

# DETAIL OF PRECAST CONCRETE BOX CULVERT SECTION

WITH LESS THAN 2 FEET OF COVER  
ASTM DESIGNATION C-850  
AASHTO DESIGNATION M-273  
DESIGN LOADING: HS-20-44

### GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04(A) 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 755.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

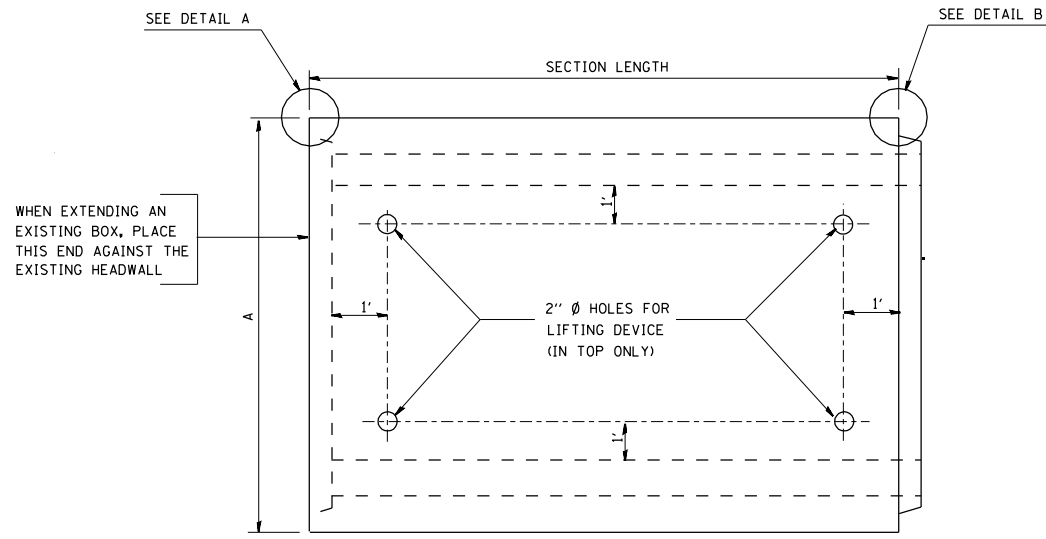
LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE BOX SECTIONS ARE IN PLACE.

THE TERMS AS1, AS2, AND AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM 850. REINFORCEMENT SHALL BE OF WELDED WIRE FABRIC CONFORMING TO ASTM SPECIFICATIONS S 185.

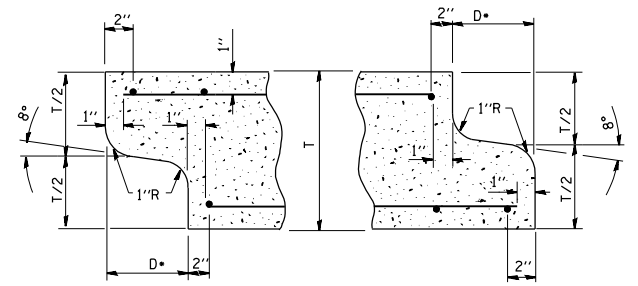
DRAINAGE OPENINGS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 503.12 OF THE STANDARD SPECIFICATIONS. LOCATION AND SPACING OF THE OPENINGS SHALL BE SHOWN ON THE SHOP DRAWINGS.

### DIMENSIONS

SPAN X RISE	T	A	B	C	SPAN X RISE	T	A	B	C
	(INCHES)	(FT-IN)	(FT-IN)	(INCHES)		(INCHES)	(FT-IN)	(FT-IN)	(INCHES)
2' X 2'	4	2-8	2-8	4	9' X 5'	9	10-6	6-6	9
3' X 2'	4	3-8	2-8	4	9' X 6'	9	10-6	7-6	9
3' X 3'	4	3-8	3-8	4	9' X 7'	9	10-6	8-6	9
4' X 2'	5	4-10	2-10	5	9' X 8'	9	10-6	9-6	9
4' X 3'	5	4-10	3-10	5	9' X 9'	9	10-6	10-6	9
4' X 4'	5	4-10	4-10	5					
5' X 2'	6	6-0	3-0	6	10' X 4'	10	11-8	5-8	10
5' X 3'	6	6-0	4-0	6	10' X 5'	10	11-8	6-8	10
5' X 4'	6	6-0	5-0	6	10' X 6'	10	11-8	7-8	10
5' X 5'	6	6-0	6-0	6	10' X 7'	10	11-8	8-8	10
6' X 2'	7	7-2	3-2	7	10' X 8'	10	11-8	9-8	10
6' X 3'	7	7-2	4-2	7	10' X 9'	10	11-8	10-8	10
6' X 4'	7	7-2	5-2	7	10' X 10'	10	11-8	11-8	10
6' X 5'	7	7-2	6-2	7					
6' X 6'	7	7-2	7-2	7	11' X 4'	11	12-10	5-10	11
					11' X 6"	11	12-10	7-10	11
					11' X 8'	11	12-10	9-10	11
7' X 4'	8	8-4	5-4	8	11' X 10'	11	12-10	11-10	11
7' X 5'	8	8-4	6-4	8	11' X 11'	11	12-10	12-10	11
7' X 6'	8	8-4	7-4	8					
7' X 7'	8	8-4	8-4	8					
					12' X 4'	12	14-0	6-0	12
8' X 4'	8	9-4	5-4	8	12' X 6'	12	14-0	8-0	12
8' X 5'	8	9-4	6-4	8	12' X 8'	12	14-0	10-0	12
8' X 6'	8	9-4	7-4	8	12' X 10'	12	14-0	12-0	12
8' X 7'	8	9-4	8-4	8	12' X 12'	12	14-0	14-0	12
8' X 8'	8	9-4	9-4	8					

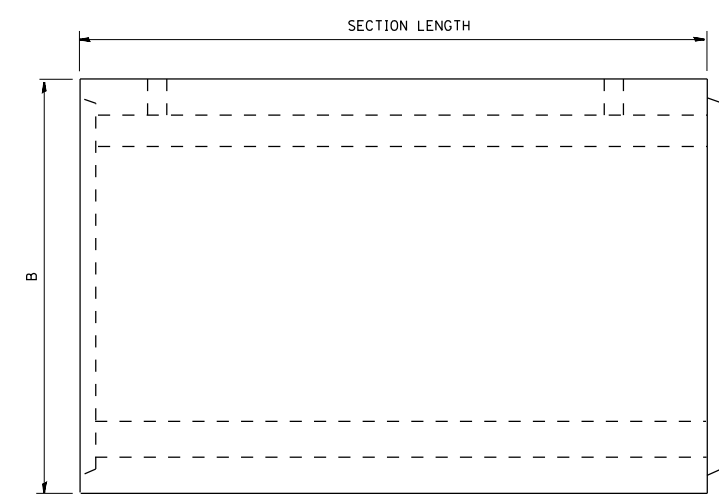


**PLAN**  
LOCATION OF LIFTING HOLES MAY BE VARIED AS NEEDED TO CLEAR REINFORCEMENT.

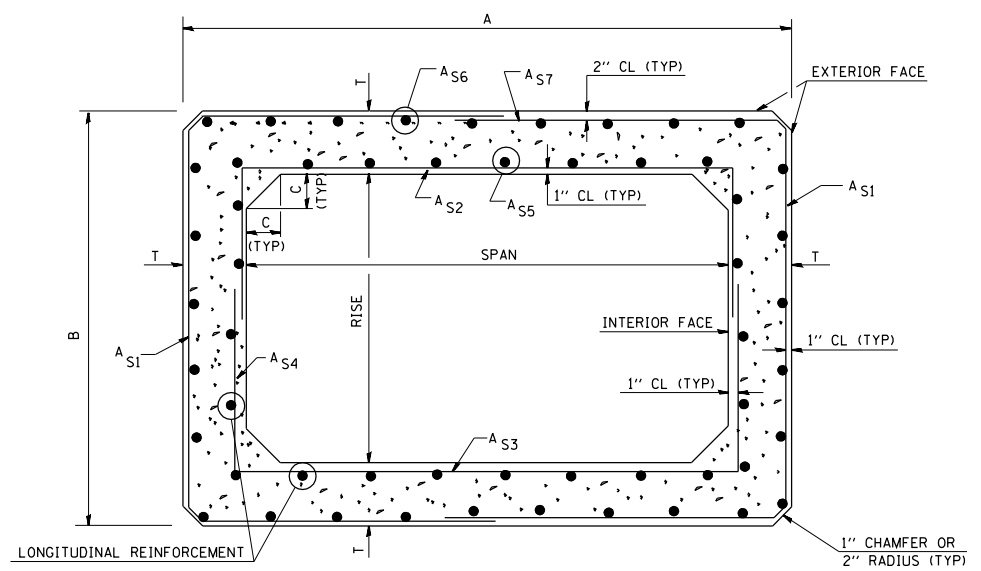


**DETAIL A**  
(TYP INLET END)      **DETAIL B**  
(TYP OUTLET END)

NOTE: INLET AND OUTLET ENDS SHALL BE COMPATIBLE  
• THE D DIMENSION SHALL CONFORM TO THE MANUFACTURE'S STANDARDS.



**ELEVATION**



**CROSS SECTION**

FILE NAME = boxcul.dgn	USER NAME = rjo	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE BOX CULVERT</b>				F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 110
		DRAWN -	REVISED -		SCALE:      SHEET NO.      OF      SHEETS      STA.      TO STA.				CONTRACT NO. 76884				
		CHECKED -	REVISED -		FED. ROAD DIST. NO.      ILLINOIS      FED. AID PROJECT								
		DATE - 10/19/11	REVISED -										