CONTRACT DOCUMENTS

For the construction of the

TIDE LEVELING PROJECT

LEGAL: LOTS 7 & 8, BLOCK 239, UNIT 6 AND LOTS 19 & 20, BLOCK 191, UNIT 7 MARCO BEACH AS RECORDED IN PLAT

BOOK 6, PAGES 53 AND 56 OF THE PUBLIC RECORDS OF COLLIER COUNTY, FLORIDA

AGENT: MARTIN D. PINCKNEY, P.E.

AMERICAN ENGINEERING CONSULTANTS

OF MARCO ISLAND, INC.

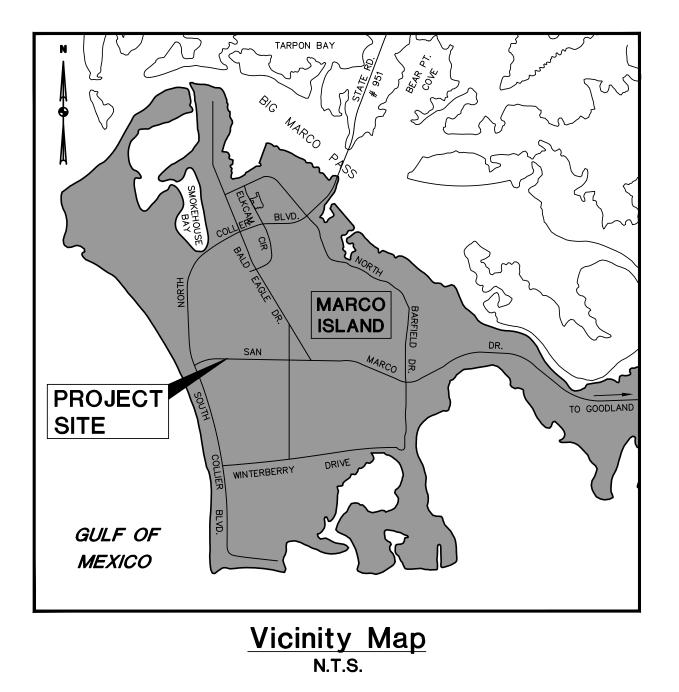
573 BALD EAGLE DRIVE

MARCO ISLAND, FL 34145

PHONE NUMBER: 239-394-1697



Aerial Map
1' - 100'
886, 890, 885, AND 889
SAN MARCO ROAD
MARCO ISLAND, FLORIDA 34145



Prepared for the

CITY OF MARCO ISLAND, FLORIDA 34145

Civil Drawings

AMERICAN ENGINEERING CONSULTANTS

OF MARCO ISLAND, INC.

<u>100% PLAN</u>

AUGUST 2023

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AEC Project No. 10067-100-03

CONSTRUCTION NOTES AND SPECIFICATIONS

- 1. A PRE-CONSTRUCTION MEETING MUST BE HELD WITH THE CITY OF MARCO ISLAND STAFF, PRIVATE PROPERTY OWNERS, ENGINEER OF RECORD, MARCO ISLAND WATER AND SEWER DEPARTMENT AND CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
- 2. ALL CONSTRUCTION AND INSTALLATION OF MATERIAL AND EQUIPMENT SHALL BE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS PREPARED BY THE ENGINEER OF RECORD. SUBSTITUTIONS AND DEVIATIONS SHALL BE PER-MITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE ENGINEER OF RECORD.
- 3. SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
- 4. CONSTRUCTION INSPECTION IS REQUIRED AND WILL BE PROVIDED BY THE ENGINEER OF RECORD AND/OR MARCO ISLAND PUBLIC WORKS DEPT. FOR UNDERGROUND CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND PUBLIC WORKS DEPARTMENT AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS BEFORE EACH REQUIRED INSPECTION OF ALL PHASES OF THE WORK.
- 5. CONTRACTOR MUST NOTIFY THE CITY OF MARCO ISLAND PUBLIC WORKS DEPARTMENT AND/OR MARCO ISLAND WATER AND SEWER DEPARTMENT. AS APPLICABLE, 48 HOURS PRIOR TO CONNECTING INTO ANY EXISTING STRUCTURES OR PERFORMING ANY TESTS.
- 6. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION.
- 7. THE LOCATION OF ALL EXISTING UTILITIES ON THE PLAN ARE APPROXIMATE AND HAVE BEEN SHOWN FROM PLANS OF RECORD WHERE AVAILABLE. THE CONTRACTOR SHALL LOCATE AND EXPOSE ALL EXISTING UTILITIES TO BE CONNECTED OR IN CONFLICT SUFFICIENTLY AHEAD OF CONSTRUCTION TO ALLOW REDESIGN BY THE ENGINEER, IF SUCH UTILITIES ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS.
- 8. THE CONTRACTOR SHALL NOTIFY LEE COUNTY ELECTRIC COOPERATIVE, INC., COMCAST, LUMEN, CITY PUBLIC WORKS DEPARTMENT, SUMMIT BROADBAND, AND ANY OTHER UTILITY COMPANY WHICH MAY HAVE THEIR UTILITIES AND ANY OTHER AREAS 48 HOURS BEFORE BEGINNING CONSTRUCTION.
- 9. UTILITY AGENCIES / OWNERS:

SUMMIT BROADBAND

- TELEPHONE NUMBERS CONTACT PERSON EMAIL 1-239-656-2414 FREDDIE HERNANDEZ FREDDIE.HERNANDEZ@LCEC.NET COOPERATIVE INC
- FLORIDA POWER & LIGHT 1-239-353-6046 ANDY WHITLEY COMPANY (DISTRIBUTION)
- 1-239-920-5935 MARCO ISLAND WATER & SEWER DEPT.1-239-389-5187
- COMCAST CABLE COMMUNICATIONS 1-239-707-3998 CHRIS PLANK MARCO ISLAND PUBLIC WORKS1-239-389-3992 MIKE DANIEL 1-407-996-1183
- KENNETH STINNETT KENNETH.STINNETT@LUMEN.COM CHRISTOPHER PLANK@COMCAST.COM BART BRADSHAW BBRADSHAW@CITYOFMARCOISLAND.COM MDDANIEL@CITYOFMARCOISLAND.COM MICHELLE DANIEL MICHELLE.DANIEL@SUMMITBB.COM
- 10. COORDINATE UTILITY RELOCATIONS WITH AFFECTED UTILITY COMPANIES.
- 11. COORDINATE TREE REMOVAL WITH CITY PUBLIC WORKS DEPARTMENT.
- 12. COORDINATE STRUCTURE DEMOLITION AND TRAFFIC SIGN RELOCATION WITH CITY PUBLIC WORKS DEPARTMENT
- 13. THE SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATIONS OF EVERY KIND, (INCLUDING SPRINKLERS) SHALL BE PLACED BENEATH THE PAVEMENT AND ITS EDGES PRIOR TO THE CONSTRUCTION OF THE PAVEMENT. THE PAVEMENT SHALL NOT BE CUT WITHOUT PRIOR APPROVAL OF THE PUBLIC WORKS DIRECTOR.
- 14. ALL ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988.
- 15. SIGNING AND STRIPING SHALL BE IN ACCORDANCE WITH U.S.D.O.T. F.H.W.A. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. ALL PAVEMENT MARKINGS WITHIN PUBLIC R.O.W. SHALL BE THERMOPLASTIC PER F.D.O.T. SPECIFICATIONS.
- 16. ALL ASPHALT PAVEMENT CONSTRUCTION AND OVERLAY SHALL CONFORM TO F.D.O.T. SECTION 300 SPECIFICATIONS.
- 17. CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID DISTURBING SURVEY MARKERS.
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH CITY AND STATE REQUIREMENTS. PROVIDE STEEL PLATES FOR TEMPORARY TRAFFIC COVERS OVER EXCAVATIONS.
- 19. ALL ASPHALT PAVEMENT CONSTRUCTION AND OVERLAY SHALL CONFORM TO F.D.O.T. SECTION 300 SPECIFICATIONS.
- A. BASE: MATERIALS FOR AGGREGATE BASE SHALL BE CRUSHED ROCK AND ROCK DUST (FDOT, SECTION 204).

SECTION 334. CONSTRUCTION OF THE PAVEMENT SHALL COMPLY WITH

- B. TACK COAT: TACK COAT MATERIAL TO COMPLY WITH FDOT, SECTION 300-2.3. C. ASPHALT CONCRETE: ASPHALT CONCRETE TO COMPLY WITH FDOT.
- D. MILLING OF EXISTING ASPHALT CONCRETE TO COMPLY WITH FDOT, SECTION 327.
- 20. DEMOLITION NOTES:

FDOT, SECTION 337.

- A. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND OTHER IMPROVEMENTS SHOWN ON THESE PLANS AND ALL OTHER UTILITIES AND OTHER IMPROVE-MENTS NOT SHOWN. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS OF UTILITIES AND OTHER IMPROVEMENTS DAMAGED DURING CONSTRUCTION AND SHALL MAINTAIN SUFFICIENT PROTECTION TO ALL UTILITIES REQUIRED TO PROTECT THEM FROM DAMAGE AND TO PROTECT THE PUBLIC DURING CONSTRUCTION.
- B. WATER SPRINKLING AND OTHER SUITABLE METHODS SHALL BE USED FOR DUST SUPPRESSION. WATER SHALL NOT BE USED WHEN IT CREATES HAZARDOUS OR OBJECTIONABLE CONDITIONS SUCH AS FLOODING, EROSION, SEDIMENTATION,
- C. COMPLETELY REMOVE PAVEMENT, SIDEWALKS, CURBS, AND GUTTERS DESIGNATED TO BE REMOVED. REMOVE PAVEMENT, SIDEWALKS, CURBS, AND GUTTERS BY METHODS THAT WILL ASSURE CLEAN UNIFORM BREAKS AT PAVEMENT. SIDEWALKS, CURBS, AND GUTTERS NOT REMOVED ARE ALONG STRAIGHT LINES. LEAVE FACES OF REMAINING PAVEMENT, SIDEWALK, CURB, AND GUTTER SURFACES APPROXIMATELY VERTICAL.
- D. DEMOLITION AND REMOVAL OF DEBRIS SHALL BE CONDUCTED TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES WHICH SHALL NOT BE CLOSED OR OBSTRUCTED EXCEPT IN ACCORDANCE WITH THE WORK ZONE TRAFFIC CONTROL PLAN, OR WITH PERMISSION FROM THE CITY OF MARCO ISLAND. ALTERNATE ROUTES SHALL BE PROVIDED AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS SITE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS SHALL BE REMOVED AND DISPOSED OF IN COMPLIANCE WITH ALL LAWS AND REGULATIONS. BURNING OF REMOVED MATERIALS FROM DEMOLISHED STRUCTURES SHALL NOT BE PERMITTED.
- E. THE CONTRACTOR SHALL PROVIDE PATCHING, REPLACING, REPAIRING, AND REFINISHING OF DAMAGED AREAS INVOLVED IN DEMOLITION AS NECESSARY TO MATCH THE EXISTING ADJACENT SURFACES. THE CONTRACTOR SHALL REPAIR ALL DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION AT NO ADDITIONAL COST TO THE CITY OF MARCO ISLAND. AFTER PATCHING AND REPAIRING HAS BEEN COMPLETED, THE CONTRACTOR SHALL CAREFULLY CLEAN ADJOINING WORK AND REPAIR ANY DAMAGE CAUSED BY SUCH CLEANING OPERATIONS
- F. DURING AND UPON COMPLETION OF WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE UNUSED TOOLS AND EQUIPMENT, SURPLUS MATERIALS, RUBBISH, DEBRIS, AND DUST AND SHALL LEAVE AREAS AFFECTED BY WORK IN A CLEAN CONDITION. CLEAN ADJACENT STRUCTURES AND FACILITIES OF DUST DIRT, AND DEBRIS CAUSED BY DEMOLITION AND RETURN ADJACENT AREAS TO CONDITION EXISTING PRIOR TO START OF WORK. THE CONTRACTOR SHALL CLEAN AND SWEEP THE AFFECTED PORTIONS OF ROADS, STREETS, SIDEWALKS AND PASSAGEWAYS DAILY.
- G. COORDINATE REMOVAL OF PRIVATE LANDSCAPING FEATURES ON R.O.W. WITH PROPERTY OWNER UNLESS OTHERWISE DIRECTED BY CITY OF MARCO ISLAND.
- H. COORDINATE UTILITY RELOCATIONS WITH AFFECTED UTILITY COMPANIES.
- I. COORDINATE STRUCTURE DEMOLITION AND TRAFFIC SIGN REMOVAL WITH CITY PUBLIC WORKS DEPARTMENT.
- J. SILT BARRIERS SHALL BE INSTALLED IN LOCATIONS AND FOR DURATION NECESSARY ACCORDING TO STAGING OF DEMOLITION AND/OR CONSTRUCTION. SILT BARRIERS SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION FOR THE DURATION OF THEIR USE.

- 21. ALL PAVEMENTS, SIDEWALKS, CURBS, AND SIMILAR HARD SURFACES CUT OR REMOVED AS A CONSEQUENCE OF STORM DRAINAGE CONSTRUCTION SHALL BE RESTORED ACCORDING TO STANDARD DETAILS AND TO ORIGINAL LINES AND GRADES, EXCEPT WHERE REGRADING IS NECESSARY TO CORRECT LOCAL DRAINAGE, OR AS OTHERWISE NOTED.
- 22. CONCRETE SIDEWALK NOTES:
- A. USE CLASS I CONCRETE MEETING THE REQUIREMENTS OF FDOT SECTION 347 PORTLAND CEMENT CONCRETE-CLASS I
- B. FOR ALL STEEL REINFORCEMENT REQUIRED BY THE PLANS, MEET REQUIREMENTS OF FDOT SECTION 415.
- C. PROVIDE FORMS AS SPECIFIED IN FDOT SECTION 520-3 FORMS.
- D. COMPACT FILL AREAS, INCLUDING CUT AREAS UNDER THE SIDEWALK THAT HAVE BEEN EXCAVATED MORE THAN 6" BELOW THE BOTTOM OF SIDEWALK TO A MINIMUM OF 95% OF AASHTO99 DENSITY. THE AREA TO BE COMPACTED IS DEFINED AS THAT AREA DIRECTLY UNDER THE SIDEWALK AND 1 FT. BEYOND EACH SIDE OF THE SIDEWALK WHEN R.O.W. ALLOWS.
- E. FOR EXPANSION AND CONTRACTION JOINT SPECIFICATIONS REFER TO FDOT SECTION 522-5 JOINTS.
- F. PLACE THE CONCRETE IN THE FORMS, AND TAMP AND SPADE CONCRETE TO PREVENT HONEYCOMBING AND UNTIL THE TOP OF THE STRUCTURE CAN BE FLOATED SMOOTH AND THE EDGES ROUNDED TO THE RADIUS SHOWN IN THE
- G. FOR FINISHING SPECIFICATIONS REFER TO FDOT SECTION 522-7 FINISHING.
- H. FOR CURING SPECIFICATIONS REFER TO FDOT SECTION 520-8 CURING.

23. GRADING AND LANDSCAPING NOTES:

- A. UNLESS OTHERWISE NOTED, FOR ALL VACANT RESIDENTIAL LOTS, MULTI-FAMILY, COMMERCIAL, AND INSTITUTIONAL PROPERTIES, THE BACK OF SIDEWALK ELEVATION SHALL BE SET 3" ABOVE THE ADJACENT ROADWAY CENTERLINE.
- B. MATCH EXISTING GRADE WHERE BUTTING UP TO STRUCTURES THAT ARE TO REMAIN. UNLESS OTHERWISE DIRECTED, MAINTAIN EXISTING SIDEWALK GRADE WHEN REPLACING SIDEWALK BETWEEN DRIVEWAYS IN CLOSE PROXIMITY TO
- C. REGRADE SWALES AND AREAS SURROUNDING INLETS AS INDICATED AND TO ENSURE UNIMPEDED WATER FLOW TO INLETS.
- D. ADHERE TO MINIMUM AND MAXIMUM SLOPES IN TABLE ON SHEET C-4.
- E. DO LOCAL RE-GRADING AS NECESSARY TO BLEND IN WITH EXISTING GRADES ADJACENT TO SIDEWALK OR DRIVEWAY OR OTHER STRUCTURES. UNLESS OTHERWISE DIRECTED, DO NOT LEAVE FINAL GRADE ADJACENT TO SIDEWALK OR DRIVEWAY HIGHER THAN SIDEWALK OR DRIVEWAY.
- F. ALL DISTURBED SOIL AREAS SHALL BE RE-SODDED WITH IN KIND IN ACCORDANCE WITH FDOT SECTION 575 UNLESS OTHERWISE NOTED OR DIRECTED.
- G. ANY SPRINKLER HEADS WITHIN PROPOSED SIDEWALK AREA SHALL BE RELOCATED TO EDGE OF SIDEWALK. NO DIRECT PAYMENT.

24. STORM SEWER NOTES:

A. HIGH PERFORMANCE POLYPROPYLENE PIPE SHALL MEET THE FOLLOWING REQUIREMENTS -12 THROUGH 30-INCH (300 TO 750 MM) PIPE SHALL HAVE A SMOOTH NTERIOR AND ANNULAR EXTERIOR CORRUGATIONS AND MEET OR EXCEED

- MANNING'S "N" VALVE FOR USE IN DESIGN SHALL BE 0.012.

- ASTM F2736 AND AASHTOM330 -36 THROUGH 60-INCH (900 TO 1500 MM) PIPE SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS AND MEET OR EXCEED ASTM F2881 AND AASHTOM330.
- PIPE SHALL BE JOINED WITH A GASKETED INTEGRAL BELL & SPIGOT JOINT MEETING THE REQUIREMENTS OF ASTM F2736 OR F2881, FOR THE RESPECTIVE DIAMETERS.
- 12 THROUGH 60-INCH (300 TO 1500 MM) SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. SPIGOTS SHALL HAVE GASKETS MEETING THE REQUIREMENTS OF ASTM F477. GASKET SHALL BE INSTALLED BY THE PIPE MANUFACTURER AND COVERED WITH A REMOVABLE, PROTECTIVE WRAP TO ENSURE THE GASKET IS FREE FROM DEBRIS. A JOINT LUBRICANT AVAILABLE FROM THE MANUFACTURER SHALL BE USED ON THE GASKET AND BELL DURING
- 12 THROUGH 60-INCH (300 TO 1500 MM) DIAMETERS SHALL HAVE A REINFORCED BELL WITH A POLYMER COMPOSITE BAND INSTALLED BY THE MANUFACTURER
- FITTINGS SHALL CONFORM TO ASTM F2736. ASTM F2881 AND AASHTO M330. FOR THE RESPECTIVE DIAMETERS. BELL & SPIGOT CONNECTIONS SHALL UTILIZE A SPUN-ON. WELDED OR INTEGRAL BELL AND SPIGOT WITH GASKETS MEETING ASTM F477. BELL & SPIGOT FITTINGS JOINT SHALL MEET THE WATER-TIGHT JOINT PERFORMANCE REQUIREMENTS OF ASTM D3212. CORRUGATED COUPLINGS SHALL BE SPLIT COLLAR, ENGAGING AT LEAST 2 FULL CORRUGATIONS.
- B. REINFORCED CONCRETE PIPE SHALL BE ASTM-C-76 CLASS III WITH O-RING
- C. REINFORCED CONCRETE ELLIPTICAL PIPE SHALL MEET THE REQUIREMENTS OF ASTM C 507 AND AASHTO M 207 WITH PRE-FORMED PLASTIC GASKETS.
- D. REINFORCED CONCRETE ARCH PIPE SHALL MEET THE REQUIREMENTS OF ASTM C 506 AND AASHTO M 207 WITH PRE-FORMED PLASTIC JOINTS.
- E. FLEXIBLE CORRUGATED POLYETHYLENE 4" TO 10" PIPE TO BE AASHTO M252 TYPE C WITH MANUFACTURER'S SAND-TIGHT JOINTS.
- F. FLEXIBLE CORRUGATED POLYETHYLENE PIPE 12" AND LARGER TO BE AASHTO M294 TYPE C WITH MANUFACTURER'S SAND-TIGHT JOINTS.
- G. SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE 12" AND LARGER SHALL BE AASHTO M294 TYPE S WITH MANUFACTURER'S SAND-TIGHT JOINTS.
- H. PVC PIPE FOR STORM DRAIN WHERE SPECIFIED SHALL CONFORM TO AASHTO M278 FOR SMOOTH WALL PVC PIPE OR ASTM F949 FOR PVC RIBBED PIPE. RESIN SHALL CONTAIN A MINIMUM OF 1.5% BY WEIGHT OF TITANIUM DIOXIDE FOR UV PROTECTION. MITERED END SECTIONS ARE NOT TO BE CONSTRUCTED OF PVC. USE ONLY CONCRETE, METAL, OR SMOOTH INTERIOR POLYETHYLENE MITERED END SECTIONS.
- I. STEEL PIPE FOR STORM DRAINS SHALL MEET THE REQUIREMENTS OF AWWA C200. COATING AND LINING FOR PIPE SHALL CONFORM TO AWWA C222.
- J. STORM SEWER PIPES SHALL BE FULLY GROUTED INTO ALL STRUCTURES WITH NON-SHRINK GROUT.
- K. SUBMIT SHOP DRAWINGS ON ALL STORM SEWER STRUCTURES.
- L. ALL GRATED BOXES SHALL BE FITTED WITH FABRIC SCREEN BOXES.

25. PRESSURE MAIN NOTES:

- A. MAINS 4" AND OVER SHALL BE PVC MEETING THE REQUIREMENTS OF AWWA C900 DR18, CLASS 200. RUBBER GASKETED PIPE WITH BELL AND SPIGOT ENDS OR HDPE DR 17 MEETING THE REQUIREMENTS OF AWWA C906 WITH BUTT HEAT FUSION JOINTS. SERVICE LINES LESS THAN 4" DIA. SHALL BE POLYTUBE SDR9.
- B. ALL POLYVINYL CHLORIDE PIPE AND DUCTILE PIPE SHALL BE INSTALLED WITH PVC OR FUSION BONDED EPOXY LINED DUCTILE IRON FITTINGS. ALL HDPE PIPE FITTINGS SHALL BE ELECTROFUSION OR BUTT HEAT FUSION JOINTS CONFORMING TO SPECIFICATIONS.
- C. ALL GATE VALVE SHALL BE RESILIENT SEAT OPENING AND CLOSING IN VERTICAL POSITION FUSION BONDED EPOXY, STAINLESS STEEL STEM AND 316SS EXT. BOLTS

26. CONFLICT NOTES:

- A. WATER MAINS CROSSING OVER SANITARY SEWER LINES, FORCE MAINS AND IRRIGATION MAINS SHALL BE SEPARATED BY A VERTICAL DISTANCE OF 18" MINIMUM. PARALLEL LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10.0' MINIMUM.
- B. WHEN THE 18" VERTICAL STANDARD CAN NOT BE MAINTAINED OVER THE SEWER LINE, A MINIMUM VERTICAL SEPARATION OF 12" MAY BE PERMITTED USING A STEEL CASING PER MIU SPECS ENCASEMENT AND SIX (6) INCHES OF BEDDING STONE FOR A DISTANCE OF 10.0' EACH WAY FROM THE WATER LINE AND/OR ANY OTHER CONDUIT.
- C. ALL CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18" SHALL BE MADE USING CLASS 200 AWWA DUCTILE PIPE FOR LINES 12" AND SMALLER AND CLASS 51 DUCTILE IRON PIPE FOR LINES 14" AND LARGER FOR A DISTANCE OF 10.0' EACH SIDE OF THE CROSSING. ALL CROSSINGS WITH LESS THAN 18" CLEARANCE NEED PRIOR APPROVAL FROM MIU.

D. GRADUAL DEFLECTION OF THE WATER LINE IN LIEU OF USING TRANSITIONAL

- FITTINGS WILL NOT BE PERMITTED. E. TRANSITIONAL FITTINGS WHEN USED SHALL BE LOCATED AS CLOSE TO POINT OF
- F. PIPE AND FITTINGS SHALL BE ADEQUATELY RESTRAINED USING RETAINER GLANDS, RODS, OR OTHER SUITABLE METHODS - PER MIU SPECS.
- G. 18" CLEARANCE SHALL NOT BE REDUCED WHERE WATER MAIN CROSSES UNDER
- H. VERTICAL CLEARANCE LESS THAN 12" SHALL NOT BE ALLOWED.

UTILITIES TECHNICAL STANDARDS MANUAL", REV. JAN. 2007.

CONFLICT AS POSSIBLE

OR OVER SEWER LINE.

- I. WATER SERVICE CONDUITS AND IRRIGATION SERVICE CONDUITS SHALL BE SEPARATED BY A MINIMUM DISTANCE OF 10' HORIZONTALLY. J. FOR SANITARY LATERAL CONFLICTS, SEE CONFLICT RESOLUTION DETAILS. COMPLY
- WITH MINIMUM SLOPES PER MIU STANDARDS. 27. ALL WATER MAIN AND SERVICE CONSTRUCTION SHALL CONFORM TO "MARCO ISLAND
- 28. ALL SEWER MAIN AND SERVICE CONSTRUCTION SHALL CONFORM TO "MARCO ISLAND UTILITIES TECHNICAL STANDARDS MANUAL", REV. JAN. 2007.
- 29. DEWATERING NOTES: A. SITE DEWATERING WILL BE NECESSARY TO LOWER AND CONTROL GROUND-WATER LEVELS AND HYDROSTATIC PRESSURES TO PERMIT EXCAVATION AND
- CONSTRUCTION TO BE PERFORMED PROPERLY UNDER DRY CONDITIONS. B. THE RESPONSIBILITY FOR CONDUCTING THE DEWATERING OPERATION IN A MANNER, WHICH WILL PROTECT ADJACENT STRUCTURES AND FACILITIES, RESTS SOLELY WITH THE CONTRACTOR. THE COST OF REPAIRING ANY DAMAGE TO ADJACENT STRUCTURES AND RESTORATION OF FACILITIES SHALL BE THE
- RESPONSIBILITY OF THE CONTRACTOR. C. DEWATERING MAY BE FACILITATED BY CONSTRUCTION OF A COFFERDAM AT CANAL DISCHARGE OR INFLATABLE PLUGS. SUCH DEVICES MUST BE DESIGNED AND OPERATED IN SUCH A WAY THAT THEY ARE REMOVED OR OTHERWISE WILL NOT RESTRICT FLOW OR CAUSE FLOODING SHOULD RAINFALL EVENTS OCCUR DURING CONSTRUCTION
- D. THE CONTRACTOR SHALL BEAR THE SOLE RESPONSIBILITY FOR THE DESIGN, INSTALLATION, AND OPERATION OF THE DEWATERING SYSTEM TO COMPLY WITH THE INSTALL ADDITIONAL DEWATERING EQUIPMENT AS MAY BE REQUIRED THOUGH-OUT THE DURATION OF THE PROJECT TO MAINTAIN REQUIRED GROUND WATER LEVELS.
- E. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY APPROVED DISCHARGE OF DEWATERING EFFLUENT.
- F. PRIOR TO COMMENCEMENT OF DEWATERING, THE CONTRACTOR SHALL DETERMINE WHETHER A SFWMD DEWATERING PERMIT IS REQUIRED, AND SHALL APPLY FOR AND OBTAIN ANY SUCH REQUIRED PERMIT, PROVIDING ANY DETAILED PLANS AND SCHEDULES AS MAY BE REQUIRED BY SFWMD.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH OBTAINING ALL PROPER PERMITS AND FOR MAINTAINING PERMIT COMPLIANCE, INCLUDING ALL COSTS ASSOCIATED WITH PERMIT VIOLATIONS.
- H. COPIES OF THE EXECUTED DEWATERING PERMIT APPROVED BY SFWMD, IF REQUIRED, SHALL BE SUBMITTED TO THE OWNER AND ENGINEER.
- I. ALL WATER ENCOUNTERED IN THE TRENCH SHALL BE DISPOSED BY THE CONTRACTOR IN SUCH A MANNER AS WILL NOT DAMAGE PUBLIC OR PRIVATE PROPERTY OR CREATE A NUISANCE OR HEALTH NUISANCE.

30. TEMPORARY COFFERDAM NOTES: IF USFD:

- SUBMIT DRAWINGS SHOWING THE PROPOSED METHOD OF COFFERDAM CONSTRUCTION AND OTHER DETAILS LEFT TO CHOICE OR NOT FULLY SHOWN ON THE PLANS. OBTAIN THE ENGINEER'S APPROVAL OF THE TYPE OF COFFERDAMS, INSOFAR AS SUCH DETAILS AFFECT THE CHARACTER OF THE FINISHED WORK. FOR OTHER DETAILS OF DESIGN THAT DO NOT AFFECT THE CHARACTER OF THE FINISHED WORK, ASSUME RESPONSIBILITY FOR THE SUCCESSFUL CONSTRUCTION OF THE WORK. RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA, TO PREPARE THE ABOVE CONSTRUCTION DRAWING, AND KEEP A SIGNED AND SEALED COPY ON HAND AT THE SITE AT
- 31. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF LANDSCAPING AND ANY REQUIRED IRRIGATION SYSTEM.
- 32. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES FOR CONTROL OF EROSION AND FILTERS AT DISCHARGE POINTS, AND TURBIDITY SCREENS IN THE WATERWAY
- 33. WHEN AN "OPEN CUT" IS MADE IN A STREET OR ROADWAY, CONTRACTOR SHALL BED AND BACKFILL TO FDOT SPECIFICATIONS AND RESTORE PAVING, REGRADE AND SOD SHOULDERS AND INSTALL TRAFFIC MARKINGS AND TRAFFIC SIGNS TO FDOT SPECIFICATIONS. NO OPEN CUT CONSTRUCTION ON PUBLIC STREETS, R.O.W., OR EASEMENTS SHALL BE INITIATED WITHOUT EXPRESS APPROVAL OF THE CITY OF MARCO ISLAND.
- 34. BACKFILLING OPEN-CUT TRENCHES SHALL BE DONE IN ACCORDANCE WITH THE CITY OF MARCO ISLAND CONSTRUCTION STANDARDS HANDBOOK FOR WOR WITHING THE PUBLIC RIGHT OF WAY. TRENCHES UNDER PAVEMENT SHALL BE BACKFILLED WITH FLOWABLE FILL.
- 35. NO CONSTRUCTION ACTIVITIES, NOR EQUIPMENT, NOR MATERIALS SHALL BE PLACED OR STORED UPON PUBLIC RIGHT OF WAY OR PRIVATE PROPERTY WITHOUT EXPRESS PERMISSION OF THE CITY OR PROPERTY OWNER.
- 36. ABANDONMENT OF EXISTING STORM SEWERS:
- A. WHERE INDICATED, EXISTING STORM SEWERS TO BE ABANDONED IN PLACE SHALL BE COMPLETELY FILLED WITH FLOWABLE FILL. FLOWABLE FILL FOR PIPES.
- B. PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT FOR REVIEW A PLAN FOR FILLING PIPES TO BE ABANDONED. PLAN SHALL INDICATED PROPOSED METHODS, LOCATIONS FOR FLOWABLE FILL INSERTION, AND SPECIFICATIONS FOR FLOWABLE FILL.
- C. REFERENCE STANDARD FOR FLOWABLE FILL IS ACI-229R.

37. SEAWALL CONSTRUCTION:

MAY BE REQUIRED.

- A. SEAWALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF MARCO ISLAND SEAWALL ORDINANCE.
- B. DISPOSAL OF REMOVED SEAWALL MATERIAL IS THE RESPONSIBILITY OF THE

38. STAGING AND TRAFFIC CONTROL NOTES:

- A. PORTIONS OF THE PROJECT EXTEND THROUGH EASEMENTS BETWEEN RESIDENCES THAT INCLUDE OBSTRUCTIONS IN THE EASEMENTS. THOSE PORTIONS MUST BE COMPLETED BY SUBSURFACE ONLY METHODS, SUCH AS JACK AND BORE B. THE REMAINING PORTION IN THE R.O.W. CONTAIN UNDERGROUND UTILITIES THAT
- MUST BE PROTECTED AND/OR SUPPORTED. THIS PORTION IS TO BE COMPLETED BY OPEN CUT METHOD. C. SAN MARCO ROAD IS A MAJOR COLLECTOR. AT LEAST ONE LANE MUST BE KEPT OPEN AT ALL TIMES, UNLESS CLOSURE IS PRE-APPROVED MY THE CITY
- MANAGER OR HIS REPRESENTATIVE. D. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH CITY PUBLIC WORKS DIRECTOR, FIRE CHIEF AND/OR POLICE CHIEF, OR OTHER PERSONS DESIGNATED BY CITY MANAGER, TO RECEIVE INPUT REGARDING TRAFFIC CONTROL. THE CONTRACTOR SHALL SUBMIT A WRITTEN TRAFFIC CONTROL PLAN FOR
- APPROVAL PRIOR TO BEGINNING CONSTRUCTION. TRAFFIC CONTROL PLAN MUST BE IN ACCORDANCE WITH FDOT STANDARDS. TRAFFIC CONTROL DETAILS SHOWN ON THIS PLAN SET ARE FOR GENERAL REFERENCE ONLY. F. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCING PLAN TO THE CITY PUBLIC WORKS DEPARTMENT FOR APPROVAL WITHIN 30 DAYS OF NOTICE TO

PROCEED. THE CONSTRUCTION SEQUENCING SHOULD INCLUDE THE ESTIMATED

DATES THAT THE ROADWAY WILL BE IMPASSIBLE THROUGH THE CONSTRUCTION G. THERE IS VERY LIMITED SPACE ONSITE FOR PROJECT STAGING. IF THE CONTRACTOR INTENDS TO USE AN OFFSITE PROPERTY WITHIN CITY LIMITS FOR PROJECT STAGING, THE USE OF ANY SUCH SITE WILL BE SUBJECT TO CITY ZONING ORDINANCES: PRE-APPROVAL OF GROWTH MANAGEMENT DEPARTMENT

SHEET INDEX

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| OVERALL PLAN | C-2 |
| STAGING AND TRAFFIC CONTROL PLAN | C-3 |
| DETAILS (1) | C-4 |
| DETAILS (2) | C-5 |
| DETAILS (3) | C-6 |

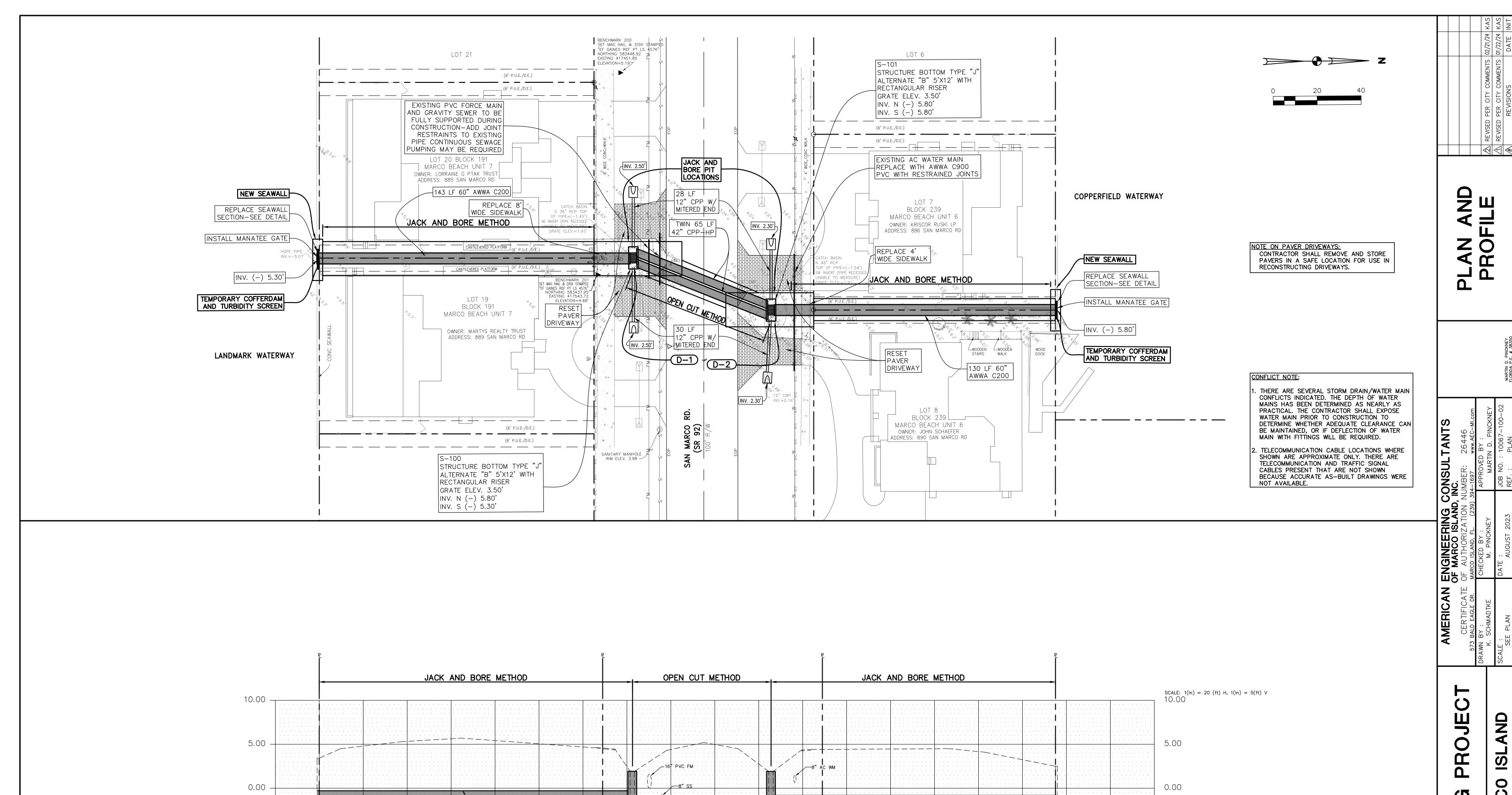
- = MITERED END SECTION = CATCH BASIN
- T = TELEPHONE RISER
- TV = TELEVISION RISER
- \triangle = SEWER CLEANOUT ₩ = WATER VALVE
- PAINT MARK = BLUE FLAG/PAINT MARK ₩ = WATER METER
- = SPOT ELEVATION (HARD SURFACE)
- S° = SPOT ELEVATION (SOFT SURFACE) हैं क्रें = MISC TREE = OAK TREE
- = PALM TREE NOTE: TREE SIZES INDICATED ARE TRUNK DIAMETERS MEASURED AT CHEST HEIGHT.

SYMBOL SIZE DOES NOT REFLECT ACTUAL

- LEGEND/ABBREVIATIONS
 - BM = BENCHMARK S.R. = STATE ROAD
 - P.B. = PLAT BOOK
 - P.U.E./D.E. = PUBLIC UTILITY & DRAINAGE EASEMENT CMP = CORRUGATED METAL PIPE
 - ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE
 - HDPE = HIGH-DENSITY POLYETHYLENE RCP = REINFORCED CONCRETE PIPE
 - ASPH = ASPHALT
 - CONC = CONCRETEELEV = ELEVATION
 - EOP = EDGE OF PAVEMENT INV = INVERT-OHW- = OVERHEAD WIRES
 - -TOE- = TOE OF SLOPE-TOB- = TOP OF BANK-STORM-=STORM PIPE = CONCRETE

= ASPHALT

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<u>S</u> 0 VELING MARC PROPOSED 60" AWWA C200 STEEL PIPE SEE SPECIFICATIONS PROPOSED 60" AWWA C200 STEEL PIPE SEE SPECIFICATIONS PROPOSED TWIN 42" CPP-HP -5.00-5.00-10.00--10.001 + 200 + 400+80 1 + 40CH SHEET

ALL WORK ZONE TRAFFIC CONTROL PROCEDURES, MATERIALS, AND DEVICES SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS FDOT 102-600 SERIES LAST REVISION 03/04/24.

THE FLORIDA DEPARTMENT OF TRANSPORTATION HAS ADOPTED THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD) AND SUBSEQUENT REVISIONS AND ADDENDUMS, AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, FOR MANDATORY USE ON THE STATE MAINTAINED HIGHWAY SYSTEM WHENEVER THERE EXISTS THE NEED FOR CONSTRUCTION, MAINTENANCE OPERATIONS OR UTILITY WORK.

2. DURATION AND CONDITIONS OF USE:

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.

ARROW PANELS, PORTABLE CHANGEABLE MESSAGE SIGNS, RADAR SPEED DISPLAY TRAILERS, PORTABLE REGULATORY SIGNS, AND ANY OTHER NCHRP 350 CATEGORY 4 DEVICES SHALL BE DELINEATED WITH RETROREFLECTIVE TTC DEVICES WHEN IN USE AND SHALL BE MOVED OUTSIDE THE TRAVEL WAY AND CLEAR ZONE OR BE SHIELDED BY A BARRIER OR CRASH CUSHION WHEN NOT IN USE.

WHEN AN EXISTING PEDESTRIAN WAY OR BICYCLE WAY IS LOCATED WITHIN A TRAFFIC CONTROL WORK ZONE, ACCOMMODATION MUST BE MAINTAINED AND PROVISION FOR THE DISABLED MUST BE PROVIDED. ONLY APPROVED TEMPORARY TRAFFIC CONTROL DEVICES MAY BE USED TO DELINEATE A TEMPORARY TRAFFIC CONTROL ZONE PEDESTRIAN WALKWAY. ADVANCED NOTIFICATION OF SIDEWALK CLOSURES AND MARKED DETOURS SHALL BE PROVIDED BY APPROPRIATE SIGNS.

4. SIGHT DISTANCE: TAPERS: TRANSITION TAPERS SHOULD BE OBVIOUS TO DRIVERS. IF RESTRICTED SIGHT DISTANCE IS A PROBLEM (E.G., A SHARP VERTICAL OR HORIZONTAL CURVE), THE TAPER SHOULD BEGIN WELL IN ADVANCE OF THE VIEW OBSTRUCTION. THE BEGINNING OF TAPERS SHOULD NOT

BE HIDDEN BEHIND CURVES. INTERSECTIONS: TRAFFIC CONTROL DEVICES AT INTERSECTIONS MUST PROVIDE SIGHT DISTANCES FOR THE ROAD USER TO PERCEIVE POTENTIAL CONFLICTS AND TO TRAVERSE THE INTERSECTION SAFELY.

5. HIGH-VISIBILITY SAFETY APPAREL:

VISIBLE AT 1,000 FEET.

ALL HIGH-VISIBILITY SAFETY APPAREL SHALL MEET THE REQUIREMENTS OF THE INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION (ISEA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) FOR HIGH-VISIBILITY SAFETY APPAREL", AND LABELED AS ANSI/ISEA 107-1999 OR ANSI/ISEA 107-2004. THE APPAREL BACKGROUND (OUTER) MATERIAL

COLOR SHALL BE EITHER FLUORESCENT ORANGE-RED OR FLUORESCENT YELLOW-GREEN AS DEFINED BY THE STANDARD. THE RETROREFLECTIVE MATERIAL SHALL BE EITHER ORANGE, YELLOW, WHITE, SILVER, YELLOW-GREEN, OR A FLUORESCENT VERSION OF THESE COLORS, AND SHALL BE VISIBLE AT A MINIMUM DISTANCE OF 1,000 FEET. CLASS 3 APPAREL MAY BE

WORKERS: ALL WORKERS WITHIN 15 FEET OF THE EDGE OF TRAVEL WAY SHALL WEAR ANSI/ISEA CLASS 2 APPAREL. WORKERS OPERATING MACHINERY OR EQUIPMENT IN WHICH LOOSE CLOTHING COULD BECOME ENTANGLED DURING OPERATION SHALL WEAR FITTED HIGH-VISIBILITY SAFFTY APPARFL.

SUBSTITUTED FOR CLASS 2 APPAREL. REPLACE APPAREL THAT IS NOT

UTILITIES: WHEN OTHER INDUSTRY APPAREL SAFETY STANDARDS REQUIRE UTILITY WORKERS TO WEAR APPAREL THAT IS INCONSISTENT WITH FDOT REQUIREMENTS SUCH AS NFPA, OSHA, ANSI, ETC., THE OTHER STANDARDS FOR APPAREL MAY PREVAIL FLAGGERS: FOR DAYTIME ACTIVITIES, FLAGGERS SHALL WEAR ANSI/ISEA CLASS 2 APPAREL. FOR NIGHTTIME ACTIVITIES. FLAGGERS SHALL WEAR ANSI/ISEA CLASS 3 APPAREL.

6. FLAGGER CONTROL:

WHERE FLAGGERS ARE USED, A FLAGGER SYMBOL OR LEGEND SIGN MUST REPLACE THE WORKERS SYMBOL OR LEGEND SIGN. THE FLAGGER MUST BE CLEARLY VISIBLE TO APPROACHING TRAFFIC FOR A DISTANCE SUFFICIENT TO PERMIT PROPER RESPONSE BY THE MOTORIST TO THE FLAGGING INSTRUCTIONS. AND TO PERMIT TRAFFIC TO REDUCE SPEED OR TO STOP AS REQUIRED BEFORE ENTERING THE WORK SITE. FLAGGERS SHALL BE POSITIONED TO MAINTAIN MAXIMUM COLOR CONTRAST BETWEEN THE FLAGGER'S HIGH-VISIBILITY SAFETY APPAREL AND EQUIPMENT AND THE WORK AREA BACKGROUND.

HAND-SIGNALING DEVICES: STOP/SLOW PADDLES ARE THE PRIMARY HAND-SIGNALING DEVICE. THE STOP/SLOW PADDLE SHALL HAVE AN OCTAGONAL SHAPE ON A RIGID HANDLE. STOP/SLOW PADDLES SHALL BE AT LEAST 24 INCHES WIDE WITH LETTERS AT LEAST 6 INCHES HIGH AND SHOULD BE FABRICATED FROM LIGHTSEMI-RIGID MATERIAL. THE BACKGROUND OF THE STOP FACE SHALL BE RED WITH WHITE LETTERS AND BORDER. THE BACKGROUND OF THE SLOW FACE SHALL BE ORANGE WITH BLACK LETTERS AND BORDER. WHEN USED AT NIGHTTIME, THE STOP/SLOW PADDLE SHALL BE RETROREFLECTORIZED.

FLAG USE IS LIMITED TO IMMEDIATE EMERGENCIES, INTERSECTIONS, AND WHEN WORKING ON THE CENTERLINE OR SHARED LEFT TURN LANES WHERE TWO (2) FLAGGERS ARE REQUIRED AND THERE IS OPPOSING TRAFFIC IN THE ADJACENT LANES. FLAGS, WHEN USED, SHALL BE A MINIMUM OF 24 INCHES SQUARE, MADE OF A GOOD GRADE OF RED MATERIAL, AND SECURELY FASTENED TO A STAFF THAT IS APPROXIMATELY 36 INCHES IN LENGTH. WHEN USED AT NIGHTTIME, FLAGS SHALL BE RETROREFLECTORIZED RED. FLASHLIGHT, LANTERN OR OTHER LIGHTED SIGNAL THAT WILL DISPLAY A RED WARNING LIGHT SHALL BE USED AT NIGHT.

FLAGGER STATIONS SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE WORK SPACE SO THAT APPROACHING ROAD USERS WILL HAVE SUFFICIENT DISTANCE TO STOP BEFORE ENTERING THE WORK SPACE. WHEN USED AT NIGHTTIME, THE FLAGGER STATION SHALL BE

ACCEPTABLE SIGNS SHALL BE IN ACCORDANCE WITH SERIES 600 SHEET 9 OF 10. POST-MOUNTED SIGNS INSTALLED AT THE SIDE OF THE ROAD SHALL BE MOUNTED AT A HEIGHT AT LEAST 7 FEET MEASURED FROM THE BOTTOM OF THE SIGN TO A HORIZONTAL LINE EXTENDED FROM THE NEAR EDGE OF THE PAVEMENT. SIGNS MOUNTED ON BARRICADES, OR OTHER PORTABLE SUPPORTS SHALL BE NO LESS THAN 1 FOOT ABOVE THE TRAVELED WAY.

EXISTING SIGNS THAT CONFLICT WITH TEMPORARY WORK ZONE SIGNING SHALL BE REMOVED OR COVERED AS APPROVED BY THE ENGINEER. TRAFFIC CONTROL SIGNS THAT REQUIRE COVERS WHEN NO WORK IS BEING PERFORMED IN A WORK AREA SHALL BE FULLY COVERED WITH A DURABLE OPAQUE SHEET MATERIAL. PLASTIC FILM AND WOVEN FABRICS INCLUDING BURLAP WILL NOT BE PERMITTED. COVERING OF ONLY THE LEGEND OR SYMBOL WILL NOT BE PERMITTED. REFLECTIVE COVERINGS WILL NOT BE PERMITTED. HINGED SIGNS DESIGNED TO COVER WHEN FOLDED WILL BE PERMITTED. COVERS, HINGED PANELS AND INTERMITTENT WORK STOPPAGE SHIELDS AND PLAQUES ARE INCIDENTAL TO WORK OPERATION SIGNS AND ARE NOT TO BE PAID FOR SEPARATELY.

MESH SIGNS MAY BE USED ONLY FOR DAYLIGHT OPERATIONS AS NOTED IN THE STANDARDS. TYPE B LIGHTS AND ORANGE FLAGS ARE NOT REQUIRED EXCEPT FOR SURVEY WORK ZONES. VINYL SIGNS MAY BE USED FOR DAY OR NIGHT OPERATIONS NOT TO EXCEED 1 DAY EXCEPT AS NOTED IN THE STANDARDS. TYPE B LIGHTS AND ORANGE FLAGS ARE NOT REQUIRED EXCEPT FOR SURVEY WORK

ALL SIGNS SHALL BE POST MOUNTED WHEN WORK OPERATIONS EXCEED 1 DAY EXCEPT AS NOTED IN THE STANDARDS. SIGNS MOUNTED ON TEMPORARY SUPPORTS OR BARRICADES, AND BARRICADE/SIGN COMBINATION SHALL BE CRASHWORTHY IN ACCORDANCE WITH NCHRP 350 REQUIREMENTS AND INCLUDED ON THE QUALIFIED PRODUCTS LIST (QPL).

SIGNING FOR THE CONTROL OF TRAFFIC ENTERING AND LEAVING WORK ZONES BY WAY OF INTERSECTING HIGHWAYS, ROADS AND STREETS SHALL BE ADEQUATE TO MAKE DRIVERS AWARE OF WORK ZONE CONDITIONS. UNDER NO CONDITION WILL INTERSECTING LEG SIGNING BE LESS THAN A ROAD WORK AHEAD SIGN.

THE SPEEDING FINES DOUBLED WHEN WORKERS PRESENT SIGN SHOULD BE INSTALLED ON ALL PROJECTS. BUT MAY BE OMITTED IF THE WORK OPERATION IS LESS THAN 1 DAY. THE PLACEMENT SHOULD BE 500 FEET BEYOND THE ROAD WORK AHEAD SIGN OR MIDWAY TO THE NEXT SIGN WHICHEVER IS LESS.

THE END ROAD WORK SIGN (G20-2A) SHOULD BE INSTALLED ON ALL PROJECTS, BUT MAY BE OMITTED WHERE THE WORK OPERATION IS LESS THAN 1 DAY. THE SIGN SHOULD BE PLACED APPROXIMATELY 500 FFFT BEYOND THE FND OF A CONSTRUCTION OR MAINTENANCE PROJECT UNLESS OTHER DISTANCE IS CALLED FOR IN THE PLANS. WHEN OTHER CONSTRUCTION OR MAINTENANCE OPERATIONS OCCUR WITHIN 1 MILE THIS SIGN SHOULD BE OMITTED AND SIGNING COORDINATED IN ACCORDANCE WITH INDEX NO. 600, ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING.

8. WARNING LIGHTS WARNING LIGHTS SHALL BE IN ACCORDANCE WITH SECTION 6F-78 OF THE MUTCD EXCEPT FOR THE APPLICATION LIMITATIONS STIPULATED

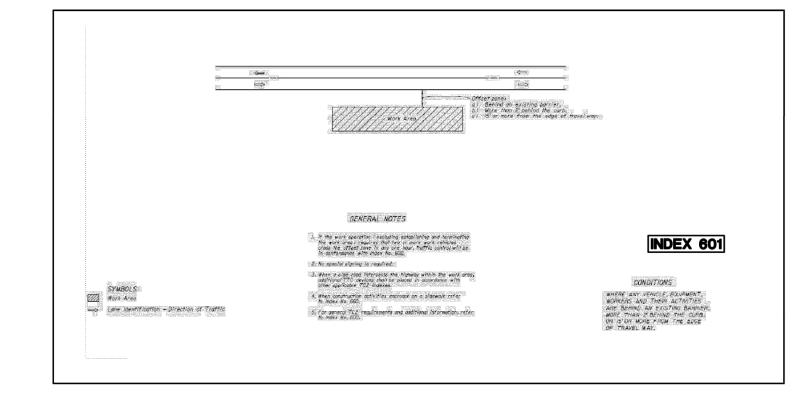
FLASHING: TYPE A LOW INTENSITY FLASHING WARNING LIGHTS ARE TO BE MOUNTED ON BARRICADES, DRUMS, VERTICAL PANELS OR ADVANCE WARNING SIGNS (EXCEPT AS NOTED BELOW) AND ARE INTENDED TO CONTINUALLY WARN DRIVERS THAT THEY ARE APPROACHING OR PROCEEDING IN A HAZARDOUS AREA. FLASHING LIGHTS SHALL NOT BE USED TO DELINEATE THE INTENDED PATH OF TRAVEL. AND NOT PLACED WITH SPACINGS THAT WILL FORM A CONTINUOUS LINE TO THE DRIVERS EYE. THE TYPE A LIGHT WILL BE USED TO MARK OBSTRUCTIONS THAT ARE LOCATED ADJACENT TO OR IN THE INTENDED TRAVEL WAY. TYPE A LIGHTS SHALL NOT BE USED IN CONJUNCTION WITH THE FIRST ADVANCE WARNING SIGN NOR THE SECOND SUCH SIGN WHEN USED.

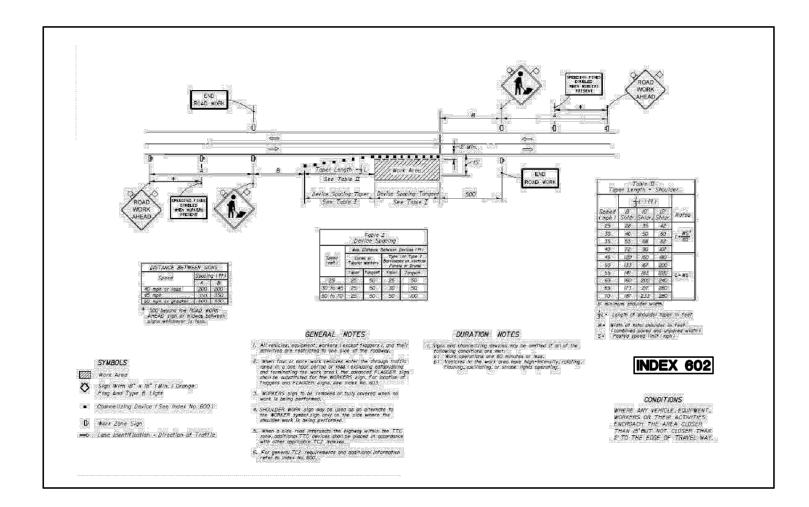
FOR POST-MOUNTED SIGNS, TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS SHALL BE MOUNTED ON THE FIRST ADVANCED WARNING SIGN AND ON THE FIRST AND SECOND ADVANCED WARNING SIGN WHERE TWO OR MORE SIGNS ARE USED: THIS APPLIES TO ALL APPROACHES TO ANY WORK ZONE. THE LIGHT SHALL BE MOUNTED ON THE CHANNEL POST OR ON THE UPPER EDGE OF THE SIGN NEAREST THE TRAFFIC

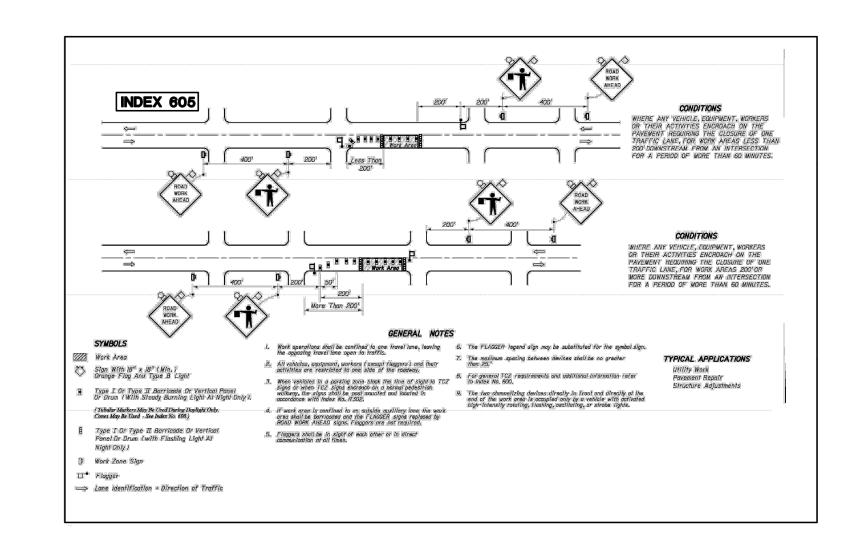
STEADY-BURN: TYPE C STEADY-BURN LIGHTS ARE TO BE MOUNTED ON BARRICADES, DRUMS, CONCRETE BARRIER WALLS OR VERTICAL PANELS AND USED IN COMBINATION WITH THOSE DEVICES TO DELINEATE THE TRAVEL WAY ON LANE CLOSURES, LANE CHANGES, DIVERSION CURVES AND OTHER SIMILAR CONDITIONS. STEADY-BURN LIGHTS ARE INTENDED TO BE PLACED IN A LINE TO DELINEATE THE TRAVELED WAY THROUGH AND AROUND OBSTRUCTIONS IN THE TRANSITION, BUFFER, WORK AND TERMINATION AREAS OF THE TRAFFIC CONTROL ZONE. THEIR INTENDED PURPOSE IS NOT FOR WARNING DRIVERS THAT THEY ARE APPROACHING OR PROCEEDING THROUGH A HAZARDOUS AREA.

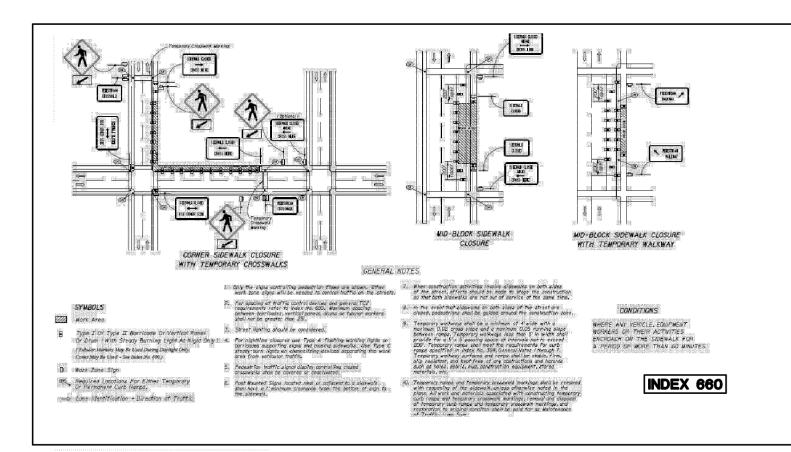
STANDARD ORANGE FLAG: FOR POST-MOUNTED SIGNS A STANDARD ORANGE FLAG 18" X 18" (MIN.) SHALL BE MOUNTED ON THE FIRST ADVANCED WARNING SIGN AND ON THE FIRST AND SECOND ADVANCED WARNING SIGN WHERE TWO OR MORE SIGNS ARE USED; THIS APPLIES TO ALL APPROACHES TO ANY WORK ZONE. THE FLAG SHALL BE MOUNTED ON THE CHANNEL POST OR ON THE UPPER EDGE OF THE SIGN FURTHEST FROM TRAFFIC.

ACCEPTABLE BARRICADES AND CHANNELIZATION DEVICES SHALL BE IN ACCORDANCE WITH SERIES 600 SHEET 8 OF 10. BARRICADES. VERTICAL PANELS, CONES, TUBULAR MARKERS AND DRUMS SHALL NOT BE INTERMIXED WITHIN EITHER THE LATERAL TRANSITION OR WITHIN THE TANGENT ALIGNMENT.









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STAGING AND TRAFFIC CONTROL NOTES:

I. PORTIONS OF THE PROJECT EXTEND THROUGH EASEMENTS BETWEEN RESIDENCES THAT INCLUDE OBSTRUCTIONS IN THE EASEMENTS. THOSE PORTIONS MUST BE COMPLETED BY SUBSURFACE ONLY METHODS, SUCH AS

JACK AND BORE. 2. THE REMAINING PORTION IN THE R.O.W. CONTAIN UNDERGROUND UTILITIES THAT MUST BE PROTECTED AND/OR SUPPORTED. THIS PORTION IS TO BE COMPLETED BY OPEN CUT METHOD.

3. SAN MARCO ROAD IS A MAJOR COLLECTOR. AT LEAST ONE LANE MUST BE KEPT OPEN AT ALL TIMES, UNLESS CLOSURE IS PRE-APPROVED MY THE CITY MANAGER OR HIS REPRESENTATIVE.

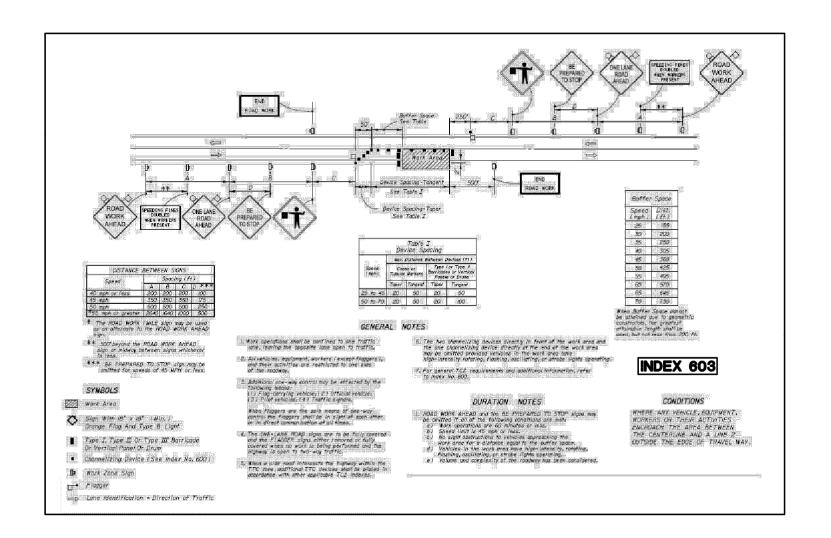
4. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH CITY PUBLIC WORKS DIRECTOR, FIRE CHIEF AND/OR POLICE CHIEF, OR OTHER PERSONS DESIGNATED BY CITY MANAGER, TO RECEIVE INPUT REGARDING TRAFFIC CONTROL.

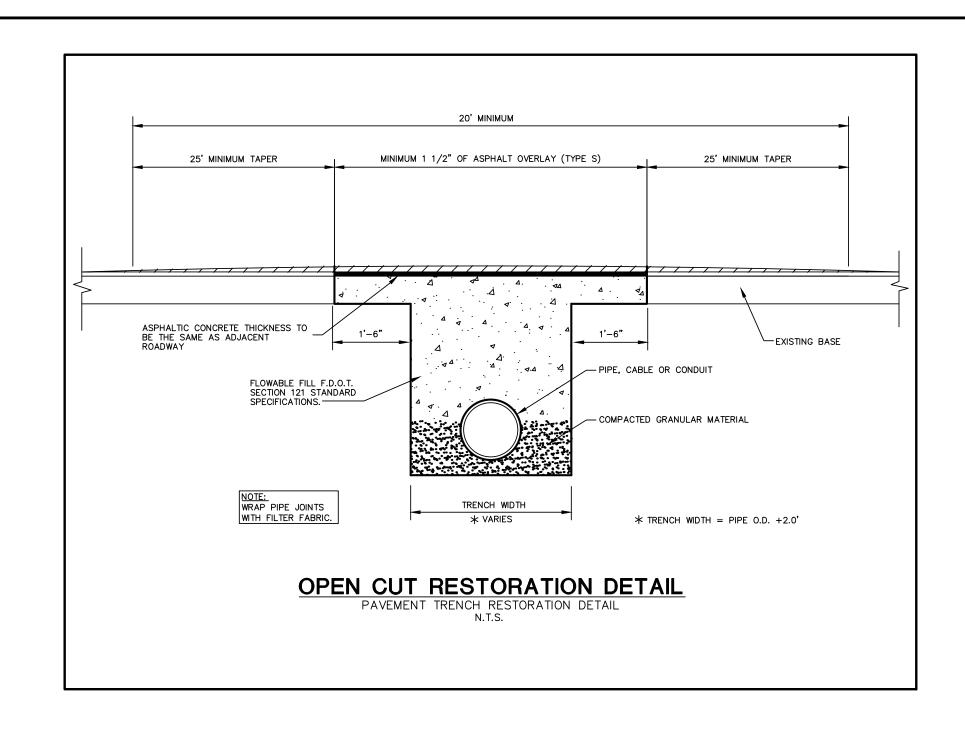
5. THE CONTRACTOR SHALL SUBMIT A WRITTEN TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION, TRAFFIC CONTROL PLAN MUST BE IN ACCORDANCE WITH FDOT STANDARDS. TRAFFIC CONTROL DETAILS SHOWN ON THIS PLAN SET ARE FOR GENERAL REFERENCE ONLY.

6. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCING PLAN TO THE CITY PUBLIC WORKS DEPARTMENT FOR APPROVAL WITHIN 30 DAYS OF NOTICE TO PROCEED. THE CONSTRUCTION SEQUENCING SHOULD INCLUDE THE ESTIMATED DATES THAT THE ROADWAY WILL BE IMPASSIBLE THROUGH THE CONSTRUCTION AREA.

7. THERE IS VERY LIMITED SPACE ONSITE FOR PROJECT STAGING. IF THE CONTRACTOR INTENDS TO USE AN OFFSITE PROPERTY WITHIN CITY LIMITS FOR PROJECT STAGING, THE USE OF ANY SUCH SITE WILL BE SUBJECT TO CITY ZONING ORDINANCES: PRE-APPROVAL OF GROWTH MANAGEMENT

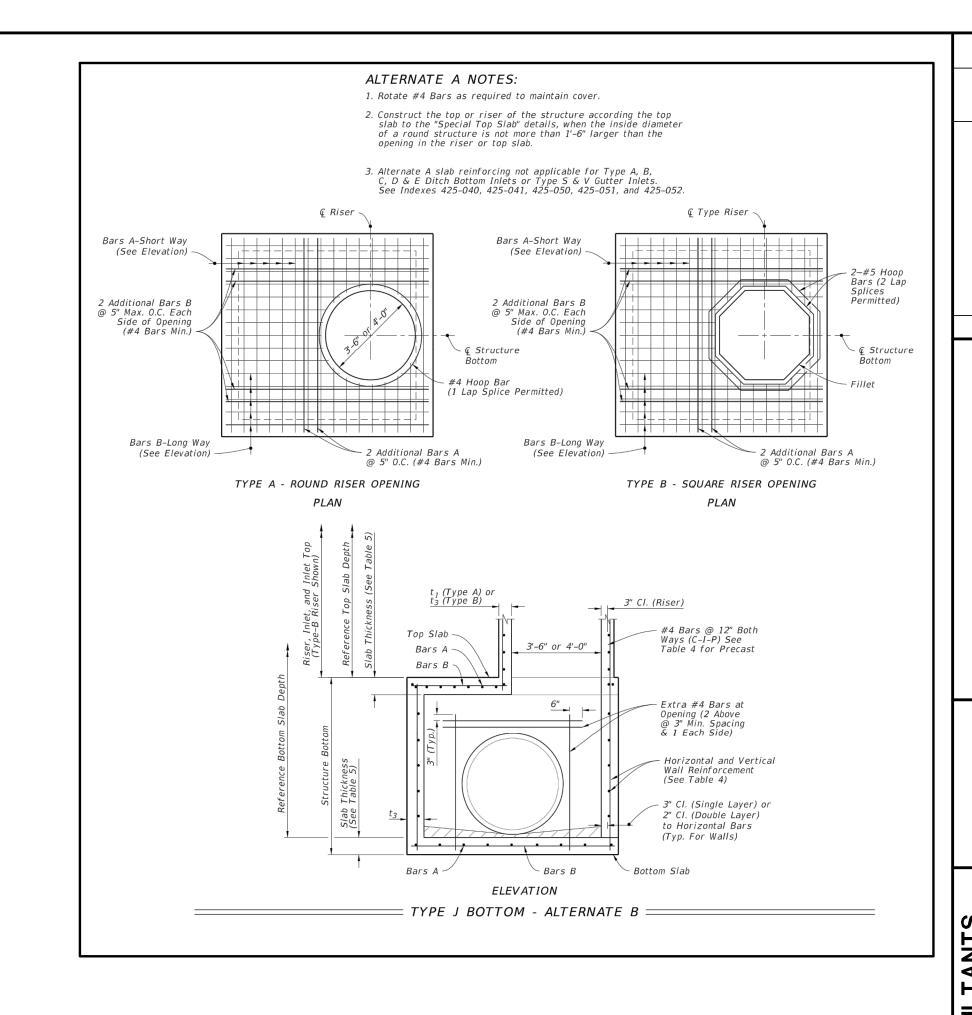
DEPARTMENT MAY BE REQUIRED. B. THERE ARE TWO ACTIVE SEWER LINES, GRAVITY AND FORCE MAIN, CROSSING THE SITE. THESE LINES MUST BE SUPPORTED DURING CONSTRUCTION. CONTINUOUS SEWAGE PUMPING MAY BE NECESSARY TO MAINTAIN SERVICE.

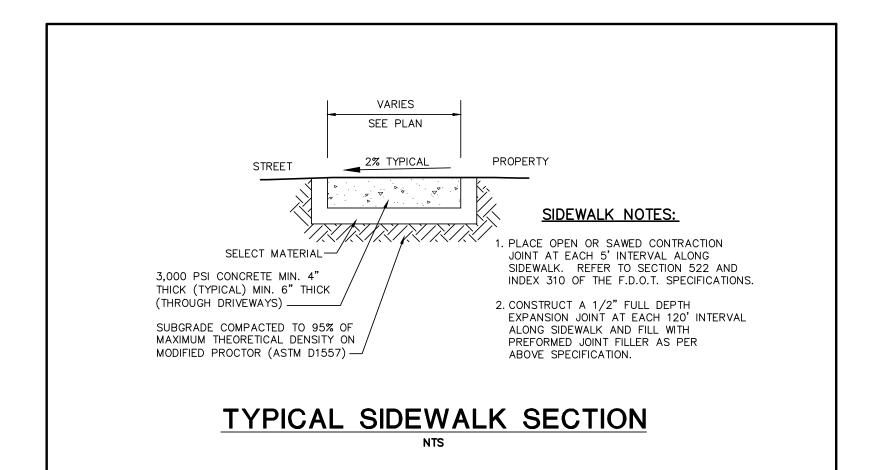




STORM STRUCTURE INLET FILTER: ALL NEW DITCH BOTTOM INLETS, WITH THE EXCEPTION OF THE "X" BOXES, SHALL BE PROVIDED WITH AN INLET FILTER. THE FILTER SHALL BE THE "SCREENBOX" INLET FILTER WITH OIL BOOM AS MANUFACTURED BY FABCO INDUSTRIES, INC. OR APPROVED EQUAL. THE SCREEN BOX FRAME SHALL BE CONSTRUCTED WITH HEAVY-DUTY 5,000 SERIES ALUMINUM WITH 304 STAINLESS STEEL WOVEN WIRE CLOTH. THE INTERMEDIATE SCREEN SHALL BE 10×10 MESH WITH 0.025-INCH WIRE, AND THE FINE SCREEN SHALL BE 18x14 MESH WITH 0.011-INCH WIRE. FRAMES SHALL BE FIELD ADJUSTABLE TO FIT THE STRUCTURES. ALL HARDWARE SHALL BE STAINLESS STEEL. INSTALLATION SHALL BE PER THE MANUFACTURER'S RECOMMENDATION.

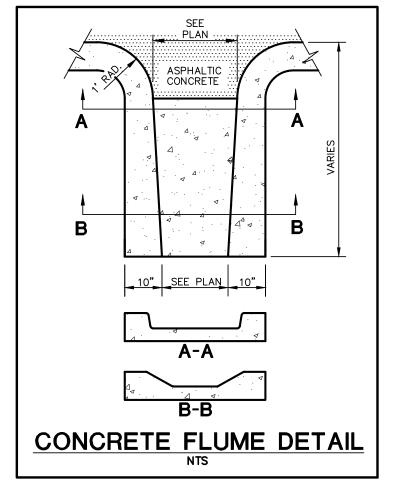
THE EXISTING DITCH BOTTOM INLETS WITH FILTER BOXES THAT ARE TO BE MODIFIED SHALL HAVE THE FILTER BOXES CLEANED AND REINSTALLED UPON COMPLETION. EXISTING FILTER BOXES IN STRUCTURES TO BE REMOVED SHALL BE RETURNED TO THE CITY.

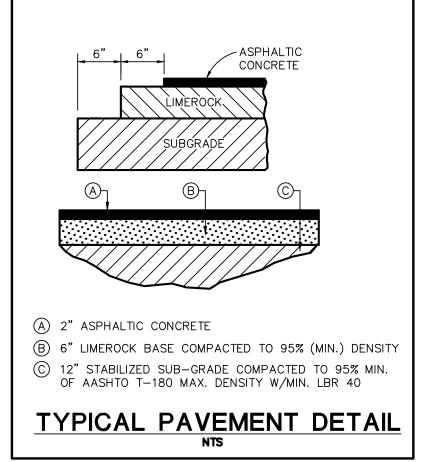




STORM STRUCTURE NOTES

- 1. ALL INLETS AND OTHER STORM STRUCTURES SHALL MEET APPLICABLE FDOT STANDARDS EXCEPT AS NOTED.
- 2. EYEBOLTS AND CHAINS MAY BE DELETED TO FACILITATE SKIMMER
- GRATES MAY BE EITHER HOT-DIPPED GALVANIZED RETICULINE OR CAST
- IRON. ALL GRATES IN PAVEMENT OR SWALES SHALL BE TRAFFIC-RATED. 4. ANGLE SEATS ARE REQUIRED FOR GRATES IN PAVEMENT, BUT MAY BE OMITTED FOR GRATES IN SWALES.







PIPE BEDDING NOTES

- 1. BEDDING AND HAUNCHING MATERIAL TO THE SPRINGLINE OF THE PIPE SHALL BE CRUSHED ROCK.
- 2. INITIAL BACKFILL SHALL BE EXCAVATED MATERIAL FREE OF ASPHALT, CLAY, CONCRETE, BOULDERS AND OTHER DELETERIOUS MATERIAL CAPABLE OF PASSING THROUGH A 3/4 SQUARE OPENING LABORATORY SIEVE.
- 3. FINAL BACKFILL MATERIAL SHALL CONTAIN NO ROCK, STONE, OR SHELL LARGER THAN
- 4. THE CONTRACTOR MAY SUBSTITUTE FDOT SIZE NO. 68 STONE IN LIEU OF THE MATERIAL
- SPECIFIED. 5. A DRY TRENCH SHALL BE MAINTAINED.
- 6. 36" MINIMUM COVER OVER SANITARY SEWER.
- 7. 30" MINIMUM COVER OVER POTABLE WATER, IRRIGATION AND FORCE MAIN.
- 8. IF THE MAXIMUM RECOMMENDED TRENCH WIDTH MUST BE EXCEEDED OR IF THE PIPE IS INSTALLED IN A COMPACTED EMBANKMENT, THEN PIPE EMBEDMENT SHOULD BE COMPACTED TO A POINT OF AT LEAST 2 1/2" PIPE DIAMETER FROM THE PIPE ON BOTH SIDES OF THE PIPE OR TO THE TRENCH WALLS, WHICHEVER IS LESS.
- 9. UNSUITABLE SOIL CONDITIONS: SOIL UNSUITABLE FOR PROPER PIPE FOUNDATION ENCOUNTERED AT OR BELOW TRENCH GRADE SUCH AS MUCK, MARL, OR OTHER DELETERIOUS MATERIALS SHALL BE REMOVED FOR THE FULL WIDTH OF THE TRENCH AND TO THE DEPTH REQUIRED TO REACH SUITABLE FOUNDATION MATERIAL.

 BACKFILL THE EXCAVATED AREA WITH SUITABLE MATERIAL WHICH SHALL BE COMPACTED AND SHAPED TO CONFORM TO THE REQUIRED SECTION.
- 10. ALL PROCTOR AND DENSITY TESTS SHALL BE TAKEN BY A CERTIFIED LABORATORY. ALL TESTS SHALL BE COMPLETED AND SHALL MEET DENSITY REQUIREMENTS PRIOR TO ADDITIONAL FILLING. DENSITY BASED ON MODIFIED PROCTOR (ASTM D1557).

PIPE AND BEDDING DETAIL

| Section BB TYPE G GENERAL NOTES 1. These limits are designed for use in dibosa, mellons, present areas, or other areas subject to localize in the best of the b | | ↓ 2* | Cl. (Typ.) | В | | | | | A1_05# | | | | |
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---------------------------------|-----------------------------------------------------------------------------------------|---------------------------------|
| PLAN PLAN PLAN PLAN Lifting Loop Greek - Greek Greek | (Тур.) | | 5.0" | f'-i0" | 201 | | | 2 5 x 3½ x ½ | 4'-8\frac{9}{2}'' (22 Spx 23 Bat | ces) | | <u> </u> | c |
| S' Stell Dealing, Weight 620 Like Whith Bars 1, A fielduline Bars 1, A f | | | | B | ==i= -,='= | 4 | | S | TEEL GRA | - C | - D | | ļ E |
| GENERAL NOTES 1. These inlets are designed for use in ditches, medians, povement areas, or other oreas subject to accasional pedestrian traffic such as landscaped areas and provement areas where pedestrians consider for account the links the links to be had dip galvanized after fostication. TYPE GINLET (TABLE 2) WALL SCHEDULE AREA BARS BARS | | | | | ← Liff | ing Loop | | Steel Decking termediate Bar | , Weight 630 l s ½ x ¼ , F | bs. Main Bar Reticuline Bar | s 5" x 4" rs 14" x 3" | • | |
| I. These inlets are designed for use in ditches, medians, pavement areas, or other areas subject to heavy wheel loads, minimal debris, and bicycle traffic. This inlet may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and pavement areas where pedestrians can walk around the inlet. When inlet is placed in areas subject to bicyle traffic, install filler bar when clearance or gap is greater than i'' as shown in index 218 inset B. 2. When alternate 6 grate is specified in plans, the grate is to be hot dip galvanized after fabrication. TYPE G INLET (TABLE 2) WALL SCHEDULE AREA (In. 2/ft.) BARS WWF O'- 3' A12 0.20 12" 8" 3'- 7' A6 0.20 6" 5" 3. These inlets may be used with Alt. B structure bottoms, index 200. The Inlet and bottom combinations are to be paid for under the contract unit price for inlets (DT Bot (Type F (or G)) (J Bot, Depth), Ea. 4. All exposed edges and corners shall be \(\frac{3}{4}\)" chamfer or tooled to \(\frac{4}{4}\)" radius. 5. For supplemental details, see Index 20I. 6. All reinforcing is Grade 60 bars with 2" min, cover unless otherwise noted. Bars to be cut or bent for \(\frac{1}{2}\)" clearance around pipe opening. Provide one additional *4-4 bar above and at each side of pipe opening, as shown. 7. All dimensions are for both precast and cast-in-place inlets unless otherwise noted. | <u>3" Cl.</u> | 8" | Horiz. (See | Wall Reinf. Table 2) | s. | See Index No. 201 | 8" | #4 Bars @ 12" Ctrs | Chamfer Or R | addius (Typ.) 2" C launch Shape philonal dall Reinf. see 12" Ctrs. | | Construction Joints Permitted Between These Limits-See Index COI For Minimum Dimensions | Wall Depth Varies (15'-0" Max.) |
| 1. These inlets are designed for use in ditches, medians, pavement areas, or other areas subject to heavy wheel loads, minimal debris, and bicycle traffic. This inlet may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and povement areas where pedestrians can walk around the inlet. When inlet is placed in areas subject to bicyle traffic, install filler bar when clearance or gap is greater than i" as shown in index 218 inset B. 2. When alternate G grate is specified in plans, the grate is to be hot dip galvanized after fabrication. TYPE G INLET (TABLE 2) WALL DEPTH WALL OLD 12" 8" 3. These inlets may be used with Alf. B structure bottoms, index 200. The inlet and bottom combinations are to be paid for under the contract unit price for inlets (DT Bot (Type F (or 6)) (J Bot, Depth), Ea. 4. All exposed edges and corners shall be \(\frac{3}{4}\) chamfer or fooled to \(\frac{1}{4}\)" radius. 5. For supplemental details, see index 20i. 6. All reinforcing is Grade 60 bars with 2" min, cover unles otherwise noted. Bars to be cut or bent for \(\frac{1}{2}\)" clearance around pipe opening. Provide one additional **4 bar above and at each side of pipe opening, as shown. 7. All dimensions are for both precast and cast-in-place inlets unless otherwise noted. | | | | | | | | | SECTION | DD | | | |
| pavement areas, or other areas subject to heavy wheel loads, minimal debris, and bicycle traffic. This inlet may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and pavement areas where pedestrians can walk around the inlet. When inlet is placed in areas subject to bicyle traffic, install filler bar when clearance or gap is greater than I" as shown in index 2l8 Inset B. 2. When alternate G grate is specified in plans, the grate is to be hot dip galvanized after fabrication. TYPE G INLET (TABLE 2) WALL DEPTH SCHEDULE AREA (In.2/ft.) BARS WWF 0'-3' Al2 0.20 12" 8" 3'-7' A6 0.20 6" 5" Index 200. The inlet and bottom combinations are to be paid for under the contract unit price for inlets (DT Bot (Type F (or G)) (J Bot, Depth), Ea. 4. All exposed edges and corners shall be \(\frac{3}{2}\)" chamfer or tooled to \(\frac{1}{4}\)" radius. 5. For supplemental details, see Index 20i. 6. All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted. Bars to be cut or bent for \(\frac{1}{2}\)" clearance around pipe opening. Provide one additional \(\frac{3}{4}\) bar above and at each side of pipe opening, as shown. 7. All dimensions are for both precast and cast-in-place inlets unless otherwise noted. | | | | | | GEN | IERAL | NOTES | | | | | |
| WALL DEPTH SCHEDULE (In.2/ft.) AREA (In.2/ft.) BARS WWF 0' - 3' AI2 0.20 I2" 8" 3' - 7' A6 0.20 6" 5" AREA (In.2/ft.) BARS WWF 7. All dimensions are for both precast and cast-in-place inlets unless otherwise noted. | | pavemen loads, m be place traffic s where inlet is filler bo as show! 2. When a is to be | t areas, or o inimal debris d in areas s inch as lands edestrians o placed in ar r when clea n in Index 2 Iternate G g hot dip gah | ther areas , and bicycl subject to o soaped area an walk arc reas subject rance or ga tl8 Inset B. crate 1s spe anized afte | subject to e traffic. coasional p s and pave. ound the in to bicyle p is greate cified in p er fabricati | heavy wheel This inlet mo edestrian ment areas let. When traffic, inste er than I" clans, the gra on. | ny nii | Index 200 paid for to (Type F 4. All exposion tooled to 5. For supp. 6. All reinfortherwise around pil. | n. The Inlet inder the co (or G)) (J) ed edges and fill radius. Itemental details are content is Grown to the content in the | and bottom ntract unit Bot, Depth d corners s alls, see in ade 60 bars t to be cut Provide oi | combinate price for one of the second price for shall be \$\frac{3}{4}\$ dex 201. So with 2" or bent for addition | rions are to inlets (DT) " chamfer or min. cover un or i j" clearai anal #4 bar di | be Bot |
| 0' - 3' Al2 0.20 12" 8" | | WALL | CONEDII E | AREA | MAX. S | PACING | | 7. All dimen | sions are fo | or both pred | 793 | | |
| | | 0' - 3' | AI2 | 0.20 | 12" | 8" | | iniets uni | ess otherwis | se noted. | | | |
| 7' - 10' B5.5 0.24 5\frac{1}{2}" 5" | | 3' - 7' | A6 | 0.20 | 6" | 1955 | | | | | | | |

FEATURE

PARKING LOT

ENTRANCE DRIVEWAY

HANDICAP

SLOPE

SLOPE

PAVEMENT

DIRECTION

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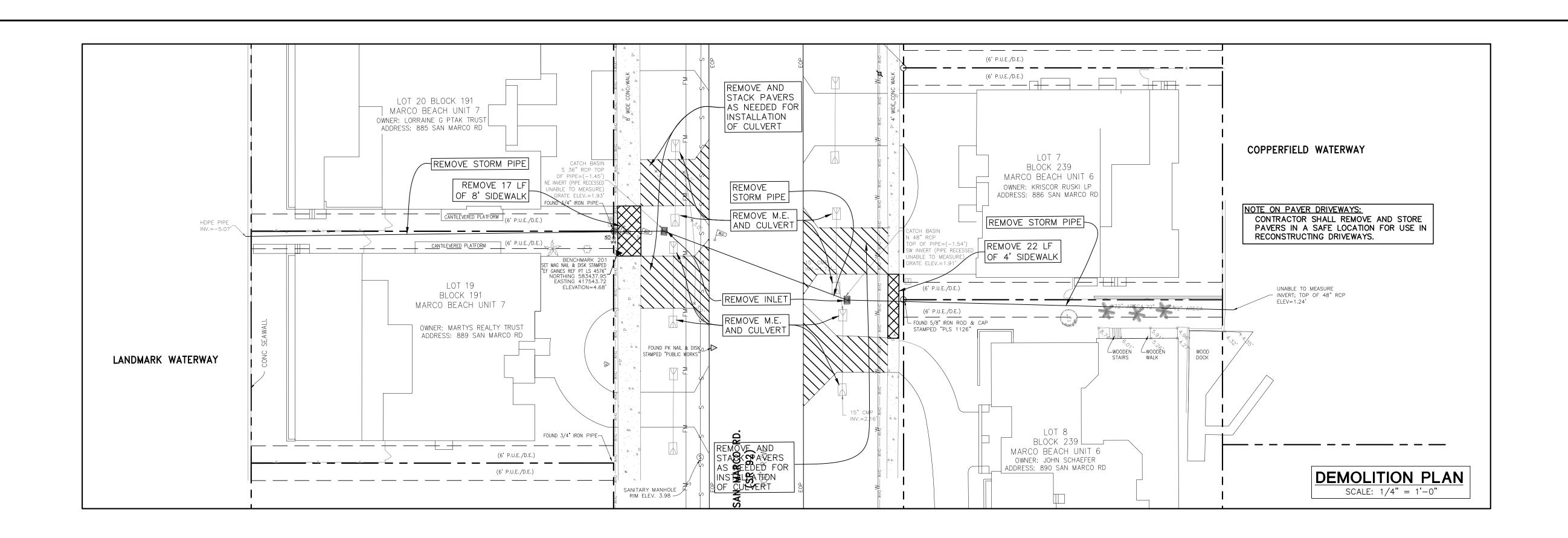
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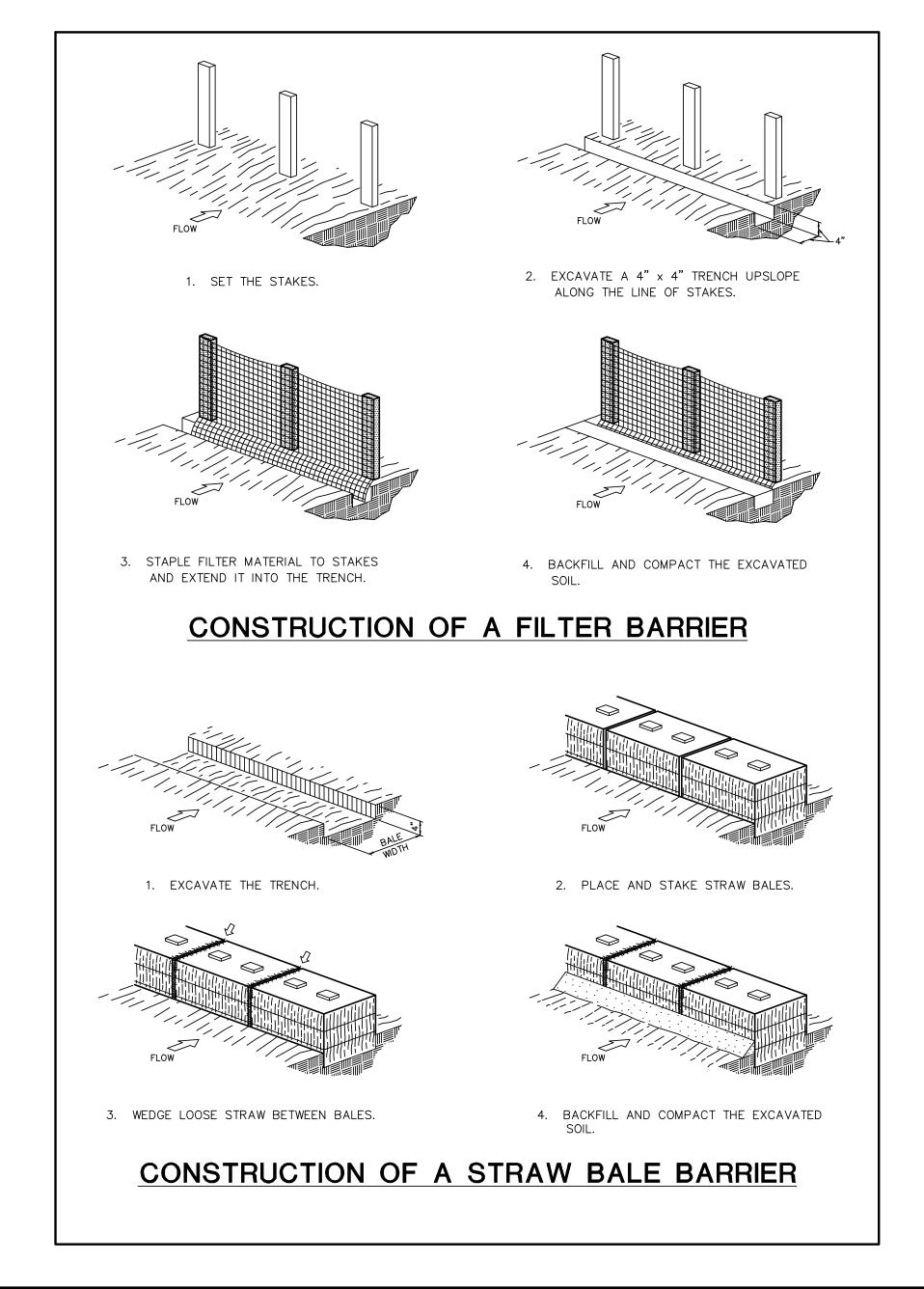
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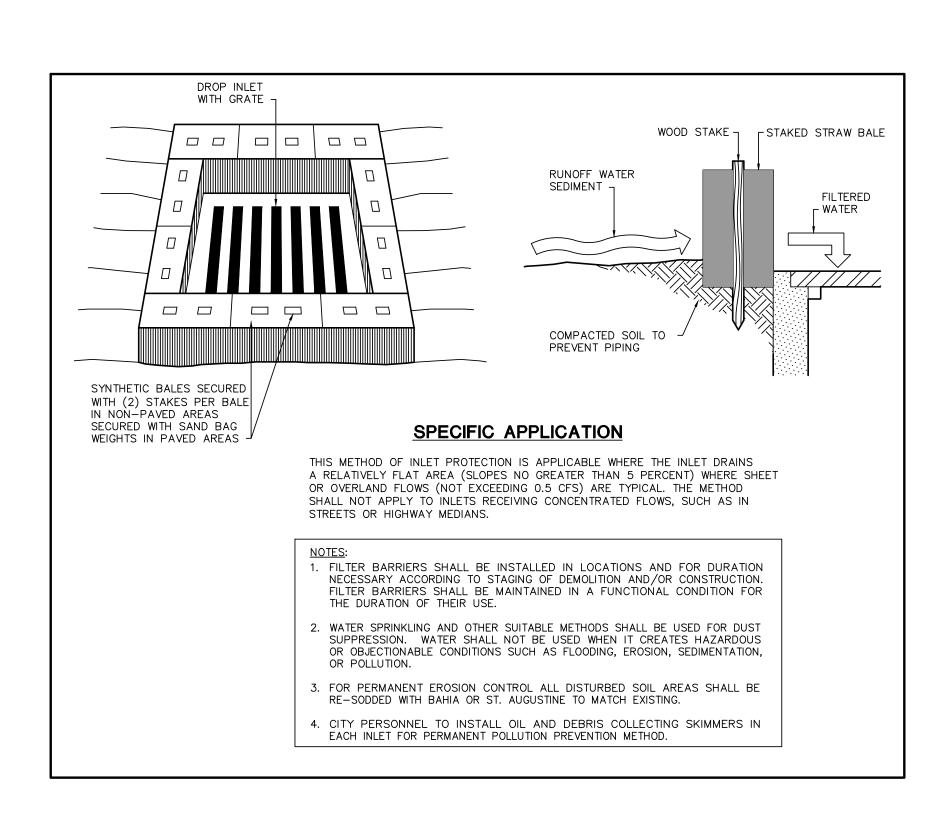
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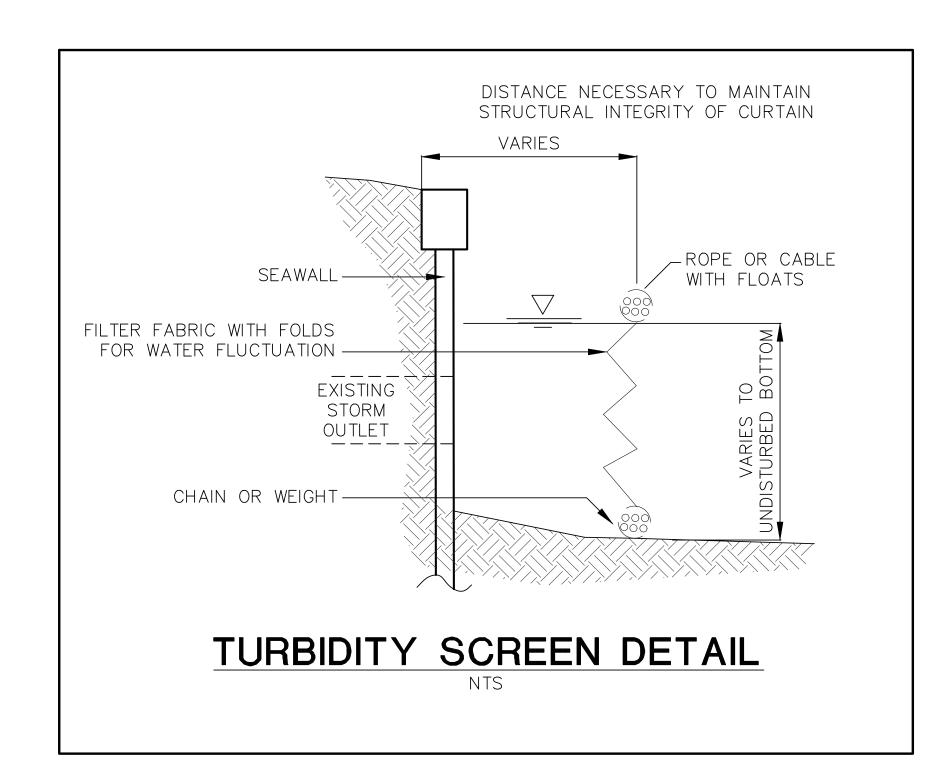
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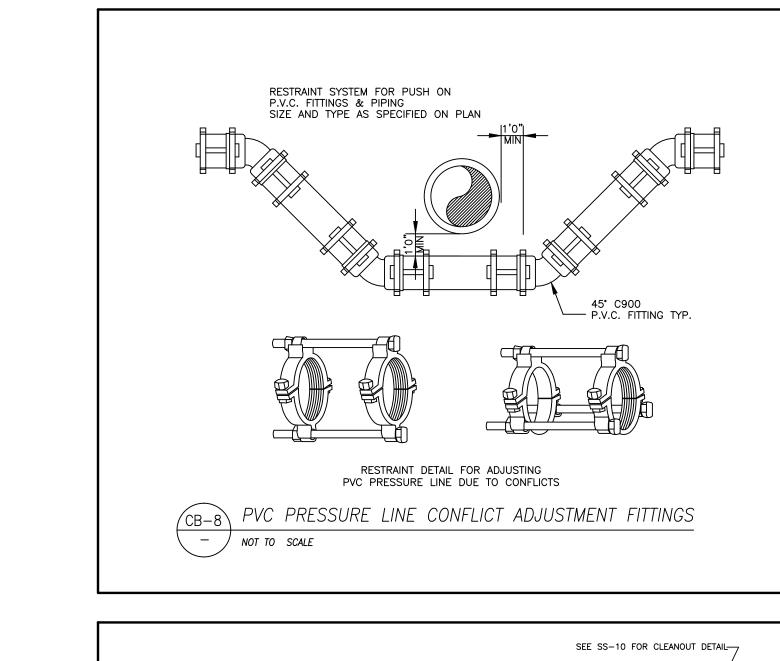
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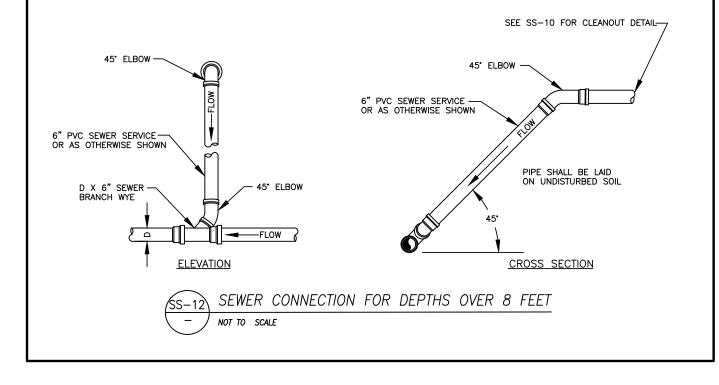


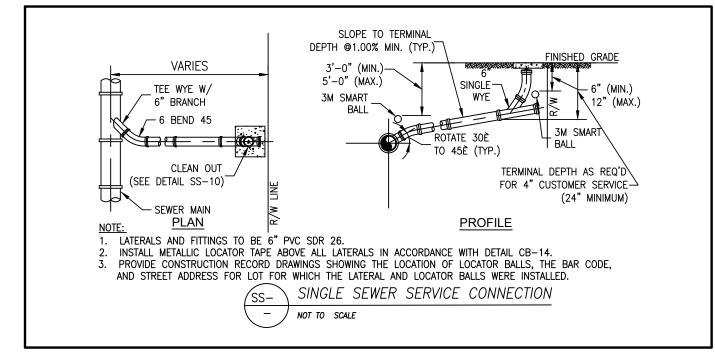


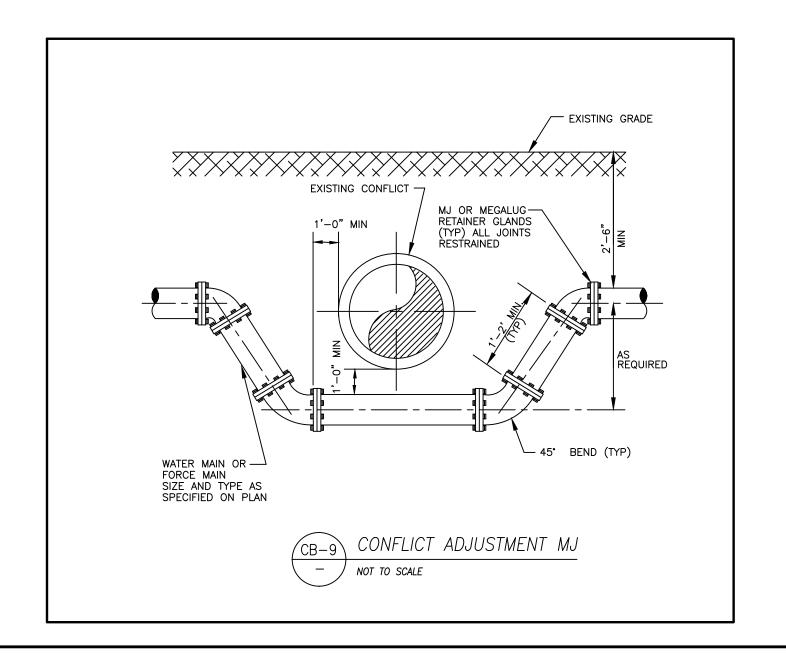


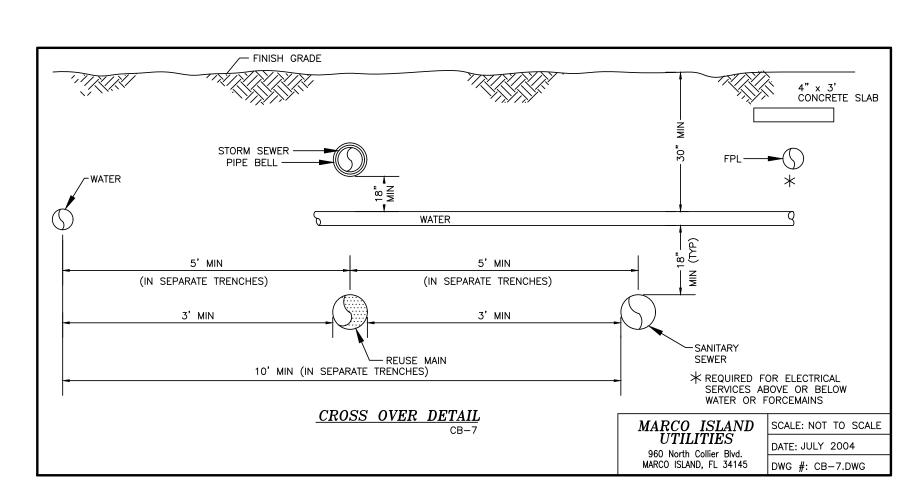


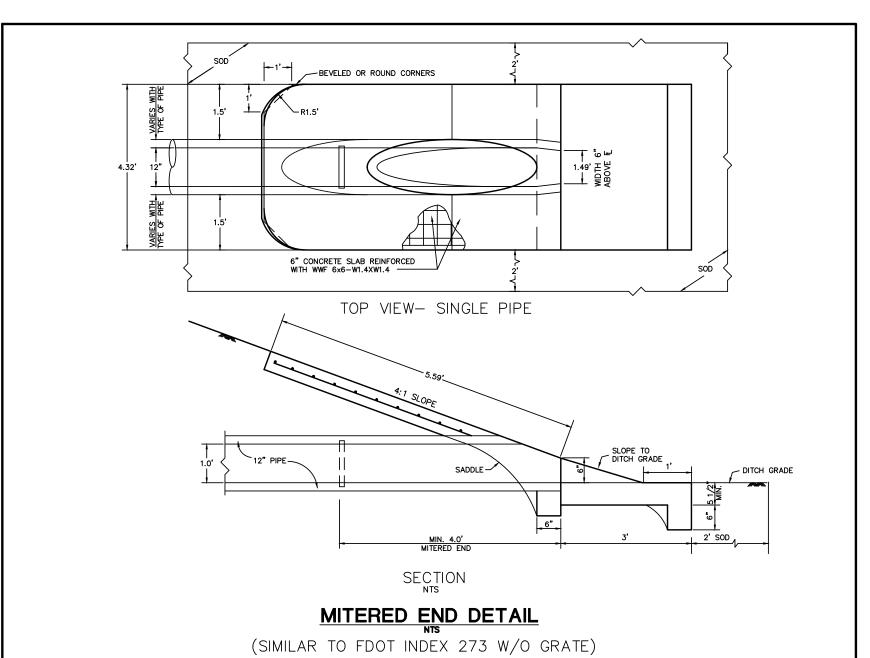












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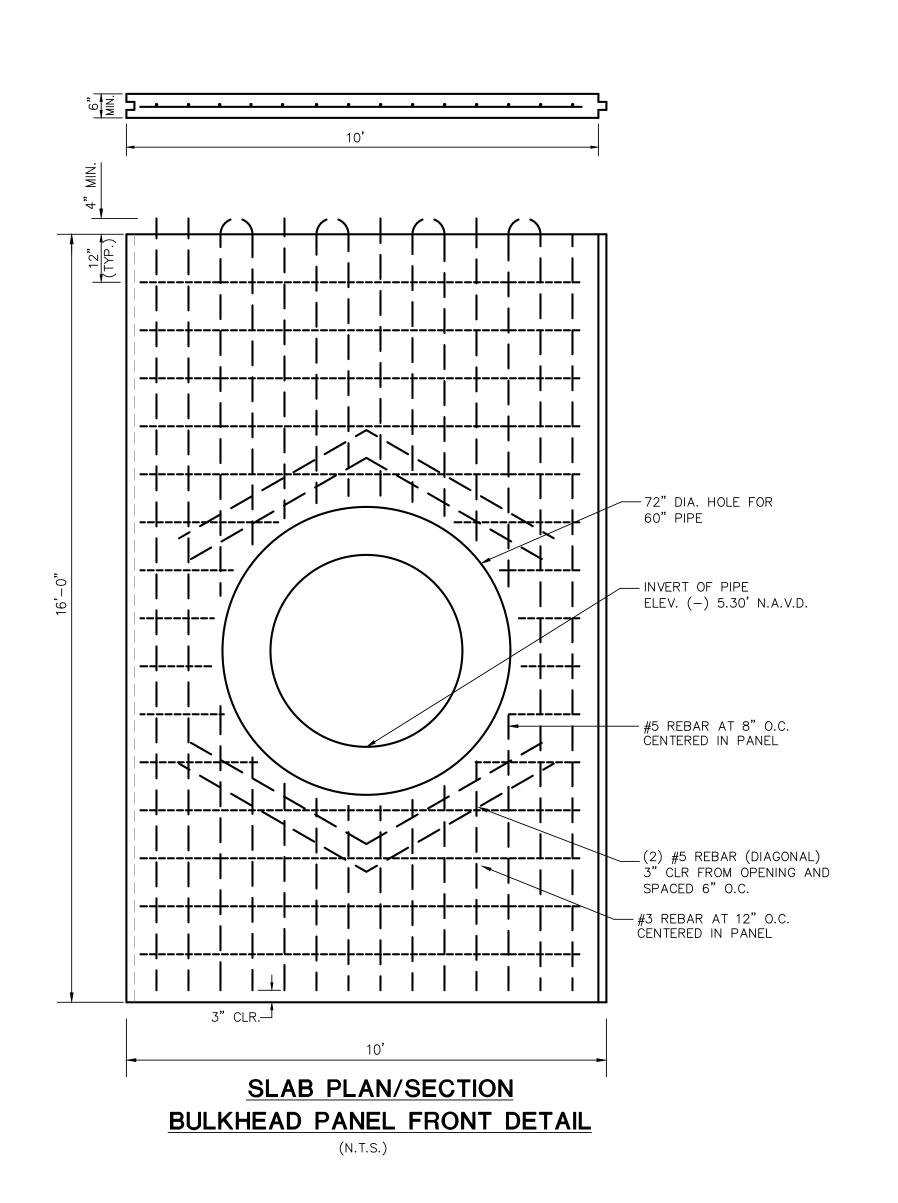
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NOTE: CONTRACTOR TO SUPPORT EXISTING SEAWALL AS REQUIRED DURING CONSTRUCTION.

BULKHEAD CONSTRUCTION NOTES

- COORDINATION OF CONSTRUCTION INCLUDING VERIFICATION OF DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
- 2. FILL BEHIND THE SEAWALL EXTENDING A MINIMUM OF 5' FROM THE WALL SHALL BE FROM UPLAND SOURCES AND CONSIST OF CLEAN GRANULAR MATERIAL (LESS THAN 10% PASSING no. 200 SIEVE) FREE FROM TOXIC POLLUTANTS.
- 3. ALL SEAWALLS AND CAPS SHALL CONSIST OF ONE OF THE FOLLOWING COMBINATIONS OF MATERIALS:
- A) FLORIDA DEPARTMENT OF TRANSPORTATION CLASS IV CONCRETE (SECTION 346-EXTREMELY AGGRESSIVE ENVIRONMENT) WITH EITHER OR BOTH PRESTRESSING STRAND (ASTM A416 GRADE 270) AND GRADE 60 REINFORCING STEEL. FOR CAPS ONLY, DENSE CONCRETE MIX WITH A COMPRESSIVE STRENGTH OF 5,000 PSI, LOW WATER/CEMENT RATIO (0.40) AND SMALLER AGGREGATE SUITABLE FOR PUMPS MAY BE SUBSTITUTED FOR THE FDOT CONCRETE. B) 4,000 PSI MINIMUM 28-DAY COMPRESSIVE STRENGTH
- CONCRETE WITH MAXIMUM WATER-CEMENT RATIO OF .45 AND MMFX OR STAINLESS REINFORCING STEEL. C) FLORIDA DEPARTMENT OF TRANSPORTATION CLASS IV CONCRETE (SECTION 346-EXTREMELY AGGRESSIVE

ACCORDANCE WITH ASTM A123, A153, & A780, & MIN. 3.9

ENVIRONMENT) WITH MMFX REINFORCING STEEL. THE SUBSTITUTION FOR CAP CONCRETE IN (A) ABOVE IS APPLICABLE HERE. 4. WHERE APPLICABLE, HOT-DIPPED GALVANIZING SHALL BE APPLIED TO STEEL COMPONENTS AFTER FABRICATION IN

MILS THICKNESS.

P.T. FRAME (TYP.)~

12" WIDE (MIN.)

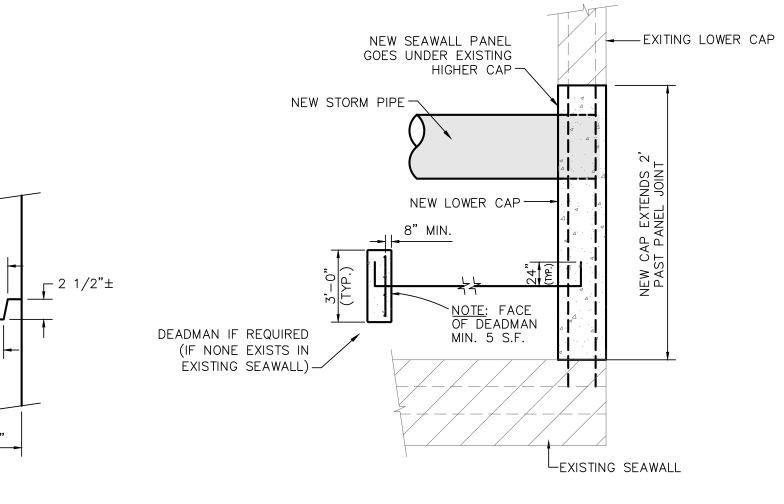
FILTER FABRIC -

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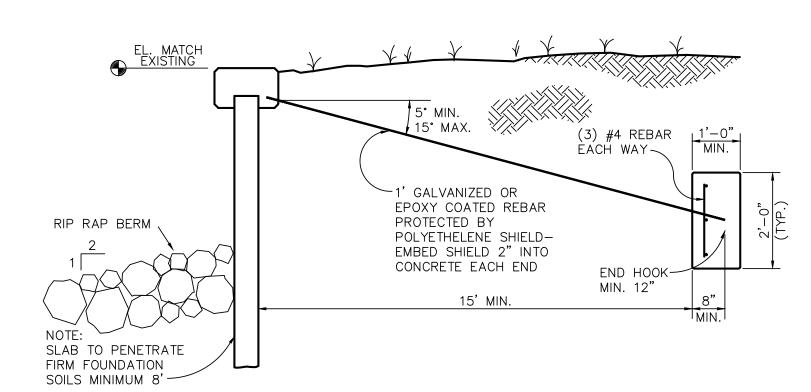
- 5. REINFORCING STEEL SHALL BE FREE FROM OIL SCALE AND RUST LAP SPLICES SHALL BE 44 BAR DIAMETERS IN CONCRETE.
- 6. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF
- 7. FORM WORK SUPPORTING CONCRETE BEAMS, SLABS, ETC ... MAY NOT BE REMOVED UNTIL THE CONCRETE HAS ATTAINED 80% OF THE DESIGN MINIMUM STRENGTH. DETERMINATION OF THE IN PLACE CONCRETE STRENGTH SHALL BE DETERMINED BY LABORATORY TESTING OF CONCRETE CYLINDER.
- 8. FORMS SHALL BE CLEAN FROM DEBRIS PRIOR TO PLACEMENT OF CONCRETE.
- 9. PROVIDE WOVEN FILTER FABRIC FROM BOTTOM OF CAP DOWN TO 1' BELOW THE TOP OF THE TOE-BERM.
- 10. DO NOT GROUT OR PLASTER OVER KEYWAY JOINTS BETWEEN SHEET PILES.
- 11. ERECTION/PLACEMENT TOLERANCES:
- HORIZONTAL ALIGNMENT OF FRONT FACE OF SHEET PILE: ±3" - IN PLANE PLUMBNESS: 2" PER 10' SHEET PILE LENGTH - TRANSVERSE PLUMBNESS: 2" PER 10' SHEET PILE LENGTH - KEY JOINT SEPARATION: MAXIMUM $\frac{1}{2}$ " EXCEPT MAXIMUM $\frac{3}{4}$ " ALLOWED FOR UP TO 10% OF KEY JOINTS.
- 12. APPLY A LIGHT BROOM FINISH TO TOP SURFACE OF CAP. RUB ALL OTHER SURFACES TO REMOVE FLASHING OR OTHER FORM MARKS. DO NOT LEAVE NAILS PROTRUDING FROM CONCRETE.
- 13. PIPE PENETRATION OPENING SHALL BE GROUTED ALL AROUND TO FULL THICKNESS OF BULKHEAD PANEL WITH A NON-SHRINK, NON-METALLIC GROUT INTENDED FOR MARINE ENVIRONMENTS AND MEETING THE REQUIREMENTS OF ASTM C-1107.

1. DEWATERING NOTES:

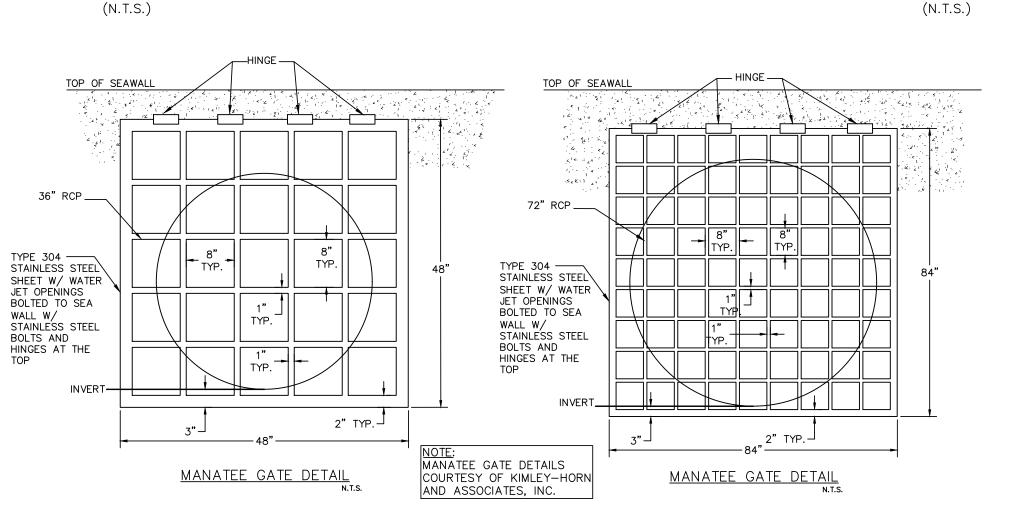
- A. SITE DEWATERING WILL BE NECESSARY TO LOWER AND CONTROL GROUND-WATER LEVELS AND HYDROSTATIC PRESSURES TO PERMIT EXCAVATION AND CONSTRUCTION TO BE PERFORMED PROPERLY UNDER DRY CONDITIONS.
- B. THE RESPONSIBILITY FOR CONDUCTING THE DEWATERING OPERATION IN A MANNER, WHICH WILL PROTECT ADJACENT STRUCTURES AND FACILITIES, RESTS SOLELY WITH THE CONTRACTOR. THE COST OF REPAIRING ANY DAMAGE TO ADJACENT STRUCTURES AND RESTORATION OF FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- C. DEWATERING MAY BE FACILITATED BY CONSTRUCTION OF A COFFERDAM AT CANAL DISCHARGE OR INFLATABLE PLUGS. SUCH DEVICES MUST BE DESIGNED AND OPERATED IN SUCH A WAY THAT THEY ARE REMOVED OR OTHERWISE WILL NOT RESTRICT FLOW OR CAUSE FLOODING SHOULD RAINFALL EVENTS OCCUR DURING CONSTRUCTION.
- D. THE CONTRACTOR SHALL BEAR THE SOLE RESPONSIBILITY FOR THE DESIGN, INSTALLATION, AND OPERATION OF THE DEWATERING SYSTEM TO COMPLY WITH THE INSTALL ADDITIONAL DEWATERING EQUIPMENT AS MAY BE REQUIRED THOUGH-OUT THE DURATION OF THE PROJECT TO MAINTAIN REQUIRED GROUND
- THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY APPROVED DISCHARGE OF DEWATERING EFFLUENT.
- PRIOR TO COMMENCEMENT OF DEWATERING, THE CONTRACTOR SHALL DETERMINE WHETHER A SFWMD DEWATERING PERMIT IS REQUIRED, AND SHALL APPLY FOR AND OBTAIN ANY SUCH REQUIRED PERMIT, PROVIDING ANY DETAILED PLANS AND SCHEDULES AS MAY BE REQUIRED BY SFWMD.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH OBTAINING ALL PROPER PERMITS AND FOR MAINTAINING PERMIT COMPLIANCE, INCLUDING ALL COSTS ASSOCIATED WITH PERMIT VIOLATIONS.
- H. COPIES OF THE EXECUTED DEWATERING PERMIT APPROVED BY SFWMD, IF REQUIRED, SHALL BE SUBMITTED TO THE OWNER AND ENGINEER.
- I. ALL WATER ENCOUNTERED IN THE TRENCH SHALL BE DISPOSED BY THE CONTRACTOR IN SUCH A MANNER AS WILL NOT DAMAGE PUBLIC OR PRIVATE PROPERTY OR CREATE A NUISANCE OR HEALTH NUISANCE.
- 2. TEMPORARY COFFERDAM NOTES:
 - SUBMIT DRAWINGS SHOWING THE PROPOSED METHOD OF COFFERDAM CONSTRUCTION AND OTHER DETAILS LEFT TO CHOICE OR NOT FULLY SHOWN ON THE PLANS. OBTAIN THE ENGINEER'S APPROVAL OF THE TYPE OF COFFERDAMS, INSOFAR AS SUCH DETAILS AFFECT THE CHARACTER OF THE FINISHED WORK. FOR OTHER DETAILS OF DESIGN THAT DO NOT AFFECT THE CHARACTER OF THE FINISHED WORK, ASSUME RESPONSIBILITY FOR THE SUCCESSFUL CONSTRUCTION OF THE WORK. RETAIN A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF FLORIDA, TO PREPARE THE ABOVE CONSTRUCTION DRAWING, AND KEEP A SIGNED AND SEALED COPY ON HAND AT THE SITE AT ALL TIMES.

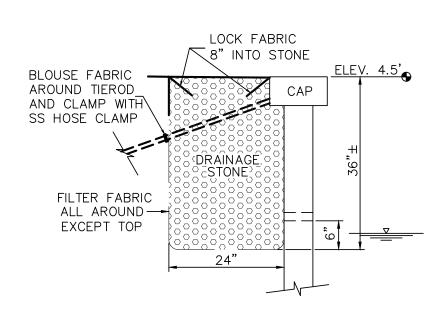


DEADMEN VIEW

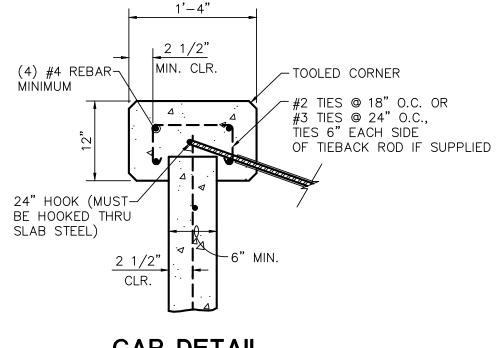


TYPICAL SECTION





FRENCH DRAIN (N.T.S.)



CAP DETAIL (N.T.S.)

SLAB JOINT

SHEET **C-7**

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