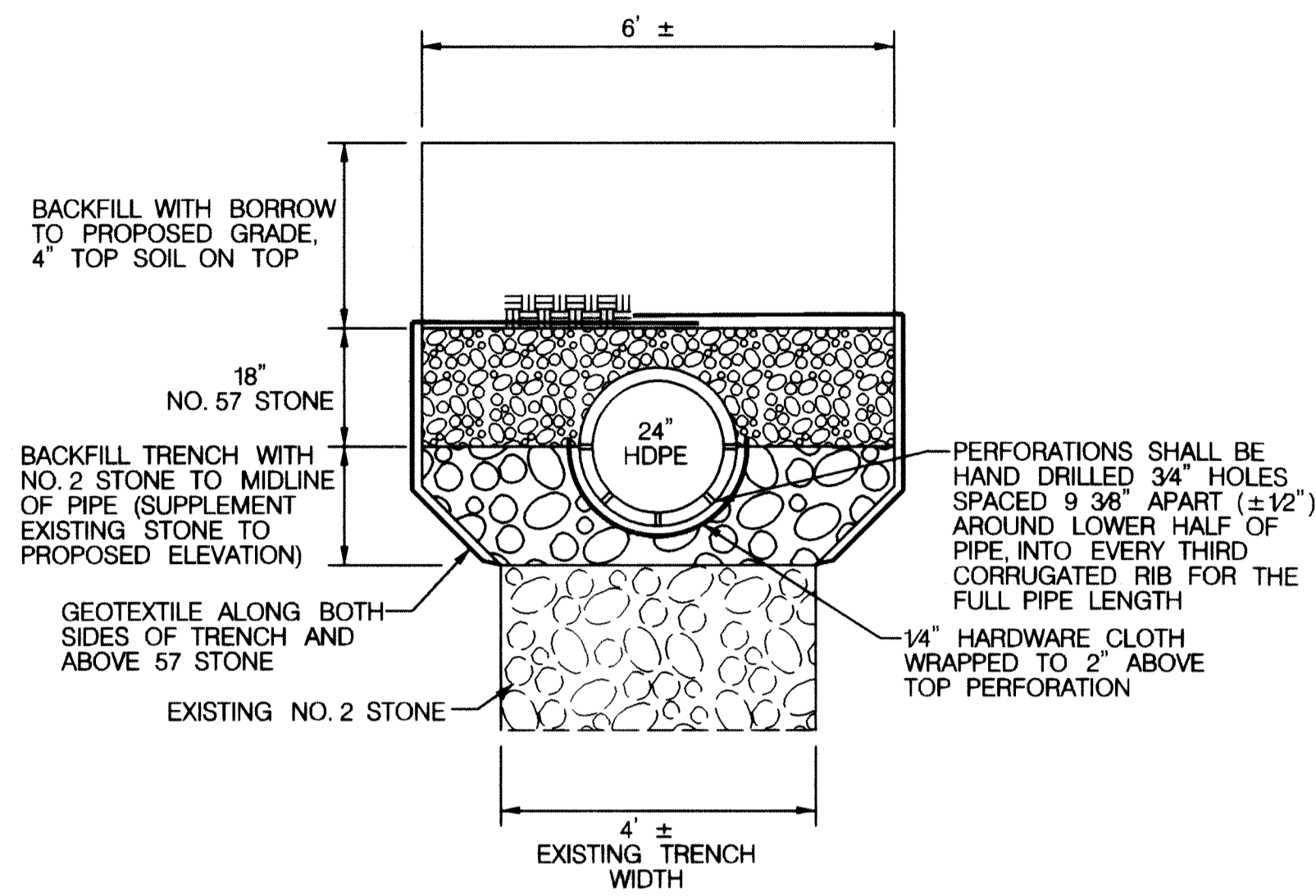
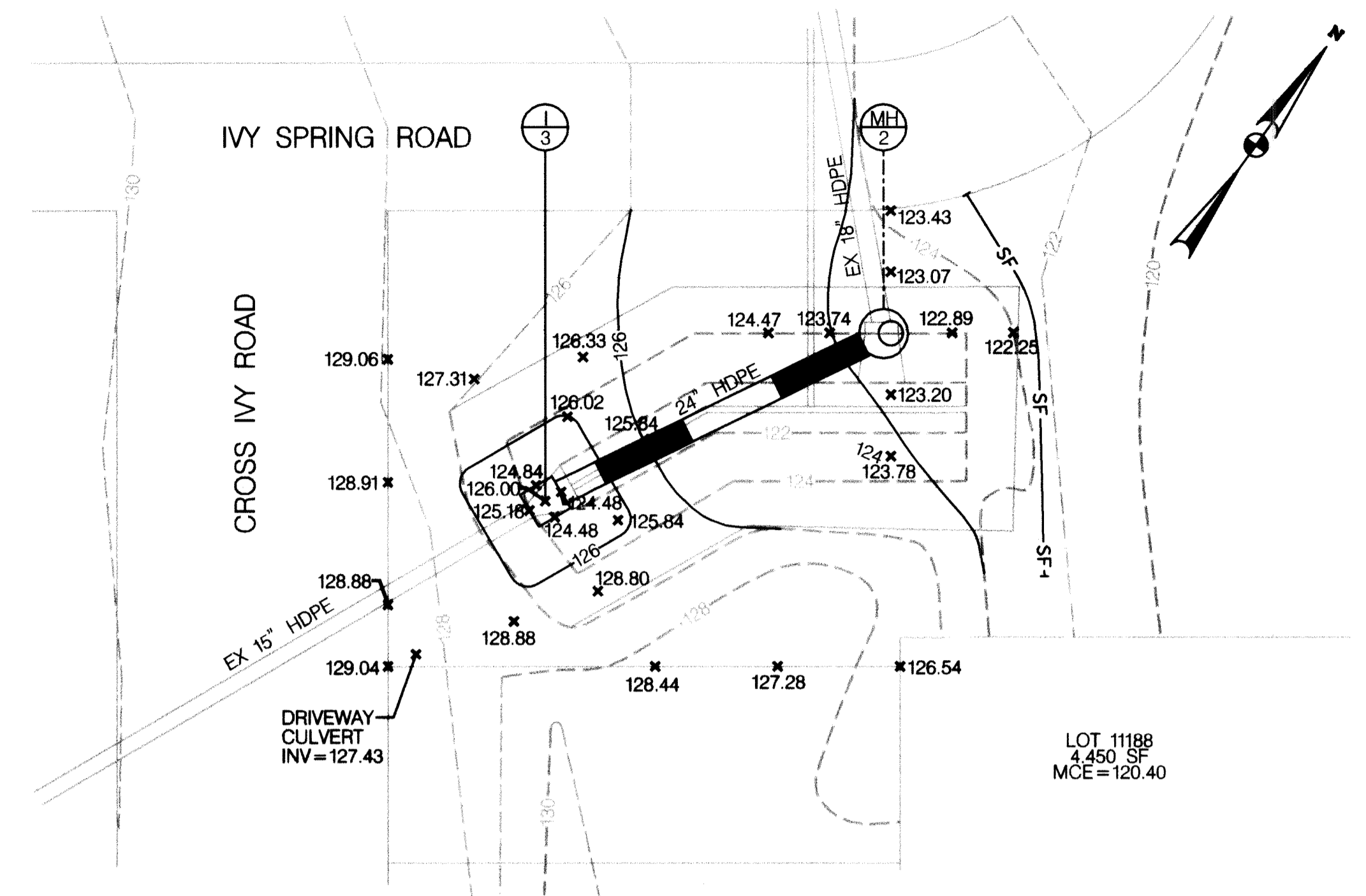


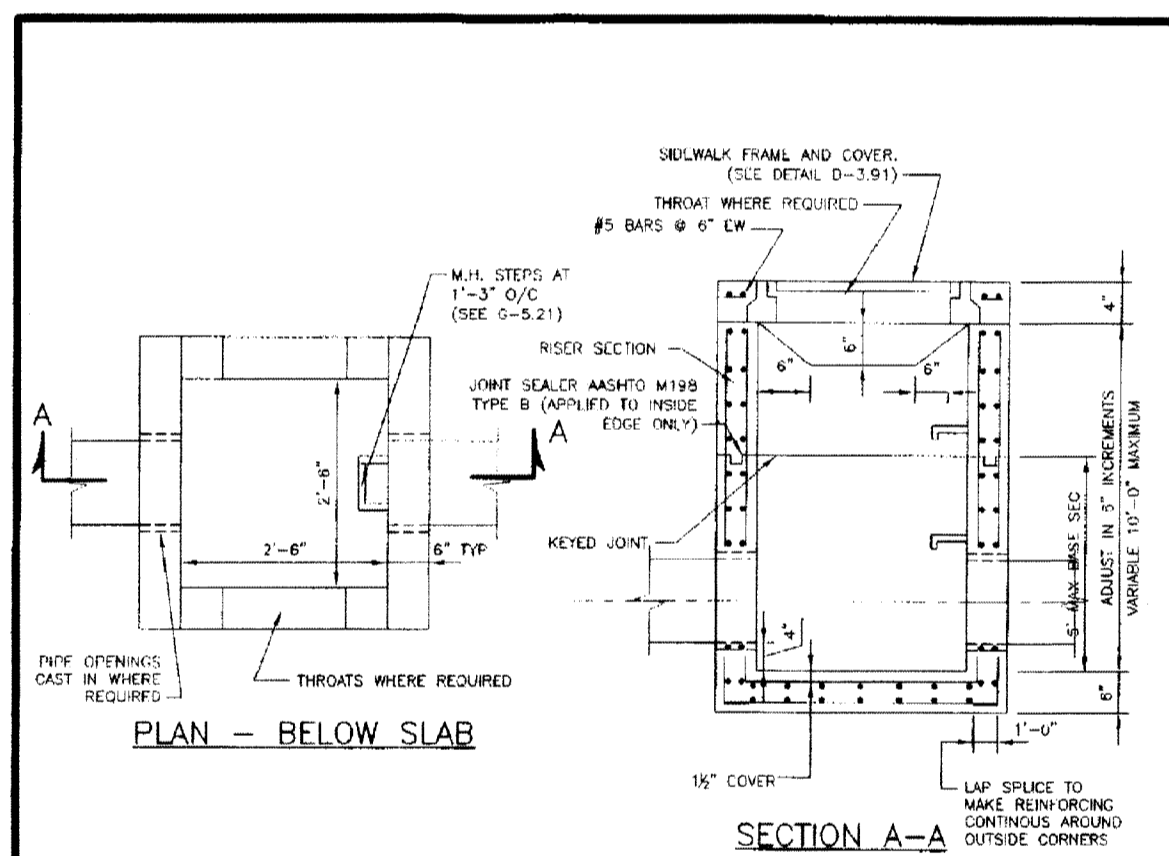
PROFILE - BMP FACILITY
SCALE: 1" = 5'



SECTION A-A - BMP FACILITY
SCALE: 1" = 2'



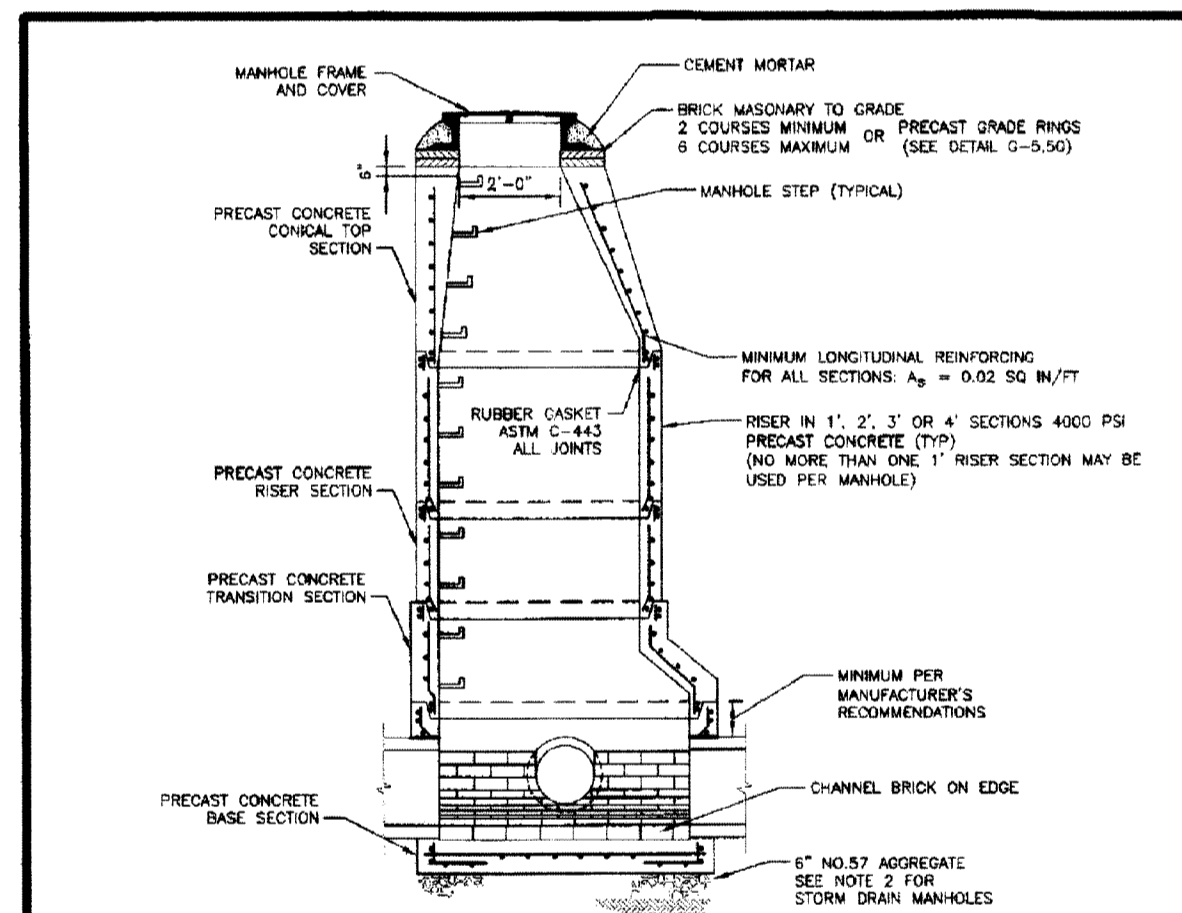
PLAN - BMP FACILITY
SCALE: 1" = 10'



NOTES

- CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITION OF ACI 307 AND ACI 308.
- PRECAST STRUCTURES SHALL BE DESIGNED BY A PRECAST CONCRETE STRUCTURES MANUFACTURER IN ACCORDANCE TO LOADS SPECIFIED IN LATEST EDITION OF ASTM C899.
- PRECAST STRUCTURES SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITIONS OF ASTM C895.
- RESILIENT CONNECTORS BETWEEN MANHOLE STRUCTURES, PIPES AND LINEDS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF LATEST EDITIONS OF ASTM C923.
- OVERALL HEIGHT OF PRECAST IS ADJUSTABLE IN 4" INCREMENTS. FINAL GRADE ADJUSTMENTS SHALL BE MADE BY THE CONTRACTOR WITH BRICK AND MORTAR.
- INVERT SHALL BE APPROVED PRECAST. PLAIN NO. 3 CONCRETE OR BRICK LAYS ON EDGE. INVERT TO SLOPE DOWN TOWARD OUTLET AT THE RATE OF 2" PER FOOT OR AS SHOWN ON PLAN OR AS DIRECTED. INVERT BRICK SHALL BE ASTM C32-91 GRADE SS.

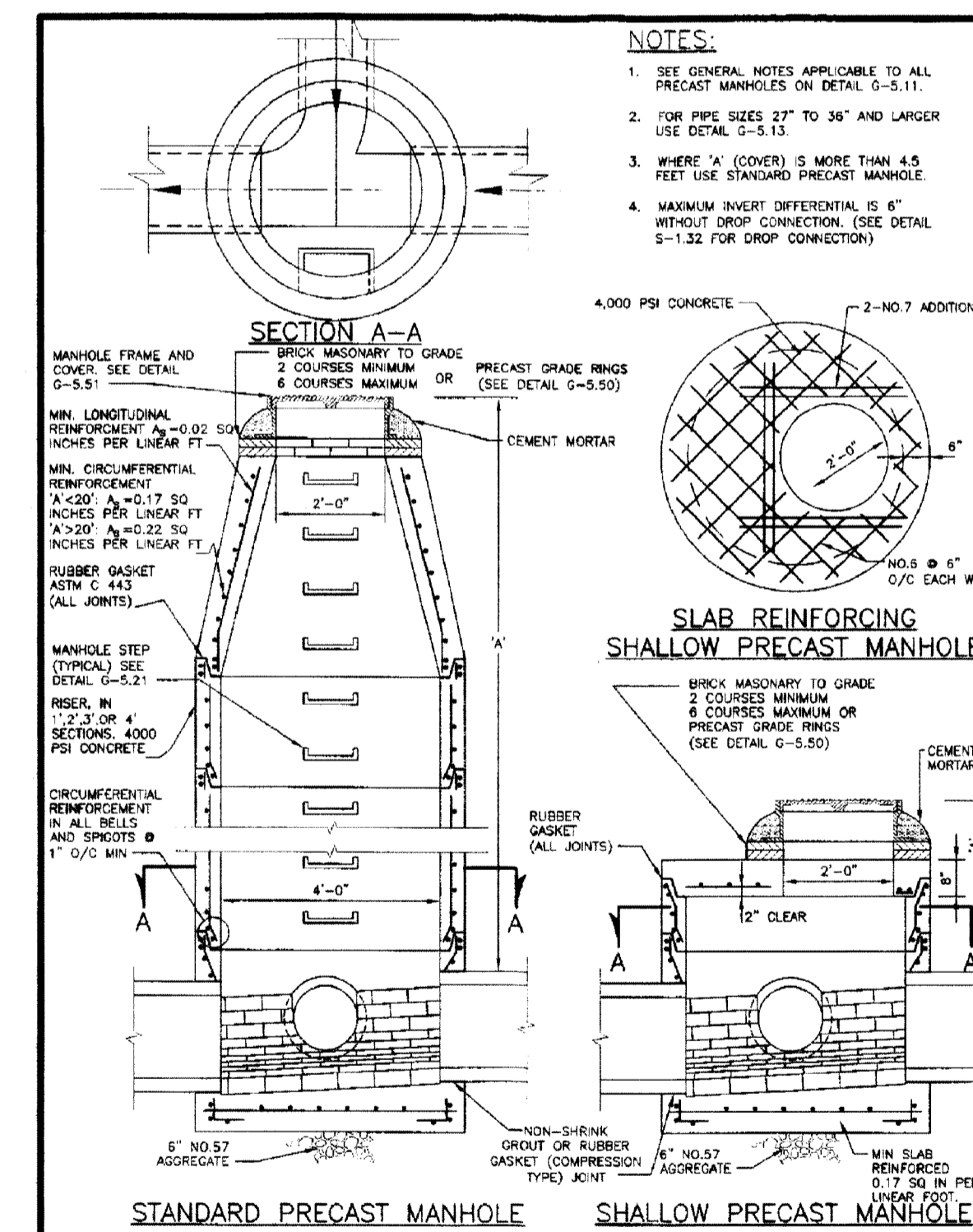
Project	Howard County, Maryland Department of Public Works	Detail	D-4.10
Sheet	Type 'D' Inlet Precast	Scale	
Revised	Approved: <i>[Signature]</i> Chief, Bureau of Engineering	Date	11/17/10



GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES

- MANHOLE BASE SECTION SHALL BE SET ON 6-INCH NO. 57 AGGREGATE ON FIRM SUBGRADE.
- NO. 57 AGGREGATE MATERIAL SHALL BE EXTENDED FROM 6-INCHES UNDERNEATH BOTTOM OF STRUCTURE TO SUBGRADE (STORM ONLY).
- CONNECTION BETWEEN MANHOLE WALL AND SEWER SHALL BE NON-SHINK GASKET (STORM) OR COMPRESSION TYPE RUBBER GASKET (SANITARY SEWER).
- MANHOLE STEPS SHALL BE AS INDICATED ON DETAIL G-5.11.
- MANHOLE COVER SHALL BE AS SPECIFIED ON DETAIL G-5.11, G-5.12, & G-5.13.
- PROVIDE TWO APPLICATIONS OF BRANNONS MATERIAL (MINIMUM 16 MESH (17)) COATING ON EXTERIOR SURFACE OF MANHOLES (SANITARY SEWER ONLY).
- MANHOLE CHANNELS SHALL BE FORMED TO PROVIDE A SMOOTH HYDRAULIC TRANSITION BETWEEN PIPES. BRICK SHALL BE TO TOP OF PIPE OR AS SHOWN ON CONTRACT DOCUMENTS. MANHOLE CHANNEL AND BENCH SHALL BE PRECAST OR FORMED FROM SEWER BRICK SET ON EDGE.
- MANHOLES SHALL BE IN ACCORDANCE WITH ASTM C-478 EXCEPT AS INDICATED.
- MAXIMUM INVERT DIFFERENTIAL IS 6 INCHES WITHOUT A DROP CONNECTION. SEE DETAIL S-1.32 FOR DROP CONNECTION DETAILS.
- THE MINIMUM DISTANCE BETWEEN PIPE OPENINGS IN THE WALL OF THE MANHOLE SHALL BE 12 INCHES.
- A MINIMUM OF 4" SHALL BE PROVIDED BETWEEN MANHOLE FLOOR AND LOWEST PIPE INVERT.
- PRECAST RINGS MAY BE SUPPLIED IN PLACE OF BRICK MASONRY COURSES. SEE DETAIL G-5.50.
- MANHOLE INTERMEDIATE LANDINGS SHALL BE AS INDICATED ON DETAIL G-5.16.

Project	Howard County, Maryland Department of Public Works	Detail	G-5.11
Sheet	PRECAST MANHOLE	Scale	
Revised	Approved: <i>[Signature]</i> Chief, Bureau of Engineering	Date	5/27/2007



NOTES

- SEE GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES ON DETAIL G-5.11.
- FOR PIPE SIZES 24" TO 36" AND LARGER USE DETAIL G-5.13.
- WHERE 4" COVERS IS MORE THAN 4.5 FEET USE STANDARD PRECAST MANHOLE.
- MAXIMUM INVERT DIFFERENTIAL IS 6" WITHOUT DROP CONNECTION. (SEE DETAIL S-1.32 FOR DROP CONNECTION).

Project	Howard County, Maryland Department of Public Works	Detail	G-5.12
Sheet	PRECAST MANHOLE Standard and Shallow 4'-0" for 24" Pipe and smaller	Scale	
Revised	Approved: <i>[Signature]</i> Chief, Bureau of Engineering	Date	5/27/2007

SEQUENCE OF CONSTRUCTION

- NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS DRAINING TO AN APPROVED SEDIMENT CONTROL DEVICE.
- DURING A 3-DAY DRY FORECAST, EXCAVATE AND INSTALL I-3. EXCAVATE TRENCH DOWN TO EXISTING NO. 2 STONE AND INSTALL PERFORATED PIPE AND MH-2. BLOCK OUTLET OF EX. 4" PIPE ADJACENT TO MH-2. BACKFILL TRENCH WITH NO. 2 AND NO. 57 STONE AS SHOWN ON THE PLANS.
- INSTALL SILT FENCE DOWNSTREAM OF WORK AREA. BACKFILL AREA TO GRADE SHOWN AND STABILIZE WITH 4" TOPSOIL, SEED AND NON-WOVEN BIODEGRADABLE SOIL STABILIZATION MATTING (SHA TYPE "A").
- WHEN AREA IS FULLY VEGETATED, REMOVE SILT FENCE AND STABILIZE ANY REMAINING DISTURBED AREAS.

GENERAL NOTE

SEE REDLINE REVISIONS ON DRAWING 3 OF 7 IN THE AS-BUILT PLANS FOR HARWOOD PARK (F-01-035).

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> 11/17/10 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>[Signature]</i> 11/17/10 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE</p> <p><i>[Signature]</i> 11/17/10 CHIEF, STORMWATER MANAGEMENT DIVISION DATE</p>	<p>McCormick Taylor Engineers & Planners Since 1946</p> <p>509 South Exeter Street 4th Floor Baltimore, Maryland 21202 (410) 662-7400</p>	<p>Howard County MARYLAND</p> <p>Storm Water Management Division Bureau of Environmental Services 6751 Columbia Gateway Drive, Suite 514 Columbia, Maryland 21046-3143 (410) 313-6444</p>	<p>DES: AH DRN: MR CHK: CB DATE: 10/27/10</p>	<p>ALH</p> <p>AS-BUILT</p> <p>3/7/11</p>	<p>HOWARD COUNTY STORMWATER MANAGEMENT EVALUATION IVY TERRACE BMP MODIFICATION PROJECT CAPITAL PROJECT D-1160</p> <p>PLAN, PROFILE AND DETAILS</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 1</p>
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