

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

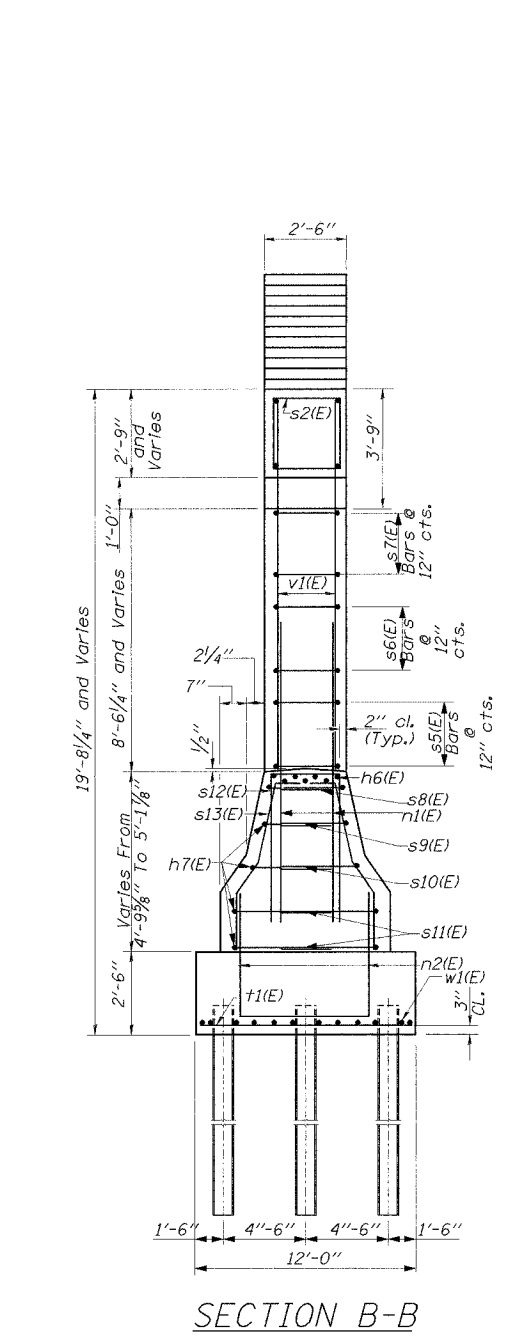
CONTRACT 62829

| | | | | |
|-----------------------|-----------|------------------|--------------|-----------|
| F.A.P. RTE. NO. | SECTION | DISTRICT | TOTAL SHEETS | SHEET NO. |
| 305 | 2004-088B | COOK | 145 | 73 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

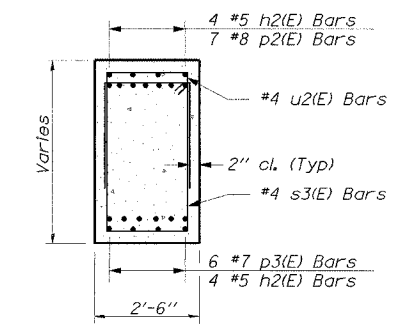
SHEET NO. SA-20
OF SHEETS SA-30

12/28/2004 12:50:4 AM

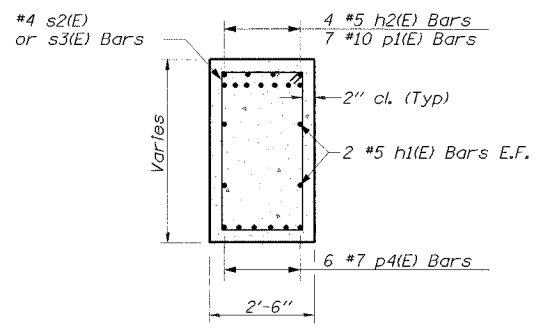
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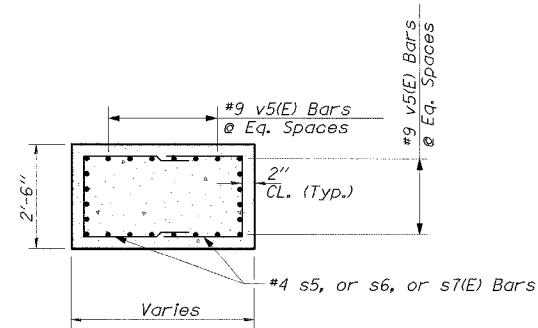
SECTION B-B



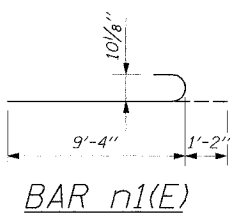
SECTION A-A



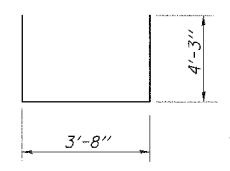
SECTION D-D



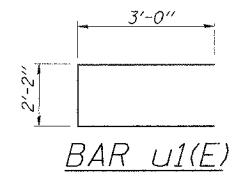
SECTION C-C



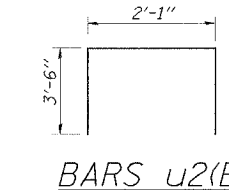
BAR n1(E)



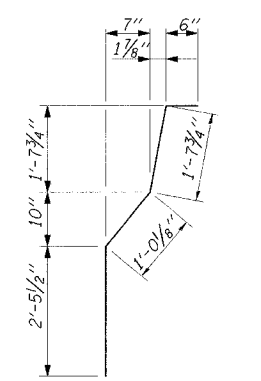
BAR n2(E)



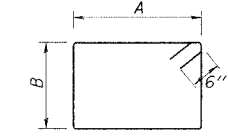
BAR u1(E)



BARS u2(E)



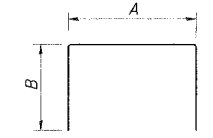
BAR s13(E)



BARS s2(E) & s3(E)

A & B DIMENSIONS

| Bar | A | B |
|-------|-------|-------|
| s2(E) | 2'-1" | 2'-6" |
| s3(E) | 2'-1" | 3'-4" |



BARS s5(E) to s12(E)

A & B DIMENSIONS

| Bar | A | B |
|--------|-------|--------|
| s5(E) | 2'-1" | 2'-8" |
| s6(E) | 2'-1" | 3'-5" |
| s7(E) | 2'-1" | 3'-11" |
| s8(E) | 2'-2" | 2'-2" |
| s9(E) | 2'-4" | 2'-2" |
| s10(E) | 3'-0" | 2'-2" |
| s11(E) | 3'-8" | 2'-2" |
| s12(E) | 2'-2" | 4'-0" |

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|------------------------|---------|--------|---------|-------|
| h1 (E) | 16 | #5 | 22'-4" | — |
| h2 (E) | 56 | #5 | 10'-0" | — |
| h3 (E) | 8 | #5 | 5'-0" | — |
| h4 (E) | 4 | #5 | 5'-2" | — |
| h5 (E) | 4 | #5 | 7'-1" | — |
| h6 (E) | 14 | #8 | 34'-6" | — |
| h7 (E) | 16 | #5 | 34'-6" | — |
| n1 (E) | 144 | #9 | 10'-6" | ┌ |
| n2 (E) | 70 | #5 | 12'-2" | ┌ |
| p1 (E) | 14 | #10 | 19'-2" | — |
| p2 (E) | 14 | #8 | 32'-4" | — |
| p3 (E) | 24 | #7 | 20'-5" | — |
| p4 (E) | 12 | #7 | 10'-6" | — |
| s2 (E) | 14 | #4 | 10'-2" | ┌ |
| s3 (E) | 49 | #4 | 11'-10" | ┌ |
| s5 (E) | 44 | #4 | 7'-5" | ┌ |
| s6 (E) | 42 | #4 | 8'-11" | ┌ |
| s7 (E) | 38 | #4 | 9'-11" | ┌ |
| s8 (E) | 2 | #5 | 6'-6" | ┌ |
| s9 (E) | 2 | #5 | 6'-8" | ┌ |
| s10(E) | 2 | #5 | 7'-4" | ┌ |
| s11(E) | 4 | #5 | 8'-0" | ┌ |
| s12(E) | 70 | #5 | 10'-2" | ┌ |
| s13(E) | 140 | #5 | 5'-7" | ┌ |
| t1 (E) | 72 | #9 | 11'-6" | — |
| u1 (E) | 6 | #6 | 8'-2" | ┌ |
| u2 (E) | 70 | #4 | 9'-1" | ┌ |
| v1 (E) | 24 | #9 | 10'-0" | — |
| v2 (E) | 24 | #9 | 10'-7" | — |
| v3 (E) | 24 | #9 | 11'-2" | — |
| v4 (E) | 24 | #9 | 11'-9" | — |
| v5 (E) | 24 | #9 | 12'-4" | — |
| v6 (E) | 24 | #9 | 12'-11" | — |
| w1 (E) | 24 | #7 | 35'-4" | — |
| Reinforcement Bars | Pound | 25,660 | | |
| Epoxy Coated | | | | |
| Concrete Structures | Cu. Yd. | 183 | | |
| Structure Excavation | Cu. Yd. | 270 | | |
| Bridge Seat Sealer | Sq. Ft. | 222 | | |
| Furnishing Steel Piles | Foot | 1750 | | |
| HP 12x53 | | | | |
| Driving Steel Piles | Foot | 1750 | | |
| Test Pile Steel, | Each | 1 | | |
| HP 12x53 | | | | |
| Bar Splicers | Each | 44 | | |
| Braced Excavation | Cu. Yd. | 260 | | |

NOTES:

- Reinforcement Bars designated (E) shall be epoxy coated.
- Min. bar lap for #5 bar = 2'-2"
Min. bar lap for #6 bar = 2'-7"
Min. bar lap for #7 bar = 3'-5"
Min. bar lap for #8 bar = 4'-6"

PILE DATA

Type: HP12
Capacity: 55 Ton driven to 84 Ton bearing
Est. Length: 50'
No. Required: 36
Test Piles: 1
Drive test pile to 95 Ton bearing

| | |
|----------|-----|
| DESIGNED | AJN |
| CHECKED | JAP |
| DRAWN | ABW |
| CHECKED | EL |

PIER DETAILS
WILLOW ROAD OVER
MILWAUKEE AVENUE
(IL RTE. 21/U.S. 45)
F.A.P. RTE. 305
SECTION 2004-088B
COOK COUNTY
STA. 391+71.02 @ WILLOW RD.
STR. NO. 016-2786
EDWARDS AND KELCEY