

# SITE IMPROVEMENT PLANS FOR: FIRST BUSINESS PARK

2360 S RIDGEWOOD AVE  
EDGEWATER, VOLUSIA COUNTY, FLORIDA 32141



ENGINEERS  
PLANNERS  
11358 N. Government Way  
Hayden, Idaho 83835  
Office (208) 665-9502

## PROJECT TEAM

**OWNER / APPLICANT**  
VINCENZO DONNICI  
FIRST BUSINESS PARK LLC  
1734 SPOTTSWODE COURT  
PORT ORANGE, FLORIDA 32128

**CIVIL ENGINEER OF RECORD**  
TRI-STATE CONSULTING ENGINEERS  
11358 N. GOVERNMENT WAY  
HAYDEN, IDAHO 83835  
208.665.9502

**SURVEYOR OF RECORD**  
GREG S. CULLUM, PSM  
CULLUM LAND SURVEYING, INC.  
5889 S. WILLIAMSON BLVD.  
SUITE 205  
PORT ORANGE, FLORIDA 32128  
386.761.7666

**PROJECT STATEMENT**  
PROPOSE A COMMERCIAL BUSINESS PARK KNOWN AS "FIRST BUSINESS PARK"

**PROJECT SCOPE**  
TWO PROPOSED BUILDINGS 32,640 SF ASPHALT, DRIVE AISLE PARKING, ASSOCIATED STORMWATER, UTILITIES AND LANDSCAPING

**SITE DATA / VERTICAL DATUM**  
THE VERTICAL DATUM FOR THIS PROJECT IS NAVD 88 SEE SURVEY DATA FROM COLLUM LAND SURVEYING, INC

**ZONING**  
BPUD (BUSINESS PLANNED UNIT DEVELOPMENT)

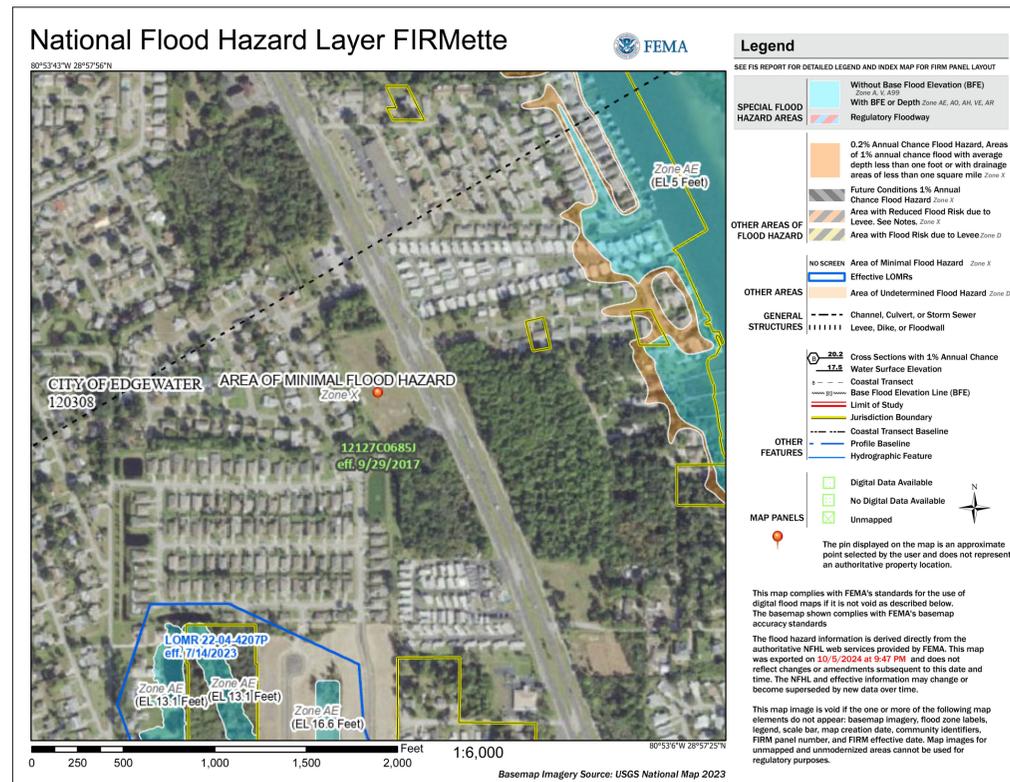
**LEGAL DESCRIPTION**  
2-18-34 IRREGULAR PARCEL LYING WEST OF US HIGHWAY 1 EAST OF SILVERRIDGE SUBDIVISION UNIT 1 & WEST OF MAJESTIC OAKS PHASE 1 BEING 482.91 FT ALONG R/W US HIGHWAY 1 SOUTH OF A 30 FT DRAINAGE & UTILITIES R/W SHOWN ON PLAT OF SILVER RIDGE UNIT 1 MEASURING 268.11 FT ON S/L & 277.45 FT ON N/L PER OR 3839 PG 4163 PER OR 5527 PG 0463 PER OR 5791 PER OR 3839 PG 4163 PER OR 8468 PG 3895 PER OR 8600 PG 3273

**JURISDICTIONAL AGENCY**  
CITY OF EDGEWATER (SITE PLAN)  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (NPDES NOI)  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WASTEWATER)

**NOTE:**  
THE GENERAL CONTRACTOR SHALL ENSURE THAT ANY SUBCONTRACTOR HAS A COMPLETE SET OF CONSTRUCTION DRAWINGS FOR ITS RESPECTIVE WORK. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR SUBCONTRACTORS ONLY UTILIZING INDIVIDUAL DRAWINGS FOR ITS WORK WHERE ADDITIONAL INFORMATION MAY BE CONTAINED ON OTHER DRAWINGS WITHIN THE SET.

### CONTACT NUMBERS

PERMITTING SERVICES:	CITY OF EDGEWATER	386.424.2400 EXT. 1514
WATER:	CITY OF EDGEWATER	386.424.2400 EXT. 4007
WASTEWATER:	CITY OF EDGEWATER	386.424.2400 EXT. 4007
ELECTRIC:	FLORIDA POWER AND LIGHT COMPANY	386.254.2353
GAS:	TESCO PEOPLES GAS	386.672.2232
TELEPHONE:	AT&T	386.423.5858
CABLE:	SPECTRUM	855.222.0102



**FLOOD ZONE MAP**  
NO SCALE



Sheet List Table	
SHEET NUMBER	SHEET TITLE
T1	COVER SHEET
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C1	EXISTING SITE
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D6	ROAD DETAILS

COVER SHEET FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

DESIGNED:  
SWS

DRAWN BY:  
MHM

CHECKED:  
AO

SCALE:  
H: N/A  
V: N/A

PROJECT NUMBER  
24.009

SHEET

T1



CALL 811  
48 HOURS BEFORE YOU DIG

**GENERAL CONSTRUCTION NOTES**

- GOVERNING SPECIFICATIONS: CITY OF EDGEWATER LAND DEVELOPMENT CODE, CITY OF EDGEWATER STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS, CURRENT EDITION, UTILITIES DEPARTMENT, CITY OF EDGEWATER STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS, CURRENT EDITION.
- ALL CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY SHALL CONFORM TO THE 2017 / 2018 EDITION OF THE FDOT DESIGN STANDARD INDEXES, THE 2017 EDITION OF THE FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND THE 2010 EDITION OF THE FDOT UTILITY ACCOMMODATIONS MANUAL.
- ALL UTILITY MATERIAL, CONSTRUCTION AND TESTING COVERED BY THESE DRAWINGS SHALL COMPLY WITH THE UTILITIES DEPARTMENT, CITY OF EDGEWATER STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS, LATEST EDITION. ALL UTILITY WORK AND CONNECTIONS SHALL BE COORDINATED WITH THE CITY OF EDGEWATER INSPECTORS.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL REQUIRED PERMITS. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL PERMITS AVAILABLE ON THE JOB SITE AT ALL TIMES.
- THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE A RECORD COPY OF ALL CONSTRUCTION DRAWINGS AND SPECIFICATIONS ON WHICH ALL FIELD CHANGES ARE TO BE SHOWN. ALL CHANGES TO PLANS SHALL BE INCORPORATED IN THE "AS-BUILT" RECORD DRAWINGS SURVEY PROVIDED BY CONTRACTOR FOR REVIEW AND APPROVAL FROM ENGINEER OF RECORD.
- THE UTILITIES DEPARTMENT, CITY OF EDGEWATER WILL OWN AND MAINTAIN ALL WATER AND SEWER SERVICES LOCATED WITHIN THE RIGHT-OF-WAY AND UTILITY COMMISSION EASEMENTS.
- THE CONTRACTOR SHALL PAY FOR AND OBTAIN A SITE ENGINEERING BUILDING PERMIT. THE ENGINEER WILL SCHEDULE THE PRE-CONSTRUCTION CONFERENCE BEFORE THE CONTRACTOR'S START OF WORK. THE CONTRACTOR SHALL CONTACT THE BUILDING DEPARTMENT AT (386) 424-2400 EXT. 1514 FOR INFORMATION ON ISSUANCE OF CITY PERMITS AND / OR OTHER REQUIREMENTS.
- ALL WATER SERVICE CONSTRUCTION SHALL BE IN ACCORDANCE WITH "WATER SERVICE RULES, DESIGN AND CONSTRUCTION STANDARDS", UTILITIES DEPARTMENT AND CITY OF EDGEWATER, LATEST EDITION.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH "WASTEWATER RULES, DESIGN AND CONSTRUCTION STANDARDS", UTILITIES DEPARTMENT AND CITY OF EDGEWATER BEACH, LATEST EDITION.
- ALL ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FLORIDA POWER AND LIGHT REQUIREMENTS, LATEST EDITION.
- ALL ROADWAY SIGNAGE AND MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
- THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- SHOP DRAWINGS AND CERTIFICATIONS FOR ALL MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL REVIEW AND SIGN ALL SHOP DRAWINGS. THE CONTRACTOR TO SUBMIT REVIEWED SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.
- THE LOCATION OF EXISTING UTILITIES HAS BEEN OBTAINED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT SHALL BE EACH CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT NATURE OF ALL UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND TO NOTIFY TRI-STATE CONSULTING ENGINEERS, INC. AS TO DISCREPANCIES, IF ANY EXIST.
- ALL SURVEY AND TOPOGRAPHICAL INFORMATION BASED ON SURVEY INFORMATION PROVIDED BY GREG S. CULLUM, PSM, OWNER OF CULLUM LAND SURVEYING INC. CONTRACTOR TO COORDINATE WITH SURVEYOR FOR ALL CONSTRUCTION BENCHMARK INFORMATION.
- ALL SURVEY AND TOPOGRAPHICAL INFORMATION IS BASED ON THE NAVD 1988 DATUM. ALL PROPOSED CONSTRUCTION ELEVATIONS ARE BASED ON THE NAVD 1988 DATUM. ALL PROPOSED ELEVATIONS REFER TO FINISH GRADES.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR INSTRUCTING THE CONTRACTOR IN THE METHODS OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE METHOD TO CONSTRUCT THE IMPROVEMENTS AS SHOWN ON THE PLANS.
- ANY CHANGES TO THE APPROVED PLANS REQUIRE COMPLETION OF THE CHANGE ORDER PROCESS.
- LITTER CONTROL MEASURES TO PREVENT WIND-DRIVEN DEBRIS SHALL BE IMPLEMENTED THROUGHOUT THE DURATION OF CONSTRUCTION. ALL DEBRIS SHALL BE REMOVED AND THE PROJECT SITE CLEANED WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION.
- AT NO TIME SHALL EXCAVATIONS BE LEFT UNCOVERED AFTER WORKING HOURS. CONTRACTOR SHALL SECURE THE WORK AREA AT THE END OF EACH DAY'S WORK.
- AT ALL TIMES, THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT UNDERGROUND UTILITIES, STRUCTURES AND OTHER ASSOCIATED FACILITIES FROM DAMAGE DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEASURES OF PROTECTION. ANY DAMAGED FACILITIES SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY OR ENGINEER AT THE CONTRACTORS EXPENSE.
- THERE SHALL BE NO DEVIATIONS FROM THESE PLANS UNLESS APPROVED IN WRITING BY THE ENGINEER AND THE OWNER.
- ALL DISTURBED AREAS SHALL BE FULLY SODDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF THE RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND BASE DENSITIES AT UTILITY CROSSINGS, MANHOLES, INLETS, STRUCTURES. TEST SHALL INCLUDE ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, WATER MAIN TESTING, SANITARY SEWER TESTING, ETC.
- WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.
- PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.
- IF ANY MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH APPROPRIATE FILL, COMPACTED, AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
- FILL MATERIAL IS TO BE PLACED IN 1-FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER AASHTO T-180).
- ROAD CLOSURES ARE SEPARATE FROM THE PERMIT AND REQUIRE PLAN REVIEW AND APPROVAL WITH 7 DAY ADVANCE NOTICE FROM THE OWNER OF THE AFFECTED RIGHT-OF-WAY PRIOR TO ANY ROAD CLOSURES. A MAINTENANCE OF TRAFFIC PLAN IS REQUIRED FOR ALL SITE CONSTRUCTION JOBS.
- ALL REQUIRED FIRE MAINS AND HYDRANTS SHALL BE INSTALLED AND OPERATIONAL PRIOR TO THE START OF VERTICAL BUILDING CONSTRUCTION.
- NO BURYING OF ANY ORGANIC MATERIALS ALLOWED.
- THERE WILL BE NO PROPOSED OVERHEAD UTILITY AND SERVICE LINES ASSOCIATED WITH THIS PROJECT. ALL UTILITY LINES AND SERVICES WILL BE INSTALLED UNDERGROUND.

**POTABLE WATER CONSTRUCTION NOTES**

- ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT WILL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
- ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL COME INTO CONTACT WITH DRINKING WATER WILL CONFORM TO NSF INTERNATIONAL STANDARD 61.
- ALL PROPOSED WATER MAINS SHALL BE FLUSHED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-651 AND THE FDEP PROTECTION REQUIREMENTS.
- POTABLE WATER PIPES SHALL BE HYDROSTATICALLY TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH AWWA STANDARD C600 FOR DUCTILE IRON PIPES AND C605 FOR PVC PIPES, RESPECTIVELY.
- ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL CONTAIN NO LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LEAD.
- ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE. WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24-INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.)
- POTABLE WATER PIPES MUST BE MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING AWWA SPECIFICATIONS:
  - DUCTILE IRON PIPE (3-INCHES TO 54-INCHES) - AWWA C150 AND AWWA C151;
  - PVC PIPE (1) AWWA C900/ASTM 1784 (1-INCH TO 12-INCHES) WITH CL200 MINIMUM; (2) AWWA C905 (14-INCHES TO 48-INCHES)
- ALL FIRE HYDRANTS THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL HAVE UNPLUGGED, UNDERGROUND DRAINS WILL BE LOCATED AT LEAST 3-FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER OR VACUUM-TYPE SANITARY SEWER; AT LEAST 6-FEET FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-10, F.A.C.; AND AT LEAST 10-FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
- NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT WILL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS OR IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED PROCEDURES.
- A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE; AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST 6-INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT.
- ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS INSTALLED UNDER THIS PROJECT WILL BE PROVIDED WITH THRUST BLOCKS OR RESTRAINED JOINTS TO PREVENT MOVEMENT.
- NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C605 AND ALL OTHER NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600.
- NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT WILL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 3-FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST 6-FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST 3-FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST 6-INCHES ABOVE THE TOP OF THE SEWER); A HORIZONTAL DISTANCE OF AT LEAST 6-FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST 10-FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
- NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 6-INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12-INCHES BELOW THE OTHER PIPELINE; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12-INCHES ABOVE OR BELOW THE OTHER PIPELINE.
- AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 3-FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST 6-FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- IF CONNECTION OF THE PROPOSED ACTIVITY TO THE WATER MAIN WILL RESULT IN A DEPRESSURIZATION OF THE EXISTING SYSTEM BELOW 20 POUNDS PER SQUARE INCH, ONE OF THE FOLLOWING MUST OCCUR:
  - PRECAUTIONARY BOIL WATER NOTICES MUST BE ISSUED IN CASES OF PLANNED DISTRIBUTION INTERRUPTIONS, WHICH ARE DEEMED AN IMMINENT PUBLIC HEALTH THREAT BY THE FDEP CENTRAL DISTRICT OR WILL AFFECT THE BACTERIOLOGICAL QUALITY OF THE DRINKING WATER UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGMENT, THAT THE INTEGRITY OF THE WATER SYSTEM HAS BEEN MAINTAINED, OR
  - IN CASE OF BRIEF INTERRUPTION IN SERVICE, ADVISORIES (NOT BOIL WATER NOTICES) SHOULD BE ISSUED IF TEMPORARY CHANGES IN WATER QUALITY ARE EXPECTED TO OCCUR AND NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.
- IF DEPRESSURIZATION OF AN EXISTING SYSTEM BELOW 20 PSI OCCURS, WHETHER PLANNED OR UNPLANNED, THE CITY OF EDGEWATER'S UTILITY DIVISION IS TO BE NOTIFIED IMMEDIATELY.

**FDEP WASTEWATER CONSTRUCTION NOTES**

- APPROPRIATE DEFLECTION TEST ARE SPECIFIED 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: 1) NO PIPE SHALL EXCEED A DEFLECTION OF 5%; 2) USING 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 SPECIFICATIONS, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURE; AND 3) PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.
- LEAKAGE TEST ARE SPECIFIED REQUIRING THAT: 1) 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; 2) EXFILTRATION OR INFILTRATION TEST BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2-FEET; AND 3) AIR TEST, 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 OTHER MATERIAL APPROPRIATE TEST PROCEDURES.
- MANHOLE INSPECTION AND TESTING FOR WATERTIGHTNESS OR DAMAGE PRIOR TO PLACING INTO SERVICE ARE REQUIRED, AIR TESTING SPECIFIED FOR CONCRETE SEWER MANHOLES. SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.
- SUITABLE COUPLINGS COMPLYING WITH ASTM SPECIFICATIONS ARE REQUIRED FOR JOINING DISSIMILAR MATERIALS.
- CONCRETE MANHOLES SHALL HAVE THE FOLLOWING: 1) MANHOLE LIFT HOLES AND GRADE ADJUSTMENT RINGS SEALED WITH NON-SHRINK MORTAR OR OTHER APPROPRIATE MATERIAL; 2) INLET AND OUTLET PIPES BE JOINED TO THE MANHOLE WITH A GASKETED FLEXIBLE WATERTIGHT CONNECTION OR ANOTHER WATERTIGHT CONNECTION ARRANGEMENT THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL; 3) WATERTIGHT MANHOLE COVERS BE USED WHEREVER THE TOPS MAY BE FLOODED BY STREET RUNOFF OR HIGH WATER.
- ALL SEWER LINES 8-INCHES AND GREATER ARE TO BE PIGGED AND TELEVIEWED AND A COPY PROVIDED TO THE CITY'S INSPECTOR. FDEP WASTEWATER CONSTRUCTION NOTES

**VOLUSIA COUNTY IRRIGATION NOTES**

- AUTOMATIC IRRIGATION CONTROLLERS, WHEN UTILIZED, SHALL CONTAIN A FUNCTIONAL RAIN SENSOR DEVICE, CAPABLE OF BEING SET TO ONE MINUTE RUN TIMES, AND BATTERY BACKUP CAPABILITY TO RETAIN PROGRAMMING IN THE EVENT OF A POWER FAILURE.
- A RAIN SENSOR PLACED ON A STATIONARY STRUCTURE, FREE AND CLEAR OF ANY OVERHEAD OBSTRUCTIONS AND ABOVE THE HEIGHT OF THE SPRINKLER COVERAGE.
- EQUIPMENT WITH CHECK VALVES USED IN LOW-LYING AREAS TO PREVENT LOW HEAD DRAINAGE.
- BACKFLOW PREVENTION METHODS AND OTHER PROVISIONS PRESCRIBED IN SECTION 74-42.
- IRRIGATION DESIGN WITH THE APPROPRIATE UNIFORMITY FOR THE TYPE OF PLANT BEING GROWN AND FOR THE TYPE OF SOIL.
- IRRIGATION SYSTEM EQUIPMENT INSTALLED AS DESIGNED.
- IRRIGATION ZONES DIVIDED ACCORDING TO: AVAILABLE FLOW RATE, VEGETATED GROUPINGS (I.E., TURF, SHRUBS, NATIVE PLANTS, ETC.), SPRINKLER TYPES (I.E., SPRINKLERS WITH MATCHING PRECIPITATION RATES) AND SOIL CHARACTERISTICS.
- SPRAY HEADS AND ROTORS NOT MIXED IN SAME ZONE.
- DISTRIBUTION EQUIPMENT IN A GIVEN ZONE HAVING MATCHED PRECIPITATION RATES.
- APPLICATION RATES THAT AVOID RUNOFF AND PERMIT UNIFORM WATER INFILTRATION INTO THE SOIL, CONSIDERING LAND SLOPE, SOIL HYDRAULIC PROPERTIES, VEGETATIVE GROUND COVER AND PREVAILING WINDS.
- A MINIMUM SEPARATION OF 4-INCHES BETWEEN DISTRIBUTION EQUIPMENT AND PAVEMENT.
- A MINIMUM SEPARATION OF 12-INCHES BETWEEN DISTRIBUTION EQUIPMENT AND BUILDINGS AND OTHER VERTICAL STRUCTURES.
- NO DIRECT SPRAY ONTO WALKWAYS, BUILDINGS, ROADWAYS AND DRIVES.
- LAWN SPRAY PATTERNS PROVIDING HEAD-TO-HEAD COVERAGE.
- WATER CONVEYANCE SYSTEMS WITH A FLOW VELOCITY OF FIVE-FEET PER SECOND OR LESS.
- PIPELINES DESIGNED TO PROVIDE THE SYSTEM WITH THE APPROPRIATE PRESSURE REQUIRED FOR MAXIMUM IRRIGATION UNIFORMITY.
- PRESSURE REGULATING HEADS.
- A MAINTENANCE CHECKLIST PROVIDED TO THE PROPERTY OWNER BY THE IRRIGATION CONTRACTOR ACCOMPANIED BY A RECOMMENDED MAINTENANCE SCHEDULE, PROPER IRRIGATION SYSTEM SETTINGS ACCORDING TO SEASON, RECOMMENDATIONS FOR CHECKING THE RAIN SENSOR DEVICE, FILTER CLEANING RECOMMENDATIONS AND INFORMATION ON THE CURRENT WATER RESTRICTIONS.
- IRRIGATION SYSTEM DESIGN WILL BE PERMITTED THROUGH VOLUSIA COUNTY.

**VOLUSIA COUNTY LANDSCAPE REQUIREMENTS**

- A HIGH VOLUME IRRIGATION AREA SHALL NOT EXCEED 50 PERCENT OF THE LANDSCAPED AREA. LOW OR MEDIUM VOLUME IRRIGATION AREAS MAY BE UTILIZED IN LIEU OF ANY HIGH VOLUME IRRIGATION AREA.
- A MEDIUM VOLUME IRRIGATION AREA SHALL NOT EXCEED 25 PERCENT OF THE LANDSCAPED AREA. HOWEVER, THE LANDSCAPED AREA MAY CONTAIN UP TO 75 PERCENT MEDIUM VOLUME IRRIGATION AREA, IF NO HIGH-VOLUME IRRIGATION AREA IS UTILIZED ON SITE.
- A LOW VOLUME IRRIGATION AREA MAY BE UTILIZED FOR AN ENTIRE LANDSCAPED AREA WITH THE EXCEPTION OF NATIVE VEGETATION AREAS REGULATED BY SECTION 50-373(B)(4).
- IN THE ALTERNATIVE TO (1), (2), AND (3) ABOVE, IF 25 PERCENT OF THE PRE-EXISTING NATIVE VEGETATION IS RETAINED ON SITE, THE REMAINING 75 PERCENT OF THE LANDSCAPED AREA MAY BE A HIGH-VOLUME IRRIGATION AREA. FOR ALL PRE-EXISTING NATIVE VEGETATION RETAINED ON A PARCEL:
  - NO SUPPLEMENTAL WATER SHALL BE APPLIED TO THE NATIVE VEGETATION AREA.
  - ONLY HAND PRUNING OF NATIVE VEGETATION IS ALLOWED.
  - MECHANICAL MOWING OR CLEARING IS PROHIBITED.

**VOLUSIA COUNTY CONTRACTOR LICENSE REQUIREMENTS**

NO PERSON MAY INSTALL OR REPAIR AN IRRIGATION SYSTEM IN VOLUSIA COUNTY UNLESS THEY POSSESS A VALID IRRIGATION CERTIFICATE OF COMPETENCY FROM THE DEPARTMENT. THE FOLLOWING PERSONS ARE EXEMPTED FROM HAVING TO POSSESS A CERTIFICATE OF COMPETENCY:

- LICENSED FLORIDA WATER WELL CONTRACTORS AND FLORIDA STATE CERTIFIED PLUMBING CONTRACTORS.
- FLORIDA STATE REGISTERED PLUMBING CONTRACTORS.
- PROPERTY OWNERS WHO PERSONALLY PERFORM CONSTRUCTION, MAINTENANCE OR REPAIRS ON AN IRRIGATION SYSTEM THAT SERVES HIS OR HER OWNER-OCCUPIED SINGLE-FAMILY RESIDENCE.

**SURVEY LEGEND**

	FOUND PROPERTY CORNER
	FOUND MONUMENT
	CALC PROPERTY CORNER
	EXISTING POWER POLE
	EXISTING TREE XX" DIA.
	EXISTING BICYCLE LANE
	WATER METER
	WATER VALVE
	EXISTING FITTING W/THRUST BLOCK
	EXISTING TEE WITH THRUST BLOCK
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING EDGE OF PAVEMENT
	PROPERTY BOUNDARY
	EXISTING CALC LOT LINES
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING DITCH TOP OF BANK
	STRIPING/PAVEMENT MARKINGS
	EXISTING WATER LINE
	EXISTING SEWER LINE
	STOP LINES

**LEGEND**

	BUILDING UNIT COUNT
	ADA STALL
	KEY NOTE
	PARKING SPACE COUNT
	CURB CUT
	CATCH BASIN
	PROPOSED CHECK VALVE
	PROPOSED WATER METER
	PROPOSED TEE
	PROPOSED FITTING
	SANITARY SEWER MANHOLE
	PROPOSED FIRE HYDRANT
	SIGN (AS NOTED)
	MAJOR PROPOSED CONTOUR
	MINOR PROPOSED CONTOUR
	PROPOSED FENCE
	PROPOSED BUILDING
	EASEMENT LINE
	PROPOSED WATER LINE
	PROPOSED SEWER LINE
	PROPOSED V DITCH
	PROPOSED CURB & GUTTER
	SIDEWALK / CONCRETE
	LANDSCAPE
	SWALE
	PAVEMENT
	CONSTRUCTION ENTRANCE



**ENGINEERS  
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**NOTES AND SPECIFICATIONS FOR:  
FIRST BUSINESS PARK  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA**

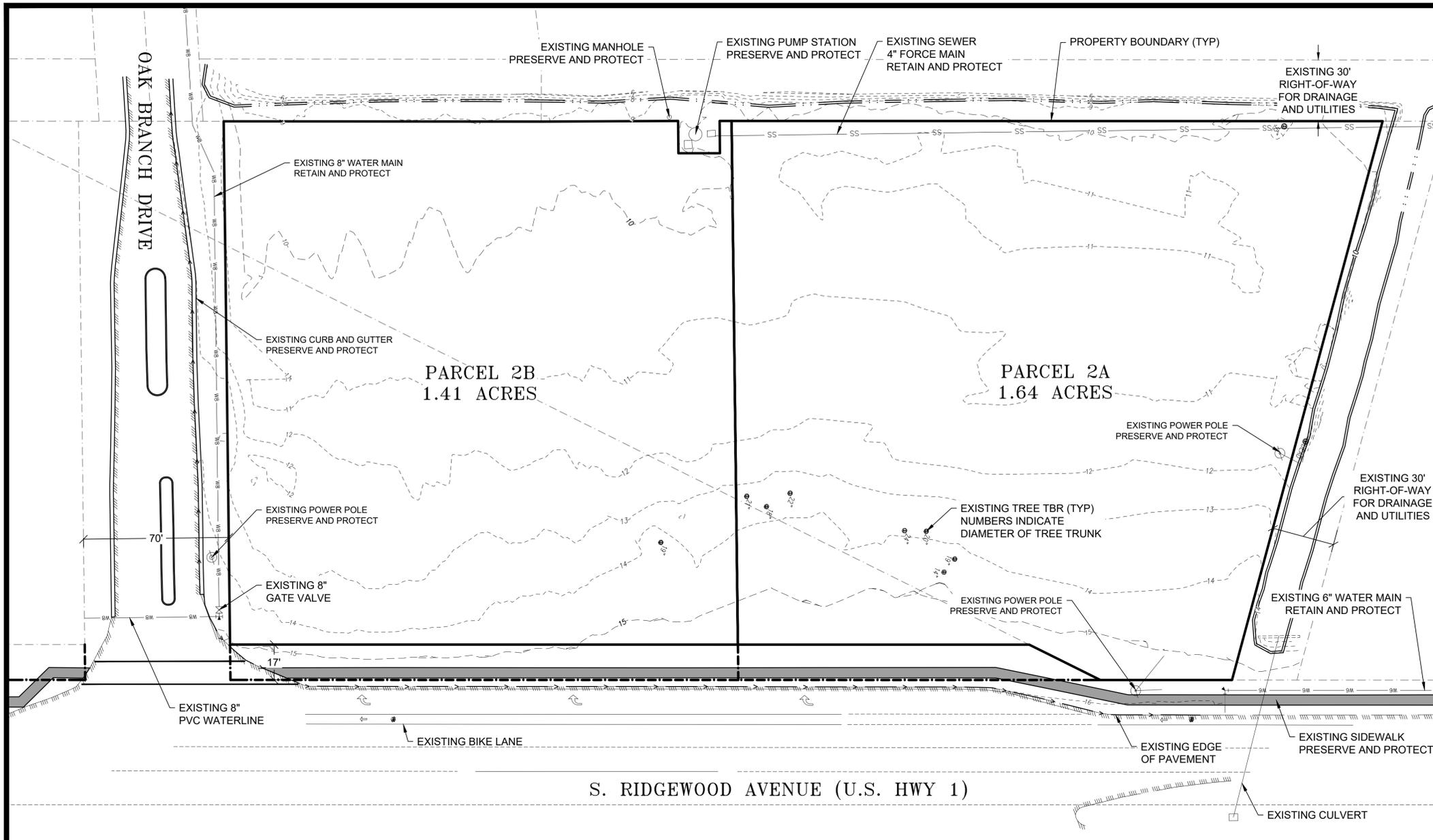


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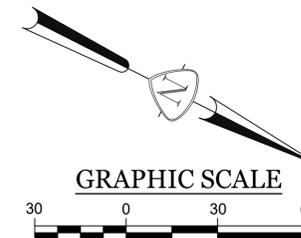
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PROJECT NUMBER 24.009
SHEET

**T2**

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EXISTING SITE



GRAPHIC SCALE

SCALE: 1" = 30'  
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EXISTING SITE FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



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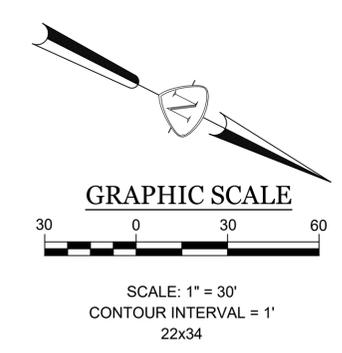
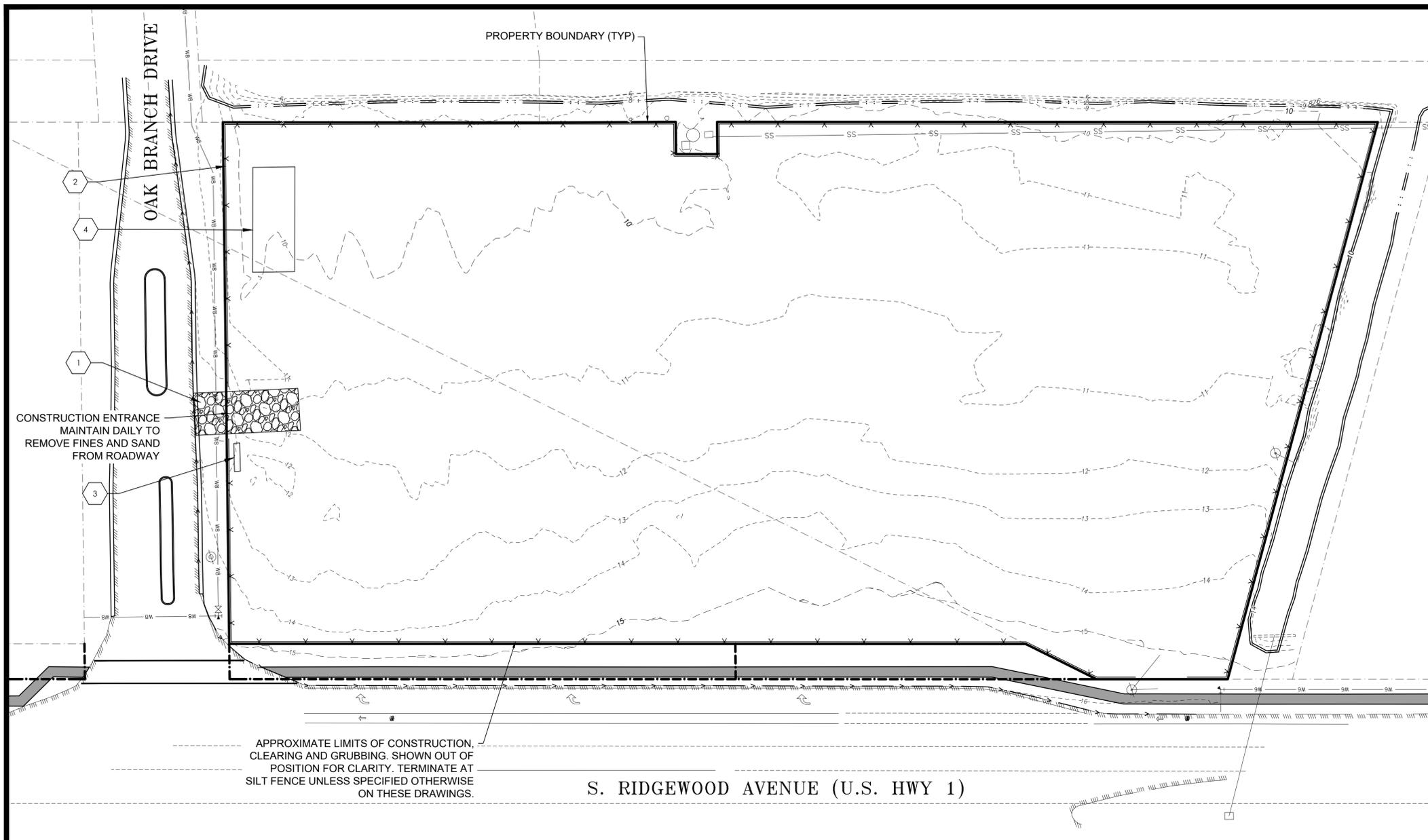
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EXISTING CONDITIONS NOTES

1. EXISTING CONDITIONS SHOWN ON THIS PLAN ARE PRE-EXISTING TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL SUBSURFACE AND OVERHEAD UTILITY LINES DURING CONSTRUCTION.
3. LAND CLEARING OF THE PROJECT IS NOT ALLOWED UNTIL THE CITY ENGINEER AND/OR PLANNING DEPARTMENT ISSUES A LAND CLEARING PERMIT.



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SWPP PLAN FOR:  
**FIRST BUSINESS PARK**  
 A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA

APPROXIMATE LIMITS OF CONSTRUCTION, CLEARING AND GRUBBING. SHOWN OUT OF POSITION FOR CLARITY. TERMINATE AT SILT FENCE UNLESS SPECIFIED OTHERWISE ON THESE DRAWINGS.

S. RIDGEWOOD AVENUE (U.S. HWY 1)

**SWPPP PLAN**

**SWPPP INSPECTIONS AND RECORD KEEPING**

INSPECTIONS ARE REQUIRED AT LEAST EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS FOLLOWING A RAINFALL EVENT OF ONE-HALF (1/2) OF AN INCH OF RAINFALL OR GREATER AND SHALL CONTINUE UNTIL THE SITE COMPLIES WITH FINAL STABILIZATION (NOTICE OF TERMINATION).

INSPECTIONS MUST BE CONDUCTED BY A "QUALIFIED" INSPECTOR. "QUALIFIED" IS DEFINED AS A PERSON THAT:

- A). HAS SUCCESSFULLY COMPLETED AND MET ALL REQUIREMENTS NECESSARY TO BE FULLY CERTIFIED THROUGH THE FDEP STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR TRAINING PROGRAM;
- B). HAS SUCCESSFULLY COMPLETED AN EQUIVALENT FORMAL TRAINING PROGRAM; OR
- C). THAT IS QUALIFIED BY OTHER TRAINING OR PRACTICAL EXPERIENCE IN THE FIELD OF STORMWATER POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL.

EACH INSPECTION MUST BE FOLLOWED UP BY A REPORT DOCUMENTING THE INSPECTOR'S FINDINGS AND REQUEST THE REQUIRED MAINTENANCE AND/OR REPAIR FOR THE EROSION AND SEDIMENTATION CONTROL MEASURES. THESE RECORDS ARE USED TO PROVE THAT THE REQUIRED INSPECTION AND MAINTENANCE WERE PERFORMED AND SHALL BE PLACED IN THE SWPPP LEDGER. IN ADDITION TO INSPECTION AND MAINTENANCE REPORTS, RECORDS SHOULD BE KEPT OF CONSTRUCTION ACTIVITIES THAT OCCUR ON THE SITE. THE CONTRACTOR SHALL RETAIN COPIES OF THE SWPPP, ALL REPORTS, AND DATA FOR A MINIMUM OF FIVE (5) YEARS AFTER THE PROJECT IS COMPLETE IN PAPER AND CD FORMAT.

**EROSION CONTROL NOTES**

1. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE SWPPP DURING CONSTRUCTION OPERATIONS.
2. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL DEVICES HAVE BEEN INSTALLED.
3. THE CONTRACTOR SHALL POST "NO TRESPASSING" SIGNAGE AT ALL SITE ENTRANCES PRIOR TO CONSTRUCTION.
4. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.
5. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
6. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
7. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
8. NO TURBID WATER SHALL BE DISCHARGED OFF-SITE FROM THE DEWATERING OPERATION. CONTRACTOR SHALL TAKE MEASURES TO CONTROL TURBIDITY.
9. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
10. PROVIDE DUST CONTROL FOR ALL EARTHWORK OPERATIONS. COVER AREA WITH LIGHT COATING OF WATER OR OTHER APPROVED METHOD.

**KEY NOTES**

- 1. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE (20'x50' MIN). SEE DETAIL ON SHEET D1.
- 2. SILT FENCE, SEE DETAIL ON SHEET D1.
- 3. SWPPP JOB SITE PERMIT POSTING SIGN.
- 4. CONCRETE WASHOUT AREA, EXACT LOCATION PER CONTRACTOR, SEE DETAIL ON SHEET D1.

**EROSION PLAN NOTES**

1. ALL EROSION CONTROL DEVICES AND VISIBLE BARRICADES SHALL BE INSTALLED AND APPROVED BY THE ENGINEER PRIOR TO THE START OF CLEARING AND GRUBBING.
2. THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH THE CITY AS SPECIFIED PRIOR TO START OF CONSTRUCTION.
3. THE SITE SHALL BE CLEARED AND GRUBBED OF ALL VEGETATION, EXISTING ASPHALT, AND DEBRIS WITHIN THE APPROXIMATE LIMITS OF CLEARING AS INDICATED ON THE DRAWING. TREES MAY BE LOGGED OR MULCHED FOR OFF-SITE DISPOSAL AT THE CONTRACTOR'S DISCRETION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE CITY OF EDGEWATER UTILITY DEPARTMENT, FLORIDA SUNSHINE, AND EMERGENCY SERVICES FOR RESPECTIVE UTILITY LOCATIONS AND "NOTICE" OF CONSTRUCTION ACTIVITY.
5. ALL REMOVED MATERIAL SHALL BE HAULED OFF-SITE TO AN APPROVED LANDFILL.
6. ALL EROSION CONTROL DEVICES SHALL BE PLACED PRIOR TO THE START OF WORK AND REMAIN IN PLACE UNTIL ALL WORK IS COMPLETE.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR PERIODIC INSPECTION AND REMOVAL OF DEBRIS AND SILT BEHIND EROSION CONTROL DEVICES.
8. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION, BLOWING SAND AND THE IMPACT TO NEIGHBORING PROPERTIES.
9. IF ANY DEWATERING IS TO OCCUR THEN DEWATERING ACTIVITY SHALL ADHERE TO CHAPTER 40C-22 FAC MORE SPECIFICALLY AS FOLLOWS. PER 40C-22.030(3) A "NOTICED GENERAL SHORT-TERM DEWATERING PERMIT" IS REQUIRED "ONLY IF" DEWATERING EXCEEDS 4 MILLION GALLONS PER DAY, EXCEPT DURING THE FIRST 120 HOURS OF DEWATERING WHEN THE DAILY AND INSTANTANEOUS PUMPAGE RATES SHALL NOT EXCEED 6 MILLION GALLONS PER DAY. AVERAGE DAILY WITHDRAWAL SHALL NOT EXCEED 2 MILLION GALLONS PER DAY FOR THE FIRST 60 DAYS OF THE DEWATERING ACTIVITY AND SHALL NOT EXCEED ONE MILLION GALLONS PER DAY OF A 180 DAY DURATION. EACH SPECIFIC DEWATERING PROJECT SHALL NOT EXCEED 180 DAYS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ANY DEWATERING ACTIVITY IS BELOW THE SPECIFIED THRESHOLD. OTHERWISE A PERMIT WILL BE REQUIRED AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL FAMILIARIZE ITSELF WITH CHAPTER 40C-22 FAC AND BE SOLELY RESPONSIBLE FOR OBTAINING AND SUBMITTING FORM RDS-50 TO SJRWMD A MINIMUM OF 10 DAYS PRIOR TO ANY DEWATERING ACTIVITY. SUBMITTAL OF FORM RDS-50 IS NOT REQUIRED IF DEWATERING IS 300,000 GALLONS PER DAY OR LESS AND WILL NOT EXCEED 30 DAYS IN DURATION.

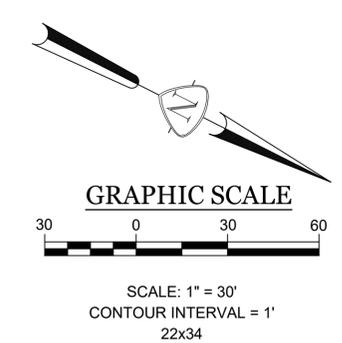
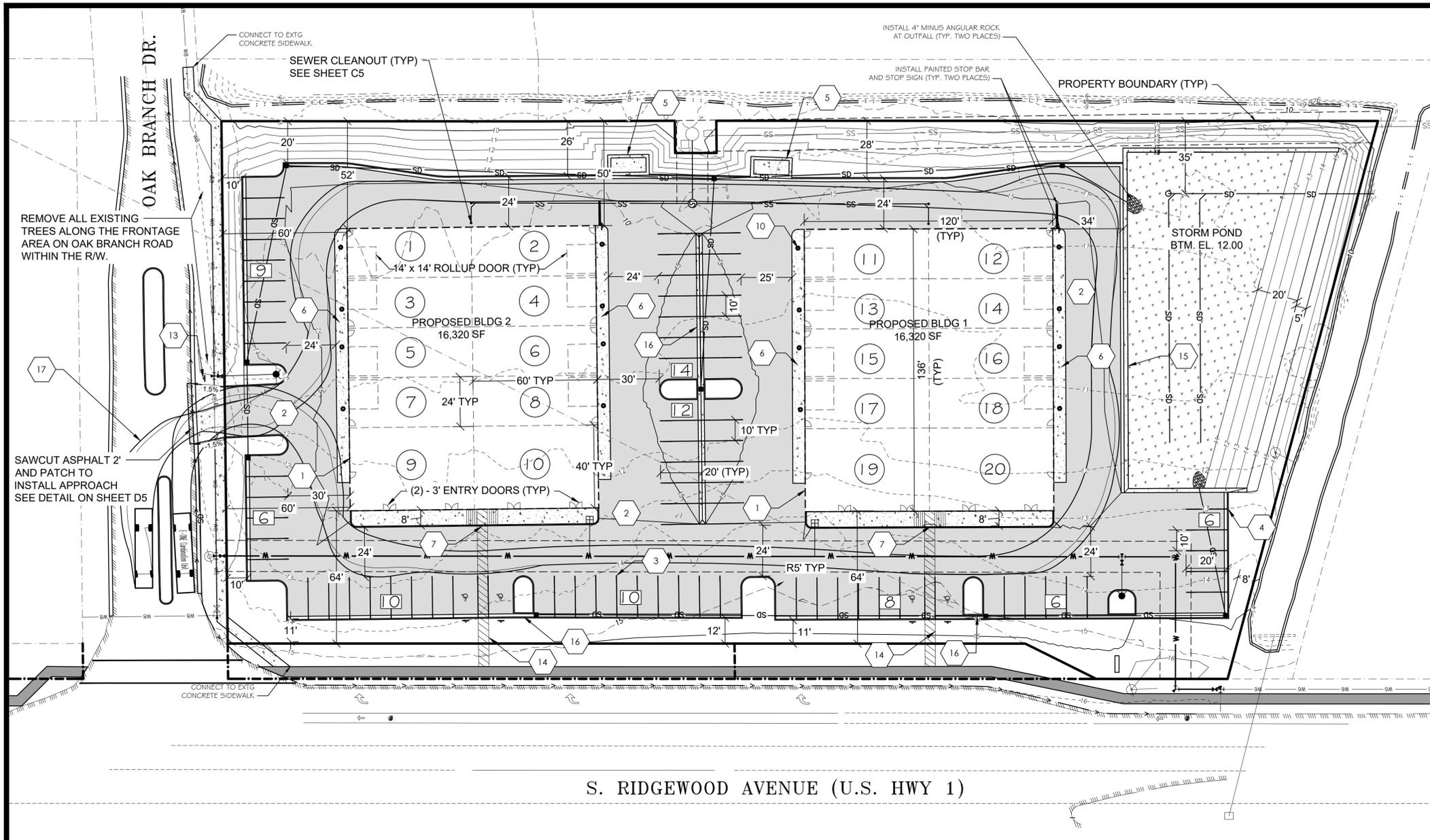


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**CONSTRUCTION KEY NOTES**

- 1 PROPOSED BUSINESS PARK STRUCTURE PER CITY APPROVED BUILDING PLANS.
- 2 ASPHALT PER DETAIL ON SHEET D3.
- 3 PAINT STRIPING PER CITY OF EDGEWATER / MUTCD REQUIREMENTS.
- 4 CURB PER THE TYPICAL SEE DETAIL ON SHEET D6.
- 5 DOUBLE TRASH ENCLOSURE. SEE TYPICAL DETAIL ON SHEET D3.
- 6 6' WIDE CONCRETE SIDEWALK PER THE TYPICAL SEE DETAIL ON SHEET D6.
- 7 ADA ACCESSIBLE PEDESTRIAN RAMP WITH TRUNCATED DOME PER CITY OF EDGEWATER REQUIREMENTS. SEE DETAIL ON SHEET D3.
- 8 COMMERCIAL APPROACH, SEE NOTES ON SHEET D3.
- 9 MAILBOX CLUSTER. CONTRACTOR TO COORDINATE WITH POST MASTER FOR AN APPROVED LOCATION. APPROXIMATE LOCATION SHOWN HEREON.
- 10 6" BOLLARD(TYP). SEE DETAIL ON SHEET D3.
- 11 BUSINESS PARK SIGNAGE, INSTALLED BY OTHERS. LOCATED ALONG RIDGEWOOD AVE., NOT WITHIN THE RIGHT-OF-WAY, AND SHALL MEET THE CURRENT CITY LDC.
- 12 RIGHT TURN ONLY SIGN PER MUTCD ONTO S. RIDGEWOOD AVE. (U.S. HIGHWAY 1).
- 13 INSTALL STOP SIGN AT EACH EXIT PER MUTCD.
- 14 5' WIDE CONCRETE SIDEWALK. SEE DETAIL ON SHEET D6.
- 15 INSTALL 5' TALL RETAINING WALL BY OTHERS.
- 16 INSTALL CONCRETE VALLEY GUTTER PER DETAIL ON SHEET D6.
- 17 TURNING TEMPLATE TRACKING FOR 48' FIRE TRUCK.

S. RIDGEWOOD AVENUE (U.S. HWY 1)

**PROPOSED SITE**

**LANDSCAPE BUFFERS**

(LANDSCAPING DESIGN BY OTHERS) COORDINATE WITH LANDSCAPE ARCHITECT.  
CANOPY TREES SHALL BE DEFINED AS A TREE WITH A CALIPER OF 2.5", TWELVE (12) FEET IN HEIGHT AT THE TIME OF PLANTING AND SHALL GROW TO A MINIMUM OF TWENTY-FIVE (25) FEET IN HEIGHT AND FIFTEEN (15) FEET IN WIDTH. UNDERSTORY TREES SHALL BE DEFINED AS A TREE WITH A CALIPER OF 1.5", 8 FEET IN HEIGHT AT THE TIME OF PLANTING AND SHALL GROW TO A MINIMUM OF FIFTEEN (15) FEET IN HEIGHT AND TEN (10) FEET IN WIDTH. SHRUBS SHALL BE DEFINED AS THREE (3) GALLON PLANTS WITH A MINIMUM HEIGHT OF EIGHTEEN (18) INCHES AT THE TIME OF PLANTING.

FRONT (RIDGEWOOD):  
MINIMUM LANDSCAPE BUFFER SHALL BE TEN (10') IN WIDTH AND SHALL CONFORM THE ARTICLE V, SECTION 21-54 OF THE LAND DEVELOPMENT CODE.

REAR (WEST): : MINIMUM LANDSCAPE BUFFER SHALL BE A MINIMUM OF THIRTY FEET (30') IN WIDTH AND CONSIST OF ONE (1) CANOPY TREE PER FIFTY (30') LINEAR FEET WITH TWO (2) UNDERSTORY TREES PER TWENTY (20') LINEAR FEET, AND SIXTY (60) SHRUBS PER ONE HUNDRED (100) LINEAR FEET. A MINIMUM OF 50% OF THE REQUIRED PLANTINGS IN THIS LANDSCAPE BUFFER SHALL BE NATIVE VEGETATION AS DEFINED BY THE UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES. TO MAINTAIN A NATURAL LOOK, TREES AND SHRUBS SHALL BE PLACED IN AN ORGANIC OR CURVILINEAR MANNER. LINEAR ARRANGEMENTS ARE PROHIBITED. A SIX FOOT (6') VINYL FENCE SHALL BE REQUIRED.

SIDE (NORTH):  
MINIMUM LANDSCAPE BUFFER SHALL BE A MINIMUM OF TEN (10') IN WIDTH AND CONSIST OF ONE (1) CANOPY TREE PER THIRTY (30') LINEAR FEET WITH ONE (1) UNDERSTORY TREES PER FIFTEEN LINEAR FEET (15'), AND FIFTY (50) SHRUBS PER ONE HUNDRED (100) LINEAL FEET. A MINIMUM OF 50% OF THE REQUIRED PLANTINGS IN THIS LANDSCAPE BUFFER SHALL BE NATIVE VEGETATION AS DEFINED BY THE UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES. TO MAINTAIN A NATURAL LOOK, TREES AND SHRUBS SHALL BE PLACED IN AN ORGANIC OR CURVILINEAR MANNER THAT IS SIMILAR TO AND CONSISTENT WITH NATURAL ADJOINING AREAS, WHICH HAVE BEEN PRESERVED. LINEAR ARRANGEMENTS ARE PROHIBITED.

SIDE CORNER (OAK BRANCH DR):  
MINIMUM LANDSCAPE BUFFER SHALL BE A MINIMUM OF TEN (10') IN WIDTH AND CONSIST OF ONE (1) CANOPY TREE PER THIRTY (30') LINEAR FEET WITH ONE (1) UNDERSTORY TREES PER FIFTEEN LINEAR FEET (15'), AND FIFTY (50) SHRUBS PER ONE HUNDRED (100) LINEAL FEET. A MINIMUM OF 50% OF THE REQUIRED PLANTINGS IN THIS LANDSCAPE BUFFER SHALL BE NATIVE VEGETATION AS DEFINED BY THE UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES. TO MAINTAIN A NATURAL LOOK, TREES AND SHRUBS SHALL BE PLACED IN AN ORGANIC OR CURVILINEAR MANNER O-44-2024 FIRST BUSINESS PARK 6 BPUD AGREEMENT THAT IS SIMILAR TO AND CONSISTENT WITH NATURAL ADJOINING AREAS, WHICH HAVE BEEN PRESERVED. LINEAR ARRANGEMENTS ARE PROHIBITED.

**PARKING CALCULATIONS**

COMMERCIAL PARKING SPACES REQUIRED:	75
COMMERCIAL PARKING SPACED PROVIDED:	77
ADA STALLS REQUIRED:	4
ADA STALLS PROVIDED:	4
TOTAL STALLS PROVIDED:	81

**BUILDING REQUIREMENTS**

FRONT SETBACK (RIDGEWOOD) - 40 FEET  
REAR (WEST) - 40 FEET  
SIDE (NORTH) - 40 FEET  
SIDE CORNER (OAK BRANCH DR) - 30 FEET  
MAXIMUM HEIGHT: 30'  
MAXIMUM BUILDING COVERAGE: 60%  
MAXIMUM IMPERVIOUS COVERAGE: 75%  
PROPOSED BUILDING COVERAGE: 32,640SF = 32%  
PROPOSED IMPERVIOUS COVERAGE: 61,273SF = 60%

**SITE PLAN NOTES**

1. ALL WORK SHALL CONFORM TO CITY OF EDGEWATER STANDARDS AND REQUIREMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL SUBSURFACE AND OVERHEAD UTILITY LINES DURING CONSTRUCTION.
3. ALL FINISH GRADE AREAS AFFECTED BY THIS PROJECT, THAT ARE NOT COVERED WITH AN IMPERVIOUS SURFACE (STRUCTURE, CONCRETE, ASPHALT, ETC.) SHALL BE LANDSCAPED, AND OR SEEDED AND IRRIGATED AS LAWN TO ENCOURAGE VEGETATION GROWTH AND INCREASE SLOPE STABILITY.
4. PROTECT ALL PROPERTY CORNER MONUMENTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS ASSOCIATED WITH RE-ESTABLISHING ANY DISTURBED OR DESTROYED MONUMENTS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING THIS PLAN OR FOR CONSULTING THE ENGINEER TO DISCUSS CHANGES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CHANGES MADE WITHOUT THE KNOWLEDGE OR CONSENT OF THE ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF, AND CONDITION OF THE EXISTING WATER AND SEWER MAINS. IF REPAIRS ARE NECESSARY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING PRIOR TO CONNECTING TO MAINS.



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PROPOSED SITE PLAN FOR:

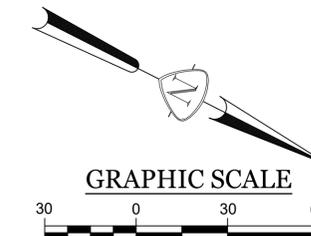
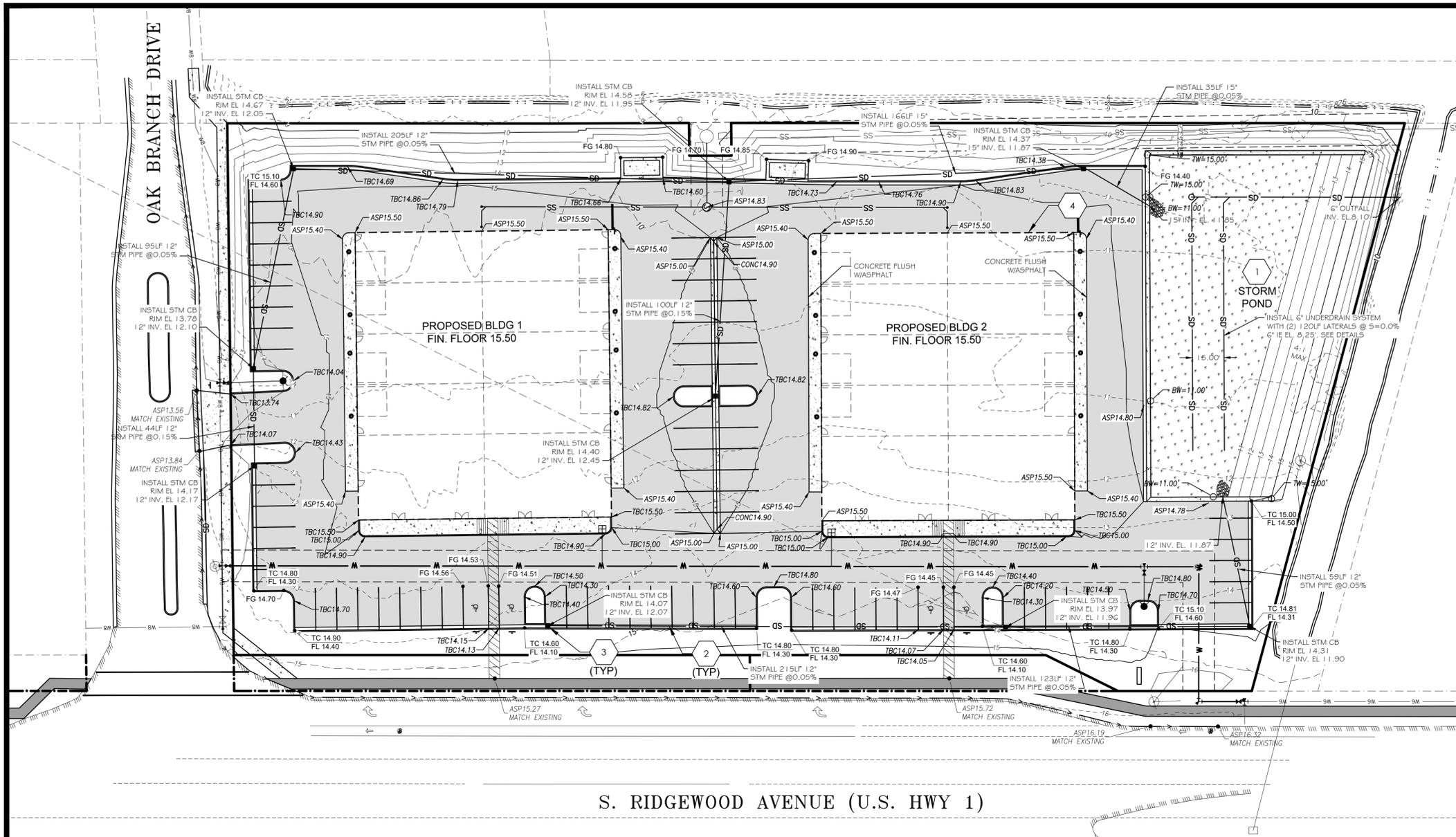
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

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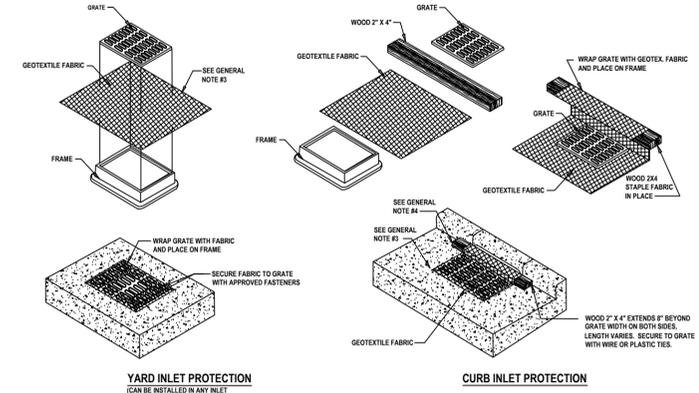
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GRADING AND DRAINAGE PLAN FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA

GRADING AND DRAINAGE PLAN



- GENERAL NOTES:**
1. GEOTEXTILE TO BE MIRAFI FILTERWEAVE 402 OR GEOTEX 111F. ALTERNATIVES INCLUDE APPROVED EQUAL ASTM D4491 OR 100 TO 150 GALLON PER MINUTE PER SQUARE FOOT
  2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
  3. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
  4. FOR CURB INLET PROTECTION AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
  5. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
  6. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS, OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

GEOTEXTILE FABRIC INLET PROTECTION DETAIL

PLAN NOTES

1. CONTRACTOR TO CONFIRM CONSTRUCTED SWALE BOTTOM MEETS THE PLAN MINIMUM AREA FOR THE DESIGNATED LOCATION.
2. ALL PROPOSED SLOPES ARE A MAXIMUM OF 2(H):1(V).
3. ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY INLET PROTECTION MEASURES TO PREVENT SILTATION IN THE DRAINAGE SYSTEM (SEE DETAIL THIS SHEET). THE ENTIRE DRAINAGE SYSTEM SHALL BE CLEANED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE.
4. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

KEY NOTES

1. STORM POND SEE DETAIL ON SHEET D1
2. C900 STORM PIPING PER MANUFACTURER'S SPECIFICATIONS AND CITY OF EDGEWATER PIPING, FITTING, AND APPURTENANCE IMPLEMENTATION REQUIREMENTS. (MINIMUM 1.0' OF COVER OVER TOP OF PIPE).
3. TYPE C CATCH BASIN PER MANUFACTURER'S SPECIFICATIONS, CITY REQUIREMENTS, SEE DETAIL ON SHEET D1. ALL STRUCTURES SHALL HAVE A 12" SUMP. ALL DRAINAGE STRUCTURES TO BE SET ON MINIMUM 6" THICK BASE OF #57 STONE UNDERLAIN WITH FILTER FABRIC AND EACH DRAINAGE STRUCTURE SHALL HAVE A 6" DIAMETER (OR SQUARE) KNOCK-OUT CAST IN THE BOTTOM OF EACH STRUCTURE WHICH WILL BE USED IF NEEDED.
4. APPROXIMATE LOCATION OF ROOF DOWNSPOUTS, TO BE VERIFIED BY THE CONTRACTOR. THE ROOF DOWNSPOUTS SHALL BE CONNECTED TO A 6" PVC TIGHT LINE VIA A PVC CLEAN-OUT WITH A METAL GUTTER ADAPTOR CAP. THE CONTRACTOR SHALL FIELD CONSTRUCT THIS CONNECTION ABOVE GRADE, IN A MANNER THAT IS AESTHETICALLY IN-KIND TO THE PROPOSED PROJECT IMPROVEMENTS. THE TIGHT LINES SHALL DRAIN AT A MINIMUM OF 1% GRADE TO OUTLET. TIGHT LINES TO BE BURIED 30" DEEP.

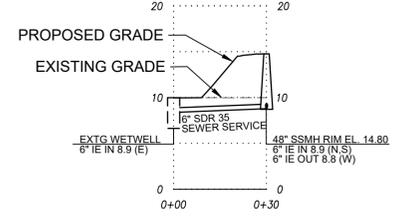
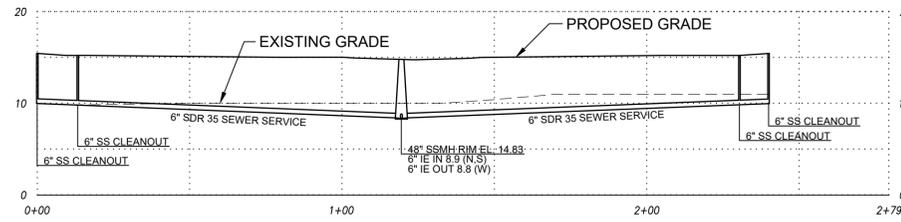


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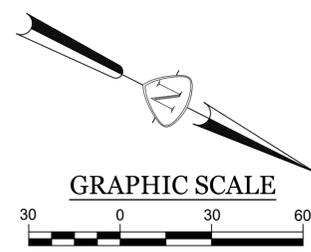
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SS Alignment - (1)  
 PROFILE SCALES  
 HORIZONTAL: 1"=20'  
 VERTICAL: 1"=7'

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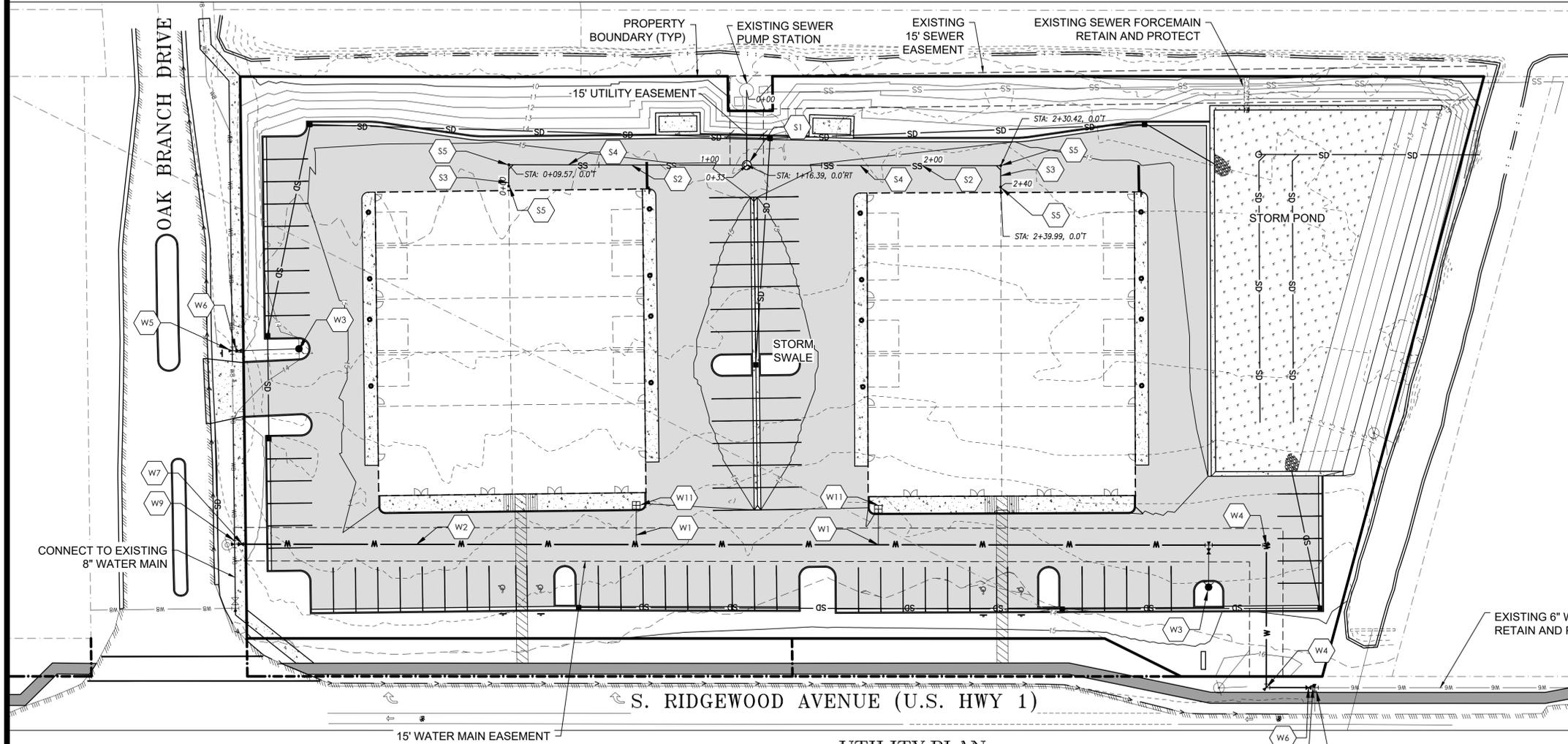


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 Office (208) 665-9502



UTILITY PLAN

**WATER KEY NOTES**

- W1 2" POLY WATER SERVICE LINE (250PSI).
- W2 8" PVC C-900 WATER MAIN (36" MINIMUM COVER).
- W3 FIRE HYDRANT ASSEMBLY. SEE DETAIL ON SHEET D4.
- W4 8" 90° BEND WITH THRUST BLOCK.
- W5 8" x 6" TEE WITH THRUST BLOCK.
- W6 6" GATE VALVE. SEE DETAILS ON SHEETS D4 AND D5.
- W7 8" GATE VALVE. SEE DETAILS ON SHEETS D4 AND D5.
- W8 6" x 8" REDUCER.
- W9 8" TEE WITH THRUST BLOCK.
- W10 REMOVE EXISTING 90° BEND AND REPLACE WITH 6" TEE AND THRUST BLOCK.
- W11 2" WATER METER. SEE DETAILS ON SHEETS D4 AND D5.

**SEWER KEY NOTES**

- S1 48" DIAMETER SANITARY SEWER MANHOLE WITH ECCENTRIC TOP CONE PER CITY REQUIREMENTS. MAXIMUM OF 12" OF GRADE RINGS PERMITTED TO BRING RIM TO FINISH GRADE. CONTRACTOR TO PROVIDE MANHOLE SHOP DRAWINGS TO ENGINEER & CITY FOR APPROVAL PRIOR TO DELIVERY AND CONSTRUCTION. SEE DETAIL ON SHEET D2.
- S2 6" GREEN PVC SDR 26, ASTM D-3034 SANITARY SEWER MAIN PIPING PER PIPE MANUFACTURER'S SPECIFICATIONS AND CITY PIPING, FITTING, AND APPURTENANCE IMPLEMENTATION REQUIREMENTS. CONTRACTOR TO PERFORM ALL PIPE TESTING IN PRESENCE OF ENGINEER AND DESIGNATED CITY INSPECTOR.
- S3 6" GREEN PVC SDR 26, ASTM D-3034 SANITARY SEWER SERVICE PER PIPE MANUFACTURER'S SPECIFICATIONS, AND CITY WASTEWATER PIPING REQUIREMENTS. SEE DETAIL ON SHEET D2.
- S4 6" SDR 35 GRAVITY SEWER SERVICE AT S=1.0%. SEE PROFILE THIS SHEET.
- S5 6" SEWER CLEANOUT. SEE DETAIL ON SHEET D2.

**UTILITY NOTES**

1. THE CITY OF EDGEWATER PUBLIC WORKS / UTILITIES DEPARTMENT SHALL BE NOTIFIED 48 HOURS PRIOR TO BEGINNING ANY WATER AND SEWER SYSTEM CONSTRUCTION.
2. ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDEP REGULATIONS AND CITY OF EDGEWATER STANDARD UTILITY DETAILS AND SPECIFICATIONS (LATEST EDITION).
3. COORDINATE WITH LANDSCAPE ARCHITECT ON LOCATION OF IRRIGATION METER AND BACKFLOW PREVENTION.

UTILITY PLAN FOR:  
**FIRST BUSINESS PARK**  
 A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

DESIGNED: SWS
DRAWN BY: ###
CHECKED: AO
SCALE: H: 1" = 30' V: N/A
PROJECT NUMBER 24.009
SHEET



CALL 811  
 48 HOURS BEFORE YOU DIG

C5

**STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES**

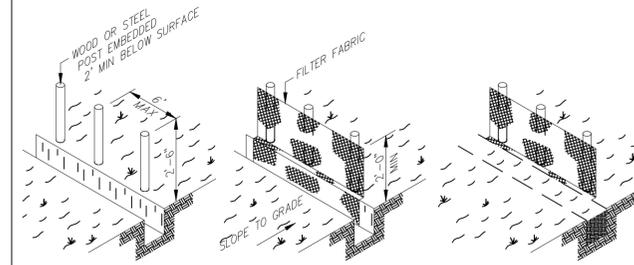
- ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).
- ALL STORM SEWERS AND CULVERTS LOCATED IN ROADWAY RIGHTS-OF-WAY AND ROADWAY EASEMENTS SHALL BE A MINIMUM OF CLASS III REINFORCED CONCRETE PIPE. PRIVATE SITES AND AREAS OUTSIDE OF ROADWAY EASEMENTS AND R.O.W., PIPE MAY BE MADE OF ALTERNATE MATERIALS INCLUDING:
    - SMOOTH INNER WALL HIGH DENSITY POLYETHYLENE (HDPE) IN ACCORDANCE WITH AASHTO M-294, AASHTO M77, ASTM D3350 AND ASTM D2412 FOR SIZES UP TO 42" IN DIAMETER OR
    - PVC IN ACCORDANCE WITH THE PROVISION NOTED IN THE "SEWER DETAILS" OF THESE SPECIFICATIONS.
  - ALL STORM SEWER PIPE JOINTS LOCATED IN ROADWAY RIGHTS-OF-WAY AND ROADWAY EASEMENTS SHALL BE ENTIRELY WRAPPED WITH FILTER FABRIC WITH A MINIMUM WIDTH OF 24" AND A MINIMUM OF 24" OVERLAP SECURED WITH PLASTIC OR STAINLESS STEEL BANDS. GASKETS ARE NOT PERMITTED AS AN EQUIVALENT SUBSTITUTE FOR MEETING THIS REQUIREMENT. THIS PRACTICE IS REQUIRED ON PRIVATE SITES ADDITIONALLY. ALL JOINTS SHALL BE RUBBER GASKETED FOR BOTH ROUND AND ELLIPTICAL PIPE.
  - DEPTH OF COVER MEASURED TO THE TOP OF PIPE (NOT INCLUDING THE BELL JOINT) SHALL BE A MINIMUM OF 1 FOOT. DEVIATION FROM THIS REQUIREMENT MAY BE ALLOWED BY INCREASING THE PIPE'S STRUCTURAL CAPACITY. THIS DEVIATION MUST BE SPECIFIED ON THE PLANS APPROVED FOR CONSTRUCTION AND SUBSEQUENTLY REFLECTED ON THE SHOP DRAWINGS AND AS-BUILT PLANS.
  - ALL STORM DRAINAGE PIPES LOCATED IN ROADWAY RIGHTS-OF-WAY AND ROADWAY EASEMENTS SHALL BE A MINIMUM OF TWELVE INCH (12") DIAMETER OR EQUIVALENT AND BE DESIGNED FOR A MINIMUM OF A TWENTY-FIVE (25) YEAR STORM OF TWENTY-FOUR (24) HOUR DURATION. STORM DRAINAGE PIPES SMALLER THAN 12" ARE PERMITTED ON PRIVATE SITE PLANS PROVIDING THAT MAINTENANCE SHALL BE PERFORMED BY THE OWNER.
  - STORM INLETS, MANHOLES, AND CATCH BASINS SHALL BE EITHER POURED IN PLACE OR PRECAST REINFORCED CONCRETE. STRUCTURES SHALL BE REQUIRED AT EACH CHANGE OF PIPE SIZE OR CHANGE IN PIPE DIRECTION. ALL STRUCTURES SHALL BE IN COMPLIANCE WITH ASTM C-478 AND SHALL HAVE 8" THICK WALLS. 6" THICK WALLS MAY BE PERMITTED PROVIDING THAT THE PLANS SPECIFY INCREASED REINFORCEMENT IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 201 IN ADDITION, THIS REQUIREMENT MUST BE REFLECTED ON BOTH THE SHOP DRAWING AND AS-BUILT PLANS. NOTE: INLET APRONS MAY REQUIRE EXPANSION JOINTS AROUND THE STRUCTURE AS DICTATED BY THE CITY.
  - STORM INLETS SHALL BE SPACED IN SUCH A MANNER AS TO ACCEPT ONE HUNDRED (100) PERCENT OF THE DESIGN STORM RUNOFF WITHOUT IMPEDING THE FLOW OF TRAFFIC. FOR ROADWAY SECTIONS WITH DESIGN SPEEDS OF 45 MPH AND LESS AND WITHOUT FULL WIDTH SHOULDERS, SPREAD RESULTING FROM A RAINFALL INTENSITY OF FOUR INCHES (4") PER HOUR SHALL NOT EXCEED ONE-HALF OF THE TRAVEL LANE ADJACENT TO THE GUTTER. FOR SITE PLANS, INLET SPACING SHALL BE DESIGNED TO ACCEPT ONE HUNDRED (100) PERCENT OF THE RUNOFF FROM A RAINFALL INTENSITY OF FOUR INCHES (4") PER HOUR WITHOUT RESULTING IN PONDING OF WATER AROUND THE INLET.
  - LAKE DEPTHS SHALL BE EIGHT FEET (8') MINIMUM TO TWELVE FEET (12') MAXIMUM, AS MEASURED FROM HIGH WATER MARK. DEEPER MAXIMUM DEPTHS MAY BE APPROVED BY THE CITY ENGINEER.

**STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES (CONTD.)**

- FOR CONNECTIONS BETWEEN INLETS WITH PIPING 15" IN DIAMETER AND LARGER, THE MAXIMUM DISTANCES BETWEEN INLETS AND / OR CLEAN-OUT JUNCTION BOXES SHALL BE 300 FEET. CULVERTS SHALL BE SLOPED TO MAINTAIN A MINIMUM SELF-CLEANING VELOCITY OF 3 FEET PER SECOND USING A MANNING'S "n" OF 0.012. SPACING FOR CLEAN-OUTS AND INLETS FOR SMALLER PIPING SHALL BE REDUCED AND EVALUATED ON A CASE BY CASE BASIS.
- THE MAXIMUM PERMISSIBLE SLOPE OF ANY NEW SITE GRADING IS 4:1 (HORIZONTAL:VERTICAL). THIS LIMIT SHALL BE APPLIED TO ALL AREAS EXCEPT STORMWATER CONVEYANCE AND TREATMENT SYSTEMS WHICH MAY HAVE A MAXIMUM SLOPE OF 4:1. PERMANENTLY WETTED SOILS 2FT BELOW THE WATER NORMAL WATER TABLE MAY BE SLOPED NO STEEPER THAN 2:1 (H:V).
- ALL DEVELOPMENT SHALL CONTINUE TO ACCOMMODATE EXISTING OFFSITE CONTRIBUTING FLOW AND PASS SUCH QUANTITY TO AN APPROPRIATE DOWNSTREAM PUBLIC CONVEYANCE WITH NO INCREASE IN UPSTREAM STAGE DURING ALL DESIGN STORM EVENTS. ALL FILL SLOPES IN PROXIMITY TO PROPERTY BOUNDARIES SHALL INCLUDE AN INTERCEPTING SWALE AT THE TOE OF SLOPE.
- SWALES THAT ARE NORMALLY DRY AND INTENDED FOR CONVEYANCE OF STORMWATER RUNOFF AND ARE NOT INTENDED FOR RETENTION SHALL HAVE A MINIMUM DRAINAGE MAINTENANCE EASEMENT WIDTH MEASURING 15 FEET. SWALED AREAS INTENDED FOR RETENTION SHALL PROVIDE APPROPRIATE EASEMENT AREAS FOR ACCESS AND MAINTENANCE MEASURED UPLAND FROM THE TOP OF BANK. AT A MINIMUM, THE SAID EASEMENT SHALL MEASURE 10' FEET IN WIDTH FROM THE TOP OF THE SWALE.
- PIPED STORMWATER SYSTEMS SHALL HAVE A MINIMUM DRAINAGE MAINTENANCE EASEMENT WIDTH OF 20 FEET, AND MAY BE INCREASED DEPENDING UPON THE SIZE AND DEPTH OF PIPE.
- NORMAL ROADSIDE SWALES ARE PERMITTED TO BE CONSTRUCTED TO A MAXIMUM DEPTH OF 18" BELOW THE OUTSIDE EDGE OF PAVEMENT OR CONCRETE CURB.
- CONCRETE EROSION CONTROL MUST BE PROVIDED WHERE SWALES OR CULVERTS INTERCEPT DRAINAGE DITCHES.
- WHEN A LAKE IS INCORPORATED WITHIN A SUBDIVISION AND IS ADJUTED BY LOTS, SUCH ADJUTING LOT LINES SHALL BE EXTENDED INTO THE LAKE PROPORTIONATELY ENCOMPASSING ALL OF THE LAKE AREA.
- LAKE INFLOW AND OUTLET STRUCTURES SHALL GENERALLY BE CONSTRUCTED WITH REINFORCED CONCRETE AND SHALL BE SUBJECT TO THE APPROVAL OF THE CITY. SKIMMERS FOR WET PONDS SHALL BE CONSTRUCTED SUCH THAT THE BOTTOM EXTENDS 6" BELOW THE NORMAL WATER LEVEL AND 6" ABOVE THE OVERFLOW. FOR DRY PONDS, THE SKIMMER BOTTOM SHALL BE SET 6" BELOW THE LOWEST OVERFLOW ELEVATION AND 6" ABOVE THE HIGHEST POINT OF OVERFLOW. ALL SKIMMERS SHALL BE CONSTRUCTED OF MINIMUM 1/4" THICK ALUMINUM OR FIBERGLASS ADEQUATELY SUPPORTED TO PREVENT DEFLECTION.

**STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES (CONTD.)**

- EROSION AND SEDIMENT CONTROL PLANS AS APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SHALL BE EMPLOYED AT ALL TIMES. AT A MINIMUM, BEST MANAGEMENT PRACTICES (BMP's) SHALL BE UTILIZED.
- THE CITY MAY REQUEST THAT THE DEVELOPER SUBMIT A REPORT BY A QUALIFIED HYDROLOGIST ON THE IMPACT THE LAKE WILL HAVE ON NEIGHBORING WATER TABLE ELEVATIONS BOTH DURING CONSTRUCTION AND AFTER LAKE COMPLETION. THE CITY MAY REQUIRE GROUNDWATER MONITORING DURING THE LAKE EXCAVATION.
- ADEQUATE MAINTENANCE EASEMENTS OR RIGHTS-OF-WAY AS APPROVED BY THE CITY SHALL BE PROVIDED AROUND THE ENTIRE PERIMETER OF ALL LAKES AND ASSOCIATED OUTFALLS DISCHARGING INTO AND OUT OF LAKES. APPLICABLE CROSS SECTIONS SHALL BE INCLUDED ON ALL FINAL DEVELOPMENT PLANS.
- DEVELOPMENT PLANS FOR ALL STORMWATER MANAGEMENT SYSTEMS SHALL CONTAIN POP-OFF DATA (OVERFLOW), BOTTOM ELEVATION, NORMAL WATER LEVELS, MEAN ANNUAL SEASONAL HIGH WATER TABLE ELEVATION, TREATMENT VOLUME AND CORRESPONDING ELEVATION, 100 YEAR HIGH WATER LEVELS, AND THE DESIGN TAILWATER ELEVATION (IF APPLICABLE).
- IN GENERAL, ALL RETENTION / DETENTION SITES MUST BE CONSTRUCTED ON ALL PROJECTS PRIOR TO ANY ROAD, PARKING LOT, OR BUILDING CONSTRUCTION COMMENCING OR AS CURRENT PERMIT CONDITIONS DICTATE. SEWER AND WATER MAINS MAY BE INSTALLED PRIOR TO RETENTION/DETENTION SITE CONSTRUCTION IF DEWATERING IS NOT REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ANY AND ALL DEWATERING PERMITS THAT MAY BE REQUIRED.
- WHEN CULVERTS ARE INSTALLED TO MAINTAIN THE FLOW OF EXISTING DRAINAGE WAYS WHERE NEWLY PROPOSED ROADS WOULD OTHERWISE SEVER THE DRAINAGE WAY, THEN CULVERTS CROSSING RIGHTS-OF-WAY SHALL EXTEND FROM RIGHT-OF-WAY LINE TO RIGHT-OF-WAY LINE UNDER THE ROADWAY. CULVERTS SHALL BE DESIGNED TO ACCOMMODATE THE FLOW FROM THE 100 YEAR - 24 HOUR STORM EVENT WITHOUT FLOODING ADJACENT PROPERTY OR SURCHARGING THE SAID ROADWAY.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND MAINTAIN A COPY OF THE SURVMD PERMIT AND/ OR NPDES CONSTRUCTION PERMIT AT THE CONSTRUCTION SITE, AND ABIDE BY ALL CONDITIONS OF THE PERMIT.
- LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.
- ALL STRUCTURES SHALL BE GRADED TO HAVE POSITIVE RUNOFF PATTERNS TOWARD A STORMWATER COLLECTION AND MANAGEMENT SYSTEM. ALL NEW BUILDING SHALL BE TYPE "A" OR TYPE "B" GRADING. TYPES "C" & "D" GRADING SHALL ONLY BE APPROVED FOR RETROFITS. SEE DETAIL ST-14 FOR TYPICAL LOT GRADING.



**SILT FENCE DETAIL**  
F.D.O.T. INDEX NO. 102

**NOTES:**

- MATERIALS, CONSTRUCTION METHODS AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DESIGN STANDARDS CURRENT EDITION.
- CONTRACTOR SHALL PROVIDE SILT FENCES AND HAY BALES AT ALL STORMWATER DISCHARGE POINTS FOR EROSION CONTROL AND SEDIMENT CONTROL DURING CONST.
- CONTRACTOR SHALL ROUGH GRADE STORMWATER SWALES AND RETENTION AREAS PRIOR TO CONSTRUCTION OF SITE IMPROVEMENTS.
- CONTRACTOR SHALL MEET ALL PERMIT CONDITIONS AS ESTABLISHED BY THE CITY AND ALL OTHER APPLICABLE AGENCIES, INCLUDING BUT NOT LIMITED TO COUNTY, FDOT, AND THE SURVMD.



**STANDARD CONSTRUCTION DETAIL**  
**STORM DRAINAGE DESIGN**  
**AND CONSTRUCTION NOTES**

FILE NAME:  
EW\_ST4.DWG  
DETAIL REF:  
**ST-4**



**STANDARD CONSTRUCTION DETAIL**  
**STORM DRAINAGE DESIGN**  
**AND CONSTRUCTION NOTES**

FILE NAME:  
EW\_ST5.DWG  
DETAIL REF:  
**ST-5**



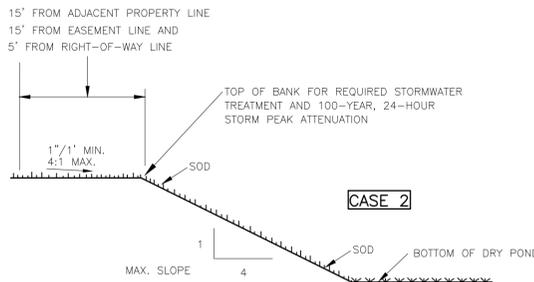
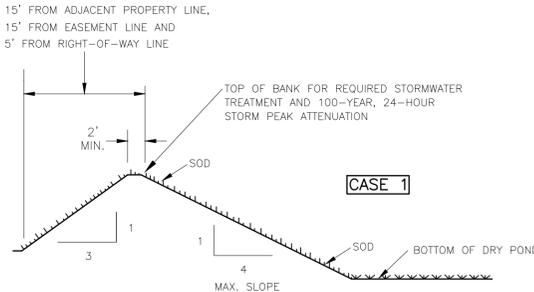
**STANDARD CONSTRUCTION DETAIL**  
**STORM DRAINAGE DESIGN**  
**AND CONSTRUCTION NOTES**

FILE NAME:  
EW\_ST6.DWG  
DETAIL REF:  
**ST-6**



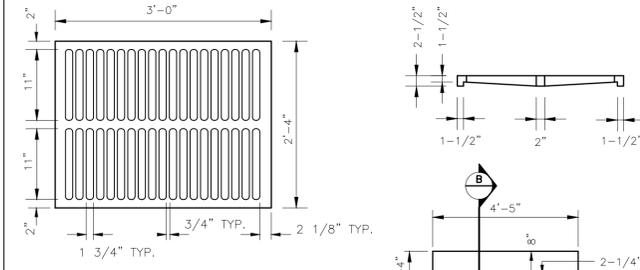
**STANDARD CONSTRUCTION DETAIL**  
**SILT FENCE TURBIDITY BARRIER**

FILE NAME:  
EW\_R22.DWG  
DETAIL REF:  
**R-22**

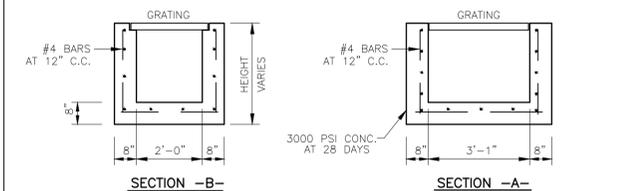


**NOTES:**

- SOD IS TO BE PLACED TO BOTTOM OF DRY POND.
- BOTTOM OF DRY POND TO BE SEEDED AND MULCHED (EXCEPT WHERE "A"-TYPE SOILS ARE PRESENT WHICH REQUIRES SODDING OF ENTIRE BOTTOM OF POND).
- CASE 1 BERM SHALL REQUIRE THE INSTALLATION OF LIMITING SOILS OR OTHER MATERIALS TO REDUCE LATERAL TRANSMISSIVITY.

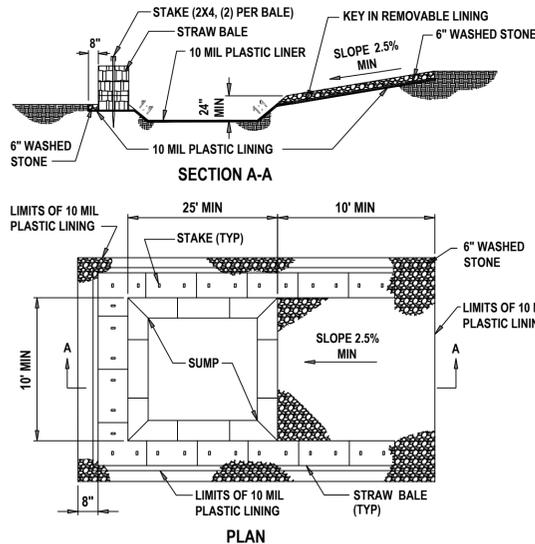


**CAST IRON GRATE**  
INDEX SHT. 232



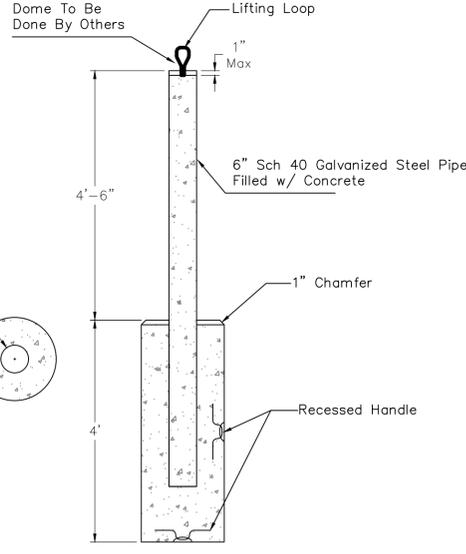
**NOTE:**  
\* 6" THICK WALLS MAY BE PERMITTED, PROVIDING THAT THE INCREASED REINFORCEMENT IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 201 IS INSTALLED. THIS MUST BE REFLECTED ON THE DESIGN PLANS, SHOP DRAWINGS, AND AS-BUILTS.

**F.D.O.T. TYPE C INLET**  
INDEX SHT. 232



**CONCRETE WASHOUT AREA**

**General Notes**  
1) Concrete: f<sub>c</sub> = 4,000 PSI @ 28 Days Minimum  
2) Weight: 1,300 Lbs



**BOLLARD DETAIL**



**STANDARD CONSTRUCTION DETAIL**  
**DRY RETENTION POND**  
**PLACEMENT BY R/W AND EASEMENT LINES**

FILE NAME:  
EW\_ST9.DWG  
DETAIL REF:  
**ST-9**



**STANDARD CONSTRUCTION DETAIL**  
**TYPE "C" STORM INLET**

FILE NAME:  
EW\_ST11.DWG  
DETAIL REF:  
**ST-11**



**1 CONCRETE WASHOUT AREA**  
NTS

**2 BOLLARD DETAIL**  
NTS



CALL 811  
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**ENGINEERS PLANNERS**  
11358 N. Government Way  
Hayden, Idaho 83835  
Office (208) 665-9502

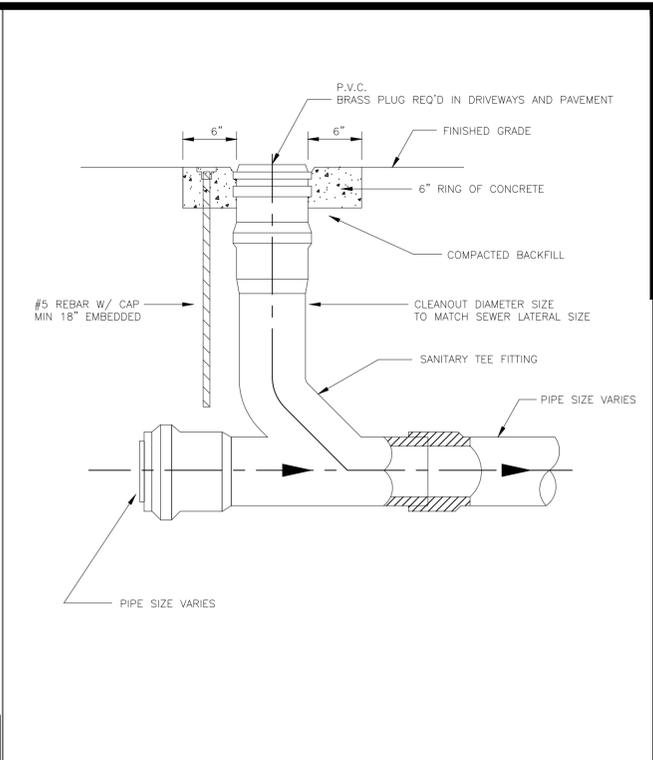
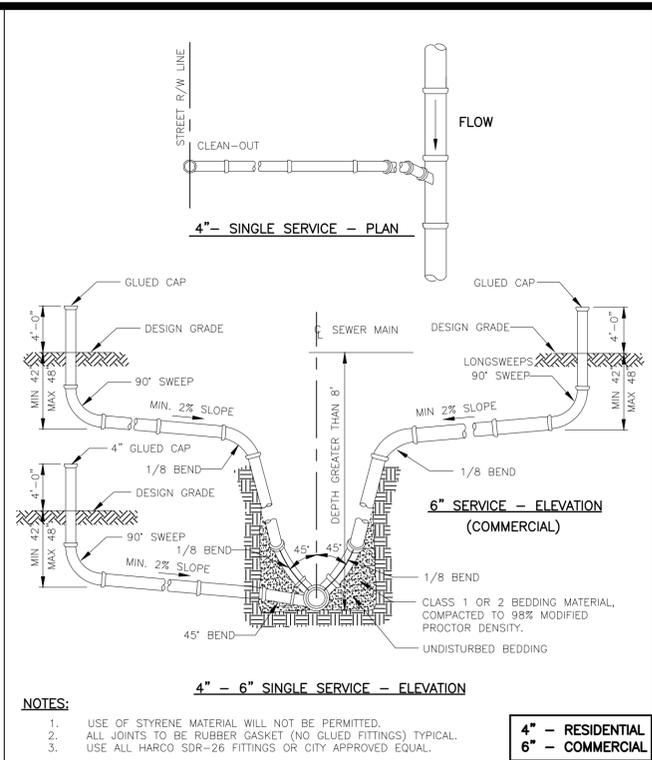
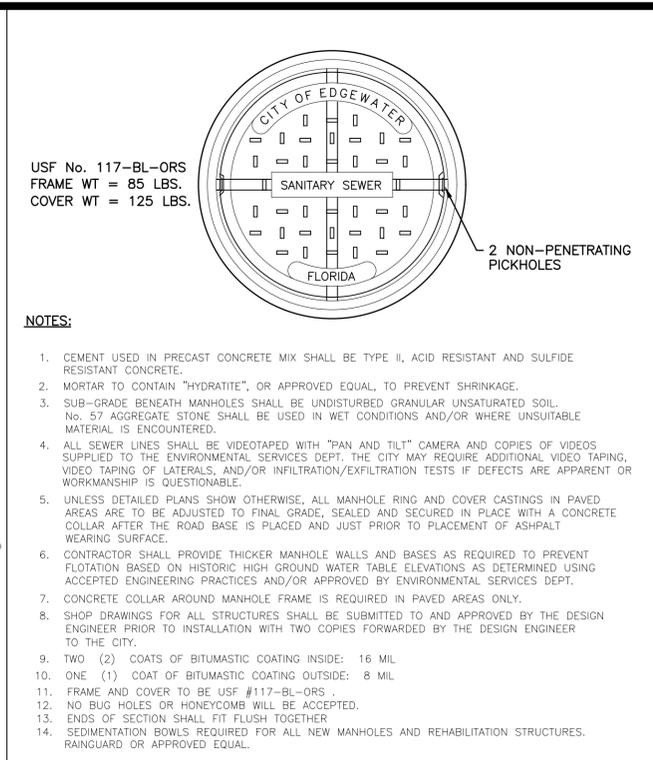
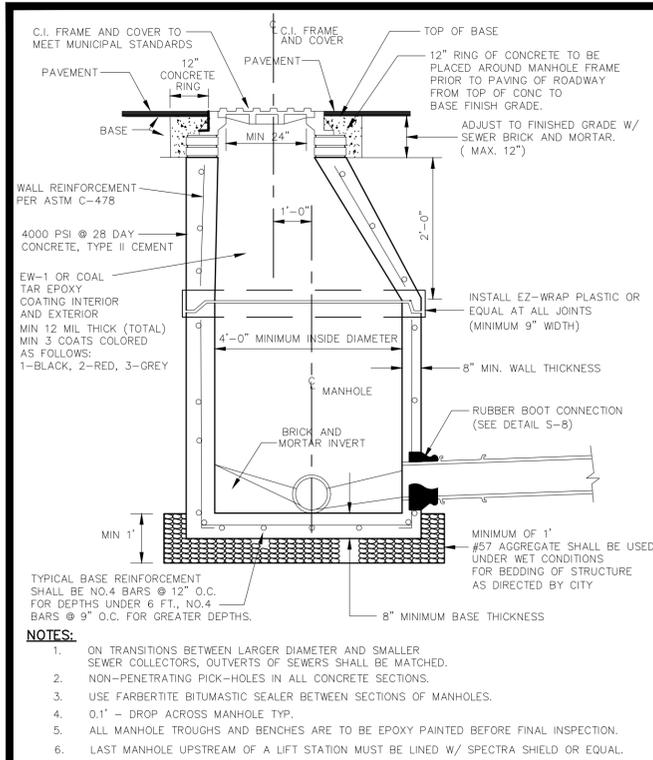
SWPPP DETAILS FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

DESIGNED:  
SWS  
DRAWN BY:  
###  
CHECKED:  
AO  
SCALE:  
H: N/A  
V: N/A  
PROJECT NUMBER  
24.009  
SHEET

**D1**

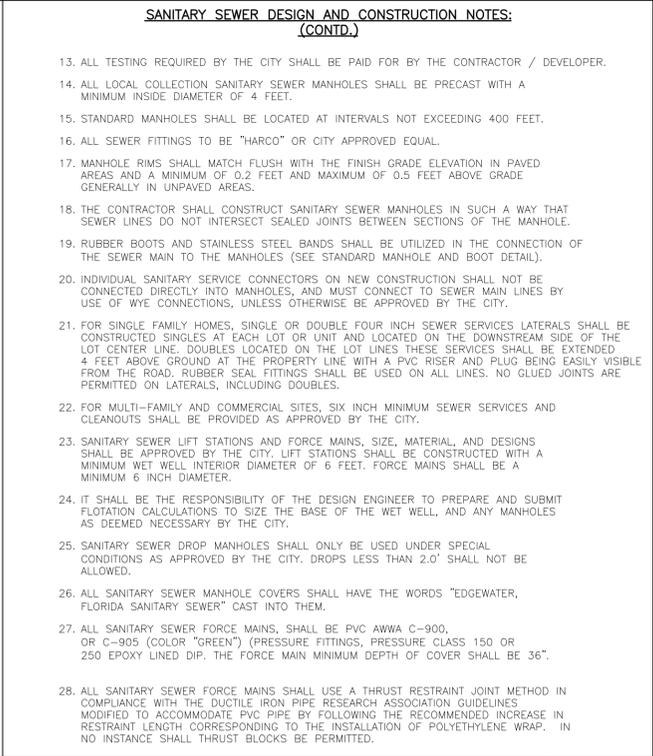
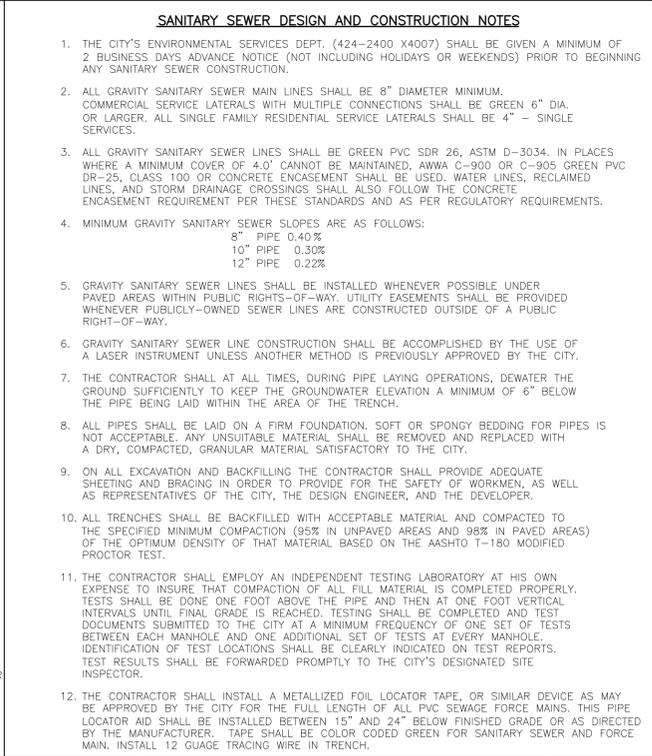
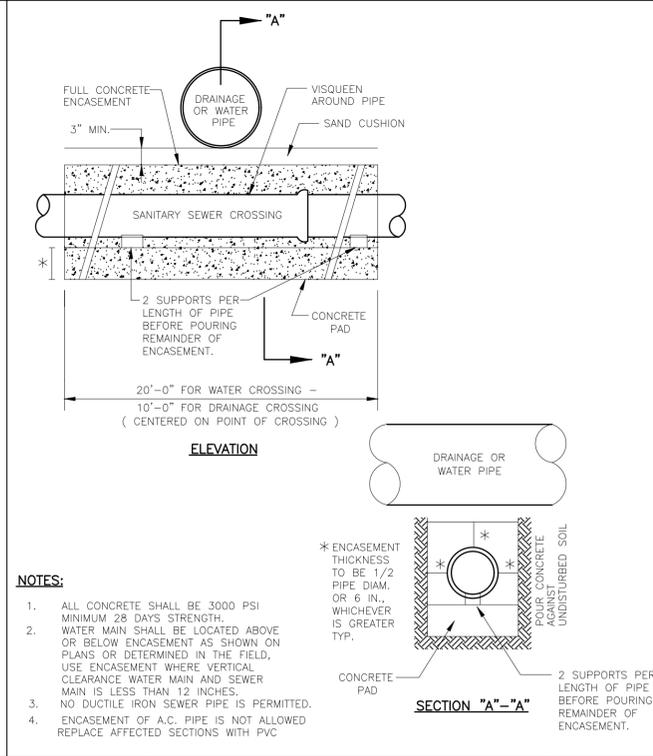
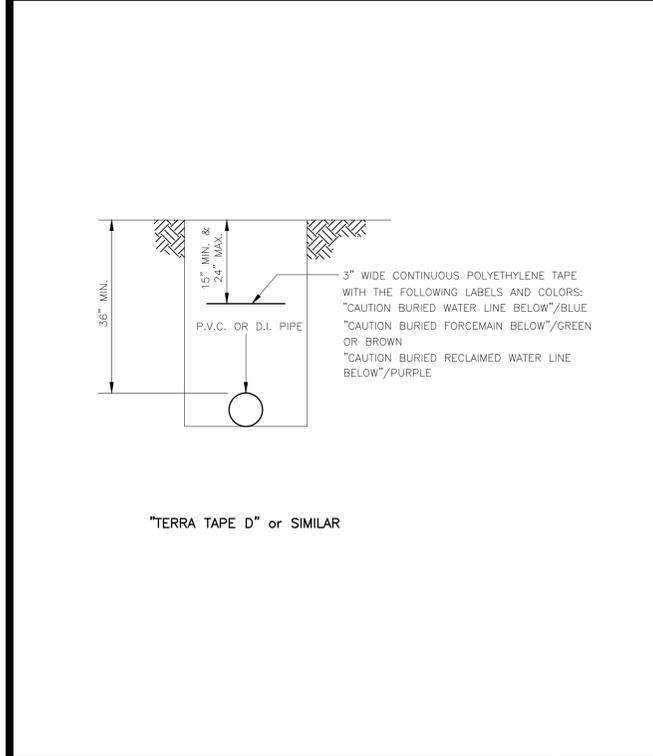


	STANDARD CONSTRUCTION DETAIL STANDARD MANHOLE DETAIL	FILE NAME: EW_S1.DWG
		DETAIL REF: S-1

	STANDARD CONSTRUCTION DETAIL SANITARY SEWER COVER & GENERAL NOTES	FILE NAME: EW_S2.DWG
		DETAIL REF: S-2

	STANDARD CONSTRUCTION DETAIL SEWER LATERAL DETAIL (SINGLE 4" RESIDENTIAL) (SINGLE 6" COMMERCIAL)	FILE NAME: EW_S10.DWG
		DETAIL REF: S-10

	STANDARD CONSTRUCTION DETAIL CLEANOUT DETAIL	FILE NAME: EW_S12.DWG
		DETAIL REF: S-12



	STANDARD CONSTRUCTION DETAIL LOCATOR TAPE INSTALLATION FOR SEWER, WATER AND RECLAIMED WATER PIPELINES	FILE NAME: EW_S13.DWG
		DETAIL REF: S-13

	STANDARD CONSTRUCTION DETAIL SEWER CONDUIT CROSSING	FILE NAME: EW_S14.DWG
		DETAIL REF: S-14

	STANDARD CONSTRUCTION DETAIL SANITARY SEWER DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_S23.DWG
		DETAIL REF: S-23

	STANDARD CONSTRUCTION DETAIL SANITARY SEWER DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_S24.DWG
		DETAIL REF: S-24



ENGINEERS  
PLANNERS  
11358 N. Government Way  
Hayden, Idaho 83835  
Office (208) 665-9502

SEWER DETAILS FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

DESIGNED: SWS
DRAWN BY: MHM
CHECKED: AO
SCALE: H: N/A V: N/A
PROJECT NUMBER 24.009

SHEET  
**D2**

**Sunshine 811**  
CALL 811  
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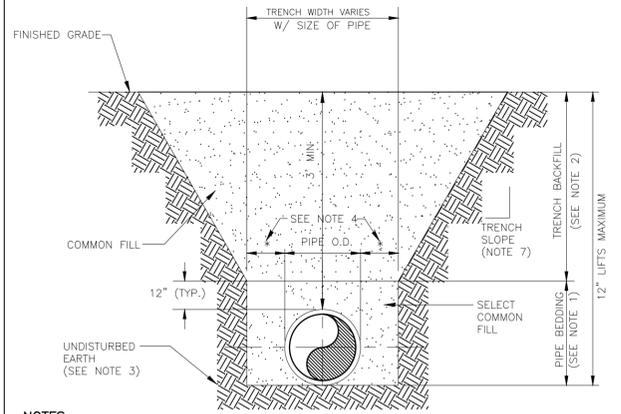
**ENGINEERS  
PLANNERS**  
11358 N. Government Way  
Hayden, Idaho 83835  
Office (208) 665-9502

**SANITARY SEWER DESIGN AND CONSTRUCTION NOTES  
(CONTD.)**

- SANITARY SEWER MANHOLES WHICH HAVE SEWER FORCE MAINS DISCHARGING DIRECTLY INTO THEM SHALL BE FIBERGLASS OR POLY-ETHYLENE LINED. RETRO-FITTING OF MANHOLES WITH LINERS SHALL BE REQUIRED WHEN NEW CONNECTIONS SUCH AS THIS ARE MADE. FIBERGLASS SHALL BE A MINIMUM 1/2" THICKNESS UNLESS APPROVED OTHERWISE BY THE CITY. OTHER TYPES OF LINING METHODS AND MATERIALS MAY BE CONSIDERED ON A CASE BY CASE BASIS.
- THE CITY RESERVES THE RIGHT TO REQUIRE THE DEVELOPER TO PERFORM VACUUM TESTING OF ALL SANITARY MANHOLES, AIR TEST SEWER MAINS, AND REQUIRES THAT ALL SANITARY SEWER MAIN LINES BE TELEVIEWED PRIOR TO FINAL ACCEPTANCE. LATERALS SHALL BE TELEVIEWED UPON DEMAND BY THE CITY PRIOR TO FINAL ACCEPTANCE WHEN IT IS SUSPECTED THAT A PROBLEM EXISTS.
- ALL SEWER MAINS, PRIOR TO ACCEPTANCE BY THE CITY AND PRIOR TO ANY FINAL PAVING OPERATIONS, SHALL BE CLEANED FLUSHED AND TELEVIEWED USING A "PAN AND TILT" CAMERA BY A CITY APPROVED CONTRACTOR. THE VIDEO SHALL BE NON-STOP WITH AUDIO DESCRIBING WHAT IS BEING REVIEWED. WRITTEN VIDEO LOGS DESCRIBING THE CONDITION OF THE LINES SHALL ACCOMPANY THE TAPE SUBMISSION TO THE CITY PRIOR TO COMMENCING ANY INSTALLATION OF ASPHALT OR CONCRETE PAVEMENT. RE-TAPING MAY BE REQUIRED BY THE CITY IF ADDITIONAL CLEARING OR CORRECTIVE ACTIONS ARE NECESSARY.
- ALL MANHOLES WITH FORCE MAIN CONNECTIONS SHALL BE OUTFITTED WITH EGRU LINERS OR OTHER TYPES OF LINERS APPROVED BY THE CITY. IN ADDITION, THE CITY MAY REQUIRE LINERS TO BE INSTALLED IN AREAS WHERE THE ENVIRONMENTAL SERVICES DEPARTMENT BELIEVES THE NEED IS JUSTIFIED.
- ALL SEWER LINES WHICH ARE CONSTRUCTED OUTSIDE OF PUBLIC RIGHTS-OF-WAY WITHIN SIDE YARDS, BACKYARDS, AND OTHER POORLY ACCESSIBLE AREAS SHALL BE CONSTRUCTED OF C-900 PVC. ABSOLUTELY NO USE OF PLASTIC STYRENE FITTINGS SHALL BE ALLOWED.
- SEWER LATERAL LOCATIONS SHALL BE MARKED ALONG THE OUTSIDE OF THE CURB WITH A SAW CUT "V", OR BY A METAL TAB SET INTO THE PAVEMENT.
- CONTEC A-2000 PVC PIPE SHALL NOT BE ALLOWED FOR USE.
- EZ-WRAP PLASTIC, AS MANUFACTURED BY PRESS SEAL GASKET CORPORATION, SHALL BE USED ON THE OUTSIDE OF ALL MANHOLE AND WETWELL JOINTS. APPLY ONE LAYER OF 9" WRAP CENTERED ON EACH JOINT. A CITY INSPECTOR SHALL PERSONALLY INSPECT ALL JOINT SEALS PRIOR TO BACKFILLING OPERATIONS.
- ALL PROPOSED SEWER FORCE MAINS SHALL BE FLUSHED, PRESSURE TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE ENVIRONMENTAL SERVICES DEPARTMENT (AS APPROPRIATE) AT LEAST 24 HOURS PRIOR TO BEGINNING A FULL-DIAMETER FLUSH OF THE MAINS PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING (SUBJECT TO AVAILABILITY).
- THE CITY MAY REQUIRE THE CONTRACTOR TO PIG FORCE MAINS 6" AND GREATER IN DIAMETER AND PRIMARY TRANSMISSION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR.

**SANITARY SEWER DESIGN AND CONSTRUCTION NOTES  
(CONTD.)**

- ANY TIE INTO AN EXISTING MANHOLE WILL BE COORDINATED WITH THE CITY, AND ALL CONFINED SPACE HAZARDS AND PROCEDURES WILL BE FOLLOWED.
- ANY TIE INTO AN EXISTING SYSTEM WILL BE SWEEPED IN THE DIRECTION OF FLOW.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL OSHA, DOT, OR ANY OTHER RULES & REGULATIONS THAT MAY APPLY.
- AS A GENERAL RULE, THE NUMBER OF JOINTS SHALL BE LIMITED WHENEVER POSSIBLE. IN SPECIAL CASES WHERE A POINT REPAIR TO AN 8" TO 12" PVC SEWER MAIN IS REQUIRED, THE PROPER RIGID WRAP AROUND SLEEVE SUCH AS A JCM-210 OVERSIZED DUCTILE IRON COUPLING OR AN APPROVED EQUAL MAY BE ALLOWED BY SPECIAL APPROVAL BY THE CITY.
- ALL IN-LINE SANITARY SEWER MAIN VALVES SHALL BE RESILIENT SEAT (AWWA C-509) VALVES FEATURING A LINED DUCTILE IRON BODY.
- ALL TAPPING OF MAINS AND CORING OF MANHOLES SHALL BE COORDINATED WITH THE CITY BY AN APPROVED CONTRACTOR AND BILLED IN ACCORDANCE WITH THE ADOPTED FEE RESOLUTION. SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE THE WORK DIRECTLY WITH THE ENVIRONMENTAL SERVICES DEPARTMENT. SUBSEQUENTLY, THE CONNECTION SHALL BE SCHEDULED TO COMMENCE ON THE APPROPRIATE DAY AND TIME ESTABLISHED BY CITY.
- WITH RESPECT TO TIE-IN CONNECTIONS AND CORING OPERATIONS, THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW (MIDNIGHT TO 6:00 A.M.) IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.
- ALL WORK PERFORMED UPON SANITARY SEWER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY SHALL BE CONSTRUCTED BY A LICENSED UNDERGROUND UTILITY CONTRACTOR, OR LICENSED GENERAL CONTRACTOR, WHO IS LICENSED IN THE STATE OF FLORIDA AND REGISTERED WITH THE CITY.
- UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AS-BUILTS ARE PROVIDED TO THE CITY PRIOR TO ANY USE OF THE SYSTEM.
- FOR CONSTRUCTION PURPOSES, THE PLANS SHALL DIMENSION THE LOCATION OF ALL FORCE MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT, IF NO CURBING EXISTS.)
- ALL HDPE PIPE INSTALLED FOR SEWAGE FORCE MAINS SHALL BE SDR 11 UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC OR DIP TO WHICH IT IS ATTACHED.
- LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.
- ALL UTILITY INSTALLATIONS ARE SUBJECT TO REVIEW AND APPEAL BY THE CITY OF EDGEWATER. ALL STRUCTURES AND EQUIPMENT SUPPLIED AND/OR INSTALLED SHALL MEET QUALITY AND PERFORMANCE STANDARDS PRIOR TO ACCEPTANCE. SUBSTANDARD INSTALLATIONS MAY BE REJECTED, REMEMBER MEASURES ARE SUBJECT TO CITY APPROVAL.

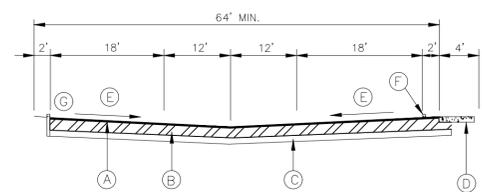


- NOTES:**
- PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
  - TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180, (98% DENSITY REQUIRED UNDER DRIVEWAYS, PAVEMENT AND STRUCTURES).
  - PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE "A" BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
  - (\*) 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
  - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
  - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF FLOW.
  - REFER TO OSHA REQUIREMENTS FOR SLOPING, SHEETING AND BRACING IN EXCAVATIONS.
  - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.



**STANDARD CONSTRUCTION DETAIL  
SANITARY SEWER DESIGN AND  
CONSTRUCTION NOTES**

FILE NAME:  
EW\_S25.DWG  
DETAIL REF:  
S-25

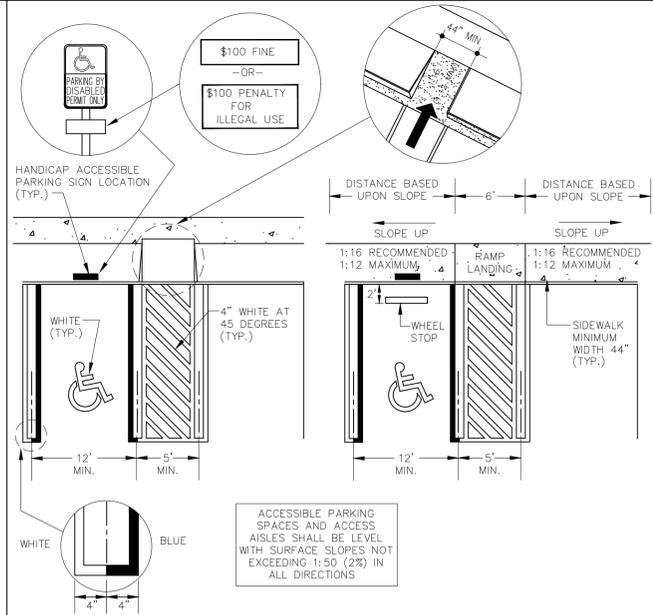


- NOTES:**
- ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
  - A REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



**STANDARD CONSTRUCTION DETAIL  
SANITARY SEWER DESIGN AND  
CONSTRUCTION NOTES**

FILE NAME:  
EW\_S26.DWG  
DETAIL REF:  
S-26

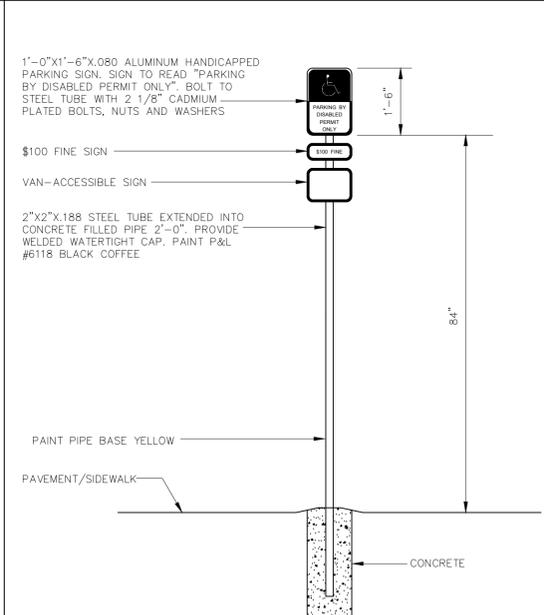


- NOTE:**
- WHEN HEADER CURB IS USED IN LIEU OF WHEEL STOPS, SIDEWALK ABUTTING CURB MUST BE WIDENED BY 18" SO THAT THE TOTAL SIDEWALK WIDTH IS 62", ALLOWING FOR 44" MINIMUM CLEAR ACCESSIBLE ROUTE.
  - FOR COMPLETE DETAIL OF HANDICAPPED SIGN, REFER TO DETAIL M-10.



**STANDARD CONSTRUCTION DETAIL  
TYPE "B" BEDDING AND TRENCH DETAIL  
(TYPICAL FOR WATER, SEWER, FORCE MAIN, STORM  
DRAIN AND RECLAIMED WATER MAIN INSTALLATIONS)**

FILE NAME:  
EW\_S29.DWG  
DETAIL REF:  
S-29



- NOTE:**
- HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL AND FEDERAL CODES AND REGULATIONS.
  - ALL SIGNS SHALL BE DESIGNED TO WITHSTAND 100 M.P.H. WINDLOAD.



**STANDARD CONSTRUCTION DETAIL  
PRIVATE PARKING LOT**

FILE NAME:  
EW\_M5.DWG  
DETAIL REF:  
M-5



**STANDARD CONSTRUCTION DETAIL  
HANDICAP ACCESSIBLE PARKING SPACES**

FILE NAME:  
EW\_M9.DWG  
DETAIL REF:  
M-9



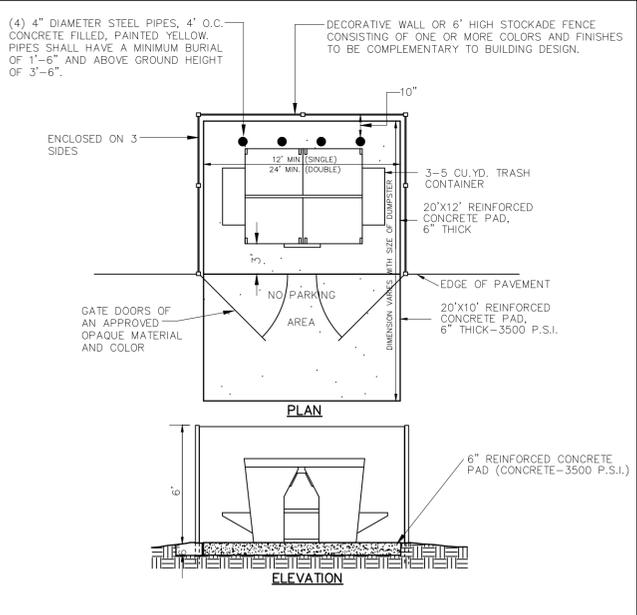
**STANDARD CONSTRUCTION DETAIL  
HANDICAP SIGN**

FILE NAME:  
EW\_M10.DWG  
DETAIL REF:  
M-10



**STANDARD CONSTRUCTION DETAIL  
DUMPSTER PAD**

FILE NAME:  
EW\_M13.DWG  
DETAIL REF:  
M-13



- NOTES:**
- MAXIMUM ANGLE OF CONTAINER PAD TO DIRECTION OF AISLE TO BE 30°
  - AREA TO BE FREE OF OVERHEAD LINES AND WIRES.
  - DUMPSTER PAD TO BE 12" MIN. (SINGLE) 24" MIN. (DOUBLE) FOR DUMPSTER RECYCLING.
  - APPLICANT TO PROVIDE A SIDE ELEVATION TO DEMONSTRATE COLOR, MATERIAL, AND DESIGN CONSISTENCY WITH THE PRINCIPAL BUILDING.



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SEWER AND MISC DETAILS FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

DESIGNED:  
SWS  
DRAWN BY:  
MHM  
CHECKED:  
AO  
SCALE:  
H: N/A  
V: N/A  
PROJECT NUMBER  
24.009

SHEET  
**D3**



ENGINEERS  
PLANNERS  
11358 N. Government Way  
Hayden, Idaho 83835  
Office (208) 665-9502

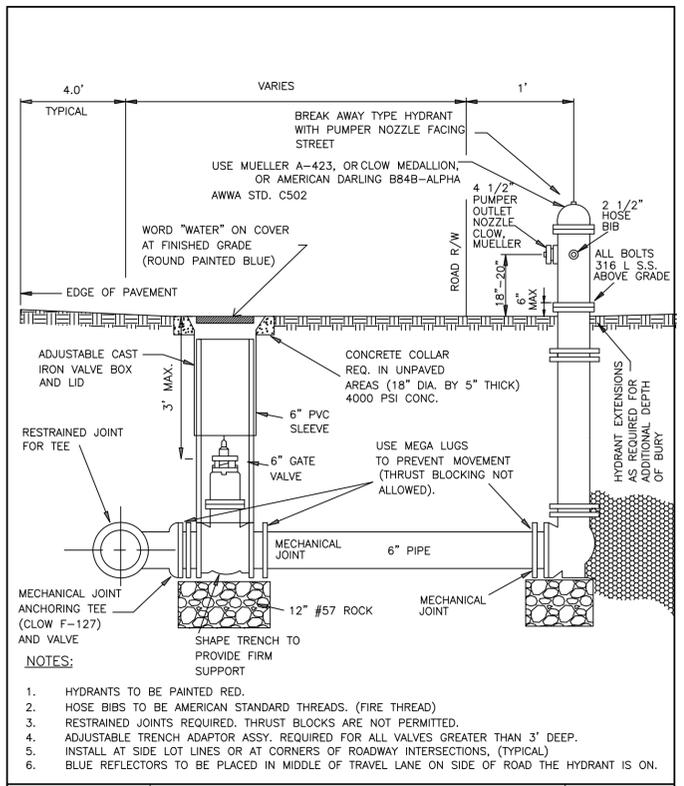
WATER DETAILS FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



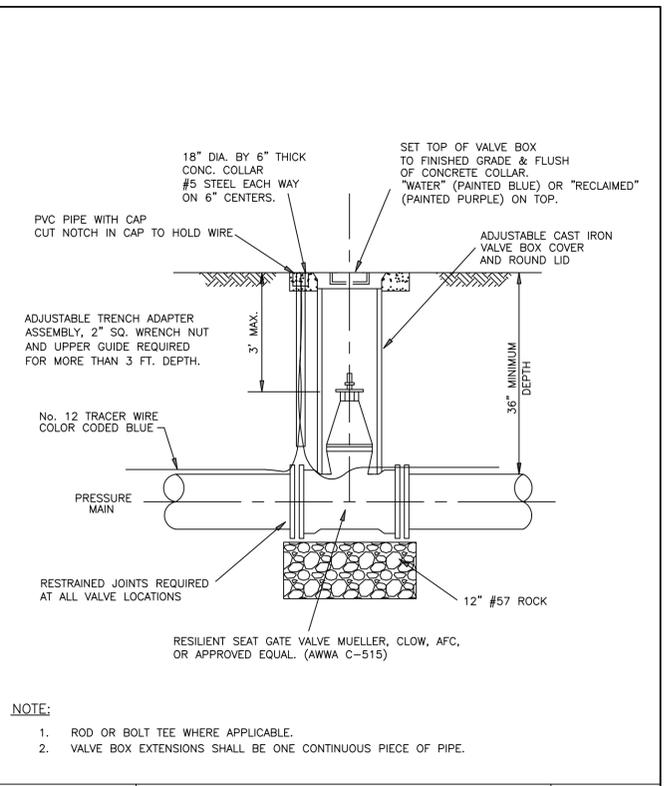
6/27/2025

DESIGNED:  
SWS  
DRAWN BY:  
MHM  
CHECKED BY:  
AO  
SCALE:  
H: N/A  
V: N/A  
PROJECT NUMBER  
24.009  
SHEET

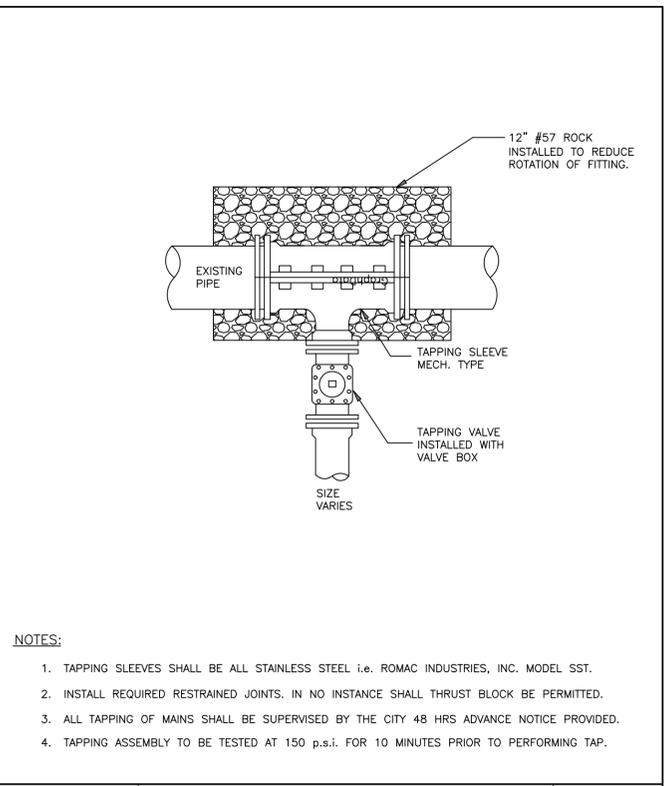
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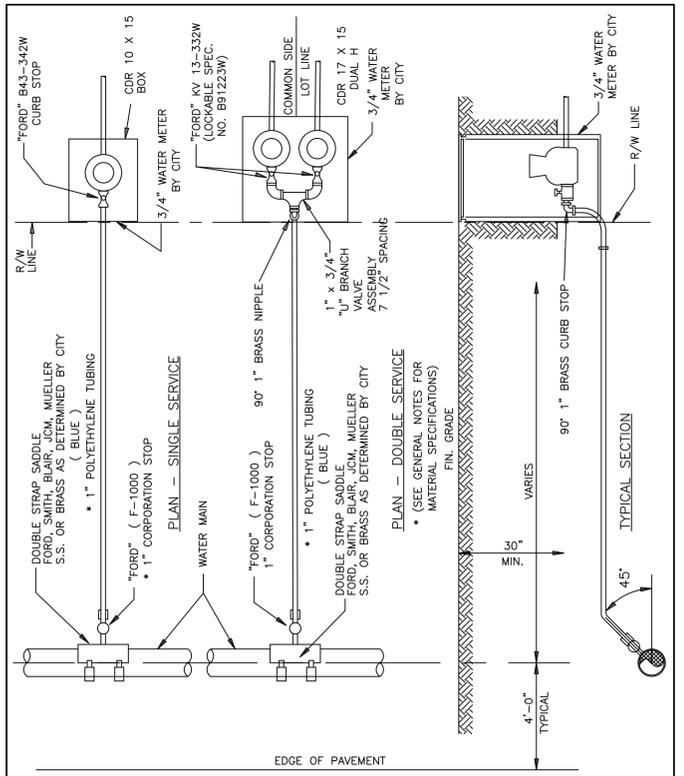
FILE NAME: EW\_W1.DWG  
DETAIL REF: W-1  
STANDARD CONSTRUCTION DETAIL  
FIRE HYDRANT ASSEMBLY  
2017-10-24



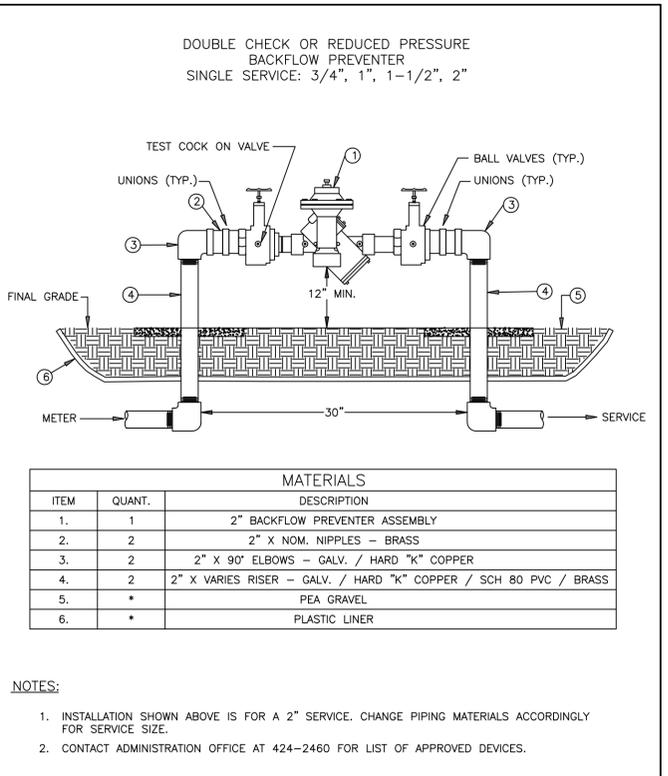
FILE NAME: EW\_W2.DWG  
DETAIL REF: W-2  
STANDARD CONSTRUCTION DETAIL  
POTABLE WATER AND/OR RECLAIMED WATER VALVE AND VALVE BOX (2" - 16" VALVE SIZES)  
2017-10-24



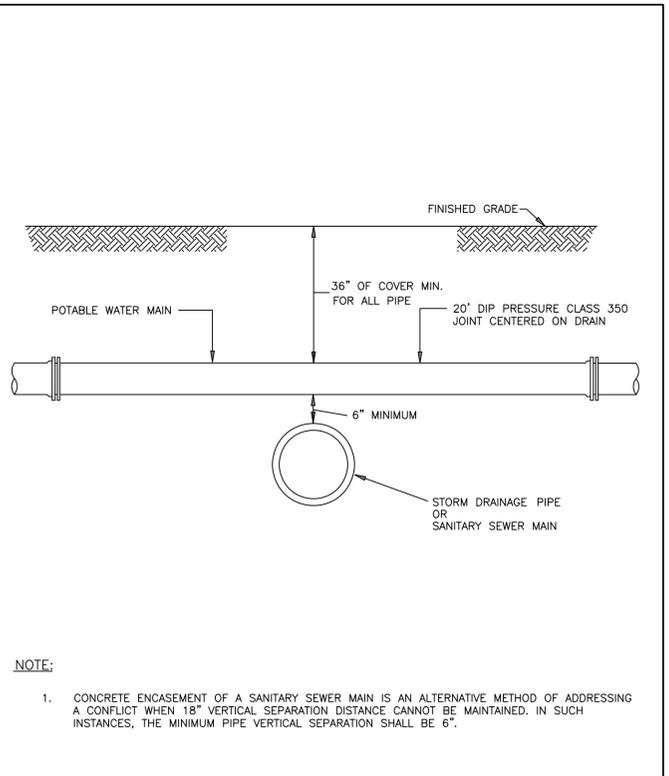
FILE NAME: EW\_W3.DWG  
DETAIL REF: W-3  
STANDARD CONSTRUCTION DETAIL  
TAPPING VALVE AND SLEEVE  
2011-06-30



FILE NAME: EW\_W5.DWG  
DETAIL REF: W-5  
STANDARD CONSTRUCTION DETAIL  
WATER LATERAL SERVICE (3/4" - 2" SIZES)  
2017-10-24



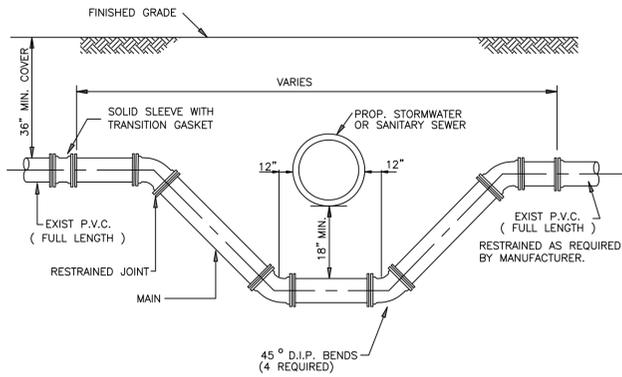
FILE NAME: EW\_W11.DWG  
DETAIL REF: W-11  
STANDARD CONSTRUCTION DETAIL  
2" BACKFLOW PREVENTER  
2017-10-24



FILE NAME: EW\_W14.DWG  
DETAIL REF: W-14  
STANDARD CONSTRUCTION DETAIL  
STORM DRAINAGE PIPE OR SANITARY SEWER MAIN CONFLICT  
2011-06-30

Sunshine 811  
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CONCRETE ENCASEMENT OF SANITARY SEWER IS AN ALTERNATIVE METHOD OF ADDRESSING A CONFLICT WHEN UNABLE TO MAINTAIN 18" VERTICAL SEPARATION DISTANCE. IN SUCH INSTANCES, THE MINIMUM PIPE VERTICAL SEPARATION SHALL BE 6".



**NOTES:**

1. LOWERING OF EXISTING WATER MAIN & FORCE MAIN BY DEFLECTION METHOD ACCEPTABLE IF EXISTING FIELD CONDITIONS PERMIT.
2. LENGTH OF SECTION BASED ON MINIMUM LENGTH AS DETERMINED BY DIPRA RESTRAINED JOINT MANUAL.
3. INSTALL RESTRAINED JOINTS, AS REQUIRED, FROM DEFLECTION POINT IN BOTH DIRECTIONS.

**POTABLE WATER DESIGN AND CONSTRUCTION NOTES**

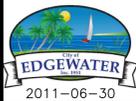
1. THE CITY'S PUBLIC UTILITIES DEPARTMENT (424-2460) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY POTABLE WATER SYSTEM CONSTRUCTION.
2. DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW WATER MAIN BEING LAID
3. ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
4. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 98% IN PAVED AREAS AND 95% IN UNPAVED AREAS IN ACCORDANCE WITH AASHTO T-180.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 1 FOOT ABOVE THE PIPE AND AT 1 FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
6. 3" METALLIZED PIPE LOCATION TAPE SHALL BE LOCATED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS SPECIFIED BY MANUFACTURER FOR ALL PVC LINES. MARKER TAPE SHALL BE USED ON ALL DUCTILE IRON PIPE, AND 12 GAUGE TRACING WIRE AS WELL.
7. ALL SINGLE RESIDENTIAL WATER SERVICES SHALL BE 3/4", DOUBLE RESIDENTIAL SERVICES SHALL BE 1", AND COMMERCIAL SERVICES 1-1/2" OR 2". POLYETHYLENE TUBING SHALL BE USED, IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS: POLYETHYLENE TUBING SHALL BE CTS 3408 HIGH DENSITY TUBING, BLUE IN COLOR, AND RATED FOR A MINIMUM OF 200 P.S.I. WITH SDR OF 9 (CTS). THE TUBING SHALL HAVE A VIRGIN HIGH DENSITY POLYETHYLENE CENTER FOR WHICH THE MANUFACTURER SHALL FURNISH A CERTIFICATE OF PURITY. THE TUBING SHALL COMPLY WITH OR EXCEED THE APPLICABLE STANDARDS OF A.S.T.M. D1248, D3350, D2239, D2737, N.S.F. 14 AND A.W.W.A. C901 AND SHALL COME WITH A LIFETIME WARRANTY. ACCEPTABLE MANUFACTURERS: ENDOT ENDO PURE OR APPROVED EQUAL
8. ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH A 2" X 4" LUMBER (PRESSURE TREATED) EXTENDING 4 FEET ABOVE GRADE, WITH WATER SERVICES SECURED 12" MAXIMUM ABOVE THE GROUND AND ANY "T" BRANCHES FOR DOUBLE SERVICES SHALL BE AT GROUND LEVEL. ALL SERVICES SHALL BE LOCKED.
9. WATER VALVES SHALL BE PLACED AT ALL STREET INTERSECTIONS AND AT MAXIMUM SPACINGS OF 750 FEET.
10. AT ALL WATER MAIN TEES AND CROSSES, VALVES SHALL BE INSTALLED ON ALL LEGS EXCEPT ONE.
11. APPROVED WATER VALVE TYPES ARE THE FOLLOWING:
  - A. RESILIENT SEAT GATE VALVES 24" DIAMETER AND SMALLER (AWWA C-509)
  - B. BUTTERFLY VALVES GREATER THAN 24" (AWWA C-504)
  - C. TAPPING VALVES WITH MECHANICAL TAPPING SLEEVE.
12. ALL WATER VALVES SHALL BE ADJUSTED TO FINISHED GRADE WITH CONCRETE COLLARS AND THE CAPS PAINTED BLUE TO MAKE THEM PLAINLY VISIBLE.
13. UPON FINAL ACCEPTANCE OF NEW WATER SYSTEMS, WATER VALVES SHALL BE COMPLETELY OPENED BY PUBLIC UTILITIES PERSONNEL. AT NO TIME SHALL CONTRACTOR OPERATE ANY EXISTING VALVES.
14. TYPICALLY, A MINIMUM OF ONE FIRE HYDRANT SHALL BE LOCATED AT EVERY INTERSECTION. OTHER FIRE HYDRANTS SHALL BE LOCATED SO AS TO PRODUCE A MAXIMUM 375 FEET HOSE LAY ALONG THE STREET FOR ALL RESIDENTIAL BUILDINGS.

**POTABLE WATER DESIGN AND CONSTRUCTION NOTES (CONTD.)**

15. ALL FIRE HYDRANTS SHALL BE CONSTRUCTED TO MAKE THEM EASILY ACCESSIBLE TO FIRE PERSONNEL IN CASE OF A FIRE. THE PRIMARY HYDRANT PORT SHOULD ALWAYS FACE THE STREET.
16. AS STANDARD PRACTICE, WATER MAINS SHALL BE INSTALLED 4 FEET OFF THE BACK OF CURB OR AS APPROVED BY THE CITY.
17. ALL WATER MAINS SHALL BE NSF-APPROVED FOR POTABLE WATER USE, AND SHALL HAVE A MINIMUM COVER OF 36 INCHES.
18. ALL PROPOSED WATER MAINS SHALL BE FLUSHED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
19. WATER MAINS SHALL BE C-900 PVC OR C-905 CL 150 (COLOR"BLUE") OR D.I.P. PRESSURE CLASS 350 STANDARD CEMENT LINED UNLESS OTHERWISE APPROVED BY THE CITY.
20. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE DEPARTMENT OF HEALTH AND AS-BUILTS ARE PROVIDED TO THE CITY PRIOR TO ANY USE OF THIS SYSTEM.
21. WATER DISTRIBUTION SYSTEM SHALL BE DESIGNED TO COMPLY WITH THE CITY'S FIRE (WATER) FLOW CODE.
22. IN AREAS WHERE RECLAIMED WATER IS NOT AVAILABLE THE CONTRACTOR SHALL BE REQUIRED TO (UPON SATISFACTORY COMPLETION OF THE PRESSURE TEST) TRANSFER THE WATER FROM THE POTABLE WATER LINES TO THE RECLAIMED WATER LINES FOR UTILIZATION IN THEIR PRESSURE TEST.
23. IN AREAS WHERE RECLAIMED WATER IS AVAILABLE, RECLAIMED WATER WILL BE UTILIZED IN THE PRESSURE TESTING OF NEW RECLAIMED WATER LINES.
24. ALL POTABLE WATER MAINS SHALL USE A THRUST RESTRAINT JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) GUIDELINES. IN THE EVENT THAT PVC FITTINGS ARE SPECIFIED, THE RESTRAINT SHALL BE MODIFIED IN ACCORDANCE WITH THE RECOMMENDED ADDITIONAL RESTRAINT LENGTH REQUIRED FOR PIPE WRAPPED WITH POLYETHYLENE.
25. MEGALUGS, BOLTLESS RESTRAINED JOINTS, GRIPPER GASKETS, OR STAR GRIPS SHALL BE USED ON ALL RESTRAINED JOINT INSTALLATIONS. MINIMUM DEPTH OF BURY ON PIPES NOT MEETING REQUIRED COVER REQUIREMENTS SHALL FOLLOW THE MOST RECENT DIPRA THRUST RESTRAINT DESIGN GUIDELINES.
26. GRIPPER RING GASKETS BY ROMAC AND OR STAR AU-GRIP MAY BE USED AS APPROPRIATE FOR RESTRAINING PRESSURE PIPE TO FITTINGS, VALVES, ETC.
27. WATER SYSTEMS SHALL BE PRESSURE TESTED AT 150 PSI STATIC PRESSURE FOR A PERIOD OF 4 HOURS PER AWWA STANDARDS.
28. ALL WATER SERVICES SHALL BE MARKED WITH AN "A" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT.
29. ALL WATER VALVES SHALL BE MARKED WITH AN "X" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT. BLOW-OFFS SHALL BE MARKED SIMILARLY, AS WELL.
30. WATER SERVICES SHALL BE NORMALLY DOUBLE 1" SERVICES LOCATED AT SIDE LOT LINES. IN INSTANCES WHERE SERVICES NEED TO BE OFFSET, 3/4" SINGLE SERVICES SHALL BE SPECIFIED. THESE SERVICES MAY BE OFFSET A MAXIMUM OF 2.0' FROM SIDE LOT LINES.
31. ALL TAPPING OF MAINS SHALL BE SUPERVISED BY THE CITY SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR. THE CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 8:00 A.M. AND NOON ON THE APPROPRIATE DAY.

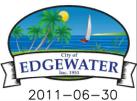
**POTABLE WATER DESIGN AND CONSTRUCTION NOTES (CONTD.)**

32. ALL PROPOSED POTABLE WATER MAINS SHALL BE FLUSHED, DISINFECTED, PRESSURE TESTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE WHEN APPROPRIATE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE WATER TREATMENT PLANT AT LEAST 48 HOURS PRIOR TO BEGINNING FLUSH OF THE MAINS PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING.
33. THE CONTRACTOR SHALL BE REQUIRED TO PIG ALL POTABLE MAINS IN EXCESS OF 8" IN DIAMETER AND PRIMARY DISTRIBUTION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR.
34. WITH RESPECT TO TIE-IN CONNECTIONS, THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW (MIDNIGHT TO 6:00 A.M.) IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.
35. ALL WORK PERFORMED UPON POTABLE WATER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY SHALL BE CONSTRUCTED BY AN UNDERGROUND UTILITY CONTRACTOR OR GENERAL CONTRACTOR LICENSED IN THE STATE OF FLORIDA AND REGISTERED WITH THE CITY.
36. FOR CONSTRUCTION PURPOSES, THE PLANS SHALL DIMENSION THE PROPOSED LOCATIONS OF ALL WATER MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT, IF NO CURB IS USED).
37. POTABLE WATER SYSTEM EXTENSIONS MAY NOT BE USED PRIOR TO FINAL TESTING, CLEARANCE AND ACCEPTANCE BY THE CITY OF EDGEWATER. THIS INCLUDES CONSTRUCTION WATER REQUIRED FOR SEWER LINE CLEANING OR RELATED USES.
38. ALL H.D.P.E. PIPE UTILIZED FOR WATER, FORCE MAIN AND/OR RECLAIMED WATER MAIN EXTENSIONS SHALL BE S.D.R. 11 UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC OR DIP PIPE TO WHICH IT IS ATTACHED.
39. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.
40. ALL VALVES 2" AND LARGER SHALL BE STANDARD 2" BOX VALVES (CORP STOPS ARE NOT ACCEPTABLE).
41. WHERE POTABLE WATER AND SANITARY SEWER MAINS CROSS WITH LESS THAN EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE OR WHERE THE SEWER MAIN IS ABOVE THE WATER MAIN, THE SEWER MAIN SHALL BE ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE, OR UPGRADED TO DUCTILE IRON PIPE OR PRESSURE RATED PVC PIPE (MEETING THE AWWA C-900 OR C905 SPECIFICATION) FOR A MINIMUM LENGTH OF (20) FEET, CENTERED ON THE POINT OF CROSSING. A MINIMUM HORIZONTAL SEPARATION OF (10) TEN FEET (EDGE TO EDGE) BETWEEN POTABLE WATER MAINS AND SEWER MAINS SHALL BE MAINTAINED WHEN AT ALL POSSIBLE. WHEN THE 10-FOOT HORIZONTAL SEPARATION CANNOT BE MAINTAINED THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 18" ABOVE THE SEWAGE MAIN. ALTERNATIVELY, THE SEWER MAIN SHALL BE ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE, OR UPGRADED TO DUCTILE IRON PIPE OR PRESSURE RATED PVC PIPE (MEETING THE AWWA C-900 OR C-905 SPECIFICATION) AND PRESSURE TESTED.



STANDARD CONSTRUCTION DETAIL  
STORM DRAINAGE PIPE  
OR SANITARY SEWER MAIN  
CONFLICT

FILE NAME:  
EW\_W15.DWG  
DETAIL REF:  
W-15



STANDARD CONSTRUCTION DETAIL  
POTABLE WATER DESIGN AND  
CONSTRUCTION NOTES

FILE NAME:  
EW\_W22.DWG  
DETAIL REF:  
W-22



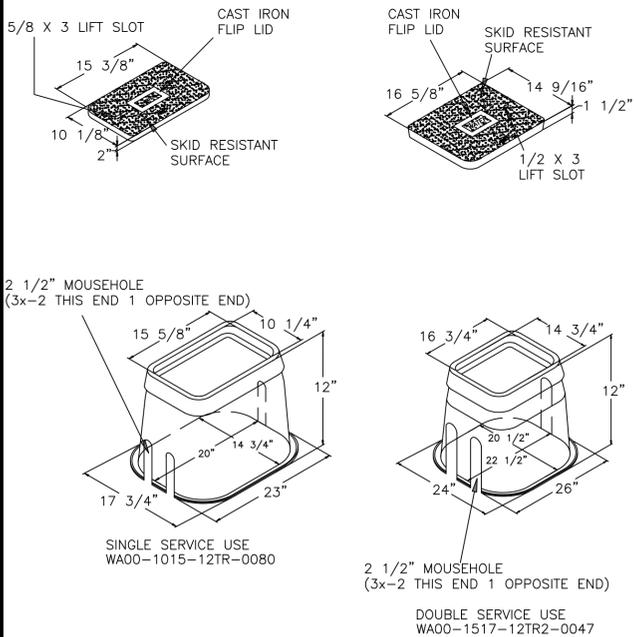
STANDARD CONSTRUCTION DETAIL  
POTABLE WATER DESIGN AND  
CONSTRUCTION NOTES

FILE NAME:  
EW\_W23.DWG  
DETAIL REF:  
W-23



STANDARD CONSTRUCTION DETAIL  
POTABLE WATER DESIGN AND  
CONSTRUCTION NOTES

FILE NAME:  
EW\_W24.DWG  
DETAIL REF:  
W-24



STANDARD CONSTRUCTION DETAIL  
VALVE BOX  
SINGLE AND DOUBLE SERVICE

FILE NAME:  
EW\_W26.DWG  
DETAIL REF:  
W-26



**ENGINEERS  
PLANNERS**  
11358 N. Government Way  
Hayden, Idaho 83835  
Office (208) 665-9502

WATER DETAILS (2) FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

DESIGNED: SWS
DRAWN BY: MHM
CHECKED: AO
SCALE: H: N/A V: N/A
PROJECT NUMBER 24.009
SHEET



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D5

**ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES**

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

- ALL RIGHT-OF-WAY OTHER THAN ROADWAY AREAS SHALL BE SODDED. ALL SLOPES STEEPER THAN 6:1 SHALL REQUIRE SODDING. THE CITY RESERVES THE RIGHT TO REQUIRE SODDING IN SPECIAL AREAS WHERE EROSION IS A CONCERN.
- THE FOLLOWING WILL BE THE STANDARD PROTECTION FOR DITCHES UNLESS DRAINAGE CALCULATIONS INDICATE OTHERWISE:
 

SWALE PROFILE GRADES	PROTECTION REQUIRED
0.2%-1.0%	GRASSING AND MULCHING
1.0%-4.0%	SODDING
4.0% AND GREATER	DITCH PAVING
- THE PAVEMENT, BASE, AND SUBBASE THICKNESS PRESENTED ON DETAILS REPRESENTS THE MINIMUM REQUIREMENTS FOR LOCAL PUBLIC STREETS AND PRIVATE PARKING LOTS. THE CITY RESERVES THE RIGHT AT ITS DISCRETION TO INCREASE THESE REQUIREMENTS FOR COLLECTOR AND ARTERIAL ROADWAYS AND PRIVATE PARKING LOTS SUBJECTED TO HEAVY VEHICULAR COMMERCIAL TRAFFIC.
- THE DEVELOPER SHALL PROVIDE AT THEIR OWN EXPENSE A CERTIFIED SOILS ENGINEERING LABORATORY TO PERFORM ALL FIELD AND LABORATORY TESTING REQUIRED TO VERIFY THAT THE CONSTRUCTION IS IN COMPLIANCE WITH THE CITY'S MINIMUM STANDARDS. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO ENSURE THAT COPIES OF ALL TEST REPORTS ARE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO THE PROJECT FINAL INSPECTION IN ORDER TO ALLOW PROJECT ACCEPTANCE BY THE CITY.
- THE LIMITS OF STABILIZED SUBBASE SHALL EXTEND TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE BASE AND OUTWARD TO TWELVE INCHES (12") BEYOND THE CURB.
- THE STABILIZING MATERIAL, IF REQUIRED, SHOULD BE A HIGH BEARING VALUE SOIL, SAND-CLAY, LIMEROCK, RECYCLED CONCRETE, SHELL, OR OTHER MATERIAL AS APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND A LICENSED SOILS ENGINEER.
- THE SUBBASE SHALL BE STABILIZED NOT LESS THAN FORTY (40) POUNDS LIMEROCK BEARING RATIO (LBR) TO A 6" MINIMUM DEPTH. A COMPACTION OF NO LESS THAN NINETY-EIGHT (98%) PERCENT DENSITY BASED ON AASHTO T-180 SHALL BE REQUIRED.
- FOR ROADWAYS, TESTS FOR SUBBASE BEARING CAPACITY AND COMPACTION SHALL BE DONE AT A MINIMUM OF EVERY 300 FEET AND SHALL BE STAGGERED TO THE LEFT, RIGHT, AND AT CENTER LINE OF THE ROADWAY. FOR SITE PLANS, TEST SHALL BE PERFORMED FOR EVERY 600 SQUARE YARDS OF STABILIZED AREA, OR PORTIONS THEREOF.
- BASES FOR ALL STREETS SHALL HAVE A MINIMUM SIX INCH (6") DEPTH. SOIL CEMENT BASES SHALL HAVE A STRENGTH OF 350 POUNDS PER SQUARE INCH AT 7 DAYS COMPACTED TO 98% DENSITY PER AASHTO T-99 STANDARD PROCTOR TEST IN CONFORMANCE WITH SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). RECYCLED CONCRETE OR LIMEROCK BASES SHALL BE COMPACTED TO 98% MAXIMUM DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
- ROADWAY DEFINITIONS
  - ARTERIALS: PROVIDE REGIONAL MOBILITY VIA BOTH UNINTERRUPTED FLOW AND INTERRUPTED FLOW SEGMENTS. ARTERIALS PROVIDE MOBILITY AROUND AND THROUGH URBAN AND COMMUNITY CORES, AND ACCOMMODATE RELATIVELY LONG TRIP LENGTHS AS OPPOSED TO PROVIDING ACCESS TO ADJACENT PROPERTIES. ARTERIAL ROADS ARE U.S. #1 AND S.R. #442.
  - COLLECTORS: PROVIDE FOR MOVEMENT BETWEEN LOCAL STREETS AND THE ARTERIAL NETWORK. COLLECTORS SERVE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL AREAS.
  - LOCAL ROADS: PROVIDE DIRECT ACCESS TO ADJUTING PROPERTIES. LOCAL ROADS ACCOMMODATE TRAFFIC ORIGINATING IN OR TRAVELING TO PROPERTIES WITHIN A NEIGHBORHOOD, COMMERCIAL OR INDUSTRIAL DEVELOPMENT. LOCAL ROADS ARE NOT CONSIDERED PART OF THE MAJOR THOROUGHFARE SYSTEM.

**ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES (CONTD.)**

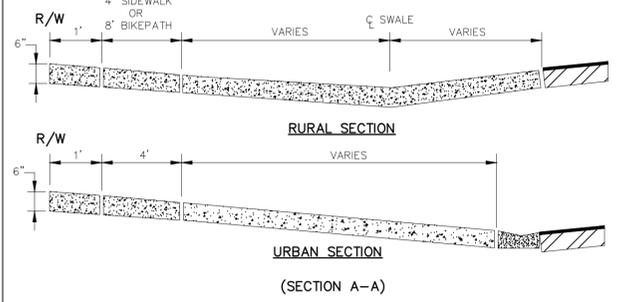
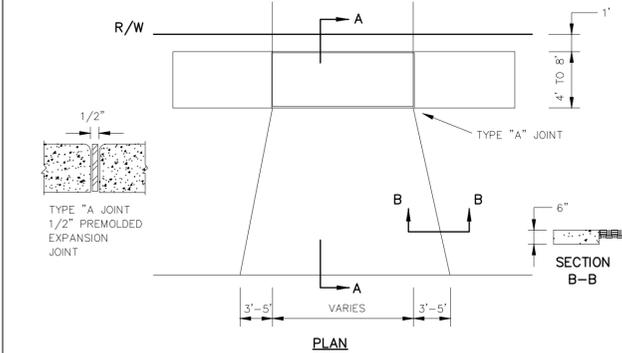
- THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR TRAFFIC CONTROL DEVICES TO THE CITY FOR INSTALLATION. STREET SIGNS AND STOP SIGNS SHALL BE PLACED AT ALL INTERSECTIONS, INCLUDING BUT NOT LIMITED TO PRIVATE STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS.
- THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR ALL STREET LIGHTS PRIOR TO ACCEPTANCE OF THE PROJECT BY THE CITY.
- FOUR FOOT (4') WIDE SIDEWALKS SHALL BE PROVIDED ON BOTH SIDES OF ALL RESIDENTIAL STREETS. (SEE DETAIL, INDEXES M-2 AND M-3)
- BIKE PATHS SHALL BE CONSTRUCTED AT A MINIMUM OF SIX-FOOT WIDTH, PREFERABLY EIGHT-FOOT WIDTH AS DIRECTED BY THE CITY IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN TRAIL MASTER PLAN.
- STANDARD TURNING RADII FOR INTERSECTIONS:
 

RESIDENTIAL STREETS WITH STATE & COUNTY ROADWAYS OR MAJOR THOROUGHFARES WITHIN THE CITY	35-50 FT.
ENTRANCES TO COMMERCIAL SITES OFF OF CITY STREETS	35 FT.
INTERSECTIONS INTERIOR IN SUBDIVISIONS	35 FT.
- SHOULD VOLUSIA COUNTY OR THE FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.O.T.) DETERMINE THAT LARGER RADII ARE WARRANTED WITHIN THEIR RIGHT-OF-WAY, THE LARGER RADII SHALL PREVAIL.
- CONSTRUCTION METHODS AND DESIGN FOR CONCRETE PAVEMENT SHALL CONFORM TO FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION OF LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS (INCLUDING WATER MAINS, SANITARY SEWER MAINS, RECLAIMED WATER MAINS, STORM WATER PIPES AND INLETS, ROADWAYS, AND PARKING FACILITIES) SHALL BE CERTIFIED WITH THE STATE OF FLORIDA BOARD OF PROFESSIONAL REGULATIONS (BPR) FOR THE TYPE OF WORK THAT THEY PERFORM.
- ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION WORK OF LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS SHALL BE LICENSED BY THE STATE OF FLORIDA AND REGISTERED WITH THE CITY. THE LICENSE AND REGISTRATION SHALL PERTAIN DIRECTLY TO THE TYPE OF WORK BEING PERFORMED.
- EXCEPT AS PROVIDED IN THE LAND DEVELOPMENT CODE, ALL ELECTRIC, TELEPHONE, TELEVISION LINES AND SIMILAR UTILITIES ARE REQUIRED TO BE INSTALLED UNDERGROUND AT THE EXPENSE OF THE OWNER, DEVELOPER, AND BUILDER.

	IN CITY RIGHT-OF-WAY:		ON PRIVATE PROPERTY (COMMERCIAL OR MULTI-FAMILY)
	TRANSVERSE (FROM ROAD TO PROPERTY)	LONGITUDINAL (E.G. IMPROVING A SHELL ROAD)	
DRIVEWAY WIDTH:	MIN: 9' (1-WAY), 20' (2-WAY) TYP: 24' (2-WAY) MAX: PER LDC	MIN: 18' TYP: 20' MAX: 50% R/W	MIN: 9' (1-WAY), 20' (2-WAY) TYP: 12' (1-WAY), 20' (2-WAY), 24' W/ PED. TRAFFIC
TURN-OUT GEOMETRY:	≤ 30-45 MPH: R=25' MIN (SEE NOTE 5) >45 MPH: FDOT STANDARD	≤ 30-45 MPH: R=25' MIN (SEE NOTE 5) >45 MPH: FDOT STANDARD	N/A
ALLOWABLE MATERIALS:	ASPHALT (PER DETAIL R-1, ITEMS E, F, & G) CONCRETE (PER DETAIL R-19)  THE FOLLOWING ARE BY WRITTEN CONSENT ONLY: PAVERS (OR SIMILAR)  THE FOLLOWING ARE NOT ALLOWED: TURFBLOCK (OR SIMILAR) GRANULAR MATERIALS PAVED WHEELPATHS	ASPHALT (PER DETAIL R-1, ITEMS E, F, & G) CONCRETE (PER DETAIL R-19)  THE FOLLOWING ARE BY WRITTEN CONSENT ONLY: PAVERS (OR SIMILAR) TURFBLOCK (OR SIMILAR) IMPROVED GRANULAR MAT'L S  THE FOLLOWING ARE NOT ALLOWED: PAVED WHEELPATHS	ASPHALT (PER DETAIL R-1, ITEMS E, F, & G) CONCRETE (PER DETAIL R-19)  THE FOLLOWING ARE BY WRITTEN CONSENT ONLY: PAVERS (OR SIMILAR) TURFBLOCK (OR SIMILAR) IMPROVED GRANULAR MAT'L S PAVED WHEELPATHS

**NOTES:**

- PAVERS, GRAVEL, MILLINGS AND OTHER IMPROVED GRANULAR OR NON-UNIFORM SURFACES ARE ONLY ALLOWED IN LIMITED APPLICATIONS ON BY WRITTEN CONSENT OF THE TECHNICAL REVIEW COMMITTEE. SUCH SURFACES ARE NOT CONSIDERED EQUAL TO HARDSCAPE PAVING (I.E. CONCRETE OR ASPHALT). PROPERTY OWNERS WISHING TO INSTALL SUCH SURFACE IN CITY RIGHT-OF-WAY SHALL EXECUTE A HOLD HARMLESS AGREEMENT INDEMNIFYING THE CITY AGAINST THE MAINTENANCE, REPAIR, AND/OR REPLACEMENT OF SIMILAR SURFACE. REQUIREMENT FOR HARDSCAPE PAVING SHALL BE ENFORCED FOR ALL NEW DEVELOPMENT. ALTERNATIVE SURFACES SHALL BE ALLOWED ONLY IN MINOR RETROFIT APPLICATIONS.
- FOR ASPHALT PAVEMENT, REFER TO ITEMS E, F, & G OF DETAIL R-1.  
FOR CONCRETE PAVEMENT, REFER TO DETAIL R-19.  
(THE LATEST VERSION OF FDOT SPECIFICATIONS SHALL BE ACCEPTED IN LIEU OF THE ABOVE.)  
FOR ALL OTHER SURFACES:  
12" SUBBASE COMPACTED TO 98% MAX DENSITY MODIFIED PROCTOR ASSHTO T-180 MIN LBR=40
- FOR IMPROVED GRANULAR SURFACE (E.G. ANY GRANULAR SURFACE OTHER THAN SHELL OR DIRT):  
- CONSTRUCT CURBING ALONG ALL EDGES. SEE DETAIL R-9 FOR CURB OPTIONS AND SPECIFICATIONS.  
- FINISHED THICKNESS OF IMPROVED GRANULAR MATERIAL TO BE MIN 6".  
- COMPACT GRANULAR MATERIAL VIA ROLLER OR PLATE. MILLINGS MUST BE ROLLED TO A SEMI-UNIFORM APPEARANCE.
- PAVERS, MILLINGS, AND OTHER SIMILAR SURFACES SHALL INCORPORATE A CROSS-SLOPE OF 1/4"/FT DIRECTED TO THE NEAREST ADJACENT STORMWATER FEATURE (EXISTING OR PLANNED).
- MINIMUM TURN-OUT RADIUS MAY BE INCREASED DUE TO ANTICIPATED TRAFFIC VOLUMES AT DISCRETION OF TECHNICAL REVIEW COMMITTEE.



**NOTES:**

- DRIVEWAY APRON BASE TO BE COMPACTED AND TESTED TO 98% DENSITY WITH MINIMUM L.B.R. 40 BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
- CONCRETE DRIVEWAY APRON TO BE 28 DAY, 3000 P.S.I.
- DRIVEWAY WIDTHS OF 14' OR MORE SHALL HAVE A CONTROL JOINT LENGTH-WISE.

**STANDARD CONSTRUCTION DETAIL ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES**

FILE NAME: EW\_R12.DWG  
DETAIL REF: R-12

**STANDARD CONSTRUCTION DETAIL ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES**

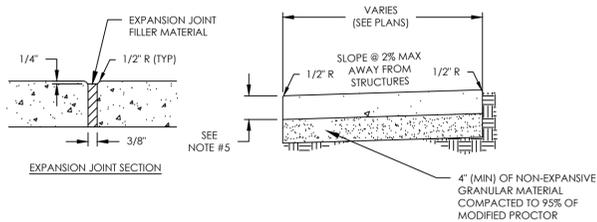
FILE NAME: EW\_R16.DWG  
DETAIL REF: R-16  
2016-03-21

**STANDARD CONSTRUCTION DETAIL DRIVEWAY DETAIL - COMMERCIAL/MULTI-FAMILY**

FILE NAME: EW\_R28.DWG  
DETAIL REF: R-28

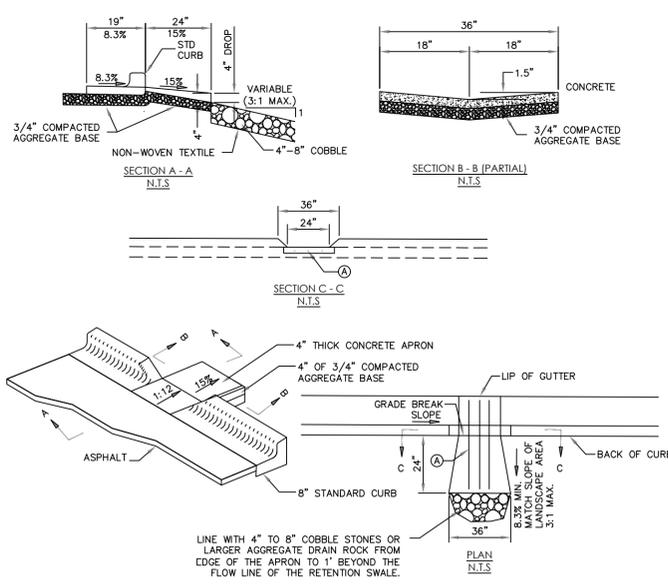
**STANDARD CONSTRUCTION DETAIL DRIVEWAY APRON**

FILE NAME: EW\_M4.DWG  
DETAIL REF: M-4



- NOTES:**
- EXPANSION JOINTS AT CURB RETURNS, ADJACENT TO DRIVEWAYS, AND AT 25' INTERVALS.
  - 3/4" GROOVES WITH 1/2" RADIUS EDGES AT 5' INTERVALS.
  - CONCRETE SHALL BE PORTLAND CONCRETE CEMENT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
  - SUBGRADE COMPACTED TO 95%.
  - SIDEWALK SHALL TYPICALLY BE 4" THICK.

**3 TYPICAL SIDEWALK DETAIL**  
NTS



- NOTES:**
- 3 #4 BARS AT MID DEPTH OF CONCRETE SPACE EQUALLY ACROSS CURB OPENING.
  - REQUIRED WITH INFILTRATION SWALE DESIGN.
  - CONCRETE APRON SHALL REMAIN FREE OF ALL OBSTRUCTIONS INCLUDING GRASS AND OTHER VEGETATION THAT MAY BE USED IN CONJUNCTION WITH LANDSCAPING OF SWALE OR RETENTION BASIN.
  - ADOPTED FROM IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, 2012.

**4 DRAINAGE CURB CUT**  
NTS



**ENGINEERS PLANNERS**  
11358 N. Government Way  
Hayden, Idaho 83835  
Office (208) 665-9502

ROAD DETAILS FOR:  
**FIRST BUSINESS PARK**  
A DEVELOPMENT LOCATED IN THE CITY OF EDGEWATER, FLORIDA



6/27/2025

DESIGNED: SWS
DRAWN BY: MHM
CHECKED: AO
SCALE: H: N/A, V: N/A
PROJECT NUMBER: 24.009
SHEET

**Sunshine 811**  
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