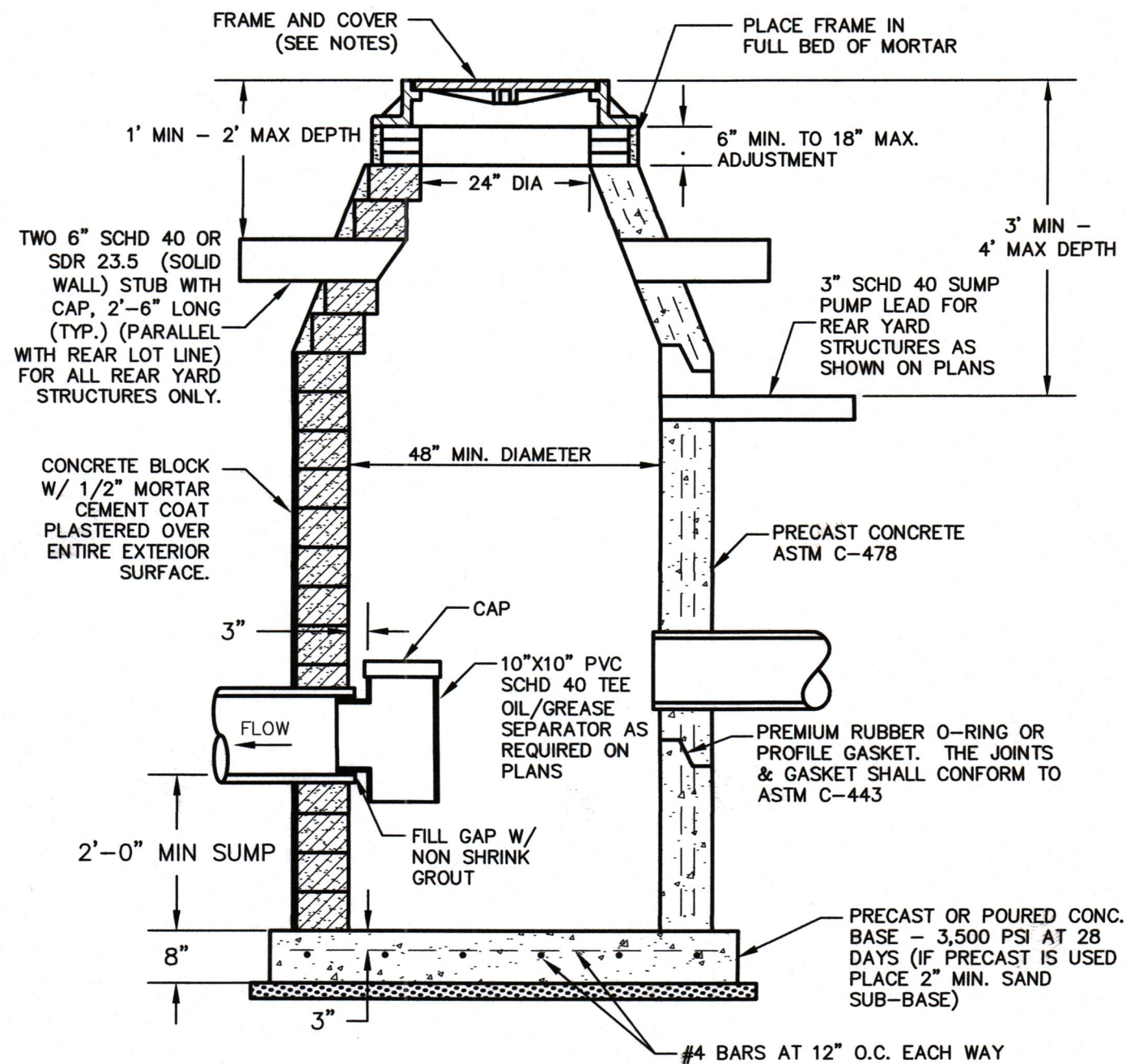


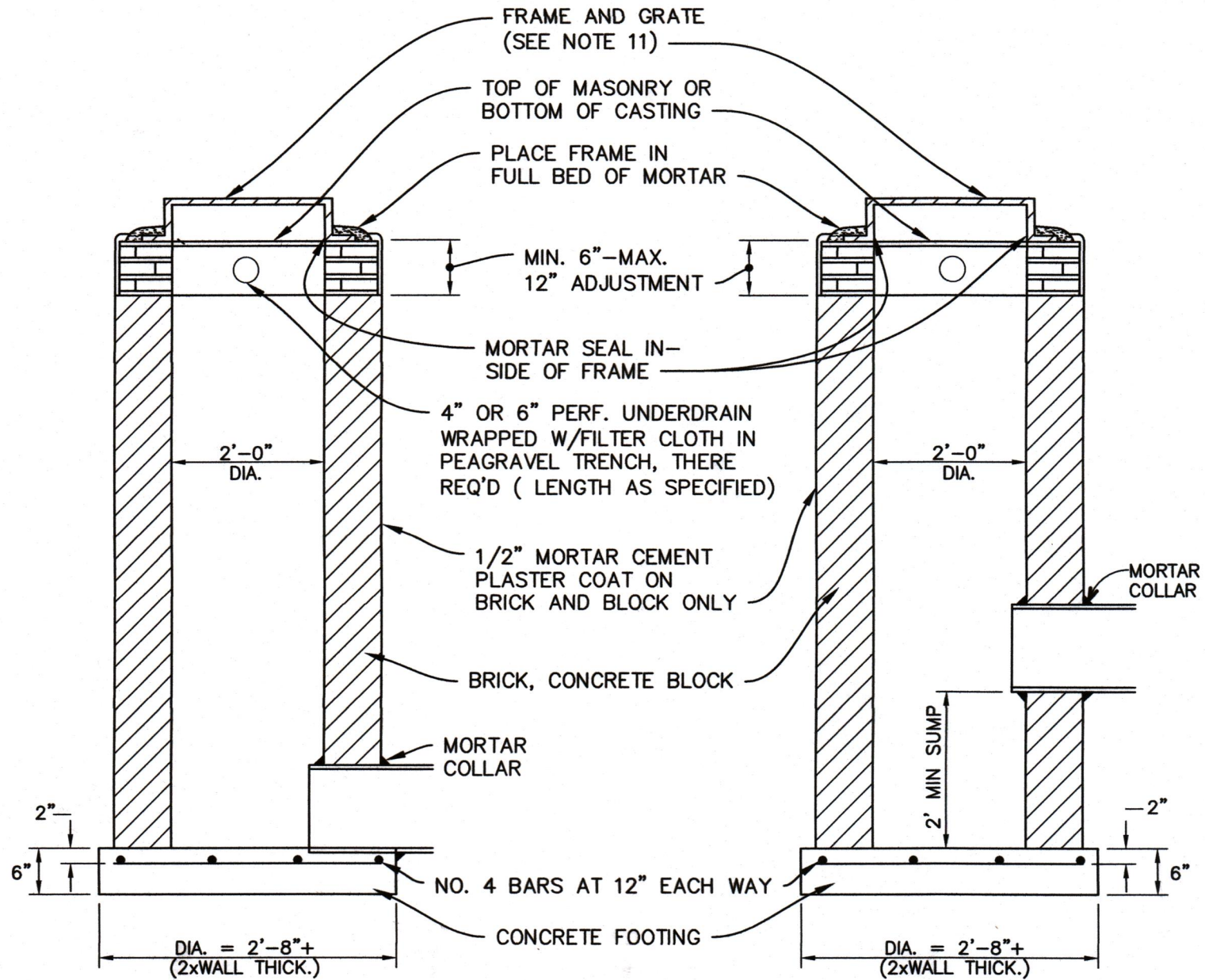
SPECIAL CATCH BASIN NOTES:

- 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.
- STEPS SHALL BE PLACED IN ALL CATCH BASINS MORE THAN 7' DEEP OR CATCH BASINS WITH OIL/GREASE SEPARATORS. STEPS SHALL BE FACTORY INSTALLED BY MA INDUSTRIES, PS-1 (PRECAST MH), PS-1B (BLOCK MH) POLYPROPYLENE, OR APPROVED EQUAL. AT 16" O.C. BOTTOM STEP 24" (MAX.) ABOVE BOTTOM, AND TOP STEP 16" BELOW TOP OF STRUCTURE @ 45° FROM Ø OF PIPE.
- IF STEPS ARE TO BE INSTALLED, THAN ECCENTRIC CONES SHALL BE INSTALLED (PER ASTM C-478 FOR PRE-CAST STRUCTURES).

CB I.D.	MIN BASE SIZE	PRE-CAST WALL THICKNESS
36"	5'	4"
48"	6'	5"

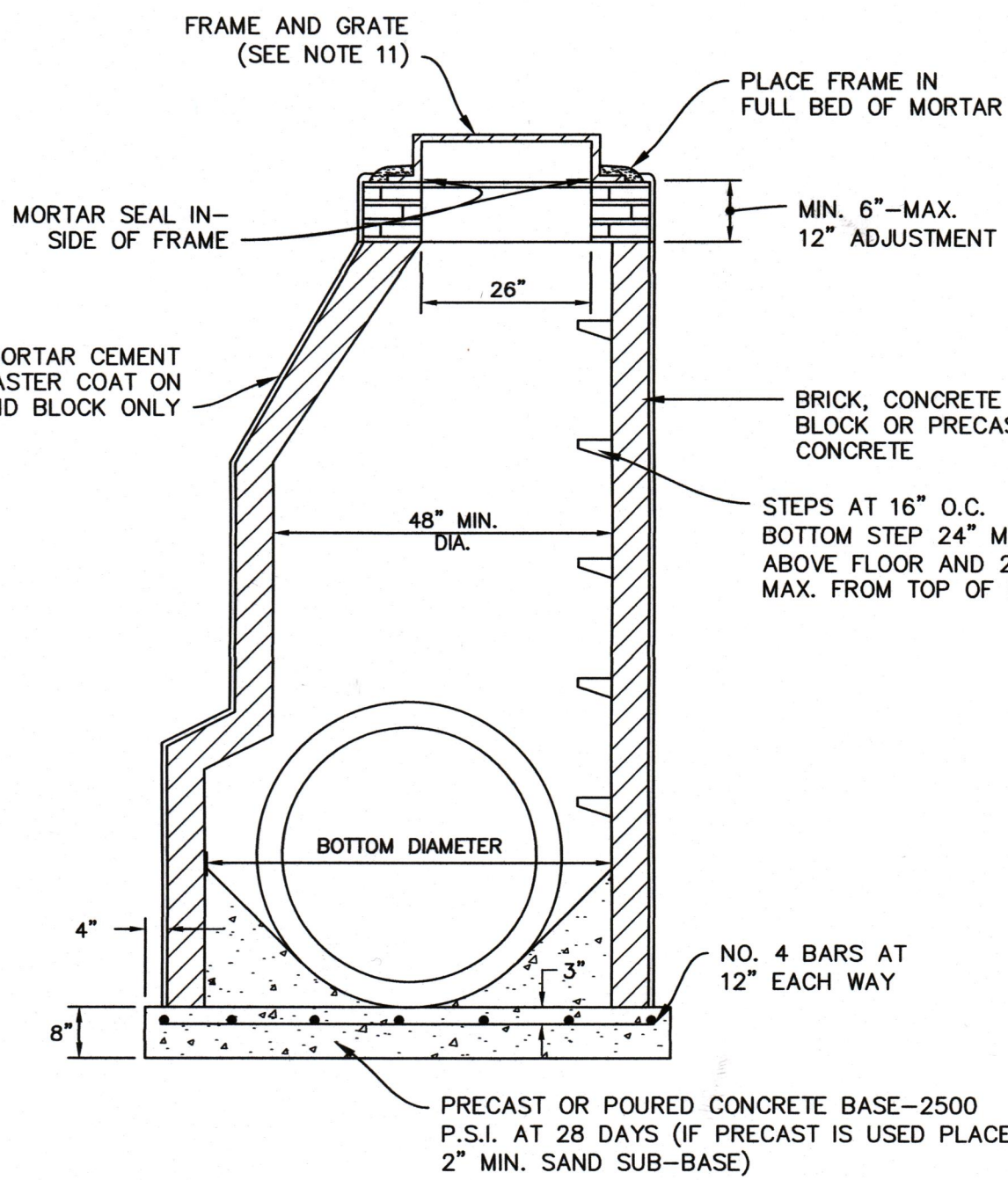


4' STORM SEWER CATCH BASIN



2 FT. DIAMETER INLET

2 FT. DIAMETER CATCH BASIN

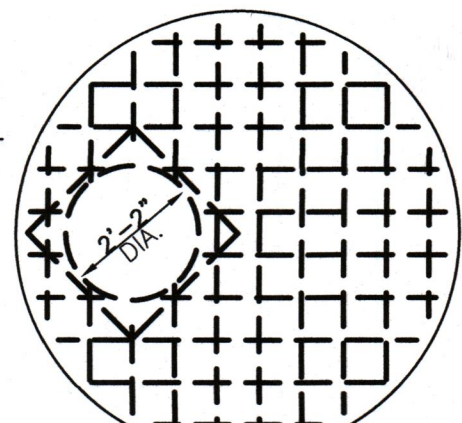


STORM SEWER MANHOLE "A"

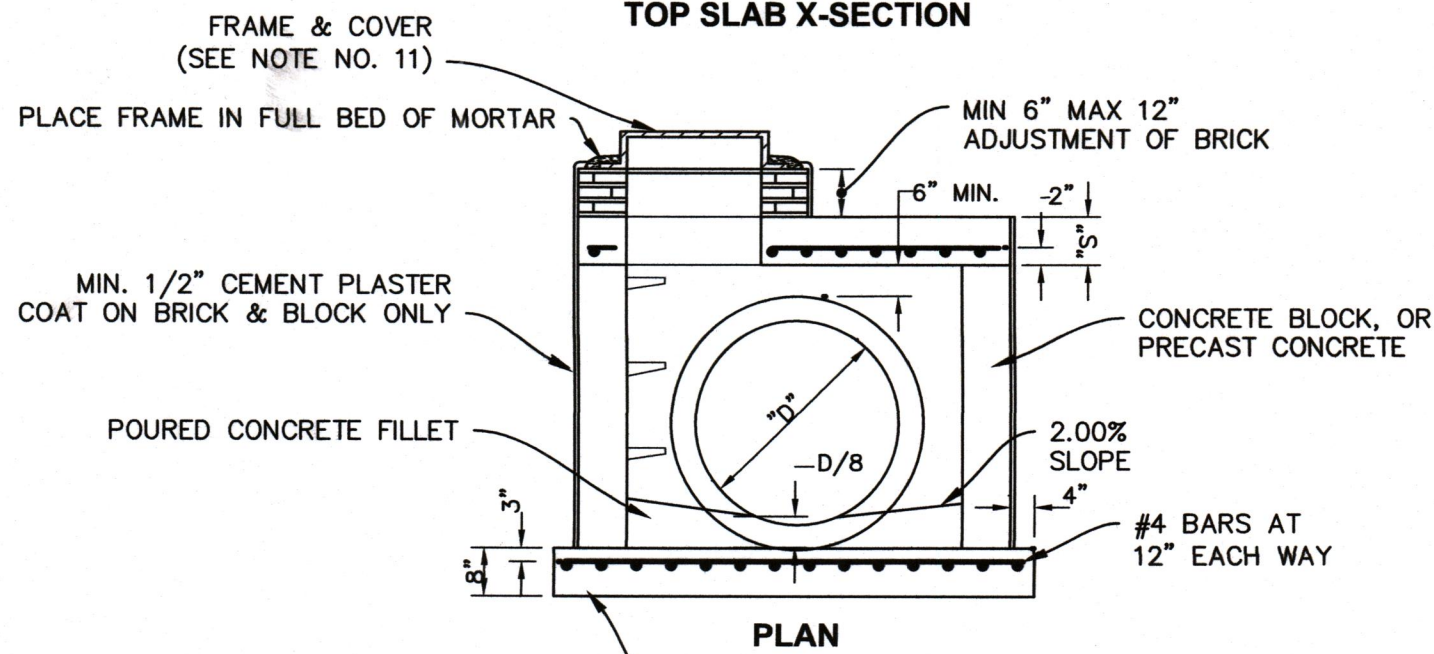
SEWER PIPE SIZE (I.D.)	BOTTOM DIA. (IF NOT ON PLANS)
27" OR LESS	48"
30" TO 42"	60"
48" TO 54"	72"

M.H. MAY BE INCREASED ON PLANS DEPENDING ON ANGLE OF SEWERS.

REINFORCING STEEL REQUIREMENTS IN TABLE BELOW



TOP SLAB X-SECTION



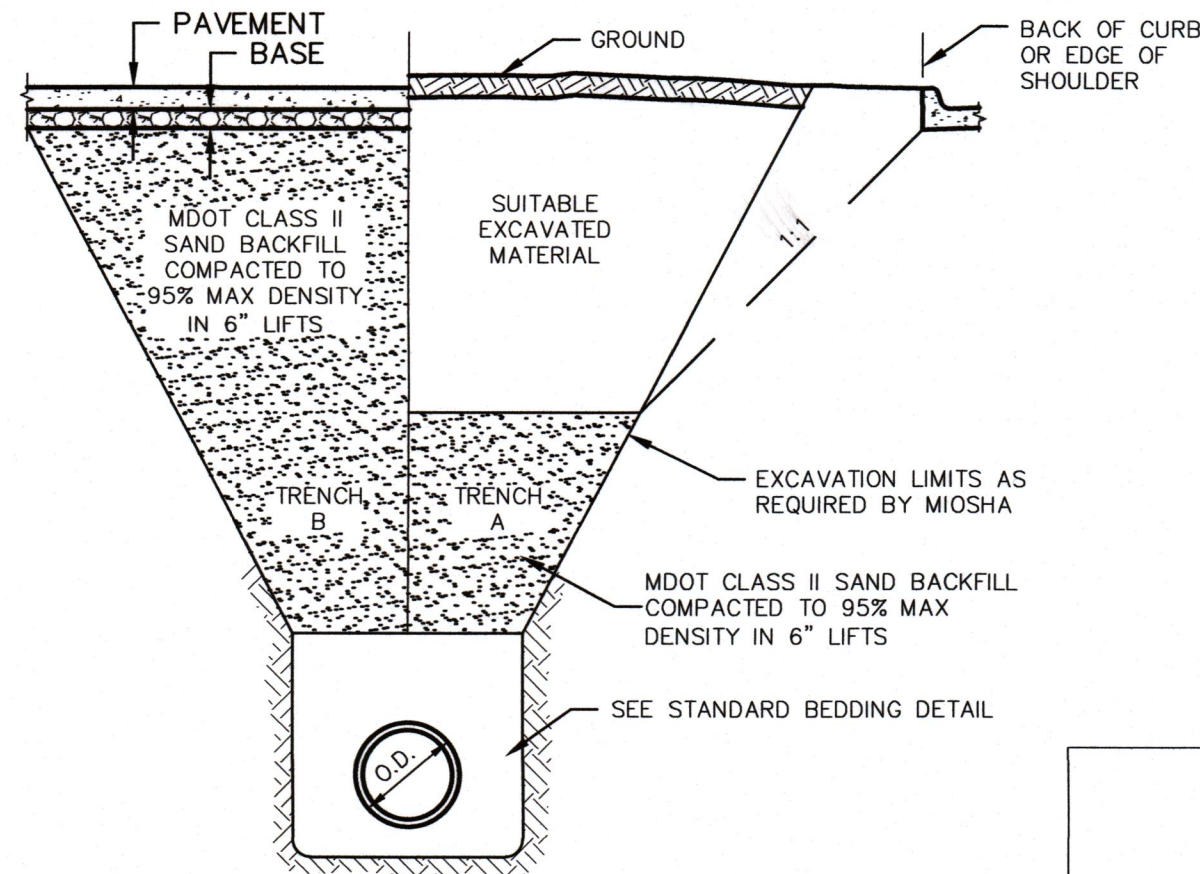
PLAN

OUTLET "D"	M.H. I.D. #	TOP SLAB "S"	REINFORCING STEEL (T.S.)
27" OR LESS	4	9"	3/4" @ 9" EA. WAY
42"	5	10"	3/4" @ 9" EA. WAY
48"-54"	6	11"	7/8" @ 9" EA. WAY
54" OR GREATER	7&8	12"	1" @ 9" EA. WAY

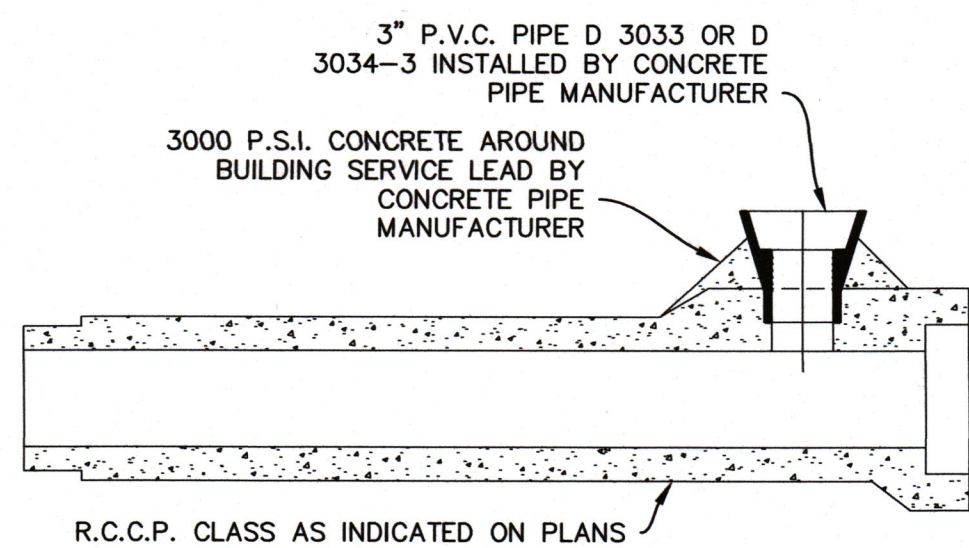
* DIAMETER OF MANHOLE SHALL BE INCREASED AS SHOWN ON THE PLANS DEPENDING ON THE ANGLE OF SEWERS

STORM SEWER MANHOLE "A"

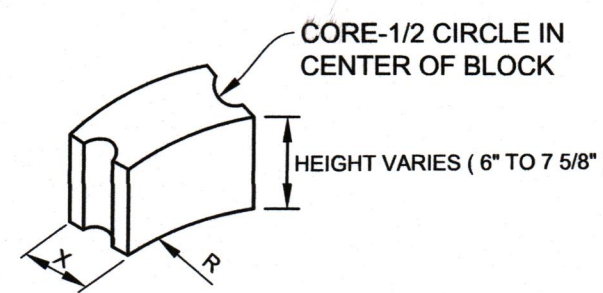
WITH FLAT SLAB TOP



TRENCH DETAIL

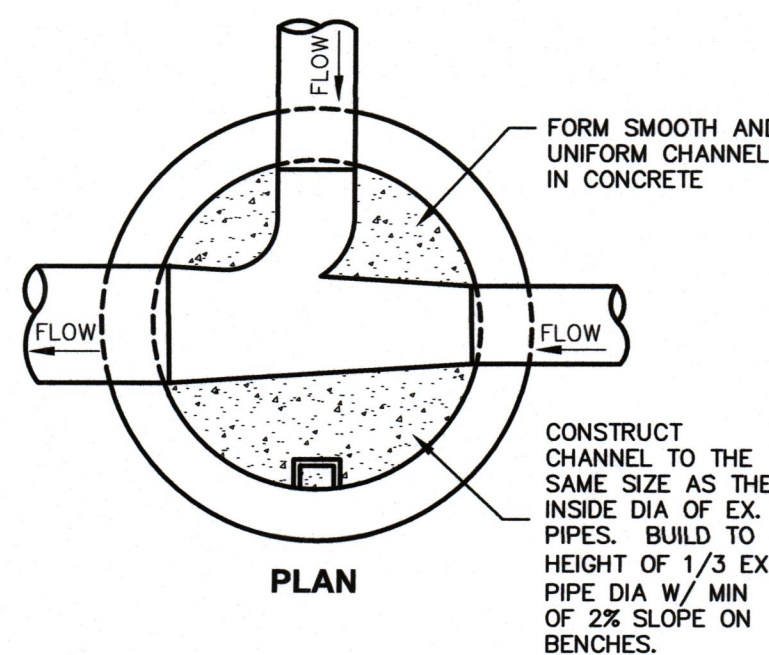


STANDARD WYE DETAIL IN CONCRETE PIPE FOR SUMP PUMP CONNECTION

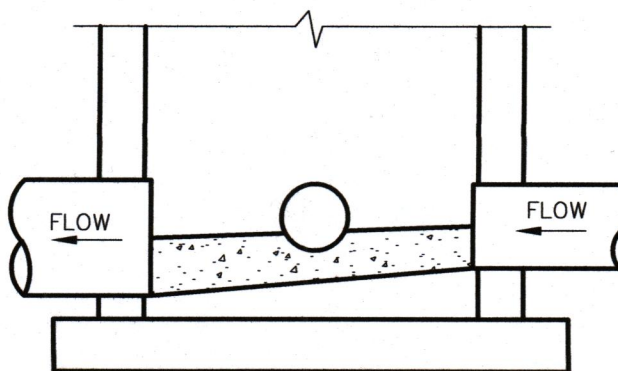


CONCRETE BLOCKS FOR DRAINAGE STRUCTURES

STRUCTURE DIAMETER	R	X
2'-0"	1'-0"	6"
3'-0"	1'-6"	6" OR 8"
4'-0"	2'-0"	6", 8" OR 12"

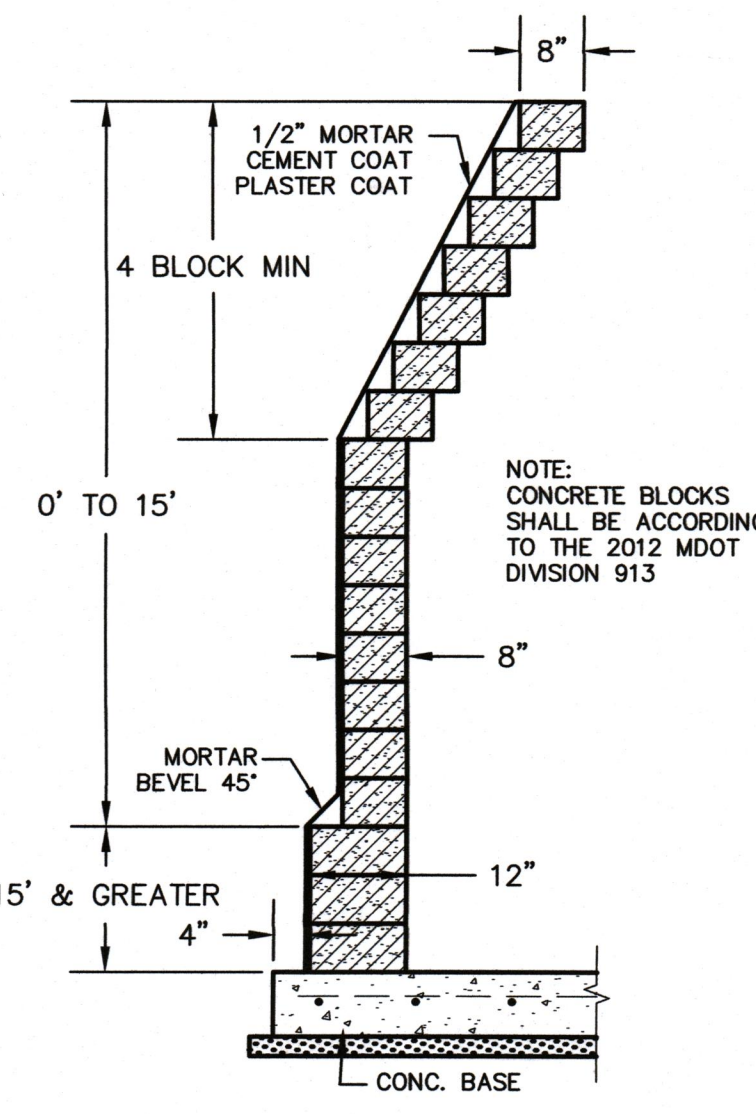


PLAN



SECTION A-A

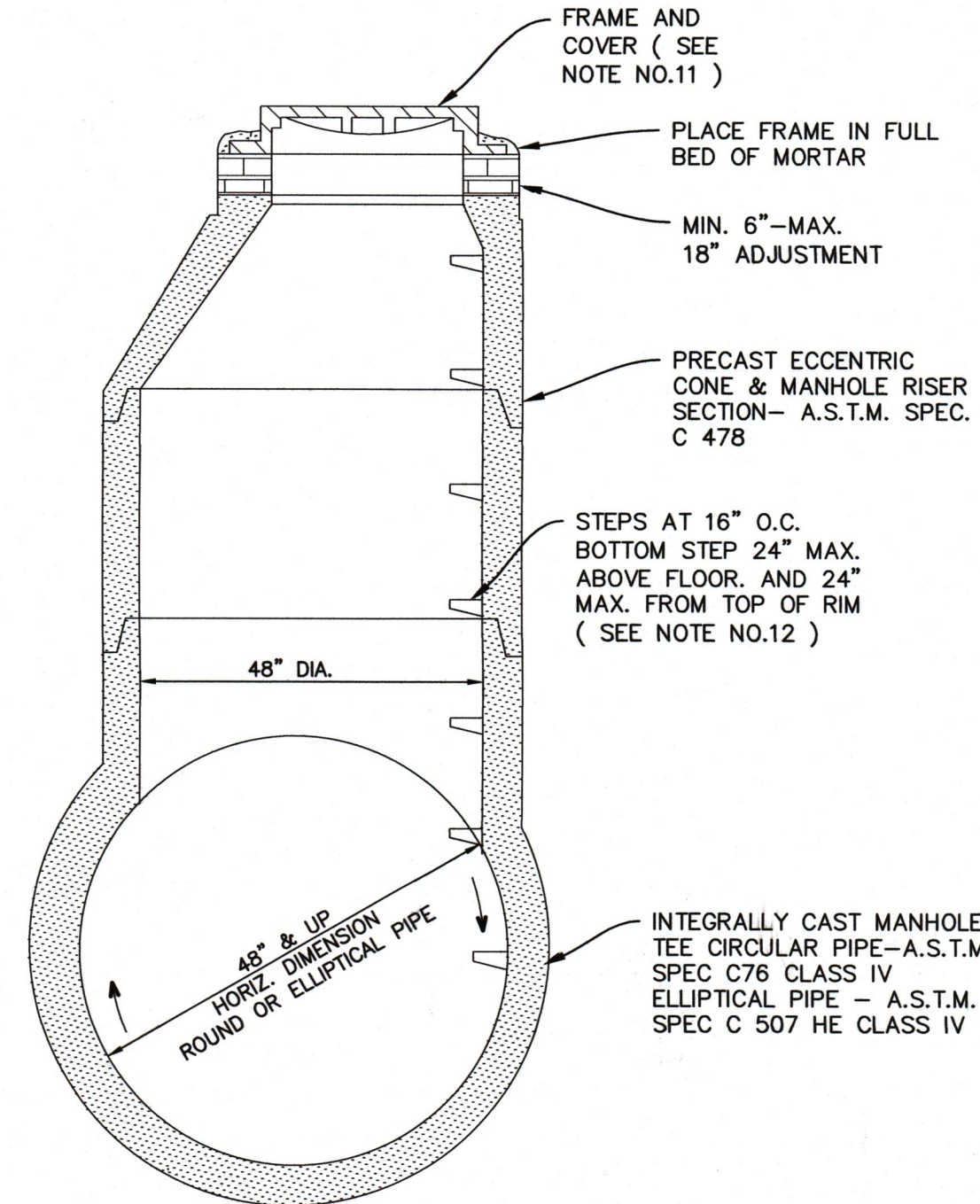
CHANNEL DETAIL



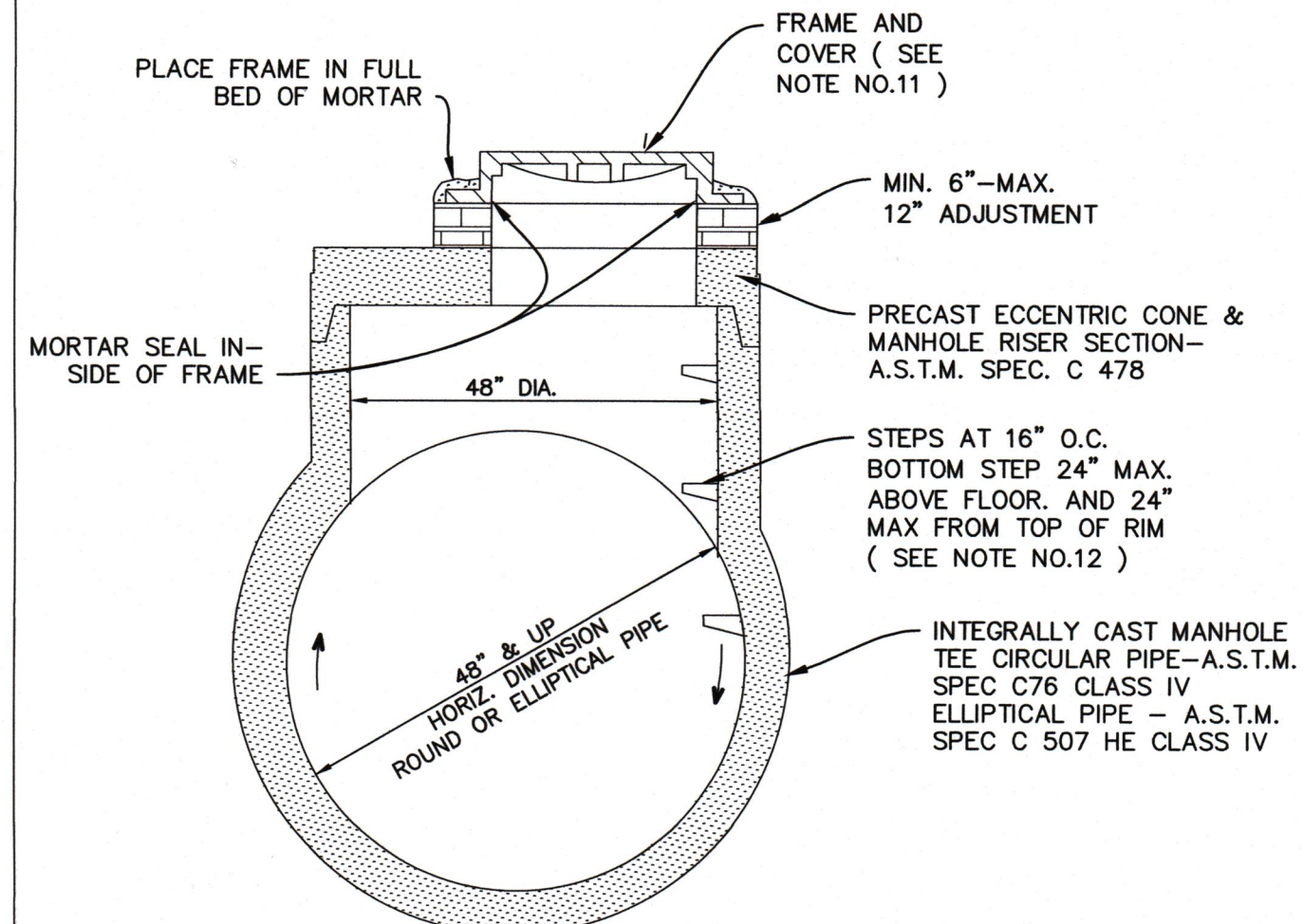
CONC. BLOCK WALL SECTION

STORM SEWER NOTES

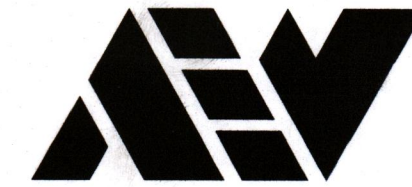
- AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL GIVE NOTIFICATION OF HIS INTENTION TO BEGIN CONSTRUCTION TO THE CITY OF MOUNT CLEMENS.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST HAVE IN HIS POSSESSION A COPY OF A VALID PERMIT TO CONSTRUCT A CONNECTION TO, OR AN EXTENSION OF, THE STORM WATER DRAINAGE SYSTEM, FROM REQUIRED AGENCY ON THE JOB AT ALL TIMES OF CONSTRUCTION.
- THE CONTRACTOR SHALL SECURE PERMITS FROM MACOMB COUNTY OFFICE OF PUBLIC WORKS AND/OR MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) FOR TAPS AND CROSSINGS OF ALL COUNTY/STATE DRAINS AND SHALL PAY THE COSTS OF SAID PERMITS AND THE COST OF ANY INSPECTION CHARGES BY THAT AGENCY FOR WORK DONE UNDER THE PERMITS.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL TELEPHONE MISS DIG (811) FOR LOCATION OF UNDERGROUND FACILITIES, AND SHALL ALSO NOTIFY REPRESENTATIVES OF ANY OTHER FACILITIES, LOCATED IN THE VICINITY OF THE WORK, WHICH MAY NOT BE HANDLED BY MISS DIG.
- ALL STORM WATER DRAINAGE SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY, COUNTY ROAD COMMISSION, MDOT AND/OR COUNTY PUBLIC WORKS COMMISSION AS APPLICABLE.
- ALL REINFORCED CONCRETE SEWER PIPE SHALL CONFORM TO ASTM SPECIFICATION C76 WITH CLASS DESIGNATION ON PLANS.
- UNLESS OTHERWISE INDICATED ON THE PLANS, ALL STORM SEWER JOINTS SHALL BE TONGUE AND GROOVE WITH RUBBER "O" RING GASKETS.
- UNLESS OTHERWISE INDICATED ON THE PLANS, ALL STORM SEWER BEDDING SHALL BE STANDARD BEDDING.
- ALL WYES AND SUMP PUMP CONNECTIONS SHALL BE 3" POLY VINYL CHLORIDE (PVC) SEWER PIPE SCH 40 OR SDR 23.5.
- ALL STORM SEWER WYE OPENINGS SHALL BE FACTORY INSTALLED EXCEPT WHEN USING ABS TRUSS PIPE FOR SUMP PUMP DISCHARGE OUTLET. WHEREVER POSSIBLE SERVICE CONNECTIONS SHOULD DISCHARGE DIRECTLY INTO A MANHOLE.
- UNLESS OTHERWISE NOTED ON THE PLANS, STRUCTURE FRAME AND COVERS SHALL BE AS FOLLOWS:
MANHOLE (IN ROAD R.O.W.)
E.J.I.W. 1060 PERFORATED COVER OR APPROVED EQUAL (MDOT COVER A)
MANHOLE (OTHER THAN IN ROAD R.O.W.)
E.J.I.W. 1040 FRAME, TYPE C2, PERFORATED COVER OR APPROVED EQUAL. CATCH BASIN OR INLET (PAVEMENT TYPE)
E.J.I.W. 5105 WITH SINUSOIDAL GRATE OR APPROVED EQUAL (MDOT COVER D4)
CATCH BASIN (YARD TYPE) OR SIDE INLET
E.J.I.W. 1040 WITH OVAL GRATE HAVING A RISE ABOVE THE FRAME OF 2.5" OR APPROVED EQUAL.
- UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER, EACH STRUCTURE SHALL BE CONSTRUCTED TOTALLY OF EITHER PRE-CAST CONCRETE SEGMENTS OR BUILT-UP MORTAR & BLOCK.
- PRIVATE DEVELOPMENTS
BEFORE FINAL ACCEPTANCE, A FINAL INSPECTION MUST BE MADE BY THE OWNER AND (1) SET OF AS-BUILT PRINTS MUST BE SUBMITTED, ALONG WITH (1) DIGITAL SET OF AS-BUILT IN PDF FORMAT. AS-BUILT'S SHOULD BE SENT TO THE COMMUNITY DEVELOPMENT DEPARTMENT AT 1 CROCKER BOULEVARD, MOUNT CLEMENS, MI 48043.



STORM SEWER TEE MANHOLE "B" PRECAST ONLY



STORM SEWER TEE MANHOLE "B" WITH FLAT SLAB



ANDERSON, ECKSTEIN AND WESTRICK, INC.

CIVIL ENGINEERS SURVEYORS ARCHITECTS

51301 Schoenherr Road Phone 586 726 1234
Shelby Township Fax 586 726 8780
Michigan 48315

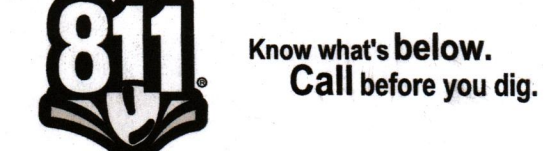
www.aewinc.com

ENGINEERING STRONG COMMUNITIES



DATE	SUBMITTALS/REVISIONS
DRAWN BY: ESR	CHECKED BY: AMC
DATE: DECEMBER 2024	

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Ashley M. Carpenter
ASHLEY M. CARPENTER P.E. NO. 6201309911

DEPARTMENT OF PUBLIC WORKS

APPROVED BY: *Leonard Bertrand*
LEONARD BERTRAND, UTILITIES DIRECTOR

DATE: 4/3/05

mount clemens

STANDARD STORM SEWER DETAILS

SHEET NO.

ST1

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