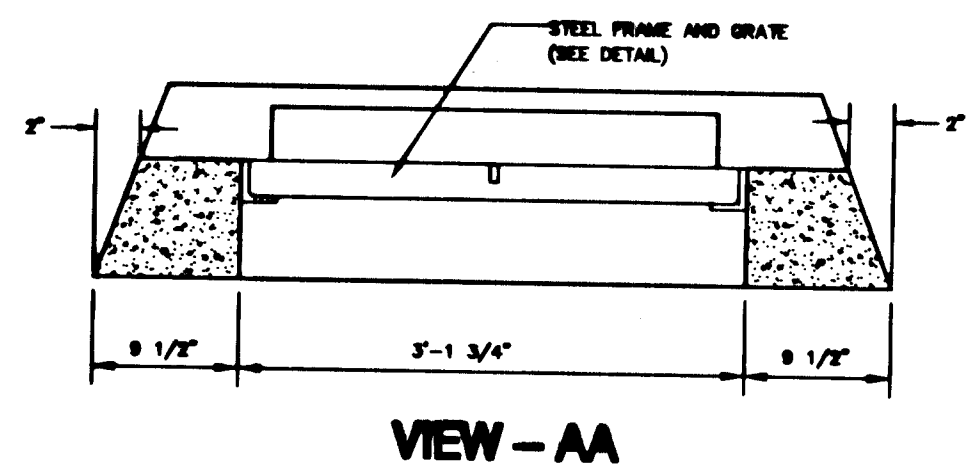
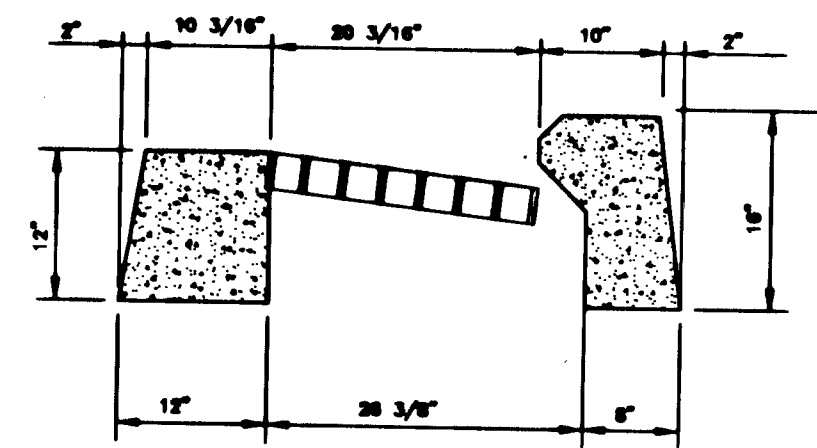


PLAN VIEW



VIEW - AA



VIEW - BB

- NOTES:
1. CONCRETE - 4000 P.S.I., 28 DAYS
 2. REINFORCEMENT - ASTM A-615, GRADE 60

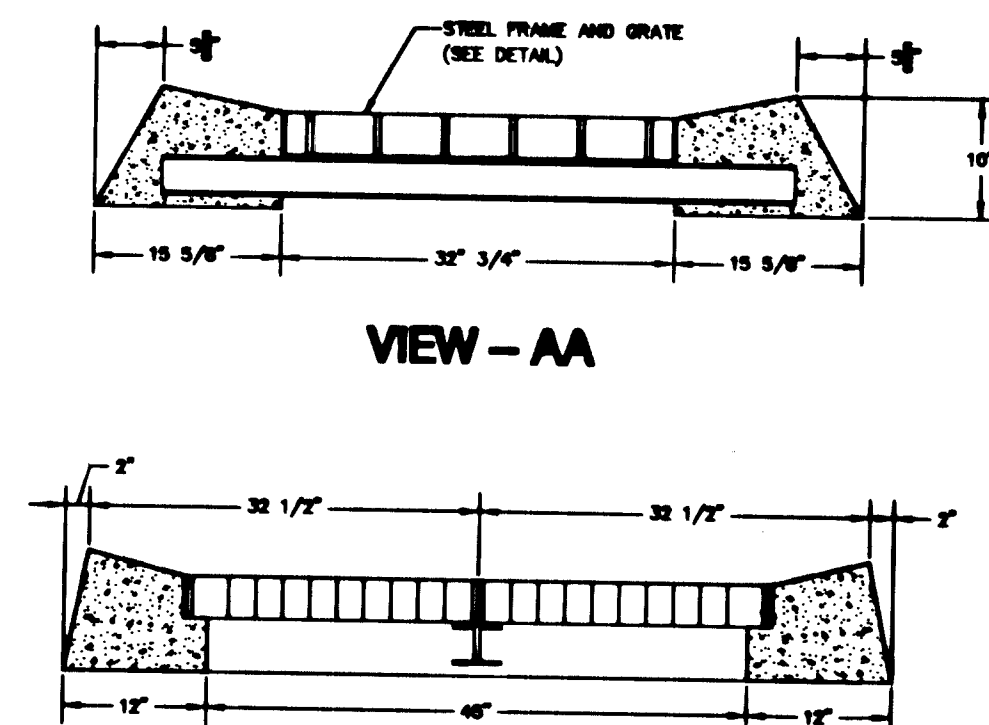
SINGLE GRATE WITH CONCRETE COLLAR ONLINE WITH CURB

NTS

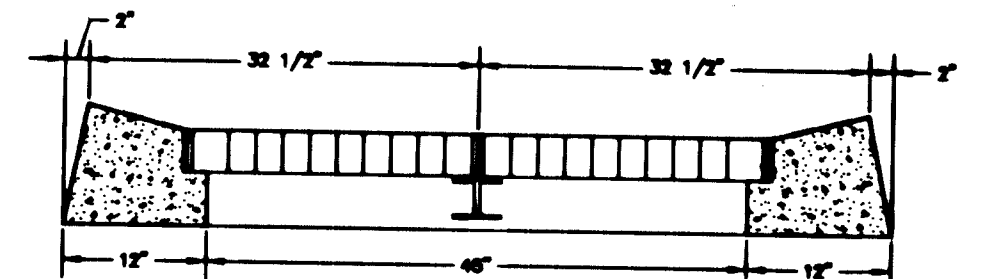
DOUBLE GRATE WITH CONCRETE COLLAR

NTS

DOUBLE GRATE WITH CONCRETE COLLAR



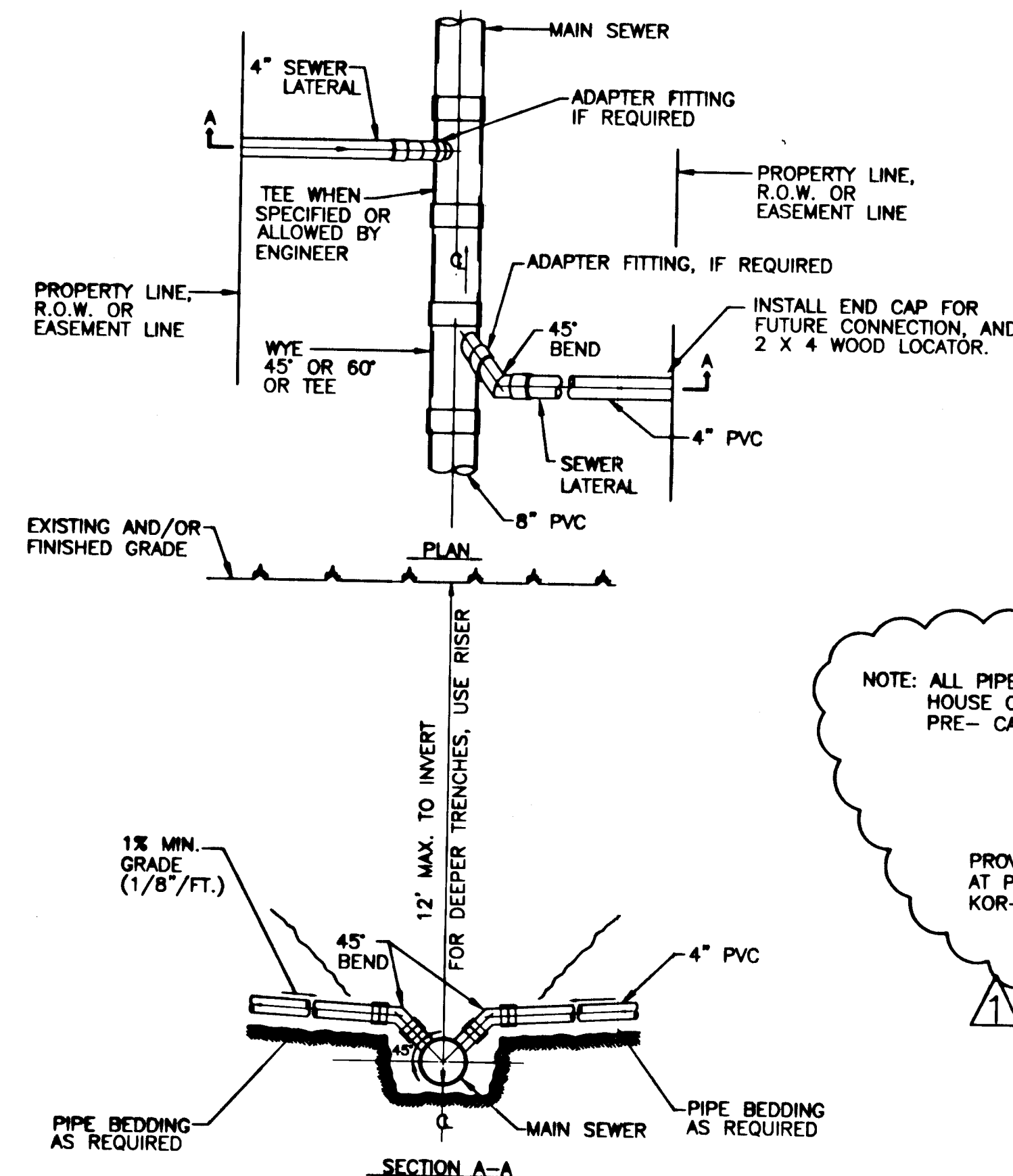
VIEW - AA



VIEW - BB

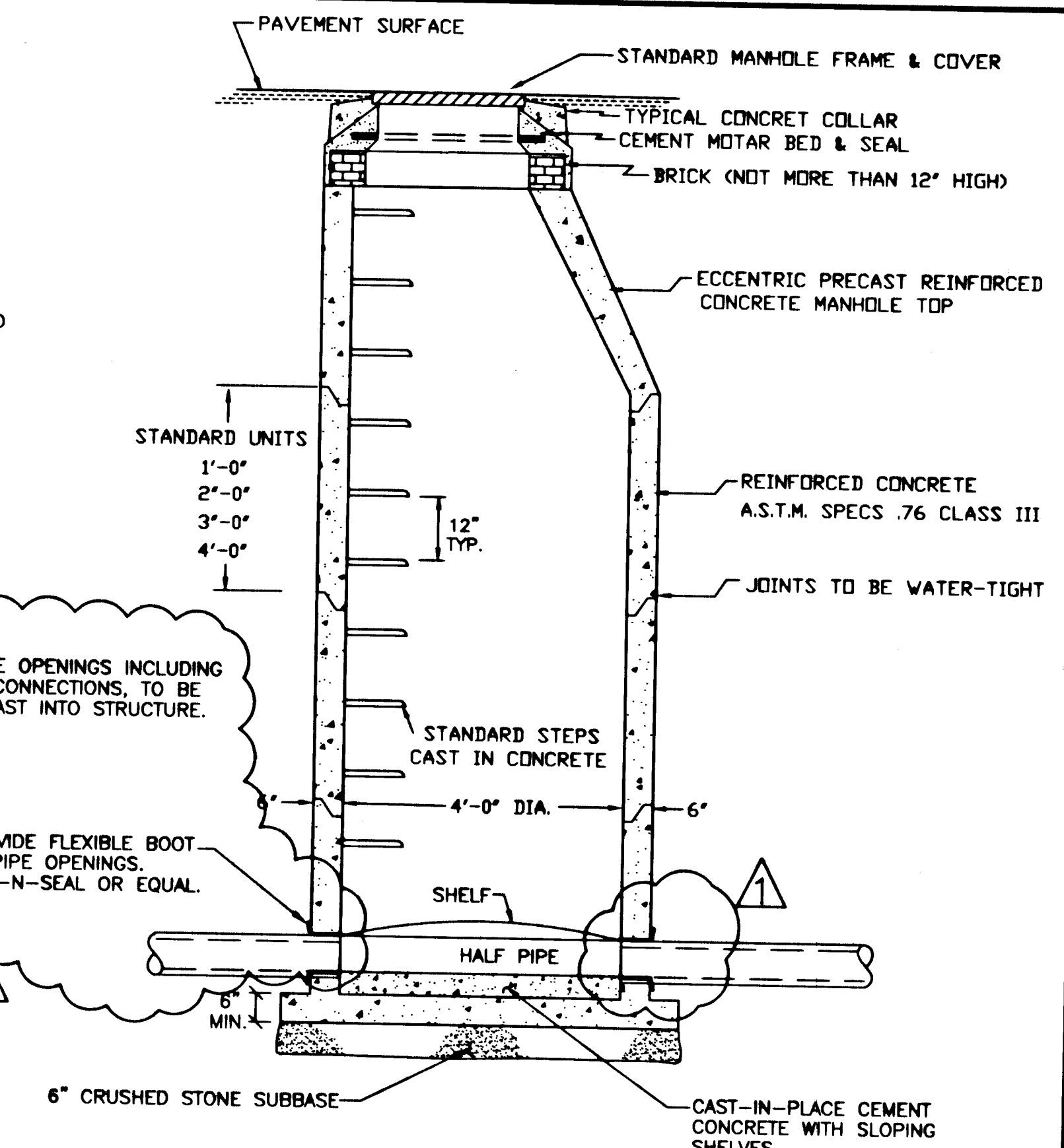
DOUBLE GRATE WITH CONCRETE COLLAR

NTS



STANDARD SEWER SERVICE CONNECTIONS

NTS



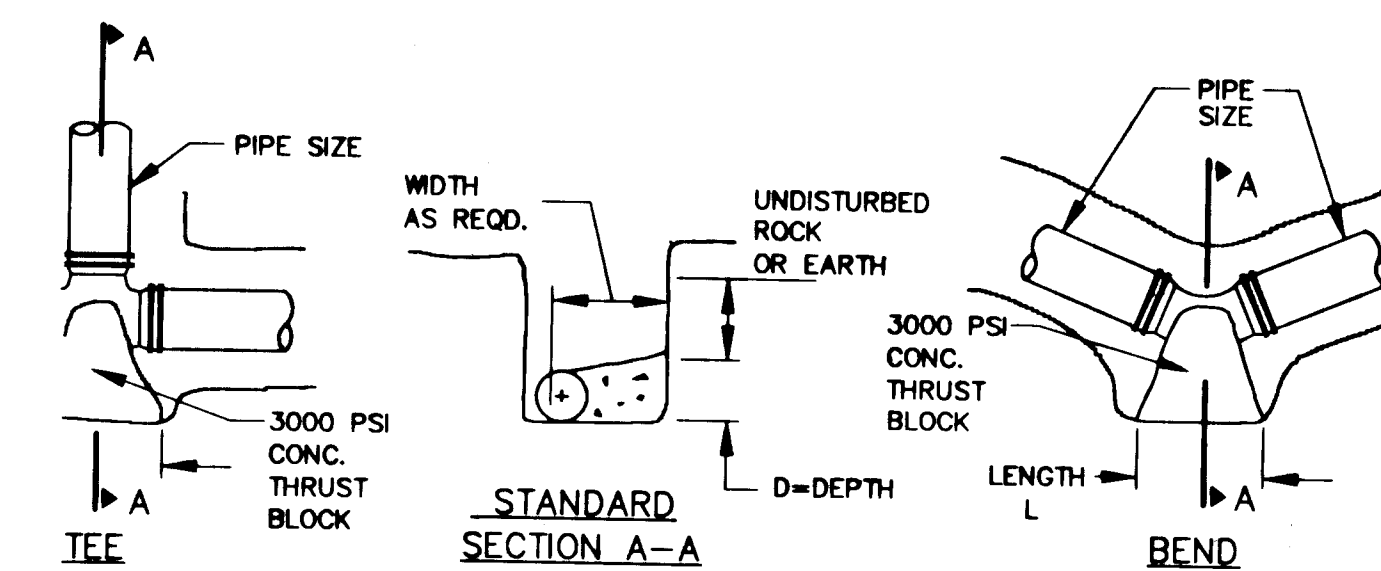
SANITARY SEWER MANHOLE DETAIL

NTS

THRUST BLOCK NOTES

1. FOR REQUIRED BEARING AREA DIMENSIONS D & L SEE TABLE. DIMENSIONS OF D & L OTHER THAN THOSE SHOWN IN THE TABLE MAY BE USED PROVIDED THEY YIELD A BEARING AREA EQUAL TO OR LARGER THAN THAT REQUIRED.
2. CONCRETE NOT TO OVERLAP ANY JOINT.
3. CONCRETE TO BE PLACED SO AS NOT TO INTERFERE WITH REMOVING OR INSTALLING ANY OF THE JOINTING HARDWARE.
4. APPROXIMATE VOLUME OF CONCRETE THRUST BLOCK:
 $V = \frac{L(W+D) - ID}{81}$
WHERE:
V = VOLUME IN CUBIC YARDS
L = LENGTH OF BLOCK IN FEET
D = DEPTH OF BLOCK IN FEET
W = WIDTH OF BLOCK IN FEET
ID = INSIDE DIAMETER OF PIPE IN FEET
5. VALUES FOR TEE ALSO APPLY TO END PLUGS, CAPS, AND TAPPING SLEEVES.
6. REQUIRED BEARING AREAS ARE DUE TO THRUSTS CAUSED BY 150 PSI WORKING PRESSURE PLUS 50% (75 PSI) SURGE ALLOWANCE RESULTING IN 225 PSI TOTAL INTERNAL PRESSURE. NORMAL PIPE DIAMETER USED.
7. REQUIRED BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 2000 LBS. PER SQUARE FOOT FOR SAND. DUE TO OTHER SOIL CONDITIONS ENCOUNTERED, BEARING AREAS MAY BE MODIFIED BY THE ENGINEER.
8. IN MUCK, PEAT, OR RECENTLY PLACED FILL ALL THRUST SHALL BE RESISTED BY PILES OR THE RODS TO SOLID FOUNDATIONS. OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS, ALL AS REQUIRED BY THE ENGINEER.

REQUIRED BEARING AREAS & DIMENSIONS FOR CONCRETE THRUST BLOCKS										
PIPE SIZE (IN.)	TEE (See Note 5) AREA Sq.Ft.	Dimen. D x L	90°(1/4)BEND	45°(1/2)BEND	22-1/2°(1/8)BEND	1-1/4°(1/32)BEND				
			AREA Sq.Ft.	Dimen. D x L	AREA Sq.Ft.	Dimen. D x L	AREA Sq.Ft.	Dimen. D x L		
8	5.7	2.0 x 3.0	8.0	2.0 x 4.0	4.3	2.0 x 2.5	2.2	1.5 x 1.5	1.1	1.0 x 1.5

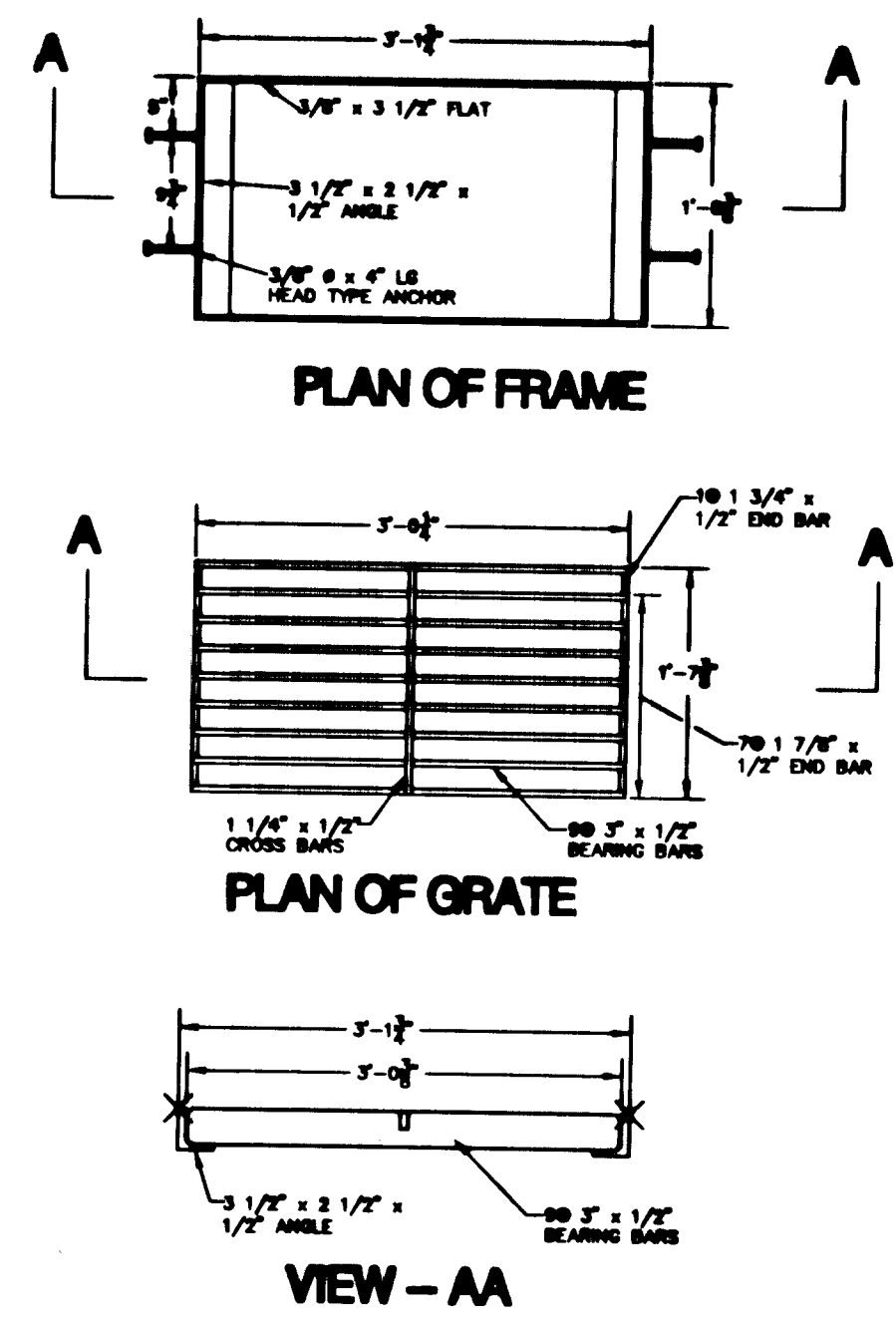


THRUST BLOCK DETAILS

NTS

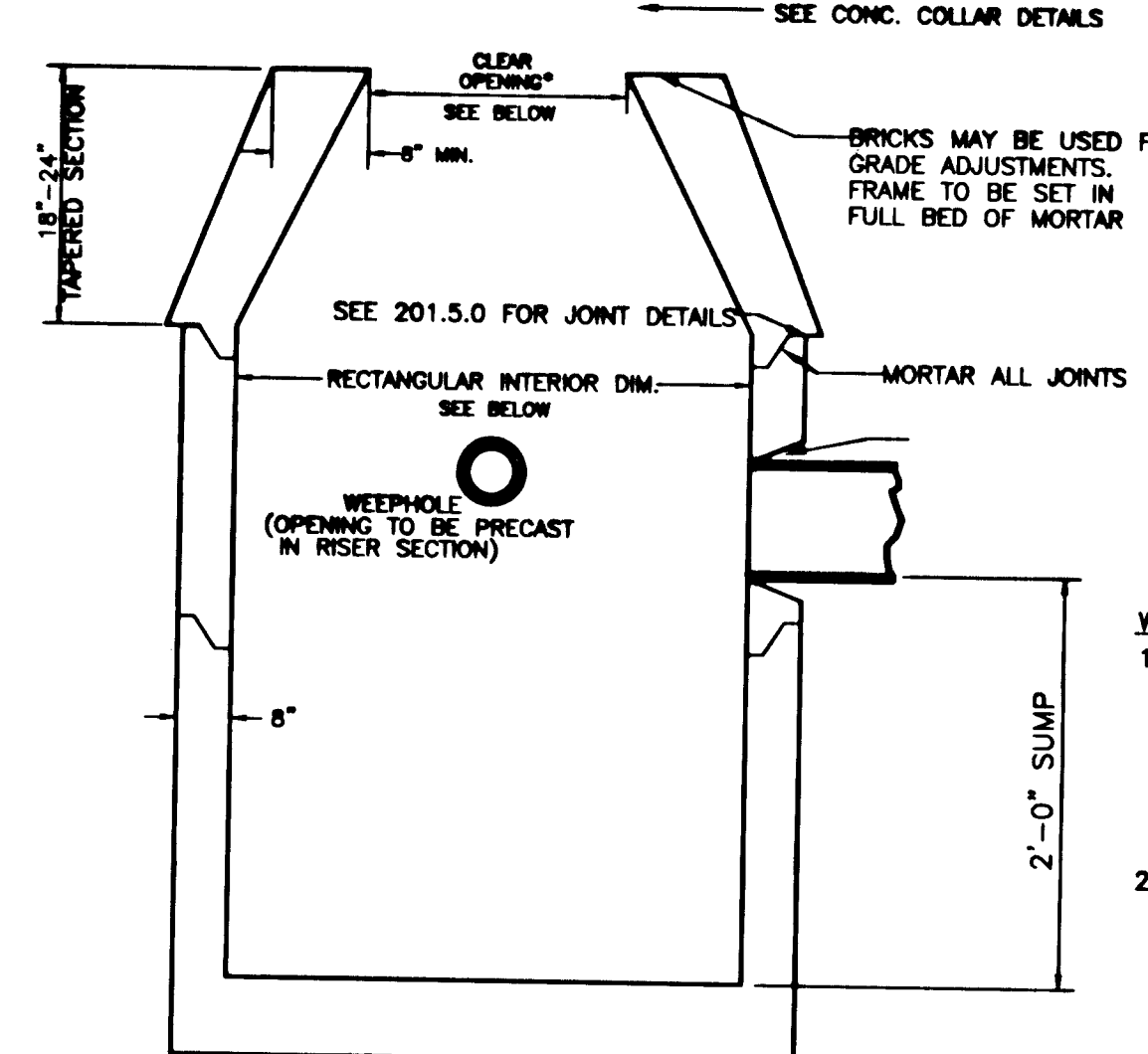
APPROVED BY EAST LONGMEADOW PLANNING BOARD

DATE: _____ CHAIRMAN _____



STEEL FRAME AND GRATE

NTS



- NOTES: 1. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE MHD SPECIFICATIONS.

STRUCTURE	CLEAR OPENING	SQUARE INTERIOR DIMENSION
SINGLE	27" x 36" MIN.	3'-0" x 4'-0"
DOUBLE	33" x 45" MIN.	3'-0" x 6'-0"

PRECAST CONCRETE CATCH BASIN

NTS

No.	DATE	REVISION	BY
1	8/14/00	REVISED SEWER MANHOLE DETAIL	EDM

DETAIL SHEET No. 1

NOTTINGHAM MEADOWS
PARKER STREET
EAST LONGMEADOW, MA

APPLE
LAND DEVELOPMENT, INC.
296 NORTH MAIN STREET
EAST LONGMEADOW, MA

BAYSTATE ENVIRONMENTAL
CONSULTANTS INC.

Civil Engineers Environmental Scientists
296 North Main Street East Longmeadow, MA 01028

PROJECT No. 99-1104
SCALE AS NOTED
DATE 4/2000
DESIGNED BY F.A.D.
CHECKED BY M.L.P.

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