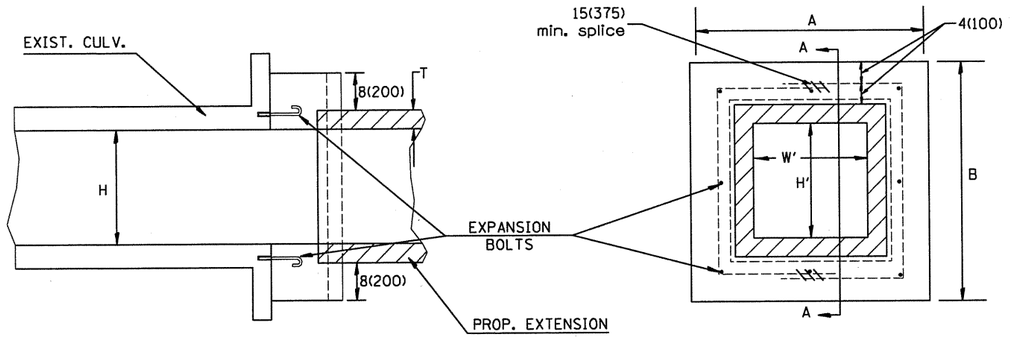
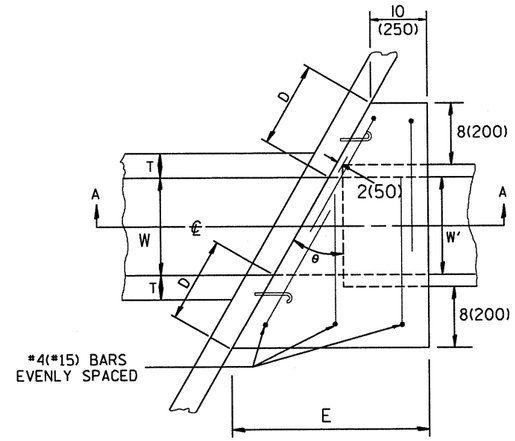
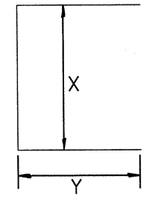


SECTION A - A

END VIEW



PLAN VIEW



#4(#15)□BAR
FIVE REQUIRED
PER COLLAR

$D = \frac{8(200)+T}{\cos\theta}$

$E = [W+16(410)+2T]\tan\theta+10(250)$

$X = B-8(200)$

$Y = \frac{W/2+T+4(100)}{\cos\theta}+7\frac{1}{2}(190)$

LOCATION	EXIST. BOX		PROP. BOX			CLASS SI CONCRETE CU. YD. (m^3)	EACH COLLAR					REBARS LBS.(KG)	¾(M20) EXPANSION BOLTS EACH	EXT. LENGTH		END SEC.	SKEW ANGLE θ
	W	H	W'	H'	T		A	B	E	X	Y			LT.	RT.		
206+25	3	3	3	3	0.33	2.0	5'-0"	5'-0"	5'-10"	4'-4"	3'-8"	39.0	12				45°

QUANTITIES

CALC. BY: _____ DATE:

CHECKED BY: _____ DATE:

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION

GENERAL NOTES

1. The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. Reinforcement bars shall conform to section 508.

2. Expansion bolts shall consist of approved expansion anchors, and ¾(M20) hook bolts which conform to section 1006.08. These bolts shall extend at least 8(200) into the new concrete.

All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. J-12.06, NEW REVISION BOX, REVISED	T.P.
	TITLE BOX, ADDED QUANTITY CALCULATION BOX	
10-16-06	REVISED TO 2007 SPEC.	M.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST SKEWED BOX CULVERT EXTENSION COLLAR

NOT TO SCALE

CADD STD. 540106-04

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	15W-2,RS-3;16W-3,RS-5	FULTON	171	106
		CONTRACT NO. 88098		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		