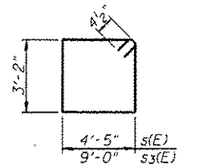
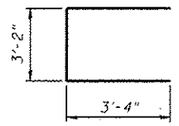
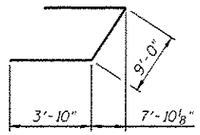


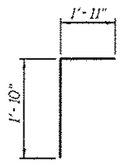
BARS s(E) & s3(E)



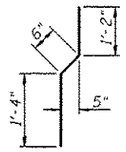
BARS s1(E)



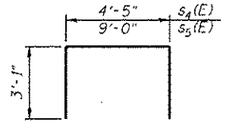
BAR u(E)



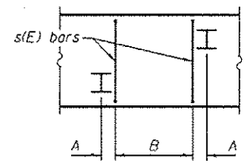
BAR v12(E)



BAR v13(E)

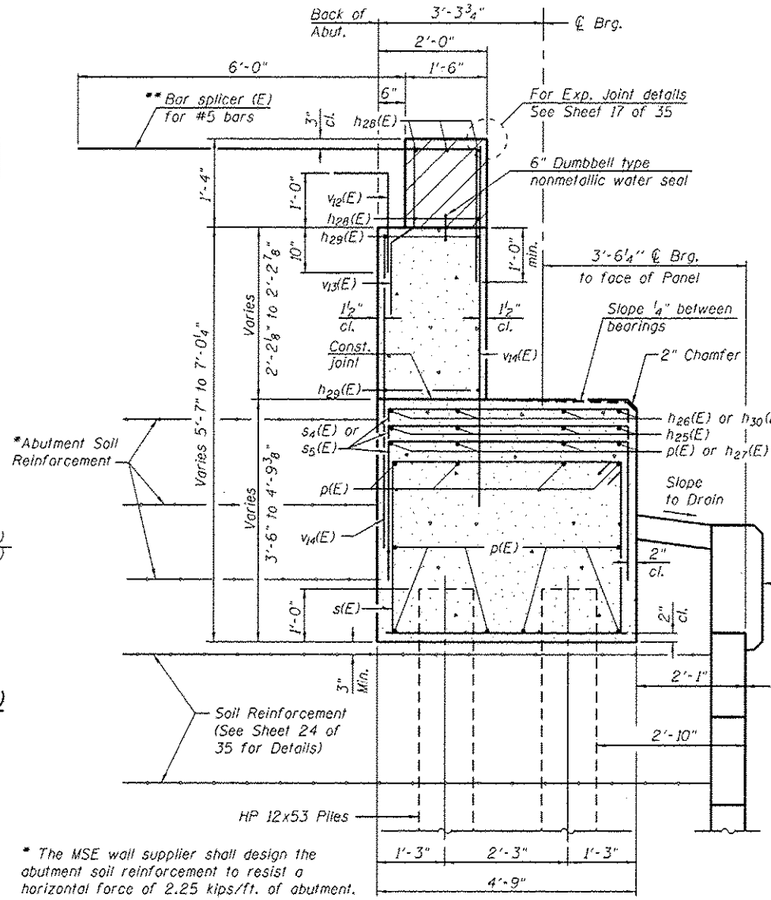


BARS s4(E) & s5(E)



PILE BAY BAR SPACING PLAN

See Pile Bay Bar Spacing Table



SEC. THRU ABUT.

* The MSE wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 2.25 kips/ft. of abutment.

** Align Bar Splicer parallel to approach slab reinforcement.

PILE BAY BAR SPACING TABLE

Bay	A	B
1	9 1/8"	5 bars at 12" cts.
2	8 1/8"	4 bars at 11" cts.
3	8 3/8"	5 bars at 12" cts.
4	9 3/8"	2 bars at 12" cts.
5	8 5/8"	3 bars at 12" cts.
6 to 26	8"	3 bars at 10" cts.
27 to 31	8"	3 bars at 10" cts.
32	9 3/8"	3 bars at 12" cts.
33	8 5/8"	2 bars at 12" cts.
34	9 3/8"	5 bars at 12" cts.
35	12"	5 bars at 12" cts.
36	9 3/8"	1 bar
37	10"	4 bars at 12" cts.
38	8 1/8"	2 bars at 11" cts.
39	8 1/4"	4 bars at 11" cts.
40	8 1/4"	2 bars at 12" cts.
41	7 3/4"	4 bars at 12" cts.
42	10 3/4"	2 bars at 12" cts.
43	10 1/4"	3 bars at 12" cts.
44	8 3/4"	3 bars at 9½" cts.
45	8 1/8"	5 bars at 11" cts.
46	8"	5 bars at 12" cts.
47	9"	4 bars at 11" cts.
48	8 3/4"	4 bars at 12" cts.
49	9 1/4"	1 bar

For Numbering of Bays See Sheet 21 of 35.
See Pile Bay Bar Spacing Plan for dimensions.

NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	72	#7	34'-8"	
s(E)	156	#4	15'-11"	
s1(E)	24	#4	9'-10"	
s3(E)	2	#6	25'-1"	
s4(E)	348	#4	10'-7"	
s5(E)	6	#4	15'-1"	
h25(E)	24	#7	28'-6"	
h26(E)	8	#7	22'-7"	
h27(E)	12	#7	30'-10"	
h28(E)	36	#6	33'-9"	
h29(E)	36	#5	33'-5"	
h30(E)	8	#7	31'-11"	
u(E)	16	#6	16'-8"	
v12(E)	188	#5	3'-9"	
v13(E)	188	#4	3'-0"	
v14(E)	376	#4	5'-0"	
Porous Granular Embankment	Cu. Yd.		448	
Structure Excavation	Cu. Yd.		973	
Removal and Disposa of Unsuitable Material for Structures	Cu. Yd.		448	
Concrete Structures	Cu. Yd.		173	
Reinforcement Bars, Epoxy Coated	Pound		18,410	
Furnishing Steel Piles, HP 12x53	Foot		3,540	
Driving Piles	Foot		3,540	
Test Pile, Steel HP 12x53	Each		1	
Concrete Sealer	Sq. Ft.		2,110	

Structure Excavation quantity includes excavation for MSE Wall.

Notes:

Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.

Pour steps monolithically with cap.

For details of Bar Splicers, see sheet 32 of 35.

Piles shall be driven prior to placement of the reinforced select fill and coated with coal tar epoxy from the bottom of the select fill to 1" above the base of the abutment. The cost of the coal tar epoxy coating shall be included with the cost of the Furnishing Piles.

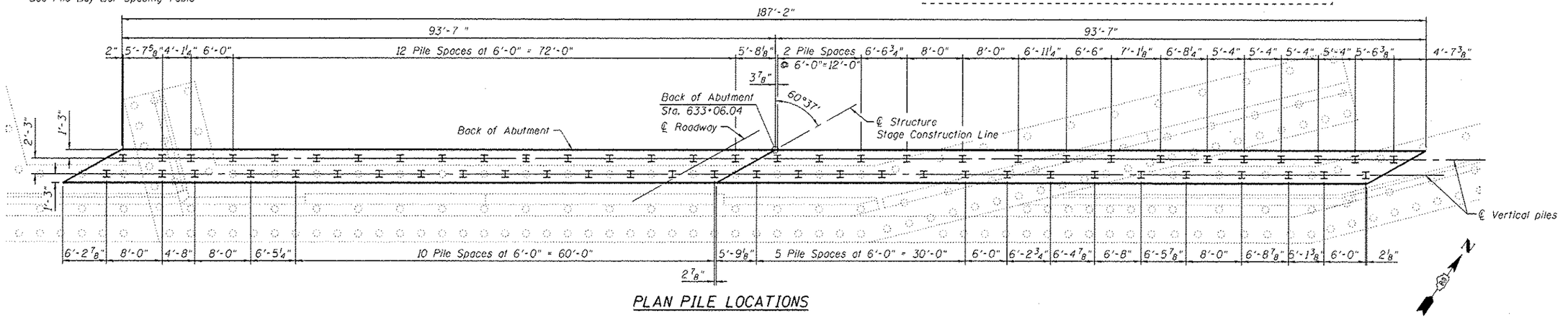
Pile shall be driven through 1'-6" min. diameter precored holes extending to elevation 623.8 according to Article 512.09(c) of the Standard Specifications and includes coring thru existing reinforce concrete footing. Proposed pile locations are to be located by the contractor to avoid interference with the existing piling. Cost included in Driving Piles.

For the Limits of Removal and Disposal of Unsuitable Material for Structures and Porous Gradual Embankment, see Sheet 24 of 35.

⚠ See Sheet 1 of 35 for location of overhead transmission lines. Contractor must communicate with Commonwealth Edison. See General Notes on Sheet 2 of 35.

PILE DATA

Type: HP 12x53
Nominal Required Bearing: 145 Kips
Factored Resistance Available: 80 Kips
Est. Length: 59 Feet per Pile
No. Production Piles: 60
No. Test Piles: 1



PLAN PILE LOCATIONS

FILE NAME = S:\DL\16328-63PM\63PLRDS\Morris\Str\Structural Plans\PW88805-64C17-R21-NABUT.dgn

STRAND ASSOCIATES, INC. 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = vanessam	DESIGNED - RRD	REVISED ⚠ RRD 4/5/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - AJS	REVISED	
	PLOT SCALE =	DRAWN - BJF	REVISED	
	PLOT DATE = 4/4/2013	CHECKED - RRD	REVISED	

NORTH ABUTMENT DETAILS (2 OF 2)
STRUCTURE NO. 098-0015
SHEET NO. 22 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	113	78
		CONTRACT NO. 64C17		
	ILLINOIS FED. AID PROJECT			