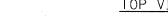
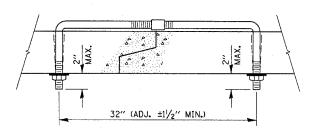
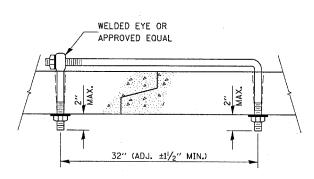


TOP VIEW

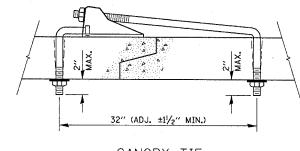




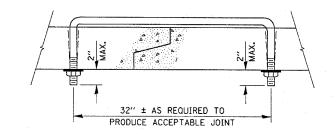
ADJUSTABLE TIE



EYE BOLT TIE

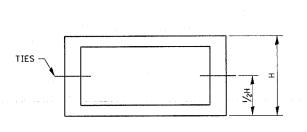


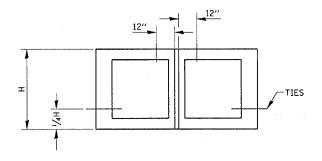
CANOPY TIE



U BOLT TIE

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 OF THE CULVERT AND COVERED
WITH MASTIC JOINT SEALER CONFORMING TO ARTICLES 1055 OR 1056 IN THE STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION.

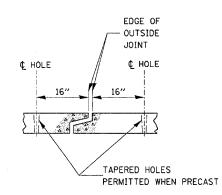




PLACEMENT OF HOLES								
BOX CULVERT	PIPE SIZE	THREAD						
		DIAMETER						
FEET	INCHES	INCHES						
	12	5/8						
İ	15	ROLLED						
	18	THREADS						
i	21	(SEE						
	24	NOTE 4)						
'	27							
	30							
3 x 2	33							
3 x 3	36	3/4						
4 x 2	42	CUT						
4 x 3	48	0R						
4 x 4								
5 x 3	5 x 3 60							
5 x 4	66							
5 × 5	72							
6 x *	78							
7 x *	84	1						
8 x *	90	CUT						
9 x *	96	ÓR						
10 x *	102 ROLLED							
	108							
	120							
	132							
11 x •	138	1 1/4						
AND GREATER	AND GREATER							

NOTES:

- 1. HOLES SHALL BE CAST-IN OR DRILLED 16" FROM OUTSIDE EDGE OF JOINT.
- 2. 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.
- 4. CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
- 5. PIPE SIZE LISTED IS INSIDE DIAMETER OF ROUND PIPE OR EQUIVALENT DIAMETER OF PIPE ARCH OR ELLIPTICAL.
- 6. GALVANIZING OF TIES IS REQUIRED.



FILE NAME =	USER NAME = fergusonsa	DESIGNED -	REVISED -
c:\projects\ed03806\sheets.dgn		DRAWN -	REVISED -
·	PLOT SCALE = 20.0000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = Oct 31, 2007 - 03:53:43 PM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS		5	F.A.S. SECTION		COUNTY	TOTAL	SHEET NO.							
		BOX COLVERIZ	317	36 BR		IROQUOIS	29	17						
									11	17+00	1123+00	CONTRACT	NO. 66	6646
	SHEET	NO.	OF	SHEETS	STA.		TO STA.		FED. RO	DAD DIST, NO.	ILLINOIS FED. A	ID PROJECT		