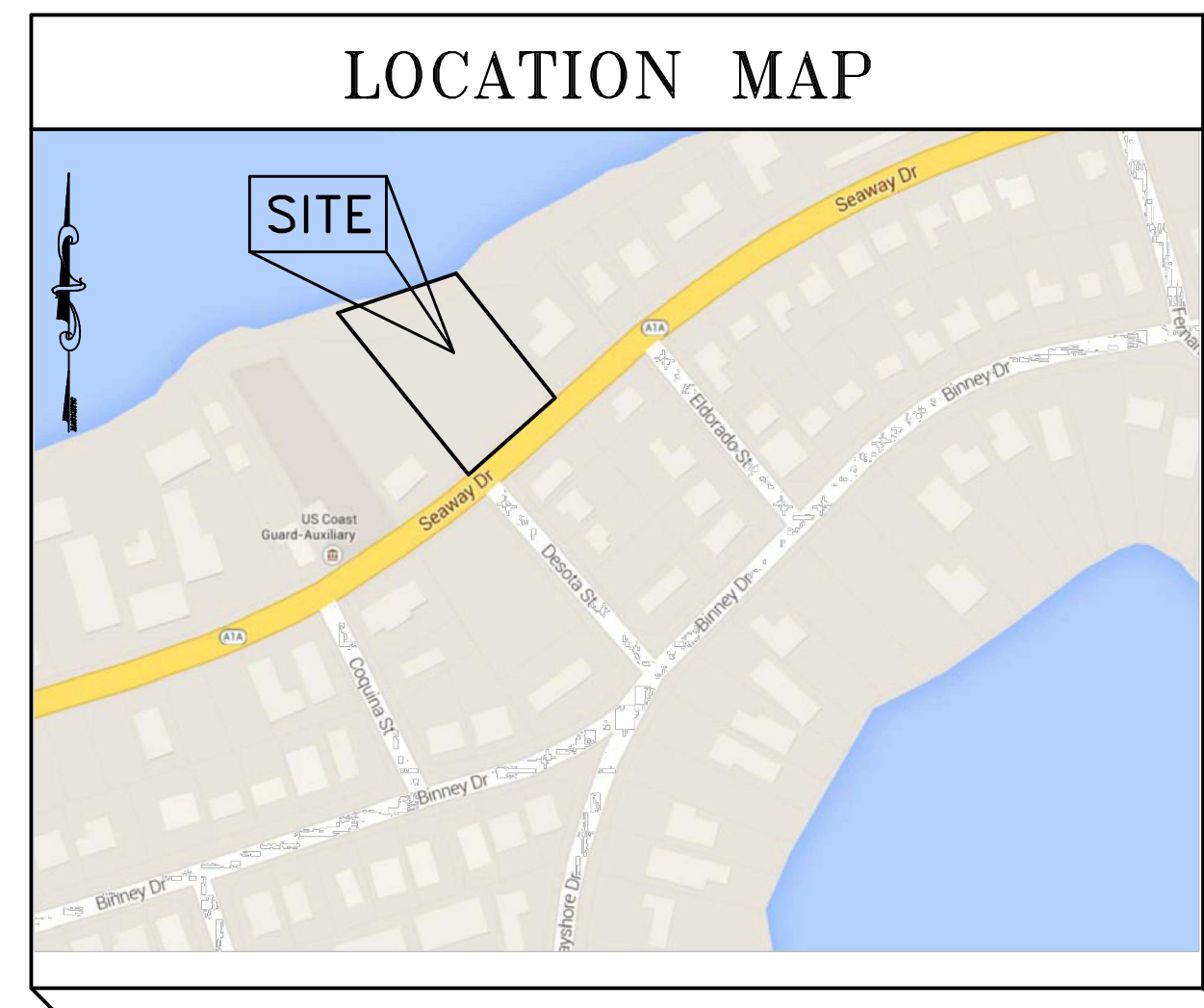


# PLANNED DEVELOPMENT FOR INLET PALMS

SECTION 01, TOWNSHIP 35 S, RANGE 40 E  
CITY OF FT. PIERCE, FLORIDA



**LEGAL DESCRIPTION**  
LOTS 16, 17 AND 18, BLOCK 16, REVISED MAP OF FT. PIERCE BEACH, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 8, PAGE 29, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

DRAWING INDEX	
SHEET	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS AND POLLUTION PREVENTION
3	POLLUTION PREVENTION DETAILS
4	SOIL BORINGS
5	PRELIMINARY PLAT
6	SITE PLAN
7	PAVING, GRADING AND DRAINAGE PLAN
8	UTILITY PLAN
9	LANDSCAPE PLAN
10	CROSS SECTIONS
11-13	MISCELLANEOUS DETAILS
14	AERIAL
ATTACHED	SURVEY

SITE DATA			
<b>OWNER</b>	BELMONT AVE PROPERTY, LLC 2777 N. CIRCLE DRIVE PALATKA, FL 32907-0000		
<b>DEVELOPER</b>	FOGLIA CUSTOM HOMES 1555 INDIAN RIVER BLVD, UNIT B141 VERO BEACH, FL 32960		
<b>ENGINEER</b>	SCHULKE, BITTLE & STODDARD, L.L.C. JUDAH B. BITTLE, P.E. 57368 1717 INDIAN RIVER BLVD, SUITE 201 VERO BEACH, FL 32960 (772) 770-9622		
<b>SURVEYOR</b>	MERIDIAN LAND SURVEYORS CHARLES BLANCHARD, PSM #5755 1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FL 32960 PH: (772) 794-1213		
<b>EXISTING USE</b>	UNDEVELOPED (PREVIOUSLY A HOTEL)		
<b>PROPOSED USE</b>	SEVEN (7) MULTI-FAMILY UNITS		
<b>PROJECT LOCATION</b>	NORTH SIDE OF SEAWAY DRIVE AT DESOTO STREET		
<b>SITE ADDRESS</b>	1502 SEAWAY DRIVE, FT. PIERCE, FL		
<b>PARCEL I.D. NUMBER</b>	2401-501-0279-000-1 AND 2401-501-0279-010-4		
<b>CURRENT LAND USE</b>	HR (HUTCHINSON ISLAND RESIDENTIAL)		
<b>CURRENT ZONING</b>	R-4A (HUTCHINSON ISLAND MEDIUM DENSITY RESIDENTIAL)		
<b>PROPOSED ZONING</b>	PD (PLANNED DEVELOPMENT)		
<b>DEVELOPMENT PARAMETERS:</b>	<b>EXISTING</b>	<b>PROPOSED PD ZONING</b>	<b>PROPOSED DEVELOPMENT</b>
MIN. OVERALL LOT WIDTH	200'	175'	178.8'
MIN. INTERIOR LOT SIZE	1,500 SF	1,500 SF	2,949 SF
MAX. INTERIOR LOT WIDTH	24'	25'	24.7'
MIN. INTERIOR LOT DEPTH	90'	65'	67.9'
<b>MIN. YARD SETBACKS:</b>			
FRONT (SOUTH)	10'	10'	10.0'
SIDE (WEST)	10'	10'	15.0'
SIDE (EAST)	10'	10'	10.0'
REAR (NORTH)	15'	15'	15.0'
DISTANCE BETWEEN BLDGS.	20'	5'	7.0'
MAX. LOT COVERAGE BY BLDGS	45%	45%	27.6%
MIN. OPEN SPACE	25%	25%	28.7%
MAX. IMPERVIOUS AREA	75%	75%	71.3%
MAXIMUM DENSITY	8 UNITS/ACRE	8.5 UNITS/ACRE	8.45 UNITS/ACRE
A/C/ PAD SETBACK	10'	4'	4'
MAX. BLDG. HEIGHT	45'	*SEE BELOW	*SEE BELOW
* UNITS 1 AND 3 - 43'-3 1/4" ABOVE VE 7' NAVD UNITS 2 AND 4 - 47'-4" ABOVE VE 7' NAVD UNITS 5 AND 6 - 43'-3 1/4" ABOVE VE 7' NAVD UNITS 7 - 43'-8 3/4" ABOVE DATUM 6' NAVD			
<b>AREA CALCULATIONS:</b>	<b>EXISTING</b>	<b>PROPOSED</b>	
<b>SITE AREAS:</b>			
DEVELOPABLE AREA:	36,055 SF	0.828 AC	100.0%
IMPERVIOUS AREA:	25,695 SF	0.590 AC	71.3%
BUILDING AREA:	9,938 SF	0.228 AC	27.6%
DRIVEWAY/CONCRETE/PORCH AREA:	10,912 SF	0.251 AC	30.3%
POOL/PATIO/WALKWAY AREA:	4,845 SF	0.111 AC	13.4%
PERVIOUS AREA:	10,360 SF	0.238 AC	28.7%
GREEN SPACE:	10,360 SF	0.238 AC	28.7%
<b>NATIVE VEGETATION/PRESERVATION:</b>	N/A. NO PRESERVATION REQUIRED, NO NATIVE HABITAT IS EXISTING		
<b>PARKING CALCULATIONS:</b>			
REQUIRED: 2 SPACE PER UNIT			
7 UNITS X 2 SPACES/UNIT = 14 SPACES			
PROVIDED: 14 INTERIOR DRIVEWAY PARKING SPACES			
<b>AVERAGE DAILY TRIPS:</b>			
PROPOSED USE: PER ITE 9TH EDITION TRIP GENERATION MANUAL, LAND USE 230			
7 MULTI-FAMILY UNITS X 7.78 TRIPS/UNIT = 55 TRIPS			
<b>CONSTRUCTION SCHEDULE:</b>			
DATE OF COMMENCEMENT: 8/15	DATE OF COMPLETION: 1/16		
<b>GENERAL NOTES</b>	<ol style="list-style-type: none"> <li>PROPOSED PUBLIC WATER SUPPLY - FT. PIERCE UTILITY AUTHORITY</li> <li>PROPOSED PUBLIC SEWER - FT. PIERCE UTILITY AUTHORITY</li> <li>GARBAGE IS HANDLED WITH CANS STORED IN THE UNITS. NO DUMPSTER PROPOSED.</li> <li>THE PARCEL OF LAND SHOWN HEREON APPEARS TO BE IN FLOOD ZONE AE-6, AE-7, C &amp; VE-8 PER FLOOD INSURANCE RATE MAP #2111C0183 J, DATED FEBRUARY 16TH, 2012.</li> <li>ALL CONSTRUCTION ON SITE TO BE DONE PER ALL CITY OF FT. PIERCE STANDARDS AND SPECIFICATIONS.</li> <li>ALL UTILITY CONSTRUCTION ON SITE TO BE DONE PER F.P.U.A. UTILITY STANDARDS AND SPECIFICATIONS, LATEST EDITION.</li> <li>ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSIONS OF THE M.U.T.C.D., FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS, AND CITY OF FT. PIERCE TYPICAL PAVEMENT MARKINGS AND SIGNING DETAILS. IN ADDITION, ALL PAVEMENT MARKINGS WITHIN THE RIGHT-OF-WAY SHALL BE INSTALLED IN THERMO-PLASTIC.</li> <li>EXISTING DRIVES AND/OR INTERSECTIONS SHOWN ARE WITHIN THE 300' RADIUS REQUIRED FROM THE PROPOSED SITE.</li> <li>THE EXISTING SPEED LIMIT FOR SEAWAY DRIVE IS 35 M.P.H.</li> <li>ALL PROPOSED TRAFFIC CONTROL DEVICES SHOWN ON SITE TO BE PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.</li> <li>THE SITE LIGHTING (SOURCE OF ILLUMINATION) CANNOT BE VISIBLE FROM THE SITE.</li> <li>ANY NUISANCE/EXOTIC PLANTS IN THE DEVELOPED AREA WILL BE REMOVED.</li> <li>AT INTERSECTIONS, WALLS, FENCES, PLANTS OR SIGHT OBSTRUCTIONS OF ANY KIND OVER 18" IN HEIGHT ARE PROHIBITED WITHIN THE SITE DISTANCE TRIANGLE AS REQUIRED BY FDOT INDEX 546, 2014 EDITION.</li> <li>ANY DISTURBED AREAS ON SITE OR IN THE COUNTY RIGHT-OF-WAY TO BE SODED.</li> <li>RUN-OFF FROM ROOF TO BE DIRECTED TO STORMWATER SYSTEM.</li> <li>ALL LIGHTS MUST MEET THE FOLLOWING CRITERIA: <ul style="list-style-type: none"> <li>- ALL POLES MUST BE BLACK OR BRONZE</li> <li>- ALL LIGHTS MUST BE DIRECTED DOWNWARD, WITH A 90 DEG. CUT-OFF</li> <li>- LIGHTS MUST NOT CAUSE GLARE ONTO ADJACENT R/W OR PROPERTIES.</li> </ul> </li> <li>ALL STOP SIGNS (R1-1) SHALL BE 30"</li> <li>NO DEWATERING BETWEEN 8 PM AND 6 AM WITHOUT CITY OF FT PIERCE APPROVAL.</li> <li>AN ENTRANCE GATE IS PROPOSED FOR THIS SITE.</li> <li>CITY OF FT. PIERCE OR FOOT MAY HAVE UNDERGROUND CONDUIT FOR TRAFFIC SIGNAL INTERCONNECTIONS IN THIS AREA AS WELL AS OTHER TRAFFIC SIGNAL EQUIPMENT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT SUNSHINE STATE ONE CALL SYSTEM AT 1-800-452-4270 FOR LOCATIONS OF THIS EQUIPMENT AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.</li> <li>ALL SOLID, NON-BREAKAWAY OBJECTS (GATE POSTS/COLUMNS, BOLLARDS, STREET LIGHT POLES, ETC.) ALONGSIDE INTERIOR STREETS AND DRIVING AISLES SHALL BE LOCATED OUTSIDE THE CLEAR ZONE. FOR STREETS AND DRIVING AISLES WITH A DESIGN SPEED OF 25 MPH OR LESS, THE MINIMUM CLEAR ZONE IS 2.5 FEET FROM THE FACE OF THE CURB (TYPE 'D' OR 'F'), OR 6 FEET FROM THE EDGE OF THE TRAVEL LANE. THIS APPLIES TO PUBLIC AND PRIVATE PROPERTY.</li> <li>THE BEARING BASE FOR THIS SURVEY IS A GRID BEARING OF 548°30'43"W ALONG THE NORTH R/W LINE OF SEAWAY DRIVE AND BASED ON FOUND MONUMENTATION.</li> <li>THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988. THE BENCHMARK IS COS MONUMENT G 231 1965, ELEVATION 4.47' NAVD. SECONDARY BENCHMARK IS AS SHOWN HEREON. THE CONVERSION TO NAVD29 IS BY ADDING 1.489 FT.</li> <li>ALL CROSS WALKS SHALL HAVE TRUNCATED DOME WARNING SURFACE SYMBOL ON THE SIDEWALK ADJACENT TO THE PAVED DRIVEWAY PER FDOT INDEX NO. 304.</li> <li>ANY ABANDONED FLOW WELLS FOUND ON SITE SHALL BE PLUGGED PURSUANT TO D.O.H. AND SPWMD REGULATIONS.</li> <li>ALL PAVEMENT MARKINGS IN THE RIGHT-OF-WAY SHALL BE 90 MIL., EXTRUDED TYPE, ALKO BASE THERMOPLASTIC.</li> <li>ALL HANDICAPPED PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH THE FDOT STANDARD INDEX 17346, 2014 EDITION.</li> <li>ALL STOP SIGNS SHALL BE HIGH INTENSITY RETRO-REFLECTIVITY</li> <li>ALL UTILITIES MUST BE PLACED UNDERGROUND.</li> <li>THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITY LINES AND STRUCTURES PRIOR TO CONSTRUCTION.</li> <li>PROPANE TANKS TO BE UNDERGROUND.</li> </ol>		

## SCHULKE, BITTLE & STODDARD, L.L.C.

CIVIL & STRUCTURAL ENGINEERING • LAND PLANNING • ENVIRONMENTAL PERMITTING

CERTIFICATION OF AUTHORIZATION NO.: 00008668

1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960  
TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com

ENGINEER CERTIFICATION:

DATE:  
 □ JOSEPH W. SCHULKE, P.E. REG. No 47048  
 □ JUDAH B. BITTLE, P.E. REG. No 57368  
 □ WILLIAM P. STODDARD, Ph.D., P.E. REG. No 57605

**EROSION CONTROL NOTES**

1. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.
2. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ON TO ADJACENT PROPERTIES.
3. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
4. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED, COVERED OR CONTAINED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
5. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. AFTER ANY SIGNIFICANT RAINFALL, (2" OR GREATER) SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
6. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITH AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, SLOPE DRAIN STRUCTURE OR APPROVED CONTROL.
7. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM WATER SYSTEM, DITCH OR CHANNEL. ALL STORM WATER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
8. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
9. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT CONTROLS. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
10. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY AREAS ARE NO LONGER NEEDED.
12. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION.
13. EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NUMBERS 101, 102 AND 103 OF F.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, IN ADDITION TO THESE PLANS.
14. CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE WATER DISCHARGES, RAINFALL RUN-OFF OR DEWATERING ACTIVITIES.
15. CONTRACTOR MUST INCORPORATE ALL BMP'S NECESSARY TO MEET OR EXCEED STATE WATER QUALITY REQUIREMENTS.
16. POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAY BE NECESSARY AT CONTRACTOR'S EXPENSE. NOI TO BE POSTED ON SITE.
17. NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER.
18. DEWATERING ACTIVITIES:
  - A. DISCHARGE MUST NOT EXCEED STATE WATER QUALITY STANDARDS.
  - B. CONTRACTOR MUST HAVE OR OBTAIN A TRANSFERABLE SURFID CONSUMPTIVE USE PERMIT KNOWN AS A "NOTICED GENERAL PERMIT FOR SHORT TERM CONSTRUCTION DE-WATERING" UNLESS DEWATERING ACTIVITIES WILL RESULT IN LESS THAN 300,000 GPD FOR 30 DAYS OR LESS.
  - C. NO HYDRAULIC PUMPS MAY BE USED FOR DEWATERING UNLESS APPROVED BY THE WATER MANAGEMENT DISTRICT FOR THAT AREA. DEWATERING EXISTING STORMWATER COLLECTION AREAS (POND/LAKES) MAY BE EXEMPT FROM THIS CONDITION. CONTRACTOR TO CONFIRM WITH SURFID.
  - D. NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER AND TO CITY OF FT. PIERCE.
19. SEE ADDITIONAL DETAILS, SPECIFICATIONS AND REQUIREMENTS OF SHEET 4.11-13.

**STORMWATER POLLUTION PREVENTION PLAN**

- A SITE PLAN MUST BE DEVELOPED AND MUST CONTAIN, AT A MINIMUM, THE FOLLOWING INFORMATION:
1. DRAINAGE PATTERNS - SEE SURVEY AND DRAINAGE PLAN SHEET 3 & 7.
  2. APPROXIMATE SLOPES AFTER MAJOR GRADING ACTIVITIES - SEE SHEET 7.
  3. AREAS OF SOIL DISTURBANCE - SEE SHEETS 2, AND THIS SHEET.
  4. OUTLINE ALL AREAS THAT ARE NOT TO BE DISTURBED - N/A.
  5. LOCATION OF ALL MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS, THIS SHEET.
  6. THE LOCATION OF EXPECTED STABILIZATION PRACTICES, THIS SHEET.
  7. NO WETLANDS AND SURFACE WATERS.
  8. LOCATIONS WHERE STORMWATER MAY DISCHARGE TO A SURFACE WATER OR MSA. SEE SHEET 7.

DESCRIBE THE NATURE OF THE CONSTRUCTION ACTIVITY:  
DEMOLITION, LAND CLEARING, EARTHWORK, PAVING AND UTILITY WORK FOR BUILDINGS, PARKING AND SITE IMPROVEMENTS

- DESCRIBE THE INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
1. SITE PREPARATION AND STABILIZE CONSTRUCTION ENTRANCE.
  2. INSTALL SILT FENCE AROUND PERIMETER OF SITE. INSTALL TURBIDITY BARRIERS AT ALL OUTFALL LOCATIONS. CLEAR LAND AND CONSTRUCT BERM AND TEMPORARY SWALES AS SHOWN ON PLANS. BERM SHALL BE CONSTRUCTED USING INITIAL IMPORTED FILL MATERIAL. THE BERM AND SWALE SHALL BE SEEDED.

TOTAL AREA OF THE SITE: 0.828 ACRES  
TOTAL AREA OF THE SITE TO BE DISTURBED: 0.828 ACRES

EXISTING DATA DESCRIBING THE SOIL OR QUALITY OF ANY STORMWATER DISCHARGE:  
SEE SOIL BORINGS BY SHEETS 2. NO DISCHARGE FROM DISTURBED AREAS IS ANTICIPATED.

DRAINAGE AREA SIZE FOR EACH DISCHARGE POINT:  
ENTRANCE: 0.028 ACRES

LATITUDE AND LONGITUDE OF THE SITE:  
LATITUDE = N 27° 38' 11.9"  
LONGITUDE = W 80° 17' 53.9"

BEST MANAGEMENT PRACTICES (BMP'S) AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE AND TIME FRAMES IN WHICH THE CONTROLS WILL BE IMPLEMENTED:  
THE CONTRACTOR WILL USE HAY BALES, SILT FENCE, FILTER BARRIERS, AND OTHER BMP'S. THE TIME FRAMES FOR CLEARING, EARTHWORK, AND ANTICIPATED BMP'S ARE:

1. INSTALL SILT FENCE AT PERIMETER OF SITE AND SILT BARRIERS AT DOWNSTREAM DITCHES/SWALES.
2. CLEAR/GRUB AREA NECESSARY FOR TEMPORARY GRAVEL DRIVEWAY AND ADJACENT SWALE.
3. CONSTRUCT TEMPORARY GRAVEL DRIVEWAY WITH SWALE, AND GRADE/SOD SWALE AT ENTRANCE.
4. CLEAR BALANCE OF SITE.
5. CONSTRUCT 12" RC AND MITERED END SECTIONS.
6. IMPORT FILL MATERIAL.  
-CONSTRUCT CONTAINMENT BERMS. SEED/MULCH BERMS.
7. MAINTAIN DOWNSTREAM SILT BARRIERS AND PERIMETER SILT FENCE, DURING CONSTRUCTION.
8. INCORPORATE ADDITIONAL BMP'S WHEN NEEDED DURING THE COURSE OF CONSTRUCTION.  
-POLY WOODPILE SILT FENCE/ FILTER SOCKS AT INLETS ARE INSTALLED.  
-PROVIDE STOCKPILE PROTECTION, CONCRETE/ STUCCO WASH AREAS, AND OTHER BMP'S WHEN NECESSARY TO CONTAIN PROPOSED WORK.

TEMPORARY AND PERMANENT STABILIZATION PRACTICES:  
TEMP: HAY BALE/SILT FENCES/FLOATING TURBIDITY BARRIERS PER PLAN. FILTER FABRIC SHALL BE PLACED UNDER THE ROCK GRAVEL DRIVEWAY, AT ALL SWALE OUTFALLS, AND RETENTION POND OUTFALLS.  
PERM: SEEDED/MULCHED/SOD. CONTROLLED GRADING AND DRAINAGE TO DETENTION BASINS.  
STABILIZE ALL DE-NUDED AREAS IF LEFT UNDISTURBED FOR MORE THAN 7 DAYS - USE RYE GRASS PER MANUFACTURER'S APPLICATION RATES, AND MULCHED WITH STRAW AT 4000 LB PER ACRE.

STRUCTURAL CONTROLS TO BE IMPLEMENTED TO DIVERT STORMWATER FLOW FROM RECEIVING WATERS:  
TEMP: GRAVEL ENTRANCE ROAD, GRADED TO DRAIN TO A TEMPORARY SEDIMENT SWALE OR RETENTION AREA.  
TEMP: BERMS AT RETENTION PONDS.  
TEMP: BERMS AT PROJECT PERIMETER - PER PLAN.  
INLETS/OUTLETS WILL BE PROTECTED WITH FILTER FABRIC AND PROPERLY INSTALLED HAY BALES.  
SILT FENCE SHALL BE PLACED AROUND THE ENTIRE PERIMETER OF DISTURBED AREAS.  
A DOUBLE ROW OF SILT FENCE WILL BE PROVIDED AROUND ALL STOCK PILE AREAS.

PERMANENT STORMWATER MANAGEMENT CONTROLS SUCH AS, DETENTION OR RETENTION SYSTEMS OR VEGETATED SWALES.  
WET DETENTION SYSTEMS INCORPORATED AS PERMANENT BMP FOR WATER QUALITY CONTROL.

DESCRIBE IN DETAIL CONTROLS FOR THE FOLLOWING POTENTIAL POLLUTANTS:  
**WASTE DISPOSAL**  
-ON SITE WASTE WILL BE CONTAINERIZED. CONTRACTOR IS RESPONSIBLE FOR RECYCLING ALL WASTE MATERIALS, WITH A MINIMUM REQUIREMENT OF 75%.  
-CONCRETE/ STUCCO WASH AREA SHALL BE PROVIDED.  
-STOCKPILE AREAS SHALL BE PROTECTED WITH SILT FENCE AND STABILIZED/ SEEDED IF LEFT UNATTENDED FOR MORE THAN 7 DAYS.

OFFSITE VEHICLE TRACKING:  
-PROVIDE HARD SURFACE AT TEMP. DRIVEWAY (ROCK/GRAVEL DRIVEWAY).  
-REGULAR MAINTENANCE OF ADJACENT ROAD RIGHT OF WAY, INCLUDING STREET SWEEPING, & RUT REPAIR IN NON-PAVED AREAS.  
-APPLICATION RATES OF ALL FERTILIZERS, HERBICIDES AND PESTICIDES:  
-NONE PROPOSED.

STORAGE, APPLICATION, GENERATION AND MIGRATION OF ALL TOXIC SUBSTANCES:  
-NONE PROPOSED.

DESCRIPTION OF THE MAINTENANCE PLAN FOR ALL STRUCTURAL AND NON-STRUCTURAL CONTROLS.  
CONTRACTOR SHALL HAVE SWPPP COMPONENTS INSPECTED BY A FDEP CERTIFIED INSPECTOR AND MAINTAIN ALL CONTROLS DAILY, AND HAVE WEEKLY SWPPP INSPECTION REPORTS PREPARED, AND WITHIN 24 HOURS OF THE END OF ANY RAINFALL EVENT THAT IS 1/2" OR GREATER. ENGINEER SHALL INSPECT PERIODICALLY.

NOTES:  
1. THIS PLAN (SHEETS 4 AND 5), COPY OF FDEP NOI (STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES) AND ALL REQUIRED INSPECTION REPORTS, TESTS, AND ALL OTHER DOCUMENTATION SHALL BE KEPT AT THE PROJECT SITE.  
2. THE FOLLOWING CERTIFICATION SHALL BE COMPLETED BY ALL CONTRACTORS/SUB-CONTRACTORS RESPONSIBLE FOR ANY PORTION OF THE IMPLEMENTATION OF THE S.W.P.P.P.:

CERTIFICATION:  
"I CERTIFY UNDER THE PENALTY OF LAW THAT I UNDERSTAND AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

SWPPP DESCRIPTION OF WORK/ RESPONSIBILITY	NAME TITLE	CONTRACTOR OR SUB CONTRACTOR (NAME, ADDRESS, PHONE)	NAME/SIGNATURE TO CERTIFICATION	DATE

**PLAN PREPARATION:**

1. THIS PLAN ORIGINALLY PREPARED BY THE OWNER'S ENGINEER. THIS PLAN WILL BE MADE AVAILABLE TO CONTRACTOR TO EDIT, CHANGE, MODIFY, AS IT DEEMS NECESSARY FOR COMPLIANCE WITH FDEP REGULATIONS, PERMIT CONDITIONS, AND AS REQUIRED FOR CONTRACTOR TO SIGN THE CERTIFICATION BELONGING TO THE ENTITY (CONTRACTOR) RESPONSIBLE FOR SWPPP PLAN IMPLEMENTATION.
2. THE FOLLOWING CERTIFICATION SHALL BE SIGNED BY THE ENTITY (CONTRACTOR) RESPONSIBLE FOR SWPPP PLAN IMPLEMENTATION:

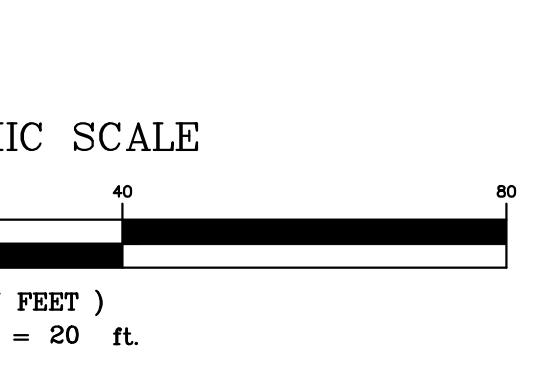
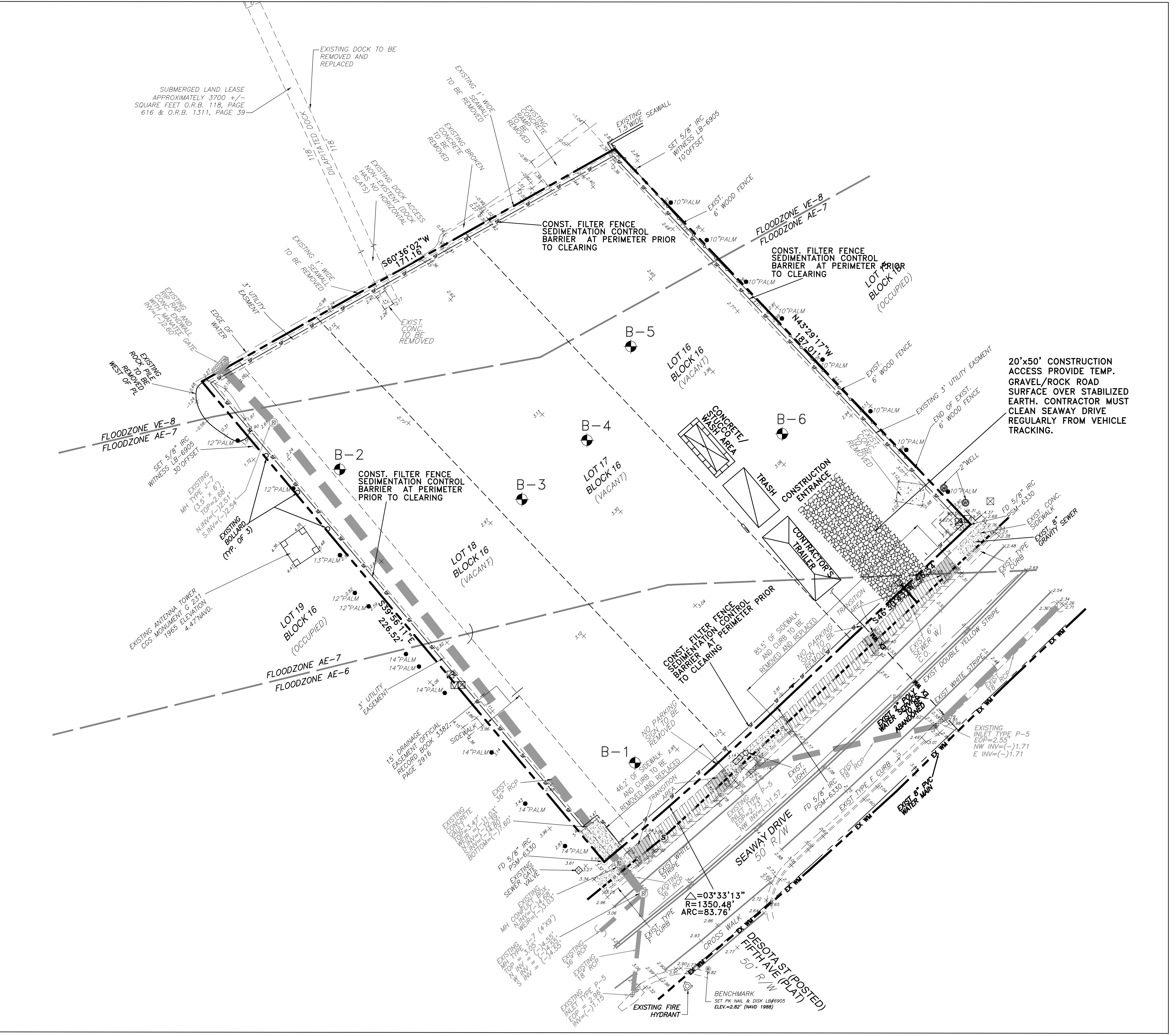
"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL, PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**ARCHAEOLOGICAL:**  
IF PREHISTORIC OR HISTORIC ARTIFACTS, SUCH AS POTTERY OR CERAMICS, STONE TOOLS, OR METAL IMPLEMENTS, OR ANY OTHER PHYSICAL REMAINS THAT COULD BE ASSOCIATED WITH THE NATIVE AMERICAN CULTURES, OR EARLY COLONIAL OR AMERICAN SETTLEMENT ARE ENCOUNTERED AT ANY TIME WITHIN THE PROJECT SITE AREA, THE PERMITTED PROJECT SHOULD CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE IMMEDIATE VICINITY OF SUCH DISCOVERIES. THE PERMITEE, OR OTHER DESIGNEE, SHOULD CONTACT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, REVIEW AND COMPLIANCE SECTION AT (850) 245-6333 OR (800) 847-7278, AS WELL AS THE APPROPRIATE PERMITTING AGENCY OFFICE. PROJECT ACTIVITIES SHOULD NOT RESUME WITHOUT VERBAL AND/OR WRITTEN AUTHORIZATION FROM THE DIVISION OF HISTORICAL RESOURCES. IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK SHALL STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH SECTION 97.05, FLORIDA STATUTES.

**EROSION AND SEDIMENTATION CONTROL:**

- A. THE LAND DISTURBING ACTIVITY SHALL CONFORM TO EXISTING TOPOGRAPHY AND SOIL TYPE SO AS TO CREATE THE LOWEST PRACTICAL EROSION POTENTIAL.
- B. LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN A MANNER MINIMIZING EROSION.
- C. THE DISTURBED AREA AND THE DURATION OF EXPOSURE TO EROSION ELEMENTS SHALL BE KEPT TO A PRACTICABLE MINIMUM.
- D. EROSION CONTROL MUST BE STRICTLY MAINTAINED DURING CUT AND FILL OPERATIONS.
- E. DISTURBED SOIL SHALL BE STABILIZED AS QUICKLY AS PRACTICABLE.
- F. WHENEVER FEASIBLE, NATURAL VEGETATION OR MULCHING SHALL BE EMPLOYED TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT.
- G. TEMPORARY VEGETATION OR MULCHING SHALL BE EMPLOYED TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT.
- H. PERMANENT VEGETATION AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE.
- I. ADEQUATE PROVISIONS MUST BE PROVIDED TO MINIMIZE DAMAGE FROM SURFACE WATER TO THE CUT FACE OF EXCAVATION OR THE SLOPING SURFACE OF FILLS.
- J. TO THE EXTENT NECESSARY, SEDIMENT IN RUNOFF WATER MUST BE TRAPPED BY THE USE OF DEBRIS BASINS, SEDIMENT BASINS, SILT TRAPS OR SIMILAR MEASURES UNTIL THE DISTURBED AREA IS STABILIZED.
- K. CUTS AND FILLS MUST BE CONSTRUCTED IN SUCH A MANNER THAT EROSION AND RUNOFF FROM THE SITE DOES NOT ENDANGER ADJOINING PROPERTY.
- L. FILLS MAY NOT ENROACH UPON NATURAL WATERCOURSES OR CONSTRUCTED CHANNELS IN A MANNER SO AS TO ADVERSELY AFFECT OTHER PROPERTY OWNERS WITHOUT ADEQUATE PROVISIONS FOR AN EQUIVALENT ALTERNATE SYSTEM WITH A POSITIVE OUTFALL.
- M. ALL R.O.W.'S, WATERWAYS, STREETS AND SIDEWALKS SHALL BE BUFFERED BY A TYPICAL 50' FOOT WIDE STRIP OF GRASS OR OTHER SUITABLE MEANS.
- N. GRADING EQUIPMENT MUST CROSS FLOWING STREAMS BY MEANS OF BRIDGES OR CULVERTS EXCEPT WHEN SUCH METHODS NOT FEASIBLE AND PROVIDED IN ANY CASE, THAT SUCH CROSSINGS ARE KEPT TO A MINIMUM AND SEDIMENTATION CONTROL DEVICES ARE PROVIDED.



**Legend & Abbreviations: (symbols not scaleable for size)**

PLS - PROFESSIONAL LAND SURVEYOR	(P) - PLAT	(23.0) - PROPOSED GRADE
PSM - PROFESSIONAL SURVEYOR & MAPPER	(C) - CALCULATED	NAVD - NORTH AMERICAN VERTICAL DATUM
LB - LAND SURVEYING BUSINESS	(T) - TRAFFIC CONTROL BOX	425.5' - TYPICAL ELEVATION
Q - CENTERLINE	(G) - GUY WIRE	AC - AIR CONDITIONER
R - RADIUS	(T) - TELEPHONE SERVICE	CONC. - CONCRETE
L - LENGTH	(C) - CABLE T.V. BOX	F.F. - FINISH FLOOR
Δ - DELTA ANGLE	(E) - ELECTRIC BOX	BSB - BUILDING SETBACK LINE
EP - EDGE OF PAVEMENT	(L) - LIGHT POST	EL-ELEV - ELEVATION
BC - BACK OF CURB	(W) - WELL	RW - RIGHT OF WAY
B.M. - BENCHMARK	(H) - HYDRANT	AB - AS-BUILT
POC - POINT OF COMMENCEMENT	(V) - VALVE	PK - PARKER-KALON
POB - POINT OF BEGINNING	(I) - IRRIGATION VALVE	
IP - IRON PIPE	(M) - METER	
(RC) IRON ROD & CAP	(S) - SANITARY MANHOLE	
IRC - IRON ROD & CAP	(S) - SANITARY SERVICE	
(CM) CONCRETE MONUMENT	(T) - TANK	
CM - CONCRETE MONUMENT	(M) - MANHOLE	
FD - FOUND	(S) - SURFACE INLET	
(M) - MEASURED	(D) - DETENTION BASIN	
	(S) - STREET SIGN	

**HATCH LEGEND**

[Pattern]	PROPOSED BRICK PAVERS
[Pattern]	EXISTING CONCRETE TO REMAIN
[Pattern]	PROPOSED CONCRETE
[Pattern]	PROPOSED BUILDING FOOTPRINT
[Pattern]	EXISTING SIDEWALK TO BE REMOVED
[Pattern]	EXISTING CURB TO BE REMOVED

DATE	REVISION	MARK
5/29/15 <td>REVISED PER COFP <td>1</td> </td>	REVISED PER COFP <td>1</td>	1

DRAWING 15-053  
DESIGNED J.B.B.  
DRAWN J.B.B.  
CHECKED J.B.B.  
SCALE 1:20  
DATE 4/15/2015

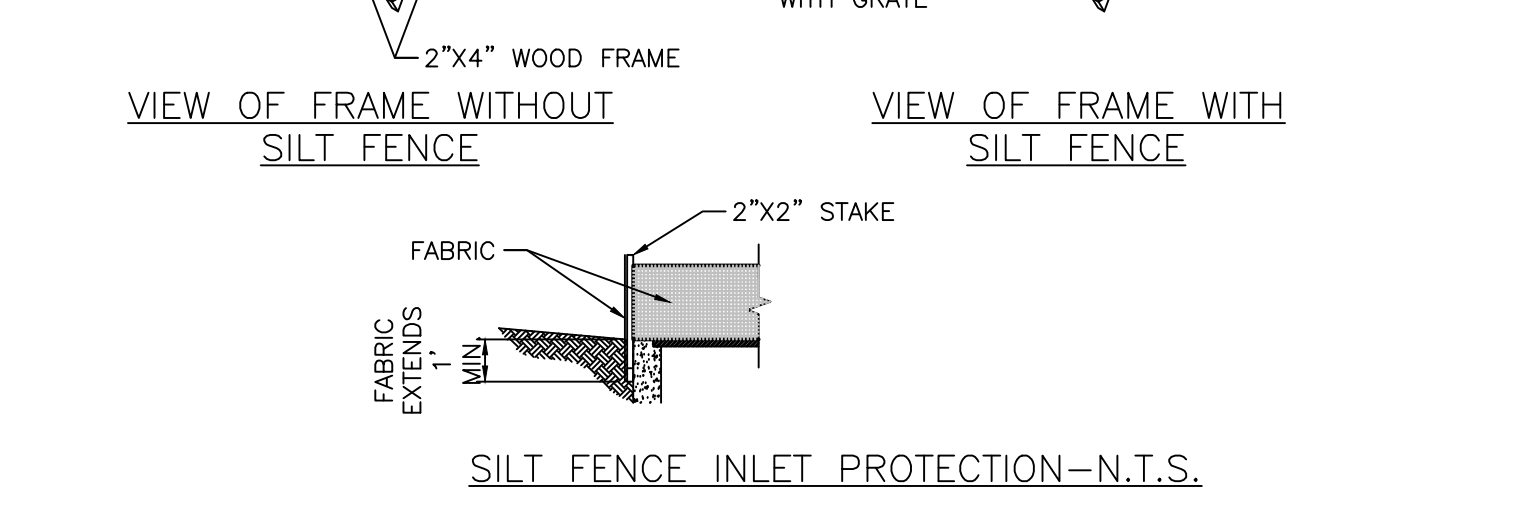
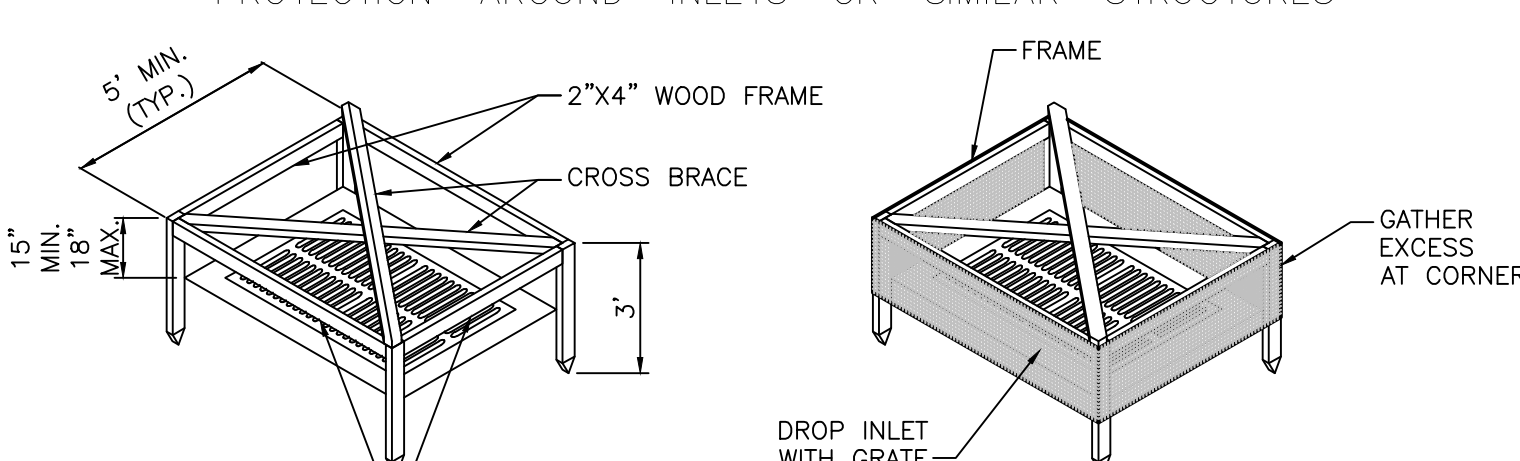
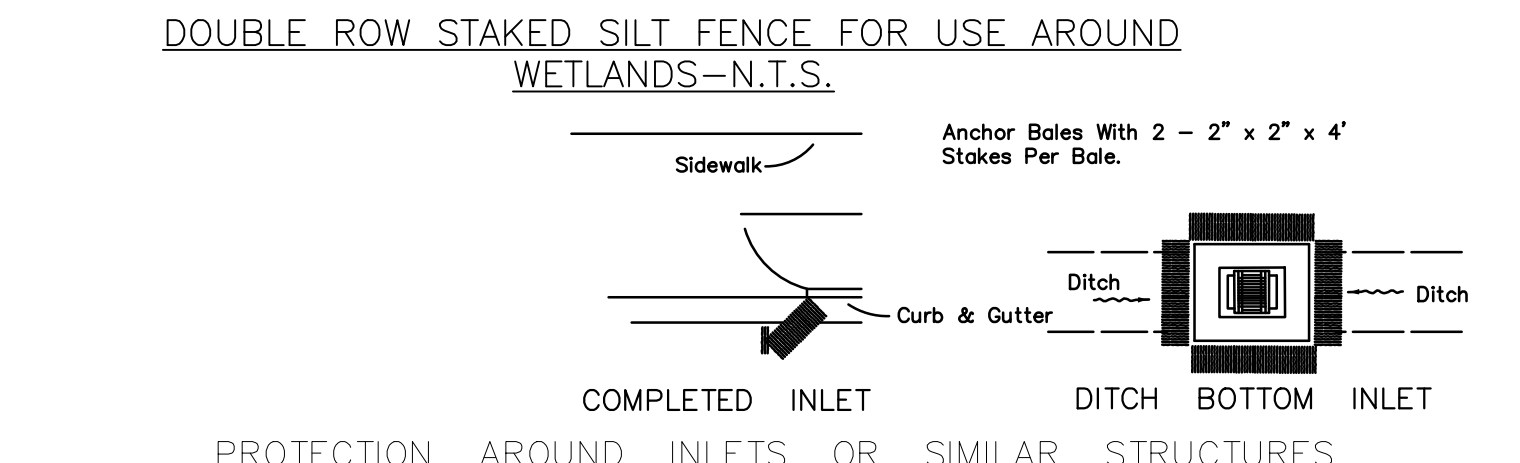
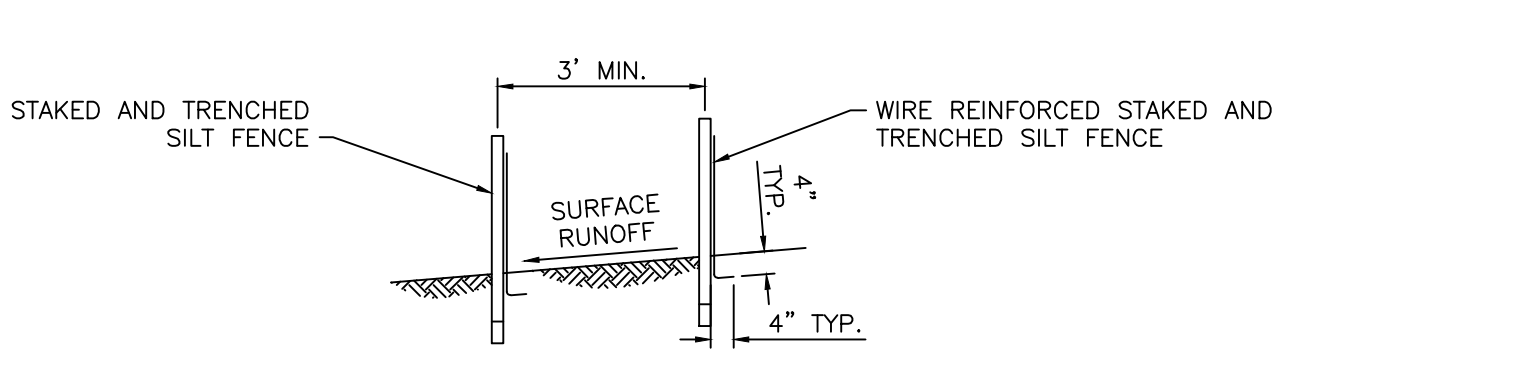
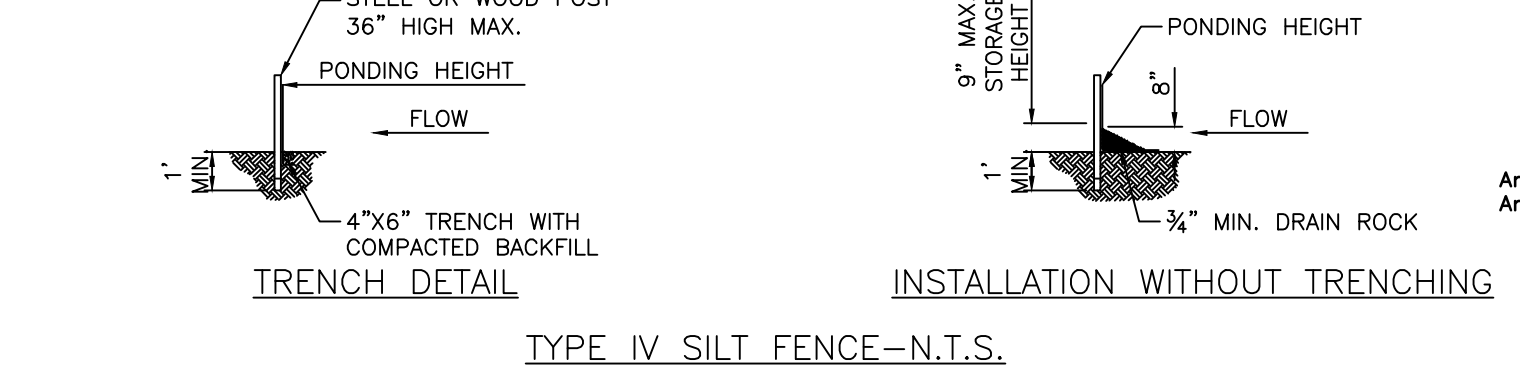
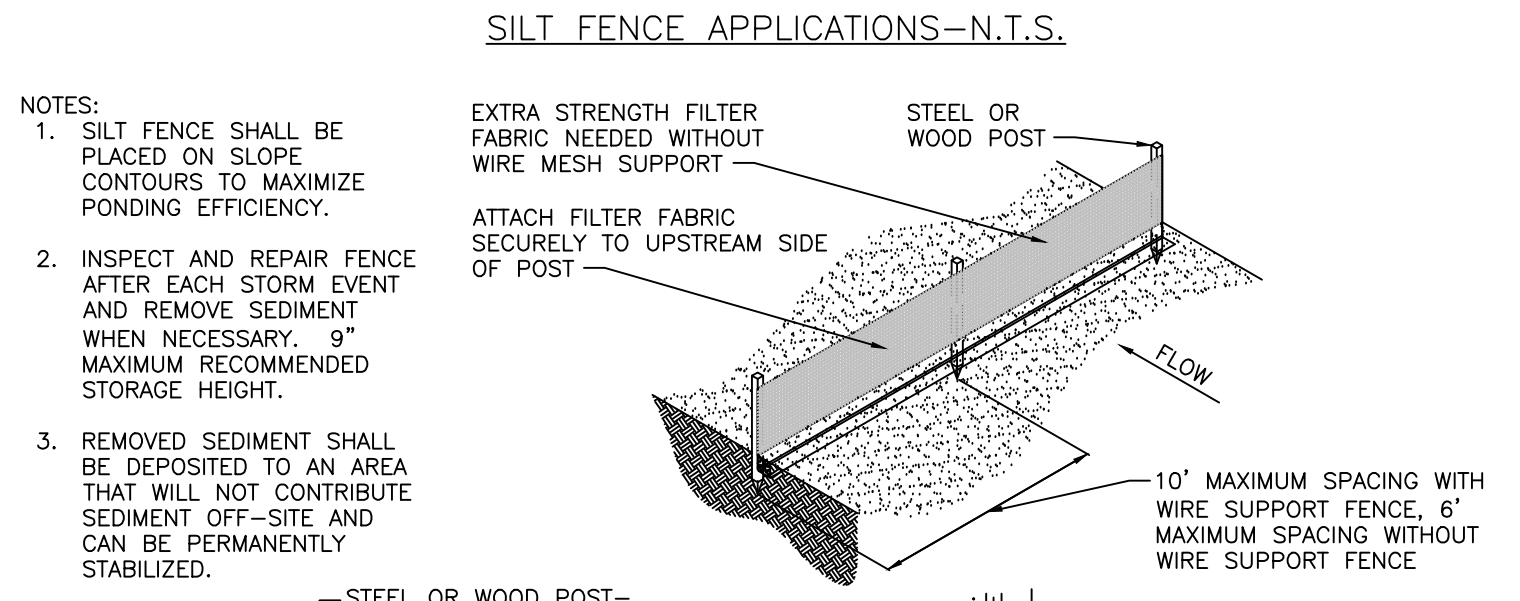
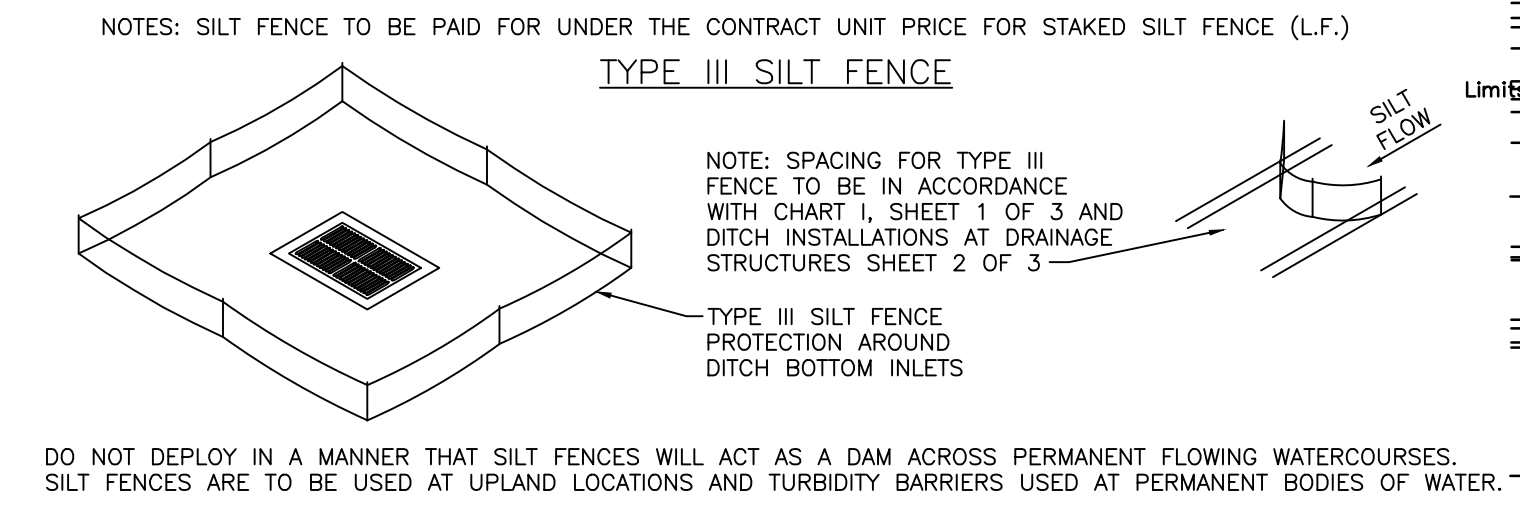
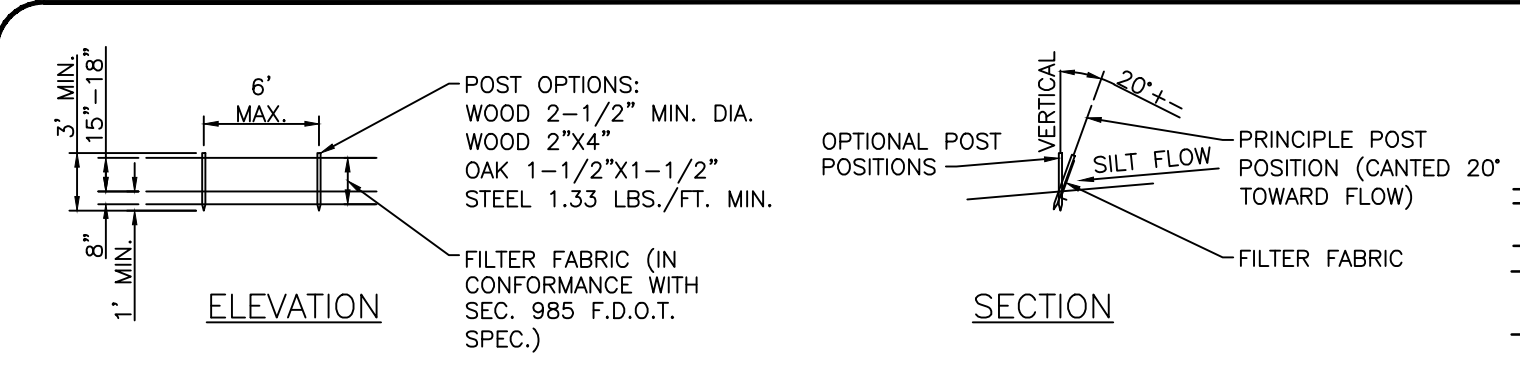
**SCHULKE, BITTLE & STODDARD, L.L.C.**  
CIVIL & STRUCTURAL ENGINEERING • LAND PLANNING • ENVIRONMENTAL PERMITTING  
CERTIFICATION OF AUTHORIZATION NO.: 0008668  
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**EXISTING CONDITIONS/ DEMOLITION AND POLLUTION PREVENTION PLAN**

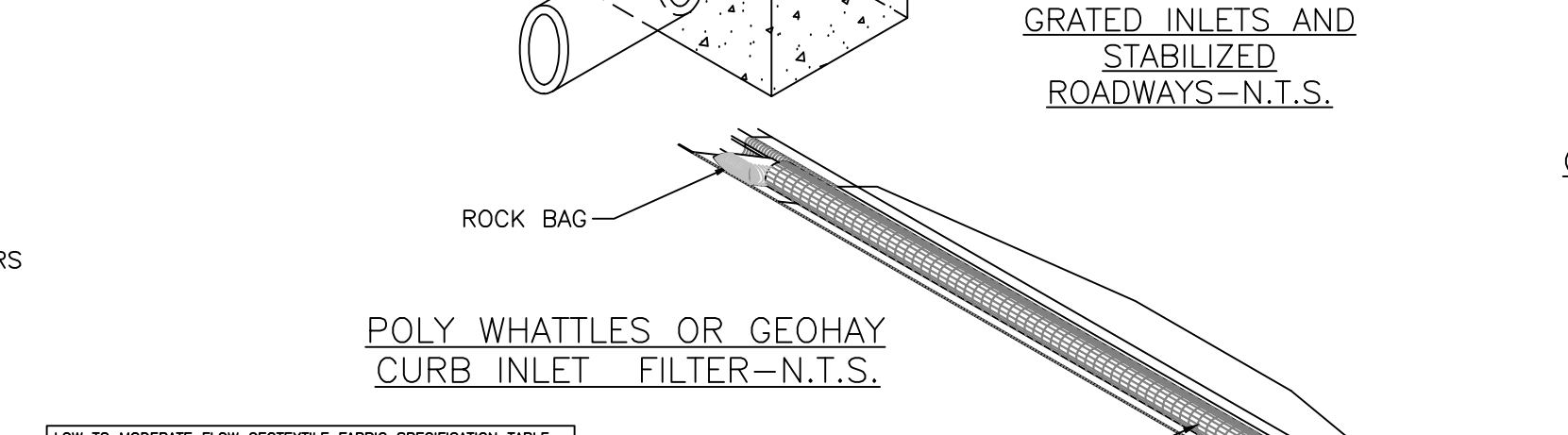
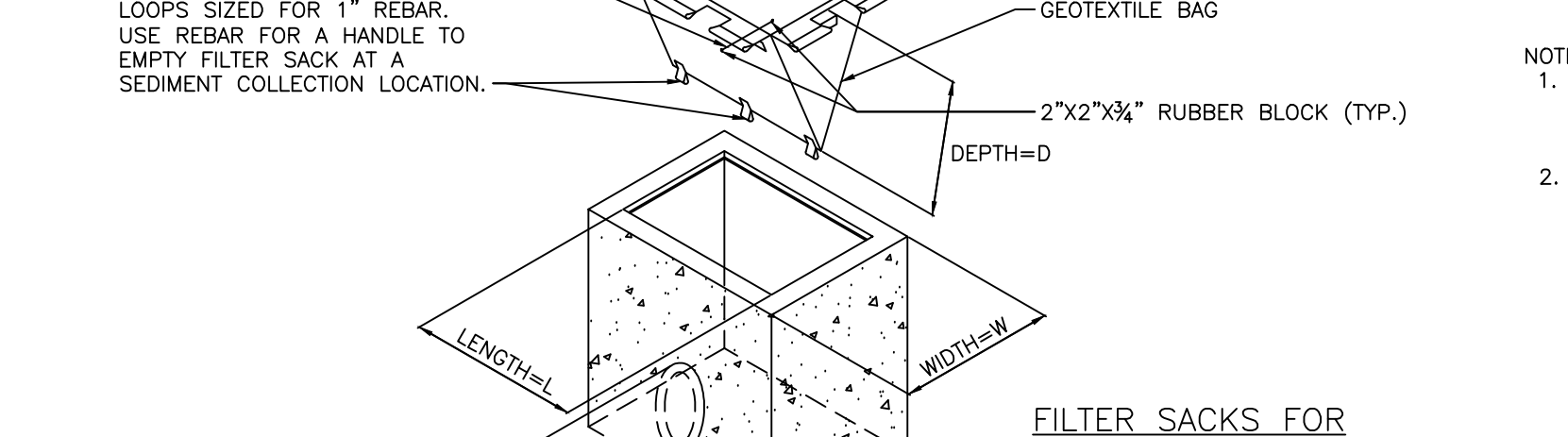
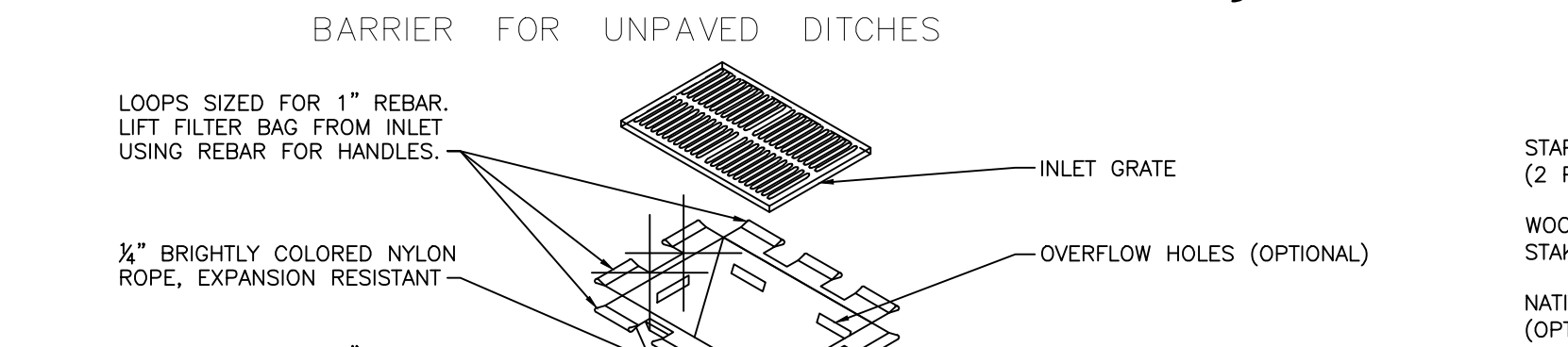
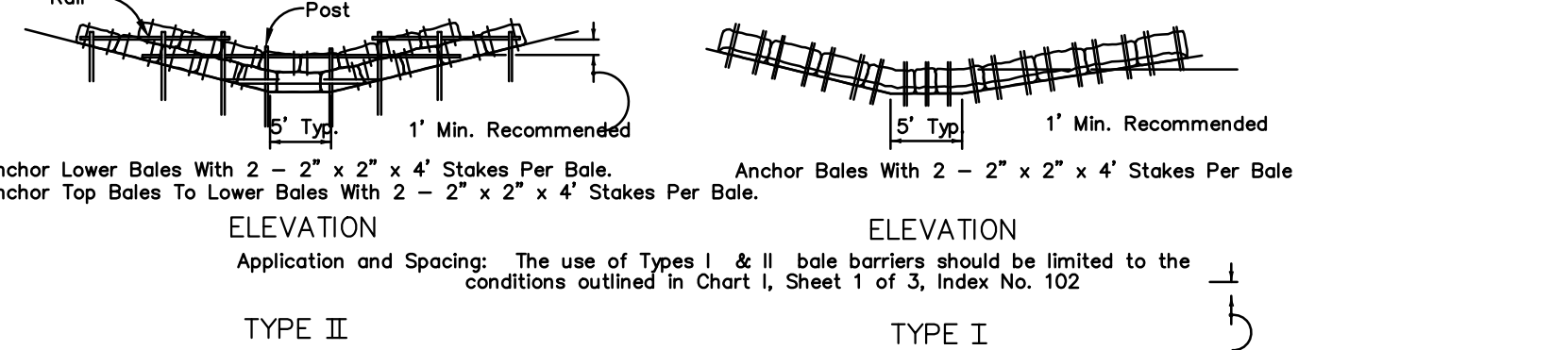
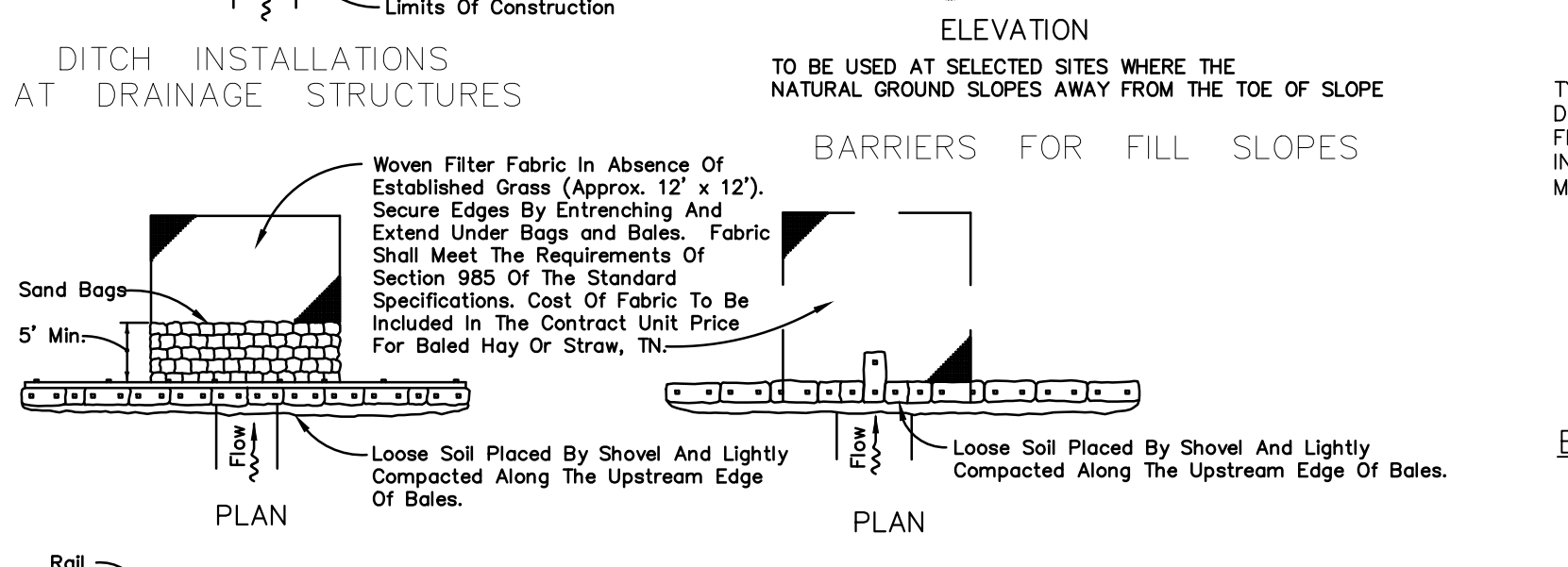
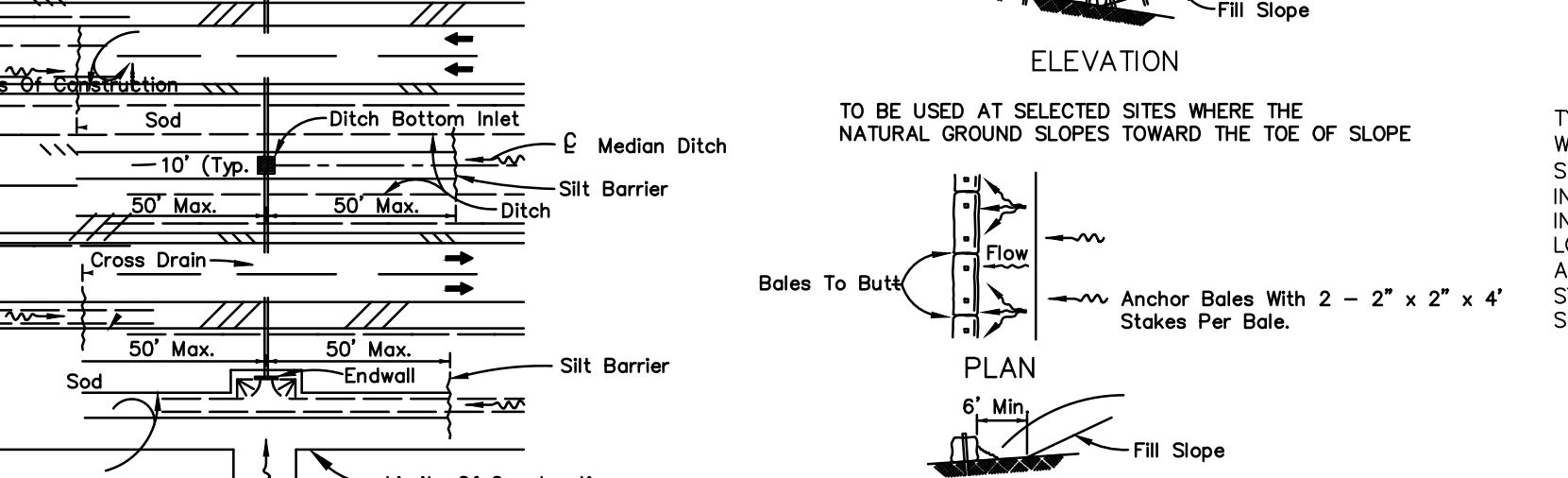
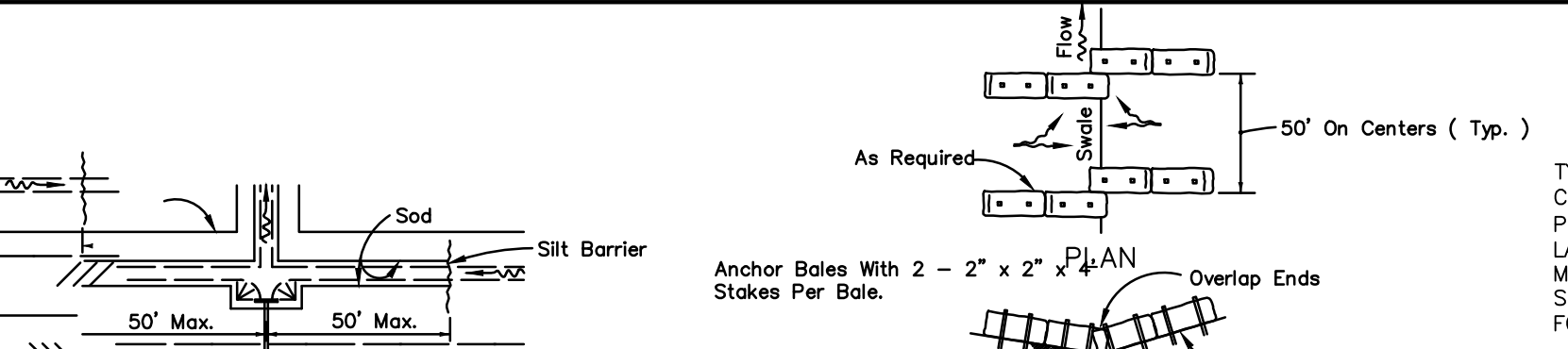
**INLET PALMS**

**ENGINEER CERTIFICATION**  
 JOSEPH M. SCHULKE  
 FL. REG. NO. 47048  
 BOB & BITE  
 FL. REG. NO. 57396  
 WILLIAM P. STODDARD  
 FL. REG. NO. 57605

DATE: \_\_\_\_\_  
SHEET: 2  
PROJECT NO.: 15-053



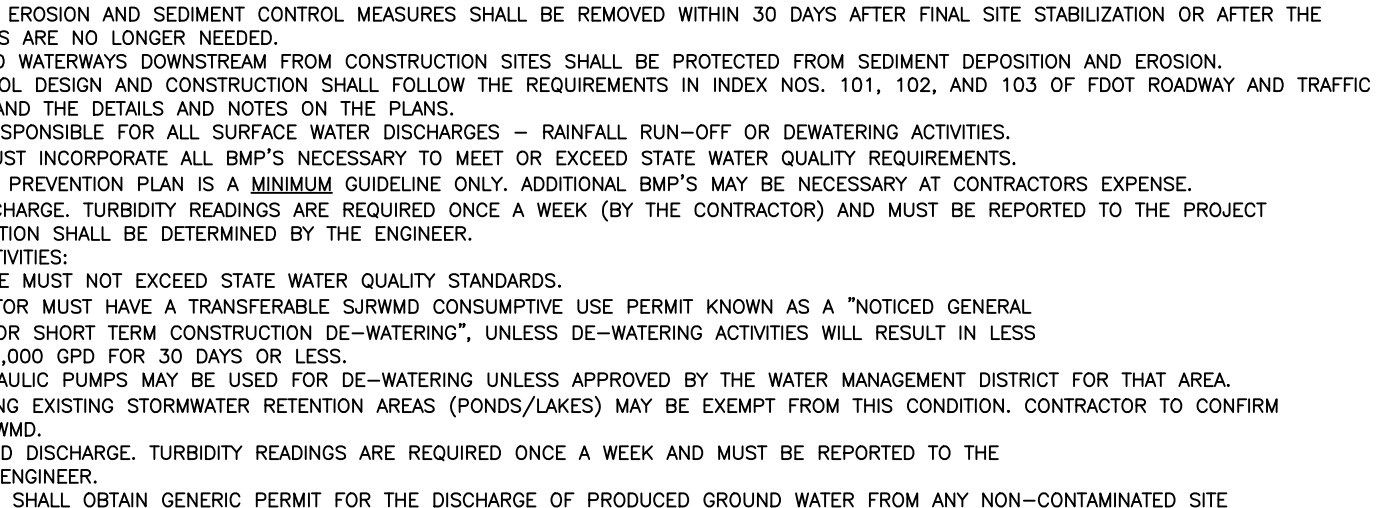
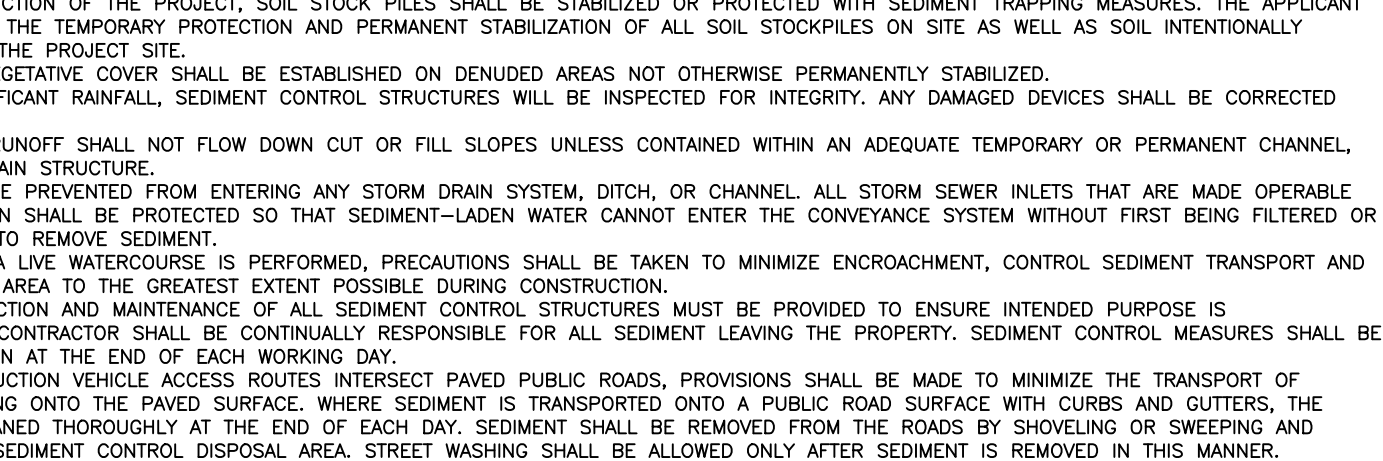
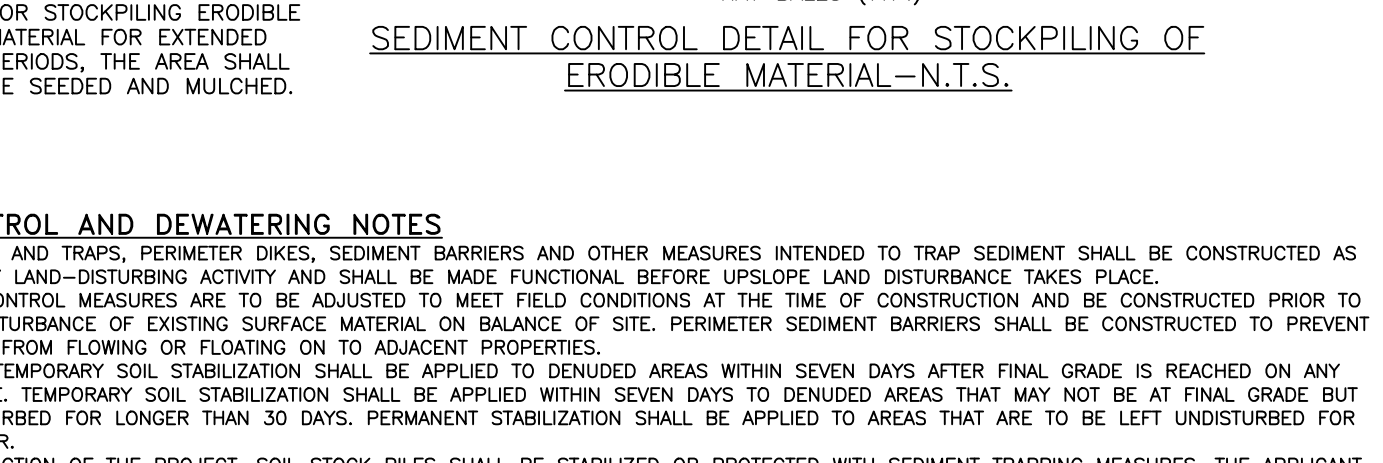
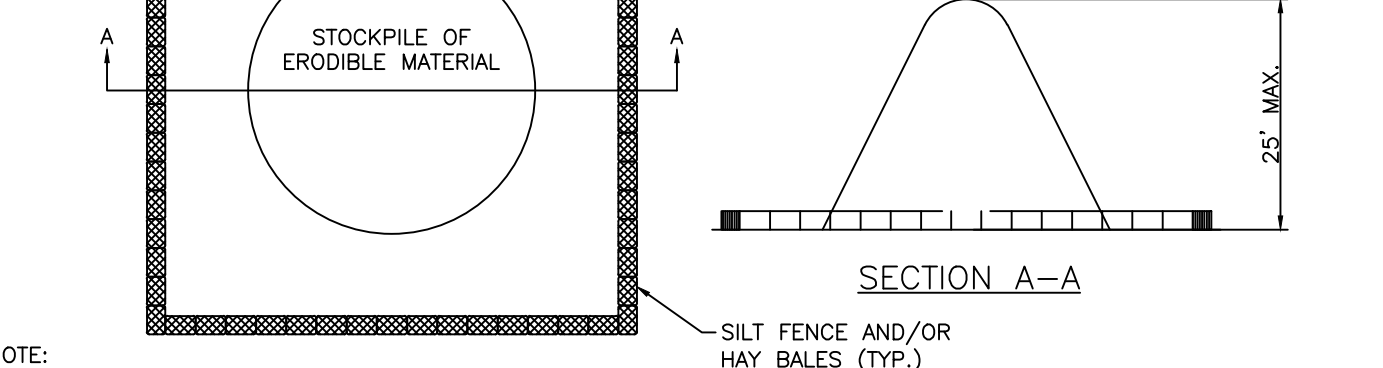
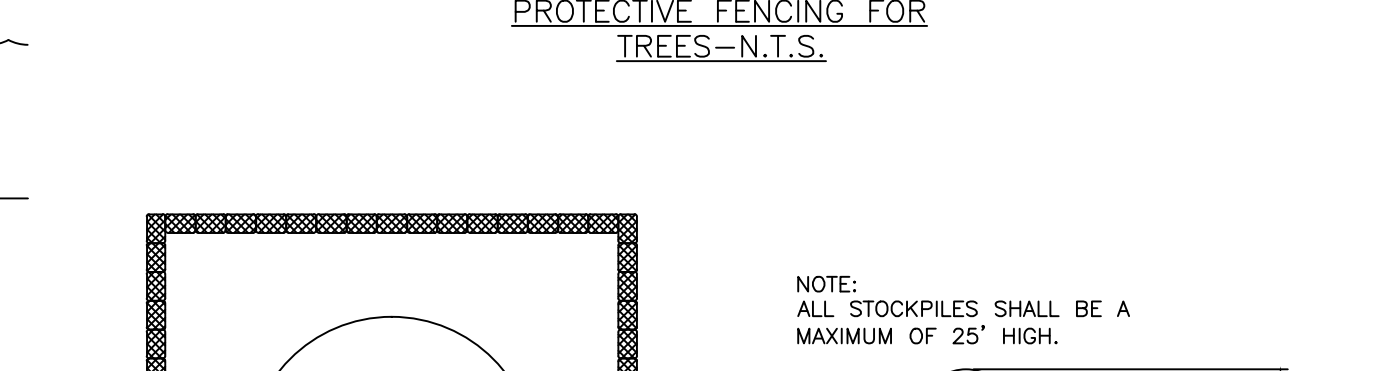
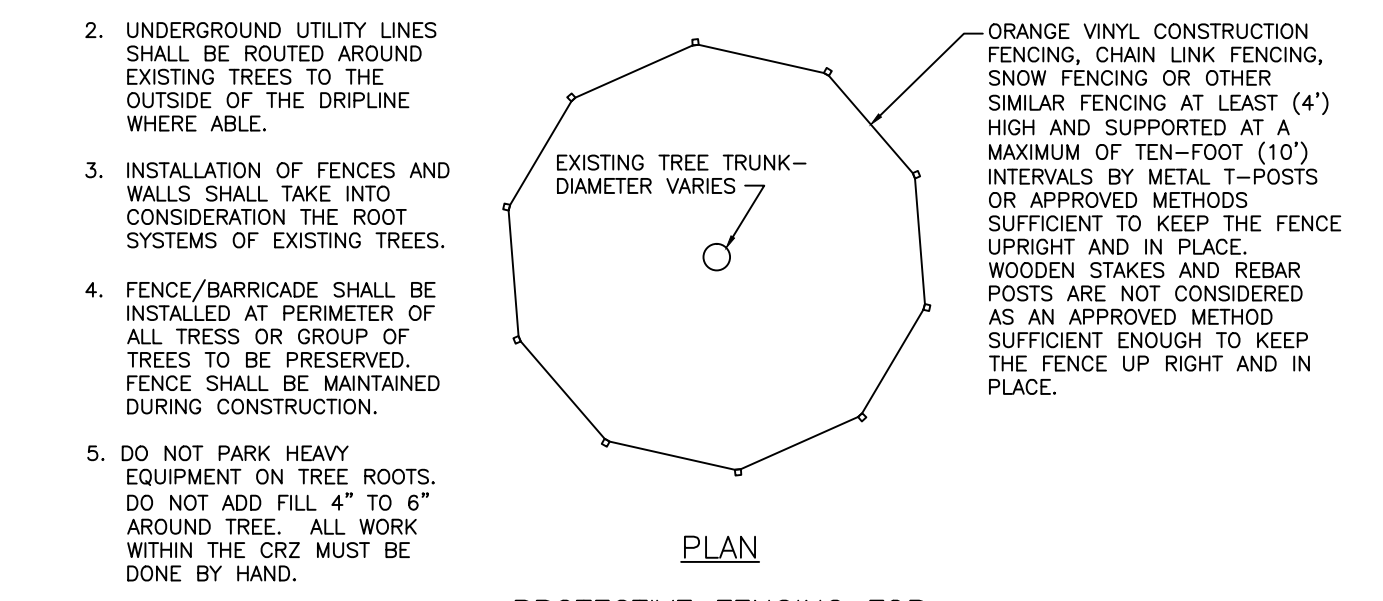
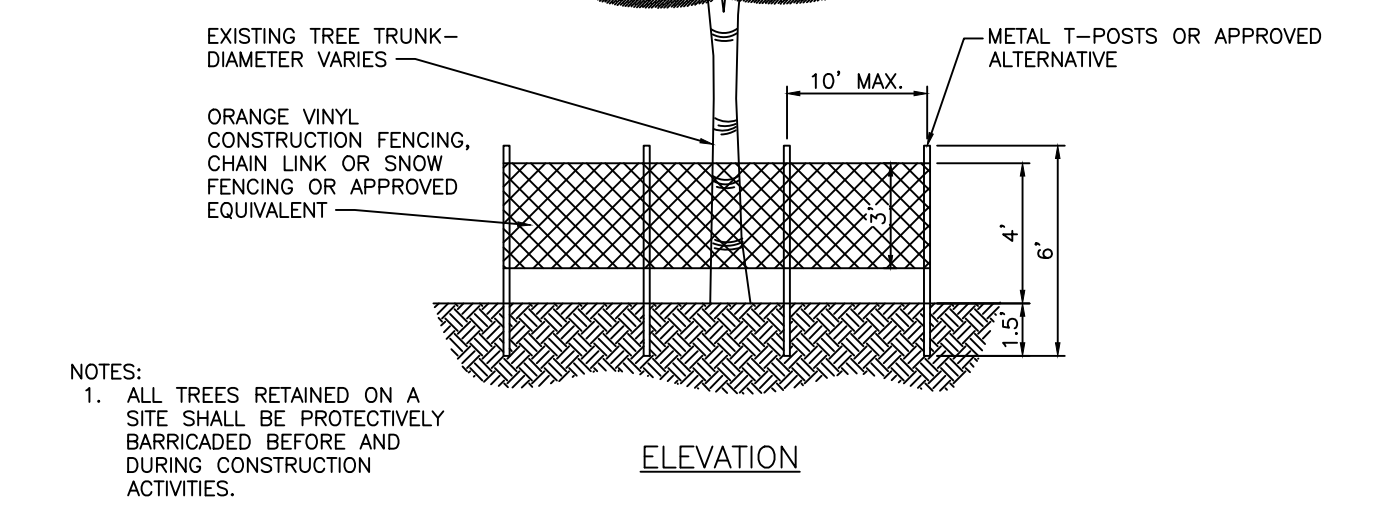
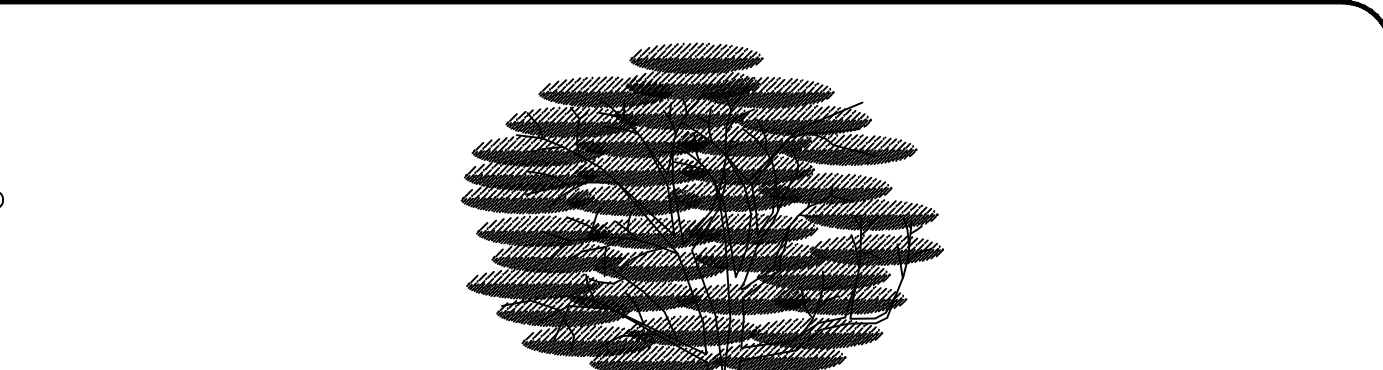
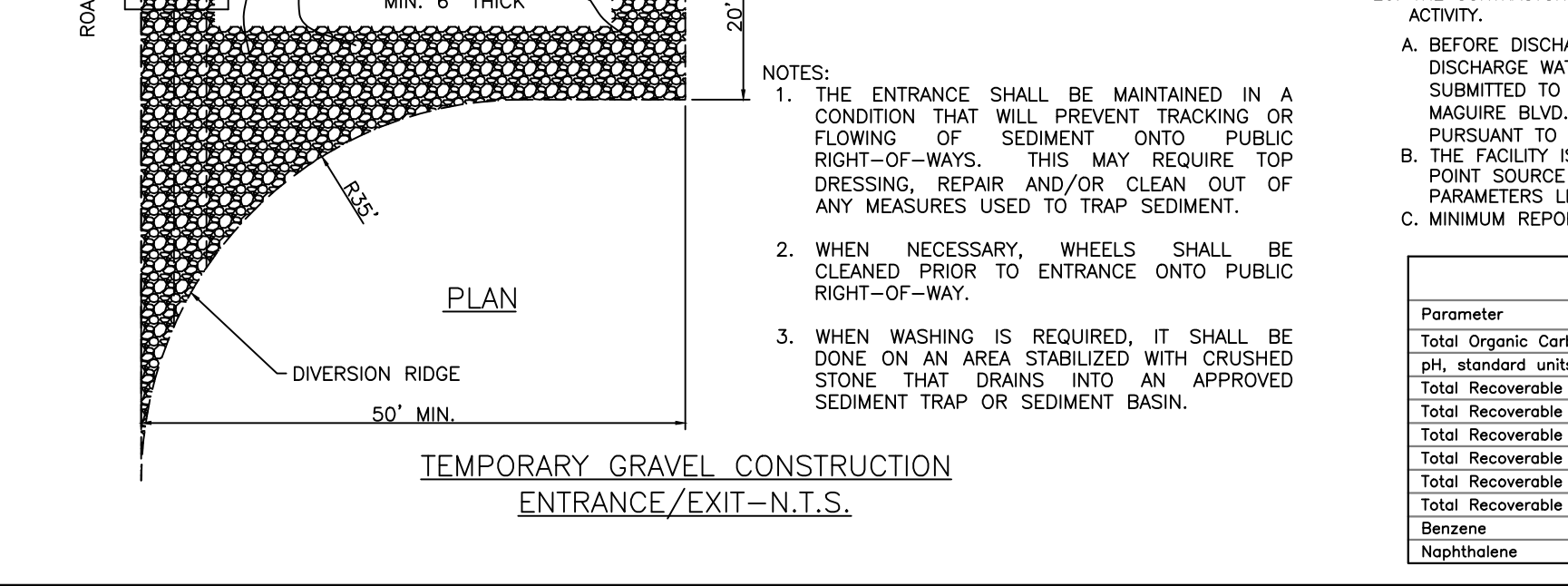
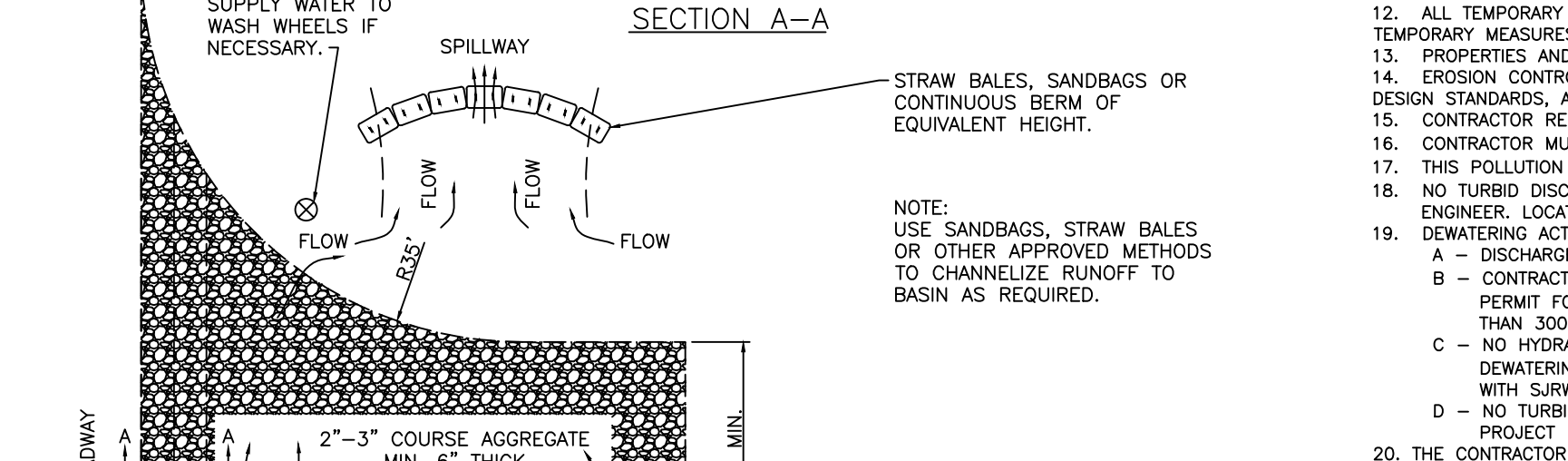
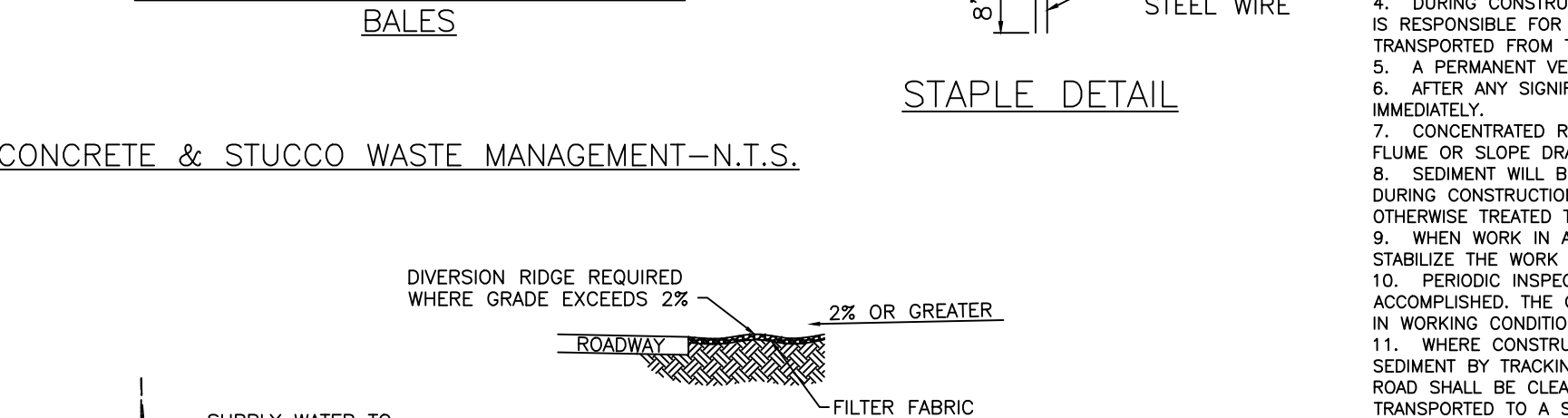
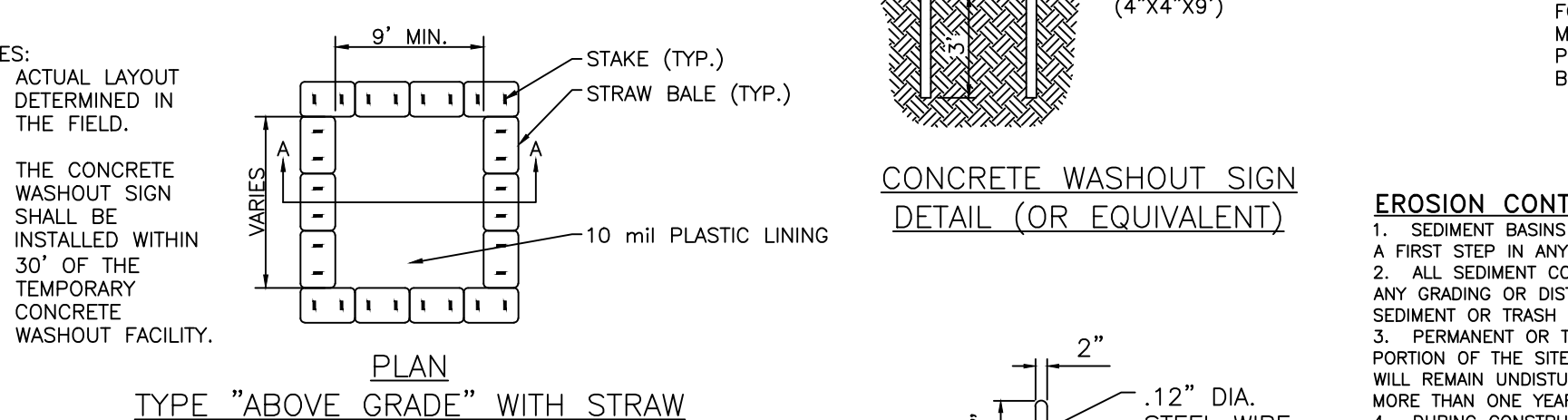
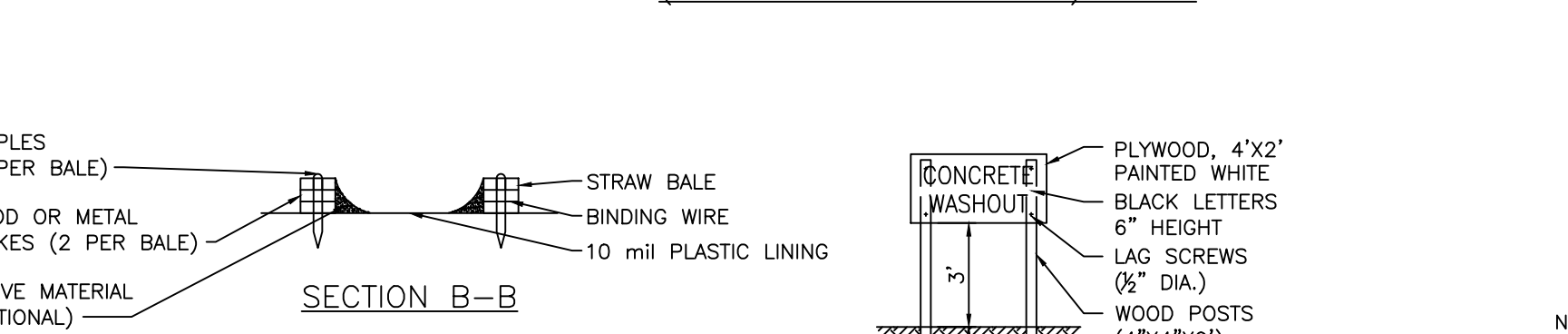
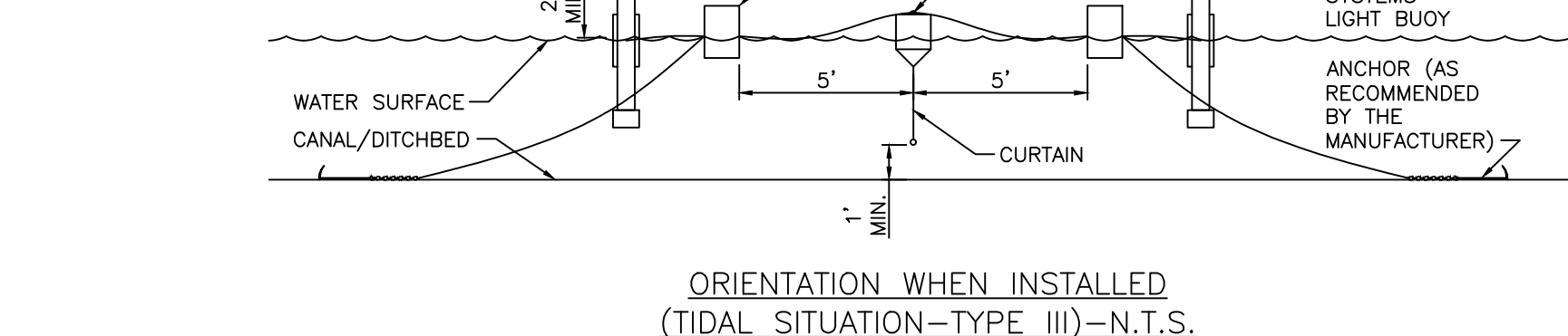
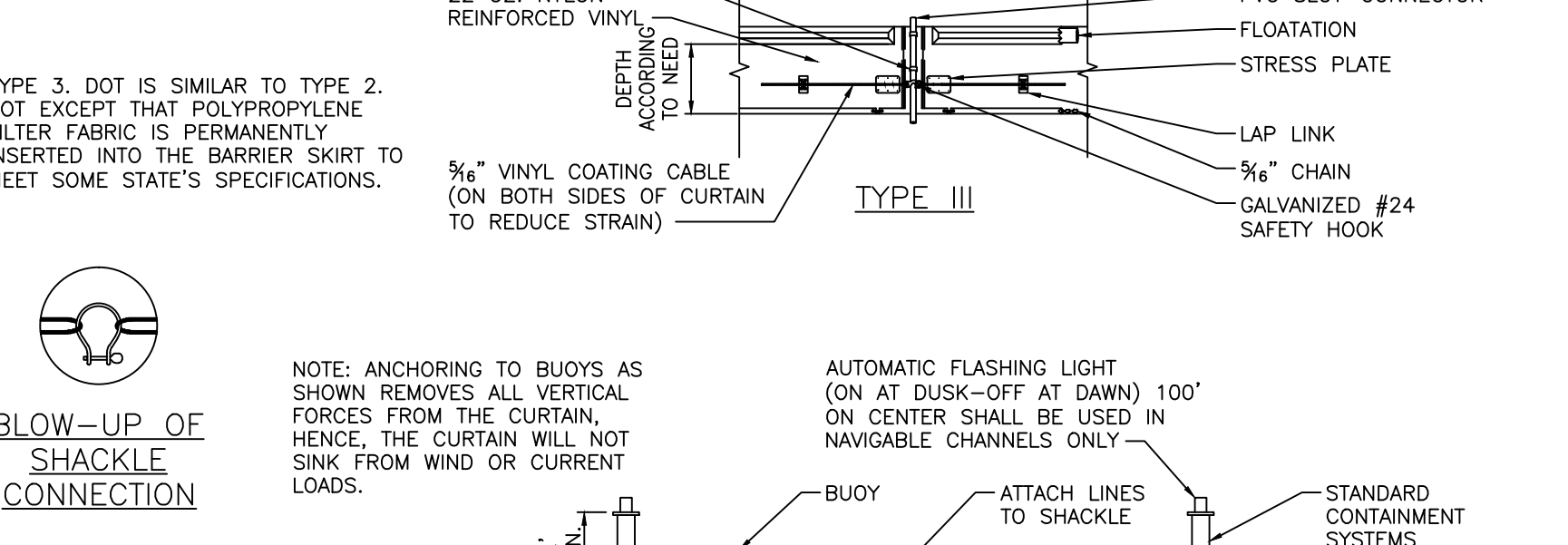
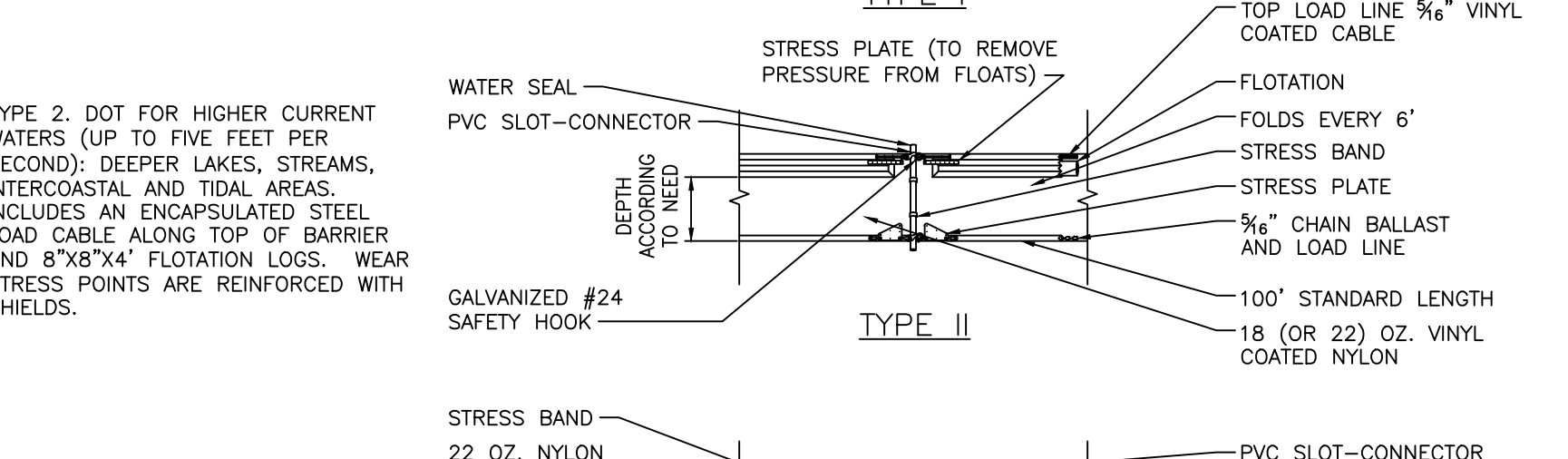
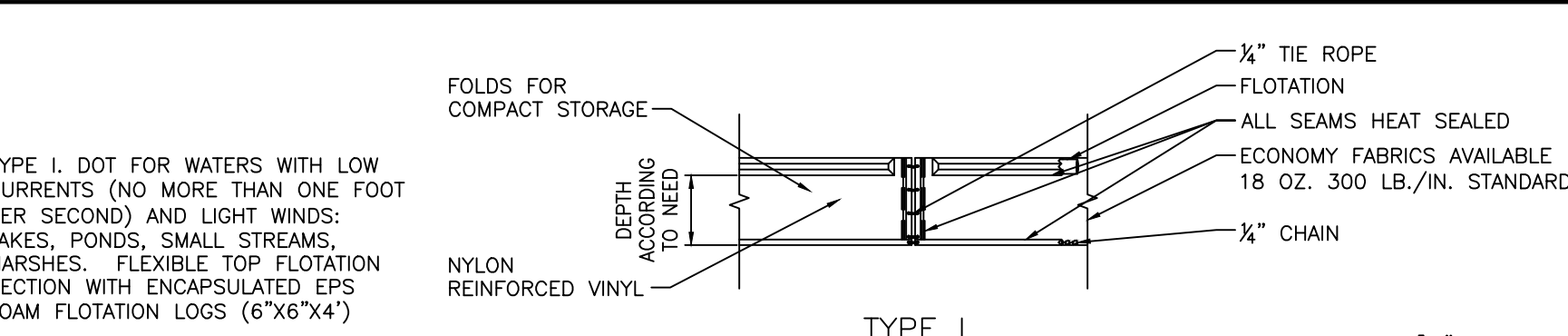
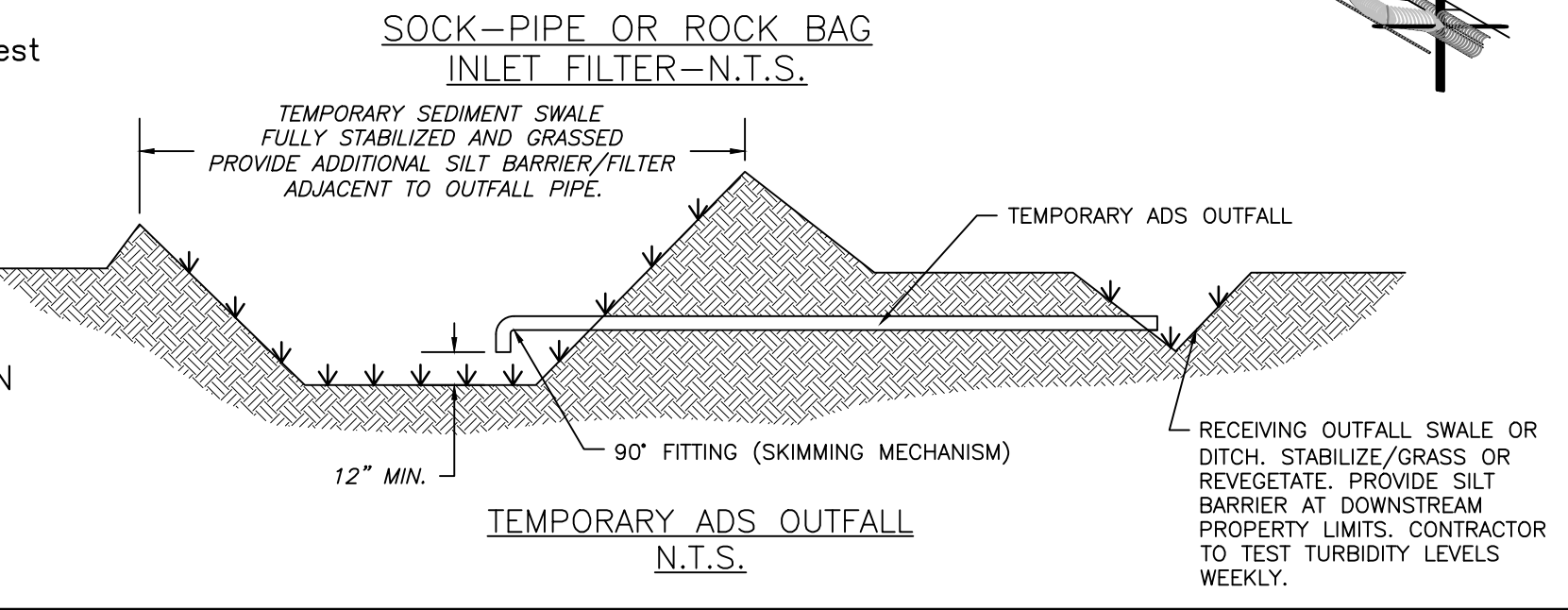
NOTES:  
 \*WETLAND PROTECTION PLAN\*  
 a. SILT FENCE MUST BE INSTALLED BY HAND ALONG SURVEYED CONSERVATION EASEMENT BOUNDARIES (AT TOE OF SLOPE-SEE SECTIONS EE,N,O) PRIOR TO CONSTRUCTION.  
 b. NO TURBID DISCHARGE TO WETLANDS IS PERMITTED.  
 c. ALL STOCKPILE AND/OR CONSTRUCTION STAGING AREAS MUST BE LOCATED 100 FT. FROM WETLANDS.



LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAND TENSILE STRENGTH	ASTM D-4632	300 LBS.
GRAND TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4632	120 LBS.
MULLEN BURST	ASTM D-3786	800 P.S.I.
TEAR BURST	ASTM D-4632	120 LBS.
TENSILE TEAR	ASTM D-4632	20 LBS.
UV RESISTANCE	ASTM D-4441	40 HRS./MIN./50 FT. PERMITTIVITY
APPARENT OPENING SIZE	ASTM D-4751	40 US. SEIVE
FLOW RATE	ASTM D-4481	200 GAL./MIN./50 FT. PERMITTIVITY
PERMITTIVITY	ASTM D-4481	0.55 SEC. -1

MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAND TENSILE STRENGTH	ASTM D-4632	285 LBS.
GRAND TENSILE ELONGATION	ASTM D-4632	10%
PUNCTURE	ASTM D-4632	135 LBS.
MULLEN BURST	ASTM D-3786	420 P.S.I.
TEAR BURST	ASTM D-4632	145 LBS.
TENSILE TEAR	ASTM D-4632	20 LBS.
UV RESISTANCE	ASTM D-4441	200 GAL./MIN./50 FT. PERMITTIVITY
APPARENT OPENING SIZE	ASTM D-4751	20 US. SEIVE
FLOW RATE	ASTM D-4481	200 GAL./MIN./50 FT. PERMITTIVITY
PERMITTIVITY	ASTM D-4481	1.5 SEC. -1



EROSION CONTROL AND DEWATERING NOTES

- SEDIMENT BASINS AND TRAPS PERIMETER BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPLAND LAND DISTURBANCE TAKES PLACE.
- ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ON TO ADJACENT PROPERTIES.
- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENuded AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
- DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT.
- A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENuded AREAS NOT OTHERWISE PERMANENTLY STABILIZED.
- AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
- CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
- SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAIN SYSTEM, DITCH, OR CHANNEL. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
- PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
- WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE. WHENEVER SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND CUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOULDER OR SWEEPING AND TRANSPORTED TO A SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION.
- EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NOS. 101, 102, AND 103 OF FOOT ROADWAY AND TRAFFIC DESIGN STANDARDS, AND THE DETAILS AND NOTES ON THE PLANS.
- CONTRACTOR RESPONSIBLE FOR ALL SURFACE WATER DISCHARGES - RAINFALL RUN-OFF OR DEWATERING ACTIVITIES.
- CONTRACTOR MUST INCORPORATE ALL BMP'S NECESSARY TO MEET OR EXCEED STATE WATER QUALITY REQUIREMENTS.
- THIS POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAY BE NECESSARY AT CONTRACTORS EXPENSE.
- NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK (BY THE CONTRACTOR) AND MUST BE REPORTED TO THE PROJECT ENGINEER. TURBIDITY READINGS WILL BE DETERMINED BY THE ENGINEER.
- DEWATERING ACTIVITIES:
  - DISCHARGE MUST NOT EXCEED STATE WATER QUALITY STANDARDS.
  - CONTRACTOR MUST HAVE A TRANSFERABLE SURROUND CONSUMPTIVE USE PERMIT KNOWN AS A "NOTICED GENERAL PERMIT FOR SHORT TERM CONSTRUCTION DE-WATERING", UNLESS DE-WATERING ACTIVITIES WILL RESULT IN LESS THAN 300,000 GPD FOR 30 DAYS OR LESS.
  - NO HYDRAULIC PLUMPS SHALL BE USED FOR DE-WATERING UNLESS APPROVED BY THE WATER MANAGEMENT DISTRICT FOR THAT AREA. DEWATERING EXISTING STORMWATER RETENTION AREAS (PONDS/LAKES) MAY BE EXEMPT FROM THIS CONDITION. CONTRACTOR TO CONFIRM WITH SURMAD.
  - NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER.
- CONTRACTOR SHALL OBTAIN GENERAL PERMIT FOR THE DISCHARGE OF PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY.
- BEFORE DISCHARGE OF PRODUCED GROUND WATER CAN OCCUR FROM THE SITE, ANALYTICAL TESTS ON SAMPLES OF THE PROPOSED UNREATED DISCHARGE WATER SHALL BE PERFORMED TO DETERMINE IF CONTAMINATION EXISTS (BY CONTRACTOR). IF NONE EXISTS, THE RESULTS SHALL BE SUBMITTED TO THE FDEP INDUSTRIAL WASTEWATER PERMITTING WITHIN ONE WEEK OF COMMENCEMENT OF DISCHARGE (C.O. ALI KAZI, P.E., 3319 MAJURE BLVD., SUITE 232, ORLANDO, FL 32803), WITH A LETTER NOTIFYING THE AGENCY THAT DEWATERING ACTIVITIES WILL COMMENCE PURSUANT TO 62-621.300(2) F.A.C. AND THE SITE QUALITIES FOR THE GENERIC PERMIT.
- THE FACILITY IS AUTHORIZED TO DISCHARGE PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY WHICH DISCHARGES BY A POINT SOURCE TO SURFACE WATERS OF THE STATE, AS DEFINED IN CHAPTERS 62-620, F.A.C., ONLY IF THE REPORTED VALUES FOR THE PARAMETERS LISTED IN TABLE 1 DO NOT EXCEED ANY OF THE LISTED SCREENING VALUES.
- MINIMUM REPORTING REQUIREMENTS FOR ALL PRODUCED GROUND WATER DISCHARGES: THE EFFLUENT SHALL BE SAMPLED (BY CONTRACTOR) BEFORE THE COMMENCEMENT OF DISCHARGE, AND THEN EVERY SIX (6) MONTHS FOR THE LIFE OF THE PROJECT TO MAINTAIN CONTINUED COVERAGE UNDER THIS GENERIC PERMIT. SAMPLES TAKEN IN COMPLIANCE WITH THE PROVISIONS OF THIS PERMIT SHALL BE TAKEN PRIOR TO ACTUAL DISCHARGE OR MIXING WITH THE RECEIVING WATERS. THE EFFLUENT SHALL BE SAMPLED FOR THE PARAMETERS LISTED ON TABLE 1.
- IF ANY OF THE ANALYTICAL TEST RESULTS EXCEED THE SCREENING VALUES LISTED IN TABLE 1, EXCEPT TOC, THE DISCHARGE IS NOT AUTHORIZED BY THIS PERMIT. IF T.O.C. IS EXCEEDED BECAUSE OF NATURALLY OCCURRING ORGANIC COMPOUNDS, THE RESULT AND EXPLANATION FOR THE HIGH READING MUST BE SUBMITTED TO THE TDEP FOR REVIEW AND ISSUANCE OF AN EXEMPTION.
- IF ANY SCREENING VALUES (OTHER THAN TOC) EXCEED THE THRESHOLDS, THEN A GENERIC PERMIT CANNOT BE ISSUED, AND A SEPARATE INDIVIDUAL WASTEWATER PERMIT APPLICATION MUST BE SUBMITTED WITHIN THIRTY (30) DAYS PRIOR TO DATE OF DISCHARGE. THE ENGINEER OF RECORD MUST BE NOTIFIED IF THIS OCCURS.

Parameter	SCREENING VALUES FOR DISCHARGE INTO:	
	Fresh Waters	Coastal Waters
Total Organic Carbon (TOC)	110.0 mg/L	10.0 mg/L
pH, standard units	6.0-8.5	6.5-8.5
Total Recoverable Mercury	0.012 µg/L	0.025 µg/L
Total Recoverable Cadmium	9.3 µg/L	9.3 µg/L
Total Recoverable Copper	2.9 mg/L	2.9 mg/L
Total Recoverable Lead	0.03 mg/L	5.6 mg/L
Total Recoverable Zinc	86.0 µg/L	86.0 µg/L
Total Recoverable Chromium (Hex.)	11.0 µg/L	1.0 µg/L
Benzene	1.0 µg/L	1.0 µg/L
Naphthalene	100.0 µg/L	100.0 µg/L

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
 CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING  
 1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960  
 TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com

DATE: 5/29/15  
 REVISION PER CORP  
 MARK 1  
 DESIGNED J.B.B.  
 DRAWN J.B.B.  
 CHECKED J.B.B.  
 SCALE NTS  
 DATE 4/15/15

STORMWATER POLLUTION PREVENTION DETAILS  
 INLET PALMS

ENGINEER CERTIFICATION  
 JOSEPH W. SCHULKE  
 JAMES B. BITTLE  
 WILLIAM P. STODDARD  
 FL REG. NO. 47948  
 FL REG. NO. 57396  
 FL REG. NO. 57605

DATE: SHEET 3 PROJECT NO. 15-053

**KSM**  
**KELLER, SCHLEICHER & MacWILLIAM ENGINEERING AND TESTING, INC.**  
 MARTIN (772) 337-7750 P.O. BOX 78-1377 SEBASTIAN, FL 32976-1377 SEBASTIAN (772) 338-0112  
 PALM BEACH (561) 845-7445 PALM BEACH (561) 845-7445 PALM BEACH (561) 845-7445 MELBOURNE (321) 768-8488  
 FAX (561) 845-8076 FAX (561) 845-8076 FAX (561) 845-8076 ST. LUCCIE (772) 228-8600  
 C.A. 5803 E-Mail: KSM@KSMENGINEERING.NET  
 April 21, 2015

Joseph Foglia  
 Foglia Construction  
 622 Beachland Blvd.  
 Vero Beach, FL 32963

Re: **The Inlet Palms**  
 1502 Seaway Drive  
 Fort Pierce, Florida  
 KSM Project #: 150917-b

Dear Mr. Foglia:

As requested, KSM Engineering & Testing has performed a subsurface investigation at the above referenced site. The data gathered during the investigation, together with our geotechnical related opinions, are included in this report.

**A. Site Description:**  
 The site is located on the Fort Pierce Inlet at 1502 Seaway Drive, Fort Pierce, Florida. At the time of drilling, the waterfront site was cleared and fairly flat with no major vegetation.

**B. Project Description:**  
 It is our understanding that seven (7) townhomes are planned for the site. Although our office was not provided with detailed structural loads, for our geotechnical analyses, we have assumed the maximum wall loading for the 3-story structures will be about 7,000 pounds per linear foot along the wall foundation and less than 150 kips for any individual column loads.  
 Site grading for the new structure will include approximately several feet of structural fill to reach the desired grades.

Ronald G. Keller, P.E.: 37293 / SI Lic. No. 860 / Julie E. Keller, P.E.: 68366

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**C. The scope of our study consisted of the following:**

1. Performed Standard Penetration Test Borings in the proposed construction area to estimate the subsurface relative density.
2. Measured the groundwater level at each boring.
3. Evaluated the existing soil conditions in relation to the proposed construction and provided recommendations for site preparation and foundation design.
4. Prepared this report to document our findings.

**D. Site Investigation:**  
 The site investigation program consisted of performing a total of six (6) Standard Penetration Test borings in the proposed construction area. The borings were terminated at depths of 40 to 60 feet below existing grade. The locations of the borings are shown on the attached boring location plan.  
 The SPT borings were completed in accordance with procedures described in ASTM D-1586. A standard 1.5 inch I.D., 2 inch O.D. split-spoon sampler is driven into the soil by successive blows of a 140 pound hammer freely falling 30 inches. The number of blows required to drive the sampler 1 foot, after seating 6 in., is designated the Penetration Resistance, or "N" value. At regular intervals the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. Also, the groundwater table was allowed to stabilize and the depth of the groundwater elevation recorded from existing grade.  
 The records of the soils encountered, the penetration resistances and groundwater level are shown on the attached logs.

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 April 21, 2015

**E. Engineering Evaluation and Conclusions:**  
 Based on the information obtained from this site investigation we are pleased to offer the following evaluation:  
 The boring logs indicate there are soft soil layers located on the site including organic material. The soft and organic layers were encountered about 4 feet to 8 feet below grade. Another soft layer of gray clay and sand was found in two (2) of the soils borings at a depth of approximately 13 feet below existing grade. This layer is approximately 2 to 4 feet thick.  
 In order for a shallow foundation to perform satisfactorily, it must be able to support the structural loads with an acceptable factor of safety against excessive settlements, both total and differential. Due to the settlement potential of the soft/organic soil layers found on the site, we do not recommend supporting the proposed structures on conventional shallow footings. The anticipated settlement, in our opinion, would be too excessive and beyond the general accepted safe limits for the structure.  
 In order to avoid any damaging structural distress due to settlements, and based on past experience of other projects that had similar underlying subsurface conditions, we recommend the installation of a concrete pile supported foundation system. The concrete piles will carry the structural loads below the weak soil layers. We recommend using auger cast-in-place piles. Although we have not been furnished with estimated structural loads, we assume that the following capacities will be sufficient to support the intended loading.

Pile Diameter (Inches)	Pile Capacity (Kips)	Pile Depth (Feet)	Allowable Uplift (Kips)	Lateral Load (Kips)
14	36	25	20	5
14	45	30	28	5
14	75	37	40	5

All Piles should be installed and inspected in accordance to the recommendation published by the Auger Cast-In-Place File Committee of the Deep Foundation Institute.

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 April 21, 2015

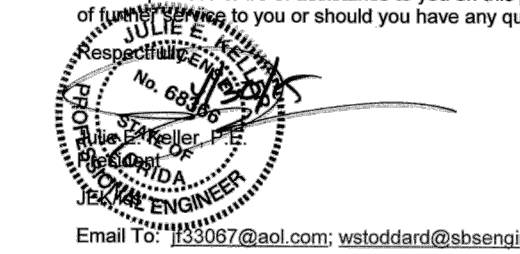
**F. Site Preparation:**  
 The proposed building area, plus a minimum margin of five feet beyond the proposed building limits shall be stripped and grubbed of surface debris, including vegetation, roots and organic matter and profiled. Sufficient passes should be made during compaction operations to produce a density no less than 90 percent of its modified dry Proctor value to a depth of two feet.  
 After the exposed surface has been profiled, the building and pavement areas may be filled to the desired grades. The fill material shall consist of clean granular sand containing less than 10% material passing the U.S. Standard No. 200 mesh sieve. Place structural fill in loose lifts of 12 inches in thickness and compact each lift to at least 95 percent of its modified dry Proctor value.  
 We recommend field density tests and on-site inspection be performed at appropriate times during the earth work operations in order to verify that the site preparations have been properly constructed.

**G. Swimming Pools:**  
 The pool shell and pool deck can also be supported on a pile foundation system.  
 An alternative would be to over-excavate the pool site completely removing the soft organic material from 4 feet to 8 feet and replace it with 3/4 stones. Compact the 3/4" stone with a "jumping jack" compactor in 12 inch lifts so the subgrade below the pool is firm and stable. Call for an inspection to verify that the site has been properly prepared prior to placing the pool shell reinforcing.  
 Backfill material behind the pool shell shall consist of clean granular sand with less than 10 percent "fines" passing the U.S. No. 200 sieve. Place backfill material in loose lifts of 12 inches in thickness and compact each lift to no less than 95 percent of its modified dry Proctor value (ASTM D 1557).

Ronald G. Keller, P.E.: 37293 / SI Lic. No. 860 / Julie E. Keller, P.E.: 68366

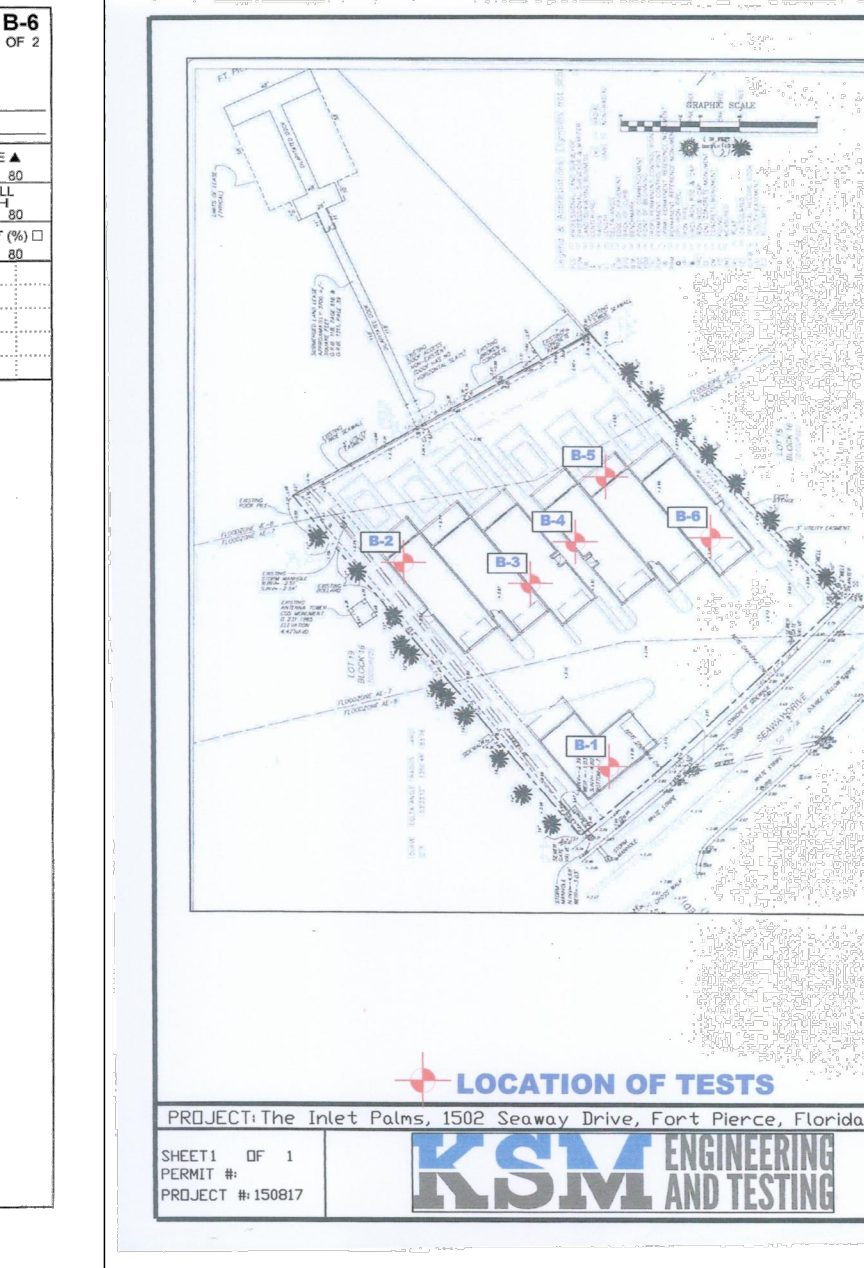
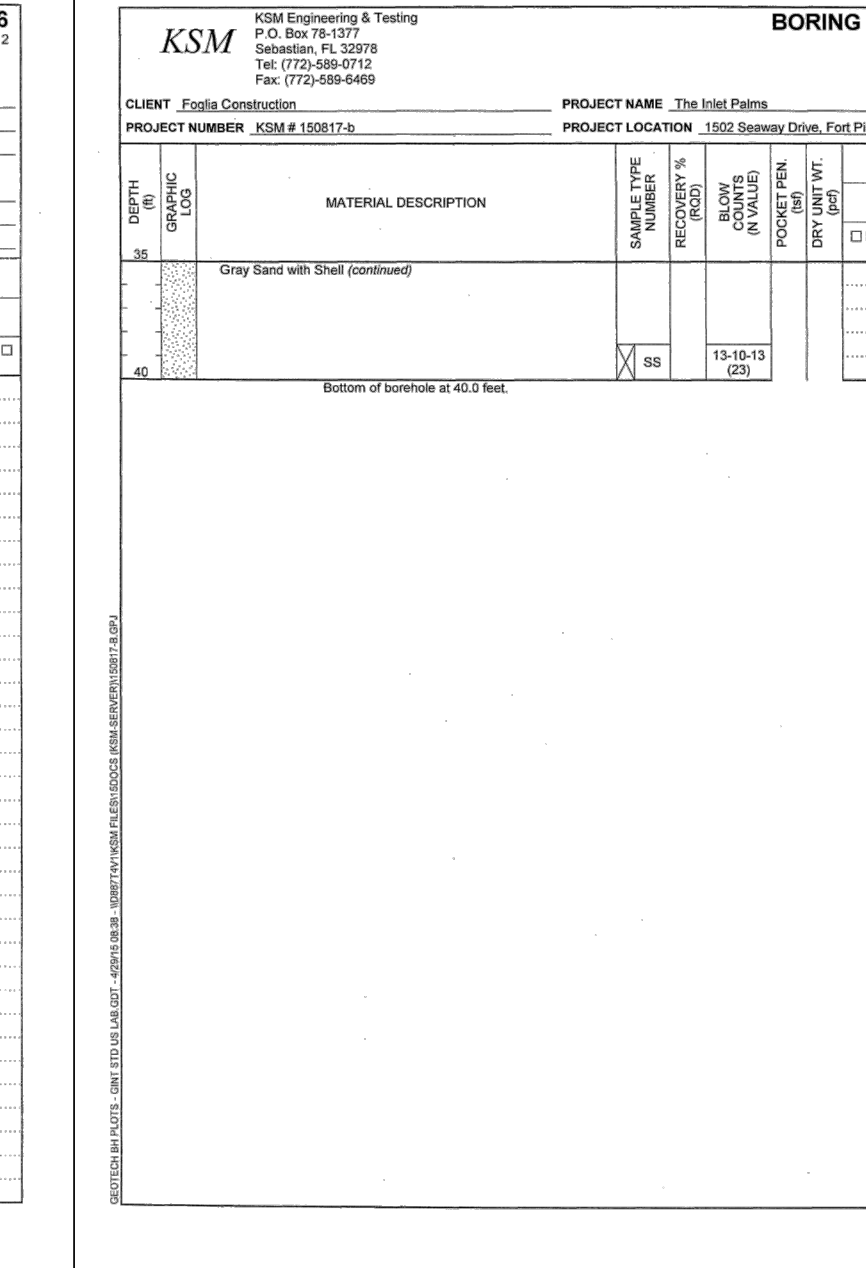
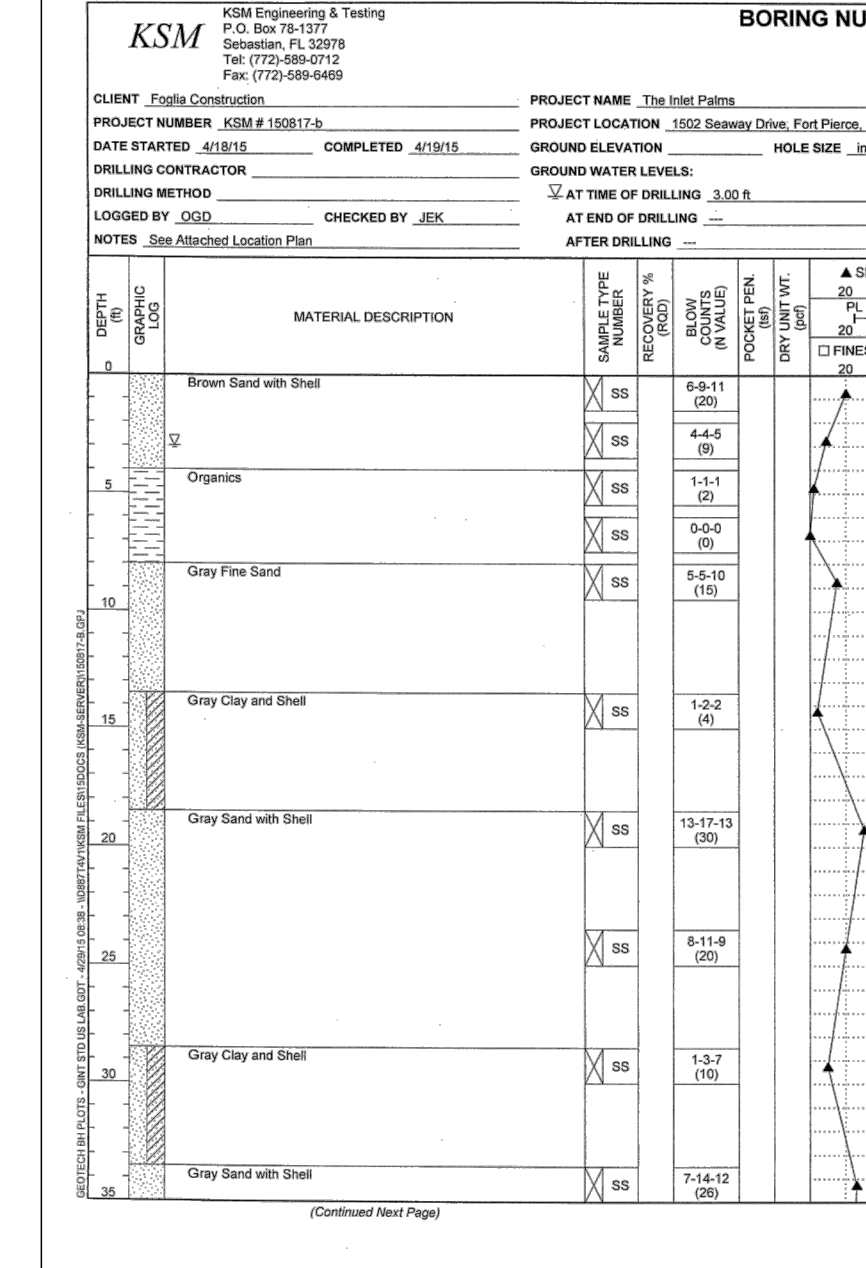
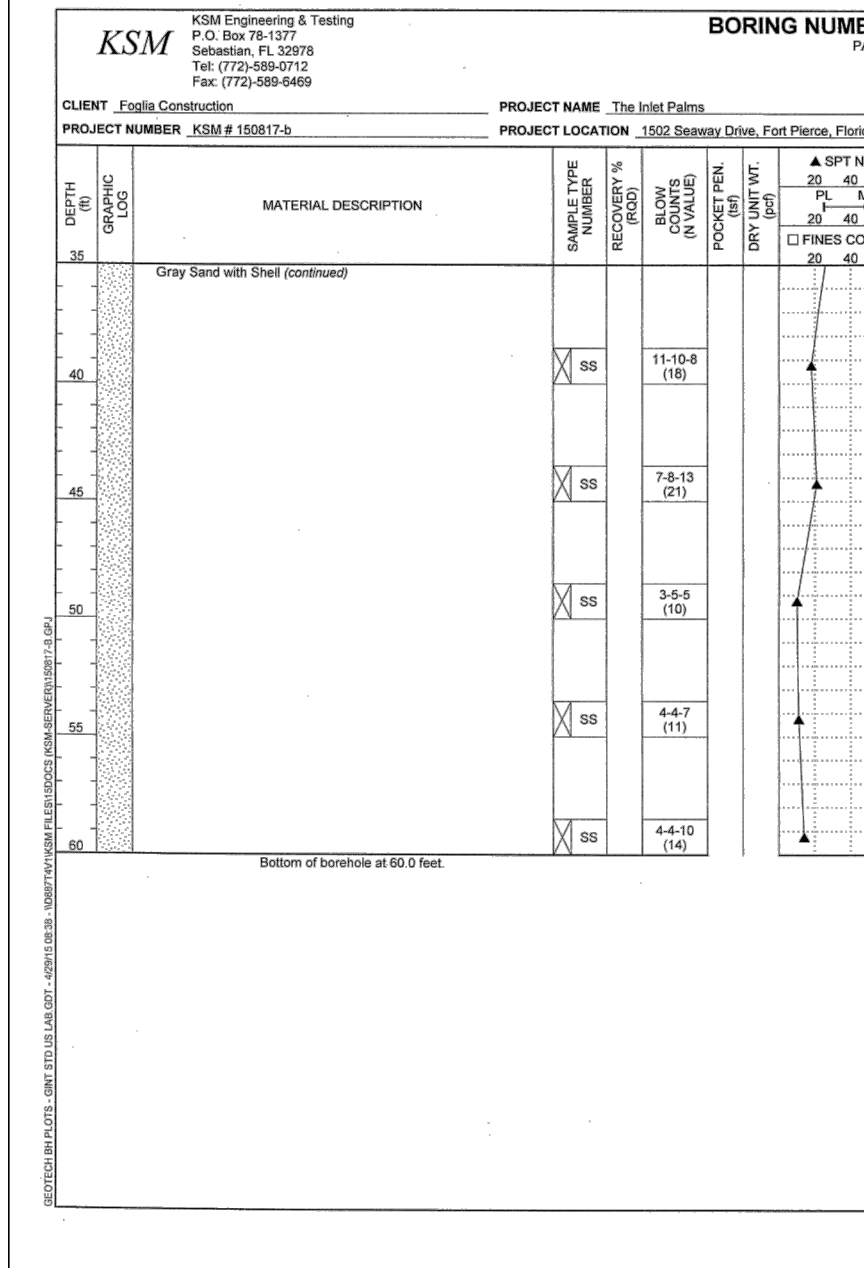
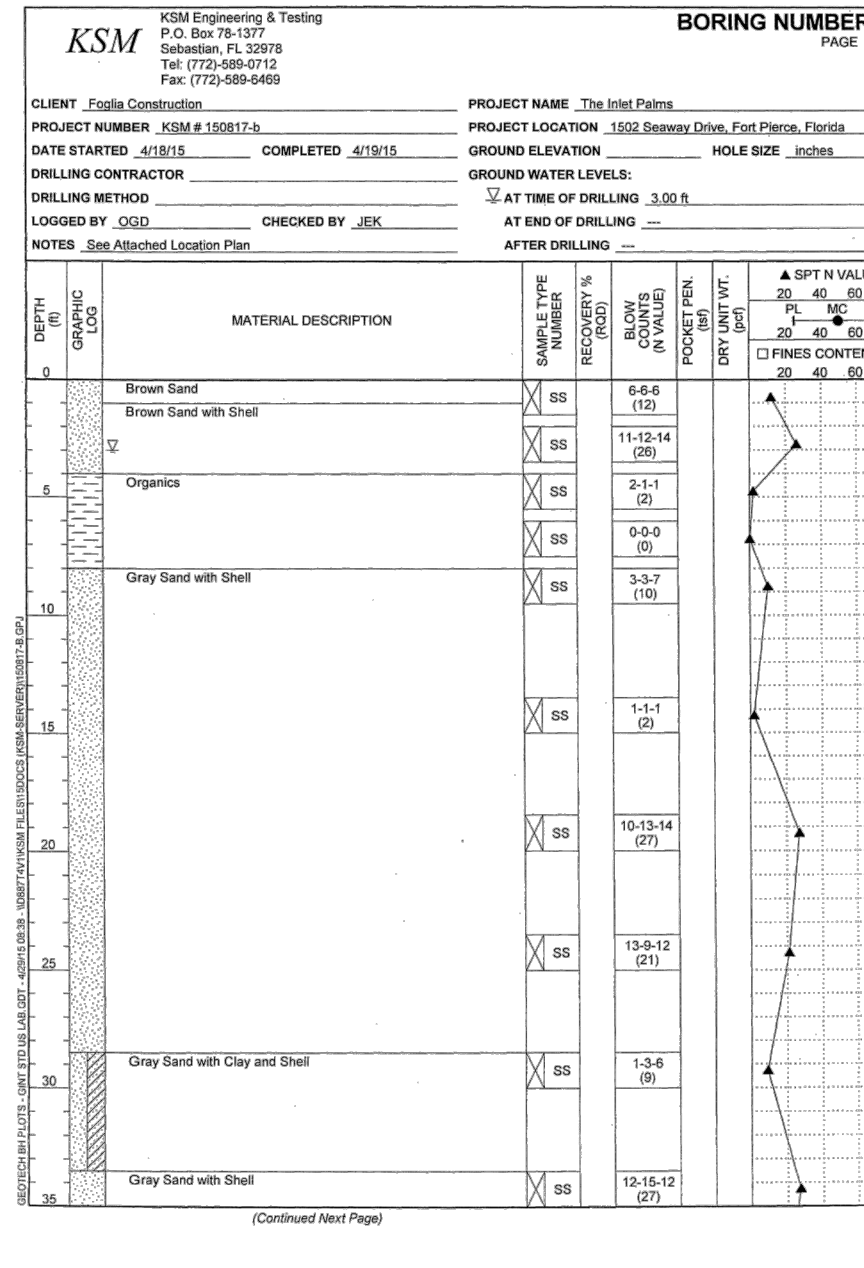
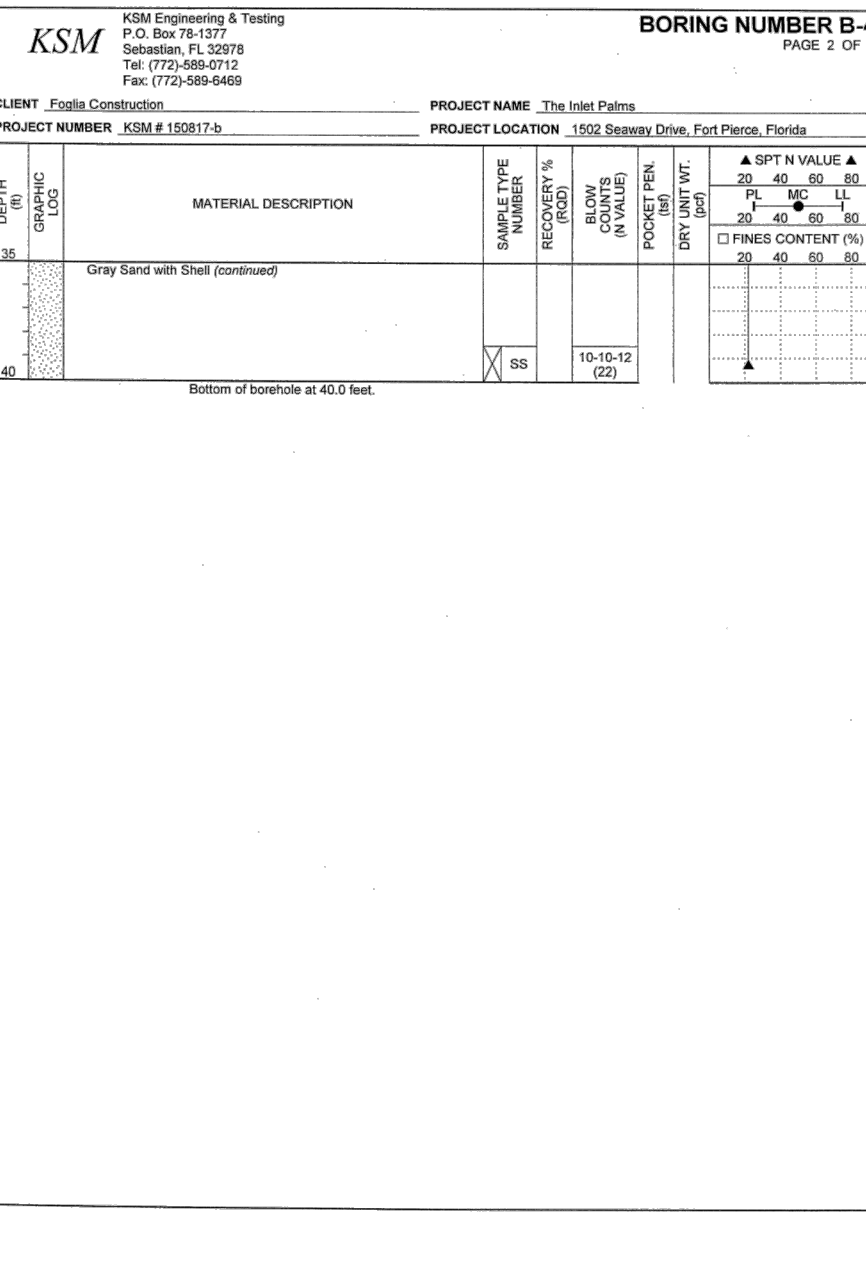
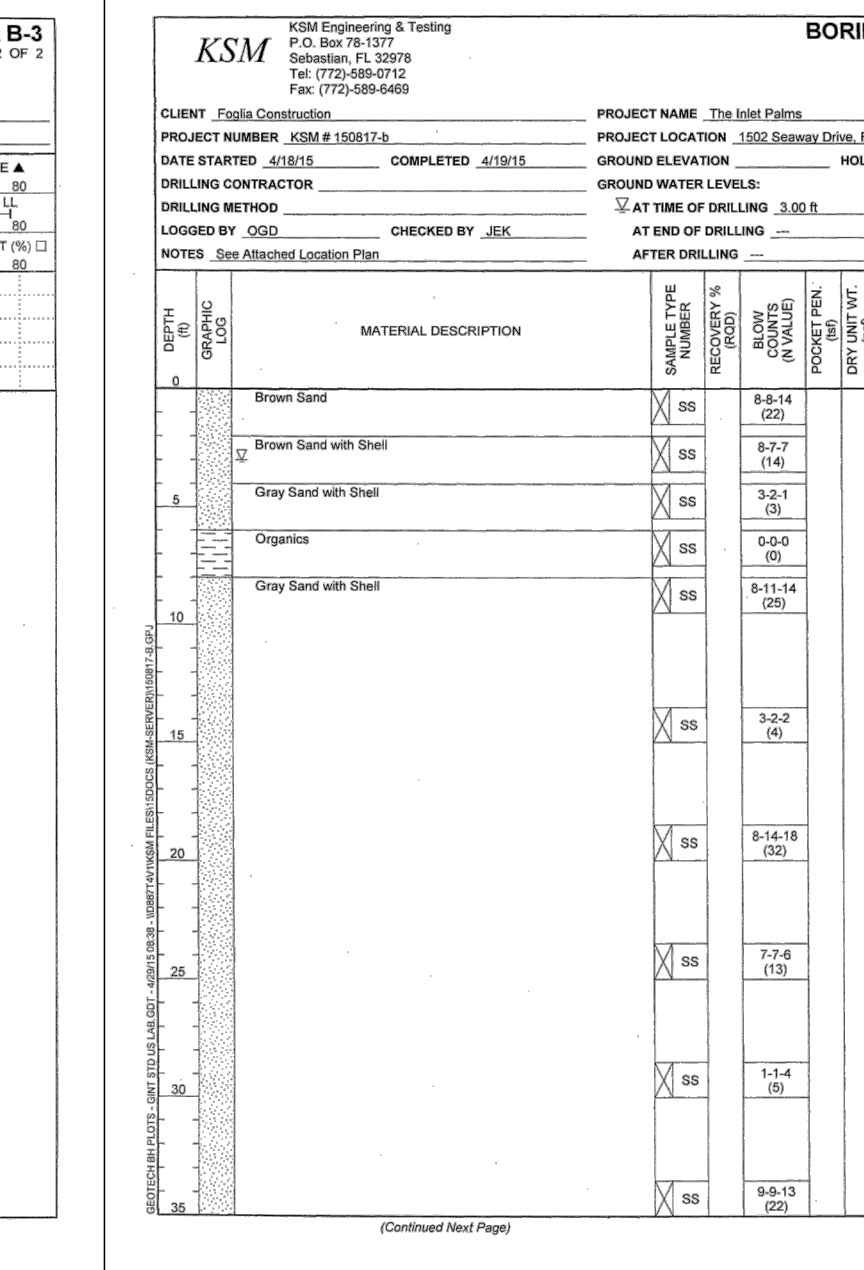
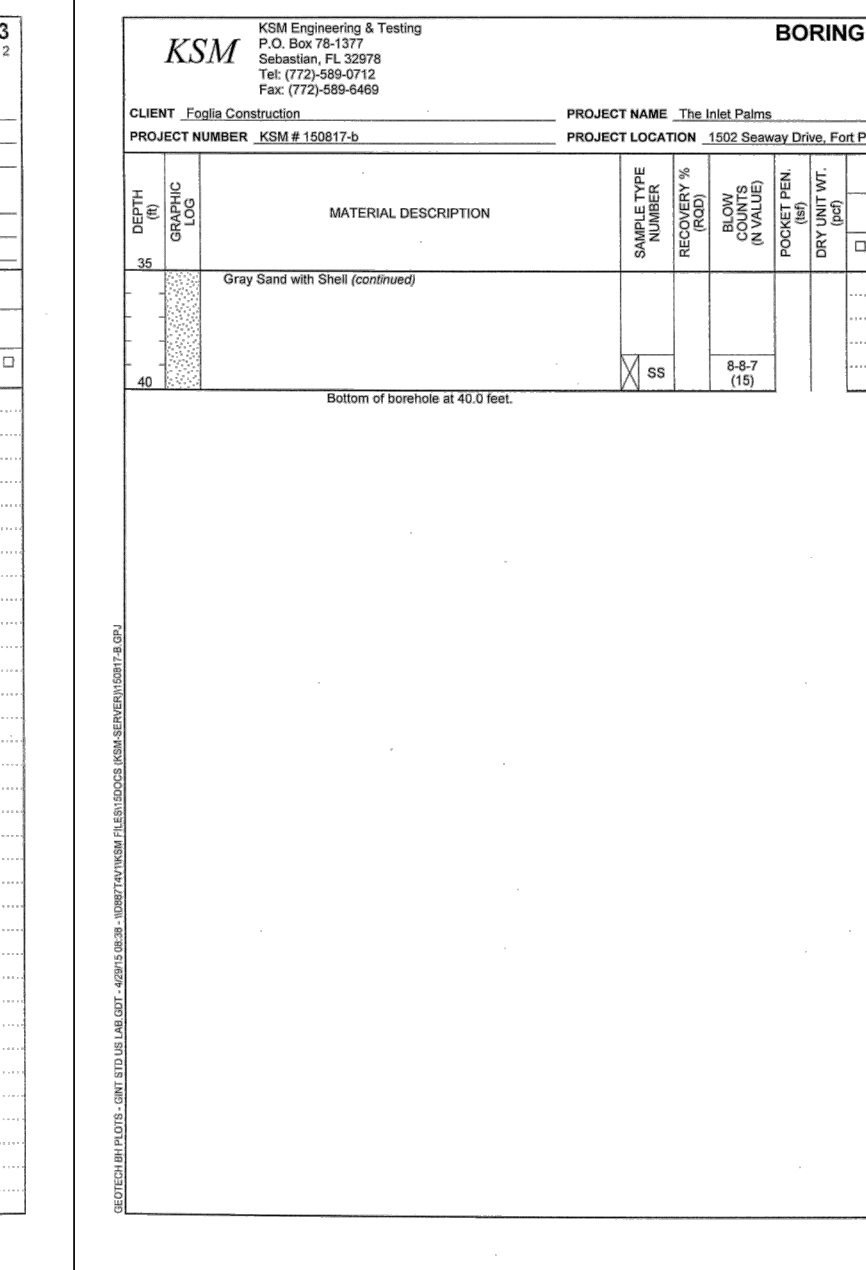
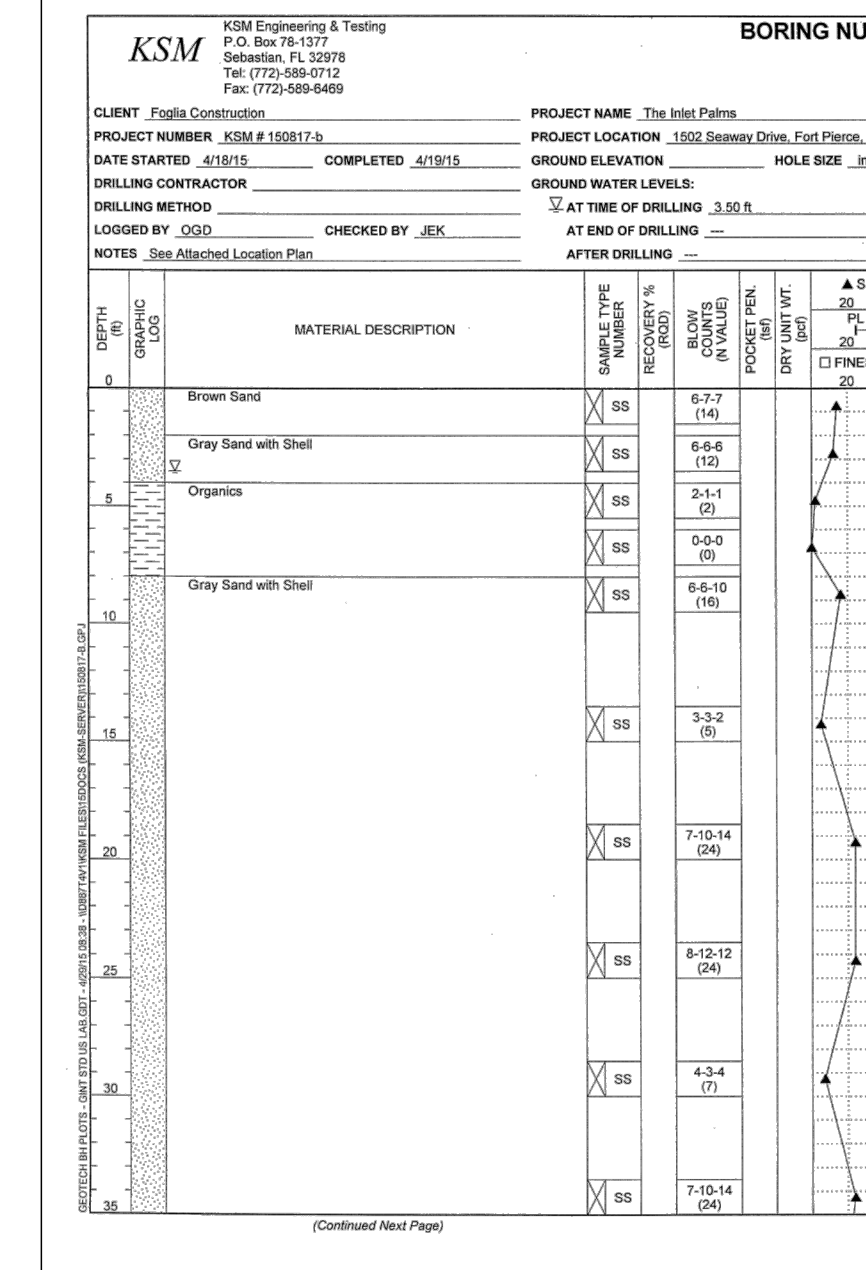
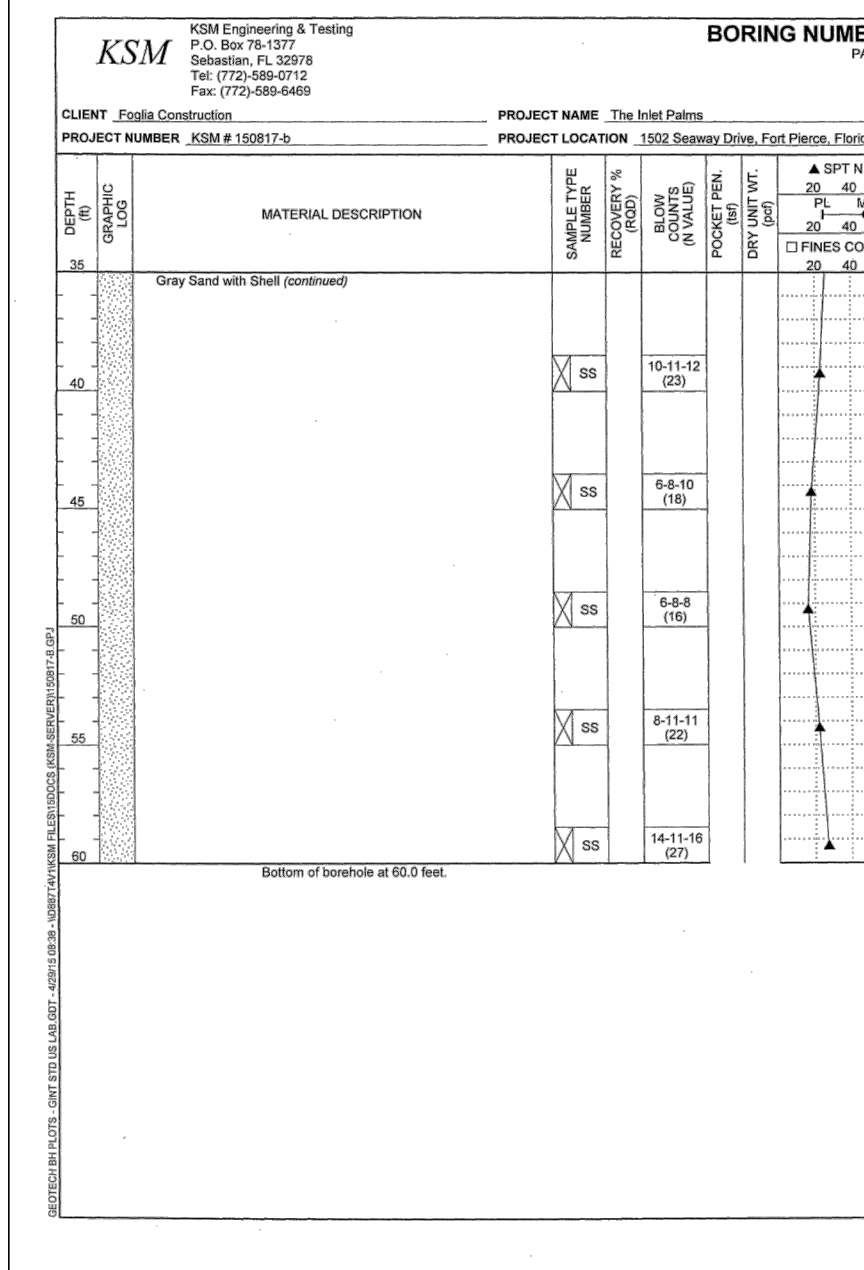
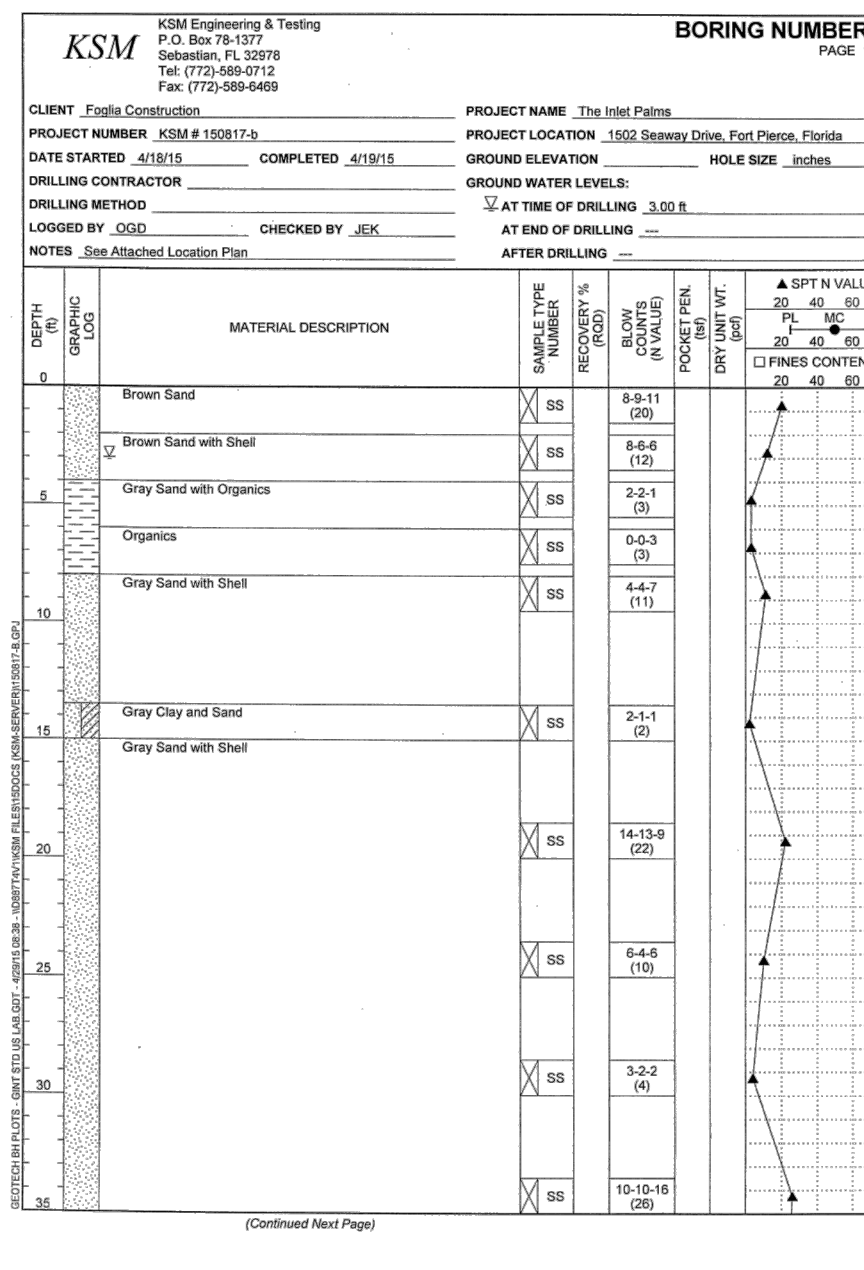
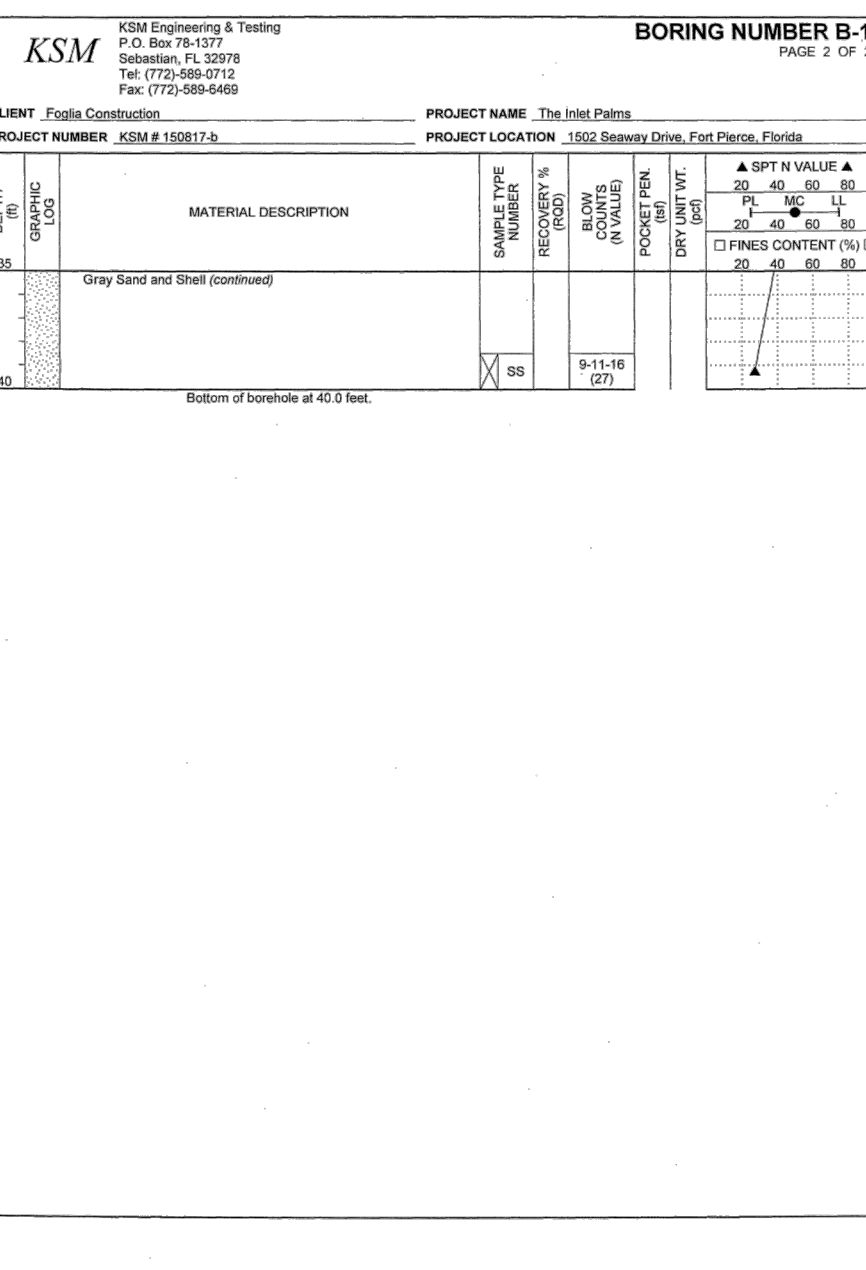
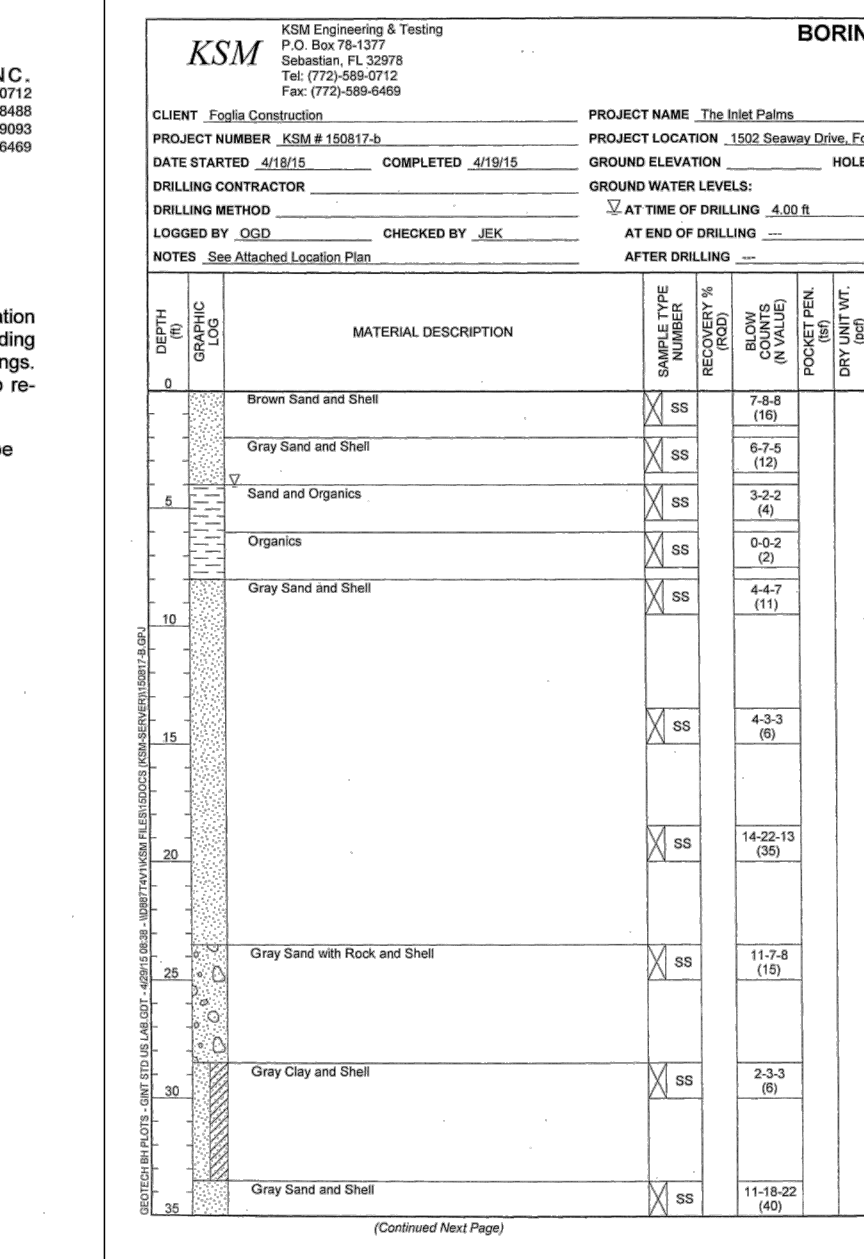
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 April 21, 2015

**H. Closure:**  
 This report has been prepared in accordance with generally accepted soil and foundation engineering practices based on the results of the test borings and the assumed loading conditions. This report does not reflect any variations which may occur between the borings. If variations appear evident during the course of construction, it would be necessary to re-evaluate the recommendations of this project.  
 We are pleased to be of assistance to you on this phase of your project. When we may be of assistance to you or should you have any questions, please feel free to call.



Email To: rsk007@aol.com; wstoddard@sbsengineers.com

Ronald G. Keller, P.E.: 37293 / SI Lic. No. 860 / Julie E. Keller, P.E.: 68366



LOCATION OF TESTS  
 PROJECT: The Inlet Palms, 1502 Seaway Drive, Fort Pierce, Florida  
 SHEET: 1 OF 1  
 DRAWN BY: JEL  
 DESIGNED BY: JEL  
 DATE: 04/21/15  
 SCALE: NONE

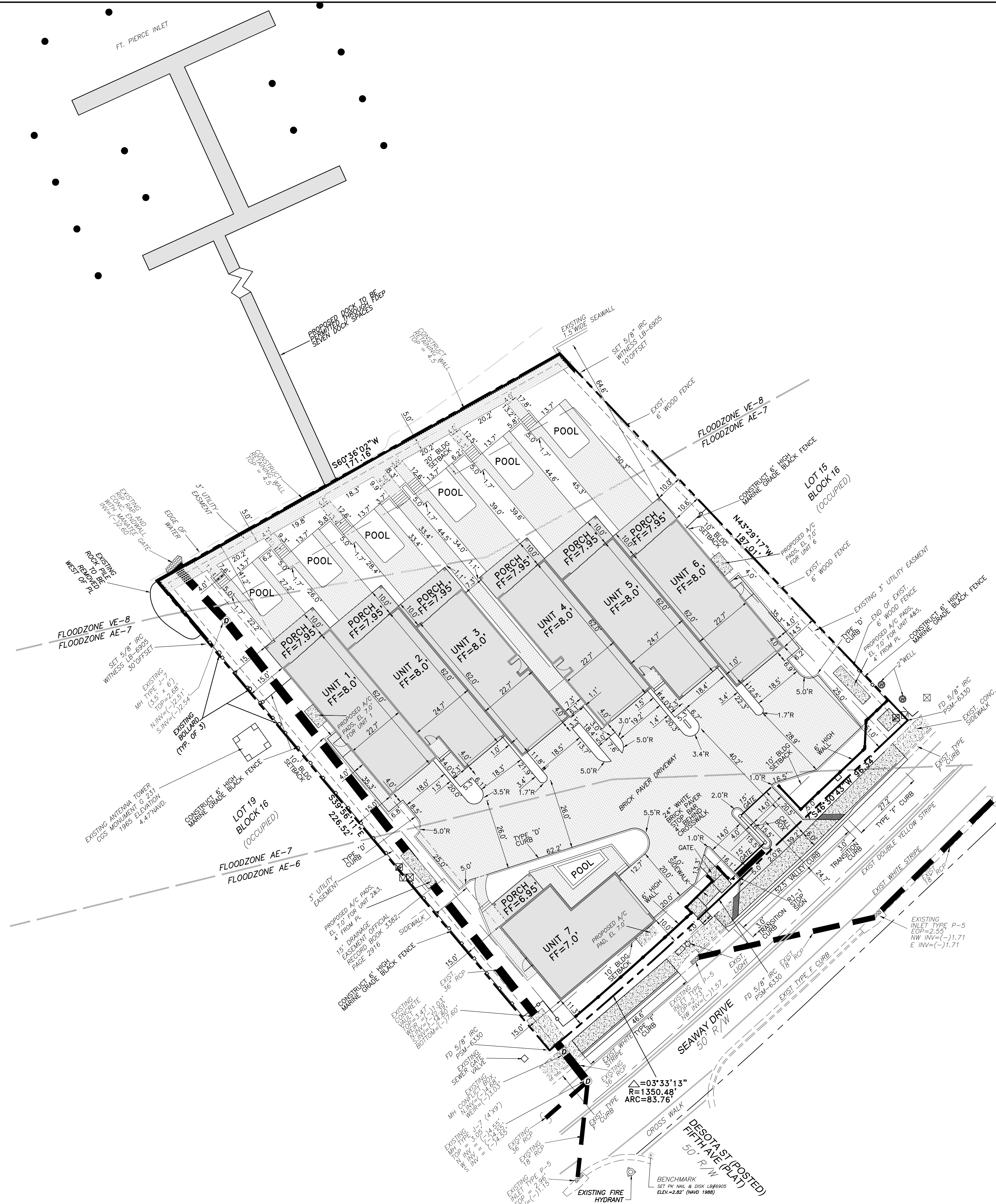
DATE	REVISION
5/29/15 <td>1</td>	1

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
 CIVIL & STRUCTURAL ENGINEERING • LAND PLANNING • ENVIRONMENTAL PERMITTING  
 CERTIFICATION OF AUTHORIZATION NO. 0000858  
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**SOIL BORINGS**  
**INLET PALMS**

ENGINEER CERTIFICATION  
 JOSEPH W. SCHULKE  
 FL REG. NO. 47048  
 JOHANN B. BITTLE  
 FL REG. NO. 57396  
 WILLIAM P. STODDARD  
 FL REG. NO. 57605

DATE: SHEET 4  
 PROJECT NO. 15-053



# LEGEND

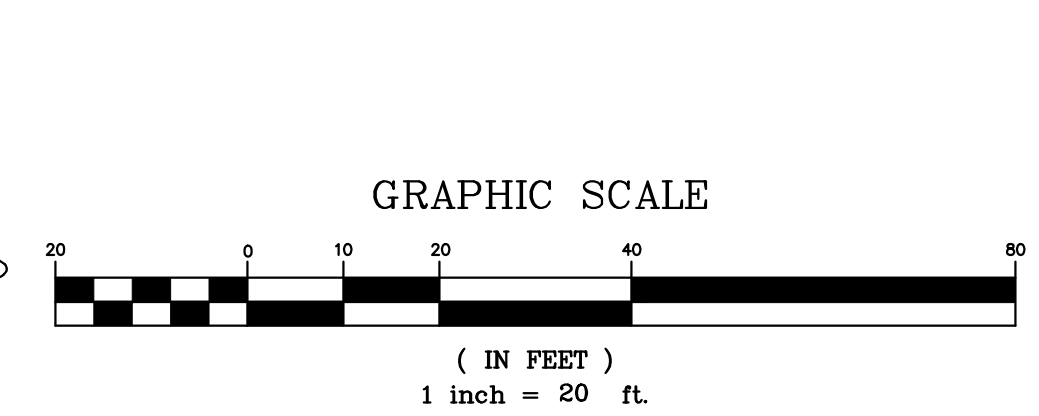
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--- SAN --- SAN	PROPOSED SANITARY SEWERLINE	1,000 GAL	UNDERGROUND PROpane TANK
--- EX DRAIN --- EX DRAIN	EXISTING DRAINAGE PIPE	24"	ADS YARD DRAIN
--- DRAIN --- DRAIN	PROPOSED DRAINAGE PIPE	STORMTECH	DRAIN
--- EX WM --- EX WM	EXISTING WATER MAIN	PROPOSED	WALL
--- WATER --- WATER	PROPOSED WATER MAIN	TRENCH	DRAIN
--- FILTER --- FILTER	FILTER FENCE/SEDIMENT BARRIER	STREET	LIGHT
--- EX WOOD --- EX WOOD	EXISTING WOOD FENCE	MODIFIED	TYPE 'C' INLET
--- FENCE --- FENCE	PROPOSED FENCE	JUNCTION	MANHOLE
24.45	PROPOSED SPOT ELEVATION AT EOP/SIDEWALK	15-1	DRAINAGE STRUCTURE LABEL
25.0	PROPOSED GRADE / CONTOUR	FIRE	HYDRANT
--- FLOW --- FLOW	PROPOSED DRAINAGE FLOW DIRECTION	PROPOSED	SIGN
		SEWER	MANHOLE

**Legend & Abbreviations: (symbols not scaleable for size)**

PLS - PROFESSIONAL LAND SURVEYOR	(P) - PLAT	NAVDO - NORTH AMERICAN VERTICAL DATUM
PSM - PROFESSIONAL SURVEYOR & MAPPER	(C) - CALCULATED	TYPICAL ELEVATION
LS - LAND SURVEYING BUSINESS	TCB - TRAFFIC CONTROL BOX	A/C - AIR CONDITIONER
C - CENTERLINE	GW - GUY WIRE	CONC. - CONCRETE
R - RADIUS	WUP - WOOD UTILITY POLE	FF - FINISH FLOOR
L - LENGTH	TS - TELEPHONE SERVICE	BSB - BUILDING SETBACK LINE
Δ - DELTA ANGLE	CB - CABLE TV BOX	EL/ELEV. - ELEVATION
EP - EDGE OF PAVEMENT	EB - ELECTRIC BOX	R/W - RIGHT OF WAY
B/C - BACK OF CURB	LP - LIGHT POST	AS-BUILT - AS-BUILT
B.M. - BENCHMARK	HYD - HYDRANT	PK - PARKER-KALON
POC - POINT OF COMMENCEMENT	GV - GATE VALVE	
POB - POINT OF BEGINNING	IRV - IRRIGATION VALVE	
PCP - PERMANENT CONTROL POINT	WM - WATER METER	
PRM - PERMANENT REFERENCE MONUMENT	SS - SANITARY MANHOLE	
PRM - PERMANENT REFERENCE MONUMENT	SS - SANITARY SERVICE	
(P) IRON PIPE	ST - SEPTIC TANK	
(R) IRON ROD & CAP	DM - DRAINAGE MANHOLE	
(C) IRON ROD & CAP	CI - CURB INLET	
(CM) CONCRETE MONUMENT	SI - SURFACE INLET	
FD - FOUND	ME - MITERED END SECTION	
(M) MEASURED	CD - CONCEPTUAL DRAINAGE	
	SS - STREET SIGN	

### NOTES

1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODED. SEED AND MULCH IS NOT ACCEPTABLE.
2. ANY DAMAGE TO THE EXISTING INFRASTRUCTURE, INCLUDING SIDEWALKS, BY THE CONTRACTOR MUST BE REPLACED PRIOR TO FINAL INSPECTION. SIDEWALK PATCHING IS NOT ACCEPTABLE.
3. CURB RAMP MUST MEET THE REQUIREMENTS OF FOOT STANDARD INDEX 304.
4. ALL STRIPING WITHIN THE RIGHT-OF-WAY SHALL BE THERMOPLASTIC.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING PUBLIC ROADWAY, CURBS, GUTTERS, SIDEWALKS, DRAINAGE SYSTEMS AND UTILITIES AS A DIRECT RESULT OF NEW CONSTRUCTION. ROAD IMPROVEMENTS SUCH AS BUT NOT LIMITED TO RESURFACING MAYBE REQUIRED.
6. THE SITE DRAINAGE AND CONSTRUCTION IMPROVEMENTS SHALL NOT ADVERSELY IMPACT ADJOINING PROPERTIES AND/OR ROADWAYS.
7. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT SUNSHINE STATE ONE CALL SYSTEM AT 1-800-432-4770 FOR LOCATIONS OF THIS EQUIPMENT AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
8. ANY CONFLICTS WITH THE PLANS AND EXISTING UTILITIES, DRAINAGE, ETC TO BE REPORTED TO ENGINEER FOR RESOLUTION OF ISSUES.
9. CONTRACTOR TO FIELD VERIFY ALL REPORTED INVERTS AND UTILITIES AND REPORT TO ENGINEER.
10. PROPANE TANKS TO BE UNDERGROUND.



### HATCH LEGEND

[Pattern]	PROPOSED BRICK PAVERS
[Pattern]	EXISTING CONCRETE TO REMAIN
[Pattern]	PROPOSED CONCRETE
[Pattern]	PROPOSED BUILDING FOOTPRINT

DATE	5/29/15
REVISION	
MARK	
DESIGNED	J.S.B.
DRAWN	J.S.B.
CHECKED	J.S.B.
SCALE	1:20
DATE	4/15/2015

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
 CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING  
 CERTIFICATION OF AUTHORIZATION NO.: 00008888  
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 TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com

SITE PLAN

INLET PALMS

ENGINEER CERTIFICATION  
 JOSEPH W. SCHULKE  
 FL REG. NO. 47048  
 JUDAH B. BITTLE  
 FL REG. NO. 57396  
 WILLIAM P. STODDARD  
 FL REG. NO. 57068

DATE: \_\_\_\_\_  
 SHEET: 6  
 PROJECT NO.: 15-053

# LEGEND

---	EX SAN	---	EX SAN	---	EXISTING SANITARY SEWERLINE	9.0'R	PROPOSED EOP RADIUS
---	SAN	---	SAN	---	PROPOSED SANITARY SEWERLINE	PROPRANE	1000 GAL UNDERGROUND PROPRANE TANK
---	---	---	---	---	EXISTING DRAINAGE PIPE	24"	24" ADS YARD DRAIN
---	---	---	---	---	PROPOSED DRAINAGE PIPE	---	STORMTECH DRAIN
---	---	---	---	---	EXISTING WATER MAIN	---	PROPOSED WALL
---	---	---	---	---	PROPOSED WATER MAIN	---	TRENCH DRAIN
---	---	---	---	---	FILTER FENCE/SEDIMENT BARRIER	---	STREET LIGHT
---	---	---	---	---	EXISTING WOOD FENCE	---	MODIFIED TYPE 'C' INLET
---	---	---	---	---	PROPOSED FENCE	---	JUNCTION MANHOLE
---	---	---	---	---	PROPOSED SPOT ELEVATION AT EOP/SIDEWALK	24.45	DRAINAGE STRUCTURE LABEL
---	---	---	---	---	PROPOSED GRADE / CONTOUR	25.0	FIRE HYDRANT
---	---	---	---	---	PROPOSED DRAINAGE FLOW DIRECTION	---	PROPOSED SIGN
---	---	---	---	---	---	---	SEWER MANHOLE

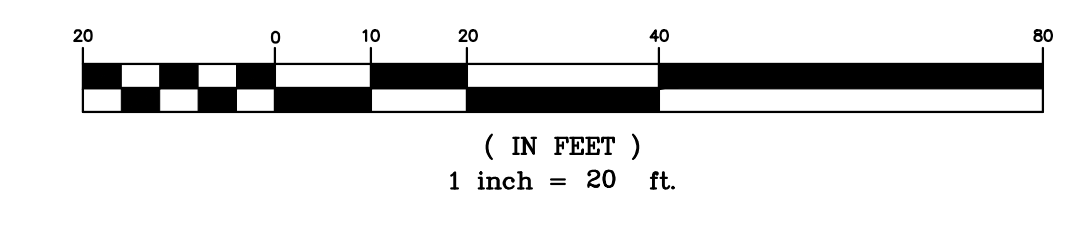
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R	RADIUS
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Δ	DELTA ANGLE
E/P	EDGE OF PAVEMENT
B/C	BACK OF CURB
B.M.	BENCHMARK
POC	POINT OF COMMENCEMENT
POB	POINT OF BEGINNING
PCP	PERMANENT CONTROL POINT
PRM	PERMANENT REFERENCE MONUMENT
IP	IRON PIPE
IR	IRON ROD & CAP
IRC	IRON ROD & CONCRETE MONUMENT
CM	CONCRETE MONUMENT
FD	FOUND
(M)	MEASURED
(P)	PLAT
(C)	CALCULATED
---	TRAFFIC CONTROL BOX
---	GLY WIRE
---	WOOD UTILITY POLE
---	TELEPHONE SERVICE
---	CABLE TV BOX
---	ELECTRIC BOX
---	LIGHT POST
---	WELL
---	HYDRANT
---	GATE VALVE
---	IRRIGATION VALVE
---	WATER METER
---	SANITARY MANHOLE
---	SEPTIC TANK
---	DRAINAGE MANHOLE
---	CURB INLET
---	MITERED END SECTION
---	CONCEPTUAL DRAINAGE
---	STREET SIGN
---	PROPOSED GRADE
---	NORTH AMERICAN VERTICAL DATUM
---	TYPICAL ELEVATION
---	A/C
---	CONC
---	FF
---	EL.ELEV
---	R/W
---	AB
---	PK

## NOTES

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- CONTRACTOR TO FIELD VERIFY ALL REPORTED INVERTS AND UTILITIES AND REPORT TO ENGINEER.
- PROPANE TANKS TO BE UNDERGROUND.

## GRAPHIC SCALE



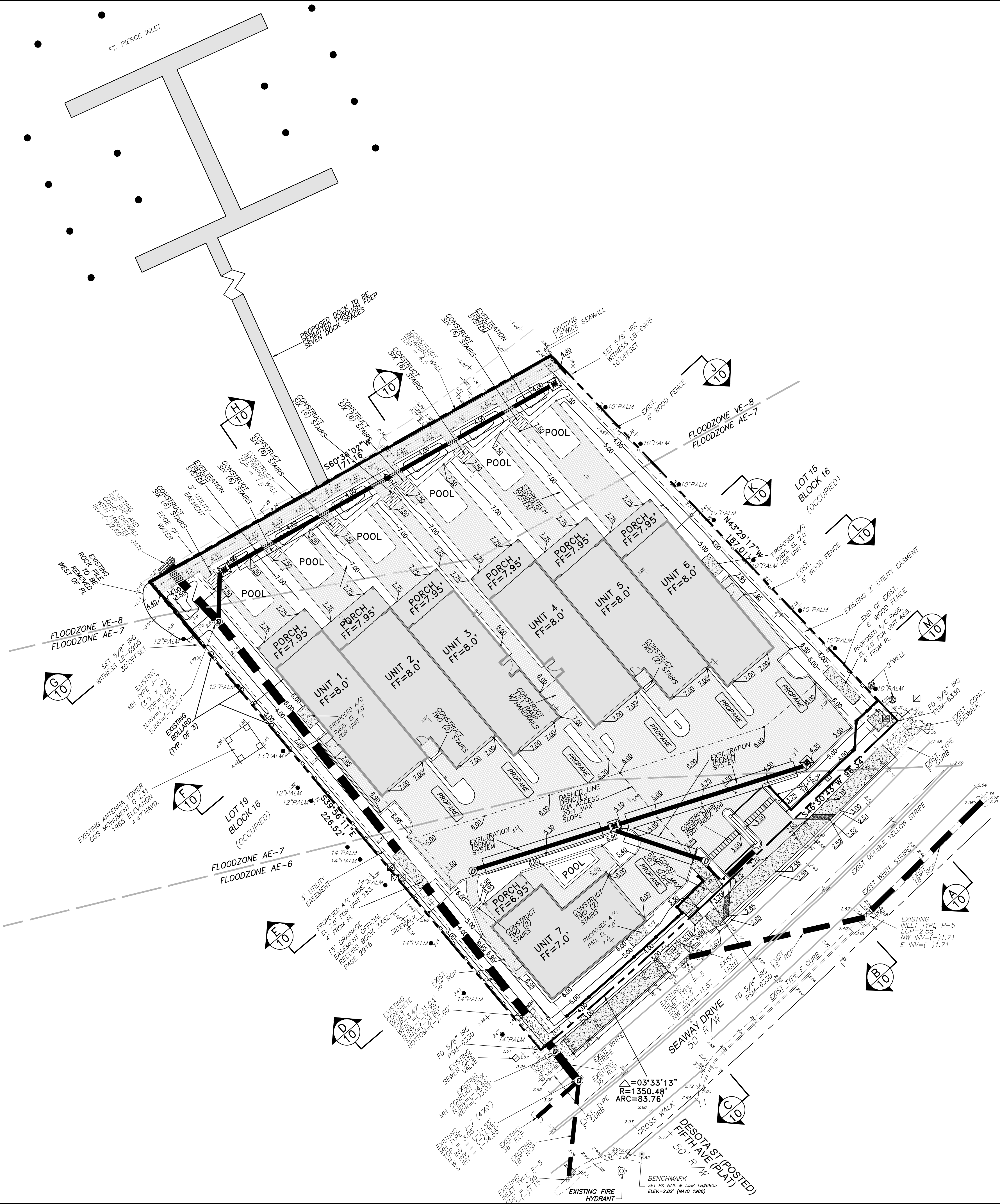
## HATCH LEGEND

[Hatch Pattern]	PROPOSED BRICK PAVERS
[Hatch Pattern]	EXISTING CONCRETE TO REMAIN
[Hatch Pattern]	PROPOSED CONCRETE
[Hatch Pattern]	PROPOSED BUILDING FOOTPRINT

## DRAINAGE OUTFALL STATEMENT

THE PROJECT WILL HAVE TWO OUTFALL POINTS, THE FIRST BASIN IS THE SOUTH PORTION OF THE SITE THAT WILL FLOW INTO THE SEAWAY DRIVE DRAINAGE SYSTEM. THE SECOND BASIN IS THE NORTH PORTION OF THE SITE THAT WILL DISCHARGE INTO THE EXISTING PIPE ALONG THE WEST PROPERTY LINE.

- 1. SUBMITTALS**
  - A. PRODUCT DATA AND SHOP DRAWINGS**
    - FOR ALL SITE WORK CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT PRODUCT DATA IN THE FORM OF MANUFACTURERS' CUT SHEETS AND CATALOG DATA FOR ALL PRODUCTS, MATERIAL AND EQUIPMENT CLEARLY INDICATING THE SPECIFIC PART OR PRODUCT CATALOG NUMBER(S) FOR APPROVAL.
    - THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRODUCTS, MATERIALS AND EQUIPMENT REQUIRED TO BE FABRICATED, OR WHEN STANDARD PUBLISHED PRODUCT DATA IS NOT SUITABLE FOR USE.
  - B. COPIES OF REQUESTED INFORMATION, NEATLY BOUND AND INDEXED PER CATEGORY FOR THE FOLLOWING:**
    - A. UTILITIES**
      - ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS.
    - B. DRAINAGE**
      - ALL PIPE, FITTINGS, AND COMPONENTS THEREOF, STRUCTURES, FRAMES, GRATES, LIDS, GASKETS, FASTENERS, COUPLINGS AND SIMILAR, AND ALL OTHER DRAINAGE SYSTEM PRODUCTS, MATERIALS, AND COMPONENTS AND SIMILAR CONTROLS.
    - C. PAVING AND GRADING**
      - FOOT CERTIFICATIONS AND LAB ANALYSIS/RESULTS FOR PAVEMENT, BASE, SUBGRADE, AND FILL MATERIALS, INCLUDING EVIDENCE (CERTIFICATIONS) THAT THE MATERIALS PROPOSED TO BE USED MEET OR EXCEED FDOT SPECIFICATIONS AND THE CONTRACT DOCUMENTS.
    - D. SIGNING AND PAVEMENT MARKING**
      - SIGN AND PAVEMENT MARKING PRODUCTS AND MATERIALS, AND EVIDENCE THAT THE PRODUCTS MATERIALS PROPOSED TO BE USED MEET OR EXCEED REQUIREMENTS SPECIFIED IN THE CONTRACT DOCUMENTS, LOCAL ENGINEERING DEPARTMENT, MUTCO AND FDOT SPECIFICATIONS.
    - E. IRRIGATION**
      - ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS, WELLS, AND/OR OTHER IRRIGATION SOURCES. THE CONTRACTOR SHALL SUBMIT AN IRRIGATION COORDINATION DRAWING, INDICATING CONTRACTOR'S PROPOSED LOCATION OF MAIN LINES, SECONDARY LINES, HEAD LOCATIONS, WELLS, CONTROL PANEL, SENSORS, CONTROL VALVE AND VALVE LOCATIONS. THIS DRAWING SHOULD CLEARLY DEPICT ADJUSTMENTS OR CHANGES THE CONTRACTOR PROPOSES. THE DRAWINGS SHALL INDICATE ALL PROPOSED SUBSTITUTIONS OF MATERIAL AND/OR MANUFACTURER.
  - 2. ALLOW TWO WEEKS FOR THE ENGINEER TO COMPLETE REVIEW OF PRODUCT DATA AND SHOP DRAWINGS. ENGINEER WILL NOT BE RESPONSIBLE FOR PROJECT DELAYS RELATED TO DELIVERY AND TRANSMISSION OF THE DOCUMENTS ONCE INFORMATION HAS LEFT ENGINEER'S OFFICE. ITEMS REQUIRING A LONG LEAD TIME SHOULD BE SUBMITTED AS SOON AS POSSIBLE.**
  - 3. THE CONTRACTOR SHALL PROVIDE A STAMP INDICATING ITS REVIEW AND APPROVAL, INITIALED OR SIGNED, CERTIFYING TO REVIEW OF SUBMITTAL, VERIFICATION OF PRODUCTS, FIELD MEASUREMENTS AND FIELD CONSTRUCTION CRITERIA, AND COORDINATION OF THE INFORMATION WITHIN THE SUBMITTAL WITH REQUIREMENTS OF THE WORK AND OF CONTRACT DOCUMENTS, INCLUDING STANDARDS AND SPECIFICATIONS OF OTHER DESIGN PROFESSIONALS (I.E. ARCHITECT, MECHANICAL, ELECTRICAL, AND STRUCTURAL ENGINEERS).**
- B. TESTING**
  - 1. WATER, PRESSURE (MAIN AND TAPS), BACTERIOLOGICAL, BACKFILL DENSITIES, BACKFLOW PREVENTOR TESTS AND CERTIFICATION, AND AS PER PROJECT SPECIFICATIONS, LOCAL UTILITIES DEPARTMENT, AND FDOT REQUIREMENTS.**
  - 2. SEWER, EXFL, TV, AND PRESSURE (MANS AND TAPS) LIFT STATION START-UP, ALL PER PROJECT SPECIFICATIONS, COVB AND FDP REQUIREMENTS.**
  - 3. DRAINAGE, EXFL, LAMPING (FIELD), AND BACKFILL DENSITIES PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.**
  - 4. EARTHWORK & PAVING, DENSITIES, LBR'S AND FBV'S AS PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.**
  - 5. SUBMIT ALL TEST RESULTS FOR ENGINEERING REVIEW WITHIN 3 DAYS OF TESTING. FAILURE TO PROVIDE TEST RESULTS, OR PROVIDING FAILING TEST RESULTS WILL BE GROUNDS FOR DELAY AND/OR REJECTION OF PAY REQUEST APPLICATIONS.**
- C. AS-BUILTS**
  - 1. GRADING, LOCATION AND ELEVATION OF ALL CONCRETE AND PAVEMENT (VEHICLE USE AND PEDESTRIAN USE IMPROVEMENTS) AT HILOW POINTS, EDGE OF PAVEMENT, AND CENTERLINE AT 50' ON CENTER AND AT CHANGE OF DIRECTION, GRADE BREAKS (CROSS SECTIONS 50' ON CENTER), TOP OF BANK AND T.O.E. OF SLOPE AND/OR CENTERLINE OF SWALES AND RETENTION AREAS; CROSS SECTIONS 50' ON CENTER ON STORMWATER LAKES FROM TOP TO BOTTOM; MECHANICAL PADS AND FINISHED FLOOR ELEVATIONS; DETAILED LOCATION AND TOPOGRAPHY OF DRIVEWAY TURNOUTS.**
  - 2. WATER AND SEWER FORCE MAINS, LOCATION, TOP ELEVATION AND STATE PLATE COORDINATES AT ALL FITTINGS, VALVES, CHANGES OF DIRECTION AND AT 100' ON CENTER.**
  - 3. GRAVITY SEWERS**
    - SEWER STRUCTURES: DIAMETER OR SIZE, AND LOCATION AND ELEVATION OF STRUCTURES, TOP, BOTTOMS, AND SEWER INVERTS.
    - MANNS AND LATERALS: LOCATION AND INVERT ELEVATIONS AT CONNECTIONS, FITTINGS, AND TERMINATION.
    - LIFT STATIONS: HORIZONTAL LAYOUT AND LOCATION OF ALL EQUIPMENT, PANELS, VAULTS, WET WELL, VALVES, LOCATION OF CONDUIT RUNS AND WATER SERVICE/ HOSE BIBB; LOCATION AND INVERT ELEVATIONS OF GRATE/ AND FORCE MAINS TO AND FROM LIFT STATION; WET WELL DIAMETER, TOP AND BOTTOM ELEVATIONS; PUMP SIZE, TYPE, DISCHARGE DIAMETER, MANUFACTURER AND MODEL #.
    - DRAINAGE: ALL STRUCTURES DIAMETER OR SIZE, LOCATION, AND ELEVATION OF TOP, BOTTOM, AND INVERT ELEVATIONS; ALL PIPES, DIAMETER, TYPE/MATERIAL, LOCATION AND INVERT ELEVATION AT CONNECTIONS, FITTINGS, AND TERMINATION POINTS.
    - IRRIGATION: ALL LINES, SYSTEM EQUIPMENT COMPONENTS, MATERIALS INCLUDING PIPES, VALVES, FITTINGS, SPRINKLER HEADS, AND MISCELLANEOUS APPURTENANCES.
- D. OPERATION AND MAINTENANCE MANUALS**
  - CONTRACTOR SHALL PROVIDE THE OWNER WITH OPERATION AND MAINTENANCE MANUALS FOR ALL OPERABLE EQUIPMENT (PUMP STATIONS AND CONTROLS, AUTOMATIC CONTROL VALVES, AND OTHER AUTOMATED EQUIPMENT; CONTROL PANELS, ETC).
  - OPERATION AND MAINTENANCE MANUALS SHALL BE SUBMITTED AS A PRE-REQUISITE TO THE PROJECT BEING DEEMED SUBSTANTIALLY COMPLETE.
- E. WARRANTY**
  - THE CONTRACTOR SHALL PROVIDE ALL WARRANTIES, CERTIFICATIONS, GUARANTEES, AND WARRANTY BONDS AS SPECIFIED IN THE CONTRACT DOCUMENTS AND PERMIT CONDITIONS INCLUDING:
    - UTILITY MAINTENANCE BOND - FOR ALL PUBLIC WATER AND SEWER UTILITIES INFRASTRUCTURE - (25% OF CONTRACT VALUE)
    - ENGINEERING MAINTENANCE BOND - FOR ALL PAVING, GRADING, AND DRAINAGE IMPROVEMENTS AND INFRASTRUCTURE (25% OF CONTRACT VALUE)
  - OWNER TRAINING
    - THE CONTRACTOR SHALL INCLUDE 2 HOURS OF OWNER TRAINING (FOR EACH WATER, SEWER, DRAINAGE, AND IRRIGATION SYSTEM) FOR ALL OPERABLE EQUIPMENT AND SHALL INCLUDE THE TIME FOR INITIAL ADJUSTMENTS OF EQUIPMENT AND TIME FOR ONE FOLLOW-UP VISIT AND ADJUSTMENTS OF EQUIPMENT 60 DAYS AFTER END USER HAD OPERATIONAL TIME WITH THE EQUIPMENT.



DATE	5/23/15
REASON	REVISED PER COFP
MARK	1
DRAWING J.B.B.	DRAWN
JOB B.	CHECKED
SCALE	1:20
DATE	4/15/2015

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
 CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING  
 AUTHORIZATION NO.: 00008688  
 1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960  
 TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com

**PAVING, GRADING & DRAINAGE PLAN**

**INLET PALMS**

DATE	
SHEET	7
PROJECT NO.	15-053

ENGINEER CERTIFICATION  
 JOSEPH W. SCHULKE  
 FL. REG. NO. 47048  
 KIM B. BITTLE  
 FL. REG. NO. 57396  
 WILLIAM P. STODDARD  
 FL. REG. NO. 57665

# LEGEND

--- EX SAN ---	EXISTING SANITARY SEWERLINE	9.0' R	PROPOSED EOP RADIUS
--- SAN ---	PROPOSED SANITARY SEWERLINE	PROPRANE	1,000 GAL UNDERGROUND PROPRANE TANK
--- EX WM ---	EXISTING WATER MAIN	24"	24" ADS YARD DRAIN
--- WAT ---	PROPOSED WATER MAIN	STORMTECH	STORMTECH DRAIN
--- EX WM ---	EXISTING WOOD FENCE	TRENCH	TRENCH DRAIN
--- WAT ---	PROPOSED WATER MAIN	☆	STREET LIGHT
---	FILTER FENCE/SEDIMENT BARRIER	⊞	MODIFIED TYPE 'C' INLET
---	EXISTING WOOD FENCE	⊞	JUNCTION MANHOLE
---	PROPOSED FENCE	⊞	DRAINAGE STRUCTURE LABEL
---	PROPOSED SPOT ELEVATION AT EOP/SIDEWALK	⊞	FIRE HYDRANT
---	PROPOSED GRADE / CONTOUR	⊞	PROPOSED SIGN
---	PROPOSED DRAINAGE FLOW DIRECTION	⊞	SEWER MANHOLE

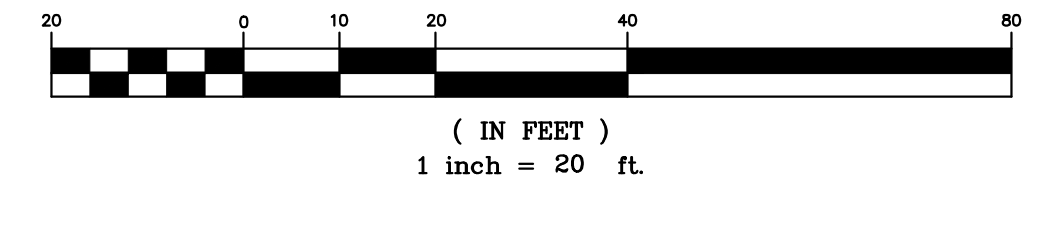
Legend & Abbreviations: (symbols not scaleable for size)

PLS	PROFESSIONAL LAND SURVEYOR
PSM	PROFESSIONAL SURVEYOR & MAPPER
LB	LAND SURVEYING BUSINESS
CL	CENTERLINE
R	RADIUS
L	LENGTH
Δ	DELTA ANGLE
EP	EDGE OF PAVEMENT
B/C	BACK OF CURB
B.M.	BENCHMARK
POB	POINT OF COMMENCEMENT
POB	POINT OF BEGINNING
PCP	PERMANENT CONTROL POINT
PCP	PERMANENT CONTROL POINT
PRM	PERMANENT REFERENCE MONUMENT
IRM	IRON ROD & CAP
IP	IRON PIPE
IRC	IRON ROD & CAP
CM	CONCRETE MONUMENT
FD	FOUND
(M)	MEASURED
(P)	PLAT
(C)	CALCULATED
TCB	TRAFFIC CONTROL BOX
GU	GLY WIRE
WUP	WOOD UTILITY POLE
TE	TELEPHONE SERVICE
CB	CABLE T.V. BOX
EB	ELECTRIC BOX
LP	LIGHT POST
W	WELL
HYD	HYDRANT
GV	GATE VALVE
IRV	IRRIGATION VALVE
WM	WATER METER
SM	SANITARY MANHOLE
SS	SEPTIC TANK
SM	SANITARY SERVICE
DM	DRAINAGE MANHOLE
CI	CURB INLET
SI	SURFACE INLET
MS	MITERED END SECTION
CS	CONCEPTUAL DRAINAGE
ST	STREET SIGN
PG	PROPOSED GRADE
NAV D	NORTH AMERICAN VERTICAL DATUM
±25.5	TYPICAL ELEVATION
AC	AIR CONDITIONER
CONC	CONCRETE
F.F.	FINISH FLOOR
BSB	BUILDING SETBACK LINE
EL.ELEV.	ELEVATION
R/W	RIGHT OF WAY
AB	AS-BUILT
PK	PARKER-KALON

## NOTES

- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SOODED. SEED AND MULCH IS NOT ACCEPTABLE.
- ANY DAMAGE TO THE EXISTING INFRASTRUCTURE, INCLUDING SIDEWALKS, BY THE CONTRACTOR MUST BE REPLACED PRIOR TO FINAL INSPECTION. SIDEWALK PATCHING IS NOT ACCEPTABLE.
- CURB RAMPS MUST MEET THE REQUIREMENTS OF FDOT STANDARD INDEX 304.
- ALL STRIPING WITHIN THE RIGHT-OF-WAY SHALL BE THERMOPLASTIC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING PUBLIC ROADWAY, CURBS, GUTTERS, SIDEWALKS, DRAINAGE SYSTEMS AND UTILITIES AS A DIRECT RESULT OF NEW CONSTRUCTION. ROAD IMPROVEMENTS SUCH AS BUT NOT LIMITED TO RESURFACING MAYBE REQUIRED.
- THE SITE DRAINAGE AND CONSTRUCTION IMPROVEMENTS SHALL NOT ADVERSELY IMPACT ADJOINING PROPERTIES AND/OR ROADWAYS.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT SUNGRIE STATE CALL SYSTEM AT 1-800-332-4770 FOR LOCATIONS OF THIS EQUIPMENT AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
- ANY CONFLICTS WITH THE PLANS AND EXISTING UTILITIES, DRAINAGE, ETC TO BE REPORTED TO ENGINEER FOR RESOLUTION OF ISSUES.
- CONTRACTOR TO FIELD VERIFY ALL REPORTED INVERTS AND UTILITIES AND REPORT TO ENGINEER.
- PROPRANE TANKS TO BE UNDERGROUND.

## GRAPHIC SCALE



## HATCH LEGEND

[Hatch Pattern]	PROPOSED BRICK PAVERS
[Hatch Pattern]	EXISTING CONCRETE TO REMAIN
[Hatch Pattern]	PROPOSED CONCRETE
[Hatch Pattern]	PROPOSED BUILDING FOOTPRINT

1. SUBMITTALS
  - A. PRODUCT DATA AND SHOP DRAWINGS
    - FOR ALL SITE WORK CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT PRODUCT DATA IN THE FORM OF MANUFACTURERS CUT SHEETS AND CATALOG DATA FOR ALL PRODUCTS, MATERIAL AND EQUIPMENT CLEARLY INDICATING THE SPECIFIC PART OR PRODUCT CATALOG NUMBER(S) FOR APPROVAL.
    - THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRODUCTS, MATERIALS AND EQUIPMENT REQUIRED TO BE FABRICATED, OR WHEN STANDARD PUBLISHED PRODUCT DATA IS NOT SUITABLE FOR USE.
    - SUBMIT 6 COPIES OF REQUESTED INFORMATION, NEATLY BOUND AND INDEXED PER CATEGORY FOR THE FOLLOWING:
      - UTILITIES: ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS.
      - DRAINAGE: ALL PIPE, FITTINGS, AND COMPONENTS THEREOF, STRUCTURES, FRAMES, GRATES, LIDS, GASKETS FASTENERS, COUPLINGS AND SIMILAR, AND ALL OTHER DRAINAGE SYSTEM PRODUCTS, MATERIALS, AND COMPONENTS AND SIMILAR CONTROLS.
      - PAVING AND GRADING: FOOT CERTIFICATIONS AND LAB ANALYSIS/RESULTS FOR PAVEMENT, BASE, SUBGRADE, AND FILL MATERIALS, INCLUDING EVIDENCE (CERTIFICATIONS) THAT THE MATERIALS PROPOSED TO BE USED MEET OR EXCEED FDOT SPECIFICATIONS AND THE CONTRACT DOCUMENTS.
      - SIGNING AND PAVEMENT MARKING: SIGN AND PAVEMENT MARKING PRODUCTS AND MATERIALS, AND EVIDENCE THAT THE PRODUCTS AND MATERIALS PROPOSED TO BE USED MEET OR EXCEED REQUIREMENTS SPECIFIED IN THE CONTRACT DOCUMENTS, LOCAL ENGINEERING DEPARTMENT, MATCO AND FDOT SPECIFICATIONS.
      - IRRIGATION: ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS, WELLS, AND/OR OTHER IRRIGATION SOURCES. THE CONTRACTOR SHALL SUBMIT AN IRRIGATION COORDINATION DRAWING, INDICATING CONTRACTOR'S PROPOSED LOCATION OF MAIN LINES, SECONDARY LINES, HEAD LOCATIONS, WELL, PUMP, CONTROL PANEL, SENSORS, CONTROL VALVE AND VALVE LOCATIONS. THIS DRAWING SHALL SHOW ANY ADJUSTMENTS OR CHANGES THE CONTRACTOR PROPOSES. THE DRAWINGS SHALL INDICATE ALL PROPOSED SUBSTITUTIONS OF SIZE, MATERIAL, AND/OR MANUFACTURER.
      - ALLOW TWO WEEKS FOR THE ENGINEER TO COMPLETE REVIEW OF PRODUCT DATA AND SHOP DRAWINGS. ENGINEER WILL NOT BE RESPONSIBLE FOR PROJECT DELAYS RELATED TO DELIVERY AND TRANSMISSION OF THE DOCUMENTS ONCE INFORMATION HAS LEFT ENGINEER'S OFFICE. ITEMS REQUIRING A LONG LEAD TIME SHOULD BE SUBMITTED AS SOON AS POSSIBLE.
      - THE CONTRACTOR SHALL PROVIDE A STAMP INDICATING ITS REVIEW AND APPROVAL, INITIALED OR SIGNED, CERTIFYING TO REVIEW OF SUBMITTALS, FIELD MEASUREMENTS AND FIELD CONSTRUCTION CRITERIA, AND COORDINATION OF THE INFORMATION WITH THE SUBMITTAL, WITH REQUIREMENTS OF THE WORK AND OF CONTRACT DOCUMENTS, INCLUDING PLANS AND SPECIFICATIONS OF OTHER DESIGN PROFESSIONALS (I.E., ARCHITECT, MECHANICAL, ELECTRICAL, AND STRUCTURAL ENGINEERS).
  - B. TESTING
    - WATER, PRESSURE (MAIN AND TAPS), BACTERIOLOGICAL, BACKFLOW DENSITIES, BACKFLOW PREVENTOR TESTS AND CERTIFICATION, AND AS PER PROJECT SPECIFICATIONS, LOCAL UTILITIES DEPARTMENT, AND FDEP REQUIREMENTS.
    - SEWER, EXFIL, TV, AND BACKFLOW TESTS, PRESSURE TEST (MANS AND TAPS) LIFT STATION START-UP, ALL PER PROJECT SPECIFICATIONS, COVB AND FDEP REQUIREMENTS.
    - DRAINAGE, EXFIL, LAMPING (FIELD), AND BACKFILL DENSITIES PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.
    - EARTHWORK & PAVING, DENSITIES, LBR'S AND FBV'S AS PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.
    - SUBMIT ALL TEST RESULTS FOR ENGINEERING REVIEW WITHIN 3 DAYS OF TESTING. FAILURE TO PROVIDE TEST RESULTS, OR PROVIDING FAILING TEST RESULTS WILL BE GROUNDS FOR DELAY AND/OR REJECTION OF PAY REQUEST APPLICATIONS.
  - C. AS-BUILTS
    - GRADING: LOCATION AND ELEVATION OF ALL: CONCRETE AND PAVEMENT (VEHICLE USE AND PEDESTRIAN USE IMPROVEMENTS) AT HILLO POINTS, EDGE OF PAVEMENT, AND CENTERLINE AT 50' ON CENTER AND AT CHANGE OF DIRECTION, GRADE BREAKS, PROPERTY LINES (CROSS SECTIONS 50' ON CENTER), TOP OF BANK AND T.O.E. OF SLOPE AND/OR CENTERLINE OF SWALES AND RETENTION AREAS; CROSS SECTIONS 50' ON CENTER ON STORMWATER LAKES FROM TOP TO BOTTOM, MECHANICAL PADS AND FINISHED FLOOR ELEVATIONS; DETAILED LOCATION AND TOPOGRAPHY OF DRIVEWAY TURNOUTS.
    - WATER AND SEWER FORCE MAINS: LOCATION, TOP ELEVATION AND STATE PLANE COORDINATES AT ALL FITTINGS, VALVES, CHANGES OF DIRECTION AND AT 100' ON CENTER.
    - GRAVITY SEWER:
      - SEWER STRUCTURES: DIAMETER OR SIZE, AND LOCATION AND ELEVATION OF STRUCTURES, TOP, BOTTOMS, AND SEWER INVERTS.
      - MANS AND LATERALS: LOCATION AND INVERT ELEVATIONS AT CONNECTIONS, FITTINGS, AND TERMINATION.
      - LIFT STATIONS: HORIZONTAL LAYOUT AND LOCATION OF ALL EQUIPMENT, PANELS, VALVES, WET WELL, VALVES, LOCATION OF CONDUIT RUNS AND WATER SERVICE/HOSE BIBB, LOCATION AND INVERT ELEVATIONS OF GRAVITY AND FORCE MAINS TO AND FROM LIFT STATION; WET WELL DIAMETER, TOP AND BOTTOM ELEVATION; TYPE, DISCHARGE DIAMETER, MANUFACTURER AND MODEL #.
      - DRAINAGE: ALL STRUCTURES DIAMETER OR SIZE, LOCATION, AND ELEVATION OF TOP, BOTTOM, AND INVERT ELEVATIONS, ALL PIPES, DIAMETER, TYPE/MATERIAL, LOCATION AND INVERT ELEVATION AT CONNECTIONS, FITTINGS, AND TERMINATION POINTS.
      - IRRIGATION: ALL LINES, SYSTEM EQUIPMENT COMPONENTS, MATERIALS INCLUDING PIPES, VALVES, FITTINGS, SPRINKLER HEADS, AND MISCELLANEOUS APPURTENANCES.
  - D. OPERATION AND MAINTENANCE MANUALS
    - CONTRACTOR SHALL PROVIDE THE OWNER WITH OPERATION AND MAINTENANCE MANUALS FOR ALL OPERABLE EQUIPMENT (PUMP STATIONS AND CONTROLS, AUTOMATIC CONTROL VALVES, AND OTHER AUTOMATED EQUIPMENT; CONTROL PANELS, ETC).
    - OPERATION AND MAINTENANCE MANUALS SHALL BE SUBMITTED AS A PRE-REQUISITE TO THE PROJECT BEING DEEMED SUBSTANTIALLY COMPLETE.
  - E. WARRANTY
    - THE CONTRACTOR SHALL PROVIDE ALL WARRANTIES, CERTIFICATIONS, GUARANTIES, AND WARRANTY BONDS AS SPECIFIED IN THE CONTRACT DOCUMENTS AND PERMIT CONDITIONS INCLUDING:
      - UTILITY MAINTENANCE BOND - FOR ALL PUBLIC WATER AND SEWER UTILITIES INFRASTRUCTURE - (25% OF CONTRACT VALUE)
      - ENGINEERING MAINTENANCE BOND - FOR ALL PAVING, GRADING, AND DRAINAGE IMPROVEMENTS AND INFRASTRUCTURE (25% OF CONTRACT VALUE)
    - OWNER TRAINING
      - THE CONTRACTOR SHALL INCLUDE 2 HOURS OF OWNER TRAINING (FOR EACH WATER, SEWER, DRAINAGE, AND IRRIGATION SYSTEMS) OF EQUIPMENT AND TIME FOR ONE FOLLOW-UP VISIT AND ADJUSTMENTS OF EQUIPMENT 60 DAYS AFTER END USER HAD OPERATIONAL TIME WITH THE EQUIPMENT.

DATE	5/29/15
REVISION	
MARK	
DRAWING	15-053
DESIGNED	J.B.B.
DRAWN	J.B.B.
CHECKED	J.B.B.
SCALE	1:20
DATE	4/15/15

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
 CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING  
 CERTIFICATION OF AUTHORIZATION NO.: 00088668  
 1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA, 32960  
 TEL 772 770-9622 FAX 772 770-9496 EMAIL info@sbsengineers.com

UTILITIES PLAN

INLET PALMS

ENGINEER CERTIFICATION  
 JOSEPH M. SCHULKE  
 FL. REG. NO. 47048  
 ADAM B. BITTLE  
 FL. REG. NO. 57396  
 WILLIAM P. STODDARD  
 FL. REG. NO. 57605

DATE: SHEET 8 PROJECT NO. 15-053



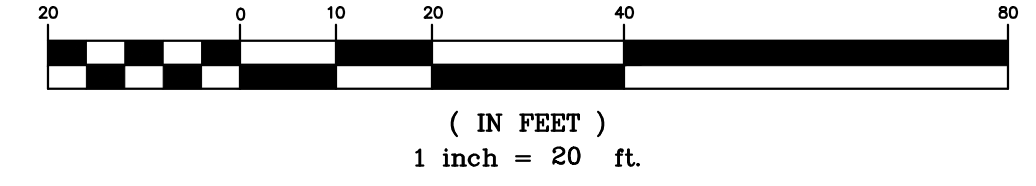
### HATCH LEGEND

[Pattern]	PROPOSED BRICK PAVERS
[Pattern]	EXISTING CONCRETE TO REMAIN
[Pattern]	PROPOSED CONCRETE
[Pattern]	PROPOSED BUILDING FOOTPRINT

## LEGEND

[Symbol]	EXISTING SANITARY SEWERLINE	9.0'R	PROPOSED EOP RADIUS
[Symbol]	PROPOSED SANITARY SEWERLINE	[Symbol]	1,000 GAL UNDERGROUND PROpane TANK
[Symbol]	EXISTING DRAINAGE PIPE	[Symbol]	24" ADS YARD DRAIN
[Symbol]	PROPOSED DRAINAGE PIPE	[Symbol]	STORMTECH DRAIN
[Symbol]	EXISTING WATER MAIN	[Symbol]	PROPOSED WALL
[Symbol]	PROPOSED WATER MAIN	[Symbol]	TRENCH DRAIN
[Symbol]	FILTER FENCE/SEDIMENT BARRIER	[Symbol]	STREET LIGHT
[Symbol]	EXISTING WOOD FENCE	[Symbol]	MODIFIED TYPE 'C' INLET
[Symbol]	PROPOSED FENCE	[Symbol]	JUNCTION MANHOLE
[Symbol]	PROPOSED SPOT ELEVATION AT EOP/SIDEWALK	[Symbol]	DRAINAGE STRUCTURE LABEL
[Symbol]	PROPOSED GRADE / CONTOUR	[Symbol]	FIRE HYDRANT
[Symbol]	PROPOSED DRAINAGE FLOW DIRECTION	[Symbol]	PROPOSED SIGN
[Symbol]		[Symbol]	SEWER MANHOLE

### GRAPHIC SCALE



### LANDSCAPE MATERIAL SCHEDULE

SYMBOL	AMOUNT	BOTANICAL NAME	COMMON NAME	SIZE	HGT	OTHER	NATIVE
[Symbol]	4	Clusia rosea	PITCH APPLE	2.5" DIA	12'	5' SPREAD	YES
[Symbol]	7	Veitchia merrii	CHRISTMAS TREE PALM	10" CLEAR TRUNK	12'	5' SPREAD	YES
[Symbol]	4	Wodyetia bifurcata	FOX TAIL PALM	10" CLEAR TRUNK	12'	5' SPREAD	YES
[Symbol]	23	Coccus nucifera	MAYPAN COCONUT	10" CLEAR TRUNK	12'	5' SPREAD	YES
[Symbol]	9	Veitchia arecina	MONTGOMERY PALM	10" CLEAR TRUNK	12'	5' SPREAD	YES
[Symbol]	278	Podocarpus macrophyllus	PODOCARPUS	-	24"	24" O.C.	NO
[Symbol]	431	Ficus microcarpa	GREEN ISLAND FIGUS	-	12"	24" O.C.	YES

### LANDSCAPE NOTES

SECTION 22-187. - GENERAL LANDSCAPING REQUIREMENTS. ALL LANDSCAPE PLANS SHALL MEET OR EXCEED THE FOLLOWING GENERAL LANDSCAPING REQUIREMENTS WHICH SHALL BE CONSIDERED COMPLEMENTARY TO THE LANDSCAPING PROVISIONS OF ANY OTHER CITY ORDINANCE. THIS SECTION SHALL NOT APPLY TO LOTS SUBJECT TO SECTION 22-186 ABOVE. A CERTIFICATE OF OCCUPANCY SHALL NOT BE ISSUED ON ANY PERMIT FOR THE USE, CONSTRUCTION, REPAIR OR RENOVATION OF ANY STRUCTURE WITHIN THE CITY, WHETHER RESIDENTIAL, COMMERCIAL, INDUSTRIAL OR ACCESSORY, UNLESS APPLICATION FOR ANY SUCH PERMIT IS ACCOMPANIED BY A DETAILED LANDSCAPE PLAN MEETING ALL REQUIREMENTS OF THIS ARTICLE. THE DEPARTMENT IS NOT AUTHORIZED TO EXEMPT THE PERMIT APPLICATION FROM ANY REQUIREMENT EXCEPT AS EXPRESSLY PROVIDED FOR IN THIS ARTICLE.

(1) REQUIREMENTS FOR PLANT MATERIALS. PLANT MATERIALS USED FOR CONFORMANCE WITH THIS ARTICLE SHALL MEET OR EXCEED THE STANDARDS FOR FLORIDA NO. 1 AS SET OUT IN THE MOST CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS PART 1 AND PART 2," STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE. THE CLERK'S OFFICE SHALL MAINTAIN A STOCK OF THESE MANUALS TO BE GIVEN TO PERMIT APPLICANTS, PARTICULARLY THOUGH NOT EXCLUSIVELY TO HOMEOWNERS, FOR THE APPLICANT'S USE IN SUBMITTING THE PERCENT OF THE REQUIRED PLANT MATERIALS REQUIRED BY THIS ARTICLE (EXCLUDING PALMS THAT ARE EXEMPT FROM THE GRADES AND STANDARDS) SHALL HAVE A FLORIDA NO. 1 OR BETTER "GRADES AND STANDARDS" CERTIFICATION TAG ATTACHED AT TIME OF DELIVERY THROUGH FINAL INSPECTION. GRASS SOD SHALL BE CLEAN AND FREE OF WEEDS, PESTS AND DISEASES.

TREES:

A. TREES USED TO MEET THE REQUIREMENTS OF THIS SECTION SHALL BE SPECIES WHICH WHEN PLANTED HAVE A HEIGHT OF AT LEAST TWELVE (12) FEET AND HAVE TRUNKS WHICH CAN BE MAINTAINED IN A CLEAN CONDITION FOR OVER FIVE (5) FEET OF CLEAR WOOD. AT PLANTING, THE TREES SHALL HAVE A DIAMETER OF AT LEAST TWO AND ONE-HALF (2 1/2) INCHES AT A POINT FOUR AND ONE-HALF (4 1/2) FEET ABOVE GROUND LEVEL AND A SPREAD OF AT LEAST FIVE (5) FEET (EXCEPT FOR PALMS WHICH SHALL HAVE A MINIMUM CLEAR TRUNK OF TEN (10) FEET).

B. TREES USED TO MEET THE REQUIREMENTS OF THIS SECTION SHALL ALSO BE SPECIES WHICH IN THE COUNTY NORMALLY GROW IN A MANNER SUCH THAT AT MATURITY THEY WILL HAVE A MINIMUM CROWN SPREAD OF FIFTEEN (15) FEET AND A MINIMUM HEIGHT OF FIFTEEN (15) FEET. TREES WHICH CAN MEET THE HEIGHT REQUIREMENT AT PLANTING BUT NOT THE CROWN REQUIREMENT MAY BE GROUPED TO FORM A WIDER CROWN, BUT WILL BE COUNTED AS ONE TREE. THREE PALMS MAY BE SUBSTITUTED FOR ONE TREE PROVIDED THAT FIFTY (50) PER CENT OF THE REQUIRED TREES SHALL BE SPECIES OTHER THAN PALM TREES (PALMACEAE FAMILY) EXCEPT WHEN PLANTED IN ACCORDANCE WITH AN APPROVED PLAN PREPARED BY A FLORIDA REGISTERED LANDSCAPE ARCHITECT.

C. TREES (50) PER CENT OF THE REQUIRED TREES SHALL BE SPECIES OTHER THAN PALM TREES (PALMACEAE FAMILY) EXCEPT WHEN PLANTED IN ACCORDANCE WITH AN APPROVED PLAN PREPARED BY A FLORIDA REGISTERED LANDSCAPE ARCHITECT.

D. TREES OF SPECIES WHOSE ROOTS ARE KNOWN TO CAUSE DAMAGE TO PUBLIC ROADWAYS OR OTHER PUBLIC WORKS SHALL NOT BE PLANTED CLOSER THAN TWELVE (12) FEET TO SUCH PUBLIC WORKS, UNLESS THE TREE ROOT SYSTEM IS COMPLETELY CONTAINED WITHIN A BARRIER WHICH THE MINIMUM INTERIOR CONTAINING DIMENSIONS SHALL BE THREE (3) FEET TIMES FIVE (5) FEET AND FIVE (5) FEET DEEP, AND FOR WHICH THE CONSTRUCTION REQUIREMENTS SHALL BE SIX-INCH THICK CONCRETE WITH FIBER MESH AND NO WIRE MESH OR BY A ROOT BARRIER PRODUCT APPROVED BY THE CITY ENGINEER.

E. NONE OF THE FOLLOWING TREES SHALL BE PLANTED IN THE CITY AND WHERE THEY PRESENTLY EXIST WHEN PERMIT APPLICATION IS MADE, THEIR REMOVAL SHALL BE A CONDITION OF ANY LANDSCAPE ORDER: MELALEUCA, LEUCADENDRON (PUNK TREE), SCHINUS TEREBINTHIFOLIUS (BRAZILIAN PEPPER) AND CASUARINA SPP. (AUSTRALIAN PINE). NOR MAY ANY OF THE FOLLOWING TREES BE PLANTED FOR PURPOSES OF COMPLYING WITH REQUIREMENTS OF THIS ARTICLE: SPECIES DESIGNATED AS CATEGORY 1 ON THE EXOTIC PLANT LIST, COUNCIL'S CURRENT LIST OF "FLORIDA'S MOST INVASIVE SPECIES", CUPANOPSIS ANACARDIODES (CARROTWOOD), DALBERGIA SISSOO (ROSEWOOD), ALBIZIA LEBECK (WOMAN'S TONGUE), ARAUCARIA HETEROPHYLLA (NORFOLK ISLAND PINE), GREVILLEA ROBUSTA (SILK OAK), MELIA AZADIRACHA (CHINABERRY), FIGUS SPP. (NON-NATIVE FIGUS), EUCALYPTUS SPP. (EUCALYPTUS).

F. SHRUBS AND HEDGES. SHRUBS USED TO MEET THE REQUIREMENTS OF THIS SECTION SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES IN HEIGHT WHEN PLANTED. HEDGES, WHERE REQUIRED, SHALL BE PLANTED AND MAINTAINED 50 AS TO FORM A THIRTY-SIX (36) INCH OR HIGHER CONTINUOUS, UNBROKEN, SOLID, VISUAL SCREEN.

G. GROUND COVERS. GROUND COVERS USED IN LIEU OF GRASS, OR IN PART, TO MEET THE REQUIREMENTS OF THIS SECTION, SHALL BE PLANTED IN SUCH A MANNER AS TO PRESENT A FINISHED APPEARANCE AND REASONABLY COMPLETE COVERAGE WITHIN THREE (3) MONTHS AFTER PLANTING.

H. GRASS. GRASS USED TO MEET THE REQUIREMENTS OF THIS SECTION SHALL BE PLANTED WITH SPECIES NORMALLY GROWN AS PERMANENT LAWNS IN THE COUNTY. GRASS AREAS WILL BE SODED, EXCEPT THAT PLUGGING, SPREADING OR SEEDING OF GRASS AREAS IS PERMISSIBLE WITH RESPECT TO SINGLE-FAMILY AND TWO-FAMILY RESIDENTIAL LOTS, AS TO ALL LOTS, SOLID SOD SHALL BE USED IN SWALES, DETENTION OR RETENTION AREAS AND OTHER AREAS SUBJECT TO EROSION.

I. EXISTING PLANT MATERIAL. WHEN PLANT MATERIAL EXISTS ON A SITE PRIOR TO THE DATE APPLICATION FOR A PERMIT IS MADE, CREDIT MAY BE ALLOWED FOR SUCH PLANT MATERIAL PROVIDED THAT IT IS PROTECTED DURING CONSTRUCTION AND INCORPORATED INTO THE REQUIRED LANDSCAPING IN A MANNER WHICH SATISFIES THE REQUIREMENTS OF THIS ARTICLE.

(12) INSTALLATION OF LANDSCAPING. ALL LANDSCAPING REQUIRED BY THIS ARTICLE SHALL BE INSTALLED IN COMPLIANCE WITH THESE REQUIREMENTS:

A. LANDSCAPING SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN, INCLUDING ALL SPECIFIED CONDITIONS TO A PARTICULAR LANDSCAPE APPROVAL, AND INSPECTED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. SUCH INSPECTION SHALL INCLUDE VERIFICATION THAT PLANTING SOIL MEETS SPECIFIED CONDITIONS IN THE APPROVED LANDSCAPE PLAN. IF THERE ARE ANY CHANGES TO THE APPROVED LANDSCAPE PLAN, SUCH CHANGES MUST BE REVIEWED AND APPROVED BY THE DEPARTMENT AND NOTED ON THE PLAN PRIOR TO NOTIFICATION FOR THE FINAL INSPECTION FOR A CERTIFICATE OF OCCUPANCY.

B. LANDSCAPED AREAS SHALL BE COVERED IN THEIR ENTIRETY WITH SHRUBS, GROUND COVER, TURF, OR THREE (3) INCHES OF BULK ORGANIC MULCH OR OTHER SUITABLE MATERIAL WHICH PERMITS PERCOLATION AND IS APPROVED BY THE DEPARTMENT. WHERE MULCH IS USED, IT MUST BE PROTECTED FROM WASHING OUT OF THE PLANTING BED. INORGANIC MULCH, SUCH AS GRAVEL OR ROCK, SHOULD ONLY BE USED WHERE WASHOUTS OCCUR. THE FINAL INSPECTION PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY, SHALL INCLUDE VERIFICATION THAT ANY MULCH IS INSTALLED AT THE REQUISITE DEPTH.

C. TREES WHICH ARE BALLED AND BURLAPED MUST HAVE THE BURLAP REMOVED OR FOLDED DOWN AT THE TIME OF THE PLANTING. ALL TWINE OR ROPE MUST BE REMOVED. IF WIRE BASKETS ARE USED, THE UPPER ROUNDS MUST BE CUT BEFORE PLANTING. REMOVE ALL SOIL FROM ABOVE THE ROOT FLARE AND PLANT THE TREE SO THE TOP OF THE ROOT BALL IS TEN (10) PER CENT ABOVE THE LANDSCAPE SOIL. DO NOT PLACE ANY SOIL OR MULCH OVER THE ROOT BALL. IF STAKES OR GUIDE WIRES ARE USED TO SUPPORT A TREE, THE WIRE MUST BE COVERED WITH PROTECTIVE MATERIAL WHERE IT IS IN CONTACT WITH THE TREE AND THE STAKES OR GUIDE WIRES MUST BE REMOVED AFTER ONE YEAR.

D. ALL LANDSCAPING REQUIRED BY THE CITY MUST BE PROTECTED FROM VEHICULAR AND PEDESTRIAN TRAFFIC BY THE INSTALLATION OF CURBING, WHEEL STOPS OR OTHER PROTECTIVE DEVICES ALONG THE PERIMETER OF ANY LANDSCAPING WHICH ADJACENT VEHICULAR USE AREAS OR SIDEWALKS. THESE PROTECTIVE DEVICES SHALL HAVE A MINIMUM HEIGHT OF SIX (6) INCHES ABOVE GRADE.

E. NO PARKING, DISPLAY OF VEHICLES OR OUTSIDE STORAGE OR DISPLAY OF MERCHANDISE IS PERMITTED IN OR OVER ANY REQUIRED LANDSCAPE AREA, NOR ARE VEHICLES PERMITTED TO OVERHANG ANY REQUIRED LANDSCAPED AREA.

F. SOIL, EXCEPT FOR PLANTING SOIL, IN WHICH REQUIRED LANDSCAPE IS TO BE INSTALLED MUST BE GENERALLY INDIGENOUS TO THE LOCALITY. SOIL MUST BE LOOSE, FRABLE, AND FREE OF LIMESTONE AND OTHER CONSTRUCTION MATERIALS, ROAD BASE MATERIAL, ROCKS, WEEDS, GRASSES, HARD PAN, CLAY OR OTHER DEBRIS. PH SHALL BE ADJUSTED WHERE NECESSARY TO BE COMPATIBLE WITH THE PLANT SPECIES BEING INSTALLED. SOIL SHALL BE SLIGHTLY SWALED TO RETAIN SURFACE STORMWATER. BACKFILL SOIL MATERIAL SHALL BE THOROUGHLY WATERED IN AND AROUND PLANT ROOT BALLS TO PREVENT ANY AIR POCKETS. THE USE OF AMENDED AND ENRICHED SOILS MAY BE REQUIRED BY THE DEPARTMENT WHERE NECESSARY TO INCREASE THE WATER RETENTION CAPABILITY IN ORDER TO REDUCE THE AMOUNT OF WATERING NEEDED TO MEET THE LANDSCAPING WATER REQUIREMENT. FINAL INSPECTION OF REQUIRED LANDSCAPE PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY SHALL INCLUDE PH TESTING TO VERIFY COMPATIBILITY WITH PERMITTED PLANTINGS.

G. TO MINIMIZE TRAFFIC HAZARDS AT STREET OR DRIVEWAY INTERSECTIONS, ALL LANDSCAPING INSTALLATIONS MUST PROVIDE UNOBSTRUCTED VIEWS AS REQUIRED IN SECTION 22-53.

H. ANY IRRIGATION SYSTEM PLACED ON CITY RIGHT-OF-WAY WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER WHO SHALL RELOCATE, REPLACE OR REPAIR THE SYSTEM AS APPROPRIATE IN THE EVENT IT IS DAMAGED DUE TO PERMITTED CONSTRUCTION IN THE RIGHT-OF-WAY.

I. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY, FINAL LANDSCAPE INSTALLATION SHALL BE CERTIFIED AS COMPLETE AND IN CONFORMANCE TO THE APPROVED LANDSCAPE PLAN BY SUBMISSION OF A CERTIFICATION LETTER BY A LANDSCAPE ARCHITECT.

(13) MAINTENANCE OF LANDSCAPING. PROPERTY OWNERS SHALL MAINTAIN ALL REQUIRED LANDSCAPING SO THAT IT CONTINUES TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE FREE OF REFUSE AND DEBRIS, IN CONFORMITY WITH THE FOLLOWING REQUIREMENTS:

A. VEGETATION REQUIRED BY THIS ARTICLE SHALL BE REPLACED WITH EQUIVALENT VEGETATION IF IT IS NOT LIVING. ALL TREES FOR WHICH CREDIT IS AWARDED AND WHICH SUBSEQUENTLY DIE SHALL BE REPLACED BY THE SAME NUMBER OF LIVING TREES ACCORDING TO THE STANDARDS ESTABLISHED IN THIS ARTICLE.

B. MAINTENANCE SHALL INCLUDE SUFFICIENT WEEDING, WATERING, FERTILIZING, PRUNING, MOWING, EDGING, MULCHING AND OTHER HORTICULTURAL PRACTICES SO AS TO ASSURE THAT THE LANDSCAPING CONTINUES TO MAINTAIN A HEALTHY, NEAT AND ORDERLY APPEARANCE.

### Legend & Abbreviations: (symbols not scaleable for size)

PLS	PROFESSIONAL LAND SURVEYOR
PSM	PROFESSIONAL SURVEYOR & MAPPER
LB	LAND SURVEYING BUSINESS
C	CENTRELINE
R	RADIUS
L	LENGTH
Δ	DELTA ANGLE
EP	EDGE OF PAVEMENT
B/C	BACK OF CURB
B.M.	BENCHMARK
POC	POINT OF COMMENCEMENT
PDB	POINT OF BEGINNING
(PCP)	PERMANENT CONTROL POINT
PCP	PERMANENT CONTROL POINT
(PRM)	PERMANENT REFERENCE MONUMENT
PRM	PERMANENT REFERENCE MONUMENT
(IP)	IRON PIPE
(IP)	IRON PIPE
(IRC)	IRON ROD & CAP
IRC	IRON ROD & CAP
(CM)	CONCRETE MONUMENT
CM	CONCRETE MONUMENT
FD	FOUND
(M)	MEASURED
(P)	PLAT
(C)	CALCULATED
[Symbol]	TRAFFIC CONTROL BOX
[Symbol]	GUY WIRE
[Symbol]	WOOD UTILITY POLE
[Symbol]	TELEPHONE SERVICE
[Symbol]	CABLE T.V. BOX
[Symbol]	ELECTRIC BOX
[Symbol]	LIGHT POST
[Symbol]	WELL
[Symbol]	HYDRANT
[Symbol]	GATE VALVE
[Symbol]	IRRIGATION VALVE
[Symbol]	WATER METER
[Symbol]	SANITARY MANHOLE
[Symbol]	SANITARY SERVICE
[Symbol]	SEPTIC TANK
[Symbol]	DRAINAGE MANHOLE
[Symbol]	CURB INLET
[Symbol]	SURFACE INLET
[Symbol]	MITERED END SECTION
[Symbol]	CONCEPTUAL DRAINAGE
[Symbol]	STREET SIGN
[Symbol]	PROPOSED GRADE
NAVD	NORTH AMERICAN VERTICAL DATUM
25.0	TYPICAL ELEVATION
AC	AIR CONDITIONER
CONC.	CONCRETE
F.F.	FINISH FLOOR
B.S.B.	BUILDING SETBACK LINE
EL. ELEV.	ELEVATION
R/W	RIGHT OF WAY
AB	AS-BUILT
[Symbol]	PARKER-KALON

LANDSCAPE CERTIFICATION:

JODAH B. BITTLE  
FCLD #DC1 70/HCI 6527

DATE: \_\_\_\_\_

DATE: 5/29/15  
REVISION: 1  
REVISED PER COFP  
DESIGNED: J.B.B.  
DRAWN: J.B.B.  
CHECKED: J.B.B.  
SCALE: 1:20  
DATE: 4/15/15

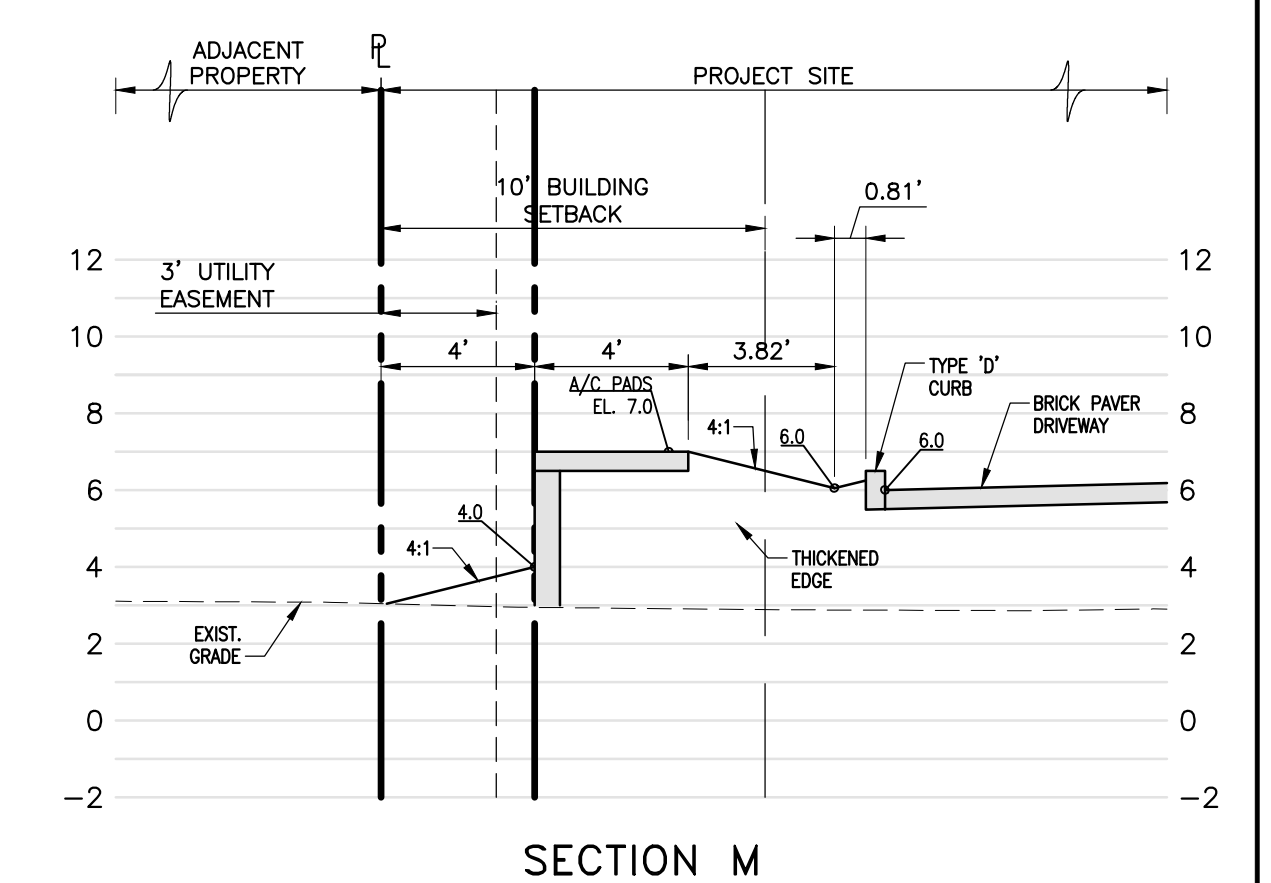
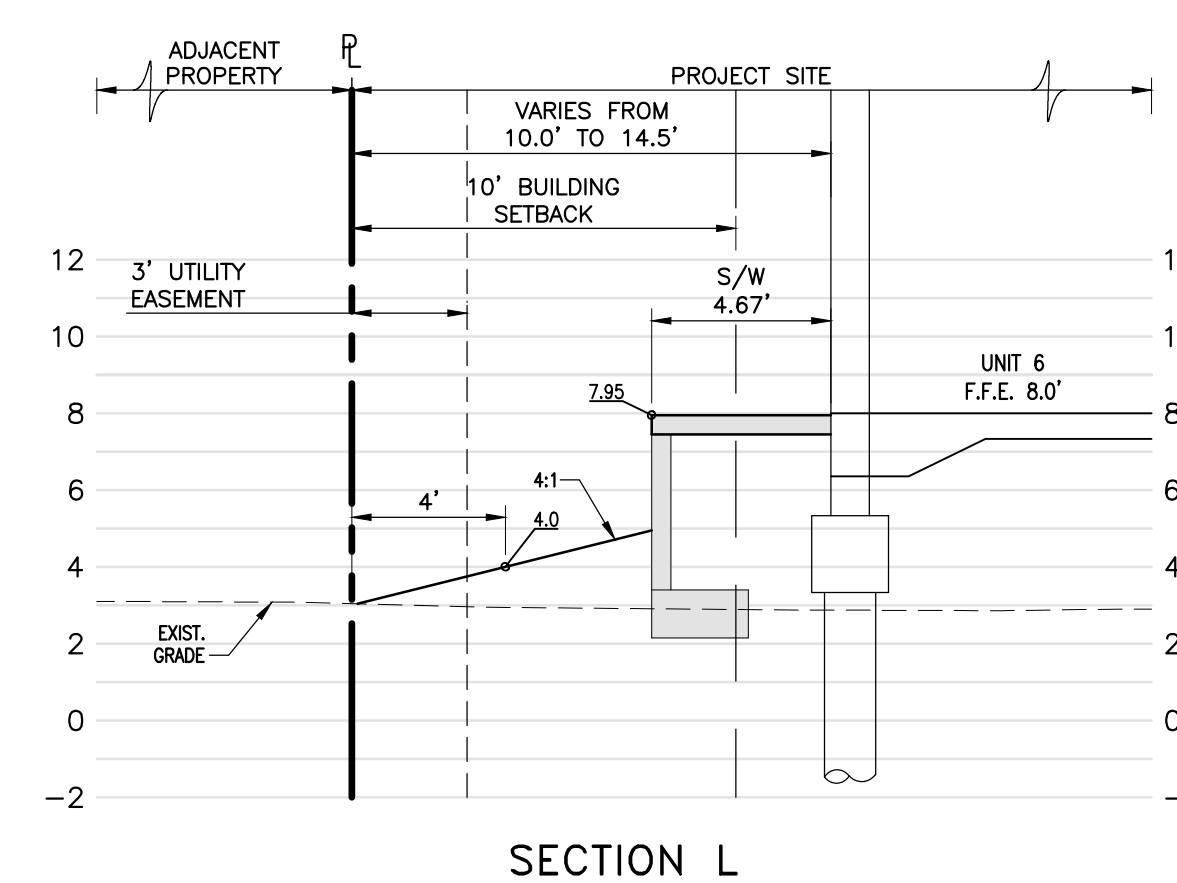
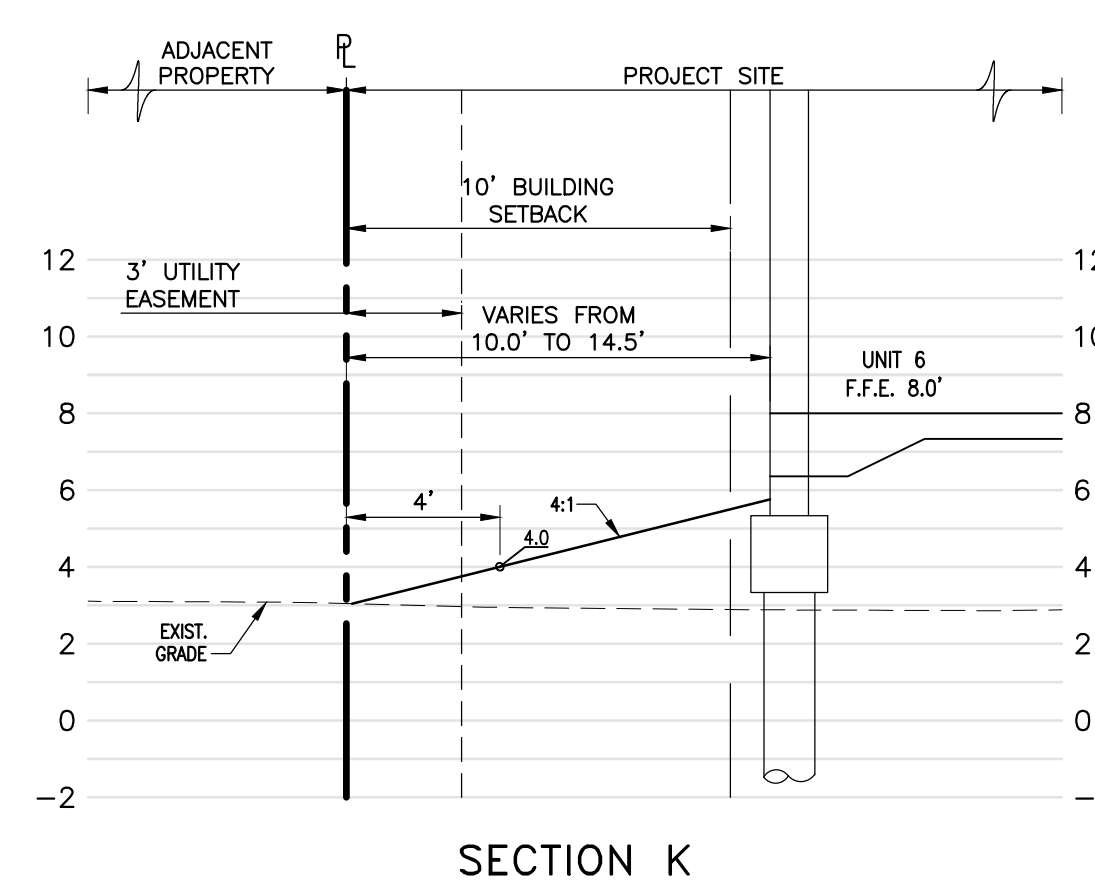
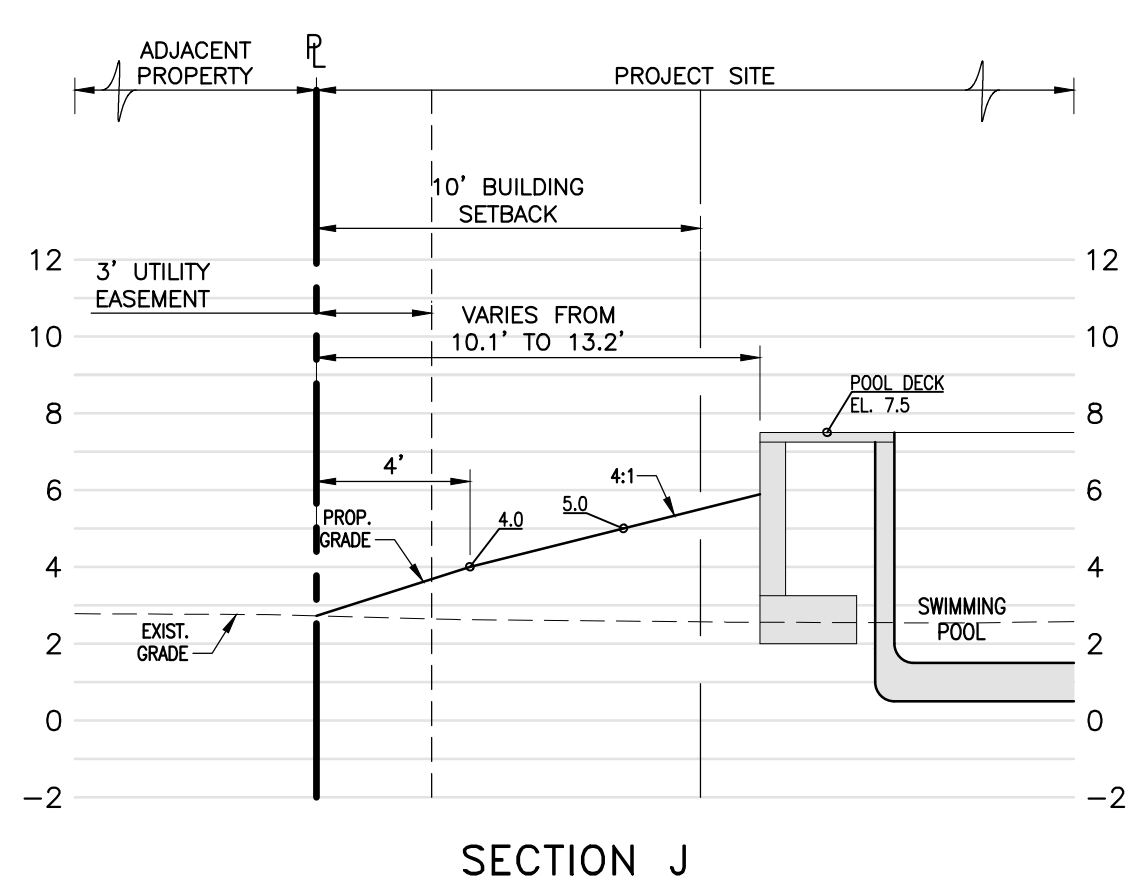
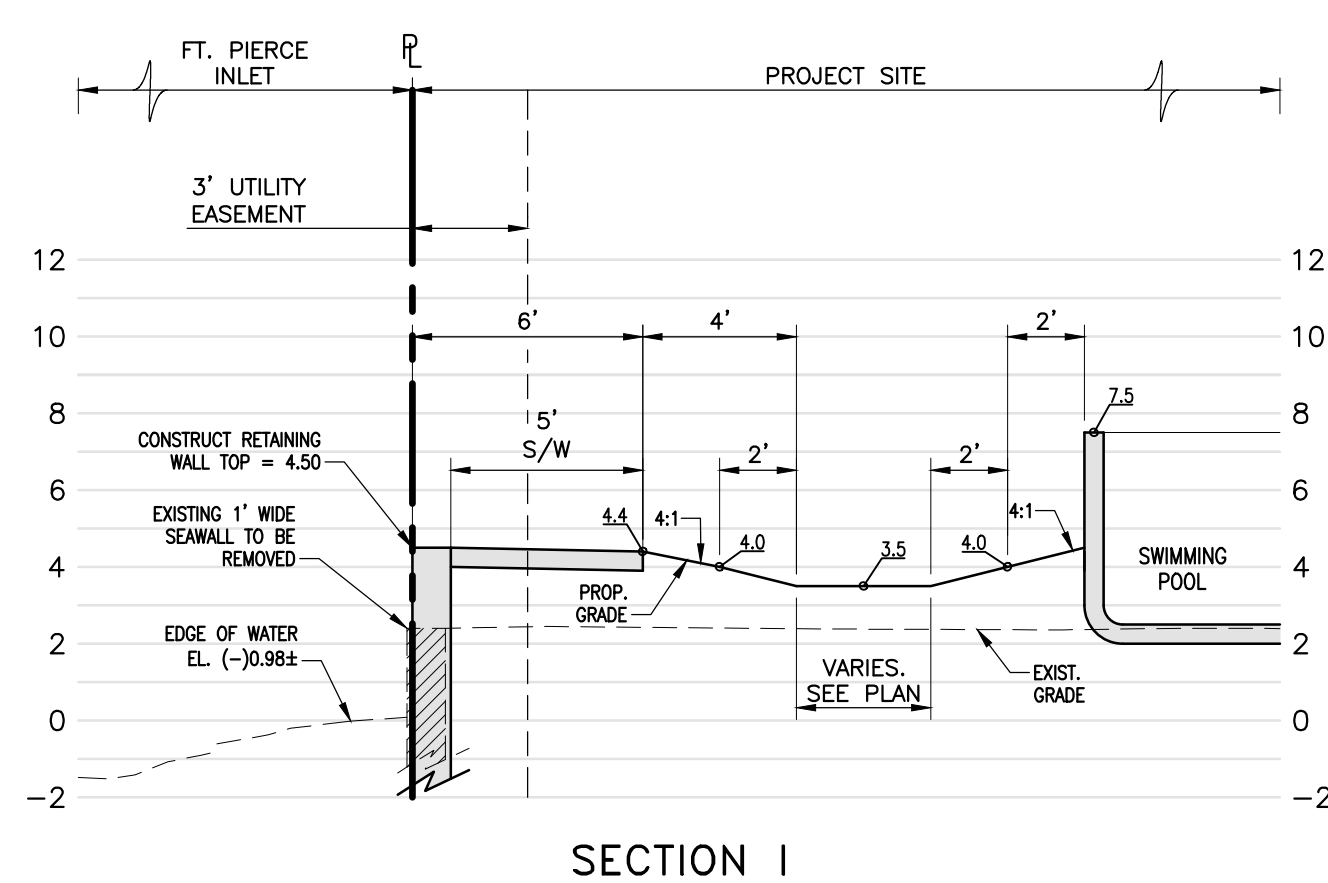
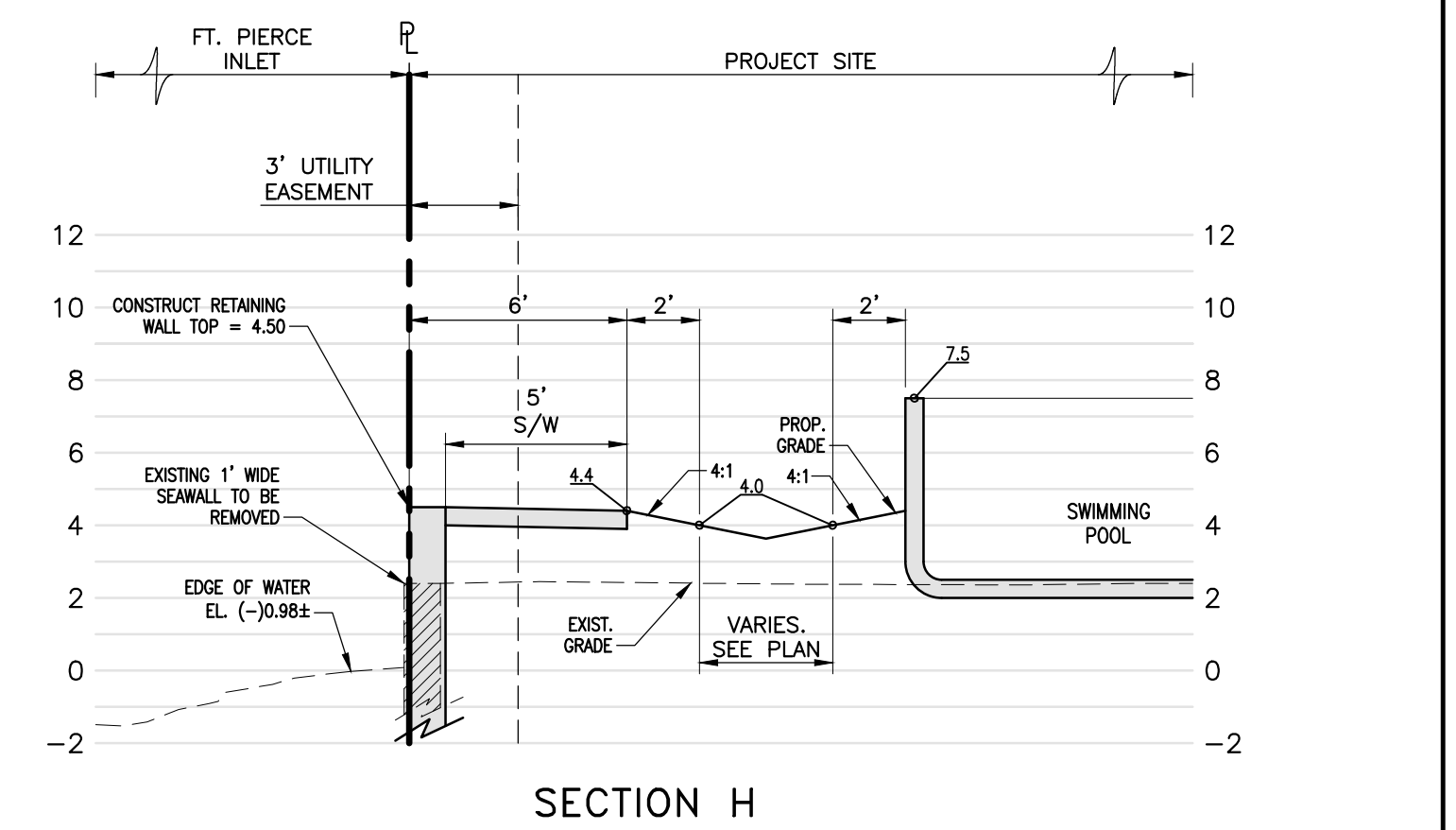
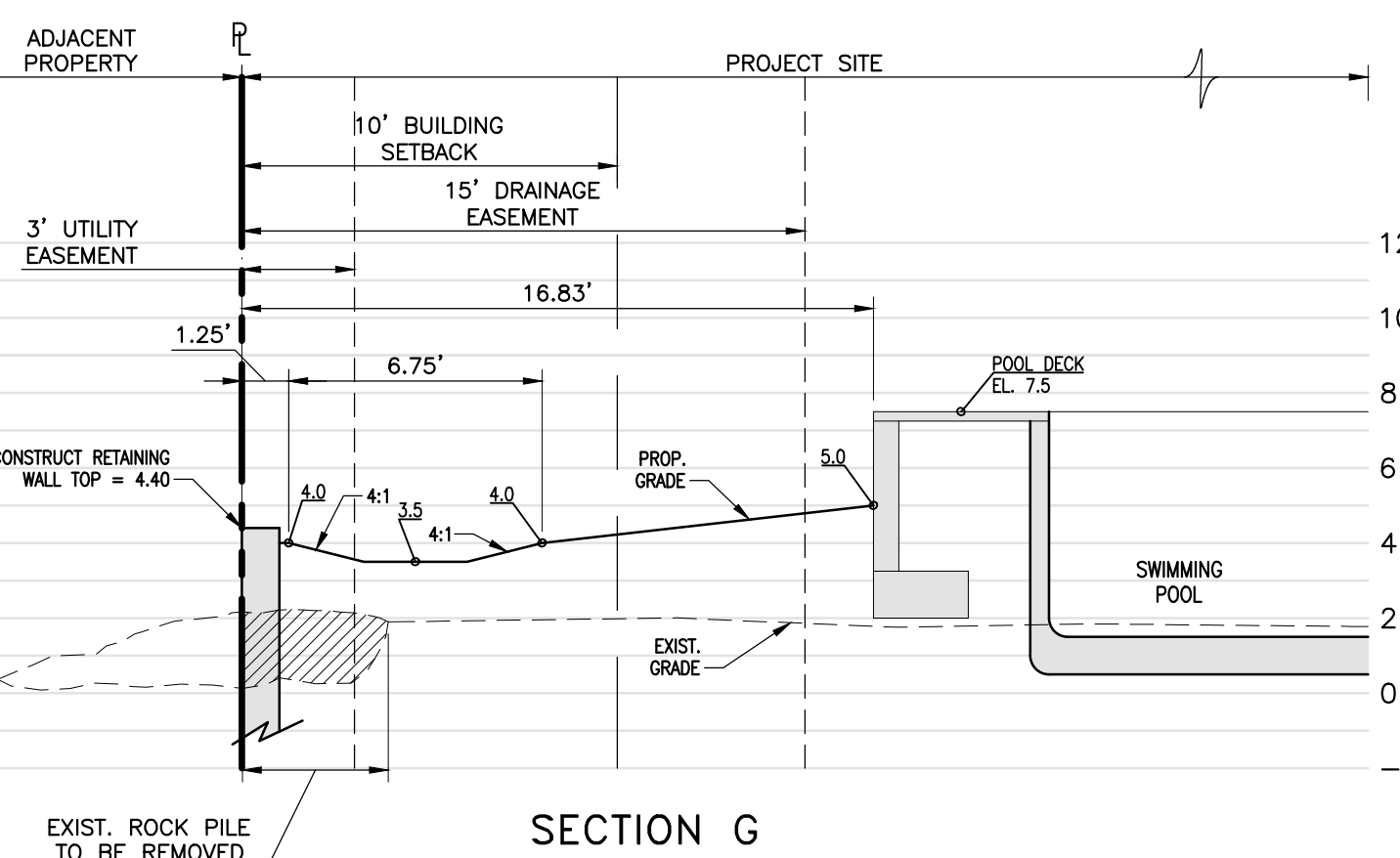
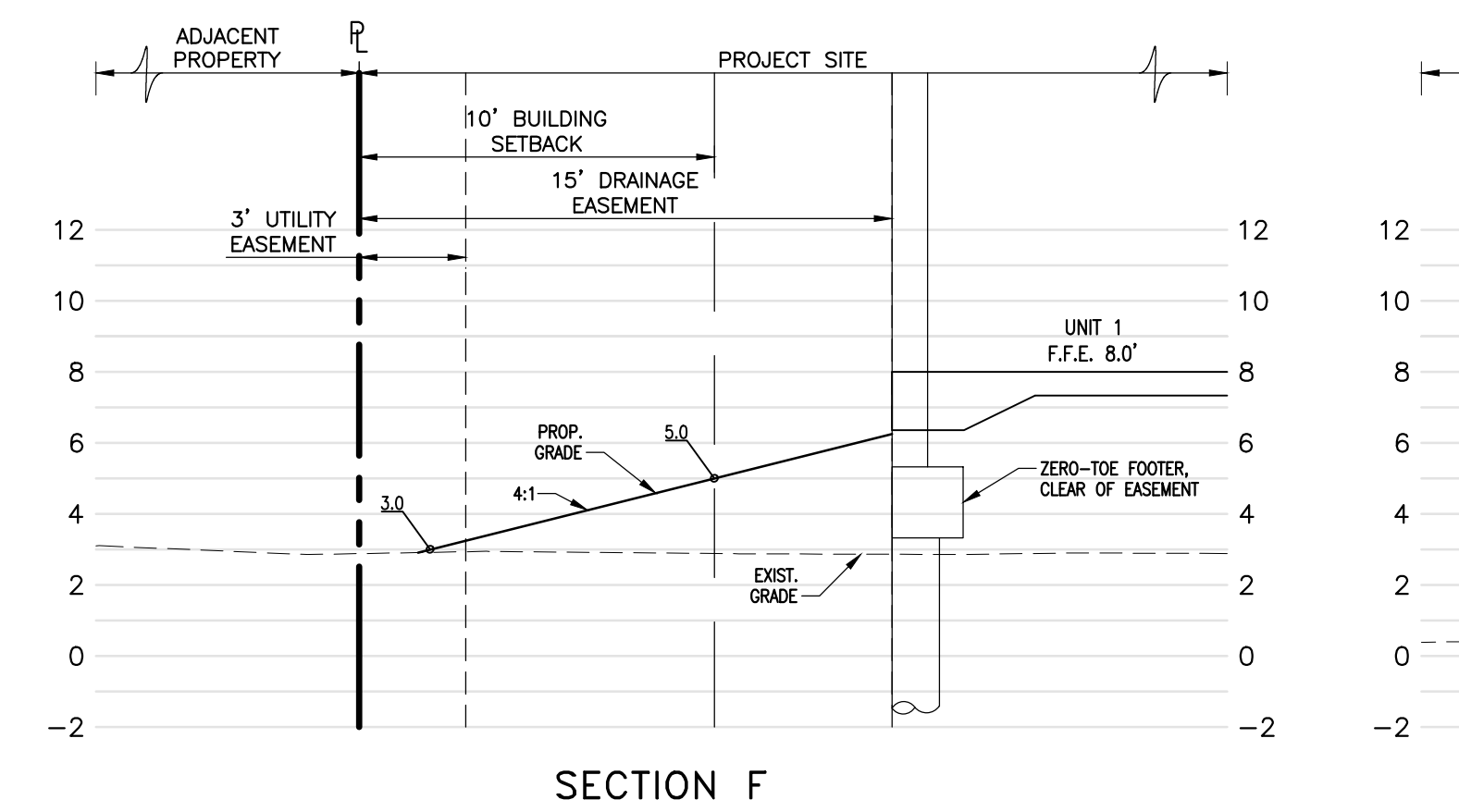
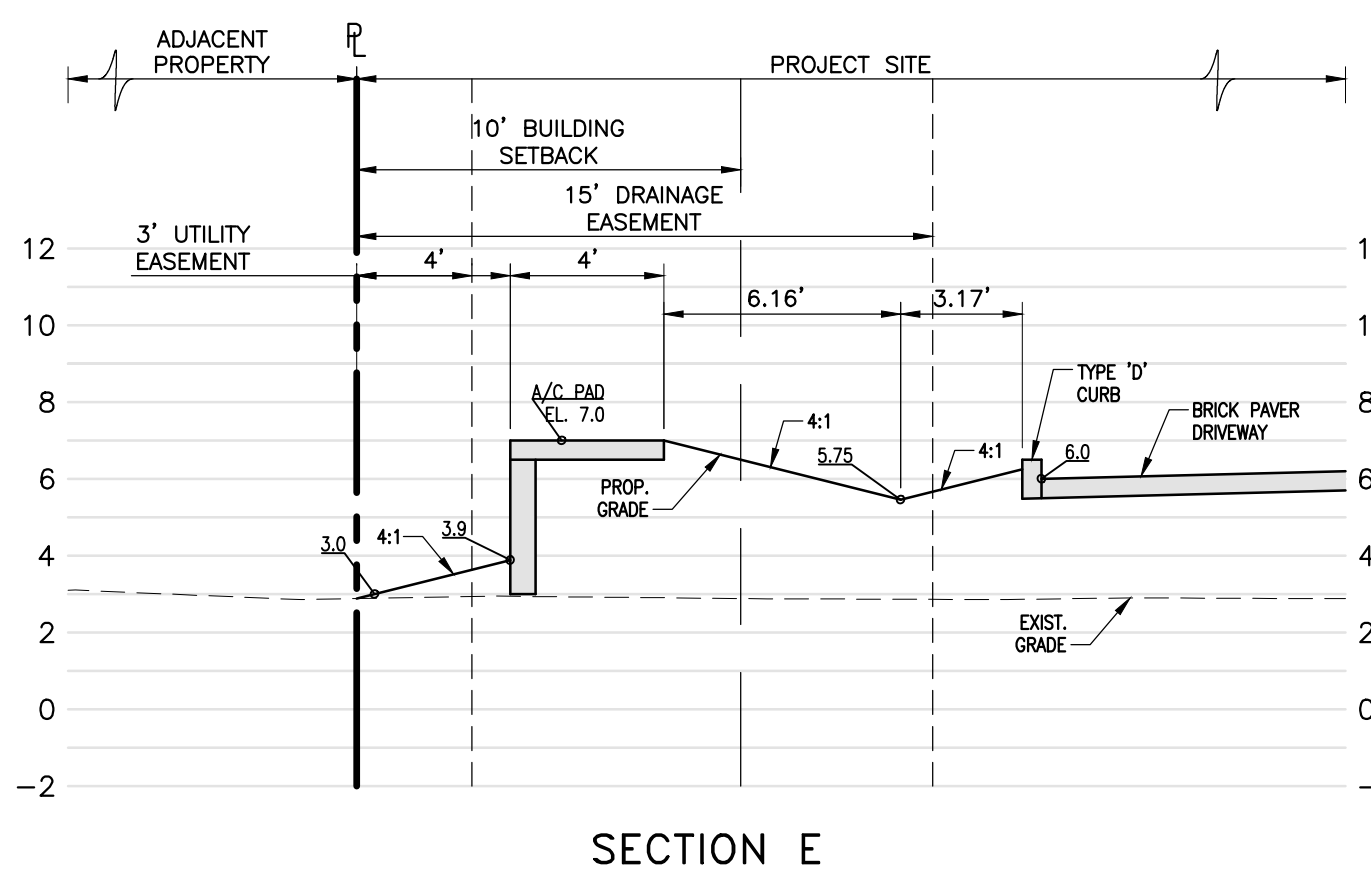
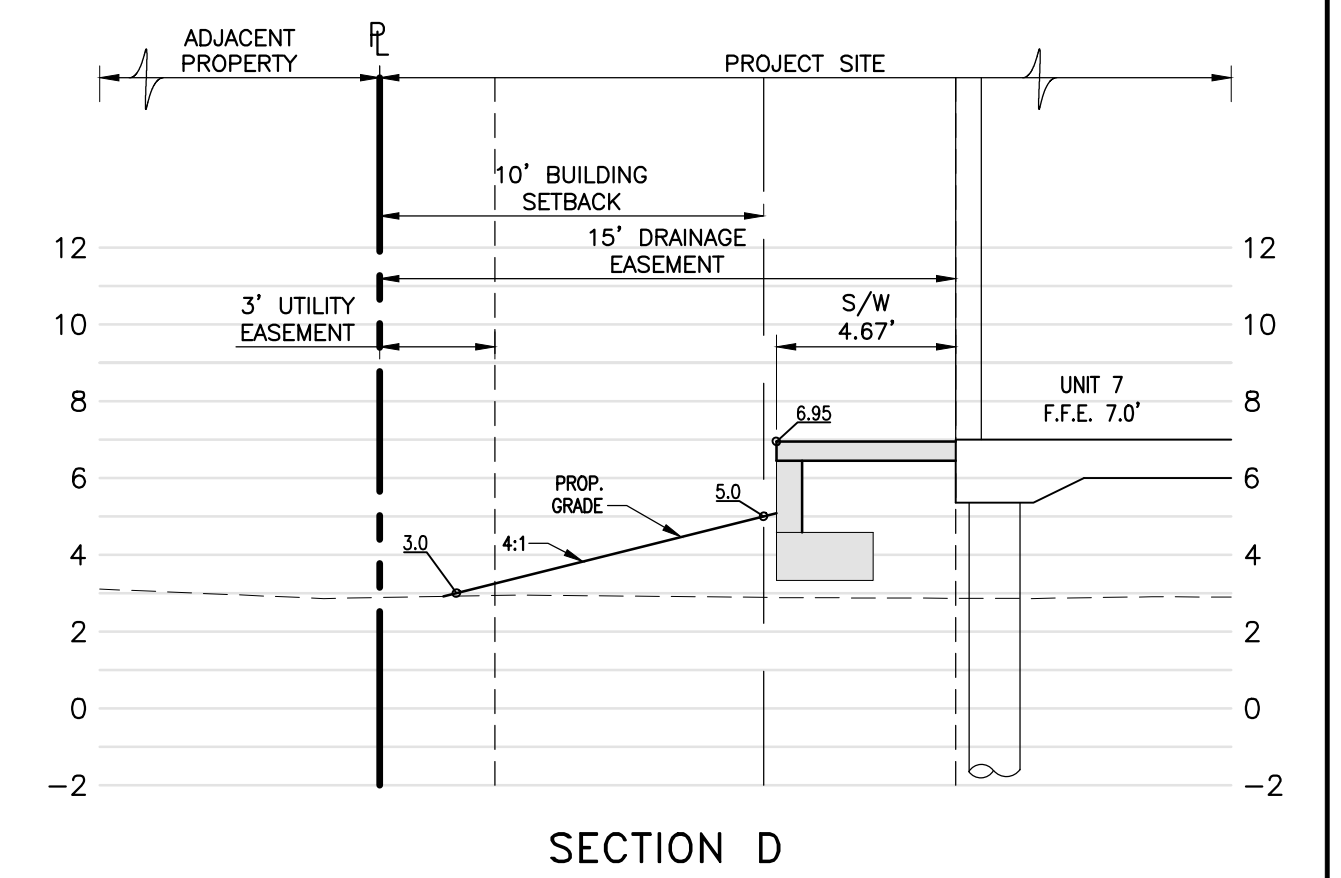
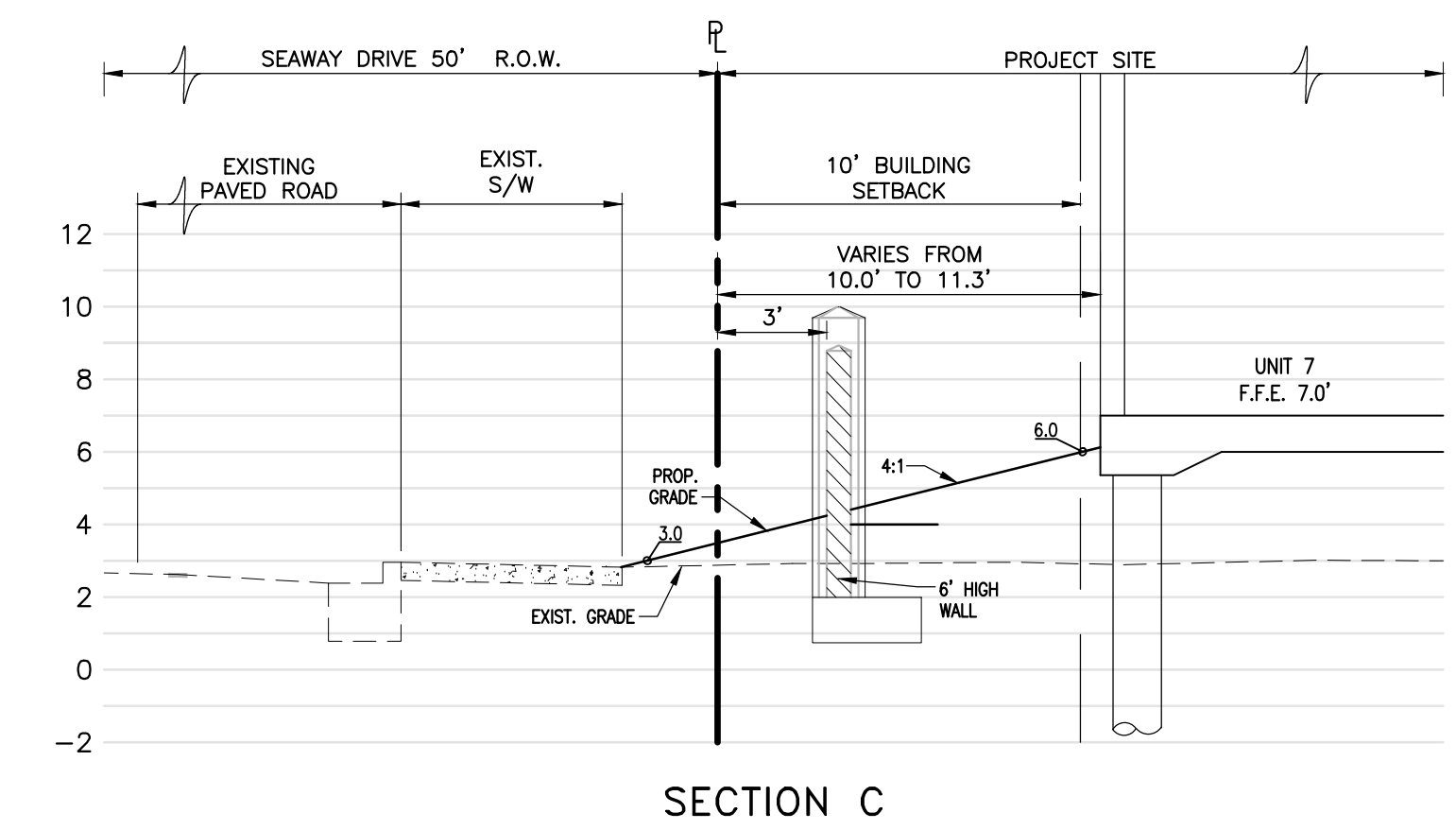
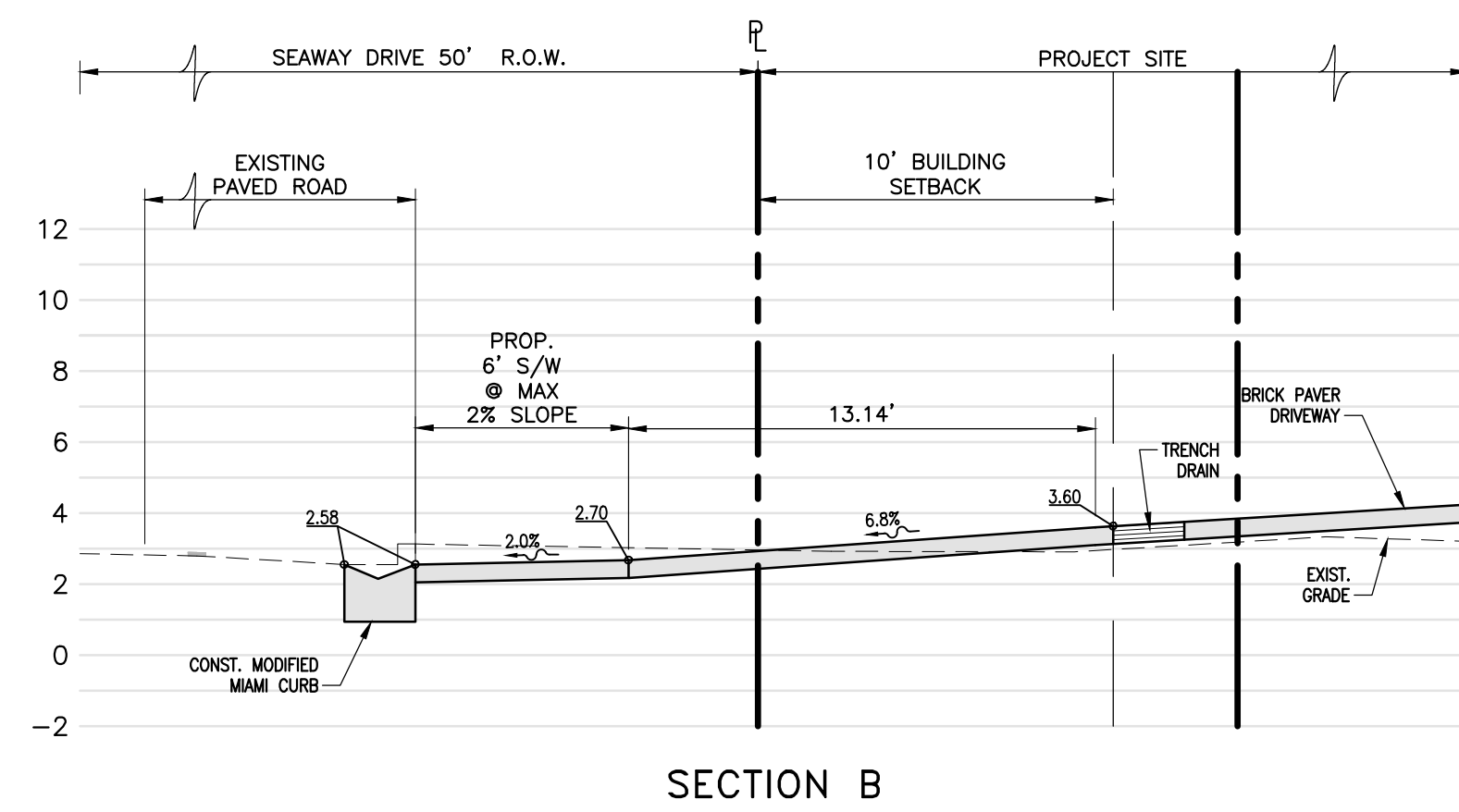
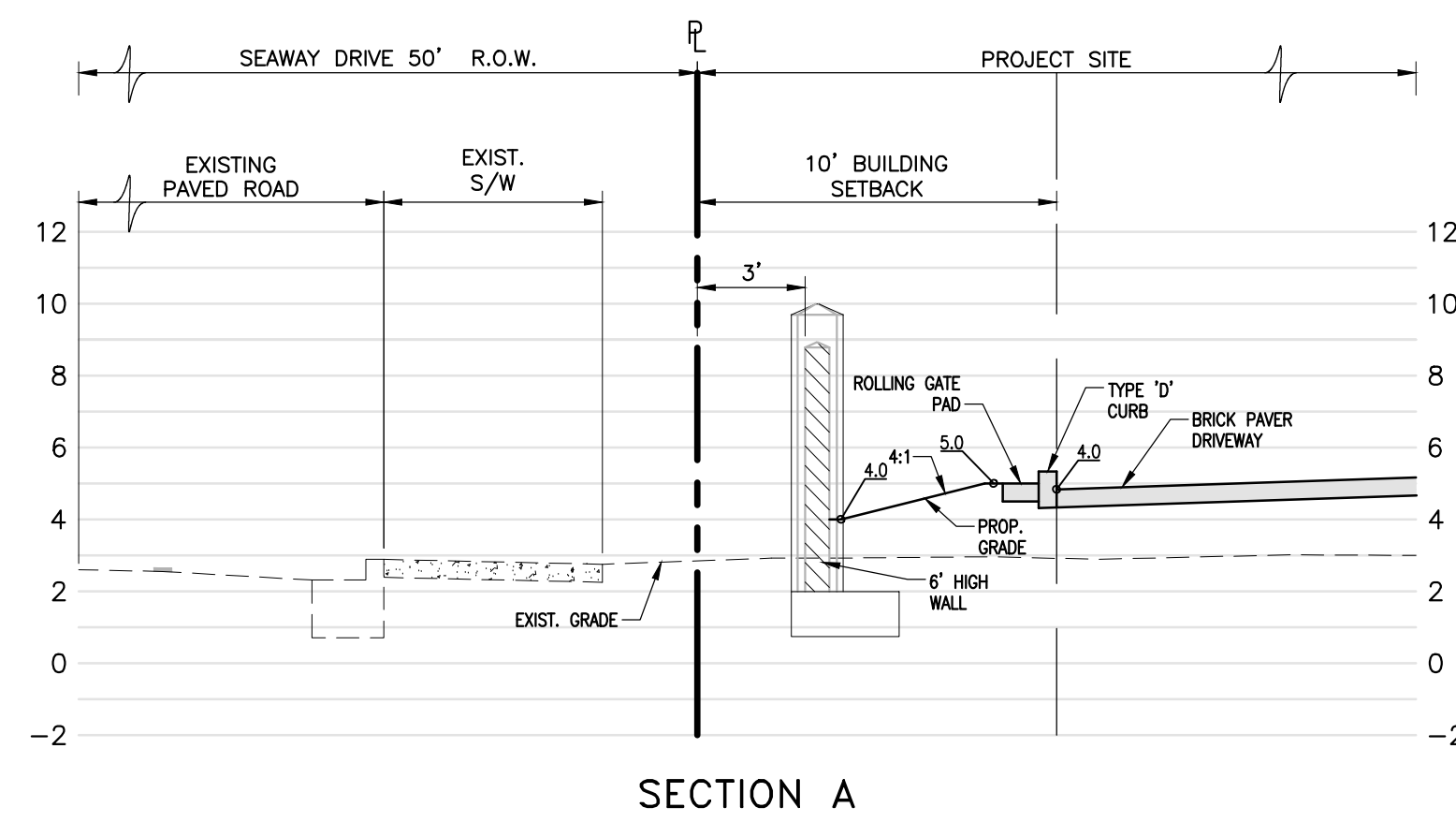
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REVISION: 1  
REVISED PER COFP  
DESIGNED: J.B.B.  
DRAWN: J.B.B.  
CHECKED: J.B.B.  
SCALE: 1:20  
DATE: 4/15/15

ENGINEER CERTIFICATION:  
[Symbol] JOSEPH W. SHARAKE  
FL. REG. NO. 47048  
[Symbol] JODAH B. BITTLE  
FL. REG. NO. 57396  
[Symbol] WILLIAM P. STODDARD  
FL. REG. NO. 57605

DATE: \_\_\_\_\_  
SHEET: 9  
PROJECT NO.: 15-053

LANDSCAPE PLAN  
INLET PALMS

SCHULKE, BITTLE & STODDARD, L.L.C.  
CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING  
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MARK	REVISION	DATE
1	REVISED PER CORP	5/25/15

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
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CROSS SECTIONS

INLET PALMS

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<input type="checkbox"/> JOSEPH W. SCHULKE FL. REG. NO. 47046
<input type="checkbox"/> JOAHN B. BITTLE FL. REG. NO. 57396
<input type="checkbox"/> WILLIAM P. STODDARD FL. REG. NO. 57665

DATE: SHEET 10 PROJECT NO. 15-053

**SPECIFICATIONS - CLEANING/GRADING/PAVING/DRAINAGE/UTILITY CONSTRUCTION**

**GENERAL:** IT IS INTENDED THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISIONS, BE USED WHERE APPLICABLE FOR VARIOUS WORK, AND THAT WHERE SUCH WORKING THEREIN REFERS TO THE STATE OF FLORIDA AND ITS DEPARTMENT OF TRANSPORTATION AND PERSONNEL, SUCH WORKING IS INTENDED TO BE REPLACED WITH THAT WORKING WHICH WOULD PROVIDE PROPER TERMINOLOGY, THEREBY MAKING SUCH STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS THE STANDARD SPECIFICATIONS FOR THIS PROJECT. IN ADDITION THE CONTRACTOR SHALL REFER TO THE FOOT ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION, WHICH SHALL BE APPLICABLE TO THIS PROJECT. WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE A PART OF THE STANDARD SPECIFICATIONS, ALSO.

ALL WORK SHALL BE IN A WORKMANLIKE MANNER AND SHALL CONFORM WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS AND CODES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED TO BEGIN WORK.

THE CONTRACTOR SHALL GIVE THE ENGINEER 24 HOURS NOTICE PRIOR TO REQUESTING REQUIRED INSPECTIONS AND SHALL FULLY COMPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAILURE CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

**CLEANING/GRUBBING:** THE CONTRACTOR SHALL COMPLETELY REMOVE AND DISPOSE OF ALL BUILDING, TRUNK, BRUSH, STUMPS, ROOTS, RUBBISH, DEBRIS, INCLUDING SEPTIC TANK, BUILDING FOUNDATIONS, PILES, ETC., WITHIN THE LIMITS OF THE ROADWAY CONSTRUCTION, ALL AREAS WHERE STRUCTURES WILL BE CONSTRUCTED INCLUDING PIPE CULVERTS, AND ALL OTHERS SPECIFIED IN THE PLANS, ALL IN ACCORDANCE WITH SECTION 1302 OF THE STANDARD SPECIFICATIONS.

**GRADING:** THE CONTRACTOR SHALL PERFORM ALL GRADING NECESSARY TO ACHIEVE THE PROPOSED FINAL GRADES, FINAL DRESSING SHALL HAVE A TOLERANCE OF 0.1 FT. ± IN THE PLAN CROSS SECTION. GRADING SHALL INCLUDE: ROAD GRADING, ROAD GRADING, AND FINAL DRESSING REQUIRED FOR THE PROPOSED ROADWAY AND ROAD EMBANKMENTS WITHIN THE LIMITS SPECIFIED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FINISHED GRADE UNTIL CONTRACT CLOSE-OUT, AND MUST BE GRADE AS DESCRIBED WHEN EROSION OR OTHER ORGANIC MATERIALS, BEDROCK AND/OR SOILING SHALL BE INCORPORATED TO ASSIST IN THIS REGARD. HOWEVER, ANY LOSS OF SOIL OR BEDROCK DURING THESE OCCURRENCES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

**SOD:** SOD SHALL BE ST. AUGUSTINE OR ARGENTINE BANNA. AS NOTED ON THE LANDSCAPE PLANS OR CONTRACT DOCUMENTS. SOD SHALL BE WELL MATTED WITH ROOTS AND SHALL BE SUFFICIENTLY THICK TO SECURE A DENSE STANDING OF LIVE GRASS. THE SOD SHALL BE LIVE, FRESH AND UNLAMELLED AT THE TIME OF PLANTING AND SHALL BE REASONABLY FREE OF WEEDS AND OTHER GRASSES. THE RECEIVING GROUND SURFACE SHALL BE GRADED TO PROPER ELEVATIONS, FREE OF LARGE VOIDS, ROOTS, WEEDS OR PATCHES OF EXISTING GRASS. UPON LAYING, THE ENTIRE AREA SHALL BE ROLLED THOROUGHLY. ALL SODDED AREAS ARE TO BE WATERED TO KEEP SOD ALIVE UNTIL THE CONTRACTOR CLOSES OUT. SOD SOD SHALL BE REPLACED BY CONTRACTOR.

**EMBANKMENT CONSTRUCTION:** ROADWAY EMBANKMENT CONSTRUCTION SHALL CONSIDER ALL THE EMBANKMENT CONSTRUCTION REQUIRED FOR THE PROPOSED ROADWAY AND/OR PARKING LOT, BUILDING PADS, DITCHES AND SWALES IN ACCORDANCE WITH SECTION 1302 OF THE STANDARD SPECIFICATIONS. EMBANKMENTS SHALL BE CONSTRUCTED FROM MATERIAL CONTAINING NO MUCK, STUMPS, ROOTS BRUSH VEGETABLE MATTER, RUBBISH, OR OTHER DELETERIOUS MATERIALS THAT WILL NOT COMPACT TO A SATISFACTORY ENDURING GRADE. EXISTING EARTH SURFACES SHALL BE PROTECTED FROM EROSION PRIOR TO CONSTRUCTION OF ANY EMBANKMENT OR OTHER STRUCTURE.

**MATERIAL:** UNLESS OTHERWISE SPECIFIED, MATERIAL SHALL BE TYPE 2 MATERIAL.

**COMPACTION:** 1" COMPACTED 12" MINIMUM MAXIMUM DENSITY (AASHTO T-99) OR 1.180.

**MIN. 100% MAX DENSITY ADJACENT TO STRUCTURES WITHIN PAVED AREAS.**

**COMPACTION CONSTRUCTION SHALL BE MADE FULLY BY THE BID ITEMS FOR BORROW EXCAVATION (PER C.Y.), GRADING (PER L.F. OF ROADWAY OR PER ACER OF SITE), AND REGULAR EXCAVATION (PER C.Y.) WHEN APPLICABLE.**

**EMBANKMENT AND BACKFILL MATERIAL:** TYPE 1: SANDY MATERIAL, AND MAY BE UNCLASSIFIED MATERIAL OBTAINED FROM CONTRACTOR'S EXCAVATIONS AND APPROVED BY THE ENGINEER. THIS MATERIAL SHALL BE FREE FROM ROCK, RUBBISH, OR OTHER ORGANIC MATERIALS, AND SHALL NOT CONTAIN ANY GLOBS, STONES, MASHOY, RUBBLE OR LIKE MATERIALS GREATER THAN 1 1/2 INCHES IN DIAMETER.

**TYPE 2: SELECT GRANULAR SAND MATERIAL, FREE OF ORGANICS WITH LESS THAN 3% FINES PASSING THE NO. 200 SIEVE.**

**STAKING:** CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**STABILIZATION:** STABILIZED SUBGRADE SHALL BE CONSTRUCTED TO THE FLORIDA BEARING VALUE OR L.B.R. AS PER PLAN FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, AND IN ACCORDANCE WITH SECTION 160 OF THE STANDARD SPECIFICATIONS. ALL STABILIZED AREAS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. ALL MATERIAL SHALL BE MIXED TO A HOMOGENEOUS MATERIAL.

**BASE COURSE:** THE BASE SHALL BE CONSTRUCTED OF EITHER LIMEROCK MATERIAL IN ACCORDANCE WITH SECTION 919 OR CEMENTED COQUINA SHELL MATERIAL IN ACCORDANCE WITH SECTION 919 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE PROOF OF CERTIFICATION FOR THE PROPOSED LIMEROCK OR COQUINA SHELL MATERIAL. LIMEROCK BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 AND CEMENTED COQUINA SHELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE PROOF OF CERTIFICATION FOR THE PROPOSED LIMEROCK OR COQUINA SHELL MATERIAL. BASE SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 AND AN L.B.R. VALUE WHEN SPECIFIED ON PLANS. BASE SHALL BE APPROVED PRIOR TO PRIME COAT.

**PRIME AND TACK COAT:** PRIME AND TACK COATS FOR THE BASE COURSE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

**ASPHALT CONCRETE SURFACE COURSE (A.C.1-C.1):** TYPE SP 9.5 & TYPE SP 9.5 S.C. SHALL BE CONSTRUCTED FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, IN ACCORDANCE WITH SECTIONS 320, 330, AND 334 OF THE STANDARD SPECIFICATIONS.

**CEMENT CONCRETE PAVEMENT:** CONTRACT PORTLAND CEMENT CONCRETE (TYPE II, CLASS B) PAVEMENT IN ONE COURSE ON A PREPARED STABILIZED SUBGRADE IN ACCORDANCE WITH SECTIONS 348 AND 350. PROVIDE STEEL REINFORCEMENT WHEN SPECIFIED IN THE PLANS.

**CURB:** ALL CURB CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 620 OF THE STANDARD SPECIFICATIONS, AND IN ACCORDANCE WITH D.O.T. INDEX NO. 304. STEEL CONSTRUCTION JOINTS AT 10-FOOT C.C. MAXIMUM. TRANSITION ENDS OF CURB FROM FULL TO ZERO HEIGHTS IN 3-FEET. CURB CUT RAMP SHALL BE IN ACCORDANCE WITH D.O.T. INDEX NO. 304.

**TESTING:** THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON EMBANKMENT, SURGRADE, PIPE, BACKFILL AND SURFACE COURSE MATERIALS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.

**THE SCHEDULE FOR TESTING THE ROAD PAVEMENT AREAS CONSTRUCTION SHALL BE AS FOLLOWS:**

**A. EMBANKMENT:** DENSITY TESTS SHALL BE TAKEN AT MAXIMUM OF 5,000 SF. INTERVALS FOR EACH 12' LIFTS CONSTRUCTED. AND ALL LIFTS PROPOSED.

**B. SUBGRADE:** (1) F.V./L.B. (PER PLAN) TEST SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF OR CLOSER AS MAY BE NECESSARY. (2) DENSITY TEST SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF OR CLOSER AS MAY BE NECESSARY. (3) CLOSER (MIN. OF 3' PER JOB).

**C. BASE:** (1) DENSITY TEST SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF OR CLOSER AS MAY BE NECESSARY. (2) CLOSER (MIN. OF 3' PER JOB).

**D. PIPE BACKFILL:** DENSITY TEST SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF OR CLOSER AS MAY BE NECESSARY.

**E. STRUCTURES:** A MINIMUM OF 3 DENSITY TESTS SHALL BE PERFORMED AT EACH STRUCTURE. TESTS SHALL BE TAKEN AT MID DEPTH OF BACKFILL. BACKFILL FOR EACH 12' LIFT ADJACENT TO EACH STRUCTURE SHALL BE TAKEN AT MID DEPTH OF BACKFILL.

**F. BUILDING PADS:** AS SPECIFIED IN ARCHITECTURAL PLANS.

**G. CURB PADS:** AS SPECIFIED IN ARCHITECTURAL PLANS.

**ALL TESTS SHALL BE PAID FOR BY THE CONTRACTOR.**

**CLEANUP:** THE CONTRACTOR MUST PROVIDE CLEANUP OF EXCESS CONSTRUCTION MATERIAL UPON COMPLETION OF THE PROJECT. THE SITE MUST BE LEFT IN A NEAT, CLEAN, GRADED CONDITION.

**DRAINAGE STRUCTURE SPECIFICATIONS:** STORM DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH SECTION 420 OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI. TO BE ASTM A 915-72 GRADE 40, 14" x 16" x 16" AND SHALL BE HANDLED AND PLACED IN ACCORDANCE WITH A317-71. PRECAST CONCRETE MANHOLES AND STORM INLETS MAY BE USED UPON THE ENGINEER'S APPROVAL OF THE MANHOLE DESIGN DRAWINGS.

**PRECAST INLETS/MANHOLES:** ALL STORM INLETS SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS TO FOOT DRAWINGS IN THE 'FOOT ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION. TYPE 'C' PRECAST CONCRETE INLETS SHALL BE USED IN THE CONCRETE. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28-DAYS OF 4000 PSI.

**CULVERT PIPES:** METAL PIPE CULVERTS AND STORM SEWERS IN ACCORDANCE WITH SECTION 430 AND RELATED SECTIONS OF THE STANDARD SPECIFICATIONS AT THE LOCATIONS DERIVED IN THE PLANS. FURNISH AND INSTALL LANDTIGHT WATER TIGHT TO 2 PSI PIPE JOINTS AND INTERFERENCE JOINTS. ALL JOINTS SHALL BE GASKETED. REINFORCED CONCRETE (R.C.P.) SHALL BE IN ACCORDANCE WITH SECTION 430 OF THE STANDARD SPECIFICATIONS. CORRUGATED ALUMINUM PIPE SHALL BE IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS. ADS (CORRUGATED POLYETHYLENE) SHALL BE IN ACCORDANCE WITH SECTION 442.3 OF THE STANDARD SPECIFICATIONS.

**BACKFILLING OVER PIPE CULVERT AND STORM SEWERS SHALL BE COMPLETED IN MAXIMUM 4' LIFTS TO THE SPRINGLINE MAXIMUM 6' LIFTS TO A POINT 1' ABOVE THE PIPE, AND IN 12' LIFTS BEYOND. COMPACTED TO A MINIMUM OF 98% OF MAXIMUM DRY DENSITY. TYPE 2 MATERIAL SHALL BE USED FOR ALL BACKFILL, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.**

**FURNISH AND INSTALL FILTER FABRIC JACKET AROUND ALL PIPE JOINTS AND THE JOINT BETWEEN THE PIPE AND THE STRUCTURE IN ACCORDANCE WITH DESIGN STANDARDS INDEX NUMBER 201.2. USE FABRIC MEETING THE PHYSICAL REQUIREMENTS OF TYPE 3 SPECIFIED ON THE DESIGN STANDARDS, INDEX 110. THE FABRIC SHALL EXTEND A MINIMUM OF 12 INCHES TO EACH SIDE OF THE JOINT OR EACH END OF THE CULVERT OR BAND. A 4 INCHES WIDE FABRIC SHALL BE USED. THE FABRIC SHALL HAVE A MINIMUM WIDTH OF 2 INCHES (800 MM) AND A LENGTH SUFFICIENT TO PROVIDE A MINIMUM OVERLAP OF 24 INCHES (600 MM). SECURE THE FILTER FABRIC MOST AGAINST THE OUTSIDE OF THE PIPE BY METAL OR PLASTIC STRAPPING OR BY OTHER METHOD APPROVED BY THE ENGINEER.**

**CONCRETE:** UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28-DAYS OF 3000 PSI. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE BUILDING CODES AND THE APPLICABLE SPECIFICATIONS AND THE APPLICABLE SPECIFICATIONS.

**RECORD DRAWINGS:** CONTRACTOR SHALL KEEP AND MAINTAIN RECORD DRAWINGS ON THE PROJECT SITE AT ALL TIMES WHICH SHALL BE ANNOTATED BY THE CONTRACTOR DEPICTING ANY CHANGES MADE IN THE FIELD WHICH DIFFER FROM THE CONTRACT DRAWINGS. RECORD DRAWINGS SHALL NOT BE LIMITED TO: HORIZONTAL LOCATION AND VERTICAL ELEVATION OF INVERT AND TOP OF CULVERTS, SEWER MANHOLES, DRAINAGE STRUCTURES, INLETS, UTILITY MANHOLES AND ALL LIKE ITEMS. RECORD DRAWINGS SHALL BE KEPT IN THE FIELD AND BE AVAILABLE FOR INSPECTION AT ALL TIMES. RECORD DRAWINGS SHALL BE SUBMITTED COMPLETE AND FINAL RECORD DRAWINGS TO ENGINEER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT.

**THE CONTRACTOR SHALL BE REQUIRED TO HAVE A SURVEYOR PROVIDE CERTIFIED RECORD DRAWINGS AS BUILTS. THESE DRAWINGS SHALL BE PROVIDED IN AN ACD ELECTRONIC FILE AS WELL AS ON DISKETTE/CD-ROM COPIES. THE AS-BUILTS MUST MEET I.T.C. UTILITY DEPT. CRITERIA FOR WATER MAIN AND SEWER AS-BUILTS, INCLUDING TIES TO STATE PLANE COORDINATES.**

**INSPECTION:** MINIMUM CONSTRUCTION CHECKPOINTS THE ENGINEER SHALL BE NOTIFIED 24 HOURS IN ADVANCE. PRIOR TO ANY MAJOR DEVIATION FROM THE APPROVED PLANS. D. PRIOR TO BACKFILLING ANY PIPE TRENCHES. E. UPON COMPLETION OF SUBGRADE AND EMBANKMENT AND COMPACTION. F. PRIOR TO POURING CURBS, SIDEWALKS OR OTHER PAVEMENT. G. UPON BEGINNING OF SURFACING OF BASE MATERIAL. H. UPON COMPLETION OF GRADING AND COMPACTION OF BASE MATERIAL AND PRIOR TO PRIME COAT. I. IMMEDIATELY PRIOR TO APPLICATION OF A.C.C. J. UPON COMPLETION OF CONSTRUCTION.

**ACCEPTABLE TEST RESULTS MUST BE PROVIDED TO THE ENGINEER PRIOR TO COMMENCING SUCCESSIVE STEPS OF CONSTRUCTION, INCLUDING:**

- SUBGRADE TESTING PRIOR TO BASE PREPARATION, CONCRETE CURB OR SIDEWALK CONSTRUCTION.
- BASE TESTING PRIOR TO APPLICATION OF SURFACE COURSE.

WHERE REFERENCES ARE MADE TO ROADWAY CONSTRUCTION, IT IS INTENDED TO INDICATE CONSTRUCTION FOR ROADWAYS AND/OR PARKING LOTS/DRIVEWAYS.

**TRAFFIC/PAVEMENT MARKING NOTES:**

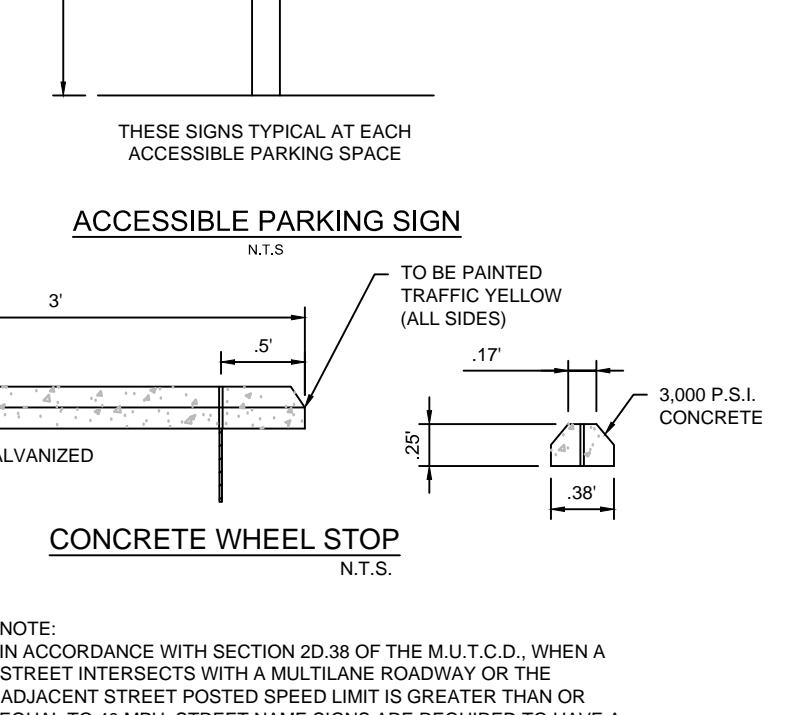
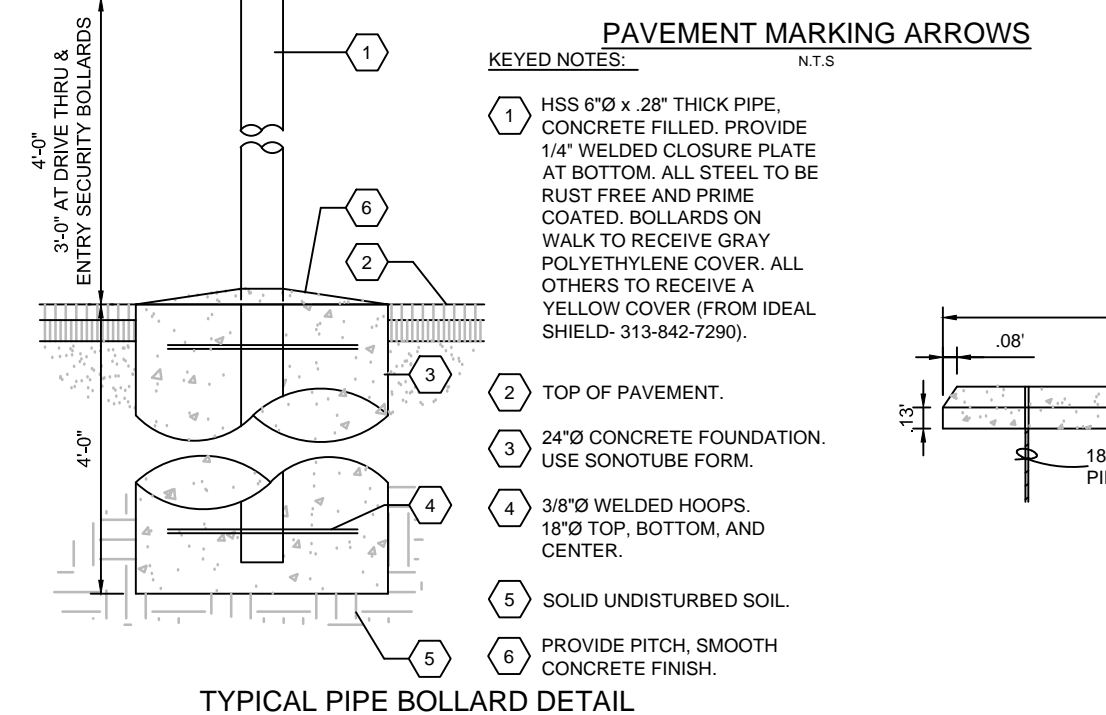
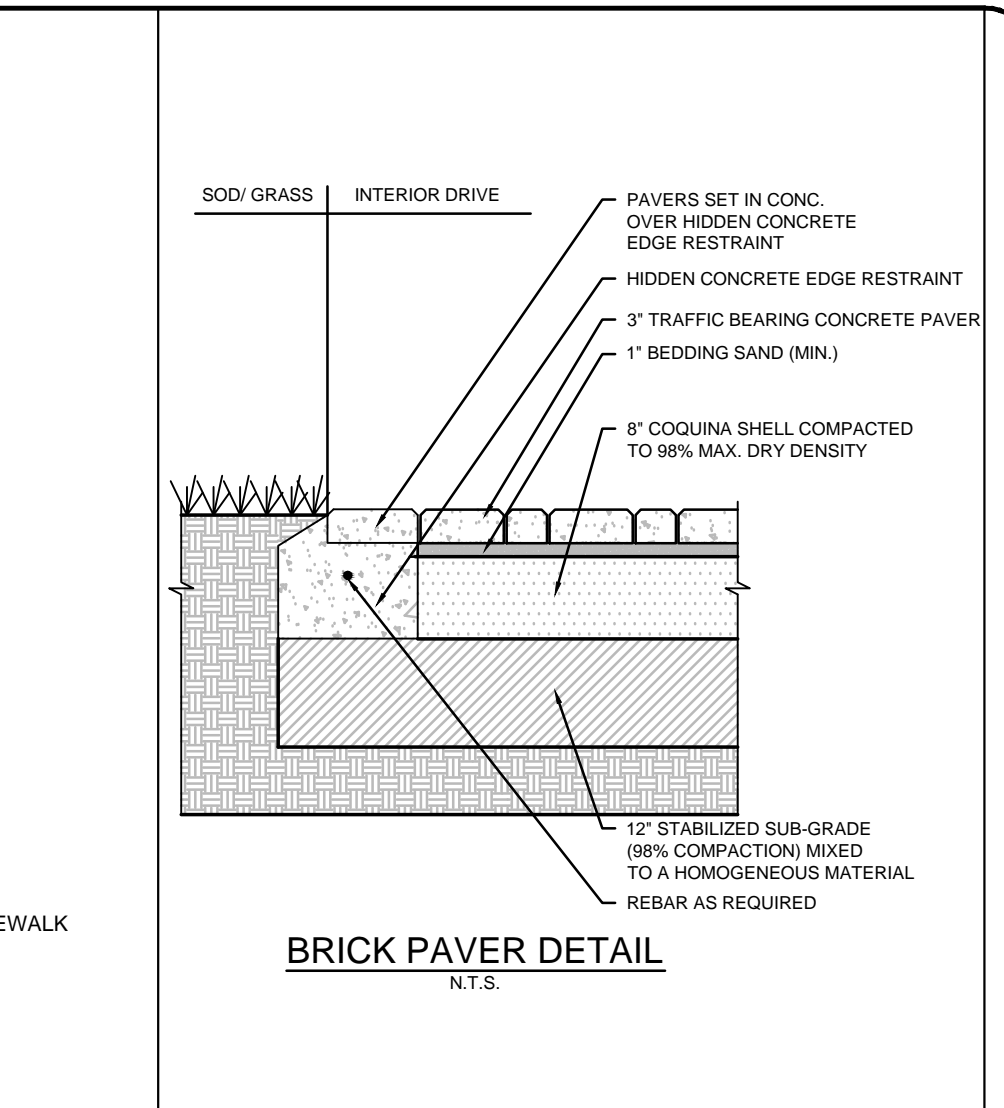
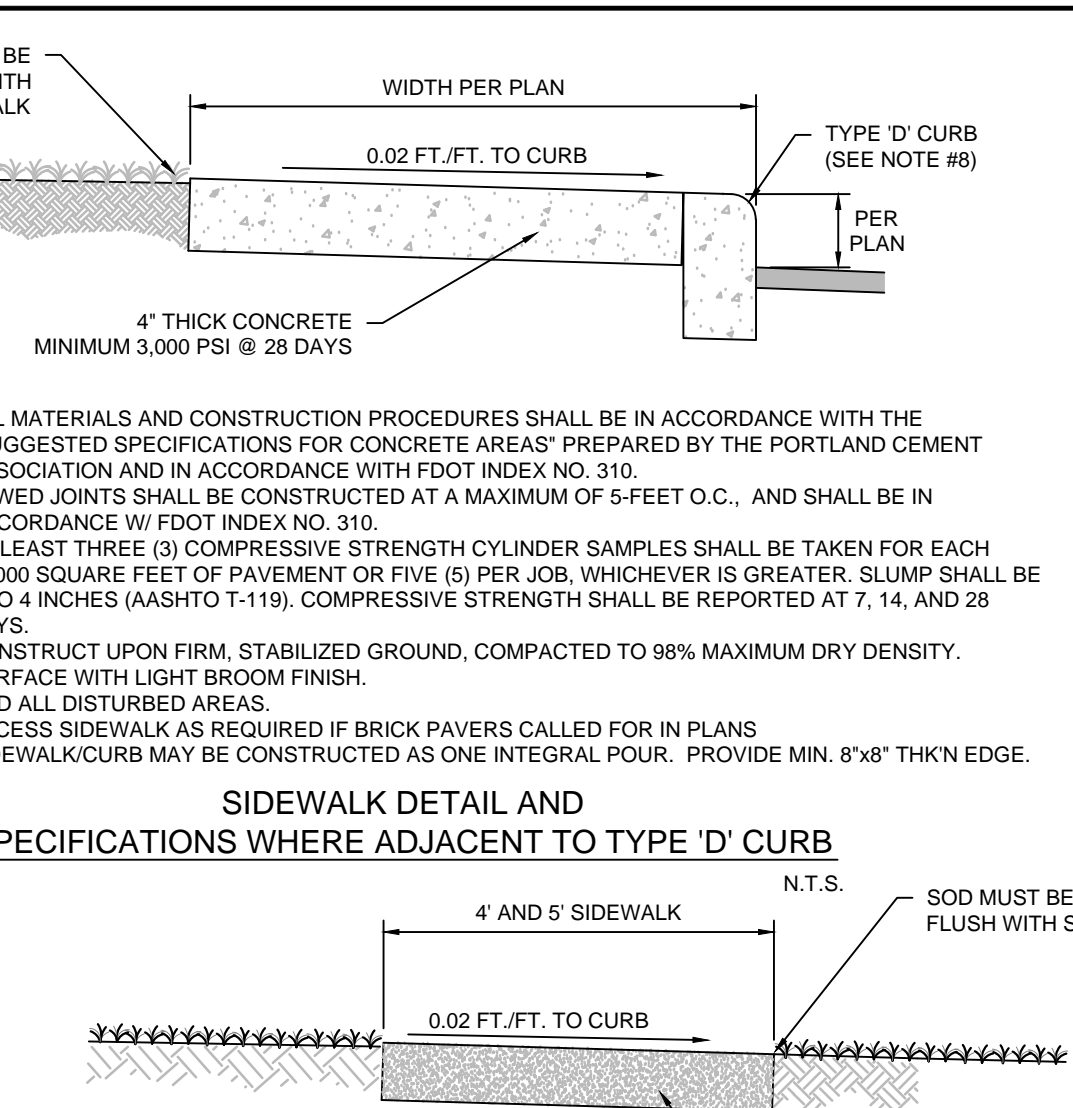
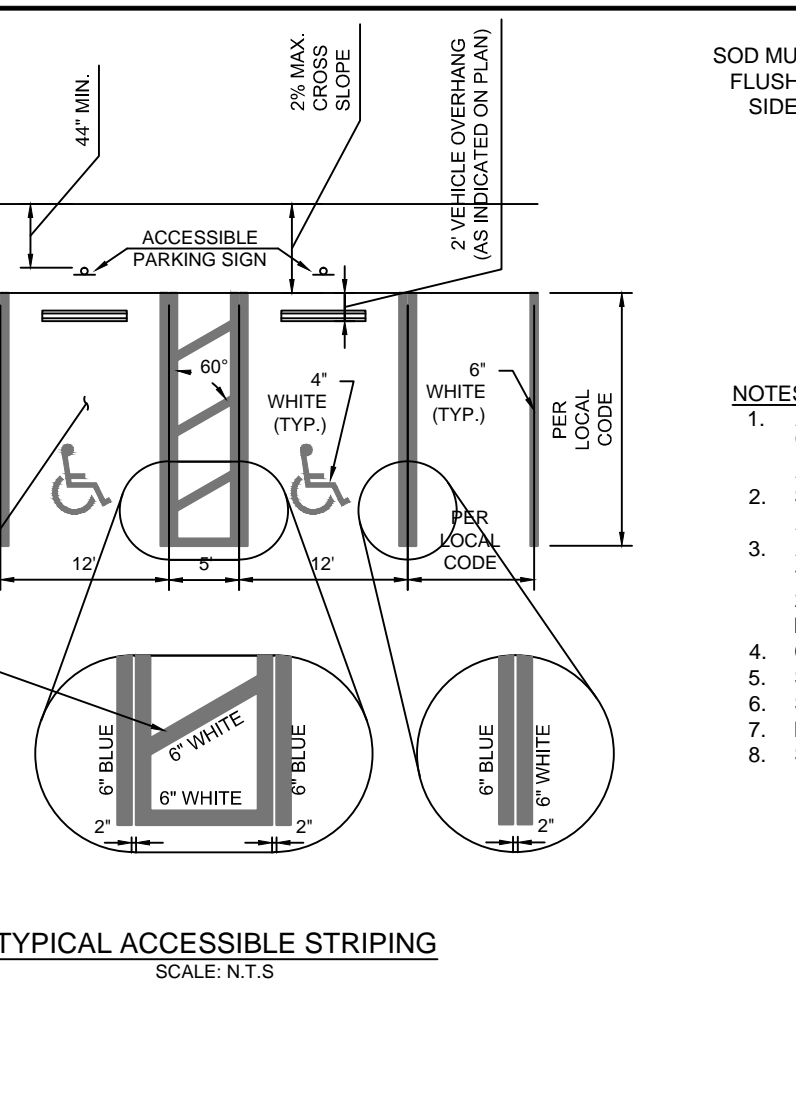
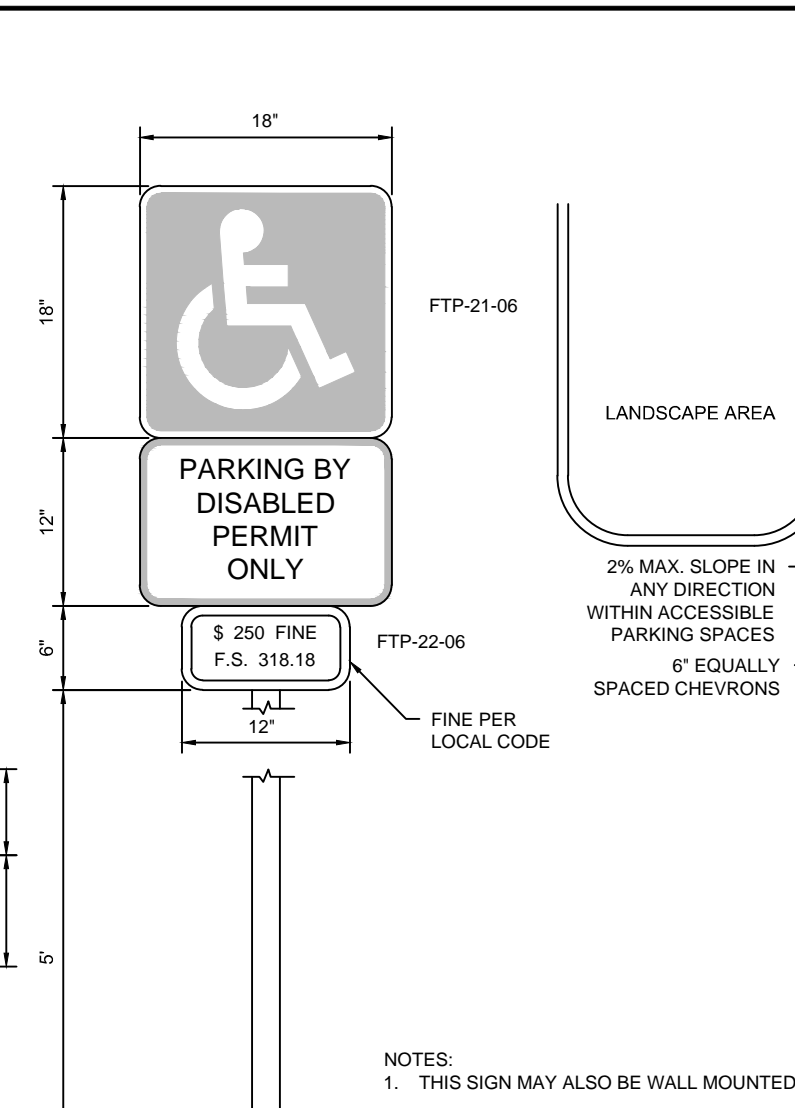
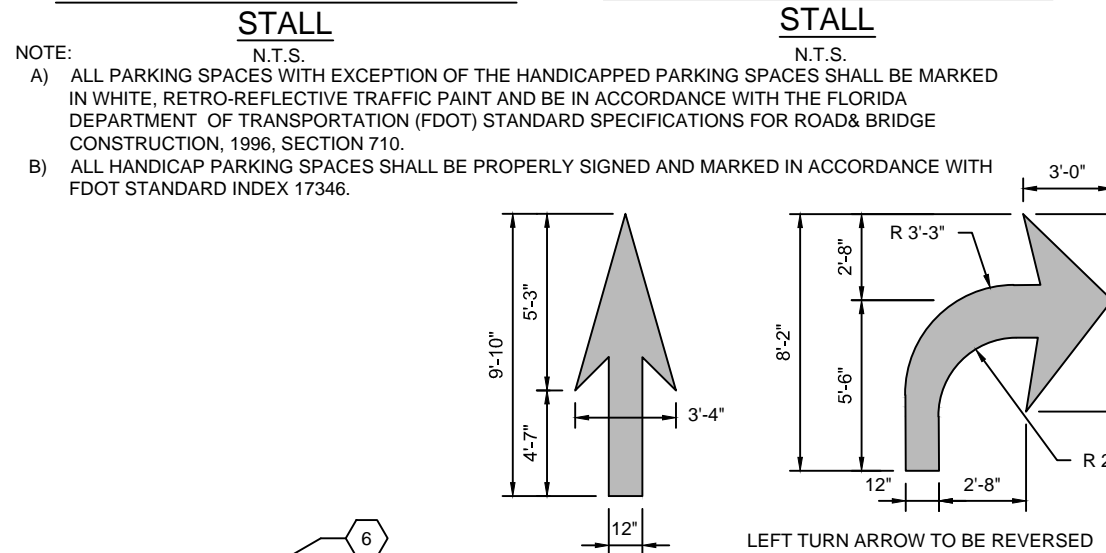
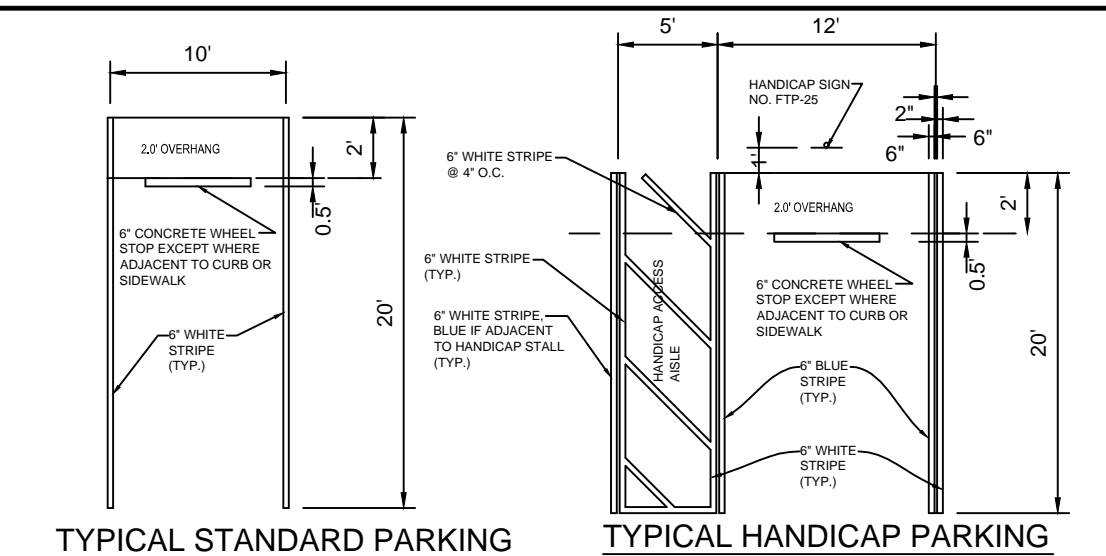
- ALL PARKING SPACES AND ROADWAY MARKINGS ON PRIVATE DRIVEWAYS/STREETS WITH THE EXCEPTION TO THE HANDICAPPED PARKING SPACES SHALL BE MARKED IN RETRO-REFLECTIVE TRAFFIC PAINT AND IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 710, SECTION NO. 710.
- ALL HANDICAPPED PARKING SPACES SHALL BE PROPERLY SIGNED AND MARKED IN ACCORDANCE WITH THE D.O.T. STANDARD INDEX NO. 17346.
- TRAFFIC FLOW ARROWS THRU PARKING AREAS ARE FOR DIRECTION AND ARE TO BE PAINTED.
- STOP BARS SHALL BE 4" WIDE.
- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN WITH F.D.O.T. TRAFFIC DESIGN STANDARDS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL PAVEMENT MARKINGS FOR THE PROPOSED PUBLIC ROADWAYS AND ALL MARKINGS AT INTERSECTIONS OF PRIVATE DRIVEWAYS/STREETS WITH PUBLIC ROADWAYS SHALL BE EXTRUDED TYPE ALUMINUM BASE THERMOPLASTIC AND SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION NO. 711.
- SPECIAL MARKINGS (CROSS WALK, STOP BARS, ROADWAY CONSTRUCTION STRIPING, THRU ARROWS, PAVEMENT MARKINGS FOR TRAFFIC SEPARATORS, ETC.) SHALL BE IN ACCORDANCE WITH THE D.O.T. INDEX NO. 17346.

**SIGNS:**

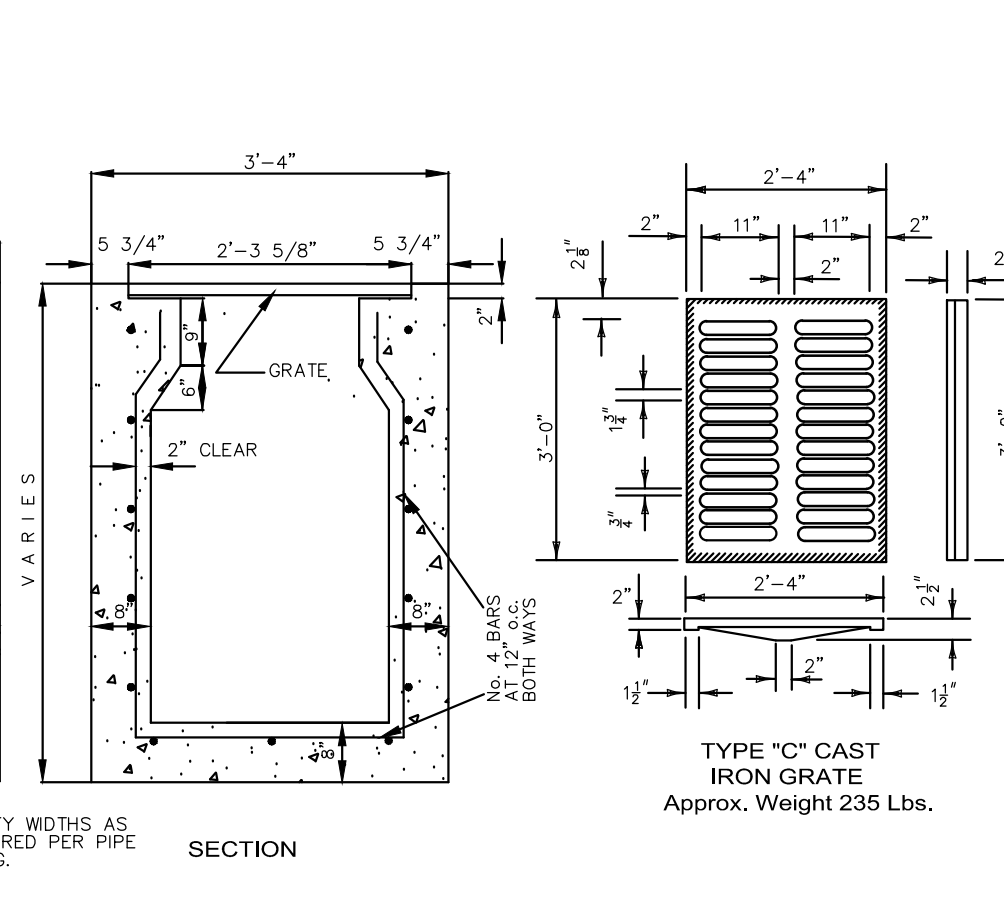
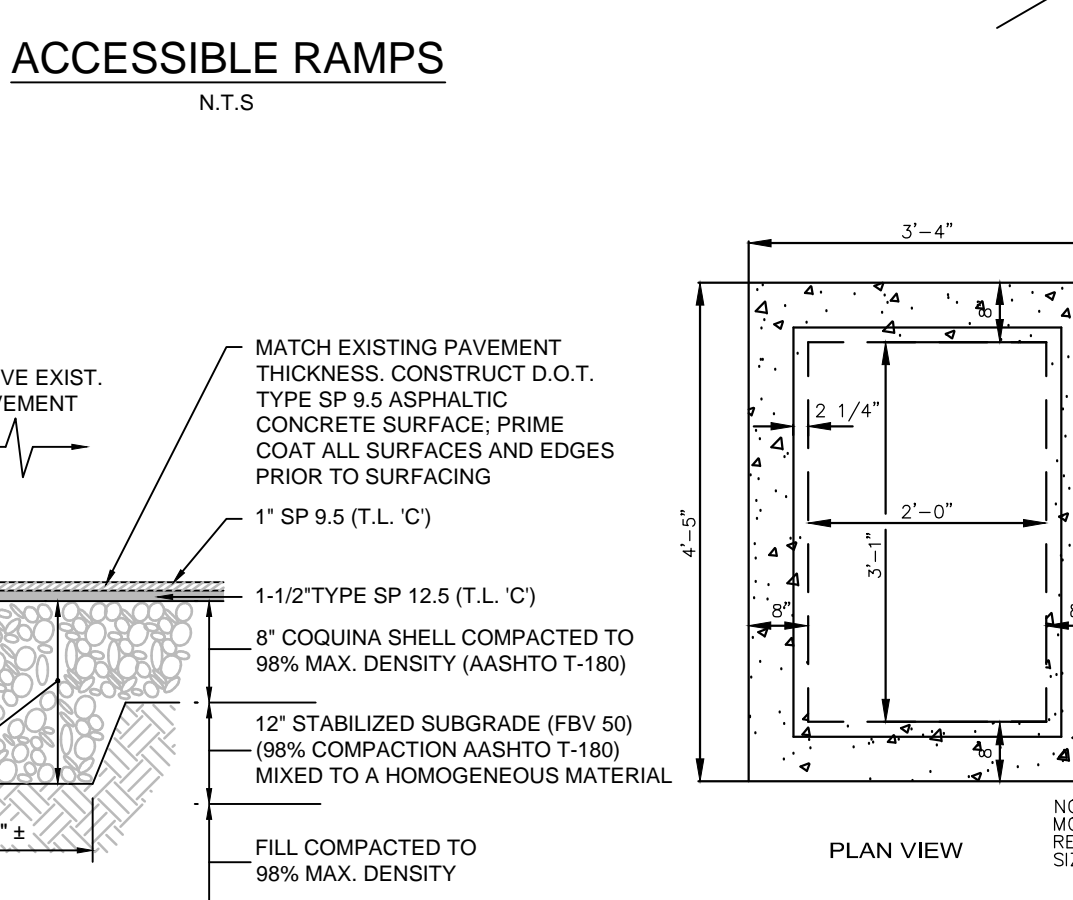
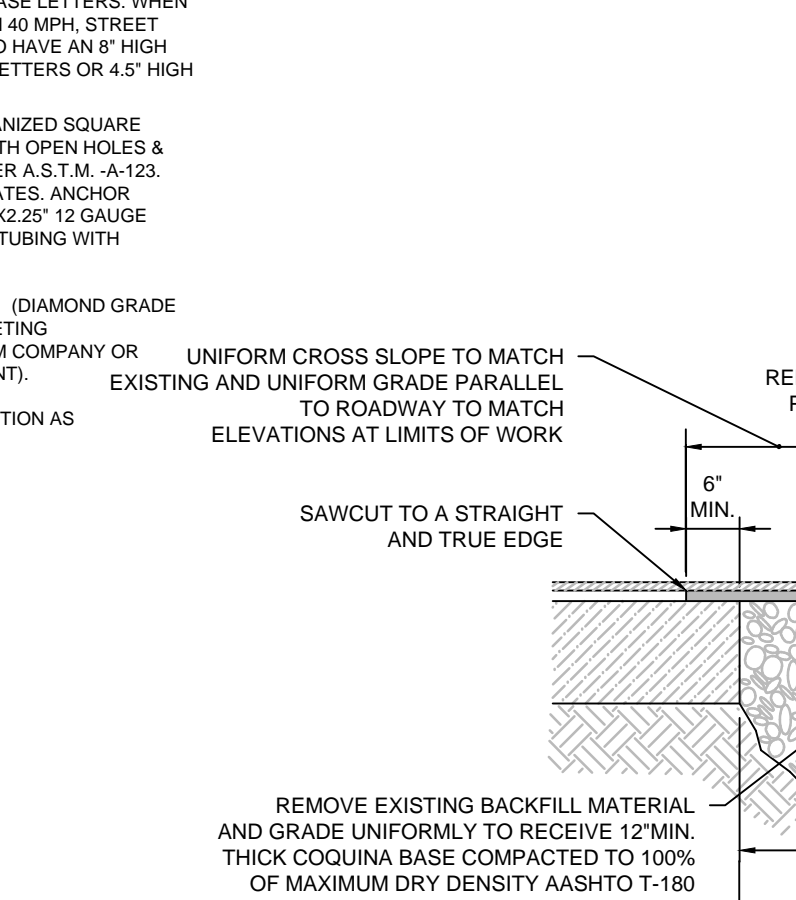
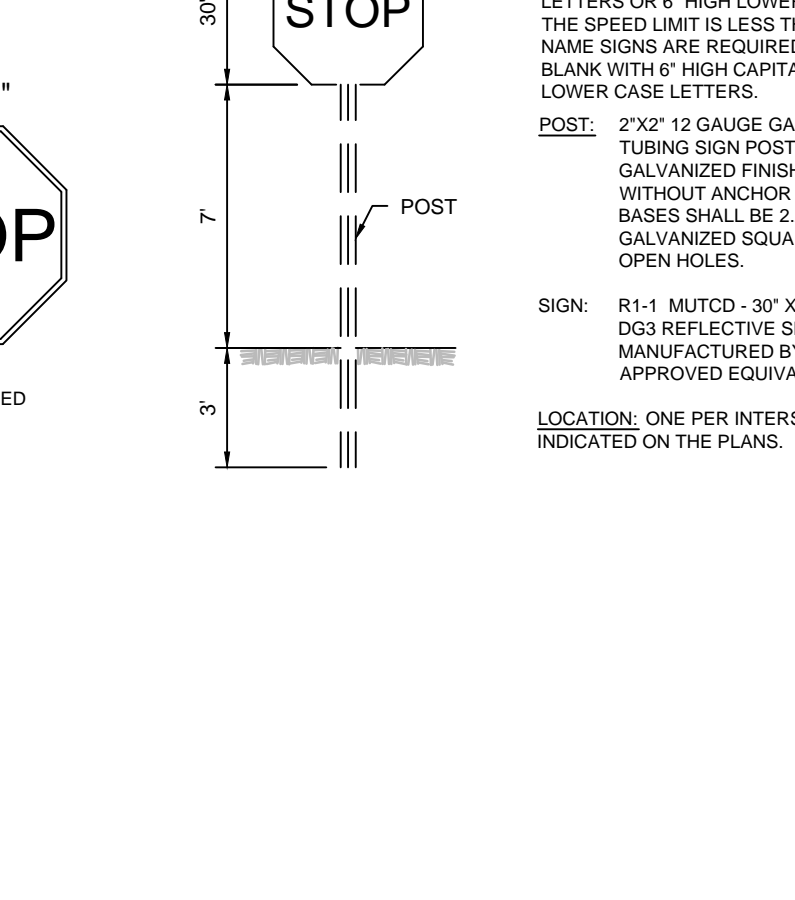
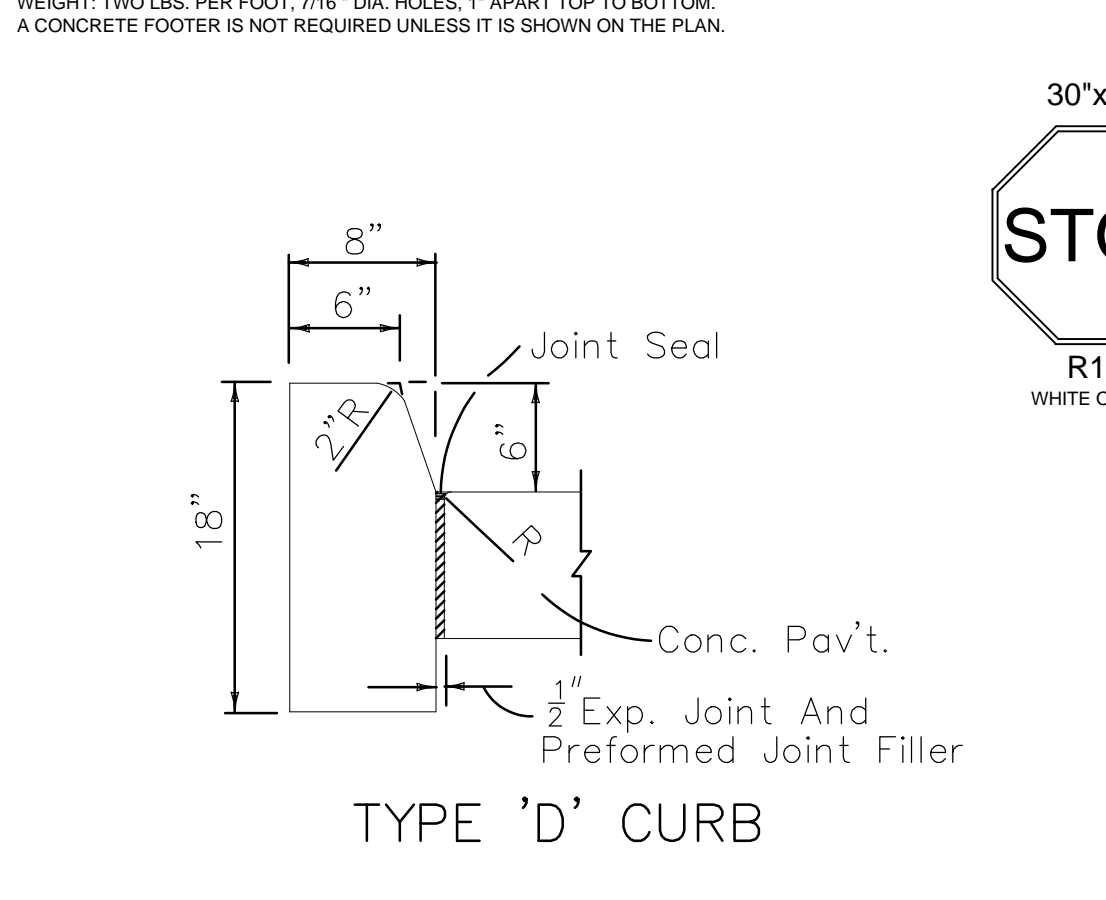
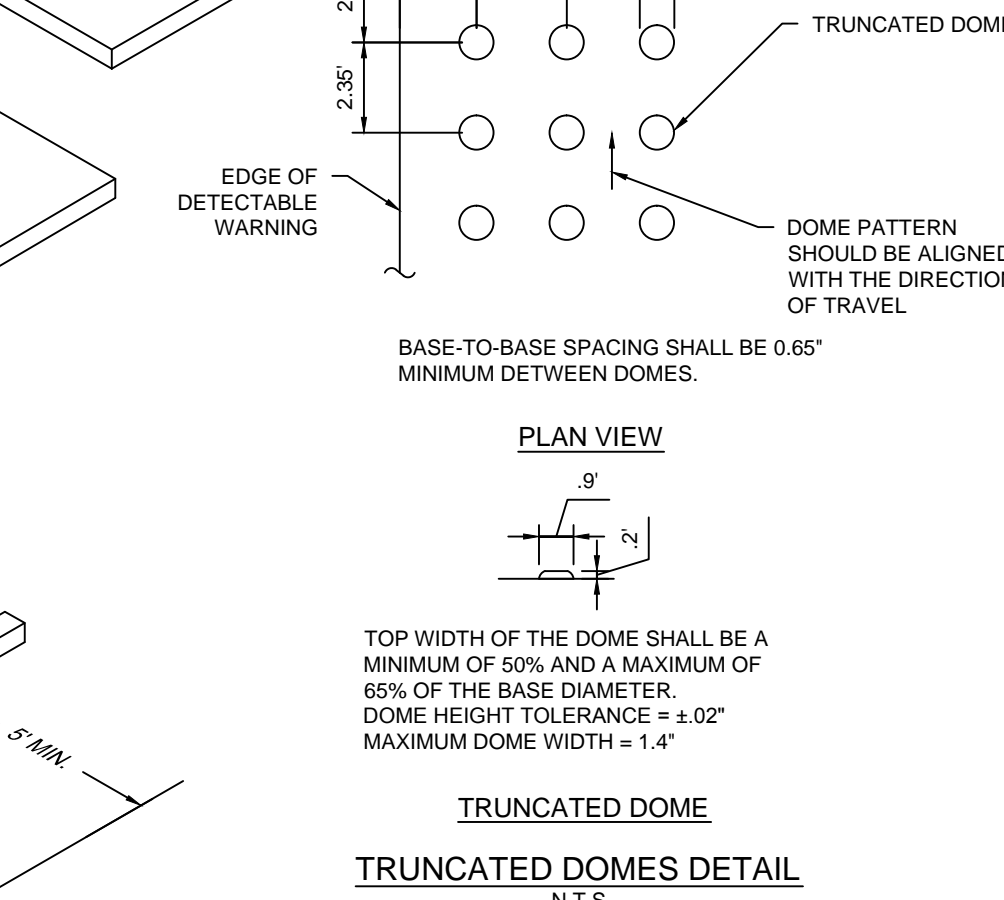
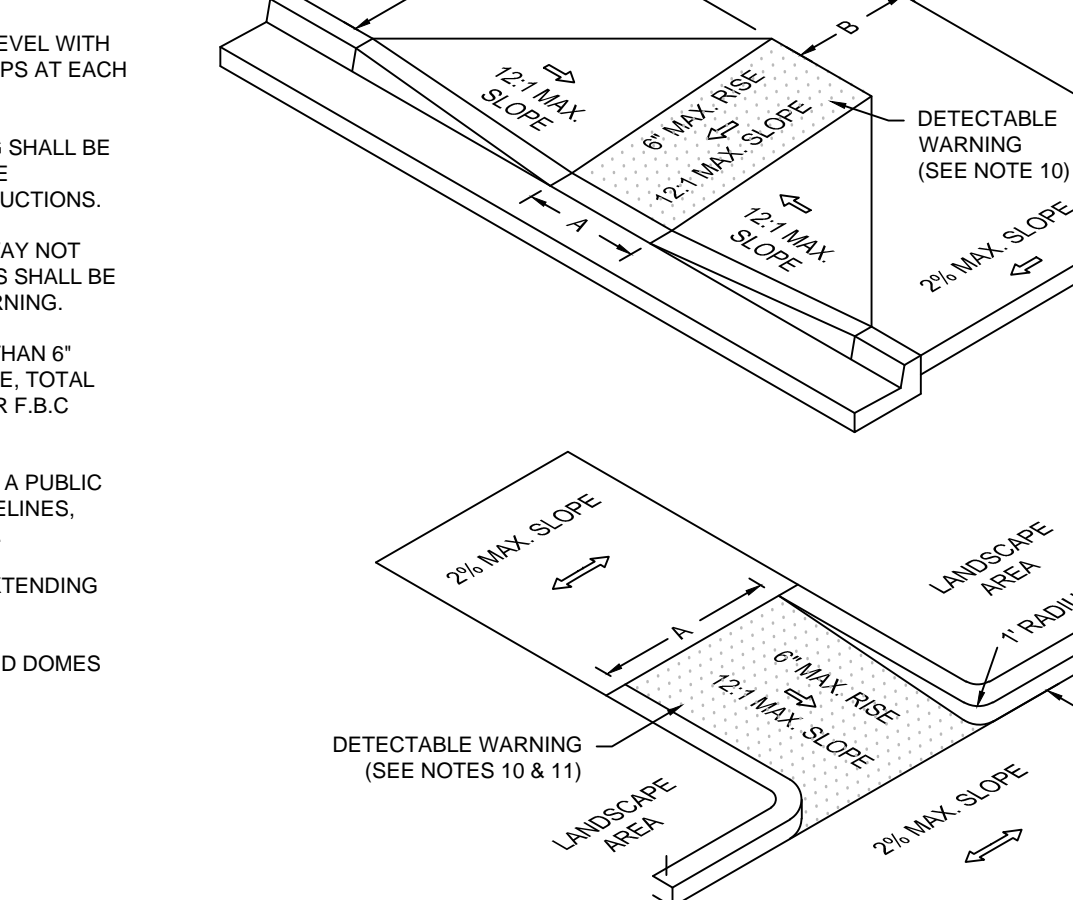
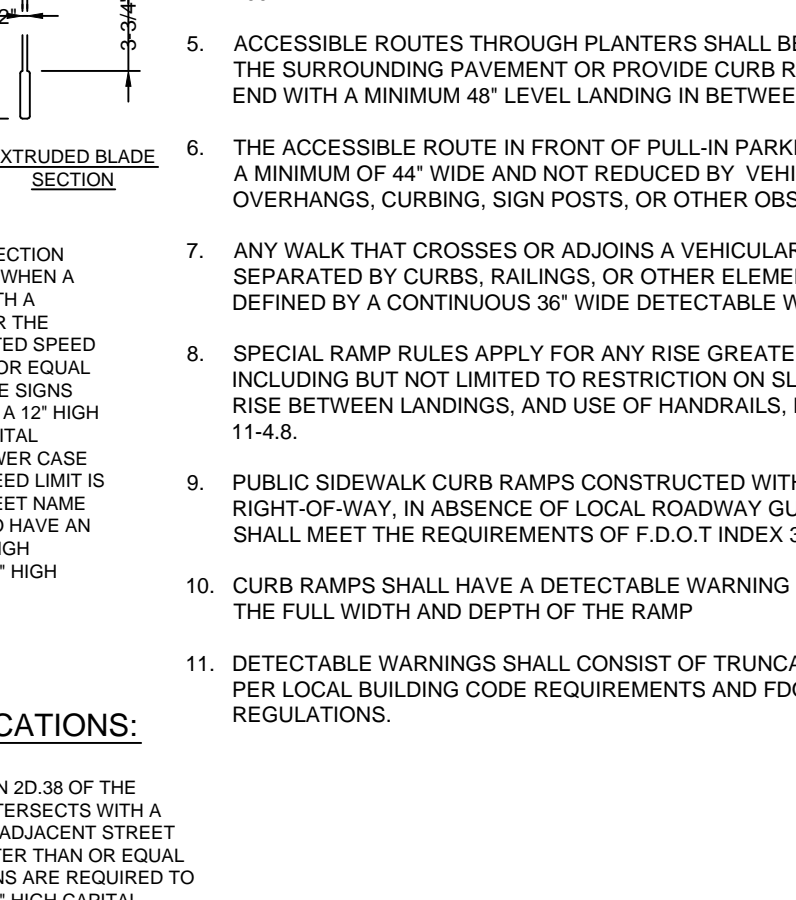
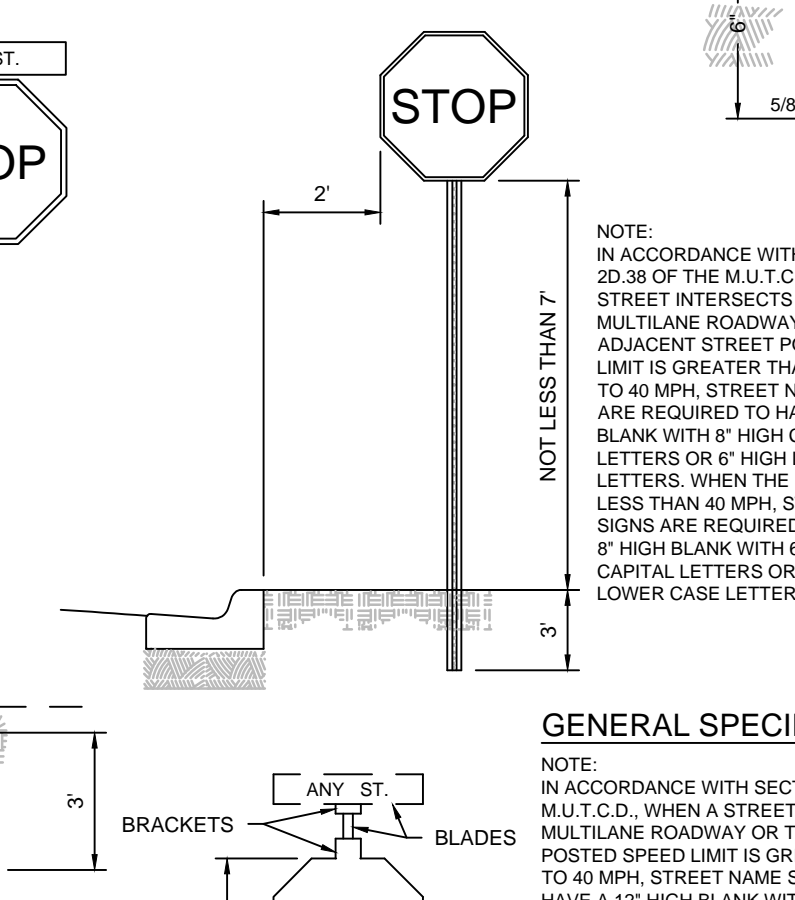
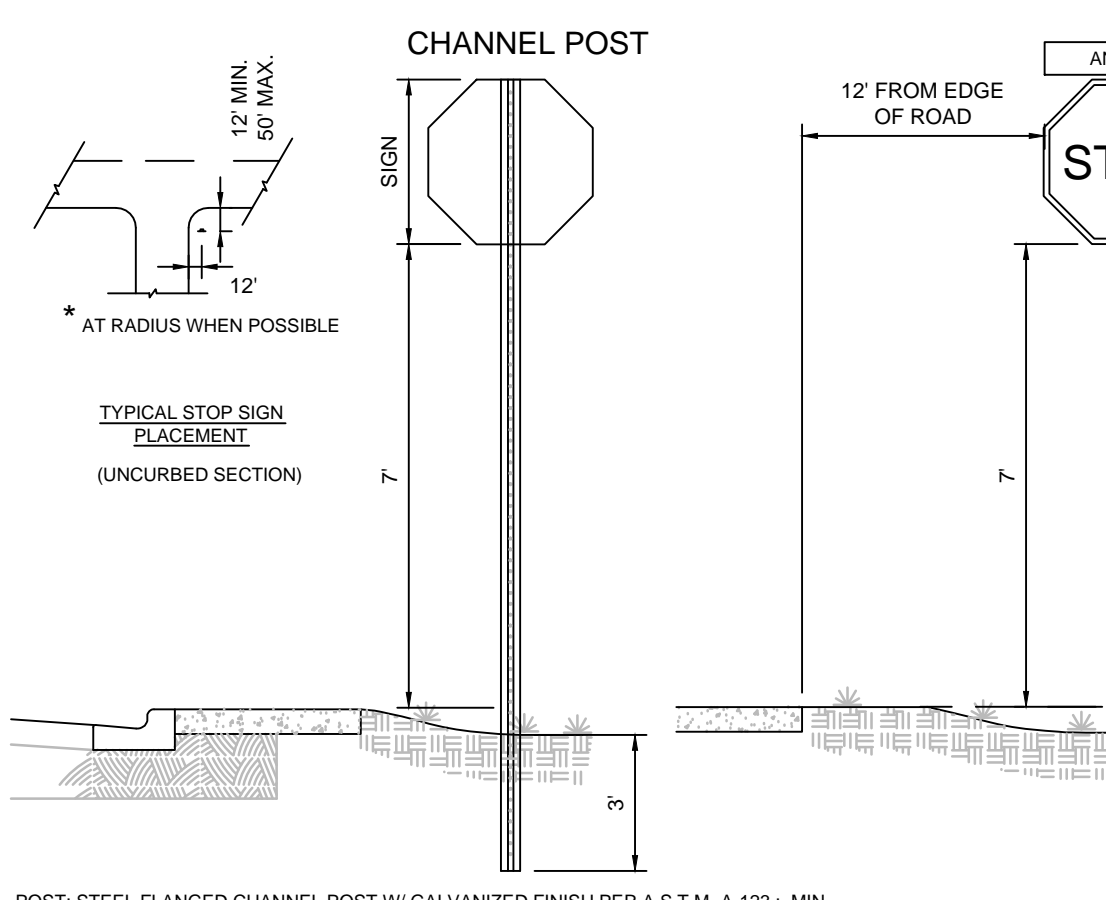
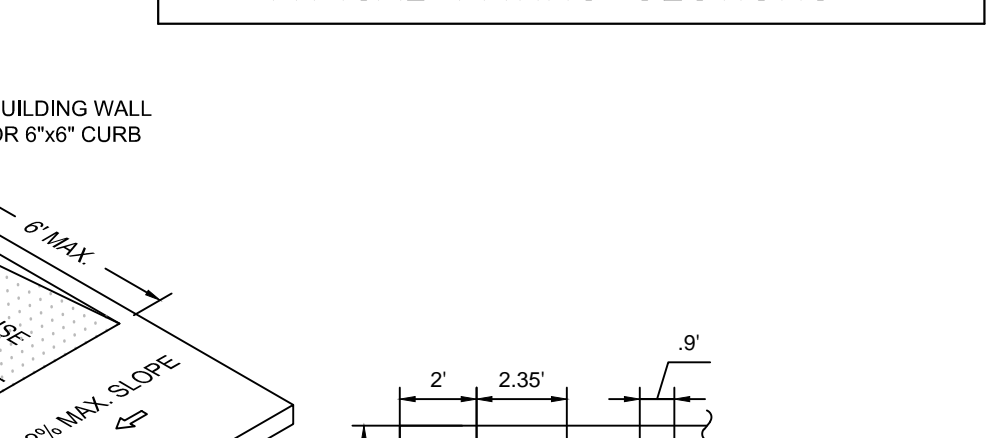
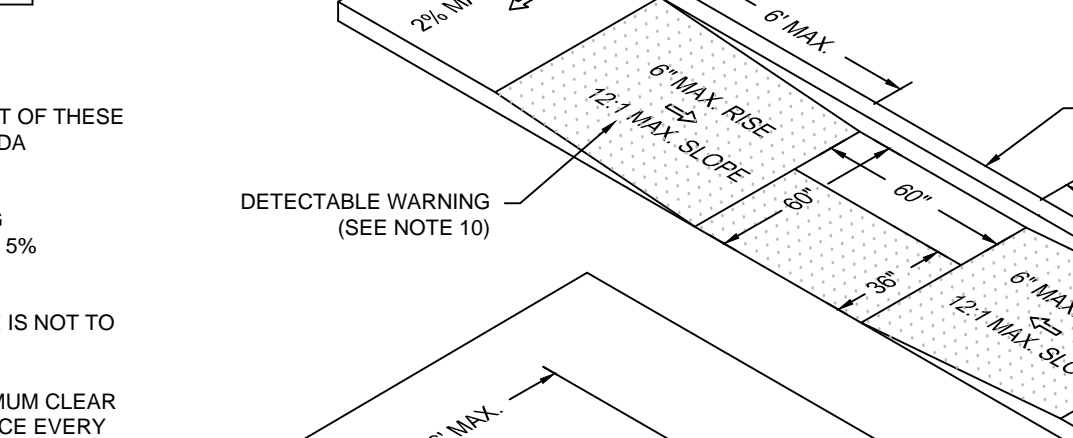
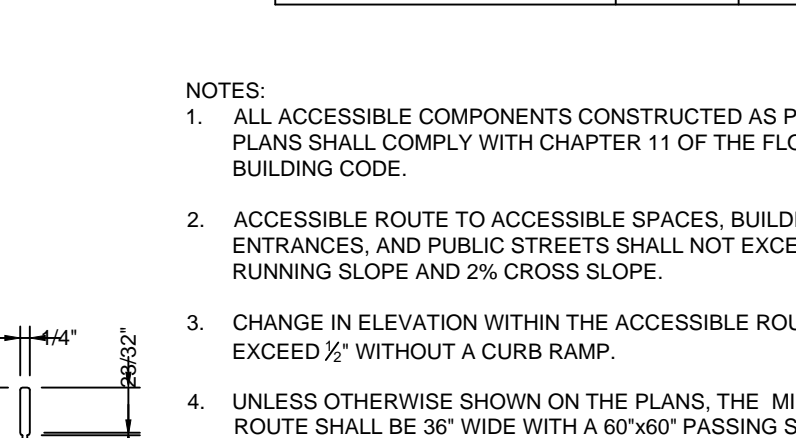
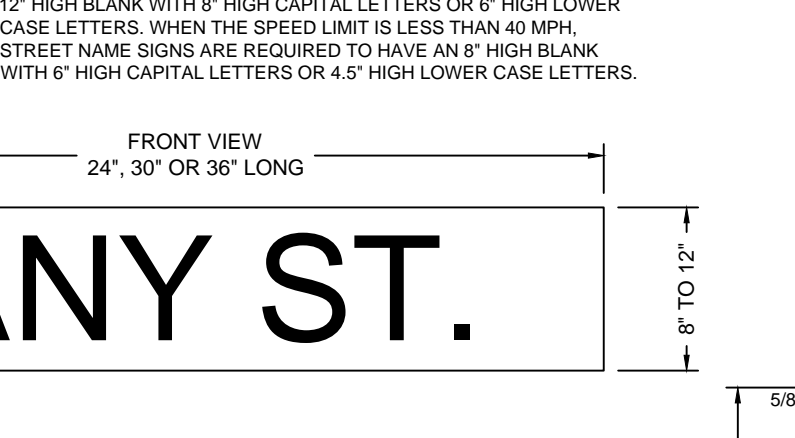
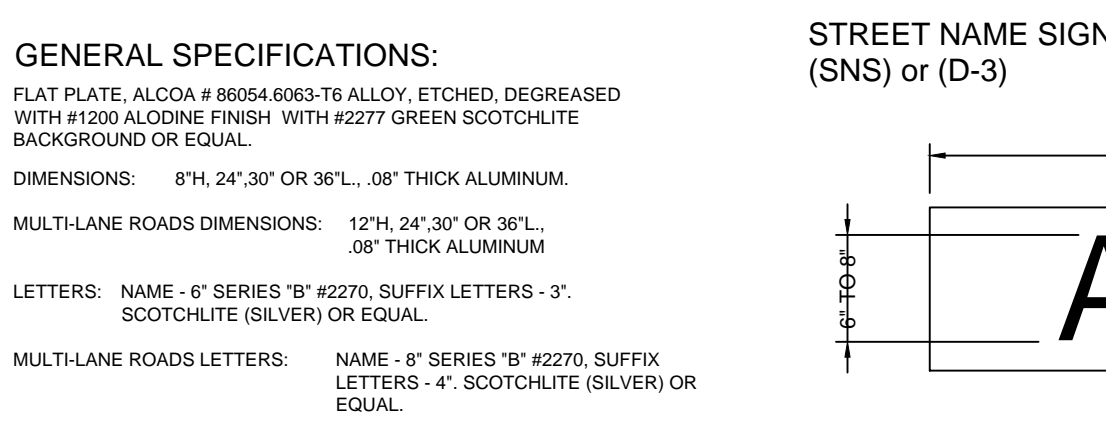
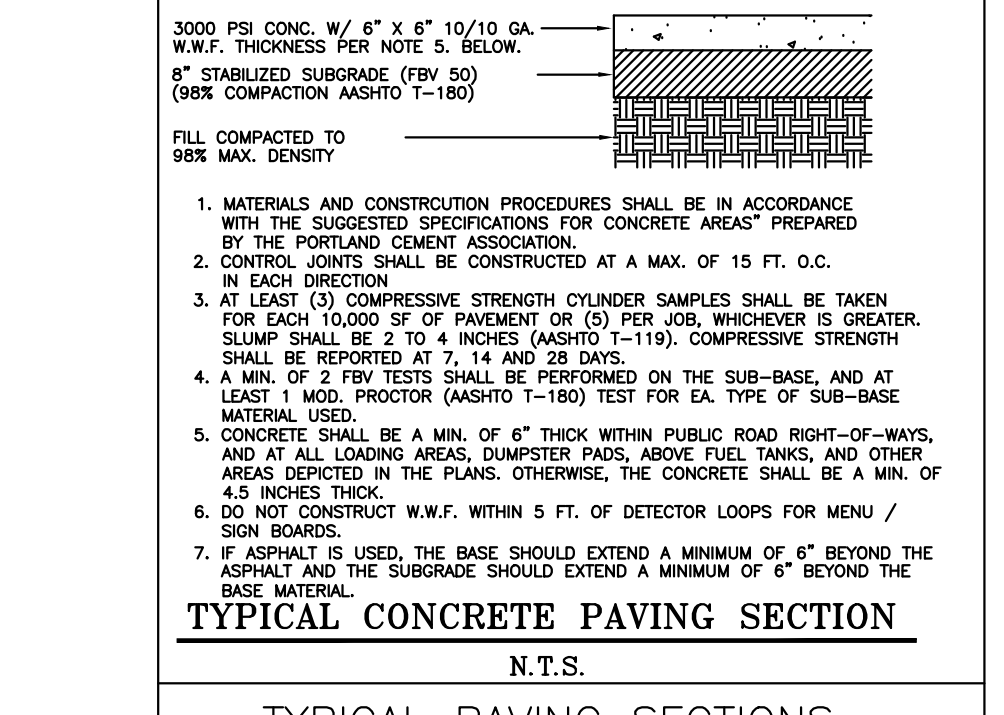
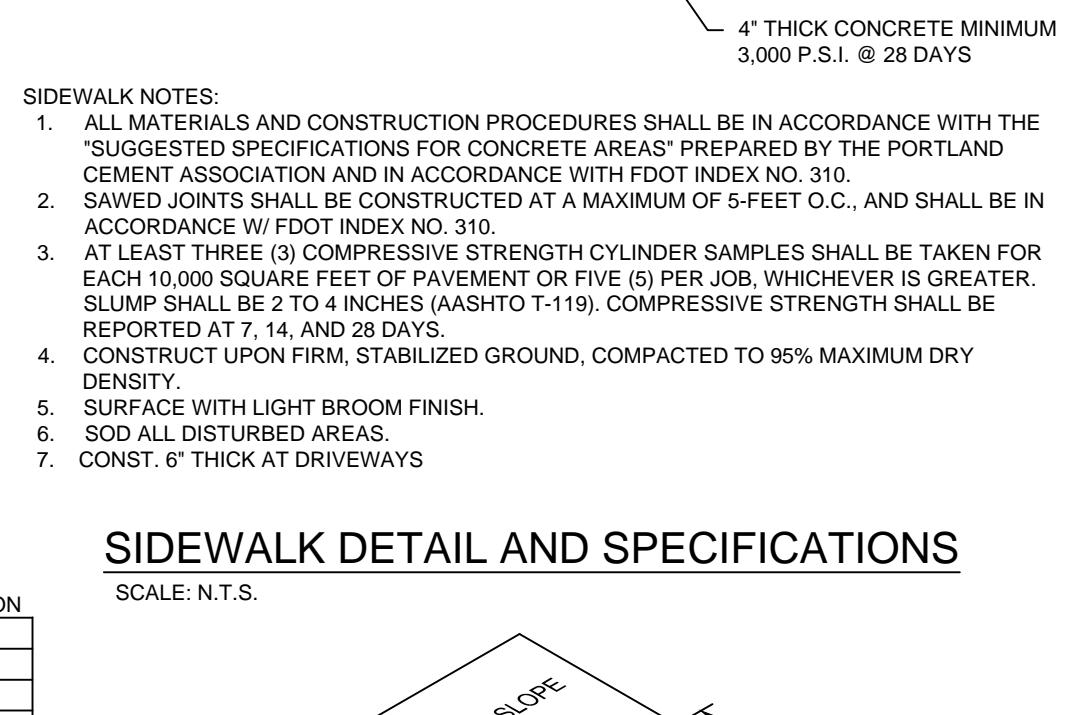
- ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL SIGNS SHALL BE TYPE 'C' SINGLE COLUMN GROUND SIGNS IN ACCORDANCE WITH F.D.O.T. INDEX NO. 11865, 11866, 11867, 11868, 11869, 11870, 11871, 11872, 11873, 11874, 11875, 11876, 11877, 11878, 11879, 11880, 11881, 11882, 11883, 11884, 11885, 11886, 11887, 11888, 11889, 11890, 11891, 11892, 11893, 11894, 11895, 11896, 11897, 11898, 11899, 11900, 11901, 11902, 11903, 11904, 11905, 11906, 11907, 11908, 11909, 11910, 11911, 11912, 11913, 11914, 11915, 11916, 11917, 11918, 11919, 11920, 11921, 11922, 11923, 11924, 11925, 11926, 11927, 11928, 11929, 11930, 11931, 11932, 11933, 11934, 11935, 11936, 11937, 11938, 11939, 11940, 11941, 11942, 11943, 11944, 11945, 11946, 11947, 11948, 11949, 11950, 11951, 11952, 11953, 11954, 11955, 11956, 11957, 11958, 11959, 11960, 11961, 11962, 11963, 11964, 11965, 11966, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 11974, 11975, 11976, 11977, 11978, 11979, 11980, 11981, 11982, 11983, 11984, 11985, 11986, 11987, 11988, 11989, 11990, 11991, 11992, 11993, 11994, 11995, 11996, 11997, 11998, 11999, 12000.
- ALL SIGN PLACEMENT SHALL BE IN ACCORDANCE WITH F.D.O.T. INDEX NO. 17302.

**ADDITIONAL SPECIFICATIONS FOR WORK WITHIN A PUBLIC D.O.V.:**

- ALL MATERIALS AND CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE FOOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION), STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISIONS, AND THE SUPPLEMENTAL SPECIFICATIONS TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISIONS.
- THE APPLICANT'S ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION SHALL INSURE THAT THE MAINTENANCE OF TRAFFIC PLAN (MOTI) FOR THE PROJECT IS IN ACCORDANCE WITH THE APPLICABLE STANDARD SPECIFICATIONS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (U.S. DEPARTMENT OF TRANSPORTATION, FHWA). THE CONTRACTOR SHALL PROVIDE NECESSARY M.O.T. AS DESCRIBED IN THE PLANS AND PERMITS, AND AS DIRECTED IN THE FIELD BY THE ENGINEER OR PUBLIC WORKS OFFICIAL REPRESENTATIVE.
- AT THE END OF EACH WORK PERIOD, ANY DROP-OFF OR THE AREA ADJACENT TO THE TRAVEL WAY OF THE STATE ROAD SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD INDEX NO. 17346. ANY OTHER PROTECTED WORK SHALL BE PROTECTED BY A TEMPORARY BARRIER WALL AT THE CONTRACTOR'S EXPENSE. IF THE PERMITTED WORK IS ON A ROADWAY THAT HAS BEEN SELECTED AS A HURRICANE OR DISASTER EVACUATION ROUTE, THE APPLICANT, AT THE PRE-CONSTRUCTION CONFERENCE IS REQUIRED TO PRESENT, AS PART OF THE WORK PLAN, AN EMERGENCY FUNCTIONAL RESTORATION PLAN TO ADDRESS EVENTUALITIES SUCH AS HURRICANES.
- THE CONTRACTOR SHALL CALL THE APPROPRIATE COUNTY TRAFFIC ENGINEERING DIVISION, HAVING JURISDICTION OVER THE PROJECT AT LEAST 48 HOURS BEFORE ANY EXCAVATION WITHIN THE FOOT RIGHT-OF-WAY TO DETERMINE THE LOCATION OF THE EXISTING TRAFFIC SIGNAL INTERCONNECT CABLE. THE LOCATION OF EXISTING UTILITIES SHALL BE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. RELOCATION OF UTILITIES SHALL BE COORDINATED WITH UTILITY COMPANIES AFTER IDENTIFICATION OF CONFLICT BY CONTRACTOR. CONTRACTOR WILL NOTIFY ENGINEER IN ADVANCE BEFORE ANY RELOCATION.
- BEFORE PERMIT APPROVAL AND CONSTRUCTION OF THIS PROJECT, THE APPLICANT MUST CONTACT THE FLORIDA DEPARTMENT OF TRANSPORTATION LOCAL MAINTENANCE OFFICE TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE TELEPHONE NUMBER IS 888-460-7209 OR 904-306-2026.
- THE APPLICANT AT THE EARLIEST CONVENIENT TIME SHALL NOTIFY IN WRITING ALL RIGHT-OF-WAY USERS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
- ALL CURB CUT BARRIERS SHALL BE IN THE DIRECTION OF TRAVEL.
- AT THE END OF EACH WORK PERIOD, ANY DROP-OFF OR THE AREA ADJACENT TO THE TRAVEL OF THE STATE ROAD SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD INDEX NO. 17346. ANY OTHER PROTECTED WORK SHALL BE PROTECTED BY A TEMPORARY BARRIER WALL AT THE CONTRACTOR'S EXPENSE. IN ADDITION, INDEX 600 OR SHALL BE OTHERWISE PROTECTED WITH TEMPORARY BARRIER WALL AT THE CONTRACTOR'S EXPENSE.
- ALL NOT LANE CLOSURE SIGNS SHALL BE IN ACCORDANCE WITH THE D.O.T. INDEX NO. 17346. NO LANE ARE TO BE CLOSED FOR MORE THAN 9:00 AM AND ALL LANES ARE TO BE OPENED BY 4:00 PM.
- PAVEMENT SPECIFICATION: MATCH EXISTING TYPE AND DEPTH OF ASPHALT TO 1/2" MAXIMUM, INCLUDING FRICTION COURSE.



RAMP LOCATION	MINIMUM DIMENSION	
	A	B
AT OUTSWING DOOR	44"	60"
AT INSWING/SLIDING DOOR	44"	48"
NO DOORWAY	36"	36"



**SCHULKE, BITTLE & STODDARD, L.L.C.**  
 CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING  
 CERTIFICATION NO.: 00008668  
 1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960  
 TEL 772/770-9622 FAX 772/770-9496 EMAIL info@sbengineering.com

**MISCELLANEOUS DETAILS & SPECIFICATIONS**

**INLET PALMS**

**ENGINEER CERTIFICATION**  
 JOSEPH W. SCHULKE  
 FL REG. NO. 4046  
 JOHAN B. BITTLE  
 FL REG. NO. 57396  
 CHLUMIA P. STODDARD  
 FL REG. NO. 57605

DATE: SHEET 11 PROJECT NO. 15-053

### FORT PIERCE UTILITIES AUTHORITY WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. WATER MAINS SHALL BE POLYVINE CHLORIDE (PVC) SHALL CONFORM TO ANNA C-900 OR C-905, PRESSURE CLASS 150, OR (110) WATER MAINS WHEN SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM TO ANNA C-901 OR C-904, STANDARD CODE DESIGNATION PEWAVE PIPE CLASS 200 DIMENSION RATIO (DR) 11 FOR DIRECT BURIAL, (DR) 11 FOR DIRECTIONAL BORING, AND (DR) 9 FOR 2 INCH AND SMALLER PIPELINES.
3. WATER MAIN, WHEN SPECIFIED AS DUCTILE IRON PIPE, SHALL CONFORM TO ANNA/CANADA C151/A21.51 AND SHALL BE PRESSURE CLASS 250 (MINIMUM).
4. POLYVINE CHLORIDE WATER MAIN SHALL BE BLUE IN COLOR OR WHITE IN COLOR WITH BLUE STRIPES. USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE. ALSO DP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THIN WIRE.
5. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANNA/CANADA C110/A21.10, CLASS 250 MM, CHEMIST LEAD AND FACTORY COATED.
6. GATE VALVES SHALL BE SMALLER RESISTANT SEAT, KENNEDY KEN-30K, AMERICAN OR APPROVED EQUAL, VALVES SHALL CONFORM TO ANNA C-500.
7. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPLUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT COMPACTED DENSITY TESTS AS REQUIRED BY FPLUA ENGINEERS AND THE CITY, COUNTY, FOOT, IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL GOVERNMENT AGENCIES, THE COMPACTED REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPLUA ENGINEER AND CITY/COUNTY/FOOT ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY FPLUA ENGINEERING AND CITY/COUNTY/FOOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
10. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, FPLUA AND CITY/COUNTY/FOOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY ENGINEER.
12. UNPAVED AREAS SHALL BE 36 INCHES EXPOSED AS APPROVED BY THE UTILITIES ENGINEER AND CITY/COUNTY/FOOT ENGINEER. PAVED AREAS SHALL BE RESTORED TO ORIGINAL FINISH OR TO THE FINISH OF THE ADJACENT DRIVEWAYS.
13. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
14. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ANNA C-651 FOR DISINFECTION.

WATER DISTRIBUTION	G-1
NOTES	
DESIGNED BY: [Signature]	DESIGNED BY: [Signature]
DRAWN BY: [Signature]	DRAWN BY: [Signature]
CHECKED BY: [Signature]	CHECKED BY: [Signature]
SCALE: N.T.S.	SCALE: N.T.S.
DATE: [Date]	DATE: [Date]

### FORT PIERCE UTILITIES AUTHORITY WASTEWATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. GRAFFTY SEWER MAIN SHALL BE POLYVINE CHLORIDE (PVC) SHALL CONFORM TO ANNA C-900 OR C-905, PRESSURE CLASS 150, OR (110) GRAFFTY SEWER MAIN SHALL HAVE LOCATOR TAPE WITH "SEWER" MARKED ON TAPE AND SHALL CONFORM TO ANNA C-500A.
3. THE MANHOLE BASE SHALL BE SET ON A FIRM DRY AND STABLE OR COMPACTED BASE FOUNDATION. IF NECESSARY, THE CONTRACTOR SHALL UTILIZE ROCK TO PROVIDE A FIRM AND SUITABLE MANHOLE BASE FOUNDATION.
4. WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPLUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT COMPACTED DENSITY TESTS AS REQUIRED BY FPLUA ENGINEERS AND THE CITY, COUNTY, FOOT, IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL GOVERNMENT AGENCIES, THE COMPACTED REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
5. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
6. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISTING OF PIPE SIZES, LOCATION OF SERVICE LATERALS, SPACED TO BE SERVICES, LOCATION OF INFORMATION NECESSARY TO LOCATE TRENCHES UNDER THIS PROJECT.
7. MANHOLE 5X5 FEET AND PREFERABLY 10-FOOT HORIZONTAL DISTANCE BETWEEN MANHOLES SHALL BE MAINTAINED AS A MINIMUM.
8. WASTEWATER FORCE MAINS, WASTEWATER COLLECTION LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS UNLESS OTHERWISE SPECIFIED. A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE BOTTOM OF THE LOWER PIPE AND THE TOP OF THE UPPER PIPE SHALL BE MAINTAINED UNLESS OTHERWISE SPECIFIED. WHERE THE MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING. THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) CENTERED ON THE CROSSING. DIP IS NOT REQUIRED FOR STORM SEWERS. SUFFICIENT LENGTH OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 30 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.
9. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). AT SUCH CROSSINGS PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS ON THE SEWER PIPE. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAFFTY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3 FEET WHERE THE BOTTOM OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
10. WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE Laid IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHAFT LOCATED ON ONE SIDE OF THE SEWER OR TOP OF THE SEWER. THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 8 INCHES ABOVE THE TOP OF THE SEWER.
11. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 8 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) WITH A MINIMUM VERTICAL DISTANCE OF 8 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (CROSSING JOINTS).
12. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR SHALL AS MANUFACTURED BY 3M CORPORATION OR APPROVED EQUAL, AS REQUIRED PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.
13. ALL MANHOLES SHALL HAVE SEWER RAIN GUARDS INSTALLED AS REQUIRED BY FPLUA ENGINEER.
14. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REGULATIONS.

WASTEWATER CONSTRUCTION NOTES	G-2
CONSTRUCTION NOTES	
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### STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS

1. SANITARY SERVICE, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS UNLESS OTHERWISE SPECIFIED. A MINIMUM VERTICAL DISTANCE OF 8 INCHES, PREFERABLY 12 INCHES BETWEEN THE INVERT OF THE LOWER PIPE AND THE JOINT OF THE UPPER PIPE WHEN ABOVE, AND AT LEAST 12 INCHES SEPARATION WHEN THE WATER MAIN IS BELOW.
2. A MINIMUM 5-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL TYPE OF STORM SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS UNLESS OTHERWISE SPECIFIED.
3. A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN "TONGUE SERVICE TREATMENT AND DISPOSAL SYSTEM" AND WATER MAIN IN PARALLEL INSTALLATIONS UNLESS OTHERWISE SPECIFIED.
4. A MINIMUM 8-FOOT, AND PREFERABLY 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN DITCH OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER AND WATER MAIN IN PARALLEL INSTALLATIONS UNLESS OTHERWISE SPECIFIED. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAFFTY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3 FEET WHERE THE BOTTOM OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
5. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE Laid IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHAFT LOCATED ON ONE SIDE OF THE SEWER OR TOP OF THE SEWER. THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 8 INCHES ABOVE THE TOP OF THE SEWER.
6. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 8 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) WITH A MINIMUM VERTICAL DISTANCE OF 8 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (CROSSING JOINTS).
7. ALL DIP SHALL BE PRESSURE CLASS 250 MIN. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

STANDARD SEPARATION STATEMENT FOR WATER/SEWER CONFLICT	G-3
WATER/SEWER CONFLICT	
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### TYPICAL TRENCH DETAIL

**NOTES:**

- 1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
- 2) INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE PIPE. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 100% OF MAX DENSITY AS DETERMINED BY ASTM METHOD T-99.

TYPICAL TRENCH DETAILS	M-1
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### BACKFILLING REQUIREMENTS

**NOTES:**

- 1) IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED.
- 2) BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE.
- 3) MANHOUSING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. ADEQUATE SOIL SUPPORT.
- 4) INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE. THE SOIL SHALL BE COMPACTED TO 100% MAX DENSITY (ASTM D 1557).
- 5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX DENSITY AS PER ASTM D-1557 TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY AS PER ASTM D-1557.
- 6) DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE UTILITIES ENGINEER OR PROPERTY AGENCY REPRESENTATIVE, AT THE CONTRACTOR'S EXPENSE.
- 7) CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL TRENCH SAFETY REGULATIONS.

BACKFILLING REQUIREMENTS	M-2
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### UTILITY CROSSING DETAIL

**NOTES:**

1. BLUE REFLECTIVE PAVEMENT MARKER FRIMS FOR WATER MAINS AND GREEN PIPES FOR WASTEWATER MAINS.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SIX INCHES BELOW GRADE.
3. DIP MAY BE USED AS RESSES ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DITCH, NO DIP RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

UTILITY CROSSING DETAIL	M-5
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### TYPICAL GATE VALVE & WEIGHTED VALVE BOX DETAIL

**NOTES:**

1. BLUE REFLECTIVE PAVEMENT MARKER FRIMS FOR WATER MAINS AND GREEN PIPES FOR WASTEWATER MAINS.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SIX INCHES BELOW GRADE.
3. DIP MAY BE USED AS RESSES ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DITCH, NO DIP RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & WEIGHTED VALVE BOX DETAIL	M-6
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### JACK & BORE DETAIL

**NOTES:**

- 1) CASING INSULATORS SHALL BE MADE WITH SPECIAL RUNNER HEIGHTS SO AS NOT TO INTERFERE WITH PIPE JOINTS.
- 2) ALL CARRIER PIPES MUST HAVE MECHANICALLY RESTRAINED JOINTS.
- 3) INSULATOR SPACING SHALL BE AS REQUIRED BY THE MANUFACTURER, HOWEVER, NO LESS THAN THREE (3) CASING INSULATORS SHALL BE INSTALLED PER LENGTH OF PIPE.
- 4) CASING LENGTH SHALL EXTEND A MINIMUM OF 4 FEET BEYOND THE EDGE OF PAVEMENT OR CURBING.

JACK & BORE DETAIL	M-7
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### TRACE WIRE DETAIL

**NOTES:**

- 1) TRACE WIRE IS REQUIRED ON ALL PIPE AS NOTED BY UTILITIES ENGINEER AND SHOWN IN STANDARD DETAILS.
- 2) INCLUDE ALL COST OF MATERIALS AND LABOR IN PRICE OF TRACE WIRE.
- 3) CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.

TRACE WIRE DETAIL	M-11
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### TYPICAL DRIVEWAY RESTORATION

**NOTES:**

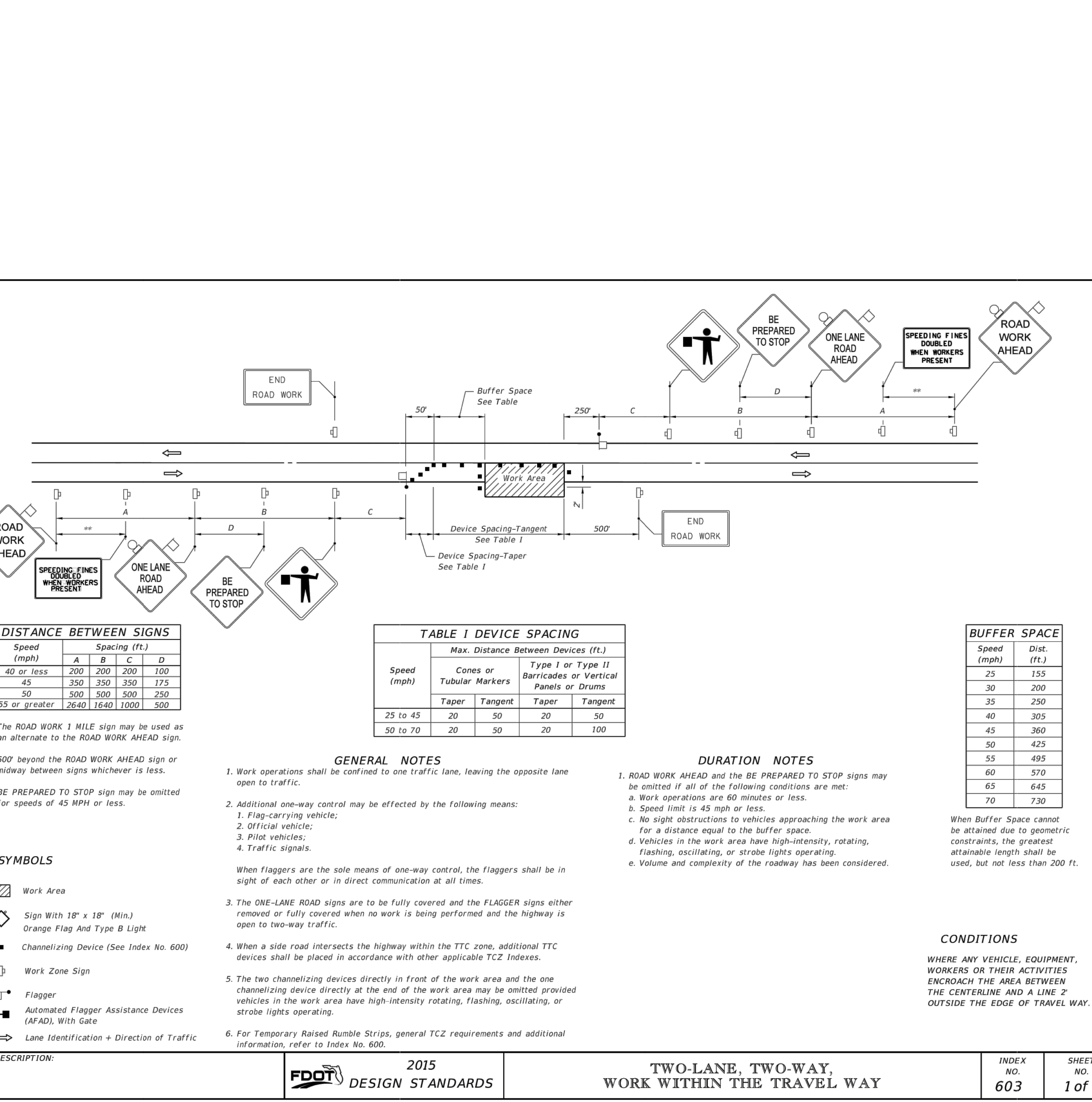
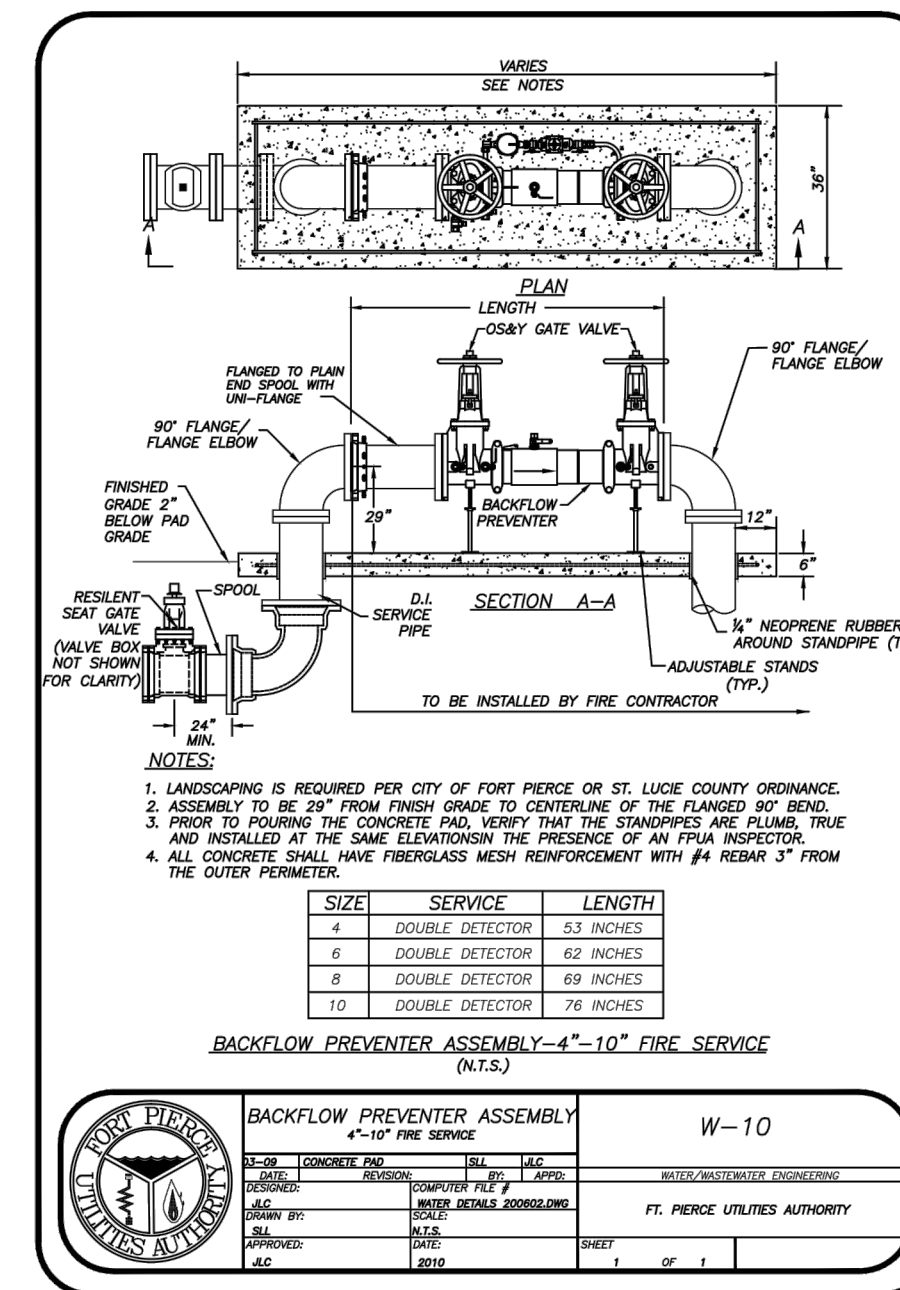
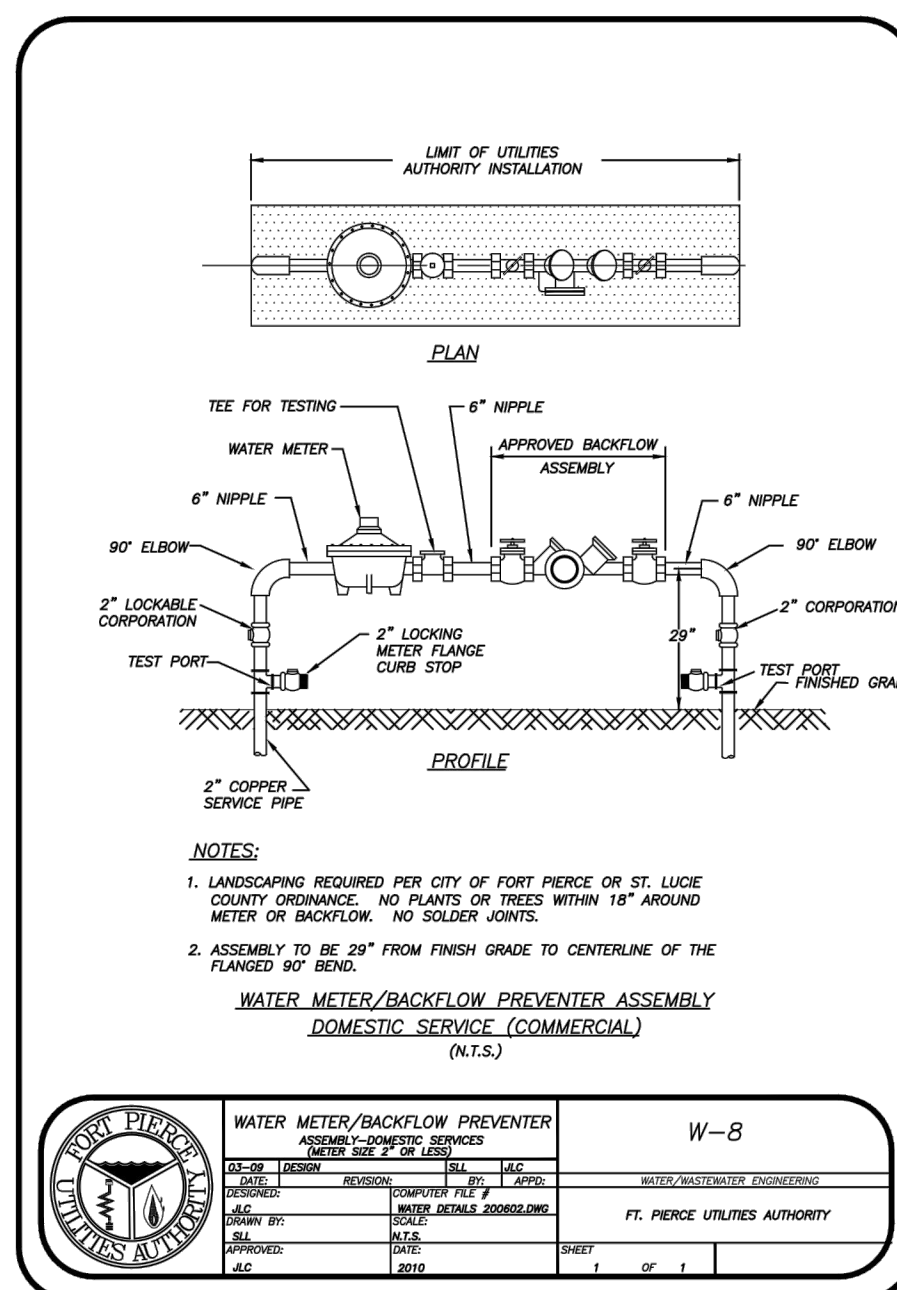
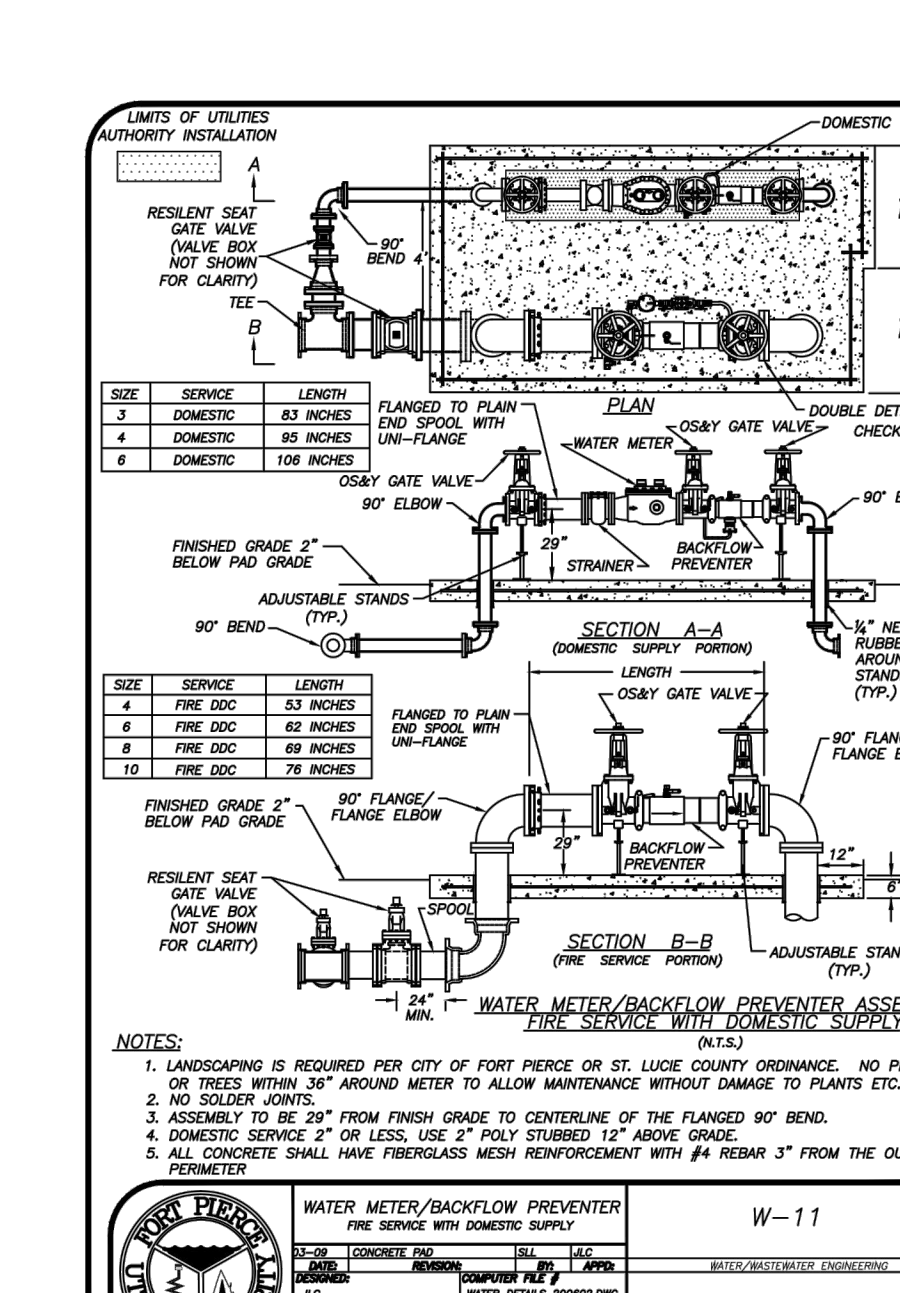
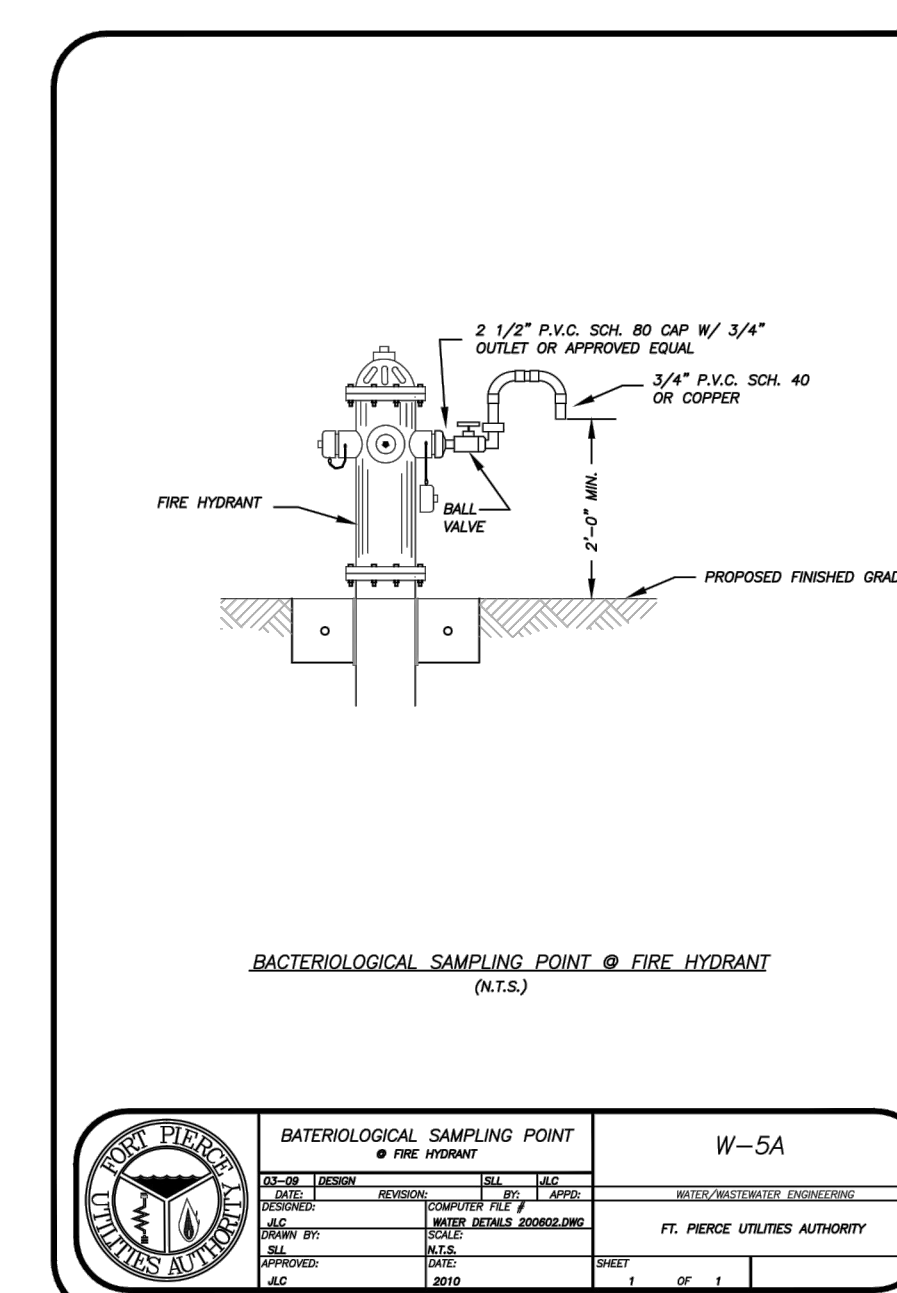
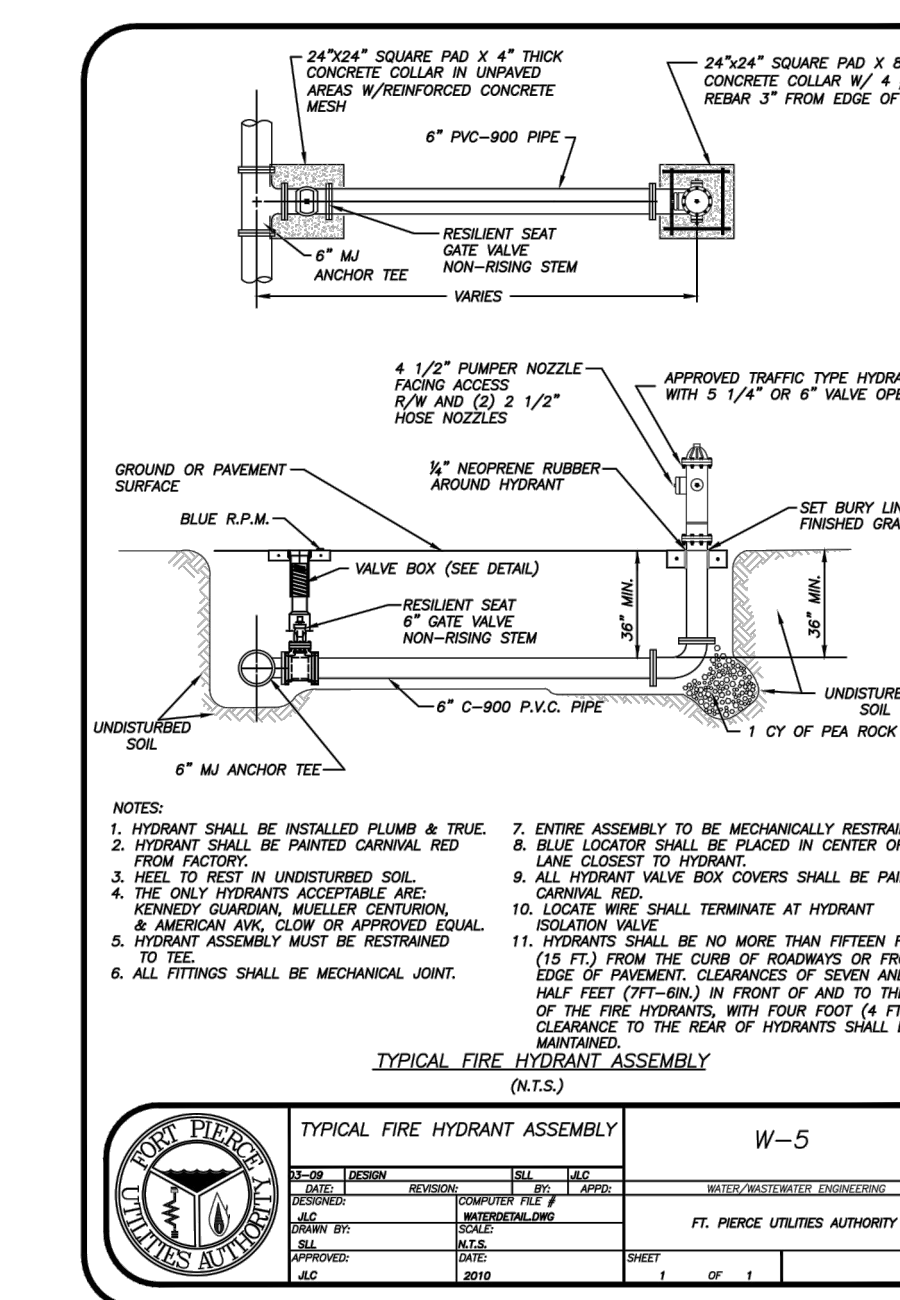
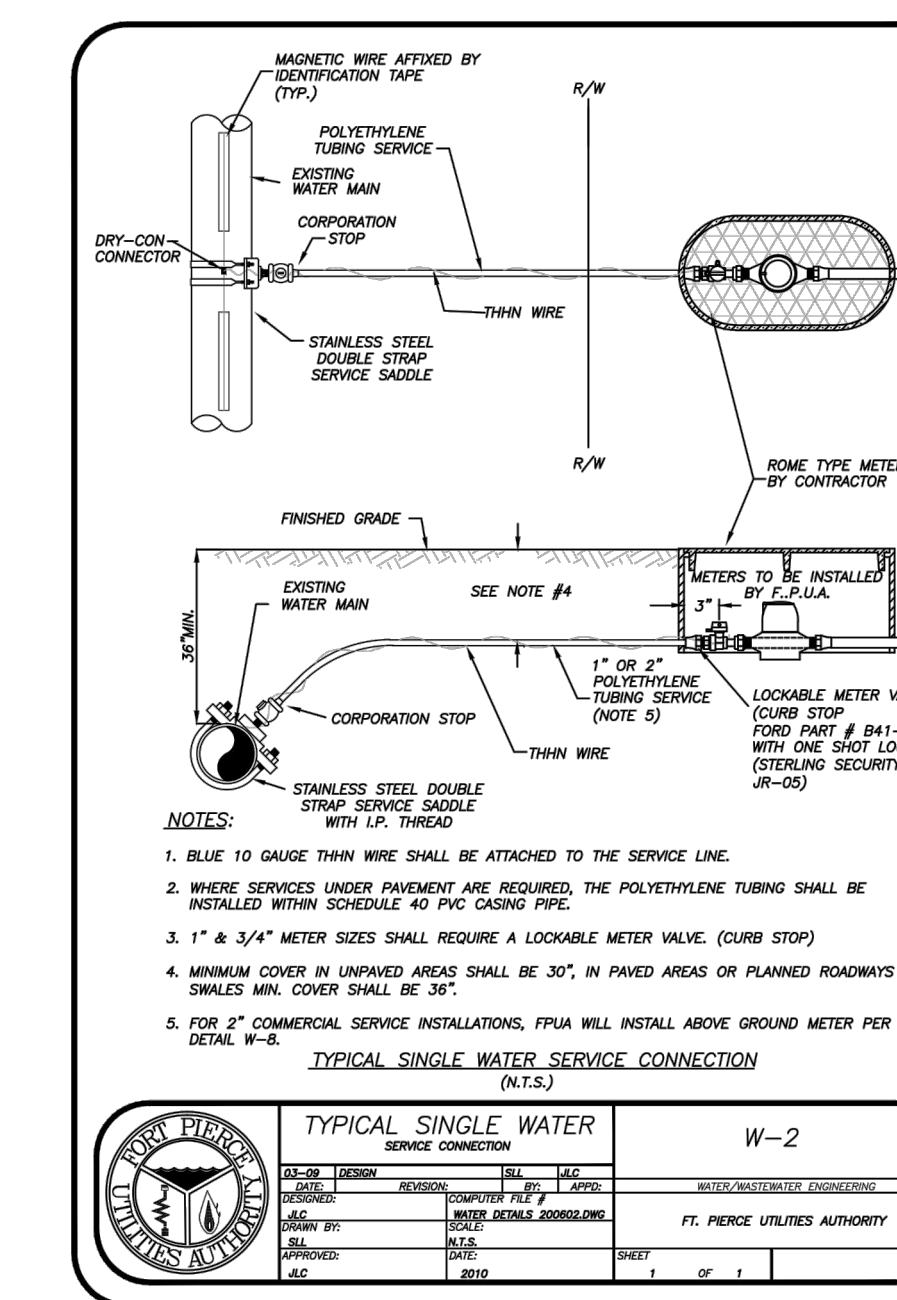
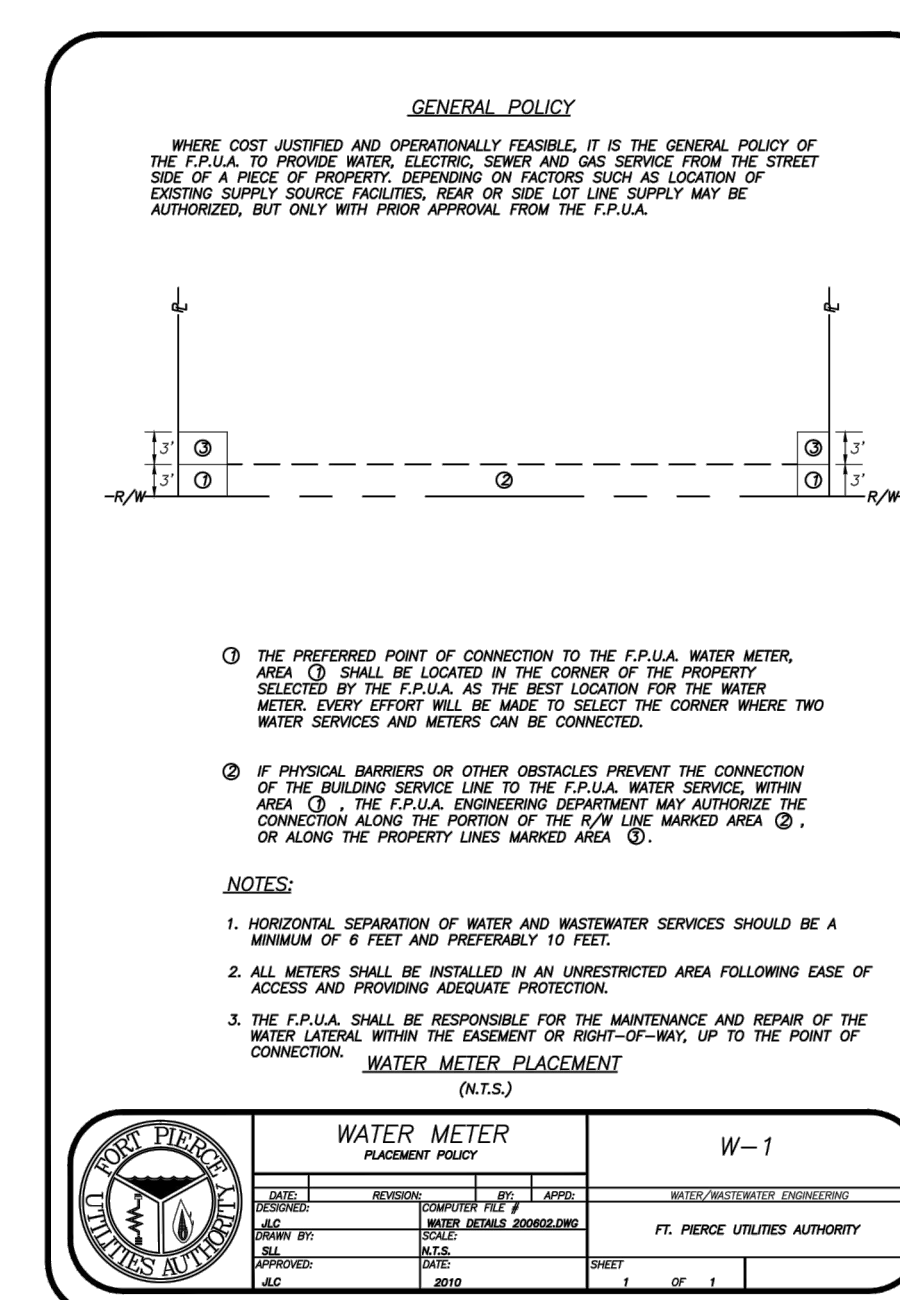
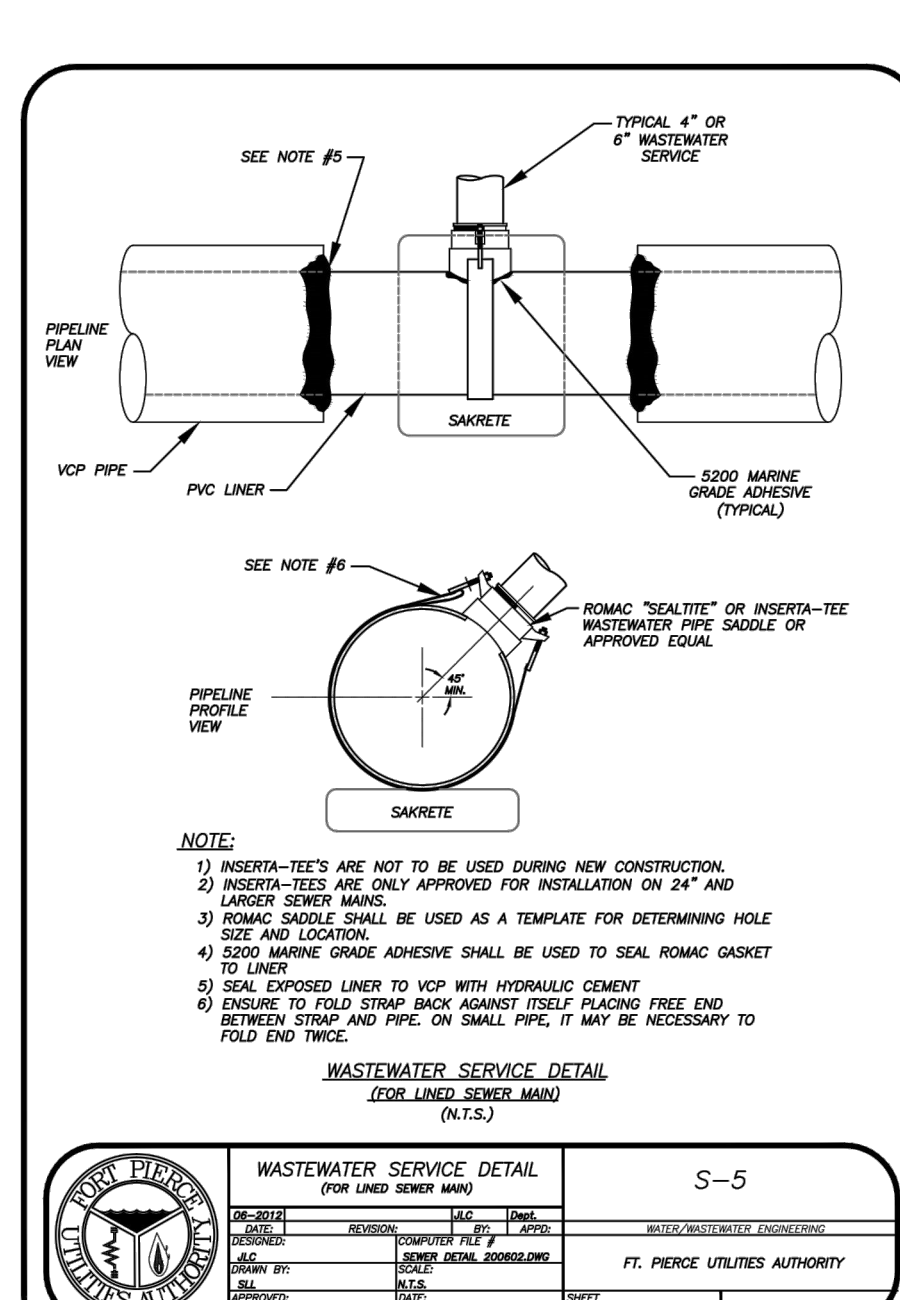
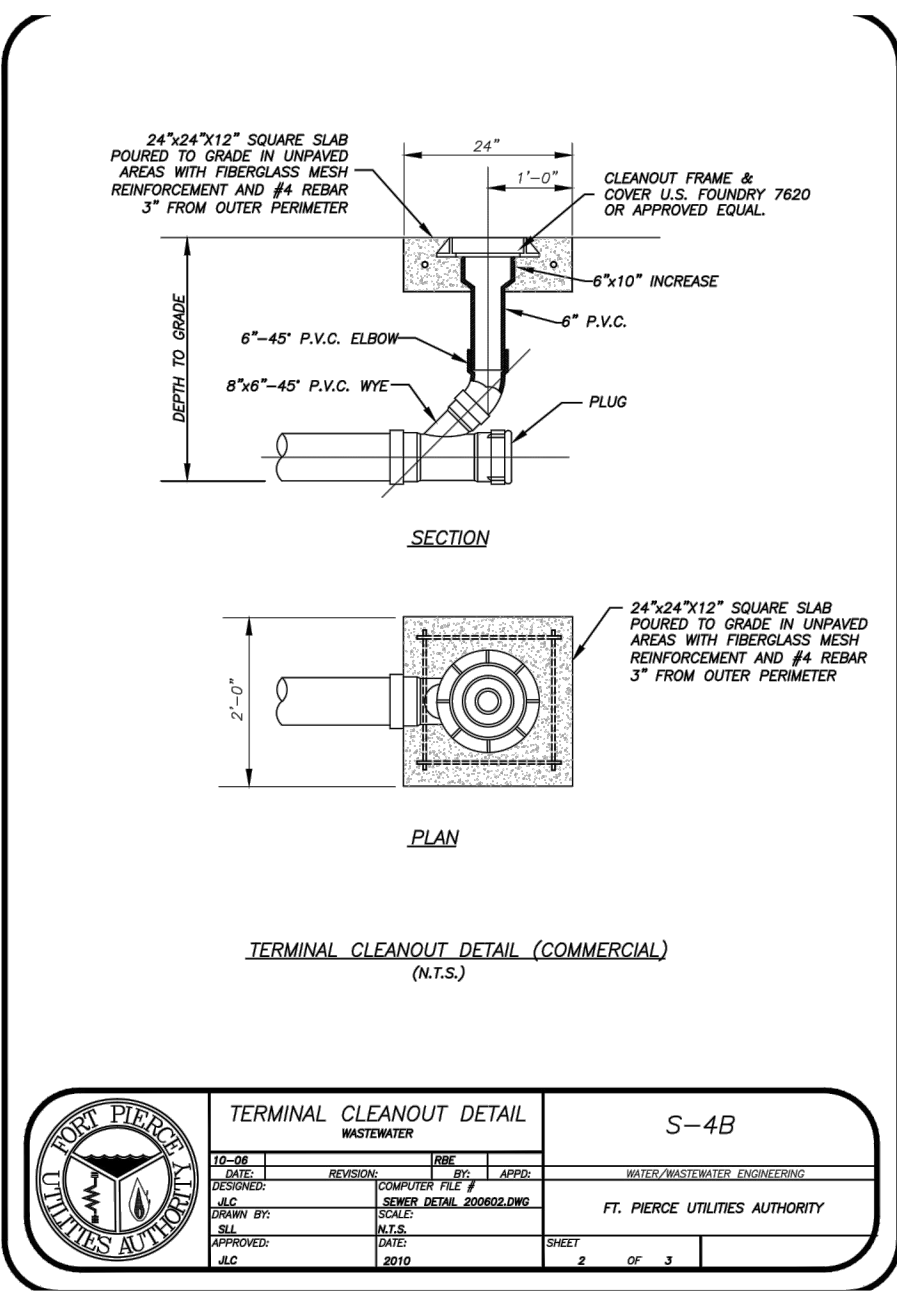
- 1) ALL DRIVEWAYS SHALL BE REPLACED WITH MATERIAL OF THE SAME TYPE AND COMPOSITION AS THE MATERIAL REMOVED TO THE LIMITS OF THE EXISTING DRIVEWAY.
- 2) ALL CONCRETE DRIVEWAYS SHALL BE 8" THICK, 6" x 6" 10/10 GAUGE WIRE MESH, CLASS 1 5000 PSI CONCRETE. THE SUB-GRADE FOR THE CONCRETE SHALL BE 6" SAND OR OTHER APPROVED MATERIAL COMPACTED TO 95% MAXIMUM DENSITY.
- 3) ALL ASPHALT DRIVEWAYS SHALL BE 1" TYPE 1-1 AND 4" COMPACTED LIME/SUBSOIL BASE.
- 4) SAW-CUT AND REMOVE ALL EXISTING DRIVEWAYS TO LIMITS AND REPLACE TO SAME GRADE AND LINES AS ORIGINAL. CONCRETE DRIVEWAYS SHOULD BE REPAIRED TO THE NEAREST EXISTING JOINT.
- 5) 30% MINIMUM OUTSIDE OF EDGE OF REPLACED DRIVEWAY AND ALL DISTURBED AREAS.
- 6) ROCK/SHELL AND DIRT DRIVEWAYS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY PER ASTM D-1557. ROCK/SHELL DEPTH SHALL BE SIX INCHES. COMPACTED DEPTH.
- 7) CONTRACTOR SHALL REPLACE ALL DRIVEWAYS IN KIND, IN ACCORDANCE WITH THIS DETAIL. THE SPECIFICATIONS ON THE ST. LUCIE COUNTY STANDARDS, WHICHEVER IS THE MOST STRINGENT.
- 8) NEW DRIVEWAYS SHALL BE SLOPED IN A MANNER THAT WILL NOT ALLOW POONDING OF STORM WATER.
- 9) CONTRACTOR SHALL REMOVE ALL REMOVED MATERIAL IN A SUITABLE FASHION IN ACCORDANCE WITH ALL CITY, COUNTY AND STATE REGULATIONS.
- 10) FOR ASPHALT DRIVEWAYS, THE BASE SHALL EXTEND SIX INCHES BEYOND THE ASPHALT COURSE.
- 11) ALL REPLACEMENT DRIVEWAYS SHALL BE CONSTRUCTED WITH A FOOTING PARALLEL TO THE ROADWAY. FOOTING SHALL BE A MINIMUM 8" DEEP AND 8" WIDE FOR THE ENTIRE LENGTH OF THE DRIVEWAY FRONTAGE.
- 12) ALL ASPHALT DRIVEWAYS SHALL BE OVERLAPPED WITHIN THE LIMITS OF THE ROAD-OF-WAY.

TYPICAL DRIVEWAY RESTORATION	R-1
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SCALE: N.T.S.	SCALE: N.T.S.
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### PAVEMENT RESTORATION (COUNT)

**NOTES:**

1. MINIMUM RESTORATION FOR CONSTRUCTION SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
2. MINIMUM RESTORATION FOR ROADWAY SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
3. MINIMUM RESTORATION FOR DRIVEWAY SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
4. MINIMUM RESTORATION FOR SIDEWALK SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
5. MINIMUM RESTORATION FOR CURB SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
6. MINIMUM RESTORATION FOR GUTTER SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
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80. MINIMUM RESTORATION FOR TRENCH SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
81. MINIMUM RESTORATION FOR DITCH SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
82. MINIMUM RESTORATION FOR ROADWAY SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
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107. MINIMUM RESTORATION FOR DRIVEWAY SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
108. MINIMUM RESTORATION FOR SIDEWALK SHALL BE 12" DEEP WITH 12" WIDE SURFACE REPLACEMENT.
109. MINIMUM RESTORATION FOR CURB SHALL BE 12" DEEP WITH 12"



DATE: 5/29/15

REVISION: 1

MARK: 1

DESIGNED BY: J.E.B.

DRAWN BY: J.S.B.

CHECKED BY: J.S.B.

SCALE: N.T.S.

DATE: 4/15/15

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
 CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING  
 CERTIFICATION OF AUTHORIZATION NO.: 00080866  
 1717 INDIAN RIVER BLVD., SUITE 201, VERO BEACH, FLORIDA, 32960  
 TEL: 772-770-9622 EMAIL: info@sbsengineers.com

**MISCELLANEOUS DETAILS & SPECIFICATIONS**

**INLET PALMS**

ENGINEER CERTIFICATION  
 [ ] JOSEPH W. SCHULKE  
 FL REG. NO. 47048  
 [ ] JOHANN B. BITTLE  
 FL REG. NO. 57396  
 [ ] WILLIAM P. STODDARD  
 FL REG. NO. 57605

DATE: SHEET 13

PROJECT NO. 15-053



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MARK	REVISION	DATE
1	REVISED PER CORP	5/29/15

**SCHULKE, BITTLE & STODDARD, L.L.C.**  
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 TEL: 772 / 770-9622 FAX: 772 / 770-9496 EMAIL: info@sbsengineers.com

AERIAL

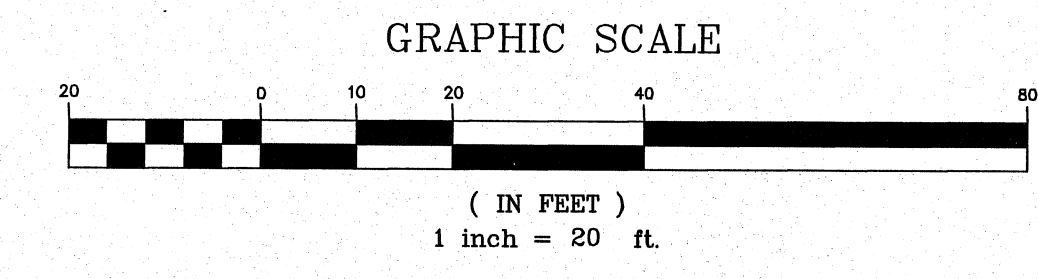
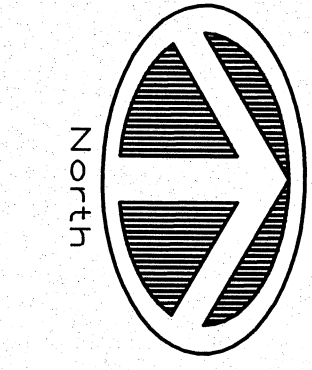
INLET PALMS

ENGINEER CERTIFICATION  
 JOSEPH W. SCHULKE  
 FL. REG. NO. 47048  
 ADAM B. BITTLE  
 FL. REG. NO. 57396  
 WILLIAM P. STODDARD  
 FL. REG. NO. 57865

DATE: \_\_\_\_\_  
 SHEET  
 14  
 PROJECT NO.  
 15-053

Report of Survey:

- \* TYPE OF SURVEY: BOUNDARY & TOPOGRAPHIC
- \* THIS SURVEY PERFORMED BY:  
MERIDIAN LAND SURVEYORS  
1717 INDIAN RIVER BLVD. SUITE 101  
VERO BEACH, FLORIDA 32968
- \* PROFESSIONAL SURVEYOR & MAPPER IN RESPONSIBLE CHARGE:  
CHARLES H. BLANCHARD P.S.M. #5755
- \* THE EXPECTED USE OF THE LAND, AS CLASSIFIED IN THE FLORIDA STANDARDS OF PRACTICE (6J-17, FAC) IS COMMERCIAL /HIGH RISK. THE MINIMUM RELATIVE ACCURACY FOR THIS TYPE OF BOUNDARY SURVEY IS 1 FOOT IN 10,000. THE MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS FOUND TO BE IN EXCESS OF THIS ACCURACY REQUIREMENT.
- \* THIS SURVEY MEETS ALL APPLICABLE REQUIREMENTS OF THE FLORIDA STANDARDS OF PRACTICE AS CONTAINED IN 6J-17, FLORIDA ADMINISTRATIVE CODE.
- \* ELEVATIONS AND DIMENSIONS SHOWN HEREON ARE MEASURED IN FEET AND DECIMAL PARTS THEREOF.
- \* THE LAST DATE OF FIELD WORK WAS: 03/30/15
- \* BUILDING SETBACK LINES, IF SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION, BUT ARE NOT CERTIFIED TO. THE SETBACKS MUST BE VERIFIED PRIOR TO DESIGN OR CONSTRUCTION.
- \* THE BEARING BASE FOR THIS SURVEY IS A GRID BEARING OF S46°30'43"W, ALONG THE NORTH R/W LINE OF SEAWAY DRIVE AND BASED ON FOUND MONUMENTATION.
- \* THIS SURVEY DOES NOT CERTIFY TO THE EXISTENCE OR LOCATION OF ANY UNDERGROUND IMPROVEMENTS: UTILITIES, FOUNDATIONS, OR ENCROACHMENTS, EXCEPT AS SHOWN.
- \* NO INSTRUMENTS OF RECORD REGARDING EASEMENTS, RIGHT-OF-WAYS, OR OWNERSHIP WERE SUPPLIED TO THIS SURVEYOR, EXCEPT AS SHOWN.
- \* NO TITLE OPINION OR GUARANTEE IS EXPRESSED OR IMPLIED.
- \* UNLESS A COMPARISON IS SHOWN, PLAT VALUES AND MEASURED VALUES ARE THE SAME.
- \* LEGAL DESCRIPTION IS AS PROVIDED BY THE CLIENT.
- \* UNLESS OTHERWISE INDICATED, FOUND MONUMENTATION, IS UNIDENTIFIED.
- \* THE PARCEL OF LAND SHOWN HEREON APPEARS TO BE IN FLOOD ZONE AE-6, AE-7, C & VE-8 PER FLOOD INSURANCE RATE MAP #12111C0183 J, DATED FEBRUARY 16TH, 2012.
- \* THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988. THE BENCHMARK IS CGS MONUMENT G 231 1965, ELEVATION 4.47' NAVD. SECONDARY BENCHMARK IS AS SHOWN HEREON.



CURVE	DELTA ANGLE	RADIUS	ARC
C 1	03°33'13"	1350.48'	83.76'

Legend & Abbreviations: (symbols not scaleable for size)

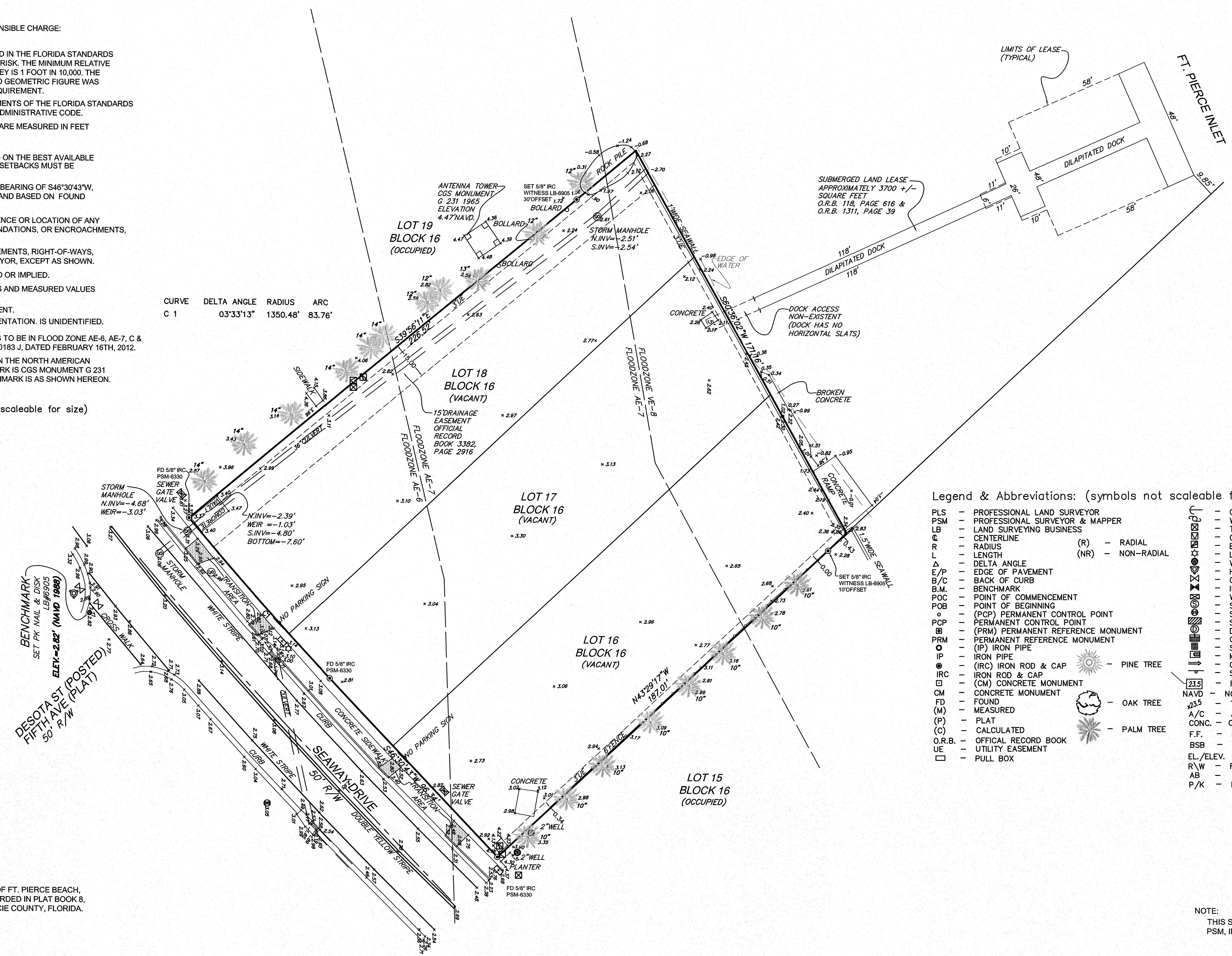
- PLS - PROFESSIONAL LAND SURVEYOR
- PSM - PROFESSIONAL SURVEYOR & MAPPER
- LB - LAND SURVEYING BUSINESS
- C - CENTERLINE
- R - RADIUS
- L - LENGTH
- Δ - DELTA ANGLE
- E/P - EDGE OF PAVEMENT
- B/C - BACK OF CURB
- B.M. - BENCHMARK
- POC - POINT OF COMMENCEMENT
- POB - POINT OF BEGINNING
- PCP - PERMANENT CONTROL POINT
- PRM - PERMANENT REFERENCE MONUMENT
- IP - IRON PIPE
- IRC - IRON ROD & CAP
- CM - CONCRETE MONUMENT
- FD - FOUND
- (M) - MEASURED
- (C) - CALCULATED
- GUY WIRE
- WOOD UTILITY POLE
- TELEPHONE SERVICE
- CABLE T.V. BOX
- ELECTRIC BOX
- LIGHT POST
- WELL
- HYDRANT
- GATE VALVE
- IRRIGATION VALVE
- WATER METER
- SANITARY MANHOLE
- SANITARY SERVICE
- SEPTIC TANK
- DRAINAGE MANHOLE
- CURB INLET
- SURFACE INLET
- MITERED END SECTION
- CONCEPTUAL DRAINAGE
- STREET SIGN
- PROPOSED GRADE
- NAVD - NORTH AMERICAN VERTICAL DATUM
- TYPICAL ELEVATION
- A/C - AIR CONDITIONER
- CONC. - CONCRETE
- F.F. - FINISH FLOOR
- BSB - BUILDING SETBACK LINE
- EL./ELEV. - ELEVATION
- R/W - RIGHT OF WAY
- AB - AS-BUILT
- P/K - PARKER-KALON

Legend & Abbreviations: (symbols not scaleable for size)

- PLS - PROFESSIONAL LAND SURVEYOR
- PSM - PROFESSIONAL SURVEYOR & MAPPER
- LB - LAND SURVEYING BUSINESS
- C - CENTERLINE (R) - RADIAL
- R - RADIUS (NR) - NON-RADIAL
- L - LENGTH
- Δ - DELTA ANGLE
- E/P - EDGE OF PAVEMENT
- B/C - BACK OF CURB
- B.M. - BENCHMARK
- POC - POINT OF COMMENCEMENT
- POB - POINT OF BEGINNING
- PCP - PERMANENT CONTROL POINT
- PRM - PERMANENT REFERENCE MONUMENT
- IP - IRON PIPE
- IRC - IRON ROD & CAP
- CM - CONCRETE MONUMENT
- FD - FOUND
- (M) - MEASURED
- (P) - PLAT
- (C) - CALCULATED
- O.R.B. - OFFICAL RECORD BOOK
- UE - UTILITY EASEMENT
- PULL BOX
- GUY WIRE
- WOOD UTILITY POLE
- TELEPHONE SERVICE
- CABLE T.V. BOX
- ELECTRIC BOX
- LIGHT POST
- WELL
- HYDRANT
- GATE VALVE
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LEGAL DESCRIPTION:  
LOTS 16, 17 AND 18, BLOCK 16, REVISED MAP OF FT. PIERCE BEACH, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 8, PAGE 29, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

NOTE:  
THIS SURVEY IS BASED ON A MAP OF SURVEY BY ALEXANDER J. PIAZZA PSM, INC. LB #7280, DATED 09-21-05, PROJECT NUMBER 05-0543.



**MERIDIAN**  
LAND SURVEYORS  
1717 INDIAN RIVER BLVD, SUITE 201  
VERO BEACH, FL. 32960 LB#6905  
PHONE: 772-794-1213, FAX: 772-794-1096  
E-MAIL: LB6905@BELLSOUTH.NET

TYPE: BOUNDARY & TOPOGRAPHIC	REVISIONS
PROJECT# 15-024	
DATE: 3/23/15 F.B.214 PGE.27	
DRAWN BY: C.H.B.	2. 5-29-15 REVISE TYPO'S CHB
CHECKED BY: S.P.T.	1. 4-21-15 ADD DRAINAGE EASEMENT CHB
SCALE: 1:20 SHEET: 1 OF 1	NO. DATE DESCRIPTION BY

PLAT OF SURVEY FOR:  
**FOGLIA CONSTRUCTION**

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF THE FLORIDA LICENSED SURVEYOR AND MAPPER NAMED BELOW.

*Charles H. Blanchard*  
CHARLES H. BLANCHARD P.S.M. #5755