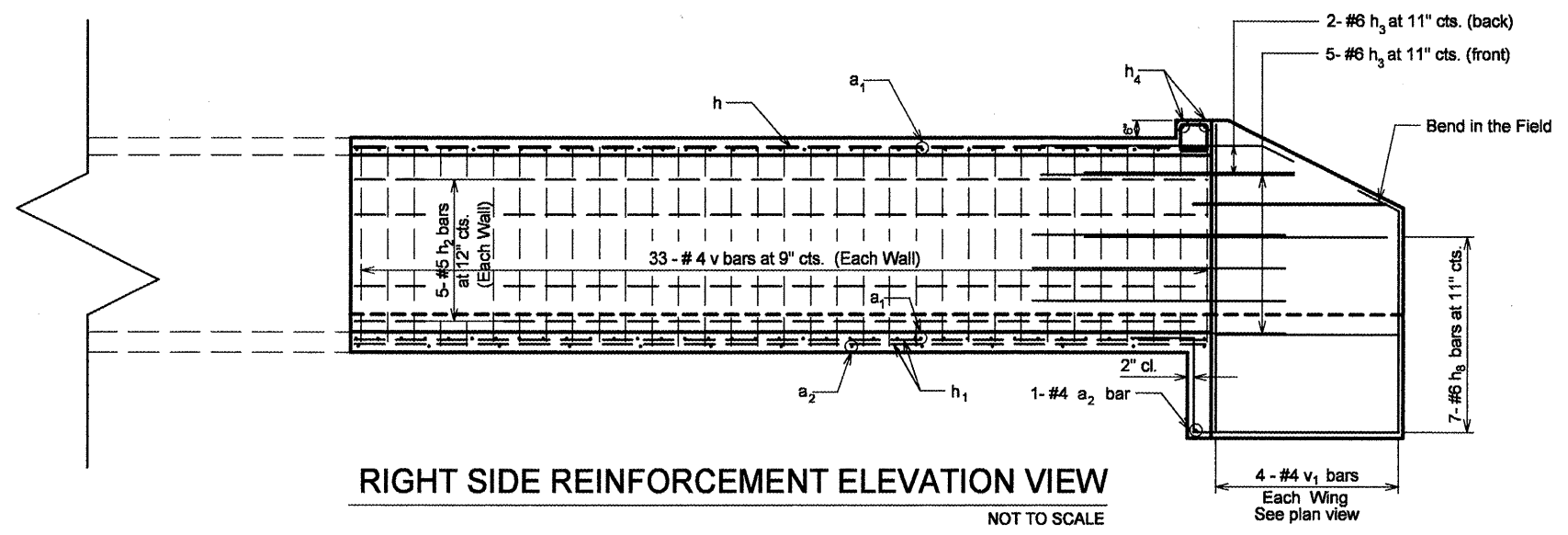


**RIGHT SIDE REINFORCEMENT PLAN VIEW**  
NOT TO SCALE

MIN. LAPS

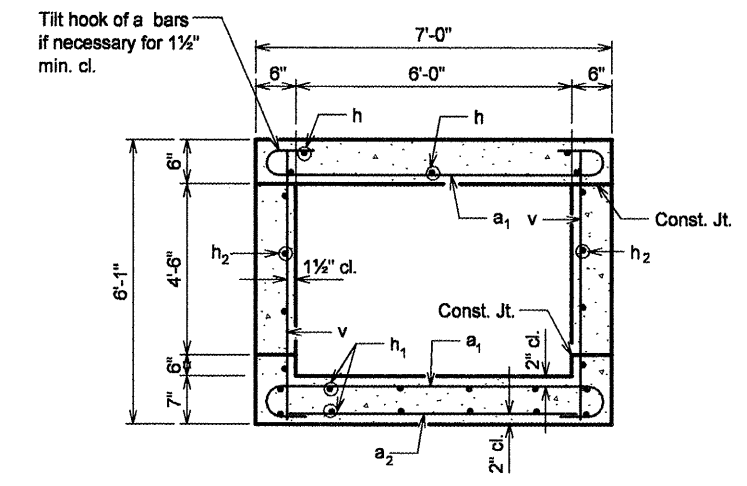
Bar Size	Box Ext.
#4	1'-4"
#5	1'-8"



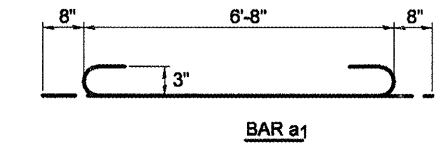
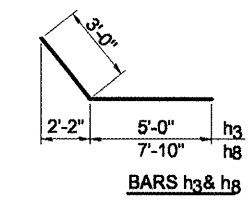
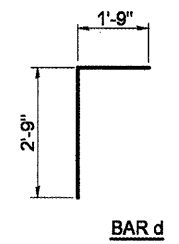
**RIGHT SIDE REINFORCEMENT ELEVATION VIEW**  
NOT TO SCALE

**NOTES**

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.



**SECTION THRU BARREL**  
NOT TO SCALE



**BILL OF MATERIAL**

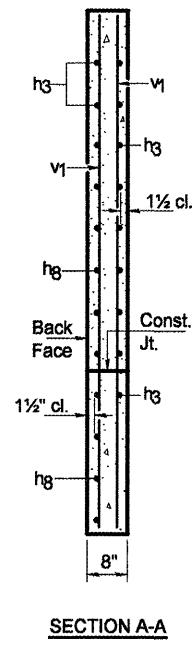
Bar	No.	Size	Length	Shape
a1	74	#6	8'-0"	U
a2	14	#4	6'-8"	—
d	7	#4	4'-6"	—
h	9	#5	24'-2"	—
h1	12	#4	24'-2"	—
h2	10	#5	24'-2"	—
h3	14	#6	8'-0"	—
h4	2	#6	6'-9"	—
h8	14	#6	10'-10"	—
v	68	#4	5'-9"	—
v1	8	#4	8'-9"	—
u	8	#4	14'-6"	L
* 3/4" Expansion Bolts			Each	14.0
Concrete Box Culverts			Cu. Yd.	15.0
Reinforcement Bars			Pound	2,447
* Concrete Collar			Cu. Yd.	1.5

\* For Information Only

**DESIGN STRESSES**

fy = 60,000 psi  
fc = 3,500 psi

**LOADING HS 20-44 & ALT.**



**SECTION A-A**

FILE NAME = sht-details.dgn	USER NAME = mendezpj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT EXTENSION DETAIL**  
**RT. STA. 418 + 16.23**

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 138
CONTRACT NO. 68599			ILLINOIS FED. AID PROJECT	