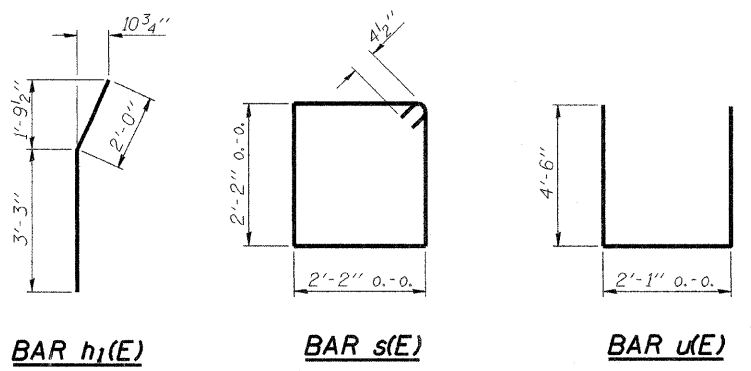


**BILL OF MATERIAL
TWO ABUTMENTS**

Bar	No.	Size	Length	Shape
h(E)	32	#4	5'-0"	—
h ₁ (E)	8	#4	5'-3"	—
h ₂ (E)	12	#4	34'-2"	—
p(E)	20	#7	34'-2"	—
s(E)	72	#4	9'-5"	□
u(E)	16	#6	11'-1"	—
v(E)	16	#4	3'-2"	—
v ₁ (E)	16	#4	4'-2"	—
v ₂ (E)	140	#4	3'-11"	—
Structure Excavation		Cu. Yd.	117.0	
Concrete Structures		Cu. Yd.	23.9	
Reinforcement Bars, Epoxy Coated		Pound	2970	
Furnishing Steel Piles HP 12x53		Foot	402	
Driving Piles		Foot	402	
Concrete Cut-off Wall		Cu. Yd.	7.8	
Test Piles Steel HP 12x53		Each	2	
Controlled Low-Strength Material		Cu. Yd.	44.8	

PILE DATA (2-ABUTS.)

Type	STEEL HP 12x53
Nominal Required Bearing	258 kips
Factored Resistance Available	129 kips
Estimated Pile Length	31 Feet North Abut. and 36 Feet South Abut.
Number of Production Piles	12
Number of Test Piles	2



Notes

The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
Space reinforcement in cap to miss anchor bolts.

For details of piles and Concrete Encasement, see sheet 6 of 7.

**ABUTMENT DETAILS
TR 164 OVER SWANK CREEK**

DATE: 09-29-2008 DRAWN BY: ADG CHECKED BY: DF

SHEET NO. 5 OF 7 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		01-03131-00-BR	VERMILION	13	8
		SN 092-3494	CONTRACT NO. 91365		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

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