

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|--------------------------|---------|--------------------|-------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F. A. I-80/94 | | COOK | 870 | 603 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | |
| (0203.1 & 0312-708W) R-3 | | CONTRACT NO. 62108 | | |

SHEET NO. 89
91 SHEETS

BORING LOG HN-10 Page 1 of 1

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevations: 180.86 m
North: 545783.29 m
East: 362972.17 m
Station: 110+320.2
Offset: 8.75 RT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | Sample Type | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | Sample Type | SPT Values (blows/150 mm) | Moisture Content (%) |
|------------------------|--------------------------------|------------|------------|-------------|---------------------------|----------------------|------------------------|-----------------------------|------------|------------|-------------|---------------------------|----------------------|
| 180.7 | Dark brown SILT CLAY LOAM | 0 | 1 | 1 | 299 | 26 | 178.1 | Very stiff, gray SILTY CLAY | 8 | 12 | 4 | 346 | 14 |
| | Very stiff, brown SILTY CLAY | 1 | 2 | 2 | | | | | 9 | 13 | 3 | 377 | 15 |
| 180.0 | Medium dense, brown SILT | 2 | 3 | 3 | | | | | 10 | | | | |
| 178.4 | Very stiff, brown CLAY | 3 | 4 | 4 | | | | | 11 | | | | |
| | | 4 | 5 | 5 | | | | | 12 | | | | |
| 178.1 | Stiff to very stiff, gray CLAY | 5 | 6 | 6 | | | | | 13 | | | | |
| | | 6 | 7 | 7 | | | | | 14 | | | | |
| | | 7 | 8 | 8 | | | | | 15 | | | | |
| | | 8 | 9 | 9 | | | | | 16 | | | | |
| | | 9 | 10 | 10 | | | | | 17 | | | | |
| | | 10 | 11 | 11 | | | | | 18 | | | | |

GENERAL NOTES

Begin Drilling 06-15-2004 Complete Drilling 06-15-2004
Drilling Contractor Groundbreaking Exploration Drill Rig D-50 Turbo ATV
Driller G&E Logger B. Fuglei checked by
Drilling Method 3.25-inch ID HSA; Boring backfilled upon completion.

WATER LEVEL DATA

While Drilling DRY
At Completion of Drilling DRY
Time After Drilling NA
Depth to Water NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG HR-35 Page 1 of 1

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevations: 180.14 m
North: 545833.17 m
East: 362568.80 m
Station: 110+266.10
Offset: 2.40 RT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | Sample Type | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | Sample Type | SPT Values (blows/150 mm) | Moisture Content (%) |
|------------------------|--|------------|------------|-------------|---------------------------|----------------------|------------------------|---------------------------------|------------|------------|-------------|---------------------------|----------------------|
| 178.5 | 686-mm thick, black SILTY CLAY LOAM | 0 | 1 | 1 | 96 | 29 | 172.4 | Hard, brown and gray SILTY CLAY | 8 | 11 | 3 | 314 | 17 |
| | --TOPSOIL-- | 1 | 2 | 2 | | | | | 9 | 12 | 5 | 542 | 15 |
| | Medium stiff, brown and orange CLAY LOAM with organic matter | 2 | 3 | 3 | | | | | 10 | | | | |
| | | 3 | 4 | 4 | | | | | 11 | | | | |
| | | 4 | 5 | 5 | | | | | 12 | | | | |
| 177.7 | Very soft to medium stiff, greenish gray, organic CLAY | 5 | 6 | 6 | | | | | 13 | | | | |
| | | 6 | 7 | 7 | | | | | 14 | | | | |
| | | 7 | 8 | 8 | | | | | 15 | | | | |
| | | 8 | 9 | 9 | | | | | 16 | | | | |
| | | 9 | 10 | 10 | | | | | 17 | | | | |
| | | 10 | 11 | 11 | | | | | 18 | | | | |
| | | 11 | 12 | 12 | | | | | 19 | | | | |
| | | 12 | 13 | 13 | | | | | 20 | | | | |
| | | 13 | 14 | 14 | | | | | 21 | | | | |
| | | 14 | 15 | 15 | | | | | 22 | | | | |
| | | 15 | 16 | 16 | | | | | 23 | | | | |
| | | 16 | 17 | 17 | | | | | 24 | | | | |
| | | 17 | 18 | 18 | | | | | 25 | | | | |
| | | 18 | 19 | 19 | | | | | 26 | | | | |
| | | 19 | 20 | 20 | | | | | 27 | | | | |
| | | 20 | 21 | 21 | | | | | 28 | | | | |
| | | 21 | 22 | 22 | | | | | 29 | | | | |
| | | 22 | 23 | 23 | | | | | 30 | | | | |
| | | 23 | 24 | 24 | | | | | 31 | | | | |
| | | 24 | 25 | 25 | | | | | 32 | | | | |
| | | 25 | 26 | 26 | | | | | 33 | | | | |
| | | 26 | 27 | 27 | | | | | 34 | | | | |
| | | 27 | 28 | 28 | | | | | 35 | | | | |
| | | 28 | 29 | 29 | | | | | 36 | | | | |
| | | 29 | 30 | 30 | | | | | 37 | | | | |
| | | 30 | 31 | 31 | | | | | 38 | | | | |
| | | 31 | 32 | 32 | | | | | 39 | | | | |
| | | 32 | 33 | 33 | | | | | 40 | | | | |
| | | 33 | 34 | 34 | | | | | 41 | | | | |
| | | 34 | 35 | 35 | | | | | 42 | | | | |
| | | 35 | 36 | 36 | | | | | 43 | | | | |
| | | 36 | 37 | 37 | | | | | 44 | | | | |
| | | 37 | 38 | 38 | | | | | 45 | | | | |
| | | 38 | 39 | 39 | | | | | 46 | | | | |
| | | 39 | 40 | 40 | | | | | 47 | | | | |
| | | 40 | 41 | 41 | | | | | 48 | | | | |
| | | 41 | 42 | 42 | | | | | 49 | | | | |
| | | 42 | 43 | 43 | | | | | 50 | | | | |
| | | 43 | 44 | 44 | | | | | 51 | | | | |
| | | 44 | 45 | 45 | | | | | 52 | | | | |
| | | 45 | 46 | 46 | | | | | 53 | | | | |
| | | 46 | 47 | 47 | | | | | 54 | | | | |
| | | 47 | 48 | 48 | | | | | 55 | | | | |
| | | 48 | 49 | 49 | | | | | 56 | | | | |
| | | 49 | 50 | 50 | | | | | 57 | | | | |
| | | 50 | 51 | 51 | | | | | 58 | | | | |
| | | 51 | 52 | 52 | | | | | 59 | | | | |
| | | 52 | 53 | 53 | | | | | 60 | | | | |
| | | 53 | 54 | 54 | | | | | 61 | | | | |
| | | 54 | 55 | 55 | | | | | 62 | | | | |
| | | 55 | 56 | 56 | | | | | 63 | | | | |
| | | 56 | 57 | 57 | | | | | 64 | | | | |
| | | 57 | 58 | 58 | | | | | 65 | | | | |
| | | 58 | 59 | 59 | | | | | 66 | | | | |
| | | 59 | 60 | 60 | | | | | 67 | | | | |
| | | 60 | 61 | 61 | | | | | 68 | | | | |
| | | 61 | 62 | 62 | | | | | 69 | | | | |
| | | 62 | 63 | 63 | | | | | 70 | | | | |
| | | 63 | 64 | 64 | | | | | 71 | | | | |
| | | 64 | 65 | 65 | | | | | 72 | | | | |
| | | 65 | 66 | 66 | | | | | 73 | | | | |
| | | 66 | 67 | 67 | | | | | 74 | | | | |
| | | 67 | 68 | 68 | | | | | 75 | | | | |
| | | 68 | 69 | 69 | | | | | 76 | | | | |
| | | 69 | 70 | 70 | | | | | 77 | | | | |
| | | 70 | 71 | 71 | | | | | 78 | | | | |
| | | 71 | 72 | 72 | | | | | 79 | | | | |
| | | 72 | 73 | 73 | | | | | 80 | | | | |
| | | 73 | 74 | 74 | | | | | 81 | | | | |
| | | 74 | 75 | 75 | | | | | 82 | | | | |
| | | 75 | 76 | 76 | | | | | 83 | | | | |
| | | 76 | 77 | 77 | | | | | 84 | | | | |
| | | 77 | 78 | 78 | | | | | 85 | | | | |
| | | 78 | 79 | 79 | | | | | 86 | | | | |
| | | 79 | 80 | 80 | | | | | 87 | | | | |
| | | 80 | 81 | 81 | | | | | 88 | | | | |
| | | 81 | 82 | 82 | | | | | 89 | | | | |
| | | 82 | 83 | 83 | | | | | 90 | | | | |
| | | 83 | 84 | 84 | | | | | 91 | | | | |
| | | 84 | 85 | 85 | | | | | 92 | | | | |
| | | 85 | 86 | 86 | | | | | 93 | | | | |
| | | 86 | 87 | 87 | | | | | 94 | | | | |
| | | 87 | 88 | 88 | | | | | 95 | | | | |
| | | 88 | 89 | 89 | | | | | 96 | | | | |
| | | 89 | 90 | 90 | | | | | 97 | | | | |
| | | 90 | 91 | 91 | | | | | 98 | | | | |
| | | 91 | 92 | 92 | | | | | 99 | | | | |
| | | 92 | 93 | 93 | | | | | 100 | | | | |
| | | 93 | 94 | 94 | | | | | 101 | | | | |
| | | 94 | 95 | 95 | | | | | 102 | | | | |
| | | 95 | 96 | 96 | | | | | 103 | | | | |
| | | 96 | 97 | 97 | | | | | 104 | | | | |
| | | 97 | 98 | 98 | | | | | 105 | | | | |
| | | 98 | 99 | 99 | | | | | 106 | | | | |
| | | 99 | 100 | 100 | | | | | 107 | | | | |
| | | 100 | 101 | 101 | | | | | 108 | | | | |
| | | 101 | 102 | 102 | | | | | 109 | | | | |
| | | 102 | 103 | 103 | | | | | 110 | | | | |
| | | 103 | 104 | 104 | | | | | 111 | | | | |
| | | 104 | 105 | 105 | | | | | 112 | | | | |
| | | 105 | 106 | 106 | | | | | 113 | | | | |
| | | 106 | 107 | 107 | | | | | 114 | | | | |
| | | 107 | 108 | 108 | | | | | 115 | | | | |
| | | 108 | 109 | 109 | | | | | 116 | | | | |
| | | | | | | | | | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--------------------------|---------|----------|-------------------|--------------------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 90 91 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 604 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| (0203.1 & 0312-708W) R-3 | | | | CONTRACT NO. 62108 | |

Illinois Department of Transportation
Division of Highways
ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG Page 1 of 1
Date 4/29/04

ROUTE FAP 332 (IL 394) DESCRIPTION Over Thorn Creek LOGGED BY Mark Dell
SECTION (0203.1 7 0312-708W) R-3 LOCATION NE 1/4, SEC. 26, TWP. 15, RNG. 36, 3rd PM
COUNTY Cook DRILLING METHOD CME 750, 3.25 In ID HSA HAMMER TYPE CME Automatic

STRUCT. NO. 016-2800
Station _____
BORING NO. HN-5
Station 440+518
Offset 0.00m On Prop. Baseline
Ground Surface Elev. 182.68 m

| DEPTH (m) | DEPTH (ft) | U | M | Surface Water Elev. (m) | Stream Bed Elev. (m) |
|-----------|------------|-----|----|-------------------------|----------------------|
| 0 | 0 | | | | |
| 4 | 13 | 374 | 17 | | |
| 4 | 13 | B | | | |
| 181.31 | | | | | |
| -1.5 | | | | | |
| 4 | 13 | 192 | 15 | | |
| 4 | 13 | P | | | |
| 180.24 | | | | | |
| 2 | 7 | 144 | 19 | | |
| 1 | 3 | P | | | |
| 3 | 10 | 120 | 21 | | |
| 3 | 10 | P | | | |
| 179.64 | | | | | |
| -3.0 | | | | | |
| 2 | 7 | 240 | 23 | | |
| 3 | 10 | B | | | |
| 3 | 10 | | | | |
| 5 | 16 | 441 | 20 | | |
| 8 | 26 | B | | | |
| -4.5 | | | | | |
| 3 | 10 | 431 | 20 | | |
| 6 | 20 | B | | | |
| 8 | 26 | | | | |
| 3 | 10 | 680 | 20 | | |
| 5 | 16 | B | | | |
| 5 | 16 | 192 | 19 | | |
| 5 | 16 | B | | | |
| 176.89 | | | | | |
| -6.0 | | | | | |

Very Stiff Gray and Gray Brown CLAY (FILL)
SHIFF to Very Stiff Dark Gray to Gray CLAY LOAM
Grades to Gray and Brown
SHIFF Gray and Brown SILTY CLAY, With Sand Seams
Very Stiff to Hard Gray Brown and Brown CLAY
Approximate 7 cm thick silt seam encountered at about 3.4 meters.
Grades to Gray
End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG Page 1 of 1
Date 4/29/04

ROUTE FAP 332 (IL 394) DESCRIPTION Over Thorn Creek LOGGED BY Mark Dell
SECTION (0203.1 7 0312-708W) R-3 LOCATION NE 1/4, SEC. 26, TWP. 15, RNG. 36, 3rd PM
COUNTY Cook DRILLING METHOD CME 750, 3.25 In ID HSA HAMMER TYPE CME Automatic

STRUCT. NO. 016-2800
Station _____
BORING NO. HN-6
Station 440+518
Offset 14.40m Lt of Prop. Baseline
Ground Surface Elev. 181.41 m

| DEPTH (m) | DEPTH (ft) | U | M | Surface Water Elev. (m) | Stream Bed Elev. (m) |
|-----------|------------|-----|----|-------------------------|----------------------|
| 0 | 0 | | | | |
| 2 | 7 | | | | |
| 3 | 10 | 287 | | | |
| 4 | 13 | P | | | |
| -1.5 | | | | | |
| 3 | 10 | 211 | 21 | | |
| 4 | 13 | B | | | |
| 2 | 7 | | | | |
| 4 | 13 | 182 | 24 | | |
| 5 | 16 | B | | | |
| -3.0 | | | | | |
| 2 | 7 | 249 | 21 | | |
| 4 | 13 | B | | | |
| -4.5 | | | | | |
| 2 | 7 | 163 | 20 | | |
| 4 | 13 | B | | | |
| 2 | 7 | 144 | 19 | | |
| 3 | 10 | B | | | |
| 4 | 13 | | | | |
| 2 | 7 | 201 | 20 | | |
| 3 | 10 | B | | | |
| 5 | 16 | | | | |
| 175.62 | | | | | |
| -6.0 | | | | | |

SHIFF to Very Stiff Brown and Gray CLAY, With Occasional Silt and Sand Seams
Grades to Gray
Multiple brown and gray silt seams encountered.
Grades to Gray Brown and Gray
End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG Page 1 of 1
Date 4/29/04

ROUTE FAP 332 (IL 394) DESCRIPTION Over Thorn Creek LOGGED BY Mark Dell
SECTION (0203.1 7 0312-708W) R-3 LOCATION NE 1/4, SEC. 26, TWP. 15, RNG. 36, 3rd PM
COUNTY Cook DRILLING METHOD CME 750, 3.25 In ID HSA HAMMER TYPE CME Automatic

STRUCT. NO. 016-2800
Station _____
BORING NO. HN-7
Station 440+527
Offset 1.83m Lt of Prop. Baseline
Ground Surface Elev. 182.26 m

| DEPTH (m) | DEPTH (ft) | U | M | Surface Water Elev. (m) | Stream Bed Elev. (m) |
|-----------|------------|-------|----|-------------------------|----------------------|
| 0 | 0 | | | | |
| 2 | 7 | | | | |
| 3 | 10 | 211 | 17 | | |
| 3 | 10 | 11.5Z | | | |
| 180.89 | | | | | |
| -1.5 | | | | | |
| 3 | 10 | 59 | 22 | | |
| 2 | 7 | B | | | |
| 180.13 | | | | | |
| 1 | 3 | 125 | 29 | | |
| 2 | 7 | B | | | |
| -3.0 | | | | | |
| 0 | 0 | | | | |
| 2 | 7 | 86 | 27 | | |
| 2 | 7 | B | | | |
| 1 | 3 | 77 | 21 | | |
| 1 | 3 | B | | | |
| -4.5 | | | | | |
| 0 | 0 | | | | |
| 2 | 7 | 48 | 25 | | |
| 2 | 7 | B | | | |
| 176.93 | | | | | |
| 3 | 10 | 691 | 17 | | |
| 8 | 26 | B | | | |
| 11 | 36 | | | | |
| -6.0 | | | | | |

Very Stiff Gray and Brown Gray CLAY LOAM (FILL)
Hard Gray CLAY, Trace Sand and Gravel (continued)
End of Boring
Medium Dark Gray SANDY CLAY LOAM
SHIFF Gray and Brown Gray SILTY CLAY, With Occasional Silt and Sand Seams
Grades to Medium
Grades to Gray
No recovery initially drove sampler again to obtain sample.
Hard Gray CLAY, Trace Sand and Gravel

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

J:\Beauchamp
J:\34562\CADD\01\SHL_2800\csh\CTR_19_2800\csh\190114_2800.dgn
00-JUL-2005 14:46

| | |
|----------|-----|
| DESIGNED | PCA |
| CHECKED | MEA |
| DRAWN | LK |
| CHECKED | MEA |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOIL BORING LOGS
HN-05, HN-06 & HN-07
SB IL ROUTE 394 / RAMP F OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+704.350 STRUCTURE NO. 016-2800/2845
DATE JUL 18, 2005
SCALE ---
HNTB

| FY | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------|---------------------------|--------------|-----------|
| 80/94 | | COOK | 870 | 606 |
| STA. | | TO STA. | | |
| FED ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

BILL OF MATERIAL BRIDGE APPROACH PAVEMENT (SPECIAL)

| BAR NO. | SIZE | LENGTH (M) | SHAPE |
|---------------------|------|------------|-------|
| a ₅₀ (E) | 100 | *30 | U |
| a ₅₁ (E) | 51 | *15 | — |
| a ₅₂ (E) | 52 | *15 | U |
| a ₅₃ (E) | 52 | *15 | — |

| | | | |
|---------------------|----|-----|---|
| b ₅₀ (E) | 62 | *15 | — |
| b ₅₁ (E) | 16 | *15 | — |
| h ₅₀ (E) | 48 | *15 | — |

| ITEM | UNIT | QUANTITY |
|---|----------------|----------|
| BRIDGE APPROACH PAVEMENT (SPECIAL) | M ² | 136 |
| REINFORCEMENT BARS, EPOXY COATED [Ⓜ] | KG | 7467 |

[Ⓜ] INCLUDED FOR PAYMENT UNDER "BRIDGE APPROACH PAVEMENT (SPECIAL)"

BILL OF MATERIAL PAVEMENT TRANSITION

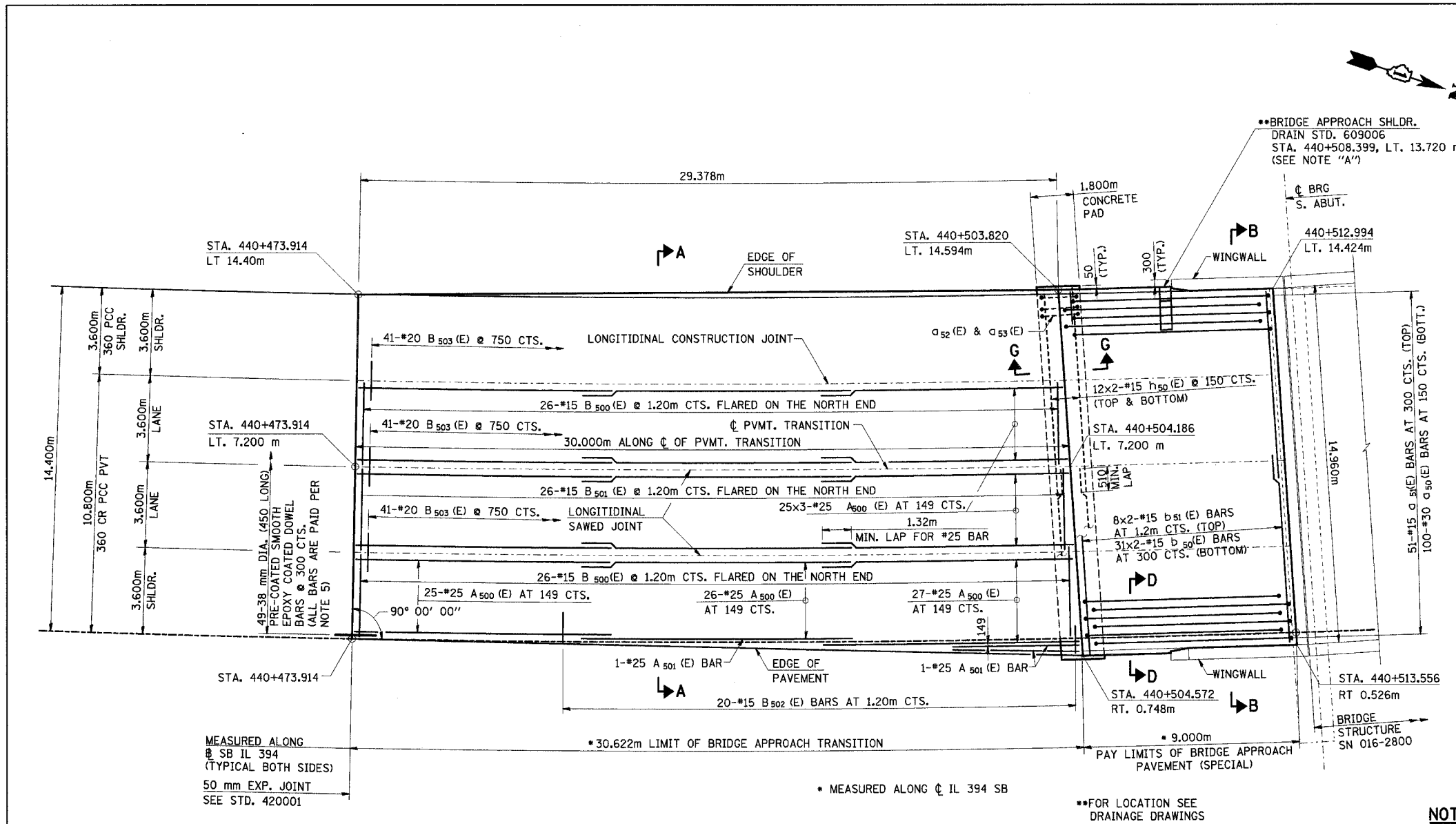
| BAR NO. | SIZE | LENGTH (M) | SHAPE |
|----------------------|------|------------|-------|
| A ₅₀₀ (E) | 228 | *25 | — |
| A ₅₀₁ (E) | 3 | *25 | — |
| B ₅₀₀ (E) | 52 | *15 | — |
| B ₅₀₁ (E) | 26 | *15 | — |
| B ₅₀₂ (E) | 20 | *15 | — |
| B ₅₀₃ (E) | 123 | *20 | — |

| ITEM | UNIT | QUANTITY |
|---|------|----------|
| REINFORCEMENT BARS, EPOXY COATED [Ⓜ] | KG | 10822 |

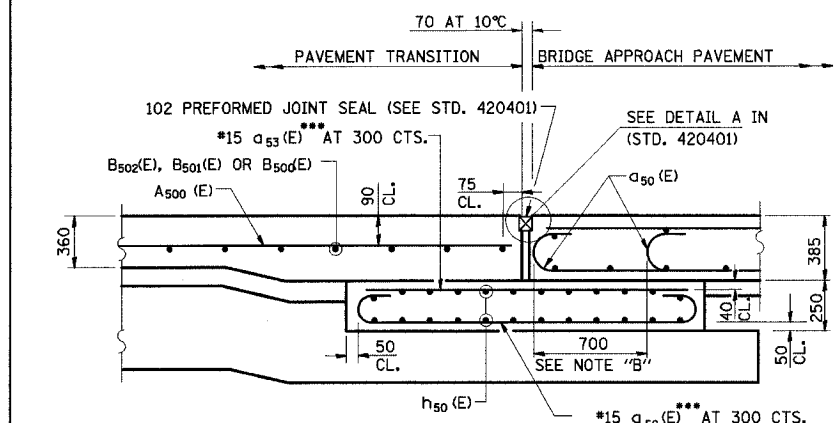
[Ⓜ] INCLUDED FOR PAYMENT UNDER THE CORRESPONDING PAY ITEM (SEE NOTE 5)

NOTES:

- WORK THIS SHEET WITH BRIDGE APPROACH PAVEMENT STANDARD 420401 AND PAVEMENT JOINTS STD. 420001.
- BARS INDICATED THUS "12x2-#15 ETC. INDICATE 12 LINES OF BARS WITH 2 LENGTHS PER LINE.
- REINFORCEMENT BARS DESIGNATED "E" SHALL BE EPOXY COATED.
- FOR THE 9 m. APPROACH PAVEMENT AND SUPPORTING PAD, ALL WORK AND MATERIALS ARE INCLUDED FOR PAYMENT UNDER "BRIDGE APPROACH PAVEMENT (SPECIAL)".
- FOR THE BRIDGE APPROACH PAVEMENT TRANSITION, ALL WORK AND MATERIALS ARE INCLUDED FOR PAYMENT UNDER "CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT-360MM" AND "PCC SHOULDERS-360MM".
- ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.
- TRANSVERSE BARS SHALL BE SET WITH 50 mm CLEARANCE TO EDGE OF PAVEMENT AND 25 mm FROM CL SAWED LONGITUDINAL JOINT.
- PLACE B₅₀₃(E) AT MID-DEPTH OF SLAB.
- FOR SECTIONS A-A AND D-D SEE SHEET NO. 607 OF 870.



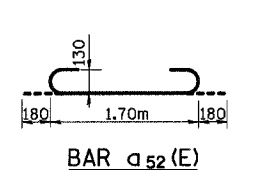
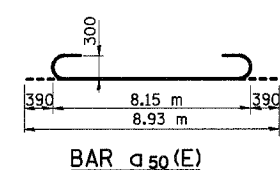
PLAN



SECTION G-G
(SHOWING REINFORCEMENT)

NOTE "B"
STAGGER a₅₀(E) BARS AS SHOWN ON PLAN-FULL WIDTH

FOR DETAILS NOT SHOWN, SEE "SECTION C-C AND G-G- RIGID PAVEMENT", STANDARD 420401



NOTE "A": CUT a₅₀(E), a₅₁(E) AND b₅₀(E), b₅₁(E) BARS TO CLEAR DRAIN INLET BOX.

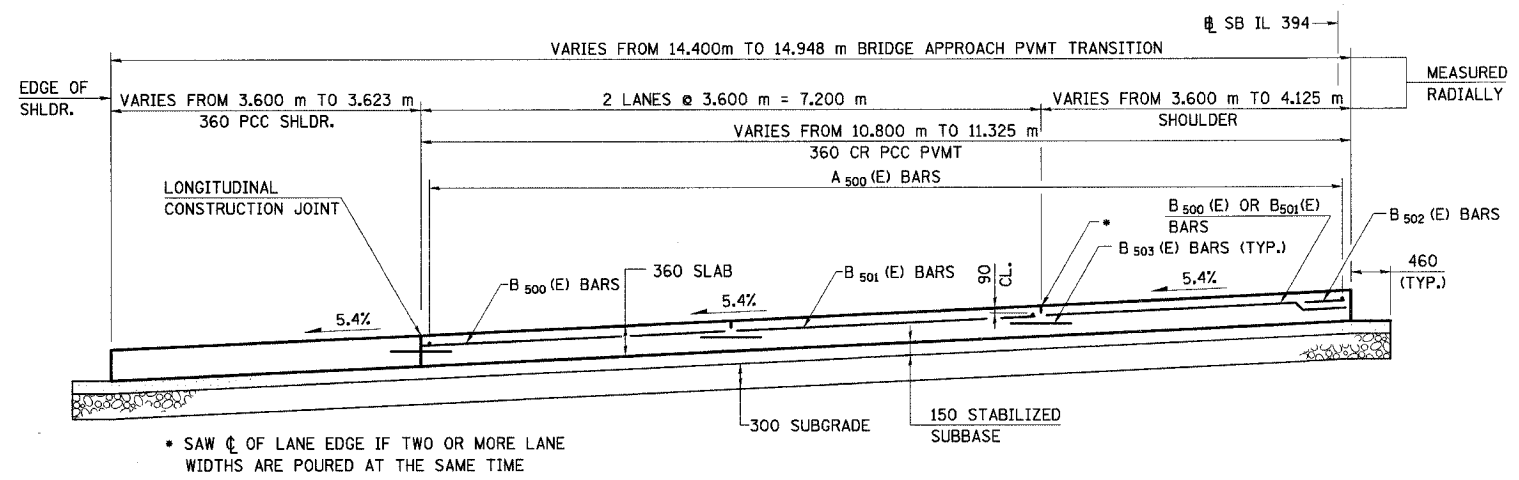
| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
BRIDGE APPROACH PAVEMENT (SPECIAL) & PAVEMENT TRANSITION
SB IL RTE 394 OVER THORN CREEK
STRUCTURE NO. 2800
SOUTH APPROACH - 1 OF 2

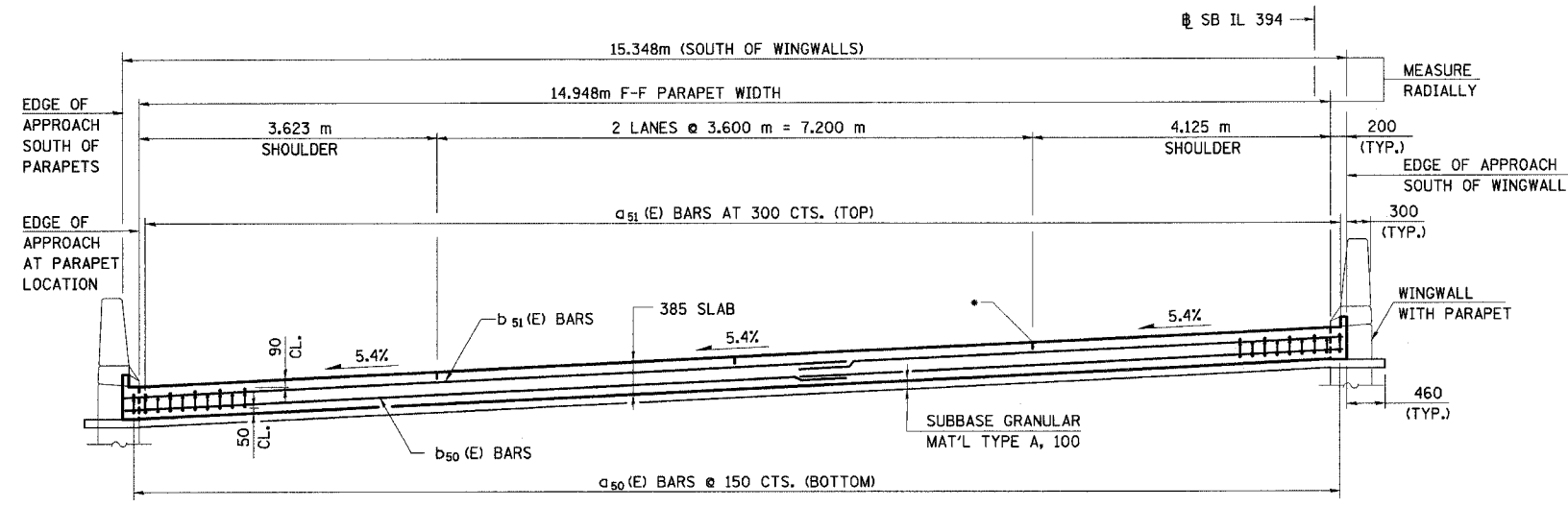
HORIZ SCALE:
VERT SCALE:
DATE: JUL 18, 2005
DRAWN BY: LK
CHECKED BY: PY

HNTB

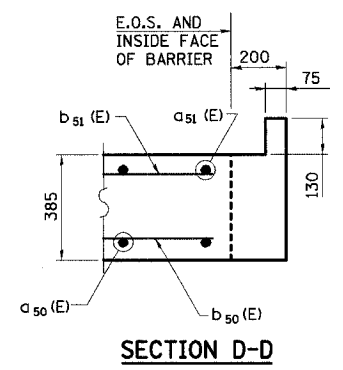
| | | | | |
|--------------------|----------|------------------|--------------|-----------|
| FAI RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 80/94 | | COOK | 870 | 607 |
| STA. | TO STA. | | | |
| FED ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



SECTION A-A



SECTION B-B



SECTION D-D

NOTES:
WORK THIS SHEET WITH SHEET NO. 606 OF 870

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
**BRIDGE APPROACH PAVEMENT (SPECIAL)
& PAVEMENT TRANSITION**
SB IL RTE 394 OVER THORN CREEK
STRUCTURE NO. 2800
SOUTH APPROACH - 2 OF 2

HORIZ SCALE:
VERT SCALE:
DATE: JUL 18, 2005

DRAWN BY: LK
CHECKED BY: PY

HNTB

| FBI RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------|---------------------------|--------------|-----------|
| 80/94 | | COOK | 870 | 608 |
| STA. | | TO STA. | | |
| FED ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

BILL OF MATERIAL BRIDGE APPROACH PAVEMENT (SPECIAL)

| BAR NO. | SIZE | LENGTH (M) | SHAPE |
|---------------------|---------|------------|-------|
| a ₄₀ (E) | 135 #30 | 8.93 | U |
| a ₄₁ (E) | 68 #15 | 8.90 | U |
| a ₄₂ (E) | 68 #15 | 2.06 | U |
| a ₄₃ (E) | 68 #15 | 1.70 | U |

| | | | |
|---------------------|--------|-------|---|
| b ₄₀ (E) | 60 #15 | 10.27 | — |
| b ₄₁ (E) | 16 #15 | 10.27 | — |
| h ₄₀ (E) | 48 #15 | 10.27 | — |

| ITEM | UNIT | QUANTITY |
|---|----------------|----------|
| BRIDGE APPROACH PAVEMENT (SPECIAL) | M ² | 176 |
| REINFORCEMENT BARS, EPOXY COATED ¹ | KG | 9976 |

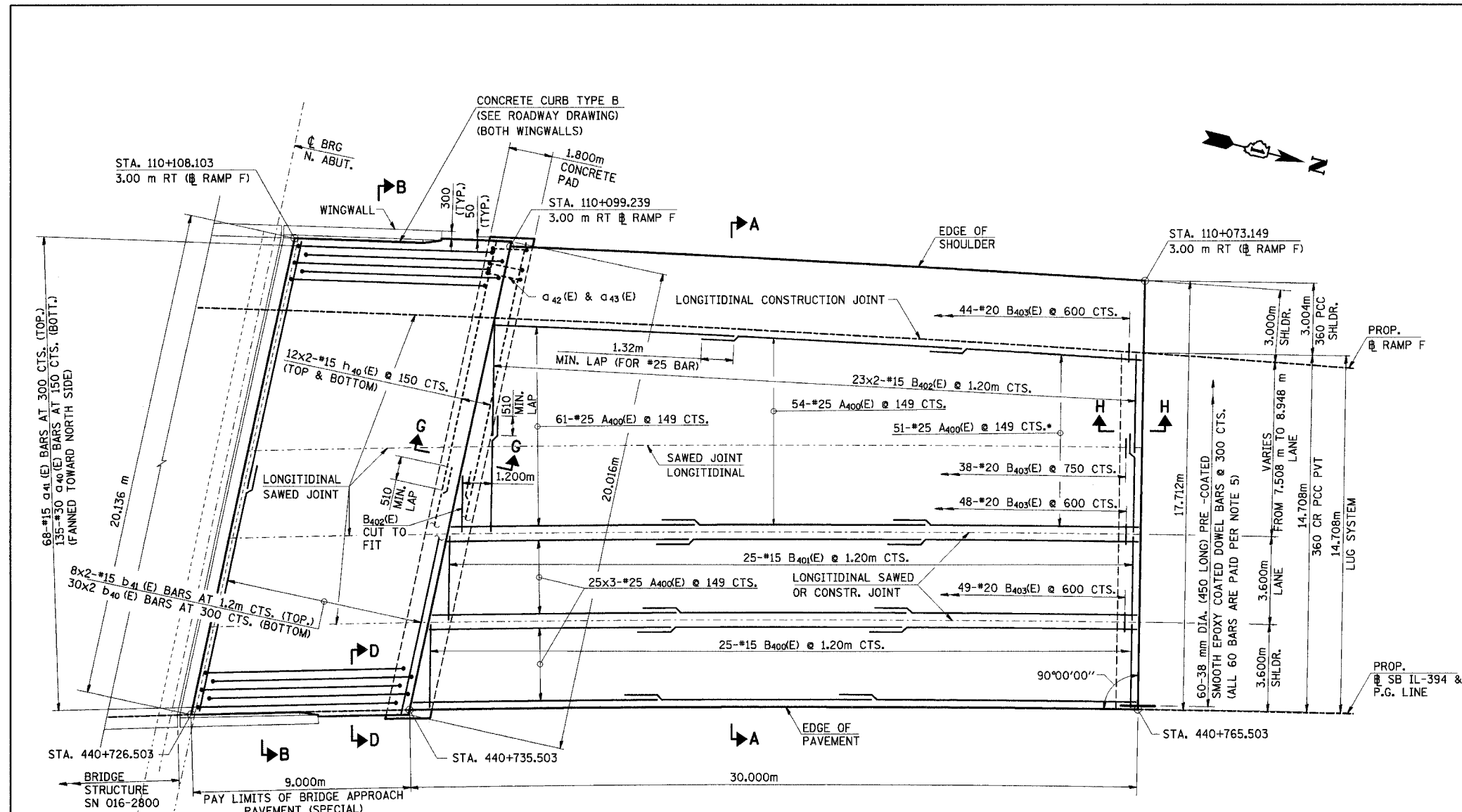
¹INCLUDED FOR PAYMENT UNDER "BRIDGE APPROACH PAVEMENT (SPECIAL)"

BILL OF MATERIAL PAVEMENT TRANSITION

| BAR NO. | SIZE | LENGTH (M) | SHAPE |
|----------------------|---------|------------|-------|
| A ₄₀₀ (E) | 316 #25 | 10.85 | — |
| B ₄₀₀ (E) | 25 #15 | 3.53 | — |
| B ₄₀₁ (E) | 25 #15 | 3.53 | — |
| B ₄₀₂ (E) | 46 #15 | 4.73 | — |

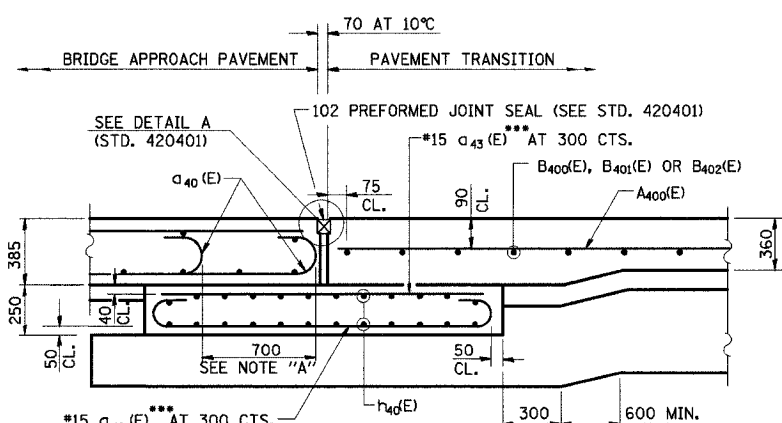
| | | | |
|----------------------|---------|------|---|
| B ₄₀₃ (E) | 179 #20 | 0.75 | — |
|----------------------|---------|------|---|

²INCLUDED FOR PAYMENT UNDER THE CORRESPONDING PAY ITEM (SEE NOTE 5)



PLAN

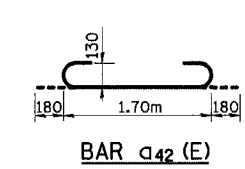
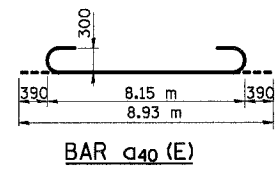
NOTE "A"
CUT a (E) AND b (E) BARS
TO CLEAR DRAIN



SECTION G-G
(SHOWING REINFORCEMENT)

NOTE "A"
STAGGER a₄₀(E) BARS AS
SHOWN ON PLAN-FULL WIDTH

FOR DETAILS NOT SHOWN, SEE
"SECTION C-C AND G-G- RIGID
PAVEMENT", STANDARD 420401



NOTES:

1. WORK THIS SHEET WITH BRIDGE APPROACH PAVEMENT STANDARD 420401 AND PAVEMENT JOINTS STD. 420001.
2. BARS INDICATED THUS "23x3-#15 ETC. INDICATE 23 LINES OF BARS WITH 3 LENGTHS PER LINE.
3. REINFORCEMENT BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.
4. FOR THE 9 m. APPROACH PAVEMENT AND SUPPORTING PAD, ALL WORK AND MATERIALS ARE INCLUDED FOR PAYMENT UNDER "BRIDGE APPROACH PAVEMENT (SPECIAL)".
5. FOR THE BRIDGE APPROACH PAVEMENT TRANSITION, ALL WORK AND MATERIALS ARE INCLUDED FOR PAYMENT UNDER "CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT-360MM", "PCC SHOULDERS-360MM"
6. ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.
7. TRANSVERSE BARS SHALL BE SET WITH 50 mm CLEARANCE TO EDGE OF PAVEMENT AND 25 mm FROM CL SAWED LONGITUDINAL JOINT.
8. PLACE B₄₀₃(E) AT MID-DEPTH OF SLAB.
9. FOR SECTIONS A-A, B-B AND D-D SEE SHEET NO. 609 OF 870.

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
| | |

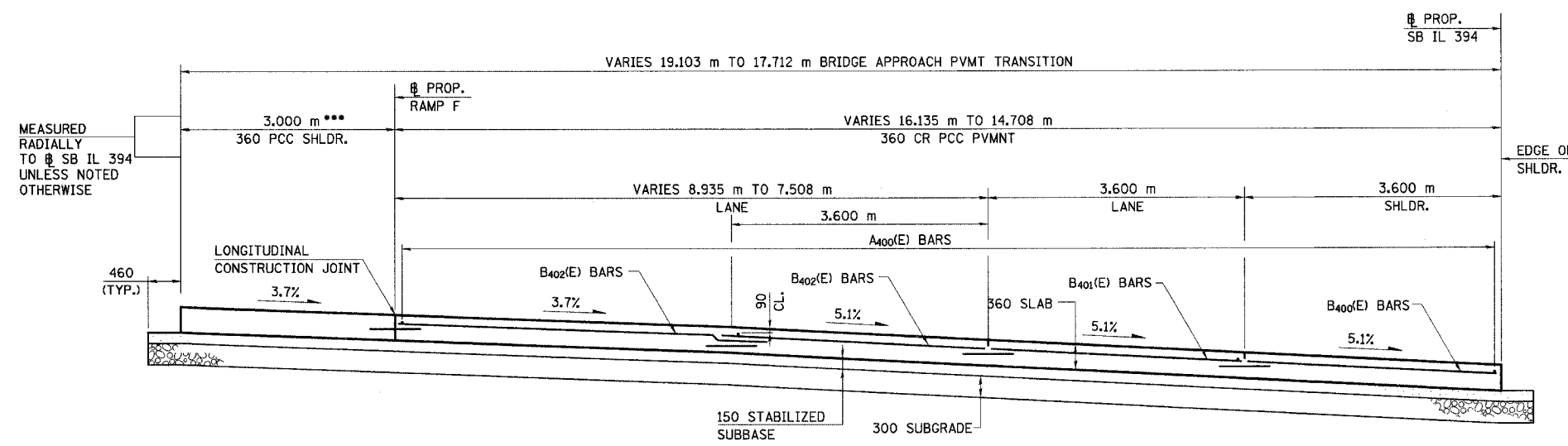
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
BRIDGE APPROACH PAVEMENT (SPECIAL) & PAVEMENT TRANSITION
SB IL RTE 394 OVER THORN CREEK
STRUCTURE NO. 2800
NORTH APPROACH 1 OF 2

HORIZ SCALE:
VERT SCALE:
DATE: JUL 18, 2005

DRAWN BY: LK
CHECKED BY: PY

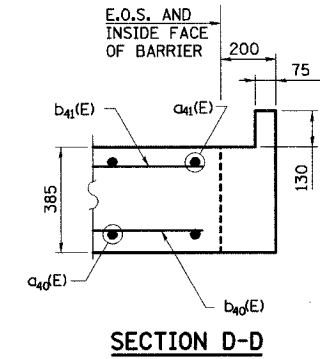
HNTB

| FBI RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------|---------|---------------------------|--------------|-----------|
| 80/94 | • | COOK | 870 | 609 |
| STA. TO STA. | | ILLINOIS FED. AID PROJECT | | |

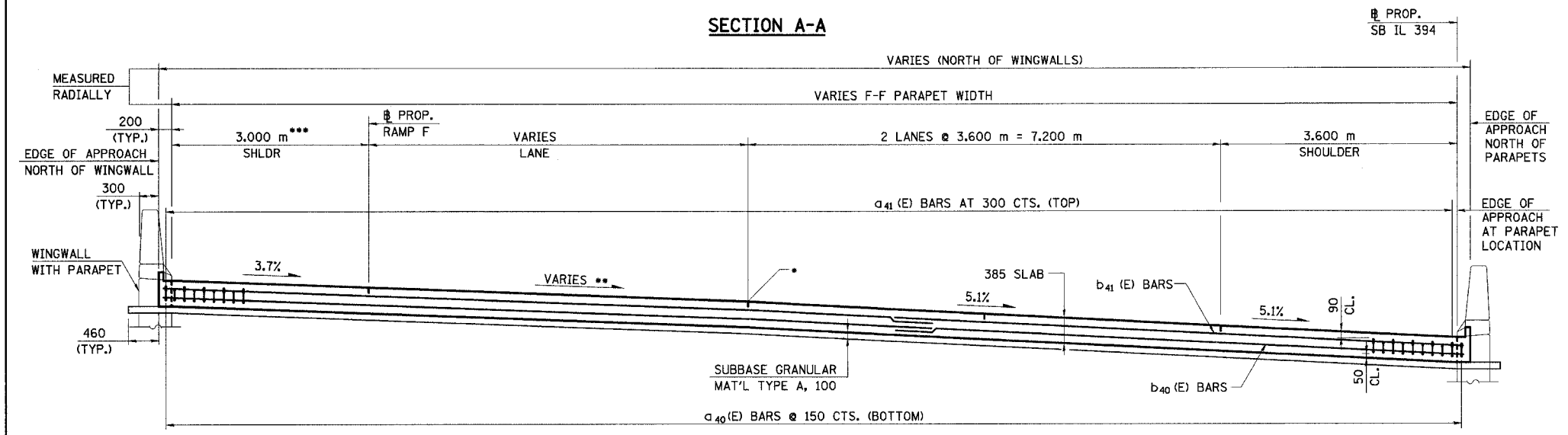


SECTION A-A

• SAW ϕ OR LANE EDGE IF TWO OR MORE LANE WIDTHS ARE POURED AT A TIME.



SECTION D-D

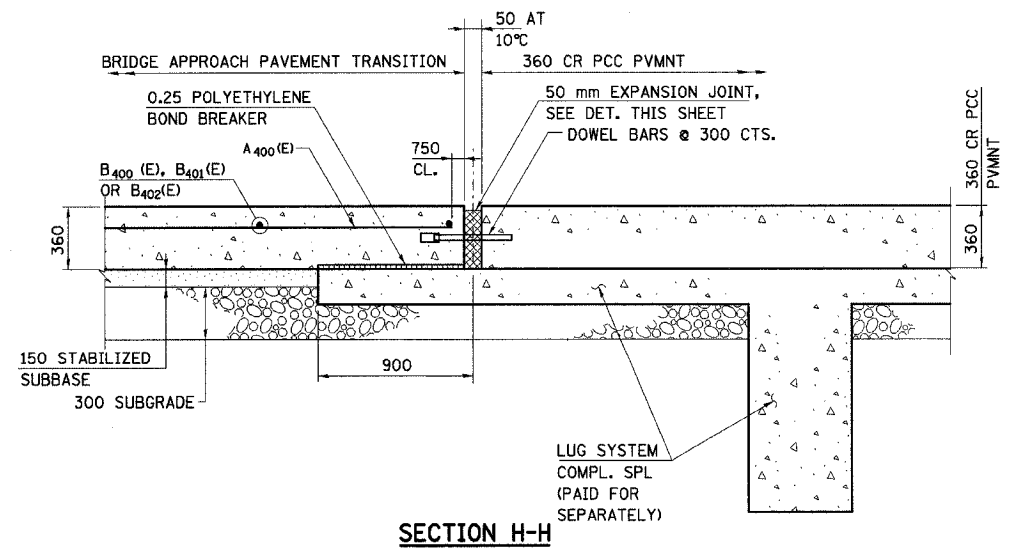


SECTION B-B

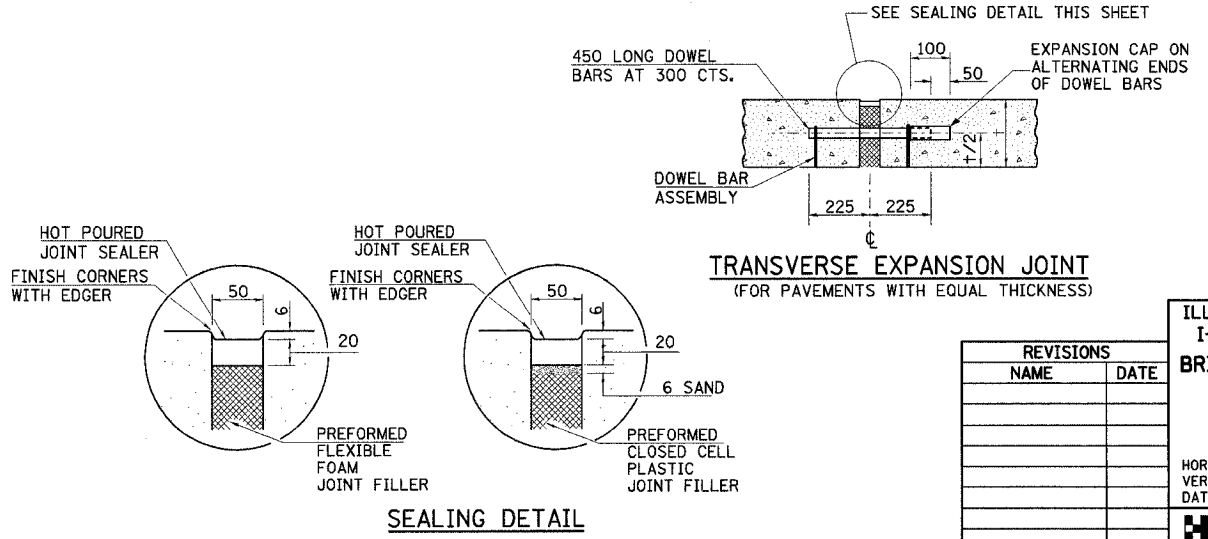
•• SEE ROADWAY DRAWINGS FOR CROSS SECTION TRANSITION
 ••• MEASURED RADIALLY TO PROP. ϕ RAMP F

NOTES:

1. WORK THIS SHEET W/SHEET NO 608 OF 870.
2. SEE SHEET NO. 712 & 713 OF 870 FOR DETAILS & REINFORCEMENT OF LUG SYSTEM COMPL SPL.



SECTION H-H



| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
| | |
| | |

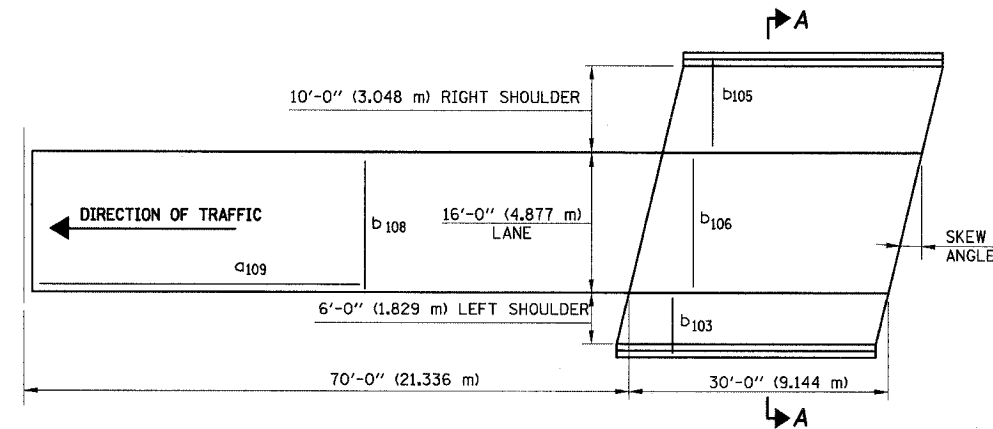
ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND / IL 394 SOUTH BOUND
**BRIDGE APPROACH PAVEMENT (SPECIAL)
 & PAVEMENT TRANSITION**
 SB IL RTE 394 OVER THORNTHON
 STRUCTURE NO. 2800
 NORTH APPROACH - 2 OF 2

HORIZ SCALE:
 VERT SCALE:
 DATE: JUL 18, 2005

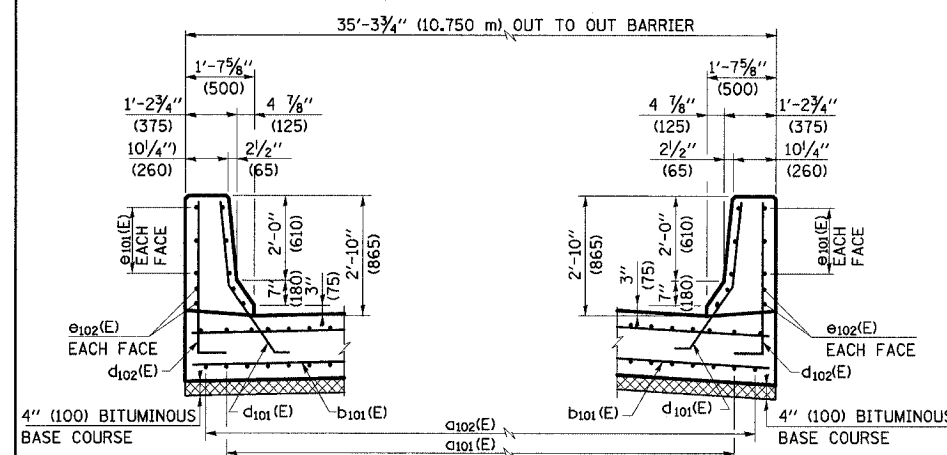
DRAWN BY: LK
 CHECKED BY: PY

HNTB

| FAY RTE | SECTION | COUNTY | TOTAL SHEETS NO. | SHEET NO. |
|--------------------|---------|---------------------------|------------------|-----------|
| 80/94 | * | COOK | 870 | 610 |
| STA. | | TO STA. | | |
| FED ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

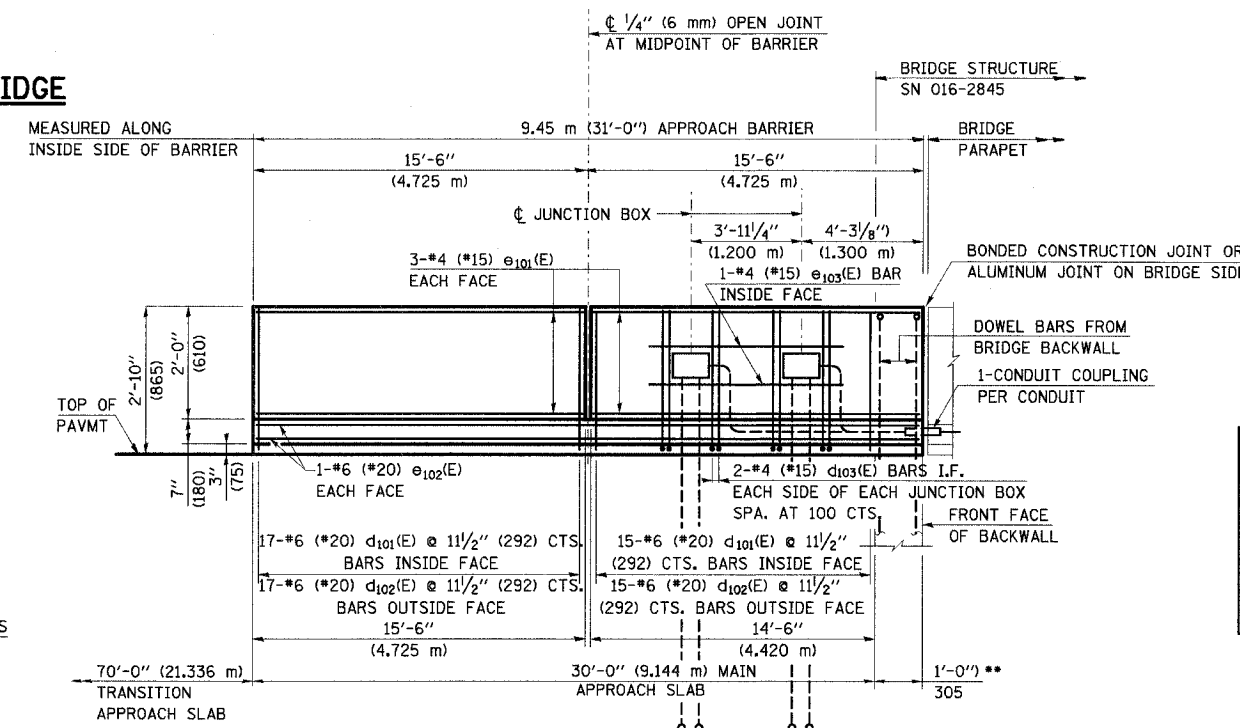


APPROACH SLAB PLAN, AHEAD LEFT SKEW, LEAVING BRIDGE

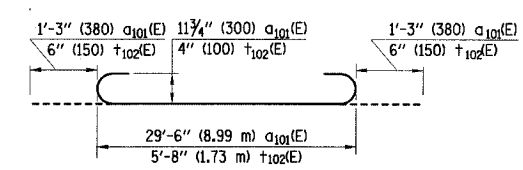


SECTION A-A*

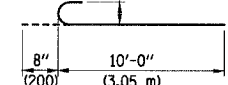
* FOR OTHER DETAILS NOT SHOWN IN THIS SECTION, SEE ISTHA STANDARD 04-14, SHEET 2 OF 5



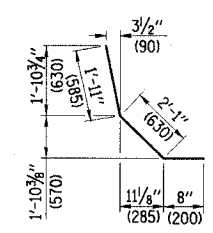
BARRIER ELEVATION



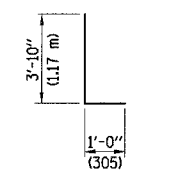
BARS a101(E) & f102(E)



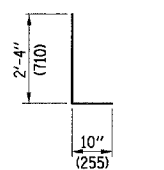
BAR a103(E)



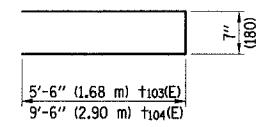
BAR d101(E)



BAR d102(E)



BAR d103(E)



BARS f103(E) & f104(E)

NOTES:

1. WORK THIS SHEET WITH ISTHA STANDARD ST 04-14.
2. THE APPROACH SLAB SHALL BE CONSTRUCTED IN ACCORDANCE WITH ISTHA STANDARD ST 04-14 EXCEPT AS OTHERWISE SHOWN ON THIS DRAWING.
3. THE 4" GRANULAR SUB-BASE SHOWN IN ISTHA STANDARD ST 04-14 SHALL BE REPLACED WITH 4" BITUMINOUS BASE COURSE AND SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH SECTION 304 OF THE STANDARD SPECIFICATIONS.
4. THE 8" SELECTED SUBGRADE SHOWN IN ISTHA STANDARD 04-14 SHALL BE REPLACED WITH AGGREGATE SUBGRADE. AGGREGATE SUBGRADE INCLUDES 9" POROUS GRANULAR BACKFILL CAPPED WITH 3" OF CA-6 AGGREGATE.
5. THE AGGREGATE SUBGRADE SHALL COMPLY WITH SPECIAL PROVISIONS S.P.211A (AGGREGATE SUBGRADE, 12 IN.).

6. THE APPROACH SLAB AND GRADE BEAM CONCRETE SHALL BE ISTHA CLASS P AND SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH SECTION 526 OF THE STANDARD SPECIFICATIONS AND S.P.117 AND SUBSTITUTED WITH AN IDOT CLASS PV MIX THROUGH S.P. 152.
7. THE BARRIER CONCRETE SHALL BE ISTHA CLASS SD AND SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH ISHTA ITEM 501F OF S.P.501 AND SUBSTITUTED WITH IDOT CLASS BD MIX THROUGH SPECIAL PROVISIONS S.P.152.
8. THE REINFORCING BARS SCHEDULES, BILL OF MATERIAL, AND QUANTITIES ARE CALCULATED FOR ONE END OF A BRIDGE.
9. THE AREA OF THE MAIN APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM THE OUTSIDE FACE OF THE BARRIER TO OUTSIDE FACE OF OTHER BARRIER BY THE LENGTH OF 30.00 FEET. THE AREA OF THE TRANSITION APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM LEFT OUTSIDE EDGE OF CONCRETE PAVEMENT TO THE RIGHT OUTSIDE EDGE OF CONCRETE PAVEMENT BY THE MINIMUM LENGTH OF 70.00 FEET PLUS THE ADDITIONAL LENGTH REQUIRED BY THE SKEW ANGLE.
10. ALL DIMENSIONS SHOWN IN PARENTHESIS ARE IN MILLIMETERS - (mm) EXCEPT AS NOTED.

REINFORCING BAR SCHEDULE FOR APPROACH SLABS

| BAR | SIZE | SHAPE | 0° SKEW | |
|--|---------|-------|---------|--------------------|
| | | | NO. | LENGTH |
| a101(E) | 9 (#30) | U | 35 | 32'-0" (9.754 m) |
| a102(E) | 9 (#30) | U | 35 | 25'-6" (7.772 m) |
| a103(E) | 6 (#20) | U | 19 | 10'-8" (3.251 m) |
| a104(E) | 4 (#15) | U | 60 | 29'-6" (8.992 m) |
| a109(E) | 4 (#15) | U | 56 | 36'-8" (11.176 m) |
| b101(E) | 5 (#15) | U | 40 | 34'-10" (10.617 m) |
| b102(E) | 5 (#15) | U | 9 | 15'-8" (4.775 m) |
| b103(E) | 4 (#15) | U | 9 | 7'-3" (2.210 m) |
| b105(E) | 4 (#15) | U | 9 | 11'-3" (3.429 m) |
| b106(E) | 4 (#15) | U | 9 | 15'-8" (4.775 m) |
| b108(E) | 4 (#15) | U | 19 | 15'-8" (4.775 m) |
| b110(E) | 5 (#15) | U | 0 | - |
| b111(E) | 5 (#15) | U | 0 | - |
| b113(E) | 5 (#15) | U | 0 | - |
| BRIDGE APPR. SLAB (SQ. M.) | | | | 206.1 |
| REINF. STL., EPOXY CTD. (KG.) | | | | 6,367 |
| f101(E) | 4 (#15) | U | 51 | 5'-8" (1.727 m) |
| f102(E) | 4 (#15) | U | 51 | 6'-8" (2.032 m) |
| f103(E) | 4 (#15) | U | 8 | 11'-7" (3.531 m) |
| f104(E) | 4 (#15) | U | 0 | - |
| w101(E) | 5 (#15) | U | 24 | 35'-10" (10.922 m) |
| w102(E) | 5 (#15) | U | 24 | 16'-8" (5.08 m) |
| APPR. SLAB GRADE BEAMS CLASS P CONCRETE (C. M) | | | | 9.0 |
| REIN. STL., EPOXY CTD. (KG) | | | | 949 |

REINFORCING BAR SCHEDULE FOR BARRIERS

| BAR | NO. | SIZE | LENGTH | SHAPE |
|---------|-----|---------|----------------------|-------|
| d101(E) | 64 | 6 (#20) | 4'-8" (1.422 m) | U |
| d102(E) | 64 | 4 (#15) | 4'-10" (1.473 m) | L |
| d103(E) | 8 | 4 (#15) | 3'-2" (0.965 m) | L |
| e101(E) | 24 | 4 (#15) | 15'-2" (4.623 m) | U |
| e102(E) | 8 | 6 (#20) | 30'-6" (9.296 m) | U |
| e103(E) | 2 | 4 (#15) | 7'-10 1/2" (2.400 m) | U |

BILL OF MATERIAL FOR BARRIERS

| PAY ITEM NO. | DESCRIPTION | UNIT | QUANTITY |
|--------------|--|--------|----------|
| 501F | CONCRETE FOR BRIDGES & DRAIN STRUCTURES (CLASS SD) | CU. M. | 6.0 |
| 504B | REINFORCING STEEL, EPOXY COATED | KG | 731 |
| 524 | APPLY CONCRETE SEALANT | SQ. M. | 22 |

NOTE: THE LEGEND SHOWN IN ISTHA STANDARD ST 04-14, SHT 3 OF 5 SHALL BE REPLACED W/ LEGEND IN THIS SHEET.

LEGEND:

- BITUMINOUS BASE COURSE
- POROUS GRANULAR BACKFILL
- CA-6 AGGREGATE

REVISIONS

| NAME | DATE |
|------|------|
| | |
| | |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

BRIDGE APPROACH SLAB DETAILS

SB IL ROUTE 394 / RAMP F OVER THORN CREEK
F.A.P. 332 SECTION 2004-133F
COOK COUNTY
STA. 440+704.350 STRUCTURE NO. 016-2800/2845

HORIZ SCALE:
VERT SCALE:
DATE: JUL 18, 2005
DRAWN BY: LK
CHECKED BY: PY

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF DRAWINGS

| | | | | | |
|-----------------------|---------|----------------------------|--------------|--------------------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 2 |
| F. A. I. 80/94 | * | COOK | 870 | 612 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | CONTRACT NO. 62108 | |
| 0203.1 & 0312-708WR-3 | | | | | |

GENERAL NOTES

THE FABRICATION OF THE STRUCTURAL STEEL, BEARINGS AND MODULAR EXPANSION JOINTS FOR THIS BRIDGE WAS INCLUDED IN CONTRACT NO. 62898. ALL WORK SHOWN THAT IS RELATED TO THE FABRICATION IS FOR INFORMATION ONLY AND IS NOT INCLUDED IN THIS CONTRACT.

- All dimensions are in millimeters (mm) except as noted.
- Fasteners shall be high strength bolts. Bolts M 22, open holes 24 mm ϕ , unless otherwise noted.
- Calculated mass of structural steel for the fabrication contract =605,650 kg for M 270M Grade 345 and 2,440 kg for M 270M Grade 250 and is provided for information only.
- The same organic zinc rich primer / epoxy / urethane Paint System used for the fabrication contract shall be used for painting of structural steel left partially or fully unpainted in the fabrication contract due to construction requirements. This includes, but is not necessarily limited to, masked off connection surfaces and field installed fastener. Any structural steel that was painted under the fabrication contract whose paint system may have been damaged during the fabrication contract shall be spot cleaned and touched up in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See special Provision for "Cleaning and Painting New Metal Structures." The cost is included for payment under Erecting Structural Steel.
- Field welding of construction accessories will not be permitted to the beams or girders.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges and webs, the cross frames and connection plates (except fill plates), and all splice plate material except fill plates.
- Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M Grade 400.
- The embankment configuration shown at the west abutment shall be the minimum embankment that must be constructed prior to construction of the abutments.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 3 mm. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 3 mm adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- The existing structural steel coating for the bearing may contain lead based paint. The Contractor should take appropriate precautions to deal with the presence of lead on this project. No additional compensation will be made to properly dispose of items containing lead.
- Bridge Seat Sealer shall be applied to the seat area of the Abutments.
- All construction joint shall be bonded.
- When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:
 - At least 72 hours shall have elapsed from the end of the previous pour.
 - The concrete strength shall have attained a minimum flexural strength of 4.5 MPa or a minimum compressive strength of 24 MPa.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The back face of the closed East Abutments and wingwalls shall be waterproofed according to Article 503.18 of the Standard Specifications.
- The location of permanent and temporary casings shown on the plans were based on soil information provided by the borings performed and do not reflect any variations that may occur between the borings or elsewhere on the site, variations whose nature and extent may not become evident until a later stage of construction. The actual transition between soil types in the field may be gradual in horizontal and vertical directions. Should conditions encountered during excavation and construction operations differ from those encountered in the borings, IDOT should be notified so that recommendations can be reviewed and revised if necessary.
- Permanent casings will be required at locations where the thickness of soft cohesive and loose granular layers is large, while temporary casing will be required at the locations where these potentially "caving in" materials have a limited extent. The locations based on the borings have been noted on the plans. However, the contractor should be prepared to use temporary casing even at the locations where no soft or loose soils were encountered in the borings.
- The Contractor shall take into account the presence of riprap at the locations of the existing abutments and piers when determining his bid price for Drilled Shaft in Soil. No additional compensation will be paid for installing the drilled shafts at these locations.
- The stability of the partially erected structural steel is the Contractor's responsibility during all phases of construction. The Contractor shall submit for review and approval by the Engineer an erection plan with calculations for the erection of the structural steel. The plan must address as a minimum subassembly of the girders, erecting of the girders, placement of diaphragms, bolting of diaphragms, and removal of temporary supports. See Special Provisions for "Erecting Structural Steel". The cost of this work is included in the pay item "Erecting Structural Steel".
- Anchor bolts shall be set before bolting diaphragms over supports.

| Sht. No. | Sht. Title |
|----------|--|
| 1 | General Plan & Elevation |
| 2 | General Notes, Index & Quantities |
| 3 | Offset Sketch, Profiles & Curve Data |
| 4 | Substructure Layout & Riprap Details |
| 5 | Temporary Support System & Backfill Details |
| 6 | Top of Slab Elevation Grid |
| 7-9 | Top of Slab Elevation |
| 10 | Deck Plan - Span 1 & 2 |
| 11 | Deck Plan - Span 3 & 4 |
| 12 | Deck Plan - Span 5 & 6 |
| 13 | Deck Cross Section |
| 14 | Parapet Elevation -1 |
| 15 | Parapet Elevation -2 |
| 16 | Deck Details |
| 17 | Modular Expansion Joint Details |
| 18 | Neoprene Expansion Joint |
| 19 | Scupper Details |
| 20 | Framing Plan & Girder Elevation - Span 1-3 |
| 21 | Framing Plan & Girder Elevation - Span 4-6 |
| 22 | Girder Layout |
| 23 | Miscellaneous Structural Steel Details |
| 24 | Diaphragm Details |
| 25 | Camber and Top of Web Elevations |
| 26 | Pier 2 Cap Beam Details |
| 27 | Pier 2 Bearing Details |
| 28 | Floating Bearings Details |
| 29 | Fixed Bearings Details |
| 19, 30 | Bearing Orientation Details |
| 31 | Anchor Bolt Details |
| 32 | West Abutment Plan & Elevation |
| 33 | West Abutment Details |
| 34 | East Abutment & Wingwalls Top View & Footing Plan |
| 35 | East Abutment & Wingwalls Elevations |
| 36 | East Abutment & Wingwalls Sections & Drilled Shaft Details |
| 37 | East Abutment & Wingwalls Bill of Materials & Details |
| 38 | Pier 1 |
| 39 | Pier 2 |
| 40 | Pier 3 |
| 41 | Pier 4 |
| 42 | Pier 5 |
| 43 | Pier Drilled Shaft Details |
| 44 | Bar Splicer Assembly Details |
| 45-56 | Boring Logs |

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|-------|---------|--------|---------|
| Porous Granular Embankment, (Special) | Cu M | - | 791 | 791 |
| Structure Excavation | Cu M | - | 483 | 483 |
| Temporary Sheet Piling | Sq M | - | 79 | 79 |
| Temporary Soil Retention System | Sq M | - | 544 | 544 |
| Concrete Structures | Cu M | - | 565.7 | 565.7 |
| Concrete Superstructure | Cu M | 788.2 | - | 788.2 |
| Bridge Deck Grooving | Sq M | 2,976 | - | 2,976 |
| Protective Coat | Sq M | 3,490 | - | 3,490 |
| Furnishing and Erecting Structural Steel | Kg | 810 | - | 810 |
| Erecting Structural Steel | L Sum | 0.34 | - | 0.34 |
| Erecting Floating Bearings, Guided Expansion 750 kN | Each | 12 | - | 12 |
| Erecting Floating Bearings, Guided Expansion 1250 kN | Each | 2 | - | 2 |
| Erecting Floating Bearings, Guided Expansion 1500 kN | Each | 12 | - | 12 |
| Erecting Floating Bearings, Guided Expansion 8000 kN | Each | 1 | - | 1 |
| Erecting Floating Bearings, Fixed 1500 kN | Each | 12 | - | 12 |
| Stud Shear Connectors | Each | 8159 | - | 8,159 |
| Reinforcement Bars, Epoxy Coated | Kg | 136,640 | 20,080 | 156,720 |
| Reinforcement Bars | Kg | - | 73,065 | 73,065 |
| Stone Riprap, Class A4 | Sq M | - | 1,580 | 1,580 |
| Filter Fabric | Sq M | - | 1,858 | 1,858 |
| Erecting Modular Expansion Joint | Meter | 14.7 | - | 14.7 |
| Drilled Shaft in Soil 610mm | Meter | - | 25.0 | 25.0 |
| Drilled Shaft in Soil 915mm | Meter | - | 49.0 | 49.0 |
| Drilled Shaft in Soil 1220mm | Meter | - | 298.1 | 298.1 |
| Drilled Shaft in Soil 1676mm | Meter | - | 130.1 | 130.1 |
| Drilled Shaft in Soil 1981mm | Meter | - | 12.9 | 12.9 |
| Permanent Casing | Meter | - | 286.4 | 286.4 |
| Removal of Existing Structure No. 3 | Each | - | - | 1 |
| Name Plates | Each | - | - | 1 |
| Drainage Scuppers, DS-11 | Each | 5 | - | 5 |
| Neoprene Expansion Joint, 100 mm | Meter | 15.2 | - | 15.2 |
| Bridge Seat Sealer | Sq M | - | 23.2 | 23.2 |
| Bar Splicers | Each | - | 98 | 98 |

I:\34562\CADD\B1\SN_2807\cadd\CTR_19_2807\sn190214s_2807.dgn
 16-SEP-2005 15:15

| | |
|----------|-----|
| DESIGNED | JJK |
| CHECKED | PCA |
| DRAWN | LK |
| CHECKED | PCA |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
GENERAL NOTES, INDEX & QUANTITIES
EB I-94 OVER THORN CREEK
F.A.L. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------------------------|--------------|--------------------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 3 |
| F. A. I. 80/94 | | COOK | 870 | 613 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | CONTRACT NO. 62108 | |
| 0203.1 & 0312-708WR-3 | | | | | |

CURVE DATA
CL94EB-1

PI STA. = 20+452.899
 $\Delta = 51^{\circ}-16'-46''$
 $D = 10^{\circ}-13'-53''$
 $R = 560.000$ m
 $T = 268.785$ m
 $L = 501.197$ m
 $E = 61.164$ m
 $S.E. = 6.0\%$
 PC STA. = 20+184.114
 PT STA. = 20+685.312
 S.E. IN = STA. 20+148 to STA. 20+206
 S.E. OUT = STA. 20+664 to STA. 20+712

CURVE DATA
BL394NB-1

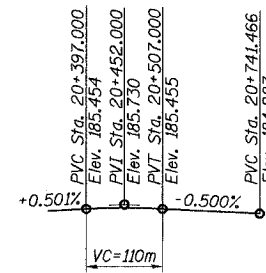
PI STA. = 40+402.644
 $\Delta = 38^{\circ}-44'-03''$
 $D = 5^{\circ}-43'-47''$
 $R = 1,000.000$ m
 $T = 351.510$ m
 $L = 676.039$ m
 $E = 59.981$ m
 $S.E. = 4.8\%$
 PC STA. = 40+051.134
 PT STA. = 40+727.173
 S.E. IN = STA. 40+000 to STA. 40+081
 S.E. OUT = STA. 40+708 to STA. 40+821

CURVE DATA
BLRAMPJ-1

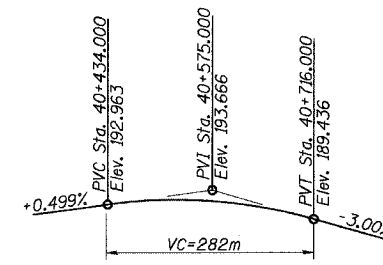
PI STA. = 140+553.29
 $\Delta = 115^{\circ}-02'-32''$
 $R = 302.000$ m
 $T = 474.431$ m
 $L = 606.376$ m
 $E = 260.395$ m
 PC STA. = 140+078.859
 PT STA. = 140+685.231
 S.E. Transition: 0.02 m/m
 • STA. 140+000 to 0.06 m/m • STA. 140+090
 Full S.E. = 0.06 m/m
 from STA. 140+090 to STA. 140+625

CURVE DATA
BLRAMPJ-2

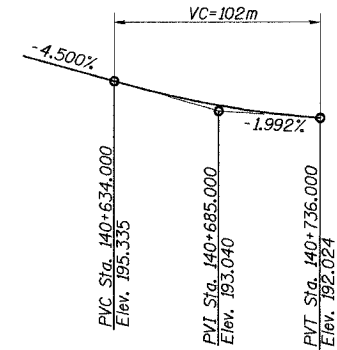
PI STA. = 140+781.248
 $\Delta = 2^{\circ}-38'-11''$
 $R = 2,000.000$ m
 $T = 46.019$ m
 $L = 92.022$ m
 $E = 0.529$ m
 PC STA. = 140+735.229
 PT STA. = 140+827.252
 S.E. Transition: 0.06 m/m
 • STA. 140+625 to 0.00 m/m • STA. 140+707.5
 From 0.0 m/m • Sta 140+707.5 to 0.02 m/m • STA. 140+735
 Constant S.E. 0.02 m/m from STA. 140+735



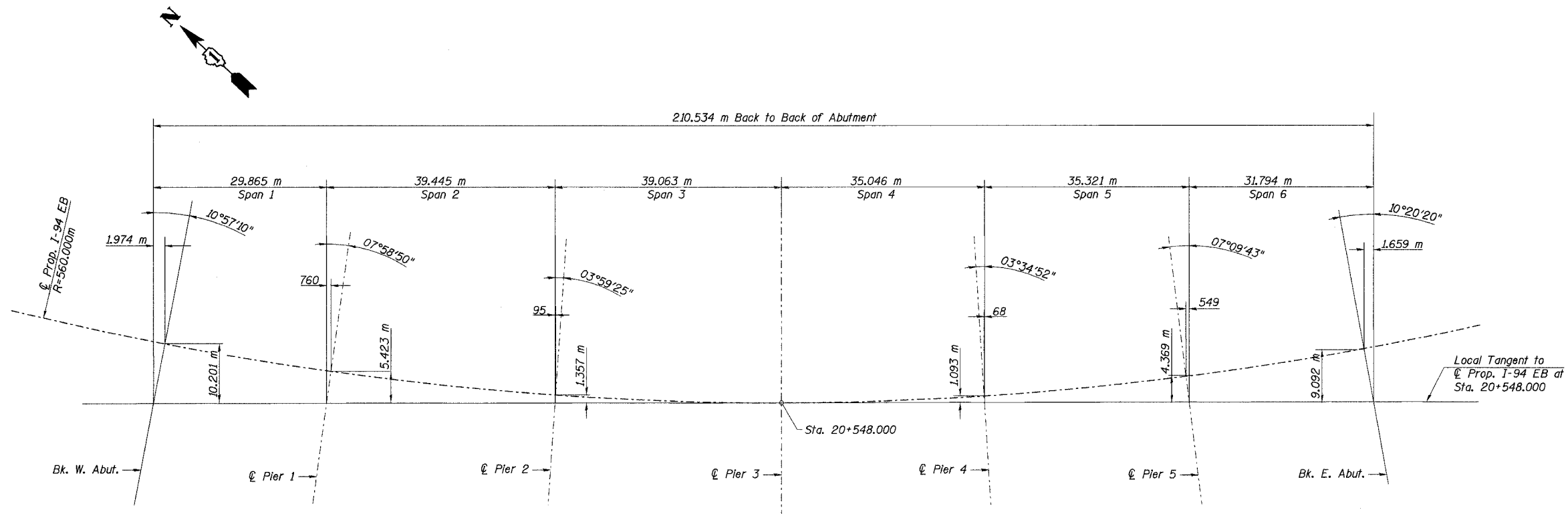
PROPOSED PROFILE
GRADE I-94 EB



PROFILE GRADE
IL RTE. 394 NB



PROFILE GRADE RAMP J



OFFSET SKETCH

Note:
1. All dimensions are in millimeters (mm) except as noted.

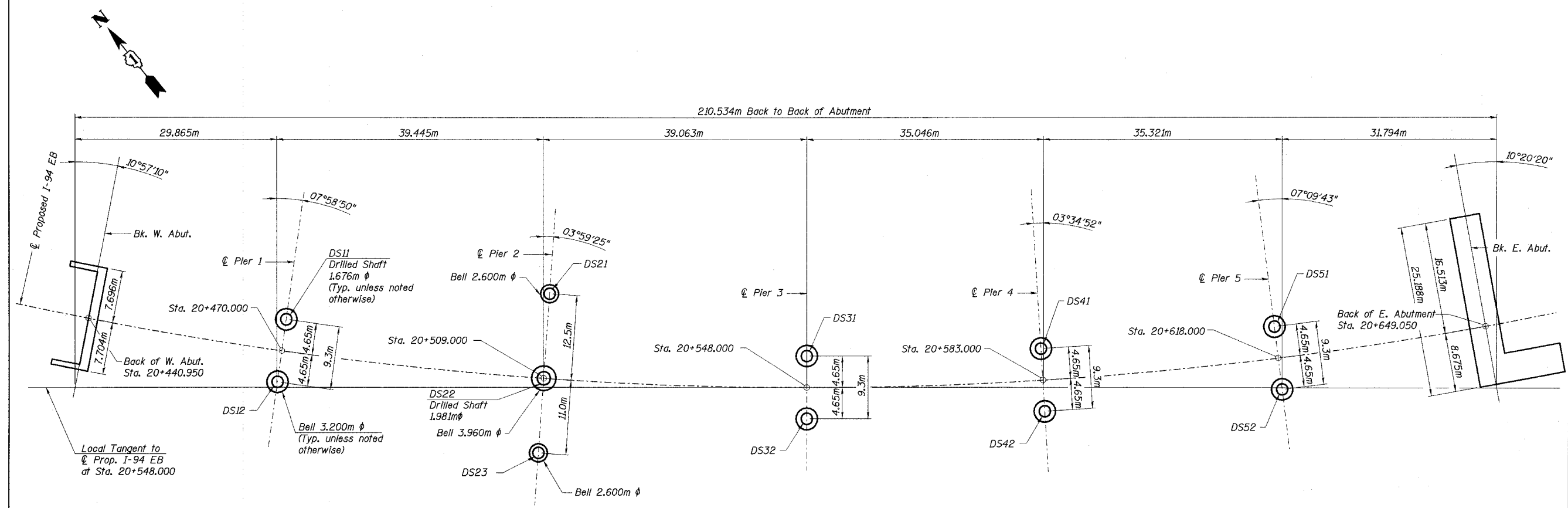
| | |
|----------|-----|
| DESIGNED | JJK |
| CHECKED | PCA |
| DRAWN | LK |
| CHECKED | PCA |

J:\Beauchamp
 E:\34562\CADD\1\SN.2887\cadd\CTR_19_2887\sn19024a_2887.dgn
 08-JUL-2005 14:19

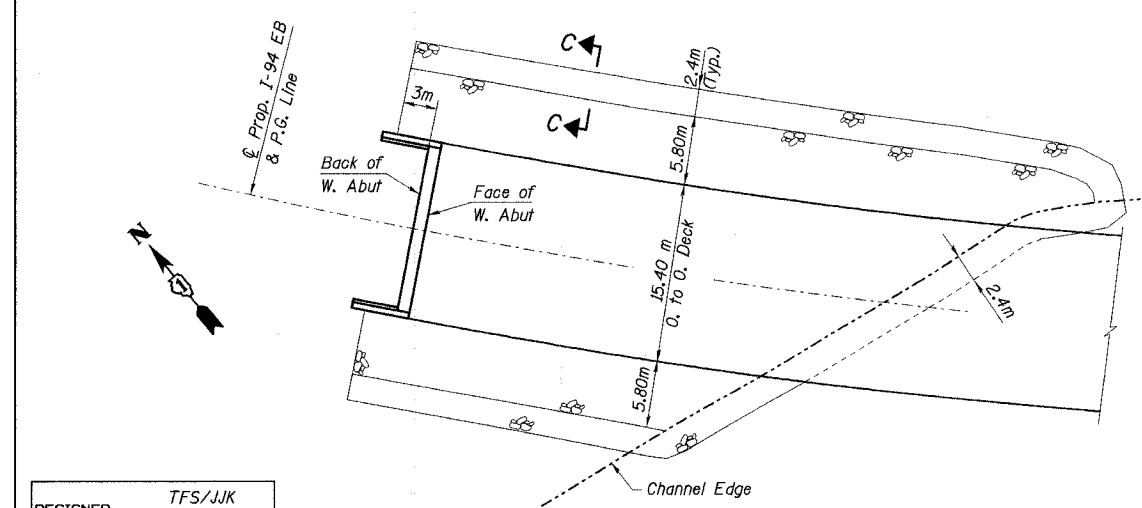
ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND / IL 394 SOUTH BOUND
OFFSET SKETCH, PROFILES
& CURVE DATA
 EB I-94 OVER THORN CREEK
 F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
 COOK COUNTY
 STA. 20+509.000 STRUCTURE NO. 016-2807
 DATE JUL 18, 2005
 SCALE ----
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

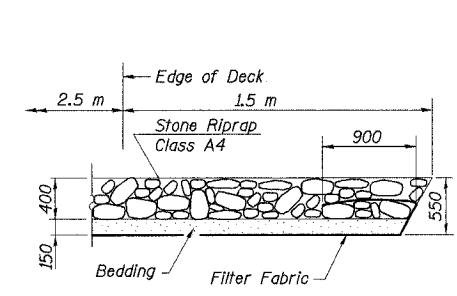
| | | | | | |
|-----------------------|----------------------------|--------|--------------------|-----------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 4 |
| F. A. I. 80/94 | * | COOK | 870 | 614 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS FEED AID PROJECT- | | | | |
| 0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | | |



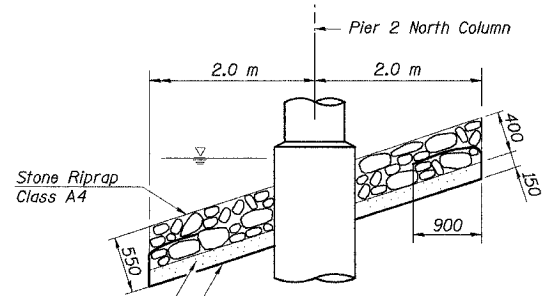
SUBSTRUCTURE LAYOUT PLAN



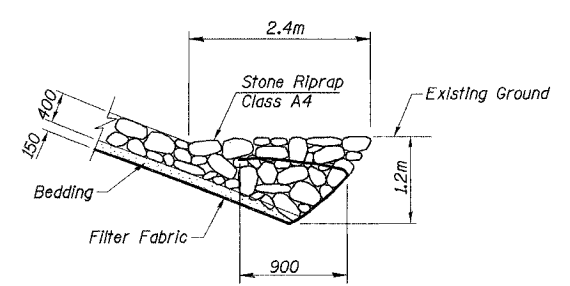
WEST ABUTMENT RIPRAP TREATMENT



SECTION A-A
(Typ. at Piers 4 & 5 and E. Abut.)



SECTION B-B
(At Pier 2)



SECTION C-C

- Notes:
1. All dimensions are in millimeters (mm) except as noted.
 2. See Sheet 1 of 56 for location of Sections A-A and B-B

| | |
|----------|---------|
| DESIGNED | TFS/JJK |
| CHECKED | HDA/PCA |
| DRAWN | ALR/JJK |
| CHECKED | OD/PCA |

L:\keltce\JA\34562\GAD\NBA\SN_2807\cads\CTR_19_2807\vol1\9214s_2807.dgn
 18-AUG-2005 13:17

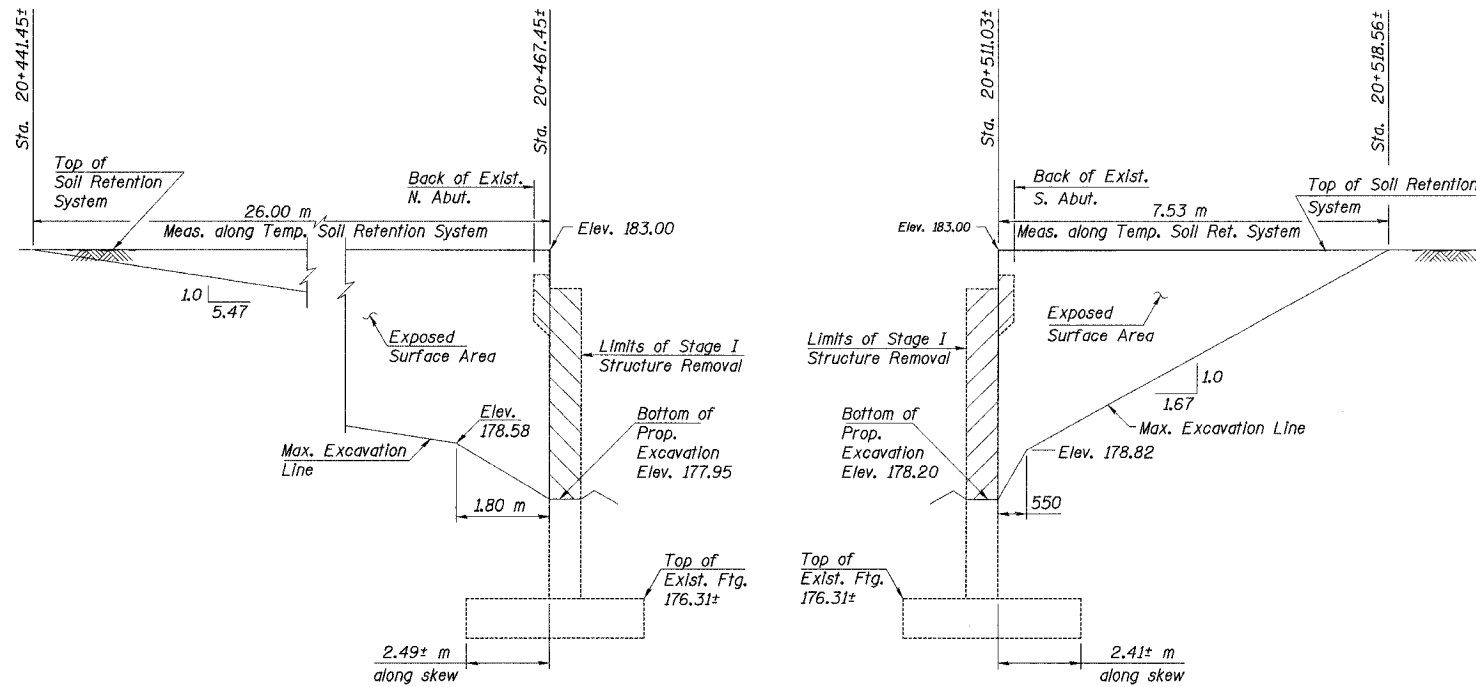
ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND / IL 394 SOUTH BOUND
**SUBSTRUCTURE LAYOUT
 & RIPRAP DETAILS**
 EB I-94 OVER THORN CREEK
 F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
 COOK COUNTY
 STA. 20+509.000 STRUCTURE NO. 016-2807
 DATE JUL 18, 2005
 SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|-------------------|--------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 5 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 615 | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |

(0203.1 & 0312-708W-R-3) CONTRACT NO. 62108



TEMPORARY SOIL RETENTION SYSTEM

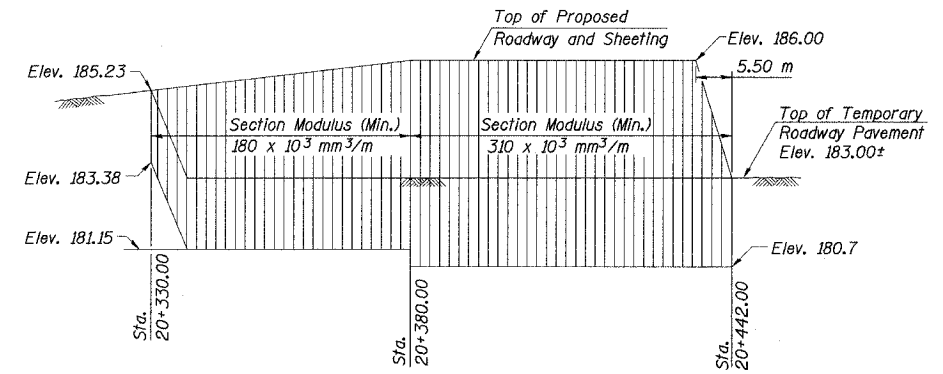
(At North Abutment of Existing SN 016-0164)
Qty.=62.0 Sq m

TEMPORARY SOIL RETENTION SYSTEM

(At South Abutment of Existing SN 016-0164)
Qty.=17.0 Sq m

TEMPORARY SOIL RETENTION NOTES:

- A cantilever sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations stamped and signed by an Illinois Licensed Structural Engineer for review and acceptance by the Engineer.
- The Contractor may connect the system to the existing abutment wall to ensure stability of the system that rests on the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for the Temporary Soil Retention System.

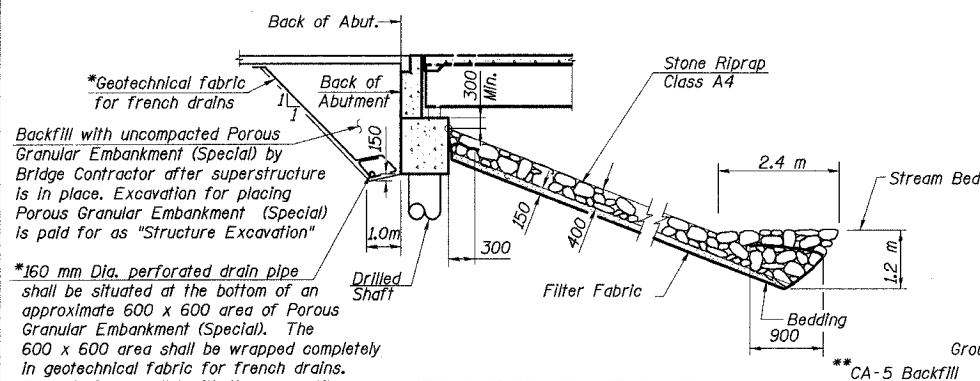


TEMPORARY SHEET PILING

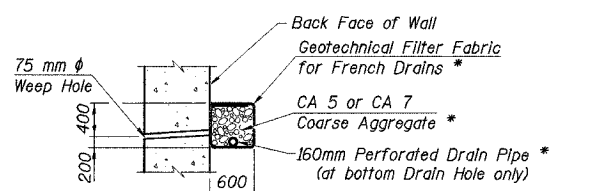
(N.T.S.)
Qty.=544.0 Sq m

TEMPORARY SHEET PILING NOTES:

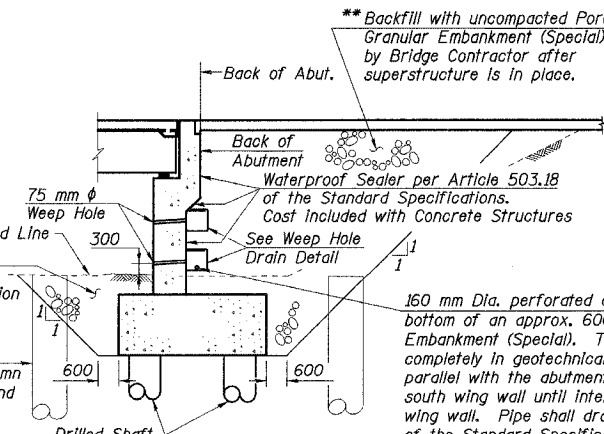
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, then full design submittals with the required seals will be required by the Engineer, for review and approval.
- Steel Sheet Piling Yield Stress $f_y = 265 \text{ MPa}$



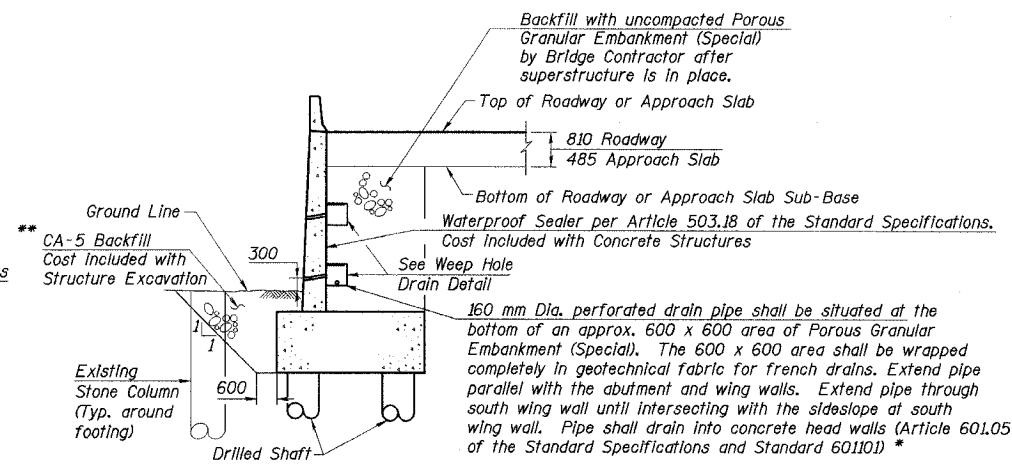
SECTION THRU WEST ABUTMENT
(Dimensions shown at Rt. L's)



WEEP HOLE DRAIN DETAIL



SECTION THRU EAST ABUTMENT



SECTION THRU SOUTH WING WALL

| | |
|----------|---------|
| DESIGNED | KGN/JJK |
| CHECKED | JJK/PCA |
| DRAWN | LK |
| CHECKED | PCA |

* Cost Included with "Porous Granular Embankment (Special)"
** Excavation for placing CA-5 Backfill and Porous Granular Embankment (Special) is paid for as "Structure Excavation"

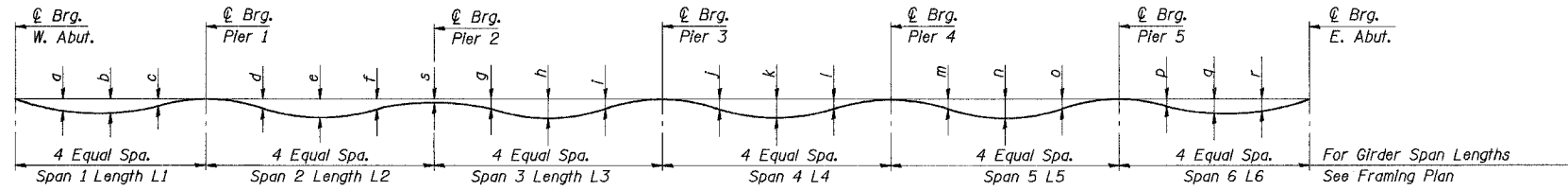
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
TEMPORARY SUPPORT SYSTEMS & BACKFILL DETAILS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

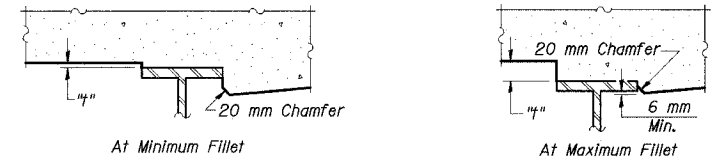
L:\katie\JA\94562\0400\B1\SN_2807\cadd\CTR_19_2807\ms190014_e_2807.dgn
18-AUG-2005 13:17

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--------------------------------|--------------|----------------------------|---------------------|------------------|--------------------------|
| ROUTE NO. F. A. I. 80/94 | SECTION * | COUNTY COOK | TOTAL SHEETS 870 | SHEET NO. 616 | SHEET NO. 6 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | CONTRACT NO. 62108 | | |



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of slab & parapet-no future wearing surface)



To determine "f": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown in the elevation tables. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown, minus slab thickness, equals the fillet heights "f" above top flange of girders.

DEAD LOAD DEFLECTION TABLE
(Values in Millimeters)

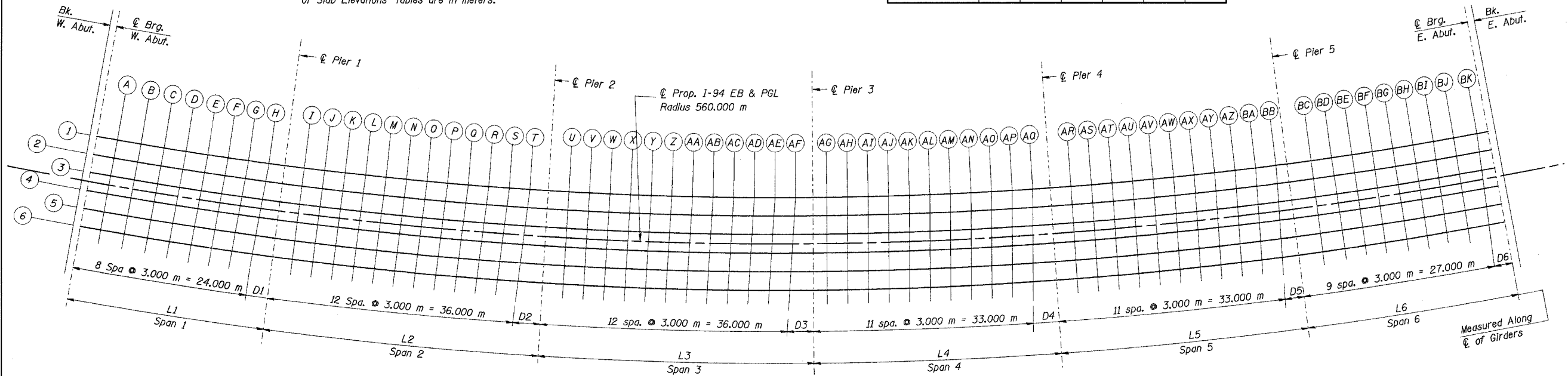
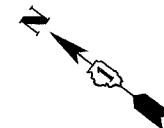
| Girder No. | Deflection | Span 1 (L1) | | | Span 2 (L2) | | | Pier 2 | Span 3 (L3) | | | Span 4 (L4) | | | Span 5 (L5) | | | Span 6 (L6) | | |
|------------|------------|-------------|----|---|-------------|----|----|--------|-------------|----|----|-------------|----|----|-------------|----|----|-------------|----|----|
| | | a | b | c | d | e | f | | g | h | i | j | k | l | m | n | o | p | q | r |
| 1 | | 10 | 11 | 4 | 18 | 29 | 17 | 4 | 17 | 29 | 17 | 7 | 15 | 9 | 10 | 17 | 9 | 9 | 19 | 16 |
| 2 | | 11 | 12 | 5 | 19 | 31 | 18 | 3 | 17 | 30 | 19 | 8 | 16 | 10 | 11 | 18 | 10 | 10 | 21 | 18 |
| 3 | | 11 | 13 | 5 | 20 | 32 | 17 | 1 | 17 | 32 | 20 | 9 | 17 | 10 | 11 | 19 | 10 | 11 | 23 | 19 |
| 4 | | 12 | 13 | 5 | 20 | 33 | 18 | 1 | 18 | 33 | 20 | 9 | 18 | 10 | 12 | 20 | 11 | 12 | 23 | 19 |
| 5 | | 12 | 13 | 5 | 21 | 33 | 19 | 3 | 18 | 33 | 20 | 9 | 18 | 10 | 12 | 20 | 11 | 12 | 24 | 20 |
| 6 | | 12 | 13 | 5 | 21 | 34 | 19 | 3 | 19 | 33 | 20 | 9 | 18 | 10 | 12 | 20 | 10 | 12 | 24 | 20 |

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in the "Top of Slab Elevations" tables. All offsets shown in the "Top of Slab Elevations" tables are in meters.

END OF SPAN DIMENSIONS
(Values in Meters)

| Girder | D1 | D2 | D3 | D4 | D5 | D6 |
|--------|-------|-------|-------|-------|-------|-------|
| 1 | 3.665 | 2.533 | 2.533 | 1.581 | 1.581 | 2.641 |
| 2 | 3.799 | 2.720 | 2.720 | 1.748 | 1.748 | 2.784 |
| 3 | 3.933 | 2.907 | 2.907 | 1.916 | 1.916 | 2.928 |
| 4 | 4.067 | 3.093 | 3.093 | 2.084 | 2.084 | 3.072 |
| 5 | 4.201 | 3.280 | 3.280 | 2.251 | 2.251 | 3.215 |
| 6 | 4.335 | 3.467 | 3.467 | 2.419 | 2.419 | 3.359 |

FILLET HEIGHTS



ELEVATION GRID

- Notes:
1. Work this sheet with Sheet Nos. 7, 8 & 9 of 56 sheets.
 2. All dimensions are in millimeters (mm) unless otherwise noted.

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
TOP OF SLAB ELEVATION GRID
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

J:\Beauchamp\JA\34562\CADD\B\SN_2807\Cadd\CTR_15_2807\epi190014a_2807.dgn
12-SEP-2005 14:19

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|-------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 7 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 617 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |

CONTRACT NO. 62108

GIRDER 1

| Location | Station | Offset (m) | Theoretical Grade Elev. | Theoretical Grade Elev. Adjusted for Dead Load Defln. |
|-----------------|------------|------------|-------------------------|---|
| Bk. W. Abut. | 20+440.950 | -6.700 | 185.185 | 185.185 |
| ⊕ Brg. W. Abut. | 20+442.000 | -6.700 | 185.186 | 185.186 |
| A | 20+445.037 | -6.700 | 185.188 | 185.193 |
| B | 20+448.073 | -6.700 | 185.190 | 185.199 |
| C | 20+451.109 | -6.700 | 185.190 | 185.202 |
| D | 20+454.146 | -6.700 | 185.190 | 185.202 |
| E | 20+457.182 | -6.700 | 185.189 | 185.199 |
| F | 20+460.218 | -6.700 | 185.187 | 185.194 |
| G | 20+463.255 | -6.700 | 185.185 | 185.189 |
| H | 20+466.291 | -6.700 | 185.181 | 185.182 |
| ⊕ Pier 1 | 20+470.000 | -6.700 | 185.176 | 185.176 |
| I | 20+473.037 | -6.700 | 185.170 | 185.174 |
| J | 20+476.073 | -6.700 | 185.164 | 185.174 |
| K | 20+479.109 | -6.700 | 185.157 | 185.173 |
| L | 20+482.146 | -6.700 | 185.149 | 185.171 |
| M | 20+485.182 | -6.700 | 185.140 | 185.167 |
| N | 20+488.218 | -6.700 | 185.131 | 185.160 |
| O | 20+491.255 | -6.700 | 185.120 | 185.149 |
| P | 20+494.291 | -6.700 | 185.109 | 185.135 |
| Q | 20+497.327 | -6.700 | 185.097 | 185.118 |
| R | 20+500.364 | -6.700 | 185.084 | 185.099 |
| S | 20+503.400 | -6.700 | 185.070 | 185.079 |
| T | 20+506.436 | -6.700 | 185.056 | 185.061 |
| ⊕ Pier 2 | 20+509.000 | -6.700 | 185.043 | 185.047 |
| U | 20+512.037 | -6.700 | 185.028 | 185.033 |
| V | 20+515.073 | -6.700 | 185.013 | 185.023 |
| W | 20+518.109 | -6.700 | 184.997 | 185.013 |
| X | 20+521.145 | -6.700 | 184.982 | 185.003 |
| Y | 20+524.182 | -6.700 | 184.967 | 184.993 |
| Z | 20+527.218 | -6.700 | 184.952 | 184.980 |
| AA | 20+530.254 | -6.700 | 184.937 | 184.965 |
| AB | 20+533.291 | -6.700 | 184.922 | 184.948 |
| AC | 20+536.327 | -6.700 | 184.906 | 184.927 |
| AD | 20+539.363 | -6.700 | 184.891 | 184.906 |
| AE | 20+542.400 | -6.700 | 184.876 | 184.884 |
| AF | 20+545.436 | -6.700 | 184.861 | 184.864 |
| ⊕ Pier 3 | 20+548.000 | -6.700 | 184.848 | 184.848 |
| AG | 20+551.036 | -6.700 | 184.833 | 184.834 |
| AH | 20+554.073 | -6.700 | 184.818 | 184.822 |
| AI | 20+557.109 | -6.700 | 184.802 | 184.810 |
| AJ | 20+560.145 | -6.700 | 184.787 | 184.799 |
| AK | 20+563.182 | -6.700 | 184.772 | 184.786 |
| AL | 20+566.218 | -6.700 | 184.757 | 184.772 |
| AM | 20+569.254 | -6.700 | 184.742 | 184.756 |
| AN | 20+572.291 | -6.700 | 184.727 | 184.738 |
| AO | 20+575.327 | -6.700 | 184.711 | 184.718 |
| AP | 20+578.363 | -6.700 | 184.696 | 184.699 |
| AQ | 20+581.400 | -6.700 | 184.681 | 184.682 |
| ⊕ Pier 4 | 20+583.000 | -6.700 | 184.673 | 184.673 |
| AR | 20+586.037 | -6.700 | 184.658 | 184.660 |
| AS | 20+589.073 | -6.700 | 184.643 | 184.649 |
| AT | 20+592.109 | -6.700 | 184.627 | 184.637 |
| AU | 20+595.146 | -6.700 | 184.612 | 184.626 |
| AV | 20+598.182 | -6.700 | 184.597 | 184.613 |
| AW | 20+601.218 | -6.700 | 184.582 | 184.599 |
| AX | 20+604.255 | -6.700 | 184.567 | 184.582 |
| AY | 20+607.291 | -6.700 | 184.552 | 184.564 |
| AZ | 20+610.327 | -6.700 | 184.536 | 184.544 |
| BA | 20+613.364 | -6.700 | 184.521 | 184.524 |
| BB | 20+616.400 | -6.700 | 184.506 | 184.506 |
| ⊕ Pier 5 | 20+618.000 | -6.700 | 184.498 | 184.498 |
| BC | 20+621.036 | -6.700 | 184.483 | 184.486 |
| BD | 20+624.073 | -6.700 | 184.468 | 184.475 |
| BE | 20+627.109 | -6.700 | 184.452 | 184.464 |
| BF | 20+630.145 | -6.700 | 184.437 | 184.454 |
| BG | 20+633.182 | -6.700 | 184.422 | 184.441 |
| BH | 20+636.218 | -6.700 | 184.407 | 184.427 |
| BI | 20+639.254 | -6.700 | 184.392 | 184.410 |
| BJ | 20+642.291 | -6.700 | 184.377 | 184.390 |
| BK | 20+645.327 | -6.700 | 184.361 | 184.368 |
| ⊕ Brg. E. Abut. | 20+648.000 | -6.700 | 184.348 | 184.348 |
| Bk. E. Abut. | 20+649.050 | -6.700 | 184.343 | 184.343 |

GIRDER 2

| Location | Station | Offset (m) | Theoretical Grade Elev. | Theoretical Grade Elev. Adjusted for Dead Load Defln. |
|-----------------|------------|------------|-------------------------|---|
| Bk. W. Abut. | 20+440.950 | -4.020 | 185.346 | 185.346 |
| ⊕ Brg. W. Abut. | 20+442.000 | -4.020 | 185.347 | 185.347 |
| A | 20+445.022 | -4.020 | 185.349 | 185.355 |
| B | 20+448.044 | -4.020 | 185.350 | 185.360 |
| C | 20+451.065 | -4.020 | 185.351 | 185.364 |
| D | 20+454.087 | -4.020 | 185.351 | 185.364 |
| E | 20+457.109 | -4.020 | 185.350 | 185.362 |
| F | 20+460.131 | -4.020 | 185.348 | 185.356 |
| G | 20+463.152 | -4.020 | 185.346 | 185.350 |
| H | 20+466.174 | -4.020 | 185.342 | 185.343 |
| ⊕ Pier 1 | 20+470.000 | -4.020 | 185.337 | 185.337 |
| I | 20+473.022 | -4.020 | 185.331 | 185.335 |
| J | 20+476.044 | -4.020 | 185.325 | 185.336 |
| K | 20+479.065 | -4.020 | 185.318 | 185.336 |
| L | 20+482.087 | -4.020 | 185.310 | 185.334 |
| M | 20+485.109 | -4.020 | 185.301 | 185.330 |
| N | 20+488.131 | -4.020 | 185.292 | 185.323 |
| O | 20+491.152 | -4.020 | 185.282 | 185.312 |
| P | 20+494.174 | -4.020 | 185.270 | 185.297 |
| Q | 20+497.196 | -4.020 | 185.258 | 185.280 |
| R | 20+500.217 | -4.020 | 185.246 | 185.261 |
| S | 20+503.239 | -4.020 | 185.232 | 185.241 |
| T | 20+506.261 | -4.020 | 185.217 | 185.222 |
| ⊕ Pier 2 | 20+509.000 | -4.020 | 185.204 | 185.207 |
| U | 20+512.022 | -4.020 | 185.189 | 185.194 |
| V | 20+515.044 | -4.020 | 185.174 | 185.184 |
| W | 20+518.065 | -4.020 | 185.158 | 185.174 |
| X | 20+521.087 | -4.020 | 185.143 | 185.165 |
| Y | 20+524.109 | -4.020 | 185.128 | 185.155 |
| Z | 20+527.130 | -4.020 | 185.113 | 185.143 |
| AA | 20+530.152 | -4.020 | 185.098 | 185.128 |
| AB | 20+533.174 | -4.020 | 185.083 | 185.111 |
| AC | 20+536.195 | -4.020 | 185.068 | 185.091 |
| AD | 20+539.217 | -4.020 | 185.053 | 185.069 |
| AE | 20+542.239 | -4.020 | 185.038 | 185.047 |
| AF | 20+545.260 | -4.020 | 185.022 | 185.026 |
| ⊕ Pier 3 | 20+548.000 | -4.020 | 185.009 | 185.009 |
| AG | 20+551.022 | -4.020 | 184.994 | 184.995 |
| AH | 20+554.043 | -4.020 | 184.979 | 184.983 |
| AI | 20+557.065 | -4.020 | 184.963 | 184.972 |
| AJ | 20+560.087 | -4.020 | 184.948 | 184.961 |
| AK | 20+563.108 | -4.020 | 184.933 | 184.948 |
| AL | 20+566.130 | -4.020 | 184.918 | 184.934 |
| AM | 20+569.152 | -4.020 | 184.903 | 184.918 |
| AN | 20+572.174 | -4.020 | 184.888 | 184.900 |
| AO | 20+575.195 | -4.020 | 184.873 | 184.881 |
| AP | 20+578.217 | -4.020 | 184.858 | 184.862 |
| AQ | 20+581.239 | -4.020 | 184.843 | 184.844 |
| ⊕ Pier 4 | 20+583.000 | -4.020 | 184.834 | 184.834 |
| AR | 20+586.022 | -4.020 | 184.819 | 184.821 |
| AS | 20+589.044 | -4.020 | 184.804 | 184.810 |
| AT | 20+592.065 | -4.020 | 184.788 | 184.799 |
| AU | 20+595.087 | -4.020 | 184.773 | 184.788 |
| AV | 20+598.109 | -4.020 | 184.758 | 184.776 |
| AW | 20+601.131 | -4.020 | 184.743 | 184.761 |
| AX | 20+604.152 | -4.020 | 184.728 | 184.745 |
| AY | 20+607.174 | -4.020 | 184.713 | 184.726 |
| AZ | 20+610.196 | -4.020 | 184.698 | 184.706 |
| BA | 20+613.217 | -4.020 | 184.683 | 184.687 |
| BB | 20+616.239 | -4.020 | 184.668 | 184.668 |
| ⊕ Pier 5 | 20+618.000 | -4.020 | 184.659 | 184.659 |
| BC | 20+621.022 | -4.020 | 184.644 | 184.647 |
| BD | 20+624.044 | -4.020 | 184.629 | 184.637 |
| BE | 20+627.065 | -4.020 | 184.613 | 184.626 |
| BF | 20+630.087 | -4.020 | 184.598 | 184.616 |
| BG | 20+633.109 | -4.020 | 184.583 | 184.604 |
| BH | 20+636.130 | -4.020 | 184.568 | 184.590 |
| BI | 20+639.152 | -4.020 | 184.553 | 184.573 |
| BJ | 20+642.174 | -4.020 | 184.538 | 184.553 |
| BK | 20+645.195 | -4.020 | 184.523 | 184.531 |
| ⊕ Brg. E. Abut. | 20+648.000 | -4.020 | 184.509 | 184.509 |
| Bk. E. Abut. | 20+649.050 | -4.020 | 184.504 | 184.504 |

GIRDER 3

| Location | Station | Offset (m) | Theoretical Grade Elev. | Theoretical Grade Elev. Adjusted for Dead Load Defln. |
|-----------------|------------|------------|-------------------------|---|
| Bk. W. Abut. | 20+440.950 | -1.340 | 185.506 | 185.506 |
| ⊕ Brg. W. Abut. | 20+442.042 | -1.340 | 185.507 | 185.507 |
| A | 20+445.049 | -1.340 | 185.510 | 185.515 |
| B | 20+448.056 | -1.340 | 185.511 | 185.521 |
| C | 20+451.063 | -1.340 | 185.512 | 185.524 |
| D | 20+454.071 | -1.340 | 185.512 | 185.525 |
| E | 20+457.078 | -1.340 | 185.511 | 185.522 |
| F | 20+460.085 | -1.340 | 185.509 | 185.517 |
| G | 20+463.092 | -1.340 | 185.506 | 185.510 |
| H | 20+466.099 | -1.340 | 185.503 | 185.504 |
| ⊕ Pier 1 | 20+470.000 | -1.340 | 185.497 | 185.497 |
| I | 20+473.008 | -1.340 | 185.492 | 185.496 |
| J | 20+476.015 | -1.340 | 185.486 | 185.496 |
| K | 20+479.022 | -1.340 | 185.479 | 185.497 |
| L | 20+482.029 | -1.340 | 185.471 | 185.496 |
| M | 20+485.036 | -1.340 | 185.462 | 185.493 |
| N | 20+488.044 | -1.340 | 185.453 | 185.486 |
| O | 20+491.051 | -1.340 | 185.443 | 185.475 |
| P | 20+494.058 | -1.340 | 185.432 | 185.461 |
| Q | 20+497.065 | -1.340 | 185.420 | 185.443 |
| R | 20+500.072 | -1.340 | 185.407 | 185.423 |
| S | 20+503.080 | -1.340 | 185.394 | 185.402 |
| T | 20+506.087 | -1.340 | 185.379 | 185.381 |
| ⊕ Pier 2 | 20+509.000 | -1.340 | 185.365 | 185.365 |
| U | 20+512.007 | -1.340 | 185.350 | 185.353 |
| V | 20+515.015 | -1.340 | 185.335 | 185.344 |
| W | 20+518.022 | -1.340 | 185.319 | 185.336 |
| X | 20+521.029 | -1.340 | 185.304 | 185.328 |
| Y | 20+524.036 | -1.340 | 185.289 | 185.318 |
| Z | 20+527.043 | -1.340 | 185.274 | 185.306 |
| AA | 20+530.051 | -1.340 | 185.259 | 185.291 |
| AB | 20+533.058 | -1.340 | 185.244 | 185.274 |
| AC | 20+536.065 | -1.340 | 185.229 | 185.254 |
| AD | 20+539.072 | -1.340 | 185.214 | 185.232 |
| AE | 20+542.079 | -1.340 | 185.199 | 185.210 |
| AF | 20+545.087 | -1.340 | 185.184 | 185.188 |
| ⊕ Pier 3 | 20+548.000 | -1.340 | 185.170 | 185.170 |
| AG | 20+551.007 | -1.340 | 185.155 | 185.155 |
| AH | 20+554.014 | -1.340 | 185.140 | 185.144 |
| AI | 20+557.022 | -1.340 | 185.124 | 185.133 |
| AJ | 20+560.029 | -1.340 | 185.109 | 185.122 |
| AK | 20+563.036 | -1.340 | 185.094 | 185.110 |
| AL | 20+566.043 | -1.340 | 185.079 | 185.095 |
| AM | 20+569.050 | -1.340 | 185.064 | 185.079 |
| AN | 20+572.058 | -1.340 | 185.049 | 185.061 |
| AO | 20+575.065 | -1.340 | 185.034 | 185.042 |
| AP | 20+578.072 | -1.340 | 185.019 | 185.023 |
| AQ | 20+581.079 | -1.340 | 185.004 | 185.005 |
| ⊕ Pier 4 | 20+583.000 | -1.340 | 184.995 | 184.995 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|-------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 8 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 618 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | CONTRACT NO. 62108 |

PGL

| Location | Station | Offset (m) | Theoretical Grade Elev. | Theoretical Grade Elev. Adjusted for Dead Load Defln. |
|-----------------|------------|------------|-------------------------|---|
| Bk. W. Abut. | 20+440.950 | 0.000 | 185.587 | 185.587 |
| ☉ Brg. W. Abut. | 20+442.000 | 0.000 | 185.588 | 185.588 |
| A | 20+445.000 | 0.000 | 185.590 | 185.596 |
| B | 20+448.000 | 0.000 | 185.592 | 185.602 |
| C | 20+451.000 | 0.000 | 185.592 | 185.605 |
| D | 20+454.000 | 0.000 | 185.592 | 185.605 |
| E | 20+457.000 | 0.000 | 185.591 | 185.602 |
| F | 20+460.000 | 0.000 | 185.589 | 185.597 |
| G | 20+463.000 | 0.000 | 185.587 | 185.591 |
| H | 20+466.000 | 0.000 | 185.584 | 185.584 |
| ☉ Pier 1 | 20+470.000 | 0.000 | 185.578 | 185.578 |
| I | 20+473.000 | 0.000 | 185.572 | 185.576 |
| J | 20+476.000 | 0.000 | 185.566 | 185.577 |
| K | 20+479.000 | 0.000 | 185.559 | 185.577 |
| L | 20+482.000 | 0.000 | 185.552 | 185.577 |
| M | 20+485.000 | 0.000 | 185.543 | 185.573 |
| N | 20+488.000 | 0.000 | 185.534 | 185.566 |
| O | 20+491.000 | 0.000 | 185.523 | 185.556 |
| P | 20+494.000 | 0.000 | 185.512 | 185.541 |
| Q | 20+497.000 | 0.000 | 185.500 | 185.524 |
| R | 20+500.000 | 0.000 | 185.488 | 185.504 |
| S | 20+503.000 | 0.000 | 185.474 | 185.483 |
| T | 20+506.000 | 0.000 | 185.460 | 185.462 |
| ☉ Pier 2 | 20+509.000 | 0.000 | 185.445 | 185.445 |
| U | 20+512.000 | 0.000 | 185.430 | 185.433 |
| V | 20+515.000 | 0.000 | 185.415 | 185.424 |
| W | 20+518.000 | 0.000 | 185.400 | 185.416 |
| X | 20+521.000 | 0.000 | 185.385 | 185.408 |
| Y | 20+524.000 | 0.000 | 185.370 | 185.398 |
| Z | 20+527.000 | 0.000 | 185.355 | 185.386 |
| AA | 20+530.000 | 0.000 | 185.340 | 185.372 |
| AB | 20+533.000 | 0.000 | 185.325 | 185.355 |
| AC | 20+536.000 | 0.000 | 185.310 | 185.335 |
| AD | 20+539.000 | 0.000 | 185.295 | 185.313 |
| AE | 20+542.000 | 0.000 | 185.280 | 185.291 |
| AF | 20+545.000 | 0.000 | 185.265 | 185.269 |
| ☉ Pier 3 | 20+548.000 | 0.000 | 185.250 | 185.250 |
| AG | 20+551.000 | 0.000 | 185.235 | 185.236 |
| AH | 20+554.000 | 0.000 | 185.220 | 185.224 |
| AI | 20+557.000 | 0.000 | 185.205 | 185.213 |
| AJ | 20+560.000 | 0.000 | 185.190 | 185.202 |
| AK | 20+563.000 | 0.000 | 185.175 | 185.190 |
| AL | 20+566.000 | 0.000 | 185.160 | 185.176 |
| AM | 20+569.000 | 0.000 | 185.145 | 185.160 |
| AN | 20+572.000 | 0.000 | 185.130 | 185.142 |
| AO | 20+575.000 | 0.000 | 185.115 | 185.123 |
| AP | 20+578.000 | 0.000 | 185.100 | 185.104 |
| AQ | 20+581.000 | 0.000 | 185.085 | 185.086 |
| ☉ Pier 4 | 20+583.000 | 0.000 | 185.075 | 185.075 |
| AR | 20+586.000 | 0.000 | 185.060 | 185.062 |
| AS | 20+589.000 | 0.000 | 185.045 | 185.051 |
| AT | 20+592.000 | 0.000 | 185.030 | 185.041 |
| AU | 20+595.000 | 0.000 | 185.015 | 185.031 |
| AV | 20+598.000 | 0.000 | 185.000 | 185.018 |
| AW | 20+601.000 | 0.000 | 184.985 | 185.004 |
| AX | 20+604.000 | 0.000 | 184.970 | 184.987 |
| AY | 20+607.000 | 0.000 | 184.955 | 184.969 |
| AZ | 20+610.000 | 0.000 | 184.940 | 184.949 |
| BA | 20+613.000 | 0.000 | 184.925 | 184.929 |
| BB | 20+616.000 | 0.000 | 184.910 | 184.910 |
| ☉ Pier 5 | 20+618.000 | 0.000 | 184.900 | 184.900 |
| BC | 20+621.000 | 0.000 | 184.885 | 184.888 |
| BD | 20+624.000 | 0.000 | 184.870 | 184.878 |
| BE | 20+627.000 | 0.000 | 184.855 | 184.869 |
| BF | 20+630.000 | 0.000 | 184.840 | 184.859 |
| BG | 20+633.000 | 0.000 | 184.825 | 184.847 |
| BH | 20+636.000 | 0.000 | 184.810 | 184.833 |
| BI | 20+639.000 | 0.000 | 184.795 | 184.815 |
| BJ | 20+642.000 | 0.000 | 184.780 | 184.795 |
| BK | 20+645.000 | 0.000 | 184.765 | 184.773 |
| ☉ Brg. E. Abut. | 20+648.000 | 0.000 | 184.750 | 184.750 |
| Bk. E. Abut. | 20+649.050 | 0.000 | 184.745 | 184.745 |

GIRDER 4

| Location | Station | Offset (m) | Theoretical Grade Elev. | Theoretical Grade Elev. Adjusted for Dead Load Defln. |
|-----------------|------------|------------|-------------------------|---|
| Bk. W. Abut. | 20+440.950 | 1.340 | 185.667 | 185.667 |
| ☉ Brg. W. Abut. | 20+442.000 | 1.340 | 185.668 | 185.668 |
| A | 20+444.993 | 1.340 | 185.670 | 185.676 |
| B | 20+447.986 | 1.340 | 185.672 | 185.682 |
| C | 20+450.979 | 1.340 | 185.673 | 185.685 |
| D | 20+453.972 | 1.340 | 185.673 | 185.686 |
| E | 20+456.965 | 1.340 | 185.672 | 185.683 |
| F | 20+459.957 | 1.340 | 185.670 | 185.678 |
| G | 20+462.950 | 1.340 | 185.667 | 185.671 |
| H | 20+465.943 | 1.340 | 185.664 | 185.665 |
| ☉ Pier 1 | 20+470.000 | 1.340 | 185.658 | 185.658 |
| I | 20+472.993 | 1.340 | 185.653 | 185.657 |
| J | 20+475.986 | 1.340 | 185.647 | 185.657 |
| K | 20+478.979 | 1.340 | 185.640 | 185.658 |
| L | 20+481.972 | 1.340 | 185.632 | 185.657 |
| M | 20+484.965 | 1.340 | 185.623 | 185.654 |
| N | 20+487.957 | 1.340 | 185.614 | 185.647 |
| O | 20+490.950 | 1.340 | 185.604 | 185.636 |
| P | 20+493.943 | 1.340 | 185.593 | 185.622 |
| Q | 20+496.936 | 1.340 | 185.581 | 185.605 |
| R | 20+499.929 | 1.340 | 185.568 | 185.585 |
| S | 20+502.922 | 1.340 | 185.555 | 185.564 |
| T | 20+505.914 | 1.340 | 185.541 | 185.543 |
| ☉ Pier 2 | 20+509.000 | 1.340 | 185.525 | 185.525 |
| U | 20+511.993 | 1.340 | 185.510 | 185.513 |
| V | 20+514.986 | 1.340 | 185.495 | 185.504 |
| W | 20+517.979 | 1.340 | 185.481 | 185.497 |
| X | 20+520.972 | 1.340 | 185.466 | 185.489 |
| Y | 20+523.964 | 1.340 | 185.451 | 185.479 |
| Z | 20+526.957 | 1.340 | 185.436 | 185.467 |
| AA | 20+529.950 | 1.340 | 185.421 | 185.453 |
| AB | 20+532.943 | 1.340 | 185.406 | 185.435 |
| AC | 20+535.936 | 1.340 | 185.391 | 185.416 |
| AD | 20+538.929 | 1.340 | 185.376 | 185.394 |
| AE | 20+541.921 | 1.340 | 185.361 | 185.372 |
| AF | 20+544.914 | 1.340 | 185.346 | 185.350 |
| ☉ Pier 3 | 20+548.000 | 1.340 | 185.330 | 185.330 |
| AG | 20+550.993 | 1.340 | 185.315 | 185.316 |
| AH | 20+553.986 | 1.340 | 185.300 | 185.304 |
| AI | 20+556.979 | 1.340 | 185.286 | 185.294 |
| AJ | 20+559.971 | 1.340 | 185.271 | 185.283 |
| AK | 20+562.964 | 1.340 | 185.256 | 185.271 |
| AL | 20+565.957 | 1.340 | 185.241 | 185.257 |
| AM | 20+568.950 | 1.340 | 185.226 | 185.241 |
| AN | 20+571.943 | 1.340 | 185.211 | 185.223 |
| AO | 20+574.936 | 1.340 | 185.196 | 185.204 |
| AP | 20+577.928 | 1.340 | 185.181 | 185.184 |
| AQ | 20+580.921 | 1.340 | 185.166 | 185.166 |
| ☉ Pier 4 | 20+583.000 | 1.340 | 185.155 | 185.155 |
| AR | 20+585.993 | 1.340 | 185.140 | 185.142 |
| AS | 20+588.986 | 1.340 | 185.125 | 185.132 |
| AT | 20+591.979 | 1.340 | 185.111 | 185.122 |
| AU | 20+594.972 | 1.340 | 185.096 | 185.111 |
| AV | 20+597.965 | 1.340 | 185.081 | 185.099 |
| AW | 20+600.957 | 1.340 | 185.066 | 185.085 |
| AX | 20+603.950 | 1.340 | 185.051 | 185.068 |
| AY | 20+606.943 | 1.340 | 185.036 | 185.049 |
| AZ | 20+609.936 | 1.340 | 185.021 | 185.030 |
| BA | 20+612.929 | 1.340 | 185.006 | 185.010 |
| BB | 20+615.922 | 1.340 | 184.991 | 184.991 |
| ☉ Pier 5 | 20+618.000 | 1.340 | 184.980 | 184.980 |
| BC | 20+620.993 | 1.340 | 184.965 | 184.968 |
| BD | 20+623.986 | 1.340 | 184.950 | 184.958 |
| BE | 20+626.979 | 1.340 | 184.936 | 184.949 |
| BF | 20+629.971 | 1.340 | 184.921 | 184.939 |
| BG | 20+632.964 | 1.340 | 184.906 | 184.928 |
| BH | 20+635.957 | 1.340 | 184.891 | 184.913 |
| BI | 20+638.950 | 1.340 | 184.876 | 184.896 |
| BJ | 20+641.943 | 1.340 | 184.861 | 184.876 |
| BK | 20+644.936 | 1.340 | 184.846 | 184.854 |
| ☉ Brg. E. Abut. | 20+648.000 | 1.340 | 184.830 | 184.830 |
| Bk. E. Abut. | 20+649.050 | 1.340 | 184.825 | 184.825 |

GIRDER 5

| Location | Station | Offset (m) | Theoretical Grade Elev. | Theoretical Grade Elev. Adjusted for Dead Load Defln. |
|-----------------|------------|------------|-------------------------|---|
| Bk. W. Abut. | 20+440.950 | 4.020 | 185.828 | 185.828 |
| ☉ Brg. W. Abut. | 20+442.000 | 4.020 | 185.829 | 185.829 |
| A | 20+444.979 | 4.020 | 185.831 | 185.837 |
| B | 20+447.958 | 4.020 | 185.833 | 185.843 |
| C | 20+450.936 | 4.020 | 185.834 | 185.846 |
| D | 20+453.915 | 4.020 | 185.833 | 185.846 |
| E | 20+456.893 | 4.020 | 185.832 | 185.844 |
| F | 20+459.872 | 4.020 | 185.831 | 185.839 |
| G | 20+462.851 | 4.020 | 185.828 | 185.832 |
| H | 20+465.829 | 4.020 | 185.825 | 185.826 |
| ☉ Pier 1 | 20+470.000 | 4.020 | 185.819 | 185.819 |
| I | 20+472.979 | 4.020 | 185.814 | 185.817 |
| J | 20+475.958 | 4.020 | 185.808 | 185.818 |
| K | 20+478.936 | 4.020 | 185.801 | 185.819 |
| L | 20+481.915 | 4.020 | 185.793 | 185.818 |
| M | 20+484.893 | 4.020 | 185.784 | 185.815 |
| N | 20+487.872 | 4.020 | 185.775 | 185.808 |
| O | 20+490.851 | 4.020 | 185.765 | 185.798 |
| P | 20+493.829 | 4.020 | 185.754 | 185.784 |
| Q | 20+496.808 | 4.020 | 185.742 | 185.766 |
| R | 20+499.787 | 4.020 | 185.730 | 185.747 |
| S | 20+502.765 | 4.020 | 185.717 | 185.726 |
| T | 20+505.744 | 4.020 | 185.702 | 185.705 |
| ☉ Pier 2 | 20+509.000 | 4.020 | 185.686 | 185.686 |
| U | 20+511.979 | 4.020 | 185.671 | 185.674 |
| V | 20+514.957 | 4.020 | 185.656 | 185.665 |
| W | 20+517.936 | 4.020 | 185.642 | 185.658 |
| X | 20+520.915 | 4.020 | 185.627 | 185.649 |
| Y | 20+523.893 | 4.020 | 185.612 | 185.640 |
| Z | 20+526.872 | 4.020 | 185.597 | 185.628 |
| AA | 20+529.850 | 4.020 | 185.582 | 185.614 |
| AB | 20+532.829 | 4.020 | 185.567 | 185.597 |
| AC | 20+535.808 | 4.020 | 185.552 | 185.577 |
| AD | 20+538.786 | 4.020 | 185.537 | 185.556 |
| AE | 20+541.765 | 4.020 | 185.522 | 185.534 |
| AF | 20+544.744 | 4.020 | 185.507 | 185.512 |
| ☉ Pier 3 | 20+548.000 | 4.020 | 185.491 | 185.491 |
| AG | 20+550.979 | 4.020 | 185.476 | 185.477 |
| AH | 20+553.957 | 4.020 | 185.461 | 185.465 |
| AI | 20+556.936 | 4.020 | 185.447 | 185.455 |
| AJ | 20+559.914 | 4.020 | 185.432 | 185.444 |
| AK | 20+562.893 | 4.020 | 185.417 | 185.432 |
| AL | 20+565.872 | 4.020 | 185.402 | 185.418 |
| AM | 20+568.850 | 4.020 | 185.387 | 185.402 |
| AN | 20+571.829 | 4.020 | 185.372 | 185.384 |
| AO | 20+574.808 | 4.020 | 185.357 | 185.365 |
| AP | 20+577.786 | 4.020 | 185.342 | 185.346 |
| AQ | 20+580.765 | 4.020 | 185.327 | 185.328 |
| ☉ Pier 4 | 20+583.000 | 4.020 | 185.316 | 185.316 |
| AR | 20+585. | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER 6

| | | | | | |
|-----------------------|----------|-------------------|--------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 9 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 619 | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |

CONTRACT NO. 62108

| Location | Station | Offset (m) | Theoretical Grade Elev. | Theoretical Grade Elev. Adjusted for Dead Load Defln. |
|-----------------|------------|------------|-------------------------|---|
| Bk. W. Abut. | 20+440.950 | 6.700 | 185.989 | 185.989 |
| ⊕ Brg. W. Abut. | 20+442.000 | 6.700 | 185.990 | 185.990 |
| A | 20+444.965 | 6.700 | 185.992 | 185.998 |
| B | 20+447.929 | 6.700 | 185.994 | 186.003 |
| C | 20+450.894 | 6.700 | 185.994 | 186.007 |
| D | 20+453.858 | 6.700 | 185.994 | 186.007 |
| E | 20+456.823 | 6.700 | 185.993 | 186.005 |
| F | 20+459.788 | 6.700 | 185.992 | 186.000 |
| G | 20+462.752 | 6.700 | 185.989 | 185.993 |
| H | 20+465.717 | 6.700 | 185.986 | 185.987 |
| ⊕ Pier 1 | 20+470.000 | 6.700 | 185.980 | 185.980 |
| I | 20+472.965 | 6.700 | 185.974 | 185.978 |
| J | 20+475.929 | 6.700 | 185.968 | 185.979 |
| K | 20+478.894 | 6.700 | 185.962 | 185.979 |
| L | 20+481.858 | 6.700 | 185.954 | 185.979 |
| M | 20+484.823 | 6.700 | 185.946 | 185.976 |
| N | 20+487.788 | 6.700 | 185.936 | 185.969 |
| O | 20+490.752 | 6.700 | 185.926 | 185.959 |
| P | 20+493.717 | 6.700 | 185.915 | 185.945 |
| Q | 20+496.681 | 6.700 | 185.904 | 185.928 |
| R | 20+499.646 | 6.700 | 185.891 | 185.908 |
| S | 20+502.610 | 6.700 | 185.878 | 185.888 |
| T | 20+505.575 | 6.700 | 185.864 | 185.867 |
| ⊕ Pier 2 | 20+509.000 | 6.700 | 185.847 | 185.847 |
| U | 20+511.965 | 6.700 | 185.832 | 185.835 |
| V | 20+514.929 | 6.700 | 185.817 | 185.826 |
| W | 20+517.894 | 6.700 | 185.803 | 185.818 |
| X | 20+520.858 | 6.700 | 185.788 | 185.810 |
| Y | 20+523.823 | 6.700 | 185.773 | 185.801 |
| Z | 20+526.787 | 6.700 | 185.758 | 185.789 |
| AA | 20+529.752 | 6.700 | 185.743 | 185.775 |
| AB | 20+532.716 | 6.700 | 185.728 | 185.758 |
| AC | 20+535.681 | 6.700 | 185.714 | 185.739 |
| AD | 20+538.645 | 6.700 | 185.699 | 185.718 |
| AE | 20+541.610 | 6.700 | 185.684 | 185.696 |
| AF | 20+544.575 | 6.700 | 185.669 | 185.674 |
| ⊕ Pier 3 | 20+548.000 | 6.700 | 185.652 | 185.652 |
| AG | 20+550.965 | 6.700 | 185.637 | 185.638 |
| AH | 20+553.929 | 6.700 | 185.622 | 185.626 |
| AI | 20+556.894 | 6.700 | 185.608 | 185.616 |
| AJ | 20+559.858 | 6.700 | 185.593 | 185.605 |
| AK | 20+562.823 | 6.700 | 185.578 | 185.593 |
| AL | 20+565.787 | 6.700 | 185.563 | 185.579 |
| AM | 20+568.752 | 6.700 | 185.548 | 185.563 |
| AN | 20+571.716 | 6.700 | 185.533 | 185.546 |
| AO | 20+574.681 | 6.700 | 185.519 | 185.527 |
| AP | 20+577.645 | 6.700 | 185.504 | 185.508 |
| AQ | 20+580.610 | 6.700 | 185.489 | 185.490 |
| ⊕ Pier 4 | 20+583.000 | 6.700 | 185.477 | 185.477 |
| AR | 20+585.965 | 6.700 | 185.462 | 185.464 |
| AS | 20+588.929 | 6.700 | 185.447 | 185.454 |
| AT | 20+591.894 | 6.700 | 185.433 | 185.444 |
| AU | 20+594.858 | 6.700 | 185.418 | 185.433 |
| AV | 20+597.823 | 6.700 | 185.403 | 185.421 |
| AW | 20+600.788 | 6.700 | 185.388 | 185.407 |
| AX | 20+603.752 | 6.700 | 185.373 | 185.391 |
| AY | 20+606.717 | 6.700 | 185.358 | 185.372 |
| AZ | 20+609.681 | 6.700 | 185.344 | 185.353 |
| BA | 20+612.646 | 6.700 | 185.329 | 185.333 |
| BB | 20+615.610 | 6.700 | 185.314 | 185.315 |
| ⊕ Pier 5 | 20+618.000 | 6.700 | 185.302 | 185.302 |
| BC | 20+620.965 | 6.700 | 185.287 | 185.290 |
| BD | 20+623.929 | 6.700 | 185.272 | 185.280 |
| BE | 20+626.894 | 6.700 | 185.258 | 185.271 |
| BF | 20+629.858 | 6.700 | 185.243 | 185.261 |
| BG | 20+632.823 | 6.700 | 185.228 | 185.250 |
| BH | 20+635.787 | 6.700 | 185.213 | 185.236 |
| BI | 20+638.752 | 6.700 | 185.198 | 185.219 |
| BJ | 20+641.716 | 6.700 | 185.183 | 185.199 |
| BK | 20+644.681 | 6.700 | 185.169 | 185.178 |
| ⊕ Brg. E. Abut. | 20+648.000 | 6.700 | 185.152 | 185.152 |
| Bk. E. Abut. | 20+649.050 | 6.700 | 185.147 | 185.147 |

I:\Reaching EA_34522\CADD\bl\SN_2807\wp190044s_2807.dgn
 08-JUL-2005 14:19

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |

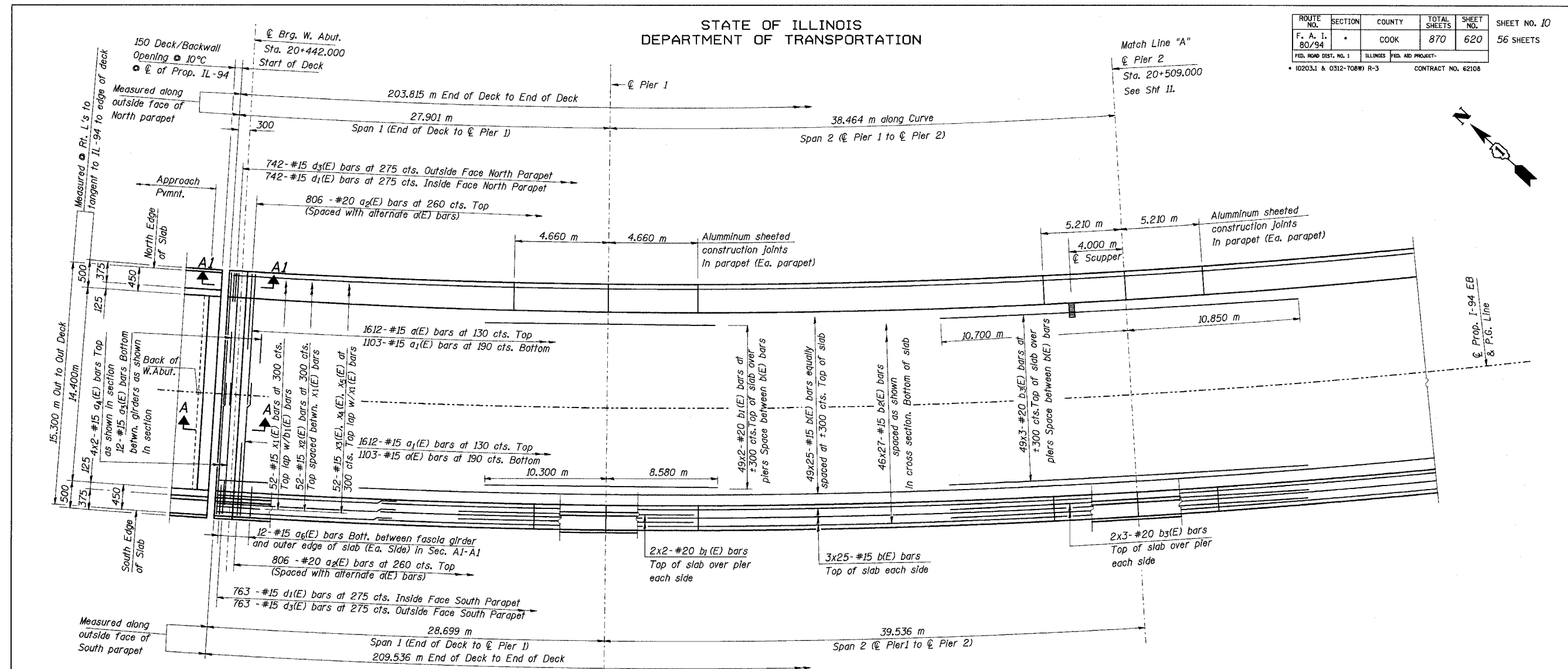
Notes:

1. Work this sheet with Sheet No. 6, 7 & 8 of 56 sheets.
2. All elevations and offsets are in meters (m).

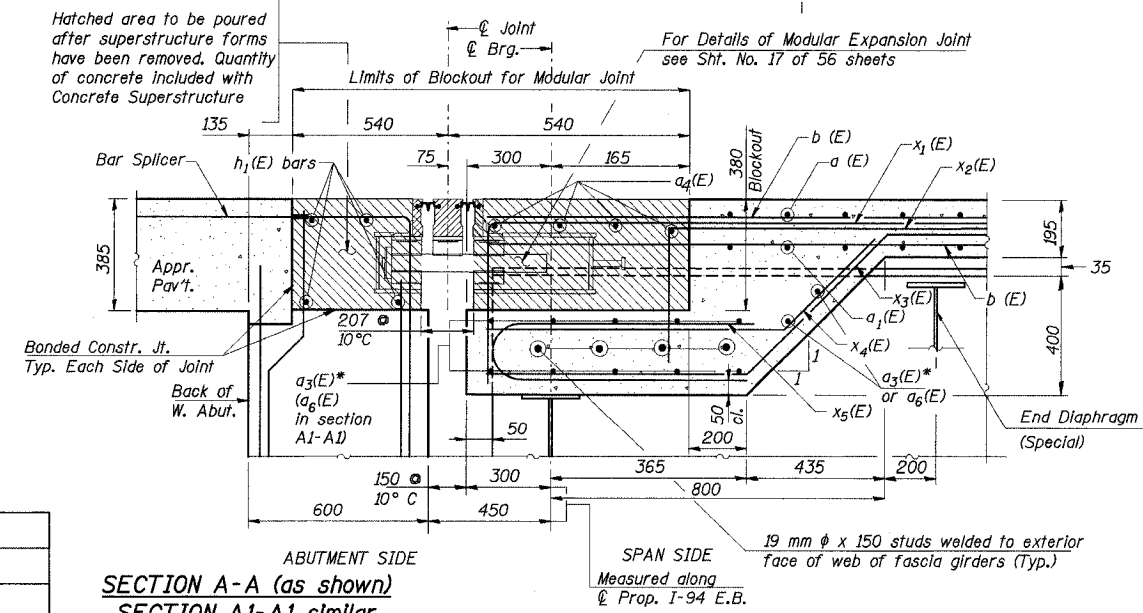
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
TOP OF SLAB ELEVATION - 3
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 6/28/05
SCALE: NTS
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--------------------------|---------|----------------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 10 |
| F. A. I. 80/94 | | COOK | 870 | 620 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | CONTRACT NO. 62108 | | |
| (0203.1 & 0312-708W) R-3 | | | | | |



DECK PLAN - SPAN 1 & 2



SECTION A-A (as shown)
SECTION A1-A1 similar

(Not all reinforcement shown in Abutment)

- Notes:
1. Work this sheet with Sheet Numbers 11 thru 13 of 56 Sheets.
 2. Reinforcement bars designated (E) shall be epoxy coated.
 3. Bars indicated thus "48 x 9 - #15 cts." indicates 48 lines of bars with 9 lengths per line.
 4. All dimensions are in millimeters (mm) except as noted.
 5. Place bars $d_1(E)$, $d_2(E)$, $d_3(E)$ to miss the Aluminum Sheeted Joint Location in Parapets.
 6. For deck cross section B-B see Sht 13 of 56
 7. For parapet reinforcement, see Sht. 16 of 56

MIN. BAR LAPS
#15 bars - 510
#20 bars - 640

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |

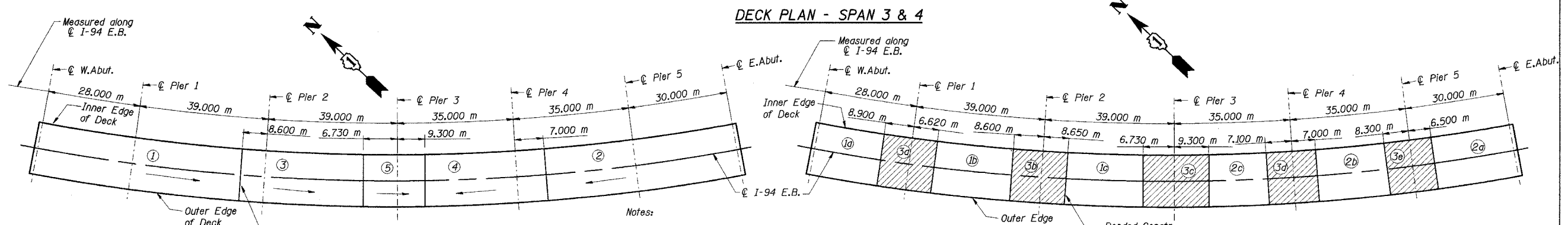
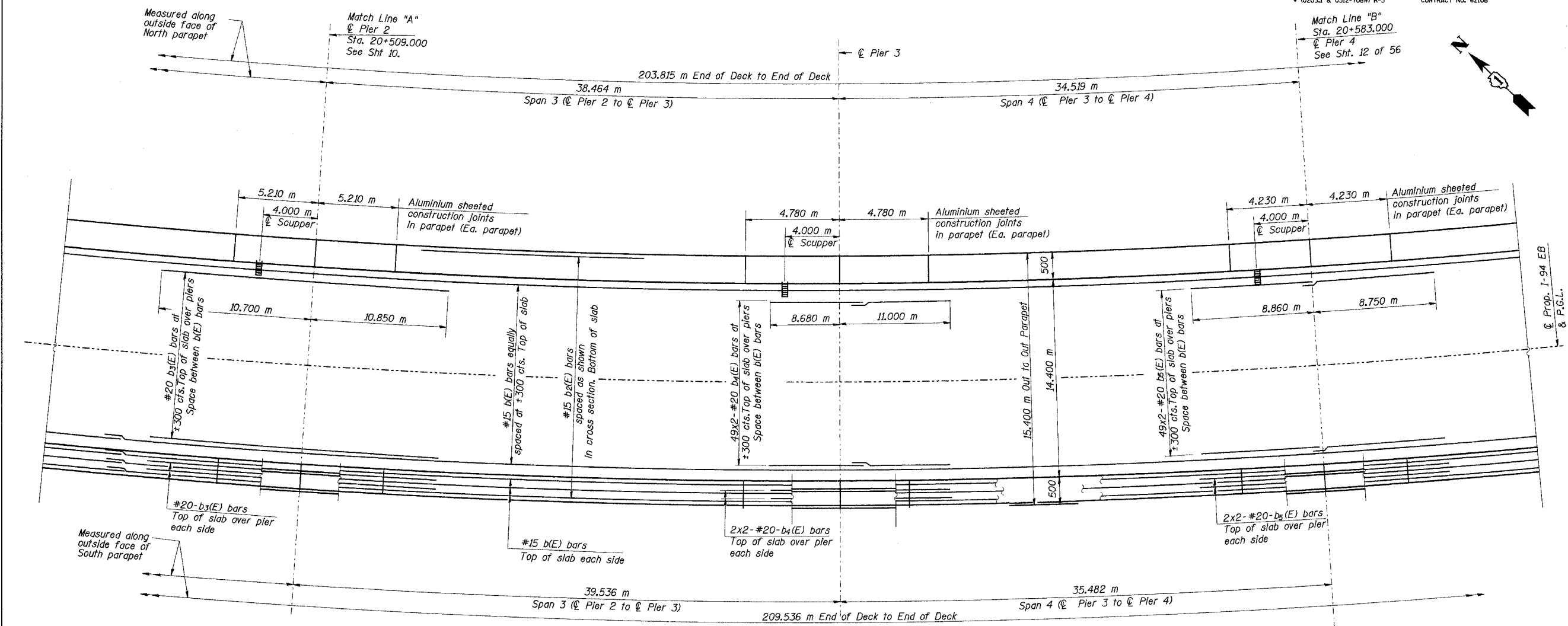
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DECK PLAN & DETAILS- SPAN 1 & 2
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan

Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

J:\Beuchamp\JA\34562\CA00\BA\SN_2807\cde\CTR\15_2807\1190014a_2807.dgn
12-SEP-2005 14:20

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--------------------------|---------|--------------------|-------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 11 |
| F. A. I. 80/94 | | COOK | 870 | 621 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| (0203.1 & 0312-708W) R-3 | | CONTRACT NO. 62108 | | | |



NOTE: Arrow indicates the direction of pour.
Bonded Constr. Jt. Radial (Typ.)

**DECK
POURING SEQUENCE**

- Notes:
1. Work this sheet with Sheet Numbers 10, 12 & 13 of 56 Sheets.
 2. Reinforcement bars designated (E) shall be epoxy coated.
 3. Bars indicated thus "48 x 9 - #15 cts." indicates 48 lines of bars with 9 lengths per line.
 4. All dimensions are in millimeters (mm) except as noted.
 5. Place bars $d_1(E)$, $d_2(E)$, $d_3(E)$ to miss the Aluminum Sheeted Joint Location in Parapets.
 6. For deck cross section see Sht. 13 of 56
 7. For parapet reinforcement, see Sht. 16 of 56

**ALTERNATE DECK
POURING SEQUENCE**

MIN. BAR LAPS
#15 bars - 510
#20 bars - 640

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |

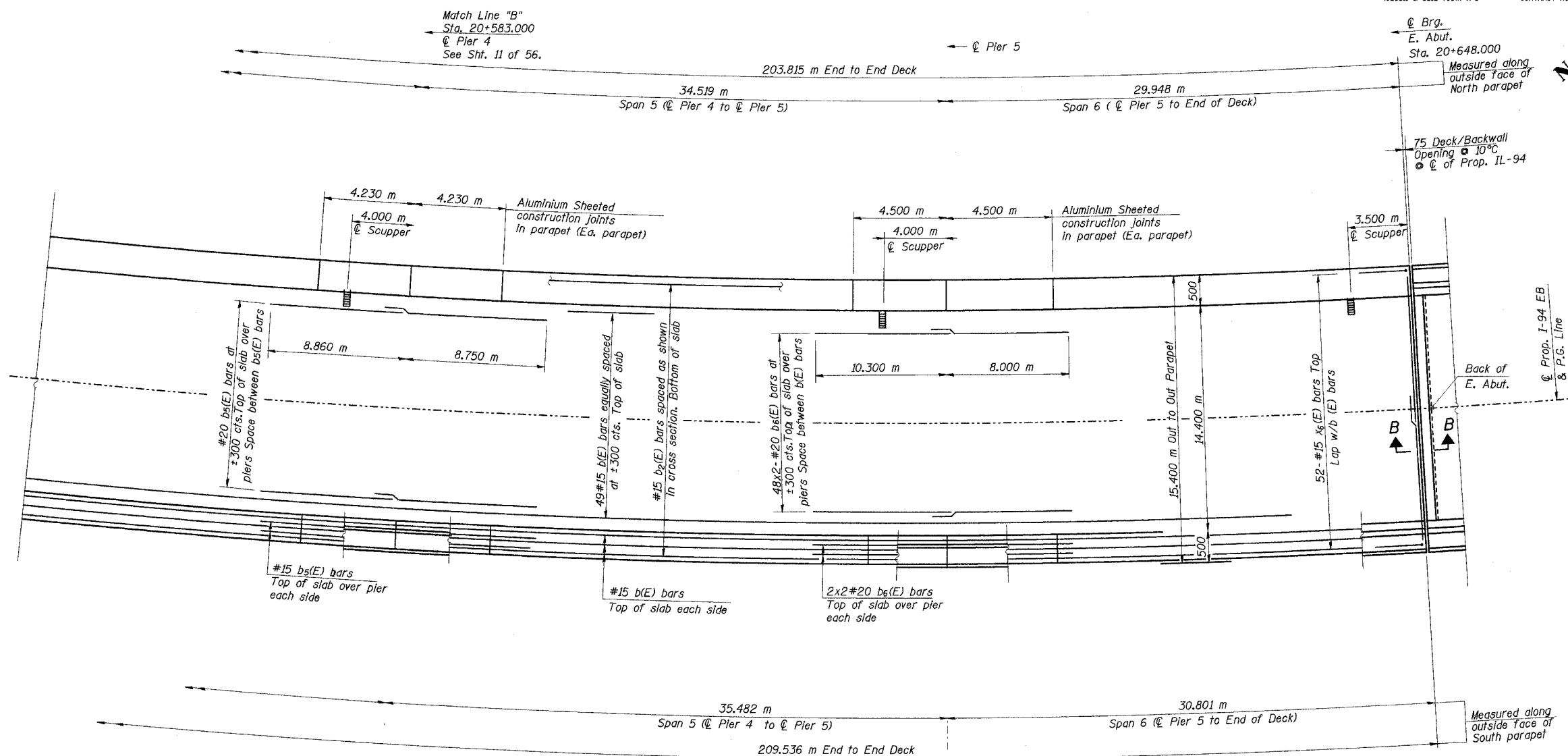
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DECK PLAN & DETAILS- SPAN 3 & 4
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS

Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

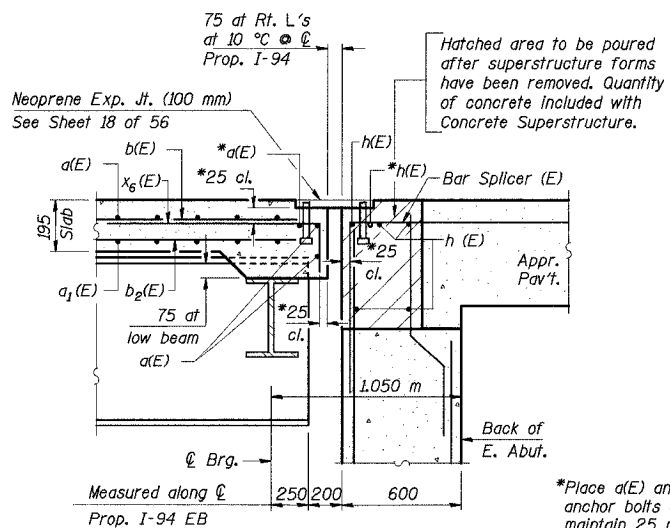
J:\Beauchamp\134562\CADD\B1\SN_2807\Cadd\CTR_19_2807\aut\9100246_2807.dgn
12-SEP-2005 14:21

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|-------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 12 |
| F. A. I. 80/94 | * | COOK | 870 | 622 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | CONTRACT NO. 62108 | | |



DECK PLAN SPAN 5 & 6



*Place a(E) and h(E) bars in back of anchor bolts as shown if required to maintain 25 mm cl. (+0-3 mm). Anchor bolts should be tied to a(E) and h(E) bars.

- NOTES:
1. Work this sheet with Sheet Numbers 10, 11 & 13 of 56 Sheets.
 2. Reinforcement bars designated (E) shall be epoxy coated.
 3. Bars indicated thus "48 x 9 - #15 cts." indicates 48 lines of bars with 9 lengths per line.
 4. All dimensions are in millimeters (mm) except as noted.
 5. Place bars d₁(E), d₂(E), d₃(E) to miss the Aluminum Sheeted Joint Location in Parapets.
 6. For deck cross section see sht. 13 of 56
 7. For parapet reinforcement see sht. 15 & 16 of 56.

MIN. BAR LAPS
#15 bars - 510
#20 bars - 640

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |

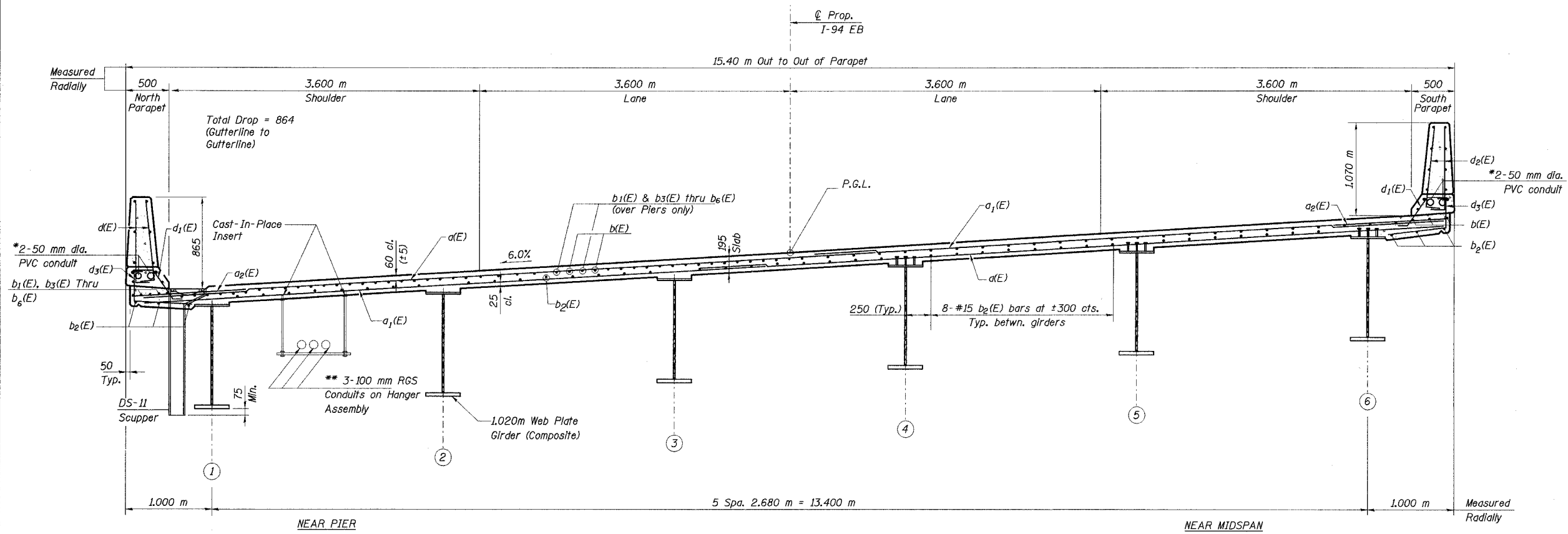
SECTION B-B

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DECK PLAN & DETAILS - SPAN 5 & 6
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

J:\kin... 19-AUG-2005 09:47

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|----------------------------|----------|-------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 13 |
| F. A. I. 80/94 | * | COOK | 870 | 623 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |
| * (0203.1 & 0312-708W) R-3 | | | CONTRACT NO. 62108 | | |



CROSS SECTION
(Looking Up Station)

- NOTES:**
1. Work this sheet with Sheet No. 10, 11, & 12 of 56 Sheets.
 2. See Sheet No. 16 of 56 sheets for Bill of Material and Deck & Parapet Details.
 3. Reinforcement bars designated (E) shall be epoxy coated.
 4. For Beam Layout See Sheet No. 22 of 56 sheets.
 5. All dimensions are in millimeters (mm) except as noted.
- * See Electrical Drawings for location and type.
Paid under Electrical Contract but installed by Bridge Contractor.
Installation included for payment under Concrete Superstructure.
Bridge Contractor to coordinate with Electrical Contractor.
- ** Elements Paid & Installed under Electrical Contract.

| | |
|----------|------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R / H.T. |

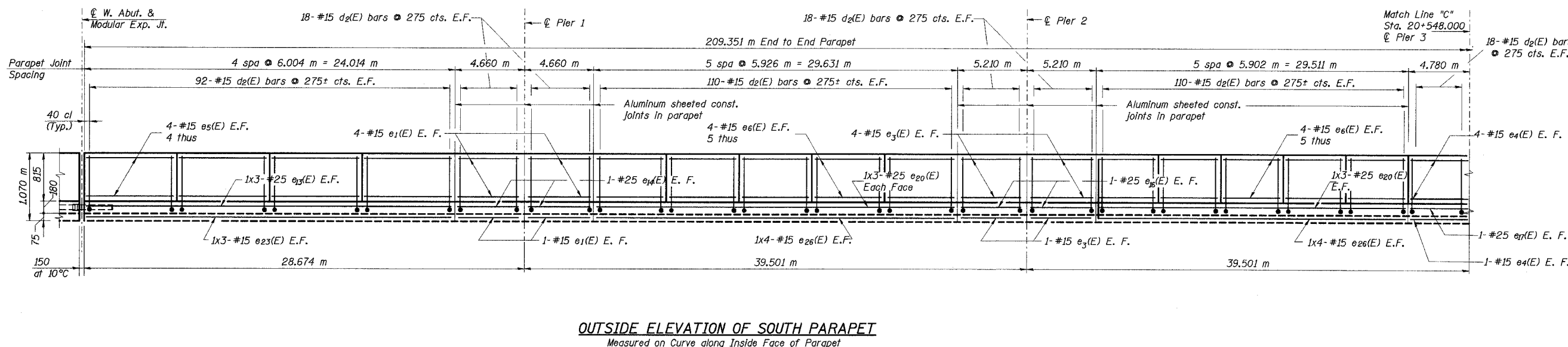
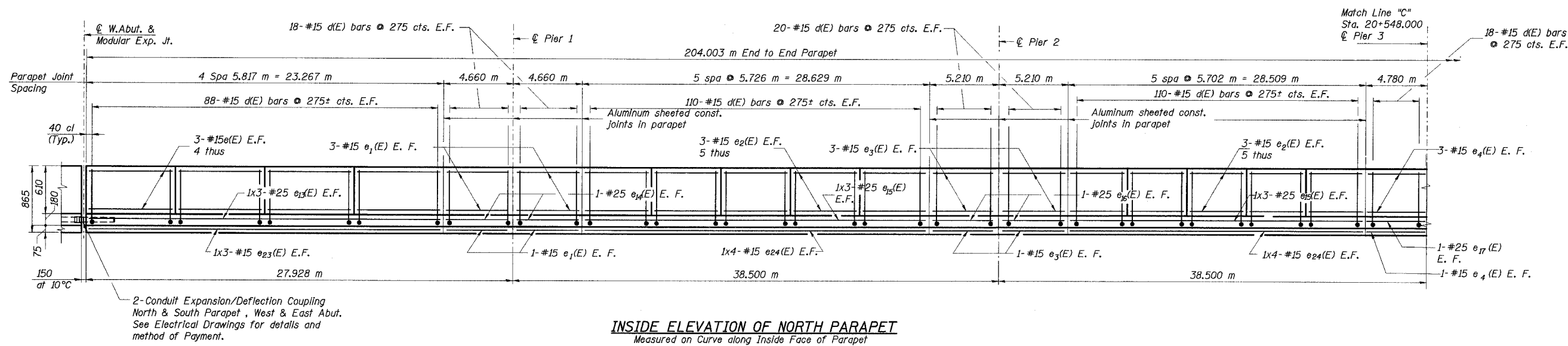
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DECK CROSS SECTION & DETAILS
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS

Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

JK:m
 s:\31652\CADD\1\SN_2807\016-2807\1\190844_2807.dgn
 19-AUG-2005 09:42

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|------------------------|----------|-------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 14 |
| F. A. 1. 80/94 | . | COOK | 870 | 624 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |
| 0203.1 & 0312-708W R-3 | | | CONTRACT NO. 62108 | | |



| | |
|----------|------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R / H.T. |

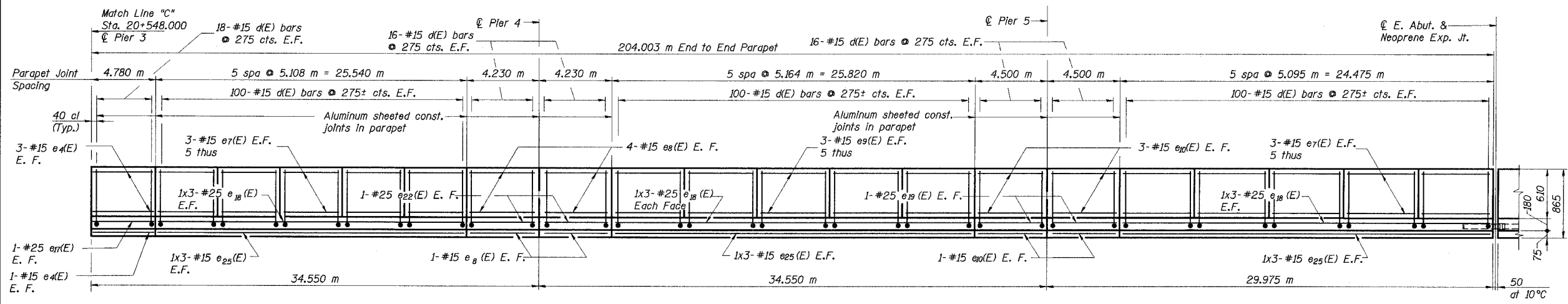
MIN. BAR LAPS
#15 bars - 510
#20 bars - 640
#25 bars - 1060

- NOTES:**
- See Sheet 16 of 56 for Superstructure Details.
 - See Sheet 16 of 56 for Bill of Material.
 - Reinforcement bars designated (E) shall be Epoxy coated.
 - Bars indicated thus 4x7-#15 etc. indicates 4 lines of bars with 7 lengths per line.
 - All dimensions are in millimeters (mm) except as noted.

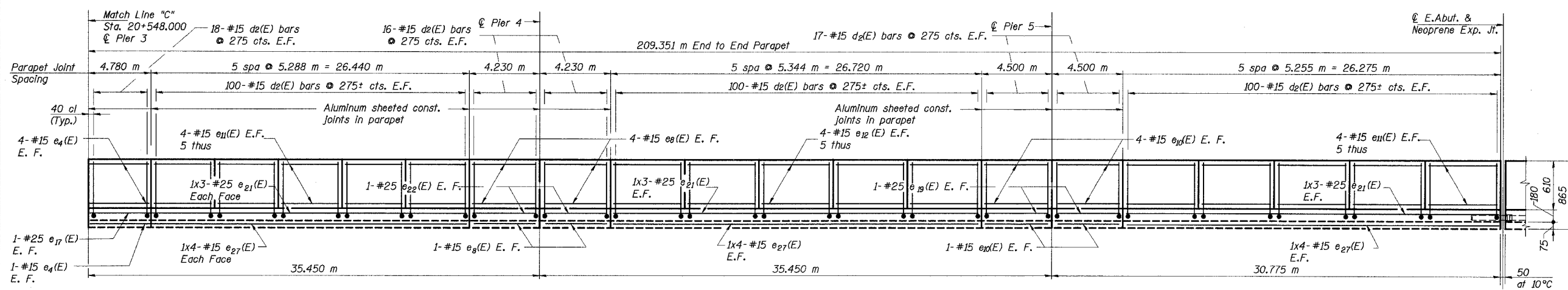
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
PARAPET ELEVATION & DETAILS 1 OF 2
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--------------------------------|--------------|----------------------------|---------------------|--------------------|---------------------------|
| ROUTE NO. F. A. I. 80/94 | SECTION • | COUNTY COOK | TOTAL SHEETS 870 | SHEET NO. 625 | SHEET NO. 15 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | CONTRACT NO. 62108 | |
| (0203.1 & 0312-708W) R-3 | | | | | |



INSIDE ELEVATION OF NORTH PARAPET
Measured on Curve along Inside Face of Parapet



OUTSIDE ELEVATION OF SOUTH PARAPET
Measured on Curve along Inside Face of Parapet

| | |
|----------|------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R / H.T. |

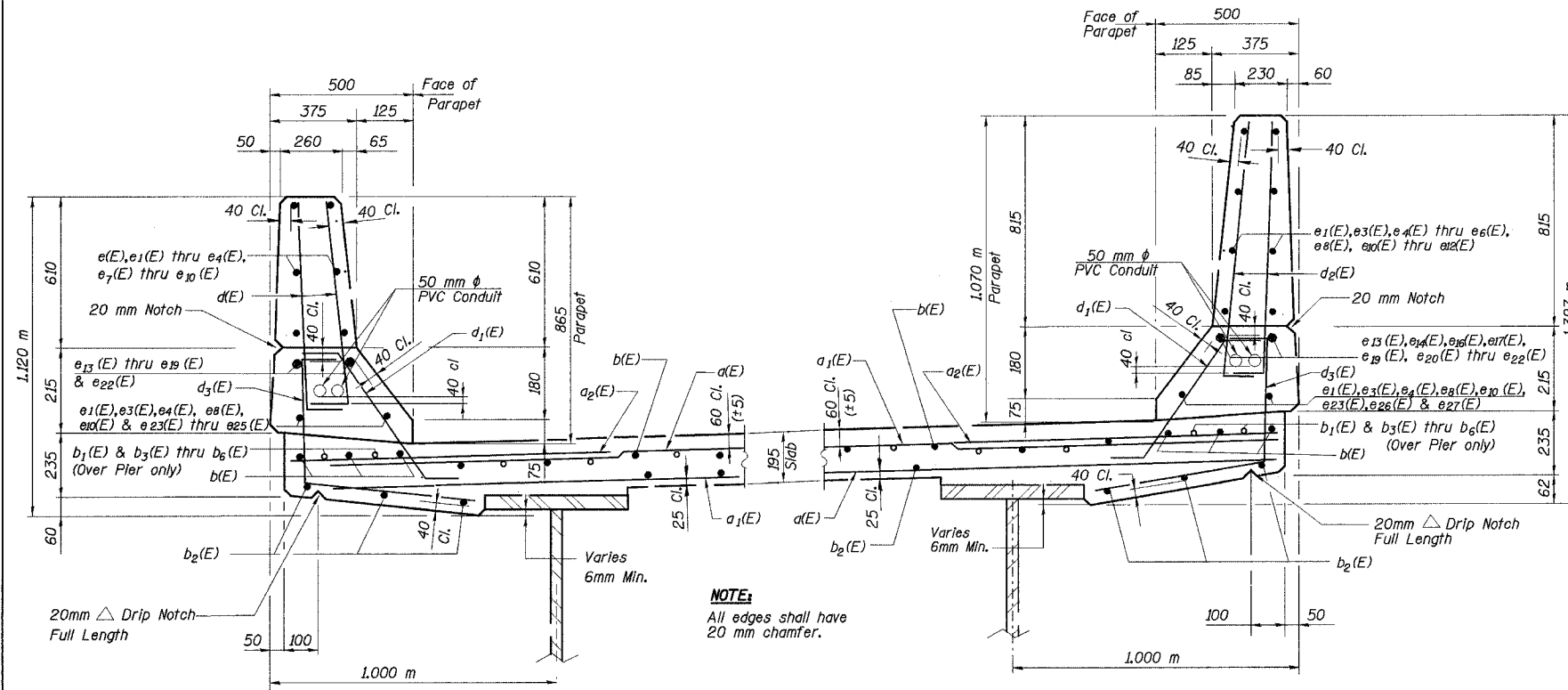
MIN. BAR LAPS
#15 bars - 510
#20 bars - 640
#25 bars - 1060

- NOTES:**
- See Sheet 16 of 56 for Superstructure Details.
 - See Sheet 16 of 56 for Bill of Material.
 - Reinforcement bars designated (E) shall be Epoxy coated.
 - Bars indicated thus 4x7-#15 etc. indicates 4 lines of bars with 7 lengths per line.
 - All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
PARAPET ELEVATION & DETAILS 2 OF 2
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

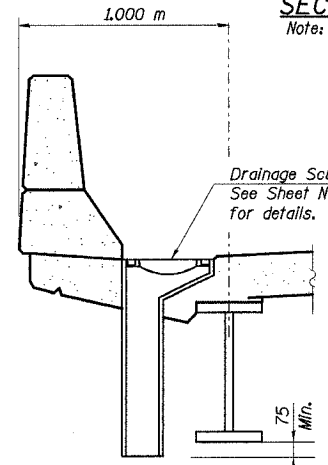
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|-------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 16 |
| F. A. I. 80/94 | * | COOK | 870 | 626 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | CONTRACT NO. 62108 | | |

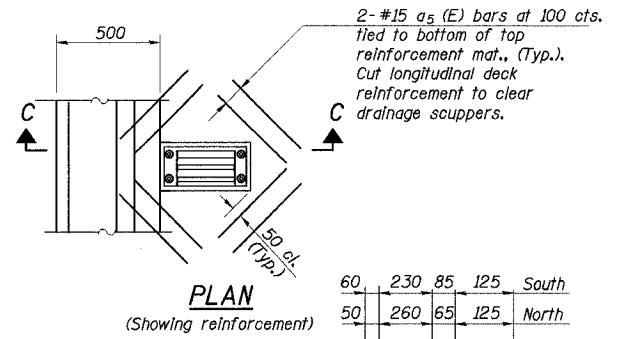


SECTION THRU NORTH PARAPET
Note: The Minimum clearance between the bottom of the conduit and the top of the hook of the d(E) bar shall be 40 mm.

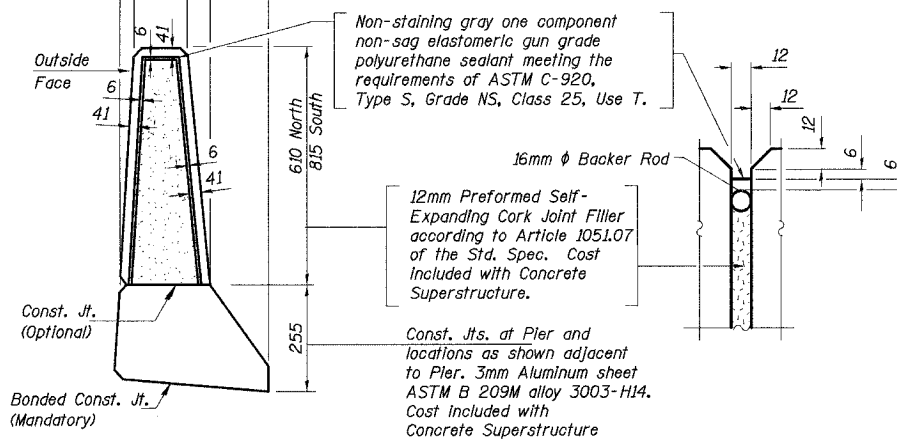
SECTION THRU SOUTH PARAPET
Note: The Minimum clearance between the bottom of the conduit and the top of the hook of the d2(E) bar shall be 40 mm.



SECTION C-C



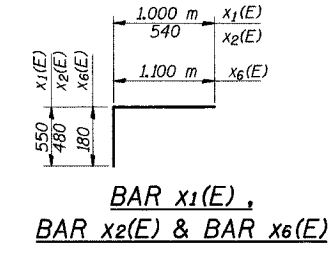
PLAN
(Showing reinforcement)



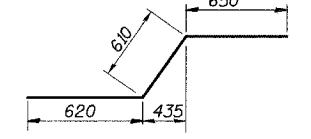
PARAPET JOINT DETAILS

BILL OF MATERIAL

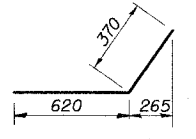
| Bar | No. | Size | Length (m) | Shape |
|----------------------------------|-------|------|------------|-------|
| a(E) | 2,715 | #15 | 8.07 | — |
| a1(E) | 2,715 | #15 | 7.01 | — |
| a2(E) | 1,612 | #20 | 1.20 | — |
| a3(E) | 60 | #15 | 2.58 | — |
| a4(E) | 8 | #15 | 7.92 | — |
| a5(E) | 40 | #15 | 0.90 | — |
| a6(E) | 24 | #15 | 0.90 | — |
| b(E) | 1,375 | #15 | 9.00 | — |
| b1(E) | 106 | #20 | 9.76 | — |
| b2(E) | 1,242 | #15 | 8.30 | — |
| b3(E) | 159 | #20 | 7.61 | — |
| b4(E) | 106 | #20 | 10.15 | — |
| b5(E) | 106 | #20 | 9.13 | — |
| b6(E) | 106 | #20 | 9.46 | — |
| d(E) | 1,568 | #15 | 0.91 | — |
| d1(E) | 1,505 | #15 | 0.73 | — |
| d2(E) | 1,572 | #15 | 1.11 | — |
| d3(E) | 1,505 | #15 | 1.11 | — |
| e(E) | 24 | #15 | 5.74 | — |
| e1(E) | 36 | #15 | 4.58 | — |
| e2(E) | 60 | #15 | 5.63 | — |
| e3(E) | 36 | #15 | 5.13 | — |
| e4(E) | 36 | #15 | 4.70 | — |
| e5(E) | 32 | #15 | 5.92 | — |
| e6(E) | 80 | #15 | 5.84 | — |
| e7(E) | 60 | #15 | 5.03 | — |
| e8(E) | 36 | #15 | 4.15 | — |
| e9(E) | 30 | #15 | 5.09 | — |
| e10(E) | 36 | #15 | 4.42 | — |
| e11(E) | 80 | #15 | 5.21 | — |
| e12(E) | 40 | #15 | 5.27 | — |
| e13(E) | 12 | #25 | 8.68 | — |
| e14(E) | 8 | #25 | 4.58 | — |
| e15(E) | 12 | #25 | 10.23 | — |
| e16(E) | 8 | #25 | 5.13 | — |
| e17(E) | 8 | #25 | 4.70 | — |
| e18(E) | 18 | #25 | 9.29 | — |
| e19(E) | 8 | #25 | 4.42 | — |
| e20(E) | 12 | #25 | 10.57 | — |
| e21(E) | 18 | #25 | 9.60 | — |
| e22(E) | 8 | #25 | 4.15 | — |
| e23(E) | 12 | #15 | 8.65 | — |
| e24(E) | 16 | #15 | 7.52 | — |
| e25(E) | 18 | #15 | 8.92 | — |
| e26(E) | 16 | #15 | 7.90 | — |
| e27(E) | 24 | #15 | 7.20 | — |
| x1(E) | 52 | #15 | 1.55 | — |
| x2(E) | 52 | #15 | 1.02 | — |
| x3(E) | 52 | #15 | 1.88 | — |
| x4(E) | 52 | #15 | 1.19 | — |
| x5(E) | 52 | #15 | 1.42 | — |
| x6(E) | 52 | #15 | 1.28 | — |
| Concrete Superstructure | Cu m | | 788.2 | |
| Reinforcement Bars, Epoxy Coated | kg | | 136,640 | |
| Bridge Deck Grooving | Sq m | | 2,976 | |
| Protective Coat | Sq m | | 3,490 | |



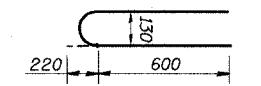
**BAR x1(E),
BAR x2(E) & BAR x6(E)**



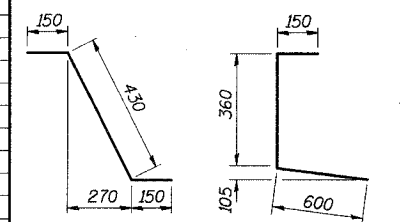
BAR x3(E)



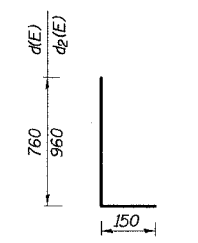
BAR x4(E)



BAR x5(E)



BAR d1(E) BAR d3(E)



**BAR d(E)
BAR d2(E)**

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DECK DETAILS & BILL OF MATERIAL
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

J:\Beauchamp\JA\34562\CADD\IBSN_2807\Cds\CTR_19_2807.dwg 9/20/05 4:28:07 PM 2807.dgn
12-SEP-2005 14:21

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--|---------|--------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 18 |
| F. A. I. 80/94 | . | COOK | 870 | 628 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT- | | | CONTRACT NO. 62108 | | |
| 0203.1 & 0312-708W-R-3 | | | | | |

| Joint Size | "C" at 50°F | "D" at 50°F |
|------------|-------------|-------------|
| 50 | 50 | 40 Min. |
| 65 | 65 | 45 Min. |
| 100 | 75 | 65 Min. |

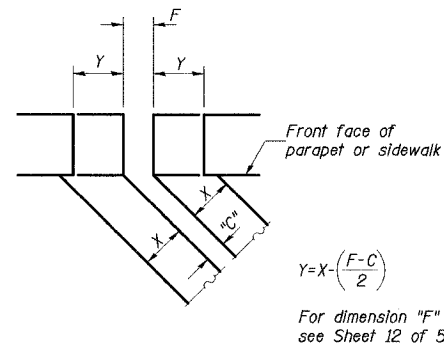
INSTALLATION NOTES

- Install continuous seal in roadway, parapet, curb, and sidewalk.
- Install anchor blocks as indicated.

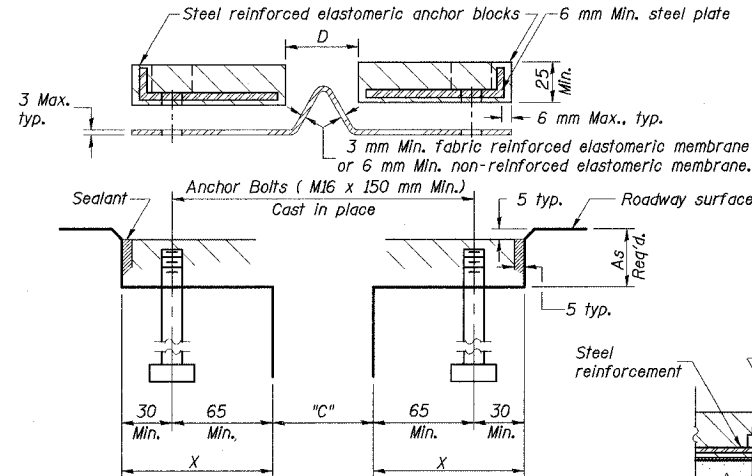
NOTE A: Maximum spacing of anchor bolts shall be 300 centers.

SKEW LIMITATIONS

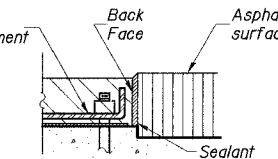
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 40 mm from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±300 cts.



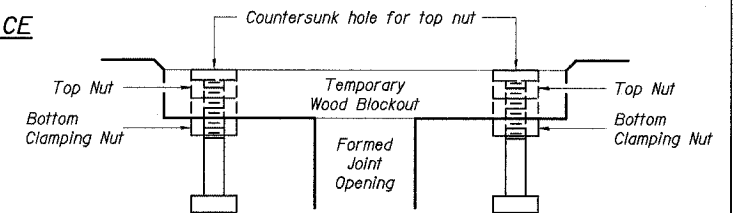
FORMING BLOCKOUT SKETCH



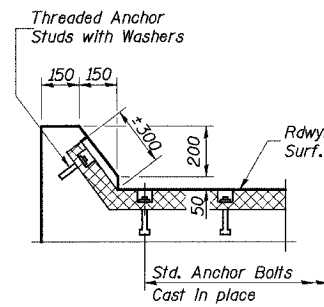
CROSS SECTION



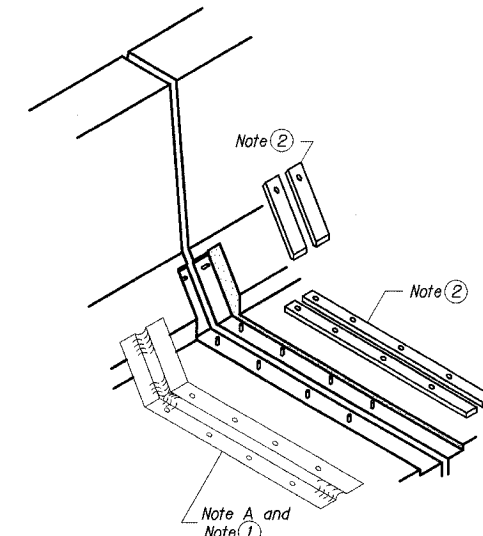
ANCHOR BLOCK WITH ASPHALT SURFACE



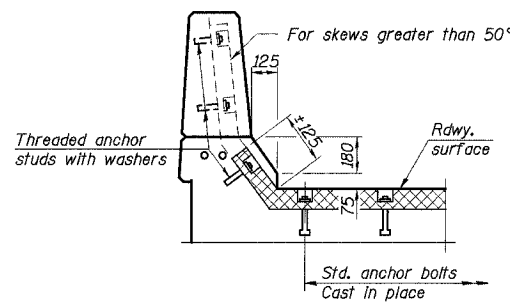
Note: Stud needs to be threaded lower to allow for use of clamping nut.
Anchor studs should be stainless
RECOMMENDED BLOCKOUT DETAIL



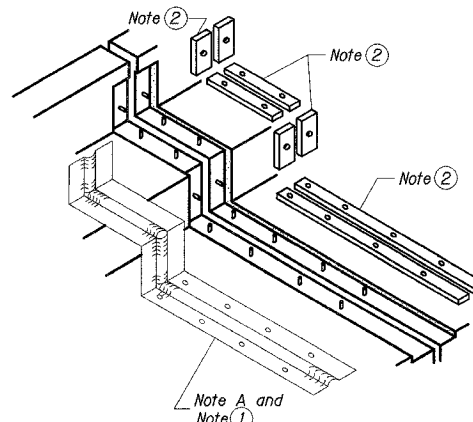
AT CURB



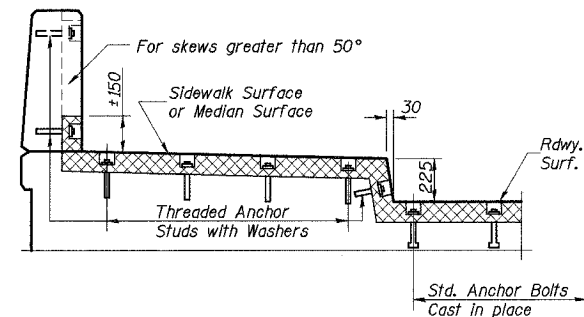
AT PARAPET



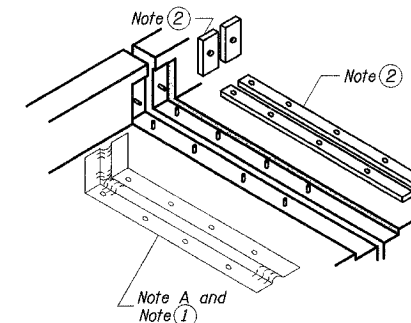
AT PARAPET



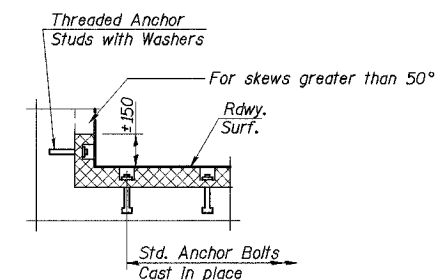
AT SIDEWALK OR MEDIAN



AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS



AT WALL



AT WALL

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|---------------------------------|------|----------|
| Neoprene Expansion Joint 100 mm | m | 15.2 |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
NEOPRENE EXPANSION JOINT
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

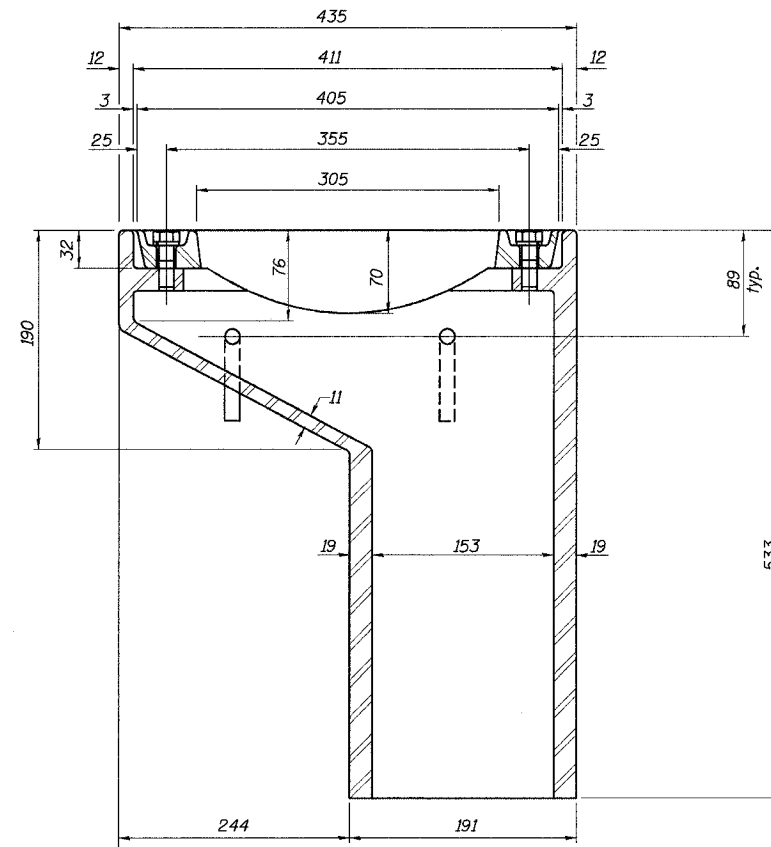
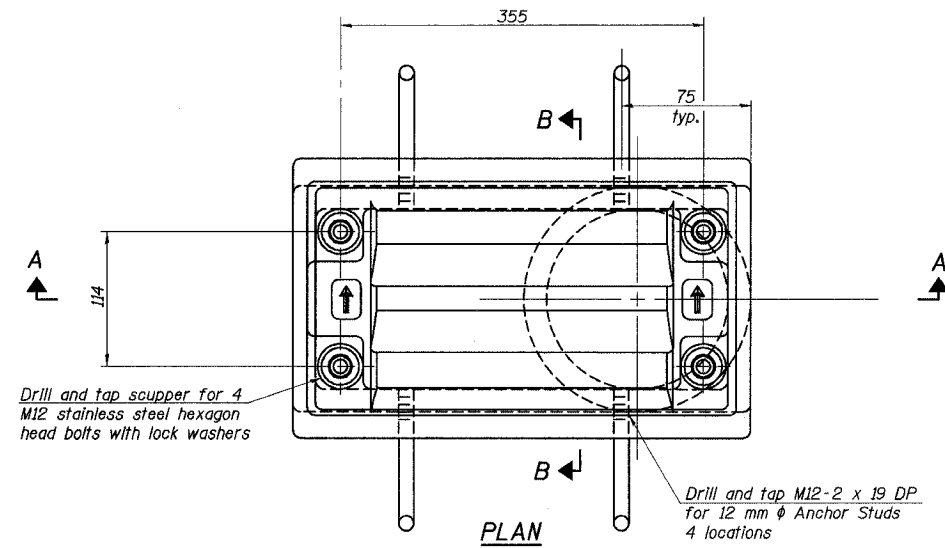
| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | PCA |

EJ-CS(M) 9-01-03

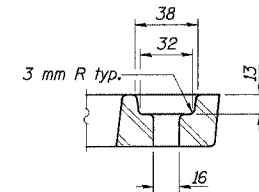
J:\km\en\34562\CADD\B1\SN_2807\cda\CTR_19_2807\en\90024_2807.dgn
18-AUG-2005 16:25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

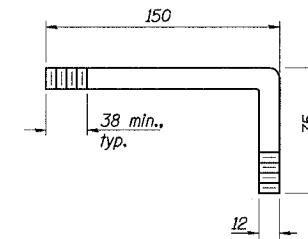
| | | | | | |
|-------------------------|---------|----------|-------------------|--------------------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 19 |
| F. A. I. 80/94 | * | COOK | 870 | 629 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| (0203.1 & 0312-708WR-3) | | | | CONTRACT NO. 62108 | |



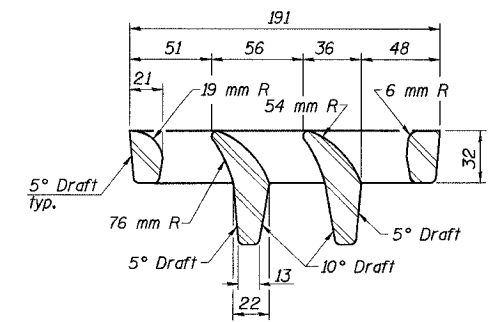
See Sheet 16 of 56 for scupper location relative to parapet.



BOLT HOLE DETAIL



ANCHOR STUD DETAIL



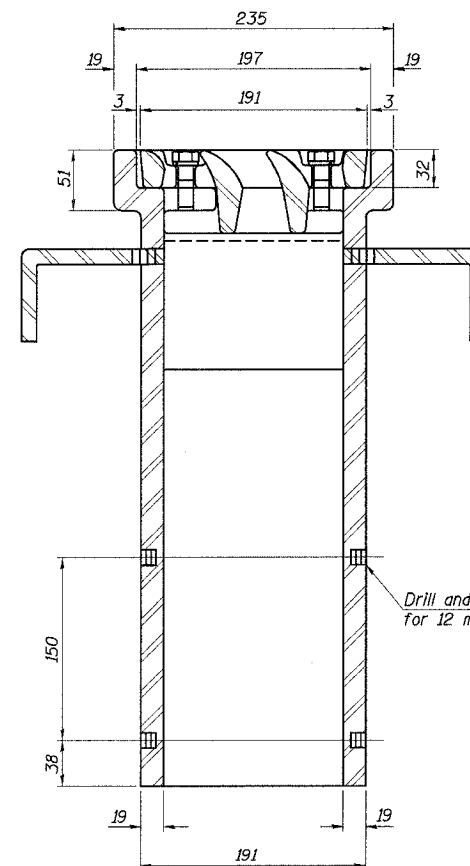
VANE GRATE DETAIL

Notes:

- All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
- Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232M.
- The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
- As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
- Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
- The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
- Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
- All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|-------------------------|------|----------|
| Drainage Scupper, DS-11 | Each | 5 |



SECTION B-B

I:\Research\Projects\I-94\SN-2807\cadd\CTR_19_2807\sd190614.s-2807.dgn
 08-JUL-2005 14:17

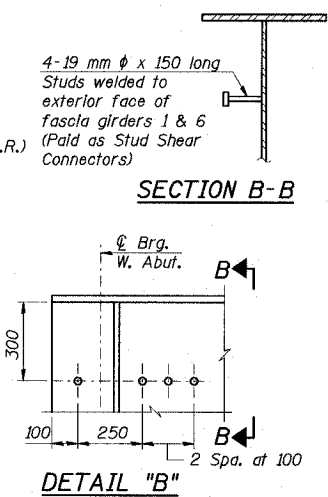
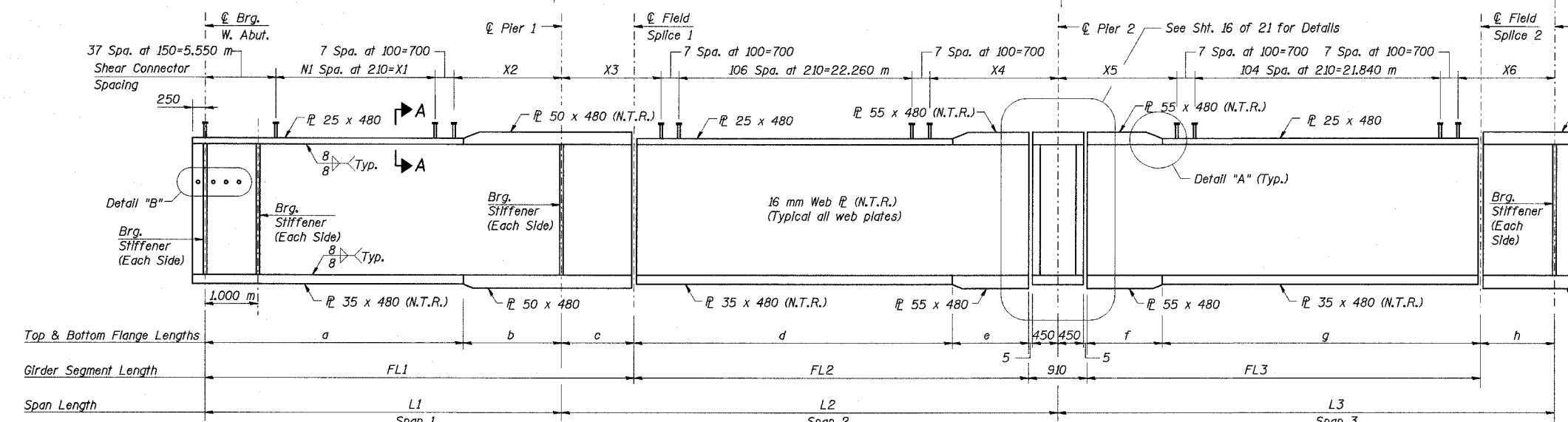
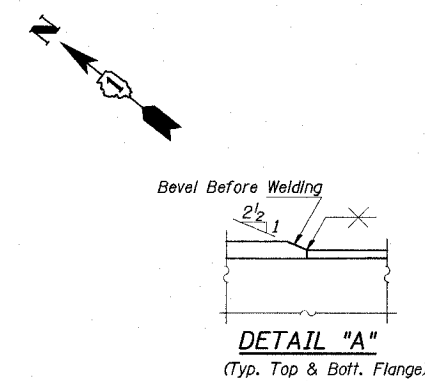
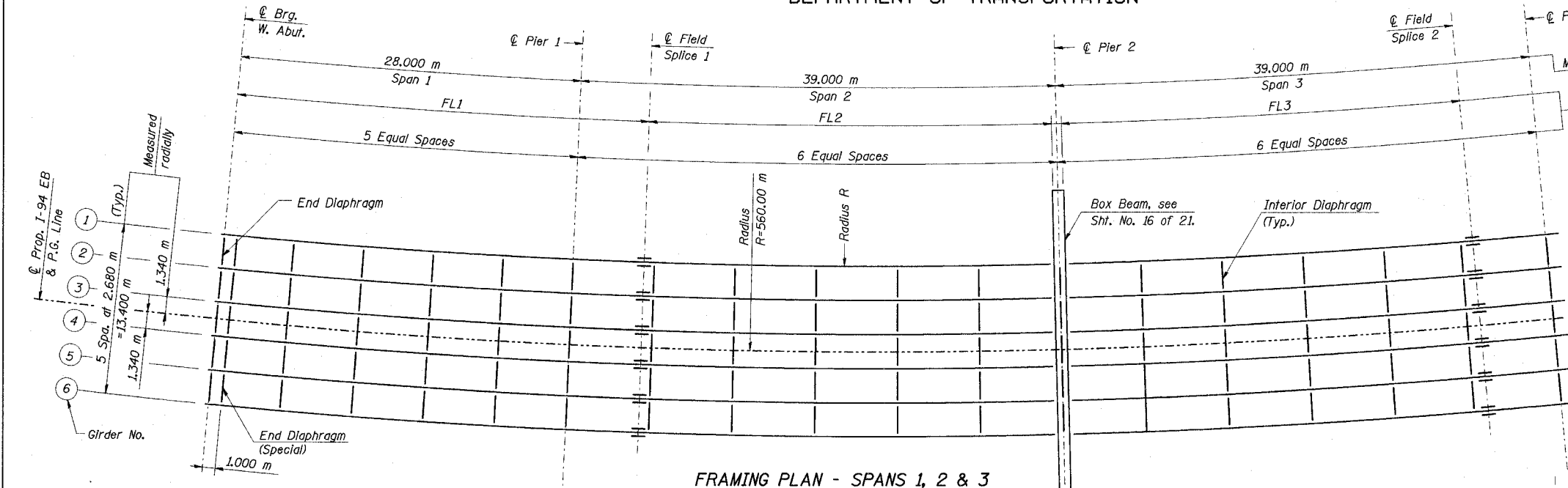
| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DRAINAGE SCUPPER DS-11
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------------------------|--------------|--------------------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 20 56 SHEETS |
| F. A. I. 80/94 | | COOK | 870 | 630 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | CONTRACT NO. 62108 | |
| 0203.1 & 0312-708WR-3 | | | | | |



ELEVATION - GIRDERS

(All Plates AASHTO M270 Grade 345)
(N.T.R. denotes plates to which notch toughness requirements are applicable)

GIRDER SPAN LENGTH (Meters)

| Girder | L1 | L2 | L3 |
|--------|--------|--------|--------|
| 1 | 27.665 | 38.533 | 38.533 |
| 2 | 27.799 | 38.720 | 38.720 |
| 3 | 27.933 | 38.907 | 38.907 |
| 4 | 28.067 | 39.093 | 39.093 |
| 5 | 28.201 | 39.280 | 39.280 |
| 6 | 28.335 | 39.467 | 39.467 |

SHEAR CONNECTOR SPACING (Length In Meters)

| Girder | N1 | X1 | X2 | X3 | X4 | X5 | X6 |
|--------|----|--------|-------|-------|-------|-------|-------|
| 1 | 65 | 13.650 | 7.765 | 6.308 | 8.565 | 8.724 | 6.569 |
| 2 | 66 | 13.860 | 7.689 | 6.160 | 8.900 | 8.986 | 6.494 |
| 3 | 66 | 13.860 | 7.823 | 6.294 | 8.953 | 9.095 | 6.572 |
| 4 | 66 | 13.860 | 7.957 | 6.411 | 9.022 | 9.198 | 6.655 |
| 5 | 67 | 14.070 | 7.881 | 6.446 | 9.174 | 9.318 | 6.722 |
| 6 | 67 | 14.070 | 8.015 | 6.610 | 9.197 | 9.346 | 6.881 |

GIRDER DIMENSIONS (Meters)

| Girder | Radius R | Span 1 | | | Span 2 | | | Span 3 | | |
|--------|----------|--------|-------|-------|--------|-------|-------|--------|-------|--|
| | | a | b | c | d | e | f | g | h | |
| 1 | 553.300 | 20.195 | 7.470 | 5.460 | 25.048 | 7.571 | 7.571 | 25.013 | 5.494 | |
| 2 | 555.980 | 20.292 | 7.507 | 5.486 | 25.169 | 7.610 | 7.610 | 25.135 | 5.520 | |
| 3 | 558.660 | 20.390 | 7.543 | 5.513 | 25.290 | 7.648 | 7.649 | 25.256 | 5.547 | |
| 4 | 561.340 | 20.488 | 7.579 | 5.539 | 25.412 | 7.687 | 7.688 | 25.377 | 5.574 | |
| 5 | 564.020 | 20.586 | 7.615 | 5.566 | 25.533 | 7.726 | 7.727 | 25.498 | 5.600 | |
| 6 | 566.700 | 20.684 | 7.651 | 5.592 | 25.654 | 7.765 | 7.765 | 25.619 | 5.627 | |

GIRDER SEGMENT LENGTH (Meters)

| Girder | FL1 | FL2 | FL3 |
|--------|--------|--------|--------|
| 1 | 33.125 | 32.618 | 32.585 |
| 2 | 33.285 | 32.779 | 32.745 |
| 3 | 33.446 | 32.939 | 32.905 |
| 4 | 33.606 | 33.099 | 33.065 |
| 5 | 33.767 | 33.259 | 33.225 |
| 6 | 33.927 | 33.419 | 33.385 |

| | |
|----------|--------|
| DESIGNED | MIL/JY |
| CHECKED | MAS |
| DRAWN | LK |
| CHECKED | KGN |

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Work this sheet with Sheet Nos. 11 & 12 of 21
 - Place all diaphragms radially.
 - See Section A-A on Sht. No. 13 of 21.

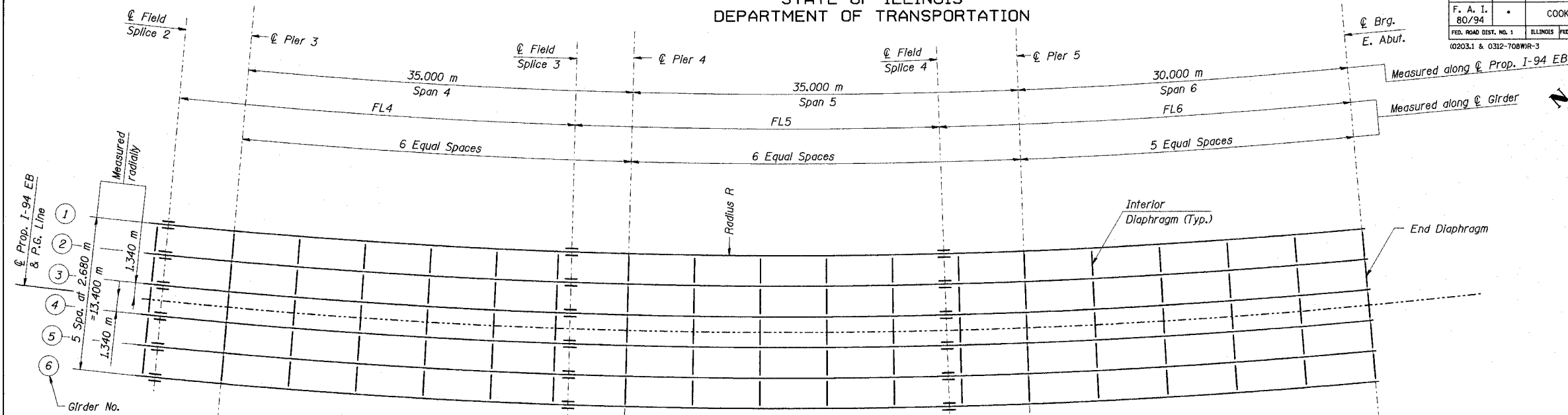
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
FRAMING PLAN & GIRDER ELEVATION
1 OF 2
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

L:\kalis\JA\34562\CADD\BNSN_2807\Cds\CTR_19_2807\Fp\90014a_2807.dgn
 18-AUG-2005 13:25

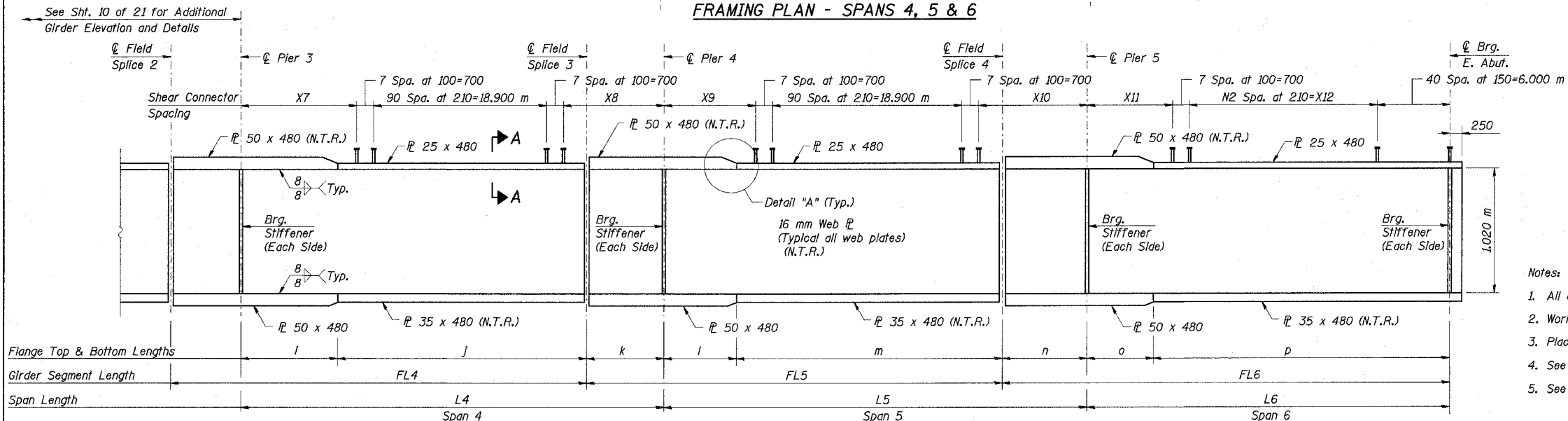
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|----------------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F. A. I. 80/94 | | COOK | 870 | 631 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | |
| 0203J & 0312-708W-R-3 | | CONTRACT NO. 62108 | | |

SHEET NO. 21
56 SHEETS



FRAMING PLAN - SPANS 4, 5 & 6



ELEVATION - GIRDERS

(All Plates AASHTO M270, Grade 345)
(N.T.R. denotes plates to which notch toughness requirements are applicable)

- Notes:
1. All dimensions are in millimeters (mm) except as noted.
 2. Work this sheet with Sheet Nos. 20 & 22 of 56.
 3. Place all diaphragms radially.
 4. See Section A-A on Sht. No. 23 of 56.
 5. See Detail A on Sht. No. 20 of 56.

GIRDER SPAN LENGTH (Meters)

| Girder | L4 | L5 | L6 |
|--------|--------|--------|--------|
| 1 | 34.581 | 34.581 | 29.641 |
| 2 | 34.749 | 34.749 | 29.785 |
| 3 | 34.916 | 34.916 | 29.928 |
| 4 | 35.084 | 35.084 | 30.072 |
| 5 | 35.251 | 35.251 | 30.215 |
| 6 | 35.419 | 35.419 | 30.359 |

SHEAR CONNECTOR SPACING (Length in Meters)

| Girder | N2 | X7 | X8 | X9 | X10 | X11 | X12 |
|--------|----|-------|-------|-------|-------|-------|--------|
| 1 | 82 | 8.098 | 6.183 | 6.396 | 7.885 | 5.721 | 17.220 |
| 2 | 82 | 8.105 | 6.344 | 6.504 | 7.945 | 5.865 | 17.220 |
| 3 | 83 | 8.146 | 6.470 | 6.524 | 8.092 | 5.798 | 17.430 |
| 4 | 85 | 8.231 | 6.553 | 6.646 | 8.138 | 5.522 | 17.850 |
| 5 | 85 | 8.376 | 6.575 | 6.864 | 8.087 | 5.665 | 17.850 |
| 6 | 85 | 8.467 | 6.652 | 6.793 | 8.326 | 5.809 | 17.850 |

GIRDER DIMENSIONS (Meters)

| Girder | Radius R | Span 4 | | | Span 5 | | | Span 6 | | |
|--------|----------|--------|--------|-------|--------|--------|-------|--------|--------|--|
| | | i | j | k | l | m | n | o | p | |
| 1 | 553.300 | 7.745 | 21.946 | 4.891 | 5.928 | 21.734 | 6.919 | 5.285 | 24.356 | |
| 2 | 555.980 | 7.782 | 22.052 | 4.914 | 5.957 | 21.840 | 6.952 | 5.311 | 24.474 | |
| 3 | 558.660 | 7.820 | 22.159 | 4.938 | 5.986 | 21.945 | 6.986 | 5.336 | 24.592 | |
| 4 | 561.340 | 7.857 | 22.265 | 4.962 | 6.014 | 22.050 | 7.019 | 5.362 | 24.710 | |
| 5 | 564.020 | 7.895 | 22.371 | 4.986 | 6.043 | 22.156 | 7.053 | 5.387 | 24.828 | |
| 6 | 566.700 | 7.932 | 22.477 | 5.009 | 6.072 | 22.261 | 7.086 | 5.413 | 24.946 | |

GIRDER SEGMENT LENGTH (Meters)

| Girder | FL4 | FL5 | FL6 |
|--------|--------|--------|--------|
| 1 | 35.184 | 32.553 | 36.560 |
| 2 | 35.355 | 32.711 | 36.737 |
| 3 | 35.525 | 32.869 | 36.914 |
| 4 | 35.696 | 33.026 | 37.091 |
| 5 | 35.866 | 33.184 | 37.268 |
| 6 | 36.036 | 33.342 | 37.445 |

| | |
|----------|-----|
| DESIGNED | JY |
| CHECKED | MAS |
| DRAWN | LK |
| CHECKED | KN |

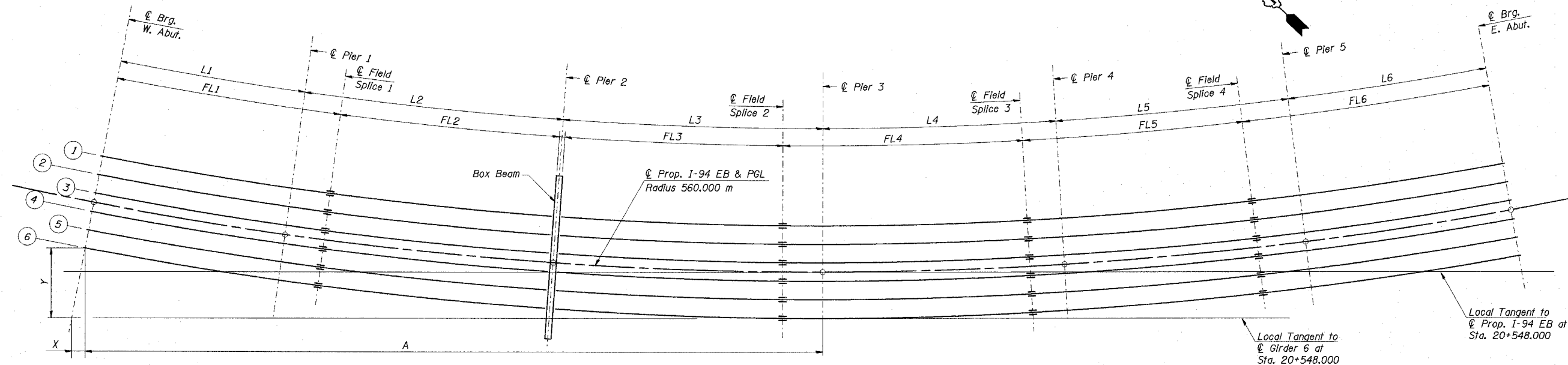
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
FRAMING PLAN & GIRDER ELEVATION
2 OF 2
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203J & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

Lk:ltc
J:\3152\CAD\DRAW\SN-2807\cadd\TR-19-2807\Fp-90824a-2807.dgn
18-AUG-2005 13:26

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-------------------------|----------------------------|--------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 22 |
| F. A. I. 80/94 | | COOK | 870 | 632 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT- | | | | |
| (0203.1 & 0312-708WR-3) | | | CONTRACT NO. 62108 | | |



GIRDER LAYOUT PLAN

LAYOUT DIMENSIONS (Meters)

| Girder | Radius | ℄ Brg. W. Abut | | | ℄ Pier 1 | | | ℄ FS 1 | | | End of Segment at Box Beam (North) | | | ℄ Pier 2 | | | End of Segment at Box Beam (South) | | | ℄ FS 2 | | | ℄ Pier 3 | | | ℄ FS 3 | | | ℄ Pier 4 | | |
|--------|---------|----------------|-------|--------|----------|-------|-------|--------|-------|-------|------------------------------------|-------|-------|----------|-------|-------|------------------------------------|-------|-------|--------|-------|-------|----------|-------|-------|--------|-------|-------|----------|-------|-------|
| | | A | X | Y | A | X | Y | A | X | Y | A | X | Y | A | X | Y | A | X | Y | A | X | Y | A | X | Y | A | X | Y | | | |
| 1 | 553.300 | 104.107 | 1.893 | 9.883 | 76.818 | 0.751 | 5.358 | 71.407 | 0.602 | 4.627 | 38.956 | 0.097 | 1.373 | 38.502 | 0.094 | 1.341 | 38.048 | 0.090 | 1.310 | 5.494 | 0.000 | 0.027 | 0.000 | 0.000 | 0.000 | 29.676 | 0.043 | 0.796 | 34.559 | 0.068 | 1.080 |
| 2 | 555.980 | 104.612 | 1.902 | 9.930 | 77.190 | 0.755 | 5.384 | 71.753 | 0.605 | 4.650 | 39.143 | 0.097 | 1.380 | 38.689 | 0.094 | 1.348 | 38.235 | 0.091 | 1.316 | 5.520 | 0.000 | 0.027 | 0.000 | 0.000 | 0.000 | 29.820 | 0.043 | 0.800 | 34.726 | 0.068 | 1.086 |
| 3 | 558.660 | 105.116 | 1.912 | 9.978 | 77.562 | 0.759 | 5.410 | 72.099 | 0.608 | 4.672 | 39.329 | 0.098 | 1.386 | 38.875 | 0.094 | 1.354 | 38.421 | 0.091 | 1.323 | 5.547 | 0.000 | 0.028 | 0.000 | 0.000 | 0.000 | 29.964 | 0.043 | 0.804 | 34.894 | 0.068 | 1.091 |
| ℄ | 560.000 | 105.368 | 1.916 | 10.002 | 77.748 | 0.760 | 5.423 | 72.272 | 0.609 | 4.683 | 39.422 | 0.098 | 1.389 | 38.968 | 0.095 | 1.357 | 38.515 | 0.091 | 1.326 | 5.560 | 0.000 | 0.028 | 0.000 | 0.000 | 0.000 | 30.036 | 0.043 | 0.806 | 34.977 | 0.068 | 1.093 |
| 4 | 561.340 | 105.620 | 1.921 | 10.026 | 77.934 | 0.762 | 5.436 | 72.445 | 0.611 | 4.694 | 39.516 | 0.098 | 1.393 | 39.062 | 0.095 | 1.361 | 38.608 | 0.092 | 1.329 | 5.574 | 0.000 | 0.028 | 0.000 | 0.000 | 0.000 | 30.107 | 0.043 | 0.808 | 35.061 | 0.069 | 1.096 |
| 5 | 564.020 | 106.125 | 1.930 | 10.074 | 78.306 | 0.766 | 5.462 | 72.791 | 0.614 | 4.717 | 39.702 | 0.099 | 1.399 | 39.248 | 0.095 | 1.367 | 38.794 | 0.092 | 1.336 | 5.600 | 0.000 | 0.028 | 0.000 | 0.000 | 0.000 | 30.251 | 0.044 | 0.812 | 35.228 | 0.069 | 1.101 |
| 6 | 566.700 | 106.629 | 1.939 | 10.122 | 78.678 | 0.769 | 5.488 | 73.136 | 0.617 | 4.739 | 39.889 | 0.099 | 1.406 | 39.435 | 0.096 | 1.374 | 38.981 | 0.093 | 1.342 | 5.627 | 0.000 | 0.028 | 0.000 | 0.000 | 0.000 | 30.395 | 0.044 | 0.816 | 35.396 | 0.069 | 1.106 |

LAYOUT DIMENSIONS (Meters)

| Girder | Radius | ℄ FS 4 | | | ℄ Pier 5 | | | ℄ Brg. E. Abut. | | |
|--------|---------|--------|-------|-------|----------|-------|-------|-----------------|-------|-------|
| | | A | X | Y | A | X | Y | A | X | Y |
| 1 | 553.300 | 62.113 | 0.395 | 3.497 | 68.983 | 0.542 | 4.317 | 98.279 | 1.588 | 8.798 |
| 2 | 555.980 | 62.414 | 0.397 | 3.514 | 69.317 | 0.545 | 4.338 | 98.755 | 1.596 | 8.841 |
| 3 | 558.660 | 62.714 | 0.399 | 3.531 | 69.651 | 0.548 | 4.359 | 99.231 | 1.603 | 8.884 |
| ℄ | 560.000 | 62.865 | 0.400 | 3.540 | 69.818 | 0.549 | 4.369 | 99.469 | 1.607 | 8.905 |
| 4 | 561.340 | 63.015 | 0.401 | 3.548 | 69.985 | 0.550 | 4.380 | 99.707 | 1.611 | 8.926 |
| 5 | 564.020 | 63.316 | 0.403 | 3.565 | 70.319 | 0.553 | 4.401 | 100.183 | 1.619 | 8.969 |
| 6 | 566.700 | 63.617 | 0.405 | 3.582 | 70.653 | 0.556 | 4.422 | 100.659 | 1.627 | 9.011 |

Notes:

- Coordinate system (x, y) shown for Girder 6. Typical for all Girders with local tangent to each girder at ℄ Sta. 20+548.000.
- See Dimensions of span length (L) and Segment Length (FL) on Sht. Nos. 20 and 21 of 56.

| | |
|----------|-----|
| DESIGNED | TRL |
| CHECKED | KGN |
| DRAWN | LK |
| CHECKED | KGN |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

GIRDER LAYOUT

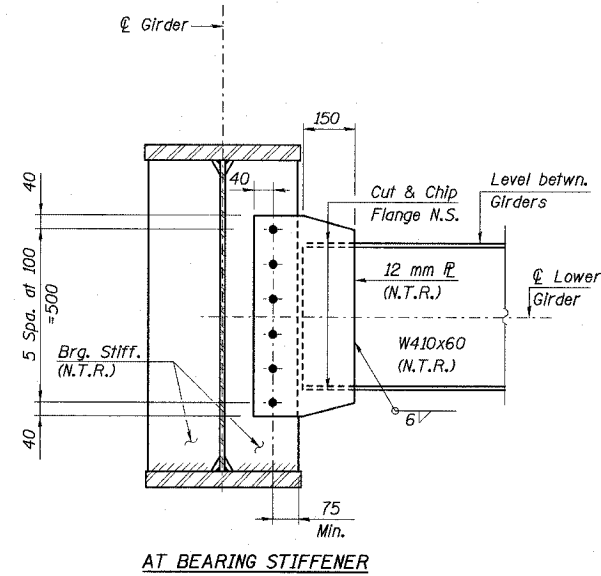
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

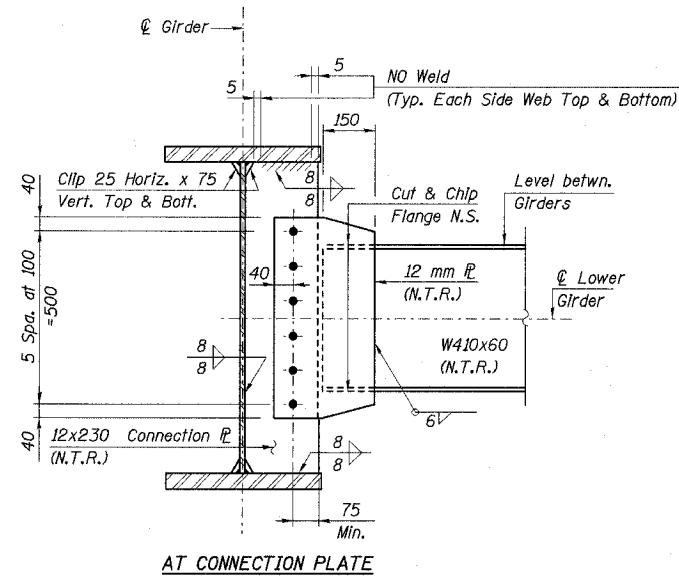
L:\k1116
 j:\34562\CADD\B1\SN_2807\CADD\CT1R_19_2807\Fp190234a_2807.dgn
 18-AUG-2005 13:26

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|------------------------|----------|-------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 24 |
| F. A. I. 80/94 | * | COOK | 870 | 634 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |
| (0203.1 & 0312-708W)-3 | | | CONTRACT NO. 62108 | | |



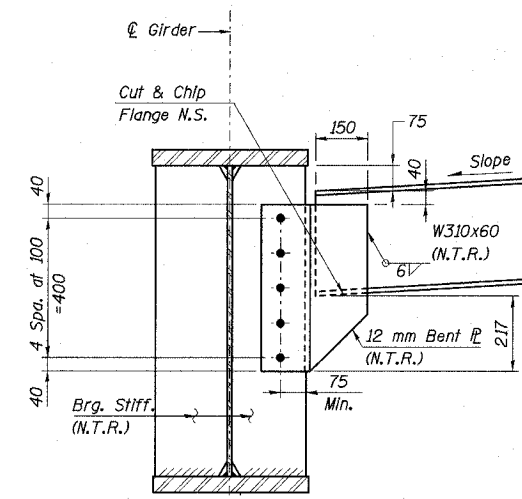
AT BEARING STIFFENER



AT CONNECTION PLATE

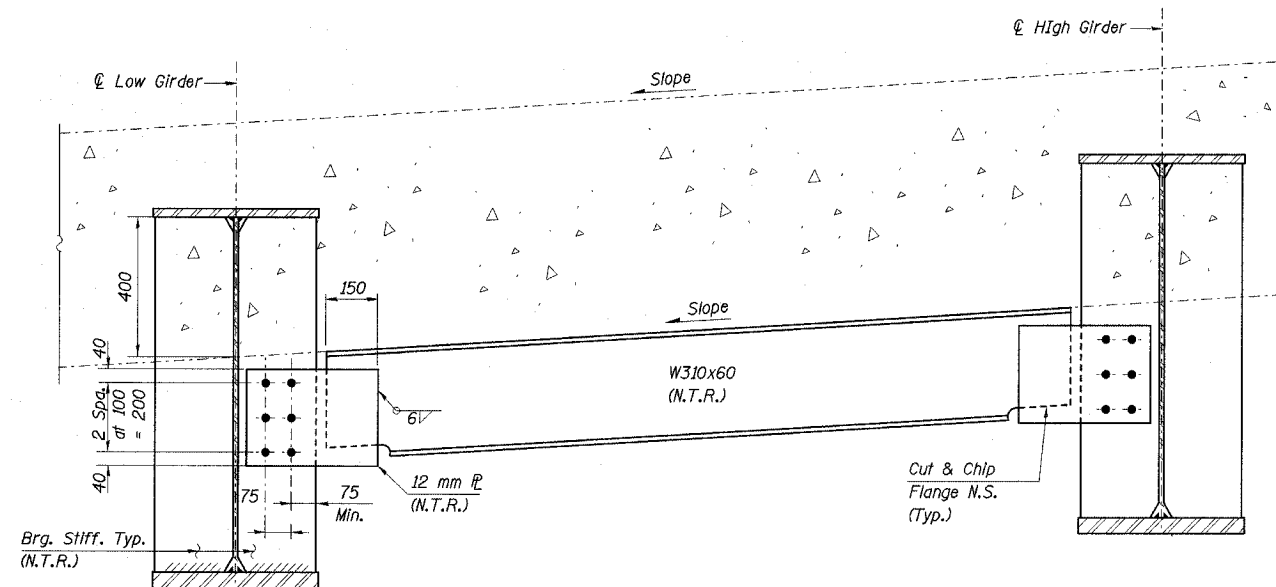
INTERIOR DIAPHRAGM

(AASHTO M270M Grade 345)



END DIAPHRAGM - EAST ABUTMENT
END DIAPHRAGM (SPECIAL) - WEST ABUTMENT

(AASHTO M270M Grade 345)



END DIAPHRAGM - WEST ABUTMENT

(AASHTO M270M Grade 345)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. See Sheet No. 13 of 21 for bearing stiffener details and weld requirements.
3. N.T.R. denotes plates to which notch toughness requirements are applicable.
4. All diaphragm connections to have 28 mm ϕ oversized holes for all M22 H.S. bolts.
5. Two hardened washers shall be required over all oversized holes.

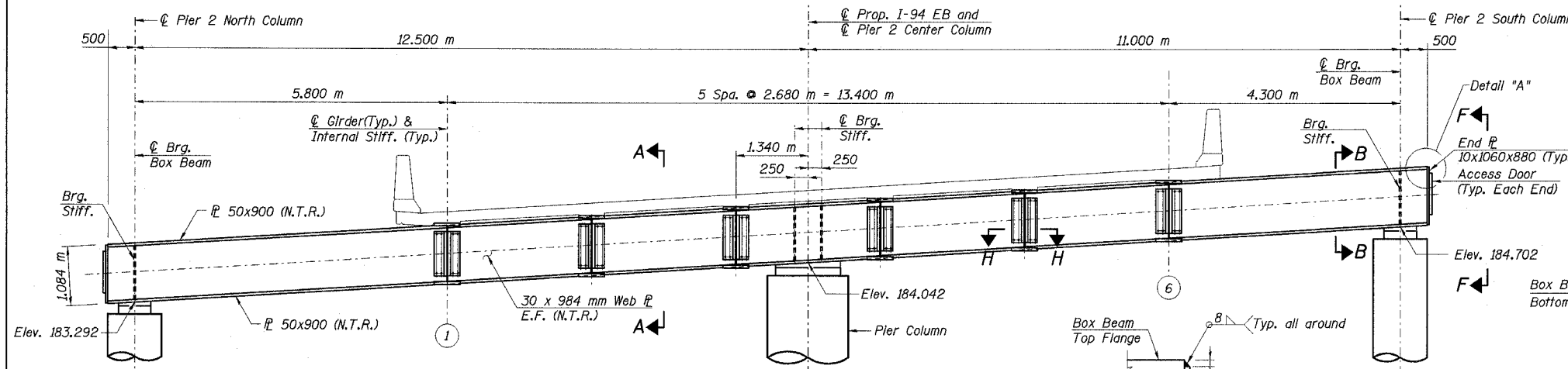
L:\a\ite J:\34562\CADD\B1\SN_2807\cads\CTR_19_2807\c190024e-2807.dgn 18-AUG-2005 13:27

| | |
|----------|-----|
| DESIGNED | MIL |
| CHECKED | JJK |
| DRAWN | LK |
| CHECKED | JJK |

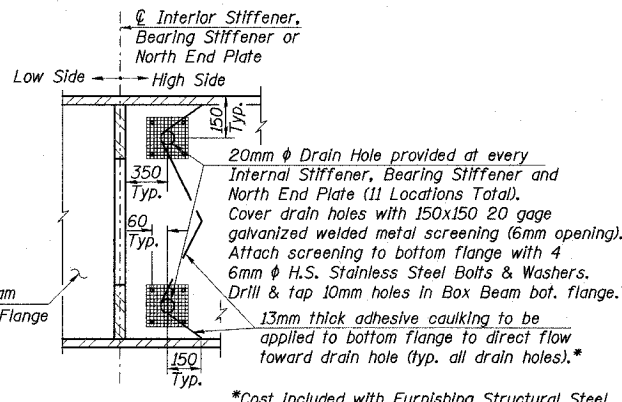
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DIAPHRAGM DETAILS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

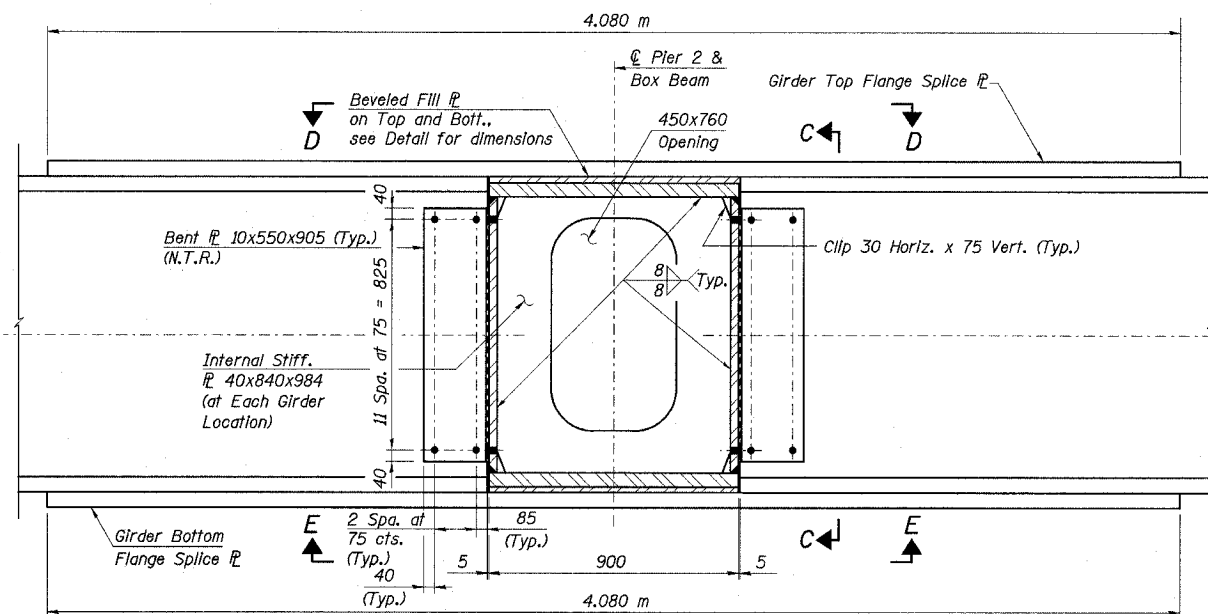
| | | | | | |
|--|---------|--------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 26 |
| F. A. I. 80/94 | | COOK | 870 | 636 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT- | | | CONTRACT NO. 62108 | | |
| 0203.1 & 0312-708WR-3 | | | | | |



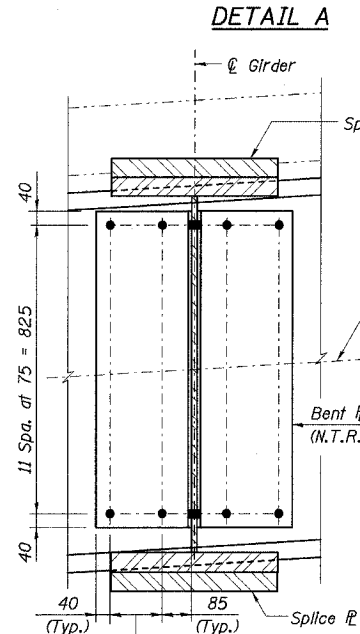
PIER 2 CAP BEAM ELEVATION
(Looking Up Station)



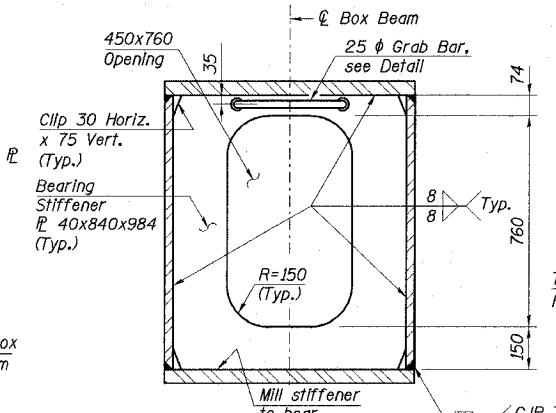
VIEW H-H
(Drainage Hole Detail)



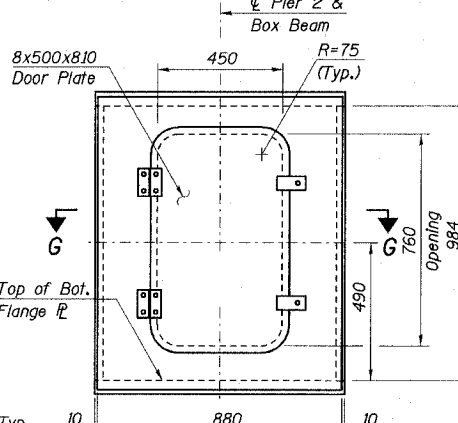
SECTION A-A



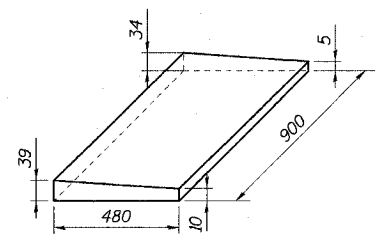
VIEW C-C



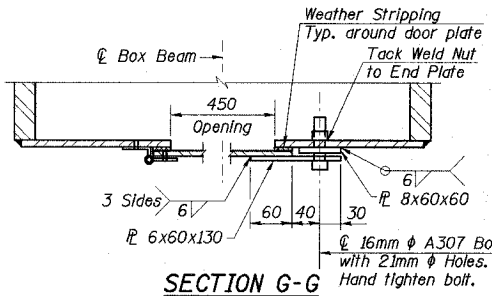
SECTION B-B
(Bearing Stiffener Detail)



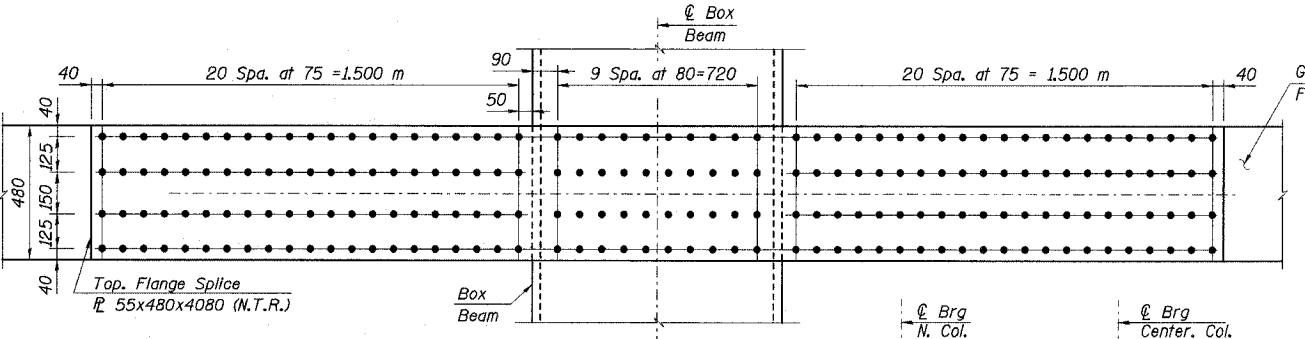
VIEW F-F



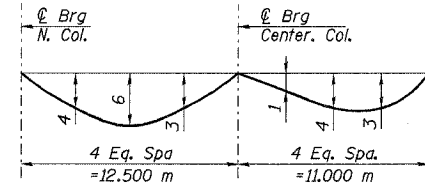
BEVELED FILL PLATE DETAIL



SECTION G-G

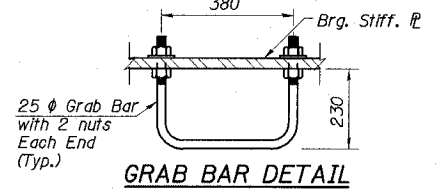


VIEW D-D & E-E



DEAD LOAD DEFLECTION
(Includes weight of slab and parapet)

- Notes:
1. N.T.R. denotes Plates to which notch toughness requirements are applicable.
 2. All dimensions are in millimeters (mm) except as noted.
 3. Preclude threads in the shear plane of H. S. Bolts.
 4. Contact Surface of splice plates must be blast-cleaned surfaces and blast-cleaned surfaces with "Class B" coatings. Coatings classified as "Class B" include those coatings which provide a mean slip coefficient not less than 0.50 as determined by test in accordance with "Test Method to Determine the Slip Coefficient for Coatings used in Bolted Joints" as adopted by Research Council on Structural Connections.
 5. All Bolts are 22 mm H.S. Bolts with 24 mm holes unless otherwise noted.
 6. All Steel components of the box girder and Splice plates are M 270M Grade 345 except the fill plates of the splices. The fill plates are M 270M Grade 250.
 7. Cost for Access Door hardware and Weather Stripping included with Furnishing Structural Steel.



GRAB BAR DETAIL

| | |
|----------|-----|
| DESIGNED | MEA |
| CHECKED | MIL |
| DRAWN | LK |
| CHECKED | MIL |

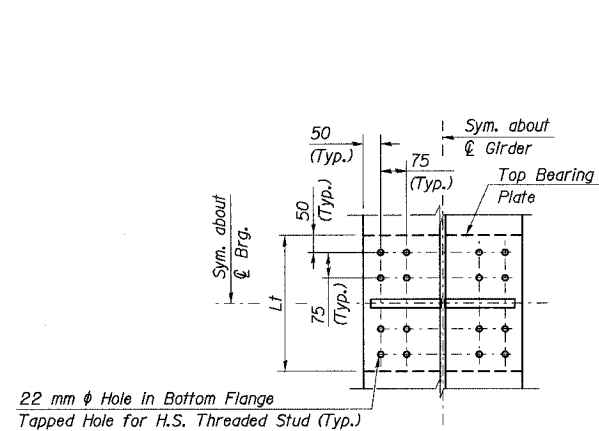
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
PIER 2 CAP BEAM DETAILS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

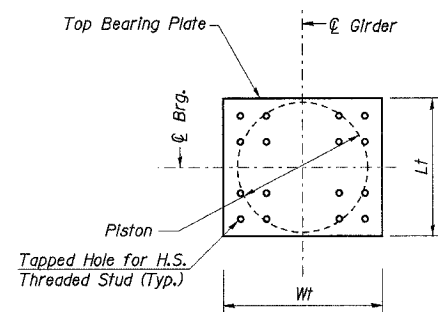
L:\kalisz\J:\34562\CADD\BLSN\2807\00d\CTRL\19_2807\11190054s_2807.dgn
18-AUG-2005 13:28

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

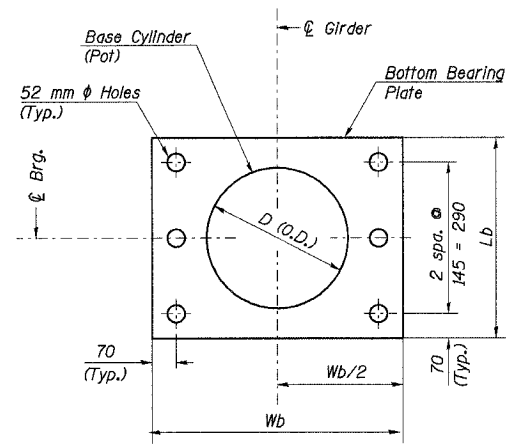
| | | | | | |
|-----------------------|---------|----------|-------------------|--------------------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 28 56 SHEETS |
| F. A. I. 80/94 | | COOK | 870 | 638 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | CONTRACT NO. 62108 | |



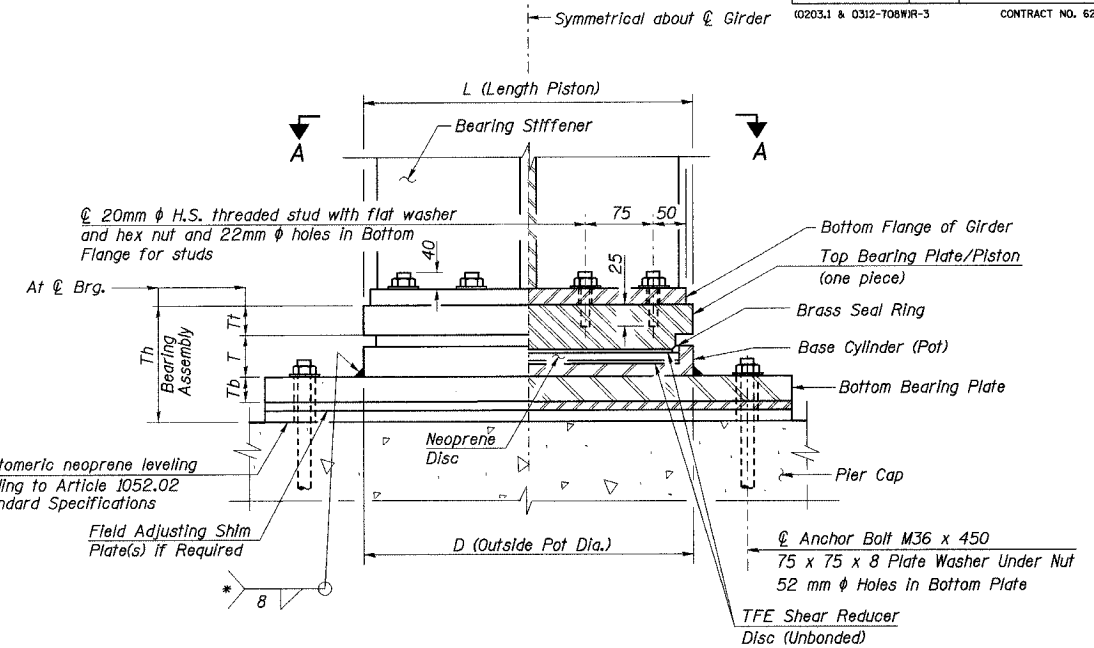
SECTION A-A



TOP BEARING PLATE / PISTON PLAN



BOTTOM BEARING PLATE AND BASE CYLINDER PLAN



HALF SECTION THRU FIXED BEARING

* Weld may be omitted if base cylinder is recessed into bottom bearing plate.

BEARING ASSEMBLY DIMENSIONS

| Member | Dimension | Location | |
|------------------|-----------|----------|--------|
| | | Pier 3 | Pier 4 |
| Top Plate | Wt | 480 | 480 |
| | Lt | 400 | 400 |
| | Tt | 70 | 65 |
| Bearing | D | 380 | 380 |
| | L | 380 | 380 |
| | T | 110 | 110 |
| Bottom Plate | Wb | 750 | 750 |
| | Lb | 430 | 430 |
| | Tb | 55 | 55 |
| Bearing Assembly | Th | 238 | 233 |

BEARING DESIGN INFORMATION

| Design Information | Location | |
|--------------------------------|----------|--------|
| | Pier 3 | Pier 4 |
| Vertical Design Load (kN) | 1352 | 1271 |
| Pay Item Size (kN) | 1500 | 1500 |
| Longitudinal Lateral Load (kN) | 551 | 551 |

Note: Vertical Design Load = Total Vertical Dead Load + Live Load (No Impact)

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--|------|----------|
| Erecting Floating Bearings, Fixed, 1500 kN | Each | 12 |

- Notes:
- All dimensions are in millimeters (mm) except as shown.
 - The structural steel for the top bearing plate/piston and bottom bearing plate shall be AASHTO M 270M Grade 345.
 - Cost of top and bottom bearing plates, 3 mm elastomeric neoprene, and threaded studs with washer shall be included with Furnishing Floating Bearings.
 - For anchor bolt type and details, see Sht. No. 31 of 56 sheets.

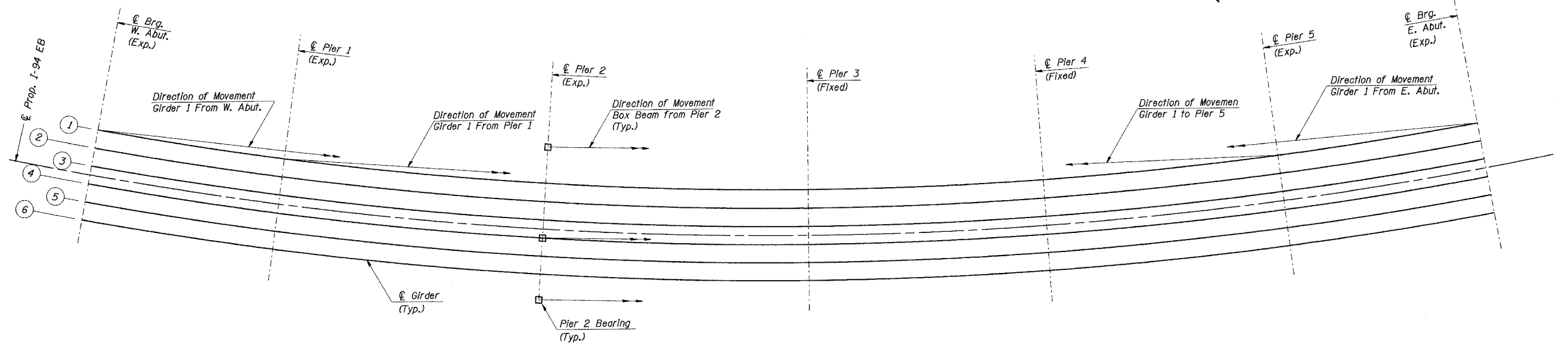
J:\Beauchamp\BA\4052\ACD\1\1\SN_2887\cadd\CTR_19_2887\190814_e_2887.dgn
19-JUL-2005 1:42:28

| | |
|----------|-----|
| DESIGNED | TRL |
| CHECKED | JJK |
| DRAWN | LK |
| CHECKED | JJK |

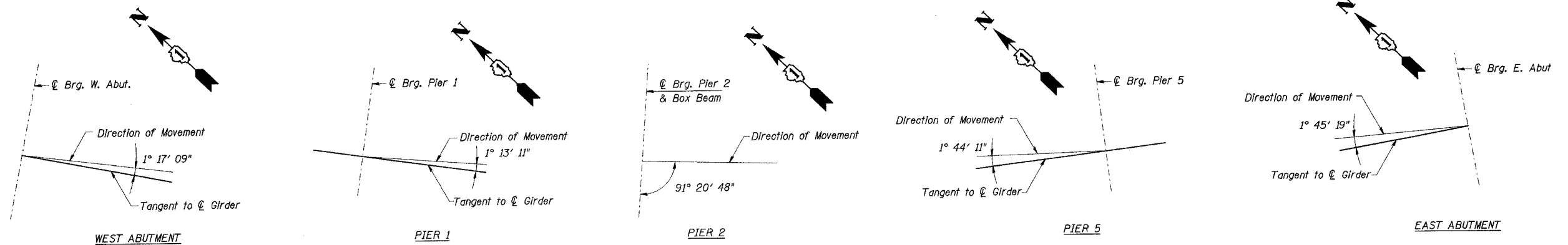
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
FLOATING FIXED BEARINGS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|-------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 30 56 SHEETS |
| F. A. I. 80/94 | . | COOK | 870 | 640 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | CONTRACT NO. 62108 |
| 0203.1 & 0312-708WR-3 | | | | | |



BEARING LAYOUT PLAN



BEARING ORIENTATION

Notes:
1. See Sheet 27 of 56 for Pier 2 bearing orientation details.

J:\Beauchamp\134562\134562.dwg, SN: 2887, CTR: 19, 2887, 198034, 2887.dgn
 08-JUL-2005 14:28

| | |
|----------|-----|
| DESIGNED | TRL |
| CHECKED | JJK |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
BEARING ORIENTATION DETAILS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

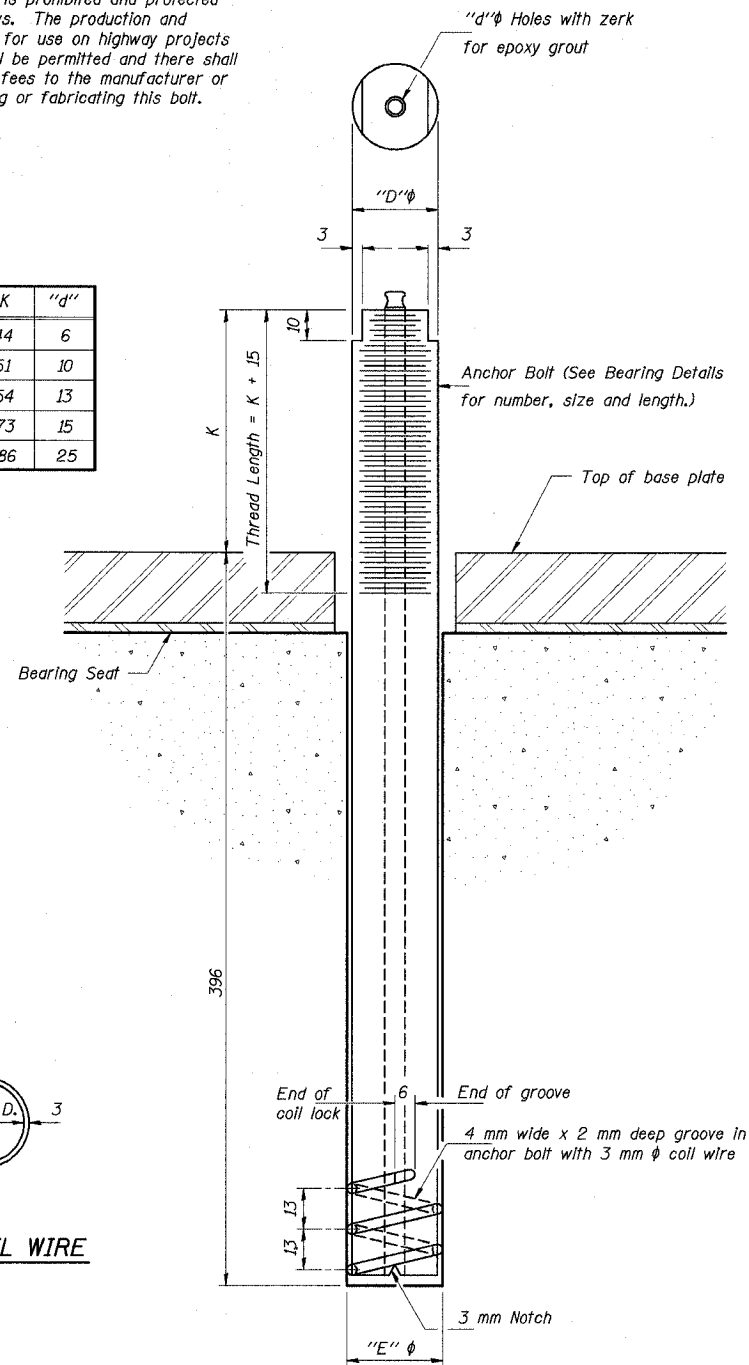
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|------------------------|----------|-------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 31 |
| F. A. I. 80/94 | . | COOK | 870 | 641 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |
| I0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | | |

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

| D | E | H | K | "d" |
|----|----|----|----|-----|
| 24 | 27 | 20 | 44 | 6 |
| 30 | 33 | 26 | 51 | 10 |
| 36 | 39 | 32 | 54 | 13 |
| 48 | 51 | 44 | 73 | 15 |
| 64 | 67 | 60 | 86 | 25 |



ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
The coil wire shall be made of any suitable soft steel wire.
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

| LOCATION | TYPE (A307) | TYPE (A325) |
|----------------|-------------|-------------|
| W. Abut. | M36 x 450 | - |
| Pier 1 | M36 x 450 | - |
| Pier 2-N. Col. | M36 x 450 | - |
| Pier 2-C. Col. | - | M36 x 450 |
| Pier 2-S. Col. | M36 x 450 | - |
| Pier 3 | M36 x 450 | - |
| Pier 4 | M36 x 450 | - |
| Pier 5 | M36 x 450 | - |
| E. Abut. | M36 x 450 | - |

ASTM F 1554 (Fy = 724 MPa), ASTM A 449 and AASHTO M 314 (Fy = 724 MPa) anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
The anchor bolts, furnished and installed including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".
All dimensions are in millimeters (mm) except as noted.

L:\k\ite\j\34562\CAD\B\NSM_2807\cda\CTR_19_2807\br_190044a_2807.dgn 18-AUG-2005 13:28

| | |
|----------|-----|
| DESIGNED | TRL |
| CHECKED | JJK |
| DRAWN | LK |
| CHECKED | JJK |

ABB-1 (M) 4-30-99

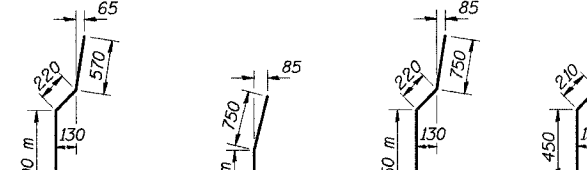
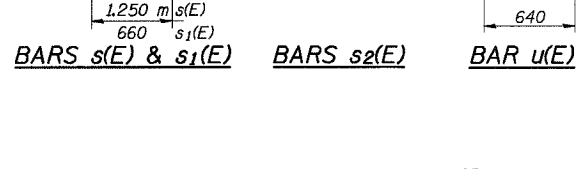
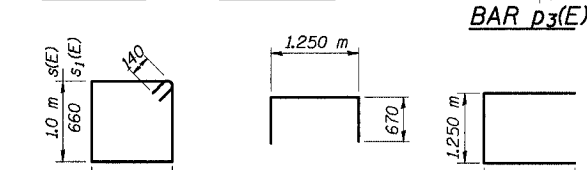
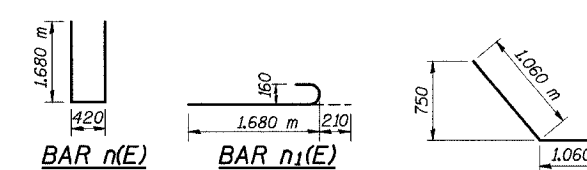
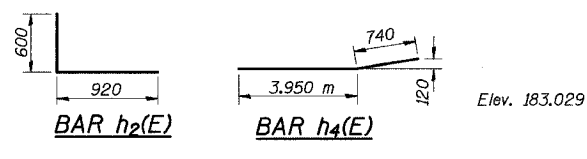
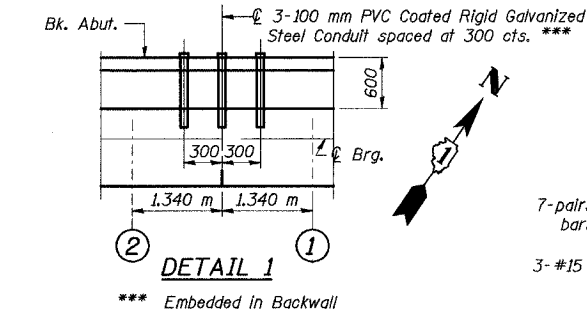
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
ANCHOR BOLT DETAILS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--|---------|--------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 32 |
| F. A. I. 80/94 | * | COOK | 870 | 642 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT- | | | CONTRACT NO. 62108 | | |
| (0203.1 & 0312-708W) R-3 | | | | | |

**BILL OF MATERIAL
W. ABUTMENT**

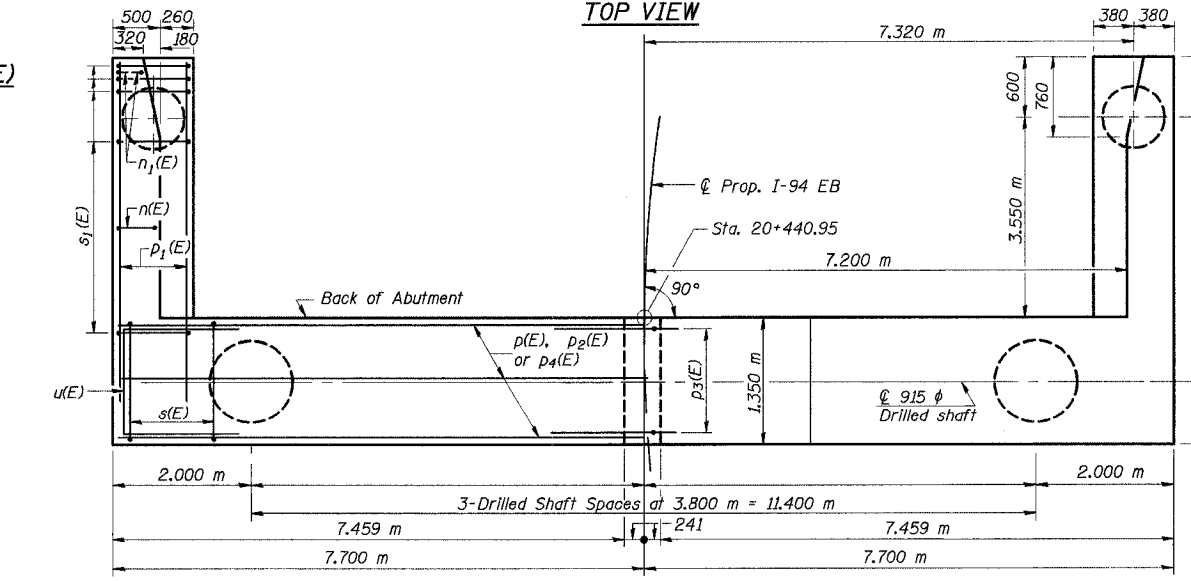
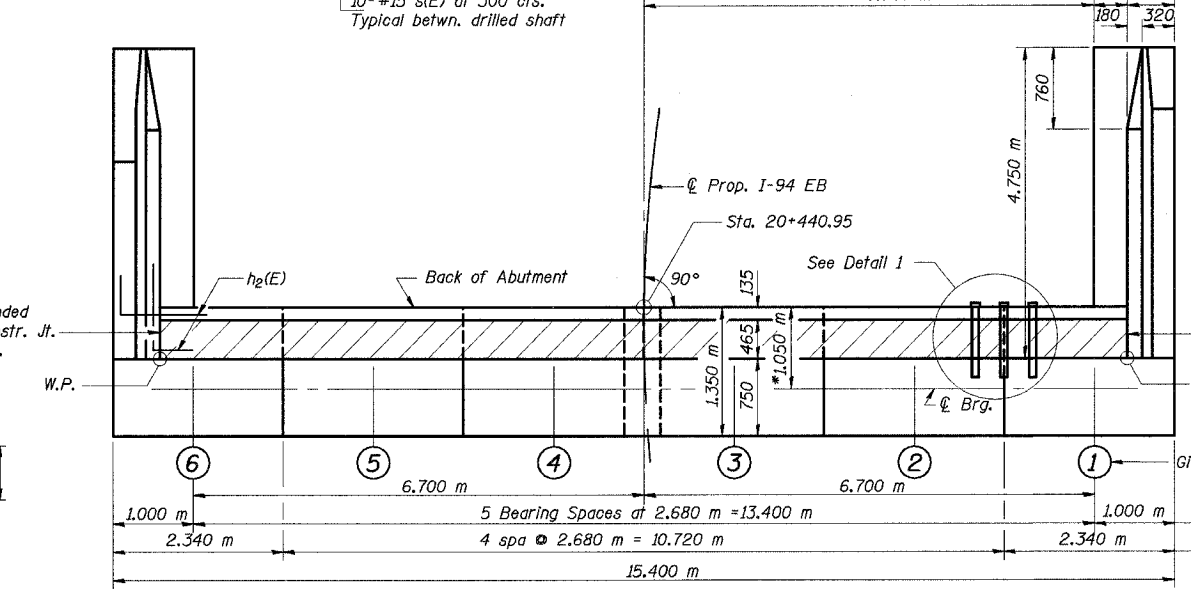
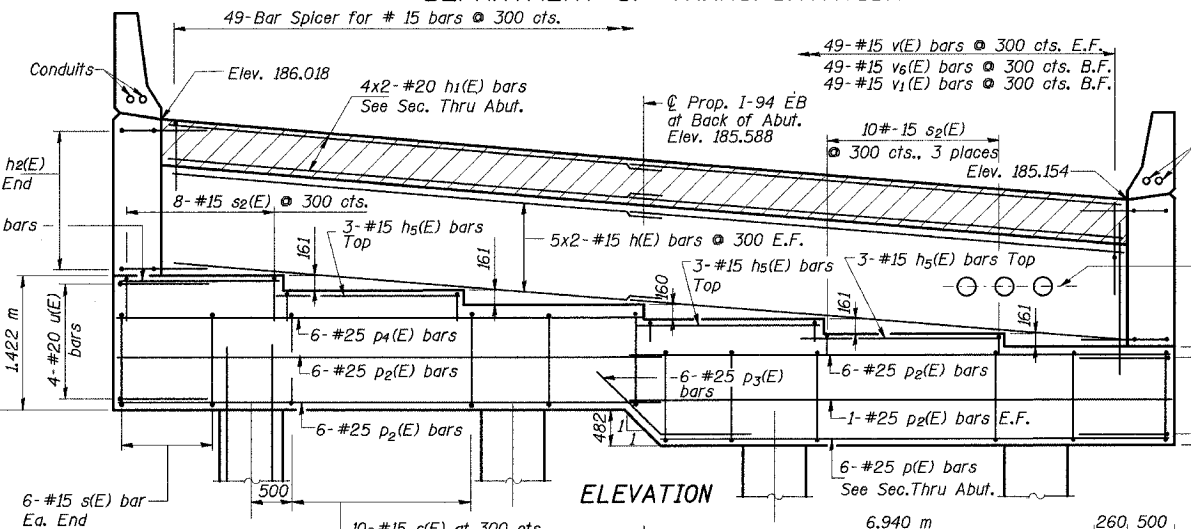
| Bar | No. | Size | Length (m) | Shape |
|---|----------------|----------|------------|-------|
| h(E) | 20 | #15 | 7.47 | |
| h1(E) | 8 | #20 | 7.53 | |
| h2(E) | 28 | #15 | 1.52 | |
| h3(E) | 27 | #15 | 4.67 | |
| h4(E) | 17 | #15 | 4.71 | |
| h5(E) | 9 | #15 | 3.20 | |
| h6(E) | 3 | #15 | 2.26 | |
| h7(E) | 4 | #15 | 1.92 | |
| n(E) | 28 | #20 | 3.78 | |
| n1(E) | 12 | #20 | 1.89 | |
| ne(E) | 56 | #20 | 2.37 | |
| p(E) | 6 | #25 | 7.42 | |
| p1(E) | 12 | #25 | 5.77 | |
| p2(E) | 20 | #25 | 8.19 | |
| p3(E) | 6 | #25 | 2.12 | |
| p4(E) | 6 | #25 | 7.62 | |
| s(E) | 42 | #15 | 4.78 | |
| s1(E) | 32 | #15 | 2.92 | |
| s2(E) | 38 | #15 | 2.59 | |
| u(E) | 7 | #20 | 2.53 | |
| v(E) | 98 | #15 | 1.90 | |
| v1(E) | 49 | #15 | 0.60 | |
| v2(E) | 14 | #20 | 2.33 | |
| v3(E) | 6 | #20 | 2.53 | |
| v4(E) | 14 | #20 | 2.29 | |
| v5(E) | 11 | #20 | 2.52 | |
| v6(E) | 49 | #15 | 1.03 | |
| v8(E) | 16 | #15 | 0.95 | |
| v9(E) | 3 | #20 | 2.29 | |
| sp | 4 | #15 | 182.0 | |
| sp1 | 2 | #15 | 101.7 | |
| v7 | 56 | #20 | 11.9 | |
| Item | Unit | Quantity | | |
| Structure Excavation | m ³ | 137 | | |
| Porous Granular Embankment (Special) | m ³ | 75 | | |
| Concrete Structures | m ³ | 47.1 | | |
| Reinforcement Bars, Epoxy Coated | kg | 4,250 | | |
| Reinforcement Bars, Drilled shaft in soil 610mm | m | 25 | | |
| Reinforcement Bars, Drilled shaft in soil 915mm | m | 49 | | |



SEAT ELEVATIONS

| Girder No. | Elevation |
|------------|-----------|
| 1 | 183.647 |
| 2 | 183.808 |
| 3 | 183.969 |
| 4 | 184.129 |
| 5 | 184.290 |
| 6 | 184.451 |

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |



** General Contractor to coordinate with Electrical Contractor for location of embedded conduits. Paid under Electrical work, but installed by Bridge Contractor. Installation included for payment under Concrete Structures.

* Measured along \varnothing Prop. I-94 EB

MIN. BAR LAP
#15 = 510
#20 = 640
#25 = 1060

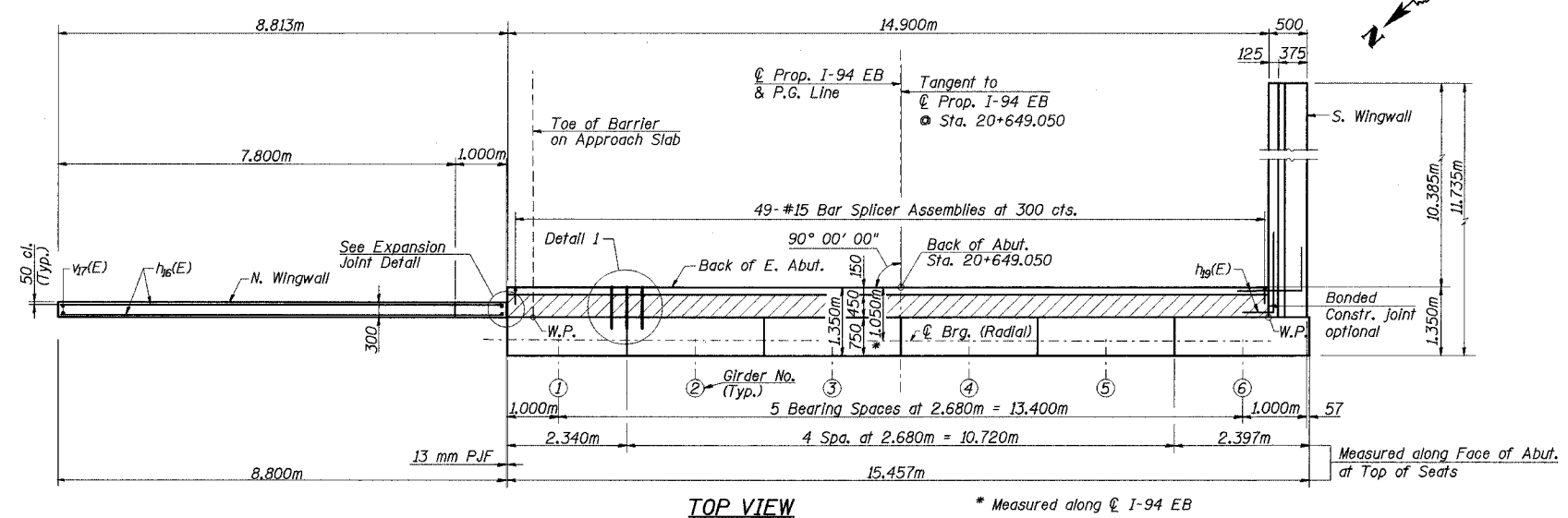
- NOTES:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Work this sheet with 33 of 56

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
WEST ABUTMENT PLAN & ELEVATION
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

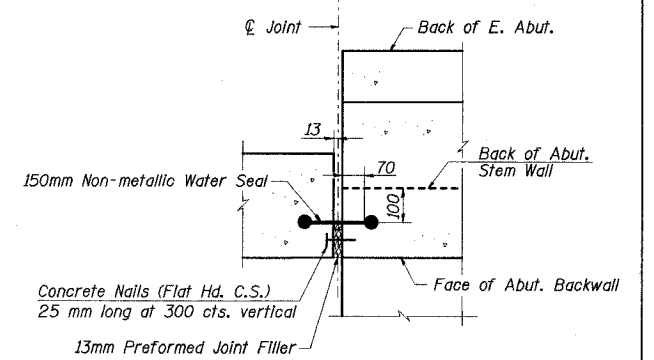
J:\Beauchamp\3134652\CADD\BA\SN_2807\cadd\CTR_19_2807\ebf\98114a_2807.dgn
08-SEP-2005 13:54

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

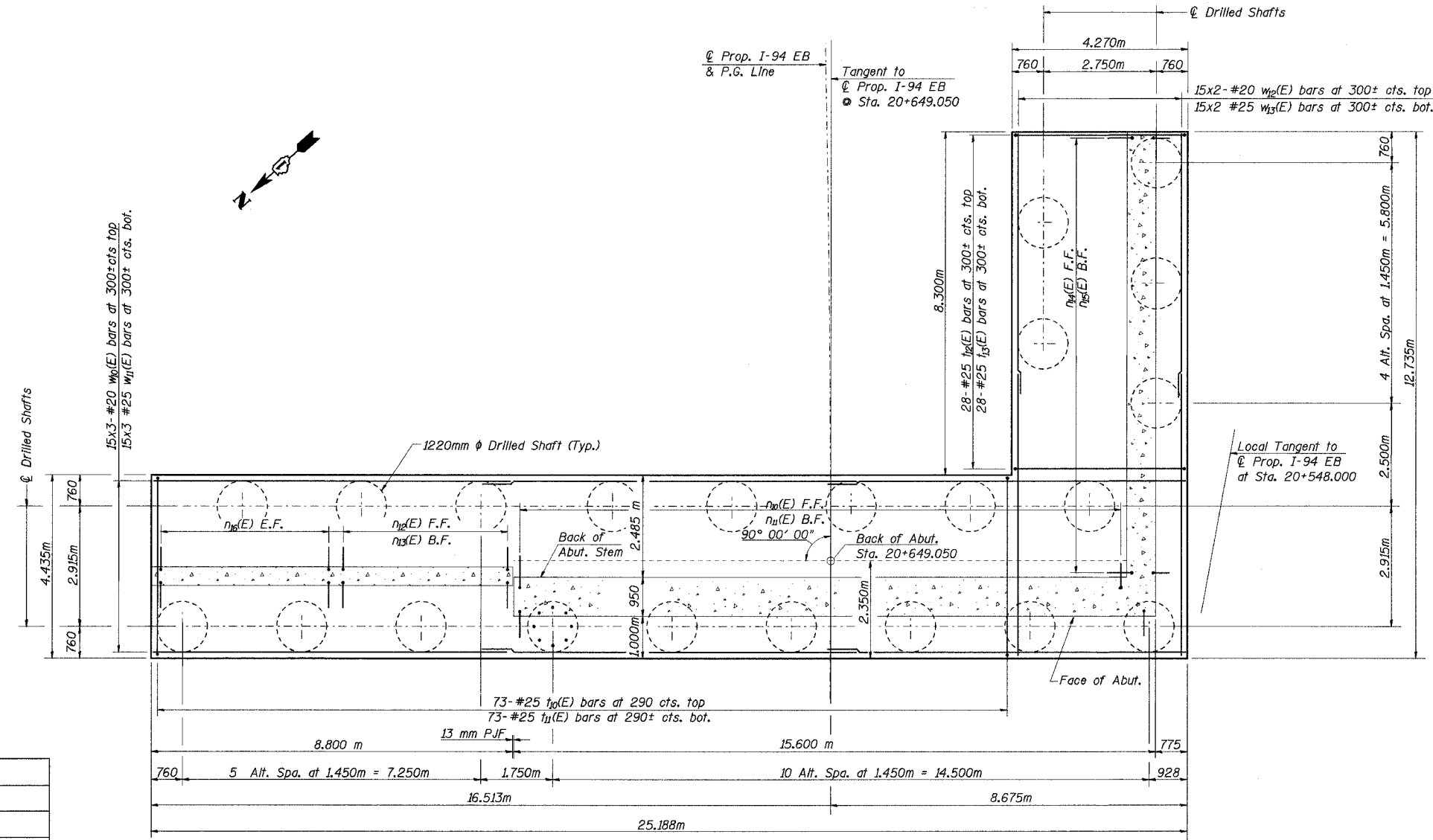
| | | | | | |
|-----------------------|----------|--------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 34 |
| F. A. I. 80/94 | * | COOK | 870 | 644 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |
| 0203.1 & 0312-708WR-3 | | CONTRACT NO. 62108 | | | |



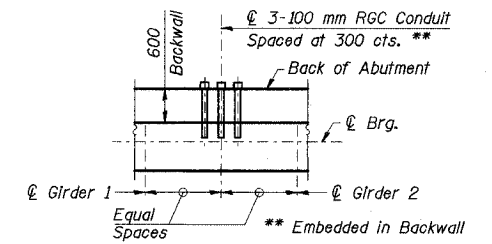
TOP VIEW



EXPANSION JOINT



PLAN - FOOTING



DETAIL 1

General Contractor to coordinate with the Electrical Contractor before embedding the conduits.

- Notes:
- All dimensions are in millimeters unless otherwise noted.
 - Work this sheet with Sheets 35-37 of 56.

| | |
|----------|-----|
| DESIGNED | JJK |
| CHECKED | KGN |
| DRAWN | LK |
| CHECKED | KGN |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
EAST ABUTMENT & WINGWALL
TOP VIEW & FOOTING PLAN
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

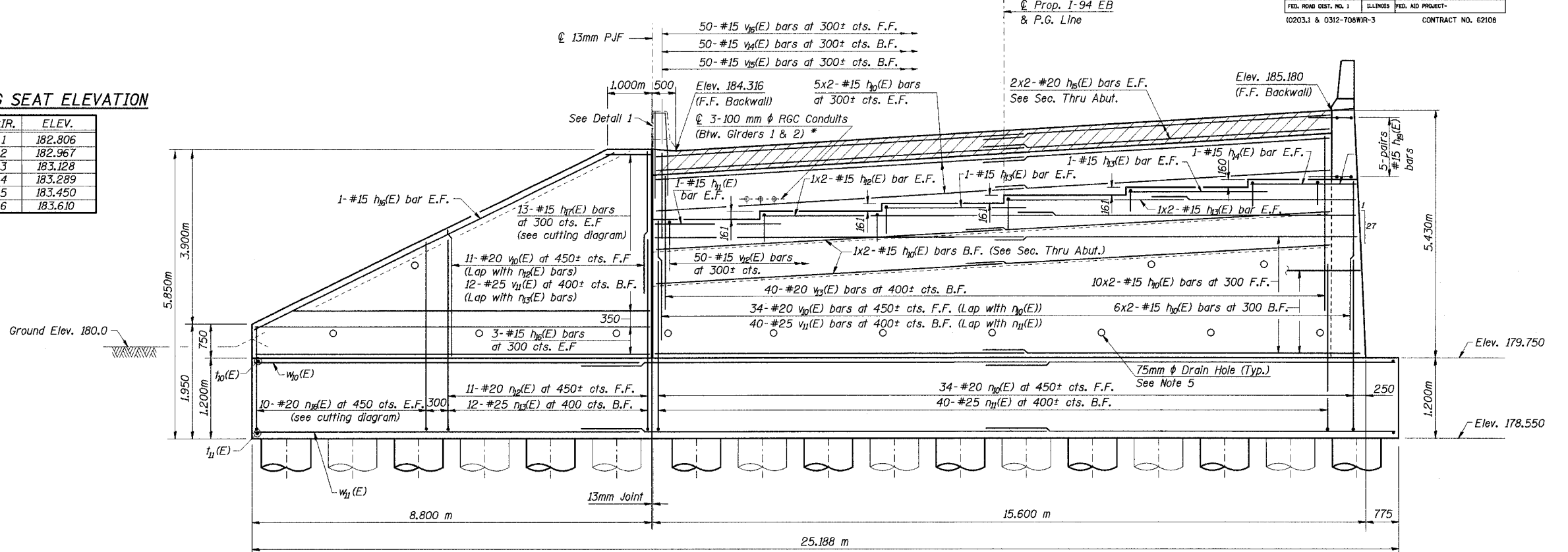
J:\Beauchamp\JA\34562\CA00\B\SN-2807\CADD\CTR-19-2807\eb1\90034e-2807.dgn
08-SEP-2005 13:56

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|--------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 35 |
| F. A. I. 80/94 | * | COOK | 870 | 645 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |
| 0203.1 & 0312-708WR-3 | | CONTRACT NO. 62108 | | | |

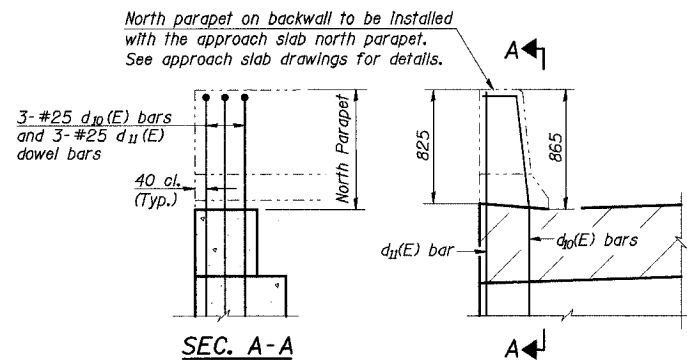
BEARING SEAT ELEVATION

| GIR. | ELEV. |
|------|---------|
| 1 | 182.806 |
| 2 | 182.967 |
| 3 | 183.128 |
| 4 | 183.289 |
| 5 | 183.450 |
| 6 | 183.610 |

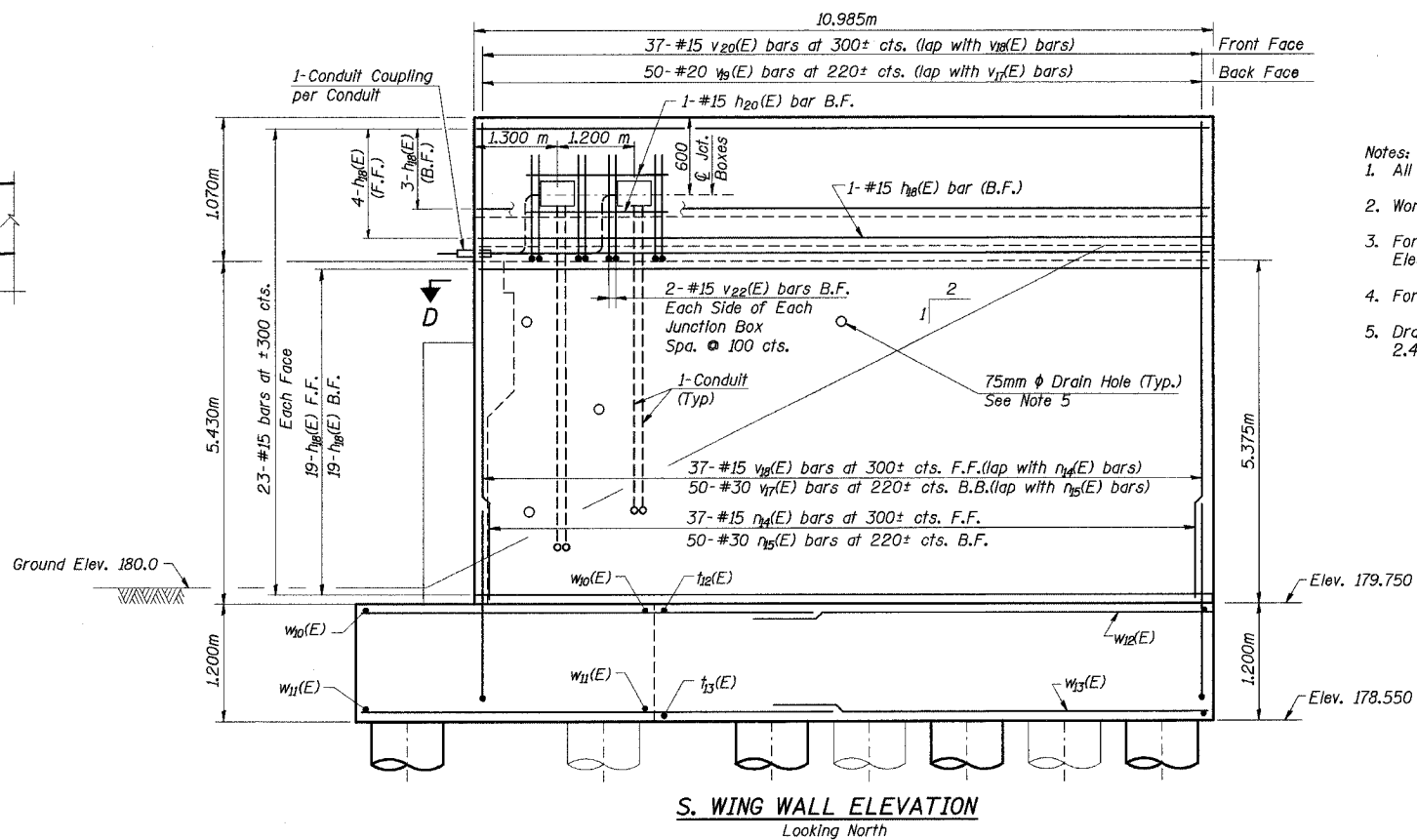


N. WING WALL AND ABUTMENT ELEVATION
Looking East

* General Contractor to coordinate with Electrical Contractor for location of embedded conduits. Paid under electrical work but installed by Bridge Contractor. Installation included for payment under Concrete Structures.



DETAIL 1
North Parapet on Backwall



S. WING WALL ELEVATION
Looking North

- Notes:
- All dimensions are in millimeters unless otherwise noted.
 - Work this sheet with Sheets 34, 36, & 37 of 56.
 - For details of Junction Box and method of payment, see Electrical Drawings.
 - For method of payment of conduit, see Electrical Drawings.
 - Drain holes in Abutment and Wingwalls to be provided at 2.400m cts. horizontally and 1.800m cts. vertically.

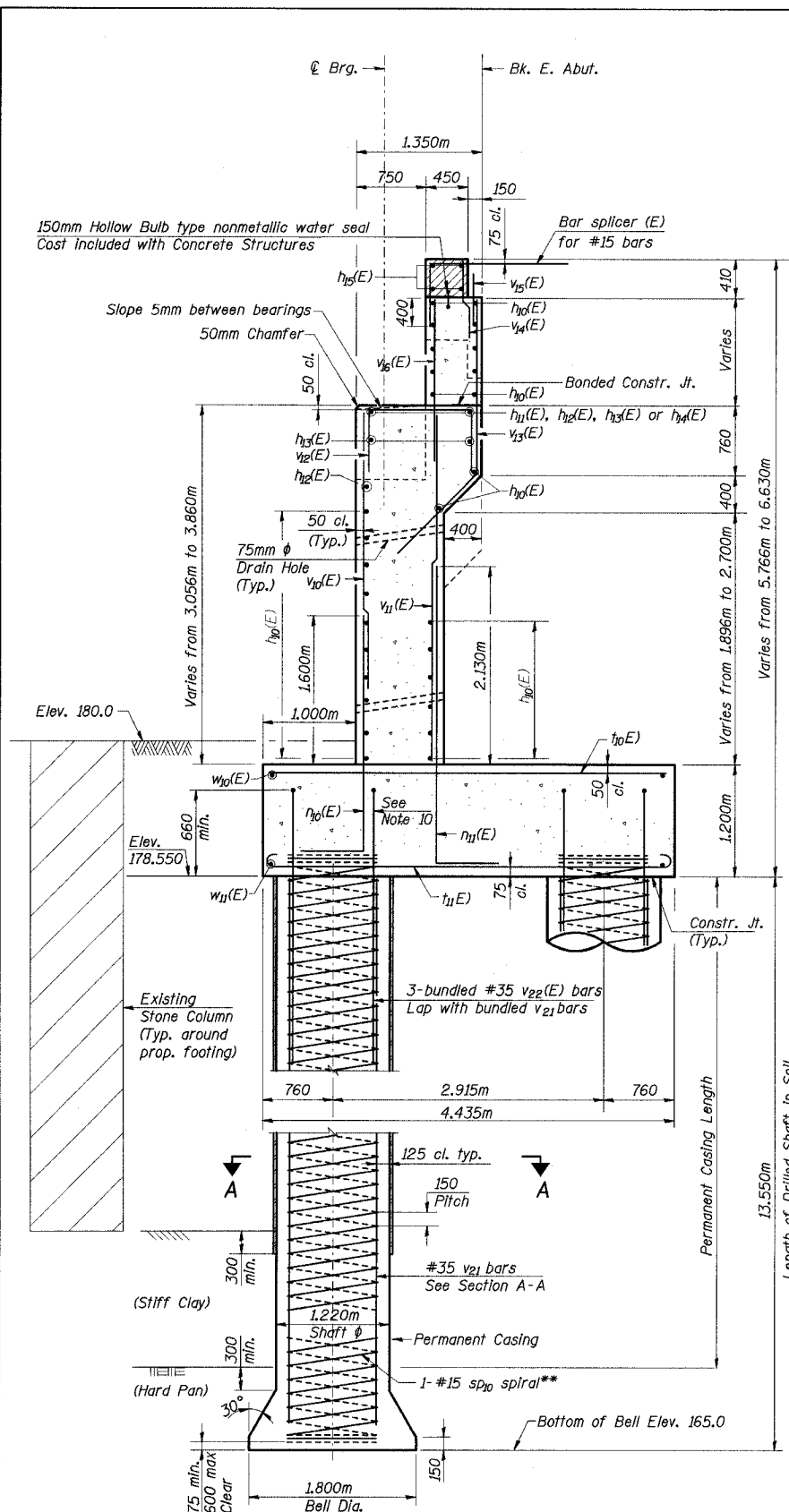
| | |
|----------|-----|
| DESIGNED | JJK |
| CHECKED | KGN |
| DRAWN | LK |
| CHECKED | KGN |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
EAST ABUTMENT & WINGWALLS
ELEVATIONS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

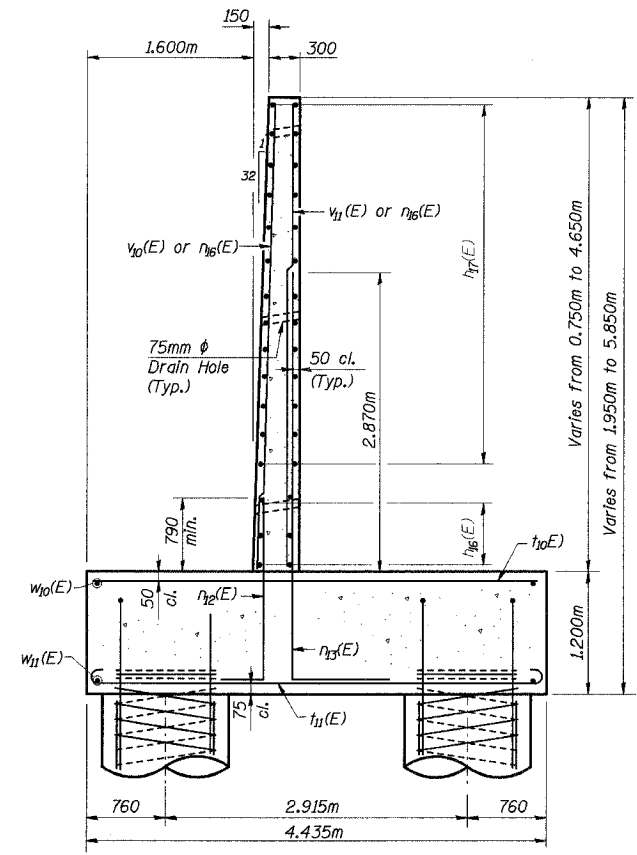
| | | | | | |
|------------------------|----------|-------------------|--------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 36 |
| F. A. I. 80/94 | | COOK | 870 | 646 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |
| I0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | | |



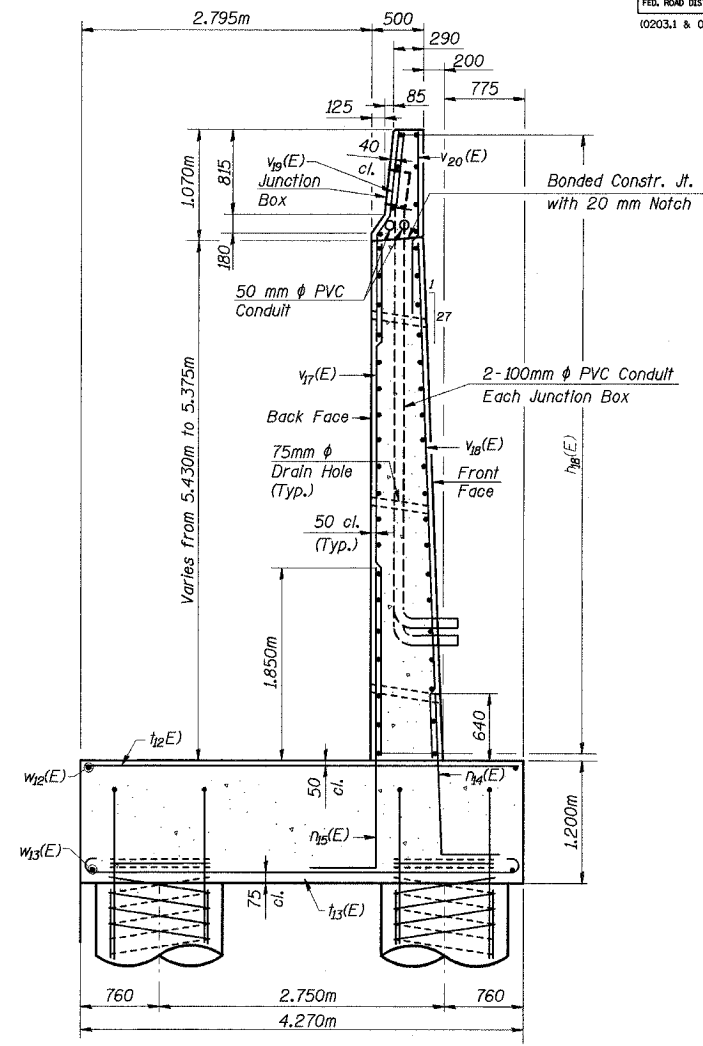
SECTION THRU E. ABUT. & DRILLED SHAFT
Looking North

** Provide 1-1/2 extra turns top and bottom of each drilled shaft. Spiral bar length based upon using 15m maximum bar length with 640mm minimum lap splice. Extend spiral 50mm into abutment footing. Provide min. 4-#15 spacers or equivalent (cost included with Reinforcement Bars).

| | |
|----------|-----|
| DESIGNED | JJK |
| CHECKED | KGN |
| DRAWN | LK |
| CHECKED | KGN |

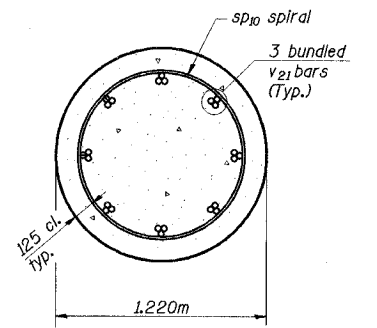


SECTION N. W.W.
Looking North



SECTION S. W.W.
Looking East

- Notes:
- All dimensions are in millimeters unless otherwise noted.
 - Work this sheet with Sheets 34-36 of 56.
 - Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
 - Drilled shafts shall be installed according to the IDOT Guide Bridge Special Provision for Drilled Shafts.
 - Drilled Shaft Sequence of Construction: The installation of the drilled shafts shall be sequenced such that no adjacent drilled shafts are installed at the same time. See construction requirements of the IDOT Guide Bridge Special Provision.
 - Bottom of Bell Elevation, shaft length and shaft reinforcement lengths shown are estimates and should be verified and adjusted in the field as directed by the Engineer.
 - If field conditions dictate a shorter shaft length than shown, the Contractor shall cut the reinforcement bars to the required length or increase the lap length. If the shaft length is longer than indicated, the Contractor shall extend the reinforcement by providing additional reinforcement of equal size and lapping with the minimum lap length shown or increase the clearance at the bottom as indicated.
 - The drilled shaft and reinforcement shall be adjusted as required by the Engineer. Additional quantities furnished by the Contractor will be paid for at the unit price bid for the work.
 - At all locations where the reinforcement bars are not in direct contact, the Contractor shall provide sufficient spacing between the vertical bars, equal to the size of the largest concrete aggregate plus 15mm.
 - Orient hooks to allow placement of footing bars and stagger hooks vertically as needed.



SECTION A-A

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
**EAST ABUTMENT & WINGWALLS
SECTIONS & DRILLED SHAFT DETAILS**
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (I0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

JKm
e:\34565\CADD\N.SN_2807\cde\CTR_19_2807\ab\90044a_2807.dgn
18-AUG-2005 17:23

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------------------------|--------------|--------------------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 37 |
| F. A. I. 80/94 | * | COOK | 870 | 647 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FEEL AID PROJECT- | | CONTRACT NO. 62108 | |
| 0203.1 & 0312-708WR-3 | | | | | |

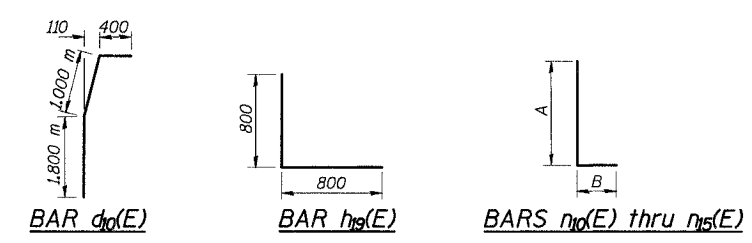
BILL OF MATERIAL

| Bar | No. | Size | Length (m) | Shape |
|--------------------------------------|----------------|----------|------------|-------|
| d ₀ (E) | 3 | 3 | 3 | — |
| d ₁ (E) | 3 | 3 | 3 | — |
| h ₀ (E) | 56 | 56 | 56 | — |
| h ₁ (E) | 2 | 2 | 2 | — |
| h ₂ (E) | 4 | 4 | 4 | — |
| h ₃ (E) | 8 | 8 | 8 | — |
| h ₄ (E) | 2 | 2 | 2 | — |
| h ₅ (E) | 8 | 8 | 8 | — |
| h ₆ (E) | 8 | 8 | 8 | — |
| h ₇ (E) | 13 | 13 | 13 | — |
| h ₈ (E) | 46 | 46 | 46 | — |
| h ₉ (E) | 10 | 10 | 10 | — |
| h ₂₀ (E) | 2 | 2 | 2 | — |
| h ₁₀ (E) | 34 | 34 | 34 | — |
| h ₁₁ (E) | 40 | 40 | 40 | — |
| h ₁₂ (E) | 11 | 11 | 11 | — |
| h ₁₃ (E) | 12 | 12 | 12 | — |
| h ₁₄ (E) | 37 | 37 | 37 | — |
| h ₁₅ (E) | 50 | 50 | 50 | — |
| h ₁₆ (E) | 10 | 10 | 10 | — |
| sp ₁₀ | 22 | 22 | 22 | MMMM |
| t ₁₀ (E) | 73 | 73 | 73 | — |
| t ₁₁ (E) | 73 | 73 | 73 | — |
| t ₁₂ (E) | 28 | 28 | 28 | — |
| t ₁₃ (E) | 28 | 28 | 28 | — |
| v ₁₀ (E) | 45 | 45 | 45 | — |
| v ₁₁ (E) | 52 | 52 | 52 | — |
| v ₁₂ (E) | 50 | 50 | 50 | — |
| v ₁₃ (E) | 40 | 40 | 40 | — |
| v ₁₄ (E) | 50 | 50 | 50 | — |
| v ₁₅ (E) | 50 | 50 | 50 | — |
| v ₁₆ (E) | 50 | 50 | 50 | — |
| v ₁₇ (E) | 50 | 50 | 50 | — |
| v ₁₈ (E) | 37 | 37 | 37 | — |
| v ₁₉ (E) | 50 | 50 | 50 | — |
| v ₂₀ (E) | 37 | 37 | 37 | — |
| v ₂₁ | 528 | 528 | 528 | — |
| v ₂₂ (E) | 8 | 8 | 8 | — |
| w ₁₀ (E) | 45 | 45 | 45 | — |
| w ₁₁ (E) | 45 | 45 | 45 | — |
| w ₁₂ (E) | 30 | 30 | 30 | — |
| w ₁₃ (E) | 30 | 30 | 30 | — |
| Item | Unit | Quantity | | |
| Structure Excavation | m ³ | 346 | | |
| Concrete Structures | m ³ | 297.6 | | |
| Reinforcement Bars, Epoxy Coated | kg | 15,830 | | |
| Reinforcement Bars | kg | 71,050 | | |
| Bar Splicers | Each | 49 | | |
| Porous Granular Embankment (Special) | m ³ | 716 | | |
| Permanent Casing | m | 254.1 | | |
| Drilled Shaft in Soil, 1220 mm | m | 298.1 | | |

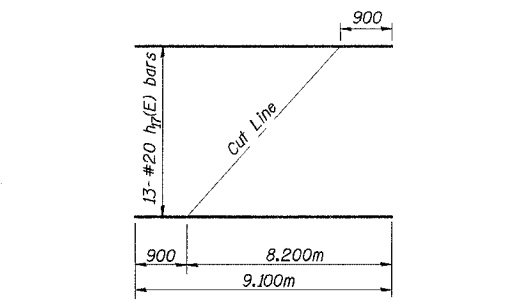
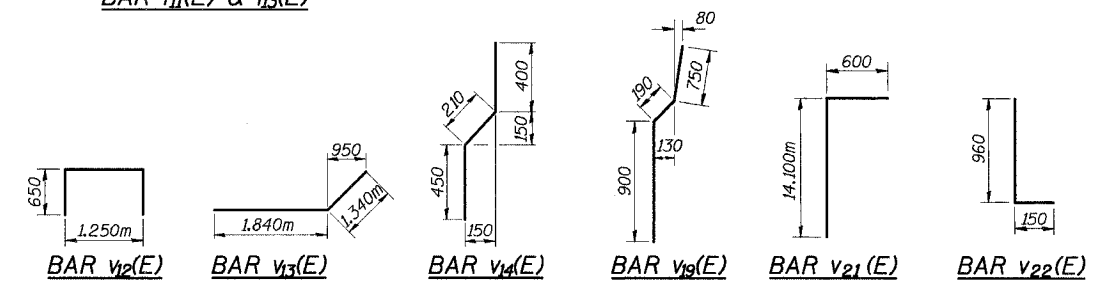
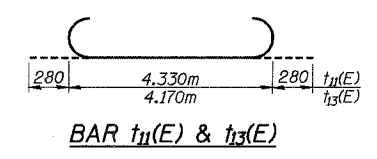
* Length shown is height of spiral.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
EAST ABUTMENT & WINGWALLS
DETAILS & BILL OF MATERIALS
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

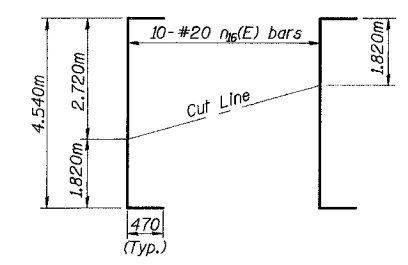


| Rebar | A (m) | B (m) |
|---------------------|-------|-------|
| n ₁₀ (E) | 2.720 | 0.470 |
| n ₁₁ (E) | 3.250 | 0.550 |
| n ₁₂ (E) | 3.510 | 0.470 |
| n ₁₃ (E) | 4.000 | 0.550 |
| n ₁₄ (E) | 1.800 | 0.410 |
| n ₁₅ (E) | 3.000 | 0.650 |



FIELD CUTTING DIAGRAM for h₁₇(E) bars

Order h₁₇(E) full length. Cut as shown for F.F. and use remainder of bars in B.F.



FIELD CUTTING DIAGRAM for n₁₆(E) bars

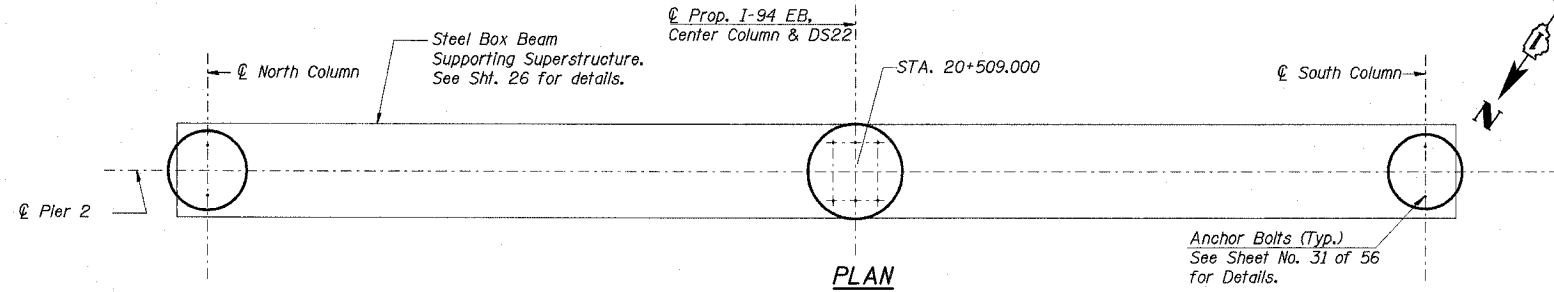
Order n₁₆(E) full length. Cut as shown for F.F. and use remainder of bars in B.F.

| | |
|----------|-----|
| DESIGNED | JJK |
| CHECKED | KGN |
| DRAWN | LK |
| CHECKED | KGN |

Jk:m
e:\34562\CADD\B1\SN_2807\cda\CTR_19_2807\cda\024_2807.dgn
18-AUG-2005 16:11

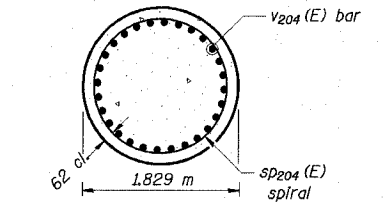
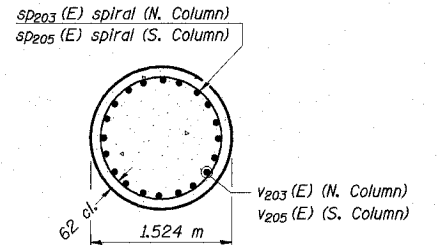
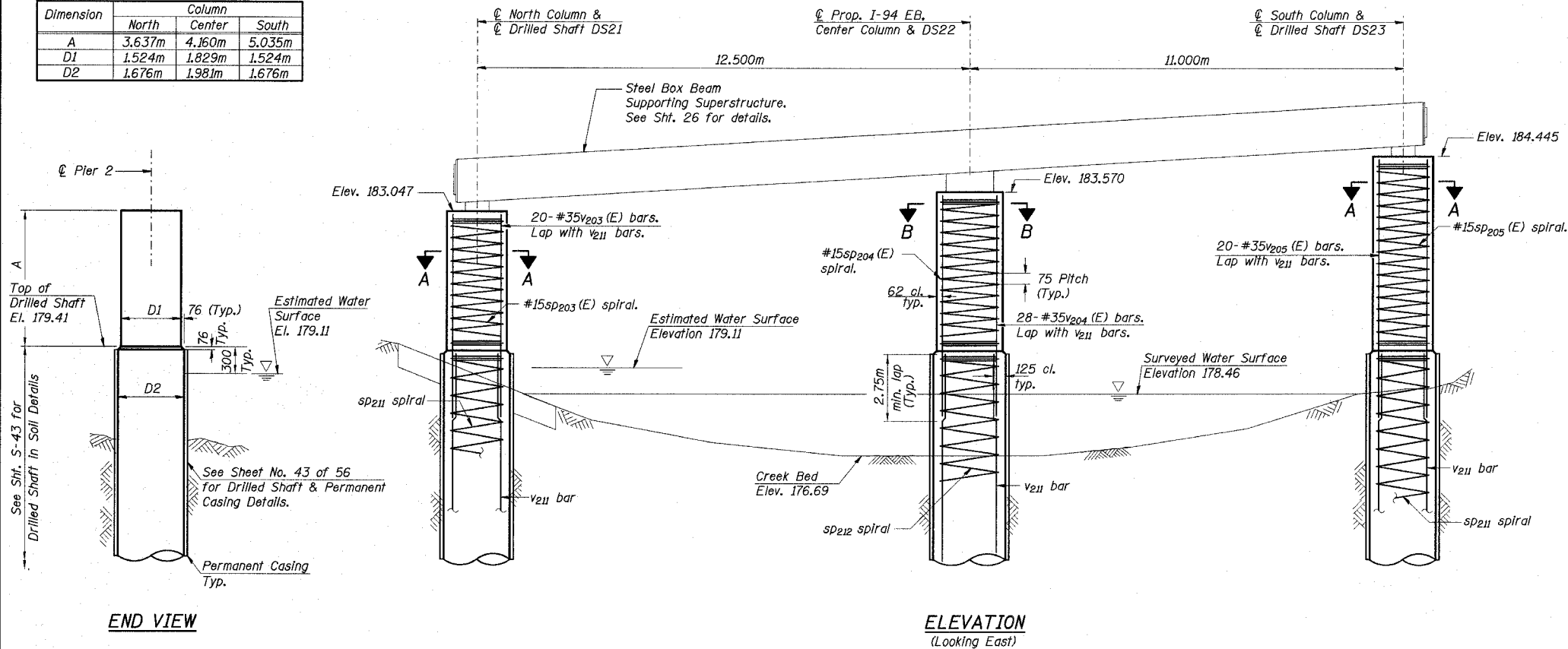
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------------------------|--------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 39 56 SHEETS |
| F. A. I. 80/94 | | COOK | 870 | 649 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | | |
| 0203.1 & 0312-708WR-3 | | CONTRACT NO. 62108 | | | |



DIMENSION TABLE

| Dimension | Column | | |
|-----------|--------|--------|--------|
| | North | Center | South |
| A | 3.637m | 4.160m | 5.035m |
| D1 | 1.524m | 1.829m | 1.524m |
| D2 | 1.676m | 1.981m | 1.676m |



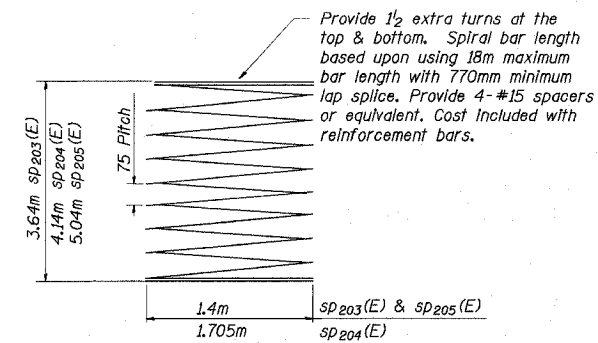
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|----------------|--------|-------|
| ** SP203 (E) | 1 | #15 | 3.64 | MM |
| ** SP204 (E) | 1 | #15 | 4.14 | MM |
| ** SP205 (E) | 1 | #15 | 5.04 | MM |
| V203 (E) | 20 | #35 | 6.39 | --- |
| V204 (E) | 28 | #35 | 6.89 | --- |
| V205 (E) | 20 | #35 | 7.79 | --- |
| Concrete Structures | | m ³ | 29.8 | |
| Reinforcement Bars, Epoxy Coated | | kg | 5130 | |

Reinforcement Bars designated (E) shall be epoxy coated.

**Length is height of spiral.

All dimensions are in millimeters (mm) except as noted.



* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

| | |
|----------|-----|
| DESIGNED | OD |
| CHECKED | TFS |
| DRAWN | OD |
| CHECKED | TFS |

L:\state\j\34562\CADD\B\SN_2807\cadd\CTR_19_2807\p192224e_2807.dgn 18-AUG-2005 13:21

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

PIER 2

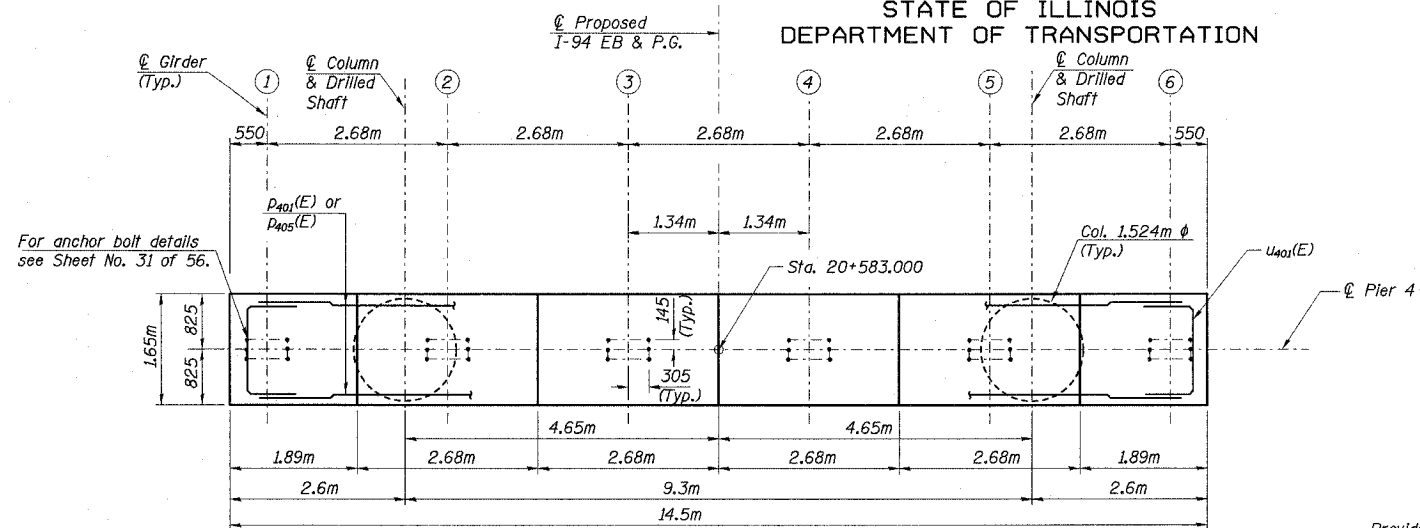
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807

DATE JUL 18, 2005
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

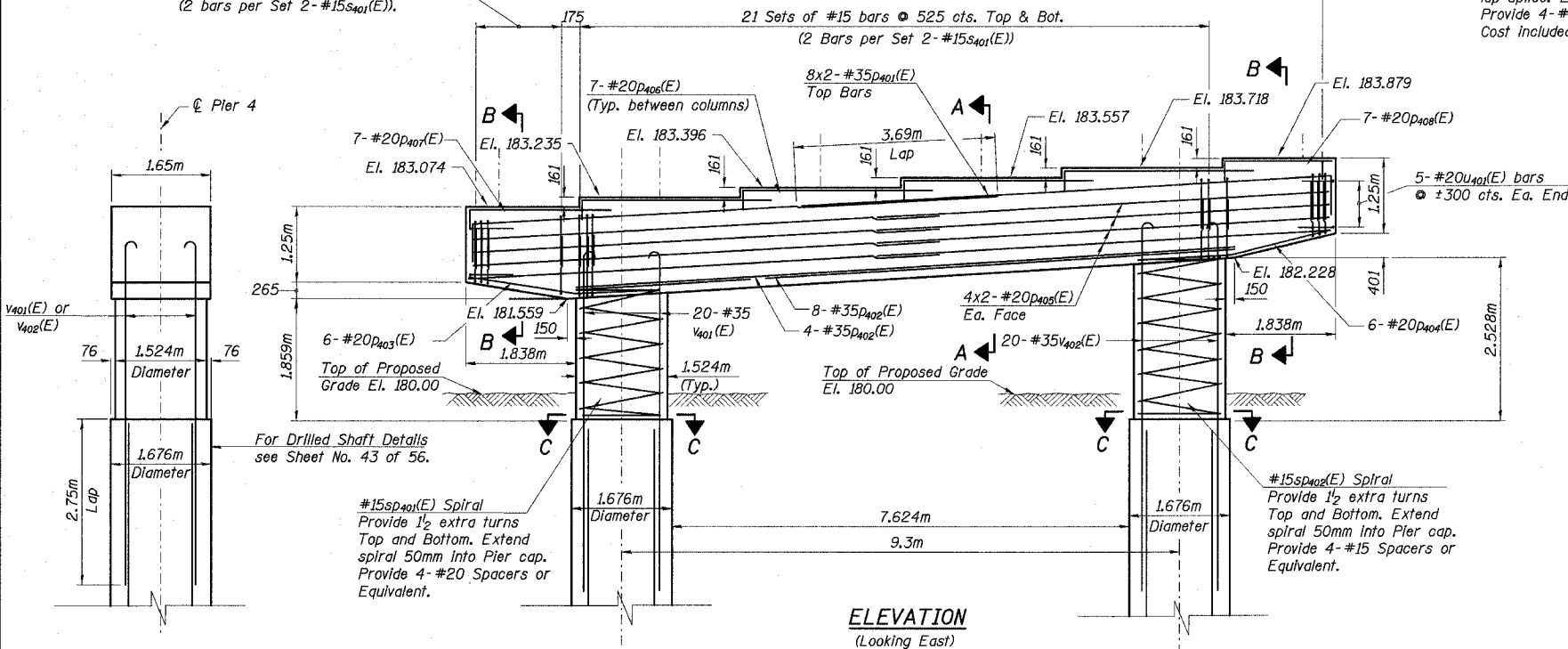
| | | | | | |
|------------------------|---------|----------------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 41 |
| F. A. I. 80/94 | * | COOK | 870 | 651 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | | |
| I0203.1 & 0312-708WR-3 | | CONTRACT NO. 62108 | | | |



TOP PLAN

4 Sets of #15 bars @ equal spaces. Top & Bot. (Typ. each End) (2 bars per Set 2-#15s401(E)).

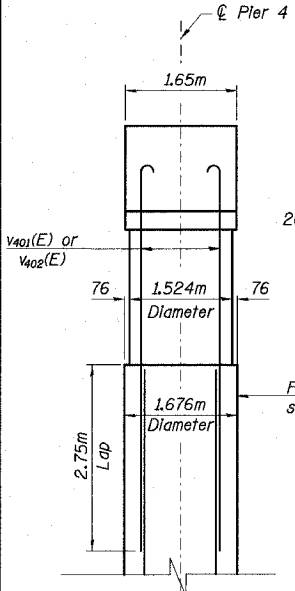
Provide 1/2 extra turns at the top & bottom. Spiral bar length based upon using 18m maximum bar length with 770mm minimum lap splice. Extend spiral 50mm into pier cap. Provide 4-#15 spacers or equivalent. Cost included with reinforcement bars.



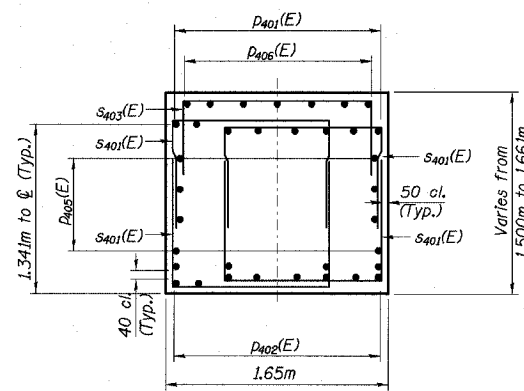
ELEVATION (Looking East)

#15sp401(E) Spiral Provide 1/2 extra turns Top and Bottom. Extend spiral 50mm into Pier cap. Provide 4-#20 Spacers or Equivalent.

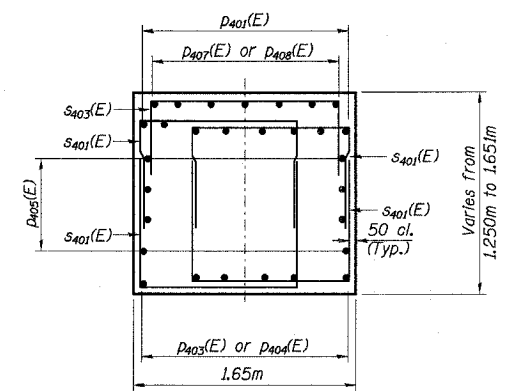
#15sp402(E) Spiral Provide 1/2 extra turns Top and Bottom. Extend spiral 50mm into Pier cap. Provide 4-#15 Spacers or Equivalent.



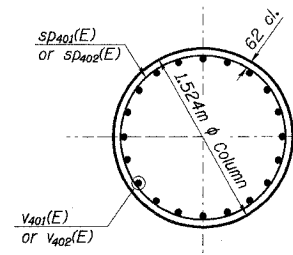
END VIEW



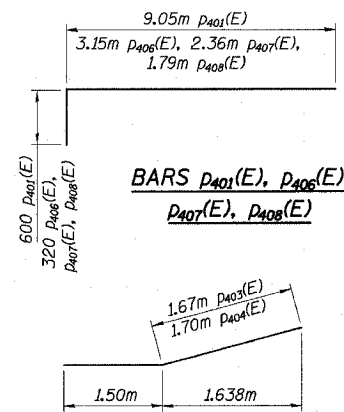
SECTION A-A



SECTION B-B

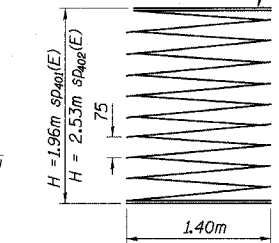


SECTION C-C

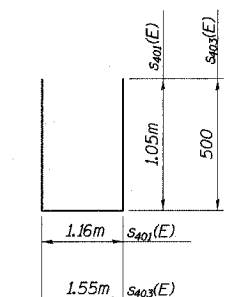


BARS P401(E), P406(E), P407(E), P408(E)

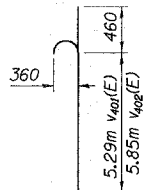
BARS P403(E) & P404(E)



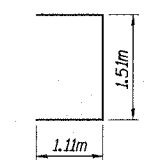
BARS SP401(E) & SP402(E)



BARS S401(E) & S403(E)



BARS V401(E) & V402(E)



BAR U401(E)

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|----------------------------------|-----|------|--------|----------------|------|
| P401(E) | 16 | #35 | 9.65 | □ | |
| P406(E) | 12 | #35 | 11.02 | □ | |
| P407(E) | 6 | #20 | 3.17 | □ | |
| P408(E) | 6 | #20 | 3.20 | □ | |
| P403(E) | 16 | #20 | 7.76 | □ | |
| P404(E) | 28 | #20 | 3.47 | □ | |
| P407(E) | 7 | #20 | 2.68 | □ | |
| P408(E) | 7 | #20 | 2.11 | □ | |
| S401(E) | 116 | #15 | 3.26 | □ | |
| S403(E) | 48 | #15 | 2.55 | □ | |
| V401(E) | 20 | #35 | 5.75 | □ | |
| V402(E) | 20 | #35 | 6.31 | □ | |
| U401(E) | 10 | #20 | 3.73 | □ | |
| SP401(E) | 1 | #15 | 1.96 | □ | |
| SP402(E) | 1 | #15 | 2.53 | □ | |
| Reinforcement Bars, Epoxy Coated | | | | kg | 6180 |
| Concrete Structures | | | | m ³ | 45.9 |

Reinforcement Bars designated (E) shall be epoxy coated. **Length is height of spiral.

NOTES

- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with the cap.
- All dimensions are in millimeters, except as noted.
- Bars indicated thus 9 x 2 - #35 etc. indicates 9 line of bars with 2 lengths per line.
- For drilled shaft details and reinforcement, see Sheet No. 43 of 56.

MIN. BAR LAPS

- #35 Top bars = 3.69m
- #35 Others = 2.64m
- #20 Top bars = 1.11m
- #20 Others = 790
- #15 Others = 640
- #15 Spiral = 770

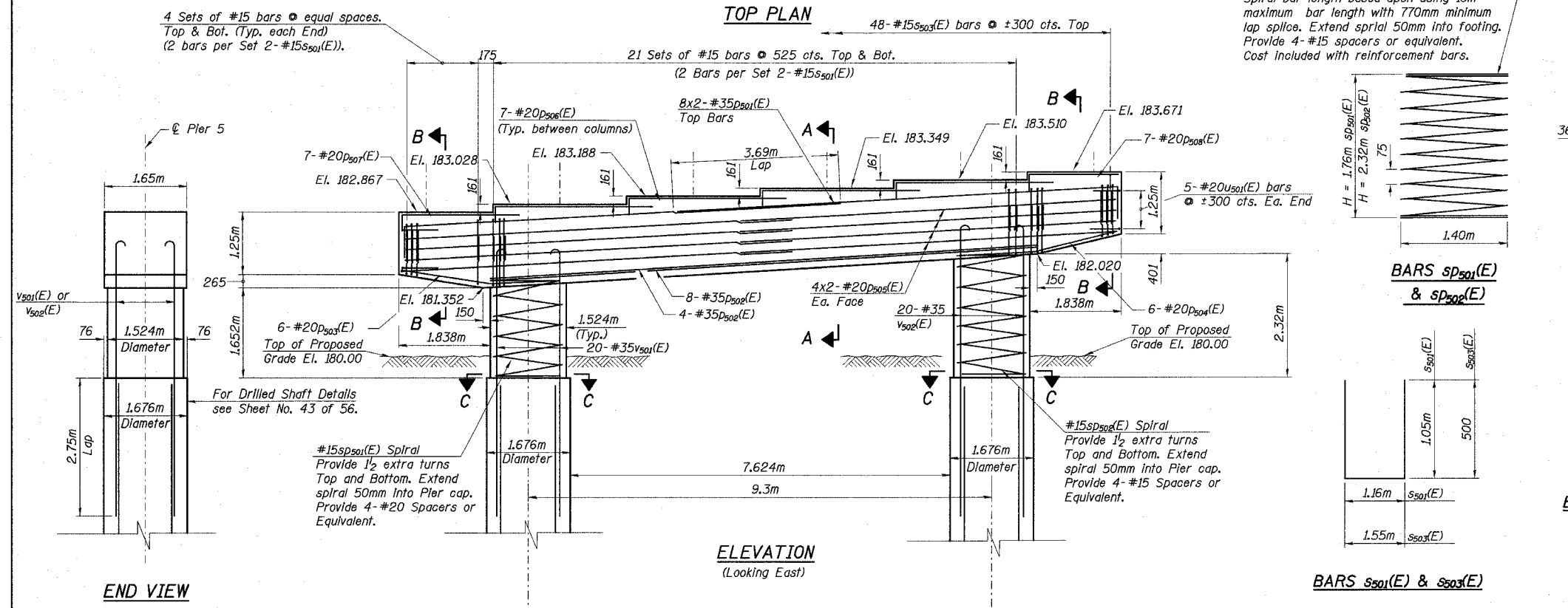
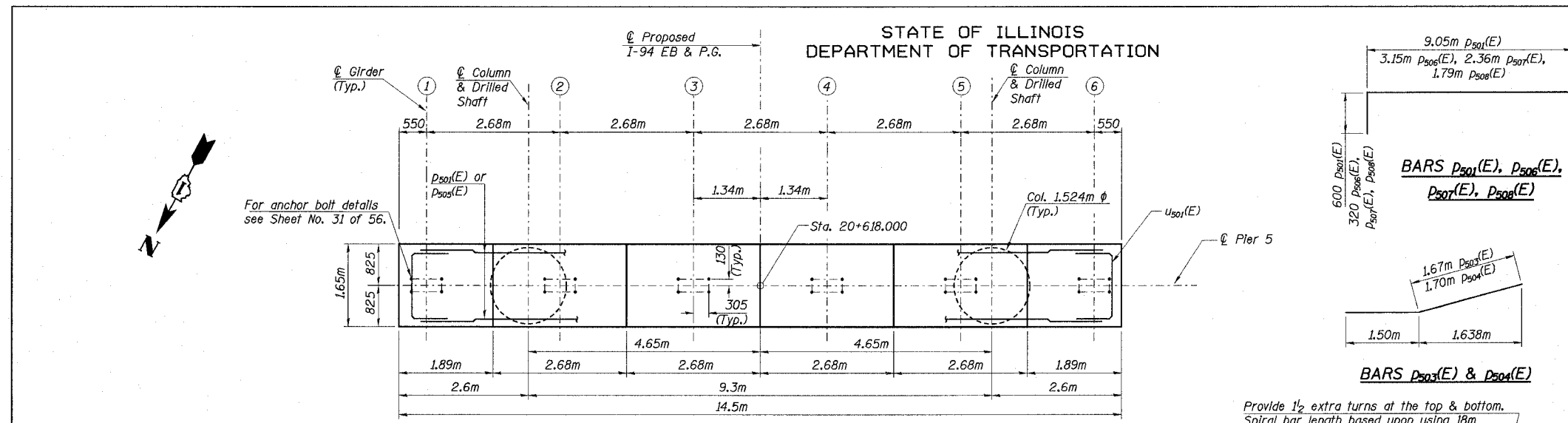
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
PIER 4
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (I0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

L:\Kaitis\JK34562\CADD\BNSN_2807\cadd\CTR_19_2807\p190244a_2807.dgn
18-AUG-2005 13:31

| | |
|----------|-----|
| DESIGNED | TFS |
| CHECKED | HDA |
| DRAWN | ALR |
| CHECKED | OD |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 42 |
| F. A. I. 80/94 | | COOK | 870 | 652 | 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | | |
| 0203.1 & 0312-708WR-3 | | CONTRACT NO. 62108 | | | |

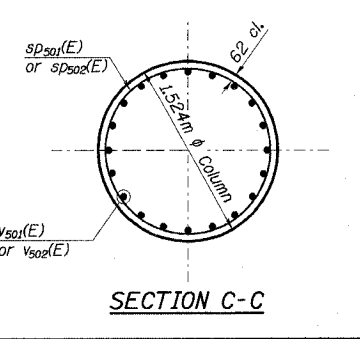
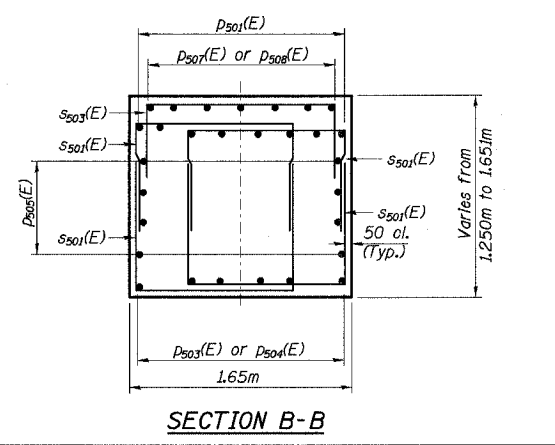
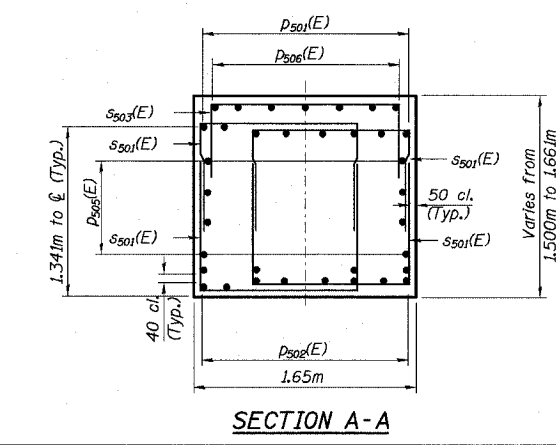


DESIGNED TFS

CHECKED HDA

DRAWN ALR

CHECKED OD



MIN. BAR LAPS

- #35 Top bars = 3.69m
- #35 Others = 2.64m
- #20 Top bars = 1.11m
- #20 Others = 790
- #15 Others = 640
- #15 Spiral = 770

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|----------------|--------|-------|
| P ₅₀₁ (E) | 16 | #35 | 9.65 | — |
| P ₅₀₂ (E) | 12 | #35 | 11.02 | — |
| P ₅₀₃ (E) | 6 | #20 | 3.17 | — |
| P ₅₀₄ (E) | 6 | #20 | 3.20 | — |
| P ₅₀₅ (E) | 16 | #20 | 7.76 | — |
| P ₅₀₆ (E) | 28 | #20 | 3.47 | — |
| P ₅₀₇ (E) | 7 | #20 | 2.68 | — |
| P ₅₀₈ (E) | 7 | #20 | 2.11 | — |
| S ₅₀₁ (E) | 116 | #15 | 3.26 | — |
| S ₅₀₃ (E) | 48 | #15 | 2.55 | — |
| V ₅₀₁ (E) | 20 | #35 | 5.54 | — |
| V ₅₀₂ (E) | 20 | #35 | 6.10 | — |
| U ₅₀₁ (E) | 10 | #20 | 3.73 | — |
| Reinforcement Bars, Epoxy Coated | | kg | 6080 | |
| Concrete Structures | | m ³ | 45.1 | |

Reinforcement Bars designated (E) shall be epoxy coated.
**Length is height of spiral.

NOTES

- Space reinforcement in cap to miss anchor bolts.
- Four steps monolithically with the cap.
- All dimensions are in millimeters, except as noted.
- Bars indicated thus 9 x 2 - #35 etc. indicates 9 line of bars with 2 lengths per line.
- For drilled shaft details and reinforcement, see Sheet No. 43 of 56.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

PIER 5

EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES:

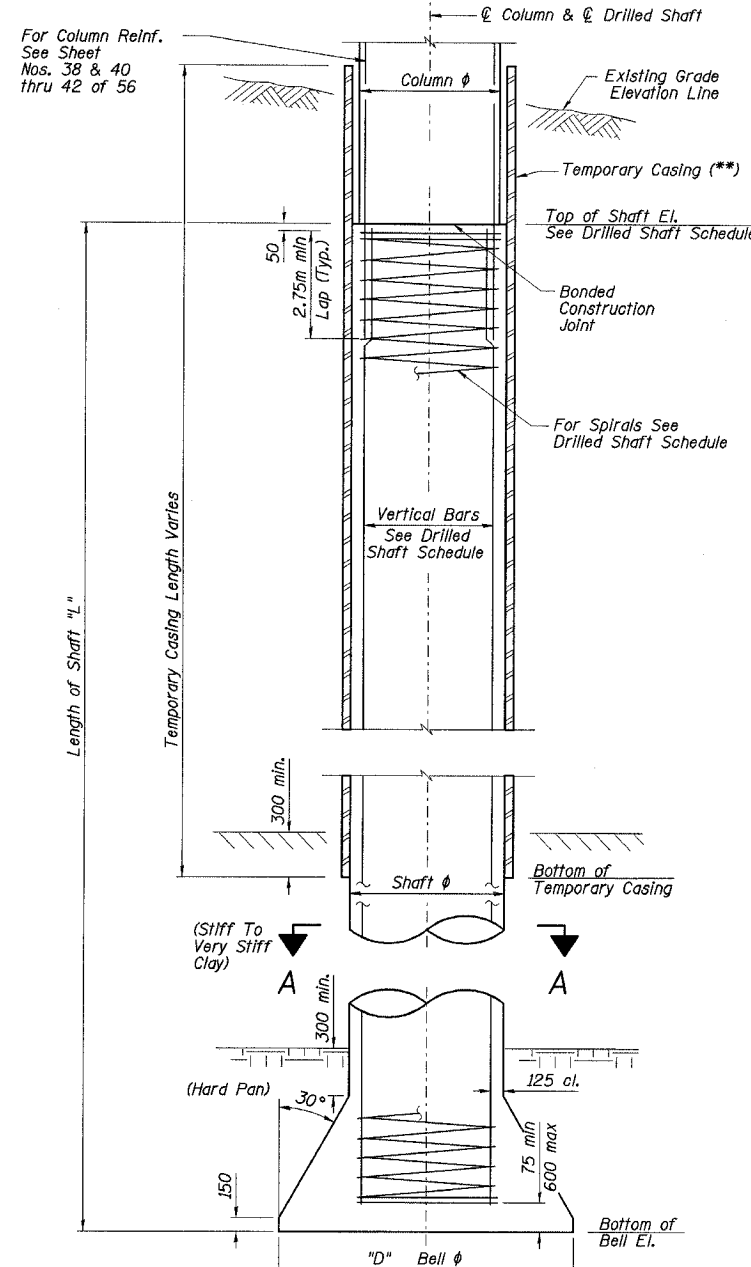
- Shafts shall be installed according to the IDOT Guide Bridge Special Provision for "Drilled Shafts"
 - Elevations, shaft lengths and reinforcement lengths shown are estimates and should be verified and adjusted in the field as directed by the Engineer.
 - Temporary casing, if utilized, shall be extracted so as not to disturb the shaft reinforcing cage or impair the structural integrity of the constructed shaft.
 - If field conditions dictate a shorter shaft length than shown, the Contractor shall cut the reinforcement bars to the required length or increase the cap length. If the shaft length is longer than indicated, the Contractor shall extend the reinforcement by providing additional reinforcement of equal size and lapping with the minimum lap length shown or increase the clearance at the bottom as indicated in the elevation view.
- Min. Lap Lengths:**
#35 2,640 m
#15 Spiral 770
- All dimensions are in millimeters (mm) unless otherwise noted.
 - The shaft and reinforcement shall be adjusted as required by the Engineer. Additional quantities furnished by the Contractor will be paid for at the unit price bid for the work.
 - At all locations where reinforcement bar laps are not in direct contact, the Contractor shall provide sufficient spacing between the vertical bars, equal to the size of the largest concrete aggregate plus 15mm.
 - See Sheet No. 4 of 56 for location of drilled shafts.
 - Work this drawing with drawings Sheet Nos. 4 & 38 thru 42 of 56.

| | | | | | |
|--------------------------------|--------------|----------------------------|---------------------|--------------------|---------------------------|
| ROUTE NO. F. A. I. 80/94 | SECTION * | COUNTY COOK | TOTAL SHEETS 870 | SHEET NO. 653 | SHEET NO. 43 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | CONTRACT NO. 62108 | |
| 0203.1 & 0312-708WR-3 | | | | | |

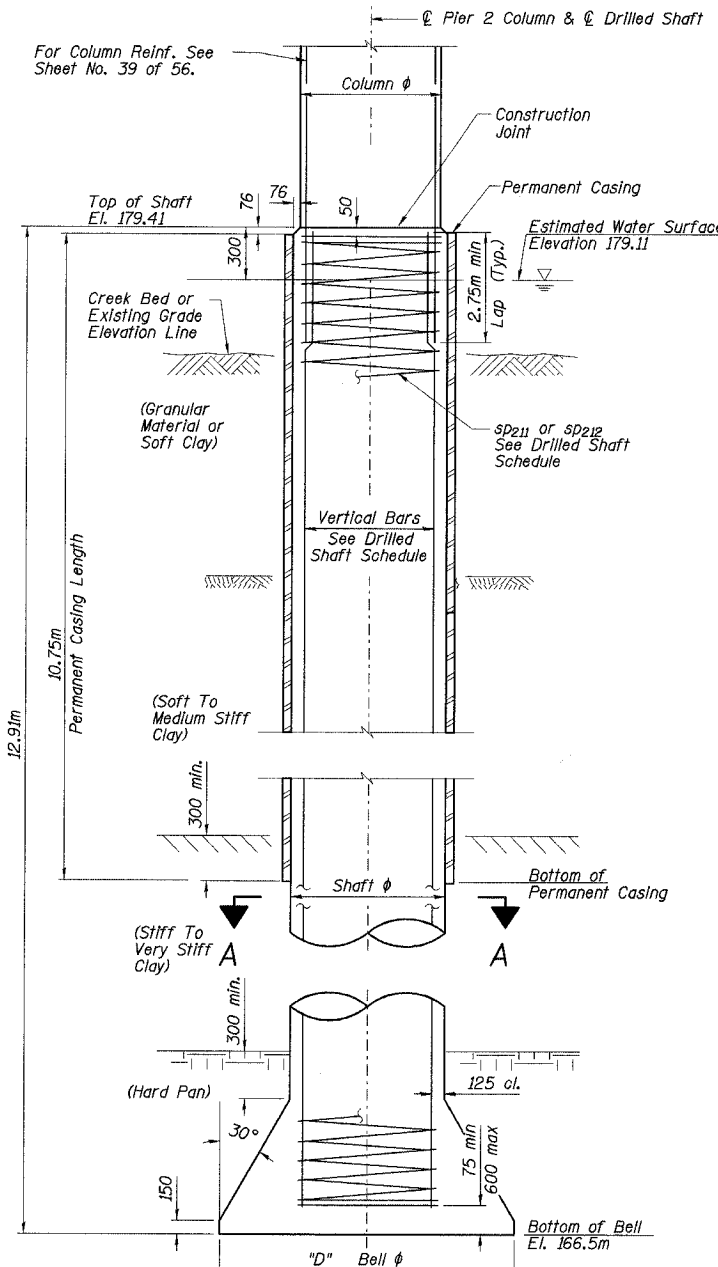
BILL OF MATERIAL

| Bar | No. | Size | Length (m) | Shape |
|------------------------------|-----|------|------------|-------|
| SP111 | 1 | #15 | 12.57 | ~ |
| SP112 | 1 | #15 | 12.22 | ~ |
| SP211 | 2 | #15 | 12.79 | ~ |
| SP212 | 1 | #15 | 12.79 | ~ |
| SP311 | 2 | #15 | 12.58 | ~ |
| SP411 | 2 | #15 | 13.58 | ~ |
| SP511 | 2 | #15 | 13.08 | ~ |
| | | | | |
| V111 | 20 | #35 | 12.57 | — |
| V112 | 20 | #35 | 12.22 | — |
| V211 | 68 | #35 | 12.79 | — |
| V311 | 40 | #35 | 12.58 | — |
| V411 | 40 | #35 | 13.58 | — |
| V511 | 40 | #35 | 13.08 | — |
| | | | | |
| Drilled Shaft In Soil 1676mm | | m | 130.1 | |
| Drilled Shaft In Soil 1981mm | | m | 12.9 | |
| Permanent Casing | | m | 32.3 | |
| Reinforcement Bars | | kg | 30340 | |

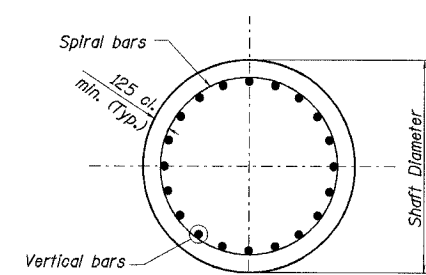
* Length is height of spiral.



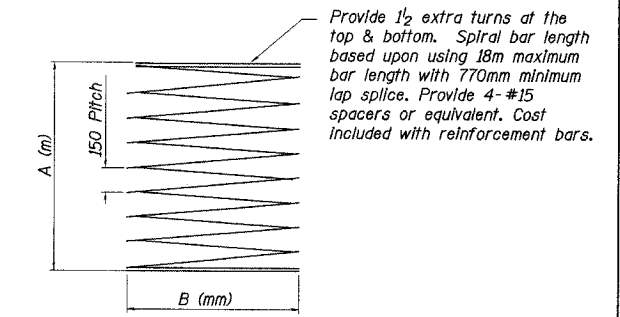
ELEVATION VIEW
(Piers 1, 3, 4 and 5)
See Drilled Shaft Schedule



ELEVATION VIEW
(Pier 2 Only)
See Drilled Shaft Schedule



SECTION A-A



SPIRAL BAR

DRILLED SHAFT SCHEDULE

| LOCATION | Drilled Shaft No. | Shaft Dia. Size (m) | Bell Dia. Size (m) | Length (m) | Vertical Bars (per shaft) | Spiral Bars (per shaft) | Top of Shaft Elevation | Bot. of Bell Elevation | Allowable Bearing Pressure (kPa) | Proposed Grade Elevation | Concrete Per Drilled Shaft (cu.m) | Reinforcement Per Drilled Shaft (kg) | A (m) | B (mm) |
|----------|-------------------|---------------------|--------------------|------------|---------------------------|-------------------------|------------------------|------------------------|----------------------------------|--------------------------|-----------------------------------|--------------------------------------|-------|--------|
| Pier-1 | DS11 | 1.676 | 3.2 | 12.69 | 20-#35 V111 | SP111 | 179.19 | 166.5 | 720 | 179.49 | 32.1 | 2637 | 12.57 | 1426 |
| | DS12 | 1.676 | 3.2 | 12.34 | 20-#35 V112 | SP112 | 178.84 | 166.5 | 720 | 179.14 | 31.3 | 2563 | 12.22 | 1426 |
| Pier-2 | DS21 | 1.676 | 2.6 | 12.91 | 20-#35 V211 | SP211 | 179.41 | 166.5 | 720 | 178.50 | 30.1 | 2683 | 12.79 | 1426 |
| | DS22 | 1.981 | 3.96 | 12.91 | 28-#35 V212 | SP212 | 179.41 | 166.5 | 720 | 176.69 | 47.8 | 3577 | 12.79 | 1731 |
| Pier-3 | DS23 | 1.676 | 2.6 | 12.91 | 20-#35 V211 | SP211 | 179.41 | 166.5 | 720 | 178.50 | 30.1 | 2683 | 12.79 | 1426 |
| | DS31 | 1.676 | 3.2 | 12.70 | 20-#35 V311 | SP311 | 178.70 | 166.0 | 720 | 179.00 | 32.1 | 2639 | 12.58 | 1426 |
| Pier-4 | DS32 | 1.676 | 3.2 | 12.70 | 20-#35 V311 | SP311 | 178.70 | 166.0 | 720 | 179.00 | 32.1 | 2639 | 12.58 | 1426 |
| | DS41 | 1.676 | 3.2 | 13.70 | 20-#35 V411 | SP411 | 179.70 | 166.0 | 720 | 180.00 | 34.3 | 2849 | 13.58 | 1426 |
| Pier-5 | DS42 | 1.676 | 3.2 | 13.70 | 20-#35 V411 | SP411 | 179.70 | 166.0 | 720 | 180.00 | 34.3 | 2849 | 13.58 | 1426 |
| | DS51 | 1.676 | 3.2 | 13.20 | 20-#35 V511 | SP511 | 179.70 | 166.5 | 720 | 180.00 | 33.2 | 2744 | 13.08 | 1426 |
| | DS52 | 1.676 | 3.2 | 13.20 | 20-#35 V511 | SP511 | 179.70 | 166.5 | 720 | 180.00 | 33.2 | 2744 | 13.08 | 1426 |

| | |
|----------|-----|
| DESIGNED | TFS |
| CHECKED | HDA |
| DRAWN | ALR |
| CHECKED | OD |

J:\Research\temp\0203.1\0312-708WR-3\11902246-2807.dgn
 16-JUL-2005 14:28

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
PIER DRILLED SHAFT
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509,000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------------------------|--------|--------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 44 56 SHEETS |
| F. A. I. 80/94 | | COOK | 865 | 654 | |
| FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT- | | CONTRACT NO. 62108 | | |

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 400 Mpa yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity (Tension in kN) = $1.25 \times 10^{-3} \times f_y \times A_t$
- Minimum *Pull-out Strength (Tension in kN) = $1.25 \times 10^{-3} \times f_{s_{allow}} \times A_t$

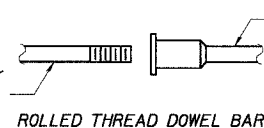
Where f_y = Yield strength of lapped reinforcement bars in MPa.
 $f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars (mm²)
* = 28 day concrete

| BAR SPLICER ASSEMBLIES | | | |
|------------------------|---------------------------------|----------------------------|-------------------------------------|
| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | Strength Requirements | |
| | | Min. Capacity kN - tension | Min. Pull-Out Strength kN - tension |
| #15 | 610 mm | 100 | 40 |
| #20 | 790 mm | 150 | 60 |
| #25 | 1.04 m | 250 | 100 |
| #30 | 1.37 m | 350 | 140 |

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

All dimensions are in millimeters (mm) except as noted.

The diameter of this part is the same as the diameter of the bar spliced.



ROLLED THREAD DOWEL BAR



** ONE PIECE

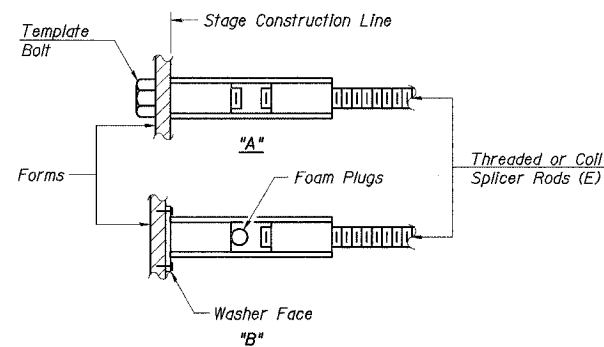
Wire Connector



WELDED SECTIONS

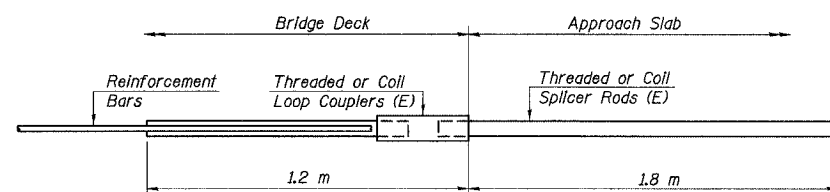
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563M, Grade C, D or DH may be used.



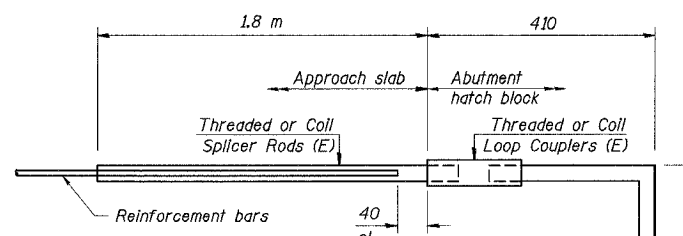
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



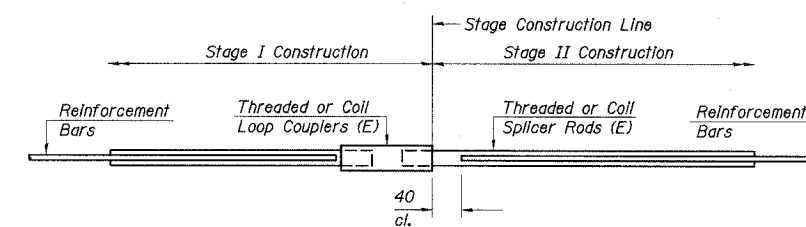
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

| | |
|--------------------------|------------------|
| Bar Splicer for #15 bar | |
| Min. Capacity = | 100 kN - tension |
| Min. Pull-out Strength = | 40 kN - tension |
| No. Required = | |



FOR PILE BENT ABUTMENTS

| | |
|--------------------------|------------------|
| Bar Splicer for #15 bar | |
| Min. Capacity = | 100 kN - tension |
| Min. Pull-out Strength = | 40 kN - tension |
| No. Required W. Abut. = | 49 |
| No. Required E. Abut. = | 49 |
| Total = | 98 |



STANDARD

| Bar Size | No. Assemblies Required | Location |
|----------|-------------------------|----------|
| | | |
| | | |
| | | |
| | | |

| | |
|----------|-------------|
| DESIGNED | R.A. |
| CHECKED | M.R. |
| DRAWN | R.A. |
| CHECKED | M.R. / H.T. |

BSD-1(M) 9-01-03

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
BAR SPLICER ASSEMBLY DETAILS
EB I-94 OVER THORN CREEK
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+809.000 STRUCTURE NO. 016-2807
DATE: 7/18/05
SCALE: NTS
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

J:\km et\34562\CADD\From_Soodan\050818_2807\mat\90624a_2807.dgn
18-AUG-2005 15:45

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

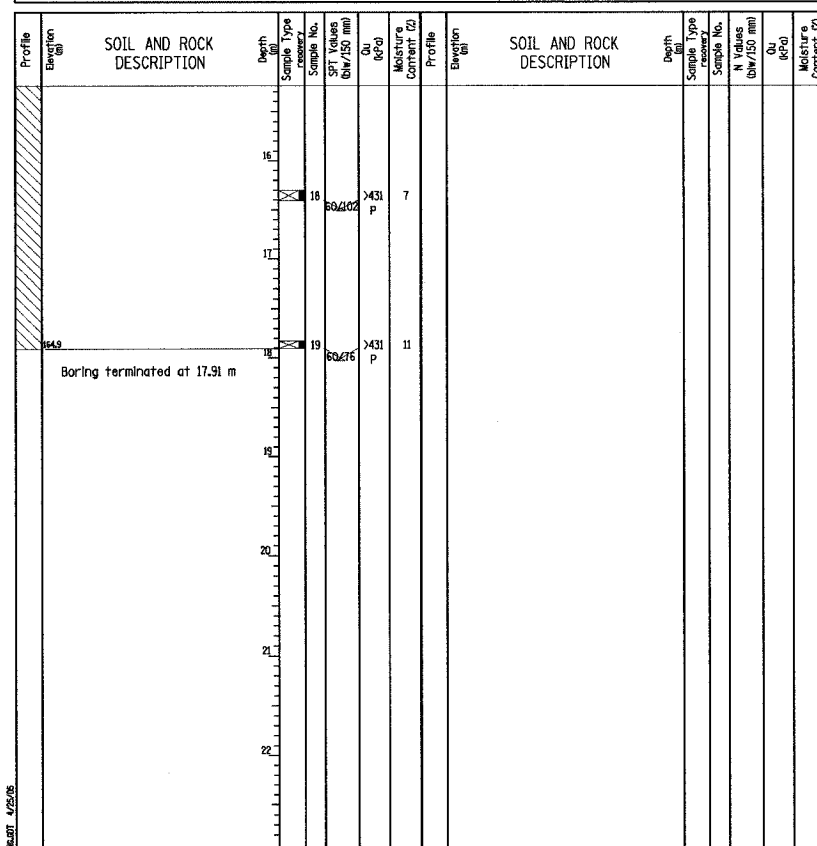
| | | | | | |
|-----------------------|---------|----------|--------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 46 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 656 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| 0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | | |

Wang Engineering, INC.
wangeng3@wangen.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-2
WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevations: 182.83 m
North: 545949.61 m
East: 362627.05 m
Station: 20+506.695
Offset: 23.047 LT

Page 2 of 2



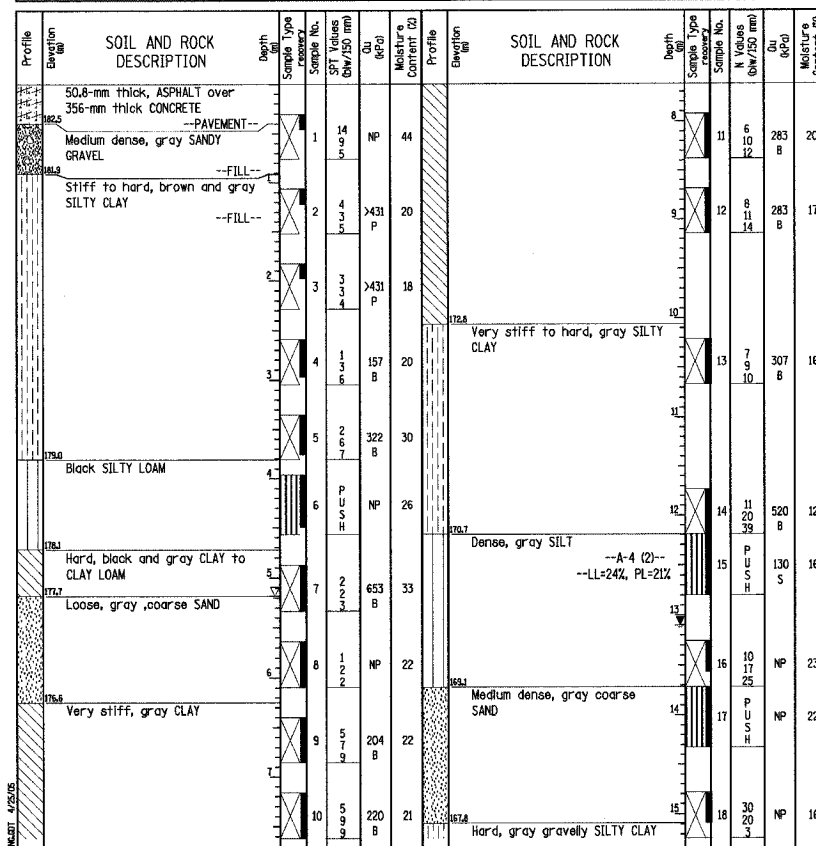
| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|---|-------------------|------------|---------------------------|----------|---------------------|----|
| Begin Drilling | 01-05-2005 | Complete Drilling | 01-05-2004 | While Drilling | ▽ | DRY | |
| Drilling Contractor | DLZ | Drill Rig | D-120 TMR | At Completion of Drilling | ▽ | DRY | |
| Driller | J&R | Logger | Y. Shlu | Checked by | N. Davis | Time After Drilling | NA |
| Drilling Method | 3.25-inch HSA; Backfilled upon completion | | | Depth to Water | ▽ | NA | |

Wang Engineering, INC.
wangeng3@wangen.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-3
WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevations: 182.86 m
North: 545952.77 m
East: 362624.35 m
Station: 20+551.559
Offset: 12.534 RT

Page 1 of 2



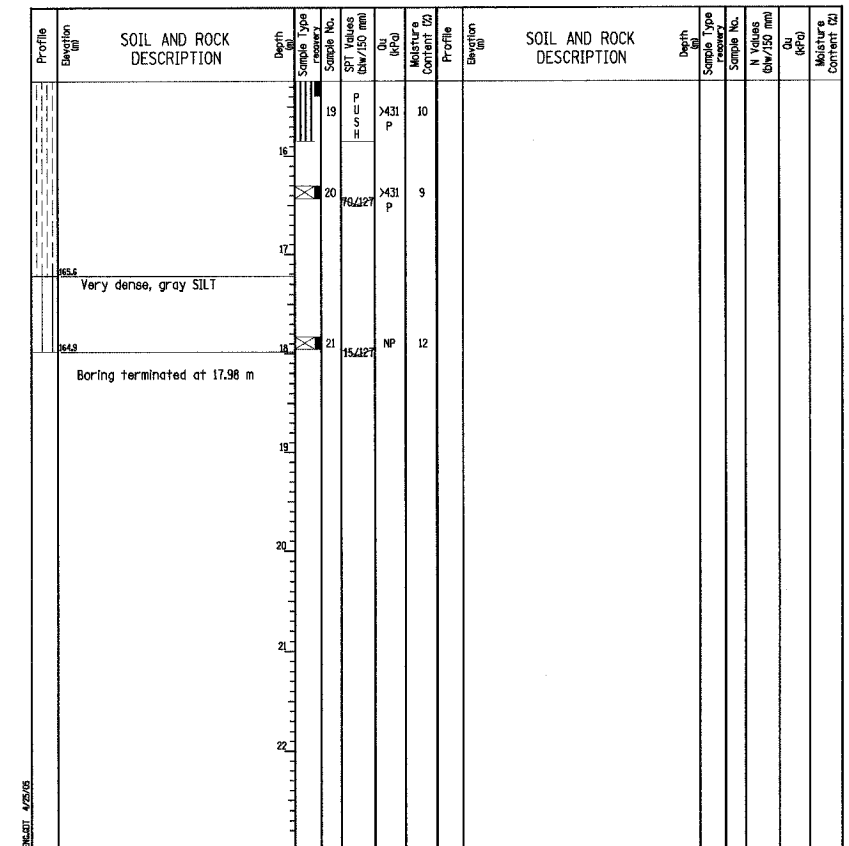
| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|---|-------------------|------------------|---------------------------|----------|---------------------|----|
| Begin Drilling | 01-06-2005 | Complete Drilling | 01-21-2005 | While Drilling | ▽ | 5.18 m | |
| Drilling Contractor | DLZ/Patrick Drilling | Drill Rig | D-120 TMR/CME 75 | At Completion of Drilling | ▽ | 13.11 m | |
| Driller | J&R | Logger | Y. Shlu | Checked by | N. Davis | Time After Drilling | NA |
| Drilling Method | 3.25-inch HSA; Backfilled upon completion | | | Depth to Water | ▽ | NA | |

Wang Engineering, INC.
wangeng3@wangen.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-3
WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevations: 182.86 m
North: 545952.77 m
East: 362624.35 m
Station: 20+551.559
Offset: 12.534 RT

Page 2 of 2



| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|---|-------------------|------------------|---------------------------|----------|---------------------|----|
| Begin Drilling | 01-06-2005 | Complete Drilling | 01-21-2005 | While Drilling | ▽ | 5.18 m | |
| Drilling Contractor | DLZ/Patrick Drilling | Drill Rig | D-120 TMR/CME 75 | At Completion of Drilling | ▽ | 13.11 m | |
| Driller | J&R | Logger | Y. Shlu | Checked by | N. Davis | Time After Drilling | NA |
| Drilling Method | 3.25-inch HSA; Backfilled upon completion | | | Depth to Water | ▽ | NA | |

JB:Beauchamp
 J:\34562\CD\1\SN_2807\Cad\CTR_19_2807\bp190814a_2807.dgn
 08-JUL-2005 1:43:10

| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOIL BORING LOGS
B-2 & B-3
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|--|---------|--------|--------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F. A. I. 80/94 | * | COOK | 870 | 657 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT- | | | | |
| 0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | |

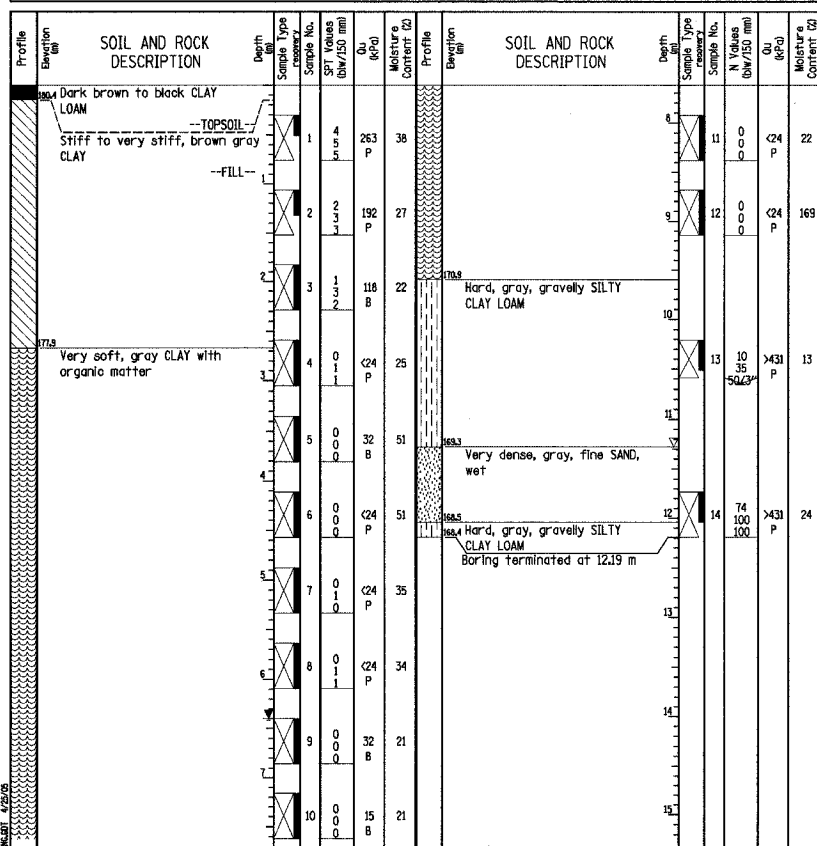
BORING LOG HB-33 Page 1 of 1

Wang Engineering, Inc.
wangeng3@wengeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

WEI Job No.: 665-05-08

Datum: NGVD
Elevations: 180.54 m
North: 545623.49 m
East: 362690.92 m
Station: 20+645.75
Offsets: 11.91 RT



| GENERAL NOTES | | WATER LEVEL DATA | |
|---------------------|--|---------------------------|------------|
| Begin Drilling | 11-14-2001 | While Drilling | 11.28 m |
| Complete Drilling | 11-14-2001 | At Completion of Drilling | 6.40 m |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 |
| Driller | K&C | Logger | E. Datz |
| Checked by | B. Fugiel | Time After Drilling | NA |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion. | Depth to Water | NA |

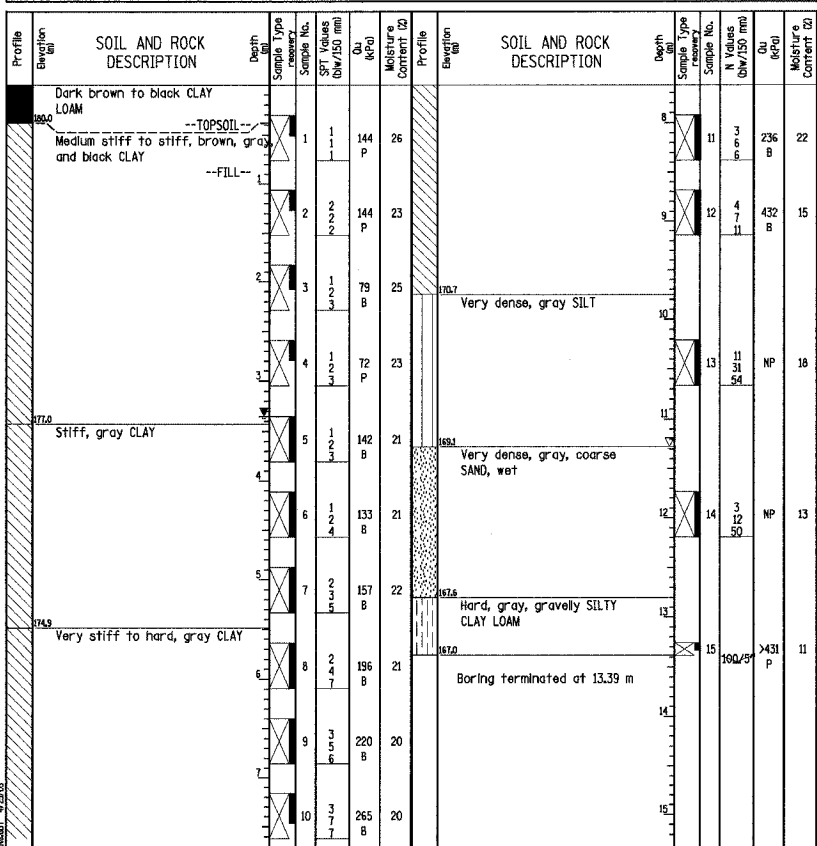
BORING LOG HB-34 Page 1 of 1

Wang Engineering, Inc.
wangeng3@wengeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

WEI Job No.: 665-05-08

Datum: NGVD
Elevations: 180.42 m
North: 545870.13 m
East: 362680.74 m
Station: 20+645.80
Offsets: 15.19 LT



| GENERAL NOTES | | WATER LEVEL DATA | |
|---------------------|--|---------------------------|------------|
| Begin Drilling | 11-14-2001 | While Drilling | 11.28 m |
| Complete Drilling | 11-14-2001 | At Completion of Drilling | 3.35 m |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 |
| Driller | K&C | Logger | E. Datz |
| Checked by | B. Fugiel | Time After Drilling | NA |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion. | Depth to Water | NA |

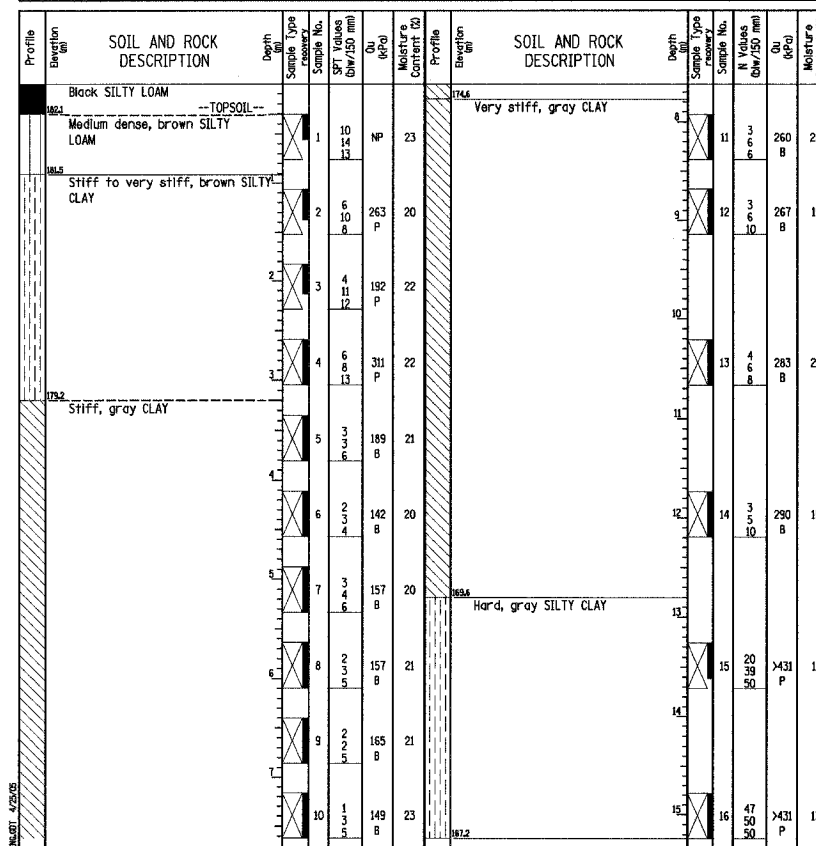
BORING LOG HB-38 Page 1 of 1

Wang Engineering, Inc.
wangeng3@wengeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

WEI Job No.: 665-05-08

Datum: NGVD
Elevations: 182.41 m
North: 545393.57 m
East: 362640.04 m
Station: 20+523.07
Offsets: 28.07 LT



| GENERAL NOTES | | WATER LEVEL DATA | |
|---------------------|--|---------------------------|------------|
| Begin Drilling | 11-08-2001 | While Drilling | DRY |
| Complete Drilling | 11-08-2001 | At Completion of Drilling | DRY |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 |
| Driller | K&C | Logger | E. Datz |
| Checked by | B. Fugiel | Time After Drilling | NA |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion. | Depth to Water | NA |

J:\Beauchamp
JA\34862\GARD\34862\SN_2887\cadd\CTR_19_2887\wp\908146_2887.dgn
28-JUL-2005 14:58

| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

Notes:
1. For Page 2 of 2 of Boring Log HB-38, see Sheet No. 48 of 56 sheets.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOIL BORING LOGS
HB-33, HB-34 & HB-38
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|--------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 48 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 658 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| 0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | | |

BORING LOG HB-38 Page 2 of 2

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevations 182.41 m
North: 545935.57 m
East: 362640.04 m
Station: 20+523.07
Offset: 28.07 LT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|------------------------------|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| | Boring terminated at 15.24 m | | | | | | | | | | |

| | | | | | | | |
|----------------------|--|-------------------|------------|---------------------------|----|-----|--|
| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
| Begin Drilling | 11-08-2001 | Complete Drilling | 11-08-2001 | While Drilling | ☑ | DRY | |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 | At Completion of Drilling | ☑ | DRY | |
| Driller | K&C | Logger | E. Datz | Time After Drilling | NA | | |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion. | | | Depth to Water | ☑ | NA | |

BORING LOG HB-39 Page 1 of 1

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevations 180.24 m
North: 545882.55 m
East: 362657.43 m
Station: 20+590.10
Offset: 6.85 LT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 175.8 | Dark brown LOAM --TOPSOIL-- | 0 | 1 | 2 | NP | 175.8 | | 0 | 1 | 2 | NP |
| 175.8 | Medium stiff, dark brown SILTY CLAY LOAM | 1 | 2 | 2 | NP | 175.8 | | 1 | 2 | 2 | NP |
| 175.8 | | 2 | 3 | 1 | 72 P | 175.8 | | 2 | 3 | 1 | 72 P |
| 175.8 | | 3 | 4 | 1 | 72 P | 175.8 | | 3 | 4 | 1 | 72 P |
| 175.8 | | 4 | 5 | 0 | 72 P | 175.8 | | 4 | 5 | 0 | 72 P |
| 175.8 | | 5 | 6 | 1 | 72 P | 175.8 | | 5 | 6 | 1 | 72 P |
| 175.8 | | 6 | 7 | 1 | 72 P | 175.8 | | 6 | 7 | 1 | 72 P |
| 175.8 | | 7 | 8 | 1 | 72 P | 175.8 | | 7 | 8 | 1 | 72 P |
| 175.8 | | 8 | 9 | 1 | 72 P | 175.8 | | 8 | 9 | 1 | 72 P |
| 175.8 | | 9 | 10 | 1 | 72 P | 175.8 | | 9 | 10 | 1 | 72 P |
| 175.8 | | 10 | 11 | 1 | 72 P | 175.8 | | 10 | 11 | 1 | 72 P |
| 175.8 | | 11 | 12 | 1 | 72 P | 175.8 | | 11 | 12 | 1 | 72 P |
| 175.8 | | 12 | 13 | 1 | 72 P | 175.8 | | 12 | 13 | 1 | 72 P |
| 175.8 | | 13 | 14 | 1 | 72 P | 175.8 | | 13 | 14 | 1 | 72 P |
| 175.8 | | 14 | 15 | 1 | 72 P | 175.8 | | 14 | 15 | 1 | 72 P |
| 175.8 | | 15 | 16 | 1 | 72 P | 175.8 | | 15 | 16 | 1 | 72 P |
| 175.8 | | 16 | 17 | 1 | 72 P | 175.8 | | 16 | 17 | 1 | 72 P |
| 175.8 | | 17 | 18 | 1 | 72 P | 175.8 | | 17 | 18 | 1 | 72 P |
| 175.8 | | 18 | 19 | 1 | 72 P | 175.8 | | 18 | 19 | 1 | 72 P |
| 175.8 | | 19 | 20 | 1 | 72 P | 175.8 | | 19 | 20 | 1 | 72 P |
| 175.8 | | 20 | 21 | 1 | 72 P | 175.8 | | 20 | 21 | 1 | 72 P |
| 175.8 | | 21 | 22 | 1 | 72 P | 175.8 | | 21 | 22 | 1 | 72 P |
| 175.8 | | 22 | 23 | 1 | 72 P | 175.8 | | 22 | 23 | 1 | 72 P |
| 175.8 | | 23 | 24 | 1 | 72 P | 175.8 | | 23 | 24 | 1 | 72 P |
| 175.8 | | 24 | 25 | 1 | 72 P | 175.8 | | 24 | 25 | 1 | 72 P |
| 175.8 | | 25 | 26 | 1 | 72 P | 175.8 | | 25 | 26 | 1 | 72 P |
| 175.8 | | 26 | 27 | 1 | 72 P | 175.8 | | 26 | 27 | 1 | 72 P |
| 175.8 | | 27 | 28 | 1 | 72 P | 175.8 | | 27 | 28 | 1 | 72 P |
| 175.8 | | 28 | 29 | 1 | 72 P | 175.8 | | 28 | 29 | 1 | 72 P |
| 175.8 | | 29 | 30 | 1 | 72 P | 175.8 | | 29 | 30 | 1 | 72 P |
| 175.8 | | 30 | 31 | 1 | 72 P | 175.8 | | 30 | 31 | 1 | 72 P |
| 175.8 | | 31 | 32 | 1 | 72 P | 175.8 | | 31 | 32 | 1 | 72 P |
| 175.8 | | 32 | 33 | 1 | 72 P | 175.8 | | 32 | 33 | 1 | 72 P |
| 175.8 | | 33 | 34 | 1 | 72 P | 175.8 | | 33 | 34 | 1 | 72 P |
| 175.8 | | 34 | 35 | 1 | 72 P | 175.8 | | 34 | 35 | 1 | 72 P |
| 175.8 | | 35 | 36 | 1 | 72 P | 175.8 | | 35 | 36 | 1 | 72 P |
| 175.8 | | 36 | 37 | 1 | 72 P | 175.8 | | 36 | 37 | 1 | 72 P |
| 175.8 | | 37 | 38 | 1 | 72 P | 175.8 | | 37 | 38 | 1 | 72 P |
| 175.8 | | 38 | 39 | 1 | 72 P | 175.8 | | 38 | 39 | 1 | 72 P |
| 175.8 | | 39 | 40 | 1 | 72 P | 175.8 | | 39 | 40 | 1 | 72 P |
| 175.8 | | 40 | 41 | 1 | 72 P | 175.8 | | 40 | 41 | 1 | 72 P |
| 175.8 | | 41 | 42 | 1 | 72 P | 175.8 | | 41 | 42 | 1 | 72 P |
| 175.8 | | 42 | 43 | 1 | 72 P | 175.8 | | 42 | 43 | 1 | 72 P |
| 175.8 | | 43 | 44 | 1 | 72 P | 175.8 | | 43 | 44 | 1 | 72 P |
| 175.8 | | 44 | 45 | 1 | 72 P | 175.8 | | 44 | 45 | 1 | 72 P |
| 175.8 | | 45 | 46 | 1 | 72 P | 175.8 | | 45 | 46 | 1 | 72 P |
| 175.8 | | 46 | 47 | 1 | 72 P | 175.8 | | 46 | 47 | 1 | 72 P |
| 175.8 | | 47 | 48 | 1 | 72 P | 175.8 | | 47 | 48 | 1 | 72 P |
| 175.8 | | 48 | 49 | 1 | 72 P | 175.8 | | 48 | 49 | 1 | 72 P |
| 175.8 | | 49 | 50 | 1 | 72 P | 175.8 | | 49 | 50 | 1 | 72 P |
| 175.8 | | 50 | 51 | 1 | 72 P | 175.8 | | 50 | 51 | 1 | 72 P |
| 175.8 | | 51 | 52 | 1 | 72 P | 175.8 | | 51 | 52 | 1 | 72 P |
| 175.8 | | 52 | 53 | 1 | 72 P | 175.8 | | 52 | 53 | 1 | 72 P |
| 175.8 | | 53 | 54 | 1 | 72 P | 175.8 | | 53 | 54 | 1 | 72 P |
| 175.8 | | 54 | 55 | 1 | 72 P | 175.8 | | 54 | 55 | 1 | 72 P |
| 175.8 | | 55 | 56 | 1 | 72 P | 175.8 | | 55 | 56 | 1 | 72 P |
| 175.8 | | 56 | 57 | 1 | 72 P | 175.8 | | 56 | 57 | 1 | 72 P |
| 175.8 | | 57 | 58 | 1 | 72 P | 175.8 | | 57 | 58 | 1 | 72 P |
| 175.8 | | 58 | 59 | 1 | 72 P | 175.8 | | 58 | 59 | 1 | 72 P |
| 175.8 | | 59 | 60 | 1 | 72 P | 175.8 | | 59 | 60 | 1 | 72 P |
| 175.8 | | 60 | 61 | 1 | 72 P | 175.8 | | 60 | 61 | 1 | 72 P |
| 175.8 | | 61 | 62 | 1 | 72 P | 175.8 | | 61 | 62 | 1 | 72 P |
| 175.8 | | 62 | 63 | 1 | 72 P | 175.8 | | 62 | 63 | 1 | 72 P |
| 175.8 | | 63 | 64 | 1 | 72 P | 175.8 | | 63 | 64 | 1 | 72 P |
| 175.8 | | 64 | 65 | 1 | 72 P | 175.8 | | 64 | 65 | 1 | 72 P |
| 175.8 | | 65 | 66 | 1 | 72 P | 175.8 | | 65 | 66 | 1 | 72 P |
| 175.8 | | 66 | 67 | 1 | 72 P | 175.8 | | 66 | 67 | 1 | 72 P |
| 175.8 | | 67 | 68 | 1 | 72 P | 175.8 | | 67 | 68 | 1 | 72 P |
| 175.8 | | 68 | 69 | 1 | 72 P | 175.8 | | 68 | 69 | 1 | 72 P |
| 175.8 | | 69 | 70 | 1 | 72 P | 175.8 | | 69 | 70 | 1 | 72 P |
| 175.8 | | 70 | 71 | 1 | 72 P | 175.8 | | 70 | 71 | 1 | 72 P |
| 175.8 | | 71 | 72 | 1 | 72 P | 175.8 | | 71 | 72 | 1 | 72 P |
| 175.8 | | 72 | 73 | 1 | 72 P | 175.8 | | 72 | 73 | 1 | 72 P |
| 175.8 | | 73 | 74 | 1 | 72 P | 175.8 | | 73 | 74 | 1 | 72 P |
| 175.8 | | 74 | 75 | 1 | 72 P | 175.8 | | 74 | 75 | 1 | 72 P |
| 175.8 | | 75 | 76 | 1 | 72 P | 175.8 | | 75 | 76 | 1 | 72 P |
| 175.8 | | 76 | 77 | 1 | 72 P | 175.8 | | 76 | 77 | 1 | 72 P |
| 175.8 | | 77 | 78 | 1 | 72 P | 175.8 | | 77 | 78 | 1 | 72 P |
| 175.8 | | 78 | 79 | 1 | 72 P | 175.8 | | 78 | 79 | 1 | 72 P |
| 175.8 | | 79 | 80 | 1 | 72 P | 175.8 | | 79 | 80 | 1 | 72 P |
| 175.8 | | 80 | 81 | 1 | 72 P | 175.8 | | 80 | 81 | 1 | 72 P |
| 175.8 | | 81 | 82 | 1 | 72 P | 175.8 | | 81 | 82 | 1 | 72 P |
| 175.8 | | 82 | 83 | 1 | 72 P | 175.8 | | 82 | 83 | 1 | 72 P |
| 175.8 | | 83 | 84 | 1 | 72 P | 175.8 | | 83 | 84 | 1 | 72 P |
| 175.8 | | 84 | 85 | 1 | 72 P | 175.8 | | 84 | 85 | 1 | 72 P |
| 175.8 | | 85 | 86 | 1 | 72 P | 175.8 | | 85 | 86 | 1 | 72 P |
| 175.8 | | 86 | 87 | 1 | 72 P | 175.8 | | 86 | 87 | 1 | 72 P |
| 175.8 | | 87 | 88 | 1 | 72 P | 175.8 | | 87 | 88 | 1 | 72 P |
| 175.8 | | 88 | 89 | 1 | 72 P | 175.8 | | 88 | 89 | 1 | 72 P |
| 175.8 | | 89 | 90 | 1 | 72 P | 175.8 | | 89 | 90 | 1 | 72 P |
| 175.8 | | 90 | 91 | 1 | 72 P | 175.8 | | 90 | 91 | 1 | 72 P |
| 175.8 | | 91 | 92 | 1 | 72 P | 175.8 | | 91 | 92 | 1 | 72 P |
| 175.8 | | 92 | 93 | 1 | 72 P | 175.8 | | 92 | 93 | 1 | 72 P |
| 175.8 | | 93 | 94 | 1 | 72 P | 175.8 | | 93 | 94 | 1 | 72 P |
| 175.8 | | 94 | 95 | 1 | 72 P | 175.8 | | 94 | 95 | 1 | 72 P |
| 175.8 | | 95 | 96 | 1 | 72 P | 175.8 | | 95 | 96 | 1 | 72 P |
| 175.8 | | 96 | 97 | 1 | 72 P | 175.8 | | 96 | 97 | 1 | 72 P |
| 175.8 | | 97 | 98 | 1 | 72 P | 175.8 | | 97 | 98 | 1 | 72 P |
| 175.8 | | 98 | 99 | 1 | 72 P | 175.8 | | 98 | 99 | 1 | 72 P |
| 175.8 | | 99 | 100 | 1 | 72 P | 175.8 | | 99 | 100 | 1 | 72 P |
| 175.8 | | 100 | 101 | 1 | 72 P | 175.8 | | 100 | 101 | 1 | 72 P |
| 175.8 | | 101 | 102 | 1 | 72 P | 175.8 | | 101 | 102 | 1 | 72 P |
| 175.8 | | 102 | 103 | 1 | 72 P | 175.8 | | 102 | 103 | 1 | 72 P |
| 175.8 | | 103 | 104 | 1 | 72 P | 175.8 | | 103 | 104 | 1 | 72 P |
| 175.8 | | | | | | | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|------------------------|---------|--------------------|-------------------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F. A. I. 80/94 | * | COOK | 870 | 659 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | |
| 10203.1 & 0312-708WR-3 | | CONTRACT NO. 62108 | | SHEET NO. 49 |
| | | | | 56 SHEETS |

BORING LOG HB-40 Page 2 of 2

Wang Engineering, Inc.
wangen3@wangen.com
1145 Main Street
Lombard, IL 60148
Telephone 630 953-9928
Fax 630 953-9938

WEI Job No.: 665-05-08

Datum: NGVD
Elevation: 182.61 m
North: 545634.60 m
East: 362668.14 m
Station: 20+622.87
Offset: 18.04 RT

Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (Blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (Blows/150 mm) | Moisture Content (%) |
|-----------------------|------------------------------|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| | Boring terminated at 15.09 m | | | | | | | | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|--|-------------------|------------|---------------------------|-----------|-----|--|
| Begin Drilling | 11-15-2001 | Complete Drilling | 11-15-2001 | While Drilling | ∇ | DRY | |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 | At Completion of Drilling | ∇ | DRY | |
| Driller | K&C | Logger | B. Fugiel | Checked by | B. Fugiel | NA | |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion. | | | Depth to Water | ∇ | NA | |

BORING LOG HB-43 Page 1 of 1

Wang Engineering, Inc.
wangen3@wangen.com
1145 Main Street
Lombard, IL 60148
Telephone 630 953-9928
Fax 630 953-9938

WEI Job No.: 665-05-08

Datum: NGVD
Elevation: 179.88 m
North: 545854.35 m
East: 362684.26 m
Station: 20+617.87
Offset: 7.63 LT

Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (Blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (Blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|------------------------------|-----------|------------|---------------------------|----------------------|
| 178.2 | Medium stiff to stiff, brown CLAY LOAM with organic matter | 1 | 1 | 144 P | 28 | 178.2 | Very loose, gray SANDY LOAM | 2 | 2 | 72 P | 30 |
| 177.3 | Very stiff to hard, gray CLAY | 4 | 4 | 315 B | 23 | 177.3 | Very dense, gray SILT, dry | 10 | 10 | NP | 17 |
| 174.2 | Very stiff to hard, gray SILTY CLAY | 6 | 6 | 267 B | 21 | 174.2 | Boring terminated at 13.39 m | | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|--|-------------------|------------|---------------------------|-------------|---------|--|
| Begin Drilling | 11-20-2001 | Complete Drilling | 11-20-2001 | While Drilling | ∇ | 11.20 m | |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 | At Completion of Drilling | ∇ | 4.97 m | |
| Driller | K&C | Logger | B. Fugiel | Checked by | L. Iordache | NA | |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion. | | | Depth to Water | ∇ | NA | |

BORING LOG HB-44 Page 1 of 1

Wang Engineering, Inc.
wangen3@wangen.com
1145 Main Street
Lombard, IL 60148
Telephone 630 953-9928
Fax 630 953-9938

WEI Job No.: 665-05-08

Datum: NGVD
Elevation: 182.09 m
North: 545660.82 m
East: 362657.42 m
Station: 20+596.49
Offset: 8.35 RT

Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (Blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (Blows/150 mm) | Moisture Content (%) |
|-----------------------|---------------------------------|-----------|------------|---------------------------|----------------------|-----------------------|---|-----------|------------|---------------------------|----------------------|
| 181.1 | 152-mm thick ASPHALT | 0 | | | | 181.1 | Very stiff to hard, gray SILTY CLAY | 8 | 11 | 220 B | 20 |
| 180.4 | Loose, brown SAND and GRAVEL | 1 | 1 | 166 P | 20 | 180.4 | Very dense, gray SILT | 13 | 13 | 393 B | 16 |
| 178.9 | Very stiff, brown and gray CLAY | 5 | 5 | 236 B | 23 | 178.9 | Very dense, black and gray, coarse SAND | 16 | 16 | 50,121 | 15 |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|--|-------------------|------------|---------------------------|-----------|---------|--|
| Begin Drilling | 11-16-2001 | Complete Drilling | 11-16-2001 | While Drilling | ∇ | 14.40 m | |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 | At Completion of Drilling | ∇ | | |
| Driller | K&C | Logger | B. Fugiel | Checked by | B. Fugiel | NA | |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion. | | | Depth to Water | ∇ | NA | |

J:\Beauchamp\J1\34562\CADD\B1\SN_2807\cadd\CTRL_19_2807\Bpl\9001.4b_2807.dgn
08-JUL-2005 14:56

| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOIL BORING LOGS
HB-40, HB-43 & HB-44
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|--------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 50 56 SHEETS |
| F. A. I. 80/94 | - | COOK | 870 | 660 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| 0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | | |

BORING LOG HB-44 Page 2 of 2

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 182.09 m
North: 545860.82 m
East: 362657.42 m
Station: 20+596.49
Offset: 8.35 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|------------------------------|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 16.3 | Hard, gray SILTY CLAY | 16.3 | 17 | 30/22 | 431 P | 16.3 | | 16.3 | | | |
| 11.1 | Boring terminated at 16.46 m | 11.1 | | | | 11.1 | | 11.1 | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|---|-------------------|------------|---------------------------|----|---------|--|
| Begin Drilling | 11-16-2001 | Complete Drilling | 11-16-2001 | While Drilling | ∇ | 14.48 m | |
| Drilling Contractor | Patrick Drilling | Drill Rig | ATV CME 75 | At Completion of Drilling | ∇ | | |
| Driller | K&C | Logger | B. Fugiel | Time After Drilling | NA | | |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion | | | Depth to Water | ∇ | NA | |

BORING LOG HB-52 Page 1 of 2

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

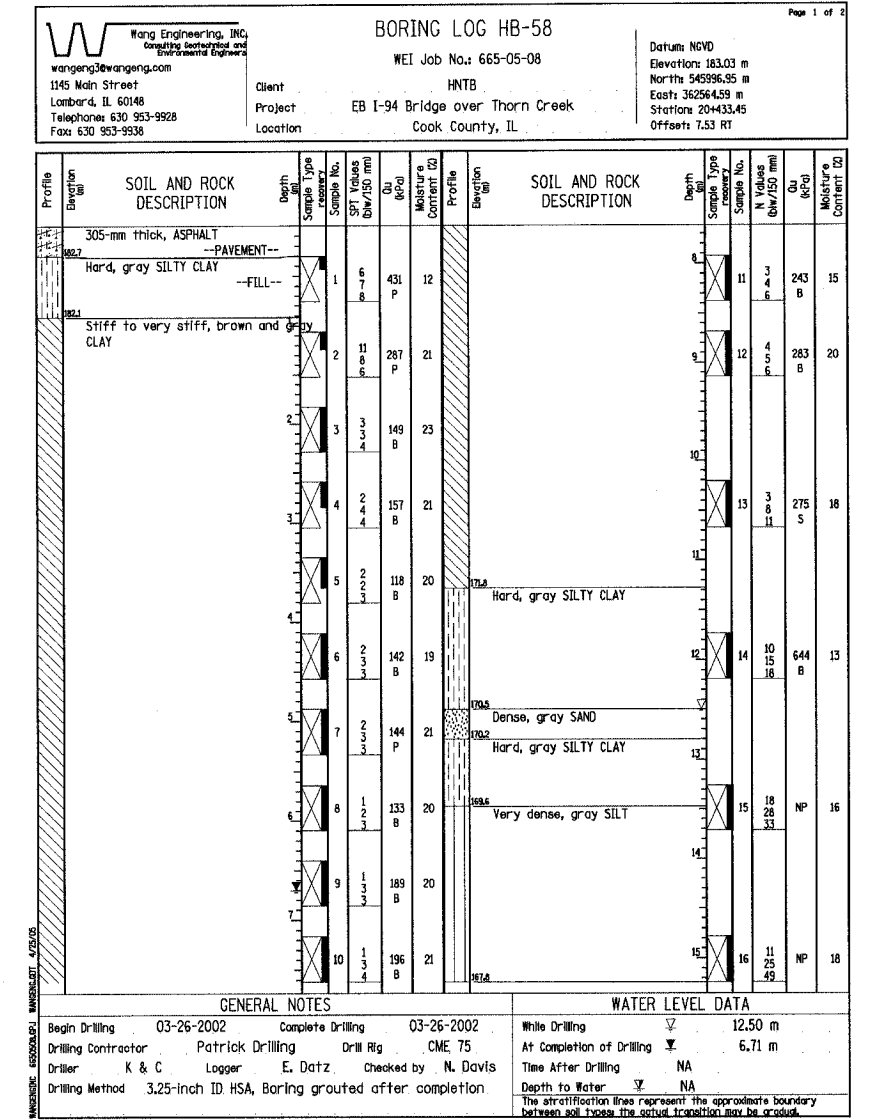
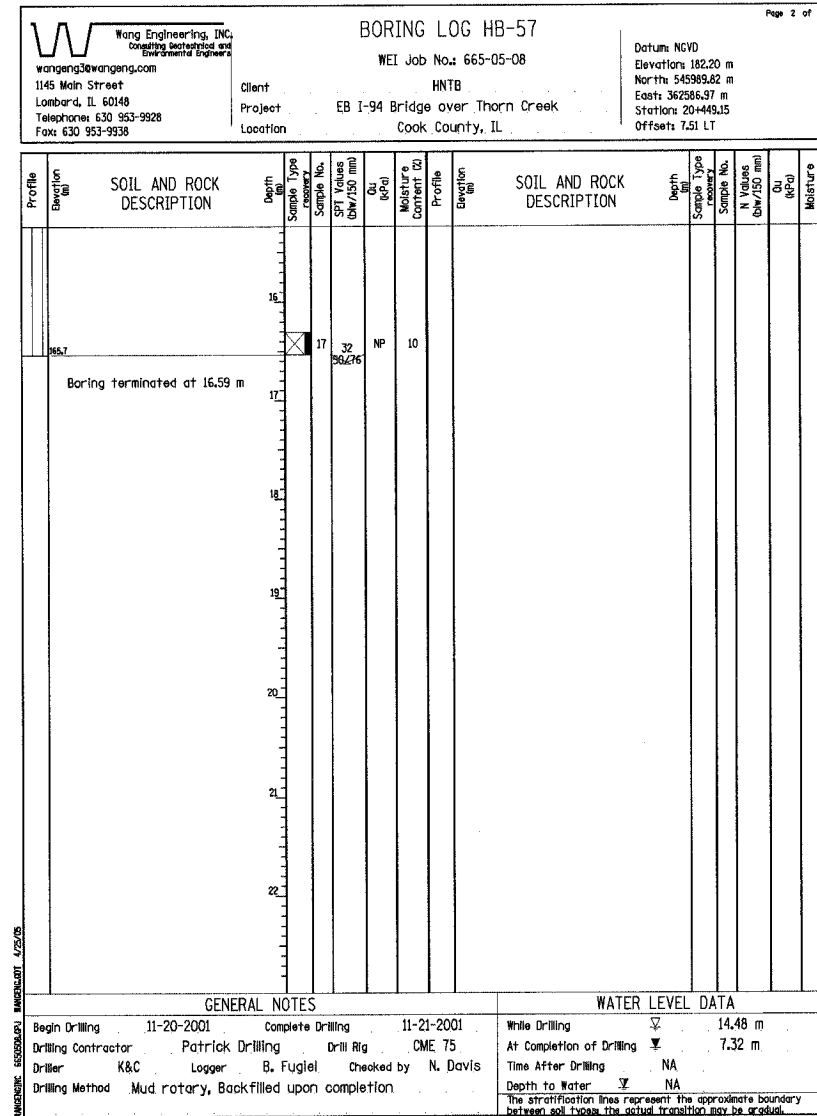
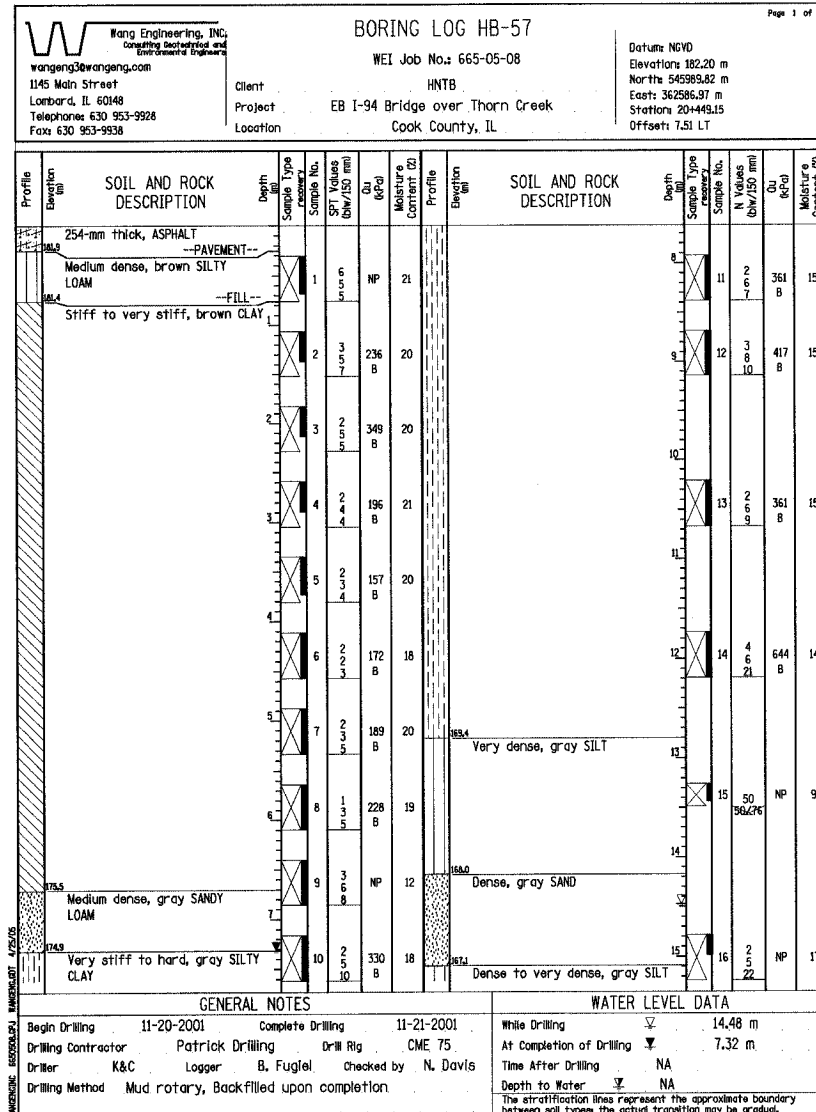
WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 182.75 m
North: 545883.98 m
East: 362636.71 m
Station: 20+565.96
Offset: 8.58 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|---|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 15.2 | 152.4-mm thick, ASPHALT --PAVEMENT-- | 15.2 | | | | 15.2 | | 15.2 | | | |
| 14.3 | CRUSHED STONE --BASE COURSE-- | 14.3 | 1 | 4 | NP | 14.3 | | 14.3 | | | |
| 11.1 | Medium stiff to very stiff, gray CLAY --FILL-- | 11.1 | 2 | 96 | 30 | 11.1 | | 11.1 | | | |
| 10.2 | | 10.2 | 3 | 287 | 22 | 10.2 | | 10.2 | | | |
| 9.4 | | 9.4 | 4 | 216 | 23 | 9.4 | | 9.4 | | | |
| 8.6 | | 8.6 | 5 | 48 | 23 | 8.6 | | 8.6 | | | |
| 7.8 | Very soft, gray CLAY | 7.8 | 6 | 424 | 25 | 7.8 | | 7.8 | | | |
| 7.0 | | 7.0 | 7 | NP | 30 | 7.0 | | 7.0 | | | |
| 6.2 | Loose, coarse, brown SANDY LOAM, trace organics | 6.2 | 8 | 24 | 43 | 6.2 | | 6.2 | | | |
| 5.4 | Soft, gray CLAY, with sand interbeds | 5.4 | 9 | 275 | 23 | 5.4 | | 5.4 | | | |
| 4.6 | Medium dense, gray SILT | 4.6 | 10 | 267 | 24 | 4.6 | | 4.6 | | | |
| 3.8 | Very stiff to hard, gray SILTY CLAY | 3.8 | | | | 3.8 | | 3.8 | | | |
| 3.0 | | 3.0 | | | | 3.0 | | 3.0 | | | |
| 2.2 | | 2.2 | | | | 2.2 | | 2.2 | | | |
| 1.4 | | 1.4 | | | | 1.4 | | 1.4 | | | |
| 0.6 | | 0.6 | | | | 0.6 | | 0.6 | | | |
| -0.2 | | -0.2 | | | | -0.2 | | -0.2 | | | |
| -1.0 | | -1.0 | | | | -1.0 | | -1.0 | | | |
| -1.8 | | -1.8 | | | | -1.8 | | -1.8 | | | |
| -2.6 | | -2.6 | | | | -2.6 | | -2.6 | | | |
| -3.4 | | -3.4 | | | | -3.4 | | -3.4 | | | |
| -4.2 | | -4.2 | | | | -4.2 | | -4.2 | | | |
| -5.0 | | -5.0 | | | | -5.0 | | -5.0 | | | |
| -5.8 | | -5.8 | | | | -5.8 | | -5.8 | | | |
| -6.6 | | -6.6 | | | | -6.6 | | -6.6 | | | |
| -7.4 | | -7.4 | | | | -7.4 | | -7.4 | | | |
| -8.2 | | -8.2 | | | | -8.2 | | -8.2 | | | |
| -9.0 | | -9.0 | | | | -9.0 | | -9.0 | | | |
| -9.8 | | -9.8 | | | | -9.8 | | -9.8 | | | |
| -10.6 | | -10.6 | | | | -10.6 | | -10.6 | | | |
| -11.4 | | -11.4 | | | | -11.4 | | -11.4 | | | |
| -12.2 | | -12.2 | | | | -12.2 | | -12.2 | | | |
| -13.0 | | -13.0 | | | | -13.0 | | -13.0 | | | |
| -13.8 | | -13.8 | | | | -13.8 | | -13.8 | | | |
| -14.6 | | -14.6 | | | | -14.6 | | -14.6 | | | |
| -15.4 | | -15.4 | | | | -15.4 | | -15.4 | | | |
| -16.2 | | -16.2 | | | | -16.2 | | -16.2 | | | |
| -17.0 | | -17.0 | | | | -17.0 | | -17.0 | | | |
| -17.8 | | -17.8 | | | | -17.8 | | -17.8 | | | |
| -18.6 | | -18.6 | | | | -18.6 | | -18.6 | | | |
| -19.4 | | -19.4 | | | | -19.4 | | -19.4 | | | |
| -20.2 | | -20.2 | | | | -20.2 | | -20.2 | | | |
| -21.0 | | -21.0 | | | | -21.0 | | -21.0 | | | |
| -21.8 | | -21.8 | | | | -21.8 | | -21.8 | | | |
| -22.6 | | -22.6 | | | | -22.6 | | -22.6 | | | |
| -23.4 | | -23.4 | | | | -23.4 | | -23.4 | | | |
| -24.2 | | -24.2 | | | | -24.2 | | -24.2 | | | |
| -25.0 | | -25.0 | | | | -25.0 | | -25.0 | | | |
| -25.8 | | -25.8 | | | | -25.8 | | -25.8 | | | |
| -26.6 | | -26.6 | | | | -26.6 | | -26.6 | | | |
| -27.4 | | -27.4 | | | | -27.4 | | -27.4 | | | |
| -28.2 | | -28.2 | | | | -28.2 | | -28.2 | | | |
| -29.0 | | -29.0 | | | | -29.0 | | -29.0 | | | |
| -29.8 | | -29.8 | | | | -29.8 | | -29.8 | | | |
| -30.6 | | -30.6 | | | | -30.6 | | -30.6 | | | |
| -31.4 | | -31.4 | | | | -31.4 | | -31.4 | | | |
| -32.2 | | -32.2 | | | | -32.2 | | -32.2 | | | |
| -33.0 | | -33.0 | | | | -33.0 | | -33.0 | | | |
| -33.8 | | -33.8 | | | | -33.8 | | -33.8 | | | |
| -34.6 | | -34.6 | | | | -34.6 | | -34.6 | | | |
| -35.4 | | -35.4 | | | | -35.4 | | -35.4 | | | |
| -36.2 | | -36.2 | | | | -36.2 | | -36.2 | | | |
| -37.0 | | -37.0 | | | | -37.0 | | -37.0 | | | |
| -37.8 | | -37.8 | | | | -37.8 | | -37.8 | | | |
| -38.6 | | -38.6 | | | | -38.6 | | -38.6 | | | |
| -39.4 | | -39.4 | | | | -39.4 | | -39.4 | | | |
| -40.2 | | -40.2 | | | | -40.2 | | -40.2 | | | |
| -41.0 | | -41.0 | | | | -41.0 | | -41.0 | | | |
| -41.8 | | -41.8 | | | | -41.8 | | -41.8 | | | |
| -42.6 | | -42.6 | | | | -42.6 | | -42.6 | | | |
| -43.4 | | -43.4 | | | | -43.4 | | -43.4 | | | |
| -44.2 | | -44.2 | | | | -44.2 | | -44.2 | | | |
| -45.0 | | -45.0 | | | | -45.0 | | -45.0 | | | |
| -45.8 | | -45.8 | | | | -45.8 | | -45.8 | | | |
| -46.6 | | -46.6 | | | | -46.6 | | -46.6 | | | |
| -47.4 | | -47.4 | | | | -47.4 | | -47.4 | | | |
| -48.2 | | -48.2 | | | | -48.2 | | -48.2 | | | |
| -49.0 | | -49.0 | | | | -49.0 | | -49.0 | | | |
| -49.8 | | -49.8 | | | | -49.8 | | -49.8 | | | |
| -50.6 | | -50.6 | | | | -50.6 | | -50.6 | | | |
| -51.4 | | -51.4 | | | | -51.4 | | -51.4 | | | |
| -52.2 | | -52.2 | | | | -52.2 | | -52.2 | | | |
| -53.0 | | -53.0 | | | | -53.0 | | -53.0 | | | |
| -53.8 | | -53.8 | | | | -53.8 | | -53.8 | | | |
| -54.6 | | -54.6 | | | | -54.6 | | -54.6 | | | |
| -55.4 | | -55.4 | | | | -55.4 | | -55.4 | | | |
| -56.2 | | -56.2 | | | | -56.2 | | -56.2 | | | |
| -57.0 | | -57.0 | | | | -57.0 | | -57.0 | | | |
| -57.8 | | -57.8 | | | | -57.8 | | -57.8 | | | |
| -58.6 | | -58.6 | | | | -58.6 | | -58.6 | | | |
| -59.4 | | -59.4 | | | | -59.4 | | -59.4 | | | |
| -60.2 | | -60.2 | | | | -60.2 | | -60.2 | | | |
| -61.0 | | -61.0 | | | | -61.0 | | -61.0 | | | |
| -61.8 | | -61.8 | | | | -61.8 | | -61.8 | | | |
| -62.6 | | -62.6 | | | | -62.6 | | -62.6 | | | |
| -63.4 | | -63.4 | | | | -63.4 | | -63.4 | | | |
| -64.2 | | -64.2 | | | | -64.2 | | -64.2 | | | |
| -65.0 | | -65.0 | | | | -65.0 | | -65.0 | | | |
| -65.8 | | -65.8 | | | | -65.8 | | -65.8 | | | |
| -66.6 | | -66.6 | | | | -66.6 | | -66.6 | | | |
| -67.4 | | -67.4 | | | | -67.4 | | -67.4 | | | |
| -68.2 | | -68.2 | | | | -68.2 | | -68.2 | | | |
| -69.0 | | -69.0 | | | | -69.0 | | -69.0 | | | |
| -69.8 | | -69.8 | | | | -69.8 | | -69.8 | | | |
| -70.6 | | -70.6 | | | | -70.6 | | -70.6 | | | |
| -71.4 | | -71.4 | | | | -71.4 | | -71.4 | | | |
| -72.2 | | -72.2 | | | | -72.2 | | -72.2 | | | |
| -73.0 | | -73.0 | | | | -73.0 | | -73.0 | | | |
| -73.8 | | -73.8 | | | | -73.8 | | -73.8 | | | |
| -74.6 | | -74.6 | | | | -74.6 | | -74.6 | | | |
| -75.4 | | -75.4 | | | | -75.4 | | -75.4 | | | |
| -76.2 | | -76.2 | | | | -76.2 | | -76.2 | | | |
| -77.0 | | -77.0 | | | | -77.0 | | -77.0 | | | |
| -77.8 | | -77.8 | | | | -77.8 | | -77.8 | | | |
| -78.6 | | -78.6 | | | | -78.6 | | -78.6 | | | |
| -79.4 | | -79.4 | | | | -79.4 | | -79.4 | | | |
| -80.2 | | -80.2 | | | | -80.2 | | -80.2 | | | |
| -81.0 | | -81.0 | | | | -81.0 | | -81.0 | | | |
| -81.8 | | -81.8 | | | | -81.8 | | -81.8 | | | |
| -82.6 | | -82.6 | | | | -82.6 | | -82.6 | | | |
| -83.4 | | -83.4 | | | | -83.4 | | -83.4 | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|-----------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 52 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 662 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | CONTRACT NO. 62108 |
| | | | 0203.1 & 0312-708WR-3 | | |



JB:beuchamp
at:34562\CADD\51\SL_2807\cadd\CTR_19_2807\lpi\90014s_2807.dgn
09-JUL-2005 14:50

| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOIL BORING LOGS HB-57 & HB-58
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|------------------------|--------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 53 56 SHEETS |
| F. A. I. 80/94 | * | COOK | 870 | 663 | |
| FED. ROAD DIST. NO. 1 | | BLDG. NO. | FED. AID PROJECT- | | |
| | | 02031.1 & 0312-708WR-3 | CONTRACT NO. 62108 | | |

BORING LOG HB-58 Page 2 of 2

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 183.03 m
North: 545896.95 m
East: 362664.59 m
Station: 20+433.45
Offset: 7.53 RT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|------------------------|------------------------------|------------|------------|---------------------------|----------------------|------------------------|---------------------------|------------|------------|---------------------------|----------------------|
| | Boring terminated at 15.24 m | | | | | | | | | | |

| | | | | | | | |
|----------------------|---|-------------------|------------|---|----|---------|--|
| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
| Begin Drilling | 03-26-2002 | Complete Drilling | 03-26-2002 | While Drilling | ▽ | 12.50 m | |
| Drilling Contractor | Patrick Drilling | Drill Rig | CME 75 | At Completion of Drilling | ▽ | 6.71 m | |
| Driller | K & C | Logger | E. Datz | Time After Drilling | NA | | |
| Checked by | N. Davis | | | Depth to Water | ▽ | NA | |
| Drilling Method | 3.25-inch ID HSA, Boring grouted after completion | | | The stratification lines represent the approximate boundary between soil types. The actual transition may be gradual. | | | |

BORING LOG ME-3 Page 1 of 2

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 180.51 m
North: 545819.69 m
East: 362633.71 m
Station: 20+649.875
Offset: 9.934 RT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|------------------------|--|------------|------------|---------------------------|----------------------|------------------------|---------------------------|------------|------------|---------------------------|----------------------|
| 183.03 | 10-inch thick, black SILTY LOAM | 0 | 1 | 2 | 192 | 17 | | | | | |
| | Very stiff, gray CLAY | 1 | 2 | 2 | | | | | | | |
| 179.6 | Very soft to soft, dark greenish-gray CLAY LOAM to SILTY CLAY LOAM | 2 | 3 | 3 | 39 | 27 | | | | | |
| | | 3 | 4 | 1 | 15 | 35 | | | | | |
| 174.7 | Very loose, brown and gray, fine, SAND | 4 | 5 | 1 | 15 | 22 | | | | | |
| 172.7 | Very soft to soft, greenish-gray SILTY LOAM to SILTY CLAY LOAM | 5 | 6 | 1 | 47 | 25 | | | | | |
| | | 6 | 7 | 0 | 55 | 31 | | | | | |
| | | 7 | 8 | 0 | 15 | 50 | | | | | |
| | | 8 | 9 | 0 | 15 | 37 | | | | | |
| 154.3 | Very loose to medium dense, gray, LOAM to SILTY LOAM | 9 | 10 | 3 | NP | 20 | | | | | |
| | | 10 | 11 | 4 | 24 | 21 | | | | | |
| | | 11 | 12 | 0 | | | | | | | |
| | | 12 | 13 | 0 | | | | | | | |
| | | 13 | 14 | 0 | | | | | | | |
| | | 14 | 15 | 0 | | | | | | | |
| | | 15 | 16 | 0 | | | | | | | |
| | | 16 | 17 | 0 | | | | | | | |
| | | 17 | 18 | 0 | | | | | | | |
| | | 18 | 19 | 0 | | | | | | | |
| | | 19 | 20 | 0 | | | | | | | |
| | | 20 | 21 | 0 | | | | | | | |

| | | | | | | | |
|----------------------|------------------|-------------------|------------|---|----------|--------|--|
| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
| Begin Drilling | 12-08-2003 | Complete Drilling | 12-08-2003 | While Drilling | ▽ | 7.01 m | |
| Drilling Contractor | Patrick Drilling | Drill Rig | CME 75 ATV | At Completion of Drilling | ▽ | 5.49 m | |
| Driller | K&L | Logger | E. Datz | Time After Drilling | 24 hours | | |
| Checked by | E. Datz | | | Depth to Water | ▽ | 1.93 m | |
| Drilling Method | 3.25" IDA HSA | | | The stratification lines represent the approximate boundary between soil types. The actual transition may be gradual. | | | |

BORING LOG ME-3 Page 2 of 2

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 180.51 m
North: 545819.69 m
East: 362633.71 m
Station: 20+649.875
Offset: 9.934 RT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|------------------------|-------------------------------------|------------|------------|---------------------------|----------------------|------------------------|---------------------------|------------|------------|---------------------------|----------------------|
| 180.51 | Hard, gray SILTY CLAY, with cobbles | 0 | 21 | 46 | >431 | 8 | | | | | |
| | | 1 | 22 | 34 | >431 | 11 | | | | | |
| | | 2 | 23 | 28 | >431 | 13 | | | | | |
| | | 3 | 24 | 50/3 | >431 | 11 | | | | | |
| | | 4 | 25 | 50/5 | >431 | 11 | | | | | |
| | | 5 | 26 | 50/5 | >431 | 11 | | | | | |
| | | 6 | 27 | 50/5 | >431 | 11 | | | | | |
| | | 7 | 28 | 50/5 | >431 | 11 | | | | | |
| | | 8 | 29 | 50/5 | >431 | 11 | | | | | |
| | | 9 | 30 | 50/5 | >431 | 11 | | | | | |
| | | 10 | 31 | 50/5 | >431 | 11 | | | | | |
| | | 11 | 32 | 50/5 | >431 | 11 | | | | | |
| | | 12 | 33 | 50/5 | >431 | 11 | | | | | |
| | | 13 | 34 | 50/5 | >431 | 11 | | | | | |
| | | 14 | 35 | 50/5 | >431 | 11 | | | | | |
| | | 15 | 36 | 50/5 | >431 | 11 | | | | | |
| | | 16 | 37 | 50/5 | >431 | 11 | | | | | |
| | | 17 | 38 | 50/5 | >431 | 11 | | | | | |
| | | 18 | 39 | 50/5 | >431 | 11 | | | | | |
| | | 19 | 40 | 50/5 | >431 | 11 | | | | | |
| | | 20 | 41 | 50/5 | >431 | 11 | | | | | |
| | | 21 | 42 | 50/5 | >431 | 11 | | | | | |
| | | 22 | 43 | 50/5 | >431 | 11 | | | | | |
| | | 23 | 44 | 50/5 | >431 | 11 | | | | | |
| | | 24 | 45 | 50/5 | >431 | 11 | | | | | |
| | | 25 | 46 | 50/5 | >431 | 11 | | | | | |
| | | 26 | 47 | 50/5 | >431 | 11 | | | | | |
| | | 27 | 48 | 50/5 | >431 | 11 | | | | | |
| | | 28 | 49 | 50/5 | >431 | 11 | | | | | |
| | | 29 | 50 | 50/5 | >431 | 11 | | | | | |
| | | 30 | 51 | 50/5 | >431 | 11 | | | | | |
| | | 31 | 52 | 50/5 | >431 | 11 | | | | | |
| | | 32 | 53 | 50/5 | >431 | 11 | | | | | |
| | | 33 | 54 | 50/5 | >431 | 11 | | | | | |
| | | 34 | 55 | 50/5 | >431 | 11 | | | | | |
| | | 35 | 56 | 50/5 | >431 | 11 | | | | | |
| | | 36 | 57 | 50/5 | >431 | 11 | | | | | |
| | | 37 | 58 | 50/5 | >431 | 11 | | | | | |
| | | 38 | 59 | 50/5 | >431 | 11 | | | | | |
| | | 39 | 60 | 50/5 | >431 | 11 | | | | | |
| | | 40 | 61 | 50/5 | >431 | 11 | | | | | |
| | | 41 | 62 | 50/5 | >431 | 11 | | | | | |
| | | 42 | 63 | 50/5 | >431 | 11 | | | | | |
| | | 43 | 64 | 50/5 | >431 | 11 | | | | | |
| | | 44 | 65 | 50/5 | >431 | 11 | | | | | |
| | | 45 | 66 | 50/5 | >431 | 11 | | | | | |
| | | 46 | 67 | 50/5 | >431 | 11 | | | | | |
| | | 47 | 68 | 50/5 | >431 | 11 | | | | | |
| | | 48 | 69 | 50/5 | >431 | 11 | | | | | |
| | | 49 | 70 | 50/5 | >431 | 11 | | | | | |
| | | 50 | 71 | 50/5 | >431 | 11 | | | | | |
| | | 51 | 72 | 50/5 | >431 | 11 | | | | | |
| | | 52 | 73 | 50/5 | >431 | 11 | | | | | |
| | | 53 | 74 | 50/5 | >431 | 11 | | | | | |
| | | 54 | 75 | 50/5 | >431 | 11 | | | | | |
| | | 55 | 76 | 50/5 | >431 | 11 | | | | | |
| | | 56 | 77 | 50/5 | >431 | 11 | | | | | |
| | | 57 | 78 | 50/5 | >431 | 11 | | | | | |
| | | 58 | 79 | 50/5 | >431 | 11 | | | | | |
| | | 59 | 80 | 50/5 | >431 | 11 | | | | | |
| | | 60 | 81 | 50/5 | >431 | 11 | | | | | |
| | | 61 | 82 | 50/5 | >431 | 11 | | | | | |
| | | 62 | 83 | 50/5 | >431 | 11 | | | | | |
| | | 63 | 84 | 50/5 | >431 | 11 | | | | | |
| | | 64 | 85 | 50/5 | >431 | 11 | | | | | |
| | | 65 | 86 | 50/5 | >431 | 11 | | | | | |
| | | 66 | 87 | 50/5 | >431 | 11 | | | | | |
| | | 67 | 88 | 50/5 | >431 | 11 | | | | | |
| | | 68 | 89 | 50/5 | >431 | 11 | | | | | |
| | | 69 | 90 | 50/5 | >431 | 11 | | | | | |
| | | 70 | 91 | 50/5 | >431 | 11 | | | | | |
| | | 71 | 92 | 50/5 | >431 | 11 | | | | | |
| | | 72 | 93 | 50/5 | >431 | 11 | | | | | |
| | | 73 | 94 | 50/5 | >431 | 11 | | | | | |
| | | 74 | 95 | 50/5 | >431 | 11 | | | | | |
| | | 75 | 96 | 50/5 | >431 | 11 | | | | | |
| | | 76 | 97 | 50/5 | >431 | 11 | | | | | |
| | | 77 | 98 | 50/5 | >431 | 11 | | | | | |
| | | 78 | 99 | 50/5 | >431 | 11 | | | | | |
| | | 79 | 100 | 50/5 | >431 | 11 | | | | | |
| | | 80 | 101 | 50/5 | >431 | 11 | | | | | |
| | | 81 | 102 | 50/5 | >431 | 11 | | | | | |
| | | 82 | 103 | 50/5 | >431 | 11 | | | | | |
| | | 83 | 104 | 50/5 | >431 | 11 | | | | | |
| | | 84 | 105 | 50/5 | >431 | 11 | | | | | |
| | | 85 | 106 | 50/5 | >431 | 11 | | | | | |
| | | 86 | 107 | 50/5 | >431 | 11 | | | | | |
| | | 87 | 108 | 50/5 | >431 | 11 | | | | | |
| | | 88 | 109 | 50/5 | >431 | 11 | | | | | |
| | | 89 | 110 | 50/5 | >431 | 11 | | | | | |
| | | 90 | 111 | 50/5 | >431 | 11 | | | | | |
| | | 91 | 112 | 50/5 | >431 | 11 | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|--------------------|-------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 54 56 SHEETS |
| F. A. I. 80/94 | - | COOK | 870 | 664 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| 0203.1 & 0312-708WR-3 | | CONTRACT NO. 62108 | | | |

W Wang Engineering, Inc.
wangeng3@wangseng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG ME-3ST
WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 180.51 m
North: 54583.81 m
East: 36268.75 m
Station: 20+648.875
Offset: 9.934 RT

Page 1 of 1

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|---|-----------|------------|---------------------------|----------------------|-----------------------|-----------------------------------|-----------|------------|---------------------------|----------------------|
| 180.3 | 10-inch thick black silty loam | 0 | | | | 180.3 | --(25-27) LL=NP, PL=NP, Fines=54% | 13 | P 23 | | 22 |
| | Stiff, brown CLAY | 0-3' | | | | | | 14 | P 46 | | 22 |
| 178.6 | Very soft to soft, greenish gray CLAY LOAM to SILTY CLAY LOAM | 3-5' | | | | | --(29-31) LL=NP, PL=NP | 15 | P 33 | | 22 |
| | | 5-7' | | | | | | 16 | P 24 | | 22 |
| | | 7-9' | | | | | | 17 | P 24 | | 22 |
| 177.2 | Loose, brown and gray, fine SAND | 9-11' | | | | | --(33-35) LL=NP, PL=NP | 18 | P 24 | | 22 |
| | Loose, greenish gray SILTY LOAM to SILTY CLAY LOAM | 11-12.8' | | | | | | | | | |
| | | 12.8-13' | | | | | | 12 | P 24 | | 22 |
| | | 13-15' | | | | | | 14 | P 46 | | 22 |
| | | 15-17' | | | | | | 15 | P 55 | | 22 |
| | | 17-19' | | | | | | 16 | P 49 | | 22 |
| | | 19-21' | | | | | | 17 | P 24 | | 22 |
| 174.1 | Loose, greenish gray LOAM to SILTY LOAM | 21-23' | | | | | | 18 | P 24 | | 22 |
| | | 23-25' | | | | | | 19 | P 53 | | 22 |

| GENERAL NOTES | | WATER LEVEL DATA | |
|---------------------|------------------|---------------------------|------------|
| Begin Drilling | 12-09-2003 | Complete Drilling | 12-09-2003 |
| Drilling Contractor | Patrick Drilling | Drill Rig | CME 75 ATV |
| Driller | K&L | Logger | E. Datz |
| Drilling Method | 3.25" IDA HSA | Checked by | E. Datz |
| While Drilling | 6.40 m | At Completion of Drilling | 8.84 m |
| Time After Drilling | 24 hours | Depth to Water | 2.44 m |

W Wang Engineering, Inc.
wangeng3@wangseng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG ME-3STB
WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 180.35 m
North: 54582.81 m
East: 36268.75 m
Station: 20+637.77
Offset: 11.443 RT

Page 1 of 1

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|---|-----------|------------|---------------------------|----------------------|
| 180.3 | 10-inch thick, black SILTY LOAM | 0 | | | | 180.3 | Medium stiff, brown and gray SANDY LOAM | 10 | P 48 | | 22 |
| | Medium stiff to stiff, brown SILTY CLAY to SILTY CLAY LOAM | 0-1' | | | | | | 11 | P 46 | | 22 |
| | | 1-2' | | | | | | 12 | P 24 | | 22 |
| | | 2-3' | | | | | | 13 | P 48 | | 22 |
| | | 3-4' | | | | | | 14 | P 24 | | 22 |
| | | 4-5' | | | | | | 15 | P 24 | | 22 |
| | | 5-6' | | | | | | 16 | P 24 | | 22 |
| | | 6-7' | | | | | | 17 | P 24 | | 22 |
| | | 7-8' | | | | | | 18 | P 24 | | 22 |
| | | 8-9' | | | | | | 19 | P 24 | | 22 |
| | | 9-10' | | | | | | 20 | P 24 | | 22 |

| GENERAL NOTES | | WATER LEVEL DATA | |
|---------------------|------------------|---------------------------|-------------|
| Begin Drilling | 02-02-2004 | Complete Drilling | 02-02-2004 |
| Drilling Contractor | Patrick Drilling | Drill Rig | CME 75 ATV |
| Driller | K&E | Logger | S. Janowski |
| Drilling Method | 3.25" IDA HSA | Checked by | |
| While Drilling | 4.72 m | At Completion of Drilling | DRY |
| Time After Drilling | NA | Depth to Water | NA |

W Wang Engineering, Inc.
wangeng3@wangseng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG MR-14
WEI Job No.: 665-05-08
Client: HNTB
Project: EB I-94 Bridge over Thorn Creek
Location: Cook County, IL

Datum: NGVD
Elevation: 179.84 m
North: 54582.68 m
East: 36268.10 m
Station: 20+638.42
Offset: 8.00 LT

Page 1 of 1

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|---|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 180.3 | Dark brown and black CLAY LOAM | 0 | | | | 180.3 | Dense, gray SILT | 10 | P 32 | | 15 |
| | Very stiff, dark brown CLAY | 0-1' | | | | | | 11 | P 32 | | 15 |
| 178.6 | Soft and very soft, brownish gray to greenish gray CLAY with organic matter | 1-2' | | | | | | 12 | P 37 | | 15 |
| | | 2-3' | | | | | | 13 | P 23 | | 18 |
| | | 3-4' | | | | | | 14 | P 22 | | 16 |
| | | 4-5' | | | | | | 15 | P 24 | | 22 |
| | | 5-6' | | | | | | 16 | P 21 | | 22 |
| | | 6-7' | | | | | | 17 | P 51 | | 20 |
| | | 7-8' | | | | | | 18 | P 54 | | 20 |
| | | 8-9' | | | | | | 19 | P 52 | | 20 |
| | | 9-10' | | | | | | 20 | P 36 | | 15 |

| GENERAL NOTES | | WATER LEVEL DATA | |
|---------------------|---|---------------------------|-------------|
| Begin Drilling | 12-21-2001 | Complete Drilling | 12-21-2001 |
| Drilling Contractor | Mid-America Drilling | Drill Rig | D-120 ATV |
| Driller | E&C | Logger | E. Datz |
| Drilling Method | 2.25-in ID HSA; Boring backfilled upon completion | Checked by | L. Iordache |
| While Drilling | 2.44 m | At Completion of Drilling | 2.44 m |
| Time After Drilling | NA | Depth to Water | NA |

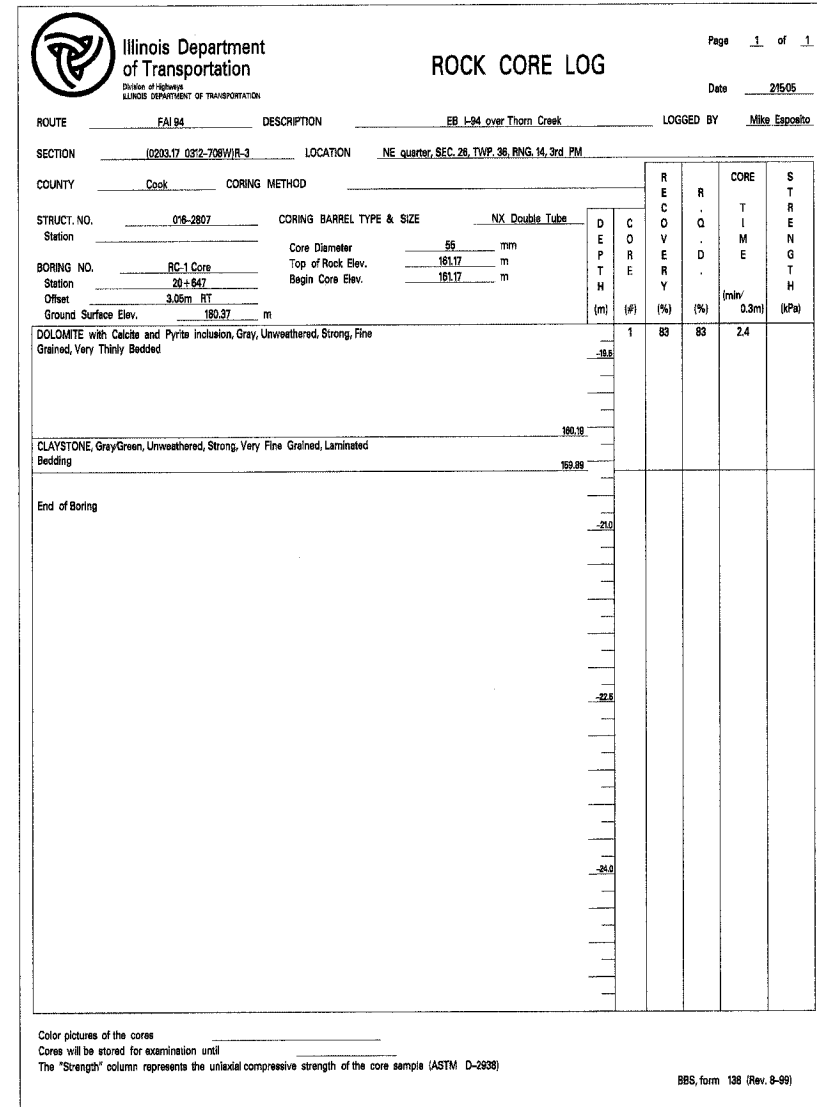
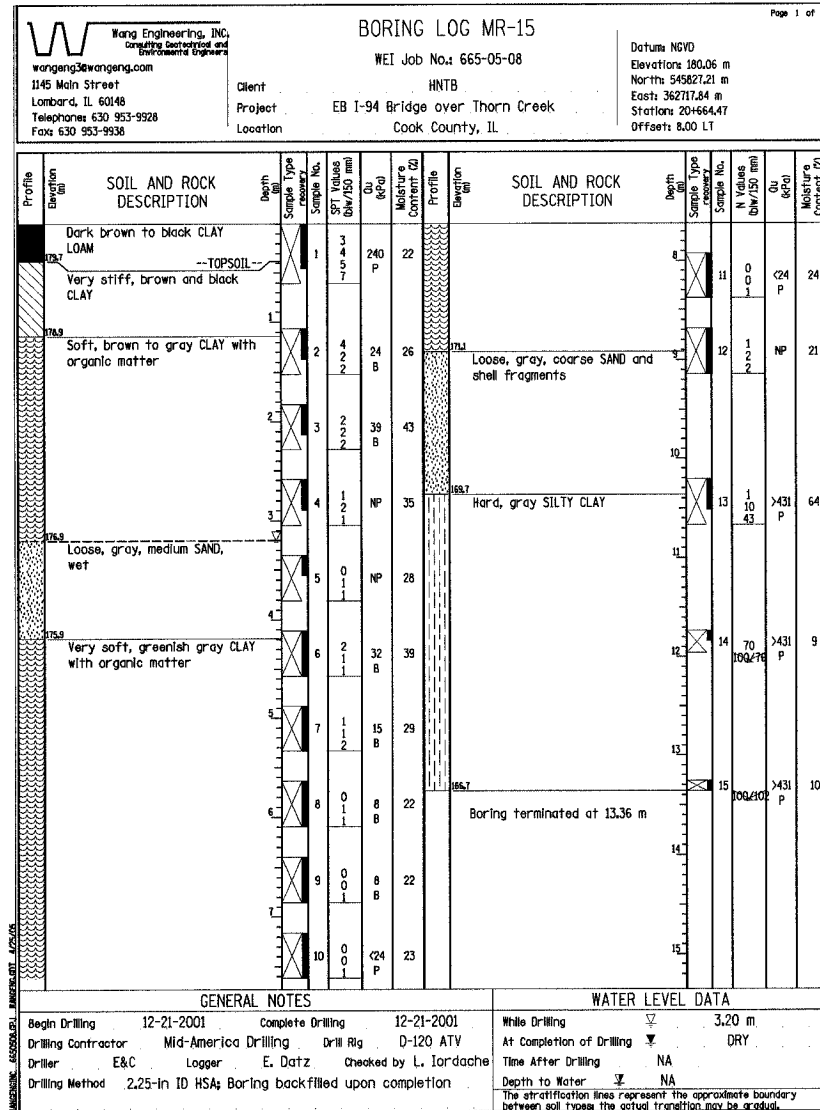
J:\Beauchamp\J:\34562\CD\01\SN_2807\cd\ACTR_19_2807\bp190014a_2807.dgn
08-JUL-2005 14:59

| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOIL BORING LOGS
ME-3ST, ME-3STB & MR-14
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--------------------------------|--------------|---------------------------|---------------------|--------------------|---------------------------|
| ROUTE NO. F. A. I. 80/94 | SECTION * | COUNTY COOK | TOTAL SHEETS 870 | SHEET NO. 665 | SHEET NO. 55 56 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | CONTRACT NO. 62108 | |
| 0203.1 & 0312-708WR-3 | | | | | |



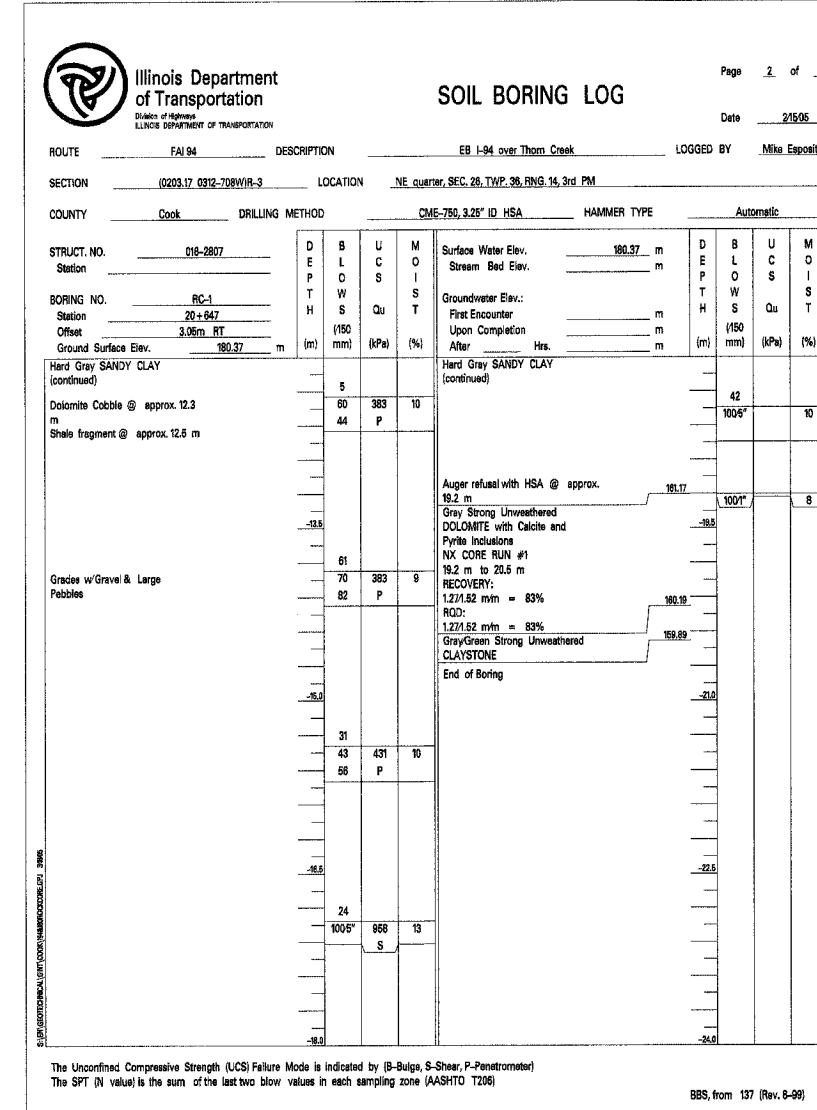
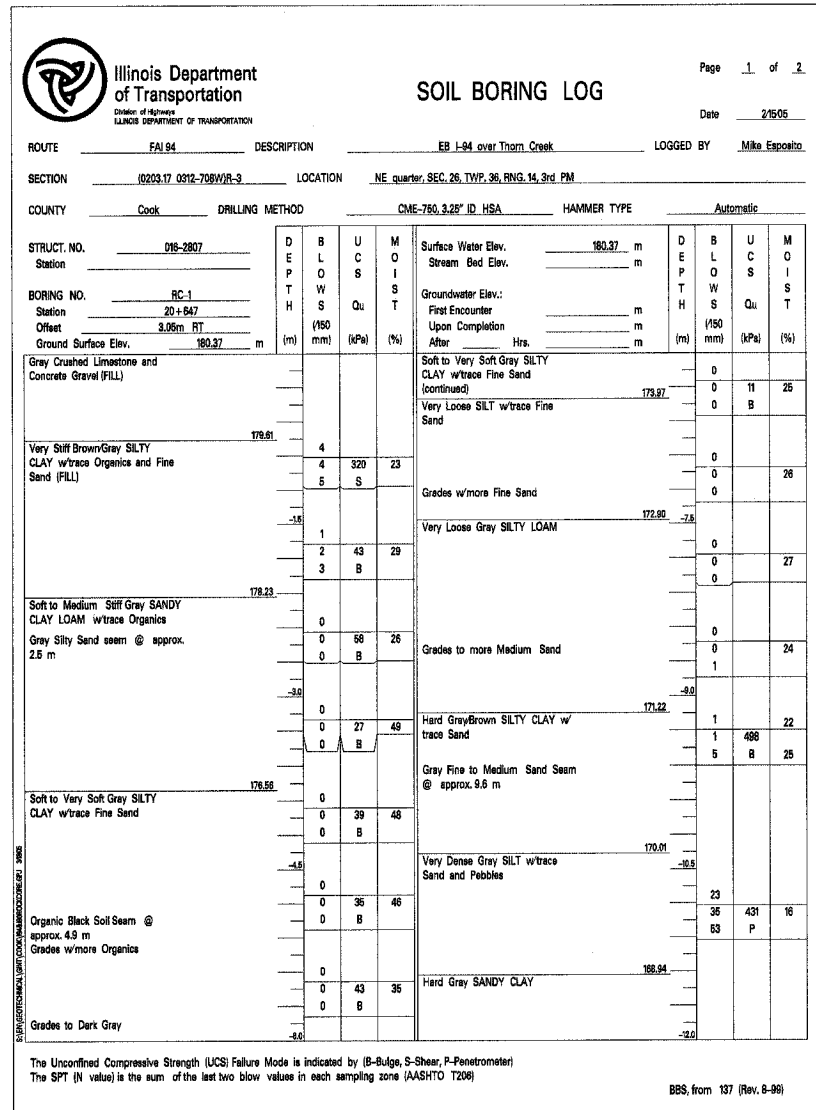
J:\Beauchamp
J:\34952\GARD\SN_2807\cadd\CTR_19_2807\sp\90014_s_2807.dgn
08-JUL-2005 1:43:10

| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOIL BORING LOGS MR-15 & RC-1C
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|--------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 56 56 SHEETS |
| F. A. I. 80/94 | - | COOK | 870 | 666 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | | |
| 0203.1 & 0312-708WR-3 | | | CONTRACT NO. 62108 | | |

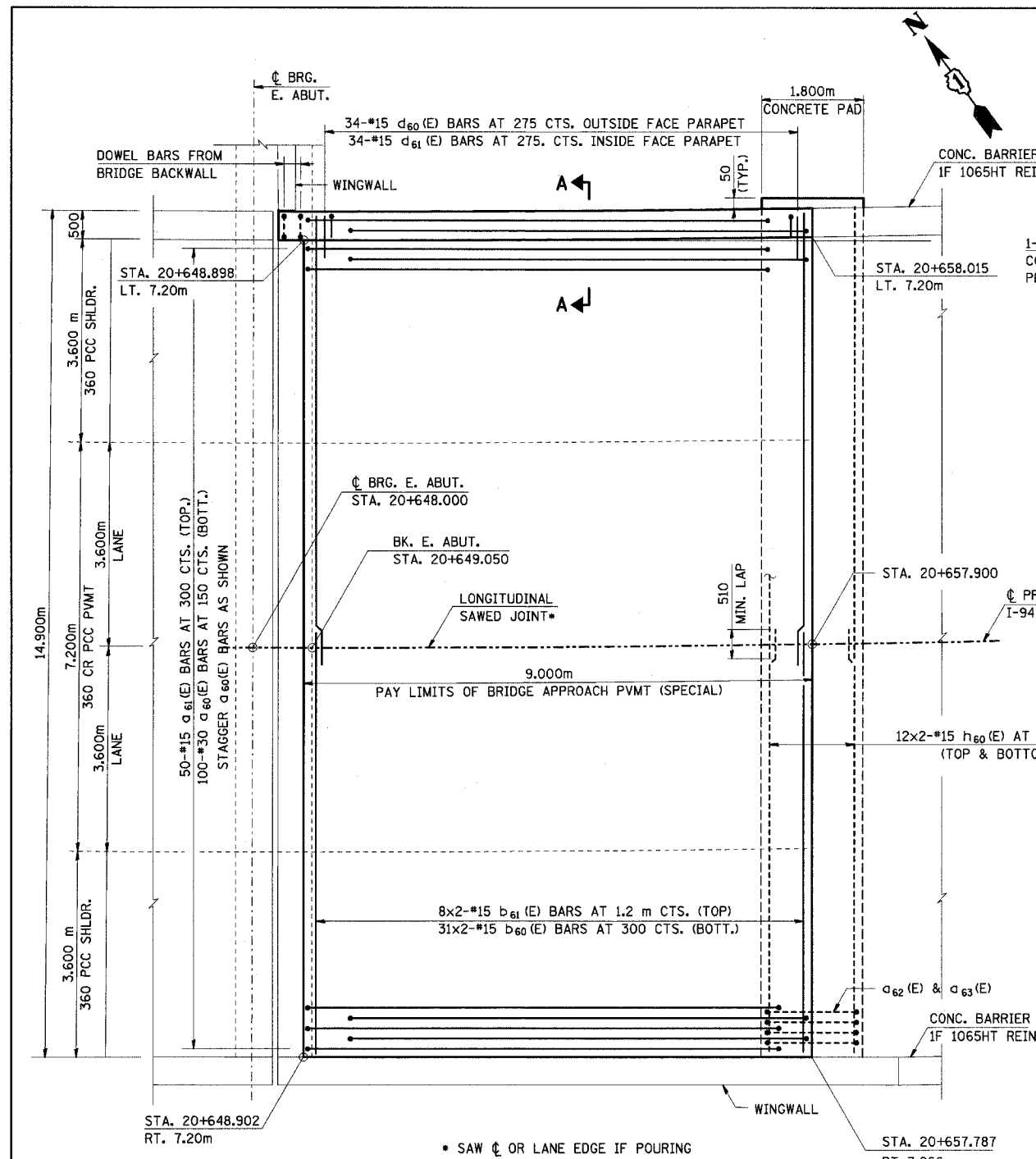


J:\Beauchamp\3134562\GADD\SN_2807\cds\CTR_1\1_2807\bp1\90814_n_2807.dgn
08-JUL-2005 14:30

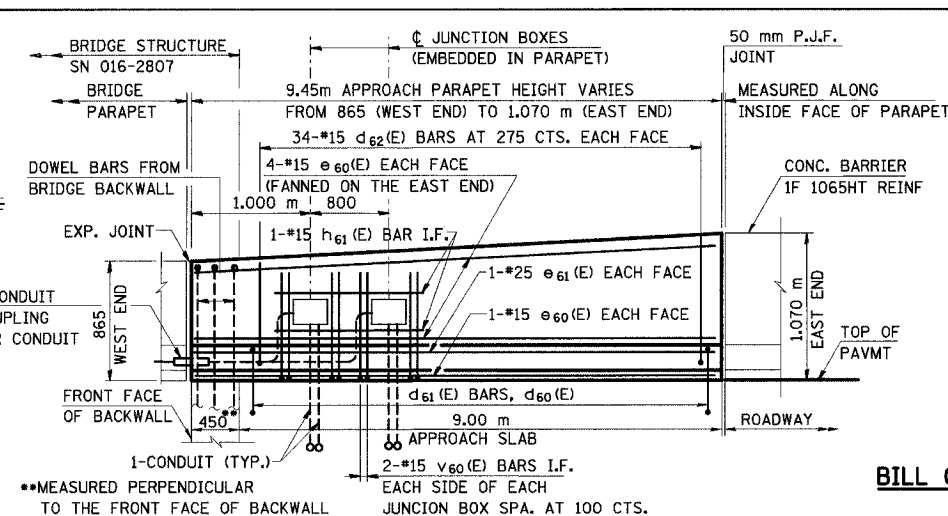
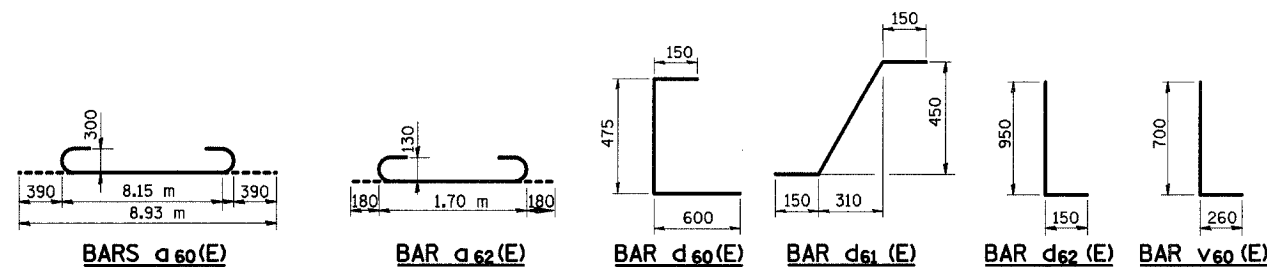
| | |
|----------|-----|
| DESIGNED | --- |
| CHECKED | --- |
| DRAWN | LK |
| CHECKED | JJK |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
BORING LOGS RC-1
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE JUL 18, 2005
SCALE ---
HNTB

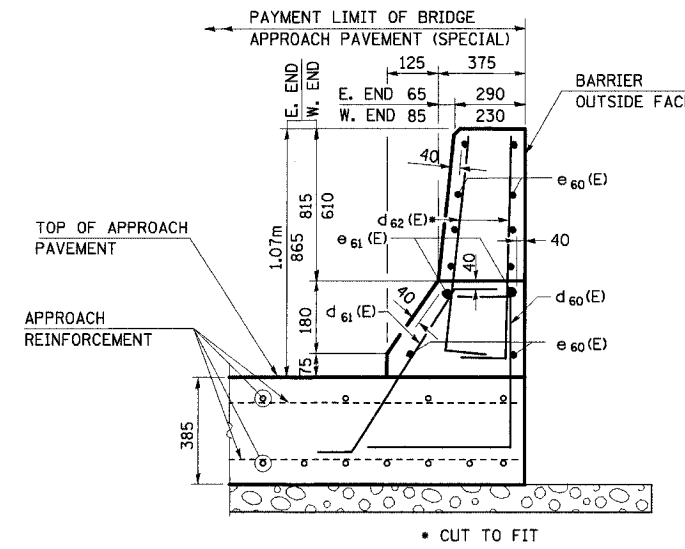
| FBI RTE | SECTION | COUNTY | TOTAL SHEETS NO. | SHEET NO. |
|--------------------|---------|---------------------------|------------------|-----------|
| 80/94 | * | COOK | 870 | 667 |
| STA. | | TO STA. | | |
| FED ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



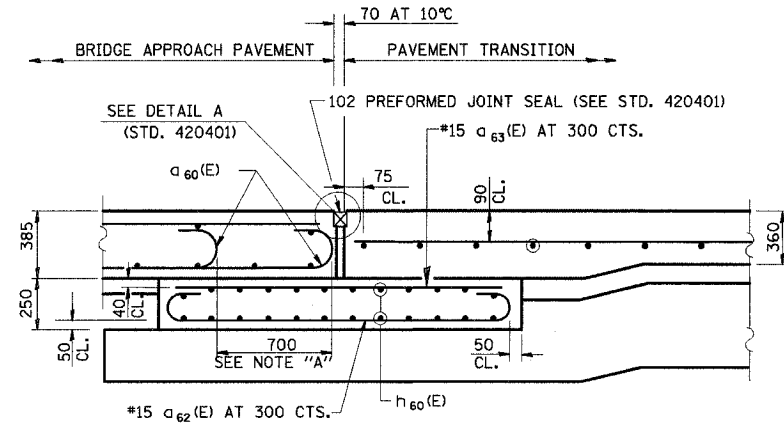
PLAN



NORTH PARAPET ELEVATION



SECTION A-A



SECTION G-G (SHOWING REINFORCEMENT)

NOTE "A"
STAGGER a60(E) BARS AS SHOWN ON PLAN-FULL WIDTH

FOR DETAILS NOT SHOWN, SEE "SECTION C-C AND G-G- RIGID PAVEMENT", STANDARD 420401

BILL OF MATERIAL BRIDGE APPROACH PAVEMENT (SPECIAL)

| BAR NO. | SIZE | LENGTH (M) | SHAPE |
|--------------------------------------|------|------------|--------------------|
| d60(E) | *100 | 8.93 | U |
| d61(E) | *15 | 8.90 | U |
| d62(E) | *15 | 2.06 | U |
| d63(E) | *15 | 1.70 | U |
| b60(E) | *15 | 7.66 | U |
| b61(E) | *15 | 7.66 | U |
| h60(E) | *15 | 7.68 | U |
| h61(E) | *15 | 2.40 | U |
| d60(E) | *15 | 1.23 | U |
| d61(E) | *15 | 0.84 | U |
| d62(E) | *15 | 1.10 | U |
| e60(E) | *15 | 9.35 | U |
| e61(E) | *25 | 9.35 | U |
| v60(E) | *15 | 0.96 | U |
| REINFORCEMENT BARS, EPOXY COATED (1) | | | KG 7891 |
| BRIDGE APPROACH PAVEMENT (SPECIAL) | | | M ² 135 |

(1) INCLUDED FOR PAYMENT UNDER "BRIDGE APPROACH PAVEMENT (SPECIAL)"

NOTES:

- WORK THIS SHEET WITH BRIDGE APPROACH PAVEMENT STANDARD 420401 AND PAVEMENT JOINTS STD. 420001.
- BARS INDICATED THUS 12x2 ETC. INDICATE 12 LINES OF BARS WITH 2 LENGTHS PER LINE.
- REINFORCEMENT BARS DESIGNATED "E" SHALL BE EPOXY COATED.
- FOR THE 9 m APPROACH PAVEMENT AND SUPPORTING PAD, ALL WORK AND MATERIALS ARE INCLUDED FOR PAYMENT UNDER "BRIDGE APPROACH PAVEMENT (SPECIAL)".
- REFER TO BRIDGE BACKWALL SHEET FOR DWEL BAR DETAILS SHOWN IN NORTH-PARAPET ELEVATION.
- ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

BRIDGE APPROACH PAVEMENT (SPECIAL)
EB I-94 OVER THORN CREEK
STRUCTURE NO. 016-2807
EAST APPROACH

HORIZ SCALE:
VERT SCALE:
DATE: JUL 18, 2005

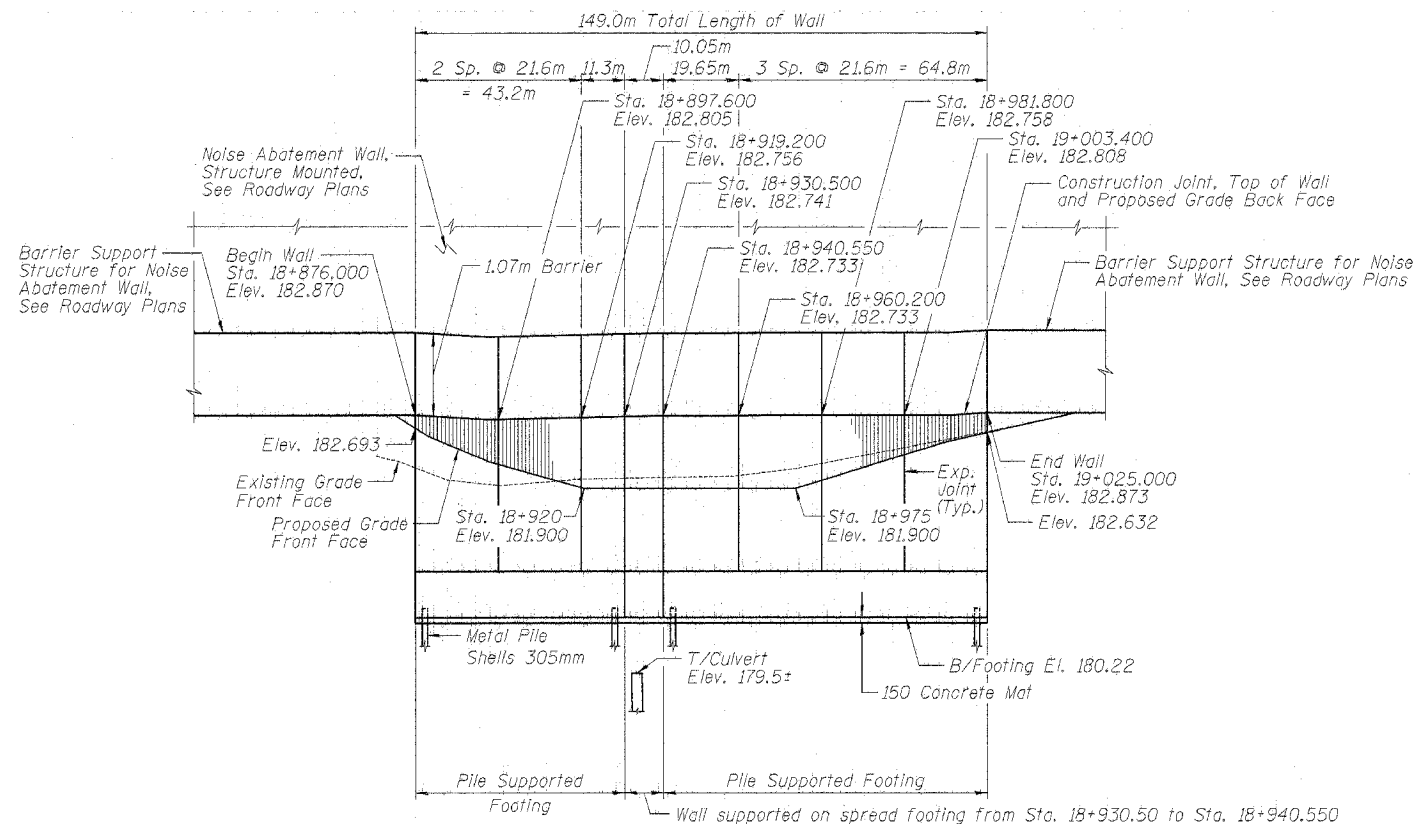
DRAWN BY: LK
CHECKED BY: PY

HNTB

T.B.M. 311: Set cut box on southeast corner of foundation of overhead sign truss; I-94 Eastbound; Approximate Sta. 19+015 (Approximate Mile Marker 73.40); Elev. 183.386

Existing Structure: None

(0203.1 & 0312-708W) R-3 CONTRACT #62108



ELEVATION

GENERAL NOTES

- All dimensions are in millimeters (mm) except as noted.
- Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M Grade 400.
- The Contractor shall drive two 305mm Metal Shell Pile test piles in a permanent location as directed by the Engineer before ordering the remainder of piles.
- Concrete Mat shall be placed after Metal Shell Piles are driven and shall be paid for as Concrete Structures.
- All construction joints shall be bonded.
- Offsets are from the ϕ FAI 94 and are to the Back Face of the retaining wall.
- The back face of the retaining wall shall be waterproofed according to Article 503.18 of the Standard Specifications.

BILL OF MATERIAL

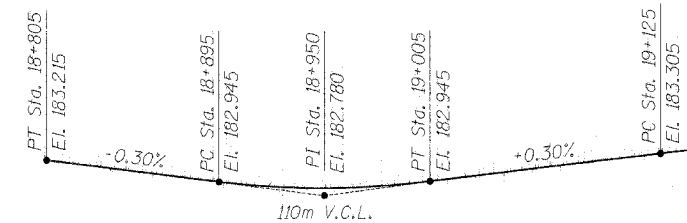
| ITEM | UNIT | QUANTITY |
|--|----------------|----------|
| Structure Excavation | m ³ | 1,073 |
| Concrete Structures | m ³ | 432.6 |
| Reinforcement Bars, Epoxy Coated | kg | 30,300 |
| Protective Coat | m ² | 209 |
| Rustication Finish | m ² | 150 |
| Furnishing Metal Pile Shells 305mm | m | 1,725 |
| Driving and Filling Shells | m | 1,725 |
| Test Pile Metal Shells | Each | 2 |
| Noise Abatement Wall Anchor Rod Assembly | Each | 46 |

PILE DATA

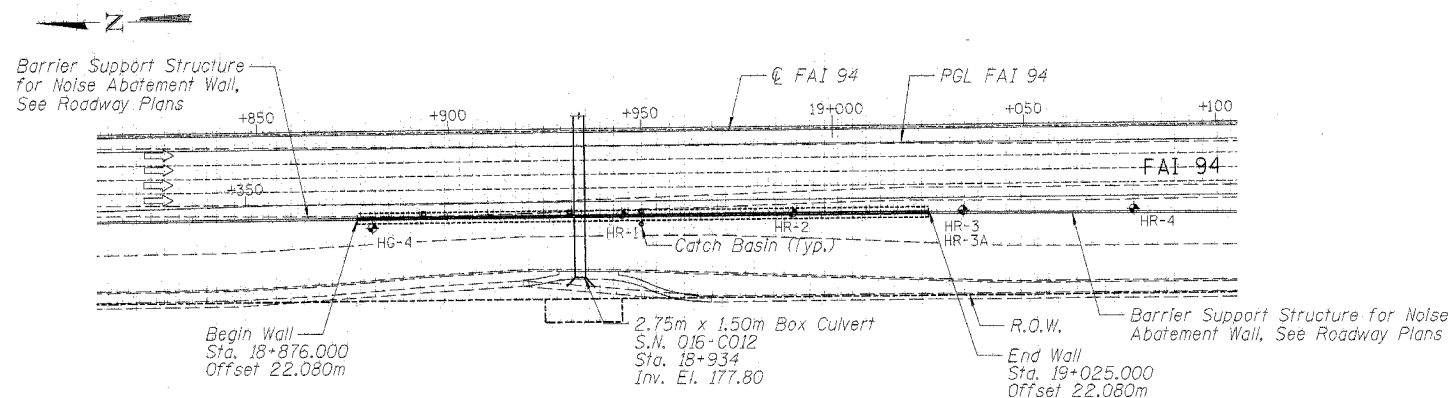
Type: Metal Pile Shells, 305mm
Capacity: 270 kN
Est. Length: 11.5 m
No. Req'd.: 150 plus 2 Test Piles

INDEX OF SHEETS

| Title | Sheet |
|--------------------------|-------|
| General Plan & Elevation | 1 |
| Details & Sections | 2 |
| Plan & Elevation 1 to 4 | 3-6 |
| Reinforcement Details | 7 |
| Plaster Details | 8 |
| Concrete Piles | 9 |
| Soil Boring Logs 1 to 3 | 10-12 |



PROPOSED PROFILE GRADE LINE I-94
(At Inside Edge of Pavement)



PLAN

DESIGN SPECIFICATIONS

2002 AASHTO
1989 AASHTO Guide Specifications for Structural Design of Sound Barriers and 1992 Interim

DESIGN STRESSES

FIELD UNITS
 $f_c = 24$ MPa
 $f_y = 400$ MPa (Reinforcement)

LOADING

Wind Load = 1.7 kPa

LEGEND

⊕ Soil Boring

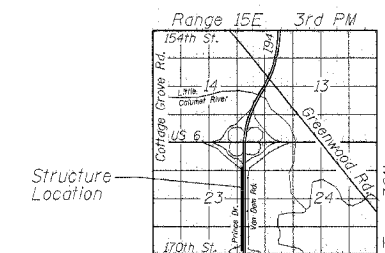
| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |



Signature: *Deborah A. Zroka* Date: July 8, 2005
Expires: 11-30-06

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Signature: *Ralph E. Anderson* (TSJ)
ENGINEER OF BRIDGES AND STRUCTURES

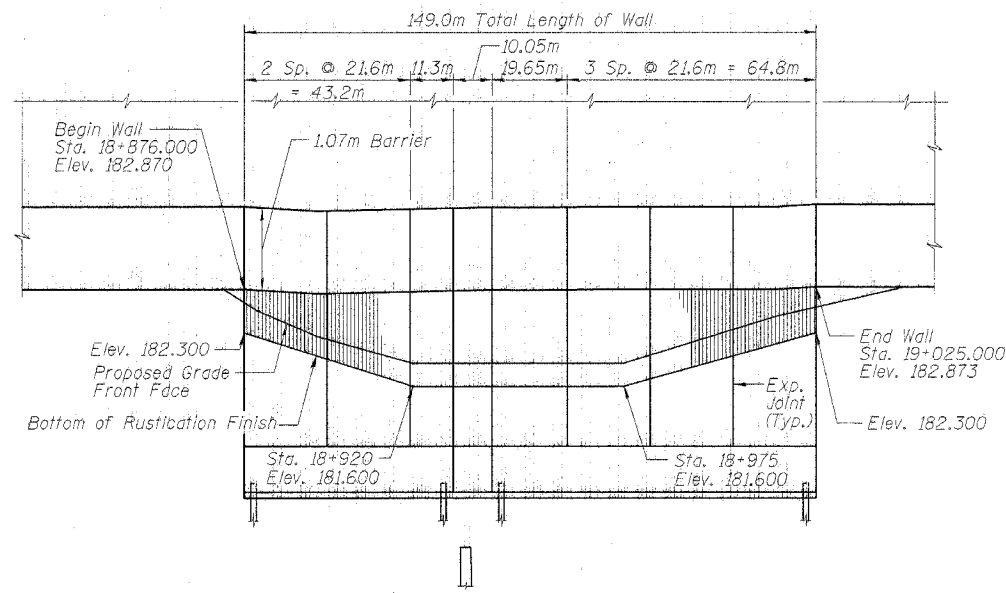


LOCATION SKETCH

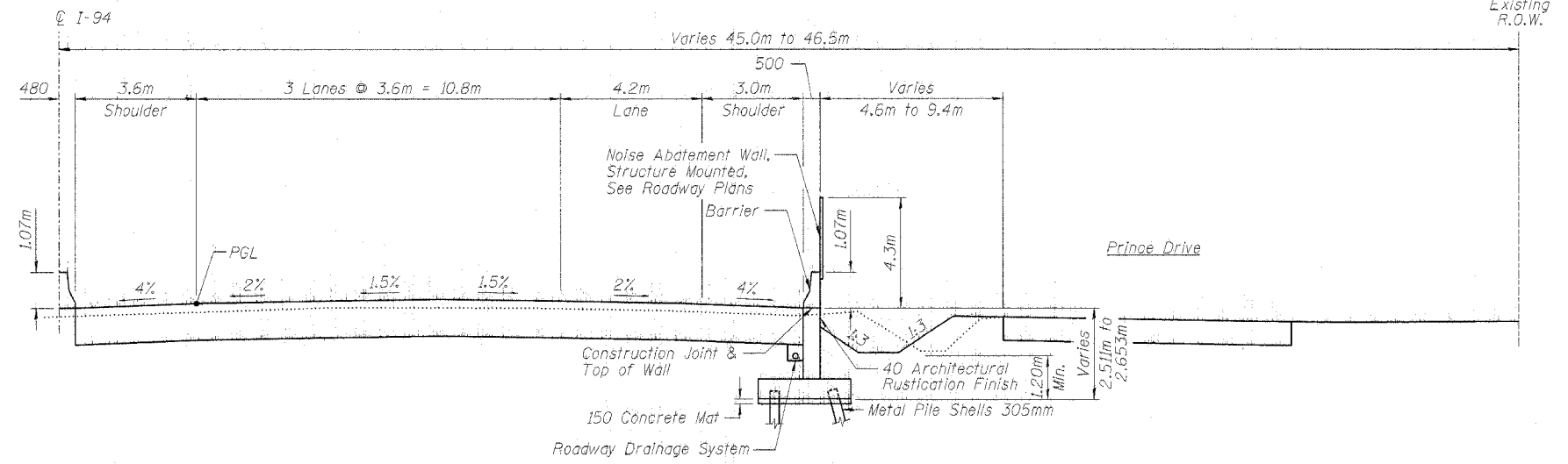
ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
GENERAL PLAN & ELEVATION
IL 394 (FAI 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866

DATE JULY 18, 2005
SCALE

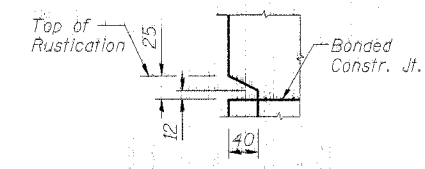




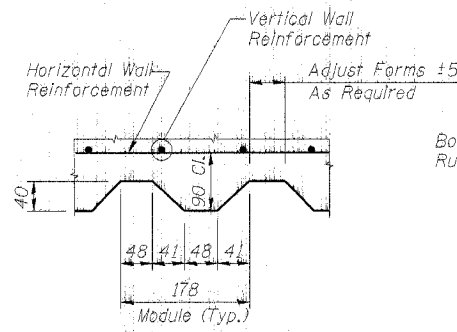
ELEVATION SHOWING AREA OF RUSTICATION FINISH



TYPICAL SECTION THRU RETAINING WALL

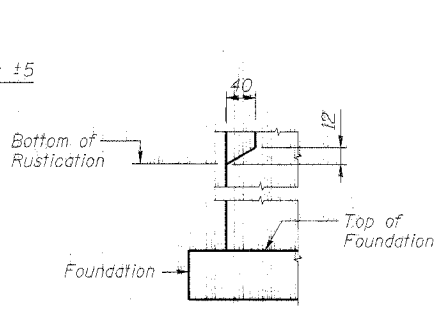


DETAIL AT TOP

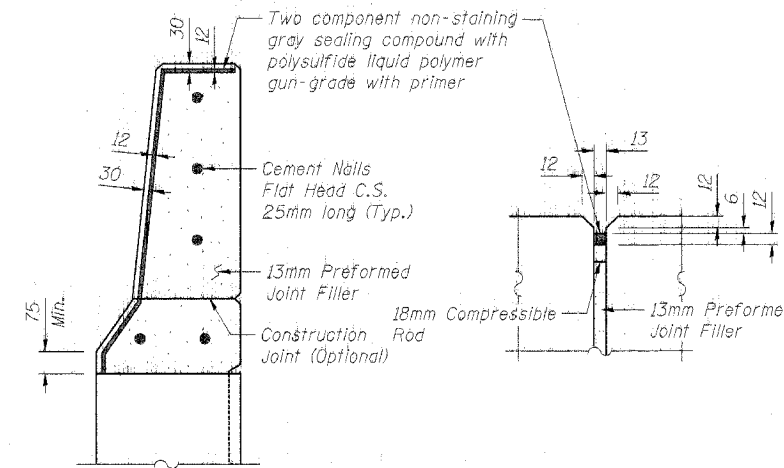


SECTION

RUSTICATION DETAILS

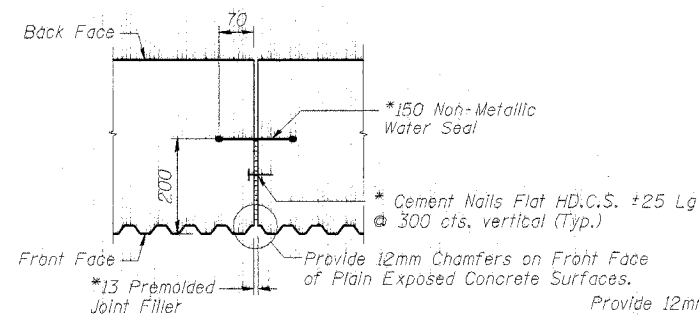


DETAIL AT BOTTOM



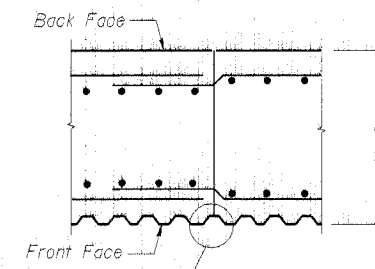
TYPICAL TRAFFIC BARRIER EXPANSION JOINT DETAIL

Cost of joint sealant, P.J.F. and cement nails are included with Concrete Structures.



TYPICAL WALL EXPANSION JOINT DETAIL

*Cost Included with Concrete Structures



CONSTRUCTION JOINT DETAIL

NOTE:

All dimensions are in millimeters (mm) except as noted.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

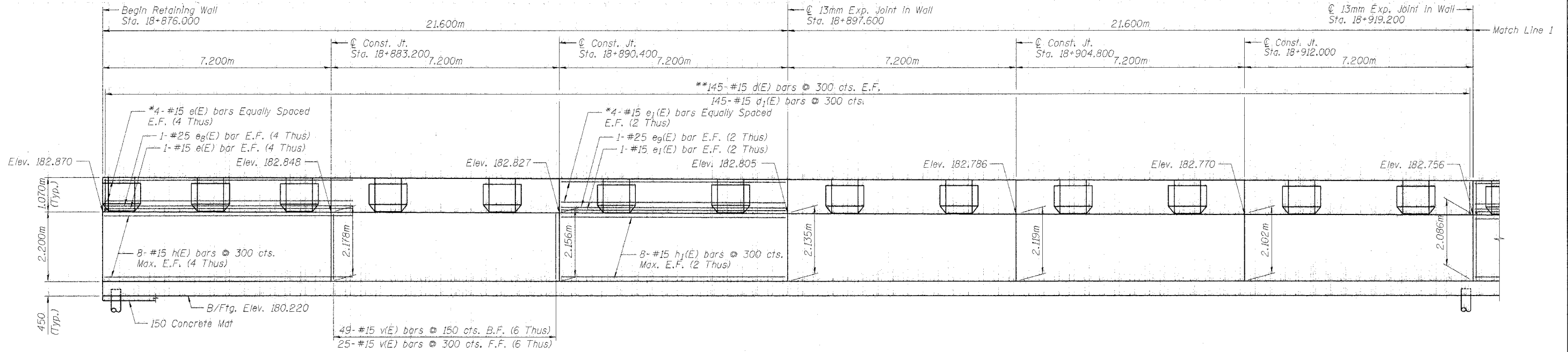
ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI ROUTE 80 (INTERSTATE 80/94)
 INTERSTATE 294 TO US ROUTE 41
DETAILS & SECTIONS
 IL 394 (F.A.I. 94) RETAINING WALL
 SECTION (0203.1 & 0312-708W) R-3
 COOK COUNTY
 STA. 18+876.000 STRUCTURE NO. 016-W866
 DATE: JULY 18, 2005
 SCALE: 1/50
BRANCO & ZROKA
 ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.I. 80/94 | * | COOK | 870 | 670 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

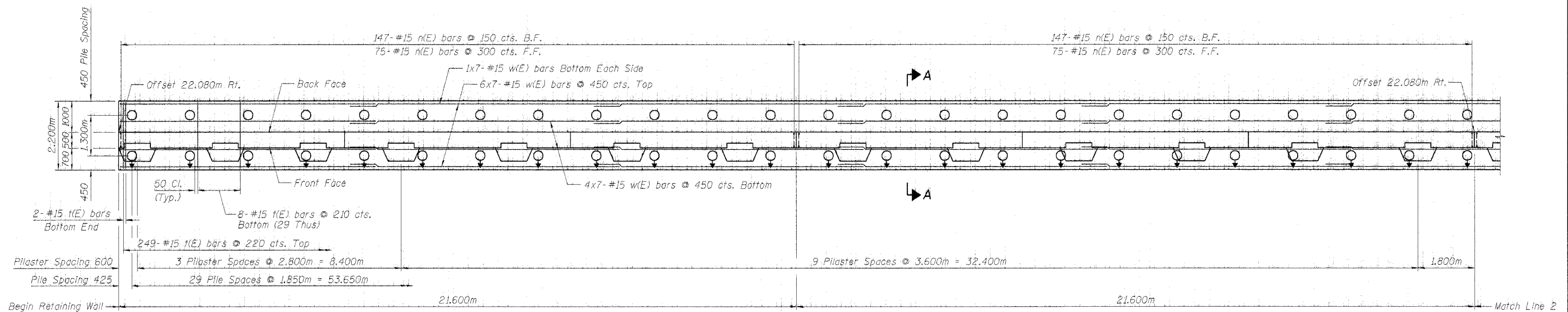
(0203.1 & 0312-708W) R-3 CONTRACT #62108

SHEET NO. 3
12 SHEETS



- * Cut Front Face top bar in field to clear pilaster
- ** Cut Front Face d(E) bars in field to clear pilaster

ELEVATION



PLAN

NOTES

1. For Pilaster Details and Pilaster Reinforcement, see Sheet No. 8.
2. For Bill of Material and Bar Details, see Sheet No. 7.
3. For Cross Section A-A, see Sheet No. 7.
4. Bars indicated thus: 6x7-#15 etc. Indicates 6 lines of bars with 7 lengths per line.
5. For Rustication, Construction Joint and Expansion Joint Details, see Sheet No. 2.
6. All dimensions are in millimeters (mm) except as noted.

LEGEND

- B.F. = Back Face
- F.F. = Front Face
- E.F. = Each Face
- T & B = Top & Bottom
- Pile Battered 1:6
- Vertical Pile

BAR LAPS

- #15 Bar = 640 (in wall and parapet)
- #25 Bar = 1,320m
- #15 Bar = 890 (in footing)

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
PLAN & ELEVATION 1
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE, JULY 18, 2005
SCALE

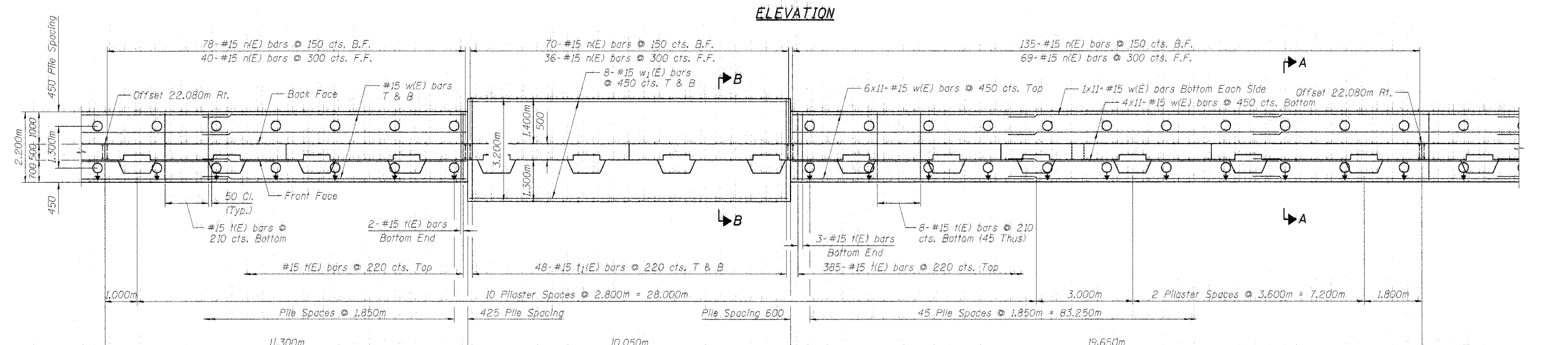
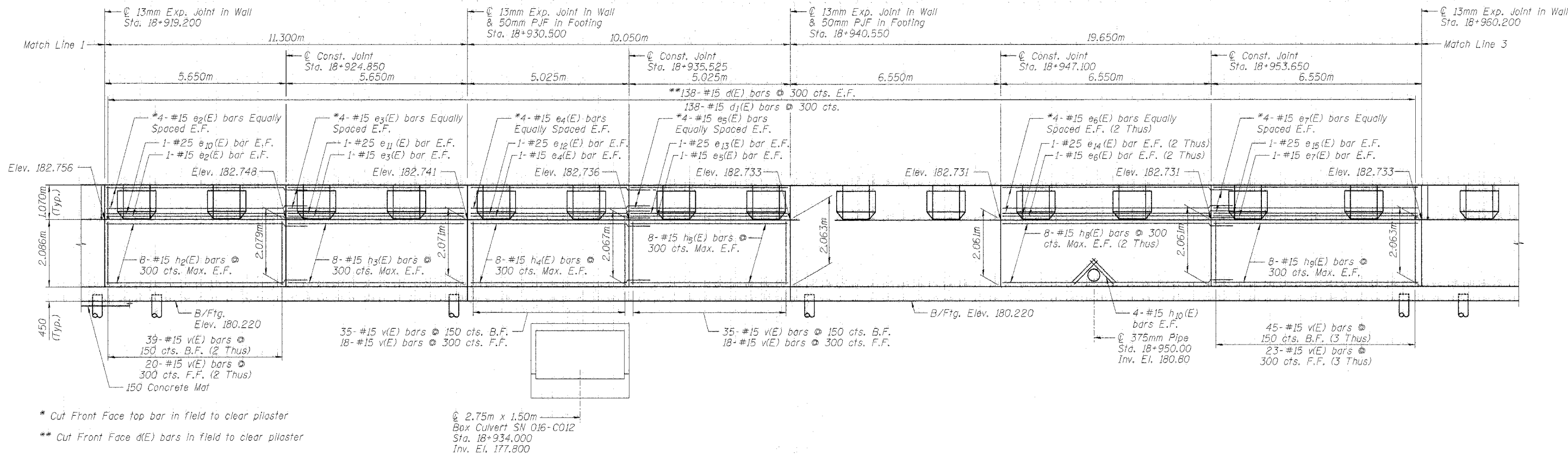
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------|------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 671 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 4
12 SHEETS

*0203.1 & 0312-708W R-3 CONTRACT #62108



NOTES

1. For Pilaster Details and Pilaster Reinforcement, see Sheet No. 8.
2. For Bill of Material and Bar Details, see Sheet No. 7.
3. For Cross Section A-A and Cross Section B-B, see Sheet No. 7.
4. Bars indicated thus: 4x11-#15 etc. indicates 4 lines of bars with 11 lengths per line.
5. For Rustication, Construction Joint and Expansion Joint Details, see Sheet No. 2.
6. All dimensions are in millimeters (mm) except as noted.
7. For Detail of Pipe Drain Sleeve Thru Wall, see Sheet No. 7.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

LEGEND

- B.F. = Back Face
- F.F. = Front Face
- E.F. = Each Face
- T & B = Top & Bottom
- Pile Battered 1:6
- Vertical Pile

BAR LAPS

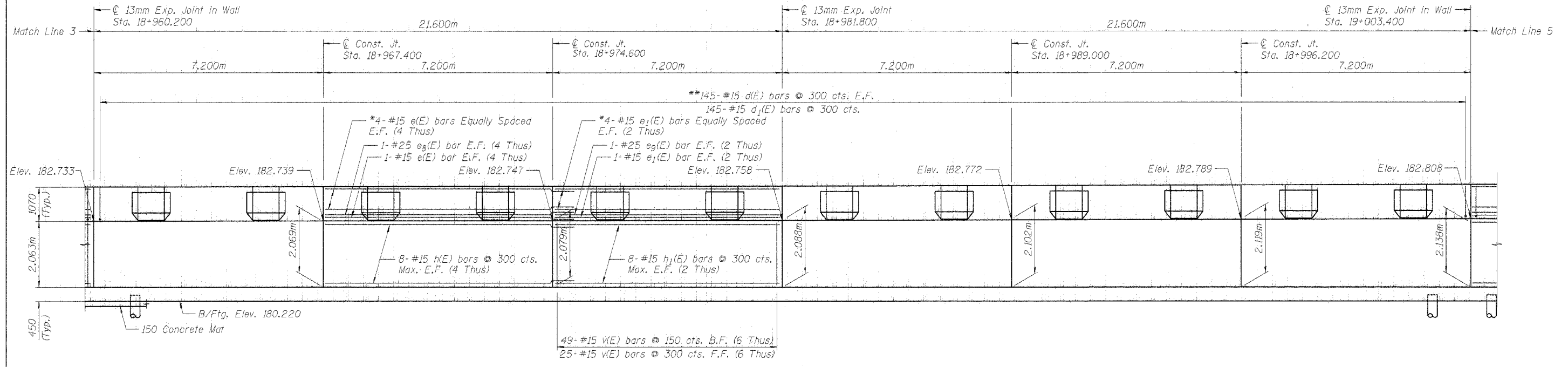
- #15 Bar = 640 (in wall and parapet)
- #25 Bar = 1320
- #15 Bar = 890 (in footing)

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
PLAN & ELEVATION 2
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE JULY 18, 2005
SCALE
BRANCO & ZROKA
ENGINEERING, P.C.

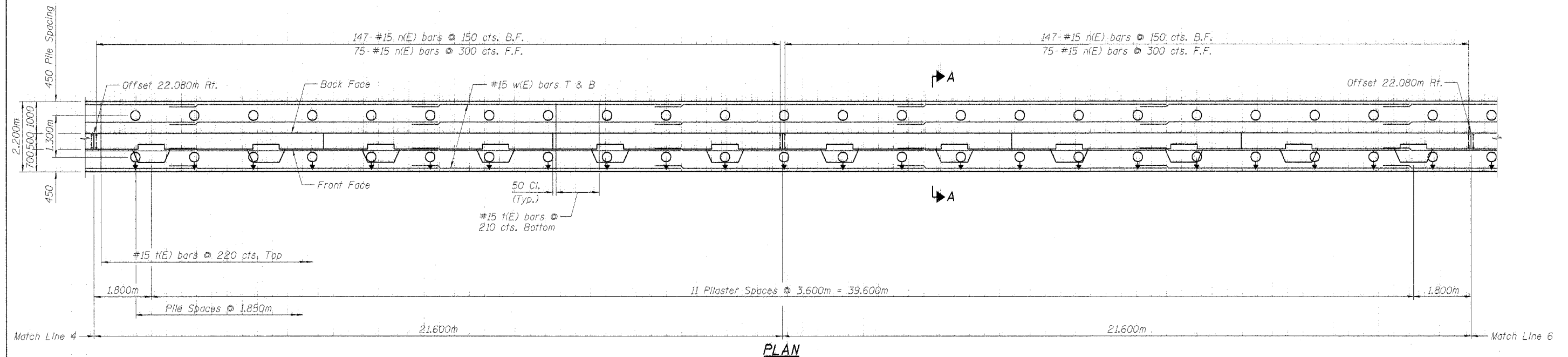
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|---------------------------|---------|---------------------------|-----------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.I. 80/94 | * | COOK | 870 | 672 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |
| *(0203.1 & 0312-708W) R-3 | | | CONTRACT #62108 | |

SHEET NO. 5
12 SHEETS



- * Cut Front Face top bar in field to clear plaster
- ** Cut Front Face d(E) bars in field to clear pilaster



NOTES

1. For Pilaster Details and Pilaster Reinforcement, see Sheet No. 8.
2. For Bill of Material and Bar Details, see Sheet No. 7.
3. For Cross Section A-A, see Sheet No. 7.
4. For Rustication, Construction Joint and Expansion Joint Details, see Sheet No. 2.
5. All dimensions are in millimeters (mm) except as noted.

LEGEND

- B.F. = Back Face
- F.F. = Front Face
- E.F. = Each Face
- T & B = Top & Bottom
- Pile Battered 1:6
- Vertical Pile

BAR LAPS

- #15 Bar = 640 (in wall and parapet)
- #25 Bar = 1.320m
- #15 Bar = 890 (in footing)

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
PLAN & ELEVATION 3
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE JULY 18, 2005
SCALE

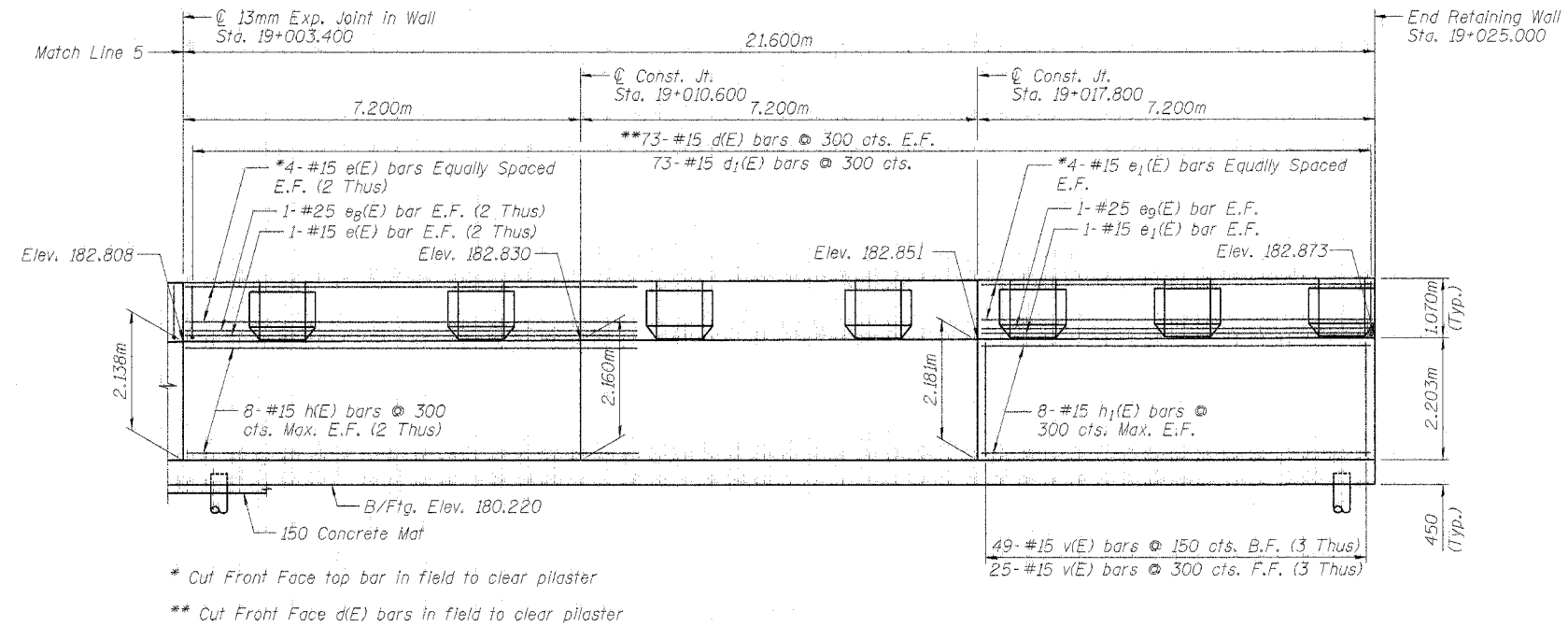
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

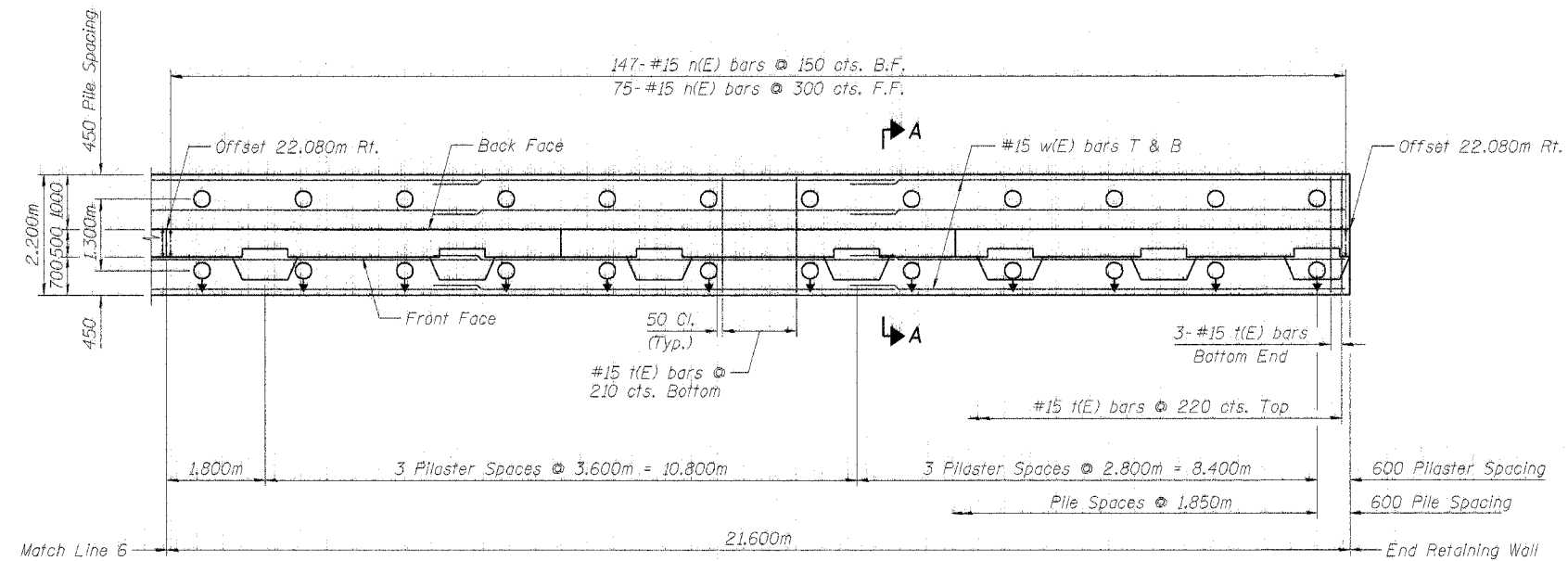
| | | | | |
|------------------------------|--------------|---------------------------|---------------------|------------------|
| ROUTE NO. F.A.I. 80/94 | SECTION * | COUNTY COOK | TOTAL SHEETS 870 | SHEET NO. 673 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |

*0203.1 & 0312-708W) R-3 CONTRACT #62108

SHEET NO. 6
12 SHEETS



ELEVATION



PLAN

NOTES

1. For Pilaster Details and Pilaster Reinforcement, see Sheet No. 8.
2. For Bill of Material and Bar Details, see Sheet No. 7.
3. For Cross Section A-A, see Sheet No. 7.
4. For Rustication, Construction Joint and Expansion Joint Details, see Sheet No. 2.
5. All dimensions are in millimeters (mm) except as noted.

LEGEND

- B.F. = Back Face
- F.F. = Front Face
- E.F. = Each Face
- T & B = Top & Bottom
- Pile Battered 1:6
- Vertical Pile

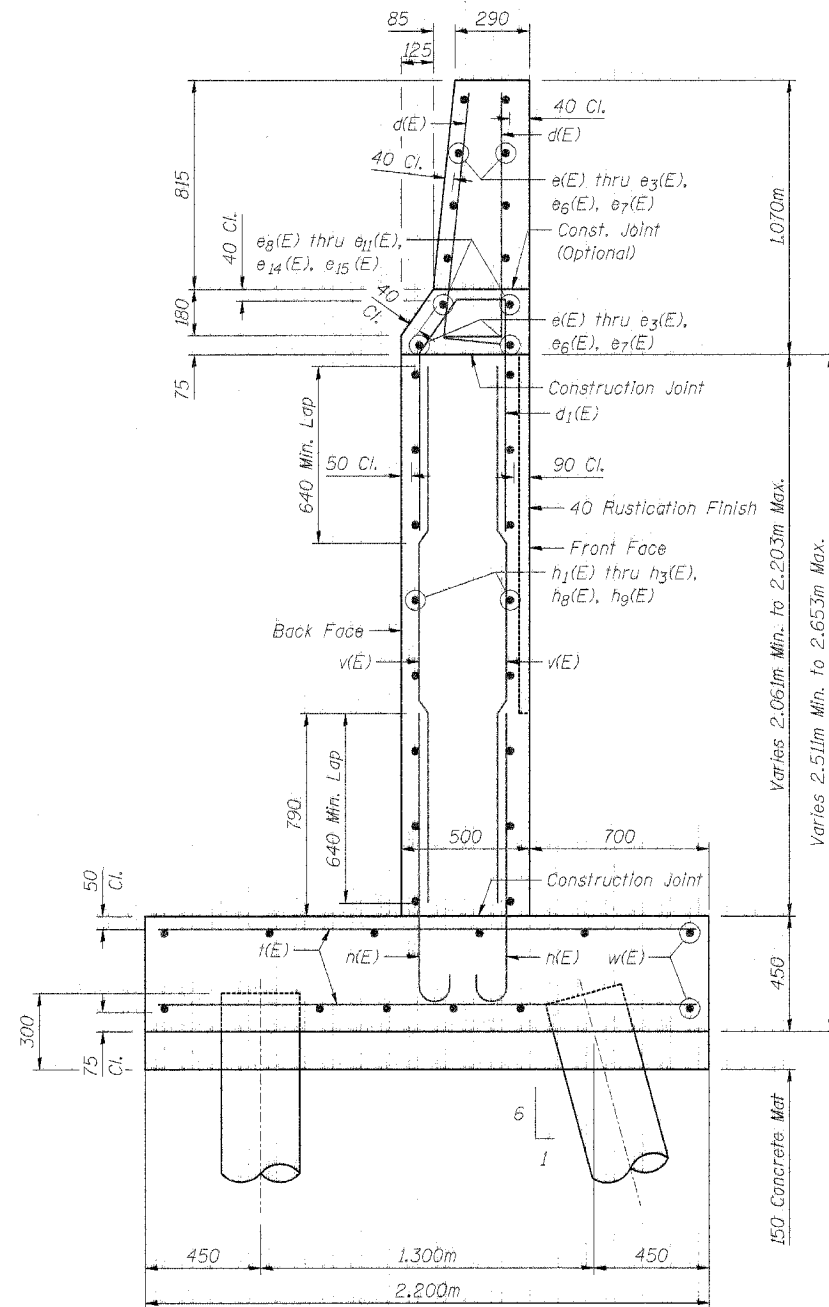
BAR LAPS

- #15 Bar = 640 (in wall and parapet)
- #25 Bar = 1,320m
- #15 Bar = 890 (in footing)

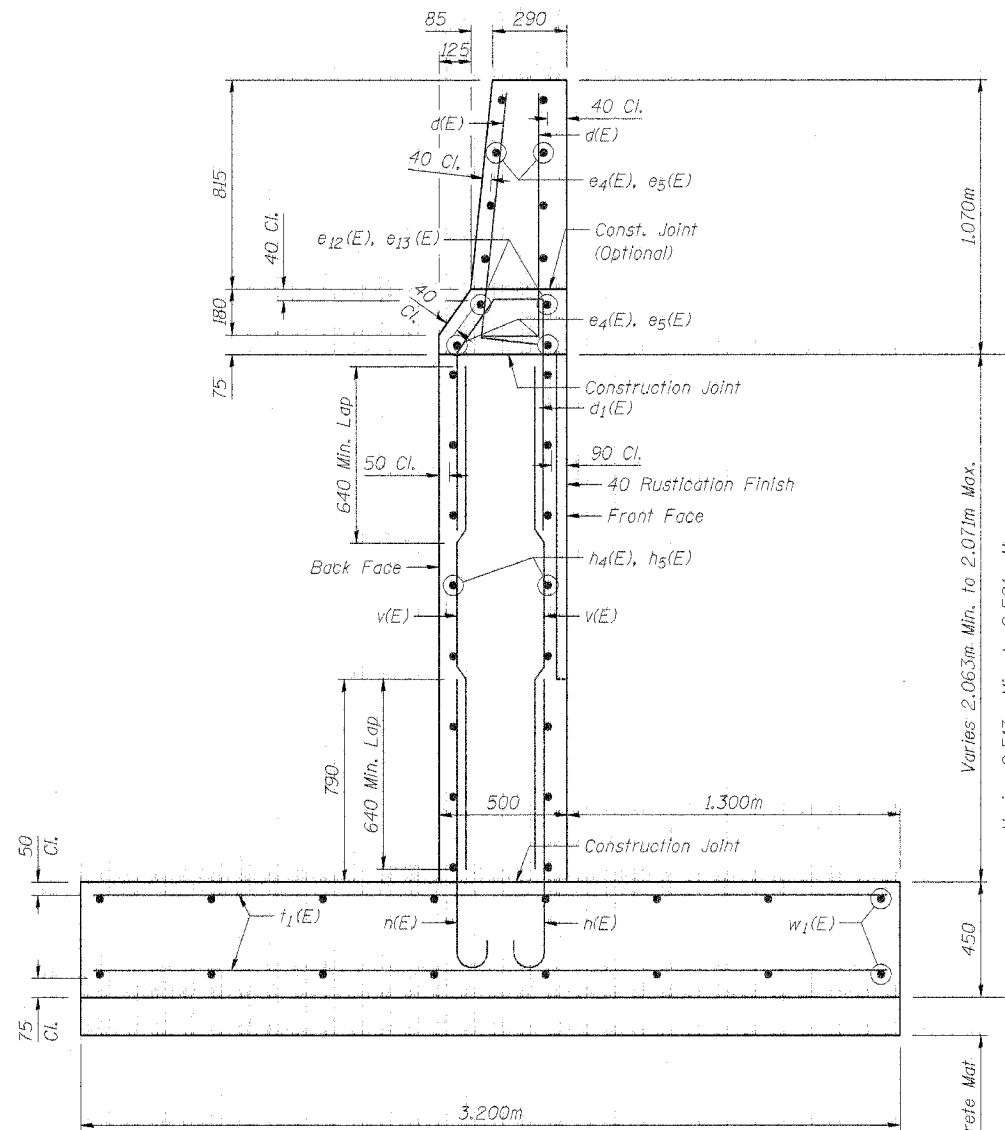
| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
PLAN & ELEVATION 4
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.

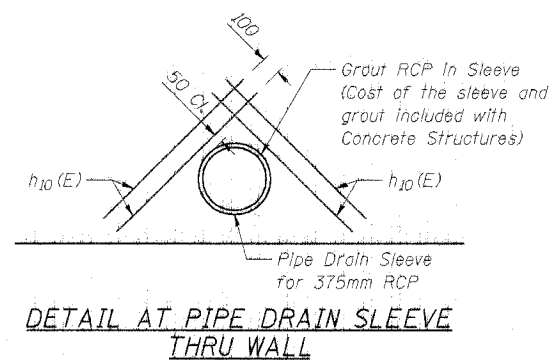


SECTION A-A

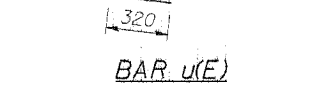
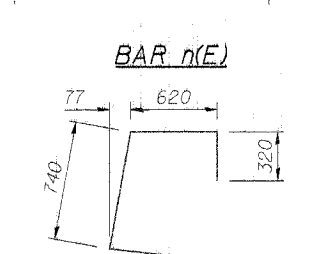
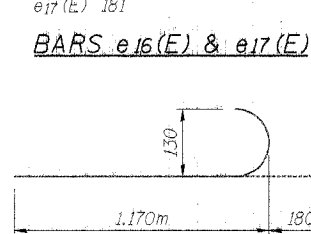
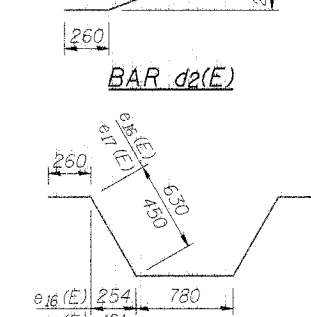
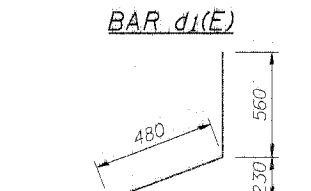
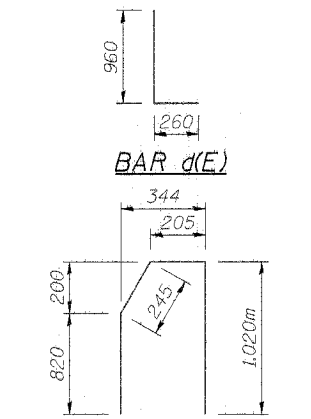


SECTION B-B

Maximum Soil Bearing Pressure = 65 kPa



DETAIL AT PIPE DRAIN SLEEVE
THRU WALL



BILL OF MATERIAL

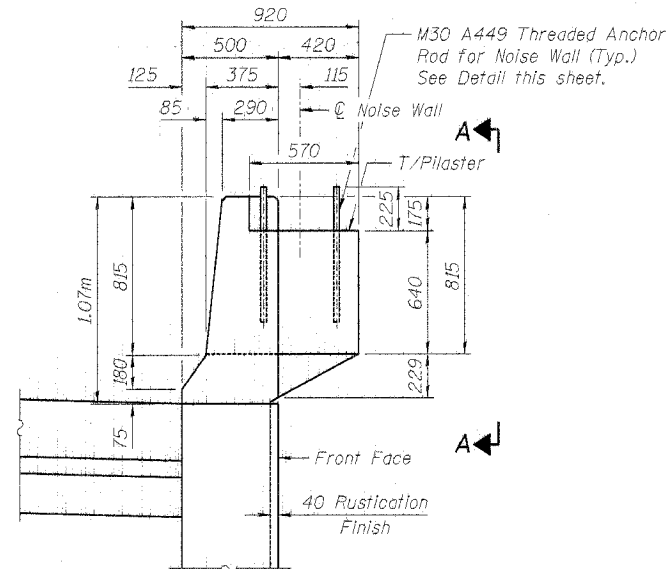
| Bar | No. | Size | Length (m) | Shape |
|----------------------------------|----------------|----------|------------|-------|
| d(E) | 1002 | #15 | 1.22 | L |
| d1(E) | 501 | #15 | 2.29 | J |
| d2(E) | 322 | #15 | 1.30 | J |
| e(E) | 100 | #15 | 7.84 | — |
| e1(E) | 50 | #15 | 7.10 | — |
| e2(E) | 10 | #15 | 6.29 | — |
| e3(E) | 10 | #15 | 5.55 | — |
| e4(E) | 10 | #15 | 5.67 | — |
| e5(E) | 10 | #15 | 4.92 | — |
| e6(E) | 20 | #15 | 7.19 | — |
| e7(E) | 10 | #15 | 6.45 | — |
| e8(E) | 20 | #25 | 8.52 | — |
| e9(E) | 10 | #25 | 7.10 | — |
| e10(E) | 2 | #25 | 6.97 | — |
| e11(E) | 2 | #25 | 5.55 | — |
| e12(E) | 2 | #25 | 6.35 | — |
| e13(E) | 2 | #25 | 4.92 | — |
| e14(E) | 4 | #25 | 7.87 | — |
| e15(E) | 2 | #25 | 6.45 | — |
| e16(E) | 138 | #15 | 2.56 | — |
| e17(E) | 46 | #15 | 2.20 | — |
| h(E) | 160 | #15 | 7.84 | — |
| h1(E) | 80 | #15 | 7.10 | — |
| h2(E) | 16 | #15 | 6.29 | — |
| h3(E) | 16 | #15 | 5.55 | — |
| h4(E) | 16 | #15 | 5.67 | — |
| h5(E) | 16 | #15 | 4.92 | — |
| h6(E) | 32 | #15 | 7.19 | — |
| h9(E) | 16 | #15 | 6.45 | — |
| h10(E) | 8 | #15 | 1.20 | — |
| n(E) | 1538 | #15 | 1.35 | — |
| f(E) | 1236 | #15 | 2.10 | — |
| f1(E) | 96 | #15 | 3.10 | — |
| u(E) | 322 | #20 | 2.00 | — |
| v(E) | 1538 | #15 | 1.96 | — |
| w(E) | 216 | #15 | 8.55 | — |
| w1(E) | 16 | #15 | 9.95 | — |
| Item | Unit | Quantity | | |
| Reinforcement Bars, Epoxy Coated | Kg | 30,300 | | |
| Concrete Structures | m ³ | 432.6 | | |

Reinforcement bars designated (E) shall be epoxy coated.

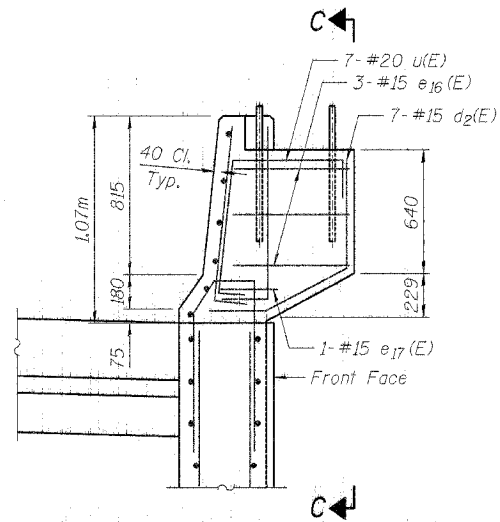
All dimensions are millimeters (mm) except as noted.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

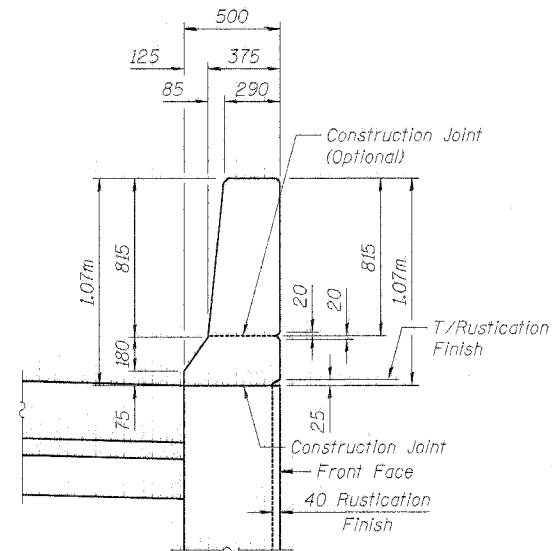
ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
REINFORCEMENT DETAILS
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE JULY 18, 2005
SCALE 1:50
BRANCO & ZROKA
ENGINEERING, P.C.



TRAFFIC BARRIER W/PILASTER



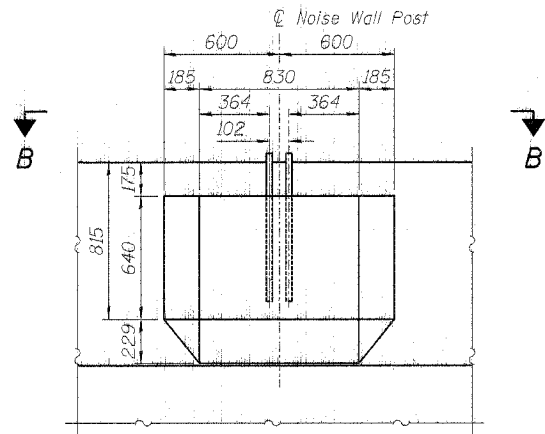
**TRAFFIC BARRIER W/PILASTER
SHOWING REINFORCEMENT**
(46 Thus)



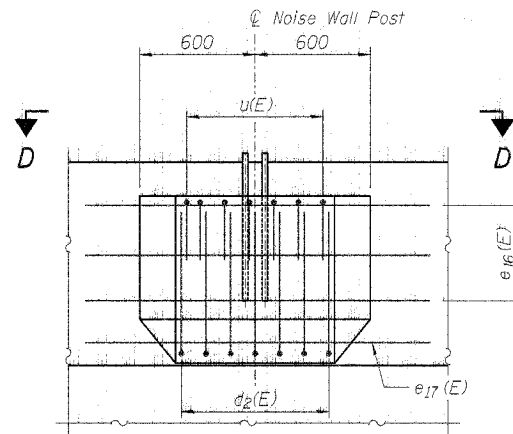
**TRAFFIC BARRIER
TYPICAL SECTION**

NOTES

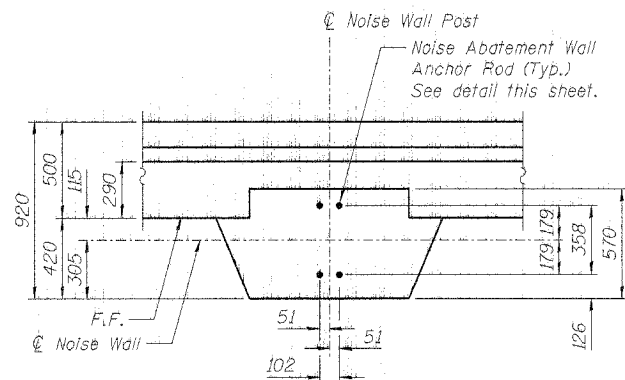
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. All edges shall have a 20 mm chamfer unless noted otherwise.
4. For Rustication Finish Details, see Sheet No. 2.
5. For Bill of Material and Bar Details, see Sheet No. 7.



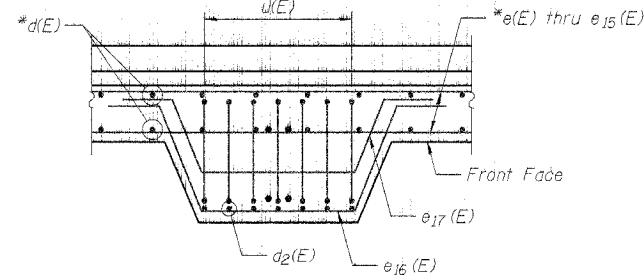
ELEVATION A-A



SECTION C-C

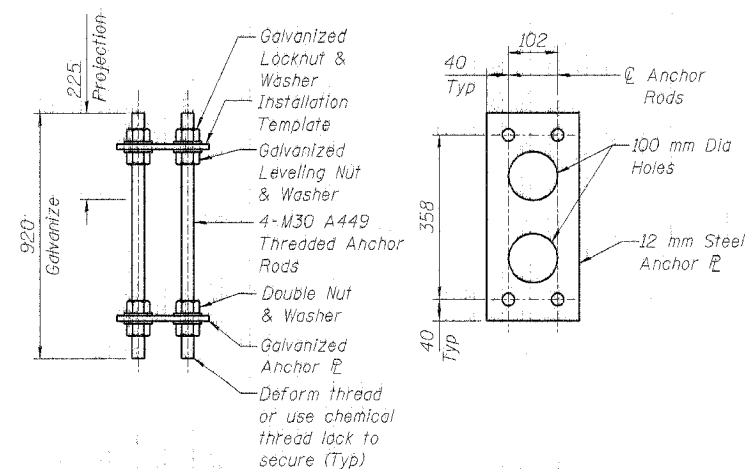


PLAN B-B



SECTION D-D

*Indicates Traffic Barrier Reinforcement Bars

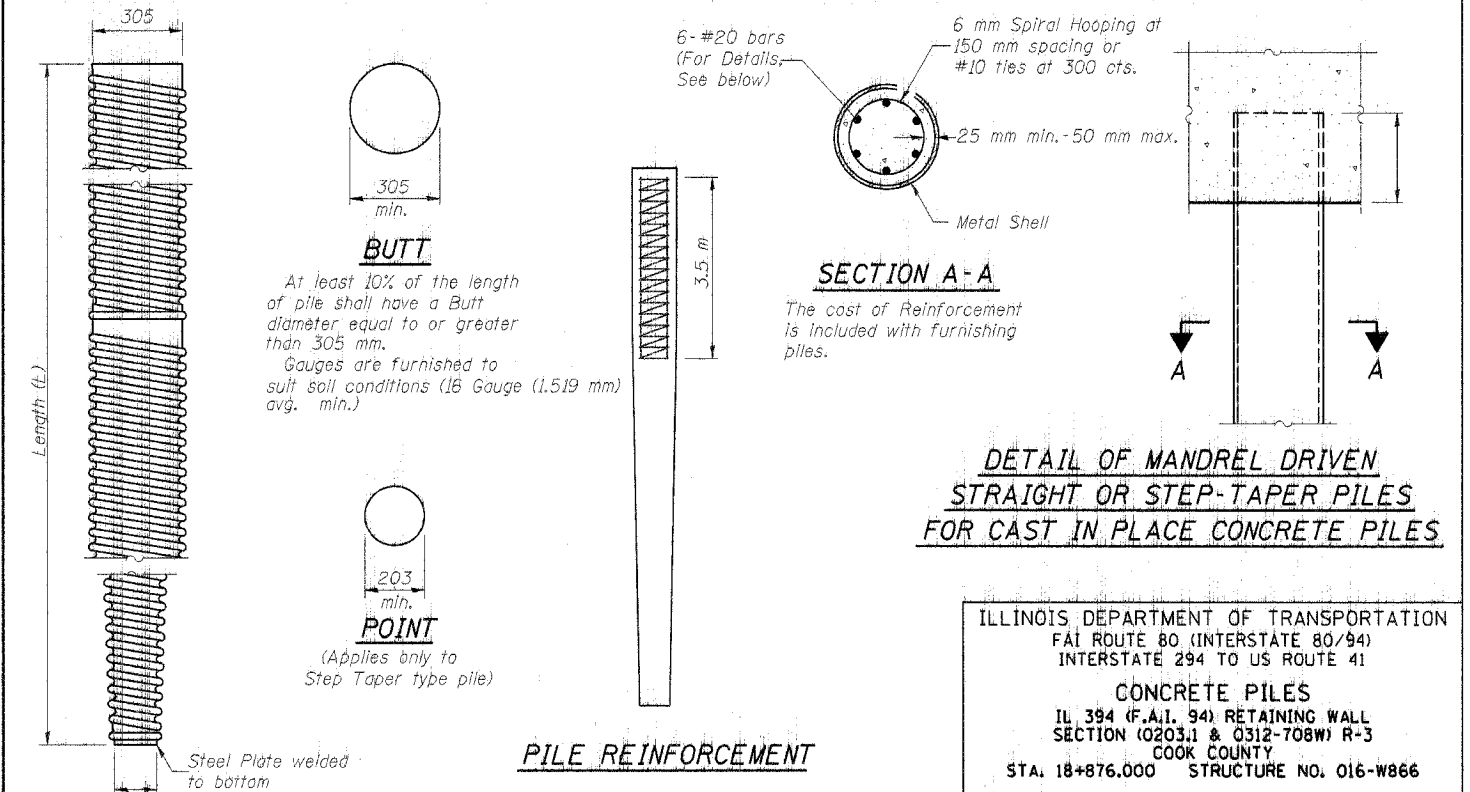
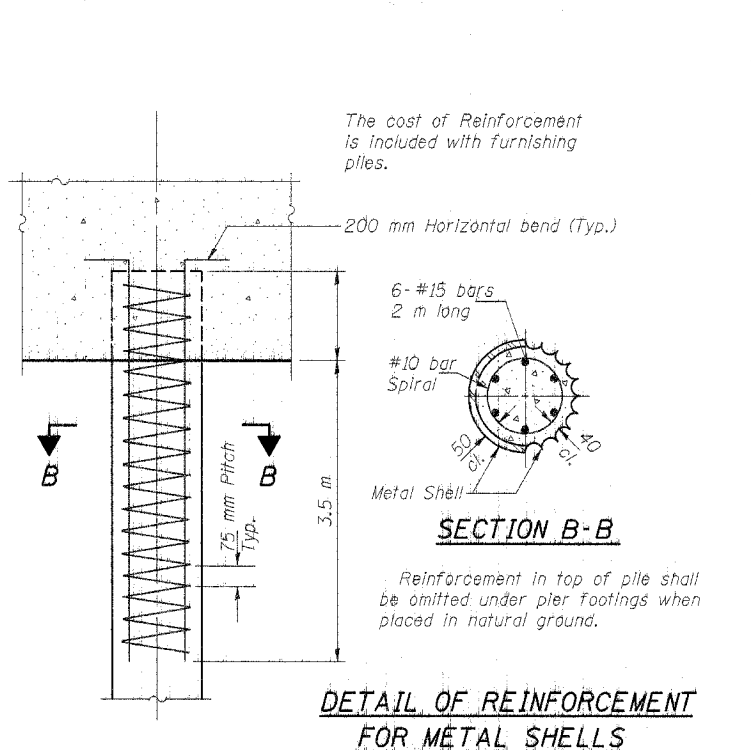
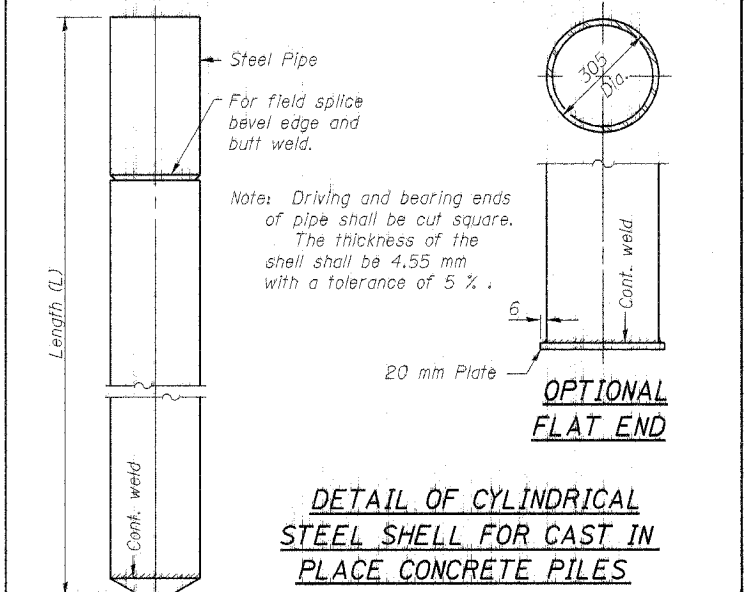
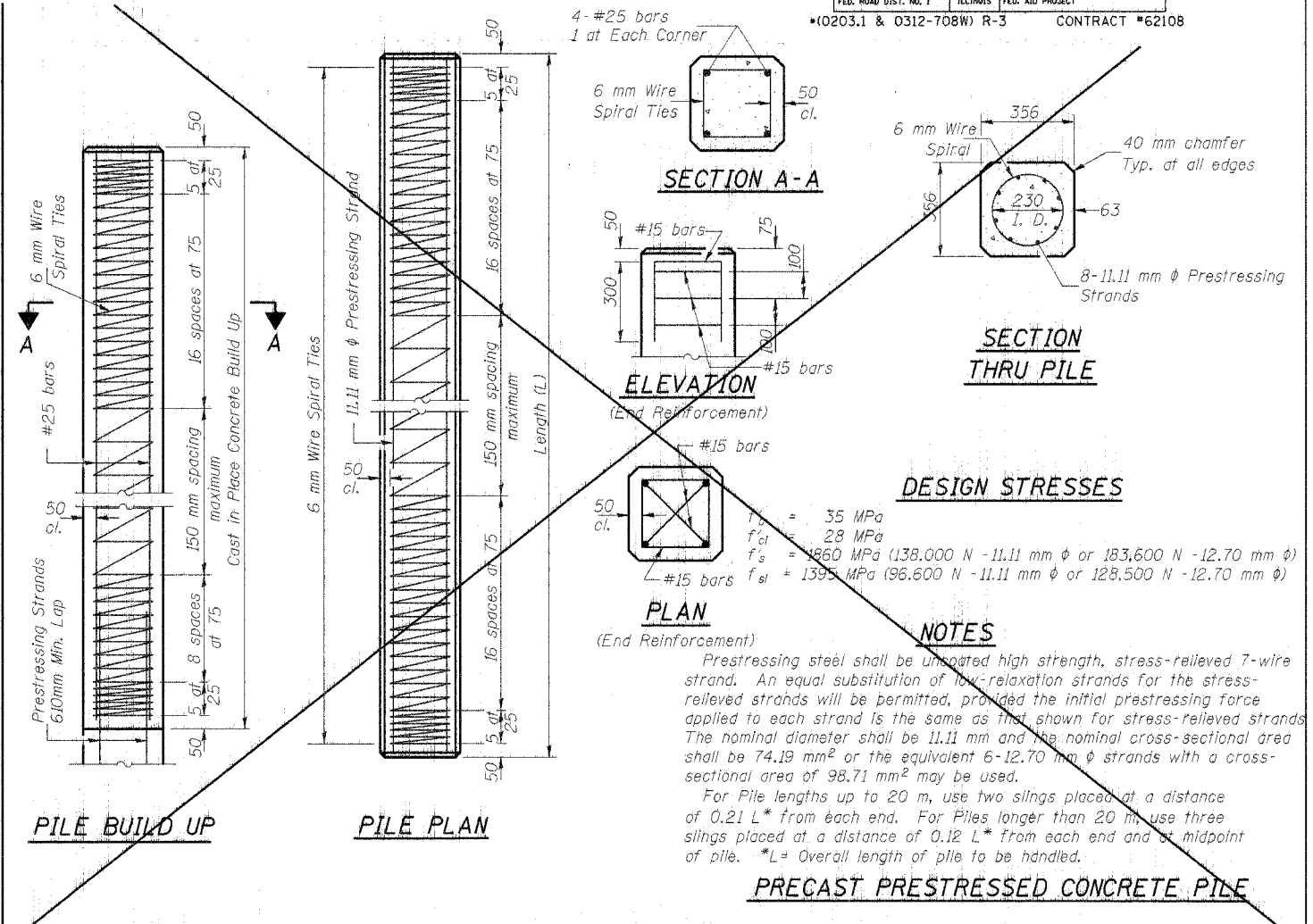
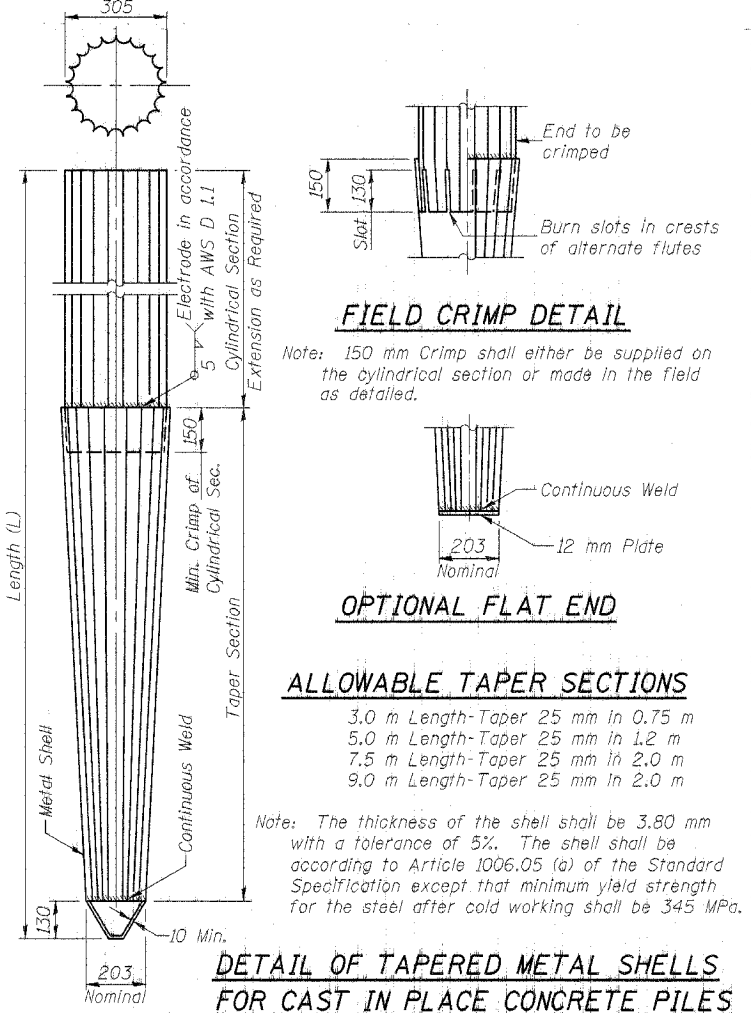
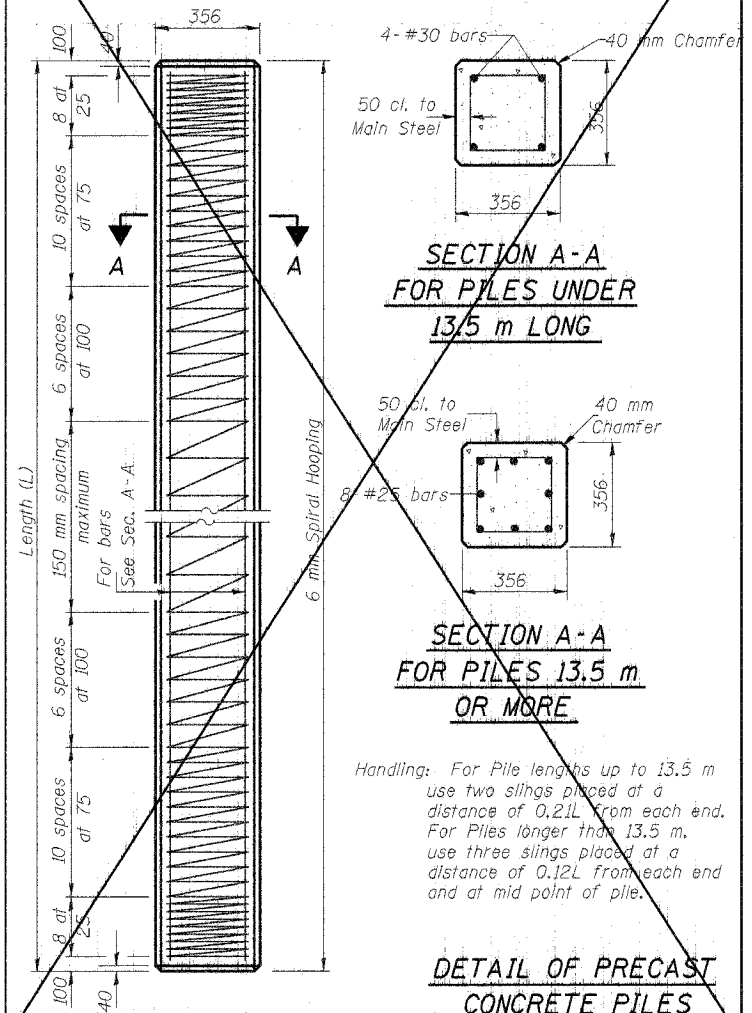


ELEVATION PLAN
NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY
(46 Req'd)

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
PILASTER DETAILS
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.



| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

X-3 (M) 4-30-97

(All dimensions are in millimeters (mm) except as noted.)

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41

CONCRETE PILES
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866

DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.

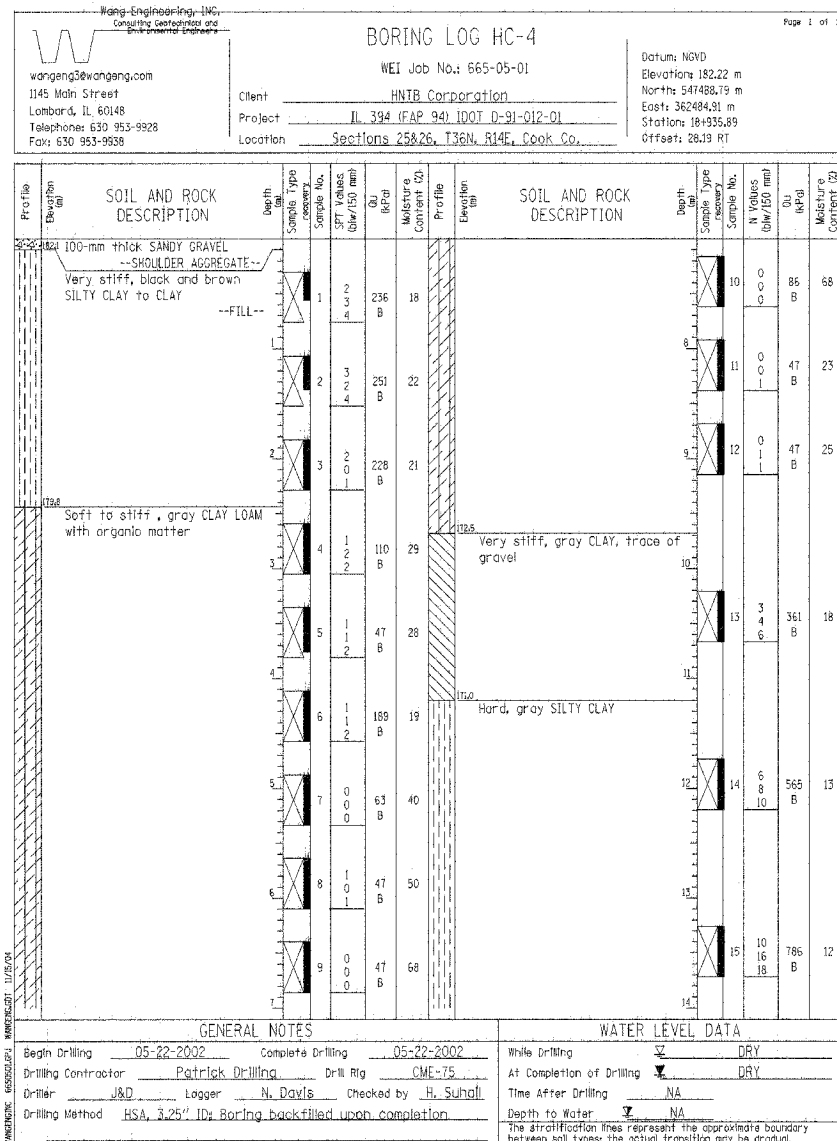
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|---------------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 677 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |

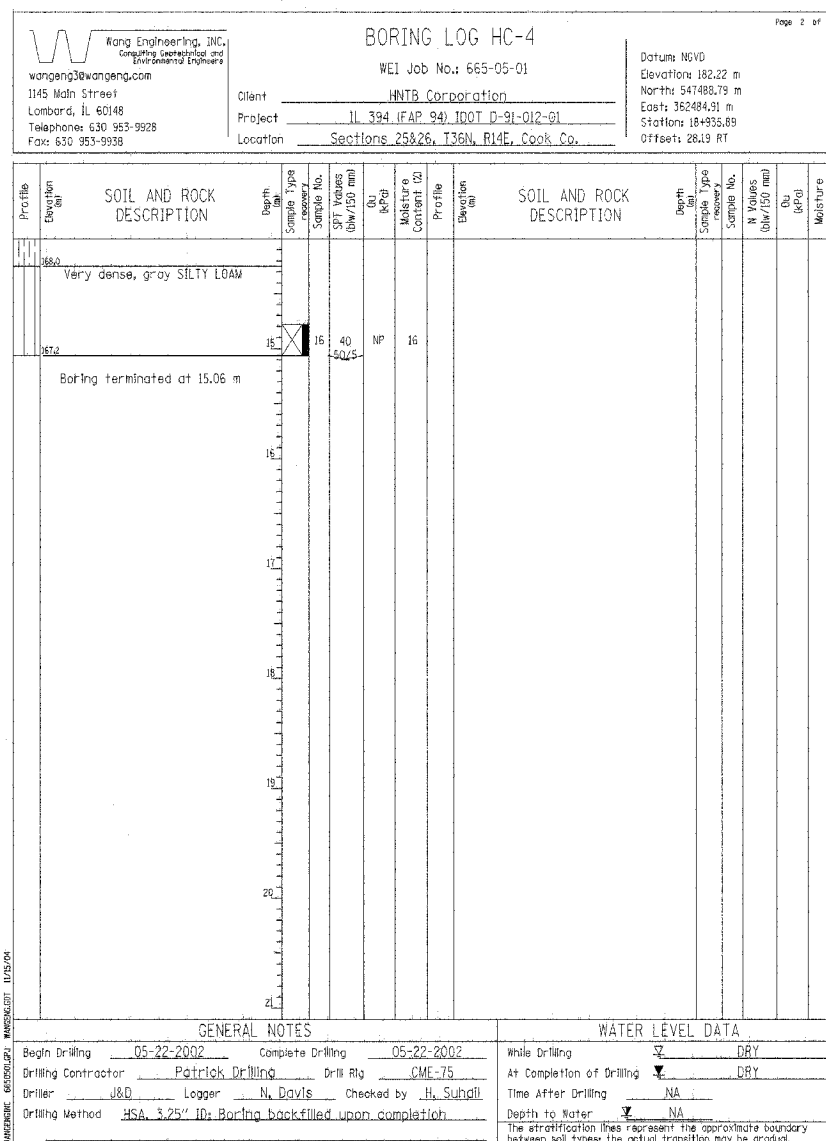
SHEET NO. 10
12 SHEETS

*(0203.1 & 0312-708W) R-3 CONTRACT #62108

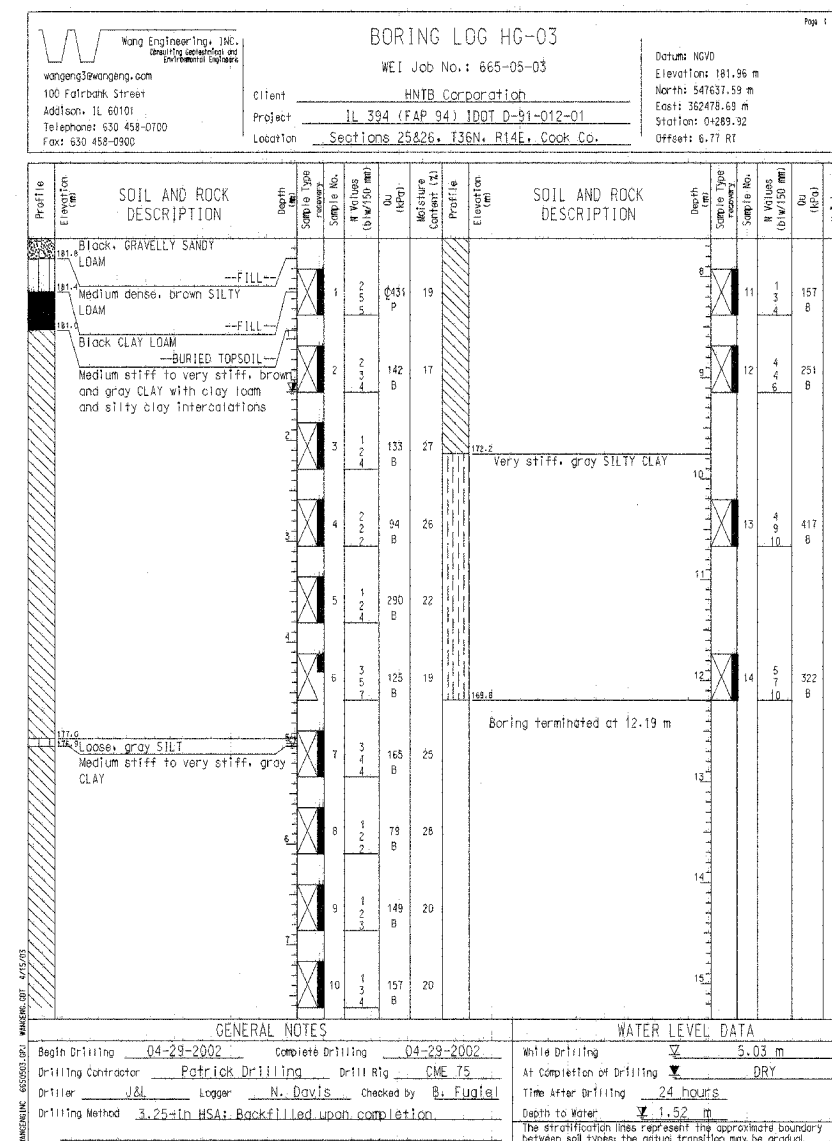
BORING LOG HC-4 (1 OF 2)



BORING LOG HC-4 (2 OF 2)



BORING LOG HG-03 (1 OF 1)



| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
SOIL BORING LOGS 1
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE JULY 18, 2005
SCALE
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------|------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 678 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 11
12 SHEETS

*0203.1 & 0312-708W) R-3 CONTRACT #62108

BORING LOG HG-04 (1 OF 1)

Wang Engineering, Inc.
wawang3@wawang.com
100 Fairbank Street
Addison, IL 60101
Telephone: 630 458-0700
Fax: 630 458-0900

BORING LOG HG-04
WEI Job No.: 665-05-03
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.10 m
North: 547544.64 m
East: 362481.69 m
Station: 18+860.00
Offset: 24.73 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | Sample No. (N Values) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | Sample No. (N Values) | Moisture Content (%) |
|-----------------------|---------------------------|-----------|------------|-----------------------|----------------------|-----------------------|--|-----------|------------|-----------------------|----------------------|
| 181.2 | Black LOAM --TOPSOIL-- | 0 | 1 | 196 | 18 | 181.2 | Very stiff to hard, brown and gray SILTY CLAY --FILL-- | 18 | 11 | 1 | 165 |
| 180.8 | Loose, brown SILT | 20 | 2 | 400 | 20 | 180.3 | Very stiff to hard, gray SILTY CLAY | 21 | 12 | 2 | 142 |
| 178.3 | Soft, gray CLAY | 25 | 3 | NP | 25 | 168.9 | Boring terminated at 12.19 m | 15 | 13 | 3 | 299 |
| 176.6 | Stiff, gray CLAY | 26 | 4 | NP | 26 | | | 16 | 14 | 4 | 417 |
| | | 23 | 5 | 39 | 23 | | | 17 | | | |
| | | 24 | 6 | 39 | 24 | | | 18 | | | |
| | | 25 | 7 | 42 | 25 | | | 19 | | | |
| | | 26 | 8 | 118 | 26 | | | | | | |
| | | 21 | 9 | 133 | 21 | | | | | | |
| | | 19 | 10 | 133 | 19 | | | | | | |

GENERAL NOTES
Begin Drilling 04-30-2002 Complete Drilling 04-30-2002
Drilling Contractor Patrick Drilling Drill Rig CME 75
Driller J.M. Logger N. Davis Checked by B. Fudiel
Drilling Method 3.25-inch ID HSA. Boring grouted upon completion.

WATER LEVEL DATA
While Drilling DRY
At Completion of Drilling DRY
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG HR-01 (1 OF 1)

Wang Engineering, Inc.
wawang3@wawang.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG HR-01
WEI Job No.: 665-05-01
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.15 m
North: 547478.84 m
East: 362485.49 m
Station: 18+944.98
Offset: 21.8 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | Sample No. (N Values) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | Sample No. (N Values) | Moisture Content (%) |
|-----------------------|--|-----------|------------|-----------------------|----------------------|-----------------------|--|-----------|------------|-----------------------|----------------------|
| 182.15 | 203-mm thick ASPHALTIC CONCRETE --PAVEMENT-- | 0 | 1 | 5 | 24 | 182.15 | Loose, dark gray SILTY LOAM, trace asphalt cuttings --FILL-- | 24 | 5 | 3 | NP |
| 181.0 | MLC CLAY | 19 | 2 | 2 | 359 | 180.4 | Very stiff, gray and brown SILTY CLAY | 19 | 2 | 3 | NP |
| 179.7 | Stiff to very stiff, brown SILTY CLAY | 21 | 3 | 2 | 192 | 178.3 | Boring terminated at 3.81 m | 21 | 3 | 3 | 144 |
| | | 21 | 4 | 2 | 192 | | | 21 | 4 | 3 | 192 |
| | | 29 | 5 | 1 | 144 | | | 29 | 5 | 1 | 144 |

GENERAL NOTES
Begin Drilling 09-29-2001 Complete Drilling 09-29-2001
Drilling Contractor Patrick Drilling Drill Rig CME 75
Driller T&L Logger E. Datz Checked by J.C.
Drilling Method 3.25-inch ID HSA. Boring grouted after completion.

WATER LEVEL DATA
While Drilling DRY
At Completion of Drilling DRY
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG HR-02 (1 OF 1)

Wang Engineering, Inc.
wawang3@wawang.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG HR-02
WEI Job No.: 665-05-01
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.53 m
North: 541434.37 m
East: 362488.27 m
Station: 18+989.48
Offset: 21.97 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | Sample No. (N Values) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | Sample No. (N Values) | Moisture Content (%) |
|-----------------------|----------------------------------|-----------|------------|-----------------------|----------------------|-----------------------|---|-----------|------------|-----------------------|----------------------|
| 182.53 | Black SILTY LOAM --TOPSOIL-- | 0 | 1 | 5 | 15 | 182.53 | Hard, brown and gray SILTY CLAY --FILL-- | 15 | 5 | 7 | 431 |
| 180.8 | Loose, brown and gray SILTY CLAY | 26 | 2 | 2 | NP | 180.8 | Stiff, black CLAY LOAM --BURIED TOPSOIL-- | 27 | 3 | 3 | 192 |
| 179.7 | Hard, brown and gray CLAY | 21 | 4 | 2 | 431 | 178.3 | Boring terminated at 3.05 m | 21 | 4 | 2 | 431 |
| | | 21 | 4 | 2 | 431 | | | 21 | 4 | 2 | 431 |

GENERAL NOTES
Begin Drilling 09-29-2001 Complete Drilling 09-29-2001
Drilling Contractor Patrick Drilling Drill Rig CME 75
Driller T&L Logger E. Datz Checked by J.C.
Drilling Method 3.25-inch ID HSA. Boring grouted after completion.

WATER LEVEL DATA
While Drilling DRY
At Completion of Drilling DRY
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
SOIL BORING LOGS 2
IL 394 (F.A.I. 94) RETAINING WALL
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+876.000 STRUCTURE NO. 016-W866
DATE JULY 18, 2005
SCALE
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------|------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 679 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 12

12 SHEETS

(0203.1 & 0312-708W) R-3 CONTRACT #62108

BORING LOG HR-03 (1 OF 1)

BORING LOG HR-03
 WEI Job No.: 665-05-01
 Datum: NGVD
 Elevation: 182.45 m
 North: 547390.41 m
 East: 362486.38 m
 Station: 19+033.99
 Offset: 21.86 RT

Client: **HNTB Corporation**
 Project: **IL 394 (FAP 94) IODT D-91-012-01**
 Location: **Sections 25&26, T36N, R14E, Cook Co.**

Wang Engineering, Inc.
 Consulting Geotechnical and Environmental Engineers
 wangeng@wangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Type | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Type |
|-----------------------|---|-----------|------------|---------------------------|----------------------|-----------|-----------------------|---|-----------|------------|---------------------------|----------------------|-----------|
| 182.45 | Black SILTY LOAM | 0.0 | | | | | 182.45 | Black SILTY LOAM | 0.0 | | | | |
| 181.5 | Medium dense, brown SILTY LOAM | 1.0 | 1 | 2 | NP | NP | 181.5 | Medium dense, brown SILTY LOAM | 1.0 | 1 | 2 | NP | NP |
| 181.5 | Loose to medium dense, brown SILT to SILTY LOAM | 2.0 | 2 | 3 | NP | NP | 181.5 | Loose to medium dense, brown SILT to SILTY LOAM | 2.0 | 2 | 3 | NP | NP |
| 180.5 | Very stiff, brown CLAY | 3.0 | 3 | 4 | NP | NP | 180.5 | Very stiff, brown CLAY | 3.0 | 3 | 4 | NP | NP |
| 180.5 | Boring terminated at 3.05 m | 3.05 | | | | | 180.5 | Boring terminated at 3.05 m | 3.05 | | | | |

GENERAL NOTES
 Begin Drilling: 09-27-2001 Complete Drilling: 09-27-2001
 Drilling Contractor: Patrick Drilling Drill Rig: CME 75
 Driller: J&M Logger: E. Datz Checked by: J.C.
 Drilling Method: 3.25-inch ID HSA; Boring grouted after completion.

WATER LEVEL DATA
 While Drilling: DRY
 At Completion of Drilling: DRY
 Time After Drilling: NA
 Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG HR-03A (1 OF 1)

BORING LOG HR-03A
 WEI Job No.: 665-05-01
 Datum: NGVD
 Elevation: 182.45 m
 North: 547390.42 m
 East: 362486.38 m
 Station: 19+033.37
 Offset: 21.86 RT

Client: **HNTB Corporation**
 Project: **IL 394 (FAP 94) IODT D-91-012-01**
 Location: **Sections 25&26, T36N, R14E, Cook Co.**

Wang Engineering, Inc.
 Consulting Geotechnical and Environmental Engineers
 wangeng@wangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Type | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Type |
|-----------------------|-------------------------------------|-----------|------------|---------------------------|----------------------|-----------|-----------------------|-------------------------------------|-----------|------------|---------------------------|----------------------|-----------|
| 182.45 | Black SILTY LOAM | 0.0 | | | | | 182.45 | Black SILTY LOAM | 0.0 | | | | |
| 181.5 | Very stiff, brown SILTY CLAY | 1.0 | 1 | 4 | 330 | B | 181.5 | Very stiff, brown SILTY CLAY | 1.0 | 1 | 4 | 330 | B |
| 181.5 | Medium stiff, brown to gray CLAY | 2.0 | 2 | 3 | 335 | P | 181.5 | Medium stiff, brown to gray CLAY | 2.0 | 2 | 3 | 335 | P |
| 180.5 | Medium stiff, brown to gray CLAY | 3.0 | 3 | 2 | 71 | B | 180.5 | Medium stiff, brown to gray CLAY | 3.0 | 3 | 2 | 71 | B |
| 180.5 | Hard, gray SILTY CLAY, trace gravel | 4.0 | 4 | 3 | 94 | B | 180.5 | Hard, gray SILTY CLAY, trace gravel | 4.0 | 4 | 3 | 94 | B |
| 180.5 | Boring terminated at 12.19 m | 12.19 | | | | | 180.5 | Boring terminated at 12.19 m | 12.19 | | | | |

GENERAL NOTES
 Begin Drilling: 05-20-2002 Complete Drilling: 05-20-2002
 Drilling Contractor: Patrick Drilling Drill Rig: CME 75
 Driller: J&M Logger: N. Davis Checked by: D. Petersen
 Drilling Method: 3.25-inch ID HSA; Boring grouted after completion.

WATER LEVEL DATA
 While Drilling: DRY
 At Completion of Drilling: DRY
 Time After Drilling: NA
 Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG RD-214 (1 OF 1)

BORING LOG RD-214
 WEI Job No.: 665-05-01
 Datum: NGVD
 Elevation: 182.15 m
 North: 547475.23 m
 East: 362527.16 m
 Station: 18+949.96
 Offset: 19.50 LT

Client: **HNTB Corporation**
 Project: **IL 394 (FAP 94) IODT D-91-012-01**
 Location: **Sections 25&26, T36N, R14E, Cook Co.**

Wang Engineering, Inc.
 Consulting Geotechnical and Environmental Engineers
 wangeng@wangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Type | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Type |
|-----------------------|---------------------------------------|-----------|------------|---------------------------|----------------------|-----------|-----------------------|---------------------------------------|-----------|------------|---------------------------|----------------------|-----------|
| 182.15 | CRUSHED STONE aggregate | 0.0 | | | | | 182.15 | CRUSHED STONE aggregate | 0.0 | | | | |
| 181.5 | Shoulder Aggregate | 1.0 | 1 | 10 | 314 | S | 181.5 | Shoulder Aggregate | 1.0 | 1 | 10 | 314 | S |
| 181.5 | Very stiff, black SILTY CLAY | 2.0 | 2 | 11 | NP | NP | 181.5 | Very stiff, black SILTY CLAY | 2.0 | 2 | 11 | NP | NP |
| 181.5 | Medium dense, gray SILT | 3.0 | 3 | 5 | 307 | B | 181.5 | Medium dense, gray SILT | 3.0 | 3 | 5 | 307 | B |
| 181.5 | Very stiff, gray SILTY CLAY | 4.0 | 4 | 3 | 307 | B | 181.5 | Very stiff, gray SILTY CLAY | 4.0 | 4 | 3 | 307 | B |
| 181.5 | Medium dense, gray SILT | 5.0 | 5 | 4 | 260 | B | 181.5 | Medium dense, gray SILT | 5.0 | 5 | 4 | 260 | B |
| 181.5 | Very stiff, gray and black SILTY CLAY | 6.0 | 6 | 4 | 307 | B | 181.5 | Very stiff, gray and black SILTY CLAY | 6.0 | 6 | 4 | 307 | B |
| 181.5 | Boring terminated at 3.05 m | 3.05 | | | | | 181.5 | Boring terminated at 3.05 m | 3.05 | | | | |

GENERAL NOTES
 Begin Drilling: 06-06-2002 Complete Drilling: 06-06-2002
 Drilling Contractor: TSC Drill Rig: CME 750 ATV
 Driller: C&F Logger: N. Davis Checked by: B. Fuglel
 Drilling Method: 3.25-inch ID HSA; Boring back-filled upon completion.

WATER LEVEL DATA
 While Drilling: DRY
 At Completion of Drilling: DRY
 Time After Drilling: NA
 Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI ROUTE 80 (INTERSTATE 80/94)
 INTERSTATE 294 TO US ROUTE 41
SOIL BORING LOGS 3
 IL 394 (F.A.I. 94) RETAINING WALL
 SECTION (0203.1 & 0312-708W) R-3
 COOK COUNTY
 STA. 18+876.000 STRUCTURE NO. 016-W866
 DATE: JULY 18, 2005
 SCALE: _____
BRANCO & ZROKA
 ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------|------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 680 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 1
13 SHEETS

T.B.M. 311: Set cut box on southeast corner of foundation of overhead sign truss.
I-94 Eastbound; Approximate Sta. 19+015 (Approximate Mile Marker 73.40); Elev. 183.386

Existing Structure: Single 1.73m x 1.09m Elliptical RCP and Single 1.83m Diameter RCP.

Traffic to be maintained utilizing stage construction.

No Salvage.

Precast alternate is not allowed.

(0203.1 & 0312-TOBW) R-3 CONTRACT #62108

GENERAL NOTES

- All dimensions in millimeters (mm) unless noted.
- Reinforcement bars shall conform to the requirements of AASHTO M31M, M42M or M53M Grade 420.
- The Contractor shall drive one 305mm test pile in a permanent location as directed by the Engineer before ordering the remainder of the piles.
- All construction joints shall be bonded.
- The soft to medium stiff clay below the culvert shall be removed to an approximate depth of 300mm below the bottom of the bottom slab of the box culvert and replaced with Porous Granular Embankment. The exact depth of the undercut to be determined by the Engineer.
- On the upstream wingwalls, a distance of half the length of the wingwall but not less than 2m of the barrel shall be poured monolithically with the wingwalls.
- Details for WB I-94 Reconstruction are for information only.
- Porous Granular Embankment (Special) shall be used to backfill the culvert from the top of the top slab to the bottom of the bottom slab. Its horizontal limit shall be 600mm behind the culvert walls and the wingwalls.

BILL OF MATERIAL FOR EB RECONSTRUCTION

| ITEM | UNIT | QUANTITY |
|---|----------------|----------|
| Porous Granular Embankment | m ³ | 42.2 |
| Removal and Disposal of Unsuitable Material | m ³ | 1,037.2 |
| Porous Granular Embankment (Special) | m ³ | 138.5 |
| Reinforcement Bars | Kg | 14,930 |
| Furnishing Metal Pile Shells 305mm | m | 663 |
| Driving and Filling Shells | m | 663 |
| Test Pile Metal Shells | Each | 1 |
| Temporary Soil Retention System | m ² | 61.5 |
| Concrete Box Culverts | m ³ | 139.4 |
| Name Plates | Each | 1 |
| Bar Splicers | Each | 59 |

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 24$ MPa
 $f_y = 420$ MPa (Reinforcement)

LOADING MS18 & ALTERNATE

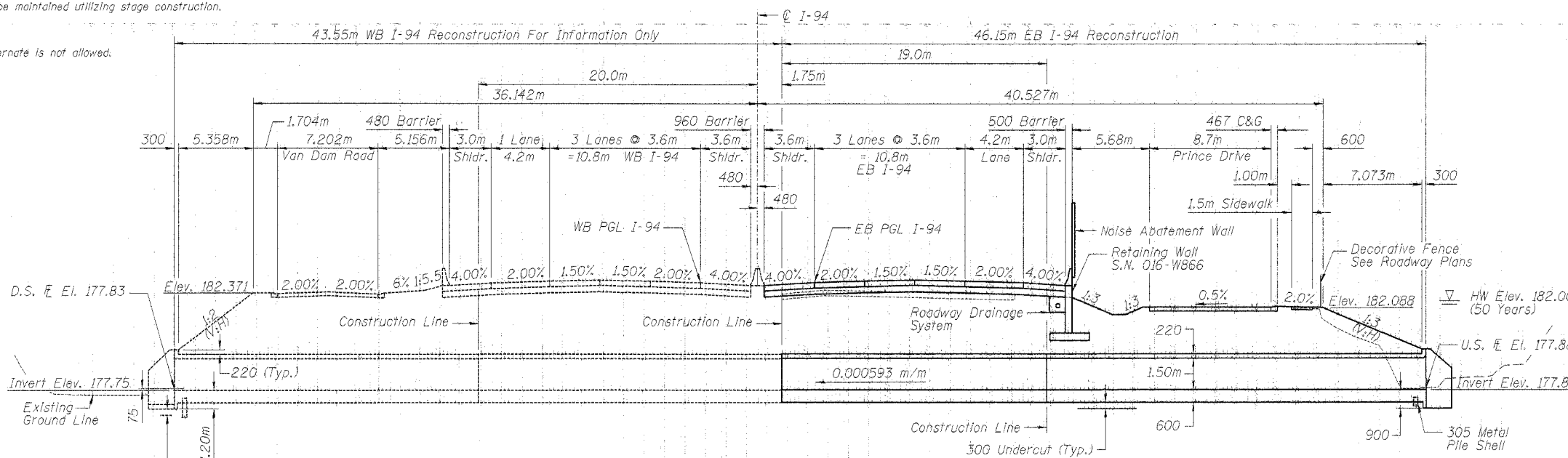
Allow 2.4 kN/m² Future Wearing Surface

LEGEND

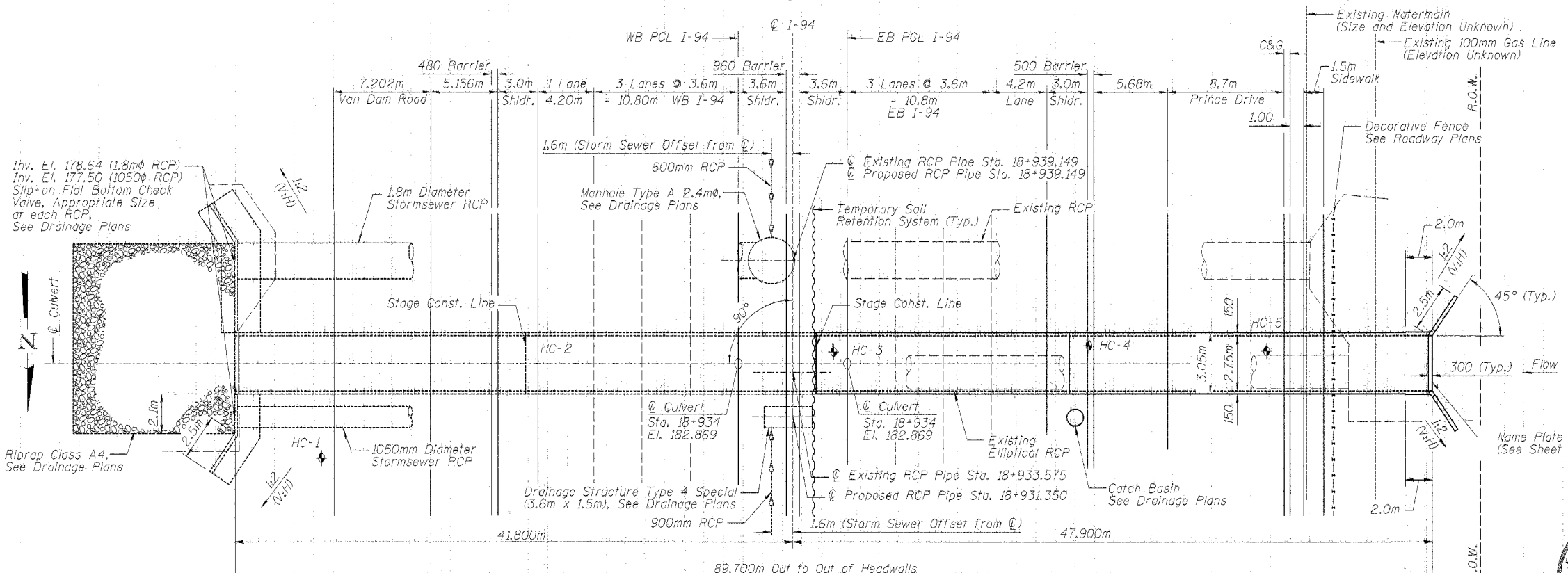
⚡ Soil Boring



Signature: *Deborah A. Zroka*
Date: July 8, 2005
Expires: 11-30-06



LONGITUDINAL SECTION
(Looking South)



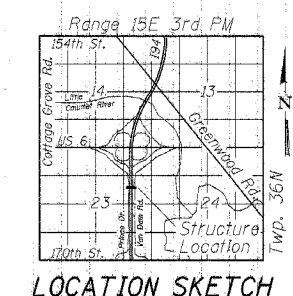
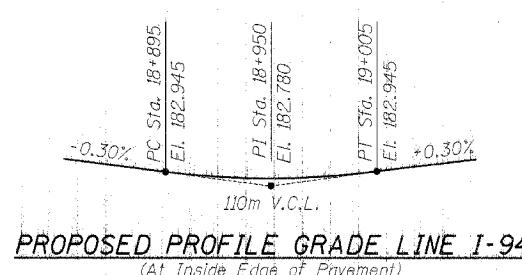
PLAN

WATERWAY INFORMATION TABLE

Drainage Area = 162.0 ha Low Grade Elev. = 182.99 @ Sta. 18+950

| Flood | Freq. Yr. | Q (m ³ /s) | Opening (m ²) | | Nat. H.W.E. | Head (m) | | Headwater Elev. | |
|-------------|-----------|-----------------------|---------------------------|-------|-------------|----------|-------|-----------------|--------|
| | | | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| Design | 50 | 3.06 | 4.11 | 4.18 | 181.30 | 0.03 | 0.03 | 181.33 | 181.33 |
| Base | 100 | 3.33 | 4.11 | 4.18 | 182.00 | 0.06 | 0.06 | 182.06 | 182.06 |
| Overtopping | 325 | 3.69 | 4.11 | 4.18 | 182.30 | 0.06 | 0.06 | 182.15 | 182.36 |
| Max. Calc. | 500 | 3.92 | 4.11 | 4.18 | 183.30 | | | | |

| | |
|----------|-----|
| DESIGNED | FMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

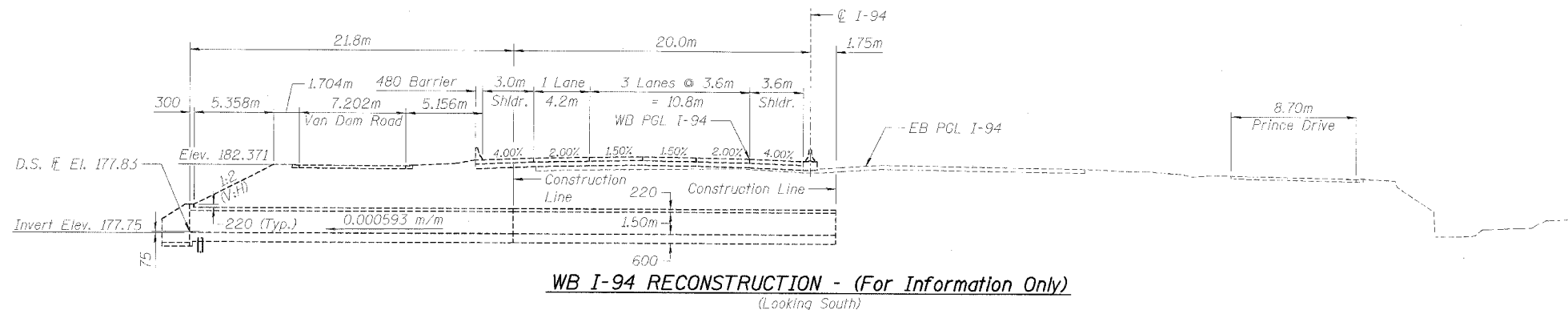


ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
GENERAL PLAN
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-TOBW) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

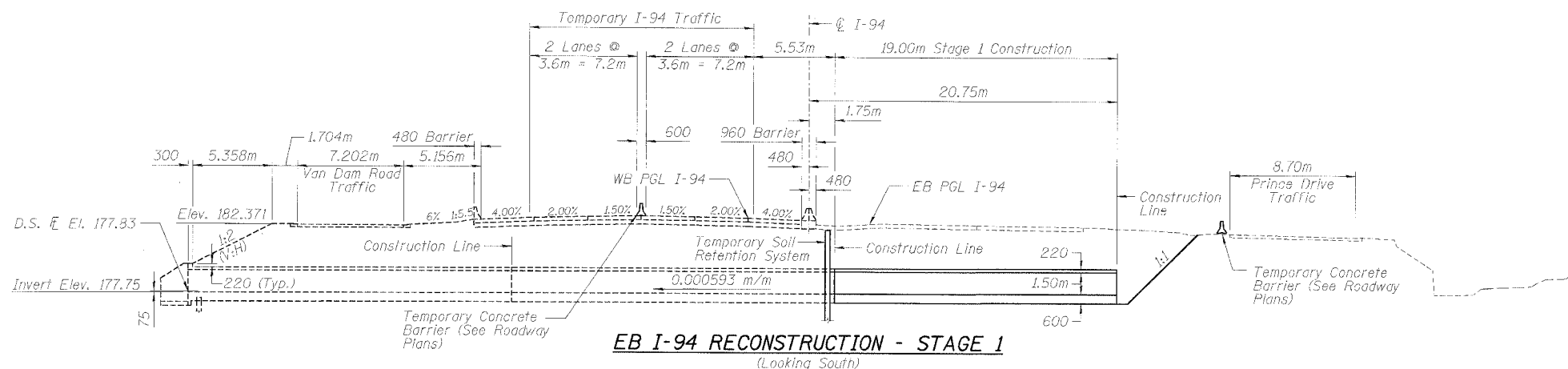
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

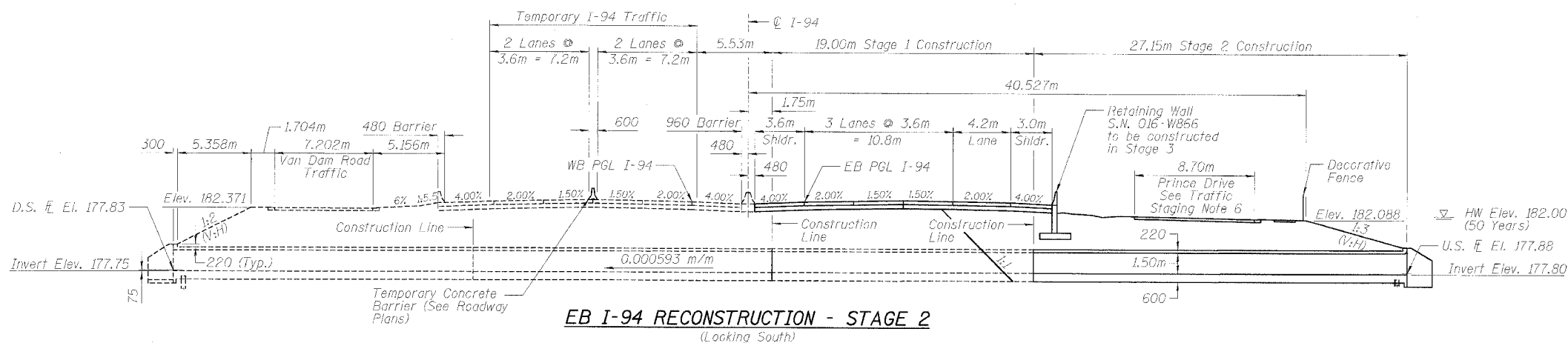
| | | | | |
|---|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.I. 80/94 | * | COOK | 870 | 681 |
| SHEET NO. 2 13 SHEETS | | | | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |
| *(0203.1 & 0312-708W) R-3 CONTRACT #62108 | | | | |



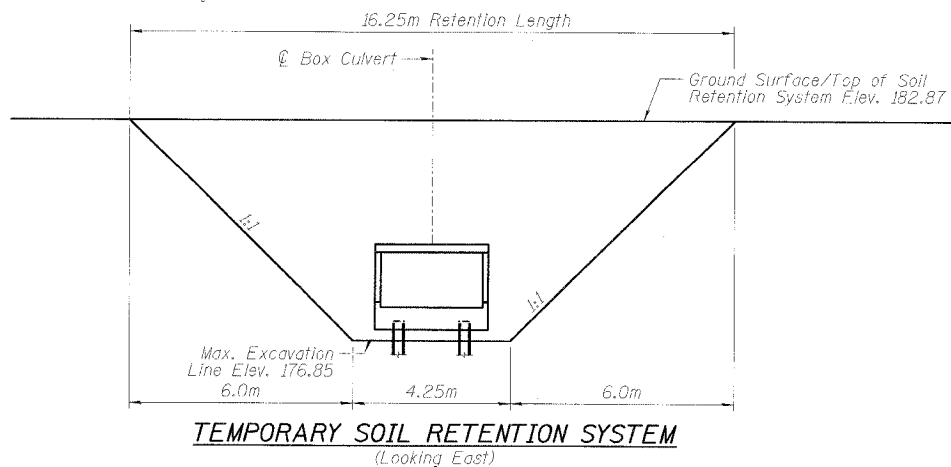
WB I-94 RECONSTRUCTION - (For Information Only)
(Looking South)



EB I-94 RECONSTRUCTION - STAGE 1
(Looking South)



EB I-94 RECONSTRUCTION - STAGE 2
(Looking South)



TEMPORARY SOIL RETENTION SYSTEM
(Looking East)

BILL OF MATERIAL FOR EB RECONSTRUCTION

| ITEM | UNIT | QUANTITY |
|---|----------------|----------|
| Porous Granular Embankment | m ³ | 42.2 |
| Removal and Disposal of Unsuitable Material | m ³ | 1,037.2 |
| Porous Granular Embankment (Special) | m ³ | 138.5 |
| Temporary Soil Retention System | m ² | 61.5 |

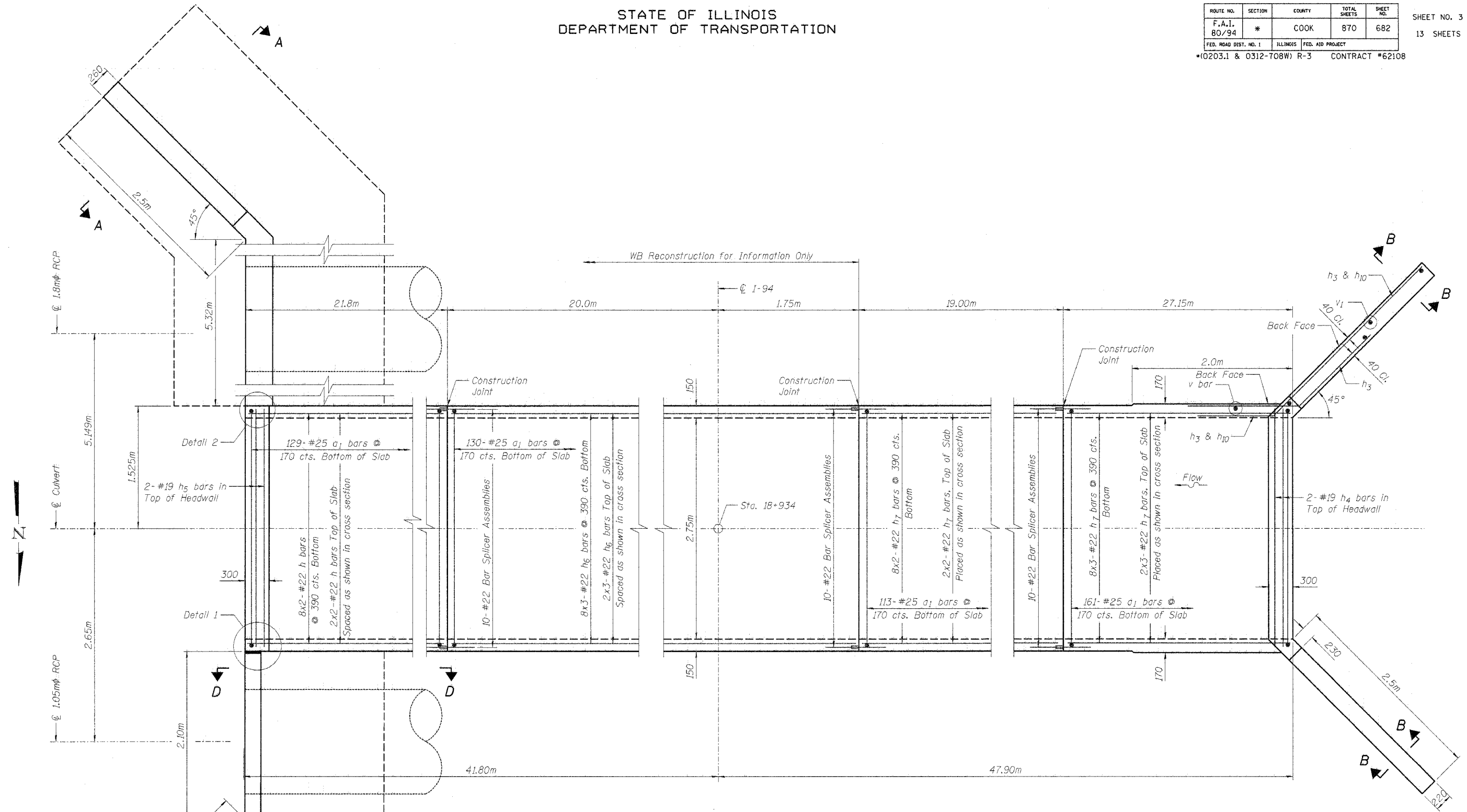
NOTES

- All dimensions are in millimeters (mm) unless noted otherwise.
- A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
- For details of the Temporary Bulkhead in place to seal the space between the Existing Elliptical RCP and the new culvert between WB and EB Reconstruction contracts, see Drainage Plans.
- The Contractor is responsible for the retention of the soil above, below, and around the existing drainage pipes, to be included with Temporary Soil Retention System.
- The Contractor is responsible for maintaining existing drainage flow. For additional information, see notes on Drawing DU-1.
- Prince Drive shall be closed to traffic at the box culvert for no longer than 60 calendar days. Prince Drive shall be opened to traffic once work is complete. The Contractor shall provide two weeks advanced warning prior to closure of Prince Drive.
- Limits of Removal and Disposal of Unsuitable Material shall be from existing grades to the bottom of the bottom slab of the box culvert. Its horizontal limit shall be 600mm behind the culvert walls and the wingwalls. Limits shall also include the volume of undercut below the box culvert.

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
STAGE CONSTRUCTION
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERS - P.C.



TOP SLAB PLAN

NOTES

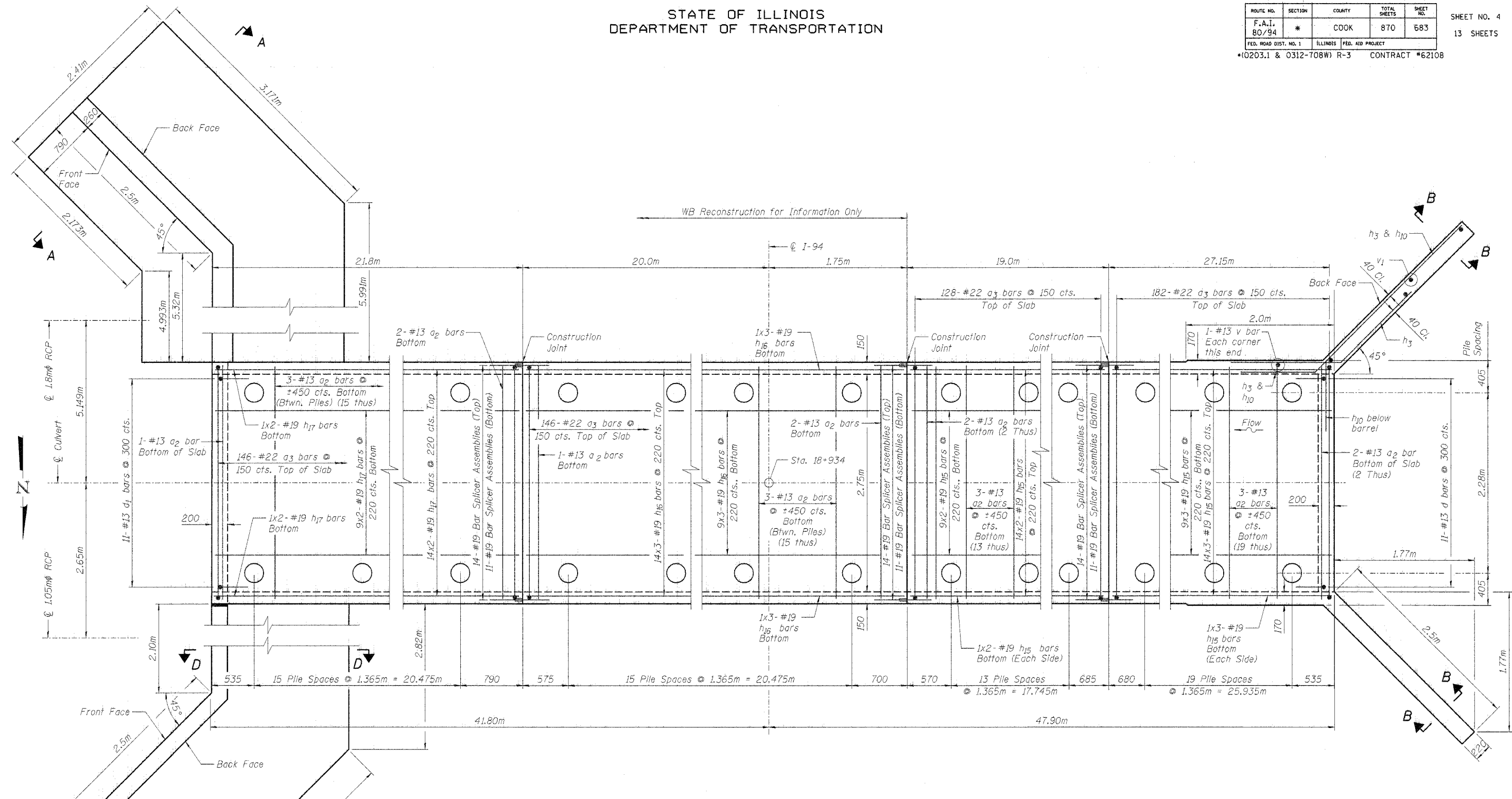
- All dimensions are in millimeters (mm) unless noted otherwise.
- Bars indicated thus: 8x2-#22, etc. indicates 8 lines of bars with 2 lengths per line.
- Reinforcement bars designated (E) shall be epoxy coated.
- For Sections A-A, B-B & D-D, see Sheet No. 7.
- For Details 1 & 2, see Sheet No. 7.
- Minimum Bar Laps (unless noted otherwise):

| | Barrels | Wingwalls |
|----------|---------|-----------|
| #13 bars | 440 | 550 |
| #16 bars | 550 | 680 |
| #19 bars | 670 | 830 |
| #22 bars | 910 | 1130 |
| #25 bars | 1190 | 1490 |

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
CULVERT TOP SLAB PLAN
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.



PILE DATA FOR EB RECONSTRUCTION

Type: 305 Metal Pile Shell
Capacity: 270 kN
Est. Length: 9.9m
No. Req'd.: 67 plus 1 Test Pile

BOTTOM SLAB PLAN

NOTES

- All dimensions are in millimeters (mm) unless noted otherwise.
- Bars indicated thus: 9x2-#19, etc. Indicates 9 lines of bars with 2 lengths per line.
- Reinforcement bars designated (E) shall be epoxy coated.
- For Sections A-A, B-B & D-D, see Sheet No. 7.
- Minimum Bar Laps (unless noted otherwise):

| | Barrels | Wingwalls |
|----------|---------|-----------|
| #13 bars | 440 | 550 |
| #16 bars | 550 | 680 |
| #19 bars | 670 | 830 |
| #22 bars | 910 | 1130 |
| #25 bars | 1190 | 1490 |

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
CULVERT BOTTOM SLAB PLAN
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

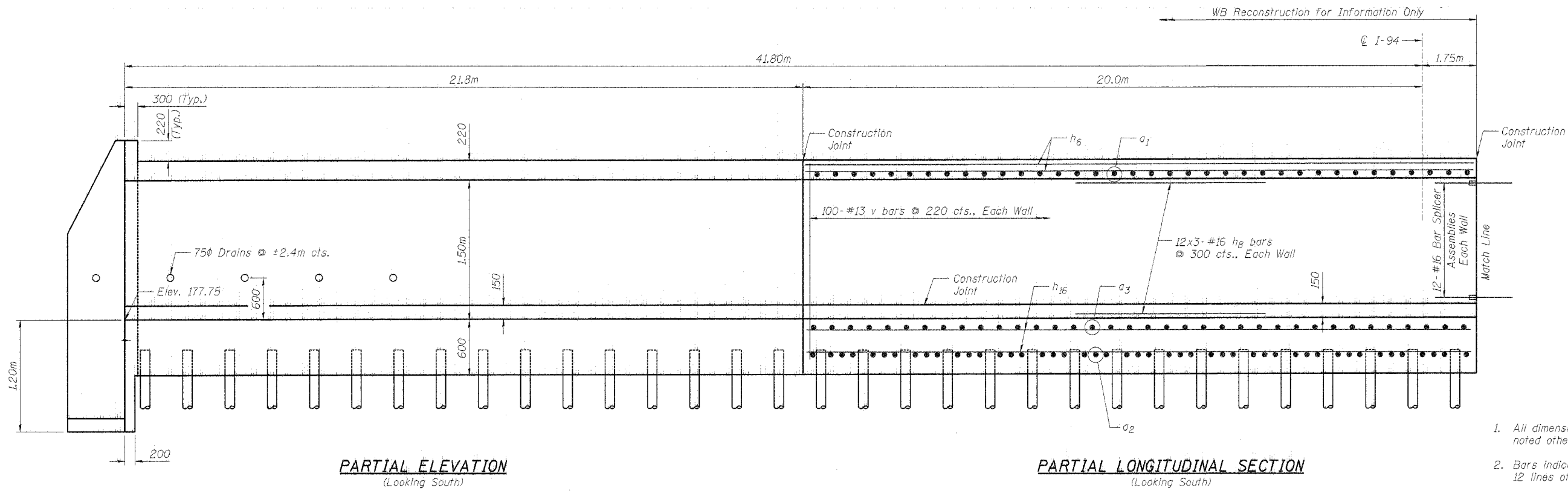
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.I. 80/94 | * | COOK | 870 | 684 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 5
13 SHEETS

*(0203.1 & 0312-708W) R-3 CONTRACT #62108



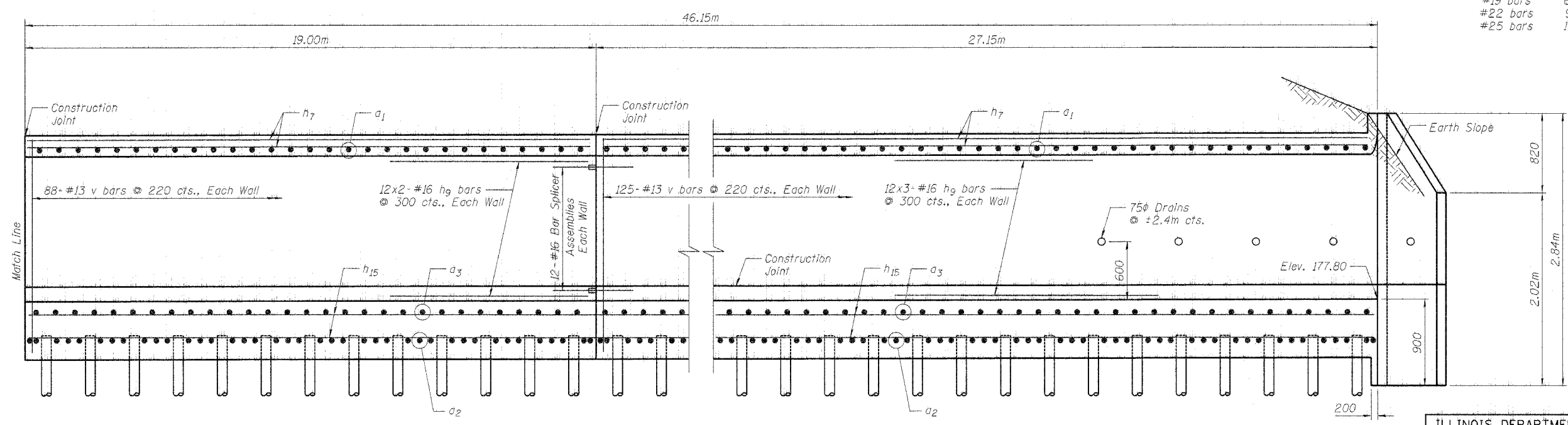
PARTIAL ELEVATION
(Looking South)

PARTIAL LONGITUDINAL SECTION
(Looking South)

NOTES

- All dimensions are in millimeters (mm) unless noted otherwise.
- Bars indicated thus: 12x2-#16, etc. indicates 12 lines of bars with 2 lengths per line.
- Reinforcement bars designated (E) shall be epoxy coated.
- Minimum Bar Laps (unless noted otherwise):

| | Barrels | Wingwalls |
|----------|---------|-----------|
| #13 bars | 440 | 550 |
| #16 bars | 550 | 680 |
| #19 bars | 670 | 830 |
| #22 bars | 910 | 1130 |
| #25 bars | 1190 | 1490 |

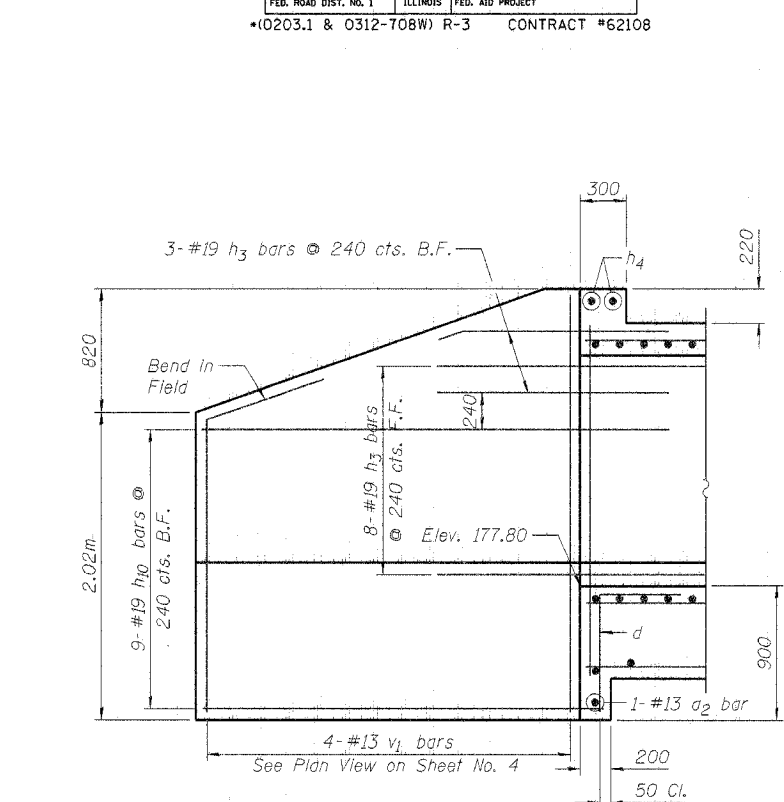
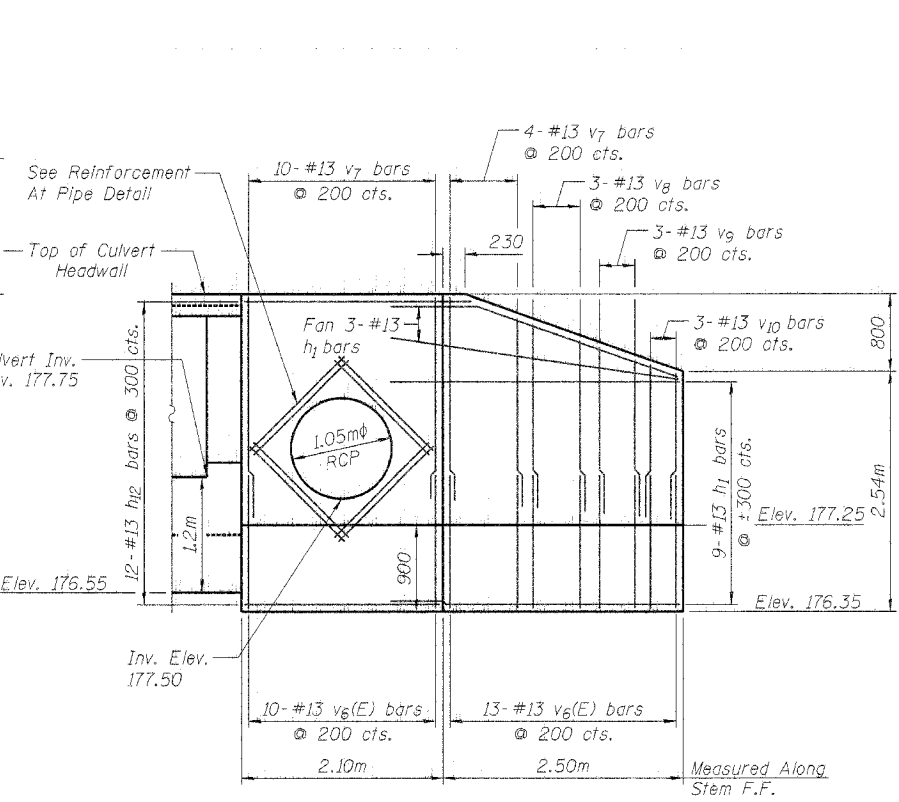
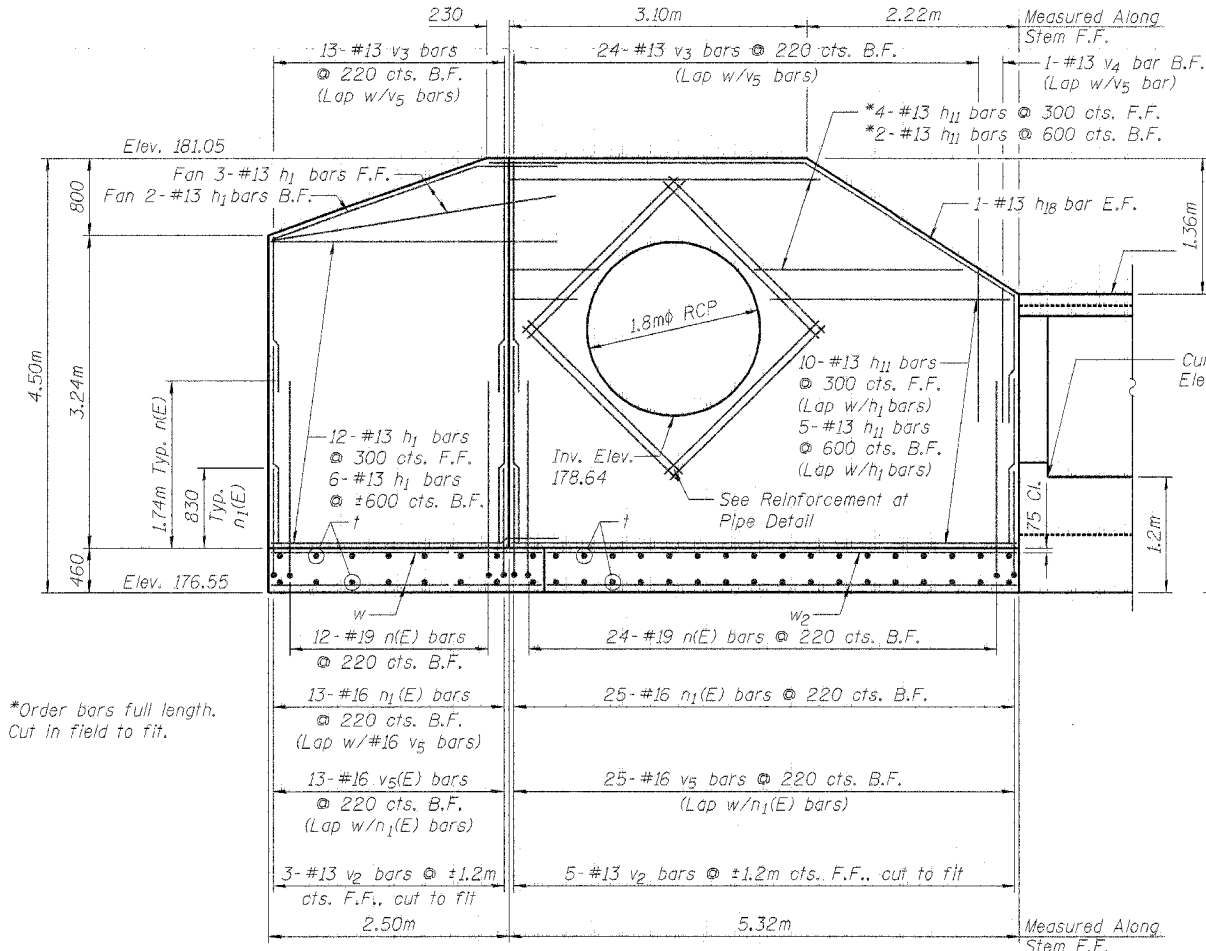


PARTIAL LONGITUDINAL SECTION
(Looking South)

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
CULVERT ELEVATION
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.

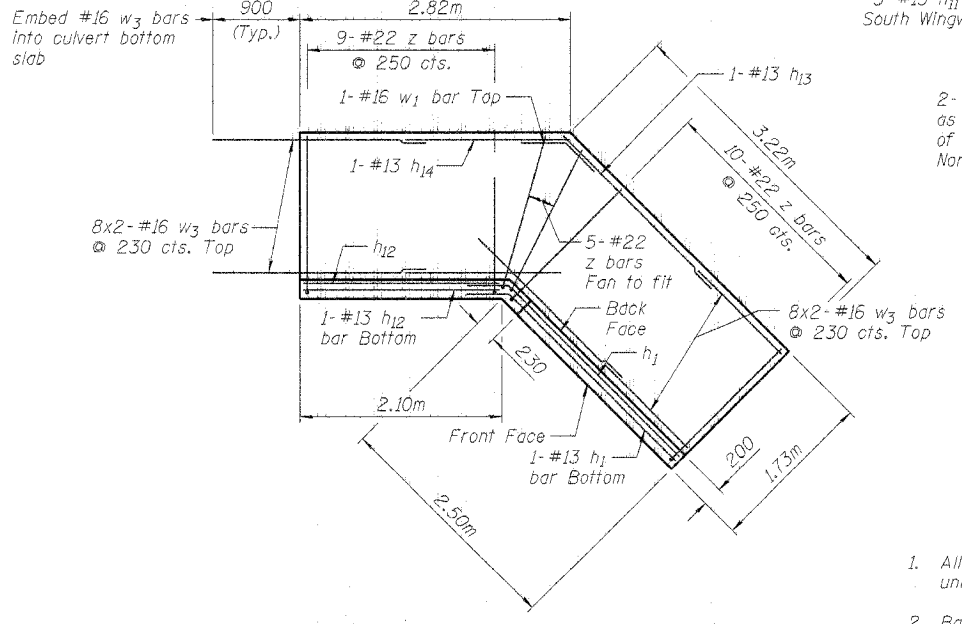
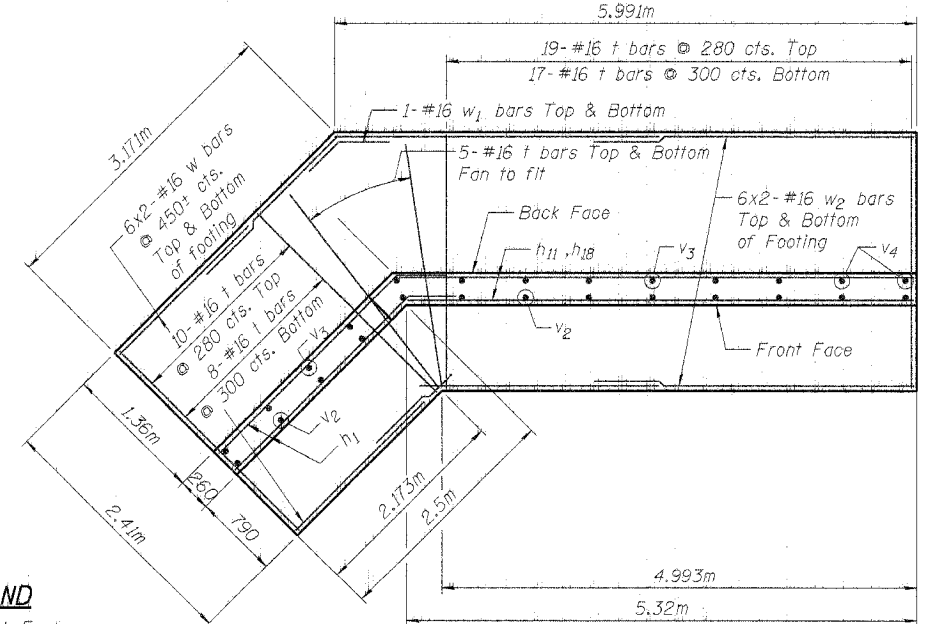


DOWNSTREAM NORTH WINGWALL ELEVATION
WB Reconstruction - For Information Only

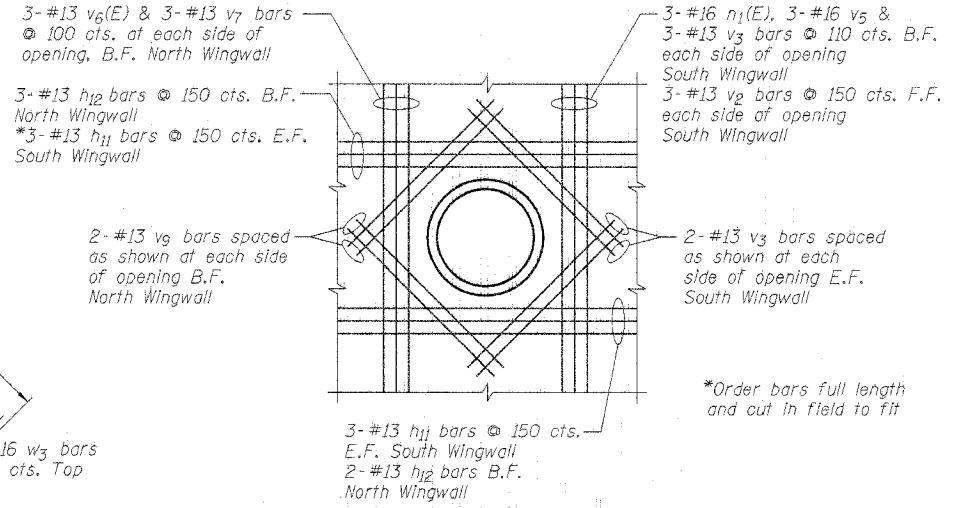
UPSTREAM WINGWALLS ELEVATION

*Order bars full length. Cut in field to fit.

DOWNSTREAM SOUTH WINGWALL ELEVATION
WB Reconstruction - For Information Only



DOWNSTREAM NORTH WINGWALL PLAN
WB Reconstruction - For Information Only



REINFORCEMENT AT SEWER PIPE
WB Reconstruction - For Information Only

Cut horizontal and vertical bars to fit opening and add reinforcement as indicated.

NOTES

- All dimensions are in millimeters (mm) unless noted otherwise.
- Bars indicated thus: 8x2-#16, etc. Indicates 8 lines of bars with 2 lengths per line.
- Reinforcement bars designated (E) shall be epoxy coated.
- Minimum Bar Laps (unless noted otherwise):

| Bar Size | Barrels | Wingwalls |
|----------|---------|-----------|
| #13 bars | 440 | 550 |
| #16 bars | 550 | 680 |
| #19 bars | 670 | 830 |
| #22 bars | 910 | 1130 |
| #25 bars | 1190 | 1490 |

LEGEND

B.F. = Back Face
F.F. = Front Face
E.F. = Each Face

DOWNSTREAM SOUTH WINGWALL PLAN
WB Reconstruction - For Information Only

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
WINGWALL ELEVATIONS & SECTIONS
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

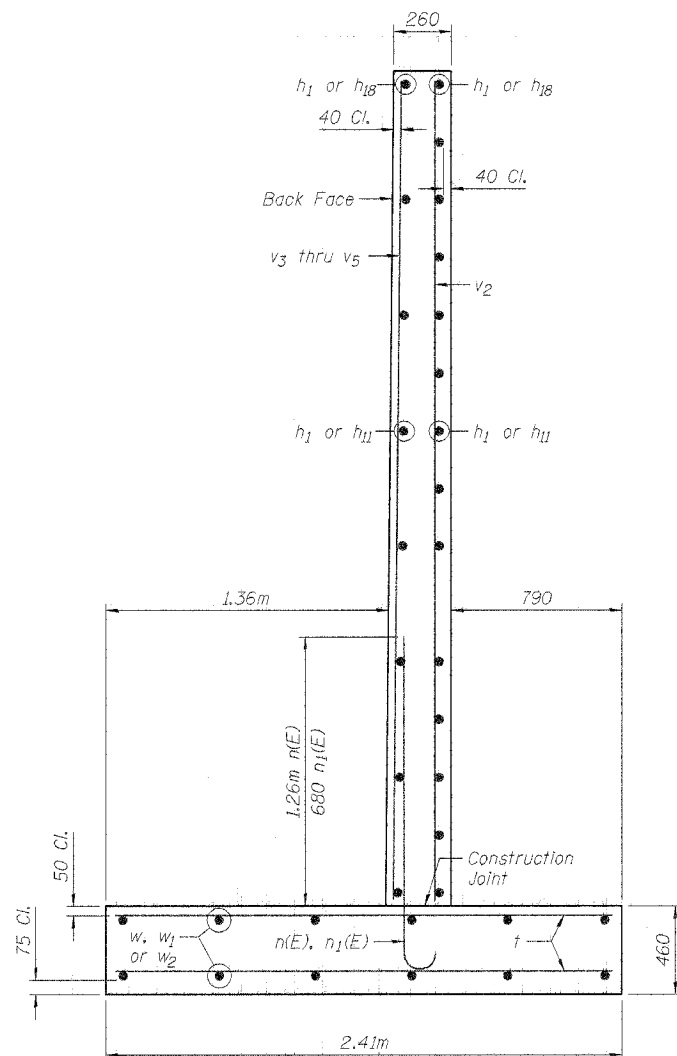
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|---------------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 686 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |

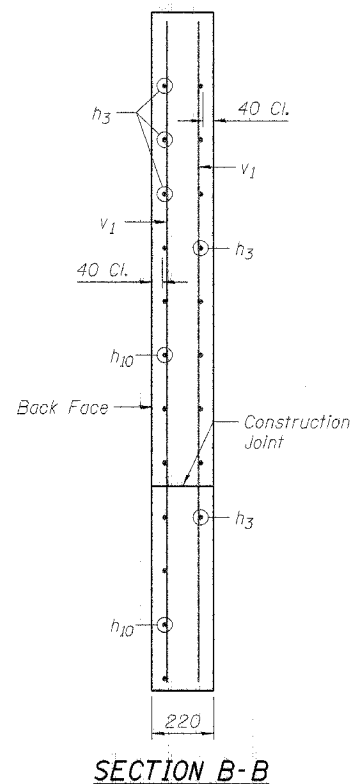
SHEET NO. 7
13 SHEETS

(0203.1 & 0312-708W) R-3 CONTRACT #62108

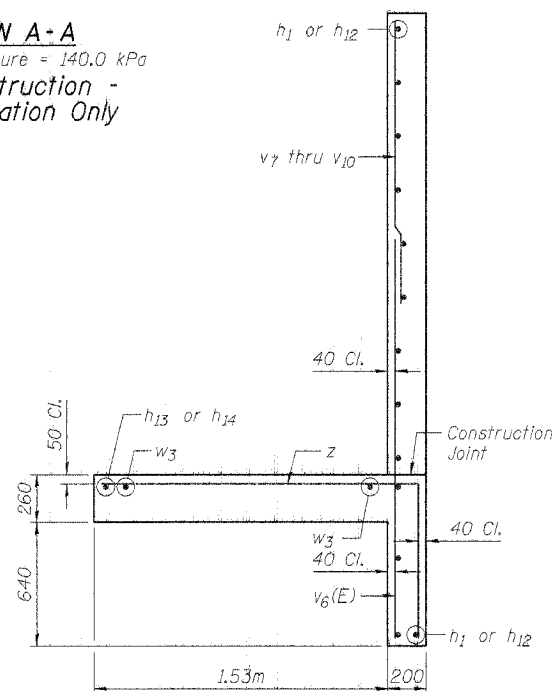


SECTION A-A

Maximum Soil Pressure = 140.0 kPa
WB Reconstruction -
For Information Only

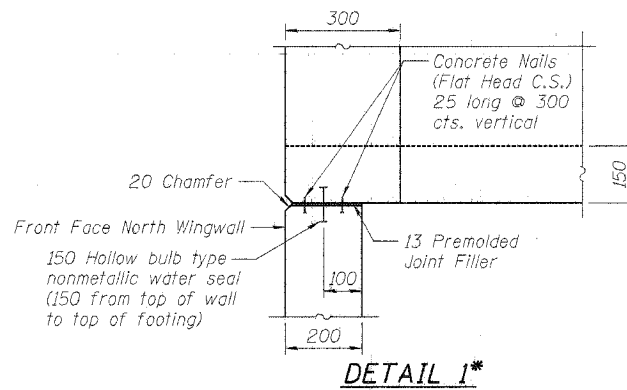


SECTION B-B

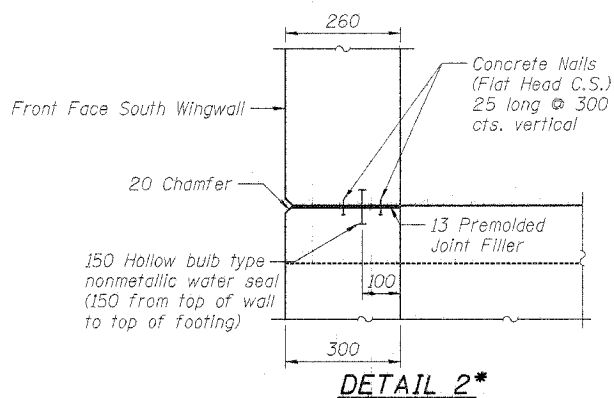


SECTION D-D

Maximum Soil Pressure = 137.2 kPa
WB Reconstruction -
For Information Only



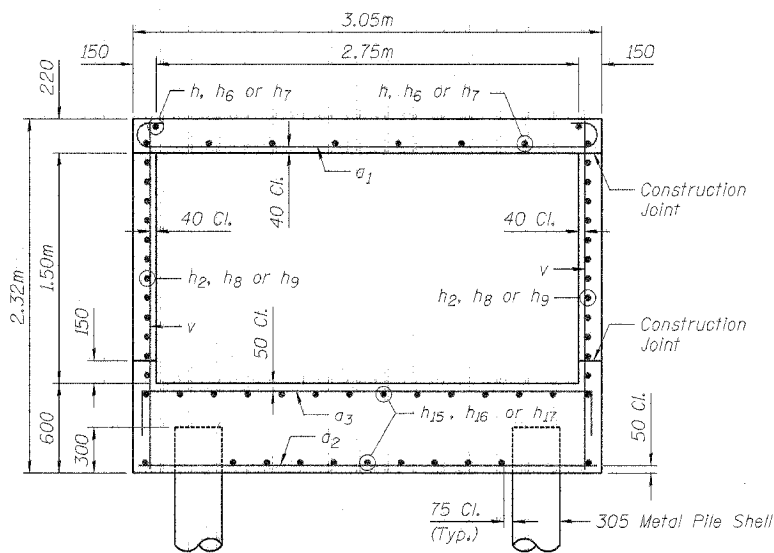
DETAIL 1*



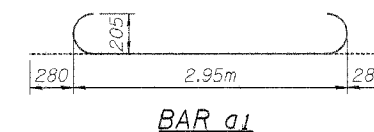
DETAIL 2*

SECTION THRU HEADWALL

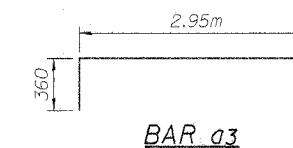
(Upstream End Only)



SECTION THRU BARREL



BAR a1

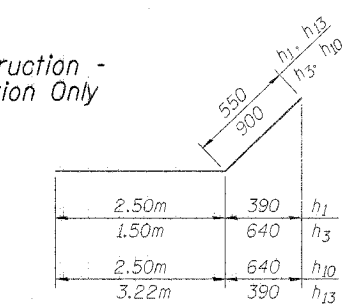


BAR a3

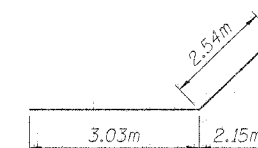


BARS d & d1*

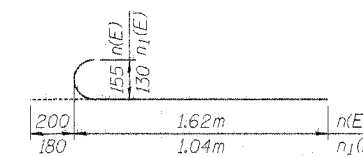
*WB Reconstruction -
For Information Only



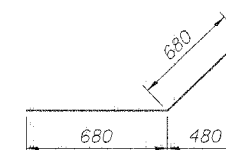
BARS h1*, h3, h10 & h13*



BAR h18*



BARS n(E)* & n1(E)*



BAR w1*



BAR z*

**BILL OF MATERIAL
FOR EB RECONSTRUCTION**

| Bar | No. | Size | Length (m) | Shape |
|------------------------------------|----------------|----------|------------|-------|
| a1 | 274 | #25 | 3.51 | U |
| a2 | 105 | #13 | 2.95 | U |
| a3 | 310 | #22 | 3.67 | U |
| d | 11 | #13 | 1.36 | — |
| h3 | 22 | #19 | 2.40 | — |
| h4 | 2 | #19 | 2.99 | — |
| h7 | 50 | #22 | 9.95 | — |
| h9 | 120 | #16 | 9.80 | — |
| h10 | 18 | #19 | 3.40 | — |
| h15 | 125 | #19 | 9.85 | — |
| v | 428 | #13 | 2.22 | — |
| v1 | 8 | #13 | 2.74 | — |
| Item | Unit | Quantity | | |
| Reinforcement Bars | Kg | 14,930 | | |
| Furnishing Metal Pile Shells 305mm | m | 663 | | |
| Driving and Filling Shells | m | 663 | | |
| Test Pile Metal Shells | Each | 1 | | |
| Concrete Box Culverts | m ³ | 139.4 | | |

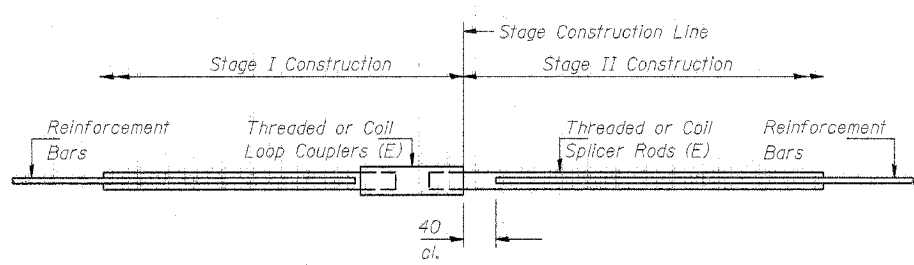
STATION 18+934
BUILT 200- BY
STATE OF ILLINOIS
F.A.I. RT. 94
LOADING MS18 & ALT.
STR. NO. 016-C012

NAME PLATE

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
CULVERT SECTIONS & DETAILS
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.

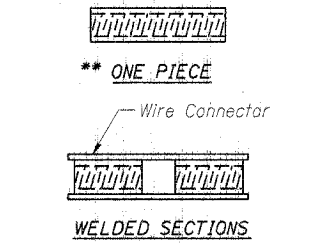
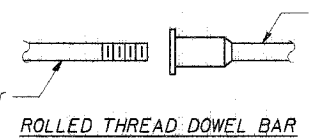


BAR SPLICER ASSEMBLY DETAIL

| Bar Size | No. Assemblies Required | Location |
|----------|-------------------------|-------------|
| #22 | 10 | Top Slab |
| #19 | 25 | Bottom Slab |
| #16 | 24 | Walls |
| | | |

The diameter of this part is equal or larger than the diameter of bar spliced.

The diameter of this part is the same as the diameter of the bar spliced.



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563M, Grade C, D or DH may be used.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 400 MPa yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

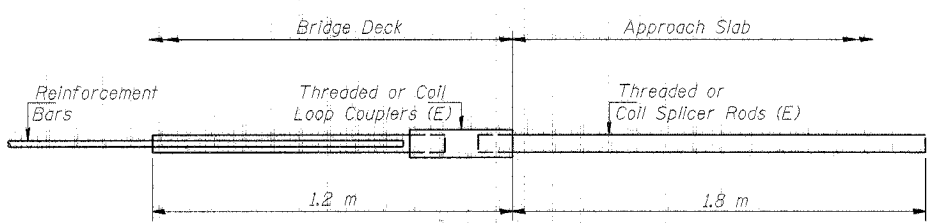
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity = $1.25 \times 10^{-3} \times f_y \times A_t$ (Tension in kN)
- Minimum *Pull-out Strength = $1.25 \times 10^{-3} \times f_{s\text{allow}} \times A_t$ (Tension in kN)

Where f_y = Yield strength of lapped reinforcement bars in MPa.
 $f_{s\text{allow}}$ = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars (mm^2).
 * = 28 day concrete

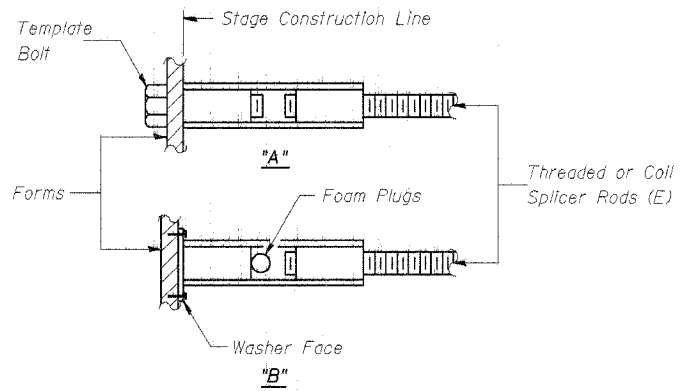
| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | Strength Requirements | |
|------------------------|---------------------------------|----------------------------|-------------------------------------|
| | | Min. Capacity kN - tension | Min. Pull-Out Strength kN - tension |
| #16 | 610 mm | 100 | 40 |
| #19 | 790 mm | 150 | 60 |
| #22 | 1,04 m | 250 | 100 |
| #30 | 1,37 m | 350 | 140 |

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."
 All dimensions are in millimeters (mm) except as noted.



**INTEGRAL ABUTMENT
BAR SPLICER ASSEMBLY DETAIL
FOR #15 BAR**

| |
|--|
| Min. Capacity = 100 kN - tension |
| Min. Pull-out Strength = 40 kN - tension |
| No. Required = |



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

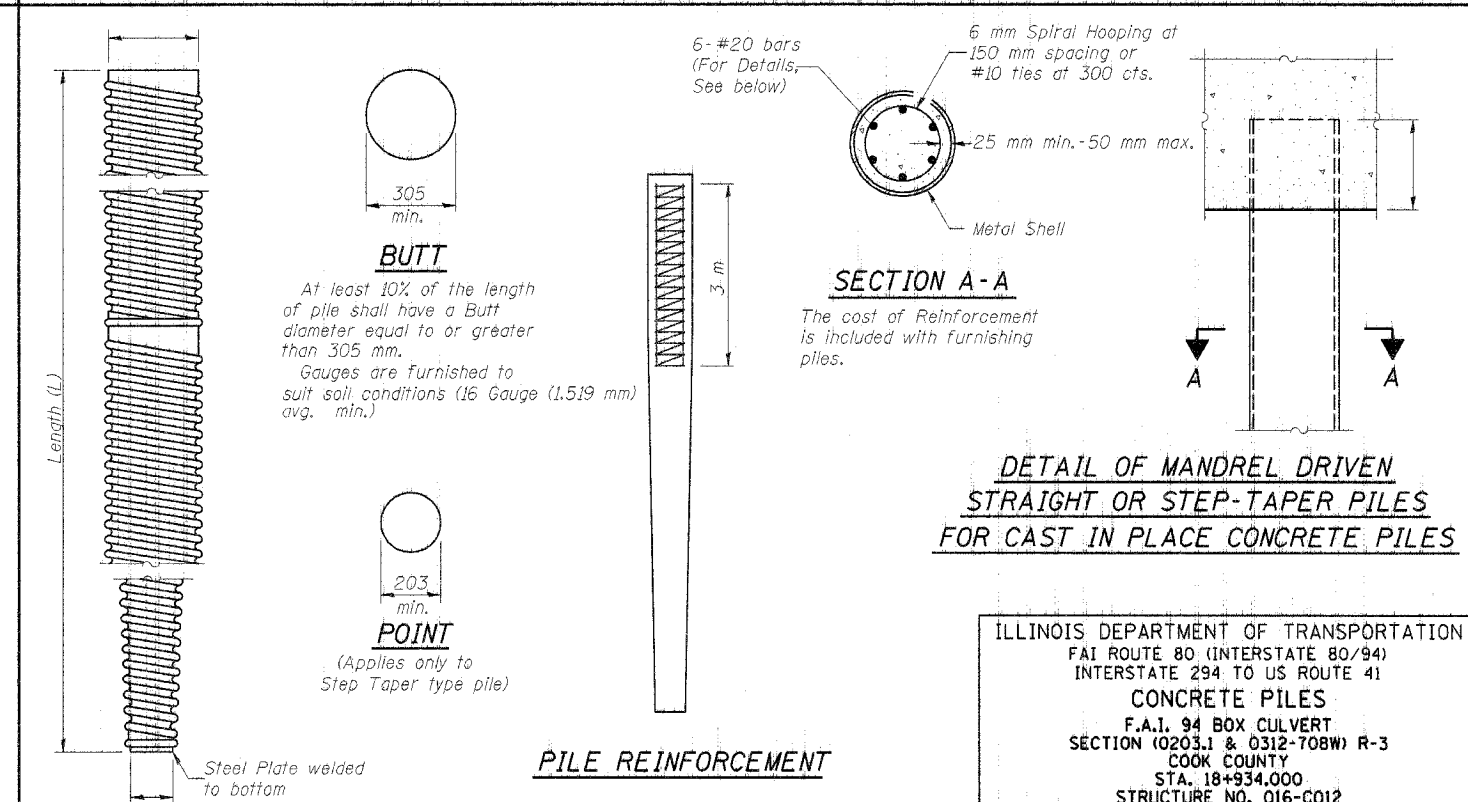
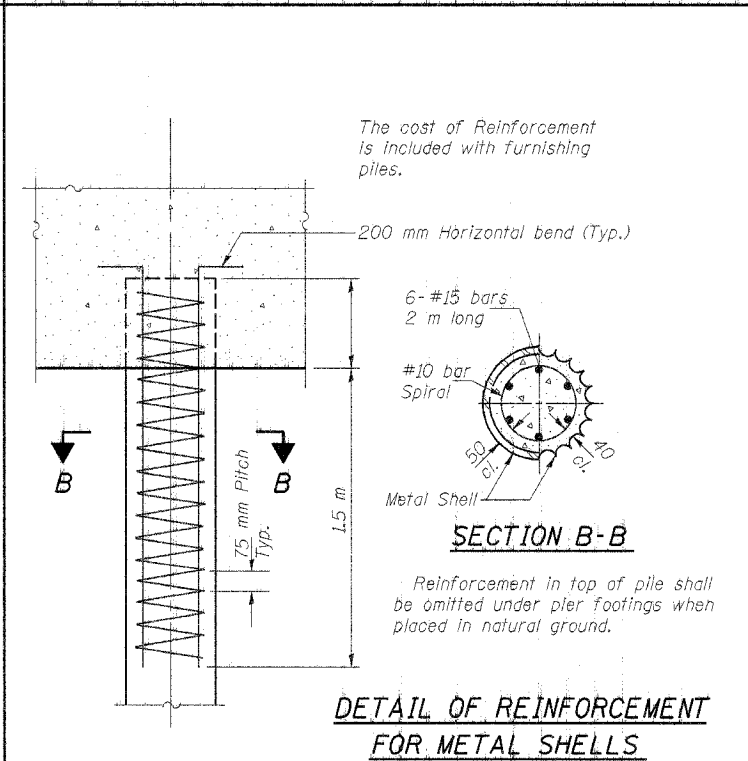
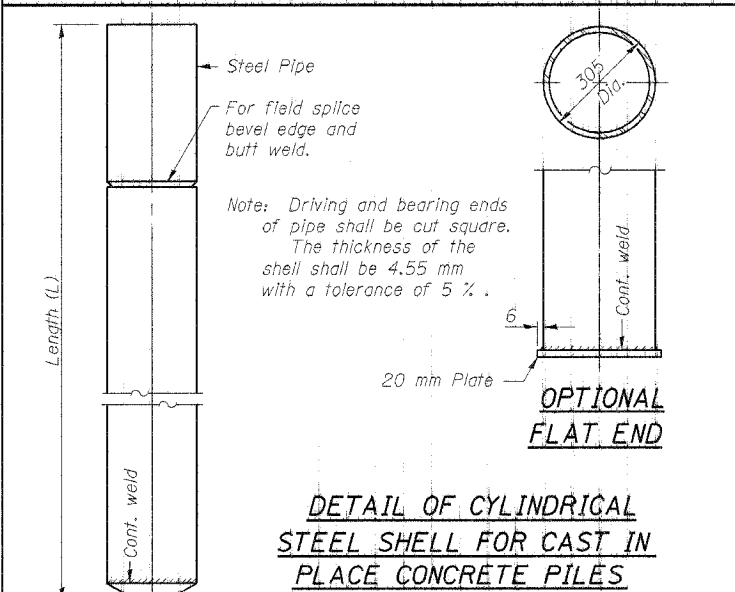
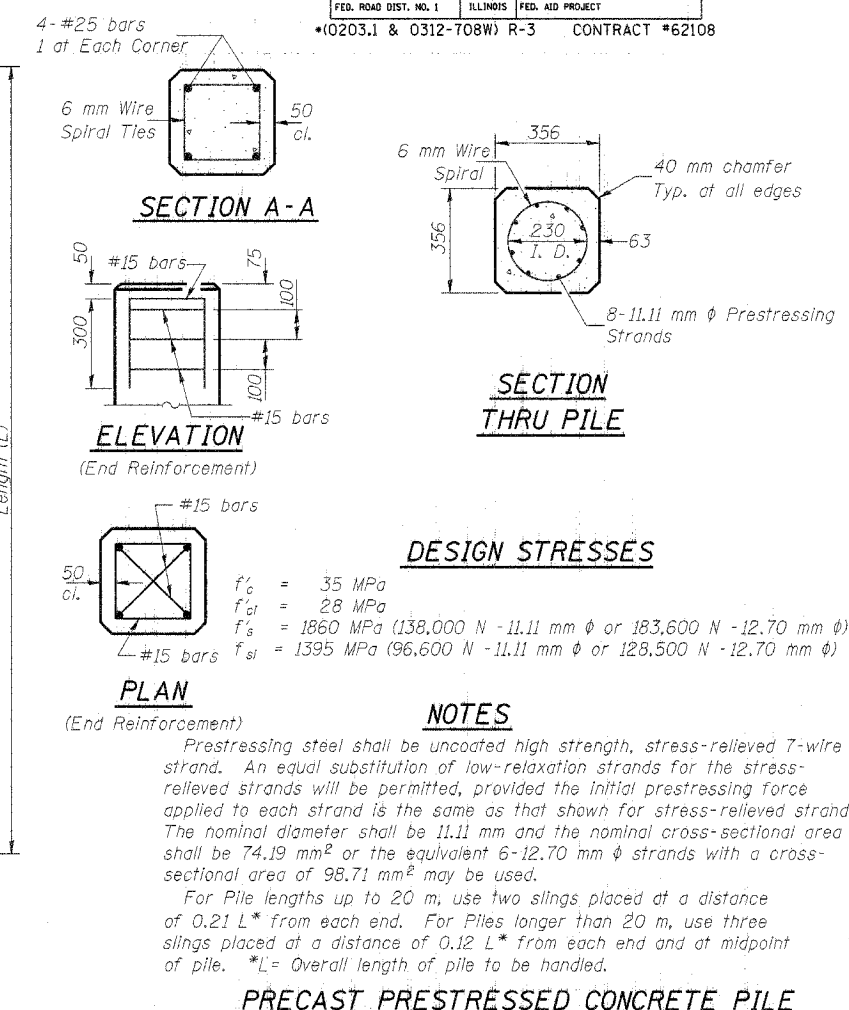
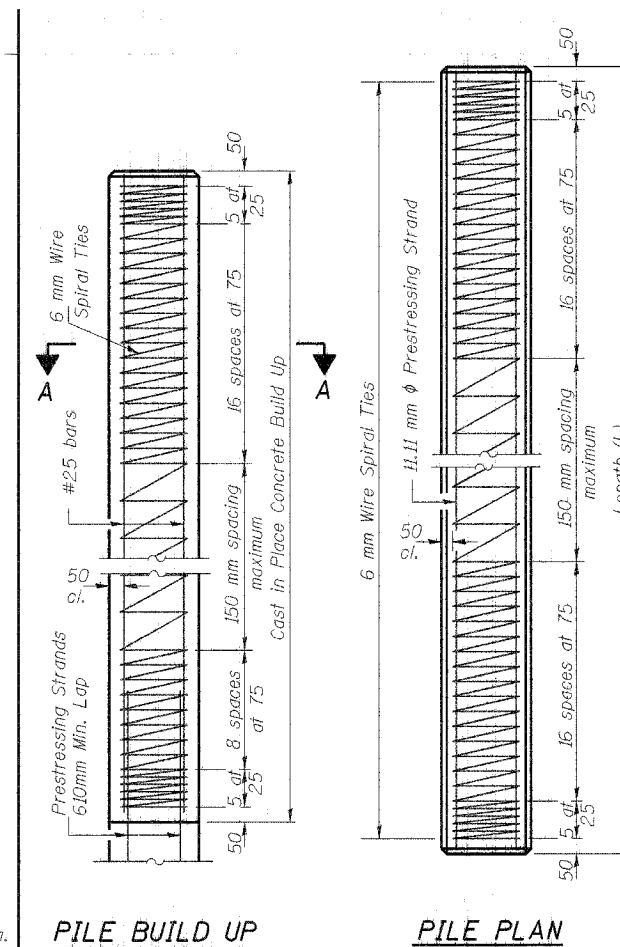
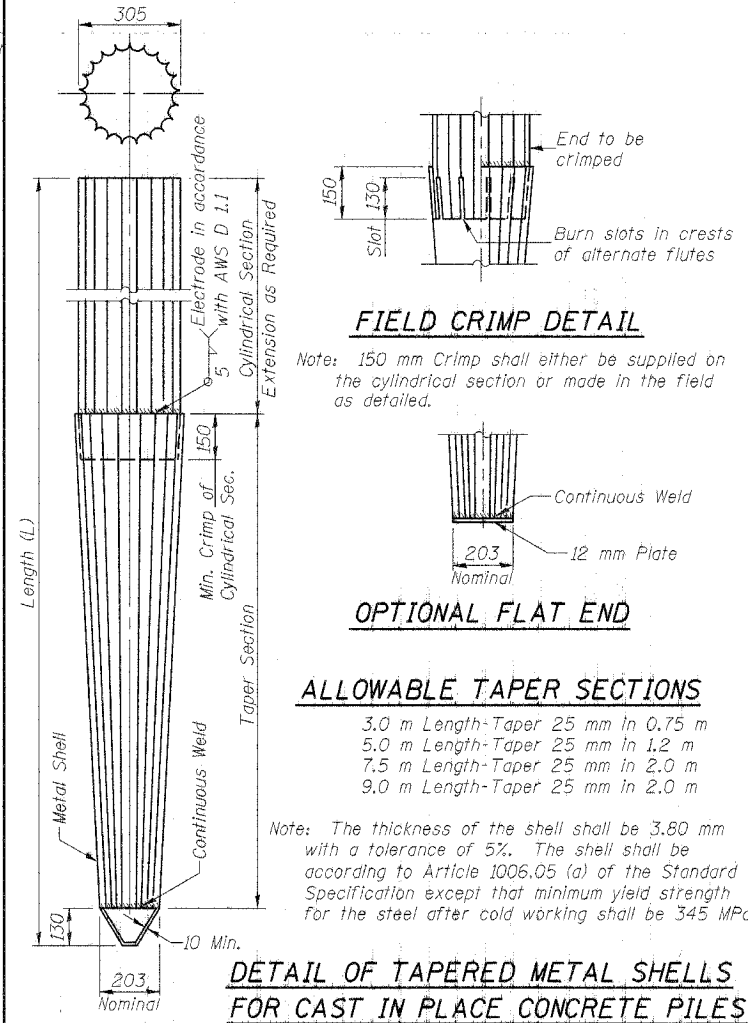
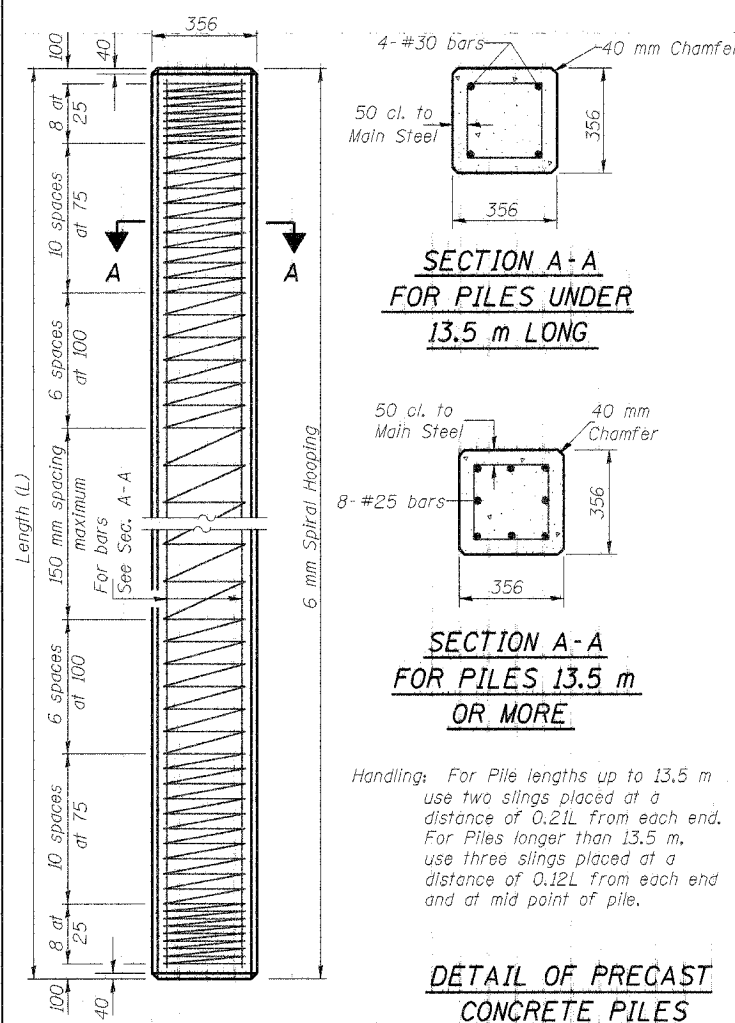
BSD-1 (M) 4-30-97

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI ROUTE 80 (INTERSTATE 80/94)
 INTERSTATE 294 TO US ROUTE 41
BAR SPLICER ASSEMBLY DETAILS
 F.A.I. 94 BOX CULVERT
 SECTION (0203.1 & 0312-708W) R-3
 COOK COUNTY
 STA. 18+934.000
 STRUCTURE NO. 016-C012
 DATE JULY 18, 2005
 SCALE

BRANCO & ZROKA
 ENGINEERING, P.C.

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------|------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 688 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

(0203.1 & 0312-708W) R-3 CONTRACT #62108



| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

X-3 (M) 4-30-97

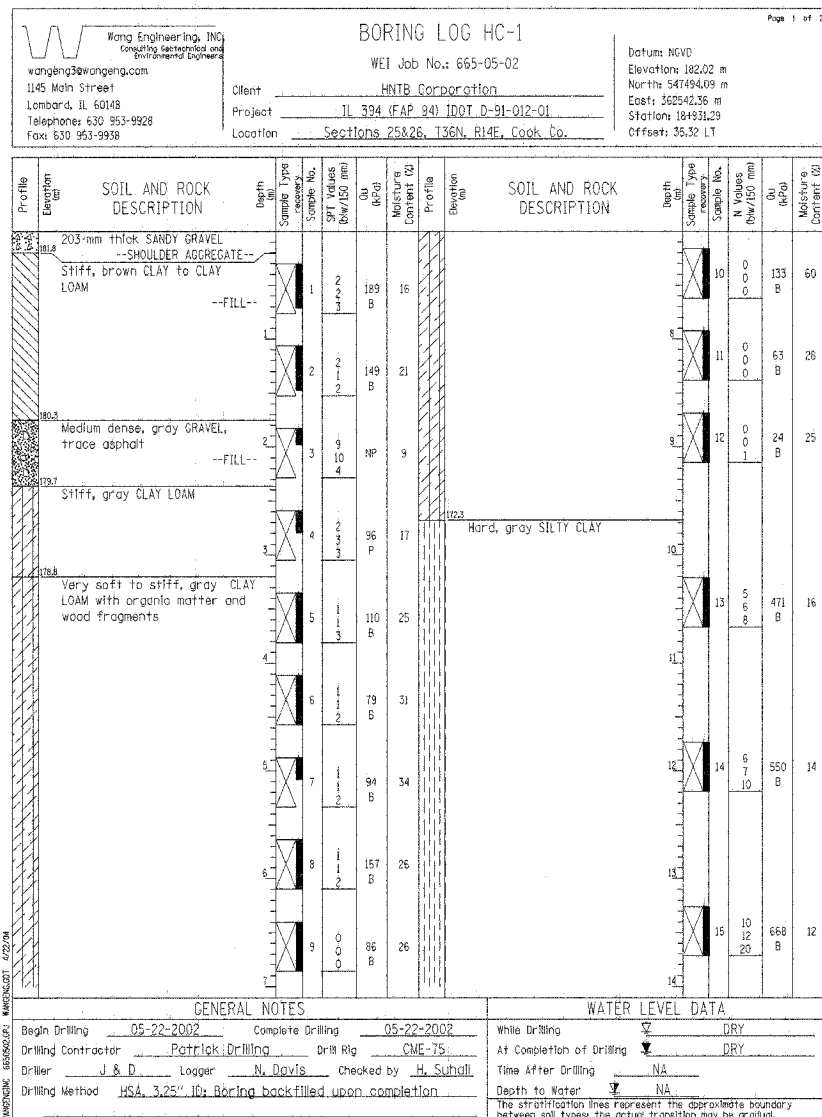
(All dimensions are in millimeters (mm) except as noted.)

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
CONCRETE PILES
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

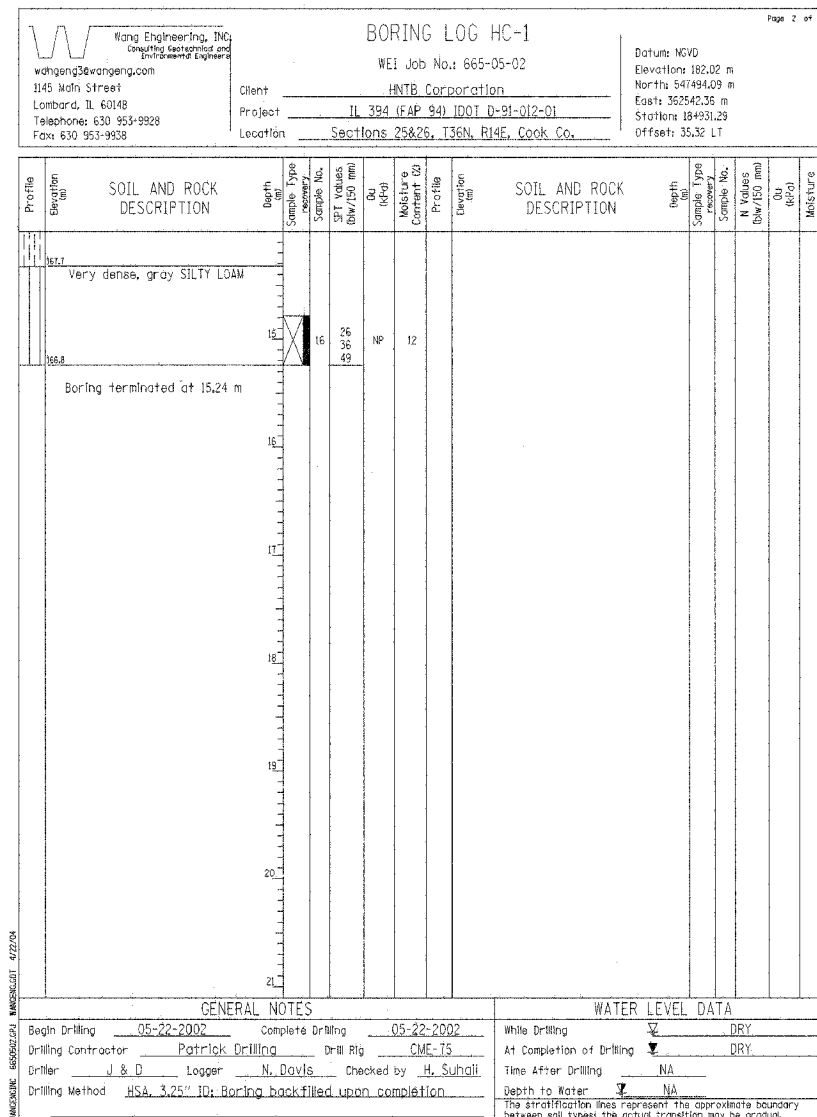
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

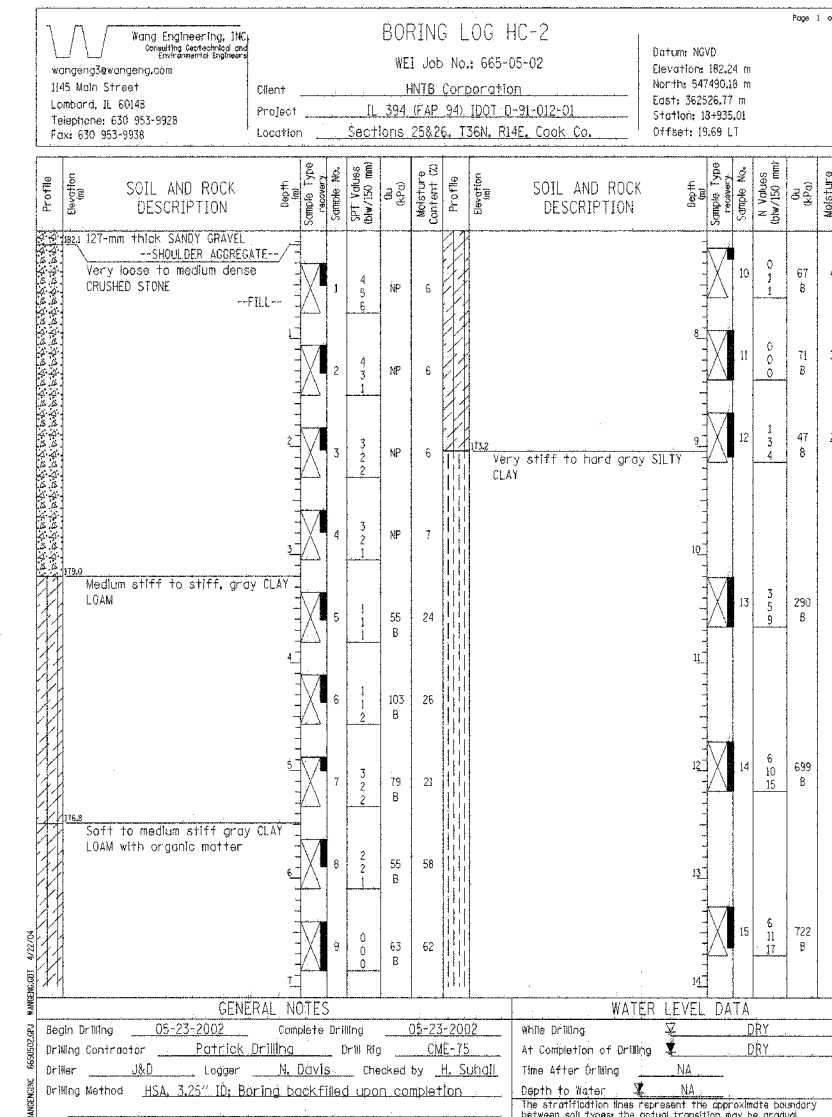
BORING LOG HC-1 (1 OF 2)



BORING LOG HC-1 (2 OF 2)



BORING LOG HC-2 (1 OF 2)



| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
SOIL BORING LOGS 1
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|----------|------------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 690 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | |

(0203.1 & 0312-708W) R-3 CONTRACT #62108

SHEET NO. 11
13 SHEETS

BORING LOG HC-2 (2 OF 2)

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG HC-2
WEI Job No.: 665-05-02
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.24 m
North: 547490.18 m
East: 362526.77 m
Station: 18+935.01
Offset: 19.69 LT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|------------------------------|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 187.4 | Very dense, gray SILTY LOAM | 15 | 16 | 39 45 50/4 | NP | 15 | | | | | |
| 187.0 | Boring terminated at 15.24 m | | | | | | | | | | |

GENERAL NOTES
Begin Drilling: 05-23-2002 Complete Drilling: 05-23-2002
Drilling Contractor: Patrick Drilling Drill Rig: CME-75
Driller: J&D Logger: N. Davis Checked by: H. Suhail
Drilling Method: HSA, 3.25" ID; Boring backfilled upon completion

WATER LEVEL DATA
While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG HC-3 (1 OF 2)

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG HC-3
WEI Job No.: 665-05-02
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.16 m
North: 547489.33 m
East: 362504.03 m
Station: 18+935.58
Offset: 3.06 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|---|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 187.4 | 395-mm thick, ASPHALTIC CONCRETE | | | | | 187.4 | | | | | |
| 187.0 | Loose to medium dense, brown, coarse SAND | 1 | 6 | 6 | NP | 187.0 | | | | | |
| 186.4 | Stiff, gray SILTY CLAY | 2 | 4 | 3 | NP | 186.4 | | | | | |
| 185.8 | Stiff to very stiff, gray CLAY | 3 | 2 | 2 | 142 B | 185.8 | | | | | |
| 185.2 | Black CLAY LOAM | 4 | 1 | 1 | 192 P | 185.2 | | | | | |
| 184.6 | Medium stiff to stiff, gray CLAY LOAM | 5 | 0 | 0 | 63 B | 184.6 | | | | | |
| 184.0 | Very soft to medium stiff, gray CLAY LOAM with organic matter | 6 | 1 | 1 | 110 B | 184.0 | | | | | |
| 183.4 | Hard, gray SILTY CLAY | 7 | 0 | 0 | 86 B | 183.4 | | | | | |
| 182.8 | | 8 | 0 | 0 | 15 B | 182.8 | | | | | |
| 182.2 | | 9 | 0 | 0 | 55 B | 182.2 | | | | | |

GENERAL NOTES
Begin Drilling: 05-23-2002 Complete Drilling: 05-23-2002
Drilling Contractor: Patrick Drilling Drill Rig: CME-75
Driller: J&D Logger: N. Davis Checked by: H. Suhail
Drilling Method: HSA, 3.25" ID; Boring backfilled upon completion

WATER LEVEL DATA
While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG HC-3 (2 OF 2)

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG HC-3
WEI Job No.: 665-05-02
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.16 m
North: 547489.33 m
East: 362504.03 m
Station: 18+935.58
Offset: 3.06 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|------------------------------|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 187.4 | Very dense, gray SILT | 16 | 43 | 50/5 | NP | 187.4 | | | | | |
| 186.8 | Boring terminated at 15.24 m | | | | | 186.8 | | | | | |

GENERAL NOTES
Begin Drilling: 05-23-2002 Complete Drilling: 05-23-2002
Drilling Contractor: Patrick Drilling Drill Rig: CME-75
Driller: J&D Logger: N. Davis Checked by: H. Suhail
Drilling Method: HSA, 3.25" ID; Boring backfilled upon completion

WATER LEVEL DATA
While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
SOIL BORING LOGS 2
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.

BORING LOG HC-4 (1 OF 2)

Wang Engineering, Inc.
wongeng@wongeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9938

BORING LOG HC-4
WEI Job No.: 665-05-02
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Date: NGVD
Elevation: 182.22 m
North: 547488.79 m
East: 362484.91 m
Station: 18+935.89
Offset: 28.19 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Profile | Soil AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|---|-----------|------------|---------------------------|----------------------|--------------|--|-----------|------------|---------------------------|----------------------|
| 182.22 | 100-mm thick SANDY GRAVEL --SHOULDER AGGREGATE-- Very stiff, black and brown SILTY CLAY to CLAY --FILL-- | 18 | 1 | 236 | 18 | 1 | | 18 | 10 | 0 | 68 |
| 173.8 | Soft to stiff, gray CLAY LOAM with organic matter | 21 | 2 | 261 | 22 | 2 | | 21 | 11 | 0 | 23 |
| 173.8 | | 22 | 3 | 228 | 21 | 3 | | 22 | 12 | 0 | 25 |
| 173.8 | | 29 | 4 | 110 | 29 | 4 | Very stiff, gray CLAY, trace of gravel | 29 | 13 | 3 | 361 |
| 173.8 | | 28 | 5 | 47 | 28 | 5 | | 28 | 14 | 6 | 565 |
| 173.8 | | 19 | 6 | 189 | 19 | 6 | Hard, gray SILTY CLAY | 19 | 15 | 10 | 786 |
| 173.8 | | 40 | 7 | 63 | 40 | 7 | | 40 | 16 | 18 | |
| 173.8 | | 50 | 8 | 41 | 50 | 8 | | 50 | 17 | | |
| 173.8 | | 68 | 9 | 41 | 68 | 9 | | 68 | 18 | | |

| | | | |
|--|-------------------------------|---|--|
| GENERAL NOTES | | WATER LEVEL DATA | |
| Begin Drilling: 05-22-2002 | Complete Drilling: 05-22-2002 | While Drilling: <input checked="" type="checkbox"/> DRY | |
| Drilling Contractor: Patrick Drilling | Drill Rig: CME-75 | At Completion of Drilling: <input checked="" type="checkbox"/> DRY | |
| Driller: J&D | Logger: N. Davis | Time After Drilling: NA | |
| Checked by: H. Suhail | | Depth to Water: NA | |
| Drilling Method: HSA, 3.25" ID; Boring backfilled upon completion. | | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | |

BORING LOG HC-4 (2 OF 2)

Wang Engineering, Inc.
wongeng@wongeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9938

BORING LOG HC-4
WEI Job No.: 665-05-02
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Date: NGVD
Elevation: 182.22 m
North: 547488.79 m
East: 362484.91 m
Station: 18+935.89
Offset: 28.19 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Soil Profile | Soil AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|------------------------------|-----------|------------|---------------------------|----------------------|--------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 182.22 | Very dense, gray SILTY LOAM | 15 | 15 | 40 | 15 | 15 | | 15 | 15 | 40 | 50/5 |
| 187.0 | Boring terminated at 15.24 m | | | | | | | | | | |

| | | | |
|--|-------------------------------|---|--|
| GENERAL NOTES | | WATER LEVEL DATA | |
| Begin Drilling: 05-22-2002 | Complete Drilling: 05-22-2002 | While Drilling: <input checked="" type="checkbox"/> DRY | |
| Drilling Contractor: Patrick Drilling | Drill Rig: CME-75 | At Completion of Drilling: <input checked="" type="checkbox"/> DRY | |
| Driller: J&D | Logger: N. Davis | Time After Drilling: NA | |
| Checked by: H. Suhail | | Depth to Water: NA | |
| Drilling Method: HSA, 3.25" ID; Boring backfilled upon completion. | | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | |

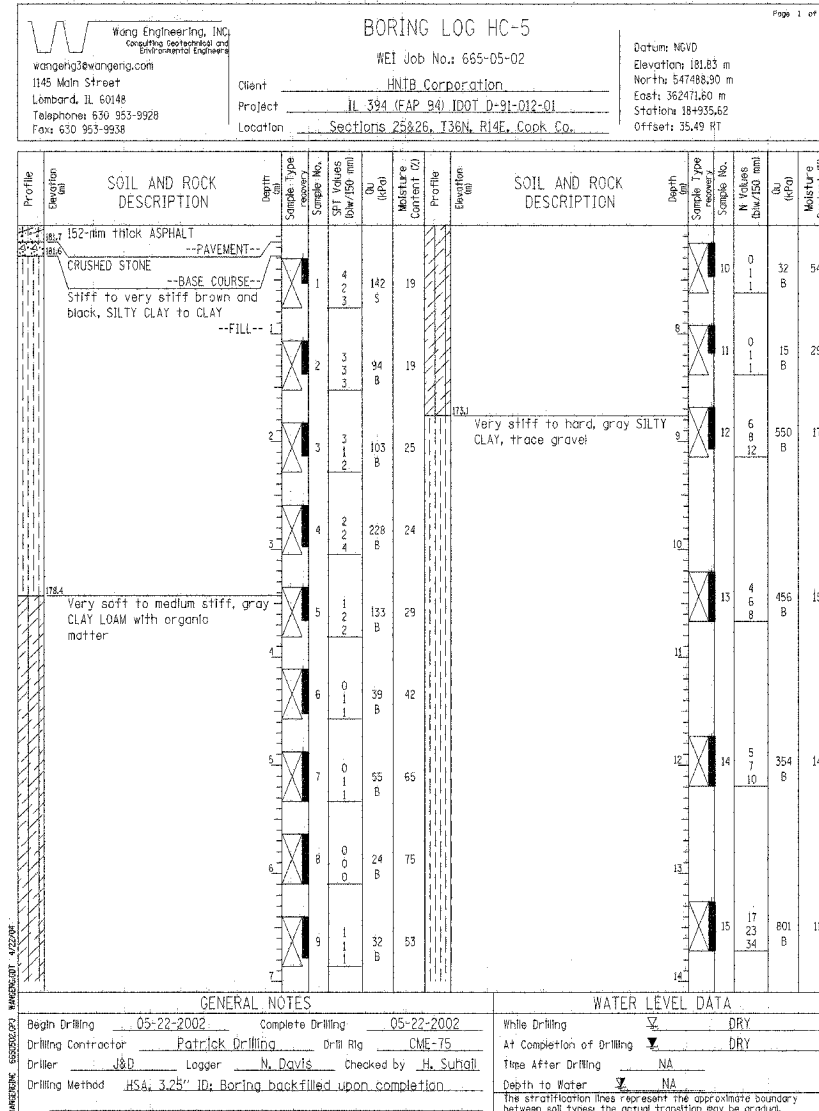
| | |
|----------|-----|
| DESIGNED | PMM |
| CHECKED | LAS |
| DRAWN | SAW |
| CHECKED | LAS |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
SOIL BORING LOGS 3
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE: JULY 18, 2005
SCALE

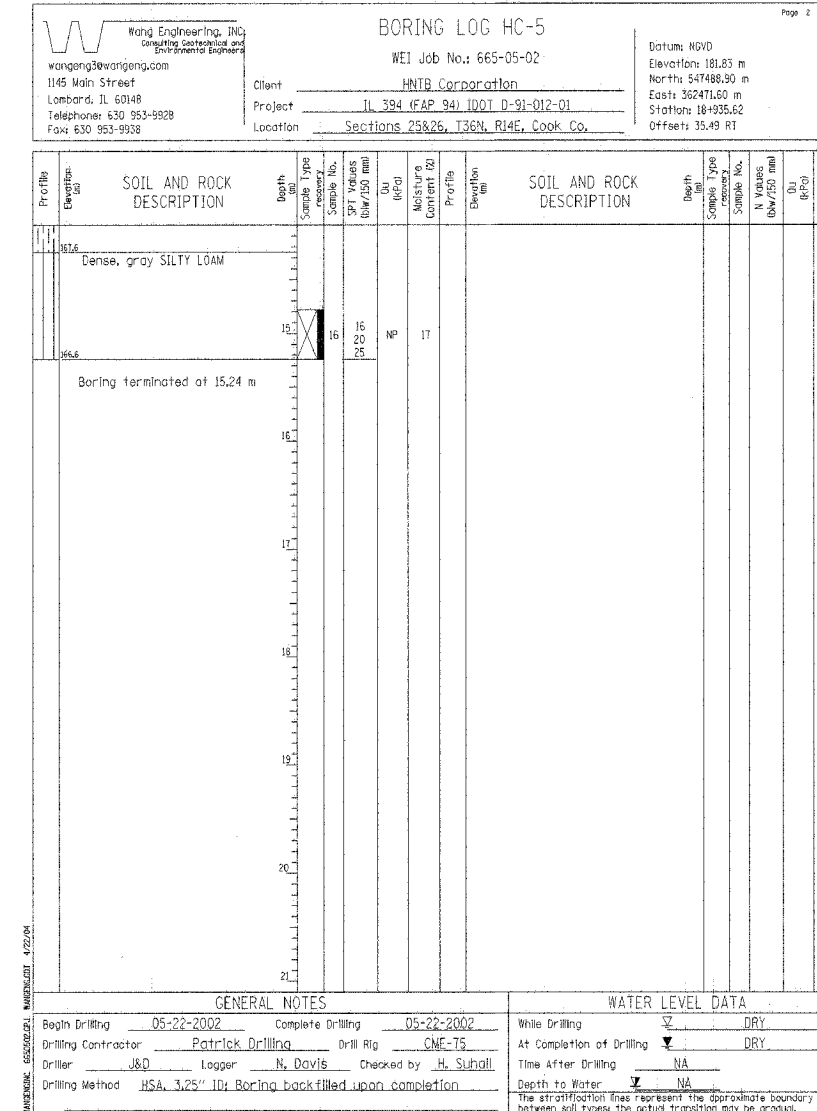
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOG HC-5 (1 OF 2)



BORING LOG HC-5 (2 OF 2)

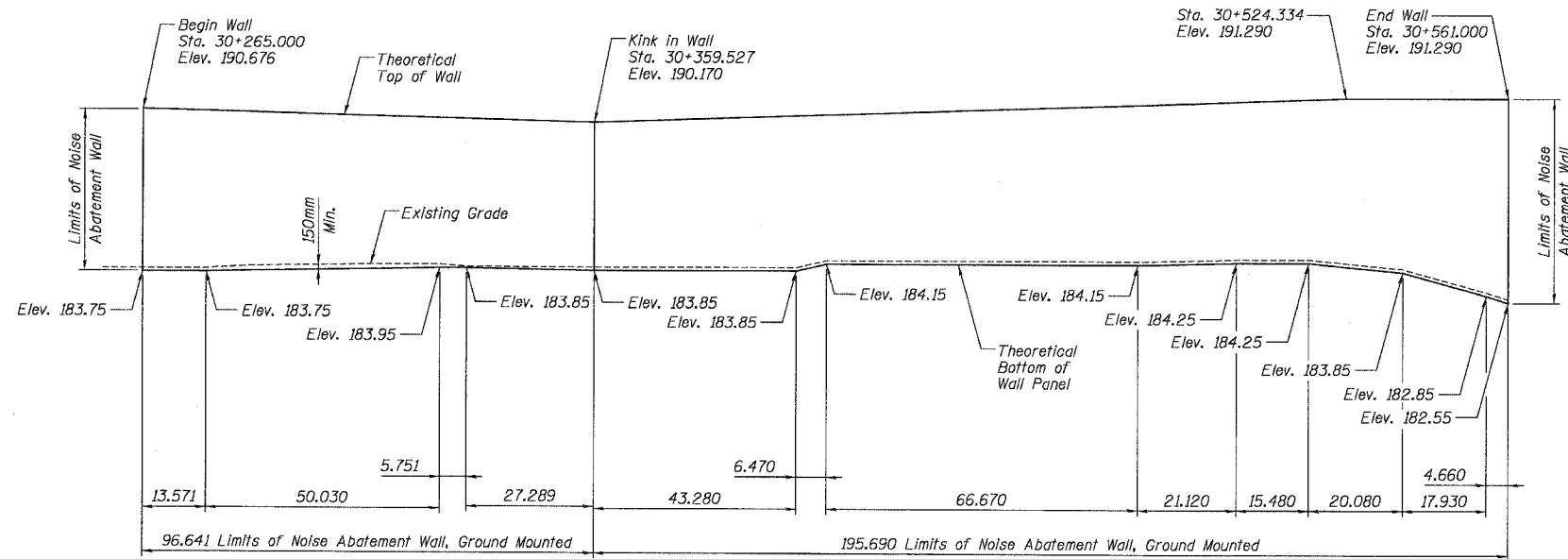


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.I. 80/94 | * | COOK | 870 | 693 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 1
12 SHEETS

*(0203.1 & 0312-708W) R-3 CONTRACT #62108



ELEVATION NOISE ABATEMENT WALL FOR RECEPTOR R2
Stationing is along C I-94 WB

NOTES

All dimensions are in meters (m) except as noted.

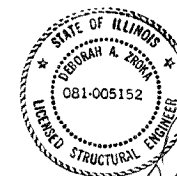
For Plan Location, Offsets, and Alignment of Noise Abatement Wall, see Roadway Plans.

The first panel and the second panel of the Noise Abatement Wall for Receptor R2 shall be 600mm maximum and 300mm maximum, respectively, below the theoretical top of wall elevation.

BILL OF MATERIAL

| Item | Unit | Quantity |
|---|----------------|----------|
| Noise Abatement Wall, Ground Mounted | m ² | 1,976 |

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | DAZ |



Brandon A. Zroka 08-17-05
expires 11-30-06

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41

**NOISE ABATEMENT WALL
ELEVATIONS 1**

DATE JULY 18, 2005
SCALE

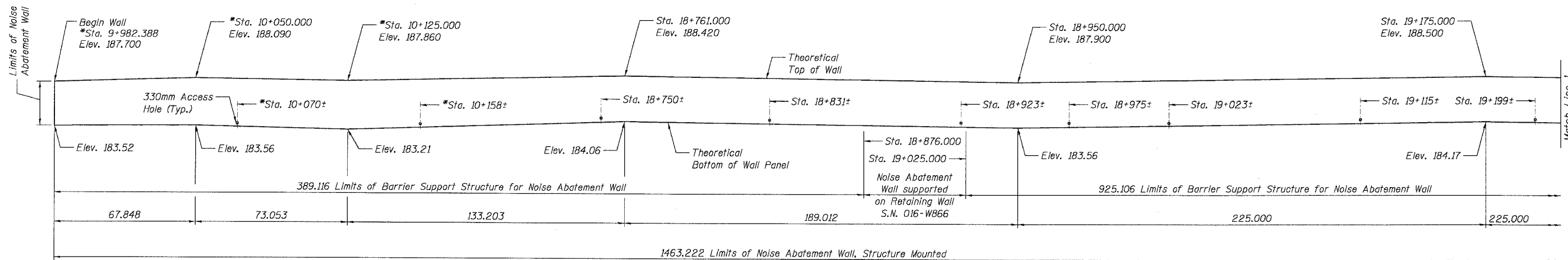
BRANCO & ZROKA
ENGINEERING, P.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.I. 80/94 | * | COOK | 870 | 694 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

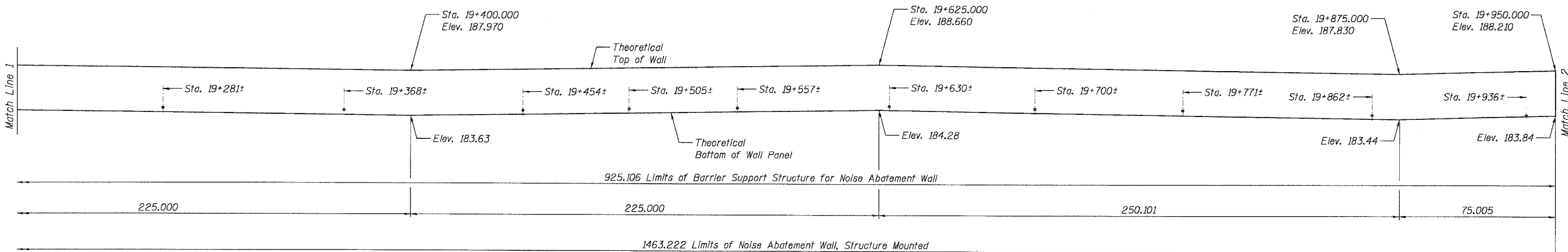
*(0203.1 & 0312-708W) R-3 CONTRACT #62108

SHEET NO. 2
12 SHEETS



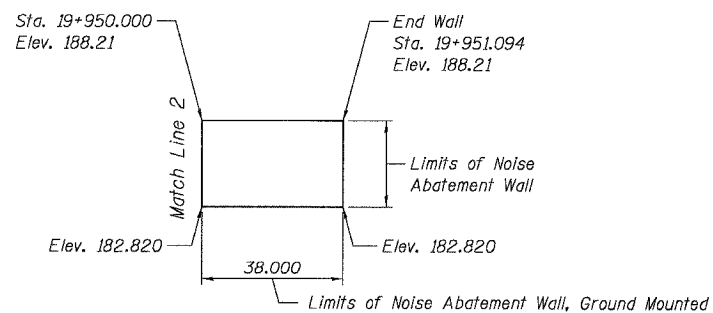
ELEVATION NOISE ABATEMENT WALL FOR RECEPTOR R20

Stationing is along I-94 (except as noted)
* Stationing is along 159th Street



ELEVATION NOISE ABATEMENT WALL FOR RECEPTOR R20

Stationing is along I-94



ELEVATION NOISE ABATEMENT WALL FOR RECEPTOR R20

Stationing is along IL Rte 394 SB

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|----------------|----------|
| Noise Abatement Wall, Ground Mounted | m ² | 205 |
| Noise Abatement Wall, Structure Mounted | m ² | 6,408 |
| Barrier Support Structure for Noise Abatement Wall | m | 1,314 |

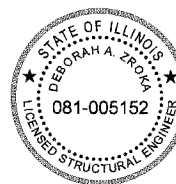
NOTES

All dimensions are in meters (m) except as noted.

For Plan Location, Offsets, and Alignment of Noise Abatement Wall, see Roadway Plans.

330mm diameter access holes shall be provided in the noise abatement wall panels at locations shown. For detail, see "Hydrant Access Sign Layout and Location Details" sheet.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | GAZ |



Signature: *Deborah A. Zroka* Date: 8-17-05
Expires: 11-30-2006

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41

**NOISE ABATEMENT WALL
ELEVATIONS 2**

DATE JULY 18, 2005
SCALE

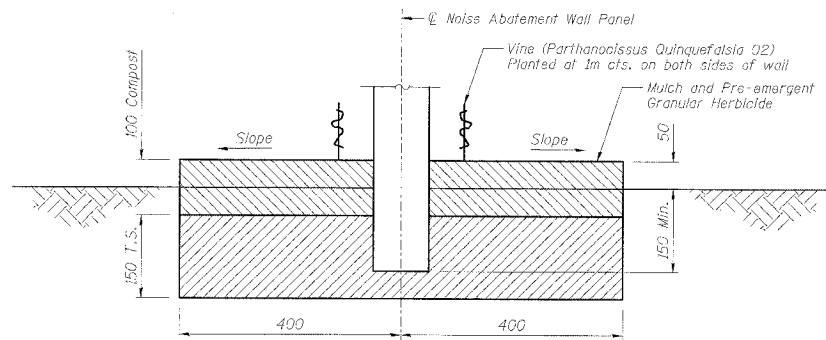


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------|------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 695 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

•(0203.1 & 0312-708W) R-3 CONTRACT #62108

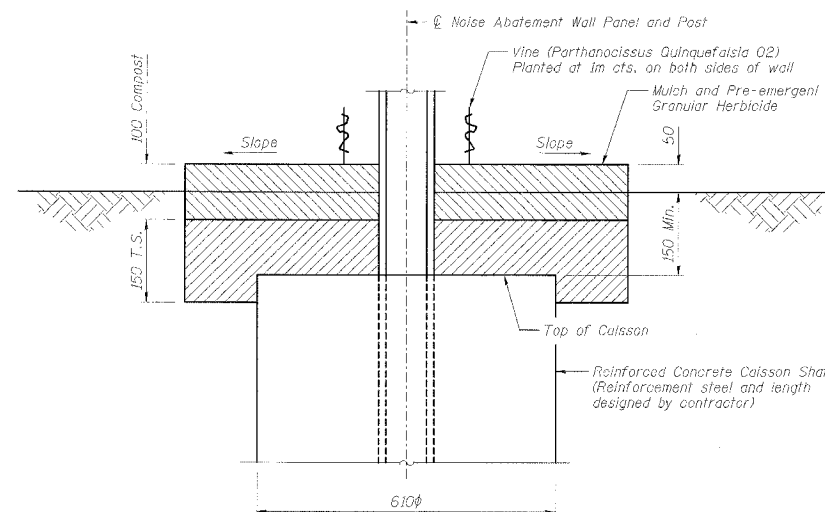
SHEET NO. 3
12 SHEETS



BOTTOM OF PANEL DETAIL

LEGEND

-  Topsoil, 150mm
-  Compost, 100mm



FOUNDATION DETAIL

NOISE ABATEMENT WALL, GROUND MOUNTED DETAILS

NOTES

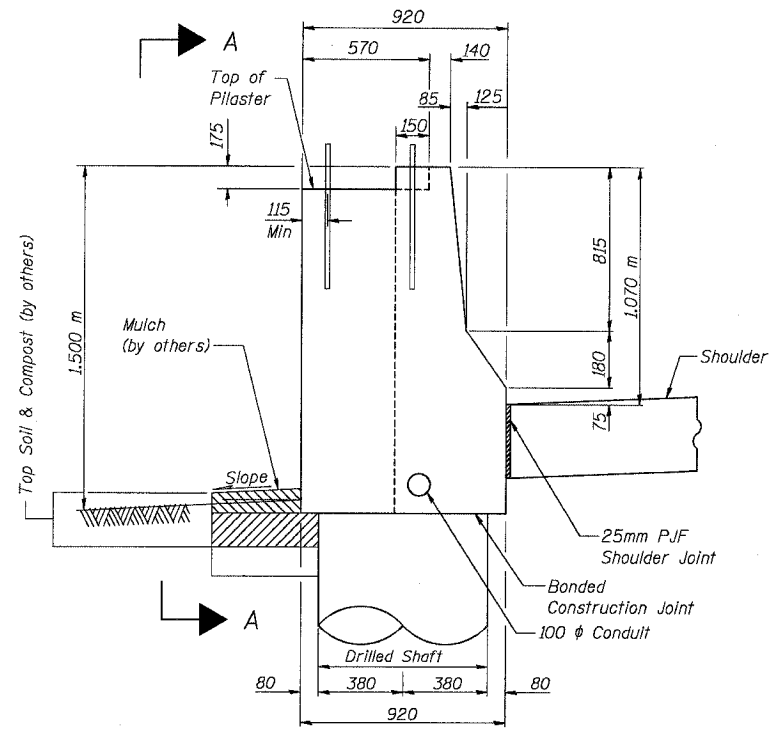
1. T.S. denotes Top Soil.
2. Compost and Top Soil shall be thoroughly rototilled to a depth of 250mm prior to planting.
3. Mulch cover shall be placed over compost according to IDOT Standard Specification Section 253.11 except that no weed barrier fabric is required. Cost of mulch is included with payment for "Vines".
4. Pre-emergent Granular Herbicide shall be placed in mulched area according to the special provision.
5. All dimensions are in millimeters (mm) except as noted.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | DAZ |

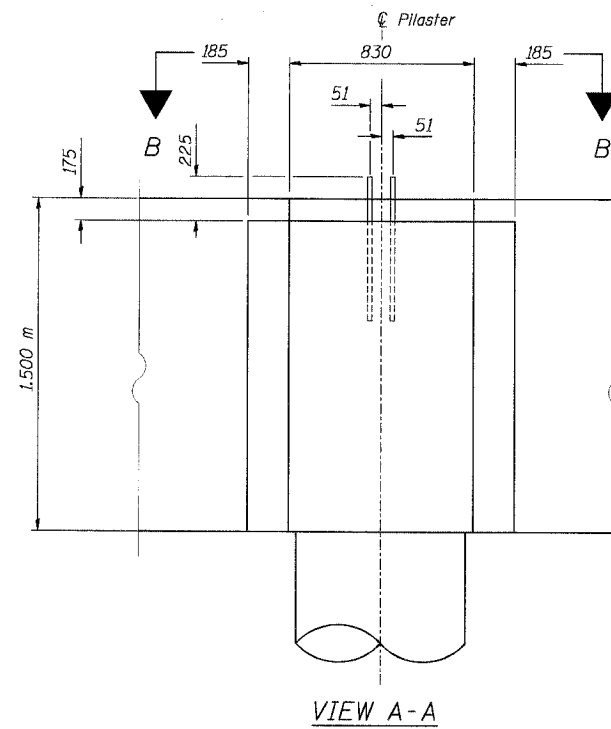
ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
NOISE ABATEMENT WALL DETAILS

DATE JULY 18, 2005
SCALE

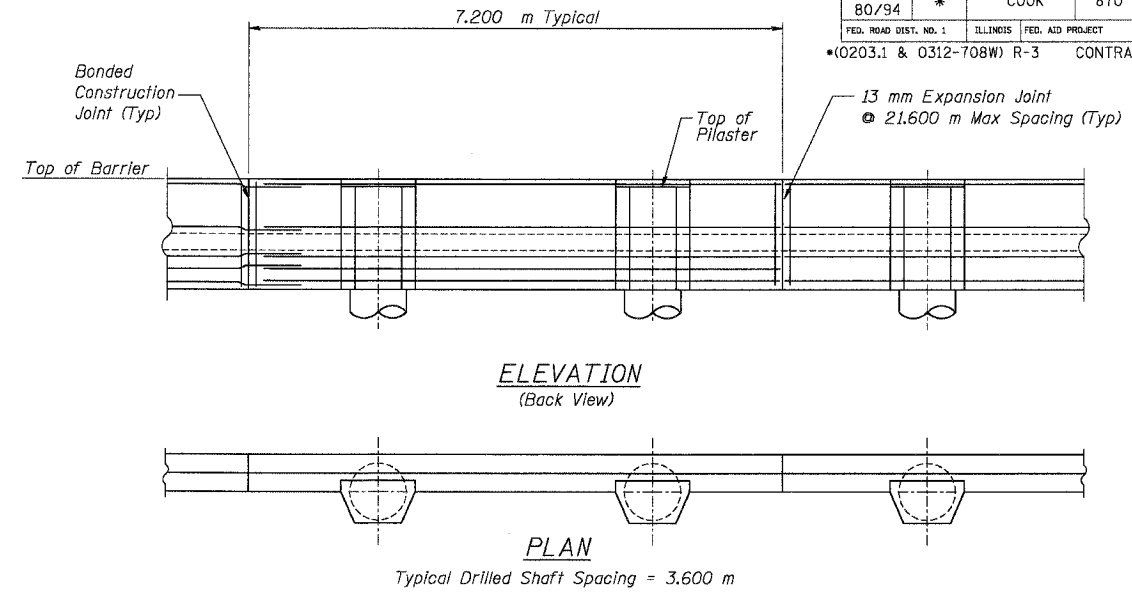
 **BRANCO & ZROKA**
ENGINEERING, P.C.



SECTION THRU BARRIER AT PILASTER



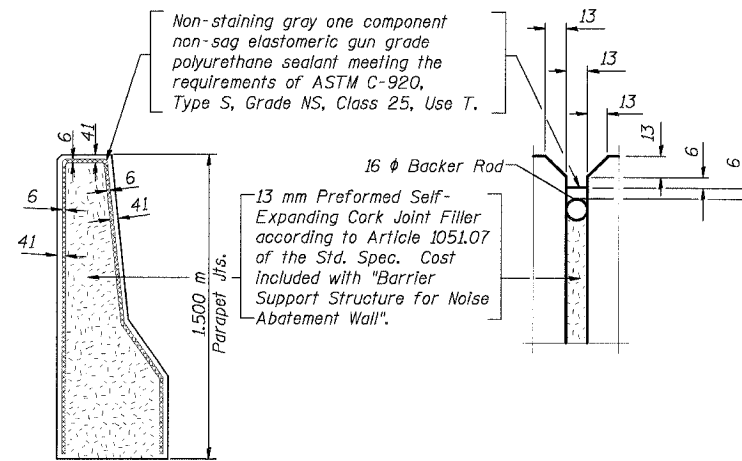
VIEW A-A



ELEVATION
(Back View)

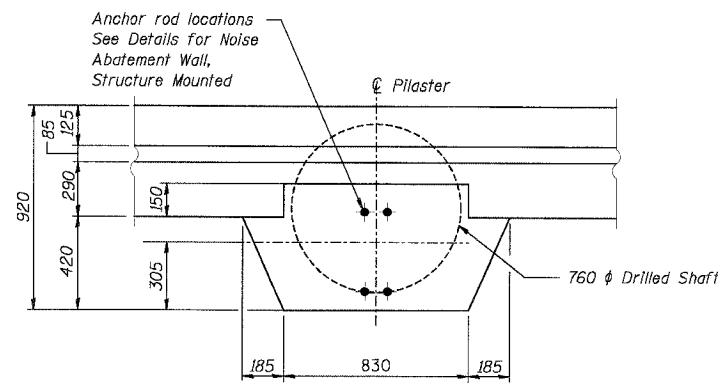
PLAN

Typical Drilled Shaft Spacing = 3.600 m

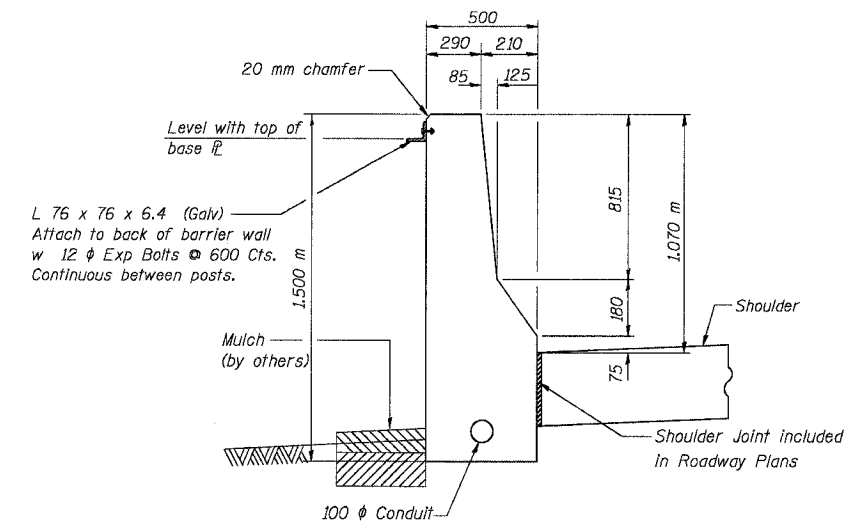


BARRIER EXPANSION JOINT DETAIL

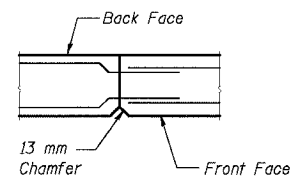
Cast of joint sealant P.J.F. and cement nails are included with "Barrier Support Structure for Noise Abatement Wall"



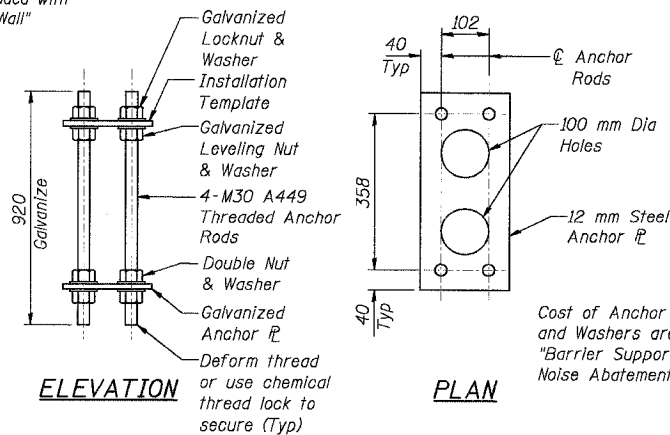
VIEW B-B



SECTION THRU BARRIER BETWEEN PILASTERS



CONSTRUCTION JOINT DETAIL



NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY

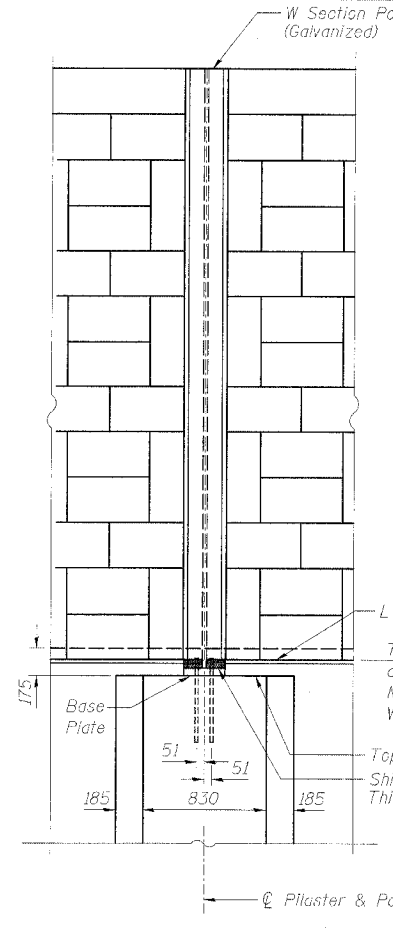
NOTES:

- B.F. indicates Back Face
- E.F. indicates Each Face
- Reinforcement bars shall conform to the requirements of AASHTO M31M, M42M, or M53M Grade 400
- All dimensions are in millimeters (mm) except as noted.
- Bonded Construction Joint in accordance with Article 503.09 (b) of the Standard Specifications.
- All bars shall be epoxy coated.
- For Locations of Barrier Support Structure for Noise Abatement Wall see Noise Abatement Wall or Roadway Plans.
- Contractor shall design and submit for approval by the Engineer Drilled Shaft lengths and reinforcement details to conform with the loading requirements of the Noise Abatement Wall Manufacturer. See Special Provisions.
- Cost of Concrete, Reinforcing Steel, Drilled Shafts and Threaded Anchor Rods included with "Barrier Support Structure for Noise Abatement Wall".

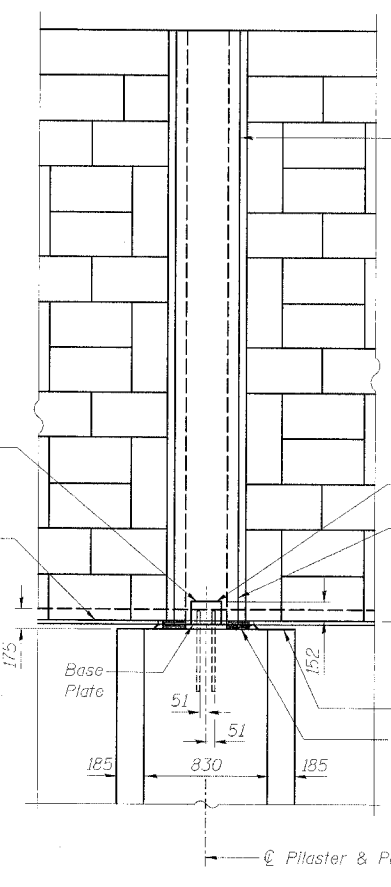
| | |
|---------------------------------------|------------------|
| ILLINOIS DEPARTMENT OF TRANSPORTATION | |
| I-80/94/US 6 | |
| KINGERY-BORMAN EXPRESSWAY | |
| BURNHAM ROAD TO US 41 | |
| BARRIER SUPPORT STRUCTURE | |
| FOR NOISE ABATEMENT WALL | |
| SCALE | DRAWN BY ACE/CAD |
| DATE 07/05 | CHECKED BY TAE |

AMERICAN
CONSULTING ENGINEERS

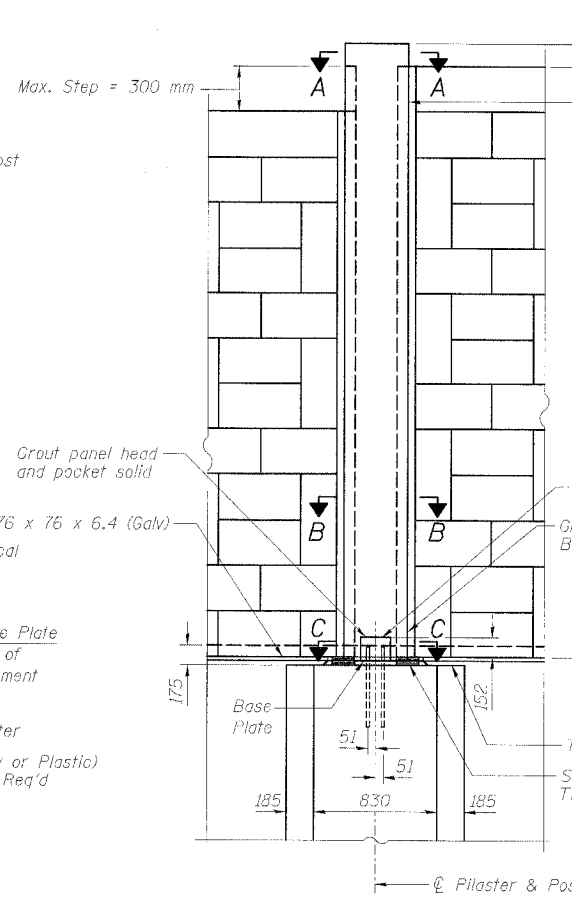
| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
| | |



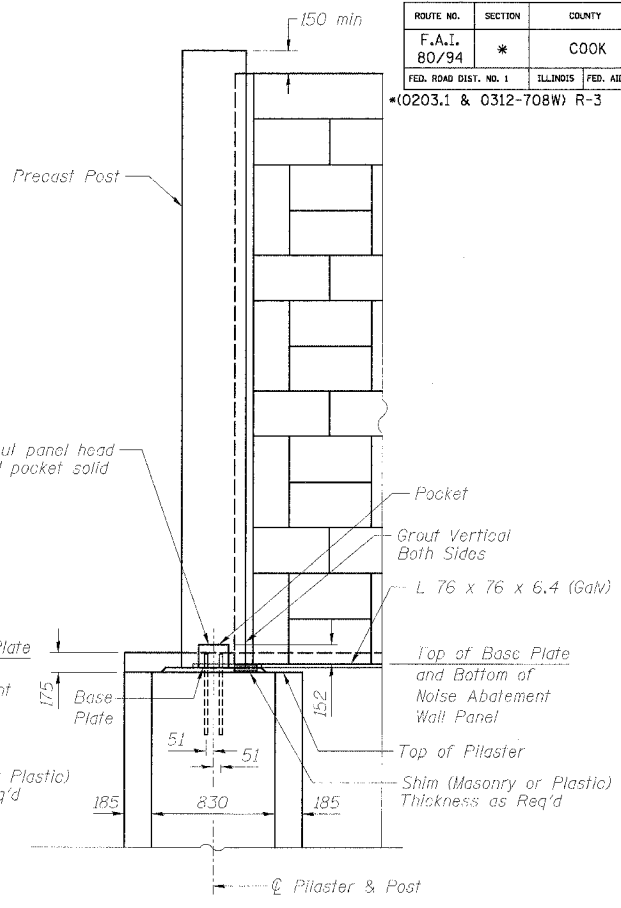
ALTERNATE STEEL POST (NO STEP)
(Looking @ Residential Side)



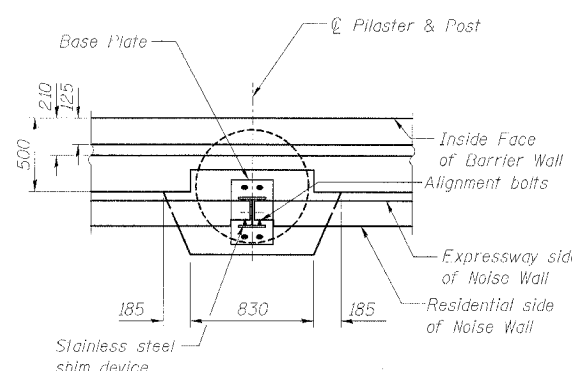
PRECAST POST (NO STEP)
(Looking @ Residential Side)



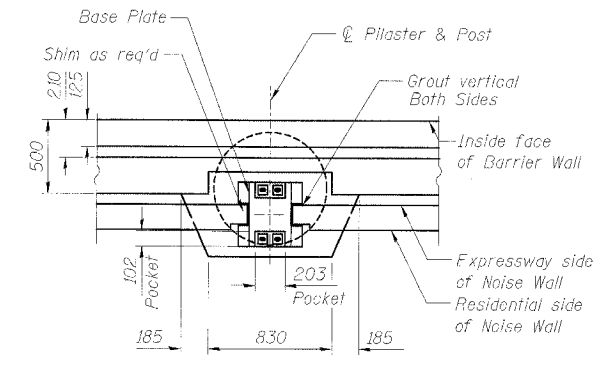
PRECAST POST AT NOISEWALL STEP
(Looking @ Residential side)



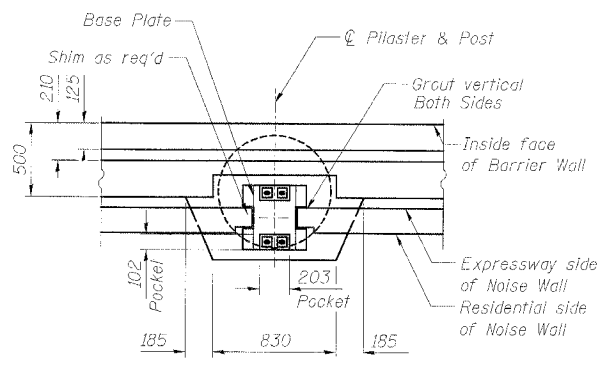
PRECAST POST AT NOISEWALL END
(Looking @ Residential side)



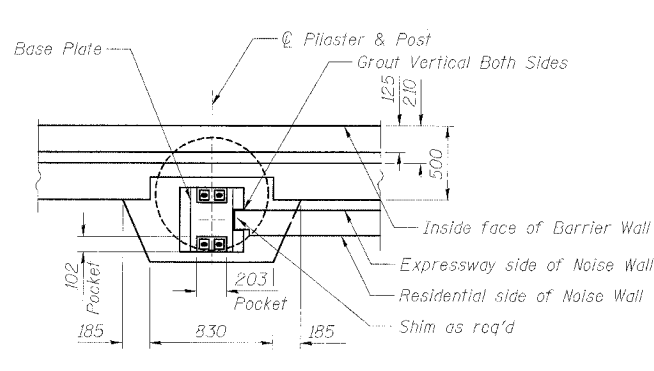
PLAN



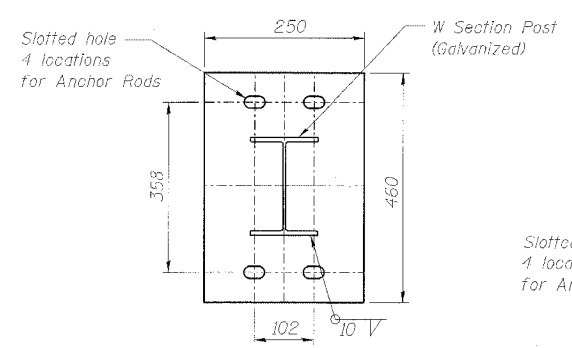
PLAN



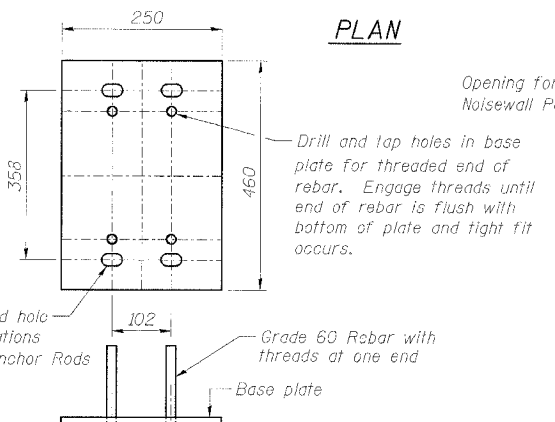
PLAN



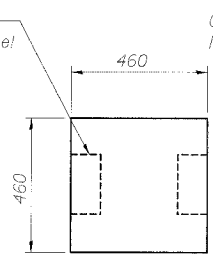
PLAN



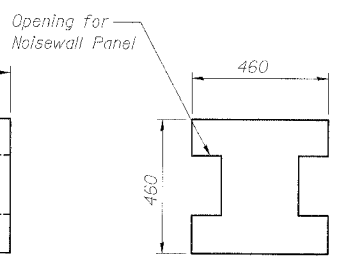
BASE PLATE FOR STEEL POST
(Galvanized)



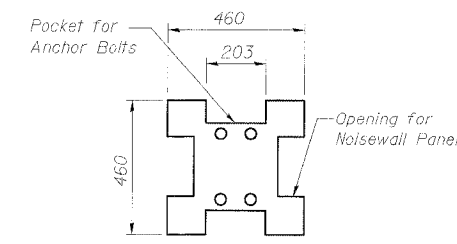
BASE PLATE FOR CONCRETE POST
(Galvanized)



SECTION A



SECTION B



SECTION C

Notes:
Size of slotted holes, base plate thickness and threaded rebar dimensions to be determined by manufacturer.

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

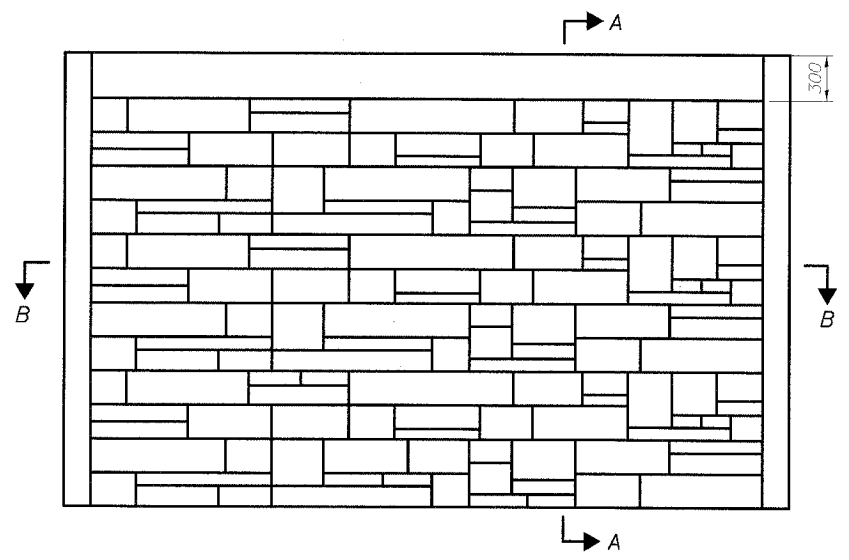
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)

**NOISE ABATEMENT WALL
STRUCTURE MOUNTED**

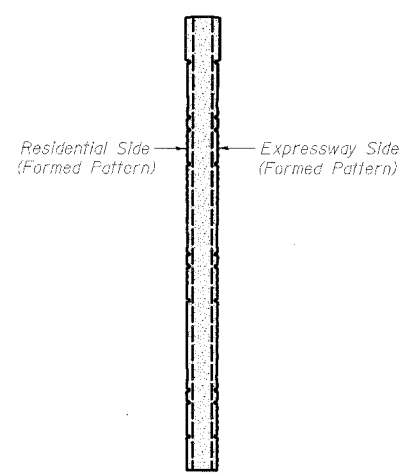
SCALE NONE
DATE 11/03

DRAWN BY ACE/CAD
CHECKED BY

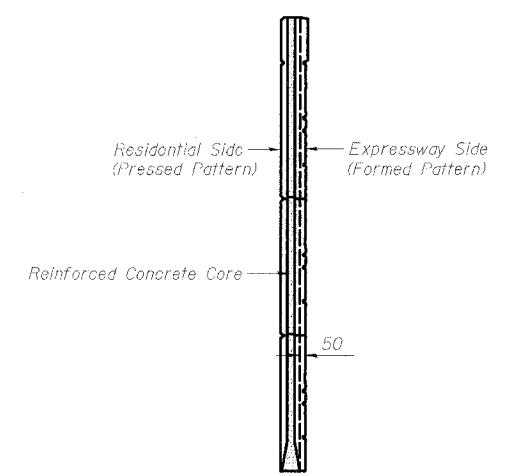
AMERICAN
CONSULTING ENGINEERS



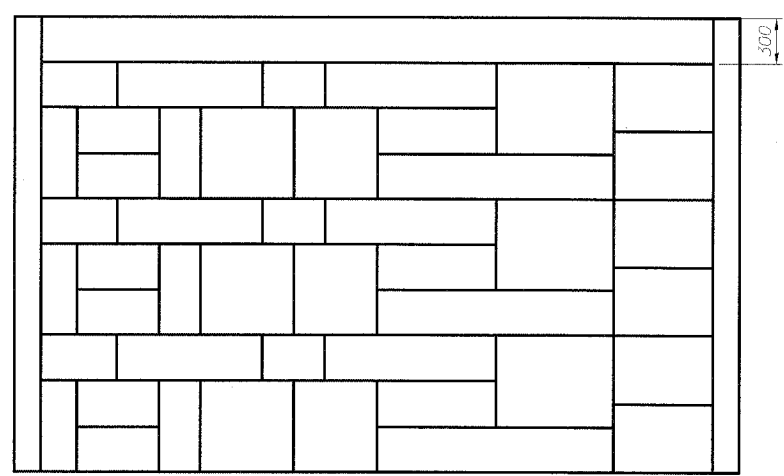
FORMED ASHLAR STONE PATTERN
 (Absorptive Panel - Expressway Side only)
 (Precast Panel - Expressway & Residential Sides)



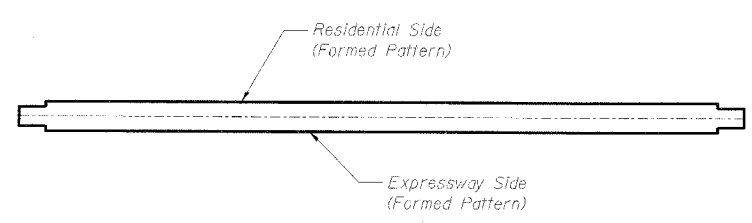
SECTION A-A THRU PRECAST PANEL



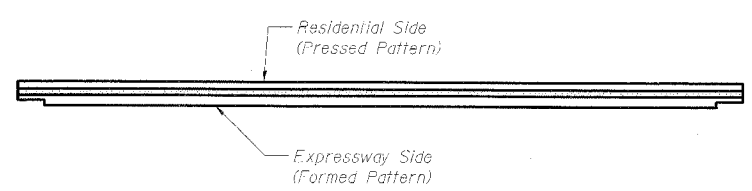
SECTION A-A THRU ABSORPTIVE PANEL



PRESSED ASHLAR STONE PATTERN
 (Absorptive Panel - Residential Side only)



SECTION B-B THRU PRECAST PANEL



SECTION B-B THRU ABSORPTIVE PANEL

Notes:

Reinforcement and Lifting Bars to be determined by manufacturer.

All dimensions in mm (millimeters) unless noted otherwise.

The panel texturing shown shall be used for all panels. The manufacturer shall prepare four differing panel patterns to be used in random order along the noise abatement wall. Panels and concrete columns shall be colored as specified in the Special Provisions. Alternate steel posts, if used, shall be painted matching color. Samples of panel texturing and coloring shall be submitted to the Department for approval in accordance with the Special Provision for Noise Abatement Wall.

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)

**NOISE ABATEMENT WALL
 PANEL DETAILS**

SCALE _____ DRAWN BY ACE/CAD
 DATE 11/03 CHECKED BY _____

AMERICAN
 CONSULTING ENGINEERS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|------------------------------|--------------|----------------|---------------------|------------------|
| ROUTE NO. F.A.I. 80/94 | SECTION * | COUNTY COOK | TOTAL SHEETS 870 | SHEET NO. 699 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | |

SHEET NO. 7
12 SHEETS

*10203.1 & 0312-708W) R-3 CONTRACT #62108

SOIL BORING HG-01

BORING LOG HG-01 Page 1 of 1

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-03
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.28 m
North: 547828.00 m
East: 362423.27 m
Station: 0+070.00
Offset: 5.00 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|-------------------------------------|-----------|------------|---------------------------|----------------------|
| 181.8 | Gray CRUSHED STONE --AGGREGATE SHOULDER-- | 0 | | | | 181.8 | | 0 | | | |
| | Very stiff to hard, brown and gray CLAY --FILL-- | 1 | 1 | >43 | 18 | | | 1 | 11 | 6 | 20 |
| | | 2 | 2 | 275 | 18 | | | 2 | 12 | 3 | 17 |
| 180.1 | Loose, brown SILT | 3 | 3 | 192 | 20 | 178.5 | Very stiff to hard, gray SILTY CLAY | 10 | 13 | 7 | 15 |
| 178.4 | Loose, gray SILT | 4 | 4 | NP | 24 | | | 11 | 14 | 4 | 15 |
| 174.1 | Medium stiff, gray CLAY to CLAY LOAM | 5 | 5 | 86 | 24 | | | 12 | 14 | 7 | 15 |
| | | 6 | 6 | 71 | 26 | | | 13 | 14 | 7 | 15 |
| | | 7 | 7 | 79 | 18 | | | 14 | 14 | 7 | 15 |
| | | 8 | 8 | 79 | 20 | | | 15 | 14 | 7 | 15 |
| 176.6 | Stiff to very stiff, gray CLAY | 9 | 9 | 125 | 21 | | | 16 | 14 | 7 | 15 |
| | | 10 | 10 | 172 | 20 | | | 17 | 14 | 7 | 15 |

GENERAL NOTES

Begin Drilling 04-29-2002 Complete Drilling 04-29-2002
 Drilling Contractor Patrick Drilling Drill Rig CME 75
 Driller J&L Logger N. Davis Checked by B. Fuglel
 Drilling Method 3.25-in HSA; Backfilled upon completion.

WATER LEVEL DATA

While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

SOIL BORING HG-02

BORING LOG HG-02 Page 1 of 1

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-03
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.28 m
North: 547727.52 m
East: 362477.56 m
Station: 0+200.00
Offset: 5.00 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|-----------------------------|-----------|------------|---------------------------|----------------------|
| 180.6 | Loose, black and gray GRAVELLY SANDY LOAM, trace asphalt | 0 | | | | 180.6 | | 0 | | | |
| | Very stiff, brown and gray SILTY CLAY --FILL-- | 1 | 1 | 311 | 23 | 172.4 | Very stiff, gray SILTY CLAY | 10 | 13 | 2 | 16 |
| | | 2 | 2 | 314 | 19 | | | 11 | 13 | 2 | 16 |
| 180.6 | Very stiff, brown CLAY | 3 | 3 | 267 | 21 | | | 12 | 13 | 2 | 16 |
| 178.6 | Medium dense, brown SILT | 4 | 4 | 149 | 24 | | | 13 | 13 | 2 | 16 |
| 178.3 | Stiff, brown SILTY CLAY | 5 | 5 | NP | 24 | | | 14 | 13 | 2 | 16 |
| 178.5 | Medium dense, gray SILT | 6 | 6 | 118 | 23 | | | 15 | 13 | 2 | 16 |
| 177.9 | Medium stiff to very stiff, gray CLAY | 7 | 7 | 79 | 23 | | | 16 | 13 | 2 | 16 |
| | | 8 | 8 | 125 | 27 | | | 17 | 13 | 2 | 16 |
| | | 9 | 9 | 181 | 20 | | | 18 | 13 | 2 | 16 |
| | | 10 | 10 | 204 | 19 | | | 19 | 13 | 2 | 16 |

GENERAL NOTES

Begin Drilling 04-29-2002 Complete Drilling 04-29-2002
 Drilling Contractor Patrick Drilling Drill Rig CME 75
 Driller J&L Logger N. Davis Checked by B. Fuglel
 Drilling Method 3.25-in HSA; Backfilled upon completion.

WATER LEVEL DATA

While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

SOIL BORING HG-03

BORING LOG HG-03 Page 1 of 1

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-03
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 181.96 m
North: 547637.59 m
East: 362478.69 m
Station: 0+289.92
Offset: 6.77 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|-----------------------------|-----------|------------|---------------------------|----------------------|
| 181.8 | Black, GRAVELLY SANDY LOAM | 0 | | | | 181.8 | | 0 | | | |
| | Medium dense, brown SILTY LOAM --FILL-- | 1 | 1 | >43 | 19 | | | 1 | 11 | 3 | 20 |
| | Black CLAY LOAM --BURIED TOPSOIL-- | 2 | 2 | 142 | 17 | | | 2 | 12 | 4 | 20 |
| | Medium stiff to very stiff, brown and gray CLAY with clay loam and silty clay intercalations | 3 | 3 | 133 | 27 | 178.2 | Very stiff, gray SILTY CLAY | 10 | 13 | 4 | 17 |
| | | 4 | 4 | 94 | 26 | | | 11 | 13 | 4 | 17 |
| | | 5 | 5 | 290 | 22 | | | 12 | 13 | 4 | 17 |
| | | 6 | 6 | 125 | 19 | | | 13 | 13 | 4 | 17 |
| | | 7 | 7 | 165 | 25 | | | 14 | 13 | 4 | 17 |
| | | 8 | 8 | 79 | 28 | | | 15 | 13 | 4 | 17 |
| | | 9 | 9 | 149 | 20 | | | 16 | 13 | 4 | 17 |
| | | 10 | 10 | 157 | 20 | | | 17 | 13 | 4 | 17 |

GENERAL NOTES

Begin Drilling 04-29-2002 Complete Drilling 04-29-2002
 Drilling Contractor Patrick Drilling Drill Rig CME 75
 Driller J&L Logger N. Davis Checked by B. Fuglel
 Drilling Method 3.25-in HSA; Backfilled upon completion.

WATER LEVEL DATA

While Drilling 5.03 m
 At Completion of Drilling DRY
 Time After Drilling 24 hours
 Depth to Water 1.52 m
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | DAZ |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41

SOIL BORING LOGS 1

DATE JULY 18, 2005
SCALE



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------------------------|--------------|-----------|
| F.A.I. 80/94 | * | COOK | 870 | 700 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |
| *10203.1 & 0312-708W) R-3 CONTRACT #62108 | | | | |

SHEET NO. 8
12 SHEETS

SOIL BORING HG-04

BORING LOG HG-04 Page 1 of 1

Wang Engineering, INC.
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-03
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 182.10 m
North: 547544.64 m
East: 362481.69 m
Station: 18+860.00
Offset: 24.73 RT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 181.8 | Black LOAM --TOPSOIL-- Very stiff to hard, brown and gray SILTY CLAY --FILL-- | 0 | 1 | 7 | 196 S | 181.8 | | 0 | 11 | 155 | 20 |
| 180.4 | Loose, brown SILT | 2 | 2 | 8 | 400 B | 180.4 | | 2 | 12 | 142 | 21 |
| 178.7 | Soft, gray CLAY | 4 | 3 | NP | NP | 178.7 | | 4 | 13 | 299 | 16 |
| 176.6 | Stiff, gray CLAY | 6 | 4 | NP | NP | 176.6 | | 6 | 14 | 417 | 18 |
| | | 8 | 5 | 1 | 42 B | | | 8 | 15 | 220 | 15 |
| | | 10 | 6 | 118 B | 26 | | | 10 | 16 | 204 | 20 |
| | | 12 | 7 | 133 B | 21 | | | 12 | 17 | 172 | 20 |
| | | 14 | 8 | 133 B | 19 | | | 14 | 18 | 133 | 21 |

GENERAL NOTES

Begin Drilling: 04-30-2002 Complete Drilling: 04-30-2002
Drilling Contractor: Patrick Drilling Drill Rig: CME 75
Driller: J&L Logger: N. Davis Checked by: B. Fuglel
Drilling Method: 3.25-in HSA; Backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

SOIL BORING HG-05

BORING LOG HG-05 Page 1 of 1

Wang Engineering, INC.
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-03
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 183.97 m
North: 546396.13 m
East: 362423.34 m
Station: 44+138.19
Offset: 84.71 LT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 183.97 | 152-mm thick ASPHALTIC CONCRETE --PAVEMENT-- Gray CRUSHED STONE --BASE COURSE-- Loose, brown SAND --FILL-- Stiff to very stiff, brown CLAY | 0 | 1 | 10 | 181 B | 183.97 | | 0 | 11 | 212 | 21 |
| 182.9 | Loose to medium dense, brown SILT | 2 | 2 | NP | NP | 182.9 | | 2 | 12 | 204 | 21 |
| 181.6 | Very stiff, gray CLAY to SILTY CLAY | 4 | 3 | NP | NP | 181.6 | | 4 | 13 | 354 | 18 |
| 180.7 | Loose, black SAND Stiff to very stiff, gray CLAY | 6 | 4 | 228 B | 16 | 180.7 | | 6 | 14 | 251 | 17 |
| 179.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 8 | 5 | 220 B | 15 | 179.2 | | 8 | 15 | 220 | 15 |
| 178.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 10 | 6 | 204 B | 20 | 178.2 | | 10 | 16 | 204 | 20 |
| 177.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 12 | 7 | 172 B | 20 | 177.2 | | 12 | 17 | 172 | 20 |
| 176.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 14 | 8 | 133 B | 21 | 176.2 | | 14 | 18 | 133 | 21 |

GENERAL NOTES

Begin Drilling: 04-30-2001 Complete Drilling: 04-30-2002
Drilling Contractor: Patrick Drilling Drill Rig: CME 75
Driller: J&L Logger: N. Davis Checked by: B. Fuglel
Drilling Method: 3.25-in HSA; Backfilled upon completion

WATER LEVEL DATA

While Drilling: 5.18 m
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

SOIL BORING HG-06

BORING LOG HG-06 Page 1 of 1

Wang Engineering, INC.
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 665-05-03
Client: HNTB Corporation
Project: IL 394 (FAP 94) IDOT D-91-012-01
Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevation: 184.08 m
North: 546307.59 m
East: 362424.34 m
Station: 44+049.65
Offset: 83.64 LT

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample No. | SPT Values (blows/150 mm) | Moisture Content (%) |
|-----------------------|--|-----------|------------|---------------------------|----------------------|-----------------------|---------------------------|-----------|------------|---------------------------|----------------------|
| 184.08 | 102-mm thick ASPHALTIC CONCRETE --PAVEMENT-- Gray CRUSHED STONE --BASE COURSE-- Stiff to very stiff, brown CLAY SILTY CLAY | 0 | 1 | 10 | 212 B | 184.08 | | 0 | 11 | 196 | 20 |
| 183.0 | Stiff to very stiff, brown CLAY SILTY CLAY | 2 | 2 | NP | NP | 183.0 | | 2 | 12 | 267 | 19 |
| 181.9 | Very stiff to hard, gray SILTY CLAY | 4 | 3 | NP | NP | 181.9 | | 4 | 13 | 189 | 20 |
| 180.7 | Medium dense, gray SILT | 6 | 4 | 314 B | 22 | 180.7 | | 6 | 14 | 314 | 22 |
| 180.2 | Stiff to very stiff, gray CLAY | 8 | 5 | NP | NP | 180.2 | | 8 | 15 | 172 | 20 |
| 179.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 10 | 6 | 204 B | 17 | 179.2 | | 10 | 16 | 204 | 17 |
| 178.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 12 | 7 | 172 B | 20 | 178.2 | | 12 | 17 | 172 | 20 |
| 177.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 14 | 8 | 149 B | 20 | 177.2 | | 14 | 18 | 149 | 20 |
| 176.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 16 | 9 | 125 B | 20 | 176.2 | | 16 | 19 | 125 | 20 |
| 175.2 | Loose, black SAND Stiff to very stiff, gray CLAY | 18 | 10 | 118 B | 22 | 175.2 | | 18 | 20 | 118 | 22 |

GENERAL NOTES

Begin Drilling: 04-30-2002 Complete Drilling: 04-30-2002
Drilling Contractor: Patrick Drilling Drill Rig: CME 75
Driller: K&D Logger: N. Davis Checked by: B. Fuglel
Drilling Method: 3.25-in HSA; Backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|----------|-----|
| DESIGNED | LAS |
| CHECKED | DAZ |
| DRAWN | SAW |
| CHECKED | DAZ |

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41

SOIL BORING LOGS 2

DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.