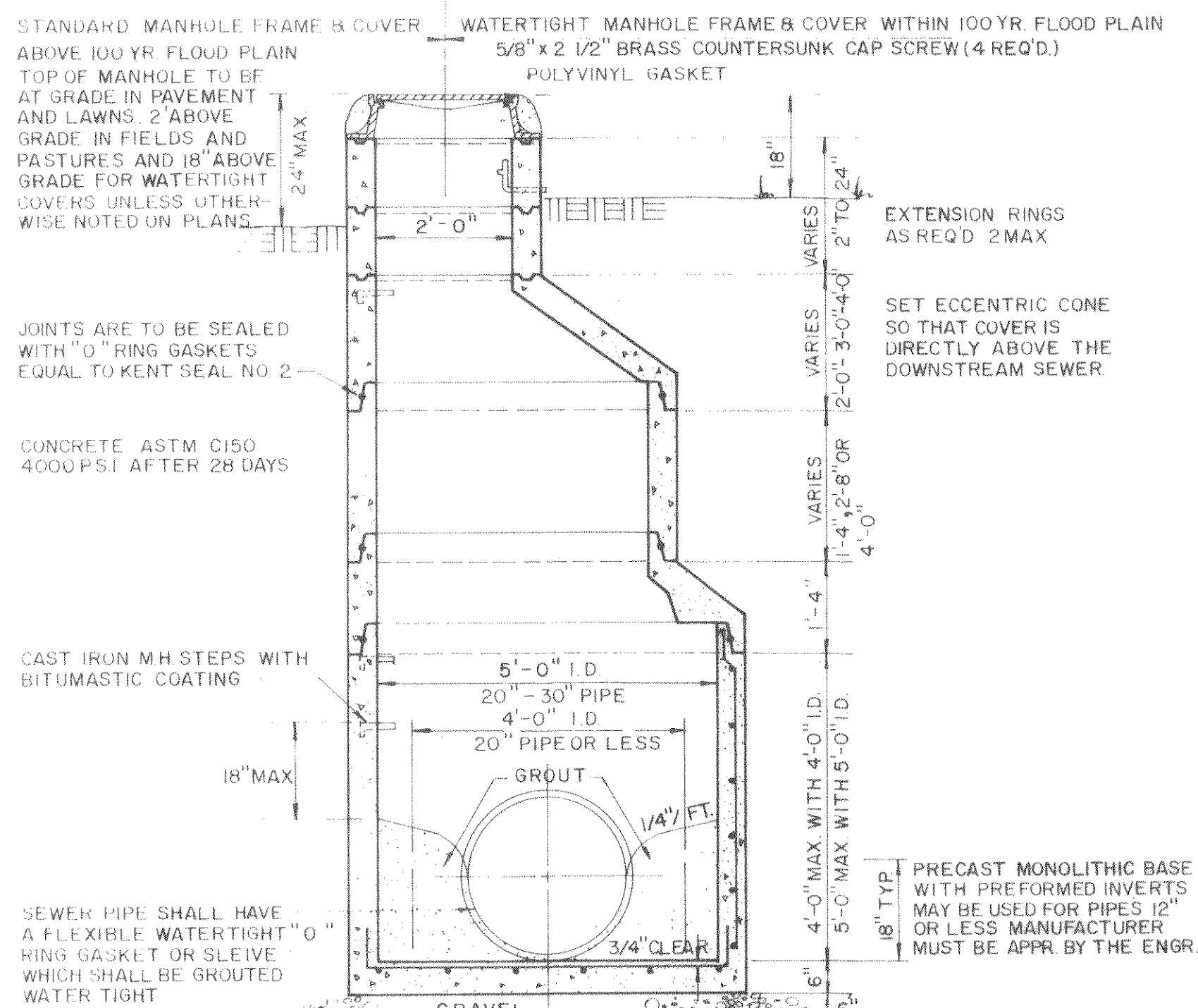
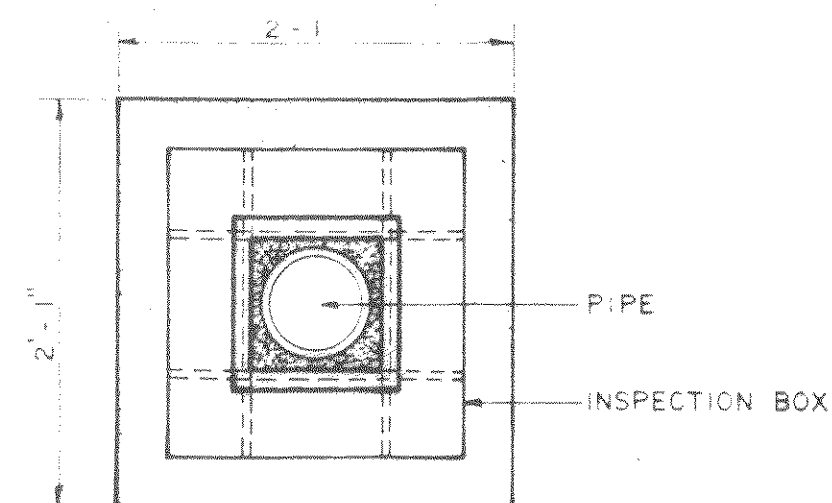
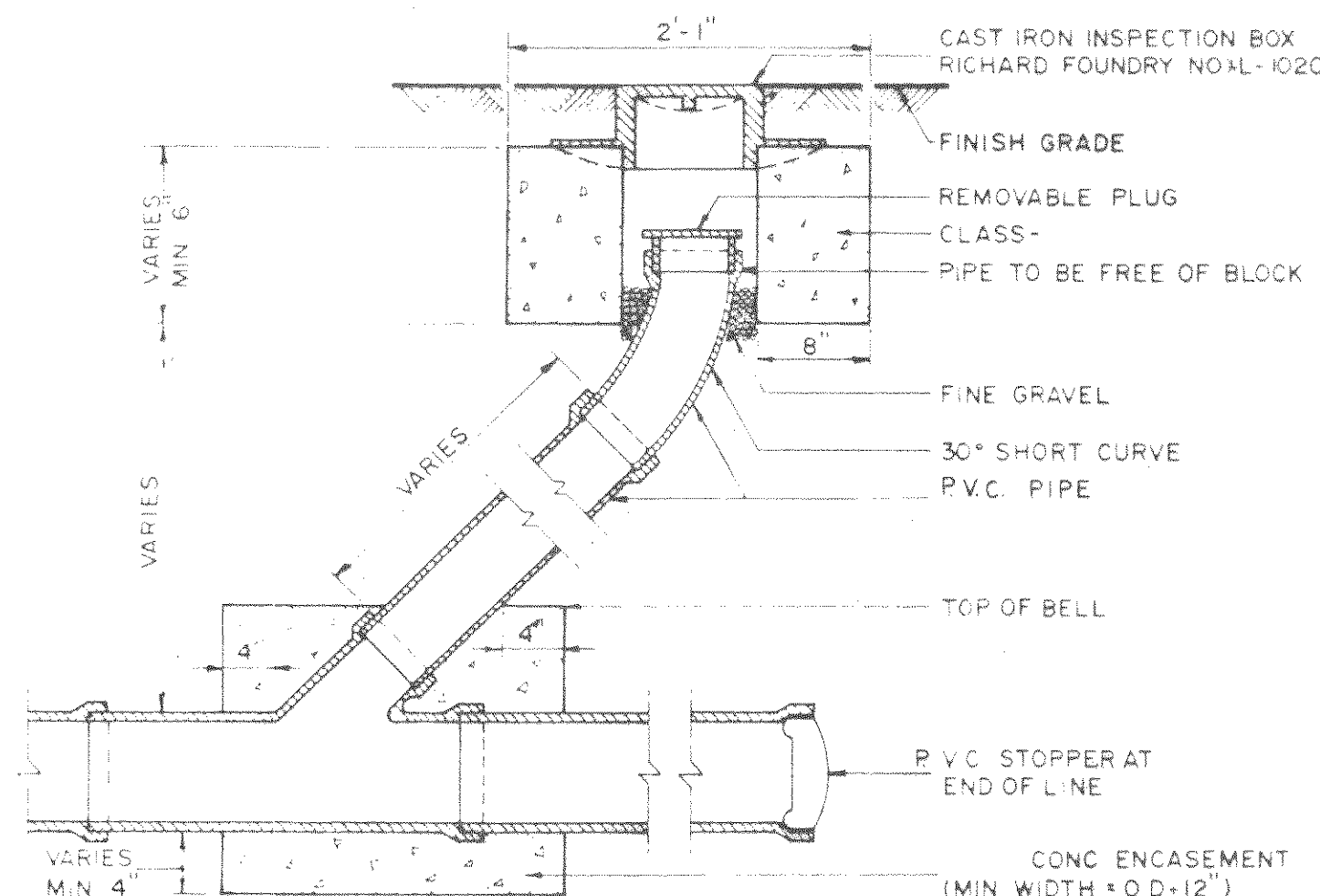




PRECAST ECCENTRIC MANHOLE

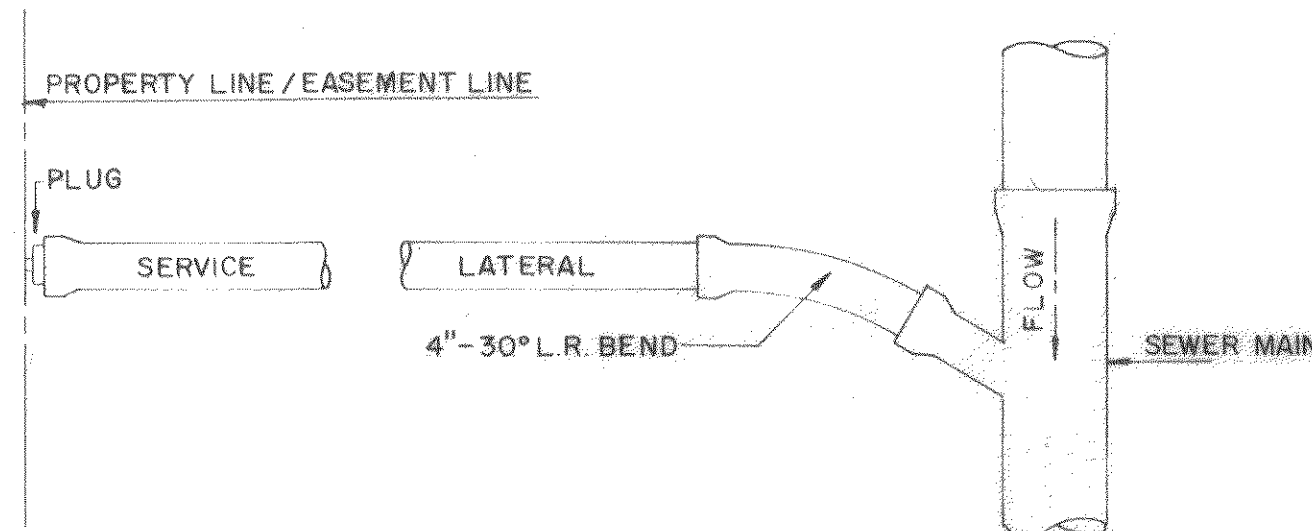


PLAN

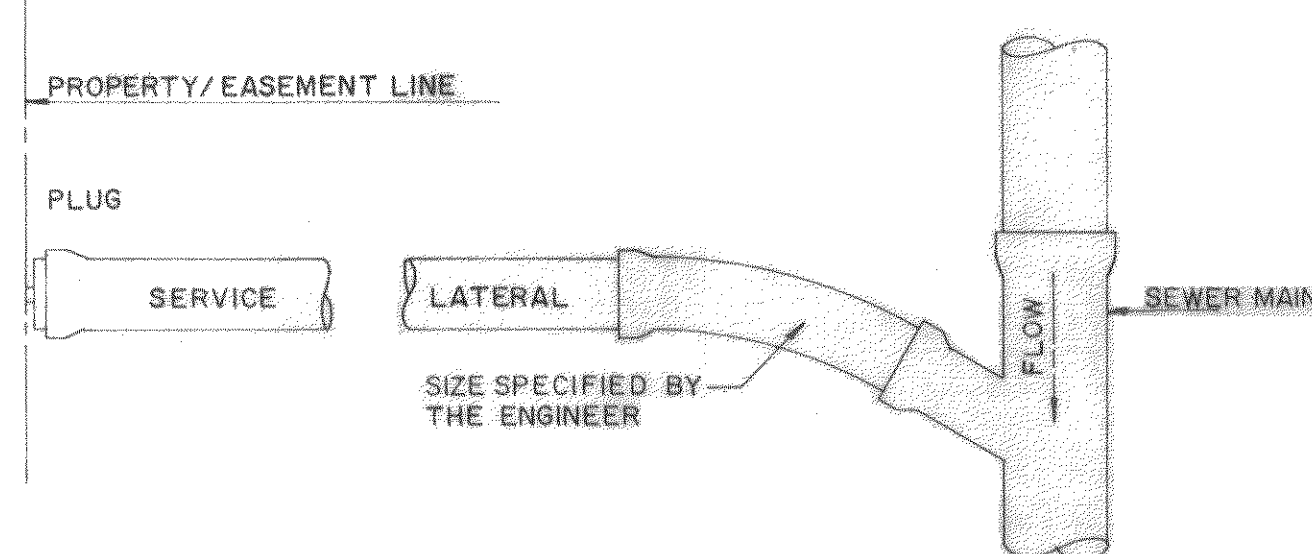


SECTION

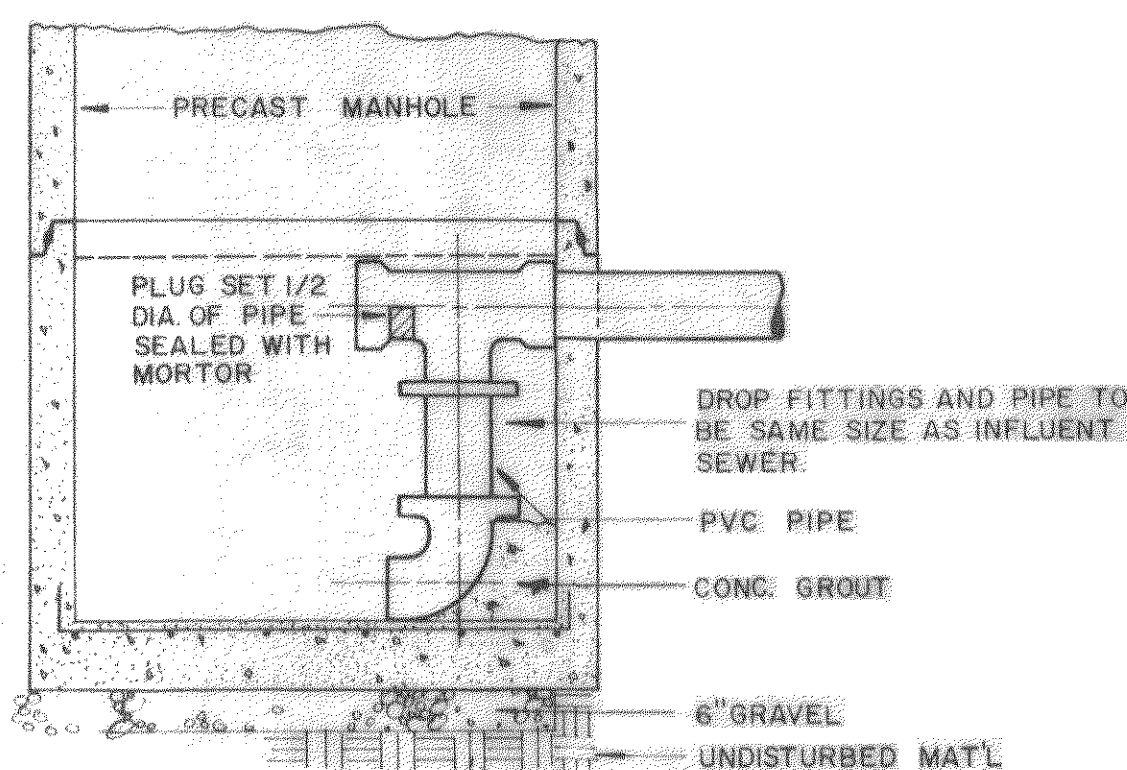
CLEANOUT



RESIDENTIAL SERVICE CONNECTION

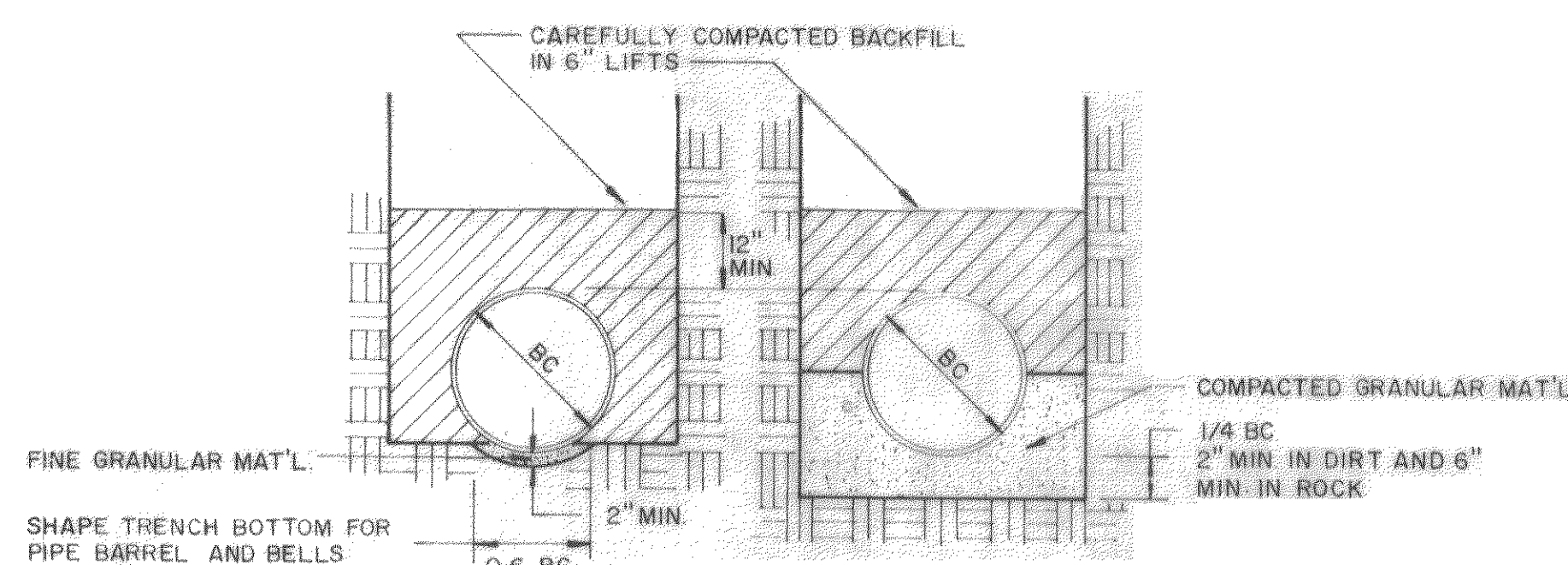


COMMERCIAL SERVICE CONNECTION



DROP CONSTRUCTION IS TO BE USED AT EVERY LOCATION WHERE THE INFLUENT INVERT IS GREATER THAN 2'-0" ABOVE THE EFFLUENT SEWER INVERT.

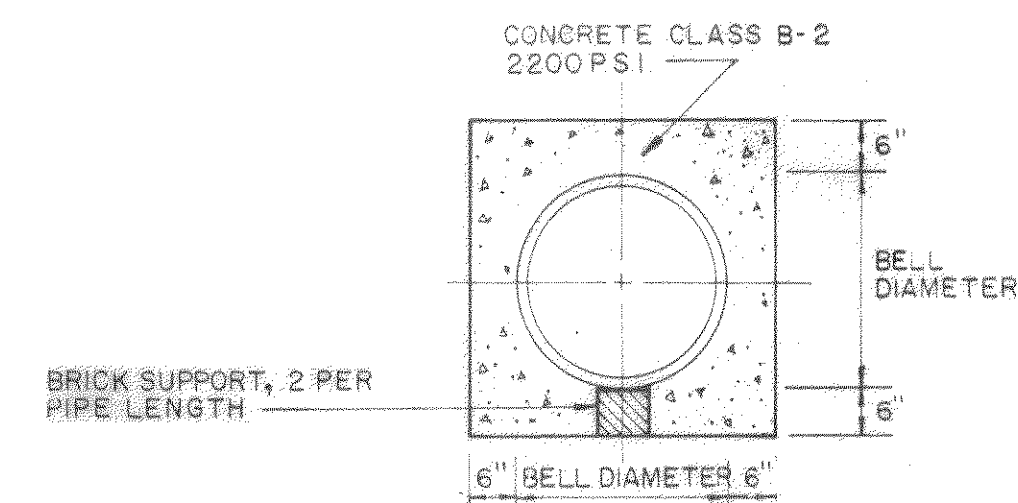
DROP CONSTRUCTION AT STANDARD MANHOLE



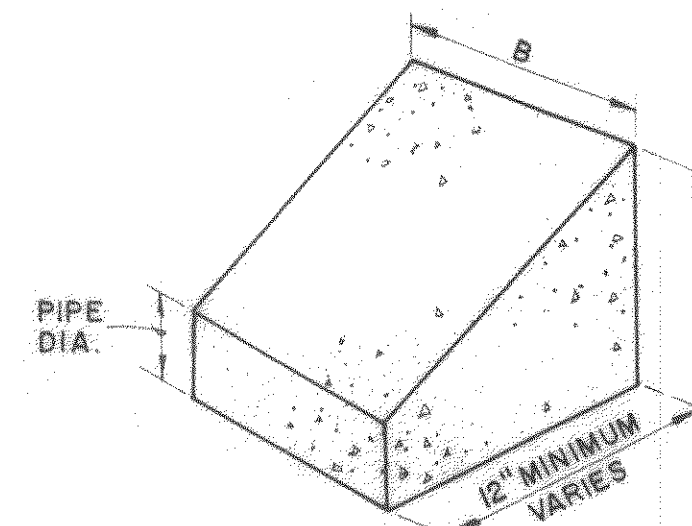
THE CONTRACTOR SHALL CHOOSE ONE OF THESE METHODS OF PIPE BEDDING UNLESS OTHERWISE DIRECTED BY THE ENGINEER

BEDDING DETAIL

FIRST CLASS — CLASS B BEDDING

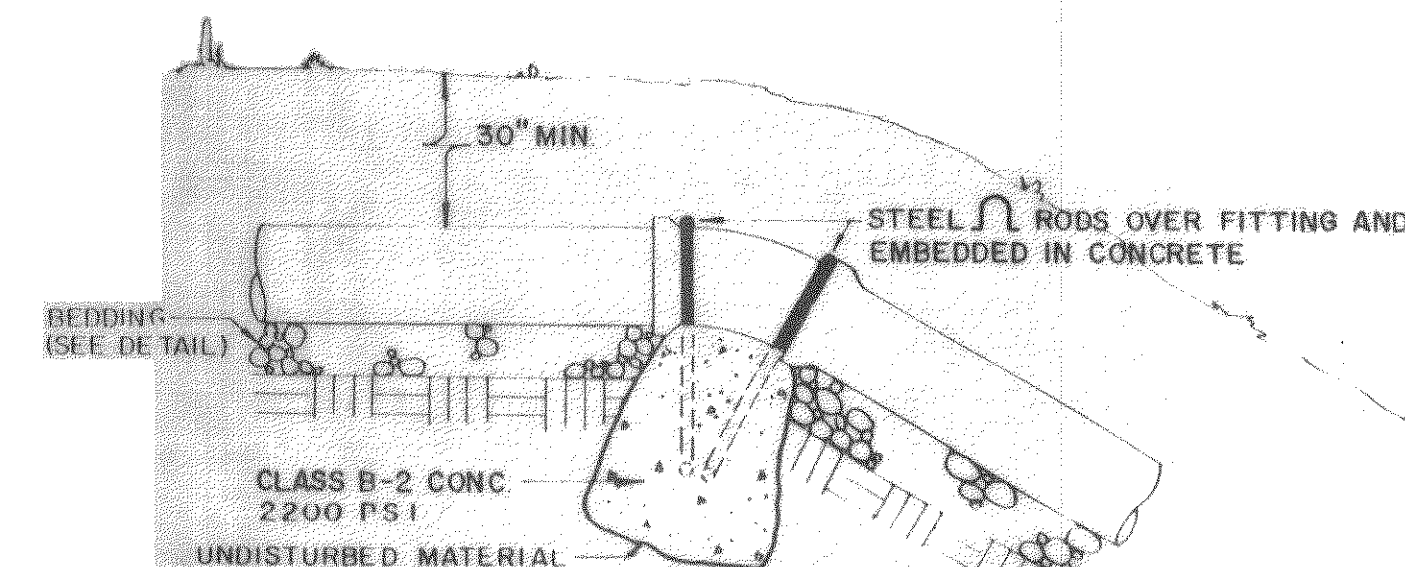


CONCRETE ENCASED PIPE



THRUST BLOCK SIZES

PIPE DIAMETER	TEE, CROSS, 90°	45° WYE	22 1/2°
4"	12"	12"	12"
6"	15"	24"	18"
8"	18"	30"	24"
10"	24"	36"	30"
12"	30"	42"	36"

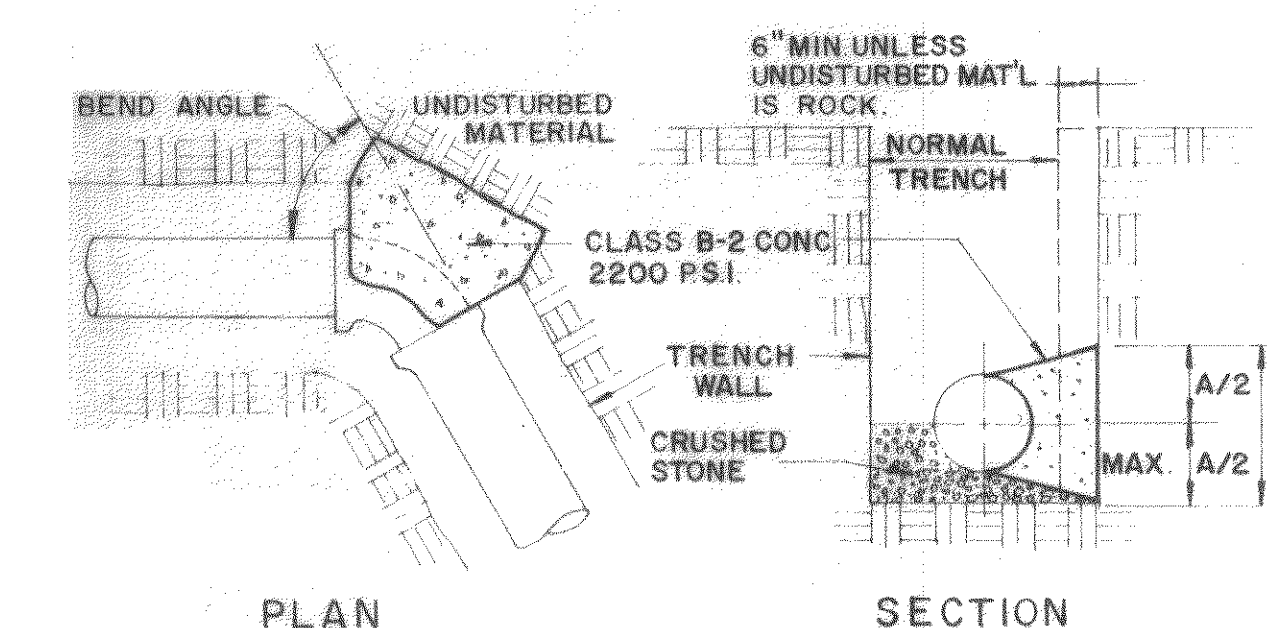


FITTING SIZE	ROD SIZE	NO. OF RODS	EMBEDMENT
4" - 6"	No. 4	2	24"
8" - 12"	No. 6	4	24"

FITTING SIZE	90°	45°	22 1/2°	11 1/4°
4	0.25	0.15	0.1	0.1
6	0.5	0.35	0.25	0.2
8	0.9	0.65	0.5	0.35
10	1.4	1.0	0.8	0.55
12	2.0	1.4	1.0	0.7

- KEEP CONC. CLEAR OF JOINT AND JOINT ACCESSORIES.
- THRUST BLOCKS FOR VERTICAL UP BENDS SHALL BE THE SAME VOLUME AS FOR HORIZONTAL BENDS.

VERTICAL THRUST BLOCK DETAIL



PLAN

SECTION

- NOTES:
- AREA OF THRUST BLOCK BASED ON 1500 P.S.F. LATERAL BEARING PRESSURE AND A TEST PRESSURE WITHIN PIPE OF 150 P.S.I., VELOCITY OF 10 F.P.S.
 - THRUST BLOCKS ARE REQUIRED AT ALL BENDS OF MORE THAN 10°.
 - BEARING SURFACE OF THRUST BLOCKS MUST BE NORMAL TO RESULTANT THRUST OF BEND AND BEAR ON SUITABLE UNDISTURBED MATERIAL.
 - KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.

HORIZONTAL THRUST BLOCK DETAIL

Designed: DJR
Drafted: CFA
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.
Fincastle, Virginia

SEWER DETAILS
CEDAR RIDGE SEWER SYSTEM
FOR
CURTIS O. SIMMONS

David J. Raby

Sheet: 5 of 5
Scale: NONE
Date: NOV. 5, 1982
Project: 8207