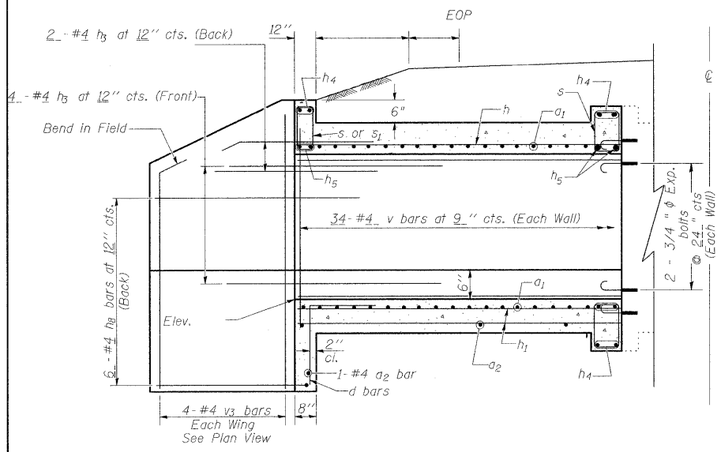
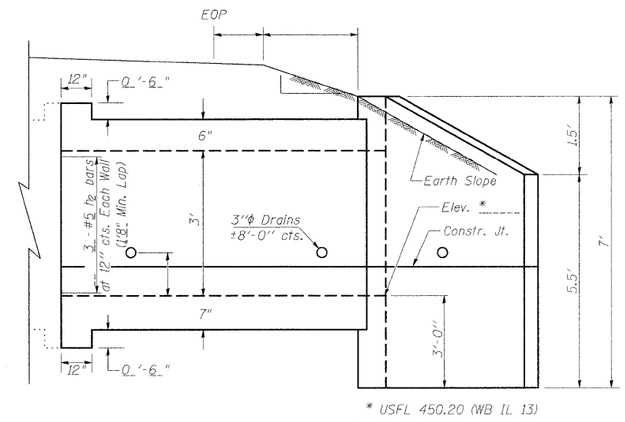
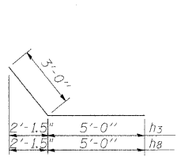
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



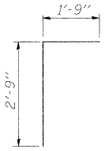


ELEVATION

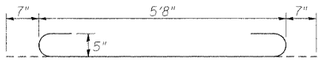
Dimensions at Ft. L's to ℄ Roadway



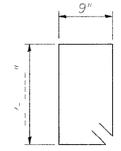
BARS h_3 & h_8



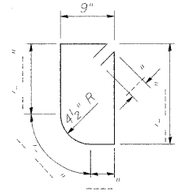
BAR d



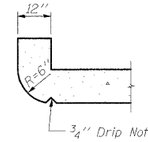
BAR a_1



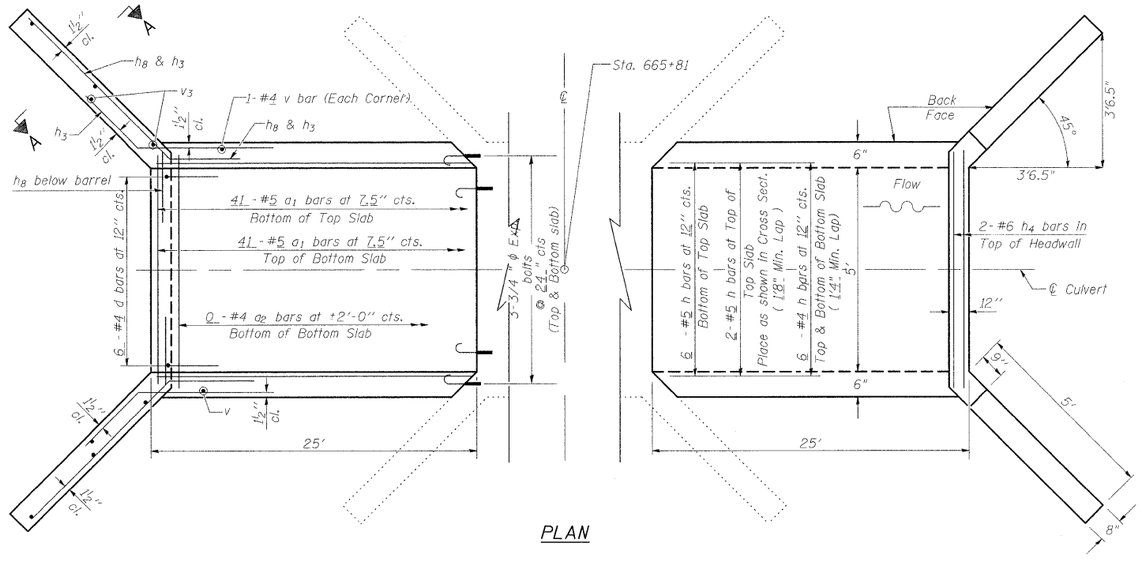
Bar s
(Downstream)



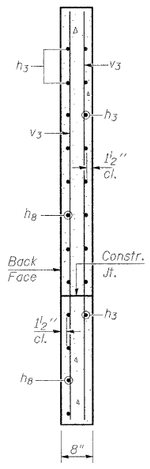
Bar s_1
(Upstream)



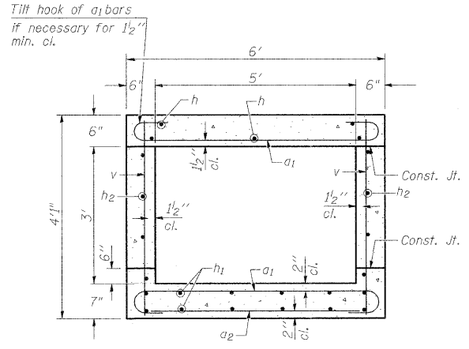
SECTION THRU HEADWALL
(Up Stream End Only)



PLAN



SECTION A-A



SECTION THRU BARREL

DESIGN STRESSES

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

LOADING HS 20-44 & ALT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_1	82	#5	6'-10"	
a_2	0	#4		
d	6	#4	4'-6"	
h	8	#5	24'-9"	
h_1	12	#4	24'-9"	
h_2	6	#5	24'-9"	
h_3	12	#4	8'-0"	
h_4	6	#6	5'-9"	
h_5	4	#5	5'-9"	
h_8	12	#4	8'-0"	
s	0	#4		
s_1	0	#4		
v	70	#4	3'-9"	
v_3	8	#4	6'-9"	
Concrete Box Culverts			Cu. Yd.	11
Reinforcement Bars			Pound	1580
¾" Expansion bolts			Each	10

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 ¾" 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.

REVISIONS

DRAWN	2-04
REVISED	5-09 SHT CELL
REVISED	
REVISED	

BASED ON: SSB-H-0 6-1-2000

FILE NAME = c:\pw_work\pwidot\shepardgd\dms47330\f	USER NAME = shepardgd	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT EXTENSION STATION 665+81 LT
5 ' X 3 ', SKEW 0° EXTEND 25 '- 0 ''

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(1-2)N-2,R;(1X-1)N-3,R-2	WILLIAMSON	202	101
		CONTRACT NO. 98857		
		ILLINOIS FED. AID PROJECT		