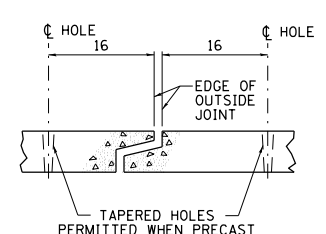
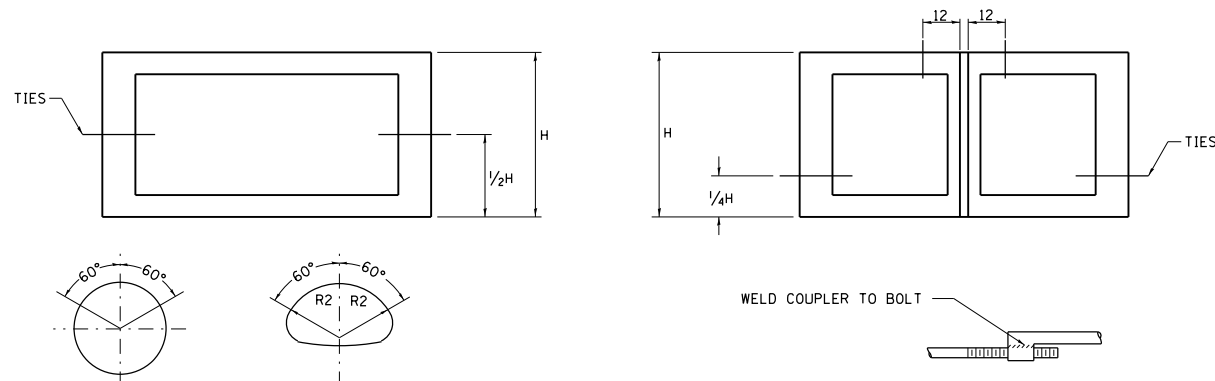


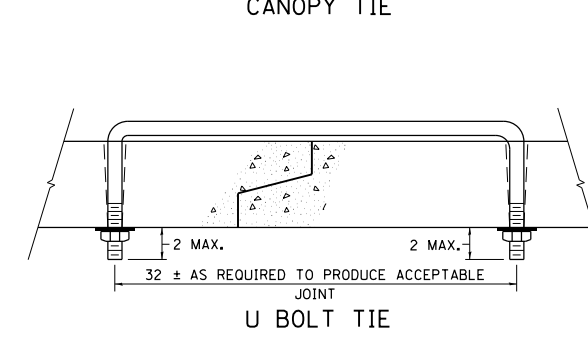
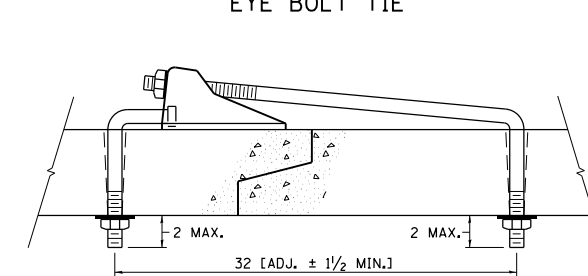
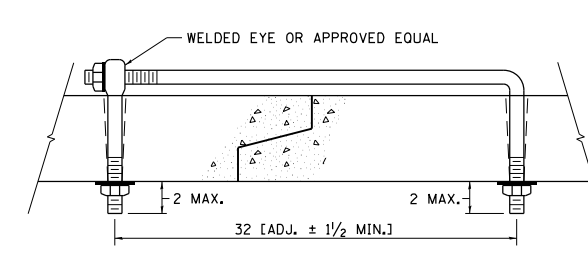
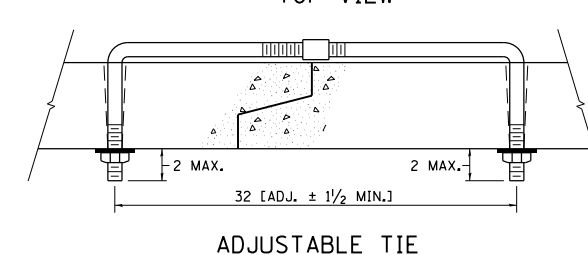
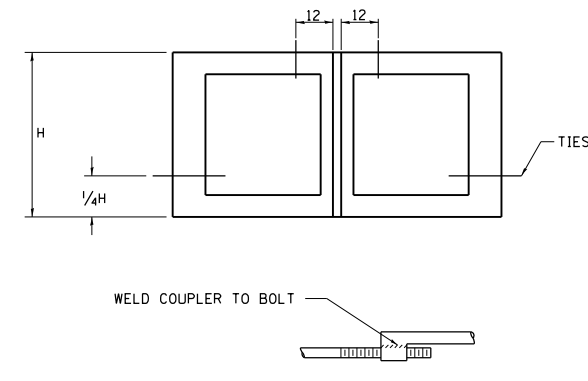
MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS

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.

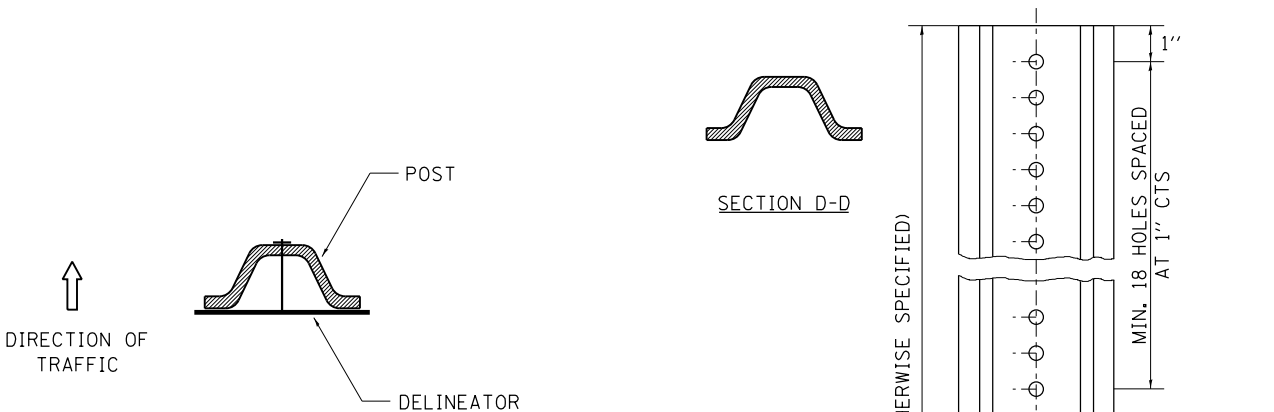


PLACEMENT OF HOLES		
BOX CULVERT FEET	PIPE SIZE INCHES	THREAD DIAMETER
	12	3/8 ROLLED THREADS (SEE NOTE 4)
	15	
	18	
	21	
	24	
	27	
	30	3/4 CUT OR ROLLED
3x2	33	
3x3	36	
4x2	42	
4x3	48	
4x4	54	
5x3	60	1 CUT OR ROLLED
5x4	66	
5x5	72	
6x*	78	
7x*	84	
8x*	90	
9x*	96	1 1/4
10x*	102	
	108	
	120	
11 x * AND GREATER	138 AND GREATER	

- NOTES:**
- HOLES SHALL BE CAST-IN OR DRILLED 16 FROM OUTSIDE EDGE OF JOINT.
 - NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 27 DIAM. 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 DIAM. OF ROUND PIPE OR EQUIVALENT DIAM. OF PIPE ARCH OR ELLIPTICAL.
 - GALVANIZING OF TIES IS REQUIRED.
 - ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



DELINEATOR AND POST ORIENTATION



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHED AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-03-11

DELINEATOR AND POST ORIENTATION 37.4

PLOT DATE = Wed Jun 05 08:10:50 2013

REVISED - 10-14-11

REVISED -	REGION 2 / DISTRICT 2 STANDARD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -		306	106M-3	JoDAVISS	12	10
REVISED -		CONTRACT NO. 64H82				
REVISED -		SCALE: 40,000' / 1"	SHEET NO.	OF SHEETS	STA.	TO STA.