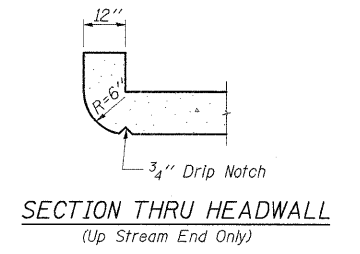
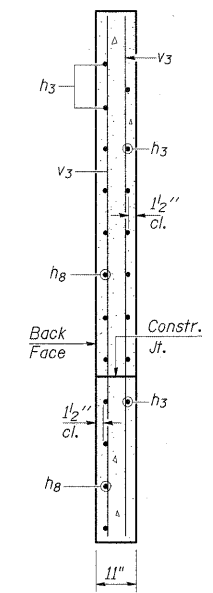


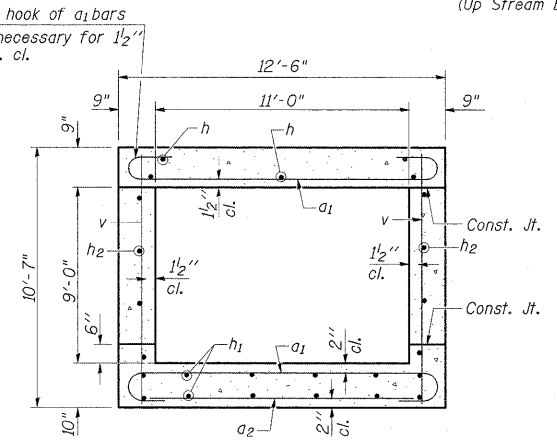
DESIGN STRESSES
 $f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$
LOADING HS 20-44



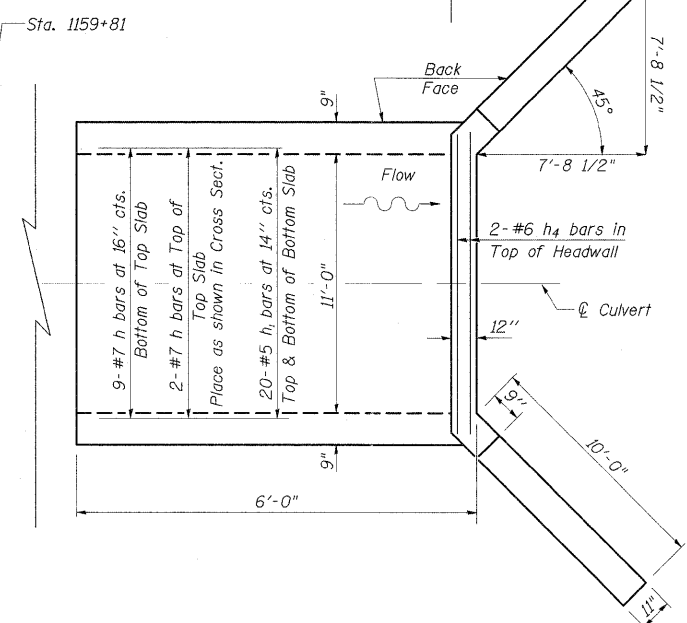
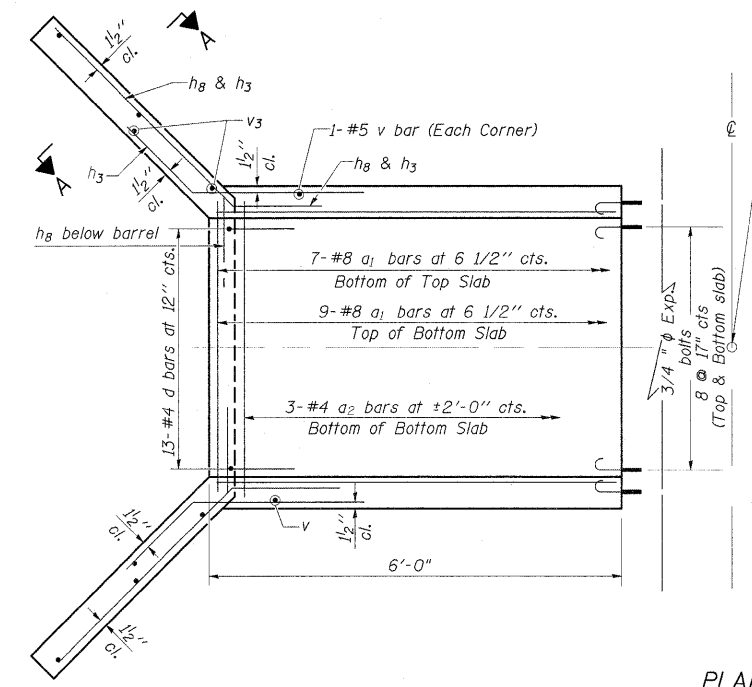
ELEVATION
 Dimensions at Rt. L's to \perp Roadway



SECTION A-A



SECTION THRU BARREL



PLAN

NOTES

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.
 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.

All construction joints shall be bonded.
 Expansion bolts shall be 3/4" ϕ x 12" hooked bolts. Hooked bolts shall extend a minimum of 9" into new concrete and have a minimum certified proof load of 4,080 lbs.

BILL OF MATERIAL (FOR TWO EXTENSIONS)

Bar	No.	Size	Length	Shape
a1	32	#8	14'-0"	
a2	8	#4	12'-2"	
d	13	#4	4'-6"	
h	22	#4	5'-9"	
h1	40	#4	5'-9"	
h2	36	#6	5'-9"	
h3	52	#8	8'-0"	
h4	12	#6	11'-6"	
h5	12	#8	11'-6"	
h8	52	#8	10'-2"	
v	40	#5	9'-1"	
v1	36	#5	2'-4"	
v3	16	#4	13'-0"	
Concrete Box Culverts	Cu. Yd.		35	
Reinforcement Bars	Pound		5748	
3/4" Expansion bolts	Each		56	

BOX CULVERT EXTENSION
F.A.P. ROUTE 881 (US 45)
JOHNSON COUNTY
STA. 1159+81.00
S.N. 044-7014

SSB-H-0 6-1-2000

FILE NAME =	USER NAME = cornellm	DESIGNED -	REVISED -
cs:\pw-work\NPWIDOT\CORNELLM\dms49840\c078269_sht_msc.dgn		DRAWN -	REVISED -
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 3/14/2009		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 044-7014

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

F.A.P. RTE. 881/329	SECTION 35B-1 / 18B-1	COUNTY JOHNSON/PERRY	TOTAL SHEETS 26	SHEET NO. 7
CONTRACT NO. 78069			ILLINOIS FED. AID PROJECT	