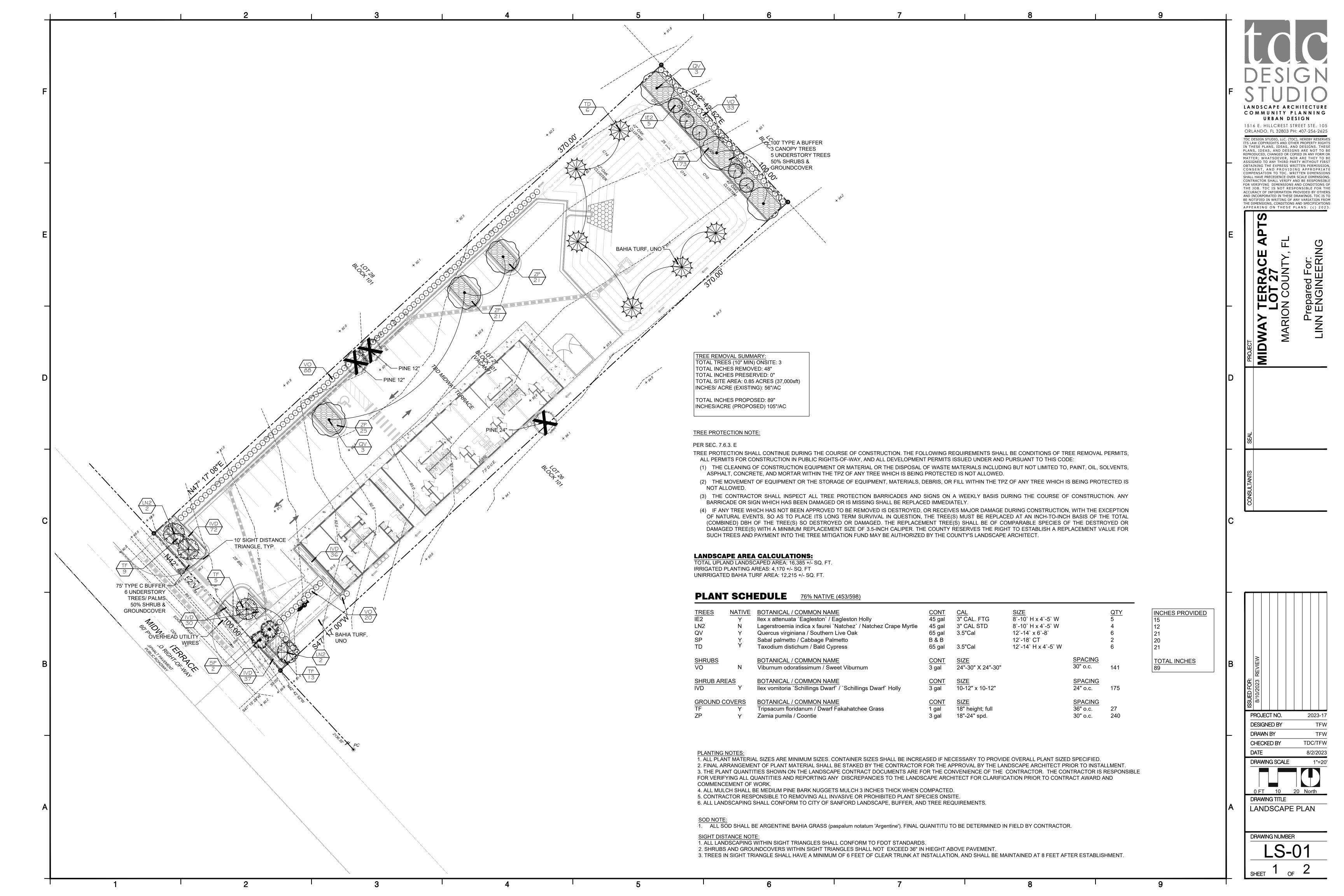
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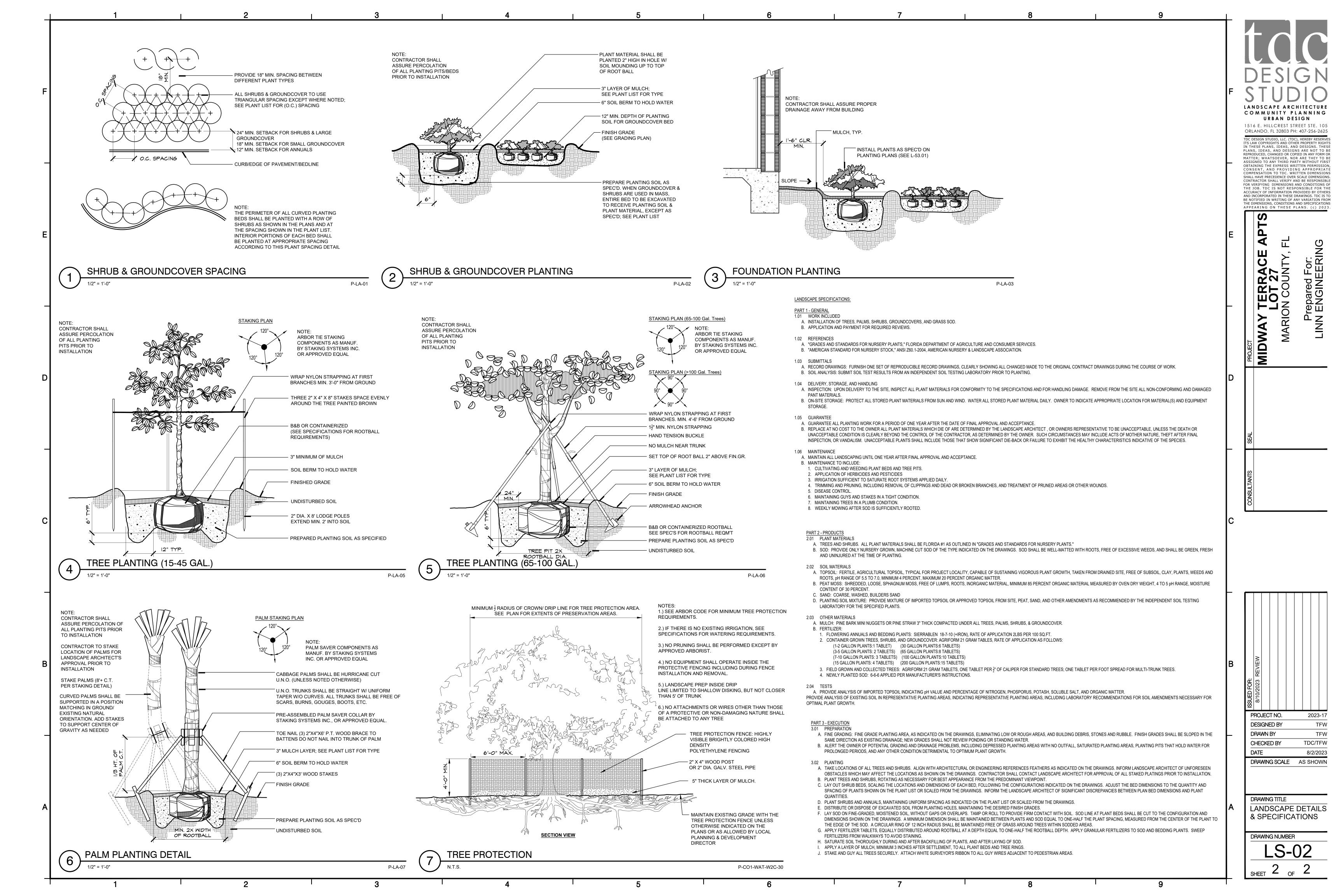
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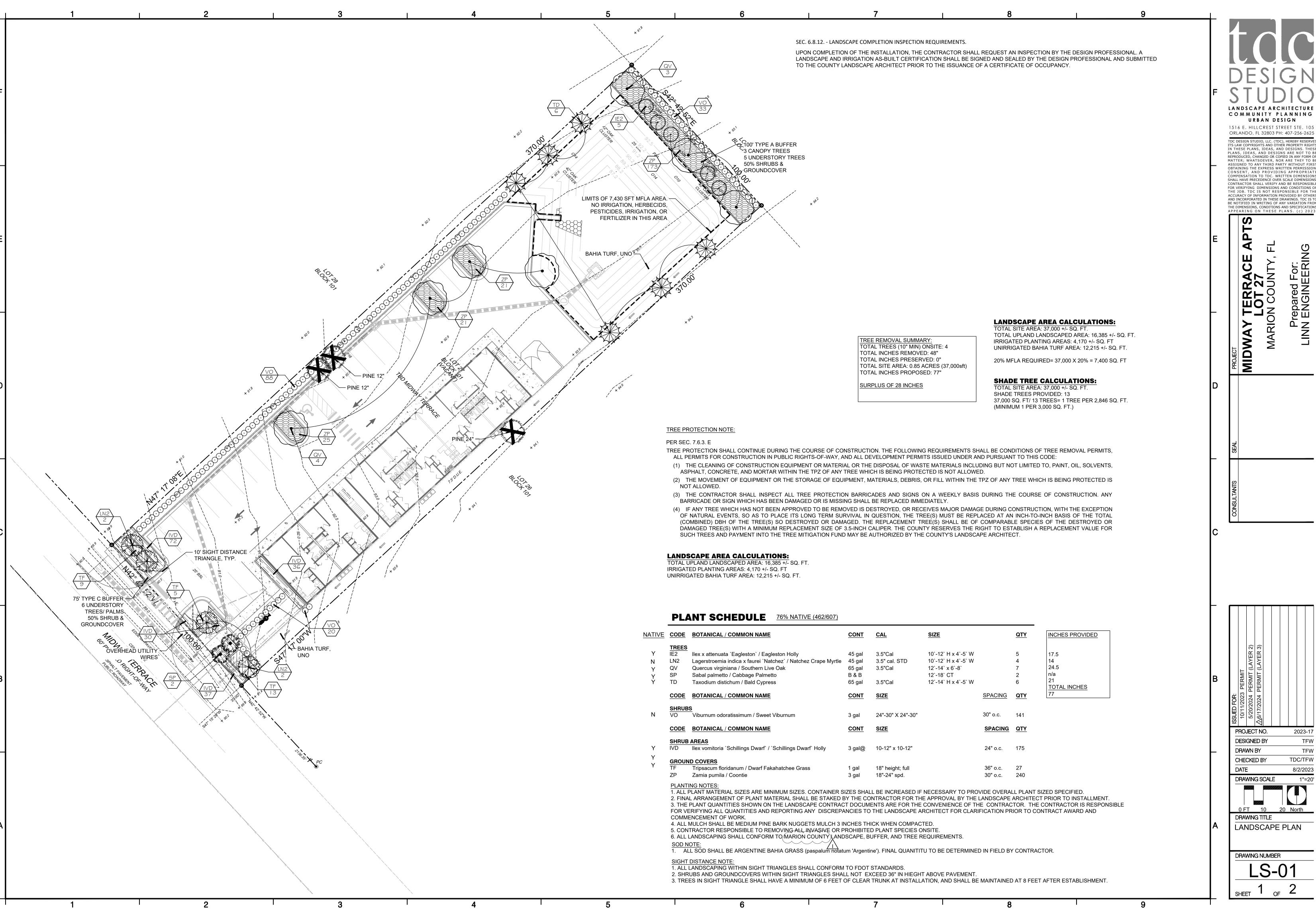
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DESIGNED BY DRAWN BY TDC/TFW CHECKED BY DATE 8/2/2023

DRAWING SCALE 0 FT 10 20 North

DRAWING TITLE LANDSCAPE PLAN

DRAWING NUMBER