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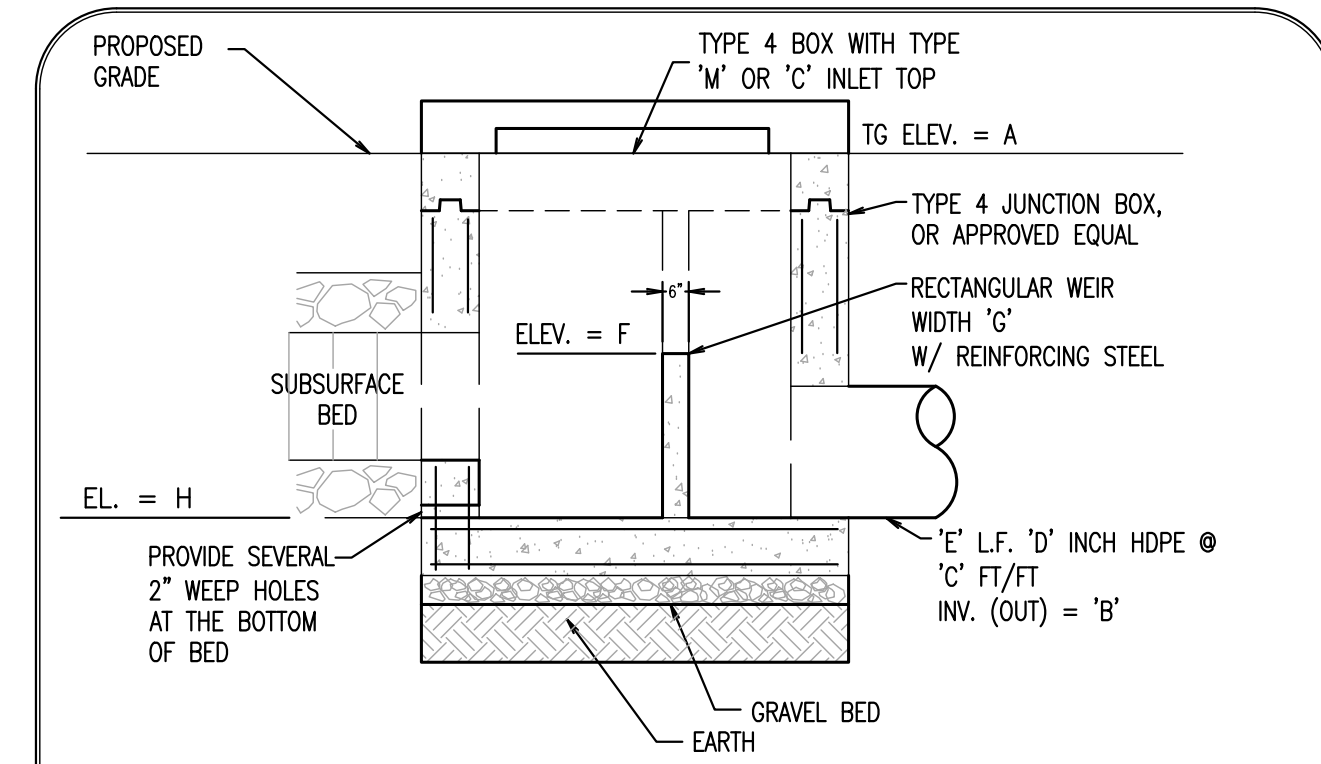
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BMP 6.4.3: SUBSURFACE INFILTRATION BED

THE INSTALLATION OF THIS BMP IS A CRITICAL STAGE WHERE THE DESIGN ENGINEER MUST BE CONTACTED AT LEAST 48 HOURS IN ADVANCE TO PROVIDE CONSTRUCTION OVERSIGHT.

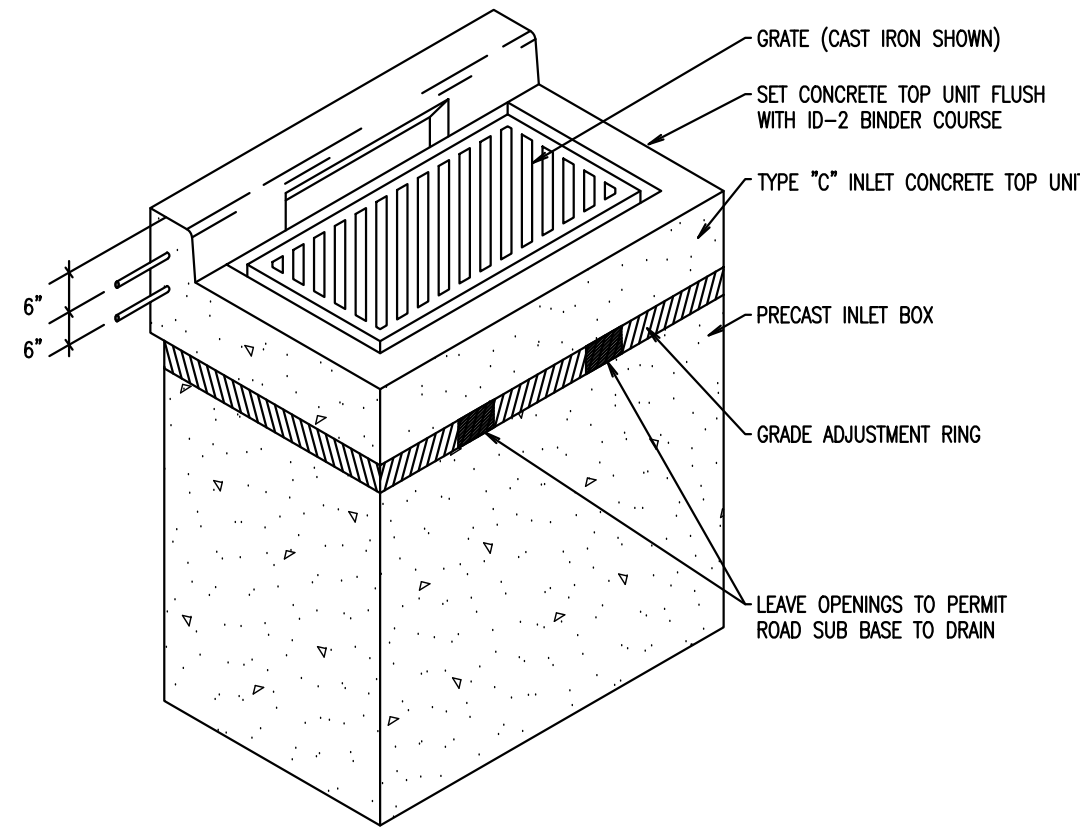
BED	PIPE MATERIAL	PIPE SIZE (D) (O)	NUMBER OF PIPES	PIPE LENGTH	PIPE WIDTH	PIPE DEPTH	PIPE INVERT	TOP OF STONE	PIPE SPACING	EXTERIOR STONE	TOP OF STONE	BASH SLOPE		
1	HDPE	3 (3.5)	8	102	31	110	32	4	300.50	300.00	1.0	1	304.00	0.0000

NOTES: ALL DIMENSIONS ARE IN FEET.

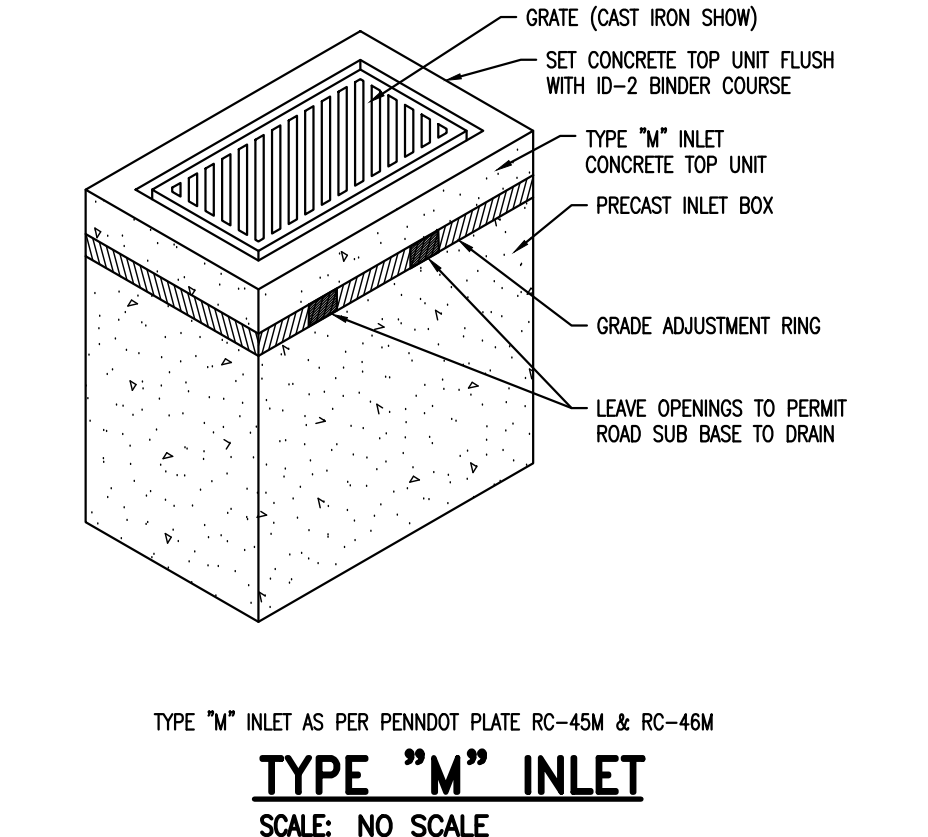


TG	PIPE INVERT OUT	PIPE SLOPE (F/FT)	PIPE SIZE	PIPE LENGTH	KNEE WALL ELEV.	WEIR WIDTH	STONE BOTTOM	NOTES	
A	B	C	D	E	F	G	H		
BED 1	301.00	300.00	0.0100	15'	50'	303.20	3.85'	300.00'	TYPE M TOP
BED 2	294.50	306.00	0.0100	15'	50'	309.25	3.85'	306.00'	TYPE M TOP
BED 3	295.50	306.00	0.0100	15'	50'	309.20	3.85'	306.00'	TYPE M TOP

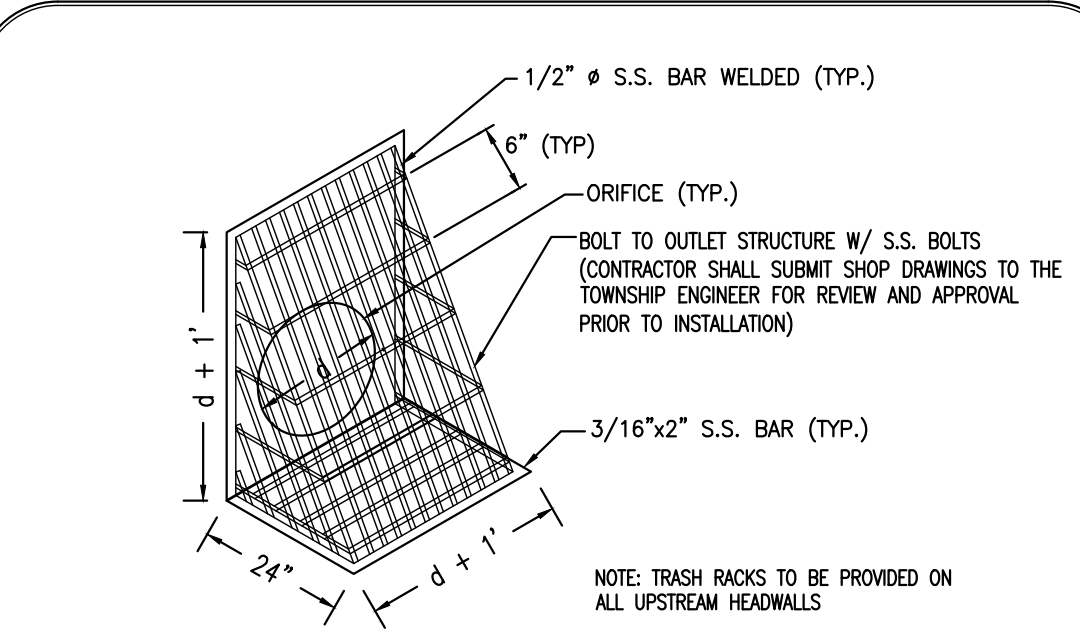
OUTLET STRUCTURE DETAIL
NO SCALE



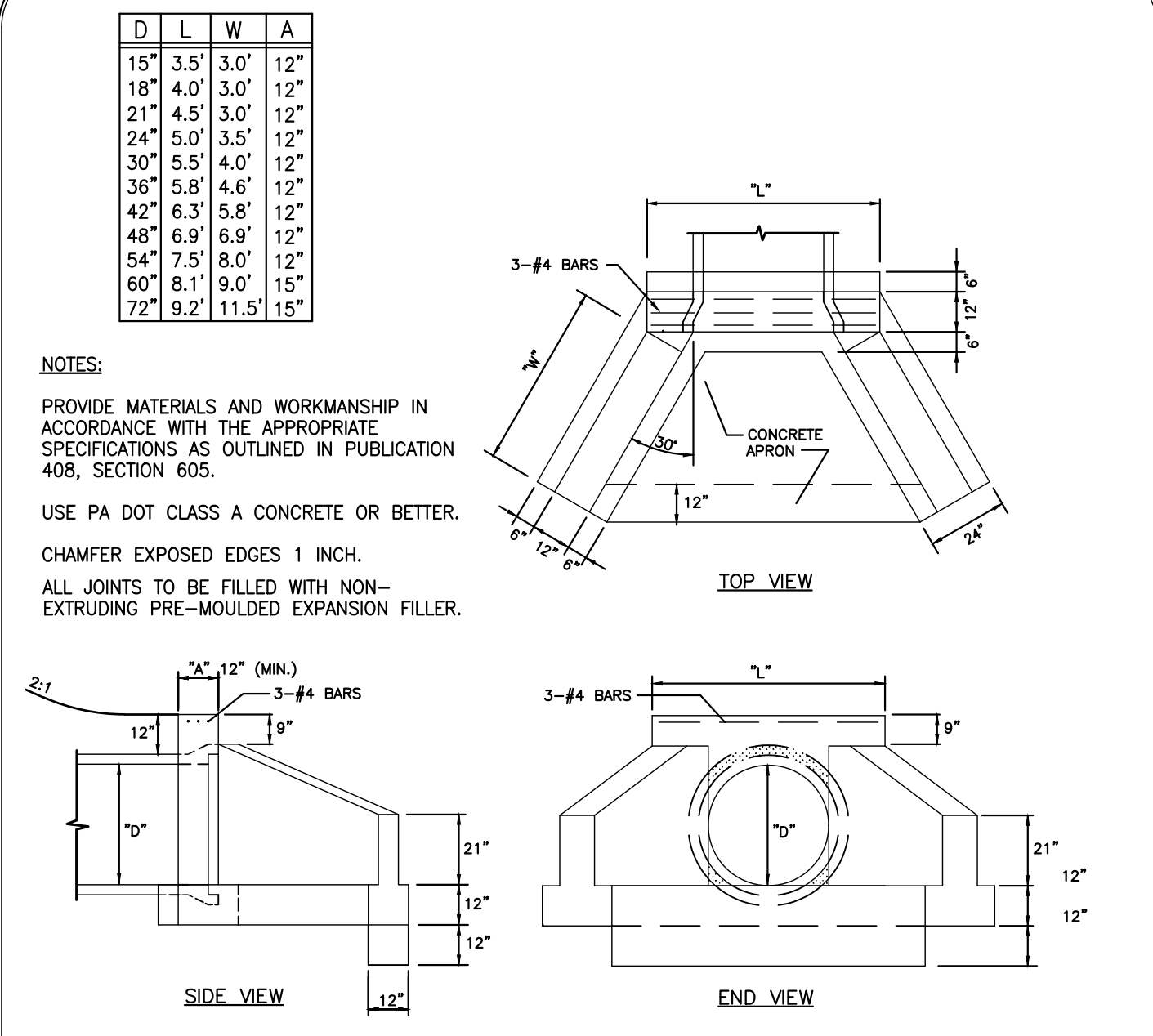
TYPE "C" INLET
SCALE: NO SCALE



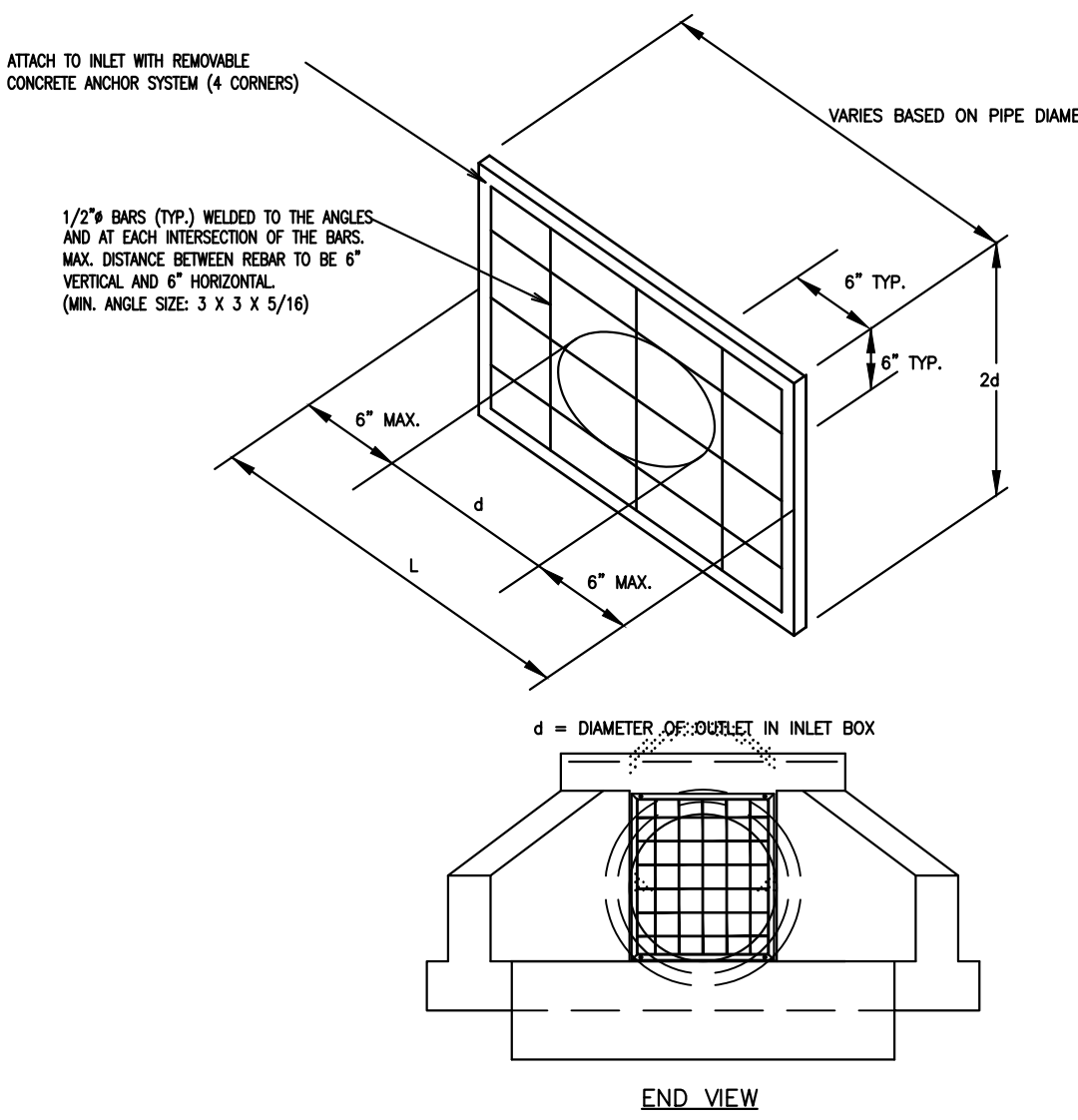
TYPE "M" INLET
SCALE: NO SCALE



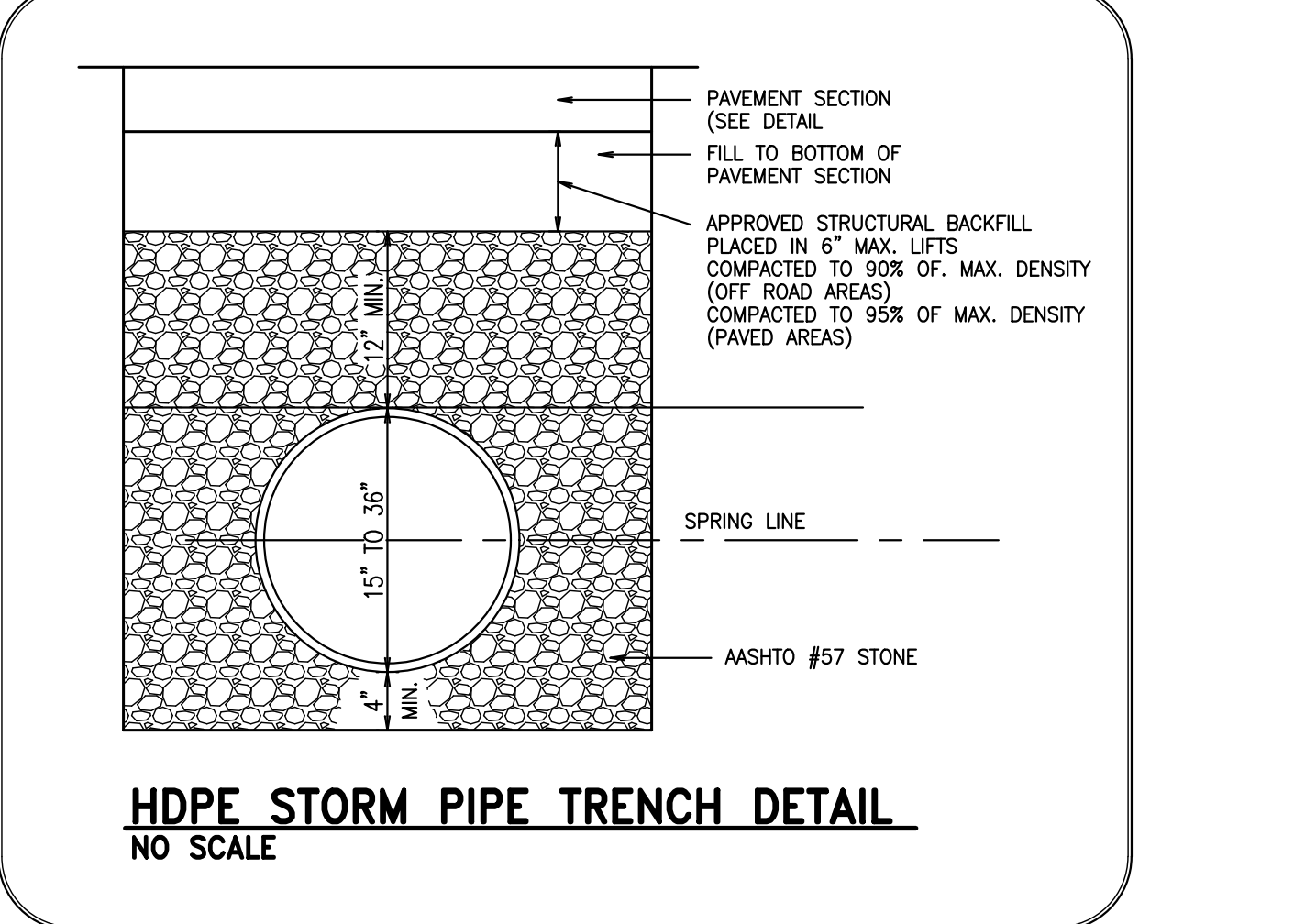
TRASH RACK - BASIN OUTLET STRUCTURES
NOT TO SCALE



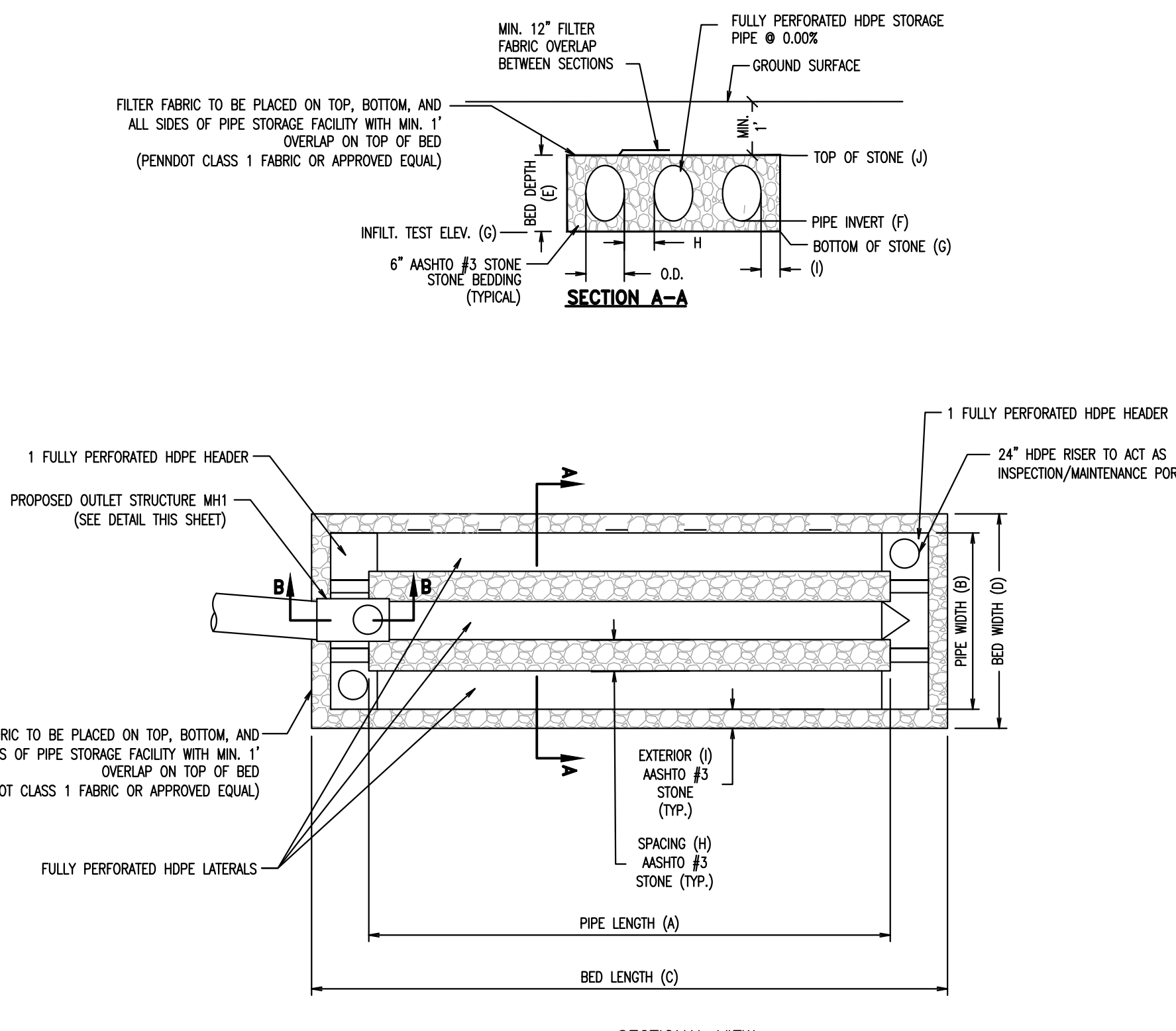
TYPE D-W ENDWALL
NO SCALE



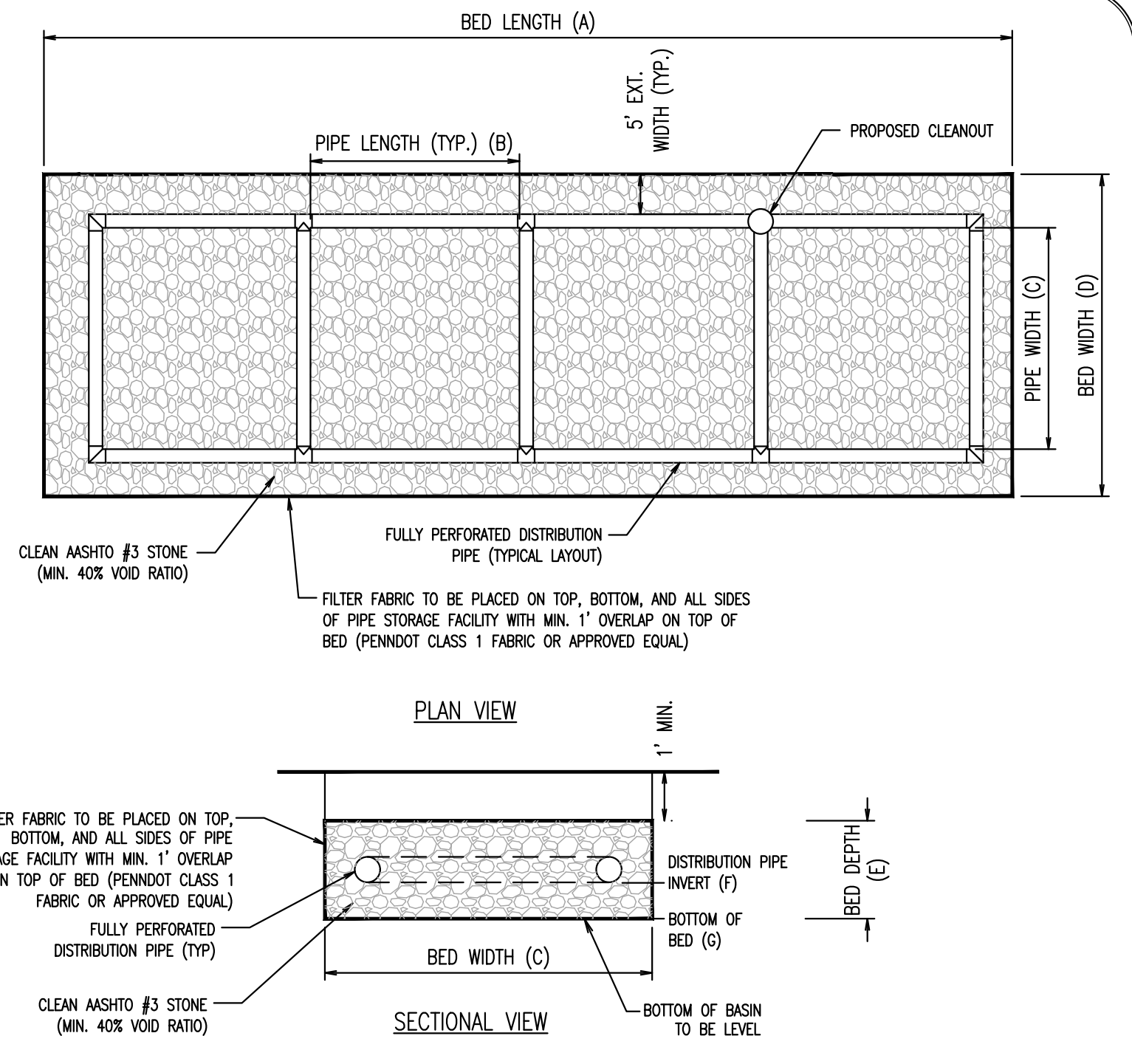
CHILD PROOF TRASH RACK
NOT TO SCALE



HDPE STORM PIPE TRENCH DETAIL
NO SCALE



UNDERGROUND PIPE STORAGE INFILTRATION BED #1
NOT TO SCALE



BED	DS. PIPE DIAMETER	PIPE LENGTH	PIPE WIDTH	PIPE DEPTH	PIPE INVERT	BOTTOM OF BED		
BED 2	0.5	157	147	19	9	307.75	306.00	
BED 3	0.5	92	82	30	20	4	307.75	306.00

- NOTES: ALL DIMENSIONS ARE IN FEET.
- PIPE BEDDING MATERIAL SHALL BE PER MANUFACTURER'S SPECIFICATION.
 - HAUNCH MATERIAL SHALL BE PER MANUFACTURER'S SPECIFICATION.
 - ADHERE TO ALL INFILTRATION BED CONSTRUCTION SPECIFICATIONS ON THE STORMWATER FACILITY OPERATIONS AND MAINTENANCE PLAN.
 - GEOTEXTILE FABRIC SHALL CONFORM TO PENNDOT 408 SPECIFICATIONS - SECTION 212 CENTERILES OR LATEST ADOPTA.
 - ALL STONE TO BE USED FOR INFILTRATION DEVICES SHALL BE CLEAN WASHED ASHOTO #3 PER THE PA BMP MANUAL AND SHALL BE INSPECTED BY THE DESIGN ENGINEER PRIOR TO BED INSTALLATION.

UNDERGROUND STONE INFILTRATION BED 2 & 3 DETAIL
NO SCALE

CONSTRUCTION SEQUENCE

- SEEPAGE BED FILTER BED AREA FROM COMPACTION PRIOR TO INSTALLATION.
- IF DURING THE INSTALLATION OF THE PROPOSED INFILTRATION FACILITY, UNFAVORABLE CONDITIONS ARE ENCOUNTERED, THE OWNER AND ENGINEER SHALL BE NOTIFIED AND THE PROPOSED FACILITY SHALL BE RELOCATED TO A MORE SUITABLE LOCATION ON THE PROPERTY.
- IF GROUNDWATER OR BEDROCK IS ENCOUNTERED DURING THE INSTALLATION OF THE INFILTRATION SYSTEMS STOP WORK AND CONTACT THE TOWNSHIP AND DESIGN ENGINEER FOR AN ALTERNATE SEEPAGE BED LOCATION OR NEW DESIGN.
- IF POSSIBLE, INSTALL INFILTRATION BED DURING LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY.
- INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- IF NECESSARY, EXCAVATE INFILTRATION BED BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT SUBGRADE. PRIOR TO PLACEMENT OF AGGREGATE, THE SOIL SURFACE AT THE BOTTOM OF THE BED SHALL BE SCARIFIED TO FURTHER PROMOTE INFILTRATION.
- SEED AND STABILIZE TOPSOIL.

OPERATION AND MAINTENANCE - INFILTRATION BED:

- SEEPAGE BED FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS ENTERED ANY OF THE INFILTRATION SEEPAGE BEDS, APPROPRIATE MEASURES (I.E. CLEANING THE SOIL/SEDIMENT FROM THE FABRIC, STONE, BED ETC. AND/OR REPLACEMENT OF THE FABRIC AND STONE) SHOULD BE ADDRESSED.
- INFLOW AND OUTFLOW POINTS INTO THE INFILTRATION SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.
- IF GROUNDWATER OR BEDROCK IS ENCOUNTERED DURING THE INSTALLATION OF THE ON-LOT SEEPAGE BEDS STOP WORK AND CONTACT THE TOWNSHIP AND DESIGN ENGINEER FOR AN ALTERNATE SEEPAGE BED LOCATION OR NEW DESIGN.
- COMPACTION IS TO BE MINIMIZED IN AREAS DESIGNATED FOR INFILTRATION.
- CATCH BASINS AND INLETS UPGRADIENT OF INFILTRATION BED (IC1, IC13, IC14, IC15, IC16, IC18, IC19, IC21, IC22, IC24, IC25, IC26, & IC27) SHOULD BE INSPECTED AND CLEANED AT LEAST TWICE PER YEAR AND AFTER MAJOR RUNOFF EVENTS.
- INSPECT THE BED AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. MOSQUITOES SHOULD NOT BE A PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD WITH RELATIVELY STATIC WATER LEVELS.
- ALSO, INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURE MHI, EROSION CONTROL MEASURES, AND SIGNS OF WATER CONTAMINATION/SPILLS.
- REMOVE ACCUMULATED SEDIMENT FROM BED AS REQUIRED. RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE. PROPERLY DISPOSE OF SEDIMENT.
- THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS.
- PROPOSED PVC DATE VALVES SHALL ONLY BE OPENED FOR DEMONSTRATION AND MAINTENANCE AND SHALL BE CLOSED IMMEDIATELY AFTER.

SPECIFICATIONS

- STONE:**
- SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5% ASHOTO SIZE NUMBER 3 PER ASHOTO SPECIFICATIONS, PART 1, 19TH ED., 1996, OR LATER AND SHALL HAVE Voids 40% AS MEASURED BY AS14-CIS.
- NON-WOVEN GEOTEXTILE:**
- SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
 - GRADE TENSILE STRENGTH (ASTM-D4632) 120 LBS
 - WALL BURST STRENGTH (ASTM-C5378) 225 PSI
 - C. FLOW RATE (ASTM-D4951) 95 GAL/MIN/FT²
 - D. RESISTANCE AFTER 500 HRS (ASTM-D4355) 70%
 - E. HEAT-SET OR HEAT-CALCINATED FABRICS ARE NOT PERMITTED
 - ACCEPTABLE TYPES INCLUDE MWR1 140N, AM000 4547, AND GEOTEXT 451.
- DESIGN:**
- MAY BE AMENDED WITH COMPOST (IF APPLICABLE)
- PIPE:**
- SHALL BE CONTINUOUSLY PERFORATED, SMOOTH INTERIOR, WITH A MINIMUM INSIDE DIAMETER OF 6-INCHES.
 - HIGH-DENSITY POLYETHYLENE (HDPE) PIPE SHALL MEET ASHOTO M252, TYPE S OR ASHOTO M254, TYPE S.
- STORM DRAIN INLETS AND STRUCTURES:**
- CONCRETE CONSTRUCTION: CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 1001, PENNDOT SPECIFICATIONS, 1990 OR LATEST EDITION.
 - PRECAST CONCRETE INLETS AND MANHOLES: PRECAST CONCRETE INLETS MAY BE SUBSTITUTED FOR CAST-IN-PLACE STRUCTURES AND SHALL BE CONSTRUCTED AS SPECIFIED FOR CAST-IN-PLACE. PRECAST STRUCTURES MAY BE USED IN ONLY THOSE AREAS WHERE THERE IS NO CONFLICT WITH EXISTING UNDERGROUND STRUCTURES THAT MAY NECESSITATE REVISION OF INVERTS. TYPE N STANDARD PENNDOT INLET BODIES WILL BE MODIFIED TO PROVIDE MINIMUM 12 INCH SUMP STORAGE AND BOTTOM LEAKING BASINS, OPEN TO GRADE, SUMPS IN SUB-GRADE, WHEN SITUATED IN THE RECHARGE BED.
 - ALL PVC catch basins/collections/manhole drains SHALL HAVE 14-10 OR 14-20 RATED GRATES, DEPENDING ON THEIR PLACEMENT (14-20 IF VEHICULAR LOADING).
 - STEEL REINFORCING BARS OVER THE TOP OF THE OUTLET STRUCTURE SHALL CONFORM TO ASTM A516, GRADSES 60 AND 40. A PERMANENT TYPING REINFORCEMENT MATING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS, IF APPLICABLE.
- ALTERNATE STORAGE MEDIA (IF APPLICABLE):**
- FOLLOW MANUFACTURER'S SPECIFICATIONS.

PRELIMINARY
PCSM DETAILS

CHECKED BY: MITCHELL HOMES
PROJECT: SMITH PROPERTY
LOCATION: 548 ROSEDALE ROAD
KENNETT TOWNSHIP, PA

DATE:	04/30/19
SCALE:	1"=50'
DRAWN BY:	JTE
CHECKED BY:	JWB
PROJECT NO.:	3388
CAD FILE:	14 PCSM PLAN.dwg
PLOTTED:	04/30/19
DRAWING NO.:	C06.6
SHEET:	19 OF 27