

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**PIER 1  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d <sub>9</sub> (E)	14	#5	3'-6"	—
h <sub>17</sub> (E)	4	#6	7'-6"	—
h <sub>18</sub> (E)	16	#5	12'-5"	—
h <sub>19</sub> (E)	4	#5	12'-2"	—
p(E)	18	#6	31'-6"	—
p <sub>1</sub> (E)	8	#5	6'-5"	—
p <sub>2</sub> (E)	8	#7	32'-9"	—
p <sub>3</sub> (E)	4	#7	16'-6"	—
p <sub>4</sub> (E)	12	#5	31'-2"	—
s <sub>2</sub> (E)	9	#4	13'-5"	□
s <sub>3</sub> (E)	50	#4	11'-9"	□
s <sub>4</sub> (E)	8	#6	21'-0"	□
s <sub>5</sub> (E)	12	#4	7'-6"	□
s <sub>6</sub> (E)	12	#4	6'-6"	□
u <sub>1</sub> (E)	10	#6	9'-7"	□
u <sub>2</sub> (E)	6	#6	8'-1"	□
v <sub>17</sub> (E)	18	#6	16'-5"	—
v <sub>18</sub> (E)	18	#6	13'-6"	—
v <sub>19</sub> (E)	170	#5	4'-0"	—
Concrete Structures	Cu. Yd.	43.0		
Reinforcement Bars, Epoxy Coated	Pound	4900		
Structure Excavation	Cu. Yd.	10		
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.	168		
Driving Piles	Lin. Ft.	168		
Concrete Removal	Cu. Yd.	29		
Epoxy Crack Injection	Foot	78		
Concrete Sealer	Sq. Ft.	45		

**PIER 2  
BILL OF MATERIAL**

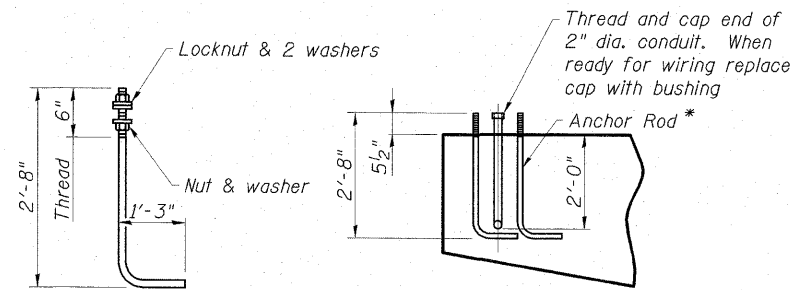
Bar	No.	Size	Length	Shape
d <sub>9</sub> (E)	14	#5	3'-6"	—
h <sub>17</sub> (E)	4	#6	7'-6"	—
h <sub>18</sub> (E)	16	#5	12'-5"	—
h <sub>19</sub> (E)	4	#5	12'-2"	—
p(E)	18	#6	31'-6"	—
p <sub>1</sub> (E)	8	#5	6'-5"	—
p <sub>2</sub> (E)	8	#7	32'-9"	—
p <sub>3</sub> (E)	4	#7	16'-6"	—
p <sub>4</sub> (E)	12	#5	31'-2"	—
s <sub>2</sub> (E)	9	#4	13'-5"	□
s <sub>3</sub> (E)	50	#4	11'-9"	□
s <sub>4</sub> (E)	8	#6	21'-0"	□
s <sub>5</sub> (E)	12	#4	7'-6"	□
s <sub>6</sub> (E)	12	#4	6'-6"	□
u <sub>1</sub> (E)	10	#6	9'-7"	□
u <sub>2</sub> (E)	6	#6	8'-1"	□
v <sub>17</sub> (E)	18	#6	16'-5"	—
v <sub>18</sub> (E)	18	#6	13'-6"	—
v <sub>19</sub> (E)	170	#5	4'-0"	—
Concrete Structures	Cu. Yd.	43.0		
Reinforcement Bars, Epoxy Coated	Pound	4900		
Structure Excavation	Cu. Yd.	10		
Test Pile Metal Shells	Each	1		
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.	84		
Driving Piles	Lin. Ft.	84		
Concrete Removal	Cu. Yd.	29		
Epoxy Crack Injection	Foot	88		
Concrete Sealer	Sq. Ft.	45		

**PIER 3  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d <sub>9</sub> (E)	14	#5	3'-6"	—
h <sub>20</sub> (E)	4	#6	9'-0"	—
h <sub>21</sub> (E)	16	#5	14'-0"	—
h <sub>22</sub> (E)	4	#5	13'-10"	—
p <sub>5</sub> (E)	18	#6	33'-6"	—
p <sub>6</sub> (E)	8	#5	7'-8"	—
p <sub>7</sub> (E)	8	#7	33'-9"	—
p <sub>8</sub> (E)	4	#7	18'-0"	—
p <sub>9</sub> (E)	12	#5	33'-2"	—
s <sub>2</sub> (E)	9	#4	13'-5"	□
s <sub>4</sub> (E)	9	#6	21'-0"	□
s <sub>5</sub> (E)	16	#4	7'-6"	□
s <sub>6</sub> (E)	12	#4	6'-6"	□
s <sub>7</sub> (E)	53	#4	11'-11"	□
u <sub>1</sub> (E)	10	#6	9'-7"	□
u <sub>2</sub> (E)	6	#6	8'-1"	□
v <sub>18</sub> (E)	18	#6	13'-6"	—
v <sub>19</sub> (E)	180	#5	4'-0"	—
v <sub>20</sub> (E)	18	#6	16'-2"	—
Concrete Structures	Cu. Yd.	46.0		
Reinforcement Bars, Epoxy Coated	Pound	5170		
Structure Excavation	Cu. Yd.	10		
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.	237		
Driving Piles	Lin. Ft.	237		
Concrete Removal	Cu. Yd.	31		
Epoxy Crack Injection	Foot	58		
Concrete Sealer	Sq. Ft.	45		

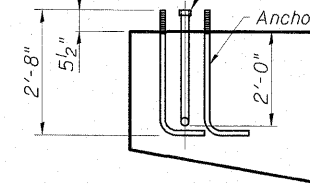
**NOTES**

1. Concrete Sealer shall be applied to both sides of the pier caps within 3'-0" each direction from the centerline of roadway.

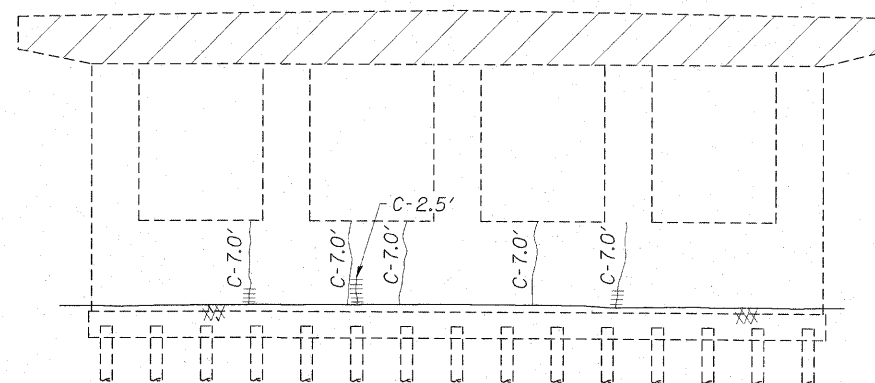


**ANCHOR ROD\***  
Diameter to match existing signal pole.  
(ASTM F 1554 Grade 105)

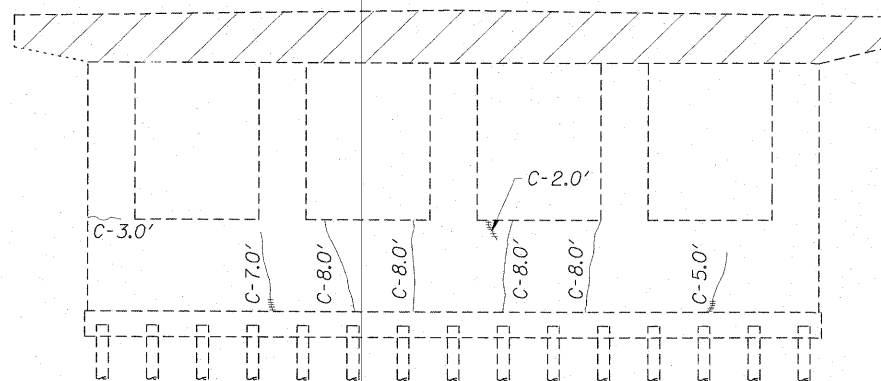
\* Cost included with Concrete Structures



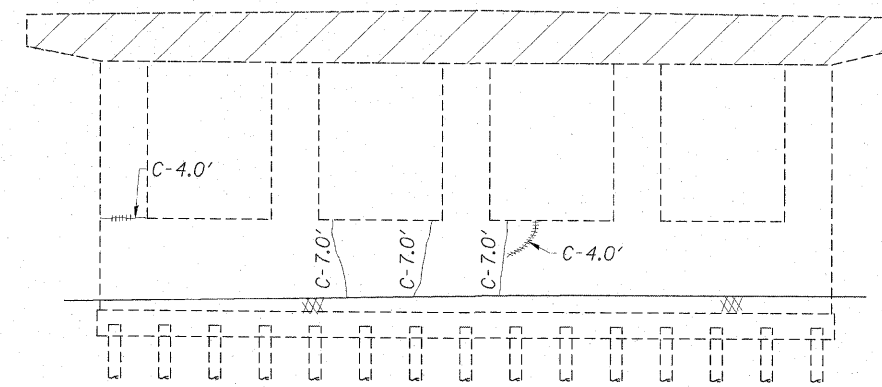
**DETAIL A**



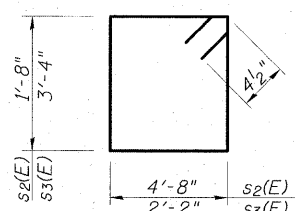
**REPAIRS TO EAST ELEVATION PIER 1**



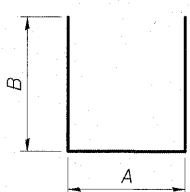
**REPAIRS TO EAST ELEVATION PIER 2**



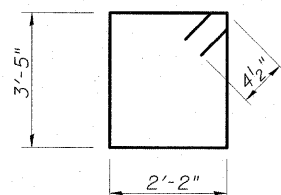
**REPAIRS TO EAST ELEVATION PIER 3**



**BARS s<sub>2</sub>(E) & s<sub>3</sub>(E)**



**BARS s<sub>4</sub>(E), s<sub>5</sub>(E), s<sub>6</sub>(E),  
u<sub>1</sub>(E) & u<sub>2</sub>(E)**



**BARS s<sub>7</sub>(E)**

**BAR DIMENSIONS**

Bar	A	B
s <sub>4</sub> (E)	1'-8"	9'-8"
s <sub>5</sub> (E)	2'-2"	2'-8"
s <sub>6</sub> (E)	2'-2"	2'-2"
u <sub>1</sub> (E)	1'-7"	4'-0"
u <sub>2</sub> (E)	2'-1"	3'-0"

**ESCA**  
CONSULTANTS, INC.

DESIGNED BY: RDP/DAJ 11/08  
DRAWN BY: DWH/JPC 11/08  
CHECKED BY: RDP 03/09  
APPROVED BY: RDP 08/09

**PIER DETAILS  
STRUCTURE NO. 015-0064**

SHEET NO. 26	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
35 SHEETS	325	(19VBR)BR	COLES	92	50
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					