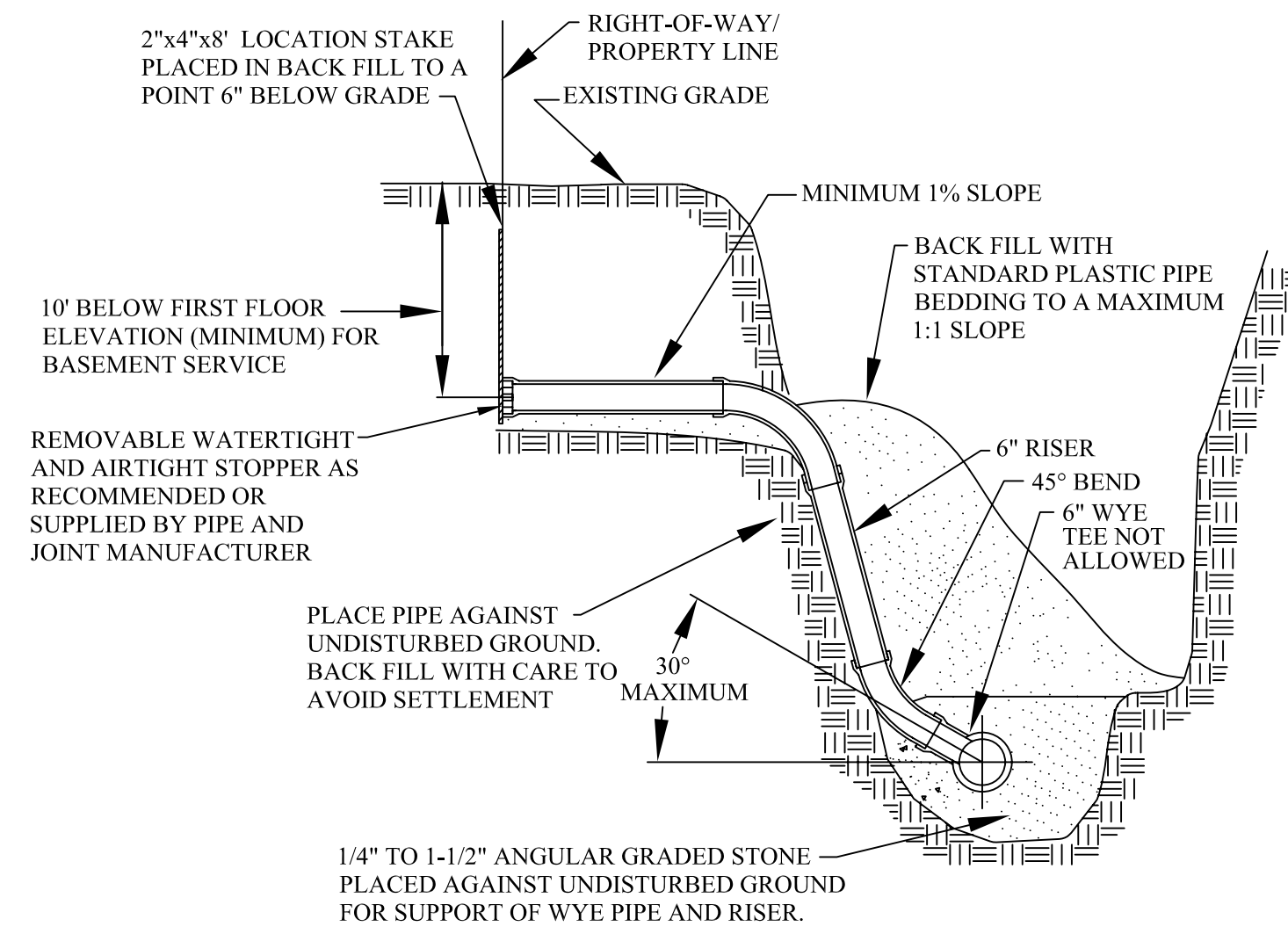
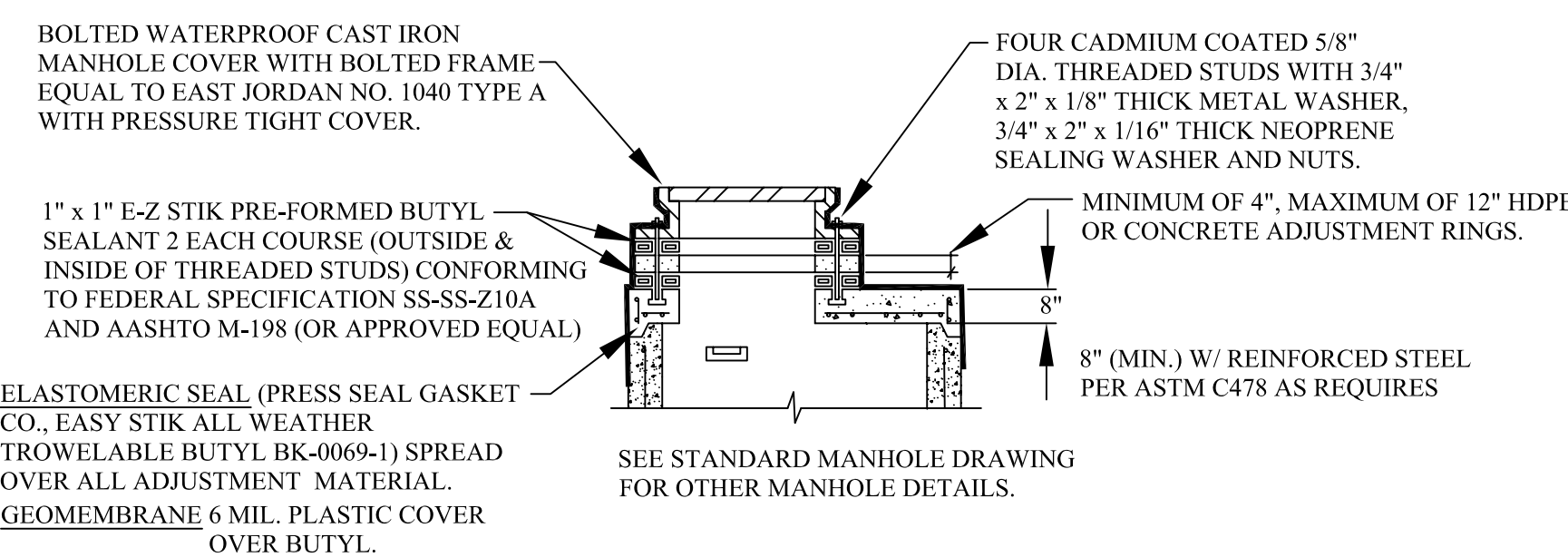


CITY OF ROCHESTER HILLS GRAVITY BUILDING LEAD REQUIREMENTS AND DETAILS

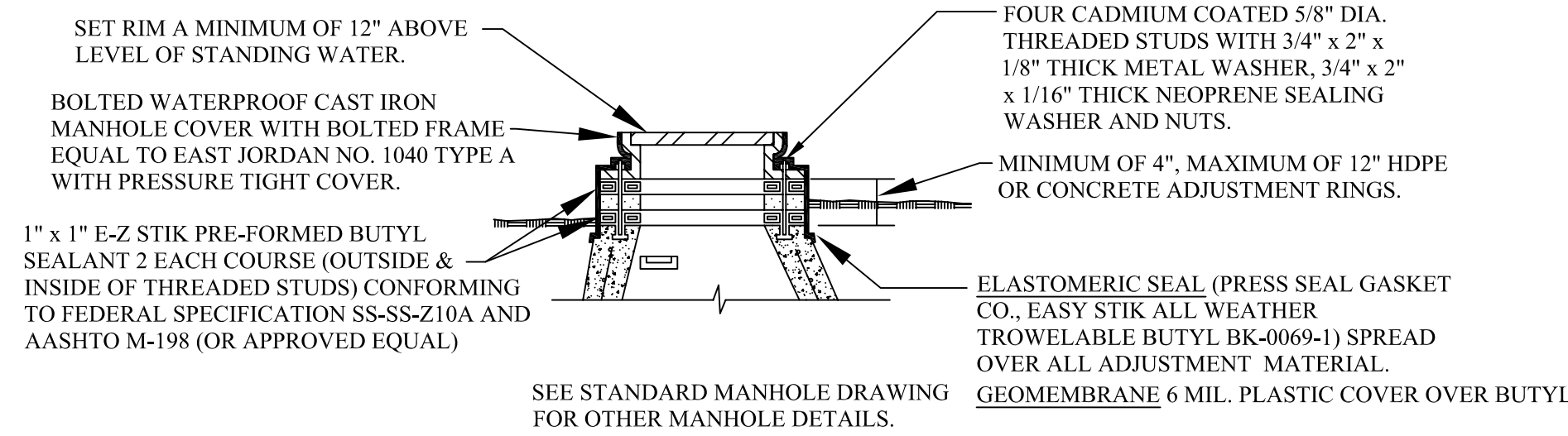
- ALL BUILDING LEAD WORK MUST BE PERFORMED UNDER THE CITY OF ROCHESTER HILLS INSPECTION.
- FOR ALL CITY OF ROCHESTER HILLS SYSTEMS CALL 248-841-2510 48-HOURS PRIOR TO SCHEDULING INSPECTION.
FOR ALL ODCD-OPERATED SYSTEMS, CALL 248-858-1110 48-HOURS IN ADVANCE PRIOR TO SCHEDULING INSPECTION.
- SANITARY SEWER MAY NOT BE USED AS A DEWATERING OUTLET.
- WHERE AN EXISTING BUILDING LEAD IS BEING EXTENDED, DISSIMILAR TYPES AND SIZES OF PIPE SHALL BE JOINED USING A CITY OF ROCHESTER HILLS APPROVED ADAPTER.
- APPROVED BUILDING LEAD PIPE FOR GRAVITY SEWER LEADS:
A. PVC PLASTIC, ASTM D2751, SDR 23.5.
B. DUCTILE IRON PIPE, AMERICAN WATER WORKS ASSOCIATION (AWWA) C-104/A21.4, CLASS 54. JOINTS SHALL BE SUPER BEL TITE, TYTON, TY-SEAL, MULTI-TITE, DUAL-TITE, OR VERI-TITE.
C. ANY DEVIATIONS FROM ABOVE SPECIFICATIONS REQUIRES APPROVAL BY CITY ENGINEER.
- ALLOWABLE TYPES OF SEWER PIPE ADAPTERS: FERNCO ADAPTER OR FERNCO FLEXIBLE COUPLING.
- FOR 6" LEADS A CLEANOUT MUST BE INSTALLED EVERY 100 FT. FOR 4" LEADS A CLEANOUT MUST BE INSTALLED EVERY 50 FT. 90° BENDS NOT ALLOWED EXCEPT FROM THE HORIZONTAL TO THE VERTICAL WITHIN 5 FEET OF THE BUILDING



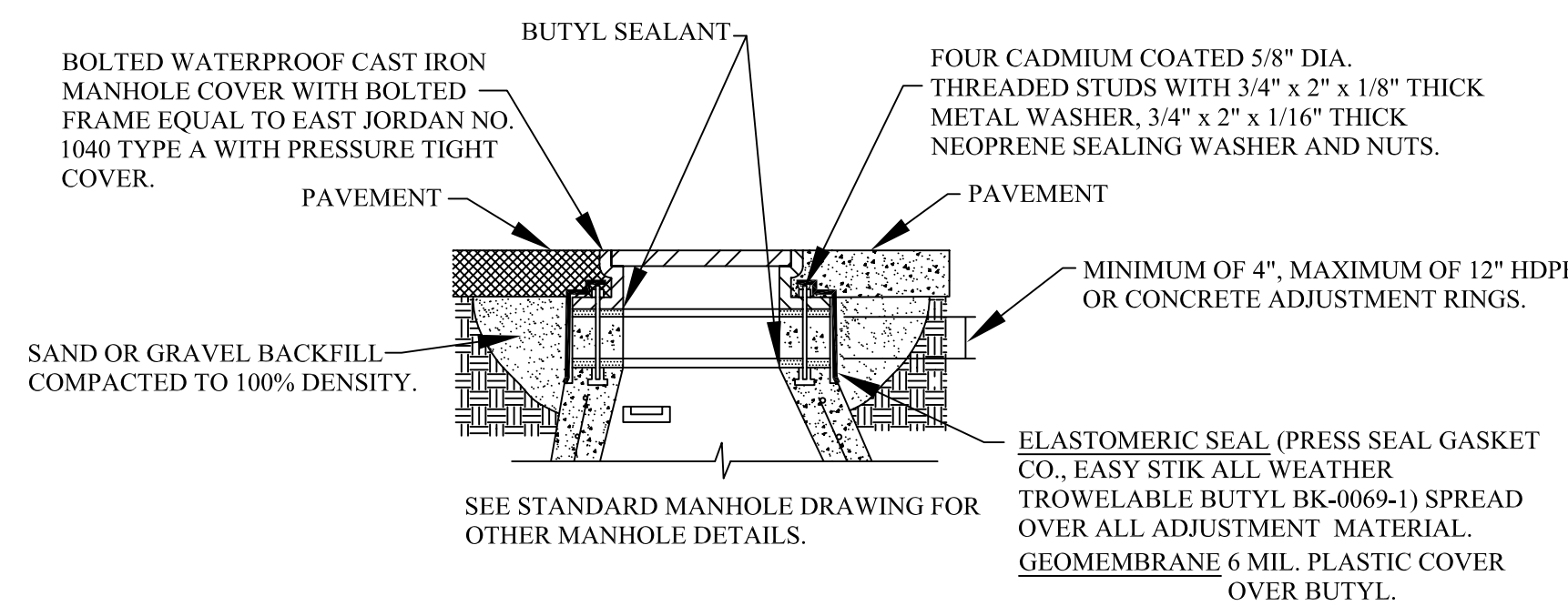
HOUSE LEAD DETAIL



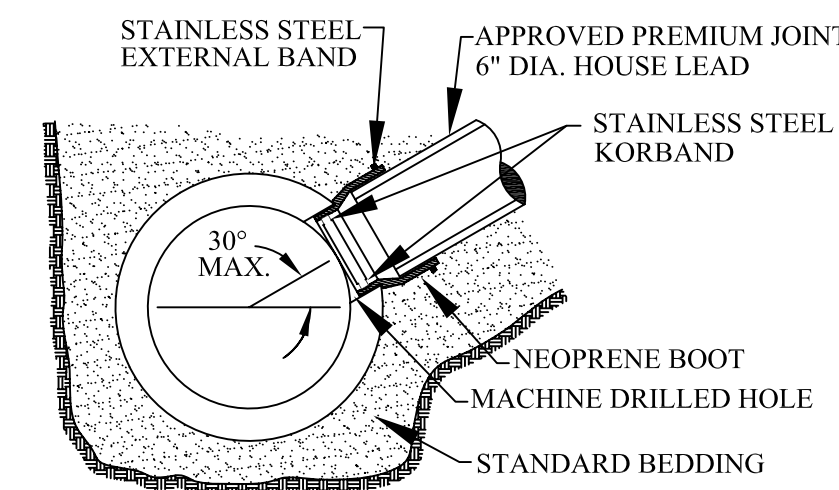
FLAT TOP MANHOLE



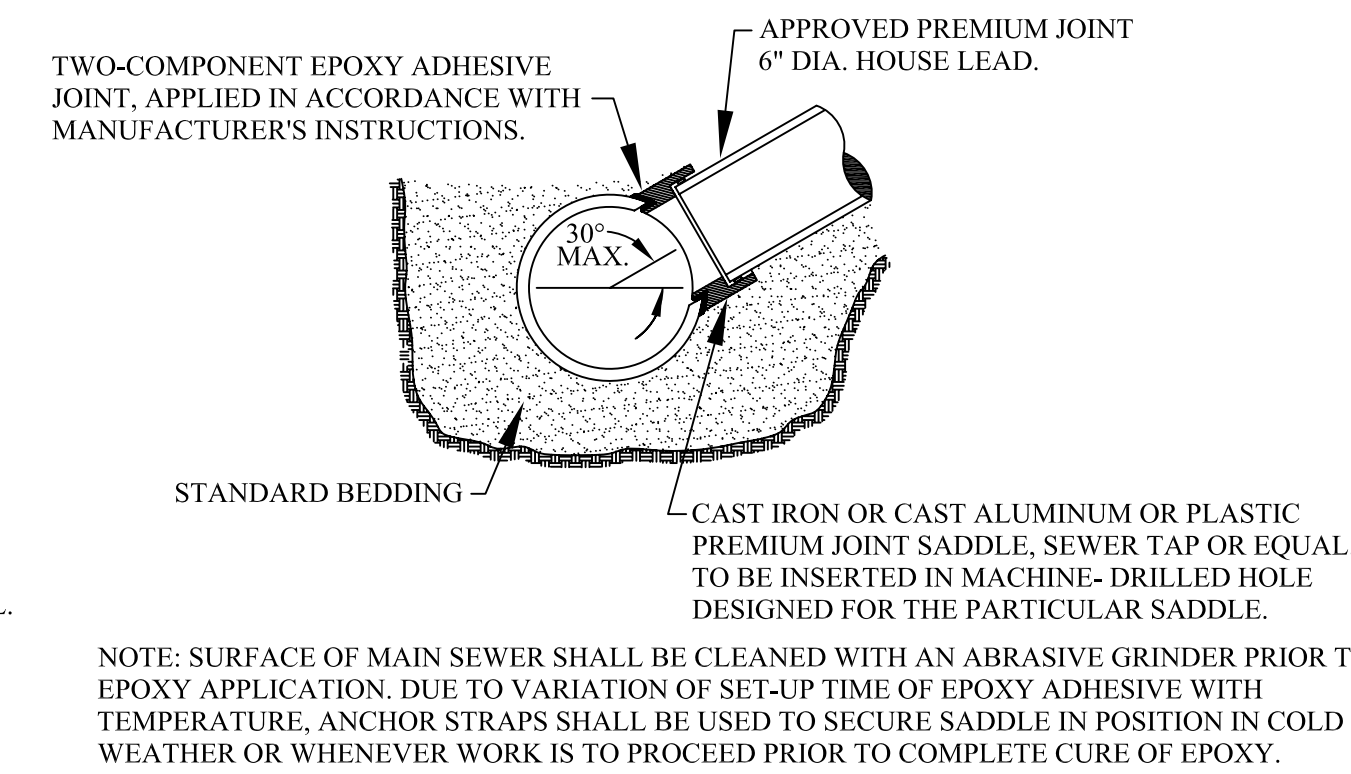
ADJUSTMENT DETAIL FOR MANHOLE TOPS WITHIN FLOOD PRONE AREAS



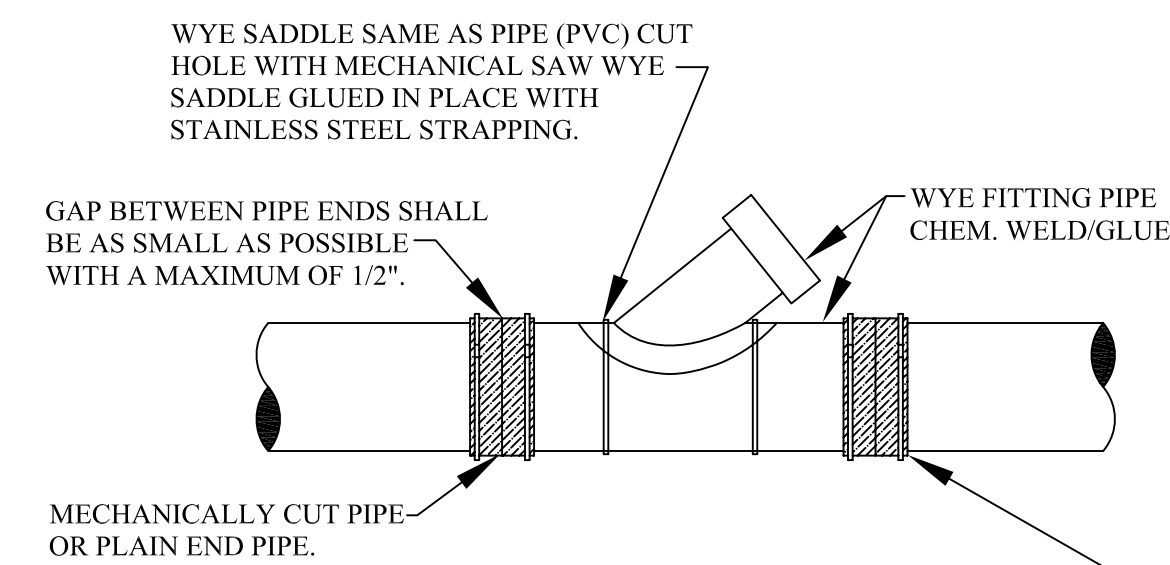
ADJUSTMENT DETAIL MANHOLE TOPS WITHIN PAVEMENT AREAS



KOR-N-TEE TAP FOR CONCRETE PIPE



SEWER TAP-ALL SIZES OF MAIN SEWER PIPES VITRIFIED CLAY



WYE PIPE INSERTION WITH FLEXIBLE COUPLINGS (RIGID PIPE)

CITY OF ROCHESTER HILLS SANITARY SEWER SYSTEM AS-BUILT DRAWING SPECIFICATIONS

IN AREAS WHERE SANITARY SEWER SYSTEMS ARE OPERATED AND MAINTAINED BY THE CITY OF ROCHESTER HILLS DEPARTMENT OF PUBLIC SERVICES, FINAL ACCEPTANCE OF THE SANITARY SEWER SYSTEM MUST BE RENDERED BY THE DEPARTMENT OF PUBLIC SERVICES, BEFORE THE SYSTEM CAN BE USED FOR THE SERVICE INTENDED.

ONE ITEM REQUIRED FOR FINAL ACCEPTANCE SHALL BE THE SUBMISSION OF AS-BUILT DRAWINGS TO THE CITY OF ROCHESTER HILLS ENGINEERING DIVISION, BY THE DESIGN ENGINEER. AS-BUILT DRAWINGS SHALL BE DEFINED AS AND CONTAIN THE FOLLOWING INFORMATION:

- FINAL AS-BUILT DRAWINGS SHALL BE PROVIDED ON MYLAR. XEROX OR ANY HEAT PROCESS REPRODUCTIONS WILL NOT BE ACCEPTED.
- ALONG WITH THE MYLAR PLAN SET, PROVIDE THREE (3) SETS OF BLUEPRINTS, PRODUCED FROM THE MYLARS AND THE PLANS ON ELECTRONIC MEDIA IN AUTOCAD FORMAT (LATEST VERSION).
- THE COVER SHEET SHALL BE SEALED BY THE PROJECT DESIGN ENGINEER, ALONG WITH THE FOLLOWING CERTIFICATION STATEMENT.

I HEREBY CERTIFY THAT OUR FIRM HAS PREPARED THESE AS-BUILT DRAWINGS OF THE IMPROVEMENTS AS CONSTRUCTED, AND THAT TO THE BEST OF MY KNOWLEDGE THOSE IMPROVEMENTS NOTED AS "AS BUILT" WERE CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS; AND ALSO THAT THE SANITARY SEWER AND STRUCTURES, AS CONSTRUCTED, LIE WITHIN THE EASEMENT DESCRIPTIONS REQUIRED BY THE CITY OF ROCHESTER HILLS.

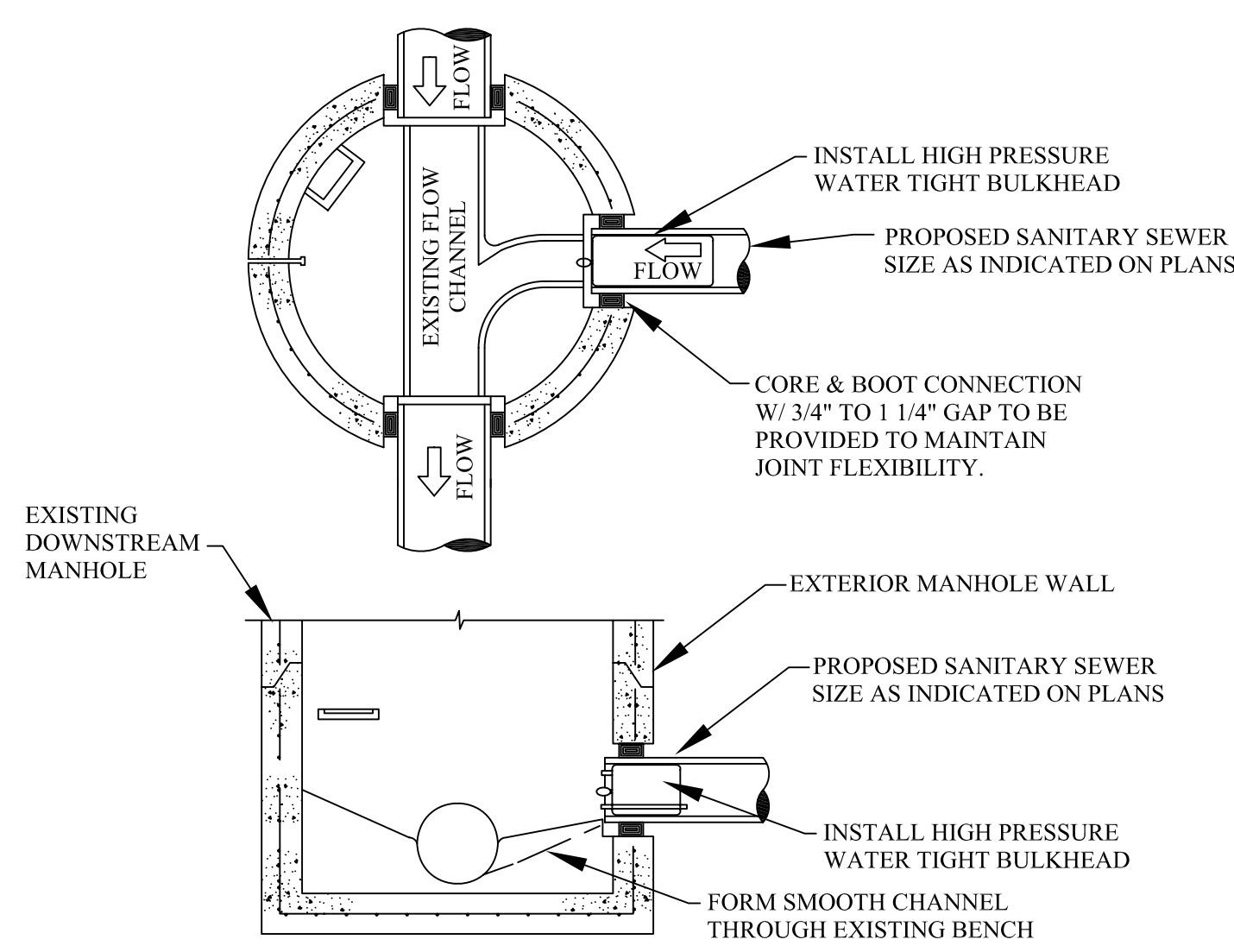
(COMPANY NAME)

(ENGINEER'S SIGNATURE)

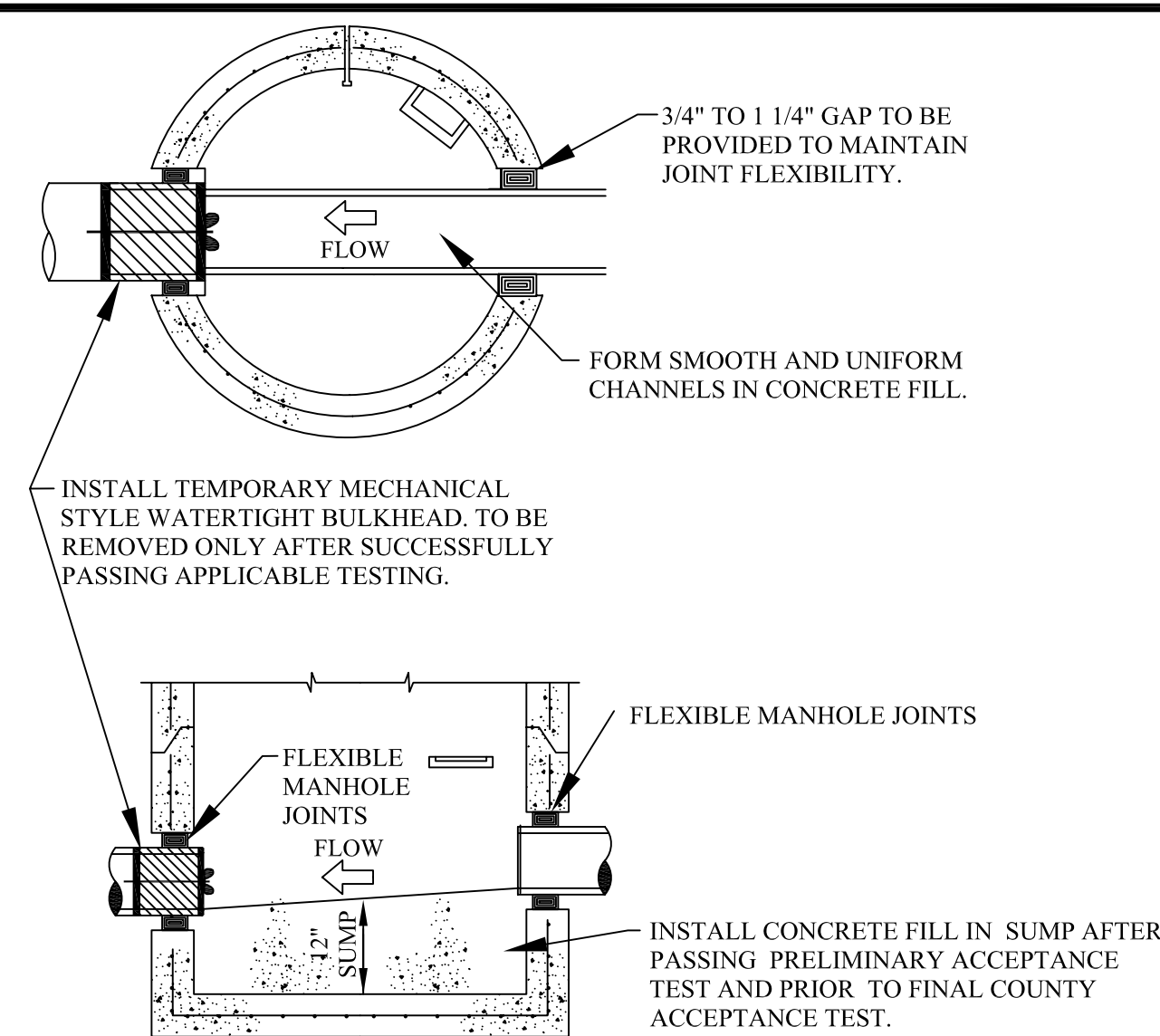
PROFESSIONAL ENGINEER NO. _____

ENGINEER SEAL

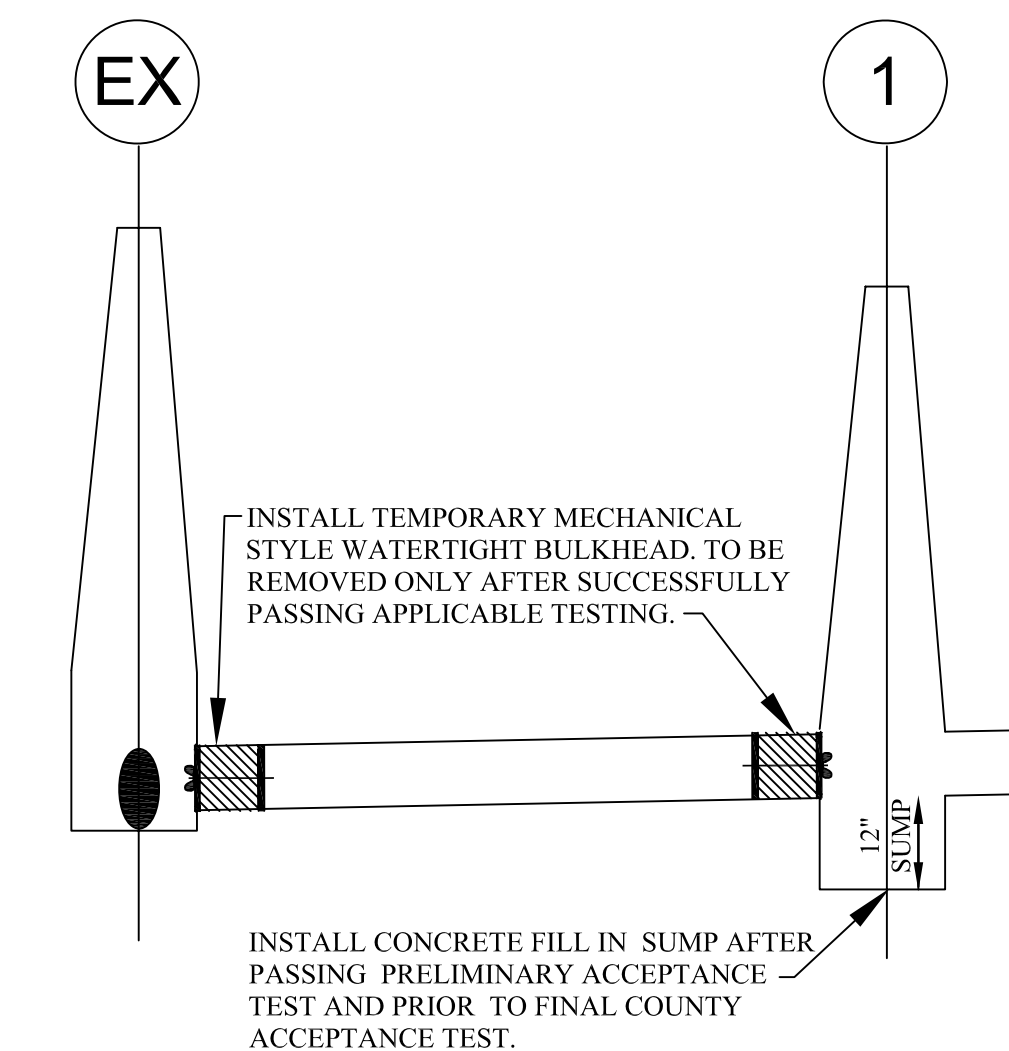
- THE MAXIMUM SCALE SHALL BE ONE (1) INCH EQUALS FIFTY (50) FEET.
- THE SIZE, LENGTH, CLASS AND MANUFACTURER OF PIPE INSTALLED SHALL BE INDICATED.
- THE SIZE, MANUFACTURER AND MODEL NUMBERS OF ALL VALVES AND PUMPS INSTALLED SHALL BE INDICATED.
- A TOTAL AS-BUILT DRAWING QUANTITY LIST SHALL BE INCLUDED.
- THE LOCATIONS SHALL BE SHOWN ON THE PLANS WITH AN ACCURACY OF ONE (1) FOOT.
- THE OFFSET OF THE SANITARY MAIN FROM PROPERTY LINES SHALL BE INDICATED.
- ALL MANHOLES, VALVE WELLS, PUMPS AND ALL SANITARY SYSTEM APPURTENANCES SHALL BE LOCATED FROM TWO FIXED OBJECTS (MANHOLES, BUILDING CORNERS ETC.).
- ALL UNDERGROUND APPURTENANCES, SUCH AS TFC/ARV WELLS, METER PITS, GRINDER PUMPS AND PUMP STATION PITS, ETC. SHALL BE LOCATED FROM THE NEAREST MANHOLE THAT IS CONNECTED TO THE SAME SANITARY MAIN AS THE APPURTENANCE.
- THE ACCURATE LOCATION OF ALL UTILITY CROSSINGS WHERE THE VERTICAL SEPARATION IS LESS THAN 18" SHALL BE NOTED.
- AS-BUILTS SHALL BE PREPARED IN ACCORDANCE WITH CITY OF ROCHESTER HILLS AS-BUILT GUIDELINES AS PROVIDED AT THE PRE-CONSTRUCTION MEETING



TESTING BULKHEAD IN EXISTING MANHOLE



FIRST MANHOLE UPSTREAM FROM SANITARY TAP



PROFILE OF BULKHEADS AND ONE FOOT SUMP

REVISIONS	DATE	APPROVED BY
		CITY COUNCIL, DATE: JULY 21, 2008
		PREPARED BY ENGINEERING DIVISION DEPARTMENT OF PUBLIC SERVICES

NOTIFY ROCHESTER HILLS ENGINEERING DEPARTMENT @ 248-841-2510 48 HRS. PRIOR TO START OF CONSTRUCTION

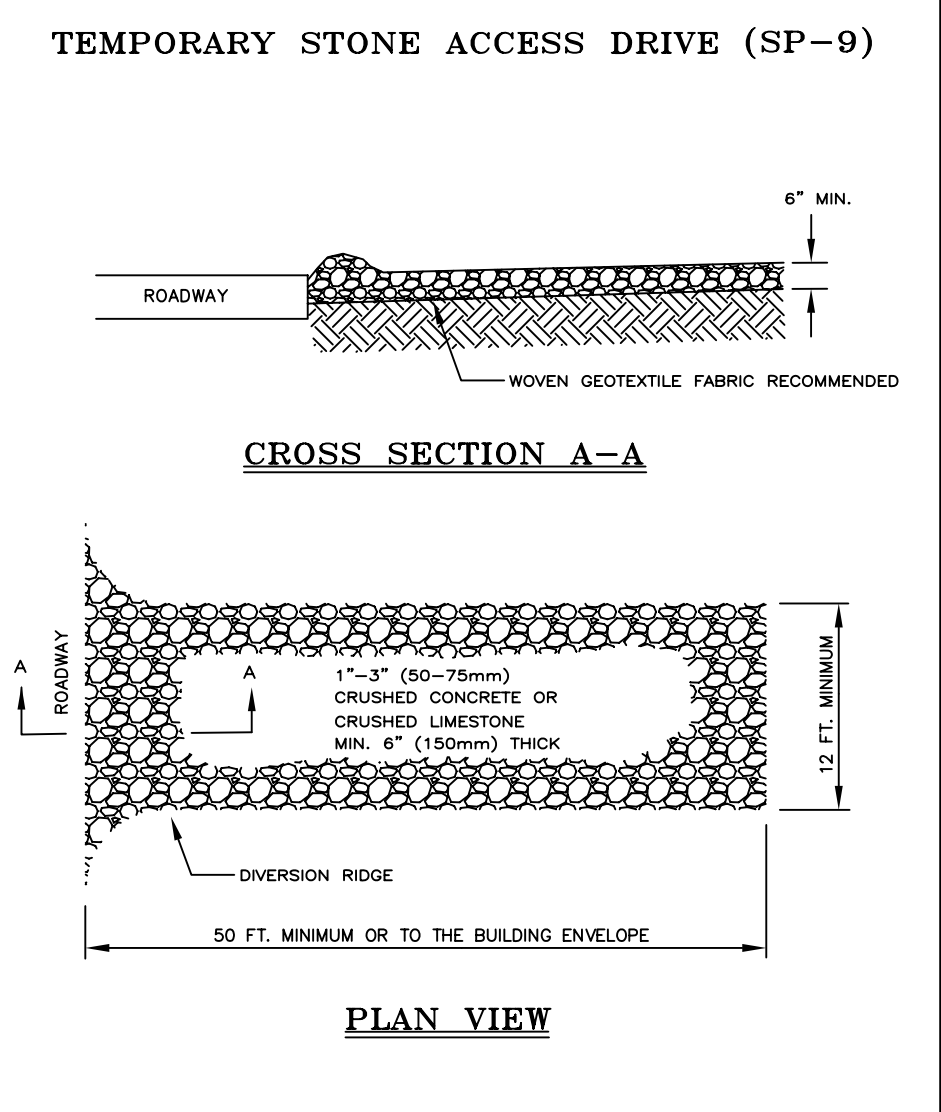
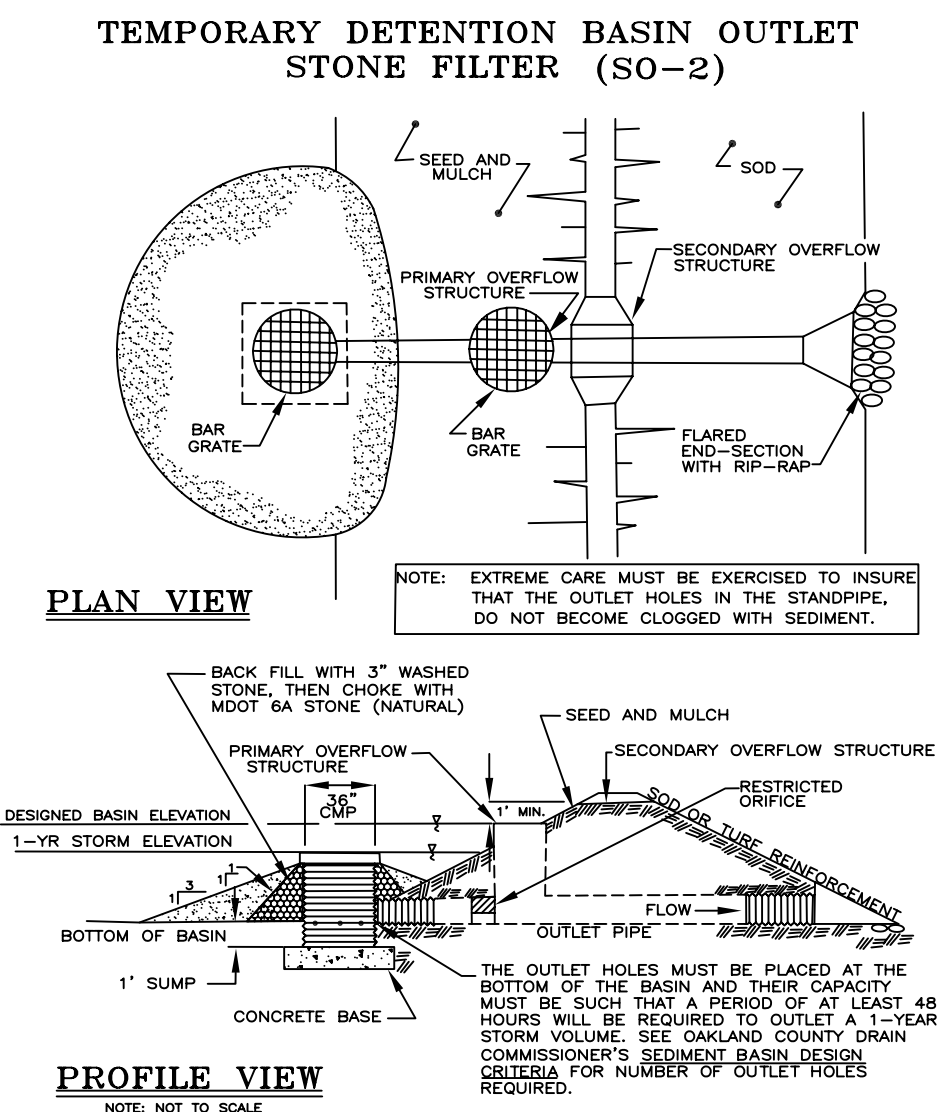
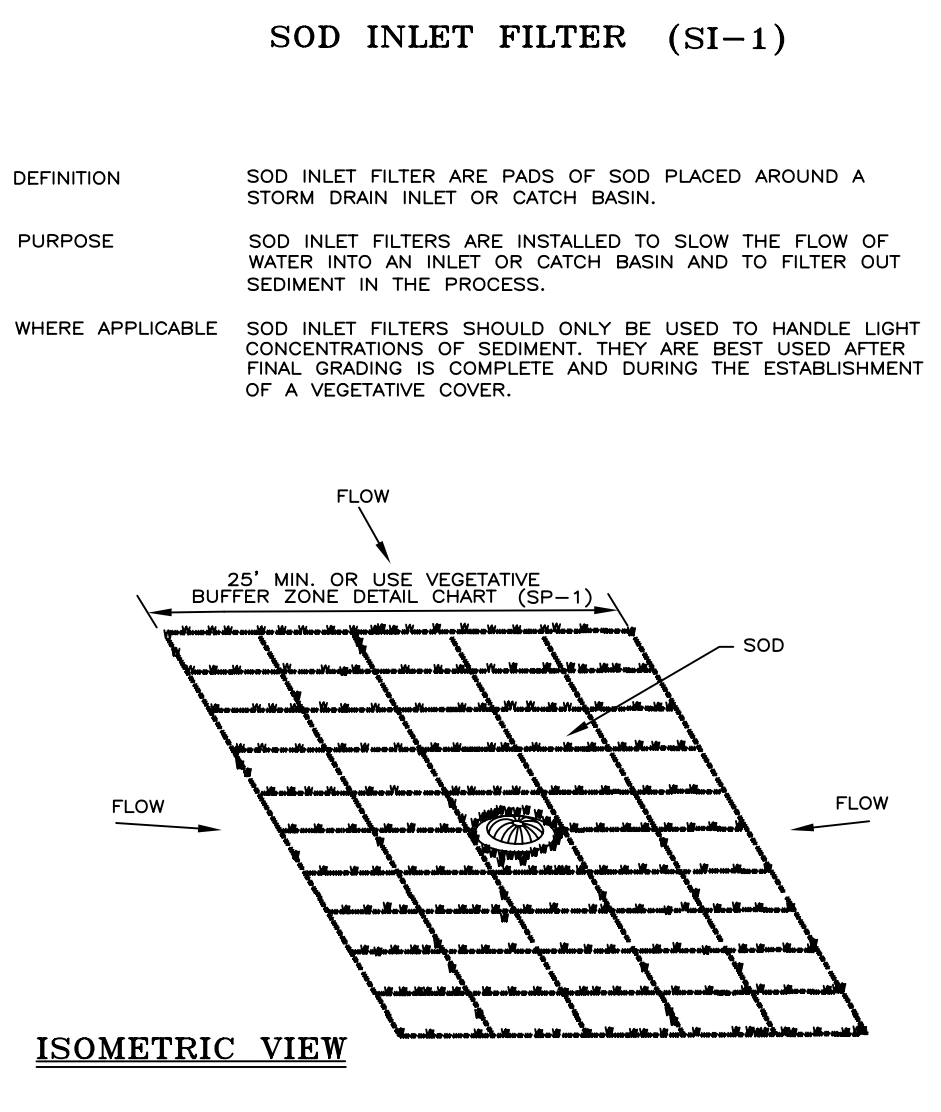
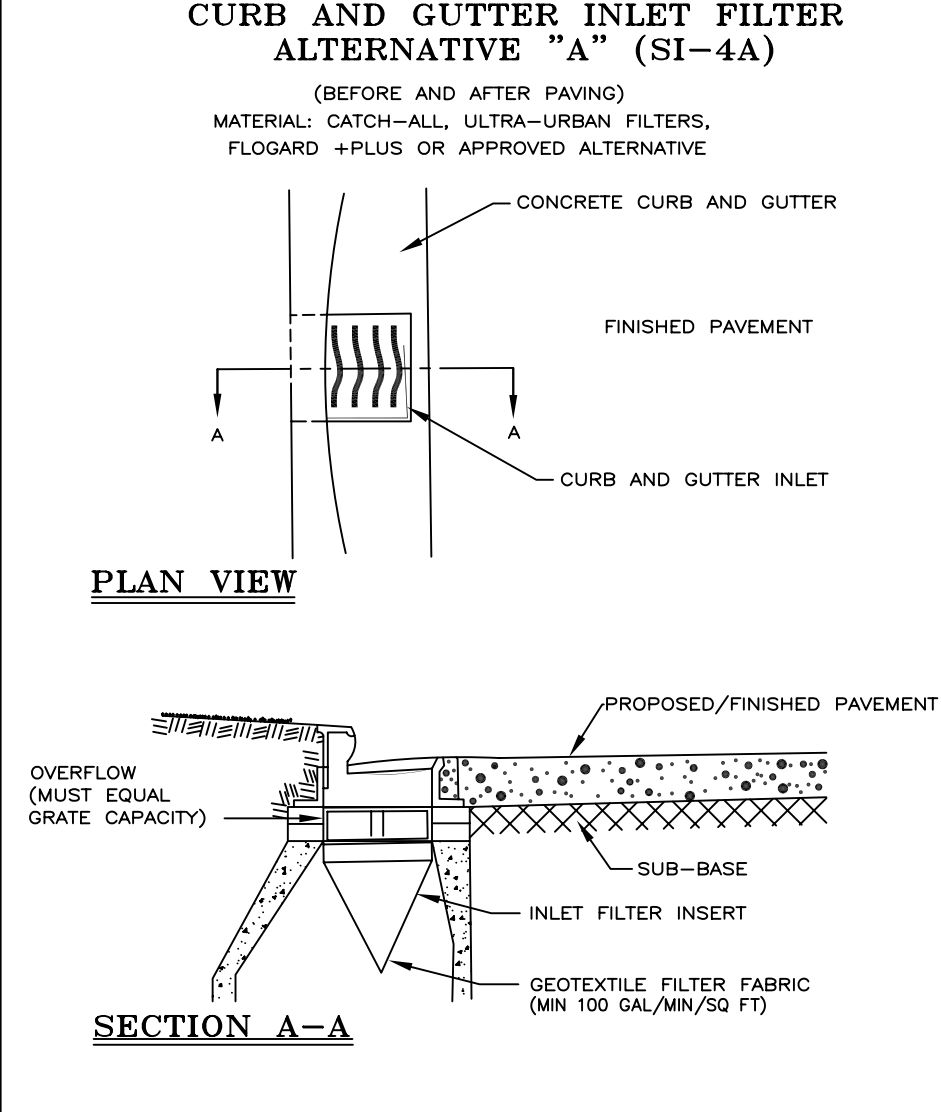
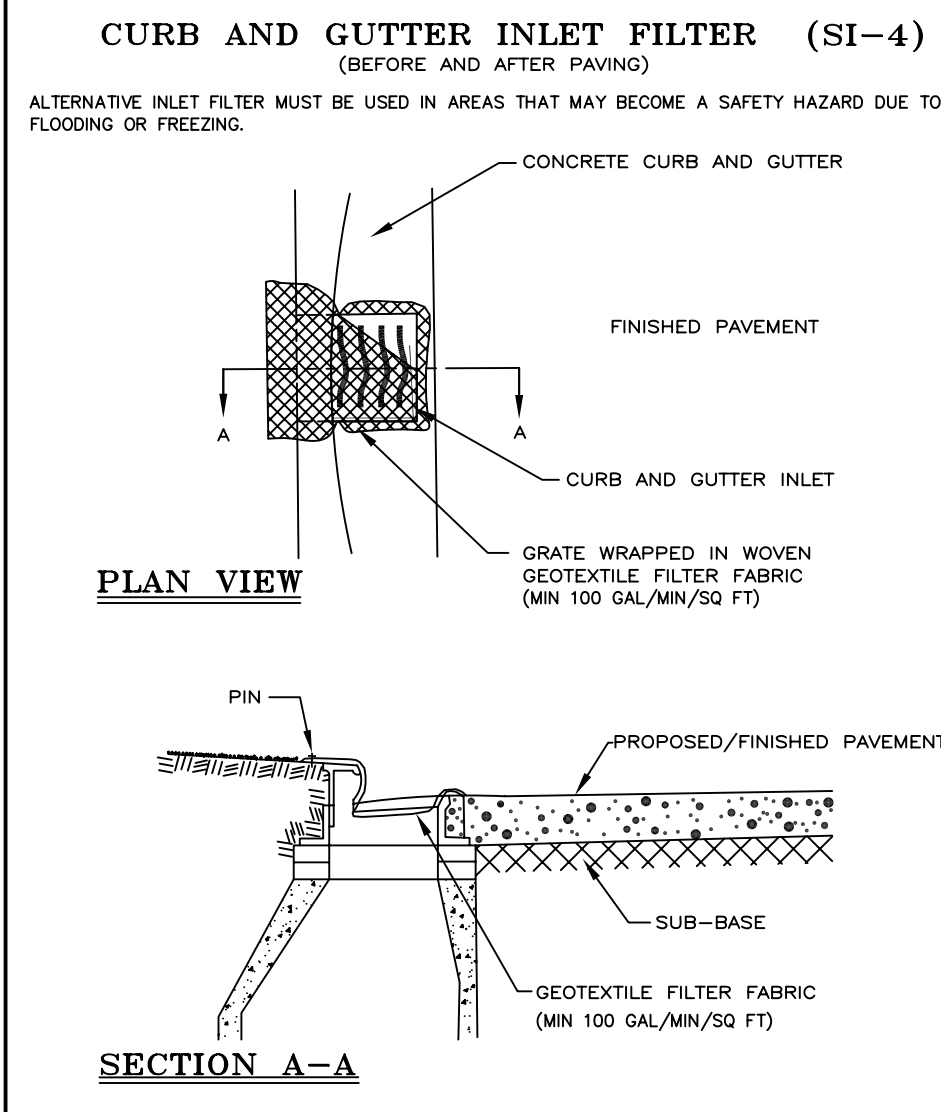
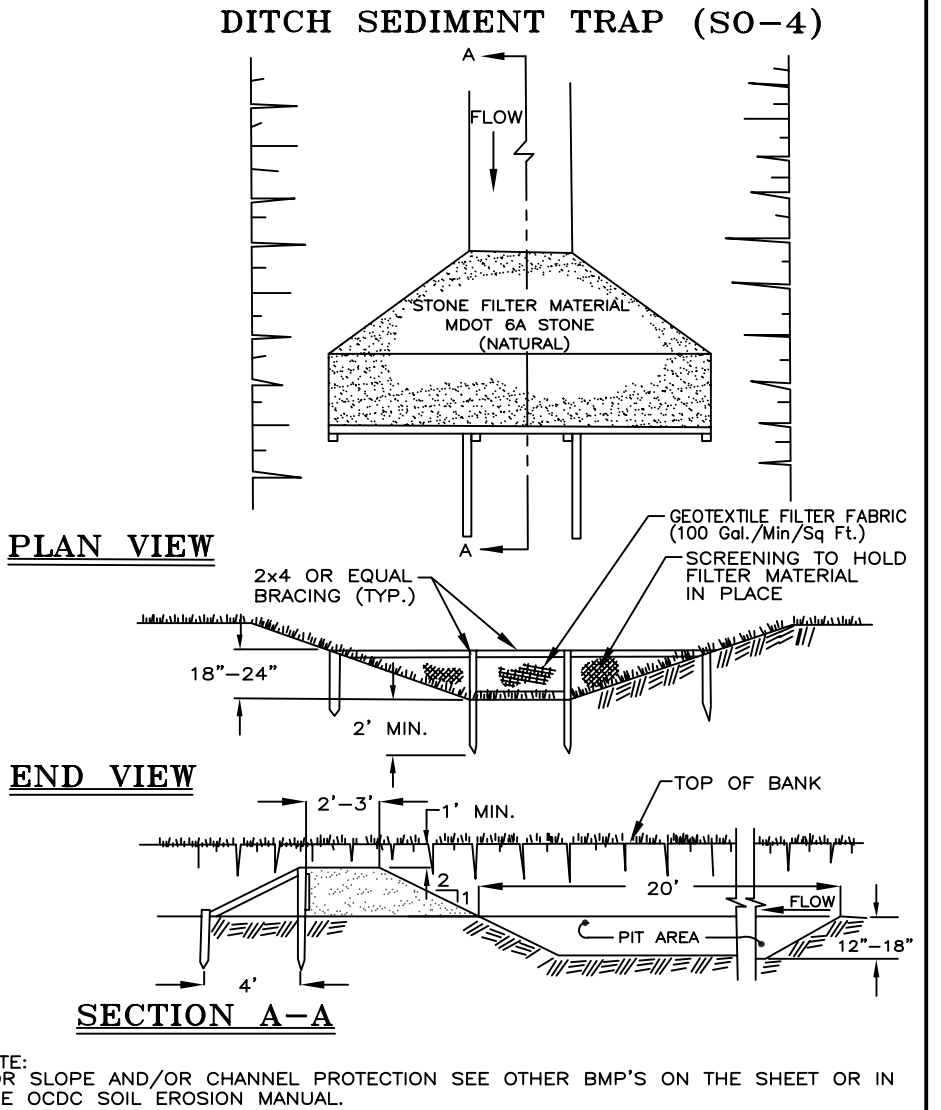
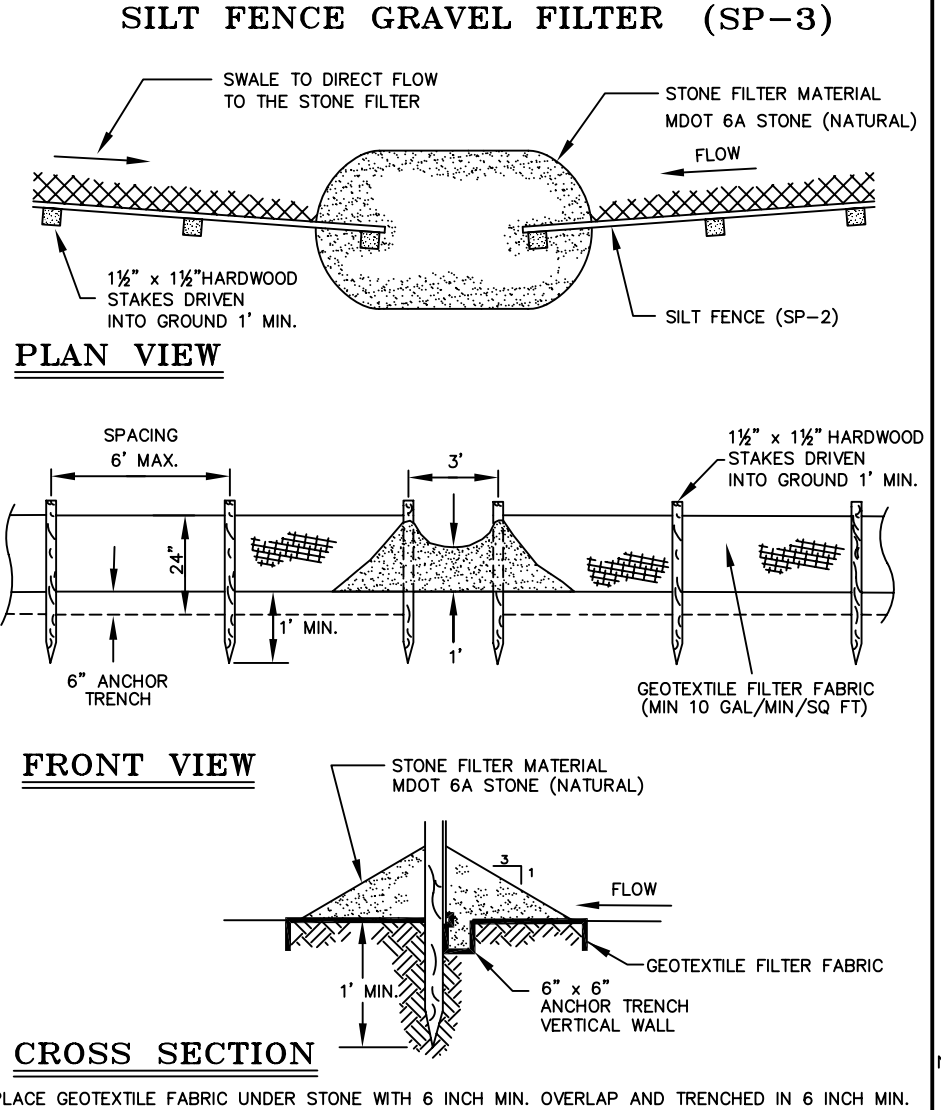
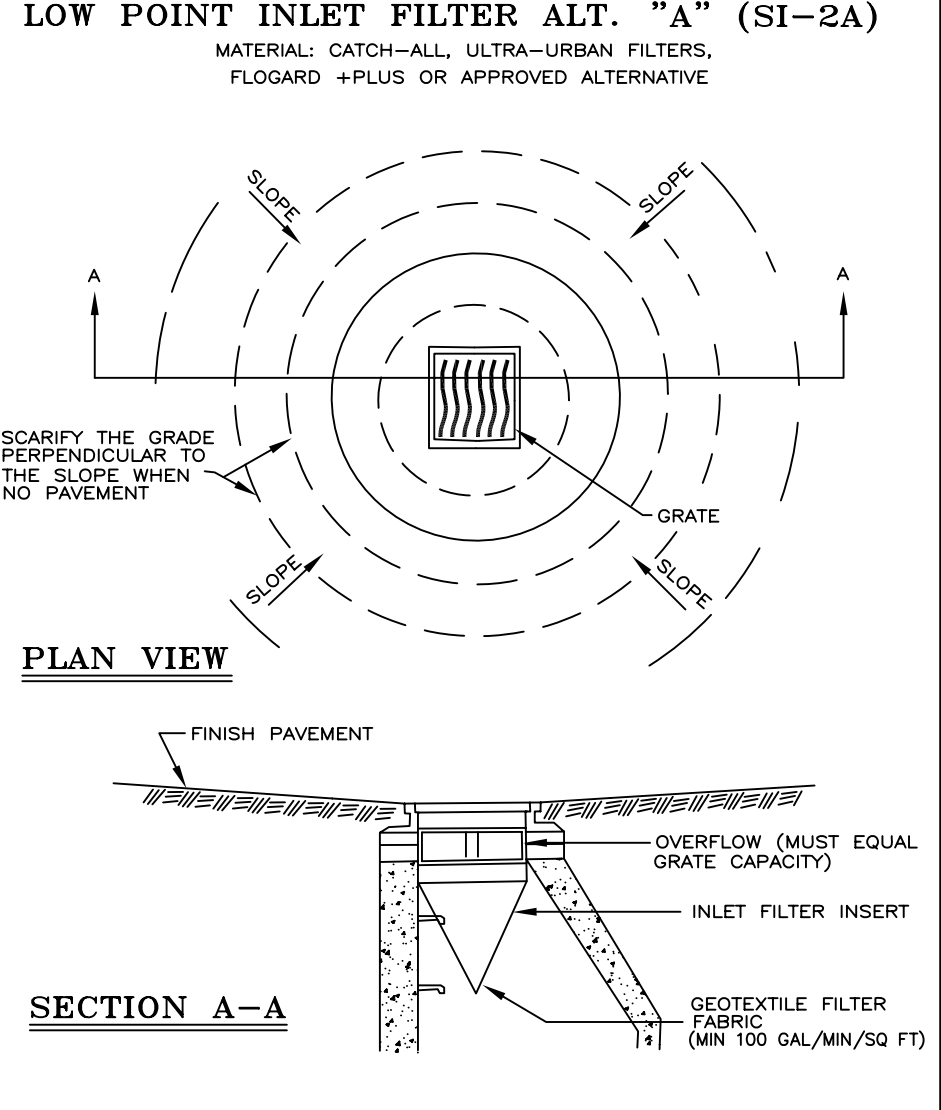
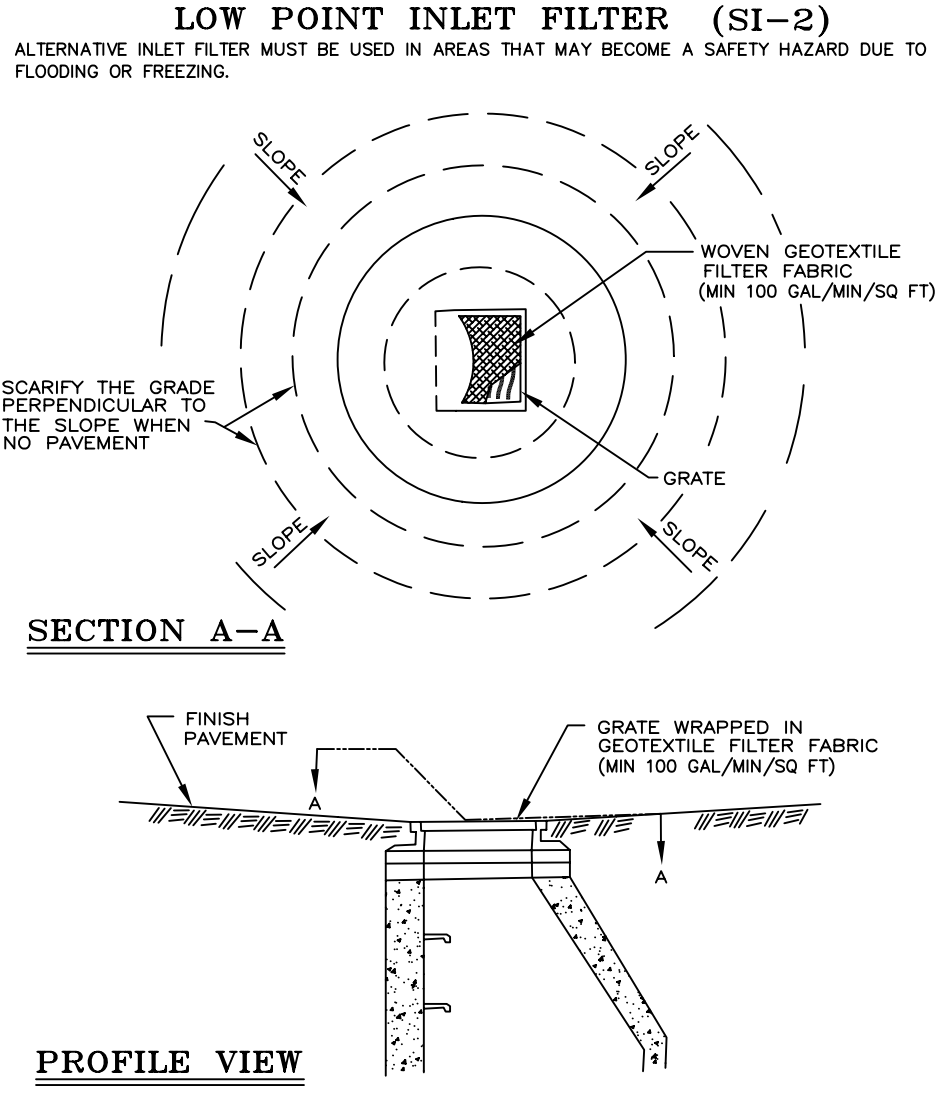
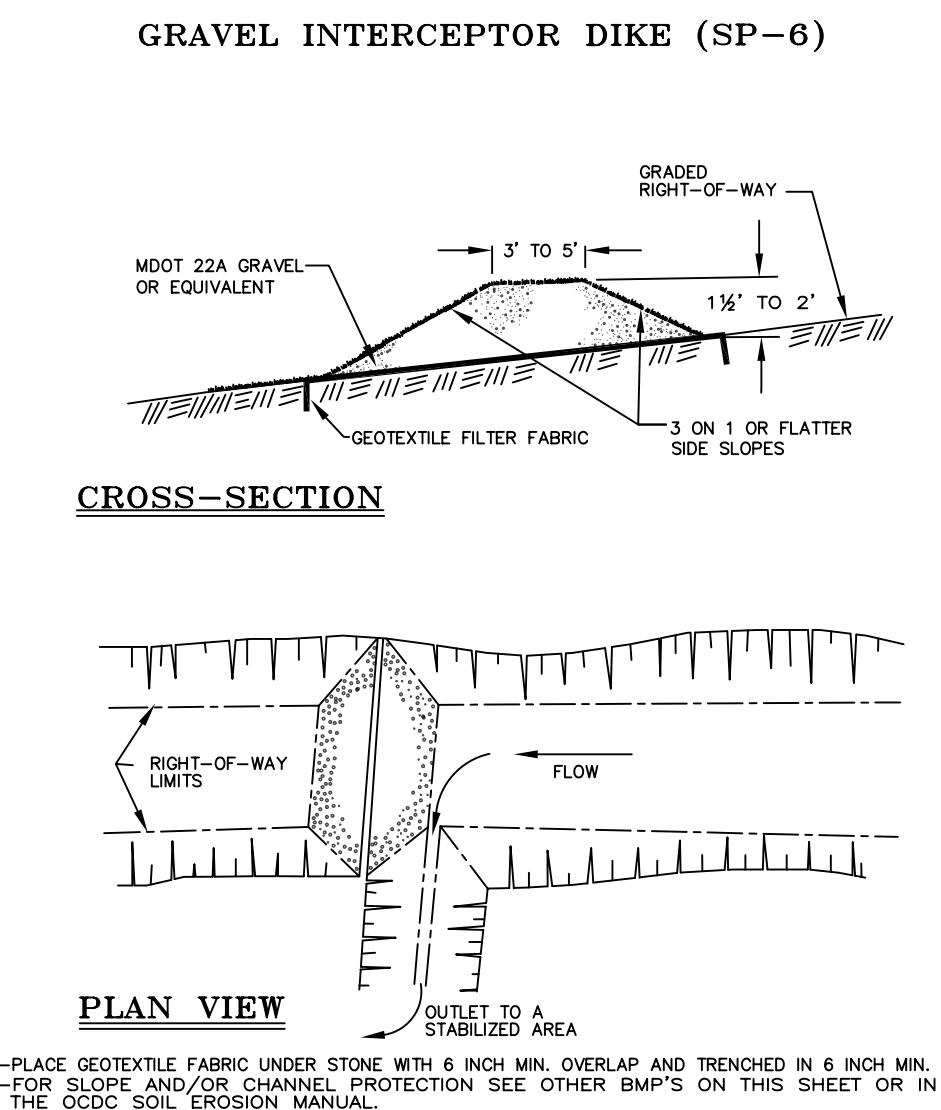
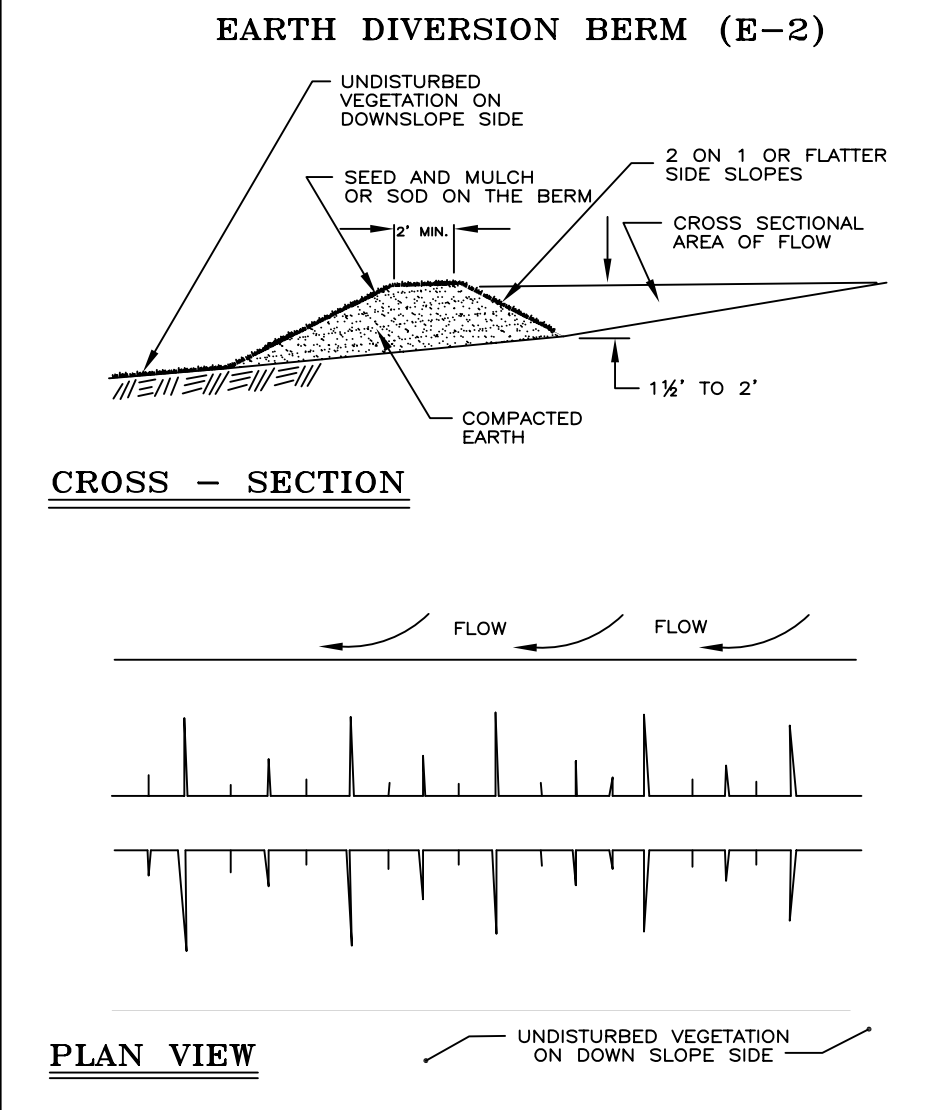
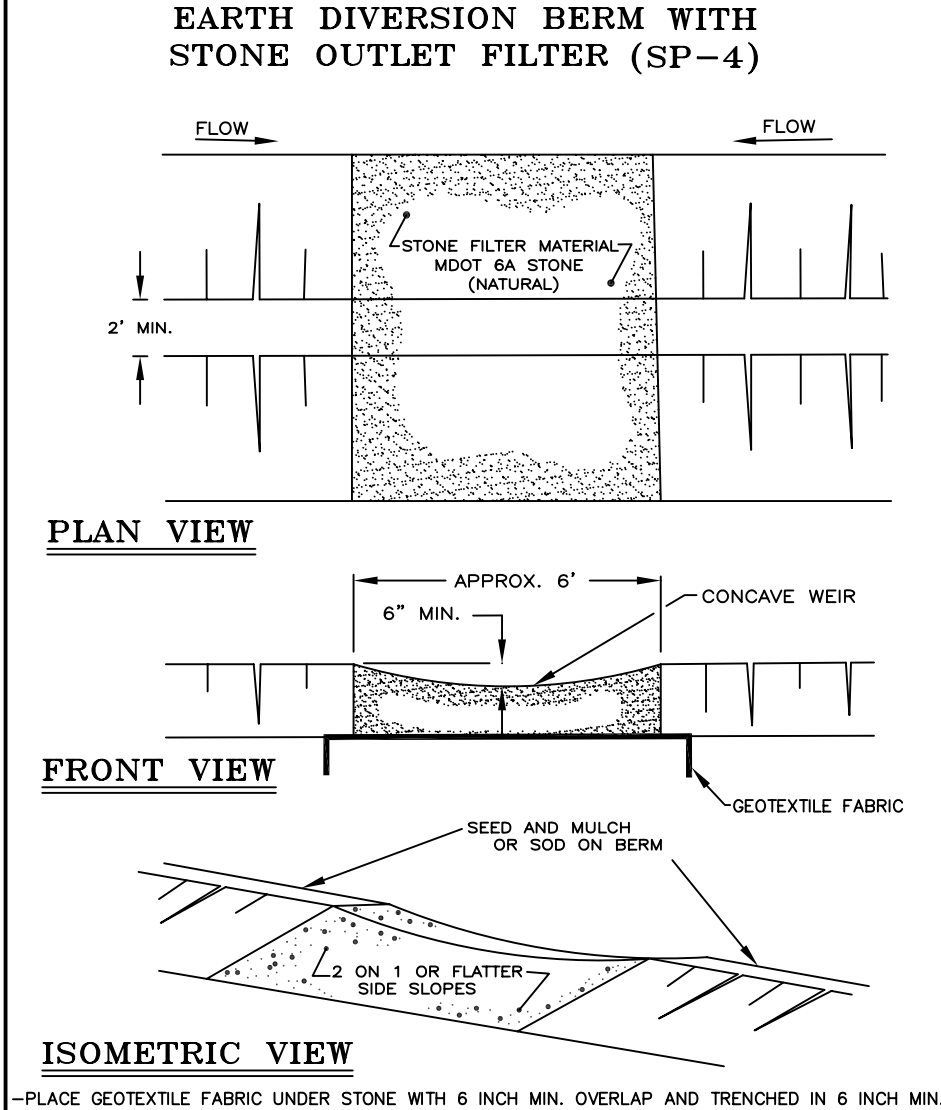
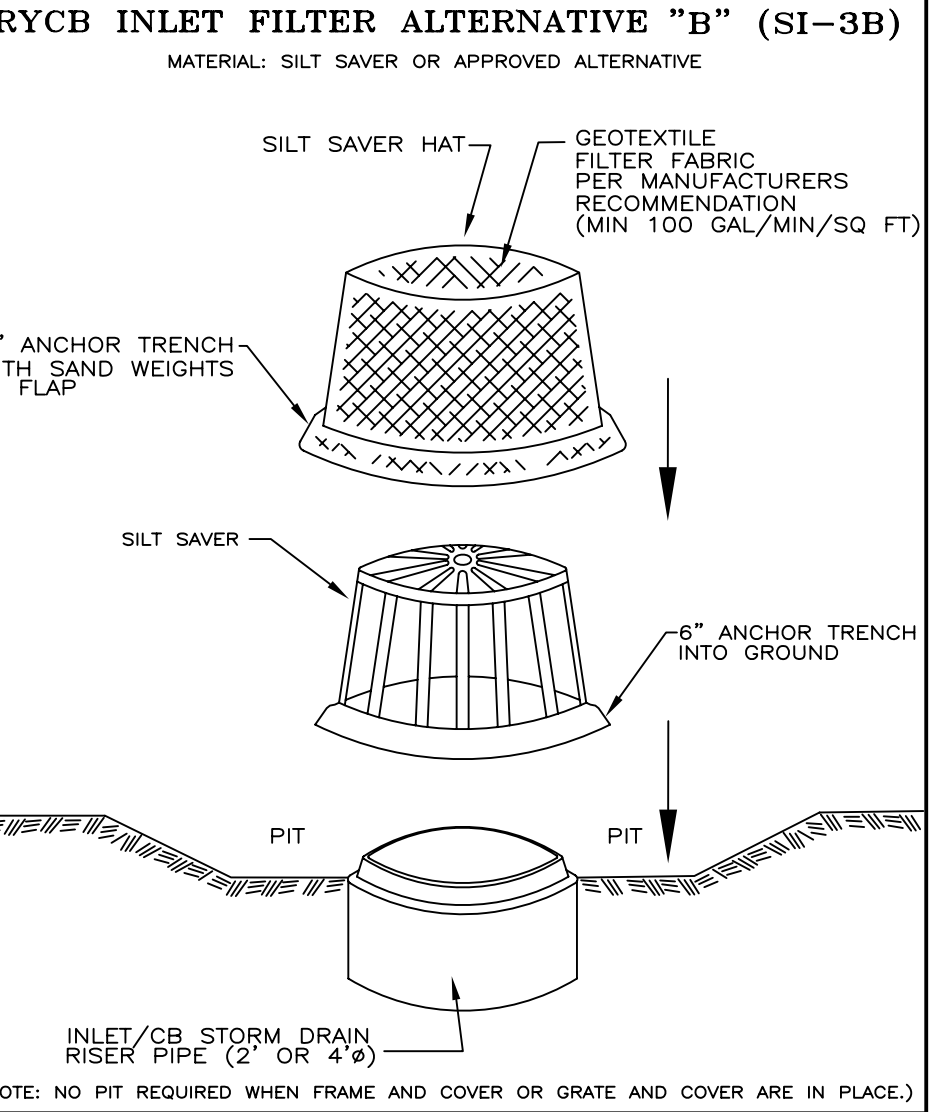
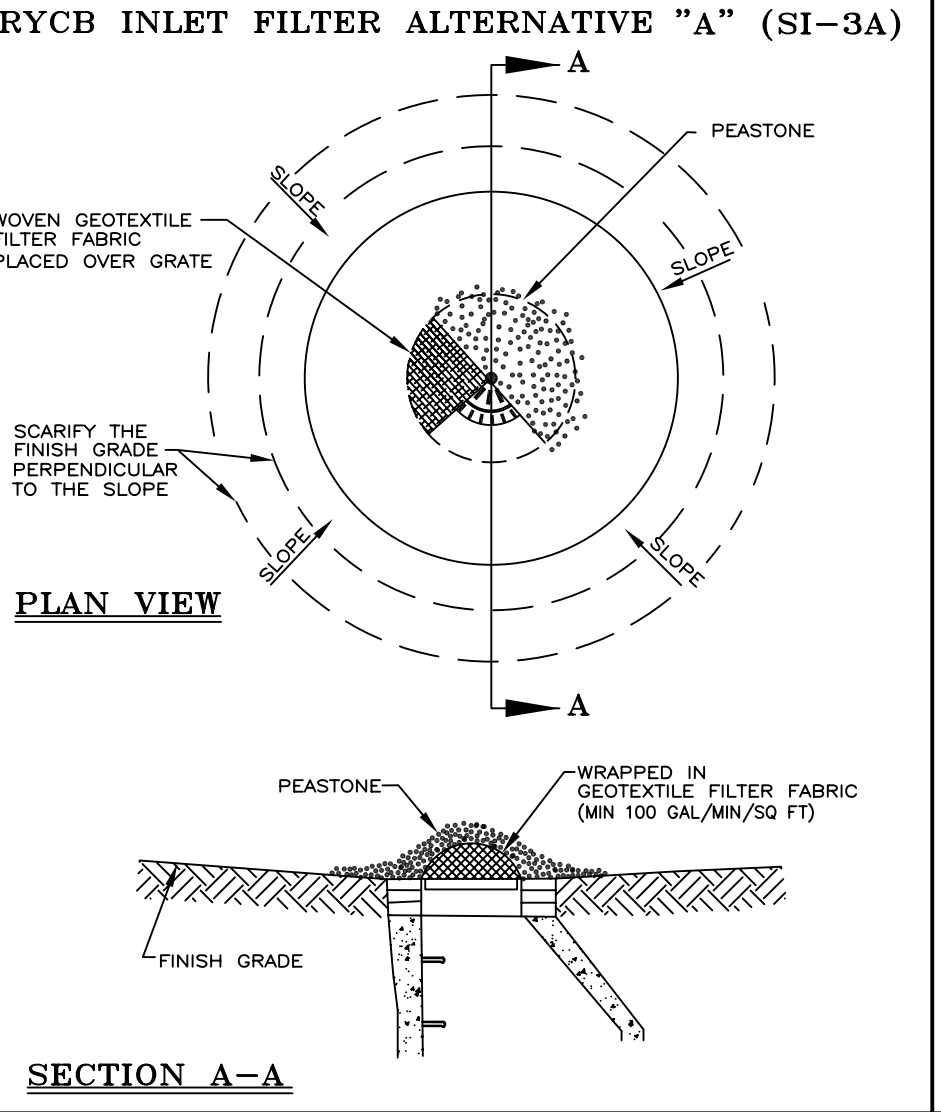
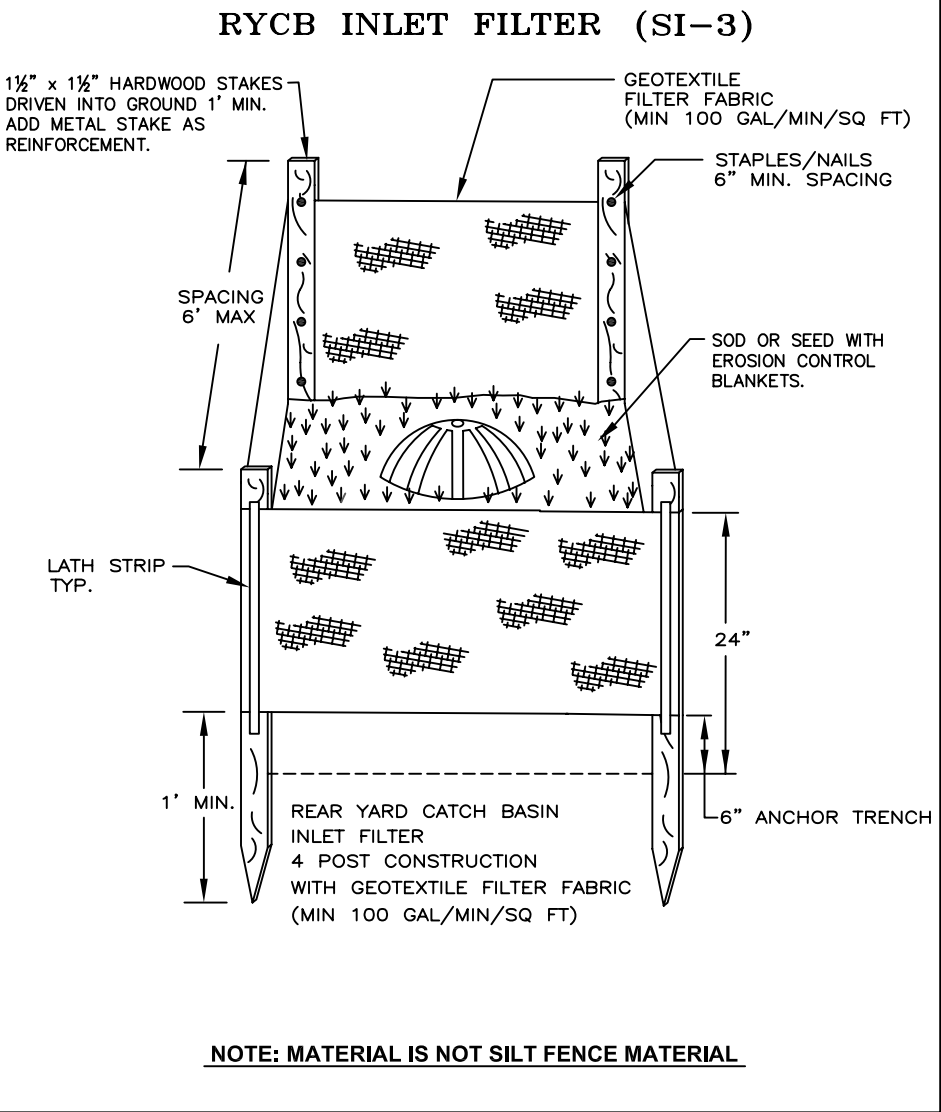
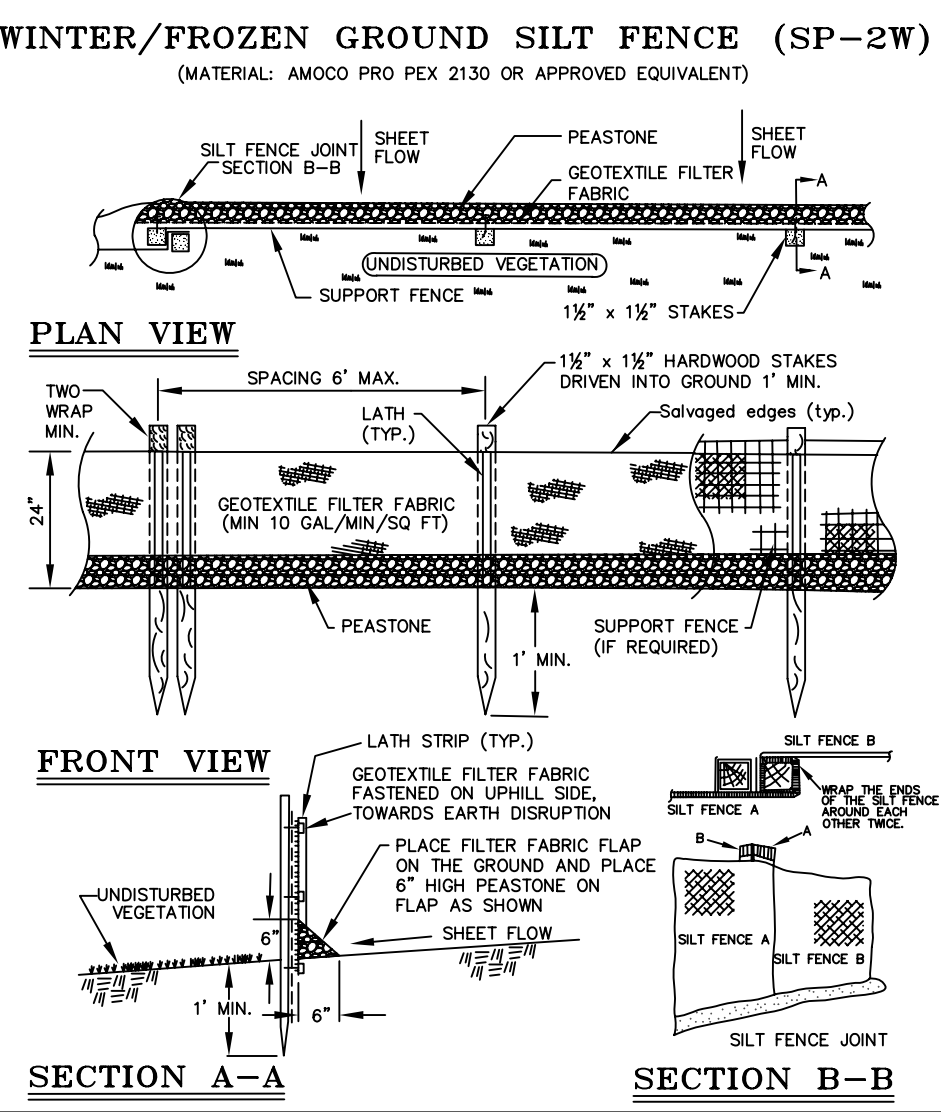
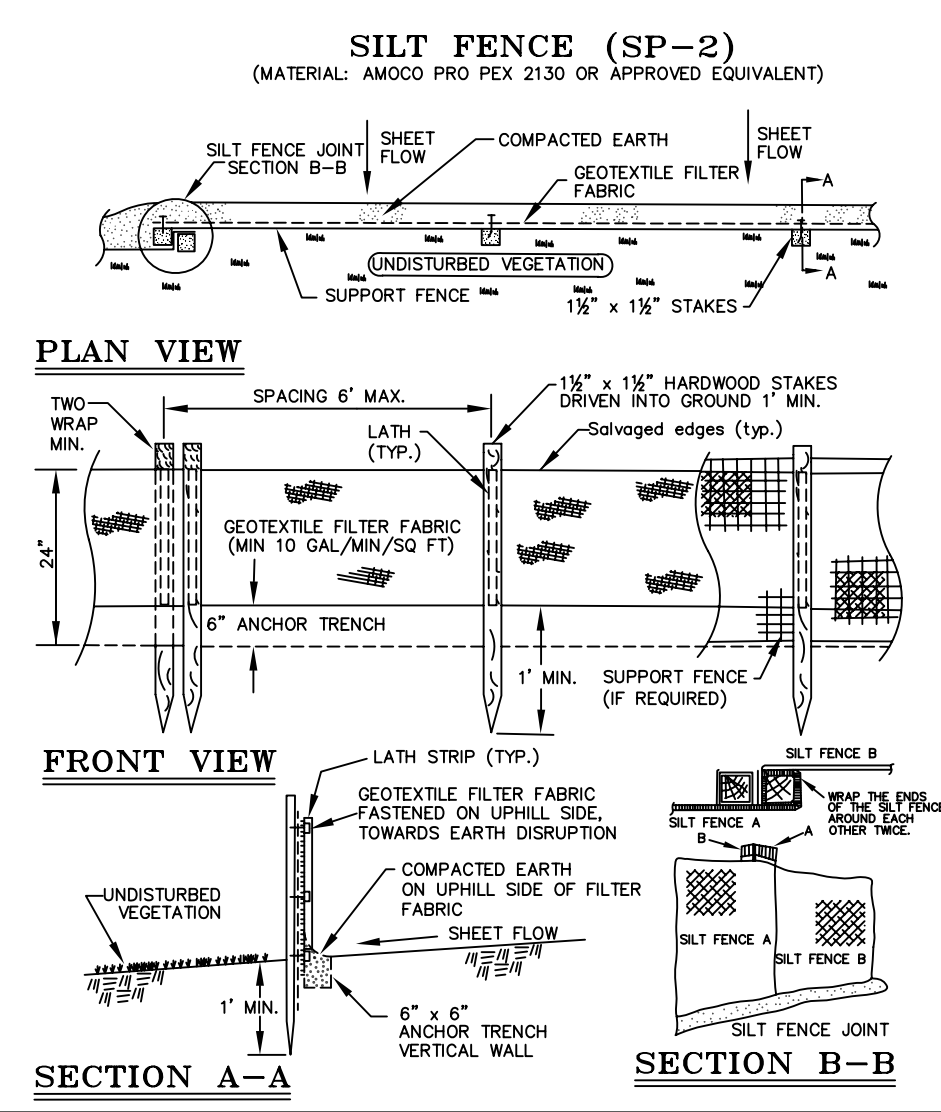
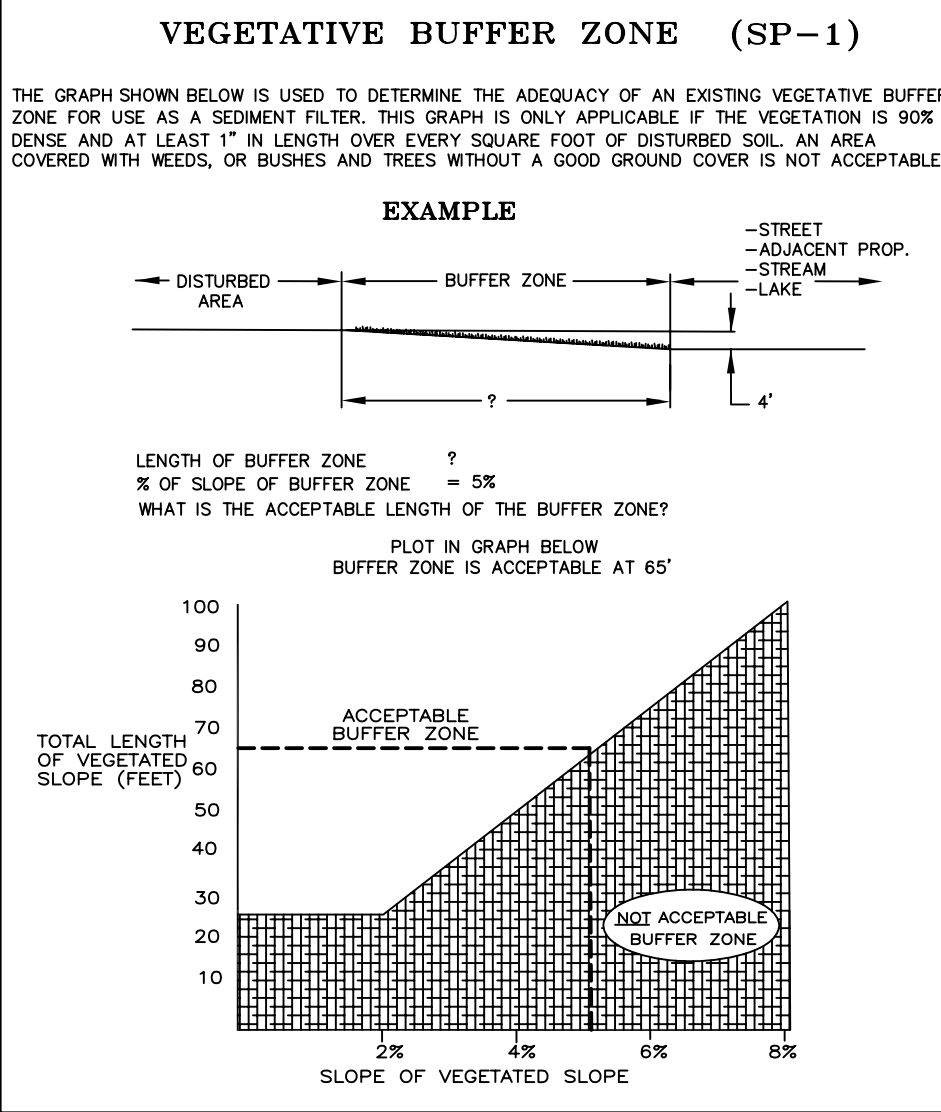
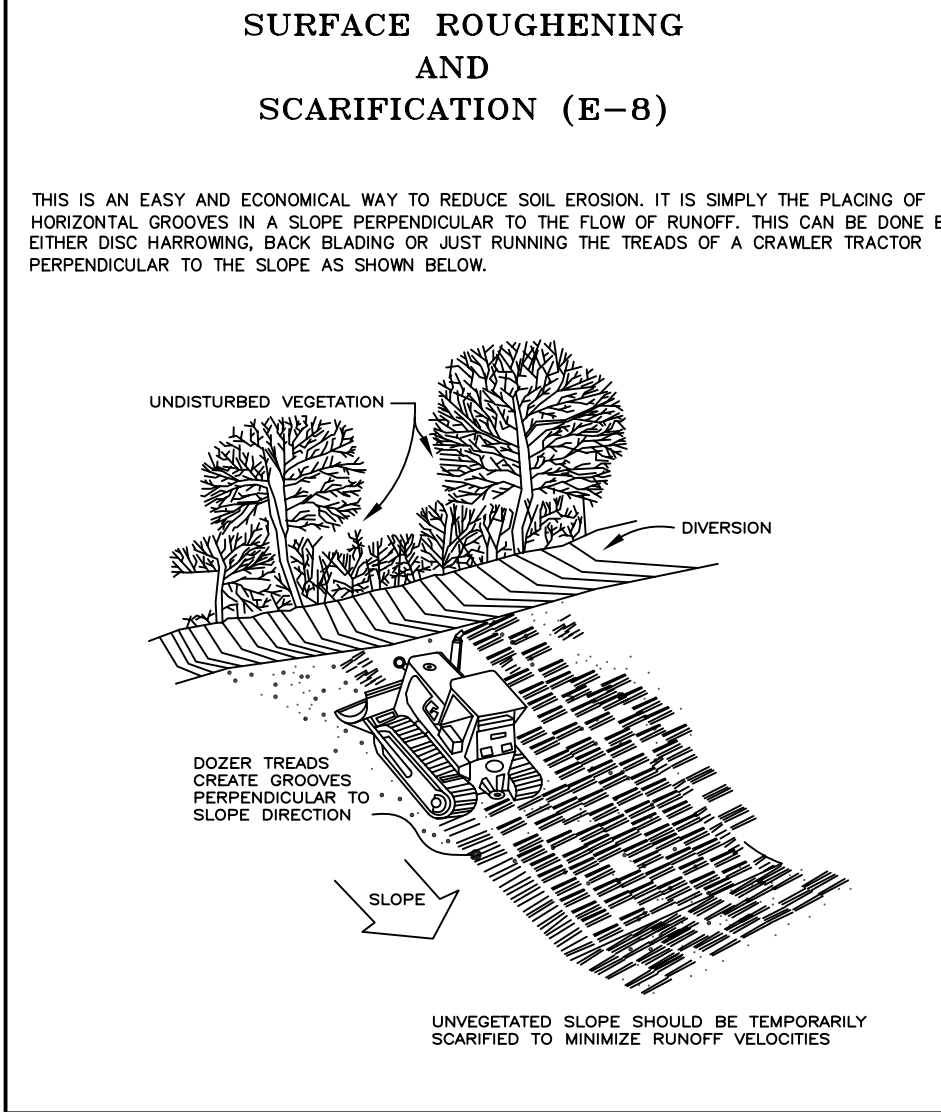
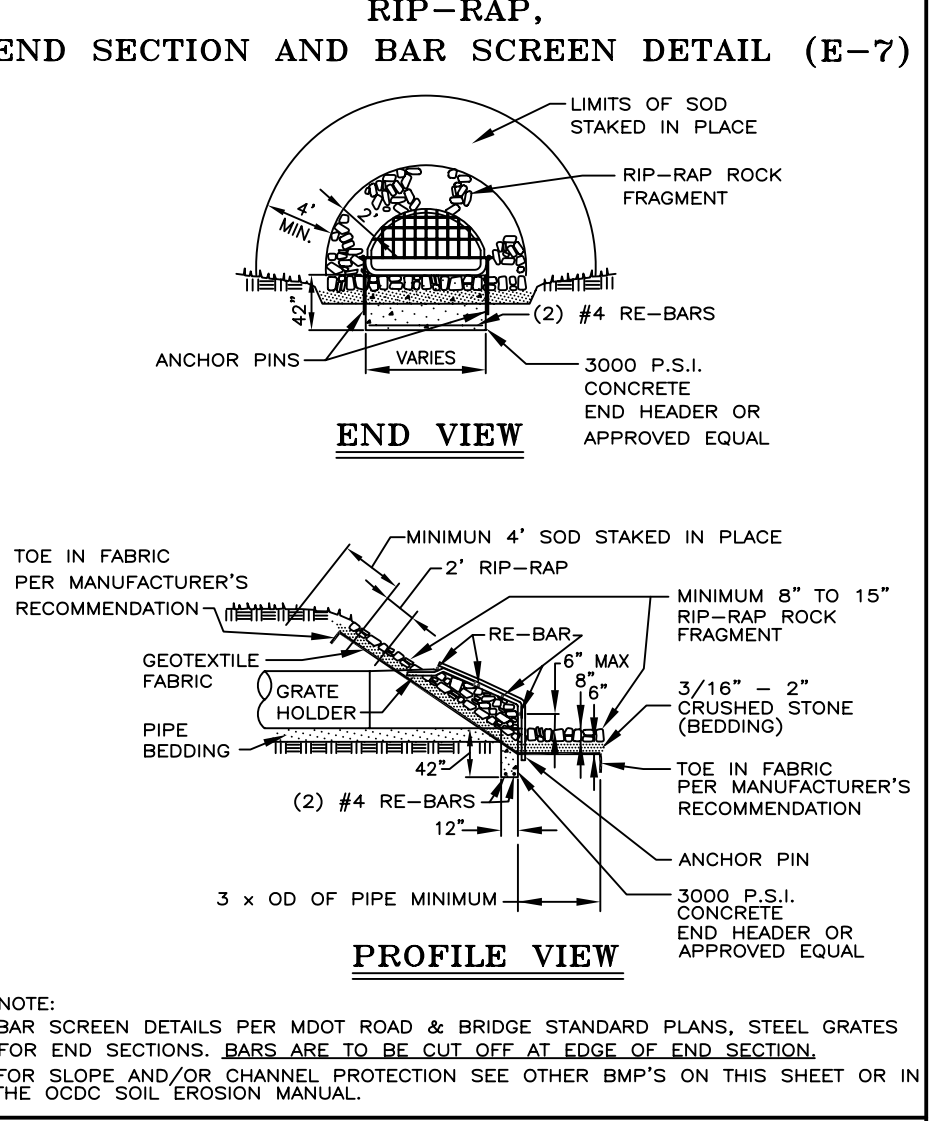
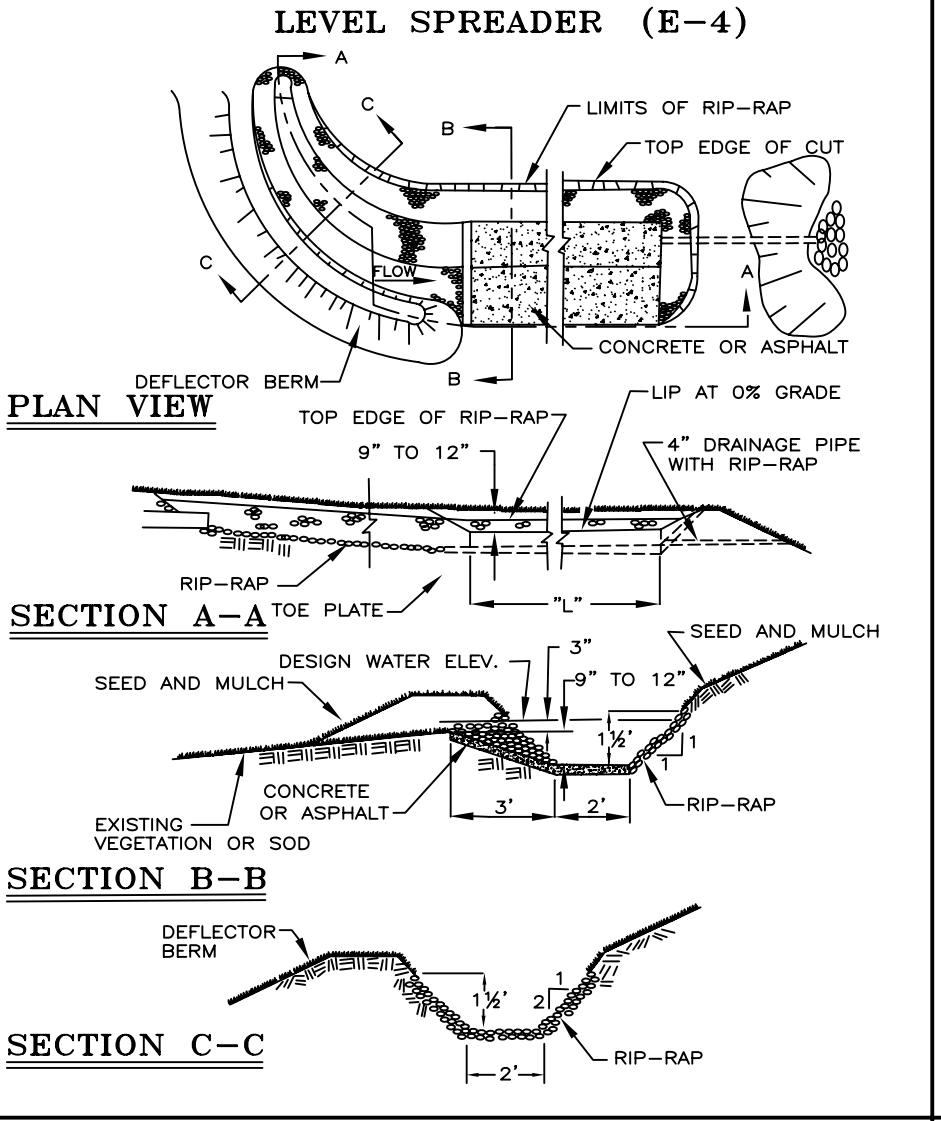
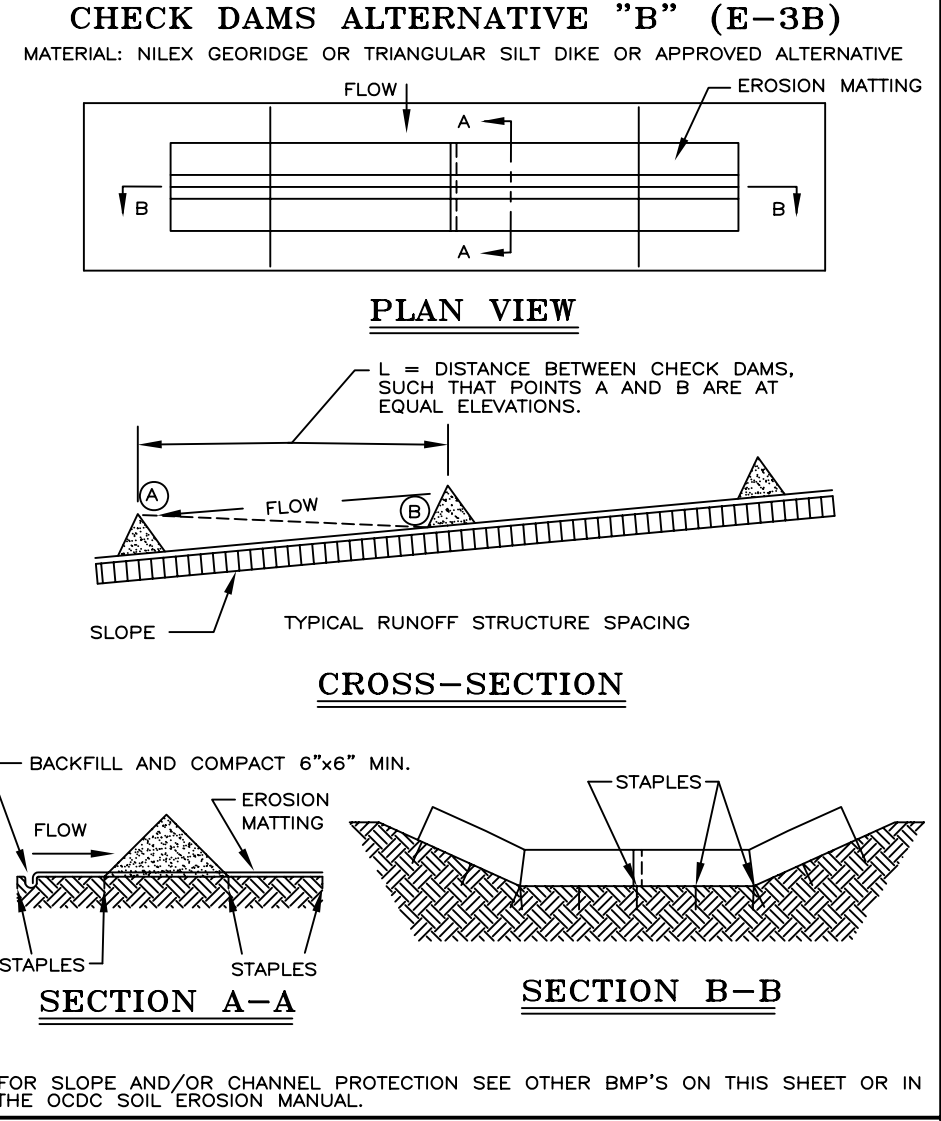
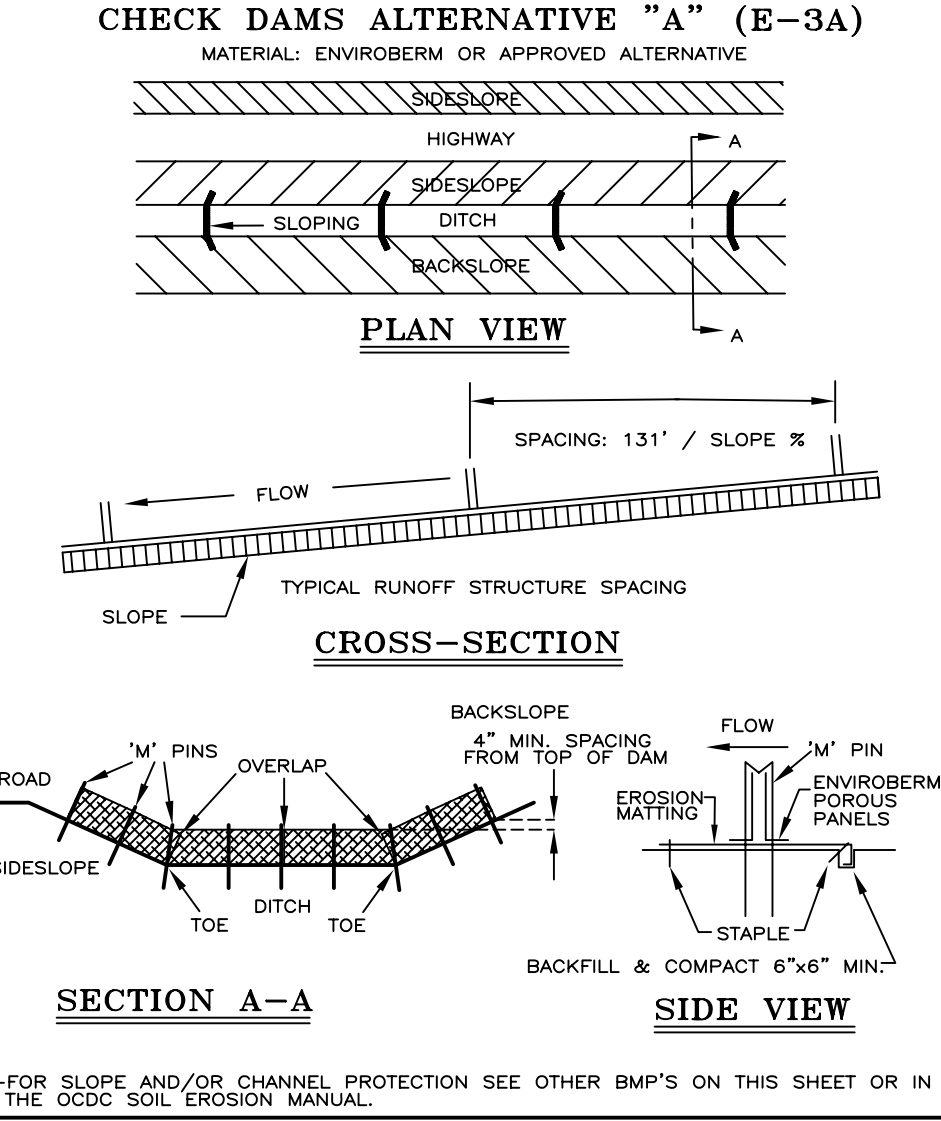
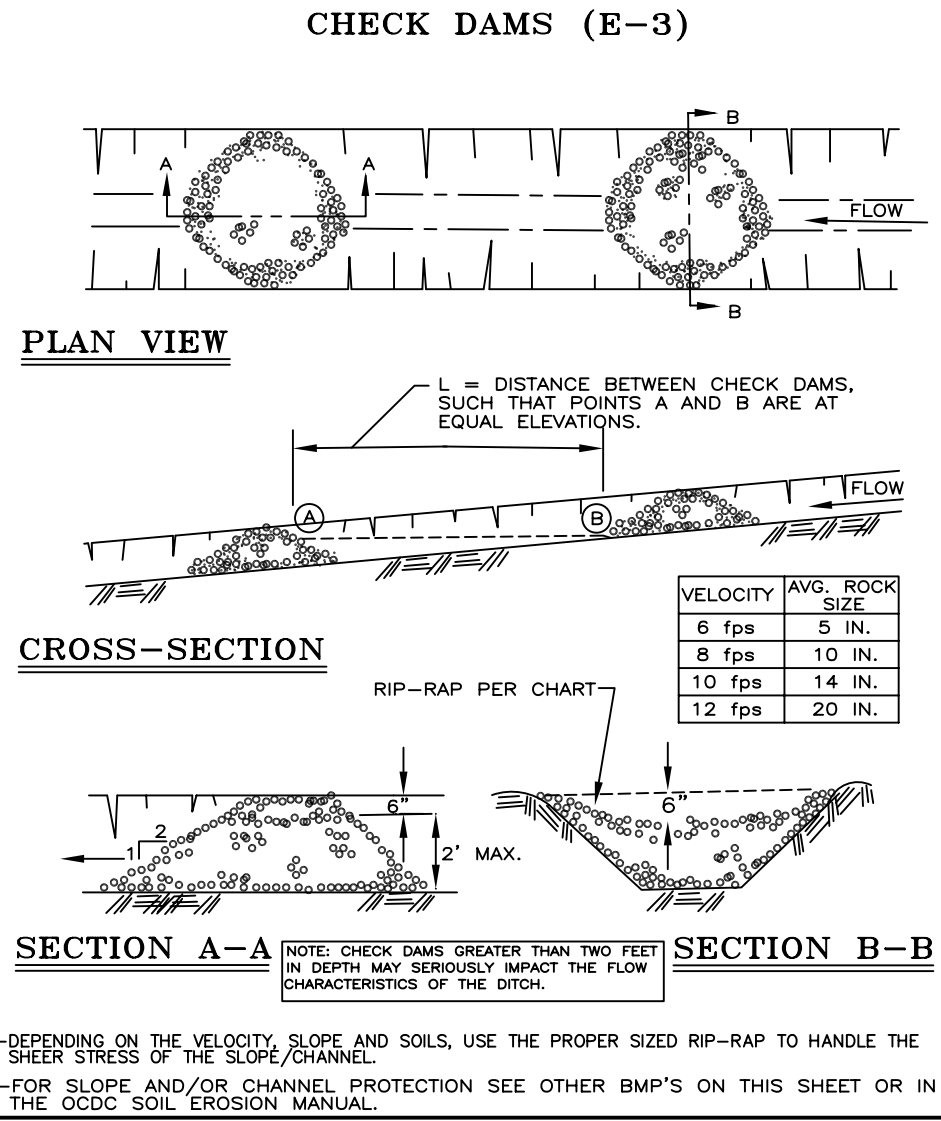
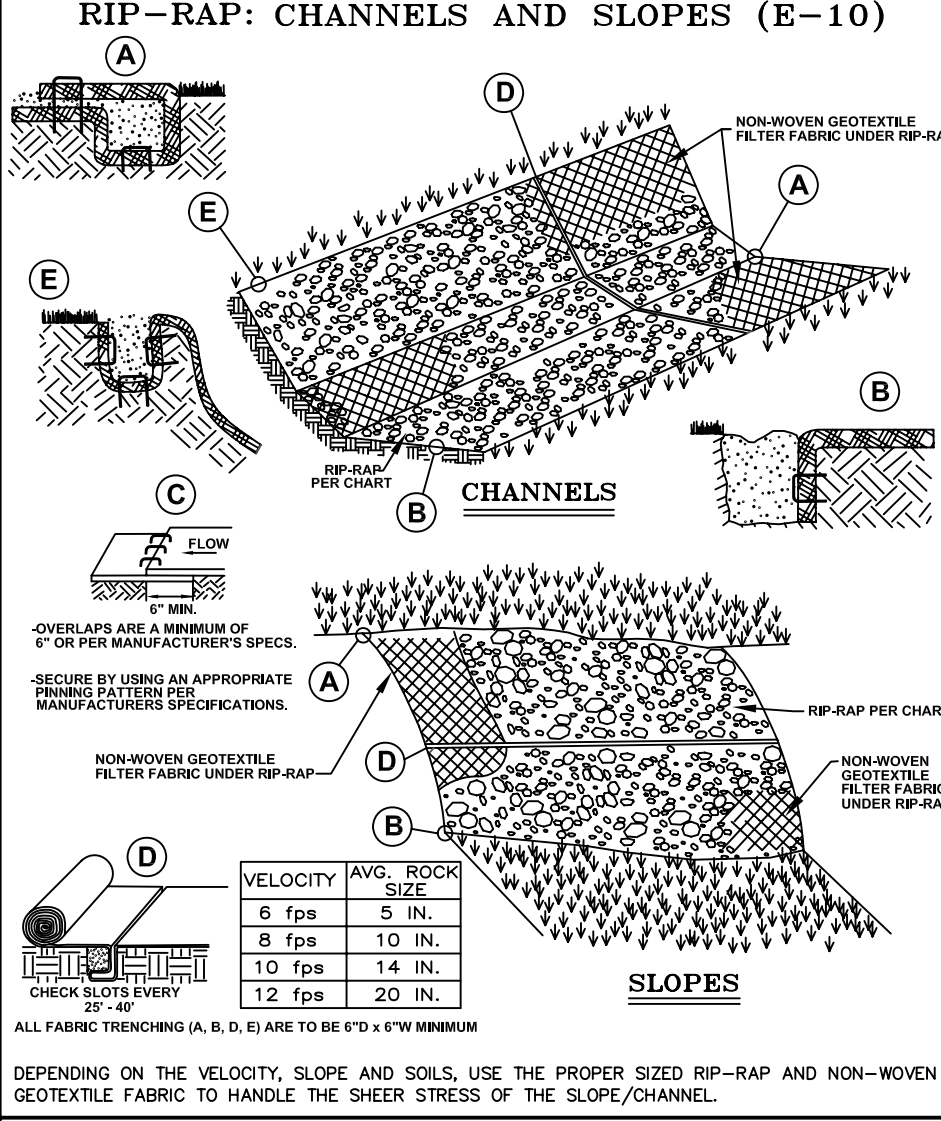
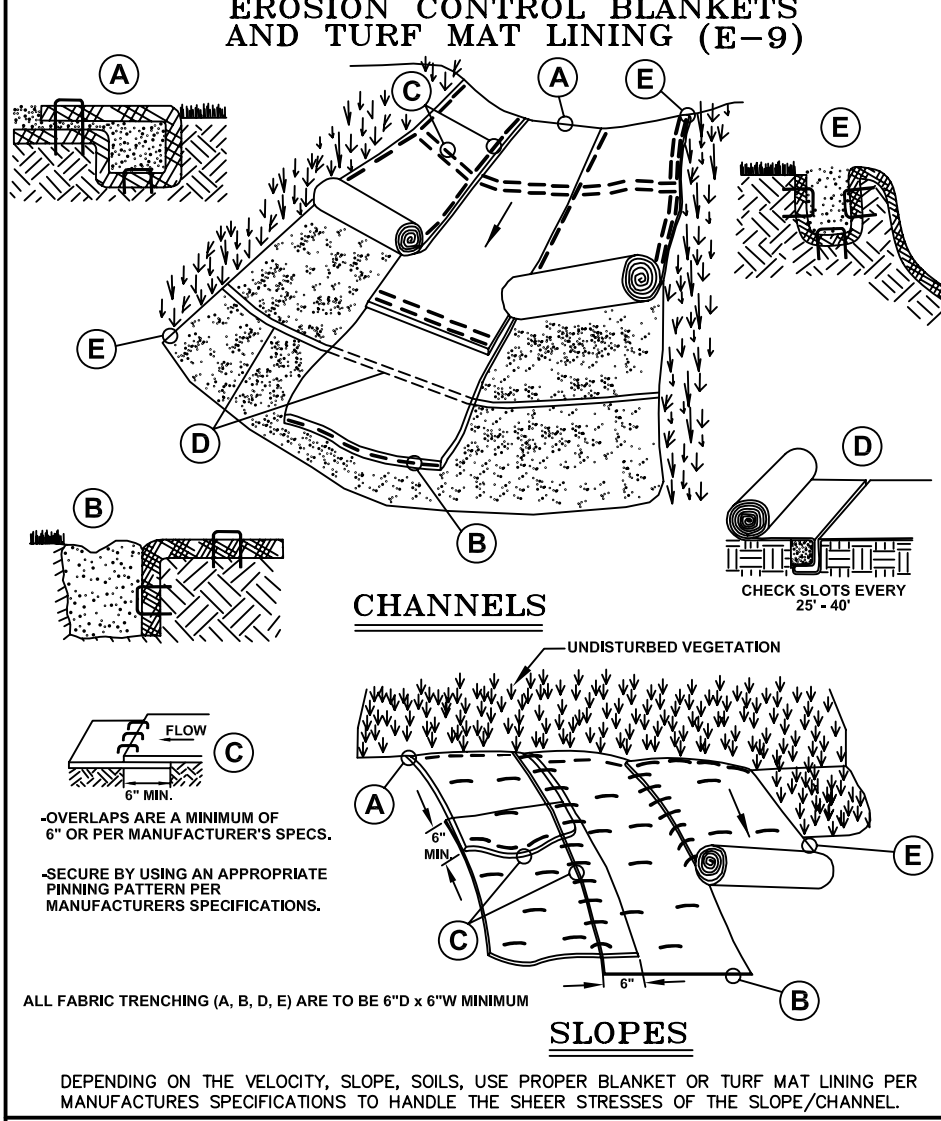
City of Rochester Hills
1000 Rochester Hills Drive, Rochester Hills, Michigan 48309

SANITARY SEWER STANDARD DETAILS

NOT TO SCALE	DATE: 7/21/2008
SHEET 2 OF 2	



City File #73-175.2



NOTE:
ALL OF THE DETAILS SHOWN ON THIS SHEET, ALONG WITH INFORMATION PERTAINING TO PLAN PREPARATION, DESIGN CRITERIA AND GENERAL NOTES, ETC., ARE INCLUDED IN THE OAKLAND COUNTY DRAIN COMMISSIONER'S EROSION CONTROL MANUAL. PLEASE CONTACT THE EROSION CONTROL UNIT AT (248) 858-5389 TO OBTAIN A COPY OF THE MANUAL.

City File #73-175.2

SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

REV.	DATE	DESCRIPTION
1	01/10/01	ISSUED
2	01/10/01	ISSUED
3	01/10/01	ISSUED
4	01/10/01	ISSUED

ORG. DATE: 01/10/01
SCALE: NONE
DESIGNED BY: OCCDC
DRAWN BY: OCCDC Mapping

ONE PUBLIC WORKS DRIVE, BLDG 95 WEST WATERFORD, MICHIGAN 48328-1907
SHEET NO: 1 of 1