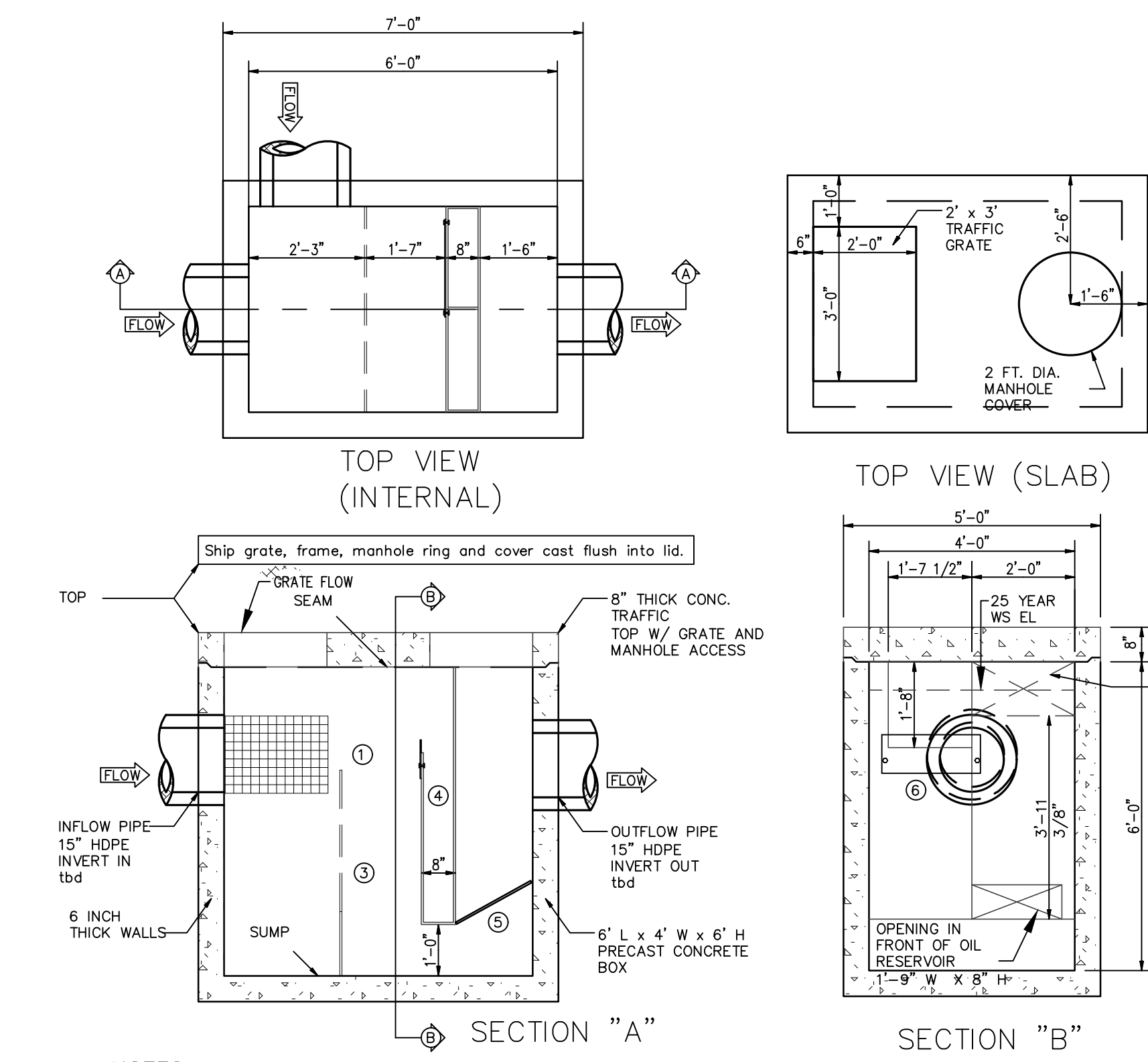


**NOTES:**

1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARALLEL THERE TO.
3. PIPES SHALL BE PARALLEL TO INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE CONNECTIONS UNLESS INDICATED OTHERWISE BY THE CONTRACTOR.
4. PROVIDE A MINIMUM 0.5" DROP BETWEEN INLET AND OUTLET INVESTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZES) UNLESS OTHERWISE NOTED ON THE PLAN.
5. CATCH BASINS WITH AN INTERIOR DEPTH OF 4" AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.
6. HOSE PIPE SHALL BE PROVIDED WITH WATERLOO CONNECTIONS. ADS MODEL N12 W118 OR APPROVED EQUAL.

**CATCH BASIN DETAIL NOT TO SCALE**



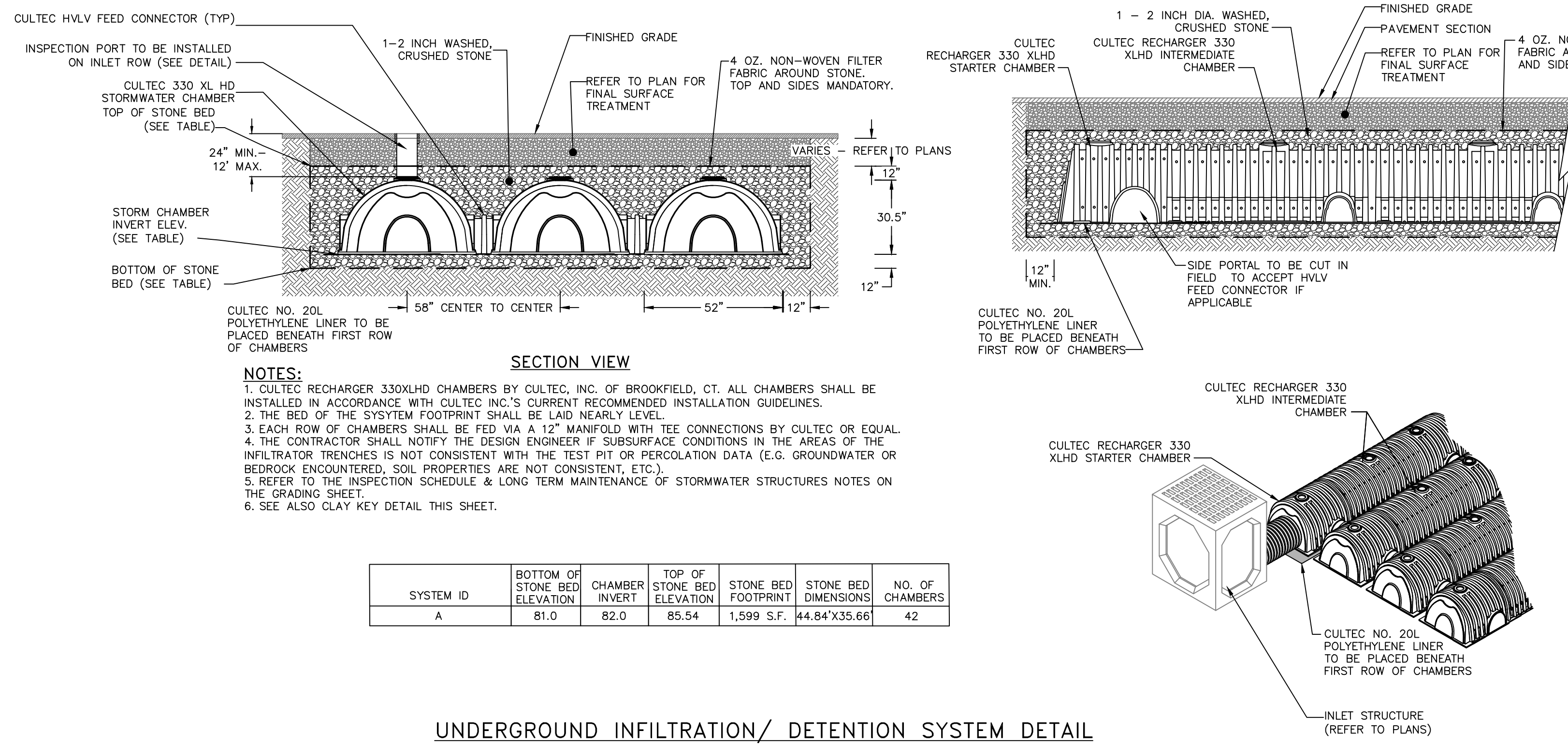
**LEGEND**

1. EXPANDED ALUMINUM BASKET W/ 1/4" MESH LINING, 1'-6" x 2'-0" L x 4'-0" W, USFR 3'-6 3/4" FROM SUMP.
2. 2ND INTERNAL Baffle W/ 1" HOLES DRILLED AT 1' V.A. O.C., 4'-0" H.
3. SPILL PROTECTION RESERVOIR 2'-0" H, WITH A 1'-8" FRONT OUT.
4. 3/4" COCONUT FIBER FILTER IN ALUMINUM FRAME 1'-8" LONG.
5. 1/4" ALUMINUM PLATE, 9" H., 1'-11" WIDE.

**NOTES:**

1. WATER QUALITY INLET SHOWN IS "CRYSTAL CLEAN" MODEL # 846 IB BY CRYSTAL STREAM TECHNOLOGIES, INC. OF LAWRENCEVILLE, GA., 1-800-649-8945.
2. ALL PIPES SHALL BE CONSTRUCTED TO BE FLUSH WITH THE INSIDE WALLS.
3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PIPES AND STRUCTURES BETWEEN AND AROUND THE WATER QUALITY VAULTS.
4. ALL VAULT LIFTING CONNECTIONS SHALL BE LOCATED ON THE OUTSIDE OF THE VAULT WALLS.
5. CONCRETE VAULT PRE-CASTER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE CONCRETE VAULTS. WALL AND SLAB THICKNESSES SHALL BE ALTERED ACCORDINGLY.

**WQI DETAIL NOT TO SCALE**

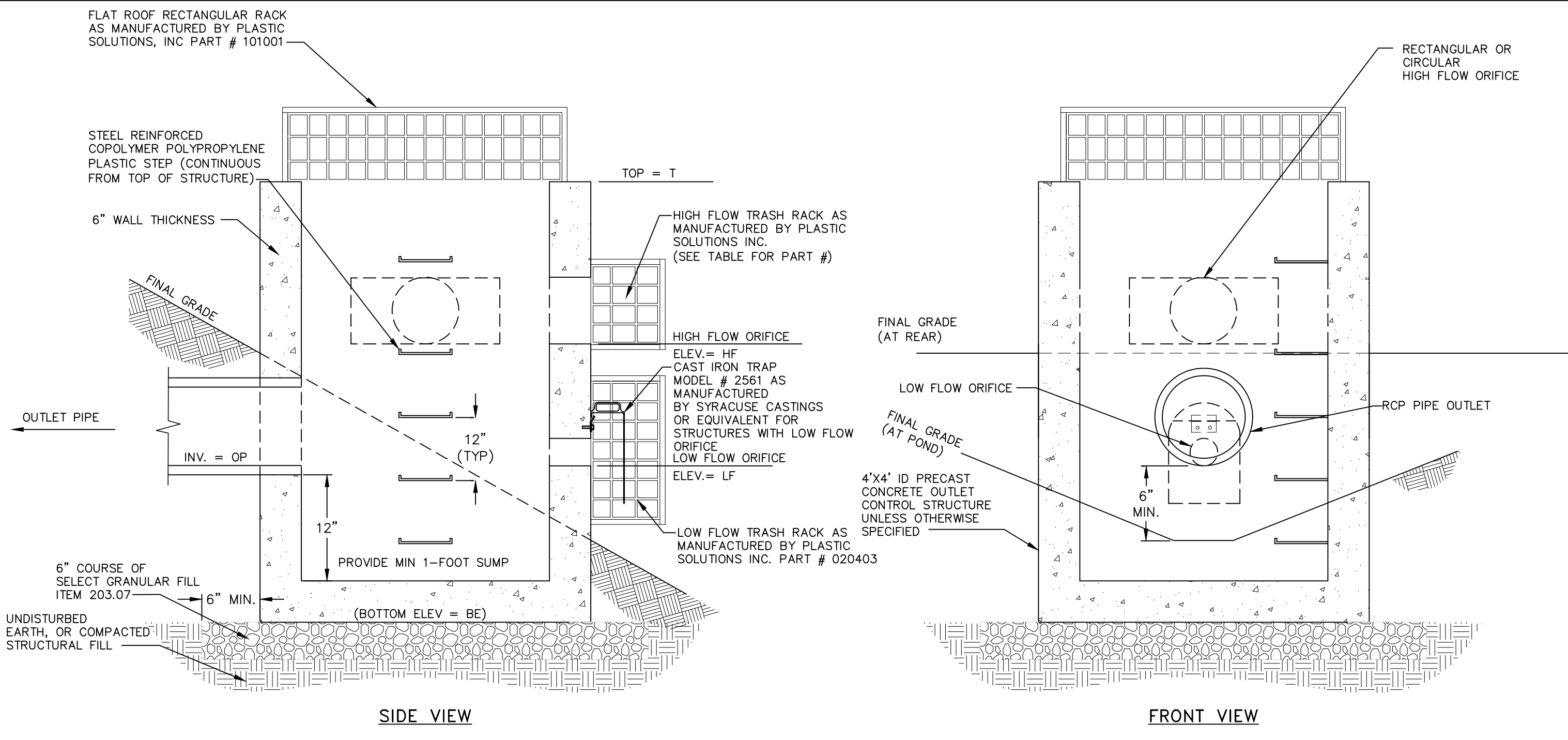


**NOTES:**

1. CULTEC RECHARGER 330XLHD CHAMBERS BY CULTEC, INC. OF BROOKFIELD, CT. ALL CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH CULTEC INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
2. THE BED OF THE SYSTEM FOOTPRINT SHALL BE LIFTED TO FINISH GRADE.
3. EACH ROW OF CHAMBERS SHALL BE FED VIA A 12" MANHOLE WITH TEE CONNECTIONS BY CULTEC OR EQUAL.
4. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IF SUBSURFACE CONDITIONS IN THE AREAS OF THE INFILTRATOR TRENCHES IS NOT CONSISTENT WITH THE TEST PIT OR PERCOLATION DATA (E.G. GROUNDWATER OR BEDROCK ENCOUNTERED, SOIL PROPERTIES ARE NOT CONSISTENT, ETC.).
5. REFER TO THE INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES NOTES ON THE GRADING SHEET.
6. SEE ALSO CLAY KEY DETAIL THIS SHEET.

SYSTEM ID	BOTTOM OF STONE BED ELEVATION	CHAMBER ELEVATION	TOP OF STONE BED ELEVATION	STONE BED 1' FOOTPRINT DIMENSIONS	STONE BED 2' FOOTPRINT DIMENSIONS	NO. OF CHAMBERS
A	81.0	82.0	85.54	1.599 S.F.	44.84x35.66	42

**UNDERGROUND INFILTRATION/ DETENTION SYSTEM DETAIL NOT TO SCALE**

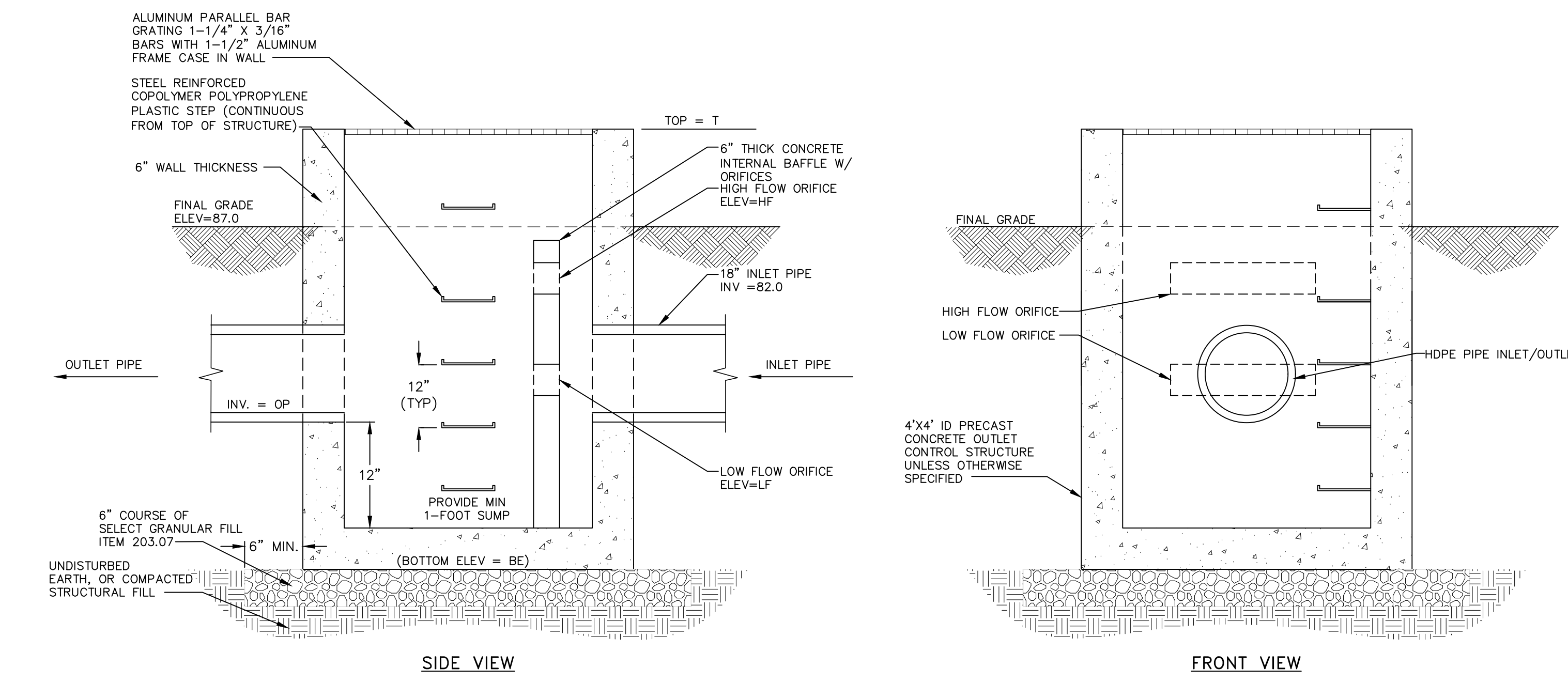


**OUTLET CONTROL STRUCTURE DATA**

OCS ID	STRUCTURE DIMENSIONS	LOW FLOW ORIFICE DIM	"L" (FT)	HIGH FLOW ORIFICE DIM	# OF HIGH FLOW INLETS	"H" (FT)	"I" (FT)	OUTLET PIPE # (N)	"OP" (FT)	HIGH FLOW ORIFICE TRASH RACK PART #
1	4'x4' I.D.	3"	89.55	NONE	NONE	N/A	89.9	15	86.0	020501

- NOTES:**
1. ALL TRASH RACKS SHALL HAVE UV PROTECTION MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D2565-99.
  2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.
  3. WHERE HIGH FLOW ORIFICE EXTENDS TO TOP OF STRUCTURE, THE MAXIMUM ALLOWABLE GAP BETWEEN THE TRASH RACKS SHALL BE 4".

**INFILTRATION BASIN OUTLET CONTROL STRUCTURE DETAIL NOT TO SCALE**

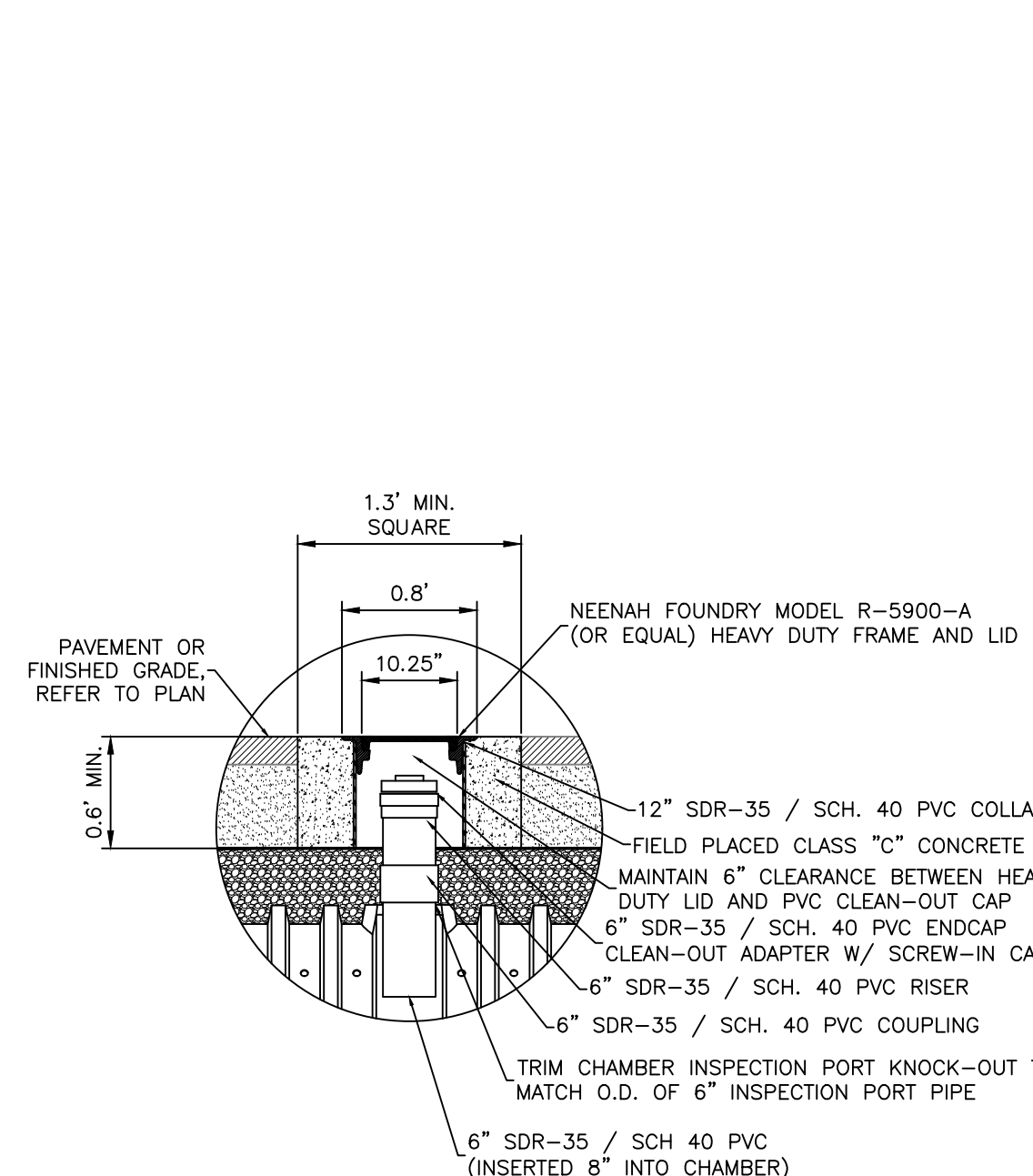


**OUTLET CONTROL STRUCTURE DATA**

OCS ID	STRUCTURE DIMENSIONS	LOW FLOW ORIFICE DIM (IN)	"L" (FT)	HIGH FLOW ORIFICE DIM	# OF HIGH FLOW INLETS	"H" (FT)	"I" (FT)	OUTLET PIPE # (N)	"OP" (FT)	HIGH FLOW ORIFICE TRASH RACK PART #
2	4'x4' I.D.	9" W x 6" H	83.7	2'0" x 6" H	1	85.10	88.0	18	82.0	NA

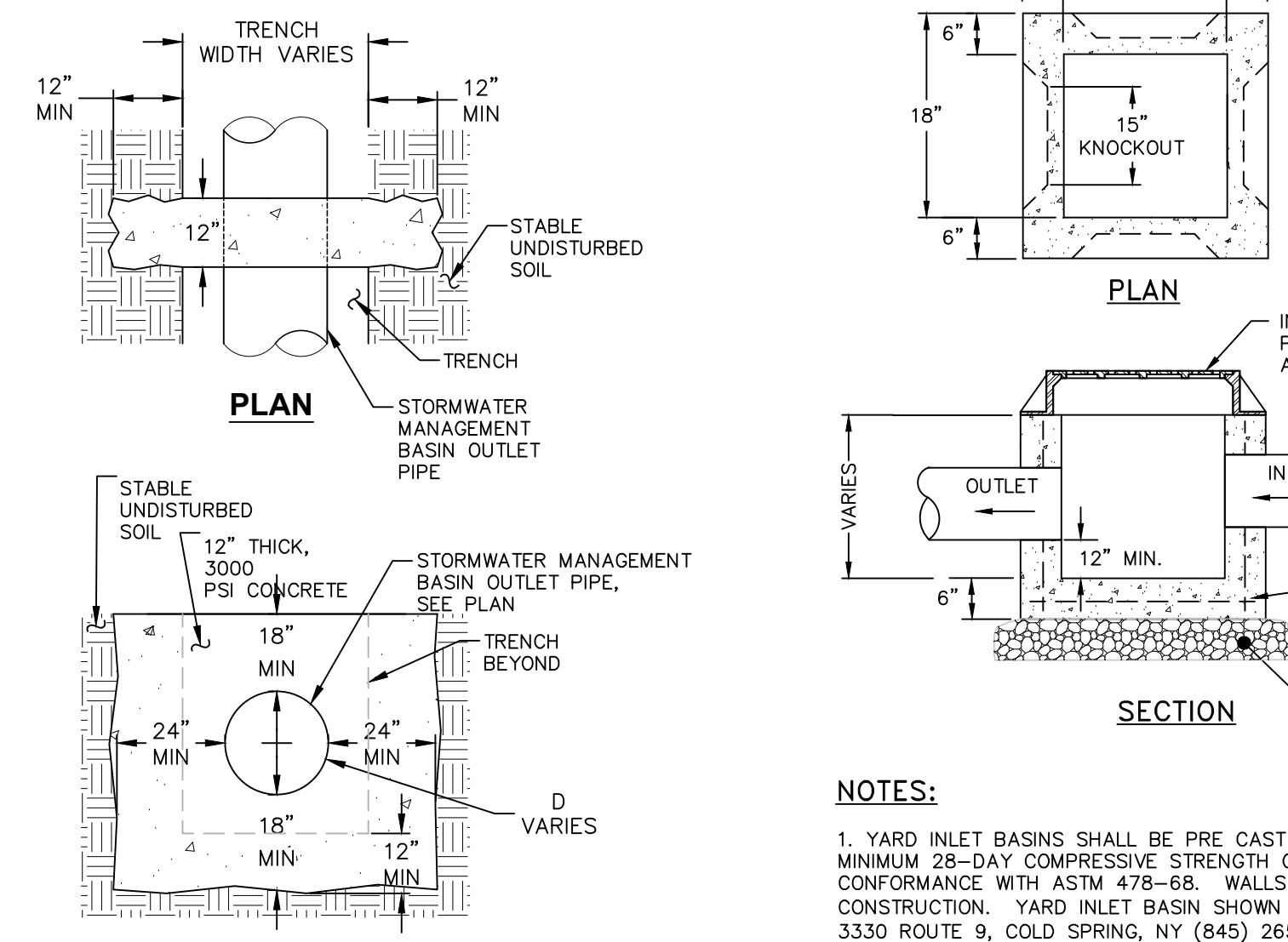
- NOTES:**
1. ALL TRASH RACKS SHALL HAVE UV PROTECTION MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D2565-99.
  2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.
  3. WHERE HIGH FLOW ORIFICE EXTENDS TO TOP OF STRUCTURE, THE MAXIMUM ALLOWABLE GAP BETWEEN THE TRASH RACKS SHALL BE 4".

**UNDERGROUND INFILTRATION/DETENTION OUTLET CONTROL STRUCTURE DETAIL NOT TO SCALE**



- NOTES:**
1. PROVIDE AN INSPECTION PORT FOR THE INITIAL AND FINAL CHAMBER OF EACH ROW, AND FOR ROWS WITH MORE THAN 10 CHAMBERS, ONE IN AN INTERMEDIATE CHAMBER.

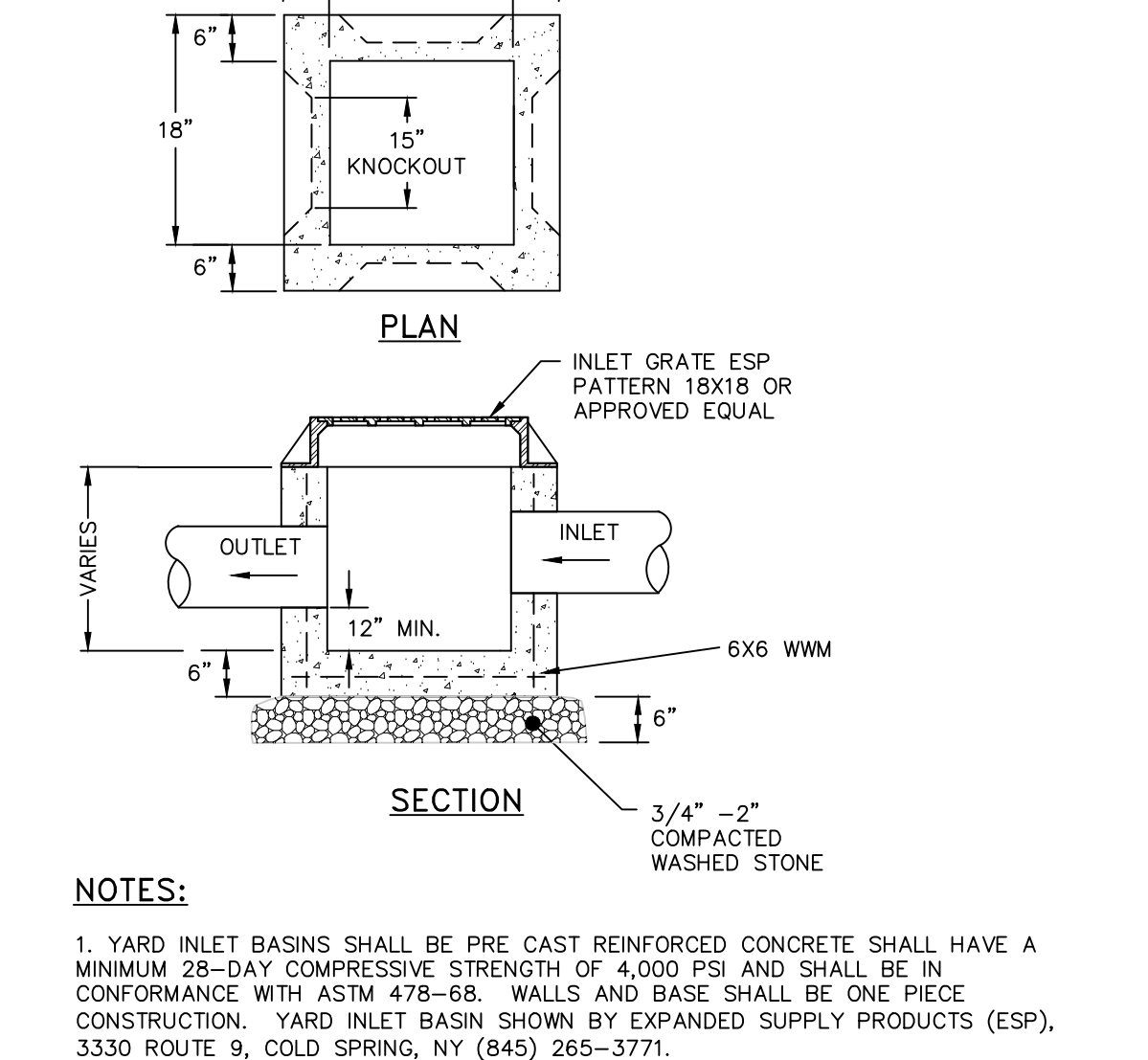
**UNDERGROUND DETENTION SYSTEM INSPECTION PORT DETAIL NOT TO SCALE**



**NOTES:**

1. TO BE PROVIDED AT INFILTRATION BASIN A.

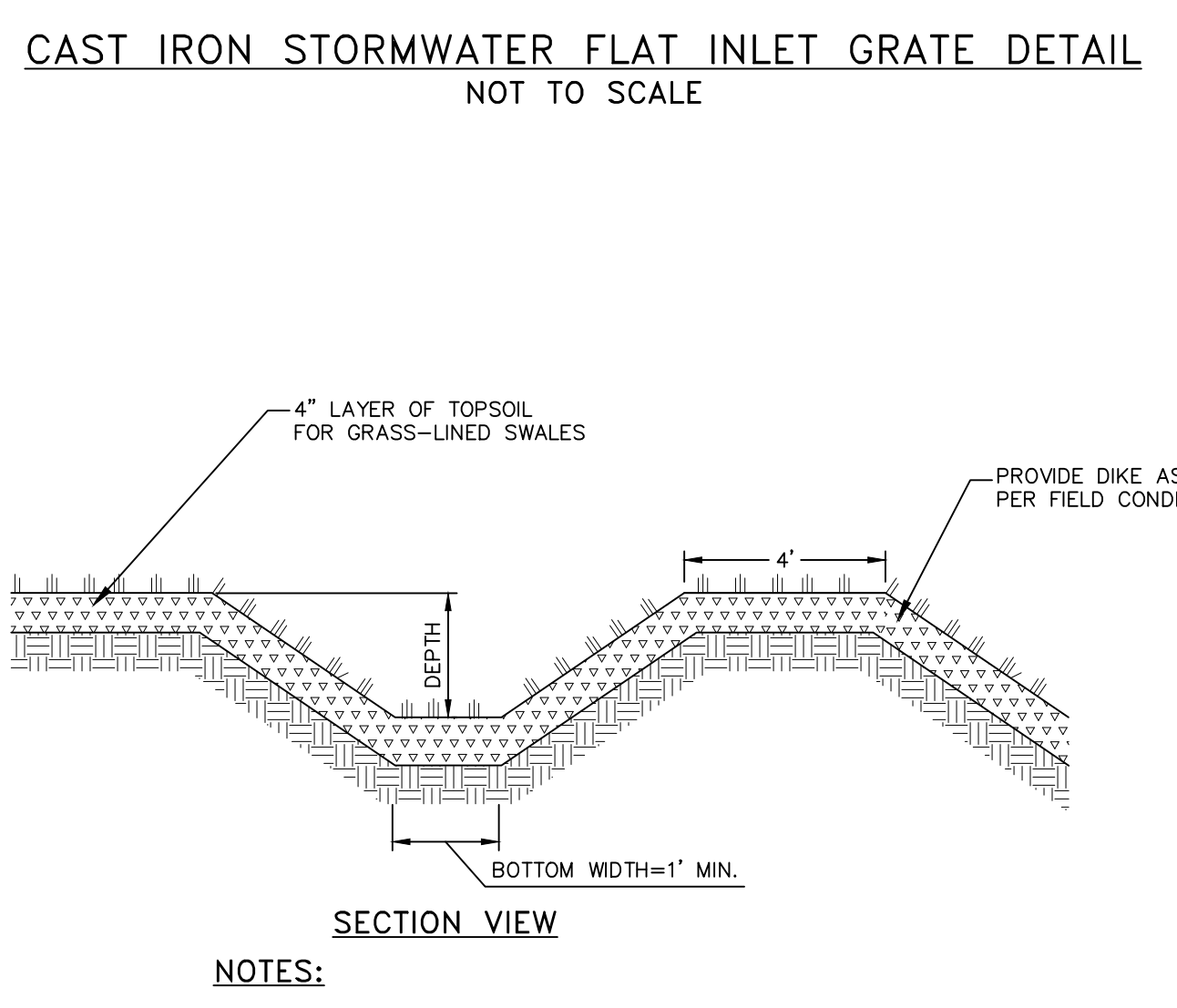
**ANTI-SEEP COLLAR DETAIL NOT TO SCALE**



**NOTES:**

1. YARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 4753-88. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 285-3771.
2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6" LIFTS.
3. SUMP SHALL BE 12" MIN.
4. FRAMES AND GRATES SHALL BE SET IN A FULL BED OF MORTAR.

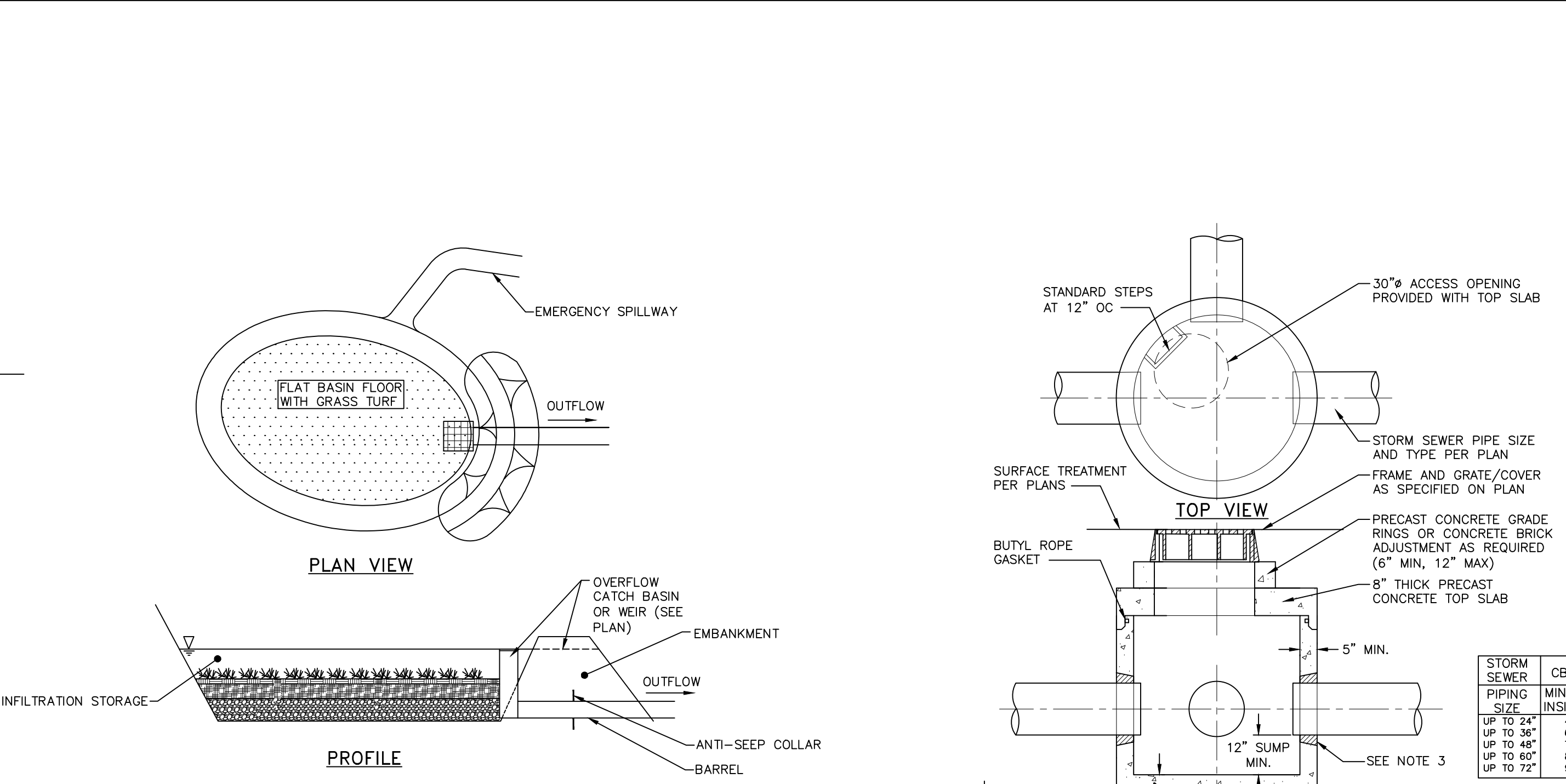
**PRE-CAST CONCRETE YARD INLET DETAIL NOT TO SCALE**



**NOTES:**

1. MINIMUM 1' DEPTH AND 1' WIDTH FOR ALL SWALES.
2. SWALE SHALL BE SEEDED WITH FAST GERMINATING RYE 15 TO 25 POUNDS PER 1,000 SQUARE FEET AND MULCHED.

**TEMPORARY GRASS LINED SWALE/DIKE DETAIL NOT TO SCALE**

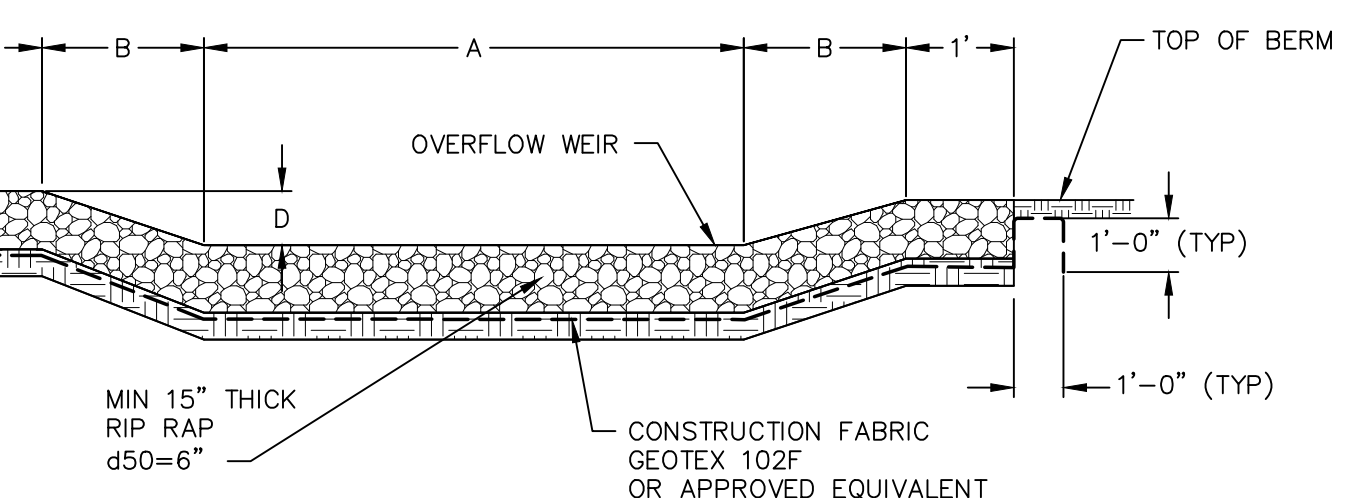


**NOTES:**

1. THE INFILTRATION BASIN SHALL NOT SERVE AS A SEDIMENT TRAP DURING CONSTRUCTION AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITY.
2. RELATIVELY LIGHT TRACKED EQUIPMENT IS RECOMMENDED FOR CONSTRUCTION PURPOSES TO AVOID COMPACTION OF THE BASIN FLOOR.
3. A HIGHLY POROUS SURFACE TEXTURE SHALL BE RETAINED ALONG THE BASIN FLOOR, ESPECIALLY WITHIN THE AREA IDENTIFIED AS BEING USED FOR INFILTRATION.
4. ESTABLISH DESIRED VEGETATION ON THE BASIN SIDE SLOPES AND FLOOR TO PREVENT EROSION AND SLOPING AND TO PROVIDE A NATURAL MEANS OF MAINTAINING RELATIVELY HIGH INFILTRATION RATES. GRASSES OF THE FESCUE FAMILY (ALTAI FESCUE, WESTERN FESCUE OR RED FESCUE) ARE SPECIFIED ON THIS PLAN, PRIMARILY DUE TO THEIR ADAPTABILITY TO DRY SANDY SOILS, DROUGHT RESISTANCE, HARDNESS, AND ABILITY TO WITHSTAND BREEZING INDIANATIONS. FESCUE WILL ALSO ALLOW FOR LONG INTERVALS BETWEEN MOWINGS, WHICH SHALL OCCUR TWICE PER YEAR MINIMUM, TYPICALLY IN JUNE AND SEPTEMBER IS SATISFACTORY.
5. THE BERMS SHALL BE SUFFICIENTLY COMPACTED AND OF SUCH MATERIAL TO PREVENT SEEPAGE.

**TYPICAL INFILTRATION BASIN DETAIL NOT TO SCALE**

**STORMWATER MANHOLE DETAIL NOT TO SCALE**

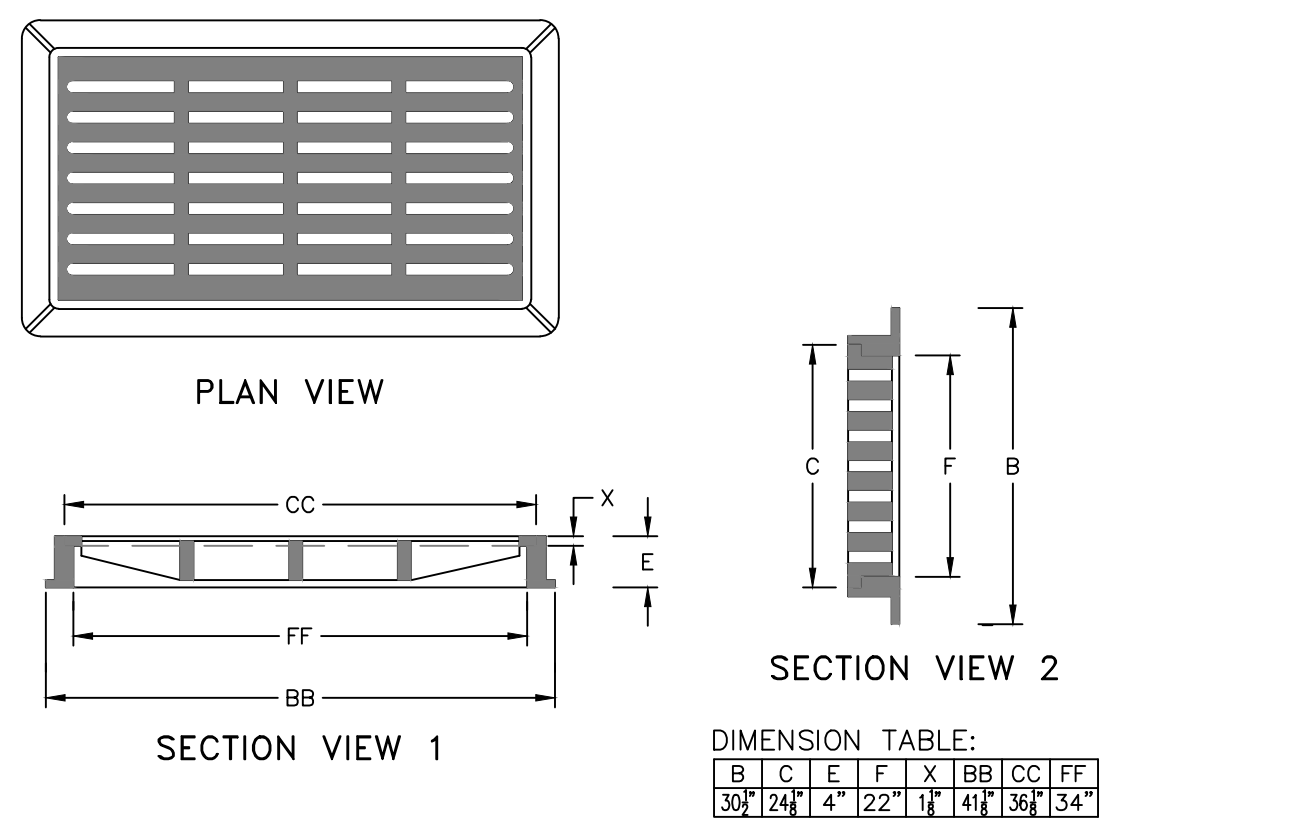


SWM ID	OVERTFLOW WEIR ELEVATION (FT)	DIMENSION A (FT)	DIMENSION B (FT)	DIMENSION D (FT)
BORIENTATION AREA 1	80.0	6	3	12

**NOTES:**

1. RIP RAP OUTLET PROTECTION SHALL BE 15" OF LIGHT STONE FILLING. STONE FILLING SIZE 60#-80#.

**EMERGENCY OVERTFLOW WEIR DETAIL NOT TO SCALE**



**NOTES:**

1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.

**CAST IRON STORMWATER FLAT INLET GRATE DETAIL NOT TO SCALE**

NO.	DATE	REVISIONS:	DESCRIPTION	BY	NO.	DATE	REVISIONS:	DESCRIPTION	BY
1	12/25/16	REVISED FOR PLANNING BOARD SUBMISSION		MAB					
2	02/28/19	REVISED PER PLANNING BOARD COMMENTS		MAB					
3	03/28/19	REVISED PER PLANNING BOARD COMMENTS		MAB					
4	04/25/19	REVISED PER PLANNING BOARD COMMENTS		MAB					
5	05/29/19	NO CHANGE THIS SHEET		MAB					
6	10/29/19	NO CHANGE THIS SHEET		CMB					

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13 CHAMBERS ST., NEWBURGH, NEW YORK 12550  
PH: 845-440-6926  
F: 845-440-6637

**STORMWATER DETAILS**  
**23-28 CREEK DRIVE**  
23-28 CREEK ROAD  
CITY OF BEACON  
DUTCH COUNTY, NEW YORK  
TAX ID: 6054-37-037825

JOB #:	2018-029
DATE:	10/23/2018
SCALE:	AS SHOWN
TITLE:	D-2
SHEET:	11 OF 12

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW