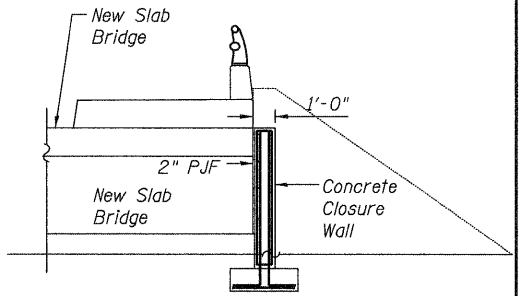
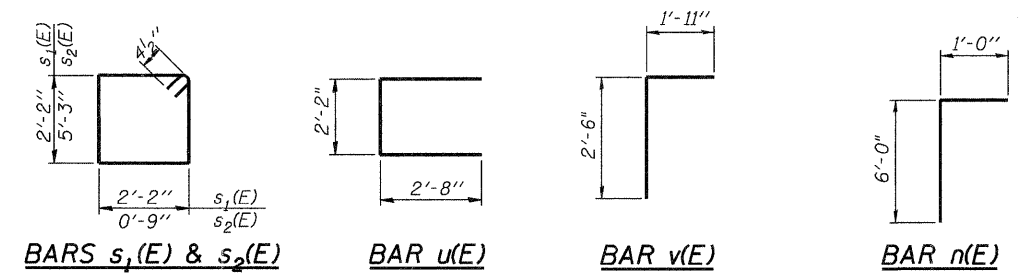
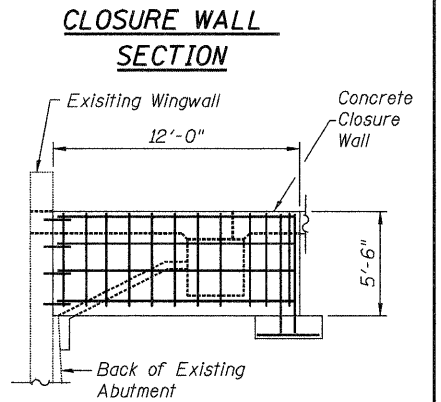


**PILE DATA**

Type: HP12X53  
Nominal Required Bearing: 418 kips  
Factored Resistance Available: 230 kips  
Est. Length: 46 feet  
No. Production Piles: 26  
No. Test Piles: 2



Q<sub>max</sub> = Maximum Applied Service Bearing Pressure = .75 ksf.



**TWO ABUTMENTS BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d <sub>5</sub> (E)	48	#6	2'-8"	—
n(E)	24	#5	7'-0"	┌
p(E)	40	#7	41'-10"	—
p <sub>1</sub> (E)	48	#6	10'-8"	—
s <sub>1</sub> (E)	184	#4	9'-5"	□
s <sub>2</sub> (E)	48	#4	12'-9"	□
t(E)	32	#5	2'-8"	—
u(E)	16	#6	7'-6"	┌
v(E)	172	#5	4'-5"	┌
v <sub>1</sub> (E)	344	#5	3'-0"	—
Structure Excavation	Cu. Yd.	290		
Concrete Structures	Cu. Yd.	43.2		
Reinforcement Bars, Epoxy Coated	Pound	8,270		
Furnishing Steel Piles, HP 12X53	Foot	1196		
Driving Piles	Foot	1196		
Test Pile Steel HP 12X53	Each	2		

Notes:  
See Sheet 3 of 21 for Sequence of Construction.  
Quantity of concrete included with Concrete Superstructure.  
North Abutment Structural Excavation Quantity is 144 cu yds.  
South Abutment Structural Excavation Quantity is 146 cu yds.