

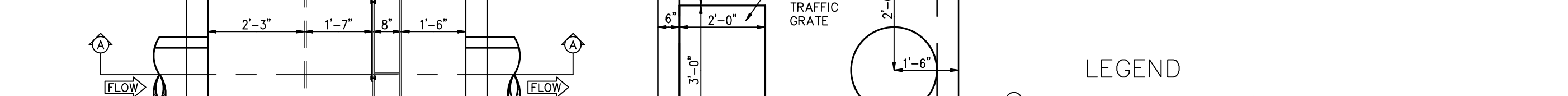
**NOTES:**  
 1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. PROVIDE A MINIMUM 1/4\"/>



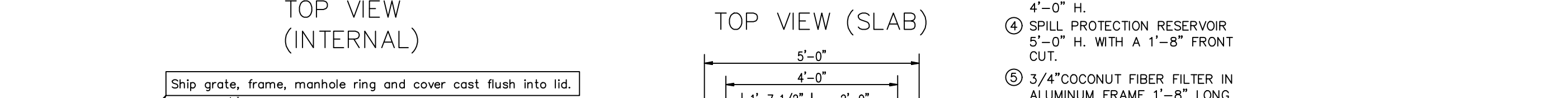
**NOTES:**  
 1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. PROVIDE A MINIMUM 1/4\"/>



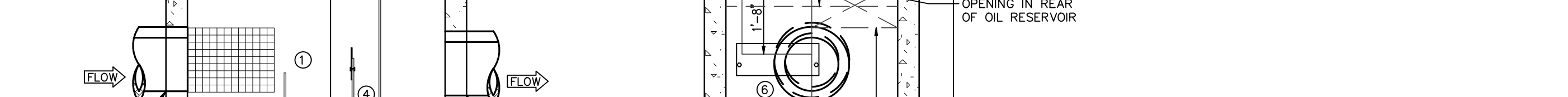
**NOTES:**  
 1. ALL TRASH RACKS SHALL HAVE UV PROTECTION MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D2565-99.  
 2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.  
 3. WHERE HIGH FLOW ORIFICE EXTENDS TO TOP OF STRUCTURE, THE MAXIMUM ALLOWABLE GAP BETWEEN THE TRASH RACKS SHALL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



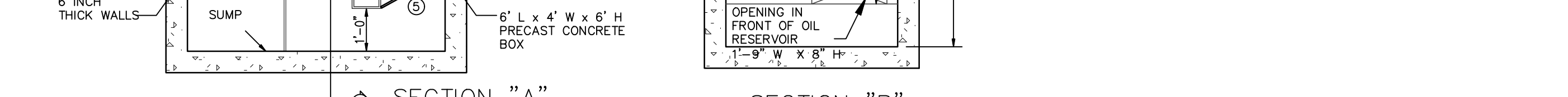
**NOTES:**  
 1. ALL TRASH RACKS SHALL HAVE UV PROTECTION MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D2565-99.  
 2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.  
 3. WHERE HIGH FLOW ORIFICE EXTENDS TO TOP OF STRUCTURE, THE MAXIMUM ALLOWABLE GAP BETWEEN THE TRASH RACKS SHALL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



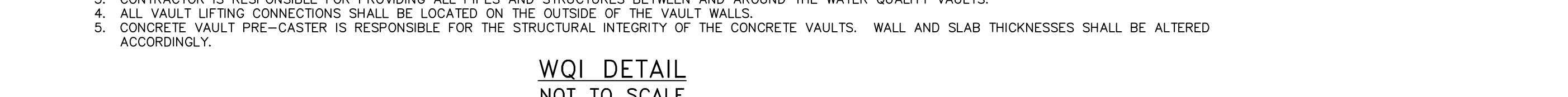
**NOTES:**  
 1. WATER QUALITY INLET SHOWN IS "CRYSTAL CLEAN" MODEL # 646 BY CRYSTAL STREAM TECHNOLOGIES, INC. OF LAWRENCEVILLE, GA., 1-800-648-8945.  
 2. ALL PIPES SHALL BE CONSTRUCTED TO BE FLUSH WITH THE INSIDE WALLS.  
 3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PIPES AND STRUCTURES BETWEEN AND AROUND THE WATER QUALITY INLET.  
 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.



**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 LAID NEARLY LEVEL.  
 3. EACH ROW OF CHAMBERS SHALL BE FED VIA A 12\"/>



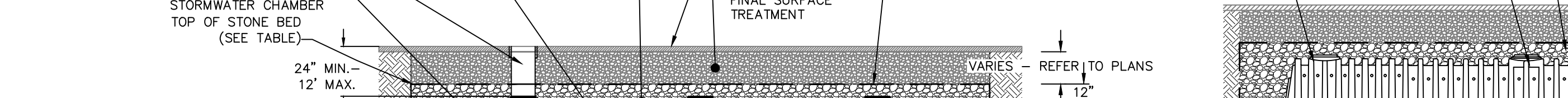
**NOTES:**  
 1. PROVIDE AN INSPECTION PORT FOR THE INITIAL AND FINAL CHAMBER OF EACH ROW, AND FOR ROWS WITH MORE THAN 10 CHAMBERS, ONE IN AN INTERMEDIATE CHAMBER.



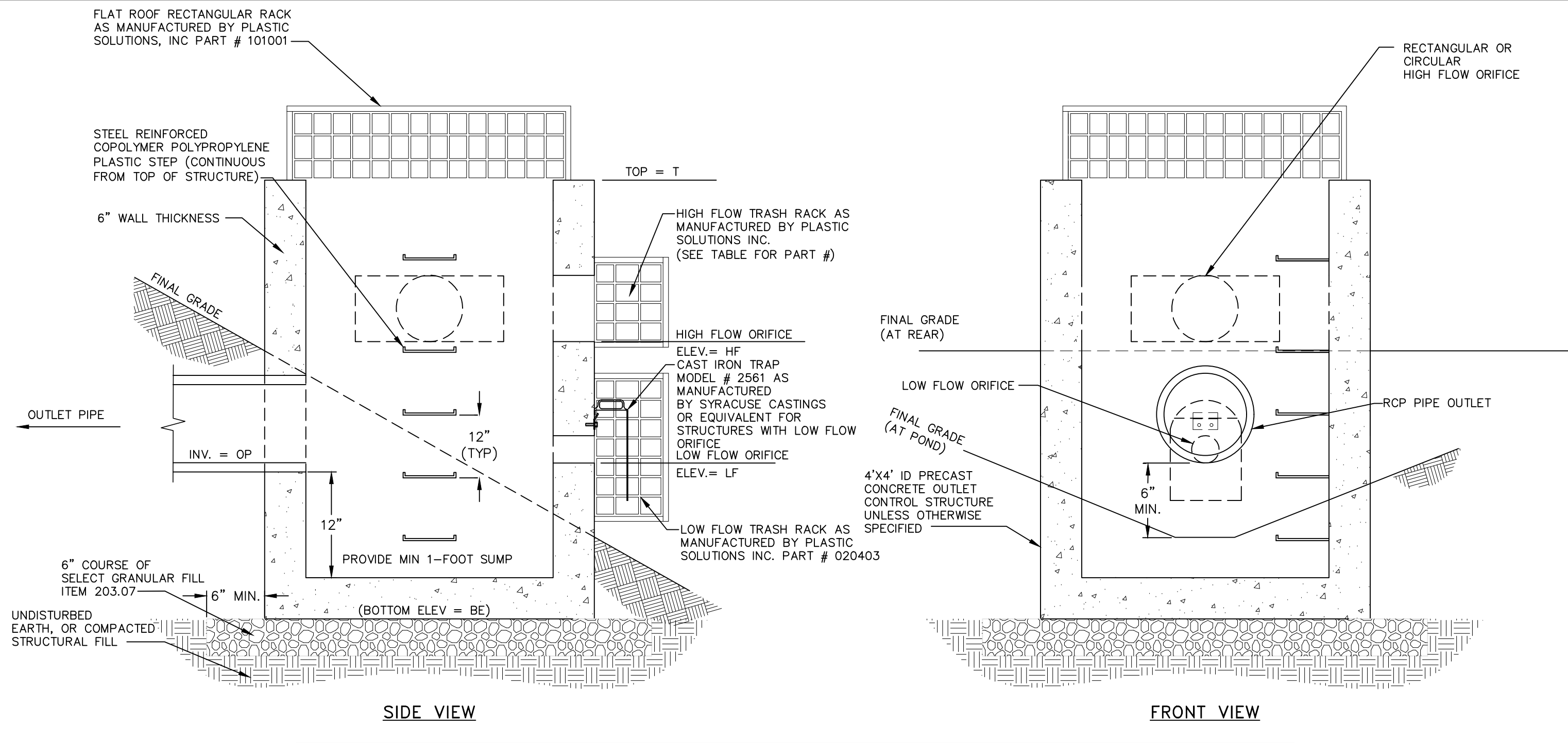
**NOTES:**  
 1. TO BE PROVIDED AT INFILTRATION BASIN A.



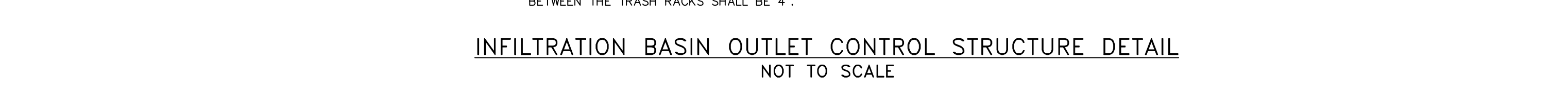
**NOTES:**  
 1. HARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 478-88. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 265-3771.  
 2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6\"/>



**NOTES:**  
 1. MINIMUM 1\"/>



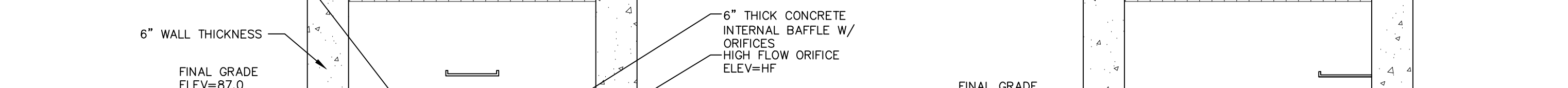
**NOTES:**  
 1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



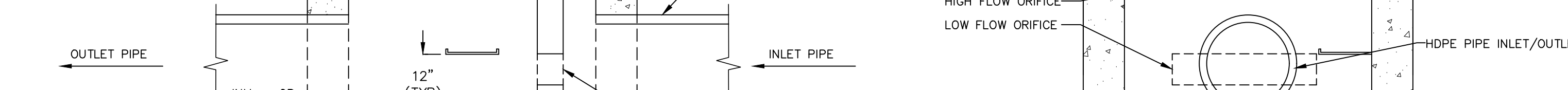
**NOTES:**  
 1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



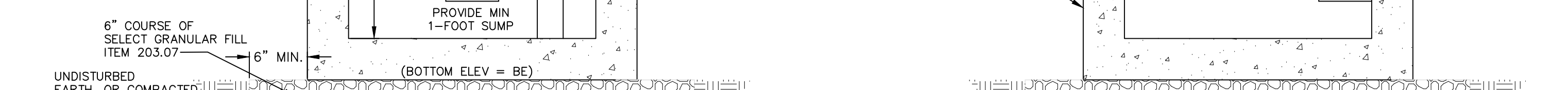
**NOTES:**  
 1. RIP RAP OUTLET PROTECTION SHALL BE 15\"/>



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



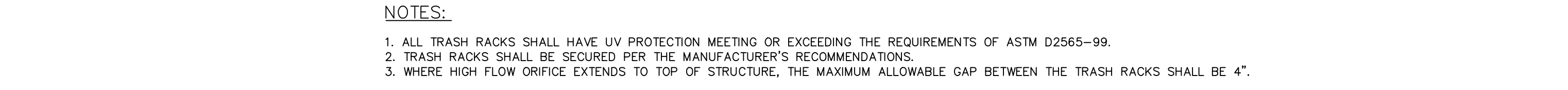
**NOTES:**  
 1. MINIMUM 1\"/>



**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 LAID NEARLY LEVEL.  
 3. EACH ROW OF CHAMBERS SHALL BE FED VIA A 12\"/>



**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.



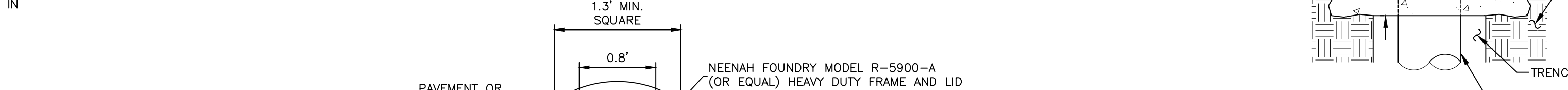
**NOTES:**  
 1. TO BE PROVIDED AT INFILTRATION BASIN A.



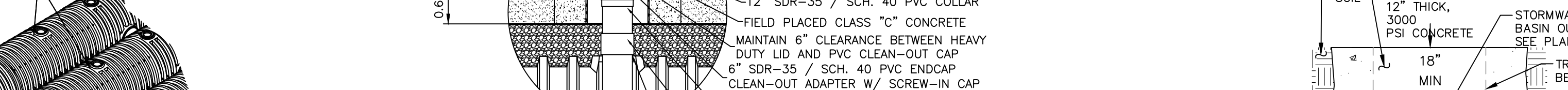
**NOTES:**  
 1. HARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 478-88. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 265-3771.  
 2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6\"/>



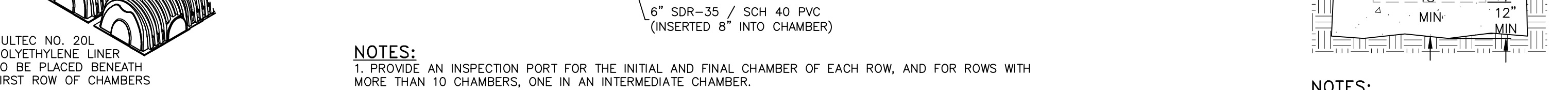
**NOTES:**  
 1. MINIMUM 1\"/>



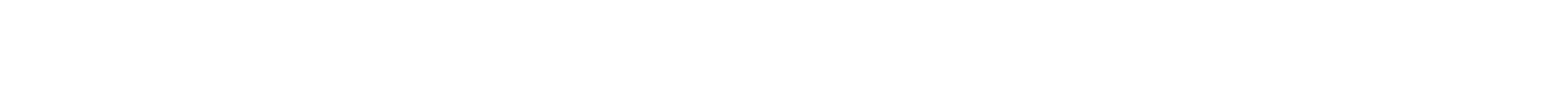
**NOTES:**  
 1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



**NOTES:**  
 1. PRECAST CONCRETE MANHOLE 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 MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



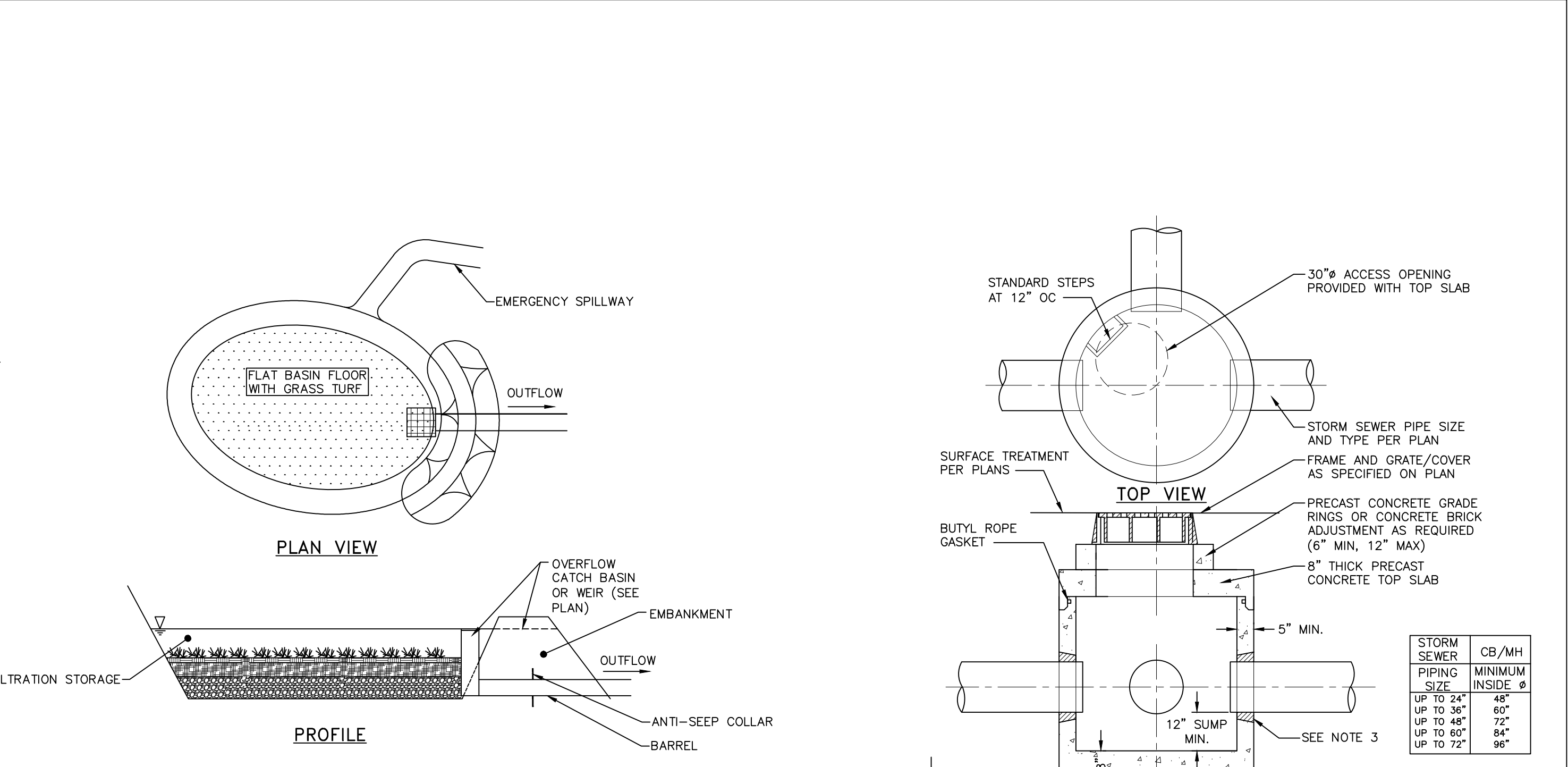
**NOTES:**  
 1. RIP RAP OUTLET PROTECTION SHALL BE 15\"/>



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



**NOTES:**  
 1. MINIMUM 1\"/>



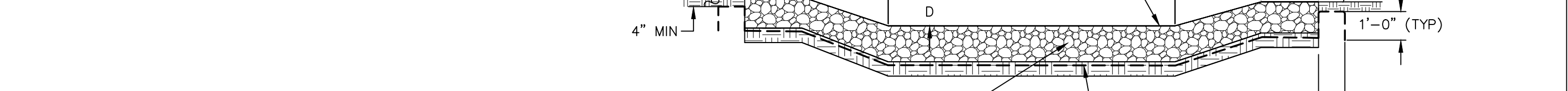
**NOTES:**  
 1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



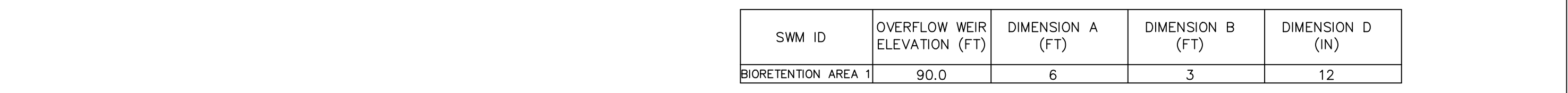
**NOTES:**  
 1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



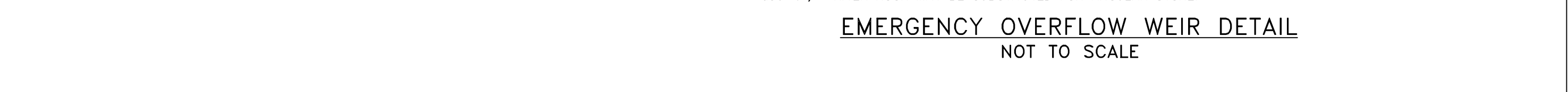
**NOTES:**  
 1. RIP RAP OUTLET PROTECTION SHALL BE 15\"/>



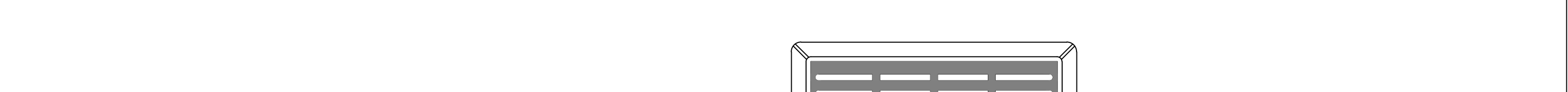
**NOTES:**  
 1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.



**NOTES:**  
 1. MINIMUM 1\"/>



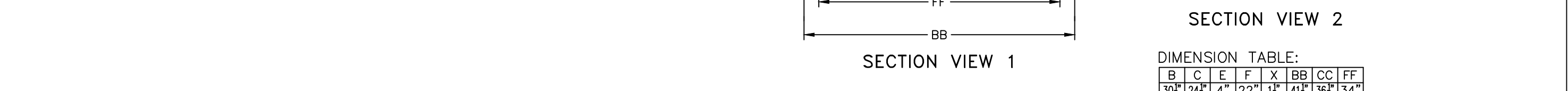
**NOTES:**  
 1. CULTEC RECHARGER 330XLHD CHAMBERS BY CULTEC, INC. OF BROOKFIELD, CT. ALL CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH CULTEC INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.  
 2. THE BED OF THE SYSTEM FOOTPRINT SHALL BE LAID NEARLY LEVEL.  
 3. EACH ROW OF CHAMBERS SHALL BE FED VIA A 12\"/>



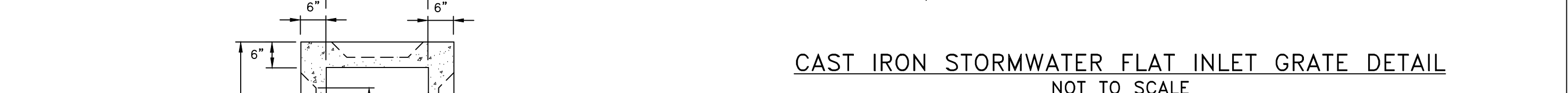
**NOTES:**  
 1. PROVIDE AN INSPECTION PORT FOR THE INITIAL AND FINAL CHAMBER OF EACH ROW, AND FOR ROWS WITH MORE THAN 10 CHAMBERS, ONE IN AN INTERMEDIATE CHAMBER.



**NOTES:**  
 1. TO BE PROVIDED AT INFILTRATION BASIN A.



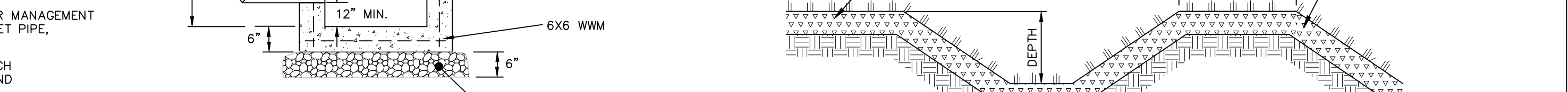
**NOTES:**  
 1. HARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 478-88. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 265-3771.  
 2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6\"/>



**NOTES:**  
 1. MINIMUM 1\"/>



**NOTES:**  
 1. PRECAST CONCRETE MANHOLE 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 MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



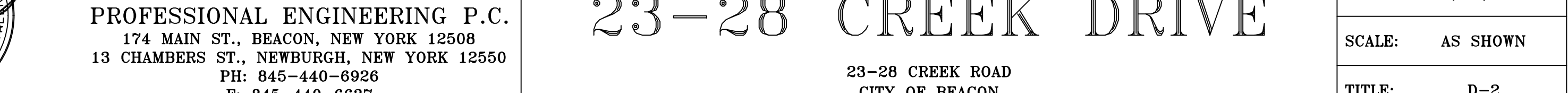
**NOTES:**  
 1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARALLEL THEREON.  
 3. PIPES SHALL BE PARALLEL AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN TO FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER TIGHT.  
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR HD TRAFFIC LOADING.  
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR HD LOADING.  
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4\"/>



**NOTES:**  
 1. RIP RAP OUTLET PROTECTION SHALL BE 15\"/>



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



**NOTES:**  
 1. MINIMUM 1\"/>

DRAWN BY: MAB			CHECKED BY: DGK				
REVISIONS:			REVISIONS:				
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	12/25/18	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	04/26/19	REVISED PER PLANNING BOARD COMMENTS	MAB				
5	05/29/19	NO CHANGE THIS SHEET	MAB				

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

**Dig Safely.**  
 New York  
 800-962-7962  
[www.digsafely.com](http://www.digsafely.com)  
 Call Before You Dig  
 Mark The Required Time  
 Confirm Utility Responses  
 Respect the Marks  
 Dig With Care

**HUDSON**  
 LAND DESIGN



**HUDSON LAND DESIGN**  
 PROFESSIONAL ENGINEERING P.C.  
 174 MAIN ST., BEACON, NEW YORK 12508  
 13 CHAMBERS ST., NEWBURGH, NEW YORK 12550  
 PH: 845-440-6925  
 F: 845-440-6637

**STORMWATER DETAILS**  
**23-28 CREEK DRIVE**  
 23-28 CREEK ROAD  
 CITY OF BEACON  
 DUTCHESS 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