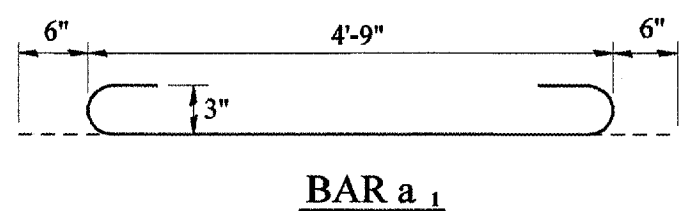
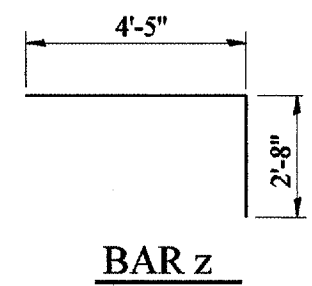
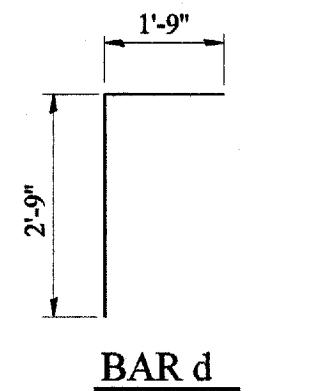
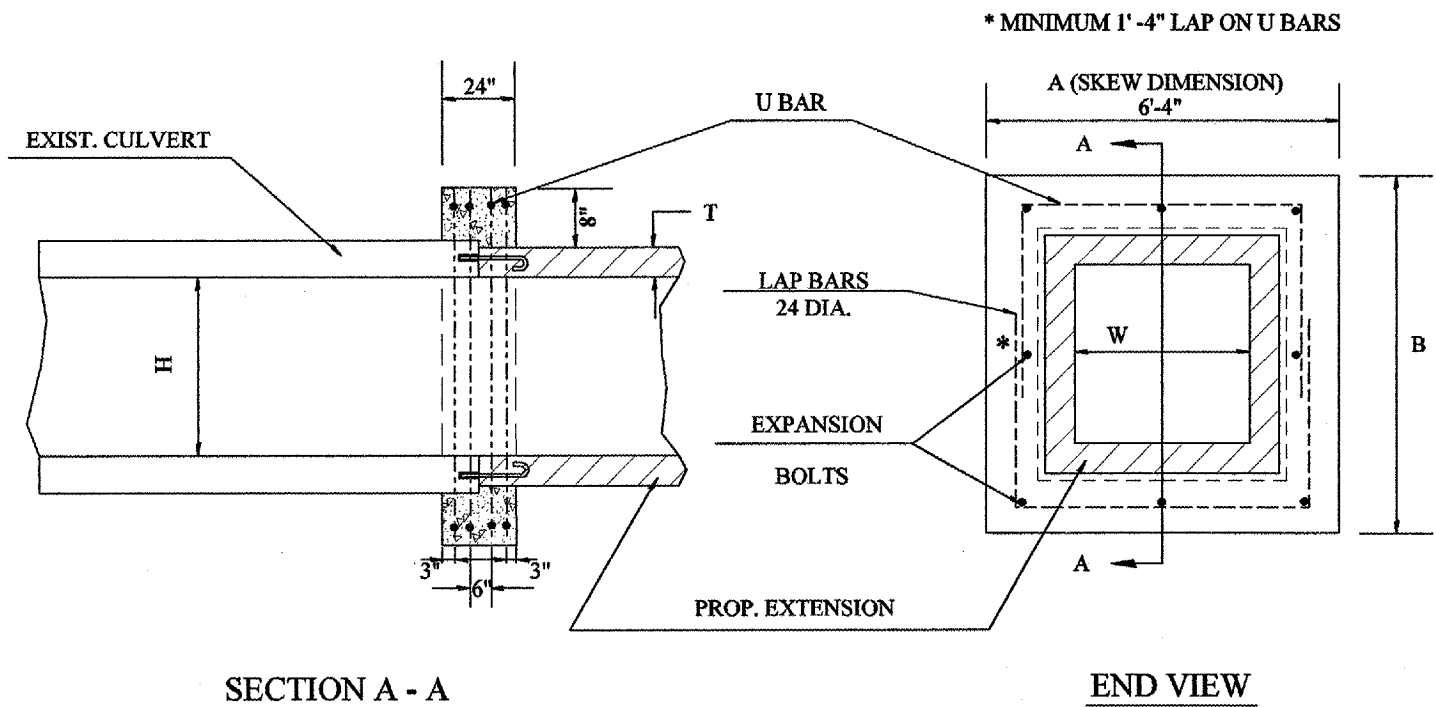


68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	28
STA. 856+50		TO STA. 862+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

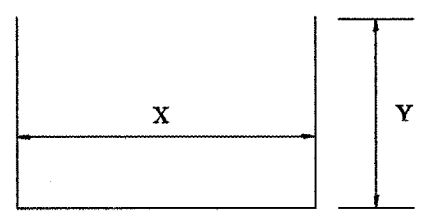


**BILL OF MATERIAL FOR CULVERT EXTENSION**

Bar	No.	Size	Length	Shape
a <sub>1</sub>	204	#4	5'-9"	
a <sub>2</sub>	34	#4	4'-9"	
d	12	#4	4'-6"	
h	16	#5	31'-9"	
h <sub>1</sub>	20	#4	31'-9"	
h <sub>2</sub>	24	#5	31'-9"	
h <sub>3</sub>	28	#4	15'-5"	
h <sub>4</sub>	4	#6	15'-5"	
h <sub>5</sub>	8	#4	6'-6"	
h <sub>6</sub>	28	#4	5'-11"	
u	16	#4	18'-8"	
v	192	#4	6'-9"	
v <sub>1</sub>	8	#4	9'-9"	
v <sub>3</sub> (E)	46	#4	6'-9" to 9'-9"	
w	12	#5	15'-4"	
w <sub>1</sub>	12	#5	5'-11"	
z	66	#5	7'-1"	
stirrup	12	#4	3'-9"	
Class SI Concrete			Cu. Yd.	45.2
Reinforcement Bars, Epoxy Coated			Pound	254
Reinforcement Bars			Pound	5,051

**GENERAL NOTES**

- 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.
  - Expansion bolts shall consist of approved expansions anchors, and M20 (3/4") hook bolts which conform to Section 1006.09. These bolts shall extend at least 200(8") into the new concrete.
- \* Dimensions for ASTM C789.



#4 U BAR  
FOUR REQUIRED  
PER COLLAR

**BILL OF MATERIAL FOR CONCRETE COLLAR**

EXISTING BOX		A	B	T *	EACH COLLAR			
W (ft)	H (ft)				Conc. Collar (CU YD)	REINFORCEMENT BARS POUNDS	EXPANSION BOLTS NO.	
4'-0"	6'-0"	8'-0" (SKEW) 6'-4"	8'-5"	6"	1.50	X: 7'-8", Y: 5'-6"	100	14

**DESIGN STRESSES**

f<sub>y</sub> = 60,000 psi  
f<sub>c</sub> = 3,500 psi

Max. Soil Pressure under footing = 2,508 psf

CULVERT EXTENSION DETAILS  
STA. 860+23  
LOCATION #4

PLAN	SURVEYED	DATE
	NOTED	
	BY	
	NO. OF WAY CHECKED	
	DATE	
	CAD FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	NOTED	
	BY	
	NO. OF WAY CHECKED	
	DATE	
	CAD FILE NAME	
	NO.	