# GENERAL NOTES

GENERAL NOTES ON THE PROJECT PLANS AND DRAWINGS ARE SOLELY TO AID AND ASSIST THE CONTRACTOR WITH THE FIELD OPERATIONS FOR THE PROJECT. SAID GENERAL NOTES MAY NOT FULLY DESCRIBE ALL OF THE REQUIREMENTS FOR AN ITEM. THEREFORE, THE CONTRACTOR SHALL READ AND VERIFY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE PLANS, SPECIFICATIONS, GENERAL TERMS AND CONDITIONS, AND THE SUPPLEMENTAL TERMS AND CONDITIONS, TO FULLY UNDERSTAND AND COMPLY WITH ALL THE REQUIREMENTS THEREIN. THE LOCATION AND SIZE OF ALL EXISTING UTILITIES AND TOPOGRAPHY HAVE BEEN PREPARED FROM INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ANY EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY

ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES.

PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE

CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

1. <u>APPLICABLE CODES</u> 1.1. GENERAL

ALL CONSTRUCTION, MATERIALS AND TESTING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF CITY OF DELRAY BEACH, PALM BEACH COUNTY AND ALL OTHER LOCAL AND NATIONAL CODES WHERE APPLICABLE. WHEN ANY OF THE GOVERNING REGULATORY AGENCY'S STANDARDS ARE IN CONFLICT, THE MORE STRINGENT OF THE TWO SHALL APPLY. CONSTRUCTION SAFFTY

ALL CONSTRUCTION SHALL BE DONE IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

TRENCH SAFETY ACT CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE OF FLORIDA TRENCH SAFETY ACT. SURVEY DATA

ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS UNLESS OTHERWISE

THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL AT 811 CERTIFICATION

NOTED, ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88').

NUMBER AT LEAST 48 HOURS PRIOR TO REGINNING ANY EXCAVATION PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR

WHICH HE FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. HE IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED. CONTRACTOR SHALL OBTAIN AND KEEP COPIES OF ALL REQUIRED PERMITS ONSITE PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR WORK PERFORMED WITHOUT PERMITS.

INSPECTIONS
3.1. THE CONTRACTOR SHALL NOTIFY CITY OF DELRAY BEACH, THE ENGINEER OF RECORD AND PALM BEACH COUNTY, IF APPLICABLE, AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS: 3.1.1. STORM DRAINAGE

SANITARY SEWER WATER SYSTEM

SUBGRADE - SUBMIT AND HAVE APPROVED DENSITIES PRIOR TO PLACEMENT OF ROCK LIMEROCK BASE - SUBMIT AND HAVE APPROVED DENSITIES AND AS-BUILTS PRIOR TO THE PLACEMENT OF ANY ASPHALT. ASPHALTIC CONCRETE FINAL INSPECTION

3.2. ALL INSPECTIONS SHALL BE MADE BY CITY OF DELRAY BEACH. THE ENGINEER OF RECORD WILL PROVIDE GENERAL CONSTRUCTION OBSERVATION SERVICES.

PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO

AND REVIEWED BY CITY OF DELRAY BEACH AND ENGINEER OF RECORD FOR SANITARY MANHOLES, CATCH BASINS, FIRE HYDRANTS, VALVES AND OTHER MECHANICAL/ELECTRICAL EQUIPMENT WITH ASSOCIATED STRUCTURES, INCLUDING ALL DATA. CATALOGUE LITERATURE SHALL BE SUBMITTED FOR WATER AND SEWER PIPES, FITTINGS, AND APPURTENANCES. PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE THE DRAWINGS, AND SHALL NOTE IN RED ANY DEVIATIONS FROM THE ENGINEERS' PLANS OR SPECIFICATIONS.

4.3. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION. TRAFFIC REGULATION

MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND

PEDESTRIAN TRAFFIC. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE ENGINEER, CITY OF DELRAY BEACH AND LOCAL OR PALM BEACH COUNTY AUTHORITY. ALL CONSTRUCTION WITHIN FDOT RIGHT-OF-WAYS MUST CONFORM WITH FDOT

SPECIFICATIONS, STANDARDS AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT RIGHT—OF—WAYS WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH STANDARDS FOR PROPOSED WORK WITHIN FDOT RIGHT-OF-WAYS.

CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S ARE TO BE ATSSA CERTIFIED.

6.1. CLEANING OUT

6.1.1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL E SWEPT BROOM CLEAN AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER OR CITY OF DELRAY BEACH, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF HIS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL DO AS REQUIRED ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK, IRRIGATION AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.

WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED, SATISFACTORILY DISPOSED OF DURING PROGRESS OF WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL DISPOSE OF ALL SITE DEMOLITION IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

PROJECT RECORD DOCUMENTS 6.2.1. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS PRIOR TO THE PLACEMENT OF ANY ASPHALT OR CONCRETE PAVEMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER "AS-BUILT" PLANS SHOWING LIMEROCK BASE GRADES, AND ALL DRAINAGE, WATER AND SEWER IMPROVEMENTS. PAVING OPERATIONS SHALL NOT COMMENCE UNTIL THE ENGINEER AND THE APPROVING AGENCY HAS REVIEWED THE

ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO THE ENGINEER AND CITY OF DELRAY BEACH PRIOR TO PLACING LIMEROCK BASE

ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR LIMEROCK SHALL BE PROVIDED TO THE ENGINEER AND CITY OF DELRAY BEACH PRIOR TO PLACING ASPHALT. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO THE SATISFACTION OF THE ENGINEER THAT THE

INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED LAKE AS-BUILTS WILL BE CROSS SECTIONED SHOWING THE DESIGNED SECTION AS DASHED, AS-BUILT SECTION AS SOLID, AND HAVE THE TOP OF BANK REFERENCE TO THE LAKE MAINTENANCE EASEMENT. SPACING BETWEEN EACH CROSS-SECTION SHALL BE SUCH AS TO PROVIDE ENOUGH DATA TO DETERMINE IF THE LAKE WAS CONSTRUCTED AS

UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD TWO COMPLETE SETS OF "AS-BUILT" CONSTRUCTION DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "RECORD DRAWING" OR "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL MPROVEMENTS AND SHALL BE SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR OR ENGINEER. FINAL AS-BUILT INFORMATION SHALL BE SUBMITTED ON AN AUTOCAD & PDF FORMAT AS DIRECTED BY THE ENGINEER.

DEWATERING PERMIT IS NOT AVAILABLE FOR THE SITE DEVELOPMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A DEWATERING PERMIT.

UNSUITABLE MATERIAL REMOVAL AND DISPOSAL

8.1. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION/INVESTIGATION OF SUBSURFACE CONDITIONS. ALL UNSUITABLE MATERIAL SURFACE AND SUBSURFACE WITHIN AREAS OF CONSTRUCTION IS TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. UNSUITABLE MATERIAL INCLUDES BUT IS NOT LIMITED TO: DEBRIS, ORGANICS/MUCK , AND PLASTIC MATERIAL. ALL UNSUITABLE MATERIAL REMOVED SHALL BE REPLACED WITH SUITABLE MATERIAL.

GEOTECHNICAL REQUIREMENTS 9.1. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION/INVESTIGATION OF SUBSURFACE

10.1. PROPER SAFETY PRECAUTIONS SHALL BE TAKEN TO SEPARATE AREA OF DEMOLITION FROM 10.2. ALL ASPHALT AND CURB SHALL BE SAWCUT AT THE LIMITS OF DEMOLITION PRIOR TO

10.3. ALL DEMOLITION TO BE PERFORMED IN A MANNER TO ELIMINATE HAZARDS TO PERSONS AND PROPERTY, MINIMIZE INTERFERENCE WITH USE OF ADJACENT AREAS, PROVIDE TO PROVIDE FREE PASSAGE TO AND FROM ADJACENT AREAS OR STRUCTURES.

10.5. DEBRIS RESULTING FROM DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR

IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL PERMITS, RULES AND/OR

10.6. HAZARDOUS MATERIALS, IF PRESENT, SHALL BE DEALT WITH IN A MANNER CONSISTENT WITH

10.8. CONTRACTOR TO PROVIDE PROPER SEDIMENT CONTROL AND PROTECTION OF STORM WATER

STRUCTURES, BOTH WITHIN AND OUTSIDE THE LIMITS OF DEMOLITION AND P/L, TO PREVENT

DEPOSIT OF SEDIMENTS CONVEYED THROUGH RUNOFF. CONTRACTOR TO CLEAN AND REMOVE

RESPONSIBLE FOR IDENTIFYING ALL UTILITIES SHOWN OR NOT SHOWN PRIOR TO DEMOLITION.

CONTRACTOR SHALL HAVE ALL UTILITIES PROPERLY LOCATED PRIOR TO COMMENCEMENT OF

ENGINEERING SOILS REPORT AND ADHERE TO THE CONDITIONS AND RECOMMENDATIONS

SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO

SHALL BE REMOVED TO A DEPTH OF THREE (3) FEET BELOW FINISHED GRADE AND FOR

THREE (3) FEET BEYOND THE PERIMETER OF THE PAVING AND DISPOSED OF BY

11.4.2. SUITABLE BACKFILL SHALL BE MINIMUM LBR 40 MATERIAL COMPACTED TO 98% OF THE

MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 THREE (3) FEET BEYOND

11.4.3. ALL UNSUITABLE MATERIAL UNDER EXFILTRATION TRENCH LOCATIONS SHALL BE REMOVED

12.1. CONTRACTOR MAY UTILIZE ONE OF THE FOLLOWING MATERIALS (AS DIRECTED AND APPROVED

12.1.1.1. PIPE SHALL BE ALUMINUM, MANUFACTURED IN CONFORMANCE WITH ASTM B-209.

METAL PIPE SHALL NOT BE ALLOWED WITHIN THE ROAD RIGHT-OF-WAY.

ALLOY AS THE PIPE AND MAY BE ONE GAUGE LIGHTER THAN THE PIPE.

12.1.2.1. REQUIREMENTS OF SECTION 449 OF THE FDOT STANDARD SPECIFICATIONS. ALL

942-1 OF FDOT STANDARD SPECIFICATIONS AND ASTM C443-98.

ALL JOINTS IN CONCRETE STRUCTURES SHALL BE FINISHED WATERTIGHT

12.1.3.1. HIGH DENSITY POLYETHYLENE PIPE FOR STORM SEWERS SHALL CONFORM TO FDOT

12.1.4.1. POLYVINYL-CHLORIDE PIPE FOR STORM SEWERS SHALL CONFORM TO FDOT 948-1.

12.2. CONCRETE PIPE FOR STORM DRAINAGE SYSTEMS SHALL CONFORM TO THE REQUIREMENTS OF

12.4. BACKFILL MATERIAL UNDER PAVED AREAS SHALL BE COMPACTED TO 98% OF THE MAXIMUM

THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 (INCLUDES SWALE AREAS).

AND AT LOCATIONS AS DIRECTED BY THE ENGINEER UNTIL FINAL ACCEPTANCE OCCURS.

13.2. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL COME INTO

PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE

SHALL HAVE A C-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE

WITH BLUE STRIPES INCORPORATED INTO OR APPLIED TO THE PIPEWALL: AND UNDERGROUND

METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES AND APPLIED TO THE PIPEWALL. PIPE

STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN

PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE

INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING PIPE AND

24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG

EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE

SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LIKE UNDERGROUND

PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605,

RESPECTIVELY, AS INCORPORATED INTO RULE 62-555.330, F.A.C. AND ALL OTHER NEW OR

ALTERED WATER MAINS SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH

REQUIRED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT

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

INFILTRATION DOES NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER

PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET; AND 3) AIR TESTS, AS A MINIMUM,

CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C924 FOR CONCRETE PIPE, ASTM

F-1417 FOR PLASTIC PIPE, AND FOR OTHER MATERIALS APPROPRIATE TEST PROCEDURES.

SPECIFICATION. INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED, AND 3)

STABILIZATION OF THE SOIL PIPE SYSTEM. TESTING REQUIREMENTS SPECIFY: 1) NO PIPE

SHALL EXCEED A DEFLECTION OF 5% 2) USING A RIGID BALL OR MANDREL FOR THE

DAY FOR ANY SECTION OF THE SYSTEM; 2) EXFILTRATION OR INFILTRATION TEST BE

14.3. DESIGN REQUIRES THAT A BENCH BE PROVIDED ON EACH SIDE OF ANY MANHOLE CHANNEL

WHEN THE PIPE DIAMETER(S) ARE LESS THAN THE MANHOLE DIAMETER AND THAT NO

14.4. DESIGN REQUIRES: 1) MANHOLE LIFT HOLES AND GRADE ADJUSTMENT RINGS BE SEALED

LATERAL SEWER, SERVICE CONNECTION, OR DROP MANHOLE PIPE DISCHARGES ONTO THE

BE JOINED TO THE MANHOLE WITH A GASKETED FLEXIBLE WATERTIGHT CONNECTION OR

WHEREVER THE MANHOLE TOPS MAY BE FLOODED BY STREET RUNOFE OR HIGH WATERS

OF THE PIPE AND MANHOLE WALL; AND 3) WATERTIGHT MANHOLE COVERS BE USED

14.5. MANHOLE INSPECTION AND TESTING FOR WATERTIGHTNESS OR DAMAGE PRIOR TO PLACING

15. <u>GENERAL WATER AND SEWER NOTES</u>
15.1. ALL APPLICABLE PERMITS MUST BE OBTAINED AND ALL APPLICABLE FEES AND CHARGES

15.3. THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES ON THE SITE, A CURRENT SET OF

APPROVED CONSTRUCTION PLANS. THE PLANS SHALL BE MADE AVAILABLE TO THE

15.2. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH CITY OF DELRAY BEACH ATTENDED BY

CONFORMS TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.

SPECIFICATIONS ARE REQUIRED FOR JOINING DISSIMILAR MATERIALS.

MUST BE PAID PRIOR TO COMMENCEMENT OF CONSTRUCTION.

14.6. SUITABLE COUPLINGS APPROVED BY THE ENGINEER AND COMPLYING WITH ASTM

ANOTHER WATERTIGHT CONNECTION ARRANGEMENT THAT ALLOWS DIFFERENTIAL SETTLEMENT

WITH NON-SHRINK MORTAR OR OTHER APPROPRIATE MATERIAL; 2) INLET AND OUTLET PIPES

INTO SERVICE AREA SPECIFIED. AIR TESTING, IF SPECIFIED FOR CONCRETE SEWER MANHOLES,

THAT IS LOCATED ALONG THE TOP OF THE PIPE: FOR PIPE WITH AN INTERNAL DIAMETER OF

CONTACT WITH DRINKING WATER SHALL CONFORM TO NST INTERNATIONAL STANDARD 61 AS

ADOPTED IN RULE 62-555.335, F.A.C., OR OTHER APPLICABLE STANDARDS, REGULATION OR

HYDRANTS AND METERS INSTALLED SHALL CONFORM TO APPLICABLE AMERICAN WATER WORKS

12.6. CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY SILT SCREENERS IN CATCH BASINS

12.5. BACKFILL MATERIAL UNDER AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF

13. <u>FDEP GENERAL WATER NOTES</u>
13.1. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE

REQUIREMENTS REFERENCED IN PARAGRAPH 62-333.320(3)(B), F.A.C.

13.3. ALL PIPE AND PIPE FITTINGS INSTALLED SHALL BE COLOR CODED OR MARKED IN

ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, F.A.C., USING BLUE AS

INTERVALS AROUND THE PIPE AND THAT WILL REMAIN INTACT DURING AND AFTER

13.4. NEW OR ALTERED WATER MAINS CONSTRUCTED OF POLYVINYL CHLORIDE PIPE SHALL BE

14. <u>FDEP GENERAL SEWER NOTES</u>
14.1. APPROPRIATE DEFLECTION TESTS ARE SPECIFIED FOR ALL FLEXIBLE PIPE. TESTING IS

14.2. LEAKAGE TESTS ARE SPECIFIED REQUIRING THAT: 1) THE LEAKAGE EXFILTRATION OR

AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-333.330

PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES

SURFACE OF THE BENCH.

12.3. BEDDING AND INITIAL BACKFILL OVER DRAINAGE PIPE SHALL BE SAND WITH NO ROCK

FDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, CURRENT EDITION, SECTION 430.

12.1.1.2. PIPE SHALL BE SPIRAL RIB DRAINAGE PIPE WITH 3/4" x 3/4" RIBS, APPROXIMATELY

7-1/2" ON CENTER. GAUGE THICKNESS SHALL MEET FDOT STANDARD 945-1.

PIPE COUPLING BANDS SHALL BE 12" WIDE STANDARD SPLIT BANDS OF THE SAME

POLYURETHANE OR OTHER SEALANT SHALL BE USED WITH COUPLING BANDS ON ALL

REINFORCED CONCRETE PIPE SHALL BE CLASS III WATER TIGHT AND CONFORM TO

JOINTS IN RCP SHALL EMPLOY O-RING TYPE GASKETS AS SPECIFIED IN SECTION

CONCRETE FOR PRECAST MANHOLES AND CATCH BASINS SHALL HAVE A MINIMUM

REINFORCING STEEL FOR MANHOLES AND CATCH BASINS SHALL CONFORM TO ASTM

ALL RE-BAR SPLICES IN CONCRETE STRUCTURES SHALL HAVE A MINIMUM LAP OF

ALL SPACES AROUND PIPING ENTERING OR LEAVING MANHOLES AND CATCH BASINS

ALL CONCRETE PIPE SHALL HAVE MODIFIED TONGUE AND GROOVE JOINT AND HAVE

PRECAST CONCRETE MANHOLES AND CATCH BASINS SHALL MEET THE REQUIREMENTS

10.7. UPON COMPLETION OF DEMOLITION, SITE IS TO BE LEFT IN CLEAN CONDITION FREE OF

10.9. EXISTING UTILITIES INFORMATION IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR IS

10.10. BRICK AND GROUT ANY REMAINING HOLE OPENINGS IN EXISTING STRUCTURES AFTER

11.3.1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST A COPY OF THE GEOTECHNICAL

11.3.2. NONE OF THE EXISTING MATERIAL IS TO BE INCORPORATED IN THE LIMEROCK BASE.

11.3.5. A 2" BLANKET OF TOP SOIL SHALL BE PLACED OVER ALL AREAS TO BE SODDED.

11.4.1. ALL ORGANIC AND OTHER UNSUITABLE MATERIAL UNDER THOSE AREAS TO BE PAVED

11.3.3. ALL SUB-GRADE UNDER PAVED AREAS SHALL HAVE A MINIMUM LBR VALUE OF 40 AND

11.3.4. ALL FILL MATERIAL IN AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE

FEDERAL, STATE AND LOCAL REGULATIONS.

SEDIMENTS FROM ALL STRUCTURES AS NEEDED.

REMOVAL OF ANY PIPE DESIGNATED FOR REMOVAL.

CONTRACTOR AS PART OF WORK.

NON-PERFORATED PIPE.

24 BAR DIAMETERS.

12.1.4. POLYVINYL-CHLORIDE PIPE (PVC)

ASSOCIATION (AWWA) STANDARDS.

12.1.4.2. CONTECH A2000 PVC

12.1.3. HIGH DENSITY POLYETHYLENE PIPE (HDPE)

LARGER THAN 3/4" & 2" DIAMETER, RESPECTIVELY.

DENSITY AS DETERMINED BY AASHTO T-180.

HE STANDARD SPECIFICATIONS

OF ASTM SPECIFICATION C-478 AND 64T.

COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

RUBBER GASKETS, UNLESS OTHERWISE SPECIFIED.

SPECIFICATION A-615 AND A-305, LATEST REVISION.

SHALL BE COMPLETELY FILLED WITH 2:1 CEMENT MORTAR.

12.1.1.5. CONTECH ULTRA-FLO

12.1.2. REINFORCED CONCRETE (RCP)

PERIMETER OF THE PAVING

MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

AND DISPOSED OF BY CONTRACTOR AS PART OF THIS WORK.

BY APPROVING AUTHORITY) ON A SIZE FOR SIZE BASIS:

STATED WITHIN

11.4. ON-SITE

12.1.1. ALUMINUM

NON-DISRUPTION OF SERVICES PROVIDED BY EXISTING UTILITIES TO ADJACENT AREAS, AND 10.4. PRIOR TO AND DURING DEMOLITION, CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING ITEMS TO REMAIN.

THE APPROVED PLANS. APPROVAL OF PLANS BY THE MUNICIPALITY IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. THE OWNER'S ENGINEER SHALL BRING TO THE ATTENTION OF THE MUNICIPALITY'S ENGINEER ANY DISCREPANCY IN, OR VARIATION FROM, THE APPROVED PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES AND IMPROVEMENTS FROM DAMAGE, DISRUPTION OF SERVICE, OR DESTRUCTION AT ALL TIMES AND SHALL BE PROPERLY DISPOSED OF ON A DAILY BASIS. DISPOSAL OF DEBRIS SHALL BE THROUGHOUT THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. ANY AND

15.4. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON

MUNICIPALITY'S ENGINEER OR HIS DESIGNEE UPON REQUEST.

ALL CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE ENGINEER. 15.5. THE CONTRACTOR SHALL INFORM THE MUNICIPALITY'S ENGINEER AT LEAST 48 HOURS IN ADVANCE OF COMMENCING CONSTRUCTION AND/OR CONNECTING TO A MUNICIPAL FACILITY. 15.6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SCHEDULING OF, AND PAYMENT FOR. SUCH TESTS AS MAY BE DEEMED NECESSARY BY THE OWNER'S ENGINEER OR THE

MUNICIPAL ENGINEER, AND AS CALLED FOR IN THE PLANS AND SPECIFICATIONS. 15.7. THE OWNER'S ENGINEER SHALL MAKE SUFFICIENT INSPECTIONS OF THE WORK TO ENABLE HIM TO CERTIFY THE INSTALLATION AS BEING IN CONFORMANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS.

15.8. THE OWNER'S REPRESENTATIVE WILL INFORM THE CONTRACTOR WHEN TO BACK FILL THE WORK, AND WILL WITNESS ALL PRESSURE, BACTERIOLOGICAL AND INFILTRATION/EXFILTRATION

15.9. SANITARY SEWERS AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAID 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. WHERE SANITARY SEWERS OR FORCE MAINS MST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP), MIN. CLASS 52 AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 12 INCHES MUST BE MAINTAINED AT ALL CROSSINGS. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE PIPE SHALL BE ARRANGED TO MEET THE

CROSSING REQUIREMENTS ABOVE. 15.10. A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON 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. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL SEPARATION OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

15.11. NO DEVIATION FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT OF THE MUNICIPAL ENGINEER. 15.12. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THESE PLANS WITH ANY PAVING AND DRAINAGE PLANS IN THIS PROJECT WORK AREA. 15.13. ALL INSTALLATIONS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE IN CONFORMITY WITH THE COUNTY ENGINEERING DIVISION "MINIMUM STANDARDS". 15.14. ALL INSTALLATIONS AND TESTING OF DUCTILE IRON PIPE SHALL COMPLY WITH ANSI/AWWA C-600-99 (OR CURRENT EDITION) 15.15. COATINGS AND LININGS (DIP):

15.15.1. DUCTILE IRON PIPE AND FITTINGS FOR UNDERGROUND SERVICE SHALL RECEIVE AN EXTERIOR BITUMINOUS COATING OF COAL TAR VARNISH OR ASPHALT BASE PAINT, 1.0-MIL FILM THICKNESS IN ACCORDANCE WITH ANSI/AWWA A21.51/C-151. 15.15.2. EXPOSED DUCTILE IRON PIPE AND FITTINGS FOR SERVICE SHALL RECEIVE A FACTORY APPLIED EXTERIOR COATING OF UNIVERSAL RUST-INHIBITIVE PRIMER, 2.0 MILS DRY FILM

15.15.3. DUCTILE IRON PIPE AND FITTINGS FOR WASTEWATER SERVICE SHALL RECEIVE A FACTORY APPLIED INTERIOR CERAMIC EPOXY COATING WITH A MINIMUM DRY THICKNESS OF 40 MILS IN ACCORDANCE WITH ANSI A21.4 PROTECTO 401 OR APPROVED EQUAL. 15.15.4. DUCTILE IRON PIPE AND FITTINGS FOR WATER AND REUSE SERVICE SHALL RECEIVE AN EXTERIOR COATING AS SPECIFIED ABOVE AND SHALL BE CEMENT MORTAR LINED AND BITUMINOUS SEALED IN ACCORDANCE WITH ANSI A21.4.

15.16. WASTEWATER APPLICATIONS: 15.16.1. PVC 15.16.1.1. FOR GRAVITY SEWER ONLY SDR 26 PVC

15.16.2. DIP

15.16.2.1. PRESSURE CLASS 350 FOR 4"-24" DIAMETER PIPE 15.16.2.2. PRESSURE CLASS 250 FOR 30" OR GREATER DIAMETER PIPE 15 16 2 3 CLASS 53 FOR FLANGED APPLICATIONS

15.17. FORCE MAINS SHALL BE TESTED IN ACCORDANCE WITH AWWA STANDARD C-600 LATEST REVISION. THE COMPLETE SYSTEM SHALL BE HYDROSTATICALLY TESTED UNDER A MINIMUM CONSTANT PRESSURE OF 150 PSI, FOR A MINIMUM OF 2 HOURS. A LEAKAGE TEST SHALL BE PERFORMED AT THE ABOVE MENTIONED PRESSURE UNTIL THE LEAKAGE IS LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:

L = ALLOWABLE LEAKAGE IN GPH D = NOMINAL PIPE DIAMETER IN INCHES S = LENGTH OF PIPE IN FEET BEING TESTED

P = AVERAGE TEST PRESSURE IN PSI

NOTE: THE SECTION OF MAIN BEING TESTED SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2000'.

16.1. ALL WATER MAINS LARGER THAN 12" SHALL BE DUCTILE IRON PIPE (DIP). ALL PIPE MATERIAL SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS: 16.1.1. PVC (NOT ALLOWED)

16.1.1.1. 4" AND 6" DIA. CLASS 200, DR14 16.1.1.2. 8" AND 12" DIA. CLASS 150, DR18 ANSI/AWWA C900-07 16.1.2. DIP

16.1.2.3. PRESSURE CLASS 250 FOR 30" OR GREATER DIAMETER PIPE

16.1.2.4. CLASS 53 FOR FLANGED APPLICATIONS

16.1.2.1. 15.1.1.1. ANSI/AWWA C151/A21.51 - 02 AND CEMENT MORTAR LINED AND SEALED PER ANSI/AWWA C104/A21.4-02 16.1.2.2. PRESSURE CLASS 350 FOR 4"-24" DIAMETER PIPE

16.2. ALL DUCTILE IRON PIPE WATER MAINS SHALL BE INSTALLED WITH A MINIMUM CLEAR COVER OF 30 INCHES. ALL PVC WATER MAINS SHALL BE INSTALLED WITH MINIMUM CLEAR COVER OF 36 INCHES. 16.3. ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING AND DISINFECTING MUST COMPLY WITH THE COUNTY OFFICE MINIMUM CONSTRUCTION REQUIREMENTS.

16.4. MINIMUM CLEARANCE BETWEEN STORM STRUCTURES AND WATER MAINS SHALL BE 6', AND MAXIMUM DEFLECTION PER EACH JOINT SHALL BE 2' WHERE DEFLECTION IS REQUIRED. 16.5. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON MEETING ANSI/AWWA C-110/A21.10-03 SPECIFICATIONS, WITH 250 PSI MINIMUM WORKING PRESSURE. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C151/A21.51-02 AND C-104/A21.4-03.

16.6. MEG-A-LUG OR APPROVED EQUAL RESTRAINED JOINT CONSTRUCTION, IF APPROVED BY THE ENGINEER, SHALL BE USED TO MINIMIZE OR ELIMINATE THRUST BLOCKS. 16.7. GATE VALVES 4 INCH AND LARGER SHALL BE RESILIENT SEAT AND SHALL MEET ANSI/AWWA C-509-01 SPECIFICATIONS (LATEST REVISION). VALVES SHALL BE MUELLER OR APPROVED

16.8. MIN. VALVE SPACING SHALL BE AS PER SECTION 8.2 OF THE TEN STATES STANDARDS. 16.9. FIRE HYDRANTS SHALL BE AS REQUIRED BY THE MUNICIPAL AUTHORITY AND AT A MINIMUM SHALL BE TRAFFIC BREAKAWAY TYPE MUELLER CO. CENTURION MODEL NO. A-423 OR APPROVED EQUAL AND SHALL BE INSTALLED WITH THE CENTER OF THE HOSE NOZZLE 18" ABOVE FINISHED GRADE OR AS DIRECTED BY ENGINEER. 16.10.15.10. CONTRACTOR SHALL SUBMIT REQUIRED NUMBER OF COPIES AS REQUESTED BY THE

ENGINEER OF THE PROPOSED MATERIALS. 16.10.1. PIPE AND FITTINGS

16.10.2. VALVES 16.10.3. FIRE HYDRANTS 16.10.4. CURB AND CORP. STOPS 16.10.5. WATER SERVICE TUBING

16.10.6. U BRANCHES 16.10.7. WATER SERVICE CASING 16.10.8. ALL OTHERS AS REQUESTED BY THE ENGINEER OR THE OWNER.

16.11. WHEN PVC PIPE IS USED FOR WATER MAINS, A 14-GAUGE MULTISTRAND COPPER WIRE OR APPROVED EQUAL MATERIAL SHALL BE INSTALLED CONTINUOUSLY ALONG THE LENGTH OF THE PIPE. THE WIRE SHALL BE BROUGHT UP AND A MINIMUM OF FOUR FEET OF EXCESS WIRE SHALL BE COILED AT EACH VALVE. A GREEN LOCATOR (MODEL NO. 1253 AS MANUFACTURED BY AUTOMATION PRODUCTS CO.) OR APPROVED EQUAL SHALL BE INSTALLED AT FVFRY WATER SERVICE

16.12. THE COMPLETE WATER SYSTEM SHALL BE HYDROSTATICALLY TESTED UNDER A MINIMUM CONSTANT PRESSURE OF 150 PSI FOR A MINIMUM 2 HOURS TEST AND SHALL NOT EXCEED THE LEAKAGE REQUIREMENTS AS PER ANSI/AWWA SPECIFICATIONS C600-05 IN ACCORDANCE WITH THE FOLLOWING LEAKAGE FORMULA:

L = ALLOWABLE LEAKAGE IN GPH D = NOMINAL PIPE DIAMETER IN INCHES

> S = LENGTH OF PIPE IN FEET BEING TESTED P = AVERAGE TEST PRESSURE IN PSI

THE CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES PRIOR TO COMMENCEMENT OF NOTE: THE SECTION OF MAIN BEING TESTED SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2000'. NO ALLOWABLE LEAKAGE SHALL BE PERMITTED FOR FIRE HYDRANTS.

16.1. DISINFECTION OF WATER MAINS SHALL COMPLY WITH ANSI/AWWA C-651-05 STANDARD. 16.14 THE CONTRACTOR SHALL SUPPLY AND INSTALL APPROVED REFLECTIVE MARKERS IN THE STREET DRIVING LANE ADJACENT TO ALL FIRE HYDRANTS. COLOR AND LOCATION SHALL BE DIRECTED BY THE ENGINEER.

16.15. PAVEMENT RESTORATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. 16.16. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF

CHAPTER 62-555.320, F.A.C. 16.17. RESTRAINED JOINT PIPE SHALL BE USED FOR ALL BENDS, TEES, CROSSES, PLUGS AND FIRE HYDRANTS PER THE STANDARD DETAILS AND MUNICIPAL UTILITY REQUIREMENTS.

17.1. ALL FIRE HYDRANTS SHALL COMPLY WITH THE FOLLOWING INSTALLATION CRITERIA:

LANDSCAPING SHALL NOT OBSCURE THE FIRE HYDRANT.

17.1.1. ALL FIRE HYDRANTS SHALL FALL WITHIN 6 FEET FROM THE EDGE OF PAVED ROAD SURFACE OR DRIVEWAY. 17.1.2. THE 4-1/2" OUTLET SHALL FACE THE ROADWAY. 17.1.3. UNOBSTRUCTED SPACE (6') SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT UNLESS OTHERWISE REQUIRED OR APPROVED BY THE FIRE CHIEF.

17.1.4. FIRE DEPARTMENT SHALL APPROVE ALL FIRE HYDRANT LOCATIONS. 17.1.5. REFLECTORS IN THE ROADWAY TO INDICATE FIRE HYDRANT LOCATIONS SHALL BE PROVIDED AND INSTALLED AS DIRECTED BY THE ENGINEER.

17.1.6. MINIMUM WATER FLOW REQUIRED FOR FIRE HYDRANTS SHALL BE 750 GPM OR AS REQUIRED BY THE MUNICIPAL AUTHORITY.

18.17. GENERAL

18.17.1. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE LIMEROCK BASE AND PRIOR TO THE PLACEMENT OF THE PAVEMENT. 18.17.2. ALL STREET CORNER PAVEMENT RADII SHALL BE 25 FEET UNLESS OTHERWISE NOTED ON 18.17.3. TWO ROWS OF BAHIA SOD SHALL BE LAID ALONG CURB WITHIN TWO WEEKS OR AS

DIRECTED BY THE ENGINEER OF INSTALLING FIRST LIFT OF ASPHALT. 18.18. MATERIALS 18.18.1. LIMEROCK BASE MATERIAL SHALL HAVE A MINIMUM OF 70% CARBONATES (CALCIUM AND

MAGNESIUM) WITH A MINIMUM LBR OF 100. 18.18.2. SUBGRADE MATERIAL SHALL HAVE A MINIMUM LBR OF 40 AND INSTALLED AT 98% AASHTO T-180 SPECS. (INCLUDES STABILIZED ROADWAY SHOULDERS)

18.18.3. PRIME COAT AND TACK COAT SHALL MEET FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS. 18.18.4. SURFACE COURSE SHALL BE EQUAL TO FDOT TYPE S-3 (SP9.5 EQUIVALENT) ASPHALT CONCRETE. CONTRACTOR TO SUBMIT FDOT APPROVED ASPHALT MIX SHOP DRAWINGS FOR ENGINEER'S REVIEW/APPROVAL PRIOR TO PLACEMENT OF ANY ASPHALT.

18.19. INSTALLATION 18.19.1. LIMEROCK BASE MATERIAL SHALL BE 8" THICK OR AS SHOWN AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. 18.19.2. LIMEROCK BASE MATERIAL SHALL BE PLACED IN TWO OR MORE EQUAL LIFTS.

18.19.3. ASPHALTIC CONCRETE SHALL BE AS INDICATED ON PLANS, AND PLACED IN TWO (2) 18.19.4. PRIME COAT SHALL BE PLACED ON ALL LIMEROCK BASES IN ACCORDANCE WITH FDOT STANDARDS 18.19.5. TACK COAT SHALL BE PLACED AS REQUIRED IN ACCORDANCE WITH FDOT STANDARDS. 18.20.1. ALL SUBGRADE, LIMEROCK AND ASPHALT TESTS REQUIRED SHALL BE TAKEN AT THE

DIRECTION OF THE ENGINEER AND/OR CITY OF DELRAY BEACH.

18.21.1. ALL PAVER MATERIAL, INSTALLATION AND MAINTENANCE SPECIFICATIONS SHALL MEET THE REQUIREMENTS OF CITY OF DELRAY BEACH.

19.1. PAVEMENT MARKINGS, REFLECTIVE PAVEMENT MARKERS AND GEOMETRICS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD) AND COUNTY AND/OR CITY OF DELRAY BEACH TRAFFIC ENGINEERING DIVISION STANDARDS.

19.2. ALL PAVEMENT MARKINGS WITHIN THE PUBLIC RIGHT-OF-WAYS SHALL BE HOT APPLIED REFLECTORIZED THERMOPLASTIC IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 19.3. REFLECTIVE PAVEMENT MARKERS SHALL BE CLASS A MARKERS MANUFACTURED IN

ACCORDANCE WITH FDOT STANDARD SPECIFICATION 706 AND INSTALLED IN ACCORDANCE WITH

THE MANUFACTURER'S RECOMMENDED PROCEDURES. 19.4. ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED DESIGN SHALL BE REMOVED. METHODS OF REMOVAL TO BE APPROVED BY COUNTY AND/OR CITY OF DELRAY BEACH TRAFFIC ENGINEERING DEPARTMENT. 19.5. ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE MANUAL ON

UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). 19.6. ALL R1-1 SIGNS SHALL HAVE HIGH INTENSITY SHEETING. 19.7. ALL TEMPORARY PAVEMENT MARKINGS WITHIN PUBLIC RIGHT-OF-WAYS SHALL BE PAINT IN ACCORDANCE WITH COUNTY AND/OR CITY OF DELRAY BEACH TRAFFIC ENGINEERING DEPARTMENT MINIMUM STANDARDS UNLESS OTHERWISE NOTED EXCEPT ON FINAL LIFT WHICH

SHALL BE FOIL BACK TAPE OR PAPER TAPE. 19.8. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL UTILITY MARKINGS ONCE THE WORK IS COMPLETED. CONTRACTOR SHALL USE SPECIAL CARE WHEN REMOVING THE UTILITY MARKINGS. THE REMOVAL METHOD NEEDS TO BE SUCH THAT IT DOES NOT DAMAGE THE SURFACES OF THE EXISTING WORK ALREADY IN PLACE. IF WATER-BLASTING OLDER ASPHALT PAVEMENT. CARE NEEDS TO BE TAKEN TO NOT DISCOLOR THE ASPHALT OR POLISH THE AGGREGATE. IF THE REMOVALS ARE ON OLDER CONCRETE SURFACES, THE ENTIRE SURFACE OF A PANEL OR SECTION NEEDS TO BE BLASTED TO SHOW UNIFORM COLOR THROUGHOUT THAT SAME PANEL OR SECTION. IN ANY CASE (ASPHALT OR CONCRETE SURFACE), THE METHOD NEEDS TO BE SUCH THAT A SLICK SURFACE IS NOT LEFT BEHIND. FINAL PAYMENT TO THE CONTRACTOR MAY BE WITHHELD UNTIL THE UTILITY MARKS ARE PROPERLY REMOVED.

20.1. ALL CONSTRUCTION ACTIVITY, INCLUDING TRENCHING, IS TO BE A MINIMUM OF SIX (6) FEET FROM THE BASE OF ANY TREE THAT IS DESIGNATED TO REMAIN PER CODE SECTION 27-45. 20.2. ALL TREES PLANTED IN ISLANDS CONTAINING HYDRANTS OR FDC'S MUST COMPLY WITH FLORIDA FIRE PREVENTION CODE 18.3.4.1 - CLEARANCES OF 7'-6" IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT, WITH A 4' CLEARANCE TO THE REAR OF THE HYDRANT. 20.3. METERS SHALL HAVE AT LEAST 3' OF UNOBSTRUCTED ACCESS TO AND VIEW OF THE

MANHOLE OR METER FROM THE PUBLIC RIGHT-OF-WAY AND AT LEAST 5' OF VERTICAL CLEARANCE ABOVE THE MANHOLE OR METER PIT. 20.4. ALL LIMEROCK AND BASE MATERIALS SHALL BE REMOVED FROM THE PLANTER AREAS/ISLANDS AND REPLACED WITH APPROPRIATE PLANTING SOIL PRIOR TO THE ANDSCAPING OF THE SITE.

20.5. THE REMOVAL OF ANY TREE ON THE SITE IS PROHIBITED WITHOUT THE REQUIRED CITY OF DELRAY BEACH PERMIT. ANY SITE WORK MUST BE DONE UNDER AN ENVIRONMENTAL PERMIT PER CITY OF DELRAY BEACH CODE OF ORDINANCES.

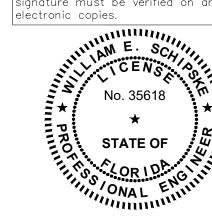
21. SODDING REQUIREMENTS

PROPOSED SHEET FLOW AREAS.

21.1. ALL BERMS AND SWALES ARE TO BE SODDED (SEE LANDSCAPING AND IRRIGATION PLANS) 21.2. LAKE SIDE SLOPES SHALL BE TOP SOILED AND STABILIZED THROUGH SEEDING AND PLANTING FROM 2 FEET BELOW TO 1 FOOT ABOVE THE CONTROL ELEVATION 21.3. SOD AREAS ADJACENT TO PAVEMENT HAVING RUNOFF TO SWALES (INCLUDING ROADWAY STABILIZED SHOULDERS) SHALL BE GRADED 0.2' LOWER THAN PROPOSED EDGE OF PAVEMENT PLAN GRADES TO ALLOW FOR PLACEMENT OF SOD. PEG ALL SOD ON LAKE BANK SLOPES, SWALE SLOPES AND GROUND BETWEEN EDGE OF PAVEMENT AND SWALE AREAS IN

THE STANDARD NOTES CONTAINED HEREON ARE GENERAL IN NATURE. FOR ANY CONTRADICTION BETWEEN THESE GENERAL NOTES AND THE UTILITY OWNER'S STANDARD DETAILS AND NOTES, THE UTILITY OWNER'S NOTES AND DETAILS GOVERN.

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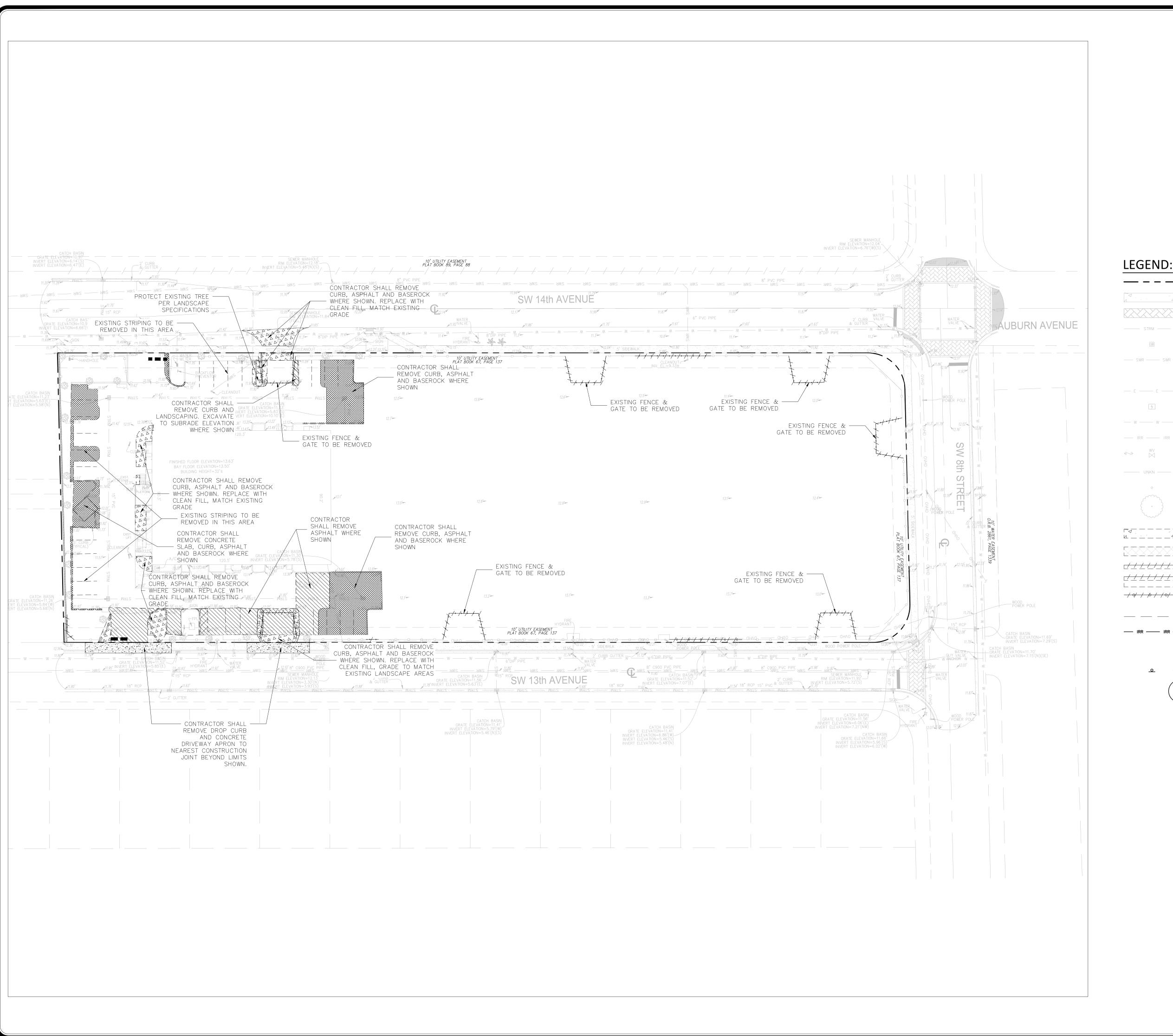
APPROVED: WILLIAM E. SCHIPSKE, P.E FLA. REGISTRATION NO. 35618 DATE : 1/31/2025

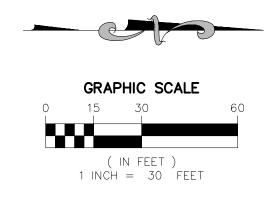


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RIGHT OF WAY/PROPERTY LINE EXISTING CONCRETE SIDEWALK/SURFACE (TO EXISTING CONCRETE PAVERS (TO REMAIN) EXISTING STORM DRAINAGE LINE (TO REMAIN) EXISTING DRAINAGE CATCH BASIN/CURB INLET/MANHOLE (TO REMAIN) EXISTING SANITARY SEWER LINE (TO REMAIN) EXISTING SANITARY SEWER MANHOLE (TO REMAIN) EXISTING BURIED ELECTRIC LINE (TO REMAIN) EXISTING WIRING PULL BOX/ELECTRIC METER/UTILITY POLE (TO REMAIN) EXISTING WATER LINE (TO REMAIN) EXISTING IRRIGATION LINE (TO REMAIN) EXISTING BACKFLOW PREVENTER/WATER VALVE/WATER METER/IRRIGATION CONTROL

△ — — — — △ — ¬ — — — — (APPROX. 450 SF)

EXISTING DRIVEWAY CURB (TO BE REMOVED) 

(APPROX. 395 LF) EXISTING STRIPING (TO BE REMOVED VIA WATER BLASTING) EXISTING IRRIGATION LINE (TO BE REMOVED)

EXISTING IRRIGATION CONTROL VALVE (TO BE REMOVED) EXISTING TRAFFIC SIGN/BIKE STAND/BOLLARD (TO BE REMOVED, SEE SHEET C3.0 FOR TRAFFIC SIGN AND BIKE STAND RELOCATION) EXISTING TREES (TO BE REMOVED, SEE LANDSCAPE PLANS FOR DETAILS)

VALVE/FIRE HYDRANT (TO REMAIN)

EXISTING BOLLARD/TRAFFIC SIGN/TRASH

SIDEWALK/SURFACE (TO BE REMOVED)

RECEPTACLE (TO REMAIN)

EXISTING CONCRETE

(APPROX. 3,552 SF)

(APPROX. 175 LF)

(APPROX. 42 LF)

EXISTING TREES (TO REMAIN)

EXISTING UNKNOWN UTILITY LINE (TO REMAIN)

EXISTING ASPHALT PAVEMENT (TO BE REMOVED)

EXISTING TYPE 'D' CURB (TO BE REMOVED)

EXISTING FENCE & GATE (TO BE REMOVED)

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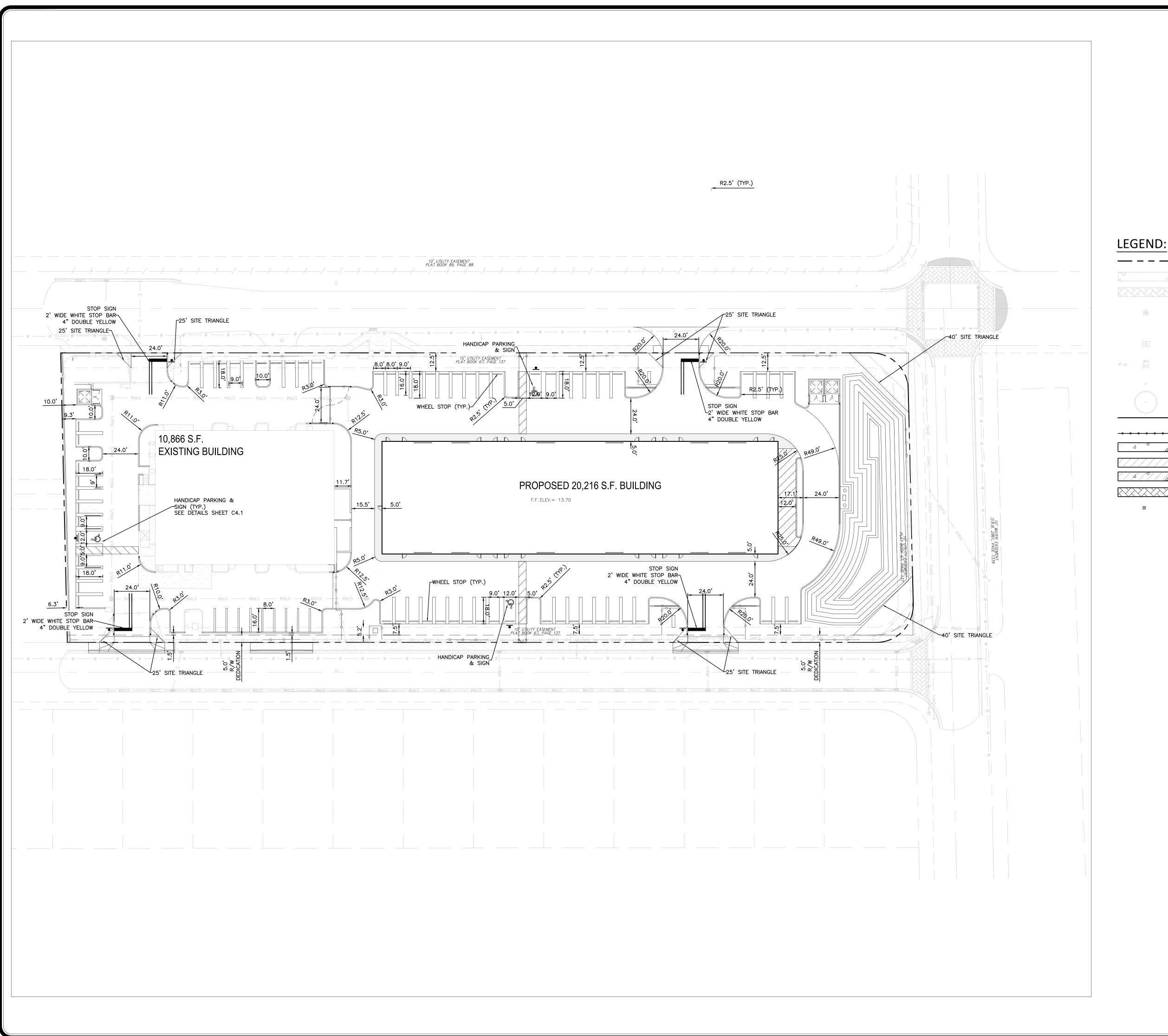
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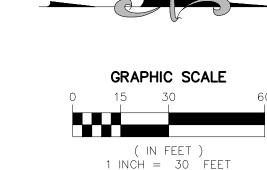
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8-14-22

FLA. REGISTRATION NO. 35618 DATE : 1/31/2025

APPROVED: WILLIAM E. SCHIPSKE, P.E.





RIGHT OF WAY/PROPERTY LINE EXISTING CONCRETE SIDEWALK/SURFACE (TO EXISTING CONCRETE PAVERS (TO REMAIN) EXISTING DRAINAGE CATCH BASIN/CURB INLET/MANHOLE (TO REMAIN) EXISTING SANITARY SEWER MANHOLE (TO REMAIN) EXISTING WIRING PULL BOX/ELECTRIC METER/UTILITY POLE (TO REMAIN) EXISTING BACKFLOW PREVENTER/WATER VALVE/WATER METER/IRRIGATION CONTROL VALVE/FIRE HYDRANT (TO REMAIN) EXISTING BOLLARD/TRAFFIC SIGN/TRASH RECEPTACLE (TO REMAIN) EXISTING TREES (TO REMAIN) PROPOSED BUILDING PROPOSED CONCRETE SIDEWALK/SURFACE (APPROX. 655 SF) PROPOSED ASPHALT RESTORATION (APPROX. 122 PROPOSED CONCRETE SIDEWALK/SURFACE RESTORATION (APPROX. 120 SF) PROPOSED RELOCATED PAVERS (SEE SHEET C2.0) (APPROX. 70 SF) PROPOSED WATER METER/BACKFLOW PREVENTER 

GEOMETRY

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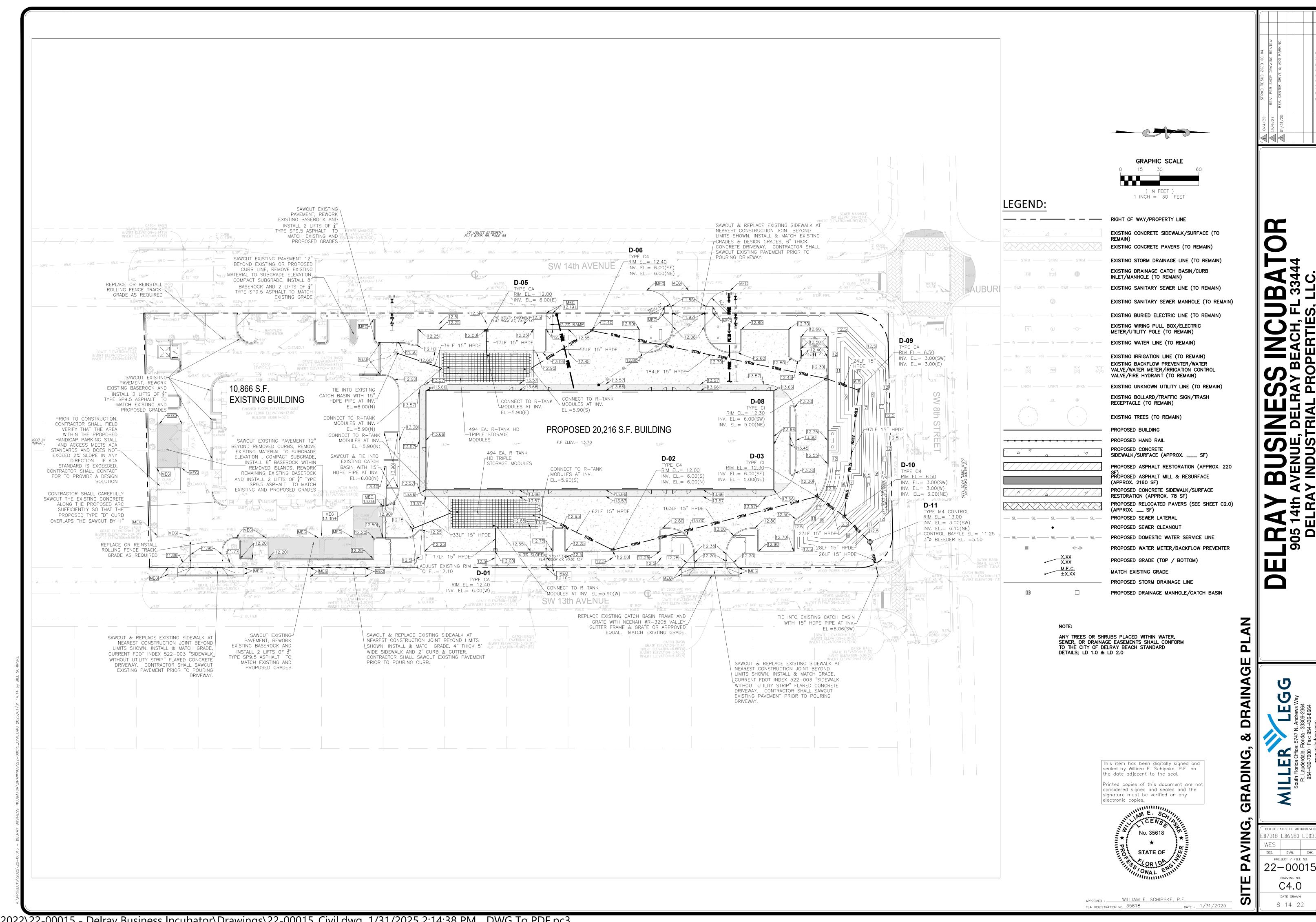
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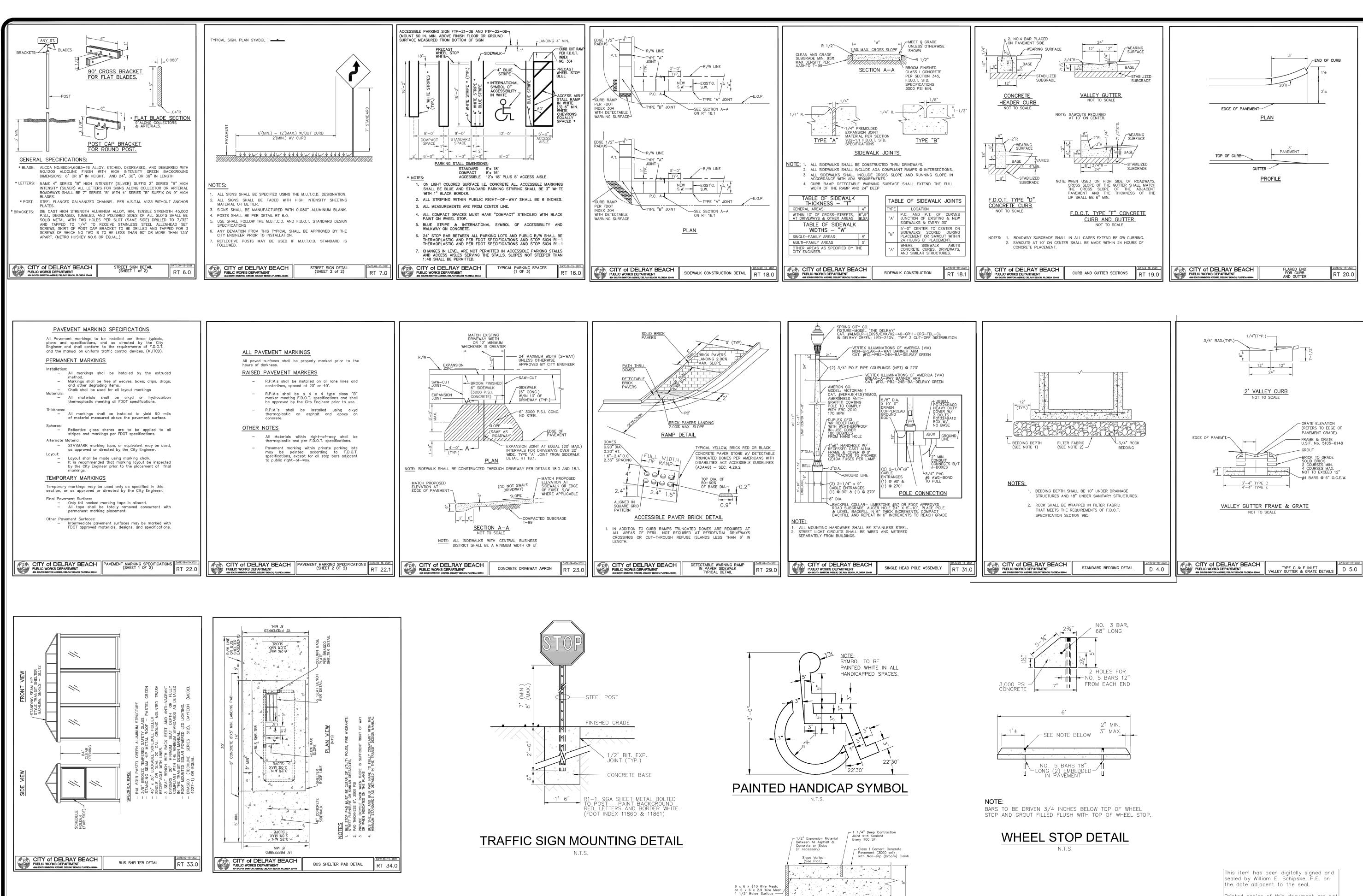
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All materials and construction shall be in accordance with FDOT Specifications Sections 345 & 350.

TYPICAL SECTION OF CONCRETE PAVEMENT

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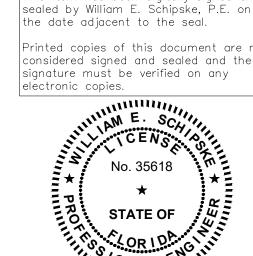
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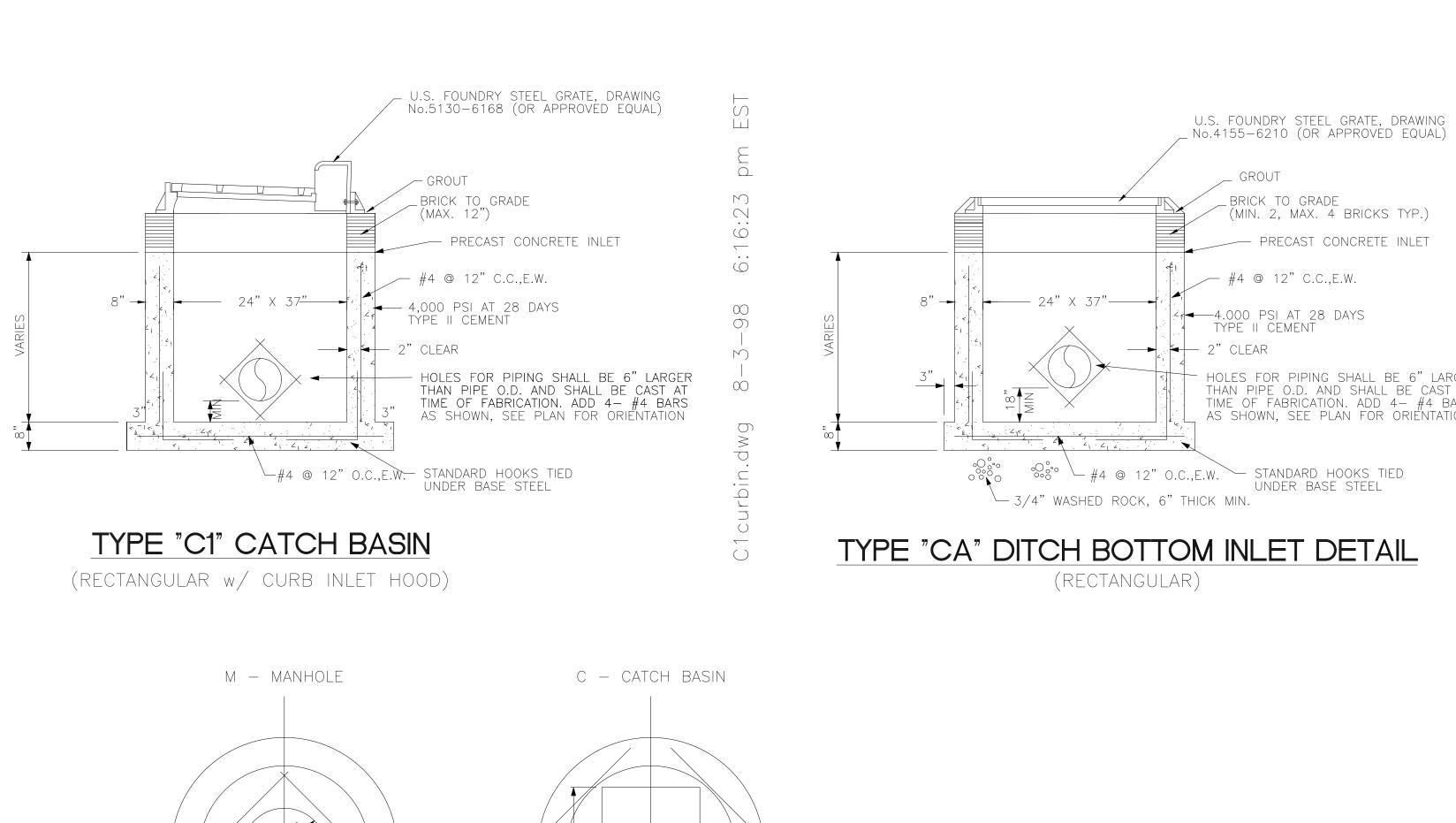
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CONCRETE = 4000 PSI @ 28 DAYS, TYPE II CEMENT

(GRADE 40 OR EQ.)

HOLES FOR PIPING SHALL BE

STANDARD HOOKS TIED UNDER BASE STEEL

#4 @ 12" C.C.E.W. 6'-0" DIA | #4 @ 6" C.C.E.W.

#5 @ 12" C.C.E.W. 7'-4" DIA | #5 @ 8" C.C.E.W.

#5 @ 6" C.C.E.W. | 8'-4" DIA | #5 @ 6" C.C.E.W.

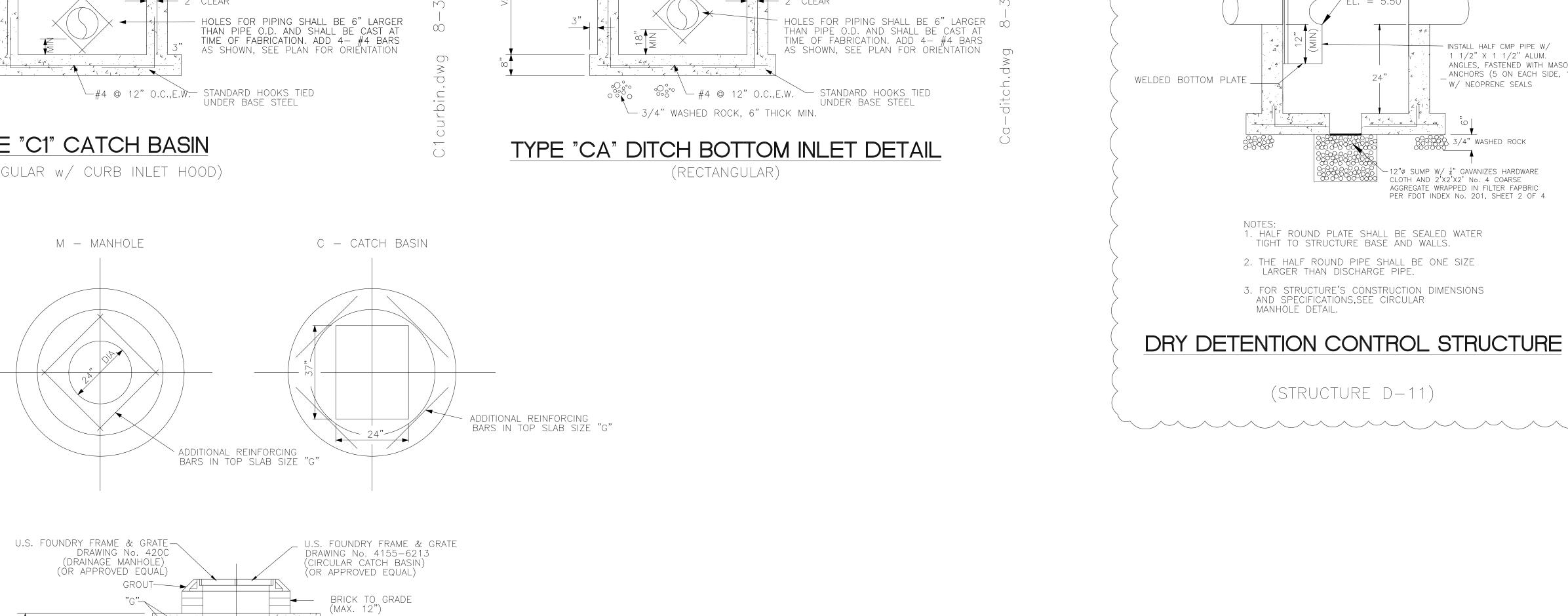
#5 @ 6" C.C.E.W. | 9'-4" DIA | #5 @ 6" C.C.E.W.

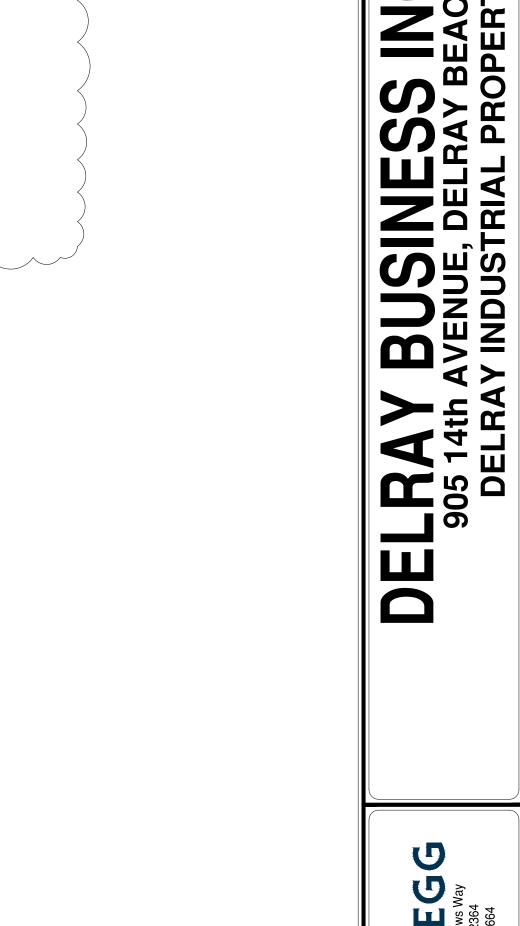
#5 @ 6" C.C.E.W. 10'-8" DIA #6 @ 6" C.C.E.W.

#5 @ 6" C.C.E.W. | 12'-0" SQ | #6 @ 6" C.C.E.W.

(GRADE 40 OR EQ.)

6" LARGER THAN PIPE O.D. AND SHALL BE CAST AT TIME OF FABRICATION





— FLUSH MOUNTED USF 1110 RING & TYPE P LIGHT DUTY COVER

CONTROL EL. = 11.25

1 1/2" X 1 1/2" ALUM.

W/ NEOPRENE SEALS

3/4" WASHED ROCK

-12"Ø SUMP W/ ¼" GAVANIZES HARDWARE CLOTH AND 2'X2'X2' No. 4 COARSE AGGREGATE WRAPPED IN FILTER FAPBRIC PER FDOT INDEX No. 201, SHEET 2 OF 4

ANGLES, FASTENED WITH MASONRY

ANCHORS (5 ON EACH SIDE, 10 TOTAL) (TYP.)

RIM EL. = 13.00

OPEN END\_

FLOW

APPROVED: WILLIAM E. SCHIPSKE, P.E. \_\_\_\_\_ DATE : 1/31/2025 FLA. REGISTRATION NO. 35618

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No. 35618

318 LB6680 LC

PROJECT / FILE NO. 22-00015

C4.2

8-14-22

the date adjacent to the seal.

electronic copies.

signature must be verified on any

PRECAST CIRCULAR CATCH BASIN AND MANHOLE DETAIL

SECTION

ASTM C-478

ASTM C-478

ASTM C-478

ASTM C-478

ASTM C-478

ASTM C-478

ADDITIONAL REINFORCING | BARS-SIZE "D"

5'-0"

7'-0"

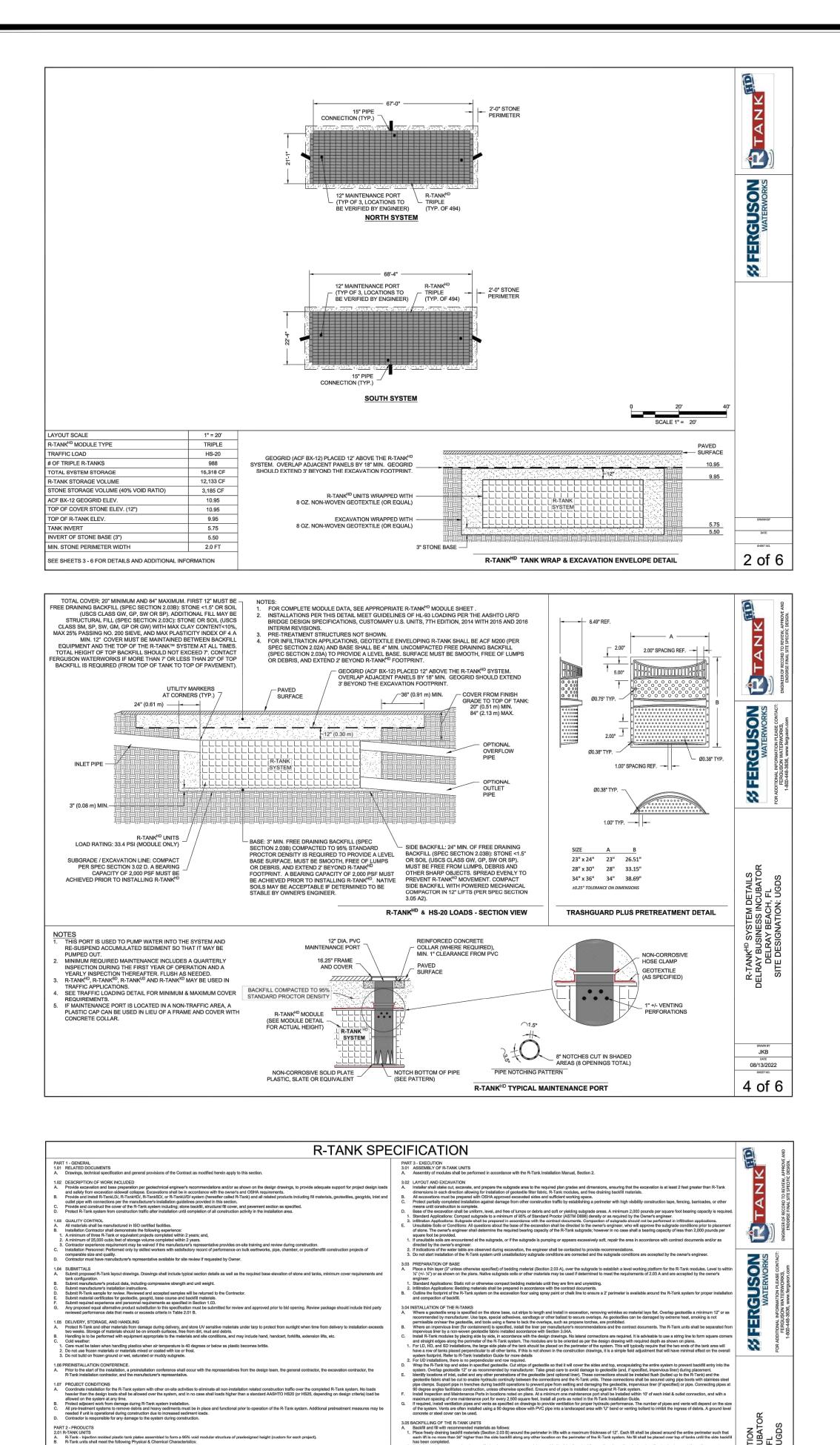
8'-0"

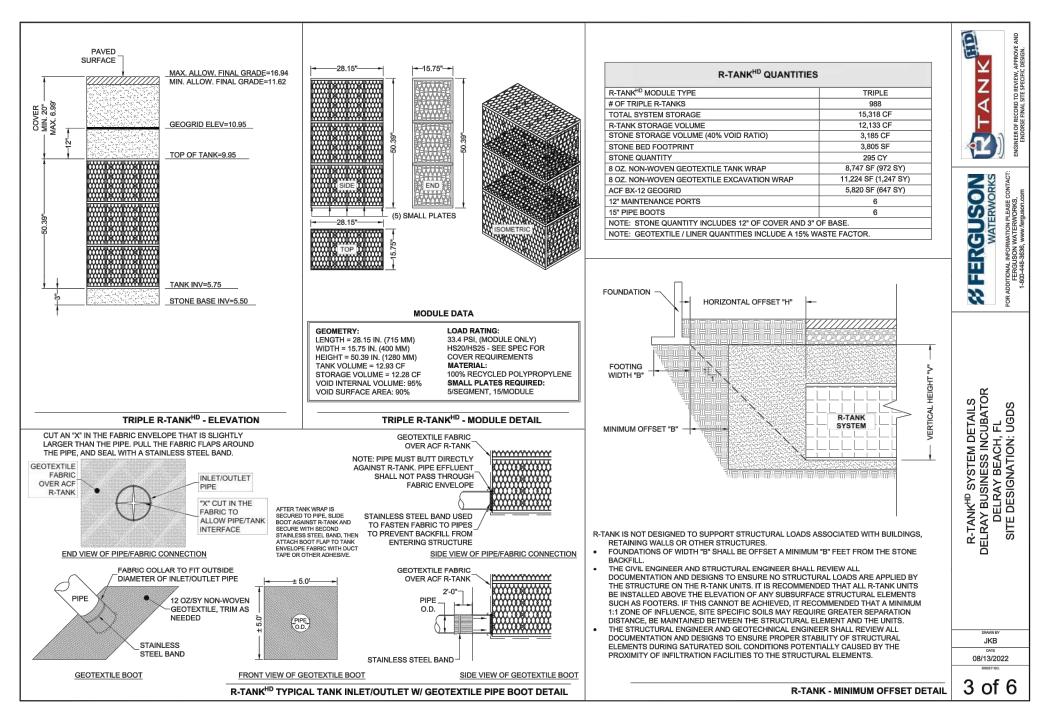
10'-0"

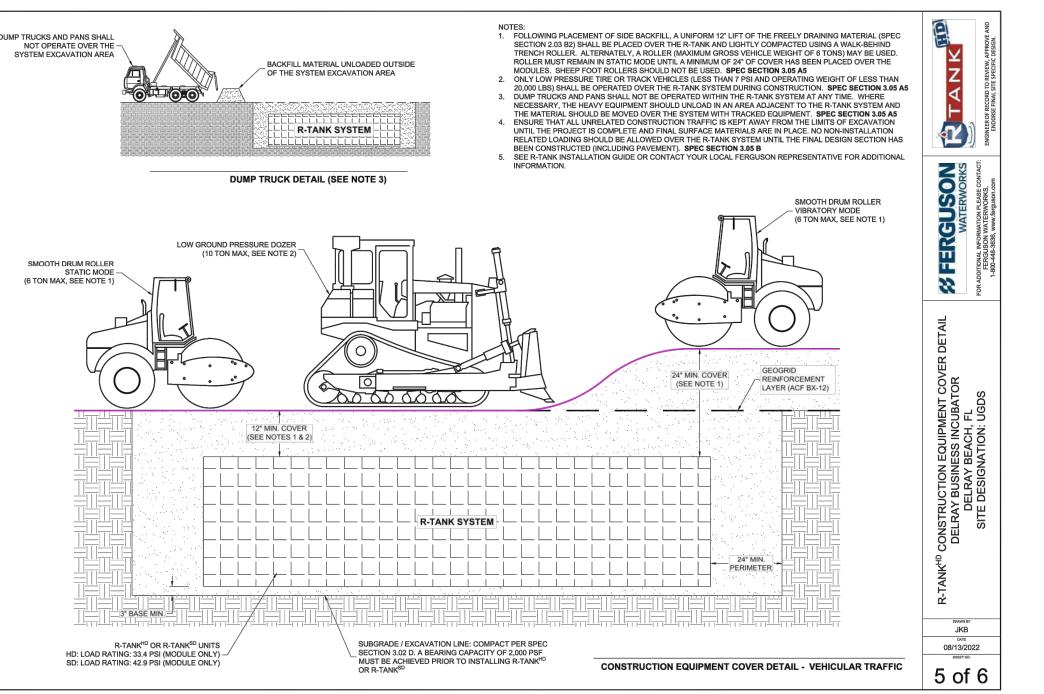
10"

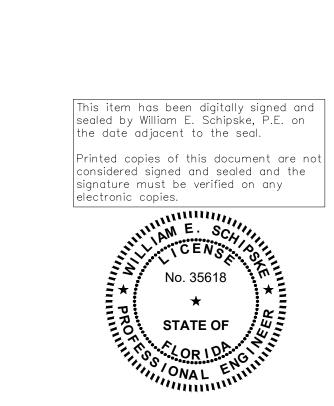
10"

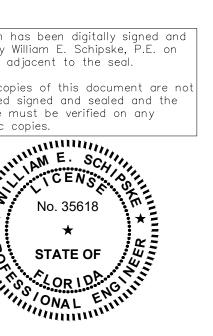
BASIN











APPROVED: WILLIAM E. SCHIPSKE, P.E. FLA. REGISTRATION NO. 35618 DATE : 1/31/2025

318 LB6680 L0 PROJECT / FILE NO. 22-00015 DRAWING NO.

**'<>** 

C4.3 8-14-22

Classification System).

For UD modules with less than 14° of top cover, backfill materials shall be free draining stone (angular and smaller than 1.5° in diameter). The use of soil backfill on the sides and top of the UD module is not permitted unless the modules are installed outside of traffic areas or with cover depths of 14° or more. Top backfill material (from top of module to bottom of pavement base or 12° maximum) must be consistent with side backfill.

2. Non-Traffic / Green Space Applications - For all R-Tank modules installed in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill giver (12° minimum) may consist of AASHTO #57 stone belended with 30-40% (by volume) toposit to all in establishing vegetation. Additional Cover Materials: Structural Fill shall consist of granular materials meeting the gradational requirements of SM, SP, SW, CM, GP or GW as classified by the Unified Soil Classification System. Structural fill shall now a maximum of 26 percent passing the No. 200 sieves, whall have a maximum clay content of 10 percent and a maximum Plasticity Index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

has been completed.

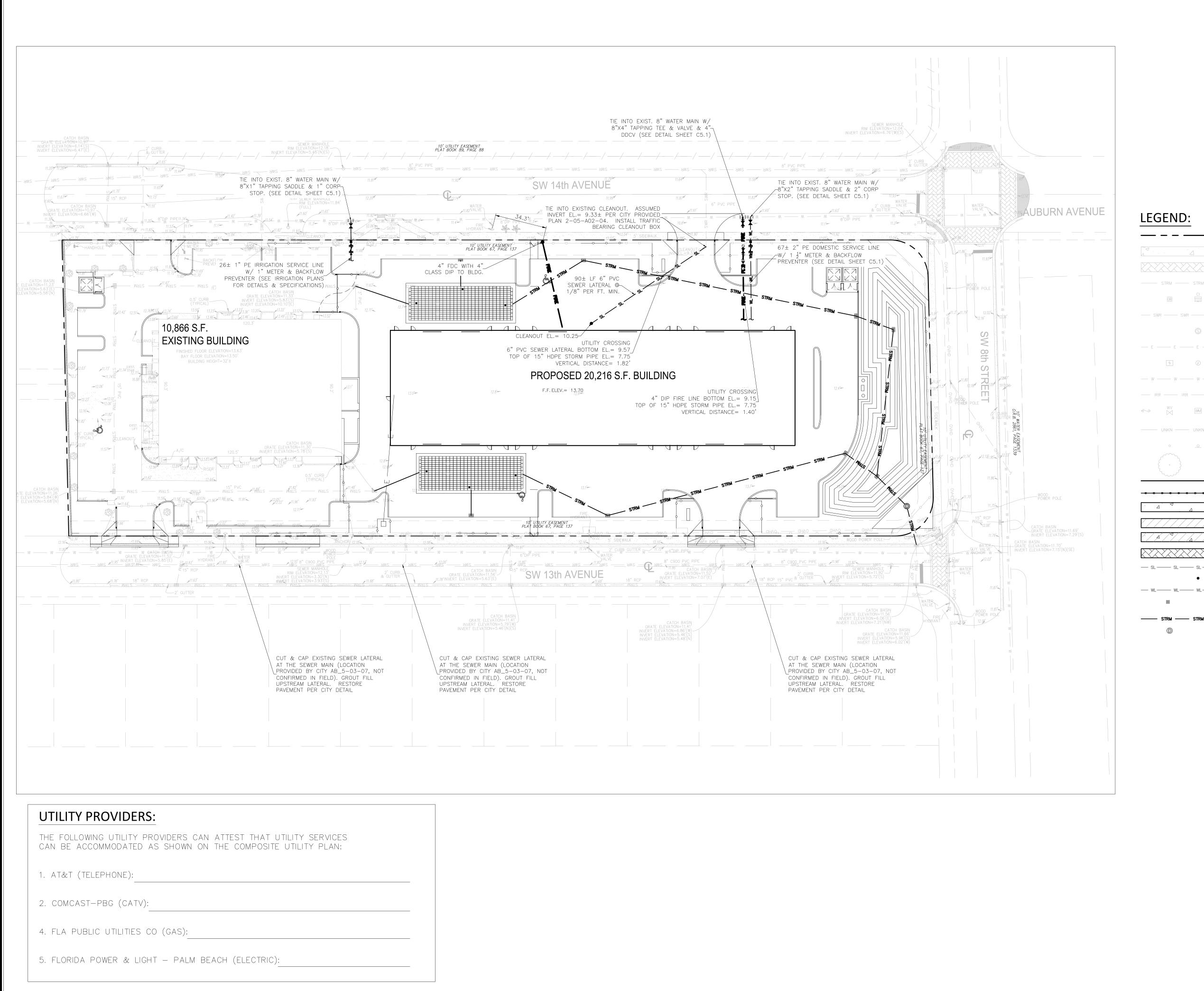
2. Each lift shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The side lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.

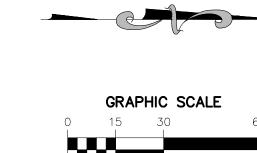
3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank

Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the gedextite and K-Tank units.
 No compaction equipment is permissible to operated directly on the R-Tank modules.
 Top Backfill: Only low pressure track vehicles shall be operated over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system (beginning to the system unity to the syst

A routine maintenance effort in required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on prefreshment systems. Ensuring a routine maintenance effort in required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on prefreshment systems shall be inspected yearly, or as discreted by the regulatory agency and by the manufacturer (for proprietary systems). Maintain as needed using acceptable practices or following a properly systems). Maintain as needed using acceptable practices or following and interpretation and or the formation of the systems and inspected practices or following a

6 of 6





( IN FEET )

1 INCH = 30 FEET

			RIGHT OF WAY/PROPERTY LINE
√	- <u>A</u>	< √ .	EXISTING CONCRETE SIDEWALK/SURFACE (TO REMAIN)
			EXISTING CONCRETE PAVERS (TO REMAIN)
STRM	STRM -	STRM	EXISTING STORM DRAINAGE LINE (TO REMAIN)
Œ	CI		EXISTING DRAINAGE CATCH BASIN/CURB INLET/MANHOLE (TO REMAIN)
SWR S	SWR ——— S	SWR ——— SWR ——	EXISTING SANITARY SEWER LINE (TO REMAIN)
	<b>S</b>		EXISTING SANITARY SEWER MANHOLE (TO REMAIN)
— Е —— Е -	— Е —	— Е —— Е —	EXISTING BURIED ELECTRIC LINE (TO REMAIN)
4	<b>(</b> j)	>-	EXISTING WIRING PULL BOX/ELECTRIC METER/UTILITY POLE (TO REMAIN)
— w — w -	W	— w — w —	EXISTING WATER LINE (TO REMAIN)
── IRR ── WV	IRR	IRR — IRR —	EXISTING IRRIGATION LINE (TO REMAIN) EXISTING BACKFLOW PREVENTER/WATER VALVE/WATER METER/IRRIGATION CONTROL VALVE/FIRE HYDRANT (TO REMAIN)
UNKN	UNKN -	UNKN	EXISTING UNKNOWN UTILITY LINE (TO REMAIN)
•	<u> </u>	*	EXISTING BOLLARD/TRAFFIC SIGN/TRASH RECEPTACLE (TO REMAIN)
*		•	EXISTING TREES (TO REMAIN)
			PROPOSED BUILDING
	<del></del>	<del></del>	PROPOSED HAND RAIL
· . ⊿ · ⊲	Δ		PROPOSED CONCRETE SIDEWALK/SURFACE (APPROX SF)
	////		PROPOSED ASPHALT RESTORATION (APPROX. 220
/· / & / <sup>4</sup> //		/////////	PROPOSED CONCRETE SIDEWALK/SURFACE RESTORATION (APPROX. 78 SF)
			PROPOSED RELOCATED PAVERS (SEE SHEET C2.0) (APPROX SF)
— SL —— SL -	SL	— SL —— SL —	PROPOSED SEWER LATERAL
	•		PROPOSED SEWER CLEANOUT
— WL—— WL-	WL	— WL—— WL—	PROPOSED DOMESTIC WATER SERVICE LINE
		4	PROPOSED WATER METER/BACKFLOW PREVENTER (SEE DETAIL SHEET C5.1)

1. THERE ARE NO AT&T FACILITIES WITHIN THE PROJECT

PROPOSED STORM DRAINAGE LINE

PROPOSED DRAINAGE MANHOLE/CATCH BASIN

- 2. ANY TREES OR SHRUBS PLACED WITHIN WATER, SEWER, OR DRAINAGE EASEMENTS SHALL CONFORM TO THE CITY OF DELRAY BEACH STANDARD DETAILS; LD 1.0 &
- LD2.0
  3. CONTRACTOR SHALL COORDINATE WITH CITY UTILITIES REGARDING THE LOCATION OF EXISTING SANITARY
  SEWER LATERALS TO BE CUT & CAPPED AT THE SEWER
  MAIN ON SW 13TH AVENUE TO VERIFY EXACT LOCATION
  PRIOR TO COMMENCEMENT OF CONSTRUCTION.

7318 LB6680 LC 22-00015 C5.0

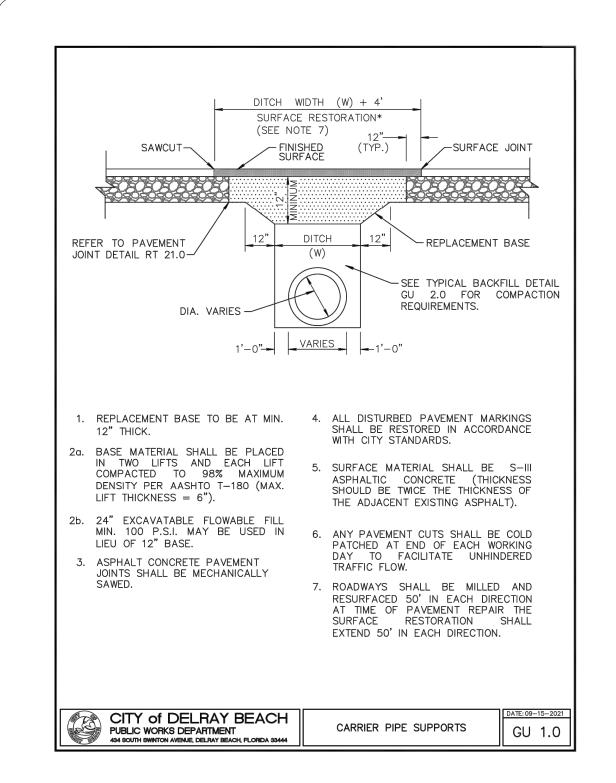
8-14-22

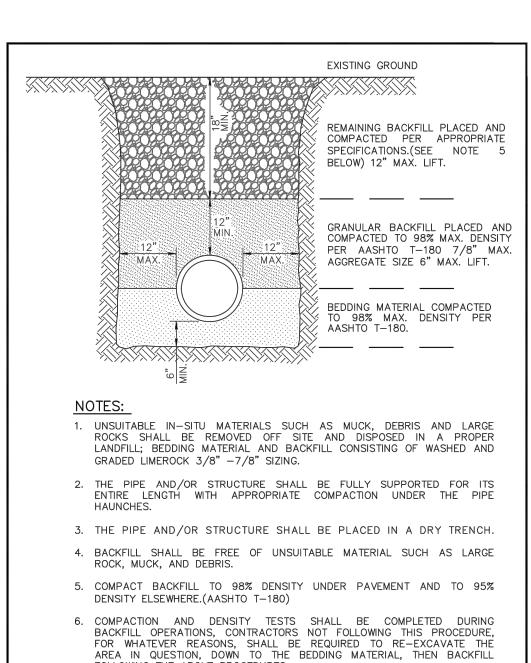
APPROVED: WILLIAM E. SCHIPSKE, P.E. FLA. REGISTRATION NO. 35618 DATE : 1/31/2025

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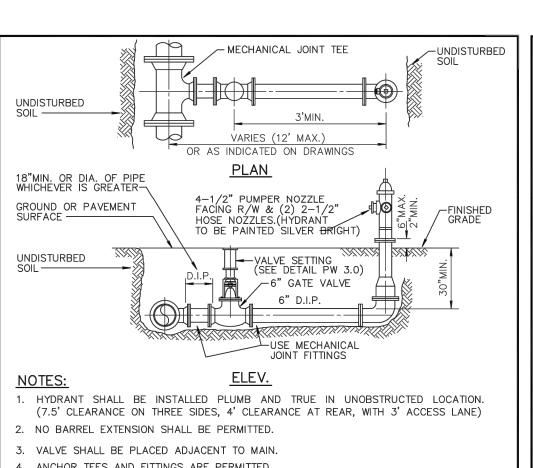


TYPICAL BACKFILL DETAIL

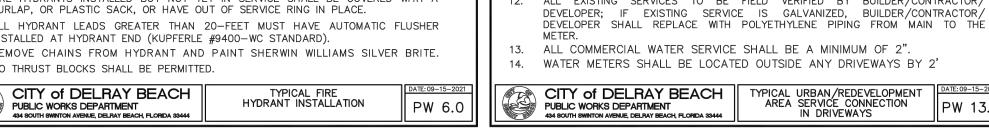
FOLLOWING THE ABOVE PROCEDURES.

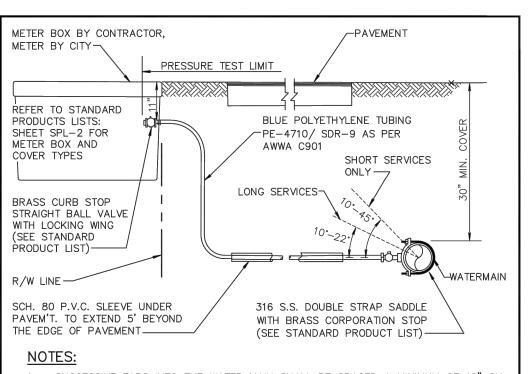
CITY of DELRAY BEACH

PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444



- 4. ANCHOR TEES AND FITTINGS ARE PERMITTED. 5. HYDRANT SHALL BE MUELLER SUPER CENTURION, AA423 5¼ WITH TRAFFIC BREAKAWAY FLANGE AND 5¼" VALVE.
- . HYDRANTS SHALL NOT ENCROACH IN SIDEWALKS, ROADWAYS, OR BIKE PATHS. 7. ON RUNS LONGER THAN 20 FEET A SECOND VALVE IS REQUIRED AT THE HYDRANT.
- 8. ALL HYDRANT INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF DELRAY BEACH FIRE PREVENTION CODE SEC. 96.05. 9. IN CERTAIN SITUATIONS, PROTECTIVE BOLLARDS MAY BE REQUIRED AS DIRECTED BY THE ENGINEERING DEPT. (SEE BOLLARD DETAIL PW 7.0)
- O. FIRE HYDRANTS INSTALLED BUT NOT YET IN SERVICE SHALL BE COVERED WITH A BURLAP, OR PLASTIC SACK, OR HAVE OUT OF SERVICE RING IN PLACE. 1. ALL HYDRANT LEADS GREATER THAN 20-FEET MUST HAVE AUTOMATIC FLUSHER INSTALLED AT HYDRANT END (KUPFERLE #9400-WC STANDARD).
- 2. REMOVE CHAINS FROM HYDRANT AND PAINT SHERWIN WILLIAMS SILVER BRITE. 13. NO THRUST BLOCKS SHALL BE PERMITTED. CITY of DELRAY BEACH HYDRANT INSTALLATION





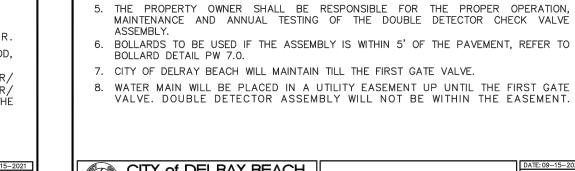
SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" ON 2. SERVICE LINES SHALL NOT BE PLACED UNDER DRIVEWAYS.

3. ALL METERS REQUIRE A LOCKING BRASS CURB STOP WITH LOCK WING (1"MIN.). 4. NO FITTINGS BETWEEN CORPORATION STOP AND BRANCH ASSEMBLY. 5. MAXIMUM SERVICE LENGTH IS 100' TO METER. 6. CASING PIPE I.D. SHALL BE SERVICE O.D. PLUS 1" MINIMUM.

7. MINIMUM BEND RADIUS ON SERVICES SHALL BE 14" ON ALL SERVICES BEHIND

8. METER SIZE WILL BE DETERMINED BY PUBLIC UTILITIES DEPT. UPON APPLICATION ALL VALVES TO BE BALL VALVES. 10. METER BOX SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR.

ALL SERVICES UNDER ROADWAYS ARE TO BE INSTALLED BY TRENCHLESS METHOD, UNLESS OTHERWISE APPROVED. ALL EXISTING SERVICES TO BE FIELD VERIFIED BY BUILDER/CONTRACTOR/



STAINLESS STEEL "Y"
BACKFLOW SUPPORT

VALVE-

RESPONSIBILITY RESPONSIBILITY

1. FOR ALL SERVICES GREATER THAN 2" DIA.

BY THE CITY OF DELRAY BEACH.

C510, AND APPROVAL OF UTILITIES DEPARTMENT.

CONC. SLAB

BACKFLOW SUPPORT-

BETWEEN VALVE AND

CITY of DELRAY BEACH DOUBLE DETECTOR CHECK VALVE | PW 16.0 PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

. ALL PIPE AND FITTINGS SHALL BE CLASS 350 DUCTILE IRON CEMENT LINED WITH CEMENT LINED DUCTILE IRON FLANGE FITTINGS FOR ABOVE GROUND USE.

MECHANICAL JOINT SHALL BE USED UNDERGROUND IN ACCORDANCE WITH AWWA

THE DOUBLE DETECTOR CHECK VALVE ASSEMBLY SHALL MEET AWWA M14 AND AWWA

CERTIFICATION OF PROPER INSTALLATION AND OPERATION WILL BE REQUIRED FROM A

CERTIFIED BACKFLOW PREVENTION TECHNICIAN PRIOR TO WATER MAIN ACCEPTANCE

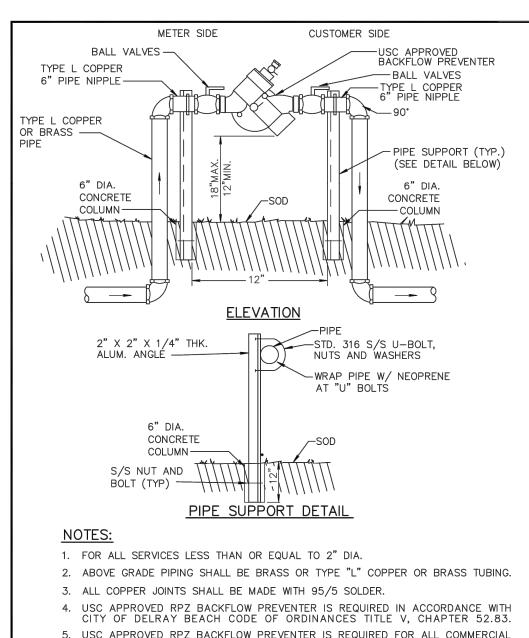
DOUBLE DETECTOR CHECK

-0S & Y

RESILIENT WEDGE

GATE VALVES

VALVE ASSEMBLY



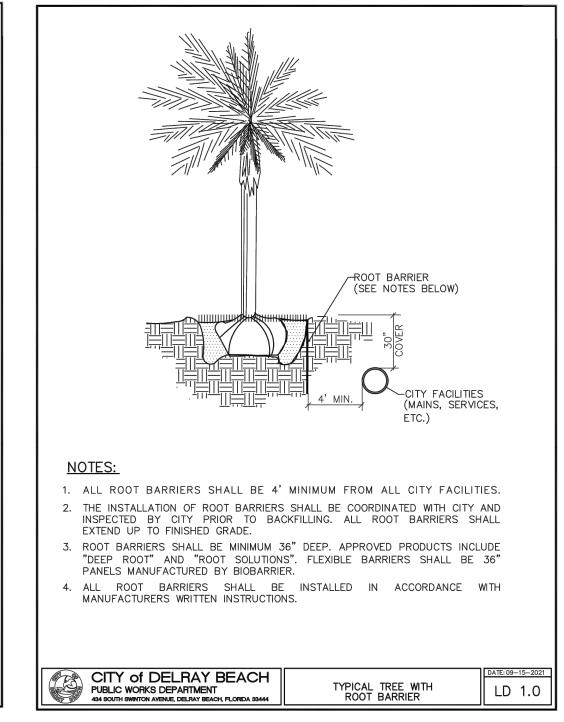
PROPERTIES AND ALL RESIDENTIAL PROPERTIES WITH FIRE SPRINKLER SYSTEMS.

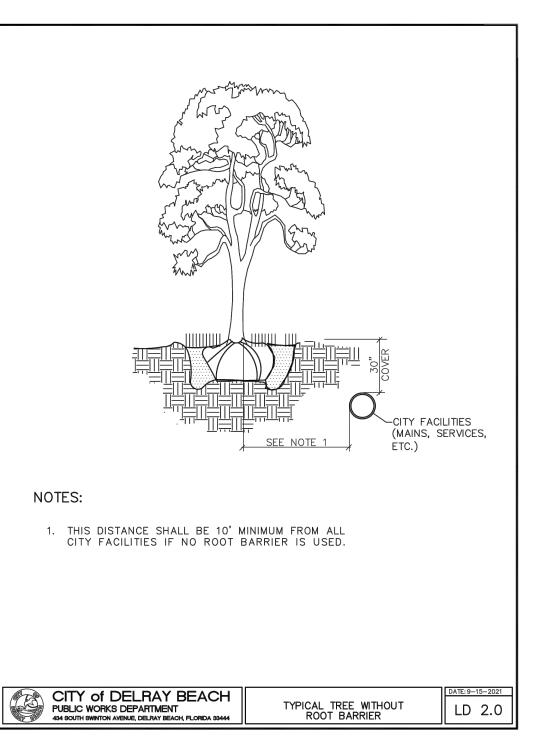
CITY of DELRAY BEACH

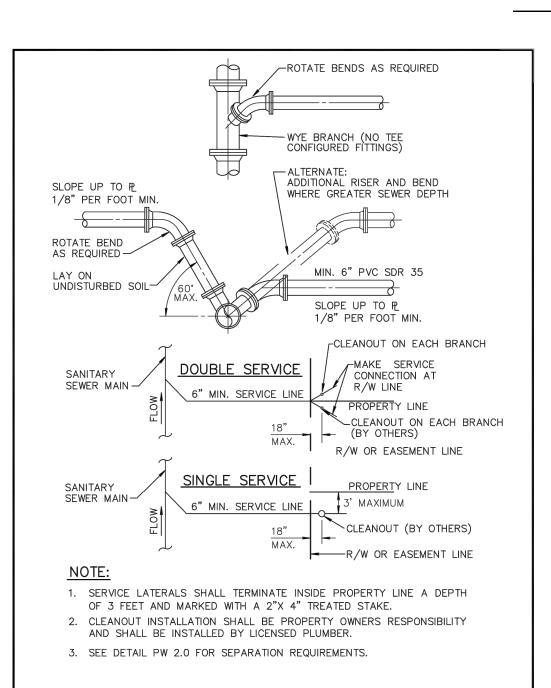
PUBLIC WORKS DEPARTMENT
494 BOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 394

REDUCED PRESSURE ZONE BACKFLOW PREVENTER

∥PW 17.0





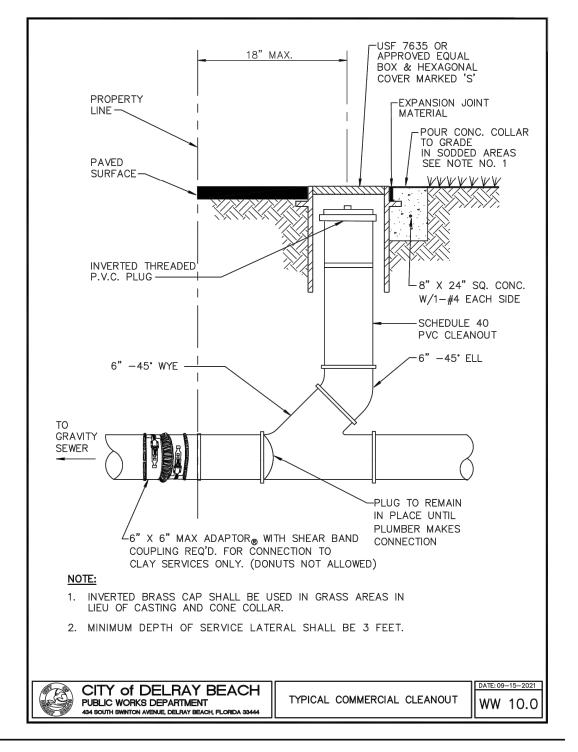


SEWER SERVICE CONNECTION

|| ww 8.0

CITY of DELRAY BEACH

PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444





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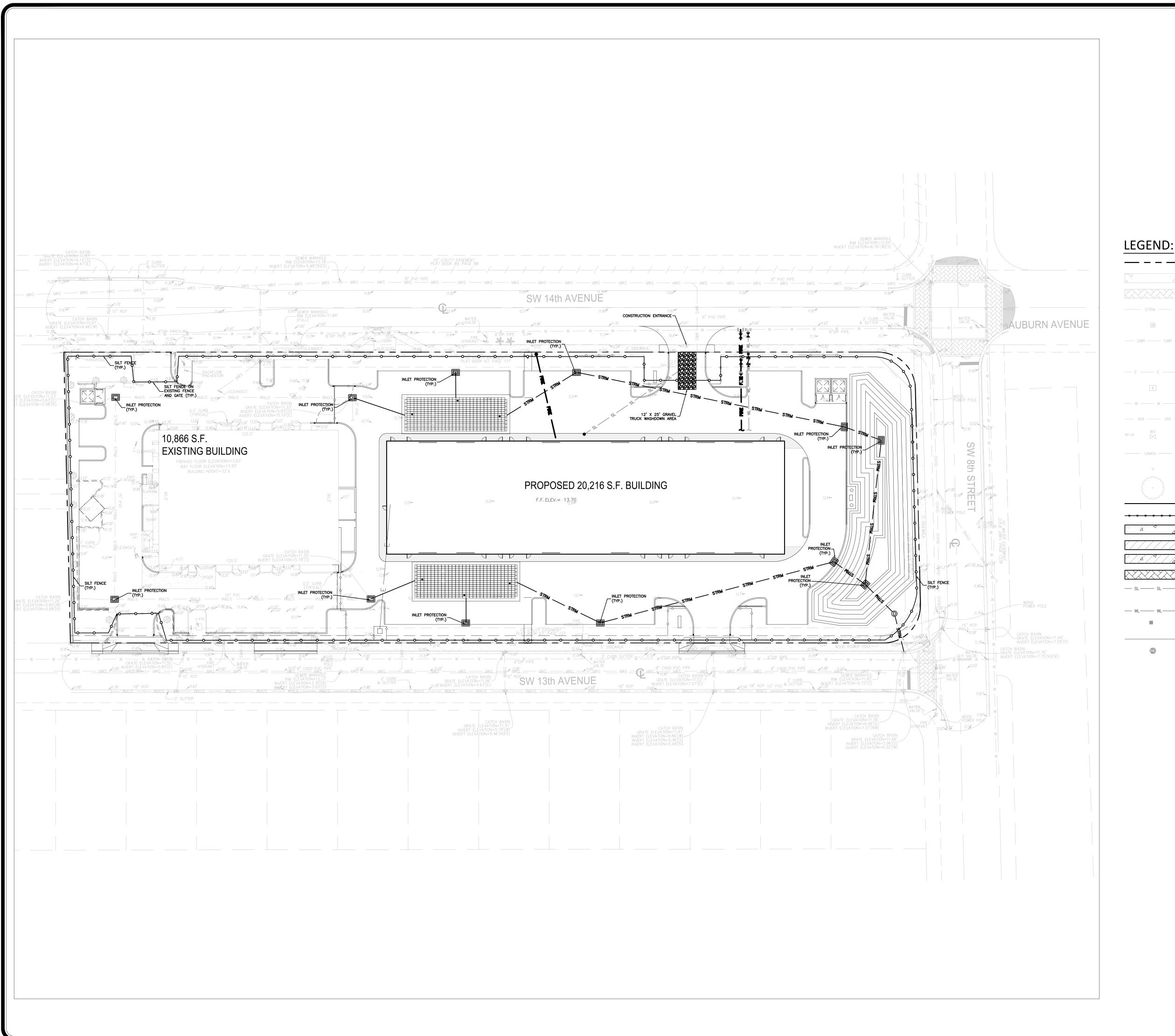
ERTIFICATES OF AUTHORIZA

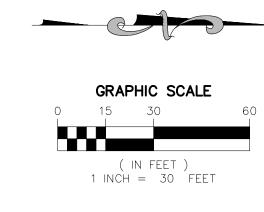
318 LB6680 LC

FLA. REGISTRATION NO. 35618

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			RIGHT OF WAY/PROPERTY LINE
√	4	<	EXISTING CONCRETE SIDEWALK/SURFACE REMAIN)
			EXISTING CONCRETE PAVERS (TO REMAIN
STRM —	STRM -	STRM	EXISTING STORM DRAINAGE LINE (TO RE)
(CB)	CI		EXISTING DRAINAGE CATCH BASIN/CURB INLET/MANHOLE (TO REMAIN)
SWR	SWR ——	SWR ——— SWR ——	EXISTING SANITARY SEWER LINE (TO REM
			EXISTING SANITARY SEWER MANHOLE (TO
— Е —— Е	E	— Е — Е —	EXISTING BURIED ELECTRIC LINE (TO REM
4	<b>(</b>	$\rightarrow$	EXISTING WIRING PULL BOX/ELECTRIC METER/UTILITY POLE (TO REMAIN)
— w — w -	W	w w	EXISTING WATER LINE (TO REMAIN)
IRR WV	IRR ——	IRR — IRR —	EXISTING IRRIGATION LINE (TO REMAIN) EXISTING BACKFLOW PREVENTER/WATER VALVE/WATER METER/IRRIGATION CONTR VALVE/FIRE HYDRANT (TO REMAIN)
———— UNKN —	UNKN -	UNKN	EXISTING UNKNOWN UTILITY LINE (TO RE
•		*	EXISTING BOLLARD/TRAFFIC SIGN/TRASH RECEPTACLE (TO REMAIN)
* * * * * * * * * * * * * * * * * * * *	}	•	EXISTING TREES (TO REMAIN)
			PROPOSED BUILDING
			PROPOSED HAND RAIL
Д	Δ	· · · · · · ·	PROPOSED CONCRETE SIDEWALK/SURFACE (APPROX SF)
	////		PROPOSED ASPHALT RESTORATION (APP
·/· / A / \	//\\		PROPOSED CONCRETE SIDEWALK/SURFACE RESTORATION (APPROX. 78 SF)
			PROPOSED RELOCATED PAVERS (SEE SH (APPROX SF)
— SL —— SL ·	SL	SL SL	PROPOSED SEWER LATERAL
	•		PROPOSED SEWER CLEANOUT
— WL WL-	WL		PROPOSED DOMESTIC WATER SERVICE LI PROPOSED WATER METER/BACKFLOW PR (SEE DETAIL SHEET C5.1)
			PROPOSED STORM DRAINAGE LINE

XISTING CONCRETE SIDEWALK/SURFACE (TO XISTING CONCRETE PAVERS (TO REMAIN)

XISTING STORM DRAINAGE LINE (TO REMAIN) XISTING DRAINAGE CATCH BASIN/CURB

XISTING SANITARY SEWER LINE (TO REMAIN)

XISTING SANITARY SEWER MANHOLE (TO REMAIN)

XISTING BURIED ELECTRIC LINE (TO REMAIN) XISTING WIRING PULL BOX/ELECTRIC IETER/UTILITY POLE (TO REMAIN)

XISTING WATER LINE (TO REMAIN) XISTING IRRIGATION LINE (TO REMAIN)

ALVE/WATER METER/IRRIGATION CONTROL ALVE/FIRE HYDRANT (TO REMAIN) XISTING UNKNOWN UTILITY LINE (TO REMAIN)

XISTING BOLLARD/TRAFFIC SIGN/TRASH ECEPTACLE (TO REMAIN)

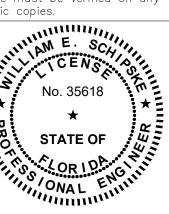
ROPOSED ASPHALT RESTORATION (APPROX. 220 PROPOSED CONCRETE SIDEWALK/SURFACE RESTORATION (APPROX. 78 SF) ROPOSED RELOCATED PAVERS (SEE SHEET C2.0) PPROX. \_\_ SF)

ROPOSED DOMESTIC WATER SERVICE LINE PROPOSED WATER METER/BACKFLOW PREVENTER SEE DETAIL SHEET C5.1)

ROPOSED DRAINAGE MANHOLE/CATCH BASIN

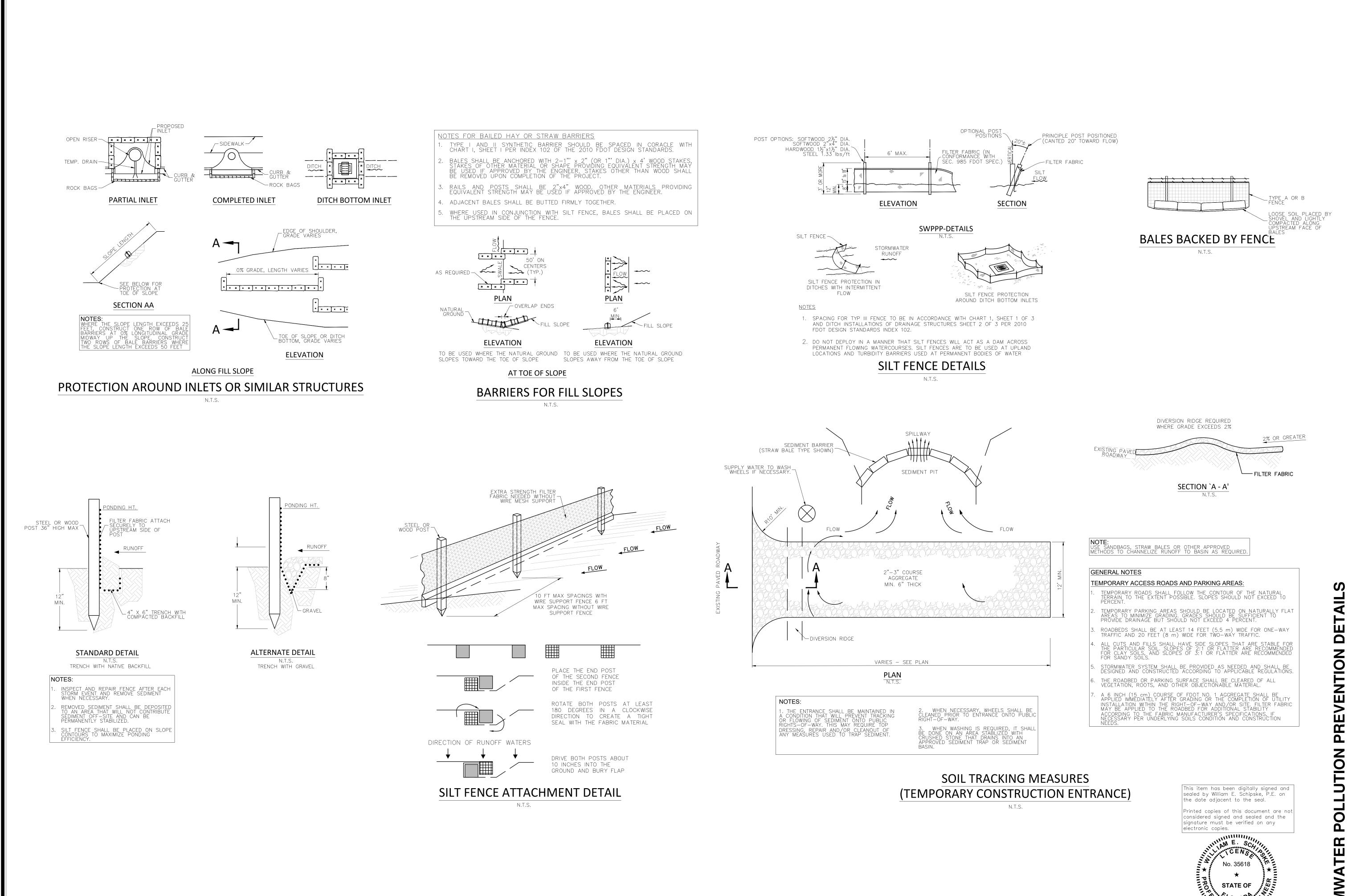
1. THERE ARE NO AT&T FACILITIES WITHIN THE PROJECT AREA.
2. ANY TREES OR SHRUBS PLACED WITHIN WATER, SEWER, OR DRAINAGE EASEMENTS SHALL CONFORM TO THE CITY OF DELRAY BEACH STANDARD DETAILS; LD 1.1 &

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<sup>7</sup>318 LB6680 LC PROJECT / FILE NO.

22-00015 C6.1 8-14-22

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