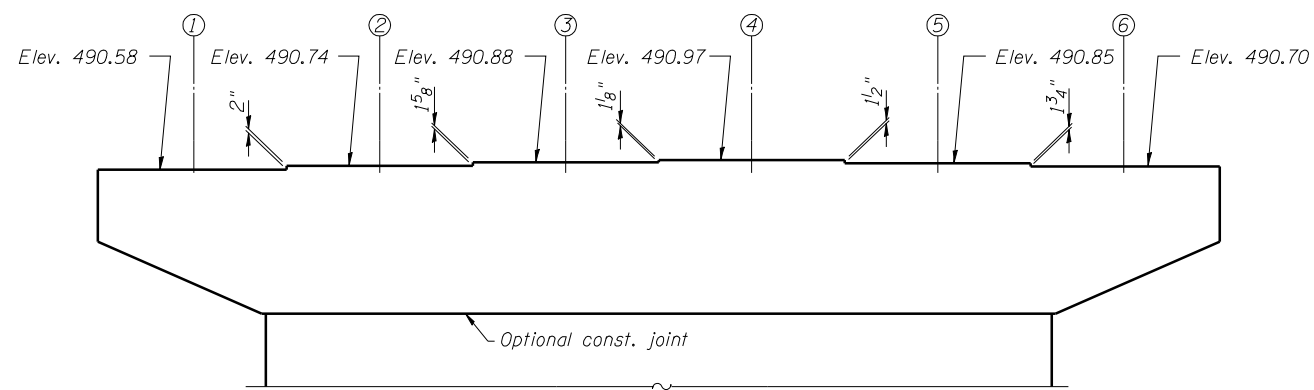


**PIER 3**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>10</sub> (E)	32	#5	26'-9"	—
h <sub>11</sub> (E)	94	#6	30'-6"	—
h <sub>12</sub> (E)	40	#5	11'-3"	—
h <sub>13</sub> (E)	40	#5	11'-2"	—
h <sub>14</sub> (E)	20	#5	30'-0"	—
h <sub>15</sub> (E)	7	#5	7'-5"	—
n <sub>6</sub> (E)	66	#11	18'-6"	—
n <sub>7</sub> (E)	66	#10	12'-7"	—
p <sub>3</sub> (E)	7	#9	49'-5"	—
p <sub>4</sub> (E)	12	#10	20'-6"	—
p <sub>5</sub> (E)	10	#7	9'-9"	—
p <sub>6</sub> (E)	2	#7	33'-2"	—
s <sub>3</sub> (E)	4	#5	14'-7"	□
s <sub>4</sub> (E)	4	#5	15'-0"	□
s <sub>5</sub> (E)	4	#5	15'-5"	□
s <sub>6</sub> (E)	4	#5	15'-10"	□
s <sub>7</sub> (E)	4	#5	16'-3"	□
s <sub>8</sub> (E)	4	#5	16'-9"	□
s <sub>9</sub> (E)	4	#5	17'-2"	□
s <sub>10</sub> (E)	4	#5	17'-7"	□
s <sub>11</sub> (E)	96	#5	13'-0"	□
s <sub>12</sub> (E)	70	#5	14'-2"	□
s <sub>13</sub> (E)	11	#5	7'-6"	□
s <sub>14</sub> (E)	582	#4	5'-3"	□
t <sub>3</sub> (E)	136	#10	22'-10"	—
u <sub>4</sub> (E)	94	#6	11'-2"	—
u <sub>5</sub> (E)	10	#6	11'-10"	—
u <sub>6</sub> (E)	32	#5	7'-11"	—
v <sub>9</sub> (E)	66	#10	25'-1"	—
w <sub>1</sub> (E)	19	#8	49'-4"	—
w <sub>2</sub> (E)	56	#10	19'-10"	—
w <sub>3</sub> (E)	21	#10	50'-4"	—
Cofferdam Excavation		Cu. Yd.	1630	
Cofferdam (Type 2) (Location-1)		Each	1	
Seal Coat Concrete		Cu. Yd.	192.9	
Concrete Structures		Cu. Yd.	336.7	
Reinforcement Bars, Epoxy Coated		Pound	58780	
Furnishing Steel Piles HP14x89		Foot	2144	
Driving Piles		Foot	2144	

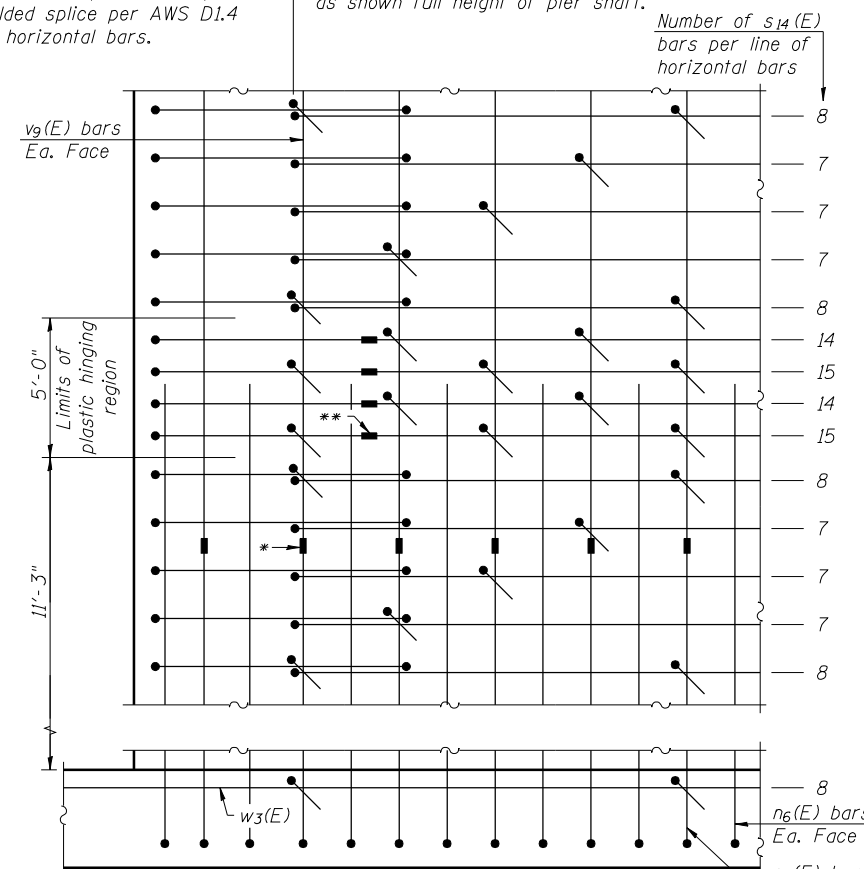
For cofferdam details, see sheet 105 of 113.



**TOP OF PIER**

\* Mechanical splice on vertical bars.  
 \*\* Mechanical splice or shop welded splice per AWS D1.4 on horizontal bars.

#4 s<sub>14</sub>(E) bars at 4'-0" cts. max. outside limits of plastic hinging region and top of footing, 2'-0" max. inside limits of plastic hinging region. Stagger as shown full height of pier shaft.

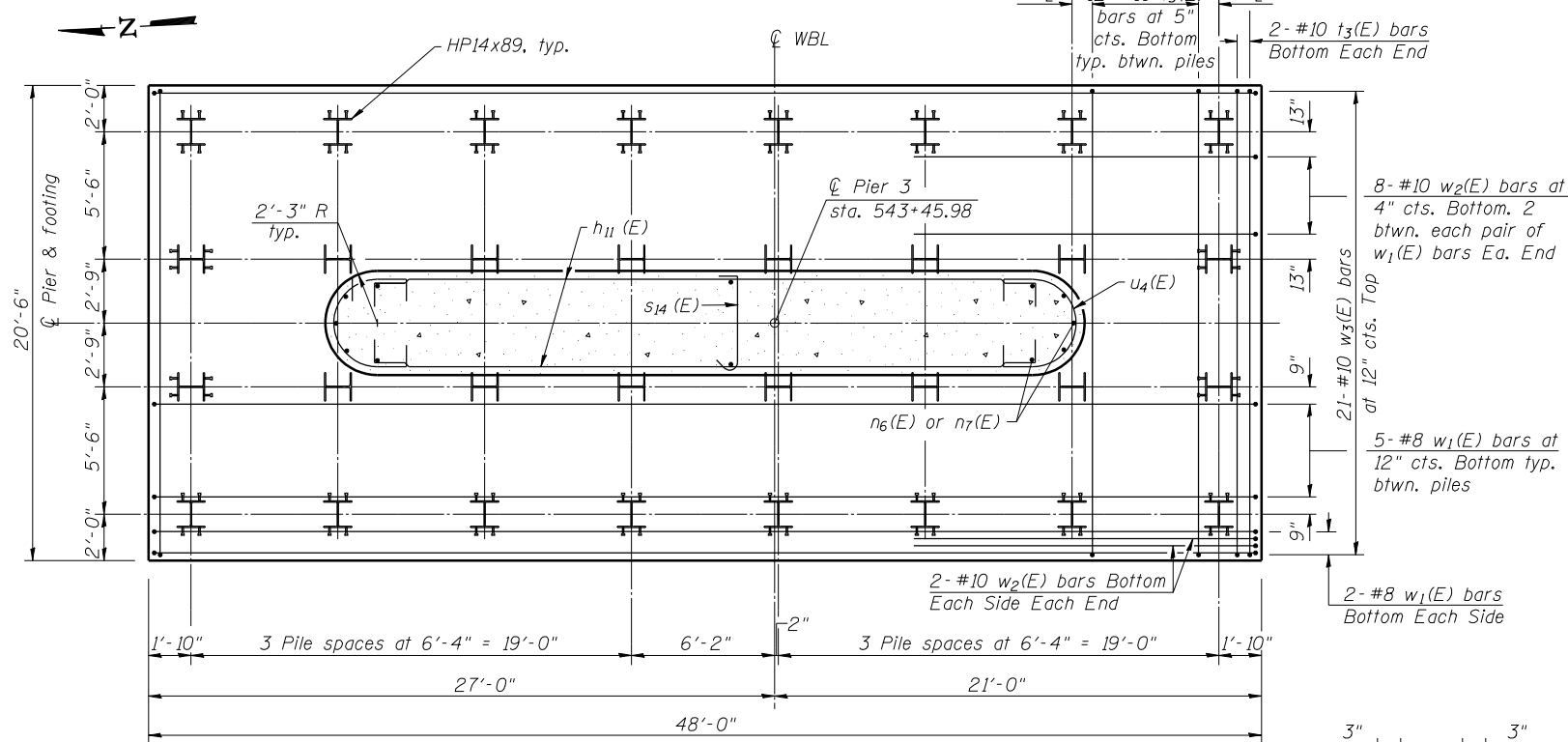


**PARTIAL ELEVATION**

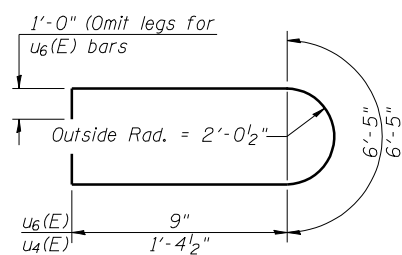
(Showing s<sub>14</sub>(E) bar pattern)

Note:

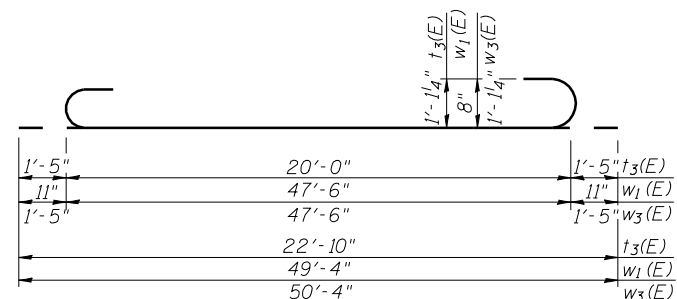
Not all lines of horizontal reinforcement bars are shown. Total number of s<sub>14</sub>(E) bars in Bill of Materials is based on applying the pattern shown to the actual pier dimensions and horizontal reinforcement spacing.



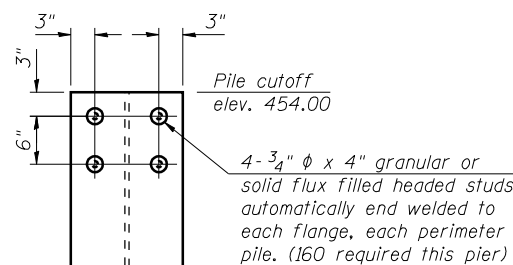
**FOOTING PLAN**



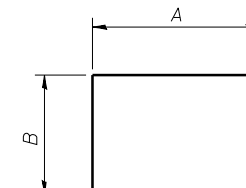
**BARS u<sub>4</sub>(E) & u<sub>6</sub>(E)**



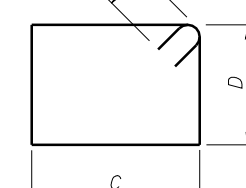
**BARS t<sub>3</sub>(E), w<sub>1</sub>(E) & w<sub>3</sub>(E)**



**TOP OF PERIMETER PILE DETAIL**



**BARS**



**BARS s<sub>3</sub>(E) thru s<sub>10</sub>(E)**

**A & B DIMENSIONS**

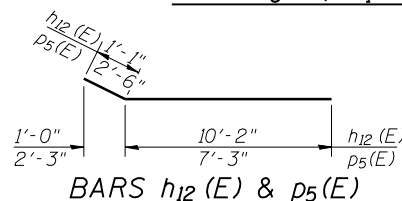
Bar	A	B
h <sub>11</sub> (E)	28'-6"	1'-0"
p <sub>3</sub> (E)	46'-3"	1'-7"
s <sub>11</sub> (E)	4'-0"	4'-6"
s <sub>12</sub> (E)	5'-2"	4'-6"
s <sub>13</sub> (E)	5'-2"	1'-2"
u <sub>5</sub> (E)	5'-0"	3'-5"

**C & D DIMENSIONS**

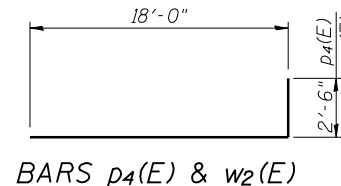
Bar	C	D
s <sub>3</sub> (E)	4'-0"	2'-10"
s <sub>4</sub> (E)	4'-0"	3'-0 1/2"
s <sub>5</sub> (E)	4'-0"	3'-3"
s <sub>6</sub> (E)	4'-0"	3'-5 1/2"
s <sub>7</sub> (E)	4'-0"	3'-8"
s <sub>8</sub> (E)	4'-0"	3'-11"
s <sub>9</sub> (E)	4'-0"	4'-1 1/2"
s <sub>10</sub> (E)	4'-0"	4'-4"

**PILE DATA**

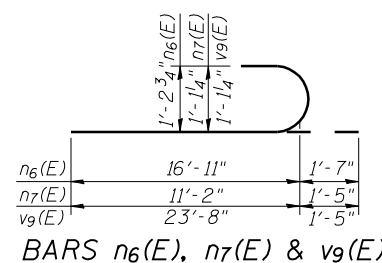
Type: HP14x89  
 Nominal Required Bearing: 705 kips  
 Factored Resistance Available: 388 kips  
 Est. Length: 67 feet  
 No. Production Piles: 32  
 No. Test Piles: 0



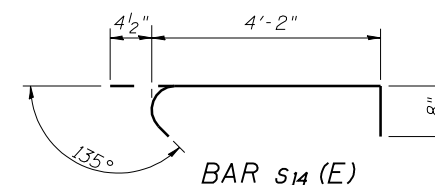
**BARS h<sub>12</sub>(E) & p<sub>5</sub>(E)**



**BARS p<sub>4</sub>(E) & w<sub>2</sub>(E)**



**BARS n<sub>6</sub>(E), n<sub>7</sub>(E) & v<sub>9</sub>(E)**



**BAR s<sub>14</sub>(E)**



USER NAME	DESIGNED	REVISION
has	RDW 08/13	08/13
ESCA PROJECT NO. 1070.09	MTD 08/13	08/13
	DWH 08/13	08/13
PLOT DATE = 1/28/2014	ELH 01/14	01/14

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PIER 3 - WB  
 STRUCTURE NO. 026-0106**

SHEET NO. 90 OF 113 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	(26-3B-1, 3B-1(3))BR	FAYETTE	277	170

CONTRACT NO. 74175  
 ILLINOIS FED. AID PROJECT