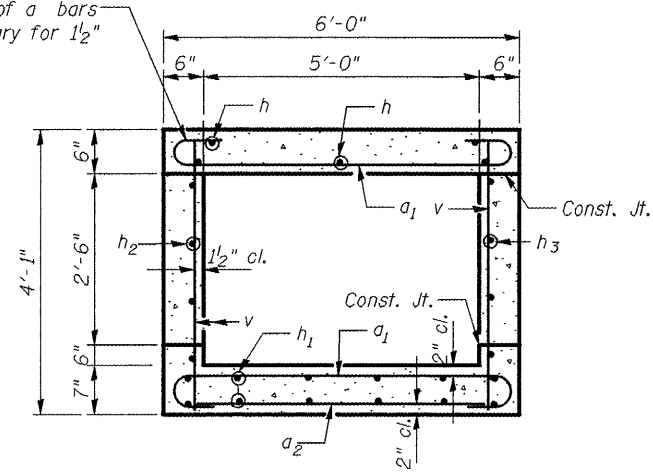
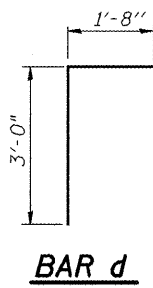


Tilt hook of a bars if necessary for 1/2" min. cl.

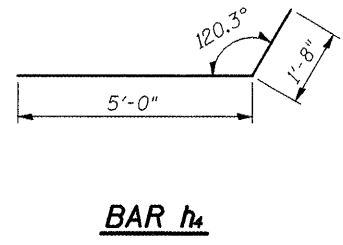


**SECTION THRU BARREL**  
NOT TO SCALE

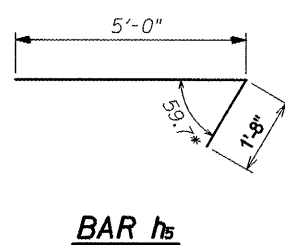
MIN. LAPS	
Bar Size	Box Ext.
#4	1'-4"
#5	1'-8"



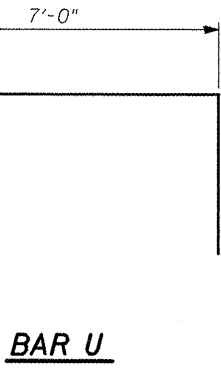
**BAR d**



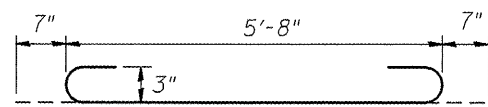
**BAR h4**



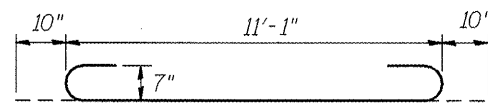
**BAR h5**



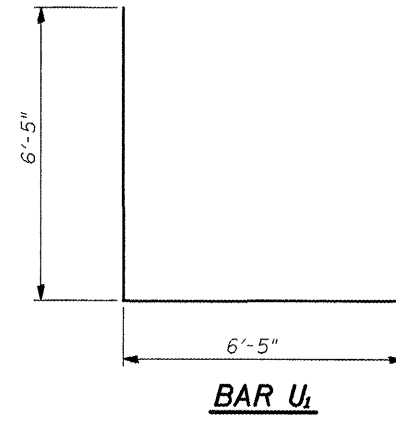
**BAR U**



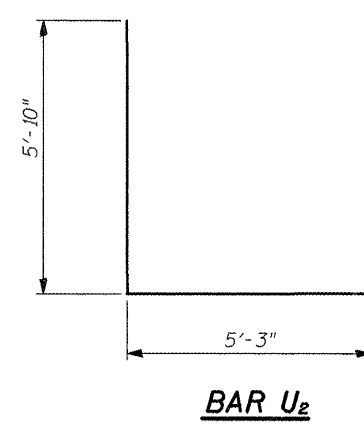
**BAR a1**



**BAR a3**



**BAR U1**



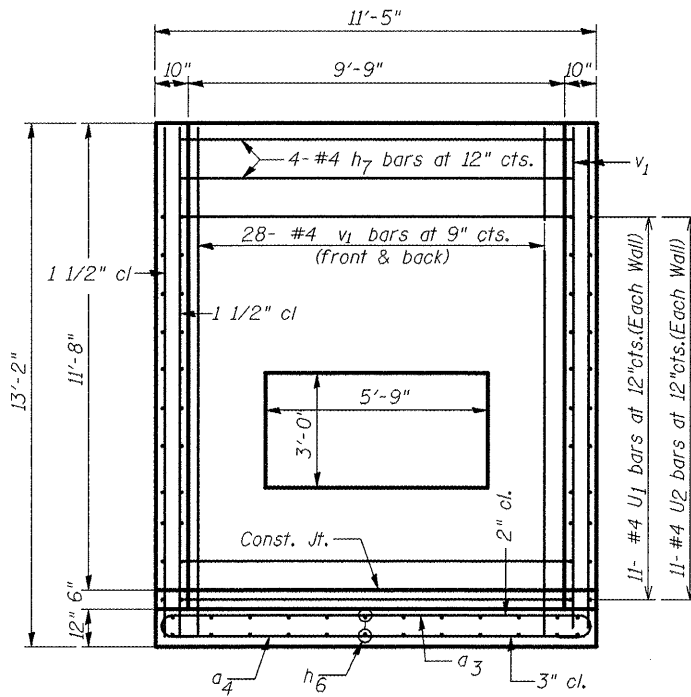
**BAR U2**

**BILL OF MATERIAL**

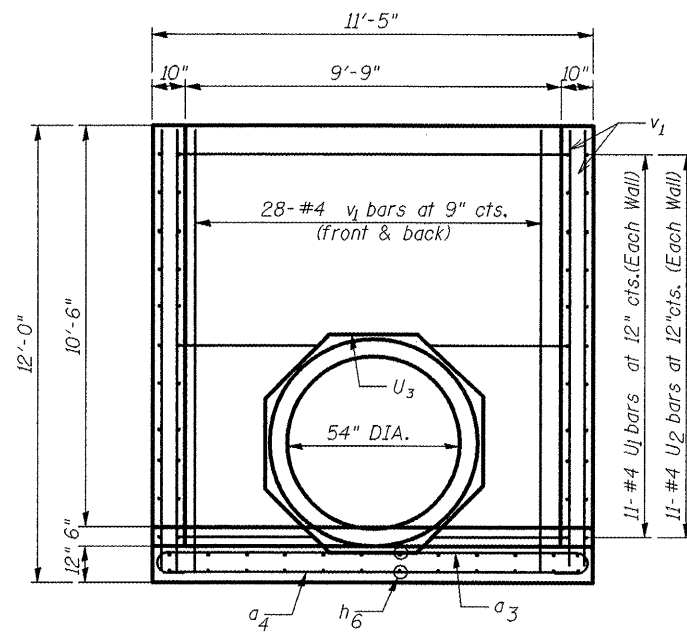
Bar	No.	Size	Length	Shape
a1	36	#5	6'-10"	U
a2	6	#4	5'-3"	—
a3	9	#5	12'-9"	U
a4	4	#4	11'-2"	—
d	7	#4	4'-8"	L
h	8	#5	12'-0"	—
h1	12	#4	12'-0"	—
h2	3	#5	9'-1"	—
h3	3	#5	12'-0"	—
h4	3	#5	6'-8"	L
h5	3	#5	6'-8"	L
h6	24	#4	6'-1"	—
h7	4	#4	11'-2"	—
h8	1	#4	6'-6"	—
U	8	#4	13'-10"	U
U1	22	#4	19'-3"	U
U2	22	#4	16'-11"	U
U3	4	#4	11'-8"	U
V	32	#4	3'-9"	—
V1	84	#4	12'-9"	—
* 3/4" Expansion Bolts			Each	10
Concrete Box Culverts			Cu. Yd.	17
Reinforcement Bars			Pound	2,327
* Concrete Collar			Cu. Yd.	1.5

\* For Information Only

**DESIGN STRESSES**    **LOADING HS 20-44 & ALT.**  
fy = 60,000 psi



**SECTION A-A**  
NOT TO SCALE



**SECTION B-B**  
NOT TO SCALE

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

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

**BOX CULVERT EXTENSION & DROP BOX DETAIL**  
**RT. STA. 534 + 29.26**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 685	SECTION **	COUNTY *	TOTAL SHEETS 329	SHEET NO. 149
			CONTRACT NO. 68599	