

DETAIL OF PRECAST CONCRETE BOX CULVERT SECTION

(WITH LESS THAN 2 FEET OF COVER AASHTO DESIGNATION M273)
DESIGN LOADING: HS-20-44

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	WILLIAMSON	917	798
STA. TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			
* I-57, & OLD IL 13 (FAU 9629)			
** (X1-6-2)VB-2, (X1-6)HKB-2			

GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04 OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

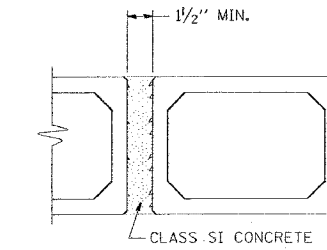
THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH ARTICLE 1055 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE BOX SECTIONS ARE IN PLACE.

THE TERMS A_{S1} , A_{S2} , ETC. DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN AASHTO M273.

REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO ASTM SPECIFICATIONS A 185 OR A 497. LONGITUDINAL DISTRIBUTION REINFORCEMENT MAY CONSIST OF WELDED WIRE FABRIC OR DEFORMED BILLET-STEEL BARS CONFORMING TO AASHTO M-31, M-42, GRADE 60.

DRAINAGE OPENINGS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 503.12 OF THE STANDARD SPECIFICATIONS. LOCATION AND SPACING OF THE OPENINGS SHALL BE SHOWN ON THE SHOP DRAWINGS.

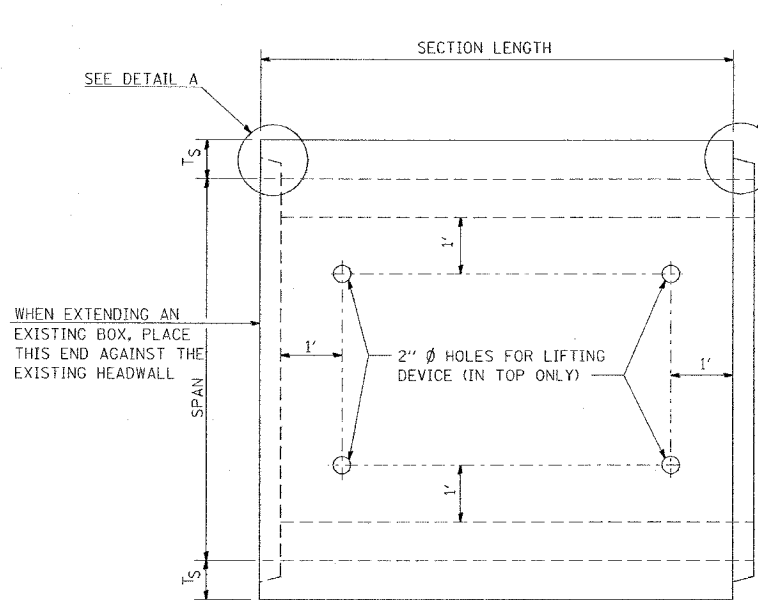


MULTIPLE UNIT PLACEMENT

DIMENSIONS & EDGE BEAM REINFORCEMENT

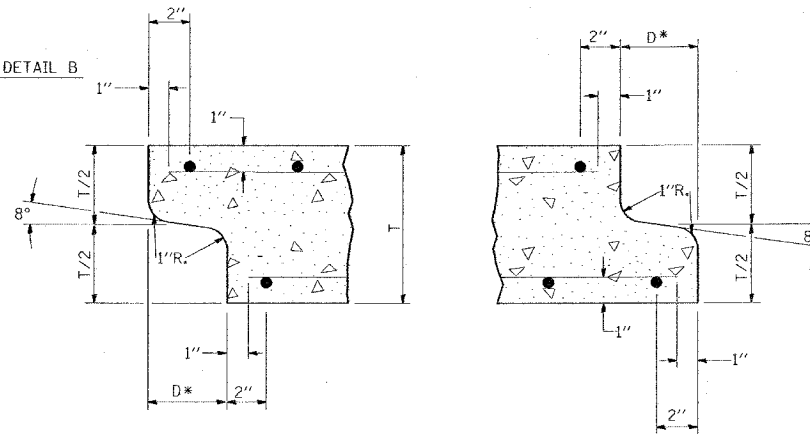
SPAN X RISE	DIMENSIONS (INCHES)			EDGE BEAM REINF. AREA (IN ² /FT.)
	T_T	T_B	T_S	A_{S10}
3' X 2'	7	6	4	0.42
3' X 3'	7	6	4	0.42
4' X 2'	7 1/2	6	5	0.59
4' X 3'	7 1/2	6	5	0.59
4' X 4'	7 1/2	6	5	0.59
5' X 3'	8	7	6	0.59
5' X 4'	8	7	6	0.59
5' X 5'	8	7	6	0.59
6' X 2'	8	7	7	0.73
6' X 3'	8	7	7	0.73
6' X 4'	8	7	7	0.73
6' X 5'	8	7	7	0.73
6' X 6'	8	7	7	0.73
7' X 4'	8	8	8	0.85
7' X 5'	8	8	8	0.85
7' X 6'	8	8	8	0.85
7' X 7'	8	8	8	0.85
8' X 4'	8	8	8	1.00
8' X 5'	8	8	8	1.00
8' X 6'	8	8	8	1.00
8' X 7'	8	8	8	1.00
8' X 8'	8	8	8	1.00

SPAN X RISE	DIMENSIONS (INCHES)			EDGE BEAM REINF. AREA (IN ² /FT.)
	T_T	T_B	T_S	A_{S10}
9' X 5'	9	9	9	1.00
9' X 6'	9	9	9	1.00
9' X 7'	9	9	9	1.00
9' X 8'	9	9	9	1.00
9' X 9'	9	9	9	1.00
10' X 5'	10	10	10	0.89
10' X 6'	10	10	10	0.89
10' X 7'	10	10	10	0.89
10' X 8'	10	10	10	0.89
10' X 9'	10	10	10	0.89
10' X 10'	10	10	10	0.89
11' X 4'	11	11	11	0.89
11' X 6'	11	11	11	0.89
11' X 8'	11	11	11	0.89
11' X 10'	11	11	11	0.89
11' X 11'	11	11	11	0.89
12' X 4'	12	12	12	0.89
12' X 6'	12	12	12	0.89
12' X 8'	12	12	12	0.89
12' X 10'	12	12	12	0.89
12' X 12'	12	12	12	0.89

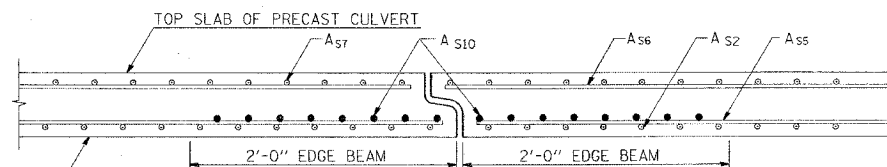


WHEN EXTENDING AN EXISTING BOX, PLACE THIS END AGAINST THE EXISTING HEADWALL

PLAN
LOCATION OF LIFTING HOLES MAY BE VARIED AS NEEDED TO CLEAR REINFORCEMENT.

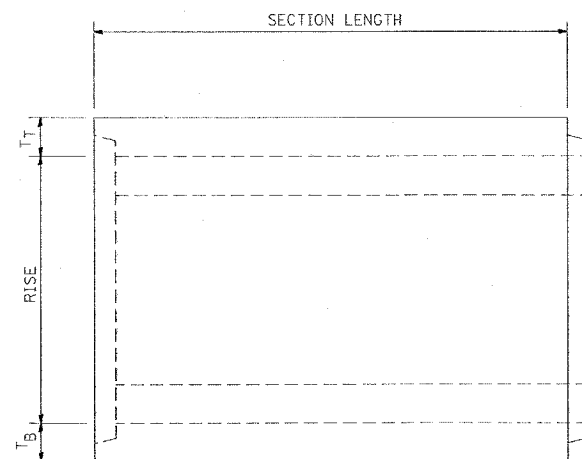


DETAIL A
(TYP. INLET END)
DETAIL B
(TYP. OUTLET END)
NOTE: INLET AND OUTLET ENDS SHALL BE COMPATIBLE.
* THE D DIMENSION SHALL CONFORM TO THE MANUFACTURER'S STANDARDS.

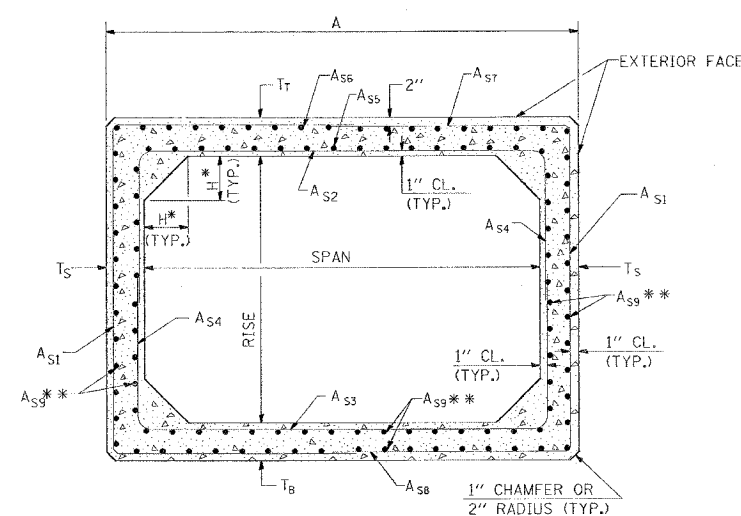


DETAIL OF EDGE BEAM

NOTE: THE A_{S10} REINFORCEMENT SHALL BE THE SAME LENGTH AS THE A_{S2} .



ELEVATION



CROSS SECTION

* THE HAUNCH DIMENSION, H, IS EQUAL TO THE WALL THICKNESS, T_S .
** THE AREA OF A_{S9} REINFORCEMENT SHALL BE A MINIMUM OF 0.12 SQ. IN./FT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAIL:
PRECAST CONCRETE BOX CULVERT SECTION WITH LESS THAN 2' OF COVER

SCALE: VERT. NONE
HORIZ.
DATE: _____ DRAWN BY CNH
CHECKED BY _____

REVISIONS	
DATE	DESCRIPTION
12-17-01	REVISION 12-17-01
3-27-98	REVISION 3-27-98
3-11-92	REVISION 3-11-92
8-16-94	REVISION 8-16-94

STD. 9-49