

SCHEDULE OF QUANTITIES

STATION	DIMENSIONS		U Bar		h Bar	EXPANSION BOLTS	CONCRETE COLLAR	REINF. BARS
	X	Y	No.	Length	No.	No.	Cu. Yd	LBS
STA. 175+28 (LT)	3'-10"	2'-7"	4	8'-8"	11	8	0.57	34.16
STA. 180+66.4 (LT)	4'-4"	2'-10"	4	10'-0"	12	8	0.66	38.72
STA. 180+66.4 (RT)	4'-4"	2'-10"	4	10'-0"	12	8	0.66	38.72
STA. 199+17 (LT)	3'-10"	2'-7"	4	8'-8"	11	8	0.57	34.16
STA. 199+17 (RT)	3'-10"	2'-7"	4	8'-8"	11	8	0.57	34.16
					Total	40	3.1	180.0

All h Bars 450 (18) Long

General Notes

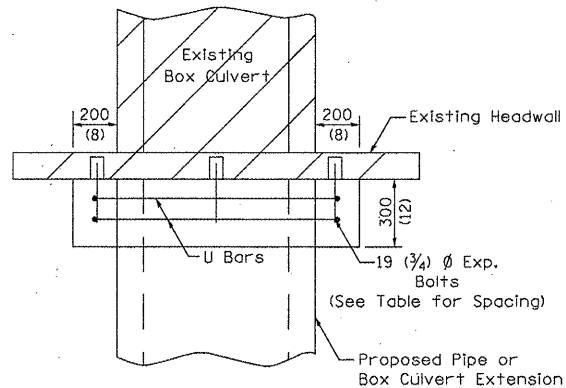
CONCRETE COLLARS SHALL BE CONSTRUCTED OF CLASS SI CONCRETE IN ACCORDANCE WITH SECTION 503 OF THE STANDARD SPECIFICATIONS.

REINFORCEMENT BARS SHALL CONFORM TO SECTION 508 OF THE STANDARD SPECIFICATIONS.

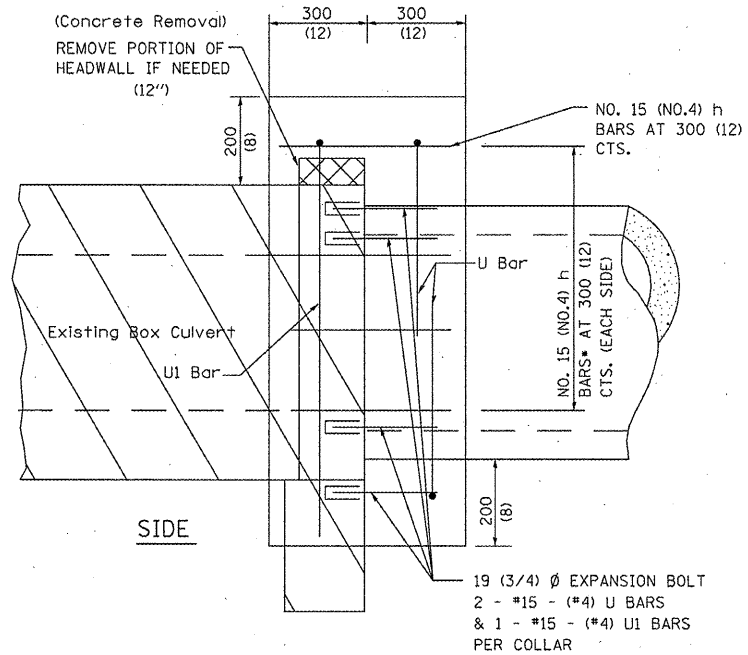
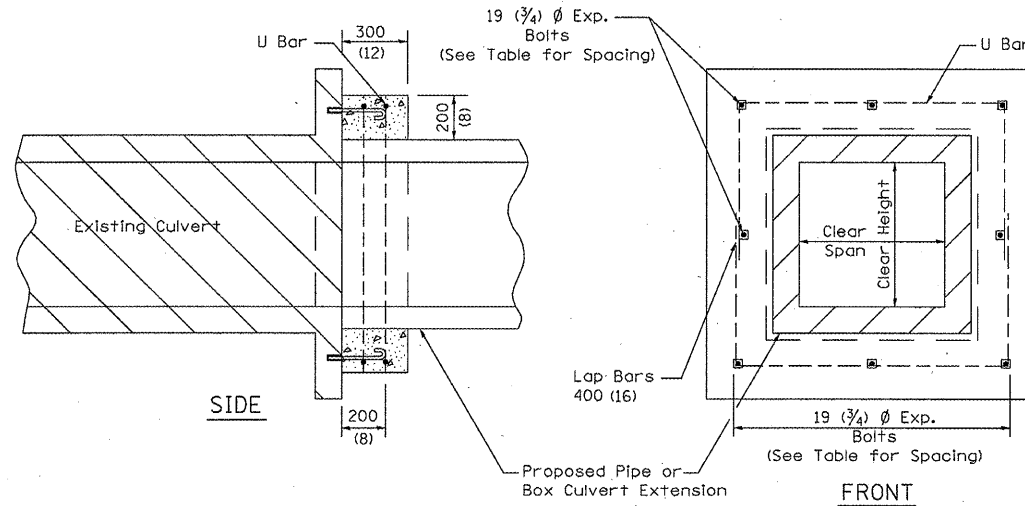
THE CONCRETE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CONCRETE COLLAR. REINFORCEMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND FOR REINFORCEMENT BARS. EXPANSION BOLTS, WHEN REQUIRED, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR EXPANSION BOLTS OF THE SIZE INDICATED, 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.

ONCE THE CONSTRUCTION OF THE PRECAST REINFORCED CONCRETE FLARED END SECTIONS ARE COMPLETED, BACK FILL IS REQUIRED AROUND THE END SECTIONS TO HAVE CONSISTENT GRADE WHICH MATCHES THE SURROUNDING CONDITIONS. THIS WORK SHALL BE APPROVED BY THE ENGINEER.

THE CONTRACTOR MAY BE REQUIRED TO REMOVE BRUSH AND TREES TO CONSTRUCT THE P.R.C.F.E.S EXTENSIONS. THE PRICE SHALL BE INCLUDED IN THE PRICE PER EACH FOR PRECAST REINFORCED CONCRETE FLARED END SECTIONS OF THE TYPE SPECIFIED.



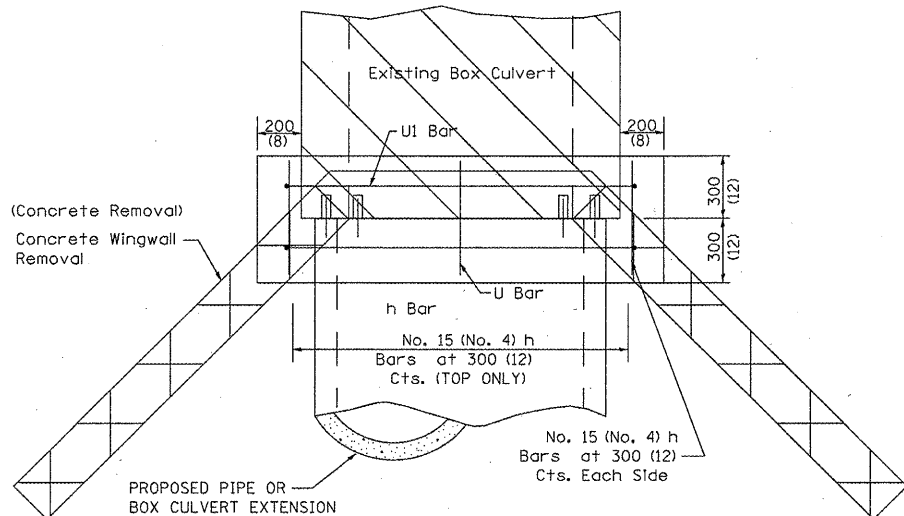
PLAN OF CULVERT WITH STRAIGHT HEADWALL



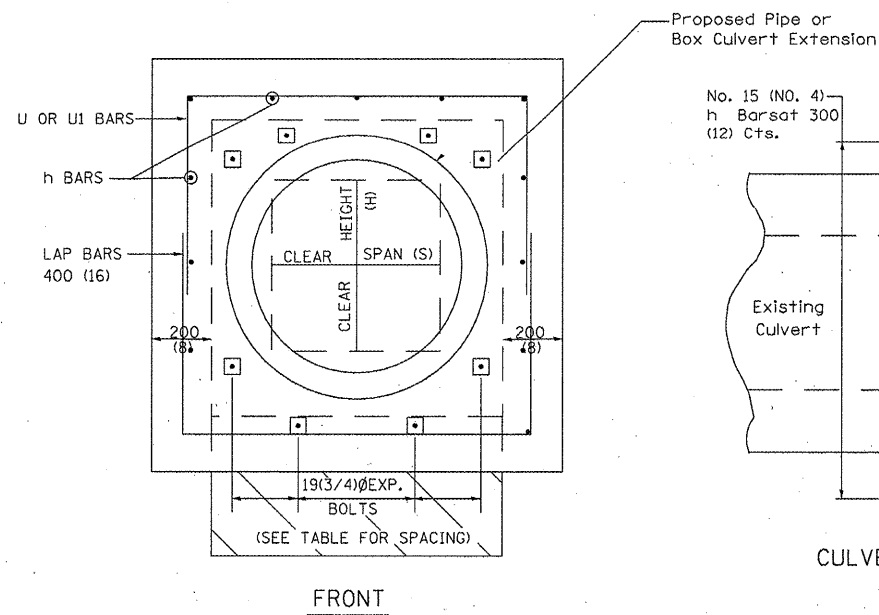
PLACEMENT DETAILS FOR EXPANSION BOLTS

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)

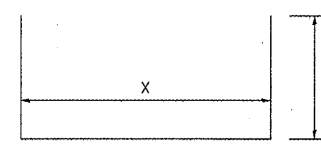
\* MINIMUM ONE PER SIDE



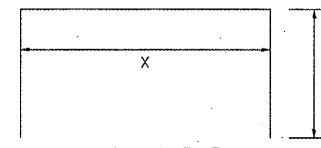
PLAN OF CULVERT WITH ANGLED WING WALLS



CULVERT CONNECTION WITHOUT EXISTING HEADWALL



#4 U BAR



#4 U1 BAR

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
#FILE#		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIPE EXTENSION DETAIL

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	233RS	ST. CLAIR	31	20
SCALE: _____		SHEET NO. ___ OF ___ SHEETS		STA. _____ TO STA. _____
FED. ROAD DIST. NO. ___ ILLINOIS FED. AID PROJECT				