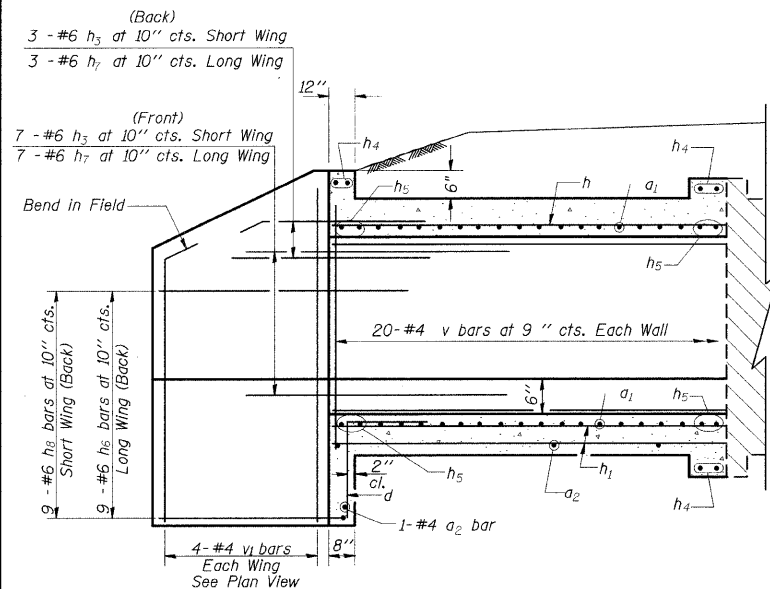
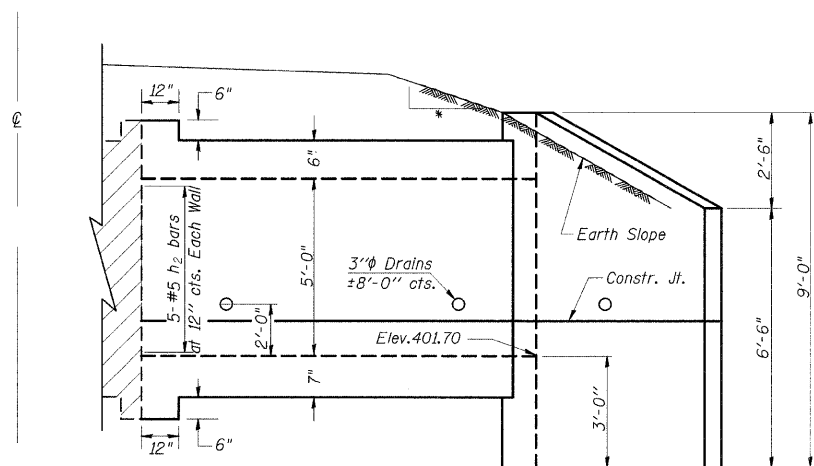


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
932	(8,9,11)W,RS-1		401	172
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• JOHNSON/POPE				

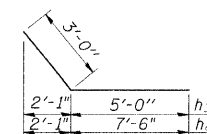


HALF LONG SECTION

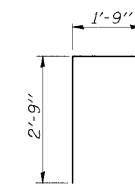


HALF ELEVATION

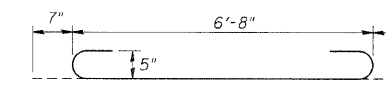
- 4:1 TO CLEAR ZONE
- 3:1 AFTER CLEAR ZONE



BARS h₃ & h₈



BAR d

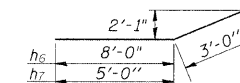


BAR a₁

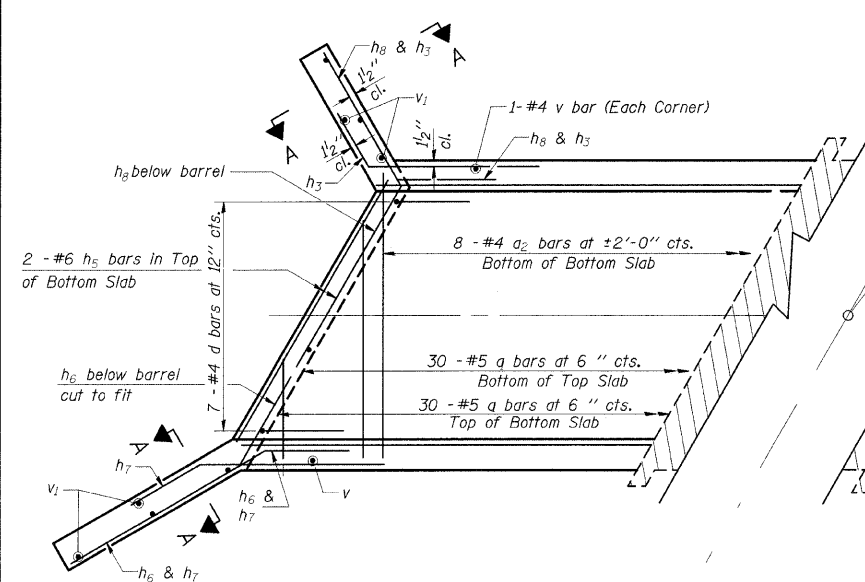
DESIGN STRESSES

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

LOADING HS 20-44 & ALT.

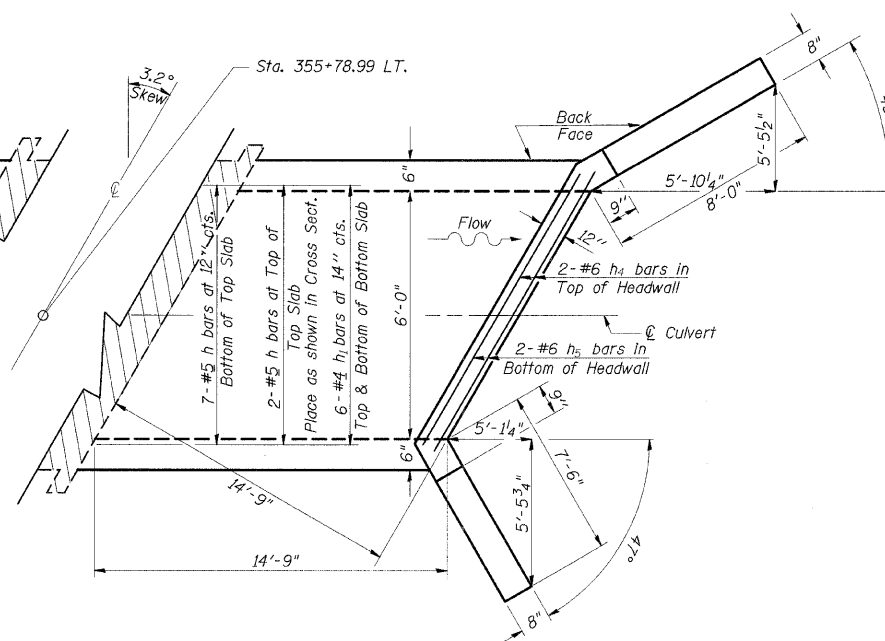


BARS h₆ & h₇



SHOWING REINFORCEMENT

PLAN

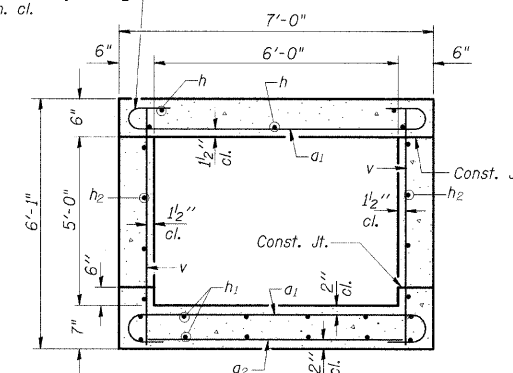


SHOWING OUTLINES

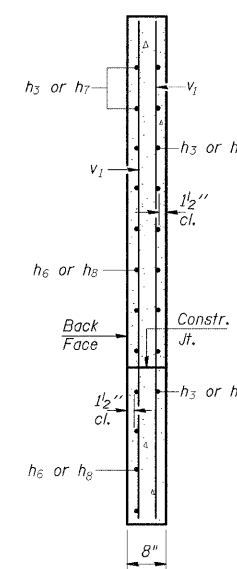
NOTES

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 M-31, M-42 or M-53, 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.

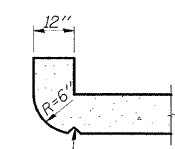
Tilt hook of a₁ bars if necessary for 1/2" min. cl.



SECTION THRU BARREL



SECTION A-A



SECTION THRU HEADWALL
(Up Stream End Only)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a ₁	60	#5	7'-10"	U	
a ₂	9	#4	6'-3"	U	
d	7	#4	4'-6"	L	
h	9	#5	14'-6"	—	
h ₁	12	#4	14'-6"	—	
h ₂	10	#5	14'-6"	—	
h ₃	10	#6	8'-0"	—	
h ₄	6	#6	6'-2"	—	
h ₅	8	#6	6'-8"	—	
h ₆	9	#6	11'-0"	—	
h ₇	10	#6	8'-0"	—	
h ₈	9	#6	10'-6"	—	
v	42	#4	5'-9"	—	
v ₁	8	#4	8'-7"	—	
Expansion Bolts 3/4"				Each	18
Concrete Box Culverts				Cu. Yd.	10.2
Reinforcement Bars				Pound	1830

PRECAST OPTION NOT ALLOWED

ILLINOIS DEPARTMENT OF TRANSPORTATION
BOX CULVERT EXTENSION
STATION 355+78.99 LT.
6' X 5', SKEW 3.2° RT. AH.
EXTEND 14'-9"