

CONSTRUCTION PLANS FOR K-1 WEIR REPLACEMENT

CITY OF PALM COAST
COMMUNITY DEVELOPMENT DIVISION
CONSTRUCTION MANAGEMENT & ENGINEERING DEPARTMENT

CITY OFFICIALS

Mayor: Milissa Holland

COUNCIL MEMBERS:

District No. 1: Robert Cuff

District No. 2: Heidi Shipley

District No. 3: Nick Klufas

District No. 4: Steve Nobile

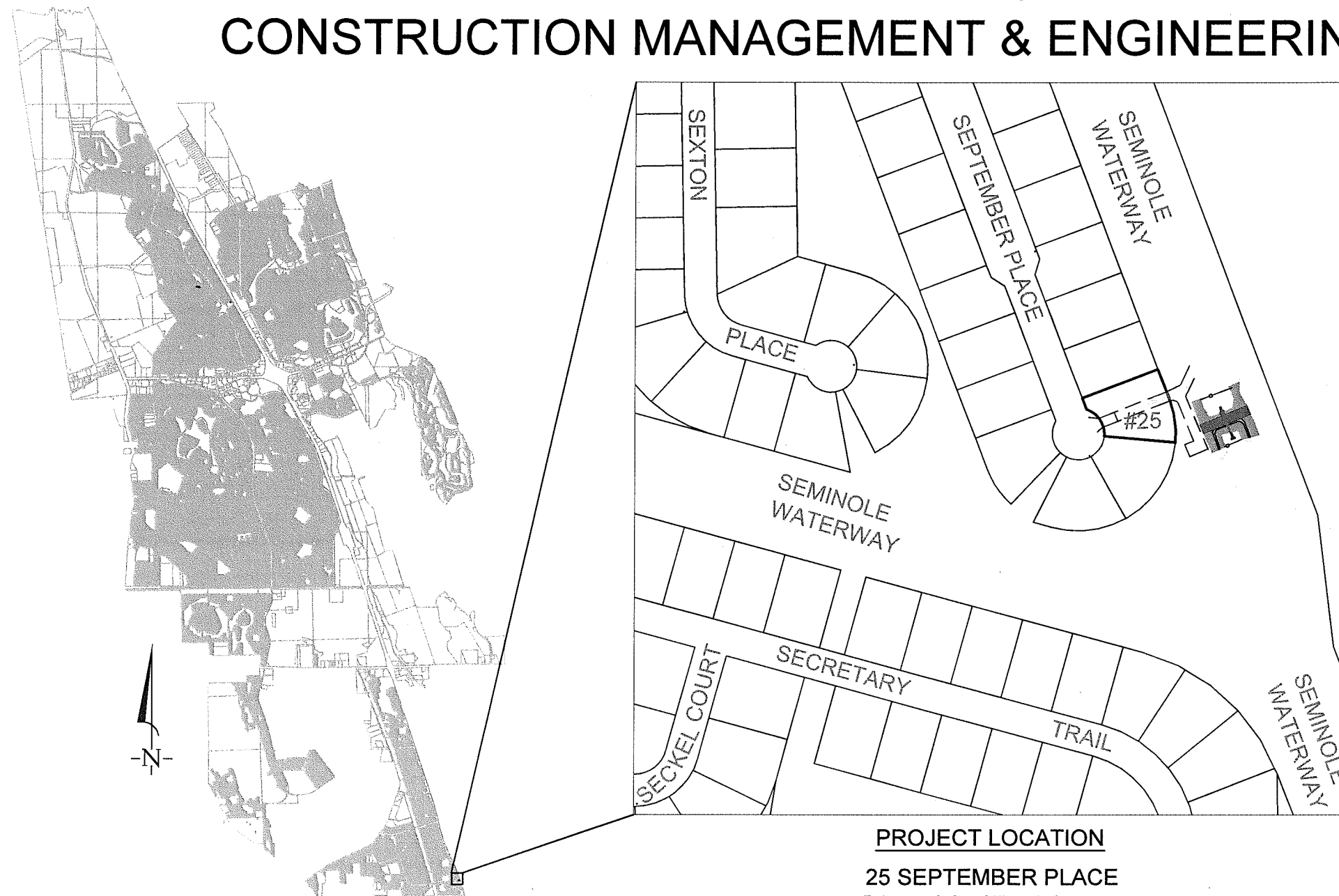
City Manager: Jim Landon

City Engineer: Mike Peel



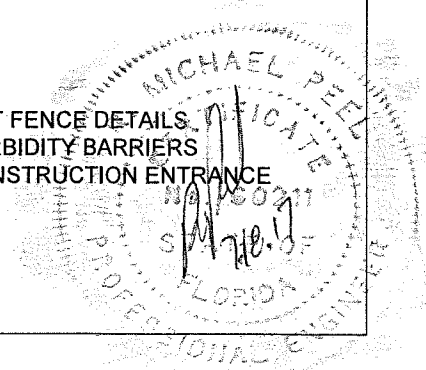
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PROJECT LOCATION

25 SEPTEMBER PLACE
PALM COAST, FLORIDA
SCALE: 1" = 200'



GENERAL NOTES

- THE CONTRACTOR BEFORE SUBMITTING HIS BID, SHALL VISIT AND BE RESPONSIBLE FOR HAVING ASCERTAINED LOCAL CONDITIONS, SUCH AS LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE SITE, EXTENT OF REMOVAL AND INSTALLATION WORK. THE CONTRACTOR SHALL FULLY EXAMINE ALL DRAWINGS RELATED TO THE WORK AND BECOME COMPLETELY INFORMED TO THE EXTENT AND CHARACTER OF THE WORK REQUIRED AND PREVAILING EXISTING CONDITIONS. NO ALLOWANCES SHALL BE MADE FOR THE CONTRACTOR'S FAILURE TO AVAL HIMSELF OF INFORMATION.
- CONTRACTOR TO ASSUME RESPONSIBILITY TO CONFORM TO ALL GENERAL NOTES AND SPECIFICATIONS.
- ALL RESIDENTS WHO MAY BE AFFECTED BY CANAL WATER LEVEL CHANGES MUST BE NOTIFIED PRIOR TO WORK BEGINNING.

AS-BUILT DRAWING REQUIREMENTS

- AS-BUILT DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER THREE WEEKS PRIOR TO FINAL INSPECTION. ALL AS-BUILT DATA SHALL BE PROVIDED BY A FLORIDA LICENSED SURVEYOR, SIGNED, SEALED AND DATED BY THE RESPONSIBLE PARTY.
- AT THE COMPLETION OF THE WORK, DELIVER THE DRAWINGS DOCUMENTING AS-BUILT INFORMATION, MEASURED BY A LICENSED SURVEYOR, TO THE ENGINEER, IN GOOD CONDITION AND FREE FROM ANY EXTRANEOUS NOTATION. THE AS-BUILT INFORMATION IS TO INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS FOR ALL UTILITY AND STORM STRUCTURES INCLUDING BUT NOT LIMITED TO MANHOLES, INLETS AND CLEANOUTS, INCLUDING STRUCTURE TOP AND INVERT ELEVATIONS.
 - DISTANCE ALONG PIPELINES BETWEEN STRUCTURES.
 - STORMWATER TOP OF BERM AND BOTTOM ELEVATIONS AT A MINIMUM OF SIX LOCATIONS.
 - STORMWATER CONTROL STRUCTURE DIMENSIONS AND ELEVATIONS, INCLUDING ALL WEIRS, SLOTS, ORIFICES, GRATES, AND SHMMERS.
 - STORMWATER TOP AND BOTTOM HORIZONTAL DIMENSIONS MEASURED AT A MINIMUM OF SIX LOCATIONS, WITH LOCATIONS TIED TO PROPERTY CORNERS, EASEMENTS, AND RIGHTS-OF-WAY.
 - STORMWATER CONVEYANCE SYSTEMS INCLUDING DIMENSIONS, ELEVATIONS, CONTOURS, AND CROSS SECTIONS.
 - HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS OF ALL UTILITY VALVES, FITTINGS, CONNECTION POINTS, ETC.
 - VERTICAL ELEVATIONS OF ALL PIPELINES AT CROSSINGS OF POTABLE WATER MAINS (WHETHER THE WATER MAIN IS EXISTING OR NEW) IN ORDER TO DOCUMENT THAT THE MINIMUM REQUIRED VERTICAL SEPARATION HAS BEEN MET.
 - HORIZONTAL AND VERTICAL DATA FOR ANY CONSTRUCTION THAT DEVIATES FROM THE APPROVED ENGINEERING DRAWINGS.
 - WHERE THE PLANS CONTAIN SPECIFIC HORIZONTAL LOCATION DATA, SUCH AS STATION AND OFFSET, THE AS-BUILT DRAWINGS ARE TO REFLECT THE ACTUAL HORIZONTAL LOCATION.
 - WHERE THE PLANS CONTAIN SPECIFIC VERTICAL ELEVATION DATA, THE AS-BUILT DRAWINGS ARE TO REFLECT THE ACTUAL MEASURED VERTICAL ELEVATION.

EROSION AND SEDIMENT CONTROL

- EROSION AND SILTATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. SEDIMENT CONTROL CONSISTS OF SILT FENCING, AND FLOATING TURBIDITY BARRIERS PER FDOT INDEX NO. 102 AND 103. EROSION CONTROL CONSISTS OF SEEDING AND MULCHING, SODDING, WETTING SURFACES, PLACEMENT OF COARSE AGGREGATE, TEMPORARY PAVING.
- MAINTAIN TEMPORARY EROSION CONTROL SYSTEMS AS DIRECTED BY OWNER OR GOVERNING AUTHORITIES TO CONTROL EROSION AND SILTATION DURING LIFE OF CONTRACT. OWNER HAS AUTHORITY TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, TRENCHING, BORROW AND EMBANKMENT OPERATIONS. OWNER ALSO HAS AUTHORITY TO DIRECT CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- CONTRACTOR SHALL RESPOND TO EROSION AND SEDIMENT CONTROL MAINTENANCE REQUIREMENTS OR IMPLEMENT ADDITIONAL MEASURES TO CONTROL EROSION ORDERED BY OWNER OR GOVERNING AUTHORITIES WITHIN 48 HOURS OR SOONER IF REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR WILL BE REQUIRED TO INCORPORATE PERMANENT EROSION CONTROL FEATURES INTO PROJECT AT EARLIEST PRACTICAL TIME TO MINIMIZE NEED FOR TEMPORARY CONTROLS.
- INSPECT EVERY TWO WEEKS DURING CONSTRUCTION, OR AFTER A RAIN EVENT. REMOVE ANY SEDIMENT BUILD-UP, REPAIR AND REINSTALL ANY DAMAGED OR MISSING SEDIMENT CONTROL MEASURES. INSTALL ADDITIONAL MEASURES IF INSPECTION REVEALS ADDITIONAL SEDIMENTATION CONTROL IS NECESSARY.
- AREAS TO BE PAVED SHALL BE TREATED WITH A BITUMINOUS PRIME COAT AND SANDED TO MINIMIZE EROSION, WHERE PAVING IS SCHEDULED TO OCCUR MORE THAN 48 HOURS AFTER INSTALLATION OF BASE COURSE. AREAS TO RECEIVE CONCRETE PAVING SHALL BE EITHER PROTECTED WITH A LAYER OF FDOT COARSE AGGREGATE MATERIAL OR SHALL BE PAVED WITHIN 48 HOURS OF INSTALLATION OF THE SUBGRADE. INSTALL FINAL SURFACE COURSES WITHIN 14 DAYS AFTER REMOVAL OF EXISTING PAVEMENT.
- ALL CONSTRUCTION PROJECTS 1 OR MORE ACRES IN SIZE THAT DISCHARGE TO OFFSITE AREAS ARE REQUIRED TO ABIDE BY THE PROVISIONS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND SUBMITTING NPDES "NOTICE OF INTENT" (N.O.I.) AND "NOTICE OF TERMINATION" (N.O.T.) NOTICES TO THE EPA OR LOCAL STATE AGENCY HAVING JURISDICTION OVER THE NPDES PROGRAM. THE CONTRACTOR SHALL KEEP ONSITE A COPY OF THE SWPPP, NOI, AND WATER MANAGEMENT DISTRICT PERMITS ISSUED TOGETHER WITH THE INSPECTION REPORTS AND CURRENT PLANS, INCLUDING ANY MODIFICATIONS REQUIRED.

TREE REMOVAL

- THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER WHEN ALL WORK IS LAID OUT (SURVEY STAKED) SO THAT DETERMINATION MAY BE MADE OF SPECIFIC TREES TO BE REMOVED. NO TREES SHALL BE REMOVED WITHOUT PERMISSION FROM THE OWNER AND ENGINEER.

COMPACTION

- FILL MATERIALS PLACED UNDER PAVEMENT SHALL BE COMPACTED TO AT LEAST 98% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL.

EXCAVATION, TRENCHING, AND FILL

- THE CONTRACTOR SHALL RECOGNIZE AND ABIDE BY ALL OSHA EXCAVATION SAFETY STANDARDS, INCLUDING THE FLORIDA TRENCH SAFETY ACT (FS 553.60-553.64). ANY MATERIAL, CONSTRUCTION METHODS, OR MATERIAL COST TO COMPLY WITH THESE LAWS SHALL BE INCIDENTAL TO THE CONTRACT.
- FIELD DENSITY TESTING FREQUENCIES:
 - ONE TEST FOR EACH 10,000 SQUARE FEET OR FRACTION THEREOF PER LIFT OF GENERAL BACKFILLING, MINIMUM 2 TESTS EACH LAYER.
 - ONE TEST FOR EACH 100 SQUARE FEET OR FRACTION THEREOF OF BACKFILL AROUND AND UNDER STRUCTURES.
 - ONE TEST FOR EACH 300 LINEAL FEET OR FRACTION THEREOF PER LIFT OF GENERAL BACKFILLING IN THE PIPELINE TRENCH.
 - ONE TEST PER LIFT PER EACH CHANGE IN TYPE OF FILL.
 - ONE TEST PER 1000 SQUARE FEET OF PAVEMENT SUBGRADE, MINIMUM OF 2 TESTS.
- IT IS INTENDED THAT PREVIOUSLY EXCAVATED MATERIALS CONFORMING TO THE FOLLOWING REQUIREMENTS BE UTILIZED WHEREVER POSSIBLE.
 - ACCEPTABLE MATERIALS: AASHTO M145 CLASSIFICATION A-1, A-3, A-2-4, A-2-6, ASTM D2487 CLASSIFICATION GW, GP, GM, SM, SW, SP, UNLESS OTHERWISE DISAPPROVED WITHIN THE SOIL AND SUBSURFACE INVESTIGATION REPORTS. NO MORE THAN 12% OF ACCEPTABLE MATERIALS SHALL PASS THE NUMBER 200 SIEVE.
 - UNACCEPTABLE MATERIALS: AASHTO M145 CLASSIFICATION A-2-5, A-2-7, A-4, A-5, A-6, A-7, A-8, ASTM D2487 CLASSIFICATION GC, SC, ML, MH, CL, CH, OL, OH, PT, UNLESS OTHERWISE APPROVED WITHIN THE SOIL AND SUBSURFACE INVESTIGATION REPORTS.
- PROVIDE BARRIERS, WARNING LIGHTS AND OTHER PROTECTIVE DEVICES AT ALL EXCAVATIONS.
- SIDEWALKS, ROADS, STREETS, AND PAVEMENTS SHALL NOT BE BLOCKED OR OBSTRUCTED BY EXCAVATED MATERIALS, EXCEPT AS SHOWN BY THE ENGINEER, IN WHICH CASE ADEQUATE TEMPORARY PROVISIONS MUST BE MADE FOR SATISFACTORY TEMPORARY PASSAGE OF PEDESTRIANS, AND VEHICLES. MINIMIZE INCONVENIENCE TO PUBLIC TRAVEL OR TO TENANTS OCCUPYING ADJOINING PROPERTY.
- FURNISH, INSTALL, AND MAINTAIN, WITHOUT ADDITIONAL COMPENSATION, SHEETING, BRACING, AND SHORING SUPPORT REQUIRED TO KEEP EXCAVATIONS WITHIN THE PROPERTY OR EASEMENTS PROVIDED, TO SUPPORT THE SIDES OF THE EXCAVATION, AND TO PREVENT ANY MOVEMENT WHICH MAY DAMAGE ADJACENT PAVEMENTS OR STRUCTURES, DAMAGE OR DELAY THE WORK, OR ENDANGER LIFE AND HEALTH. VOIDS OUTSIDE THE SUPPORTS SHALL BE IMMEDIATELY FILLED AND COMPACTED.

UTILITY GENERAL NOTES

- THE UTILITY DATA SHOWN ON THESE PLANS WAS LOCATED BY THE RESPECTIVE UTILITY, OR IS BASED ON UTILITY DRAWINGS, MAPS, OR FIELD RECONNAISSANCE.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ANY UTILITIES, WHETHER SHOWN ON THESE PLANS OR NOT, THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH THE ENGINEER AND THE RESPECTIVE UTILITY COMPANY FOR RELOCATION OR PROPER INSTRUCTION.
- A SINGLE POINT UTILITY IDENTIFICATION SERVICE HAS BEEN SET UP FOR EXISTING UTILITIES. THE CONTRACTOR IS TO CONTACT THE SUNSHINE STATE ONE CALL CENTER AT LEAST TWO (2) AND NO MORE THAN FIVE (5) WORKING DAYS PRIOR TO THE SPECIFIC CONSTRUCTION ACTIVITY FOR FIELD LOCATION. NOTE THAT NOT ALL UTILITIES PARTICIPATE IN THIS PROGRAM. THE CONTRACTOR SHOULD CONTACT ALL NON-PARTICIPATING UTILITIES SEPARATELY FOR FIELD LOCATION OF THEIR FACILITIES. PER FLORIDA STATUTE 553.851, THE CONTRACTOR OR EXCAVATOR IS REQUIRED TO NOTIFY THE GAS COMPANY TWO (2) WORKING DAYS PRIOR TO STARTING EXCAVATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH EACH UTILITY AND ALL COSTS ASSOCIATED WITH THE PROTECTION OF EXISTING FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO COORDINATE NECESSARY RELOCATIONS OR OTHER CONSTRUCTION RELATED MATTERS WITH EACH UTILITY.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN IN SERVICE ALL EXISTING PIPING ENCOUNTERED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ANY PIPING WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH THE PERMISSION OF THE OWNER AND THE ENGINEER.
- TYPICAL DETAILS AS SHOWN ARE TO ILLUSTRATE THE ENGINEER'S INTENT AND ARE NOT PRESENTED AS A SOLUTION TO ALL CONSTRUCTION PROBLEMS ENCOUNTERED IN THE FIELD. THE CONTRACTOR MAY ALTER THE METHOD OF CONSTRUCTION TO SUIT FIELD CONDITIONS, PROVIDING HE SUBMITS A PROPOSAL FOR AN ALTERNATE METHOD TO THE ENGINEER FOR APPROVAL AND USES MATERIALS AS DESIGNATED IN THE SPECIFICATIONS.
- FOR EACH RESPECTIVE PIPELINE CONSTRUCTION REQUIRED, THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, DEPTH, AND ALIGNMENT OF ALL EXISTING PIPES, CABLES, ETC. TO BE CROSSED OR CONNECTED TO. IF THE CONTRACTOR DEEMS NECESSARY (A) A CHANGE IN ALIGNMENT OR DEPTH, OR THE NEED FOR ADDITIONAL FITTINGS, BENDS, OR COUPLINGS, WHICH REPRESENT A DEPARTURE FROM THE CONTRACT DRAWING, OR (B) A NEED FOR RELOCATION OF EXISTING UTILITIES, THEN DETAILS OF SUCH DEPARTURES, RELOCATIONS, OR ADDITIONAL FITTINGS, INCLUDING CHANGES IN RELATED PORTIONS OF THE PROJECT AND THE REASONS THEREFORE, SHALL BE SUBMITTED WITH SHOP DRAWINGS. APPROVED DEPARTURES FOR THE CONTRACTOR'S CONVENIENCE SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE ALL NECESSARY TEST PUMPING EQUIPMENT, WATER, WATER METERS, PRESSURE GAUGES, AND OTHER EQUIPMENT, MATERIAL AND FACILITIES REQUIRED FOR ALL HYDROSTATIC, LEAKAGE, AND PRESSURE TESTING. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND THE OWNER IN WRITTEN FORM, FORTY-EIGHT (48) HOURS IN ADVANCE OF PROPOSED TESTING. THE CONTRACTOR SHALL PERFORM SATISFACTORY PRETESTING PRIOR TO NOTIFICATION.

GRADING

- GRADING SHOWN ON THESE PLANS ARE PROVIDED TO THE CONTRACTOR TO EXPRESS THE GENERAL GRADING INTENT OF THE PROJECT. THE CONTRACTOR SHALL BE EXPECTED TO GRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS THROUGHOUT THE SITE. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS TO ACCOMPLISH THE GRADING INTENT. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING HAS BEEN COMPLETED. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER PRIOR TO DEMOBILIZATION OF GRADING EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED.
- UNIFORMLY SMOOTH GRADE THE SITE. DEPRESSIONS FROM SETTLEMENT SHALL BE FILLED AND COMPACTED. TOPS OF EMBANKMENTS AND BREAKS IN GRADE SHALL BE ROUNDED. FINISHED SURFACES SHALL BE REASONABLY SMOOTH, COMPACTED, FREE FROM IRREGULAR SURFACE CHANGES AND COMPARABLE TO THE SMOOTHNESS OBTAINED BY BLADE, GRADER OPERATIONS.
- SLOPE GRADES TO DRAIN AWAY FROM STRUCTURES AT A MINIMUM OF 1/4-INCH PER FOOT FOR 10 FEET. FINISHED SURFACES ADJACENT TO PAVED AREAS AND WITHIN 10 FEET OF STRUCTURES SHALL BE WITHIN 1 INCH OF THE PROPOSED GRADE. ALL OTHER AREAS SHALL BE WITHIN 3 INCHES OF THE PROPOSED GRADE.
- NEWLY GRADED AREAS SHALL BE PROTECTED FROM TRAFFIC AND EROSION. ALL SETTLEMENT OR WASHING AWAY THAT MAY OCCUR FROM ANY CAUSE PRIOR TO SEEDING OR ACCEPTANCE SHALL BE REPAIRED AND GRADES RE-ESTABLISHED TO THE REQUIRED ELEVATIONS AND SLOPES AT NO ADDITIONAL COST TO THE OWNER.

SIGNS AND PAVEMENT MARKINGS

- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE LATEST IMPLEMENTED EDITION OF FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS. STANDARD INDEX NO. 9535, 11860, 11862, 11865, 17302, 17346 AND 17349 APPLY. GENERALLY, ALL MARKINGS SHALL CONFORM TO THE FOLLOWING: 6" EDGE LINES, 6" LANE LINES, 6" SINGLE CENTERLINES, AND 6" DOUBLE LINE PATTERNS, UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC WITH RAISED PAVEMENT MARKERS (TYPE 911 - 4" x 4"). RAISED PAVEMENT MARKERS ARE TO BE INSTALLED IN ACCORDANCE WITH THESE PLANS AND FDOT INDEX NO. 17352.
- PARKING STALL PAVEMENT MARKINGS SHALL BE PAINTED. PAINT SHALL MEET THE REQUIREMENTS OF FDOT SPECIFICATION SECTION 971, NON-REFLECTIVE WHITE TRAFFIC PAINT.
- ALL ROADWAY TRAFFIC SIGNS SHALL BE MANUFACTURED USING HIGH INTENSITY RETROREFLECTIVE MATERIALS. THE BACK OF ALL FINISHED PANELS SHALL BE STENCILED WITH THE DATE OF FABRICATION, THE FABRICATOR'S INITIALS, AND THE NAME OF THE SHEETING IN THREE-INCH LETTERS.
- INTERNAL SITE TRAFFIC SIGNS ARE NOT REQUIRED TO BE RETROREFLECTIVE.
- THE CONTRACTOR SHALL VERIFY THE REQUIRED LENGTH OF THE SIGN COLUMN SUPPORTS IN THE FIELD PRIOR TO FABRICATION.
- ALL PAVEMENT MARKINGS REQUIRE LAYOUT APPROVAL IN THE FIELD BY THE ENGINEER PRIOR TO INSTALLATION.
- PRIOR TO FINAL PAVEMENT MARKING INSTALLATION, A TWO WEEK CURE TIME OF THE ASPHALT IS REQUIRED.

SITE PREPARATION

- UNLESS OTHERWISE DIRECTED BY THE OWNER OR ENGINEER, THE CONTRACTOR IS EXPECTED TO CONTAIN ALL CONSTRUCTION ACTIVITIES WITHIN THE PROPERTY, RIGHT-OF-WAY, AND EASEMENTS AS INDICATED ON THE DRAWINGS. AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. ANY REPAIR OR RECONSTRUCTION OF DAMAGED AREAS IN SURROUNDING PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.
- STAKE OUT THE CONSTRUCTION, ESTABLISH LINES AND LEVELS. TEMPORARY BENCH MARKS, BATTER BOARDS, CENTERLINES, BASELINES, AND REFERENCE POINTS FOR THE WORK, AND VERIFY ALL DIMENSIONS RELATING TO INTERCONNECTION WITH EXISTING FEATURES. REPORT ANY INCONSISTENCIES IN THE PROPOSED GRADES, LINES AND LEVELS, DIMENSIONS AND LOCATIONS TO THE ENGINEER BEFORE COMMENCING WORK.
- PROTECT ALL TREES AND SHRUBS LOCATED OUTSIDE THE RIGHT-OF-WAY, EASEMENTS, AND OWNER SECURED PROPERTY, PARTICULARLY THOSE TREES AND SHRUBS LOCATED ADJACENT TO WORK AREAS.
- WITHIN THE RIGHT-OF-WAY, EASEMENTS, AND OWNER SECURED PROPERTY, THE INTENT IS TO ALLOW TREES AND SHRUBS TO REMAIN IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: NEW ROADWAY CONSTRUCTION - TREES AND SHRUBS TO REMAIN WHERE LOCATED MORE THAN 15 FEET FROM THE BACK OF CURB, OR OUTSIDE THE LIMITS OF EXCAVATION OR FILL AREAS, WHICHEVER IS FURTHER. UTILITY PIPELINE CONSTRUCTION - TREES AND SHRUBS TO REMAIN OUTSIDE A 15 FOOT WIDE PATH, CENTERED ON THE PIPELINE.
- TREES TO REMAIN IN THE CONSTRUCTION AREA SHALL BE BOXED, FENCED OR OTHERWISE PROTECTED IN ACCORDANCE WITH DETAILS ON THE DRAWINGS. DO NOT PERMIT HEAVY EQUIPMENT OR STOCKPILES WITHIN BRANCH SPREAD
- AREAS TO RECEIVE CLEARING AND GRUBBING SHALL INCLUDE ALL AREAS TO BE OCCUPIED BY THE PROPOSED IMPROVEMENTS, AREAS FOR FILL AND SITE GRADING, AND BORROW SITES. REMOVE TREES OUTSIDE OF THESE AREAS ONLY AS INDICATED ON THE DRAWINGS OR AS APPROVED IN WRITING BY THE ENGINEER.
- CLEARING SHALL CONSIST OF REMOVING TREES AND BRUSH AND DISPOSAL OF OTHER MATERIALS THAT ENCROACH UPON OR OTHERWISE OBSTRUCT THE WORK.
- EXERCISE EXTREME CARE DURING THE CLEARING AND GRUBBING OPERATIONS. DO NOT DAMAGE EXISTING STRUCTURES, PIPES OR UTILITIES.
- GRUBBING SHALL CONSIST OF REMOVING AND DISPOSING OF STUMPS, ROOTS LARGER THAN 2" IN DIAMETER, AND MATTED ROOTS. REMOVE TO A DEPTH OF NOT LESS THAN 18" BELOW THE ORIGINAL SURFACE LEVEL OF THE GROUND.
- ALL COMBUSTIBLE DEBRIS AND REFUSE FROM SITE PREPARATION OPERATIONS SHALL BE REMOVED TO LEGAL OFFSITE DISPOSAL AREAS.

R/W RESTORATION

- ALL AREAS WITHIN THE RIGHT-OF-WAY SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL NON-PAVED AREAS WITHIN THE R/W THAT ARE ADJACENT TO COMMON AREAS SHALL BE COMPLETELY SODDED FOLLOWING FINAL GRADING. NON-PAVED AREAS WITHIN THE R/W SHALL BE STABILIZED WITH SOD. ALL DRAINAGE SWALES AND RETENTION/DETENTION POND AND LAKE SLOPES SHALL BE STABILIZED WITH SOD IMMEDIATELY AFTER FINAL GRADING. UNLESS OTHERWISE NOTED, OTHER DISTURBED AREAS SHALL BE STABILIZED WITH SEED AND STRAW AFTER FINAL GRADING AND PRIOR TO FINAL INSPECTION. ALL GRASSING (SEED OR SOD) SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER/OPERATOR. THE USE OF SEED AND STRAW SHALL ONLY BE USED WITH PRIOR CITY APPROVAL.

DEWATERING AND WATER CONTROL

- DESIGN AND PROVIDE DEWATERING AND WATER CONTROL SYSTEM USING ACCEPTED AND PROFESSIONAL METHODS CONSISTENT WITH CURRENT INDUSTRY PRACTICE. PROVIDE A SYSTEM OF SUFFICIENT SIZE AND CAPACITY TO CONTROL WATER IN A MANNER THAT PRESERVES STRENGTH OF FOUNDATION SOILS, DOES NOT CAUSE INSTABILITY OR RAVELING OF EXCAVATION SLOPES, AND DOES NOT RESULT IN DAMAGE TO EXISTING STRUCTURES. MAINTAIN THE GROUNDWATER LEVEL TO A MINIMUM OF 2 FEET BELOW EXCAVATIONS.
- CONTROL, BY ACCEPTABLE MEANS, ALL WATER REGARDLESS OF SOURCE AND BE FULLY RESPONSIBLE FOR DISPOSAL OF THE WATER. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY SUPPLEMENTAL MEASURES TO CONTROL SEEPAGE, GROUNDWATER, OR ARTESIAN HEAD.
- OPEN PUMPING WITH SUMPS AND DITCHES SHALL BE ALLOWED, PROVIDED IT DOES NOT RESULT IN BOLLS, LOSS OF FINES, SOFTENING OF THE GROUND, OR INSTABILITY OF SLOPES. SUMPS SHALL BE LOCATED OUTSIDE OF LOAD BEARING AREAS SO THE BEARING SURFACES WILL NOT BE DISTURBED. WATER CONTAINING SILT IN SUSPENSION SHALL NOT BE PUMPED INTO SEWER LINES OR ADJACENT STREAMS. DURING NORMAL PUMPING, AND UPON DEVELOPMENT OF WELL(S), LEVELS OF FINE SAND OR SILT IN THE DISCHARGE WATER SHALL NOT EXCEED 5 PPM.
- IF DEWATERING EQUIPMENT NEEDED EXCEEDS ANY OF THE FOLLOWING:
 - 6" PUMP VOLUME.
 - 100,000 GPD TOTAL 24 HOUR (1 DAY) DEWATERING, AND;
 - 1,000,000 GPD PUMP CAPACITY, THE CONTRACTOR SHALL BE REQUIRED TO PERMIT THE DEWATERING SYSTEM WITH THE WATER MANAGEMENT DISTRICT.
- CONTINUOUSLY MAINTAIN EXCAVATIONS IN A DRY CONDITION WITH POSITIVE DEWATERING METHODS DURING PREPARATION OF SUBGRADE, INSTALLATION OF PIPE, AND CONSTRUCTION OF STRUCTURES UNTIL THE CRITICAL PERIOD OF CONSTRUCTION AND/OR BACKFILL IS COMPLETED TO PREVENT DAMAGE OF SUBGRADE SUPPORT, PIPING, STRUCTURE, SIDE SLOPES, OR ADJACENT FACILITIES FROM FLOTATION OR OTHER HYDROSTATIC PRESSURE IMBALANCE.
- WHEN CONSTRUCTION IS COMPLETE, REMOVE ALL DEWATERING EQUIPMENT FROM THE SITE, INCLUDING WELLS AND RELATED TEMPORARY ELECTRICAL SERVICE.
- UPSTREAM AND DOWNSTREAM ELEVATIONS MUST BE MAINTAINED WITHIN 1 FOOT OF THE DESIGN ELEVATION, EITHER BY SHEET PILING OR OTHER TEMPORARY DAMMING METHODS.
- THE CONSTRUCTION METHODS / PHASING USED SHALL ALLOW FOR THE UPSTREAM CANAL TO CONTINUE TO DISCHARGE IN A RAINFALL EVENT.
- THE CITY OF PALM COAST MUST APPROVE ALL DE-WATERING METHODS PRIOR TO ANY CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR DE-WATERING THROUGHOUT PROJECT TIME. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED WITH THE EXCEPTION OF NAMED TROPICAL EVENTS.

PERMITS AND PERMIT REQUIREMENTS

- THE CONTRACTOR SHALL OBTAIN FROM THE ENGINEER COPIES OF ALL REGULATORY AGENCY PERMITS AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS.
- CONTRACTOR SHALL APPLY FOR AND RECEIVE A SITE DEVELOPMENT PERMIT.

SITE ACCESS


- ACCESS TO THE JOB SITE FOR CONSTRUCTION PURPOSES AND RELATED ACTIVITIES SHALL BE AS DESIGNATED BY OWNER AND ENGINEER.
- SECURITY OF SITE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

TRAFFIC CONTROL

- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A MAINTENANCE OF TRAFFIC (M.O.T.) PLAN PRIOR TO CONSTRUCTION. THE M.O.T. PLAN SHALL SHOW ALL PROPOSED TRAFFIC CONTROL SIGNS, PAVEMENT MARKINGS, AND BARRICADES, AND SHALL DETAIL ALL PROPOSED CONSTRUCTION SEQUENCING. THE M.O.T. PLAN SHALL BE APPROVED BY THE ENGINEER, OWNER, AND ROADWAY JURISDICTIONAL AGENCY PRIOR TO CONSTRUCTION. ALL PROPOSED ROADWAY AND DRIVEWAY LANE CLOSURES SHALL BE RESTRICTED TO THE HOURS BETWEEN 9:00 A.M. AND 4:00 P.M. UNLESS OTHERWISE AUTHORIZED IN THE APPROVED M.O.T.
- ALL CONSTRUCTION SIGNING AND MARKINGS SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION IN ACCORDANCE WITH FDOT INDEX NO. 600 AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE PLACEMENT OF THE SIGNING AND MARKINGS SHALL BE APPROVED IN THE FIELD BY THE ENGINEER PRIOR TO CONSTRUCTION.
- INSPECT TRAFFIC CONTROL DEVICES ON A DAILY BASIS TO ENSURE PLACEMENT OF BARRICADES AND FUNCTION OF LIGHTS IS MAINTAINED THROUGHOUT CONSTRUCTION.
- CONTACT PROPERTY OWNERS AFFECTED BY CONSTRUCTION. COORDINATE TEMPORARY DRIVEWAY CLOSURES AND SEQUENCING. MAINTAIN ACCESS FOR ALL PROPERTY OWNERS DURING CONSTRUCTION.
- WET UNSTABILIZED AREAS AS NECESSARY TO CONTROL DUST.
- ADJUST TRAFFIC CONTROL DEVICES AS REQUIRED UNDER EMERGENCY CONDITIONS.
- THE CONTRACTOR IS EXPECTED TO COORDINATE ITS ACTIVITIES WITH OTHER CONTRACTORS WHO MAY BE WORKING IN THE IMMEDIATE VICINITY.
- WHEN WORK OCCURS WITHIN 15-FT OF ACTIVE ROAD TRAVEL LANES BUT NO CLOSER THAN 2-FT FROM THE EDGE OF PAVEMENT, SIGNAGE AND WARNING DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 600 AND 602.
- TYPE I OR TYPE II BARRICADES AT 20-FT CENTERS SHALL BE PLACED AND MAINTAINED ALONG THE EDGE OF THE ROAD WHEREVER DROP-OFFS OR OTHER HAZARDS EXIST AND TO BLOCK ENTRANCE INTO COMPLETED OR PARTIALLY COMPLETED PAVEMENTS UNTIL SUCH PAVEMENTS ARE OPEN TO PUBLIC USE.

APPLICABLE CODES

FLORIDA BUILDING CODE 2010 EDITION
FLORIDA PLUMBING CODE 2010 EDITION
NATIONAL ELECTRICAL CODE 2010 EDITION
FLORIDA MECHANICAL CODE 2010 EDITION
FLORIDA FIRE PREVENTION CODE 2010 EDITION

Des. by: JWH	Date: 07/17/2017	Scale: NONE	GENERAL NOTES	Rev. No.	Date	App'd by	Dwg. Status CONSTRUCTION DOCUMENTS		CITY OF PALM COAST, FLORIDA 160 Lake Avenue Palm Coast, Florida 32164	K-1 WEIR REPLACEMENT	Dwg No. C-1 sheet 1 of 13
Dwn. by: JWH	Date: 07/17/2017	Job no.:									
Chk. by: MCB	Date: 07/17/2017	File: K-1 WEIR									
App'd by: MP	Date: 07/17/2017										

STRUCTURAL GENERAL NOTES

GENERAL CONDITIONS

- IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWNGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWNGS SHALL BE VERIFIED BY THE CONTRACTOR.
- CONTRACTOR TO SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE STRUCTURE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR HAVING VISITED THE SITE AND HAVING FAMILIARIZED HIMSELF WITH ALL EXISTING CONDITIONS. ANY QUESTIONS OR DISCREPANCIES FOUND WITH REGARD TO THE DRAWNGS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY BEFORE SUBMITTING A PROPOSAL. FIELD MEASURE EXISTING CONDITIONS PRIOR TO FABRICATION OF MATERIALS.

FOUNDATIONS

- ALL FOOTINGS SHALL BE CENTERED UNDER THE COLUMN OR WALL ABOVE UNLESS NOTED OTHERWISE.
- BACKFILL AGAINST A WALL SHALL BE PLACED EVENLY ON BOTH SIDES OF THE WALL UNLESS THE WALL IS FULLY BRACED BY THE CONTRACTOR FOR LATERAL PRESSURE. SUCH BRACING INCLUDING ITS DESIGN IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL AFTER THE FLOOR SLAB OR OTHER STRUCTURAL ELEMENT BRACING THE WALL HAS BEEN CONSTRUCTED TO THE SATISFACTION OF THE ARCHITECT.

STRUCTURAL STEEL NOTES

- STRUCTURAL STEEL SHALL CONFORM TO THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", LATEST EDITION.
- WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY, AWS D1.1.
- BOLTS AND BOLTED CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS" AS APPROVED BY THE COUNCIL ON RIVETED AND BOLTED JOINTS. USE BEARING TYPE BOLTS WITH THREADS ALLOWED ACROSS THE SHEAR PLANE. ANCHOR BOLTS SHALL CONFORM TO ASTM A-36.
- STRUCTURAL STEEL SHAPES, PLATES, ETC. SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-36, EXCEPT ALL WIDE FLANGE SECTIONS SHALL BE ASTM A992. UNLESS NOTED OTHERWISE. STEEL TUBES SHALL BE 46 KSI STEEL CONFORMING TO ASTM A-500.
- IN GENERAL, IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT ALL SHOP CONNECTIONS BE WELDED OR BOLTED AND ALL FIELD CONNECTIONS BE BOLTED EXCEPT WHERE NOTED OTHERWISE.
- TOUCH UP FIELD WELDS AND ANY DAMAGED AREAS OF PAINT IN FIELD AFTER WELDING. (USE GALVANIZING PAINT FOR TOUCH UP OF GALVANIZED STEEL).
- ALL WELDS SHALL BE VISUALLY INSPECTED BY AN APPROVED LICENSED TESTING COMPANY. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.

CAST IN PLACE CONCRETE

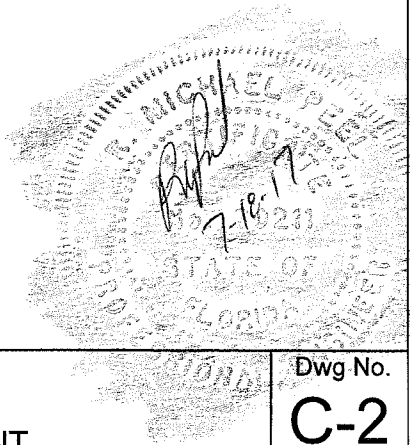
- ALL CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
3000 PSI FIBER REINFORCED (OR AS NOTED ON PLANS)
3000 PSI SLAB ON GRADE, FOOTINGS
4000 PSI REMAINING CONCRETE
- ALL CONCRETE SHALL HAVE A SLUMP OF 4" PLUS OR MINUS 1", AND HAVE 2 TO 4% AIR ENTRAINMENT. A MAXIMUM WATER/CEMENT RATIO OF 0.56.
- CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 CHAPTER 3. METHOD 1 OR METHOD 2. SUBMIT BACKUP DATA AS REQUIRED BY CHAPTER 5 SECTION 5.3. OF THE LATEST EDITION OF ACI 318.
- ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
- WELDED WRE FABRIC SHALL CONFORM TO ASTM A485. W.W.F. SHALL BE LAPPED AT LEAST 8" AND CONTAIN AT LEAST ONE CROSS WIRE WITHIN THE 8". AT GROUND FLOOR SLAB 1 1/2 LBS. OF POLYPROPYLENE FIBROUS REINFORCEMENT PER CU. YD. OF CONCRETE MAY BE USED IN LIEU OF W.W.F. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR
- REINFORCED CONCRETE" ACI 318 LATEST EDITION, AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," ACI 301. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING."
- REINFORCED CONCRETE STRUCTURES" ACI 315 LATEST EDITION, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWNGS.
- CONTRACTOR SHALL REVIEW ARCHITECTURAL AND MECHANICAL DRAWNGS FOR SIZE AND LOCATION OF EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, SLOPES, ETC. REQUIRED BY OTHER TRADES. THESE ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF CONCRETE.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
- WHERE BAR LENGTHS ARE GIVEN ON THE DRAWNGS, THE LENGTH OF ANY HOOK, IF REQUIRED, IS NOT INCLUDED. HOOKS SHALL BE PROVIDED AT DISCONTINUOUS ENDS OF ALL TOP BARS OF BEAMS AND AT SLABS EDGES.
- CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC. NECESSARY TO SUPPORT REINFORCING STEEL. SUPPORT ITEMS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL.
- CONTRACTOR SHALL PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED CORNERS.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
3" CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.
2" CONCRETE EXPOSED TO EARTH OR WEATHER, #6 THROUGH #18 BARS.
1-1/2" CONCRETE EXPOSED TO EARTH OR WEATHER, #5 BAR AND SMALLER.
1-1/2" CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH FOR THE PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS IN BEAMS AND COLUMNS.
3/4" CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH EARTH FOR SLABS, WALLS, AND JOISTS, #11 BAR AND SMALLER. (OR AS NOTED ON PLANS)
- HORIZONTAL WALL AND FOOTING BARS SHALL BE BENT 1'-0" AROUND CORNERS OR CORNER BARS WITH 2'-6" LAP SHALL BE PROVIDED.
- HORIZONTAL KEYWAYS IN CONSTRUCTION JOINTS SHALL BE PROVIDED IN BEAMS, SUPPORTED SLABS, AND WALL FOOTINGS WITH A DEPTH OF 1-1/2" AND HEIGHT EQUAL TO ONE-THIRD OF THE MEMBER'S DEPTH. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON THE DRAWNGS. CONSTRUCTION JOINTS MAY BE USED ONLY AT LOCATIONS SHOWN ON THE DRAWNGS OR AT OTHER LOCATIONS APPROVED BY THE ARCHITECT.
- MINIMUM LAP SPLICES ON ALL REINFORCING BAR SPLICES SHALL BE 48 BAR DIAMETERS TYP. EXCEPT WHERE OTHERWISE NOTED ON THE DRAWNGS. FOR BEAMS AND ELEVATED SLABS, LAP BOTTOM STEEL AT THE SUPPORT AND TOP STEEL OVER THE MIDSPAN, UNLESS OTHERWISE NOTED.
- TESTING LABORATORY SHALL SUBMIT ONE COPY OF ALL CONCRETE TEST REPORTS DIRECTLY TO THE CITY ENGINEER.

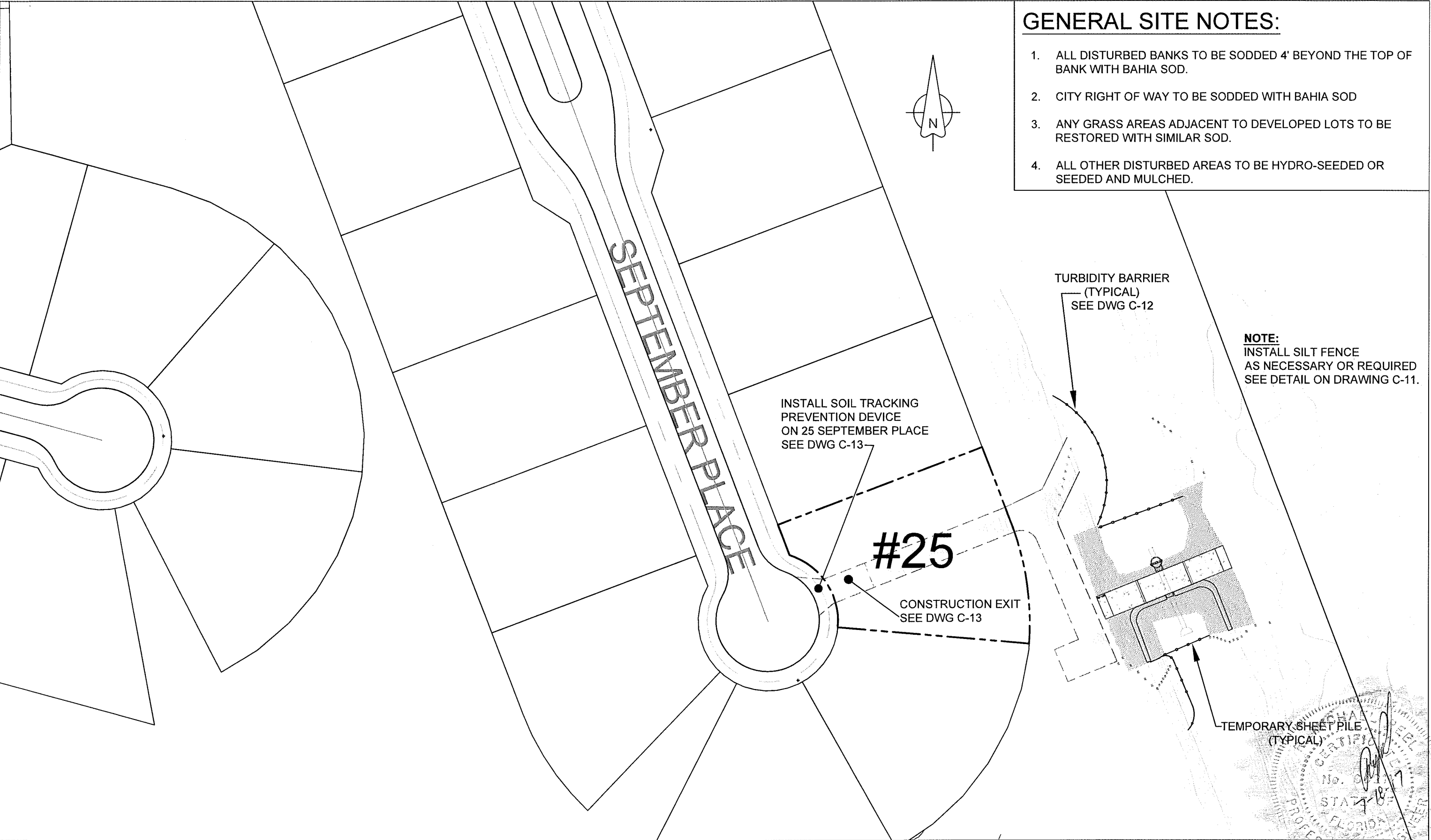
TESTING

- A MINIMUM OF FIVE (5) CYLINDERS AND SLUMP TESTING SHALL BE PROVIDED FOR EACH DELIVERY TRUCK UNLESS OTHERWISE SPECIFIED BY CITY.
- CYLINDER TEST SHALL BE PERFORMED TO CURRENT INDUSTRY STANDARDS.
- TESTING SHALL BE PERFORMED BY AN INDEPENDENT LICENSED TESTING AGENCY.
- ADDITIONAL TESTING, AS REQUIRED, WILL BE AT NO ADDITIONAL COMPENSATION.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MITIGATION OF ANY TESTING FAILURES AS DIRECTED BY THE STRUCTURAL ENGINEER. AT NO ADDITIONAL COMPENSATION.

ABBREVIATIONS


ACMP	ALUMINIZED CORRUGATED METAL PIPE
CMP	CORRUGATED METAL PIPE
DIA.	DIAMETER
EL.	ELEVATION
HWL	HIGH WATER LEVEL
INV.	INVERT
LBS	POUNDS
N.T.S.	NOT TO SCALE
NWL	NORMAL WATER LEVEL
SQ FT	SQUARE FEET
TBD	TO BE DETERMINED
TBM	TEMPORARY BENCHMARK
T.O.B.	TOP OF BERM
TYP	TYPICAL
OE	OVERHEAD ELECTRIC
O.C.	ON CENTER
WM	WATERMAIN

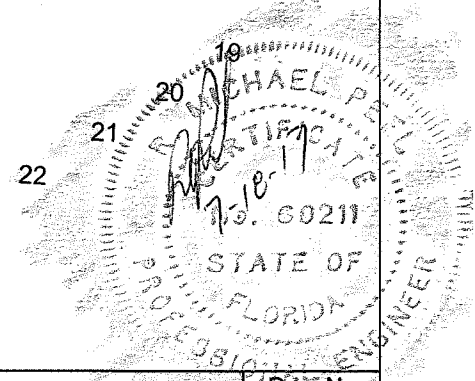





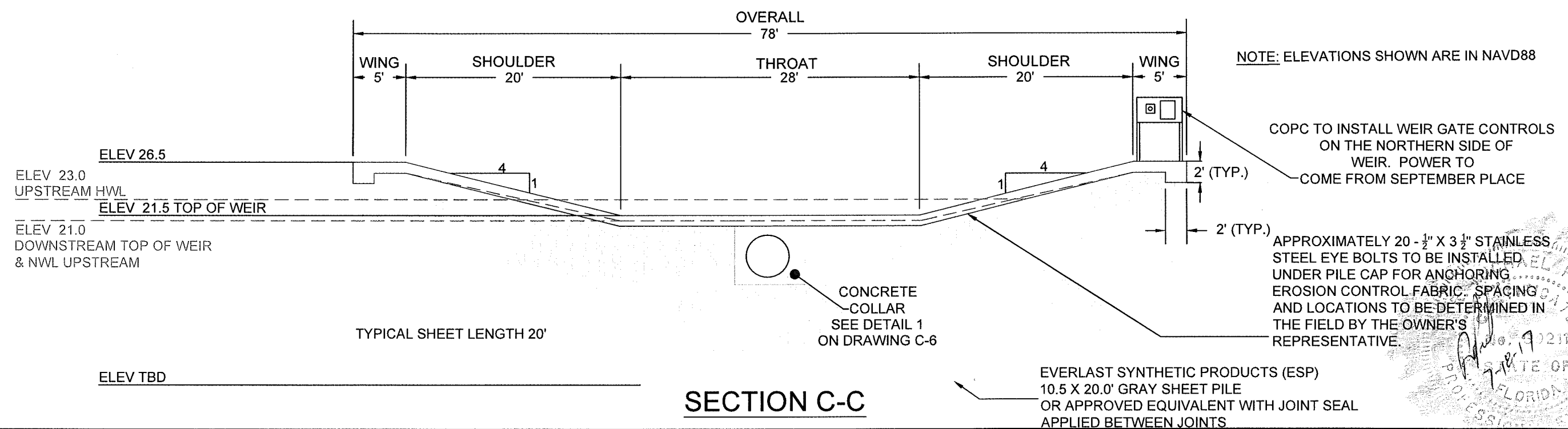
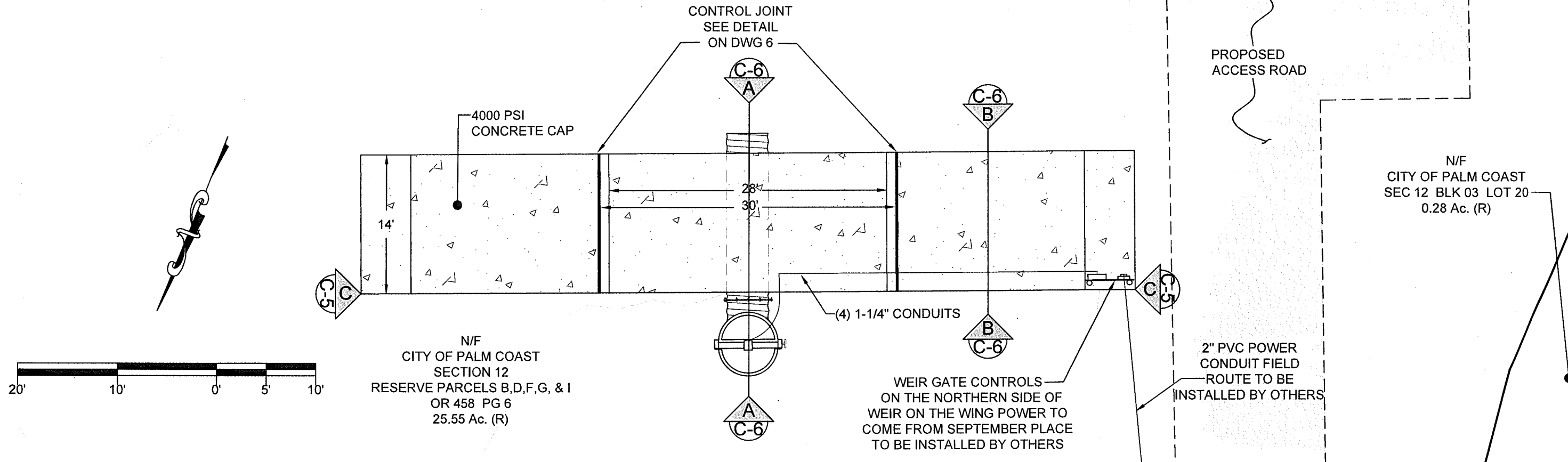
GENERAL SITE NOTES:

- 1. ALL DISTURBED BANKS TO BE SODDED 4' BEYOND THE TOP OF BANK WITH BAHIA SOD.
- 2. CITY RIGHT OF WAY TO BE SODDED WITH BAHIA SOD
- 3. ANY GRASS AREAS ADJACENT TO DEVELOPED LOTS TO BE RESTORED WITH SIMILAR SOD.
- 4. ALL OTHER DISTURBED AREAS TO BE HYDRO-SEEDED OR SEEDED AND MULCHED.

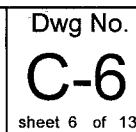
Des. by: JWH	Date: 07/17/2017	Scale: 1" = 50'	SITE & EROSION CONTROL PLAN	Rev. No.	Date	App'd by	Dwg. Status CONSTRUCTION DOCUMENTS		CITY OF PALM COAST, FLORIDA 160 Lake Avenue Palm Coast, Florida 32164	K-1 WEIR REPLACEMENT	Dwg No. C-3 sheet 3 of 13
Dwn. by: JWH	Date: 07/17/2017	Job no.:									
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg									
App'd by: MP	Date: 07/17/2017										

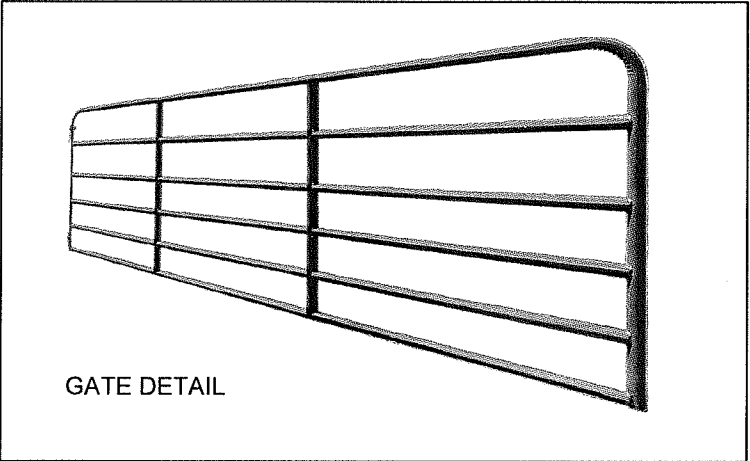


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Dwn. by: JWH	Date: 07/17/2017	Job no.:									
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg									
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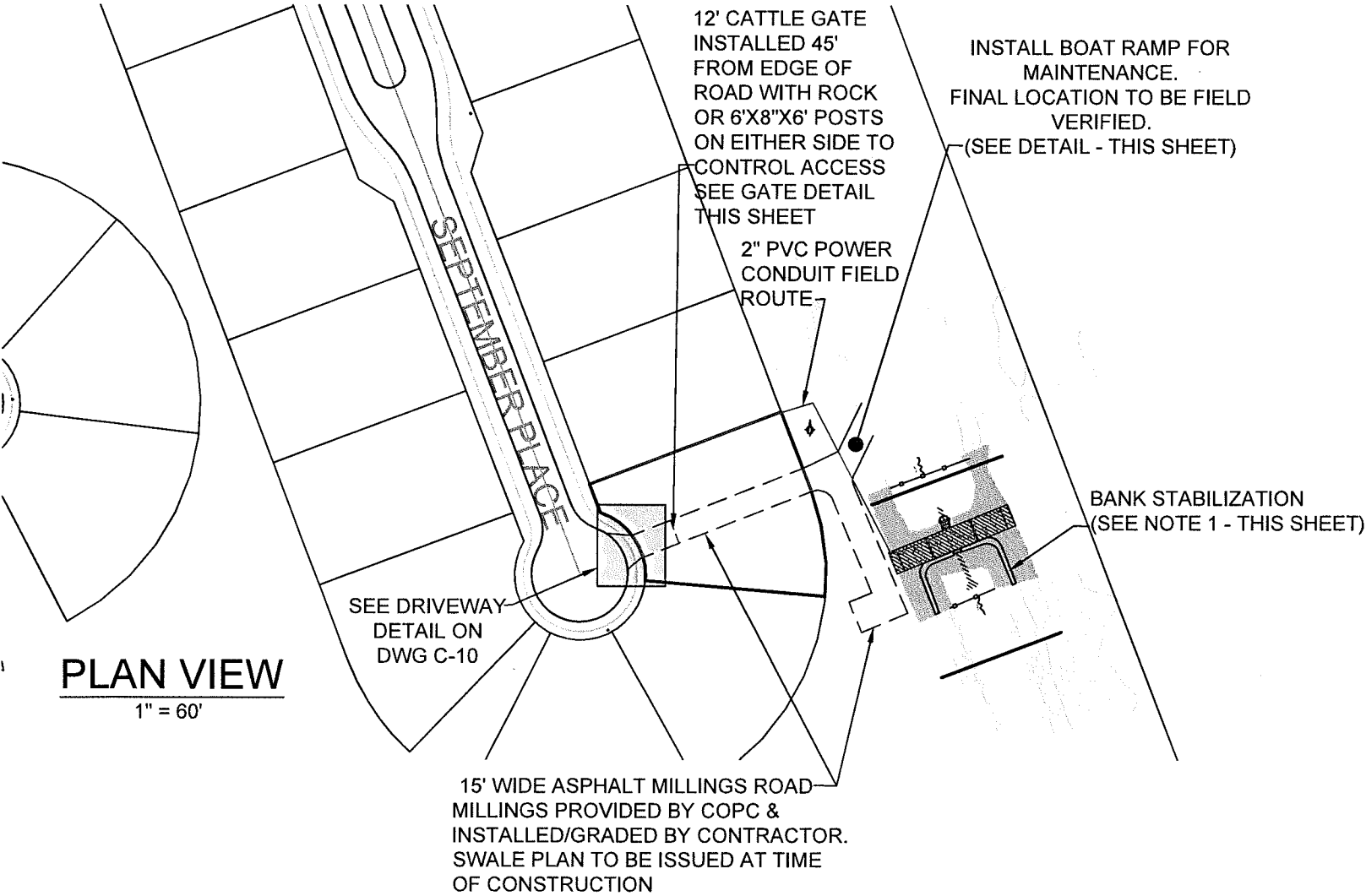
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Dwn. by: JWH	Date: 07/17/2017	Job no.:								
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App'd by: MP	Date: 07/17/2017									





GATE DETAIL

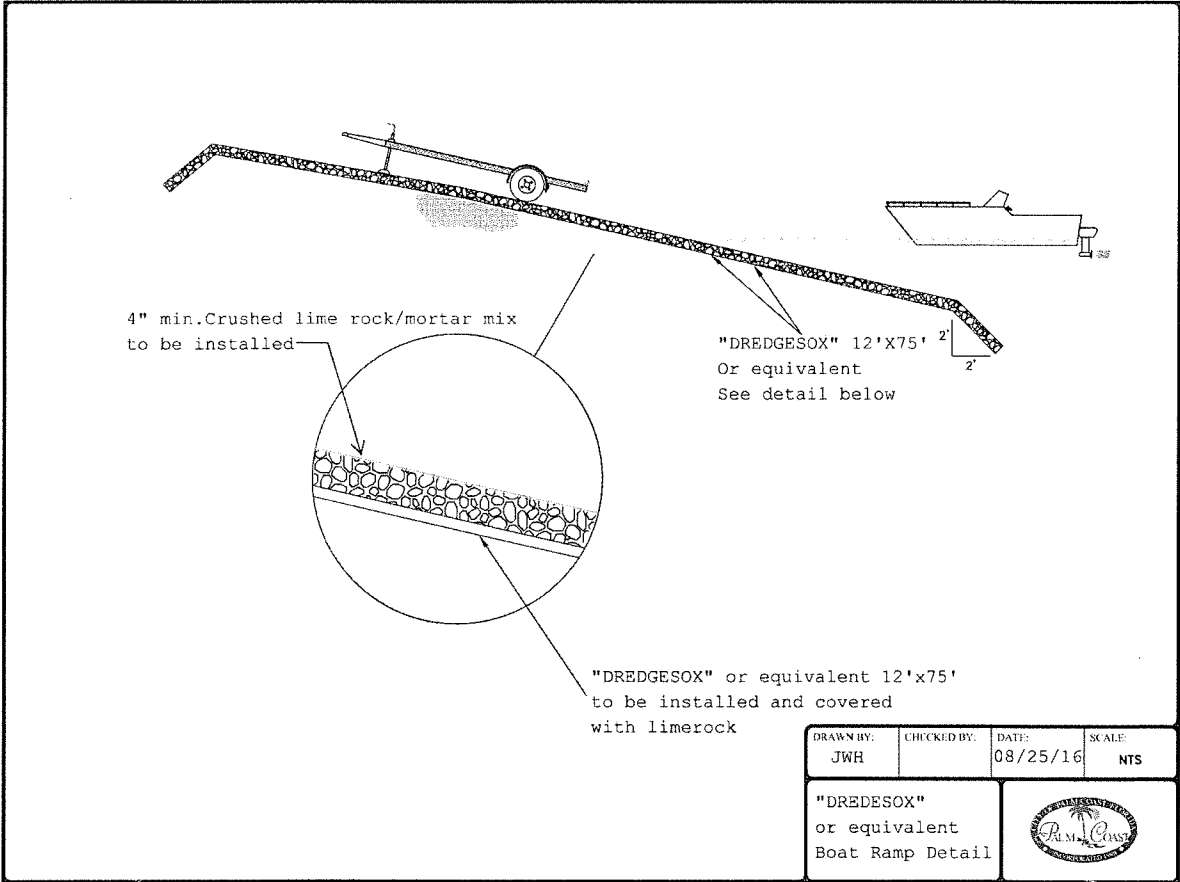
PRODUCT: 12' CATTLE/UTILITY GATE
DESCRIPTION: 2" GALVANIZED TUBE UTILITY GATE
SPECIFICATIONS: 50'H X 12' W



PLAN VIEW

1" = 60'

"DREDGESOX" HARDENED RAMP DETAIL



12' WIDE X LENGTH (75' TYPICAL) OF BOAT RAMP TO BE DETERMINED IN FIELD

NOTES

- 1) APPROXIMATELY 150 LF. OF "SHORESUX/DREDGESUX" OR APPROVED EQUIVALENT TO BE INSTALLED ALONG EACH SIDE OF THE DOWNSTREAM CANAL EMBANKMENT.
- 2) INSTALLATION SHALL BE FROM ELEVATION OF 24.0' TO ELEVATION OF 15.0'.
- 3) "SHORESUX/DREDGESUX" OR APPROVED EQUIVALENT SHALL ALSO BE INSTALLED ALONG THE DOWNSTREAM FACE OF WEIR FROM APPROXIMATE BOTTOM OF PILE CAP TO ELEVATION OF 15.0'.
- 4) 75.0' MINIMUM DISTANCE DOWNSTREAM ON BOTH SIDES.
- 5) INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

Des. by: JWH	Date: 07/17/2017	Scale: AS SHOWN
Dwn. by: JWH	Date: 07/17/2017	Job no.:
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg
App'd by: MP	Date: 07/17/2017	

SITE PLAN

Rev. No.	Date	App'd by

Dwg. Status

CONSTRUCTION DOCUMENTS



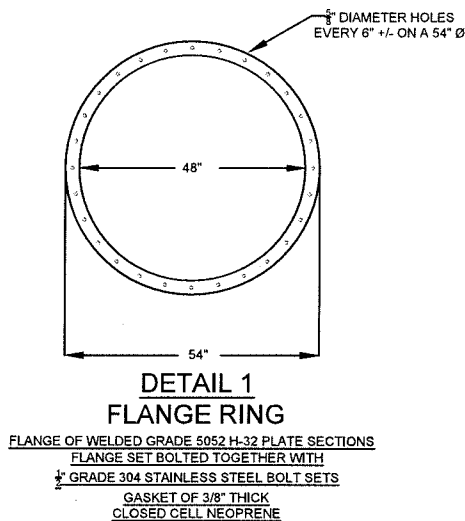
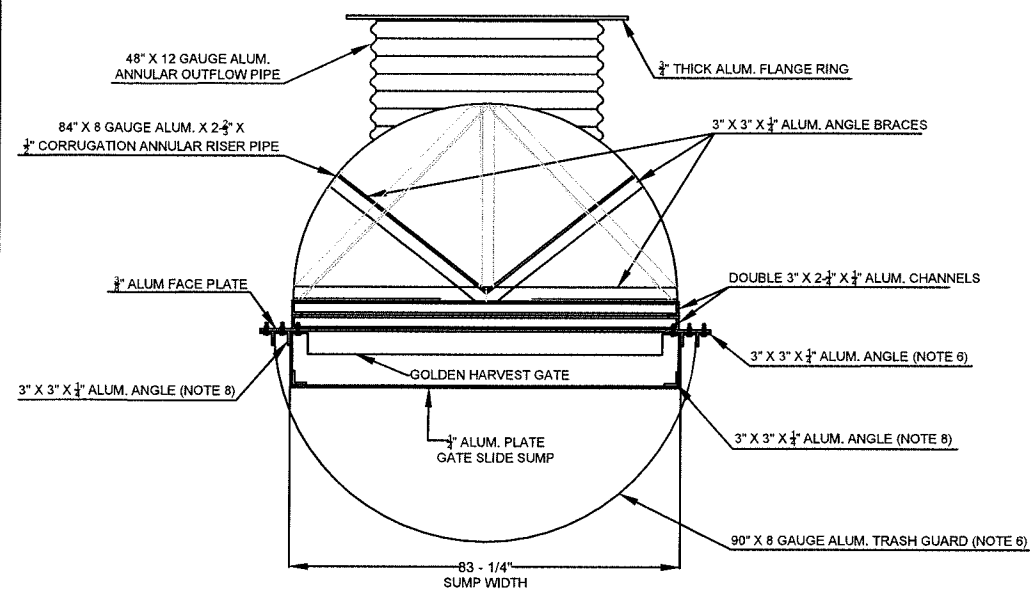
CITY OF PALM COAST, FLORIDA
160 Lake Avenue
Palm Coast, Florida 32164

K-1
WEIR REPLACEMENT

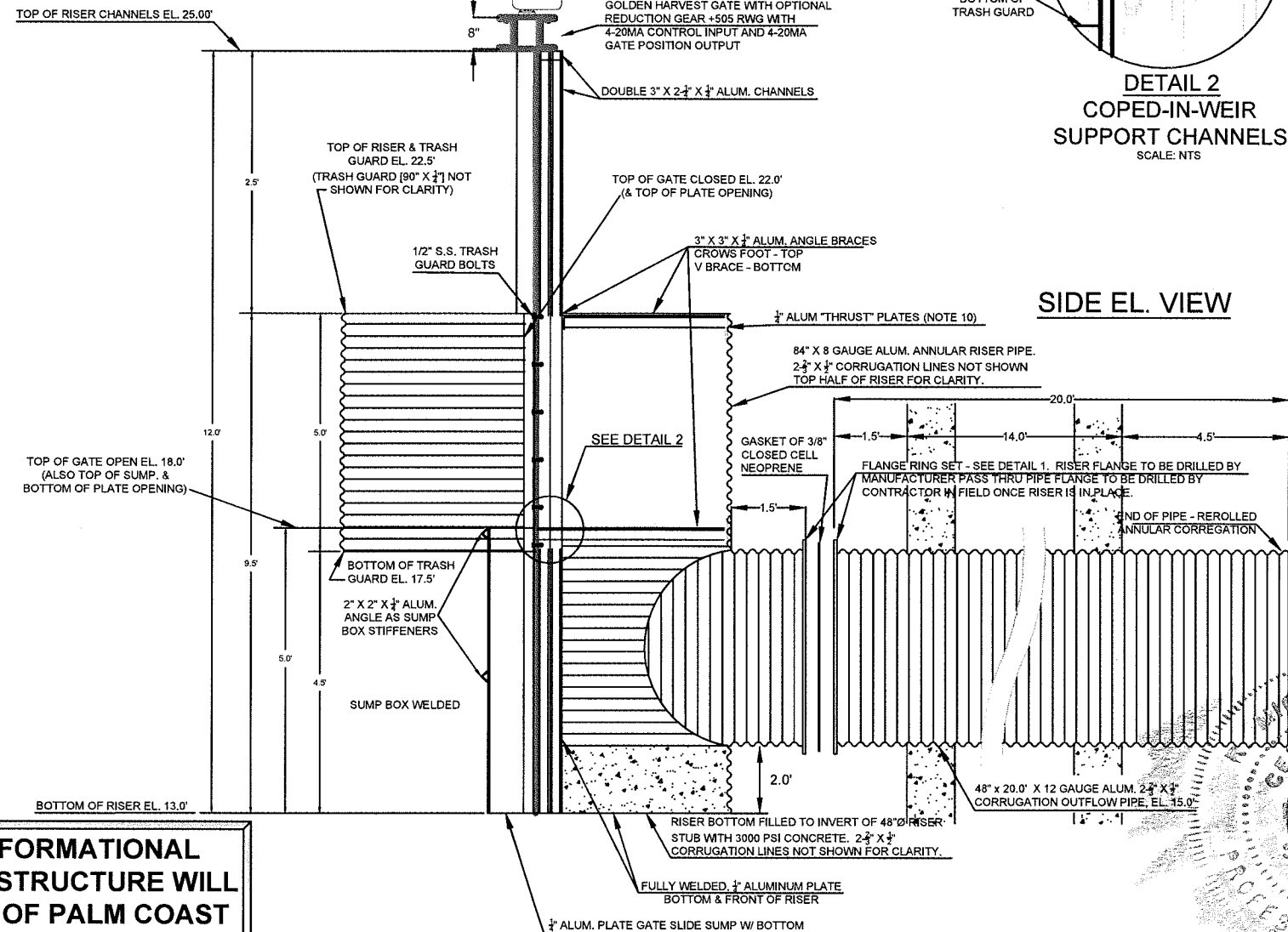
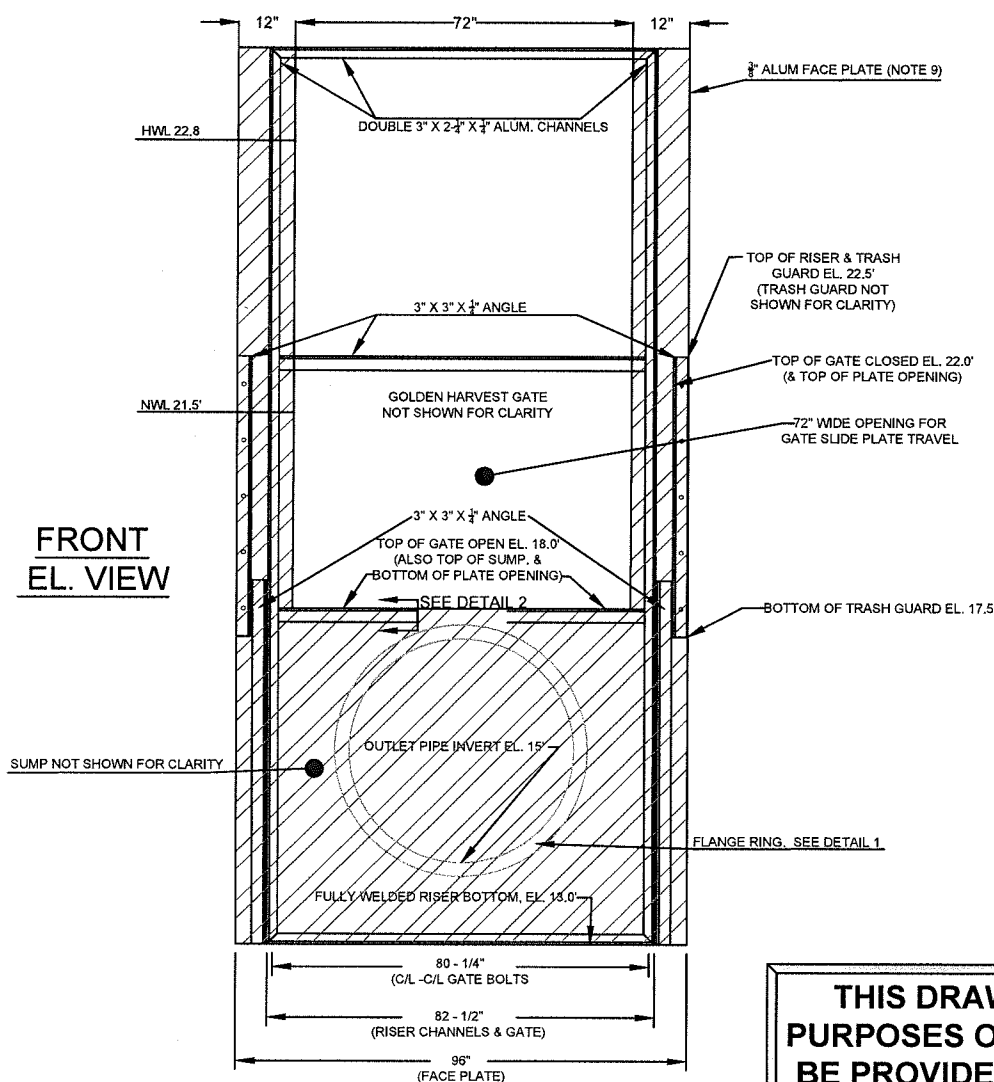
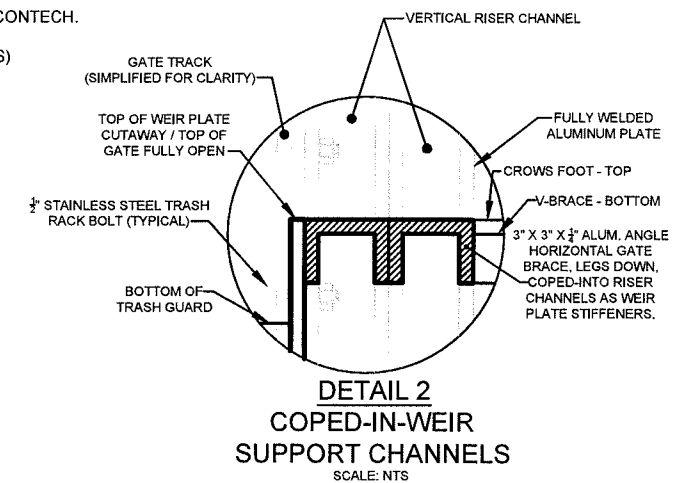
Dwg No.

C-7


sheet 7 of 13



- GENERAL NOTES:
- 1) GATE TO BE FITTED TO RISER ONCE GATE ARRIVES, ALLOWING FOR PROPER FITTING OF TRASH RACK AND SLIDE PLATE SUMP.
 - 2) ALL STRUCTURAL STEEL GRADE 6061-T6. FACE PLATE GRADE 5052. RISER & CULVERT GRADE 3034.
 - 3) ALL WELDS TO BE $\frac{1}{8}$ " OR $\frac{1}{4}$ " \times , EXCEPT AS NOTED
 - 4) WELD PROCESS MIG W/ 3/64" - 4043 WIRE
 - 5) STRUCTURAL STEEL TO BE WELDED ON ALL SIDES, UNLESS OTHERWISE NOTED OR DIRECTED
 - 6) ALUMINUM ANGLES WELDED TO 90° TRASH RACK AT EACH CORRUGATION. ANGLES TO BE BOLTED TO RISER FACE PLATE WITH 1/2" STAINLESS STEEL BOLTS 12" ON CENTER +/- TRASH RACK TO BE REMOVED FOR GATE INSTALLATION, BY OTHERS.
 - 7) SUMP BOX ANGLES TO BE WELDED TO SUMP BOX. ANGLES TO THEN TO BE WELDED TO FACE PLATE TO SERVE AS BACK OF BOX.
 - 8) FACE PLATE TO BE CONTINUOUSLY WELDED TO RISER CHANNELS, PROVIDING WATER TIGHT SEAL SERVING AS THE MOUNTING "WALL" FOR THIS STYLE GATE.
 - 9) THRUST PLATES TO BE 5.5" X 5.5" MINIMUM.
 - 10) ALL WELDING TO BE PERFORMED BY STATE OF FLORIDA CERTIFIED WELDER(S)



THIS DRAWING IS FOR INFORMATIONAL PURPOSES ONLY. OUTLET STRUCTURE WILL BE PROVIDED BY THE CITY OF PALM COAST

Des. by: JWH	Date: 07/17/2017	Scale: NONE	GATE CROSS SECTION	Rev. No.	Date	App'd by	Dwg. Status CONSTRUCTION DOCUMENTS		CITY OF PALM COAST, FLORIDA 160 Lake Avenue Palm Coast, Florida 32164	K-1 WEIR REPLACEMENT	Dwg No. C-8 sheet 8 of 13
Dwn. by: JWH	Date: 07/17/2017	Job no.:									
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg									
App'd by: MP	Date: 07/17/2017										

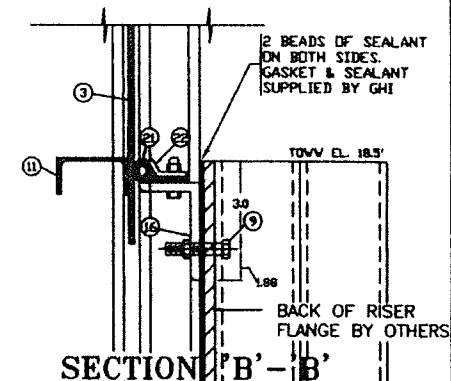
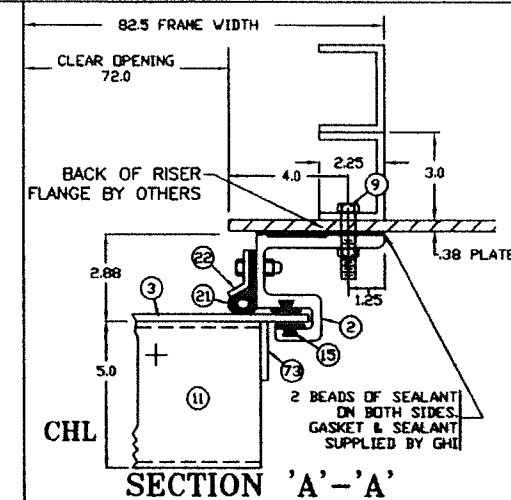
ELECTRIC MOTOR OPERATOR INFORMATION
OUTLINE DRAWING # --- SEE ATTACHED
MODEL # --- AUMA SA 10.1-26A
WIRING DIAGRAM # --- SEE ATTACHED
SPEC SHEET # --- GHI-1

OPEN/CLOSE SERVICE

- 1 CONTRACTOR/ENGINEER:**
PLEASE CONFIRM OR PROVIDE TOP OF WALL (TOW) ELEVATION, INVERT ELEVATIONS, OTHER ELEVATIONS, & OPERATING HEADS ON ALL DRAWINGS.
- 2 CONTRACTOR/ENGINEER:**
GATE INTENDED FOR OVERFLOW WEIR SERVICE (NO TOP SEAL). PLEASE CONFIRM.

3 SHOP NOTE: KEEP FRAME ON PLANE FOR PLATE MOUNTING.

4 INSTALLER NOTE:
TIGHTEN MOUNTING BOLTS EVENLY TO PREVENT DISTORTING FRAME.



MD GH-60 ALUMINUM WEIR GATE MATERIAL LIST

1 STEM	1.5 DIAMETER, S-STL W/ACME ROLLED THREADS 16 MICRO IN. RMS OR LESS FINISH
6 YOKE	C8 x 3.0 x 4.15 LBS ALUMINUM CHANNEL
11 STIFFENER	C5 x 2.25 x 2.21 LBS ALUMINUM CHANNEL
30 OPERATOR	ELECTRIC MOTOR OPERATOR- AUMA MODEL SA 10.1-26A
38 STEM GUIDE	2.5 x 2.5 x 1/4 ALUMINUM ANGLE, W/UHMW STEM GUIDE BUSHING
73 VERT. STIFFENER	1/4 x 3.0 ALUMINUM FLAT BAR
190 CENTER STIFFENER	1/4 x 4.0 ALUMINUM FLAT BAR
2 GUIDE RAIL	EXTRUDED ALUMINUM, SLB. PER FT. UNI FLANGE
3 GATE HEAD	1/4" ALUMINUM PLATE
9 ATTACHING BLT	1/2" x 2.5 S-STL HEX BOLT, W/1 NUT, & F/W
15 GUIDE BEARING BAR	UHMW POLYETHYLENE ASTM D-4020 IN DOVETAIL SLOTS PROVIDING OPERATING COEFFICIENT OF 0.125 OR LESS BETWEEN SLIDE AND GATE GUIDE
16 HORIZONTAL SPIGOT	4.0 x 2.5 x 3/8 ALUMINUM ANGLE
21 P-SEAL	NEOPRENE RUBBER # 7274
22 P-SEAL RTNR	S-STL FLAT BAR W/SLOTTED HOLES
31 STOP NUTS	BRONZE ASTM B-584
32 STEM COVER	CLEAR BUTYRATE PLASTIC WITH MYLAR STRIP INDICATOR CALIBRATED IN FEET AND INCHES WITH PVC END CAP

MATERIAL SPECIFICATIONS:
HARDWARE & FASTENERS = TYPE 304 SS ASTM-F593 / F594
S-STL STEM = TYPE 304 SS ASTM-A276
S-STL ANCHOR ROD = TYPE 304 SS ASTM-A276
ALUMINUM SHAPES = 6061-T6
ALUMINUM FORMED & PLATE = 6061-T6
ALUMINUM EXTRUSION = 6061-T6
ALUMINUM ROUND BAR = 6063-T5
UHMWPE = ASTM-D4020
NEOPRENE RUBBER = ASTM-D2000
BRONZE = ASTM-B584

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Max Seating Head = 3.5 FT **1** Max Unseating Head = 3.5 FT **1**
Max Operating Head = 3.5 FT **1** Measured From GATE INVERT **1**

INSTALLATION NOTES for INSTALLER

FRAME OR FRAME COMPONENTS, PEDESTAL, WALL BRACKET, STEM GUIDE, AND OPERATOR MUST BE INSTALLED FLAT STRAIGHT AND PLUMB, SHIM AND BRACE AS NECESSARY.
SEE OPERATION & MAINTENANCE MANUAL FOR ADDITIONAL INSTALLATION INFORMATION.

TOLERANCES AS FOLLOWS:
PARALLEL ± 1/8"
COPLANER ± 1/8"
FLAT & STRAIGHT ± 1/16"
SQUARE ± 1/8"

72 x 48 MD GH-60 FLANGE MTD AL. WEIR GATE
GOLDEN HARVEST GOLDEN GATES
1-800-338-6238
P.O. BOX 287 Burlington, WA 98233

Project Description:
K-1 Weir Replacement

For:
PALM COAST, FL

Contractor:
CONTECH-CPI

Engineer:
CITY OF PALM COAST

Drawn By:
JR

FL = 55#

Scale:
Job No.: NTS

Contract Sht #:

Water Control Structure K-1

1 - REQ'D

Date Drawn:
03-30-2017

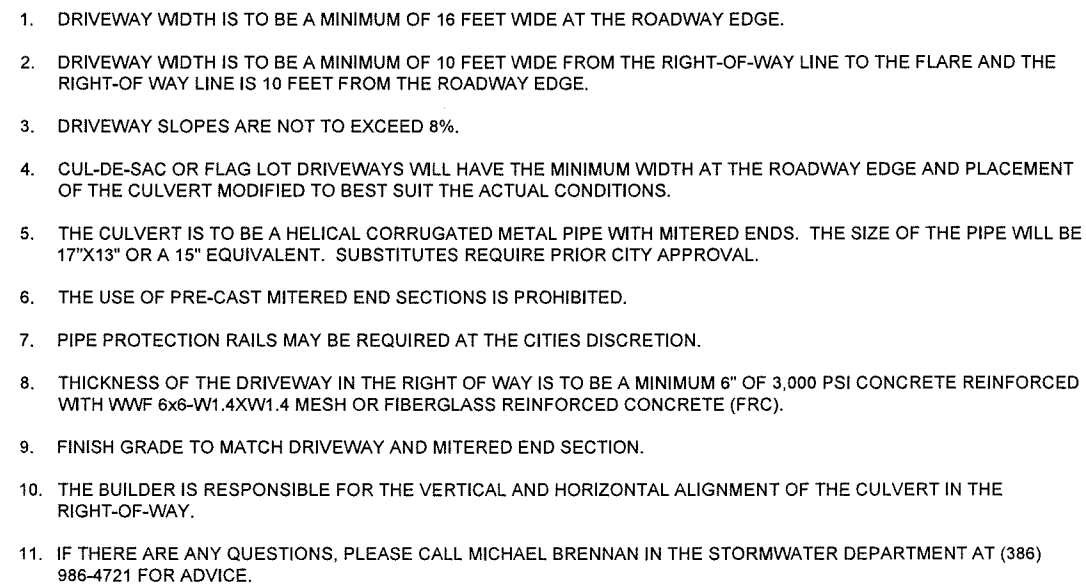
Revision:
03-30-2017


Revision:

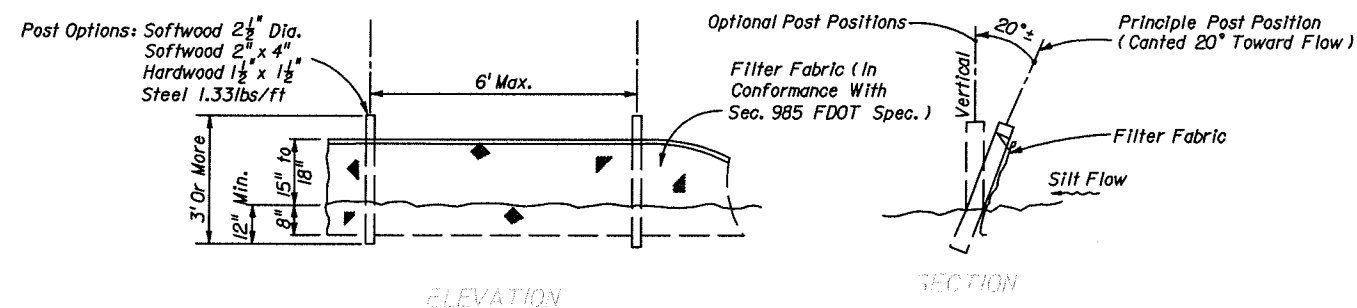
Revision:

G.H. Drawing #:
1 OF 1

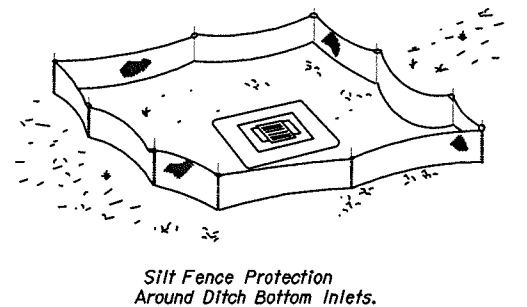
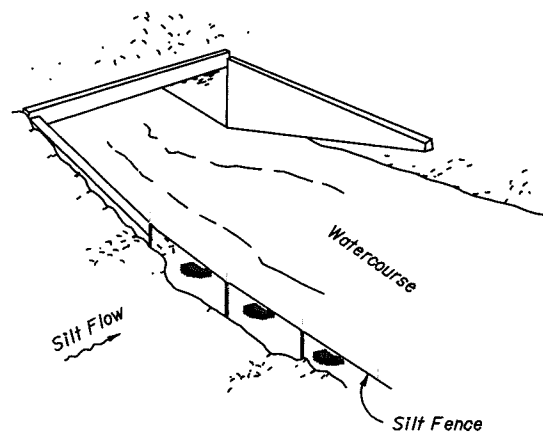
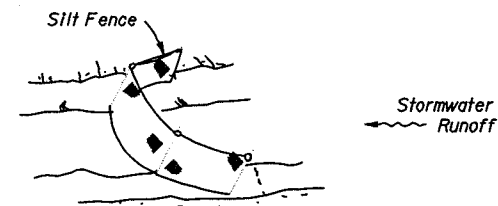
NOTE - END OF THE DRIVEWAY IS
25' FROM THE EDGE OF PAVEMENT



Des. by: JWH	Date: 07/17/2017	Scale: NONE	CULVERT PIPE DETAIL	Rev. No.	Date	App'd by	Dwg. Status CONSTRUCTION DOCUMENTS	 CITY OF PALM COAST, FLORIDA 160 Lake Avenue Palm Coast, Florida 32164	K-1 WEIR REPLACEMENT	Dwg No. C-10 sheet 10 of 13
Dwn. by: JWH	Date: 07/17/2017	Job no.:								
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg								
App'd by: MP	Date: 07/17/2017									



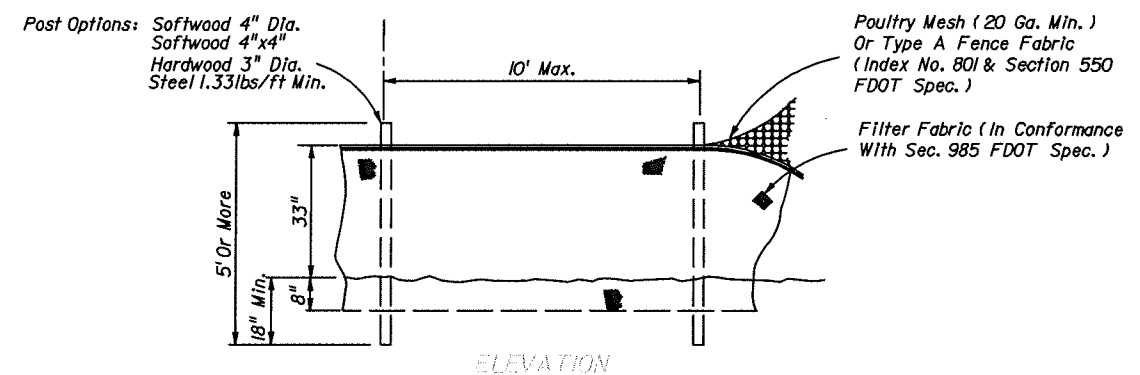
TYPE III SILT FENCE



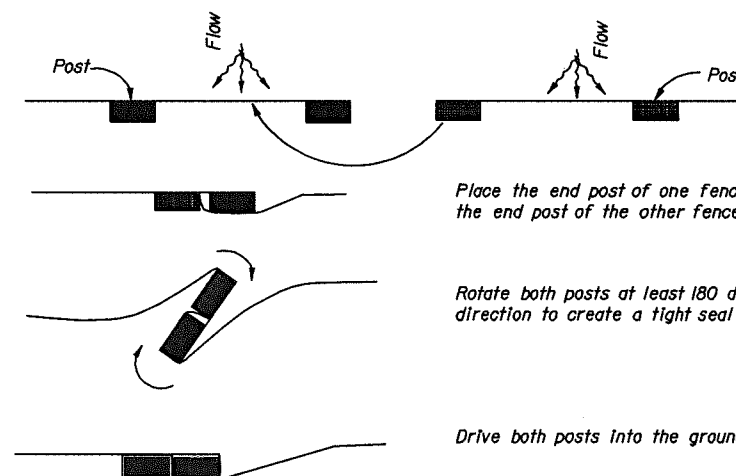
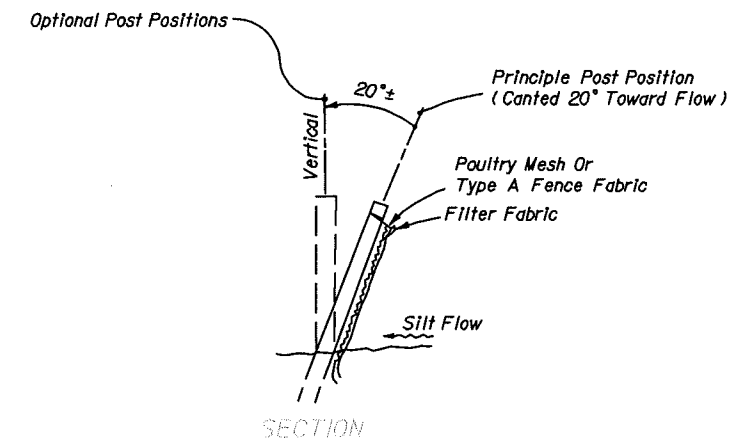
SILT FENCE APPLICATIONS

NOTES FOR SILT FENCES


1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shall be in accordance with Chart I, Sheet I.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

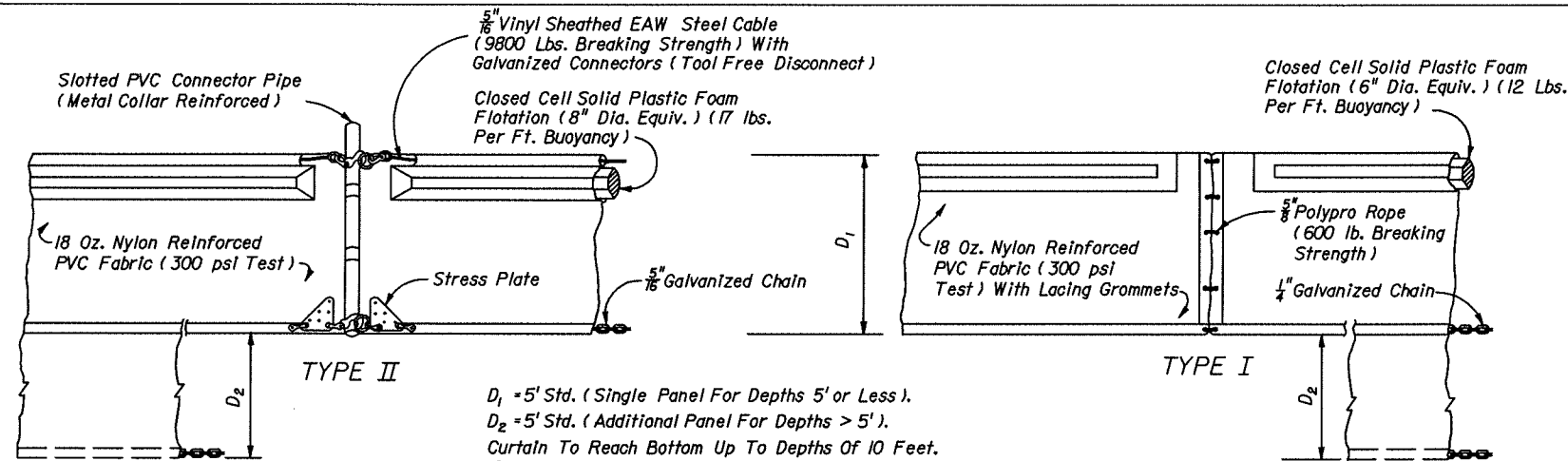


TYPE IV SILT FENCE



PLAN VIEW
JOINING TWO SILT FENCES

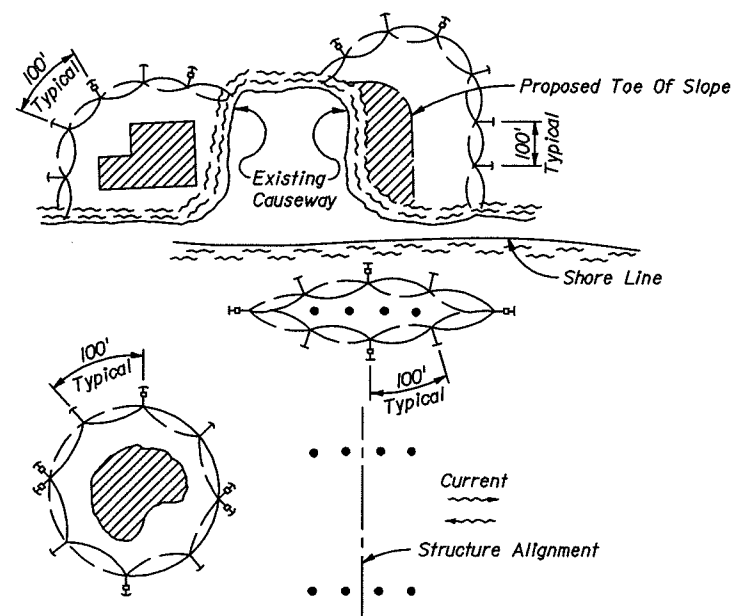
Des. by: JWH	Date: 07/17/2017	Scale: NONE	EROSION CONTROL SILT FENCE	Rev. No.	Date	App'd by	Dwg. Status CONSTRUCTION DOCUMENTS		CITY OF PALM COAST, FLORIDA 160 Lake Avenue Palm Coast, Florida 32164	K-1 WEIR REPLACEMENT	Dwg No. C-11 sheet 11 of 13
Dwn. by: JWH	Date: 07/17/2017	Job no.:									
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg									
App'd by: MP	Date: 07/17/2017										



D_1 = 5' Std. (Single Panel For Depths 5' or Less).
 D_2 = 5' Std. (Additional Panel For Depths > 5').
 Curtain To Reach Bottom Up To Depths Of 10 Feet.
 Two (2) Panels To Be Used For Depths Greater Than
 10 Feet Unless Special Depth Curtains Specifically Call
 For In The Plans Or As Determined By The Engineer.

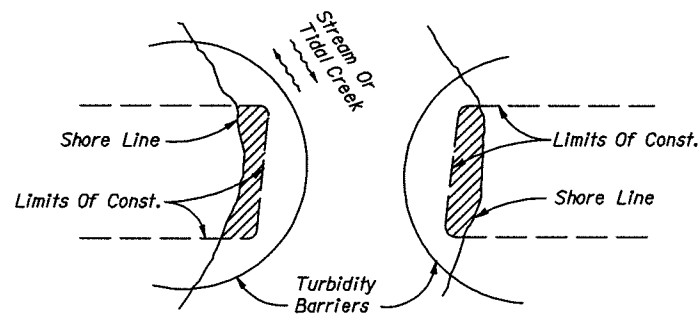
NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL
 TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY
 RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF
 THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS
 APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS



LEGEND

- Pile Locations
- ▨ Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action



Note:
 Turbidity barriers for flowing streams and tidal
 creeks may be either floating, or staked types
 or any combinations of types that will suit site
 conditions and meet erosion control and water
 quality requirements. The barrier type(s) will
 be at the Contractors option unless otherwise
 specified in the plans, however payment will
 be under the pay item(s) established in the
 plans for Floating Turbidity Barrier and/or
 Staked Turbidity Barrier. Posts in staked
 turbidity barriers to be installed in vertical
 position unless otherwise directed by the
 Engineer.

TURBIDITY BARRIER APPLICATIONS

Des. by: JWH	Date: 07/17/2017	Scale: NONE	EROSION CONTROL TURBIDITY BARRIERS	Rev. No.	Date	App'd by
Dwn. by: JWH	Date: 07/17/2017	Job no.:				
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg				
App'd by: MP	Date: 07/17/2017					

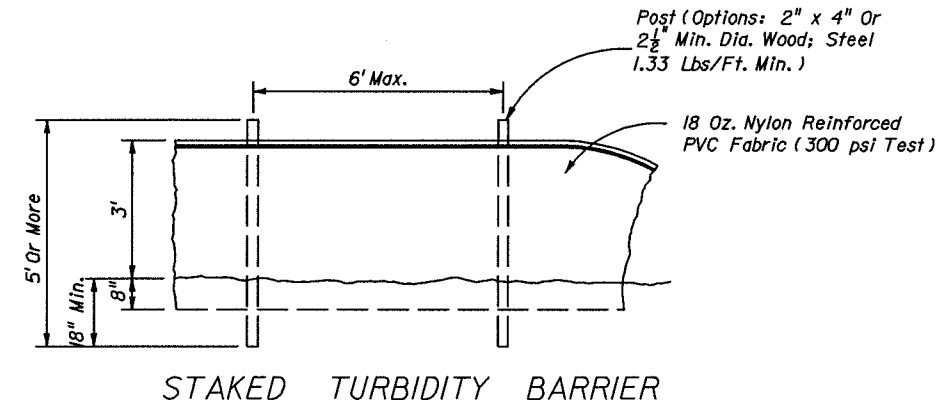
Dwg. Status

CONSTRUCTION DOCUMENTS



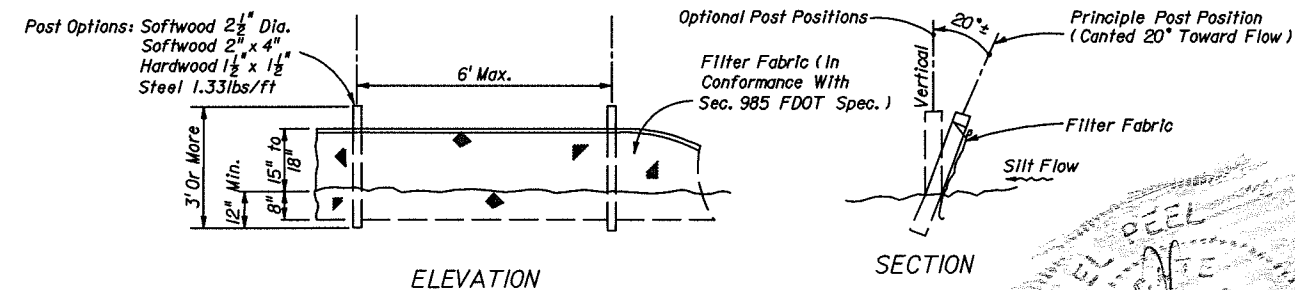
CITY OF PALM COAST, FLORIDA
 160 Lake Avenue
 Palm Coast, Florida 32164

TYPE III SILT FENCE



GENERAL NOTES

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

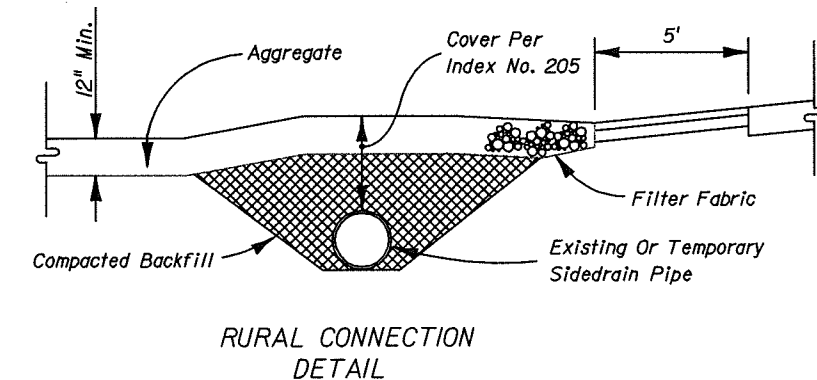
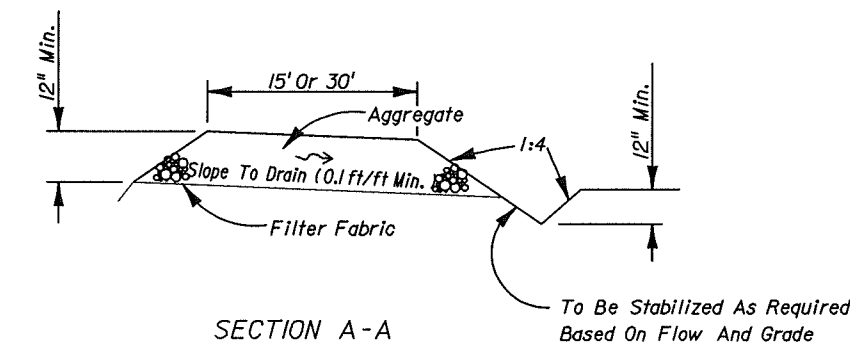
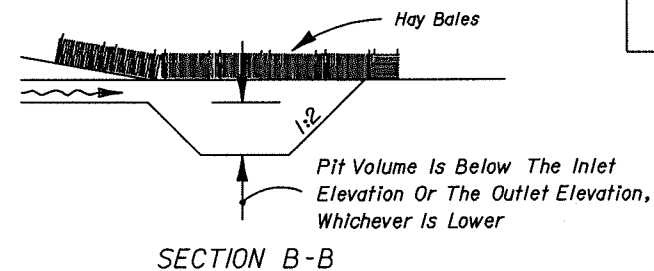
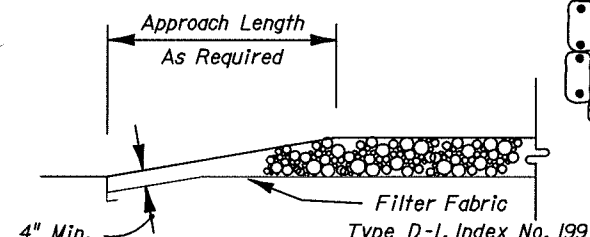
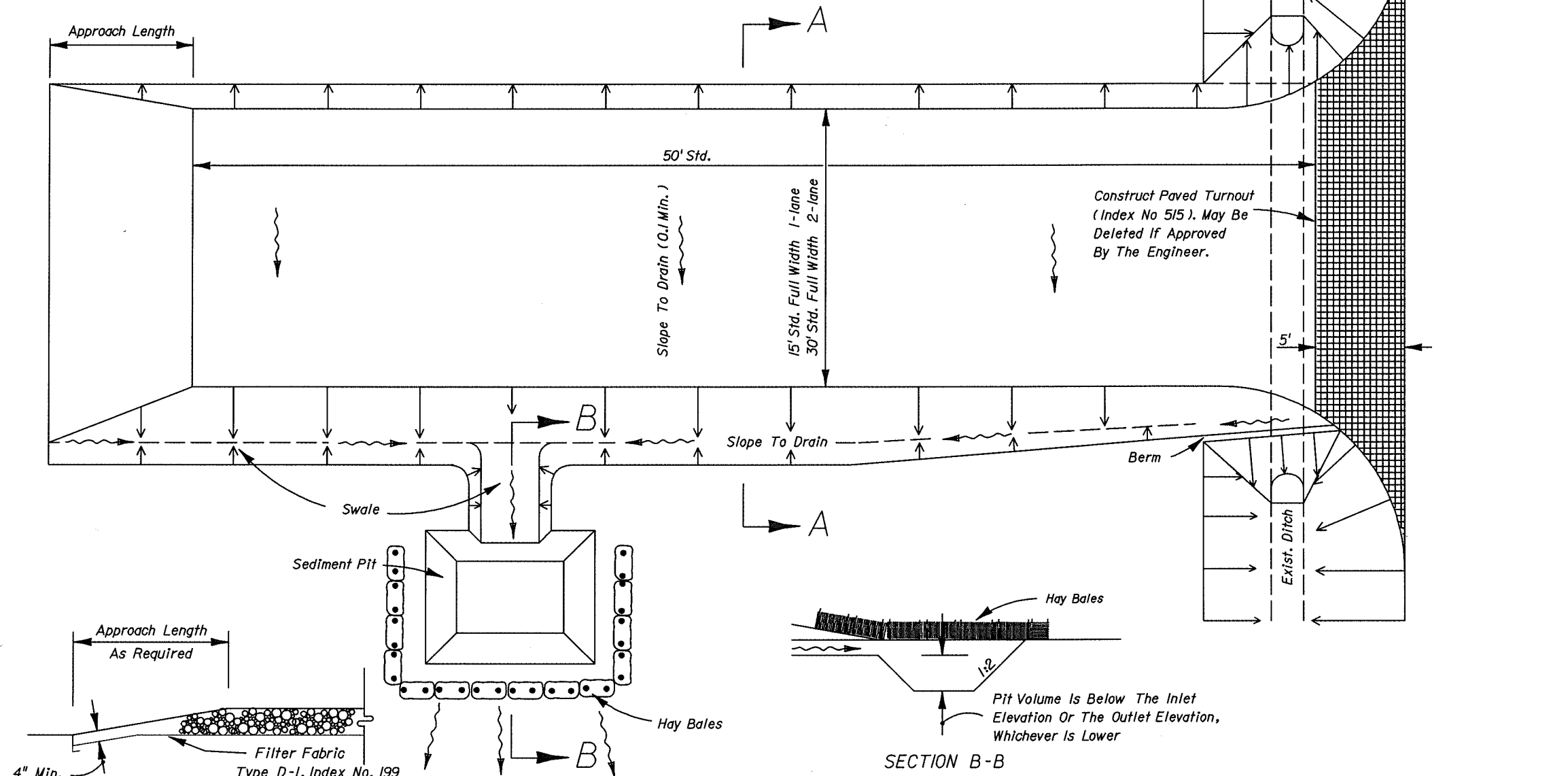



K-1
 WEIR REPLACEMENT

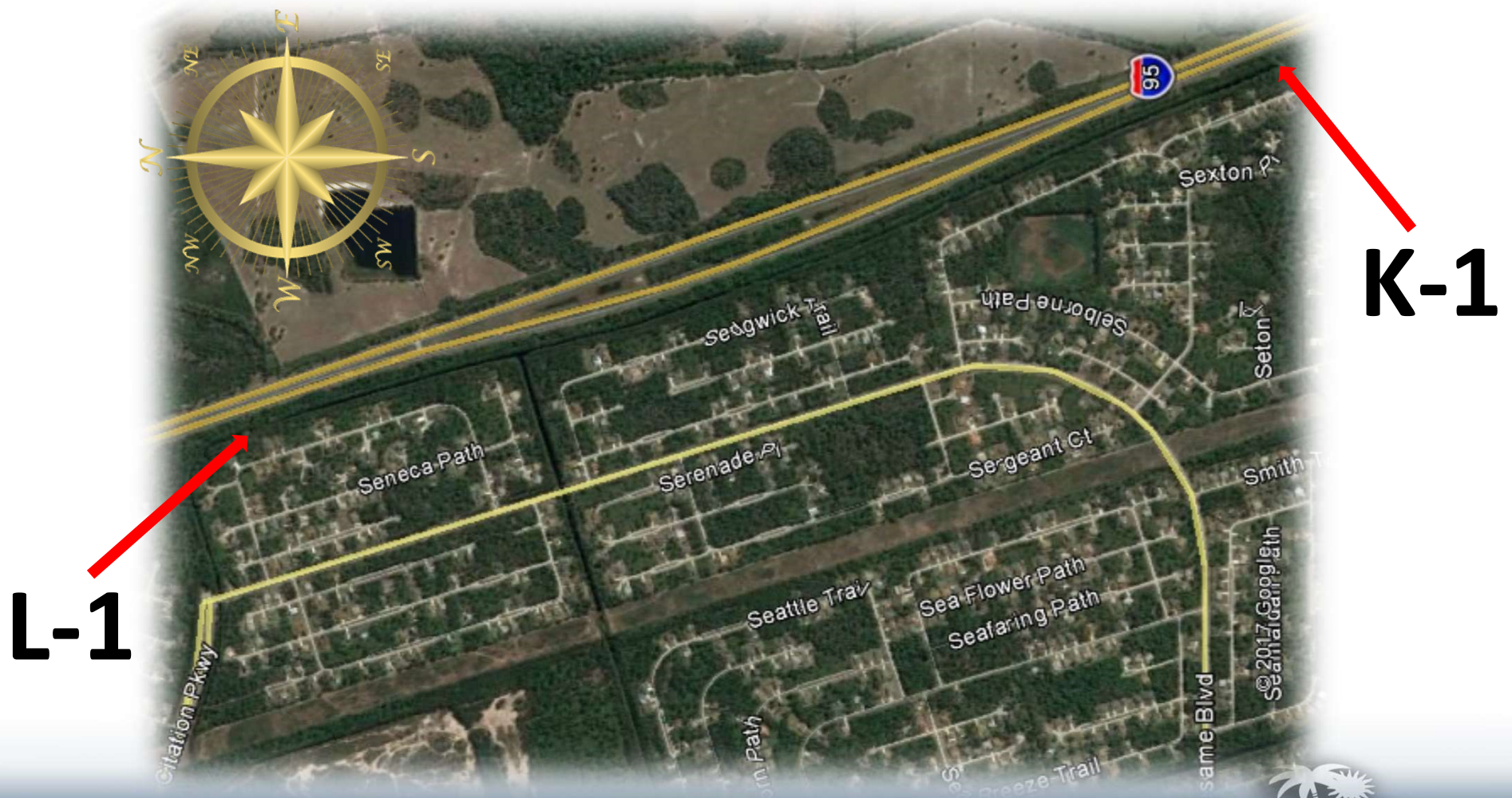
Dwg No.

C-12
 sheet 12 of 13

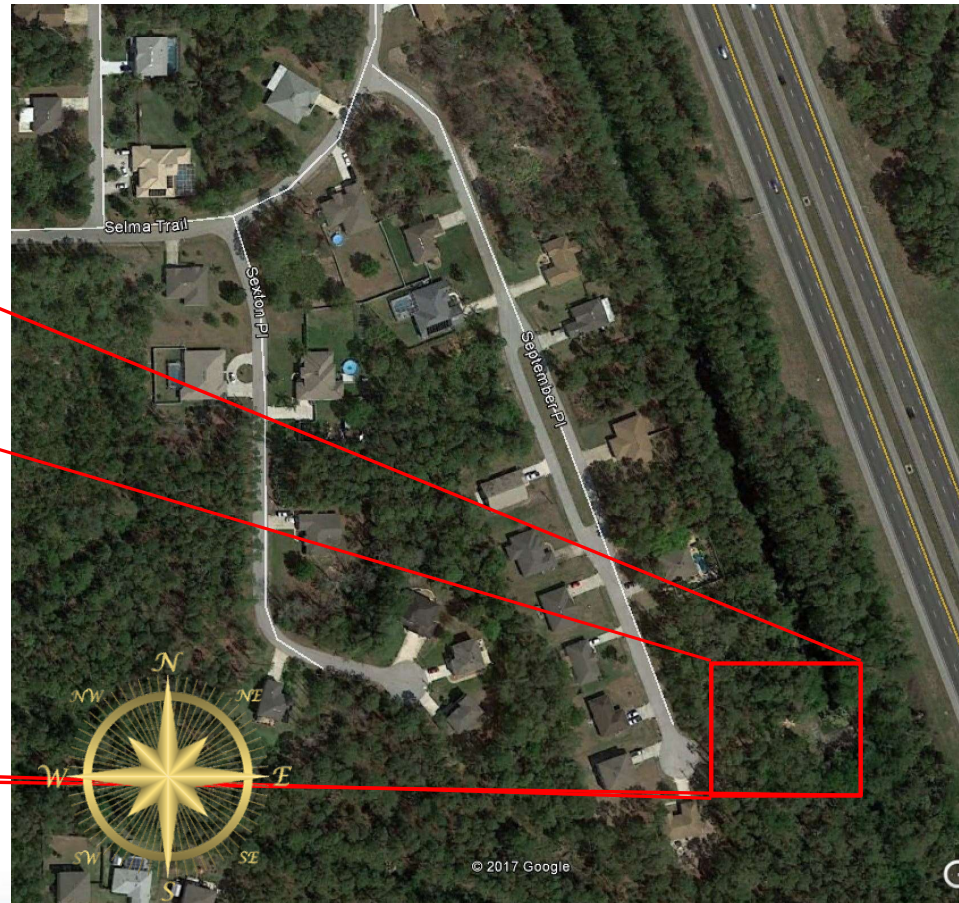
AN ALTERNATIVE SOIL TRACKING DEVICE PLAN
MAY BE SUBSTITUTED UPON APPROVAL.



Des. by: JWH	Date: 07/17/2017	Scale: NONE	EROSION CONTROL CONSTRUCTION ENTRANCE	Rev. No.	Date	App'd by	Dwg. Status CONSTRUCTION DOCUMENTS		CITY OF PALM COAST, FLORIDA 160 Lake Avenue Palm Coast, Florida 32164	K-1 WEIR REPLACEMENT	Dwg No. C-13 sheet 13 of 13
Dwn. by: JWH	Date: 07/17/2017	Job no.:									
Chk. by: MCB	Date: 07/17/2017	File: K-1 Weir.dwg									
App'd by: MP	Date: 07/17/2017										



L-1 AND K-1 GENERAL LOCATIONS



K-1 SPECIFIC LOCATION – 25 SEPTEMBER PLACE

