EROSION AND SEDIMENT CONTROL:

1. CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION IN ORDER TO ENSURE POLLUTION PREVENTION. CONTRACTOR TO COMPLY WITH ALL LOCAL STATE AND OTHER GOVERNMENTAL ENVIRONMENTAL REGULATIONS THROUGHOUT CONSTRUCTION.

2. DURING CONSTRUCTION ALL CATCH BASIN INLETS SHALL BE PROTECTED TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING THE CATCH BASIN.

3. SILT FENCES SHALL BE INSTALLED AS NECESSARY TO CONTROL OR PREVENT DISCHARGE OF SEDIMENT ONTO ADJACENT UNDISTURBED AREAS, OR OFF-SITE AREAS.

4. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.

5. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

6. ALL EXPOSED AREAS SHALL BE SODDED AS SPECIFIED WITHIN 30 DAYS OF FINAL GRADING.

7. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.

8. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.

9. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.

10. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY CITY, COUNTY, AND STATE OF FLORIDA ON SITE INSPECTION, AT NO ADDITIONAL COST TO THE OWNER.

11. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.

12. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

13. BURNING OF DEBRIS WILL NOT BE ALLOWED.

14. CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.

15. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATER WAYS. IN ADDITION CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE IF IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES IF EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC. THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. EROSION CONTROL BARRIER SHALL BE ESTABLISHED AS THE FIRST ITEM OF WORK.

16. THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM APPLIES TO ALL CONSTRUCTION ACTIVITY THAT: 1) CONTRIBUTE STORMWATER DISCHARGES TO SURFACE WATER OF THE STATE OR INTO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4); 2) DISTURBS ONE OR MORE ACRES OF LAND; OR 3) LESS THAN ONE ACRE IS INCLUDED IF THE ACTIVITY IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT THAT WILL MEET OR EXCEED THE ONCE ACRE THRESHOLD. DISTURB INCLUDES CLEARING, GRADING AND EXCAVATING.

17. FOR CONSTRUCTION ACTIVITY THAT IS SUBJECT TO THE NPDES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM, THE CONTRACTOR SHALL:

    17.1. OBTAIN A GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION DOCUMENT 62-621.300(4)(A).

    17.2. COMPLY WITH ALL REQUIREMENTS OF THE GENERIC PERMIT.

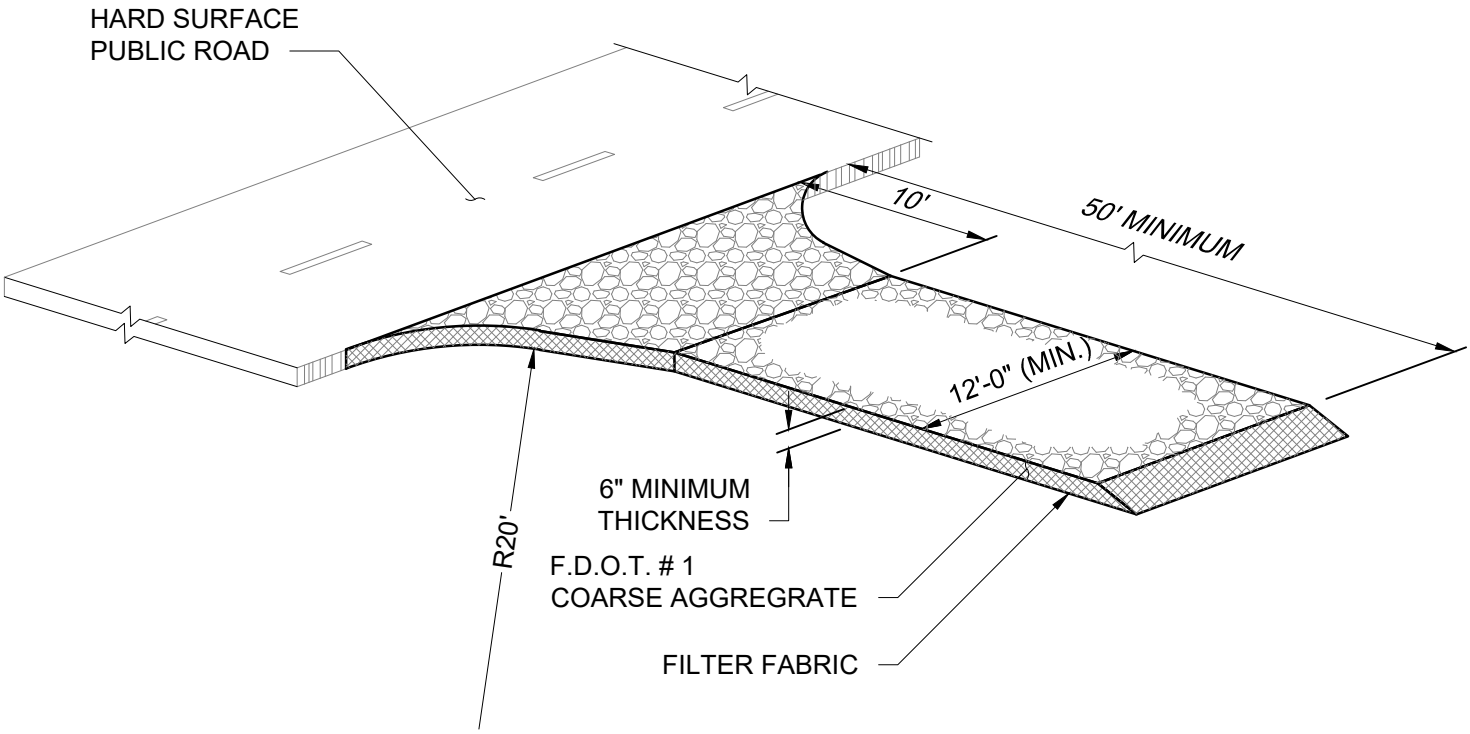
    17.3. DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

    17.4. COMPLETE A NOTICE OF INTENT (NOI) FLORIDA DEPARTMENT OF ENVIORNMENTAL PROTECTION FORM 62-621.300(4)(B) IN ITS ENTIRETY USING THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S WEBSITE.

18. SUBMIT COPIES OF THE SWPPP AND THE NOI TO THE ENGINEER AS INFORMATIONAL RECORDS. THESE SUBMITTALS WILL NOT BE REVIEWED BY THE ENGINEER.

19. CONTRACTOR TO CLEAN AND REPAIR ALL EXISTING STORMWATER INFRASTRUCTURE THAT IS IMPACTED BY CONSTRUCTION ACTIVITIES, BEFORE LEAVING THE JOBSITE.

20. CONTRACTOR TO REMOVE ALL FILTER FABRIC AND POLLUTION PREVENTION ITEMS BEFORE THE FINAL WALK-THROUGH.



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

GRAVEL CONSTRUCTION ENTRANCE

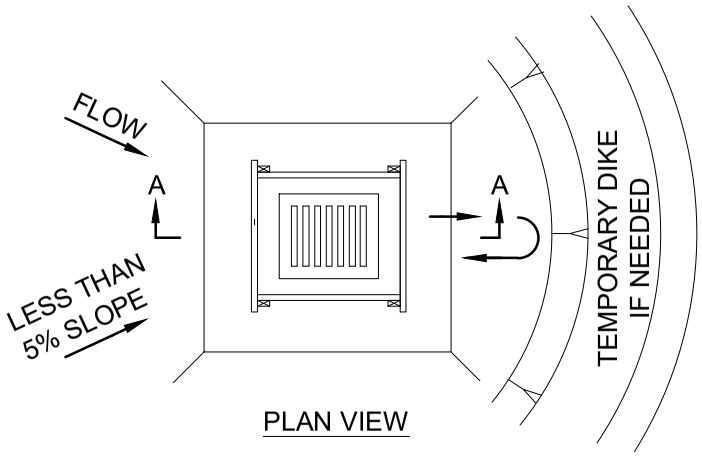
DETAIL NO.
ESC
002

REVISED:
2017/07/08

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DROP INLET PROTECTION - SEDIMENT BARRIER

DETAIL NO. ESC 004
REVISED: 2016/09/21



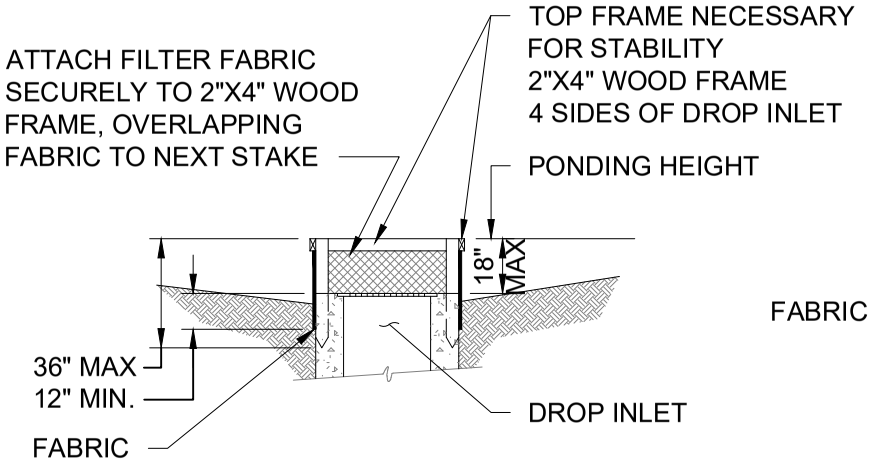
PLAN VIEW

CONTRACTOR'S RESPONSIBILITY

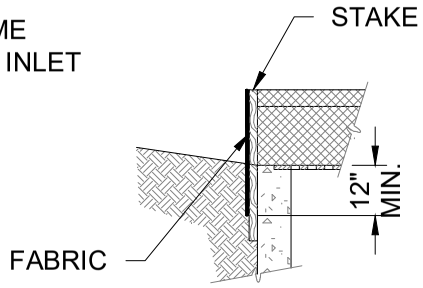
EROSION AND SEDIMENTATION CONTROLS ARE PERFORMANCE BASED CRITERIA. IF THE BMPS PROVIDED DO NOT PREVENT SOILS FROM LEAVING A CONSTRUCTION SITE, THEN THE CONTRACTOR IS REQUIRED TO EMPLOY ADDITIONAL PROCEDURES TO PROVIDE CLEAN RUNOFF FROM A SITE.

NOTES:

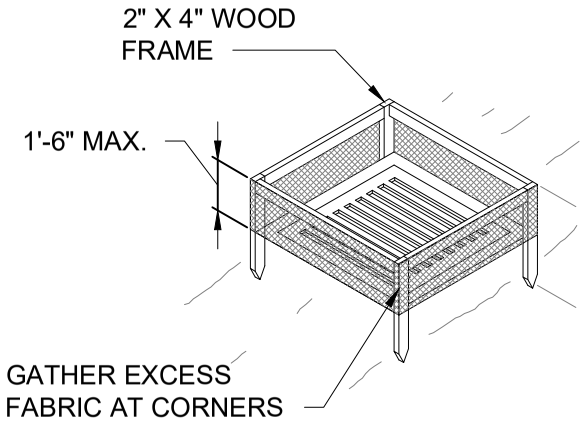
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%).
2. USE 2"X4" WOOD OR EQUIVALENT METAL STAKES. (3' MIN. LENGTH).
3. INSTALL 2"X4" WOOD TOP FRAME TO INSURE STABILITY.
4. THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET.
   A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
5. MIRAFI OR APPROVED EROSION CONTROL FABRIC SHALL BE WRAPPED AROUND GRATE.
6. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.



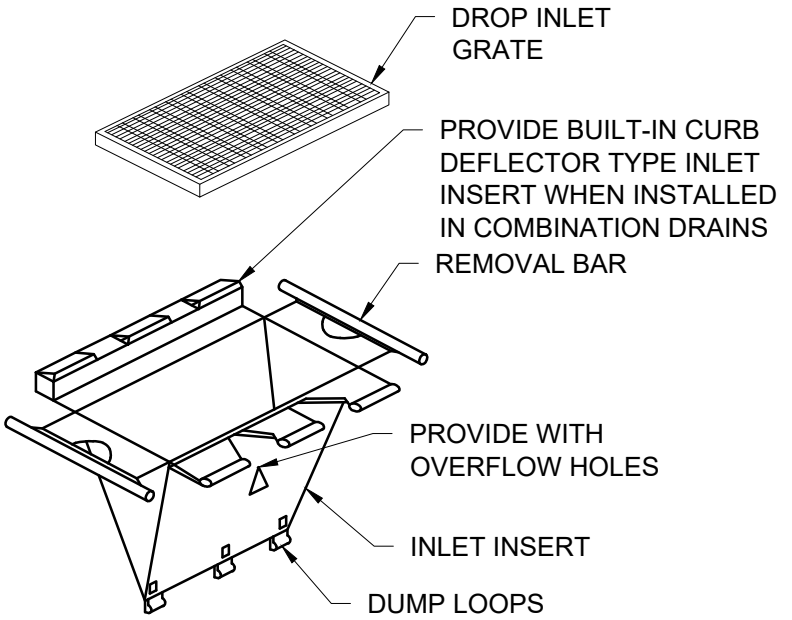
SECTION A-A

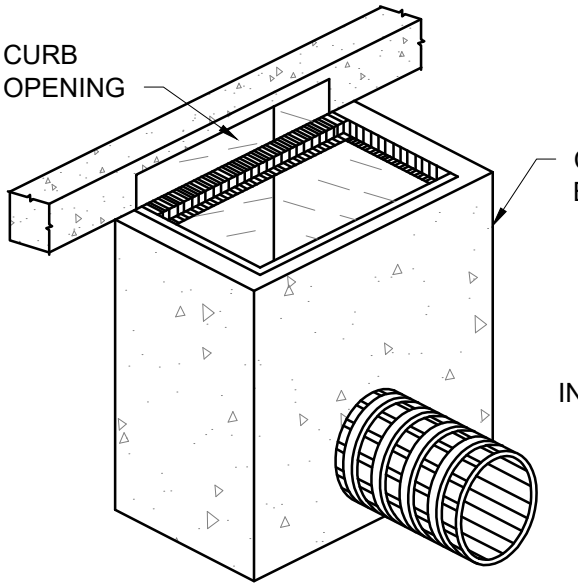


DETAIL OF STAKE & FABRIC ORIENTATION

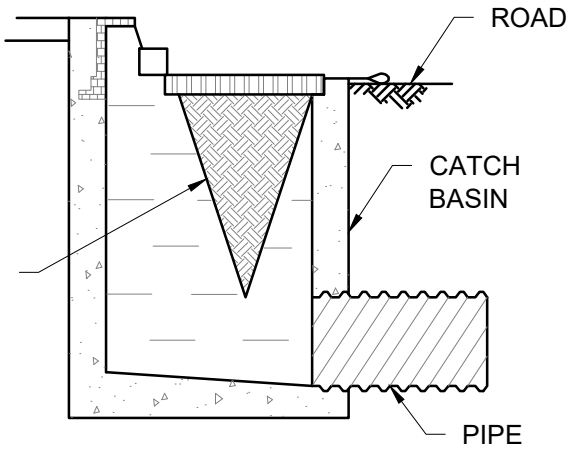


ISOMETRIC VIEW





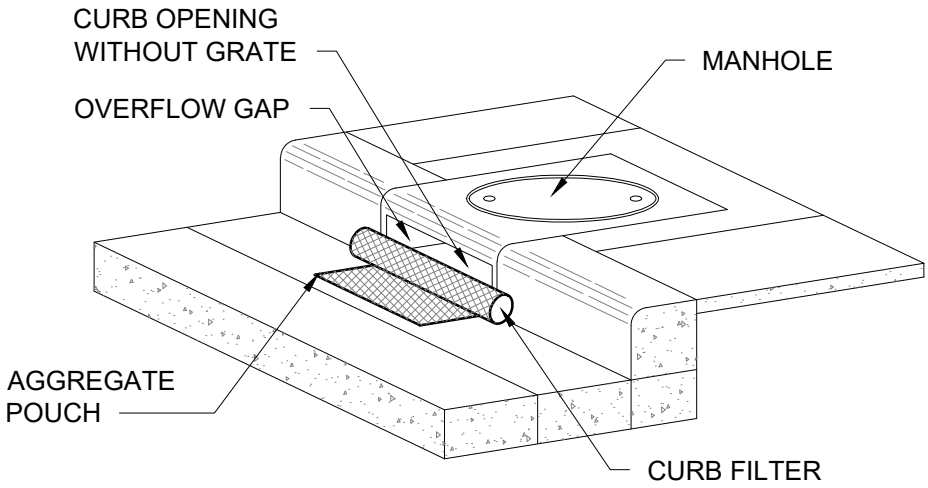
EXPLODED ISOMETRIC VIEW



SIDE VIEW INSTALLED

NOTES:

1. THE INLET INSERT SHALL BE A SEDIMENT CONTROL DEVICE DESIGNED FOR DROP INLETS OR COMBINATION DRAINS WHERE A DROP INLET IS COUPLED WITH A CURB INLET.
2. THE INLET INSERT SHALL BE MADE OF A PERMEABLE GEOTEXTILE THAT ALLOWS WATER TO PASS BUT PREVENTS SILT AND SEDIMENT FROM CLOGGING THE DRAIN SYSTEM.
3. THE CONTRACTOR SHALL CLEAN AND INSPECT REGULARLY AND AFTER EVERY MAJOR RAIN EVENT.
4. INLET INSERTS SHALL BE “SILTSACK” BY ACF ENVIRONMENTAL, OR EQUAL. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS.



NOTES:

1. INSTALL CURB FILTERS AT ALL INLETS WITHOUT GRATES TO KEEP SILT, SEDIMENT AND CONSTRUCTION DEBRIS OUT OF THE STORM SYSTEM

2. THE CURB FILTER SHALL BE DANDY CURB AS MANUFACTURED BY DANDY PRODUCTS INC., OR EQUAL. SUBMIT SHOP A SHOP DRAWING FOR THE CURB FILTERS.

3. THE CURB FILTER SHALL FORM OF A CYLINDRICAL TUBE PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET OPENING ON BOTH SIDES.

4. THE CURB FILTER SHALL HAVE A POUCH ON THE STREET SIDE OF THE UNIT FOR STONE AGGREGATE TO HOLD THE FILTER IN PLACE.

5. THE CURB FILTER SHALL BE CONSTRUCTED OF A HIGH VISIBILITY ORANGE MONOFILAMENT FABRIC.

6. FILL POUCH WITH FDOT #57 STONE AGGREGATE TO A LEVEL (AT LEAST HALF-FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE CURB FILTER AND THE SURFACE OF THE STREET.

7. CENTER THE UNIT AGAINST CURB OR MEDIAN INLET OPENING SO THAT THE CURB SIDE OF THE UNIT CREATES A SEAL WITH THE CURB OR MEDIAN BARRIER AND INLET STRUCTURE. THERE WILL BE APPROXIMATELY TWELVE (12) INCHES OF THE INLET PROTECTION UNIT OVERHANGING ON EACH SIDE OF THE OPENING.

8. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT.

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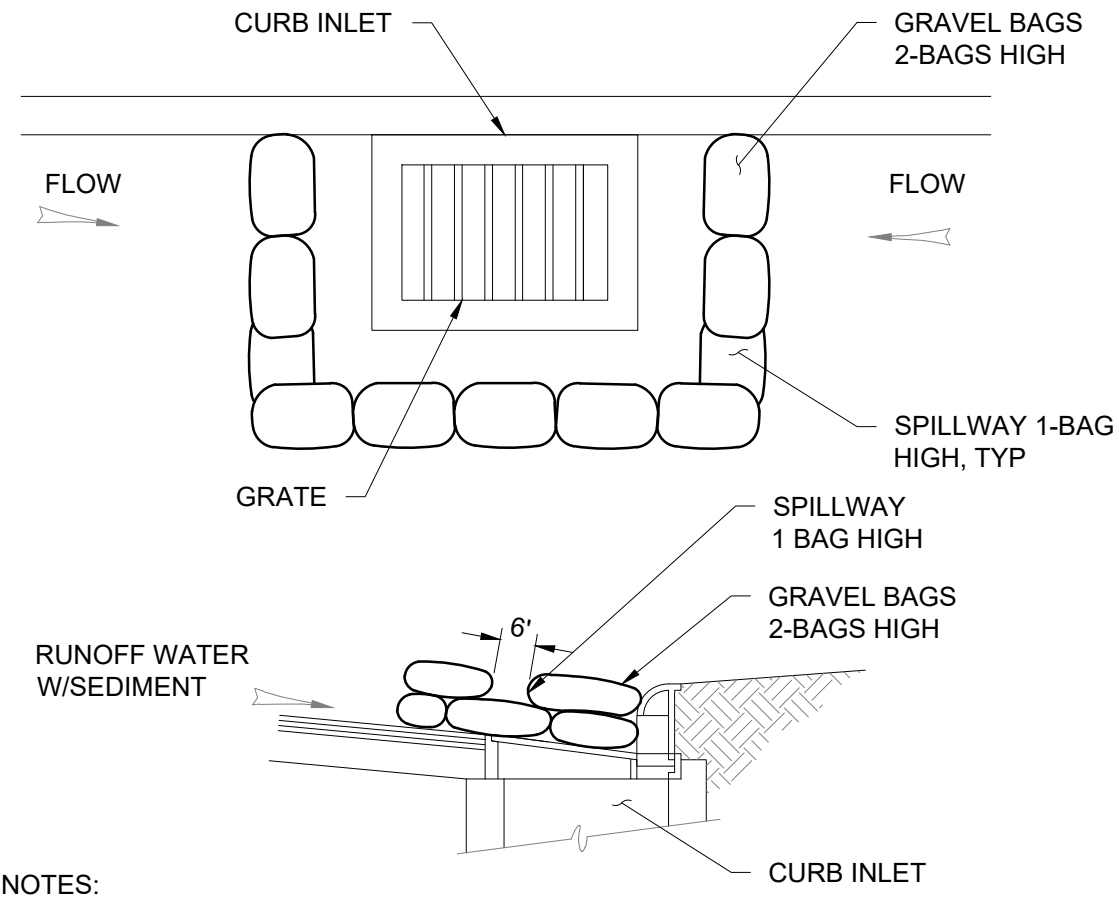
CURB INLET PROTECTION - CURB FILTER

DETAIL NO.
ESC
006

REVISED:
2017/07/19



NOTES:

1. A SPILLWAY SHALL BE DESIGNATED FOR EACH DIRECTION OF APPROACHING FLOW AS SHOWN. THE SPILLWAY SHALL BE LOCATED TO ALLOW THE MAXIMUM AMOUNT OF STORMWATER TO POOL WITHOUT FLOODING AREAS UP GRADE OF THE INLET.

2. FOR INLETS THAT ARE NOT ADJACENT TO CURBS, PLACE GRAVEL BAGS ONE BAG HIGH AROUND THE ENTIRETY OF THE INLET TO ACCOMMODATE FLOW FROM ALL DIRECTIONS.

3. BAG MATERIAL: BAGS SHALL BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC, MINIMUM UNIT WEIGHT FOUR OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D4355.

4. BAG SIZE: EACH GRAVEL-FILLED BAG SHALL BE 18-INCHES X 12-INCHES X 3-INCHES AND HAVE A MASS OF APPROXIMATELY 33 LBS. ALTERNATIVE BAG SIZES SHALL BE CONSIDERED BASED ON LOCALLY AVAILABLE MATERIALS.

5. FILL MATERIAL: GRAVEL SHALL BE PEA GRAVEL 3/8 INCHES IN DIAMETER AND SHALL BE CLEAN AND FREE OF CLAY BALLS, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS.

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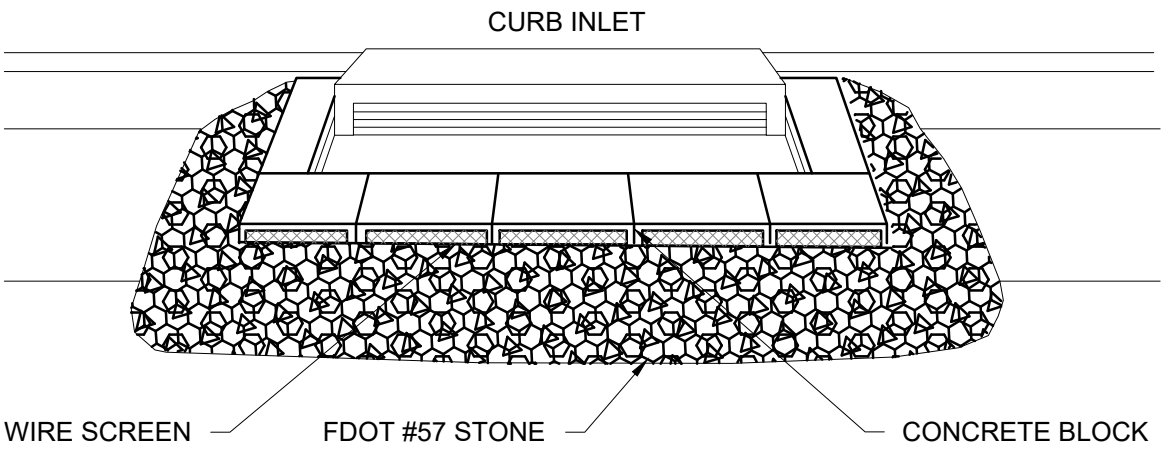
CURB INLET PROTECTION - GRAVEL BAG

DETAIL NO.
ESC
007

REVISED:
2017/08/08



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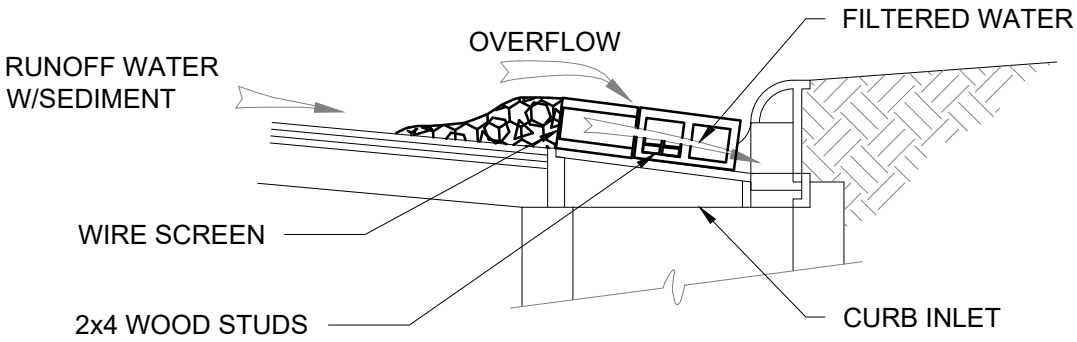

SECTION

NOTES:

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET SUPPORT.

2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.

3. USE CLEAN STONE OR GRAVEL 1/2 - 3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.

4. FOR INLETS IN ROADWAYS WITH HEAVY TRAFFIC CONDITIONS PREFABRICATED FILTER INSERTS MAY BE USED.

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CURB INLET PROTECTION - BLOCK AND STONE

DETAIL NO.
ESC
007

REVISED:
2017/07/08

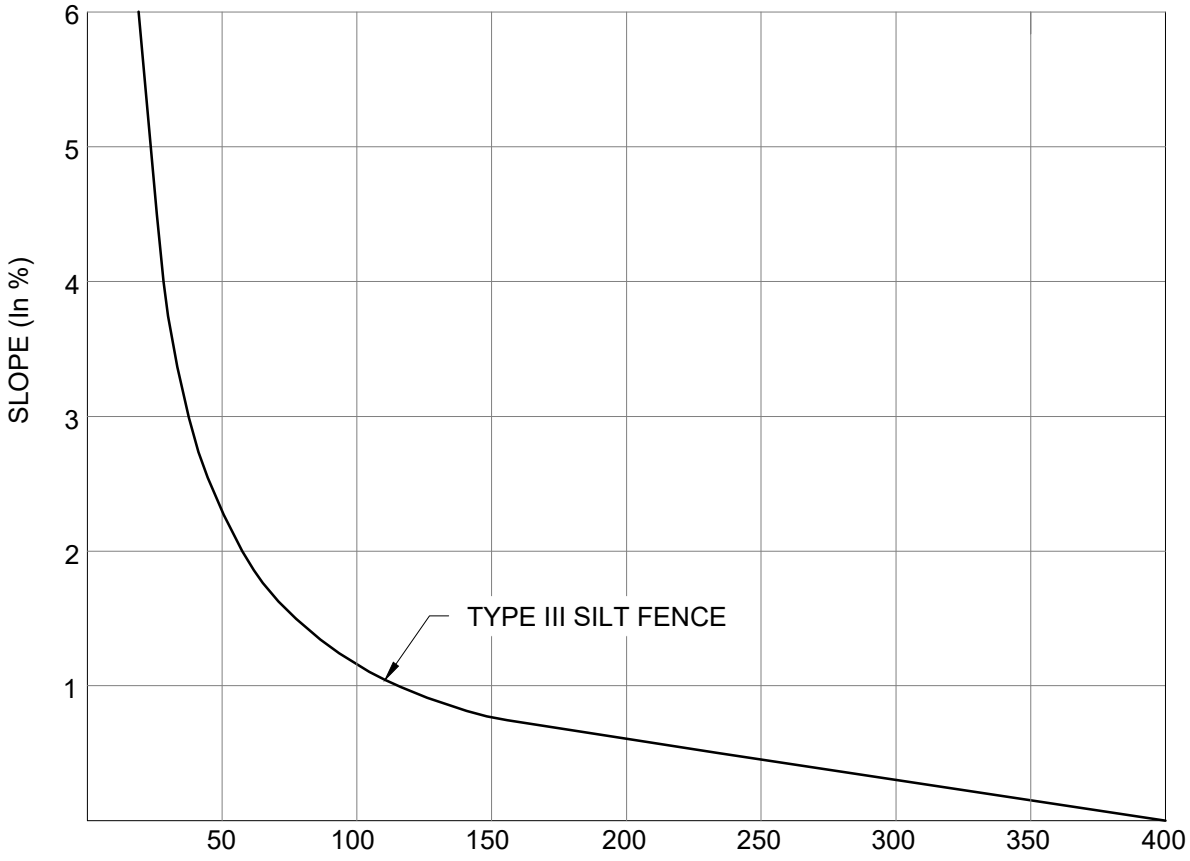
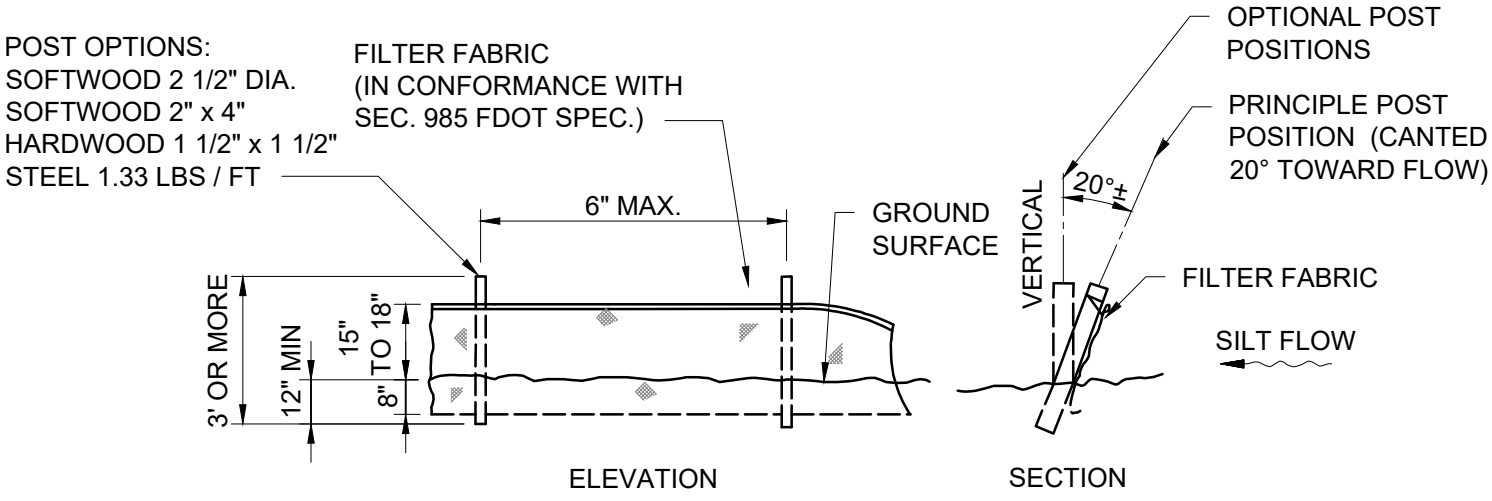
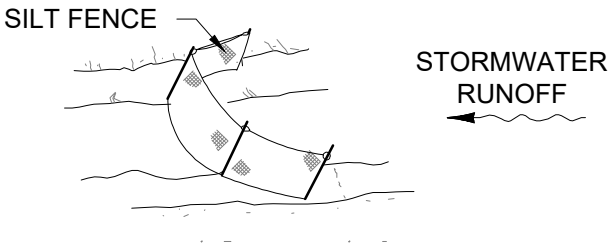


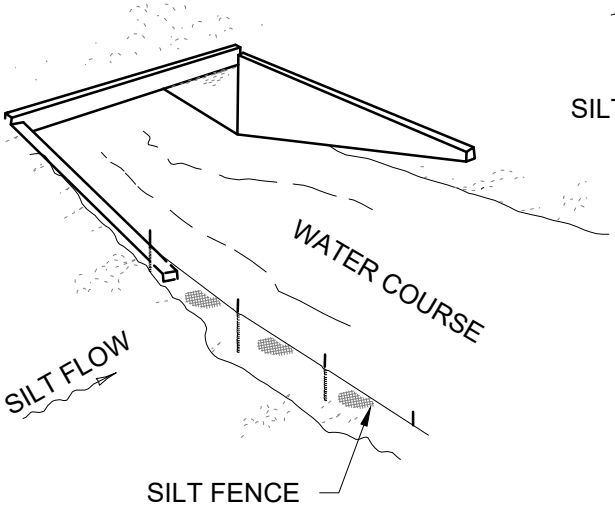
CHART 1: SILT FENCE SPACING

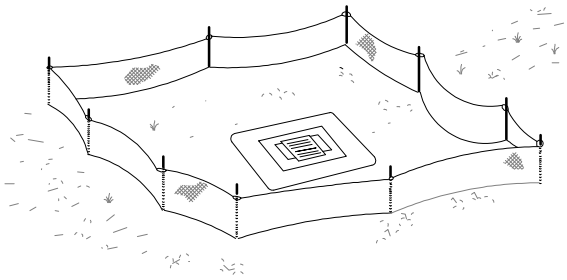


TYPE III SILT FENCE



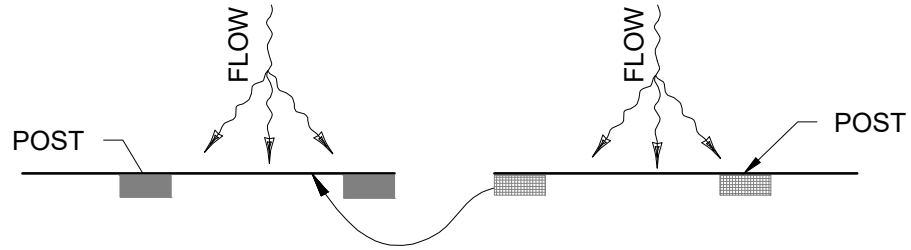
SILT FENCE PROTECTION IN DITCHES
WITH INTERMITTENT FLOW



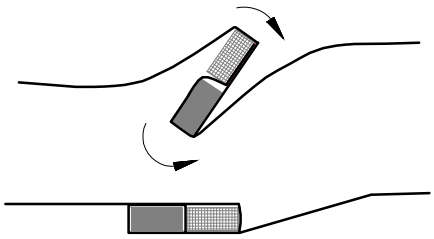


SILT FENCE PROTECTION AROUND
DITCH BOTTOM INLETS

SILT FENCE APPLICATIONS



PLACE THE POST OF ONE FENCE BEHIND
THE END POST OF THE OTHER FENCE AS SHOWN.



ROTATE BOTH POSTS AT LEAST 180 DEGRESS IN A
CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL
WITH THE FABRIC MATERIAL.

DRIVE BOTH POSTS INTO THE GROUND AND BURY
FLAP.

PLAN VIEW

JOINING TWO SILT FENCES

NOTES:

1. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1.

2. 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.

3. 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.

CITY OF FORT LAUDERDALE
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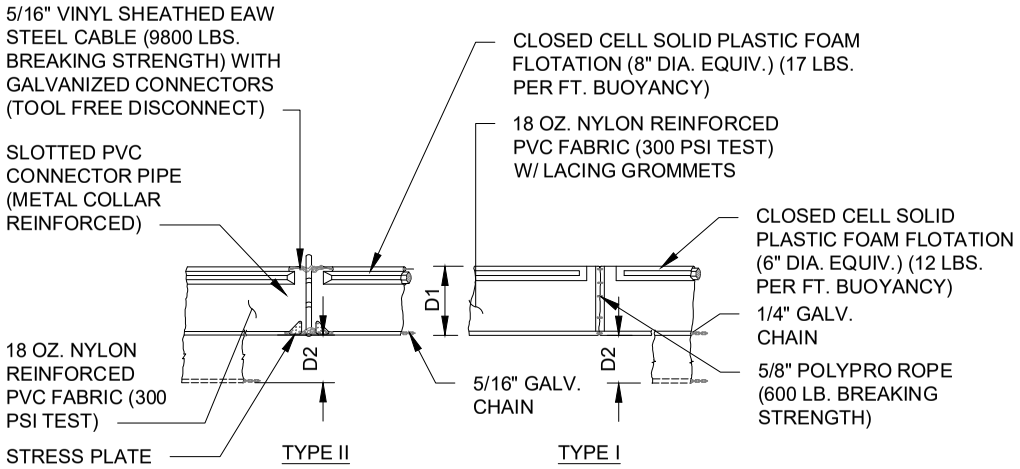
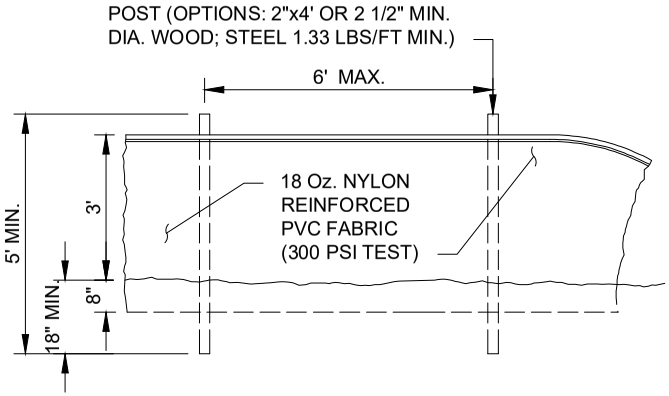
TURBIDITY BARRIER - FLOATING



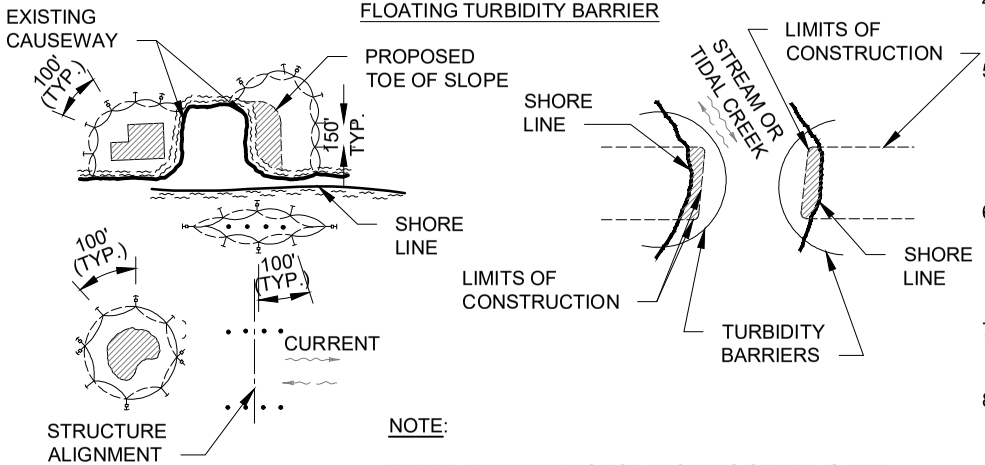


STAKED TURBIDITY BARRIER

D1 =5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D2 =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 CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTE:
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 BARRIER



LEGEND
- PILE LOCATIONS
- DREDGE OR FILL AREA
- MOORING BUOY W/ANCHOR
- ANCHOR
- BARRIER MOVEMENT DUE TO CURRENT ACTION

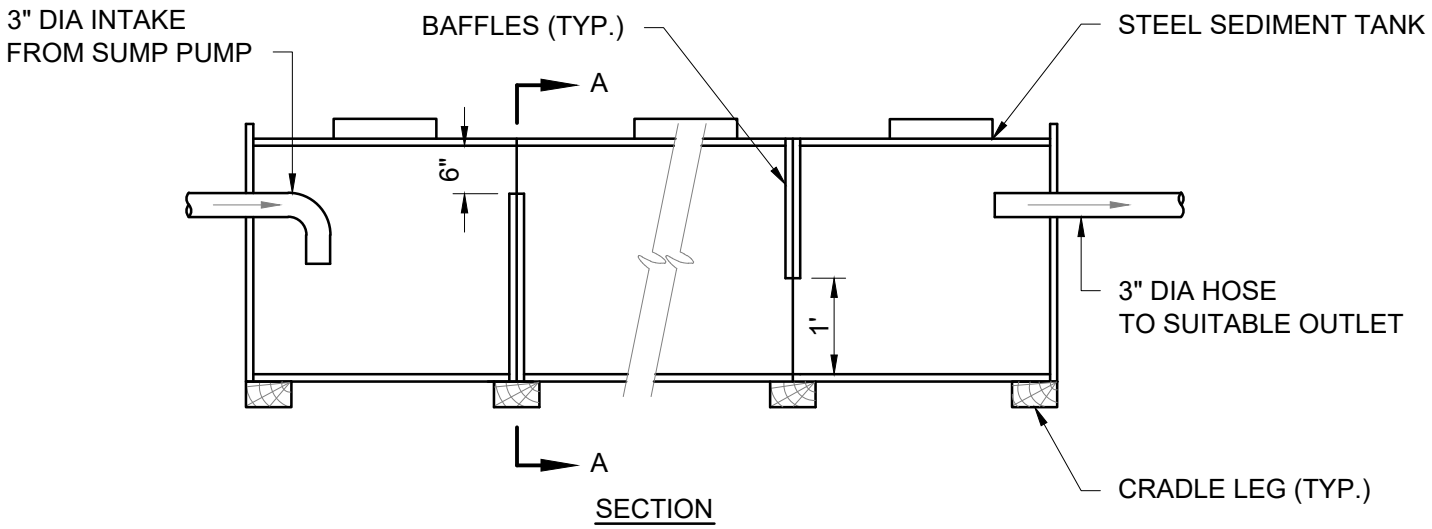
NOTE:
TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING, OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPE(S) WILL BE AT THE CONTRACTOR'S OPTION UNLESS OTHERWISE SPECIFIED IN THE PLANS. POSTS IN STAKED TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

TURBIDITY APPLICATIONS

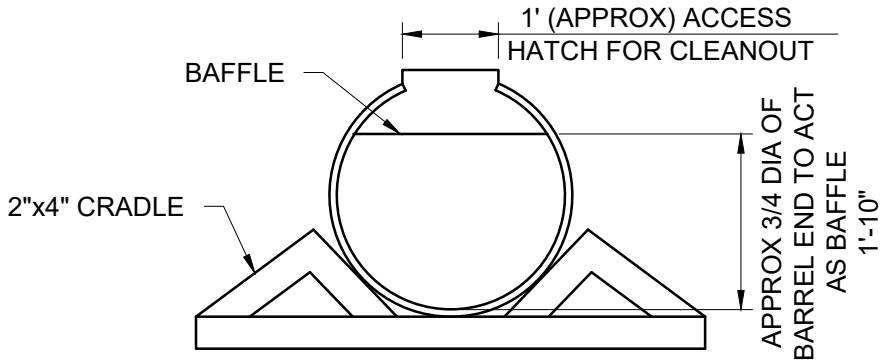
NOTES:

1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
3. DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
4. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.
5. TYPE I TURBIDITY BARRIERS SHALL BE DESIGNED BY THE MANUFACTURER FOR USE IN CALM WATER AREAS SUCH AS SWALES, DITCHES, CANALS, SMALL PONDS, LAKES AND HARBORS. TYPE I TURBIDITY BARRIERS SHALL BE USED IN AREAS WHERE THERE IS NO CURRENT AND THE AREA IS SHELTERED FROM WIND AND WAVES.
6. TYPE II TURBIDITY BARRIERS ARE DESIGNED BY THE MANUFACTURER FOR AREAS WITH MOVING WATER, CURRENTS, WAVES OR TIDE. TYPE II TURBIDITY BARRIERS SHALL BE USED IN WATER LOCATIONS WITH WAVES UP TO TWO FEET (2'), MODERATE WIND, AND CURRENTS UP TO 2 KNOTS OR 3.5 FEET PER SECOND.
7. STAKED BARRIERS ARE CONTINUOUS PANELS OF PVC FABRIC THAT CONTAIN STORMWATER RUNOFF OR RE-DIRECT IT TO CHANNELS OR RETENTION AREAS.
8. CONSTRUCTION SPECIFICATIONS: THE AREA OF INSTALLATION FOR THE PROPOSED TURBIDITY BARRIER SHALL BE INSPECTED FOR OBSTACLES AND IMPEDIMENTS THAT COULD DAMAGE THE BARRIER OR IMPAIR ITS EFFECTIVENESS TO RETAIN SEDIMENTS. REMOVE MATERIALS, OBSTACLES AND IMPEDIMENTS THAT COULD DAMAGE OR IMPAIR THE EFFECTIVENESS OF THE TURBIDITY BARRIER.
9. MAINTENANCE: THE TURBIDITY BARRIER SHALL BE INSPECTED DAILY AND REPAIRED OR REPLACED IMMEDIATELY IF DAMAGED. IT IS NOT NORMALLY NECESSARY TO REMOVE SEDIMENT DEPOSITED BEHIND THE CURTAIN. HOWEVER, WHEN NECESSARY, REMOVAL SHALL BE DONE BY HAND PRIOR TO REMOVAL OF THE BARRIER. ALL REMOVED SILT SHALL BE STABILIZED AWAY FROM THE WATERBODY. THE BARRIER SHALL BE REMOVED SLOWLY AND BY CAREFULLY PULLING IT TOWARD THE CONSTRUCTION SITE TO MINIMIZE THE RELEASE OF SEDIMENTS.

DETAIL NO.
ESC 011
REVISED:
2017/07/08



SECTION



SECTION A-A

NOTES:

1. CLEAN OUT THE SEDIMENT TANK WHEN ONE THIRD (1/3) FILLED WITH SILT.

2. ALL SEDIMENT COLLECTED IN THE TANK SHALL BE DISPOSED OF IN A SEDIMENT TRAPPING DEVICE, AN APPROVED LOCATION IN WHICH FURTHER SEDIMENT TRANSPORT WILL NOT OCCUR OR AS APPROVED BY THE INSPECTOR.

3. PORTABLE SEDIMENT TANK SHALL BE AN ABOVE GROUND HORIZONTAL SINGLE-WALL UL-142 MANUFACTURED BY HIGHLAND TANK OR WEIR BOX MANUFACTURED BY RAIN FOR RENT OR EQUIVALENT.

GENERAL NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTIES AT ALL TIMES.

2. REFER TO SPECIFICATION SECTION 01001 AND 01520 FOR DETAILED REQUIREMENTS FOR SEQUENCE OF CONSTRUCTION AND CONSTRUCTION CONSTRAINTS.

3. SITE INFORMATION HAS BEEN PROVIDED BY SITE SURVEY PREPARED BY XXXX. SURVEYING, LLC DATED FEBRUARY 2013.

4. HORIZONTAL CONTROL IS REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

5. RECORD DRAWINGS USED FOR EXISTING FEATURES: XXXXX. RECORD DRAWINGS MAY BE OBTAINED FROM THE OWNER UPON REQUEST.

6. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.

7. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.

8. ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND/OR DAMAGE.

9. THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT GUARANTEED. THEREFORE THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.

10. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT PHONE NUMBER 811 OR 1-800-432-4770 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION, INCLUDING SOIL DRILLING. THE CONTRACTOR SHALL ALSO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BURIED UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.

11. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN OR AROUND EXISTING CITY-OWNED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST TWO BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION WITHIN TEN FEET OF A CITY-OWNED UTILITY SO THAT A CITY REPRESENTATIVE MAY BE PRESENT.

12. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

13. WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLE(S) WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OF THE WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.

14. DURING EXCAVATION AND PLACEMENT OF UTILITIES THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHEET PILING, SHORING AND/OR BRACING DESIGNS AS MAY BE NECESSARY TO COMPLY WITH THESE REGULATIONS.

15. GROUNDWATER FROM ALL DEWATERING OPERATIONS SHALL BE DISCHARGED TO AN ENVIRONMENTALLY ACCEPTABLE LOCATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.

16. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS GENERATED DURING THE PROJECT OFF SITE AT A PROPERLY PERMITTED DISPOSAL FACILITY.

17. FOR REFERENCE MONUMENTS, SEE DRAWING (EX. CONDITIONS DWG # THAT SHOWS MONUMENTS).

18. THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.

19. THE UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS, EXISTING RIGHT-OF-WAY OR APPROVED EASEMENT. THE CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

20. ALL RESTORATION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.

21. ALL LOOP DETECTORS, COMMUNICATION CABLES AND CONDUITS, IF DAMAGED BY THE CONTRACTOR'S ACTIVITIES, SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH BCTED AND FDOT REQUIREMENTS.

22. PIPING, FITTINGS, AND APPURTENANCES FOR DUCTILE IRON PIPE SHALL BE RESTRAINED JOINT WHERE SHOWN ON THE PLANS.

23. RESILIENT SEATED GATE VALVES WITH BEVEL TYPE GEAR SHALL BE INSTALLED IN HORIZONTAL ORIENTATION WHEN LESS THAN 7-FEET OF COVER FROM TOP OF PIPE IS PRESENT.

24. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING PERMISSION AND A CONSTRUCTION METER FROM THE CITY OF FORT LAUDERDALE.

25. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING, MOVING AND RELOCATING OR REPLACING ALL WATER SERVICES OR SEWER LATERALS WHICH ARE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN FOR WATER SERVICE AND WASTEWATER SERVICE DISRUPTION FOR APPROVAL 7 (SEVEN) CALENDAR DAYS PRIOR TO THE ANTICIPATED DISRUPTION. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS 48 HOURS IN ADVANCE OF ANY WORK ON THEIR SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL.

26. THE CONTRACTOR MUST INFORM THE CITY AT LEAST 48-HOURS IN ADVANCE OF CONSTRUCTION, IN WRITING IF ANY CONFLICT IS DISCOVERED DURING POT HOLE OPERATIONS FOR CLARIFICATION BY THE CITY.

27. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITIES DEPARTMENT OF THE CITY OF FORT LAUDERDALE AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO COORDINATE ANY ACTIVITY TO BE PERFORMED BY THE CITY'S UTILITIES DEPARTMENT.

28. CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE EXISTING RIGHTS-OF-WAY.

29. ALL WORK WITHIN STATE DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH FDOT SPECIFICATIONS AND PERMIT REQUIREMENTS.

30. ALL WORK WITHIN BROWARD COUNTY RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH THE BROWARD COUNTY MINIMUM STANDARDS AND/OR REQUIREMENTS.

31. CONTRACTOR SHALL COMPLY WITH ALL LOCAL CITY, COUNTY AND STATE REGULATIONS PERTAINING TO THE CLOSING OF PUBLIC STREETS FOR USE OF TRAFFIC DURING CONSTRUCTION.

32. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC (MOT) PLANS TO FDOT, CITY OF FORT LAUDERDALE, BROWARD COUNTY AS REQUIRED FOR WORK TO BE DONE WITHIN THEIR R/W PRIOR TO COMMENCEMENT OF WORK. SPECFIC AGENCY MOT REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

33. CONTRACTOR SHALL SUBMIT MOT PLANS FOR APPROVAL BY THE CITY WHEN WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.

34. STATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE ESTABLISHED BASELINE AND SHALL NOT BE CONSIDERED AS DISTANCES OR AS A MEASURE OF THE LINEAR FOOTAGE OF PIPE TO BE INSTALLED.

35. THE GENERAL INTENT IS TO PROVIDE SEWER SERVICE LATERALS FOR EACH PROPERTY. ALL LATERAL LOCATIONS SHALL BE FIELD ADJUSTED.

36. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.

37. TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS SHALL NOT BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT ADEQUATE PROTECTION.

38. CONTRACTOR SHALL PROMPTLY REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, DRIVEWAYS, PIPES, RESIDENTIAL AND COMMERCIAL SPRINKLER LINES, CONDUIT, CABLES, ETC. AND LANDSCAPE AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.

39. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS REQUIRED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT AND/OR WHEN REQUIRED FOR PUBLIC SAFETY.

40. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.

41. LOCATION OF AIR RELEASE VALVES MAY BE FIELD ADJUSTED BY THE ENGINEER OR CITY OF FORT LAUDERDALE AS NECESSARY.

42. CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND HOLES, PULL BOXES, INLETS AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAYED WITH ASPHALT.

43. EXISTING TRAFFIC SIGNS SHALL BE RESET UPON COMPLETION PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS. COST SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED TRAFFIC SIGNAL LOOPS PER BROWARD COUNTY TRAFFIC ENGINEERING SPECIFICATIONS; COST SHALL BE INCIDENTAL.

44. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT AND PAVEMENT MARKINGS/SIGNAGE TO ORIGINAL PRE-CONSTRUCTION CONDITION OR AS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL.

45. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS, AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W's WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH FDOT STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.

46. THE CONTRACTOR SHALL SUBMIT ALL REQUIRED SHOP DRAWINGS FOR CITY APPROVAL PRIOR TO ORDERING MATERIALS AND INSTALLATION.

47. EXISTING GAS MAINS SHALL BE IDENTIFIED BY THE APPROPRIATE UTILITY, PRIOR TO START OF CONSTRUCTION.

TRAFFIC CONTROL PLAN NOTES:

1. THE TRAFFIC CONTROL PLANS FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 600-660. MUTCD AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS SHALL BE NO MORE THAN TWO (2) HOURS AND SHALL RESTORE ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTIONING WITHIN TWENTY-FOUR (24) HOURS. DURING THIS TIME THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGLER PERSONNEL AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE AFFECTED WORK ZONE. THE ENGINEER OR THE CITY OF FORT LAUDERDALE SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.

2. THE CONTRACTOR SHALL MAINTAIN PROPER OPERATION OF ALL TRAFFIC SIGNAL LOOP ASSEMBLIES AND LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CORRECT ALL LOOP ASSEMBLY/DETECTOR MALFUNCTIONS WITHIN 24 HOURS OF NOTIFICATION OF SUCH MALFUNCTIONS BY THE ENGINEER.

3. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.

4. A REGULATORY SPEED OF 25 MPH SHALL BE POSTED WITHIN THE LIMITS OF THE WORK ZONE.

5. EXISTING SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH CONSTRUCTION SIGNS AND MARKINGS SHALL BE REMOVED DURING CONSTRUCTION. ALL EXISTING SIGNS THAT ARE REMOVED SHALL BE STOCKPILED IN A SECURE PLACE AND REINSTALLED AFTER CONSTRUCTION. REMOVE AND REPLACE ANY GROUND MOUNT SIGN BY USE OF INDEX NO. 611.

6. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.

7. THE CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY OF FORT LAUDERDALE FOR ANY AND ALL CONSTRUCTION ACTIVITIES TO BE PERFORMED AT NIGHT. NO LANE CLOSURE SHALL BE ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY UNLESS APPROVED BY THE ENGINEER.

8. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE SPECS FOR LIST OF UTILITY COMPANIES.

9. TRAFFIC CONTROL ON ALL COUNTY RIGHTS-OF-WAY SHALL MEET THE ADDITIONAL REQUIREMENTS OF THE BROWARD COUNTY ENGINEERING DEPARTMENT.

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

11. THE CONTRACTOR SHALL ALSO COORDINATE THE CONSTRUCTION SCHEDULE WITH FDOT, BROWARD COUNTY AND THE CITY OF FORT LAUDERDALE TO AVOID LANE CLOSURES WHICH WOULD ADVERSELY AFFECT TRAFFIC DURING RUSH HOUR.

FDOT GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY SHALL CONFORM TO FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (2010 EDITION). STANDARD SPECIFICATIONS (2010 EDITION) AND THE SUPPLEMENTS THERETO.

2. THE APPLICANT'S ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION SHALL INSURE THAT THE MAINTENANCE OF TRAFFIC PLAN (MOT) FOR THE PROJECT IS IN ACCORDANCE WITH THE APPLICABLE FDOT INDEX NUMBER (600 SERIES) AND THIS DOCUMENT: THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (D.S. DEPARTMENT OF TRANSPORTATION, FHWA).

3. AT THE END OF EACH WORK PERIOD, ANY DROP-OFF IN THE AREA ADJACENT TO THE TRAVEL WAY OF THE STATE ROAD SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD INDEX 600 OR SHALL BE OTHERWISE PROTECTED WITH TEMPORARY BARRIER WALL AT THE CONTRACTOR'S EXPENSE.

4. IF THE PERMITTED WORK IS ON A ROADWAY THAT HAS BEEN SELECTED AS A HURRICANE OR DISASTER EVACUATION ROUTE, THE APPLICANT, AT THE PRE-CONSTRUCTION CONFERENCE IS REQUIRED TO PRESENT, AS PART OF THE WORK PLAN, AN EMERGENCY FUNCTIONAL RESTORATION PLAN TO ADDRESS EVENTUALITIES SUCH AS HURRICANES.

5. THE CONTRACTOR MUST CALL THE APPROPRIATE COUNTY TRAFFIC ENGINEERING DIVISION, HAVING JURISDICTION OVER THE PROJECT AT LEAST 48 HOURS, BEFORE ANY EXCAVATION WITHIN THE FDOT RIGHT-OF-WAY TO DETERMINE THE LOCATION OF THE EXISTING TRAFFIC SIGNAL INTERCONNECT CABLE.

6. THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION DURING CONSTRUCTION. RELOCATION OF UTILITIES SHALL BE COORDINATED WITH UTILITY COMPANIES AFTER IDENTIFICATION OF CONFLICT BY CONTRACTOR. CONTRACTOR WILL NOTIFY ENGINEER IN ADVANCE BEFORE ANY RELOCATION.

7. BEFORE PERMIT APPROVAL AND CONSTRUCTION OF THIS PROJECT, THE APPLICANT MUST CONTACT THE FLORIDA DEPARTMENT OF TRANSPORTATION LOCAL MAINTENANCE OFFICE TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE TELEPHONE NUMBER IS 954-776-4300 OR 1-800-300-8236. THE APPLICANT AT THE EARLIEST CONVENIENT TIME SHALL NOTIFY IN WRITING ALL RIGHT-OF-WAY USERS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.

8. ALL MOT LANE CLOSURE SIGNS SHALL BE COVERED WHEN LANES ARE NOT CLOSED. NO LANES ARE TO BE CLOSED EXCEPT AT TIMES PRESCRIBED BY THE DEPARTMENT.

9. SODDING SHALL BE IN ACCORDANCE WITH SECTION 575.

10. ALL CURB CUT RAMPS MUST FACE IN THE DIRECTION OF PEDESTRIAN TRAVEL.

11. SPECIFY THE ALPHANUMERIC IDENTIFICATION FOR THE CURB CUT RAMPS PER STANDARD INDEX 304. A COPY OF THE APPROPRIATE DETAIL(S) MUST BE SHOWN ON THE PLANS.

12. FLAGGERS MUST BE PRESENT DURING THE INGRESS AND EGRESS OF CONSTRUCTION VEHICLES TO AND FROM THE PROJECT SITE. WARNING SIGNS MUST BE ERECTED ADVISING MOTORIST OF TRUCKS ENTERING THE HIGHWAY.

FDOT SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE FOLLOWING AREAS WITHIN THE PROJECT LIMITS ARE DESIGNATED AS SAFE ROUTES TO SCHOOL BY THE BROWARD COUNTY SCHOOL BOARD (AREAS TO BE PROVIDED BY BCTED):
   A. DATA TO BE SUPPLIED BY BCTED
   B. DATA TO BE SUPPLIED BY BCTED

2. WITHIN THESE AREAS THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING REQUIREMENTS:

3. PROVIDE AT LEAST ONE SAFE, WALKABLE PATH THROUGHOUT THE CONSTRUCTION ZONE. IF THE EXISTING WALKING SURFACES CANNOT BE MAINTAINED, THEN A TEMPORARY PATH, A MINIMUM OF 4 FOOT WIDE, SHALL BE PROVIDED. THE SAFE WALK ROUTE SHALL ALSO BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS. THE CONTRACTOR SHALL ALSO INSTALL OR MODIFY ANY ADDITIONAL PAVEMENT MARKINGS, SIGNAGE OR PEDESTRIAN SIGNALS AS NEEDED IN CONJUNCTION WITH THE TEMPORARY PATH.

4. ON DAYS THAT SCHOOL IS IN SESSION, THE CONTRACTOR'S WORK SCHEDULE WITHIN THE SCHOOL ZONE MAY BE REDUCED BASEDON ACTUAL WORK ACTIVITIES IN THE SCHOOL ZONE. SEE MAINTENANCE OF TRAFFIC PLANS FOR DETAILS ON THE WORK ZONE RESTRICTIONS, IF WARRANTED. ANY CHANGES IN THE MAINTENANCE OF TRAFFIC WORK SCHEDULES WITHIN SCHOOL ZONES SHOULD BEDISCUSSED WITH THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING, (954) 847-2600.

5. ALL WORK REQUIRED AT DESIGNATED SCHOOL CROSSINGS AND PEDESTRIAN CROSSINGS SHALL BE RESTORED TO A SAFE WALKABLE PATH DURING ARRIVAL AND DISMISSAL TIMES.

6. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-600, TO DISCUSS ALL NECESSARY SAFETY MEASURES.

7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES.

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

8. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRECONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

BROWARD COUNTY SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE MAINTENANCE OF TRAFFIC PLAN, PROVIDED BY THE CONTRACTOR, SHALL INCLUDE PROVISIONS FOR PEDESTRIAN AND/OR SCHOOL STUDENT TRAFFIC AS WELL AS VEHICULAR TRAFFIC. THE FOLLOWING ARE MINIMUM REQUIREMENTS:

2. THE SAFE WALK ROUTE FOR ALL SCHOOL STUDENTS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED DURING STUDENT ARRIVAL AND DISMISSAL TIMES. IF THE CURRENT WALKING SURFACE CANNOT BE MAINTAINED, THEN A TEMPORARY WALKABLE SURFACE SHALL BE CREATED. THE SAFE WALK ROUTE SHALL BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS.

3. ALL CONSTRUCTION EQUIPMENT ACTIVITY AROUND ANY DESIGNATED CROSSWALK SHALL CEASE TO OPERATE DURING THE STUDENT ARRIVAL AND DISMISSAL TIMES. ALL CONSTRUCTION EQUIPMENT ACTIVITY ADJACENT TO A DESIGNATED WALK ROUTE SHALL CEASE OPERATING UNLESS SATISFACTORILY BARRICADED FROM THE WALK ROUTE.

4. IN THE CASE THAT A DESIGNATED CROSSING OR ANY PORTION OF THE DESIGNATED WALK ROUTE CANNOT BE MAINTAINED, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO CLOSING THAT ROUTE IN ORDER TO ESTABLISH AN ALTERNATE CROSSING/ROUTE.

5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ANY NECESSARY PAVEMENT, ROAD ROCK, PAVEMENT MARKINGS AND SIGNAGE AND/OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN EXISTING OR ALTERNATE WALK ROUTE THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STATE CERTIFIED SCHOOL CROSSING GUARDS OR OFF DUTY POLICE OFFICERS TO CROSS STUDENTS AT ALL LOCATIONS OTHER THAN THOSE PREVIOUSLY DESIGNATED. THE CONTRACTOR MAY USE FLAGMEN, BUT ONLY IF THEY ARE STATE CERTIFIED AS A SCHOOL CROSSING GUARD.

7. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600 OR AT BROWARD@TRAFFIC.ORG TO DISCUSS ALL NECESSARY SAFETY MEASURES.

8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES:

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

9. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRE-CONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN APPROVED MAINTENANCE OF TRAFFIC PLAN (MOT), SPECIFYING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS, THROUGH THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION OR THE LOCAL MUNICIPALITY, DEPENDING ON THE ROADWAY JURISDICTION. THE CONDITIONS OUTLINED IN THE MOT ARE FULLY EFFECTIVE AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL WORK ASSOCIATED WITH THE PROJECT IS IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE APPROVED MOT.

11. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO SPEED LIMIT SIGNS INSTALLED WITHIN THE DESIGNATED REDUCED SPEED SCHOOL ZONE AT ANY TIME THROUGHOUT THE PROJECT.

BROWARD COUNTY COMMUNICATION NOTES:

1. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). ALL SYSTEM COMMUNICATIONS EQUIPMENT, CABLING AND RELATED MATERIAL SHALL COMPLY WITH BROWARD COUNTY'S LATEST EDITION OF THE MINIMUM STANDARDS AS EXPRESSED IN THE "STANDARDS AND SPECIFICATIONS - COMMUNICATION INFRASTRUCTURE" DOCUMENT. PLEASE REFER TO (BCTED'S) COMMUNICATIONS POLICIES AND PROCEDURES FOR ADDITIONAL INFORMATION. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION WILL NOT ACCEPT ANY PROJECTS THAT DO NOT MEET THESE STANDARDS AND SPECIFICATIONS. IF FIBER OPTIC PULL BOXES ALREADY EXIST AT AN INTERSECTION, NO ADDITIONAL FIBER OPTIC PULL BOXES WILL NEED TO BE INSTALLED. FOR A COPY OF THESE STANDARDS REFER TO THE BROWARD COUNTY WEB SITE AT WWW.BROWARD.ORG/TRAFFIC UNDER PUBLICATIONS.

2. IF THERE ARE COPPER INTERCONNECT CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

3. IF THERE ARE FIBER OPTIC CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

4. IF THERE ARE CELLULAR COMMUNICATIONS WITHIN YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

5. ALL BCTED COMMUNICATIONS CABLES/CONDUIT SHALL BE LOCATED A MINIMUM OF 48 HOURS IN ADVANCE.

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
PROCEDURE FOR NOTIFICATION OF COMMUNICATION DISRUPTION

COPPER INTERCONNECT CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE TRAFFIC SIGNAL TECHNICIAN III AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

FIBER OPTIC CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

UTILITY OWNER CONTACT PERSON:

INTERCONNECT COMMUNICATIONS CABLES - (ROBERT BLOUNT) BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) 954-847-2745

SCHOOL ZONE INSTALLATION REQUIREMENTS WITHIN BROWARD COUNTY:

1. THE CONTRACTOR SHALL BE GOVERNED BY THE LATEST EDITIONS OF THE FOLLOWING MANUALS:

   A. THE FDOT DESIGN STANDARDS

   B. THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

   C. THE BROWARD COUNTY MINIMUM STANDARDS APPLICABLE TO PUBLIC RIGHTS-OF-WAY

2. FOR THE LATEST EDITION OF SCHOOL FLASHER DETAIL SHEETS AND MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIANS NOTES, SEE THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION'S WEB SITE AT:
   HTTP://WWW.BROWARD.ORG/TRAFFIC/PAGES/PUBLICATIONS.ASPX.

3. THE “MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIAN” NOTES SHALL APPEAR ON THE PLAN AS INDICATED. DEPENDING ON THE JURISDICTION OF THE ROADWAY THE CONTRACTOR WILL UTILIZE EITHER THE BCTED OR FDOT VERSION, WHICH WILL BE DETERMINED BY THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED.

4. SCHOOL FLASHER PLANS ARE VALID FOR EIGHTEEN (18) MONTHS FROM DATE OF APPROVAL. AFTER THAT DATE, PLANS SHALL BE RESUBMITTED FOR APPROVAL.

5. NO SCHOOL FLASHER AND/OR ASSOCIATED EQUIPMENT SHALL BE PLACED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY OR ON PRIVATE PROPERTY WITHOUT THE PRIOR ACQUISITION OF THE NECESSARY TRAFFIC ENGINEERING EASEMENTS BY THE CONSULTANT/CONTRACTOR. THESE EASEMENTS SHALL BE LARGE ENOUGH TO ALLOW ACCESS TO THE TRAFFIC ENGINEERING EQUIPMENT BY TECHNICIANS AND BY LARGER VEHICLES WHICH MAY REQUIRE ACCESS TO THE EQUIPMENT. THE SIZE AND LOCATION OF THE EASEMENTS WILL BE DETERMINED ON A CASE-BY-CASE BASIS. THE EASEMENTS SHALL BE RECORDED DOCUMENTS AND A COPY OF THE FULLY EXECUTED RECORDED EASEMENT SHALL BE PROVIDED TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR PRIOR TO INSTALLATION.

6. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED FOR APPROVAL, ALL OF THE EQUIPMENT SPECIFICATIONS (I.E. SHOP DRAWINGS) FOR ALL MATERIALS PROPOSED FOR THE PROJECT. SEE SECTION 603 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR SUBMITTAL DATA REQUIREMENTS. INCLUDED IN THE SUBMITTAL SHALL BE SHOP DRAWINGS FOR GROUND MOUNT AND/OR MAST ARM DETAILS, AS APPLICABLE.

7. IF ELECTRICAL SERVICE IS REQUIRED, THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO BCTED, SYSTEMS SECTION - DESIGN ENGINEER, TO PROVIDE BILLING AUTHORIZATION TO FPL. THIS IS REQUIRED BEFORE ELECTRICAL SERVICE CAN BE OBTAINED. THE REQUEST SHALL INCLUDE A STATEMENT CERTIFYING THAT THIS ELECTRICAL INSTALLATION MEETS OR EXCEEDS ALL APPLICABLE REQUIREMENTS OF ALL APPLICABLE CODES AND IS NOW READY FOR CONNECTION TO FPL FACILITIES. ALSO INCLUDE THE DATE SERVICE IS REQUIRED BY IN THE REQUEST.

8. THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED EITHER BY FAX; 954-847-2700 OR E-MAIL; TRAFFIC@BROWARD.ORG TO SCHEDULE AN INSPECTION OF THE COMPLETE INSTALLATION, INCLUDING THE INTERIM SIGNING AND PAVEMENT MARKING PLAN. ACTIVATION OF THE FLASHERS SHALL ONLY BE PERMITTED AFTER SAID INSPECTION.

9. THE CONTRACTOR SHALL PROVIDE SIX (6) SETS OF MARKED UP (AS-BUILT) CONSTRUCTION PLANS TO THE ENGINEER AND BCTED AS DEFINED IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 611, SEVEN (7) DAYS PRIOR TO SCHOOL FLASHER CONDITIONAL ACCEPTANCE INSPECTION BY BCTED. THE CONTRACTOR SHALL ALSO PROVIDE TWO SETS OF AS-BUILT PLANS TO BCTED SIGNAL TECHNICIAN AT THE TIME OF INSPECTION. TWO COPIES OF CABINET PRINTS, TWO SETS OF CABINET KEYS AND PAGER/TIME SWITCH OPERATION MANUALS FOR EACH LOCATION SHALL ALSO BE TURNED OVER AT THIS TIME.

10. THE CONTRACTOR IS ADVISED THAT THE PRESENCE OF OVERHEAD ELECTRICAL CONDUCTORS IN CLOSE PROXIMITY TO THE LOCATIONS OF PROPOSED SCHOOL FLASHERS MAY LIMIT THE TYPE OF EQUIPMENT THAT CAN BE USED IN CONSTRUCTION OF THE SCHOOL FLASHER. THE CONTRACTOR SHALL COORDINATE WITH FPL TO DEACTIVATE LINES IF NECESSARY.

11. ALL SIGN ASSEMBLIES SHOWN OR NOTED ON THE PLAN SHEETS FOR REMOVAL SHALL BE DELIVERED TO THE BCTED OPERATIONS BUILDING, 2300 WEST COMMERCIAL BLVD., FORT LAUDERDALE. EXISTING FLASHERS ARE NOT TO BE REMOVED UNTIL AFTER THE NEW UNIT HAS PASSED ITS FINAL INSPECTION.

12. SIGN LOCATIONS MAY BE VARIED IN THE FIELD AS NECESSARY IN ORDER TO AVOID CONFLICTS WITH UNFORESEEN OBSTACLES, DRIVEWAYS, ETC. ANY SIGN LOCATION VARIATIONS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHOWN ON THE AS BUILTS.

DRAINAGE NOTES:

1. DRAINAGE PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) OR REINFORCED CONCRETE (RCP), THE USE OF RCP PIPE FOR PUBLIC ROADWAY CROSSINGS IS PREFERRED.

2. CATCH BASINS, INLETS AND JUNCTION BOXES SHALL NOT BE INSTALLED IN DRIVEWAYS.

3. PRIOR TO BACKFILLING EXFILTRATION TRENCHES, DRAINAGE INLETS OR MANHOLES, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING INSPECTOR FOR AN INSPECTION.

4. DRAINAGE STRUCTURES SHALL BE CLEANED PRIOR TO ACCEPTANCE BY CITY.

5. ALL PIPES SHALL BE LAID IN DRY TRENCH. ALL MUCK OR UNSUITABLE MATERIALS IN TRENCHES, INLETS OR MANHOLES SHALL BE REMOVED AND BACKFILLED WITH SELECTED MATERIAL APPROVED BY THE ENGINEER.

6. MINIMUM COVER FOR HDPE PIPE UNDER ASPHALT SHALL BE 24-INCH COMPACTED LIMEROCK BASE. MINIMUM COVER FOR PIPE UNDER GRASS SHALL BE 18" COMPACTED SUBGRADE.

7. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.

8. MAINTENANCE ACCESS SHALL BE PROVIDED ON BOTH SIDES OF EXFILTRATION TRENCHES IN THE FORM OF MANHOLES OR CATCH BASINS. THE MAXIMUM DISTANCE BETWEEN STORM STRUCTURES SHALL NOT EXCEED TREE HUNDRED (300) FEET).

9. ALL EXFILTRATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION DOCUMENT TITLED "DRAINAGE DESIGN GUIDE", LATEST EDITION.

10. GEOTEXTILE MATERIALS USED IN THE CONSTRUCTION OF EXFILTRATION TRENCHES SHALL BE IN ACCORDANCE WITH THE CRITERIA OF FLORIDA DEPARTMENT OF TRANSPORTATION'S DESIGN STANDARDS LATEST EDITION AND CITY OF FORT LAUDERDALE'S SPECIFICATIONS.

DEMOLITION NOTES:

GENERAL DEMOLITION SPECIFICATIONS:

1. THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS 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.

2. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES AND OTHER FEATURES AFFECTING THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MIGHT IMPACT THE WORK.

3. CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.

4. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.

5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION, AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.

6. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED.

7. THE FOLLOWING LIST OF STRUCTURES REQUIRING DEMOLITION IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE DRAWINGS INDICATE THE SCOPE OF DEMOLITION WHERE DEMOLITION IS REQUIRED.

   7.1. DEMOLITION AND REMOVAL OF A 5' MIN.± STRIP OF EXISTING ON-SITE ASPHALT, CONCRETE AND CURBING AROUND THE PERIMETER OF THE EXISTING STRUCTURES AND UTILITIES BEING DEMOLISHED.

   7.2. REMOVAL OF EXISTING ON-SITE ABOVEGROUND AND UNDERGROUND UTILITIES, INCLUDING REMOVAL OR PLUGGING OF EXISTING UTILITIES AS SHOWN ON PLANS.

8. PRIOR TO REMOVAL OF ANY UNDERGROUND TANK AND OTHER COMPONENT, CONTRACTOR MUST COMPLETELY DRAIN THE SYSTEMS TO AN APPROVED SANITATION TANK FOR DISPOSAL TO AN APPROVED LOCATION, AS REQUIRED BY DISPOSAL PERMIT.

9. PROTECT ALL UTILITIES, UNLESS OTHERWISE NOTED.

10. ALL THE CONCRETE AND PAVEMENT TO BE REMOVED MUST BE SAW CUT CLEAN PRIOR TO REMOVAL.

11. WET DOWN MASONRY WALLS AND DEBRIS DURING DEMOLITION AND LOADING OPERATIONS TO PREVENT THE SPREAD OF DUST (AS APPLICABLE TO PROJECT).

12. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER ON-SITE EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR (AS APPLICABLE TO PROJECT).

13. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ON THE DRAWINGS ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.

14. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO REMOVAL OR RELOCATION OF ANY ELECTRICAL, TELEPHONE, CABLE AND/OR GAS LINES. SUFFICIENT TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.

15. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER/ENGINEER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINANT IS ENCOUNTERED DURING THE DEMOLITION/EXCAVATION PROCESS.

16. FILL FOR LOWER LEVELS OF DEMOLISHED STRUCTURES MAY INCLUDE CONCRETE OR MASONRY RUBBLE RESULTING FROM DEMOLITION, SUBJECT TO THE ENGINEER'S/ARCHITECT'S APPROVAL. RUBBLE SHALL PASS THROUGH A THREE-INCH RING.

17. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.

18. MAINTAIN ACCESS TO SURROUNDING PROPERTIES AND BUILDINGS.

19. PRIOR TO DEMOLITION OCCURRING ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

20. ALL TRAFFIC SIGNS OUTSIDE THE DEMOLITION AREA ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.

21. ANY MUCK ENCOUNTERED UNDER PROPOSED STRUCTURES SHALL BE REMOVED TO FIVE-FEET BEYOND THE FOOTPRINT OF THAT STRUCTURE. BACKFILL WITH APPROVED FILL MATERIAL SATISFYING ALL COMPACTION REQUIREMENTS.

22. ALL EXISTING UTILITIES WITHIN THE DEMOLITION SITE AREA SHALL BE ADJUSTED, REMOVED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. WORK SHALL BE COORDINATED BY THE CONTRACTOR DIRECTLY WITH THE APPROPRIATE UTILITY COMPANY. ALL EXPENSES SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

23. ALL TRASH, DEBRIS AND OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

PRE-DEMOLITION RESPONSIBILITIES :

1. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE-DEMOLITION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND THE CONTRACTOR.

2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK.

3. PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE FOR THE OWNER A LISTING OF THE FACILITIES THE CONTRACTOR SHALL UTILIZE FOR RECYCLING AND DISPOSAL OF SPECIFIC MATERIALS. CONTRACTOR TO INDICATE THE MATERIALS INTENDED FOR RECYCLING AND THE MATERIALS INTENDED FOR DISPOSAL FOR OWNER'S APPROVAL.

4. PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE THE OWNER SKETCHES SHOWING PROPOSED HAULING ROUTES TO RECYCLING AND DISPOSAL FACILITIES FOR APPROVAL.

5. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF DEMOLITION.

6. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE CITY AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.

8. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY.

9. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL FIELD LOCATE EXISTING UNDERGROUND UTILITIES WITH THE UTILITY OWNERS.

10. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATION'S OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE IMPACT ON DEMOLITION SCHEDULE. ANY DELAY CAUSED BY THE CONTRACTOR BY THE RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

11. SUNSHINE STATE ONE CALL OF FLORIDA, INC. REQUIRES THE CONTRACTOR TO CALL TWO (2) FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) PRIOR TO BREAKING GROUND TO FIND OUT WHERE BURIED FACILITIES (ELECTRICAL, GAS, TELEPHONE, CABLE, WATER) ARE LOCATED.

DEMOLITION SAFETY:

1. ALL DEMOLITION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.

2. PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS. STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT.

3. BUILDING MATERIALS TO BE REMOVED SHALL BE TESTED FOR ASBESTOS AND LEAD PAINT.

4. IF PETROLEUM PRODUCTS ARE FOUND WHILE DEMOLISHING, DISPOSE OF PETROLEUM WASTE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

PAVEMENT DEMOLITION:

1. WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW-CUT THE SURFACING LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF DEMOLITION RESULTS IN RAVELING OF SAW CUT SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.

2. WHERE EXISTING PAVEMENT, CURB, CURB AND GUTTER, SIDEWALK, DRIVEWAY, OR VALLEY GUTTER IS REMOVED FOR INLETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES, SAID PAVEMENT, ETC., SHALL BE REPLACED WITH NEW PAVEMENT, ETC. CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPPLIES, AND OTHER EQUIPMENT AS REQUIRED.

3. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE DRAWINGS. HOWEVER, IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, BUILDINGS, UTILITIES, ETC., THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPLACEMENT. REPLACEMENT PAVEMENT, SIDEWALK, ETC., SHALL BE NEW.

DEMOLITION PERMITTING:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITS FOR DEMOLITION FROM RESPONSIBLE REGULATORY AGENCIES WHILE FULLY ACKNOWLEDGING AND COMPLYING WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.

2. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION, RECYCLING OR REUSE REQUIRED TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL THE INFORMATION WITHIN THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.

3. THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO COMMENCEMENT OF ANY WORK. ACTUAL REMOVAL AND/OR RELOCATION OF ALL EXISTING LANDSCAPING WITHIN DEMOLITION AREAS TO BE CONDUCTED BY A LANDSCAPE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE SITEWORK DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION ACTIVITIES WITH THE LANDSCAPE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PRESERVING TREES AS INDICATED ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TREE REMOVAL PERMIT OR ANY OTHER APPLICABLE PERMIT TO REMOVE, RELOCATE, OR PRESERVE EXISTING LANDSCAPE AND TREES.

4. ANY TREES FOR REMOVAL FOUND TO BE GREATER THAN OR EQUAL TO THREE (3) INCHES IN DIAMETER AT BREAST HEIGHT (DBH) SHALL REQUIRE A PERMIT WITH THE BROWARD COUNTY ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT DEPARTMENT (BCEPGMD).

5. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE THE LIGHTING, STORM INLET STRUCTURES, OR OTHER STRUCTURES DESIGNATED TO BE SAVED, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

DEMOLITION EROSION AND SEDIMENT CONTROL NOTES :

1. THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO THE FINAL DEFINITION BY THE CONTRACTOR WHO SHALL BE SELECTED TO PERFORM THE WORK AND SHALL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.

2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN ENCOMPASSING THE PRINCIPALS AND THE REQUIREMENTS DESCRIBED HEREIN AND A SCHEDULE FOR THEIR IMPLEMENTATION AND MAINTENANCE FOR THE PROJECT DURATION.

3. DURING DEMOLITION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEMS AND ADJACENT WATER BODIES AND WETLANDS, IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.

4. METHODS MAY INCLUDE TEMPORARY EROSION AND SEDIMENT CONTROLS SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THE BEST MANAGEMENT PRACTICES AVAILABLE TO THE INDUSTRY.

5. EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED THROUGHOUT THE DEMOLITION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.

6. THROUGHOUT THE DEMOLITION PERIOD, THE CONTRACTOR SHALL INSPECT DAILY THE EROSION AND SEDIMENT CONTROL INSTALLATIONS FOR FAILURE OR SIGNS OF FAILURE OR MALFUNCTION. REPAIR OR REPLACE THE EROSION AND SEDIMENT CONTROL INSTALLATIONS IMMEDIATELY UPON DISCOVERY OF FAILURE OR MALFUNCTION.

7. INLETS AND CATCH BASINS, EXISTING ON-SITE AND OFF-SITE, SHALL BE PROTECTED FROM SEDIMENT STORM RUNOFF.

8. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MUD, DIRT OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES DUE TO DEMOLITION.

9. DEWATERING ACTIVITIES SHALL NOT RESULT IN ANY DISCHARGE OF TURBID WATER FROM THE PROJECT SITE WITHOUT PROPER EROSION AND SEDIMENT CONTROL AND APPROVAL FROM ENGINEER.

10. PHASING OF EROSION CONTROL DEMOLITION SHALL BE RECOMMENDED AS FOLLOWS:

    10.1. PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, HAY BALES, TURBIDITY BARRIERS, ETC.) AROUND ON-SITE FEATURES TO BE RETAINED, AT POINTS OF OFF-SITE DISCHARGE AND AROUND WORK AREAS TO BE EXCAVATED OR FILLED.

    10.2. REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEMOLITION AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY DEMOLITION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION OCCURS (AS APPLICABLE TO THE PROJECT).

10.3. SELECT LOCATIONS FOR PLACEMENT OF EXCAVATED MATERIAL, WHERE SUITABLE FOR FILL OR UNSUITABLE MATERIAL, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPING FOR THIS PURPOSE MAY ACCELERATE BERM REVEGETATION. CONSTRUCT TEMPORARY OUTLETS FOR CONTAINMENT AREAS WITH SCREENS, HAY BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORT.

10.4. SELECT / DESIGNATE ACCESS ROUTING FOR DEMOLITION EQUIPMENT AND VEHICLES AND PROVIDE PERIMETER PROTECTIVE MEASURES WHERE EXISTING TERRAIN SHALL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.

10.5. CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR DEMOLITION AREA RUNOFF. PROVIDE SCREENS, HAY BALES, ETC. TO FILTER DISCHARGE FROM THOSE AREAS.

10.6. SPOIL MOUNDS SHALL NOT BE LEFT FOR MORE THAN ONE WEEK PRIOR TO REPLACEMENT UNLESS PROTECTIVE CONTAINMENT MEASURES IN THE WORK AREA ARE APPLIED.

10.7. GRASSING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF REGRADING, SWALE SLOPES AND THE CONSTRUCTED OR DISTURBED AREAS.

11. THE CONTRACTOR IS REQUIRED TO ADHERE TO THE REQUIREMENT OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES). THE CONTRACTOR SHALL INSTITUTE BEST MANAGEMENT PRACTICES (BMPS) TO ENSURE COMPLIANCE WITH THE NPDES PROGRAM AND TO MINIMIZE THE IMPACT TO PUBLIC STORMWATER FACILITIES. A NOTICE OF INTENT (NOI) SHALL BE FILED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.

12. THE CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MAINTAIN ALL RECORDS REQUIRED BY ITS NPDES STORMWATER PERMIT FOR ITS CONSTRUCTION ACTIVITIES.

13. PRIOR TO CONSTRUCTION, A SILT FENCE IN ACCORDANCE WITH CITY'S DETAIL SHALL BE ERECTED AS NOTED ON PLANS. ALL PROPOSED CATCH BASINS SHALL HAVE THEIR INLETS PROTECTED BY THE INSTALLATION OF FILTER INLET INSERTS INTO THE FRAME AND GRATE. SILT FENCES AND FILTER INLET INSERTS SHALL REMAIN IN PLACE DURING THE ENTIRE DURATION OF CONSTRUCTION.

14. CONTRACTOR SHALL BRACE ALL EXISTING LANDSCAPING TO REMAIN PRIOR TO BEGINNING ANY WORK AND SHALL ENSURE ITS STABILIZATION THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EXISTING SOD DISTURBED BY CONSTRUCTION THAT IS NOT AFFECTED BY PROPOSED GRADING SHALL BE RESTORED TO NEW CONDITION UPON COMPLETION OF CONSTRUCTION. SODDED SLOPES STEEPER THAN FOUR HORIZONTAL TO ONE VERTICAL SHALL BE PEGGED.

15. ALL WASTE GENERATED FROM THE CONSTRUCTION SHALL BE DISCARDED IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. CONTRACTOR SHALL OBTAIN ALL APPLICABLE CODES AND BECOME FAMILIAR WITH STATE, LOCAL AND FEDERAL REGULATIONS PRIOR TO BEGINNING CONSTRUCTION.

16. TO ENSURE THAT OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST IS MINIMIZED, CONTRACTOR SHALL PUT INTO PRACTICE THE METHODS DETAILED IN FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 106 (2010 DESIGN STANDARDS) AND BMPS.

17. DUST GENERATED FROM CONSTRUCTION SHALL BE MINIMIZED BY DAILY WATERING OF THE SITE.

18. AT ANY TIME DURING CONSTRUCTION THAT THE SILT FENCING IS DISTURBED, THE SILT FENCING SHALL BE RESTORED TO ITS ORIGINAL STATE WITHIN 24 HOURS. AT NO TIME DURING CONSTRUCTION SHALL WORK BE PERFORMED WITHOUT THE INTEGRITY OF THE SILT FENCING SECURED.

19. A QUALIFIED INSPECTOR, PROVIDED BY THE CONTRACTOR, SHALL INSPECT ALL POINTS OF DISCHARGE INTO NEARBY SURFACE WATER. THE INSPECTION SHALL OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. INSPECTION INCLUDES THE WRITTEN RECORDING OF THE CONDITION OF ALL DISCHARGE POINTS, INTEGRITY OF SILT FENCING, DAILY DUST CONTROL MEASURES, VEHICULAR TRAFFIC AND CONSTRUCTION MATERIAL STORAGE AND DISPOSAL. WRITTEN RECORD OF ALL INSPECTIONS SHALL BE STORED BY THE CONTRACTOR.

20. THE INSPECTION REPORT SHALL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING INFORMATION: NAME AND QUALIFICATION OF PERSONNEL MAKING THE INSPECTION, DATE OF INSPECTION, RAINFALL DATE, MAJOR OBSERVATIONS RELATING TO THE SWPPP, ACTIONS TAKEN BY CONTRACTOR AND ANY INCIDENT OF NONCOMPLIANCE WITH PERMIT. WHERE AN INSPECTION DOES NOT IDENTIFY ANY INCIDENT OF NONCOMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT.

21. THE CONTRACTOR SHALL RETAIN A COPY OF THE SWPPP AND ALL REPORTS, RECORDS AND DOCUMENTATION REQUIRED BY THE PERMIT AT THE CONSTRUCTION SITE, OR AN APPROPRIATE ALTERNATIVE LOCATION AS SPECIFIED IN THE NOTICE OF INTENT, FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

22. THE CONTRACTOR SHALL RETAIN THE SWPPP, NOI AND ALL RECORDS ASSOCIATED THEREWITH FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED.

23. SEE LANDSCAPE PLANS FOR TREE REMOVAL AND LANDSCAPE DEMOLITION.

24. CONTRACTOR SHALL COORDINATE THROUGH CITY'S CONSTRUCTION DIVISION AND CITY'S PARKS DEPARTMENT ON HOW TO STOCK AND RE-USE EXCAVATED SOIL FROM SITE (AS APPLICABLE TO THE PROJECT).

INTERRUPTION OF EXISTING UTILITIES :

1. ANY DEMOLITION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR WRITTEN NOTICE TO, AND WRITTEN APPROVAL BY, THE APPROPRIATE UTILITY COMPANY.

2. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUT DOWN TO ASSESS THE SCOPE OF WORK.

3. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL-TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR.

4. EACH CUSTOMER AFFECTED BY THE SHUT-DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

TEMPORARY DEMOLITION FACILITIES :

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING DEMOLITION.

2. MAINTENANCE OF TRAFFIC (MOT) IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.

3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.

4. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS WRITTEN PERMISSION OF THE CITY OR RESPECTIVE GOVERNING AGENCY.

WASTE MANAGEMENT PLAN:

1. IMPLEMENT A WASTE MANAGEMENT PLAN FOR APPROVAL BY THE OWNER. PROVIDE HANDLING, CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION AND OTHER ITEMS AS NEEDED TO IMPLEMENT THE WASTE MANAGEMENT PLAN DURING THE ENTIRE DURATION OF THE CONTRACT.

2. DESIGNATE A WASTE MANAGEMENT COORDINATOR TO BE RESPONSIBLE FOR IMPLEMENTING, MONITORING AND REPORTING STATUS OF WASTE MANAGEMENT WORK PLAN. COORDINATOR SHALL BE PRESENT AT PROJECT SITE FULL-TIME FOR DURATION OF PROJECT.

3. TRAIN WORKERS, SUBCONTRACTORS AND SUPPLIERS ON PROPER WASTE MANAGEMENT PROCEDURES, AS APPROPRIATE FOR THE WORK AT THE PROJECT SITE.

4. DISTRIBUTE A WASTE MANAGEMENT PLAN BEFORE WORK BEGINS. REVIEW PLAN PROCEDURES AND LOCATION ESTABLISHED FOR SALVAGE, RECYCLING AND DISPOSAL.

RECYCLING DEMOLITION WASTE:

1. SEPARATE RECYCLABLE WASTE FROM OTHER WASTE MATERIALS, TRASH AND DEBRIS. SEPARATE RECYCLABLE WASTE BY TYPE AT THE PROJECT SITE TO THE MAXIMUM EXTENT PRACTICAL.

2. PROVIDE APPROPRIATELY MARKED CONTAINERS OR BINS FOR CONTROLLING RECYCLABLE WASTE UNTIL THEY ARE REMOVED FROM THE PROJECT SITE. INCLUDE A LIST OF ACCEPTABLE AND UNACCEPTABLE MATERIALS AT EACH CONTAINER AND BIN.

3. INSPECT CONTAINERS AND BINS FOR CONTAMINATION AND REMOVE CONTAMINATED MATERIALS IF FOUND.

4. STOCKPILE PROCESSED MATERIALS ON-SITE WITHOUT INTERMIXING WITH OTHER MATERIALS. PLACE, GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.

5. STOCKPILE MATERIALS AWAY FROM DEMOLITION AREA. DO NOT STORE WITHIN DRIP LINE OF REMAINING TREES.

6. STORE COMPONENTS OFF THE GROUND AND PROTECT FROM THE WEATHER.

7. REMOVE RECYCLABLE WASTE OFF THE OWNER'S PROPERTY AND TRANSPORT TO RECYCLING RECEIVER OR PROCESSOR.

8. ASPHALTIC CONCRETE PAVING: BREAK UP AND TRANSPORT PAVING TO ASPHALT RECYCLING FACILITY.

9. CONCRETE: REMOVE REINFORCEMENT AND OTHER METALS FROM CONCRETE AND SORT WITH OTHER METALS.

10. MASONRY: MASONRY WASTE SHALL INCLUDE WHOLE OR BROKEN BRICK AND CONCRETE MASONRY UNITS. WHOLE MASONRY UNITS SHALL BE CLEANED AND REUSED OR DONATED. BROKEN MASONRY SHALL BE CRUSHED AND USED AS FILL FOR OFFSITE AREAS. REMOVE METAL REINFORCEMENT, ANCHORS AND TIES FROM MASONRY AND SORT WITH OTHER METALS.

11. METALS: METALS FROM REINFORCED CONCRETE, REINFORCED MASONRY, STRUCTURAL STEEL MEMBERS, FLASHING AND SHEET METAL, CONDUIT PIPE, SIDING, PIPING AND WIRING SHALL BE SEPARATED BY TYPE.

12. STRUCTURAL STEEL: STACK MEMBERS ACCORDING TO THEIR SIZE, TYPE AND LENGTH.

13. NUTS AND BOLTS: REMOVE BOLTS, NUTS, WASHERS AND OTHER ROUGH HARDWARE.

14. SITE-CLEARING WASTE SHALL BE RECYCLED BY CHIPPING BRUSH, BRANCHES AND TREES, THEN HAUL TO WOOD RECYCLING CENTER.

DISPOSAL OF WASTE:

1. GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR OTHER PERMITTED DISPOSAL FACILITY.

2. EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF TO ACCUMULATE ON-SITE.

3. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT SHALL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.

4. BURNING: DO NOT BURN WASTE MATERIALS.

5. DISPOSAL: TRANSPORT WASTE MATERIALS OFF THE OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.

MINIMUM DENSITY REQUIREMENTS

LOCATION	MATERIAL	MINIMUM DENSITY (% OF MAX)	TESTING FREQUENCY
ROADS (INCLUDES SIDEWALKS, ASPHALT PATHS)	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL (MAXIMUM) ALONG THE LENGTH OF ROADWAY, SIDEWALK OR PATHWAY.
	SUBGRADE	98%	
	BASE	98%	
MANHOLES AND VAULTS (IN ROADS AND PARKING AREAS)	IN-PLACE SUBGRADE BENEATH STRUCTURES	95%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE BOTTOM OF THE STRUCTURE AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: PERFORM TESTING AT EACH STRUCTURE.
	BACKFILL BENEATH STRUCTURES	98%	
	BACKFILL AROUND STRUCTURES	98%	
	CRUSHED STONE BENEATH STRUCTURES	NOTE 6	
PARKING AREAS	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED EVERY 6,000 SQUARE FEET OF PARKING AREA.
	SUBGRADE	98%	
	BASE	98%	
UTILITY TRENCH BACKFILL	BEDDING AND BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE SPRING LINE AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL (MAXIMUM) ALONG THE LENGTH OF A PIPE INSTALLATION, AND BETWEEN EACH SET OF STRUCTURES SEPARATED BY LESS THAN 300 FEET.
ROADS AND PARKING	ASPHALT	94%	ASPHALT TESTING MAY BE DONE BY CORE SAMPLING OR NUCLEAR GAUGE DENSITY TESTING. ASPHALT TESTING SHALL BE AT MAXIMUM 300 LINEAR FOOT ALONG ROADWAYS AND 6,000 SQUARE FOOT INTERVALS FOR PARKING AREAS.

NOTES:

1. THE DENSITY REQUIREMENTS PRESENTED ASSUME DRY TRENCH CONDITIONS.
2. UNLESS INDICATED OTHERWISE IN THE SPECIFICATIONS, TESTING SHALL COMPLY WITH THE REQUIREMENTS PRESENTED IN THIS TABLE.
3. LIFT THICKNESSES FOR BASE, SUBGRADE AND BACKFILL SHALL BE AS INDICATED ON THE DETAILS OR DESCRIBED IN THE SPECIFICATIONS.
4. MAXIMUM DENSITY SHALL BE DETERMINED BY ASTM D 1557 OR AASHTO T180 (MODIFIED PROCTOR).
5. FIELD DENSITY TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D 1556 OR D 2922.
6. THE AGGREGATE SHALL BE COMPACTED TO A DEGREE ACCEPTABLE TO THE ENGINEER BY USE OF A VIBRATORY COMPACTOR AND/OR CRAWLER TRACTOR.

CONTROL LEGEND:

- A.T. AERIAL TARGET
- B.M. BENCH MARK
- D•H DRILL HOLE
- HUB & TACK
- IRON PIPE
- IRON ROD
- NAIL&TAB
- PERMANENT REFERENCE MONUMENT
- PERMANENT REFERENCE MONUMENT NAIL&TAB
- PKNAIL.SPIKE
- QUARTER SECTION CORNER
- SECTION CORNER

LEGEND:

- A/C AIR CONDITIONING UNIT
- AIR RELEASE VALVE
- ANCHOR
- BFP BACK FLOW PREVENTER
- BASKET BALL HOOP
- BOAT ANCHOR CLEAT
- BUILDING COLUMN/PILE
- BBQ GRILL
- BOLLARD
- CATV PEDESTAL
- CB CATCH BASIN
- CURB INLET
- COMMUNICATION MANHOLE
- V COMMUNICATION VAULT
- CONCRETE LIGHT POLE
- CONCRETE POST
- CONCRETE POWER POLE
- CROSS FITTING
- DDCV DOUBLE DETECTOR CHECK VALVE
- DECORATIVE/YARD LIGHT POLE
- DETECTOR CHECK VALVE
- ELECTRICAL OUTLET
- ELECTRICAL PEDESTAL
- ELECTRICAL PULL BOX
- E ELECTRICAL MANHOLE
- ELECTRICAL METER
- V ELECTRICAL VAULT
- FIRE HYDRANT
- FIBER OPTIC PEDESTAL
- FLAG FLAG POLE
- FM FORCE MAIN VALVE
- FC GAS FUEL CAP
- GAS MARKER
- GAS METER
- GAS GAS VALVE
- G GAS WELL
- GATE CONTROL BOX
- G GREASE TRAP MH
- HOSE BIBB

LEGEND:

- IRR IRRIGATION CONTROL VALVE
- LS LIFT STATION
- LS LIFT STATION CAN
- LP LP GAS TANK
- MAILBOX
- MAIL DROP BOX MAIL DROP BOX
- MARKER POST
- METAL LIGHT POLE
- M MONITORING WELL
- OUTFALL
- PARK BENCH
- PEDESTRIAN SIGNAL
- PILE
- PIN FLAG
- PIPE
- PARKING LIGHT 1 BULB
- PARKING LIGHT 1 BULB
- PARKING LIGHT 2 BULBS
- PARKING LIGHT 2 BULBS
- PARKING LIGHT 3 BULBS
- PARKING LIGHT 3 BULBS
- PARKING LIGHT 4 BULBS
- PARKING LIGHT 4 BULBS
- PM PARKING METER
- PM PARKING METER (DOUBLE)
- PLUG
- POST INDICATOR VALVE
- REDUCER
- RD ROOF DRAIN
- RAILROAD CROSSING GATE
- REDUCER FITTING
- SANITARY CLEAN OUT
- S SANITARY MANHOLE
- SANITARY WYE LATERAL
- SIAMESE VALVE
- SIGN
- SIGN DOUBLE POST
- SPOT-FLOOD LIGHT
- SPK SPRINKLER HEAD

LEGEND:

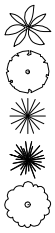
- SQUARE COLUMN
- STEEL I-BEAM
- CO STORM CLEAN OUT
- D STORM MANHOLE
- V STORM DRAINAGE VAULT
- TEE FITTING
- TELEPHONE BOOTH TELEPHONE BOOTH
- TELEPHONE JUNCTION BOX
- T TELEPHONE MANHOLE
- PAY PHONE TELEPHONE ON PEDESTAL
- TELEPHONE PEDESTAL
- TELEPHONE PULL BOX
- V TELEPHONE VAULT
- TH TEST HOLES
- TOWER TOWER
- TRAFFIC CONTROL
- TRAFFIC POLE
- TRAFFIC PULL BOX
- TRANS TRANSFORMER PAD
- TRASH CAN
- TRASH CAN
- MH UNKNOWN MANHOLE
- VALLEY CURB INLET
- BLOW-OFF VALVE
- W WATER MANHOLE
- WATER METER
- WATER METER (DOUBLE)
- WATER PUMP
- W WATER VALVE
- V WATER VAULT
- W WATER WELL
- WOOD POST
- WOOD LIGHT POLE
- WOOD TELEPHONE POLE
- WOOD POWER POLE
- YD YARD DRAIN

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SYMBOLS AND ABBREVIATIONS
SHEET 1

DETAIL NO.
GNRL
011
REVISED:
2017/07/13

LANSCAPING SYMBOLS:



- PALM TREE
- SHADE TREE
- PINE TREE
- CACTUS
- UNKNOWN TREE

LINE TYPES:

- COM — COMMUNICATION, CABLE TELEVISION TELEPHONE LINES
- ELEC — ELECTRIC
- GAS — GAS MAIN
- FM — SANITARY FORCE MAIN
- SS — SANITARY SEWER MAIN
- STM — STORM DRAINAGE
- WM — WATER
- OHW — OVER HEAD WIRES
- *EXISTING*
- PROPOSED

VALVE AND FITTING ABBREVIATIONS:

ARV	AIR RELIEF VALVE
BF	BLIND FLANGE
BFV	BUTTERFLY VALVE
BV	BALL VALVE
CO	CLEAN OUT
CPLG	COUPLING
CV	CHECK VALVE
DV	DIAPHRAGM VALVE
EXP JT	EXPANSION JOINT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FH	FIRE HYDRANT
FLG	FLANGE
FS	FLOOR SINK
GV	GATE VALVE
HB	HOSE BIBB
HD	HUB DRAIN
ICV	IRRIGATION CONTROL VALVE
LR	LONG RADIUS
MJ	MECHANICAL JOINT
NPT	NATIONAL PIPE THREAD
PE	PLAIN END
PV	PLUG VALVE
PRV	PRESSURE RELIEF VALVE
RED	REDUCER
SOV	SOLENOID OPERATED VALVE
THD	THREADED
VAC	VACUUM

PIPING:

CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CU	COPPER OR CUBIC
DIP	DUCTILE IRON PIPE
GIP	GALVANIZED PIPE
GSP	GALVANIZED STEEL PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
IP	IRON PIPE
PCCP	PRECAST CONCRETE CYLINDER PIPE
PVC	POLYVINYLCHLORIDE
RCP	REINFORCED CONCRETE PIPE
SCP	SECONDARY CONTAINMENT PIPE
SS	STAINLESS STEEL PIPE

GENERAL:

A	ARC DISTANCE
AB	ANCHOR BOLT
A/C	AIR CONDITIONER
ACU	AIR CONDENSATE UNIT
AL, ALUM	ALUMINUM
a	ANGLE
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
BLDG	BUILDING
BLK	BLOCK
BM	BENCHMARK
BOTT	BOTTOM
BOW	BACK OF WALK
BP	BID PACKAGE
CA	CENTRAL ANGLE
CB	CATCH BASIN
CC	CENTER TO CENTER
CHK'D	CHECKERED
C.I.	CURB INLET
CJ	CONSTRUCTION JOINT
CL, q	CENTER LINE
CLF	CHAIN LINK FENCE
CLR	CLEAR
COL	COLUMN
CO	COMPANY
CONC, C	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CP	CONCRETE POST
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIR	DIRECTION
DISCH	DISCHARGE
DMH	DRAIN MANHOLE
DN	DOWN
DR	DRAIN
DWL	DOWEL
DWG	DRAWING
EA	EACH
ECC	ECCENTRIC
EE	EACH END
EF	EACH FACE
EL, ELEV	ELEVATION
ELEC	ELECTRIC
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
EW	EACH WAY
EQUIP	EQUIPMENT
ES	ELECTRICAL SERVICE
ESC	EROSION AND SEDIMENT CONTROL
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FDR	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FF	FINISH FLOOR
FG	FINISH GRADE
FIN	FINISH
FL	FLOOR
FM	FORCE MAIN
FND	FOUND
FP	FLAG POLE
FT	FOOT OR FEET
FTG	FOOTING OR FITTING
GALV	GALVANIZED

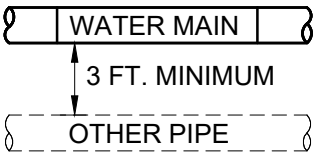
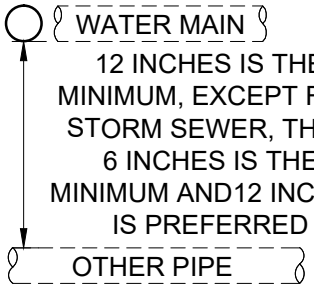
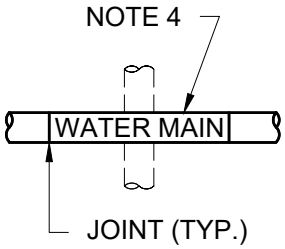
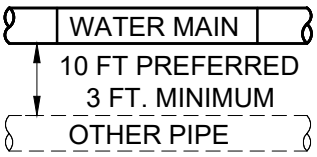
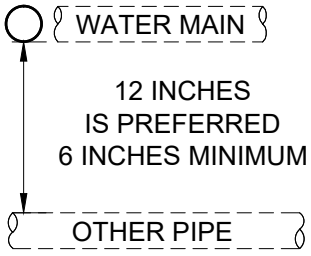
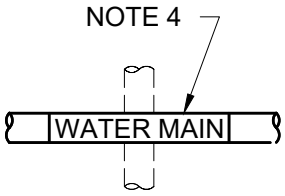
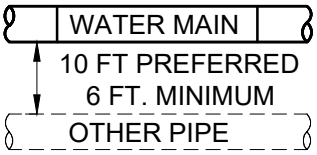
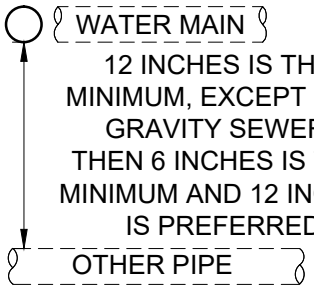
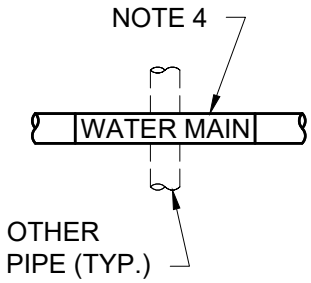
GPM	GALLONS PER MINUTE
GR	GRADE
H	HIGH
HORIZ	HORIZONTAL
HP	HIGH POINT
HS	HIGH SERVICE
HWL	HIGH WATER LEVEL
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IN	INCH
INFL	INFLUENT
INJ	INJECTION
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IP	IRON PIPE
IRRIG	IRRIGATION
IR	IRON ROD
ISO	ISOLATION
JCT	JUNCTION
JT	JOINT
LBS/FT	POUNDS PER FOOT
LG	LONG
LN	LINE
LP	LOW POINT OR LIGHT POLE
LR	LONG RADIUS
LWL	LOW WATER LEVEL
MANUF	MANUFACTURER
MAX	MAXIMUM
MECH	MECHANICAL
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MO	MASONRY OPENING
MOV	MOTOR OPERATED VALVE
NAVD	NORTH AMERICAN VERTICAL DATUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHW	OVERHEAD WIRES
OPNG	OPENING
P/L	PROPERTY LINE
PS	PUMP STATION
PT	PRESSURE TREATED
R	RIM
RAD, R	RADIUS
RECIR	RECIRCULATION
RE	RIM ELEVATION
REHAB	REHABILITATION
REINF	REINFORCING
REQ'D	REQUIRED
R/W, ROW	RIGHT OF WAY
SECT	SECTION
SHT	SHEET
SLB	SIGNAL LIGHT BOX
SMH	STORMWATER MANHOLE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STL	STEEL
STRUC	STRUCTURAL
SYMM	SYMMETRICAL
TBD	TO BE DETERMINED
TEMP	TEMPORARY
THK	THICK
TI	TEMPERATURE INDICATOR
TO	THROUGHOUT
TOB	TOP OF BANK

TOC	TOP OF CONCRETE
TOE	TOE OF SLOPE
TOP	TOP OF PIPE
TOS	TOP OF SLAB
TYP	TYPICAL
UGE	UNDERGROUND ELECTRIC
UNK	UNKNOWN
V	VENT
VERT	VERTICAL
VP	VENT PIPE
VTR	VENT THROUGH ROOF
W	WIDE
W/	WITH
WATR	WATER
WGR	WOOD GUARDRAIL
W/L	WATER LEVEL
W/O	WITH OUT
WWF	WELDED WIRE FABRIC
WUP	WOOD UTILITY POLE

FLOWSTREAM IDENTIFICATION:

ED	EQUIPMENT DRAIN
FM	FORCE MAIN
FR	FUEL RETURN
FS	FUEL SUPPLY
OF	OVERFLOW
PW	POTABLE WATER
RD	ROOF DRAIN
SA	SAMPLE
SAN	SANITARY SEWER
SPD	SUMP PUMP DISCHARGE
STRM	STORMWATER
WM	WATER MAIN

WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (NOTE 1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (NOTE 2)			
VACUUM SANITARY SEWER			
GRAVITY SANITARY SEWER, (NOTE 3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER			
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	—	—

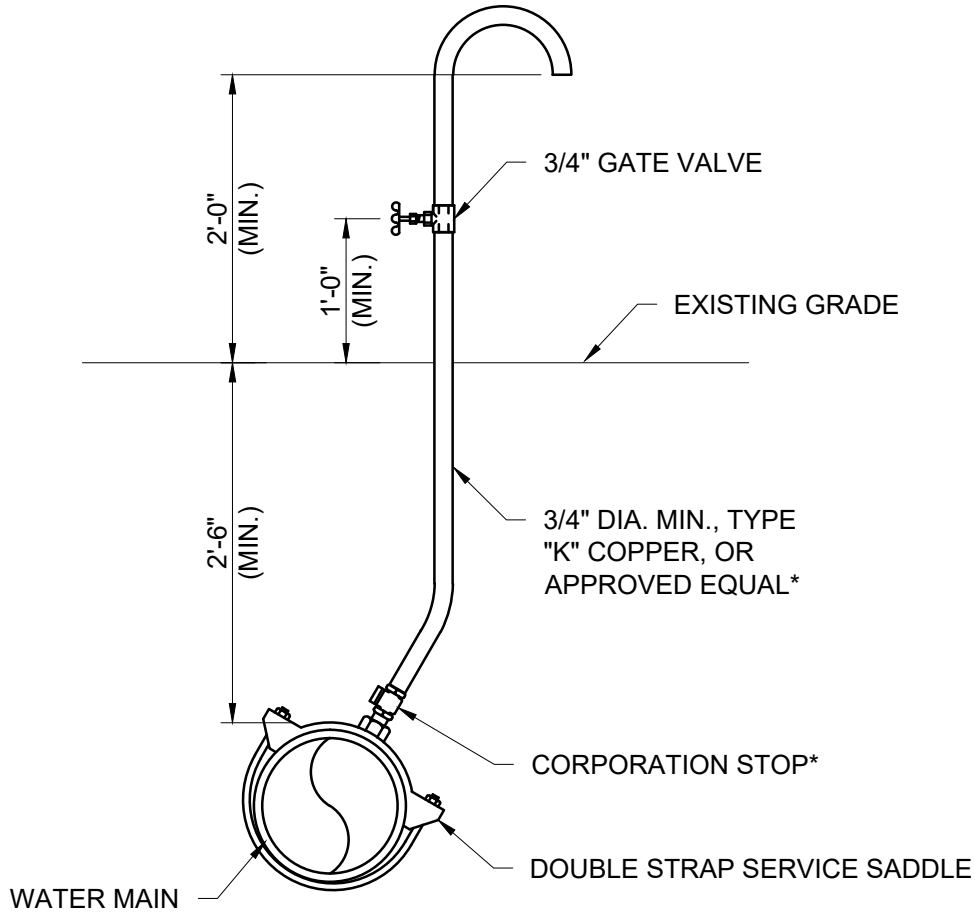
NOTES:

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.

2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.

4. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATE JOINT LOCATIONS ALLOWED UNDER FAC 62-555.314 WILL ONLY BE ALLOWED BY THE ENGINEER ON A CASE-BY-CASE BASIS.



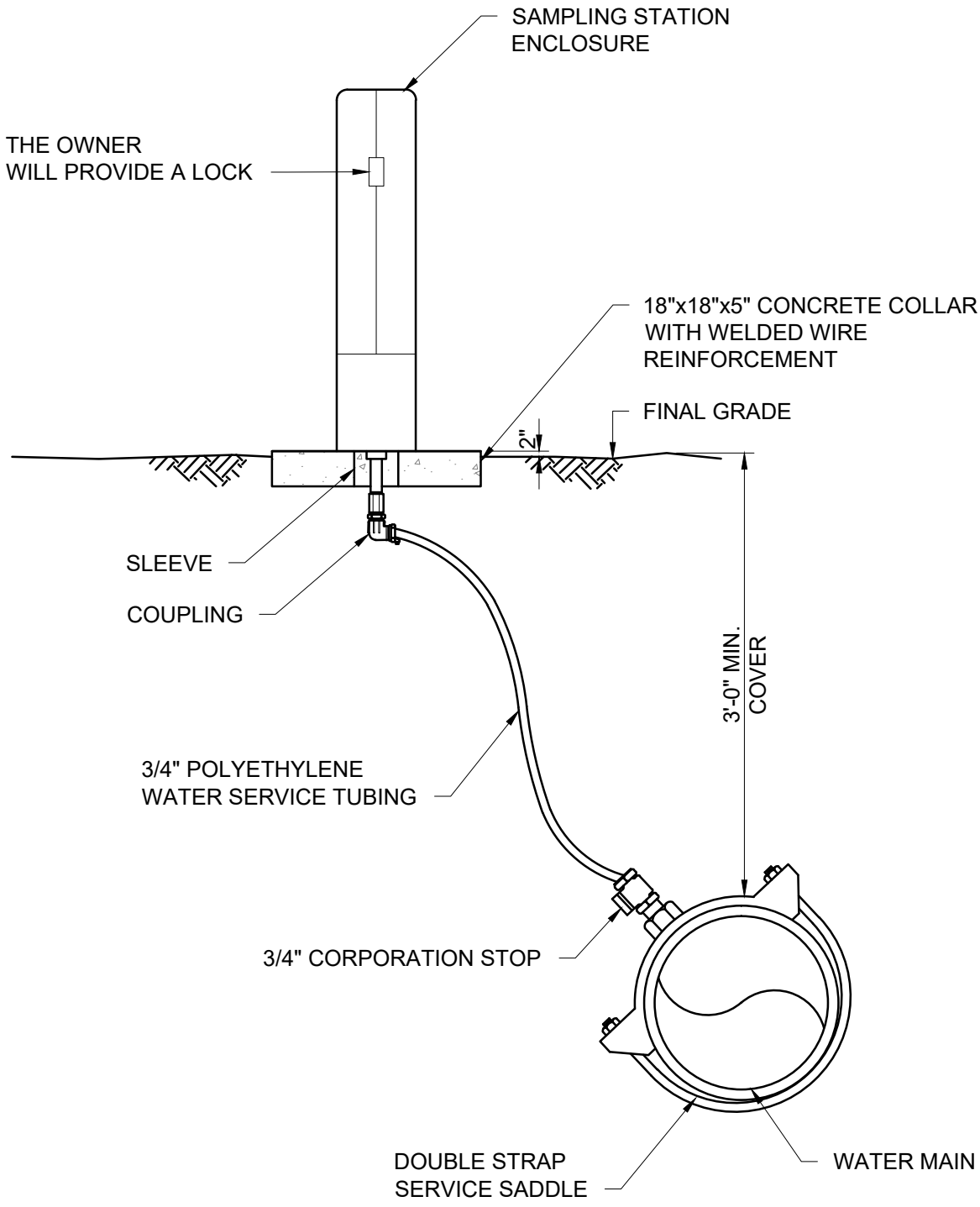
* NOTE: AFTER TESTS REMOVE 3/4" TUBING
AND INSTALL PLUG ON CORPORATION STOP.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

BACT SAMPLE POINT - TEMPORARY

DETAIL NO.
WATR
002

REVISED:
2016/09/21



NOTES:

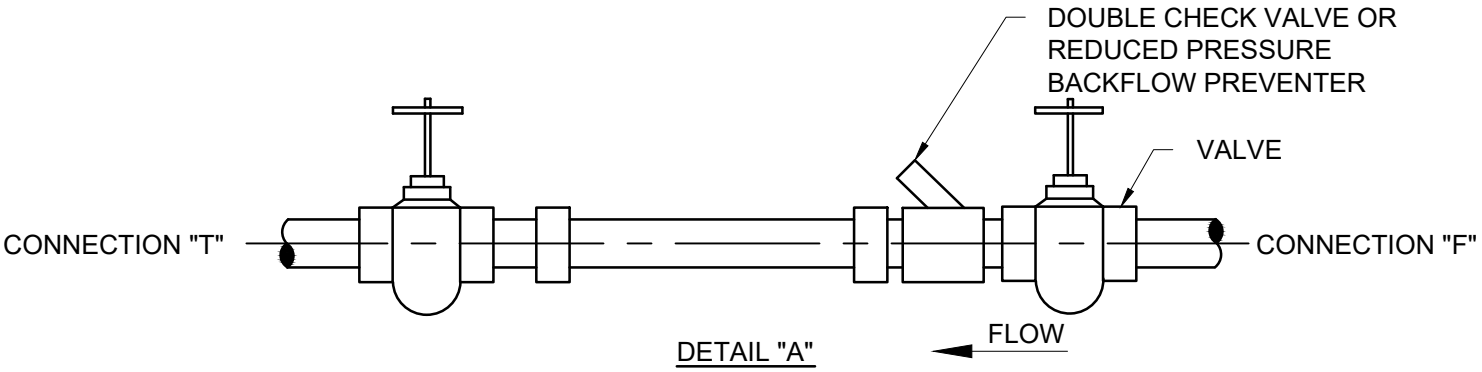
1. ENCLOSURE SHALL BE PAINTED CAST ALUMINUM. ENCLOSURE COLOR SHALL BE GREEN.
2. SAMPLING STATION STAND PIPE AND VALVES SHALL BE LEAD FREE SURGICAL STAINLESS STEEL.
3. FURNISH AND INSTALL ECLIPSE #88WC-SS BY KUPFERLE FOUNDARY COMPANY.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

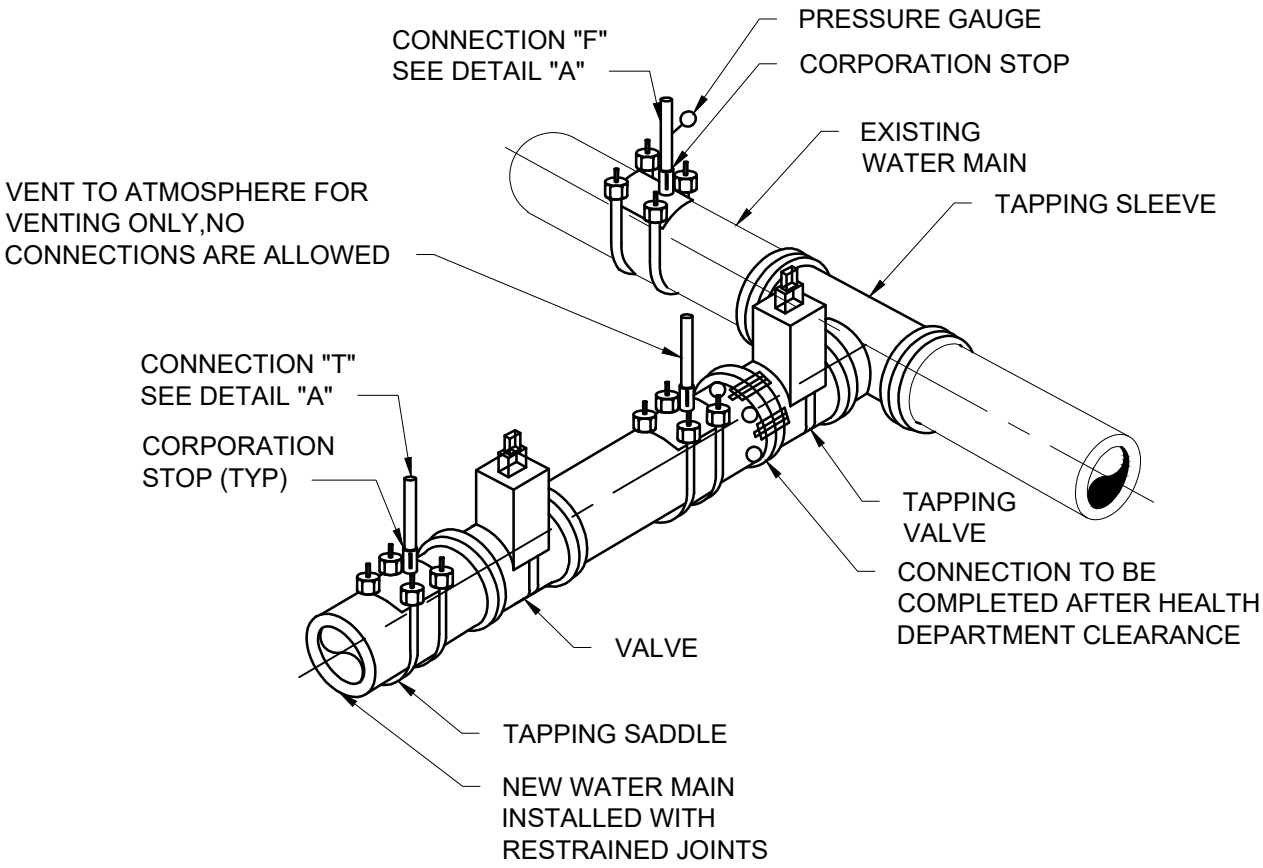
BACT SAMPLE POINT - PERMANENT

DETAIL NO.
WATR
003

REVISED:
2016/09/21



DETAIL "A"



NOTES:

1. REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON EXISTING MAIN AFTER FILLING AND FLUSHING OF NEW LINE.

2. DO NOT REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON NEW MAIN UNTIL ALL TESTING HAS BEEN CLEARED BY HEALTH DEPARTMENT.

3. CLOSE CORPORATION STOPS AND PLUG/CAP WITH LEAD-FREE BRASS FITTINGS AFTER SAMPLING IS COMPLETED.

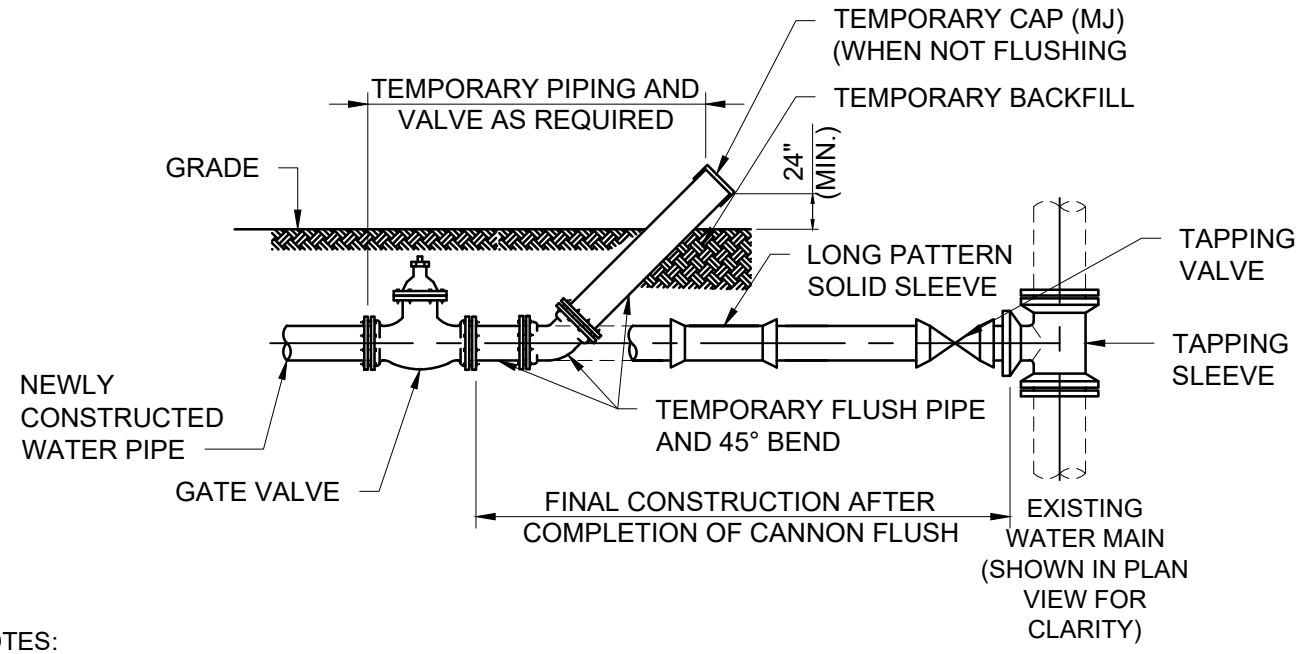
4. CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

FILLING AND FLUSHING CONNECTION

DETAIL NO.
WATR
004

REVISED:
2016/09/21



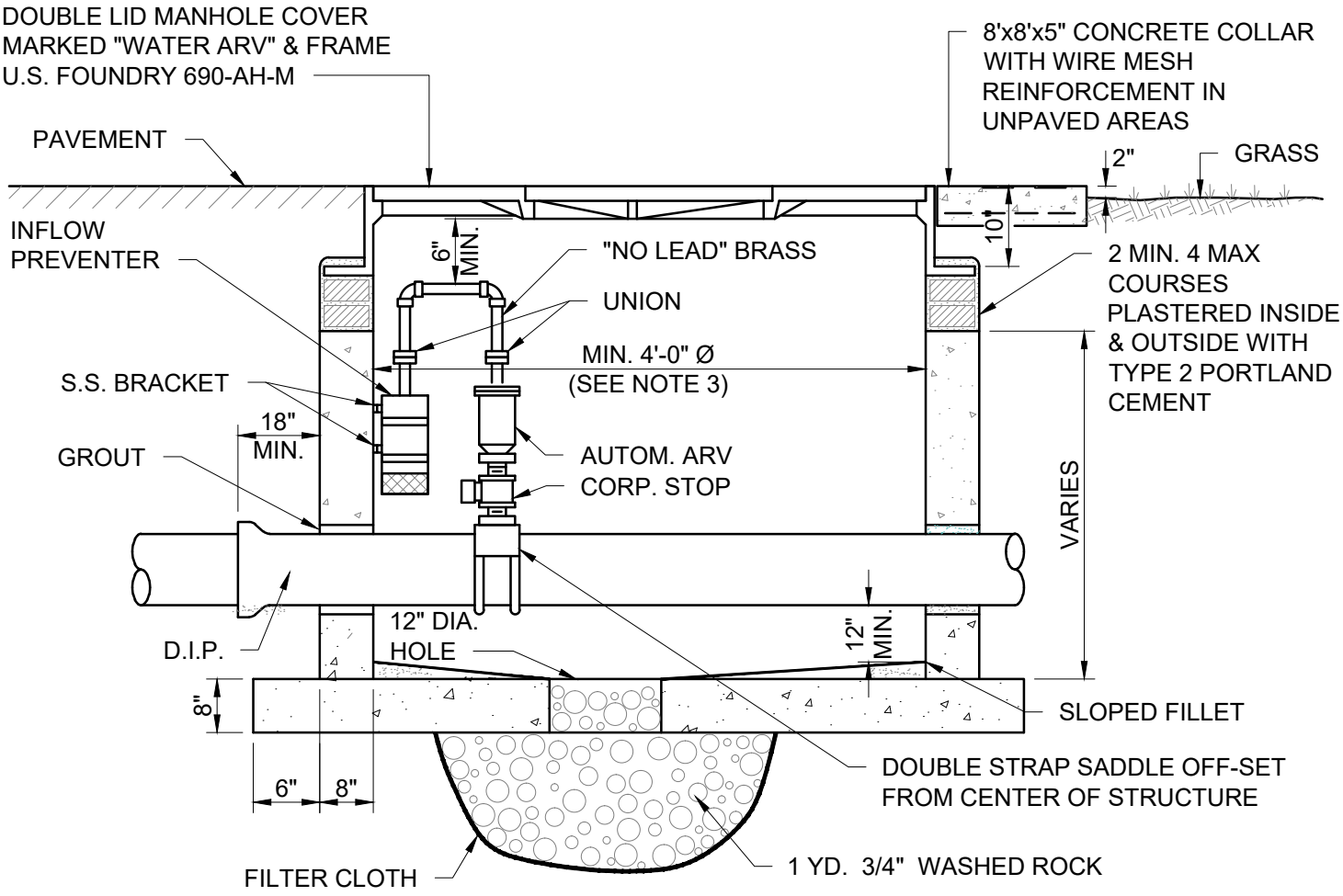
NOTES:

1. FLUSHING LOCATIONS ARE TO BE PROPOSED BY CONTRACTOR AND APPROVED BY ENGINEER OF RECORD.
2. UPON COMPLETION OF THE PIPE INSTALLATION FOR ANY SECTION, THE MAINS SHALL BE CANNON FLUSHED TO REMOVE DIRT AND ANY OTHER FOREIGN MATTER.
3. INSTALL A TEMPORARY 45° BEND, VALVE AND ASSOCIATED TEMPORARY PIPING AS SHOWN TO DIRECT THE FLUSHING WATER AWAY FROM THE IMMEDIATE WORK AREA AND EXERCISE DUE CARE SO AS TO ENSURE THAT THE WATER USED IN FLUSHING DOES NOT CAUSE A NUISANCE OR INFLICT PROPERTY DAMAGE.
4. BENDS AND PIPING SHALL BE THE SAME SIZE OR LARGER AS THE LINE BEING FLUSHED.
5. PRIOR TO THE ACTUAL LINE FLUSHING OPERATION THE CONTRACTOR SHALL PROPERLY NOTIFY OWNER'S INSPECTOR OF SUCH INTENDED WATER USE.
6. NO EXISTING VALVES SHALL BE OPERATED, EXCEPT BY AUTHORIZED OWNER PERSONNEL.
7. FLUSHING SHALL NOT BE ACCOMPLISHED WITHOUT THE ACTUAL PRESENCE OF THE OWNER'S INSPECTOR.
8. AFTER THE LINE UNDER CONSTRUCTION HAS BEEN SUCCESSFULLY FLUSHED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY PIPING ARRANGEMENT AND PROCEED WITH THE REMAINING CONSTRUCTION AS SPECIFIED.
9. ALL PIPING SHALL BE RESTRAINED.
10. CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.
11. CONTRACTOR IS CAUTIONED THAT GOVERNING AGENCIES OR UTILITIES MAY HAVE REGULATIONS LIMITING OR PROHIBITING DISCHARGE INTO SEWERS, SURFACE WATERS, CANALS, DITCHES AND OTHER CONVEYANCES/RETENTION AREAS. ALL COMPLIANCE WITH GOVERNING AGENCY REQUIREMENTS (INCLUDING PERMITTING, IF REQUIRED) IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
12. CANNON FLUSHING TO PROCEED AFTER HEALTH DEPARTMENT CLEARANCE IS RECEIVED.

FLUSHING CONNECTION

NOT TO SCALE

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CANNON FLUSHING	DETAIL NO. WATR 005 REVISED: 2016/09/21



NOTES:

1. MANHOLE SHALL BE PRECAST AND DESIGNED BY FABRICATOR TO COMPLY WITH FDOT INDEX 200.

2. DUCTILE IRON PIPE IS REQUIRED WITHIN THE MANHOLE. NO PIPE JOINTS INSIDE OF MANHOLE.

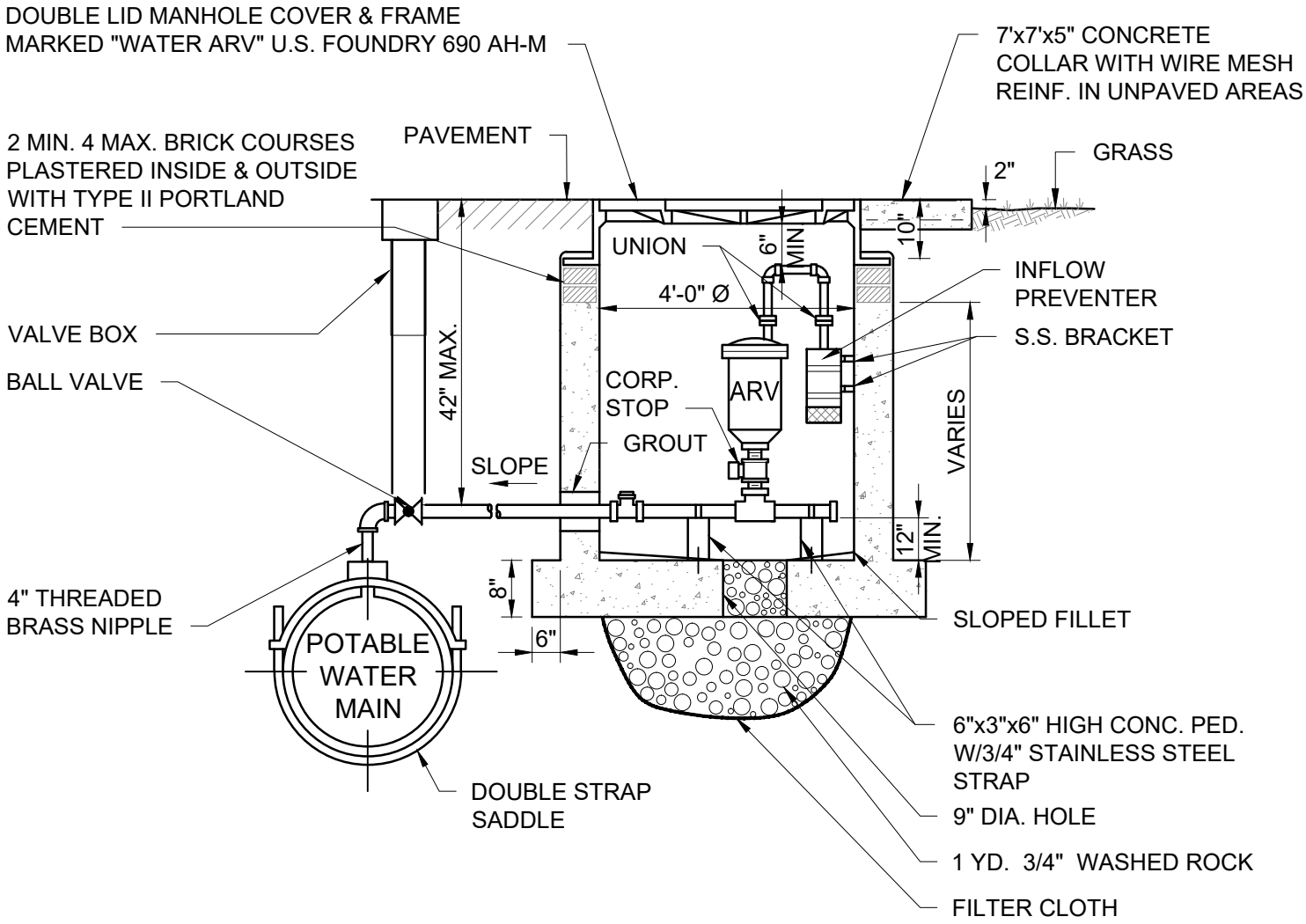
3. LARGER MANHOLES REQUIRED FOR PIPES LARGER THAN 12", AS FOLLOWS:

PIPE SIZE	MIN. MANHOLE DIAMETER
16"- 24"	60"
30" - 42"	72"

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

AUTOMATIC AIR RELEASE VALVE
FOR AREAS THAT FLOOD
TYPE 1

DETAIL NO.
WATR
006
REVISED:
2016/09/21



NOTES:

1. MANHOLE SHALL BE PRECAST AND DESIGNED BY FABRICATOR TO COMPLY WITH FDOT INDEX 200.

2. ALL VALVES, PIPING AND FITTINGS SHALL BE LEAD-FREE BRASS OR BRONZE.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
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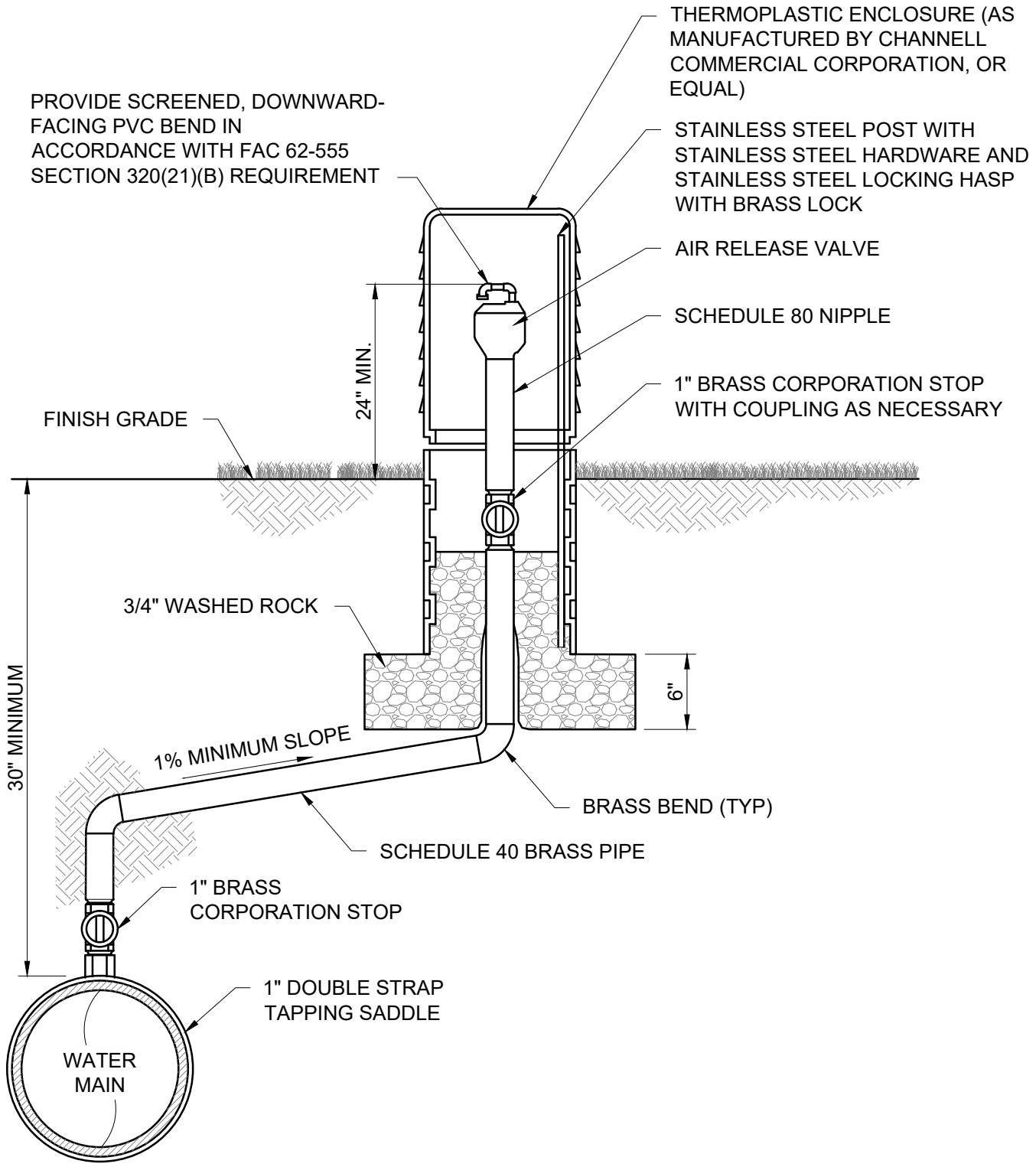
AUTOMATIC AIR RELEASE VALVE
FOR AREAS THAT FLOOD
TYPE 2

DETAIL NO.
WATR
007

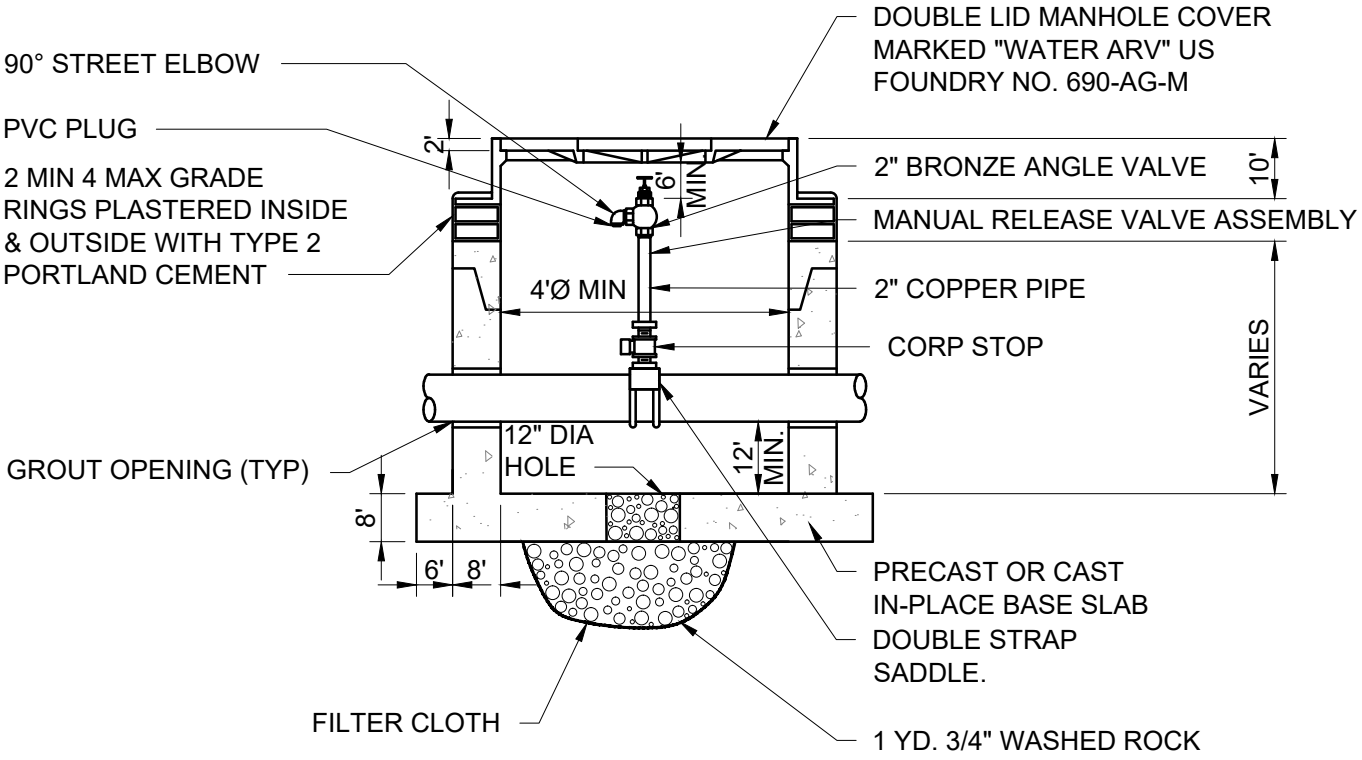
REVISED:
2016/09/21



CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

AUTOMATIC AIR RELEASE VALVE FOR AREAS THAT FLOOD TYPE 3

DETAIL NO.
WATR 008
REVISED:
2016/09/21



NOTES:

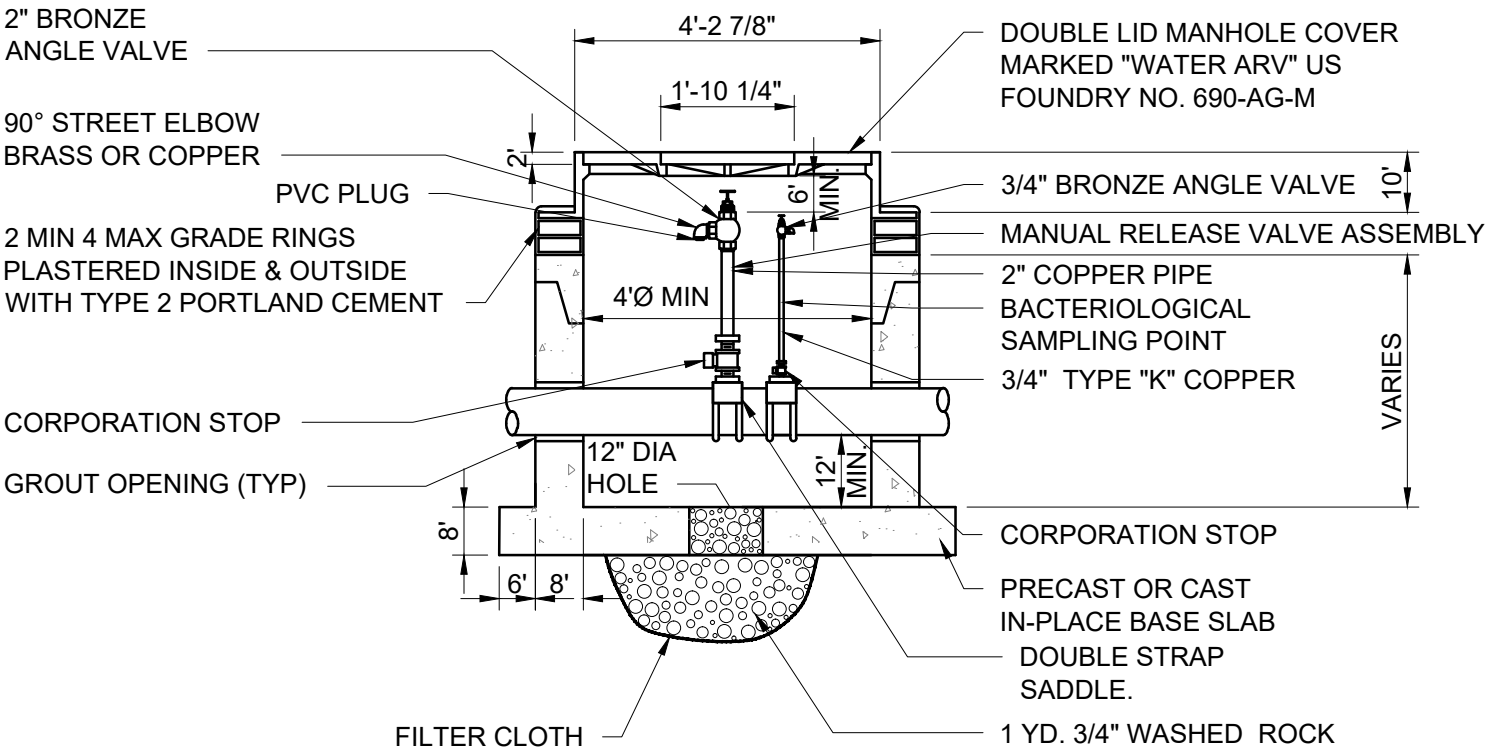
1. MANHOLE SHALL BE PRECAST AND DESIGNED BY FABRICATOR TO COMPLY WITH FDOT INDEX 200.
2. DUCTILE IRON PIPE IS REQUIRED WITHIN THE MANHOLE. NO PIPE JOINTS WITHIN THE MANHOLE.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

MANUAL AIR RELEASE VALVE
FOR AREAS THAT FLOOD
TYPE 1

DETAIL NO.
WATR
009

REVISED:
2016/09/21



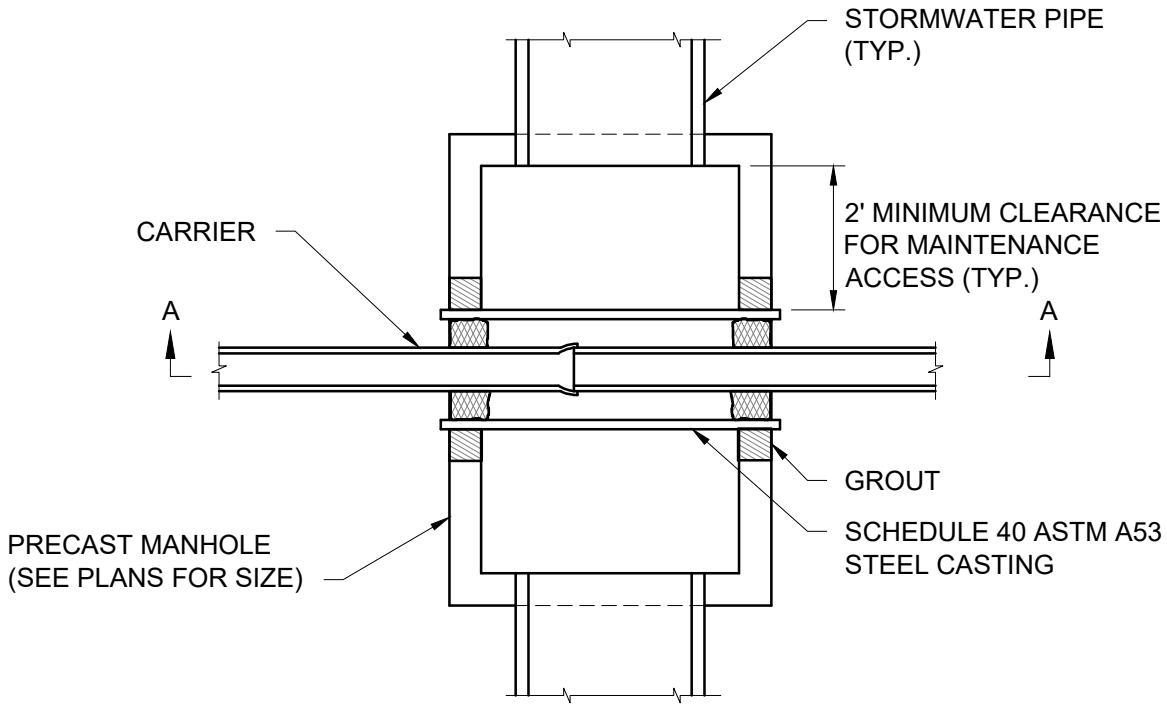
NOTES:

1. MANHOLE SHALL BE PRECAST AND DESIGNED BY FABRICATOR TO COMPLY WITH FDOT INDEX 200.
2. DUCTILE IRON PIPE IS REQUIRED WITHIN THE MANHOLE. NO PIPE JOINTS WITHIN THE MANHOLE.
3. AFTER COMPLETION OF THE BACTERIOLOGICAL TESTING, REMOVE THE SAMPLE PIPING AND INSTALL PLUG ON THE CORPORATION STOP.

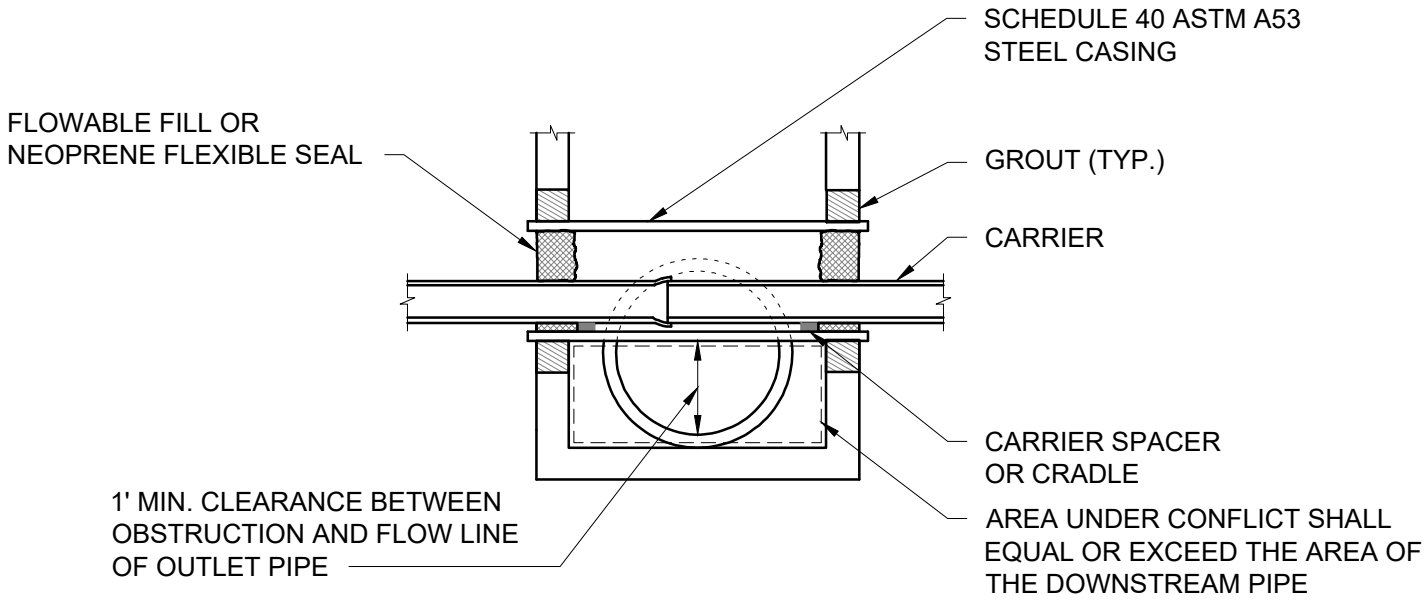
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

MANUAL AIR RELEASE VALVE
FOR AREAS THAT FLOOD
TYPE 2

DETAIL NO.
WATR
010
REVISED:
2016/09/21



PLAN



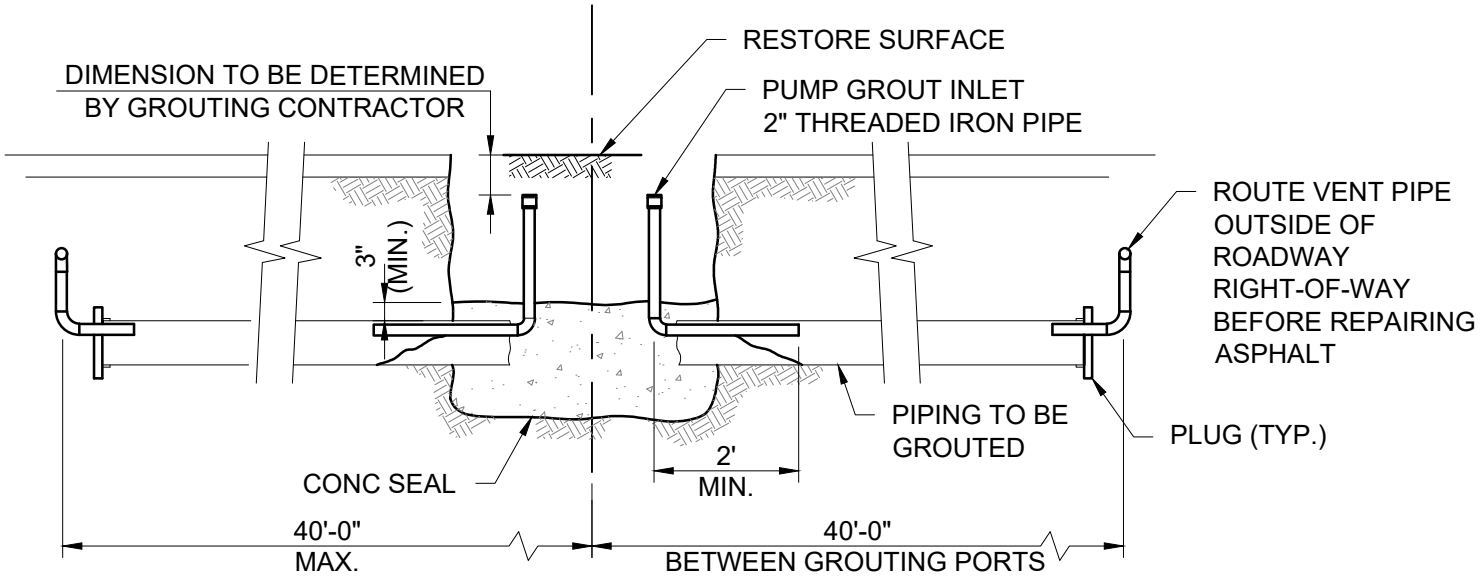
SECTION A-A

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CONFLICT MANHOLE

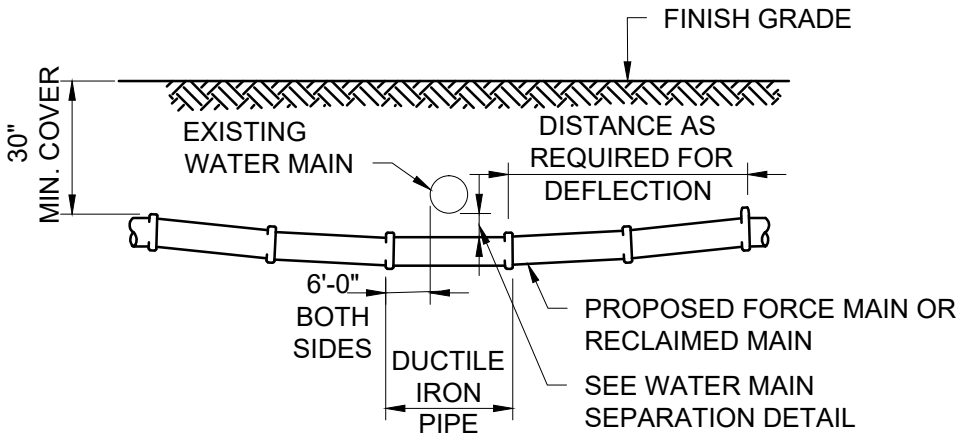
DETAIL NO.
WATR
011

REVISED:
2016/09/21

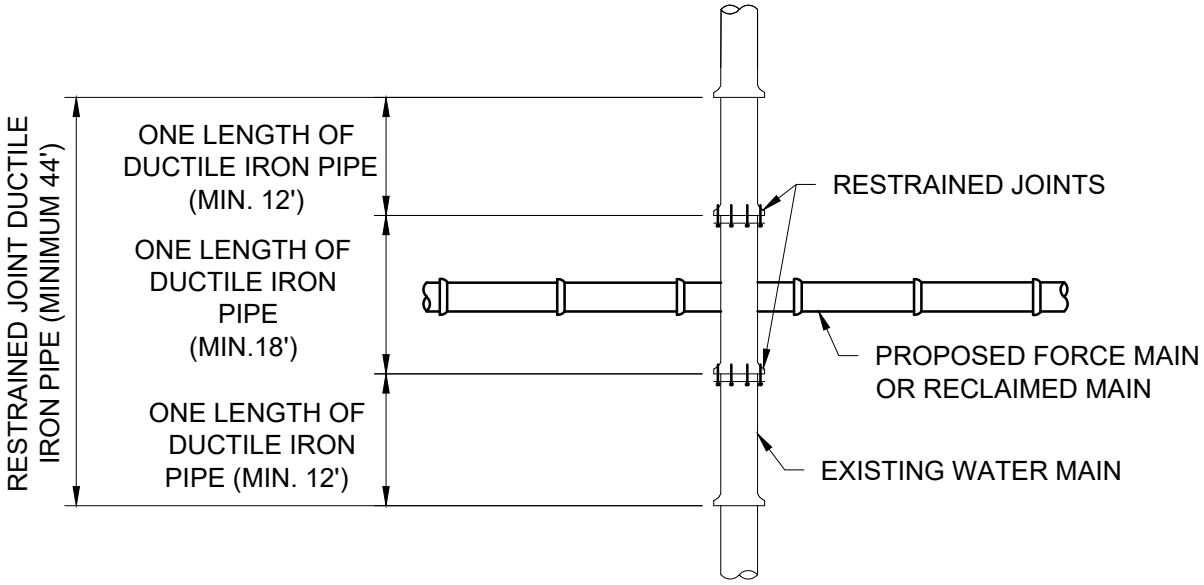


NOTE:

1. PROVIDE PLUGS, CORPORATION STOPS AND PIPING AS REQUIRED TO REMOVE AIR FROM THE ABANDONED PIPELINES WHILE GROUTING.



SECTION



PLAN

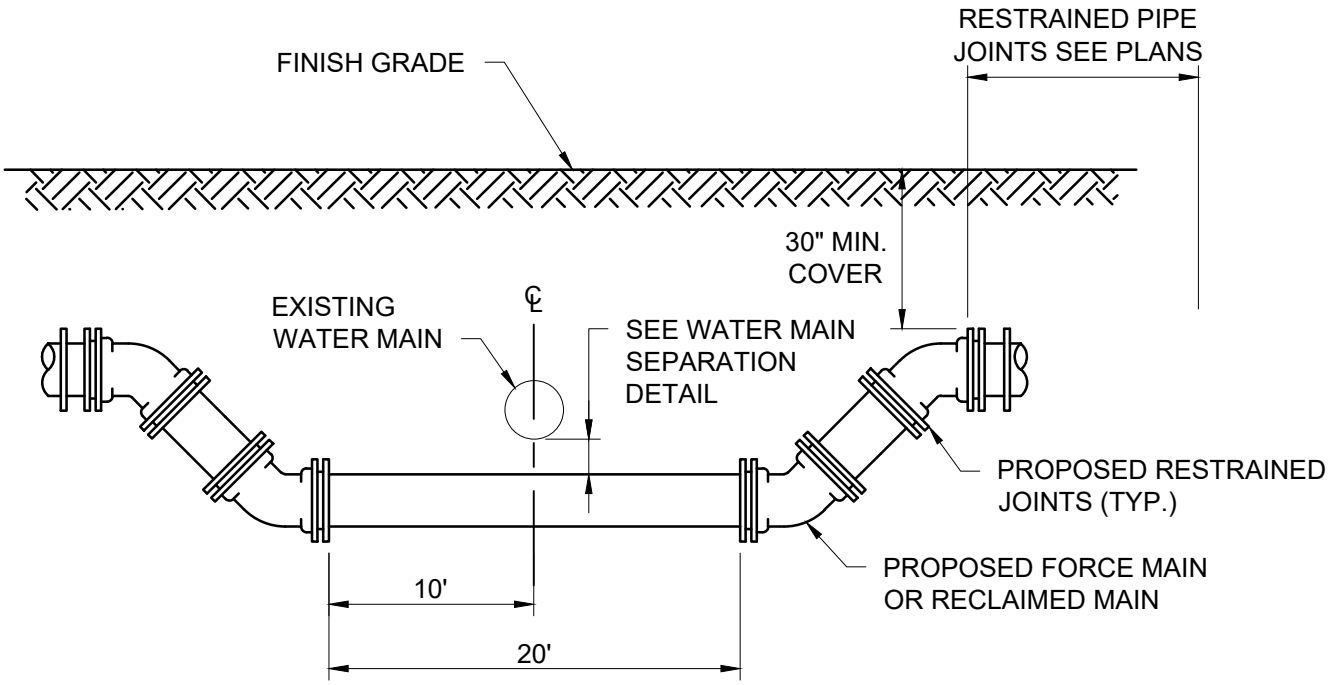
NOTE:

1. JOINTS SHALL NOT BE DEFLECTED MORE THAN 50% OF MANUFACTURER'S RECOMMENDED DEFLECTION.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

UTILITY CROSSING
DEFLECTION TYPE

DETAIL NO.
WATR
013
REVISED:
2016/09/21



SECTION

NOTE:

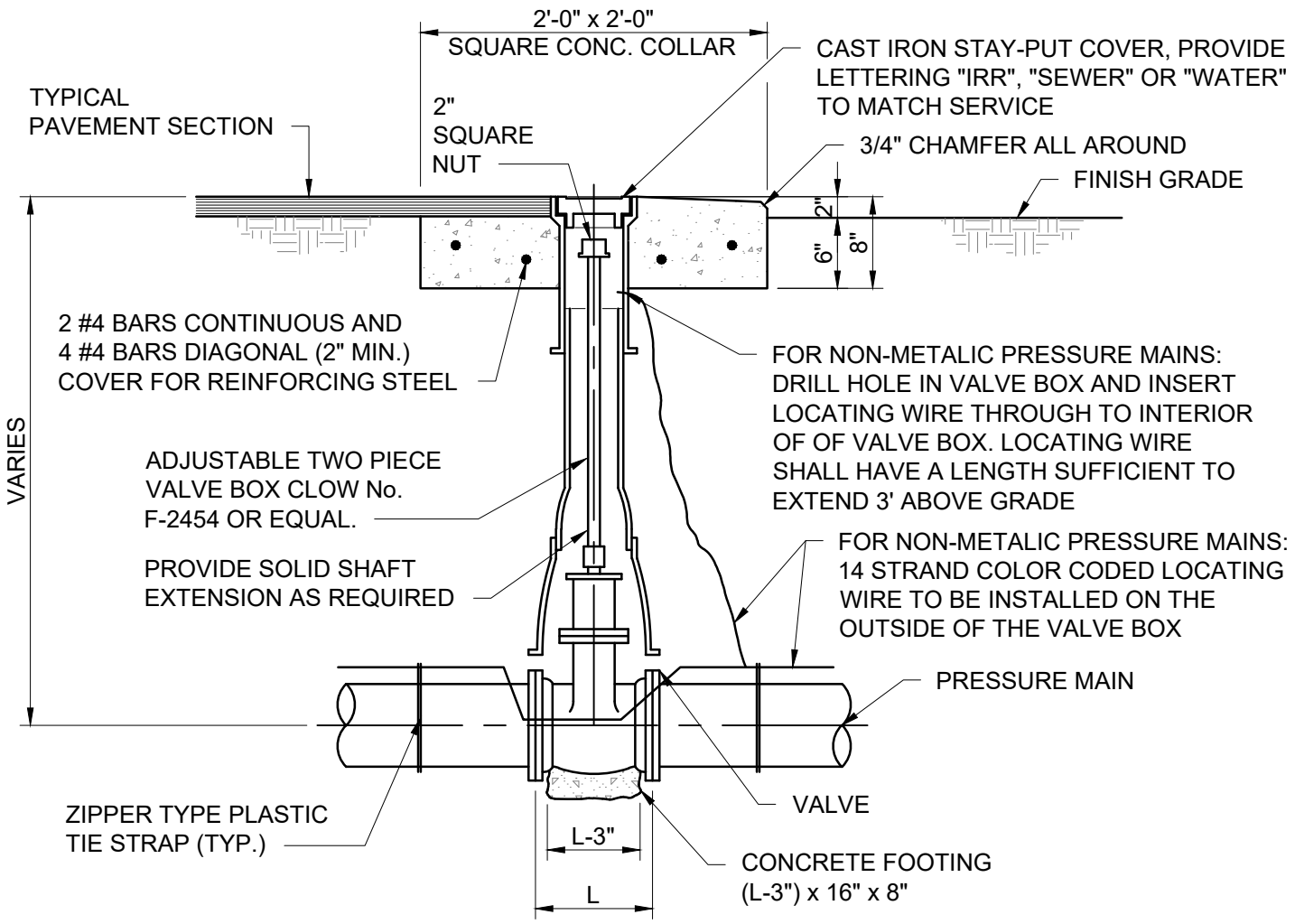
1. WHEREVER POSSIBLE, DEFLECTION OF THE PIPE (PER THE DETAIL TITLED "UTILITY CROSSING - DEFLECTION TYPE") SHALL BE USED TO AVOID EXISTING OBSTRUCTIONS. THIS DETAIL SHALL BE USED ONLY WHEN APPROVED BY ENGINEER.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

UTILITY CROSSING
FITTING TYPE

DETAIL NO.
WATR
014

REVISED:
2016/09/21

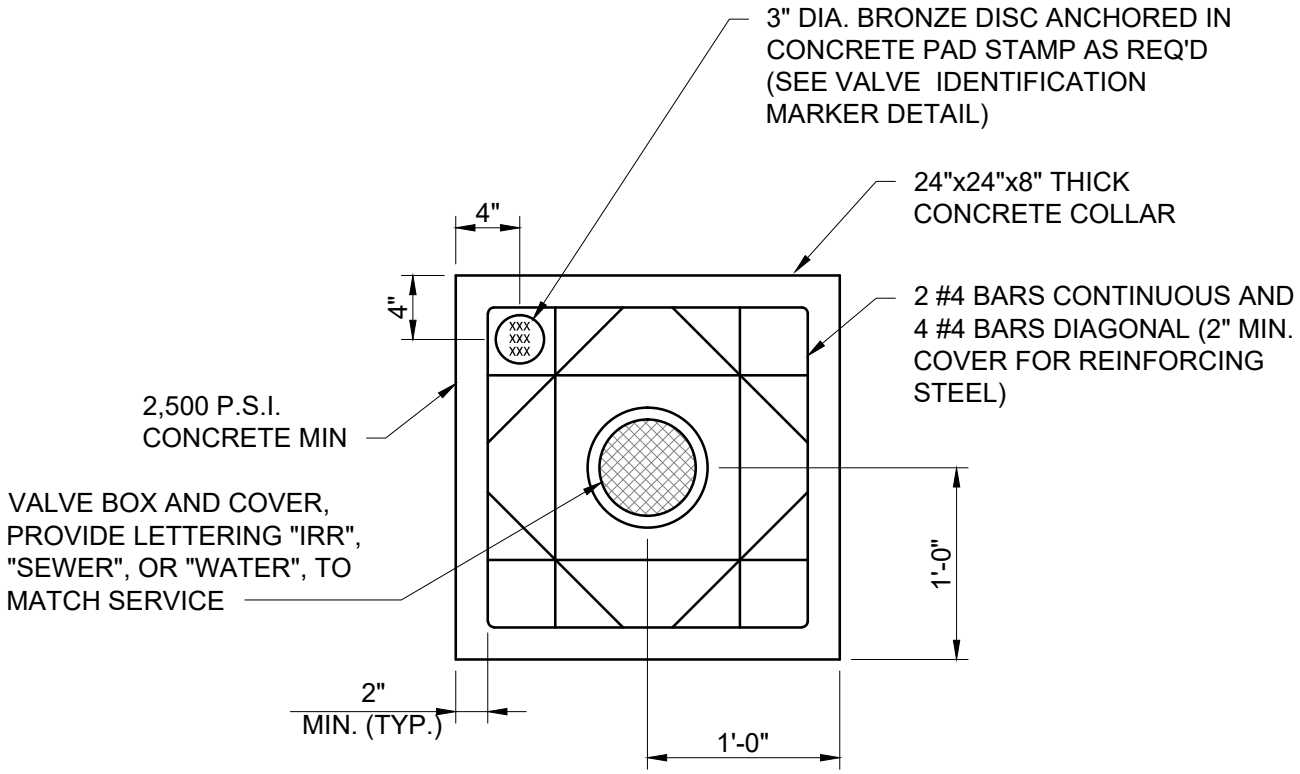


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE BOX

DETAIL NO.
WATR
015

REVISED:
2016/09/21

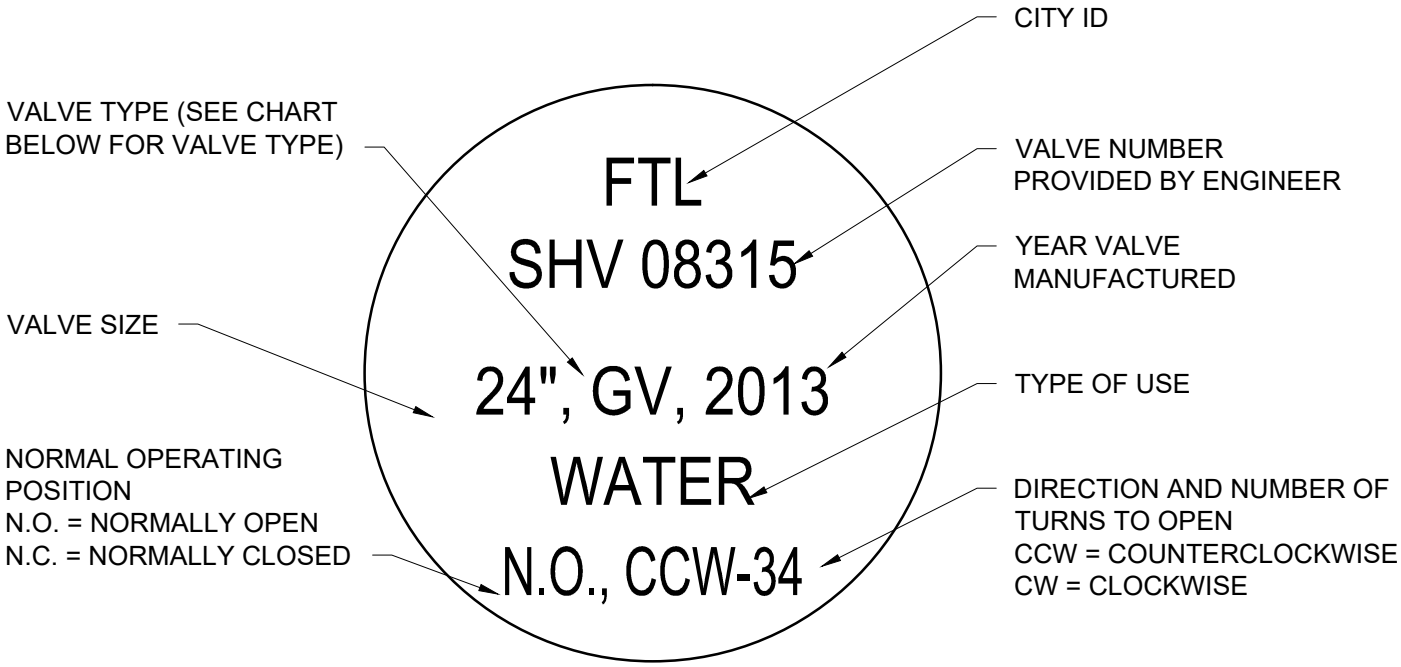


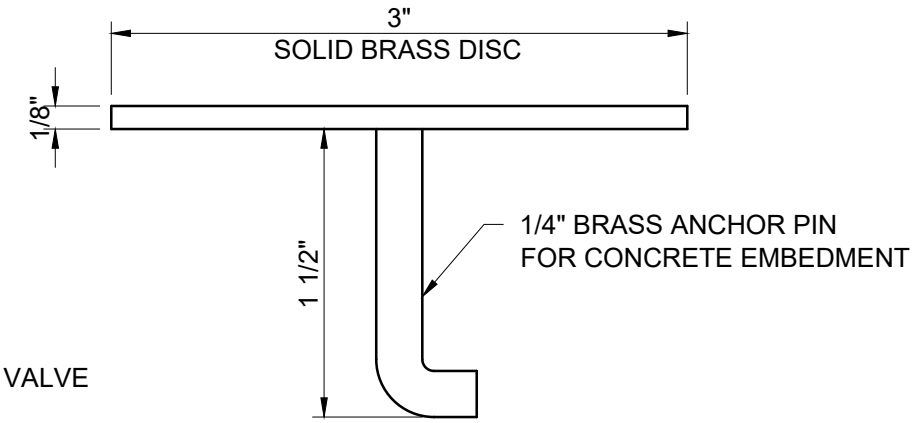
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE BOX COLLAR

DETAIL NO.
WATR
016

REVISED:
2016/09/21





VALVE TYPES

BV - BALL VALVE
GV - GATE VALVE
BFV - BUTTERFLY VALVE
PV - PLUG VALVE

NOTES:

1. VALVE INFORMATION TO BE ENGRAVED INTO TOP SURFACE WITH 1/4" CAPITAL LETTERS.
2. ENTIRE MARKER TO BE COATED WITH CLEAR EPOXY TO PREVENT TARNISHING.
3. MARKERS SHALL BE MANUFACTURED BY WAGER COMPANY OF FLORIDA.