



**NOTES:**

- EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED UPON PREVIOUS DESIGN DRAWINGS AND RECORD INFORMATION. LOCATIONS, SIZES, AND DEPTHS OF UTILITIES HAVE NOT BEEN SURVEYED IN THE FIELD. ADDITIONAL SITE SURVEY IS ONGOING.
- DEMOLITION OF EXISTING BUILDING AND SITE FEATURES ARE INCLUSIVE OF ALL PHASES. PROPOSED DEMOLITION ACTIVITIES SHOWN ON THESE SHEETS ARE NOT INTENDED TO INDICATE THE PHASE IN WHICH THEY OCCUR. SEE PHASING DRAWINGS FOR DEMOLITION SPECIFIC TO PHASING.
- ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF ANY EARTH MOVING ACTIVITIES.
- THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- INSTALL EROSION CONTROLS DOWNSTREAM OF ANY DISTURBED AREAS TO REDUCE POTENTIAL FOR EROSION. CONTRACTOR SHALL INDICATE LOCATIONS OF EROSION CONTROLS FOR REVIEW WITH GENERAL CONTRACTOR AND OWNER'S PROJECT MANAGER PRIOR TO COMMENCING DISTURBANCE. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE LATEST REVISION OF THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK.
- INSTALL CHAIN LINK FENCE TREE PROTECTION AT THE LOCATIONS SHOWN ON THE PLAN TO PROTECT EXISTING TREES SPECIFICALLY INDICATED ON THE PLAN. LAYOUT OF FENCE SHALL BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT. TREE PROTECTION SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.
- ALL EXISTING DRAINAGE SHALL BE MAINTAINED OR REROURED AS NECESSARY UNTIL PERMANENT PIPING IS INSTALLED.
- ELECTRICAL DEMOLITION IS SHOWN FOR INFORMATION ONLY. REFER TO ELECTRICAL PLANS FOR COMPLETE EXTENT OF ELECTRICAL DEMOLITION.
- PROVIDE INLET PROTECTION AT ALL EXISTING DRAINAGE INLETS.
- ALL ITEMS TO BE REMOVED AND STOCKPILED SHALL BE COORDINATED WITH OWNER FOR STOCKPILE LOCATIONS. AT THIS TIME, THE OWNER HAS NOT IDENTIFIED ITEMS FOR STOCKPILE.
- ALL ITEMS MARKED FOR RE-USE SHALL BE STOCKPILED ONSITE, PROTECTED AND RE-INSTALLED AS SHOWN ON THE LANDSCAPE PLANS.
- DRAINAGE FEATURES AND UTILITIES TO BE MAINTAINED UNLESS OTHERWISE NOTED.
- TOTAL AREA OF DISTURBANCE: 2.3 ACRES.
- CONTRACTOR TO REESTABLISH BENCHMARKS IN ALTERNATE LOCATION PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE CLEARING OF ALL ADJUTTER ENCROACHMENTS WITH THE CITY OF CENTRAL FALLS PRIOR TO CONSTRUCTION.
- INSTALL CONSTRUCTION ENTRANCE AT ALL ENTRY/EXIT POINT FOR VEHICULAR TRAFFIC FOR EACH PHASE OF THE PROJECT.
- ALL EARTH DISTURBANCE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- ACTIVE UTILITY LINES (INCLUDING SEWER, WATER, AND DRAINAGE), CONTRACTOR SHALL PROVIDE 1 WEEK NOTIFICATION FOR ANY POSSIBLE DISRUPTION OF SERVICE TO OWNER, OWNER'S REPRESENTATIVE AND ARCHITECT, PROVIDE NOTIFICATION FOR CONNECTING, DISCONNECTING, TURNING ON OR TURNING OFF ANY SERVICE WHICH MAY AFFECT USERS OF THE RESPECTIVE UTILITY.
- CONTRACTOR SHALL PROVIDE 72 HOUR (3 WORKING DAYS) NOTICE TO LOCAL FIRE DEPARTMENT OF DISRUPTIONS.
- DISTURBANCE ON ACTIVE GAS LINES SHALL BE COORDINATED WITH UTILITY PROVIDER.
- THE CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION OF THE EXISTING DRAINAGE MANHOLES AND PIPES INDICATED. IT SHALL BE ASSUMED THAT AN ADDITIONAL 60 FEET OF PIPE WILL NEED TO BE REMOVED AND DISPOSED.
- ANY UNFORESEEN UNDERGROUND TRANSMITTE PIPE OR OTHER UNFORESEEN HAZARDOUS MATERIAL SHALL BE ABATED IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- CONTRACTOR SHALL COMPLY WITH ALL CHPS REQUIREMENTS FOR DEMOLITION.
- ALL EXISTING MANHOLES OR CATCH BASINS TO REMAIN SHALL BE ADJUSTED TO FINISHED GRADE ELEVATION.
- ALL EXISTING UTILITIES WITHIN TREE PROTECTION AREAS NOT SCHEDULED FOR RE-USE SHALL BE CUT, CAPPED, AND ABANDONED IN PLACE.
- DEMOLITION WORK SHOWN ON THIS SHEET IS INDEPENDENT OF PROJECT PHASING OR SEQUENCING. CONTRACTOR SHALL BE RESPONSIBLE FOR SEQUENCING ALL WORK AS OUTLINED IN THE PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL SCHEDULE PRECONSTRUCTION MEETING WITH ARCHITECT, LANDSCAPE ARCHITECT, CIVIL ENGINEER, STRUCTURAL ENGINEER, AND OWNER'S PROJECT MANAGER PRIOR TO DEMOLITION OF EXISTING SERVICE AREA TO CONFIRM EXTENT OF DEMOLITION AND SAWCUT LOCATIONS.
- THE CONTRACTOR MUST CONTACT THE APPROPRIATE PRIVATE UTILITY COMPANIES AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK BEING COMPLETED. THE CONTRACTOR IS HEREBY NOTIFIED THAT SOME PUBLIC AND PRIVATE UTILITY COMPANIES ARE NOT PART OF "DIGSAFE" AND MAY HAVE ADDITIONAL NOTIFICATION REQUIREMENTS.
- CUT AND CAP EXISTING WATER AND SEWER SERVICES AT THE MAIN PRIOR TO ANY BUILDING DEMOLITION.
- USE OF FIRE HYDRANTS FOR DEMOLITION OR CONSTRUCTION IS NOT PERMITTED UNLESS APPROVED BEFOREHAND BY THE PAWTUCKET WATER SUPPLY BOARD.
- THE CONTRACTOR SHALL KEEP ON SITE, AT ALL TIMES, ADDITIONAL SILTATION FENCING AND FILTER FABRIC FOR INSTALLATION AS DIRECTED BY THE CITY TO MITIGATE ANY EMERGENCY CONDITIONS.
- CONTRACTOR TO CAMERA INSPECT AND LOCATE EXISTING SEWER AND DRAIN THROUGHOUT SITE.
- EXISTING SEWER AND DRAIN MUST REMAIN ACTIVE AT ALL TIMES.
- NO CONTRACTOR PARKING ON ROADWAYS.
- THE CONCRETE CULVERT AND TWIN 48" PIPES ARE PART OF AN ACTIVE COMBINED SEWER OVERFLOW SYSTEM. IT IS ANTICIPATED THAT FLOWS OF UP TO 40 MGD MAY OCCUR DURING SIGNIFICANT WET WEATHER EVENTS. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN THE CAPABILITY TO BYPASS PUMP SUCH FLOWS AT ALL TIMES WHEN THE PIPELINE IS DISRUPTED FOR RE-ROUTING. BYPASS PUMPING SYSTEM SHALL INCLUDE BOTH PRIMARY AND BACKUP CAPACITY.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN THE CAPABILITY TO BYPASS PUMP FLOWS AT ALL TIMES WHEN THE EXISTING DRAINAGE SYSTEM IS DISRUPTED FOR RE-ROUTING. BYPASS PUMPING SYSTEM SHALL INCLUDE BOTH PRIMARY AND BACKUP CAPACITY.
- IRRIGATION SYSTEM INFORMATION HAS BEEN OBTAINED FROM THE "GRADING AND IRRIGATION PLAN" FROM WILFRID L. GATES JR LANDSCAPE ARCHITECT DATED DECEMBER 1975.
- BORING AND MONITORING WELL INFORMATION HAS BEEN OBTAINED FROM THE FOLLOWING:
  - PHASE I ENVIRONMENTAL SITE ASSESSMENT PREPARED BY SAGE ENVIRONMENTAL, INC. DATED NOVEMBER 8, 2021
  - SITE INVESTIGATION REPORT PREPARED BY SAGE ENVIRONMENTAL, INC. DATED MAY 2023
  - PRELIMINARY GEOTECHNICAL REPORT PREPARED BY LAHLAF GEOTECHNICAL CONSULTING, INC. DATED FEBRUARY 7, 2023
- LIGHT POLES AND FIXTURES AT THE EXISTING BASKETBALL COURTS AND THE EXISTING FLAG POLE SHALL BE REMOVED AND SALVAGED. THESE SHALL BE DELIVERED TO THE CENTRAL FALLS DPW AT 1280 HIGH STREET, CENTRAL FALLS, RI 02863.
- THE CONTRACTOR SHALL CLEAR AND GRUB ALL EXISTING VEGETATION WITHIN THE LIMITS OF DISTURBANCE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RELATED TO DEWATERING EXCAVATION, BOTH FROM GROUNDWATER AND STORMWATER RUNOFF. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING FLOW RATES AND VOLUMES. DISCHARGE OF DEWATERING EFFLUENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RESPECTIVE AUTHORITY HAVING JURISDICTION.

**BID ALTERNATE NOTES:**

ALTERNATE 2 - OUTDOOR FURNITURE: DEMOLITION WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO LANDSCAPE DRAWINGS FOR INFORMATION REGARDING THE BASE BID AND ALTERNATE.

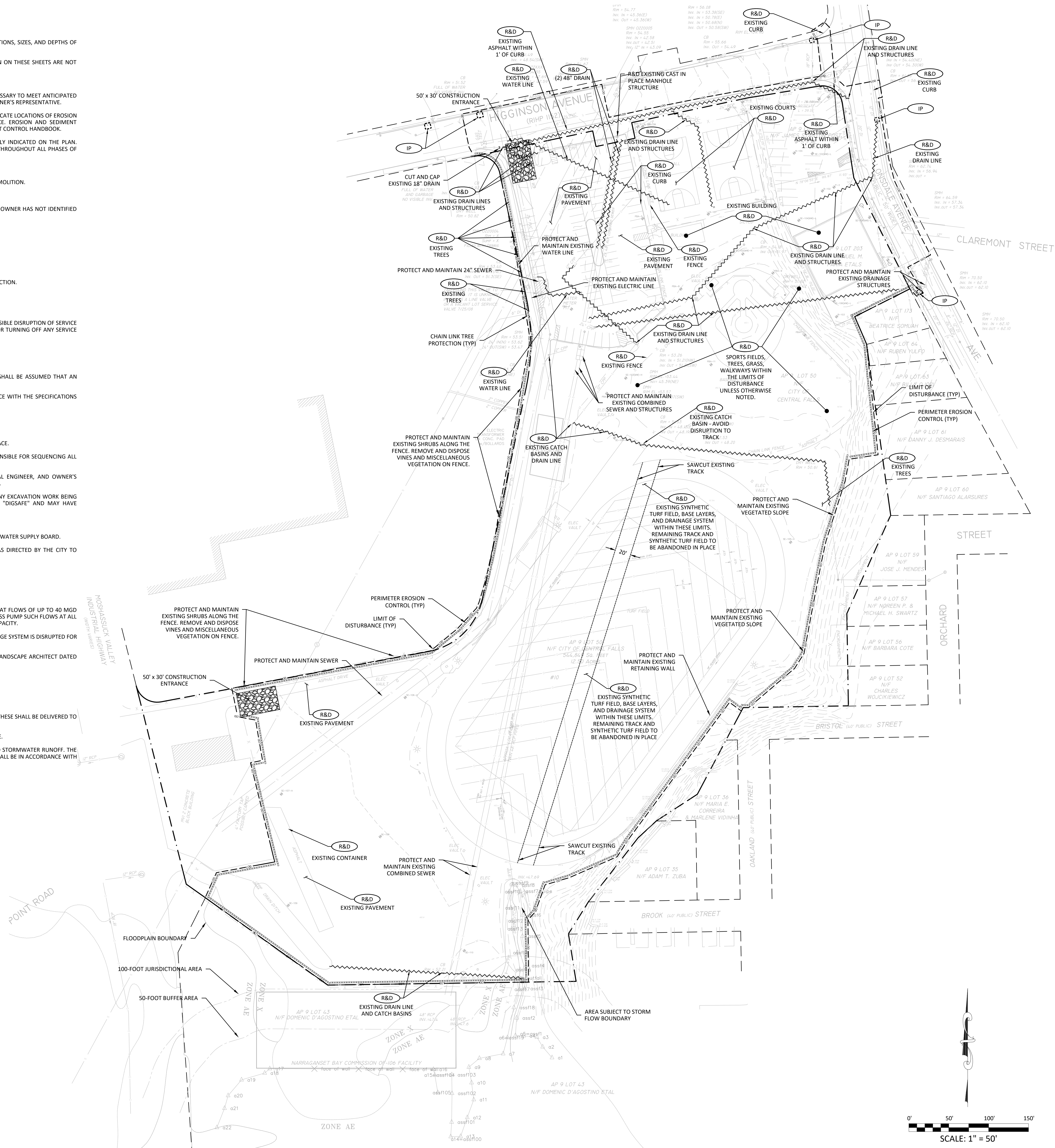
ALTERNATE 3 - OUTDOOR CLASSROOM: OUTDOOR CLASSROOM FEATURES ASSOCIATED WITH THE ALTERNATE ARE SHOWN AS BACKGROUND INFORMATION ON THIS SHEET. DEMOLITION WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE.

ALTERNATE 5 - FREIGHT FARM UNIT: DEMOLITION WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR INFORMATION REGARDING THE BASE BID AND ALTERNATE.

ALTERNATE 6 - THROWING EVENTS: DEMOLITION WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE.

ALTERNATE 9 - SPORTS LIGHTING: ALL WORK SHOWN ON THE CIVIL DRAWING SHEETS ARE ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO THE ELECTRICAL DRAWINGS FOR INFORMATION REGARDING SITE ELECTRIC.

ALTERNATE 10 - TREES: DEMOLITION WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO LANDSCAPE DRAWINGS FOR INFORMATION REGARDING THE BASE BID AND ALTERNATE.



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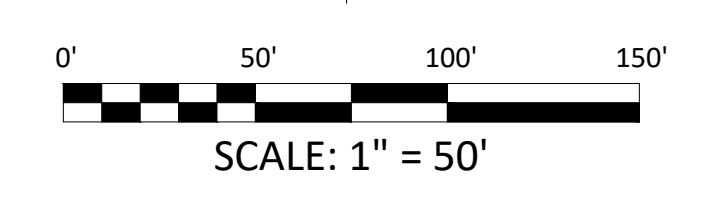
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**CENTRAL FALLS SCHOOL DISTRICT**  
 EQUITY - EMPowerment - EXCELLENCE  
 CENTRAL FALLS HIGH SCHOOL  
 10 HIGGINSON AVE, CENTRAL FALLS, RI  
 KEYNOTE LEGEND:

**100% CONSTRUCTION DOCUMENTS**  
 NORTH ARROW

KEYPLAN

DRAWING NAME:  
**EXISTING CONDITIONS AND DEMOLITION PLAN**  
 DRAWN BY: SMC  
 REVIEWED BY: GBD  
 SCALE: AS NOTED DRAWING NUMBER:  
 JOB NO.: 77977  
 DATE: OCTOBER 13, 2023  
**C1.0**

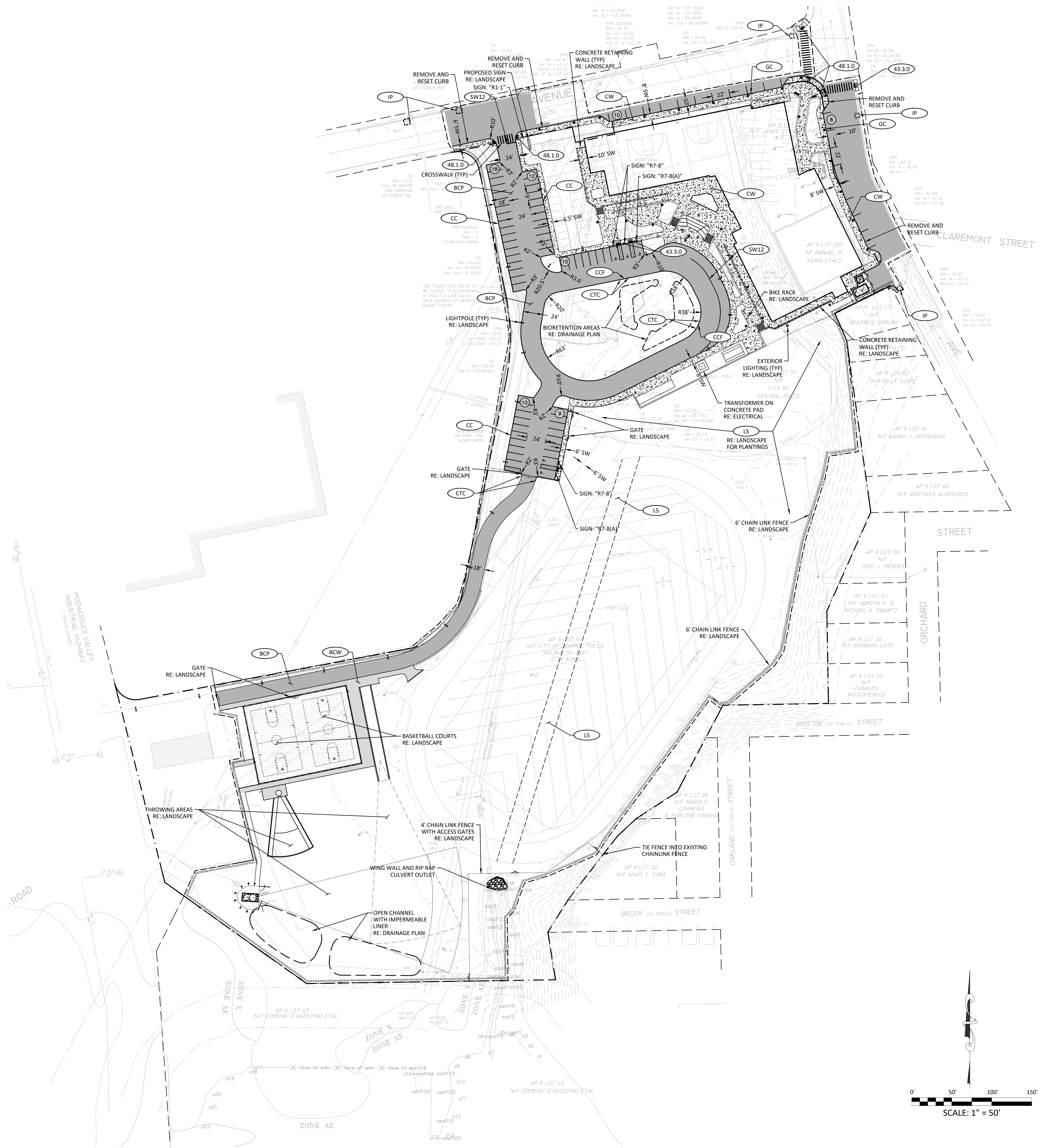


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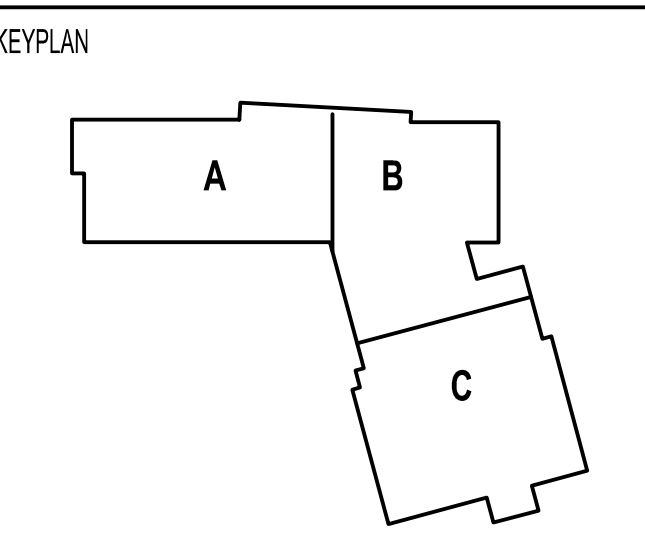
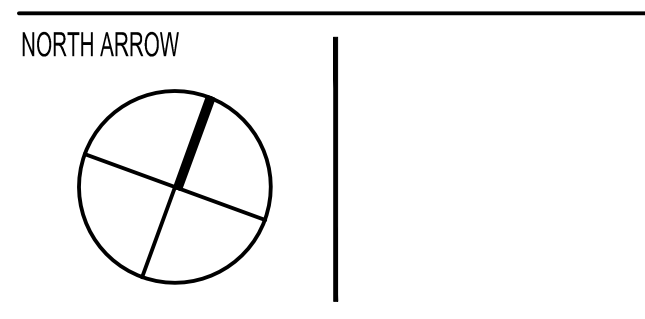
- EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, PERIMETER RAY BALES, VEHICLE TRACKING CONTROL, INLET PROTECTION, CONCRETE WASHOUT AREAS AND TEMPORARY SEDIMENTATION BASINS SHOULD BE CONSIDERED.
- CURBING SHALL BE PROVIDED AS NOTED IN ALL PARKING AREAS AT THE EDGE OF THE PAVEMENT AND ADJACENT TO SIDEWALKS.
- WHERE SIDEWALKS INTERSECT CURB LINES, ADA COMPLIANT CURB RAMP WITH DETECTABLE WARNING MAT SHALL BE INSTALLED. DETECTABLE WARNING PANELS SHALL BE CAST IRON, SEE SPECIFICATIONS.
- CONCRETE WALKWAY MATERIALS SHOWN FOR CLARITY ONLY. REFER TO LANDSCAPE PLANS FOR ALL WALKWAY MATERIALS, FINISHES, AND SCORING.
- WHERE EXISTING UTILITIES ARE TO REMAIN, ALL RIMS, COVERS, GRATES AND HATCHES SHALL BE ADJUSTED TO FINISHED GRADE.
- THE SITE IS SUBJECT TO A REMEDIAL ACTION WORK PLAN (RAWP). THE CONTRACTOR SHALL CONDUCT ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE RAWP. SITE WIDE CAPPING IS THE REMEDIAL ACTION IDENTIFIED IN THE PLAN. THE CONTRACTOR SHALL CAP ALL AREAS WITHIN THE LIMIT OF DISTURBANCE AS DESCRIBED BELOW UNLESS NOTED OTHERWISE. ALL FILL MATERIAL USED AS CLEAN FILL WITHIN 12 INCHES OF FINAL GRADE SHALL BE SAMPLED FOR COMPLIANCE PRIOR TO IMPORTATION.
  - BUILDING/HARDSCAPE: A MINIMUM OF 6 INCHES OF CLEAN SUBGRADE OVERLAIN BY 4 INCHES OF ASPHALT OR CONCRETE PAVEMENT. SURFACE SOIL IN THE PROPOSED HARDSCAPE AREAS CAN EITHER BE EXCAVATED OR REPLACED, OR THE ASPHALT/CONCRETE SURFACING AND/OR CLEAN FILL CAN BE PLACED DIRECTLY ON TOP OF THE SOIL WITHOUT EXCAVATION.
  - LANDSCAPE: A MINIMUM OF 12 INCHES OF CLEAN FILL PLACED OVER A NON-WOVEN GEOTEXTILE FABRIC ON TOP OF CONTAMINATED SOIL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULL DEPTH RESTORATION OF THE EXISTING TRACK SURFACE WHERE DISTURBED FOR INSTALLATION OF DRAINAGE PIPES. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESURFACING OF THE ENTIRE EXISTING TRACK. REFER TO THE LANDSCAPE PLANS FOR TRACK RESTORATION DETAILS.

**BID ALTERNATE NOTES:**

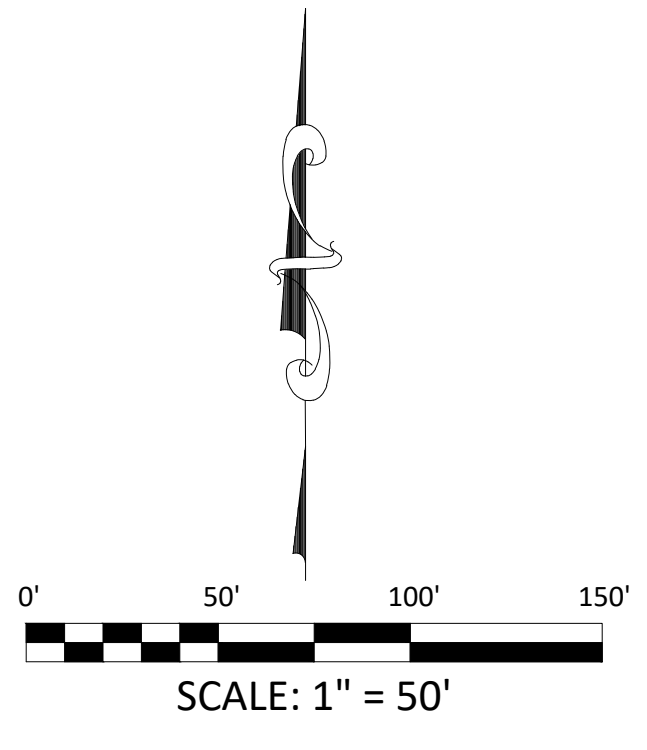
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100% CONSTRUCTION DOCUMENTS



DRAWING NAME:		<b>SITE IMPROVEMENTS PLAN</b>	
DRAWN BY:	SMC	REVIEWED BY:	GBD
SCALE:	AS NOTED	DRAWING NUMBER:	<b>C2.0</b>
JOB NO.:	77997	DATE:	OCTOBER 13, 2023



**GRADING NOTES:**

1. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
2. SITE GRADES SHALL CONFORM WITH ADA REQUIREMENTS. IN AREAS WHERE THESE REQUIREMENTS CANNOT BE MET, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION.
3. ALL TRANSITIONS BETWEEN GROUND COVERING MATERIALS SHALL BE SMOOTH.
4. CROSS SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 2% AND RUNNING SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 5%.
5. REFER TO DRAINAGE PLANS FOR ALL DRAINAGE STRUCTURE RIM ELEVATIONS.
6. TOP OF WALL (TOW) AND BOTTOM OF WALL (BOW) ELEVATIONS SHOWN ON THIS PLAN INDICATE THE GROUND ELEVATION IMMEDIATELY ADJACENT TO THE WALL. REFER TO THE LANDSCAPE DRAWINGS FOR THE REVEAL HEIGHT OF EACH SITE WALL.

**COST ESTIMATING NOTES:**

1. IT IS ANTICIPATED THAT APPROXIMATELY 5,800 CUBIC YARDS OF MATERIAL WILL BE EXCAVATED FROM THE NORTHERN PORTION OF THE SITE AND THIS MATERIAL WILL BE UNSUITABLE FOR USE BELOW PROPOSED PAVED SURFACES AND STRUCTURES.
2. FOR COST ESTIMATING PURPOSES THE FOLLOWING IS ASSUMED:
  - 2.1. APPROXIMATELY 2,500 CUBIC YARDS OF THE MATERIAL WILL BE SPREAD THROUGHOUT THE SOUTHERN PORTION OF THE SITE, IN LOCATIONS WHERE THE PROPOSED FINISHED SURFACE IS TO BE UNPAVED/PERVIOUS. THIS IS ANTICIPATED TO BE AN APPROXIMATE DEPTH OF 1.5 FEET. THIS DEPTH WILL BE TAPERED DOWN AT THE PERIMETER OF THE WORK TO MEET EXISTING SURFACE ELEVATIONS.
  - 2.2. ONE FOOT (12 INCHES) OF IMPORTED MATERIAL WILL BE SPREAD ABOVE THIS REUSED ON-SITE MATERIAL. GEOTEXTILE WILL BE UTILIZED TO SEPARATE ON-SITE AND IMPORTED MATERIAL. IT IS ANTICIPATED THAT THE FINAL GRADE WILL BE APPROXIMATELY 2.5 FEET ABOVE THE EXISTING GRADE THROUGHOUT THE UNPAVED/PERVIOUS SURFACES ON THE SOUTHERN PORTIONS OF THE SITE. THIS DEPTH WILL BE TAPERED DOWN AT THE PERIMETER OF THE WORK TO MEET EXISTING SURFACE ELEVATIONS.
  - 2.3. IT IS ANTICIPATED THAT APPROXIMATELY 3,300 CUBIC YARDS OF EXCAVATED ON-SITE SOILS WILL BE TAKEN OFF-SITE FOR DISPOSAL.

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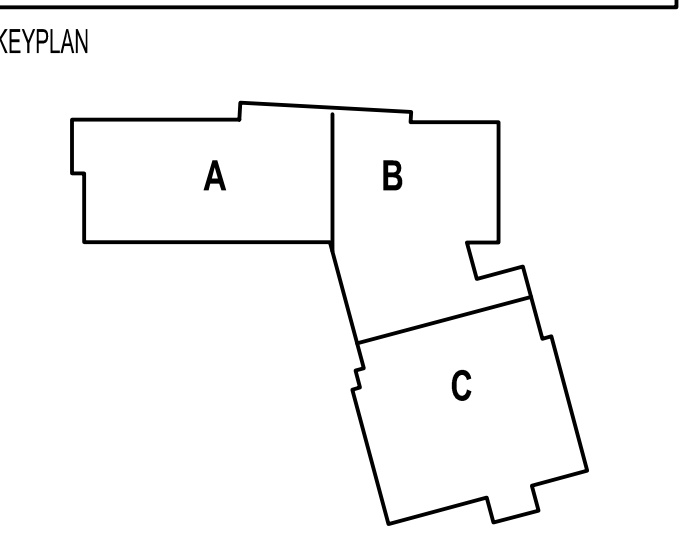
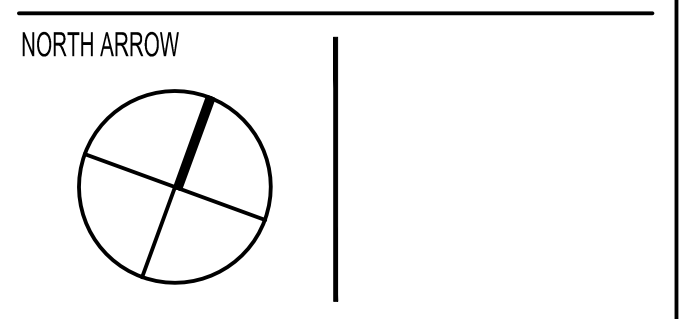
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CENTRAL FALLS HIGH SCHOOL  
10 HIGGINSON AVE, CENTRAL FALLS, RI  
KEYNOTE LEGEND:

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DRAWING NAME:  
**GRADING PLAN**

DRAWN BY: SMC  
REVIEWED BY: GBD

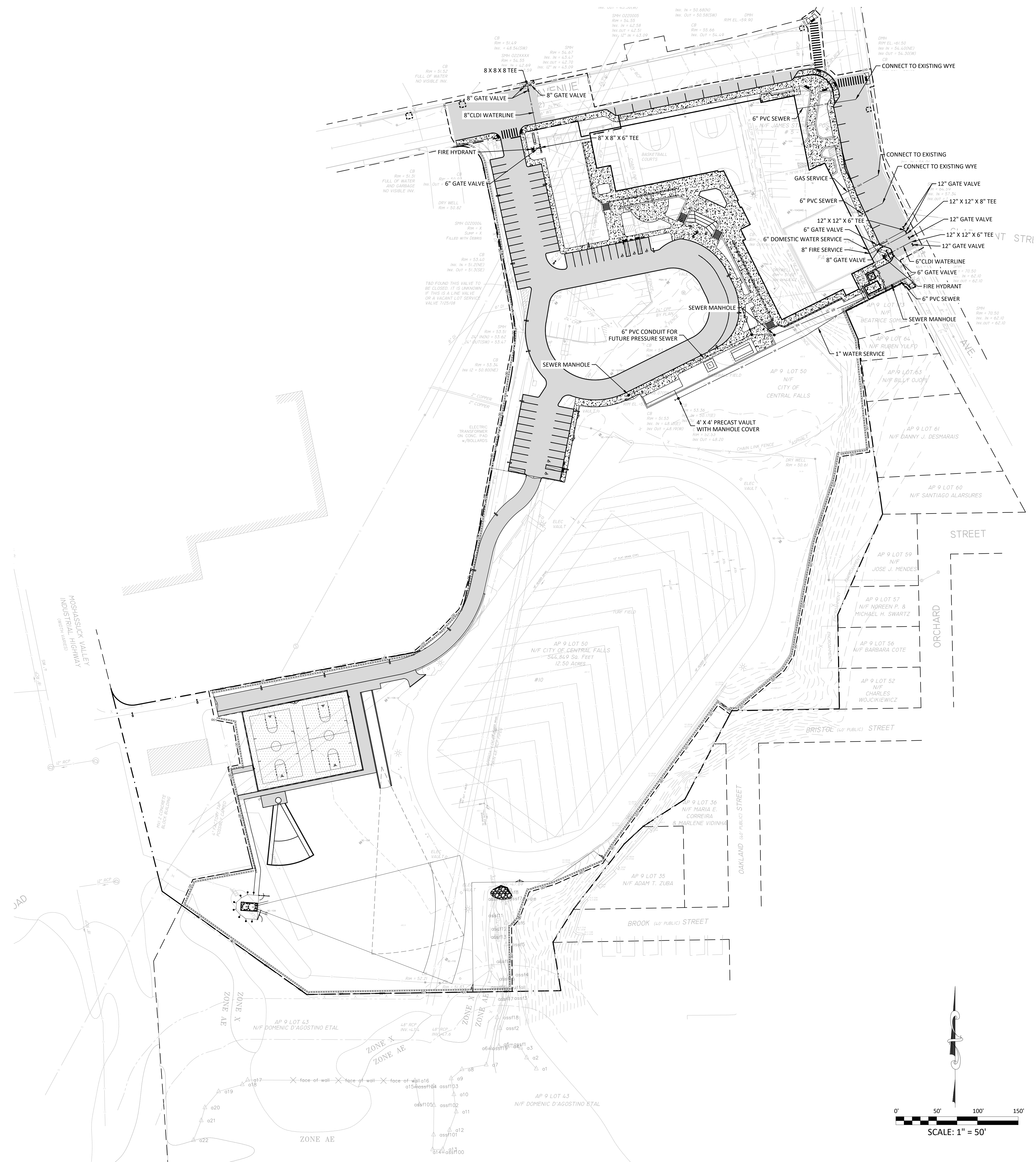
SCALE: AS NOTED | DRAWING NUMBER:  
JOB NO.: 77997 | **C3.0**  
DATE: OCTOBER 13, 2023

**NOTES:**

- WORK ON ACTIVE UTILITY LINES (INCLUDING SEWER, WATER, AND DRAINAGE) SHALL BE COORDINATED AND SCHEDULED WITH THE OWNER PRIOR TO EXECUTION OF THE WORK.
- THE CONTRACTOR SHALL MAINTAIN EXISTING PUBLIC SEWER AND DRAIN THROUGHOUT THE DURATION OF THE PROJECT. AT NO TIME SHALL THESE UTILITIES BE TAKEN OUT OF SERVICE WITHOUT WRITTEN AUTHORIZATION FROM THE UTILITY OWNER. IF TEMPORARY SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH UTILITY BYPASSING.
- WORK ON EXISTING GAS LINES, INCLUDING CAPPING, SHALL BE COORDINATED WITH LOCAL GAS COMPANY.
- POLYVINYL CHLORIDE PIPE AND FITTINGS (PVC) SHALL BE MINIMUM SDR 35 WITH FULL DIAMETER DIMENSIONS CONFORMING TO THE SPECIFICATIONS FOR TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION D3034 LATEST REVISION, FOR SIZES 18 INCHES TO 27 INCHES THE PIPE SHALL COMPLY WITH ASTM F679, LATEST RECORD.
- MANHOLE FRAMES AND COVERS SHALL BE MINIMUM CLASS 25 CONFORMING TO ASTM "STANDARD SPECIFICATION FOR GRAY IRON CASTINGS," DESIGNATION: A48.
- ALL WATER MAINS SHALL BE DUCTILE IRON CLASS 52 WITH PUSH ON JOINTS (UNLESS OTHERWISE SPECIFIED) MEETING THE REQUIREMENTS OF ANSI/AWWA C151/A21.51. ALL DUCTILE IRON WATER MAIN PIPE SHALL BE CEMENT LINED, WITH AN ASPHALTIC SEAL COAT MEETING THE REQUIREMENTS OF ANSI/AWWA C104/A21.4.
- CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL WATERLINE BENDS AND TEES IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL EXISTING STRUCTURES TO REMAIN WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO FINISH GRADE. MINIMUM AND MAXIMUM NUMBER OF SEWER BRICK COURSES USED FOR GRADE ADJUSTMENT SHALL BE IN ACCORDANCE WITH UTILITY OWNERS STANDARDS. THIS SHALL INCLUDE THE NARRAGANSETT BAY COMMISSION TRANSITION CHAMBER WITH ALUMINUM HATCH ACCESS.
- ALL PRECAST CONCRETE MANHOLES FOR SANITARY AND DRAINAGE SHALL CONFORM TO THE ASTM "SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," DESIGNATION D478. THE BARREL SHALL BE 4-FOOT WITH A 1-FOOT WITH A 1-FOOT TO PREVENT FLOTATION.
- ALL DUCTILE IRON WATER PIPE SHALL BE PRESSURE TESTED FOR 2 HOURS.
- ALL WATERLINE CONNECTIONS SHALL REQUIRE A SHUTDOWN. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SHUTDOWN WITH THE PAWTUCKET WATER SUPPLY BOARD TWO WEEKS IN ADVANCE OF WORK.
- ALL UTILITY AND DRAINAGE INSTALLATION SHALL BE INSPECTED BY THE PAWTUCKET WATER SUPPLY BOARD. CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE TO PAWTUCKET WATER SUPPLY BOARD PRIOR TO INSTALLATION.
- ALL WATERLINE GATE VALVES SHALL OPEN RIGHT. ALL HYDRANTS SHALL OPEN LEFT.
- MINIMUM VERTICAL SEPARATION BETWEEN ALL UTILITY PIPES SHALL BE EIGHTEEN (18) INCHES. IF VERTICAL SEPARATIONS ARE LESS THAN EIGHTEEN (18) INCHES, THE UTILITY PIPES SHALL BE REINFORCED AND PROTECTED AS REQUIRED BY CURRENT CITY AND UTILITY AGENCY STANDARD SPECIFICATIONS.
- WATER AND SANITARY SEWER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET. WHEN A TEN (10) FOOT SEPARATION IS NOT PROVIDED OR WHEN SEWER LINES CROSS WATER LINES WITH LESS THAN ONE AND ONE-HALF (1 1/2) FEET OF VERTICAL SEPARATION, SEWER JOINTS SHALL BE CONCRETE ENCASED. FOR PERPENDICULAR CROSSINGS, ENCASED JOINTS SHALL EXTEND TEN (10) FEET, PERPENDICULAR TO THE WATER LINE IN BOTH DIRECTIONS.
- THE LENGTH OF SANITARY SEWER LINE IS THE HORIZONTAL DISTANCE BETWEEN CENTER OF MANHOLE TO CENTER OF MANHOLE. THEREFORE, THE DISTANCES INDICATED ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND MANHOLE DIMENSIONS.
- ALL PLUMBING/MECHANICAL UTILITIES WITHIN 10 FEET OF THE BUILDING ARE SHOWN ON THE PLUMBING/MECHANICAL PLANS.
- REFER TO ELECTRICAL PLANS FOR SITE ELECTRICAL ROUTING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF EXISTING WYES PRIOR TO INSTALLATION OF EXTERIOR SEWER PIPING.

**BID ALTERNATE NOTES:**

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- ALTERNATE 9 - SPORTS LIGHTING: ALL WORK SHOWN ON THE CIVIL DRAWING SHEETS ARE ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO THE ELECTRICAL DRAWINGS FOR INFORMATION REGARDING SITE ELECTRIC.
- ALTERNATE 10 - TREES: UTILITY WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO LANDSCAPE DRAWINGS FOR INFORMATION REGARDING THE BASE BID AND ALTERNATE.



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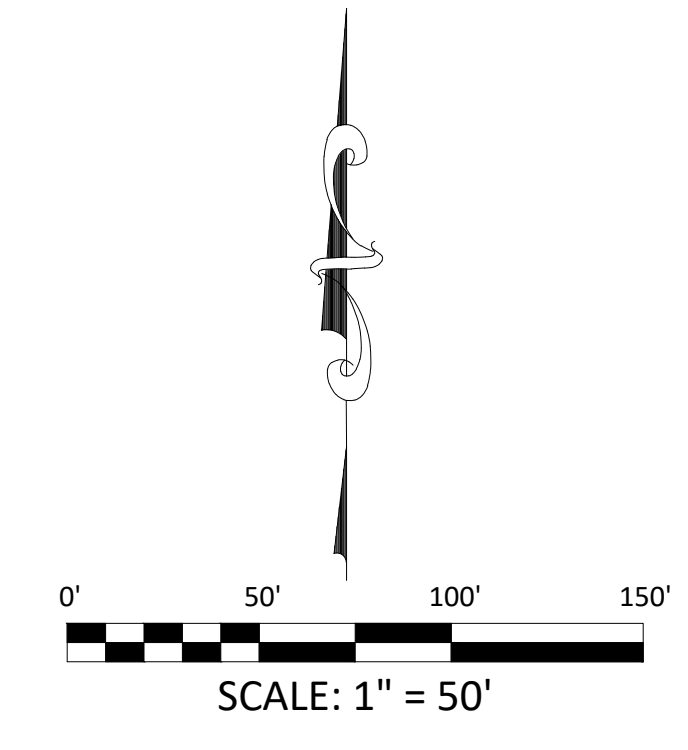
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**CENTRAL FALLS SCHOOL DISTRICT**  
 CENTRAL FALLS HIGH SCHOOL  
 10 HIGGINSON AVE, CENTRAL FALLS, RI  
 KEYNOTE LEGEND:

100% CONSTRUCTION DOCUMENTS  
 NORTH ARROW

KEYPLAN  
 A B C

DRAWING NAME:  
**UTILITY PLAN**  
 DRAWN BY: SMC  
 REVIEWED BY: GBD  
 SCALE: AS NOTED | DRAWING NUMBER:  
 JOB NO.: 77997  
 DATE: OCTOBER 13, 2023  
**C4.0**



**NOTE:**

- EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, PERIMETER HAY BALES, VEHICLE TRACKING CONTROL, INLET PROTECTION, AND TEMPORARY SEDIMENTATION BASINS SHOULD BE CONSIDERED.
- ALL UTILITIES WITHIN THE FOOTPRINT OF PROPOSED BUILDING ADDITIONS SHOULD BE ANTICIPATED TO BE REMOVED AND RELOCATED. SERVICE SHALL BE MAINTAINED TO EXISTING BUILDINGS TO REMAIN FOR THE DURATION OF CONSTRUCTION.
- ALL EXISTING STRUCTURES TO REMAIN WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO FINISH GRADE. SERVICE SHALL BE MAINTAINED TO EXISTING BUILDINGS TO REMAIN FOR THE DURATION OF CONSTRUCTION.
- ALL PRECAST CONCRETE MANHOLES FOR DRAINAGE SHALL CONFORM TO THE ASTM "SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," DESIGNATION D478. THE BARREL SHALL BE 4-FOOT WITH A 1-FOOT COLLAR TO PREVENT FLOTATION.
- ALL DRAIN LINES SHALL BE 12" UNLESS OTHERWISE NOTED. ALL DRAIN LINES SHALL BE HDPE UNLESS OTHERWISE NOTED.
- ALL CATCH BASINS TO BE 4' DIAMETER (UNLESS OTHERWISE NOTED) SHALL CONFORM TO MHD STANDARD DETAIL 201.4.0 AND ALL CATCH BASIN FRAMES AND GRATES SHALL CONFORM TO 201.6.0 UNLESS OTHERWISE NOTED.
- ALL MANHOLES TO BE 4' DIAMETER (UNLESS OTHERWISE NOTED) AND SHALL CONFORM TO MHD STANDARD DETAIL 202.4.0 AND ALL MANHOLE FRAMES AND COVERS SHALL CONFORM TO 202.6.0 UNLESS OTHERWISE NOTED. CONCRETE ANTI-FLOTATION COLLARS SHALL BE PROVIDED AT ALL MANHOLES.
- REINFORCED CONCRETE PIPE AND FLARED ENDS SHALL CONFORM TO THE AASHTO M170 FOR STANDARD STRENGTH REINFORCED CONCRETE CULVERT PIPE FOR CLASS III PIPE, WALL B, OR ASTM C76 FOR REINFORCED CONCRETE CULVERT AND STORM DRAIN PIPE UNLESS NOTED OTHERWISE. ALL PIPE 24 INCHES IN DIAMETER OR SMALLER SHALL BE OF THE BELL AND SPIGOT TYPE. PIPES LARGER THAN 24 INCHES IN DIAMETER SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT. ALL DRAINAGE PIPING SHALL BE GASKETED.
- CONCRETE VAULT DETENTION SYSTEMS SHALL INCLUDE AN 8" EXTENDED CONCRETE SLAB WITH UNITS ANCHORED INTO SLAB, AND SHALL BE LINED WITH AN IMPERVIOUS LINER.
- HIGH-DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL BE ADS N-12 1/2" ST SMOOTH INTERIOR PIPE, ADS N-12 1/2" ST HIGH CAPACITY LARGE DIAMETER PIPE OR APPROVED EQUIVALENT. JOINTS SHALL BE SOIL-TIGHT AND INCLUDE A RUBBER GASKET ON THE SPIGOT END OF THE PIPE. WHEN INSTALLED INTO THE BELL END, THE JOINT SHALL BE SEALED.
- MANHOLES OVER 12 FEET IN DEPTH SHALL HAVE MINIMUM OF 5 FEET INSIDE DIAMETER. ALL MANHOLES SHALL HAVE A SUMP OF AT LEAST 30 INCHES BELOW INVERT OF OUTLET PIPE. RISERS SHALL BE CLAY OR SHALE BRICK, AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 91, GRADE MM OR AS SPECIFIED IN MASSDOT M4.05.
- ALL CATCH BASINS SHALL HAVE A SUMP OF AT LEAST 48 INCHES (4 FEET) BELOW THE INVERT OF THE OUTLET PIPE, OR OTHERWISE APPROVED BY THE TOWN, AND AN INSIDE DIAMETER OF 4 FEET MINIMUM.
- LIVE LOAD DESIGN FOR CATCH BASINS SHALL BE HS-25 LOADING. CATCH BASINS WHICH ARE LIMITED BY HEIGHT SHALL BE INSTALLED WITH A FLAT TOP SLAB, CAST IN PLACE, DESIGNED FOR HS-25 LOADING AND CAST IRON FRAME CAST IN PLACE.
- MANHOLE FRAMES AND COVERS SHALL BE AT LEAST CLASS 25 CONFORMING TO ASTM A48 "STANDARD SPECIFICATION FOR GRAY IRON CASTINGS".
- CATCH BASIN HOODS SHALL BE USED TO MINIMIZE THE ENTRY OF OIL, GASOLINE, AND DEBRIS INTO DRAINAGE PIPES.
- WHERE PROPOSED DRAIN LINES CROSS SANITARY OR WATER LINES WITH LESS THAN 1.5' CLEARANCE, ENCASE BOTH UTILITIES IN FLOWABLE FILL FOR A DISTANCE OF 10' ON EITHER SIDE OF CROSSING. CENTER PIPE LENGTH AT CROSSING. REFER TO CROSSING DETAIL ON SHEET CS.2 ON DETAIL SHEETS.

**BID ALTERNATE NOTES:**

ALTERNATE 2 - OUTDOOR FURNITURE: DRAINAGE WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO LANDSCAPE DRAWINGS FOR INFORMATION REGARDING THE BASE BID AND ALTERNATE.

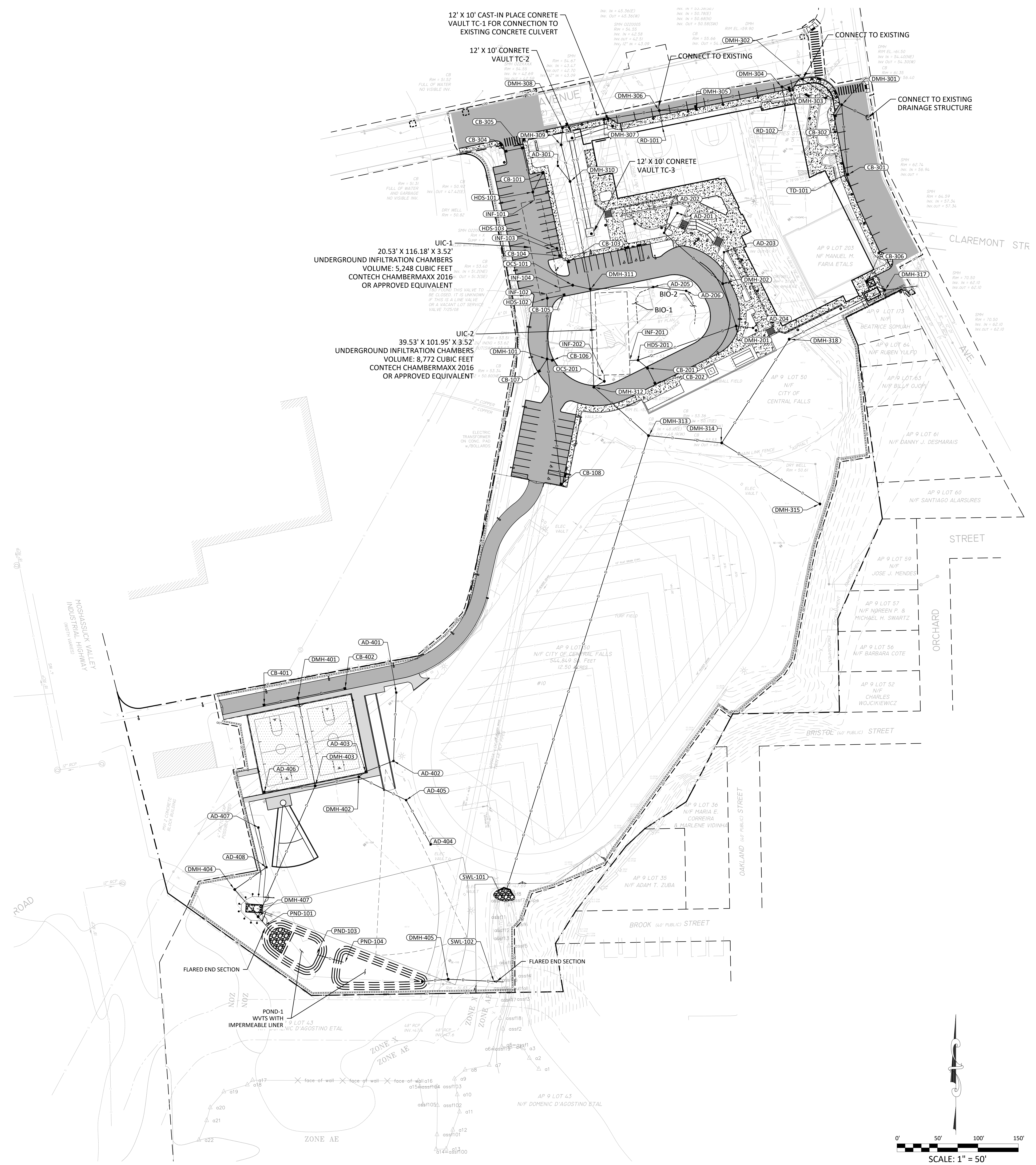
ALTERNATE 3 - OUTDOOR CLASSROOM: OUTDOOR CLASSROOM FEATURES ASSOCIATED WITH THE ALTERNATE ARE SHOWN AS BACKGROUND INFORMATION ON THIS SHEET. DRAINAGE WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE.

ALTERNATE 5 - FREIGHT FARM UNIT: DRAINAGE WORK SHOWN ON THIS SHEET IS ANTICIPATED TO BE CONSISTENT WITH BOTH THE BASE BID AND ALTERNATE. REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR INFORMATION REGARDING THE BASE BID AND ALTERNATE.

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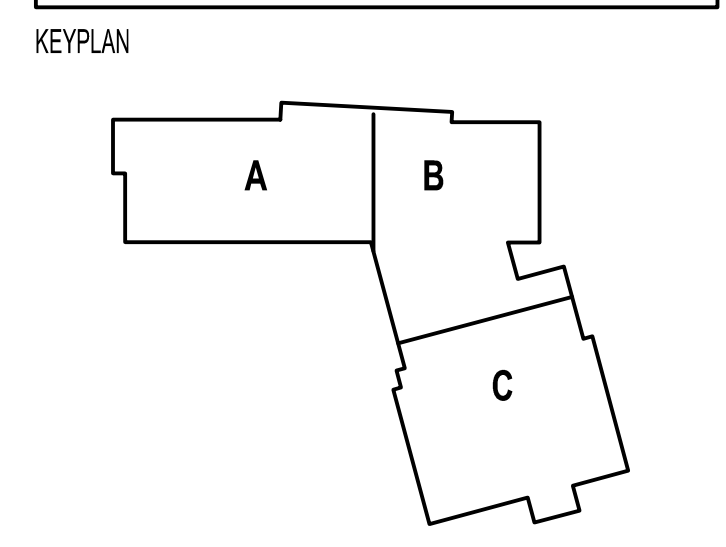
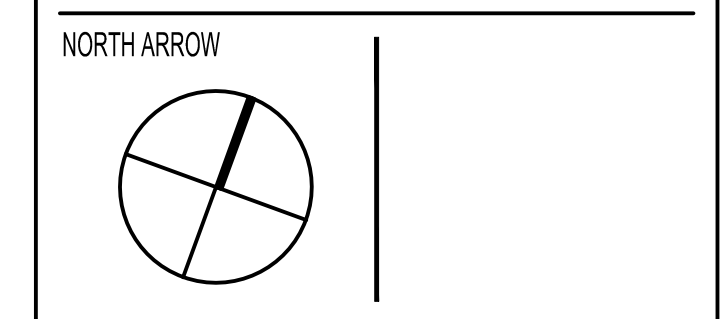


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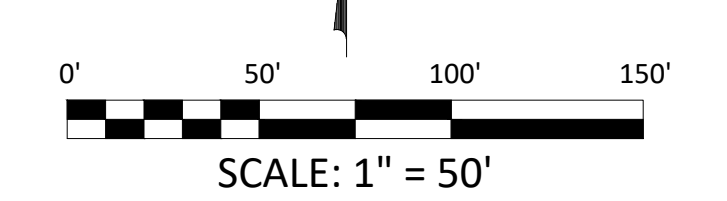
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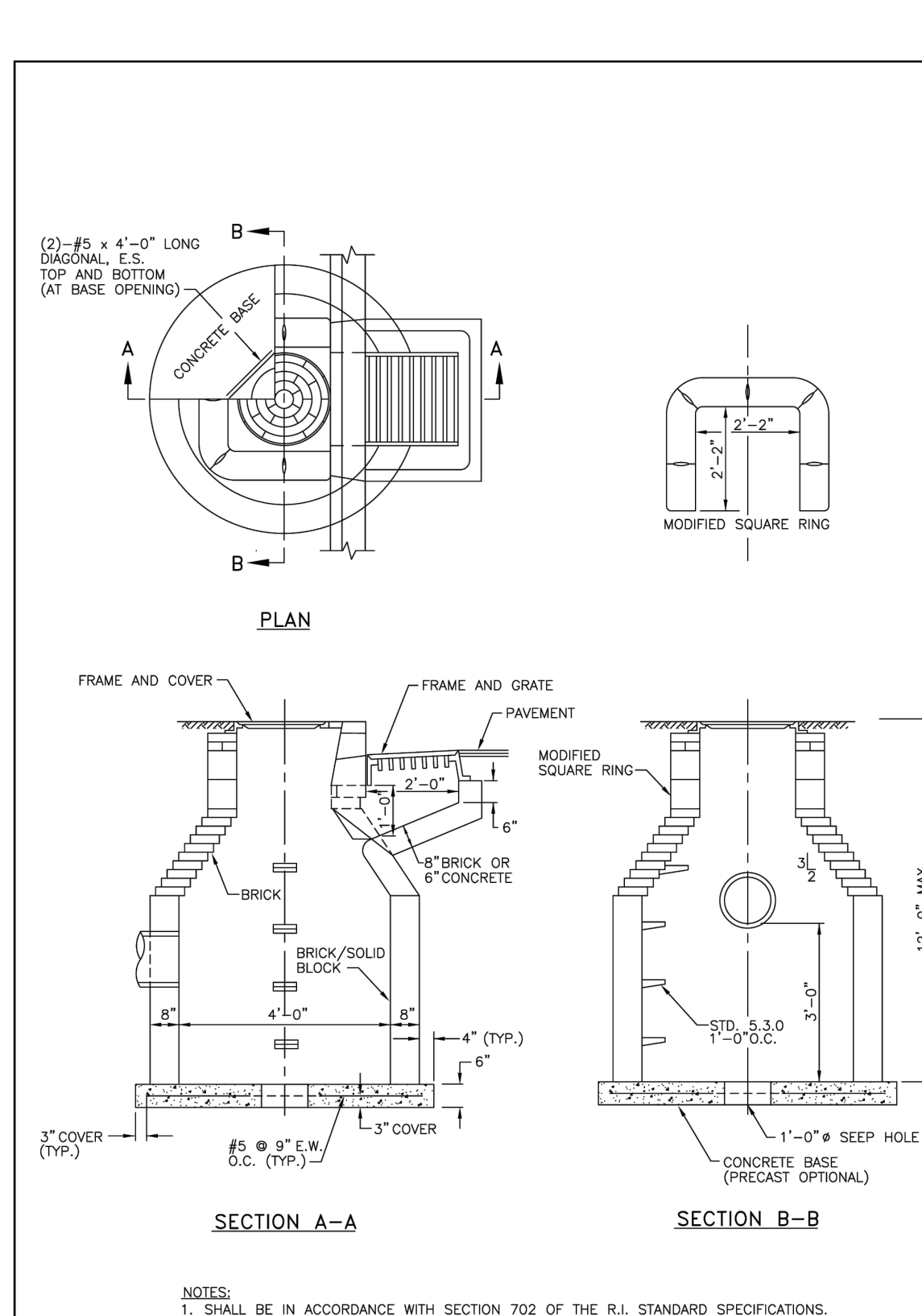
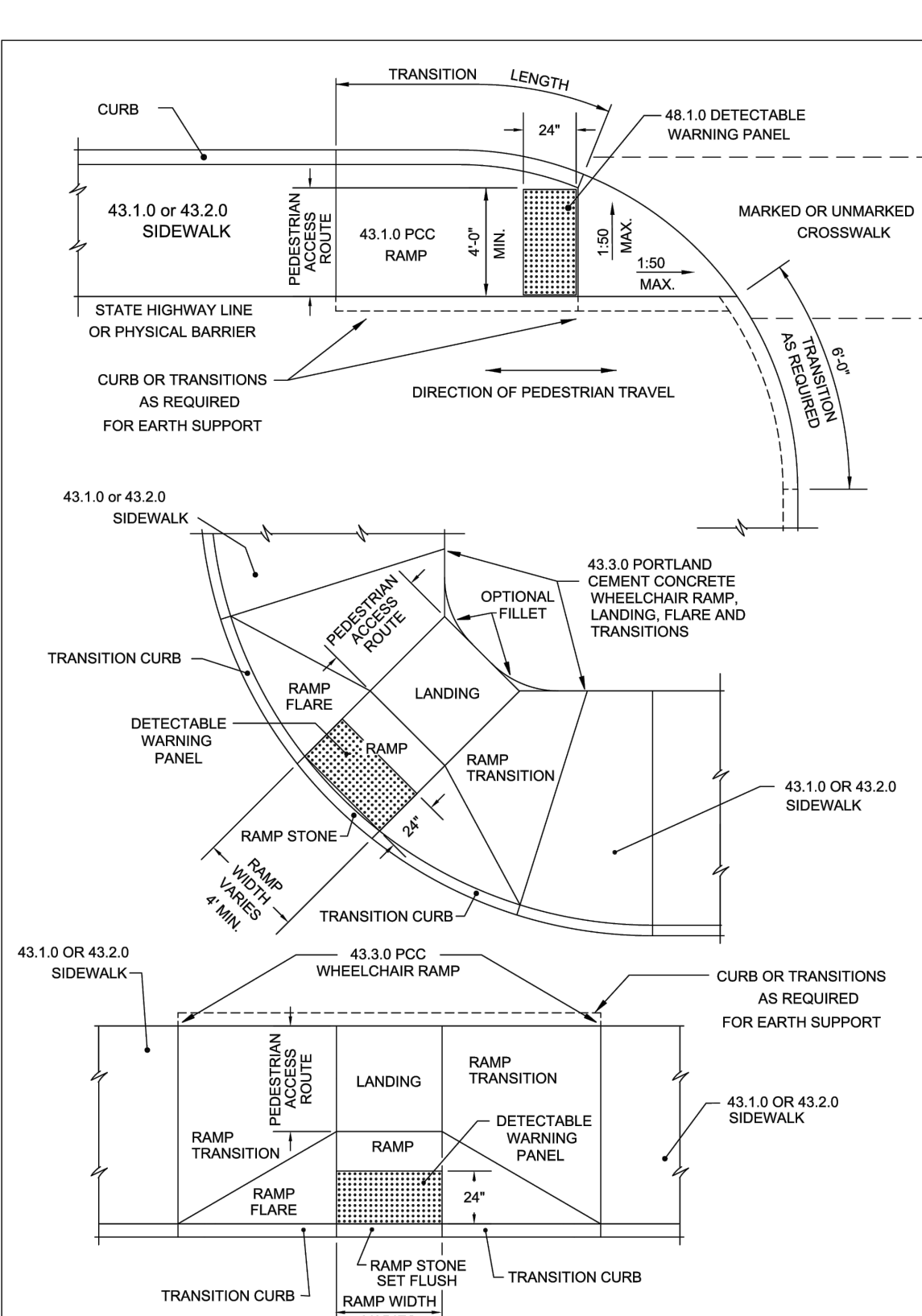
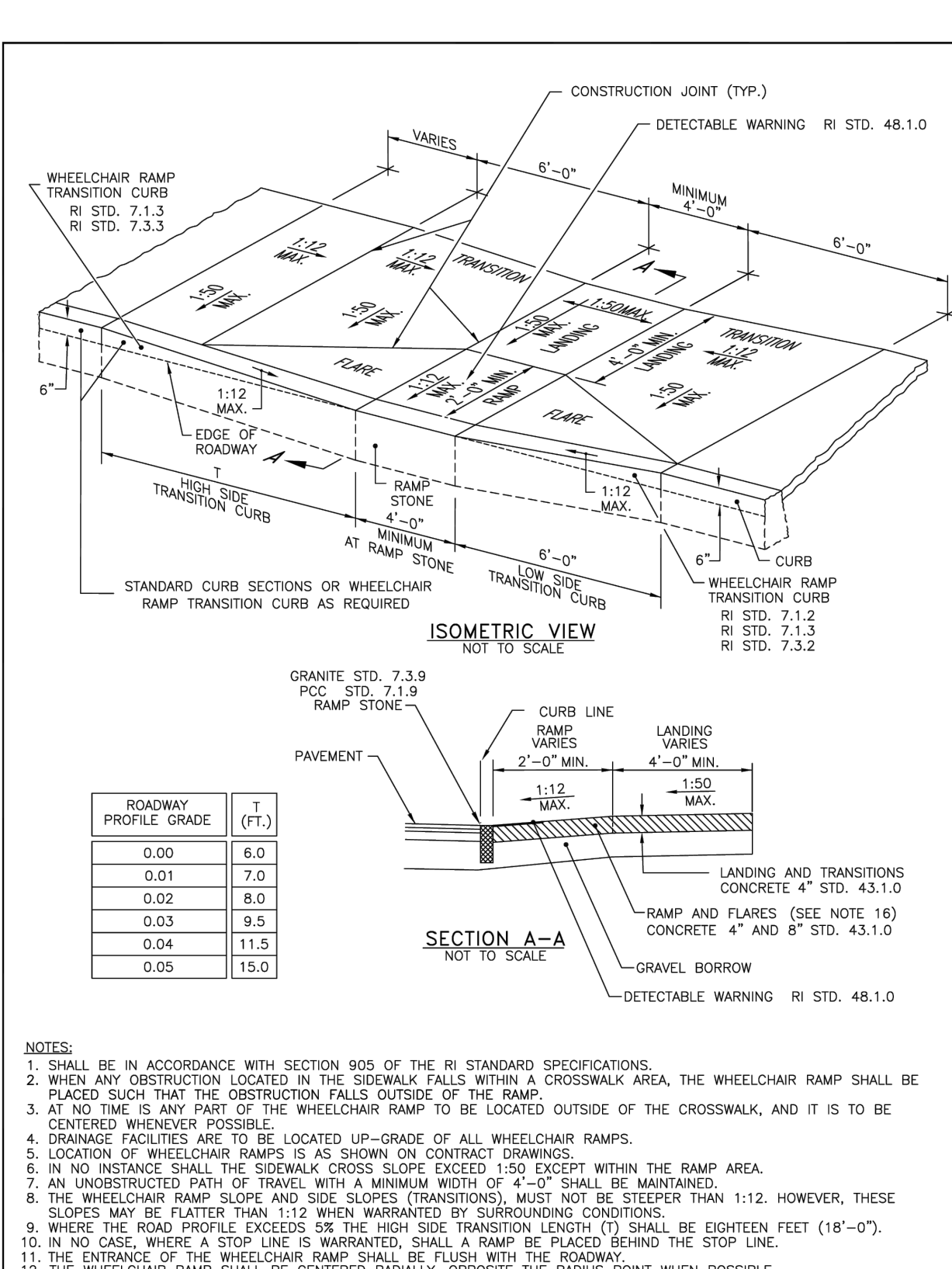
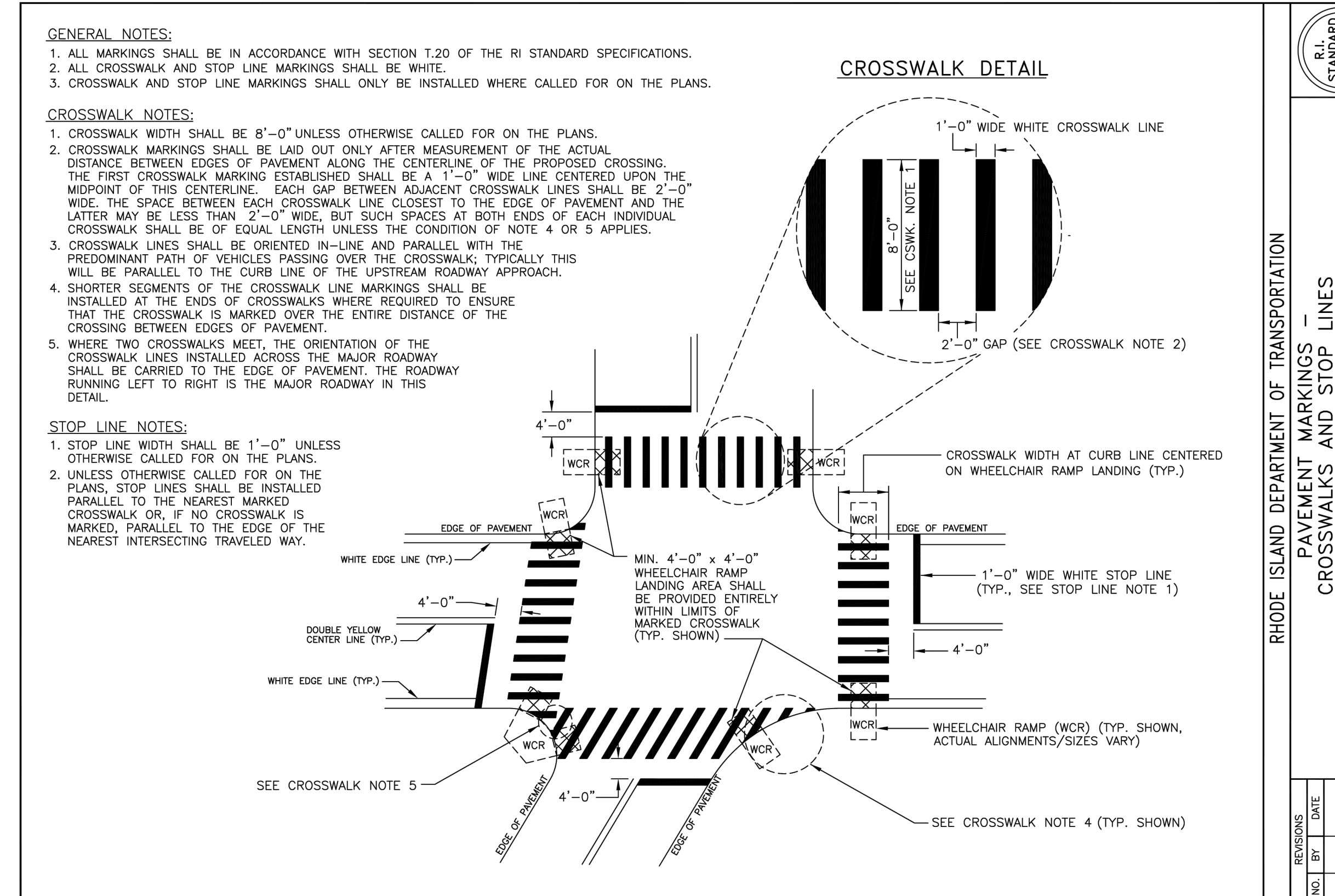
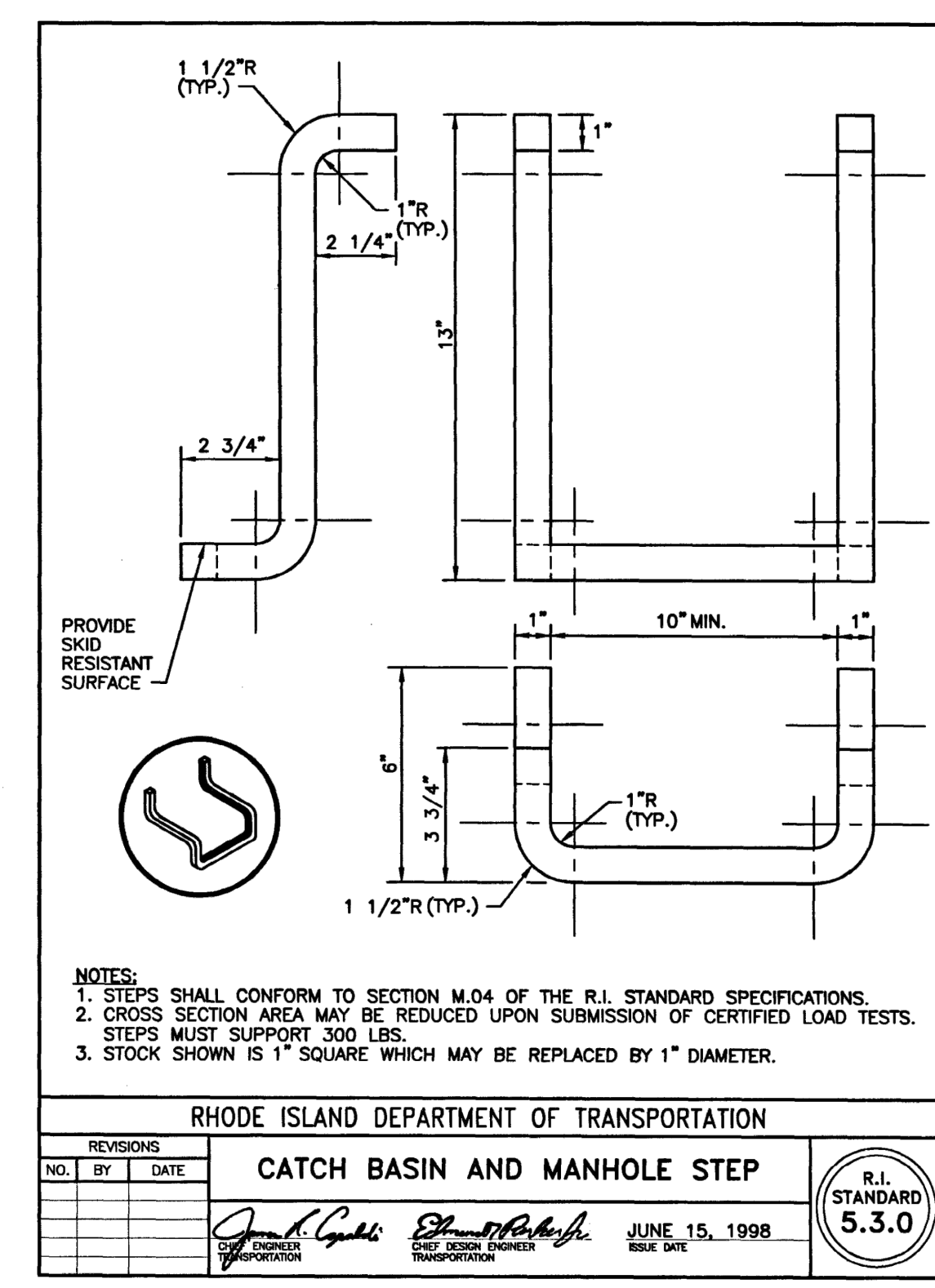
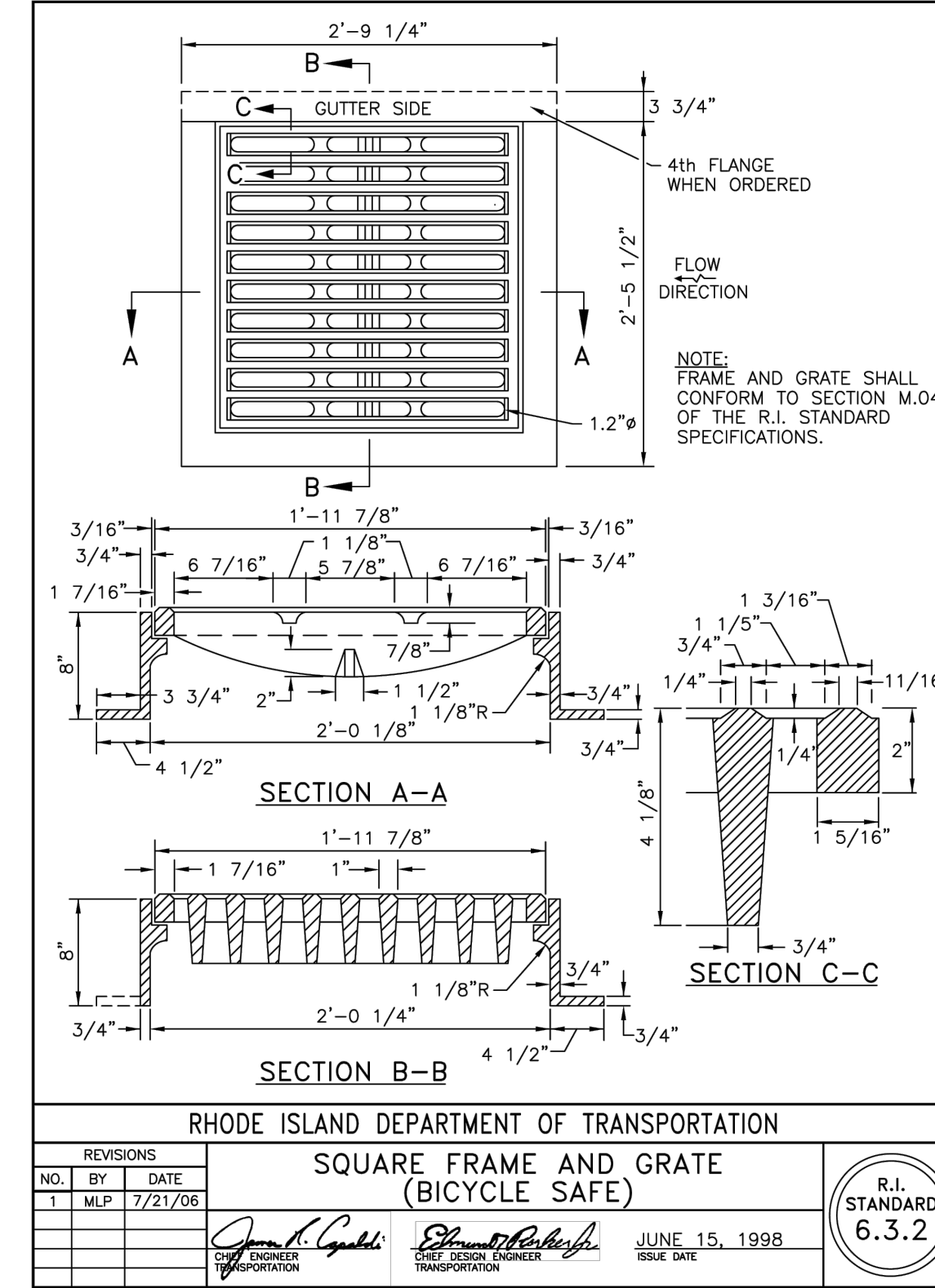
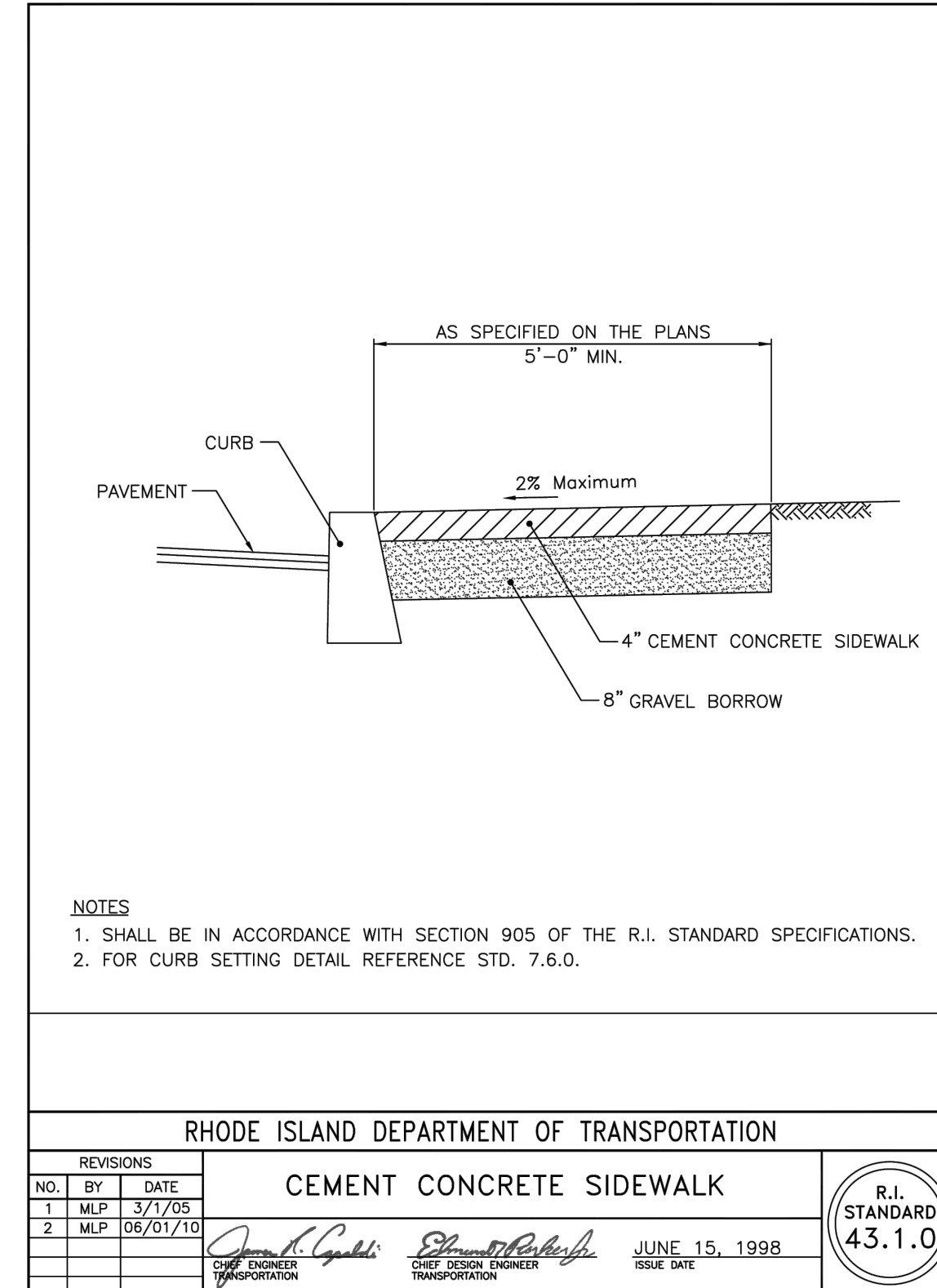
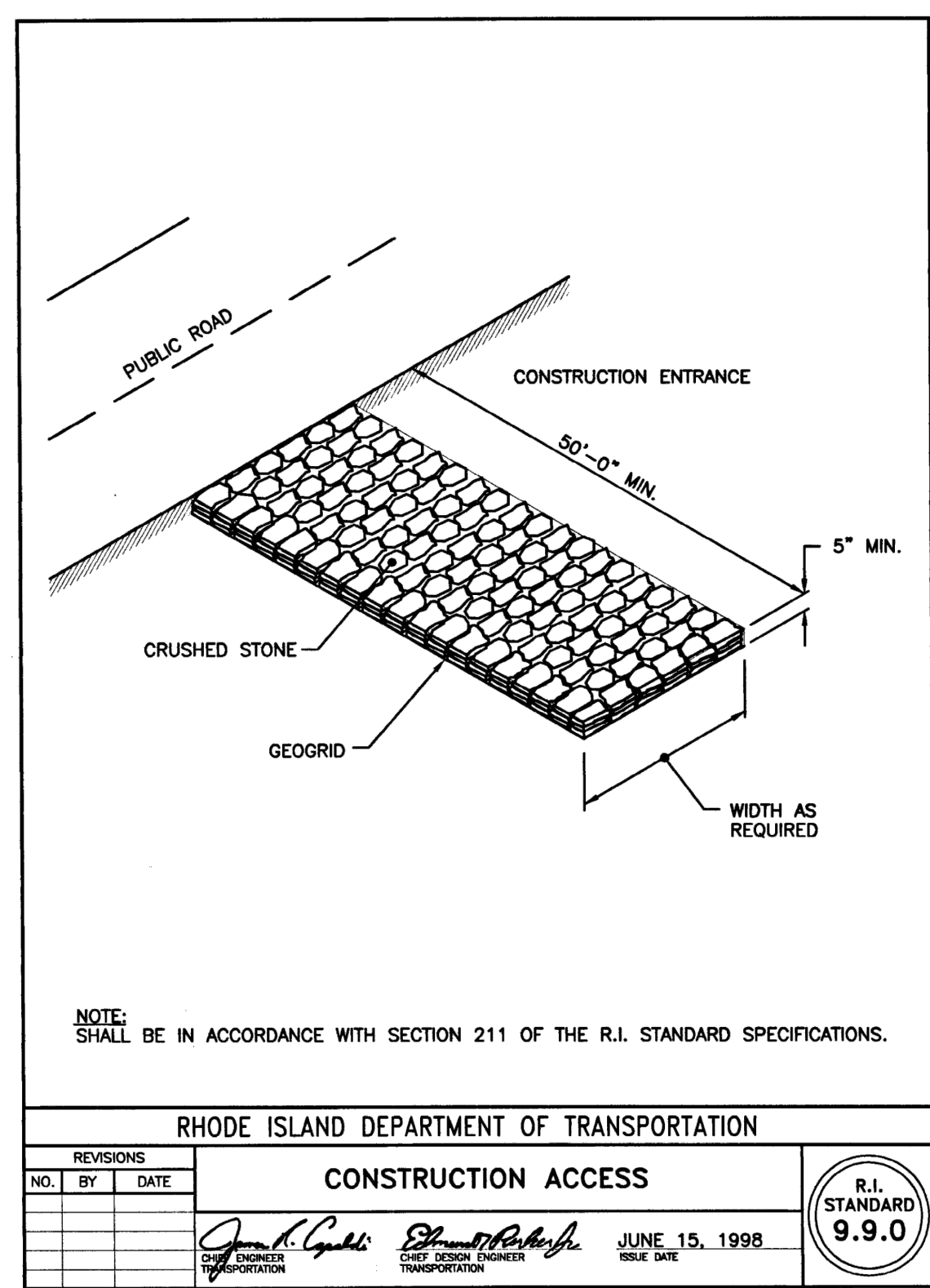
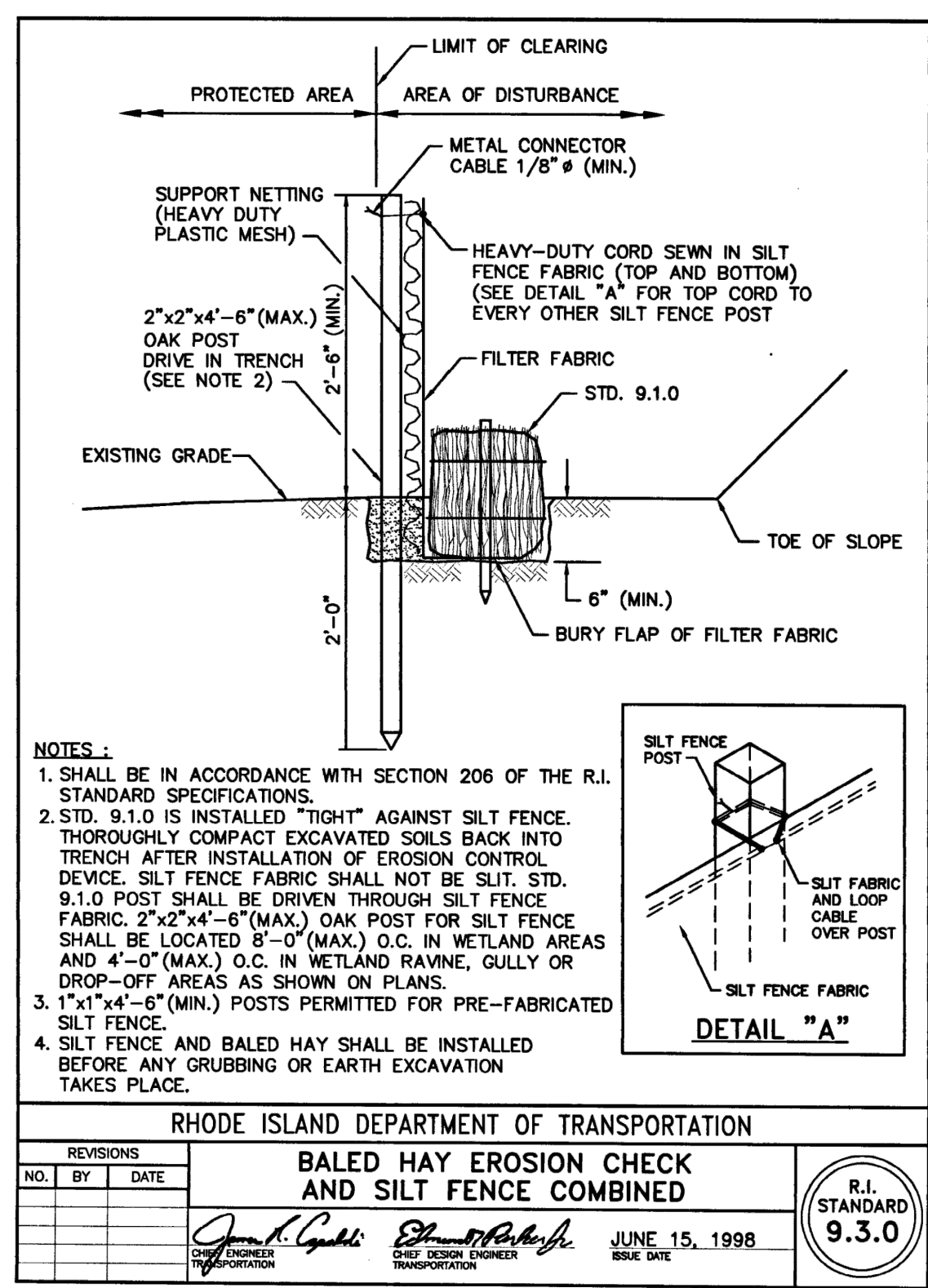
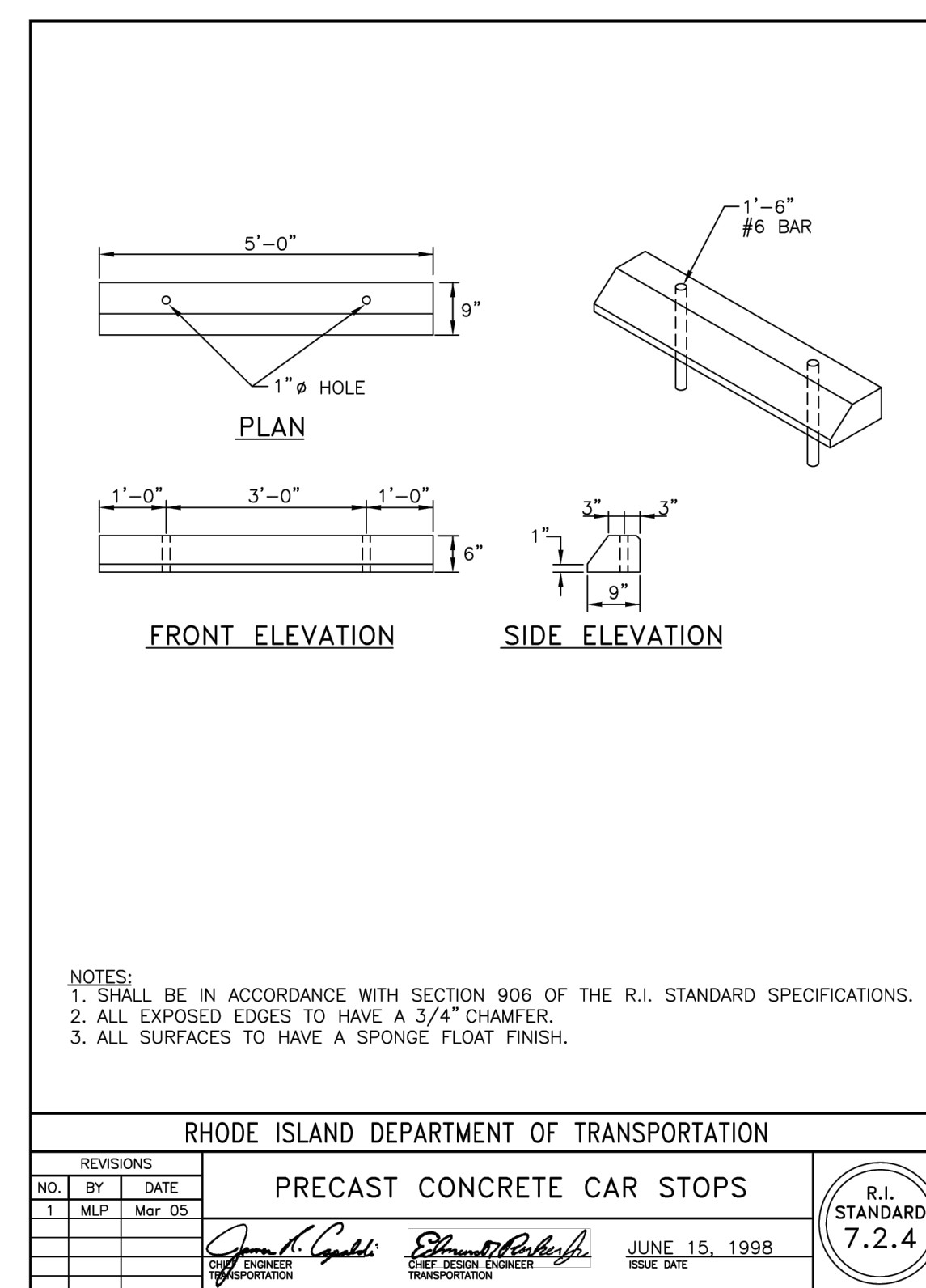
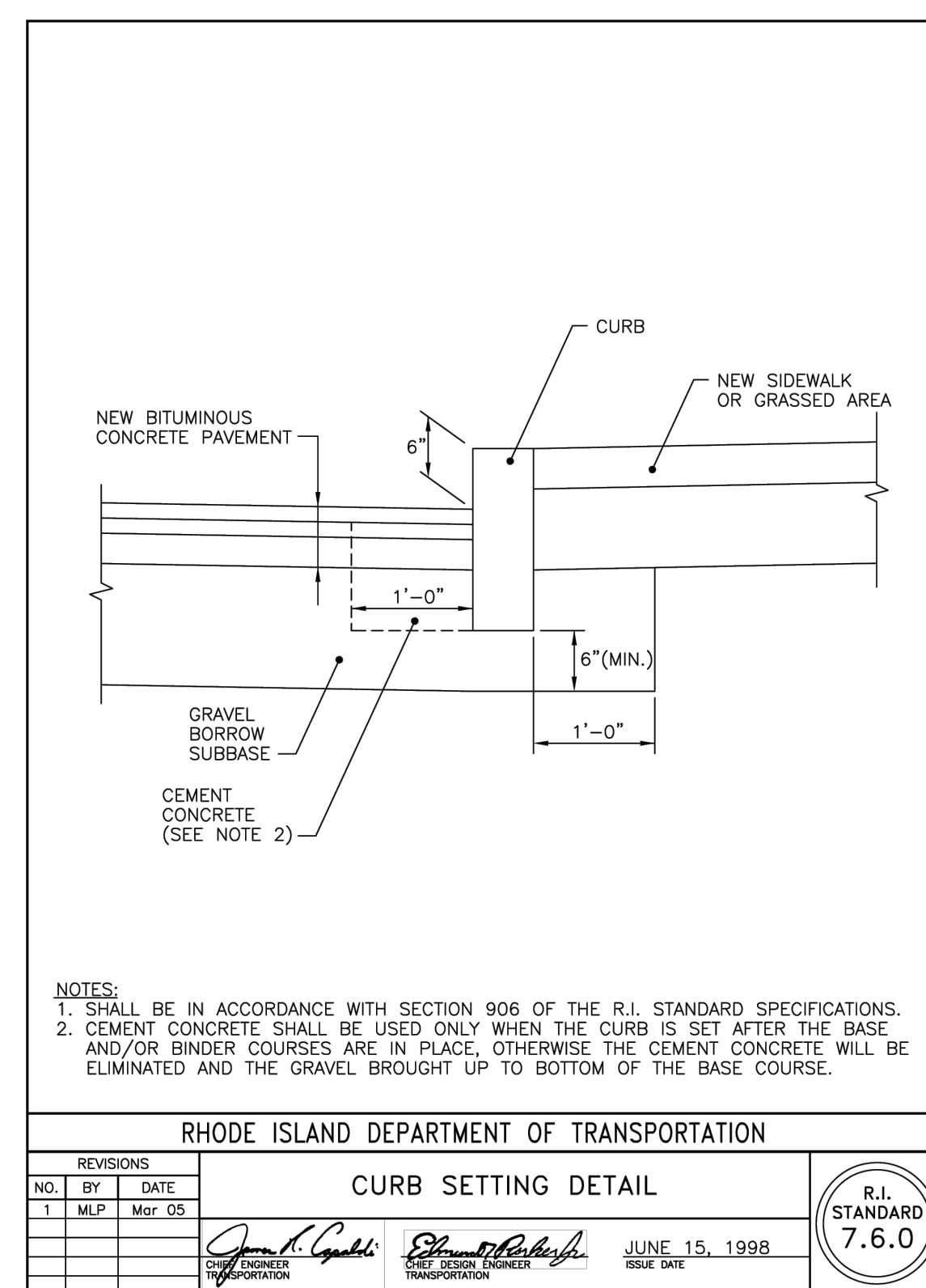
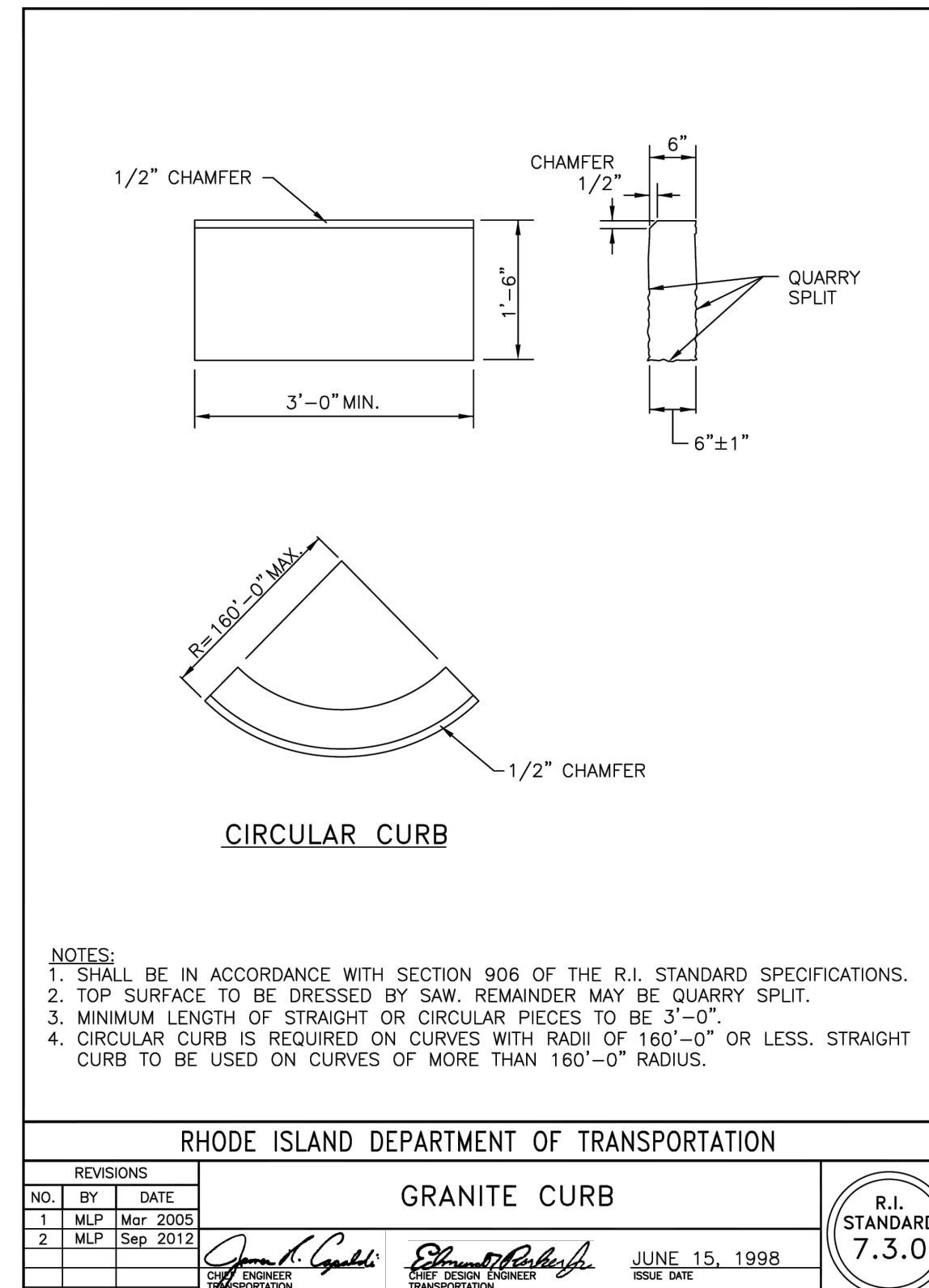
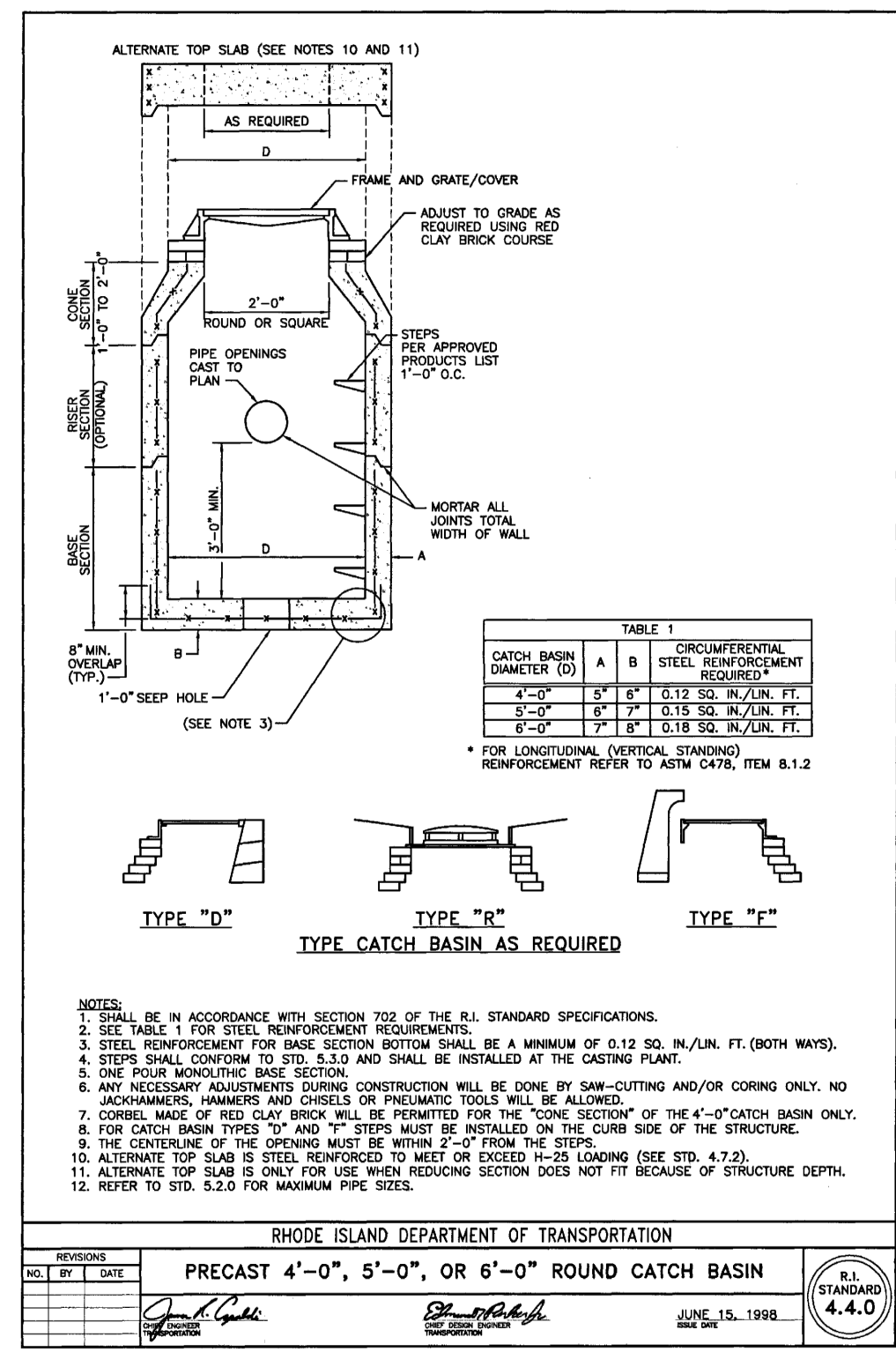
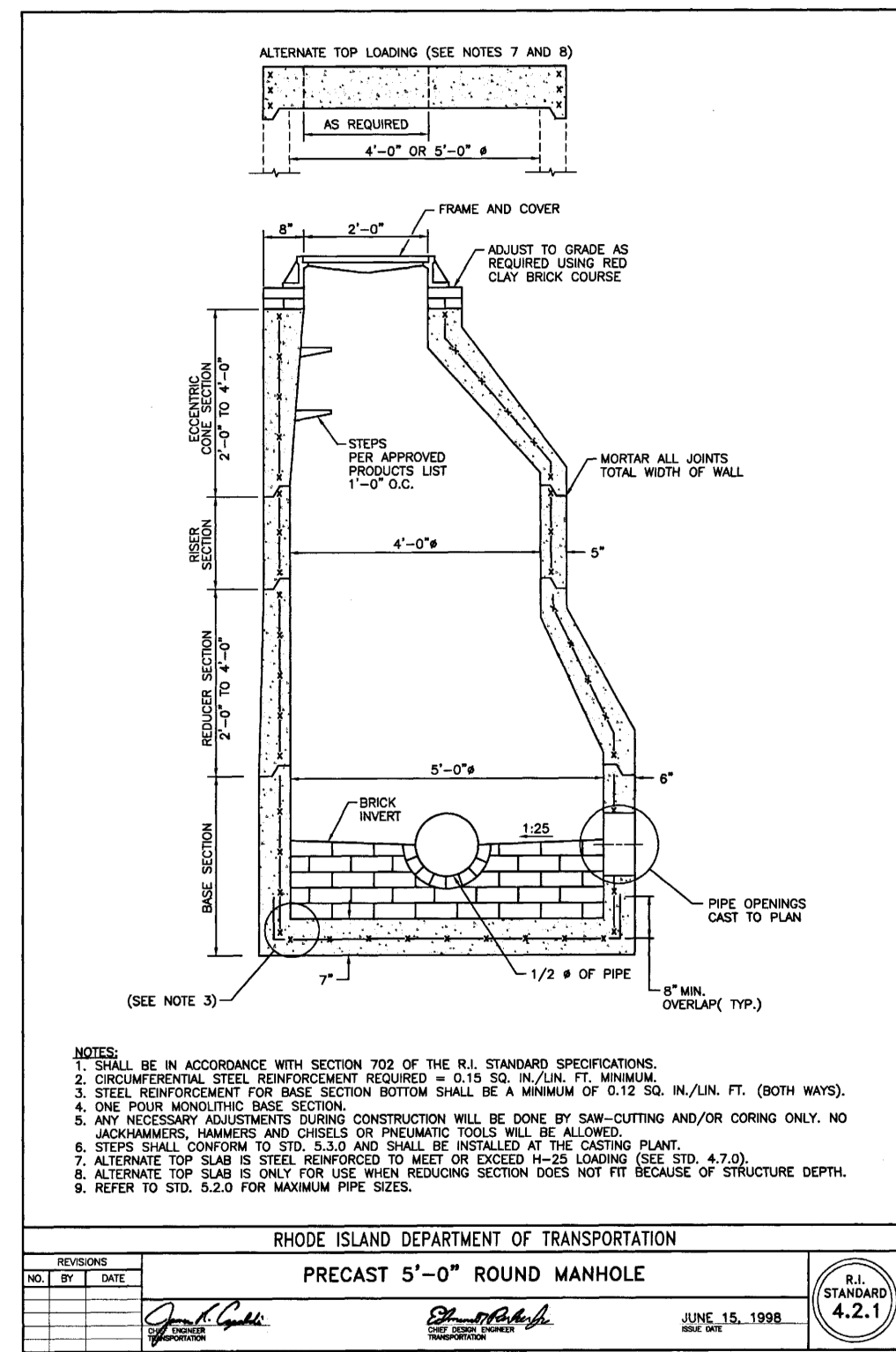
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**DRAINAGE PLAN**

DRAWN BY: SMC  
REVIEWED BY: GBD

SCALE: AS NOTED | DRAWING NUMBER:  
JOB NO.: 77997  
DATE: OCTOBER 13, 2023  
**C5.1**







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**KEYPLAN**

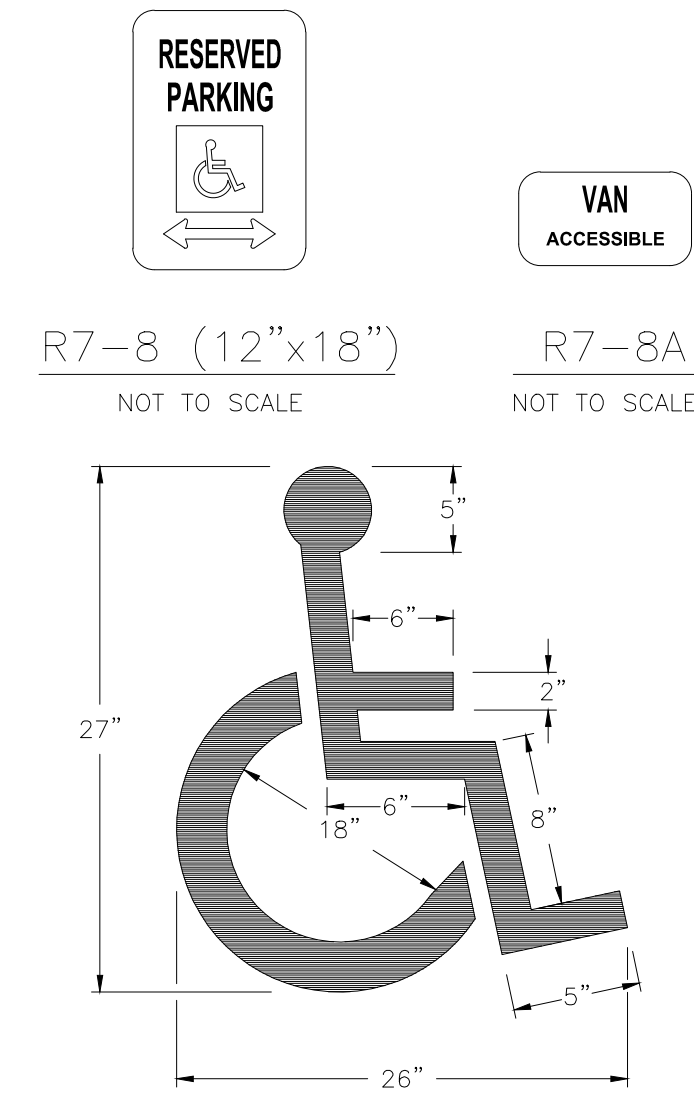
**SITE DETAILS**

DRAWING NAME: SITE DETAILS

DRAWN BY: SMC  
REVIEWED BY: GBD

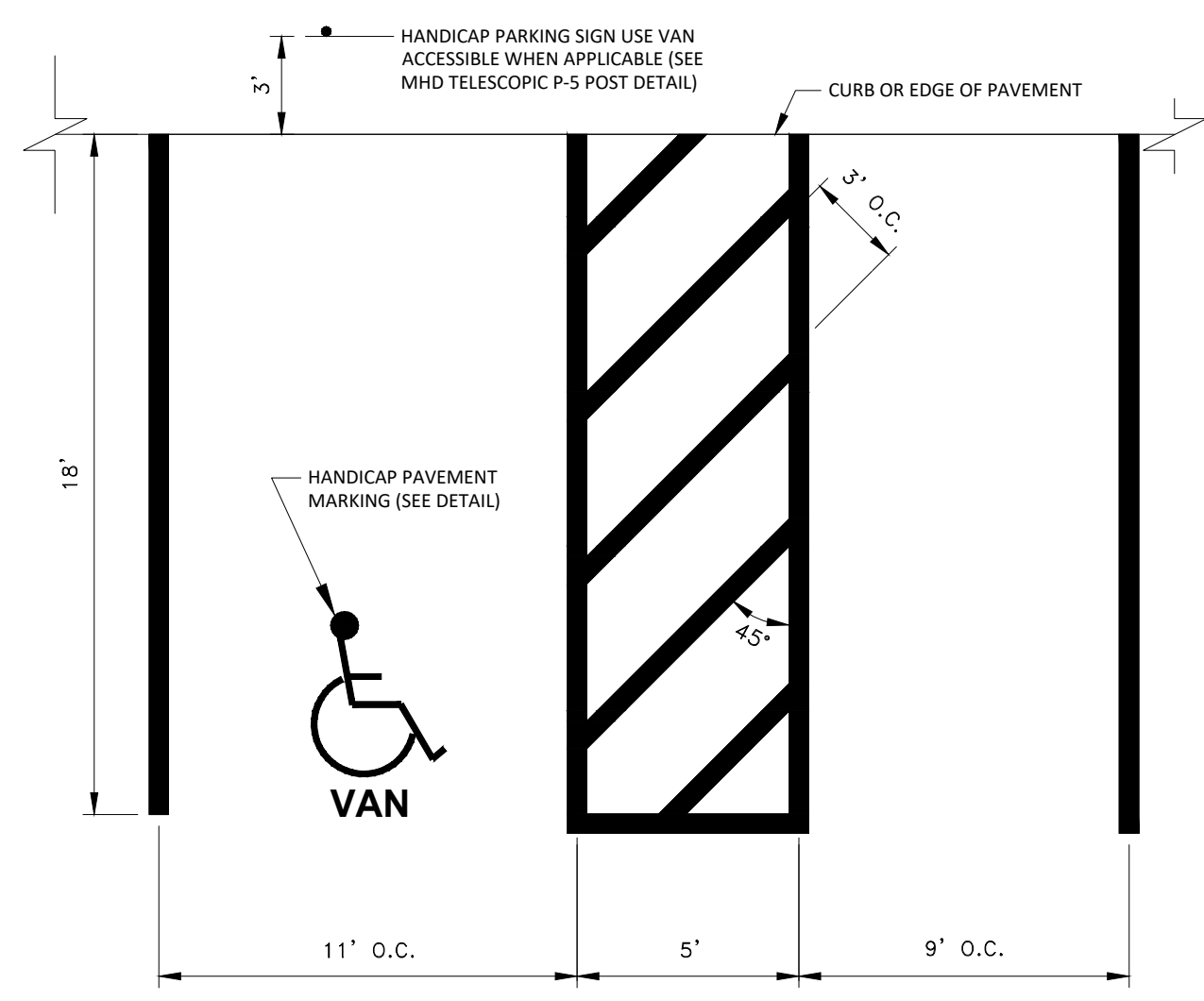
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JOB NO.: 77997  
DATE: OCTOBER 13, 2023 **C6.1**





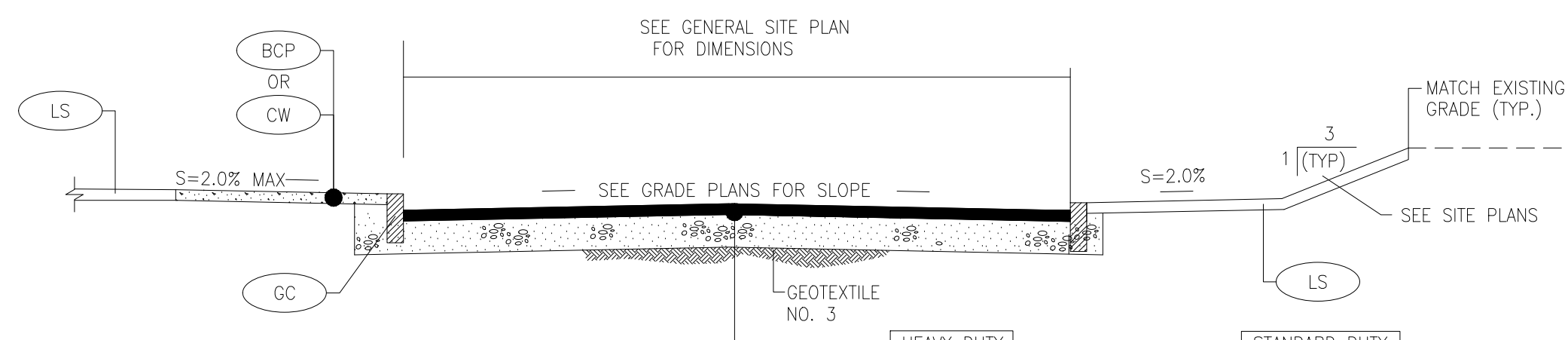
NOTE:  
1. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN CONFORMANCE WITH THE 2010 ADAS AND RISBC-1.

SHP HANDICAP PAVEMENT MARKING  
NOT TO SCALE



NOTE:  
1. WHERE STALLS ABUT SIDEWALK, PARKING SIGNS SHOULD BE PLACED AT BACK EDGE OF SIDEWALK.  
2. STRIPING SHOULD BE WHITE IN COLOR.

SHP VAN HANDICAP PARKING STALLS @ 90°  
NOT TO SCALE

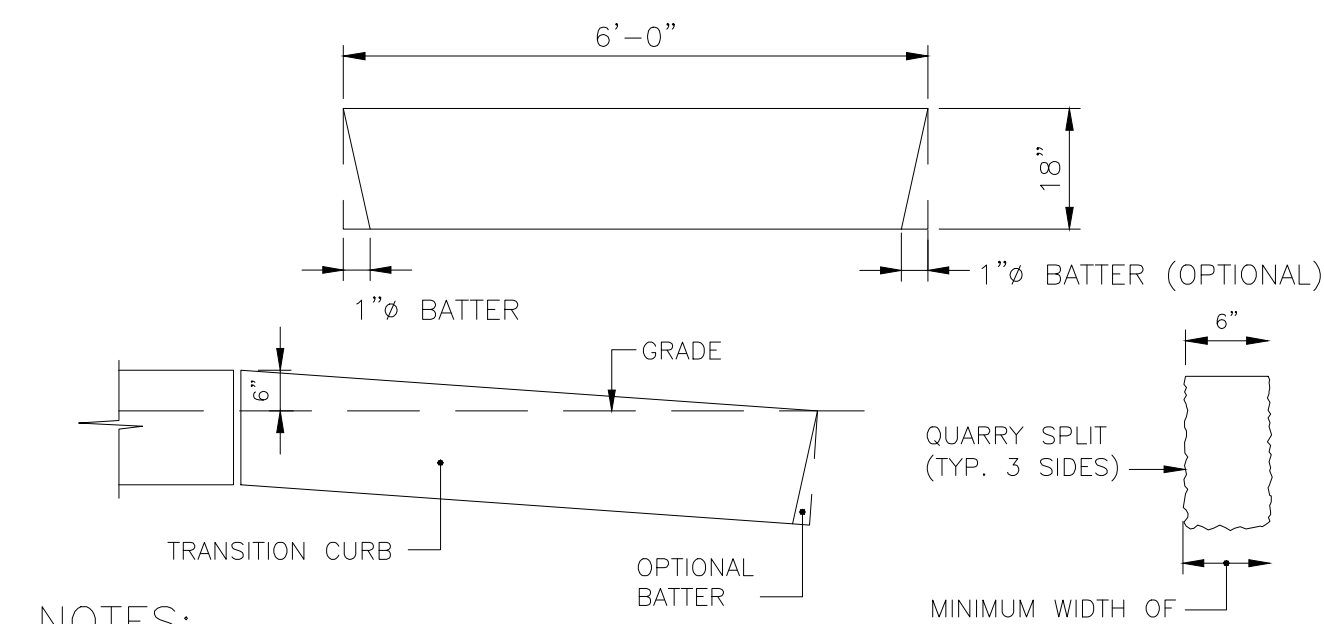


NOTE:  
1. SEE GEOTECHNICAL REPORT FOR MATERIAL SPECIFICATIONS.  
2. CAPE COD BERM UNLESS OTHERWISE NOTED ON PLANS.  
3. HEAVY DUTY USED FOR CITY AND STATE OWNED ROADWAYS, RESTORED PAVEMENT THICKNESS SHALL MATCH THE EXISTING DEPTH OF THE ROADWAY, OR EQUAL FOUR (4) INCHES, WHICHEVER IS GREATER.  
4. STANDARD DUTY USED FOR ON-SITE ACCESS ROADS AND PARKING AREAS.

HEAVY DUTY  
BCP = 2" ASPHALT "TOP COURSE"  
2" ASPHALT "BASE COURSE"  
12" AGGREGATE BASE  
(GRAVEL BORROW, RIDOT M.O.I.09; TABLE 1, COLUMN 1)

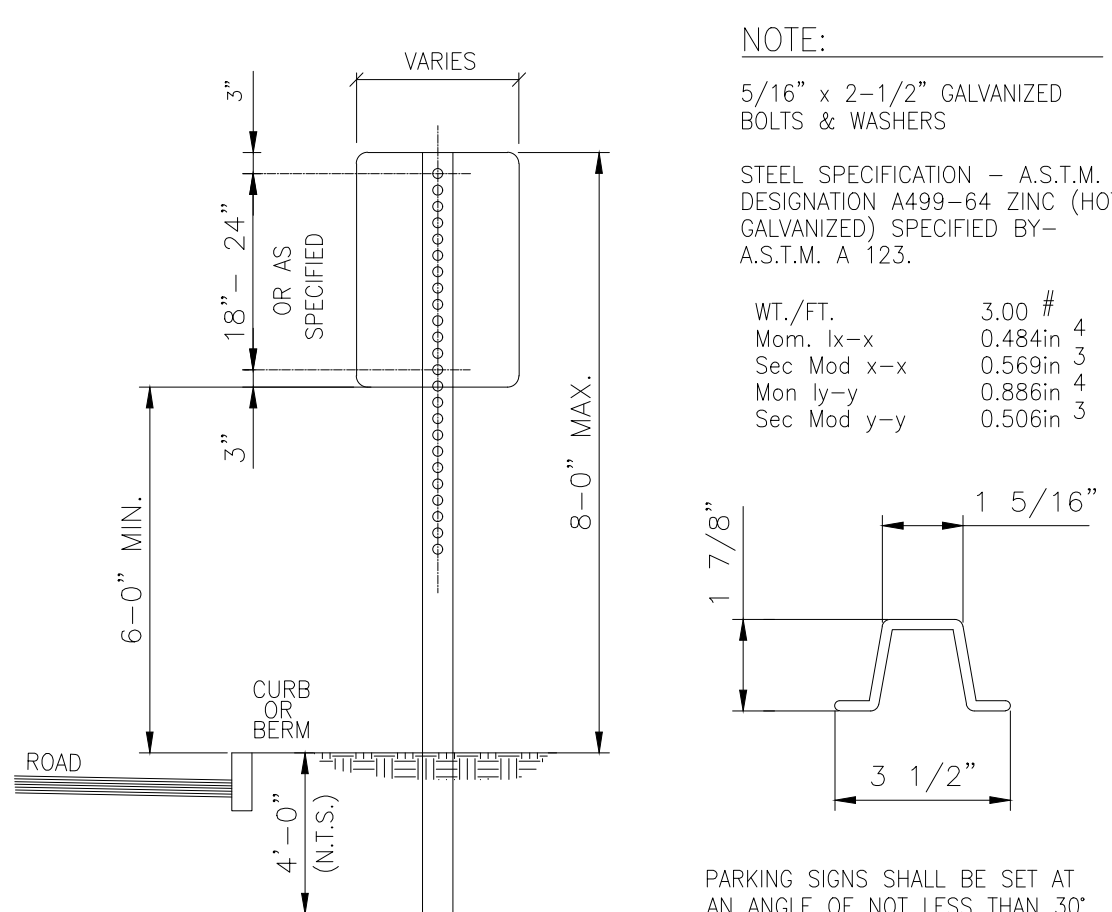
STANDARD DUTY  
= 1.5" ASPHALT "TOP COURSE"  
2" ASPHALT "BASE COURSE"  
8" AGGREGATE BASE  
(GRAVEL BORROW, RIDOT M.O.I.09; TABLE 1, COLUMN 1)

BCP TYPICAL BITUMINOUS CONCRETE PAVEMENT SECTIONS  
NOT TO SCALE



NOTES:  
1. TOP SURFACE TO BE DRESSED BY SAW OR TOOL  
2. GRANITE CURB SHALL CONFORM TO M.H.D. STD. SPECIFICATION MATERIALS SECTION M9.04.1 GRANITE CURB, TYPE VA4.

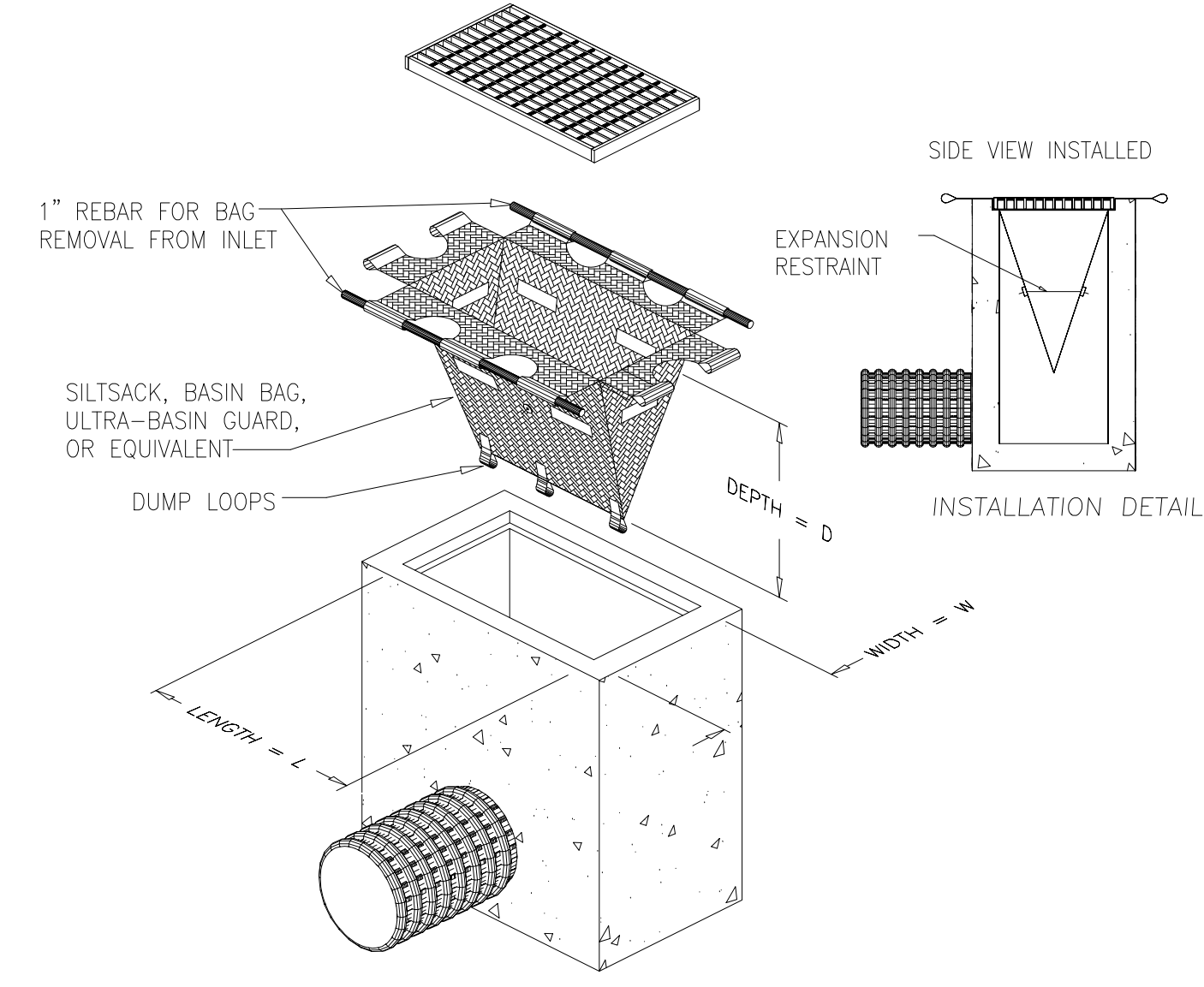
6" GRANITE TRANSITION CURB  
NOT TO SCALE



NOTE:  
5/16" x 2-1/2" GALVANIZED BOLTS & WASHERS  
STEEL SPECIFICATION - A.S.T.M. DESIGNATION A499-04 ZINC (HOT GALVANIZED) SPECIFIED BY A.S.T.M. A 123.  
WT./FT. 3.00 #  
Mom. Ix-x 0.484in<sup>3</sup>  
Spec Mod x-x 0.566in<sup>3</sup>  
Mom Iy-y 0.886in<sup>3</sup>  
Spec Mod y-y 0.506in<sup>3</sup>

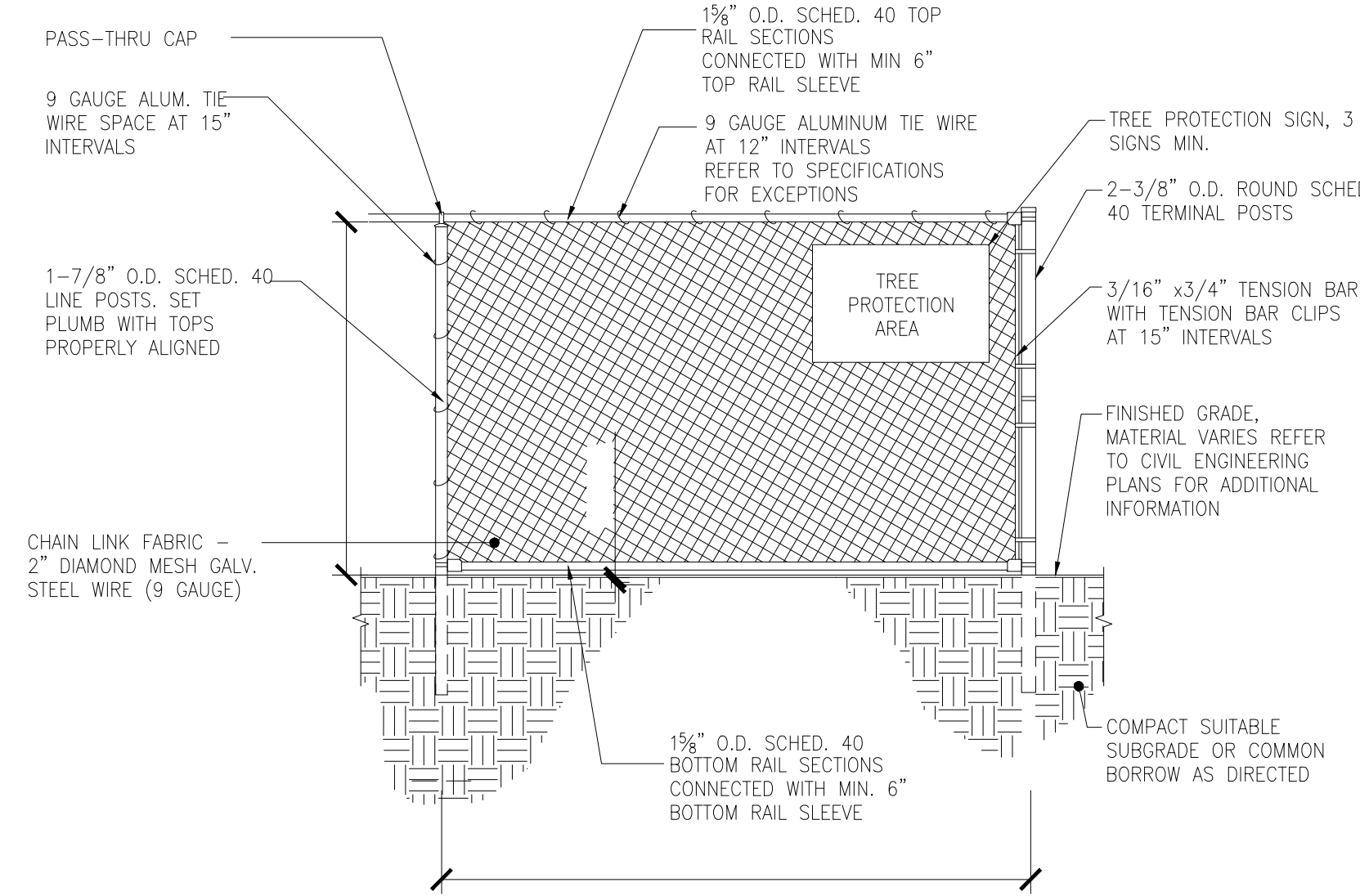
SIGN MOUNTING NOTES:  
1. ALL LAG SCREWS, BOLTS AND WASHERS SHALL BE GALVANIZED 5/16"x2 1/2" LONG UNLESS OTHERWISE NOTED.  
2. WASHERS SHALL BE 0.07" THICK. 3. ALL SIGN COLORS, RADII AND BORDERS AS SPECIFIED IN "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."  
HANDICAP SIGN NOTES:  
1. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN CONFORMANCE WITH THE RULES & REGULATIONS AS SPECIFIED BY THE AMERICAN DISABILITIES ACT (ADA)  
2. SIGN(S) SHALL BE LOCATED SO THEY CANNOT BE OBTSCURED BY A VEHICLE PARKED IN THE SPACE.  
3. FOR HANDICAPPED VAN SPACE, USE SIGN AS DETAILED.  
4. FOR HANDICAPPED SPACE FOR AUTOMOBILES, USE ONLY HANDICAPPED PARKING SIGN. (WITHOUT ADDITIONAL "VAN ACCESSIBLE" SIGN)

SIGN MOUNTING DETAIL



NOTE:  
1. STOCKPILE AREA SHALL NOT EXCEED SPECIFIED DIMENSIONS WITHOUT APPROVAL FROM ENGINEER.  
2. STOCKPILED ERODIBLE MATERIAL THAT WILL NOT BE USED FOR GREATER THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR COVERED IMMEDIATELY FOLLOWING PLACEMENT.  
3. NO STOCKPILE SHALL BE PLACED WITHIN THE 100 FOOT WETLAND BUFFER.

ERODIBLE MATERIAL STOCKPILE  
NOT TO SCALE

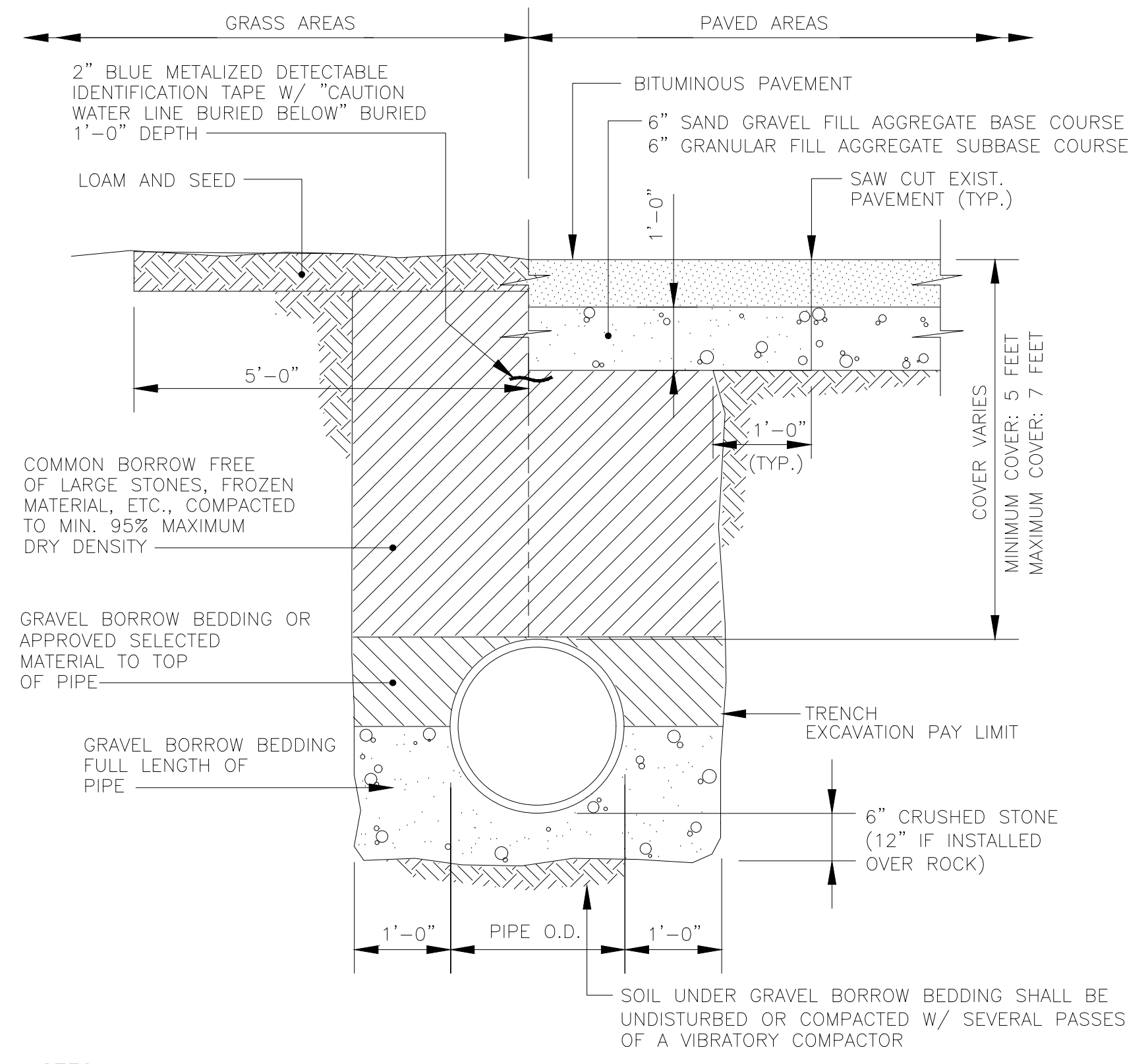


NOTE:  
1. FOR TREE PROTECTION ONLY, SEE CIVIL PLANS FOR LOCATION.  
2. FENCE POST TO BE BURIED 2 FEET BELOW GRADE.  
3. ADJUST POST LOCATIONS IN THE FIELD ACCORDING TO LOCATION OF TREE ROOTS  
4. PROTECTION FENCING LOCATED ON SIDEWALKS AS SHOWN ON THE PLANS SHALL HAVE CONCRETE BLOCKS.  
5. INSTALLATION TO BE APPROVED BY TOWN TREE WARDEN AND LANDSCAPE ARCHITECT

6 FOOT CHAIN LINK TREE PROTECTION FENCE  
NOT TO SCALE

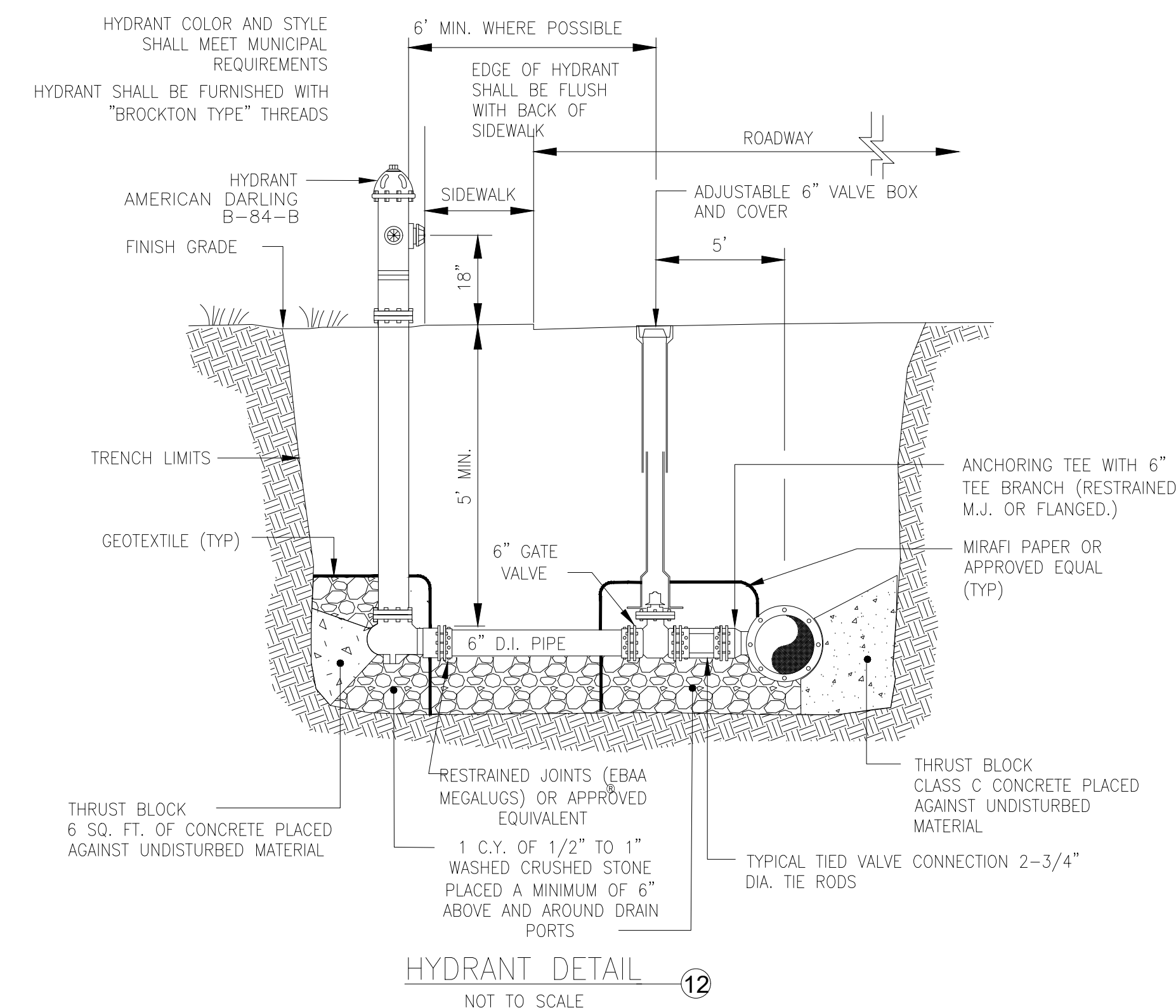
NOTE:  
1. INLET PROTECTION SHALL BE CLEANED OF SILT AND DEBRIS ON A REGULAR BASIS AS REQUIRED BY PROJECT SPECIFIC SWPPP.  
2. INSPECTIONS SHALL BE DONE AFTER EACH RAIN EVENT AND AT A MINIMUM EVERY TWO WEEKS AND AS REQUIRED BY PROJECT SPECIFIC SWPPP.

INLET PROTECTION  
NOT TO SCALE



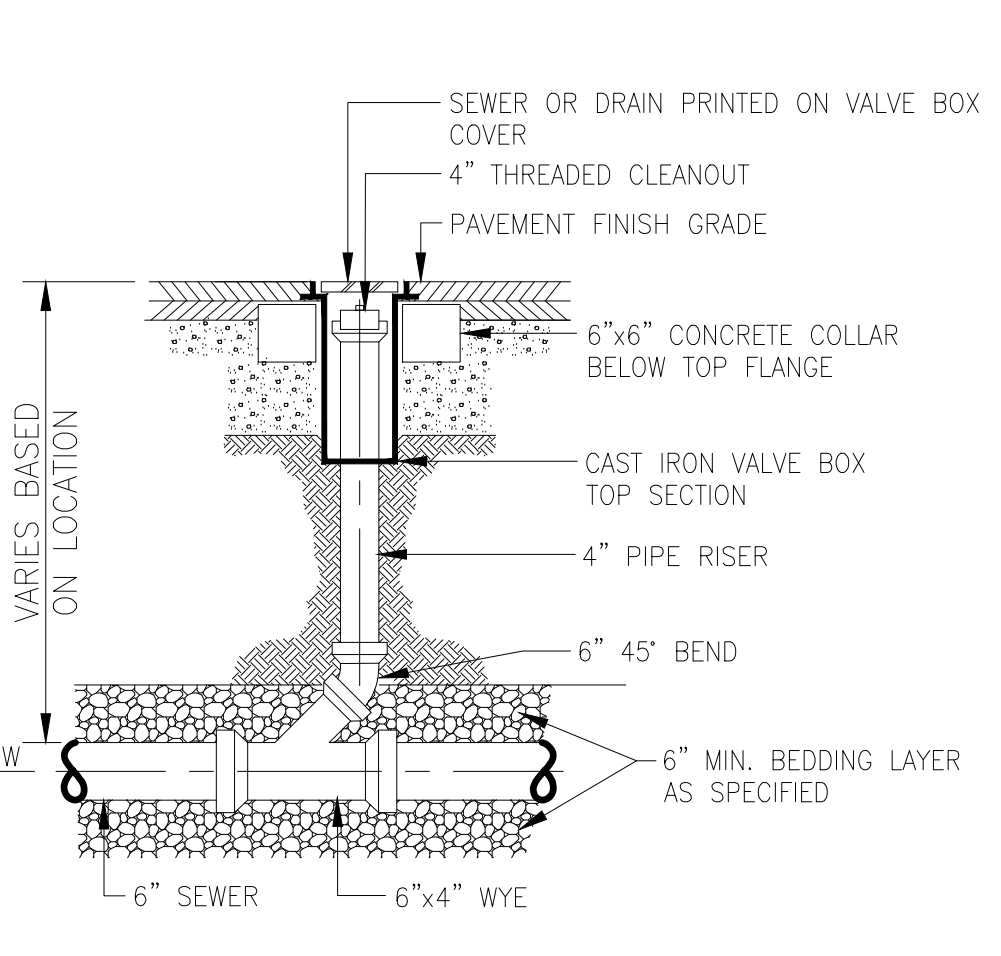
NOTE:  
1. FOR PIPE INSTALLATION IN ROCK OR LEDGE MINIMUM TRENCH WIDTH SHOULD EQUAL THE DIAMETER OF THE PIPE PLUS 18 INCHES ON EACH SIDE.  
2. MINIMUM WIDTH OF TRENCH SHOULD BE 3 FEET.  
3. PLACE 6" OF DRAINAGE STONE FROM BASE OF TRENCH TO TOP OF PIPE IF PIPE IS INSTALLED BELOW SEASONAL HIGH GROUND WATER TABLE.

TYPICAL WATER MAIN TRENCH  
NOT TO SCALE

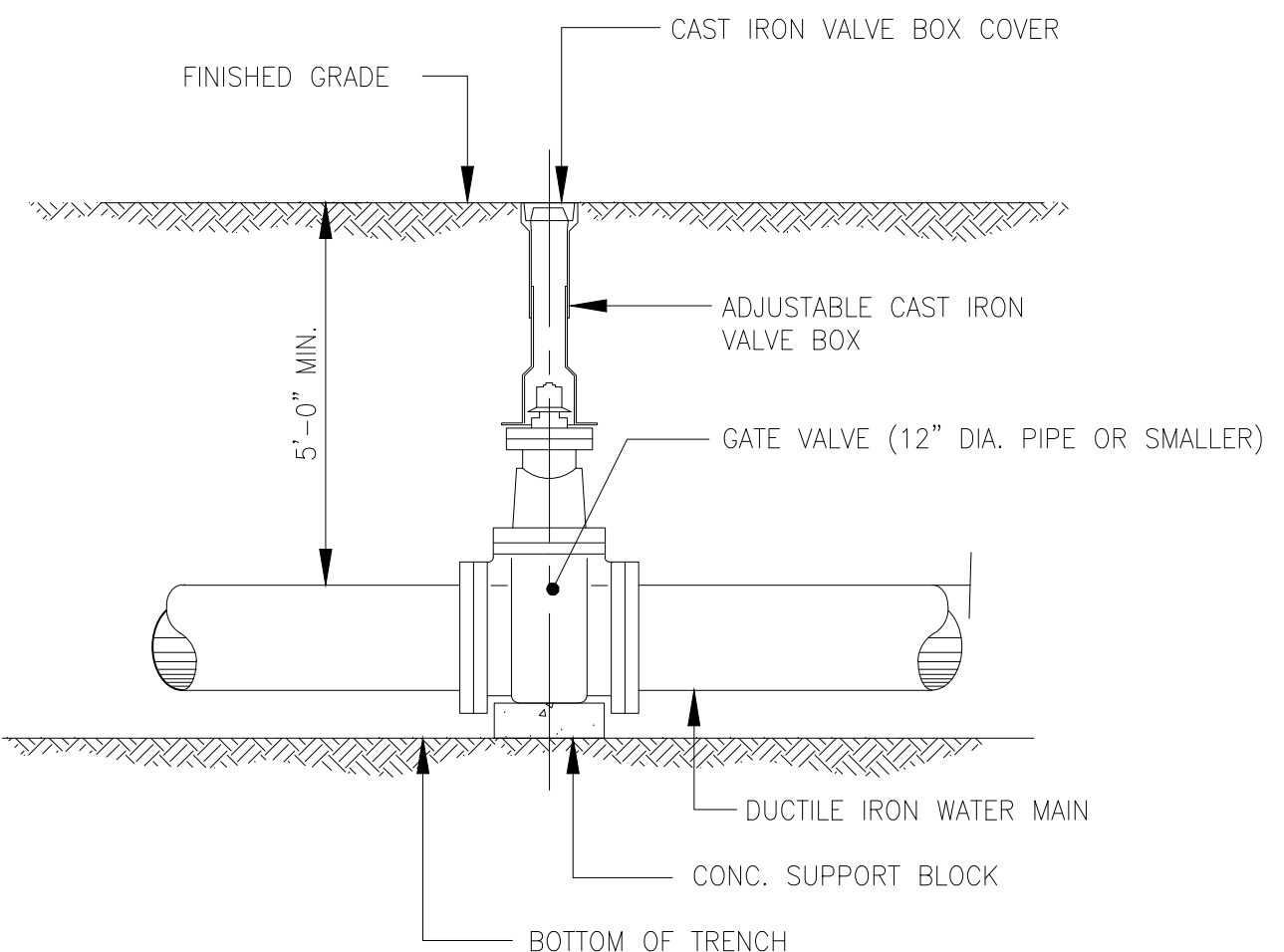


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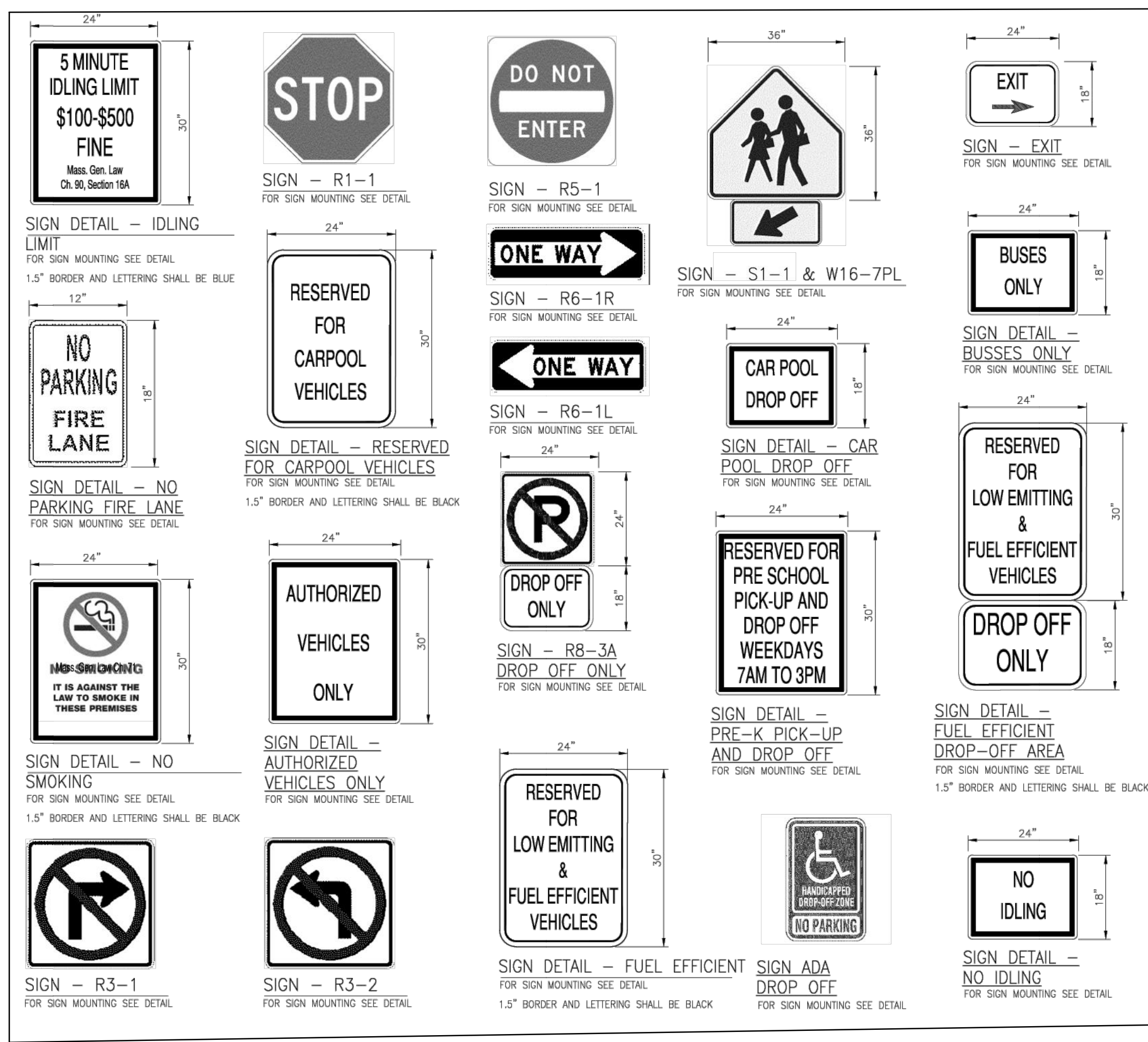
HYDRANT DETAIL  
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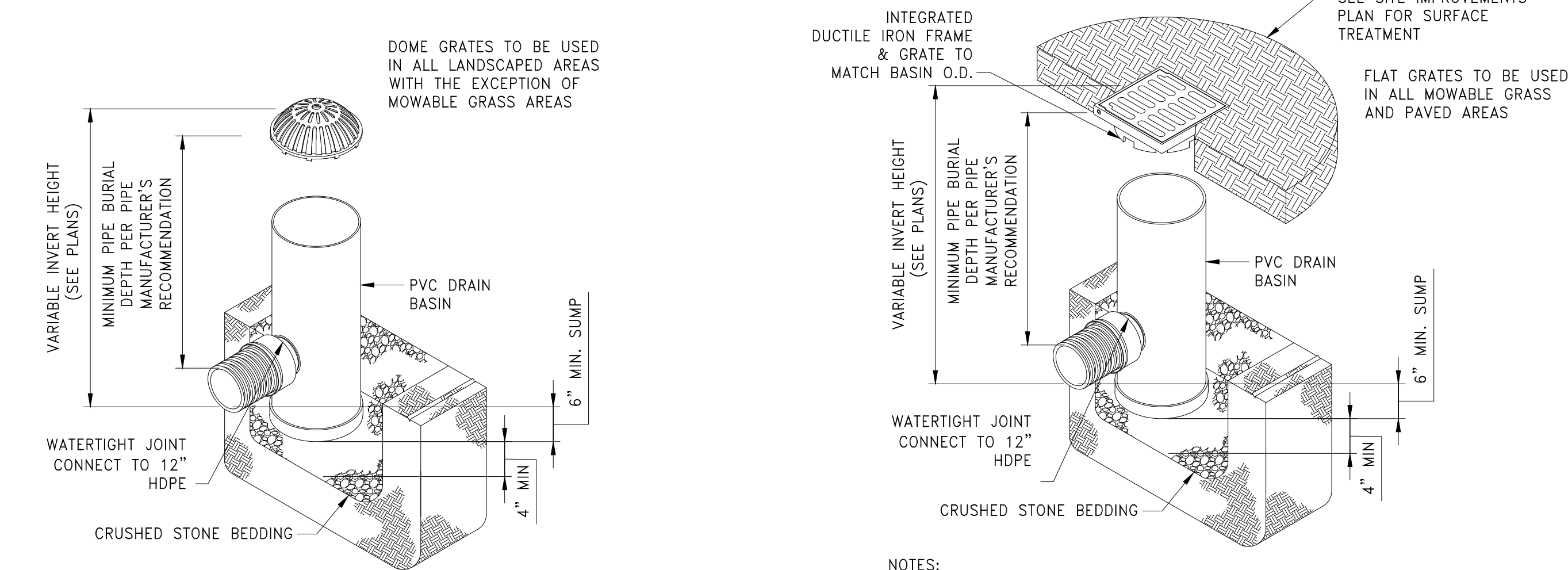
PIPE CLEANOUT DETAIL  
NOT TO SCALE



VALVE BOX  
NOT TO SCALE



**TYPICAL MISCELLANEOUS SIGNS**  
NOT TO SCALE

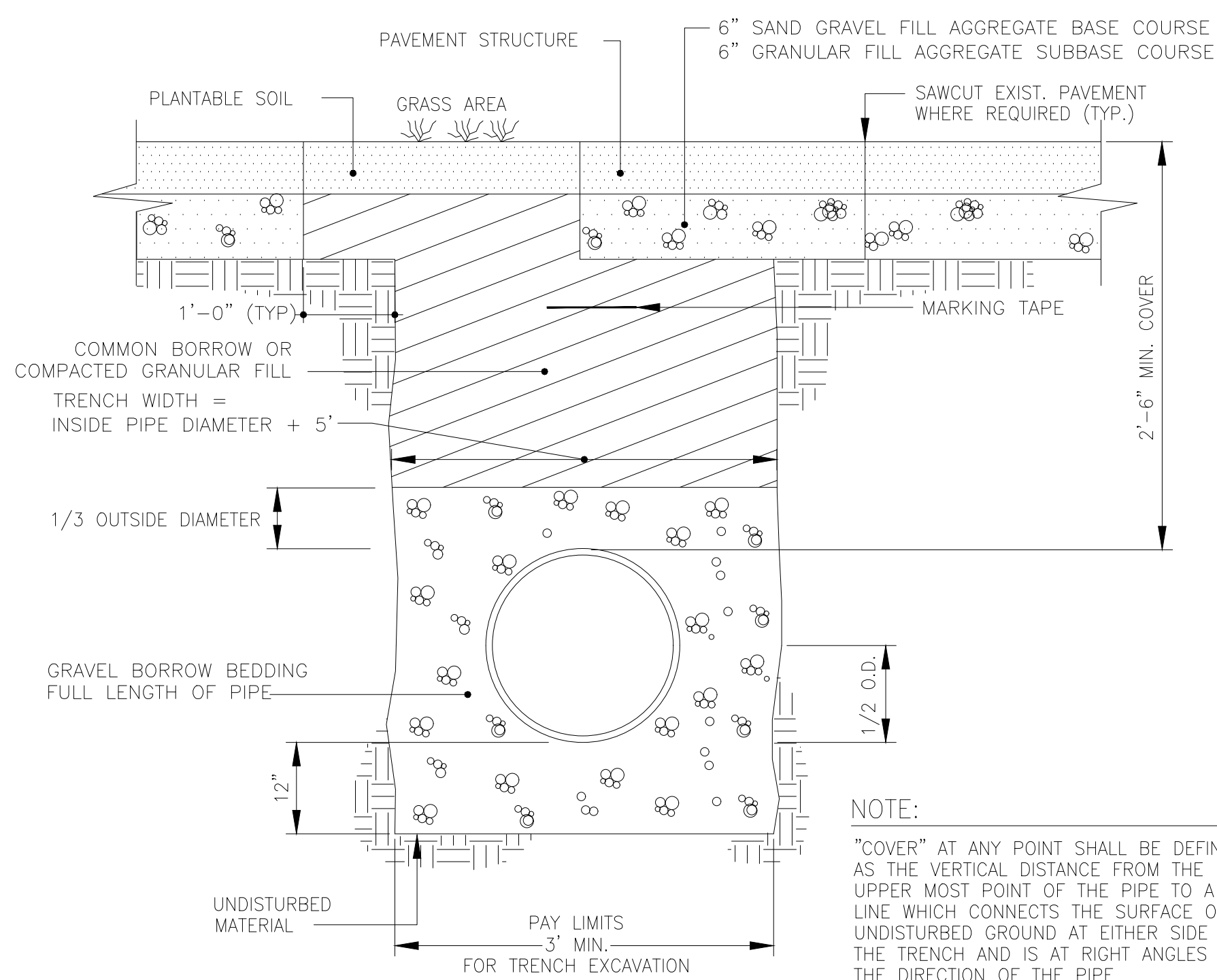


- NOTES:
1. DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
  2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
  3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.

- NOTES:
1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05 AND ADA COMPLIANT.
  2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
  3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.

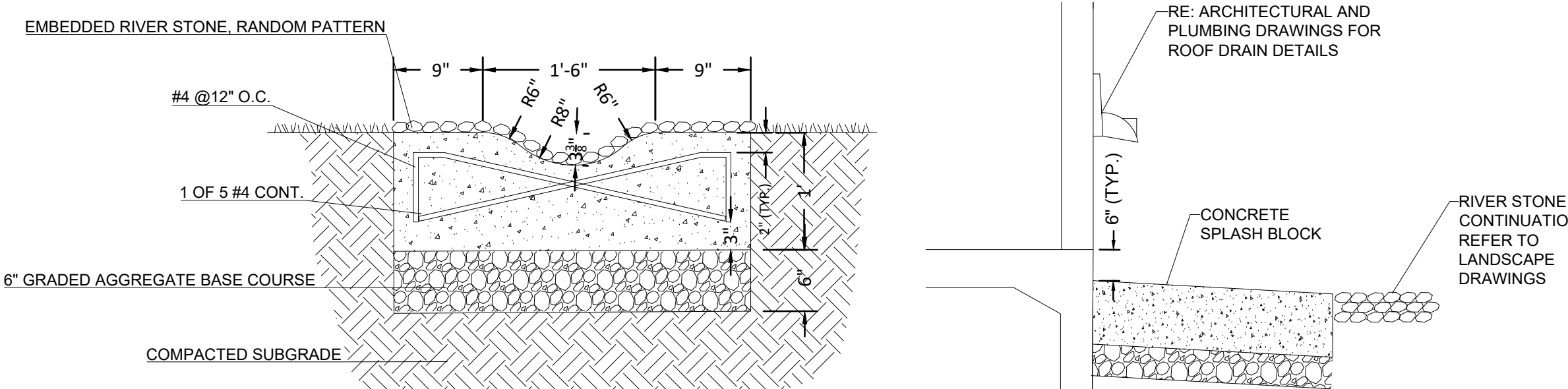
**AD 12" AREA DRAIN BASIN WITH DOME GRATE**  
NOT TO SCALE

**AD 12" AREA DRAIN BASIN**  
NOT TO SCALE



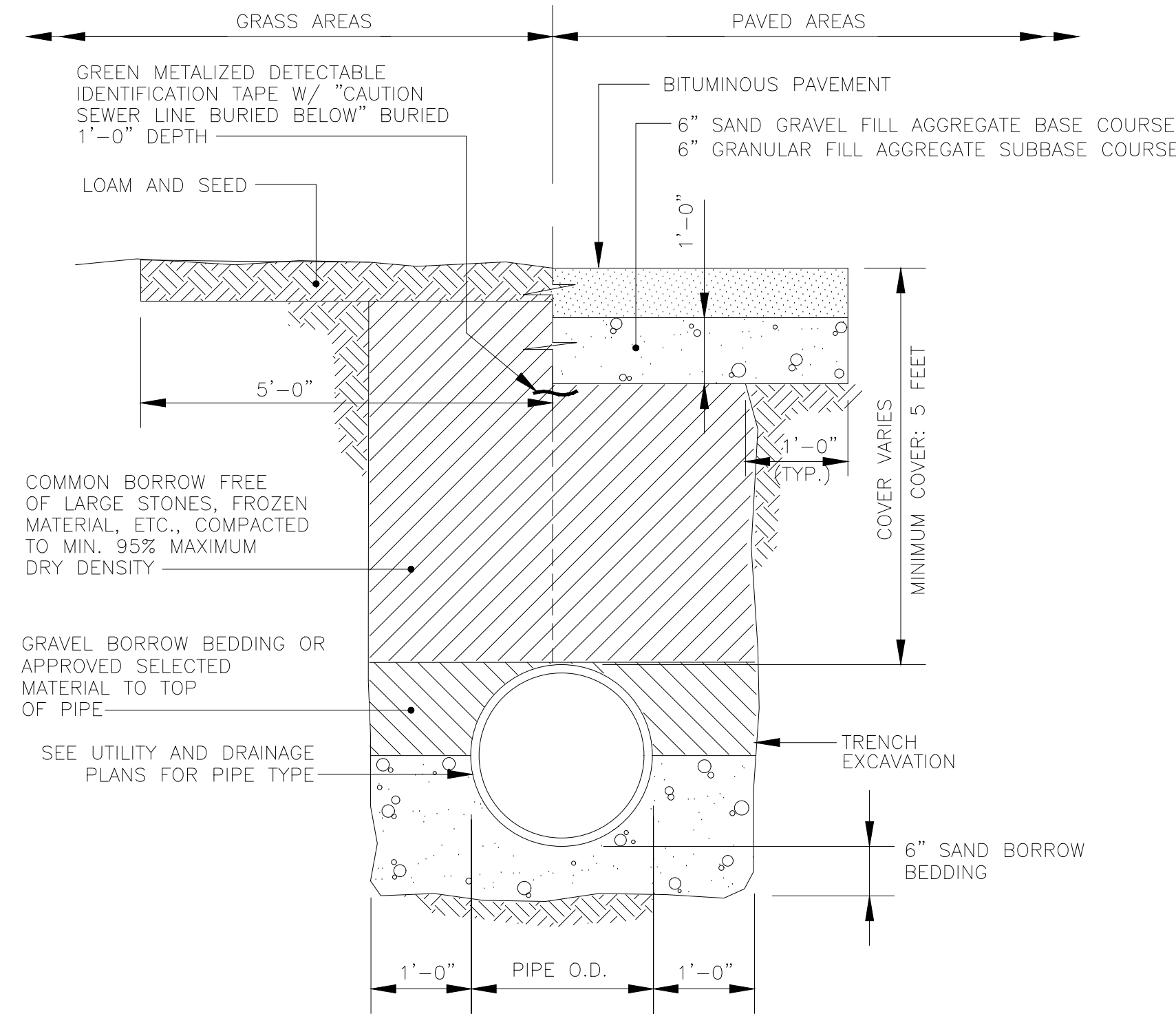
NOTE:  
"COVER" AT ANY POINT SHALL BE DEFINED AS THE VERTICAL DISTANCE FROM THE UPPER MOST POINT OF THE PIPE TO A LINE WHICH CONNECTS THE SURFACE OF UNDISTURBED GROUND AT EITHER SIDE OF THE TRENCH AND IS AT RIGHT ANGLES TO THE DIRECTION OF THE PIPE.

**TYPICAL TRENCH FOR DRAINAGE INSTALLATION**  
NOT TO SCALE



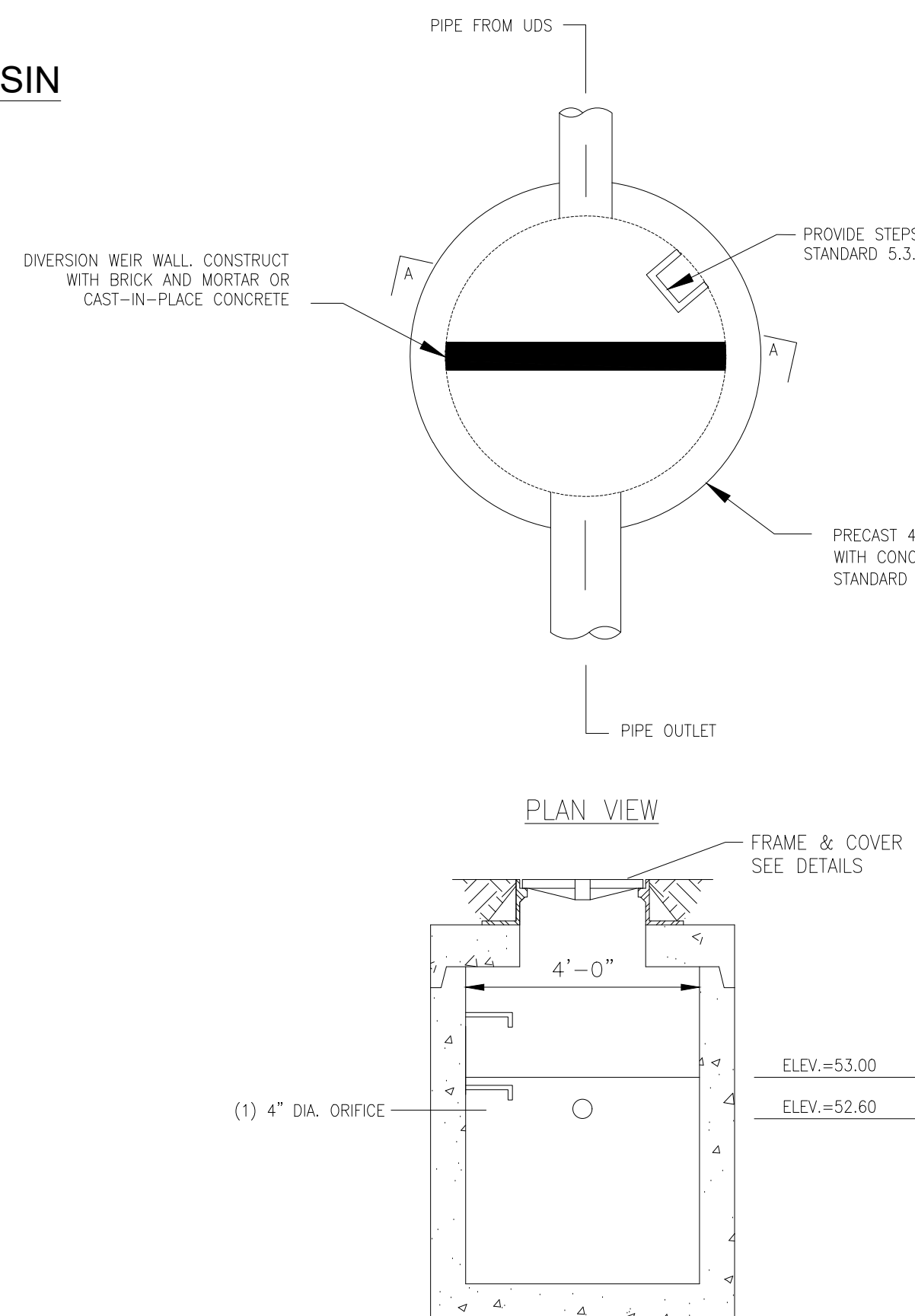
\*NOTE: CONTRACTOR SHALL SUBMIT MOCKUP OF SPLASH BLOCK FOR APPROVAL BY THE LANDSCAPE ARCHITECT

**CONCRETE SPLASH BLOCK**  
NOT TO SCALE



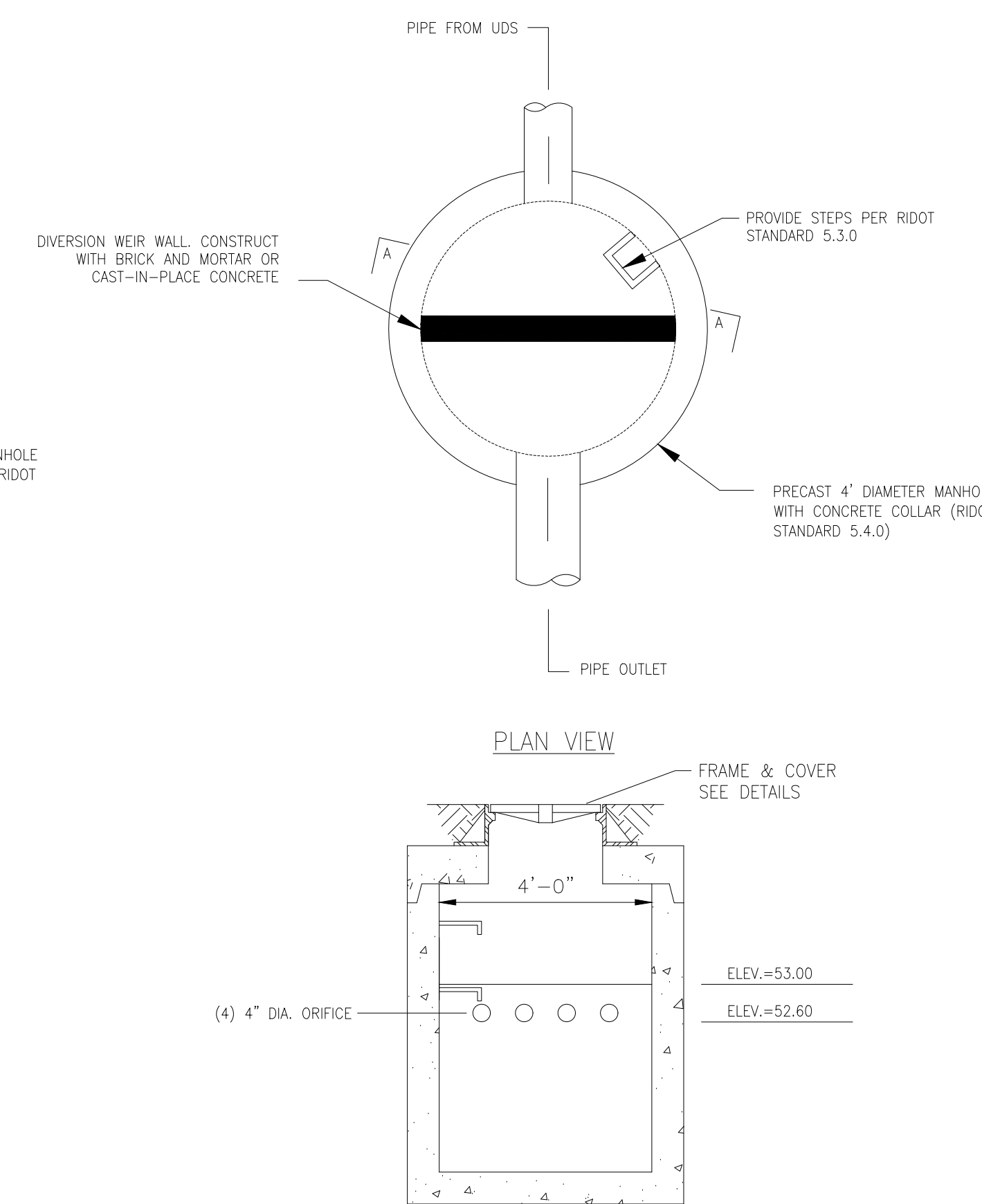
- NOTES:
1. FOR PIPE INSTALLATION IN ROCK OR LEDGE MINIMUM TRENCH WIDTH SHOULD EQUAL THE DIAMETER OF THE PIPE PLUS 18 INCHES ON EACH SIDE.
  2. MINIMUM WIDTH OF TRENCH SHOULD BE 3 FEET.
  3. PLACE 6" OF DRAINAGE STONE FROM BASE OF TRENCH TO TOP OF PIPE IF PIPE IS INSTALLED BELOW SEASONAL HIGH GROUND WATER TABLE.

**TYPICAL ONSITE SEWER TRENCH**  
NOT TO SCALE



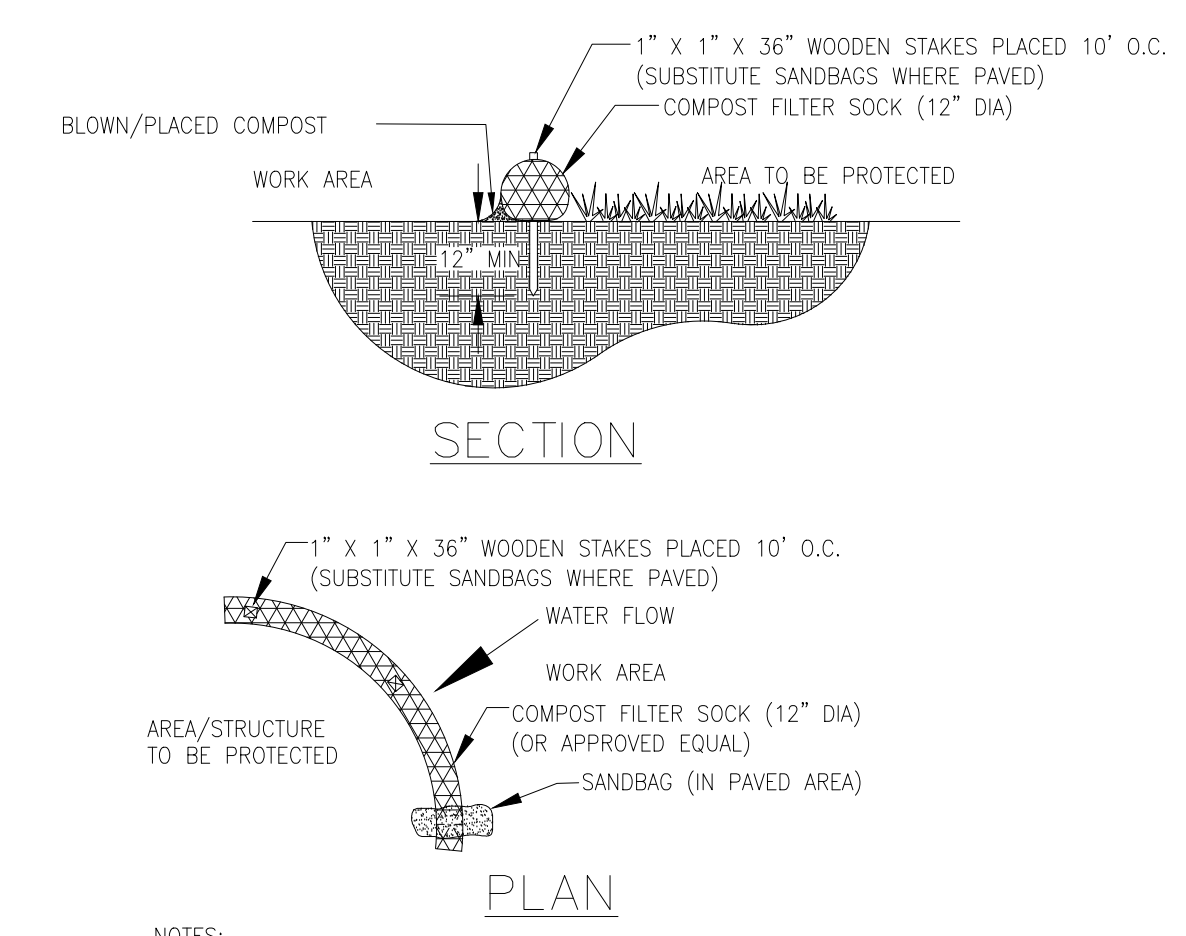
**SECTION A-A DIVERSION WEIR WALL ELEVATION**

**UIC-2 OUTLET CONTROL STRUCTURE**  
NOT TO SCALE



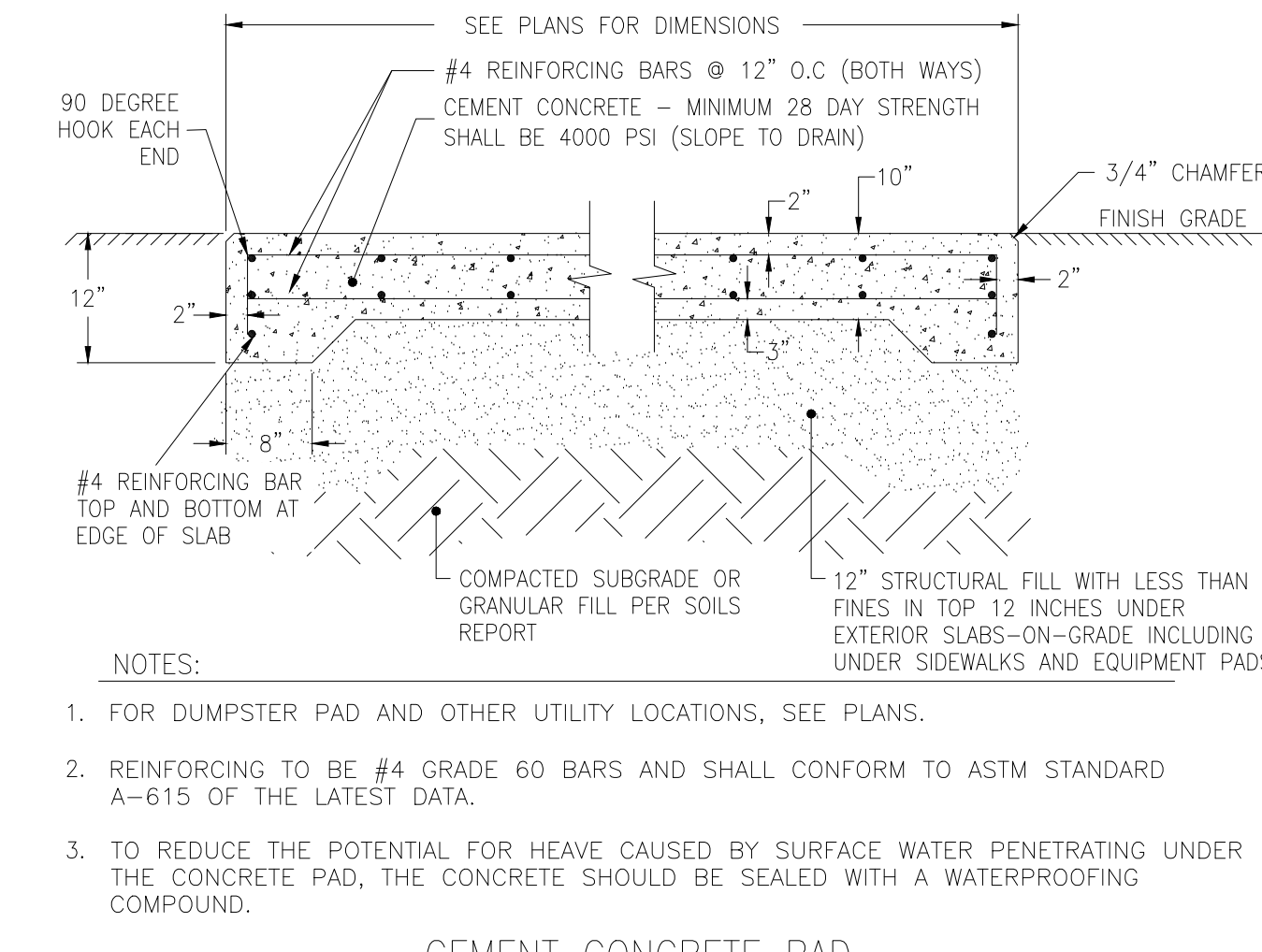
**SECTION A-A DIVERSION WEIR WALL ELEVATION**

**UIC-1 OUTLET CONTROL STRUCTURE**  
NOT TO SCALE

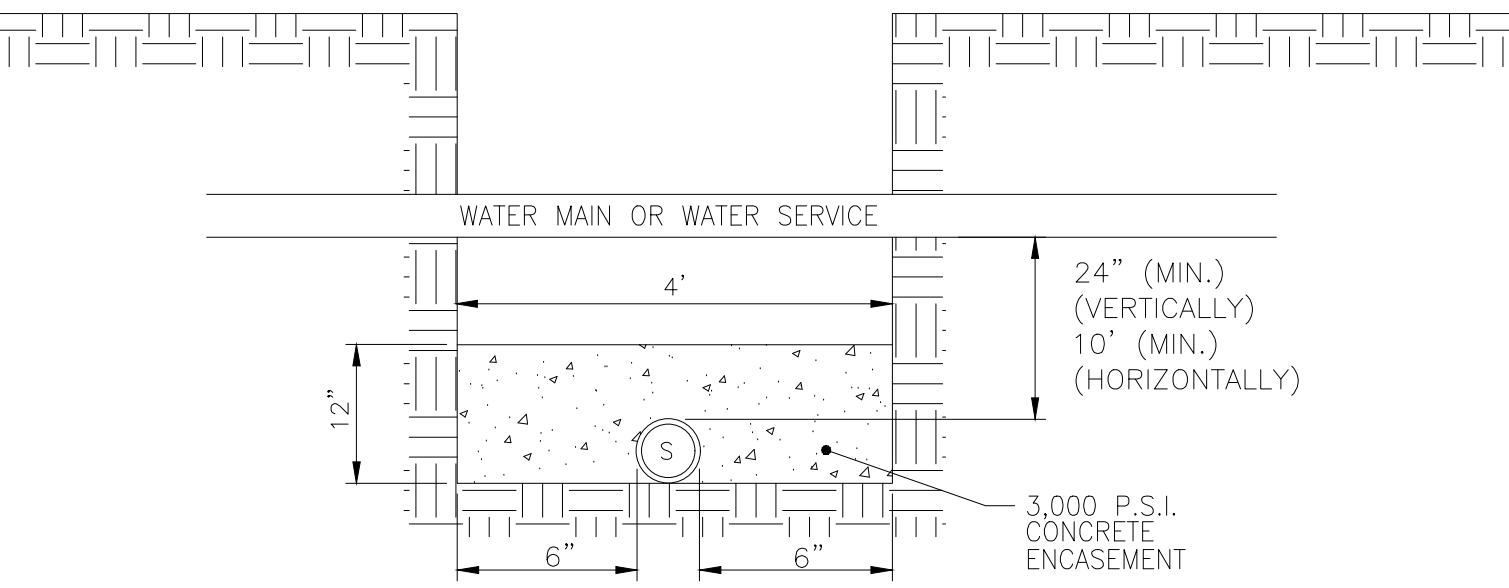


- NOTES:
1. INSPECT AND MAINTAIN THROUGHOUT CONSTRUCTION
  2. SOCK AND COMPOST MATERIAL TO BE REMOVED FROM SITE WHEN CONSTRUCTION COMPLETE.

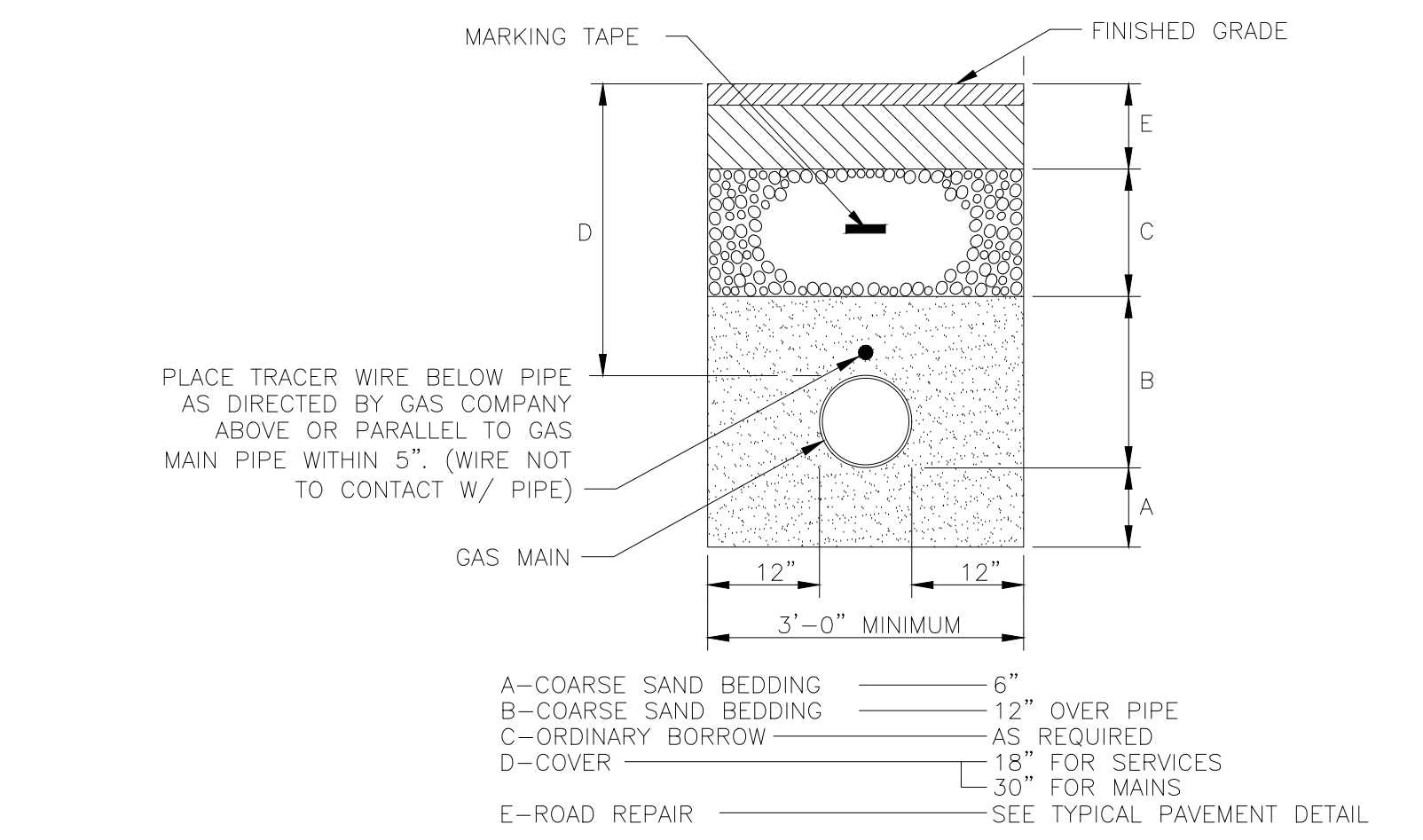
**SILTATION BARRIER**  
NOT TO SCALE



**CEMENT CONCRETE PAD**  
NOT TO SCALE



**MINIMUM DISTANCES FOR SEWER AND WATER LINE CROSSINGS**  
NOT TO SCALE



**TYPICAL GAS MAIN TRENCH DETAIL**  
NOT TO SCALE

- NOTE:
1. THIS DETAIL REPRESENTS A TYPICAL GAS TRENCH DETAIL. FINAL TRENCH MATERIALS AND DIMENSIONS SHALL BE COORDINATED WITH THE GAS COMPANY.
  2. ALL LATERAL TRENCHES WITHIN THE RIGHT-OF-WAY OF PUBLIC WAYS, SHALL BE BACKFILLED WITH FLOWABLE FILL UP TO 4 INCHES BELOW BOTTOM OF PAVEMENT.

NOTE:  
ANY MANUFACTURER'S NAMES AND/OR MODEL NUMBERS IDENTIFIED HEREIN ARE INTENDED TO ASSIST IN ESTABLISHING A GENERAL LEVEL OF QUALITY, CONFIGURATION, FUNCTIONALITY, AND APPEARANCE REQUIRED. THIS IS NOT A PROPRIETARY SPECIFICATION AND IT SHOULD BE NOTED THAT "OR APPROVED EQUIVALENT" APPLIES TO ALL PRODUCTS DENOTED HEREIN. IT IS UNDERSTOOD THAT ALL MANUFACTURERS WILL HAVE MINOR VARIATIONS IN CONFIGURATION, APPEARANCE, AND PRODUCT SPECIFICATION TO ENCOURAGE OPEN AND COMPETITIVE INVOLVEMENT FROM MULTIPLE MANUFACTURERS THAT ARE ABLE TO SUPPLY SIMILAR PRODUCTS.



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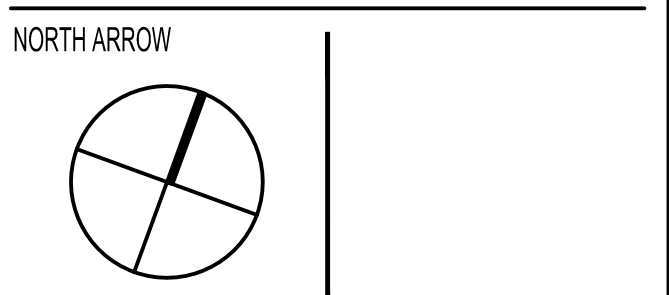


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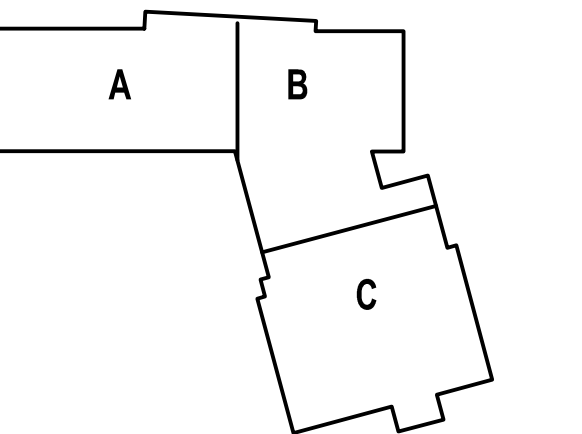


CENTRAL FALLS HIGH SCHOOL  
10 HIGGINSON AVE, CENTRAL FALLS, RI  
KEYNOTE LEGEND:

100% CONSTRUCTION DOCUMENTS



KEYPLAN



DRAWING NAME:

**SITE DETAILS**

DRAWN BY: SMC

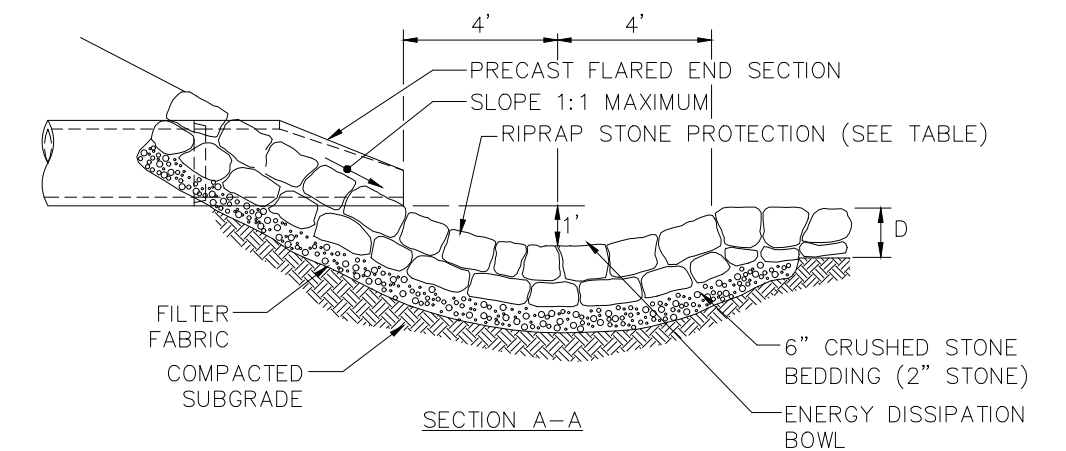
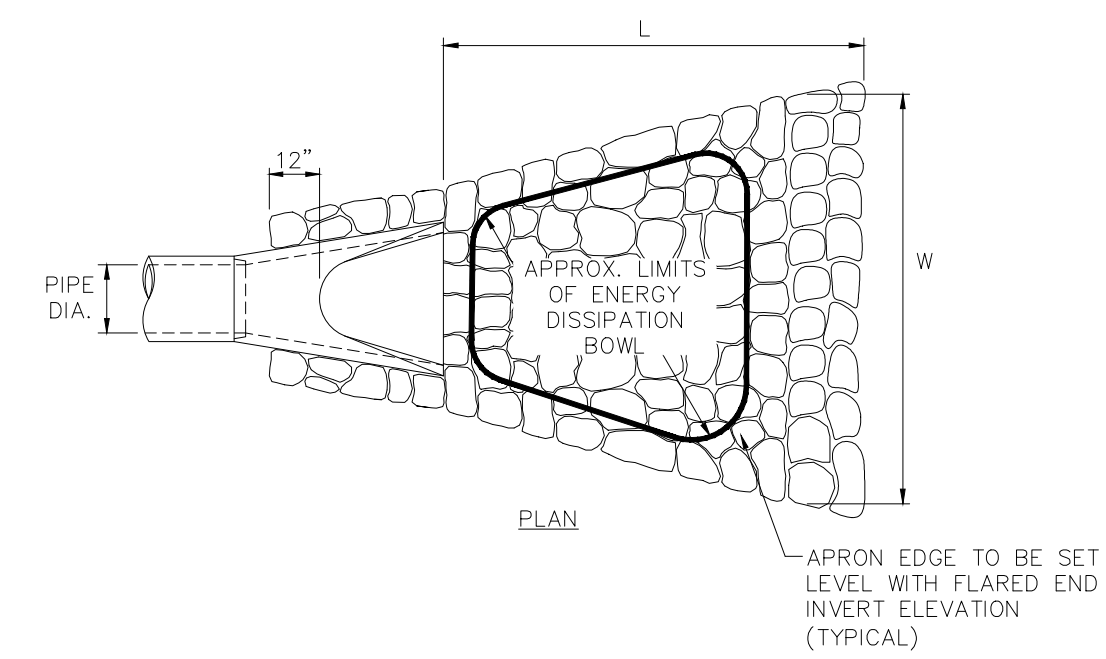
REVIEWED BY: GBD

SCALE: AS NOTED | DRAWING NUMBER:

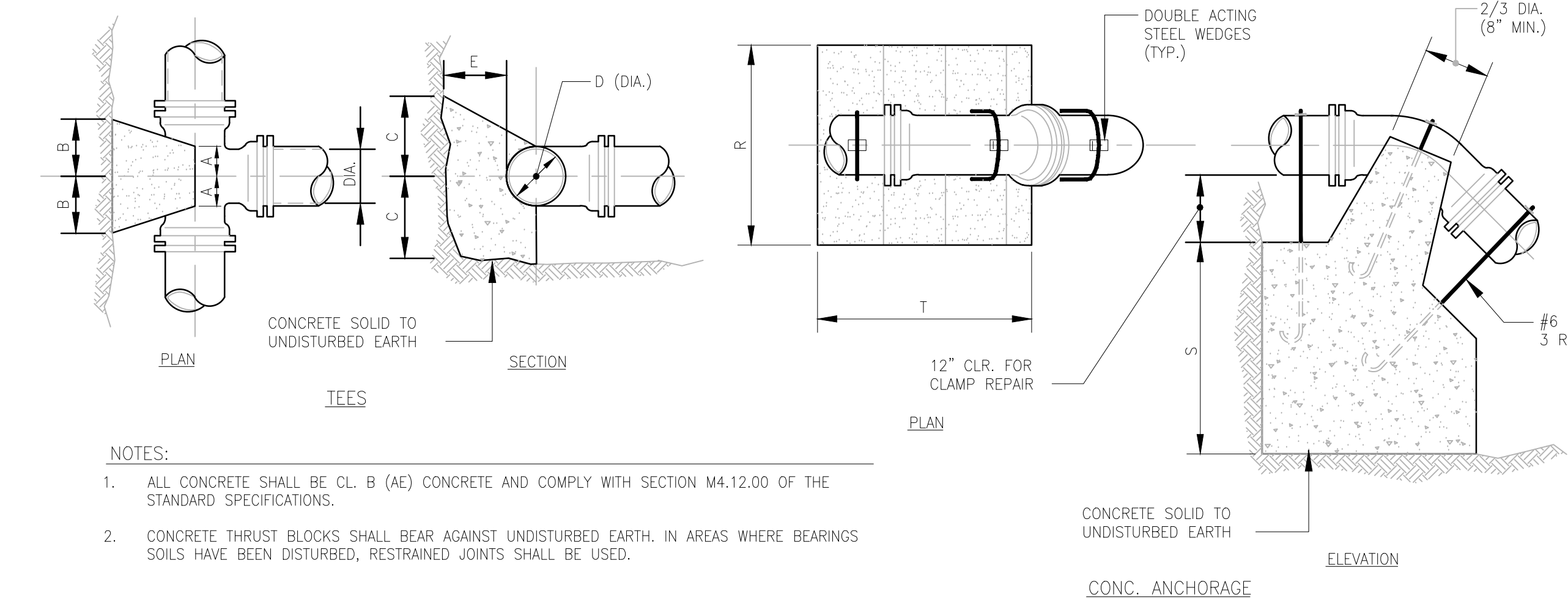
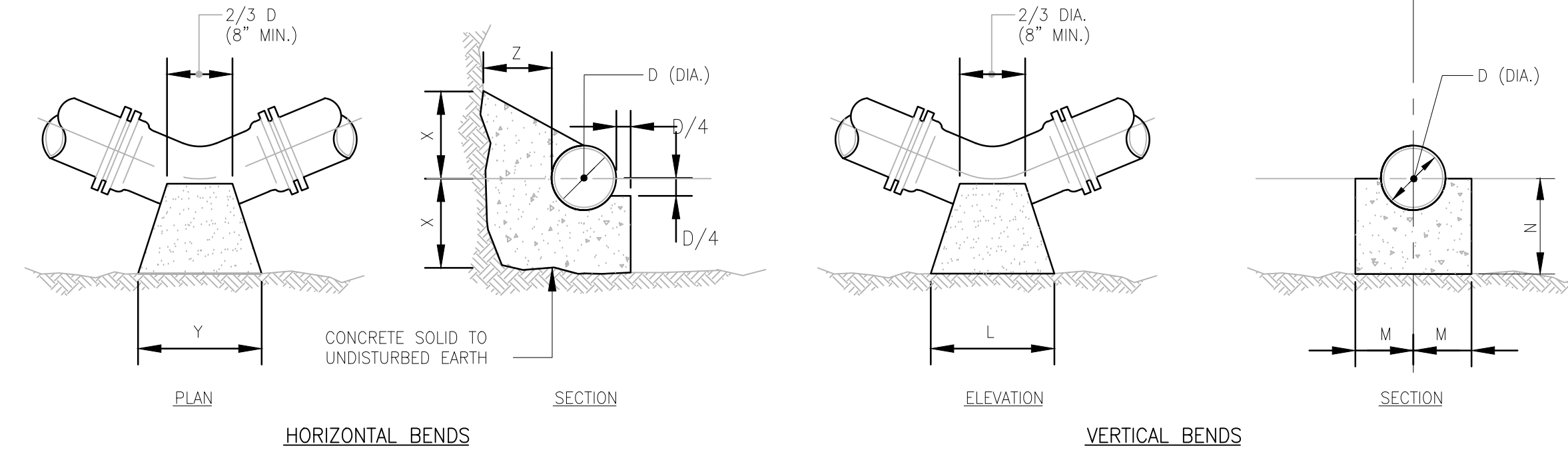
JOB NO: 77997

DATE: OCTOBER 13, 2023

**C6.3**



FLARED END SECTION WITH STONE PROTECTION  
NOT TO SCALE

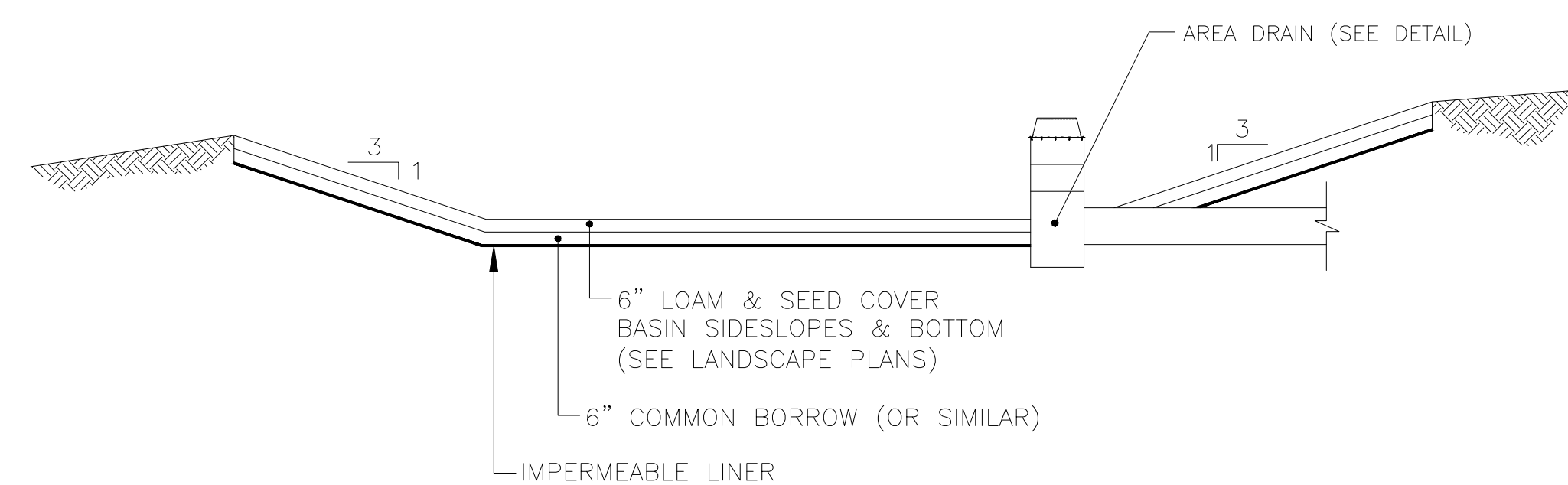


NOTES:

- ALL CONCRETE SHALL BE CL. B (A/C) CONCRETE AND COMPLY WITH SECTION M4.12.00 OF THE STANDARD SPECIFICATIONS.
- CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH. IN AREAS WHERE BEARINGS SOILS HAVE BEEN DISTURBED, RESTRAINED JOINTS SHALL BE USED.

TEES		HORIZONTAL BENDS				VERTICAL BENDS				ANCHORAGES								
PIPE SIZE-D (DIA.)		PIPE SIZE-D (DIA.)				PIPE SIZE-D (DIA.)				PIPE SIZE-D (DIA.)								
	BEND	6"	8"	12"	16"	20"	BEND	6"	8"	12"	16"	20"	BEND	6"	8"	12"	16"	20"
A	X	1'-0"	1'-0"	1'-0"	1'-3"	1'-6"	L	1'-3"	1'-8"	2'-6"	3'-6"	4'-8"	R	2'-6"	3'-0"	4'-6"	5'-4"	6'-0"
B	Y	1'-0"	1'-8"	2'-0"	2'-6"	3'-0"	M	7"	8"	11"	13-1/2"	15-1/2"	S	2'-6"	2'-9"	3'-6"	3'-6"	5'-6"
C	Z	8"	10"	13-1/2"	14-1/2"	15-1/2"	N	7"	8"	11"	13-1/2"	15-1/2"	T	3'-0"	4'-0"	4'-6"	5'-0"	9'-6"
E	X	1'-0"	1'-0"	1'-0"	1'-3"	1'-6"	L	9"	1'-0"	1'-9"	2'-6"	3'-0"	R	2'-0"	2'-8"	4'-0"	4'-6"	5'-0"
	Y	1'-0"	1'-4"	1'-8"	1'-9"	2'-6"	M	7"	7"	10"	11-1/2"	13-1/2"	S	1'-9"	2'-3"	2'-6"	3'-2"	3'-8"
	Z	8"	10"	13-1/2"	14-1/2"	15-1/2"	N	7"	7"	8"	10"	11-1/2"	T	2'-6"	3'-4"	4'-0"	4'-6"	8'-6"
	X	1'-0"	1'-0"	1'-0"	1'-2"	1'-4"	L	6"	8"	1'-0"	1'-4"	1'-9"	R	1'-6"	2'-0"	3'-0"	3'-8"	4'-3"
	Y	1'-0"	1'-0"	1'-2"	1'-4"	1'-6"	M	7"	7"	10"	1'-0"	1'-2"	S	1'-3"	1'-9"	2'-0"	2'-4"	2'-8"
	Z	8"	10"	13-1/2"	14-1/2"	15-1/2"	N	7"	7"	8"	10"	11-1/2"	T	2'-0"	2'-6"	3'-0"	4'-6"	5'-9"

CONCRETE THRUST BLOCKS  
NOT TO SCALE

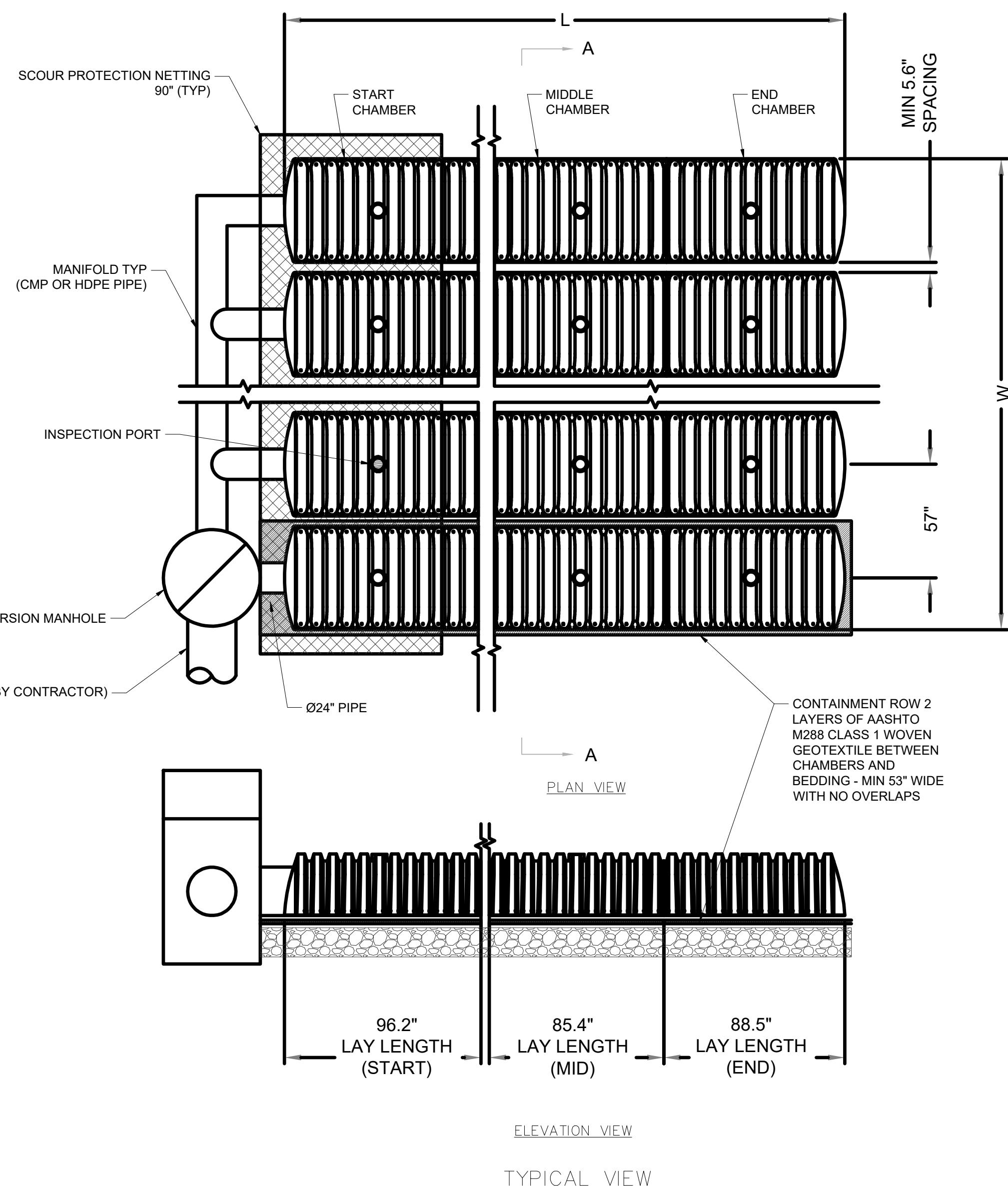


IMPERMEABLE LINER SHALL MEET THE FOLLOWING SPECIFICATIONS  
(PER RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL):

- ASTM D 751 (THICKNESS)
- ASTM D 412 (TENSILE STRENGTH 1, 100 LB. ELONGATION 200%)
- ASTM D 624 (TEAR RESISTANCE - 150 LBIN)
- ASTM D 471 (WATER ADSORPTION: +8 TO -2% MASS)
- 30 MIL THICKNESS
- LINER TO BE ULTRAVIOLET RESISTANT. A GEOTEXTILE FABRIC SHOULD BE USED TO PROTECT THE LINER FROM PUNCTURE.

A MINIMUM SEPERATION DISTANCE OF 5 FEET SHALL BE MAINTAINED BETWEEN THE BOTTOM OF THE BASIN AND BEDROCK

OPEN CHANNEL WITH IMPERMEABLE LINER SECTION  
SCALE: N.T.S.



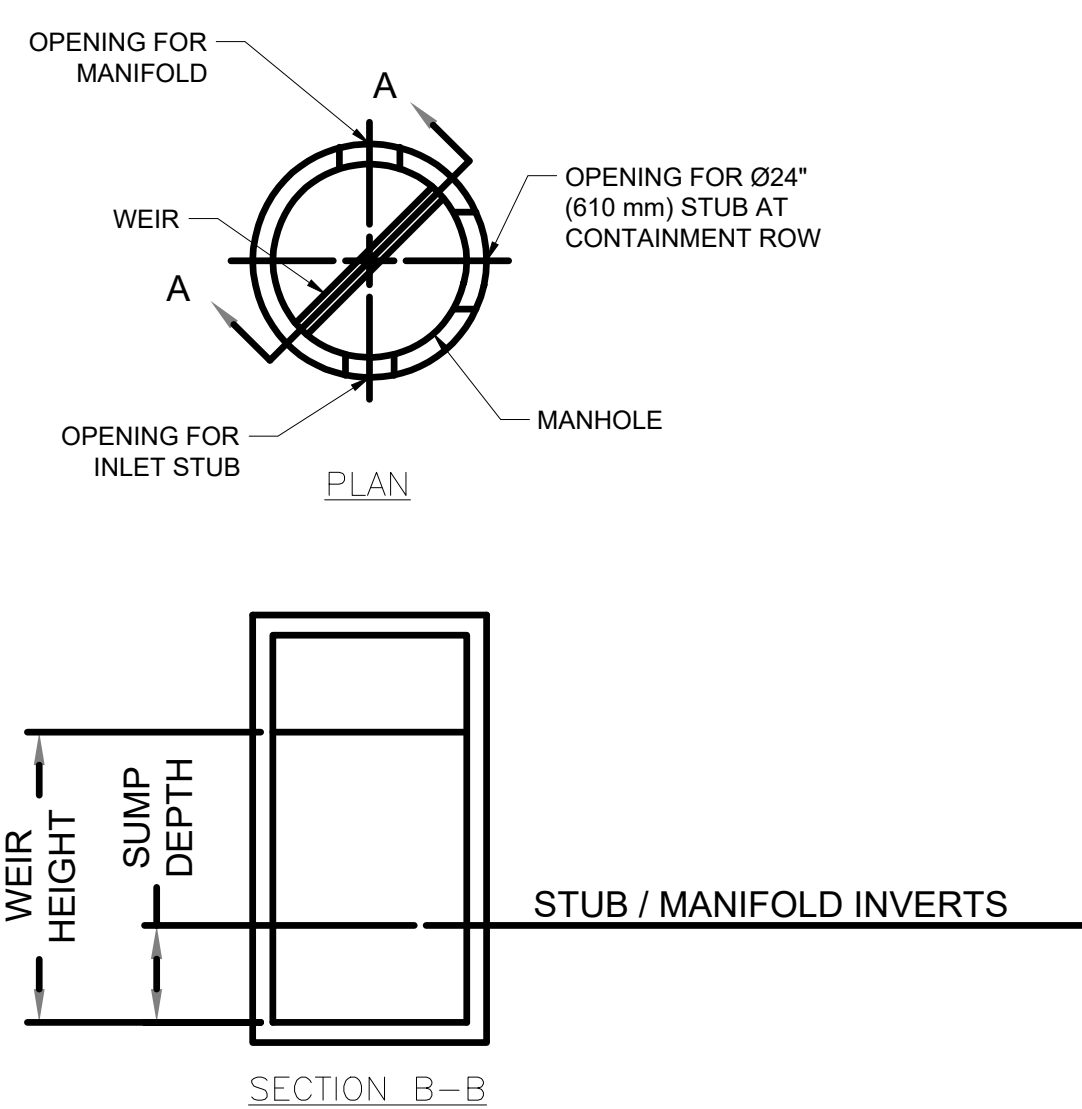
TYPICAL VIEW

GENERAL NOTES

- CONTECH CHAMBERMAXX OR APPROVED EQUAL.
- ACCESS COVERS TO MEET AASHTO HS20/HS25 LIVE LOADING.
- MINIMUM COVER IS 18 INCHES AND MAXIMUM COVER IS 96 INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

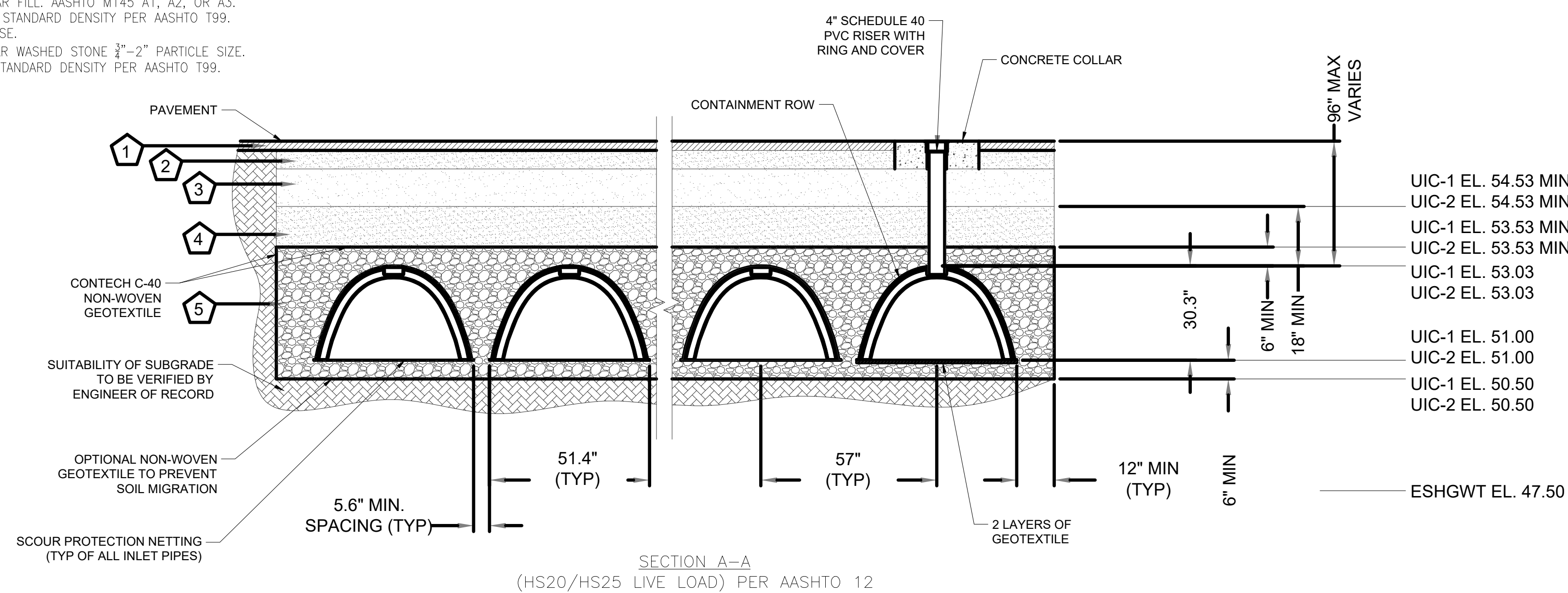
INSTALLATION NOTES

- PRIOR TO PLACING BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, A GEGRID SHALL BE UTILIZED OR UNSUITABLE MATERIAL SHALL BE REMOVED AND BROUGHT BACK TO GRADE WITH FILL MATERIAL AS APPROVED BY THE ENGINEER. ONCE THE FOUNDATION PREPARATION IS COMPLETE THE BEDDING MATERIAL CAN BE PLACED.
- THE SCOUR PROTECTION NETTING TO EXTEND 1'-0" BEYOND OUTSIDE EDGE OF INLET CHAMBERS.
- COVER ANY OPEN VOID SPACES GREATER THAN 1/2" ON CHAMBERS WITH A NON-WOVEN GEOTEXTILE TO PREVENT INFILTRATION OF BACKFILL MATERIAL.
- STONE EMBEDMENT MATERIAL SHALL BE INSTALLED TO 95% STANDARD PROCTOR DENSITY AND PLACED IN 6-INCH TO 8-INCH LIFTS SUCH THAT THERE IS NO MORE THAN A TWO LIFT DIFFERENTIAL BETWEEN ANY OF THE CHAMBERS AT ANY TIME. GRANULAR BACKFILL MATERIAL SHALL BE COMPACTED TO 90% STD. BACKFILLING SHALL BE ADVANCED ALONG THE LENGTH OF THE CHAMBER ROWS AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING AND DISPLACEMENT OF THE CHAMBERS. THE MINIMUM CHAMBER SPACING MUST BE MAINTAINED.
- GENERAL INSTALLATION METHODS AND MATERIALS TO BE IN ACCORDANCE WITH ASTM D2321.

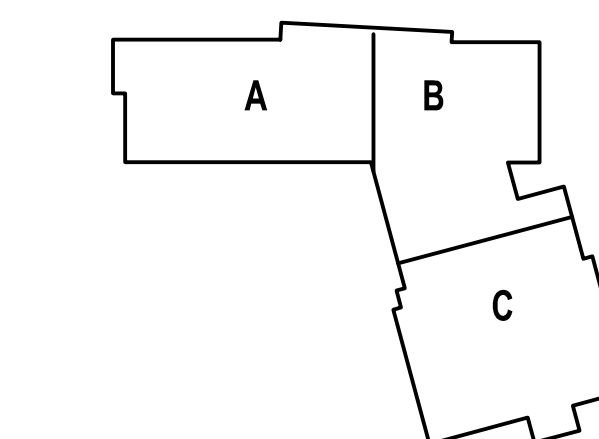
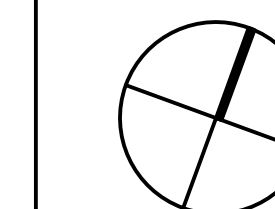


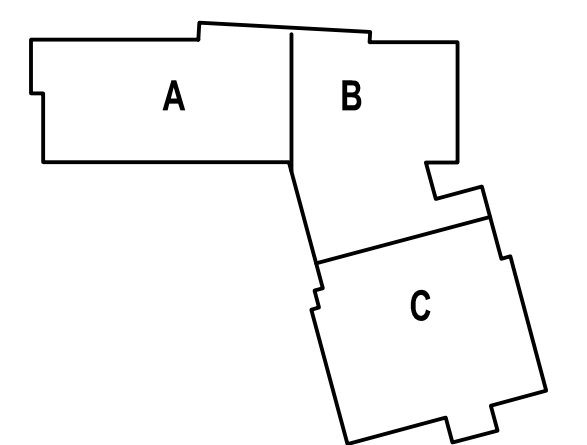
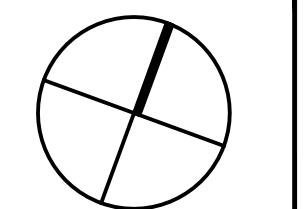
DIVERSION MANHOLE DETAIL  
NOT TO SCALE

- KEY
- FLEXIBLE PAVEMENT
  - GRANULAR ROAD BASE
  - ANY SUITABLE NATIVE OR GENERAL BACKFILL, SEE PLANS.
  - WELL GRADED GRANULAR FILL, AASHTO M145 A1, A2, OR A3. COMPACT TO MIN 90% STANDARD DENSITY PER AASHTO T99. MAY INCLUDE ROAD BASE.
  - FREE DRAINING ANGULAR WASHED STONE 1/2"-2" PARTICLE SIZE. INSTALL TO MIN 95% STANDARD DENSITY PER AASHTO T99.

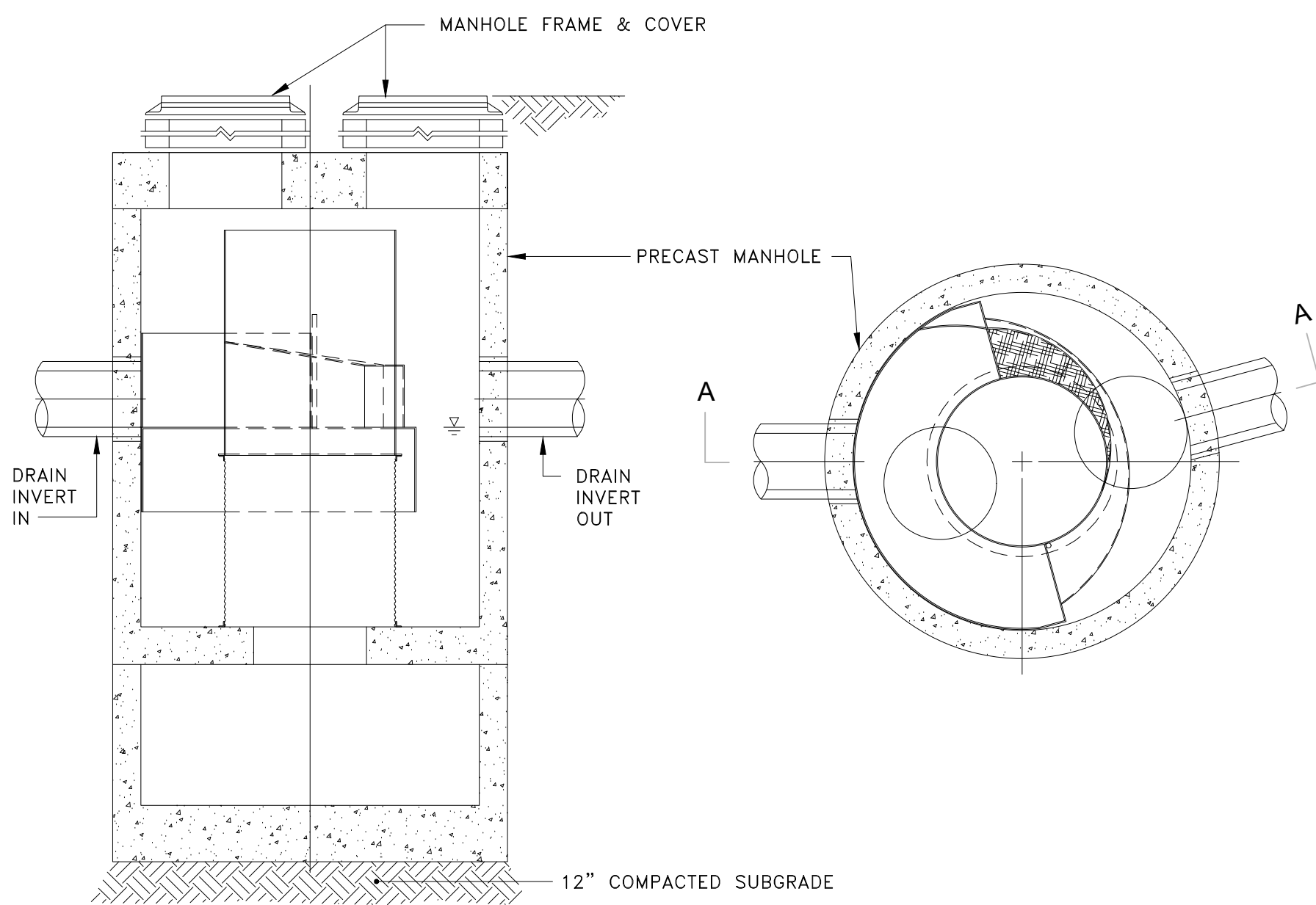


UNDERGROUND INFILTRATION CHAMBER DETAIL  
NOT TO SCALE



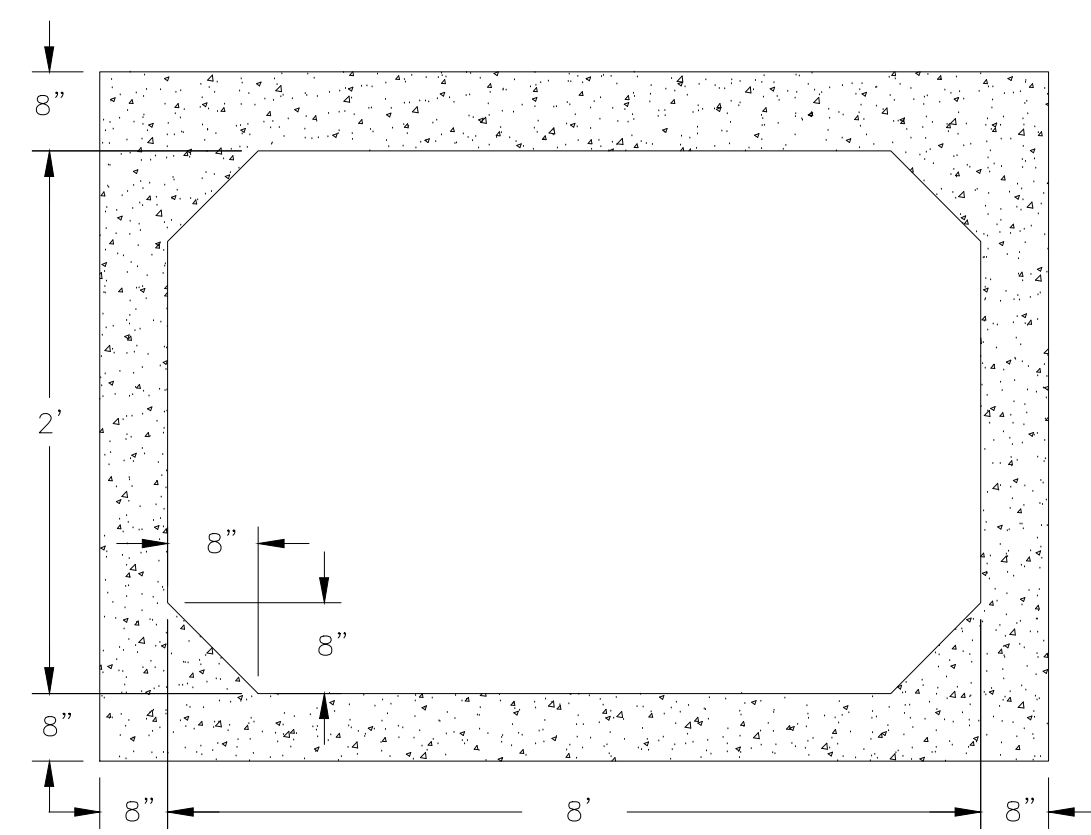


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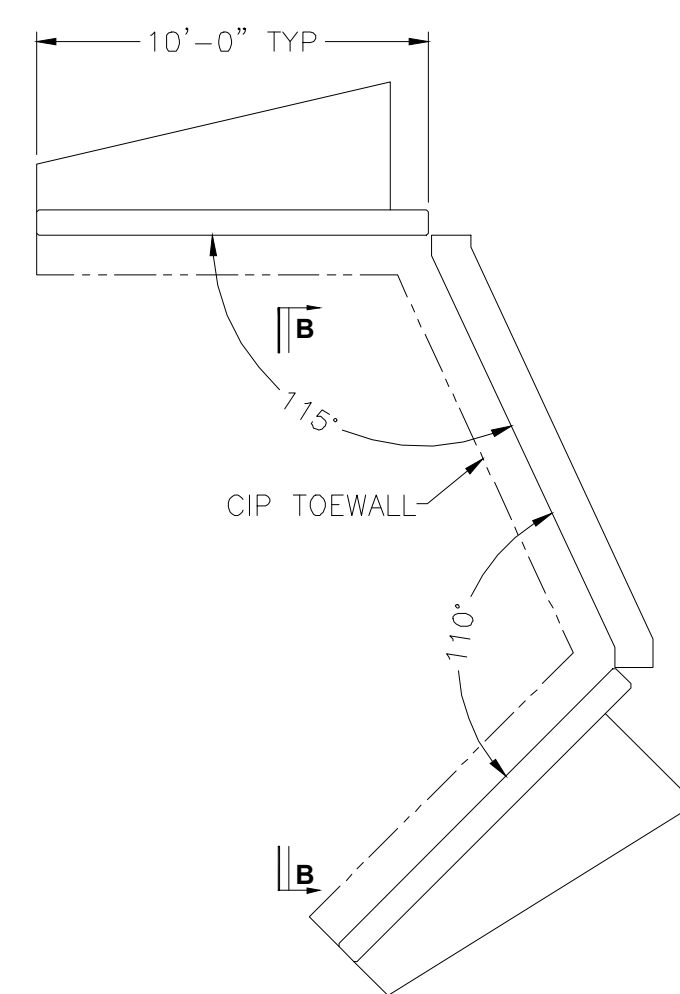


- GENERAL NOTES
1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  2. DIMENSIONS ARE SCHEMATIC DIMENSIONS. ACTUAL DIMENSIONS MAY VARY DEPENDING ON MANUFACTURER, DESIGN, AND STRUCTURE.
  3. CONTRACTOR TO PROVIDE SHOP DRAWING AND CALCULATIONS FROM MANUFACTURER OF EACH HS
  4. WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL CODES, LAWS, AND REGULATIONS OF MASSDEP, CITY OF WATERTOWN, AND ALL OTHER GOVERNING AGENCIES.
  5. STRUCTURE AND CASTINGS SHALL MEET AASHTO H20 LOAD RATING.
  6. SEE TABLE FOR SIZING AND BASIS OF DESIGN DATA.

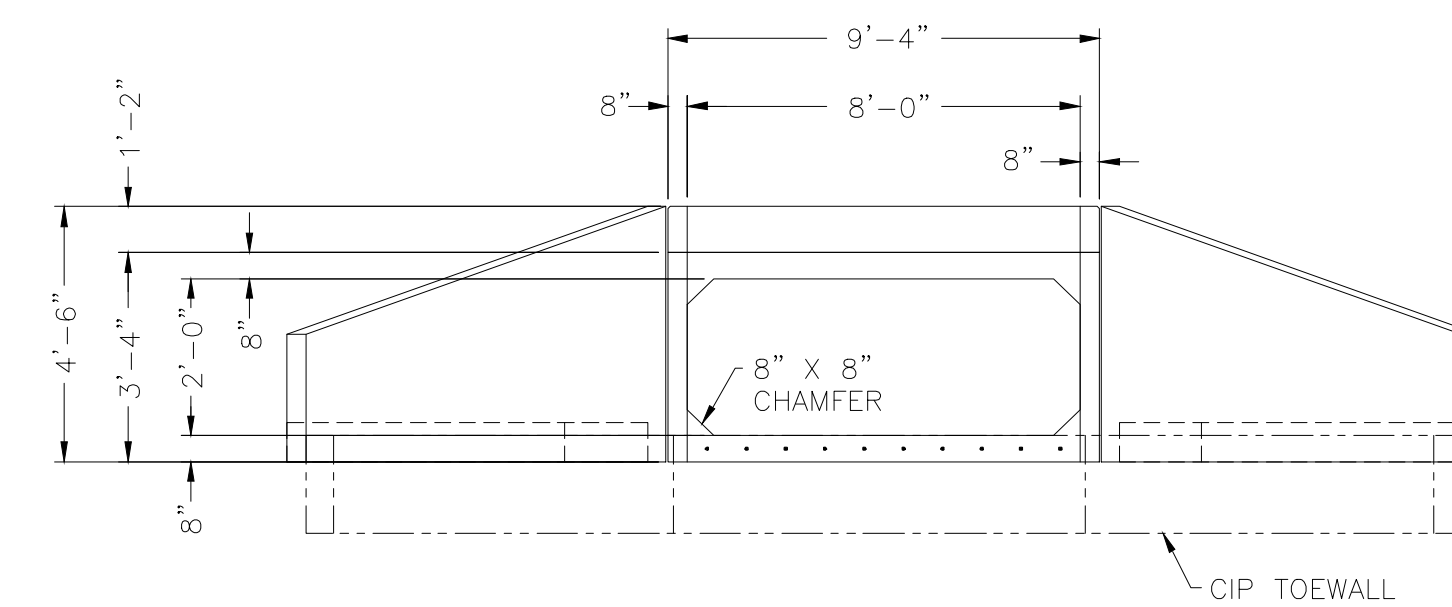
HDS-X HYDRODYNAMIC SEPARATOR DETAIL  
NOT TO SCALE



REINFORCED CONCRETE BOX CULVERT DETAIL  
NOT TO SCALE

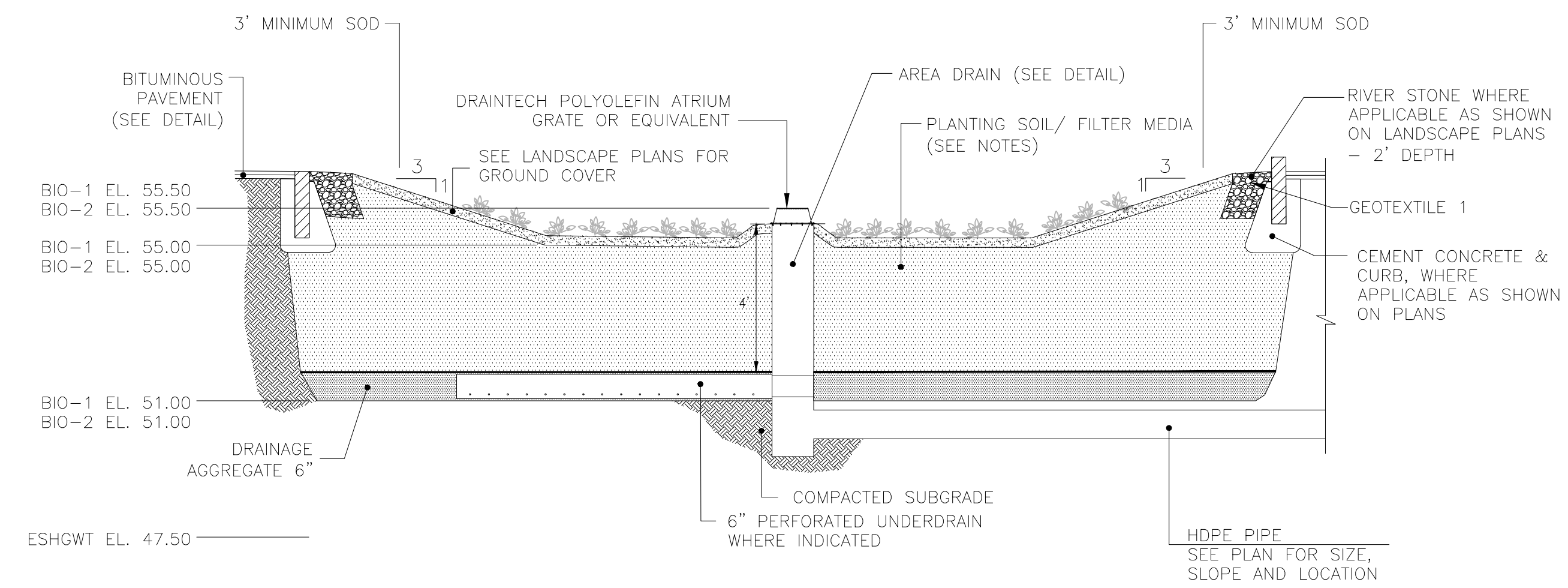


PLAN VIEW



SECTION B-B

REINFORCED CONCRETE WINGWALL DETAIL  
NOT TO SCALE



BIO-RETENTION AREA NOTES

1. THE PLANTING SOIL/FILTER MEDIA SHOULD BE A MIXTURE OF SAND, COMPOST, AND SOIL:  
- 40% SAND \*  
- 20-30% TOPSOIL \*  
- 30-40% COMPOST \*  
\* PERCENTAGES BY VOLUMES
2. THE SOIL MIX SHOULD BE UNIFORM, FREE OF STONES, STICKS, STUMPS, ROOTS, LARGER THAN 2 INCHES. CLAY CONTENT SHOULD NOT EXCEED 5%. SOIL PH SHOULD BE BETWEEN 5.5 AND 6.5 AND SHALL MEET ALL OTHER REQUIREMENTS OF SECTION 32.9320
3. THE SAND COMPONENT SHOULD BE GRAVELLY SAND THAT MEETS ASTM D 422.  
SIEVE SIZE PERCENT PASSING  
2 INCH 100  
3/4 INCH 70-100  
1/4 INCH 50-80  
No. 40 15-40  
No. 200 0-3
4. THE TOPSOIL COMPONENT SHALL BE A SANDY LOAM, LOAMY SAND OR LOAM TEXTURE.
5. THE COMPOST COMPONENT MUST BE PROCESSED FROM 60% COMPOST MEETING THE RISDISM RULES AND REGULATIONS FOR AGRICULTURAL COMPOSTING.
6. SEE LANDSCAPE PLANS FOR PLANTING SCHEDULE.

BIORETENTION AREA DETAIL

NOT TO SCALE

NOTE:  
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