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|-----------------------|----------------|---------------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 361 | 06-00214-20-BR | KANE | 320 | 146 |
| STA. 511+80.00 | | TO STA. 609+14.92 | | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS FED. AID PROJECT | | |
| SHEET NO. S41 OF S108 | | | | |

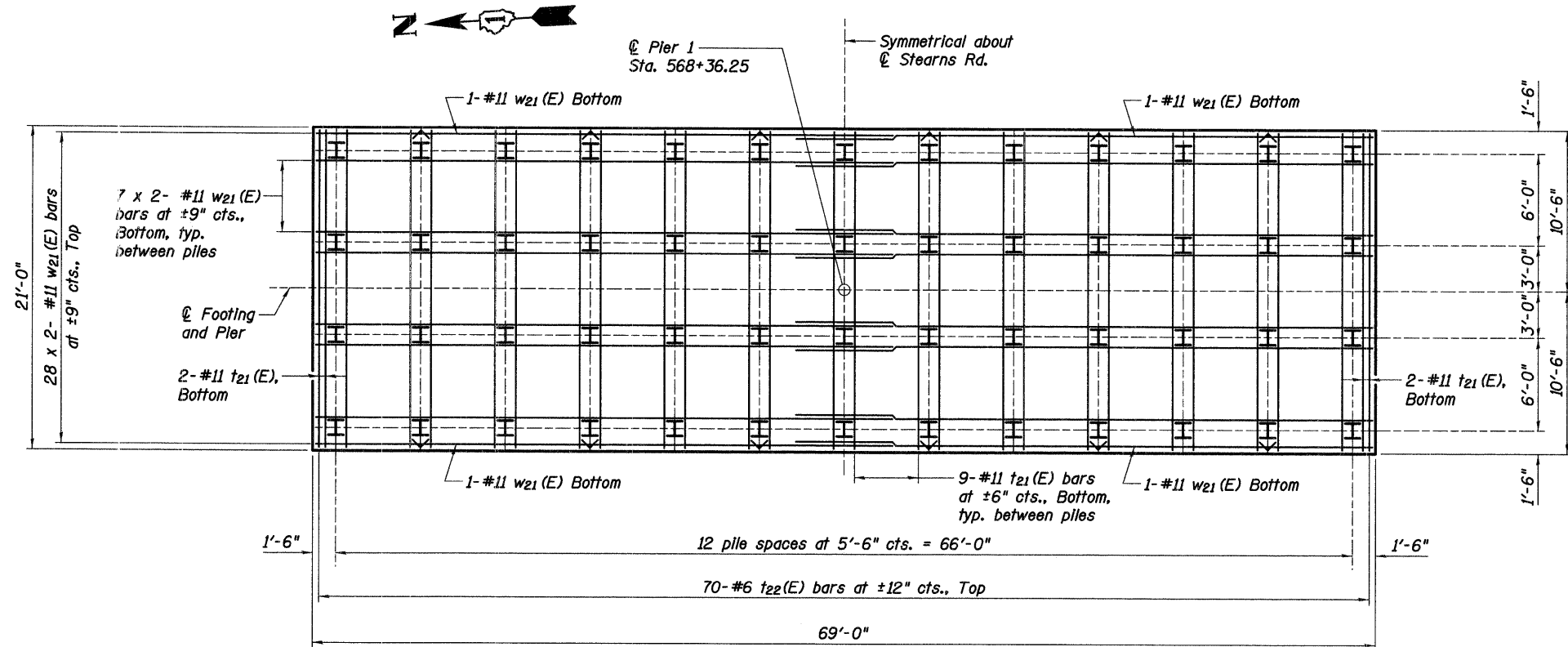
PIER 1 BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | A | B | C |
|---------------------|-----|------|---------|-------|-----------|------------|-----------|
| h ₂₁ (E) | 28 | # 7 | 32'-4" | — | | | |
| h ₂₂ (E) | 5 | # 5 | 28'-1" | — | | | |
| h ₂₃ (E) | 24 | # 5 | 6'-0" | — | | | |
| h ₂₄ (E) | 10 | # 5 | 24'-9" | ⤿ | 24'-9" | 15'-9" | |
| h ₂₅ (E) | 20 | # 5 | 6'-6" | ⤿ | 4'-6" | 4'-6" | |
| n ₂₁ (E) | 116 | # 10 | 13'-7" | ⌊ | 11'-9" | 1'-10" | |
| p ₂₁ (E) | 24 | # 11 | 34'-6" | — | | | |
| p ₂₂ (E) | 14 | # 10 | 20'-9" | ⌊ | 18'-11" | 1'-10" | |
| p ₂₃ (E) | 7 | # 10 | 34'-10" | — | | | |
| s ₂₁ (E) | 32 | # 5 | 25'-7" | ⌊ | 8'-2" | 4'-2" | 0'-5 1/2" |
| s ₂₂ (E) | 192 | # 4 | 4'-11" | ⌊ | 0'-4 1/2" | 4'-2" | 0'-4 1/2" |
| s ₂₃ (E) | 32 | # 4 | 8'-11" | ⌊ | 0'-4 1/2" | 8'-2" | 0'-4 1/2" |
| s ₂₄ (E) | 52 | # 5 | 14'-6" | ⌊ | 5'-2" | 4'-2" | |
| s ₂₅ (E) | 52 | # 5 | 13'-4" | ⌊ | 4'-7" | 4'-2" | |
| s ₂₆ (E) | 24 | # 5 | 12'-4" | ⌊ | 4'-1" | 4'-2" | |
| s ₂₇ (E) | 52 | # 4 | 5'-4" | ⌊ | 0'-4 1/2" | 4'-11 1/2" | |
| s ₂₈ (E) | 52 | # 4 | 4'-9" | ⌊ | 0'-4 1/2" | 4'-4 1/2" | |
| s ₂₉ (E) | 24 | # 4 | 4'-4" | ⌊ | 0'-4 1/2" | 3'-11 1/2" | |
| s ₃₀ (E) | 142 | # 6 | 22'-2" | ⌊ | 7'-5" | 3'-0" | 0'-8" |
| t ₂₁ (E) | 112 | # 11 | 20'-8" | — | | | |
| t ₂₂ (E) | 70 | # 6 | 20'-8" | — | | | |
| u ₂₁ (E) | 18 | # 6 | 11'-2" | ⌊ | 3'-6" | 4'-2" | |
| u ₂₂ (E) | 16 | # 6 | 15'-8" | ⌊ | 5'-9" | 4'-2" | |
| u ₂₃ (E) | 29 | # 5 | 7'-10" | ⌊ | 1'-10" | 4'-2" | |
| u ₂₄ (E) | 18 | # 6 | 7'-0" | ⌊ | 1'-6" | 4'-0" | |
| u ₂₅ (E) | 14 | # 5 | 7'-0" | — | | | |
| v ₂₁ (E) | 116 | # 10 | 31'-2" | — | | | |
| v ₂₂ (E) | 116 | # 7 | 7'-0" | — | | | |
| w ₂₁ (E) | 102 | # 11 | 37'-11" | — | | | |

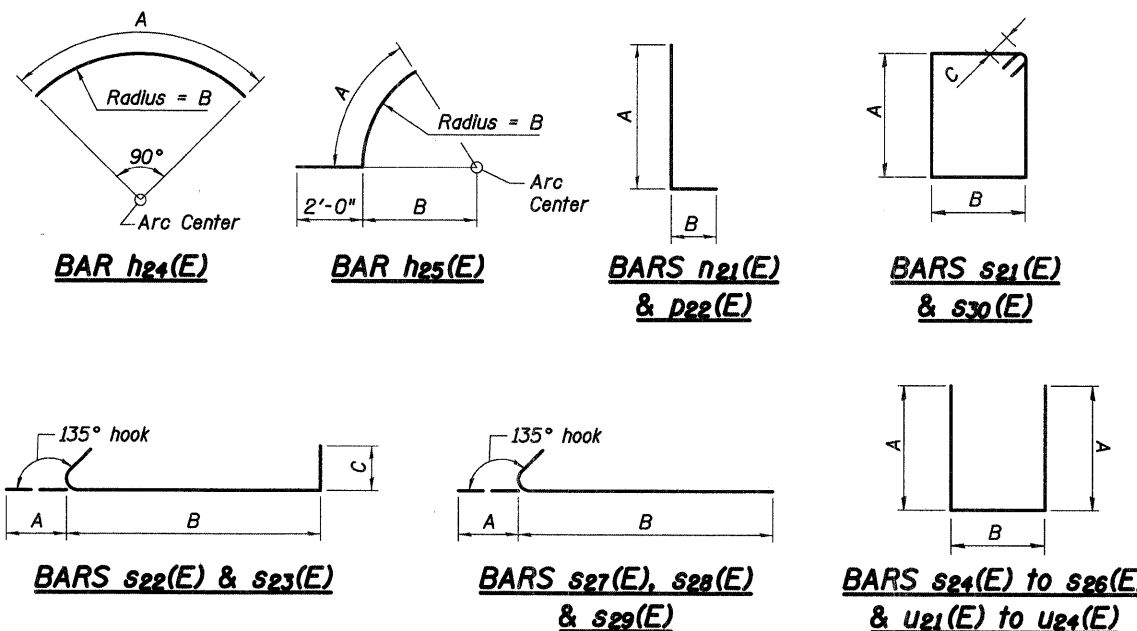
| | | |
|----------------------------------|---------|--------|
| Concrete Structures | Cu. Yd. | 492 |
| Reinforcement Bars, Epoxy Coated | Pound | 78,100 |
| Structure Excavation | Cu. Yd. | 795 |
| Form Liner Textured Surface | Sq. Ft. | 3,854 |
| Furnishing Steel Piles HP 12x74 | Foot | 2,295 |
| Driving Piles | Foot | 2,295 |
| Test Pile Steel HP 12x74 | Each | 1 |

MINIMUM BAR LAP

| | | |
|-----|---|---------------------|
| #4 | = | 1'-4" |
| #5 | = | 1'-8" |
| #6 | = | 2'-0" |
| #7 | = | 2'-9" |
| #10 | = | 5'-10" (Pier Cap) |
| | = | 7'-3" (Pier Column) |
| #11 | = | 7'-2" |



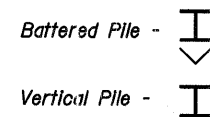
FOOTING PLAN



PIER 1 PILE DATA

Type: HP 12x74
 Nominal Required Bearing: 360 kips
 Factored Resistance Available: 180 kips
 Est. Length: 45 ft.
 No. Production Piles: 51
 No. Test Piles: 1

The contractor shall limit the pile hammer size selected considering the relatively high soil strengths indicated in the borings and avoid overdriving the piles beyond their nominal required bearing to prevent pile damage during driving.



Notes:

- For plan, elevation and sections see sheet S40 of S108.
- For details of piles sheet S52 of S108.

Baker

Baker Engineering, Inc.

| REVISIONS | |
|-----------|------|
| NAME | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS II

STEARN'S ROAD
 OVER THE FOX RIVER
 STRUCTURE NUMBER 045-3166
 KANE COUNTY
 STATION 571+42.96
 DATE: JANUARY 16, 2009
 PUBLIC WATERS
 FAP 361 SECTION 06-00214-20-BR
 DESIGNED: DAP
 DRAWN: SGW
 CHECKED: KPZ