

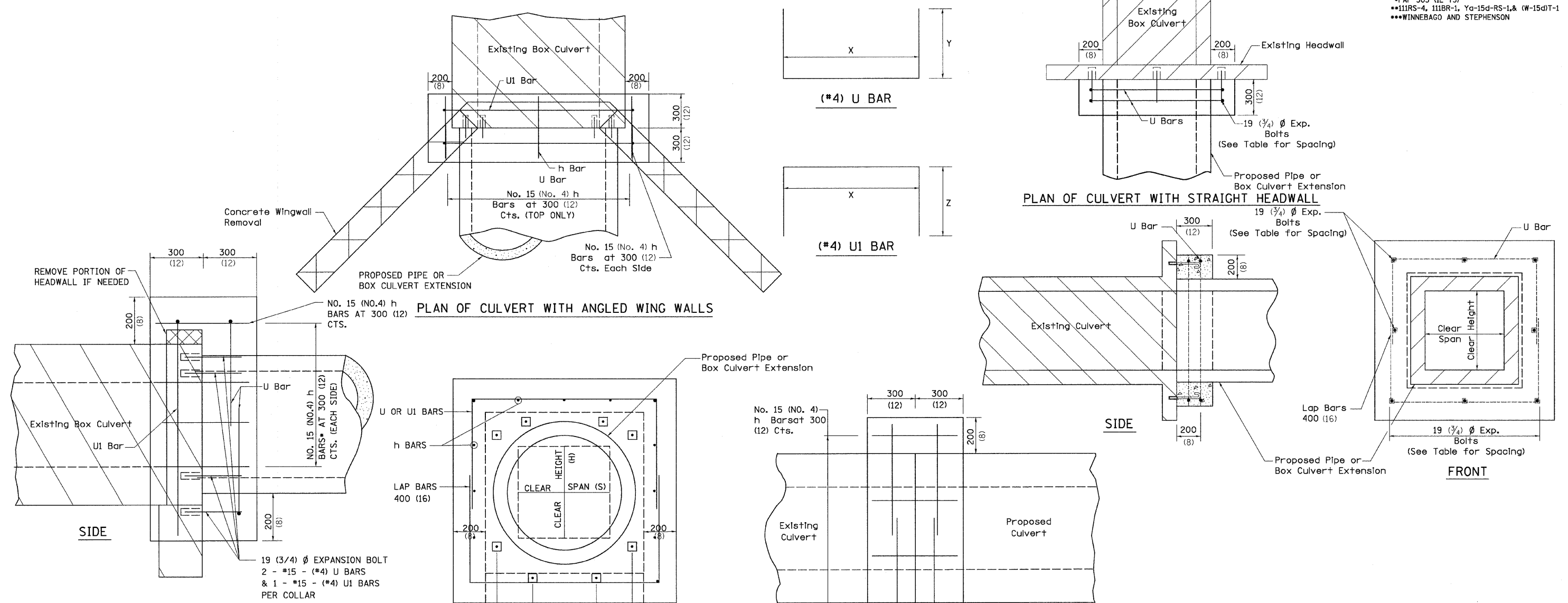
CONCRETE COLLARS FOR PIPE OR BOX CULVERT EXTENSIONS

CONTRACT NO. 64970

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	335	168

STA. _____ TO STA. _____
 FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT

•FAP 505 (IL 75)
 ••11RS-4, 111BR-1, Ya-15d-RS-1, & (W-15d)T-1
 •••WINNEBAGO AND STEPHENSON



PLACEMENT DETAILS FOR EXPANSION BOLTS

H OR S	NUMBER OF EXPANSION BOLTS REQUIRED PER SIDE			
	EXTENSIONS < 4.57m (15')		EXTENSIONS > 4.57m (15')	
	NUMBER	SPACING	NUMBER	SPACING
600 (24)	*		*	
750 (30)	2	450 (18)	2	450 (18)
900 (36)	2	600 (24)	2	600 (24)
1200 (48)	3	450 (18)	3	450 (18)
1500 (60)	4	400 (16)	3	600 (24)
1800 (72)	5	375 (15)	4	500 (20)
2100 (84)	5	450 (18)	4	600 (24)
2400 (96)	6	375 (15)	5	525 (21)
2700 (108)	6	475 (19)	5	600 (24)
3000 (120)	7	450 (18)	6	525 (21)
3300 (132)	8	425 (17)	6	600 (24)
3600 (144)	8	475 (19)	7	550 (22)

**Remove all concrete in front of existing concrete headwall. Cost included with Concrete Collar.

FRONT

STATION	DIMENSIONS			h Bar No.	U Bar		U ₁ Bar No.	EXPANSION BOLTS No.	CONCRETE COLLAR Cu. yds.	REINF. BARS Lbs.
	X	Y	Z		No.	Length				
10990+83 RT**	4'-8"	3'-0"	-	-	4	10'-8"	-	8	0.8	30
10990+83 LT	4'-8"	3'-0"	-	-	4	10'-8"	-	8	0.8	30
114+42 RT(IL-70)	5'-8"	3'-6"	-	16	4	12'-8"	-	8	1.1	50
114+42 LT(IL-70)	5'-8"	3'-6"	-	16	4	12'-8"	-	8	1.1	50
10710+42 LT	6'-0"	3'-8"	-	16	4	13'-4"	-	8	1.1	60
10710+42 RT	6'-0"	3'-8"	-	16	4	13'-4"	-	8	1.1	60
10714+46 RT	5'-6"	3'-5"	5'-6"	16	2	12'-4"	1	16'-6"	1.3	50
							Total	56	7.3	330

All h Bars 450 (18) Long

General Notes

Concrete Collars shall be constructed of Class SI Concrete in accordance with Section 503 of the Standard Specifications

Reinforcement bars shall conform to Section 508 of the Standard Specifications.

The concrete will be paid for at the contract unit price per cubic yard for CONCRETE COLLAR. Reinforcement will be paid for at the contract unit price per pound for REINFORCEMENT BARS. Expansion Bolts, when required, will be paid for at the contract unit price each for EXPANSION BOLTS of the size indicated, which price shall include furnishing, drilling holes, and installing the expansion bolts complete in place. These bolts shall extend at least 8 inches into the new concrete.

PLOT DATE = 3/2/2009
 FILE NAME = #FILEL*
 SCALE = 1/8"=1'-0"
 REFERENCE = #REF*

* MINIMUM ONE PER SIDE