

3-#5 h1(E) bars at 12" cts. HALF LONG SECTION A-A

EXISTING HALF SECTION

Note: Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60. See Special Provisions.

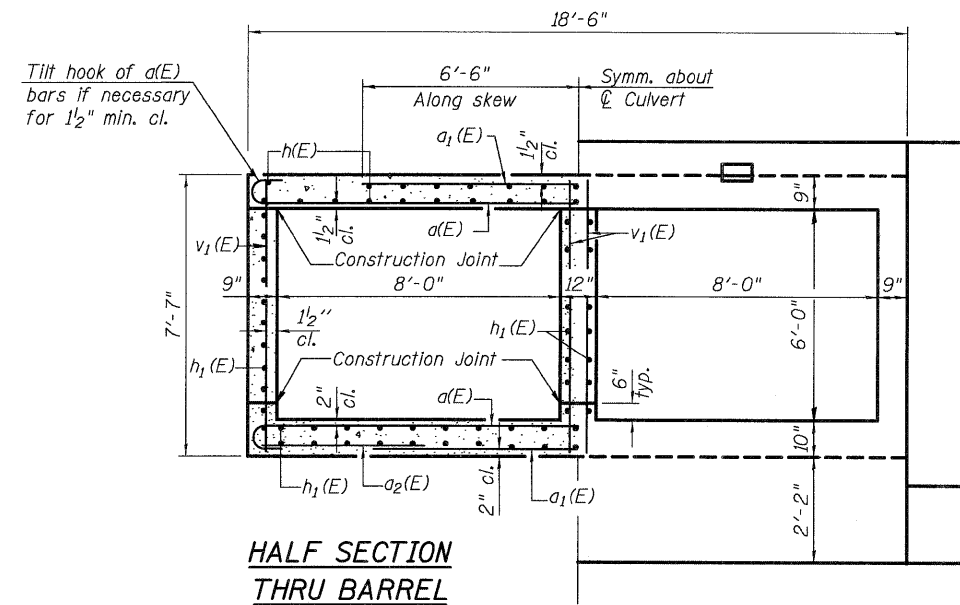
Reinforcement bars designated (E) shall be epoxy coated.

Existing bars to remain shall be cleaned, straightened and incorporated into new concrete.

Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal. See Sheet No. S6 for details depicting method of attaching guardrail posts to the headwall.

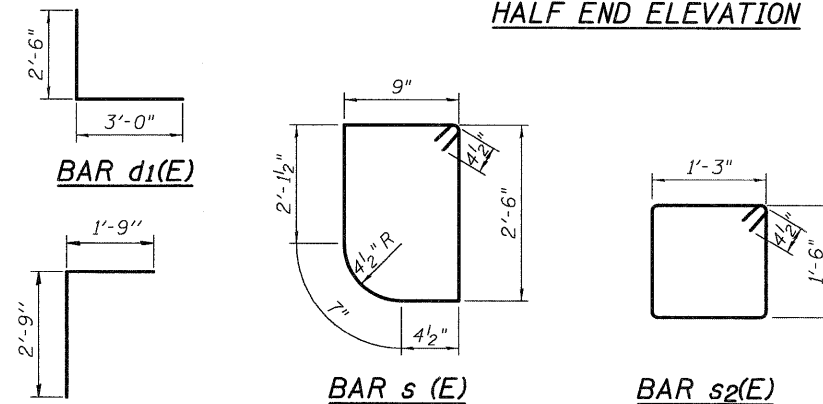
MIN. BAR LAP

Bar	Barrel	Winwall
#4	1'-4"	1'-8"
#5	1'-8"	2'-2"
#6	2'-0"	2'-7"
#7	2'-9"	3'-5"



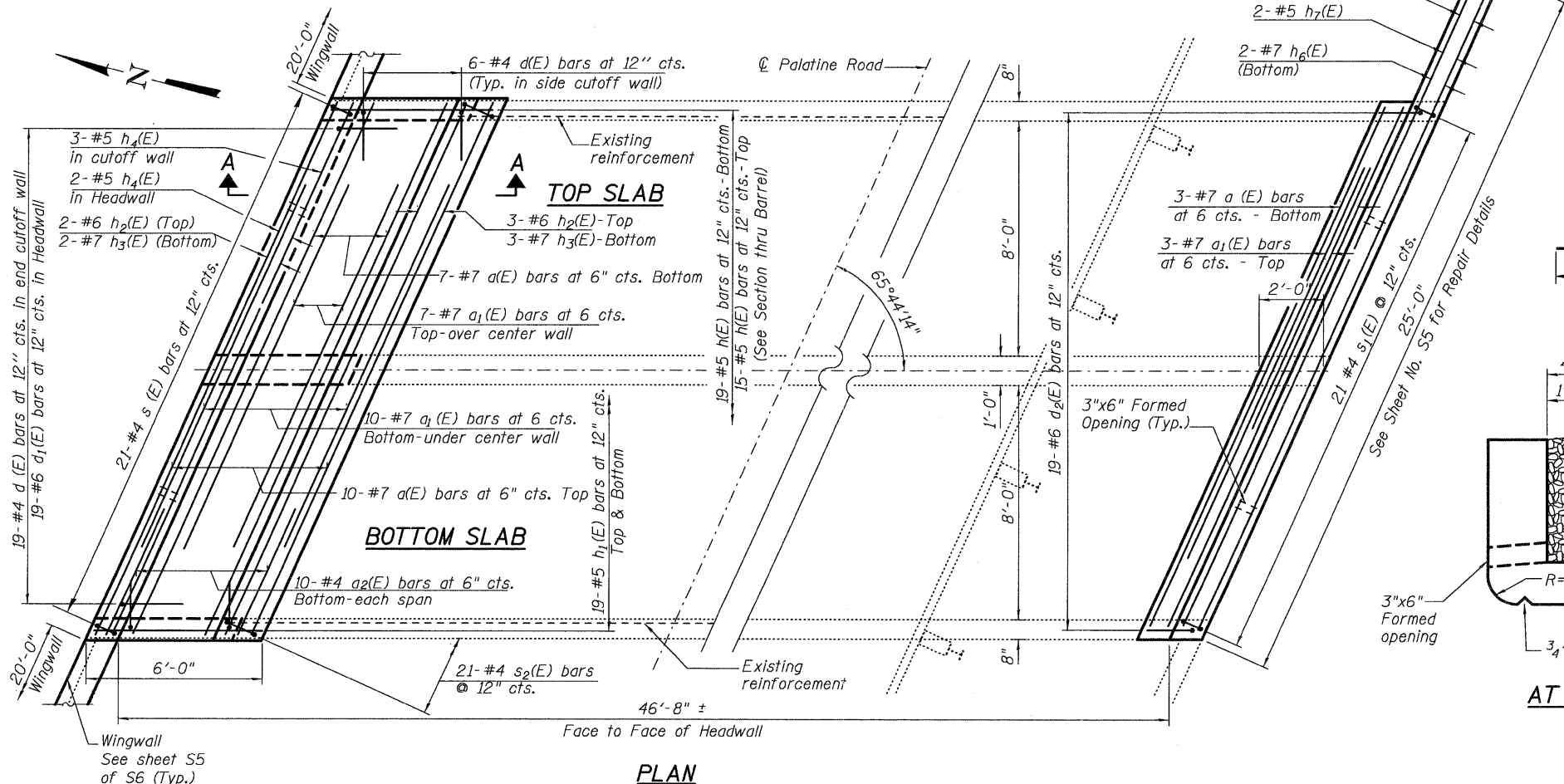
HALF SECTION THRU BARREL

HALF END ELEVATION

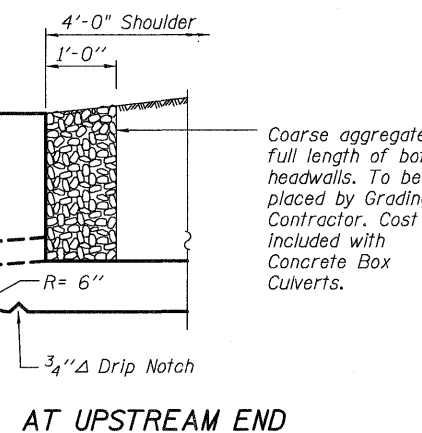


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a (E)	20	#7	21'-6"	C
a1(E)	20	#7	13'-0"	C
a2(E)	20	#4	4'-10"	C
d (E)	31	#4	4'-6"	C
d1(E)	19	#6	5'-6"	C
d2(E)	19	#6	3'-9"	C
h (E)	34	#5	5'-10"	C
h1(E)	78	#5	4'-10"	C
h2(E)	5	#6	20'-0"	C
h3(E)	5	#7	20'-0"	C
h4(E)	5	#5	20'-0"	C
h5(E)	2	#6	24'-9"	C
h6(E)	2	#7	24'-9"	C
h7(E)	2	#5	24'-9"	C
s (E)	21	#4	7'-1"	C
s1(E)	21	#4	7'-3"	C
s2(E)	21	#4	6'-3"	C
v1(E)	24	#5	7'-4"	C
Concrete Box Culverts			Cu. Yd.	15.4
Reinforcement Bars, Epoxy Coated			Pound	3,600



PLAN



AT UPSTREAM END



USER NAME =	DESIGNED - JPM	REVISED -
PLOT SCALE =	CHECKED - JXH	REVISED -
PLOT DATE =	DRAWN - MPS	REVISED -
	CHECKED - JXH/TPG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PLAN AND DETAILS  
STRUCTURE NO. 016-2860 STA. 70+04.00

SHEET NO. S4 OF S6 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1285	2011-033-T	COOK	18	12
DATE: OCTOBER 6-2011 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60P39	