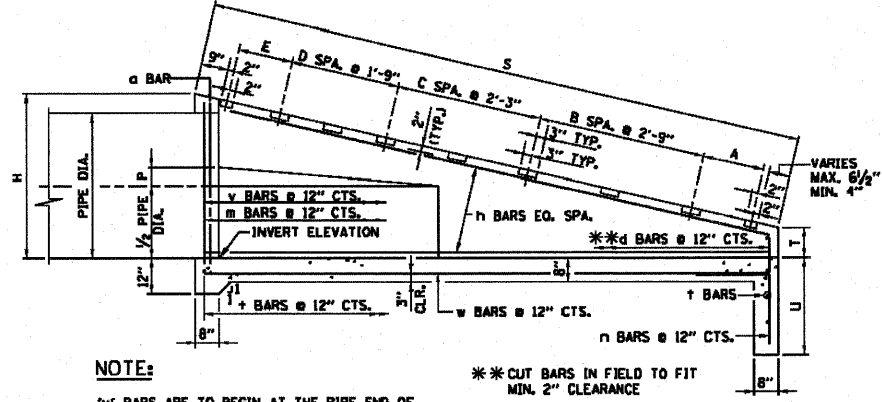


PLAN SINGLE PIPE DESIGN

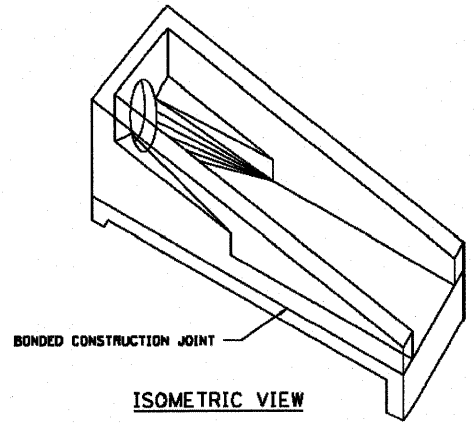


NOTE:

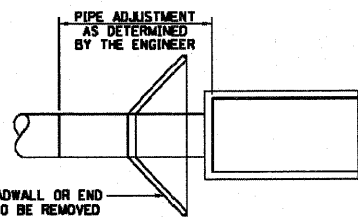
"v" BARS ARE TO BEGIN AT THE PIPE END OF THE SLOPED EXTERIOR HEADWALLS. "m" BARS ARE TO BEGIN AT THE PIPE END OF THE SLOPED INTERIOR HEADWALLS.

** CUT BARS IN FIELD TO FIT MIN. 2" CLEARANCE

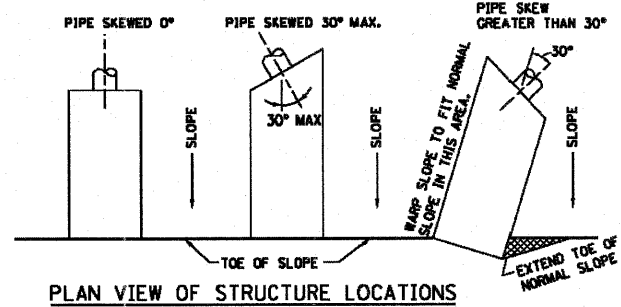
SECTION A-A



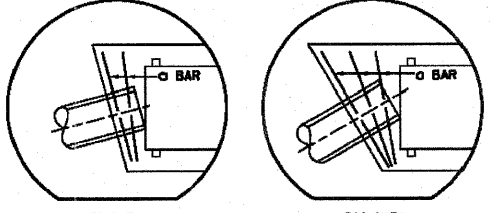
ISOMETRIC VIEW



INSTALLATION DETAIL



PLAN VIEW OF STRUCTURE LOCATIONS



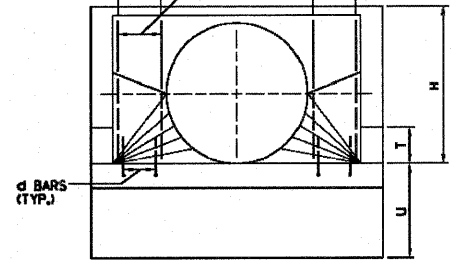
15° SKEW

30° SKEW

NOTES:

ADDITIONAL "A" BARS SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR. THE ADDITIONAL BARS ARE NOT INCLUDED IN THE LISTED QUANTITIES BUT WILL BE PAID FOR AS REINFORCING STEEL.
1. ADDITIONAL BAR REQUIRED FOR EACH 15° SKEW OR FRACTION THEREOF.

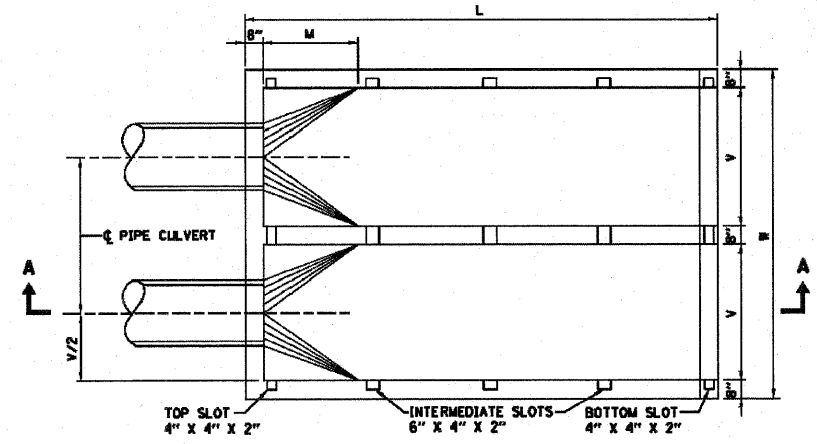
PIPE DIA'S 18", 24", & 30" 1 SPA.
PIPE DIA'S 36", 42", & 48" 2 EQ. SPA.



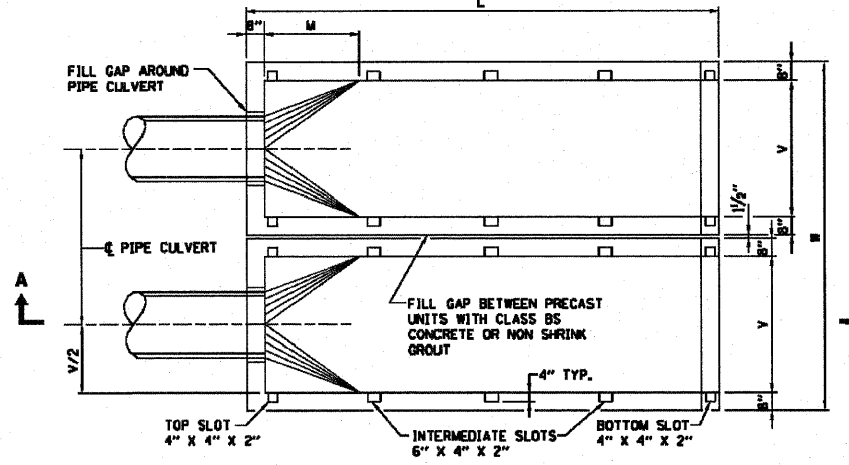
FRONT ELEVATION

NOTES:

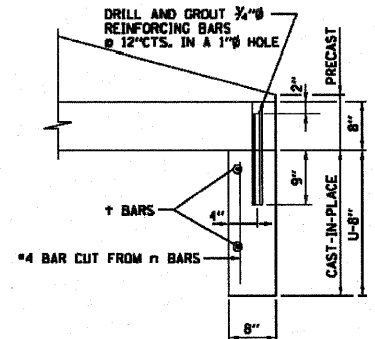
1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. BAR BENDING DETAILS ARE DIMENSIONED OUT TO OUT OF BARS.
3. ALL EXPOSED EDGES SHALL HAVE A 3/4" - 45° CHAMFER. CHAMFER ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW THE FINISHED GROUND LINE.
4. CARE SHALL BE EXERCISED IN REMOVING ANY LENGTH OF EXISTING PIPE SO THE REMAINING PIPE IS UNDAMAGED AND FULLY FUNCTIONING.
5. FOR DIMENSIONS AND QUANTITIES FOR SINGLE PIPE DESIGN SEE SHEET 2 (OF 5) IN THIS SERIES.
6. FOR DIMENSIONS AND QUANTITIES FOR TWIN PIPE DESIGN SEE SHEET 3 (OF 5) IN THIS SERIES.
7. FOR STEEL GRATING DETAILS SEE SHEET 5 (OF 5) IN THIS SERIES.
8. THE STATION, OFFSET AND INVERT ELEVATION FOR THE HEADWALL SHALL APPLY AT THE END OF THE CONNECTING PIPE OPENING.



PLAN CAST-IN-PLACE HEADWALL



PLAN PRECAST HEADWALL TWIN PIPE DESIGN



PRECAST DETAIL CUT-OFF WALL

SHEET 1 OF 5

APPROVED *Paul Kovacs* DATE 6-1-2009
DATE ENGINEER



DATE	REVISIONS
6-1-2009	MISC. DIMENSION CHANGE
1-1-2011	REVISED NOTES
	REVISED NOTES

HEADWALL TYPE III
18"-24"-30"-36"-42"-48"
FOR 1:4, 1:6, AND 1:10 SLOPES
STANDARD B6-02