



GENERAL CONSTRUCTION NOTES

- 1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL CHECK PLANS AND FIELD CONDITIONS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICT BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTIONS.
5. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE OF LATEST REVISIONS AND/OR LATEST EDITION.
6. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK, INCLUDING LANDSCAPING.
7. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE CONTRACTOR'S RESPONSIBILITY FOR PERFORMANCE OF THE ITEM.
8. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
9. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AND COMPACTED TO A FIRMNESS EQUAL TO THAT OF THE SOIL ADJACENT TO THE TRENCH AROUND PIPES IN 6" LAYERS UP TO AN UNDISTURBED LEVEL OF AT LEAST 1' ABOVE THE TOP OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 100%±% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
10. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 3,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED, SPECIFIED OR REQUIRED.
11. REINFORCING SHALL BE BILLET STEEL BARS CONFORMING TO ASTM A615 GRADE 40 OR BETTER.
12. THE CONTRACTOR/SUBCONTRACTOR SHALL PLACE A 1" DEEP CONSTRUCTION JOINT EVERY 4' IN THE SIDEWALK.
13. SIDEWALK CONSTRUCTION SHALL BE FLUSH WITH PAVEMENT WHERE THEY ARE ADJACENT OR MEET, UNLESS OTHERWISE SHOWN.
14. MATERIALS AND CONSTRUCTION METHODS FOR STREETS AND STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1994, OR LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO.
15. ALL PIPE NOTED ON THE PLANS AS RCP SHALL BE REINFORCED CONCRETE PIPE, CLASS III, WITH RUBBER GASKET JOINTS.
16. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
17. CLASS "B" TYPE I BEDDING SHALL BE USED UNLESS INDICATED OTHERWISE ON THE DRAWINGS, OR BY THE ENGINEER.
18. SOILS ENGINEER TO SUPPLY THE DESIGN ENGINEER WITH A PHOTOCOPY OF ALL COMPACTION TESTS, ASPHALT RESULTS, AND CONCRETE RESULTS. THE SOILS ENGINEER IS TO CERTIFY TO THE DESIGN ENGINEER IN WRITING THAT ALL TESTING REQUIREMENTS REQUIRED BY THE LOCAL REGULATORY AGENCY AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) FOR THE IMPROVEMENTS AS REQUIRED BY THE ENGINEERING CONSTRUCTION DRAWINGS FOR THE ON-SITE HAVE BEEN SATISFIED.
19. CONTRACTOR SHALL REVIEW SOIL REPORTS AND BORINGS PRIOR TO BIDDING THE PROJECT AND COMMENCING CONSTRUCTION.
20. IRRIGATION SYSTEM SHALL HAVE COLOR CODED PIPING AND LABELING ON THE PIPE TO ENSURE DIFFERENTIATION FROM POTABLE WATER PIPING.
21. AT LEAST 3 WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND APPROPRIATE AGENCIES AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS. THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER OR WITHOUT AGENCY INSPECTOR PRESENT MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. 23. OWNER SPECIFIC SPECIFICATIONS TO BE PROVIDED TO CONTRACTOR DURING BIDDING.

RECORD DRAWINGS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON A SET OF THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. WITHIN TWO WEEKS FOLLOWING FINAL INSPECTION THE CONTRACTOR SHALL SUBMIT ONE SET OF RECORD DRAWINGS TO THE ENGINEER OF RECORD. THE FINAL RECORD DRAWINGS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

- 1. DRAWINGS TO BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
2. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UTILITIES, AND RELATED APPURTENANCES, BOTH ABOVE AND BELOW GROUND. ALL CHANGES TO PIPING LOCATION INCLUDING HORIZONTAL & VERTICAL LOCATIONS OF UTILITIES & APPURTENANCES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL, ETC.
3. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER.
4. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE CLEARLY SHOWN.
5. LOCATIONS OF ALL MANHOLES, HYDRANTS, VALVES, & VALVE BOXES SHALL BE SHOWN.
6. THE CONTRACTOR SHALL PROVIDE CERTIFIED AS-BUILT DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE AS-BUILT DRAWINGS SHALL SHOW FINAL GRADES AND LOCATIONS OF ALL UTILITIES INCLUDING SANITARY SEWER CLEAN OUT INVERTS, WATER LINE LOCATIONS, STORM SEWER STRUCTURE LOCATIONS, GRATE ELEVATIONS, INVERTS, AND POND DETAILS (INCLUDING TOP OF BANK AND BOTTOM DIMENSIONS AND ELEVATIONS), OUTFALL STRUCTURE DETAILS ( INCLUDING GRATE, WEIR, ORIFICE AND SKIMMER DIMENSIONS AND ELEVATIONS). THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED AS-BUILT DRAWINGS TO THE ENGINEER.

STANDARD UTILITY NOTES

- 1. CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATING. MAPS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS AND DO NOT SHOW SERVICE LINES. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO TELEPHONE THE RESPECTIVE GAS COMPANY TWO WORKING DAYS BEFORE ENTERING A CONSTRUCTION AREA.
2. ALL UNDERGROUND UTILITIES MUST BE IN PLACE, TESTED AND INSPECTED AS REQUIRED PRIOR TO BASE AND SURFACE CONSTRUCTION.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION, BY CALLING FLORIDA SUNSHINE STATE ONE CALL CENTER OF FLORIDA, INC. AT 1-800-432-4770. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE" FORTY-EIGHT (48) HOURS PRIOR TO ANY CLEARING OF CONSTRUCTION TO IDENTIFY ALL UTILITY LOCATIONS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE. ALL UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING SHOULD BE CONTACTED BY THE CONTRACTOR:
1. GAS
2. TELEPHONE
3. WATER
4. POWER
5. CITY SEWER
6. CITY/COUNTY/STATE TRAFFIC SIGNAL UTILITY (FIBER, HARDWIRE TRAFFIC SIGNAL INTERCONNECT)
5. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITY OWNERS AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS OR REMOVALS WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL CHECK PLANS AND FIELD CONDITIONS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICT BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.

SAFETY NOTES

- 1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS, ORDINANCES, AND LOCAL ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF ITS PERSONNEL. LABOR SAFETY REGULATIONS SHALL BE AS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF LABOR.
2. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKERS FROM HAZARDS WITHIN THE PROJECT LIMITS.
3. ALL TRAFFIC CONTROL MARKINGS, FLAGGERS, 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.
4. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH 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.

PAVING AND GRADING NOTES

- 1. ALL DELETERIOUS MATERIAL (I.E., MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNER'S ENGINEER OR OWNER'S SOIL 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.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND SHALL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED, AND PERMITTED THROUGH LOCAL GOVERNMENTAL AGENCIES AND WATER MANAGEMENT DISTRICT PER CURRENT REGULATIONS.
3. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADE UNLESS OTHERWISE NOTED ON DRAWINGS.
4. REFER TO THE LATEST EDITION OF FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL FDOT TYPE CURBING AND GUTTERS CALLED FOR ON THESE PLANS. 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.
5. PRIOR TO CONSTRUCTION OF CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE OWNER'S ENGINEER FOR REVIEW.
6. CONTRACTOR TO PROVIDE A 1/2" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT ABUTMENT OF CONCRETE AND ANY STRUCTURE.
7. ALL PAVEMENT MARKINGS SHALL BE MADE WITH PERMANENT THERMOPLASTIC AND SHALL CONFORM TO FDOT STANDARD INDEX NO. 17346, SHEETS 1-7. PARKING STALL STRIPING TO BE 4" WIDE PAINTED STRIPES. ON-SITE STRIPE COLOR SHALL BE WHITE EXCEPT AS SHOWN ON THE ENGINEERING PLANS. PARKING STALL STRIPING SHALL BE COMPATIBLE WITH THE PAVEMENT TYPE (IE CONCRETE, ASPHALT) AND SPECIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
8. CONTRACTOR SHALL TRIM, TACK, AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
9. CONTRACTOR SHALL INSTALL STORM PIPING AND CULVERTS IN ACCORDANCE WITH FDOT INDEX 205 AND PLACE EXTRA BASE MATERIAL WHEN THE DISTANCE BETWEEN THE PAVEMENT ELEVATION AND THE TOP OF THE PIPE OR BELL IS LESS THAN TWELVE (12) INCHES.
10. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT TO THE TESTING SCHEDULE REQUIRED BY APPLICABLE REGULATORY AGENCIES AND AS MAY BE FOUND IN THE ENGINEERING CONSTRUCTION DRAWINGS. CONTRACTOR TO VERIFY ALL TESTING WITH THE OWNER PRIOR TO COMMENCING CONSTRUCTION. UPON COMPLETION OF THE WORK, THE SOILS ENGINEER MUST SUBMIT TO THE OWNER'S ENGINEER CERTIFICATIONS STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

DRAINAGE SYSTEM NOTES

- 1. STANDARD INDEXES REFER TO THE LATEST EDITION OF FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS".
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 FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS UNLESS OTHERWISE NOTED ON PLANS.
3. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO THE CENTER OF DRAINAGE STRUCTURES WITH THE EXCEPTION OF MITERED END AND FLARED END SECTIONS WHICH ARE INCLUDED IN LENGTHS.
4. ALL DRAINAGE STRUCTURE GRATES AND COVERS WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR H-20 LOADINGS.
5. CONTRACTOR TO SOD THE DETENTION POND AS INDICATED ON PLANS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE POND.
6. THE STORM DRAINAGE PIPING AND FILTRATION SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. THE CONTRACTOR SHALL COORDINATE A FINAL INSPECTION OF THE COMPLETED STORMWATER MANAGEMENT SYSTEM PRIOR TO FINAL ACCEPTANCE BY THE OWNER. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE.

WATER SYSTEM NOTES

- 1. A VERTICAL CLEARANCE OF 18 INCHES SHALL BE MAINTAINED BETWEEN SANITARY SEWERS AND WATER MAINS. IF CLEARANCE CANNOT BE ACHIEVED BY ADJUSTING WATER MAINS THE SANITARY SEWER SHALL BE CONSTRUCTED PER SANITARY NOTE No. 1 BELOW.
2. A HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER.
3. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
4. ALL WATER SYSTEM WORK SHALL CONFORM WITH LOCAL REGULATORY STANDARDS AND SPECIFICATIONS.
5. CONFLICTS BETWEEN WATER AND STORM OR SANITARY SEWER TO BE RESOLVED BY ADJUSTING THE WATER LINES AS NECESSARY.
6. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C150) AND ANSI A 21.51 (AWWA C151) AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8 OR A 21.51 AND SHALL BE MORTAR LINED, STANDARD THICKNESS, AND BITUMINOUS SEALED IN ACCORDANCE WITH ANSI A (AWWA C 104-71).
7. ALL FITTINGS LARGER THAN 2" SHALL BE DUCTILE IRON CLASS 53 IN ACCORDANCE WITH AWWA C-110 WITH A PRESSURE RATING OF 350 PSL. JOINTS SHALL BE MECHANICAL JOINTS IN ACCORDANCE WITH AWWA C-111. FITTINGS SHALL BE CEMENT MORTAR LINED AND COATED IN ACCORDANCE WITH AWWA C-104.
8. CONTRACTOR TO INSTALL TEMPORARY BLOW-OFFS AT THE END OF WATER SERVICE LATERALS TO ASSURE ADEQUATE FLUSHING AND DISINFECTION.
9. THRUST BLOCKING AND/OR RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS IN ACCORDANCE WITH AWWA STANDARDS.
10. ALL PVC WATER MAINS 4" THROUGH 12" SHALL BE IN ACCORDANCE WITH AWWA C-900. PIPE SHALL BE CLASS 150 AND MEET THE REQUIREMENTS OF SDR 18 IN ACCORDANCE WITH ASTM D-2241.
11. ALL FITTINGS 2" AND SMALLER SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED SLEEVE TYPE JOINTS.
12. ALL WATER MAINS AND WATER SERVICES TO BE INSTALLED UNDER ROAD UNDERDRAIN SHALL MAINTAIN 18" SEPARATION.
13. MATERIALS AND CONSTRUCTION METHODS FOR WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL POTABLE WATER SERVICE MAIN EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE LOCAL REGULATORY AGENCY DEPARTMENT OF PUBLIC UTILITIES.
14. 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 WATER DEPARTMENT AND AWWA SPECIFICATIONS. CONTRACTOR TO NOTIFY OWNER'S ENGINEER AND WATER DEPARTMENT INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
15. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING REQUIRED TO OBTAIN CLEARANCE OF DOMESTIC WATER SYSTEM THROUGH LOCAL REGULATORY AGENCIES. COPIES OF ALL BACTERIOLOGICAL TESTS TO BE SUBMITTED TO OWNER'S ENGINEER.

SANITARY SEWER NOTES

- 1. PER FAC 62-604.400 (2)(G) "SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE & THE CROWN OF THE LOWER PIPE, WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS & WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. ALTERNATIVELY, THE SEWER MAIN MAY BE ENCASED IN A SLEEVE OR ENCASED IN CONCRETE TO OBTAIN THE EQUIVALENT OF THE REQUIRED 10 FEET SEPARATION."
2. A HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER.
3. ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE, SDR 35.
4. ALL SANITARY SEWER WORK SHALL CONFORM WITH LOCAL REGULATORY STANDARDS AND SPECIFICATIONS.
5. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW WORK TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING CONNECTION POINT AND NOTIFY OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES
6. PVC PIPE AND FITTINGS SHALL CONFORM WITH A.S.T.M. SPECIFICATIONS DESIGNATION D-3034-77C, MA SDR 35. INSTALLATION OF SDR PIPE SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF A.S.T.M. SPECIFICATION DESIGNATION D2321. ALL SANITARY SEWER PIPELINES SHALL BE SOLID GREEN IN COLOR.
7. ALL PVC FORCE MAINS WITHIN PUBLIC R/W SHALL BE CLASS 200, SDR 21, WITH MECHANICAL JOINTS, AND HAVE A GREEN MAGNETIC TAPE A MINIMUM OF 3" WIDE, PLACED 24" BELOW THE PROPOSED GRADE. THE PRINT ON THE MAGNETIC TAPE SHOULD READ "FORCE MAIN".
8. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C150) AND ANSI 21.51 (AWWA C 151); I.C. PIPE SHALL RECEIVE INTERIOR AND EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8, OR A 21.51.
9. ALL SANITARY SEWER GRAVITY MAINS OR SANITARY SEWER FORCE MAINS THAT REQUIRE D.I.P. ARE TO BE POLYETHYLENE OR EPOXY LINED.
10. ALL SANITARY SEWER COVERS SHALL BE TRAFFIC RATED FOR H-20 LOADING.
11. SANITARY SEWERS SHALL HAVE A MINIMUM COVER OF THREE (3) FEET AND SHALL BE INSTALLED ACCOMPANIED BY A METAL TAPE SIMILAR TO "TERRATAPE" COLORED GREEN AND LAID ONE FOOT ABOVE THE PIPE.
12. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
13. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
14. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL COORDINATION AND NOTIFICATION OF ALL PARTIES IS CONTRACTOR'S RESPONSIBILITY.

GEOTECHNICAL NOTE:

CONTRACTOR TO REVIEW AND FOLLOW CONSTRUCTION TECHNIQUES OUTLINED IN THE SITE GEOTECHNICAL REPORT.

CLEARING AND EROSION CONTROL NOTES

- 1. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY'S TREE ORDINANCE AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREES SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER. ONLY "GRADING BY HAND" IS PERMITTED WITHIN THE CANOPY LINE OF TREES THAT ARE TO REMAIN.
2. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING ACTUAL CONSTRUCTION IN ACCORDANCE WITH THE SOILS TESTING REPORT. COPIES OF THE SOILS REPORT ARE AVAILABLE THROUGH THE OWNER OR THE SOILS TESTING COMPANY. QUESTIONS REGARDING SITE PREPARATION REQUIREMENTS DESCRIBED IN THE SOILS REPORT ARE TO BE DIRECTED TO THE SOILS TESTING COMPANY.
3. CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING SHALL BE STOCKPILED AT A SITE DESIGNATED BY THE OWNER TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. HAY BALES SHALL BE PLACED ALONG THE STOCKPILE PERIMETER FOR EROSION CONTROL.
5. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
6. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS FOR REMOVING ANY EXISTING STRUCTURES.
7. CONTRACTOR TO OBTAIN SITE CLEARING & TREE REMOVAL PERMIT PRIOR TO INSTALLATION OF ANY UNDERGROUND UTILITIES AND CLEARING THE SITE.
8. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
9. ALL DISTURBED AREAS WHICH ARE NOT TO BE SODDED ARE TO BE SEEDED AND MULCHED TO FDOT STANDARDS AND MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS ACCEPTABLE TO THE REGULATORY AGENCY AND ENGINEER HAVE BEEN OBTAINED. ANY WASHOUTS, REGRAIDDING, RESEEDING, AND GRASSING WORK, AND OTHER EROSION WORK REQUIRED, WILL BE PERFORMED BY THE CONTRACTOR UNTIL THE SYSTEM IS ACCEPTED FOR MAINTENANCE BY THE REGULATORY AGENCY AND ENGINEER.
10. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (STRAW BALE OR STAKED SILT FENCE) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, WATERWAYS, AND EXISTING WETLANDS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH, OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE 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 RECOVER SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
11. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION, OR OTHER ACCEPTABLE METHODS.
12. THERE SHALL BE NO DISCHARGE (I.E. PUMPING, SHEET FLOW, SWALE, DITCH, ETC.) INTO EXISTING LAKE SYSTEM, WETLAND, OR RIVER, WITHOUT THE USE OF SETTLING PONDS. IF THE CONTRACTOR DESIRES TO DISCHARGE INTO THE EXISTING LAKE SYSTEM OR RIVER, A SETTLING POND PLAN MUST BE SUBMITTED AND APPROVED BY THE ENGINEER AND LOCAL REGULATORY AGENCY PRIOR TO CONSTRUCTION.



FOR THE LOCATION OF UNDERGROUND FACILITIES
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

HOWARD CIVIL ENGINEERING, LLC
Land Development Civil Engineers
111 2nd Ave NE St. Petersburg, FL. 33549
Phone: 813.962.6565

THOMAS D. HOWARD, P.E., FL. #18084
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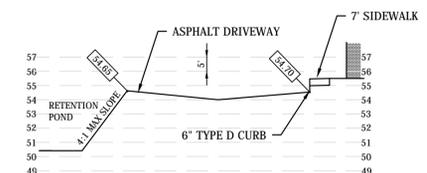
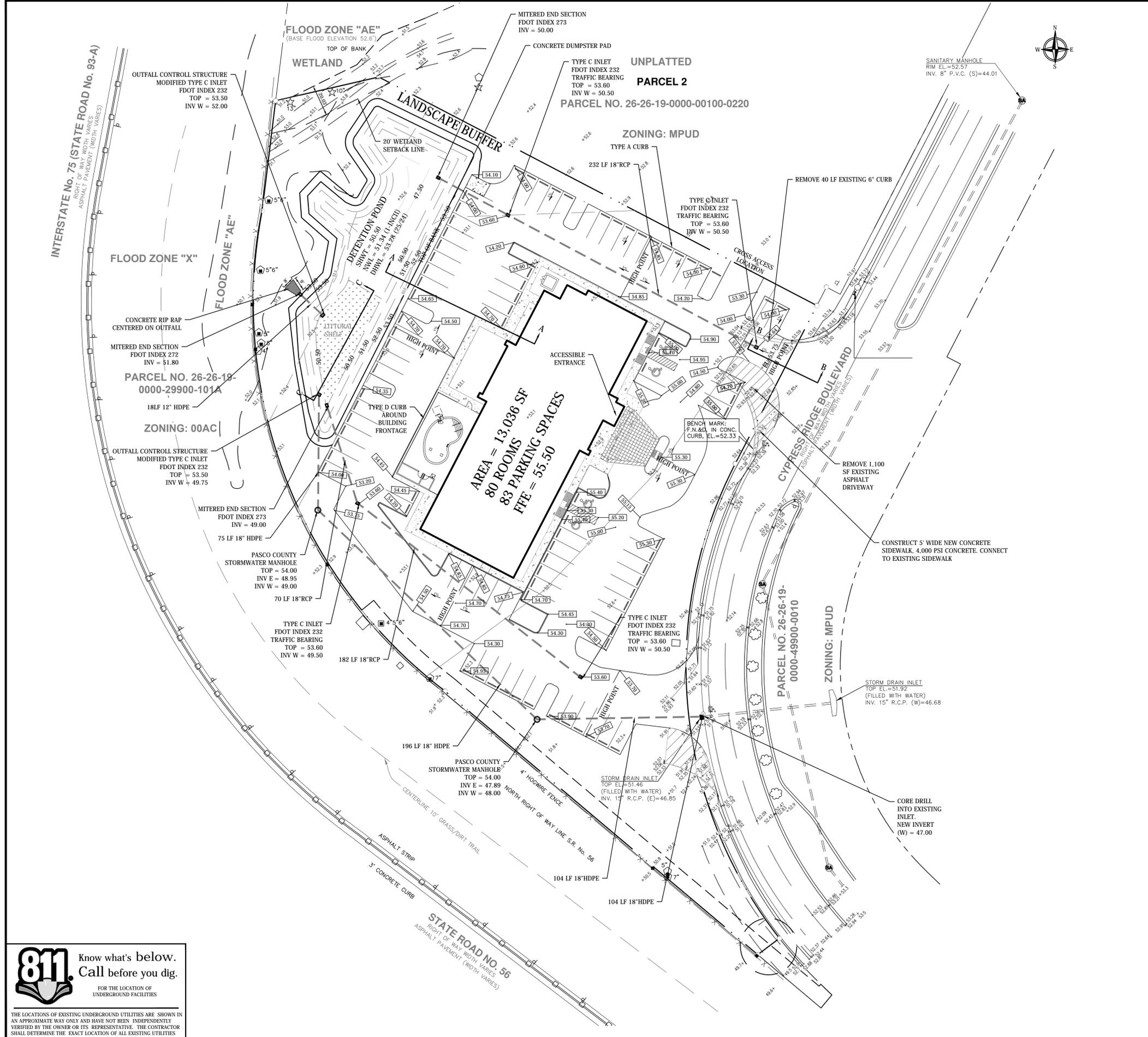
Table with 2 columns: REVISIONS, and empty rows for revision notes.

GENERAL NOTES
PARCEL 1 CYPRESS CREEK NORTH
CYPRESS CREEK AND STATE ROAD 56
WESLEY CHAPEL, PASCO COUNTY, Florida

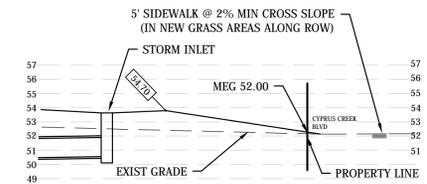
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CHECKED BY:
PROJ. MAN.:
JOB NO.
DATE:
CAD FILE
SHEET NO. C-3



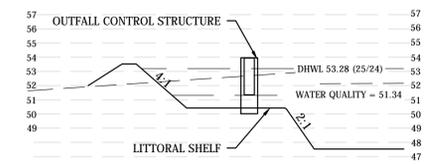




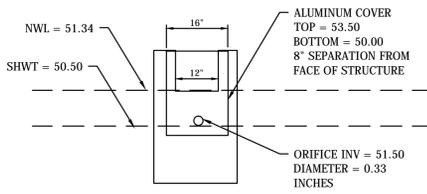
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VERTICAL SCALE = 6



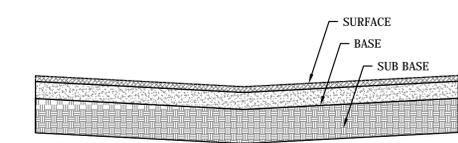
SECTION B-B  
HORIZONTAL SCALE = 30  
VERTICAL SCALE = 6



SECTION C-C  
HORIZONTAL SCALE = 30  
VERTICAL SCALE = 6



OUTFALL CONTROL STRUCTURE  
MODIFIED FDOT INDEX 232  
(TYPE C BOX)  
TOP = 53.50  
12\"/>



TYPICAL ROADWAY SECTION  
(FROM GEOTECH REPORT)

**Table 1 Pavement Design Summary**

Component	Asphalt			Concrete Heavy
	Standard	Heavy	Concrete Heavy	
Stabilized Subgrade LBR 40	8 inches	12 inches	12 inches	
Base Material Limerock LBR 100 (stone, sand/shell, etc.)	6 inches	9 inches	--	
Asphalt Base Course	(not required)			
Leveling Binder Course	--	--	--	
Surface Course	1½ inches	3 inches	8 inches	

**Note:** This information shall not be used separately from the geotechnical report and should be reviewed by Geo-Tech when traffic loading conditions are established.



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**HOWARD CIVIL ENGINEERING, LLC**  
Land Development Civil Engineers  
111 2nd Ave NE, Ste 900, St. Petersburg, FL 33701  
Phone: 813.962.6565 Fax: 813.962.7575

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REVISIONS

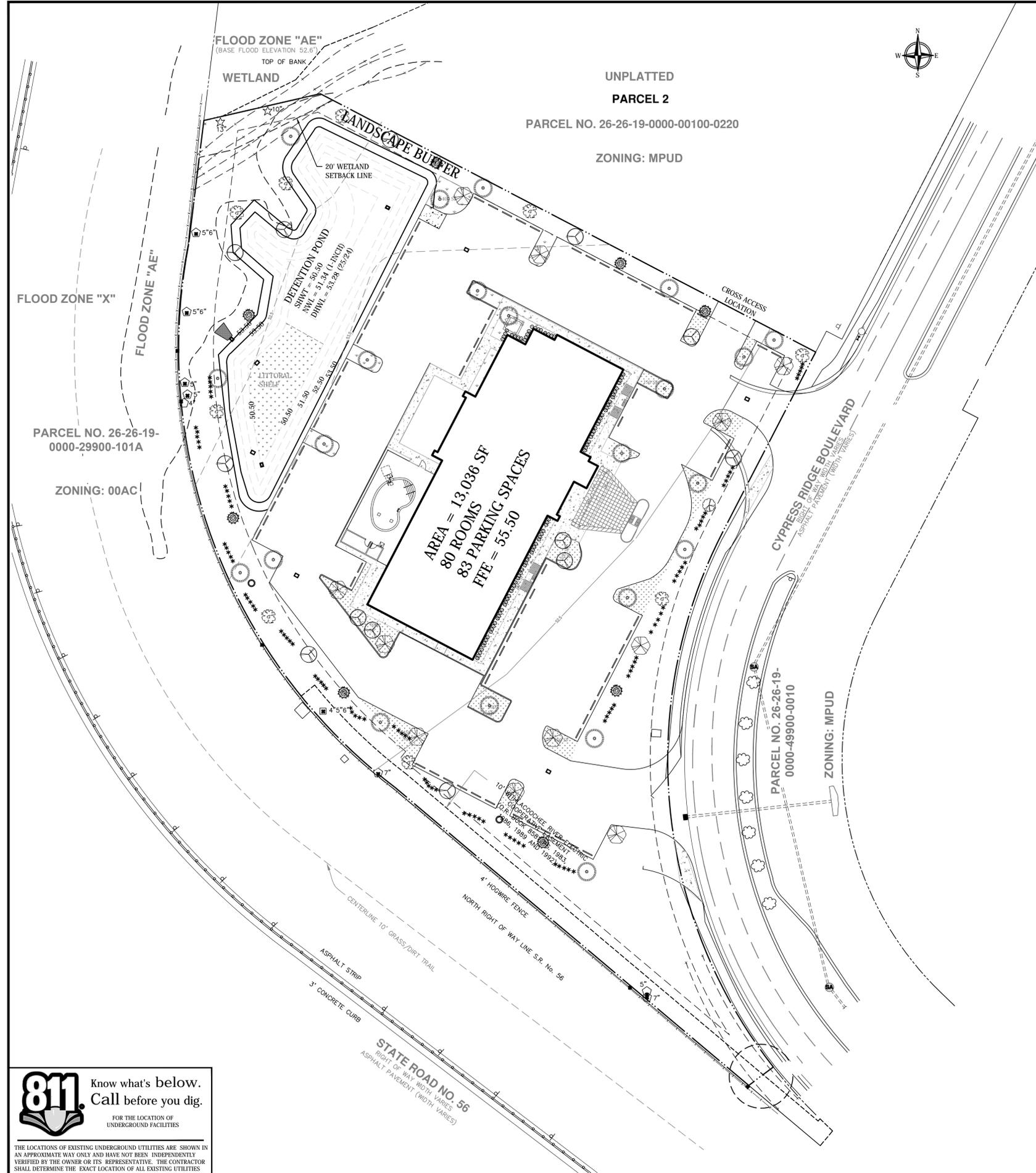
NO.	DESCRIPTION

**PAVING GRADISTIA DRAINAGE PLAN**  
PARCEL 1 CYPRESS CREEK NORTH  
CYPRESS CREEK AND STATE ROAD 56  
WESLEY CHAPEL, PASCO COUNTY, Florida

SCALE 0 30  
30 SCALE

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CHECKED BY:  
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JOB NO.:  
DATE:  
CAD FILE:  
SHEET NO. C-4





**EXISTING TREES (NONE TO BE REMOVED)**

- SWEETGUM 5" 6" 5" 6" 5" 5" 4" 7" 5" 7"
- MAPLE 4" 5" 6"
- PALM 10" 13"

**LANDSCAPE PLANT SCHEDULE:**

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SPACING/SIZE/SPEC.
	QV 2	Quercus virginiana	LIVE OAK	A.S., 10' MIN HT, 2" DBH
	IV 2	Ilex vomitoria	FLORIDA ELM	A.S., 8' MIN HT, 1.5" DBH
	IV 9	Ilex vomitoria	FLORIDA ELM	A.S., 8' MIN HT, 1.5" DBH
	TD 4	Taxodium distichum	BUTTON BUSH	A.S., 10' MIN HT, 2" DBH
	LI 10	Lagerstroemia indica	RED BUCKEYE	A.S., 8' MIN HT, 1.5" DBH
	* MF 95	Myrcianthes fragans	SIMPSON'S STOPPER	2.5' O.C. A.S., 24" HT, 18" SPRD, WELL SHAPED, WITH DENSE COMPACT FORM, HEAVY FOLIAGE
	RI 87	Rhaphiolepis	INDIA	1' O.C. A.S., 1 GAL.

VUA = 41,100 SF  
 4,110 SF FOR INTERIOR LANDSCAPING REQUIRED  
 4,213 SF PROVIDED  
 1/200\*4,110 SF = 21 SHADE TREES REQUIRED

GROUND COVER



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REVISIONS


**LANDSCAPE PLAN**  
**PARCEL 1 CYPRESS CREEK NORTH**  
 CYPRESS CREEK AND STATE ROAD 56  
 WESLEY CHAPEL, PASCO COUNTY, Florida

SCALE 0 30  
 30 SCALE

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 SHEET NO.  
**C-6**



