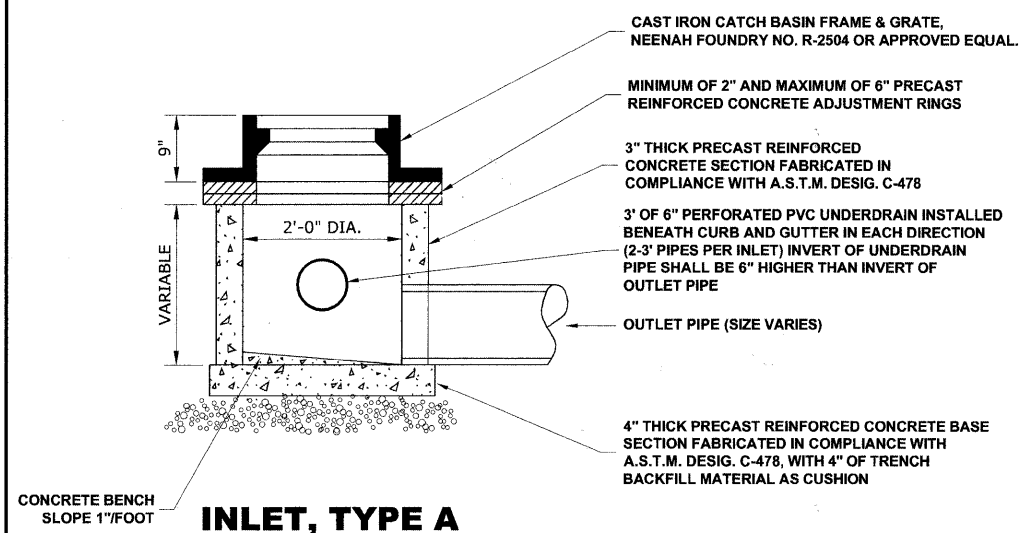


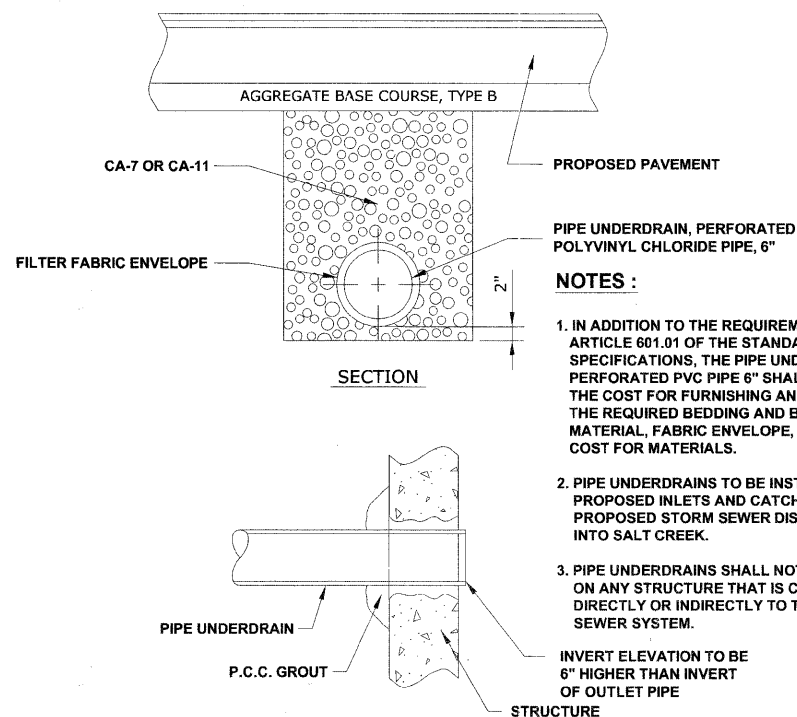
RESTRICTED DEPTH COMBINED SEWER MANHOLE

DUCTILE IRON PIPE SPECIFICATIONS

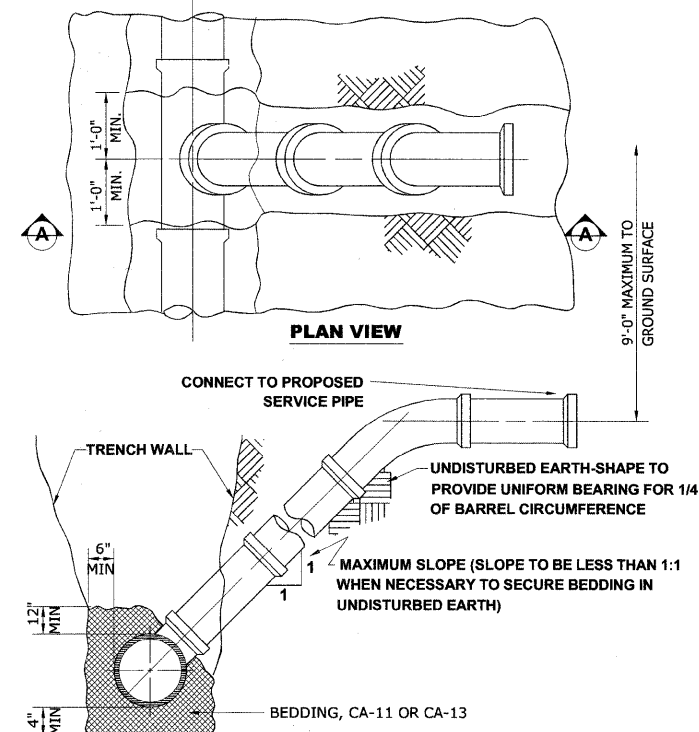
1. ALL DUCTILE IRON PIPE WATER MAINS AND SEWER MAINS SHALL BE CLASS 52, CEMENT-LINED AND TAR-COATED, MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C151/A21.51 WITH "PUSH-ON" JOINTS MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C111/A21.11. WHERE SPECIFIED ON THE PLANS, OR IN THE SPECIFICATIONS, MECHANICAL JOINTS AND "LOCK-TYPE" JOINTS SHALL BE USED IN LIEU OF "PUSH-ON" JOINTS.
2. ALL PIPE FITTINGS AND SPECIAL CASTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C153/A21.53 AND ANSI/AWWA C111/A21.11 SPECIFICATIONS AND SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS 150 DUCTILE IRON PIPE. IF CERTAIN FITTINGS ARE NOT MANUFACTURED IN DUCTILE IRON, CAST IRON FITTINGS SHALL BE ACCEPTABLE. MECHANICAL JOINT TYPE FITTINGS SHALL BE USED.
3. ALL PROPOSED DUCTILE IRON PIPE WATER MAIN AND SEWER MAIN WILL BE ENCASED WITHIN EIGHT (8) MIL THICK, HIGH-DENSITY POLYETHYLENE TUBING. ALL FITTINGS SHALL BE ENCASED IN A DOUBLE LAYER OF POLYETHYLENE TUBING. THE POLYETHYLENE MATERIAL SHALL BE MANUFACTURED AND INSTALLED IN COMPLIANCE WITH ANSI/AWWA C105/A21.5. ALL PROPOSED WATER AND SEWER SERVICES SHALL BE ENCASED IN POLYETHYLENE TUBING FOR A MINIMUM DISTANCE OF THREE FEET (3') FROM THE PROPOSED WATER MAIN AND SEWER MAIN.



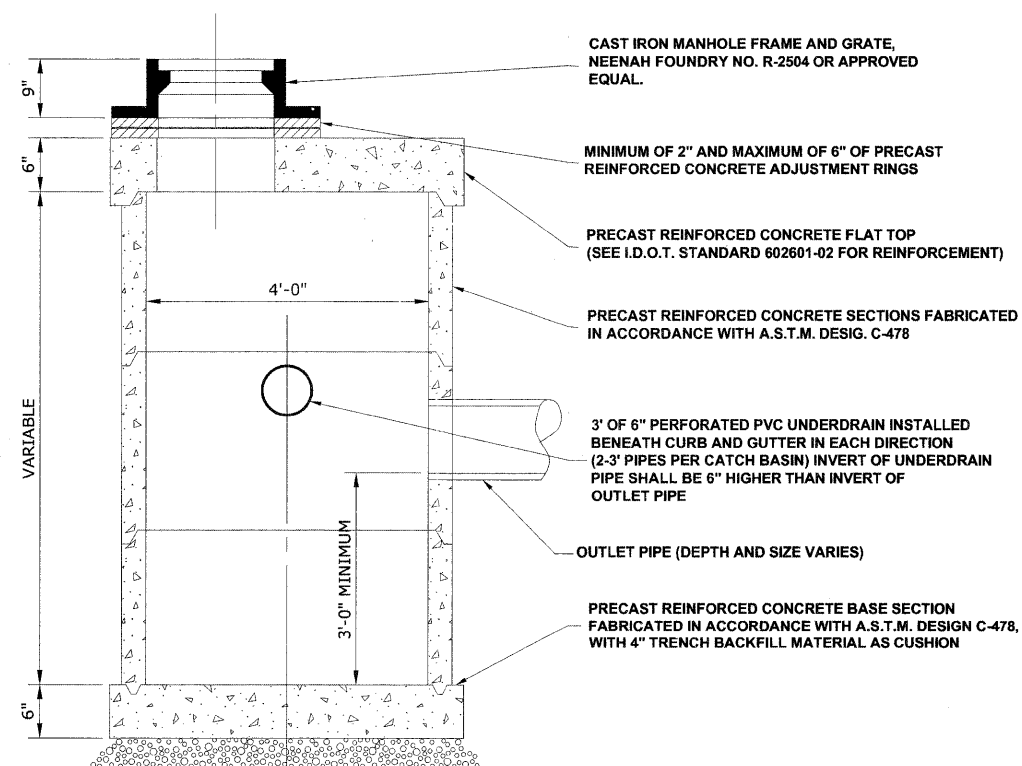
INLET, TYPE A



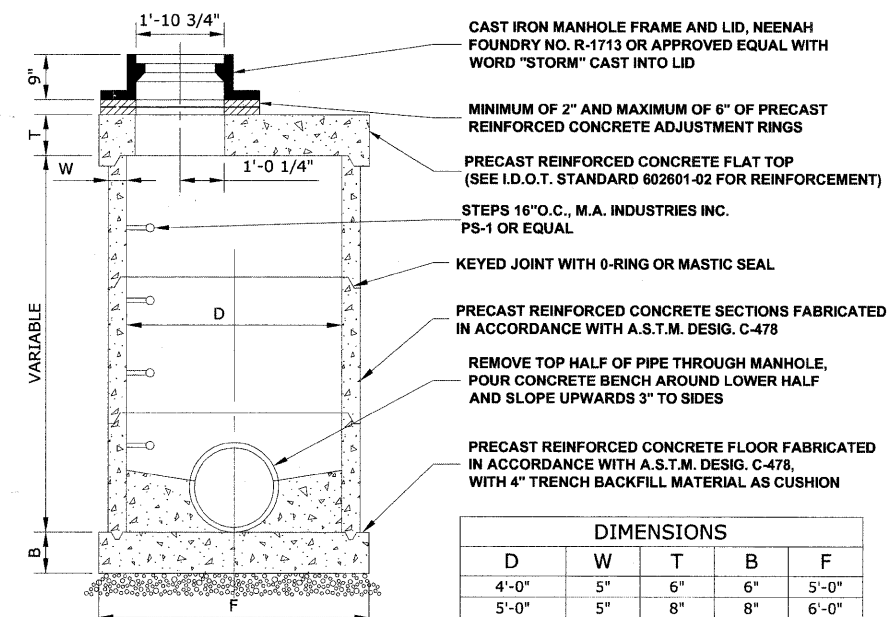
PIPE UNDERDRAIN DETAIL



TYPICAL RISER FOR SERVICE LATERAL



RESTRICTED DEPTH CATCH BASIN



RESTRICTED DEPTH STORM MANHOLE

Drawing file: W:\Projects\12509232 - Grand Blvd. Design - Engineer\Drainage-Detals.dwg Oct. 24, 2011 - 4:16pm

HANCOCK ENGINEERING
 Civil Engineers
 Municipal Consultants
 Established 1911

USER NAME -	DESIGNED - WOP, JG	REVISED -
PLOT SCALE -	DRAWN - MK, DMM	REVISED -
PLOT DATE -	CHECKED - WOP, JG	REVISED -
	DATE - 10-24-11	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DRAINAGE AND UTILITIES
 DETAILS**

SCALE: NOT TO SCALE SHEET NO. 2 OF 3 SHEETS STA. TO STA.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-01-PV	COOK	86	53
FIELD BOOK NO. -/AERIALS/LL		CONTRACT NO. 63651		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT M-9003(875)		

H.E. PROJECT NO. 125-09-23201