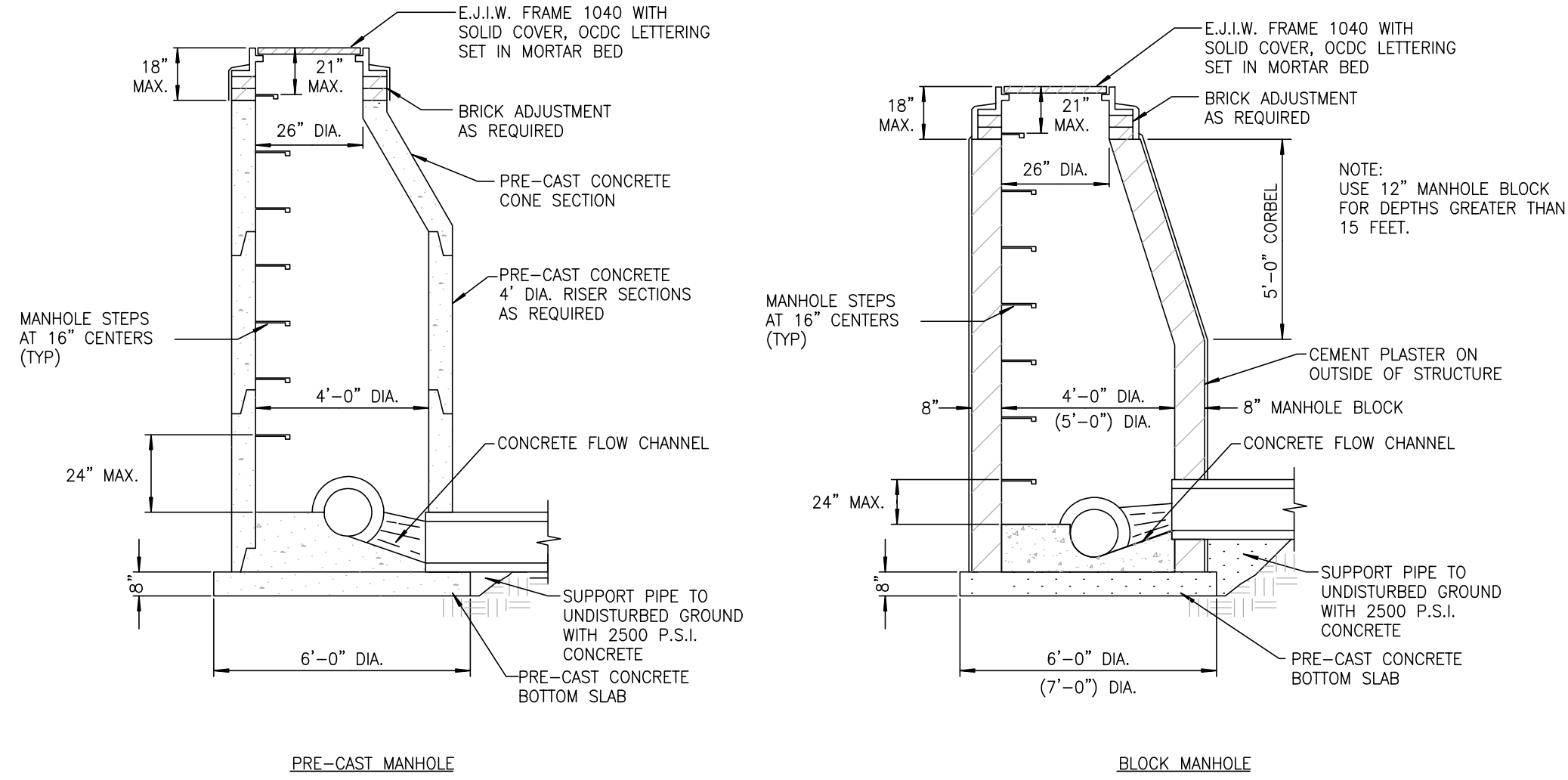
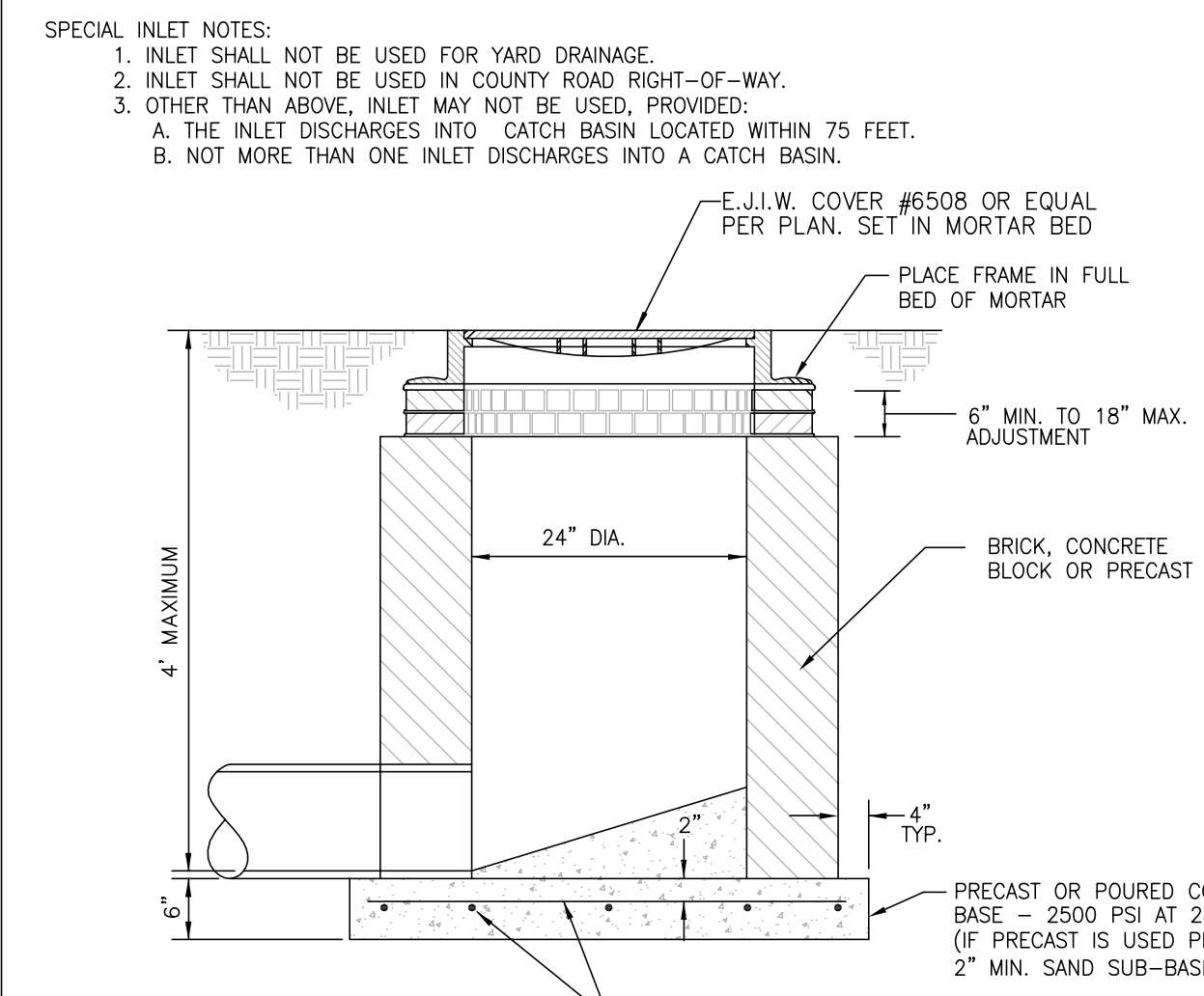


HOUSE LEAD DETAIL FOR 4" DIA. PLASTIC SUMP PUMP LEADS



STANDARD MANHOLE DETAILS

NOTE:
ALL MANHOLE, CATCH BASINS OR INLET STRUCTURE STEPS SHALL BE M.A. INDUSTRIES INC. NUMBERS PS1-B OR PS-2-PFS OR APPROVED EQUAL.



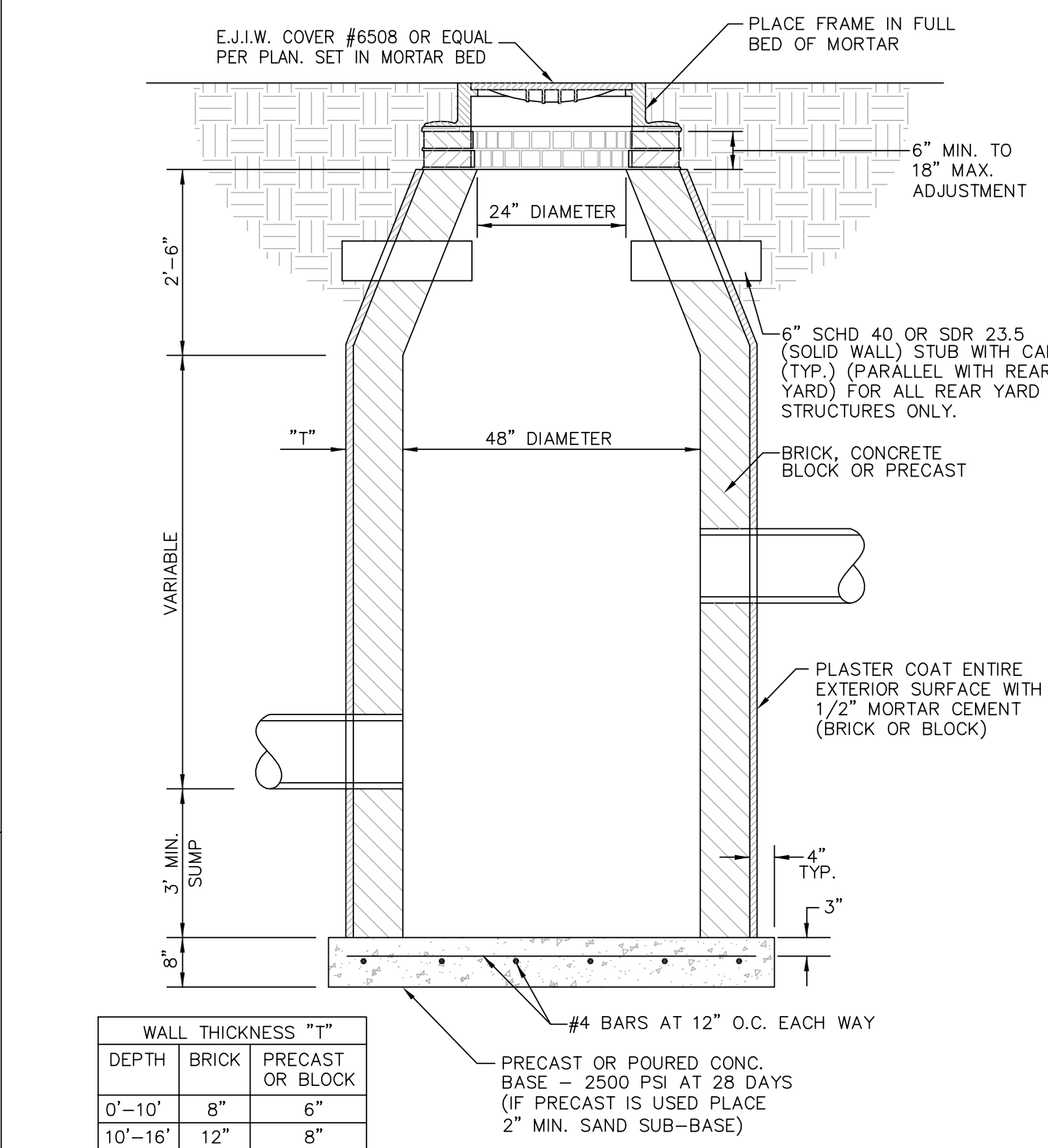
INLET DETAIL

SPECIAL INLET NOTES:
1. INLET SHALL NOT BE USED FOR YARD DRAINAGE.
2. INLET SHALL NOT BE USED IN COUNTY ROAD RIGHT-OF-WAY.
3. OTHER THAN ABOVE, INLET MAY NOT BE USED, PROVIDED:
A. THE INLET DISCHARGES INTO CATCH BASIN LOCATED WITHIN 75 FEET.
B. NOT MORE THAN ONE INLET DISCHARGES INTO A CATCH BASIN.

GENERAL NOTES

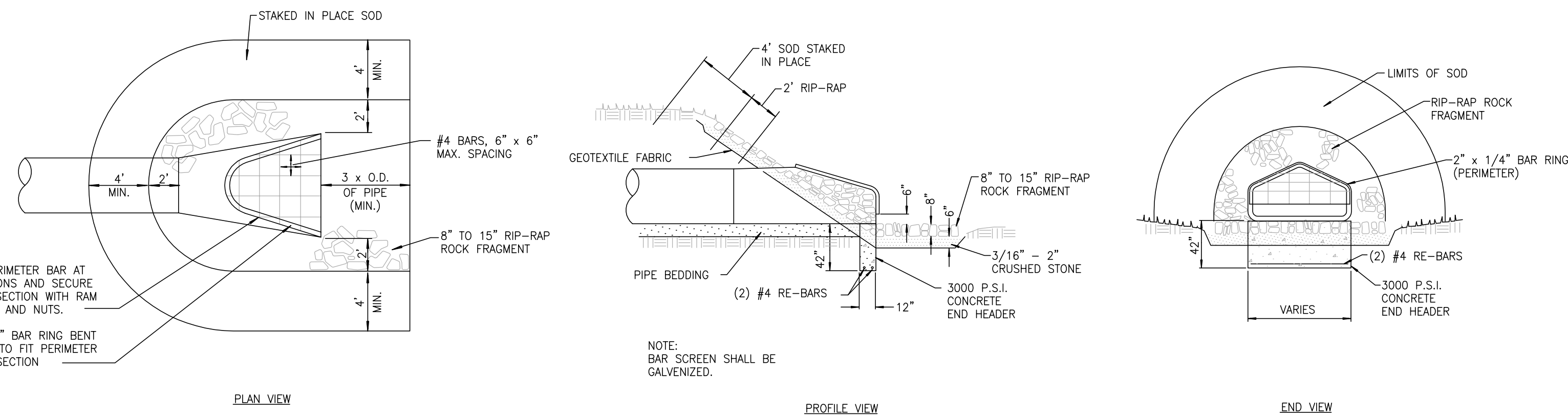
- TYPE AND CLASS OF PIPE SHALL BE AS SPECIFIED ON PLANS.
- CLASS "B" BEDDING SHALL BE USED THROUGHOUT, UNLESS OTHERWISE SPECIFIED ON THE PLAN.
- ALL END SECTIONS 18" AND LARGER SHALL BE PROVIDED WITH A GALVANIZED BAR SCREEN.
- CORRUGATED STEEL PIPE REQUIREMENTS:
 - CORRUGATED STEEL PIPE SHALL BE PROVIDED CORRESPONDING TO THE DIAMETER OR ARCH SHAPE (RISE AND SPAN) AS SPECIFIED ON THE PLANS.
 - GAUGE THICKNESS SHALL BE AS SPECIFIED ON THE PLANS.
 - A PAVED INVERT SHALL BE PROVIDED IF SPECIFIED ON THE PLANS.
 - ALL CORRUGATED STEEL PIPE SHALL BE GALVANIZED AND COATED WITH BITUMINOUS ASPHALT TO RETARD CORROSION. AS AN ALTERNATE TO THIS REQUIREMENT, AN ALUMINIZED STEEL PIPE, OR APPROVED EQUAL, MAY BE SUBSTITUTED.
 - ALL CORRUGATED STEEL PIPE SHALL BE JOINED TOGETHER WITH A WATER-TIGHT CIRCUMFERENTIALLY CORRUGATED STEEL COUPLING BAND FURNISHED WITH TWO (2) RUBBER GASKETS.
 - CORRUGATED STEEL PIPE SHALL HAVE WELDED SEAMS WITH HELICAL CORRUGATIONS. EACH END OF THE HELICAL CORRUGATED PIPE SHALL BE RE-ROLLED TO AN ANNULAR CONFIGURATION TO ACCOMMODATE DATE, THE WATER-TIGHT COUPLING BAND DESCRIBED HEREIN. RIVETED OR LOCK SEAM PIPE IS UNACCEPTABLE.
 - PIPE CONNECTIONS TO THE SIDE WALL OF MAIN-LINE CORRUGATED STEEL PIPE SHALL BE OF THE DIAMETER SPECIFIED ON THE PLANS AND SHALL CONSIST OF SIMILAR STEEL PIPE THAT CONNECTS OR TAPS INTO THE MAIN-LINE PIPE WALL USING A PRE-FABRICATED STEEL SADDLE PLATE.
- CONCRETE PIPE REQUIREMENTS:
 - THE CONTRACTOR SHALL PROVIDE REINFORCED CONCRETE PIPE AS SPECIFIED ON THE PLANS.
 - ALL REINFORCED CONCRETE PIPE SHALL HAVE MODIFIED GROOVED TONGUE JOINTS WITH O-RING TYPE RUBBER GASKET, PER A.S.T.M. SPECIFICATIONS C443.
 - THE INSIDE JOINTS OF PIPE SIZES OVER 27" DIAMETER SHALL BE POINTED UP WITH MORTAR UPON COMPLETION OF BACKFILLING OPERATIONS.
- SUMP PUMP LEAD REQUIREMENTS:
 - ALL SUMP PUMP LEADS CONNECTED TO A COUNTY DRAIN SHALL BE PRE-MANUFACTURED.
 - SUMP PUMP MAINS AND LEADS SHALL BE A SDR 35, NON-PERFORATED, SOLID WALL, PVC TRUSS PIPE, OR APPROVED EQUAL, WITH PREMIUM JOINTS.
 - ENDS OF ALL 4" SUMP PUMP LEADS SHALL BE TEMPORARILY CAPPED AND THEIR LOCATION STAKED, WITNESSED AND RECORDED.
 - ALL SUMP PUMP LEADS TO BE TAKEN TO THE PROPERTY LINE, EASEMENT LINE OR AS INDICATED ON THE PLAN.
 - SUMP PUMP CLEANOUTS SHALL BE A MINIMUM INSIDE DIAMETER OF 24" AND BE CONSTRUCTED AT CHANGES OF ALIGNMENT, ENDS OF SUMP PUMP MAINS OR AS INDICATED ON THE PLAN.
- 12" INLET AND OUTLET SEWER TO HAVE A GRADE OF NOT LESS THAN 0.2% UNLESS OTHERWISE NOTED.
- PRE-CAST CONCRETE BASE MAY BE USED MUST BE SET LEVEL ON A SAND CUSHION OF NOT LESS THAN 2" NOR THAN 4".

- SPECIAL CATCH BASIN NOTES:
- DIAMETER OF "YARD" CATCH BASIN MAY BE REDUCED TO 36" PROVIDED THERE IS ONLY ONE (1) PIPE IN THE STRUCTURE AND THE DISTANCE TO THE OUTLET MANHOLE IS LESS THAN 150 FEET.
 - CATCH BASIN MUST DISCHARGE INTO MANHOLES AND NOT INTO OTHER CATCH BASINS, EXCEPT:
 - WHERE CATCH BASIN IS A "YARD" TYPE WITH NOT MORE THAN THREE (3) CATCH BASINS DISCHARGING INTO IT.
 - WHERE CATCH BASIN IS A "PAVEMENT TYPE" DISCHARGING INTO ANOTHER CATCH BASIN LOCATED WITHIN 75 FEET.
 - STEPS SHALL BE PLACED IN ALL 48" DIAMETER STRUCTURES MORE THAN 4' DEEP.
 - ALL BACKFILL AROUND THE STRUCTURE SHALL BE 1/4" TO 1/2" ANGULAR STONE UP TO THE SPRINGLINE OF THE HIGHEST PIPE. THE REMAINING BACKFILL (TO GRADE) SHALL BE SAND COMPACTED IN 12" LIFTS.

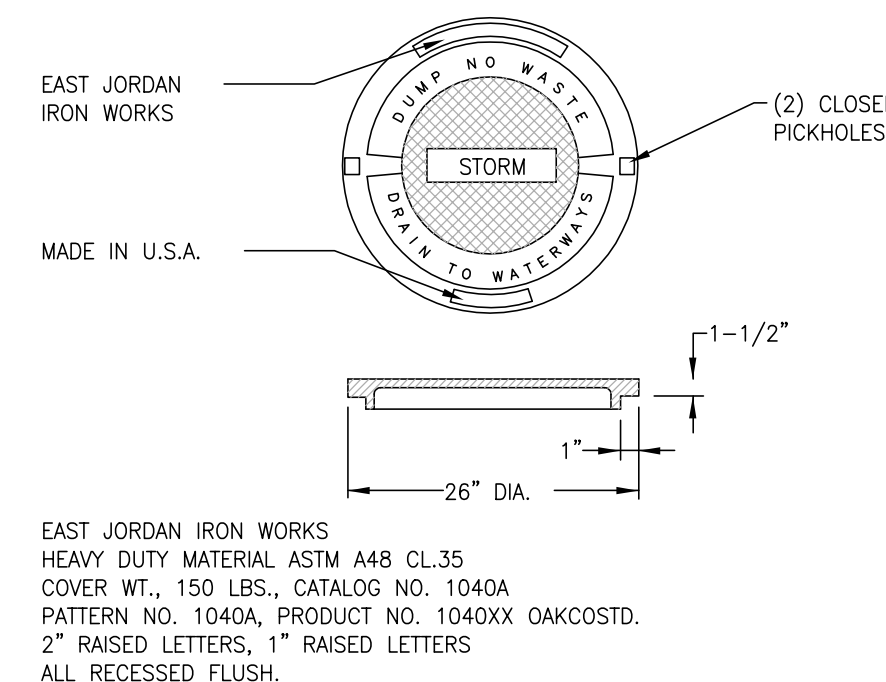


CATCH BASIN DETAIL

WALL THICKNESS "T"	BRICK	PRECAST OR BLOCK
0'-10"	8"	6"
10'-16"	12"	8"



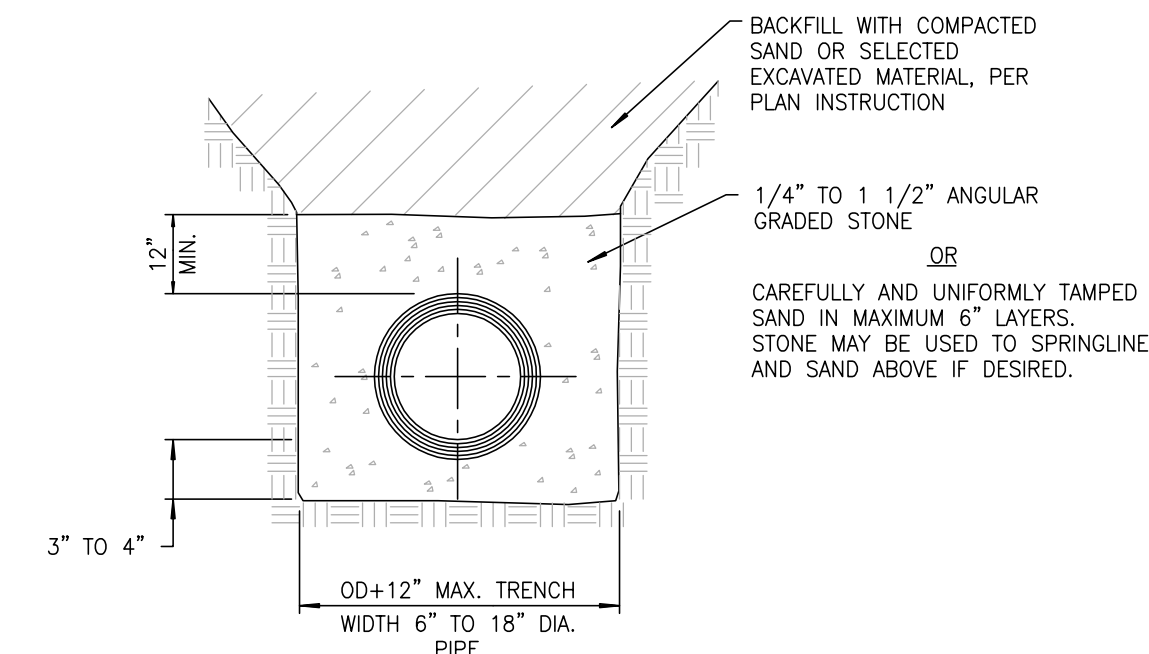
END SECTION AND BAR SCREEN DETAIL



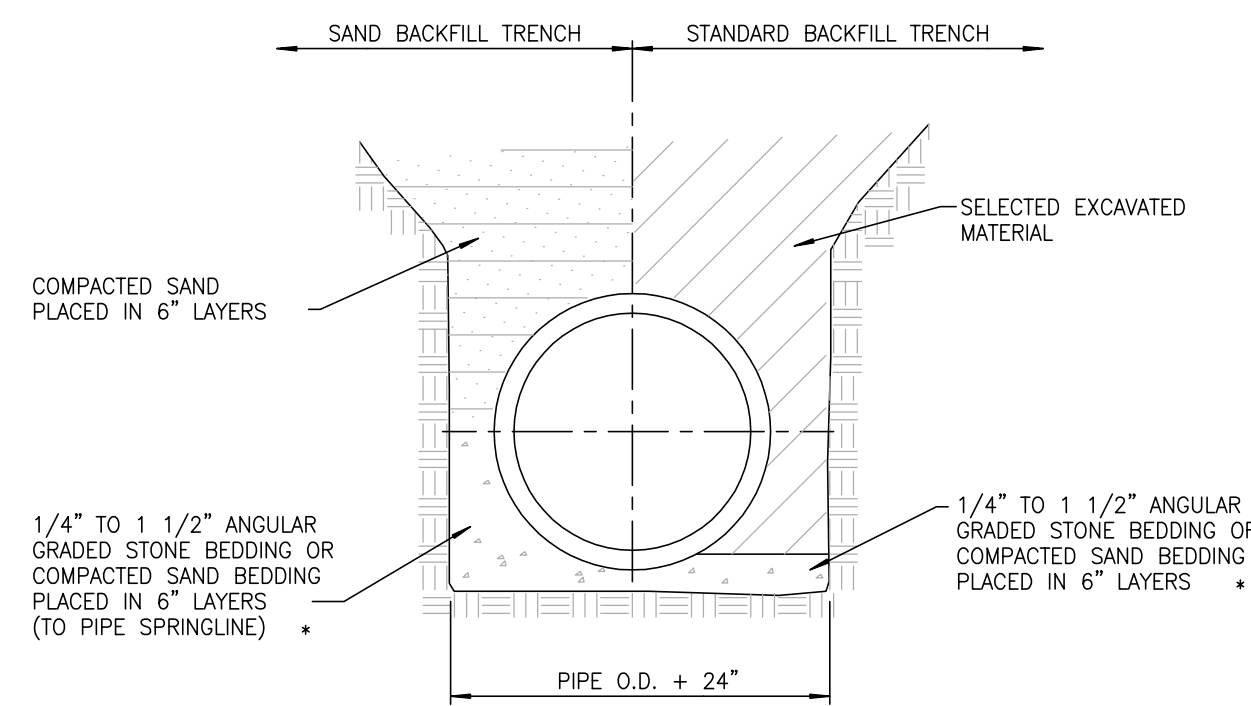
LETTERED MANHOLE COVER

EAST JORDAN IRON WORKS
HEAVY DUTY MATERIAL ASTM A48 CL.35
COVER WT., 150 LBS., CATALOG NO. 1040A
PATTERN NO. 1040A, PRODUCT NO. 1040XX OAKCOSTD.
2" RAISED LETTERS, 1" RAISED LETTERS
ALL RECESSED FLUSH.

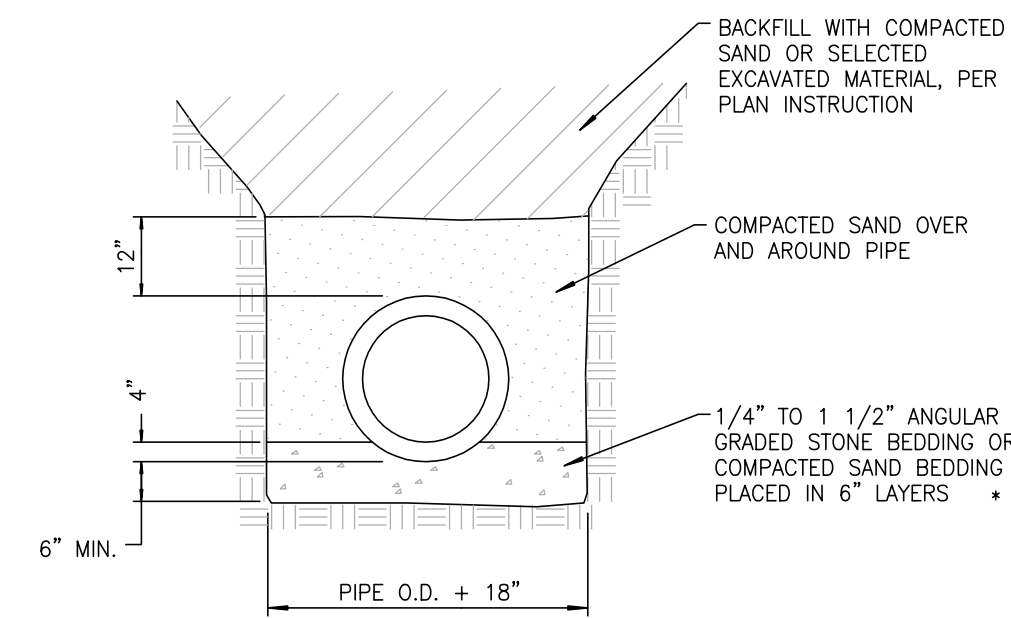
NOTE:
IN DRY, STABLE SOILS, PEASTONE (EQUIVALENT TO M.D.O.T. 34R SPECIFICATIONS) MAY BE SUBSTITUTED FOR THE STANDARD BEDDING INDICATED BELOW. IF TRENCH IS WET OR UNSTABLE A GEOTEXTILE FABRIC MUST BE USED TO LINE THE TRENCH PRIOR TO THE PLACEMENT OF THE PEASTONE.



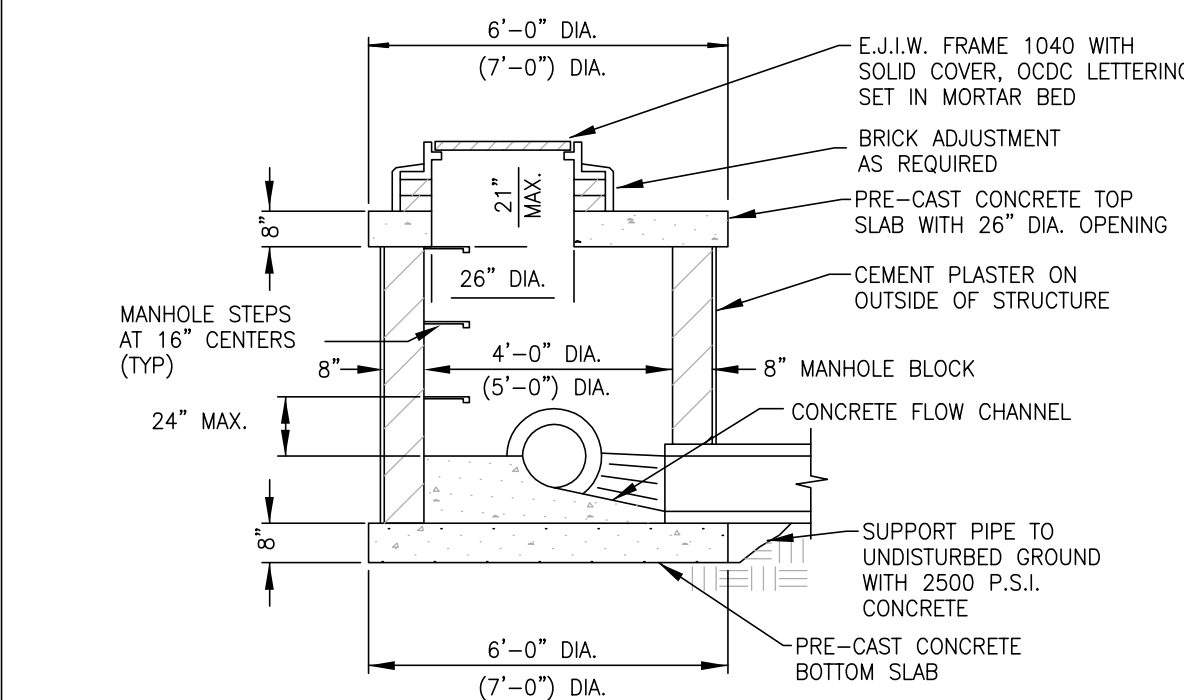
P.V.C., SOLID WALL, AND TRUSS PIPE BEDDING DETAIL



CLASS "B" BEDDING TRENCH DETAIL FOR 27" DIAMETER AND LARGER PIPE



CLASS "B" BEDDING TRENCH DETAIL FOR 24" DIAMETER AND SMALLER PIPE



LOW HEAD MANHOLE DETAIL

NO.	BY:	DATE:	REVISION DESCRIPTION:
01		02-16-2005	UPDATED DETAIL SHEET
02		08-09-2005	UPDATED PER BTEES
03		11-22-2005	UPDATED PER BTEES

STORM SEWER STANDARD DETAILS AND NOTES



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24 HRS: (248) 433-7730
www.BloomfieldTwp.org

DRAWN	DATE
	02/16/05
CHECKED	DATE
	02/16/05
PROJECT MANAGER	SCALE
	NO SCALE

SHEET NO.:

OF