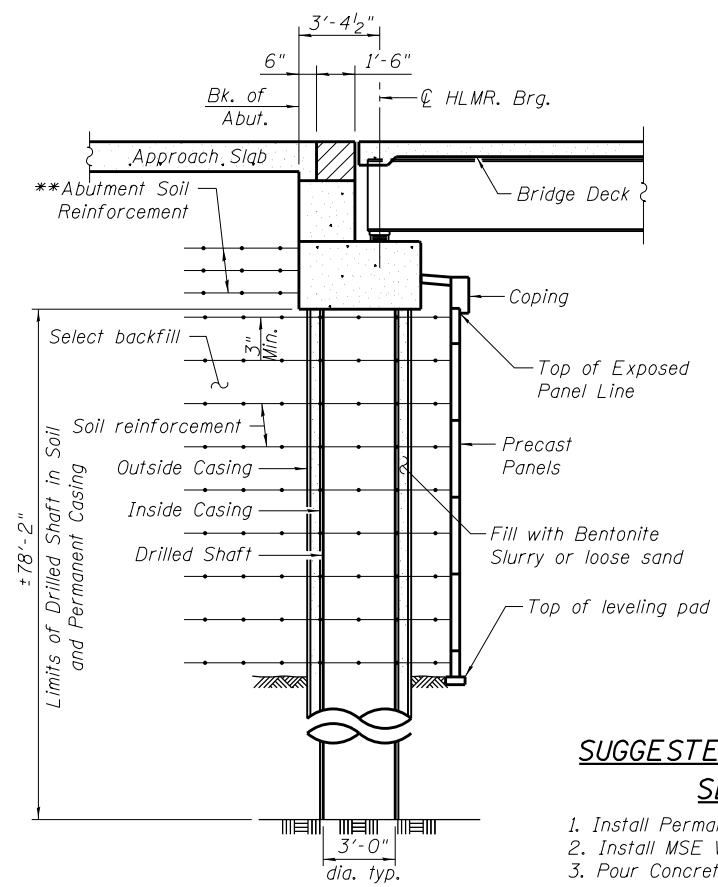


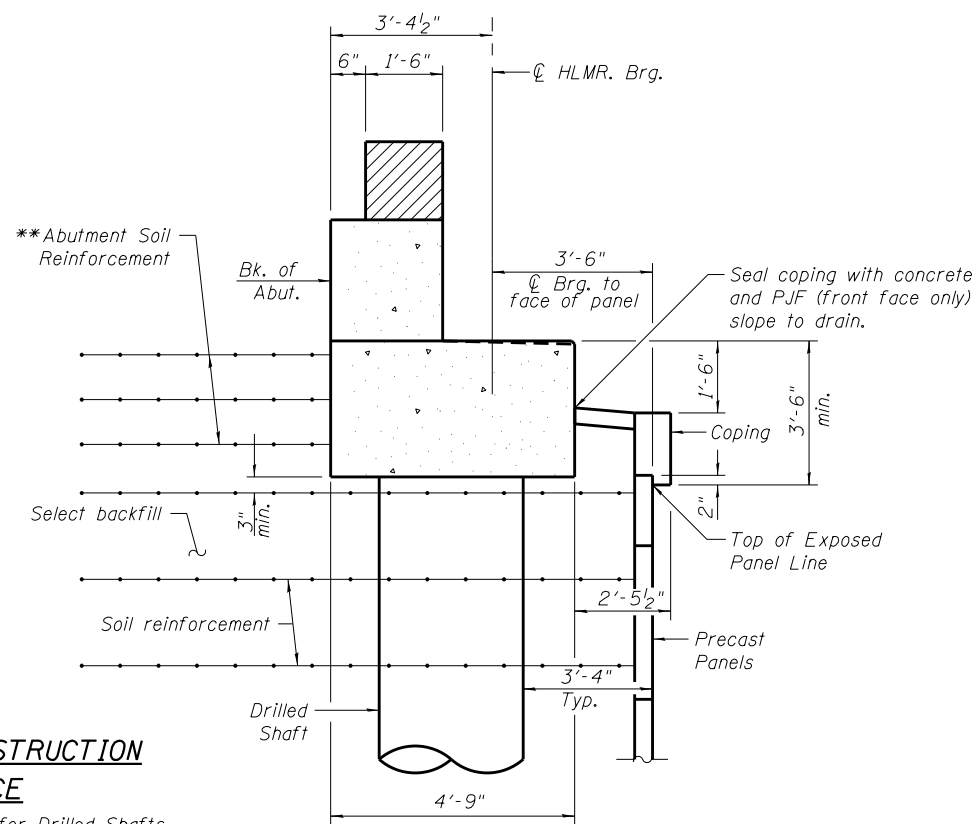
**EAST ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	8	#5	31'-2"	—
h ₁ (E)	8	#5	26'-3"	—
h ₂ (E)	5	#6	31'-2"	—
h ₃ (E)	5	#6	26'-3"	—
p(E)	17	#9	31'-2"	—
p ₁ (E)	17	#9	26'-3"	—
p ₂ (E)	8	#9	31'-2"	—
p ₃ (E)	8	#9	26'-3"	—
s(E)	142	#5	12'-3"	□
* sp(E)	3	#5	79'-3"	⋈
u(E)	6	#6	16'-3"	⋈
u ₁ (E)	4	#5	8'-1"	⋈
u ₂ (E)	6	#6	18'-10"	⋈
u ₃ (E)	4	#5	7'-7"	⋈
u ₄ (E)	40	#5	4'-6"	⋈
v(E)	36	#10	45'-9"	⋈
v ₁ (E)	60	#5	2'-6"	—
v ₂ (E)	60	#5	3'-4"	—
v ₃ (E)	60	#5	7'-9"	—
v ₄ (E)	60	#5	9'-3"	—
v ₅	36	#10	44'-4"	—
Concrete Structures	Cu. Yd.		66.0	
Reinforcement Bars	Pound		6,870	
Reinforcement Bars, Epoxy Coated	Pound		20,570	
Drilled Shaft in Soil	Cu. Yd.		61.4	
Permanent Casing	Foot		375	
Concrete Sealer	Sq. Ft.		688	
Temporary Mechanically Stabilized Earth Retaining Wall	Sq. Ft.		1,464	
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.		2,930	
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.		298.2	
Aggregate Column Ground Improvement	L. Sum		0.23	



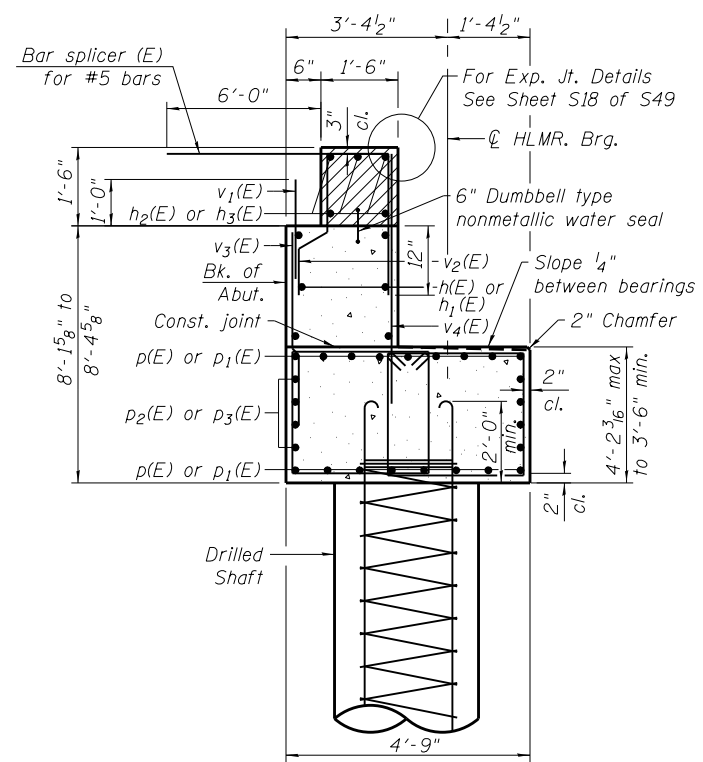
SUGGESTED CONSTRUCTION SEQUENCE

1. Install Permant Casing for Drilled Shafts.
2. Install MSE Wall.
3. Pour Concrete for Drilled Shafts.



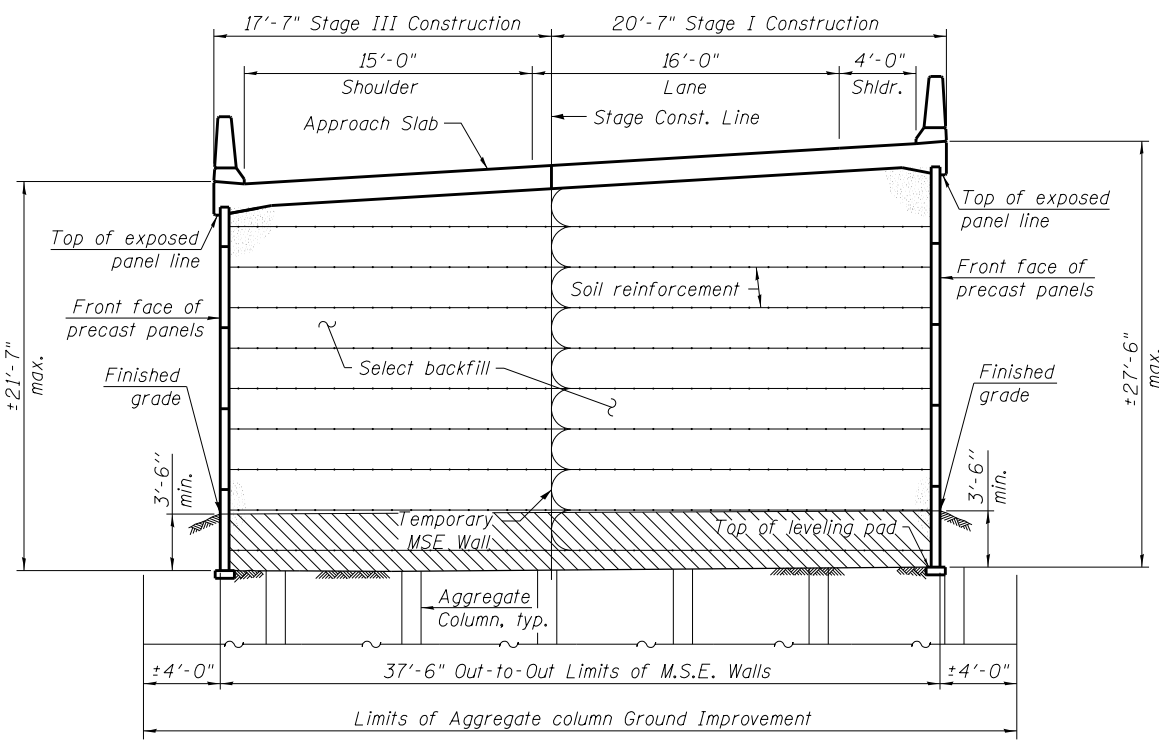
SECTION THRU ABUTMENT

Showing soil reinforcement and coping with precast panels. Casing not shown for clarity.

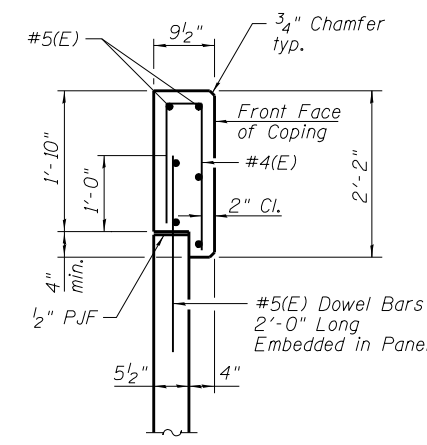


SECTION THRU ABUTMENT

Soil reinforcement and coping are not shown see other "Section Thru Abutment" for details. Casing shown in Section A-A.



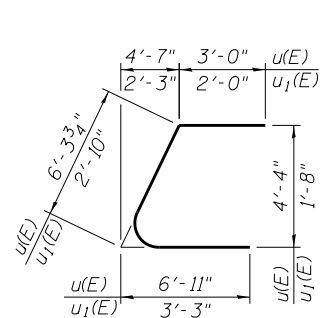
SECTION B-B



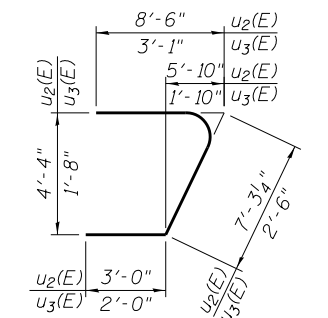
COPING DETAILS

Cost of Coping including reinforcement in the coping and seal coping is included in the pay item "Mechanically Stabilized Earth Retaining Wall."

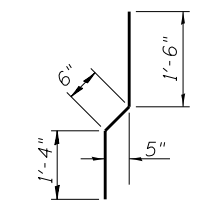
Removal of unsuitable material.



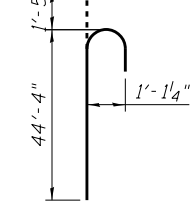
BARS u(E) & u1(E)



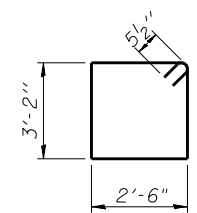
BARS u2(E) & u3(E)



BAR v2(E)



BAR v(E)



BAR s(E)

* Length is height of spiral.

** The MSE wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 3.8 k/ft of abutment.

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure on sheet S14 of S49.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of Bar Splicers, see sheet S43 of S49.
Quantity of embankment fill is included with roadway quantities.
Min. lap for spirals = 2'-6\"/>
Temporary MSE walls required for stage construction shall remain in place.
See SNO16-1323 plans for remainder of Aggregate Column Ground Improvement quantity.