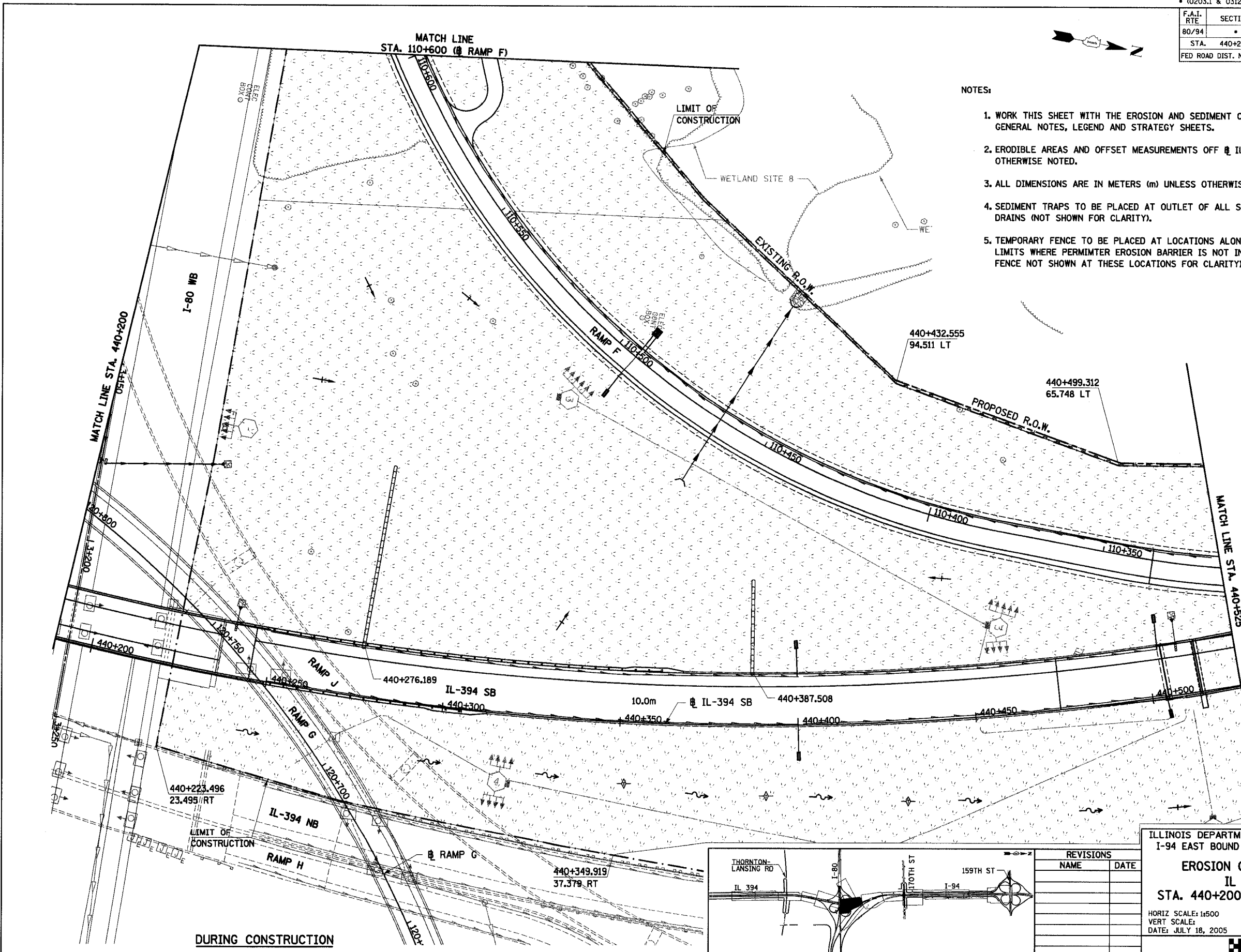


F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	401
STA. 440+200		TO STA. 440+525		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

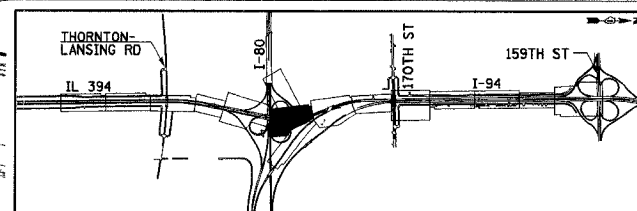
1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ERODIBLE AREAS AND OFFSET MEASUREMENTS OFF @ IL-394 SB UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.
4. SEDIMENT TRAPS TO BE PLACED AT OUTLET OF ALL SLOPE DRAINS (NOT SHOWN FOR CLARITY).
5. TEMPORARY FENCE TO BE PLACED AT LOCATIONS ALONG ALL CONSTRUCTION LIMITS WHERE PERIMETER EROSION BARRIER IS NOT INDICATED (TEMPORARY FENCE NOT SHOWN AT THESE LOCATIONS FOR CLARITY).

EC-20

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

EROSION CONTROL PLAN
IL 394 SB
STA. 440+200 TO STA. 440+525

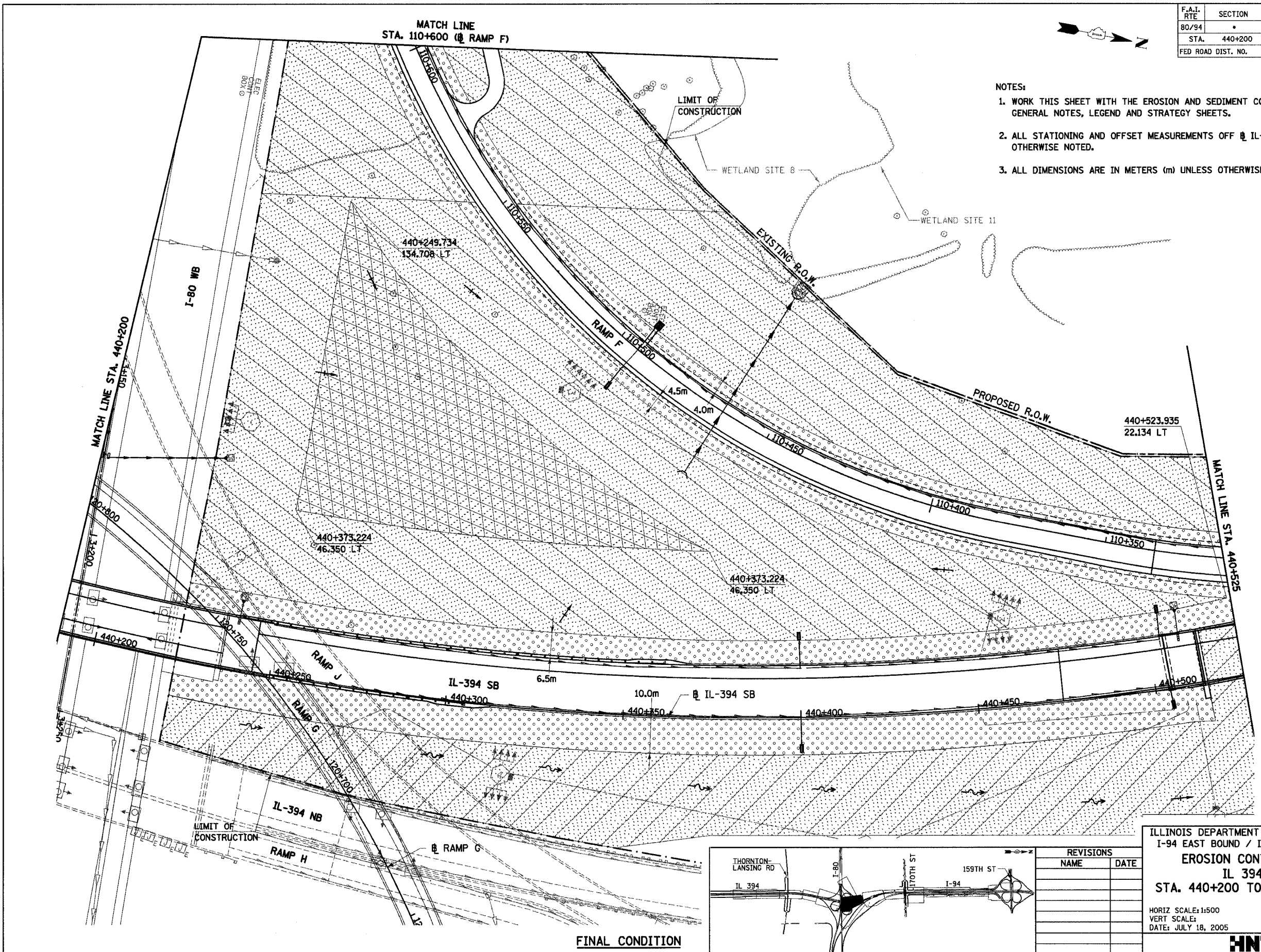
HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005
DRAWN BY: JPH
CHECKED BY: MAM



REVISIONS	
NAME	DATE

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	402
STA. 440+200 TO STA. 440+525				
FED ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

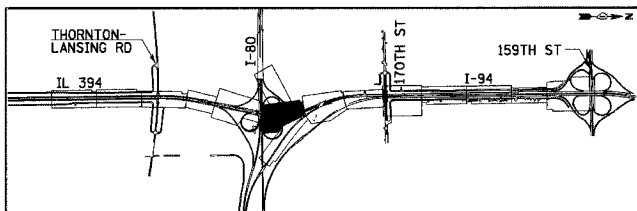
- NOTES:
1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
 2. ALL STATIONING AND OFFSET MEASUREMENTS OFF IL-394 UNLESS OTHERWISE NOTED.
 3. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.



EC-21

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND / IL 394 SOUTH BOUND
EROSION CONTROL PLAN
 IL 394 SB
 STA. 440+200 TO STA. 440+525

HORIZ SCALE: 1:500
 VERT SCALE:
 DATE: JULY 18, 2005
 DRAWN BY: BAJ
 CHECKED BY: MAM



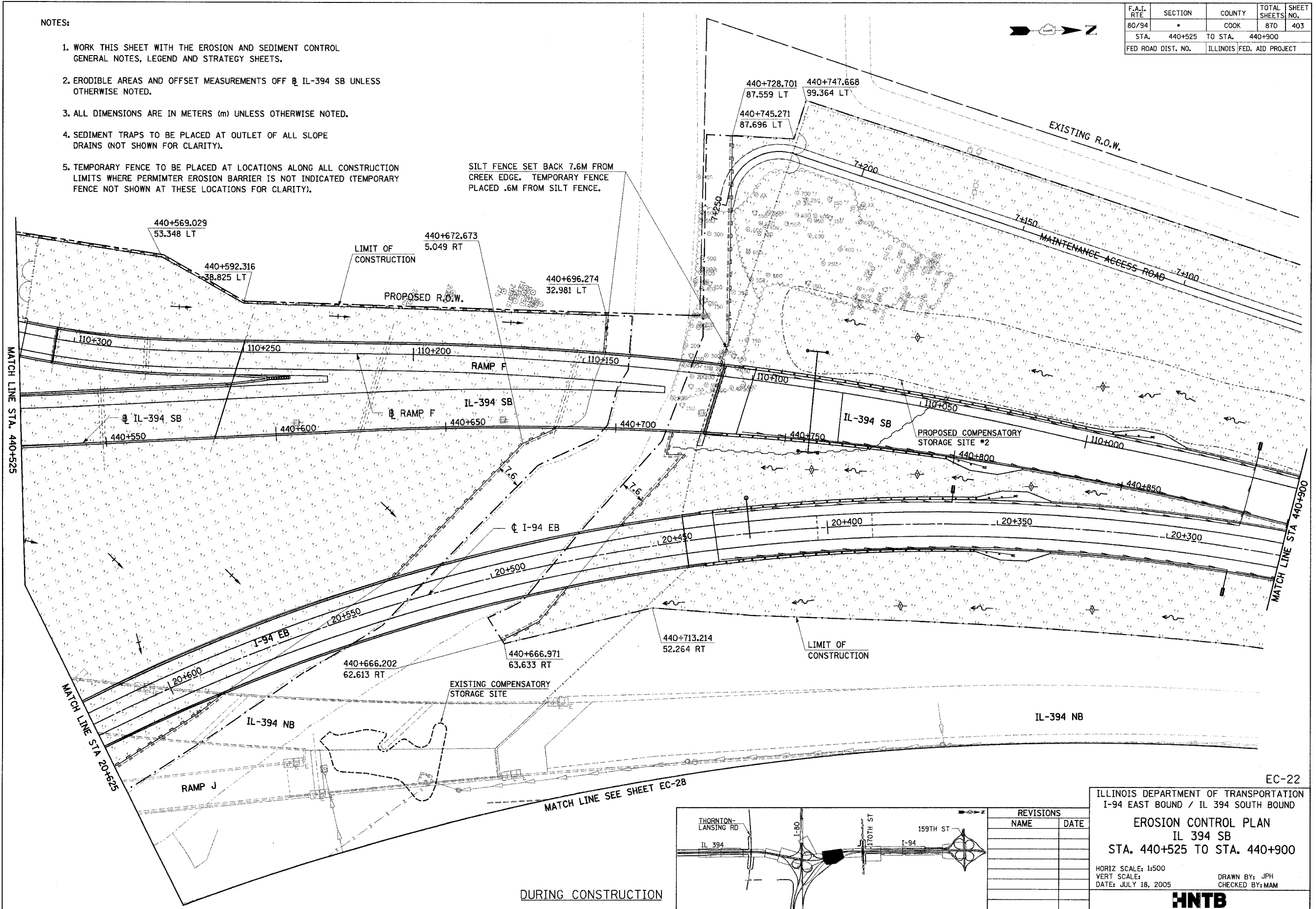
REVISIONS	
NAME	DATE

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	403
STA. 440+525		TO STA. 440+900		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NOTES:

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ERODIBLE AREAS AND OFFSET MEASUREMENTS OFF @ IL-394 SB UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.
4. SEDIMENT TRAPS TO BE PLACED AT OUTLET OF ALL SLOPE DRAINS (NOT SHOWN FOR CLARITY).
5. TEMPORARY FENCE TO BE PLACED AT LOCATIONS ALONG ALL CONSTRUCTION LIMITS WHERE PERMIMTER EROSION BARRIER IS NOT INDICATED (TEMPORARY FENCE NOT SHOWN AT THESE LOCATIONS FOR CLARITY).

SILT FENCE SET BACK 7.6M FROM CREEK EDGE. TEMPORARY FENCE PLACED .6M FROM SILT FENCE.



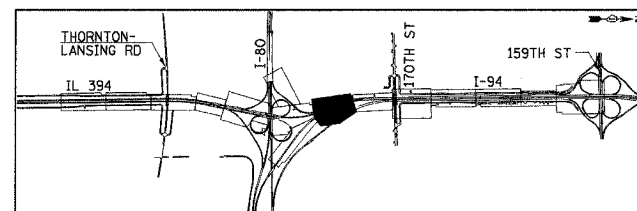
MATCH LINE STA. 440+525

MATCH LINE STA 440+900

MATCH LINE STA 20+625

MATCH LINE SEE SHEET EC-28

DURING CONSTRUCTION



REVISIONS	
NAME	DATE

EC-22
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND / IL 394 SOUTH BOUND
EROSION CONTROL PLAN
 IL 394 SB
 STA. 440+525 TO STA. 440+900

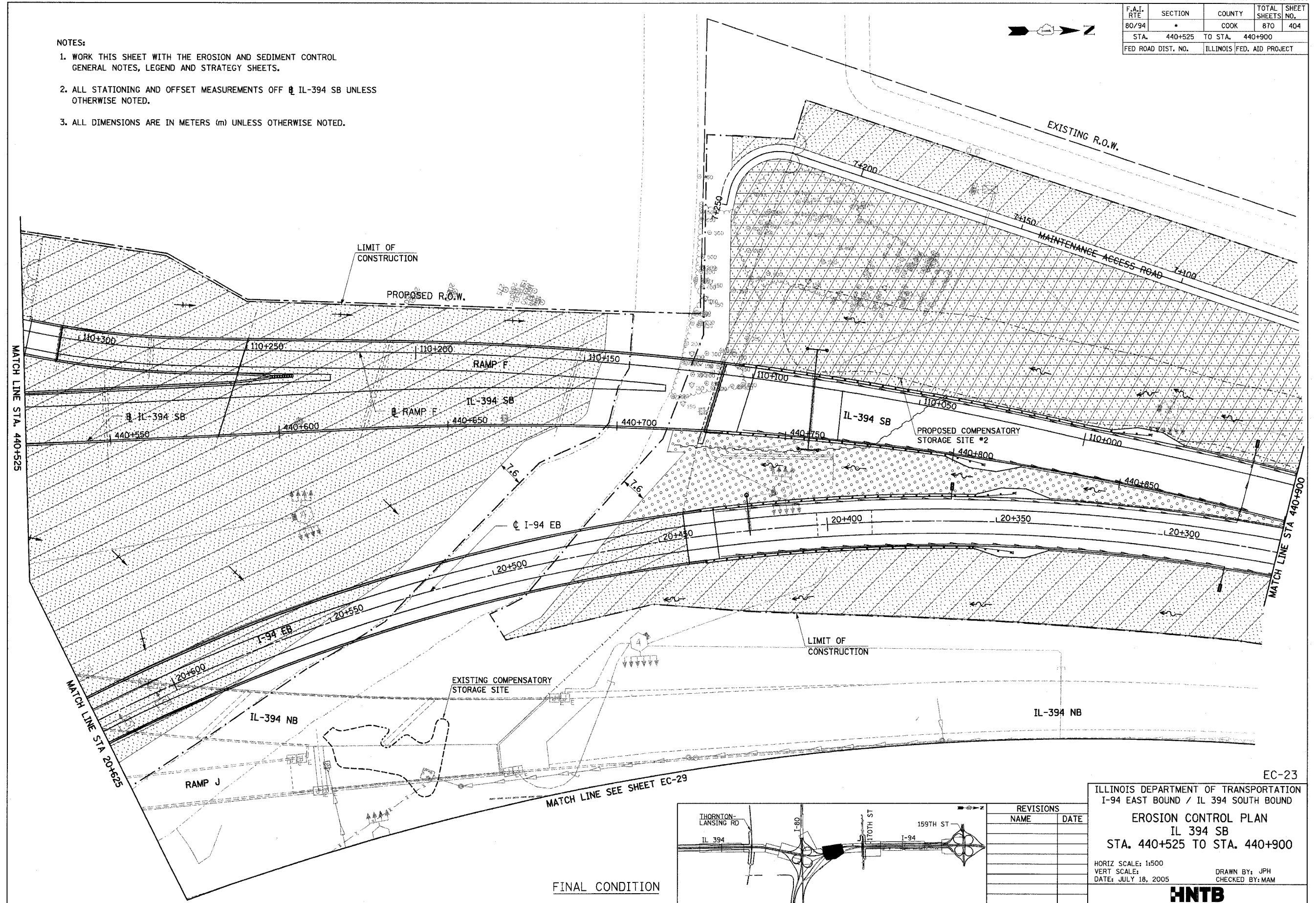
HORIZ SCALE: 1:500
 VERT SCALE:
 DATE: JULY 18, 2005

DRAWN BY: JPH
 CHECKED BY: MAM

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	404
STA.	440+525	TO STA.	440+900	
FED ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

- NOTES:
1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
 2. ALL STATIONING AND OFFSET MEASUREMENTS OFF @ IL-394 SB UNLESS OTHERWISE NOTED.
 3. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.



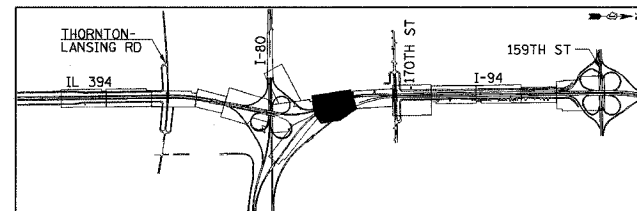
EC-23

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

EROSION CONTROL PLAN
IL 394 SB
STA. 440+525 TO STA. 440+900

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

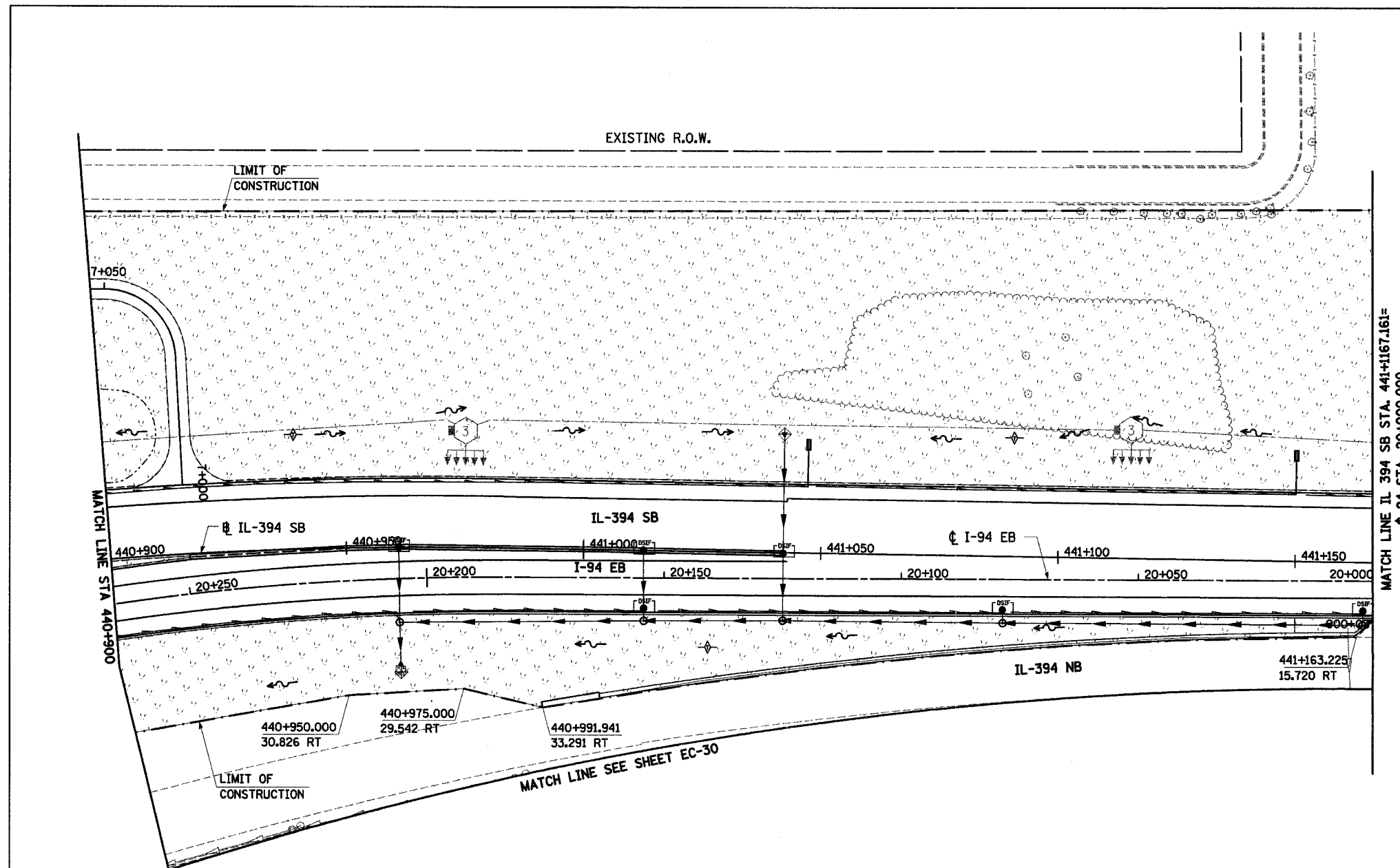
DRAWN BY: JPH
CHECKED BY: MAM



REVISIONS	
NAME	DATE

FINAL CONDITION

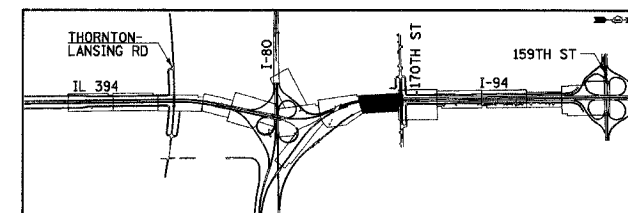
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	405
STA. 440+900 TO STA. 441+167.161				
FED ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT



NOTES:

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ERODIBLE AREAS TO BE TEMPORARILY SEEDED DURING CONSTRUCTION AS REQUIRED BY THE EROSION AND SEDIMENT CONTROL GENERAL NOTES.
3. ALL STATIONING AND OFFSET MEASUREMENTS OFF IL-394 SB UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.
5. TEMPORARY FENCE TO BE PLACED AT LOCATIONS ALONG ALL CONSTRUCTION LIMITS WHERE PERIMETER EROSION BARRIER IS NOT INDICATED (TEMPORARY FENCE NOT SHOWN AT THESE LOCATIONS FOR CLARITY).

DURING CONSTRUCTION



REVISIONS	
NAME	DATE

EC-24

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

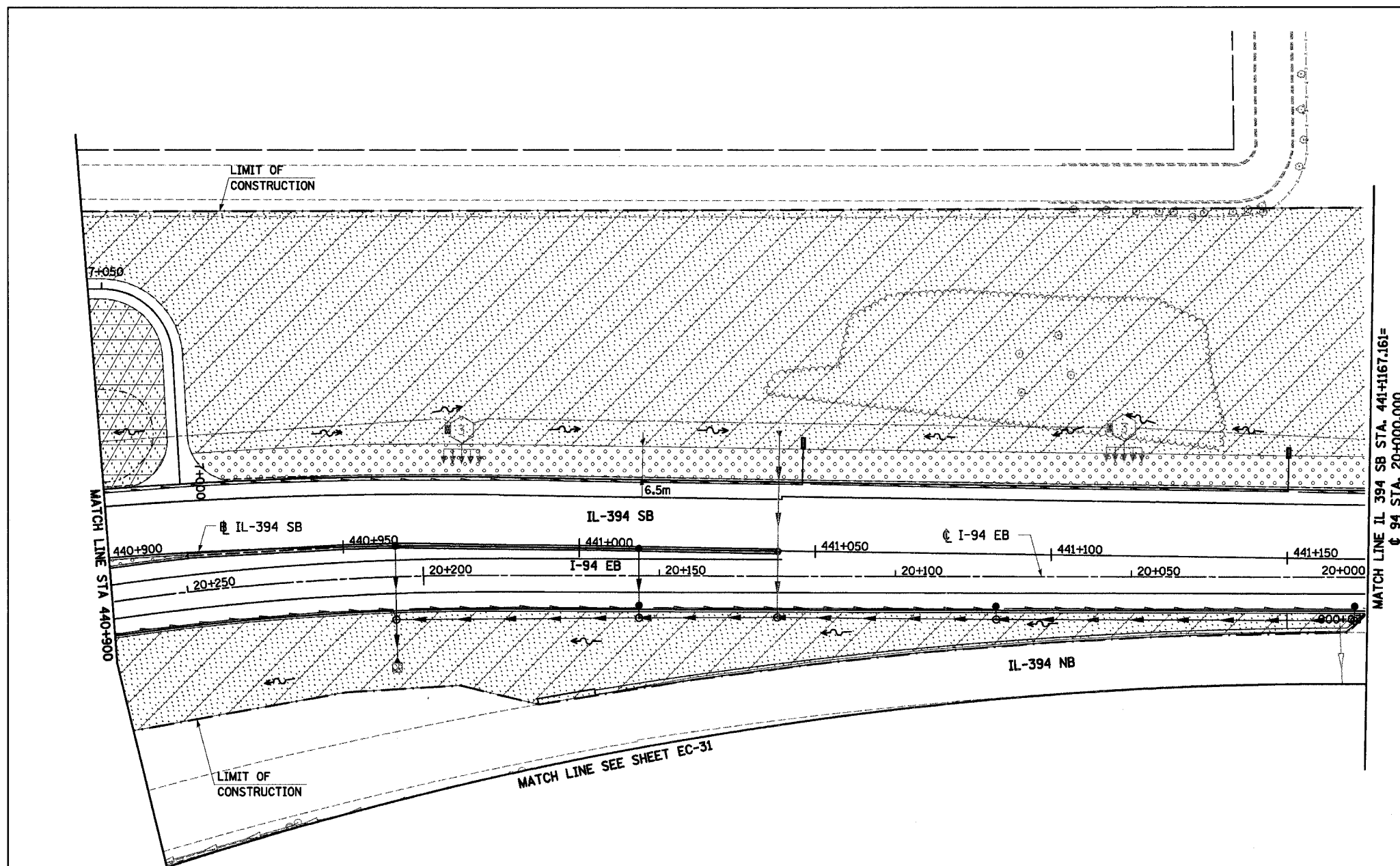
EROSION CONTROL PLAN
IL 394 SB
STA. 440+900 TO STA. 441+167.161

HORIZ SCALE: 1:500
VERT SCALE: 1:500
DATE: JULY 18, 2005

DRAWN BY: JPH
CHECKED BY: MAM

HNTB

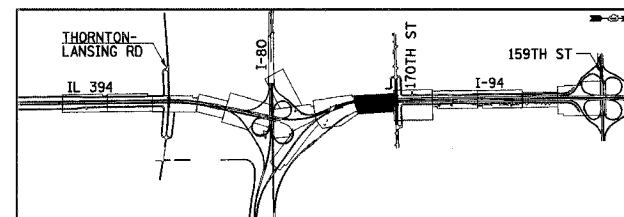
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	406
STA. 440+900 TO STA. 441+167.161		ILLINOIS FED. AID PROJECT		



NOTES:

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ALL STATIONING AND OFFSET MEASUREMENTS OFF ϕ IL-394 SB UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.

FINAL CONDITION



REVISIONS	
NAME	DATE

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

EROSION CONTROL PLAN
IL 394 SB
STA. 440+900 TO STA. 441+167.161

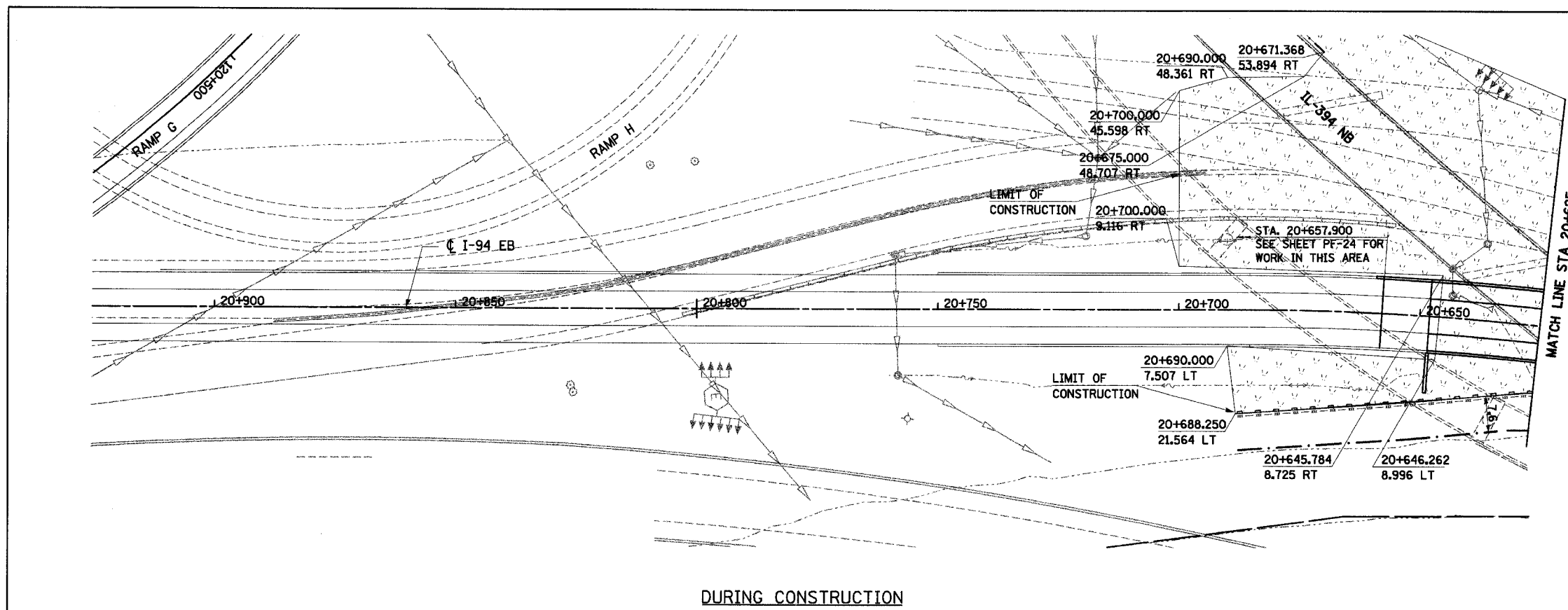
HORIZ SCALE: 1:500
VERT SCALE: 1:50
DATE: JULY 18, 2005

DRAWN BY: JPH
CHECKED BY: MAM

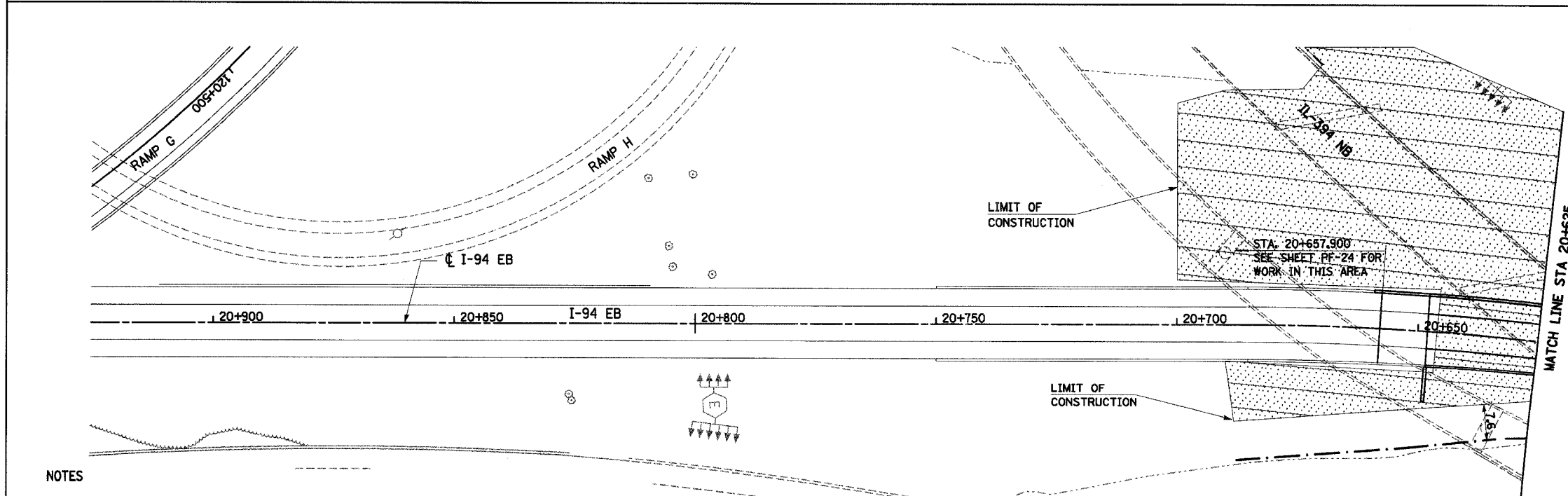
HNTB

EC-25

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	407
STA. 20+625		TO STA. 20+925		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



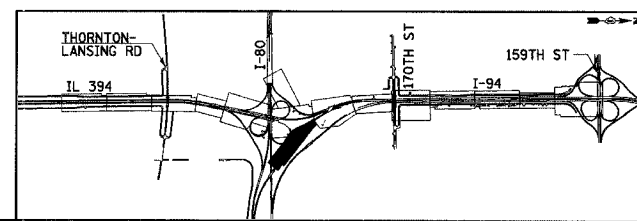
DURING CONSTRUCTION



FINAL CONDITION

NOTES

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ERODIBLE AREAS TO BE TEMPORARILY SEEDED DURING CONSTRUCTION AS REQUIRED BY THE EROSION AND SEDIMENT CONTROL GENERAL NOTES.
3. ALL STATIONING AND OFFSET MEASUREMENTS OFF ϕ I-94 EB UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.
5. TEMPORARY FENCE TO BE PLACED AT LOCATIONS ALONG ALL CONSTRUCTION LIMITS WHERE PERIMETER EROSION BARRIER IS NOT INDICATED (TEMPORARY FENCE NOT SHOWN AT THESE LOCATIONS FOR CLARITY).



REVISIONS	
NAME	DATE

EC-26

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

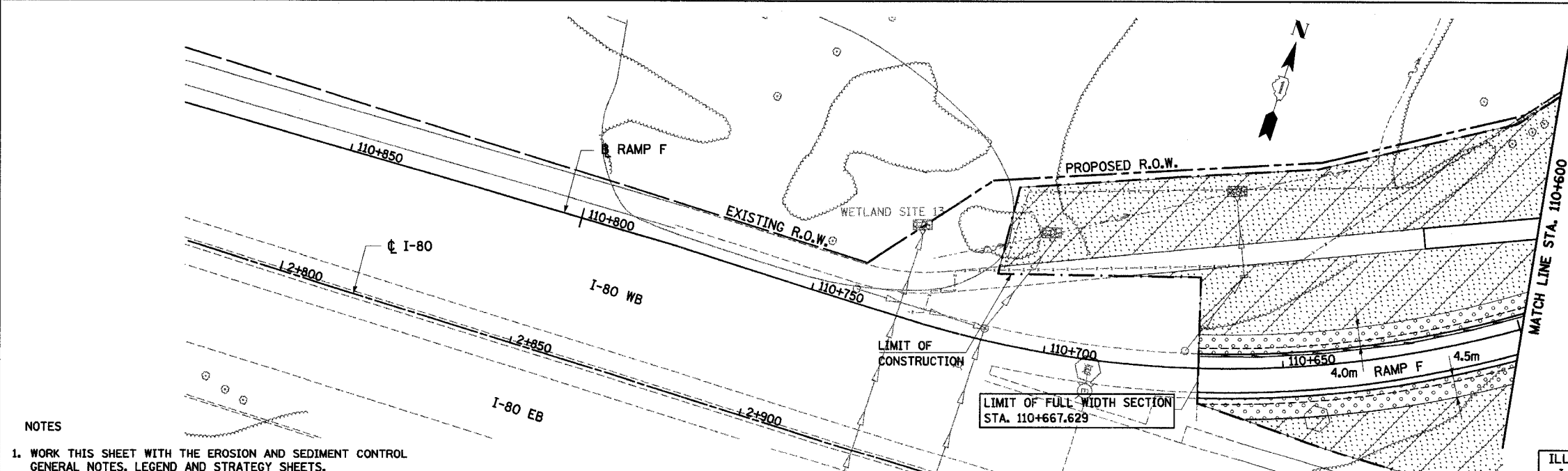
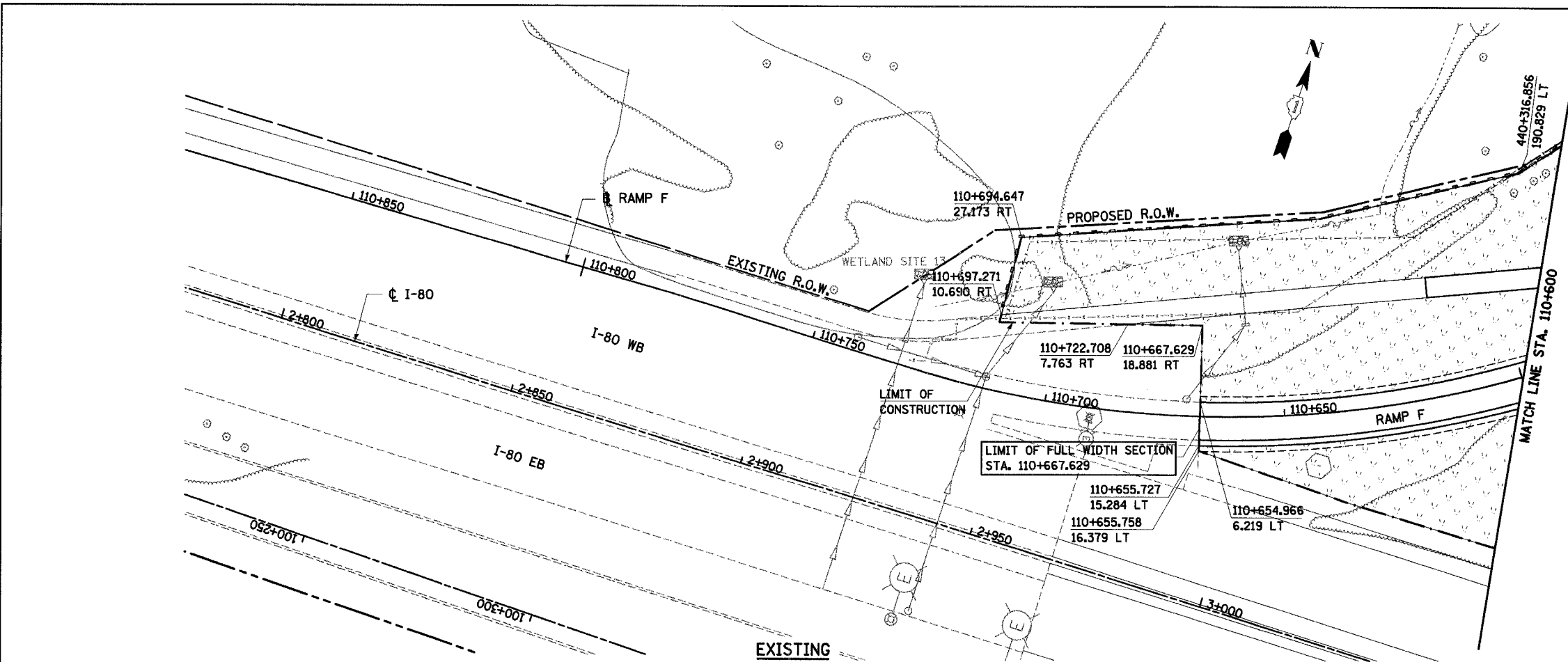
EROSION CONTROL PLAN
I-94 EB
STA. 20+625 TO STA. 20+925

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

DRAWN BY: JPH
CHECKED BY: MAM

HNTB

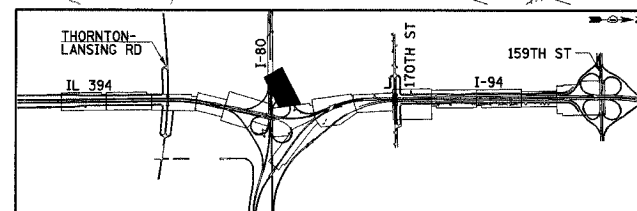
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	408
STA. 110+600 TO STA. 110+750				
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ERODIBLE AREAS TO BE TEMPORARILY SEEDED DURING CONSTRUCTION AS REQUIRED BY THE EROSION AND SEDIMENT CONTROL GENERAL NOTES.
3. ALL STATIONING AND OFFSET MEASUREMENTS OFF RAMP F UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.
5. TEMPORARY FENCE TO BE PLACED AT LOCATIONS ALONG ALL CONSTRUCTION LIMITS WHERE PERIMETER EROSION BARRIER IS NOT INDICATED (TEMPORARY FENCE NOT SHOWN AT THESE LOCATIONS FOR CLARITY).
6. COORDINATE EROSION CONTROL WITH CONTRACT 62105.

PROPOSED



REVISIONS	
NAME	DATE

EC-27

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

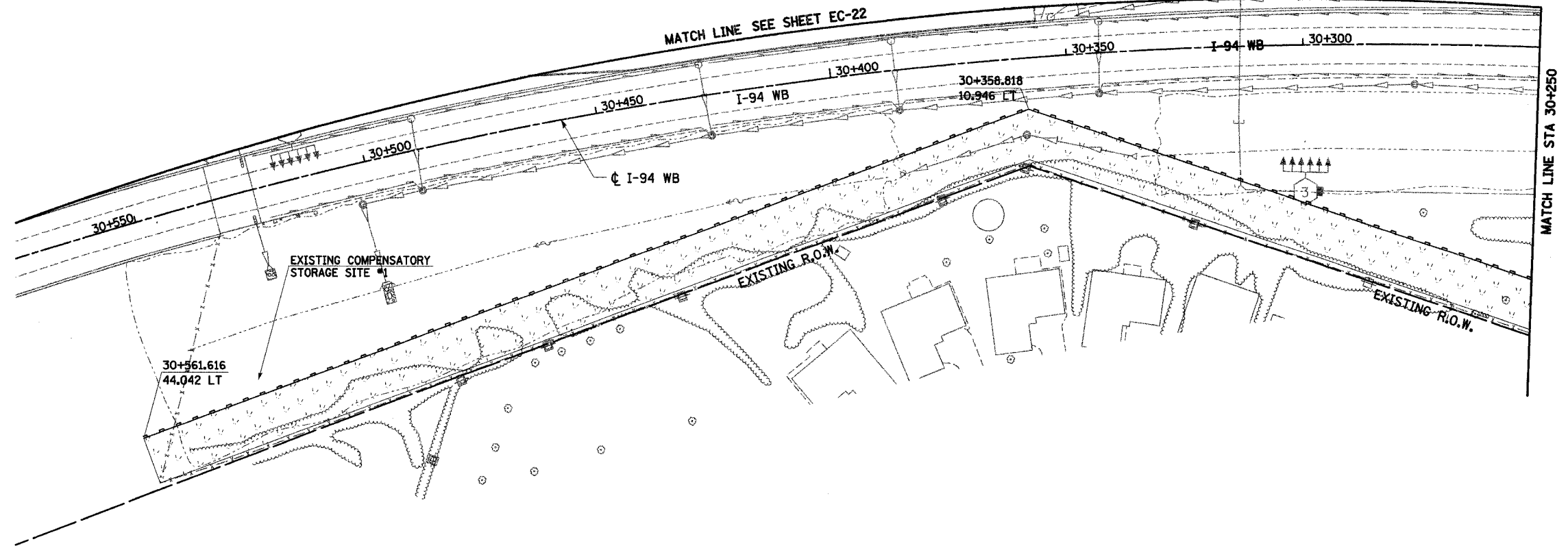
**EROSION CONTROL PLAN
RAMP F
STA. 110+600 TO STA. 110+750**

HORIZ SCALE: 1:500
VERT SCALE: 1:500
DATE: JULY 18, 2005

DRAWN BY: JPH
CHECKED BY: MAM

HNTB

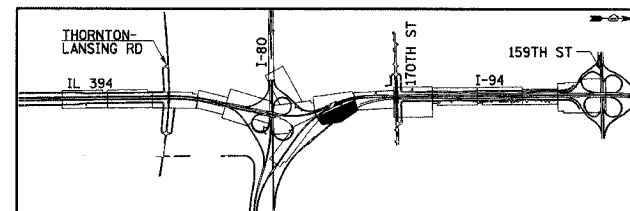
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	409
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ERODIBLE AREAS TO BE TEMPORARILY SEEDED DURING CONSTRUCTION AS REQUIRED BY THE EROSION AND SEDIMENT CONTROL GENERAL NOTES.
3. ALL STATIONING AND OFFSET MEASUREMENTS OFF ϕ I-94 WB UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.
5. TEMPORARY FENCE TO BE PLACED AT LOCATIONS ALONG ALL CONSTRUCTION LIMITS WHERE PERIMETER EROSION BARRIER IS NOT INDICATED (TEMPORARY FENCE NOT SHOWN AT THESE LOCATIONS FOR CLARITY).

DURING CONSTRUCTION



REVISIONS	
NAME	DATE

EC-28

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

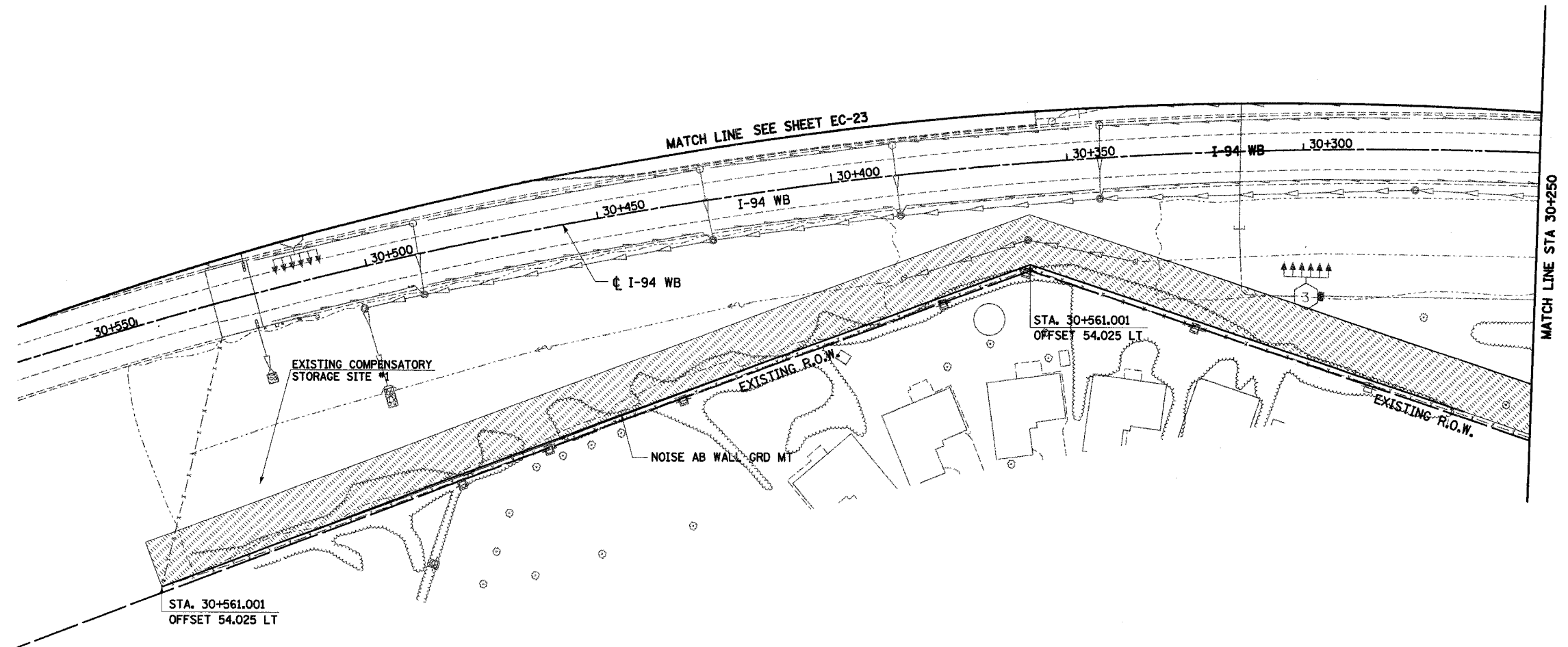
EROSION CONTROL PLAN
I-94 WB
STA. 30+250 TO STA. 30+550

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

DRAWN BY: JPH
CHECKED BY: JES

HNTB

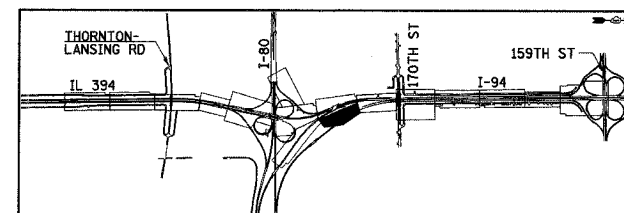
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	410
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



NOTES:

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ALL STATIONING AND OFFSET MEASUREMENTS OFF ϕ I-94 WB UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.

FINAL CONDITION



REVISIONS	
NAME	DATE

EC-29

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

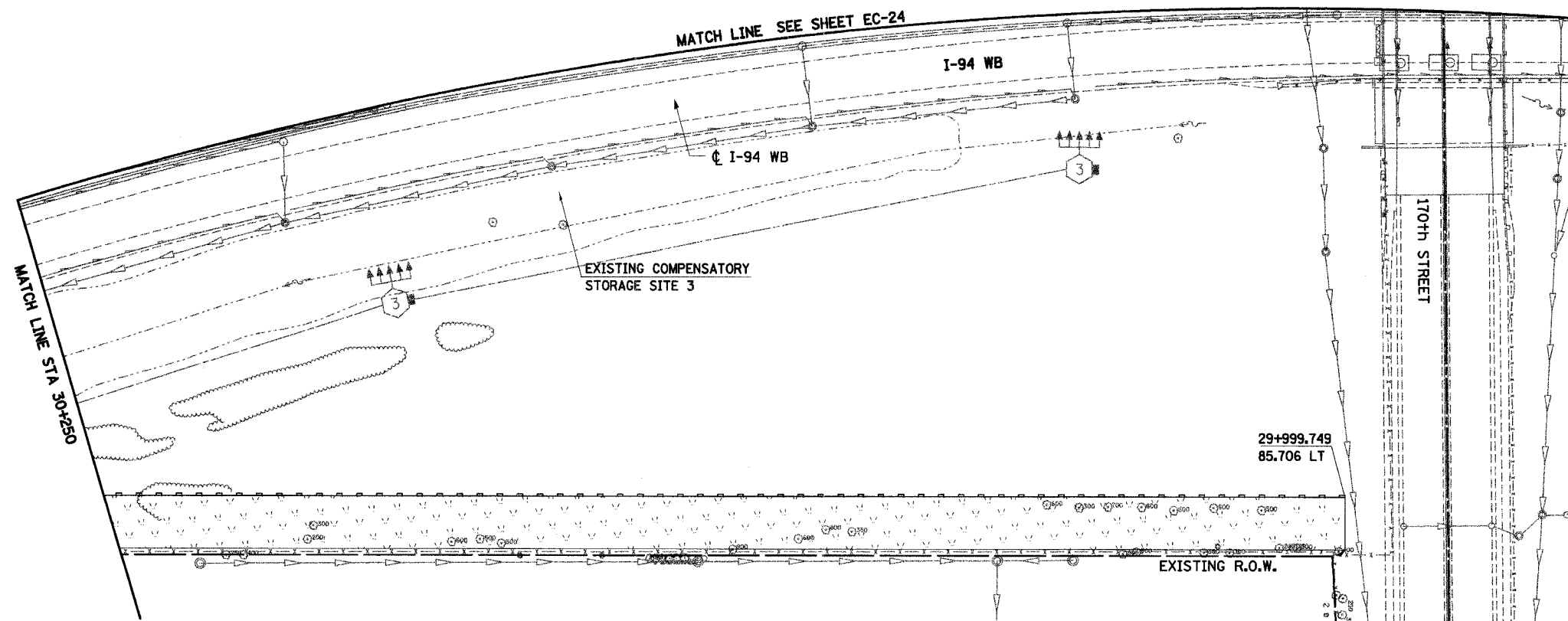
EROSION CONTROL PLAN
I-94 WB
STA. 30+250 TO STA. 30+550

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

DRAWN BY: JPH
CHECKED BY: JES

HNTB

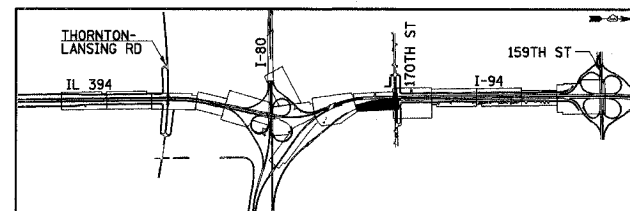
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	411
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ERODIBLE AREAS TO BE TEMPORARILY SEEDD DURING CONSTRUCTION AS REQUIRED BY THE EROSION AND SEDIMENT CONTROL GENERAL NOTES
3. ALL STATIONING AND OFFSET MEASUREMENTS OFF ϕ I-94 WB UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.
5. TEMPORARY FENCE TO BE PLACED AT LOCATIONS ALONG ALL CONSTRUCTION LIMITS WHERE PERIMETER EROSION BARRIER IS NOT INDICATED (TEMPORARY FENCE NOT SHOWN AT THESE LOCATIONS FOR CLARITY).

DURING CONSTRUCTION



REVISIONS	
NAME	DATE

EC-30

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

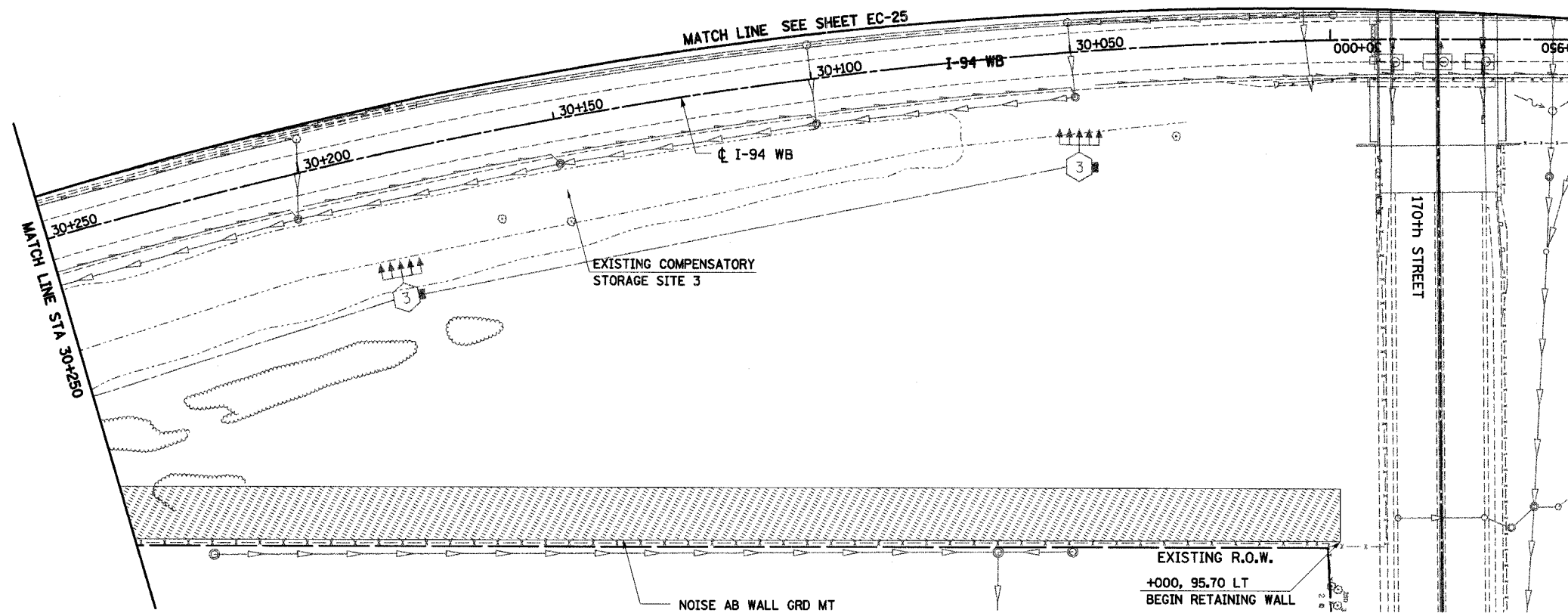
EROSION CONTROL PLAN
I-94 WB
STA. 30+000 TO STA. 30+250

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

DRAWN BY: BJM
CHECKED BY: JES

HNTB

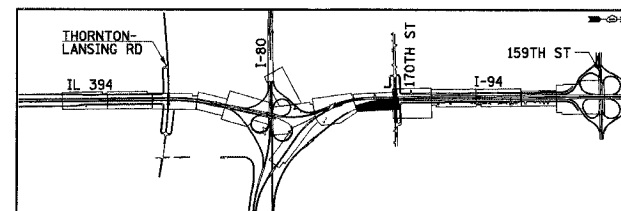
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	412
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. WORK THIS SHEET WITH THE EROSION AND SEDIMENT CONTROL GENERAL NOTES, LEGEND AND STRATEGY SHEETS.
2. ALL STATIONING AND OFFSET MEASUREMENTS OFF CL I-94 WB UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTED.

FINAL CONDITION



REVISIONS	
NAME	DATE

EC-31

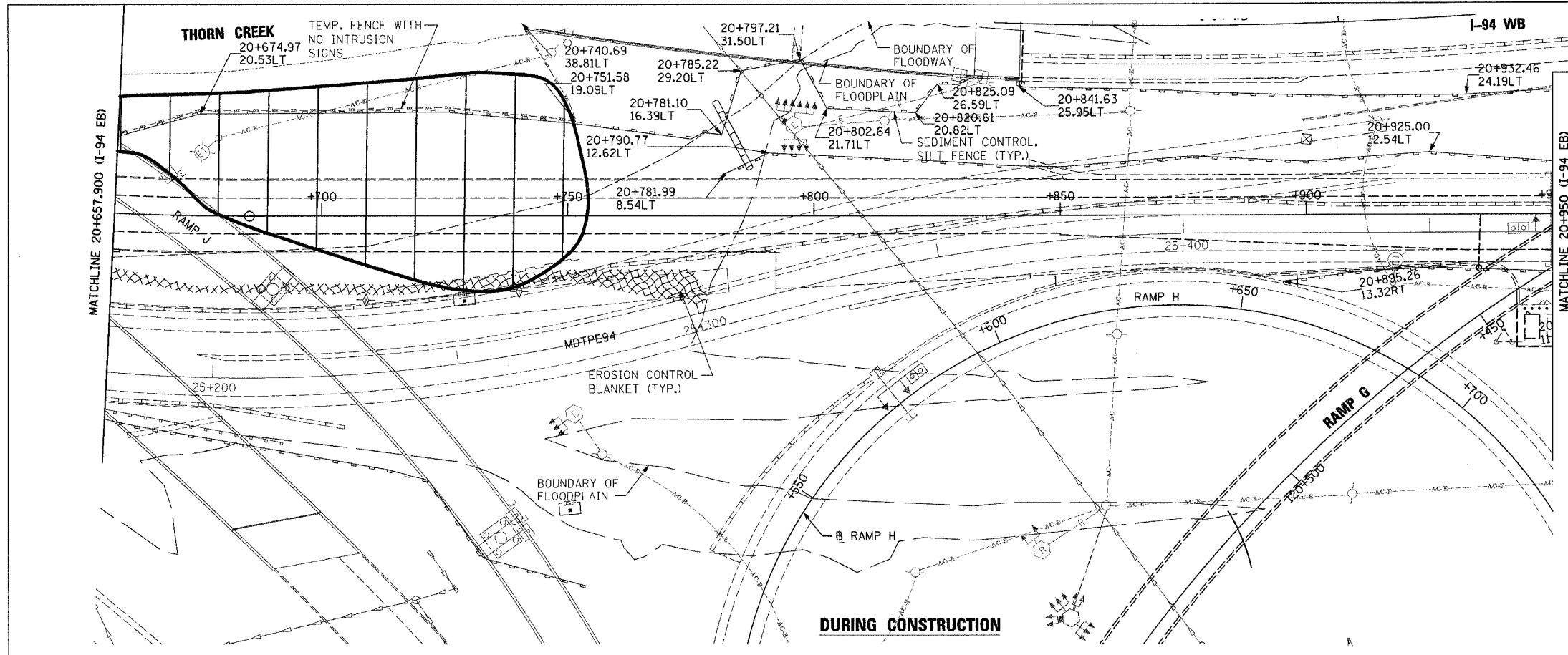
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

EROSION CONTROL PLAN
I-94 WB
STA. 30+000 TO STA. 30+250

HORIZ SCALE: 1:500
VERT SCALE: 1:50
DATE: JULY 18, 2005

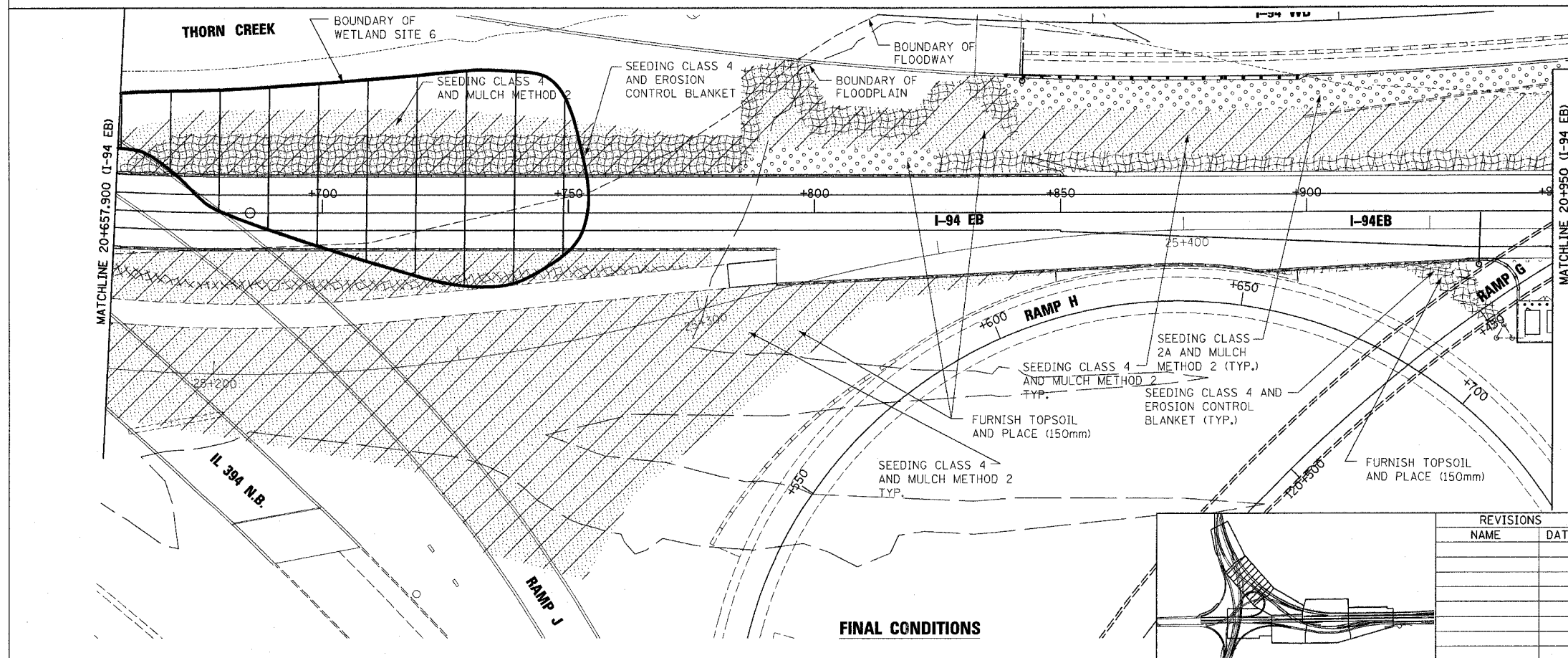
DRAWN BY: JPH
CHECKED BY: JES

HNTB



MATCHLINE 20+657.900 (I-94 EB)
 MATCHLINE 20+950.000 (I-94 EB)
 MATCHLINE 30+900 (I-94 WB)
 SEE SHEET EC-3

DURING CONSTRUCTION



MATCHLINE 20+657.900 (I-94 EB)
 MATCHLINE 20+950.000 (I-94 EB)
 MATCHLINE 30+900 (I-94 WB)
 SEE SHEET EC-3

FINAL CONDITIONS

1 : 500

EC-32

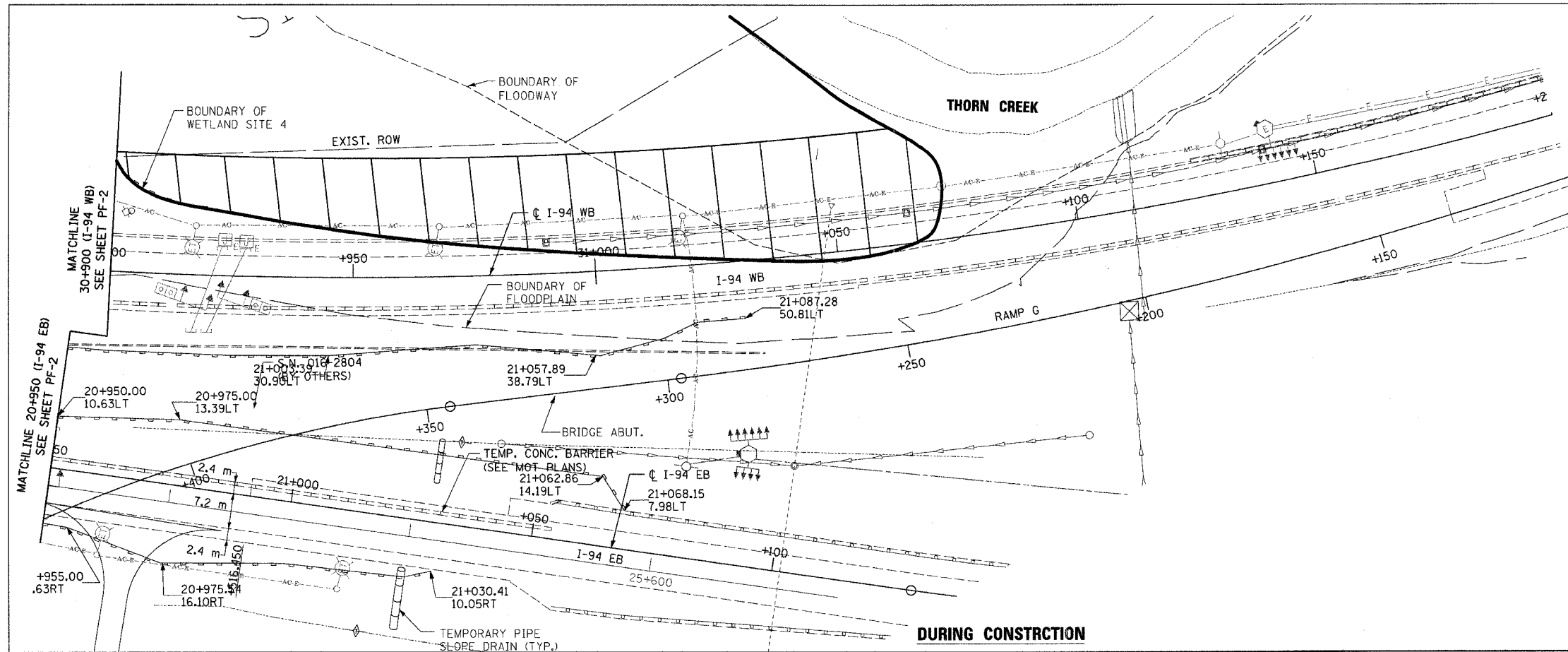
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EASTBOUND / IL 394 SOUTHBOUND
 EXISTING AND PROPOSED
 EROSION CONTROL PLAN
 20+650.000 TO 20+950.000

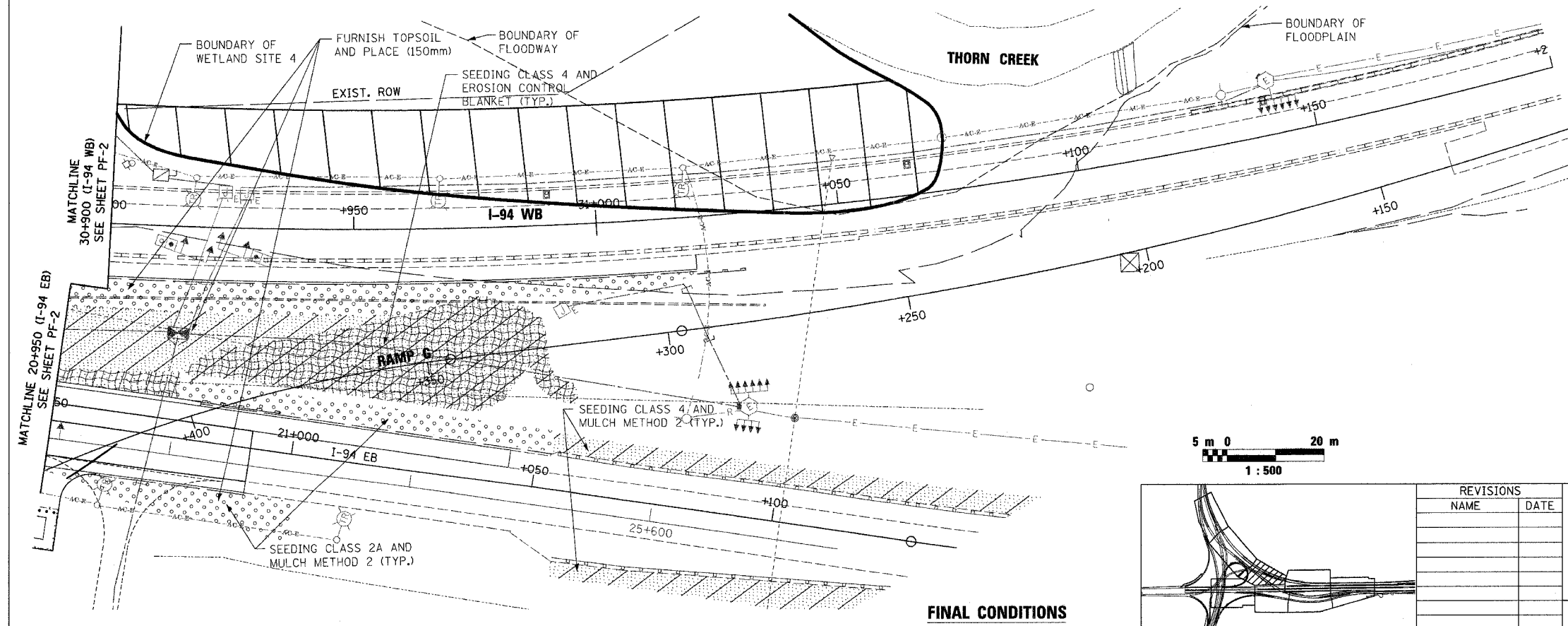
DATE: JULY 18, 2005
 DRAWN BY: BFH
 CHECKED BY: PAC

McDonough Associates Inc.
 Engineers / Architects

* (0203.1 & 0312-708W) R-3		CONTRACT #62108	
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
80/394	*	COOK	870 414
STA. 20+900.00		TO STA. 20+991.47	
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT	



DURING CONSTRUCTION



FINAL CONDITIONS



EC-33

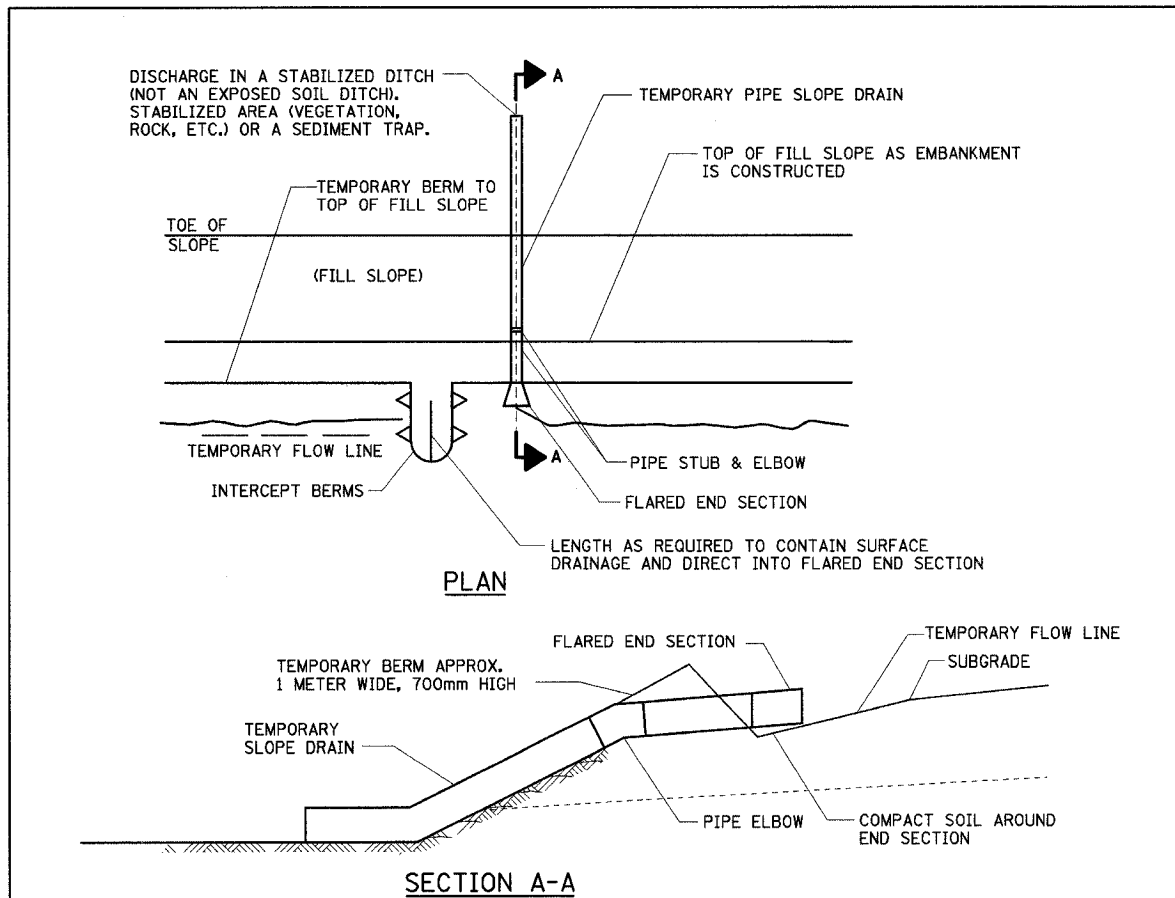
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EASTBOUND / IL 394 SOUTHBOUND
EXISTING AND PROPOSED
EROSION CONTROL PLAN
20+950.000 TO 20+991.470

DATE: JULY 18, 2005 DRAWN BY: BFH
CHECKED BY: PAC

McDonough Associates Inc.
Engineers / Architects

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	415
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

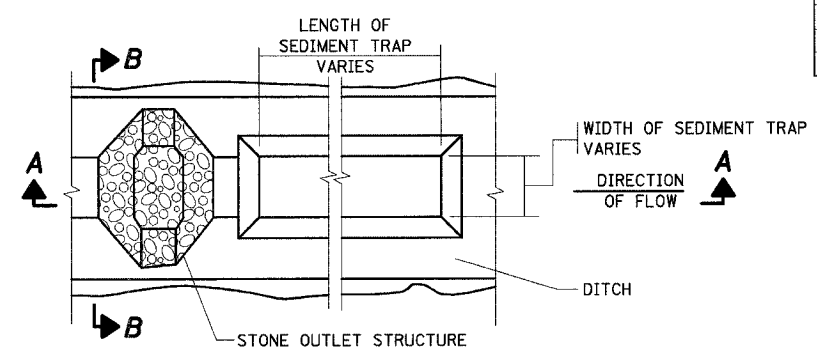
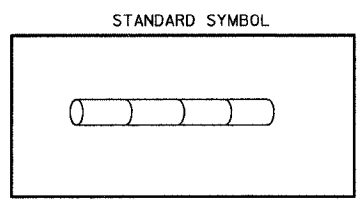


TEMPORARY SLOPE DRAIN SHALL BE USED AT THE TOP OF FILL SLOPE AS EMBANKMENT IS CONSTRUCTED TO PREVENT EXCESSIVE EROSION UNTIL SHOULDERS ARE CONSTRUCTED AND THE SLOPES ARE SEEDED AND MULCHED.

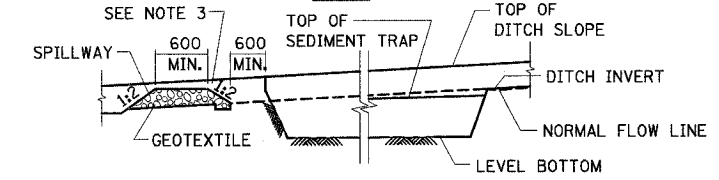
**EROSION CONTROL
TEMPORARY PIPE SLOPE DRAIN**

GENERAL NOTES:

1. ALL DIMENSIONS AND LOCATIONS NOT INDICATED, FOR ITEMS APPEARING ON THIS SHEET OR ON THE PLANS SHALL BE DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL PLACE GEOTEXTILE AROUND THE METAL END SECTION TO PREVENT BLOW-OUTS.
3. ALL TEMPORARY SLOPE DRAINS WILL DISCHARGE INTO THE BACK OF SEDIMENT TRAPS, INTO SEDIMENT BASINS OR DITCHES DISCHARGING INTO TRAPS OR BASINS.
4. PIPE WILL BE SECURED THROUGH USE OF HOLD DOWN STAKES WITH A MAXIMUM SPACING OF 3 METERS.
5. TEMPORARY PIPE SLOPE DRAINS WILL BE SPACED A MAX. OF EVERY 150 METERS ALONG THE FILL WITH A STANDARD DIA. OF 450mm. THIS PIPE SIZE IS ADEQUATE TO HANDLE 0.6 HECTARES OF CONTRIBUTING AREA. SPACING OR SIZE TO BE ADJUSTED IF CONTRIBUTING AREA IS LARGER THAN 0.6 HECTARES. AT LEAST TWO TEMPORARY PIPE SLOPE DRAINS WILL BE PLACED IN EVERY SAG.
6. STAPLES SHALL BE USED TO ANCHOR THE FILTER FABRIC AND SHALL BE UNIFORMLY SPACED AT APPROXIMATELY 300mm.

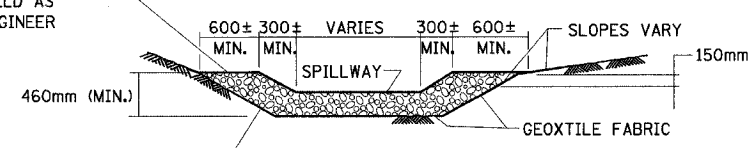


PLAN



SECTION A-A

TOP ELEVATION OF STRUCTURE SHALL BE SET IN FIELD AS DIRECTED BY THE ENGINEER



SECTION B-B

1. USE IN EXISTING, PROPOSED AND TEMPORARY DITCHES OF ALL TYPES AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
2. THE STONE OUTLET STRUCTURES SHALL BE REPLACED DUE TO WASHOUT, CONSTRUCTION TRAFFIC DAMAGE OR SILT ACCUMULATION. THE SILT SHALL BE CLEANED WHEN THE TRAP IS 50% FULL.
3. THIS WORK WILL BE PAID FOR UNDER THE FOLLOWING ITEMS: EARTH EXCAVATION FOR EROSION CONTROL STONE RIPRAP, CLASS A4 FILTER FABRIC FOR USE WITH RIPRAP.

**STONE OUTLET STRUCTURE SEDIMENT TRAP
USE AS DIRECTED BY ENGINEER**

DRAINAGE AREA	L	W	CAPACITY CM
0.2ha	23m	3m	53
0.4ha	44m	3m	103
0.6ha	44m	4.6m	154
0.80ha	60m	4.6m	207

NOTE:
ALL DIMENSIONS ARE BASED UPON AN AVERAGE DEPTH OF 760mm AND PROVIDING, AS A MINIMUM 102 CUBIC METERS OF STORAGE PER Ha OF RUNOFF. L AND W ARE MEASURED ALONG THE BOTTOM OF THE TRAP. WHENEVER POSSIBLE, THE MAXIMUM AVERAGE DEPTH OF THE TRAP WILL BE 760mm. THE MAXIMUM DRAINAGE ALLOWED PER TRAP IS 2Ha. THE DRAINAGE AREA IS THE TOTAL (INCLUDING OFF-SITE) AREA.

REVISIONS	
NAME	DATE

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

**EROSION AND SEDIMENT CONTROLS
DETAILS**

HORIZ SCALE: NONE
VERT SCALE: NONE
DATE: JULY 18, 2005

DRAWN BY: DKB
CHECKED BY: MAM

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	870	416
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

ROADWAY ELECTRICAL SYMBOL															
SYMBOL	DESCRIPTION														
	EXISTING HIGH MAST TOWER TO REMAIN														
	EXISTING HIGH MAST TOWER TO BE REMOVED														
	PROPOSED HIGH MAST TOWER ARROWS INDICATE QUANTITY AND ORIENTATION OF LUMINAIRES. NUMBER INDICATES TOWER TYPE														
	<table border="1"> <tr> <th>TYPE</th> <th>TOWER HEIGHT</th> </tr> <tr> <td>1</td> <td>30.0m (100ft.)</td> </tr> <tr> <td>2</td> <td>33.5m (110ft.)</td> </tr> <tr> <td>3</td> <td>36.5m (120ft.)</td> </tr> <tr> <td>4</td> <td>40.0m (130ft.)</td> </tr> <tr> <td>5</td> <td>42.5m (140ft.)</td> </tr> <tr> <td>6</td> <td>45.5m (150ft.)</td> </tr> </table>	TYPE	TOWER HEIGHT	1	30.0m (100ft.)	2	33.5m (110ft.)	3	36.5m (120ft.)	4	40.0m (130ft.)	5	42.5m (140ft.)	6	45.5m (150ft.)
TYPE	TOWER HEIGHT														
1	30.0m (100ft.)														
2	33.5m (110ft.)														
3	36.5m (120ft.)														
4	40.0m (130ft.)														
5	42.5m (140ft.)														
6	45.5m (150ft.)														
	PROPOSED LIGHTING UNIT														
	PROPOSED LIGHTING UNIT, TWIN ARMS														
	EXISTING LIGHTING UNIT TO REMAIN														
	EXISTING LIGHTING UNIT, TWIN ARMS														
	EXISTING LIGHTING UNIT TO BE REMOVED														
	TEMPORARY LIGHTING UNIT														
	EXISTING TEMPORARY LIGHTING UNIT TO BE REMOVED														
	EXISTING TEMPORARY LIGHTING UNIT TO REMAIN														
	TEMPORARY LIGHTING UNIT WITH TWIN MAST ARM														
	EXPOSED CONDUIT														
	RACEWAY OR DIRECT BURIAL CABLE UNDERGROUND WITHOUT ENCASEMENT														
	EXISTING UNDERGROUND WIRING TO REMAIN														
	EXISTING CONDUIT EXPOSED														
	FLEXIBLE CONDUIT														
	EXISTING UNIT DUCT TO BE ABANDONDED														
	AERIAL ELECTRIC CABLE														
	EXISTING AERIAL ELECTRIC CABLE														
	RACEWAY EMBEDDED IN STRUCTURE														
	RIGID GALVANIZED STEEL CONDUIT SLEEVE, TRENCHED OR PUSHED														
	CONDUIT TURNED DOWN														
	CONDUIT TURNED UP														
	EXISTING UNDERPASS LUMINAIRE														
	UNDERPASS LUMINAIRE														
	ELECTRIC CONNECTION TO SIGN STRUCTURE CANTILEVER SIGN STRUCTURE														
	ELECTRIC CONNECTION TO SIGN STRUCTURE TRUSS TYPE SIGN STRUCTURE														
	ELECTRIC CONNECTION TO SIGN STRUCTURE BRIDGE MOUNTED SIGN STRUCTURE														
	DUCT BANK														

ROADWAY ELECTRICAL SYMBOL	
SYMBOL	DESCRIPTION
	ELECTRIC JUNCTION BOX, TYPE AND SIZE AS INDICATED
	ELECTRIC HANDHOLE
	ELECTRIC PULLBOX
	EXISTING LIGHTING CONTROLLER, DUPLEX
	EXISTING UTILITY SERVICE CONNECTION, POLE MOUNTED
	EXISTING UTILITY SERVICE CONNECTION, PAD MOUNTED
	PROPOSED LIGHTING CONTROLLER, DUPLEX
	PROPOSED UTILITY SERVICE CONNECTION, POLE MOUNTED
	PROPOSED UTILITY SERVICE CONNECTION, PAD MOUNTED
	TEMPORARY WOOD POLE
	ELECTRIC UTILITY POLE
	ELECTRIC GROUND ROD
	ELECTRIC SERVICE WEATHERHEAD
	EXISTING DYNAMIC MESSAGE SIGN
	EXISTING FLASHING BEACON SIGN
	EXISTING CLOSED CIRCUIT TELEVISION CAMERA
	EXISTING MICROWAVE DETECTOR
	EXISTING DETECTOR LOOP
	PROPOSED DYNAMIC MESSAGE SIGN
	PROPOSED FLASHING BEACON SIGN
	PROPOSED CLOSED CIRCUIT TELEVISION CAMERA
	PROPOSED MICROWAVE DETECTOR
	PROPOSED DETECTOR LOOP

CALL-OUT SAMPLES

DEFINITION	EXAMPLE
<p>CKT. NO. LOCATION</p>	<p>6 ABC1 STA. 28+169, 48 LT</p>
<p>TOWER HANDHOLE INDICATOR</p>	
<p>6 — QUANTITY OF LUMINAIRES A — LIGHTING CONTROL CABINET B — CIRCUIT NUMBERS 1 — POLE NUMBER</p>	
<p>CKT. NO. LOCATION MOUNTING HEIGHT (MH) MAST ARM (MA) LUMINAIRE WATTAGE (W)</p>	<p>CA1 STA. 600+29, 64 LT 14.5M MH, 4.5M MA, 400W</p>
<p>C — LIGHTING CONTROL CABINET A — CIRCUIT NUMBER 1 — POLE NUMBER</p>	
<p>WOOD POLE DESIGNATION LOCATION</p>	<p>WP 18 STA. 1721+30, 65 RT</p>
	<p>WP18 - 18.3M POLE HEIGHT WP27 - 27.4M POLE HEIGHT</p>
<p>CONTROLLER DESIGNATION LOCATION & DESCRIPTION</p>	<p>LIGHTING CONTROLLER DA STA. 1652+29, 86 LT 240/480 V, 1Ø, 3 WIRE</p>
<p>CONDUIT QUANTITY, SIZE, TYPE, LENGTH INSTALLATION TYPE PUSHED, TRENCHED</p>	<p>100mm (4") DIA. RGC, 40' TRENCHED</p>
<p>CKT: CONDUCTORS RACEWAY</p>	<p>A&B: 3*4 & 1*6 GND. 30mm (1 1/4") DIA. UNIT DUCT</p>
<p>DUCT IDENTIFICATION</p>	<p>120LM 100MM DIA. CNC CONDUIT, SPARE DUCT BANK LENGTH</p>
<p>SIGN DESIGNATION # OF FLOURESCENT LUMINAIRES</p>	<p>B-1 6 LUMINAIRES</p>

ABBREVIATIONS

SYMBOL	DESCRIPTION
AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
AFG	ABOVE FINISHED GRADE
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CM	CENTIMETER
CNC	COILABLE NONMETALLIC CONDUIT
CT	CURRENT TRANSFORMER
CP	CONTROL PANEL
DA	DAVIT ARM
DC	DIRECT CURRENT
DIA	DIAMETER
DP	DISTRIBUTION PANEL
E	EXISTING UNIT TO REMAIN
ECA	ELECTRIC CABLE ASSEMBLY
EM	EXISTING UNIT TO BE MODIFIED (e.g. NEW LUMINAIRE, BALLAST OR MAST ARM)
ER	EXISTING RELOCATED UNIT
ET	EXISTING TEMPORARY UNIT TO REMAIN
ETR	EXISTING TEMPORARY RELOCATED UNIT
FT	FEET OR FOOT
FND BW	FOUNDATION BARRIER WALL
FND BW OS	FOUNDATION BARRIER WALL OFFSET
FND CON	FOUNDATION CONCRETE
FND CON OS	FOUNDATION CONCRETE OFFSET
FND MET	FOUNDATION METAL
FND PW	FOUNDATION PARAPET WALL
FU	FUSE
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
M	METER
MA	MAST ARM
MM	MILLIMETER
MH	MOUNTING HEIGHT
NO. #	NUMBER
P	PROPOSED
PB	PUSH BUTTON
PNL	PANEL
PVCC RGC	PVC COATED RIGID GALVANIZED CONDUIT
PT	POTENTIAL TRANSFORMER
R	EXISTING UNIT TO BE REMOVED (OWNER SALVAGED U.N.O.)
RR	EXISTING UNIT TO BE REMOVED AND REINSTALLED
RECP	RECEPTACLE
RGC	RIGID GALVANIZED CONDUIT
SEL SW	SELECTOR SWITCH
SPARE	SPARE
SPACE	SPACE
SS	STAINLESS STEEL
STA	STATION
T	TEMPORARY LIGHTING UNIT
TMP	TEMPORARY
TR	TEMPORARY UNIT TO BE REMOVED, SALVAGE EQUIPMENT AS SPECIFIED
TRR	TEMPORARY UNIT TO BE REMOVED AND RELOCATED
TUR	TEMPORARY UNIT ON UTILITY POLE TO BE REMOVED
UD	UNIT DUCT
U.N.O.	UNLESS NOTED OTHERWISE
WP	WOOD POLE
XFMR	TRANSFORMER

REVISIONS	
NAME	DATE

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

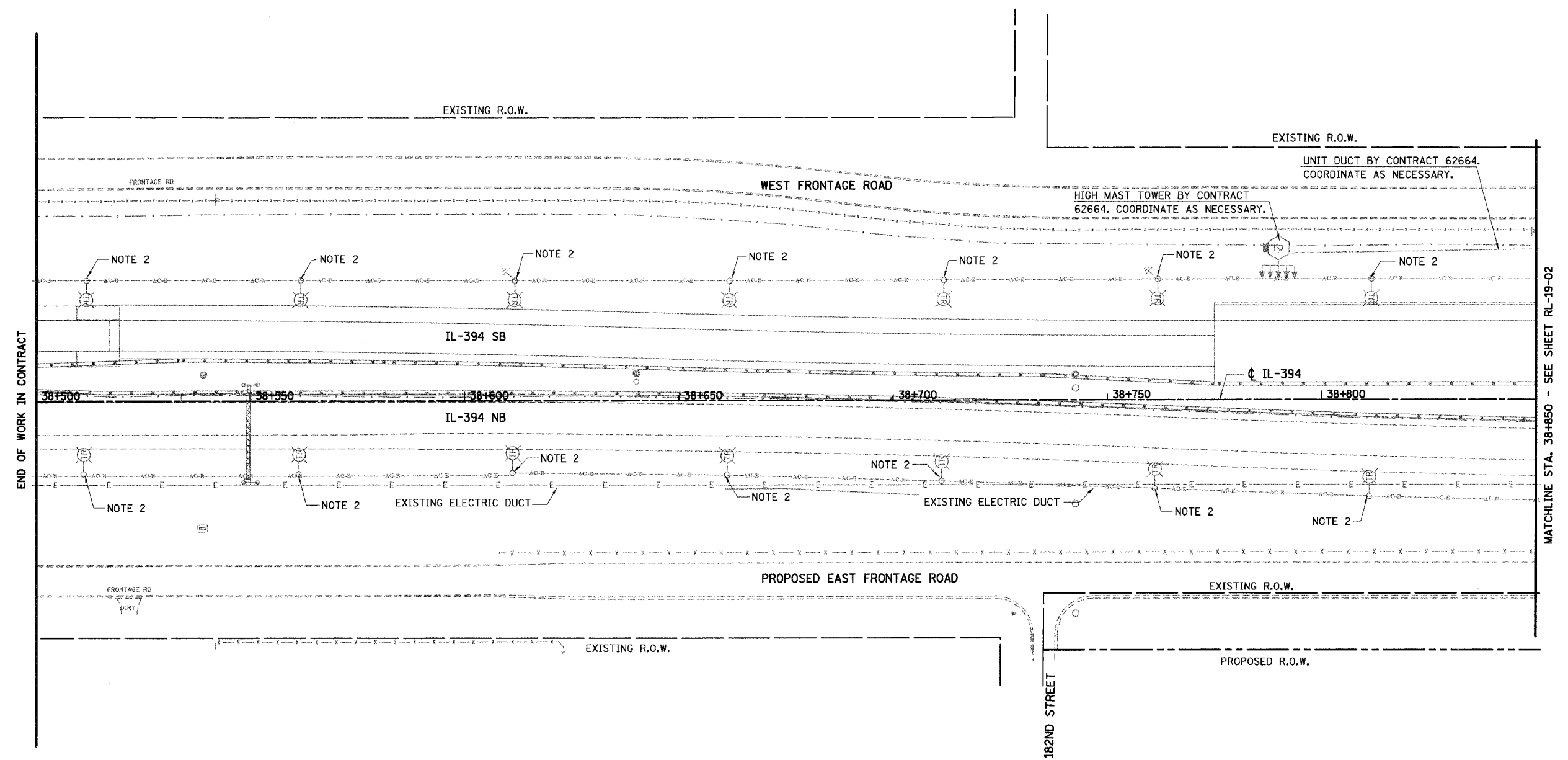
ELECTRICAL SYMBOL LIST AND ABBREVIATIONS

HORIZ SCALE: NONE
VERT SCALE: NONE
DATE: JULY 18, 2005

DRAWN BY:
CHECKED BY:



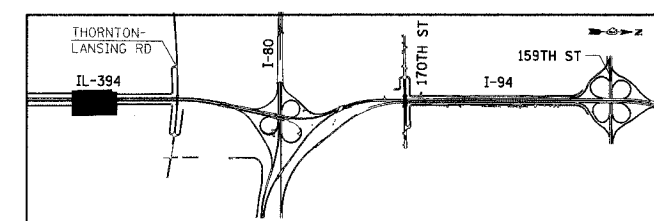
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	417
STA.		TO STA.		
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



END OF WORK IN CONTRACT

MATCHLINE STA. 38+850 - SEE SHEET RL-19-02

- NOTES:**
1. NO WORK SHOWN ON THIS SHEET.
 2. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.



REVISIONS	
NAME	DATE

RL19-01

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

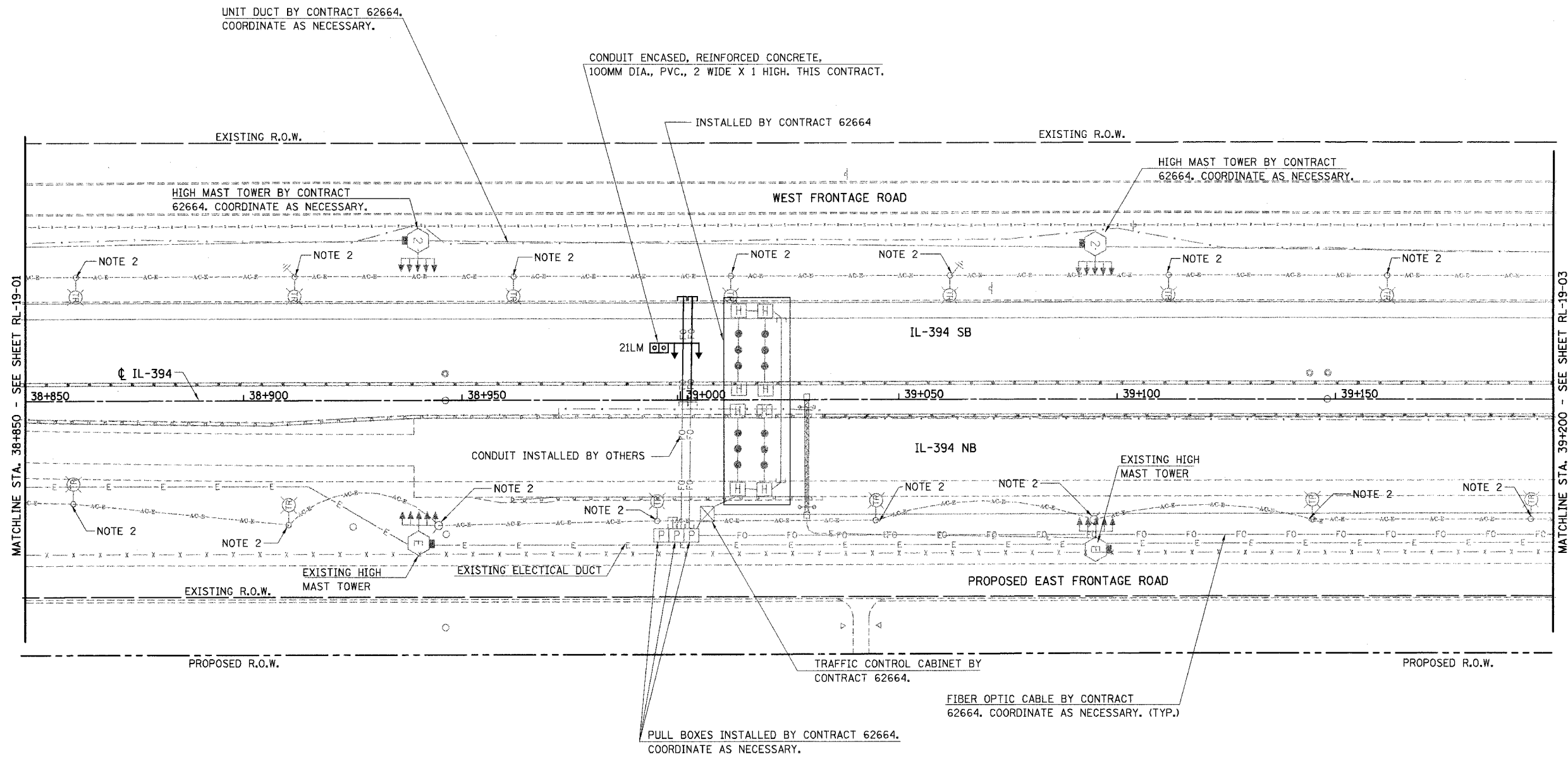
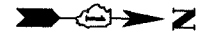
ROADWAY CONDUIT PLAN
STA. 38+500 TO STA. 38+850

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

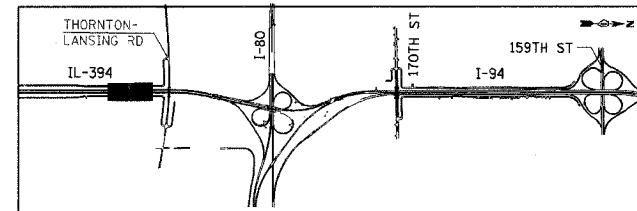
DRAWN BY: SPR
CHECKED BY: BB

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	418
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- NOTES:**
1. NO WORK SHOWN ON THIS SHEET.
 2. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
 3. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40.(TYP.)



REVISIONS	
NAME	DATE

RL19-02

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

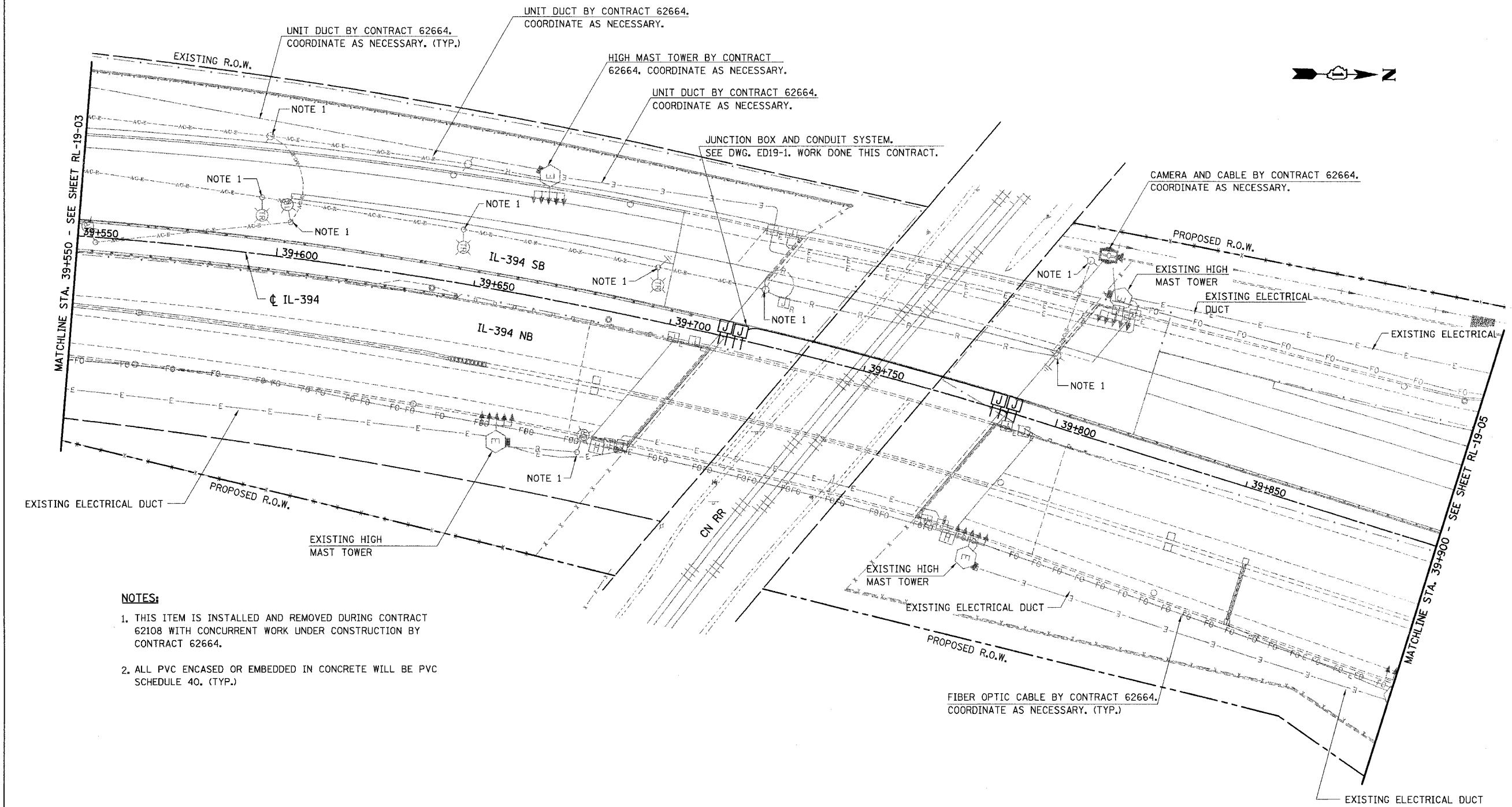
ROADWAY CONDUIT PLAN
STA. 38+850 TO STA. 39+200

HORIZ SCALE: 1:500
VERT SCALE: 1:50
DATE: JULY 18, 2005

DRAWN BY: SPR
CHECKED BY: BB

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	420
STA.		TO STA.		
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
2. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)

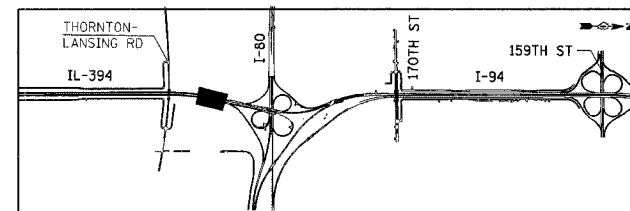
RL19-04

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

**ROADWAY CONDUIT PLAN
STA. 39+550 TO STA. 39+900**

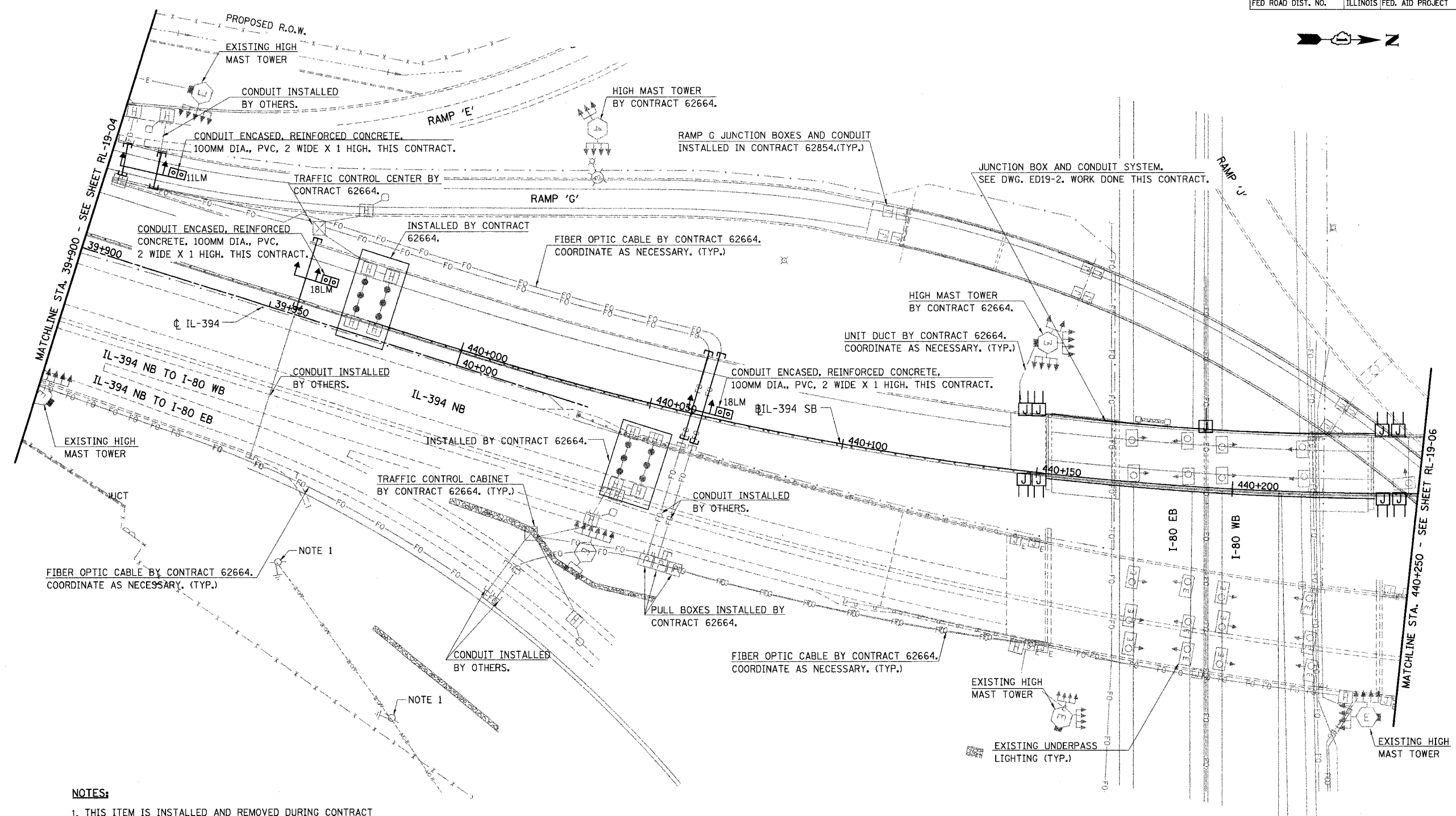
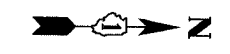
HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

DRAWN BY: SPR
CHECKED BY: BB



REVISIONS	
NAME	DATE

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	421
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



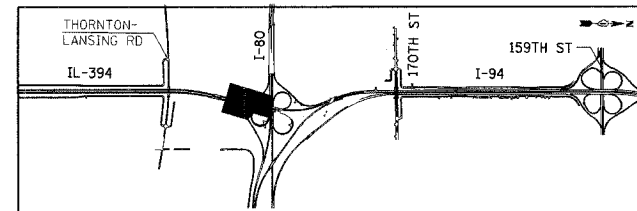
FIBER OPTIC CABLE BY CONTRACT 62664. COORDINATE AS NECESSARY. (TYP.)

NOTE 1

NOTE 1

NOTES:

1. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
2. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)
3. ALL HANDHOLES INSTALLED BY CONTRACT 62664.



REVISIONS	
NAME	DATE

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

**ROADWAY CONDUIT PLAN
STA. 39+900 TO STA. 440+250**

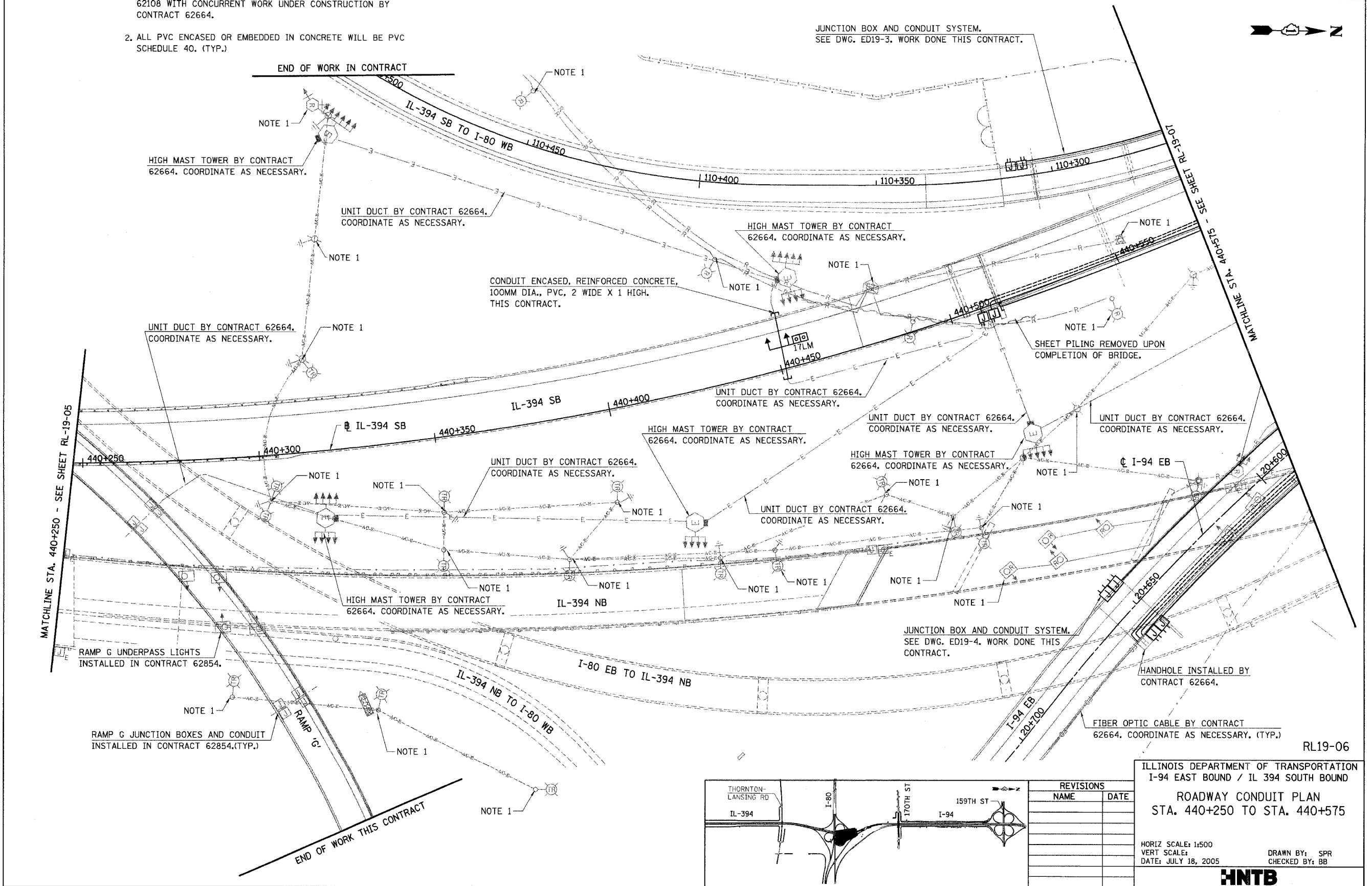
HORIZ SCALE: 1:500
VERT SCALE: 1:500
DATE: JULY 18, 2005
DRAWN BY: SPR
CHECKED BY: BB



F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	422
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NOTES:

1. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
2. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)



JUNCTION BOX AND CONDUIT SYSTEM.
SEE DWG. ED19-3. WORK DONE THIS CONTRACT.

HIGH MAST TOWER BY CONTRACT 62664. COORDINATE AS NECESSARY.

UNIT DUCT BY CONTRACT 62664. COORDINATE AS NECESSARY.

CONDUIT ENCASED, REINFORCED CONCRETE, 100MM DIA., PVC, 2 WIDE X 1 HIGH. THIS CONTRACT.

HIGH MAST TOWER BY CONTRACT 62664. COORDINATE AS NECESSARY.

UNIT DUCT BY CONTRACT 62664. COORDINATE AS NECESSARY.

UNIT DUCT BY CONTRACT 62664. COORDINATE AS NECESSARY.

UNIT DUCT BY CONTRACT 62664. COORDINATE AS NECESSARY.

UNIT DUCT BY CONTRACT 62664. COORDINATE AS NECESSARY.

HIGH MAST TOWER BY CONTRACT 62664. COORDINATE AS NECESSARY.

HIGH MAST TOWER BY CONTRACT 62664. COORDINATE AS NECESSARY.

UNIT DUCT BY CONTRACT 62664. COORDINATE AS NECESSARY.

UNIT DUCT BY CONTRACT 62664. COORDINATE AS NECESSARY.

HIGH MAST TOWER BY CONTRACT 62664. COORDINATE AS NECESSARY.

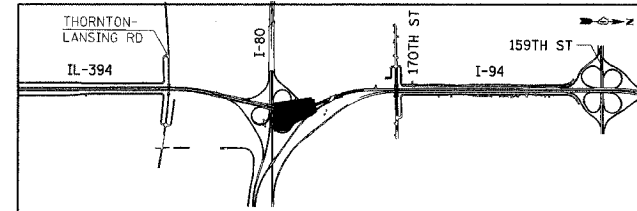
JUNCTION BOX AND CONDUIT SYSTEM.
SEE DWG. ED19-4. WORK DONE THIS CONTRACT.

RAMP G UNDERPASS LIGHTS
INSTALLED IN CONTRACT 62854.

RAMP G JUNCTION BOXES AND CONDUIT
INSTALLED IN CONTRACT 62854.(TYP.)

HANDHOLE INSTALLED BY
CONTRACT 62664.

FIBER OPTIC CABLE BY CONTRACT 62664. COORDINATE AS NECESSARY. (TYP.)



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
ROADWAY CONDUIT PLAN
STA. 440+250 TO STA. 440+575

HORIZ SCALE: 1:500
VERT SCALE: 1:500
DATE: JULY 18, 2005
DRAWN BY: SPR
CHECKED BY: BB

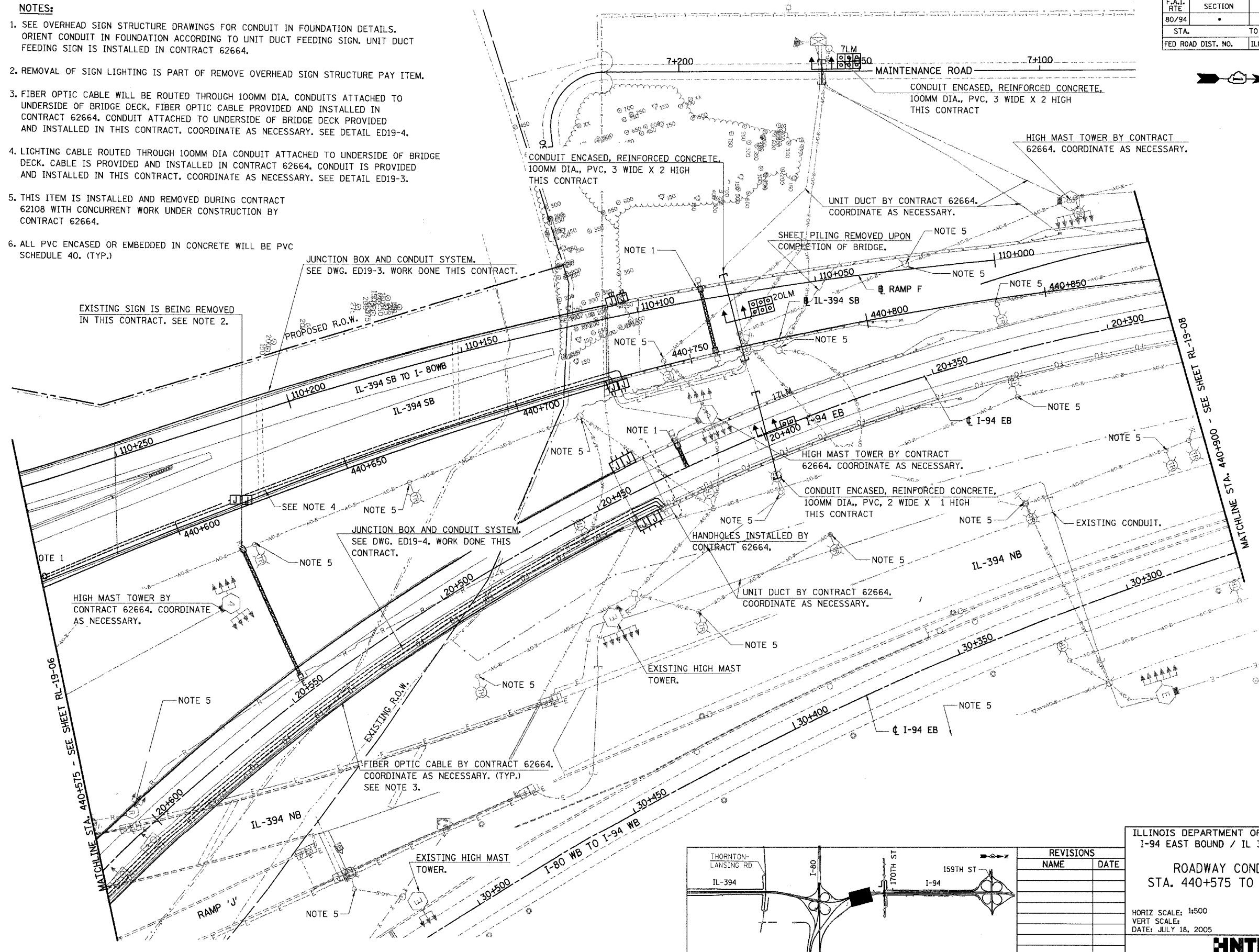
HNTB

RL19-06

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	423
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NOTES:

- SEE OVERHEAD SIGN STRUCTURE DRAWINGS FOR CONDUIT IN FOUNDATION DETAILS. ORIENT CONDUIT IN FOUNDATION ACCORDING TO UNIT DUCT FEEDING SIGN. UNIT DUCT FEEDING SIGN IS INSTALLED IN CONTRACT 62664.
- REMOVAL OF SIGN LIGHTING IS PART OF REMOVE OVERHEAD SIGN STRUCTURE PAY ITEM.
- FIBER OPTIC CABLE WILL BE ROUTED THROUGH 100MM DIA. CONDUITS ATTACHED TO UNDERSIDE OF BRIDGE DECK. FIBER OPTIC CABLE PROVIDED AND INSTALLED IN CONTRACT 62664. CONDUIT ATTACHED TO UNDERSIDE OF BRIDGE DECK PROVIDED AND INSTALLED IN THIS CONTRACT. COORDINATE AS NECESSARY. SEE DETAIL ED19-4.
- LIGHTING CABLE ROUTED THROUGH 100MM DIA CONDUIT ATTACHED TO UNDERSIDE OF BRIDGE DECK. CABLE IS PROVIDED AND INSTALLED IN CONTRACT 62664. CONDUIT IS PROVIDED AND INSTALLED IN THIS CONTRACT. COORDINATE AS NECESSARY. SEE DETAIL ED19-3.
- THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
- ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)

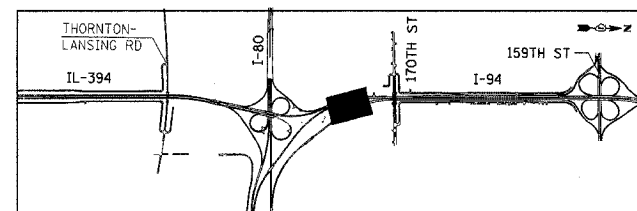


RL19-07

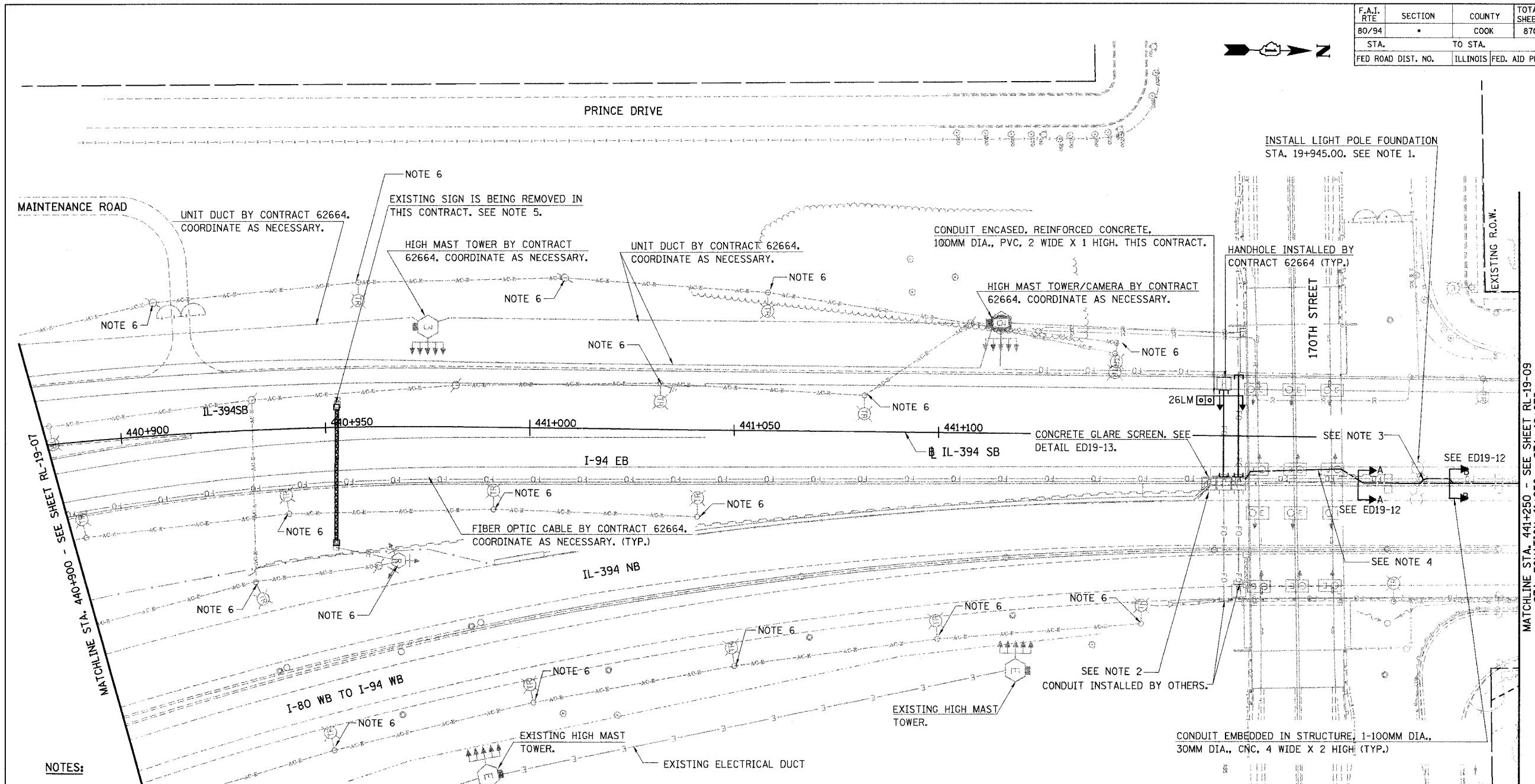
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

ROADWAY CONDUIT PLAN
STA. 440+575 TO STA. 440+900

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005
DRAWN BY: SPR
CHECKED BY: BB

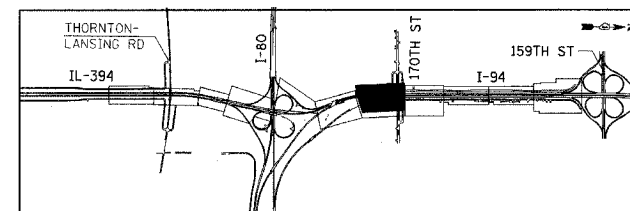


F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	870	424
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

- INSTALL FOUNDATION, CONDUITS, AND ANCHOR BOLTS FOR LIGHT POLE. CONTRACTOR TO COORDINATE THROUGH IDOT WITH CONTRACT 62664 TO OBTAIN ANCHOR BOLTS & ASSURE PROPER INSTALLATION. LIGHT POLE IS INSTALLED IN CONTRACT 62664. CONDUITS INSTALLED IN FOUNDATION SHALL BE 100MM DIA. RGS CONDUIT. SEE ED19-8.
- INSTALL CONDUITS AND ALL NECESSARY STUB OUTS FOR JUNCTION BOXES LOCATED ON TOP OF MEDIAN BARRIER WALL. STUB OUTS ARE TO BE CONNECTED TO THE LATERAL CONDUITS WITH A COUPLING. THE LATERAL CONDUITS ARE EITHER EXISTING OR INSTALLED UNDER THIS CONTRACT. THE JUNCTION BOXES ARE INSTALLED UNDER CONTRACT 62664. COORDINATE AS NECESSARY. SEE DETAIL ED19-9.
- ROUTE 30MM DIA. CNC DUCT BANK AROUND LIGHT POLE FOUNDATION. THIS WILL BE PAID FOR AS "CONDUIT ENCASED, REINFORCED CONCRETE, 30MM DIA., CNC, 4 WIDE X 2 HIGH. LIGHTING CONDUIT IS ATTACHED TO CONDUIT IN LIGHT POLE FOUNDATION. SEE CONDUIT ROUTING DETAIL ED19-11.
- ROUTE 30MM DIA. PVC DUCT BANK AROUND BRIDGE PIER UNDER SHOULDER. PAID AS "CONDUIT ENCASED, REINFORCED CONCRETE, 30MM DIA., CNC, 4 WIDE X 2 HIGH". SEE DWG. ED19-11.
- REMOVAL OF SIGN LIGHTING IS PART OF REMOVE OVERHEAD SIGN STRUCTURE PAY ITEM.
- THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
- ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)



REVISIONS	
NAME	DATE

RL19-08

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

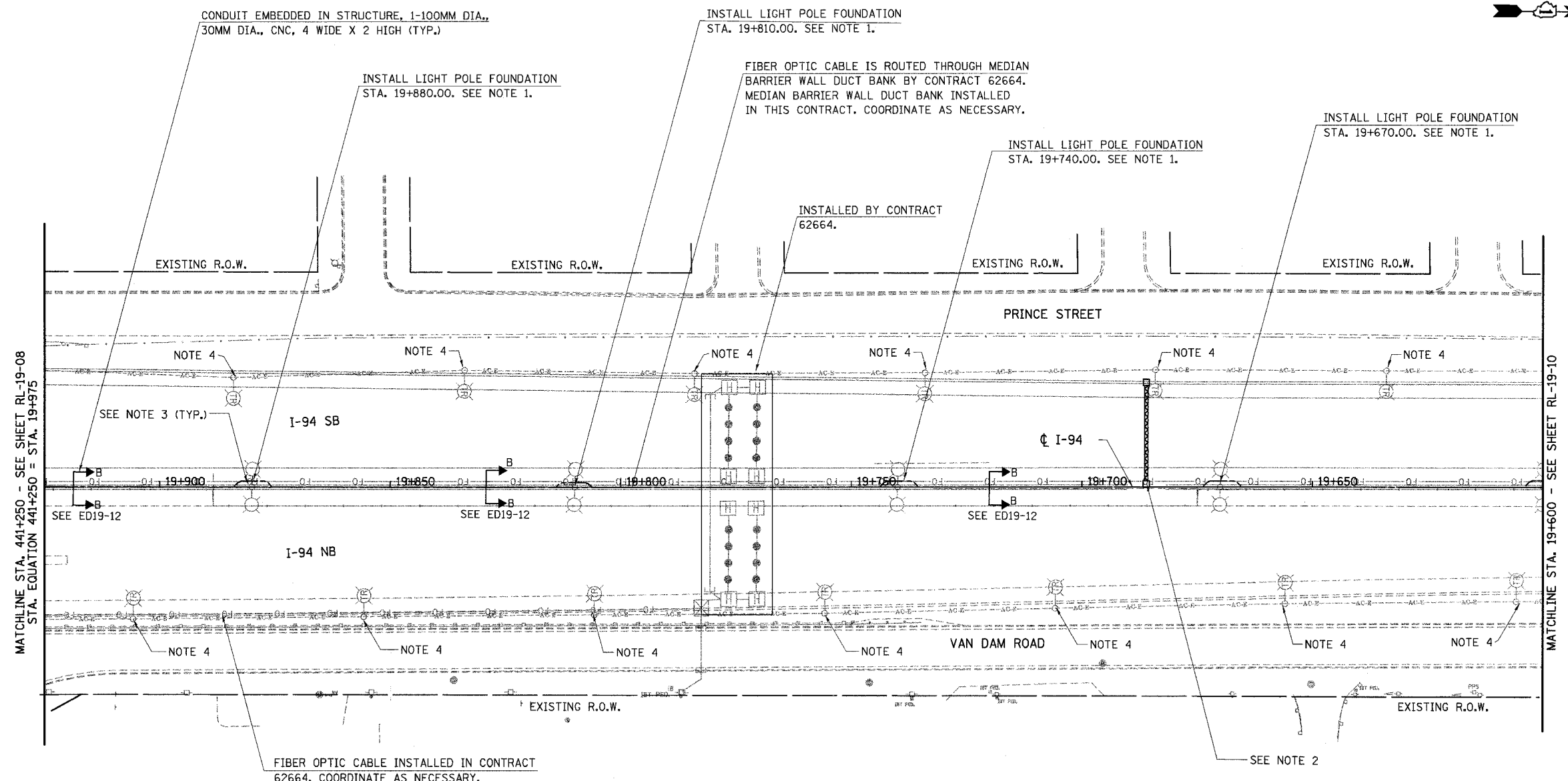
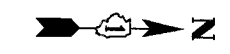
ROADWAY CONDUIT PLAN
STA. 40+900 TO STA. 41+250
STA. EQUATION 41+250 = 19+975

HORIZ SCALE: 1:500
VERT SCALE: 1:500
DATE: JULY 18, 2005

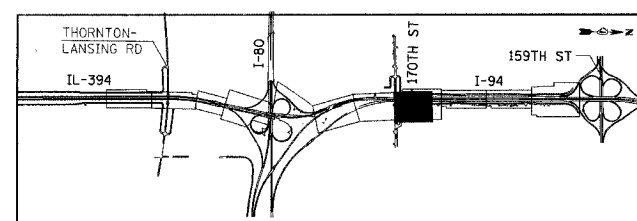
DRAWN BY: SPR
CHECKED BY: BB

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	425
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- NOTES:**
1. INSTALL FOUNDATION, CONDUITS, AND ANCHOR BOLTS FOR LIGHT POLE. CONTRACTOR TO COORDINATE THROUGH IDOT WITH CONTRACT 62664 TO OBTAIN ANCHOR BOLTS & ASSURE PROPER INSTALLATION. LIGHT POLE IS INSTALLED IN CONTRACT 62664. CONDUITS INSTALLED IN FOUNDATION SHALL BE 100MM DIA. RGS CONDUIT. SEE ED19-8.
 2. SEE OVERHEAD SIGN STRUCTURE DRAWINGS FOR CONDUIT IN FOUNDATION DETAILS. INSTALL 2-100MM DIA. RGC CONDUITS IN FOUNDATION LOCATED IN MEDIAN. CONNECT CONDUIT IN SIGN FOUNDATION WITH LIGHTING DUCT IN MEDIAN BARRIER WALL DUCT BANK. ELECTRIC CABLE FEEDING SIGN AND LUMINAIRES FOR SIGN ARE INSTALLED BY CONTRACT 62664.
 3. ROUTE 30MM DIA. CNC DUCT BANK AROUND LIGHT POLE FOUNDATION. THIS WILL BE PAID FOR AS "CONDUIT ENCASED, REINFORCED CONCRETE, 30MM DIA. CNC., 4 WIDE X 2 HIGH". LIGHTING CONDUIT IS ATTACHED TO CONDUIT IN LIGHT POLE FOUNDATION. SEE CONDUIT ROUTING DETAIL ED19-11.
 4. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
 5. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)



REVISIONS	
NAME	DATE

RL19-09

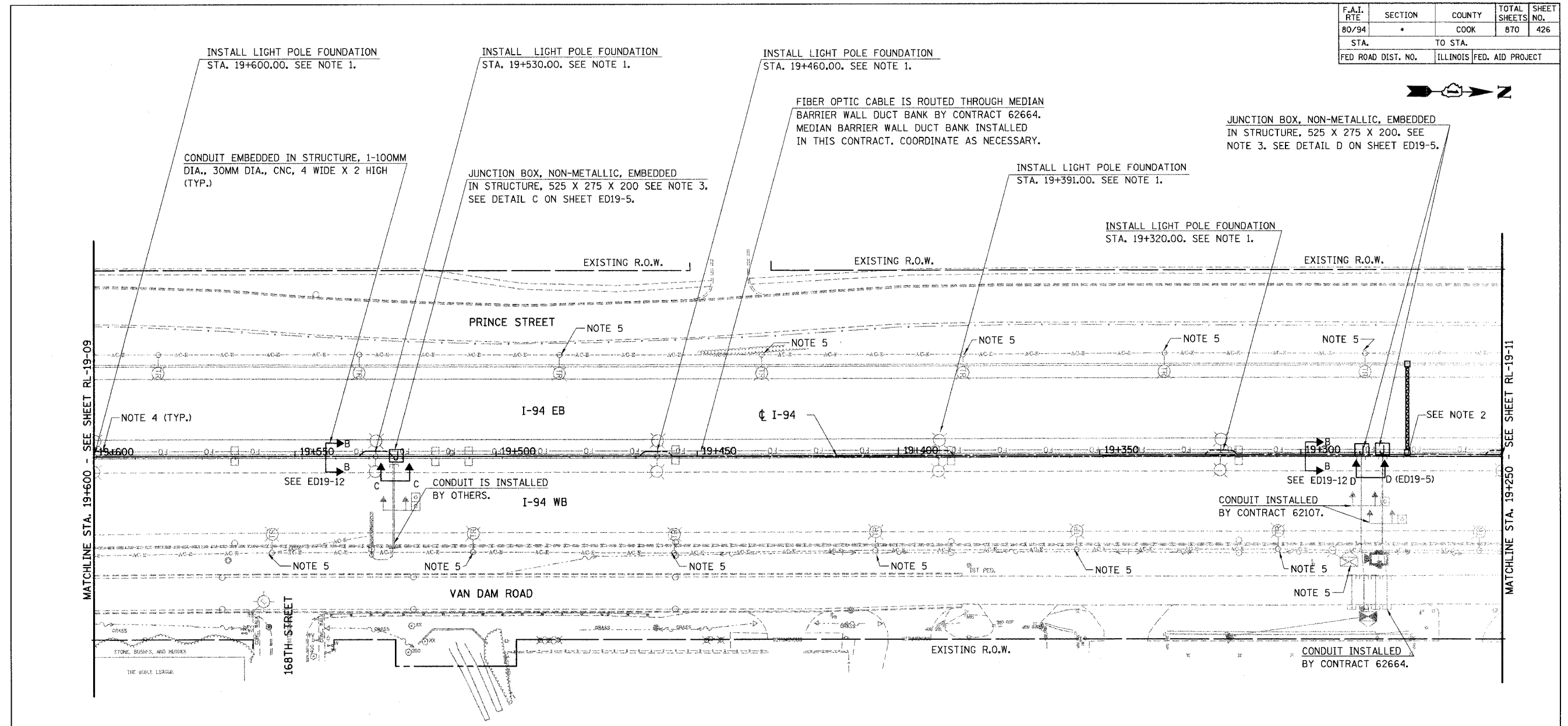
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

ROADWAY CONDUIT PLAN
STA. 19+600 TO STA. 19+975
STA. EQUATION 19+975 = 441+250

HORIZ SCALE: 1:500
VERT SCALE: DRAWN BY: SPR
DATE: JULY 18, 2005 CHECKED BY: BB

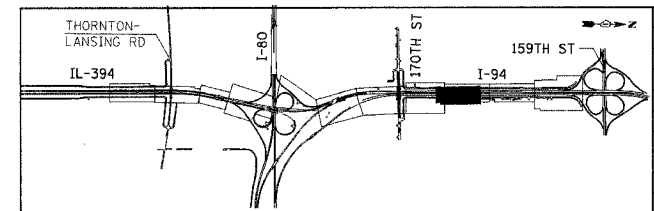
HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	426
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. INSTALL FOUNDATION, CONDUITS, AND ANCHOR BOLTS FOR LIGHT POLE. CONTRACTOR TO COORDINATE THROUGH IDOT WITH CONTRACT 62664 TO OBTAIN ANCHOR BOLTS & ASSURE PROPER INSTALLATION. LIGHT POLE IS INSTALLED IN CONTRACT 62664. CONDUITS INSTALLED IN FOUNDATION SHALL BE 100MM DIA. RGS CONDUIT. SEE ED19-8.
2. SEE OVERHEAD SIGN STRUCTURE DRAWINGS FOR CONDUIT IN FOUNDATION DETAILS. INSTALL 2-100MM DIA. RGS CONDUITS IN FOUNDATION LOCATED IN MEDIAN. CONNECT CONDUIT IN SIGN FOUNDATION WITH LIGHTING DUCT IN MEDIAN BARRIER WALL DUCT BANK. ELECTRIC CABLE FEEDING SIGN AND LUMINAIRES IS INSTALLED IN CONTRACT 62664.
3. JUNCTION BOX IS TO BE PROVIDED UNDER THIS CONTRACT. ELECTRIC CABLE FEEDING SIGN AND LUMINAIRES FOR SIGN IS FURNISHED AND INSTALLED UNDER CONTRACT 62664. SEE DETAIL C ON ED19-5.
4. ROUTE 30MM DIA. CNC DUCT BANK AROUND LIGHT POLE FOUNDATION. THIS WILL BE PAID FOR AS "CONDUIT ENCASED, REINFORCED CONCRETE, 30MM DIA., CNC, 4 WIDE X 2 HIGH". LIGHTING CONDUIT IS ATTACHED TO CONDUIT IN LIGHT POLE FOUNDATION. SEE CONDUIT ROUTING DETAIL ED19-11.
5. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
6. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)



REVISIONS	
NAME	DATE

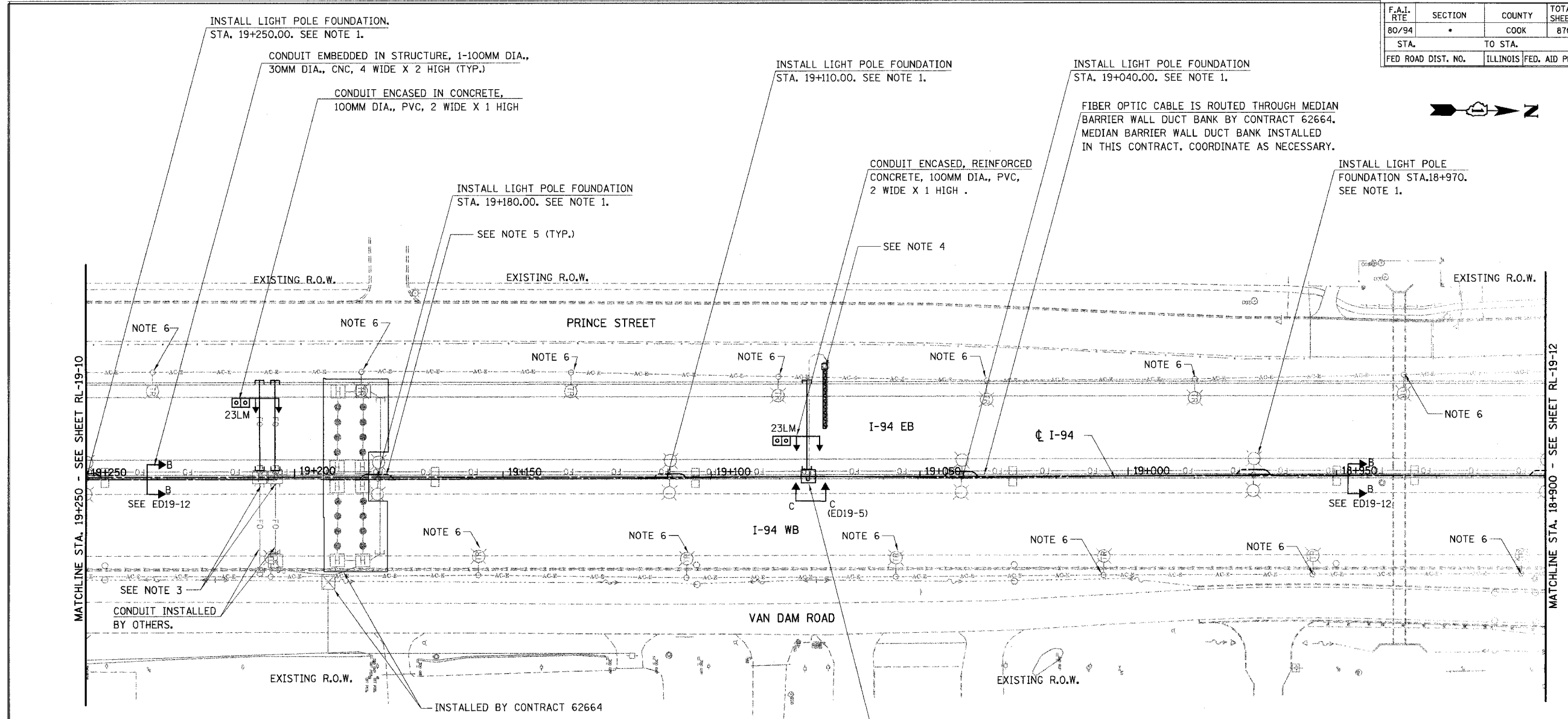
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

**ROADWAY CONDUIT PLAN
STA. 19+250 TO STA. 19+600**

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005
DRAWN BY: SPR
CHECKED BY: BB

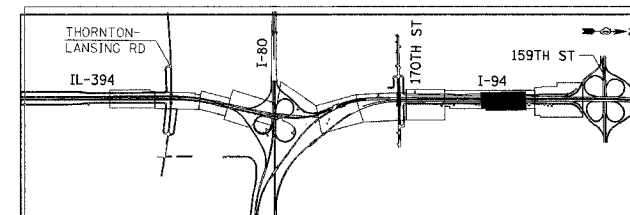


F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	870	427
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. INSTALL FOUNDATION, CONDUITS, AND ANCHOR BOLTS FOR LIGHT POLE. CONTRACTOR TO COORDINATE THROUGH IDOT WITH CONTRACT 62664 TO OBTAIN ANCHOR BOLTS & ASSURE PROPER INSTALLATION. LIGHT POLE IS INSTALLED IN CONTRACT 62664. CONDUITS INSTALLED IN FOUNDATION SHALL BE 100MM DIA. RGS CONDUIT. SEE ED19-8.
2. JUNCTION BOX IS TO BE PROVIDED UNDER THIS CONTRACT. ELECTRIC CABLE FEEDING SIGN AND LUMINAIRES FOR SIGN IS FURNISHED AND INSTALLED UNDER CONTRACT 62664. SEE DETAIL D ON ED19-5.
3. INSTALL CONDUITS AND ALL NECESSARY STUB OUTS FOR JUNCTION BOXES LOCATED ON TOP OF MEDIAN BARRIER WALL. STUB OUTS ARE TO BE CONNECTED TO THE LATERAL CONDUITS WITH A COUPLING. THE LATERAL CONDUITS ARE EITHER EXISTING OR INSTALLED UNDER THIS CONTRACT. THE JUNCTION BOXES ARE INSTALLED UNDER CONTRACT 62664. COORDINATE AS NECESSARY. SEE DETAILS ON SHEET ED19-9.
4. SEE OVERHEAD SIGN STRUCTURE DRAWINGS FOR CONDUIT IN FOUNDATION DETAILS. ORIENT CONDUIT IN FOUNDATION SO THAT STUB OUT IS POINTING SOUTH. ELECTRIC CABLE FEEDING SIGN IS INSTALLED UNDER CONTRACT 62664.
5. ROUTE 30MM DIA. CNC DUCT BANK AROUND LIGHT POLE FOUNDATION. THIS WILL BE PAID FOR AS "CONDUIT ENCASED, REINFORCED CONCRETE, 30MM DIA, CNC, 4 WIDE X 2 HIGH". LIGHTING CONDUIT IS ATTACHED TO CONDUIT IN LIGHT POLE FOUNDATION. SEE CONDUIT ROUTING DETAIL ED19-11.
6. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
7. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)



REVISIONS	
NAME	DATE

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

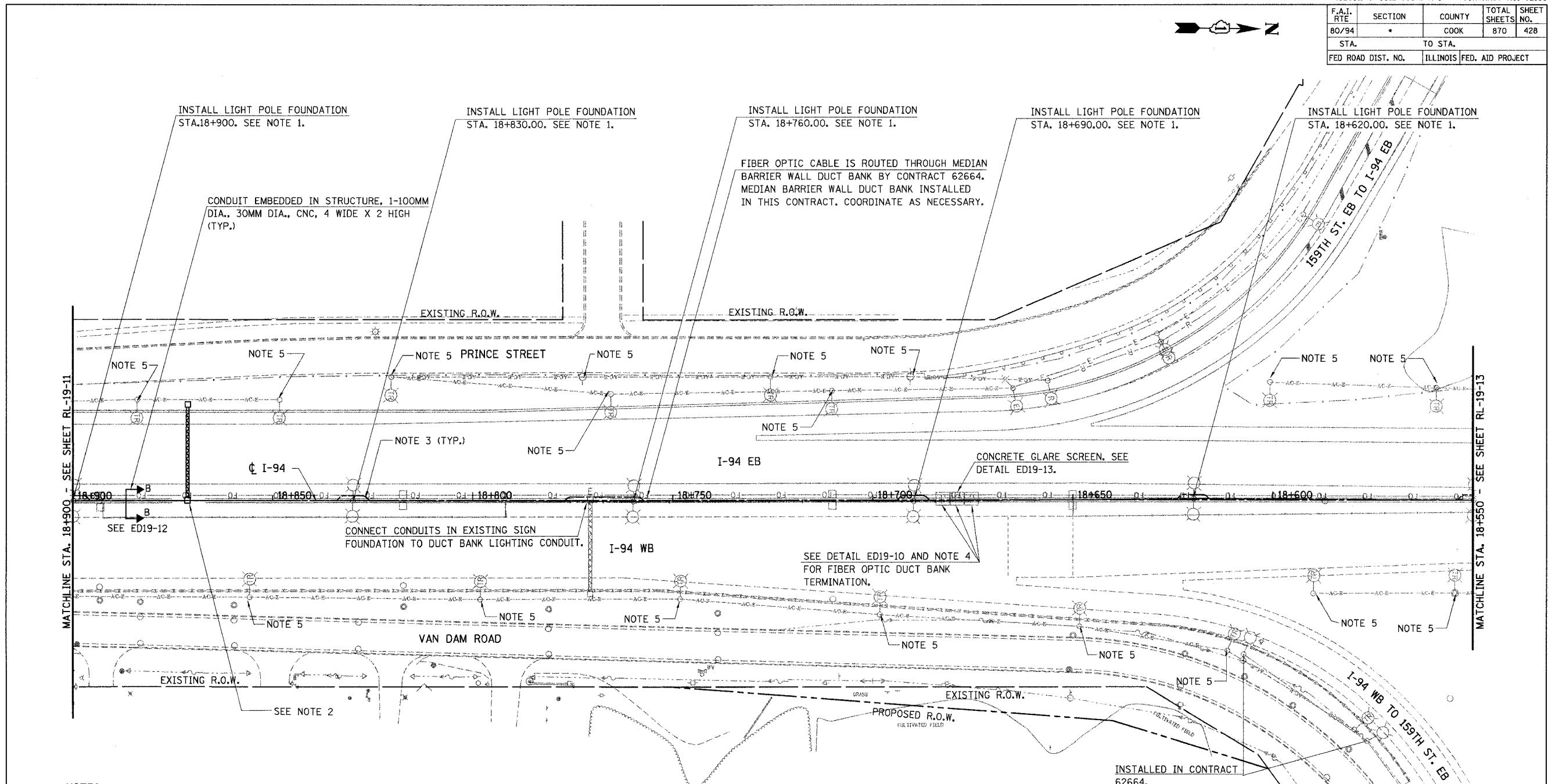
ROADWAY CONDUIT PLAN
STA. 18+900 TO STA. 19+250

HORIZ SCALE: 1:500
VERT SCALE: 1:500
DATE: JULY 18, 2005

DRAWN BY: SPR
CHECKED BY: BB

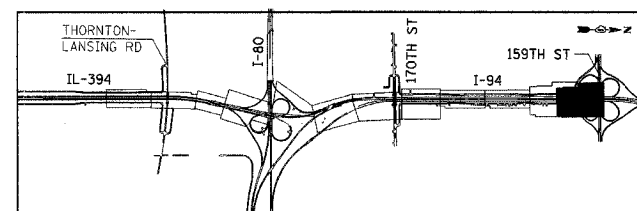


F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	428
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. INSTALL FOUNDATION, CONDUITS, AND ANCHOR BOLTS FOR LIGHT POLE. CONTRACTOR TO COORDINATE THROUGH IDOT WITH CONTRACT 62664 TO OBTAIN ANCHOR BOLTS & ASSURE PROPER INSTALLATION. LIGHT POLE IS INSTALLED IN CONTRACT 62664. CONDUITS INSTALLED IN FOUNDATION SHALL BE 100MM DIA. RGS CONDUIT. SEE ED19-8.
2. SEE OVERHEAD SIGN STRUCTURE DRAWINGS FOR CONDUIT IN FOUNDATION DETAILS. INSTALL 2-100MM DIA. RGC CONDUITS IN FOUNDATION LOCATED IN MEDIAN. ORIENT STUB OUTS NORTH AND SOUTH SO THEY ARE PARALLEL WITH THE MEDIAN. ELECTRIC CABLE FEEDING SIGN AND LUMINAIRES FOR SIGN ARE INSTALLED IN CONTRACT 62664.
3. ROUTE 30MM DIA. CNC DUCT BANK AROUND LIGHT POLE FOUNDATION. THIS WILL BE PAID FOR AS "CONDUIT ENCASED, REINFORCED CONCRETE, 30MM DIA. CNC, 4 WIDE X 2 HIGH". LIGHTING CONDUIT IS ATTACHED TO CONDUIT IN LIGHT POLE FOUNDATION. SEE CONDUIT ROUTING DETAIL ED19-11.
4. INSTALL CONDUITS AND ALL NECESSARY STUB OUTS FOR JUNCTION BOXES LOCATED ON TOP OF MEDIAN BARRIER WALL. THERE ARE NO LATERAL CONDUITS BEING INSTALLED UNDER ROADWAY AT THIS LOCATION. THE 100MM CNC AS SHOWN IN DETAIL ED19-9 DOES NOT NEED TO BE INSTALLED. THE JUNCTION BOXES ARE INSTALLED UNDER CONTRACT 62664. COORDINATE AS NECESSARY.
5. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
6. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)



REVISIONS	
NAME	DATE

RL19-12

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

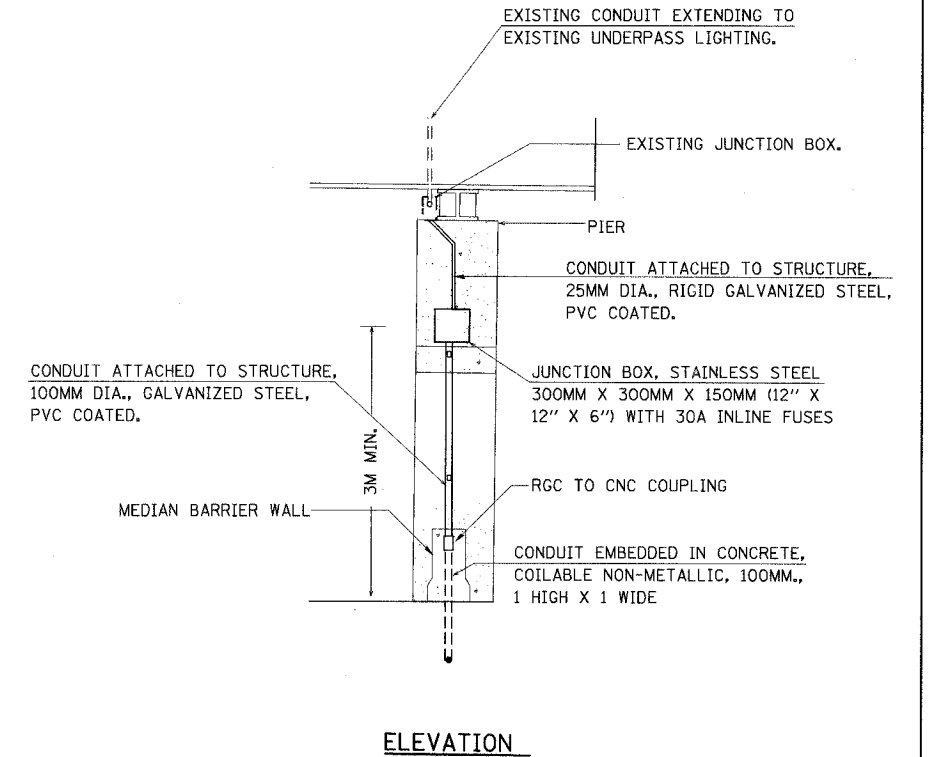
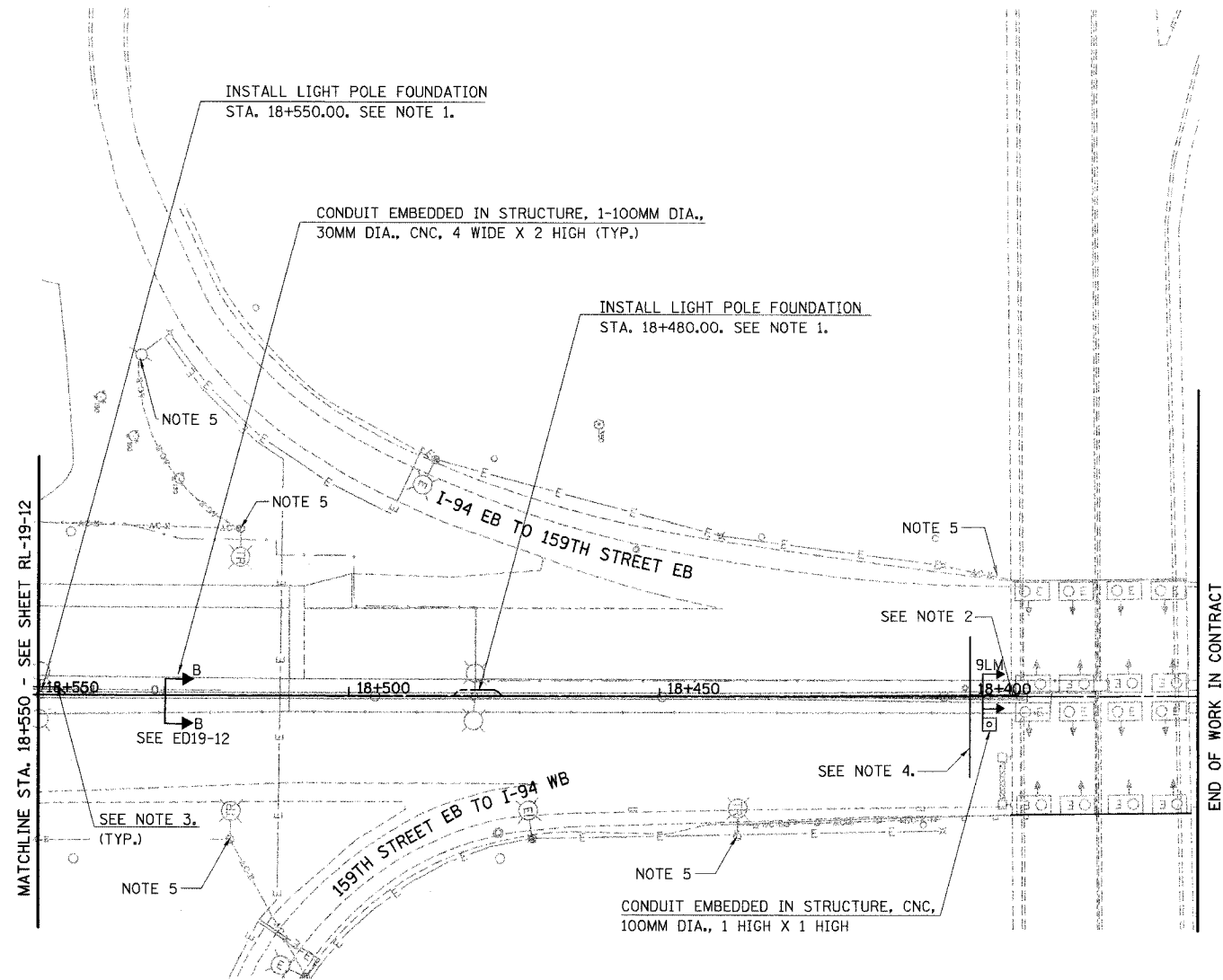
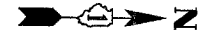
ROADWAY CONDUIT PLAN
STA. 18+550 TO STA. 18+900

HORIZ SCALE: 1:500
VERT SCALE: 1:500
DATE: JULY 18, 2005

DRAWN BY: SPR
CHECKED BY: BB

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	429
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. INSTALL FOUNDATION, CONDUITS, AND ANCHOR BOLTS FOR LIGHT POLE. CONTRACTOR TO COORDINATE THROUGH IDOT WITH CONTRACT 62664 TO OBTAIN ANCHOR BOLTS & ASSURE PROPER INSTALLATION. LIGHT POLE IS INSTALLED IN CONTRACT 62664. CONDUITS INSTALLED IN FOUNDATION SHALL BE 100MM DIA. RGS CONDUIT. SEE ED19-8.
2. EXTEND 100MM DIA. CNC IN MEDIAN TO BRIDGE PIER. SEE DETAIL ON THIS SHEET.
3. ROUTE 30MM DIA. CNC DUCT BANK AROUND LIGHT POLE FOUNDATION. THIS WILL BE PAID FOR AS "CONDUIT ENCASED, REINFORCED CONCRETE, 30MM DIA. CNC, 4 WIDE X 2 HIGH". LIGHTING CONDUIT IS ATTACHED TO CONDUIT IN LIGHT POLE FOUNDATION. SEE CONDUIT ROUTING DETAIL ED19-11.
4. SEE DETAIL ED19-10 FOR DUCT BANK TERMINATION DETAIL. STA. 18+400. DUCT BANK FROM THIS POINT ON WILL ONLY INCLUDE THE 100MM DIA. LIGHTING CONDUIT.
5. THIS ITEM IS INSTALLED AND REMOVED DURING CONTRACT 62108 WITH CONCURRENT WORK UNDER CONSTRUCTION BY CONTRACT 62664.
6. ALL PVC ENCASED OR EMBEDDED IN CONCRETE WILL BE PVC SCHEDULE 40. (TYP.)

RL19-13

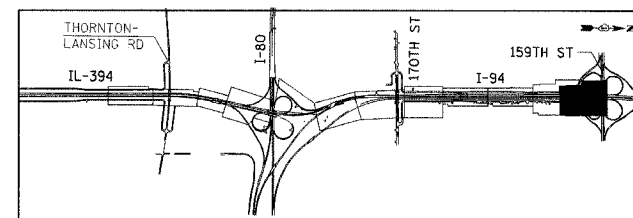
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

ROADWAY CONDUIT PLAN
STA. 18+400 TO STA. 18+550

HORIZ SCALE: 1:500
VERT SCALE:
DATE: JULY 18, 2005

DRAWN BY: SPR
CHECKED BY: BB

HNTB



REVISIONS	
NAME	DATE

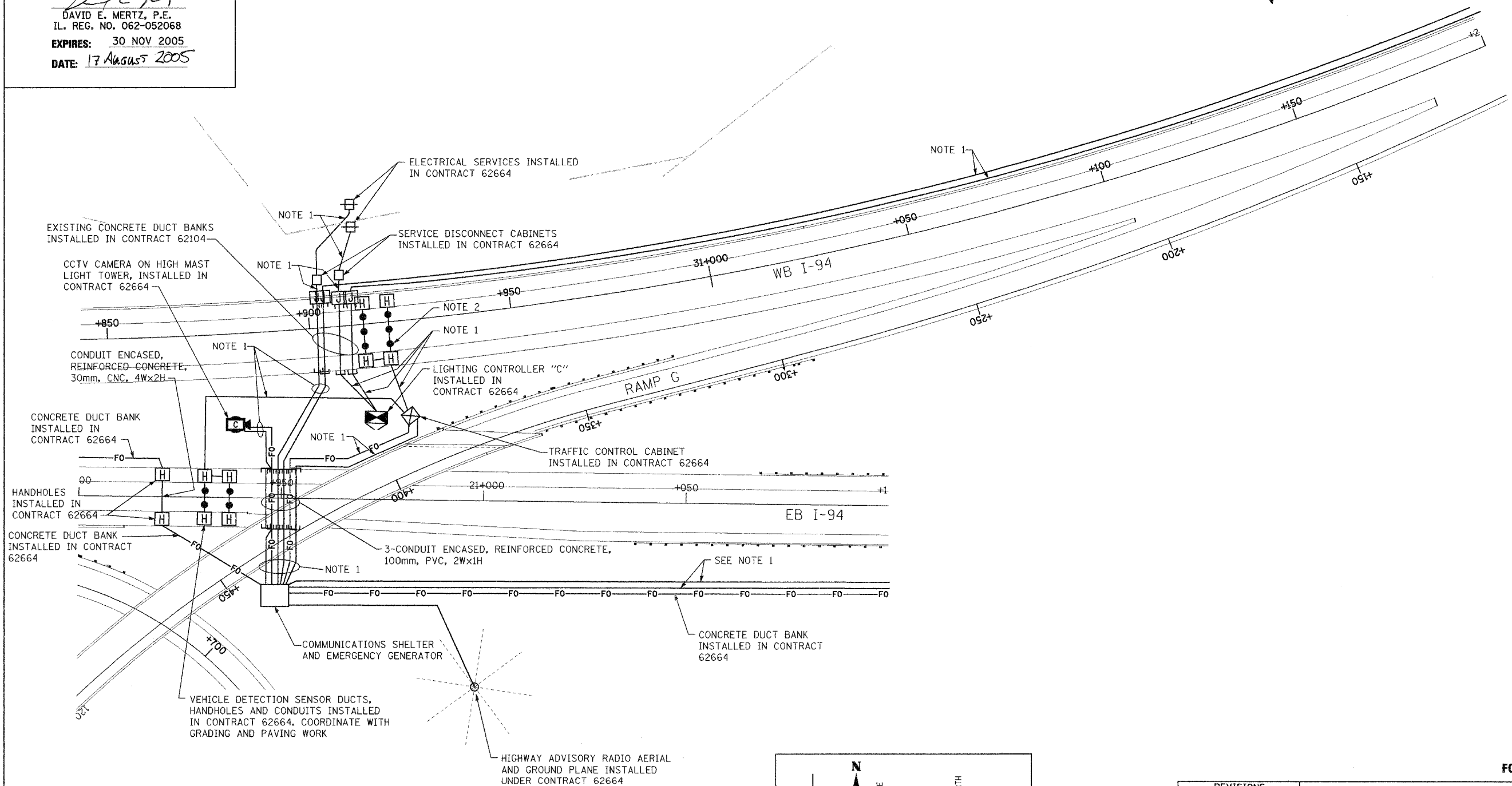
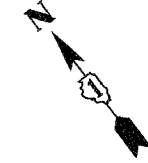
THIS SEAL APPLIES TO THIS SHEET ONLY



D. E. Mertz
 DAVID E. MERTZ, P.E.
 IL. REG. NO. 062-052068
 EXPIRES: 30 NOV 2005
 DATE: 17 August 2005

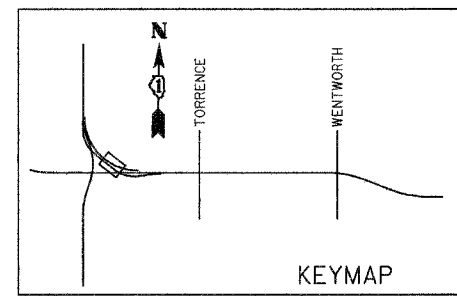
ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	(0203.1 & 0312-708W) R-3	COOK	870	429A
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT #62108		



NOTES

1. CONDUITS IN TRENCH INSTALLED IN CONTRACT 62664.
2. EXISTING VEHICLE DETECTION SENSOR DUCTS, HANDHOLES AND CONDUITS IN EXISTING PAVEMENT.



REVISIONS	
NAME	DATE

F019-01

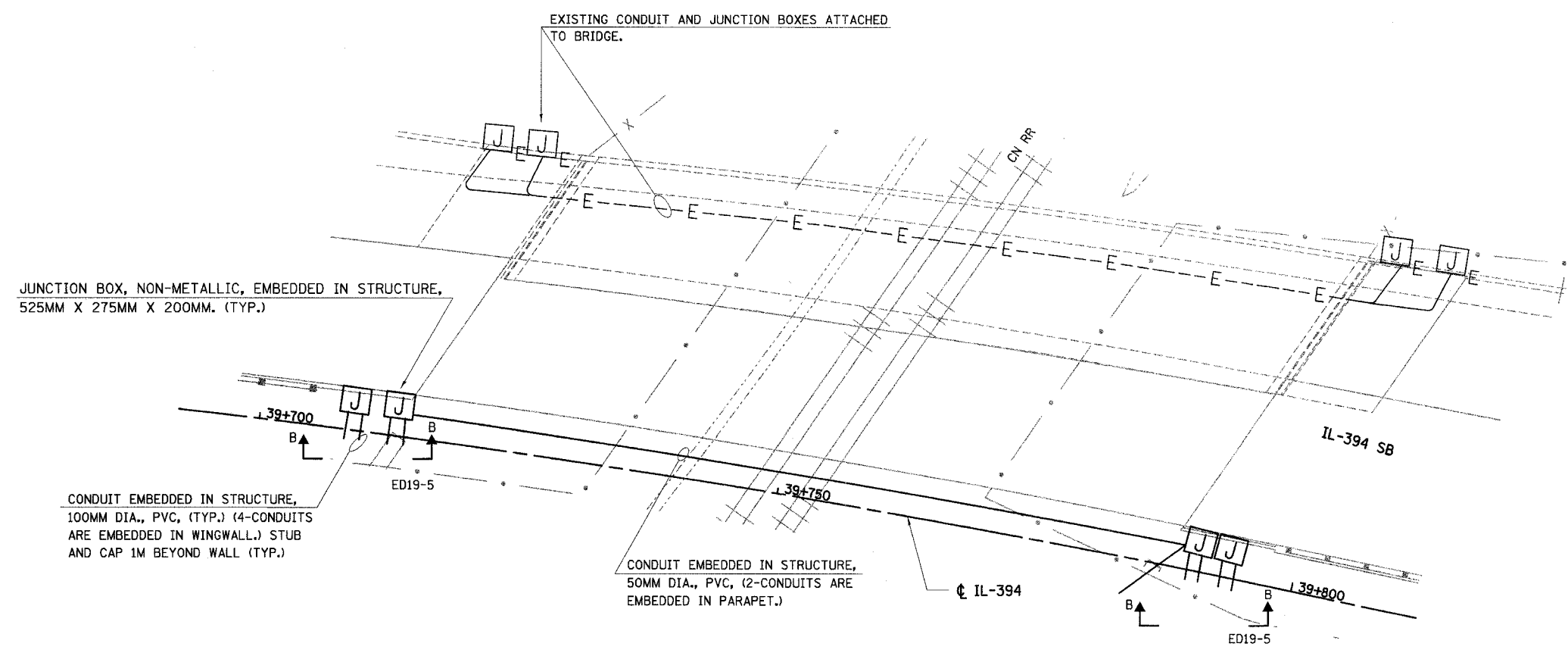
ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND/IL 394 SOUTH BOUND

PROPOSED ELECTRICAL PLAN
 EB I-94
 STA. 20+900 TO STA. 21+100

SCALE 1:500
 DATE 01-16-04

DRAWN BY JRH/MAP
 CHECKED BY DEM/CMW

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	430
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



BRIDGE PLAN

ED19-1

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

**CONDUIT IN BRIDGE DETAIL
IL-394 SB OVER RR**

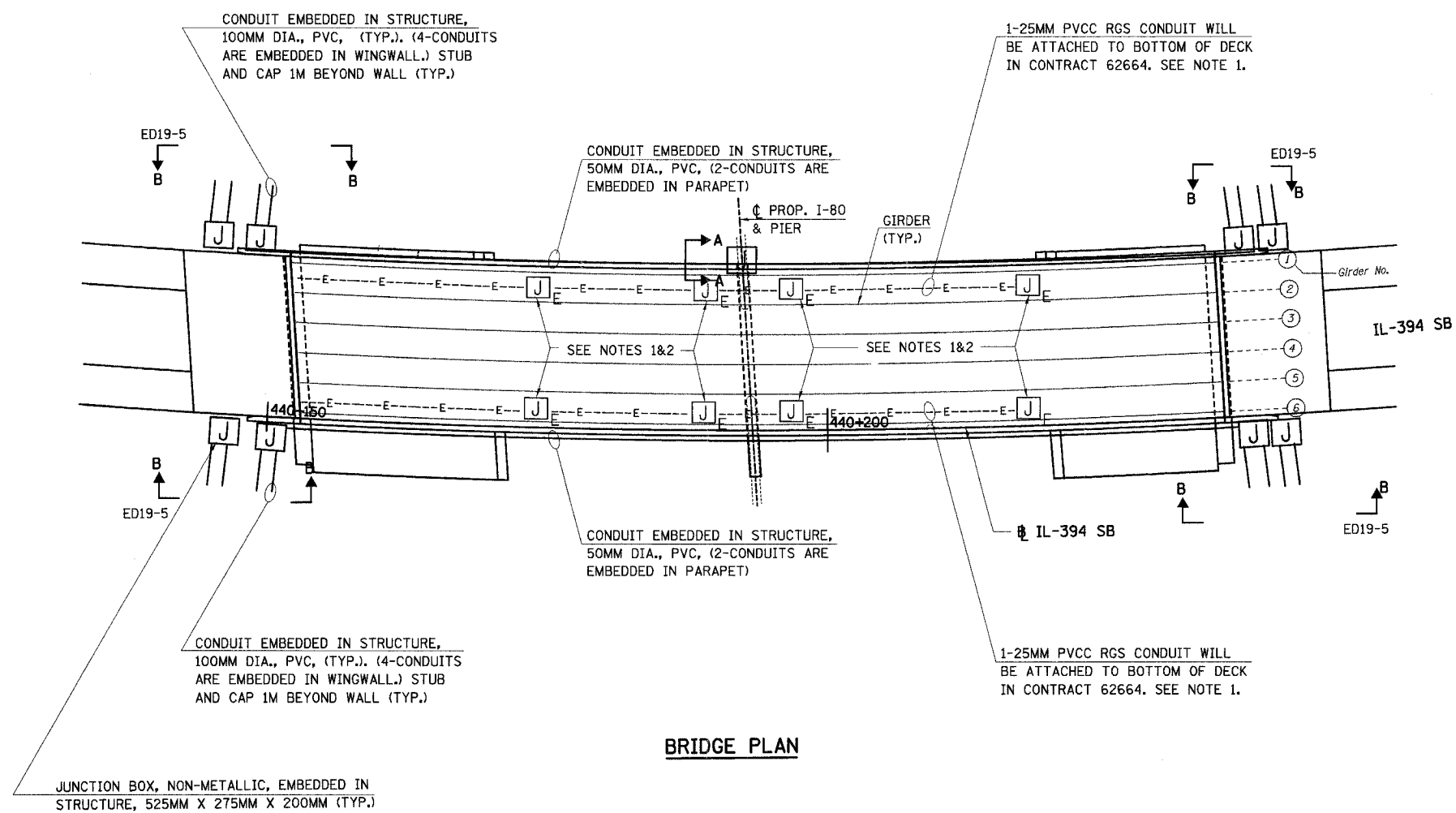
REVISIONS	
NAME	DATE

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

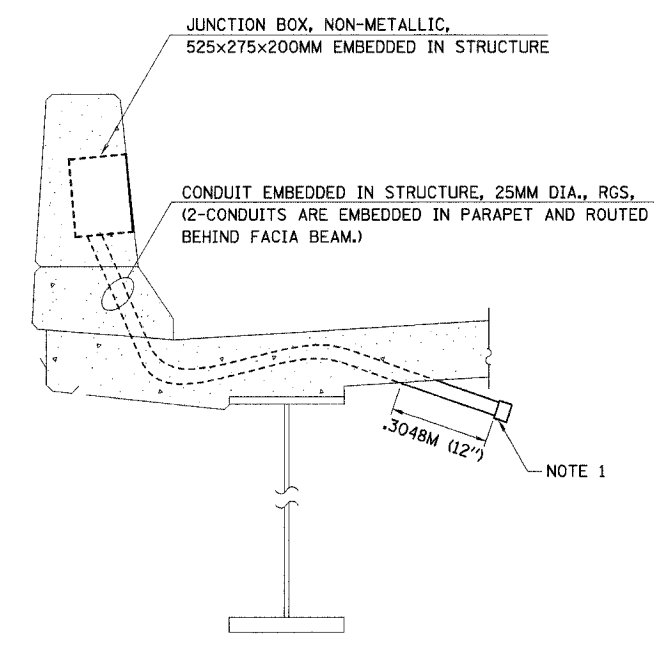
DRAWN BY: SPR
CHECKED BY: BB



F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	431
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



BRIDGE PLAN



SECTION A-A: CONDUIT LOCATION IN BRIDGE DECK
N.T.S.

NOTES:

1. THE CONTRACTORS OF 62664 SHALL PROVIDE THE LAYOUT, INSTALLATION DRAWINGS, AND MATERIALS FOR ALL HANGER ASSEMBLY COMPONENTS THAT ARE TO BE EMBEDDED IN CONCRETE. INSTALLATION OF CONCRETE INSERTS IS INCLUDED FOR PAYMENT IN CONCRETE SUPERSTRUCTURE PAY ITEM IN BRIDGE PLANS. ALL CONDUIT, JUNCTION BOXES, AND UNDERPASS LIGHTS ATTACHED TO OUTSIDE OF STRUCTURE ARE FURNISHED AND INSTALLED UNDER CONTRACT 62664.
2. 150MM X 150MM X 100MM JUNCTION BOX ATTACHED TO STRUCTURE IS INSTALLED IN CONTRACT 62664. SEE NOTE 1.

REVISIONS	
NAME	DATE

ED19-2

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

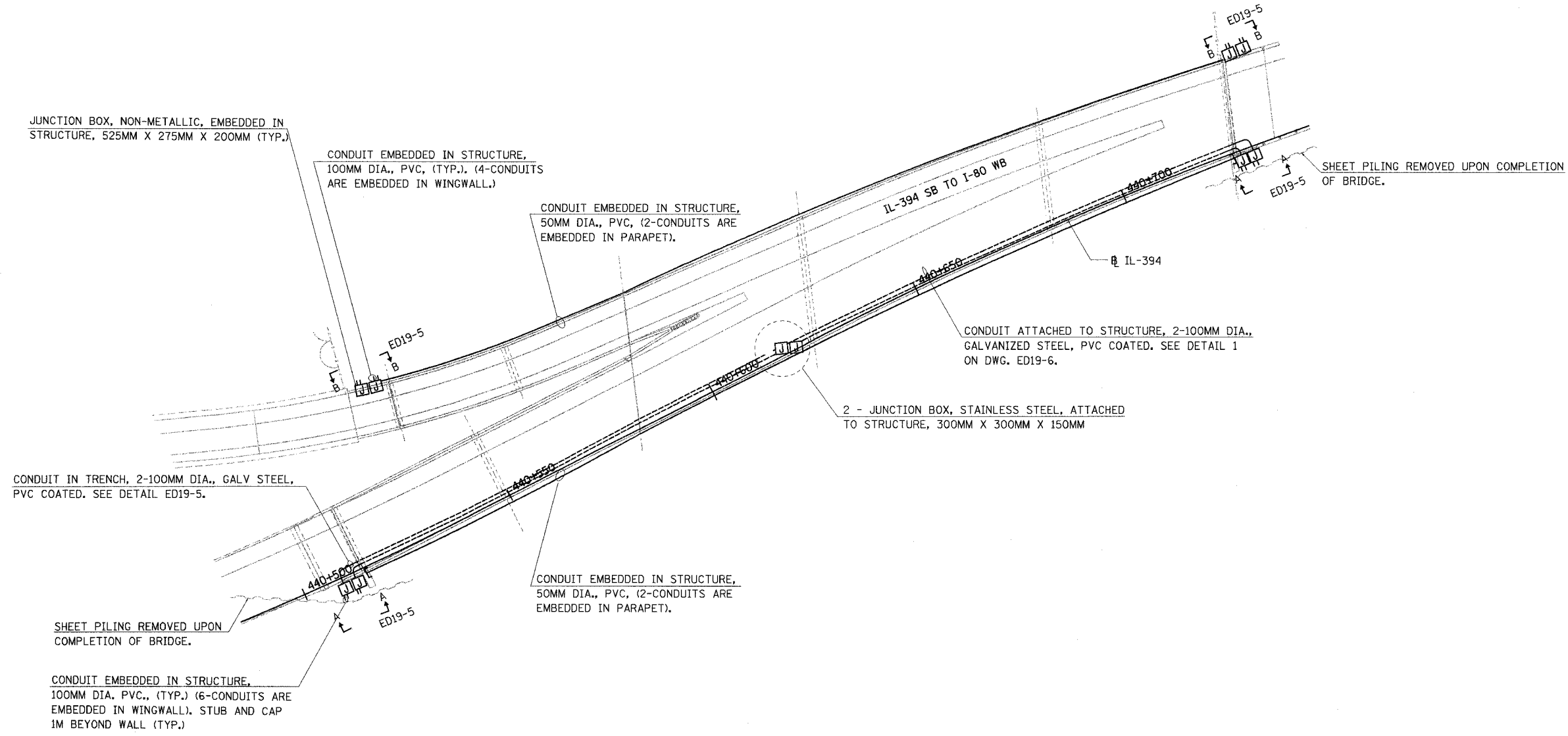
CONDUIT IN BRIDGE DETAIL
IL-394 SB OVER I-80

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

DRAWN BY: SPR
CHECKED BY: BB

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	432
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. ALL STUBBED OUT CONDUIT SHALL BE LOCATED AT A MINIMUM DEPTH OF 1M BELOW FINISHED GRADE.

ED19-3

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

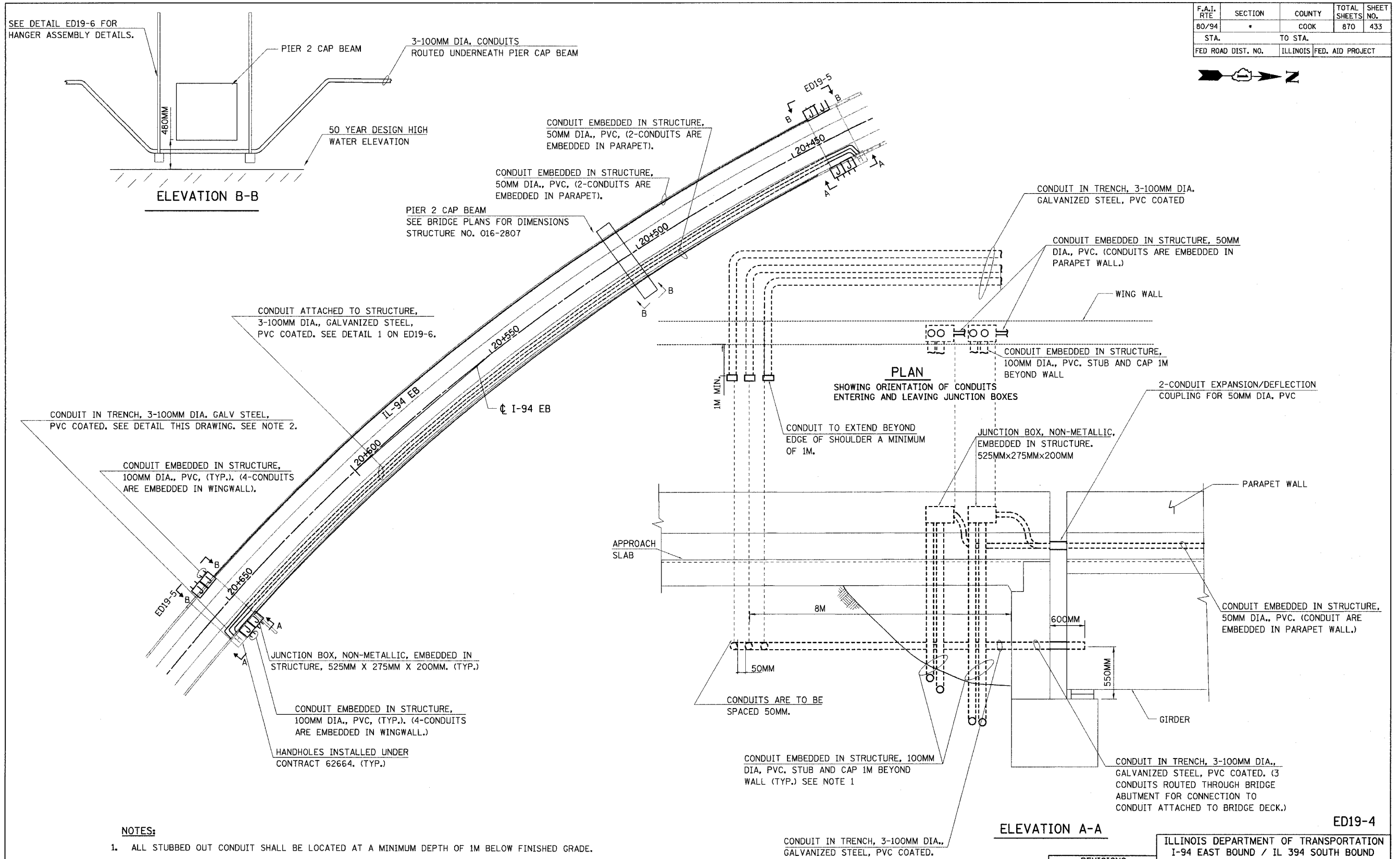
**CONDUIT IN BRIDGE DETAIL
IL-394 SB TO I-80 EB**

REVISIONS	
NAME	DATE

HORIZ SCALE:
VERT SCALE:
DATE: JULY 18, 2005
DRAWN BY: SPR
CHECKED BY: BB



F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	433
STA. TO STA.		ILLINOIS FED. AID PROJECT		



- NOTES:**
1. ALL STUBBED OUT CONDUIT SHALL BE LOCATED AT A MINIMUM DEPTH OF 1M BELOW FINISHED GRADE.
 2. EXTEND RGC IN TRENCH A MINIMUM OF 1M BEYOND SHOULDER FOR FUTURE CONNECTION WITH HANDHOLE, THE CONDUIT IS TO BE INSTALLED UNDER THE BRIDGE APPROACH PAVEMENT THE NUMBER OF METERS BACK FROM THE CENTER LINE OF THE ABUTMENT AS SHOWN ON THIS SHEET. THE CONDUIT IS TO BE SPACED 50MM APART. CONDUIT IS TO BE CAPPED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. HANDHOLE IS INSTALLED IN CONTRACT 62664. CONDUIT WILL BE EXTENDED TO HANDHOLE BY CONTRACT 62664. COORDINATE AS NECESSARY.

REVISIONS	
NAME	DATE

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

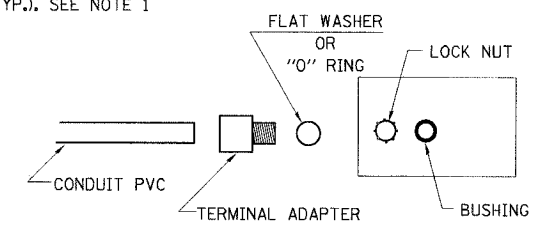
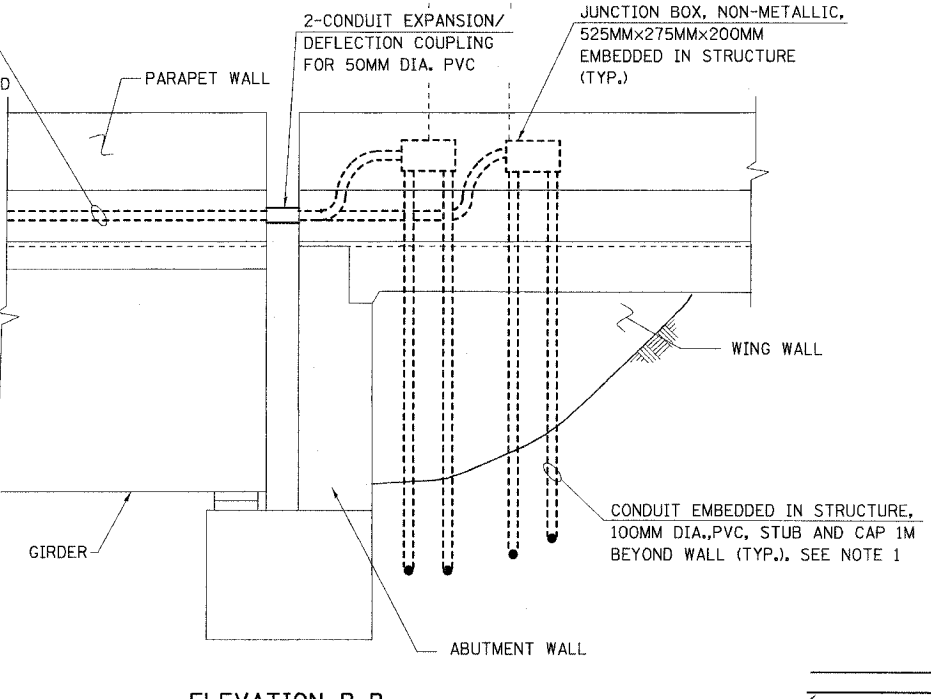
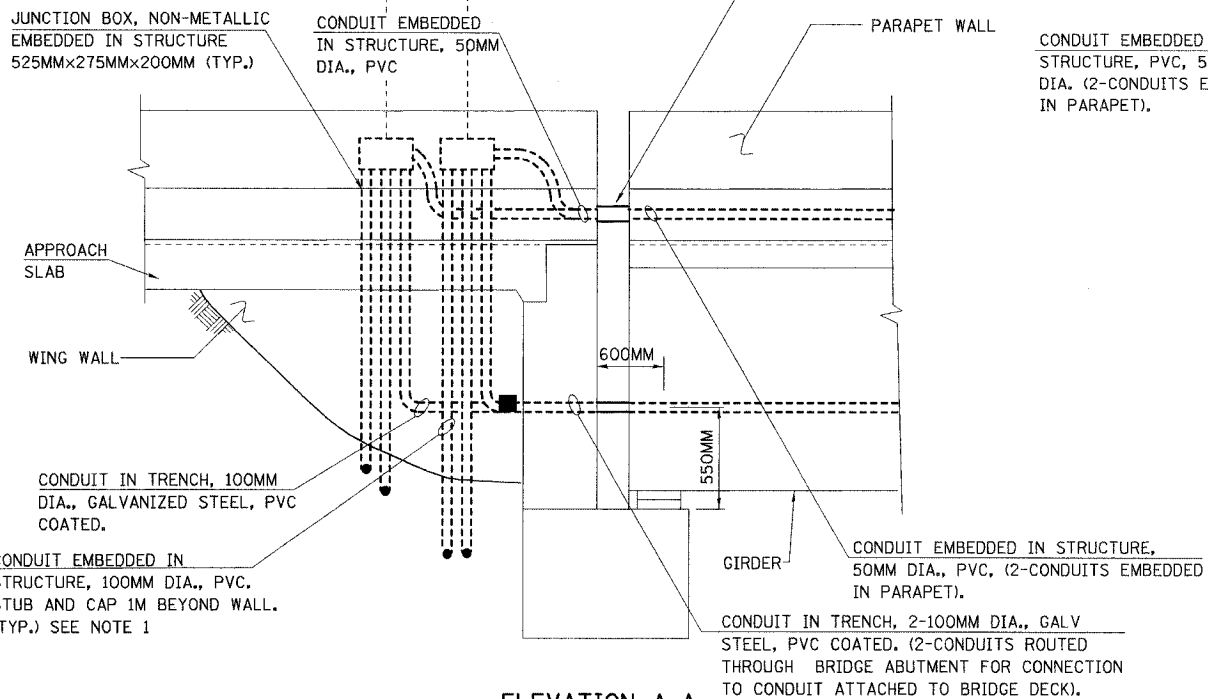
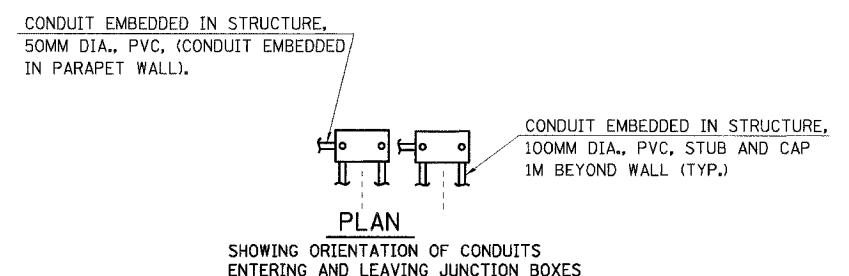
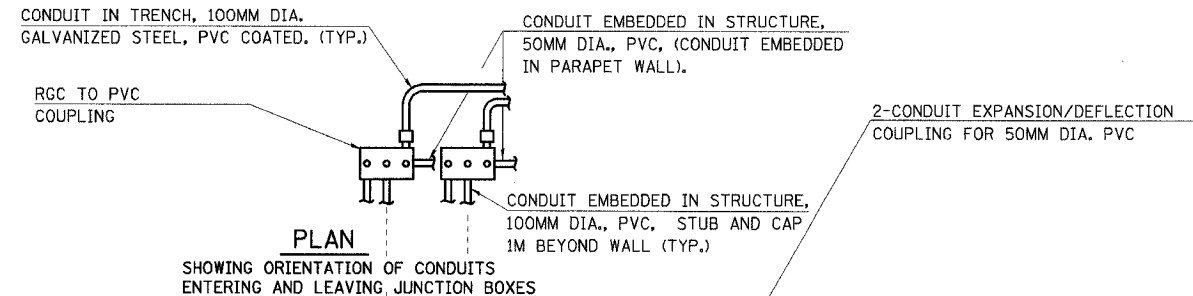
**CONDUIT IN BRIDGE DETAIL
I-94 EB OVER THORNCREEK**

HORIZ SCALE: NONE
VERT SCALE: NONE
DATE: JULY 18, 2005

DRAWN BY: SPR
CHECKED BY: SPR

HNTB

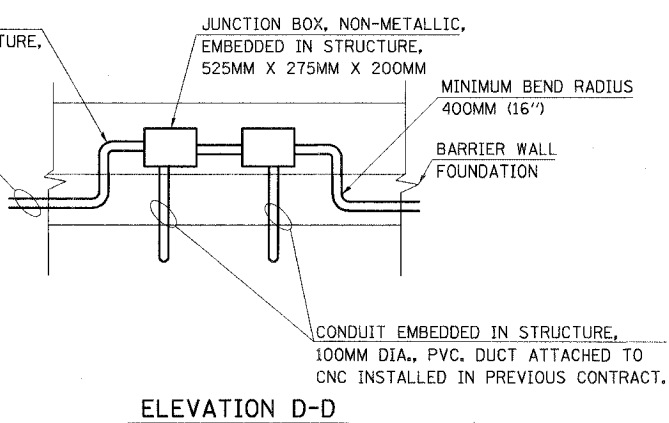
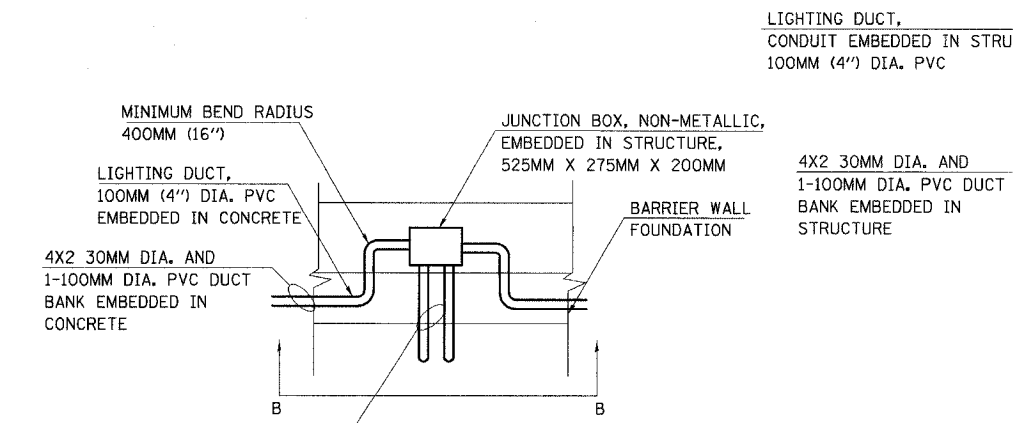
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	434
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



ELEVATION A-A
DETAIL A - WINGWALL TO BRIDGE TRANSITION FOR ELECTRICAL CONDUIT

ELEVATION B-B
DETAIL B - PARAPET CONDUIT AND JUNCTION BOXES

TERMINATION TO JB DETAIL.



ELEVATION C-C
DETAIL C - CONDUIT & JUNCTION BOX CONFIGURATION FOR CANTILEVER SIGN JUNCTION BOXES EMBEDDED IN MEDIAN BARRIER WALL

ELEVATION D-D
DETAIL D - CONDUIT AND JUNCTION BOX CONFIGURATION FROM CONTROLLER E TO MEDIAN BARRIER WALL

NOTES:

1. ALL STUBBED OUT CONDUIT SHALL BE LOCATED AT A MINIMUM DEPTH OF 1M BELOW FINISHED GRADE.
2. THIS DETAIL SHOWS THE TYPICAL INSTALLATION OF CONDUIT AND JUNCTION BOXES IN WING WALL TRANSITIONING TO CONDUIT THAT IS MOUNTED UNDER BRIDGE DECK OR EMBEDDED IN PARAPET WALL. NUMBER OF CONDUITS MOUNTED UNDER BRIDGE DECK WILL VARY. SEE PLAN VIEWS FOR NUMBER OF CONDUITS MOUNTED UNDER BRIDGE DECK.

REVISIONS	
NAME	DATE

ED19-5

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

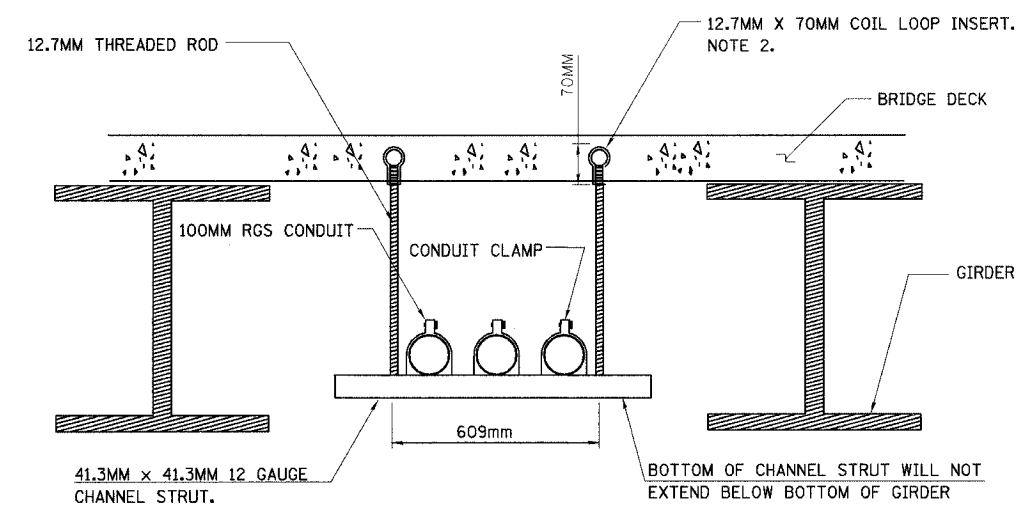
TYPICAL CONDUIT EMBEDDED IN WINGWALL DETAIL

HORIZ SCALE: NONE
VERT SCALE: NONE
DATE: JULY 18, 2005

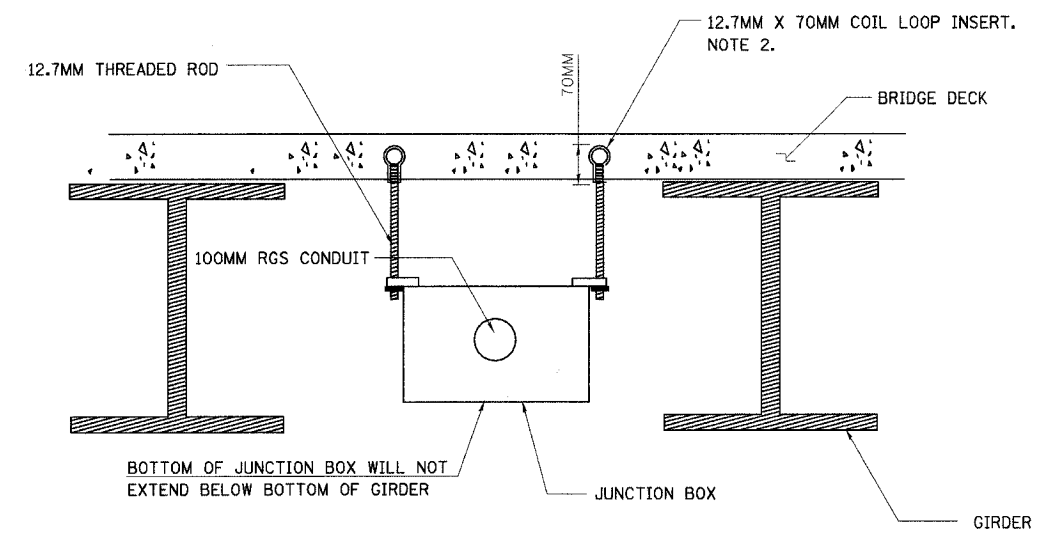
DRAWN BY: SPR
CHECKED BY: BB

HNTB

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	435
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



HANGER ASSEMBLY FOR CONDUIT ATTACHED TO BRIDGE DECK
NOT TO SCALE



HANGER ASSEMBLY FOR JUNCTION BOX ATTACHED TO BRIDGE DECK
NOT TO SCALE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. LOOP SHALL BE RATED FOR A MINIMUM SAFE WORK LOAD (TENSION) OF 8.9 kN.

ED19-6

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

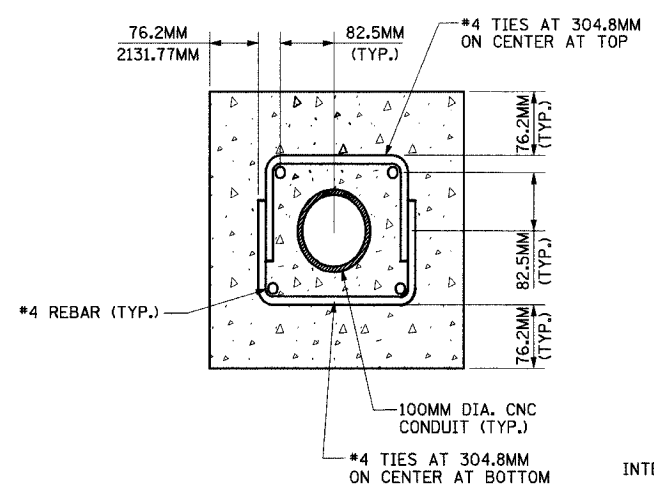
JUNCTION BOX AND CONDUIT MOUNTING DETAILS

REVISIONS	
NAME	DATE

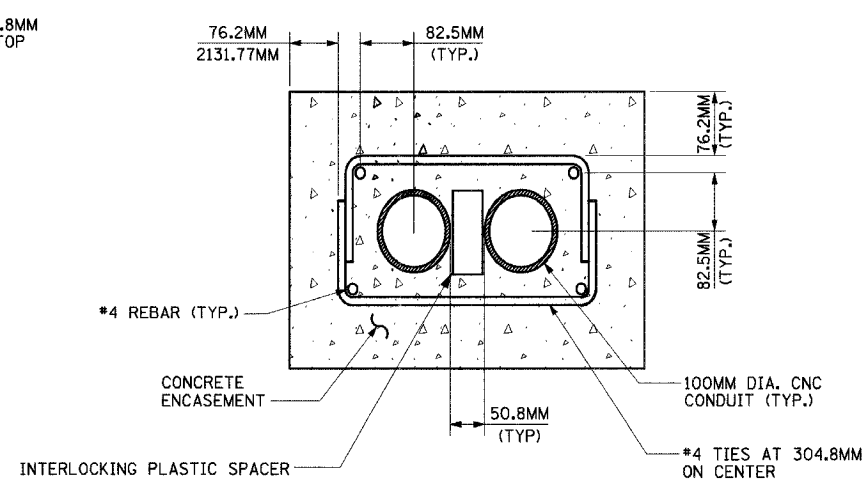
HORIZ SCALE: NONE
VERT SCALE: NONE
DATE: JULY 18, 2005

DRAWN BY: SPR
CHECKED BY: BB

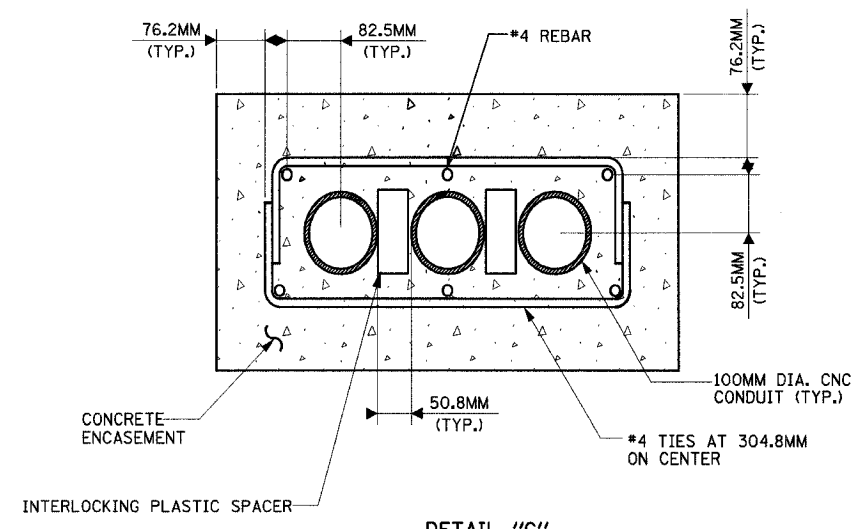
HNTB



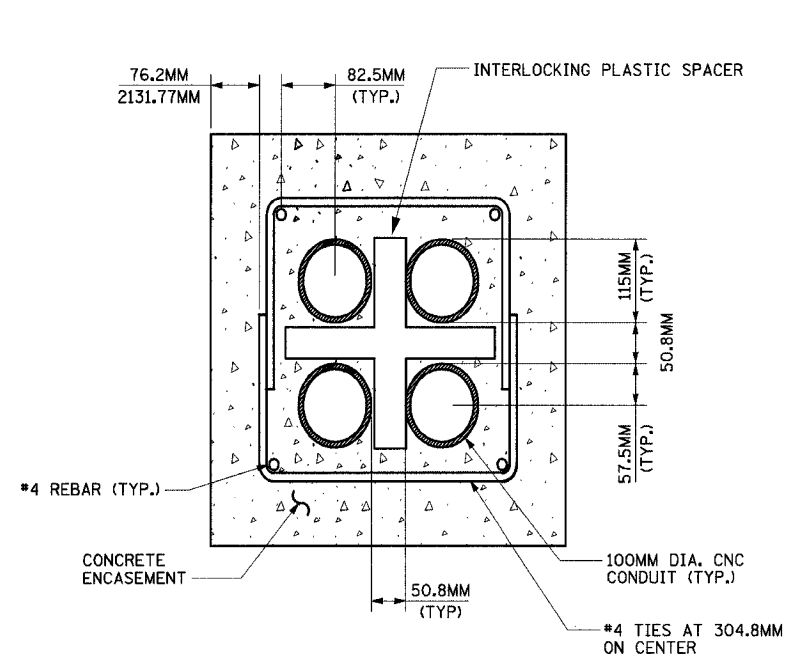
DETAIL "A"
PVC CONDUIT ENCASED IN
REINFORCED CONCRETE
NOT TO SCALE



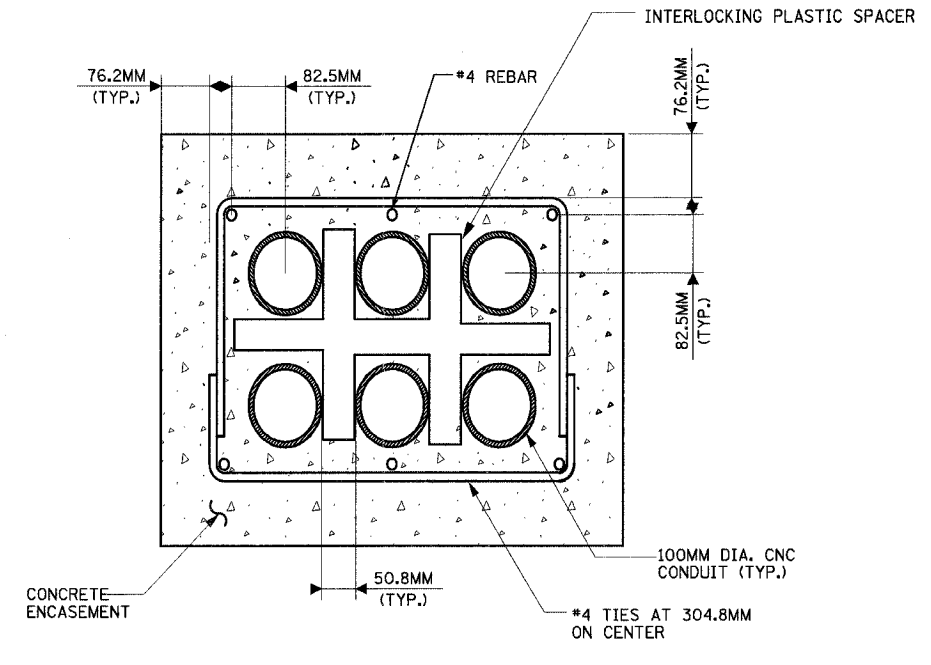
DETAIL "B"
PVC CONDUIT ENCASED IN
REINFORCED CONCRETE
NOT TO SCALE



DETAIL "C"
PVC CONDUIT ENCASED IN
REINFORCED CONCRETE
NOT TO SCALE



DETAIL "D"
PVC CONDUIT ENCASED IN
REINFORCED CONCRETE
NOT TO SCALE



DETAIL "E"
PVC CONDUIT ENCASED IN
REINFORCED CONCRETE
NOT TO SCALE

- NOTES:**
- REFER TO ROADWAY LIGHTING PLANS FOR DUCT BANKS CROSSING ROADWAYS.
 - CONDUITS IN DUCT BANKS SHALL BE FREE FROM ANY OBSTRUCTION OR DEBRIS.
 - SPARE CONDUIT WHICH IS NOT USED ON EITHER SIDE OF THE ROADWAY SHALL BE THREADED, CAPPED AND SEALED FOR FUTURE USE.
 - CONDUIT ENDS SHALL BE PROTECTED FROM PHYSICAL DAMAGE WITH PROTECTIVE STEEL COVERS UNTIL PERMANENT WIRING IS INSTALLED.

REVISIONS	
NAME	DATE

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

HORIZ SCALE: NONE
VERT SCALE: NONE
DATE: JULY 18, 2005
DRAWN BY: RPK
CHECKED BY: KMY

HNTB

ALL DIMENSIONS IN MILLIMETERS EXCEPT
PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-1	COOK	870	437
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

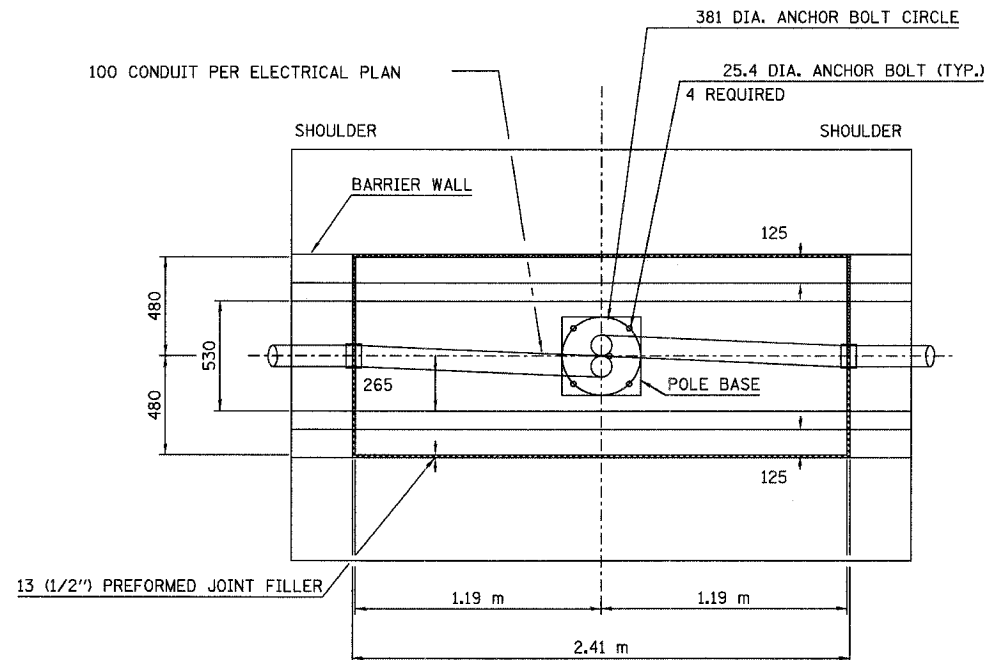
609.6 mm DIAMETER FOUNDATION DEPTH TABLE
FOR UP TO 15.24 m MOUNTING HEIGHT LIGHT POLE

TYPE OF SOIL	FOUND. DEPTH D	REINFORCEMENT IN FOUNDATION	
		VERTICAL BARS	SPIRAL
ROCK OR SOLIDIFIED SLAG	1.52 m	NONE	NONE
DENSE SAND	2.36 m	8-#20 x 2.74 m	*3 x 27.43 m
MEDIUM SAND	2.51 m	8-#20 x 2.87 m	*3 x 28.65 m
LOOSE SAND	2.74 m	8-#20 x 3.09 m	*3 x 30.48 m
STIFF CLAY	2.13 m	8-#20 x 2.48 m	*3 x 24.38 m
MEDIUM CLAY	2.89 m	8-#20 x 3.25 m	*3 x 31.69 m
SOFT CLAY	3.96 m	8-#20 x 4.32 m	*3 x 43.89 m

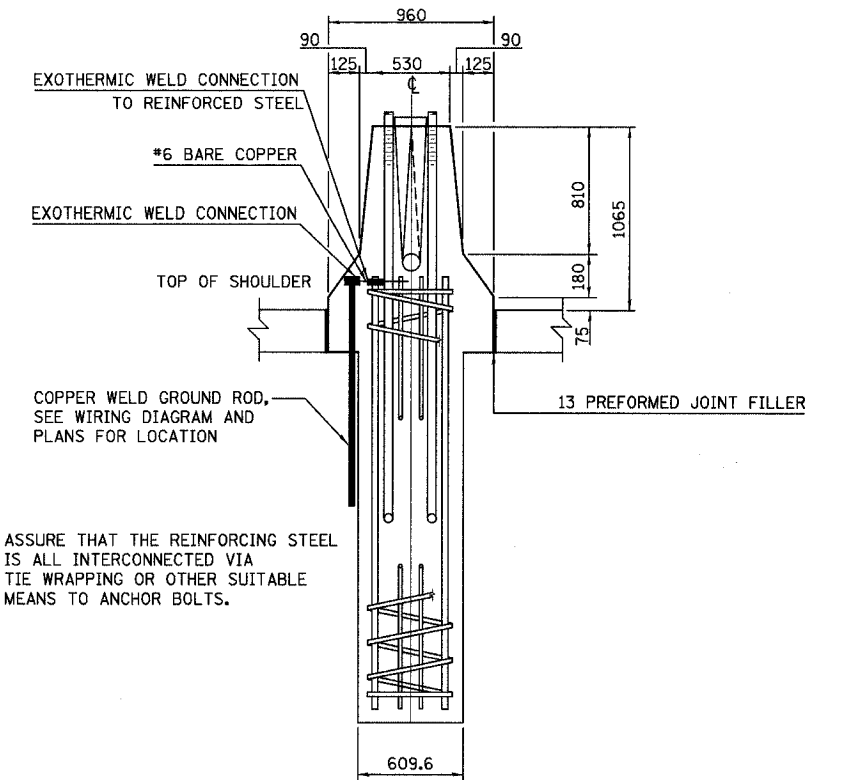
DESIGN: 125 KPH AASHTO

NOTES:

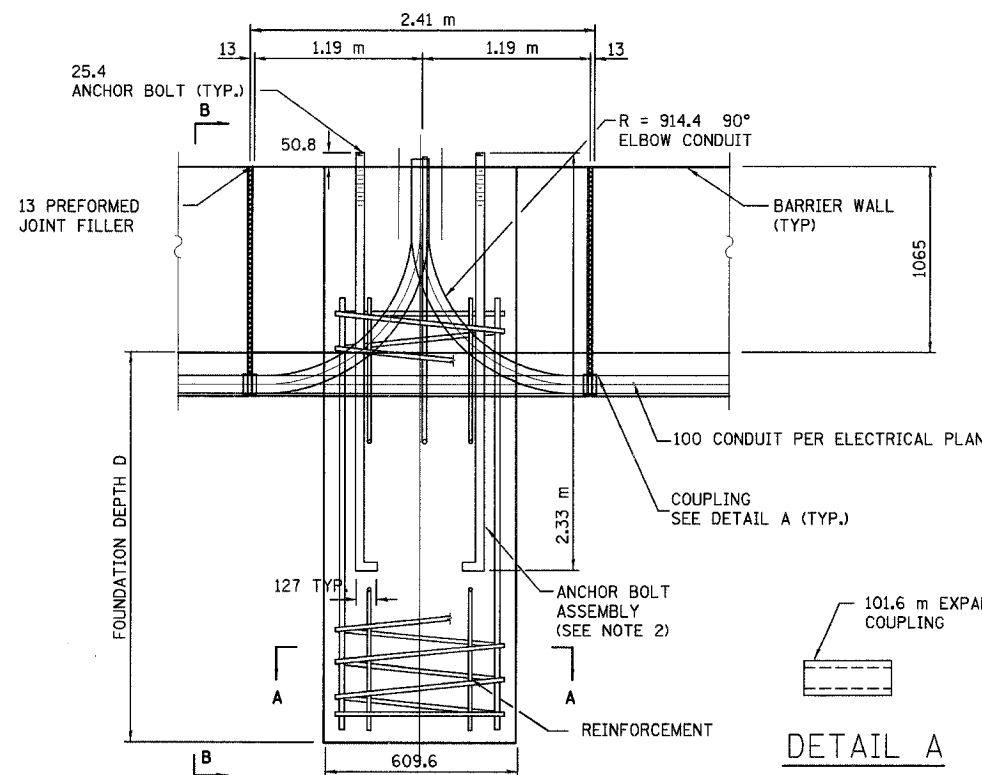
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORMS.
- THE CONTRACTOR AT HIS OPTION MAY SUBSTITUTE #15 TIES AT #304.8 CTRS. FOR THE #3 SPIRAL. TACKWELDED TYPE BOLT MAY BE SUBSTITUTED FOR THE HOOK TYPE BOLT.
- COLD BENDING OF THE HOOK BOLT SHALL NOT BE ALLOWED.
- EXCAVATION FOR THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER 609.6 mm IN DIAMETER.
- THE ENGINEER SHALL DETERMINE THE TYPE OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE USING THE DOMINANT CHARACTERISTIC OF THE SOIL ENCOUNTERED.
- CONDUIT LOCATION IN THE STATE OF INDIANA IS PLACED BENEATH THE CONCRETE BARRIER WALL. SEE DETAILS.



PLAN

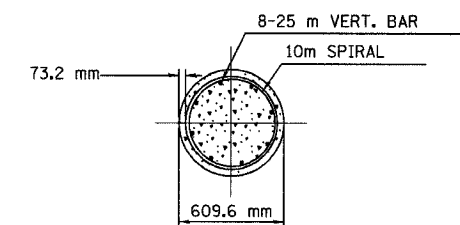


SECTION B-B



ELEVATION

DETAIL A



SECTION A-A

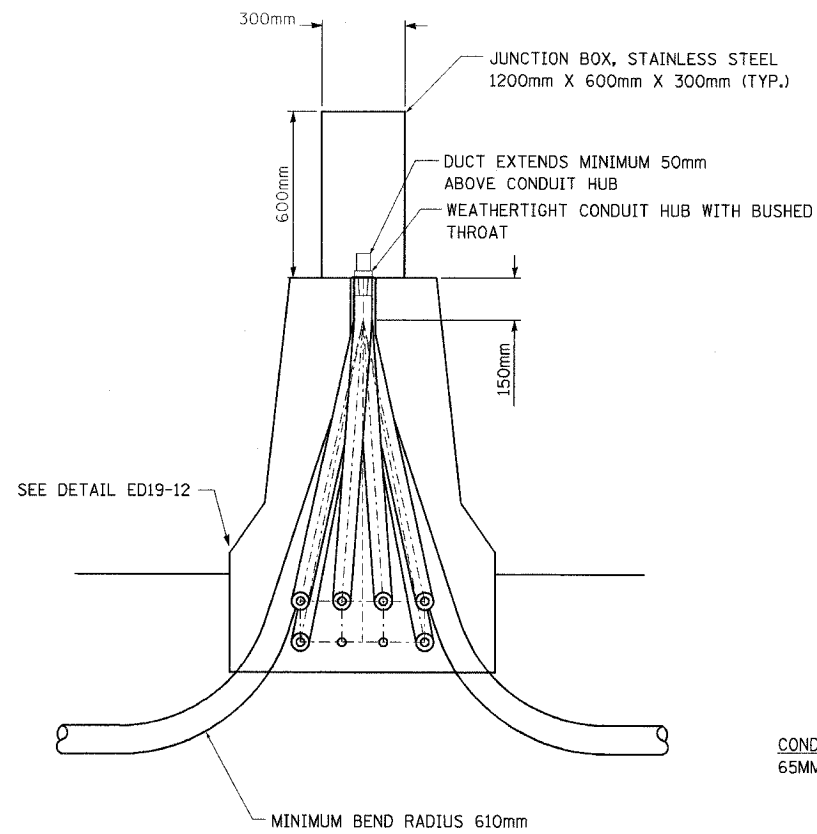
REVISIONS	
NAME	DATE

ED19-8
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
609.6 mm DIA. LIGHT POLE FOUNDATION
INTEGRAL WITH DOUBLE FACE BARRIER WALL

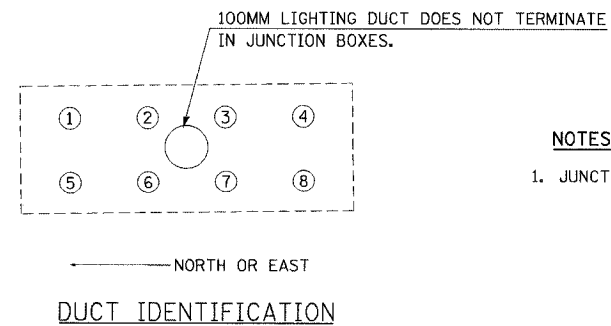
SCALE 1:500
DATE 12/03
DRAWN BY ACE/CAD
CHECKED BY TJW



F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	438
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

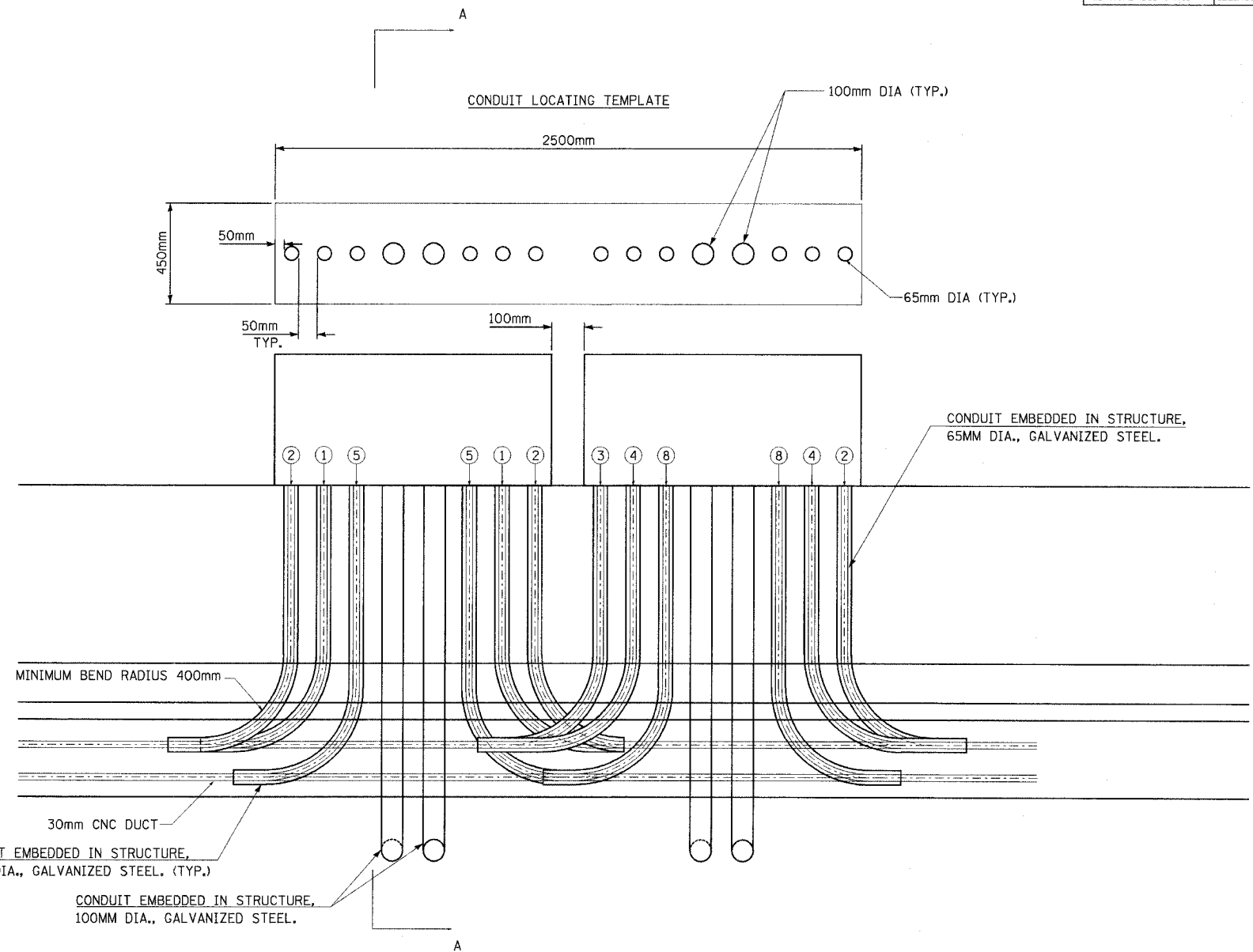


SECTION A-A



NOTES:

- JUNCTION BOXES ARE INSTALLED IN CONTRACT 62664.



ELEVATION VIEW
LOOKING NORTH OR EAST

ED19-9

REVISIONS	
NAME	DATE

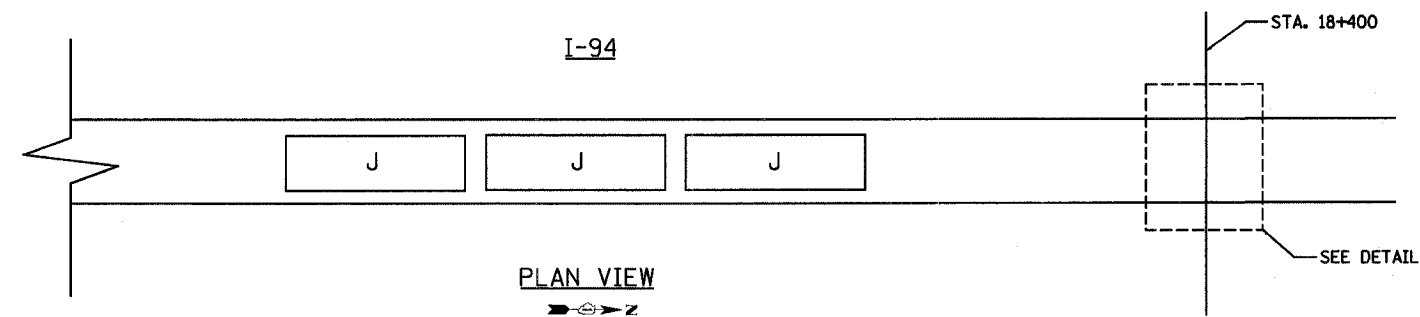
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
**BARRIER WALL CONDUIT
INSTALLATION AT
JUNCTION BOXES**

HORIZ SCALE: NO SCALE
VERT SCALE: NO SCALE
DATE: JULY 18, 2005

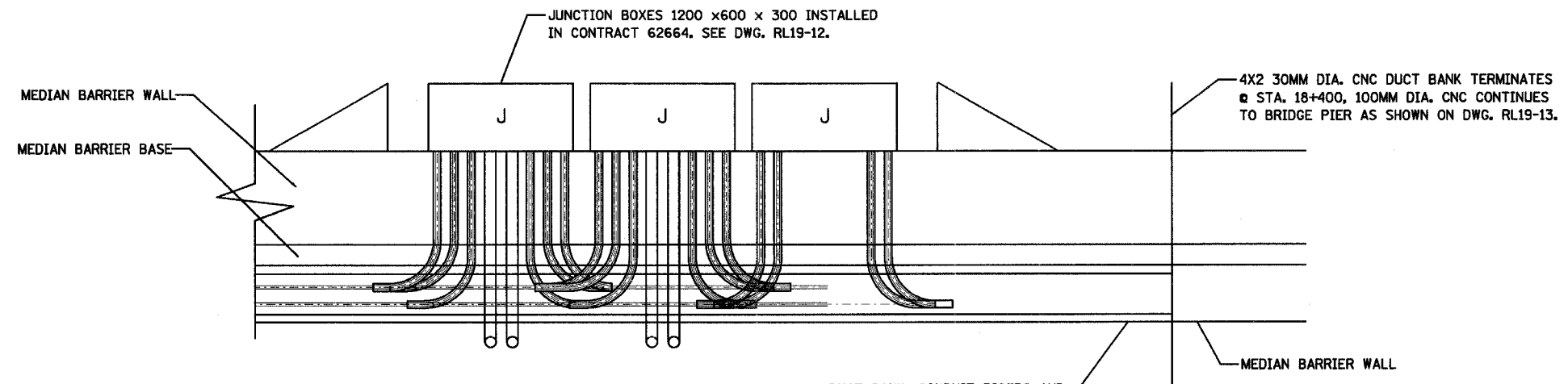
DRAWN BY: JRH/MAP
CHECKED BY: DEM/CMW/SPR

HNTB

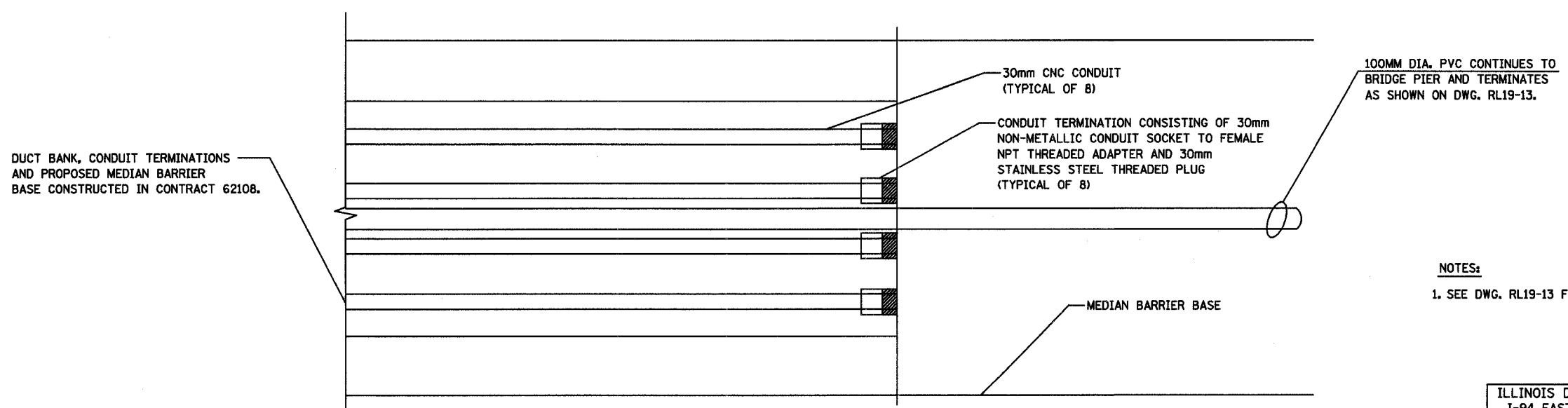
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	439
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLAN VIEW



ELEVATION VIEW
BASE, NAIL, AND CONDUIT
CONSTRUCTED IN CONTRACTED 62108.



DETAIL
ALL WORK IN THIS DETAIL
PERFORMED UNDER CONTRACT 62108.

NOTES:
1. SEE DWG. RL19-13 FOR PLAN.

REVISIONS	
NAME	DATE

ED19-10
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND

DETAILS FOR FIBER OPTIC DUCT BANK TERMINATIONS - I-94

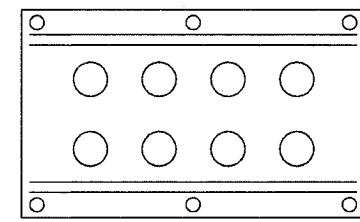
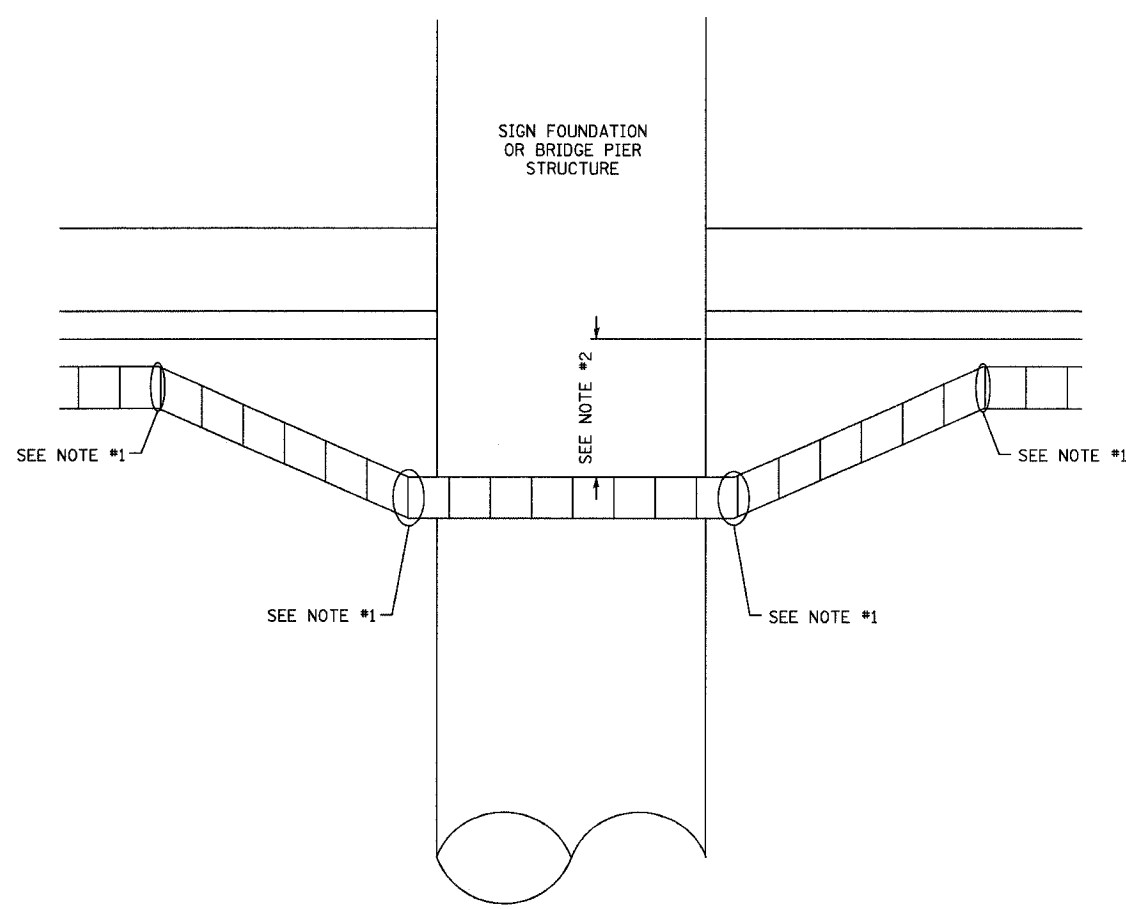
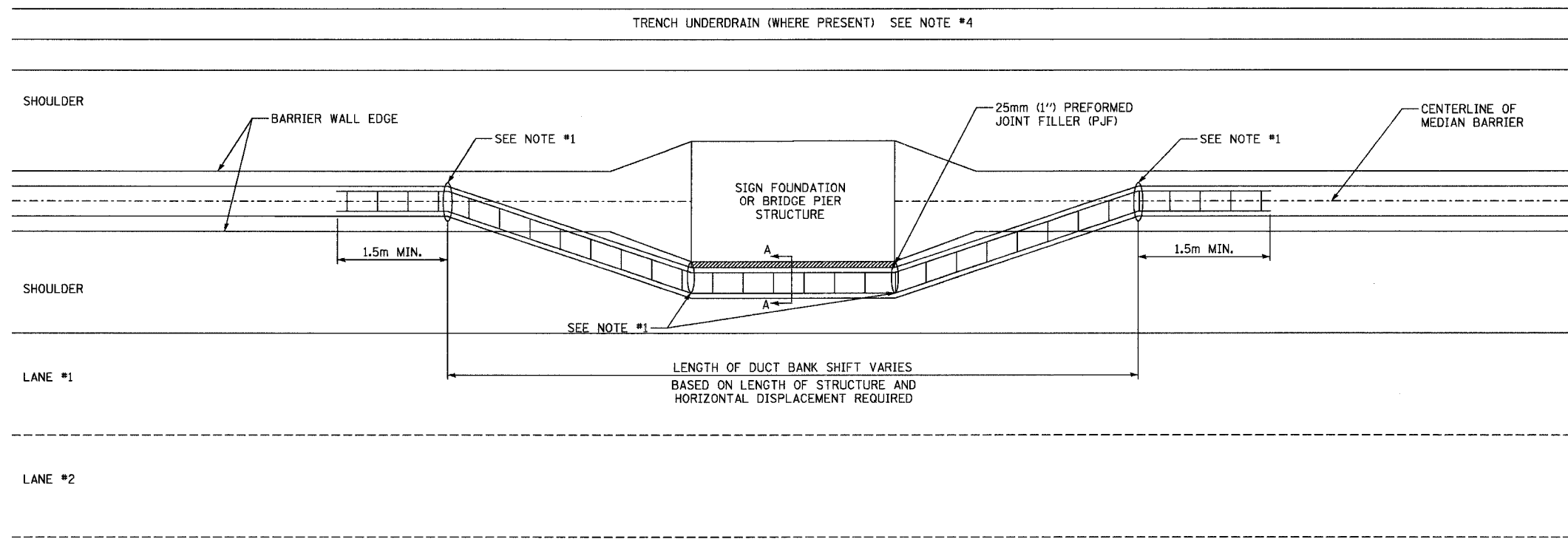
HORIZ SCALE:
VERT SCALE:
DATE: JULY 18, 2005

DRAWN BY:
CHECKED BY:



ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	870	440
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SECTION A-A

NOTES:

1. BEND IN DUCT IN THREE DIMENSIONS SHALL BE NO GREATER THAN 11.25 DEGREES.
2. DUCT MUST BE BURIED NO LESS THAN 1.0m BELOW GRADE.
3. DETAIL IS TYPICAL. REFER TO PLAN DRAWINGS FOR APPLICABLE LOCATIONS AND STRUCTURE DIMENSIONS.
4. COORDINATE DUCT BANK LOCATION WITH DRAINAGE STRUCTURES.

ED19-11

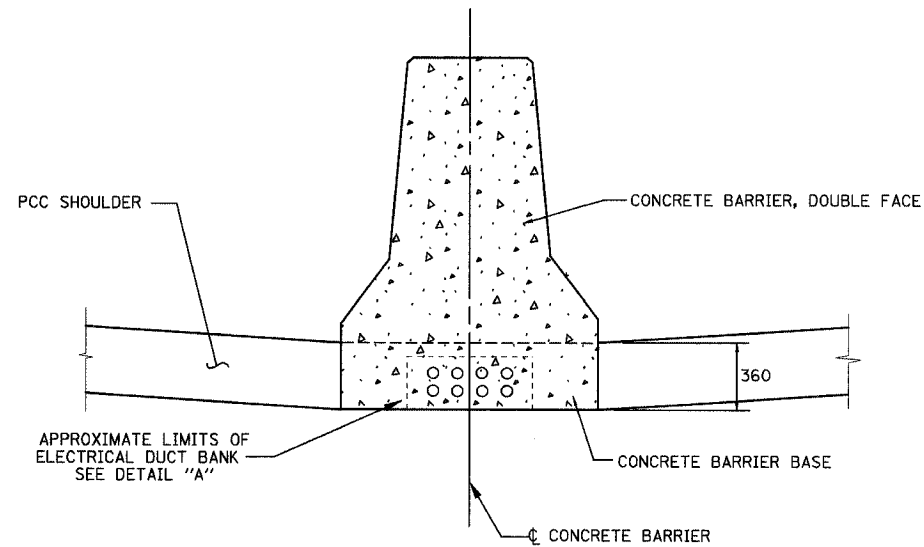
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41
MEDIAN DUCT BANK PIER AND FOUNDATION
INSTALLATION DETAILS

SCALE: N50S. DRAWN BY: JRH/MAP
DATE: CHECKED BY: DEM/CMW

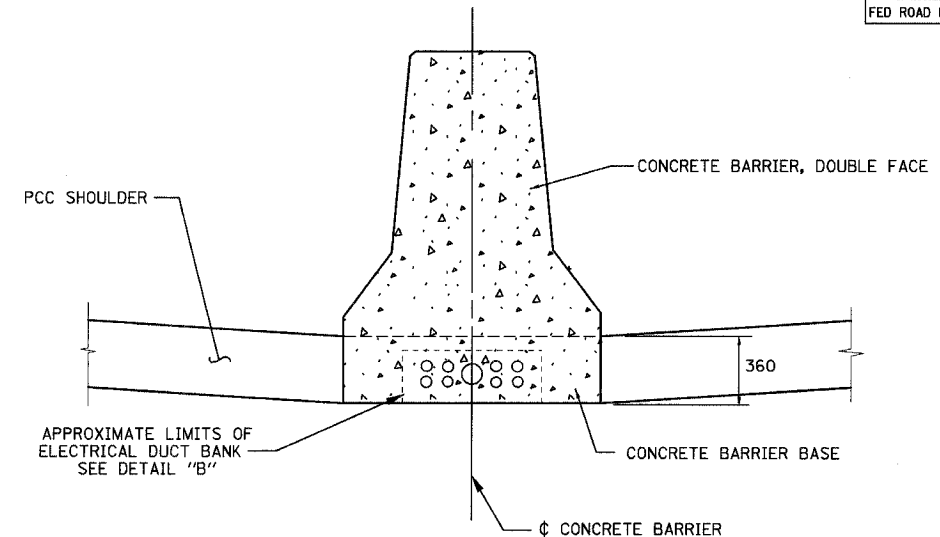


F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	870	441
STA.	TO STA.			
FED ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



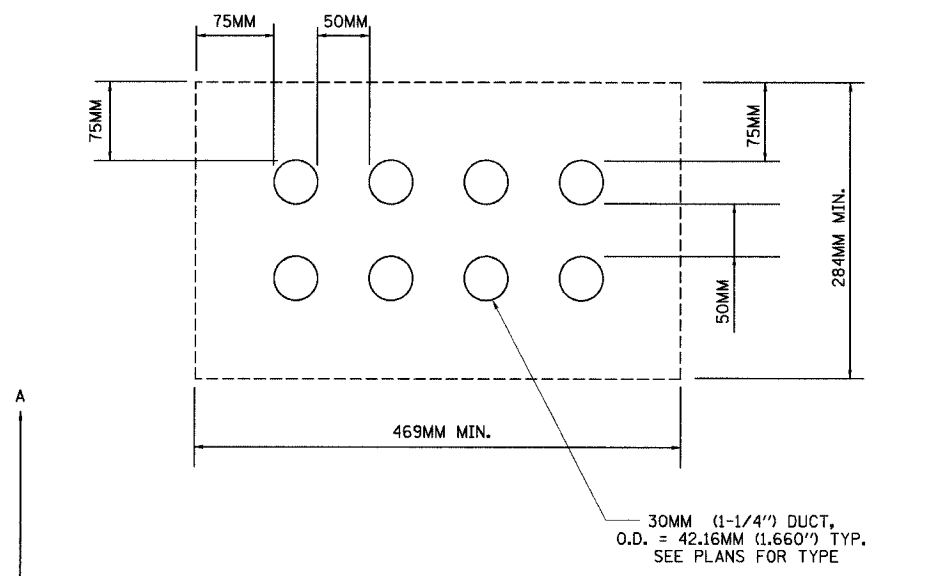
CONCRETE BARRIER, DOUBLE FACE

SHOWING 8 DUCT BANK



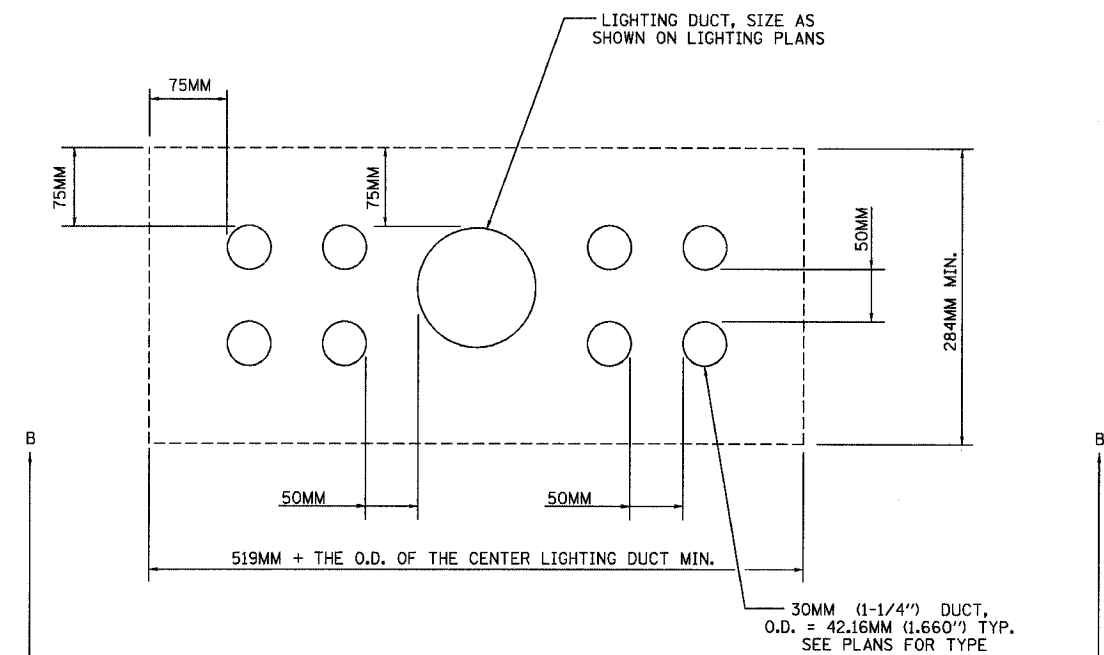
CONCRETE BARRIER, DOUBLE FACE

SHOWING 9 DUCT BANK



DETAIL "A"

SHOWING 8 CONDUITS EMBEDDED IN STRUCTURE



DETAIL "B"

SHOWING 9 CONDUITS EMBEDDED IN STRUCTURE

NOTES:

- 1) SEE "CONCRETE BARRIER DETAILS" FOR ADDITIONAL DETAILS OF THE CONCRETE BARRIER AND CONCRETE BARRIER BASE.
- 2) SEE PLANS FOR TYPES OF CONDUIT ENCASED IN CONCRETE.
- 3) THE LIGHTING DUCT SHALL BE OF THE TYPE AND SIZE AS SHOWN ON THE LIGHTING PLANS.

ED19-12

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

DETAILS FOR CONDUITS
EMBEDDED IN CONCRETE
BARRIER BASE

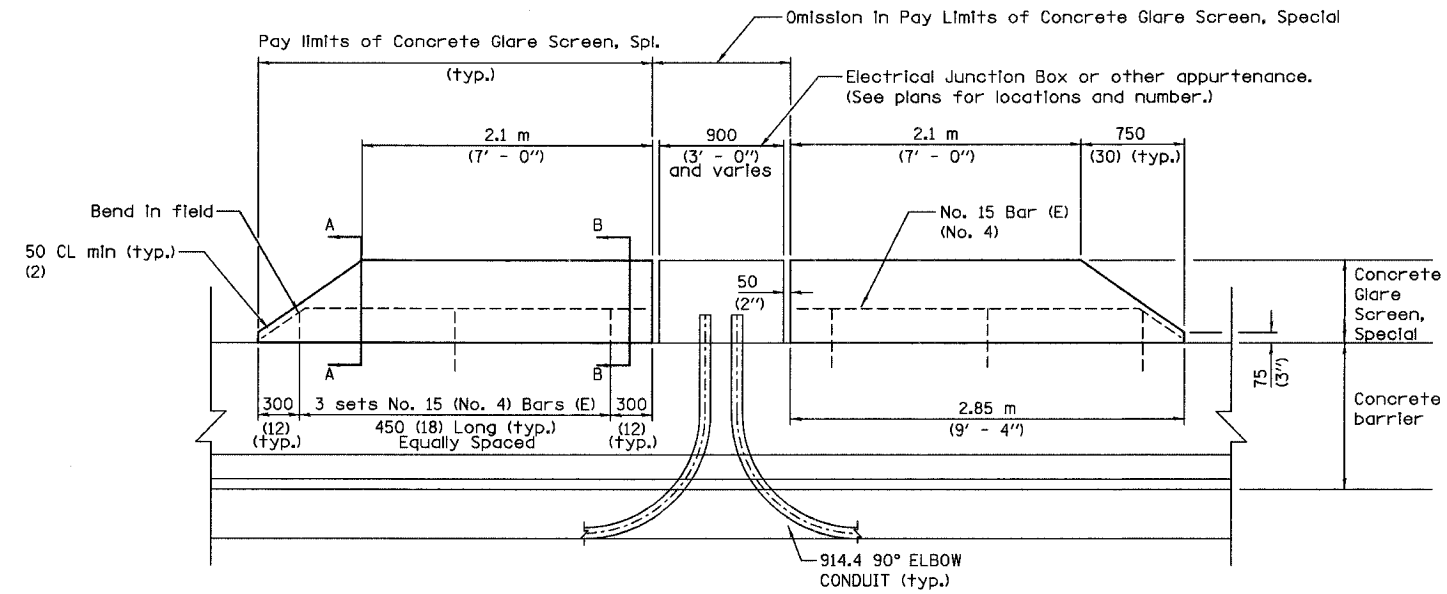
REVISIONS	
NAME	DATE

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

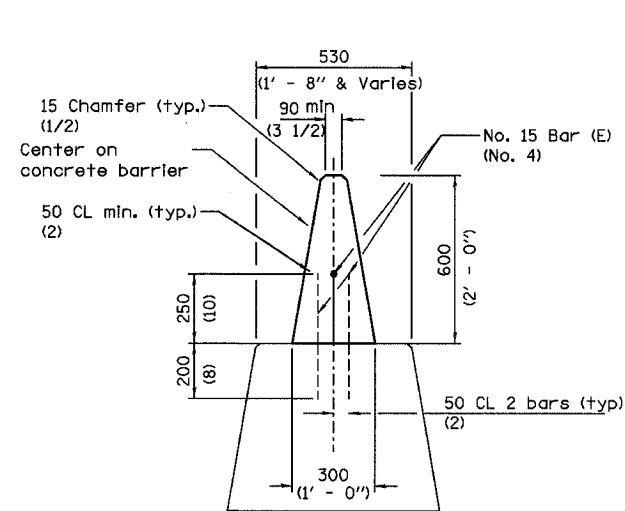
DRAWN BY:ACE/CAD
CHECKED BY:HNTB/SPR



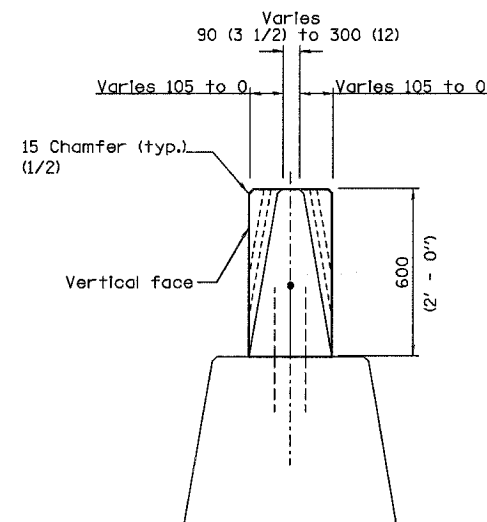
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	870	442
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



ELEVATION



SECTION A-A



SECTION B-B

(This section with vertical face shall be used in tangent sections between junction boxes and or other appurtenances.)

All dimensions are in millimeters (Inches) unless otherwise shown.

ED19-13

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

CONCRETE GLARE SCREEN,
SPECIAL

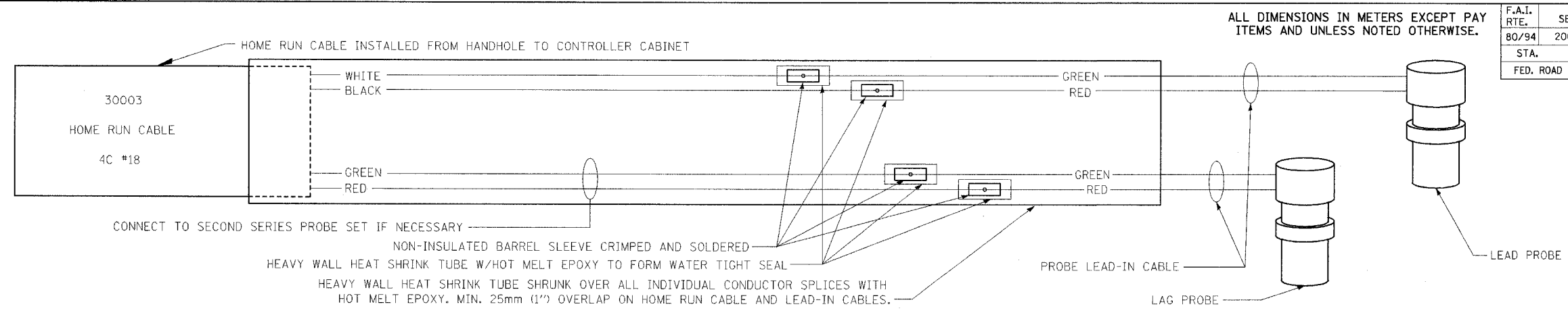
HORIZ SCALE: NONE
VERT SCALE: NONE
DATE: JULY 18, 2005

DRAWN BY: BMCD/CADD
CHECKED BY: HNTB/SPR

REVISIONS	
NAME	DATE



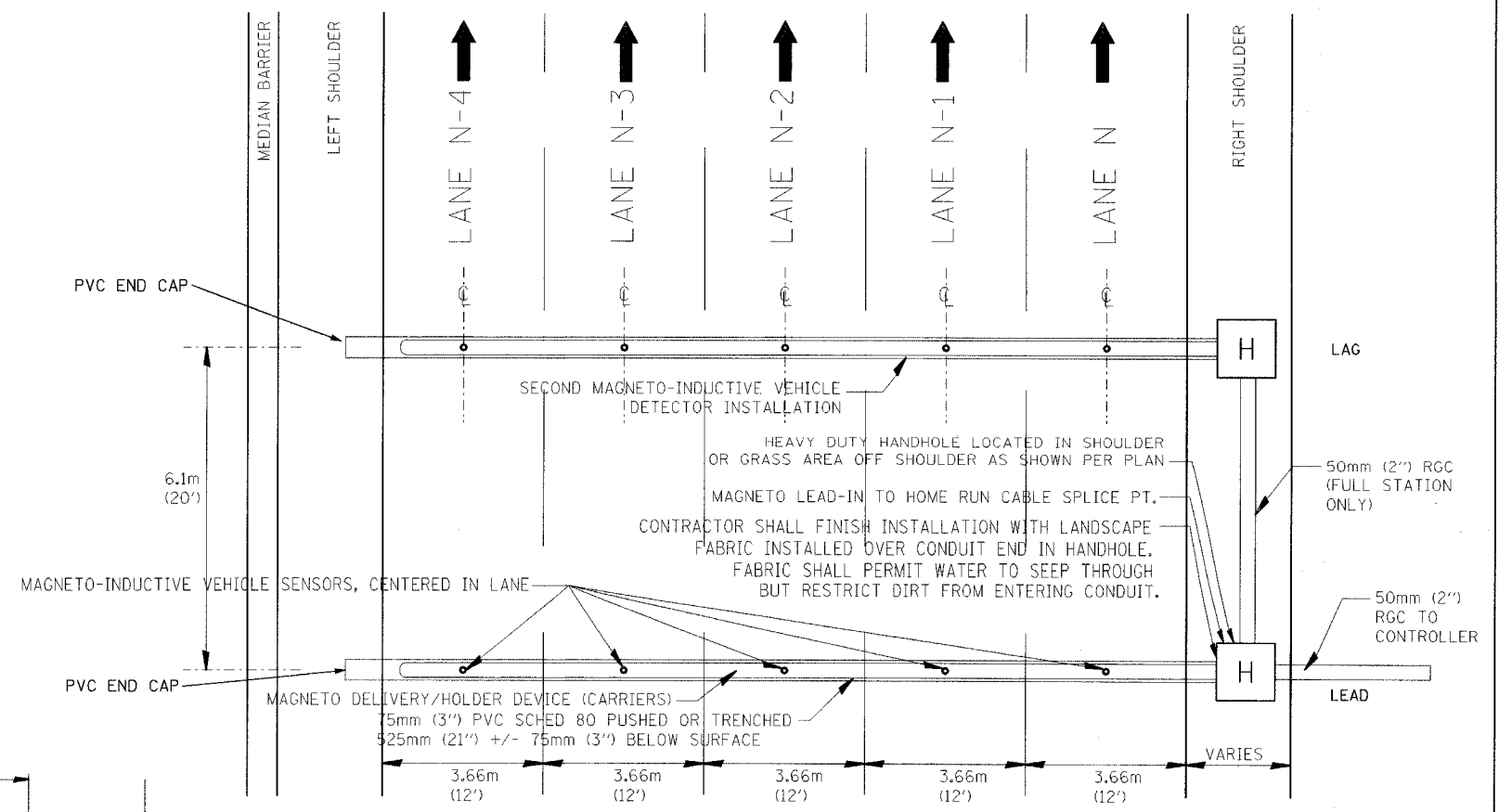
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2003-089I	COOK	870	442A
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	CONTRACT #62108



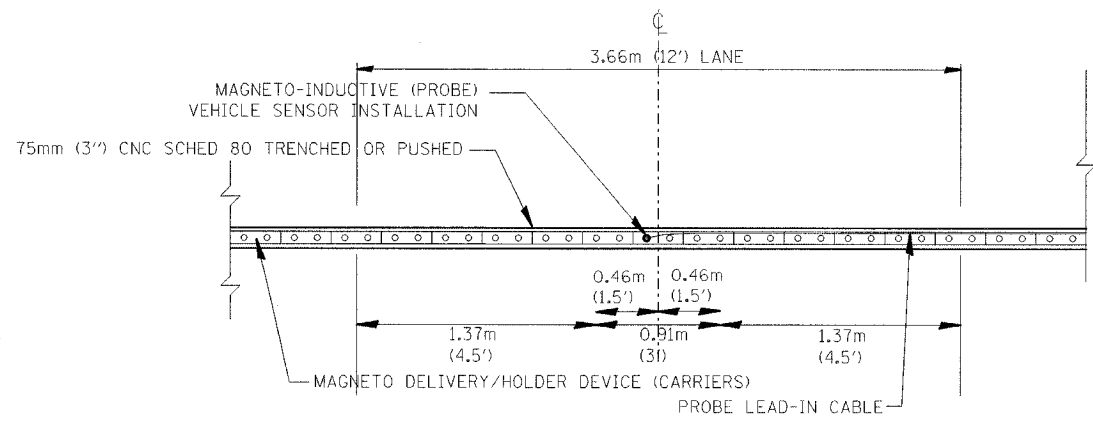
TYPICAL SINGLE MAGNETO-INDUCTIVE VEHICLE SENSOR SERIES SPLICING DETAIL

FOR INFORMATION ONLY

- NOTES:
- PROBE SHALL BE POSITIONED IN THE CENTER OF EACH LANE. EXACT POSITIONING AND CONFIGURATION TO BE DETERMINED BY MANUFACTURER'S FIELD REPRESENTATIVE.
 - SUFFICIENT NUMBER OF CARRIERS TO BE INSTALLED TO COVER THE DISTANCE FROM THE HANDHOLE TO THE FARTHEST PROBE. FIRST CARRIER INSERTED SHALL BE END CAP CARRIER.
 - ANY DEVIATION IN CONDUIT ALIGNMENT SHALL BE LESS THAN 20mm PER METER.
 - CONDUIT END CAP TO BE PRESS FITTED (NO ADHESIVE), 5mm (3/16"). DRAINAGE HOLE TO BE DRILLED IN END CAP. HOLE TO BE POSITIONED AT BOTTOM.
 - CONDUIT TO EXTEND APPROXIMATELY 75mm (3") INTO HANDHOLE.
 - LEAD PROBES SHALL USE ODD CHANNELS AND HAVE B/W WIRES; LAG PROBES SHALL USE EVEN CHANNELS AND HAVE R/C WIRES. CHANNELS SHALL BE USED IN INCREASING ORDER BEGINNING WITH LANE 1 OF NEAR LANES AND ENDING WITH OUTER-MOST LANE OF FAR LANES.



KINGERY-BORMAN TYPICAL MULTILANE LANE CROSS SECTION WITH NON-INVASIVE MAGNETO-INDUCTIVE VEHICLE SENSORS FULL STATION



KINGERY-BORMAN TYPICAL MAINLINE/MULTI LANE EXIT/MULTI LANE ENTR. 3.66m (12') WITH SINGLE MAGNETO-INDUCTIVE VEHICLE SENSOR (PROBE) INSTALLATION PER LANE

ED19-13

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
 TYPICAL SINGLE MAGNETO-INDUCTIVE VEHICLE SENSOR (FULL INSTALLATION/SPEED TRAP)
 SCALE 1:500
 DATE 03-10-04
 DRAWN BY JRH/MAP
 CHECKED BY DEM/CMW

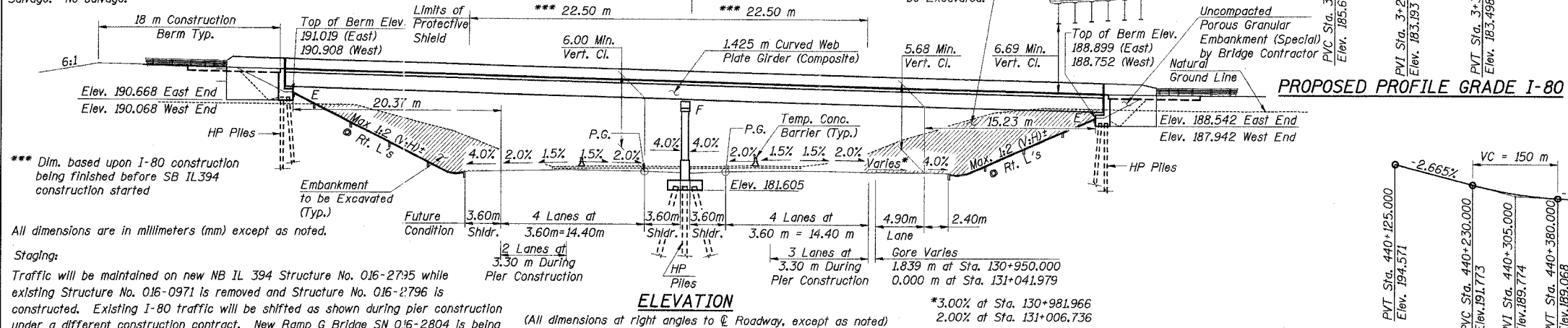


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Benchmark: BM ASC220 Square cut on southeast corner of NB IL 394 bridge over I-80. Elev. = 184.942

Existing Structure: S.N. 016-0971, four-span continuous 58.26 m Bk. to Bk. abutments, 15.60 m O. to O. R.C. deck supported by W760 steel stringers. Built as F.A. Route 122, Sec. 066-0303.6A-MFT at Station 32+47.94 (English) in 1952. Deck was rehabilitated in 1995.

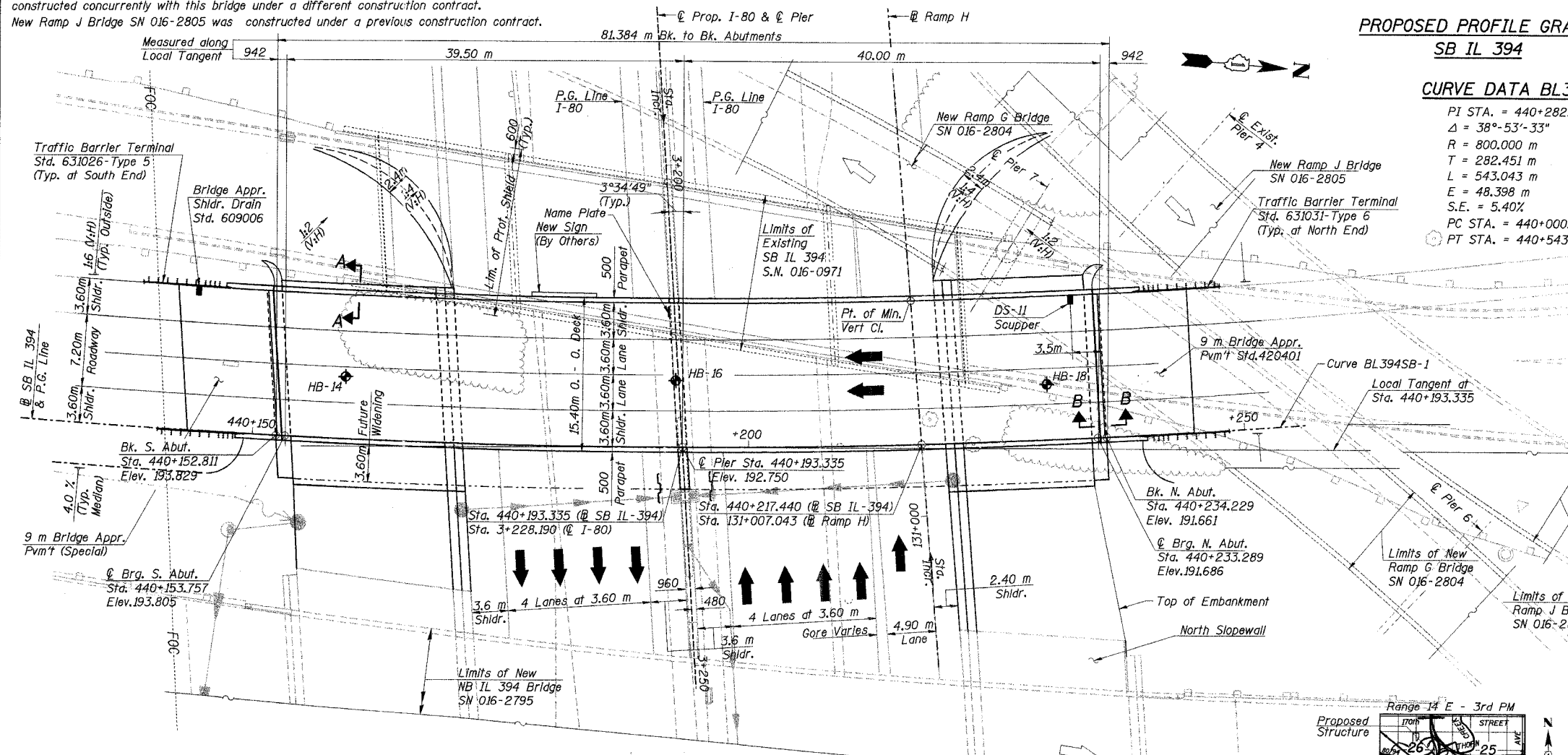
Salvage: No salvage.



*** Dim. based upon I-80 construction being finished before SB IL394 construction started

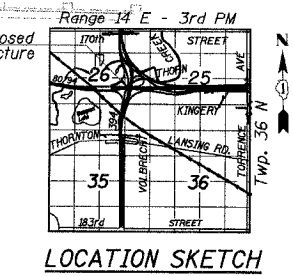
All dimensions are in millimeters (mm) except as noted.

Staging:
 Traffic will be maintained on new NB IL 394 Structure No. 016-2735 while existing Structure No. 016-0971 is removed and Structure No. 016-2796 is constructed. Existing I-80 traffic will be shifted as shown during pier construction under a different construction contract. New Ramp G Bridge SN 016-2804 is being constructed concurrently with this bridge under a different construction contract. New Ramp J Bridge SN 016-2805 was constructed under a previous construction contract.



DESIGNED	JJK
CHECKED	PCA/DD
DRAWN	LK
CHECKED	MAS

PLAN
(Existing I-80 Traffic Configuration Not Shown)



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F. A. I. 80/94		COOK	870	443	29 SHEETS
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62108		

LOADING MS18
 Allow 2.4 kN/m² for future wearing surface.

DESIGN SPECIFICATIONS
 2002 AASHTO
 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girders Highway Bridges

DESIGN STRESSES
 FIELD UNITS
 $f_c = 24$ MPa
 $f_y = 400$ MPa (reinforcement)
 $f_y = 345$ MPa (structural steel) (M270 Grade 345)
 $f_y = 250$ MPa (structural steel) (M270 Grade 250)

SEISMIC DATA
 Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = .04
 Site Coefficient (S) = 1.0

LEGEND

- ◆ Boring
- Exist. Guardrail
- Exist. Tree
- ▨ Embankment Excavation
- F06- Exist. Fiber Optic Cable
- Exist. Sewer **
- ⊙ Exist. Manhole **
- ⊠ Exist. Inlet **
- Proposed Sewer
- Proposed Inlet
- Proposed Catch Basin

** Existing Drainage to be abandoned

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Philip C. Azzarello (P.E.)
 ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
 PHILIP C. AZZARELLO
 081-004245
 CHICAGO, ILLINOIS
 LICENSED STRUCTURAL ENGINEER

Philip C. Azzarello P.E.
 Philip C. Azzarello, S.E.
 Ill. Reg. No. 081-004245
 Expires 11-30-06

NOTES:
 1. For Section A-A & B-B see Sht. No. 2 of 29.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND / IL 394 SOUTH BOUND
GENERAL PLAN & ELEVATION
 SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
 F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
 COOK COUNTY
 STA. 440+193.335 STRUCTURE NO. 016-2796
 DATE 07/18/05
 SCALE -----
HNTB

I:\Projects\016-2796\016-2796-CDS\CTR.19-2796.dgn 19/08/14 14:27:56
 08-JUL-2005 13:55

GENERAL NOTES

THE FABRICATION OF THE STRUCTURAL STEEL AND BEARINGS 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 = 201,010 kg for M 270M Grade 345 and 910 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 fasteners. 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, and all splice plate material except fill plates.
- Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M Grade 400.
- Slope walls shall be reinforced with welded wire fabric, 152 x 152 - MW25.8 x MW25.8 with a mass of 2.91 kg/m²
- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
- The Contractor shall drive one steel HP310x79 test pile in a permanent location at the North and South Abutments and at the Pier as directed by the Engineer before ordering the remainder of piles.
- 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 top bearing plate, shall be provided for each bearing and placed as detailed.
- Bridge Seat Sealer shall be applied to the seat area of the South and North Abutments, including future widening.
- 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.
- All construction joints shall be bonded.
- Protective shield quantity calculated is based upon I-80 construction being completed before the start of SB IL394 construction. Protective shield quantity to be verified in the field.
- The construction of Ramp G Bridge (SN 016-2804) might be completed before the construction of SB IL394 Bridge (SN 016-2796). Due to the limited headroom some of the piles at North Abutment might require special pile driving equipment and multiple splices in the piles. The splices must be full moment carrying splices with a min. splice length of 3 meters and their cost will be included in the unit price bid for "Driving Steel Piles". The requirements and details of the splices shall be in accordance with the Standard Specifications Art. 512.05(b) and Construction Memorandum No. 00-44, Effective May 5, 2000. Please note that this note overrides the requirements in the Standard Specifications regarding the minimum splice length of 8 meters and a maximum of one preplanned splice per pile.
- The existing structural steel coating 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.
- Anchor bolts shall be set before bolting cross frames over the supports.
- 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 cross frames, bolting of cross frames, 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."

DESIGNED	MEA
CHECKED	MAS
DRAWN	LK
CHECKED	MAS/MEA

INDEX OF DRAWINGS

Sht. No.	Sht. Title
1	General Plan & Elevation
2	General Notes, Quantities & Details
3	Sloped Wall Details (SN 016-2795)
4	Footing Layout & Offset Sketch
5	Top of Slab Elevation Grid & Details
6-8	Top of Slab Elevations
9	Deck Plan
10	Deck & Parapet Sections
11	Parapet Elevation
12	Deck Details
13	Strip Seal Expansion Joint Assembly
14	Drainage Scupper DS-II
15	Framing Plan
16	Girder Elevation & Details
17	Structural Steel Details
18	Bearing Details
19	Anchor Bolt Details
20	South Abutment Plan & Elevation
21	South Abutment Details
22	North Abutment Plan & Elevation
23	North Abutment Details
24	Abutment Details
25	Pier Plan & Elevation
26	Pier Section & Details
27	Bar Splicer Assembly Details
28-29	Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu M	---	185	185
Structure Excavation	Cu M	---	667	667
Concrete Structures	Cu M	---	290.0	290.0
Concrete Superstructure	Cu M	318.3	5.3	323.6
Controlled Low-Strength Material	Cu M	---	16.2	16.2
Bridge Deck Grooving	Sq M	1,153	---	1,153
Protective Coat	Sq M	1,369	29	1,398
Erecting Structural Steel	L Sum	0.11	---	0.11
Stud Shear Connectors	Each	4,752	---	4,752
Reinforcement Bars, Epoxy Coated	kg	58,720	20,110	78,830
Slope Wall 100 mm	Sq M	---	1,630	1,630
Furnishing Steel Piles HP310x79	Meter	---	1,650	1,650
Driving Steel Piles	Meter	---	1,650	1,650
Test Pile Steel HP310x79	Each	---	3	3
Name Plates	Each	---	---	1
Drainage Scuppers, DS-II	Each	1	---	1
Strip Seal Expansion Joint Assembly	Meter	29.4	---	29.4
Erecting Elastomeric Bearing Assembly, Type I	Each	---	12	12
Bridge Seat Sealer	Sq M	---	32	32
Bar Splicers	Each	---	98	98
Removal of Existing Structure No. 1	Each	---	---	1
Protective Shield	Sq M	562	---	562
Furnishing and Erecting Structural Steel	kg	190	---	190

Bill of Material Notes:

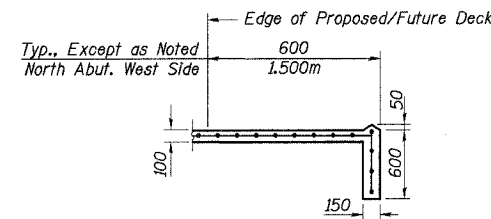
- For Splices of Steel Piles, see General Notes.
- For Protective Shield, see General Notes.

STATION 440+193.335
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 332 SEC. (0203.1 & 0312-708W) R-3
LOADING MS18
STR. NO. 016-2796

NAME PLATE
See Std. 515001

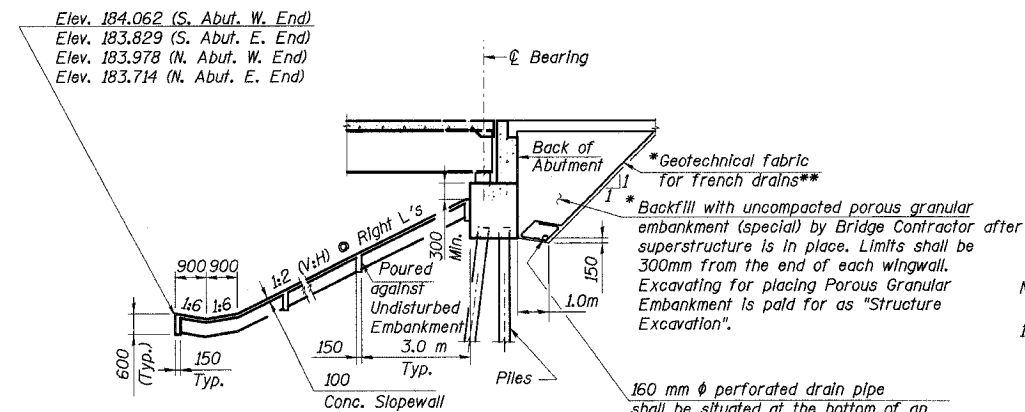
Notes:

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



SECTION A-A

(For Location of Section A-A See Sheet No.1 of 29)



SECTION B-B

(N. Abut. Shown; S. Abut. Similar)

Horizontal Dimensions Shown at Right Angles (For Location of Section B-B, see Sheet No. 1 of 29)

*Behind abutment extension for future widening, place to top of lean concrete encasement.

**Cost to be included in the item "Porous Granular Embankment (Special)".

160 mm ϕ perforated drain pipe shall be situated at the bottom of an approximate 600 x 600 area of porous granular embankment (special). The 600 x 600 area shall be wrapped completely in geotechnical fabric for trench drains. Extend pipe parallel with the cap until intersecting with the side slopes. Pipes shall drain onto concrete headwalls (Article 601.05 of the Standard Specifications and Highway Standard 601101.) **

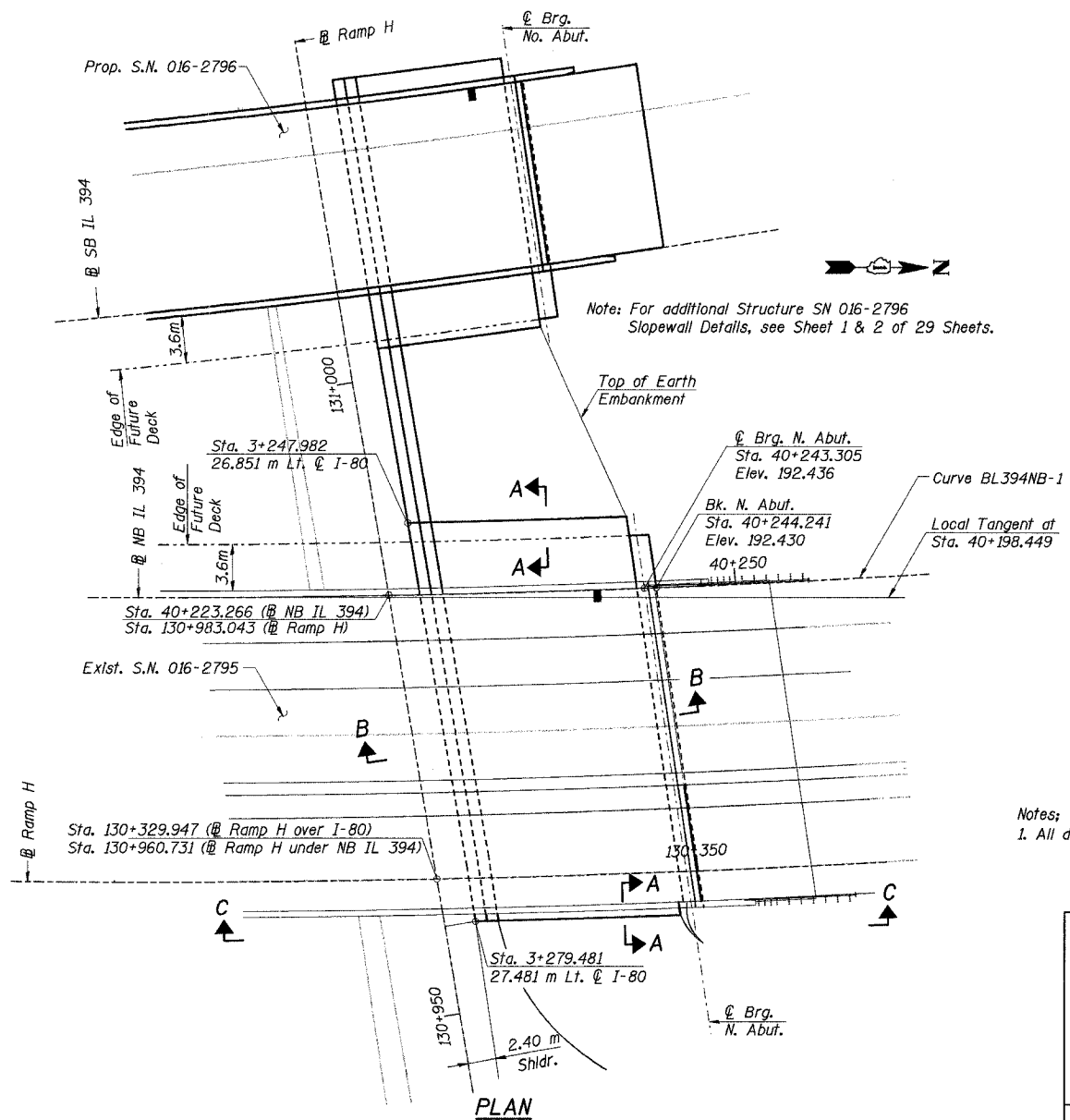
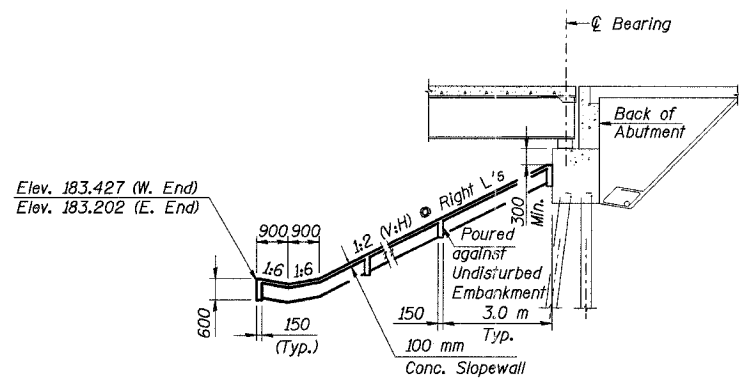
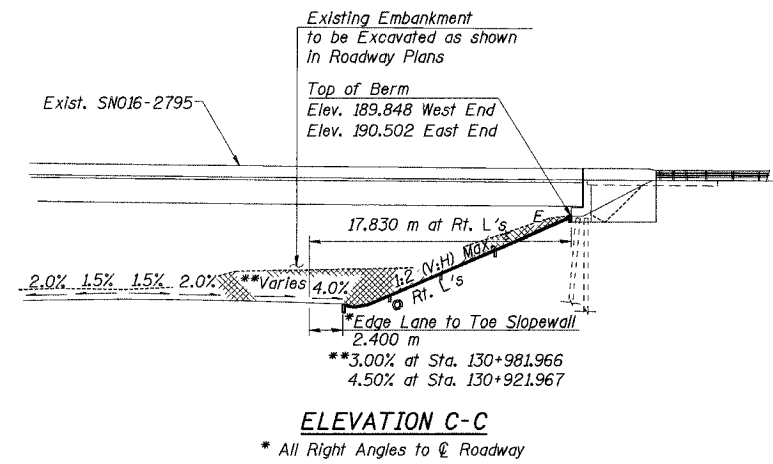
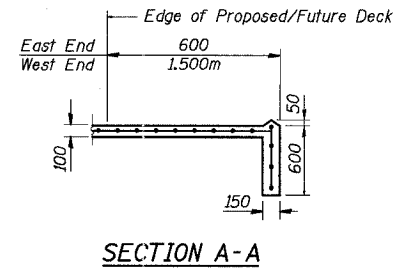
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
GENERAL NOTES, QUANTITIES & DETAILS

SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3 29 SHEETS
F. A. I. 80/94	.	COOK	870	445	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		
(0203.1 & 0312-708W) R-3		CONTRACT NO. 62108			



Note: For additional Structure SN 016-2796
Slopewall Details, see Sheet 1 & 2 of 29 Sheets.

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

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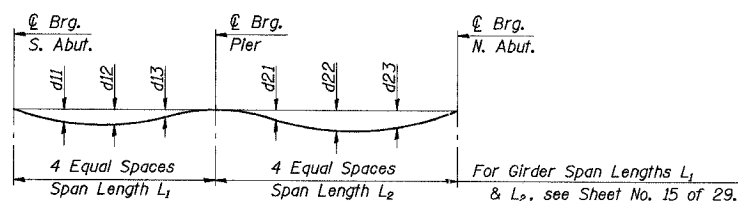
DESIGNED	MEA/PCA
CHECKED	PCA
DRAWN	LK
CHECKED	DD

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SLOPEWALL DETAILS (SN 016-2795)
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET No. 5 29 SHEETS
F. A. I. 80/94	.	COOK	870	447	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		
* (0203.1 & 0312-708W) R-3			CONTRACT NO. 62108		



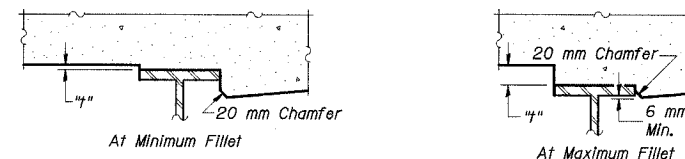
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

DEFLECTION TABLE

Girder	Span 1			Span 2		
	d11	d12	d13	d21	d22	d23
1 & 6	36	38	15	17	42	38
2-5	41	43	17	19	48	43

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.

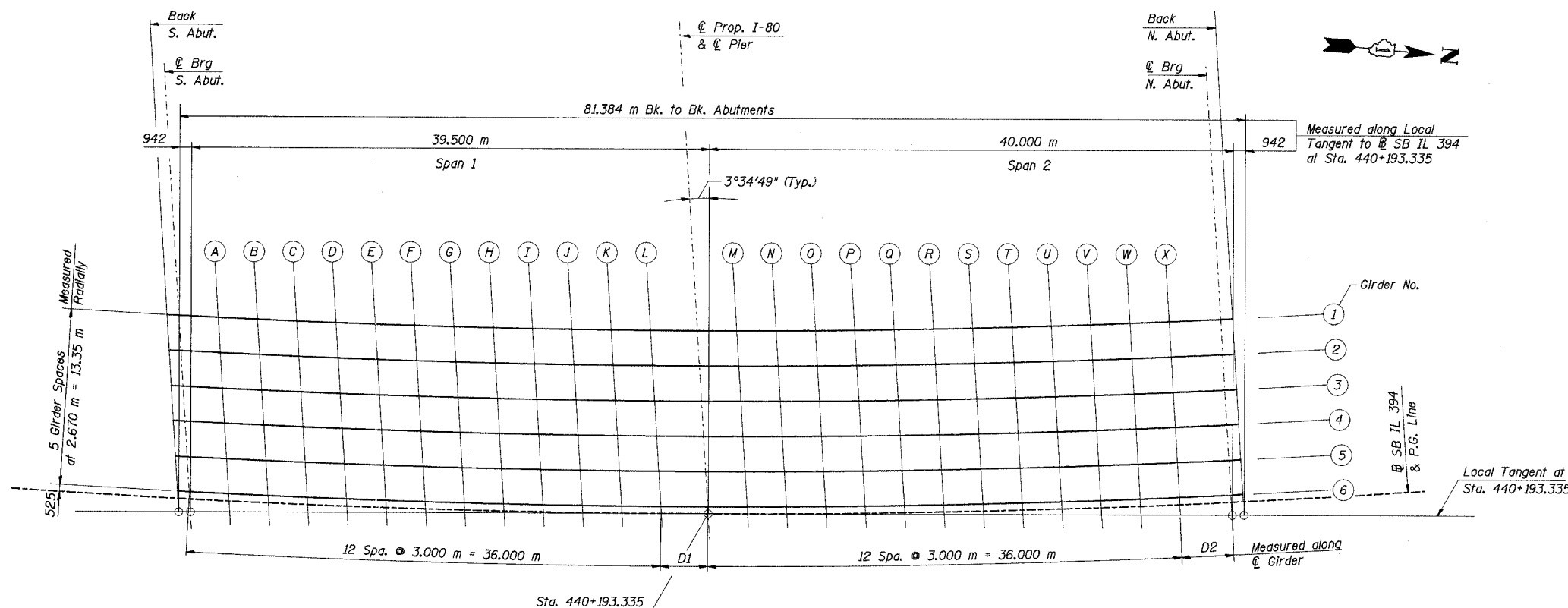


To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown in the elevation tables. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in the elevation tables, minus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

FILLET HEIGHTS

END OF SPAN DIMENSIONS (Meters)

Girder	D1	D2
1	3.583	3.955
2	3.582	3.955
3	3.581	3.955
4	3.580	3.954
5	3.579	3.954
6	3.578	3.954
@/PGL	3.578	3.954



ELEVATION GRID

DESIGNED	MEA
CHECKED	MAS/PY
DRAWN	LK
CHECKED	MAS/PY

- Notes:
1. Work this Sheet with Nos. 6-8 of 29 sheets.
 2. All offsets & elevations shown in the "Top of Slab Elevations" tables are in meters (m).
 3. All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
TOP OF SLAB ELEVATION GRID AND DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 29 SHEETS
F. A. I. 80/94	*	COOK	870	448	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		CONTRACT NO. 62108
(0203.1 & 0312-708W) R-3					

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	440+151.223	-13.875	193.123	193.123
⊙ Brg. S. Abut.	440+152.169	-13.875	193.098	193.098
A	440+155.222	-13.875	193.016	193.031
B	440+158.275	-13.875	192.935	192.962
C	440+161.328	-13.875	192.854	192.892
D	440+164.381	-13.875	192.772	192.817
E	440+167.434	-13.875	192.691	192.739
F	440+170.487	-13.875	192.610	192.657
G	440+173.540	-13.875	192.528	192.570
H	440+176.593	-13.875	192.447	192.482
I	440+179.646	-13.875	192.365	192.391
J	440+182.699	-13.875	192.284	192.300
K	440+185.752	-13.875	192.203	192.211
L	440+188.805	-13.875	192.121	192.123
⊙ Pier	440+192.452	-13.875	192.024	192.024
M	440+195.504	-13.875	191.943	191.945
N	440+198.557	-13.875	191.861	191.869
O	440+201.610	-13.875	191.780	191.796
P	440+204.663	-13.875	191.699	191.725
Q	440+207.716	-13.875	191.617	191.653
R	440+210.769	-13.875	191.536	191.580
S	440+213.822	-13.875	191.455	191.504
T	440+216.875	-13.875	191.373	191.424
U	440+219.928	-13.875	191.292	191.341
V	440+222.981	-13.875	191.211	191.254
W	440+226.034	-13.875	191.129	191.162
X	440+229.087	-13.875	191.048	191.068
⊙ Brg. N. Abut.	440+233.112	-13.875	190.941	190.941
Bk. N. Abut.	440+234.052	-13.875	190.916	190.916

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	440+151.533	-11.205	193.259	193.259
⊙ Brg. S. Abut.	440+152.479	-11.205	193.234	193.234
A	440+155.522	-11.205	193.153	193.169
B	440+158.565	-11.205	193.071	193.101
C	440+161.607	-11.205	192.990	193.032
D	440+164.650	-11.205	192.909	192.958
E	440+167.692	-11.205	192.828	192.881
F	440+170.735	-11.205	192.747	192.799
G	440+173.778	-11.205	192.666	192.713
H	440+176.820	-11.205	192.585	192.624
I	440+179.863	-11.205	192.504	192.533
J	440+182.905	-11.205	192.423	192.441
K	440+185.948	-11.205	192.342	192.351
L	440+188.991	-11.205	192.261	192.264
⊙ Pier	440+192.624	-11.205	192.164	192.164
M	440+195.667	-11.205	192.083	192.085
N	440+198.709	-11.205	192.002	192.011
O	440+201.752	-11.205	191.920	191.938
P	440+204.794	-11.205	191.839	191.868
Q	440+207.837	-11.205	191.758	191.797
R	440+210.880	-11.205	191.677	191.726
S	440+213.922	-11.205	191.596	191.651
T	440+216.965	-11.205	191.515	191.572
U	440+220.007	-11.205	191.434	191.488
V	440+223.050	-11.205	191.353	191.400
W	440+226.093	-11.205	191.272	191.308
X	440+229.135	-11.205	191.191	191.213
⊙ Brg. N. Abut.	440+233.146	-11.205	191.084	191.084
Bk. N. Abut.	440+234.086	-11.205	191.060	191.060

Notes:

1. Work this sheet with Sheet No. 5 of 29 sheets.

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DESIGNED	MEA
CHECKED	MAS
DRAWN	LK
CHECKED	PY/MAS

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
TOP OF SLAB ELEVATIONS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 29 SHEETS
F. A. I. 80/94	*	COOK	870	449	
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-			
0203.1 & 0312-708W R-3		CONTRACT NO. 62106			

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	440+151.841	-8.535	193.395	193.395
⊕ Brg. S. Abut.	440+152.787	-8.535	193.370	193.370
A	440+155.819	-8.535	193.289	193.305
B	440+158.852	-8.535	193.208	193.238
C	440+161.884	-8.535	193.127	193.169
D	440+164.916	-8.535	193.046	193.095
E	440+167.949	-8.535	192.966	193.019
F	440+170.981	-8.535	192.885	192.937
G	440+174.014	-8.535	192.804	192.851
H	440+177.046	-8.535	192.723	192.762
I	440+180.078	-8.535	192.642	192.671
J	440+183.111	-8.535	192.561	192.579
K	440+186.143	-8.535	192.481	192.490
L	440+189.175	-8.535	192.400	192.403
⊕ Pler	440+192.795	-8.535	192.303	192.303
M	440+195.828	-8.535	192.223	192.225
N	440+198.860	-8.535	192.142	192.151
O	440+201.892	-8.535	192.061	192.079
P	440+204.925	-8.535	191.980	192.009
Q	440+207.957	-8.535	191.899	191.938
R	440+210.989	-8.535	191.818	191.867
S	440+214.022	-8.535	191.738	191.793
T	440+217.054	-8.535	191.657	191.714
U	440+220.086	-8.535	191.576	191.630
V	440+223.119	-8.535	191.495	191.542
W	440+226.151	-8.535	191.414	191.450
X	440+229.183	-8.535	191.334	191.356
⊕ Brg. N. Abut.	440+233.181	-8.535	191.228	191.228
Bk. N. Abut.	440+234.121	-8.535	191.203	191.203

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	440+152.147	-5.865	193.531	193.531
⊕ Brg. S. Abut.	440+153.093	-5.865	193.506	193.506
A	440+156.115	-5.865	193.425	193.441
B	440+159.137	-5.865	193.345	193.375
C	440+162.159	-5.865	193.264	193.306
D	440+165.181	-5.865	193.183	193.232
E	440+168.204	-5.865	193.103	193.156
F	440+171.226	-5.865	193.022	193.074
G	440+174.248	-5.865	192.942	192.989
H	440+177.270	-5.865	192.861	192.900
I	440+180.292	-5.865	192.781	192.810
J	440+183.314	-5.865	192.700	192.718
K	440+186.336	-5.865	192.620	192.629
L	440+189.359	-5.865	192.539	192.542
⊕ Pler	440+192.965	-5.865	192.443	192.443
M	440+195.987	-5.865	192.362	192.364
N	440+199.010	-5.865	192.282	192.291
O	440+202.032	-5.865	192.201	192.219
P	440+205.054	-5.865	192.121	192.150
Q	440+208.076	-5.865	192.040	192.079
R	440+211.098	-5.865	191.960	192.009
S	440+214.120	-5.865	191.879	191.934
T	440+217.143	-5.865	191.799	191.856
U	440+220.165	-5.865	191.718	191.772
V	440+223.187	-5.865	191.638	191.685
W	440+226.209	-5.865	191.557	191.593
X	440+229.231	-5.865	191.477	191.499
⊕ Brg. N. Abut.	440+233.215	-5.865	191.371	191.371
Bk. N. Abut.	440+234.155	-5.865	191.346	191.346

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	440+152.450	-3.195	193.667	193.667
⊕ Brg. S. Abut.	440+153.396	-3.195	193.642	193.642
A	440+156.408	-3.195	193.561	193.577
B	440+159.420	-3.195	193.481	193.511
C	440+162.432	-3.195	193.401	193.443
D	440+165.444	-3.195	193.321	193.370
E	440+168.456	-3.195	193.240	193.293
F	440+171.469	-3.195	193.160	193.212
G	440+174.481	-3.195	193.080	193.127
H	440+177.493	-3.195	193.000	193.039
I	440+180.505	-3.195	192.919	192.948
J	440+183.517	-3.195	192.839	192.857
K	440+186.529	-3.195	192.759	192.768
L	440+189.541	-3.195	192.678	192.681
⊕ Pler	440+193.134	-3.195	192.583	192.583
M	440+196.146	-3.195	192.502	192.504
N	440+199.158	-3.195	192.422	192.431
O	440+202.170	-3.195	192.342	192.360
P	440+205.182	-3.195	192.262	192.291
Q	440+208.194	-3.195	192.181	192.220
R	440+211.206	-3.195	192.101	192.150
S	440+214.218	-3.195	192.021	192.076
T	440+217.231	-3.195	191.941	191.998
U	440+220.243	-3.195	191.860	191.914
V	440+223.255	-3.195	191.780	191.827
W	440+226.267	-3.195	191.700	191.736
X	440+229.279	-3.195	191.619	191.641
⊕ Brg. N. Abut.	440+233.249	-3.195	191.514	191.514
Bk. N. Abut.	440+234.189	-3.195	191.490	191.490

Notes:

1. Work this sheet with Sheet No. 5 of 29 sheets.

DESIGNED	MEA
CHECKED	MAS
DRAWN	LK
CHECKED	PY/MAS

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ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
TOP OF SLAB ELEVATIONS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8 29 SHEETS
F. A. I. 80/94	*	COOK	870	450	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		CONTRACT NO. 62108
(0203.1 & 0312-708W) R-3					

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	440+152.752	-0.525	193.803	193.803
⊕ Brg. S. Abut.	440+153.698	-0.525	193.778	193.778
A	440+156.700	-0.525	193.698	193.713
B	440+159.702	-0.525	193.618	193.645
C	440+162.704	-0.525	193.538	193.576
D	440+165.706	-0.525	193.458	193.503
E	440+168.708	-0.525	193.378	193.426
F	440+171.710	-0.525	193.298	193.345
G	440+174.712	-0.525	193.218	193.260
H	440+177.714	-0.525	193.138	193.173
I	440+180.716	-0.525	193.058	193.084
J	440+183.718	-0.525	192.978	192.994
K	440+186.720	-0.525	192.898	192.906
L	440+189.722	-0.525	192.818	192.820
⊕ Pier	440+193.302	-0.525	192.722	192.722
M	440+196.304	-0.525	192.642	192.644
N	440+199.306	-0.525	192.562	192.570
O	440+202.308	-0.525	192.482	192.498
P	440+205.310	-0.525	192.402	192.428
Q	440+208.312	-0.525	192.322	192.358
R	440+211.314	-0.525	192.242	192.286
S	440+214.316	-0.525	192.162	192.211
T	440+217.318	-0.525	192.082	192.133
U	440+220.320	-0.525	192.002	192.051
V	440+223.322	-0.525	191.922	191.965
W	440+226.324	-0.525	191.842	191.875
X	440+229.326	-0.525	191.762	191.782
⊕ Brg. N. Abut.	440+233.282	-0.525	191.658	191.658
Bk. N. Abut.	440+234.222	-0.525	191.633	191.633

⊕ SB IL394 & P.G. Line

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	440+152.811	0.000	193.830	193.830
⊕ Brg. S. Abut.	440+153.757	0.000	193.805	193.805
A	440+156.757	0.000	193.725	193.741
B	440+159.757	0.000	193.645	193.675
C	440+162.757	0.000	193.565	193.607
D	440+165.757	0.000	193.485	193.534
E	440+168.757	0.000	193.405	193.458
F	440+171.757	0.000	193.325	193.377
G	440+174.757	0.000	193.245	193.292
H	440+177.757	0.000	193.165	193.204
I	440+180.757	0.000	193.085	193.114
J	440+183.757	0.000	193.005	193.023
K	440+186.757	0.000	192.925	192.934
L	440+189.757	0.000	192.845	192.848
⊕ Pier	440+193.335	0.000	192.750	192.750
M	440+196.335	0.000	192.670	192.672
N	440+199.335	0.000	192.590	192.599
O	440+202.335	0.000	192.510	192.528
P	440+205.335	0.000	192.430	192.459
Q	440+208.335	0.000	192.350	192.389
R	440+211.335	0.000	192.270	192.319
S	440+214.335	0.000	192.190	192.245
T	440+217.335	0.000	192.110	192.167
U	440+220.335	0.000	192.030	192.084
V	440+223.335	0.000	191.950	191.997
W	440+226.335	0.000	191.870	191.906
X	440+229.335	0.000	191.790	191.812
⊕ Brg. N. Abut.	440+233.289	0.000	191.686	191.686
Bk. N. Abut.	440+234.229	0.000	191.661	191.661

Notes:

1. Work this sheet with Sheet No. 5 of 29 sheets.

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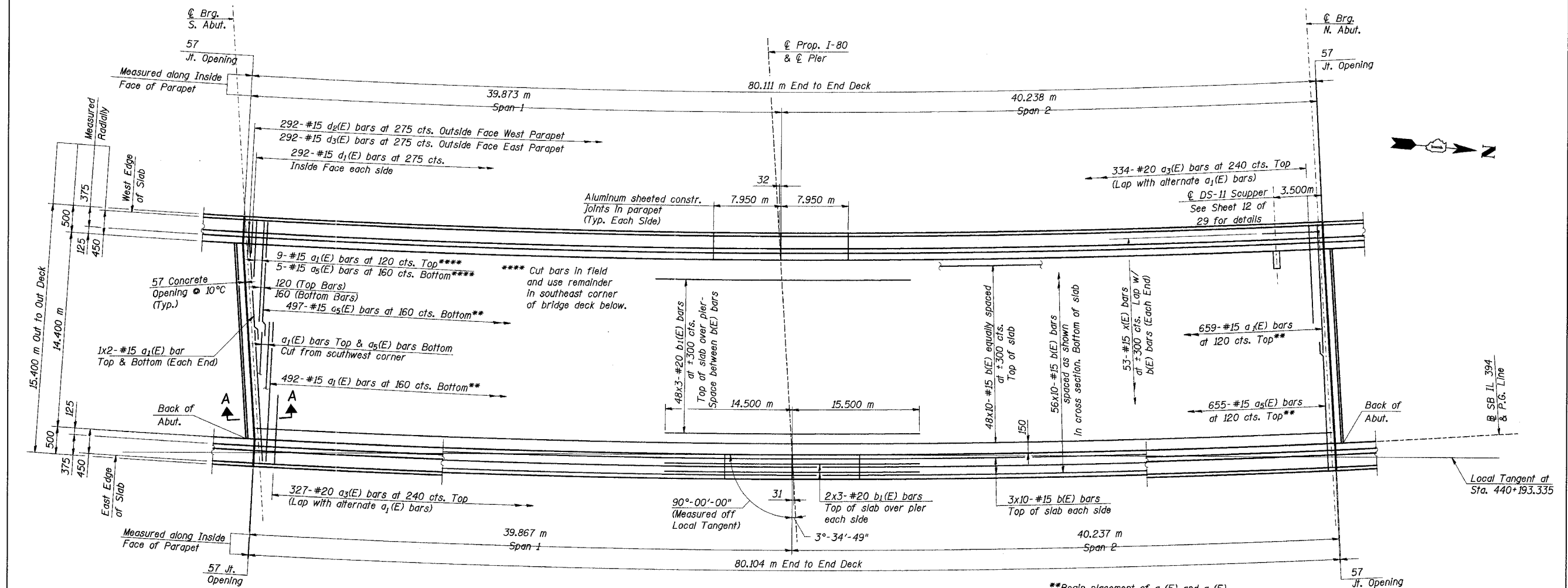
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CHECKED	MAS
DRAWN	LK
CHECKED	PY/MAS

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
TOP OF SLAB ELEVATIONS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9 29 SHEETS
F. A. I. 80/94	.	COOK	870	451	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	CONTRACT NO. 62108		



PLAN

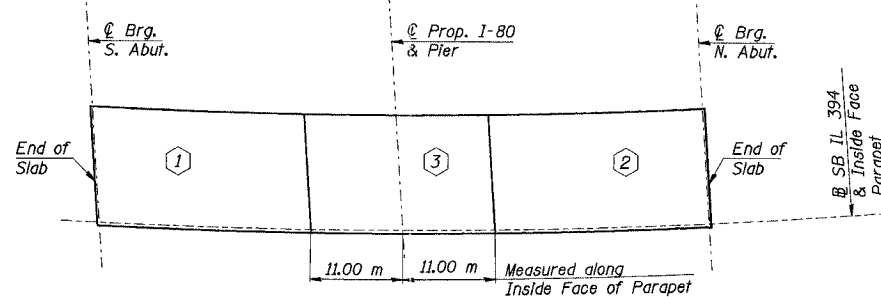
(Cork Filled Parapet Joint not shown)

**Begin placement of a1(E) and a5(E) bars at Northwest corner of deck (Place perpendicular to girders)

Notes:

1. Work this sheet with Sheet Numbers 10-12 of 29 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. Min. slab bar laps (Unless otherwise shown):

	Bottom bars	Top bars
#15	510 mm	710 mm
#20	640 mm	890 mm
#25	1060 mm	1480 mm
5. All dimensions are in millimeters (mm) except as noted.
6. Place bars d(E), d1(E), d2(E), d3(E) to miss the Aluminum Sheeted Joint Location in Parapets.
7. For localized Scupper reinforcement and Bill of Material see Sheet 12 of 29.

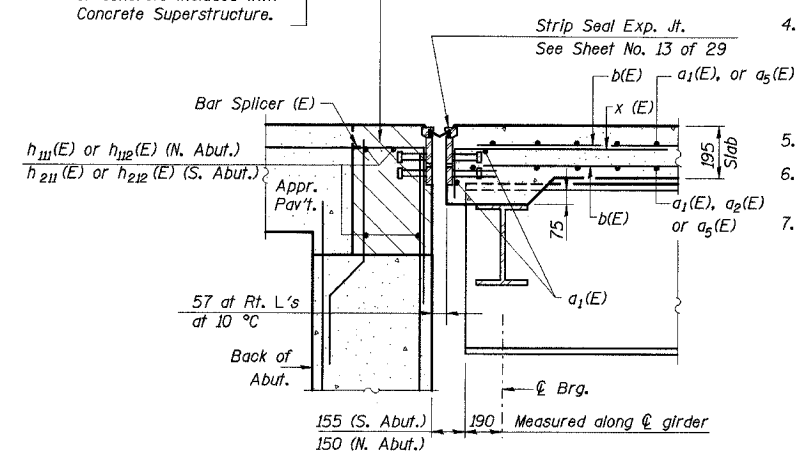


SLAB POUR SEQUENCE DIAGRAM

Sequence of Pour

DESIGNED	MEA
CHECKED	PY
DRAWN	LK
CHECKED	PY

Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



SECTION A-A

(Section Thru N. Abut. similar)

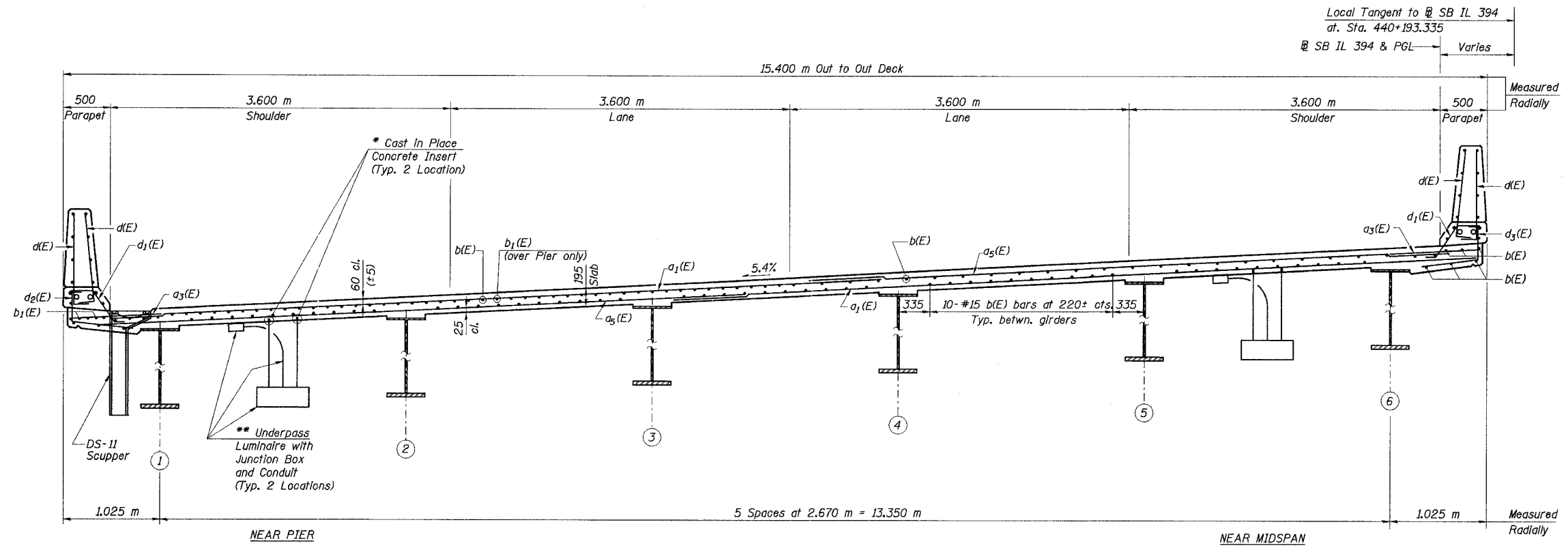
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DECK PLAN
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---



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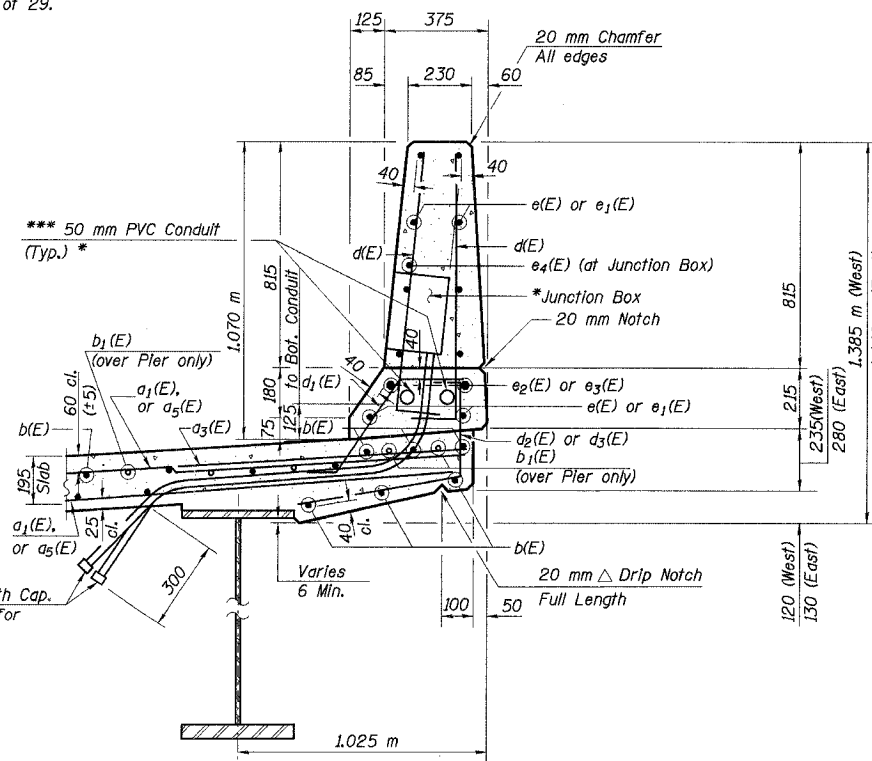
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 29 SHEETS
F. A. I. 80/94	.	COOK	870	452	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		
		* (0203.1 & 0312-708W) R-3		CONTRACT NO. 62108	



CROSS SECTION
(Looking Up Station)

*See Electrical Drawings for location and type, Junction Box location shown on Sht. 11 of 29.
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 and installed under Electrical Contract.
***Provide 25 mm min. clear between conduits and d(E) bar and conduit



SECTION THRU PARAPET

- Notes:
1. Work this sheet with Sheet Numbers 9, 11, and 12 of 29 Sheets.
 2. Reinforcement bars designated (E) shall be epoxy coated.
 3. All dimensions are in millimeters except as noted.

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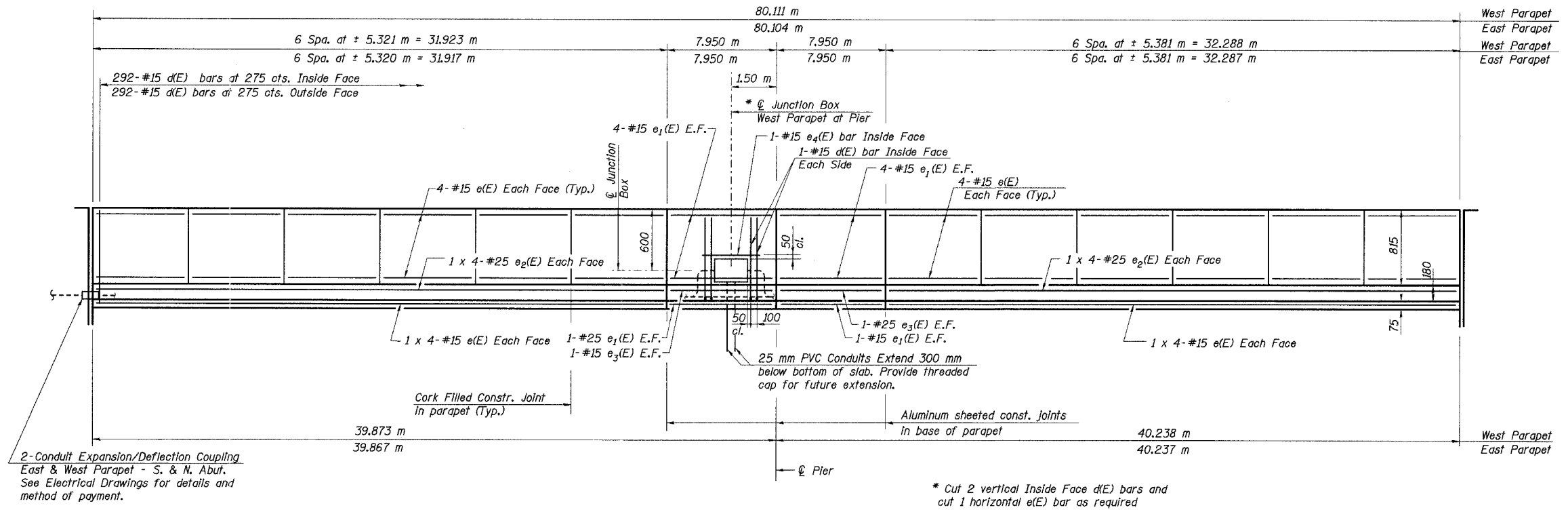
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CHECKED	PY
DRAWN	LK
CHECKED	MAS

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DECK & PARAPET SECTIONS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

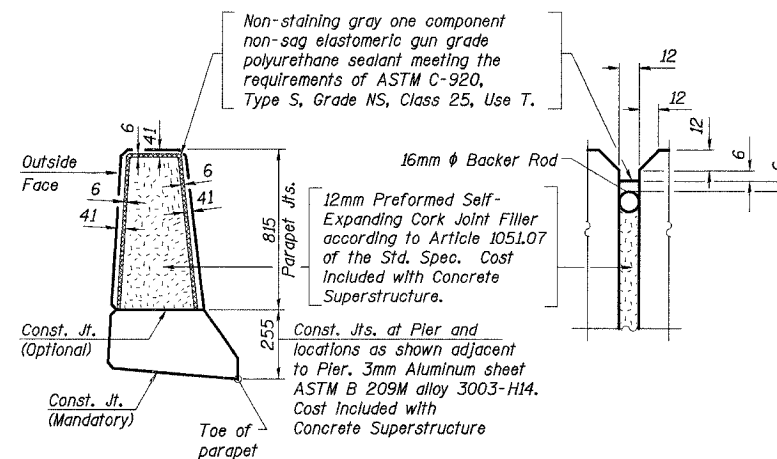
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11 29 SHEETS
F. A. I. 80/94	*	COOK	870	453	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		CONTRACT NO. 62108
		* (0203.1 & 0312-708W) R-3			



INSIDE ELEVATION OF PARAPET

(Looking West)
(West Parapet Shown- East Parapet Similar)
(All horizontal dimensions are measured along the inside face of parapet.)



PARAPET JOINT DETAIL

Notes:

1. Work this sheet with Sheet Numbers 9, 10, and 12 of 29 Sheets.
2. Min. bar lap for #25 e (E) bars shall be 1,320 m.
3. For details of conduits and method of payment for conduit, see Electrical Drawings.
4. All dimensions are in millimeters (mm) except as noted

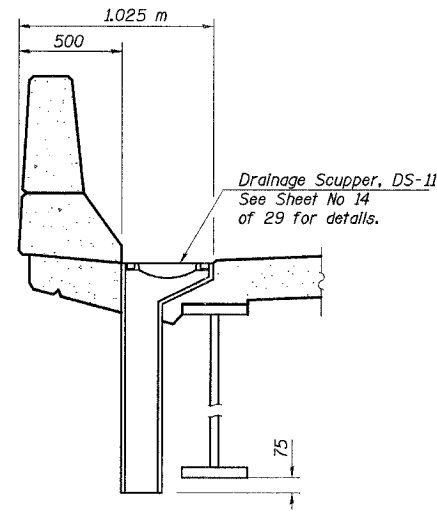
DESIGNED	MEA
CHECKED	PY
DRAWN	LK
CHECKED	PY

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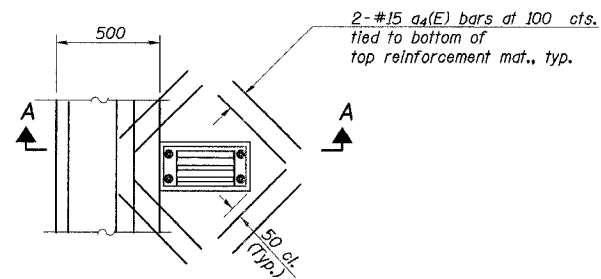
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
PARAPET ELEVATION
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

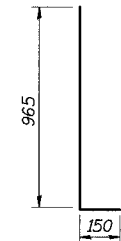
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FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	CONTRACT NO. 62108		



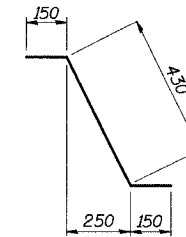
SECTION A-A



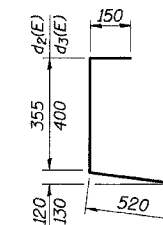
PLAN



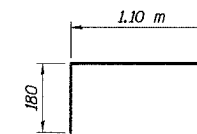
BAR d(E)



BAR d1(E)



BAR d2(E) & d3(E)



BAR x(E)

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
a1(E)	1168	#15	9,000	—
a3(E)	661	#20	1,400	—
a4(E)	8	#15	0,450	—
a5(E)	1157	#15	7,200	—
b(E)	1100	#15	9,000	—
b1(E)	156	#20	11,000	—
d(E)	1172	#15	1,115	┌
d1(E)	584	#15	0,730	└
d2(E)	292	#15	1,025	┌
d3(E)	292	#15	1,070	└
e(E)	192	#15	5,270	—
e1(E)	40	#15	7,870	—
e2(E)	32	#25	9,050	—
e3(E)	8	#25	7,870	—
e4(E)	1	#15	1,200	—
x(E)	106	#15	1,280	┌
ITEM		UNIT	QUANTITY	
Reinforcement Bars, Epoxy Coated		kg	58,720	
Concrete Superstructure		m ³	318.3	
Bridge Deck Grooving		m ²	1,153	
Protective Coat *		m ²	1,398	

* Includes both substructure and superstructure

Notes:

1. Work this sheet with Sheet Numbers 9-11 of 29 Sheets.
2. Drains shall be located clear of all cross frames.
3. All dimensions are in millimeters (mm) except as noted.

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DESIGNED	MEA
CHECKED	PY
DRAWN	LK
CHECKED	PY

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

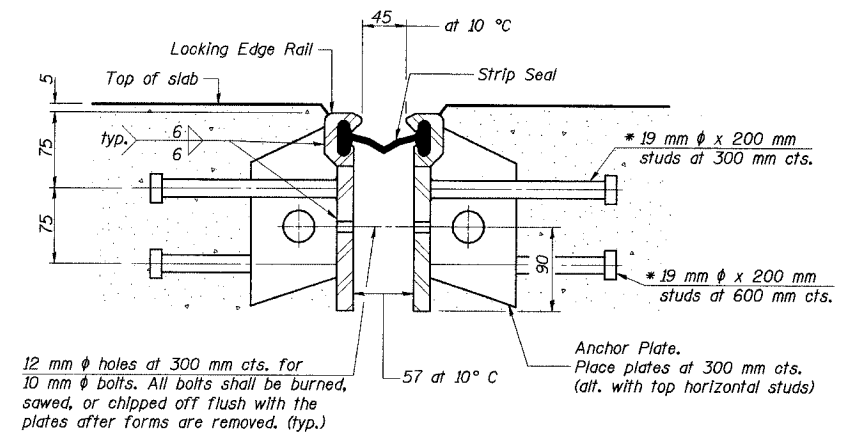
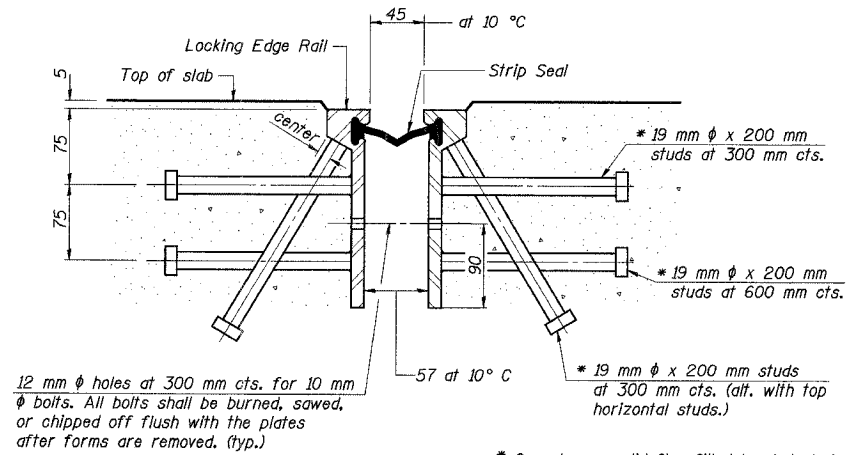
DECK DETAILS

SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

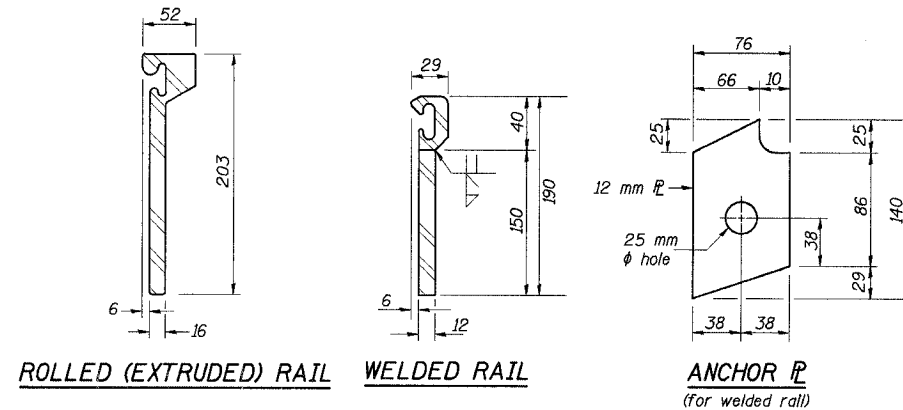
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
F. A. I. 80/94	*	COOK	870	455	29 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	CONTRACT NO. 62108		



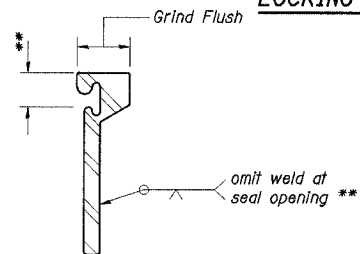
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

SECTION THRU ROLLED RAIL EXP. JOINT
(488 Studs Required)

SECTION THRU WELDED RAIL EXP. JOINT
(292 Studs Required)
(196 Anchor Plates Required)

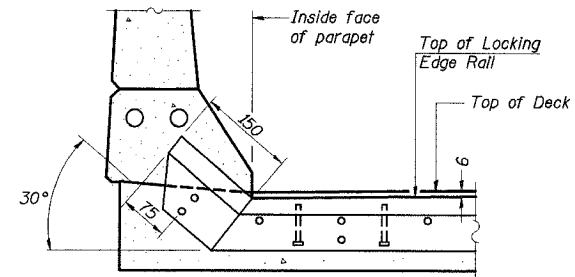


LOCKING EDGE RAILS



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.



AT PARAPET
TYPICAL END TREATMENTS

GENERAL NOTES

- The strip seal shall be made continuous and shall have a minimum thickness of 6 mm. The configuration of the strip seal shall match the configuration of the Locking Edge Rails.
- The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.
- Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
- The manufacturer's recommended installation methods shall be followed.
- All dimensions are in millimeters (mm) except as noted.
- Required Strip Seal rated movement: 50 mm

BILL OF MATERIAL

Item	Unit	Total
Strip Seal Expansion Joint Assembly	meter	29.4

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
STRIP SEAL EXPANSION JOINT ASSEMBLY
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

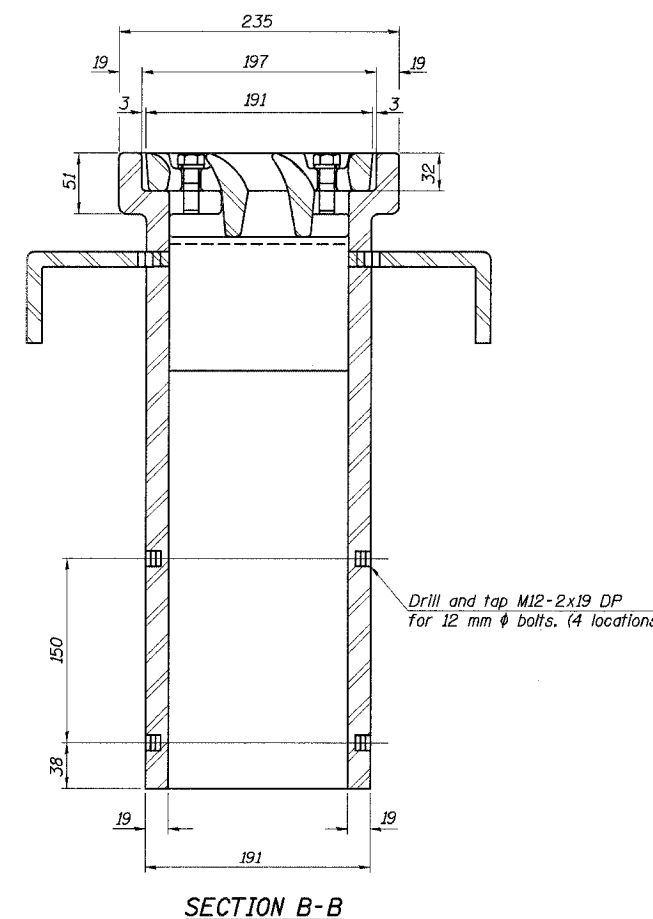
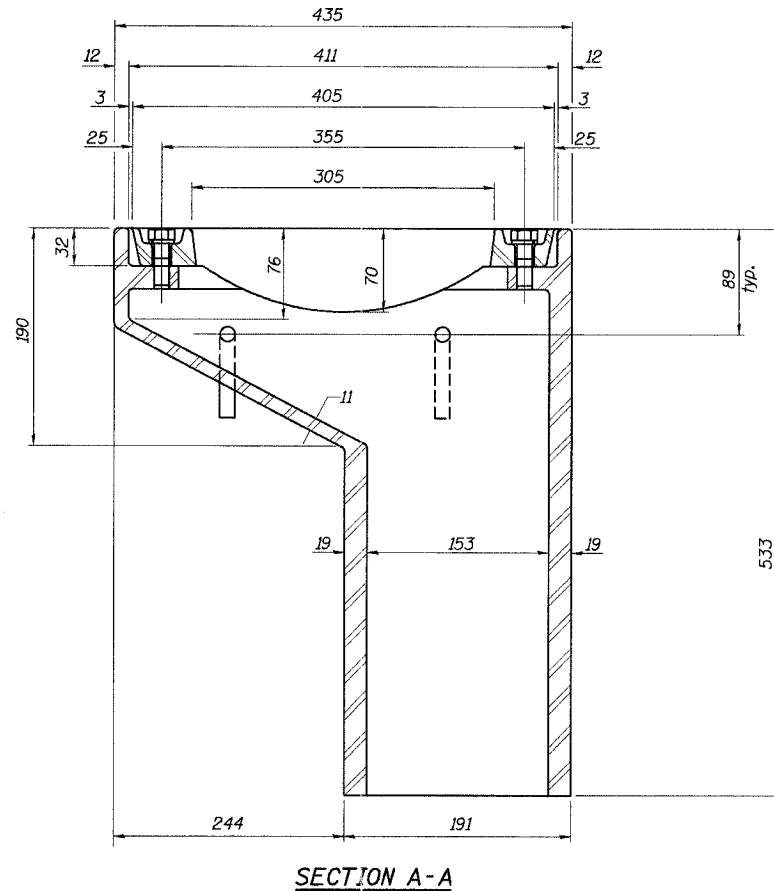
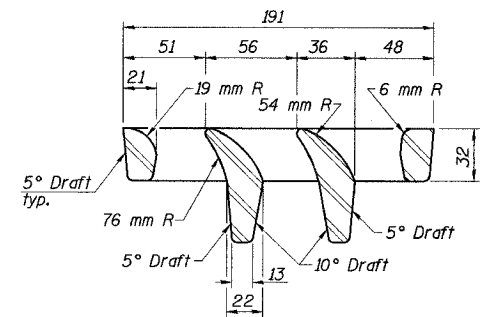
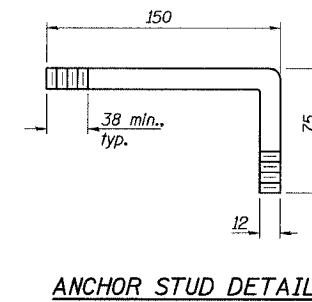
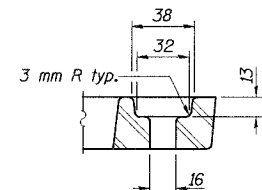
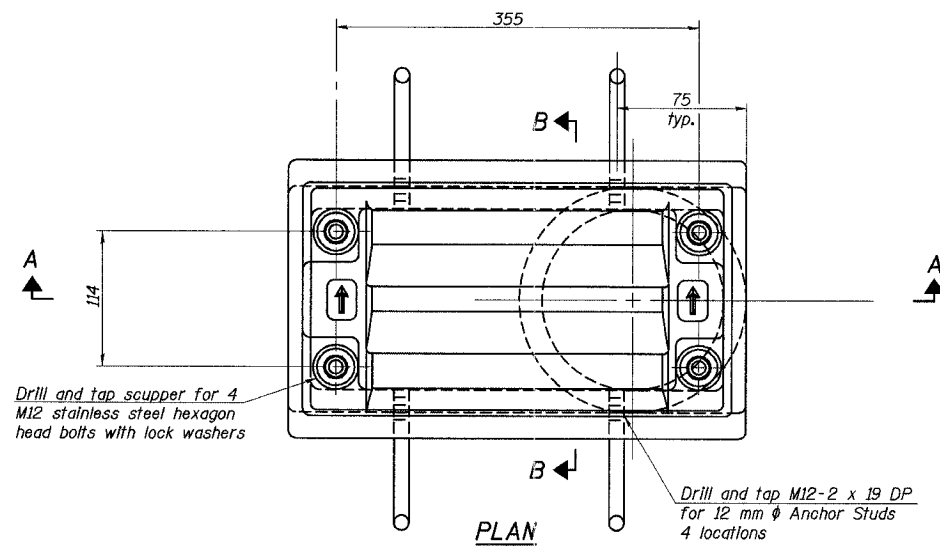


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DESIGNED	MEA
CHECKED	PY
DRAWN	LK
CHECKED	PY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14 29 SHEETS
F. A. I. 80/94	•	COOK	870	456	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		CONTRACT NO. 62108



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	1

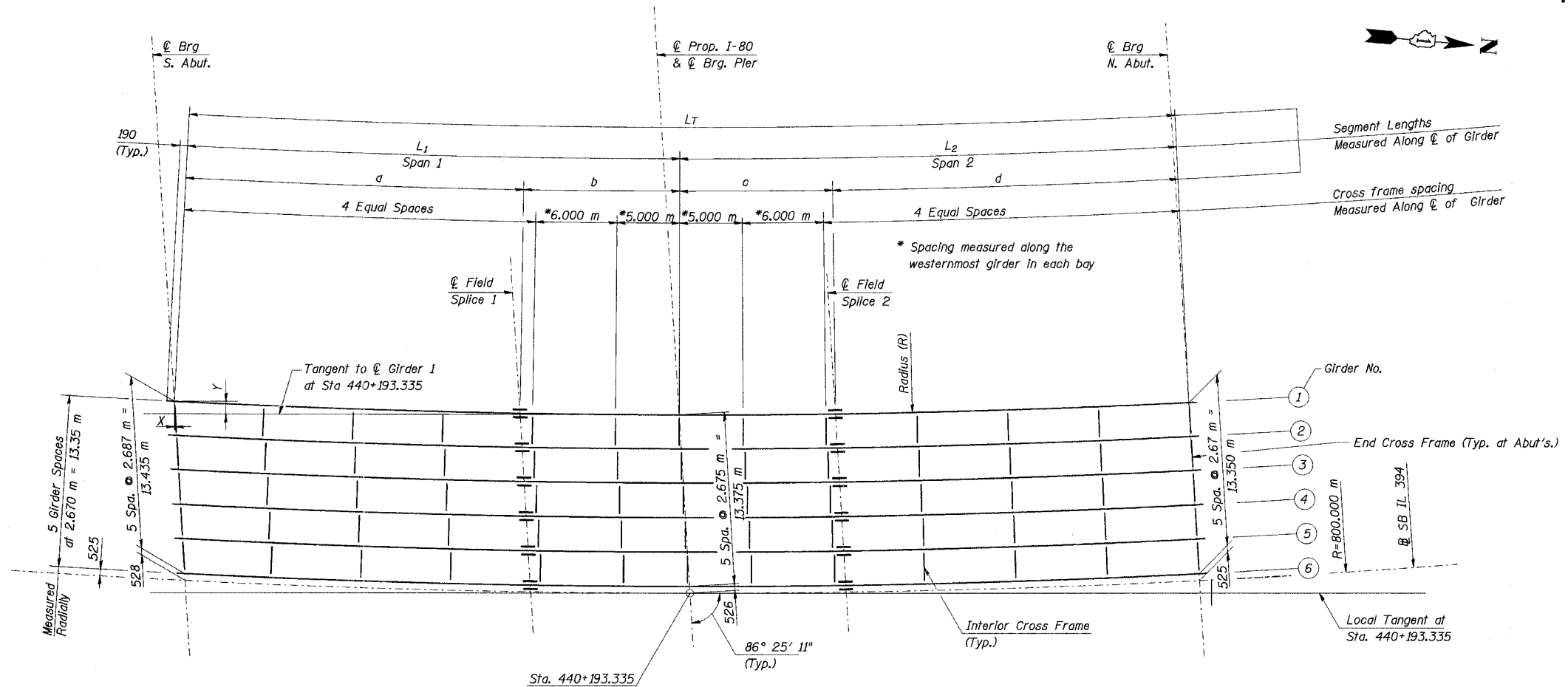
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DESIGNED	MEA
CHECKED	PY
DRAWN	LK
CHECKED	PY

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
DRAINAGE SCUPPER DS-11
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15
F. A. I. 80/94	*	COOK	870	457	29 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-		CONTRACT NO. 62108	



FRAMING PLAN

GIRDER DIMENSIONS (Meters)

Girder	Radius R	Span 1			Span 2			L _T
		a	b	L ₁ = a+b	c	d	L ₂ = c+d	
1	786.125	27.708	11.875	39.583	11.987	27.969	39.955	79.539
2	788.795	27.708	11.875	39.582	11.986	27.968	39.955	79.537
3	791.465	27.707	11.874	39.581	11.986	27.968	39.955	79.536
4	794.135	27.706	11.874	39.580	11.986	27.968	39.954	79.535
5	796.805	27.705	11.874	39.579	11.986	27.968	39.954	79.534
6	799.475	27.705	11.873	39.578	11.986	27.968	39.954	79.532

LAYOUT DIMENSIONS (Meters)

Girder	Girg. S. Abut.		Splice 1		Pier 1		Splice 2		Girg. N. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y
1	0.065	1.041	0.006	0.103	0.000	0.000	0.005	0.079	0.061	0.972
2	0.064	1.028	0.006	0.100	0.000	0.000	0.005	0.081	0.061	0.977
3	0.064	1.016	0.006	0.097	0.000	0.000	0.005	0.083	0.061	0.982
4	0.063	1.005	0.006	0.094	0.000	0.000	0.005	0.085	0.062	0.987
5	0.062	0.993	0.006	0.091	0.000	0.000	0.005	0.087	0.062	0.992
6	0.061	0.981	0.006	0.089	0.000	0.000	0.006	0.089	0.062	0.997

Notes:

- Coordinate system (x, y) shown in Framing Plan is for Girder 1. Typical for all Girders with local tangent to each girder at Station 440+193.335
- Place all interior cross frames at right angles to girders
- All dimensions are in millimeters (mm) except noted otherwise.

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DESIGNED	MEA
CHECKED	MAS/ACF
DRAWN	LK
CHECKED	ACF

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

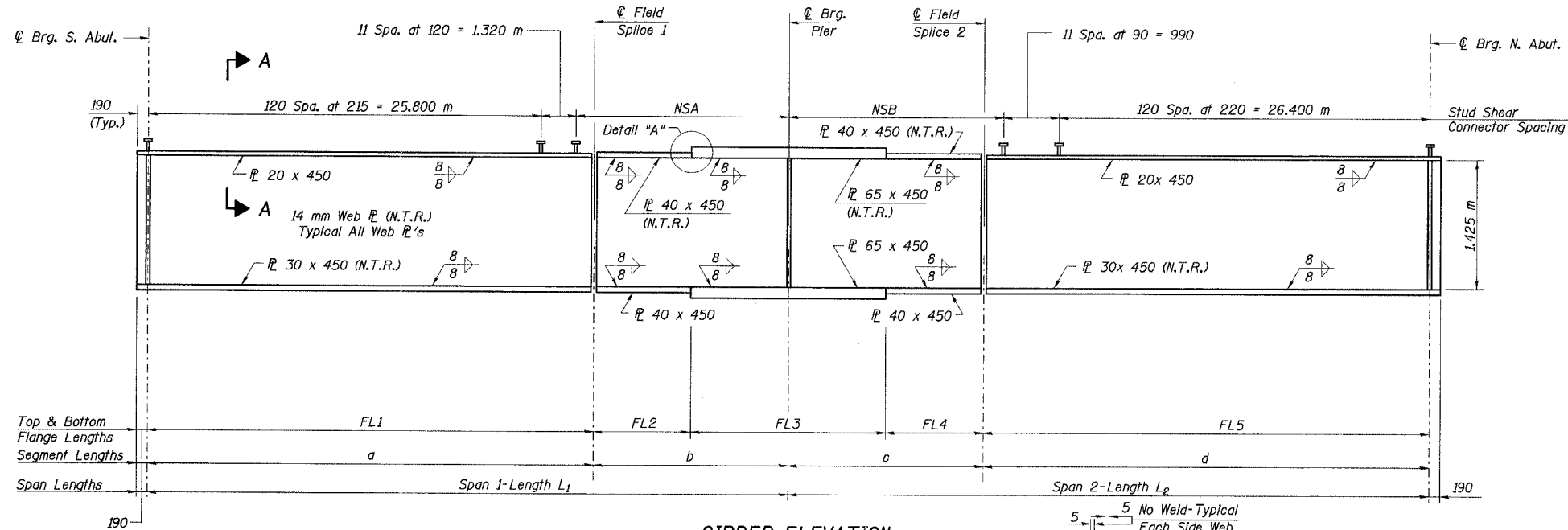
FRAMING PLAN

SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

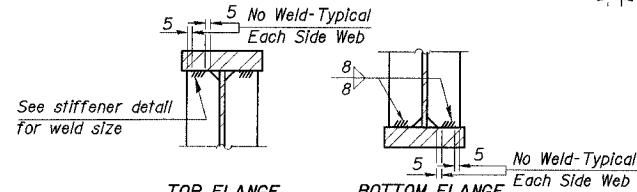
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

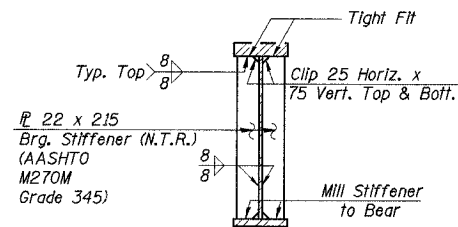
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16
F. A. I. 80/94	*	COOK	870	458	29 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-			
* (0203.1 & 0312-708W) R-3		CONTRACT NO. 62108			



GIRDER ELEVATION
"N.T.R." denotes plates to which notch toughness requirements are applicable



TOP FLANGE STIFFENER TO FLANGE WELD
Typical for Bearing Stiffeners



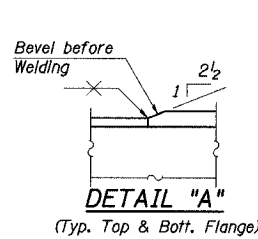
AT PIER & ABUTMENT BEARING STIFFENERS

STUD SHEAR CONNECTOR SPACING (Meters)

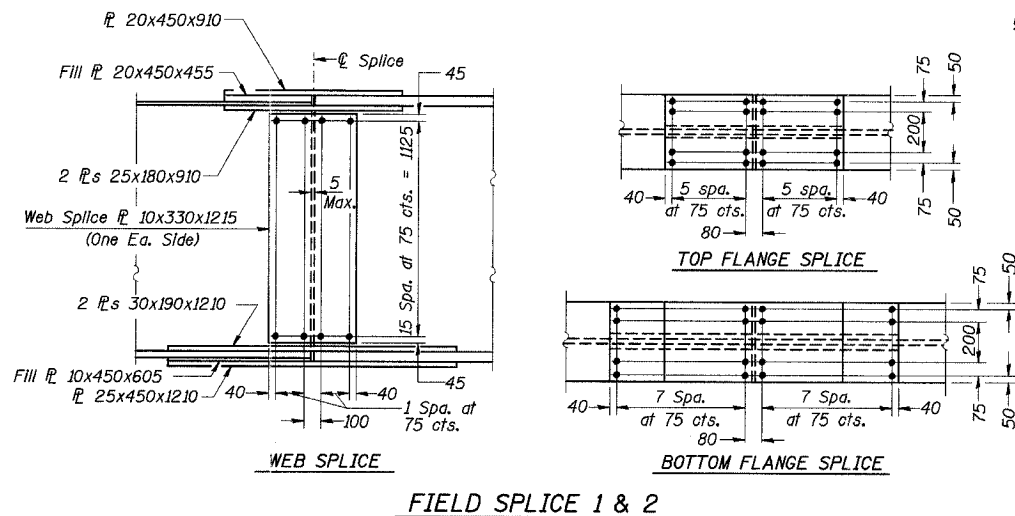
Girder	Pier	
	NSA	NSB
1	12.463	12.565
2	12.462	12.565
3	12.461	12.565
4	12.460	12.564
5	12.459	12.564
6	12.458	12.564

GIRDER TOP AND BOTTOM FLANGE LENGTHS (Meters)

Girder	Flange Lengths				
	FL1	FL2	FL3	FL4	FL5
1	27.708	7.521	8.749	7.591	27.969
2	27.708	7.521	8.749	7.591	27.968
3	27.707	7.520	8.749	7.591	27.968
4	27.706	7.520	8.749	7.591	27.968
5	27.705	7.520	8.749	7.591	27.968
6	27.705	7.520	8.749	7.591	27.968



DESIGNED	MEA
CHECKED	MAS/ACF
DRAWN	LK
CHECKED	ACF



FIELD SPLICE 1 & 2

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp.1	Pier	0.6 Sp.2
I_s	(10^6 mm ⁴)	14,961	35,865	14,961
I_c (n)	(10^6 mm ⁴)	35,458	---	35,458
I_c (3n)	(10^6 mm ⁴)	25,654	---	25,654
S_s	(10^3 mm ³)	22,520	46,129	22,520
S_c (n)	(10^3 mm ³)	30,178	---	30,178
S_c (3n)	(10^3 mm ³)	27,541	---	27,541
S_{br}	(10^3 mm ³)	675	2,194	675
I_{ϕ}	(kN/m)	16	29	16
M_{ϕ}	(kN-m)	1,510	6,339	1,503
s_{ϕ}	(kN/m)	9	---	9
$M_{s\phi}$	(kN-m)	945	---	963
M_{ϕ}	(kN-m)	1,817	1,945	1,833
M (Imp)	(kN-m)	454	389	458
S_{ϕ} [$M_{\phi} + M$ (Imp)]	(kN-m)	3,785	3,890	3,819
M_a	(kN-m)	8,111	13,298	8,171
M_{br}	(kN-m)	12	29	12
$f_{s\phi}$ (non-comp)	(MPa)	67	137	67
$f_{s\phi}$ (comp)	(MPa)	34	---	35
$f_{s\phi}$ [$M_{\phi} + M$ (Imp)]	(MPa)	125	84	127
f_i	(MPa)	18	13	18
f_s (Overload)	(MPa)	227	222	228
f_s (Total)	(MPa)	295	288	297
F_{ϕ} (Overload)	(MPa)	328	312	328
VR	(kN)	300	---	300
F_{ϕ}	(MPa)	345	323	345

INTERIOR GIRDER REACTION TABLE				
		S. Abut.	Pier	N. Abut.
R_{ϕ}	(kN)	355	1,379	361
R_{ϕ}	(kN)	232	461	232
Imp.	(kN)	70	115	70
R (Total)	(kN)	657	1,955	663

F_{ϕ} - Critical average flange stress (smaller of $F_{\phi 1}$ or $F_{\phi 2}$ for partially braced flanges and F_y for continuously braced flanges) computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (Sections 5.2, 5.3 and 5.4).

F_{ϕ} (Overload) - Critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5.

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload).

$I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

$I_c(3n)$ and $S_c(3n)$ are the moment of Inertia and section modulus of the composite section used in computing stresses due to superimposed dead load (see AASHTO 10.38).

VR is the maximum \pm impact shear range in span.

M_a (Applied Moment) = $1.3 [M_{\phi} + M_{s\phi} + 5/3 (M_{\phi} + M (Imp))]$

f_s (Overload) is the sum of stresses due to $M_{\phi} + M_{s\phi} + 5/3 (M_{\phi} + M (Imp))$

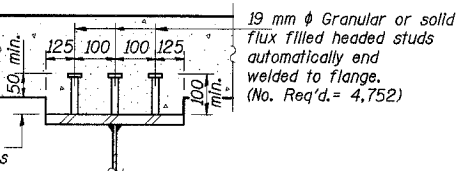
f_s (Total) is the sum of stresses due to $1.3 [M_{\phi} + M_{s\phi} + 5/3 (M_{\phi} + M (Imp))]$

S_{br} is the section modulus for one top flange plate for lateral flange bending.

M_{br} is the lateral bending moment during construction for flange plate (factored).

f_i is the calculated normal stress at the edge of flange due to lateral bending (factored).

M_{ϕ} and R_{ϕ} include the effects of centrifugal force and superelevation.



SECTION A-A

Notes:

- For Span Lengths L_1 , L_2 & Segment Lengths a thru d , see Sheet No. 15 of 29.
- All Flange Plates & Web Plates shall be AASHTO M270M Grade 345.
- All Field Splice Plates, except Fill Plates, shall be AASHTO M270M Grade 345 and shall meet the Notch Toughness Requirements (N.T.R.)
- All dimensions are in millimeters (mm) except noted otherwise.

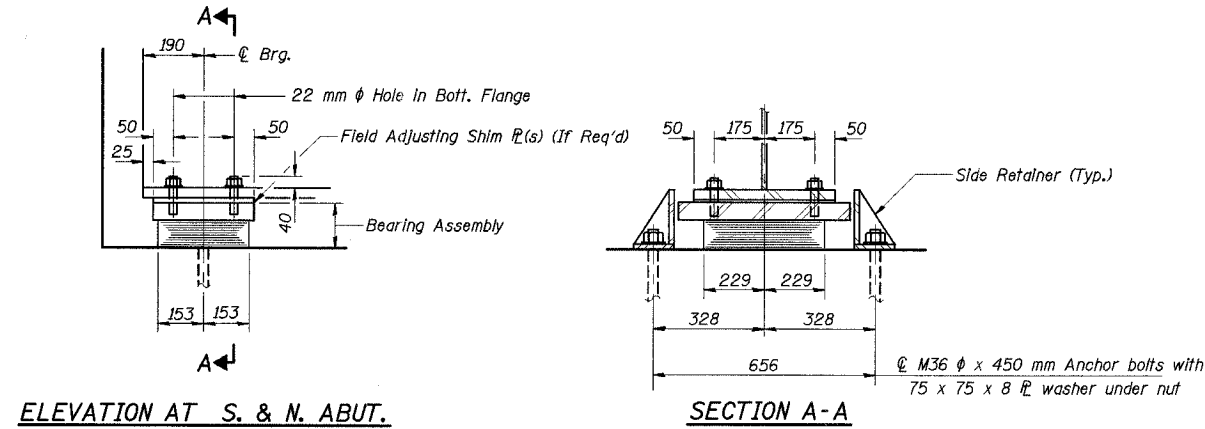
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
GIRDER ELEVATION & DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

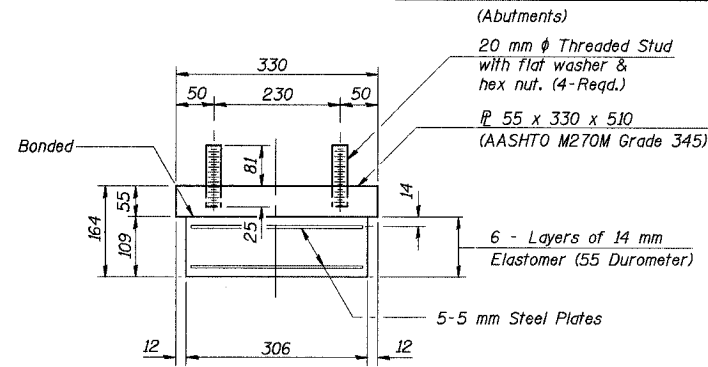
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 18
F. A. I. 80/94		COOK	870	460	29 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-			
0203.1 & 0312-708W R-3		CONTRACT NO. 62108			



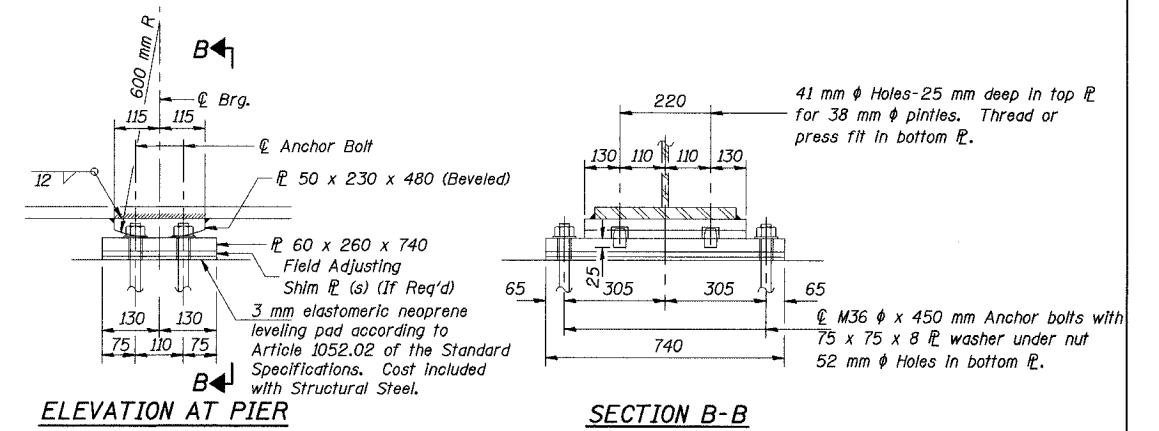
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

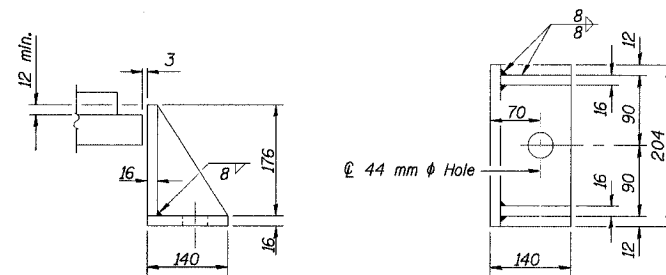
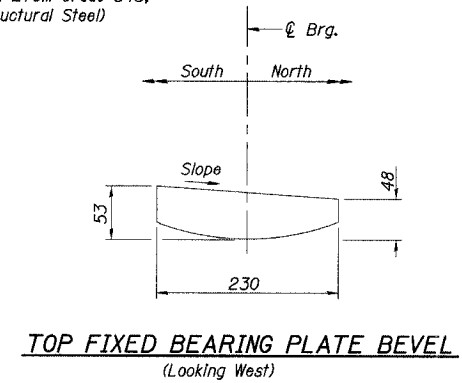
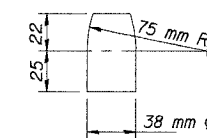
Note: Shim plates shall not be placed under Bearing Assembly.

Notes: Anchor bolts at fixed bearings may be built into the masonry. See sheet No. 19 of 29 sheets for Anchor Bolt Installation. All dimensions are in millimeters (mm) except as noted.



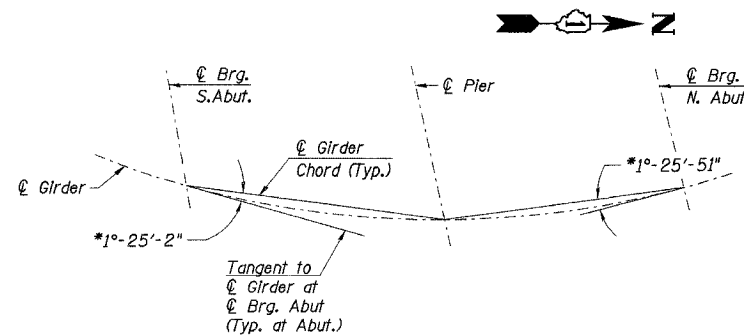
FIXED BEARING

(Structural Steel AASHTO M 270M Grade 345, Cost included with Structural Steel)



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight Included with Structural Steel.



EXPANSION BEARING ORIENTATION

* Measured from \varnothing Girder Chord to Tangent to \varnothing Girder at \varnothing Bearing Abutment

BILL OF MATERIAL

Item	Unit	Quantity
Erecting Elastomeric Bearing Assembly, Type 1	Each	12

DESIGNED	MEA
CHECKED	JJK
DRAWN	LK
CHECKED	JJK

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

BEARING DETAILS

SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

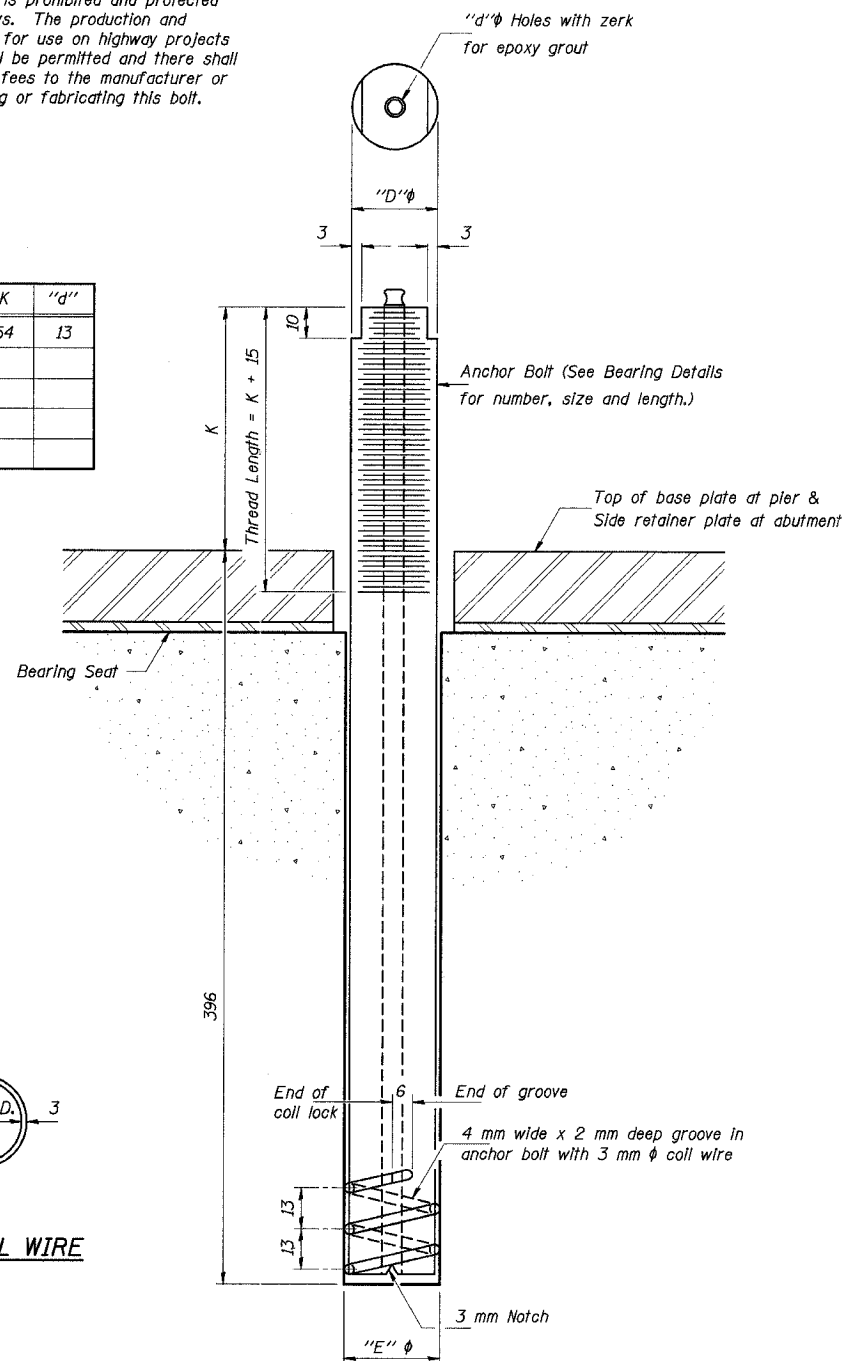
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19
F. A. I. 80/94	.	COOK	870	461	29 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-		CONTRACT NO. 62108	
(0203.1 & 0312-708W) R-3					

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"
36	39	32	54	13



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
So. Abut.	M36x450 (A307)
Pier	M36x450 (A307)
No. Abut.	M36x450 (A307)

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 and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing & Erecting Structural Steel".
All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	kg	190

DESIGNED	MEA
CHECKED	JJK
DRAWN	LK
CHECKED	JJK

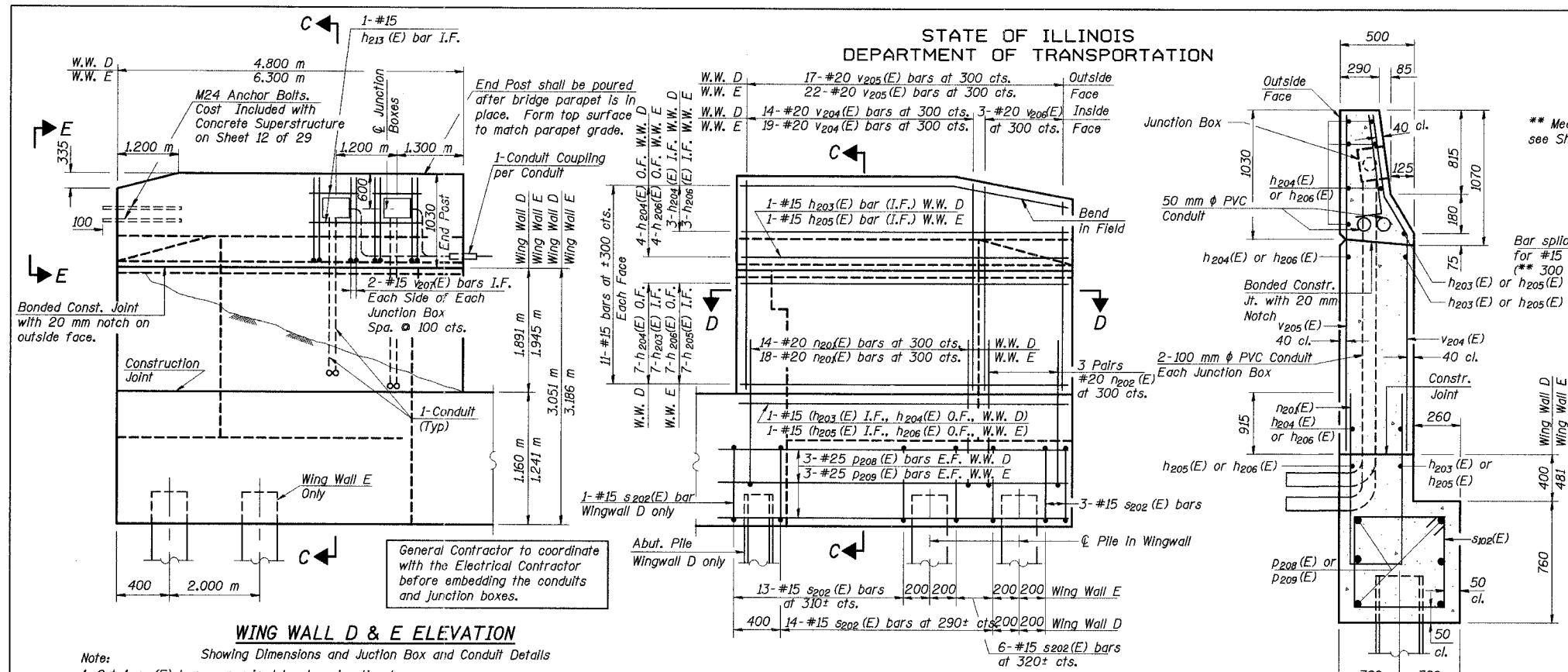
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ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
ANCHOR BOLT DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---
HNTB

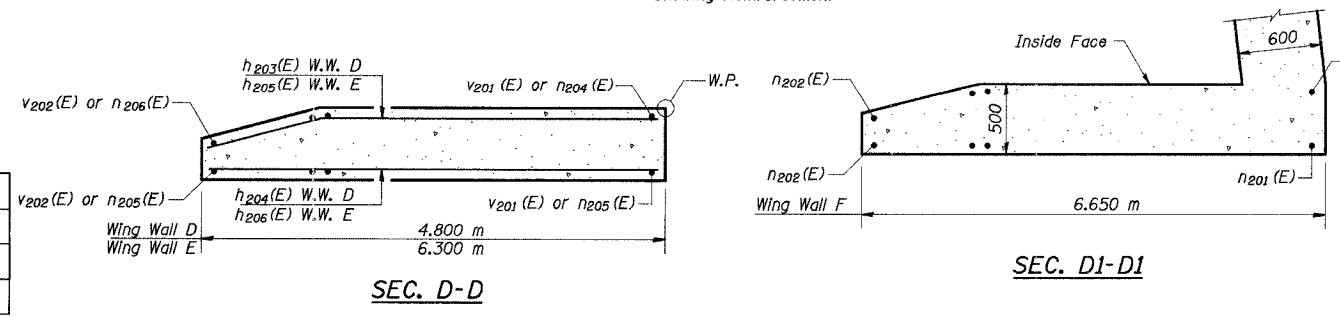
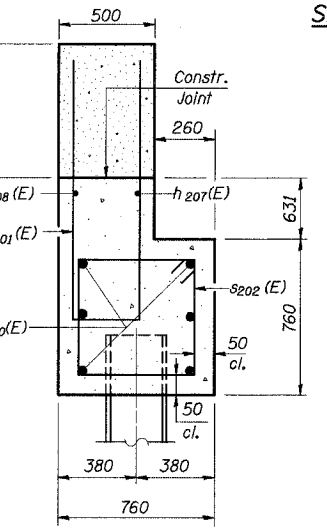
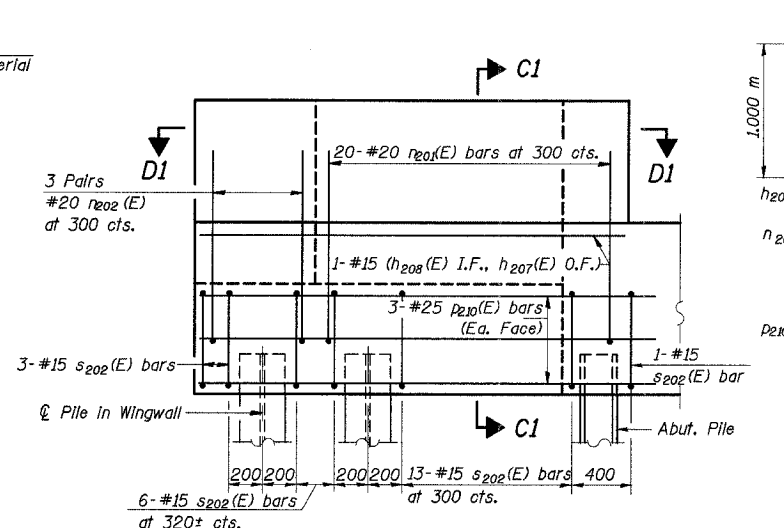
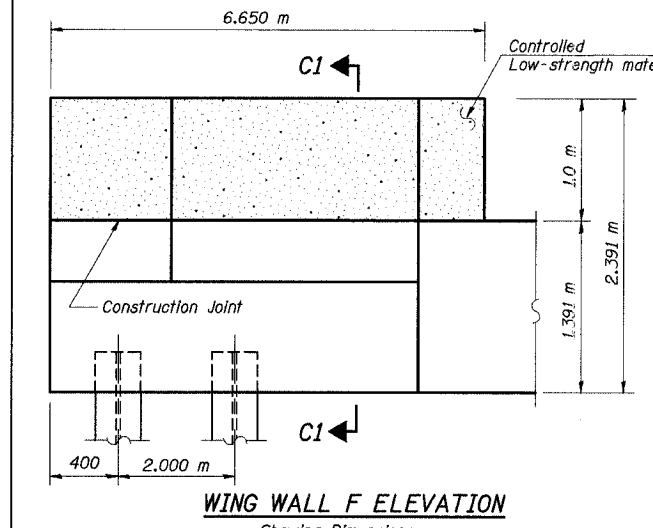
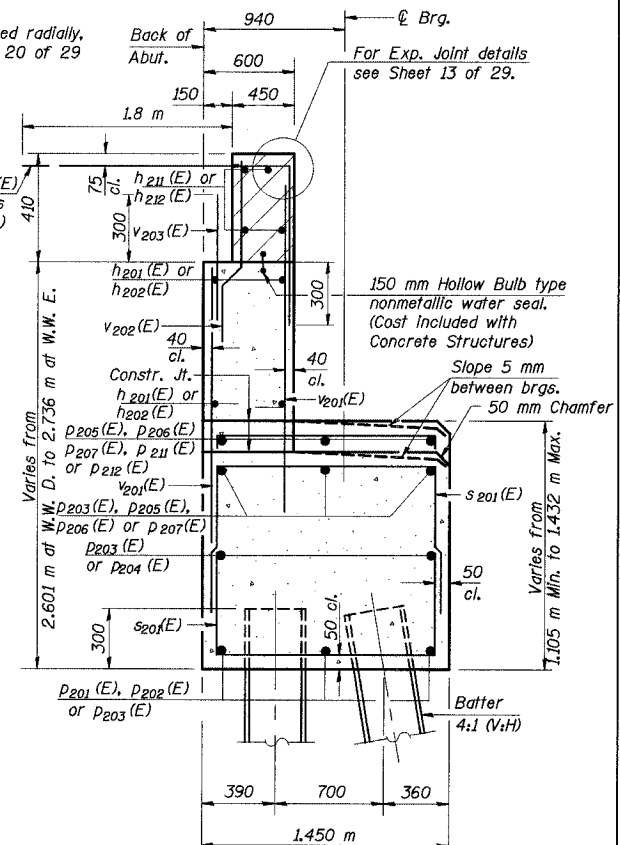
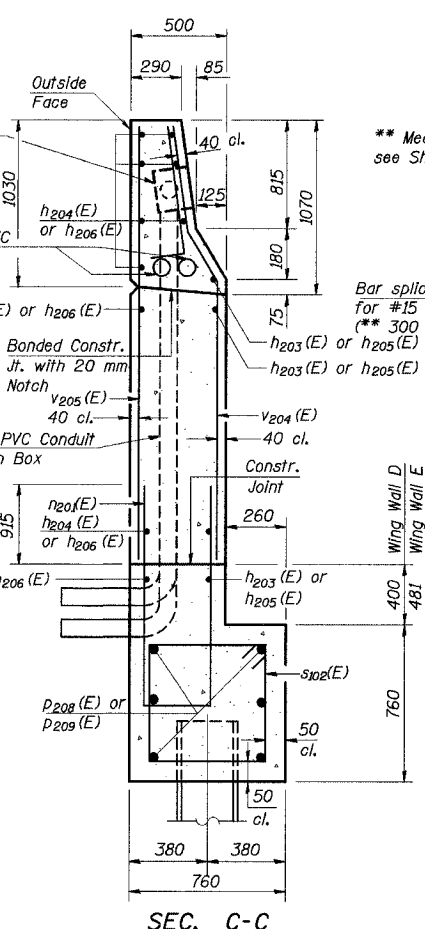
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

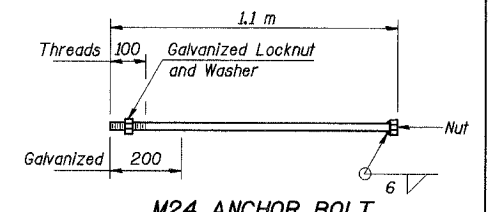
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F. A. I. 80/94	*	COOK	870	463	29 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT-			CONTRACT NO. 62108		



WING WALL D & E ELEVATION
Showing Reinforcement (Junction Box Reinforcement shown in other Elevation View)



- Notes:
1. Work this sheet with Sheet 20 & 24 of 29.
 2. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete Included with Concrete Superstructure.
 3. For details of Junction Box and method of payment, see Electrical Drawings.
 4. For method of payment of conduit, see Electrical Drawings.
 5. Space reinforcement in cap to clear anchor bolts.
 6. Pour steps monolithically with cap.
 7. See Sheet 24 of 29 for Pile Encasement Detail.



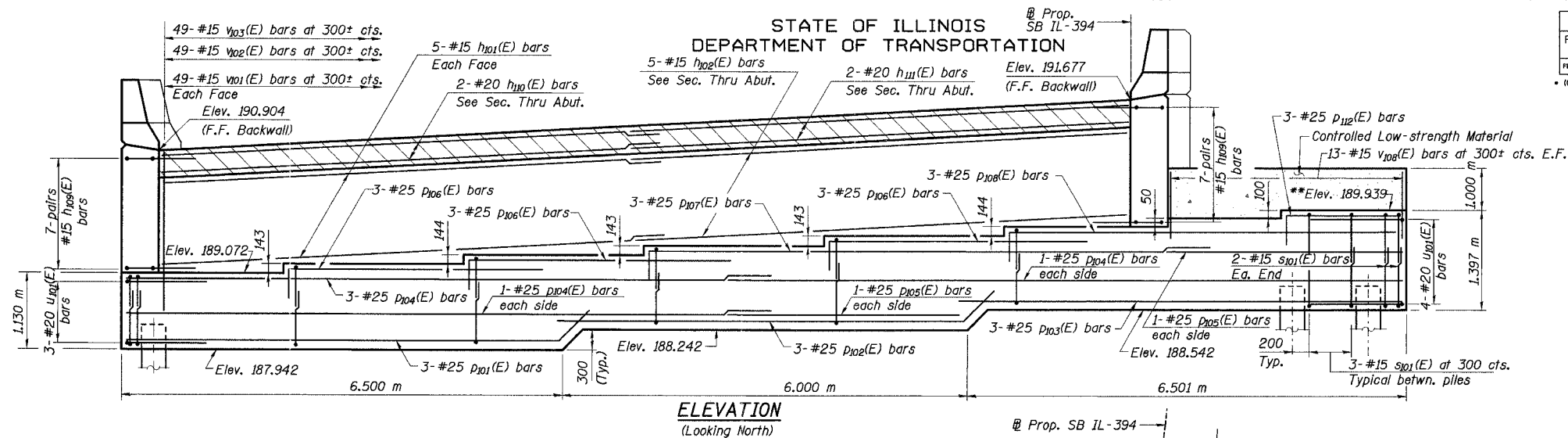
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
SOUTH ABUTMENT DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

DESIGNED	JFA
CHECKED	JJK
DRAWN	LK
CHECKED	JJK/JFA



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

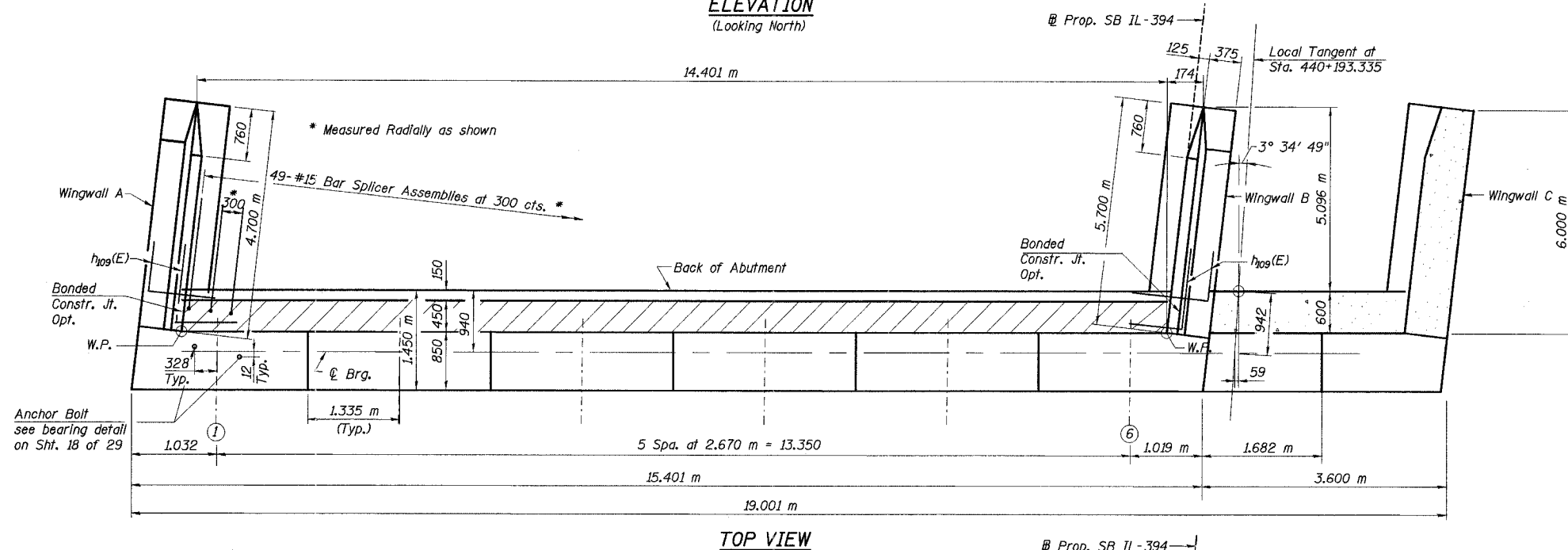
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F. A. I. 80/94		COOK	870	464	29 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-			
(0203.1 & 0312-708W) R-3		CONTRACT NO. 62108			



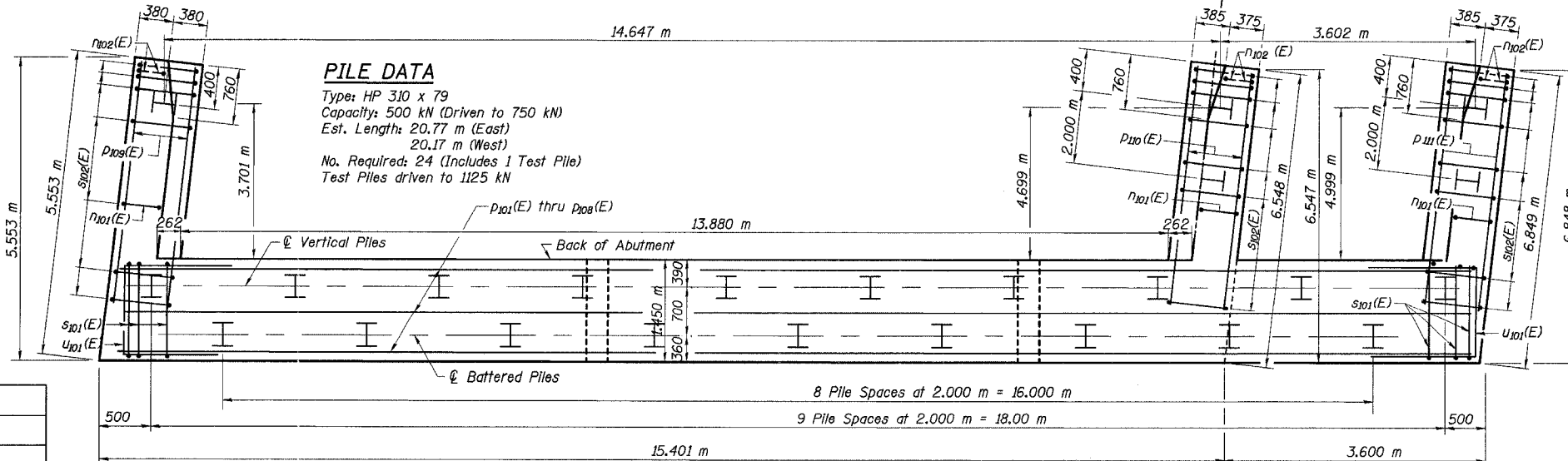
BEARING SEAT ELEVATION

GIR.	ELEV.
1	189.072
2	189.215
3	189.359
4	189.502
5	189.645
6	189.789

** Bearing Seat Elevations for future girders



TOP VIEW



PLAN-PILE CAP

DESIGNED	JFA
CHECKED	JJK
DRAWN	LK
CHECKED	JJK/JFA

Notes:

1. Work this sheet with Sheets 23 and 24 of 29.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. All dimensions are in millimeters (mm) except as noted.
4. East end of abutment is drawn exaggerated for clarity.
5. Min. bar laps (Unless otherwise shown):
#15 bars - 710 mm
#20 bars - 890 mm
#25 bars - 1480 mm
6. For Anchor Bolt Installation Details See Sheet 19 of 29.
7. See Sheet 23 of 29 for placement of dowel bars.
8. All piles shall be encased in concrete. See Detail on Sheet 24 of 29.

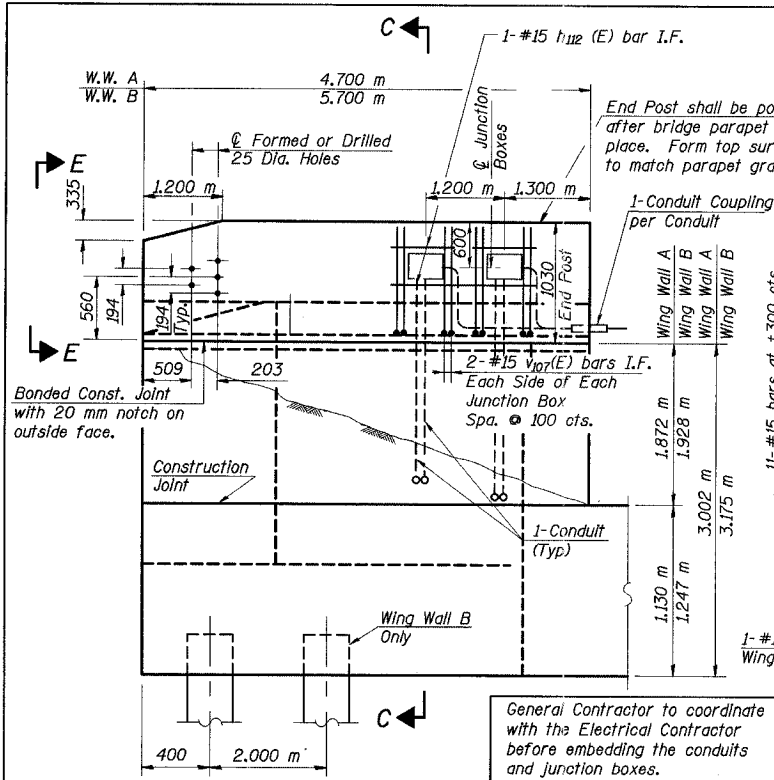
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
NORTH ABUTMENT PLAN & ELEVATION
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

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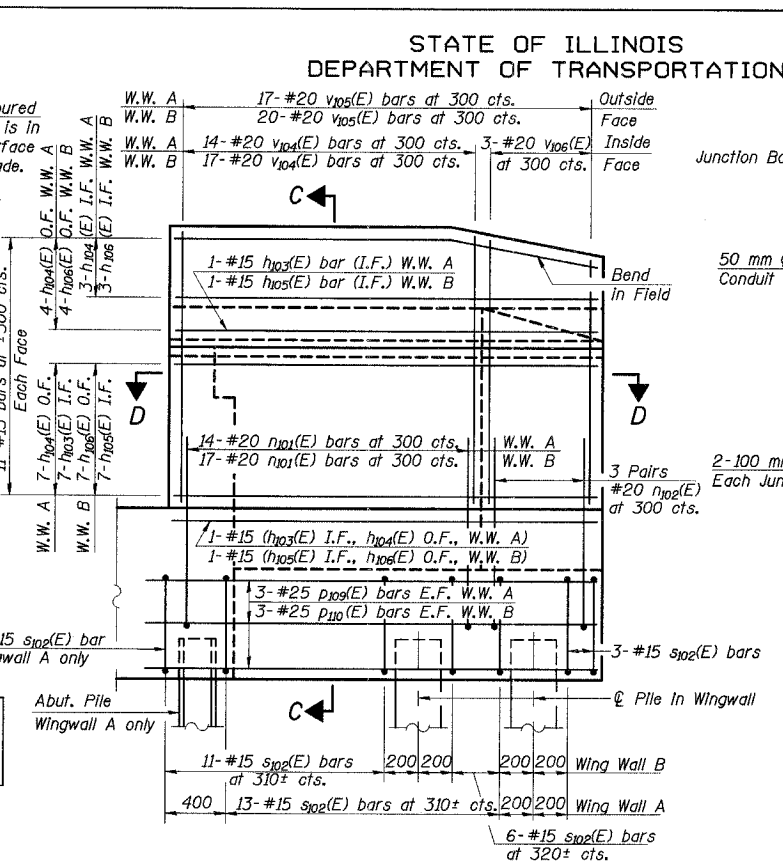
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 23 29 SHEETS
F. A. I. 80/94		COOK	870	465	
FED. ROAD DIST. NO. 1 ILLINOIS FEEL AID PROJECT -			CONTRACT NO. 62108		
R-3			ILLINOIS FEEL AID PROJECT -		



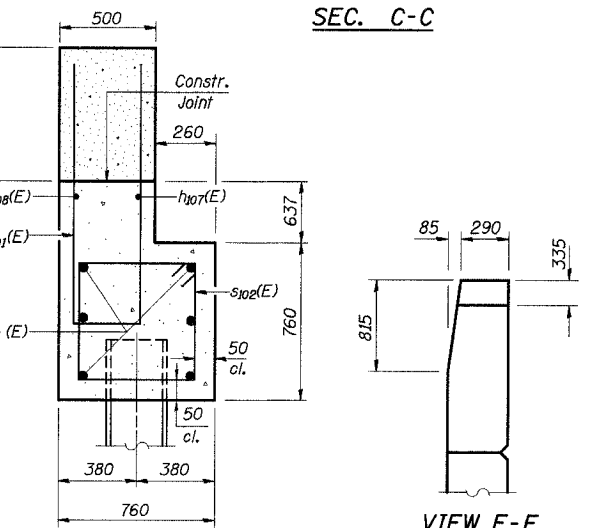
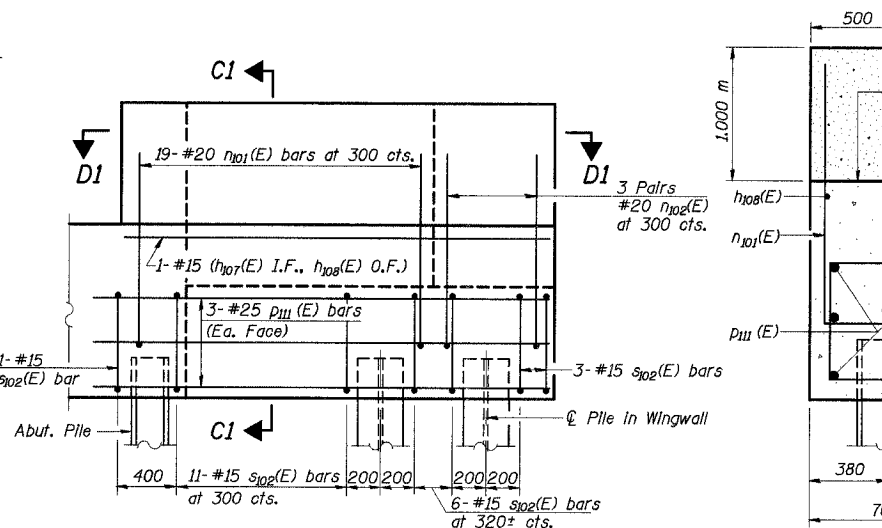
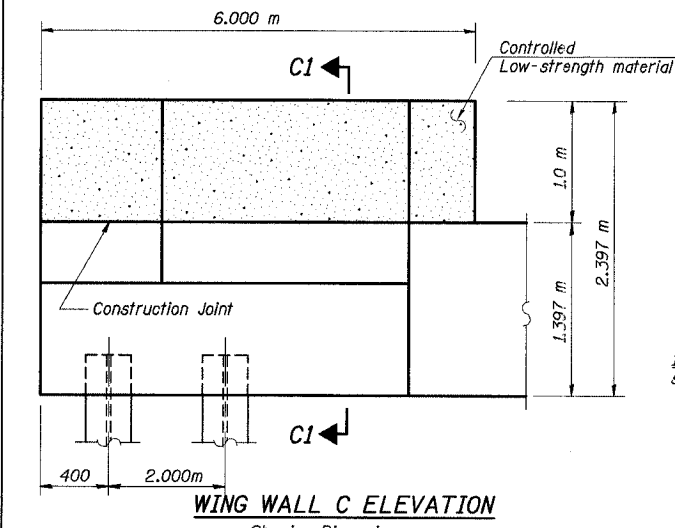
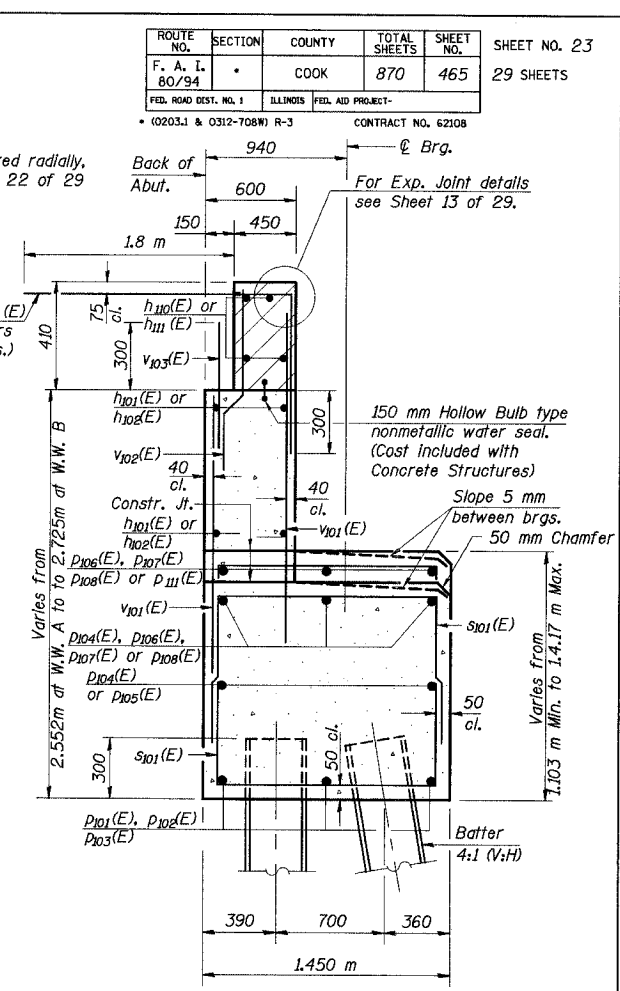
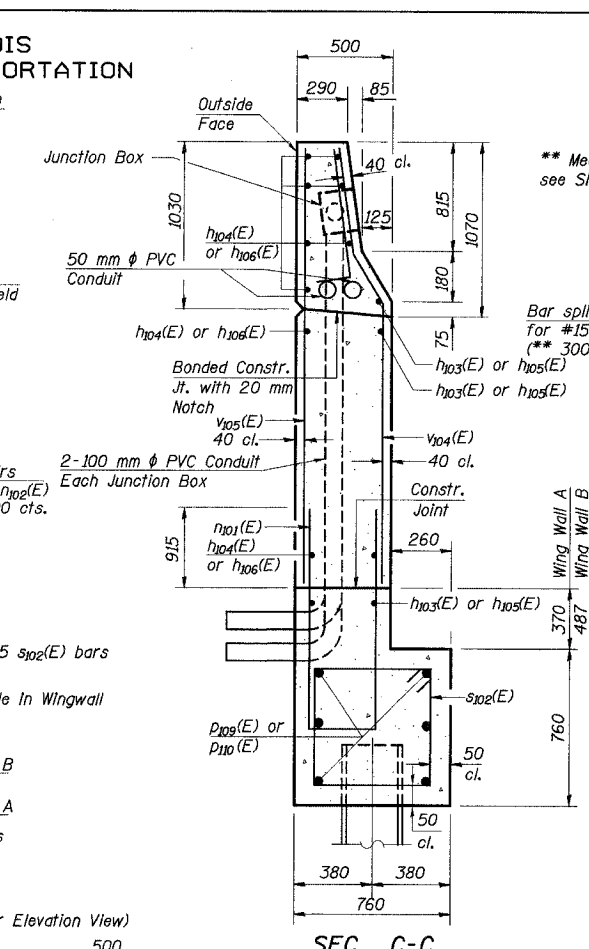
WING WALL A & B ELEVATION

Note: Showing Dimensions and Junction Box and Conduit Details
1. Cut 1- v_{104} (E) bar as required to clear junction box.
2. Place h_{112} (E) and v_{106} (E) bars at 50 mm clear from junction box.



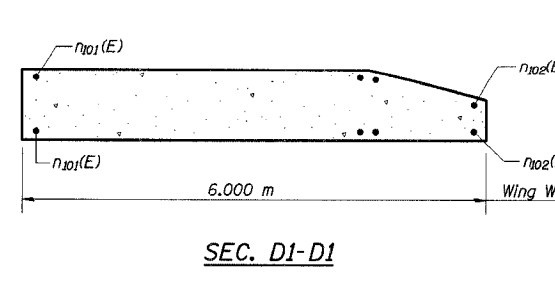
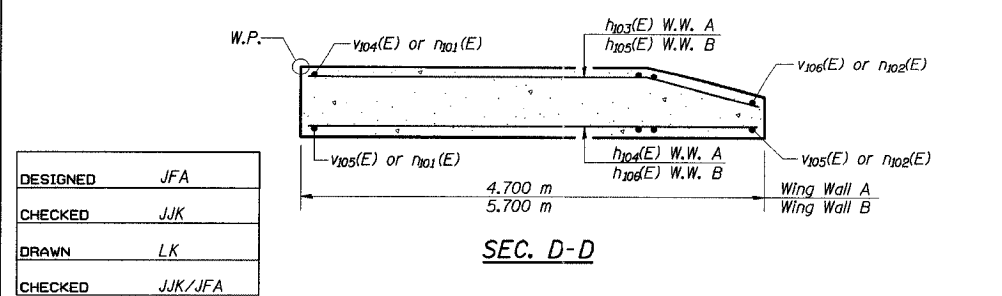
WING WALL A & B ELEVATION

Showing Reinforcement (Junction Box Reinforcement shown in other Elevation View)



SEC. C1-C1

- Notes:
1. Work this sheet with Sheet 22 & 24 of 29.
 2. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
 3. For details of Junction Box and method of payment, see Electrical Drawings.
 4. For method of payment of conduit, see Electrical Drawings.
 5. Space reinforcement in cap to clear anchor bolts.
 6. Pour steps monolithically with cap.
 7. See Sheet 24 of 29 for Pile Encasement Detail.



DESIGNED	JFA
CHECKED	JJK
DRAWN	LK
CHECKED	JJK/JFA

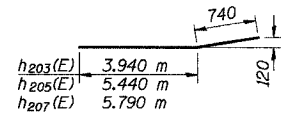
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
NORTH ABUTMENT DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

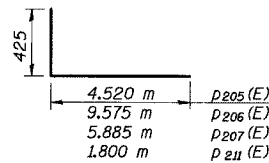
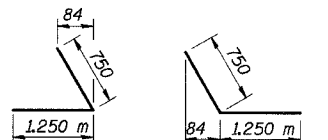
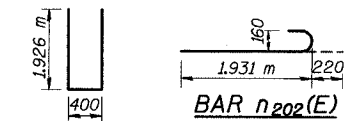
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

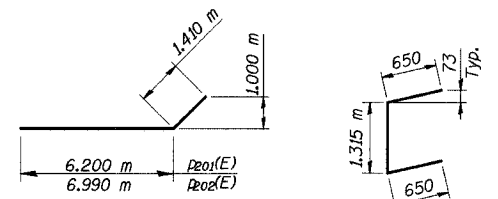
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 24 29 SHEETS
F. A. I. 80/94		COOK	870	466	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		CONTRACT NO. 62108



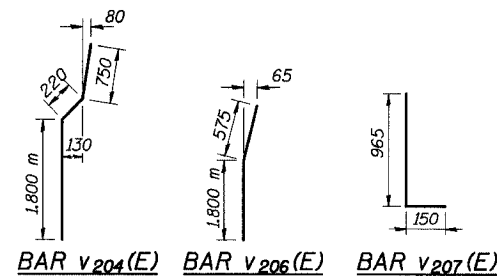
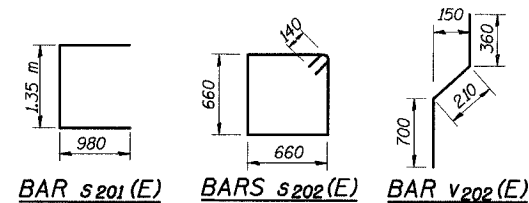
BAR $h_{203}(E)$, $h_{205}(E)$ or $h_{207}(E)$



BAR $p_{205}(E)$, $p_{206}(E)$, $p_{207}(E)$ or $p_{211}(E)$



BAR $p_{201}(E)$ or $p_{202}(E)$ BAR $u_{201}(E)$



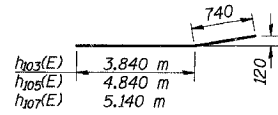
DESIGNED	JFA
CHECKED	JJK
DRAWN	LK
CHECKED	JJK/JFA

SOUTH ABUTMENT
BILL OF MATERIAL

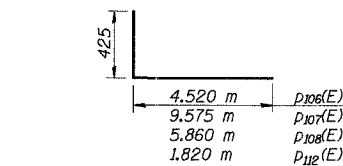
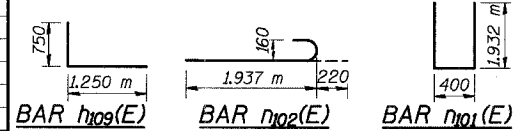
Bar	No.	Size	Length (m)	Shape
$h_{200}(E)$	10	#15	9.000	—
$h_{201}(E)$	10	#15	6.250	—
$h_{203}(E)$	9	#15	4.680	—
$h_{204}(E)$	15	#15	4.700	—
$h_{205}(E)$	9	#15	6.180	—
$h_{206}(E)$	15	#15	6.200	—
$h_{207}(E)$	1	#15	6.530	—
$h_{208}(E)$	1	#15	6.550	—
$h_{209}(E)$	14	#15	2.000	—
$h_{210}(E)$	14	#15	2.000	—
$h_{211}(E)$	4	#20	9.000	—
$h_{212}(E)$	4	#20	6.250	—
$h_{213}(E)$	4	#15	2.400	—
$n_{201}(E)$	53	#20	4.252	—
$n_{202}(E)$	18	#20	2.151	—
$p_{201}(E)$	3	#25	7.510	—
$p_{202}(E)$	3	#25	8.400	—
$p_{203}(E)$	10	#25	10.440	—
$p_{204}(E)$	2	#25	3.000	—
$p_{205}(E)$	9	#25	4.945	—
$p_{206}(E)$	3	#25	10.000	—
$p_{207}(E)$	3	#25	6.310	—
$p_{208}(E)$	6	#25	4.725	—
$p_{209}(E)$	6	#25	6.225	—
$p_{210}(E)$	6	#25	6.575	—
$p_{211}(E)$	3	#25	2.225	—
$s_{201}(E)$	116	#15	3.310	—
$s_{202}(E)$	63	#15	2.920	—
$u_{201}(E)$	7	#15	2.615	—
$v_{201}(E)$	98	#15	2.550	—
$v_{202}(E)$	49	#15	1.270	—
$v_{203}(E)$	49	#15	0.900	—
$v_{204}(E)$	33	#20	2.770	—
$v_{205}(E)$	39	#20	2.780	—
$v_{206}(E)$	6	#20	2.375	—
$v_{207}(E)$	16	#15	1.115	—
$v_{208}(E)$	26	#15	2.000	—

ITEM	UNIT	QUANTITY
Structure Excavation	m ³	213
Concrete Structures	m ³	74.8
Controlled Low-Strength Material	m ³	5.2
Reinforcement Bars, Epoxy Coated	kg	5060
Furnishing Steel Piles HP 310x79	m	527
Driving Steel Piles	m	527
Test Pile Steel HP 310x79	Each	1
Bar Splicers	Each	49
Porous Granular Embankment	m ³	93

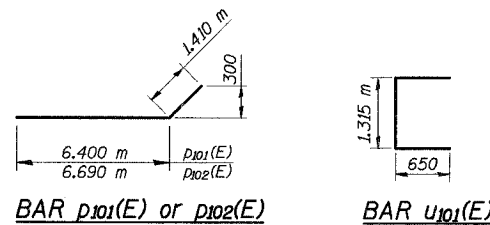
Reinforcement bars designated (E) shall be epoxy coated.



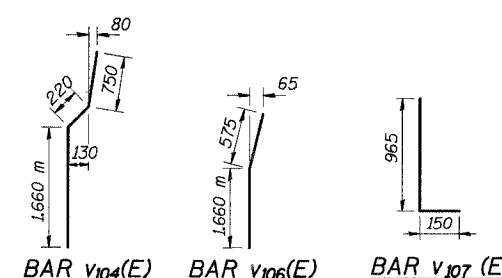
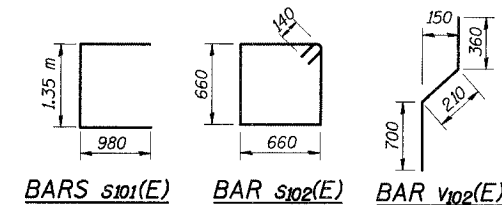
BAR $h_{103}(E)$, $h_{105}(E)$ or $h_{107}(E)$



BAR $p_{106}(E)$, $p_{107}(E)$, $p_{108}(E)$ or $p_{112}(E)$



BAR $p_{101}(E)$ or $p_{102}(E)$ BAR $u_{101}(E)$

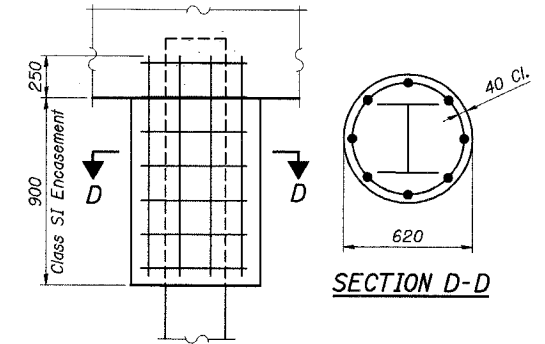


NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
$h_{101}(E)$	10	#15	9.000	—
$h_{102}(E)$	10	#15	6.250	—
$h_{103}(E)$	9	#15	4.580	—
$h_{104}(E)$	15	#15	4.600	—
$h_{105}(E)$	9	#15	5.580	—
$h_{106}(E)$	15	#15	5.600	—
$h_{107}(E)$	1	#15	5.880	—
$h_{108}(E)$	1	#15	5.900	—
$h_{109}(E)$	28	#15	2.000	—
$h_{110}(E)$	4	#20	9.000	—
$h_{111}(E)$	4	#20	6.250	—
$h_{112}(E)$	4	#15	2.400	—
$n_{101}(E)$	49	#20	4.264	—
$n_{102}(E)$	18	#20	2.157	—
$p_{101}(E)$	3	#25	7.810	—
$p_{102}(E)$	3	#25	8.100	—
$p_{103}(E)$	3	#25	7.190	—
$p_{104}(E)$	7	#25	11.000	—
$p_{105}(E)$	4	#25	3.000	—
$p_{106}(E)$	9	#25	4.945	—
$p_{107}(E)$	3	#25	10.000	—
$p_{108}(E)$	3	#25	6.285	—
$p_{109}(E)$	6	#25	4.625	—
$p_{110}(E)$	6	#25	5.625	—
$p_{111}(E)$	6	#25	5.850	—
$p_{112}(E)$	3	#25	2.245	—
$s_{101}(E)$	116	#15	3.310	—
$s_{102}(E)$	58	#15	2.920	—
$u_{101}(E)$	7	#15	2.615	—
$v_{101}(E)$	98	#15	2.550	—
$v_{102}(E)$	49	#15	1.270	—
$v_{103}(E)$	49	#15	0.900	—
$v_{104}(E)$	31	#20	2.630	—
$v_{105}(E)$	37	#20	2.640	—
$v_{106}(E)$	6	#20	2.235	—
$v_{107}(E)$	16	#15	1.115	—
$v_{108}(E)$	26	#15	2.000	—

ITEM	UNIT	QUANTITY
Structure Excavation	m ³	205
Concrete Structures	m ³	76.5
Controlled Low-Strength Material	m ³	4.9
Reinforcement Bars, Epoxy Coated	kg	4890
Furnishing Steel Piles HP 310x79	m	472
Driving Steel Piles	m	472
Test Pile Steel HP 310x79	Each	1
Bar Splicers	Each	49
Porous Granular Embankment	m ³	92

Reinforcement bars designated (E) shall be epoxy coated.



PILE ENCASEMENT DETAIL

Welded wire fabric 152x152-MW25.8xMW25.8 with a mass of 2.91 kg/m². The cost of Excavation, Class SI Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for encasement may be omitted when soil conditions permit.

Notes:

1. Work this Sheet with Sheets 20 thru 23 of 29 Sheets.

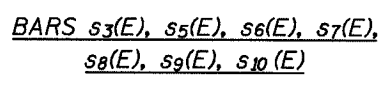
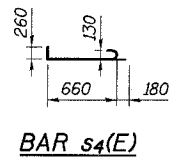
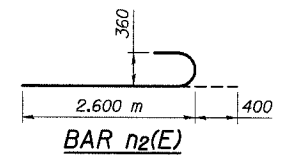
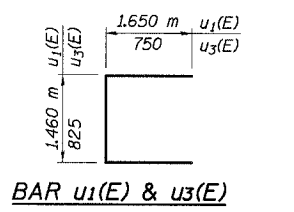
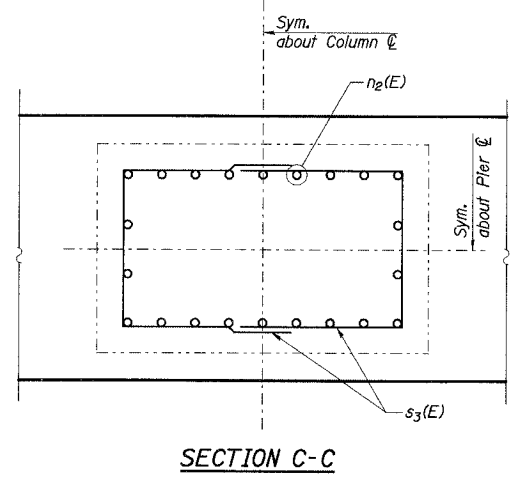
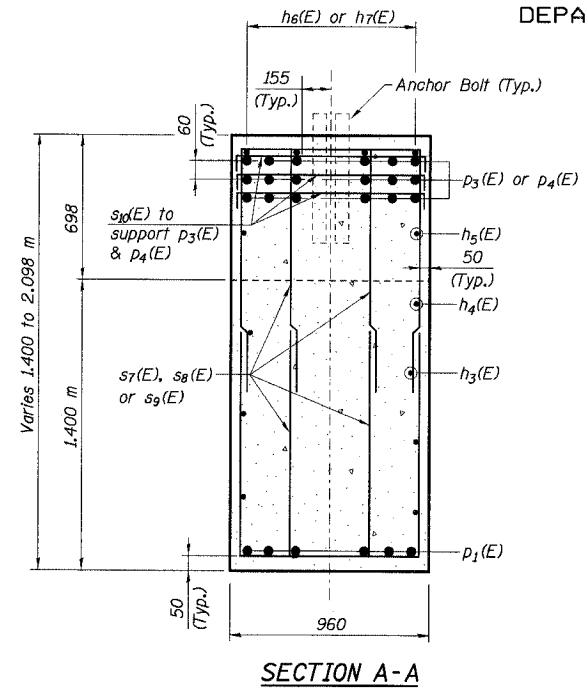
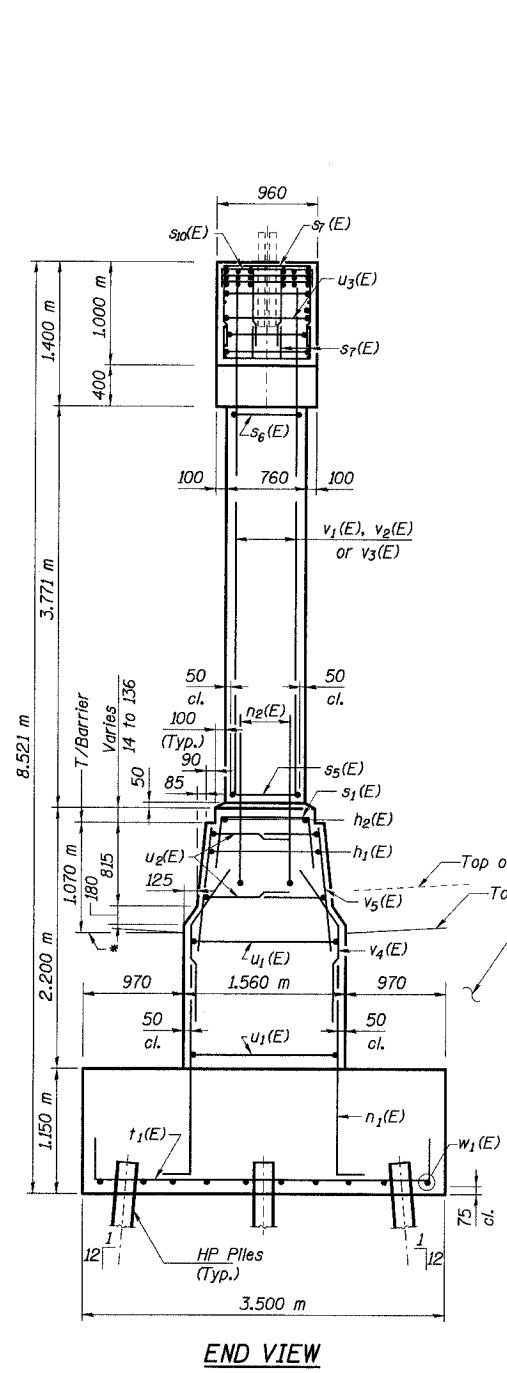
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
ABUTMENT DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE

HNTB

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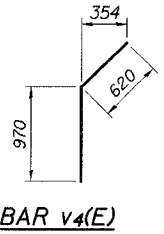
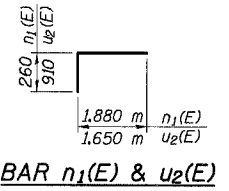
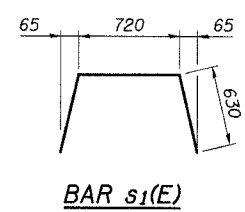
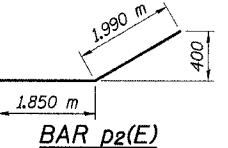
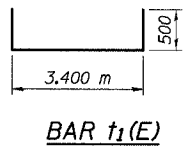
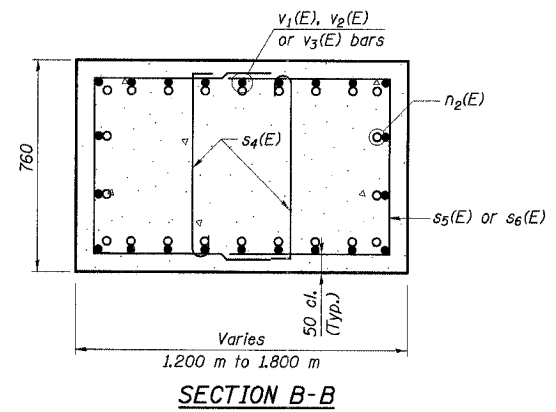
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 26 29 SHEETS
F. A. I. 80/94	*	COOK	870	468	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		CONTRACT NO. 62108



A & B DIMENSIONS

Bar	A	B
s3(E)	0.60	0.85
s5(E)	0.66	1.02
s6(E)	0.66	1.20
s7(E)	0.63	0.87
s8(E)	0.63	0.97
s9(E)	0.63	1.32
s10(E)	0.86	0.26



PILE DATA

Type: HP 310x79
Capacity: 550 kN (Driven to 825 kN Bearing)
Est. Length: 14.79 m
No. Req'd: 45 (Includes 1 test pile)
Test Piles driven to 1240 kN

DESIGNED	JFA
CHECKED	ACF
DRAWN	LK
CHECKED	ACF

T/BARRIER ELEVATIONS

Sta.	Elev.
3+215.676	184.941
3+220.000	184.889
3+225.000	184.833
3+226.276	184.819

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h1(E)	14	#15	9.000	—
h2(E)	5	#20	10.500	—
h3(E)	12	#15	7.750	—
h4(E)	2	#15	9.000	—
h5(E)	2	#15	4.000	—
h6(E)	20	#15	3.310	—
h7(E)	4	#15	1.860	—
n1(E)	164	#15	2.140	—
n2(E)	66	#30	3.000	—
p1(E)	6	#30	10.600	—
p2(E)	8	#15	3.840	—
p3(E)	18	#30	11.000	—
p4(E)	12	#30	5.500	—
s1(E)	58	#15	1.980	—
s3(E)	18	#15	2.300	—
s4(E)	78	#15	1.100	—
s5(E)	36	#15	2.700	—
s6(E)	42	#15	3.060	—
s7(E)	32	#15	2.370	—
s8(E)	32	#15	2.570	—
s9(E)	172	#15	3.270	—
s10(E)	47	#15	1.380	—
t1(E)	46	#30	4.400	—
u1(E)	8	#20	4.760	—
u2(E)	16	#20	2.560	—
u3(E)	10	#15	2.325	—
v1(E)	22	#30	4.970	—
v2(E)	22	#30	5.200	—
v3(E)	22	#30	5.420	—
v4(E)	116	#15	1.590	—
v5(E)	116	#15	1.420	—
w1(E)	30	#15	6.500	—

ITEM	UNIT	QUANTITY
Structure Excavation	m ³	249
Concrete Structures	m ³	138.7
Reinforcement Bars, Epoxy Coated	kg	10,160
Furnishing Steel Piles HP 310x79	m	651
Driving Steel Piles	m	651
Test Pile Steel HP 310x79	Each	1
Controlled Low Strength Material	m ³	6.1

- Notes:
- Work this Sheet with Sheet No. 25 of 29.
 - All dimensions are in millimeters (mm) except as noted.
 - Backfill shall be CA-6 compacted to the satisfaction of the engineer. The excavated material shall be disposed of as directed by the engineer. All cost shall be included with Structure Excavation.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
PIER SECTION & DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 27 29 SHEETS
F. A. I. 80/94	.	COOK	870	469	
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 rolled 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.

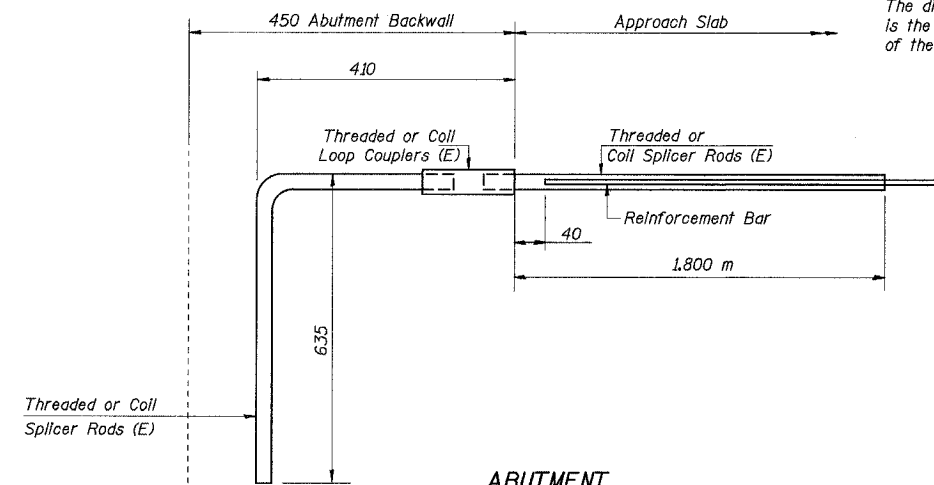
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times 10^{-3} \times f_y \times A_t$
(Tension in kN)
- ② Minimum *Pull-out Strength = $1.25 \times 10^{-3} \times f_{s\ allow} \times A_t$
(Tension in kN)

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 (mm^2).
* = 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

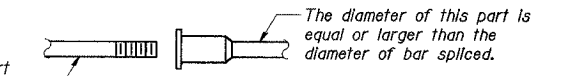
Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."
All dimensions are in millimeters (mm) except as noted.



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

Min. Capacity = 100 kN - tension
Min. Pull-out Strength = 40 kN - tension
No. Required = 49 (S. Abut.) 49 (N. Abut.)
98 Total

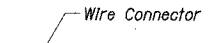
The diameter of this part is equal or larger than the diameter of the bar spliced.



ROLLED THREAD DOWEL BAR



**** ONE PIECE**

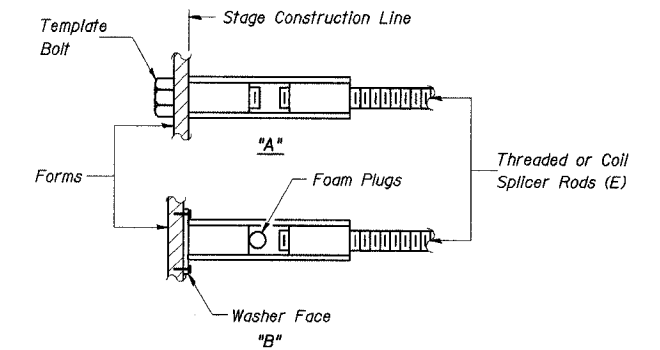


Wire Connector

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.

DESIGNED	JFA
CHECKED	MEA
DRAWN	LK
CHECKED	MEA

JBeauchamp
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ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
BAR SPLICER ASSEMBLY DETAILS
SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796
DATE 07/18/05
SCALE ---

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. 80/94	*	COOK	870	471
FEL. ROAD DIST. NO. 1			ILLINOIS FEL. AID PROJECT-	
* (0203.1 & 0312-708W) R-3			CONTRACT NO. 62108	

SHEET NO. 29
29 SHEETS

W Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng3ewangeng.com
1145 Main Street
Lombard, IL 60148
Telephones 630 953-9928
Fax: 630 953-9938

BORING LOG HB-16

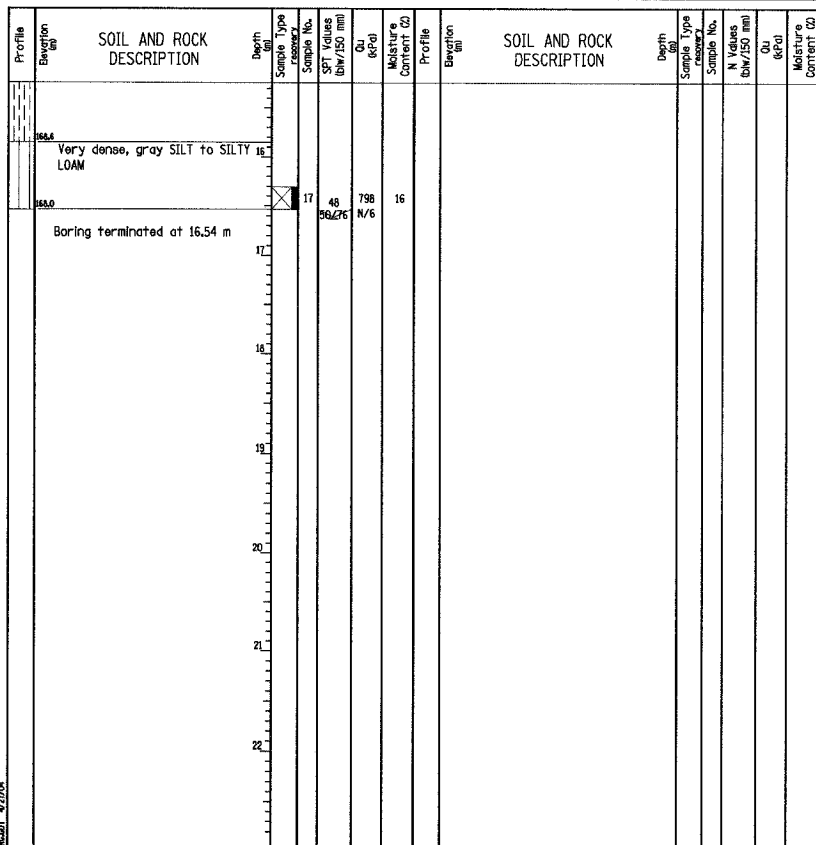
WEI Job No.: 665-05-01

Client: HNTB Corporation

Project: IL 394 (FAP 94) IDOT D-91-012-01

Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevations 184.49 m
North: 545473.29 m
East: 362658.08 m
Station: 440+192.60
Offset: 6.64 LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-12-2002	Complete Drilling	03-12-2002	While Drilling	☐	DRY	
Drilling Contractor	TSC	Drill Rig	CME 75	At Completion of Drilling	☐	DRY	
Driller	C&J	Logger	H. Suhall	Time After Drilling	☐	NA	
Drilling Method	3.25-inch ID HSA; Boring grouted after completion.			Depth to Water	☐	NA	

W Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng3ewangeng.com
1145 Main Street
Lombard, IL 60148
Telephones 630 953-9928
Fax: 630 953-9938

BORING LOG HB-18

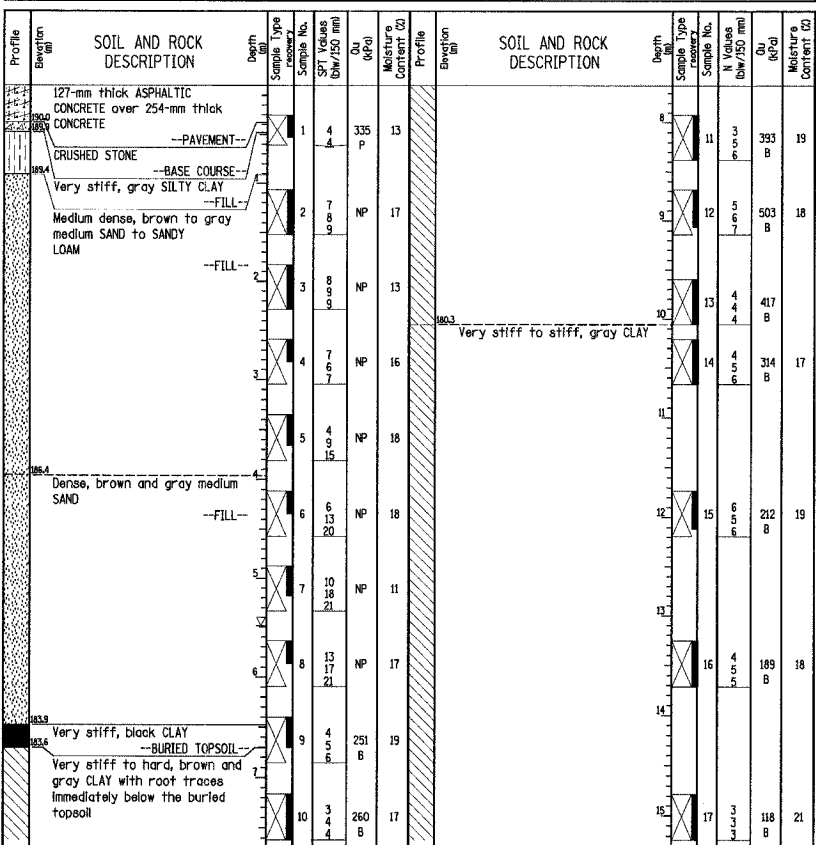
WEI Job No.: 665-05-01

Client: HNTB Corporation

Project: IL 394 (FAP 94) IDOT D-91-012-01

Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevations 190.35 m
North: 545510.59 m
East: 362660.18 m
Station: 440+230.24
Offset: 5.59 LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-14-2002	Complete Drilling	03-14-2002	While Drilling	☐	5.49 m	
Drilling Contractor	TSC	Drill Rig	CME 75	At Completion of Drilling	☐	18.59 m	
Driller	C&J	Logger	H. Suhall	Time After Drilling	☐	NA	
Drilling Method	3.25-inch ID HSA; Boring grouted after completion.			Depth to Water	☐	NA	

W Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng3ewangeng.com
1145 Main Street
Lombard, IL 60148
Telephones 630 953-9928
Fax: 630 953-9938

BORING LOG HB-18

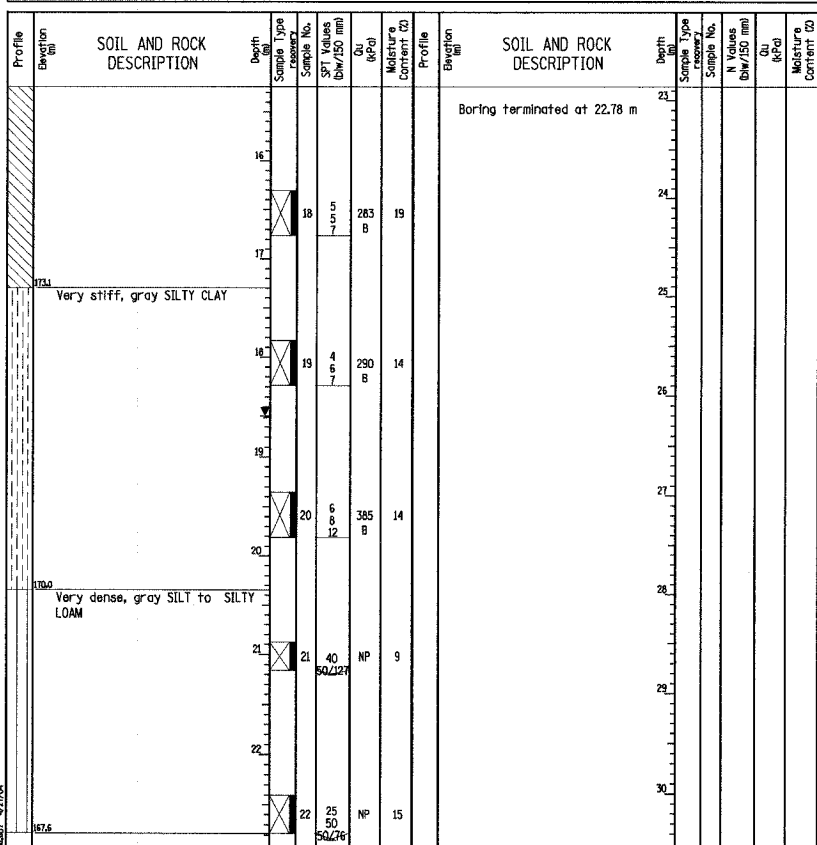
WEI Job No.: 665-05-01

Client: HNTB Corporation

Project: IL 394 (FAP 94) IDOT D-91-012-01

Location: Sections 25&26, T36N, R14E, Cook Co.

Datum: NGVD
Elevations 190.35 m
North: 545510.59 m
East: 362660.18 m
Station: 440+230.24
Offset: 5.59 LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-14-2002	Complete Drilling	03-14-2002	While Drilling	☐	5.49 m	
Drilling Contractor	TSC	Drill Rig	CME 75	At Completion of Drilling	☐	18.59 m	
Driller	C&J	Logger	H. Suhall	Time After Drilling	☐	NA	
Drilling Method	3.25-inch ID HSA; Boring grouted after completion.			Depth to Water	☐	NA	

J:\Beauchamp
R-31865\CADD\I-94\I-94-SOUTH-BOUND\CD\CTR_L19_2796\isp\90024s_2796.dgn
11-JUL-2005 11:25

DESIGNED	---
CHECKED	---
DRAWN	LK
CHECKED	MEA

Notes:
1. For Page 1 of 2 of Boring Log HB-16, see Sheet No. 28 of 29 sheets.

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

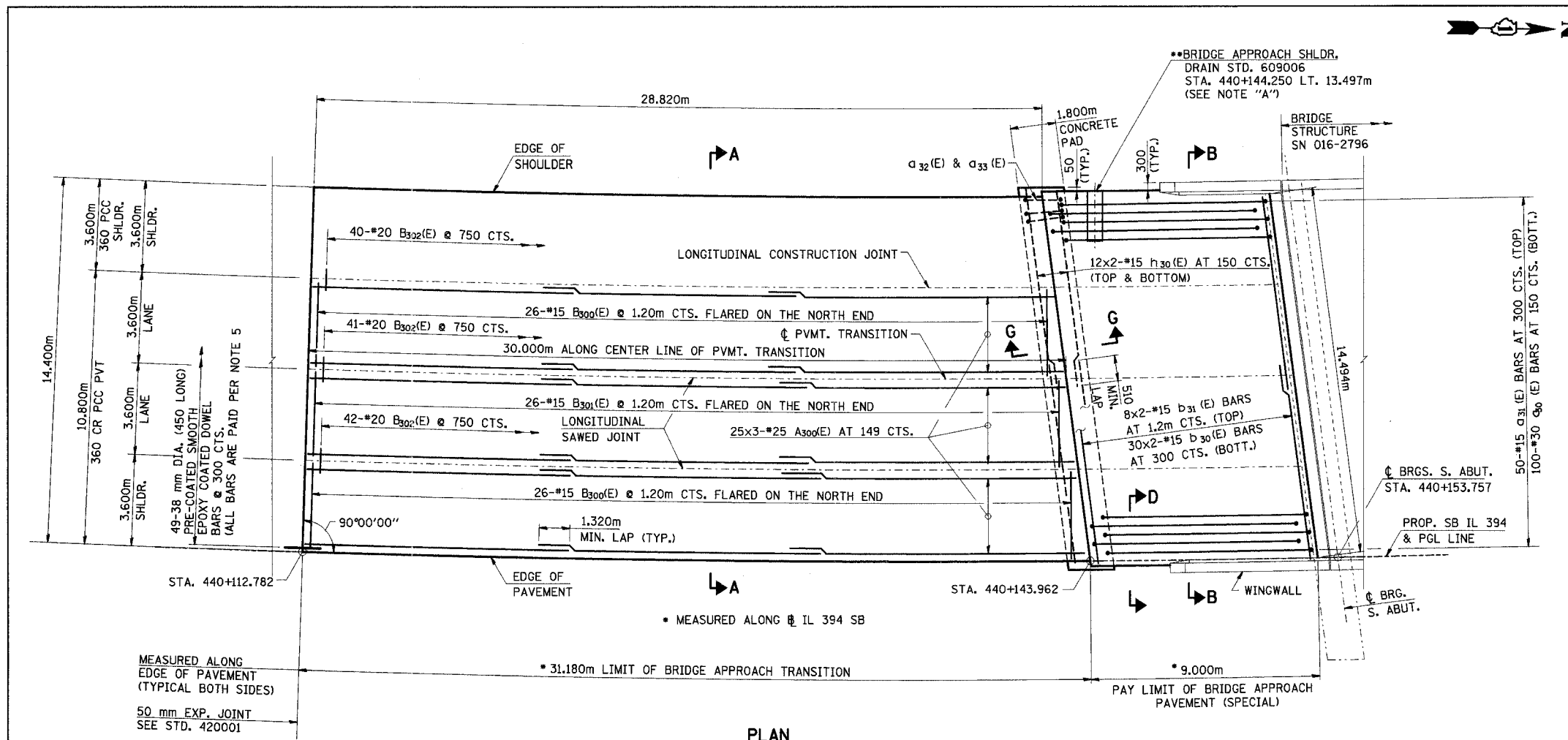
BORING LOGS HB-16 & HB-18

SB ILLINOIS ROUTE 394 OVER INTERSTATE 80
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 440+193.335 STRUCTURE NO. 016-2796

DATE 07/18/05
SCALE ---

HNTB

FAY RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	870	472
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLAN

**FOR LOCATION SEE DRAINAGE DRAWINGS

NOTE "A": CUT a₃₀(E), a₃₁(E) AND b₃₀(E), b₃₁(E) BARS TO CLEAR DRAIN INLET BOX.

BILL OF MATERIAL BRIDGE APPROACH PAVEMENT (SPECIAL)

BAR NO.	SIZE	LENGTH (M)	SHAPE
a ₃₀ (E)	100	*30	8.93
a ₃₁ (E)	50	*15	8.90
a ₃₂ (E)	51	*15	2.06
a ₃₃ (E)	51	*15	1.70
b ₃₀ (E)	60	*15	7.75
b ₃₁ (E)	16	*15	7.75
h ₃₀ (E)	48	*15	7.71
ITEM UNIT QUANTITY			
BRIDGE APPROACH PAVEMENT (SPECIAL)		M ²	133
REINFORCEMENT BARS, EPOXY COATED ⁽¹⁾		KG	7413

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

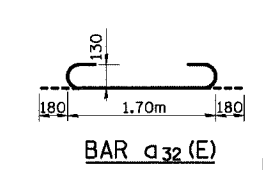
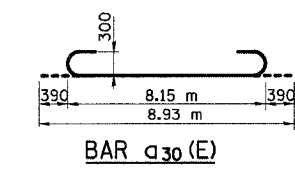
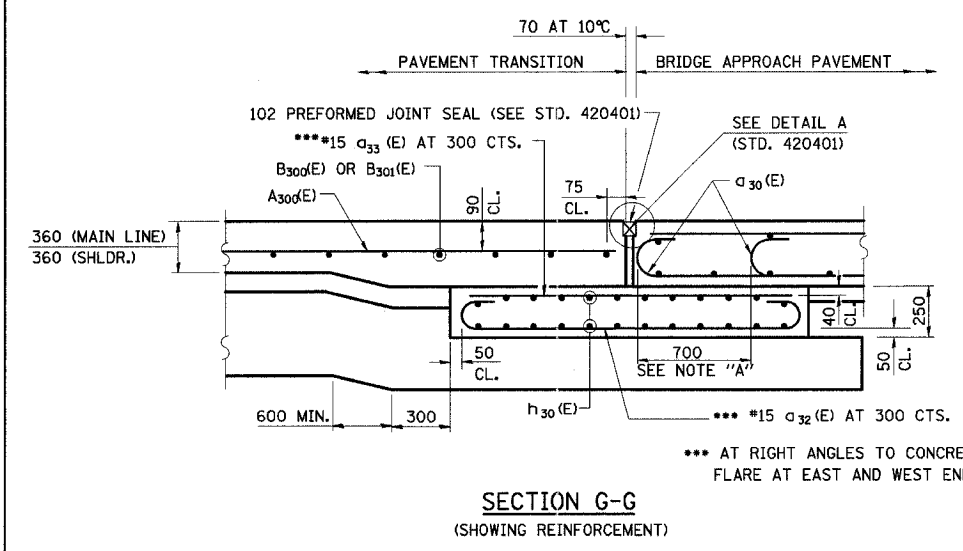
BILL OF MATERIAL PAVEMENT TRANSITION

BAR NO.	SIZE	LENGTH (M)	SHAPE
A ₃₀₀ (E)	225	*25	11.25
B ₃₀₀ (E)	52	*15	3.53
B ₃₀₁ (E)	26	*15	3.55
B ₃₀₂ (E)	123	*20	0.75
ITEM UNIT QUANTITY			
REINFORCEMENT BARS, EPOXY COATED ⁽²⁾		KG	10586

⁽²⁾ 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 ϕ SAWED LONGITUDINAL JOINT.
- PLACE B₃₀₂(E) AT MID-DEPTH OF SLAB.
- FOR SECTIONS A-A AND D-D SEE SHEET NO. 473 OF 870.



REVISIONS	
NAME	DATE

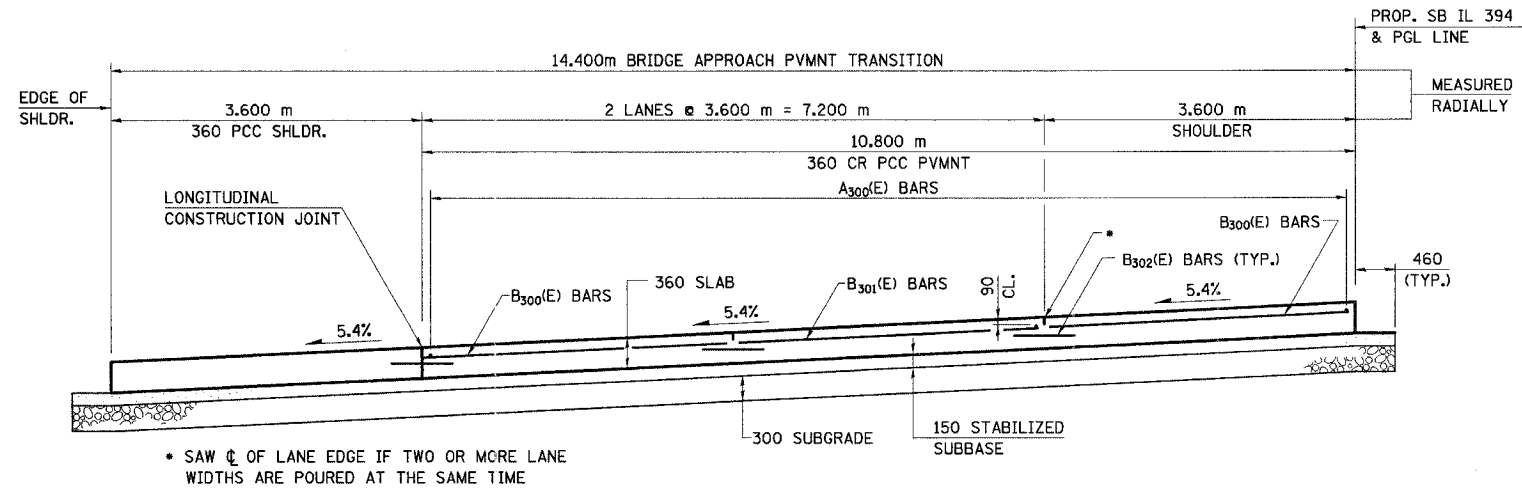
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
BRIDGE APPROACH PAVEMENT (SPECIAL) & PAVEMENT TRANSITION
SB IL RTE 394 OVER INTERSTATE 80
STRUCTURE NO. 2796
SOUTH APPROACH - 1 OF 2

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

DRAWN BY: LK
CHECKED BY: PY

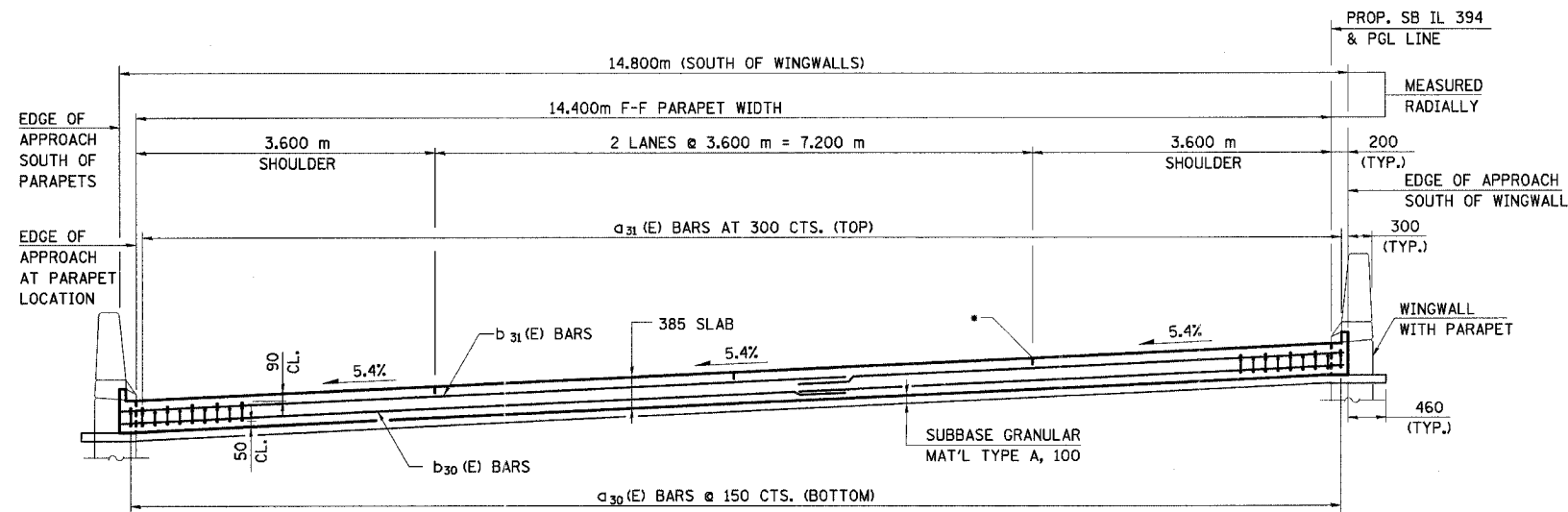
HNTB

FBI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	870	473
STA.		TO STA.		
FED ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

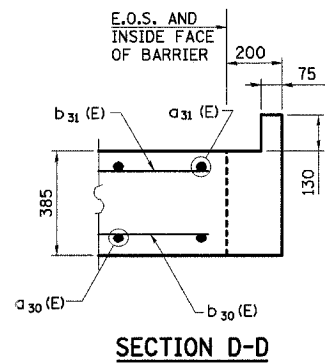


• SAW ϕ OF LANE EDGE IF TWO OR MORE LANE WIDTHS ARE POURED AT THE SAME TIME

SECTION A-A



SECTION B-B



SECTION D-D

NOTES:

WORK THIS SHEET WITH SHEET NO. 472 OF 870

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94 EAST BOUND / IL 394 SOUTH BOUND
**BRIDGE APPROACH PAVEMENT (SPECIAL)
 & PAVEMENT TRANSITION**
 NB IL RTE 394 OVER INTERSTATE 80
 STRUCTURE NO. 2796
 SOUTH APPROACH - 2 OF 2

REVISIONS	
NAME	DATE

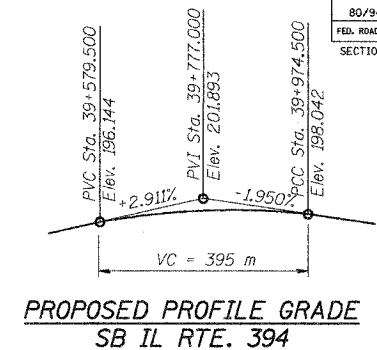
HORIZ SCALE:
 VERT SCALE:
 DATE: JUL 18, 2005
 DRAWN BY: LK
 CHECKED BY: PY

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.L. 80/94		COOK	870	474
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-		37 SHEETS
SECTION (0203.1 & 0312-708W) R-3		CONTRACT # 62108		

Benchmark: TBM #224; Cut box on southwest corner of box sign truss foundation on northbound IL 394 (Sign: 294-1 mile and I-80/94 - 3/4 mile) #C4E box on west foundation; Elev 190.364
 Existing Structure: S.N. 016-0972; Three-spans 62.5 m Bk. to Bk. abutments, 11.94 m Out to Out, reinf. conc. deck supported by continuous steel girders supported by concrete piers and abutments with timber pile supported footings. Built as F.A.I. Route 122, Sec. 066-0303.7A-MFT at Station 46+96.22 in 1952. Deck was rehabilitated in 1995. Staging: Outside lanes (west half) to be constructed under N.B. IL 394 Reconstruction Contract while maintaining traffic on existing bridge. Inside lanes (east half) to be constructed and existing bridge to be removed under S.B. IL 394 Reconstruction Contract while maintaining one lane of Ramp E traffic on west half of new southbound bridge and one lane of N.B. & S.B. traffic on new northbound bridge constructed under N.B. IL 394 Reconstruction Contract.
 Salvage: No Salvage



LOADING MS18 & ALT.
 Allow 2.4 kN/m² for future wearing surface.
DESIGN SPECIFICATIONS
 2002 AASHTO

DESIGN STRESSES
FIELD UNITS
 $f_c = 24$ MPa
 $f_y = 400$ MPa (reinforcement)
 $f_y = 250$ MPa (Structural Steel) (M270 M Grade 250)
PRECAST PRESTRESSED UNITS
 $f_c = 42$ MPa
 $f_y = 35$ MPa
 $f_s = 1,860$ MPa (12.7 mm ϕ low relaxation strands)
 $f_{sl} = 1,395$ MPa

SEISMIC DATA
 Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = .04
 Site Coefficient (S) = 1.0

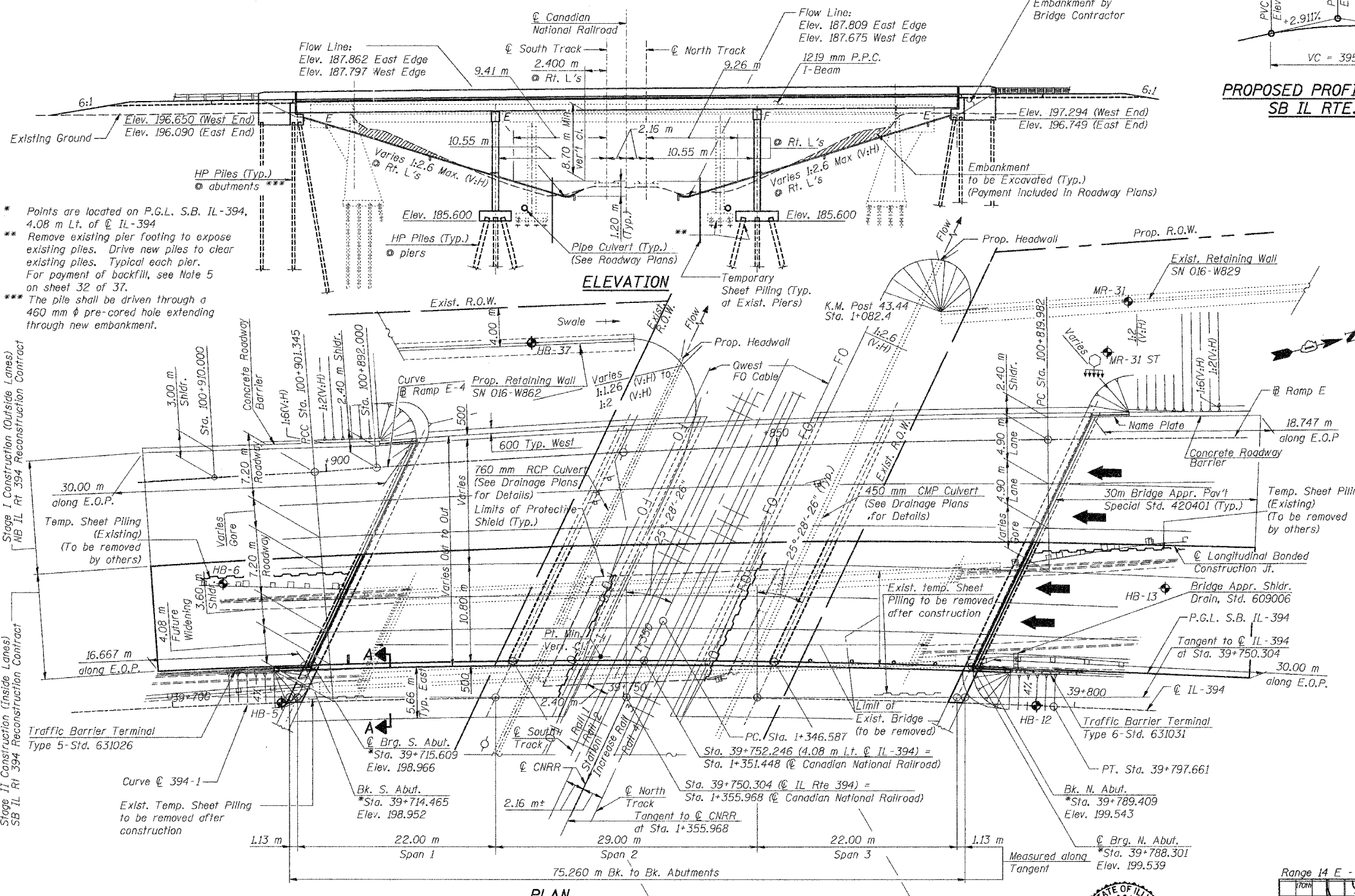
394-1 CURVE DATA
 PI STA = 39+630.602
 $\Delta = 17^\circ 32' 30''$
 $R = 1,100.000$ m
 $T = 169.715$ m
 $L = 336.774$ m
 $E = 13.015$ m
 S.E. RUN = 4.5%
 PC STA = 39+460.887
 PT STA = 39+797.661
 S.E. IN = Sta. 39+370.500 to 39+495.000
 S.E. OUT = Sta. 39+770.000 to 39+886.000

RAMPE-4 CURVE DATA
 PI STA = 100+860.681
 $\Delta = 4^\circ 05' 21''$
 $R = 1,140.055$ m
 $T = 40.699$ m
 $L = 81.364$ m
 $E = 0.726$ m
 S.E. RUN = 4.5%
 PC STA = 100+819.982
 PCC STA = 100+901.345
 S.E. IN = Sta. 39+848.664 to 39+769.995
 S.E. OUT = Curve E-5 Full Superelevation

- LEGEND:**
- ⊕ Boring
 - ▭ Exist. Guardrail
 - ▨ Embankment Excavation
 - Exist. Telephone pole
 - ⊠ Exist. Sign
 - ⊔ Exist. Buried Telephone (MCI World Com)
 - FO— Exist. Buried Fiber Optics
 - Highmast Light Pole

EXISTING CNRR CURVE DATA
 PI STA = 1+516.832
 $\Delta = 10^\circ 55' 10''$ (LT)
 $R = 1,781.208$ m
 $T = 170.246$ m
 $L = 339.460$ m
 $E = 8.117$ m
 P.C. STA = 1+346.587
 P.T. STA = 1+686.047

- Notes:**
- See Sheet No. 2 of 37 for section A-A.
 - All dimensions are in millimeters (mm) except as noted.
 - The exact location of the fiber optics lines that appear to be in conflict with the temporary sheet piling for the pier removal will be determined by the others. The fiber optics lines will be encased by others and the Bridge Contractor will need to locate the sheet piling to clear the line while maintaining flow in the existing ditch.



- * Points are located on P.G.L. S.B. IL-394, 4.08 m Lt. of \odot IL-394
- ** Remove existing pier footing to expose existing piles. Drive new piles to clear existing piles. Typical each pier. For payment of backfill, see Note 5 on sheet 32 of 37.
- *** The pile shall be driven through a 460 mm ϕ pre-cored hole extending through new embankment.

Stage I Construction (Outside Lanes) NB IL Rt 394 Reconstruction Contract
 Stage II Construction (Inside Lanes) SB IL Rt 394 Reconstruction Contract

EXISTING TOP OF RAIL ELEVATIONS CANADIAN NATIONAL RAILROAD

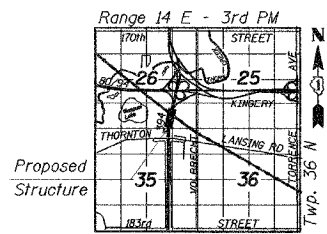
DESIGNED	M.R./ H.T.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	
CHECKED	H.T.	Rail 1	1+308.387	188.932	1+333.376	189.035	1+358.433	189.136
DRAWN	J.B./ J.S.	Rail 2	1+308.464	188.948	1+333.284	189.040	1+358.380	189.119
CHECKED	H.T./ M.R.	Rail 3	1+308.455	188.920	1+333.194	189.022	1+358.297	189.113
		Rail 4	1+308.401	188.913	1+333.134	189.006	1+358.249	189.092

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TJD)
 ENGINEER OF BRIDGES AND STRUCTURES



HAKIM H. TAYEBI
 ILLINOIS LICENSED
 STRUCTURAL ENGINEER
 NO. 081-003266
 LICENSE EXP. 11-30-06



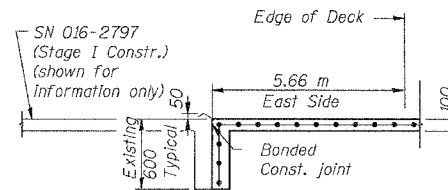
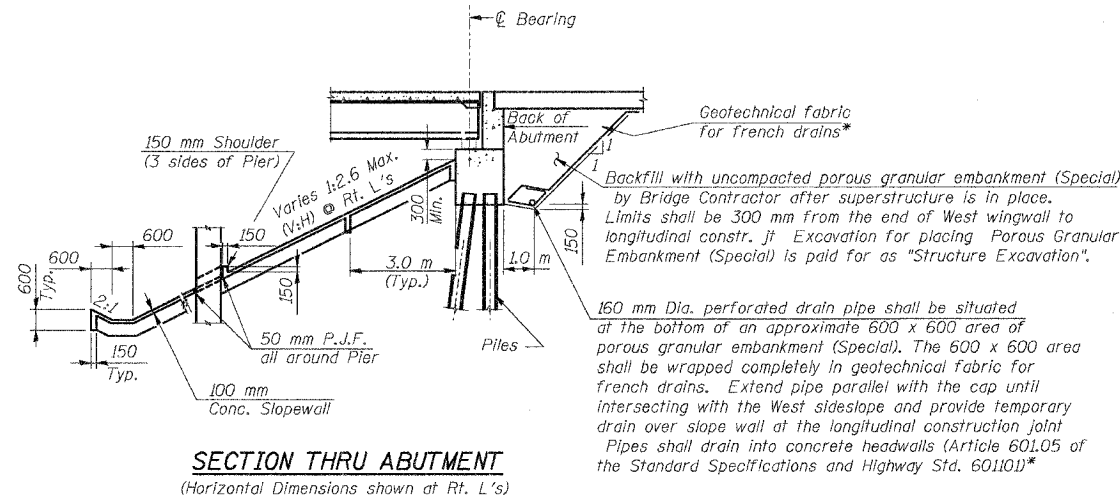
ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-94/IL 394 SOUTH BOUND
GENERAL PLAN & ELEVATION
 SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
 F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
 COOK COUNTY
 STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
 DATE: July 18, 2005
 SCALE: NONE
 Soodan & Associates, Inc.
 100 North LaSalle Street, Suite 1800
 Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 37 SHEETS
F.A.P. 80/94		COOK	870	475	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		
SECTION (0203.1 & 0312-708W) R-3		CONTRACT # 62108			

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.
- Slope wall shall be reinforced with welded wire fabric, 152 x 152 - MW25.8 x MW25.8, with a mass of 2.91 kg/m².
- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
- The contractor shall drive one steel test pile in a permanent location at East end of each abutment & pier as shown on the plans or as directed by the Engineer before ordering the remainder of piles.
- Bridge Seat Sealer shall be applied to the seat area of the north and south abutments.
- All construction joints shall be bonded.
- All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type1
- Stage I construction refer to N.B. IL 394 reconstruction contract. Stage II construction refer to S.B. IL 394 reconstruction contract.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.



STATION 39+752.246
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 332
SEC. (0203.1 & 0312-708W)
LOADING MS-18 & ALT.
STR. NO. 016-2798

**** NAME PLATE**
See Std. 515001

** Name Plate Detail is provided for information only.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu m	-	165.0	165.0
Removal of Existing Structures No. 2	Each	1	-	1
Structure Excavation	Cu m	-	948	948
Neoprene Expansion Joint 65mm	Meter	14	-	14
Floor Drains	Each	4	-	4
Elastomeric Bearing Assembly, Type I	Each	24	-	24
Elastomeric Bearing Assembly, Type II	Each	8	-	8
Bridge Joint System (Expansion), 25mm	Meter	15.4	-	15.4
Concrete Structures	Cu m	-	397.3	397.3
Concrete Superstructure	Cu m	267.9	-	267.9
Bridge Deck Grooving	Sq m	960	-	960
Protective Coat	Sq m	1085	-	1085
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219mm	Meter	587	-	587
Furnishing and Erecting Structural Steel	KG	600	-	600
Reinforcement Bars, Epoxy Coated	KG	37280	30480	67760
Slopedwall 100 mm	Sq m	-	1206	1206
Furnishing Steel Piles HP310X79	Meter	-	2542	2542
Driving Steel Piles	Meter	-	2542	2542
Test Pile Steel HP310X79	Each	-	4	4
Temporary Sheet Piling	Sq m	-	451	451
Temporary Sheet Piling Removal	Sq m	-	185	185
Drainage Scuppers, DS-33	Each	1	-	1
Bar Splicers	Each	89	-	89
Bridge Seal Sealer	Sq m	-	33	33
Controlled Low-Strength Material	Cu m	-	14.6	14.6
Protective Shield	Sq m	241	-	241

INDEX OF SHEETS

SHEET NO.	TITLE
1	General Plan & Elevation
2	General Notes, Quantities & Details
3	Construction Staging
4	Footing Layout & Offset Sketch
5	Top of Slab Elevation Grid & Details
6	Top of Slab Elevations 1 of 3
7	Top of Slab Elevations 2 of 3
8	Top of Slab Elevations 3 of 3
9	Deck Plan
10	Deck Cross Section
11	Diaphragm Details 1 of 2
12	Diaphragm Details 2 of 2
13	Deck and Parapet Details
14	Neoprene Expansion Joints
15	Bridge Joint System - Expansion 1 of 2
16	Bridge Joint System - Expansion 2 of 2
17	Drainage Scupper
18	Framing Plan
19	Beam Details 1 of 3
20	Beam Details 2 of 3
21	Beam Details 3 of 3
22	Elastomeric Expansion Bearings
23	Anchor Bolt Details
24	South Abutment Plan & Elevation
25	South Abutment Details
26	North Abutment Plan & Elevation
27	North Abutment Details
28	Pier 1 (Expansion Pier)
29	Pier 2 (Fixed Pier)
30	Pier Details
31	Bar Splicer Details
32	Temporary Sheet Piling at Pier 1 & Pier 2
33	Boring Logs 1 of 5
34	Boring Logs 2 of 5
35	Boring Logs 3 of 5
36	Boring Logs 4 of 5
37	Boring Logs 5 of 5

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
GENERAL NOTES, QUANTITIES & DETAILS

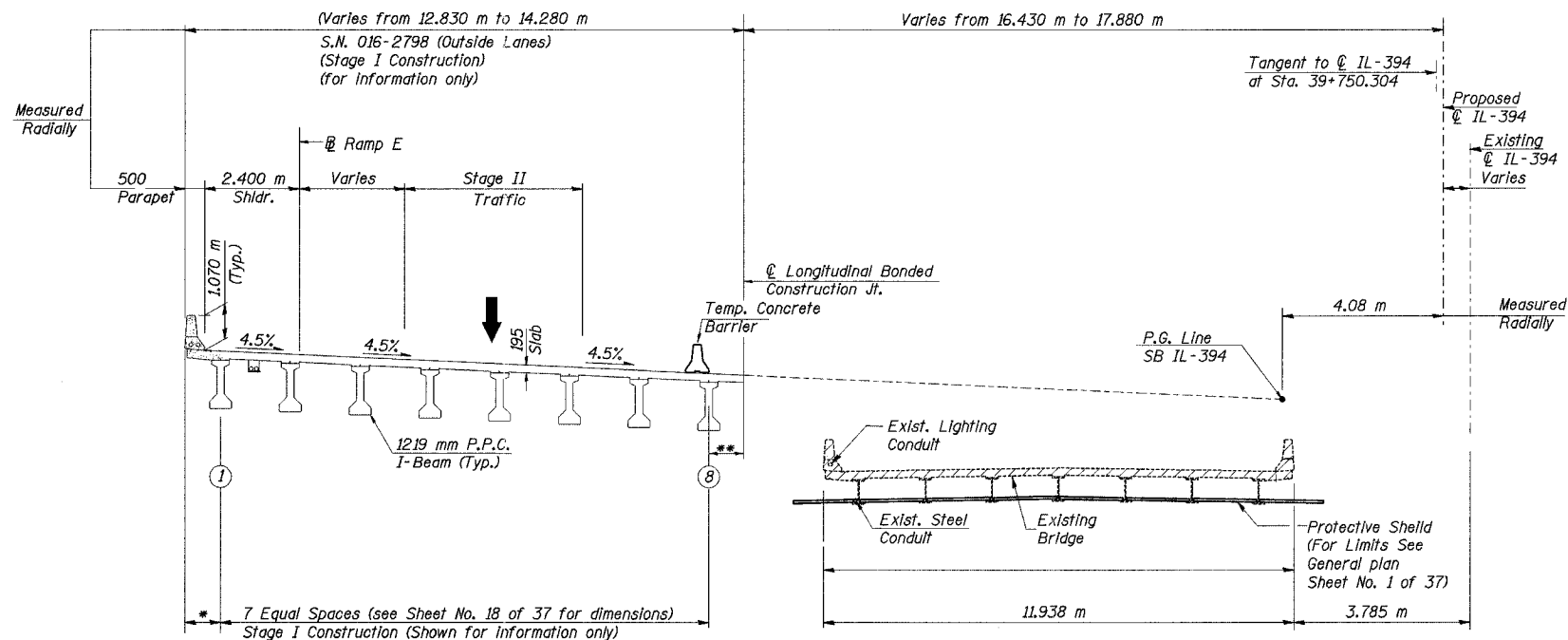
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

Soodan

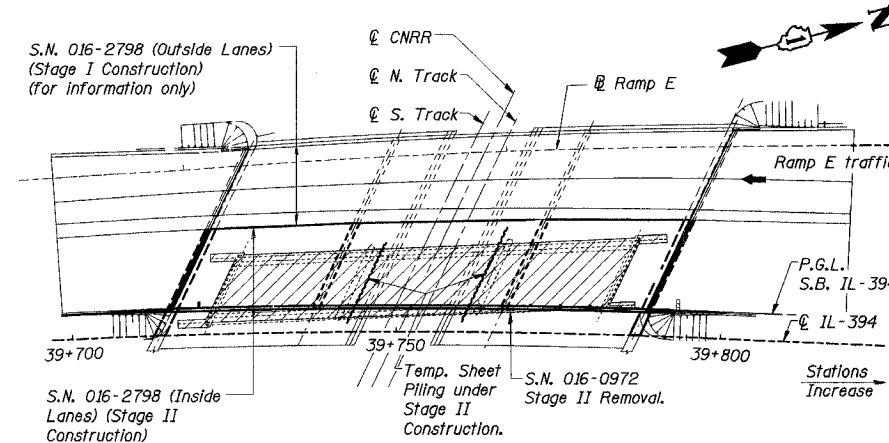
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

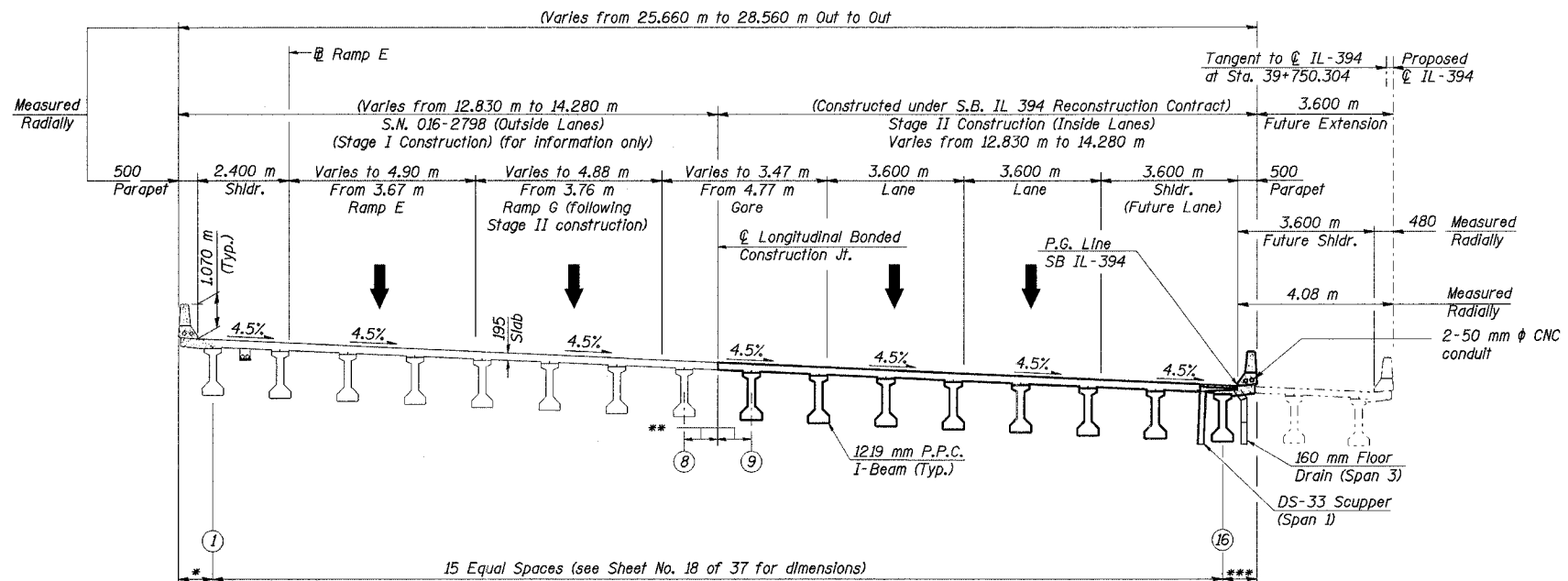
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
F.A.I. 80/94		COOK	870	476	37 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-		CONTRACT # 62108	
SECTION (0203.1 & 0312-708W) R-3					



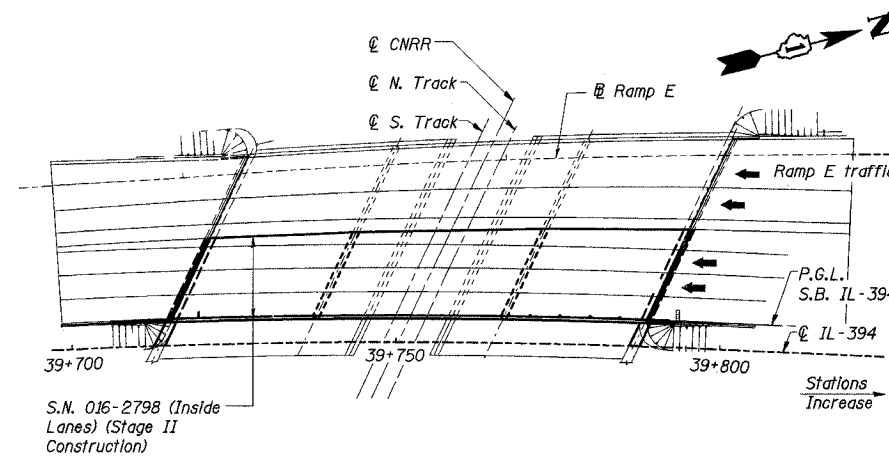
STAGE II REMOVAL
(Looking Upstation)



STAGE II REMOVAL AND CONSTRUCTION - PLAN



STAGE II CONSTRUCTION
(Looking Upstation)



FINAL PLAN

* Varies from 822 mm to 884 mm Span 1
Varies from 833 mm to 959 mm Span 2
Varies from 840 mm to 921 mm Span 3

** Varies from 781 mm to 810 mm Span 1
Varies from 810 mm to 853 mm Span 2
Varies from 858 mm to 868 mm Span 3

*** Varies from 784 mm to 842 mm Span 1
Varies from 754 mm to 853 mm Span 2
Varies from 806 mm to 865 mm Span 3

LEGEND

Removal

Notes:

1. See Sheet 1 of 37 for plan dimensions.
2. Cross slope transitions at north end of bridge. See detail on Sheet. No. 10 of 37
3. See Framing Plan on Sheet No. 18 of 37.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

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

SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY

STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)

DATE: July 18, 2005

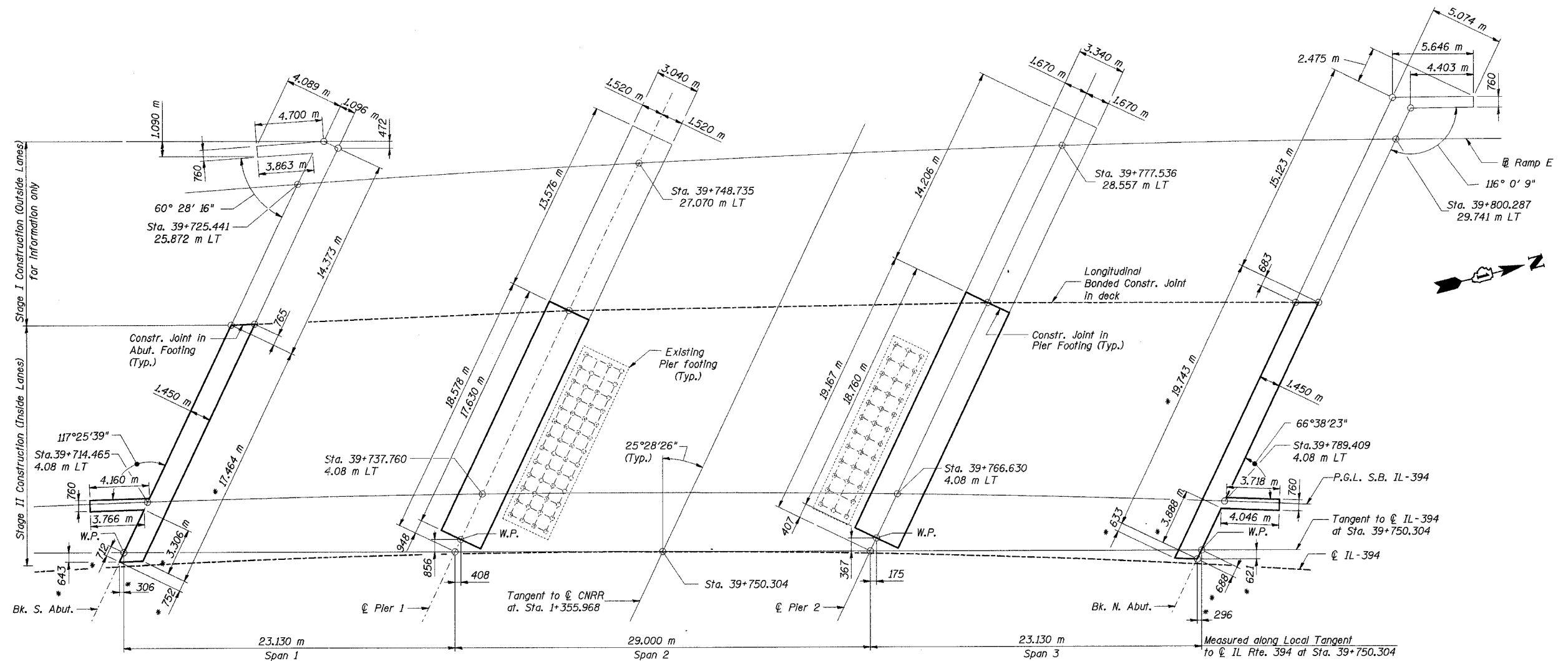
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Soodan

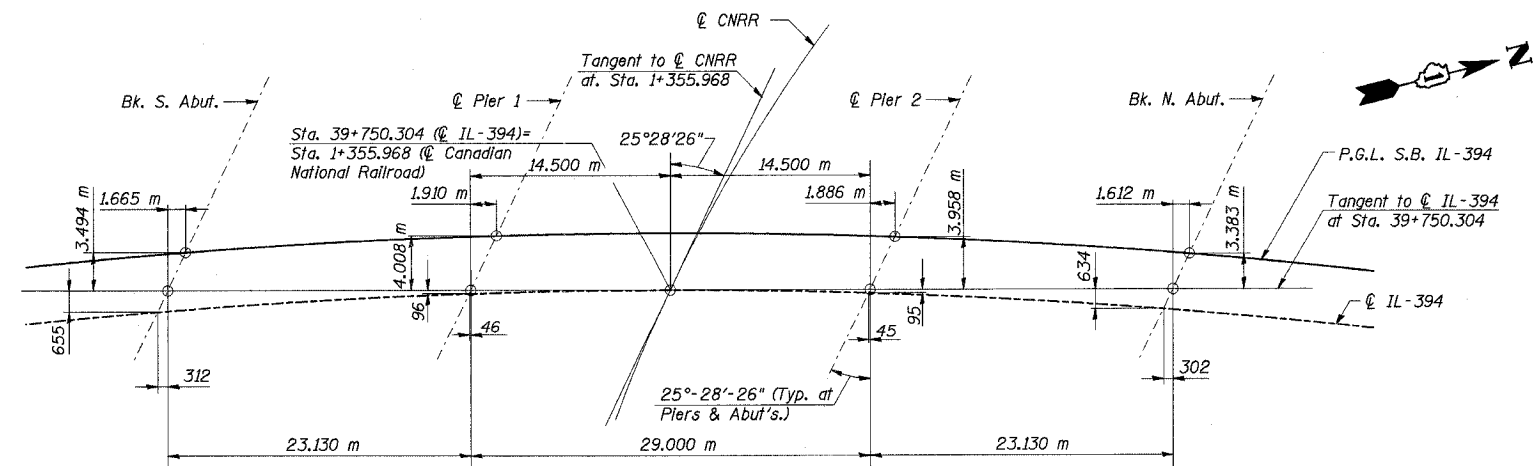
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4 37 SHEETS
F.A.I.		COOK	870	477	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
SECTION 0203.1 & 0312-708W R-3			CONTRACT # 62108		



FOOTING LAYOUT * Measured from edge of concrete



IL-394 OFFSET SKETCH

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

- Notes:
1. For pile location for abutments and piers see Sheet No. 24, 26, 28 & 29 of 37.
 2. All dimensions are in millimeters (mm) except as noted.

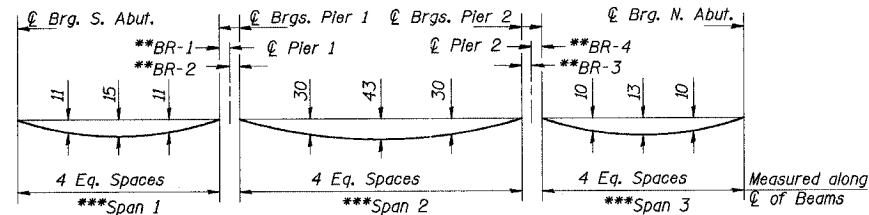
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
FOOTING LAYOUT & OFFSET SKETCH
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

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.
F.A.I. 80/94		COOK	870	478
SECTION 0203.1 & 0312-708W R-3 CONTRACT # 62108				

SHEET NO. 5
37 SHEETS

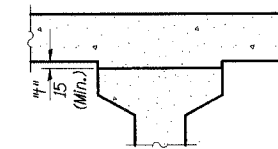


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

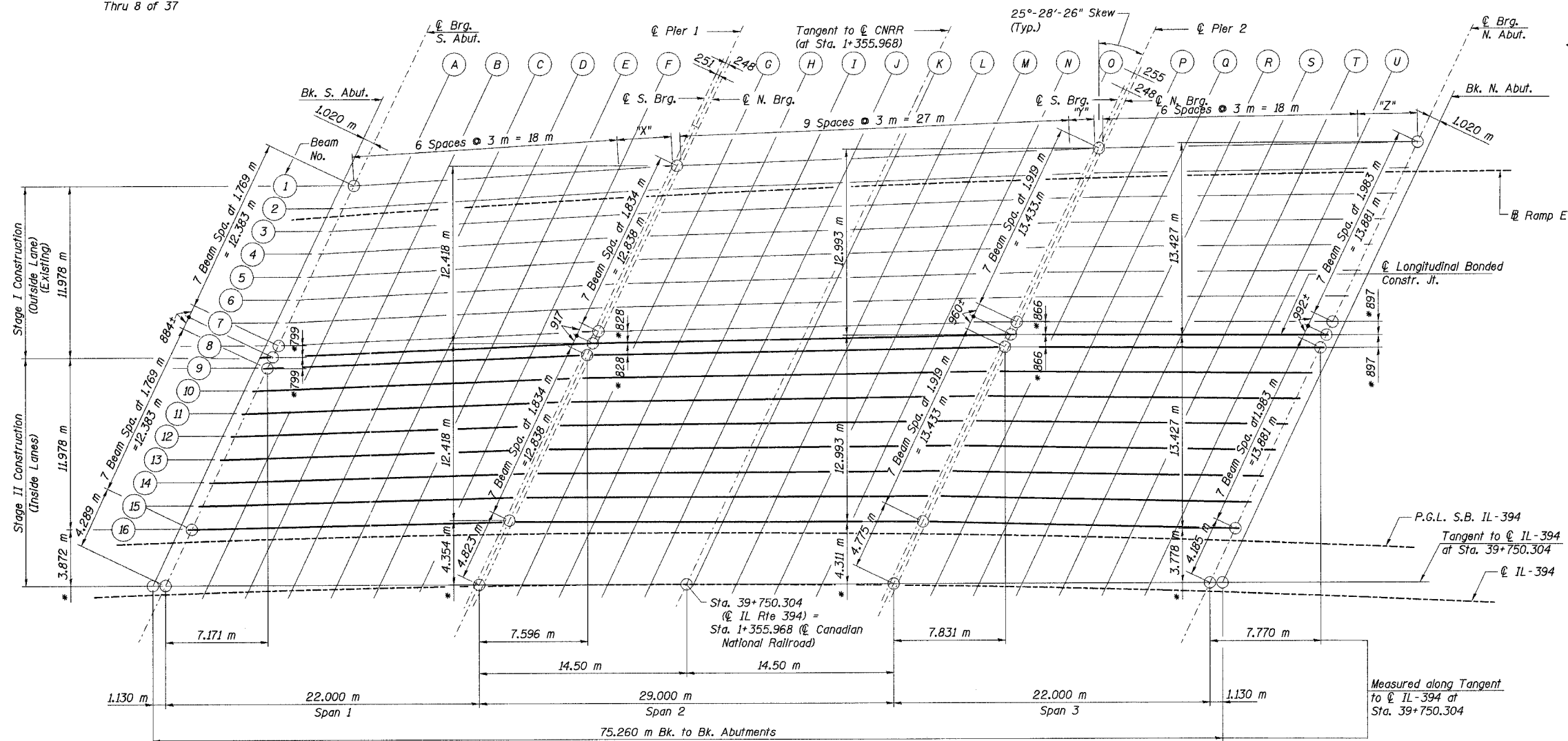
Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheet No. 6 Thru 8 of 37

- * Measured perpendicular to tangent to CL IL-394 at CL Brg. at abutments & at CL pier at piers (Typ.)
- ** For CL Brg. to CL pier dimensions see table below.
- *** For Span dimensions, see table below.



To determine "h": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "h" above top flanges of beams.

FILLET HEIGHTS



PLAN

"X", "Y", & "Z" DIMENSIONS
(Measured along CL of Beams)

Beam No.	"X" (m)	"Y" (m)	"Z" (m)
9	4.159	1.686	3.658
10	4.130	1.649	3.631
11	4.100	1.612	3.604
12	4.070	1.575	3.578
13	4.041	1.539	3.552
14	4.012	1.503	3.525
15	3.983	1.467	3.501
16	3.954	1.430	3.474

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

CL BRG. TO CL PIER DIMENSIONS
(Measured along CL of Beams)

Beam No.	BR-1 (mm)	BR-2 (mm)	BR-3 (mm)	BR-4 (mm)
9	284	277	277	282
10	283	276	277	281
11	283	276	276	281
12	283	276	276	281
13	282	275	276	280
14	282	275	275	280
15	281	274	275	280
16	281	274	275	279

SPAN TABLE

(Measured along CL of Beams from CL Brg. to CL Brg.)

Beam No.	SPAN 1 (m)	SPAN 2 (m)	SPAN 3 (m)
9	22.159	28.685	21.657
10	22.130	28.649	21.631
11	22.100	28.612	21.604
12	22.070	28.575	21.578
13	22.041	28.539	21.552
14	22.012	28.503	21.525
15	21.983	28.467	21.500
16	21.954	28.430	21.474

- Notes:
1. Beams are straight and placed on chord from substructure element to substructure element.
 2. All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
TOP OF SLAB ELEVATION
GRID & DETAILS
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
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. 6 37 SHEETS
F.A.I. 80/94		COOK	870	479	
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3		CONTRACT # 62106			

LONGITUDINAL STAGE
CONSTRUCTION JOINT

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+720.636	-16.208	199.572	199.572
⊕ Brg. S. Abut.	39+721.773	-16.225	199.587	199.587
A	39+724.728	-16.274	199.622	199.629
B	39+727.684	-16.332	199.658	199.669
C	39+730.639	-16.398	199.692	199.707
D	39+733.594	-16.471	199.726	199.741
E	39+736.549	-16.553	199.759	199.772
F	39+739.503	-16.643	199.792	199.800
⊕ S. Brg. Pier 1	39+743.613	-16.781	199.835	199.835
⊕ Pier 1	39+743.892	-16.791	199.838	199.838
⊕ N. Brg. Pier 1	39+744.165	-16.794	199.841	199.841
G	39+747.119	-16.836	199.868	199.882
H	39+750.073	-16.886	199.895	199.921
I	39+753.027	-16.944	199.921	199.957
J	39+755.981	-17.010	199.946	199.988
K	39+758.934	-17.084	199.971	200.014
L	39+761.887	-17.166	199.995	200.035
M	39+764.840	-17.256	200.018	200.050
N	39+767.792	-17.355	200.041	200.062
O	39+770.743	-17.461	200.059	200.066
⊕ S. Brg. Pier 2	39+772.420	-17.525	200.062	200.062
⊕ Pier 2	39+772.693	-17.535	200.062	200.062
⊕ N. Brg. Pier 2	39+772.970	-17.540	200.062	200.062
P	39+775.922	-17.593	200.064	200.070
Q	39+778.874	-17.653	200.064	200.075
R	39+781.826	-17.722	200.064	200.077
S	39+784.777	-17.799	200.062	200.075
T	39+787.728	-17.883	200.060	200.072
U	39+790.679	-17.976	200.057	200.065
⊕ Brg. N. Abut.	39+794.290	-18.101	200.052	200.052
Bk. N. Abut.	39+795.398	-18.141	200.050	200.050

BEAM 9

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+720.240	-15.422	199.532	199.532
⊕ Brg. S. Abut.	39+721.377	-15.437	199.546	199.546
A	39+724.335	-15.481	199.582	199.589
B	39+727.293	-15.534	199.617	199.629
C	39+730.251	-15.594	199.652	199.666
D	39+733.208	-15.663	199.686	199.701
E	39+736.165	-15.740	199.719	199.732
F	39+739.121	-15.825	199.751	199.760
⊕ S. Brg. Pier 1	39+743.219	-15.956	199.795	199.795
⊕ Pier 1	39+743.499	-15.965	199.798	199.798
⊕ N. Brg. Pier 1	39+743.771	-15.968	199.800	199.800
G	39+746.728	-16.005	199.828	199.841
H	39+749.684	-16.050	199.854	199.880
I	39+752.641	-16.103	199.880	199.916
J	39+755.597	-16.164	199.906	199.947
K	39+758.552	-16.233	199.930	199.973
L	39+761.508	-16.311	199.954	199.994
M	39+764.463	-16.396	199.977	200.009
N	39+767.417	-16.489	200.000	200.020
O	39+770.371	-16.591	200.019	200.027
⊕ S. Brg. Pier 2	39+772.031	-16.651	200.023	200.023
⊕ Pier 2	39+772.304	-16.661	200.024	200.024
⊕ N. Brg. Pier 2	39+772.581	-16.665	200.024	200.024
P	39+775.535	-16.713	200.026	200.033
Q	39+778.490	-16.769	200.028	200.038
R	39+781.444	-16.832	200.028	200.041
S	39+784.398	-16.904	200.028	200.041
T	39+787.351	-16.984	200.027	200.038
U	39+790.304	-17.072	200.025	200.033
⊕ Brg. N. Abut.	39+793.906	-17.190	200.021	200.021
Bk. N. Abut.	39+795.015	-17.229	200.019	200.019

BEAM 10

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+719.448	-13.849	199.452	199.452
⊕ Brg. S. Abut.	39+720.584	-13.860	199.466	199.466
A	39+723.547	-13.895	199.502	199.509
B	39+726.509	-13.938	199.537	199.549
C	39+729.471	-13.989	199.571	199.586
D	39+732.433	-14.047	199.605	199.620
E	39+735.394	-14.114	199.638	199.651
F	39+738.355	-14.189	199.670	199.679
⊕ S. Brg. Pier 1	39+742.430	-14.306	199.713	199.713
⊕ Pier 1	39+742.710	-14.315	199.716	199.716
⊕ N. Brg. Pier 1	39+742.982	-14.317	199.719	199.719
G	39+745.943	-14.344	199.746	199.759
H	39+748.905	-14.379	199.773	199.799
I	39+751.866	-14.422	199.799	199.834
J	39+754.826	-14.473	199.824	199.865
K	39+757.787	-14.532	199.848	199.891
L	39+760.747	-14.599	199.872	199.911
M	39+763.706	-14.675	199.895	199.927
N	39+766.666	-14.758	199.917	199.938
O	39+769.624	-14.849	199.939	199.946
⊕ S. Brg. Pier 2	39+771.250	-14.903	199.945	199.945
⊕ Pier 2	39+771.523	-14.912	199.946	199.946
⊕ N. Brg. Pier 2	39+771.800	-14.916	199.946	199.946
P	39+774.760	-14.953	199.951	199.957
Q	39+777.719	-14.999	199.954	199.965
R	39+780.679	-15.053	199.957	199.969
S	39+783.637	-15.115	199.959	199.971
T	39+786.596	-15.185	199.960	199.971
U	39+789.554	-15.263	199.960	199.968
⊕ Brg. N. Abut.	39+793.135	-15.368	199.959	199.959
Bk. N. Abut.	39+794.245	-15.403	199.958	199.958

BEAM 11

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+718.653	-12.277	199.372	199.372
⊕ Brg. S. Abut.	39+719.790	-12.285	199.386	199.386
A	39+722.756	-12.310	199.422	199.428
B	39+725.723	-12.343	199.457	199.468
C	39+728.689	-12.384	199.491	199.505
D	39+731.655	-12.433	199.524	199.539
E	39+734.621	-12.490	199.557	199.570
F	39+737.587	-12.555	199.589	199.598
⊕ S. Brg. Pier 1	39+741.640	-12.658	199.632	199.632
⊕ Pier 1	39+741.919	-12.665	199.635	199.635
⊕ N. Brg. Pier 1	39+742.191	-12.666	199.637	199.637
G	39+745.157	-12.683	199.665	199.678
H	39+748.123	-12.708	199.691	199.717
I	39+751.088	-12.741	199.717	199.752
J	39+754.054	-12.783	199.742	199.783
K	39+757.019	-12.832	199.766	199.809
L	39+759.984	-12.889	199.790	199.829
M	39+762.948	-12.955	199.813	199.844
N	39+765.912	-13.028	199.835	199.855
O	39+768.876	-13.110	199.856	199.863
⊕ S. Brg. Pier 2	39+770.468	-13.157	199.866	199.866
⊕ Pier 2	39+770.741	-13.165	199.867	199.867
⊕ N. Brg. Pier 2	39+771.018	-13.167	199.867	199.867
P	39+773.983	-13.195	199.874	199.880
Q	39+776.947	-13.230	199.879	199.890
R	39+779.911	-13.274	199.884	199.896
S	39+782.875	-13.325	199.888	199.901
T	39+785.838	-13.385	199.890	199.902
U	39+788.801	-13.453	199.893	199.901
⊕ Brg. N. Abut.	39+792.362	-13.545	199.894	199.894
Bk. N. Abut.	39+793.472	-13.576	199.894	199.894

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
TOP OF SLAB ELEVATIONS 1 OF 3
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
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. 7 37 SHEETS
F.A.I. 80/94		COOK	870	480	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3			CONTRACT # 62108		

BEAM 12

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+717.855	-10.706	199.292	199.292
☉ Brg. S. Abut.	39+718.993	-10.710	199.305	199.305
A	39+721.964	-10.725	199.341	199.348
B	39+724.934	-10.748	199.376	199.388
C	39+727.905	-10.779	199.410	199.425
D	39+730.876	-10.818	199.444	199.458
E	39+733.846	-10.865	199.476	199.489
F	39+736.816	-10.921	199.508	199.517
☉ S. Brg. Pier 1	39+740.846	-11.009	199.551	199.551
☉ Pier 1	39+741.125	-11.016	199.553	199.553
☉ N. Brg. Pier 1	39+741.398	-11.016	199.556	199.556
G	39+744.368	-11.023	199.583	199.596
H	39+747.338	-11.038	199.609	199.635
I	39+750.308	-11.061	199.635	199.671
J	39+753.278	-11.092	199.660	199.701
K	39+756.248	-11.131	199.684	199.727
L	39+759.218	-11.178	199.707	199.747
M	39+762.187	-11.234	199.730	199.762
N	39+765.156	-11.297	199.752	199.772
O	39+768.124	-11.369	199.773	199.780
☉ S. Brg. Pier 2	39+769.683	-11.410	199.784	199.784
☉ Pier 2	39+769.956	-11.417	199.786	199.786
☉ N. Brg. Pier 2	39+770.233	-11.419	199.787	199.787
P	39+773.202	-11.436	199.796	199.802
Q	39+776.171	-11.462	199.803	199.814
R	39+779.140	-11.495	199.809	199.822
S	39+782.109	-11.537	199.816	199.828
T	39+785.077	-11.587	199.820	199.832
U	39+788.045	-11.644	199.825	199.832
☉ Brg. N. Abut.	39+791.586	-11.724	199.828	199.828
Bk. N. Abut.	39+792.697	-11.752	199.829	199.829

BEAM 13

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+717.056	-9.136	199.211	199.211
☉ Brg. S. Abut.	39+718.193	-9.135	199.225	199.225
A	39+721.168	-9.140	199.261	199.267
B	39+724.144	-9.153	199.295	199.307
C	39+727.119	-9.175	199.329	199.344
D	39+730.094	-9.204	199.363	199.378
E	39+733.069	-9.241	199.395	199.408
F	39+736.043	-9.287	199.427	199.436
☉ S. Brg. Pier 1	39+740.050	-9.361	199.469	199.469
☉ Pier 1	39+740.329	-9.367	199.472	199.472
☉ N. Brg. Pier 1	39+740.602	-9.366	199.474	199.474
G	39+743.577	-9.363	199.501	199.515
H	39+746.551	-9.368	199.527	199.553
I	39+749.526	-9.381	199.553	199.589
J	39+752.500	-9.402	199.578	199.619
K	39+755.475	-9.431	199.602	199.645
L	39+758.449	-9.469	199.625	199.664
M	39+761.423	-9.514	199.648	199.679
N	39+764.397	-9.568	199.670	199.690
O	39+767.370	-9.630	199.691	199.697
☉ S. Brg. Pier 2	39+768.895	-9.665	199.701	199.701
☉ Pier 2	39+769.169	-9.671	199.703	199.703
☉ N. Brg. Pier 2	39+769.446	-9.671	199.705	199.705
P	39+772.420	-9.679	199.716	199.723
Q	39+775.394	-9.694	199.726	199.736
R	39+778.368	-9.718	199.734	199.747
S	39+781.341	-9.749	199.742	199.755
T	39+784.314	-9.789	199.749	199.760
U	39+787.287	-9.837	199.755	199.763
☉ Brg. N. Abut.	39+790.808	-9.904	199.762	199.762
Bk. N. Abut.	39+791.920	-9.927	199.763	199.763

BEAM 14

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+716.254	-7.566	199.131	199.131
☉ Brg. S. Abut.	39+717.392	-7.562	199.144	199.144
A	39+720.371	-7.557	199.180	199.187
B	39+723.351	-7.560	199.215	199.226
C	39+726.330	-7.571	199.249	199.263
D	39+729.310	-7.591	199.282	199.297
E	39+732.289	-7.618	199.314	199.327
F	39+735.268	-7.654	199.346	199.355
☉ S. Brg. Pier 1	39+739.252	-7.714	199.387	199.387
☉ Pier 1	39+739.532	-7.719	199.390	199.390
☉ N. Brg. Pier 1	39+739.804	-7.718	199.393	199.393
G	39+742.783	-7.704	199.420	199.433
H	39+745.762	-7.699	199.446	199.472
I	39+748.742	-7.702	199.471	199.507
J	39+751.721	-7.713	199.496	199.537
K	39+754.700	-7.733	199.519	199.562
L	39+757.679	-7.760	199.543	199.582
M	39+760.657	-7.796	199.565	199.596
N	39+763.636	-7.839	199.587	199.607
O	39+766.614	-7.891	199.608	199.615
☉ S. Brg. Pier 2	39+768.106	-7.920	199.618	199.618
☉ Pier 2	39+768.379	-7.926	199.620	199.620
☉ N. Brg. Pier 2	39+768.657	-7.925	199.622	199.622
P	39+771.635	-7.922	199.636	199.643
Q	39+774.614	-7.927	199.647	199.658
R	39+777.592	-7.940	199.658	199.671
S	39+780.571	-7.962	199.668	199.681
T	39+783.549	-7.991	199.676	199.688
U	39+786.527	-8.029	199.685	199.692
☉ Brg. N. Abut.	39+790.028	-8.084	199.694	199.694
Bk. N. Abut.	39+791.140	-8.103	199.696	199.696

BEAM 15

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+715.450	-5.996	199.050	199.050
☉ Brg. S. Abut.	39+716.588	-5.988	199.064	199.064
A	39+719.571	-5.973	199.099	199.106
B	39+722.555	-5.967	199.134	199.145
C	39+725.539	-5.968	199.168	199.182
D	39+728.523	-5.977	199.201	199.216
E	39+731.507	-5.995	199.233	199.246
F	39+734.490	-6.021	199.265	199.273
☉ S. Brg. Pier 1	39+738.451	-6.067	199.306	199.306
☉ Pier 1	39+738.731	-6.071	199.308	199.308
☉ N. Brg. Pier 1	39+739.004	-6.069	199.311	199.311
G	39+741.987	-6.045	199.338	199.351
H	39+744.971	-6.030	199.364	199.390
I	39+747.954	-6.023	199.389	199.425
J	39+750.938	-6.024	199.413	199.455
K	39+753.922	-6.033	199.437	199.480
L	39+756.905	-6.051	199.460	199.499
M	39+759.889	-6.076	199.482	199.514
N	39+762.872	-6.110	199.504	199.524
O	39+765.855	-6.152	199.525	199.531
☉ S. Brg. Pier 2	39+767.313	-6.175	199.535	199.535
☉ Pier 2	39+767.587	-6.180	199.537	199.537
☉ N. Brg. Pier 2	39+767.864	-6.178	199.538	199.538
P	39+770.847	-6.165	199.554	199.561
Q	39+773.831	-6.160	199.567	199.578
R	39+776.814	-6.163	199.580	199.593
S	39+779.797	-6.175	199.592	199.605
T	39+782.780	-6.194	199.603	199.614
U	39+785.763	-6.222	199.613	199.621
☉ Brg. N. Abut.	39+789.245	-6.264	199.624	199.624
Bk. N. Abut.	39+790.357	-6.280	199.627	199.627

DESIGNED	M.R./H.T.
CHECKED	H.T.
DRAWN	J.B./J.S.
CHECKED	H.T./M.R.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
TOP OF SLAB ELEVATIONS 2 OF 3
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
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. 8 37 SHEETS
F.A.P. 80/94		COOK	870	481	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3			CONTRACT # 62108		

BEAM 16

P.G.L. (S.B.)

Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+714.465	-4.080	198.952	198.952
⊕ Brg. S. Abut.	39+715.609	-4.080	198.966	198.966
A	39+718.598	-4.080	199.002	199.009
B	39+721.587	-4.080	199.038	199.049
C	39+724.576	-4.080	199.072	199.086
D	39+727.565	-4.080	199.105	199.120
E	39+730.554	-4.080	199.137	199.150
F	39+733.543	-4.080	199.168	199.176
⊕ S. Brg. Pier 1	39+737.481	-4.080	199.207	199.207
⊕ Pier 1	39+737.760	-4.080	199.210	199.210
⊕ N. Brg. Pier 1	39+738.034	-4.080	199.212	199.212
G	39+741.023	-4.080	199.240	199.254
H	39+744.012	-4.080	199.267	199.293
I	39+747.001	-4.080	199.293	199.329
J	39+749.990	-4.080	199.318	199.360
K	39+752.979	-4.080	199.342	199.385
L	39+755.968	-4.080	199.365	199.404
M	39+758.957	-4.080	199.386	199.417
N	39+761.946	-4.080	199.407	199.426
O	39+764.935	-4.080	199.426	199.432
⊕ S. Brg. Pier 2	39+766.358	-4.080	199.435	199.435
⊕ Pier 2	39+766.630	-4.080	199.436	199.436
⊕ N. Brg. Pier 2	39+766.909	-4.080	199.438	199.438
P	39+769.898	-4.080	199.456	199.462
Q	39+772.887	-4.080	199.472	199.483
R	39+775.876	-4.080	199.487	199.500
S	39+778.865	-4.080	199.502	199.514
T	39+781.853	-4.080	199.515	199.526
U	39+784.842	-4.080	199.527	199.534
⊕ Brg. N. Abut.	39+788.301	-4.080	199.539	199.539
Bk. N. Abut.	39+789.409	-4.080	199.543	199.543

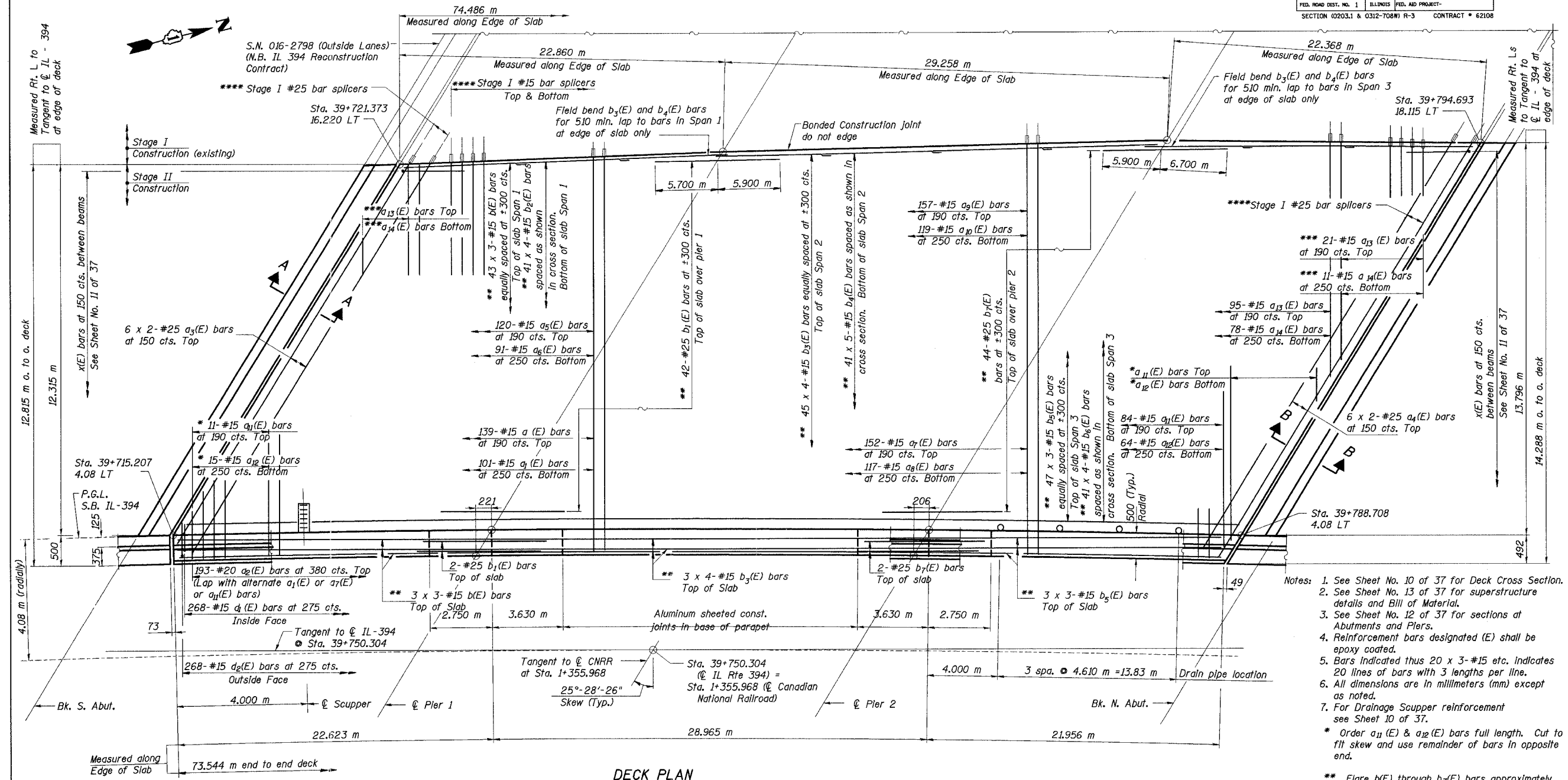
Location	Station	Offset (m)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	39+714.644	-4.427	198.970	198.970
⊕ Brg. S. Abut.	39+715.781	-4.416	198.983	198.983
A	39+718.769	-4.391	199.018	199.025
B	39+721.757	-4.374	199.053	199.065
C	39+724.746	-4.365	199.087	199.101
D	39+727.734	-4.364	199.120	199.134
E	39+730.722	-4.372	199.152	199.165
F	39+733.710	-4.388	199.183	199.192
⊕ S. Brg. Pier 1	39+737.648	-4.421	199.224	199.224
⊕ Pier 1	39+737.928	-4.424	199.227	199.227
⊕ N. Brg. Pier 1	39+738.201	-4.420	199.229	199.229
G	39+741.188	-4.387	199.256	199.269
H	39+744.176	-4.362	199.282	199.308
I	39+747.165	-4.345	199.307	199.342
J	39+750.153	-4.336	199.331	199.373
K	39+753.141	-4.335	199.355	199.398
L	39+756.129	-4.342	199.378	199.417
M	39+759.117	-4.358	199.400	199.431
N	39+762.105	-4.382	199.421	199.441
O	39+765.093	-4.413	199.442	199.448
⊕ S. Brg. Pier 2	39+766.518	-4.431	199.452	199.452
⊕ Pier 2	39+766.792	-4.435	199.453	199.453
⊕ N. Brg. Pier 2	39+767.070	-4.432	199.455	199.455
P	39+770.058	-4.409	199.471	199.478
Q	39+773.046	-4.394	199.487	199.497
R	39+776.034	-4.387	199.501	199.514
S	39+779.022	-4.388	199.515	199.528
T	39+782.010	-4.397	199.528	199.539
U	39+784.998	-4.414	199.540	199.548
⊕ Brg. N. Abut.	39+788.458	-4.445	199.554	199.554
Bk. N. Abut.	39+789.571	-4.457	199.558	199.558

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
TOP OF SLAB ELEVATIONS 3 OF 3
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
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. 9
F.A.L. 80/94		COOK	870	482	37 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3			CONTRACT # 62108		



DECK PLAN

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

Min. bar laps:
#15 bars - 510 mm
#20 bars - 640 mm
#25 bars - 1060 mm

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

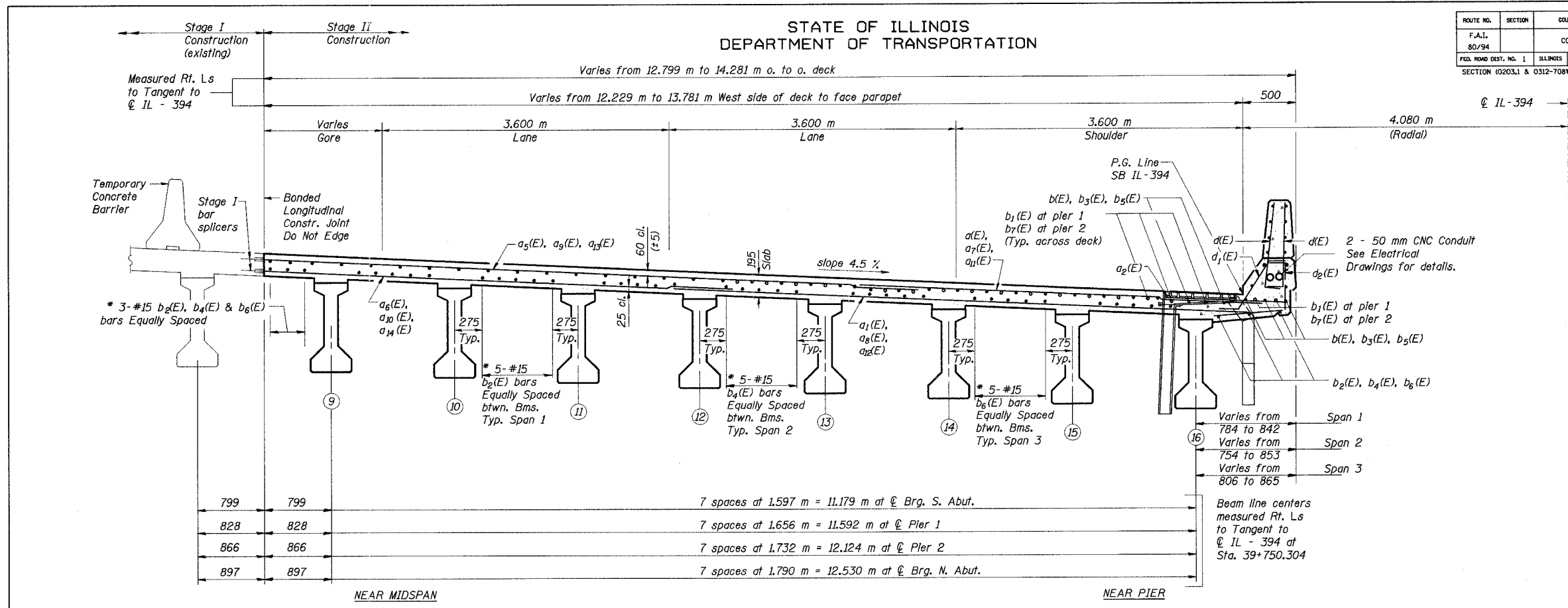
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY

STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

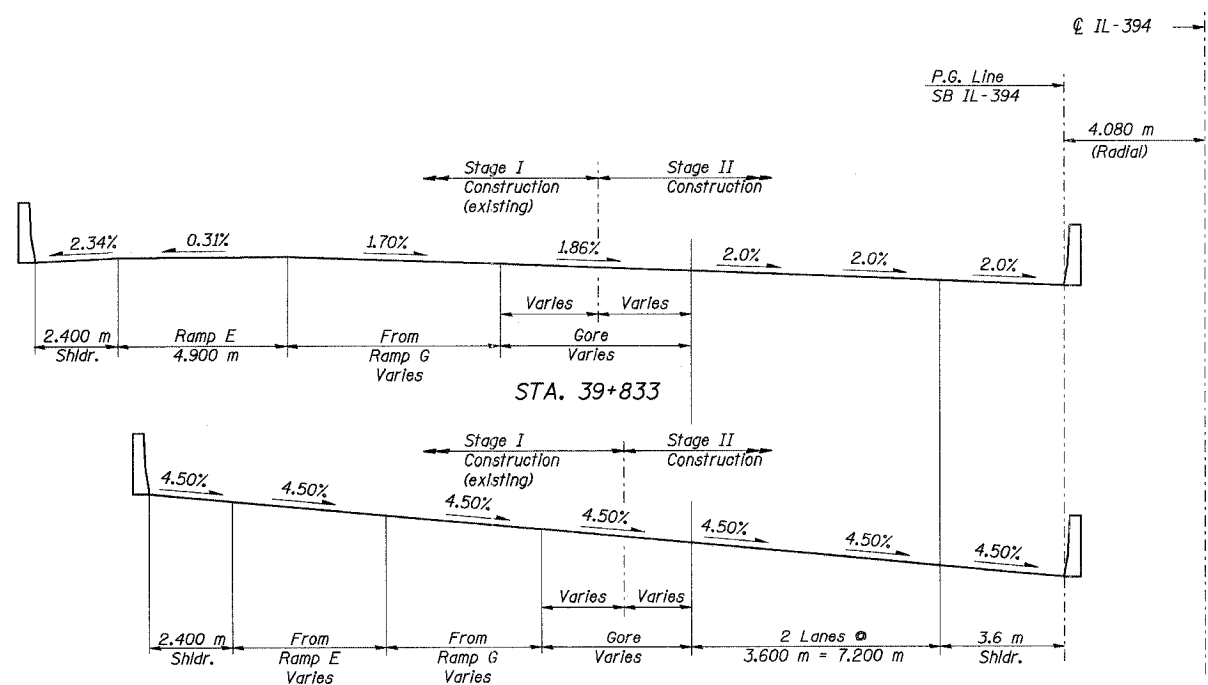
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 37 SHEETS
F.A.L. 80/94		COOK	870	483	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	SECTION (0203.1 & 0312-708W) R-3 CONTRACT # 62108		

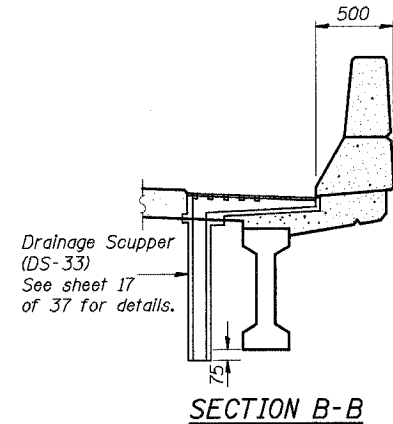
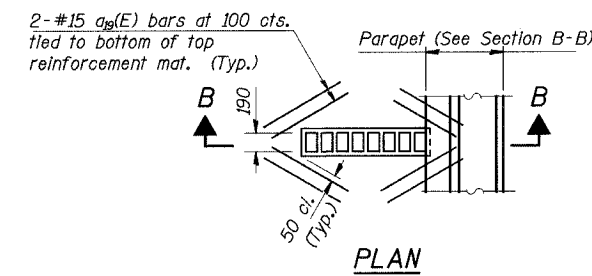


CROSS SECTION
(Looking Upstation)



CROSS SLOPE & SUPERELEVATION TRANSITION
AT NORTH END
(CL IL-394 Stationing)

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.



DRAINAGE SCUPPER
Note: Cut longitudinal deck reinforcement to clear scupper.

- Notes:
1. Work this sheet with Sheet No. 9 of 37 Sheets.
 2. See Sheet No. 13 of 37 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. 18 of 37 sheets.
 5. All dimensions are in millimeters (mm) except as noted.

* Flare b₂(E), b₄(E), b₆(E) bars approximately parallel to precast concrete beams, and to conform to east and west sides of slab.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
DECK CROSS SECTION

SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY

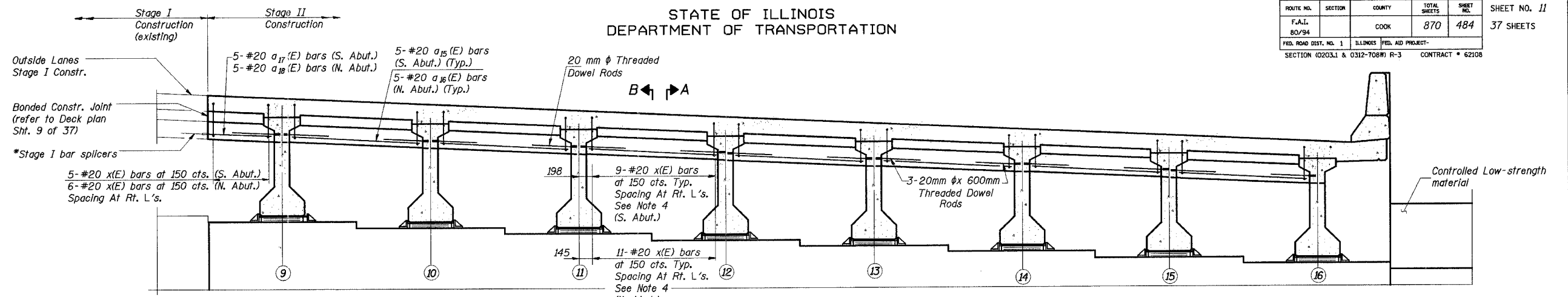
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

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

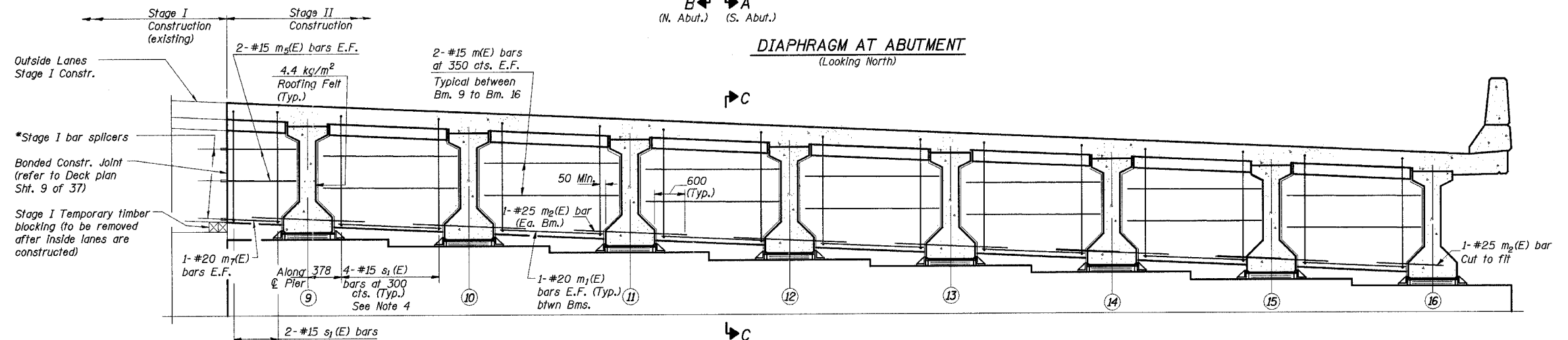
Soodan

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

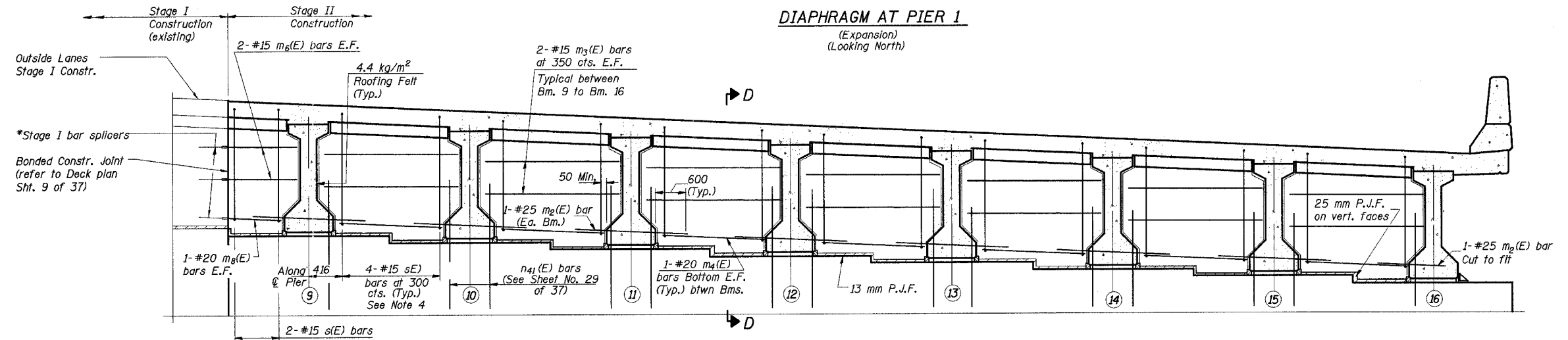
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
F.A.P. 80/94		COOK	870	484	37 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3			CONTRACT # 62108		



DIAPHRAGM AT ABUTMENT
(Looking North)



DIAPHRAGM AT PIER 1
(Expansion)
(Looking North)



DIAPHRAGM AT PIER 2
(Fixed)
(Looking North)

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Work this sheet with Sheet No. 25 and 27 of 37.
 - For Section A-A, B-B, C-C & D-D see Sheet No. 12 of 37.
 - x (E), s (E) & s (E) Bars are placed parallel to beams & spaced at right angles to beams.
- *For additional information see Bar Splicer Details on sheet 31 of 37.

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

DIAPHRAGM DETAILS 1 OF 2

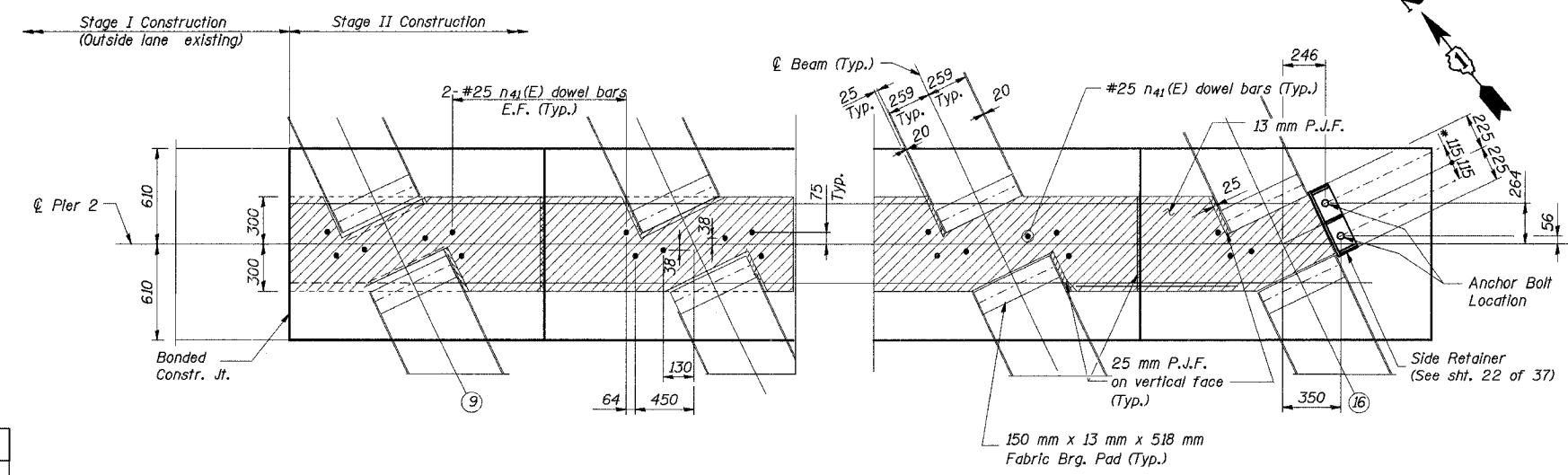
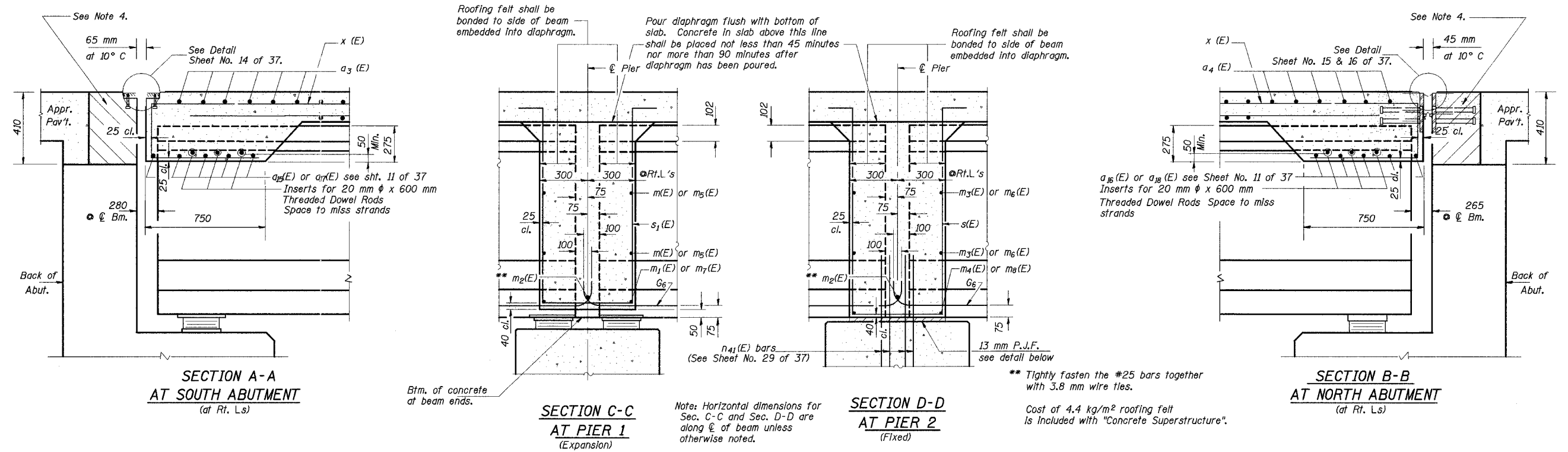
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY

STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

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. 12
F.A.L. 80/94		COOK	870	485	37 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3			CONTRACT # 62108		



- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Work this sheet with Sheet No. 11 of 37.
 - See Sheet No. 14, 15 & 16 of 37 for expansion joint details.
 - Hatched area to be poured after Superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
- * M36x450 Anchor Bolts with 75x75x8 mm ∅ washer under nut. Holes in cap to be drilled after beams are in place.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

FIXED PIER DETAILS
(Pier 2)

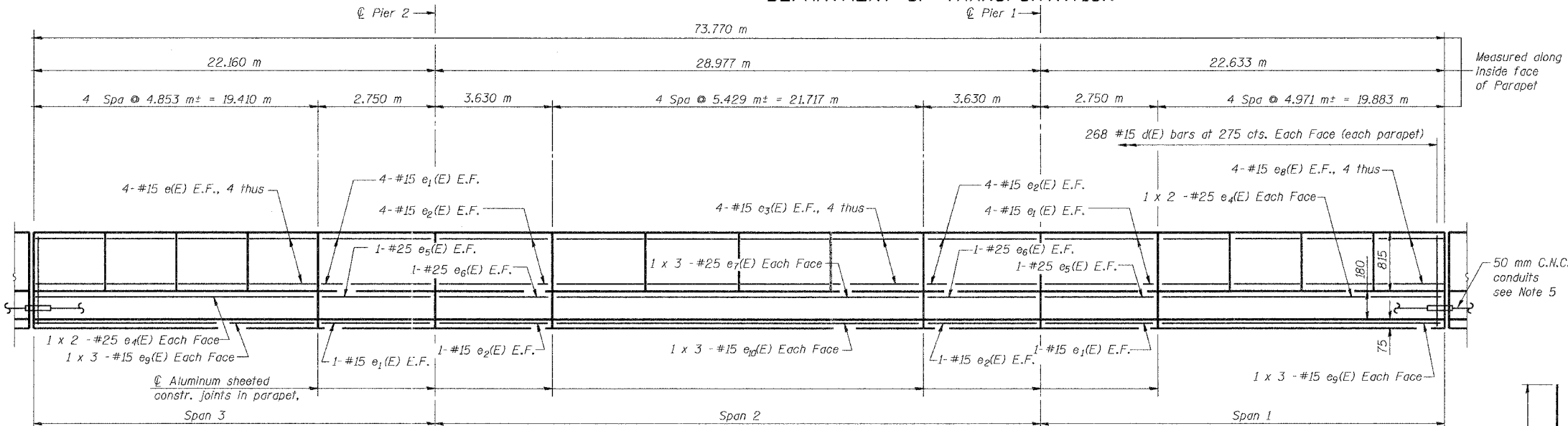
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
DIAPHRAGM DETAILS 2 OF 2
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

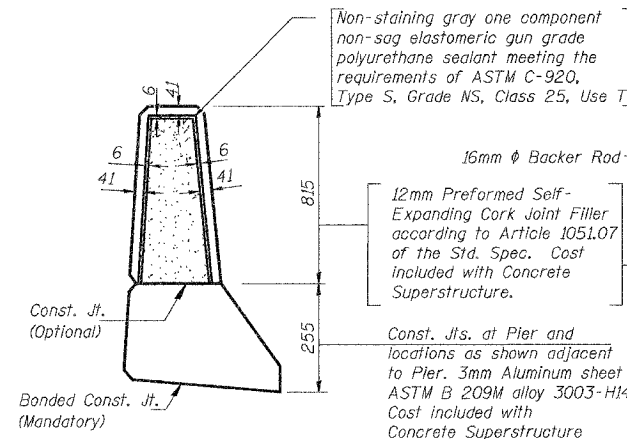
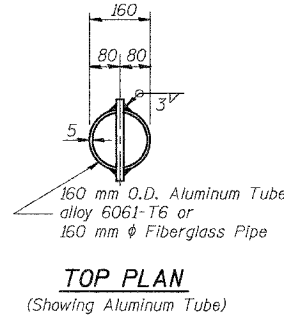
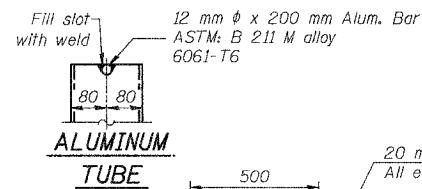
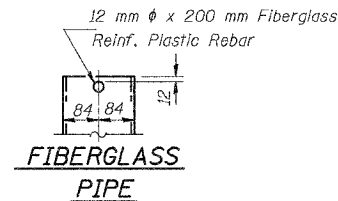
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80/94		COOK	870	486
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-	CONTRACT # 62108	
SECTION (0203.1 & 0312-708W) R-3		SUPERSTRUCTURE		

SHEET NO. 13
37 SHEETS



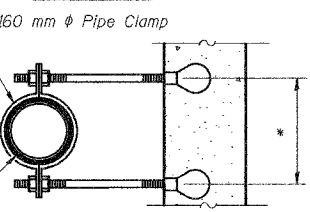
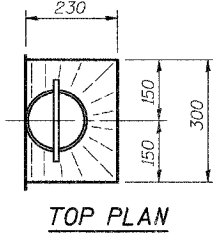
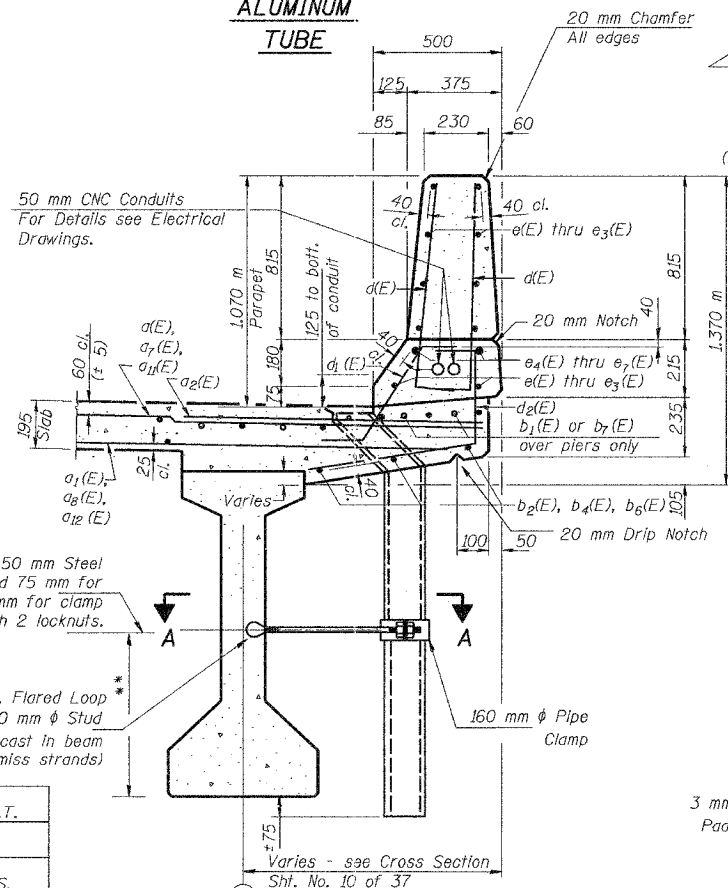
**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar No.	Size	Length	Shape
a1(E)	# 15	5.12	
a2(E)	# 20	1.20	
a3(E)	# 25	7.61	
a4(E)	# 25	8.42	
a5(E)	# 15	8.52	
a6(E)	# 15	5.99	
a7(E)	# 15	5.42	
a8(E)	# 15	8.05	
a9(E)	# 15	8.99	
a10(E)	# 15	6.32	
a11(E)	# 15	5.54	
a12(E)	# 15	8.28	
a13(E)	# 15	9.23	
a14(E)	# 15	6.50	
a15(E)	# 20	1.51	
a16(E)	# 20	1.73	
a17(E)	# 20	0.76	
a18(E)	# 20	0.87	
a19(E)	# 15	0.60	
b(E)	# 15	8.05	
b1(E)	# 25	11.60	
b2(E)	# 15	6.16	
b3(E)	# 15	7.76	
b4(E)	# 15	6.31	
b5(E)	# 15	7.88	
b6(E)	# 15	6.04	
b7(E)	# 25	12.60	
d(E)	# 15	1.10	
d1(E)	# 15	0.80	
d2(E)	# 15	1.12	
e(E)	# 15	4.77	
e1(E)	# 15	2.67	
e2(E)	# 15	3.55	
e3(E)	# 15	5.35	
e4(E)	# 25	10.47	
e5(E)	# 4	2.67	
e6(E)	# 25	3.55	
e7(E)	# 25	7.94	
e8(E)	# 15	4.89	
e9(E)	# 15	6.96	
e10(E)	# 15	7.58	
m(E)	# 15	1.57	
m1(E)	# 20	1.16	
m2(E)	# 25	1.76	
m3(E)	# 15	1.66	
m4(E)	# 20	1.24	
m5(E)	# 4	0.85	
m6(E)	# 15	0.81	
m7(E)	# 20	0.58	
m8(E)	# 20	0.63	
s(E)	# 15	3.48	
s1(E)	# 15	3.38	
x(E)	# 20	2.29	
Reinforcement Bars, Epoxy Coated	kg	37,280	
Concrete Superstructure	m ³	267.9	

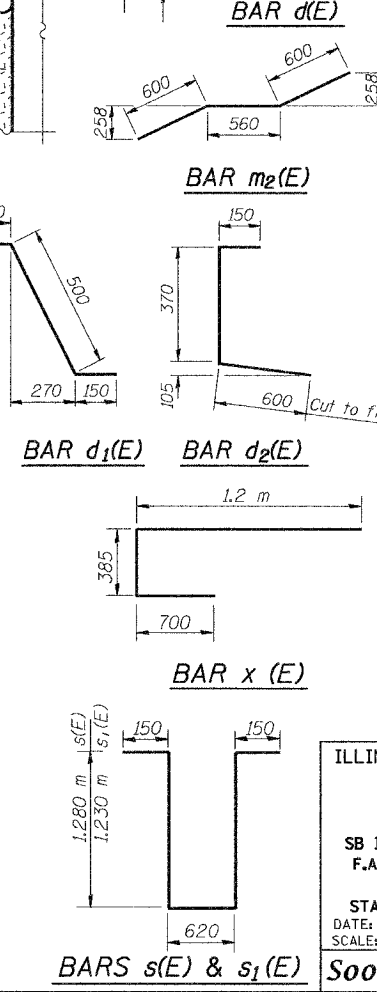


PARAPET JOINT DETAILS

Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 200 MPa minimum. The surface of the fiberglass pipe shall be free of bond inhibiting agents.
The exterior surfaces of the floor drains shall be coated by the manufacturer with a pigment that matches the color of the concrete.
The clamping device and inserts shall be galvanized in accordance with AASHTO M 232.



- Notes:
- Work this sheet with Sheet No. 9 Thru 12 of 37.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus "33 x 9 - #15 etc." indicates 33 lines of bars with 9 lengths per line.
 - Place bars d1(E) and d2(E) to miss the Aluminum Sheeted Joint Location in Parapets
 - For method of payment of conduits, see Electrical Drawings.
 - All dimensions are in millimeters (mm) except as noted.
- Min. bar laps:
#15 bars - 510 mm
#20 bars - 640 mm
#25 bars - 1060 mm



DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

SECTION THRU PARAPET

SECTION A-A

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
DECK AND PARAPET DETAILS
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

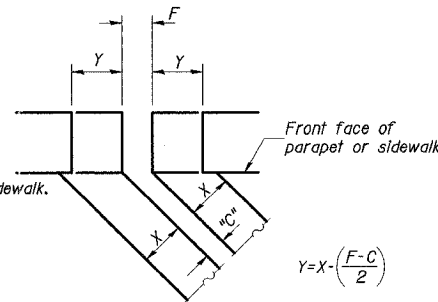
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14
F.A.I. 80/94		COOK	870	487	37 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3			CONTRACT # 62108		

Joint Size	"C" at 10 °C	"D" at 10 °C
65	65	45 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.



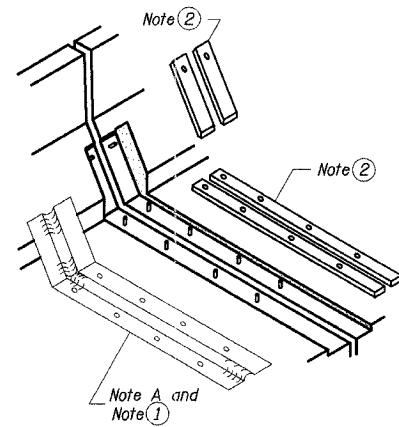
$$Y = X \cdot \left(\frac{F - C}{2} \right)$$

For dimension "F" see Sheet No. 9

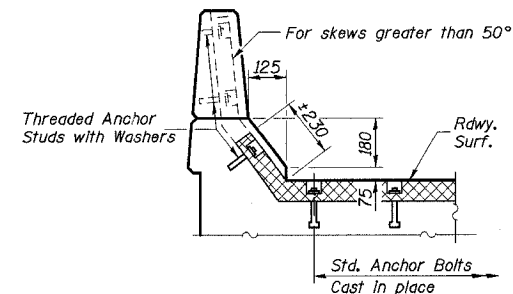
FORMING BLOCKOUT SKETCH

SKEW LIMITATIONS

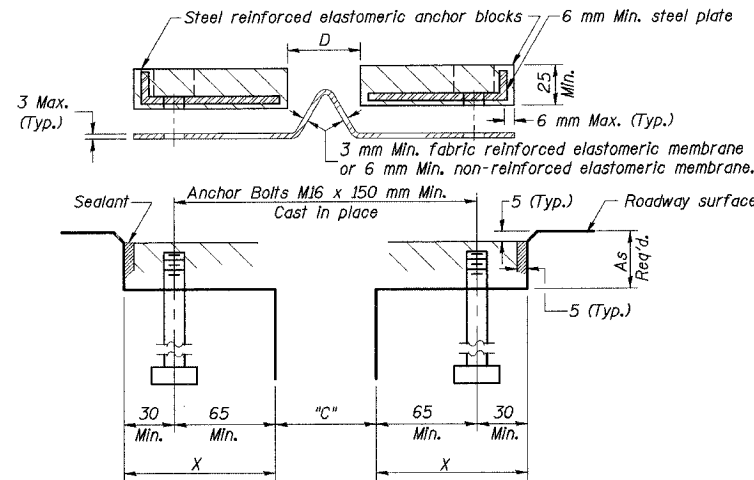
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.



AT PARAPET



AT PARAPET



CROSS SECTION

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

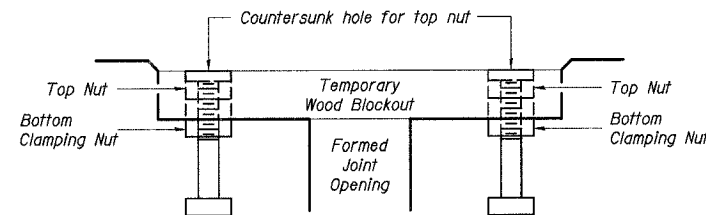
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 10 °C.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

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

BILL OF MATERIAL

Item	Unit	Total
Neoprene Expansion Joint 65mm	meter	14



Note: Stud needs to be threaded lower to allow for use of clamping nut.

Anchor studs should be stainless

RECOMMENDED BLOCKOUT DETAIL

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
NEOPRENE EXPANSION JOINTS
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

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. 15 37 SHEETS
F.A.I. 80/94		COOK	870	488	
FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT-		SECTION (0203.1 & 0312-708W) R-3 CONTRACT # 62108		

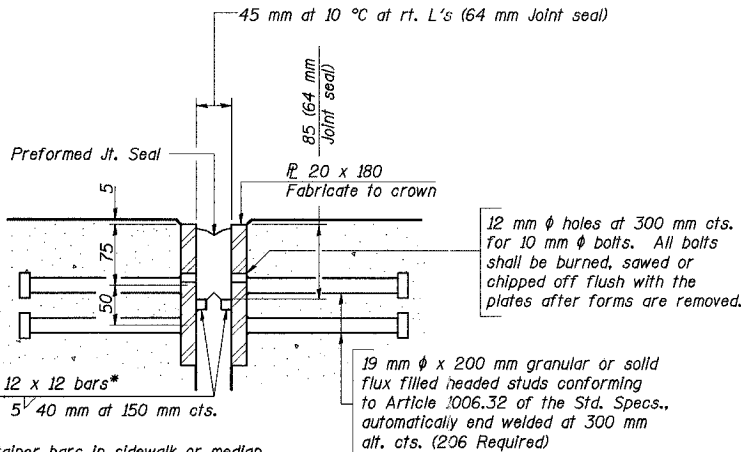
GENERAL NOTES

Furnish PJS steel plates in segments of 6 m maximum length. Maximum space between installed segments shall be 5 mm. Seal space with silicone sealant suitable for structural steel.

The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal joint, the opening and deck dimensions shall be modified according to the dimensions detailed on Sheet 16 of 37. Required modifications shall be made at no additional cost to the State.

Contractor has option to use Preformed Joint Seal shown on this sheet or Alternate Strip Seal Joint shown on Sheet 16 of 36.

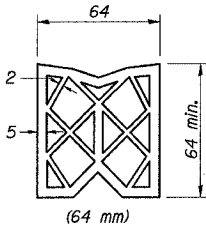
All dimensions are in millimeters (mm) except as noted.



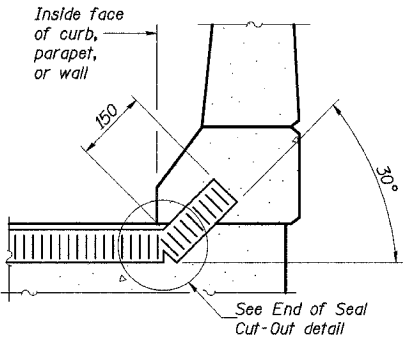
*Cut retainer bars in sidewalk or median 150 mm short of the sidewalk or median face.

SECTION THRU EXPANSION JOINT
(64 mm joint seal)

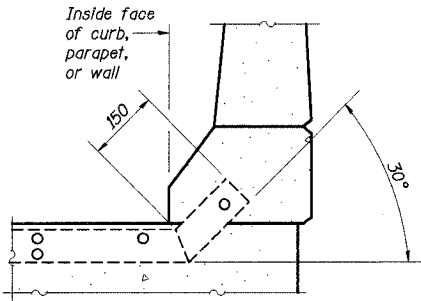
Bridge Joint System (Expansion)	Required Preformed Joint Seal Size	Required Strip Seal rated movement
25 mm	64 mm	25 mm



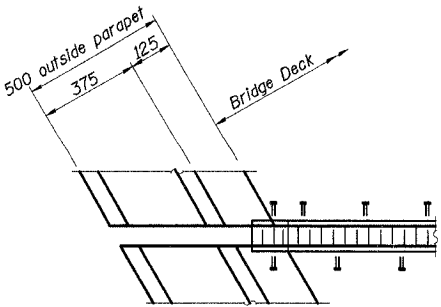
PREFORMED JOINT SEAL



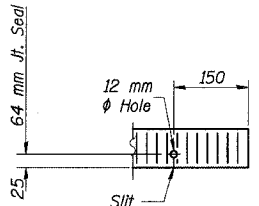
AT CURB, PARAPET, OR WALL
(Showing seal)



TYPICAL PLATE END TREATMENT AT PARAPET
(Showing plate)



PLAN AT PARAPET



END OF SEAL CUT-OUT

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

BILL OF MATERIAL

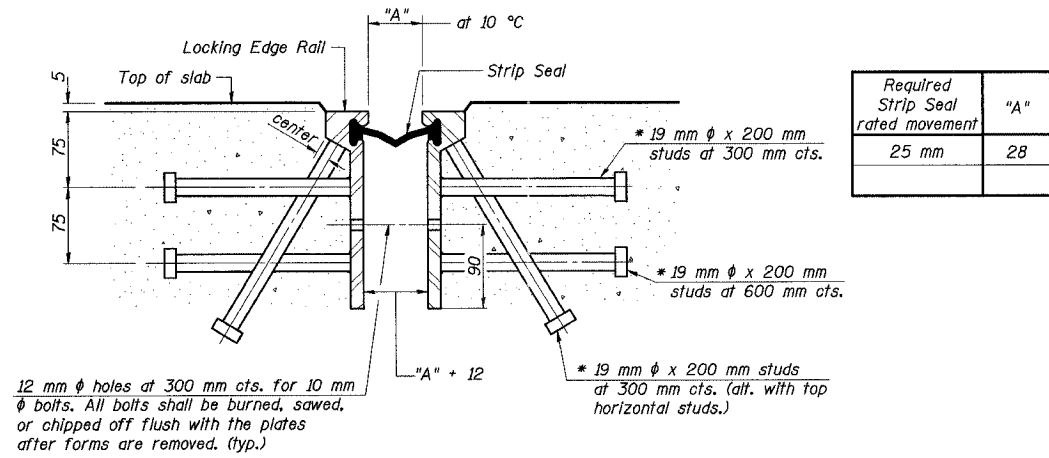
Item	Unit	Total
Bridge Joint System (Expansion), 25 mm	meter	15.4

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
BRIDGE JOINT SYSTEM - EXPANSION
1 OF 2
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

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

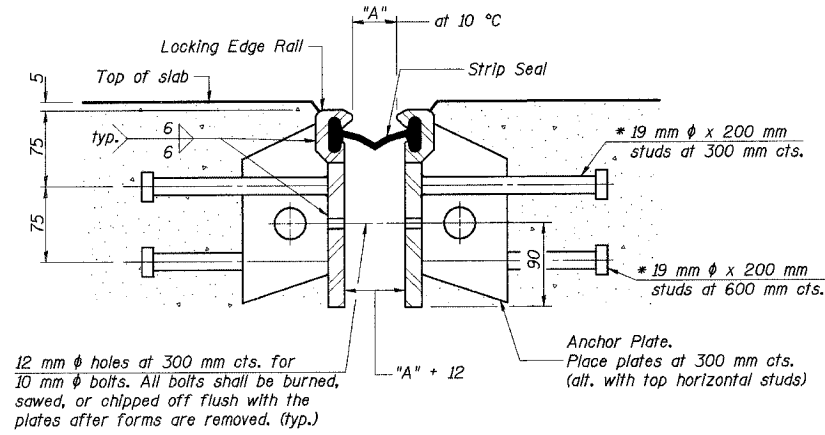
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16 37 SHEETS
F.A.I. 80/94		COOK	870	489	
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT-			
SECTION (0203.1 & 0312-708W) R-3		CONTRACT # 62108			

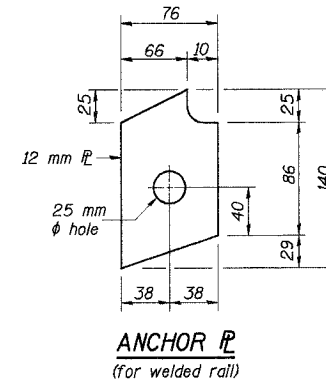
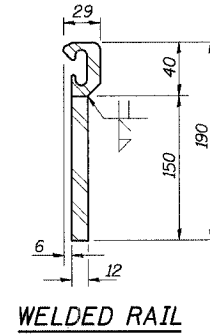
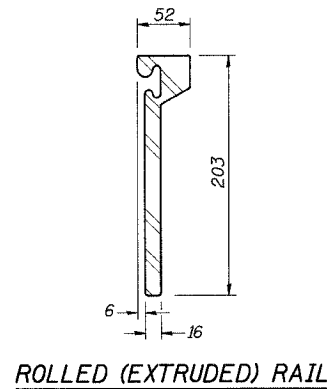


SECTION THRU ROLLED RAIL EXP. JOINT
(260 Studs Required)

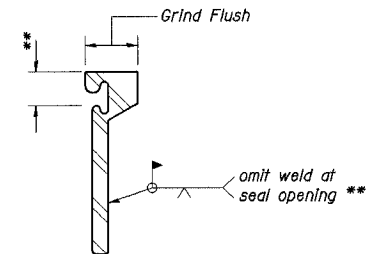
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



SECTION THRU WELDED RAIL EXP. JOINT
(154 Studs Required)
(102 Anchor Plates Required)



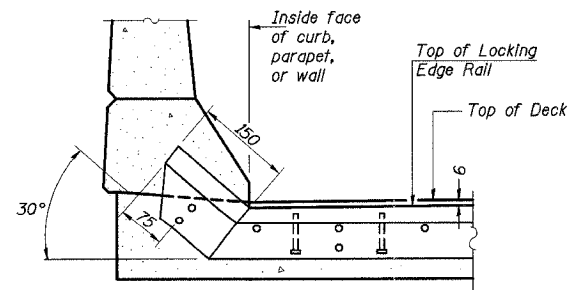
LOCKING EDGE RAILS



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.



AT PARAPET
TYPICAL END TREATMENTS

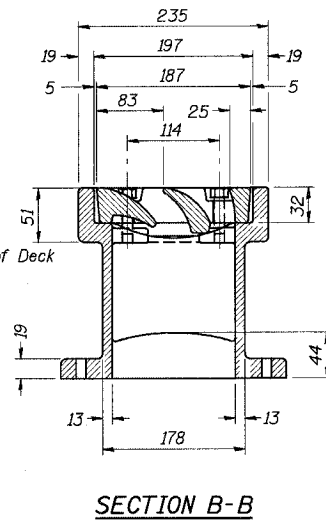
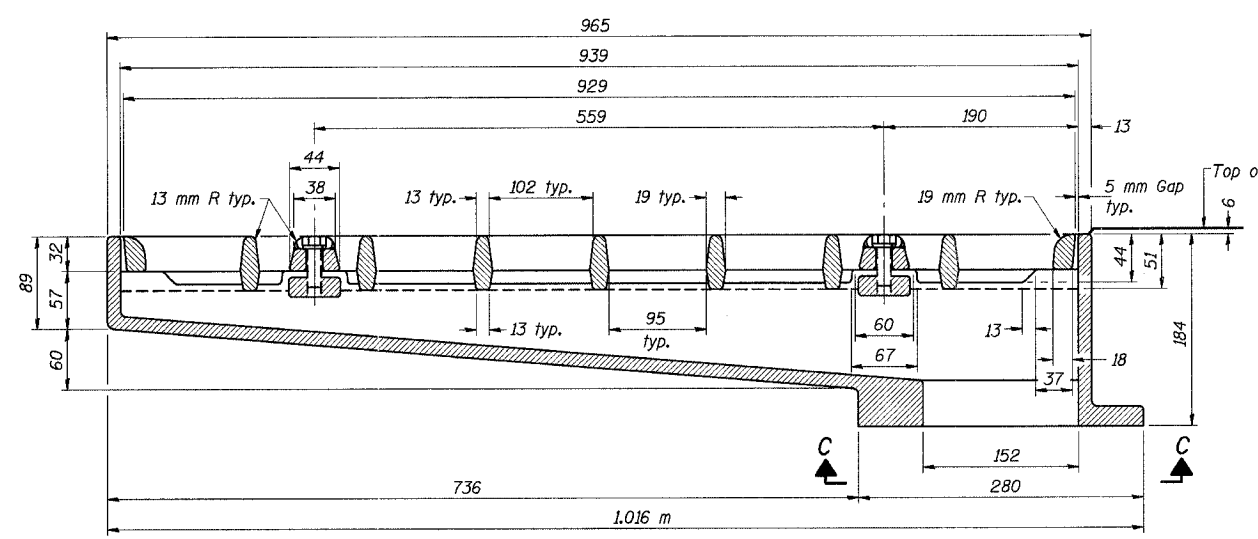
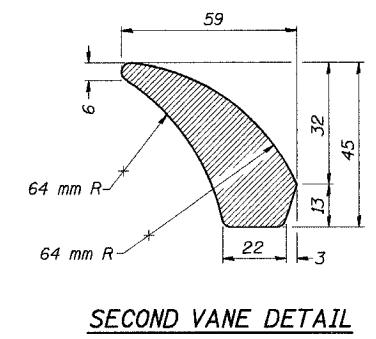
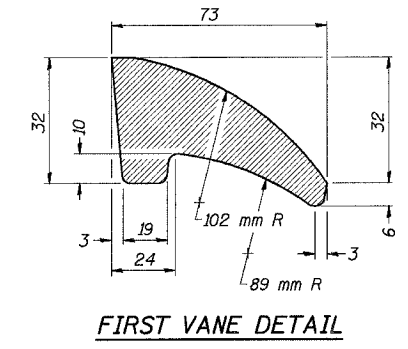
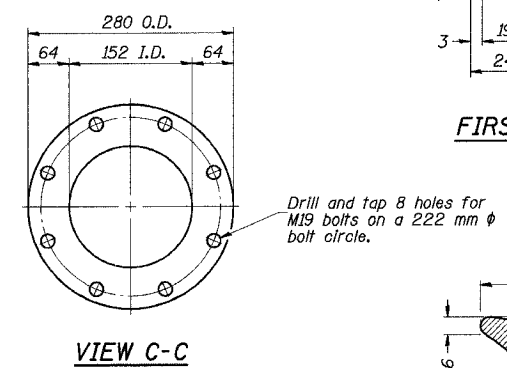
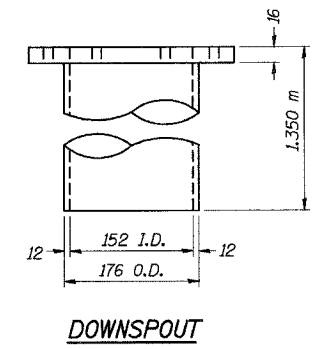
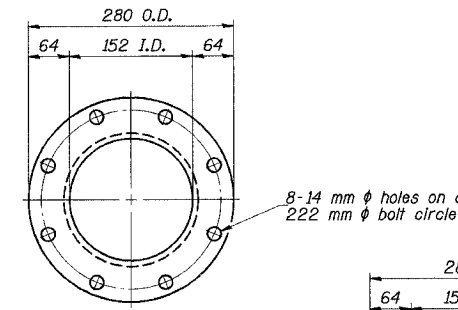
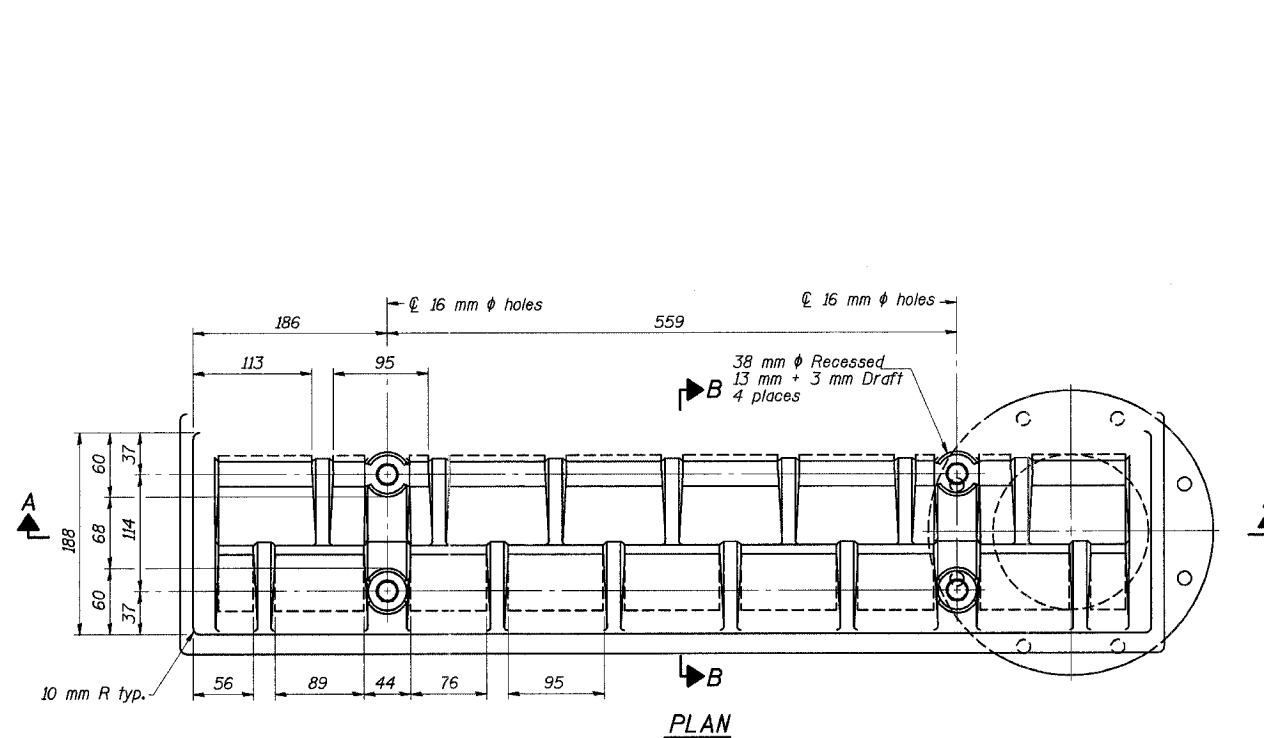
GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 6 mm. The configuration of the strip seal shall match the configuration of the Locking Edge Rails.
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
BRIDGE JOINT SYSTEM - EXPANSION
2 OF 2
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
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. 17 37 SHEETS
F.A.I. 80/94		COOK	870	490	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	SECTION (0203.1 & 0312-708W) R-3 CONTRACT # 62108		

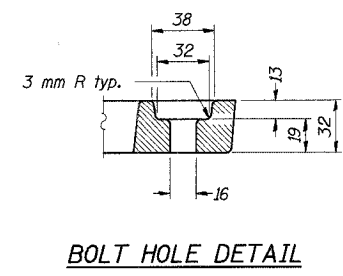


Notes: All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B. Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232M. The grate, frame and downspout shall be galvanized according 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-33. All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	1

(See sheet 9 of 37 for scupper location relative to parapet.)



DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

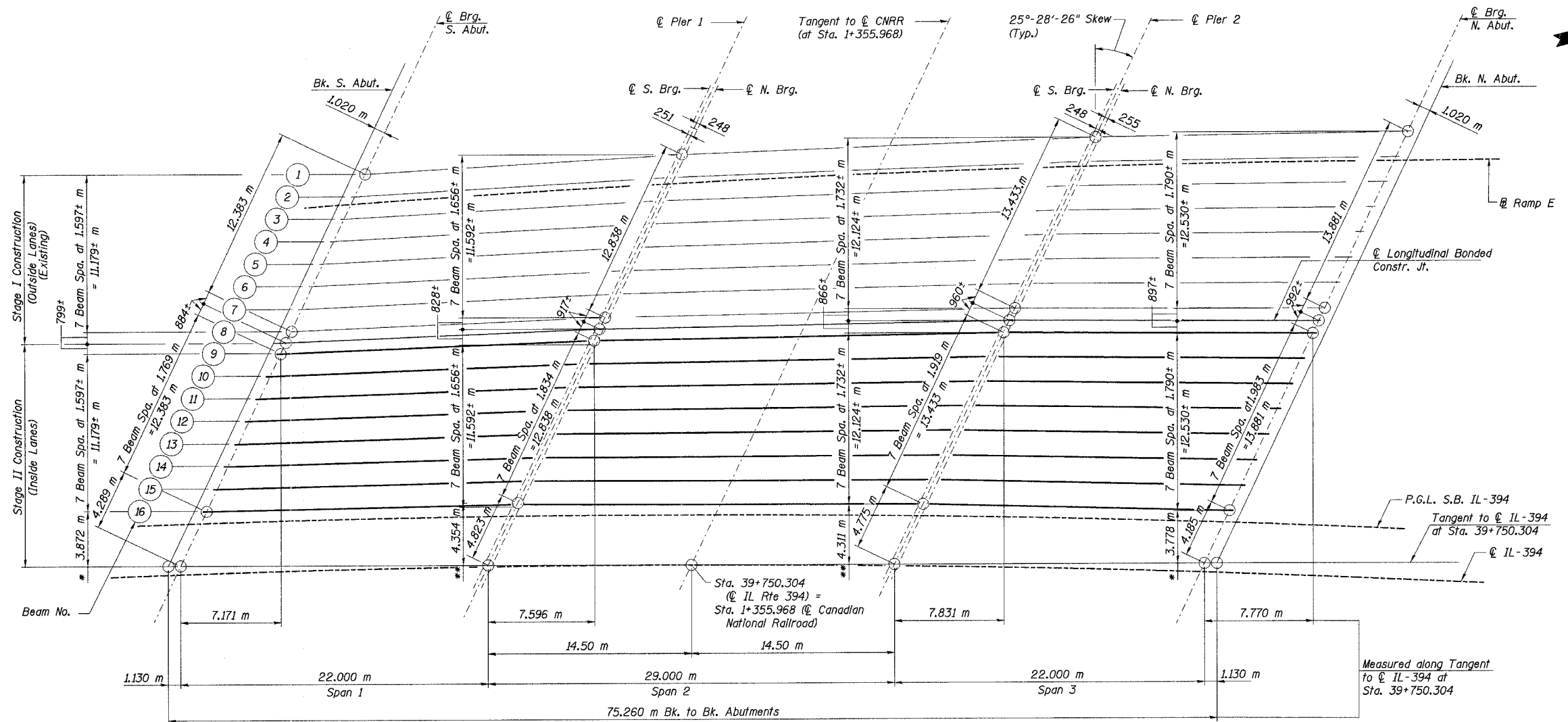
DRAINAGE SCUPPER, DS-33

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
DRAINAGE SCUPPER
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE

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. 18 37 SHEETS
F.A.I. 80/94		COOK	870	491	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT-					
SECTION (0203.1 & 0312-708W) R-3 CONTRACT # 62108					



PLAN

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

* Measured perpendicular to Tangent to \odot IL-394 \bullet \odot Bearings (Typ.)
 ** Measured perpendicular to Tangent to \odot IL-394 \bullet \odot Piers (Typ.)

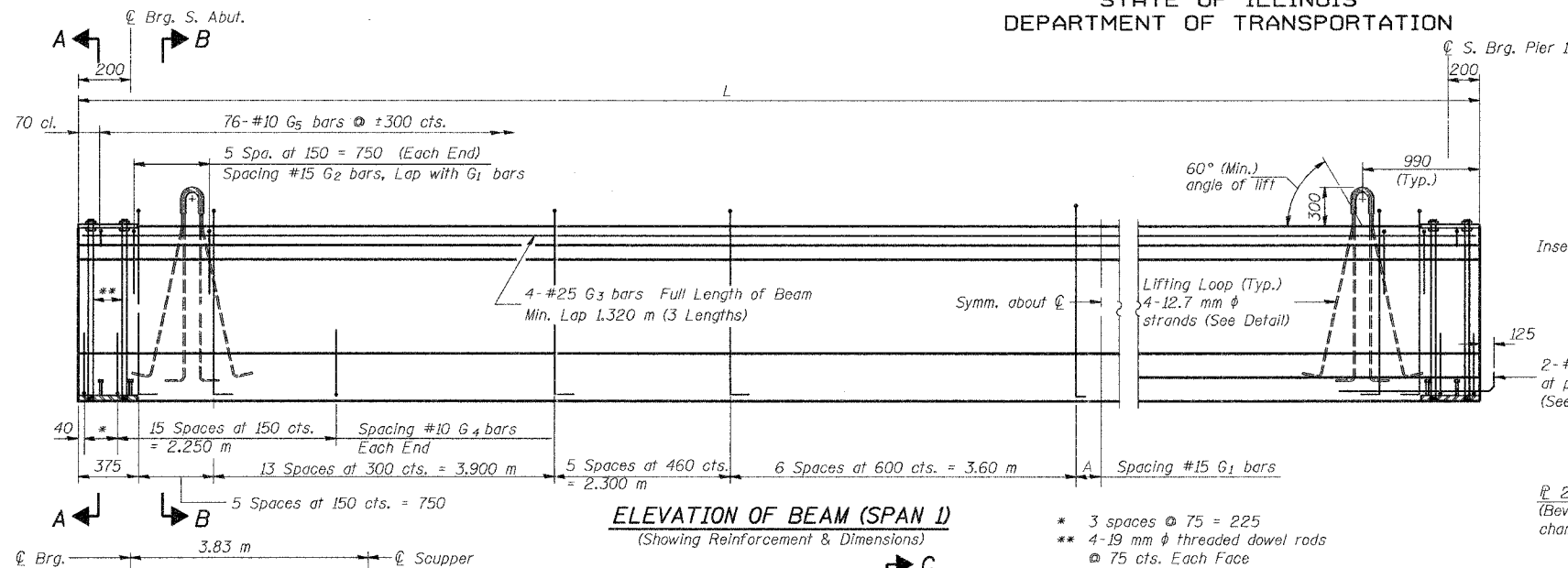
Notes:

1. Beams are straight and placed on chord from substructure element to substructure element.
2. All dimensions are in millimeters (mm) except as noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
FRAMING PLAN
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

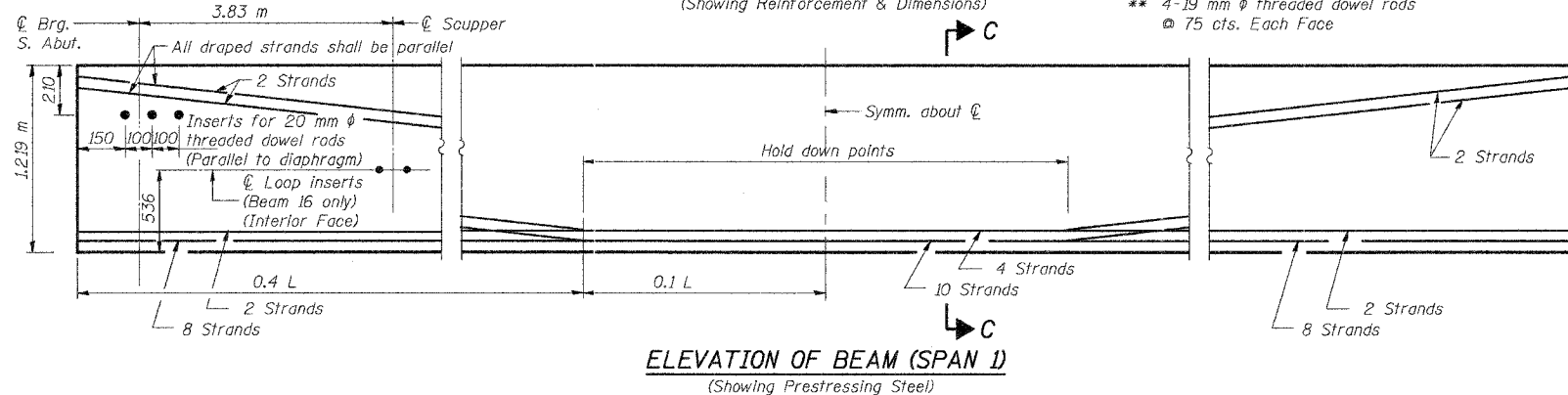
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19
F.A.I. 80/94		COOK	870	492	37 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT-				
SECTION (0203.1 & 0312-708W) R-3		CONTRACT # 62108			

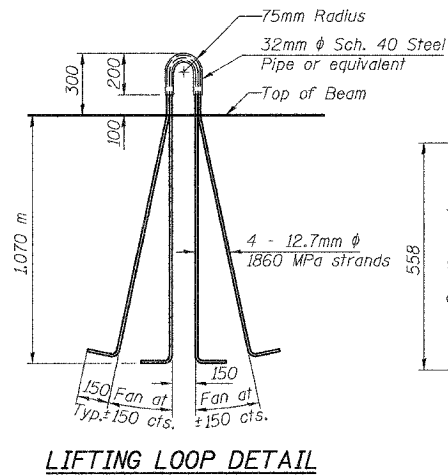


ELEVATION OF BEAM (SPAN 1)
(Showing Reinforcement & Dimensions)

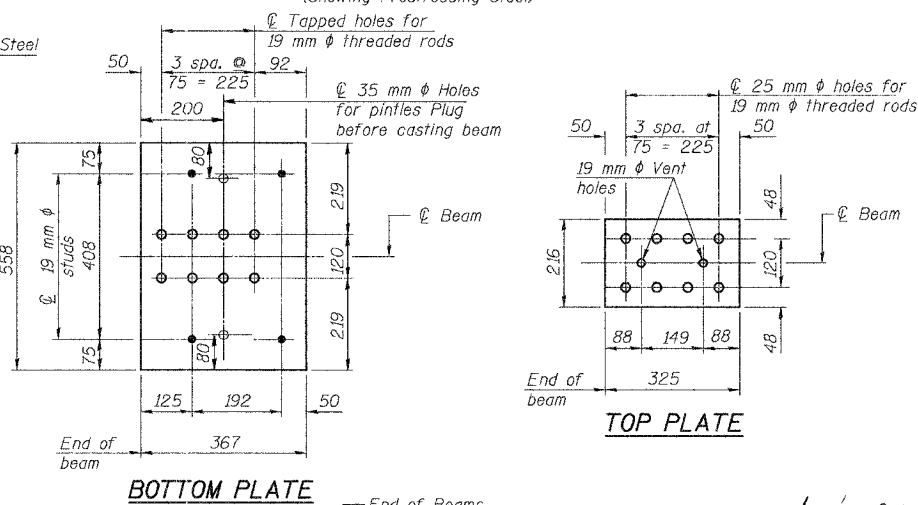
* 3 spaces @ 75 = 225
** 4-19 mm diameter threaded dowel rods @ 75 cts. Each Face



ELEVATION OF BEAM (SPAN 1)
(Showing Prestressing Steel)

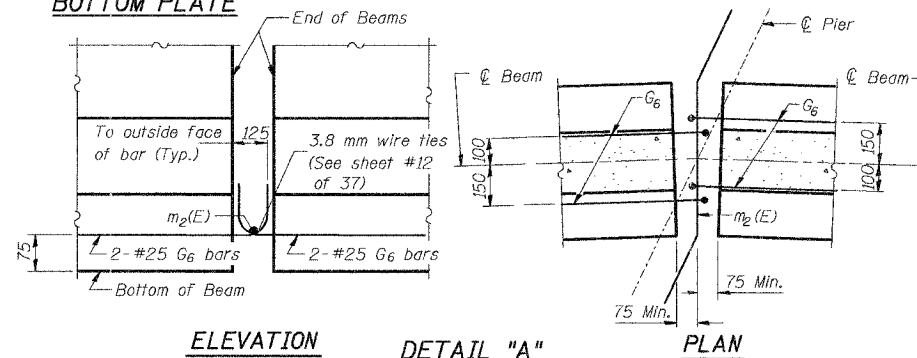


LIFTING LOOP DETAIL



BOTTOM PLATE

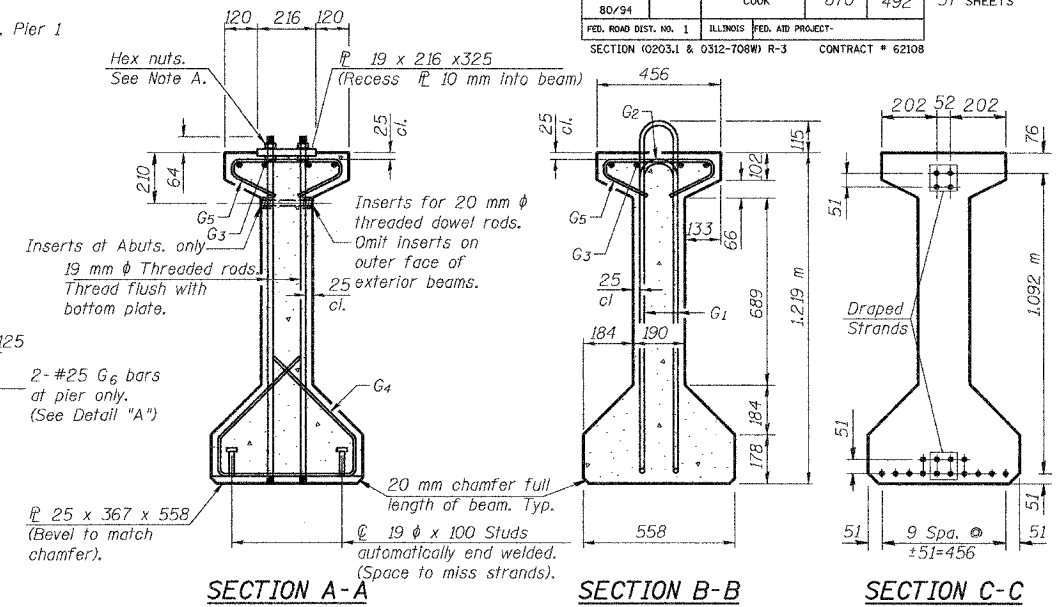
TOP PLATE



ELEVATION

DETAIL "A"

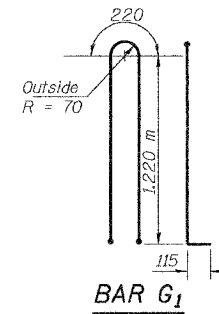
PLAN



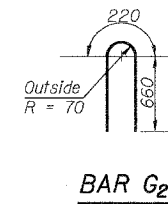
SECTION A-A

SECTION B-B

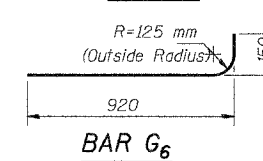
SECTION C-C



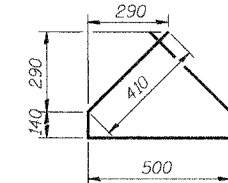
BAR G1



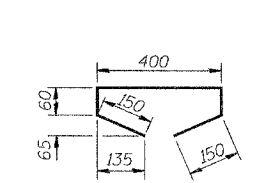
BAR G2



BAR G6



BAR G4



BAR G5

*** BAR LIST**

Bar No.	Size	Length (m)	Shape
G1	#15	2.89	U
G2	#15	1.54	U
G3	#25	8.48	U
G4	#10	1.60	U
G5	#10	0.82	U
G6	#25	1.07	U

* For one beam only.

BEAM DIMENSIONS

Beam	L (m)	0.4L (m)	0.1L (m)	A
9	22.559	9.024	2.256	355
10	22.530	9.012	2.253	340
11	22.500	9.000	2.250	325
12	22.470	8.988	2.247	310
13	22.441	8.976	2.244	295
14	22.412	8.965	2.241	281
15	22.383	8.953	2.238	266
16	22.354	8.942	2.235	252

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219 mm	m	179.6

Notes:

All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per meter of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219 mm."

Inserts for 20 mm threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand (Fu=1860 MPa).

The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 sq. mm.

Non-prestressing steel shall conform to AASHTO designation M-31M or M-322M Grade 400.

Lifting loops shall be 4-12.7 mm diameter strands (Fu=1860 MPa), as shown. Required release strength, f'ci, shall be 35 MPa.

A minimum 64mm diameter lifting pin shall be used to engage the lifting loops during handling.

Cut G6 bars when necessary to maintain 40 mm clearance. The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.

Threaded rods shall be ASTM F 1554 Grade 370.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc.

A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the beams, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 1.219 m. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

Reinforcement bars designated (E) shall be epoxy coated.

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

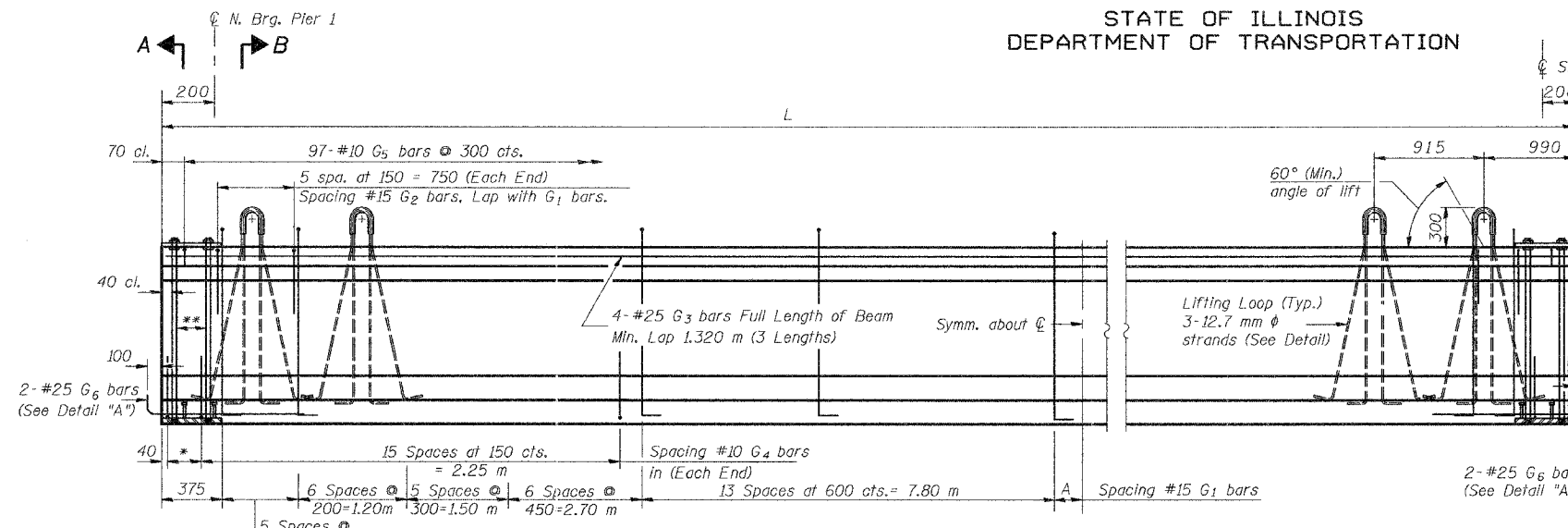
See sheet No. 21 of 37 for Moment and Reaction Table.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
BEAM DETAILS 1 OF 3
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

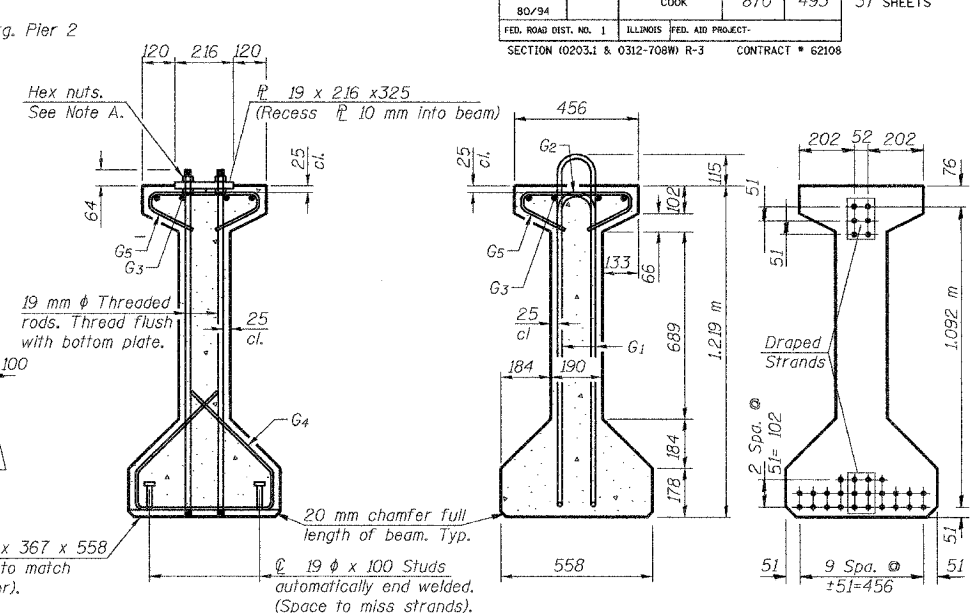
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 20
F.A.I. 80/94		COOK	870	493	37 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT-		CONTRACT # 62108		
SECTION (0203.1 & 0312-708W) R-3					



ELEVATION OF BEAM (SPAN 2)
(Showing Reinforcement & Dimensions)

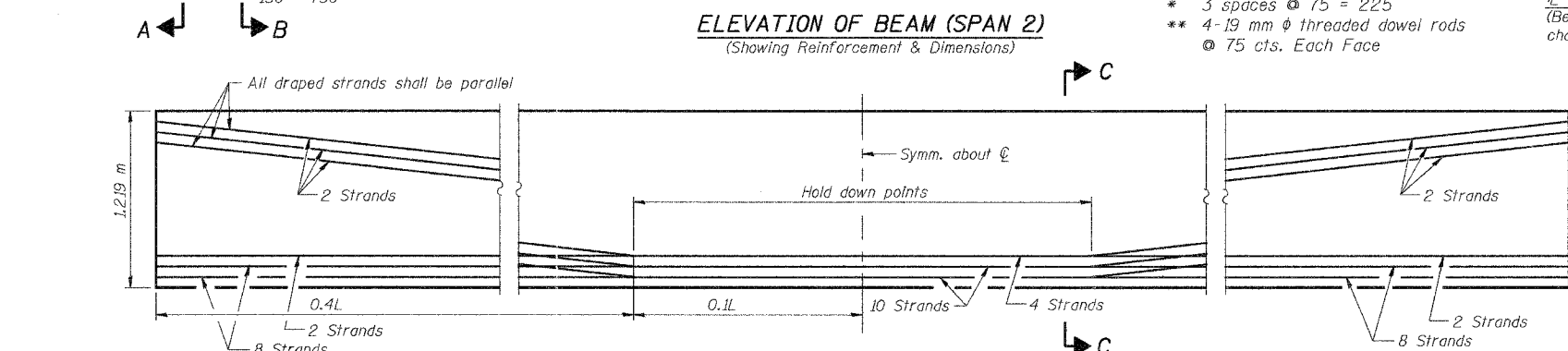
- * 3 spaces @ 75 = 225
- ** 4-19 mm ϕ threaded dowel rods @ 75 cts. Each Face



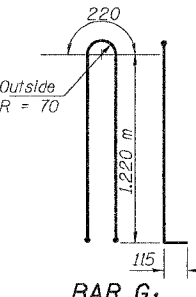
SECTION A-A

SECTION B-B

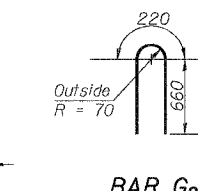
SECTION C-C



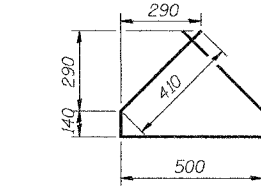
ELEVATION OF BEAM (SPAN 2)
(Showing Prestressing Steel)



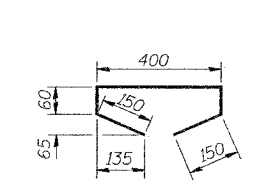
BAR G1



BAR G2



BAR G4



BAR G5

*** BAR LIST**

Bar No.	Size	Length (m)	Shape
G1	#15	2.89	U
G2	#15	1.54	n
G3	#25	10.68	—
G4	#10	1.60	T
G5	#10	0.82	T
G6	#25	1.07	U

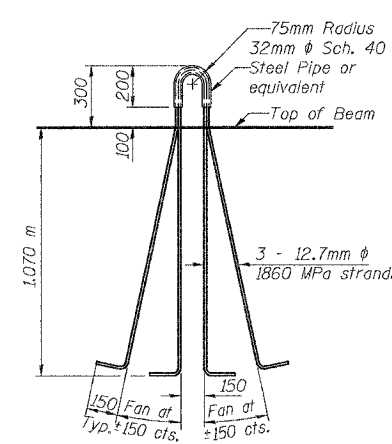
* For one beam only.

BEAM DIMENSIONS

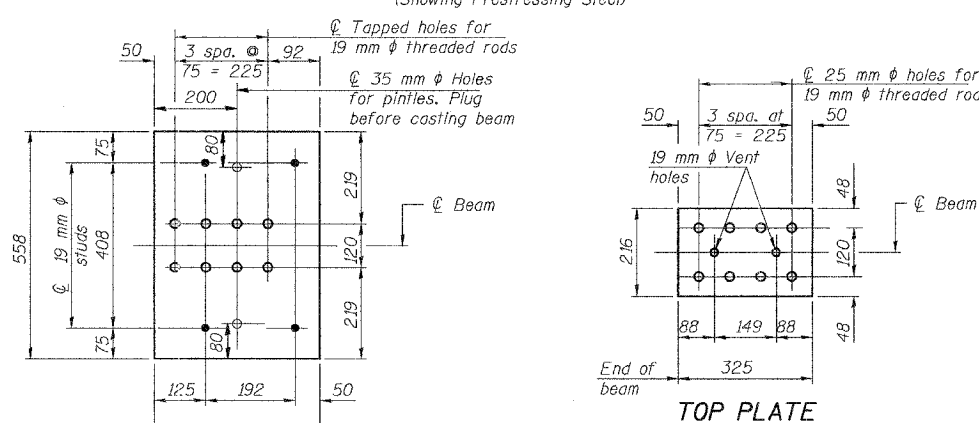
Beam	L (m)	0.4L (m)	0.1L (m)	A
9	29.085	11.634	2.909	217
10	29.049	11.620	2.905	200
11	29.012	11.605	2.901	181
12	28.975	11.590	2.898	163
13	28.939	11.576	2.894	145
14	28.903	11.561	2.890	127
15	28.867	11.547	2.887	108
16	28.830	11.532	2.883	90

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219 mm	m	231.7

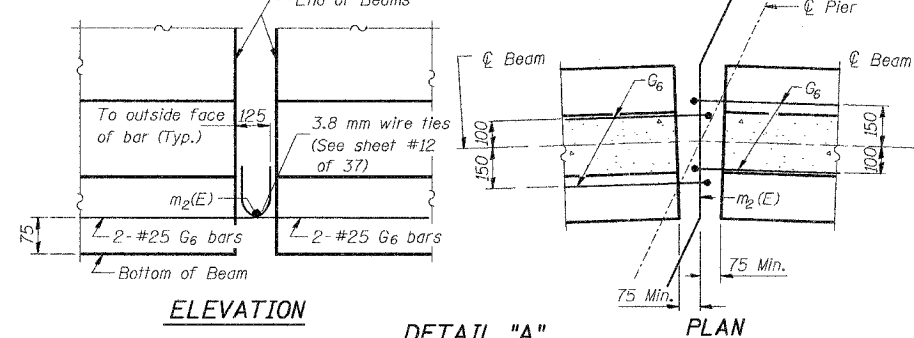


LIFTING LOOP DETAIL



TOP PLATE

BOTTOM PLATE



ELEVATION

DETAIL "A"

PLAN

Notes:

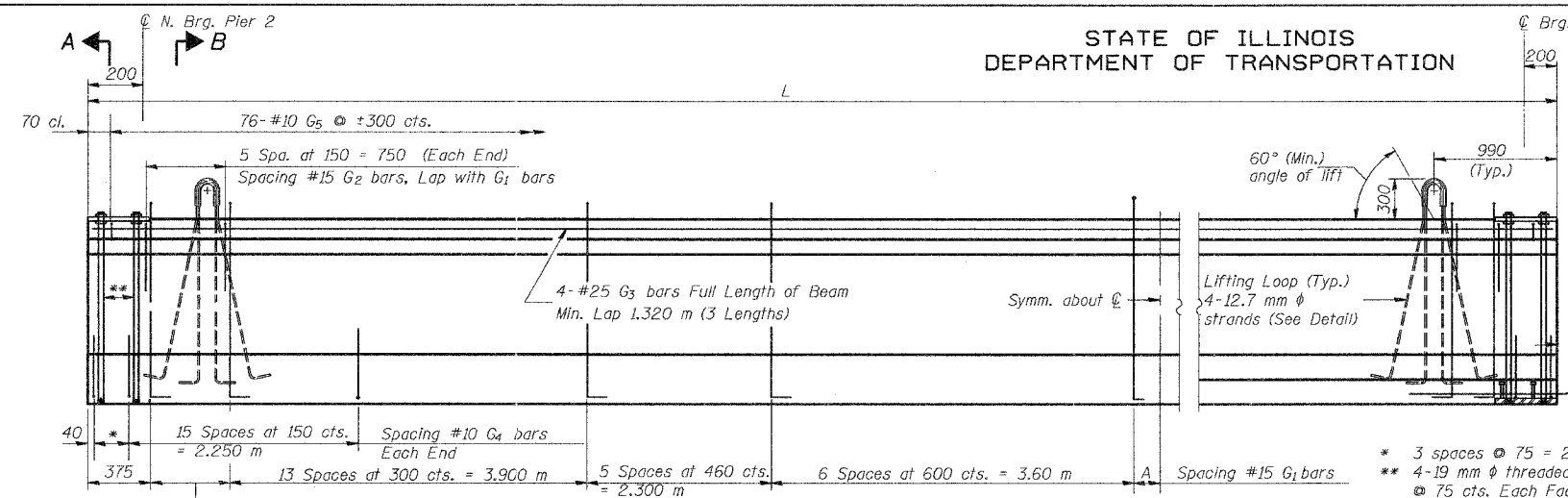
- All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per meter of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219 mm."
- Inserts for 20 mm threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand ($F_u=1860$ MPa).
- The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 sq. mm.
- Non-prestressing steel shall conform to AASHTO designation M-31M or M-322M Grade 400.
- Lifting loops shall be 3-12.7 mm ϕ strands ($F_u=1860$ MPa), as shown. Required release strength, f'ci, shall be 35 MPa.
- A minimum 64mm ϕ lifting pin shall be used to engage the lifting loops during handling.
- Cut G6 bars when necessary to maintain 40 mm clearance. The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.
- Threaded rods shall be ASTM F 1554 Grade 370.
- The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc.
- A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the beams, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 1.219 m. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
- Reinforcement bars designated (E) shall be epoxy coated.
- All dimensions are in millimeters (mm) except as noted.
- See sheet No. 21 of 37 for Moment and Reaction Table.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

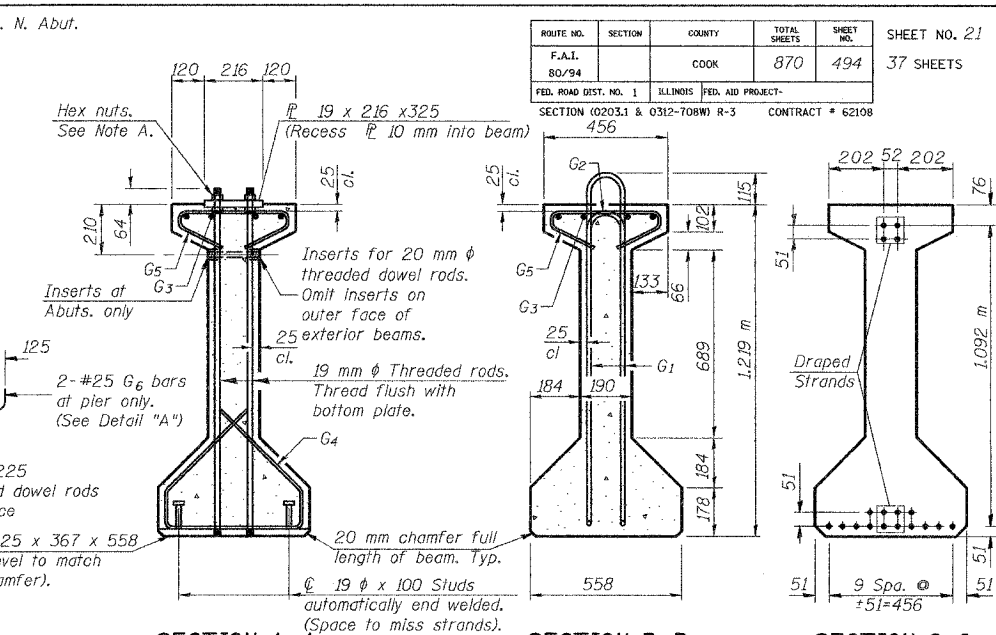
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
BEAM DETAILS 2 OF 3
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

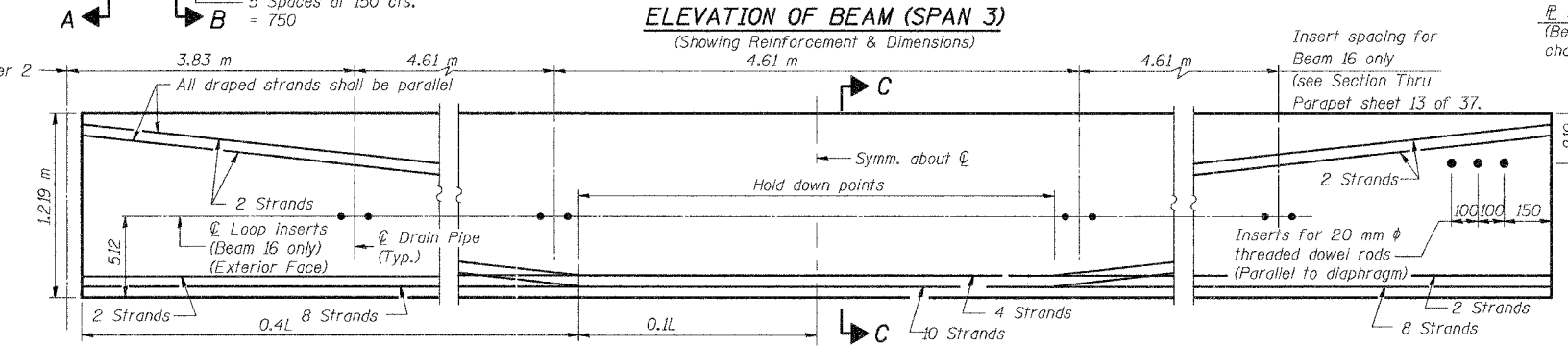
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 21
F.A.I. 80/94		COOK	870	494	37 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT- CONTRACT # 62108					
SECTION (0203.1 & 0312-T08M) R-3					



ELEVATION OF BEAM (SPAN 3)
(Showing Reinforcement & Dimensions)



SECTION A-A **SECTION B-B** **SECTION C-C**



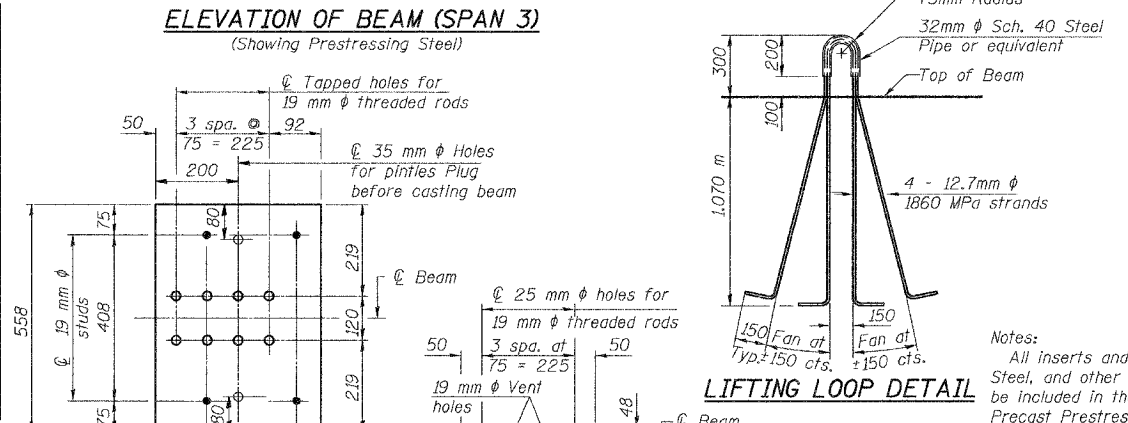
ELEVATION OF BEAM (SPAN 3)
(Showing Prestressing Steel)

	0.4 Sp. #1	Pier 1 or 2	0.5 Sp. #2
Strand Pattern	14 A		24 B
I (10 ⁶ mm ⁴)	59,986	59,986	59,986
I' (10 ⁶ mm ⁴)	154,415	-	154,415
S _b (10 ³ mm ³)	111,998	111,998	111,998
S _{b'} (10 ³ mm ³)	181,310	-	181,310
S _t (10 ³ mm ³)	87,750	87,750	87,750
S _{t'} (10 ³ mm ³)	420,133	-	420,133
Q (kN/m)	17.19	17.19	17.19
M _Q (kN-m)	1055.2	-	1768.1
s _Q (kN/m)	6.06	6.06	6.06
M _{sQ} (kN-m)	201.1	412.4	239.6
M _t (kN-m)	609.0	554.0	619.0
M (Imp) (kN-m)	154.0	133.5	139.9

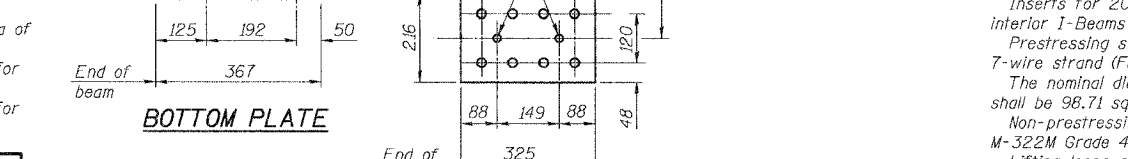
I and I' are the moment of inertia and composite moment of inertia of the beam section.
S_b and S_{b'} are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.
S_t and S_{t'} are the non-composite and composite section modulus for the top fiber of the prestressed beam.

	Abut.	Pier 1 Span 1	Pier 1 Span 2
R _Q (kN)	197.5	222.0	278.0
R _{sQ} (kN)	49.4	86.3	89.0
R _t (kN)	142.3	105.4	105.4
Imp. (kN)	36.0	26.7	24.0
R (Total) (kN)	425.2	440.4	496.4

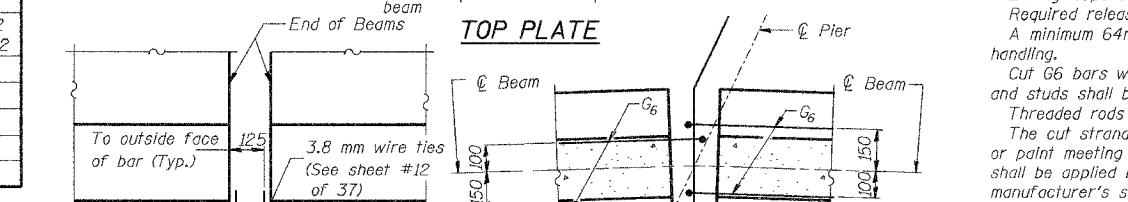
DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.



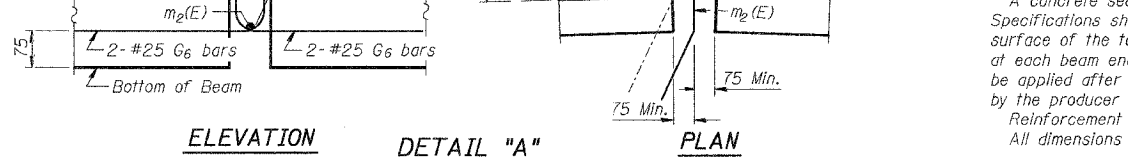
LIFTING LOOP DETAIL



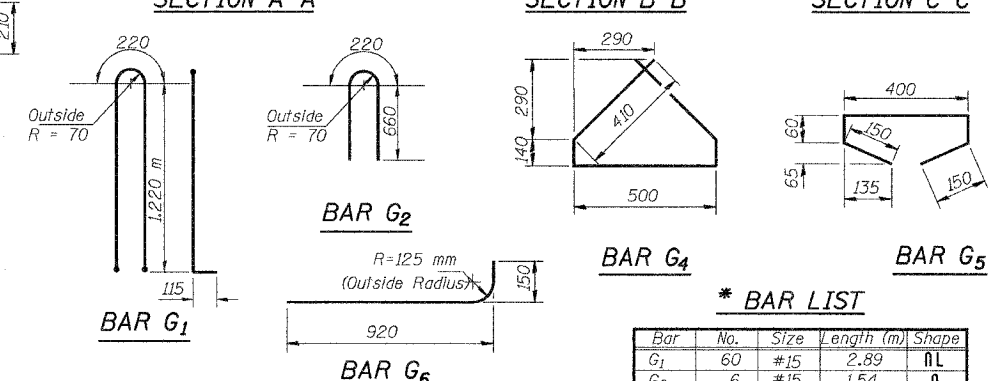
BOTTOM PLATE



TOP PLATE



ELEVATION DETAIL "A" PLAN



Bar	No.	Size	Length (m)	Shape
G ₁	60	#15	2.89	∩
G ₂	6	#15	1.54	∩
G ₃	12	#25	8.48	∩
G ₄	38	#10	1.60	∩
G ₅	76	#10	0.82	∩
G ₆	2	#25	1.07	∩

* For one beam only.

BEAM DIMENSIONS

Beam	L (m)	0.4L (m)	0.1L (m)	A
9	22.057	8.823	2.206	103
10	22.031	8.812	2.203	90
11	22.004	8.802	2.200	77
12	21.978	8.791	2.198	64
13	21.952	8.781	2.195	51
14	21.925	8.770	2.193	37
15	21.900	8.760	2.190	25
16	21.874	8.750	2.187	12

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219 mm	m	175.7

Notes:
All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per meter of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1219 mm."
Inserts for 20 mm threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand (F_u=1860 MPa).
The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 sq. mm.
Non-prestressing steel shall conform to AASHTO designation M-31M or M-322M Grade 400.
Lifting loops shall be 4-12.7 mm φ strands (F_u=1860 MPa), as shown. Required release strength, f_{ci}, shall be 35 MPa.
A minimum 64mm φ lifting pin shall be used to engage the lifting loops during handling.
Cut G6 bars when necessary to maintain 40 mm clearance. The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.
Threaded rods shall be ASTM F 1554 Grade 370.
The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc.
A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the beams, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 1.219 m. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
Reinforcement bars designated (E) shall be epoxy coated.
All dimensions are in millimeters (mm) except as noted.

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

BEAM DETAILS 3 OF 3

SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-T08M) R-3
COOK COUNTY

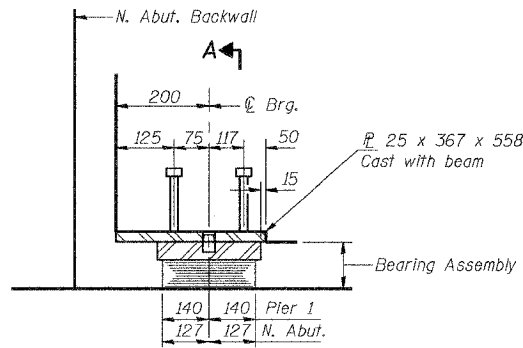
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)

DATE: July 18, 2005
SCALE: NONE

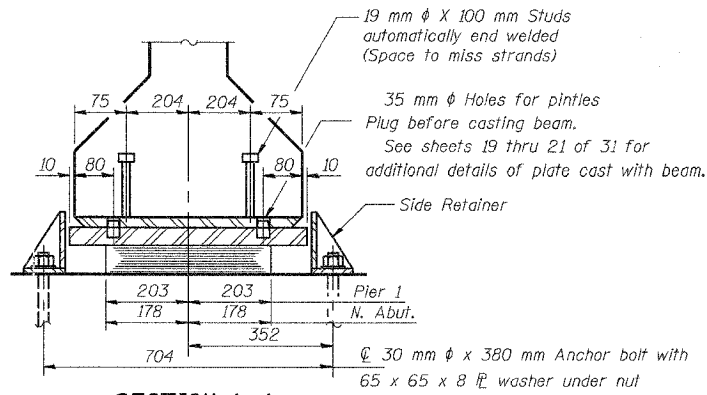
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 22 37 SHEETS
F.A.I. 80/94		COOK	870	495	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	SECTION (0203.1 & 0312-708W) R-3		CONTRACT # 62108

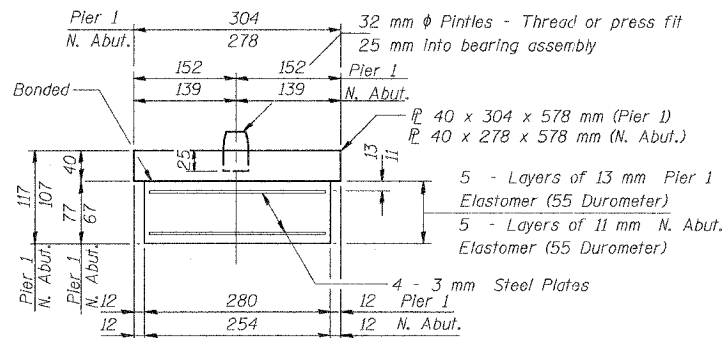


**SECTION AT N. ABUT.
PIER 1 SIMILAR**



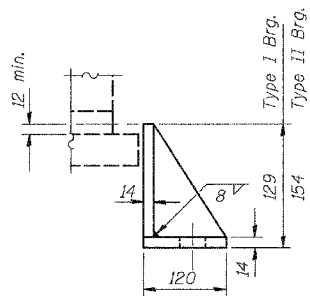
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



TYPE I - BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.



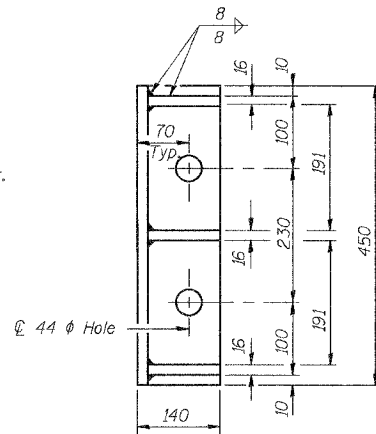
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

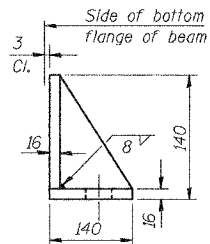
Notes:

- After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place.
- See sheet No. 23 of 37 for anchor bolt installation.
- All dimensions are in millimeters (mm) except as noted.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.



PLAN



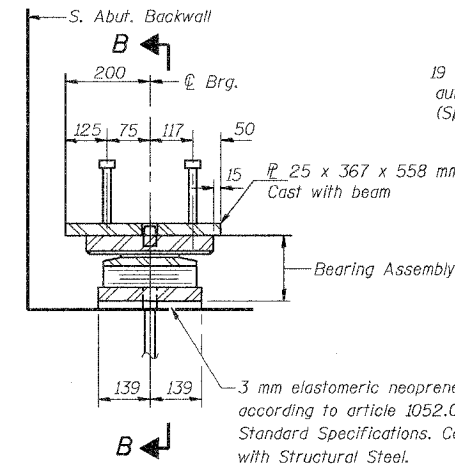
ELEVATION

SIDE RETAINER AT FIXED PIER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. The side retainers shall be galvanized after shop fabrication according to AASHTO M111 & ASTM 385.

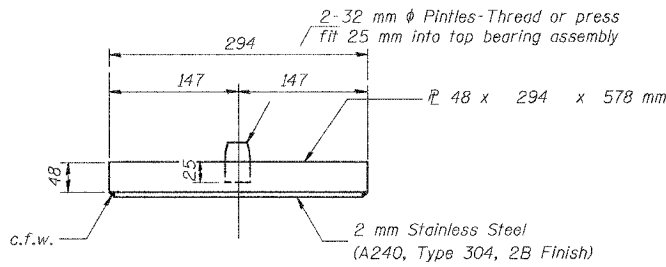
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	24
Elastomeric Bearing Assembly, Type II	Each	8

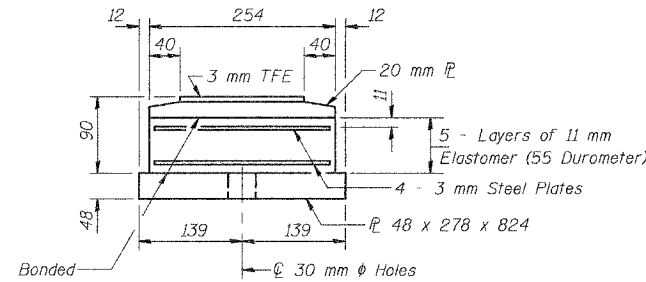


SECTION AT S. ABUT.

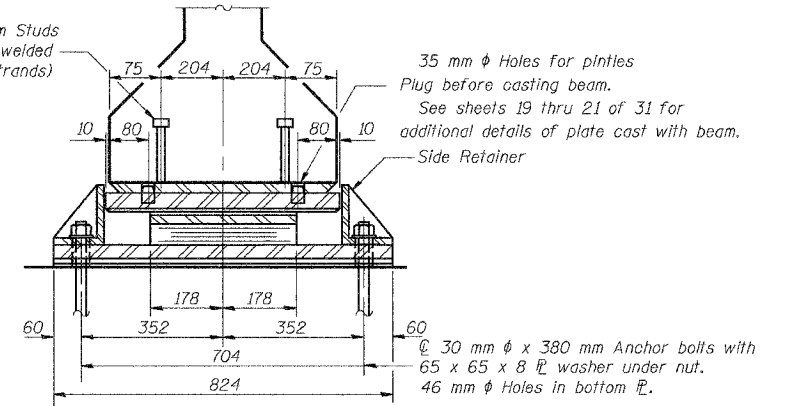
TYPE II TFE ELASTOMERIC EXP. BRG.



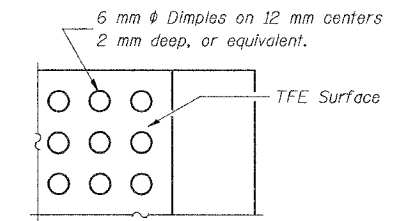
TYPE II - TOP BEARING ASSEMBLY



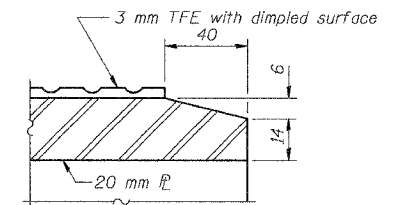
TYPE II - BOTTOM BEARING ASSEMBLY



SECTION B-B



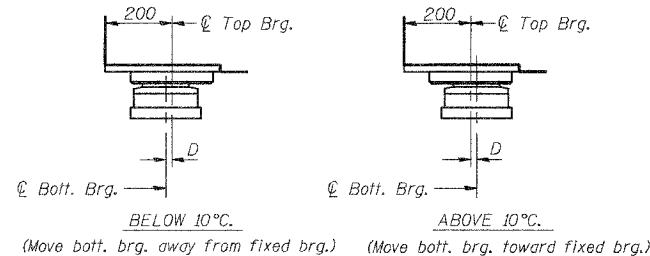
TYPE II BRG. - PLAN-TFE SURFACE



TYPE II BRG. - SECTION THRU TFE

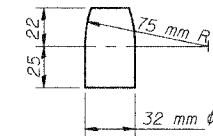
Note: The 3 mm TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 3 mm TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



TYPE II EXP. BRG. - SETTING ANCHOR BOLTS

D=1 mm per each 10 m. of expansion for every 8°C temp. change from the normal temp. of 10°C.



PINTLE

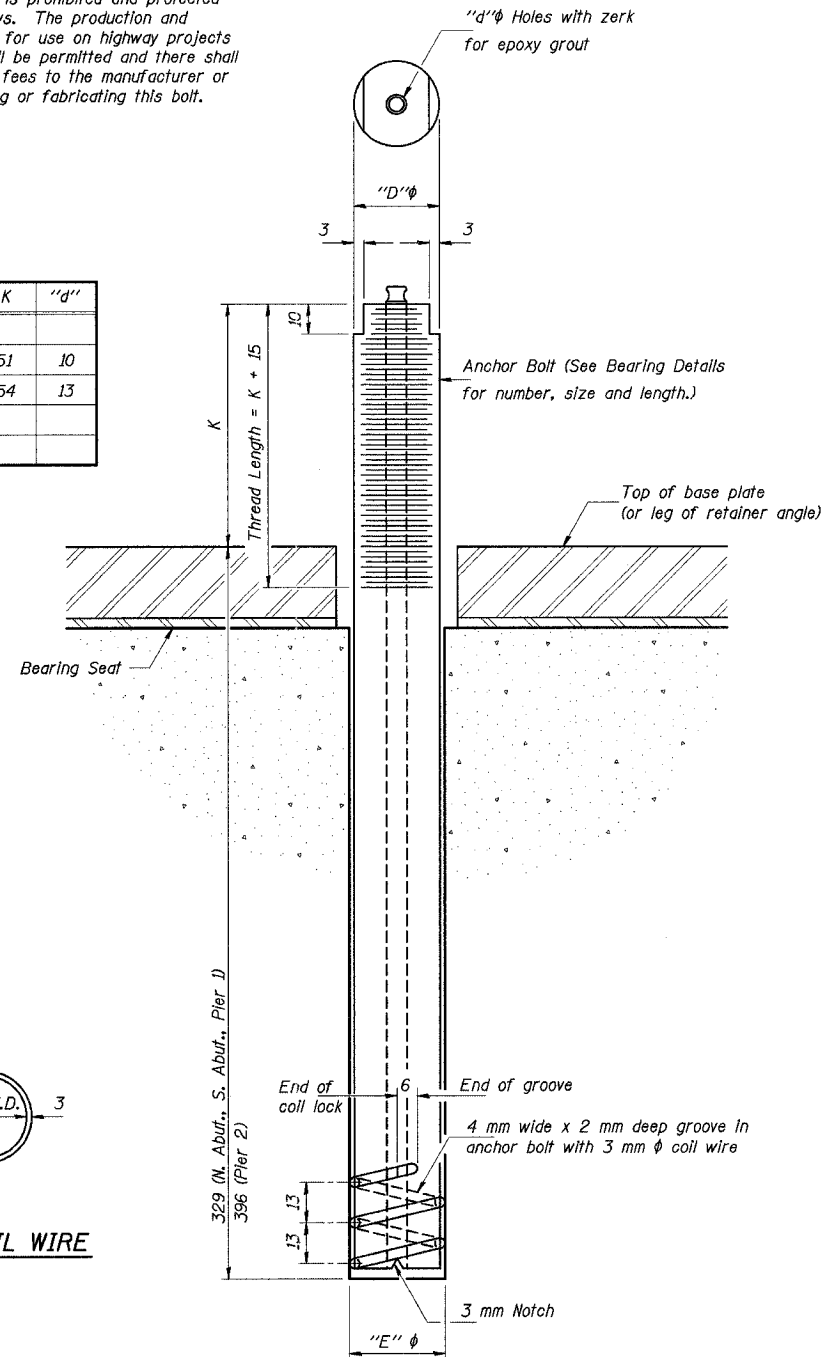
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
ELASTOMERIC EXPANSION BEARINGS
SB IL, ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
Soodan
Soodan & Associates, Inc.
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. 23 37 SHEETS
F.A.I. 80/94		COOK	870	496	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		
SECTION (0203.1 & 0312-708W) R-3		CONTRACT # 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"
30	33	26	51	10
36	39	32	54	13



PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

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
S. Abut.	M30 X 380 (A307)
Pier 1	M30 X 380 (A307)
Pier 2	M36 X 450 (A307)
N. Abut.	M30 X 380 (A307)

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

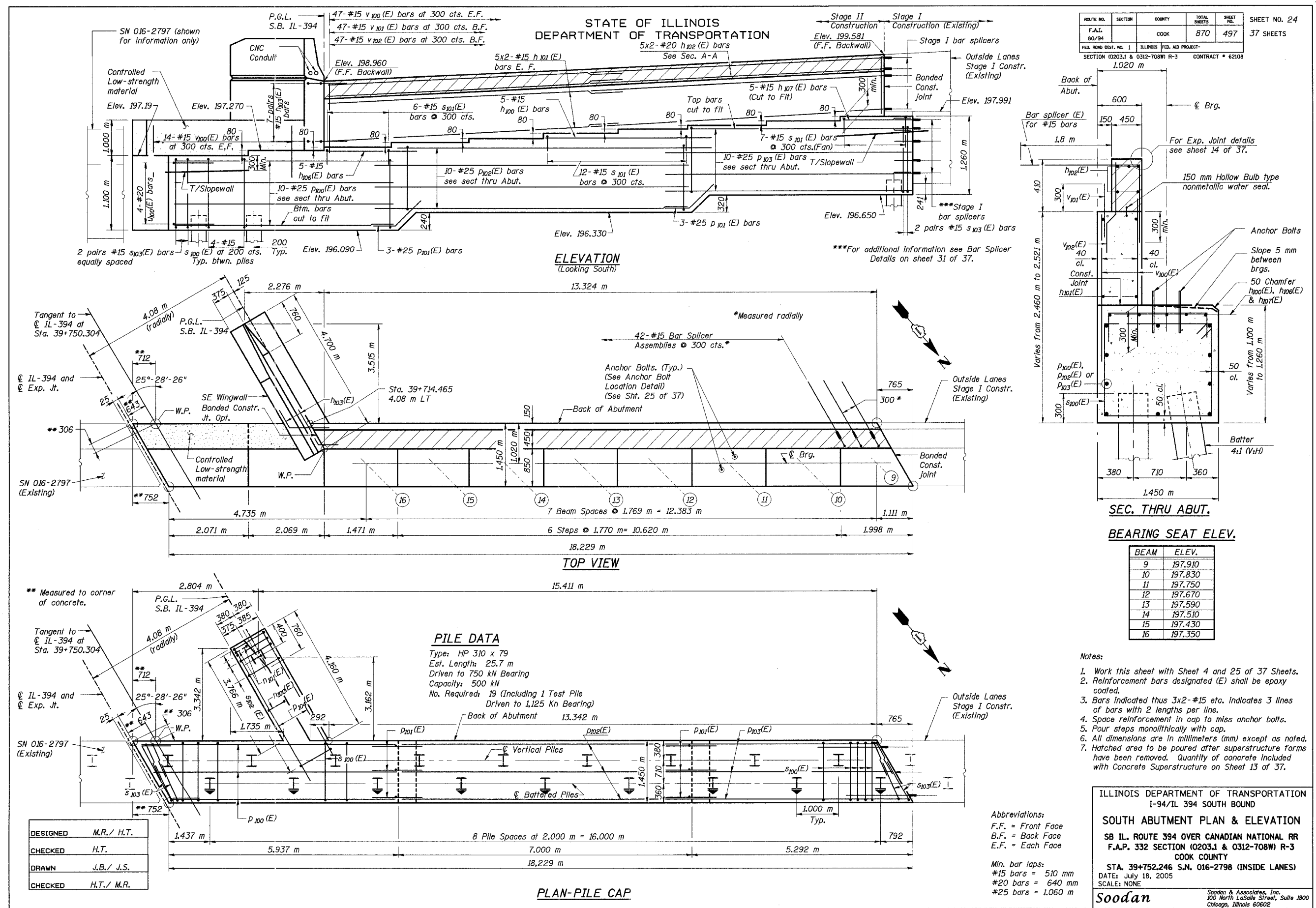
Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
The anchor bolts, furnished and installed and 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.

Notes:

1. Work this sheet with sheet No. 22 and 24 through 30 of 37.

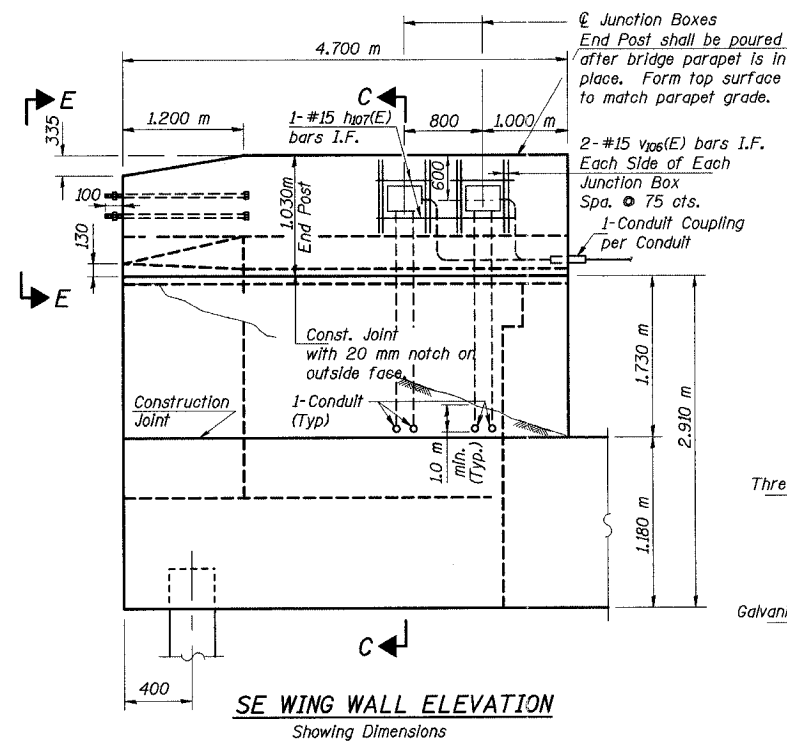
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
ANCHOR BOLT DETAILS
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
Soodan
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 24 37 SHEETS
F.A.P. 80/94		COOK	870	497	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT-					
SECTION (0203.1 & 0312-708W) R-3 CONTRACT # 62108					



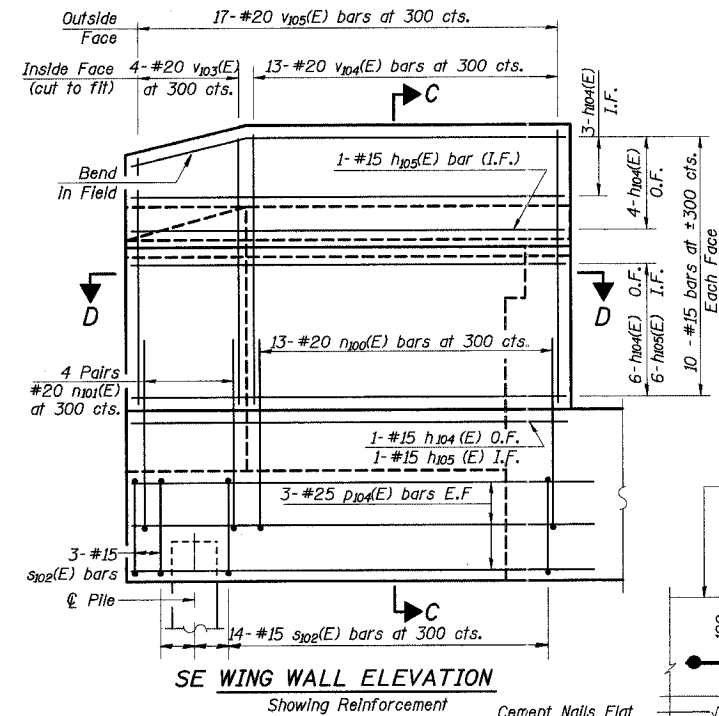
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 25
F.A.L. 80/94		COOK	870	498	37 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT - SECTION (0203.1 & 0312-T08W) R-3 CONTRACT # 62108					

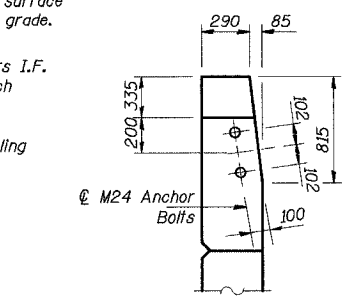


General Contractor to coordinate with the Electrical Contractor before embedding the conduits and junction boxes.

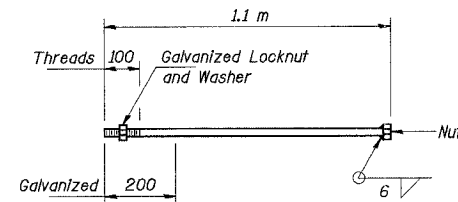
- Note:
1. Place h107 (E) and v106 (E) bars at 50 mm clear from junction box.
 2. Cut v104 (E) bars as required to clear junction box.



DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

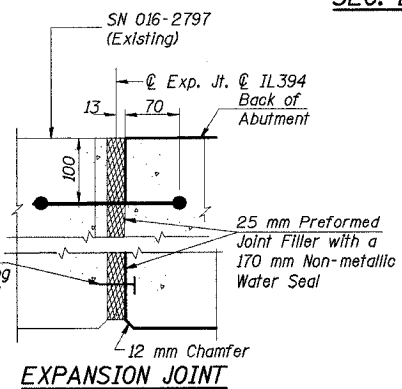


VIEW E-E



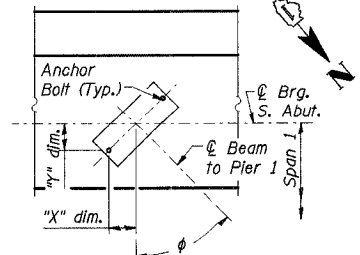
M24 ANCHOR BOLT

100 mm ϕ CNC embedded in wingwall and stubbed and capped out 1.0 m beyond wall (Typ.)



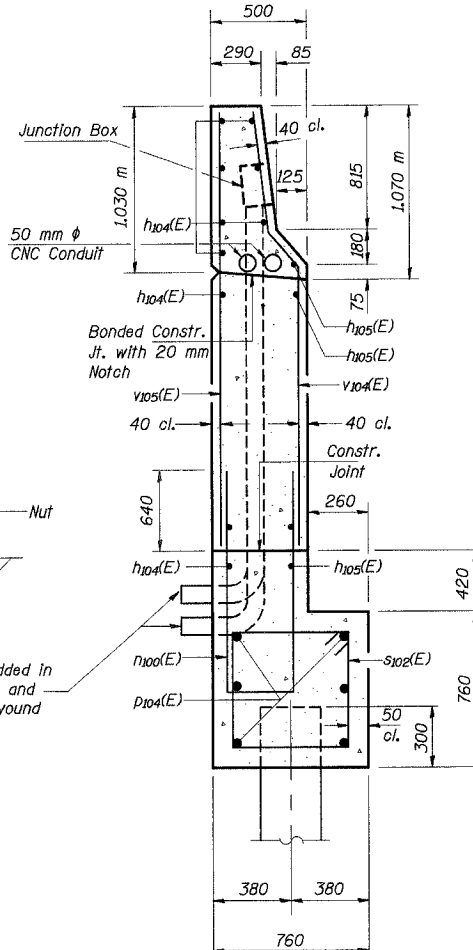
EXPANSION JOINT

Cost Included with "Concrete Structures"

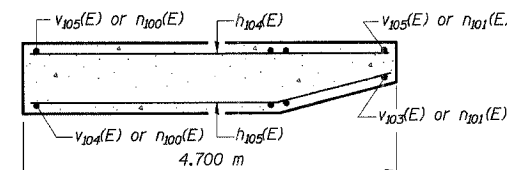


ANCHOR BOLT LOCATION DETAIL

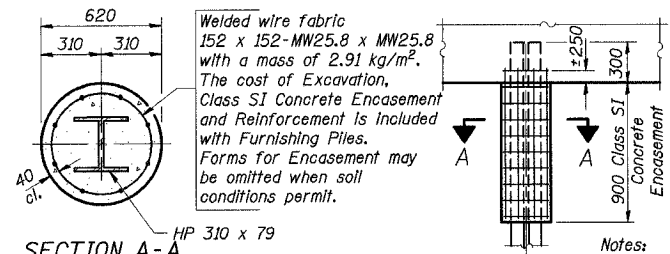
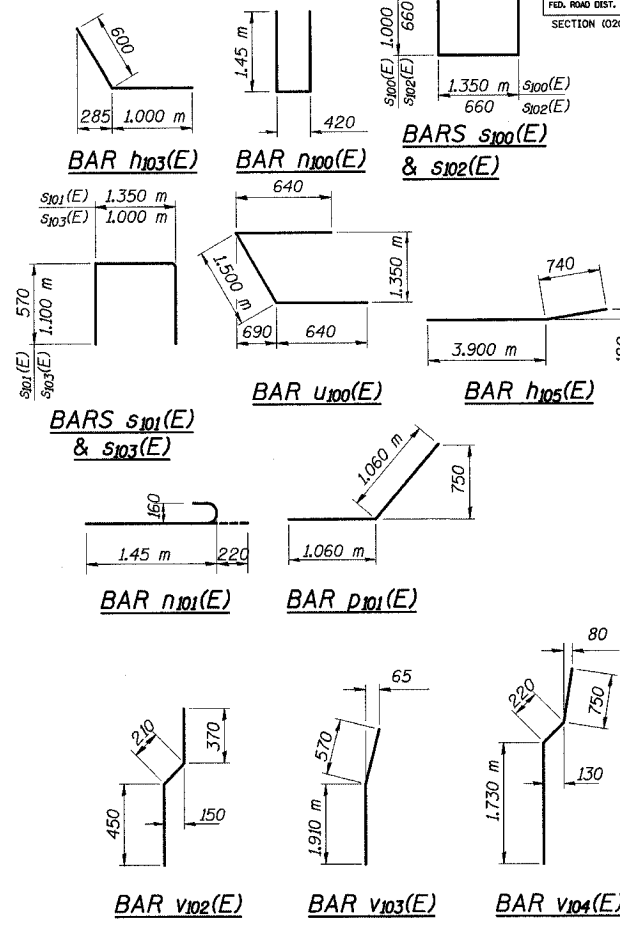
For Locations see Sheet No. 24 of 37



SECTION C-C



SEC. D-D (SE WINGWALL)



PILE ENCASEMENT DETAIL

ANCHOR BOLT LOCATION DETAIL

Beam No.	Skew Angle(ϕ)	X (mm)	Y (mm)
9	27°45'14"	312	164
10	27°36'25"	312	163
11	27°27'34"	312	162
12	27°18'42"	313	162
13	27°09'48"	313	161
14	27°00'53"	314	160
15	26°51'56"	314	159
16	26°42'58"	314	158

Min. bar laps:
#15 bars - 510 mm
#20 bars - 640 mm
#25 bars - 1.060 m

Abbreviations:
F.F. = Front Face
B.F. = Back Face
E.F. = Each Face
O.F. = Outside Face
I.F. = Inside Face

SOUTH ABUTMENT
BILL OF MATERIAL

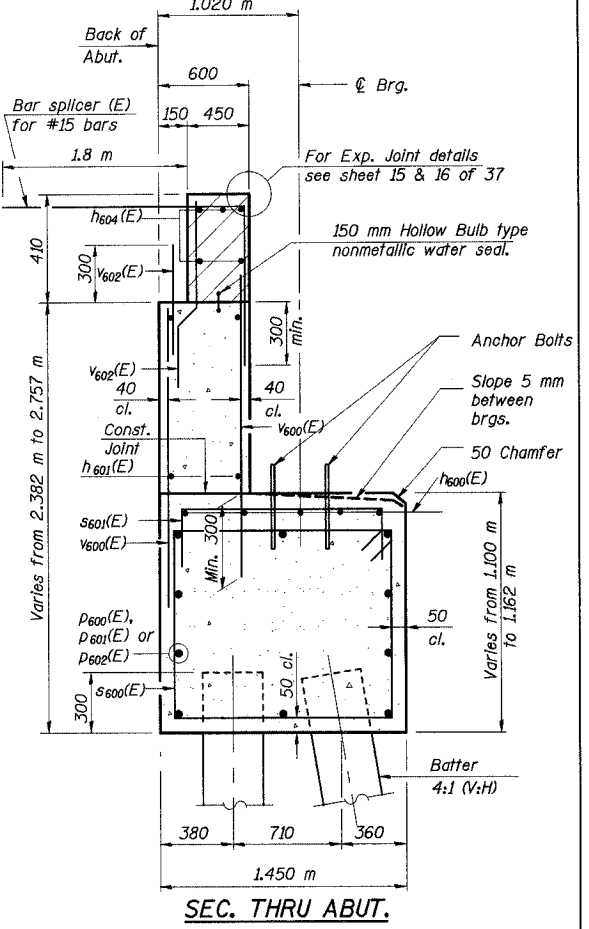
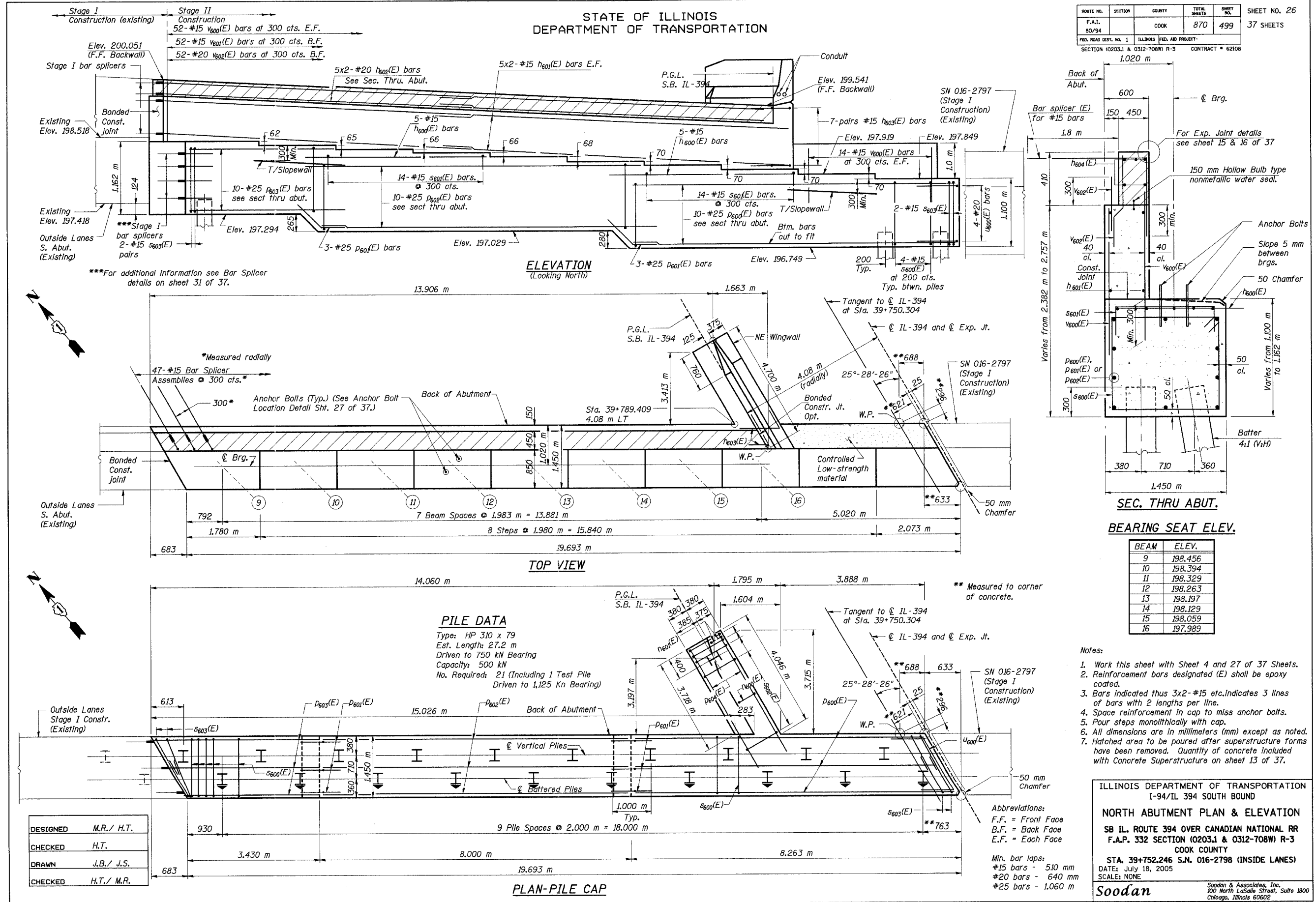
Bar	No.	Size	Length	Shape
h100(E)	5	# 15	4.07	
h101(E)	20	# 15	7.03	
h102(E)	10	# 20	7.10	
h103(E)	14	# 15	1.60	
h104(E)	14	# 15	4.62	
h105(E)	8	# 15	4.64	
h106(E)	5	# 15	2.28	
h107(E)	7	# 15	1.92	
h100(E)	14	# 20	3.32	
h101(E)	6	# 20	1.67	
p100(E)	10	# 25	6.59	
p101(E)	6	# 25	2.12	
p102(E)	10	# 25	8.06	
p103(E)	10	# 25	6.35	
p104(E)	6	# 25	5.00	
s100(E)	68	# 15	4.98	
s101(E)	25	# 15	2.49	
s102(E)	17	# 15	2.92	
s103(E)	8	# 15	3.20	
s104(E)	4	# 15	3.16	
u100(E)	4	# 20	2.78	
v100(E)	122	# 15	1.71	
v101(E)	47	# 15	0.90	
v102(E)	47	# 15	1.03	
v103(E)	4	# 20	2.48	
v104(E)	13	# 20	2.70	
v105(E)	17	# 20	2.68	
v106(E)	8	# 15	0.95	
Structure Excavation		m ³	79	
Concrete Structures		m ³	50.1	
Reinforcement Bars, Epoxy Coated		kg	3,270	
Furnishing Steel Piles HP310X79		m	463	
Driving Steel Piles HP310X79		m	463	
Test Pile Steel HP310X79		Each	1	
Controlled Low-Strength Material		m ³	2.4	

1. For additional Notes see Sheet No. 24 of 37.
2. Work this sheet with Sheet No. 24 of 37.
3. Quantity of concrete in end post included with Concrete Superstructure on Sheet No. 13 of 37.
4. For details of Bar Splicers, see Sheet No. 31 of 37.
5. All dimensions are in millimeters (mm) except as noted.
6. For details of Junction Box and method of payment see Electrical Drawings.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
SOUTH ABUTMENT DETAILS
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-T08W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
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. 26
F.A.P. 80/94		COOK	870	499	37 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT-					
SECTION (0203.1 & 0312-708W) R-3 CONTRACT # 62108					



BEAM	ELEV.
9	198.456
10	198.394
11	198.329
12	198.263
13	198.197
14	198.129
15	198.059
16	197.989

PILE DATA
Type: HP 310 x 79
Est. Length: 27.2 m
Driven to 750 kN Bearing
Capacity: 500 kN
No. Required: 21 (Including 1 Test Pile Driven to 1,125 Kn Bearing)

- Notes:
1. Work this sheet with Sheet 4 and 27 of 37 Sheets.
 2. Reinforcement bars designated (E) shall be epoxy coated.
 3. Bars indicated thus 3x2-#15 etc. indicates 3 lines of bars with 2 lengths per line.
 4. Space reinforcement in cap to miss anchor bolts.
 5. Four steps monolithically with cap.
 6. All dimensions are in millimeters (mm) except as noted.
 7. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure on sheet 13 of 37.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

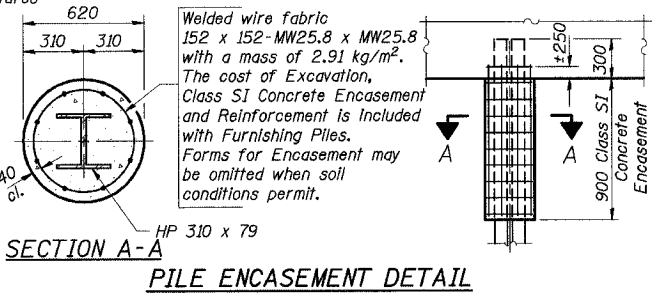
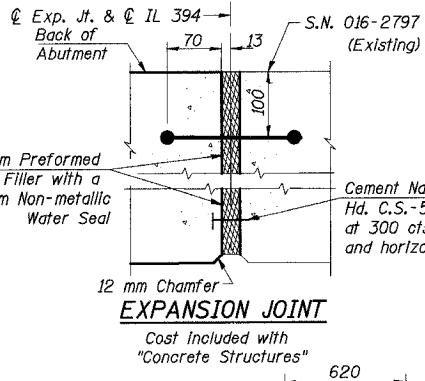
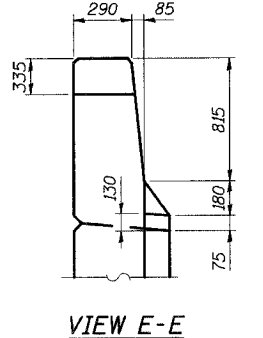
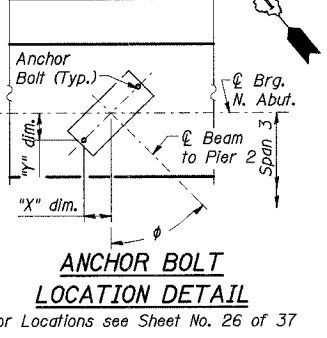
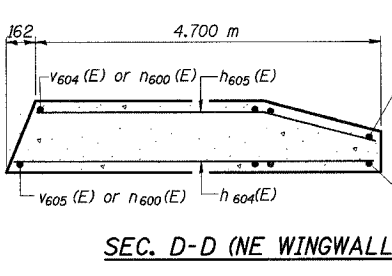
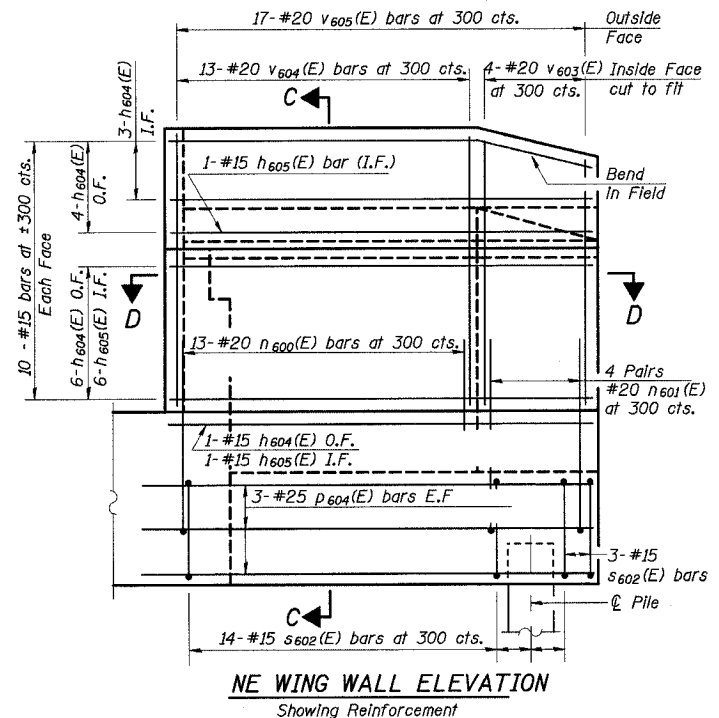
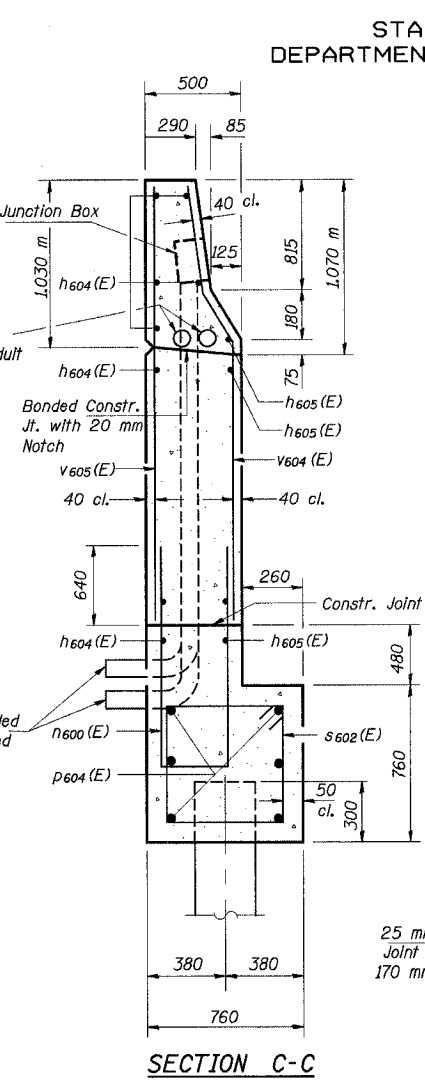
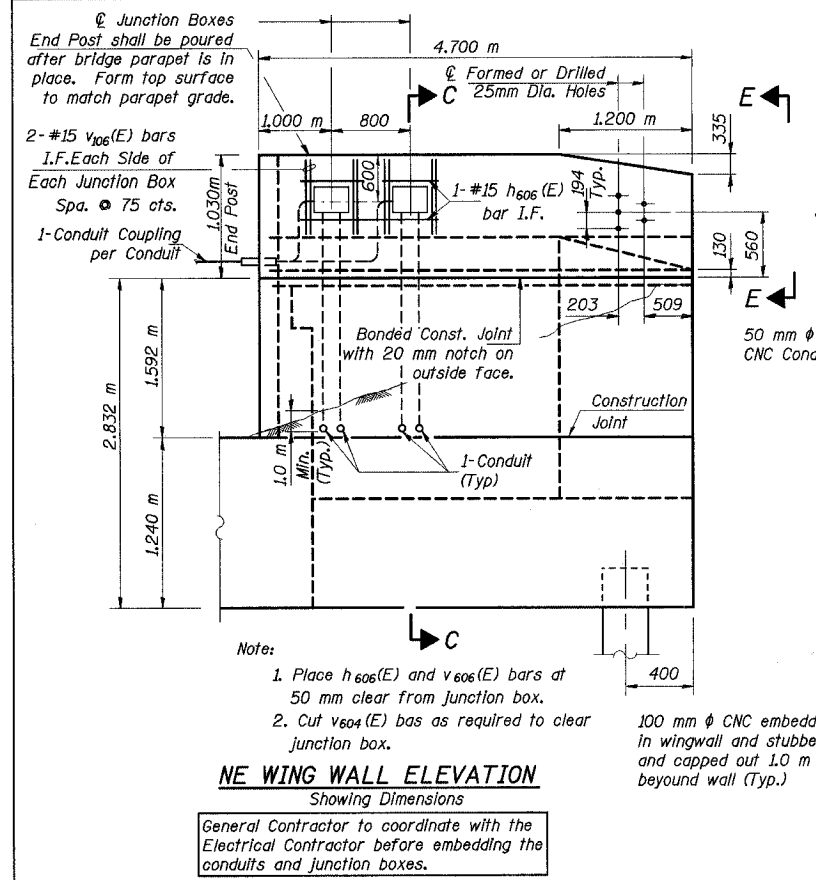
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
NORTH ABUTMENT PLAN & ELEVATION
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
STA. 39+752.246 S.N. 016-2798 (INSIDE LANES)
DATE: July 18, 2005
SCALE: NONE
Soodan & Associates, Inc.
100 North LaSalle Street, Suite 1800
Chicago, Illinois 60602

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

Min. bar laps:
#15 bars - 510 mm
#20 bars - 640 mm
#25 bars - 1,060 mm

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 27
F.A.I. 80/94		COOK	870	500	37 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	SECTION (0203.1 & 0312-708W) R-3 CONTRACT # 62108	



ANCHOR BOLT LOCATION DETAIL

Beam No.	Skew Angle(φ)	X (mm)	Y (mm)
9	25°08'21"	319	150
10	24°59'15"	319	149
11	24°50'09"	319	148
12	24°41'01"	320	147
13	24°31'51"	320	146
14	24°22'40"	321	145
15	24°13'52"	321	144
16	24°04'39"	321	144

Min. bar laps:
#15 bars - 510 mm
#20 bars - 640 mm
#25 bars - 1.060 m

Abbreviations:
F.F. = Front Face
B.F. = Back Face
E.F. = Each Face
O.F. = Outside Face
I.F. = Inside Face

**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h600(E)	10	# 15	4.47	
h601(E)	20	# 20	8.17	
h602(E)	10	# 20	8.23	
h603(E)	14	# 15	1.60	
h604(E)	14	# 15	4.62	
h605(E)	8	# 15	4.64	
h606(E)	2	# 15	1.92	
v600(E)	13	# 20	3.42	
v601(E)	8	# 20	1.65	
p600(E)	10	# 25	8.16	
p601(E)	6	# 25	2.12	
p602(E)	10	# 25	9.06	
p603(E)	10	# 25	5.17	
p604(E)	6	# 25	5.00	
s600(E)	76	# 15	4.98	
s601(E)	28	# 15	2.49	
s602(E)	16	# 15	2.92	
s603(E)	8	# 15	3.20	
u600(E)	4	# 20	2.78	
v600(E)	132	# 15	1.65	
v601(E)	52	# 15	0.90	
v602(E)	52	# 15	1.03	
v603(E)	4	# 20	2.32	
v604(E)	13	# 20	2.56	
v605(E)	17	# 20	2.54	
v606(E)	8	# 15	0.95	
Structure Excavation		m ³	80	
Concrete Structures		m ³	54.6	
Reinforcement Bars, Epoxy Coated		kg	3,710	
Furnishing Steel Piles HP310X79		m	544	
Driving Steel Piles HP310X79		m	544	
Test Pile Steel HP310X79		Each	1	
Controlled Low-Strength Material		m ³	2.3	

- Notes:
1. For additional Notes see Sheet No. 26 of 37.
2. Work this sheet with Sheet No. 26 of 37.
3. Quantity of concrete in end post included with Concrete Superstructure on Sheet No. 13 of 37.
4. For details of Bar Splicers, see Sheet No. 31 of 37.
5. All dimensions are in millimeters (mm) except as noted.
6. For details of Junction Box and method of payment see Electrical Drawings.

DESIGNED	M.R./ H.T.
CHECKED	H.T.
DRAWN	J.B./ J.S.
CHECKED	H.T./ M.R.

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94/IL 394 SOUTH BOUND
NORTH ABUTMENT DETAILS
SB IL. ROUTE 394 OVER CANADIAN NATIONAL RR
F.A.P. 332 SECTION (0203.1 & 0312-708W) R-3
COOK COUNTY
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