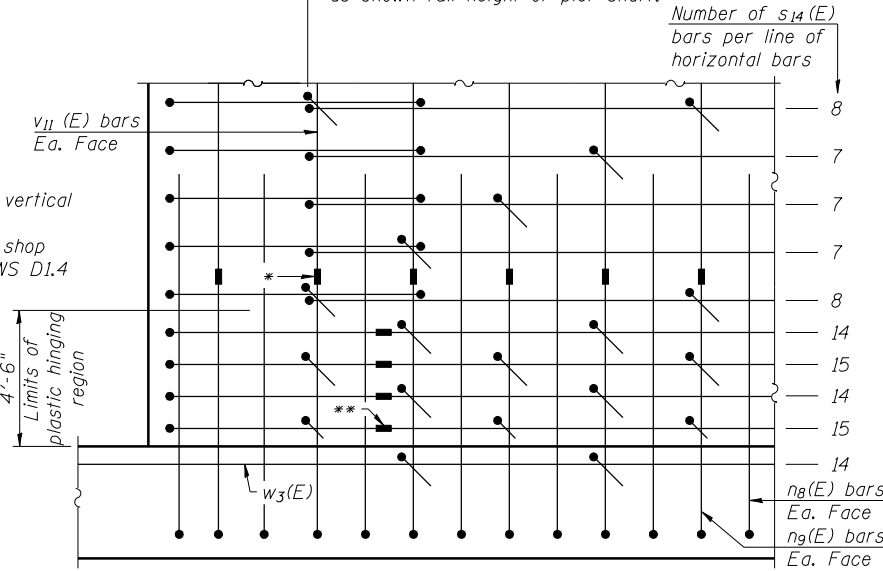


#4 s₁₄(E) bars at 4'-0" cts. max. outside limits of plastic hinging region, 2'-0" max. inside limits of plastic hinging region and top of footing. Stagger as shown full height of pier shaft.

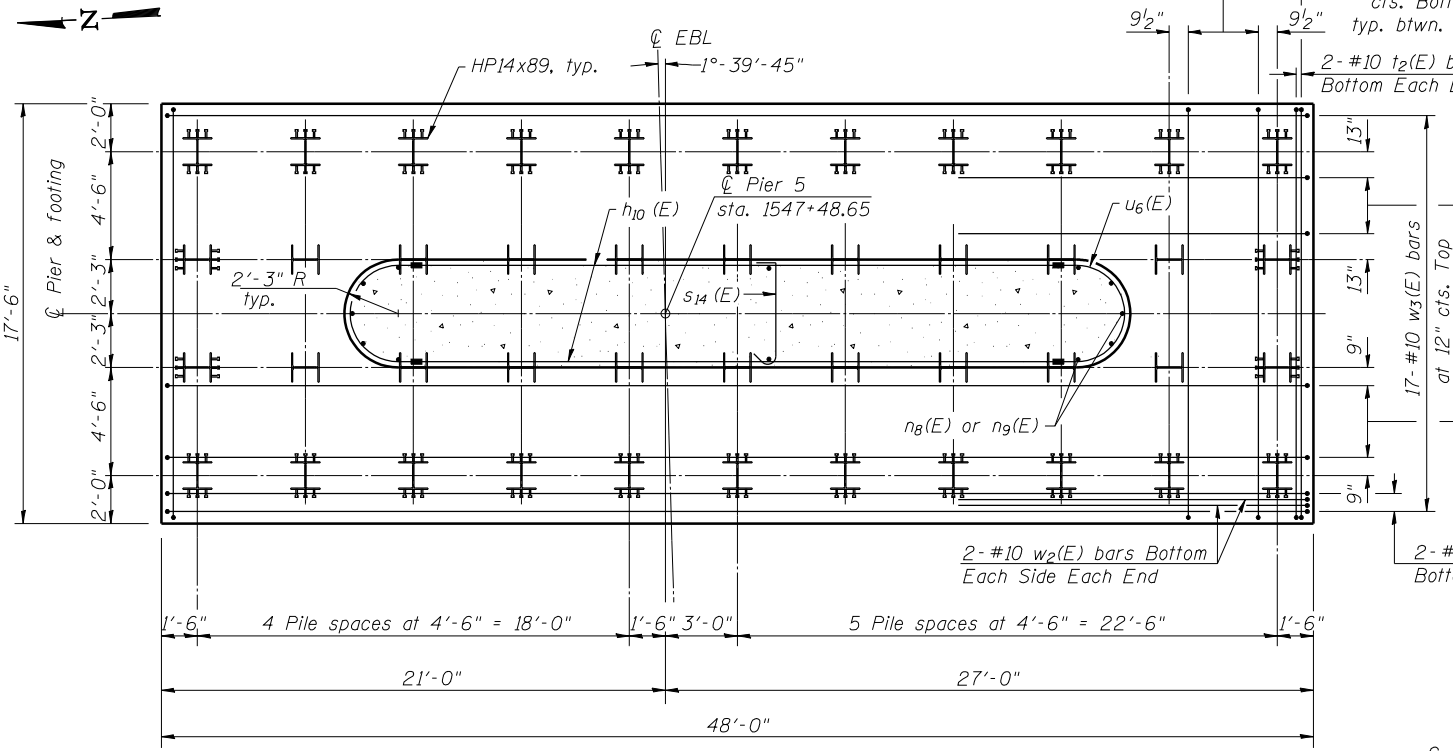


PARTIAL ELEVATION
(Showing s₁₄(E) bar pattern)

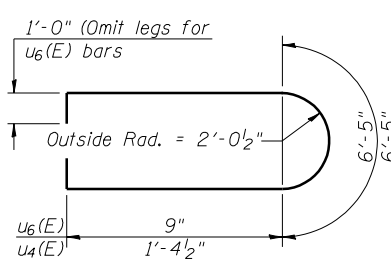
Note:
Not all lines of horizontal reinforcement bars are shown. Total number of s₁₄(E) bars in Bill of Materials is based on applying the pattern shown to the actual pier dimensions and horizontal reinforcement spacing.

PIER 5
BILL OF MATERIAL

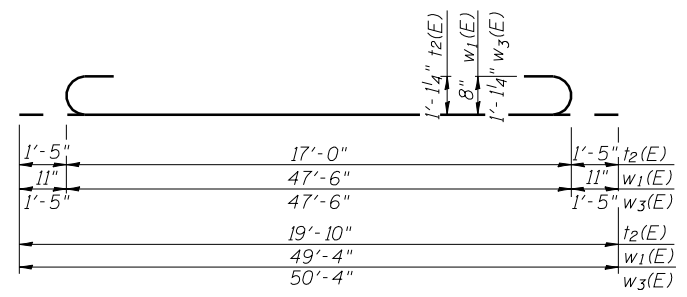
Bar	No.	Size	Length	Shape
h ₁₀ (E)	28	#5	26'-9"	—
h ₁₁ (E)	36	#6	30'-6"	—
h ₁₂ (E)	40	#5	11'-3"	—
h ₁₃ (E)	40	#5	11'-2"	—
h ₁₄ (E)	20	#5	30'-0"	—
h ₁₅ (E)	7	#5	7'-5"	—
n ₈ (E)	66	#10	16'-8"	—
n ₉ (E)	66	#11	10'-9"	—
p ₃ (E)	7	#9	49'-5"	—
p ₄ (E)	12	#10	20'-6"	—
p ₅ (E)	10	#7	9'-9"	—
p ₆ (E)	2	#7	33'-2"	—
s ₃ (E)	4	#5	14'-7"	□
s ₄ (E)	4	#5	15'-0"	□
s ₅ (E)	4	#5	15'-5"	□
s ₆ (E)	4	#5	15'-10"	□
s ₇ (E)	4	#5	16'-3"	□
s ₈ (E)	4	#5	16'-9"	□
s ₉ (E)	4	#5	17'-2"	□
s ₁₀ (E)	4	#5	17'-7"	□
s ₁₁ (E)	96	#5	13'-0"	□
s ₁₂ (E)	70	#5	14'-2"	□
s ₁₃ (E)	11	#5	7'-6"	□
s ₁₄ (E)	348	#4	5'-3"	□
t ₂ (E)	112	#10	19'-10"	—
u ₄ (E)	36	#6	11'-2"	—
u ₅ (E)	10	#6	11'-10"	—
u ₆ (E)	28	#5	7'-11"	—
v ₁₁ (E)	66	#11	11'-5"	—
w ₁ (E)	16	#8	49'-4"	—
w ₂ (E)	44	#10	19'-10"	—
w ₃ (E)	17	#10	50'-4"	—
Structure Excavation		Cu. Yd.	230	
Concrete Structures		Cu. Yd.	236.6	
Reinforcement Bars, Epoxy Coated		Pound	43420	
Furnishing Steel Piles HPI14x89		Foot	3520	
Driving Piles		Foot	3520	



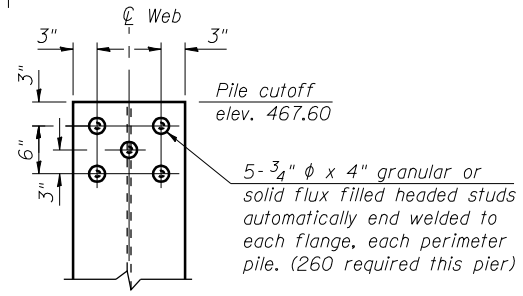
FOOTING PLAN



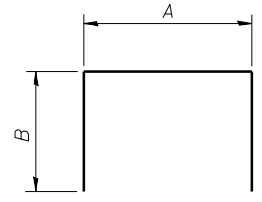
BARS u₄(E) & u₆(E)



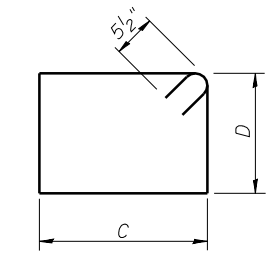
BARS t₂(E), w₁(E) & w₃(E)



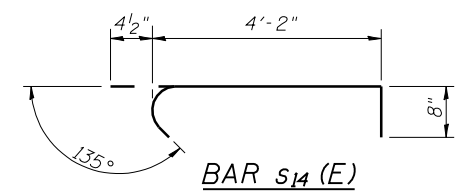
TOP OF PERIMETER PILE DETAIL



BARS



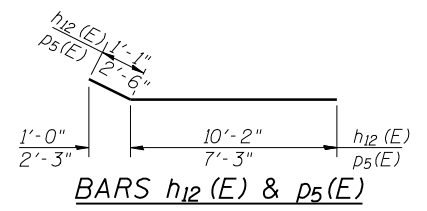
BARS s₃(E) thru s₁₀(E)



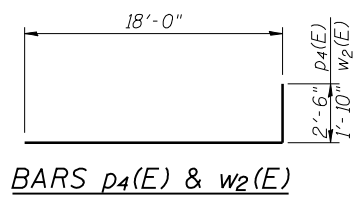
BAR s₁₄(E)

PILE DATA

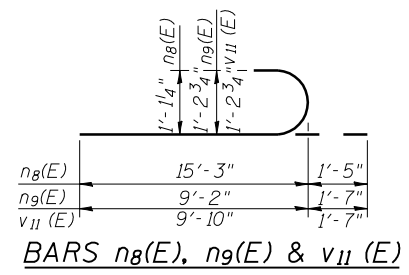
Type: HPI14x89
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 80 feet
No. Production Piles: 44
No. Test Piles: 0



BARS h₁₂(E) & p₅(E)



BARS p₄(E) & w₂(E)



BARS n₈(E), n₉(E) & v₁₁(E)

A & B DIMENSIONS

Bar	A	B
h ₁₁ (E)	28'-6"	1'-0"
p ₃ (E)	46'-3"	1'-7"
s ₁₁ (E)	4'-0"	4'-6"
s ₁₂ (E)	5'-2"	4'-6"
s ₁₃ (E)	5'-2"	1'-2"
u ₅ (E)	5'-0"	3'-5"

C & D DIMENSIONS

Bar	C	D
s ₃ (E)	4'-0"	2'-10"
s ₄ (E)	4'-0"	3'-0 1/2"
s ₅ (E)	4'-0"	3'-3"
s ₆ (E)	4'-0"	3'-5 1/2"
s ₇ (E)	4'-0"	3'-8"
s ₈ (E)	4'-0"	3'-11"
s ₉ (E)	4'-0"	4'-1 1/2"
s ₁₀ (E)	4'-0"	4'-4"



USER NAME	DESIGNED	REVISION
has	RDH 08/13	08/13
ESCA PROJECT NO. 1070.09	MTD 08/13	08/13
	DWH 08/13	08/13
PLOT DATE = 1/28/2014 3:26:29 PM	ELH 01/14	01/14

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 5 - EB
STRUCTURE NO. 026-0107

SHEET NO. 104 OF 113 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	(26-3B-1, 3B-1(3))BR	FAYETTE	277	184

CONTRACT NO. 74175
ILLINOIS FED. AID PROJECT