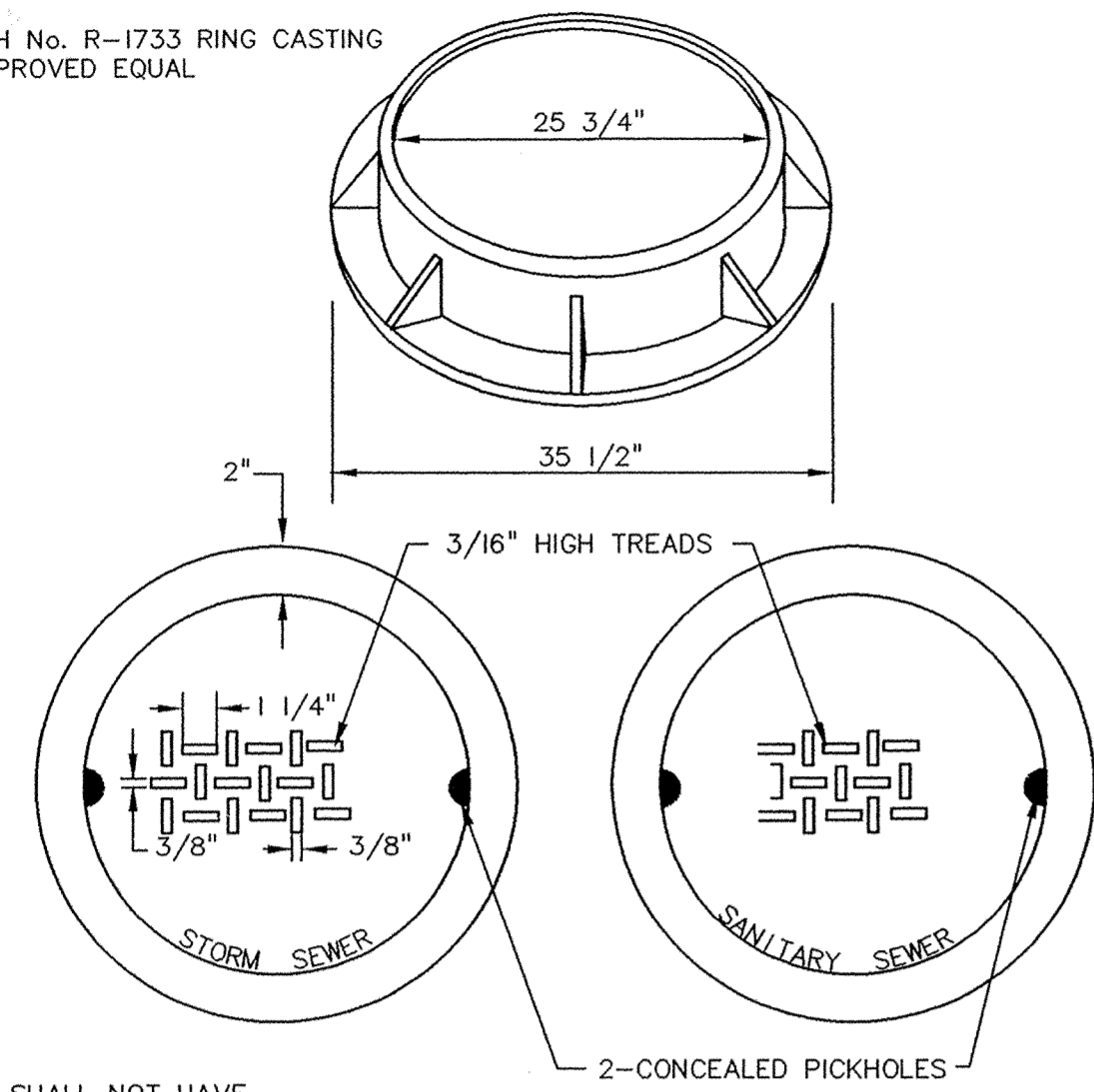
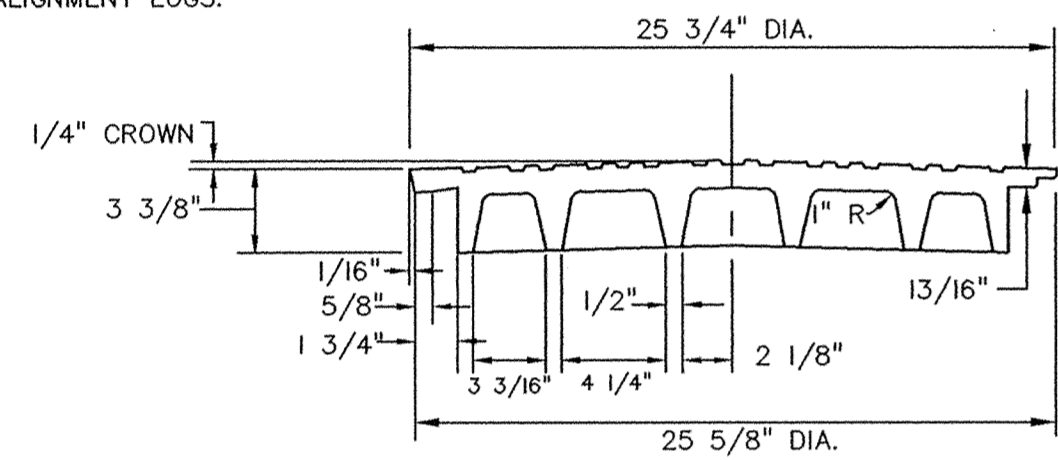


NEENAH No. R-1733 RING CASTING OR APPROVED EQUAL



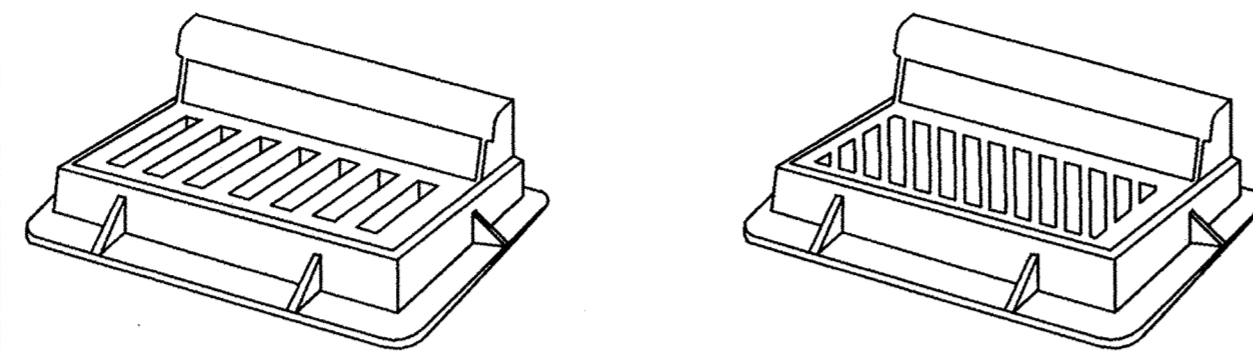
COVER SHALL NOT HAVE ALIGNMENT LUGS.



STANDARD MANHOLE CASTINGS

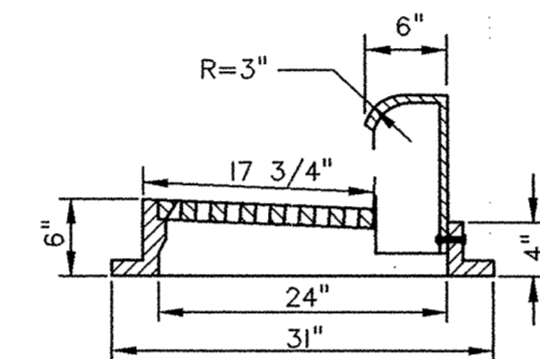
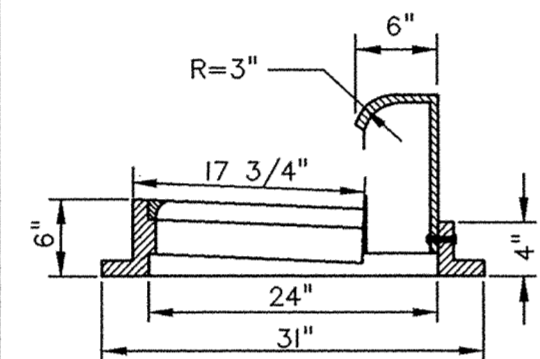
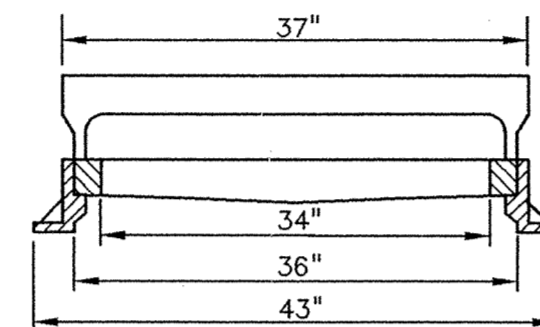
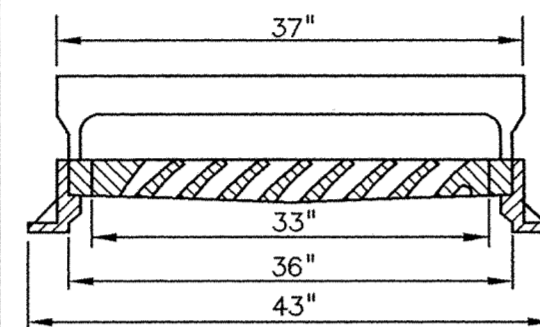
(C-01)

NEENAH No. R-3067-V CASTING OR APPROVED EQUAL



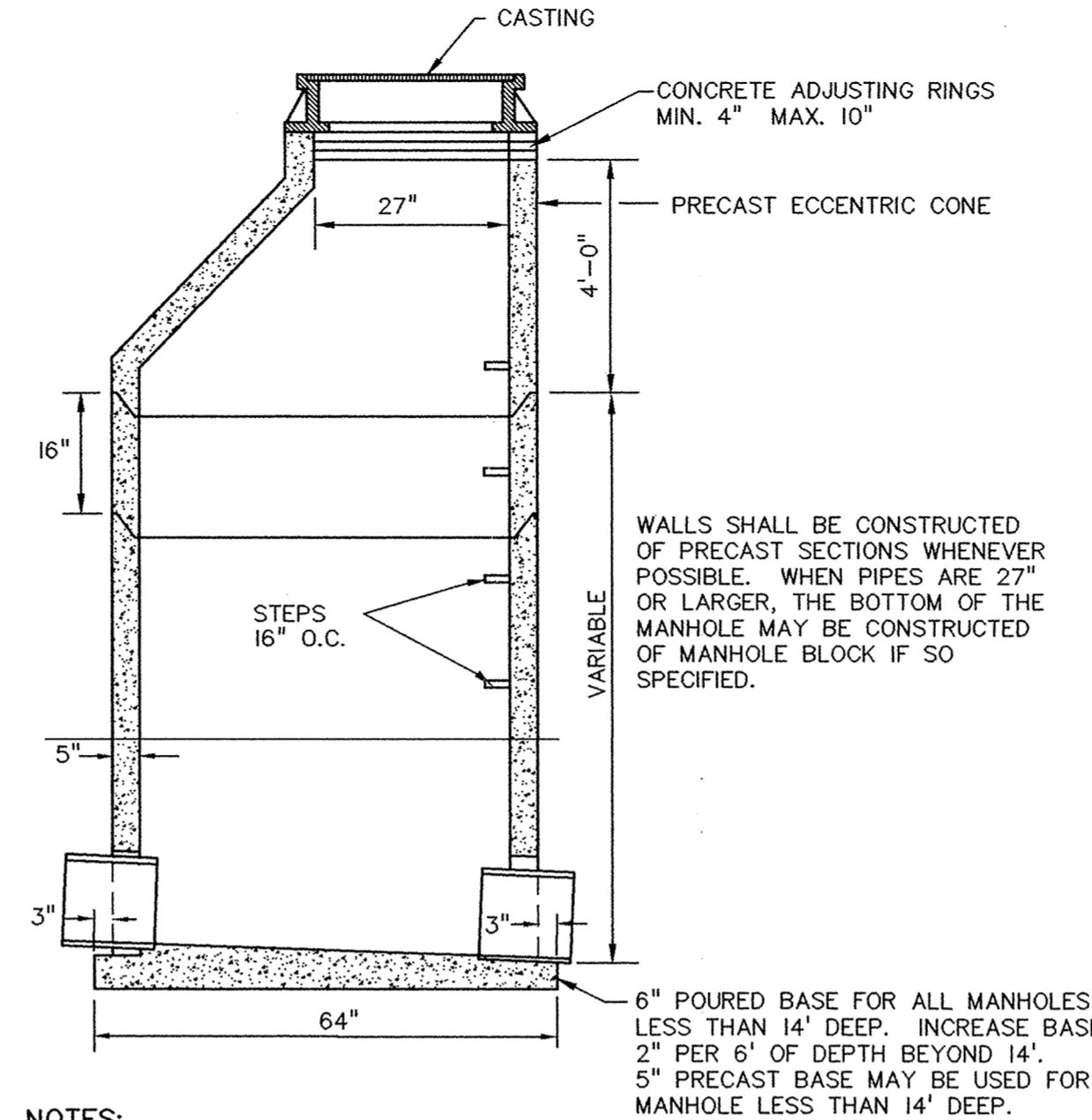
TYPE V GRATE

TYPE DR/DL GRATE



STANDARD INLET CASTINGS

(C-03)

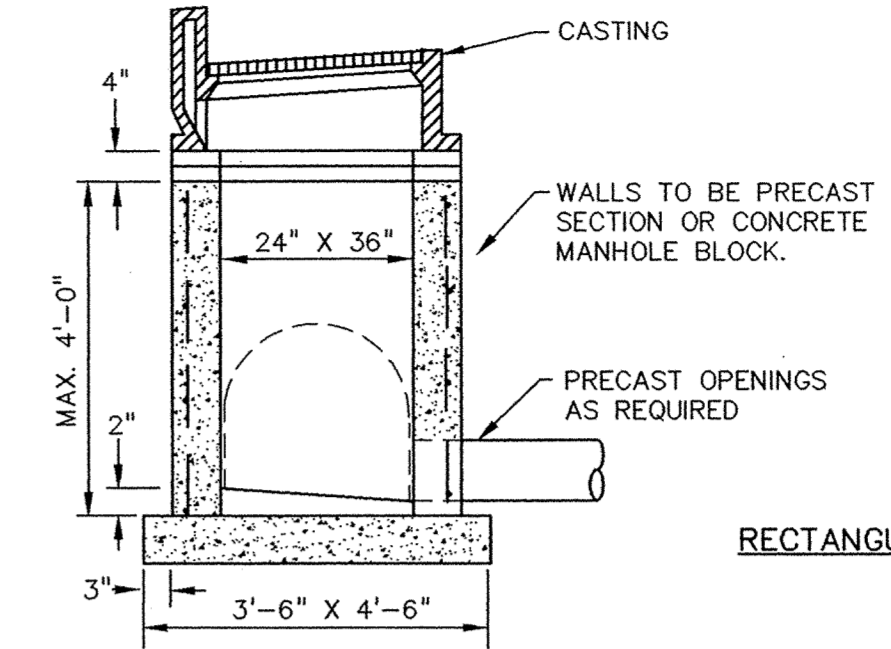


NOTES:

1. WHEN MANHOLE DEPTH IS LESS THAN 8' OR CASTING IS RECTANGULAR, A SLAB TOP SHALL BE USED IN PLACE OF THE CONE. THE SLAB SHALL BE SUITABLE FOR AASHTO HS 20 HIGHWAY LOADINGS. THE SLAB SHALL BE ON A MORTAR BED.
2. MANHOLE INVERT SHALL BE SLOPED TO PROVIDE SMOOTH FLOW FROM INLET TO OUTLET.
3. MANHOLE JOINTS MAY BE MADE WITH CEMENT MORTAR INSIDE AND OUT.

STANDARD STORM SEWER MANHOLE

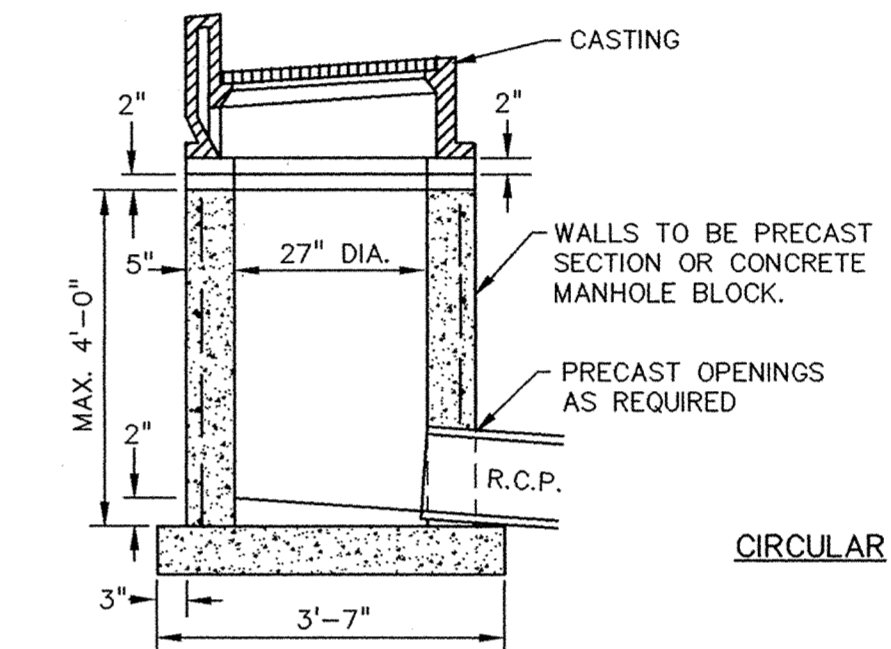
(D-01)



RECTANGULAR

NOTES:

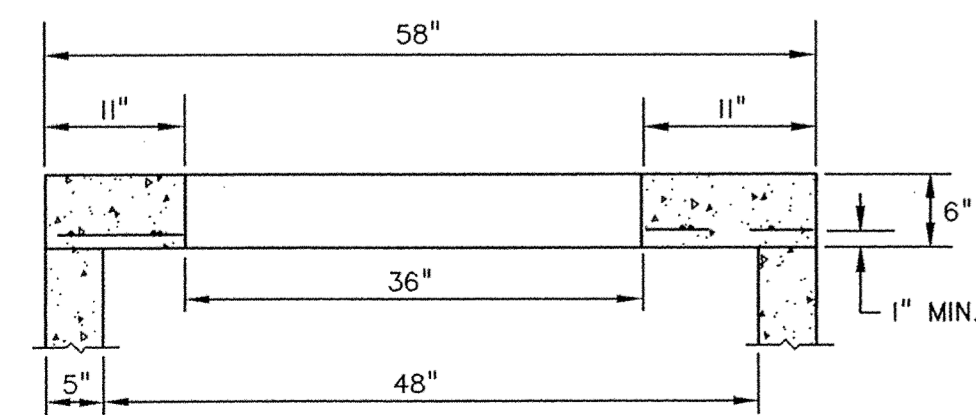
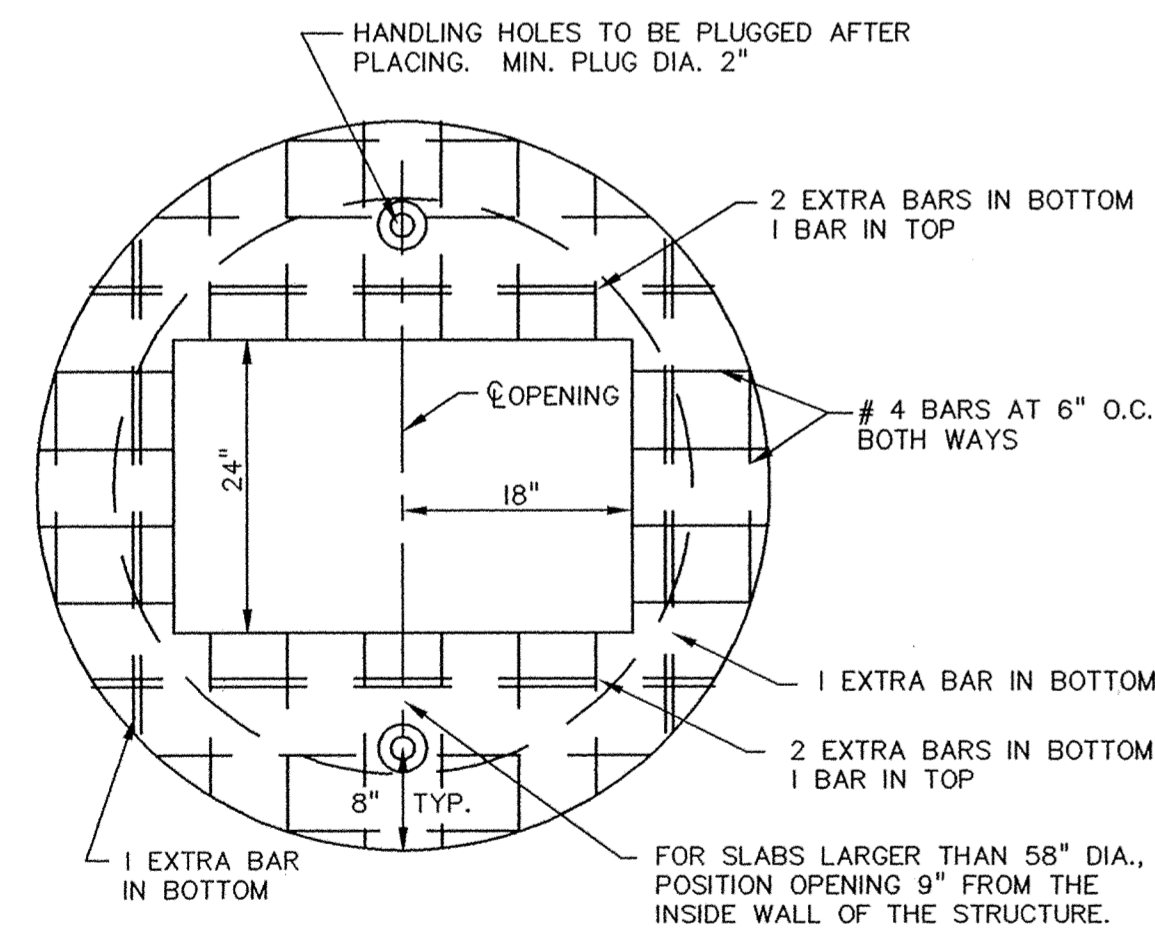
1. CONCRETE ADJUSTING RINGS, MIN. 4" MAX 10" NO MINIMUM WITH FINAL ADJUSTMENT.
2. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB.



CIRCULAR

SHALLOW STORM SEWER MANHOLE OR CATCH BASIN

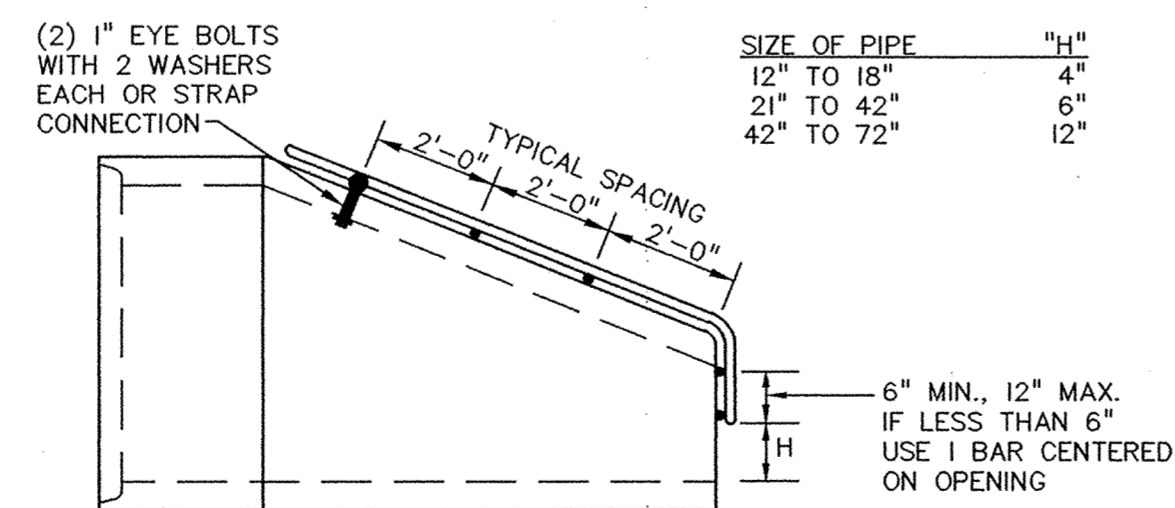
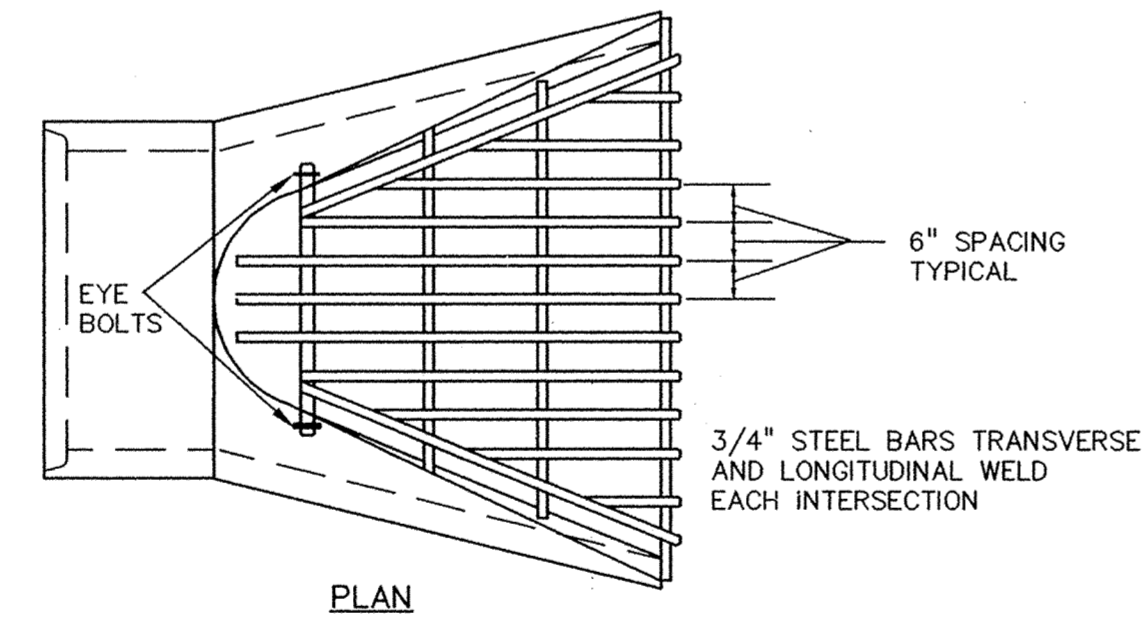
(D-03)



NOTE: SLAB SHALL BE DESIGNED FOR AASHTO, H. S. 20 LIVE LOADS.

STANDARD RECTANGULAR MANHOLE SLAB TOP

(D-05)

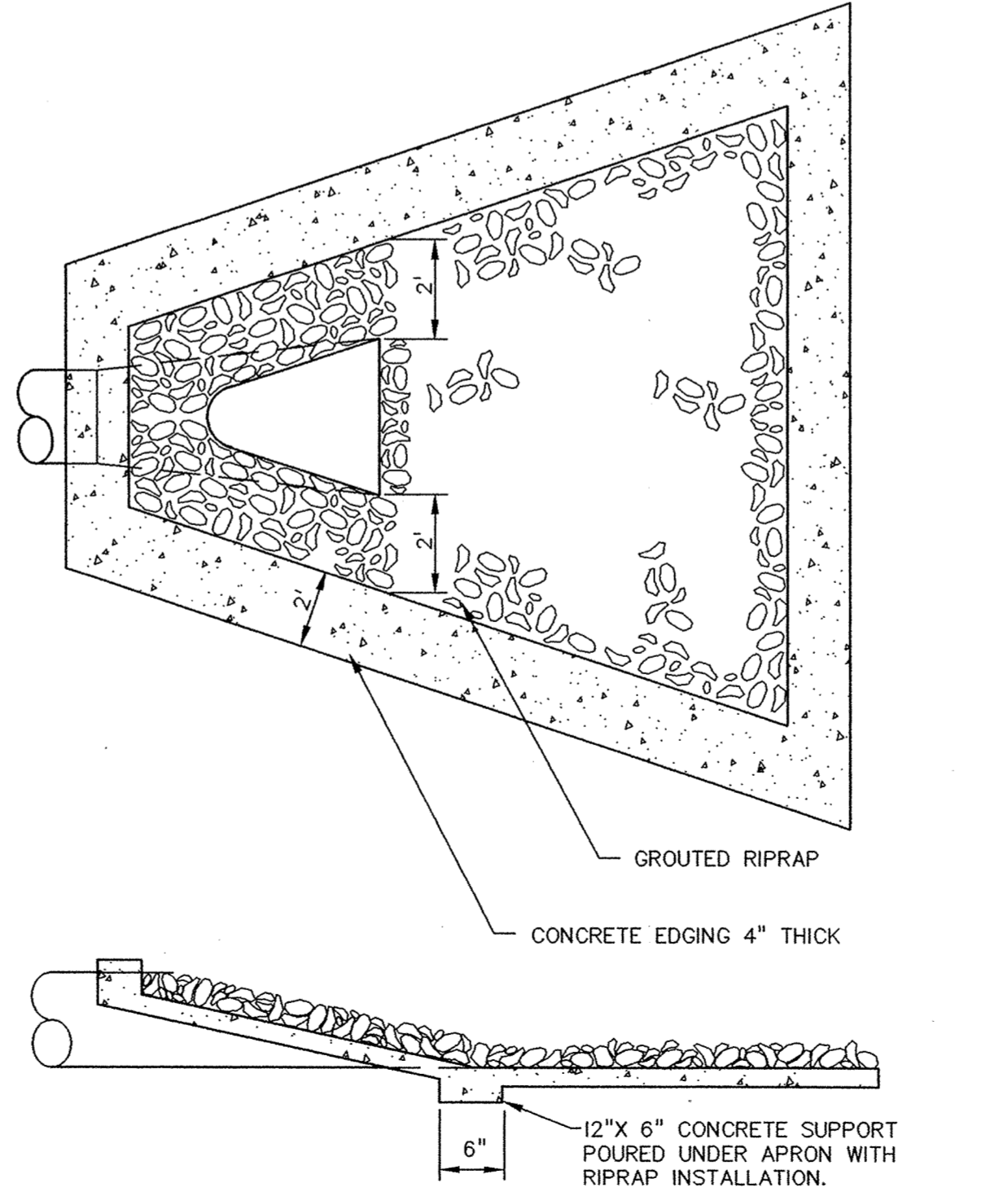


NOTES:

1. TRASH GUARD TO BE GALVANIZED AFTER FABRICATION.
2. THE SIZE OF EACH TRASH GUARD WILL VARY TO FIT APRON.
3. THE LAST 3 PIPE JOINTS SHALL BE TIED.

TRASH GUARD FOR CONCRETE PIPE

(D-06)



GROUTED RIPRAP WITH EDGING

(D-09)

RECORD DRAWINGS

PRIME CONTRACTOR/STORM SEWER: BRENTESON CONSTRUCTION CO.
STREETS: BAUERLY BROS. COMPANIES
INSPECTION: RALPH BADER, MSA CONSULTING ENGINEERS
SURVEY: JOHN OLIVER & ASSOCIATES, INC.
EARTHWORK: BRENTESON CONSTRUCTION CO.
RECORD DRAWINGS: FRED FRITSCHER, JOHN OLIVER & ASSOCIATES, INC.
CONSTRUCTED: 1996

John Oliver & Associates, Inc.
Civil Engineering, Land Surveying, Land Planning

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(612)894-3045 (FAX)894-8049

PHEASANT RUN
ELK RIVER, MN

For:
W.J.C. DEVELOPMENT CORP.

Details

SHEET NO.

5 OF 5

1031

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER
PHEAS 96