

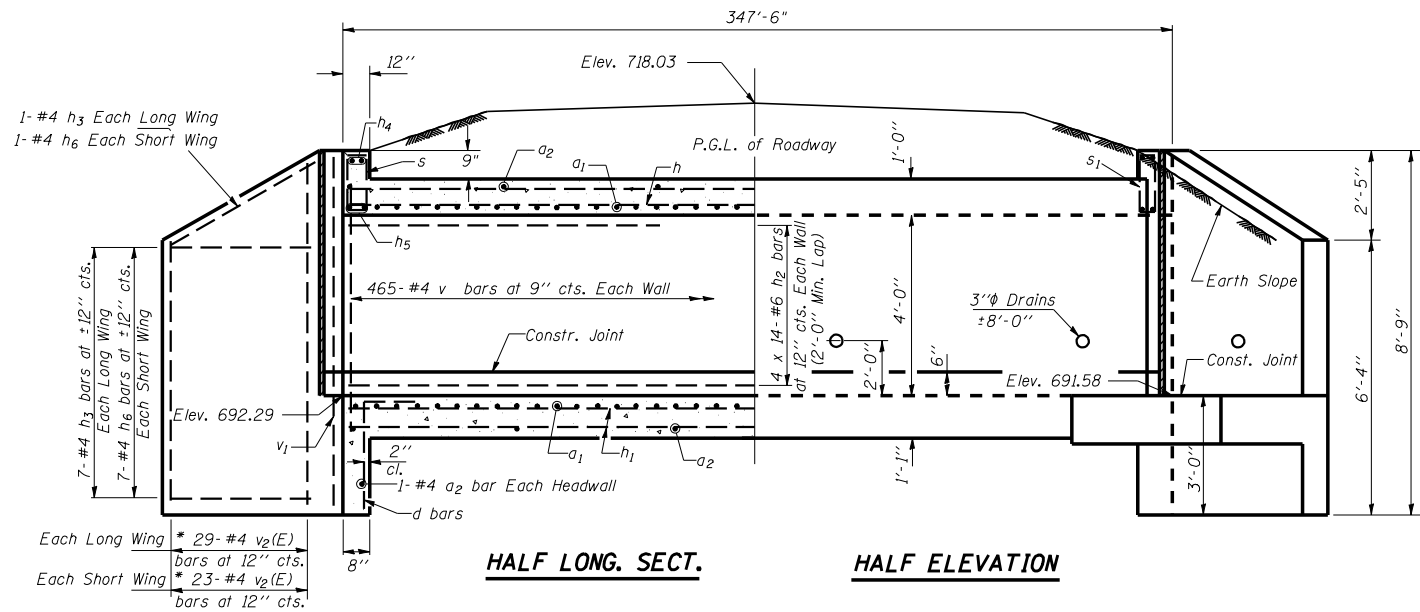
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	160
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 90758				

# DETAIL OF CAST IN PLACE BOX CULVERT & END SECTION

## A.R. BOX CULVERT 1 @ 9.0' X 4.0'

### STA. 21+18.5 (CULVERT NO. 17)

**PRECAST OPTION NOT ALLOWED**



**HALF LONG. SECT.**

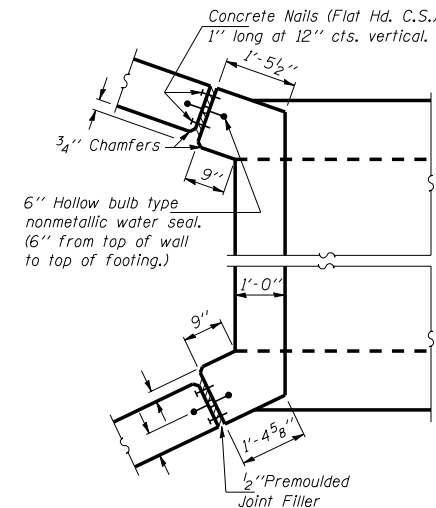
**HALF ELEVATION**

F.A.I. RT. 57  
SEC. 10-32HB-3,K  
LOADING HS 20-44 & ALT.  
STR. NO. 010-8351

**NAME PLATE**

• See Highway Standard 515001-02 for dimensions and placement.

• Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".

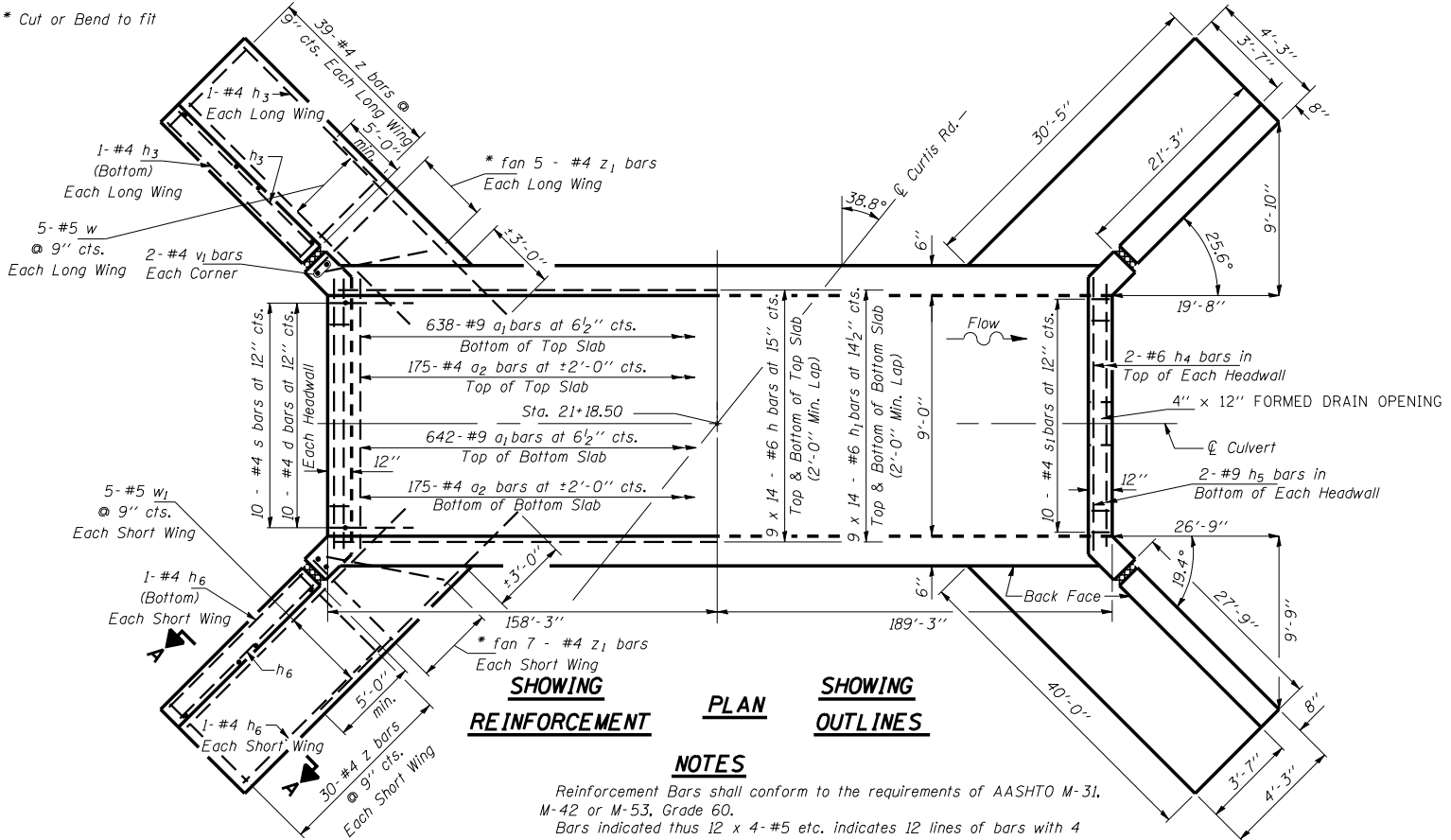


**CORNER DETAIL**

**SECTION THRU BARREL**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1	1280	#9	12'-2"	U
a2	352	#4	9'-8"	U
d	20	#4	4'-6"	L
h	252	#6	26'-8"	—
h1	252	#6	26'-8"	—
h2	112	#6	26'-8"	—
h3	20	#4	27'-5"	—
h4	4	#6	9'-8"	—
h5	4	#9	9'-8"	—
h6	20	#4	20'-11"	—
s	10	#4	4'-2"	U
s1	10	#4	4'-2"	U
v	930	#4	5'-9"	—
v1	8	#4	8'-5"	—
v2(E)	104	#4	8'-5"	—
w	10	#5	33'-0"	—
w1	10	#5	26'-0"	—
z	138	#4	6'-8"	—
z1	24	#4	10'-0"	—
Concrete Box Culverts			Cu. Yd.	353.2
Reinforcement Bars, Epoxy Coated			Pound	585
Reinforcement Bars			Pound	85,880



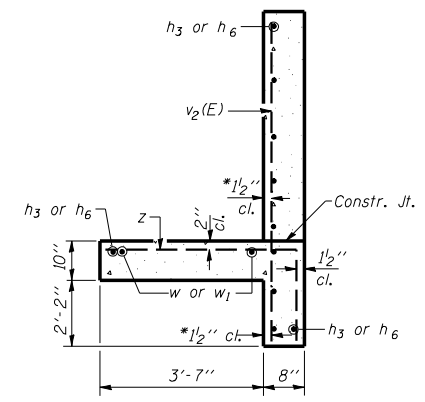
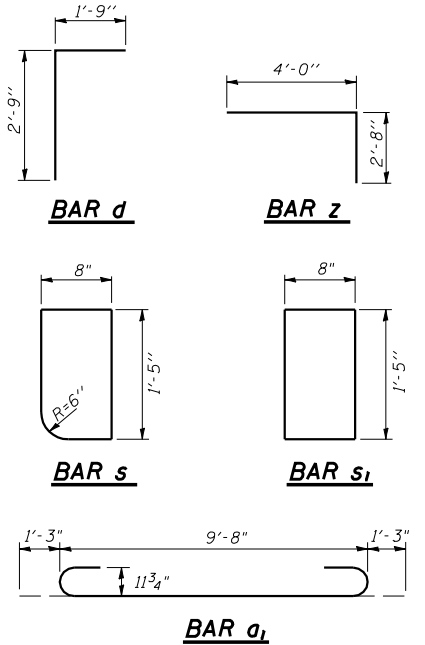
**SHOWING REINFORCEMENT**

**PLAN**

**SHOWING OUTLINES**

**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.  
Reinforcement bars designated (E) shall be epoxy coated.  
All construction joints shall be bonded.  
Any excavation required for box culvert construction shall be included in the contract unit price for concrete, per Art. 502.15.



**SECTION A-A**

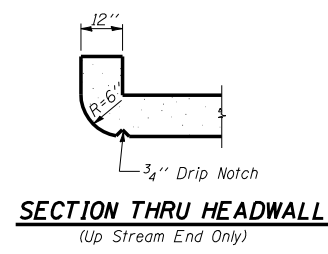
\*v bars shall not be placed more than 1/2" cl. from back face of wingwall.

**DESIGN STRESSES**

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

Max. Soil Pressure under footing = 2278 psf

**LOADING HS 20-44 & ALT.**



**SECTION THRU HEADWALL**

(Up Stream End Only)

BOX CULVERT & END SECTIONS (CAST IN PLACE)  
1 @ 9.0' X 4.0'  
STA. 21+18.50 38.8° SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		

**CULVERT DETAILS**

SCALE: VERT. HORIZ. DATE 062205  
DRAWN BY JDC  
CHECKED BY JDE