



ADJUST TO GRADE  
AS PER STD. PL. 2321

CASTINGS A & B  
(UNLESS NOTED OTHERWISE)  
STD. PLATES 2201E & 2202D

ECCENTRIC CONE

12" WIDE POLYPROPYLENE  
(ASTM 2146) ENCASED  
MANHOLE STEPS  
CONFORMING TO ASTM  
C-478. (M.A. INDUSTRIES  
PS-I-PF OR EQUAL)

MORTAR FILLET

PRECAST SLAB  
DESIGN FOR  
EARTH LOAD  
PLUS HS-25 LOAD

72" TO 48" ECCENTRIC  
REDUCER

4'-0" DIA. RISER  
SECTION(S) AS REQ.

PRECAST 72" I.D.  
SECTION

SEE NOTE 6

2 STRIPS  
RAM-NEK  
OR EQUAL

12" MIN.

12" MIN.

16" MAX.

SLOPE

TYPE III

92" DIA. X 8" PRECAST  
MH BASE SLAB

TYPE III-S

PIPE SHALL REST ON  
UNDISTURBED EARTH  
AND SHALL NOT BEAR  
DIRECTLY ON SLAB

NOTES:

1. FOR CONSTRUCTION OF STORM SEWERS 36" I.D. OR LESS AT DIRECTION CHANGES OR OFFSET WHERE DEPTH TO INVERT EXCEEDS 9'
2. PRECAST RISER SECTIONS TO MEET ASTM C-487
3. JOINTS BETWEEN PRECAST SECTIONS SHALL USE O-RING RUBBER GASKET CONFORMING TO ASTM C-443 EXCEPT AS NOTED.
4. POURED CONCRETE INVERT SHALL BE CONCRETE MIX 3Y43
5. FILL SPACE BETWEEN PRECAST KNOCK-OUT AND PIPE WALL WITH MORTAR AND CONCRETE MASONRY.
6. THIS PORTION OF MANHOLE MAY BE CONSTRUCTED OF 8" SOLID CONCRETE MANHOLE BLOCK (SEE SPECIFICATIONS).  
ALL JOINTS SHALL BE COMPLETELY FILLED WITH MORTAR 3/8" THICK.
7. SAW CUT PIPES FLUSH WITH INSIDE WALL OF MANHOLE.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

*Joseph J. Mueller*  
JOSEPH J. MUELLER

Date 5-4-10 Lic. No. 13942

APPROVED  
*[Signature]*  
CITY ENGINEER

CITY OF ST. PAUL  
DEPARTMENT OF PUBLIC WORKS  
MANHOLE, TYPE III & III-S

Date of Revision  
MAY 2010

Standard Plate No.  
2103E