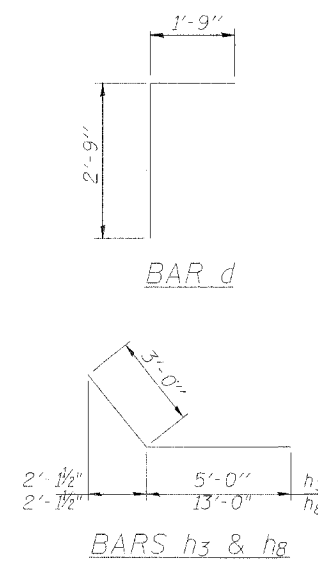
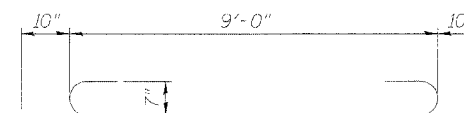


HALF LONG SECTION

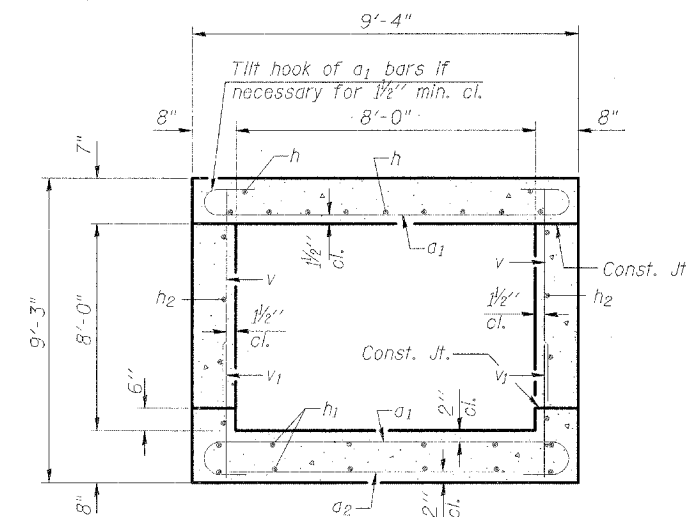
HALF ELEVATION



BARS h3 & h8



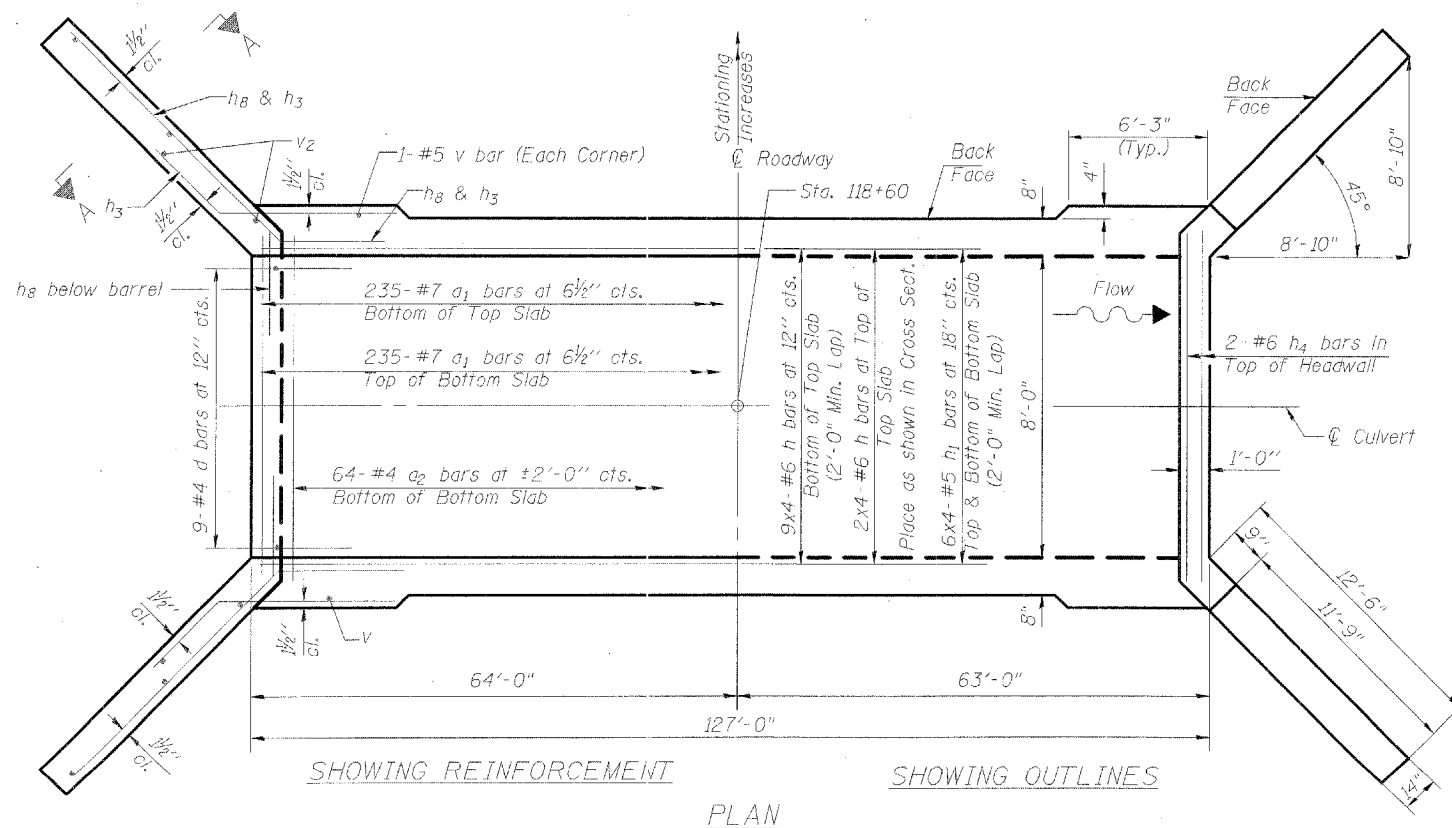
BAR a1



SECTION THRU BARREL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	470	#7	10'-8"	U
a2	66	#4	8'-6"	—
d	18	#4	4'-6"	U
h	44	#6	33'-3"	—
h1	48	#5	33'-3"	—
h2	80	#6	27'-0"	—
h3	52	#9	8'-0"	—
h4	4	#6	9'-0"	—
h8	40	#9	16'-0"	—
v	364	#5	8'-0"	—
v1	360	#5	2'-2"	—
v2	16	#4	12'-0"	—
Concrete Box Culverts			Cu. Yd.	131.2
Reinforcement Bars			Pound	25410



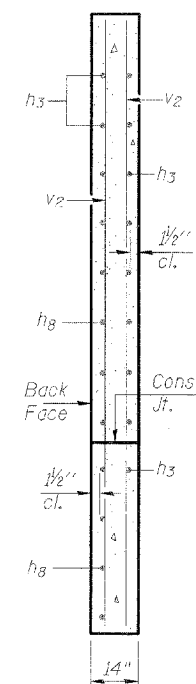
SHOWING REINFORCEMENT

SHOWING OUTLINES

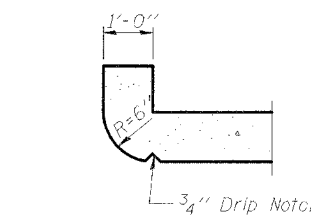
PLAN

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 AASHTO M31 or M53, Grade 60.
 Bars Indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
 All construction joints shall be bonded.



SECTION A-A



SECTION THRU HEADWALL
(Up Stream End Only)

DESIGN STRESSES

fy = 60,000 psi
 f'c = 3,500 psi

LOADING HS 20-44