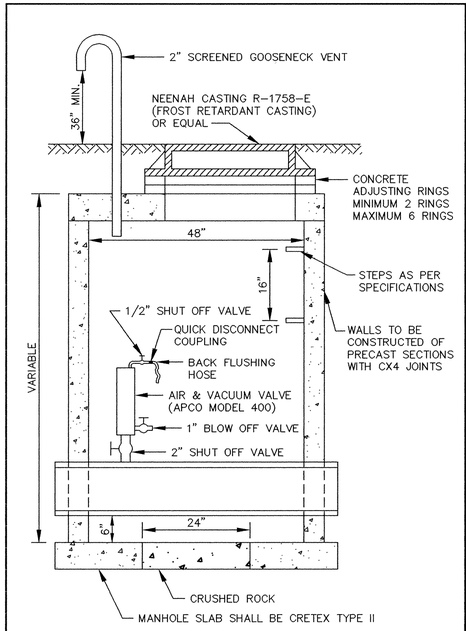
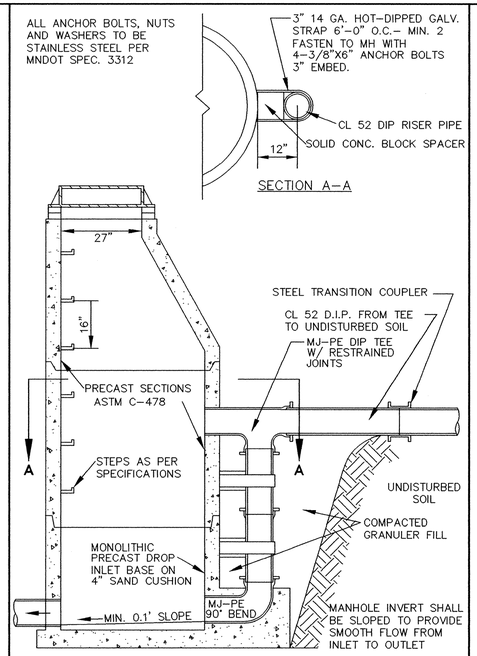
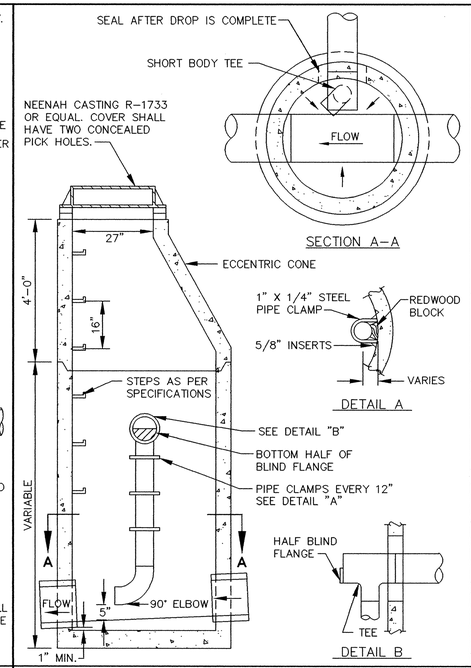


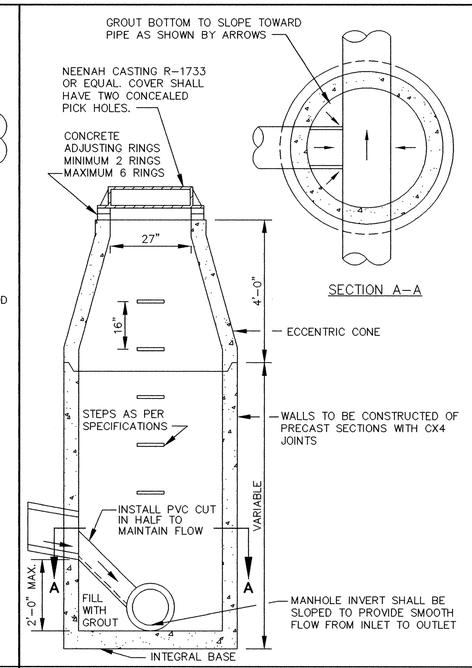
STANDARD AIR RELIEF MANHOLE



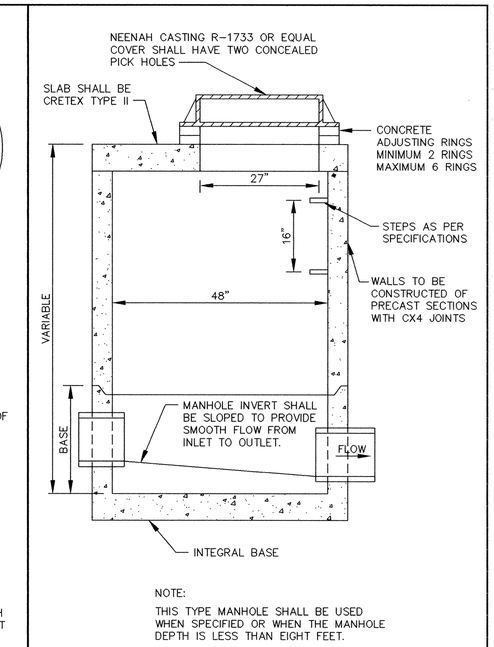
OUTSIDE DROP MANHOLE



INSIDE DROP MANHOLE

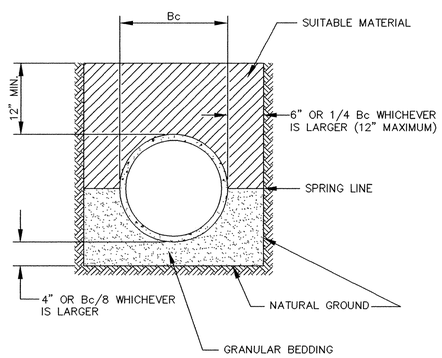


INSIDE DROP MANHOLE (TWO FEET OR LESS)



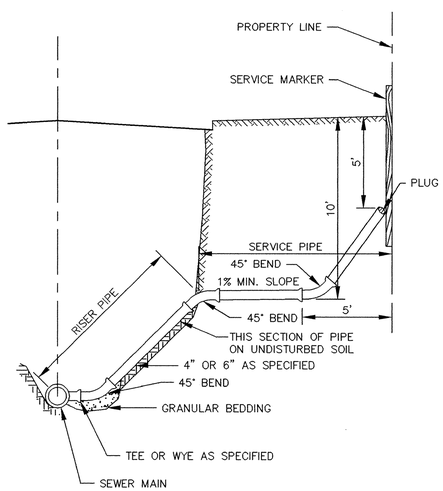
NOTE:
THIS TYPE MANHOLE SHALL BE USED WHEN SPECIFIED OR WHEN THE MANHOLE DEPTH IS LESS THAN EIGHT FEET.

SLAB TOP MANHOLE



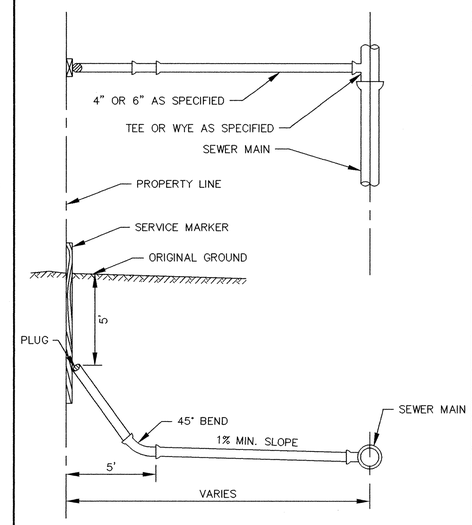
NOTE: ALL COSTS OF EXCAVATION BELOW GRADE AND PLACEMENT OF GRANULAR BEDDING SHALL BE INCLUDED IN THE BID PRICES FOR PIPE ITEMS.

CLASS B PIPE BEDDING

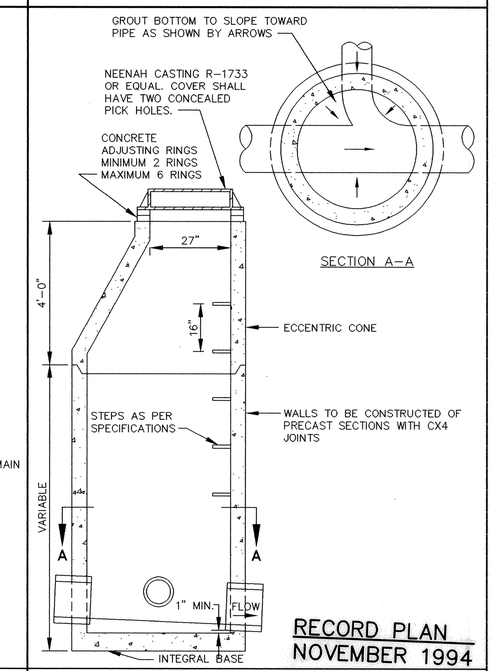


TO BE USED AS SERVICE CONNECTIONS ON DEEP LINES

SERVICE RISER SECTION



TYPICAL HOUSE SERVICE



RECORD PLAN
NOVEMBER 1994

STANDARD MANHOLE

ER194D1

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Mark V. Graham

DATE 7/27/94 REG.NO. 19130

MSA CONSULTING ENGINEERS

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9800 SHELARD PARKWAY
MINNEAPOLIS, MINNESOTA 55441
(612) 546-0432

REVISIONS	DATE	DESCRIPTION

DESIGNED
CHECKED
DRAWN TPC
GRAPHIC SCALE
HORIZ. N/A
VERT. N/A

CITY OF ELK RIVER
COUNTRY CROSSING
SANITARY SEWER DETAILS

DATE JUNE,1994 | SHEET 17 OF 20 SHEETS | PROJECT NO. 230-194

DRAWING NUMBER COUNT1.94 17

740

Wed Jul 27 19:42:09 1994