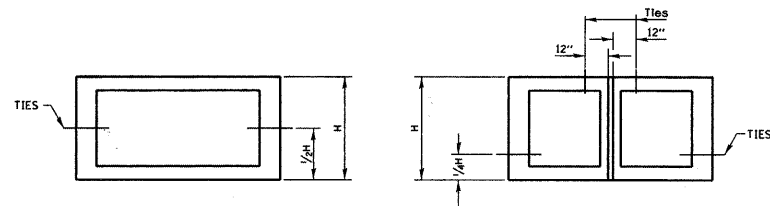


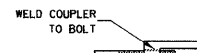
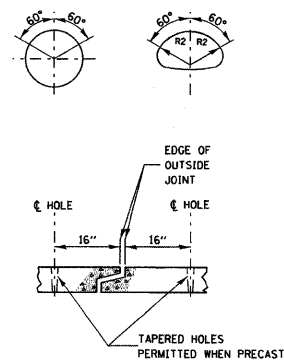
THE CULVERT TIES SHALL BE INCLUDED IN THE COST OF THE CONCRETE PIPE CULVERTS OR THE PRECAST CONCRETE BOX CULVERT. THE MECHANICAL TIES SHALL BE ON THE OUTSIDE OF THE CULVERT. THE NUTS AND WASHERS SHALL BE PLACED ON THE INSIDE OF THE CULVERT AND COVERED WITH MASTIC JOINT SEALER CONFORMING TO ARTICLES 1055 OR 1056 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



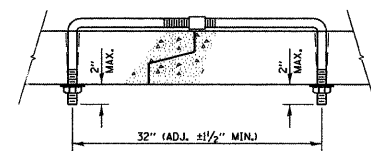
PLACEMENT OF HOLES		
BOX CULVERT FEET	PIPE SIZE INCHES	THREAD DIAMETER INCHES
	12	5/8
	15	ROLLED THREADS (SEE NOTE 4)
	18	
	21	
	24	
	27	
	30	
3 x 2	33	
3 x 3	36	3/4
4 x 2	42	CUT OR ROLLED
4 x 3	48	
4 x 4	54	
5 x 3	60	
5 x 4	66	
5 x 5	72	
6 x 4	78	
7 x 4	84	1
8 x 4	90	CUT OR ROLLED
9 x 4	96	
10 x 4	102	
	108	
	114	
11 x 4 AND GREATER	118 AND GREATER	1 1/4

NOTES:

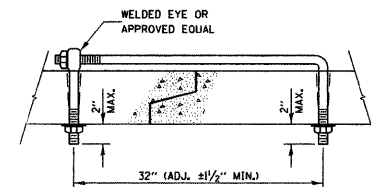
- HOLES SHALL BE CAST-IN OR DRILLED 16" FROM OUTSIDE EDGE OF JOINT.
- NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 27" DIAMETER PIPE OR LESS.
- TIES ARE NOT REQUIRED FOR BELL PIPE 24" AND SMALLER. ON OTHER SIZES TIE MAY BE INSERTED FROM INSIDE.
- CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
- PIPE SIZE LISTED IS INSIDE DIAMETER OF ROUND PIPE OR EQUIVALENT DIAMETER OF PIPE ARCH OR ELLIPTICAL.
- BOLTS, NUTS & WASHERS SHALL CONFORM TO ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS.



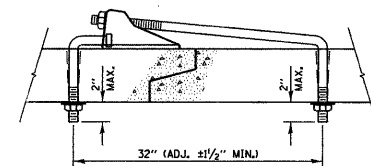
TOP VIEW



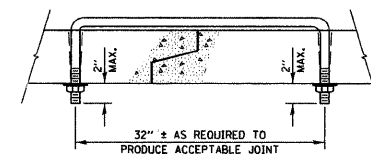
ADJUSTABLE TIE



EYE BOLT TIE



CANOPY TIE



U BOLT TIE

540-22

FILE NAME = 110005-sht-bridge.dgn	USER NAME =	DESIGNED - D.W.T.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CULVERT DETAILS STRUCTURE NO. 016-6803	F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3088 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			2556	08-00094-01-BR	COOK	30	23	
ILR ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.002989	PLOT DATE = 9/9/2011	DRAWN - D.A.B.	REVISED -			VILLAGE OF SCHALMBURG	CONTRACT NO. 63636		ILLINOIS FED. AID PROJECT		
		CHECKED - S.W.M.	REVISED -			SHEET NO. 6 OF 9 SHEETS					