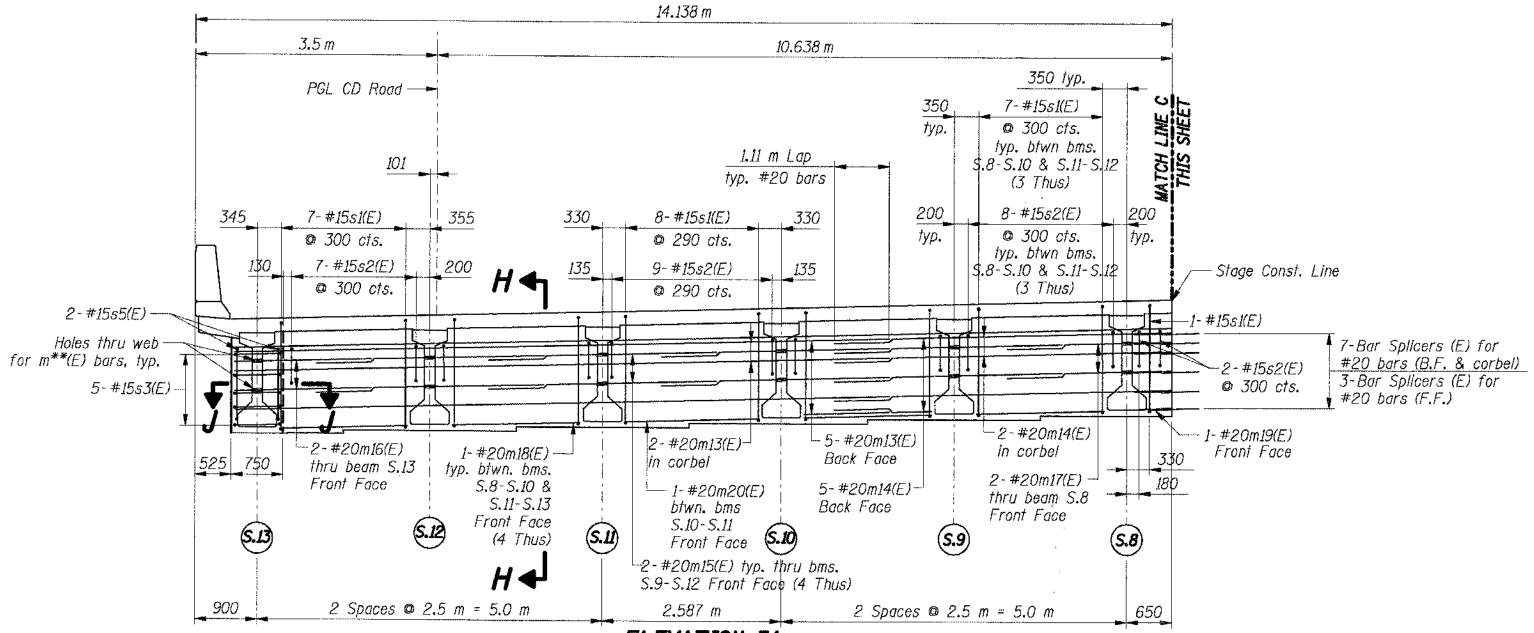
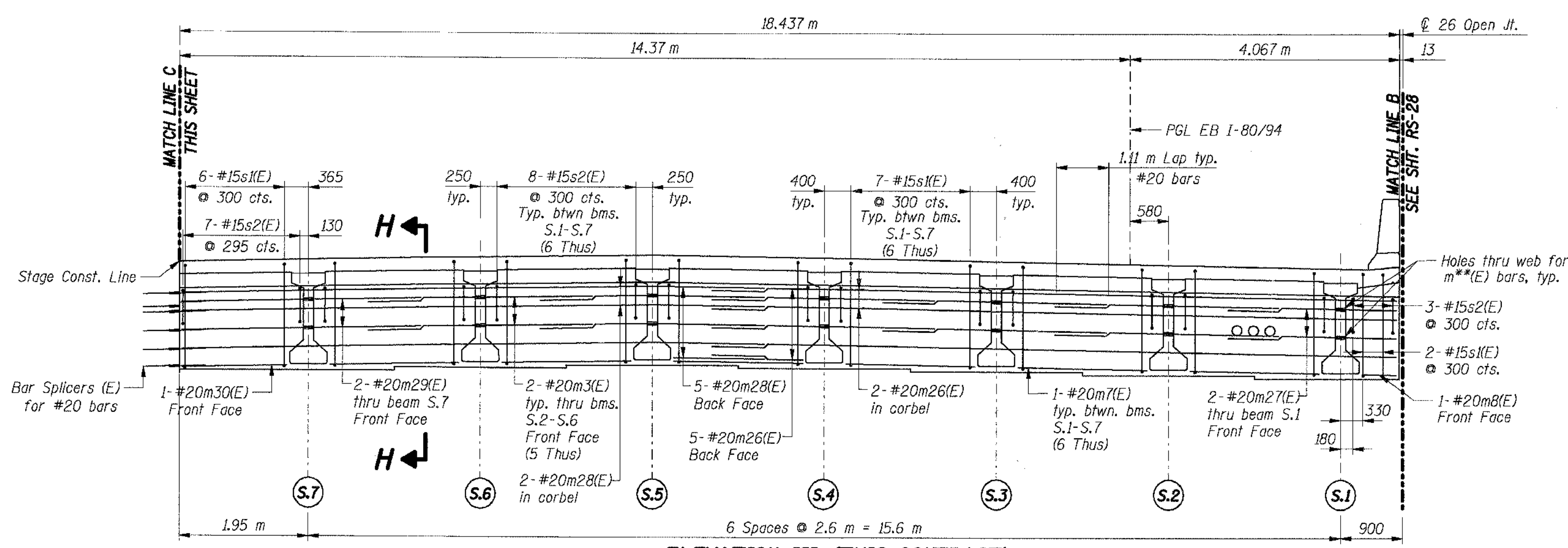
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	401
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2626) R-2 CONTRACT NO. 62111



ELEVATION-IV
(Looking West)

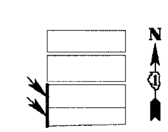
FOR INFORMATION ONLY
BY OTHERS IN PREVIOUS CONTRACT 62110



ELEVATION-III (THIS CONTRACT)
(Looking West)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. See Sht. RS-28 for Sections H-H and J-J.
5. For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
6. F.F. Denotes Front Face
   B.F. Denotes Back Face.
7. All edges shall have a 20 mm chamfer unless noted otherwise.
8. Work this sheet with Sht. RS-24 thru RS-28 & RS-30 thru RS-34.
9. For Bar Splicer details, see Sht. RS-66.



KEY PLAN

SHT. RS-29 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

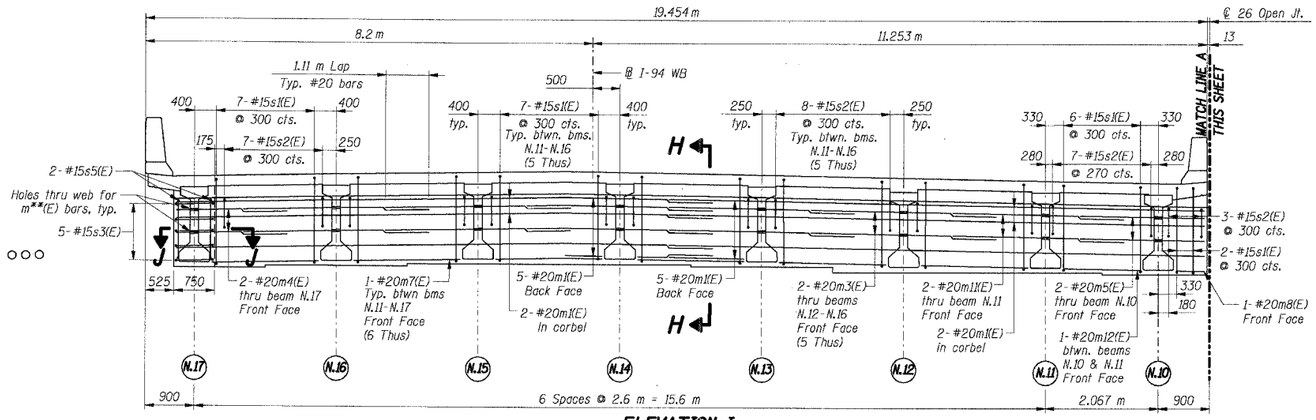
WEST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - III & IV

DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

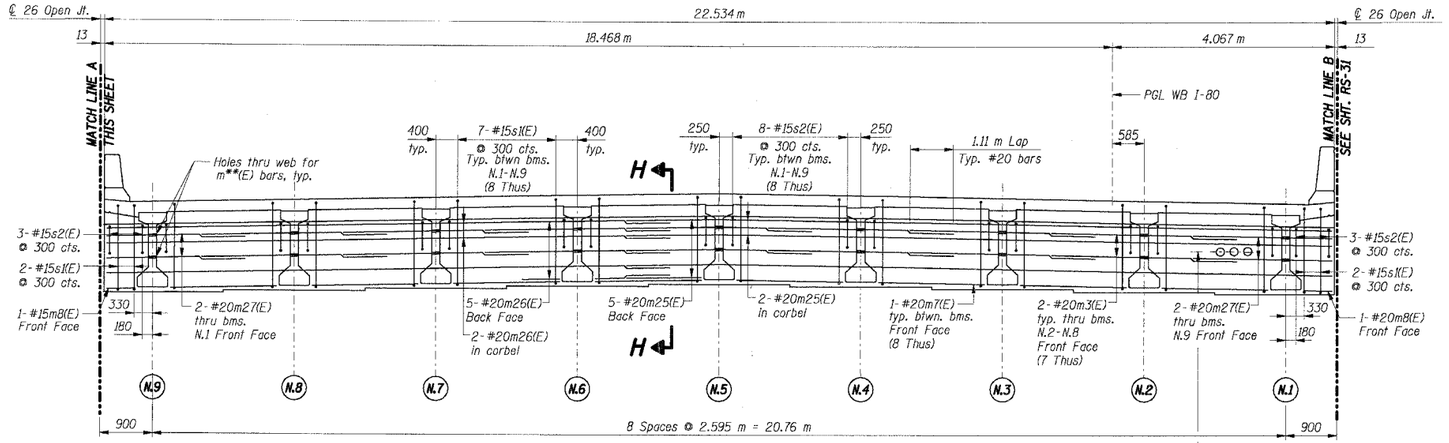
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	402
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



ELEVATION-I
(Looking East)

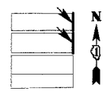
FOR INFORMATION ONLY
BY OTHERS IN PREVIOUS CONTRACT 62110



ELEVATION-II (THIS CONTRACT)
(Looking East)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. See Sht. RS-28 for Sections H-H and J-J.
5. For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
6. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
7. All edges shall have a 20 mm chamfer unless noted otherwise.
8. Work this sheet with Shts. RS-24 thru RS-29 & RS-31 thru RS-34.



KEY PLAN

SHT. RS-30 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

EAST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - I & II

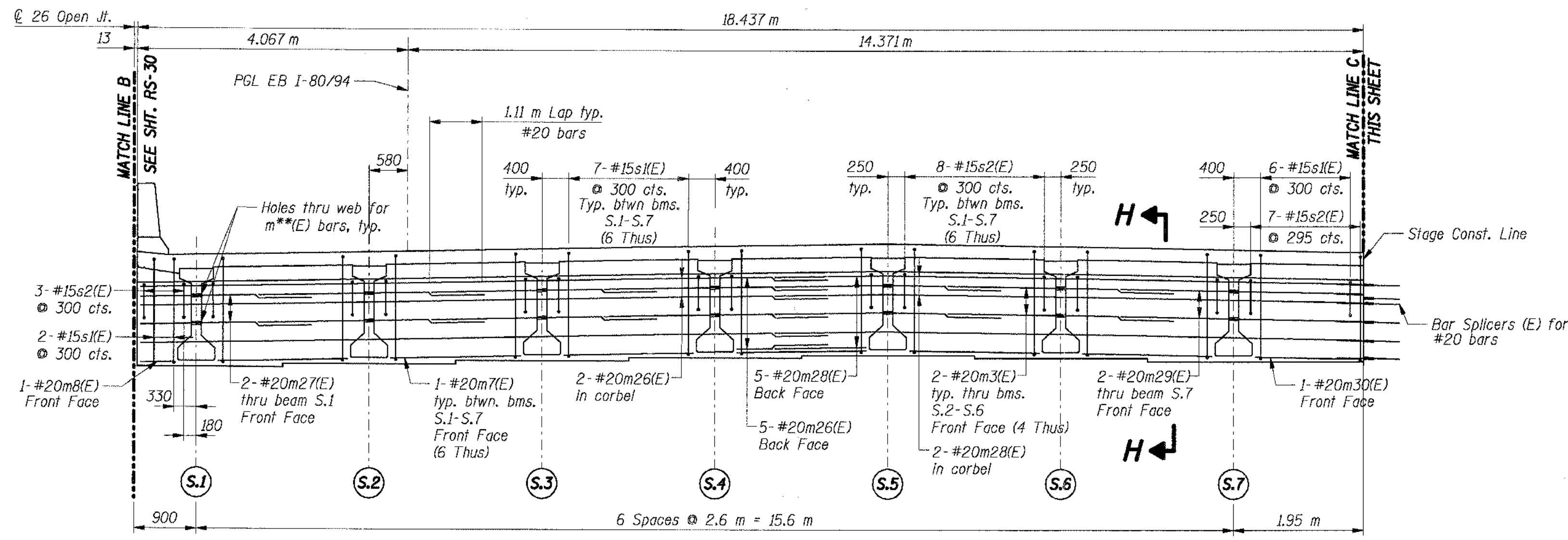
DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

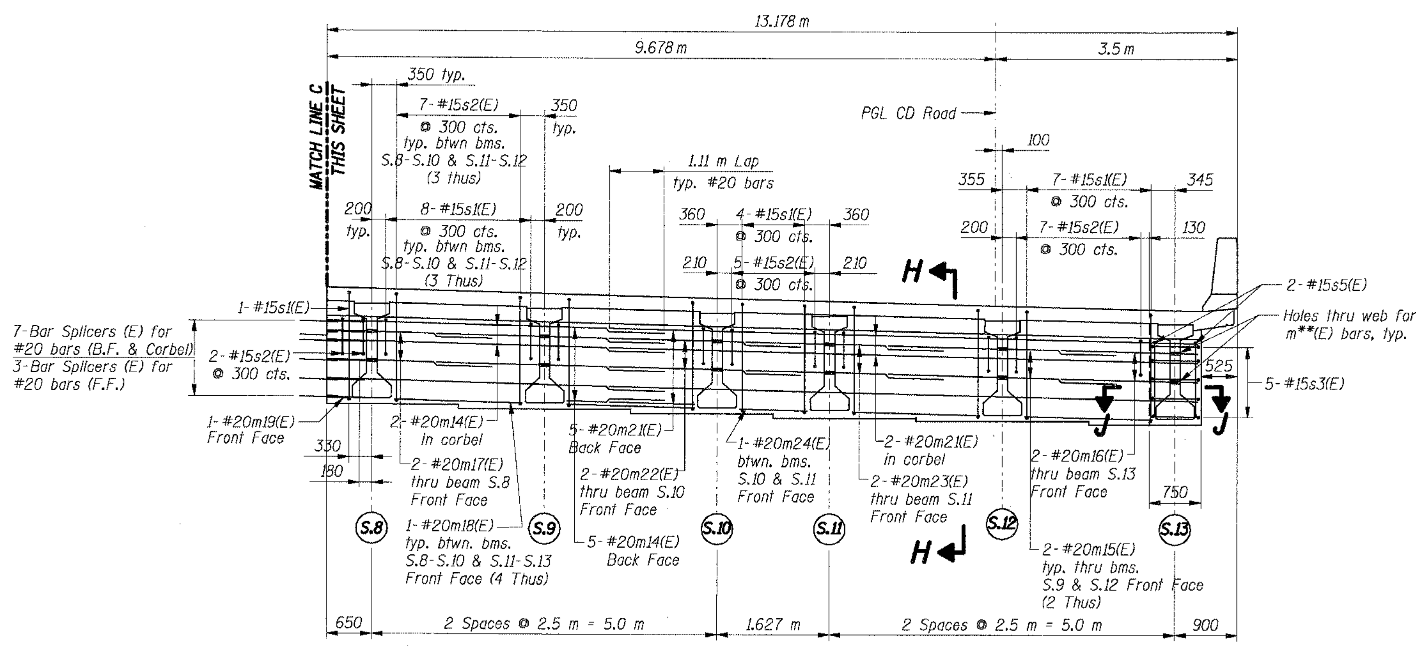
--\AB99RG72A.DGN, --\AB99RG72A.DGN, --\AB99WS32A.DGN, --\AB99WD02A.DGN
7-12-2005, 10:25:43 T:\DOCUMENTS\93750\STRUCTURE\DGN\AB\73052A.DGN
BAJZEKK.J

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	403
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



ELEVATION-III (THIS CONTRACT)
(Looking East)

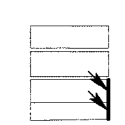


ELEVATION-IV
(Looking East)

FOR INFORMATION ONLY BY OTHERS IN PREVIOUS CONTRACT 62110

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. See Sht. RS-28 for Sections H-H and J-J
5. For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
6. F.F. Denotes Front Face
   B.F. Denotes Back Face.
7. All edges shall have a 20 mm chamfer unless noted otherwise.
8. Work this sheet with Shts. RS-24 thru RS-30 & RS-32 thru RS-24.
9. For Bar Splicer details, see Sht. RS-66.



KEY PLAN

SHT. RS-31 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

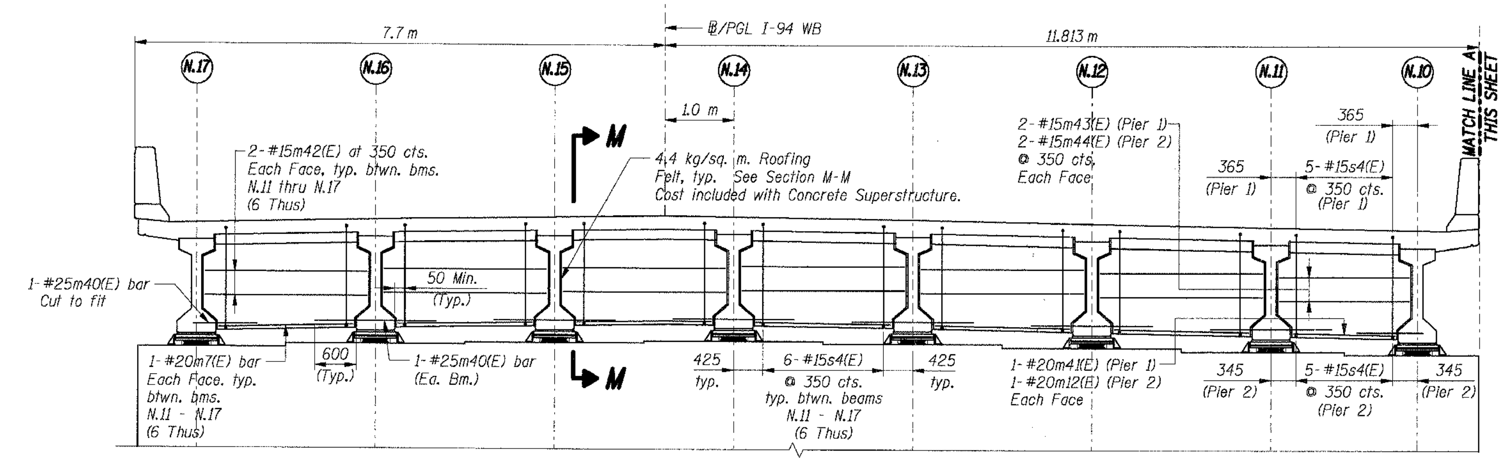
EAST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - III & IV

DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

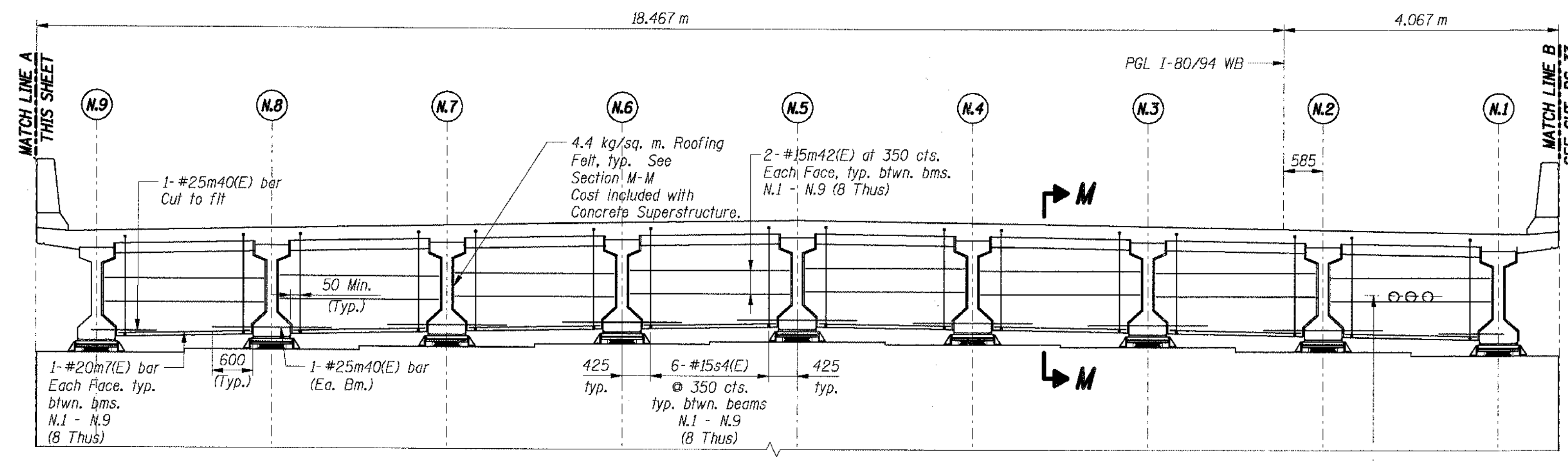
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	404
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2626) R-2 CONTRACT NO. 62111



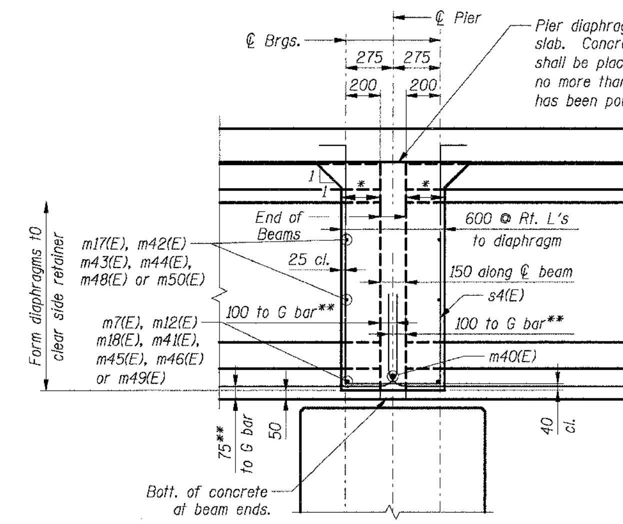
DIAPHRAGM AT PIER-I
(Looking East)

FOR INFORMATION ONLY
CONSTRUCTED IN PREVIOUS CONTRACT 62110



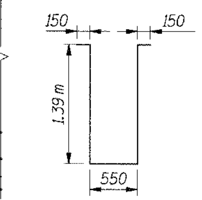
DIAPHRAGM AT PIER-II (THIS CONTRACT)
(Looking East)
(2 Thus)

3-150 mm ϕ PVC Sleeves spaced 250 mm center. Coordinate actual placement with the Electrical Subcontractor. Cost included with Concrete Superstructure.



SECTION M-M

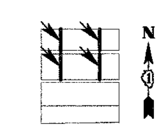
*Roofing felt shall be bonded to side of beam embedded into diaphragm.



BAR s4(E)

**See beam details, Shts. RS-42 & RS-43

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
5. Work this Sheet with Shts. RS-24 thru RS-31 & RS-33 and RS-34.
6. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
7. All edges shall have a 20 mm chamfer unless noted otherwise.



KEY PLAN

SHT. RS-32 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

PIER DIAPHRAGM ELEVATIONS & SECTIONS - I

DRAWN BY: LAR
CHECKED BY: MJK
DATE: 7/18/2005

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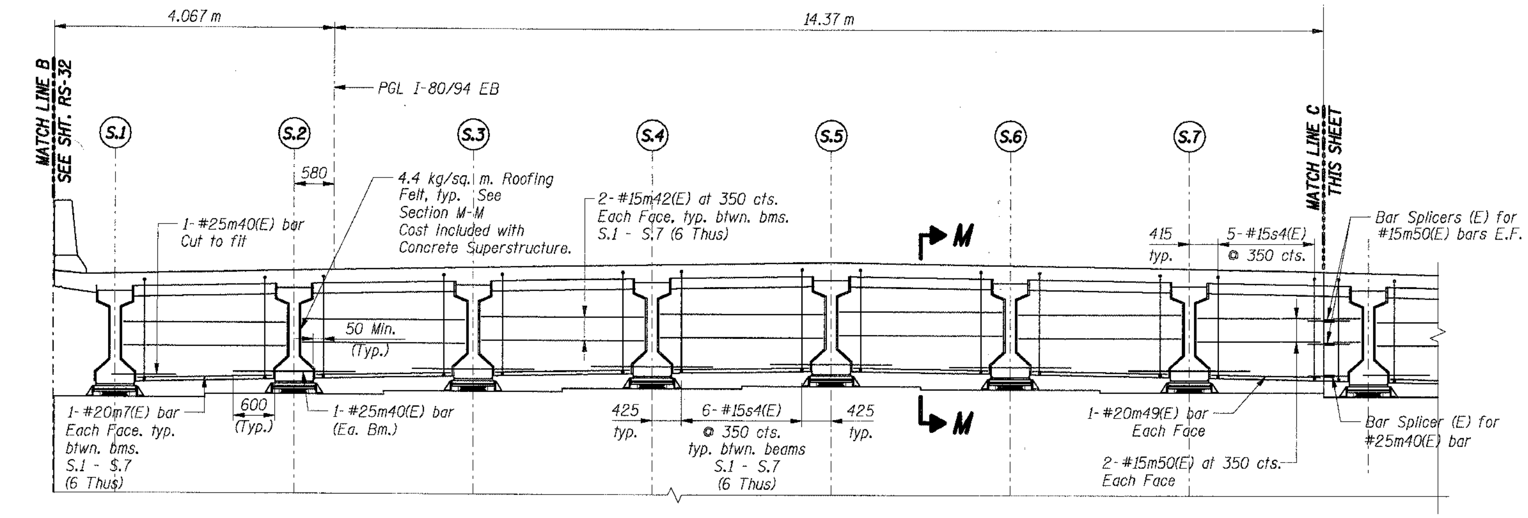
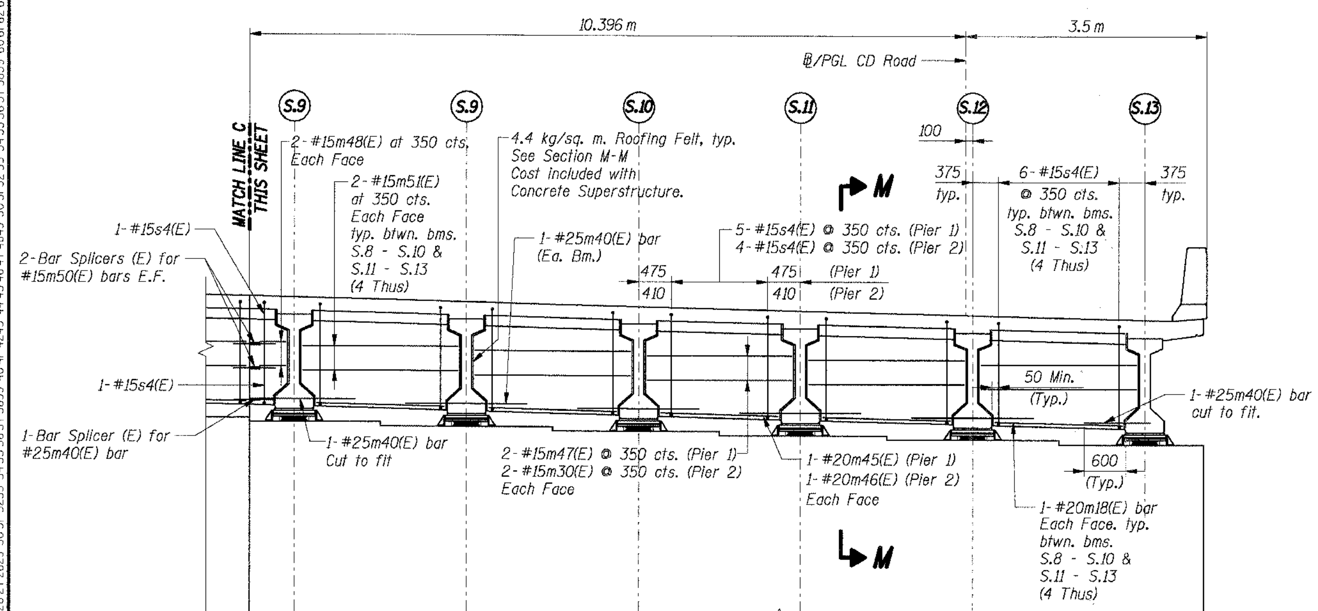
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	405
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



DIAPHRAGM AT PIER-III (THIS CONTRACT)
(Looking East)
(2 Thus)

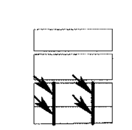


DIAPHRAGM AT PIER-IV
(Looking East)

FOR INFORMATION ONLY
CONSTRUCTED IN PREVIOUS CONTRACT 62110

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. See Sht. RS-32 for Section M-M.
5. For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
6. Work this Sheet with Shts. RS-24 thru RS-32 & RS-34.
7. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
8. All edges shall have a 20 mm chamfer unless noted otherwise.
9. For Bar Splicer details, see Sht. RS-66.



KEY PLAN

SHT. RS-33 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

PIER DIAPHRAGM ELEVATIONS & SECTIONS - II

DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

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TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	406
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (2425 & 2626) R-2		CONTRACT NO. 62111		

BAR LIST (FOR PLAN-I) *

(FOR INFORMATION ONLY)
(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

Bar	No.	Size	Length (m)	Shape
a1(E)	262	#15	8.85	
a2(E)	628	#15	8.45	
a3(E)	262	#15	3.25	
a4(E)	366	#15	5.05	
a5(E)	366	#15	7.20	
a6(E)	183	#20	1.40	
b1(E)	700	#15	9.00	
b2(E)	60	#15	4.80	
b3(E)	68	#15	4.85	
b4(E)	68	#15	8.75	
b5(E)	130	#20	13.10	
d1(E)	200	#15	0.72	
d2(E)	200	#15	0.73	
d3(E)	200	#15	1.01	
d4(E)	200	#15	1.05	
m1(E)	21	#20	10.00	
m2(E)	7	#20	10.05	
m3(E)	14	#20	3.75	
m4(E)	4	#20	2.20	
m5(E)	4	#20	2.50	
m6(E)	2	#20	3.50	
m7(E)	36	#20	1.95	
m8(E)	2	#20	0.50	
m9(E)	1	#20	1.50	
m11(E)	2	#20	3.45	
m12(E)	3	#20	1.40	
m40(E)	16	#25	1.76	
m41(E)	2	#20	1.45	
m42(E)	48	#15	2.35	
m43(E)	4	#15	1.87	
m44(E)	4	#15	1.84	
s1(E)	100	#15	3.92	
s2(E)	115	#15	2.05	
s3(E)	10	#15	1.60	
s4(E)	82	#15	2.24	
s5(E)	4	#15	2.75	
v(E)	124	#15	1.05	

BAR LIST (FOR PLAN-II) *

(THIS CONTRACT)

Bar	No.	Size	Length (m)	Shape
a1(E)	262	#15	8.85	
a2(E)	628	#15	8.45	
a18(E)	262	#15	6.30	
a19(E)	732	#15	7.65	
a6(E)	366	#20	1.40	
b1(E)	810	#15	9.00	
b2(E)	70	#15	4.80	
b3(E)	78	#15	4.85	
b4(E)	78	#15	8.75	
b5(E)	150	#20	13.10	
d2(E)	400	#15	0.73	
d4(E)	400	#15	1.05	
m3(E)	28	#20	3.75	
m7(E)	48	#20	1.95	
m8(E)	4	#20	0.50	
m25(E)	14	#20	13.10	
m26(E)	14	#20	10.50	
m27(E)	8	#20	2.75	
m40(E)	18	#25	1.76	
m42(E)	64	#15	2.35	
s1(E)	120	#15	3.92	
s2(E)	140	#15	2.05	
s4(E)	96	#15	2.24	
v(E)	144	#15	1.05	

BAR LIST (FOR PLAN-III) *

(THIS CONTRACT)

Bar	No.	Size	Length (m)	Shape
a20(E)	262	#15	8.90	
a2(E)	628	#15	8.45	
a21(E)	262	#15	2.25	
a22(E)	366	#15	7.65	
a23(E)	366	#15	3.55	
a6(E)	183	#20	1.40	
b1(E)	663	#15	9.00	
b2(E)	58	#15	4.80	
b3(E)	63	#15	4.85	
b4(E)	63	#15	8.75	
b5(E)	122	#20	13.10	
d2(E)	400	#15	0.73	
d4(E)	400	#15	1.05	
m3(E)	20	#20	3.75	
m7(E)	36	#20	1.95	
m8(E)	2	#20	0.50	
m26(E)	14	#20	10.50	
m27(E)	4	#20	2.75	
m28(E)	14	#20	9.90	
m29(E)	4	#20	3.80	
m30(E)	2	#20	1.60	
m40(E)	14	#25	1.76	
m42(E)	48	#15	1.40	
m49(E)	4	#20	1.57	
m50(E)	8	#15	1.77	
s1(E)	100	#15	3.92	
s2(E)	116	#15	2.05	
s4(E)	82	#15	2.24	
v(E)	120	#15	1.05	

BAR LIST (FOR PLAN-IV) *

(FOR INFORMATION ONLY)
(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

Bar	No.	Size	Length (m)	Shape
a7(E)	262	#15	5.82	
a8(E)	56	#15	8.65	
a2(E)	55	#15	8.45	
a9(E)	54	#15	8.25	
a10(E)	55	#15	8.05	
a11(E)	42	#15	7.85	
a12(E)	154	#15	7.12	
a13(E)	153	#15	6.92	
a14(E)	59	#15	6.72	
a15(E)	154	#15	7.42	
a16(E)	153	#15	7.22	
a17(E)	59	#15	7.02	
a6(E)	183	#20	1.40	
b1(E)	489	#15	9.00	
b2(E)	40	#15	4.80	
b3(E)	49	#15	4.85	
b4(E)	46	#15	8.75	
b5(E)	90	#20	13.10	
d1(E)	200	#15	0.72	
d3(E)	200	#15	1.01	
m13(E)	7	#20	9.05	
m14(E)	14	#20	4.90	
m15(E)	12	#20	3.65	
m16(E)	4	#20	2.15	
m17(E)	4	#20	2.40	
m18(E)	24	#20	1.85	
m19(E)	2	#20	0.17	
m20(E)	1	#20	1.93	
m21(E)	7	#20	8.70	
m22(E)	2	#20	3.10	
m23(E)	2	#20	3.20	
m24(E)	1	#20	0.97	
m30(E)	4	#15	1.60	
m40(E)	12	#25	1.76	
m45(E)	2	#20	1.70	
m46(E)	2	#20	1.30	
m47(E)	4	#15	2.10	
m48(E)	8	#15	0.38	
m5(E)	32	#20	3.25	
s1(E)	70	#15	3.92	
s2(E)	80	#15	2.05	
s3(E)	10	#15	1.60	
s4(E)	59	#15	2.24	
s5(E)	4	#15	2.75	
v(E)	89	#15	1.05	

BILL OF MATERIAL (FOR PLAN-I) *

(FOR INFORMATION ONLY)
(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

Item	Unit	Total
Concrete Superstructure	Cu m	276.4
Reinforcement Bars, Epoxy Coated	kg	40,748

BILL OF MATERIAL (FOR PLAN-II) *

(THIS CONTRACT)

Item	Unit	Total
Concrete Superstructure	Cu m	323.4
Reinforcement Bars, Epoxy Coated	kg	47,370

BILL OF MATERIAL (FOR PLAN-III) *

(THIS CONTRACT)

Item	Unit	Total
Concrete Superstructure	Cu m	268.9
Reinforcement Bars, Epoxy Coated	kg	38,790

BILL OF MATERIAL (FOR PLAN-IV) *

(FOR INFORMATION ONLY)
(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

Item	Unit	Total
Concrete Superstructure	Cu m	195.5
Reinforcement Bars, Epoxy Coated	kg	28,240

Notes:
1. See Sht. RS-36 for Parapet No. 3 Bill of Material.
2. See Sht. RS-37 for Parapets No. 4 and No. 5 Bill of Material.

*Including Integral Backwall and Pier Diaphragms.

SHT. RS-34 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2782 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

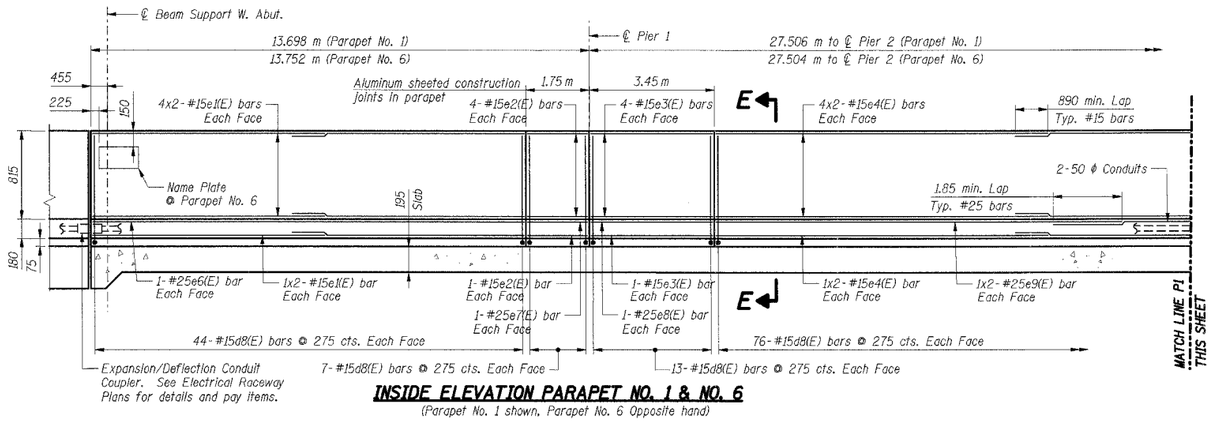
DECK BAR LIST & BILL OF MATERIAL

DATE: 9/13/05
DRAWN BY: LAR
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

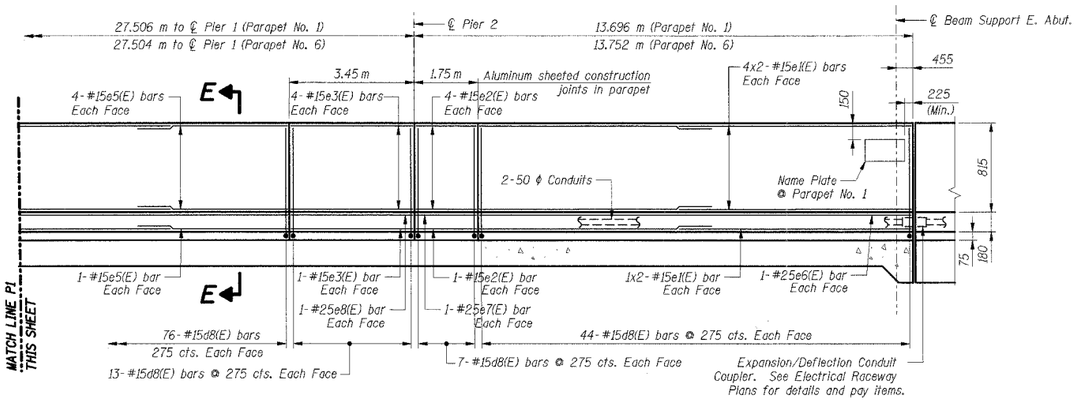
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	407
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



INSIDE ELEVATION PARAPET NO. 1 & NO. 6

(Parapet No. 1 shown, Parapet No. 6 Opposite hand)



INSIDE ELEVATION PARAPET NO. 1 & NO. 6

(Parapet No. 1 shown, Parapet No. 6 Opposite hand)

BAR LIST

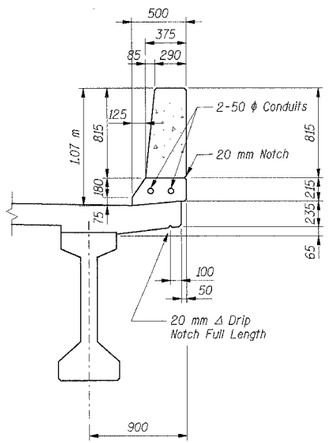
(For Each Parapet)

Bar	No.	Size	Length (m)	Shape
d8(E)	408	#15	1.10	
e1(E)	40	#15	6.40	
e2(E)	20	#15	1.65	
e3(E)	20	#15	3.35	
e4(E)	20	#15	9.00	
e5(E)	10	#15	4.30	
e6(E)	4	#25	11.90	
e7(E)	4	#25	1.65	
e8(E)	4	#25	3.35	
e9(E)	4	#25	11.20	

BILL OF MATERIAL

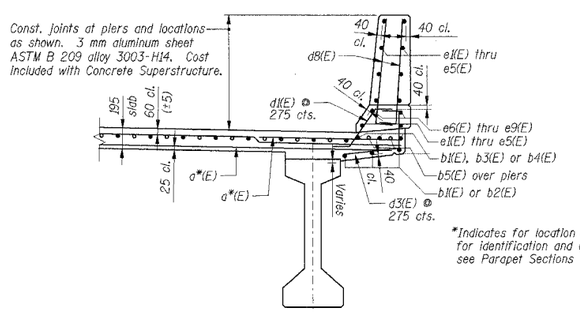
(For Both Parapets)

Item	Unit	Total
Concrete Superstructure	Cu m	55.6
Reinforcement Bars, Epoxy Coated	kg	4100
Name Plates	Each	2



SECTION E-E

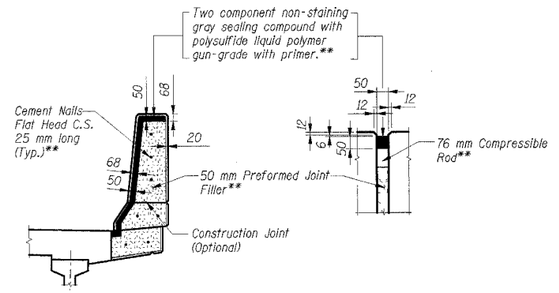
(Showing Geometry)



*Indicates for location of bars, for identification and quantity, see Parapet Sections

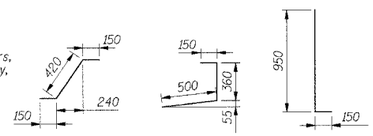
SECTION E-E

(Showing Reinforcement)



PARAPET EXPANSION JOINT DETAIL AT RETAINING WALL **

** Cost Included with Concrete Superstructure



Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. Work this Sheet with Shts. RS-24 thru RS-27.
5. I.F. Denotes Inside Face. O.F. Denotes Outside Face.
6. All edges shall have a 20 mm chamfer unless noted otherwise.

THIS SHEET FOR INFORMATION ONLY

SHT. RS-35 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

NORTH & SOUTH PARAPET ELEVATIONS & DETAILS

DATE: 9/13/05
DRAWN BY: LAR
CHECKED BY: MJK

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

..\SU998302A.DGN, ..\AB990302A.DGN, ..\SU998222A.DGN, ..\SU99MIT2A.DGN
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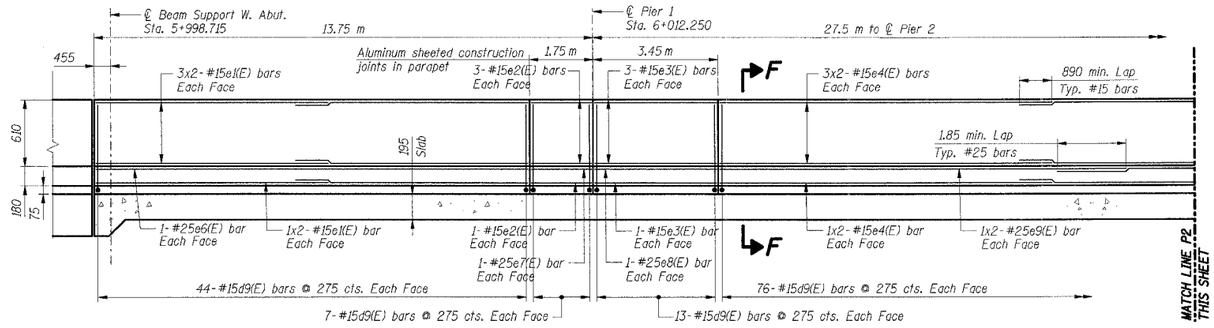
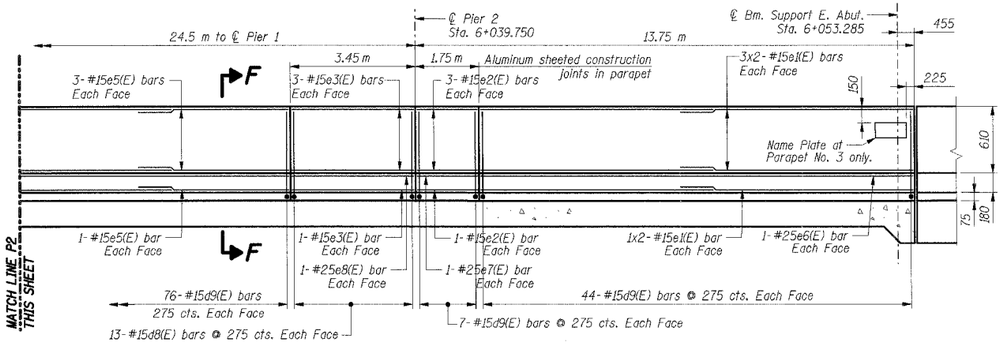
KUENSTMJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	408
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2	CONTRACT NO. 62111			



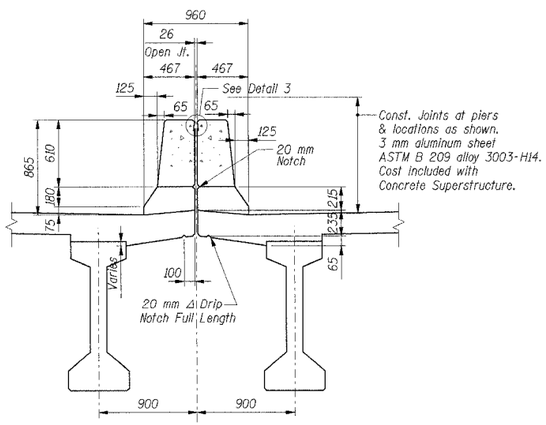
INSIDE ELEVATION PARAPETS NO. 2 & 3

(Parapet No. 3 shown, Parapet No. 2 Opposite Hand)



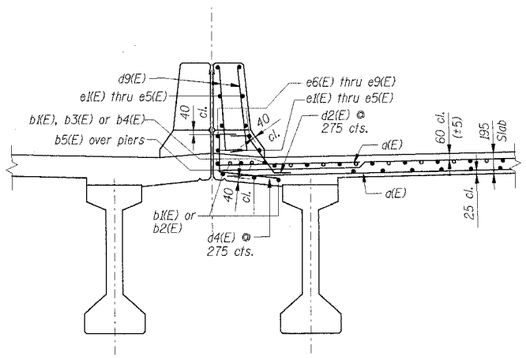
INSIDE ELEVATION PARAPETS NO. 2 & 3

(Parapet No. 3 shown, Parapet No. 2 Opposite Hand)



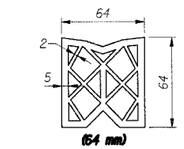
SECTION F-F

(Showing Geometry)

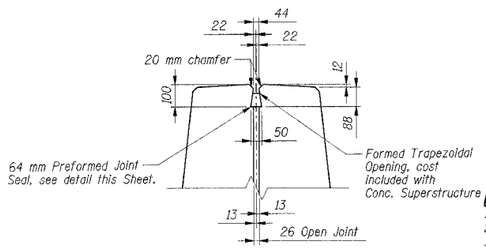


SECTION F-F

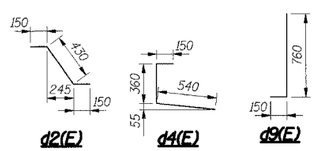
(Showing Reinforcement)



PREFORMED JOINT SEAL



DETAIL 3



BAR LIST

(For Each Parapet)

Bar	No.	Size	Length (m)	Shape
d9(E)	408	#15	0.91	⌐
e1(E)	32	#15	6.40	——
e2(E)	16	#15	1.65	——
e3(E)	16	#15	3.35	——
e4(E)	16	#15	9.00	——
e5(E)	8	#15	4.30	——
e6(E)	4	#25	11.90	——
e7(E)	4	#25	1.65	——
e8(E)	4	#25	3.35	——
e9(E)	4	#25	11.20	——

BILL OF MATERIAL

(For Parapet No. 3 Only)

Item	Unit	Total
Concrete Structures	Cu m	21.9
Reinforcement Bars, Epoxy Coated	kg	1,710
Name Plates	Each	1
Preformed Joint Seal 64 mm	Meter	55.0

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. Work this Sheet with Shts. RS-24 thru RS-27.
5. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
6. All edges shall have a 20 mm chamfer unless noted otherwise.
7. For name plate details, see Sht. RS-3.

ONLY PARAPET 3 CONSTRUCTED IN THIS CONTRACT

SHT. RS-36 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

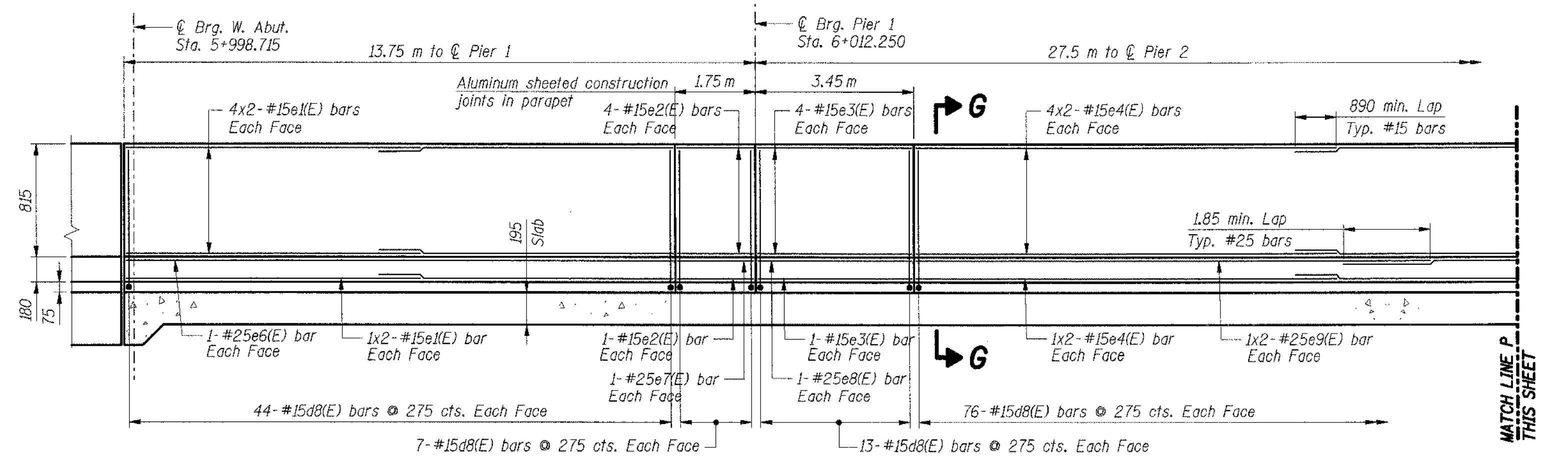
MEDIAN PARAPET ELEVATION & DETAILS - I

DRAWN BY: LAR
CHECKED BY: MJK
DATE: 9/13/05

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

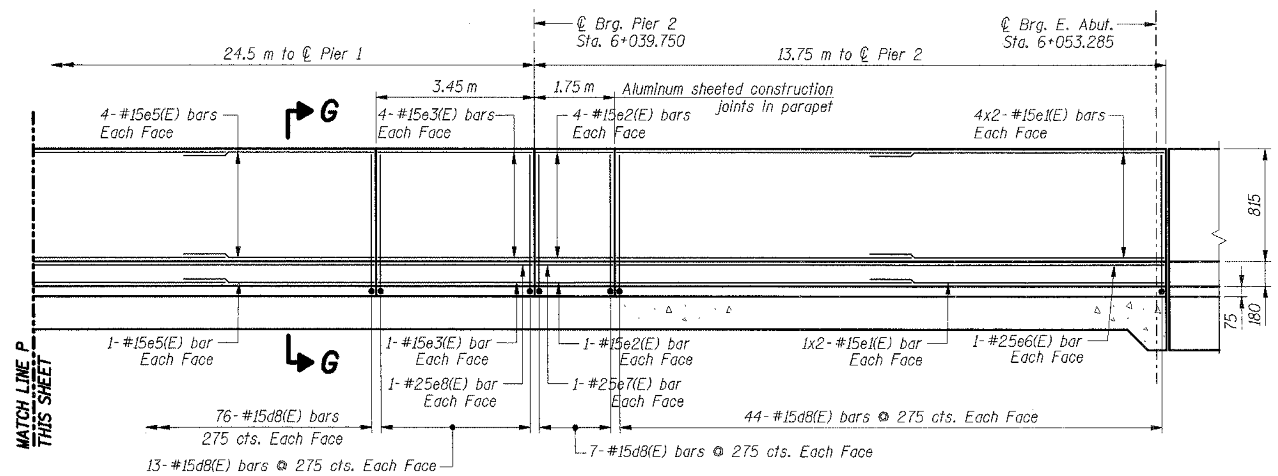
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	409
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



INSIDE ELEVATION PARAPETS NO. 4 & 5

(Parapet No. 5 shown, Parapet No. 4 Opposite Hand)



INSIDE ELEVATION PARAPETS NO. 4 & 5

(Parapet No. 5 shown, Parapet No. 4 Opposite Hand)

BAR LIST

(For Each Parapet)

Bar	No.	Size	Length (m)	Shape
d8(E)	408	#15	1.10	
e1(E)	40	#15	6.40	
e2(E)	20	#15	1.65	
e3(E)	20	#15	3.35	
e4(E)	20	#15	9.00	
e5(E)	10	#15	4.30	
e6(E)	4	#25	11.90	
e7(E)	4	#25	1.65	
e8(E)	4	#25	3.35	
e9(E)	4	#25	11.20	

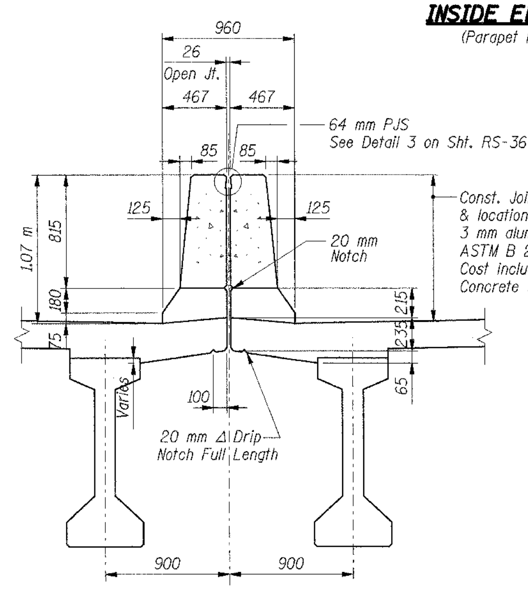
BILL OF MATERIAL

(For Each Parapet)

Item	Unit	Total
Concrete Structures	Cu m	24.9
Reinforcement Bars, Epoxy Coated	kg	2,050
Preformed Joint Seal 64 mm	Meter	55.0 **

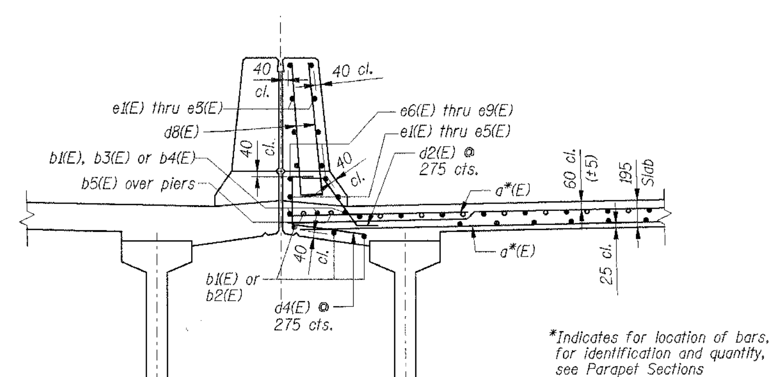
** Quantity for PJS 64 mm shall not be doubled.

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. Work this Sheet with Shts. RS-24 thru RS-27 & RS-36.
5. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
6. All edges shall have a 20 mm chamfer unless noted otherwise.



SECTION G-G

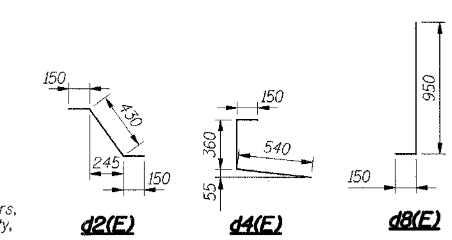
(Showing Geometry)



SECTION G-G

(Showing Reinforcement)

*Indicates for location of bars, for identification and quantity, see Parapet Sections



SHT. RS-37 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

MEDIAN PARAPET ELEVATION & DETAILS - II

DATE: 9/13/05
DRAWN BY: LAR
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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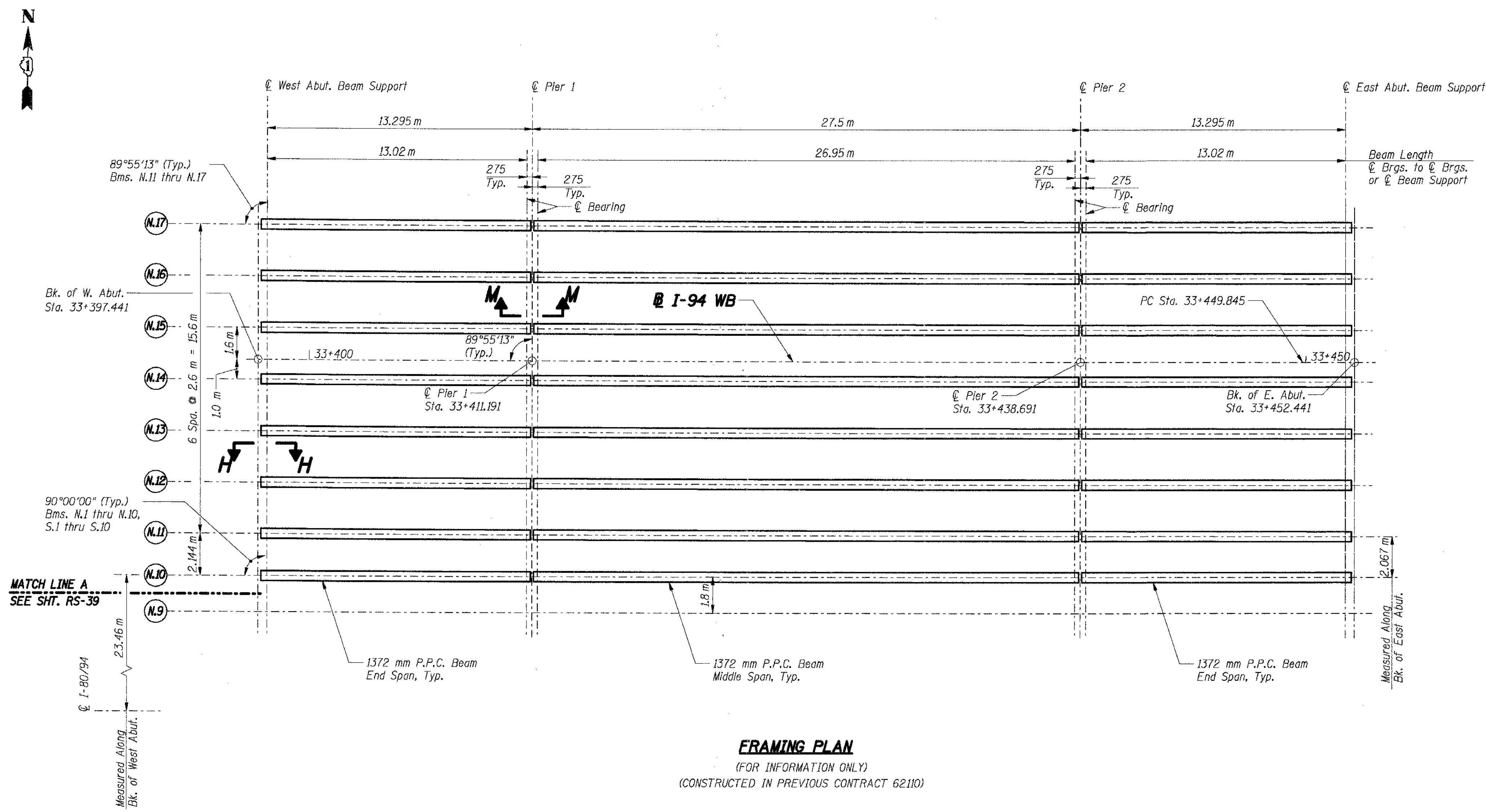
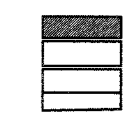
KUENSTMJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	410
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111





KEY PLAN

THIS SHEET FOR INFORMATION ONLY

FRAMING PLAN

(FOR INFORMATION ONLY)

(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

INTERIOR BEAM MOMENT TABLE

		0.4 Span 1 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
I	(10^6 mm^4)	88955		88955
I'	(10^6 mm^4)	222098		222098
Sb	(10^3 mm^3)	140257		140257
Sb'	(10^3 mm^3)	212887		212887
St	(10^3 mm^3)	120642		120642
St'	(10^3 mm^3)	676442		676442
DL	(kN/m)	21.61		21.61
MDL	(kN-m)	463		2043
sDL	(kN/m)	7.66	7.66	7.66
MsDL	(kN-m)	10	385	300
MLL	(kN-m)	457	659	794
M (Imp)	(kN-m)	137	171	184

INTERIOR BEAM REACTION TABLE

		Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
RDL	(kN)	144	144	297
RsDL	(kN)	22	192*	192*
RLL	(kN)	188	250*	250*
Imp.	(kN)	57	66	66
R (Total)	(kN)	411	652	805

* Beam reaction values at piers reflect the total pier reaction to superimposed loads acting through either bearing at pier.

Notes:

I and I' are the moment of inertia and composite moment of inertia of the beam section.

Sb and Sb' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.

St and St' are the non-composite and composite section modulus for the top fiber of the prestressed beam.

MDL is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.

MsDL is the moment due to dead loads on the composite section.

MLL is the moment due to live load on the composite section.

M (Imp) is the moment due to live load impact on the composite section.

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. For Section H-H, see Sht. RS-28.
3. For Section M-M, see Sht. RS-32.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

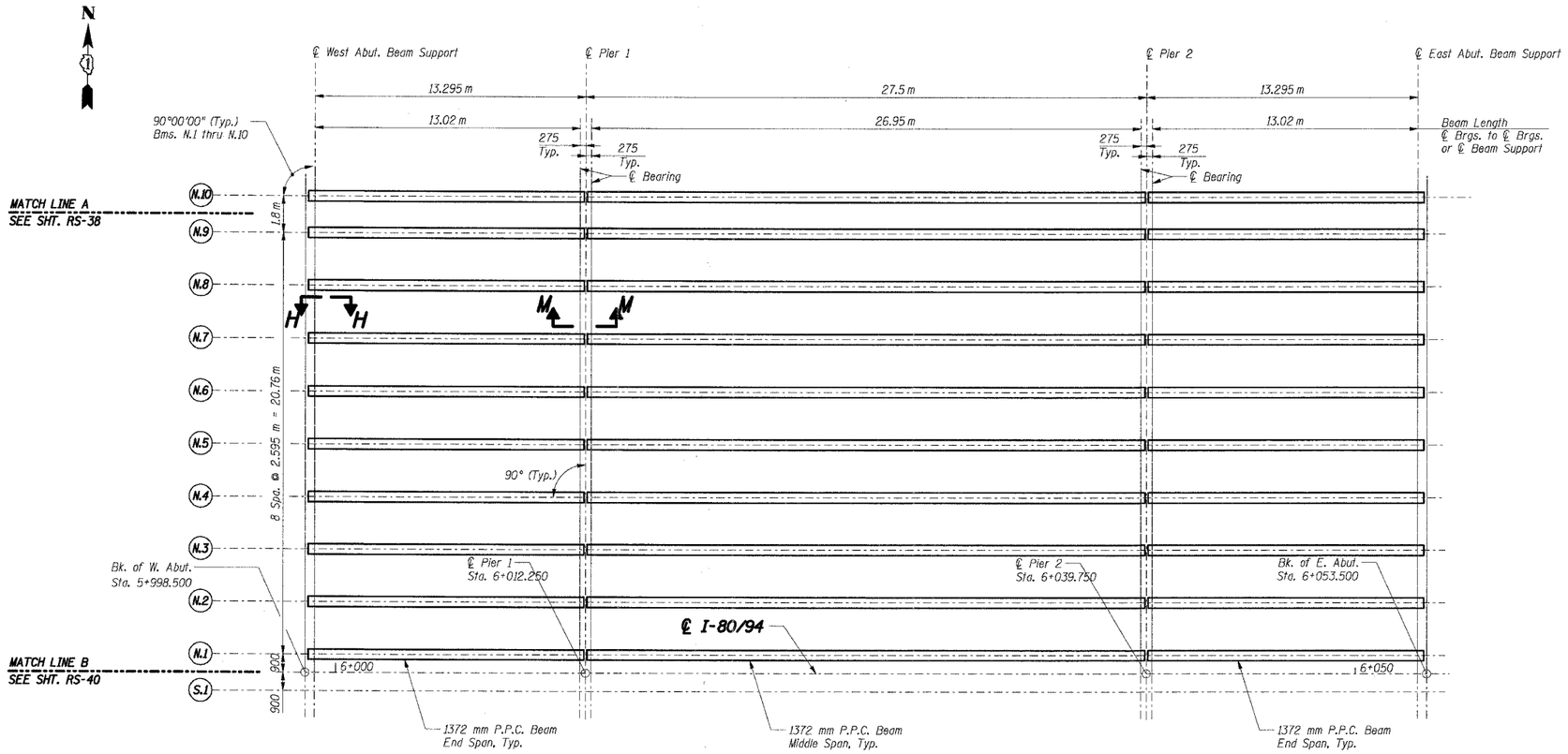
FRAMING PLAN - I

DATE: 7/18/2005

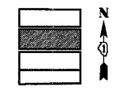
DRAWN BY: PA
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	411
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (2425 & 2626) R-2		CONTRACT NO. 62111		



FRAMING PLAN



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. For Section H-H, see Sht. RS-28.
3. For Section M-M, see Sht. RS-32.

SHT. RS-39 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

FRAMING PLAN - II

DRAWN BY: PA
CHECKED BY: MJK
DATE: 7/18/2005

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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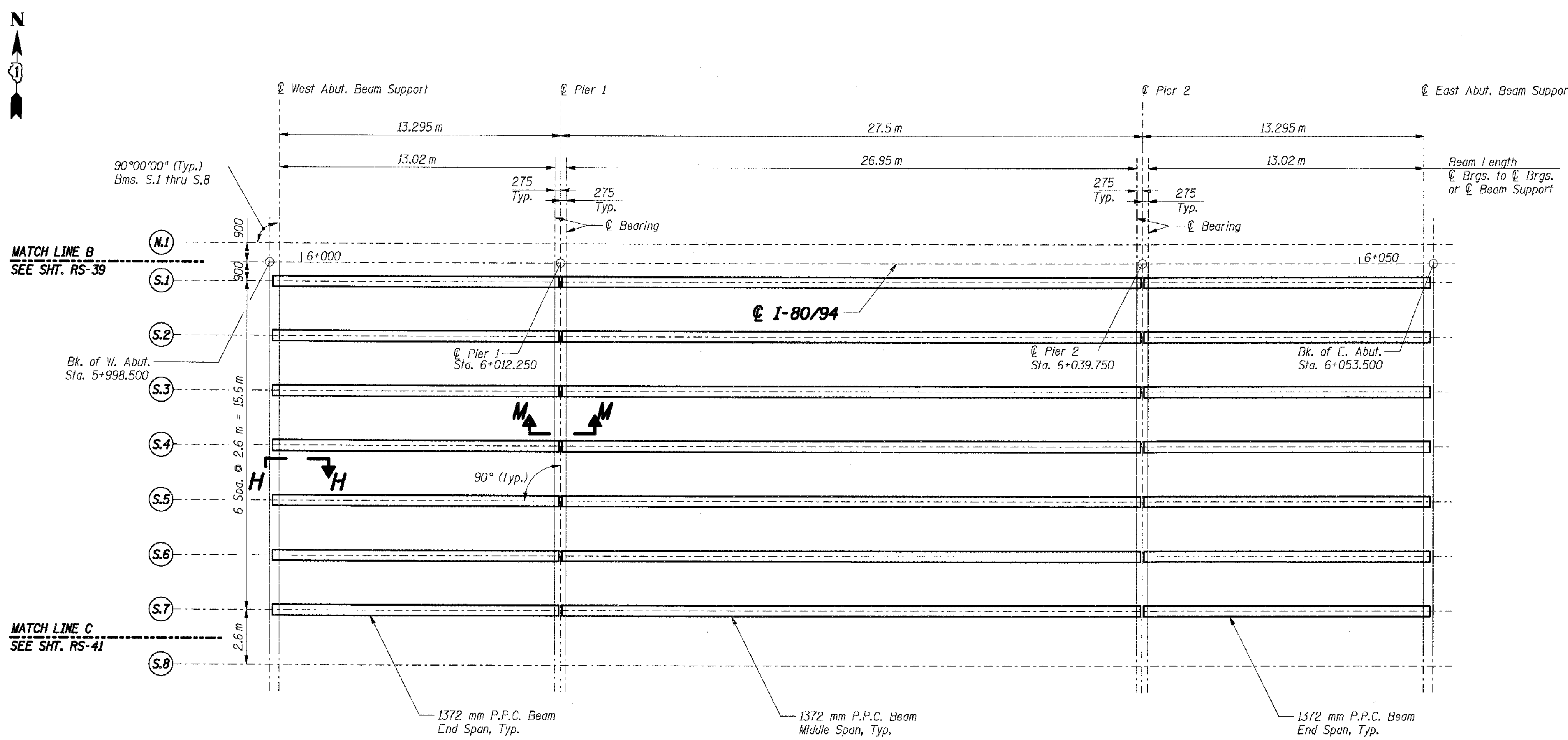
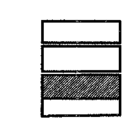
BAJZEKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	412
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



FRAMING PLAN



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. For Section H-H, see Sht. RS-28.
3. For Section M-M, see Sht. RS-32.

SHT. RS-40 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

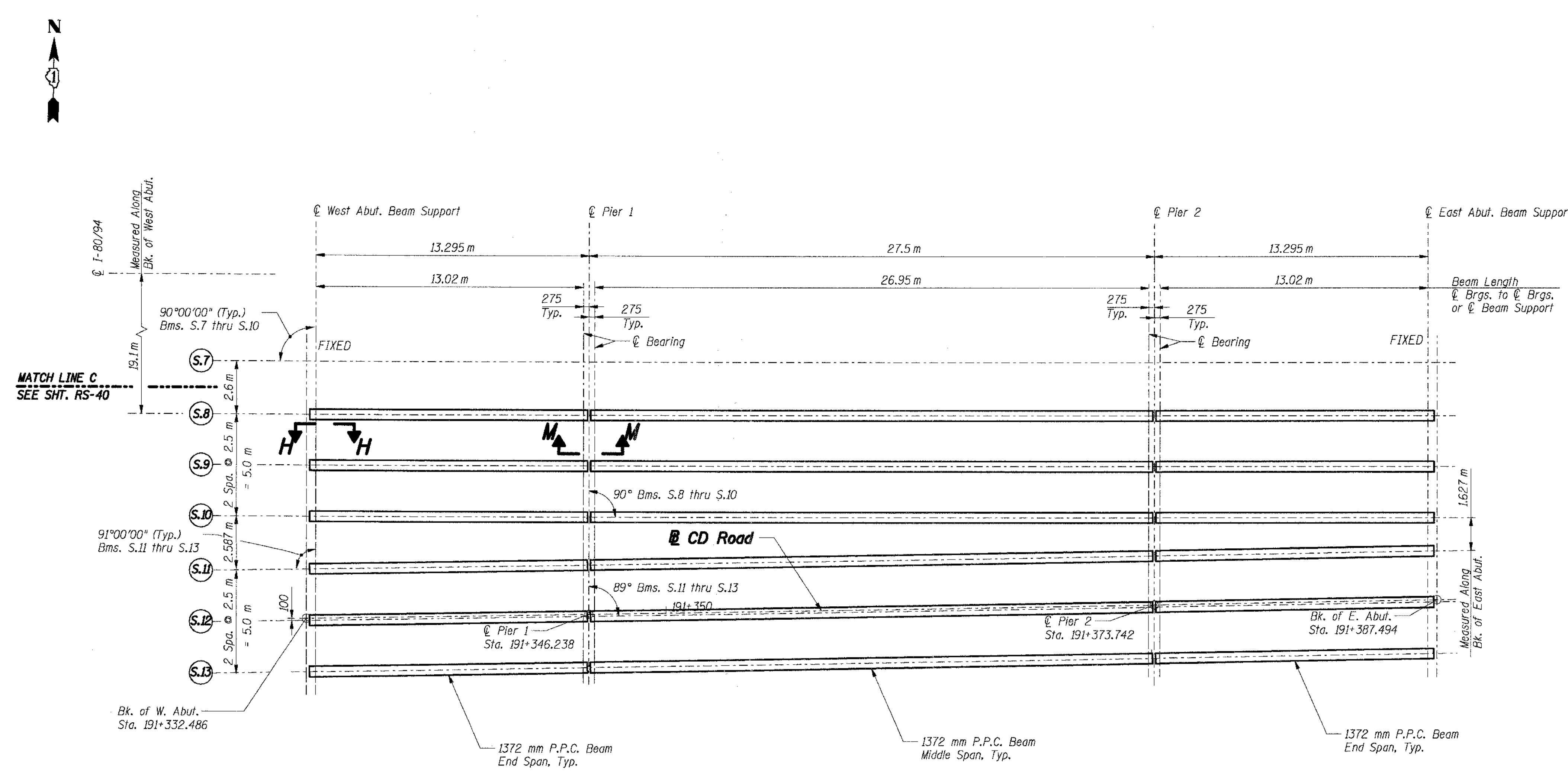
FRAMING PLAN - III

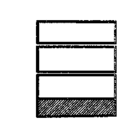
DATE: 7/18/2005
DRAWN BY: PA
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	413
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111





KEY PLAN

FRAMING PLAN

(FOR INFORMATION ONLY)
(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

THIS SHEET FOR INFORMATION ONLY

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. For Section H-H, see Sht. RS-28.
3. For Section M-M, see Sht. RS-32.

SHT. RS-41 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

FRAMING PLAN - IV

DATE: 7/18/2005
DRAWN BY: PA
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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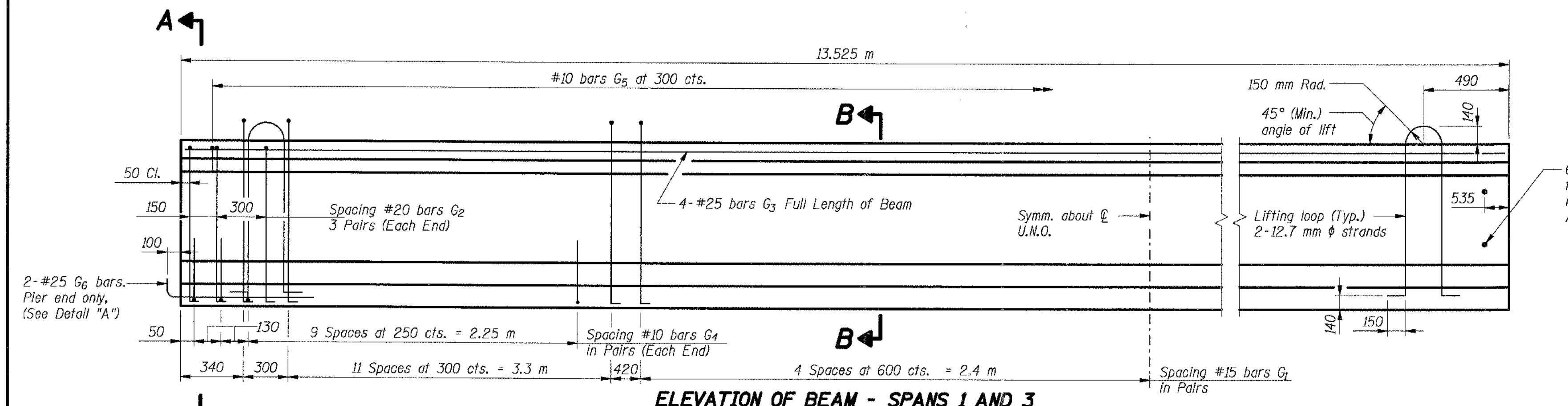
BA-ZEKKJ

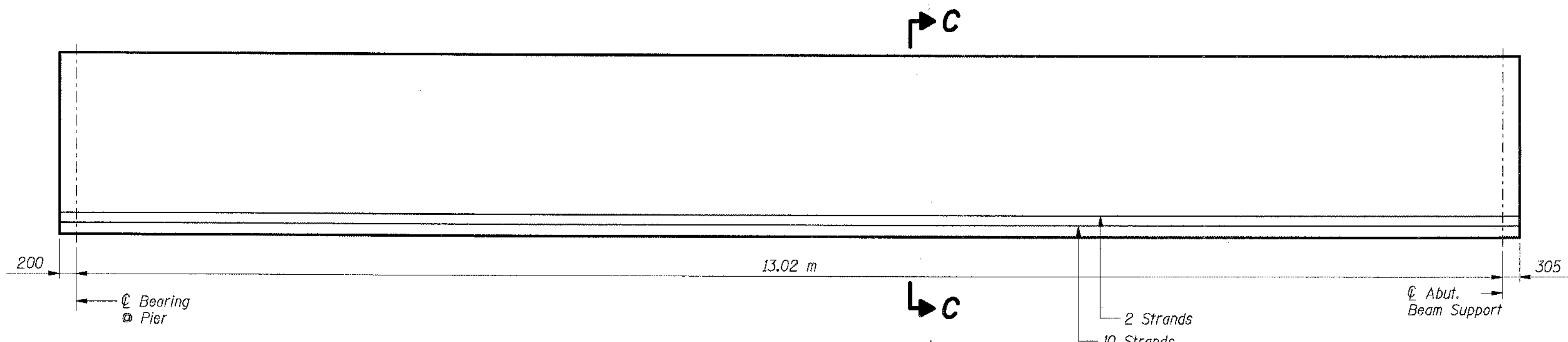
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	414
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



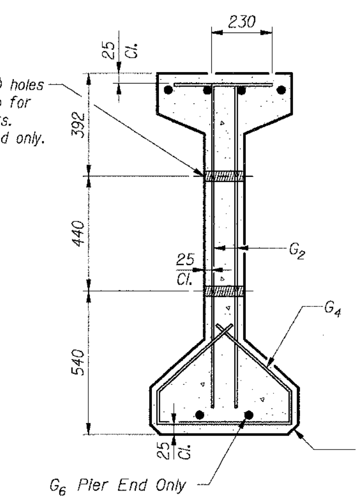
ELEVATION OF BEAM - SPANS 1 AND 3

Showing Reinforcement & Dimensions
Span 3 Shown. Span 1 Opp. Hand

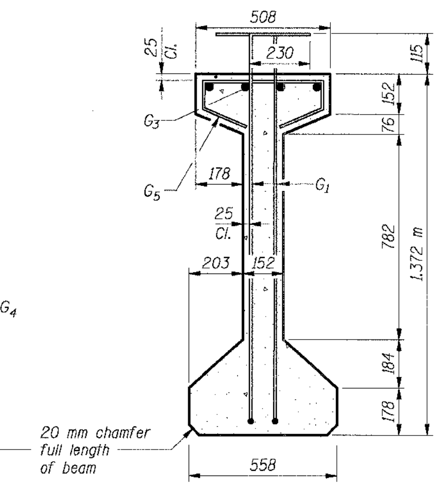


ELEVATION OF BEAM - SPANS 1 AND 3

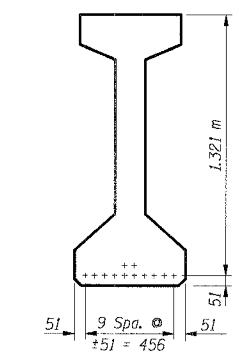
Showing prestressing strand
Span 3 Shown. Span 1 Opp. Hand



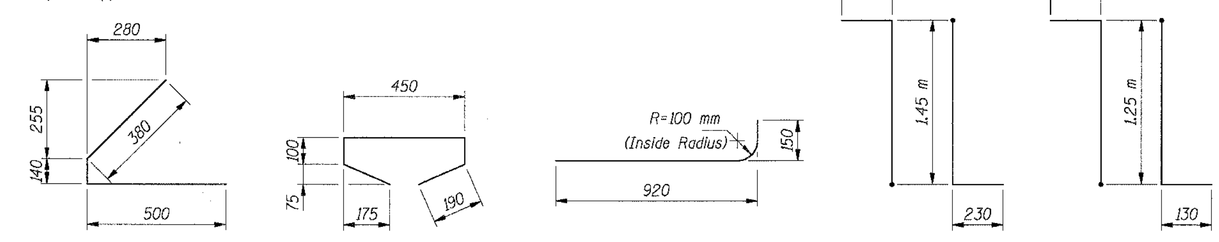
SECTION A-A



SECTION B-B



SECTION C-C



BAR G4 **BAR G5** **BAR G6** **BAR G1** **BAR G2**

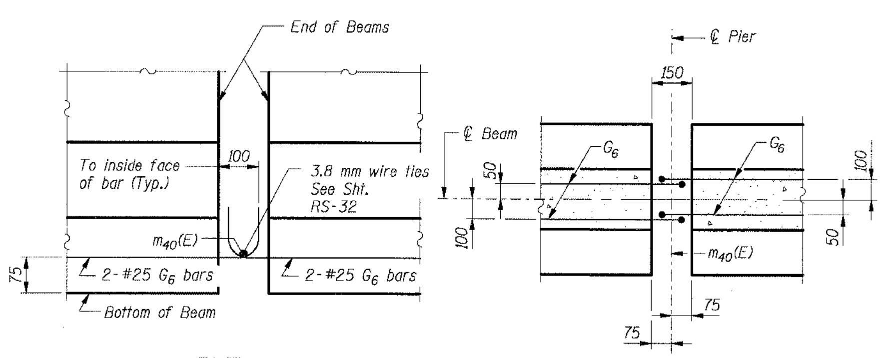
*** BAR LIST**

Bar	No.	Size	Length (m)	Shape
G_1	70	#15	1.91	⅂L
G_2	12	#20	1.61	⅂L
G_3	4	#25	13.43	—
G_4	48	#10	1.02	∠
G_5	45	#10	1.03	▽
G_6	2	#25	1.07	__)

* For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1372 mm	m	432.8



ELEVATION **PLAN**

DETAIL "A"

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. All 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, 1372 mm."
3. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand (Fu=1860 MPa).
4. The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 sq. mm .
5. Non-prestressing steel shall conform to AASHTO designation M 31M or M 322M, Grade 400.
6. Lifting loops shall be 2-12.7 mm ϕ strands (Fu=1860 MPa), as shown.
7. Required release strength, f'ci, shall be 34.5 MPa.
8. Reinforcement bars designated (E) shall be epoxy coated.
9. For bearing plates cast with beam, see Sht. RS-44.

SHT. RS-42 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

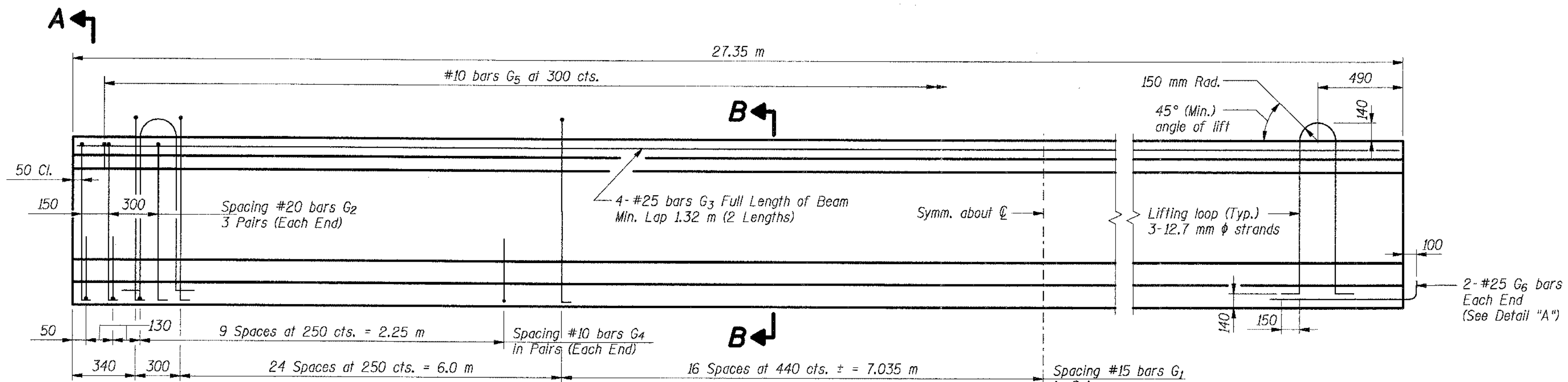
1.372 M PPC I-BEAM ELEVATION - I & DETAILS

DATE: 7/18/2005
DRAWN BY: PA
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

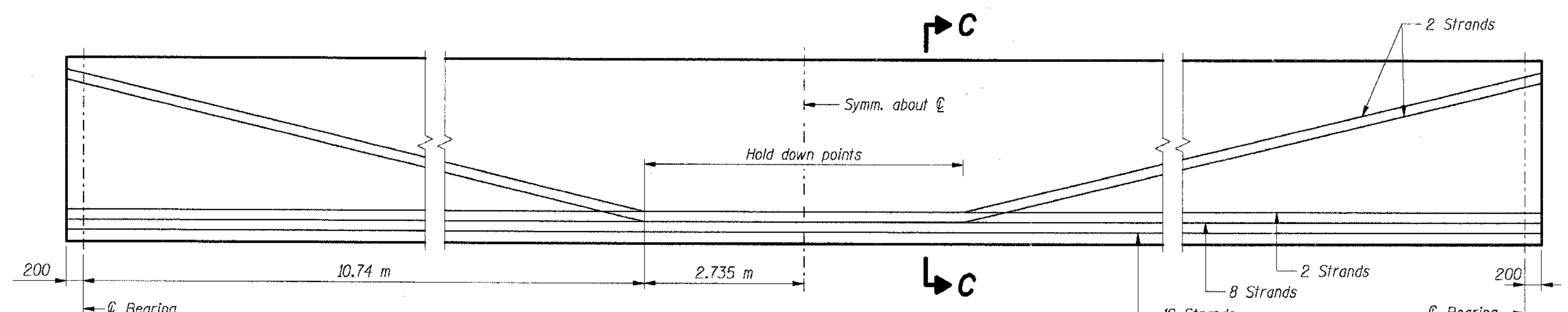
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	415
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2   CONTRACT NO. 62111



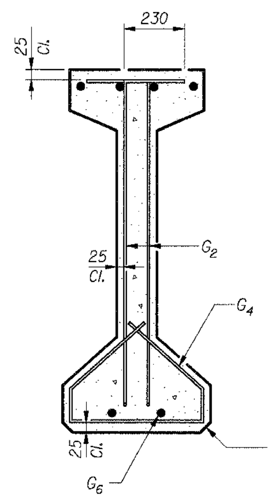
ELEVATION OF BEAM - SPAN 2

(Showing Reinforcement & Dimensions)

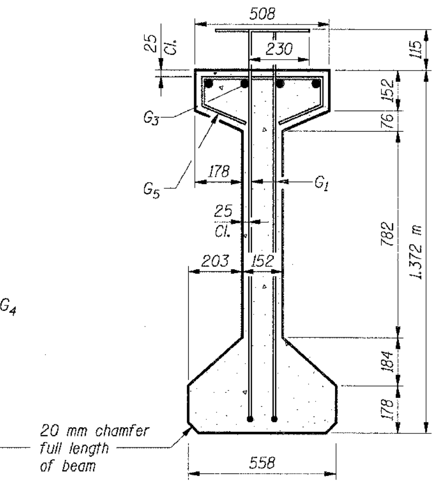


ELEVATION OF BEAM - SPAN 2

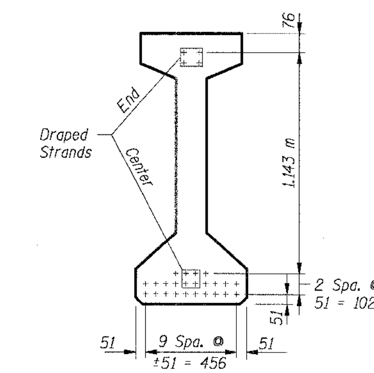
(Showing Prestressing Steel)



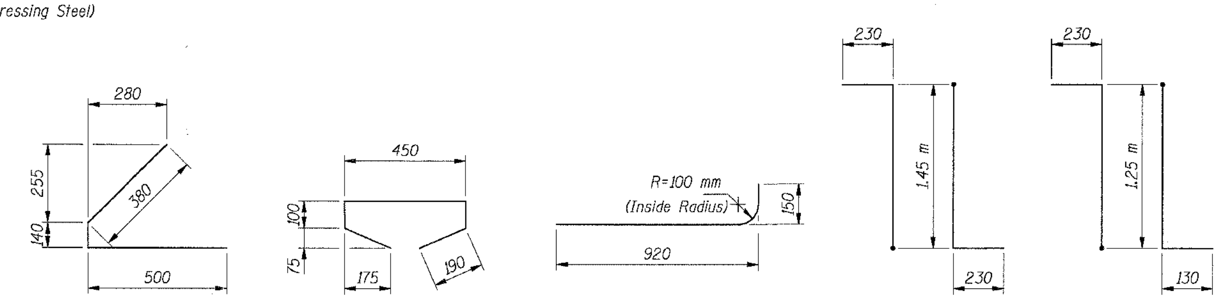
SECTION A-A



SECTION B-B



SECTION C-C



BAR G4 **BAR G5** **BAR G6** **BAR G1** **BAR G2**

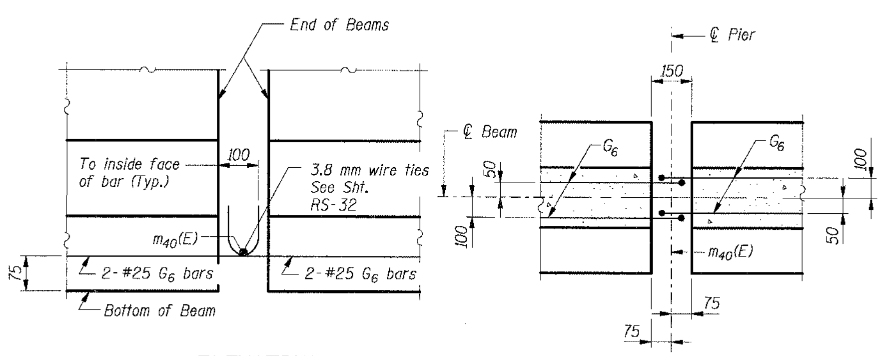
*** BAR LIST**

Bar	No.	Size	Length (m)	Shape
G_1	166	#15	1.91	
G_2	12	#20	1.61	
G_3	8	#25	14.29	
G_4	48	#10	1.02	
G_5	91	#10	1.03	
G_6	4	#25	1.07	

* For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 1372 mm	m	437.6



ELEVATION **PLAN**

DETAIL "A"

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. All 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, 1372 mm."
3. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand (Fu=1860 MPa).
4. The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 sq. mm .
5. Non-prestressing steel shall conform to AASHTO designation M 31M or M 322M, Grade 400.
6. Lifting loops shall be 3-12.7 mm ϕ strands (Fu=1860 MPa), as shown.
7. Required release strength, f'ci, shall be 34.5 MPa.
8. Reinforcement bars designated (E) shall be epoxy coated.
9. For bearing plates cast with beam, see Sht. RS-44.

SHT. RS-43 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792   STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

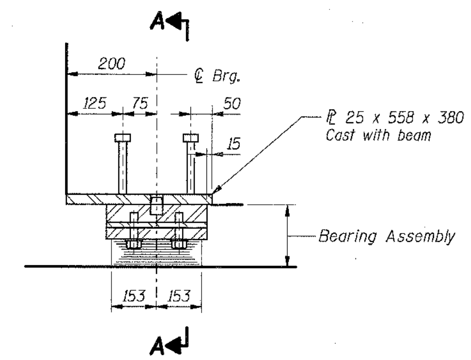
1.372 M PPC I-BEAM ELEVATION - II & DETAILS

DATE: 7/18/2005   DRAWN BY: PA   CHECKED BY: TCU

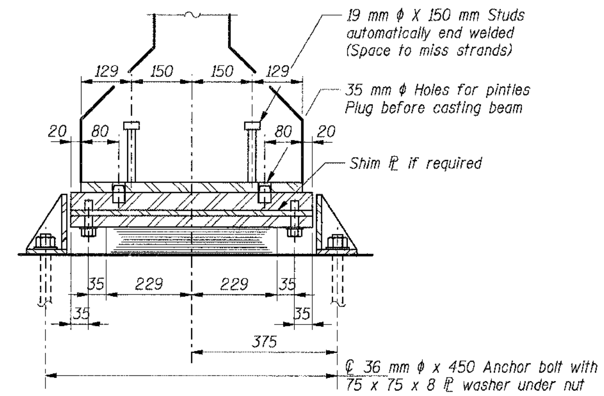
TENG   TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	416
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

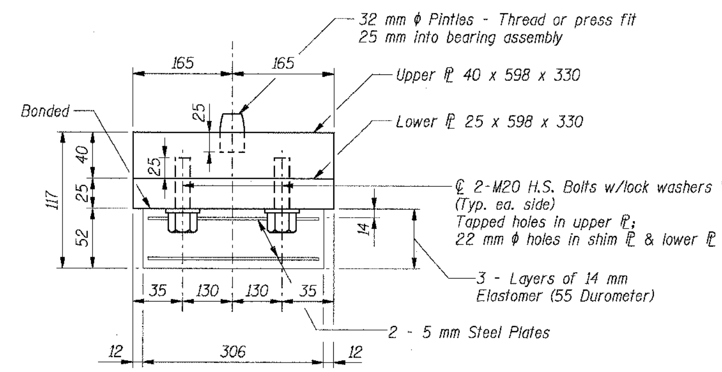


SECTION AT PIER



SECTION A-A

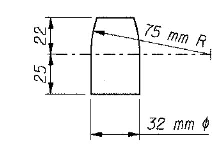
TYPE I ELASTOMERIC EXP. BRG.



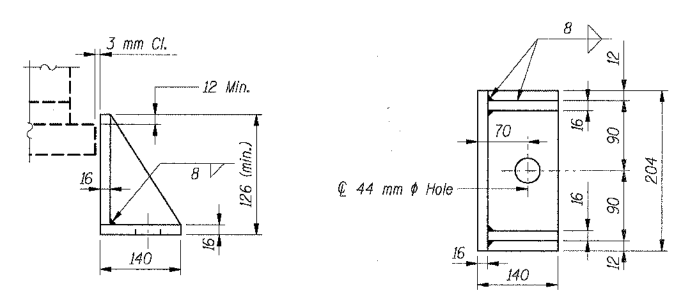
* Bolts shall engage a minimum threaded length of 20 mm in the upper bearing ℘ in installed condition.

BEARING ASSEMBLY

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



PINTLE



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	64
Furnishing and Erecting Structural Steel	kg	1,600

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Holes at expansion bearings shall be drilled and anchor bolts grouted in place after beams have been erected. See sheet RS-45 for anchor bolt installation.
3. Shim plates, anchor bolts and side retainers shall be paid separately under Furnishing and Erecting Structural Steel per kilogram.

SHT. RS-44 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

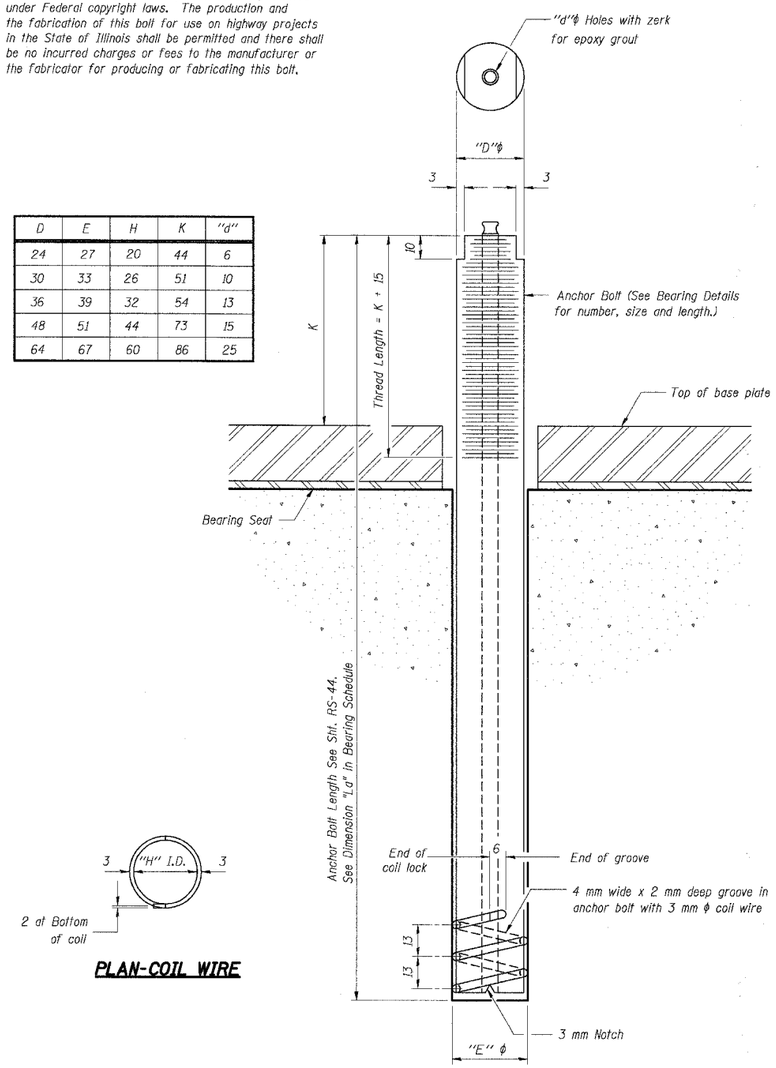
BEARING DETAILS

DATE: 7/18/2005 DRAWN BY: PA CHECKED BY: TCU

TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	417
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (2425 & 2626) R-2			CONTRACT NO. 62111	

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



PLAN-COIL WIRE

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 comforming 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
All	ASTM A449

ASTM F 1554 (Fy=724 MPa), ASTM A 449 and AASHTO M 314 (Fy=724 MPa) anchor rods 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.

ABB-1 (M) 4-30-99

SHT. RS-45 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

ANCHOR BOLT DETAILS

DATE: 7/18/2005 DRAWN BY: PA CHECKED BY: TCU

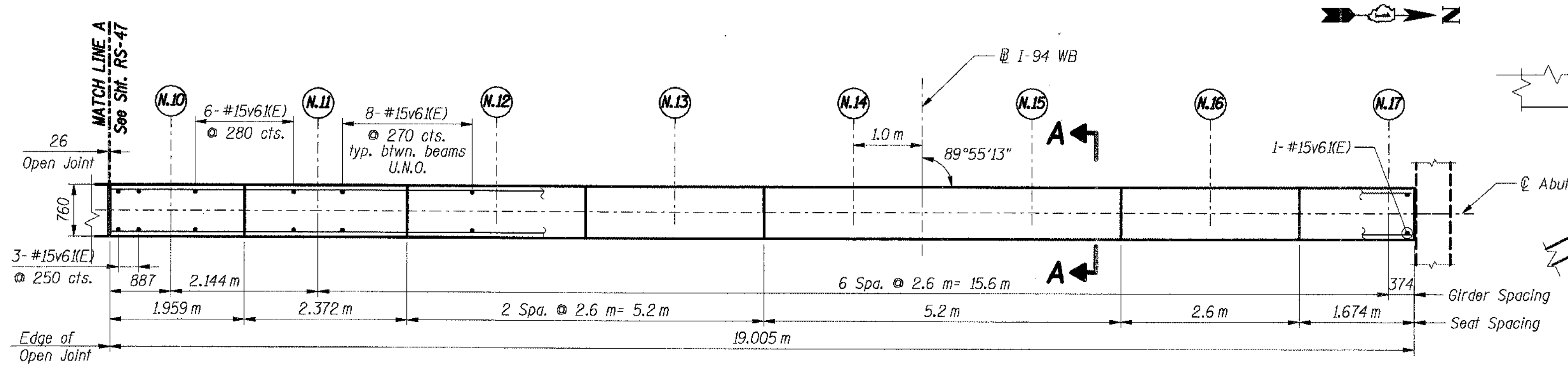
TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

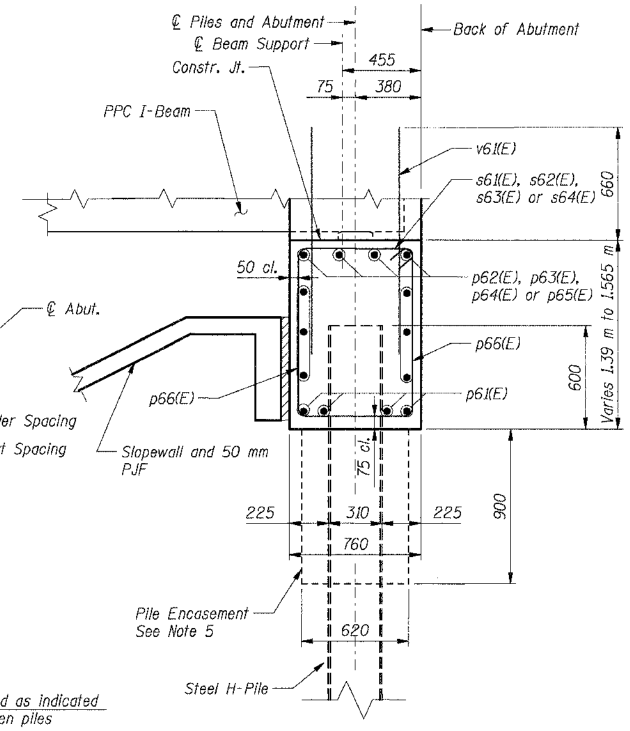
\ABB99R032A.DGN, \ABB99002A.DGN
7-12-2005 10:25:54 T:\DOCUMENT\163750\STRUCT\DGN\BR173032A.DGN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
BAJZEK,J

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	418
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



TOP VIEW



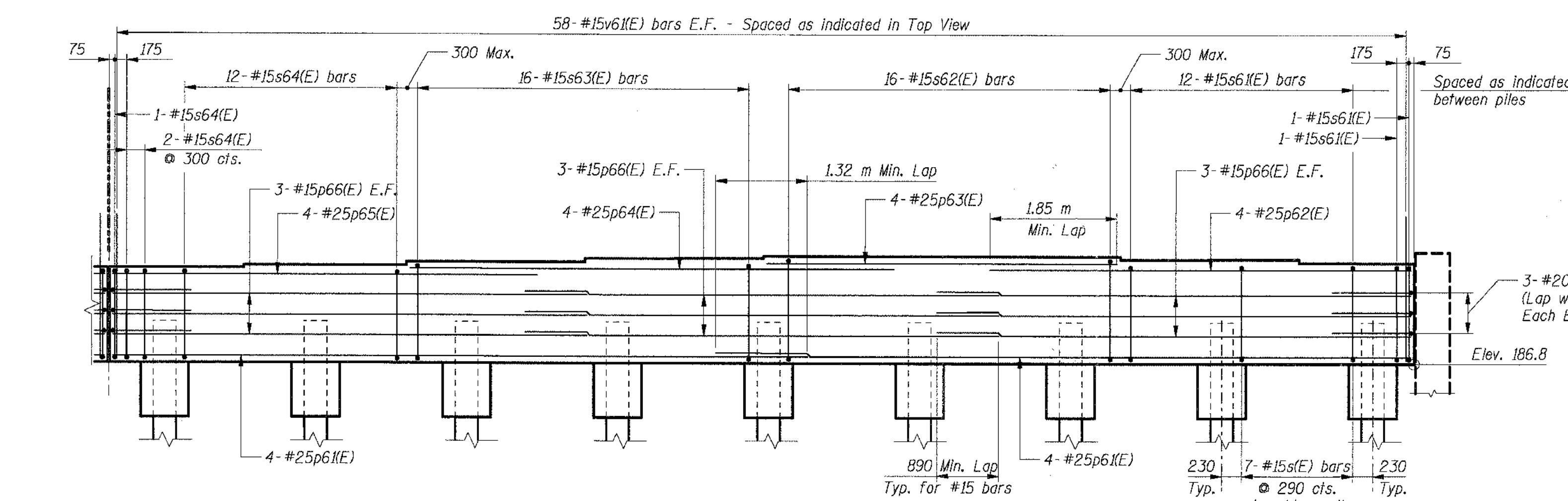
SECTION A-A

BAR LIST

Bar	No.	Size	Length (m)	Shape
p61(E)	8	#25	10.12	——
p62(E)	4	#25	6.13	——
p63(E)	4	#25	5.10	——
p64(E)	4	#25	7.05	——
p65(E)	4	#25	6.19	——
p66(E)	18	#15	6.90	——
s61(E)	15	#15	4.28	◻
s62(E)	16	#15	4.46	◻
s63(E)	16	#15	4.30	◻
s64(E)	14	#15	4.12	◻
u71(E)	6	#20	2.85	⊔
v61(E)	116	#15	1.32	——

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	21.7
Reinforcement Bars, Epoxy Coated	kg	1,590
Structure Excavation	Cu m	2



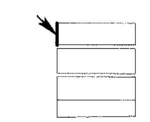
ELEVATION (Looking West)

BEARING SEAT ELEVATIONS

Girder	West Abutment	Steps
N.10	188.190	40
N.11	188.230	50
N.12	188.280	55
N.13	188.335	30
N.14	188.365	0
N.15	188.365	40
N.16	188.325	50
N.17	188.275	

PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 26 m
No. Required: 9

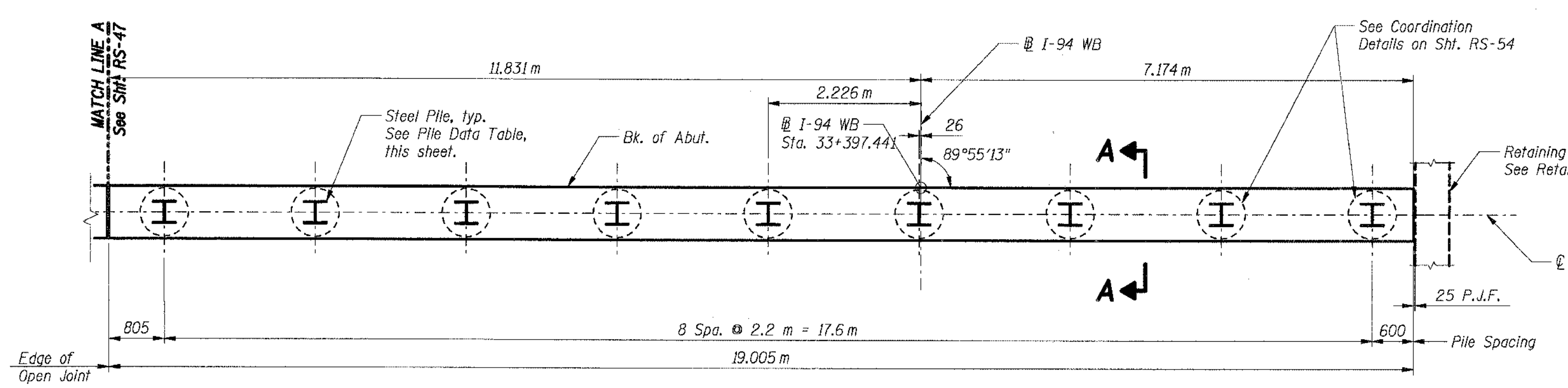


KEY PLAN

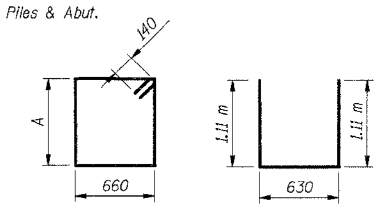
Bar	A (m)
s61(E)	1.34
s62(E)	1.43
s63(E)	1.35
s64(E)	1.26

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheet RS-47.
5. For Pile Encasement details, see sheet RS-3.



FOOTING PLAN



bar s61(E) thru bar s64(E)

bar u71(E)

THIS SHEET FOR INFORMATION ONLY

SHT. RS-46 OF 70

REVISIONS	
NAME	DATE

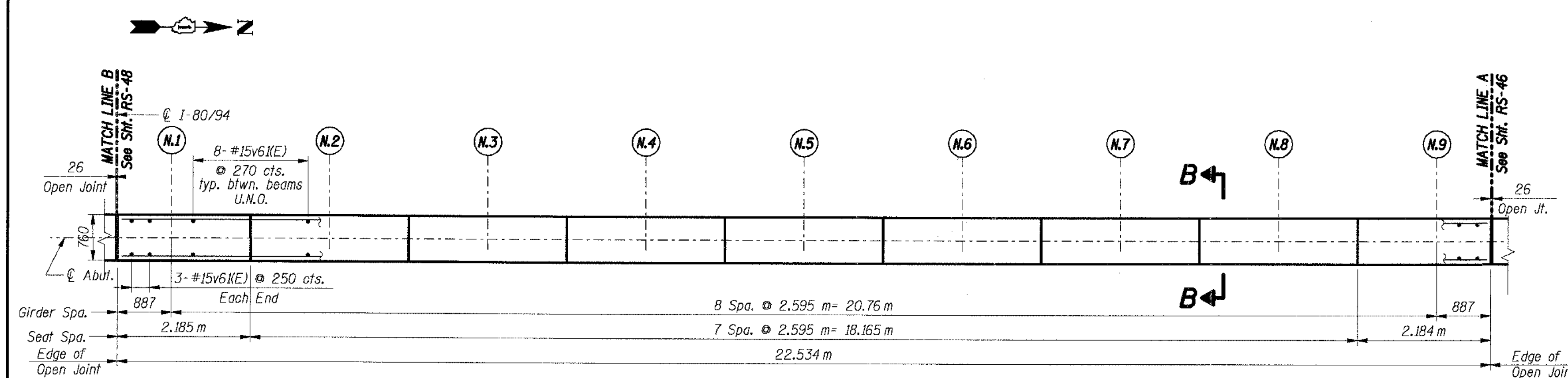
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

WEST ABUTMENT
PLAN, ELEVATION & SECTION - I

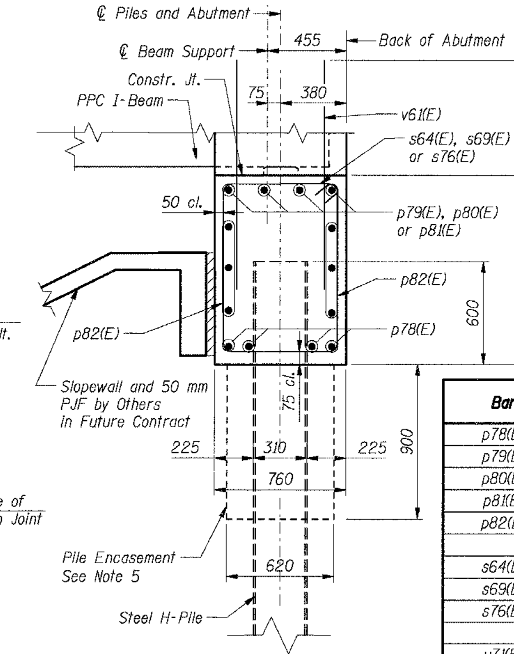
DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	419
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (2425 & 2626) R-2			CONTRACT NO. 62111	



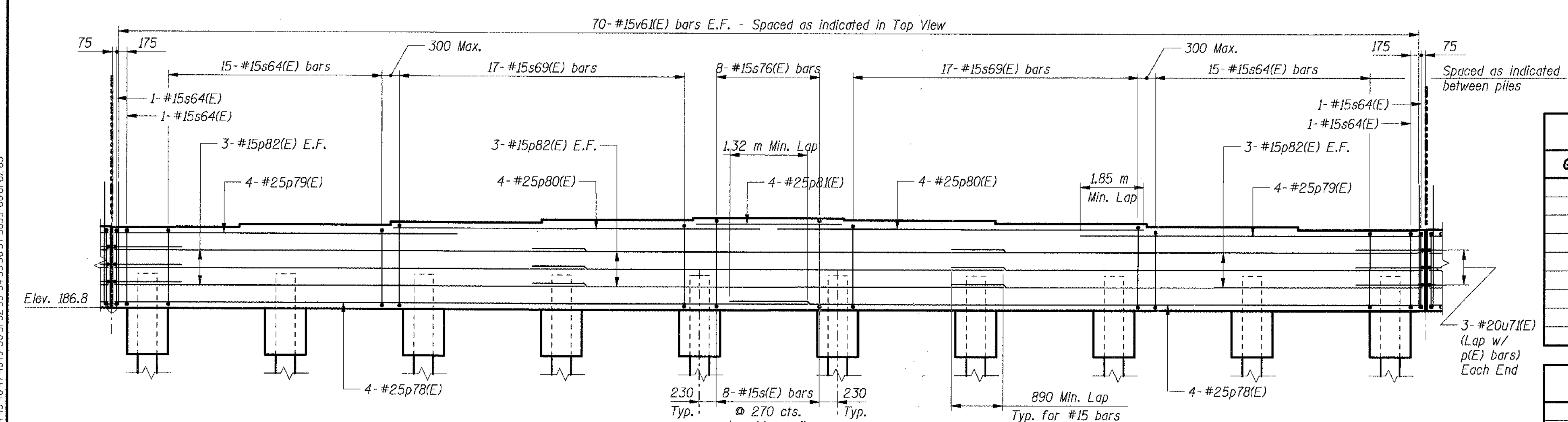
TOP VIEW



SECTION B-B

BAR LIST

Bar	No.	Size	Length (m)	Shape
p78(E)	8	#25	11.88	——
p79(E)	8	#25	6.58	——
p80(E)	8	#25	6.99	——
p81(E)	4	#25	2.49	——
p82(E)	18	#15	8.07	——
s64(E)	34	#15	4.12	◻
s69(E)	34	#15	4.32	◻
s76(E)	8	#15	4.50	◻
u71(E)	6	#20	2.85	⊔
v61(E)	140	#15	1.32	——



ELEVATION (Looking West)

BEARING SEAT ELEVATIONS

Girder	West Abutment	Steps
N.1	188.190	
N.2	188.240	50
N.3	188.290	50
N.4	188.340	50
N.5	188.375	35
N.6	188.340	35
N.7	188.290	50
N.8	188.240	50
N.9	188.190	50

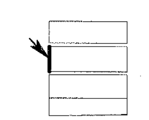
Bar	A (m)
s64(E)	1.26
s69(E)	1.36
s76(E)	1.45

BILL OF MATERIAL

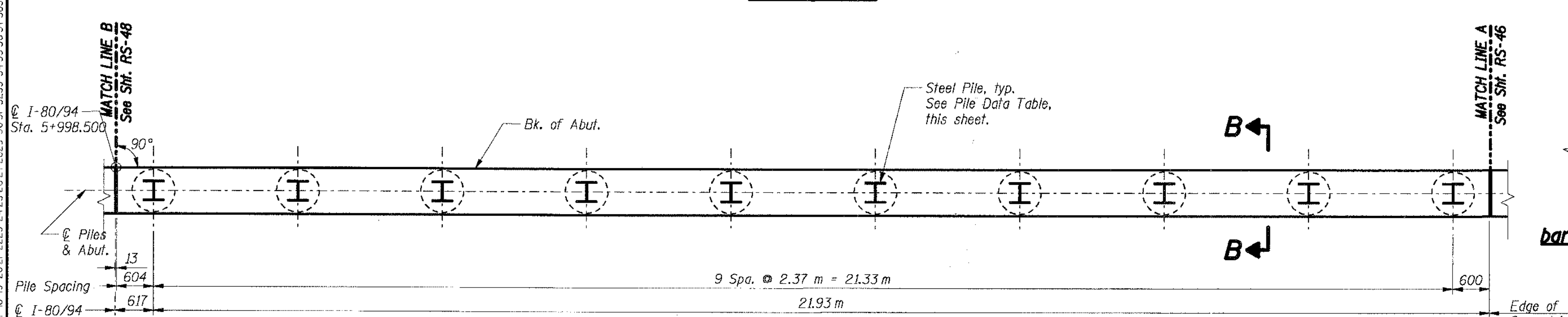
Item	Unit	Total
Concrete Structures	Cu m	25.4
Reinforcement Bars, Epoxy Coated	kg	1,900
Structure Excavation	Cu m	269

PILE DATA

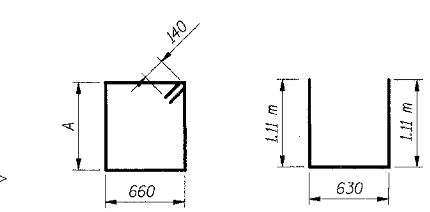
Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 26 m
No. Required: 9 + 1 Test Pile



KEY PLAN



FOOTING PLAN



bars s64(E), s69(E) and s76(E) **bar u71(E)**

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheets RS-46 and RS-48.
5. For Pile Encasement details, see sheet RS-3.

SHT. RS-47 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

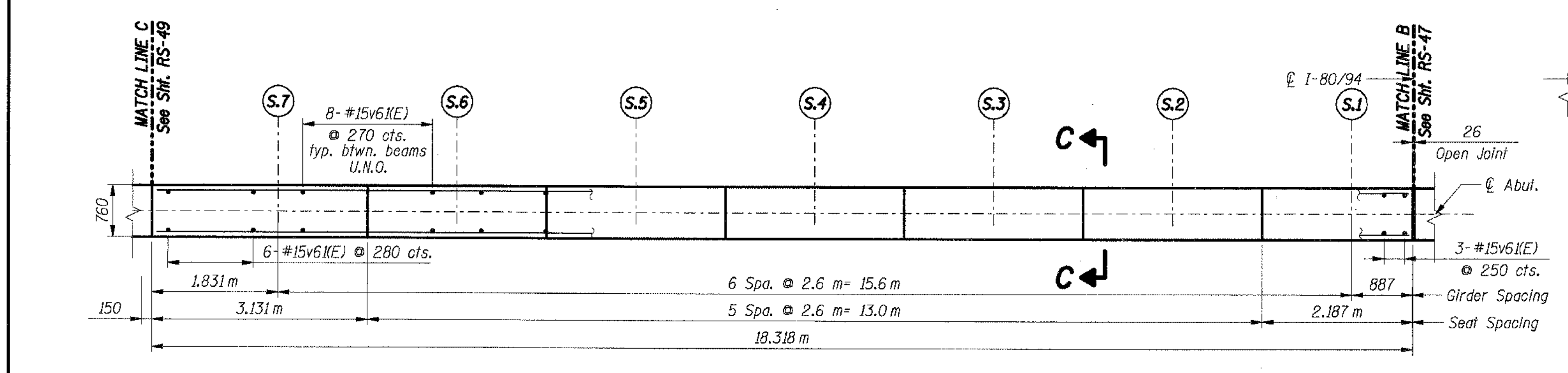
WEST ABUTMENT
PLAN, ELEVATION & SECTION - II

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

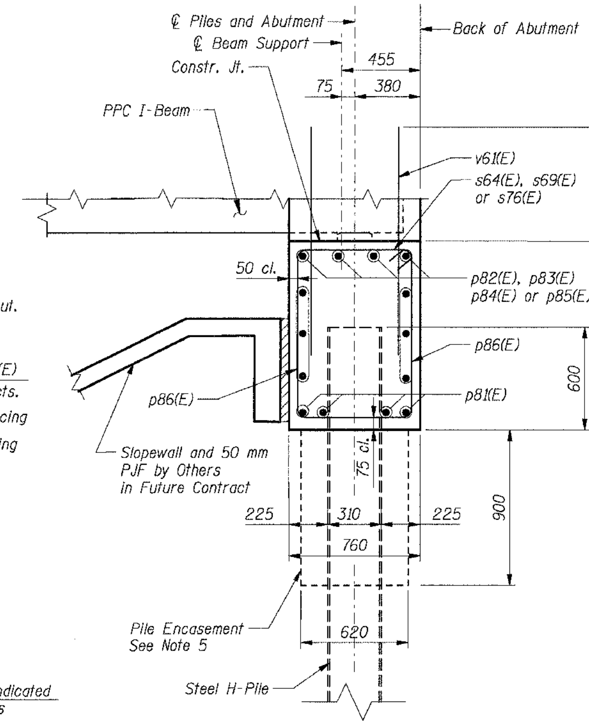
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	420
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



TOP VIEW



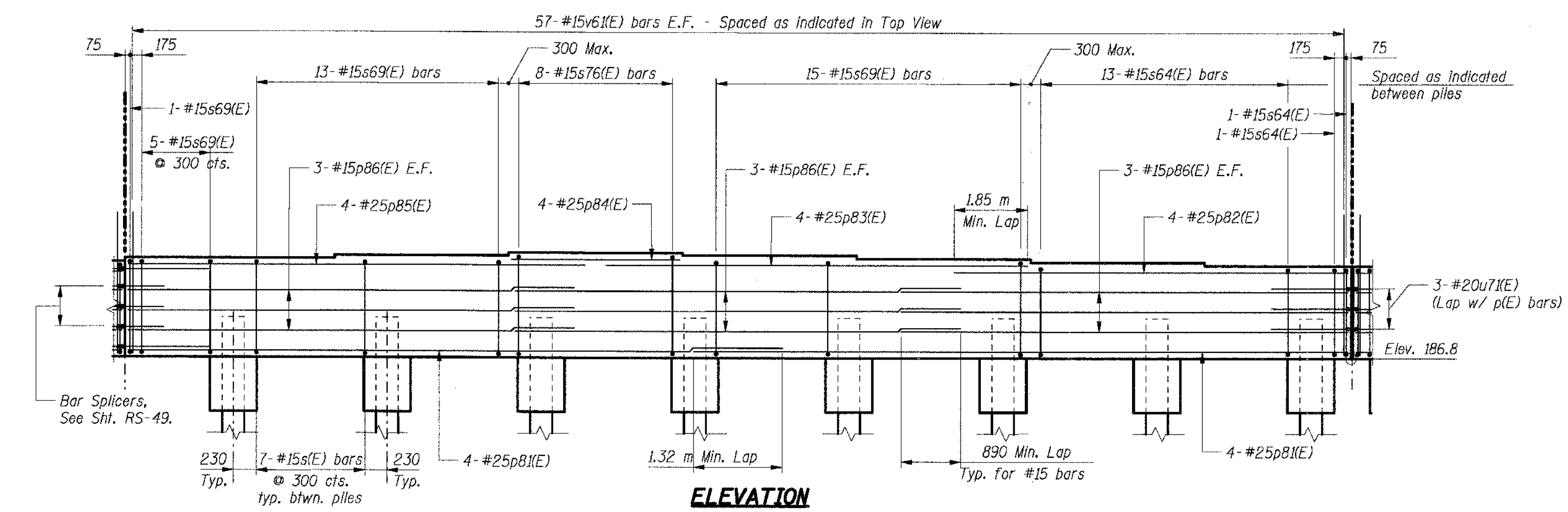
SECTION C-C

BAR LIST

Bar	No.	Size	Length (m)	Shape
p81(E)	8	#25	9.77	——
p82(E)	4	#25	6.59	——
p83(E)	4	#25	7.00	——
p84(E)	4	#25	2.50	——
p85(E)	4	#25	7.53	——
p86(E)	18	#15	6.67	——
s64(E)	15	#15	4.12	◻
s69(E)	34	#15	4.32	◻
s76(E)	8	#15	4.50	◻
u71(E)	3	#20	2.85	⊔
v61(E)	114	#15	1.32	——

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	20.8
Reinforcement Bars, Epoxy Coated	kg	1,510
Structure Excavation	Cu m	317

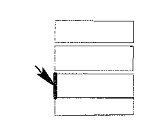


ELEVATION
(Looking West)

BEARING SEAT ELEVATIONS		
Girder	West Abutment	Steps
S.7	188.290	
S.6	188.335	45
S.5	188.375	40
S.4	188.340	35
S.3	188.290	50
S.2	188.240	50
S.1	188.190	50

PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 26 m
No. Required: 8

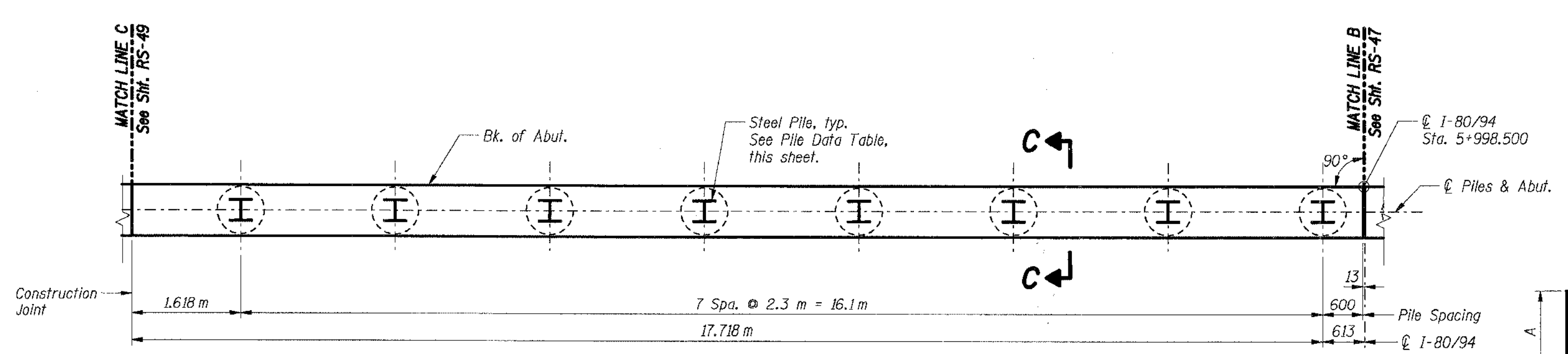


KEY PLAN

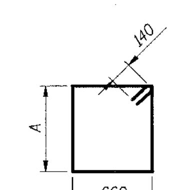
Bar	A (m)
s64(E)	1.26
s69(E)	1.36
s76(E)	1.45

Notes:

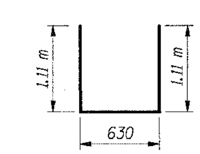
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheets RS-47 and RS-49.
5. For Pile Encasement details, see sheet RS-3.
6. For Bar Splicer details, see sheet RS-66.



FOOTING PLAN



bars s64(E), s69(E) and s76(E)



bar u71(E)

SHT. RS-48 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

WEST ABUTMENT
PLAN, ELEVATION & SECTION - III

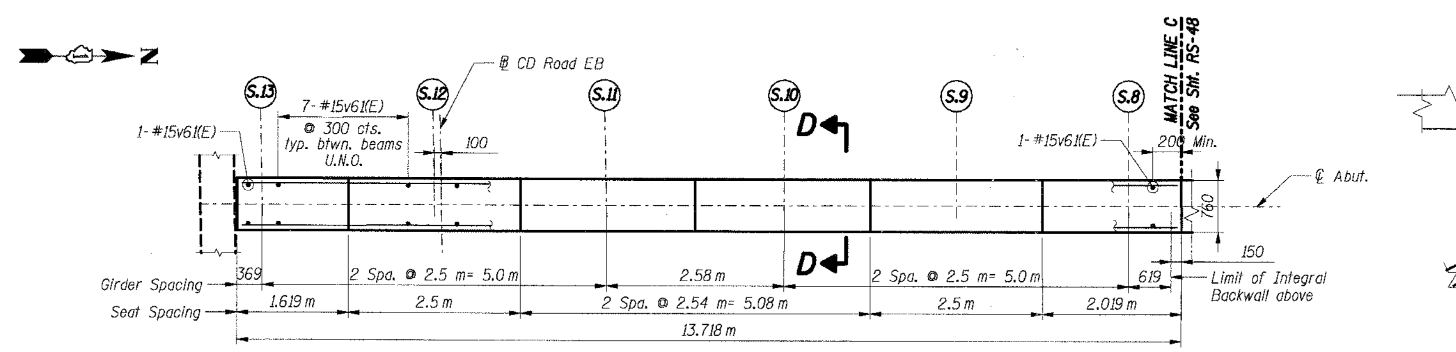
DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

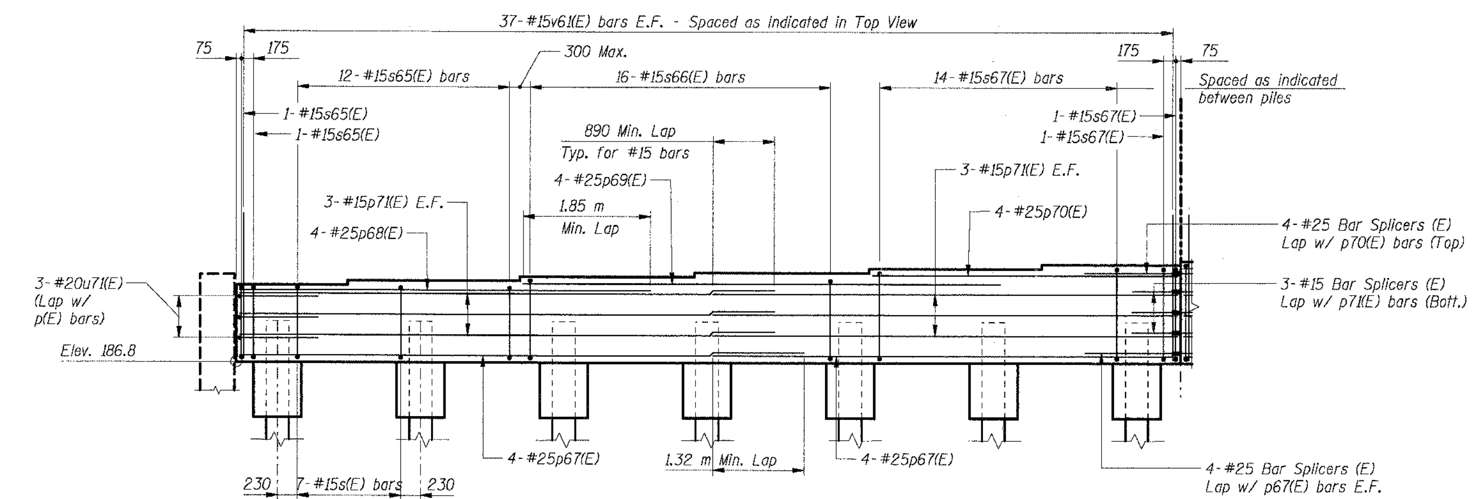
BAZEKK
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	421
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

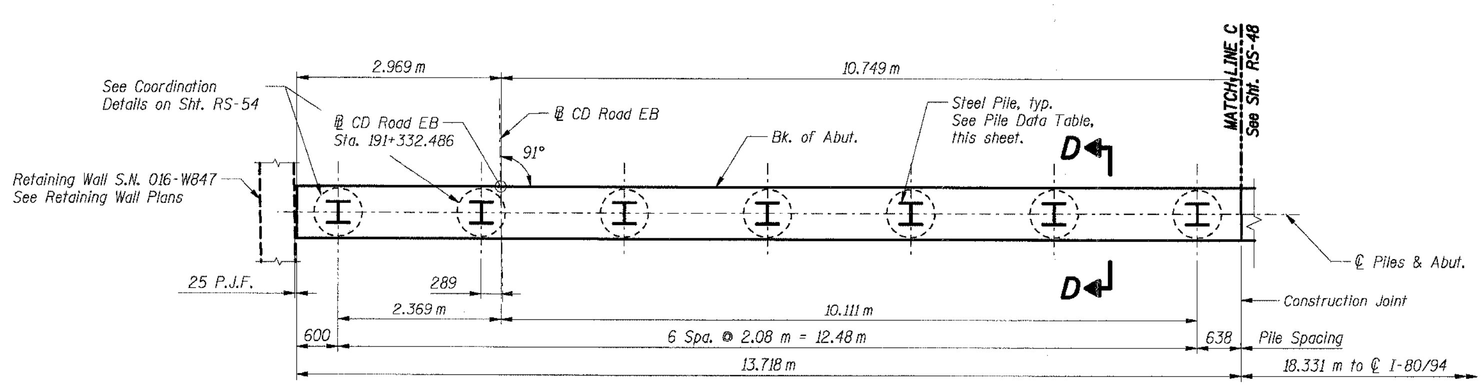
* (2425 & 2626) R-2 CONTRACT NO. 62111



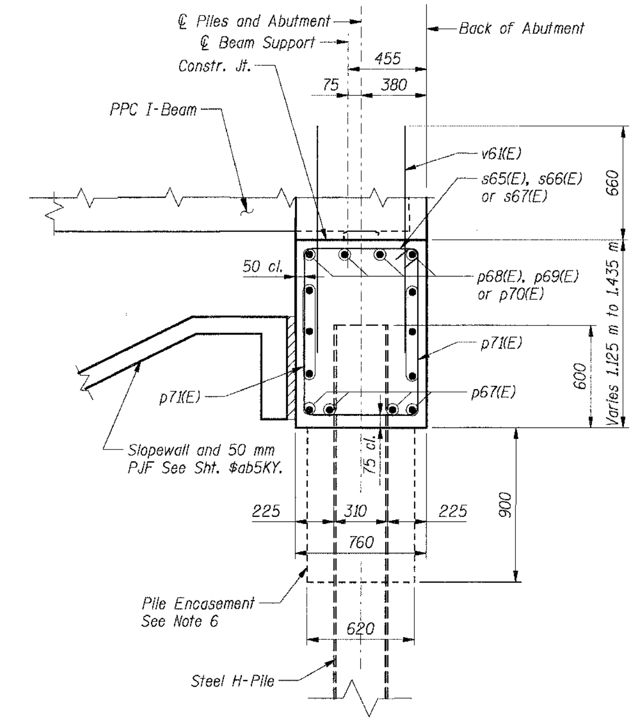
TOP VIEW



ELEVATION (Looking West)



FOOTING PLAN



SECTION D-D

BAR LIST

Bar	No.	Size	Length (m)	Shape
p67(E)	8	#25	7.47	——
p68(E)	4	#25	5.97	——
p69(E)	4	#25	6.93	——
p70(E)	4	#25	4.45	——
p71(E)	12	#15	7.26	——
s65(E)	14	#15	3.58	◻
s66(E)	16	#15	3.84	◻
s67(E)	16	#15	4.08	◻
u71(E)	3	#20	2.85	⊔
v61(E)	74	#15	1.32	——

BILL OF MATERIAL

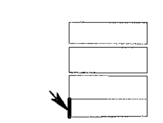
Item	Unit	Total
Concrete Structures	Cu m	13.4
Reinforcement Bars, Epoxy Coated	kg	1,090
Structure Excavation	Cu m	62
Bar Splicers	Ea	14

BEARING SEAT ELEVATIONS

Girder	West Abutment	Steps
S.13	187.925	65
S.12	187.990	60
S.11	188.050	60
S.10	188.110	65
S.9	188.175	60
S.8	188.235	

PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 26 m
No. Required: 6 + 1 Test Pile

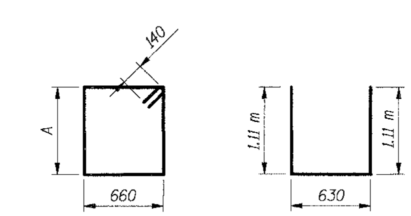


KEY PLAN

Bar	A
s65(E)	990
s66(E)	1.12 m
s67(E)	1.24 m

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheet RS-48.
5. For Bar Splicer details, see sheet RS-66.
6. For Pile Encasement details, see sheet RS-3.



bar s65(E) thru bar s67(E)

bar u71(E)

SHT. RS-49 OF 70

REVISIONS	
NAME	DATE

THIS SHEET FOR INFORMATION ONLY

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

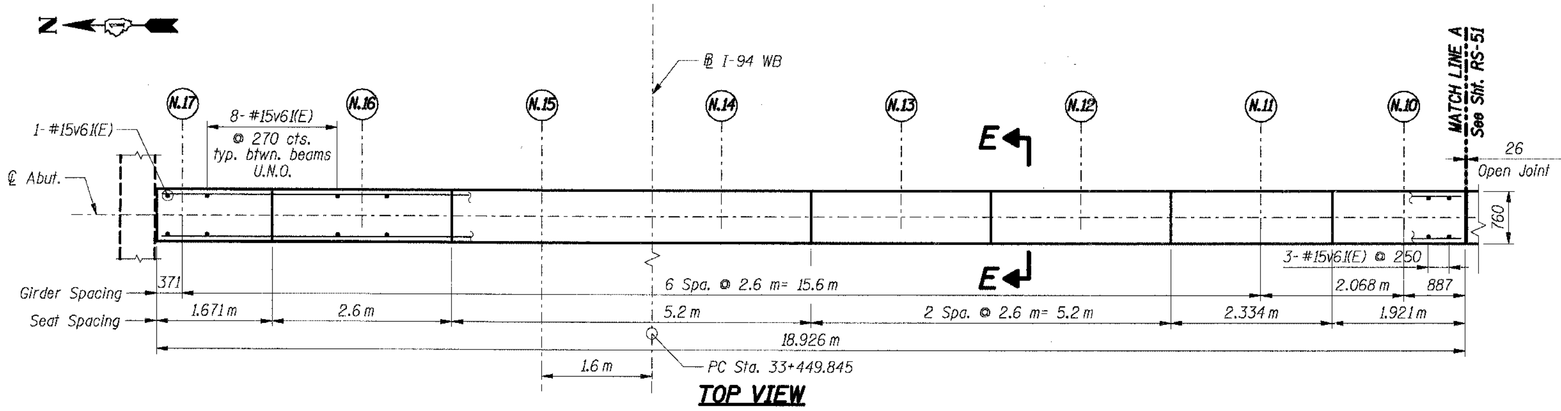
WEST ABUTMENT PLAN, ELEVATION & SECTION - IV

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

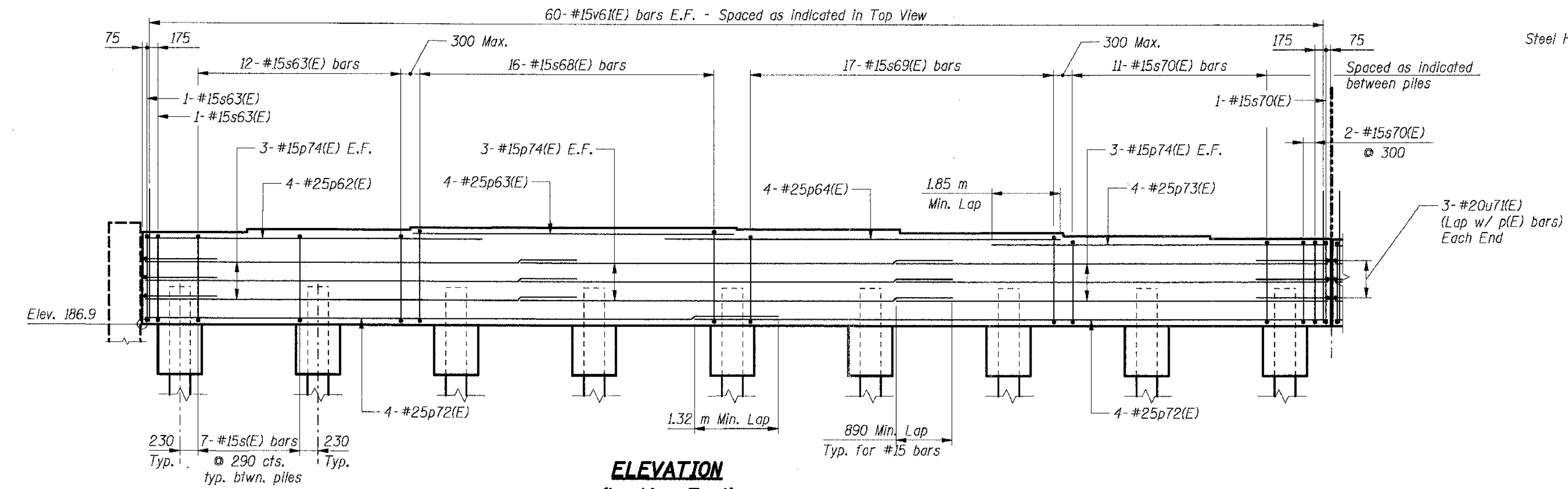
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	422
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

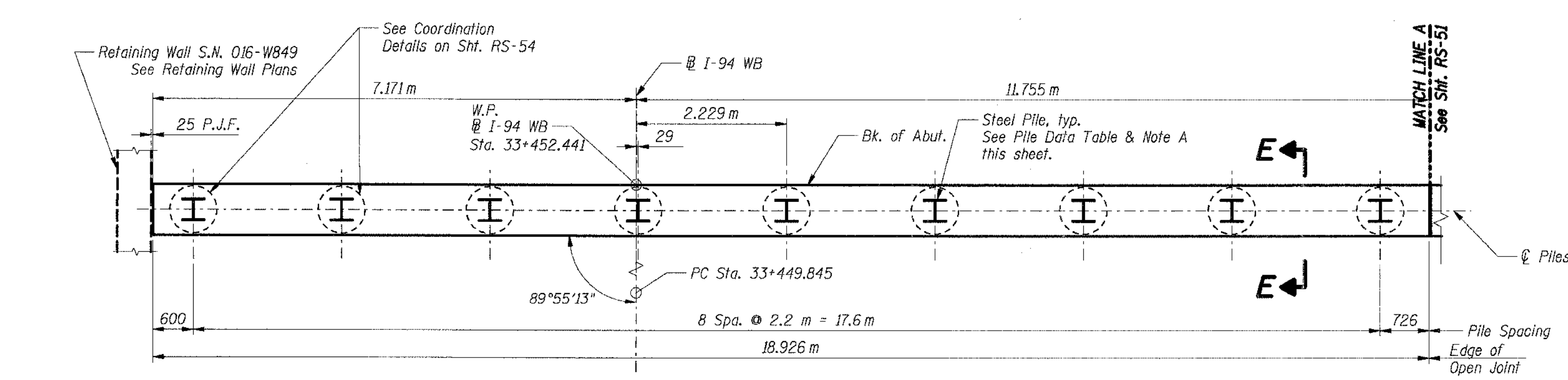
* (2425 & 2626) R-2 CONTRACT NO. 62111



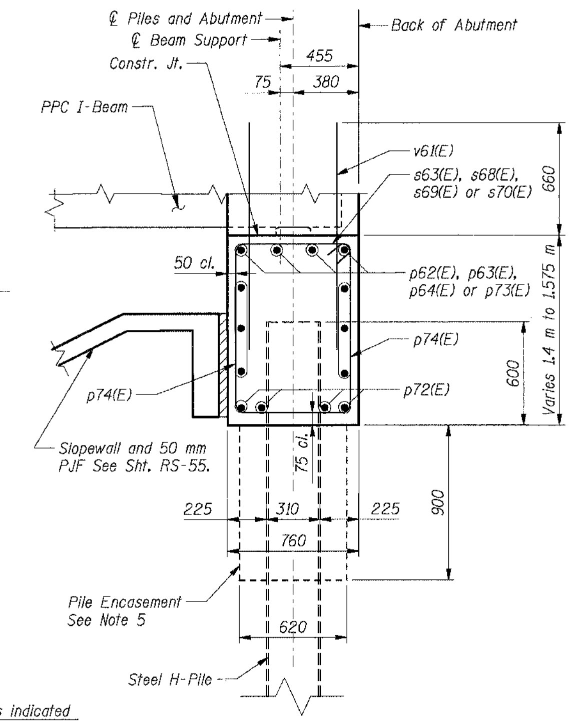
TOP VIEW



ELEVATION
(Looking East)



FOOTING PLAN



SECTION E-E

BAR LIST

Bar	No.	Size	Length (m)	Shape
p62(E)	4	#25	6.13	——
p63(E)	4	#25	5.10	——
p64(E)	4	#25	7.05	——
p72(E)	8	#25	10.08	——
p73(E)	4	#25	6.11	——
p74(E)	18	#15	6.87	——
s63(E)	14	#15	4.30	◻
s68(E)	16	#15	4.48	◻
s69(E)	17	#15	4.32	◻
s70(E)	13	#15	4.14	◻
u71(E)	6	#20	2.85	⊔
v61(E)	120	#15	1.32	——

BILL OF MATERIAL

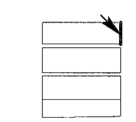
Item	Unit	Total
Concrete Structures	Cu m	21.7
Reinforcement Bars, Epoxy Coated	kg	1,590
Structure Excavation	Cu m	0

BEARING SEAT ELEVATIONS		
Girder	East Abutment	Steps
N.17	188.385	50
N.16	188.435	40
N.15	188.475	0
N.14	188.475	30
N.13	188.445	55
N.12	188.390	50
N.11	188.340	40
N.10	188.300	

Bar	A (m)
s63(E)	1.35
s68(E)	1.44
s69(E)	1.36
s70(E)	1.27

PILE DATA
(See Note A below)

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 27 m
No. Required: 9

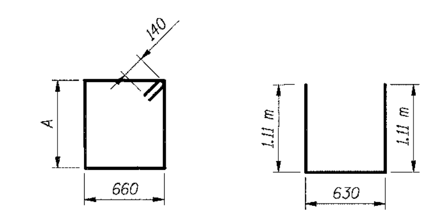


KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheet RS-51.
5. For Pile Encasement details, see sheet RS-3.

NOTE A:
Pile driving shall not begin until full embankment has been in place for at least 60 days



bars s63(E), s68(E), s69(E) and s70(E)

bar u71(E)

SHT. RS-50 OF 70

REVISIONS	
NAME	DATE

THIS SHEET FOR INFORMATION ONLY

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

EAST ABUTMENT
PLAN, ELEVATION & SECTION - I

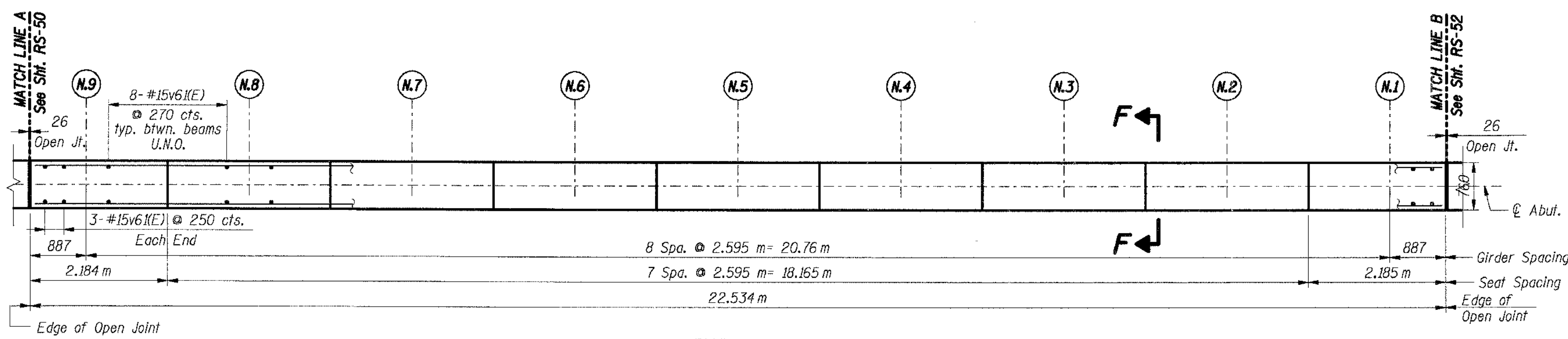
DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

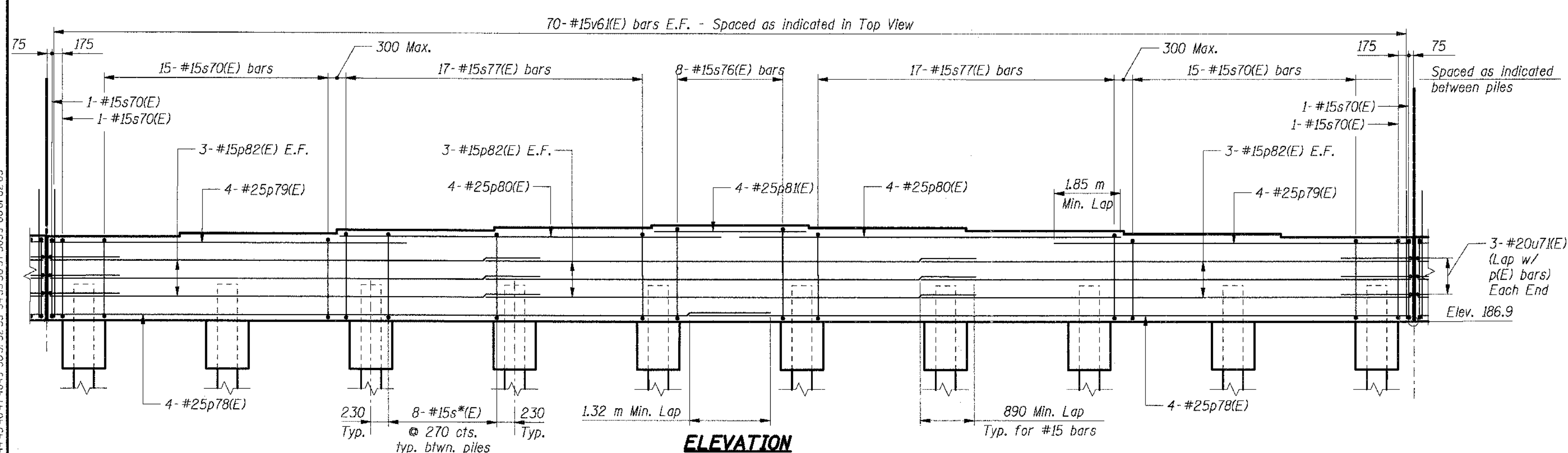
..\AB99R032A.DGN, ..\AB99M402A.DGN, ..\AB99M412A.DGN, ..\HR99R022A.DGN, ..\AB99D012A.DGN, ..\SL99R042A.DGN
7-12-2005, 10:25:58 T:\DOCUMENT\93750\STRUCT\DGN\AB172A.DGN
BAJZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	423
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

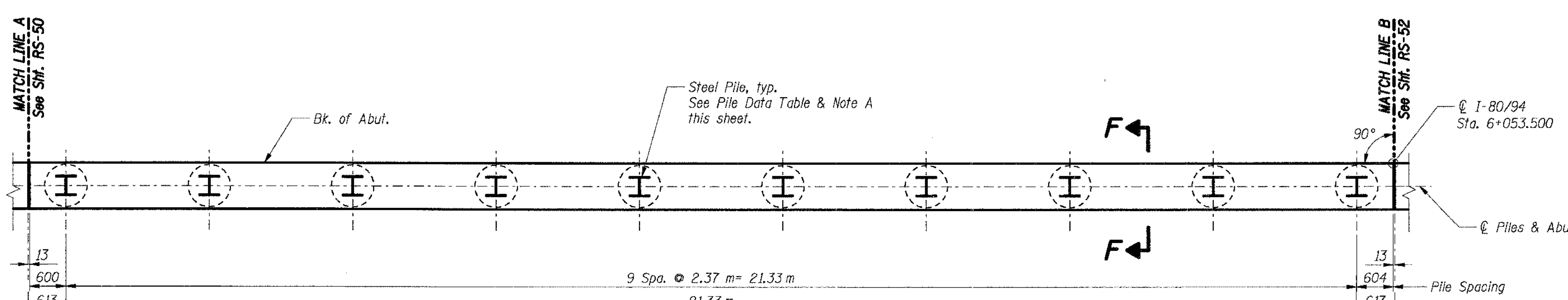


TOP VIEW

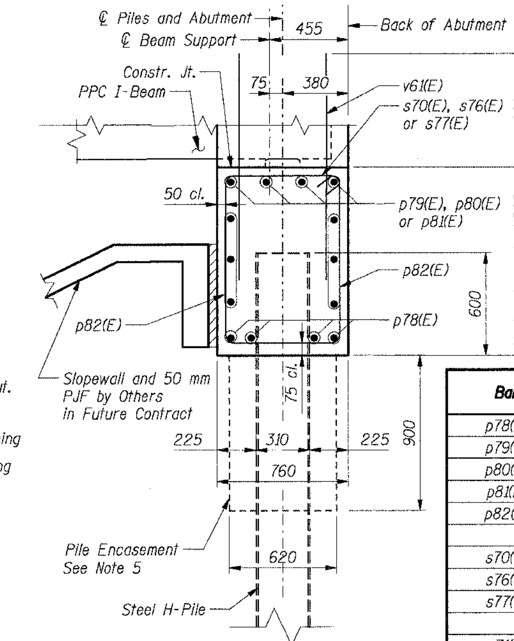


ELEVATION (Looking East)

*s105(E) or s106(E)



FOOTING PLAN



SECTION F-F

BAR LIST

Bar	No.	Size	Length (m)	Shape
p78(E)	8	#25	11.88	——
p79(E)	8	#25	6.58	——
p80(E)	8	#25	6.99	——
p81(E)	4	#25	2.49	——
p82(E)	18	#15	8.07	——
s70(E)	34	#15	4.14	◻
s76(E)	8	#15	4.50	◻
s77(E)	34	#15	4.34	◻
u71(E)	6	#20	2.85	⊔
v61(E)	140	#15	1.32	——

BEARING SEAT ELEVATIONS

Girder	East Abutment	Steps
N.9	188.300	
		50
N.8	188.350	
		50
N.7	188.400	
		50
N.6	188.450	
		35
N.5	188.485	
		35
N.4	188.450	
		50
N.3	188.400	
		50
N.2	188.350	
		50
N.1	188.300	

BILL OF MATERIAL

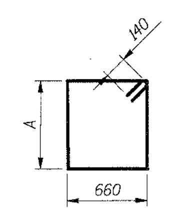
Item	Unit	Total
Concrete Structures	Cu m	25.7
Reinforcement Bars, Epoxy Coated	kg	1,910
Structure Excavation	Cu m	0

Bar	A (m)
s70(E)	1.27
s76(E)	1.45
s77(E)	1.37

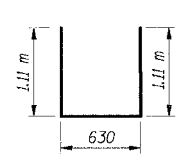
PILE DATA
(See Note A below)

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 27 m
No. Required: 10

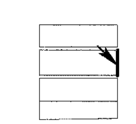
NOTE A:
Pile driving shall not begin until full embankment has been in place for at least 60 days



bars s70(E), s76(E) and s77(E)



bar u71(E)



KEY PLAN

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheets RS-50 and RS-52.
5. For Pile Encasement details, see sheet RS-3.

SHT. RS-51 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

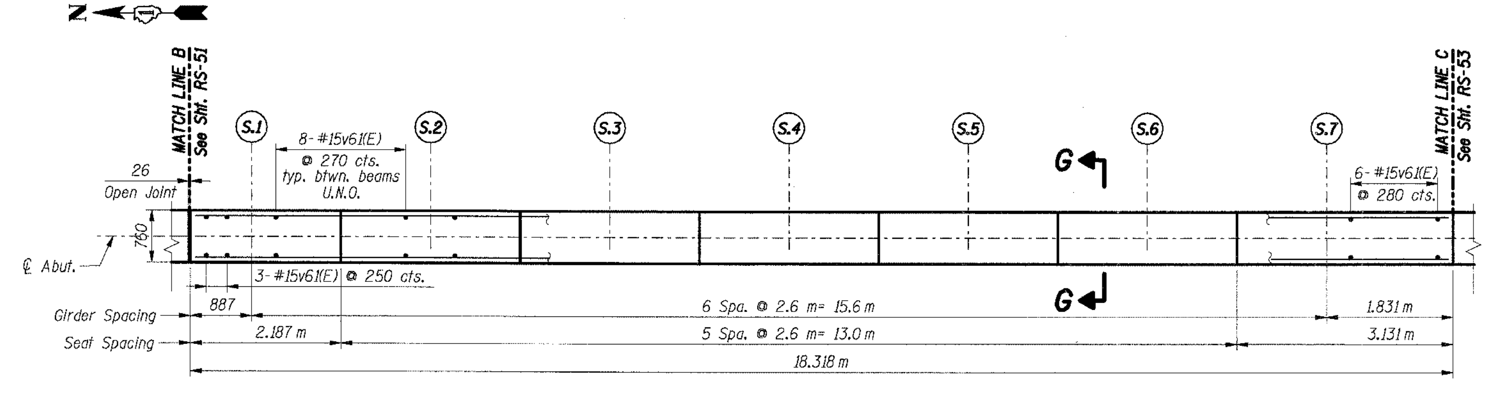
EAST ABUTMENT PLAN, ELEVATION & SECTION - II

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

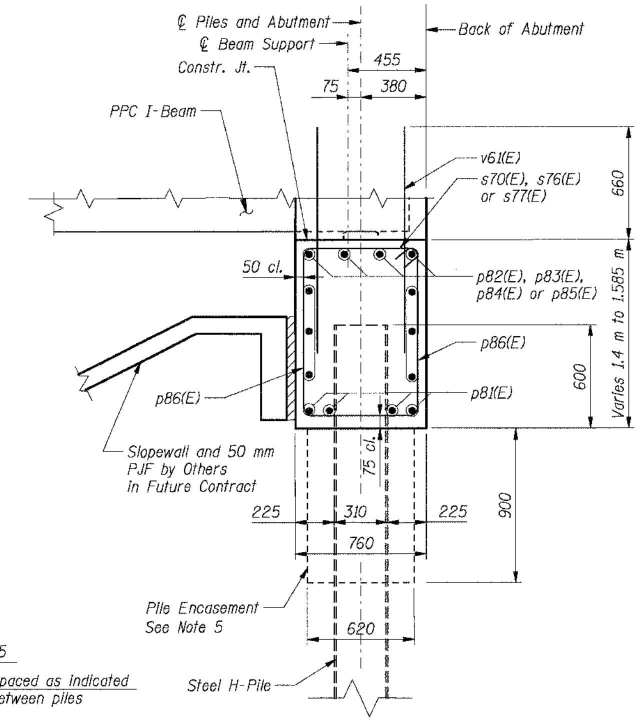
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	424
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

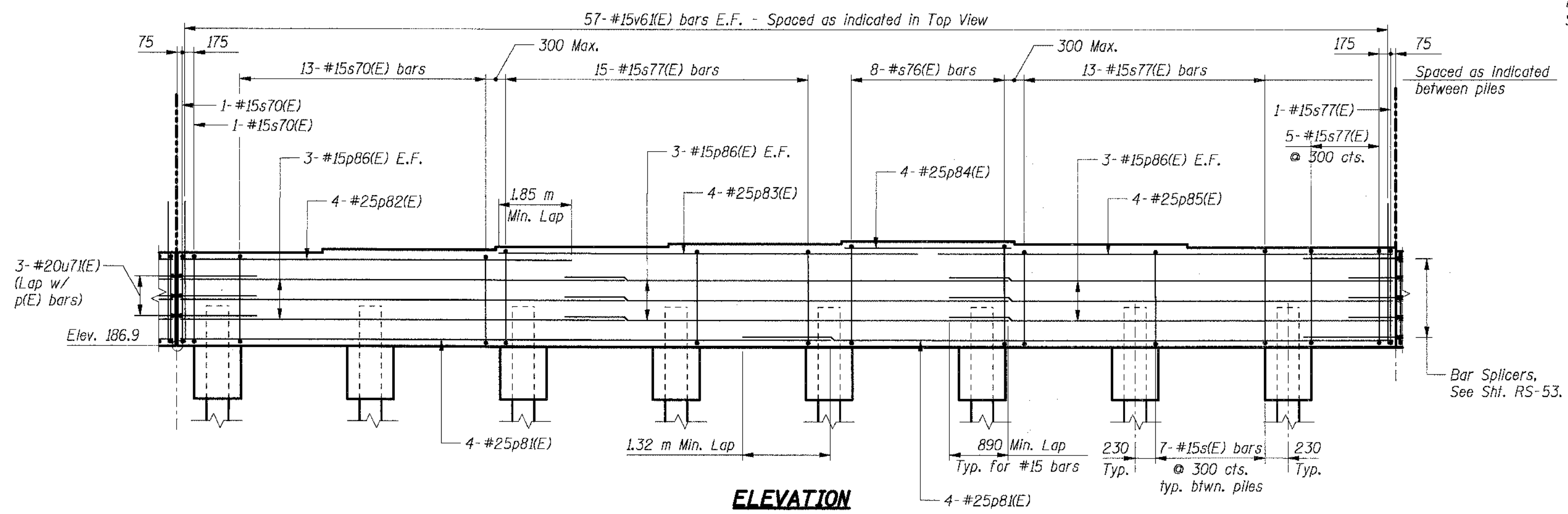
• (2425 & 2626) R-2 CONTRACT NO. 62111



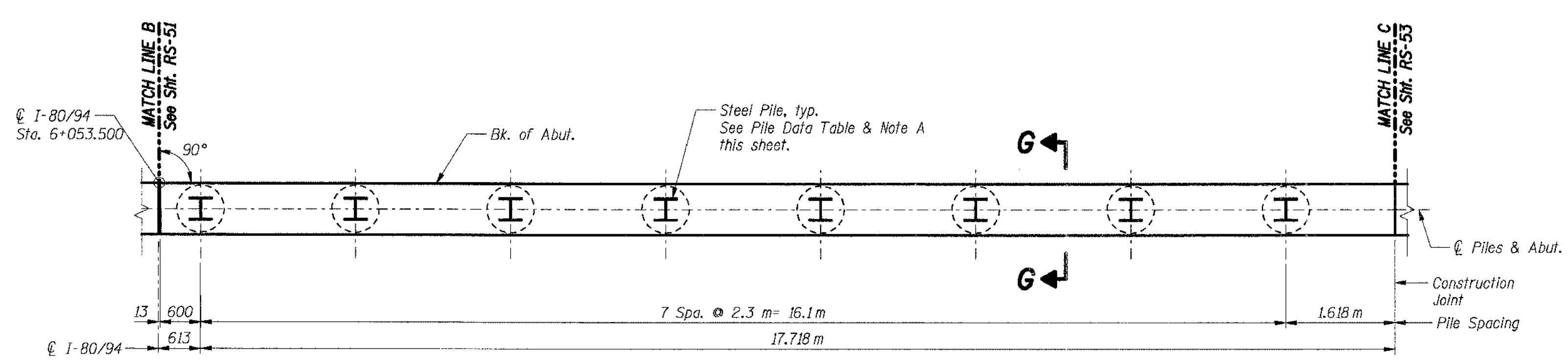
TOP VIEW



SECTION G-G



ELEVATION (Looking East)



FOOTING PLAN

BAR LIST

Bar	No.	Size	Length (m)	Shape
p81(E)	8	#25	9.77	——
p82(E)	4	#25	6.59	——
p83(E)	4	#25	7.00	——
p84(E)	4	#25	2.50	——
p85(E)	4	#25	7.53	——
p86(E)	18	#15	6.67	——
s70(E)	15	#15	4.14	◻
s76(E)	8	#15	4.50	◻
s77(E)	34	#15	4.34	◻
u71(E)	3	#20	2.85	⊔
v61(E)	114	#15	1.32	——

BEARING SEAT ELEVATIONS

Girder	East Abutment	Steps
S.1	188.300	
S.2	188.350	50
S.3	188.400	50
S.4	188.450	50
S.5	188.485	35
S.6	188.445	40
S.7	188.400	45

Bar	A (m)
s70(E)	1.27
s76(E)	1.45
s77(E)	1.37

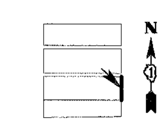
BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	21.0
Reinforcement Bars, Epoxy Coated	kg	1,510
Structure Excavation	Cu m	0

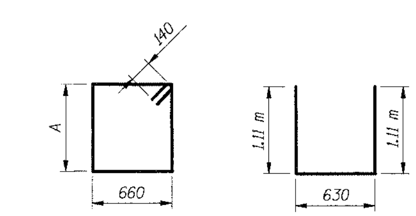
PILE DATA
(See Note A below)

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 27 m
No. Required: 8

NOTE A:
Pile driving shall not begin until full embankment has been in place for at least 60 days



KEY PLAN



bar s70(E), s76(E) and s77(E)

bar u71(E)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheets RS-51 and RS-53.
5. For Pile Encasement details, see sheet RS-3.
6. For Bar Splicer details, see sheet RS-66.

SHT. RS-52 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

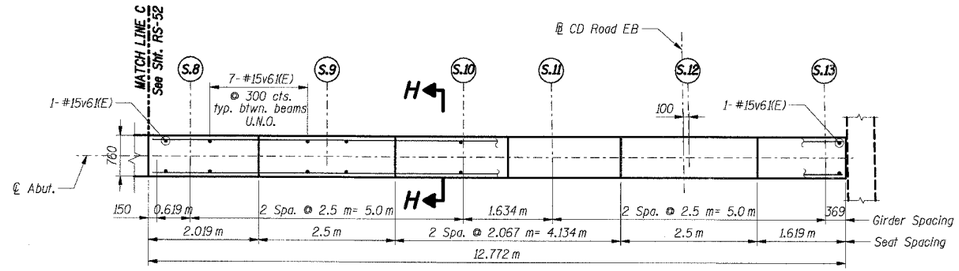
EAST ABUTMENT
PLAN, ELEVATION & SECTION - III

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

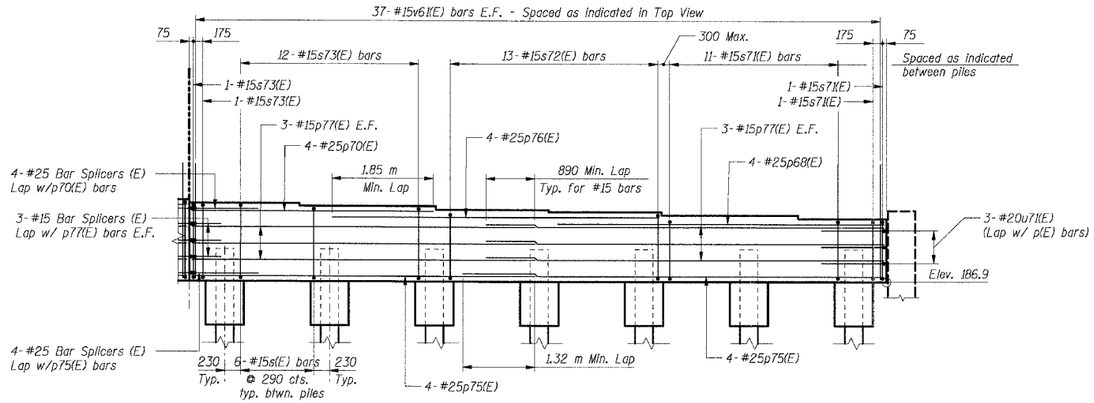
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	425
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

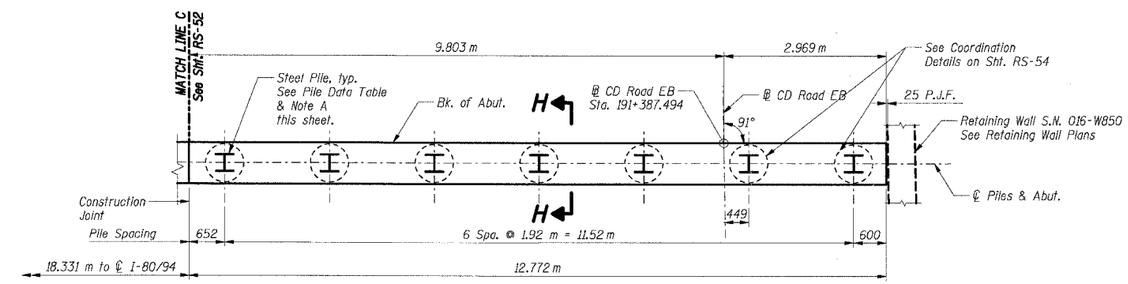
• (2425 & 2626) R-2 CONTRACT NO. 62111



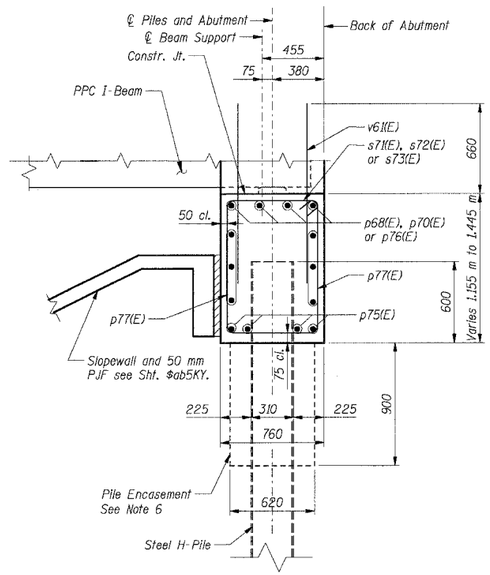
TOP VIEW



ELEVATION (Looking East)



FOOTING PLAN

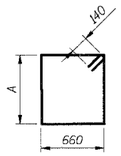


SECTION H-H

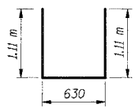
BEARING SEAT ELEVATIONS

Girder	East Abutment	Steps
S.8	188.345	60
S.9	188.285	65
S.10	188.220	40
S.11	188.180	60
S.12	188.120	65
S.13	188.055	

Bar	A (m)
s71(E)	1.02
s72(E)	1.15
s73(E)	1.25



bars s71(E) thru bar s73(E)



bar u71(E)

THIS SHEET FOR INFORMATION ONLY

BAR LIST

Bar	No.	Size	Length (m)	Shape
p68(E)	4	#25	5.97	——
p70(E)	4	#25	4.45	——
p75(E)	8	#25	6.95	——
p76(E)	4	#25	5.95	——
p77(E)	12	#15	7.30	——
s71(E)	13	#15	3.64	⌐¬
s72(E)	13	#15	3.90	⌐¬
s73(E)	14	#15	4.10	⌐¬
u71(E)	3	#20	2.85	⌊⌋
v61(E)	74	#15	1.32	——

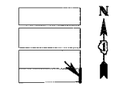
BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	11.3
Reinforcement Bars, Epoxy Coated	kg	1,030
Structure Excavation	Cu m	0
Bar Splicers	Ea.	14

PILE DATA

(See Note A below)

Type:	HP 310x79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	27 m
No. Required:	7



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheet RS-52.
5. For Bar Splicer details, see sheet RS-66.
6. For Pile Encasement details, see sheet RS-3.

NOTE A:
Pile driving shall not begin until full embankment with 1.5 meter surcharge has been in place for at least 30 days

SHT. RS-53 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

EAST ABUTMENT PLAN, ELEVATION & SECTION - IV

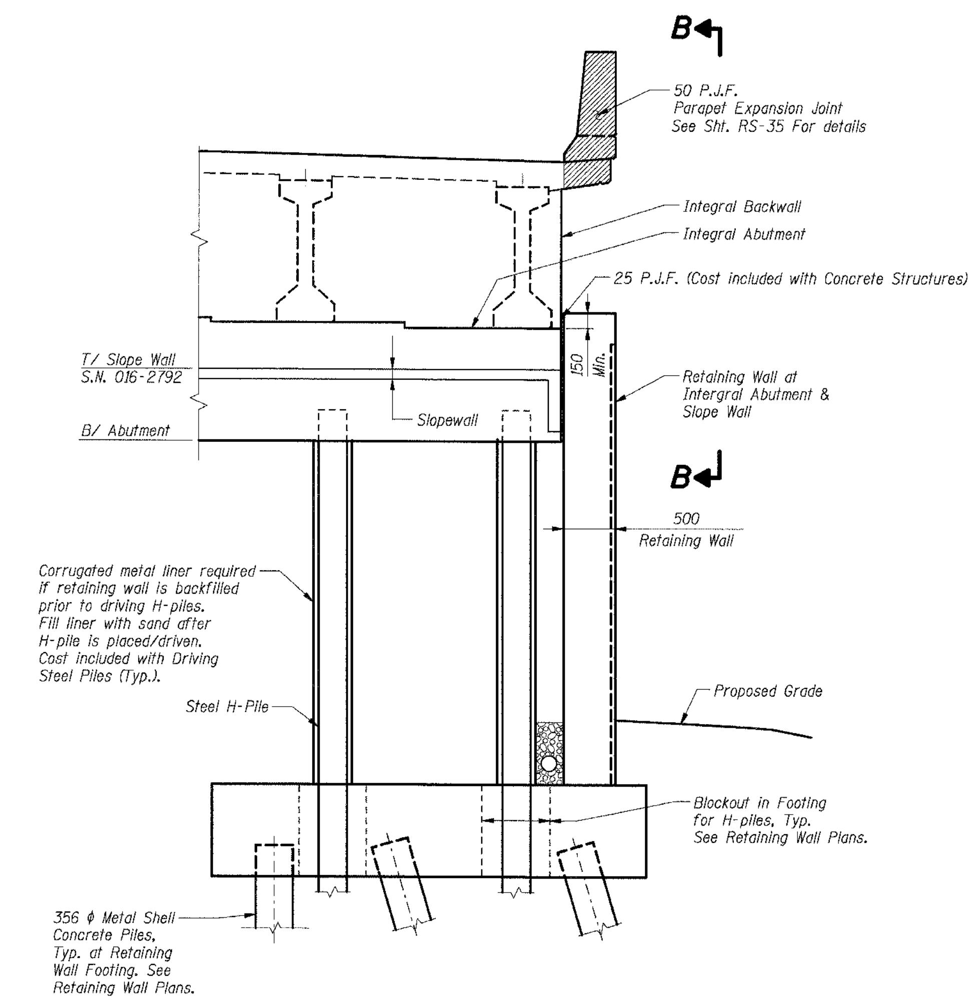
DATE: 7/18/2005 DRAWN BY: LS CHECKED BY: TCU

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

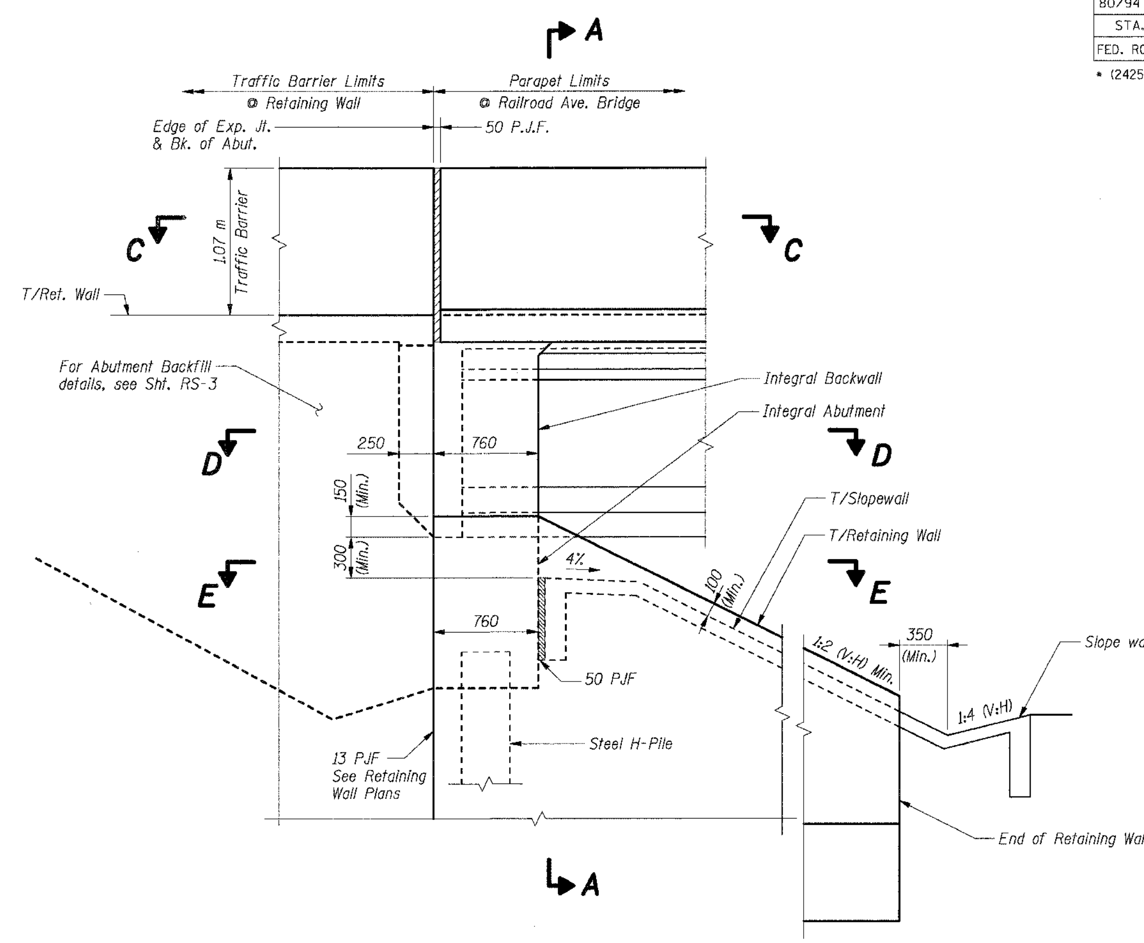
•\AB998032A.DGN, •\AB994472A.DGN, •\H998022A.DGN, •\AB998022A.DGN, •\AB998012A.DGN, •\SL998042A.DGN, •\AB994472A.DGN
7-12-2005 10:26:00 I:\DOCUMENT\1998\750\STRUCT\DGN\AB173232A.DGN
8AJZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	426
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

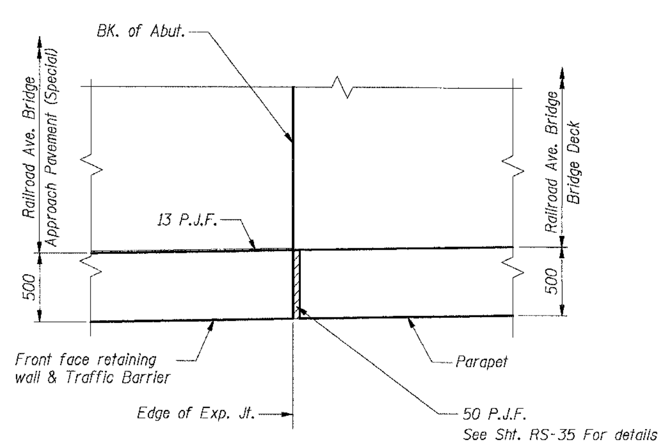
• (2425 & 2626) R-2 CONTRACT NO. 62111



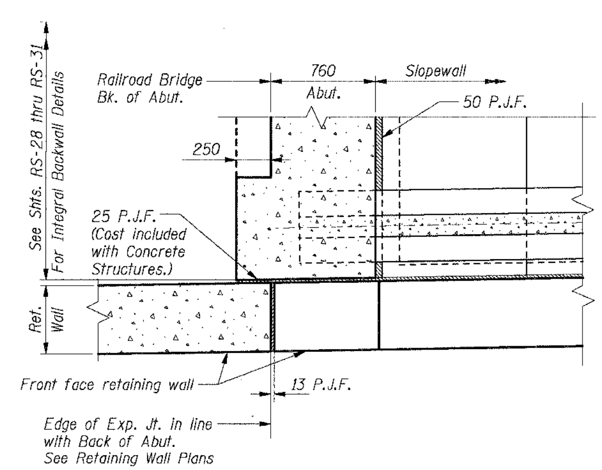
SECTION A-A



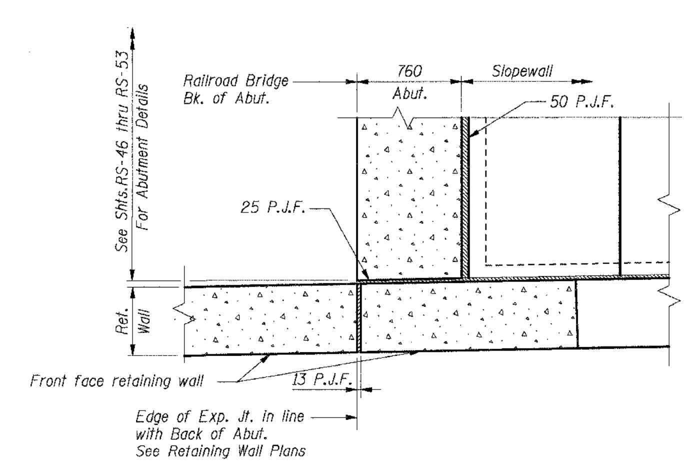
NORTH ELEVATION B-B AT ABUTMENT/RETAINING WALL
(Looking North)
Retaining Wall S.N. 016-W847
Retaining Wall S.N. 016-W848, W849, and W850 Similar.



PLAN DETAIL C-C



SECTION D-D



SECTION E-E

THIS SHEET FOR INFORMATION ONLY

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. See Sht. RS-55 For Slopewall Details.
3. See Shts. RS-28 thru RS-31 For Integral Backwall details.
4. See Shts. RS-46 thru RS-53 For Abutment details.

SHT. RS-54 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

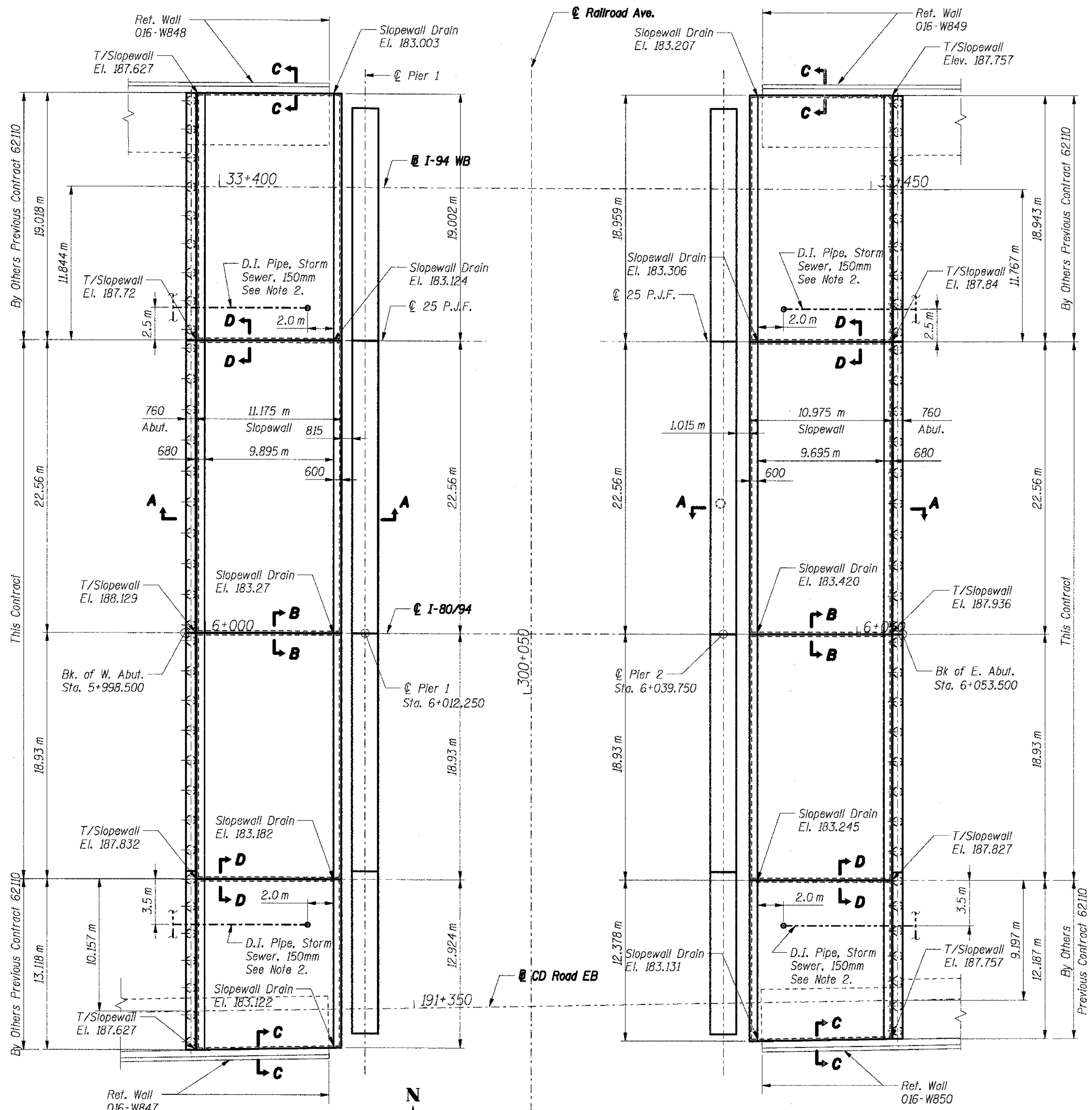
ABUTMENT & RETAINING WALL COORDINATION DETAILS

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

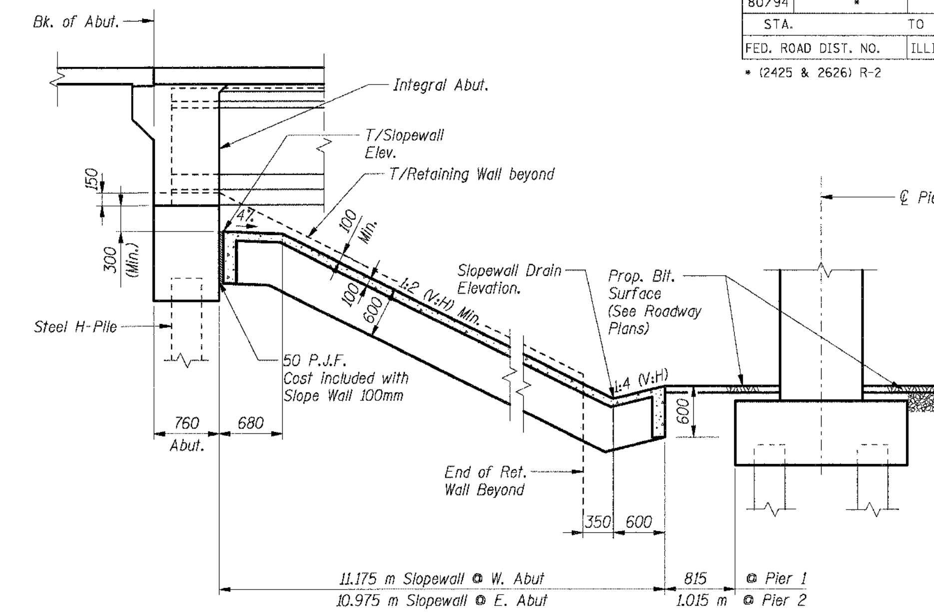
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	427
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

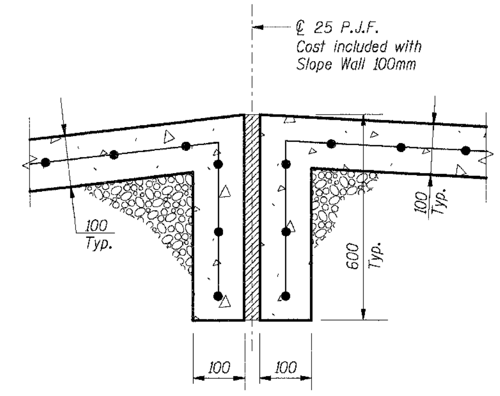
* (2425 & 2626) R-2 CONTRACT NO. 62111



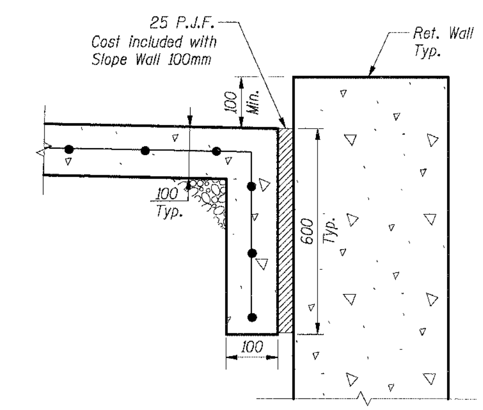
SLOPE WALL PLAN



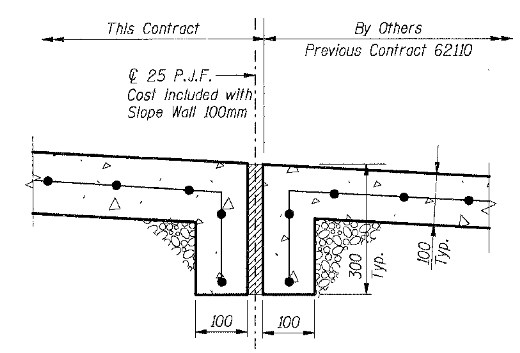
TYPICAL SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

BILL OF MATERIAL

Item	Unit	Total
Slope Wall 100mm	Sq m	1,016

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. See Sht. RS-3 for invert elevations and connecting pipe underdrain. See Roadway Plans for pay items and quantities.
3. Contractor to protect previously constructed slope wall. Any damage to the slope wall would require repair at Contractor's expense.

SHT. RS-55 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

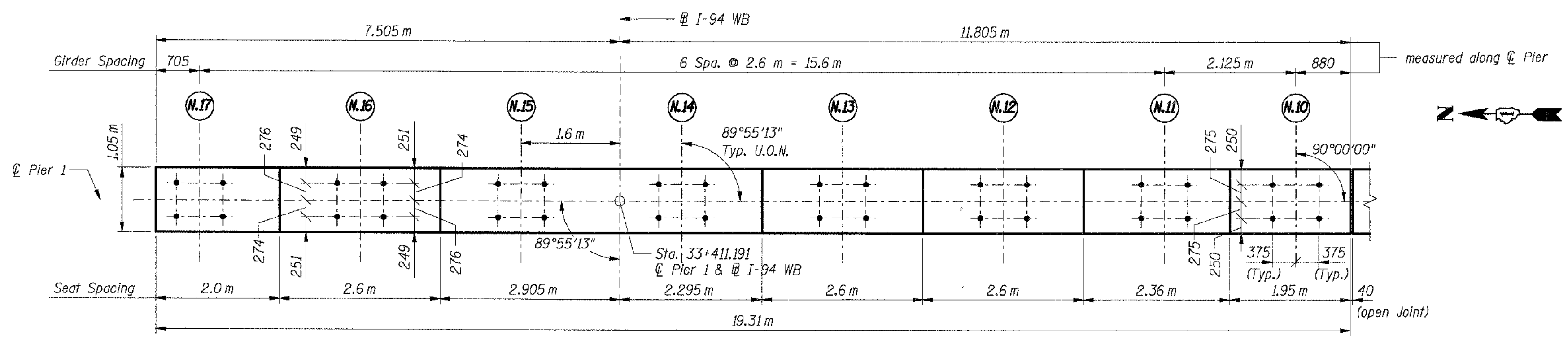
SLOPEWALL DETAILS

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

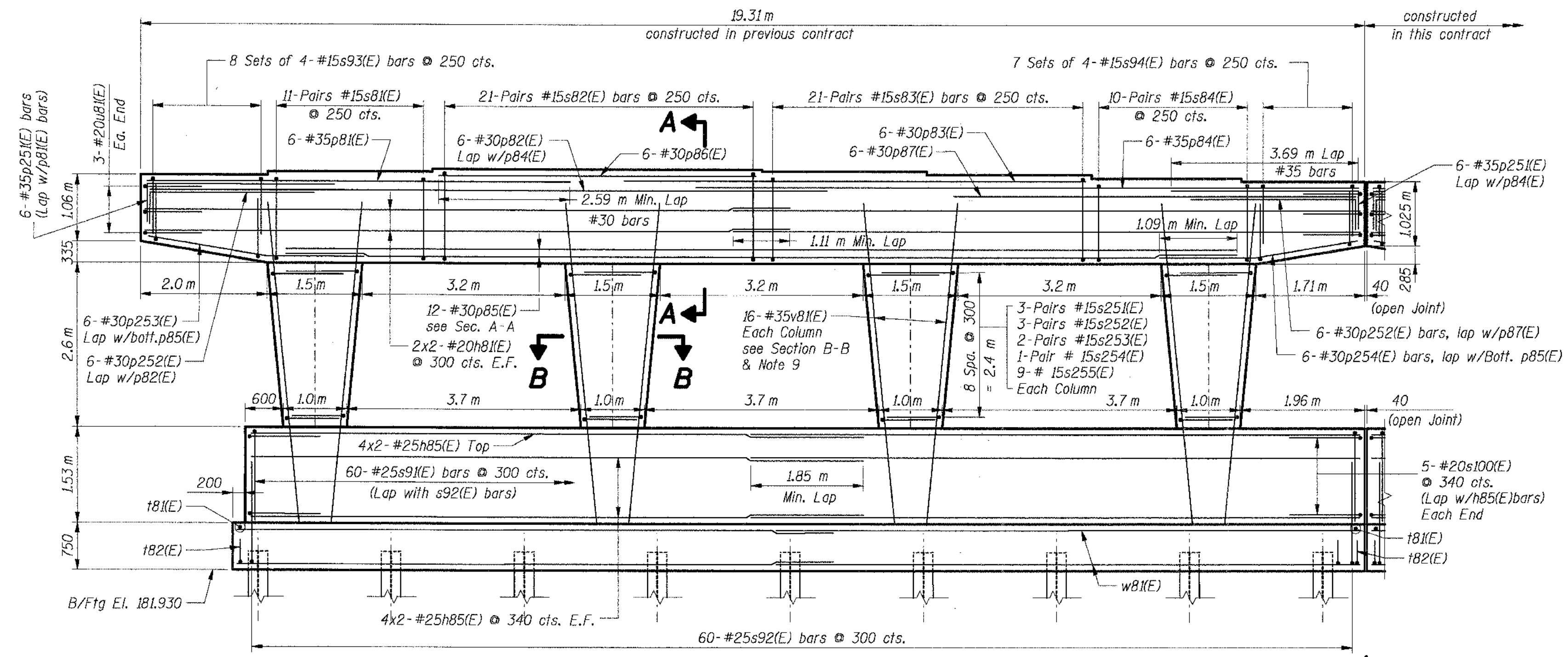
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	428
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

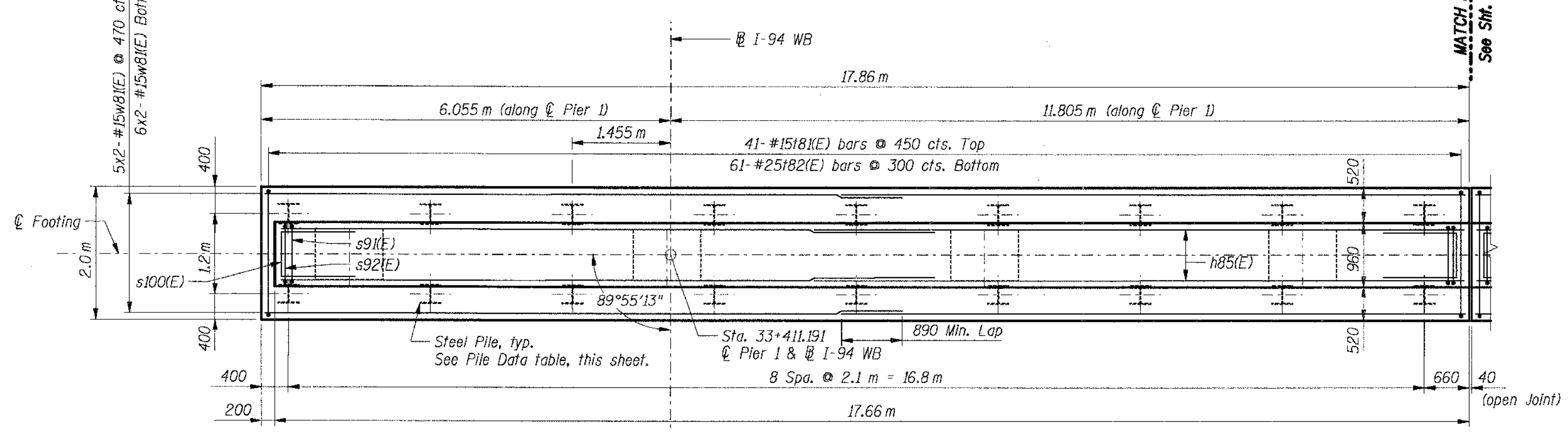


PIER CAP PLAN



ELEVATION
Looking East

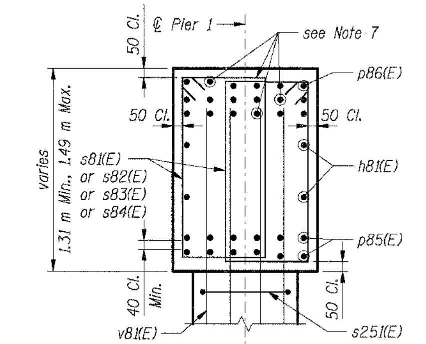
MATCH LINE A See Sht. RS-57



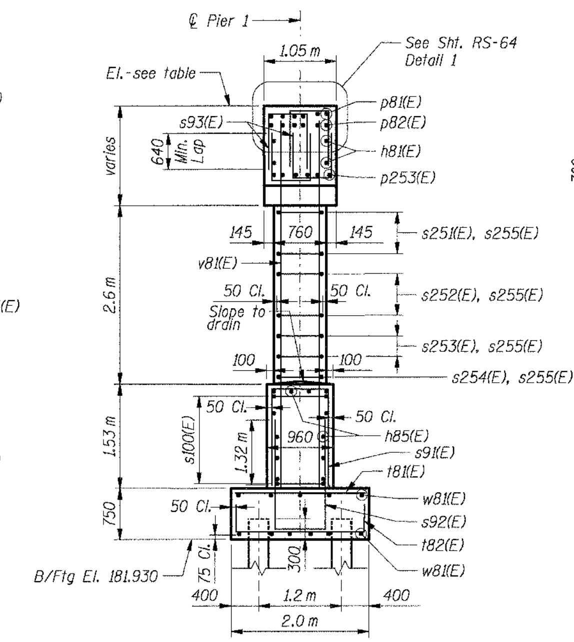
FOOTING PLAN

Bearing Seat Elevation

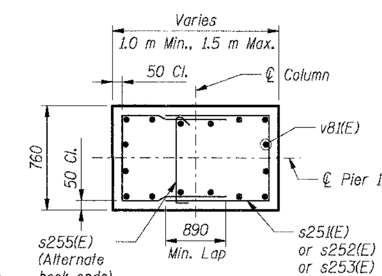
Girders	Elevations
N.10	188.120
N.11	188.165
N.12	188.220
N.13	188.270
N.14	188.300
N.15	188.300
N.16	188.260
N.17	188.205



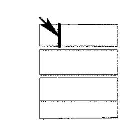
SECTION A-A



END VIEW
Looking South



SECTION B-B



KEY PLAN

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	20 m
No. Required:	18

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For Bar list, details & Bill of Material, see Sht. RS-64.
6. Work this sheet with Sht. RS-57.
7. Space reinforcement in cap to miss anchor bolts. See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines of bars with 2 lengths per line.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

SHT. RS-56 OF 70

THIS SHEET FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

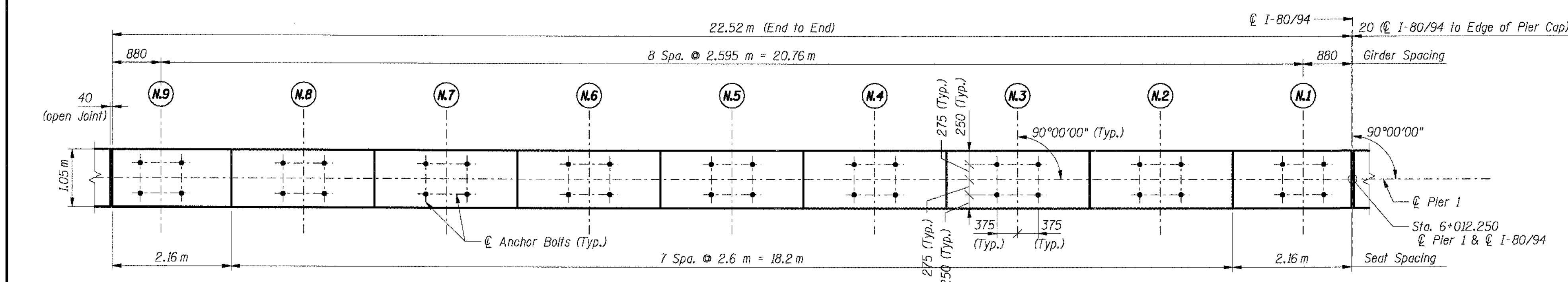
PIER 1
PLAN, ELEVATION & SECTION - I

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

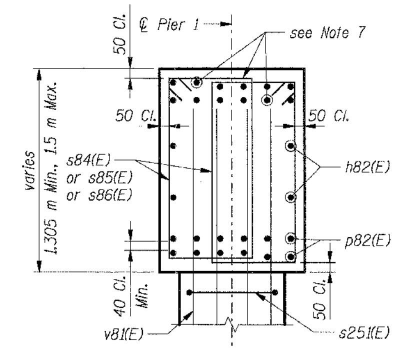
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	429
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

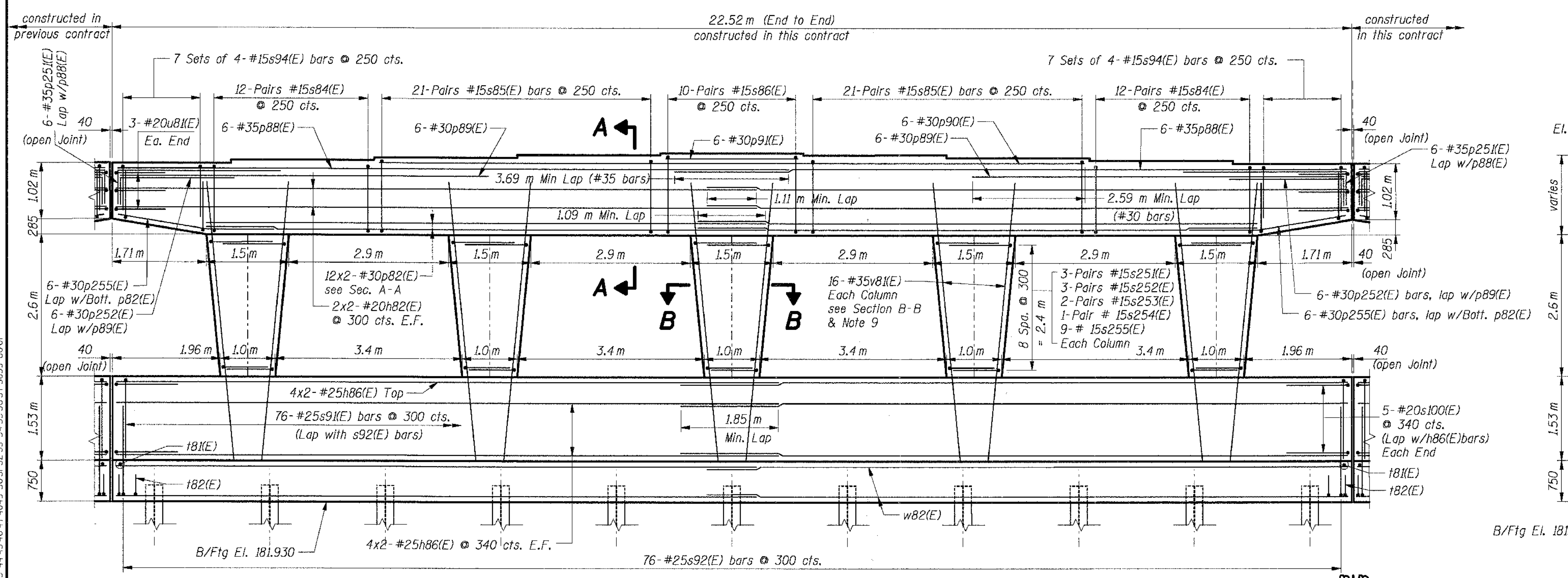


PIER CAP PLAN

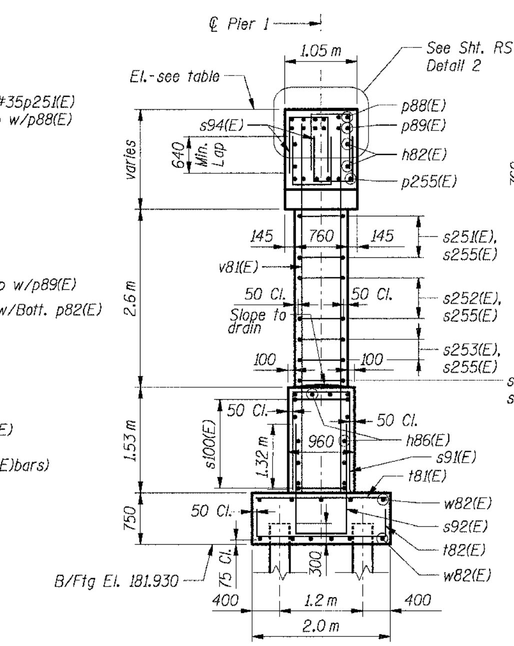
Bearing Seat Elevation	
Girders	**Elevations**
N.1	188.115
N.2	188.175
N.3	188.225
N.4	188.275
N.5	188.310
N.6	188.275
N.7	188.225
N.8	188.175
N.9	188.115



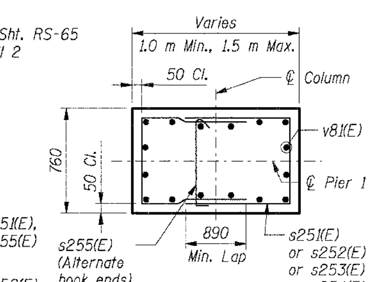
SECTION A-A



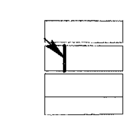
ELEVATION
Looking East



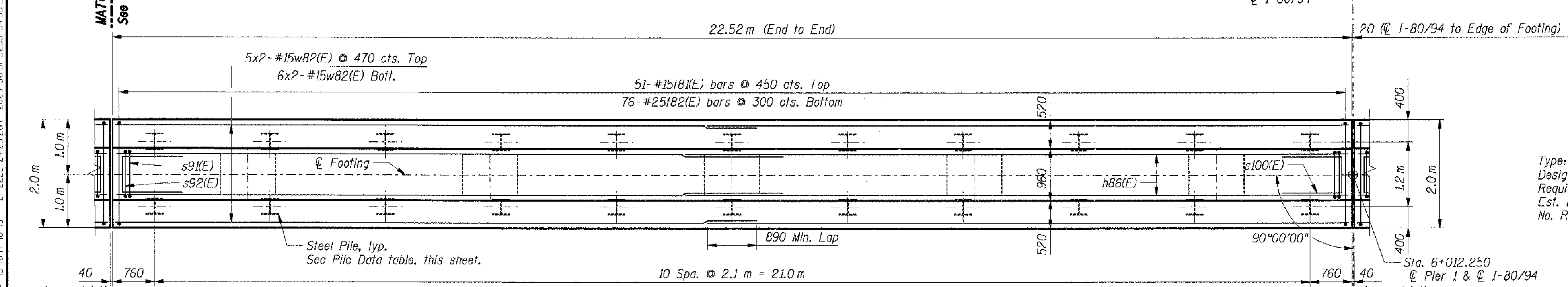
END VIEW
Looking South



SECTION B-B



KEY PLAN



FOOTING PLAN

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	20 m
No. Required:	22

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For Bar list, details & Bill of Material, see Sht. RS-65.
6. Work this sheet with Shts. RS-56 & RS-58.
7. Space reinforcement in cap to miss anchor bolts. See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines of bars with 2 lengths per line.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

SHT. RS-57 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

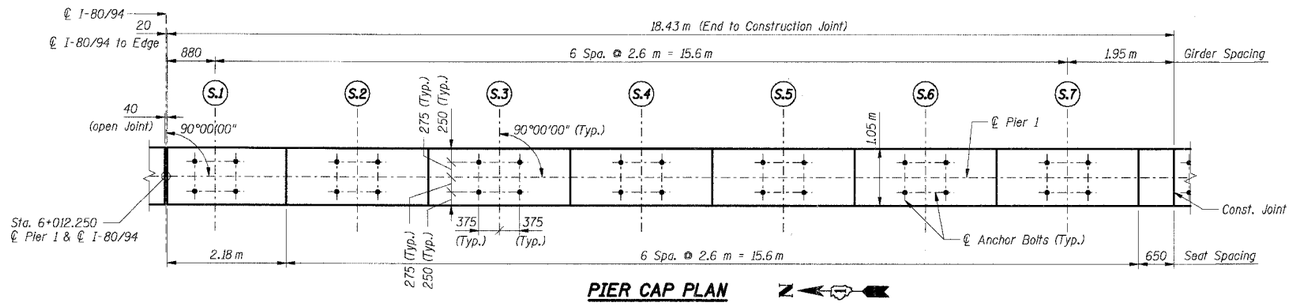
PIER 1
PLAN, ELEVATION & SECTION - II

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

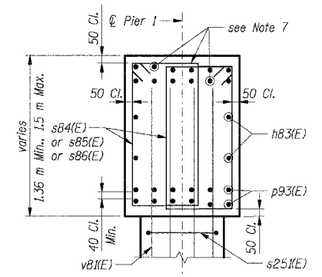
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	430
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

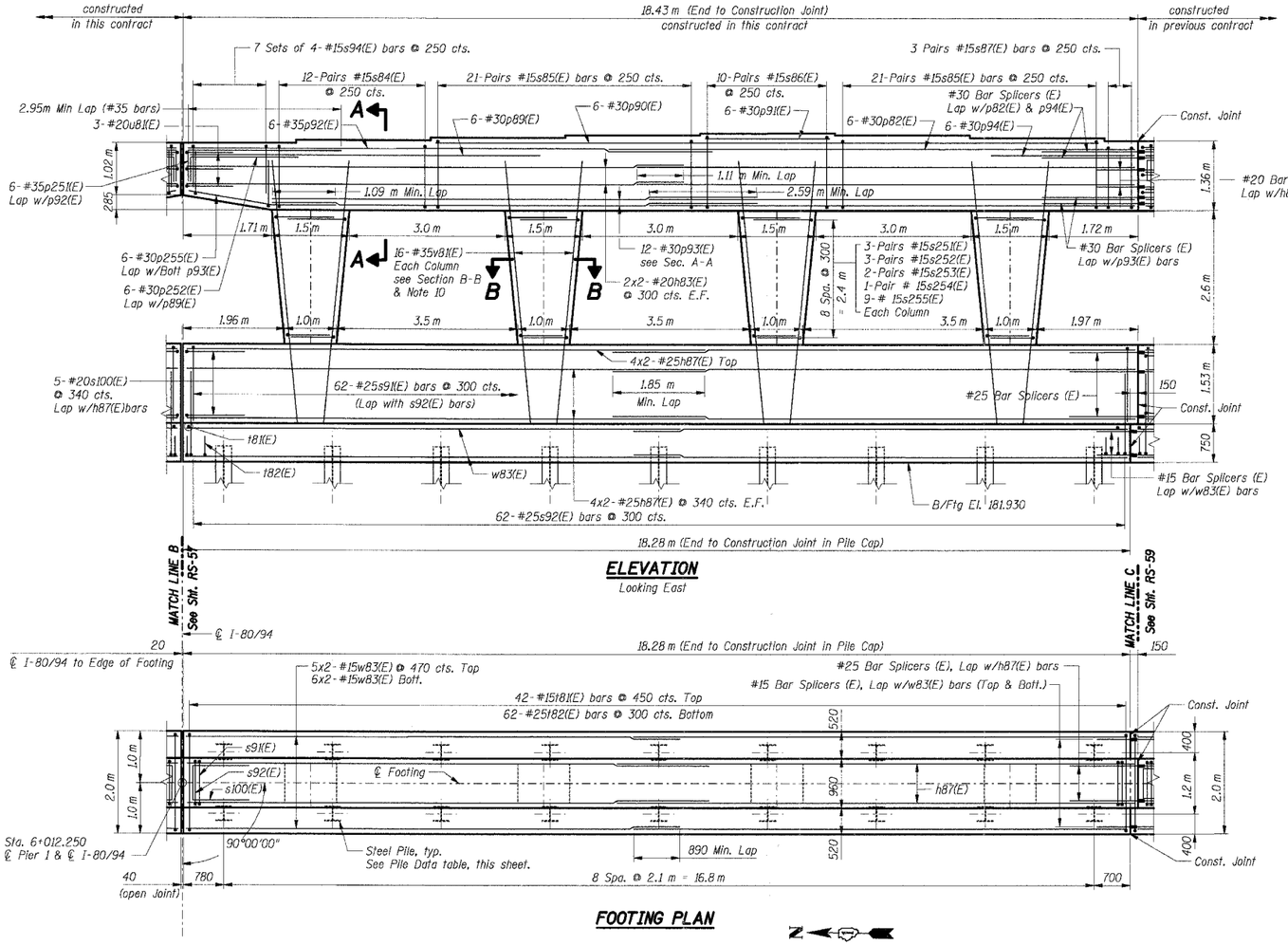


PIER CAP PLAN

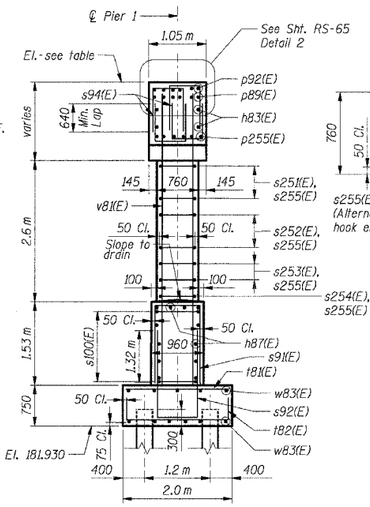
Bearing Seat Elevation	
Girders	Elevations
S.1	188.115
S.2	188.175
S.3	188.225
S.4	188.275
S.5	188.310
S.6	188.275
S.7	188.225



SECTION A-A

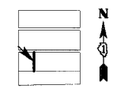


FOOTING PLAN



SECTION B-B

END VIEW
Looking South



KEY PLAN

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. Indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. See Sht. RS-66 for bar splicer details.
6. Work this sheet with Shts. RS-57 & RS-59.
7. Space reinforcement in cap to miss anchor bolts. See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines of bars with 2 lengths per line.
9. For Bar list, details & Bill of Material, see Sht. RS-65.
10. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	20 m
No. Required:	18

SHT. RS-58 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

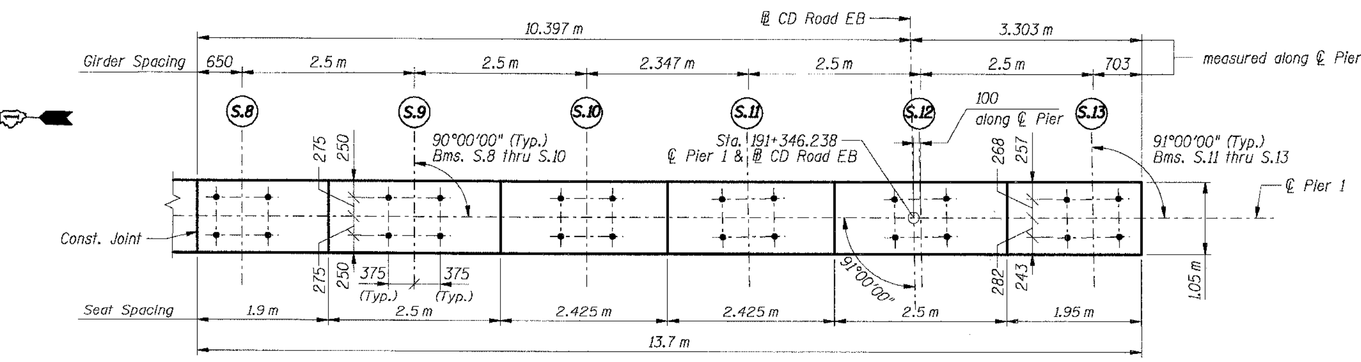
PIER 1
PLAN, ELEVATION & SECTION - III

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

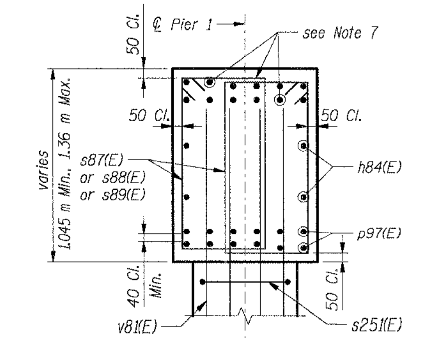
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	431
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

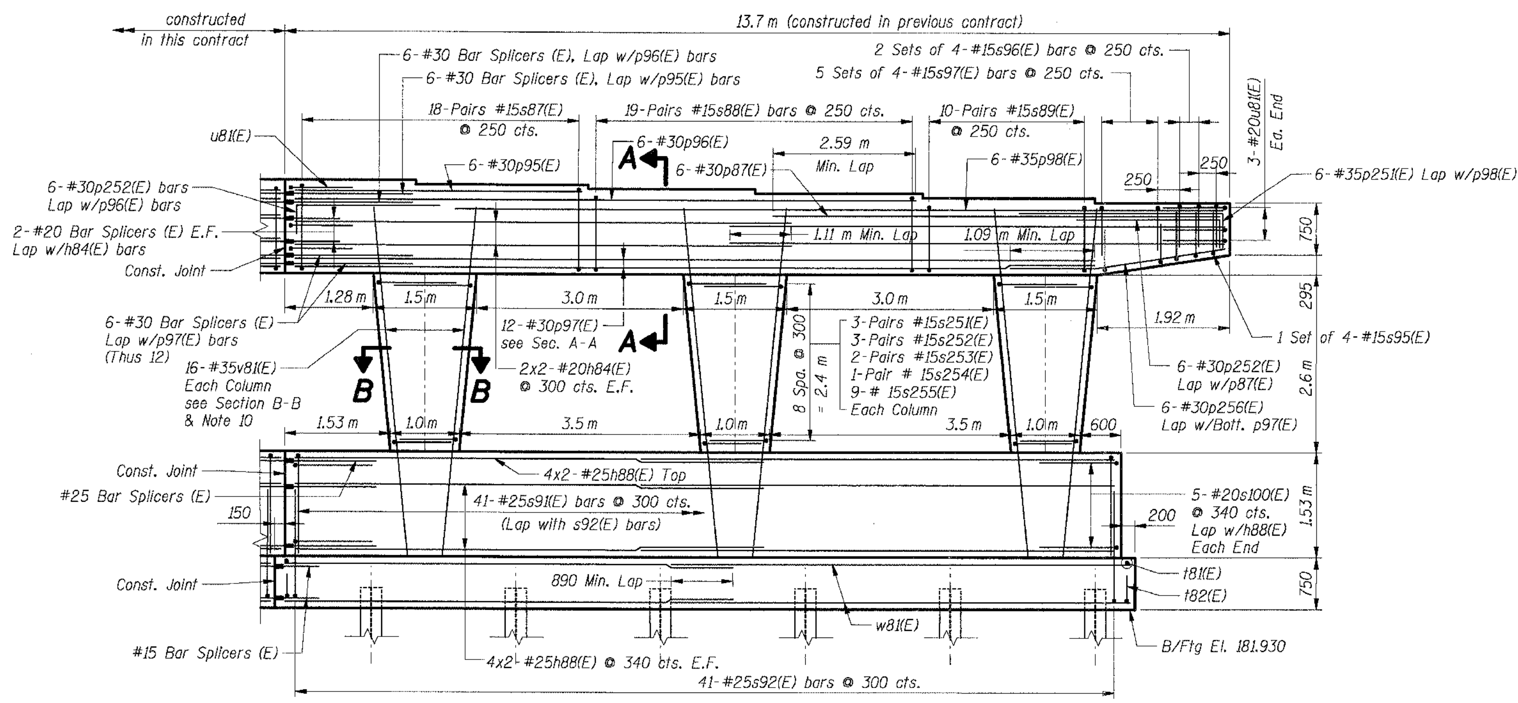


PIER CAP PLAN

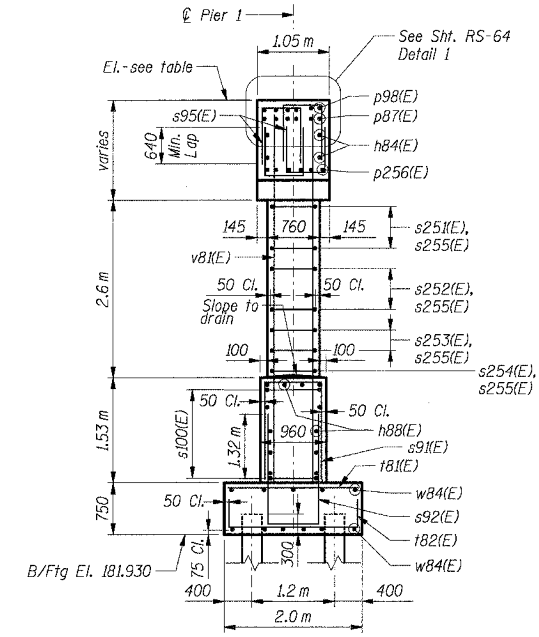
Bearing Seat Elevation	
Girders	Elevations
S.8	188.170
S.9	188.105
S.10	188.045
S.11	187.985
S.12	187.920
S.13	187.855



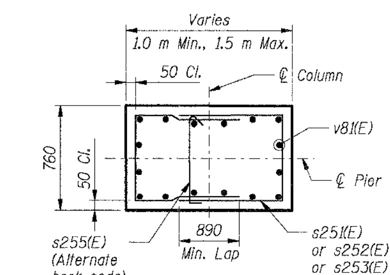
SECTION A-A



ELEVATION
Looking East

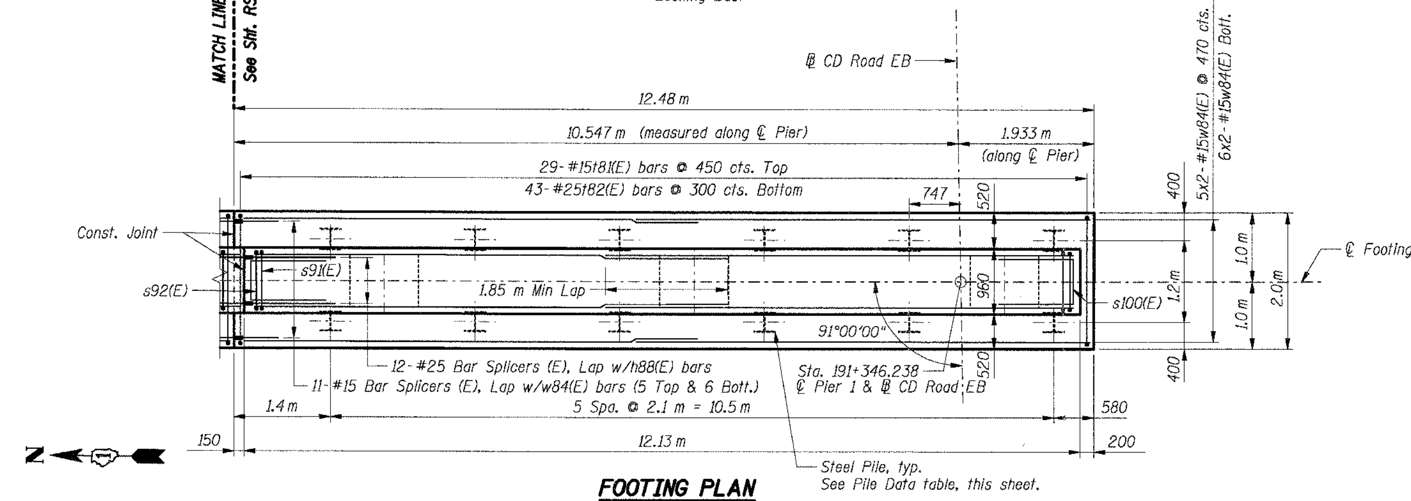


END VIEW
Looking North



SECTION B-B

MATCH LINE C
See Sht. RS-58



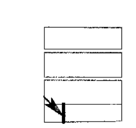
FOOTING PLAN

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. See Sht. RS-66 for bar splicer details.
6. Work this sheet with Sht. RS-58.
7. Space reinforcement in cap to miss anchor bolts. See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines of bars with 2 lengths per line.
9. For Bar list, details & Bill of Material, see Sht. RS-64.
10. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	20 m
No. Required:	12



KEY PLAN

THIS SHEET FOR INFORMATION ONLY

SHT. RS-59 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

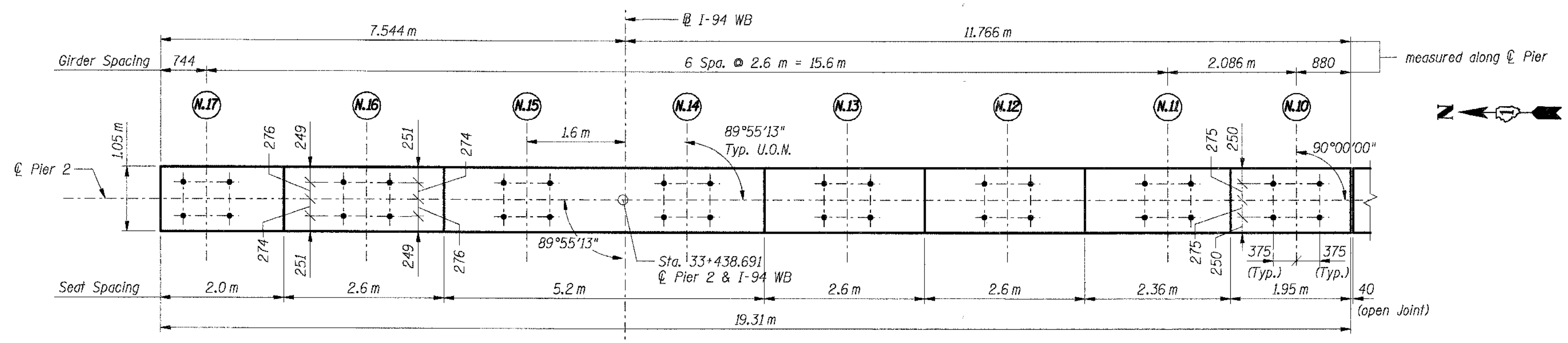
PIER 1
PLAN, ELEVATION & SECTION- IV

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

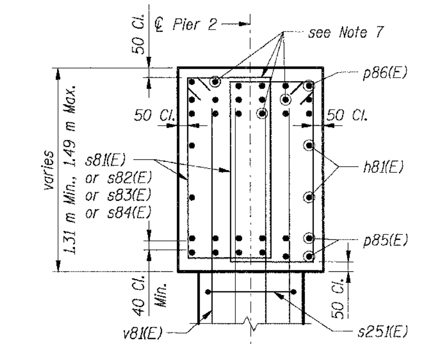
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	432
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

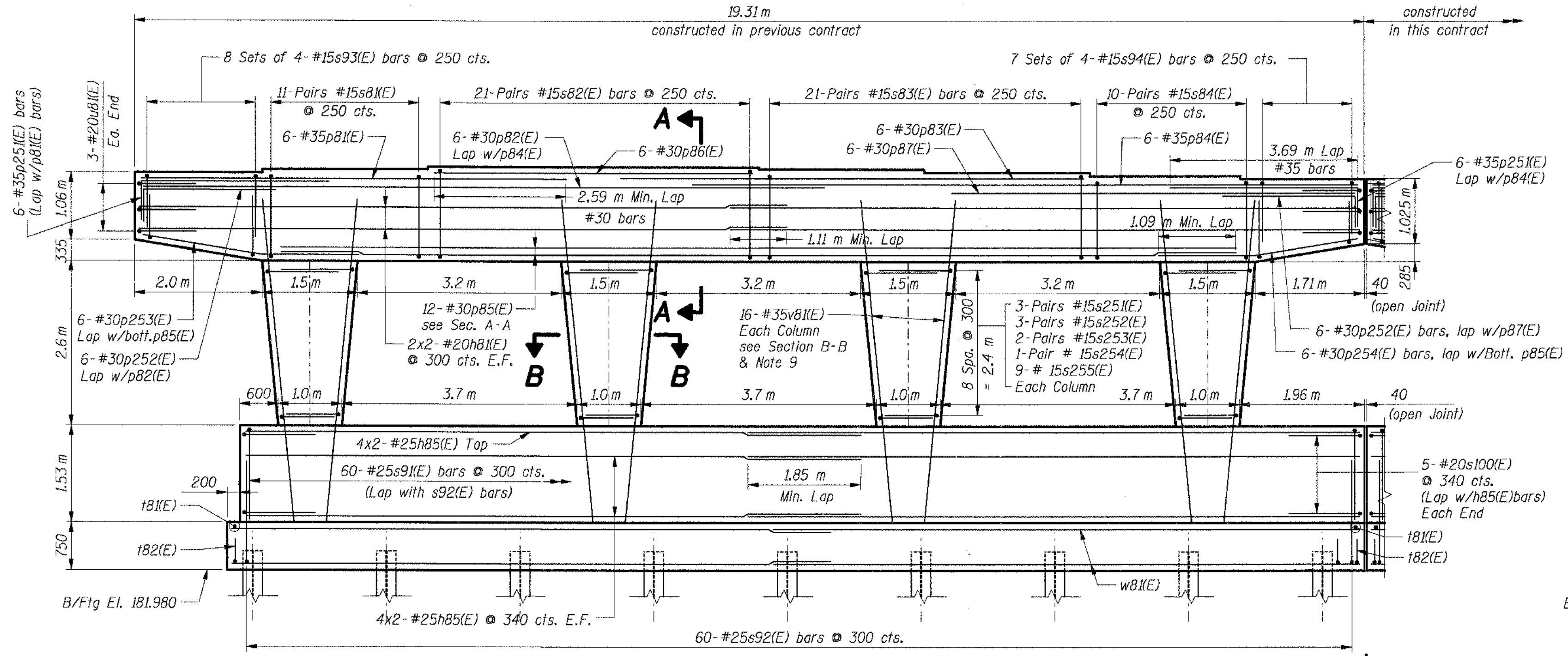


PIER CAP PLAN

Bearing Seat Elevation	
Girders	Elevations
N.10	188.165
N.11	188.210
N.12	188.265
N.13	188.315
N.14	188.345
N.15	188.345
N.16	188.305
N.17	188.250

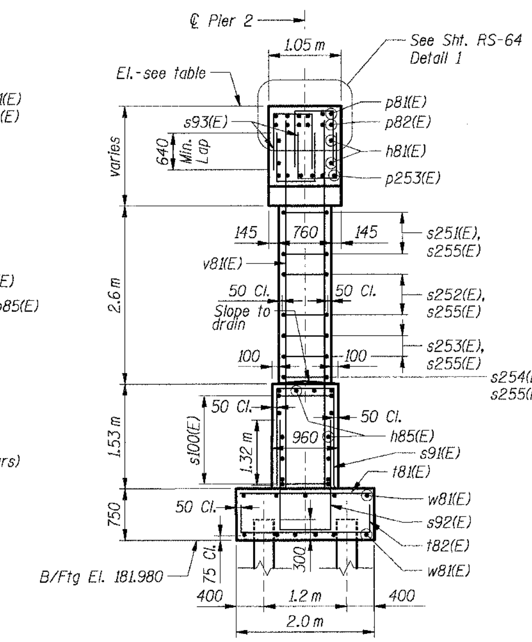


SECTION A-A



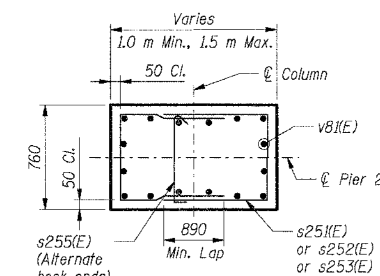
ELEVATION

Looking East

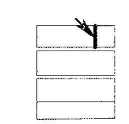


END VIEW

Looking South

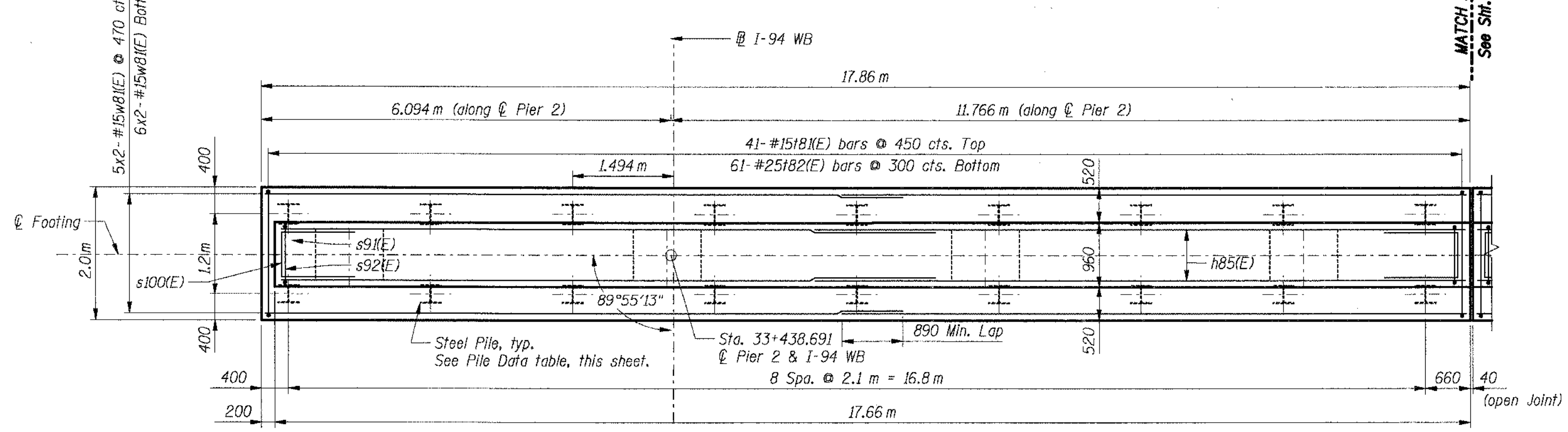


SECTION B-B



KEY PLAN

MATCH LINE A
See Sht. RS-61



FOOTING PLAN

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	21 m
No. Required:	17 + 1 Test Pile

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For Bar list, details & Bill of Material, see Sht. RS-64.
6. Work this sheet with Sht. RS-61.
7. Space reinforcement in cap to miss anchor bolts. See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines of bars with 2 lengths per line.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

THIS SHEET FOR INFORMATION ONLY

SHT. RS-60 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

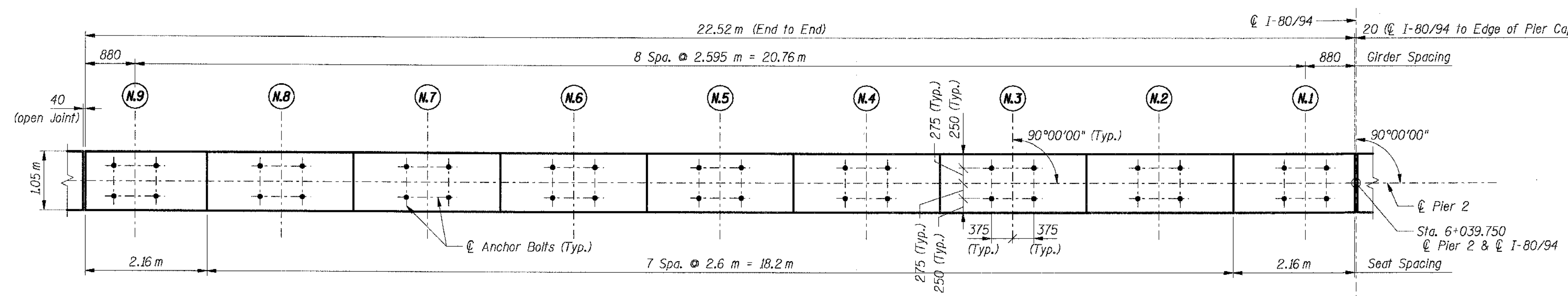
PIER 2
PLAN, ELEVATION & SECTION - I

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	433
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

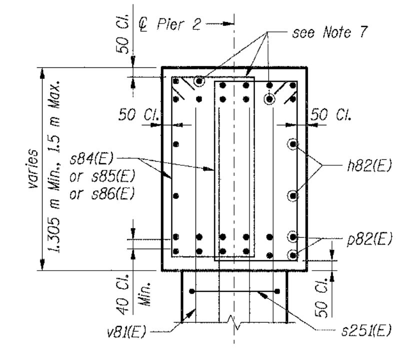
* (2425 & 2626) R-2 CONTRACT NO. 62111



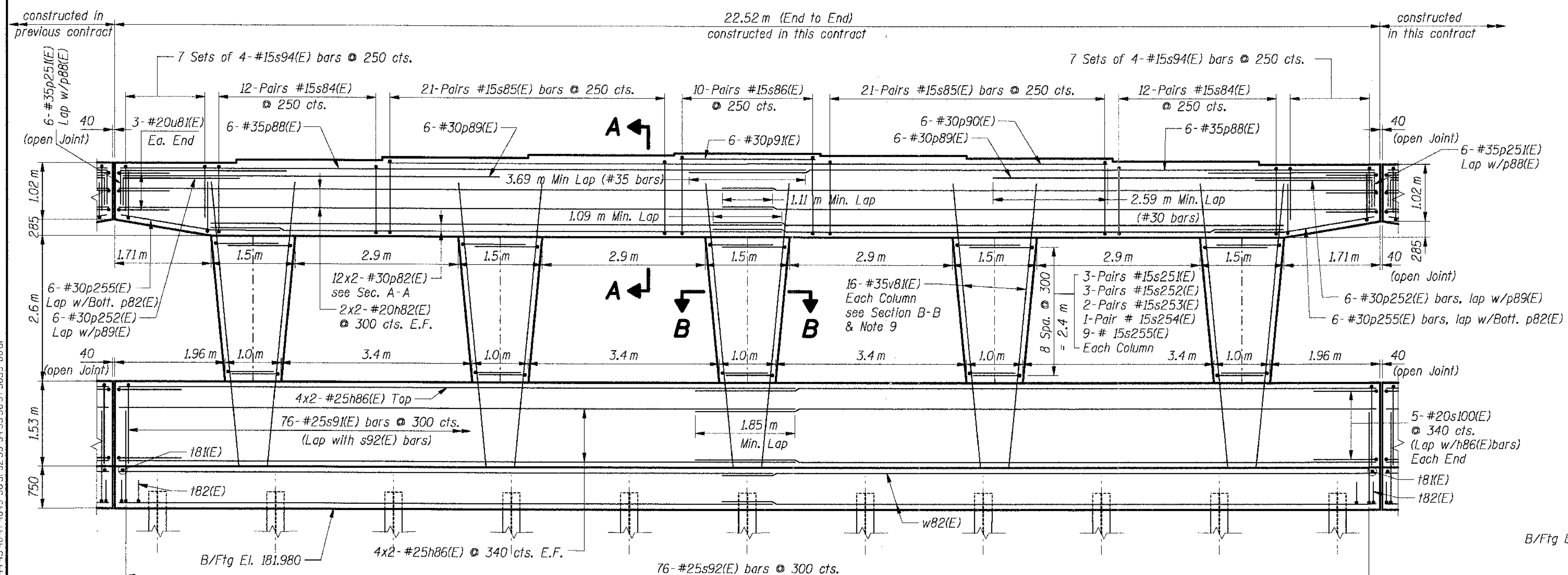
PIER CAP PLAN

Bearing Seat Elevation

Girders	Elevations
N.1	188.165
N.2	188.225
N.3	188.275
N.4	188.325
N.5	188.360
N.6	188.325
N.7	188.275
N.8	188.225
N.9	188.165

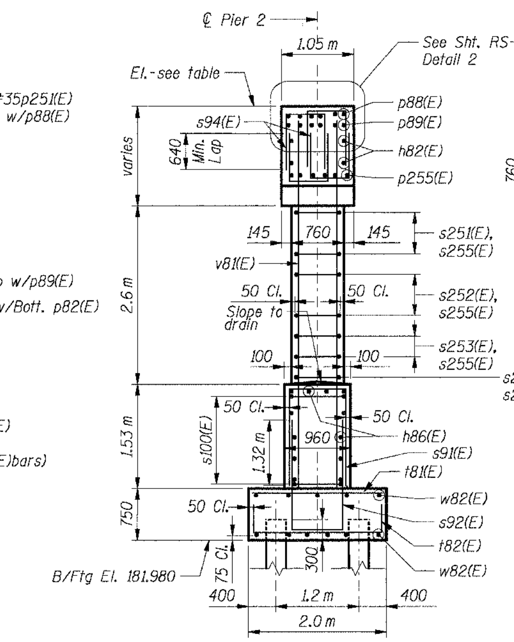


SECTION A-A



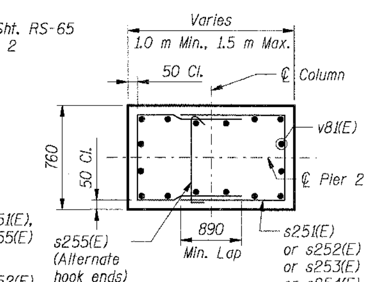
ELEVATION

Looking East

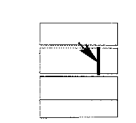


END VIEW

Looking South



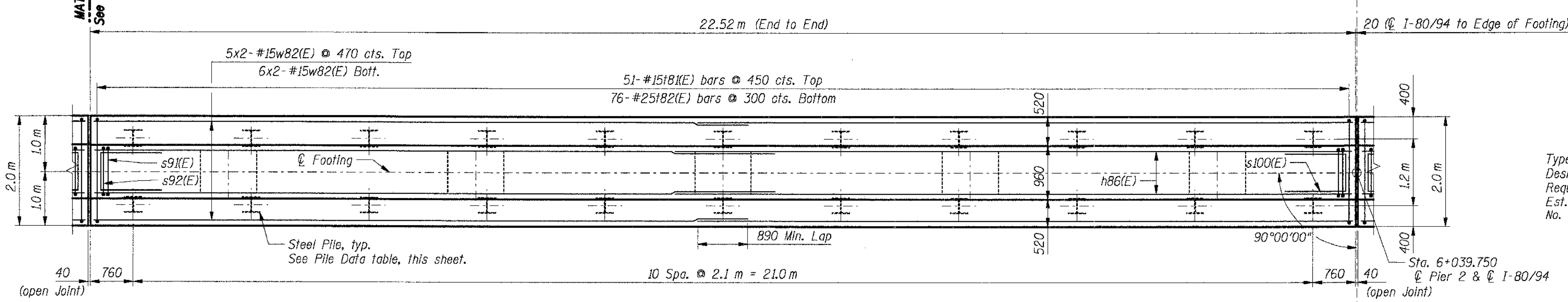
SECTION B-B



KEY PLAN

MATCH LINE A See Sht. RS-60

MATCH LINE B See Sht. RS-62



FOOTING PLAN

PILE DATA

Type: HP 310 x 79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 21 m
No. Required: 21 + 1 Test Pile

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For Bar list, details & Bill of Material, see Sht. RS-65.
6. Work this sheet with Shts. RS-60 & RS-62.
7. Space reinforcement in cap to miss anchor bolts. See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines of bars with 2 lengths per line.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

SHT. RS-61 OF 70

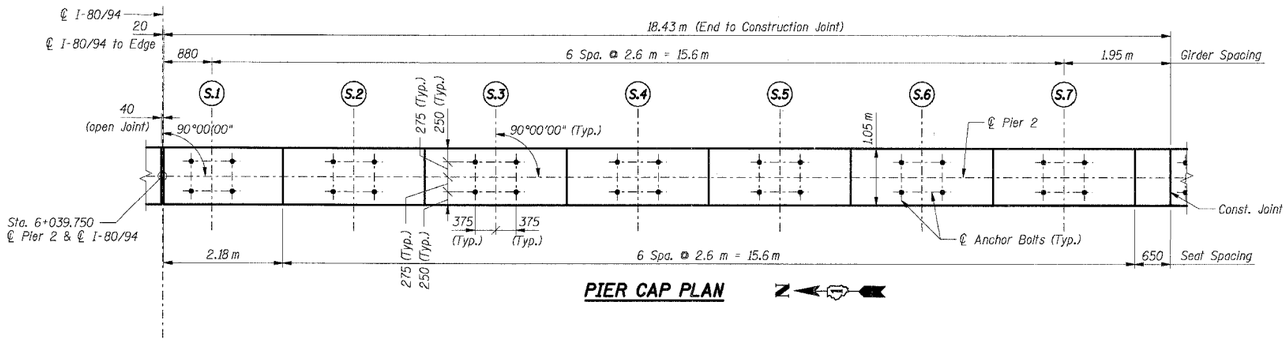
REVISIONS	
NAME	DATE

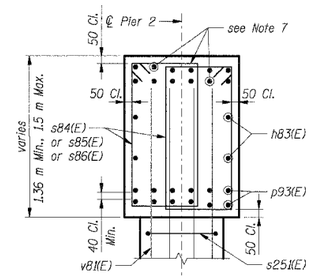
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

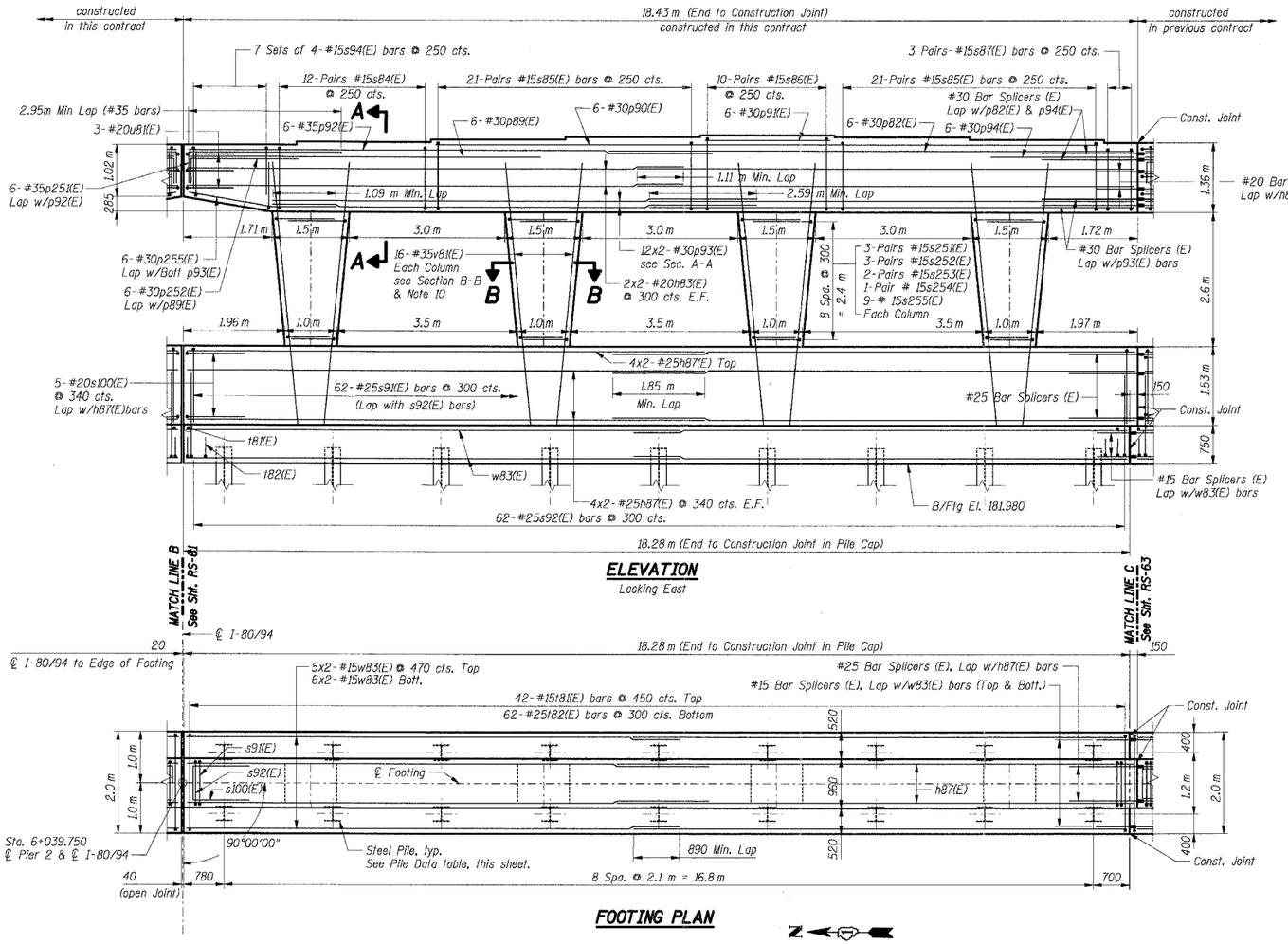
PIER 2
PLAN, ELEVATION & SECTION - II

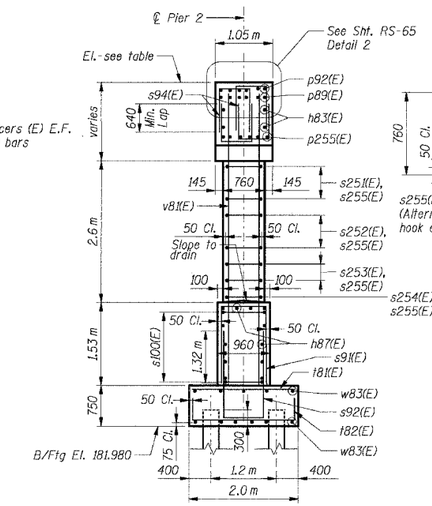
DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

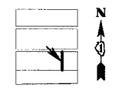
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS











F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	434
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

PIER CAP PLAN

Girders	Elevations
S.1	188.165
S.2	188.225
S.3	188.275
S.4	188.325
S.5	188.360
S.6	188.325
S.7	188.275

Bearing Seat Elevation

SECTION A-A

ELEVATION

Looking East

END VIEW

Looking South

SECTION B-B

KEY PLAN

FOOTING PLAN

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	21 m
No. Required:	18

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. See Sht. RS-66 for bar splicer details.
6. Work this sheet with Shts. RS-61 & RS-63.
7. Space reinforcement in cap to miss anchor bolts.
   See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines
   of bars with 2 lengths per line.
9. For Bar list, details & Bill of Material, see Sht. RS-65.
10. All column "v" bars shall be firmly tied and fixed
    in position prior to casting crashwall portion of pier.

SHT. RS-62 OF 70

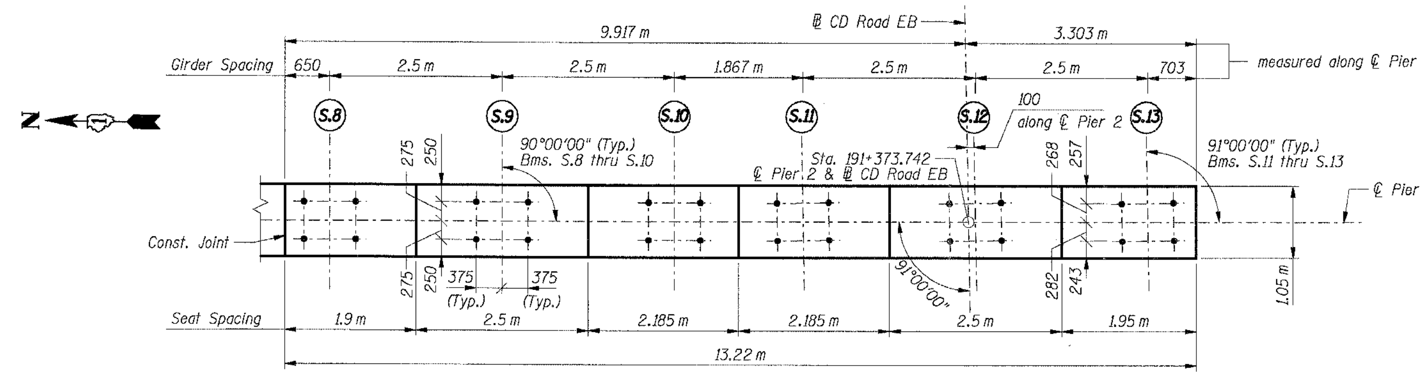
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

PIER 2
PLAN, ELEVATION & SECTION - III

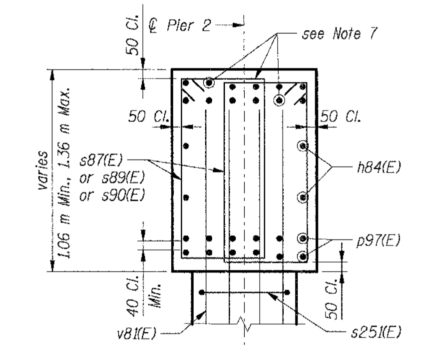
DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

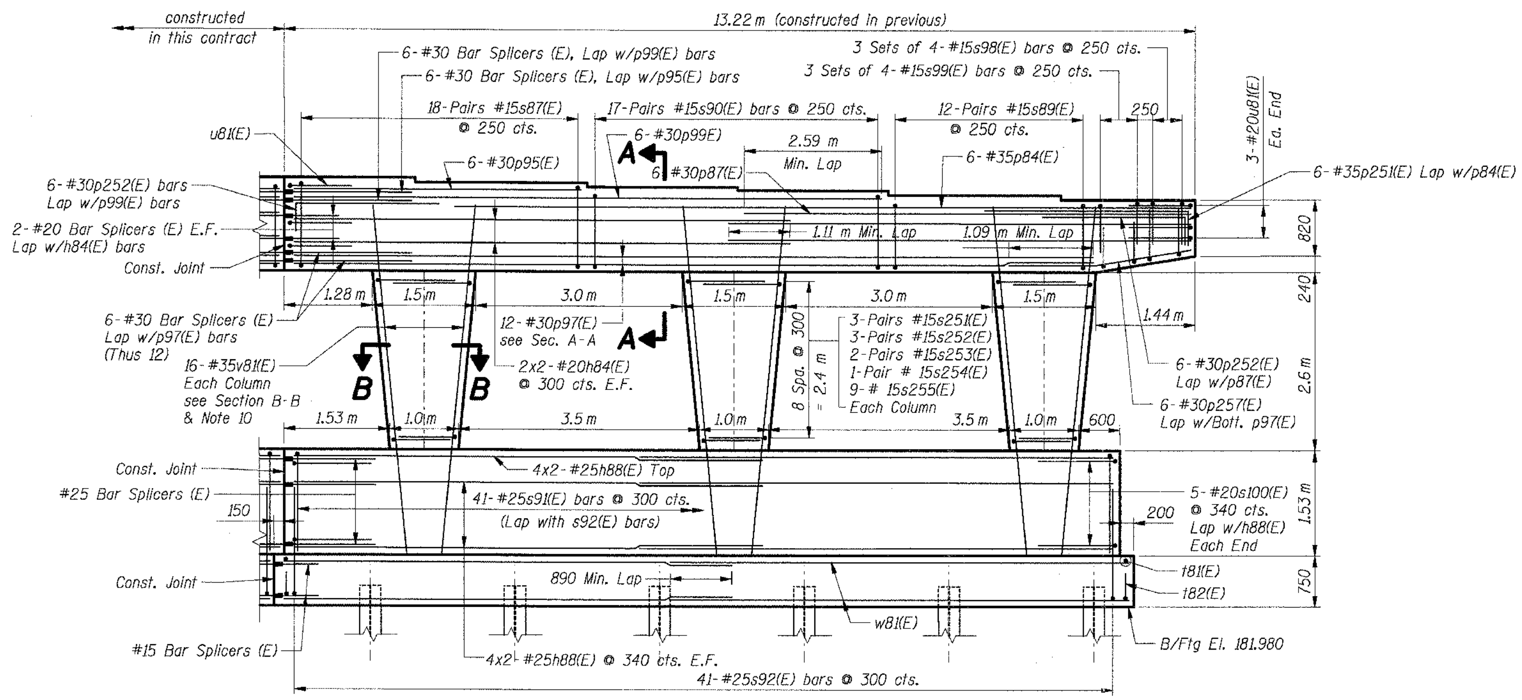


PIER CAP PLAN

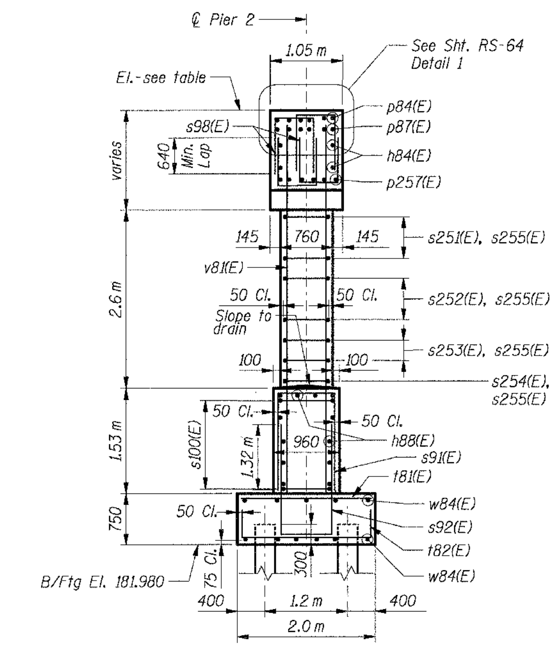
Bearing Seat Elevation	
Girders	Elevations
S.8	188.220
S.9	188.155
S.10	188.095
S.11	188.050
S.12	187.985
S.13	187.920



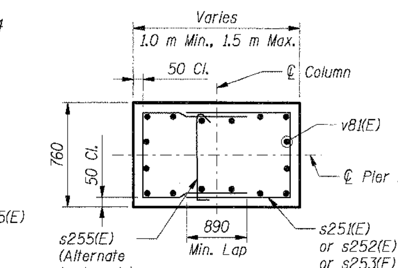
SECTION A-A



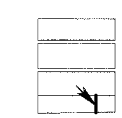
ELEVATION
Looking East



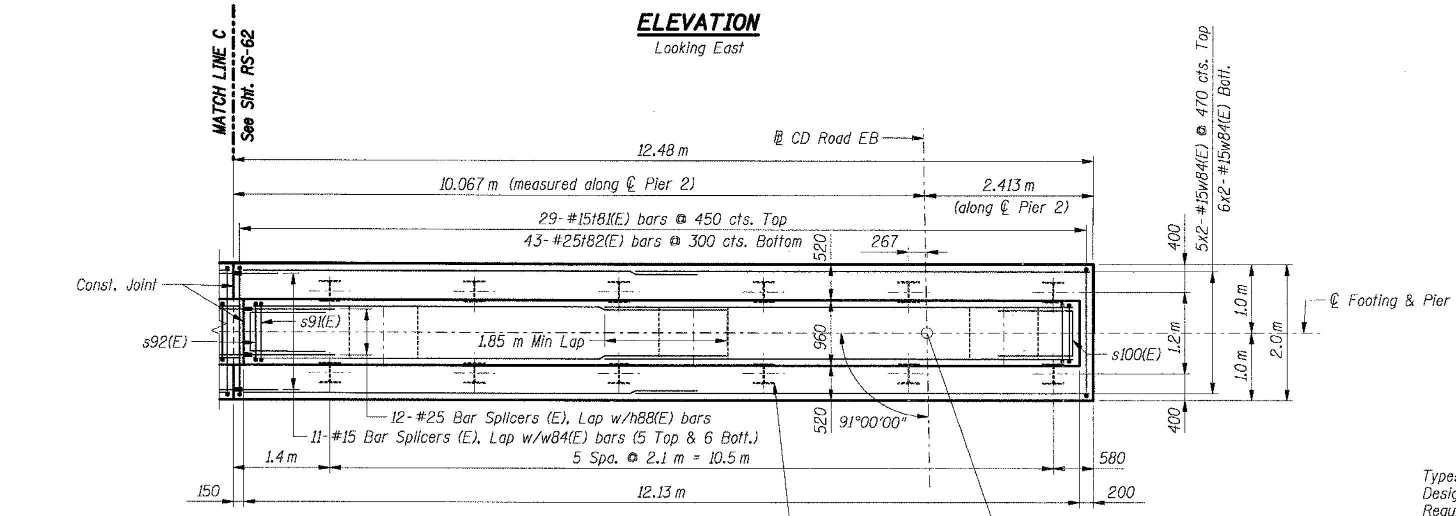
END VIEW
Looking North



SECTION B-B



KEY PLAN



FOOTING PLAN

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. See Sht. RS-66 for bar splicer details.
6. Work this sheet with Sht. RS-62.
7. Space reinforcement in cap to miss anchor bolts. See Sht. RS-45 for Anchor Bolt details.
8. Bars indicated thus 6x2-#15 etc. indicates 6 lines of bars with 2 lengths per line.
9. For Bar list, details & Bill of Material, see Sht. RS-64.
10. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	21 m
No. Required:	12

THIS SHEET FOR INFORMATION ONLY

SHT. RS-63 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

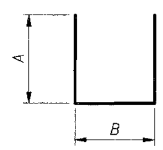
PIER 2
PLAN, ELEVATION & SECTION - IV

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

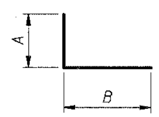
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	436
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

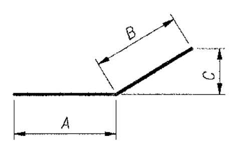
• (2425 & 2626) R-2 CONTRACT NO. 62111



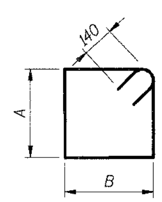
Bar	A (mm)	B (mm)
s91(E)	1470	860
s92(E)	2000	860
s93(E)	960	650
s94(E)	920	650
s95(E)	660	650
s96(E)	700	650
s97(E)	785	650
s98(E)	730	650
s99(E)	800	650
s100(E)	1110	800
s251(E)	1140	660
s252(E)	1060	660
s253(E)	970	660
s254(E)	920	660
t82(E)	400	1900
u81(E)	1110	910



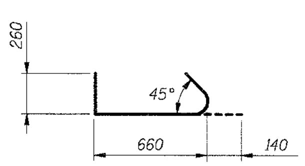
Bar	A (mm)	B (mm)
p251(E)	600	3690
p252(E)	500	2590



Bar	A (mm)	B (mm)	C (mm)
p253(E)	1700	1800	295
p254(E)	1700	1510	250
p256(E)	1410	1700	260
p257(E)	1400	1230	205



Bar	A (mm)	B (mm)
s81(E)	1290	650
s82(E)	1385	650
s83(E)	1305	650
s84(E)	1205	650
s87(E)	1195	650
s88(E)	1075	650
s89(E)	960	650
s90(E)	1090	650



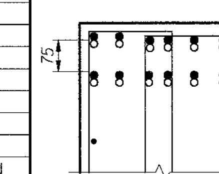
Bar s255(E)

BAR LIST - PIER 1

Bar	No. I	No. IV	Size	Length (m)	Shape
h81(E)	8		#20	10.16	
h84(E)		8	#20	7.36	
h85(E)	24		#25	9.71	
h88(E)		24	#25	6.94	
p81(E)	6		#35	7.17	
p82(E)	6		#30	10.72	
p83(E)	6		#30	7.79	
p84(E)	6		#35	11.00	
p85(E)	12		#30	14.74	
p86(E)	6		#30	5.10	
p87(E)	6	6	#30	7.02	
p95(E)		6	#30	4.15	
p96(E)		6	#30	9.00	
p97(E)		12	#30	11.45	
p98(E)		6	#35	11.87	
p251(E)	12	6	#35	4.29	
p252(E)	12	12	#30	3.09	
p253(E)	6		#30	3.50	
p254(E)	6		#30	3.21	
p256(E)		6	#30	3.11	
s81(E)	22		#15	4.16	
s82(E)	42		#15	4.35	
s83(E)	42		#15	4.19	
s84(E)	20		#15	3.99	
s87(E)		36	#15	3.97	
s88(E)		38	#15	3.73	
s89(E)		20	#15	3.50	
s91(E)	60	41	#25	3.80	
s92(E)	60	41	#25	4.86	
s93(E)	32		#15	2.57	
s94(E)	28		#15	2.49	
s95(E)		4	#15	1.97	
s96(E)		8	#15	2.05	
s97(E)		20	#15	2.22	
s100(E)	10	10	#20	3.02	
s251(E)	24	18	#15	2.94	
s252(E)	24	18	#15	2.78	
s253(E)	16	12	#15	2.60	
s254(E)	8	6	#15	2.50	
s255(E)	36	27	#15	1.06	
t81(E)	41	29	#15	1.90	
t82(E)	61	43	#25	2.70	
u81(E)	6	6	#20	3.13	
v81(E)	64	48	#35	5.13	
w81(E)	22		#15	9.33	
w84(E)		22	#15	6.66	

BAR LIST - PIER 2

Bar	No. I	No. IV	Size	Length (m)	Shape
h81(E)	8		#20	10.16	
h84(E)		8	#20	7.36	
h85(E)	24		#25	9.71	
h88(E)		24	#25	6.94	
p81(E)	6		#35	7.17	
p82(E)	6		#30	10.72	
p83(E)	6		#30	7.79	
p84(E)	6	6	#35	11.00	
p85(E)	12		#30	14.74	
p86(E)	6		#30	5.10	
p87(E)	6	6	#30	7.02	
p95(E)		6	#30	4.15	
p96(E)		6	#30	9.00	
p97(E)		12	#30	11.45	
p99(E)		6	#30	8.52	
p251(E)	12	6	#35	4.29	
p252(E)	12	12	#30	3.09	
p253(E)	6		#30	3.50	
p254(E)	6		#30	3.21	
p257(E)		6	#30	2.63	
s81(E)	22		#15	4.16	
s82(E)	42		#15	4.35	
s83(E)	42		#15	4.19	
s84(E)	20		#15	3.99	
s87(E)		36	#15	3.97	
s89(E)		24	#15	3.50	
s90(E)		34	#15	3.76	
s91(E)	60	41	#25	3.80	
s92(E)	60	41	#25	4.86	
s93(E)	32		#15	2.57	
s94(E)	28		#15	2.49	
s98(E)		12	#15	2.11	
s99(E)		12	#15	2.25	
s100(E)	10	10	#20	3.02	
s251(E)	24	18	#15	2.94	
s252(E)	24	18	#15	2.78	
s253(E)	16	12	#15	2.60	
s254(E)	8	6	#15	2.50	
s255(E)	36	27	#15	1.06	
t81(E)	41	29	#15	1.90	
t82(E)	61	43	#25	2.70	
u81(E)	6	6	#20	3.13	
v81(E)	64	48	#35	5.13	
w81(E)	22		#15	9.33	
w84(E)		22	#15	6.66	



DETAIL 1

Notes:

1. p81(E), p82(E), p84(E), p87(E), p88(E), p89(E), p92(E) and p98(E) bars shall be placed level (horizontally).
2. See pier elevation sheets RS-56 thru RS-63 for location and number of p(E) bars.

Legend:

- ● Straight bars
- ○ Hooked bars

BILL OF MATERIAL - PIER 1

Item	Unit	I	IV	Total
Concrete Structures	Cu m	91.1	60.9	152.0
Reinforcement Bars, Epoxy Coated	kg	12,040	8,440	20,480
Structure Excavation	Cu m	90	63	153

BILL OF MATERIAL - PIER 2

Item	Unit	I	IV	Total
Concrete Structures	Cu m	91.0	60.5	151.5
Reinforcement Bars, Epoxy Coated	kg	12,040	8,640	20,680
Structure Excavation	Cu m	87	61	148

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. See Sht. RS-66 for Bar Splicer details and Bill of Material.

THIS SHEET FOR INFORMATION ONLY

SHT. RS-64 OF 70

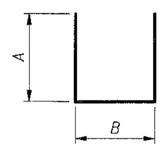
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

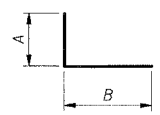
PIER 1 & 2 BAR LIST & BILL OF MATERIAL - I & IV

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

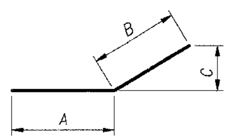
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS



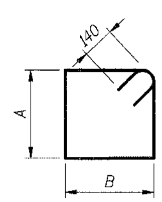
Bar	A (mm)	B (mm)
s91(E)	1470	860
s92(E)	2000	860
s94(E)	920	650
s100(E)	1110	800
s251(E)	1140	660
s252(E)	1060	660
s253(E)	970	660
s254(E)	920	660
t82(E)	400	1900
u81(E)	1110	910



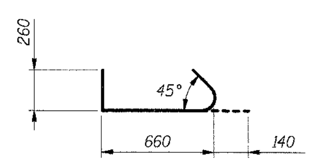
Bar	A (mm)	B (mm)
p251(E)	600	3690
p252(E)	500	2590



Bar	A (mm)	B (mm)	C (mm)
p255(E)	1400	1510	250



Bar	A (mm)	B (mm)
s84(E)	1205	650
s85(E)	1315	650
s86(E)	1400	650
s87(E)	1195	650



Bar s255(E)

BAR LIST - PIER 1

Bar	No. II	No. III	Size	Length (m)	Shape
h82(E)	8		#20	11.77	
h83(E)		8	#20	9.72	
h86(E)	24		#25	12.14	
h87(E)		24	#25	10.10	
p82(E)	24	6	#30	10.72	
p88(E)	12		#35	12.67	
p89(E)	12	6	#30	7.29	
p90(E)	6	6	#30	12.90	
p91(E)	6	6	#30	2.50	
p92(E)		6	#35	10.94	
p93(E)		24	#30	9.51	
p94(E)		6	#30	3.25	
p251(E)	12	6	#35	4.29	
p252(E)	12	6	#30	3.09	
p255(E)	12	6	#30	2.91	
s84(E)	48	24	#15	3.99	
s85(E)	84	84	#15	4.21	
s86(E)	20	20	#15	4.38	
s87(E)		6	#15	3.97	
s91(E)	76	62	#25	3.80	
s92(E)	76	62	#25	4.86	
s94(E)	56	28	#15	2.49	
s100(E)	10	5	#20	3.02	
s251(E)	30	24	#15	2.94	
s252(E)	30	24	#15	2.78	
s253(E)	20	16	#15	2.60	
s254(E)	10	8	#15	2.50	
s255(E)	45	36	#15	1.06	
t81(E)	51	42	#15	1.90	
t82(E)	76	62	#25	2.70	
u81(E)	6	3	#20	3.13	
v81(E)	80	64	#35	5.13	
w82(E)	22		#15	11.66	
w83(E)		22	#15	9.54	

BILL OF MATERIAL - PIER 1

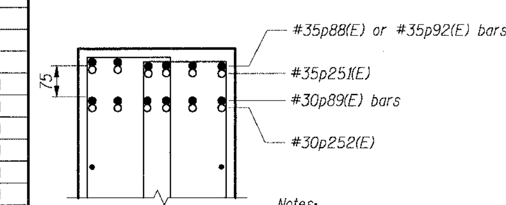
Item	Unit	II	III	Total
Concrete Structures	Cu m	111.9	94.2	206.1
Reinforcement Bars, Epoxy Coated	kg	14,720	11,730	26,450
Structure Excavation	Cu m	113	92	205

BAR LIST - PIER 2

Bar	No. II	No. III	Size	Length (m)	Shape
h82(E)	8		#20	11.77	
h83(E)		8	#20	9.72	
h86(E)	24		#25	12.14	
h87(E)		24	#25	10.10	
p82(E)	24	6	#30	10.72	
p88(E)	12		#35	12.67	
p89(E)	12	6	#30	7.29	
p90(E)	6	6	#30	12.90	
p91(E)	6	6	#30	2.50	
p92(E)		6	#35	10.94	
p93(E)		24	#30	9.51	
p94(E)		6	#30	3.25	
p251(E)	12	6	#35	4.29	
p252(E)	12	6	#30	3.09	
p255(E)	12	6	#30	2.91	
s84(E)	48	24	#15	3.99	
s85(E)	84	84	#15	4.21	
s86(E)	20	20	#15	4.38	
s87(E)		6	#15	3.97	
s91(E)	76	62	#25	3.80	
s92(E)	76	62	#25	4.86	
s94(E)	56	28	#15	2.49	
s100(E)	10	5	#20	3.02	
s251(E)	30	24	#15	2.94	
s252(E)	30	24	#15	2.78	
s253(E)	20	16	#15	2.60	
s254(E)	10	8	#15	2.50	
s255(E)	45	36	#15	1.06	
t81(E)	51	42	#15	1.90	
t82(E)	76	62	#25	2.70	
u81(E)	6	3	#20	3.13	
v81(E)	80	64	#35	5.13	
w82(E)	22		#15	11.66	
w83(E)		22	#15	9.54	

BILL OF MATERIAL - PIER 2

Item	Unit	II	III	Total
Concrete Structures	Cu m	111.9	94.1	205.9
Reinforcement Bars, Epoxy Coated	kg	14,720	11,730	26,450
Structure Excavation	Cu m	110	74	184



DETAIL 2

Notes:

1. p88(E), p89(E) and p92(E) bars shall be placed level (horizontally).
2. See pier elevation sheets RS-56 thru RS-63 for location and number of p(E) bars.

Legend:

- ● Straight bars
- ○ Hooked bars

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. See Sht. RS-66 for Bar Splicer details and Bill of Material.

SHT. RS-65 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

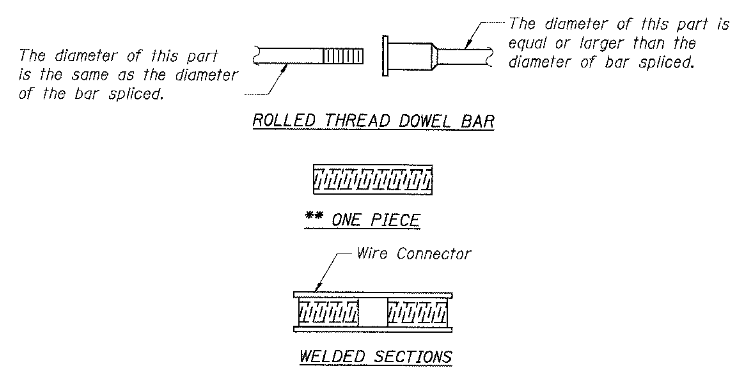
PIER 1 & 2 BAR LIST & BILL OF MATERIAL - II & III

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

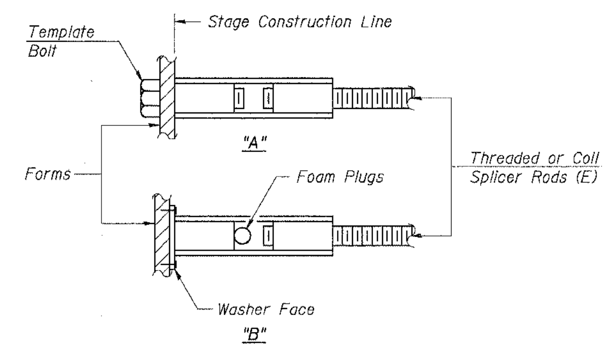
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	438
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2   CONTRACT NO. 62111



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.

NOTES

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

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

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

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

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

① Minimum Capacity (Tension in kN) $= 1.25 \times fy \times A_t$

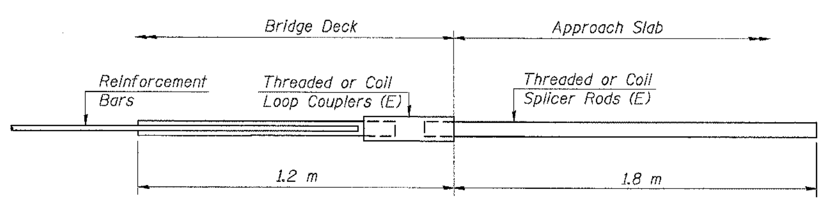
② Minimum *Pull-out Strength (Tension in kN) $= 1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in MPa.
fs_{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	640 mm	100	40
#20	790 mm	150	60
#25	1.32 m	250	100
#30	1.85 m	350	140
#35	2.64 m	500	200

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."

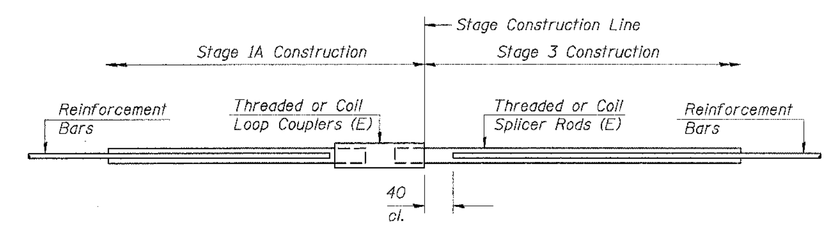
All dimensions in millimeters (mm) except as noted.



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #15 bar			
Min. Capacity = 100 kN - tension			
Min. Pull-out Strength = 40 kN - tension			
No. Required =	Deck Plan	Construction Stage	
124	I	1A & 1B	**
144	II	2	
120	III	2 & 3	
89	IV	1A	**

** Provided in Previous Contract 62110. See Note 1.



STANDARD

No. Assemblies Required				Locations	
Bar Size #15	Bar Size #20	Bar Size #25	Bar Size #30		
6		8		W. Abutment	**
11	4	12	24	Pier 1	**
11	4	12	24	Pier 2	**
6		8		E. Abutment	**
636	20	2		Deck Plan III/IV	**

** Provided in Previous Contract 62110. See Note 1.

Note:

1. Bar Splicers were paid for and the coupler ends installed during a previous contract. The splicer rods are in storage under ownership of the Department. The Contractor shall obtain the splicer rods from the Engineer and install them under this contract. Installation of the splicer rods including cleaning of coupler ends and splicer rods shall be included with Concrete Structures or Concrete Superstructure as applicable.

BSD-1 9-31-03 (MODIFIED FOR METRIC)

SHT. RS-66 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

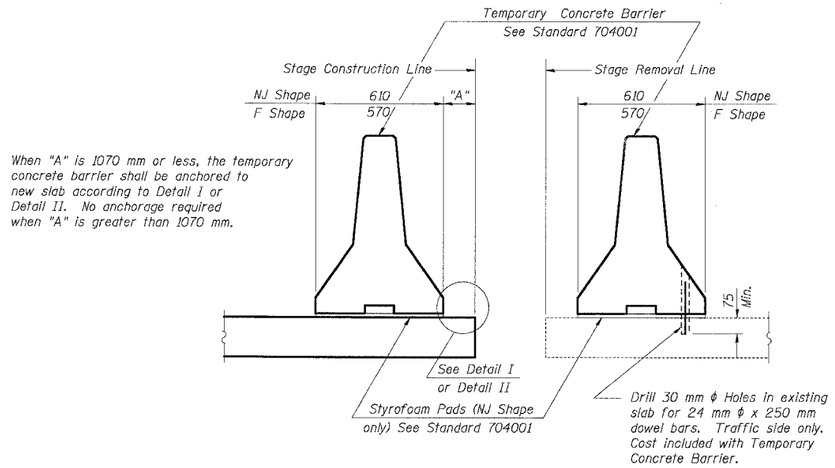
BAR SPLICER DETAILS

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	439
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



NEW SLAB **EXISTING SLAB**

NOTES

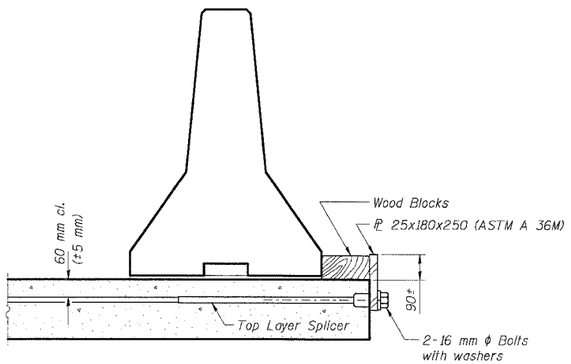
Detail I - With Bar Splicer or Couplers:
Connect one (1) 25x180x250 steel ℙ to the top layer of couplers with 2-16 mm ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 25x180x250 steel ℙ to the concrete slab with 2-16 mm ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage included with Temporary Concrete Barrier.

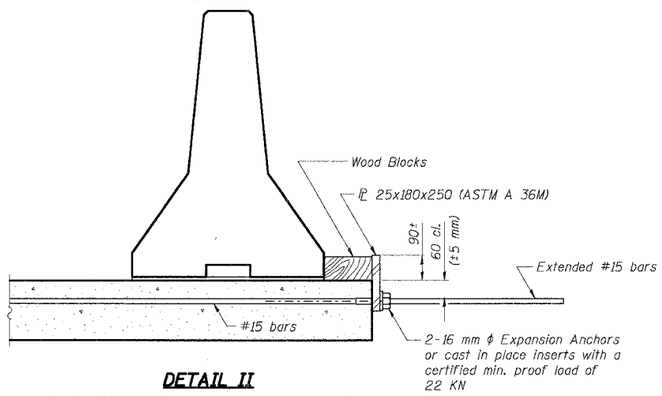
All dimensions are in millimeters (mm) except as noted.

SECTIONS THRU SLAB



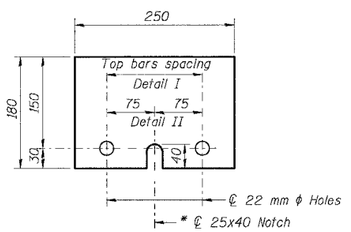
DETAIL I

The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



ℙ 25x180x250

* Required only with Detail II

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

RS-27 9-01-03 (MODIFIED FOR METRIC)

SHT. RS-67 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

DATE: 7/18/2005 DRAWN BY:
CHECKED BY:

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	440
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

Boring No. 351, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 2/19/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___ , TWP. 36 N , RNG. 14E/15 E

Boring No. 351
Station 5+997 (CL I-80/94)
Offset 40.00m LT.
Surface Elev. 183.10 m

Surface Water Elev. ______
Groundwater Elev.:
when drilling ______
at Completion ______
after ______ Hrs. ______

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
TOPSOIL	182.80				
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel and roots			3 3 5	201 B	26
		-1.5	2 3 6	163 B	27
			2 3 4	201 B	22
		-3.0	4 5 7	240 B	23
Stiff, Gray SILTY CLAY LOAM trace - gravel	179.95		2 3 5	163 B	19
		-4.5	2 4 6	163 B	20
			2 3 4	96 B	26
Loose, Gray SILTY LOAM	177.70	-6.0	1 4 5		18
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	176.95		2 3 6	201 B	20
		-7.5	3 4 7	201 B	20
			3 4 5	172 B	20
		-9.0	2 5 5	163 B	22
		-10.5	3 5 8	201 B	22
		-12.0	4 5 5	278 B	15
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel	170.65				
		-13.5	11 13 16	431 P	15
		-15.0	7 12 15	671 B	13

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 352, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 2/18/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___ , TWP. 36 N , RNG. 14E/15 E

Boring No. 352
Station 6+012 (CL I-80/94)
Offset 40.00m LT.
Surface Elev. 183.60 m

Surface Water Elev. ______
Groundwater Elev.:
when drilling ______
at Completion ______
after ______ Hrs. ______

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
ASPHALT	183.30				
CRUSHED STONE	183.25				
Hard, Gray SILTY CLAY trace - gravel FILL			6 7 7	594 S	16
Stiff, Black SILTY CLAY trace - roots	182.70	-1.5	3 2 4	163 B	25
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel	181.95		3 2 1	115 B	31
		-3.0	2 3 4	240 B	21
Medium Dense to Dense, Gray SILTY LOAM	180.45		4 6 8		20
		-4.5	4 13 17		20
Very Stiff, Gray SILTY CLAY LOAM trace - gravel	178.95		2 3 6	201 B	20
		-6.0	4 7 8	201 B	22
			3 4 5	240 B	17
		-7.5	3 4 6	230 B	19
			3 3 5	278 B	21
		-9.0	3 5 6	211 B	20
		-10.5	3 5 6	211 B	21
		-12.0	3 4 6	240 B	20
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel	171.30				
		-13.5	4 7 11	479 B	14
		-15.0	7 10 13	479 B	11

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 353, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 2/8/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___ , TWP. 36 N , RNG. 14E/15 E

Boring No. 353
Station 6+039 (CL I-80/94)
Offset 40.00m LT.
Surface Elev. 183.30 m

Surface Water Elev. ______
Groundwater Elev.:
when drilling 175.5
at Completion ______
after 72 Hrs. 182.4

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
MISCELLANOUS FILL - Sand, Gravel, Cinders, Slag and Silty Clay FILL			4 5 4		25
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel and roots	182.40	-1.5	2 2 3	96 B	23
			2 3 4	192 B	21
		-3.0	4 6 8	201 B	22
			2 3 5	163 B	19
Medium Dense, Gray SILTY LOAM	179.70				
Medium Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	179.40	-4.5	2 2 3	115 B	30
			1 1 3	144 B	30
		-6.0	1 1 3	163 B	32
			2 4 5	172 B	18
		-7.5	2 3 5	86 B	20
			1 3 5	115 B	20
		-9.0	2 5 7	105 B	19
		-10.5	2 5 9	163 B	25
		-12.0	6 8 10	201 B	20
		-13.5	5 7 9	172 B	15
		-15.0	4 8 12	249 B	15

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 351, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 2 of 2
Date 2/19/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 351
Station 5+997 (CL I-80/94)
Offset 40.00m LT.
Surface Elev. 168.10 m

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
		-16.5	9 10 16	431 P	13
Dense to Extreme Dense, Gray SILTY LOAM (Hardpan) trace to little - gravel	166.30				
		-18.0	8 14 19		13
		-19.5	8 15 18		13
END OF BORING	162.45		50/100 m		13
		-21.0			
		-22.5			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 352, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 2 of 2
Date 2/18/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 352
Station 6+012 (CL I-80/94)
Offset 40.00m LT.
Surface Elev. 168.60 m

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
		-16.5	7 9 12	383 P	13
Medium Dense to Dense, Gray SILTY LOAM (Hardpan)	166.65				
		-18.0	10 13 17		13
		-19.5	12 14 15		14
			11 16 29		12
END OF BORING	162.60	-21.0			
		-22.5			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 353, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 2 of 2
Date 2/8/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 353
Station 6+039 (CL I-80/94)
Offset 40.00m LT.
Surface Elev. 168.30 m

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
		-16.5	5 7 9	201 B	14
Medium Dense, Gray SILTY LOAM trace - gravel	166.35				
		-18.0	6 7 11		15
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel	164.85				
		-19.5	9 11 13	383 P	15
Extreme Dense, Gray SILTY LOAM (Hardpan)	163.35				
			36 50/50 mm		10
END OF BORING	162.47	-21.0			
		-22.5			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

SHT. RS-68 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

BORING LOGS - I

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	441
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

Boring No. 354, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 2/7/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 354
Station 6+055 (CL I-80/94)
Offset 39.00m LT.
Surface Elev. 183.40 m

Surface Water Elev. ___
Groundwater Elev.: when drilling ___
at Completion ___
after 96 Hrs. 182.5

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
MISCELLANOUS FILL - Sand, Gravel, Slag, Cinders, Ballast, and Silty Clay			3 4 4		20
FILL	182.05	-1.5	1 2 2	125 P	30
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel			1 2 3	125 B	22
		-3.0	1 3 4	278 B	23
Medium Dense, Gray SILTY LOAM	180.25		2 10 12		20
		-4.5	4 7 8		21
			3 6 7		23
		-6.0	4 7 7		22
Medium Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	177.25		3 2 4	163 S	20
		-7.5	1 3 5	77 B	20

DEPTH	BLOWS	Qu kPa	W %
	2 3 5	115 B	16
-9.0	1 2 4	105 B	17
-10.5	1 3 4	163 B	22
-12.0	2 4 6	163 B	22
-13.5	4 5 6	249 B	14
-15.0	4 5 7	278 B	14

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 355, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 2/15/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 355
Station 5+997 (CL I-80/94)
Offset 35.50m RT.
Surface Elev. 183.80 m

Surface Water Elev. ___
Groundwater Elev.: when drilling ___
at Completion ___
after 72 Hrs. 182.9

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
TOPSOIL	183.50				
Hard, Black, Brown and Gray SILTY CLAY trace - gravel and roots			4 4 6	383 P	19
FILL	182.90				
Very Stiff, Brown and Gray SILTY CLAY trace - gravel		-1.5	3 3 4	201 B	22
			3 5 6	240 B	22
		-3.0	5 6 11	278 B	19
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	180.65		6 6 6	163 B	20
		-4.5	3 4 6	163 B	15
			4 7 6	96 B	22
		-6.0	2 3 5	115 B	24
			3 4 7	201 B	21
		-7.5	3 6 9	201 B	21

DEPTH	BLOWS	Qu kPa	W %
	4 6 9	182 B	20
-9.0	4 5 7	201 B	20
-10.5	3 4 8	182 B	21
-12.0	3 5 9	201 B	20
-13.5	5 9 13	163 B	18
-15.0	5 6 10	316 B	14

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 356, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 2/14/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 356
Station 6+012 (CL I-80/94)
Offset 34.00m RT.
Surface Elev. 183.70 m

Surface Water Elev. ___
Groundwater Elev.: when drilling ___
at Completion 162.7
after 24 Hrs. 182.8

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
TOPSOIL	183.40				
Very Stiff to Hard, Black, Brown and Gray SILTY CLAY trace - gravel and roots			5 5 5	383 P	21
		-1.5	3 4 8	192 P	23
FILL	182.05				
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel			2 3 5	201 S	21
		-3.0	2 3 6	172 B	21
Dense, Gray SILTY LOAM	180.55		12 18 15		19
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	179.80	-4.5	3 3 7	240 B	19
			2 3 5	163 B	21
		-6.0	3 4 5	153 B	22
			3 3 5	134 B	26
Loose to Medium Dense, Grey SILTY LOAM trace - gravel	176.80	-7.5	3 3 3		17

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
			4 5 6		23
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	175.30	-9.0	2 3 6	163 B	21
		-10.5	2 2 3	96 B	21
		-12.0	3 7 9	201 B	22
		-13.5	3 5 6	240 B	19
		-15.0	4 7 10	278 B	14

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 354, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 2 of 2
Date 2/7/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 354
Station 6+055 (CL I-80/94)
Offset 39.00m LT.
Surface Elev. 168.40 m

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
		-16.5	5 6 11	316 B	14
		-18.0	5 6 8	278 B	14
		-19.5	5 7 10	335 B	15
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel	163.60				
			10 21 50	632 B	13
END OF BORING	162.40	-21.0			
		-22.5			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 355, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 2 of 2
Date 2/15/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 355
Station 5+997 (CL I-80/94)
Offset 35.50m RT.
Surface Elev. 168.80 m

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
		-16.5	5 6 7	201 B	15
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel	167.00				
		-18.0	5 10 14	383 B	14
		-19.5	8 13 15	671 S	14
Extreme Dense, Gray SILTY LOAM (Hardpan) trace to little - gravel	163.85				
END OF BORING	163.17		50/75 m		8
		-21.0			
		-22.5			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 356, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG

Page 2 of 2
Date 2/14/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 356
Station 6+012 (CL I-80/94)
Offset 34.00m RT.
Surface Elev. 168.70 m

Description	Elev.	DEPTH	BLOWS	Qu kPa	W %
		-16.5	4 6 10	201 B	14
		-18.0	3 4 9	172 B	14
		-19.5	4 9 12	201 B	15
Very Dense to Extreme Dense, Gray SILTY LOAM (Hardpan) trace to little - gravel	163.90				
		-21.0	10 23 47		15
END OF BORING	161.52		50/125 m		10
		-22.5			

SPT (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

SHT. RS-69 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

BORING LOGS - II

DATE: 7/18/2005
DRAWN BY: LC
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

7-12-2005, 10:26:15 T:\DOCUMENT\V93I750\STRUCT\DGN\B0I73022A.DGN BAJZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	442
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (2425 & 2626) R-2 CONTRACT NO. 62111

Boring No. 357, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 1 of 2 Date 1/31/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 357
Station 6+040 (CL I-80/94)
Offset 32.00m RT.
Surface Elev. 183.00 m

Surface Water Elev. ___
Groundwater Elev.: when drilling ___ at Completion ___ after ___ Hrs. ___

Description	Elev.	Depth	Blows	Qu kPa	W %
SAND AND GRAVEL FILL	182.70				
Very Stiff, Brown and Gray SILTY CLAY trace - gravel			3 5 6	201 B	21
		-1.5	2 3 5	259 B	24
			2 3 5	297 B	21
		-3.0	4 7 8	297 B	21
Medium Dense, Gray SILTY LOAM trace - gravel	179.85		2 7 12		20
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	179.10	-4.5	2 3 5	144 B	23
			2 6 10	172 B	21
		-6.0	4 5 6	163 B	29
			3 4 6	163 B	17
		-7.5	3 5 6	201 B	17
			2 2 4	201 B	17
		-9.0	1 3 5	163 B	21
		-10.5	1 3 5	163 B	20
		-12.0	3 4 6	240 B	21
		-13.5	4 6 9	240 B	18
		-15.0	4 7 10	249 B	14

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 358, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 1 of 2 Date 2/13/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2792 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 358
Station 6+054 (CL I-80/94)
Offset 32.00m RT.
Surface Elev. 183.30 m

Surface Water Elev. ___
Groundwater Elev.: when drilling 178.5 at Completion ___ after 24 Hrs. 182.4

Description	Elev.	Depth	Blows	Qu kPa	W %
CRUSHED STONE FILL	182.85				
Stiff to Hard, Brown and Gray SILTY CLAY trace - gravel			4 6 7	383 P	20
		-1.5	3 5 7	335 P	21
			2 4 5	163 B	22
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	180.90	-3.0	4 5 5	192 P	21
			3 3 9	115 B	20
		-4.5	2 4 6	163 B	21
			3 4 5	240 B	22
Loose, Gray SILTY LOAM trace - gravel	177.90	-6.0	3 4 6		18
Very Stiff, Gray SILTY CLAY LOAM trace - gravel	177.15		3 4 6	201 B	21
		-7.5	3 4 7	201 B	21
Loose to Medium Dense, Gray SILTY LOAM trace - gravel	175.65		3 4 4		20
		-9.0	2 4 6		19
		-10.5	4 5 5		28
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel	172.35	-12.0	4 11 12	144 B	25
		-13.5	4 6 9	220 B	20
		-16.0	4 7 10	220 B	19

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 357, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 2 of 2 Date 1/31/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 357
Station 6+040 (CL I-80/94)
Offset 32.00m RT.
Surface Elev. 168.00 m

Description	Elev.	Depth	Blows	Qu kPa	W %
		-16.5	3 5 6	249 B	14
		-18.0	3 6 11	201 B	13
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel	164.70	-19.5	8 11 14	651 B	14
Extreme Dense, Gray SILTY LOAM trace to little - gravel	163.05	-21.0	50/125 mm		12
		-22.5	50/125 mm		15
Extreme Dense, SANDY LOAM trace to little - gravel	160.36		39 50/100 mm		14
END OF BORING	159.90				
		-24.0			
		-25.5			
		-27.0			
		-28.5			
		-30.0			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 358, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 2 of 2 Date 2/13/02

STRUCTURE NO. 016-2792
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 358
Station 6+054 (CL I-80/94)
Offset 32.00m RT.
Surface Elev. 168.30 m

Description	Elev.	Depth	Blows	Qu kPa	W %
		-16.5	5 10 14	316 B	14
		-18.0	3 5 7	201 B	13
		-19.5	4 7 11	240 B	15
Extreme Dense, Gray SILTY LOAM (Hardpan) trace to little - gravel	163.35	-21.0	15 50/150 mm		16
END OF BORING	161.00	-22.5	31 50/100 mm		17

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

SHT. RS-70 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

BORING LOGS - III

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	443
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

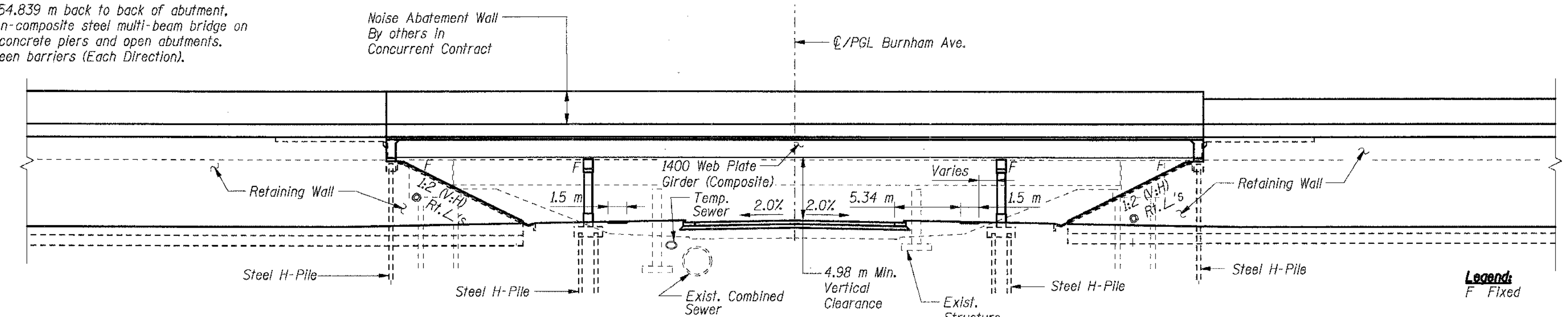
* (2425 & 2626) R-2 CONTRACT NO. 62111

BENCHMARKS:
BM "6E" Square cut in northwest corner of southwest handrail (J-Wall) at the southwest abutment of existing I-80 bridge over Burnham Ave. El. 187.309

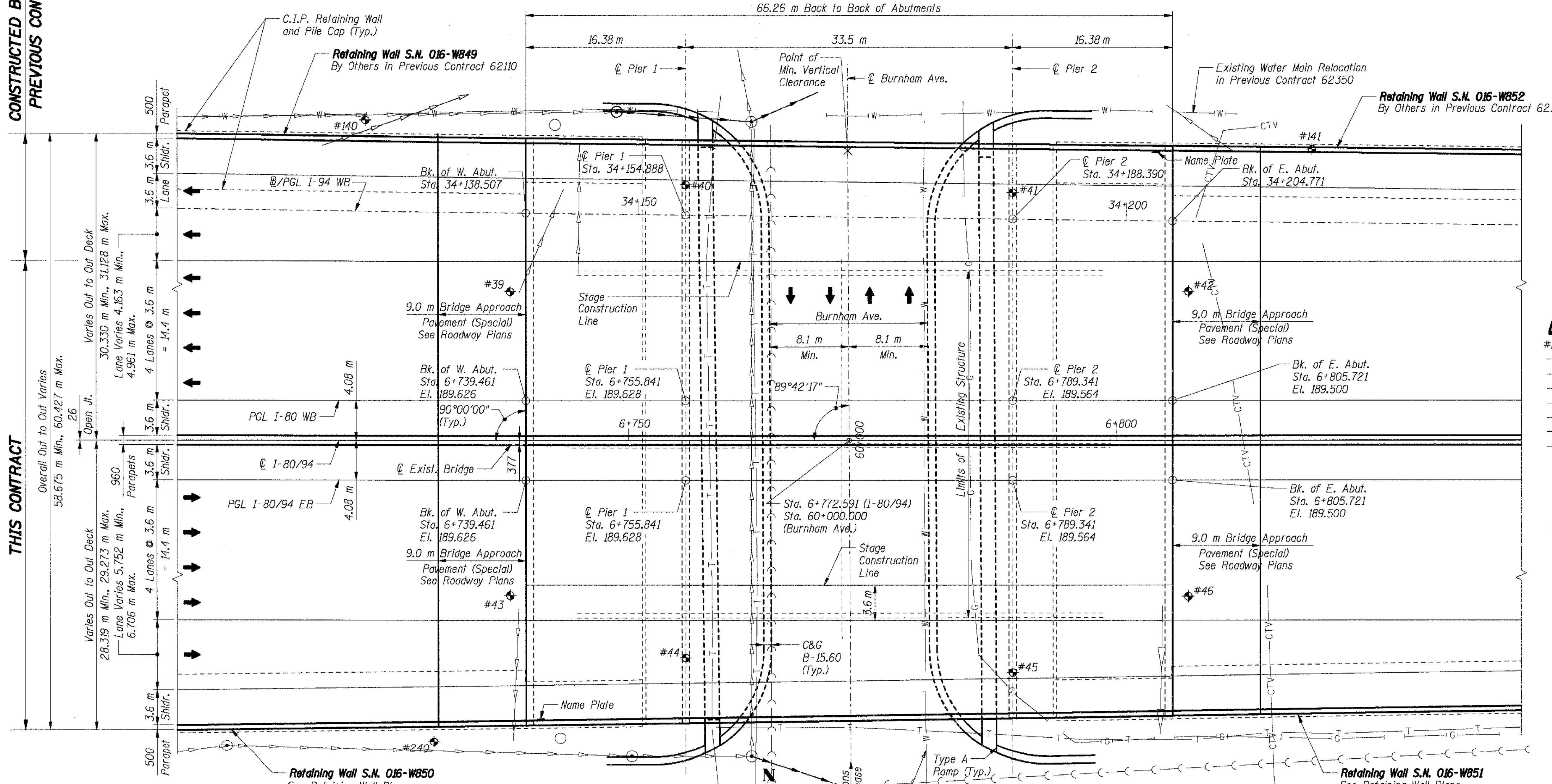
EXISTING STRUCTURE:
Structure No. 016-0082 Three span, 54.839 m back to back of abutment, continuous non-composite steel multi-beam bridge on multi-column concrete piers and open abutments. 16.98 m between barriers (Each Direction).

SALVAGE: None

STAGING: See sections on Sht. BS-4 for staging.



Legend:
F Fixed



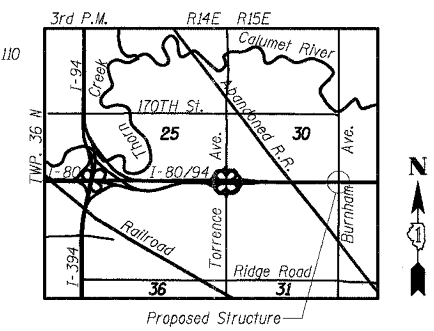
DESIGN SPECIFICATIONS:
2002 AASHTO Standard Specifications for Highway Bridges.

1989 AASHTO Guide Specifications for Structural Design of Sound Barriers with 1992 Interims.

DESIGN LOADING:
Roadway Live Load: MS-18 & Alt.
Future Wearing Surface: 2.4 kN/sq. m.
Noise Abatement Wall:
Wind Load: 1.7 kPa
Design Height: 3.16 m measured from top of parapet

DESIGN STRESSES:
Concrete, f'c: 24 MPa
Reinforcement, fy: 400 MPa
Structural Steel, fy: 345 MPa (M270M Grade 345)
, fy: 250 MPa (M270M Grade 250)

SEISMIC DATA:
Seismic Performance Category (SPC): A
Bedrock Acceleration Coefficient (A): 0.04g
Site Coefficient (S): 1.0



LOCATION MAP

LEGEND
#240 Soil Boring
Exist. Combined Sewer
Existing Gas Main (to be relocated)
Existing Water Main
Existing Telephone
Existing Cable Television (to be relocated by others)
Proposed Storm Sewer (See Drainage Plans)
Existing Storm Sewer (See Drainage Plans)
Existing Manhole (See Drainage Plans)
Existing Catch Basin (See Drainage Plans)
Proposed Manhole (See Drainage Plans)

STATE OF ILLINOIS — VINOD C. PATEL — 081-005578 — CHICAGO, IL — LICENSED STRUCTURAL ENGINEER
DATE 7-14-2005
EXP. 11-30-2006

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Minimum and maximum dimensions are measured along the back of abutments perpendicular to ℄ I-80/94.
3. For PGL of Burnham Ave. & I-80 see Sht. BS-2

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (TJO)
ENGINEER OF BRIDGES AND STRUCTURES

SHT. BS-1 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

GENERAL PLAN & ELEVATION

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	444
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

INDEX OF SHEETS

F.I.O. Included For Information Only.

GENERAL NOTES

1. Fasteners shall be high strength bolts. Bolts M22, open holes 24 mm diameter unless otherwise noted.

2. Calculated mass of Structural Steel** =
   375,550 kg. M 270M Gr. 345
   23,980 kg. M 270M Gr. 250
   Calculated mass of Anchor Bolts*** = 210 kg
   ** Structural Steel to be erected under pay item Erecting Structural Steel. The listed masses include mass of structural framing, low profile fixed bearings, adjusting shim plates for bearings and bolts.
   *** Anchor bolts to be furnished and installed under pay item Furnishing and Erecting Structural Steel.

3. The organic zinc rich primer / epoxy / urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system with the exception of masked off connection surfaces will be shop applied by the Fabricator. The masked off connection areas and any damaged areas shall be touched up in the field by this Contractor. The color of the final finish coat for the interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for all exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsel No. 2.5YR 3/4. See Special Provisions for "Cleaning and Painting New Metal Structures."

*4. All structural steel shall be AASHTO M270M Grade 345 unless otherwise noted. Fill plates can be Grade 250.

5. Field welding of construction accessories will not be permitted to beams or girders.

6. Anchor bolts for bearings shall be set before bolting cross frames over supports.

*7. 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, webs and all splice plate material except fill plates.

8. Reinforcement Bars shall conform to the requirements of AASHTO M 31M or M 322M, Grade 400.

9. 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.

10. The Embankment Configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

11. Plan dimensions and details relative to existing structures have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

12. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 3 mm. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 3 mm adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. (Shims will be furnished under a separate Fabrication Contract.)

13. The contractor shall drive two test piles in a permanent location, one each at west abutment and pier 2 as directed by the Engineer before ordering the remainder of piles.

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

15. The existing structural steel coating contains lead based paint. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

16. All construction joints shall be bonded.,

17. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06 of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

18. Conduits are shown in bridge plans for location and installation purposes only. Refer to Electrical Raceway Plans for details, pay items and quantities.

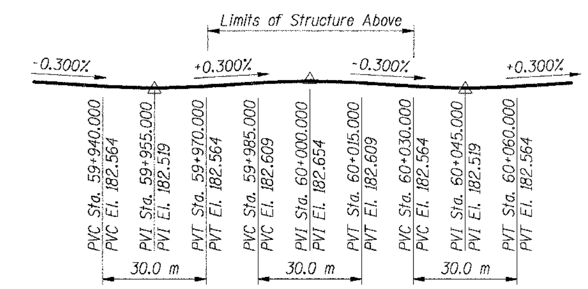
19. Proposed abutment backfill shall not be disturbed after placement. Removal of Existing Temporary Sheet Piling and placement of backfill behind abutments shall be coordinated with adjacent contracts, and staged embankment construction and bridge construction as necessary.

* These notes included in erection contract for information only.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUBSTRUCTURE	SUPERSTRUCTURE	TOTAL
Removal Of Existing Structures No. 2	Each			1
Temporary Sheet Piling Removal	Sq M	160		160
Protective Shield	Sq M		1164	1164
Stud Shear Connectors	Each		15,885	15,885
Porous Granular Embankment (Special)	Cu M	720		720
Structure Excavation	Cu M	542		542
Concrete Structures	Cu M	537.7		537.7
Concrete Superstructure	Cu M		830.1	830.1
Bridge Deck Grooving	Sq M		3,037	3,037
Protective Coat **	Sq M		3,311	3,311
Erecting Structural Steel	L Sum		1	1
Furnishing And Erecting Structural Steel	Kg	210		210
Reinforcement Bars, Epoxy Coated	Kg	67,840	131,930	199,770
Furnishing Steel Piles HP310X79	Meter	3267.0		3267.0
Driving Steel Piles	Meter	3267.0		3267.0
Test Pile Steel HP310X79	Each	2		2
Preformed Joint Seal 64mm	Meter		66.3	66.3
Bar Splicers	Each	106	1,136	1,242
Noise Abatement Wall Anchor Rod Assembly	Each		21	21
Name Plates	Each		1	1
Slope Wall 100 mm	Sq M	1,264		1,264

** Quantity includes top and inside surfaces of parapets and top surface of bridge deck.

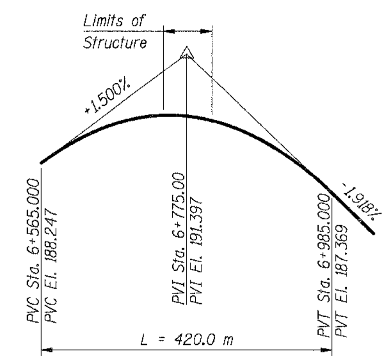


PGL BURNHAM AVENUE

PGL I-94 WB

SPLINE CURVE DATA	
Station	Elevation
34+110.000	189.436
34+115.000	189.453
34+120.000	189.467
34+125.000	189.479
34+130.000	189.489
34+135.000	189.497
34+140.000	189.503
34+145.000	189.507
34+150.000	189.508
34+155.000	189.508
34+160.000	189.506
34+165.000	189.502
34+170.000	189.496
34+175.000	189.487
34+180.000	189.477
34+185.000	189.465
34+190.000	189.450
34+195.000	189.434
34+200.000	189.415
34+205.000	189.395
34+210.000	189.372
34+215.000	189.348
34+220.000	189.321
34+225.000	189.292
34+230.000	189.262

Limits of Structure



PGL I-80/94

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

SHT. BS-2 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL

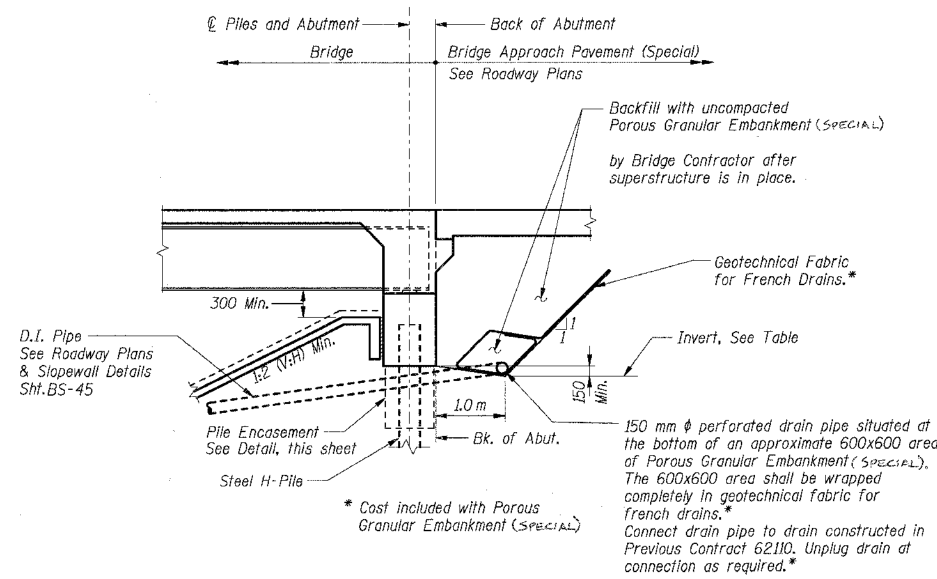
DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	445
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

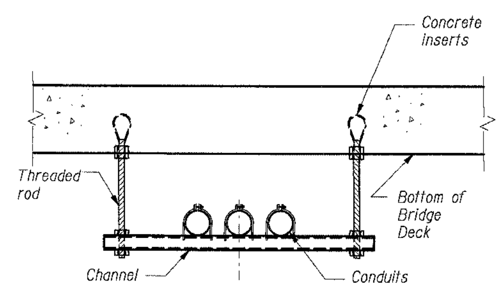


ABUTMENT BACKFILL SECTION

150 mm ϕ Perforated Drain Pipe Invert Elevation Table

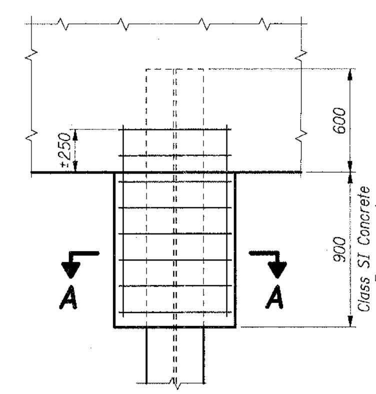
Location & Station (℄ I-80/94)	Offset (m)	Invert Elev.
West Abut. Sta. 6+738.461		
At Wall W849	30.606 LT	186.183
Lowpoint	22.03 LT	186.140
Const. Joint	19.03 LT	186.155
CenterLine I-80/94	0.00	186.250
Lowpoint	17.00 RT	186.165
At Wall W850	28.75 RT	186.224
East Abut. Sta. 6+806.721		
At Wall W852	29.827 LT	186.083
Lowpoint	22.03 LT	186.040
Const. Joint	19.03 LT	186.055
CenterLine I-80/94	0.00	186.150
Lowpoint	17.00 RT	186.065
At Wall W851	27.82 RT	186.119

* D.I. Pipe constructed in Contract 62110 by Others.

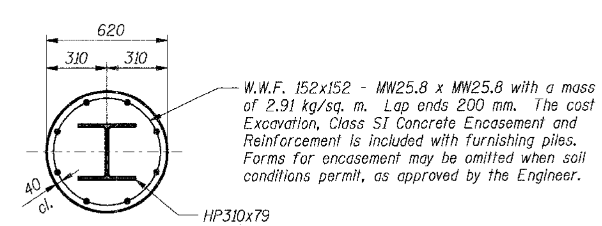


Note: The hanger assemblies including concrete inserts for fiber optic conduits shall be provided as part of the conduit pay items included in Electrical Raceway plans. The cost of installing inserts in the bridge deck shall be included with Concrete Superstructure. Refer to Electrical Raceway plans for limits, numbers and locations of conduits.

HANGER ASSEMBLIES FOR FIBER OPTIC CONDUITS ATTACHED TO BRIDGE DECK



ELEVATION



SECTION A-A

PILE ENCASEMENT AT ABUTMENTS

STATION 6+772.591
BUILT 200_ BY
STATE OF ILLINOIS
F.A.I. RT. 80/94 SEC. 1977-121-R
LOADING MS-18 & ALT.
STR. NO. 016-2791

NAME PLATE

See Standard 515001
See Sht. BS-25 for location.

Notes:

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

SHT. BS-3 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

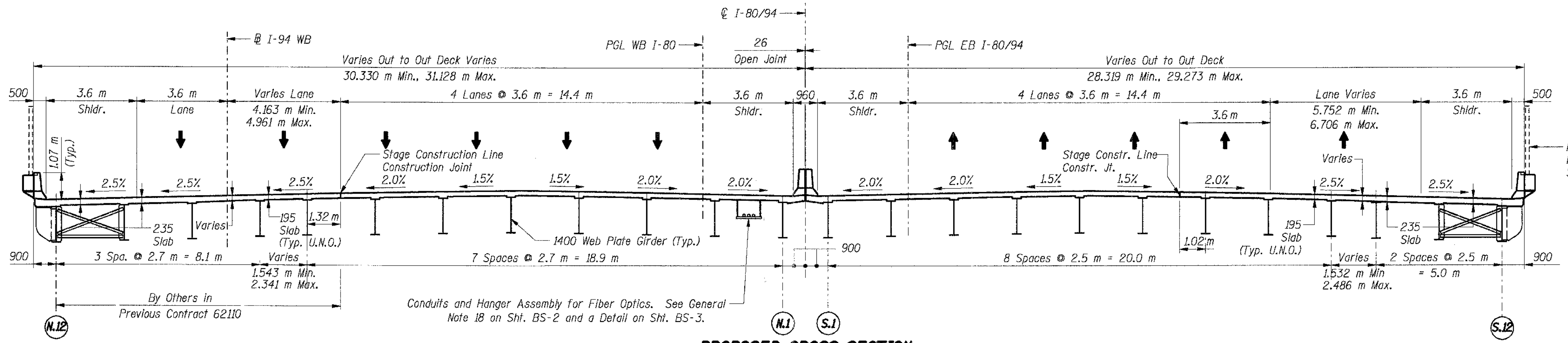
MISCELLANEOUS DETAILS

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

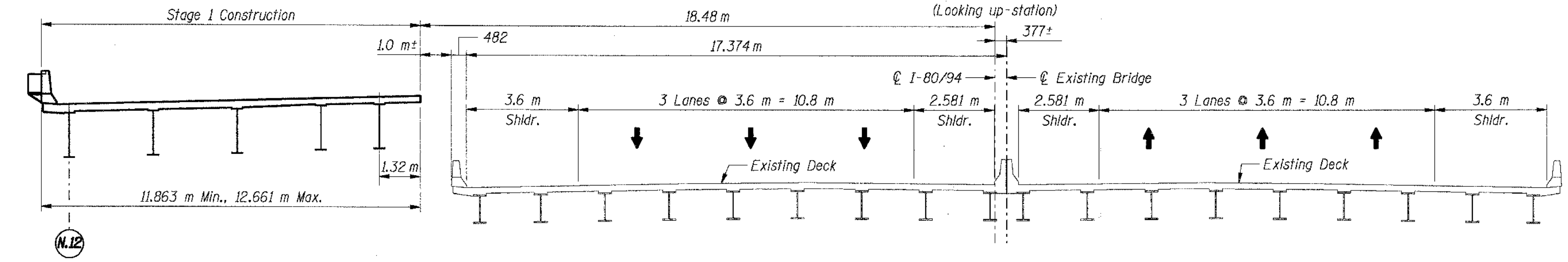
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	446
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



PROPOSED CROSS SECTION

(Looking up-station)



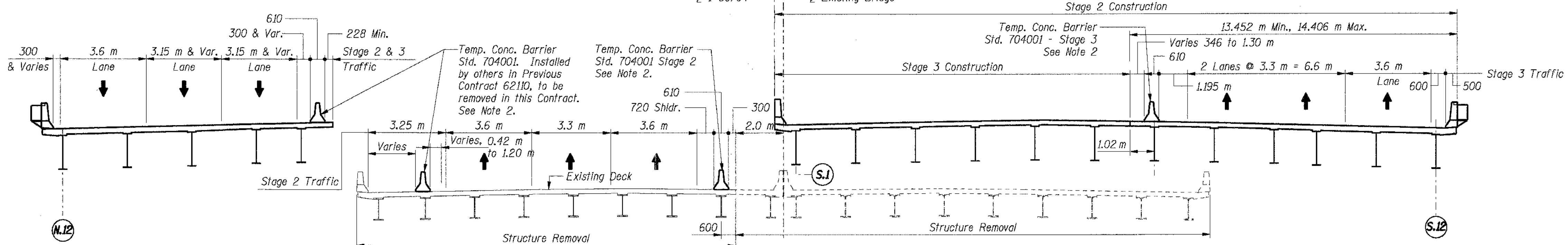
STAGE 1 (M.O.T. Phase II, Stages I thru V)

(PREVIOUS CONTRACT 62110)

(Looking up-station)

CORRELATION BETWEEN BRIDGE CONSTRUCTION STAGES, M.O.T. STAGES, AND CONSTRUCTION CONTRACTS

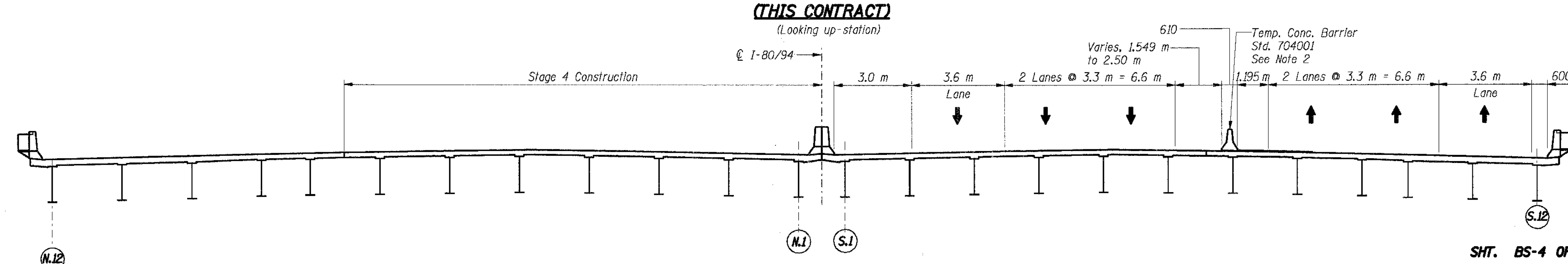
BRIDGE CONSTRUCTION	MAINTENANCE OF TRAFFIC	ERECTION IN CONTRACT
Stage 1	Phase II, Stages I thru V	A (Previous Contract 62110)
Stage 2	Phase III, Stage I	B (This Contract)
Stage 3	Phase III, Stage II	B (This Contract)
Stage 4	Phase III, Stage III	B (This Contract)



STAGES 2 & 3 (M.O.T. Phase III, Stages I & II)

(THIS CONTRACT)

(Looking up-station)



STAGE 4 (M.O.T. Phase III, Stage III)

(THIS CONTRACT)

(Looking up-station)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. See Sht. BS-57 For Temporary Concrete Barrier Installation Details. See Roadway Plans for pay items and quantities.
3. Min. and Max. dimensions are measured along back of abutments perpendicular to ℄ I-80/94.

SHT. BS-4 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

CONSTRUCTION STAGING

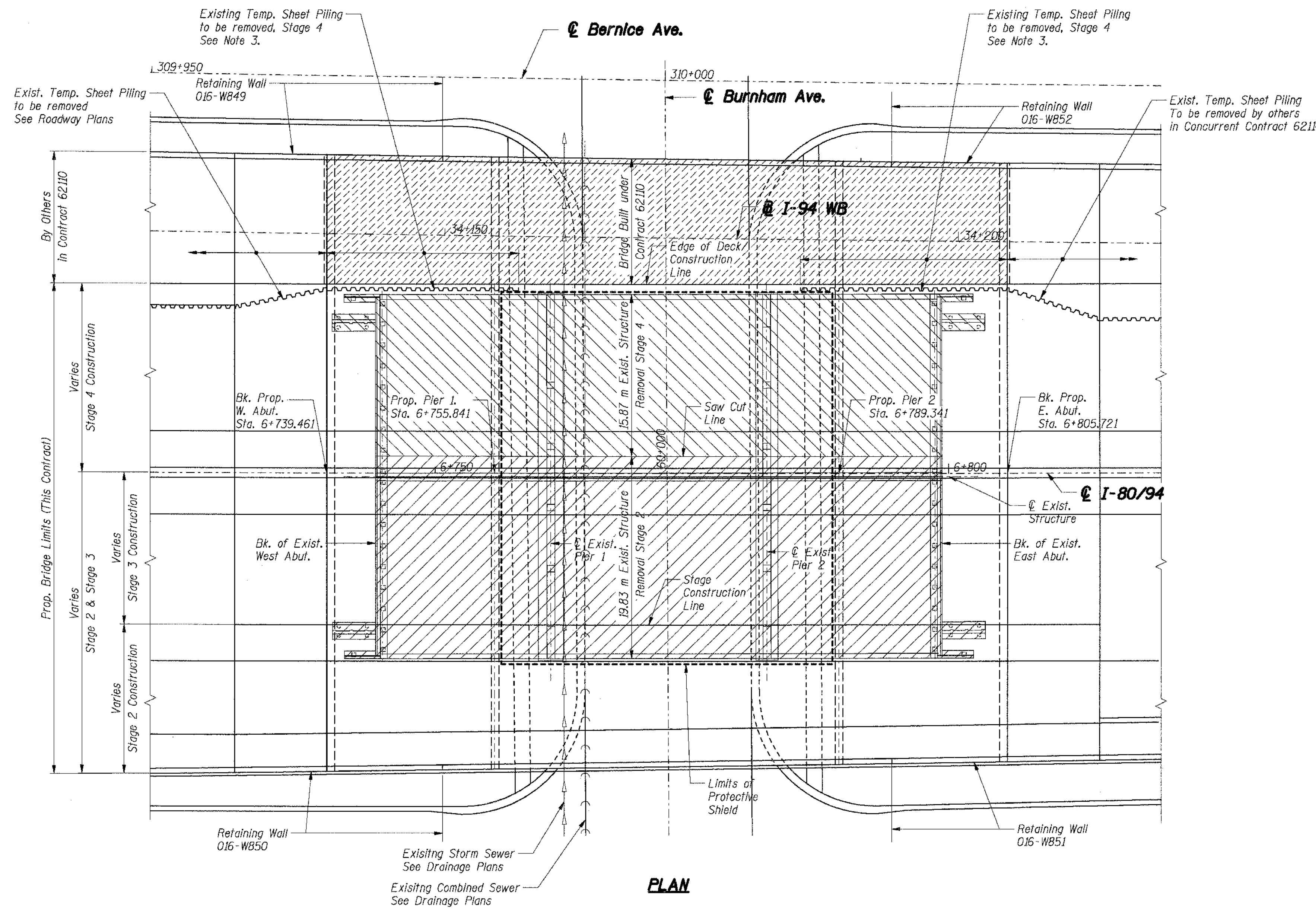
DATE: 7/18/2005

DRAWN BY: LG
CHECKED BY: MJK

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	447
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



PLAN

LEGEND

- Existing Structure to be Removed, Stage 2
- Existing Structure to be Removed, Stage 4
- Bridge Structure Constructed by Others under Contract 62110

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Work this sheet with Sht BS-6.
3. Temporary Sheet Piling was constructed by others in previous Contract 62110.
4. See Sht. BS-4 for Bridge Construction Staging and M.O.T. Staging correlation.

SHT. BS-5 OF 60

REVISIONS	
NAME	DATE

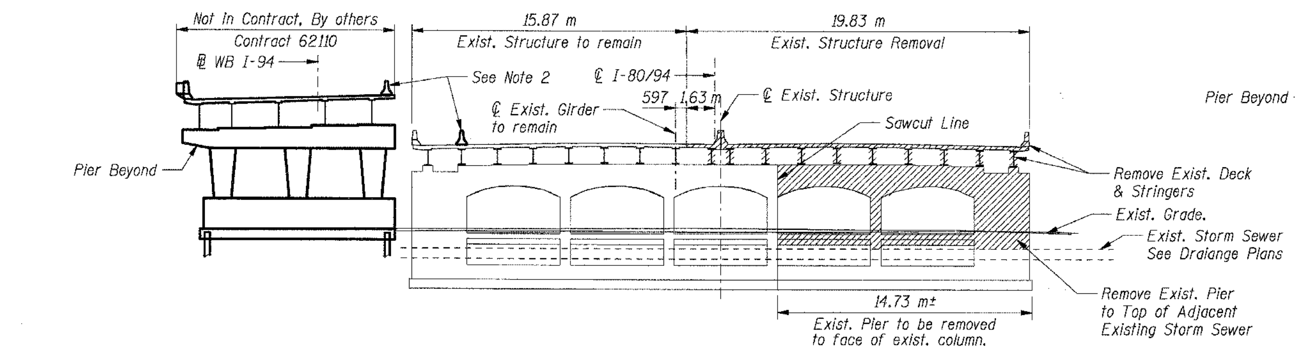
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

EXISTING STRUCTURE REMOVAL PLAN

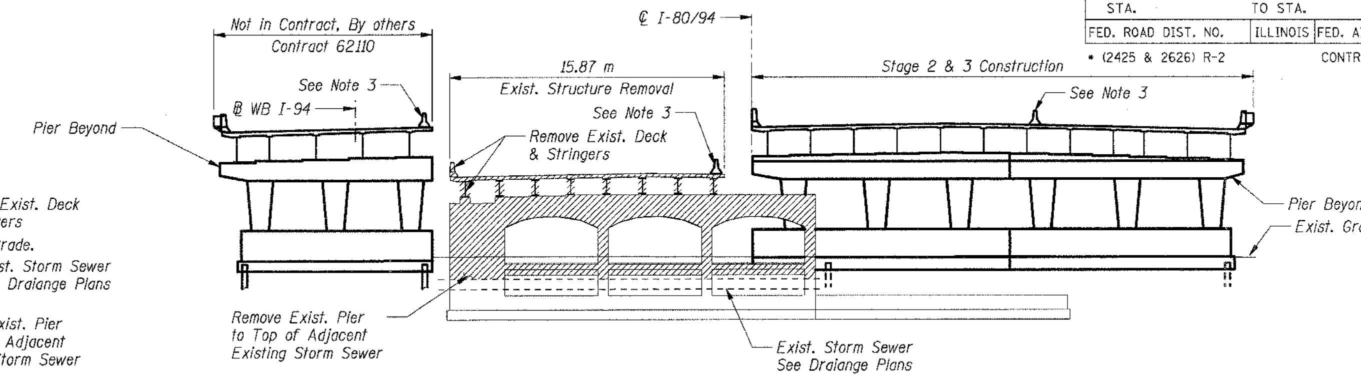
DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

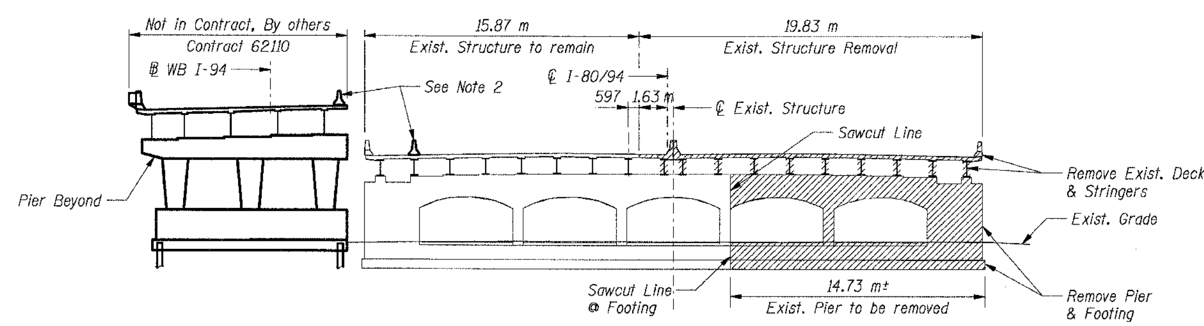
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	448
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (2425 & 2626) R-2		CONTRACT NO. 62111		



EXISTING PIER 1 ELEVATION - STAGE 2 REMOVAL
(Looking East)



EXISTING PIER 1 ELEVATION - STAGE 4 REMOVAL
(Looking East)



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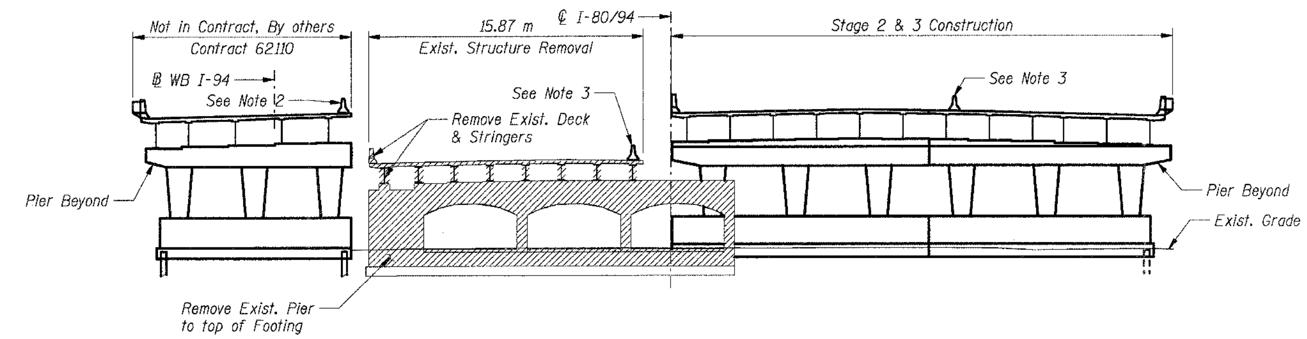
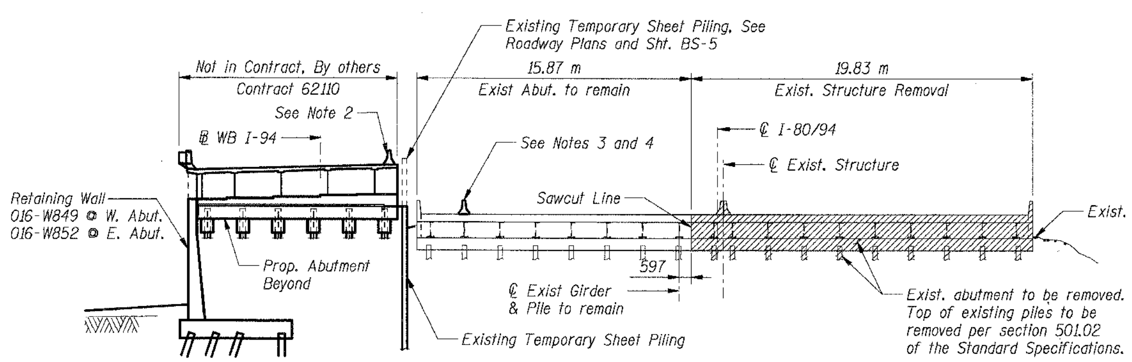
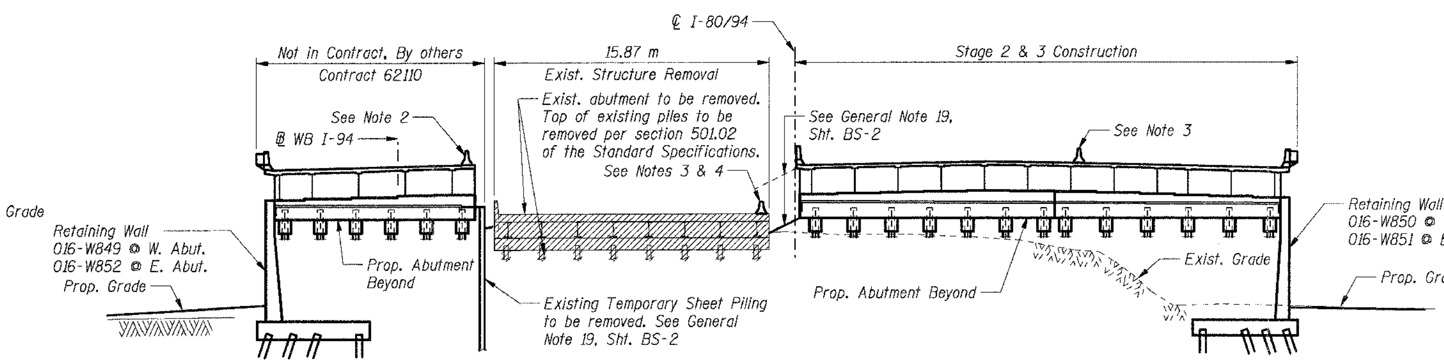
(Looking East)



EXISTING PIER 2 ELEVATION - STAGE 4 REMOVAL
(Looking East)



EAST ABUTMENT ELEVATION - STAGE 2 REMOVAL
WEST ABUTMENT SIMILAR
(Looking East)



EAST ABUTMENT ELEVATION - STAGE 4 REMOVAL
WEST ABUTMENT SIMILAR
(Looking East)

LEGEND:

Existing Structure Removal

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Temporary Concrete Barrier installed by others in Previous Contract 62110, to be removed in this Contract. See Roadway Plans for pay items and quantities.
3. Temporary Traffic Barrier on Bridge, See Sht BS-57 for installation details. See Roadway Plans for pay items and quantities.
4. Temporary Traffic Barrier on Roadway, See Roadway Plans.
5. Work this sheet with Sht. BS-5.

SHT. BS-6 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

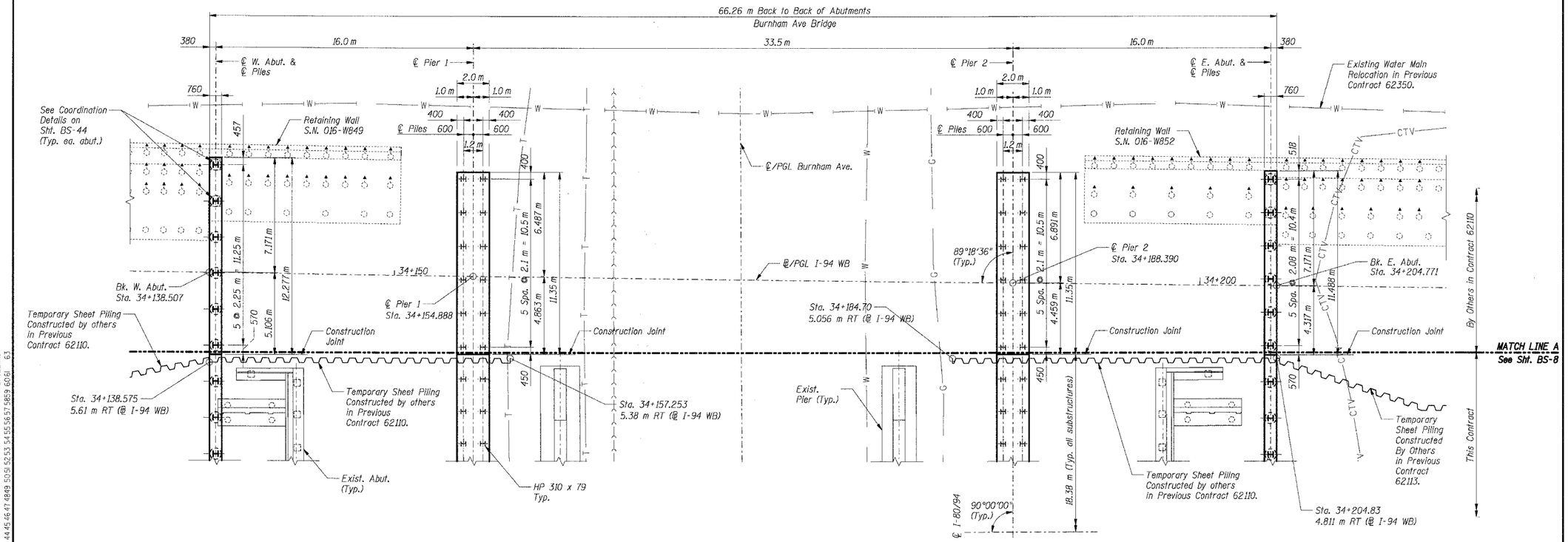
EXISTING STRUCTURE REMOVAL ELEVATIONS

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	449
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2626) R-2 CONTRACT NO. 62111



PLAN
SUBSTRUCTURE LAYOUT - I

N

LEGEND

—C— Existing Combined Sewer
—G— Existing Gas Main
—W— Existing Water Main
—T— Existing Telephone
—CTV— Existing Cable Television

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. All dimensions are along or at right angles to ℄ I-80/94.
3. Temporary Sheet Piling Workpoints are located at South Face of wall.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-7 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

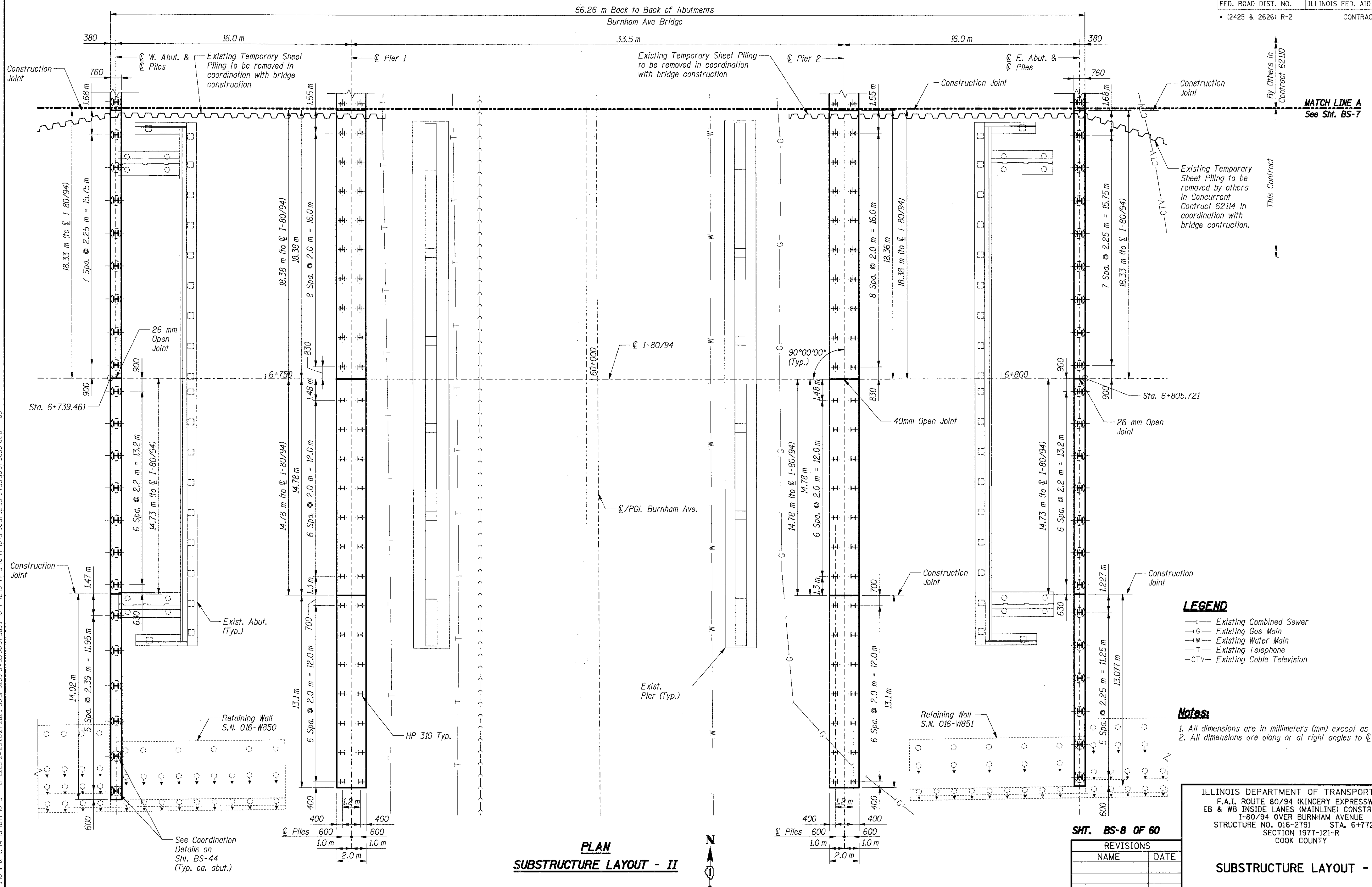
SUBSTRUCTURE LAYOUT - I

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	450
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



66.26 m Back to Back of Abutments
Burnham Ave Bridge
380
16.0 m
33.5 m
16.0 m
380
760
Construction Joint
℄ W. Abut. & ℄ Piles
Existing Temporary Sheet Piling to be removed in coordination with bridge construction
℄ Pier 1
Existing Temporary Sheet Piling to be removed in coordination with bridge construction
℄ Pier 2
℄ E. Abut. & ℄ Piles
Construction Joint
MATCH LINE A
See Sht. BS-7
By Others in Contract 62110
This Contract
Existing Temporary Sheet Piling to be removed by others in Concurrent Contract 62114 in coordination with bridge contruction.
18.33 m (to ℄ I-80/94)
7 Spa. @ 2.25 m = 15.75 m
18.38 m (to ℄ I-80/94)
18.38 m
8 Spa. @ 2.0 m = 16.0 m
18.36 m
26 mm Open Joint
℄ I-80/94
60+000
90°00'00" (Typ.)
6+750
6+800
Sta. 6+739.461
Sta. 6+805.721
40mm Open Joint
26 mm Open Joint
6 Spa. @ 2.2 m = 13.2 m
14.73 m (to ℄ I-80/94)
14.78 m (to ℄ I-80/94)
14.78 m
6 Spa. @ 2.0 m = 12.0 m
℄/PGL Burnham Ave.
Construction Joint
Exist. Abut. (Typ.)
Exist. Pier (Typ.)
14.02 m
5 Spa. @ 2.39 m = 11.95 m
13.1 m
5 Spa. @ 2.25 m = 11.25 m
13.077 m
1.227 m
Retaining Wall S.N. 016-W850
Retaining Wall S.N. 016-W851
HP 310 Typ.
See Coordination Details on Sht. BS-44 (Typ. ea. abut.)
℄ Piles
1.2 m
1.0 m
2.0 m
N

PLAN
SUBSTRUCTURE LAYOUT - II

LEGEND

- —C— Existing Combined Sewer
- —G— Existing Gas Main
- —W— Existing Water Main
- —T— Existing Telephone
- —CTV— Existing Cable Television

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. All dimensions are along or at right angles to ℄ I-80/94.

SHT. BS-8 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

SUBSTRUCTURE LAYOUT - II

DATE: 7/18/2005
DRAWN BY: FD
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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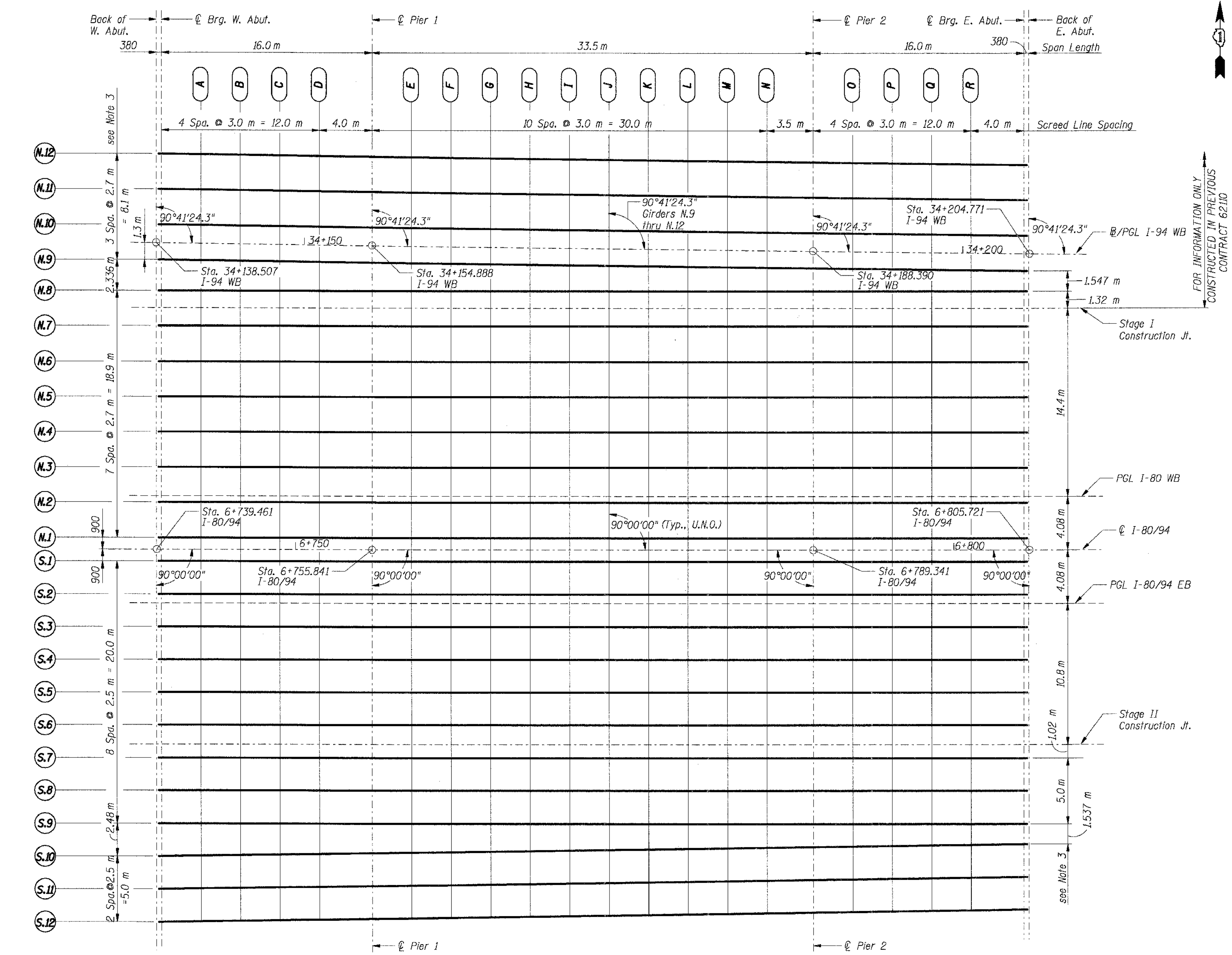
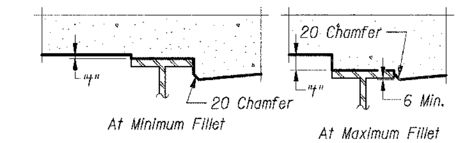
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	451
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

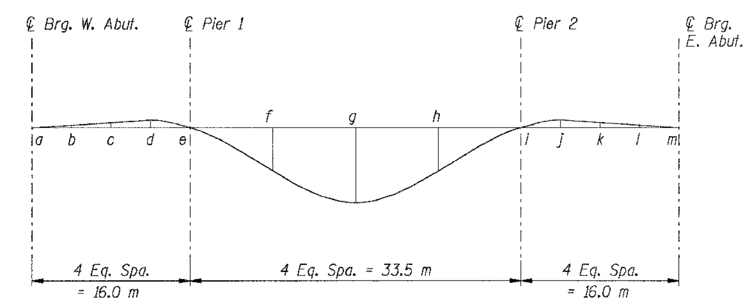


SCREED PLAN



To determine "t": After all structural steel has 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 Deflection" shown on Shts. BS-10 through BS-14, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

DEAD LOAD DEFLECTION TABLE

(Positive deflections are downward)

GIRDERS	DEAD LOAD DEFLECTIONS (mm)												
	a	b	c	d	e	f	g	h	i	j	k	l	m
N.12 & S.12*	0	-1	-2	-2	0	16	25	16	0	-2	-2	-1	0
N.10, N.11 & S.10, S.11	0	-1	-3	-4	0	24	38	24	0	-4	-3	-1	0
N.2 thru N.9 & S.2 thru S.9	0	-1	-3	-3	0	22	34	22	0	-3	-3	-1	0
N.1 & S.1	0	-1	-2	-3	0	18	29	18	0	-3	-2	-1	0

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 as shown in the Top of Deck Elevation tables, Shts. BS-10 to BS-14.

* Dead load deflections for girders N.12 & S.12 exclude the Noise Abatement Wall selfweight.

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Work this sheet with Shts. BS-10 to BS-14.
3. Dimensions are measured along ℄ Brgs. perpendicular to ℄ I-80/94.

SHT. BS-9 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

SCREED PLAN
& DEAD LOAD DEFLECTIONS

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	452
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2   CONTRACT NO. 62111

GIRDER N.1

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-0.9	189.562	189.562
CL Brg W Abut	6+739.841	-0.9	189.562	189.562
A	6+742.841	-0.9	189.564	189.563
B	6+745.841	-0.9	189.565	189.564
C	6+748.841	-0.9	189.566	189.563
D	6+751.841	-0.9	189.566	189.563
CL Brg Pier 1	6+755.841	-0.9	189.564	189.564
E	6+758.841	-0.9	189.562	189.568
F	6+761.841	-0.9	189.560	189.573
G	6+764.841	-0.9	189.556	189.578
H	6+767.841	-0.9	189.552	189.579
I	6+770.841	-0.9	189.547	189.578
J	6+773.841	-0.9	189.541	189.573
K	6+776.841	-0.9	189.535	189.563
L	6+779.841	-0.9	189.528	189.551
M	6+782.841	-0.9	189.520	189.535
N	6+785.841	-0.9	189.512	189.519
CL Brg Pier 2	6+789.341	-0.9	189.501	189.501
O	6+792.341	-0.9	189.491	189.488
P	6+795.341	-0.9	189.480	189.477
Q	6+798.341	-0.9	189.468	189.466
R	6+801.341	-0.9	189.456	189.455
CL Brg E Abut	6+805.341	-0.9	189.438	189.438
Bk E Abut	6+805.721	-0.9	189.437	189.437

GIRDER N.2

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-3.6	189.616	189.616
CL Brg W Abut	6+739.841	-3.6	189.616	189.616
A	6+742.841	-3.6	189.618	189.617
B	6+745.841	-3.6	189.619	189.617
C	6+748.841	-3.6	189.620	189.617
D	6+751.841	-3.6	189.620	189.616
CL Brg Pier 1	6+755.841	-3.6	189.618	189.618
E	6+758.841	-3.6	189.616	189.624
F	6+761.841	-3.6	189.614	189.630
G	6+764.841	-3.6	189.610	189.635
H	6+767.841	-3.6	189.606	189.638
I	6+770.841	-3.6	189.601	189.638
J	6+773.841	-3.6	189.595	189.632
K	6+776.841	-3.6	189.589	189.622
L	6+779.841	-3.6	189.582	189.609
M	6+782.841	-3.6	189.574	189.592
N	6+785.841	-3.6	189.566	189.574
CL Brg Pier 2	6+789.341	-3.6	189.555	189.555
O	6+792.341	-3.6	189.545	189.542
P	6+795.341	-3.6	189.534	189.530
Q	6+798.341	-3.6	189.522	189.520
R	6+801.341	-3.6	189.510	189.509
CL Brg E Abut	6+805.341	-3.6	189.492	189.492
Bk E Abut	6+805.721	-3.6	189.491	189.491

GIRDER N.3

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-6.3	189.670	189.670
CL Brg W Abut	6+739.841	-6.3	189.670	189.670
A	6+742.841	-6.3	189.672	189.671
B	6+745.841	-6.3	189.673	189.671
C	6+748.841	-6.3	189.674	189.671
D	6+751.841	-6.3	189.674	189.670
CL Brg Pier 1	6+755.841	-6.3	189.672	189.672
E	6+758.841	-6.3	189.670	189.678
F	6+761.841	-6.3	189.668	189.684
G	6+764.841	-6.3	189.664	189.689
H	6+767.841	-6.3	189.660	189.692
I	6+770.841	-6.3	189.655	189.692
J	6+773.841	-6.3	189.649	189.686
K	6+776.841	-6.3	189.643	189.676
L	6+779.841	-6.3	189.636	189.663
M	6+782.841	-6.3	189.628	189.646
N	6+785.841	-6.3	189.620	189.628
CL Brg Pier 2	6+789.341	-6.3	189.609	189.609
O	6+792.341	-6.3	189.599	189.596
P	6+795.341	-6.3	189.588	189.584
Q	6+798.341	-6.3	189.576	189.574
R	6+801.341	-6.3	189.564	189.563
CL Brg E Abut	6+805.341	-6.3	189.546	189.546
Bk E Abut	6+805.721	-6.3	189.545	189.545

GIRDER N.4

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-9.0	189.717	189.717
CL Brg W Abut	6+739.841	-9.0	189.718	189.718
A	6+742.841	-9.0	189.720	189.719
B	6+745.841	-9.0	189.721	189.719
C	6+748.841	-9.0	189.721	189.718
D	6+751.841	-9.0	189.721	189.718
CL Brg Pier 1	6+755.841	-9.0	189.720	189.720
E	6+758.841	-9.0	189.718	189.725
F	6+761.841	-9.0	189.715	189.731
G	6+764.841	-9.0	189.712	189.737
H	6+767.841	-9.0	189.707	189.740
I	6+770.841	-9.0	189.702	189.739
J	6+773.841	-9.0	189.697	189.734
K	6+776.841	-9.0	189.691	189.724
L	6+779.841	-9.0	189.683	189.710
M	6+782.841	-9.0	189.676	189.694
N	6+785.841	-9.0	189.667	189.676
CL Brg Pier 2	6+789.341	-9.0	189.656	189.656
O	6+792.341	-9.0	189.646	189.643
P	6+795.341	-9.0	189.635	189.632
Q	6+798.341	-9.0	189.624	189.621
R	6+801.341	-9.0	189.611	189.610
CL Brg E Abut	6+805.341	-9.0	189.594	189.594
Bk E Abut	6+805.721	-9.0	189.592	189.592

GIRDER N.5

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-11.7	189.745	189.745
CL Brg W Abut	6+739.841	-11.7	189.746	189.746
A	6+742.841	-11.7	189.747	189.747
B	6+745.841	-11.7	189.749	189.747
C	6+748.841	-11.7	189.749	189.746
D	6+751.841	-11.7	189.749	189.746
CL Brg Pier 1	6+755.841	-11.7	189.747	189.747
E	6+758.841	-11.7	189.746	189.753
F	6+761.841	-11.7	189.743	189.759
G	6+764.841	-11.7	189.739	189.765
H	6+767.841	-11.7	189.735	189.768
I	6+770.841	-11.7	189.730	189.767
J	6+773.841	-11.7	189.725	189.761
K	6+776.841	-11.7	189.718	189.752
L	6+779.841	-11.7	189.711	189.738
M	6+782.841	-11.7	189.704	189.721
N	6+785.841	-11.7	189.695	189.703
CL Brg Pier 2	6+789.341	-11.7	189.684	189.684
O	6+792.341	-11.7	189.674	189.671
P	6+795.341	-11.7	189.663	189.660
Q	6+798.341	-11.7	189.651	189.649
R	6+801.341	-11.7	189.639	189.638
CL Brg E Abut	6+805.341	-11.7	189.622	189.622
Bk E Abut	6+805.721	-11.7	189.620	189.620

GIRDER N.6

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-14.4	189.705	189.705
CL Brg W Abut	6+739.841	-14.4	189.705	189.705
A	6+742.841	-14.4	189.707	189.706
B	6+745.841	-14.4	189.708	189.706
C	6+748.841	-14.4	189.709	189.706
D	6+751.841	-14.4	189.708	189.705
CL Brg Pier 1	6+755.841	-14.4	189.707	189.707
E	6+758.841	-14.4	189.705	189.712
F	6+761.841	-14.4	189.702	189.719
G	6+764.841	-14.4	189.699	189.724
H	6+767.841	-14.4	189.695	189.727
I	6+770.841	-14.4	189.690	189.726
J	6+773.841	-14.4	189.684	189.721
K	6+776.841	-14.4	189.678	189.711
L	6+779.841	-14.4	189.671	189.697
M	6+782.841	-14.4	189.663	189.681
N	6+785.841	-14.4	189.654	189.663
CL Brg Pier 2	6+789.341	-14.4	189.644	189.644
O	6+792.341	-14.4	189.633	189.630
P	6+795.341	-14.4	189.623	189.619
Q	6+798.341	-14.4	189.611	189.609
R	6+801.341	-14.4	189.599	189.597
CL Brg E Abut	6+805.341	-14.4	189.581	189.581
Bk E Abut	6+805.721	-14.4	189.579	189.579

Note:

1. Work this with Sht. BS-9.

SHT. BS-10 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

TOP OF SLAB ELEVATIONS - I

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	453
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2

CONTRACT NO. 62111

GIRDER N.7

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-17.1	189.653	189.653
CL Brg W Abut	6+739.841	-17.1	189.653	189.653
A	6+742.841	-17.1	189.655	189.654
B	6+745.841	-17.1	189.657	189.655
C	6+748.841	-17.1	189.657	189.654
D	6+751.841	-17.1	189.657	189.653
CL Brg Pier 1	6+755.841	-17.1	189.655	189.655
E	6+758.841	-17.1	189.653	189.661
F	6+761.841	-17.1	189.651	189.667
G	6+764.841	-17.1	189.647	189.673
H	6+767.841	-17.1	189.643	189.676
I	6+770.841	-17.1	189.638	189.675
J	6+773.841	-17.1	189.633	189.669
K	6+776.841	-17.1	189.626	189.660
L	6+779.841	-17.1	189.619	189.646
M	6+782.841	-17.1	189.611	189.629
N	6+785.841	-17.1	189.603	189.611
CL Brg Pier 2	6+789.341	-17.1	189.592	189.592
O	6+792.341	-17.1	189.582	189.579
P	6+795.341	-17.1	189.571	189.568
Q	6+798.341	-17.1	189.559	189.557
R	6+801.341	-17.1	189.547	189.546
CL Brg E Abut	6+805.341	-17.1	189.529	189.529
Bk E Abut	6+805.721	-17.1	189.528	189.528

GIRDER N.8

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	34+138.548	3.641	189.592	189.592
CL Brg W Abut	34+138.928	3.636	189.592	189.592
A	34+141.928	3.600	189.594	189.593
B	34+144.928	3.564	189.596	189.594
C	34+147.928	3.528	189.596	189.593
D	34+150.928	3.491	189.596	189.592
CL Brg Pier 1	34+154.929	3.443	189.594	189.594
E	34+157.929	3.407	189.592	189.599
F	34+160.929	3.371	189.590	189.606
G	34+163.929	3.335	189.586	189.611
H	34+166.929	3.299	189.582	189.614
I	34+169.929	3.263	189.577	189.614
J	34+172.929	3.226	189.571	189.608
K	34+175.929	3.190	189.565	189.598
L	34+178.929	3.154	189.558	189.585
M	34+181.929	3.118	189.550	189.568
N	34+184.929	3.082	189.542	189.550
CL Brg Pier 2	34+188.431	3.040	189.531	189.531
O	34+191.431	3.004	189.521	189.517
P	34+194.431	2.967	189.510	189.506
Q	34+197.431	2.931	189.498	189.496
R	34+200.431	2.895	189.486	189.485
CL Brg E Abut	34+204.432	2.847	189.468	189.468
Bk E Abut	34+204.812	2.842	189.467	189.467

GIRDER N.9

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	34+138.522	1.3	189.533	189.533
CL Brg W Abut	34+138.905	1.3	189.534	189.534
A	34+141.905	1.3	189.537	189.536
B	34+144.905	1.3	189.539	189.537
C	34+147.905	1.3	189.540	189.537
D	34+150.905	1.3	189.541	189.538
CL Brg Pier 1	34+154.904	1.3	189.541	189.541
E	34+157.904	1.3	189.540	189.547
F	34+160.904	1.3	189.538	189.554
G	34+163.904	1.3	189.535	189.561
H	34+166.904	1.3	189.532	189.564
I	34+169.904	1.3	189.528	189.565
J	34+172.904	1.3	189.523	189.560
K	34+175.904	1.3	189.518	189.551
L	34+178.904	1.3	189.512	189.538
M	34+181.904	1.3	189.505	189.523
N	34+184.904	1.3	189.497	189.506
CL Brg Pier 2	34+188.404	1.3	189.487	189.487
O	34+191.404	1.3	189.478	189.475
P	34+194.404	1.3	189.468	189.465
Q	34+197.404	1.3	189.457	189.455
R	34+200.404	1.3	189.446	189.445
CL Brg E Abut	34+204.403	1.3	189.430	189.430
Bk E Abut	34+204.786	1.3	189.428	189.428

GIRDER N.10

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	34+138.490	-1.4	189.466	189.466
CL Brg W Abut	34+138.873	-1.4	189.466	189.466
A	34+141.873	-1.4	189.469	189.468
B	34+144.873	-1.4	189.471	189.469
C	34+147.873	-1.4	189.473	189.469
D	34+150.873	-1.4	189.473	189.470
CL Brg Pier 1	34+154.872	-1.4	189.473	189.473
E	34+157.872	-1.4	189.472	189.480
F	34+160.872	-1.4	189.470	189.489
G	34+163.872	-1.4	189.468	189.496
H	34+166.872	-1.4	189.465	189.501
I	34+169.872	-1.4	189.461	189.501
J	34+172.872	-1.4	189.456	189.497
K	34+175.872	-1.4	189.450	189.487
L	34+178.872	-1.4	189.444	189.474
M	34+181.872	-1.4	189.437	189.457
N	34+184.872	-1.4	189.430	189.439
CL Brg Pier 2	34+188.372	-1.4	189.420	189.420
O	34+191.372	-1.4	189.411	189.407
P	34+194.372	-1.4	189.401	189.397
Q	34+197.372	-1.4	189.390	189.387
R	34+200.372	-1.4	189.379	189.377
CL Brg E Abut	34+204.371	-1.4	189.362	189.362
Bk E Abut	34+204.754	-1.4	189.361	189.361

GIRDER N.11

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	34+138.457	-4.1	189.398	189.398
CL Brg W Abut	34+138.840	-4.1	189.399	189.399
A	34+141.840	-4.1	189.402	189.401
B	34+144.840	-4.1	189.404	189.402
C	34+147.840	-4.1	189.405	189.402
D	34+150.840	-4.1	189.406	189.402
CL Brg Pier 1	34+154.839	-4.1	189.406	189.406
E	34+157.839	-4.1	189.405	189.413
F	34+160.839	-4.1	189.403	189.421
G	34+163.839	-4.1	189.400	189.428
H	34+166.839	-4.1	189.397	189.433
I	34+169.839	-4.1	189.393	189.434
J	34+172.839	-4.1	189.388	189.429
K	34+175.839	-4.1	189.383	189.420
L	34+178.839	-4.1	189.377	189.406
M	34+181.839	-4.1	189.370	189.390
N	34+184.839	-4.1	189.362	189.372
CL Brg Pier 2	34+188.339	-4.1	189.352	189.352
O	34+191.339	-4.1	189.343	189.340
P	34+194.339	-4.1	189.333	189.330
Q	34+197.339	-4.1	189.323	189.320
R	34+200.339	-4.1	189.311	189.310
CL Brg E Abut	34+204.338	-4.1	189.295	189.295
Bk E Abut	34+204.721	-4.1	189.293	189.293

GIRDER N.12

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	34+138.425	-6.8	189.331	189.331
CL Brg W Abut	34+138.808	-6.8	189.331	189.331
A	34+141.808	-6.8	189.334	189.333
B	34+144.808	-6.8	189.336	189.335
C	34+147.808	-6.8	189.338	189.335
D	34+150.808	-6.8	189.338	189.336
CL Brg Pier 1	34+154.807	-6.8	189.338	189.338
E	34+157.807	-6.8	189.337	189.343
F	34+160.807	-6.8	189.335	189.348
G	34+163.807	-6.8	189.333	189.352
H	34+166.807	-6.8	189.330	189.355
I	34+169.807	-6.8	189.326	189.354
J	34+172.807	-6.8	189.321	189.349
K	34+175.807	-6.8	189.316	189.341
L	34+178.807	-6.8	189.309	189.330
M	34+181.807	-6.8	189.302	189.316
N	34+184.807	-6.8	189.295	189.302
CL Brg Pier 2	34+188.307	-6.8	189.285	189.285
O	34+191.307	-6.8	189.276	189.274
P	34+194.307	-6.8	189.266	189.263
Q	34+197.307	-6.8	189.255	189.253
R	34+200.307	-6.8	189.244	189.243
CL Brg E Abut	34+204.306	-6.8	189.228	189.228
Bk E Abut	34+204.689	-6.8	189.226	189.226

Note:
1. Work this with Sht. BS-9.

SHT. BS-11 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

TOP OF SLAB ELEVATIONS - II

DATE: 7/18/2005

DRAWN BY: NK
CHECKED BY: TCU

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	454
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2

CONTRACT NO. 62111

GIRDER S.1

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	0.9	189.562	189.562
CL Brg W Abut	6+739.841	0.9	189.562	189.562
A	6+742.841	0.9	189.564	189.563
B	6+745.841	0.9	189.565	189.564
C	6+748.841	0.9	189.566	189.563
D	6+751.841	0.9	189.566	189.563
CL Brg Pier 1	6+755.841	0.9	189.564	189.564
E	6+758.841	0.9	189.562	189.568
F	6+761.841	0.9	189.560	189.573
G	6+764.841	0.9	189.556	189.578
H	6+767.841	0.9	189.552	189.579
I	6+770.841	0.9	189.547	189.578
J	6+773.841	0.9	189.541	189.573
K	6+776.841	0.9	189.535	189.563
L	6+779.841	0.9	189.528	189.551
M	6+782.841	0.9	189.520	189.535
N	6+785.841	0.9	189.512	189.519
CL Brg Pier 2	6+789.341	0.9	189.501	189.501
O	6+792.341	0.9	189.491	189.488
P	6+795.341	0.9	189.480	189.477
Q	6+798.341	0.9	189.468	189.466
R	6+801.341	0.9	189.456	189.455
CL Brg E Abut	6+805.341	0.9	189.438	189.438
Bk E Abut	6+805.721	0.9	189.437	189.437

GIRDER S.2

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	3.4	189.608	189.608
CL Brg W Abut	6+739.841	3.4	189.608	189.608
A	6+742.841	3.4	189.610	189.609
B	6+745.841	3.4	189.611	189.609
C	6+748.841	3.4	189.612	189.609
D	6+751.841	3.4	189.612	189.608
CL Brg Pier 1	6+755.841	3.4	189.610	189.610
E	6+758.841	3.4	189.608	189.616
F	6+761.841	3.4	189.606	189.622
G	6+764.841	3.4	189.602	189.627
H	6+767.841	3.4	189.598	189.630
I	6+770.841	3.4	189.593	189.630
J	6+773.841	3.4	189.587	189.624
K	6+776.841	3.4	189.581	189.614
L	6+779.841	3.4	189.574	189.601
M	6+782.841	3.4	189.566	189.584
N	6+785.841	3.4	189.558	189.566
CL Brg Pier 2	6+789.341	3.4	189.547	189.547
O	6+792.341	3.4	189.537	189.534
P	6+795.341	3.4	189.526	189.522
Q	6+798.341	3.4	189.514	189.512
R	6+801.341	3.4	189.502	189.501
CL Brg E Abut	6+805.341	3.4	189.484	189.484
Bk E Abut	6+805.721	3.4	189.483	189.483

GIRDER S.3

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	5.9	189.662	189.662
CL Brg W Abut	6+739.841	5.9	189.662	189.662
A	6+742.841	5.9	189.664	189.663
B	6+745.841	5.9	189.665	189.663
C	6+748.841	5.9	189.666	189.663
D	6+751.841	5.9	189.666	189.662
CL Brg Pier 1	6+755.841	5.9	189.664	189.664
E	6+758.841	5.9	189.662	189.670
F	6+761.841	5.9	189.660	189.676
G	6+764.841	5.9	189.656	189.681
H	6+767.841	5.9	189.652	189.684
I	6+770.841	5.9	189.647	189.684
J	6+773.841	5.9	189.641	189.678
K	6+776.841	5.9	189.635	189.668
L	6+779.841	5.9	189.628	189.655
M	6+782.841	5.9	189.620	189.638
N	6+785.841	5.9	189.612	189.620
CL Brg Pier 2	6+789.341	5.9	189.601	189.601
O	6+792.341	5.9	189.591	189.588
P	6+795.341	5.9	189.580	189.576
Q	6+798.341	5.9	189.568	189.566
R	6+801.341	5.9	189.556	189.555
CL Brg E Abut	6+805.341	5.9	189.538	189.538
Bk E Abut	6+805.721	5.9	189.537	189.537

GIRDER S.4

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	8.4	189.708	189.708
CL Brg W Abut	6+739.841	8.4	189.709	189.709
A	6+742.841	8.4	189.711	189.710
B	6+745.841	8.4	189.712	189.710
C	6+748.841	8.4	189.712	189.709
D	6+751.841	8.4	189.712	189.709
CL Brg Pier 1	6+755.841	8.4	189.711	189.711
E	6+758.841	8.4	189.709	189.716
F	6+761.841	8.4	189.706	189.722
G	6+764.841	8.4	189.703	189.728
H	6+767.841	8.4	189.698	189.731
I	6+770.841	8.4	189.693	189.730
J	6+773.841	8.4	189.688	189.725
K	6+776.841	8.4	189.682	189.715
L	6+779.841	8.4	189.674	189.701
M	6+782.841	8.4	189.667	189.685
N	6+785.841	8.4	189.658	189.667
CL Brg Pier 2	6+789.341	8.4	189.647	189.647
O	6+792.341	8.4	189.637	189.634
P	6+795.341	8.4	189.626	189.623
Q	6+798.341	8.4	189.615	189.612
R	6+801.341	8.4	189.602	189.601
CL Brg E Abut	6+805.341	8.4	189.585	189.585
Bk E Abut	6+805.721	8.4	189.583	189.583

GIRDER S.5

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	10.9	189.746	189.746
CL Brg W Abut	6+739.841	10.9	189.746	189.746
A	6+742.841	10.9	189.748	189.747
B	6+745.841	10.9	189.749	189.747
C	6+748.841	10.9	189.750	189.747
D	6+751.841	10.9	189.750	189.746
CL Brg Pier 1	6+755.841	10.9	189.748	189.748
E	6+758.841	10.9	189.746	189.753
F	6+761.841	10.9	189.743	189.760
G	6+764.841	10.9	189.740	189.765
H	6+767.841	10.9	189.736	189.768
I	6+770.841	10.9	189.731	189.767
J	6+773.841	10.9	189.725	189.762
K	6+776.841	10.9	189.719	189.752
L	6+779.841	10.9	189.712	189.738
M	6+782.841	10.9	189.704	189.722
N	6+785.841	10.9	189.696	189.704
CL Brg Pier 2	6+789.341	10.9	189.685	189.685
O	6+792.341	10.9	189.675	189.671
P	6+795.341	10.9	189.664	189.660
Q	6+798.341	10.9	189.652	189.650
R	6+801.341	10.9	189.640	189.639
CL Brg E Abut	6+805.341	10.9	189.622	189.622
Bk E Abut	6+805.721	10.9	189.620	189.620

GIRDER S.6

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	13.4	189.720	189.720
CL Brg W Abut	6+739.841	13.4	189.720	189.720
A	6+742.841	13.4	189.722	189.721
B	6+745.841	13.4	189.723	189.721
C	6+748.841	13.4	189.724	189.721
D	6+751.841	13.4	189.723	189.720
CL Brg Pier 1	6+755.841	13.4	189.722	189.722
E	6+758.841	13.4	189.720	189.727
F	6+761.841	13.4	189.717	189.734
G	6+764.841	13.4	189.714	189.739
H	6+767.841	13.4	189.710	189.742
I	6+770.841	13.4	189.705	189.741
J	6+773.841	13.4	189.699	189.736
K	6+776.841	13.4	189.693	189.726
L	6+779.841	13.4	189.686	189.712
M	6+782.841	13.4	189.678	189.696
N	6+785.841	13.4	189.669	189.678
CL Brg Pier 2	6+789.341	13.4	189.659	189.659
O	6+792.341	13.4	189.648	189.645
P	6+795.341	13.4	189.638	189.634
Q	6+798.341	13.4	189.626	189.624
R	6+801.341	13.4	189.614	189.612
CL Brg E Abut	6+805.341	13.4	189.596	189.596
Bk E Abut	6+805.721	13.4	189.594	189.594

Note:

1. Work this with Sht. BS-9.

SHT. BS-12 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

TOP OF SLAB ELEVATIONS - III

DATE: 7/18/2005

DRAWN BY: NK
CHECKED BY: TCU

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	455
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

GIRDER S.7

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	15.9	189.677	189.677
CL Brg W Abut	6+739.841	15.9	189.677	189.677
A	6+742.841	15.9	189.679	189.678
B	6+745.841	15.9	189.681	189.679
C	6+748.841	15.9	189.681	189.678
D	6+751.841	15.9	189.681	189.677
CL Brg Pier 1	6+755.841	15.9	189.679	189.679
E	6+758.841	15.9	189.677	189.685
F	6+761.841	15.9	189.675	189.691
G	6+764.841	15.9	189.671	189.697
H	6+767.841	15.9	189.667	189.700
I	6+770.841	15.9	189.662	189.699
J	6+773.841	15.9	189.657	189.693
K	6+776.841	15.9	189.650	189.684
L	6+779.841	15.9	189.643	189.670
M	6+782.841	15.9	189.635	189.653
N	6+785.841	15.9	189.627	189.635
CL Brg Pier 2	6+789.341	15.9	189.616	189.616
O	6+792.341	15.9	189.606	189.603
P	6+795.341	15.9	189.595	189.592
Q	6+798.341	15.9	189.583	189.581
R	6+801.341	15.9	189.571	189.570
CL Brg E Abut	6+805.341	15.9	189.553	189.553
Bk E Abut	6+805.721	15.9	189.552	189.552

GIRDER S.8

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	18.4	189.627	189.627
CL Brg W Abut	6+739.841	18.4	189.627	189.627
A	6+742.841	18.4	189.629	189.628
B	6+745.841	18.4	189.631	189.629
C	6+748.841	18.4	189.631	189.628
D	6+751.841	18.4	189.631	189.627
CL Brg Pier 1	6+755.841	18.4	189.629	189.629
E	6+758.841	18.4	189.627	189.635
F	6+761.841	18.4	189.625	189.641
G	6+764.841	18.4	189.621	189.647
H	6+767.841	18.4	189.617	189.650
I	6+770.841	18.4	189.612	189.649
J	6+773.841	18.4	189.607	189.643
K	6+776.841	18.4	189.600	189.634
L	6+779.841	18.4	189.593	189.620
M	6+782.841	18.4	189.585	189.603
N	6+785.841	18.4	189.577	189.585
CL Brg Pier 2	6+789.341	18.4	189.566	189.566
O	6+792.341	18.4	189.556	189.553
P	6+795.341	18.4	189.545	189.542
Q	6+798.341	18.4	189.533	189.531
R	6+801.341	18.4	189.521	189.520
CL Brg E Abut	6+805.341	18.4	189.503	189.503
Bk E Abut	6+805.721	18.4	189.502	189.502

GIRDER S.9

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	20.9	189.565	189.565
CL Brg W Abut	6+739.841	20.9	189.565	189.565
A	6+742.841	20.9	189.567	189.566
B	6+745.841	20.9	189.569	189.566
C	6+748.841	20.9	189.569	189.566
D	6+751.841	20.9	189.569	189.565
CL Brg Pier 1	6+755.841	20.9	189.567	189.567
E	6+758.841	20.9	189.565	189.573
F	6+761.841	20.9	189.563	189.579
G	6+764.841	20.9	189.559	189.585
H	6+767.841	20.9	189.555	189.588
I	6+770.841	20.9	189.550	189.587
J	6+773.841	20.9	189.545	189.581
K	6+776.841	20.9	189.538	189.571
L	6+779.841	20.9	189.531	189.558
M	6+782.841	20.9	189.523	189.541
N	6+785.841	20.9	189.515	189.523
CL Brg Pier 2	6+789.341	20.9	189.504	189.504
O	6+792.341	20.9	189.494	189.491
P	6+795.341	20.9	189.483	189.480
Q	6+798.341	20.9	189.471	189.469
R	6+801.341	20.9	189.459	189.458
CL Brg E Abut	6+805.341	20.9	189.441	189.441
Bk E Abut	6+805.721	20.9	189.440	189.440

GIRDER S.10

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	23.385	189.503	189.503
CL Brg W Abut	6+739.843	23.380	189.503	189.503
A	6+742.843	23.337	189.506	189.505
B	6+745.843	23.294	189.509	189.506
C	6+748.843	23.250	189.510	189.507
D	6+751.843	23.207	189.511	189.507
CL Brg Pier 1	6+755.842	23.150	189.511	189.511
E	6+758.842	23.106	189.510	189.518
F	6+761.842	23.063	189.509	189.527
G	6+764.842	23.020	189.506	189.534
H	6+767.842	22.977	189.503	189.539
I	6+770.842	22.934	189.499	189.540
J	6+773.842	22.891	189.495	189.536
K	6+776.842	22.847	189.490	189.526
L	6+779.842	22.804	189.484	189.513
M	6+782.842	22.761	189.477	189.497
N	6+785.842	22.718	189.469	189.479
CL Brg Pier 2	6+789.340	22.667	189.460	189.460
O	6+792.340	22.624	189.451	189.447
P	6+795.340	22.581	189.441	189.437
Q	6+798.340	22.538	189.430	189.428
R	6+801.340	22.495	189.419	189.418
CL Brg E Abut	6+805.339	22.437	189.403	189.403
Bk E Abut	6+805.721	22.432	189.401	189.401

GIRDER S.11

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	25.885	189.440	189.440
CL Brg W Abut	6+739.843	25.880	189.441	189.441
A	6+742.843	25.837	189.444	189.443
B	6+745.843	25.794	189.446	189.444
C	6+748.843	25.750	189.448	189.444
D	6+751.843	25.707	189.449	189.445
CL Brg Pier 1	6+755.842	25.650	189.449	189.449
E	6+758.842	25.606	189.448	189.456
F	6+761.842	25.563	189.446	189.464
G	6+764.842	25.520	189.444	189.472
H	6+767.842	25.477	189.441	189.477
I	6+770.842	25.434	189.437	189.477
J	6+773.842	25.391	189.432	189.473
K	6+776.842	25.347	189.427	189.464
L	6+779.842	25.304	189.421	189.450
M	6+782.842	25.261	189.414	189.434
N	6+785.842	25.218	189.407	189.416
CL Brg Pier 2	6+789.340	25.167	189.397	189.397
O	6+792.340	25.124	189.388	189.385
P	6+795.340	25.081	189.378	189.375
Q	6+798.340	25.038	189.368	189.365
R	6+801.340	24.995	189.357	189.355
CL Brg E Abut	6+805.339	24.937	189.340	189.340
Bk E Abut	6+805.721	24.932	189.339	189.339

GIRDER S.12

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	28.385	189.378	189.378
CL Brg W Abut	6+739.843	28.380	189.378	189.378
A	6+742.843	28.337	189.381	189.381
B	6+745.843	28.294	189.384	189.382
C	6+748.843	28.250	189.385	189.383
D	6+751.843	28.207	189.386	189.383
CL Brg Pier 1	6+755.842	28.150	189.386	189.386
E	6+758.842	28.106	189.385	189.391
F	6+761.842	28.063	189.384	189.396
G	6+764.842	28.020	189.381	189.401
H	6+767.842	27.977	189.378	189.403
I	6+770.842	27.934	189.374	189.402
J	6+773.842	27.891	189.370	189.398
K	6+776.842	27.847	189.365	189.390
L	6+779.842	27.804	189.359	189.379
M	6+782.842	27.761	189.352	189.366
N	6+785.842	27.718	189.344	189.351
CL Brg Pier 2	6+789.340	27.667	189.335	189.335
O	6+792.340	27.624	189.326	189.323
P	6+795.340	27.581	189.316	189.313
Q	6+798.340	27.538	189.305	189.303
R	6+801.340	27.495	189.294	189.293
CL Brg E Abut	6+805.339	27.437	189.278	189.278
Bk E Abut	6+805.721	27.432	189.276	189.276

Note:
1. Work this with Sht. BS-9.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

TOP OF SLAB ELEVATIONS - IV

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	456
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2

CONTRACT NO. 62111

PGL I-80 WB

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-4.08	189.626	189.626
CL Brg W Abut	6+739.841	-4.08	189.626	189.626
A	6+742.841	-4.08	189.628	189.627
B	6+745.841	-4.08	189.629	189.627
C	6+748.841	-4.08	189.629	189.626
D	6+751.841	-4.08	189.629	189.626
CL Brg Pier 1	6+755.841	-4.08	189.628	189.628
E	6+758.841	-4.08	189.626	189.633
F	6+761.841	-4.08	189.623	189.639
G	6+764.841	-4.08	189.620	189.645
H	6+767.841	-4.08	189.616	189.648
I	6+770.841	-4.08	189.611	189.647
J	6+773.841	-4.08	189.605	189.642
K	6+776.841	-4.08	189.599	189.632
L	6+779.841	-4.08	189.592	189.618
M	6+782.841	-4.08	189.584	189.602
N	6+785.841	-4.08	189.575	189.584
CL Brg Pier 2	6+789.341	-4.08	189.564	189.564
O	6+792.341	-4.08	189.554	189.551
P	6+795.341	-4.08	189.543	189.540
Q	6+798.341	-4.08	189.532	189.529
R	6+801.341	-4.08	189.519	189.518
CL Brg E Abut	6+805.341	-4.08	189.502	189.502
Bk E Abut	6+805.721	-4.08	189.500	189.500

PGL I-80/94 EB

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	4.08	189.626	189.626
CL Brg W Abut	6+739.841	4.08	189.626	189.626
A	6+742.841	4.08	189.628	189.627
B	6+745.841	4.08	189.629	189.627
C	6+748.841	4.08	189.629	189.626
D	6+751.841	4.08	189.629	189.626
CL Brg Pier 1	6+755.841	4.08	189.628	189.628
E	6+758.841	4.08	189.626	189.633
F	6+761.841	4.08	189.623	189.639
G	6+764.841	4.08	189.620	189.645
H	6+767.841	4.08	189.616	189.648
I	6+770.841	4.08	189.611	189.647
J	6+773.841	4.08	189.605	189.642
K	6+776.841	4.08	189.599	189.632
L	6+779.841	4.08	189.592	189.618
M	6+782.841	4.08	189.584	189.602
N	6+785.841	4.08	189.575	189.584
CL Brg Pier 2	6+789.341	4.08	189.564	189.564
O	6+792.341	4.08	189.554	189.551
P	6+795.341	4.08	189.543	189.540
Q	6+798.341	4.08	189.532	189.529
R	6+801.341	4.08	189.519	189.518
CL Brg E Abut	6+805.341	4.08	189.502	189.502
Bk E Abut	6+805.721	4.08	189.500	189.500

BL / PGL I-94 WB

LINE	BL I-94 WB STATION	BL I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	34+138.507	0	189.501	189.501
CL Brg W Abut	34+138.889	0	189.501	189.501
A	34+141.808	0	189.504	189.503
B	34+144.808	0	189.506	189.504
C	34+147.808	0	189.508	189.504
D	34+150.808	0	189.508	189.505
CL Brg Pier 1	34+154.889	0	189.508	189.508
E	34+157.807	0	189.507	189.515
F	34+160.807	0	189.505	189.523
G	34+163.807	0	189.503	189.530
H	34+166.807	0	189.500	189.534
I	34+169.807	0	189.496	189.534
J	34+172.807	0	189.491	189.530
K	34+175.807	0	189.486	189.521
L	34+178.807	0	189.479	189.508
M	34+181.807	0	189.472	189.491
N	34+184.807	0	189.465	189.474
CL Brg Pier 2	34+188.389	0	189.455	189.455
O	34+191.307	0	189.446	189.443
P	34+194.307	0	189.436	189.432
Q	34+197.307	0	189.425	189.423
R	34+200.307	0	189.414	189.413
CL Brg E Abut	34+204.389	0	189.397	189.397
Bk E Abut	34+204.771	0	189.396	189.396

STAGE I CONSTRUCTION LINE

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	BL I-94 WB STATION	BL I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	-18.48	34+138.564	4.961	189.626	189.626
CL Brg W Abut	6+739.841	-18.48	34+138.947	4.956	189.626	189.626
A	6+742.841	-18.48	34+141.947	4.920	189.628	189.627
B	6+745.841	-18.48	34+144.947	4.884	189.629	189.627
C	6+748.841	-18.48	34+147.947	4.848	189.629	189.626
D	6+751.841	-18.48	34+150.947	4.811	189.629	189.626
CL Brg Pier 1	6+755.841	-18.48	34+154.946	4.763	189.628	189.628
E	6+758.841	-18.48	34+157.946	4.727	189.626	189.633
F	6+761.841	-18.48	34+160.946	4.691	189.623	189.640
G	6+764.841	-18.48	34+163.946	4.655	189.620	189.646
H	6+767.841	-18.48	34+166.946	4.619	189.616	189.649
I	6+770.841	-18.48	34+169.946	4.583	189.611	189.648
J	6+773.841	-18.48	34+172.946	4.546	189.605	189.643
K	6+776.841	-18.48	34+175.946	4.510	189.599	189.633
L	6+779.841	-18.48	34+178.946	4.474	189.592	189.619
M	6+782.841	-18.48	34+181.946	4.438	189.584	189.602
N	6+785.841	-18.48	34+184.946	4.402	189.575	189.584
CL Brg Pier 2	6+789.341	-18.48	34+188.446	4.360	189.564	189.564
O	6+792.341	-18.48	34+191.446	4.324	189.554	189.551
P	6+795.341	-18.48	34+194.446	4.287	189.543	189.540
Q	6+798.341	-18.48	34+197.446	4.251	189.532	189.529
R	6+801.341	-18.48	34+200.446	4.215	189.519	189.518
CL Brg E Abut	6+805.341	-18.48	34+204.445	4.167	189.502	189.502
Bk E Abut	6+805.721	-18.48	34+204.828	4.162	189.500	189.500

STAGE II CONSTRUCTION LINE

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	6+739.461	14.88	189.698	189.698
CL Brg W Abut	6+739.841	14.88	189.698	189.698
A	6+742.841	14.88	189.700	189.699
B	6+745.841	14.88	189.701	189.699
C	6+748.841	14.88	189.701	189.698
D	6+751.841	14.88	189.701	189.698
CL Brg Pier 1	6+755.841	14.88	189.700	189.700
E	6+758.841	14.88	189.698	189.705
F	6+761.841	14.88	189.695	189.712
G	6+764.841	14.88	189.692	189.718
H	6+767.841	14.88	189.688	189.721
I	6+770.841	14.88	189.683	189.720
J	6+773.841	14.88	189.677	189.715
K	6+776.841	14.88	189.671	189.705
L	6+779.841	14.88	189.664	189.691
M	6+782.841	14.88	189.656	189.674
N	6+785.841	14.88	189.647	189.656
CL Brg Pier 2	6+789.341	14.88	189.636	189.636
O	6+792.341	14.88	189.626	189.623
P	6+795.341	14.88	189.615	189.612
Q	6+798.341	14.88	189.604	189.601
R	6+801.341	14.88	189.591	189.590
CL Brg E Abut	6+805.341	14.88	189.574	189.574
Bk E Abut	6+805.721	14.88	189.572	189.572

Note:

1. Work this with Sht. BS-9.

SHT. BS-14 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

TOP OF SLAB ELEVATIONS - V

DATE: 7/18/2005

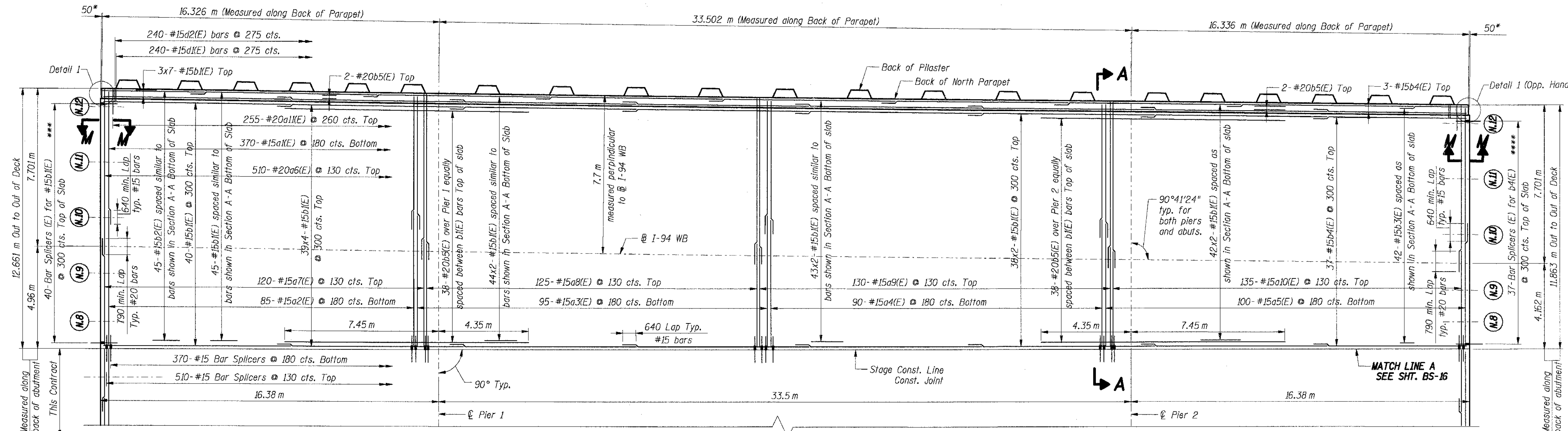
DRAWN BY: NK
CHECKED BY: TCU

TENG

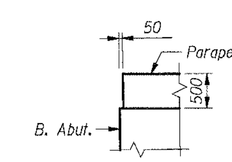
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	457
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

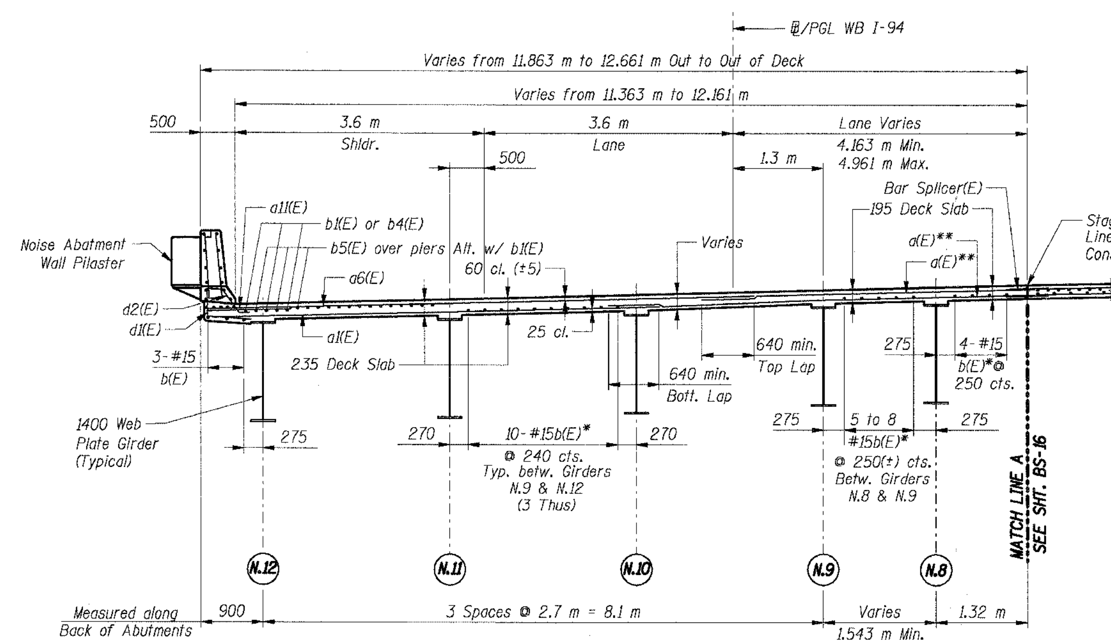
* (2425 & 2626) R-2 CONTRACT NO. 62111



PLAN-I



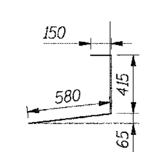
PLAN DETAIL 1



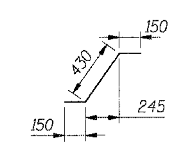
SECTION A-A

*b1(E), b2(E) or b3(E) bars. See Plan for location of bars.

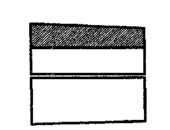
**a2(E), a3(E), a4(E), a5(E), a7(E), a8(E), a9(E) or a10 (E) bars. See Plan for location of bars.



Bar d1(E)



Bar d2(E)



KEY PLAN

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Parapet Elevation, see Sht. BS-24.
5. For Section M-M, see Sht. BS-19.
6. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
7. Work this Sheet with Shts. BS-16 thru BS-23.
8. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
9. All edges shall have a 20 mm chamfer unless noted otherwise.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-15 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

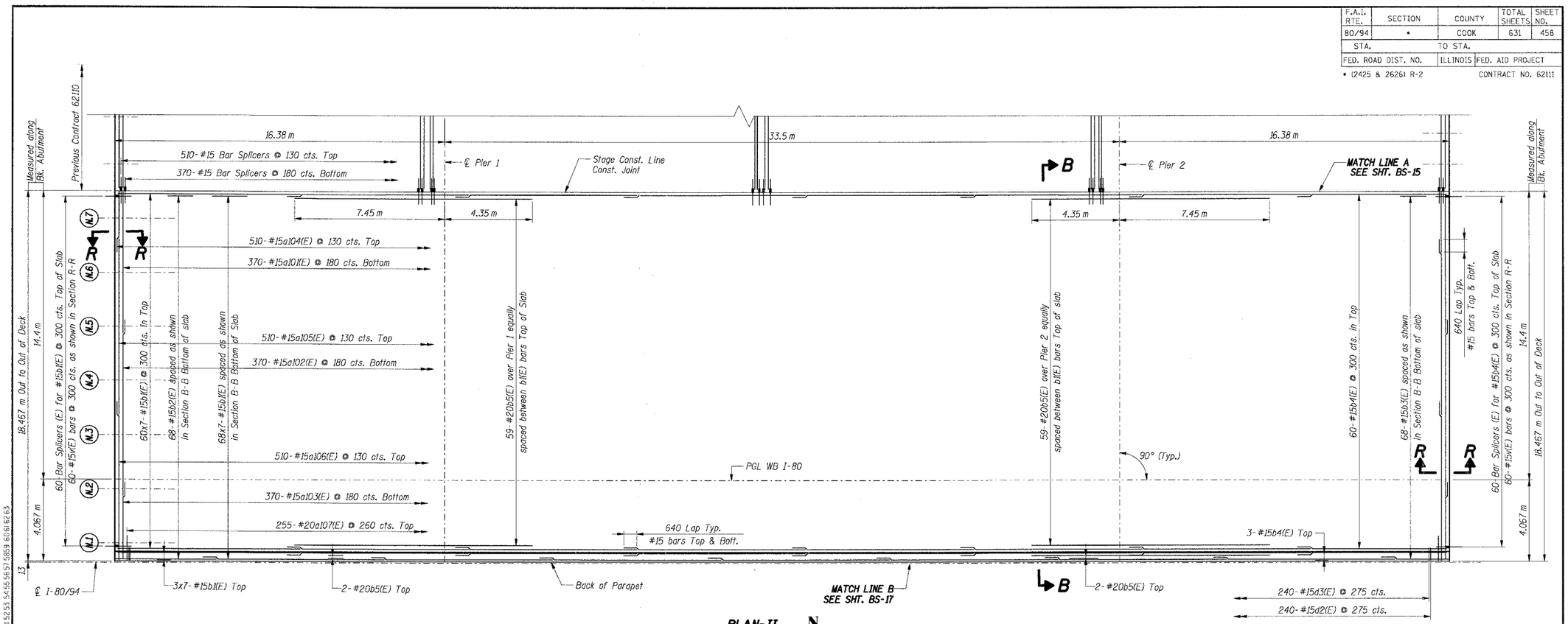
DECK PLAN
DECK CROSS SECTION - I

DATE: 7/18/2005 DRAWN BY: LAR CHECKED BY: MJK

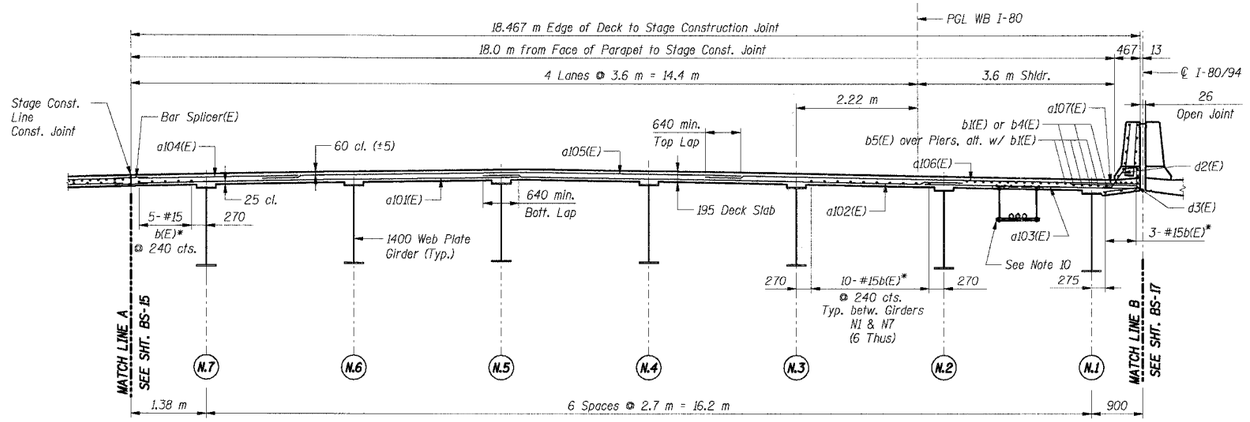
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	458
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

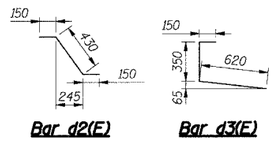
* (2425 & 2626) R-2 CONTRACT NO. 62111



PLAN-II

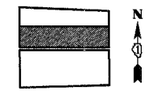


SECTION B-B



Bar d2(E) **Bar d3(E)**

*b1(E), b2(E) or b3(E) bars. See Plan for location of bars.



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Parapet Elevation, see Sht. BS-27.
5. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
6. Work this Sheet with Shts. BS-15, BS-17 thru BS-23.
7. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
8. All edges shall have a 20 mm chamfer unless noted otherwise.
9. For Section R-R, see Sht. BS-21.
10. Conduits & Hanger Assembly for Fiber Optics. See General Note 18 on Sht. BS-2 & a detail on Sht. BS-3.

SHT. BS-16 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

DECK PLAN
DECK CROSS SECTION - II

DATE: 7/18/2005

DRAWN BY: LAR
CHECKED BY: MJK

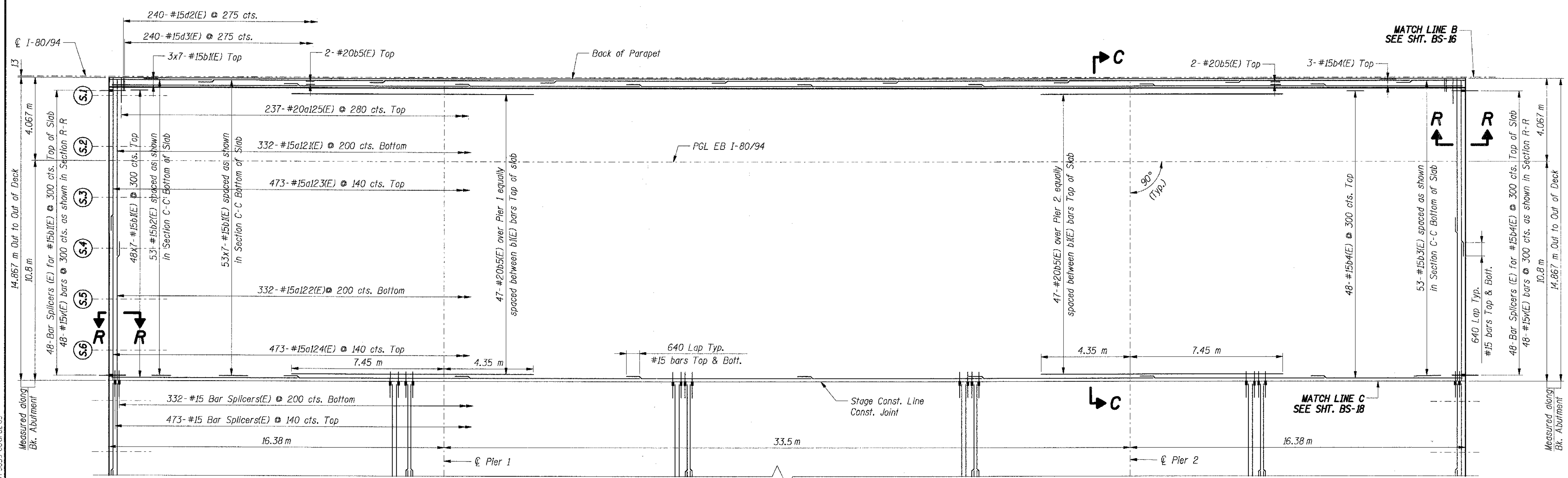
TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

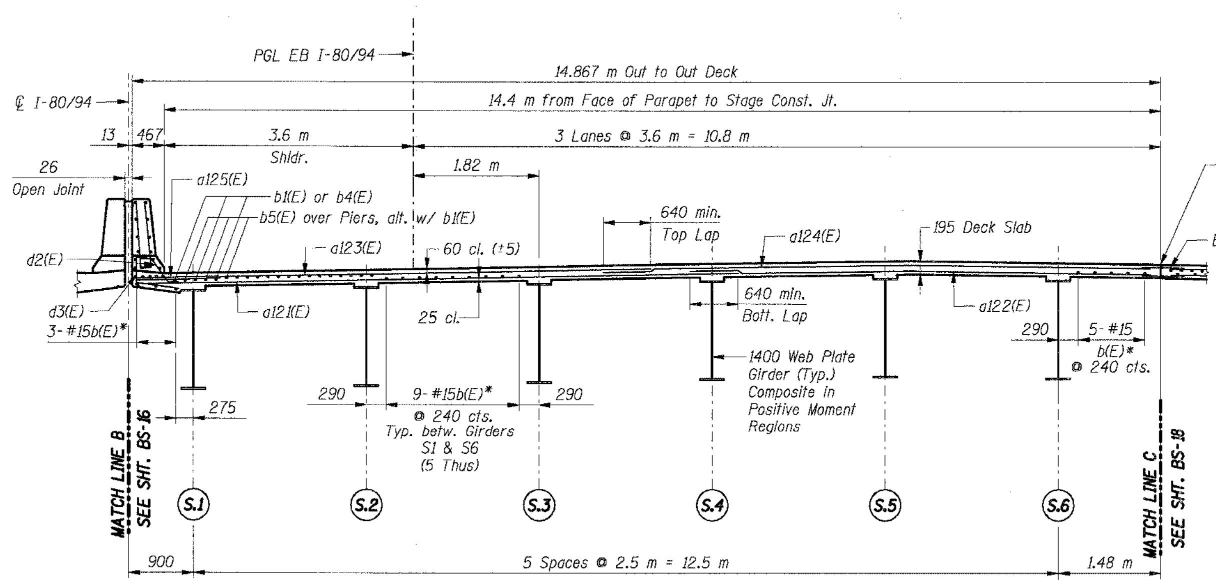
..\SU99B02A.DGN ..\SU99MG32A.DGN ..\SU99B02A.DGN ..\AB99B02A.DGN ..\AB99B02A.DGN ..\SU99B02A.DGN
7-12-2005, 10:26:35 T:\DOCUMENTS\93175\STRUCT\DGN\SL876052A.DGN
BAJZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	459
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

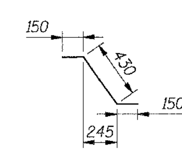
* (2425 & 2626) R-2 CONTRACT NO. 62111



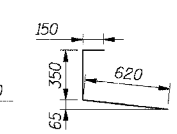
PLAN-III



SECTION C-C

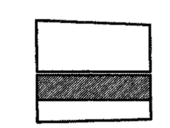


Bar d2(E)



Bar d3(E)

*b1(E), b2(E) or b3(E) bars. See Plan for location of bars.



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Parapet Elevation, see Sht. BS-27.
5. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
6. Work this Sheet with Shts. BS-16, BS-18 thru BS-23.
7. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
8. All edges shall have a 20 mm chamfer unless noted otherwise.
9. For Section R-R, see Sht. BS-21.

SHT. BS-17 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

DECK PLAN
DECK CROSS SECTION - III

DATE: 7/18/2005

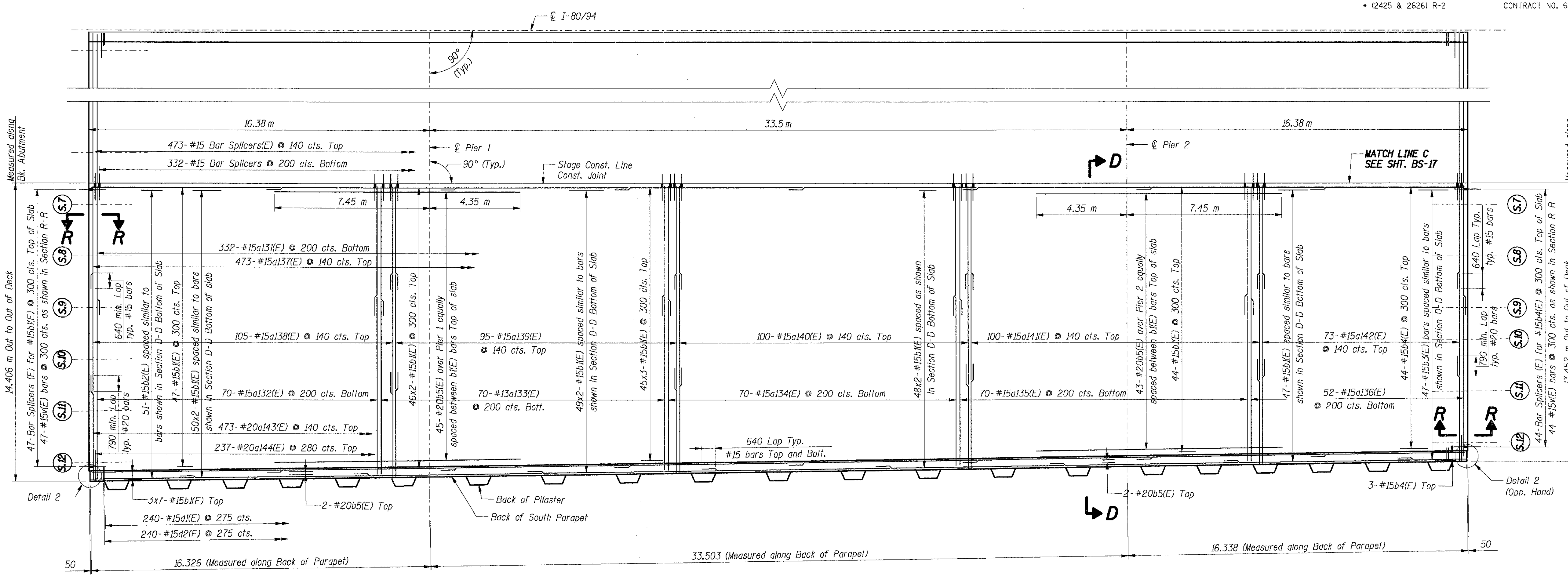
DRAWN BY: LAR
CHECKED BY: MJK

TENG

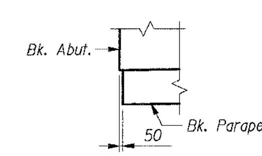
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	460
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

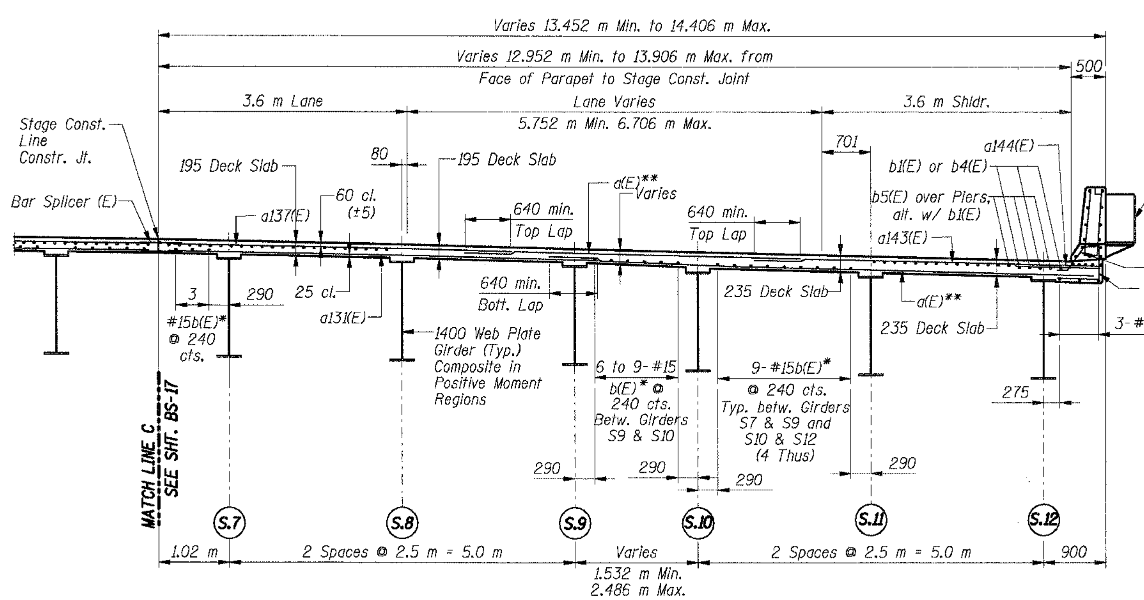
* (2425 & 2626) R-2 CONTRACT NO. 62111



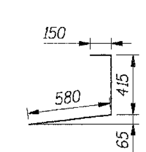
PLAN-IV



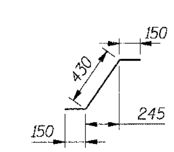
DETAIL 2



SECTION D-D



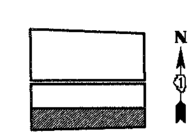
Bar d1(E)



Bar d2(E)

*b1(E), b2(E) or b3(E) bars.
See Plan for location of bars.

**a132(E), a133(E), a134(E), a135(E) a136(E), a138(E), a139(E), a140(E), a141(E) or a142(E) bars.
See Plan for location of bars.



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Parapet Elevation, see Sht. BS-25.
5. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
6. Work this Sheet with Shts. BS-17, BS-20, BS-22, BS-23 & BS-25.
7. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
8. All edges shall have a 20 mm chamfer unless noted otherwise.
9. For Section R-R, see Sht. BS-21.

SHT. BS-18 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

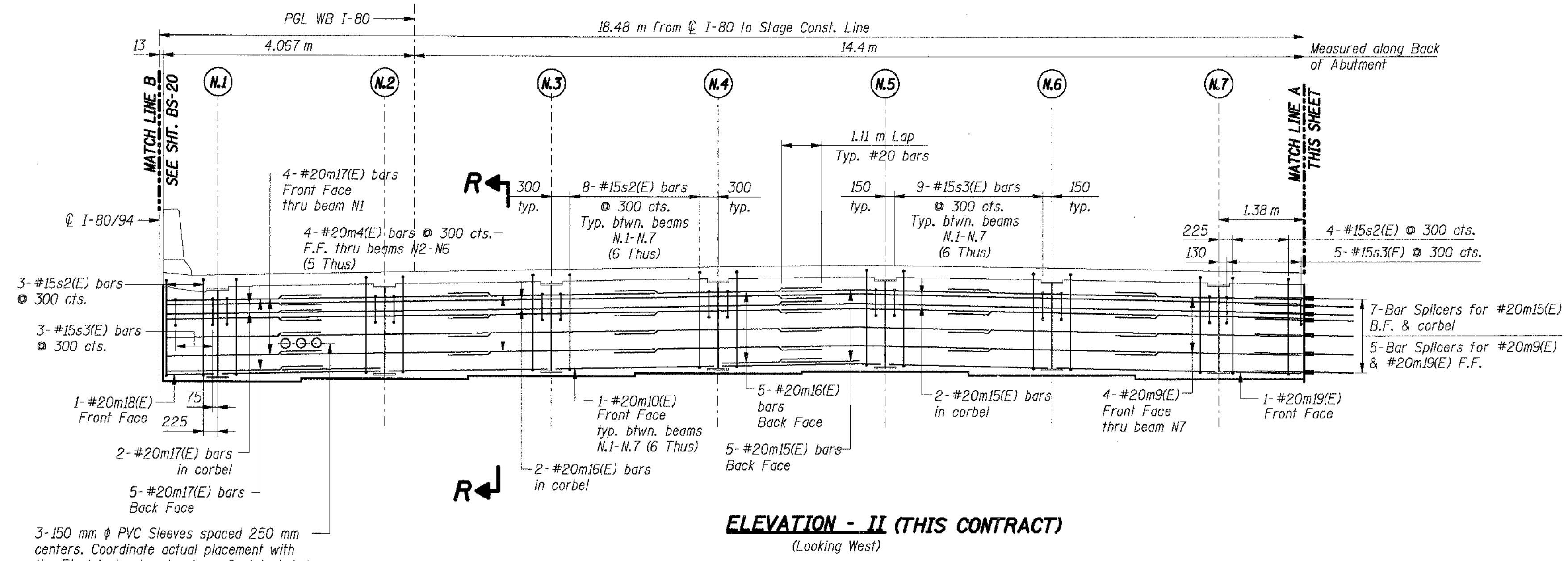
DECK PLAN
DECK CROSS SECTION - IV

DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

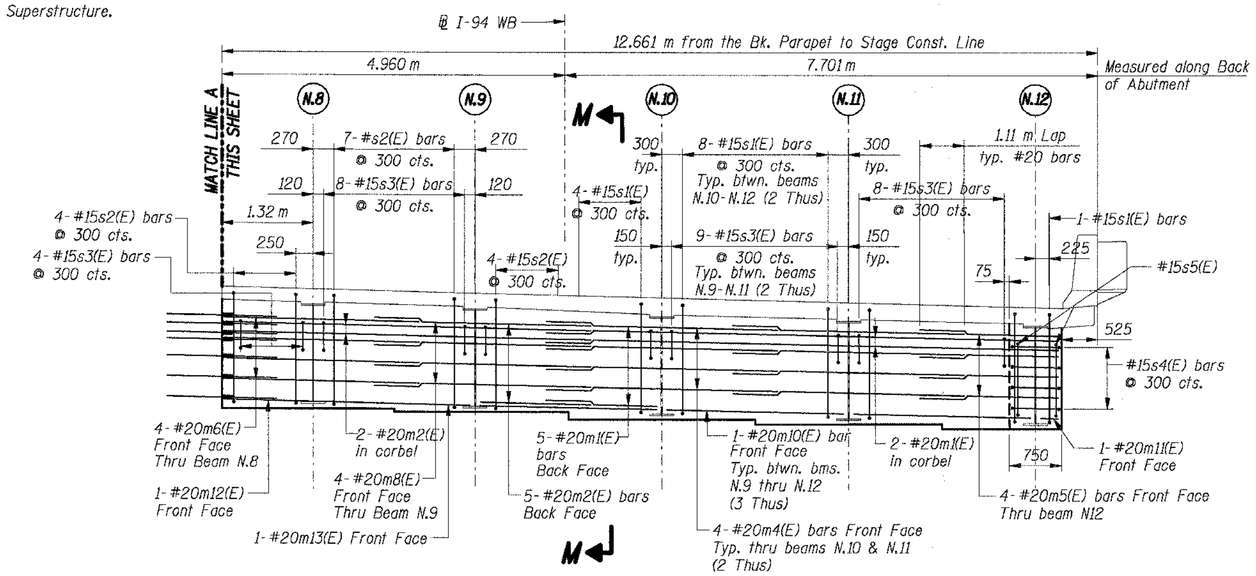
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	461
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2626) R-2 CONTRACT NO. 62111

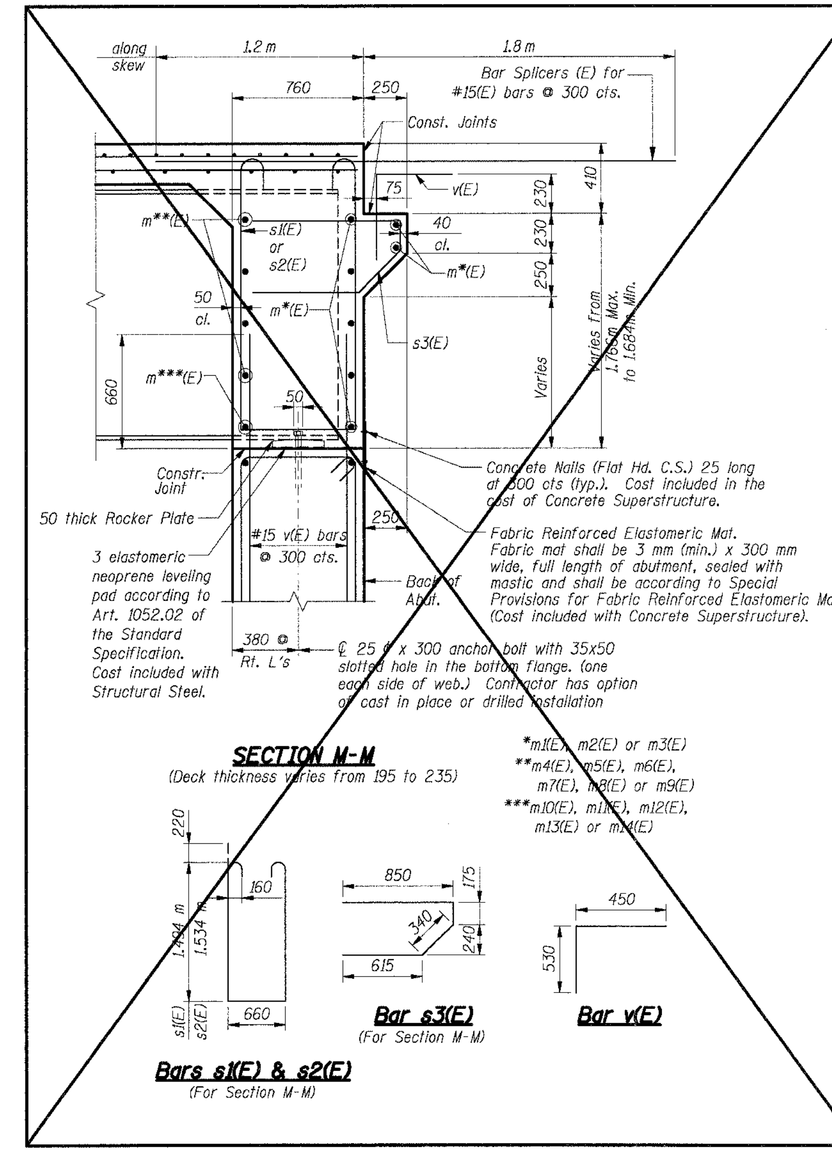


ELEVATION - II (THIS CONTRACT)
(Looking West)



ELEVATION - I
(Looking West)

FOR INFORMATION ONLY
CONSTRUCTED IN PREVIOUS CONTRACT 62110

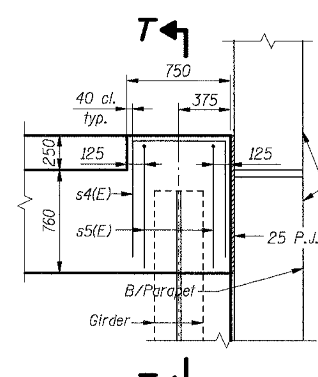


SECTION M-M
(Deck thickness varies from 195 to 235)

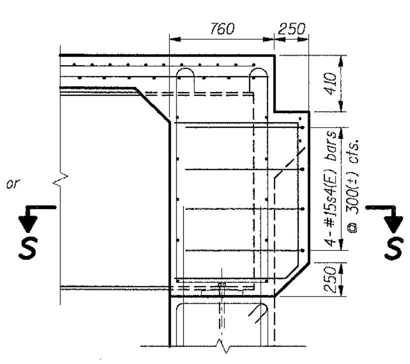
Bars s1(E) & s2(E) (For Section M-M)

Bar s3(E) (For Section M-M)

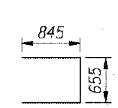
Bar v(E)



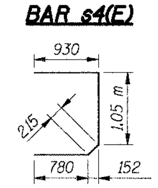
SECTION S-S



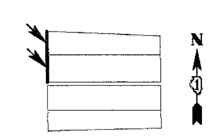
SECTION T-T



BAR s4(E)



BAR s5(E)



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line.
4. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
5. Work this Sheet with Shts. BS-20 thru BS-22.
6. F.F. Denotes Front Face
   B.F. Denotes Back Face.
7. All edges shall have a 20 mm chamfer unless noted otherwise.
8. For Section R-R, see Sht. BS-21.
9. For Bar Splicer details, see Sht. BS-56.

SHT. BS-19 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

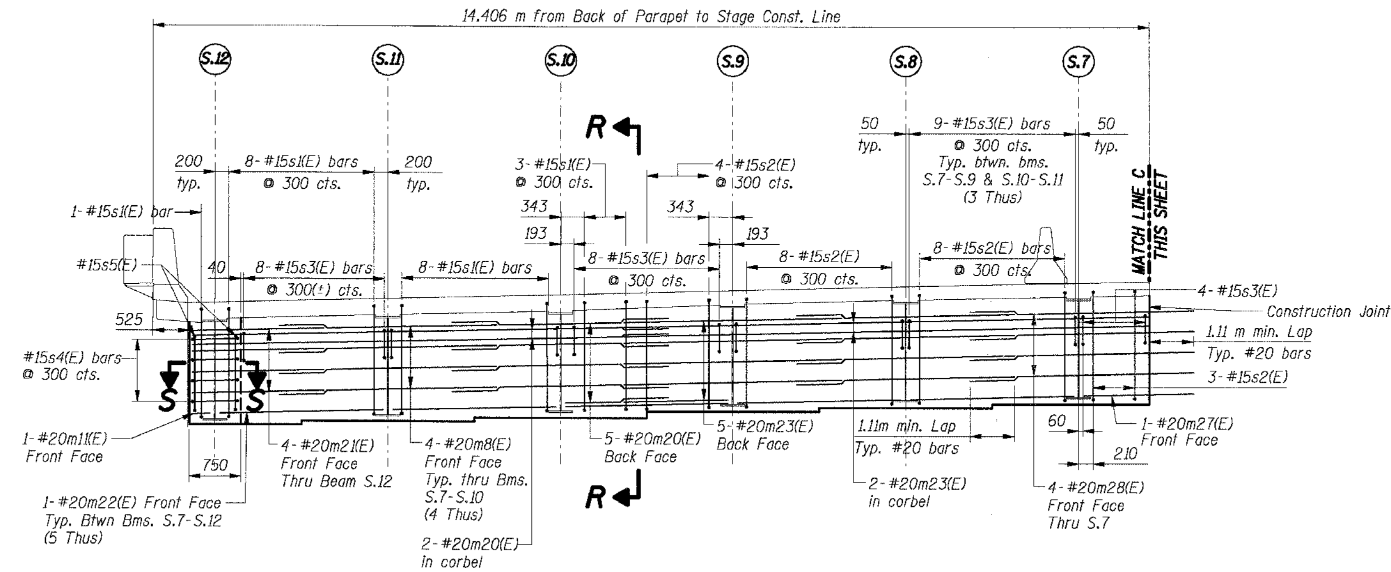
WEST INTEGRAL BACKWALL
ELEVATIONS & SECTIONS - I & II

DATE: 7/18/2005 DRAWN BY: LAR CHECKED BY: MJK

TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

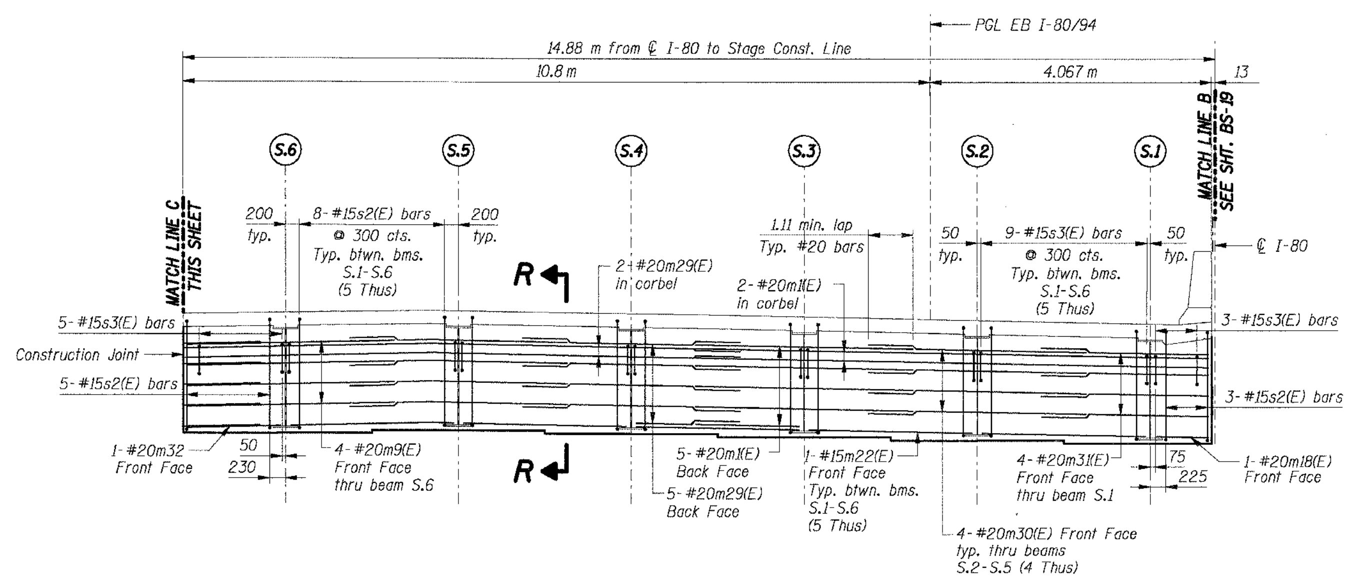
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	462
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



ELEVATION - IV (THIS CONTRACT)

(Looking West)

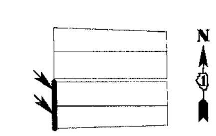


ELEVATION - III (THIS CONTRACT)

(Looking West)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Section S-S, see Sht. BS-19.
5. For Section R-R, see Sht. BS-21.
6. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
7. Work this Sheet with Shts. BS-19, BS-21 & BS-22.
8. F.F. Denotes Front Face. B.F. Denotes Back Face.
9. All edges shall have a 20 mm chamfer unless noted otherwise.



KEY PLAN

SHT. BS-20 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

WEST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - III & IV

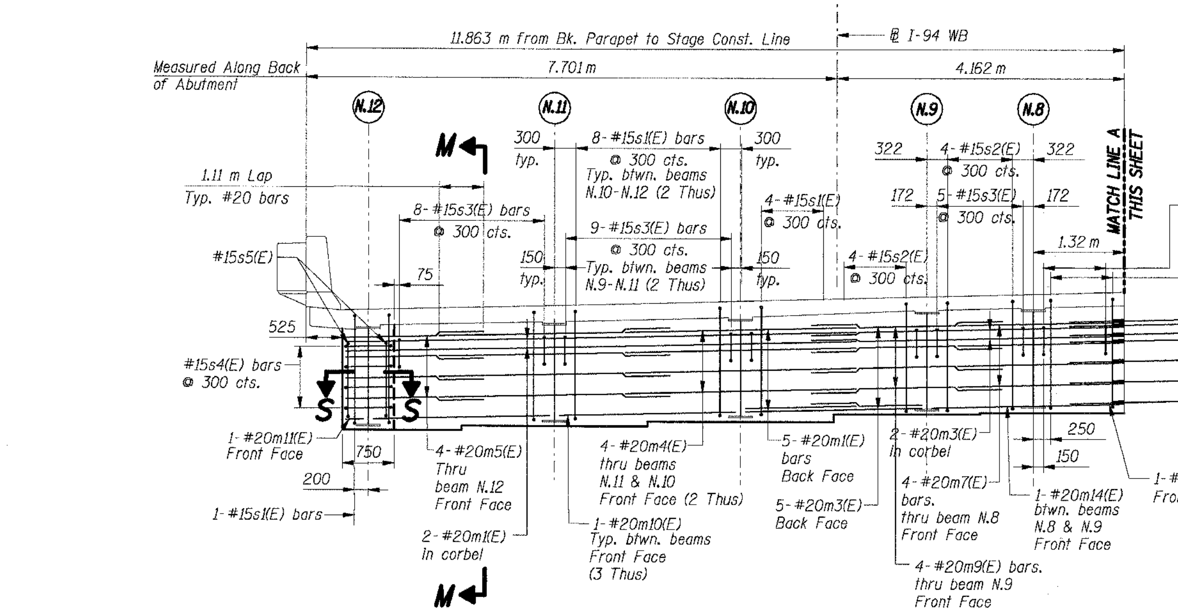
DATE: 7/18/2005 DRAWN BY: LAR CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

7-12-2005, 10:26:38 T:\DOCUMENT\9317\50\STRUCT\DGN\ABI76052A.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	463
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

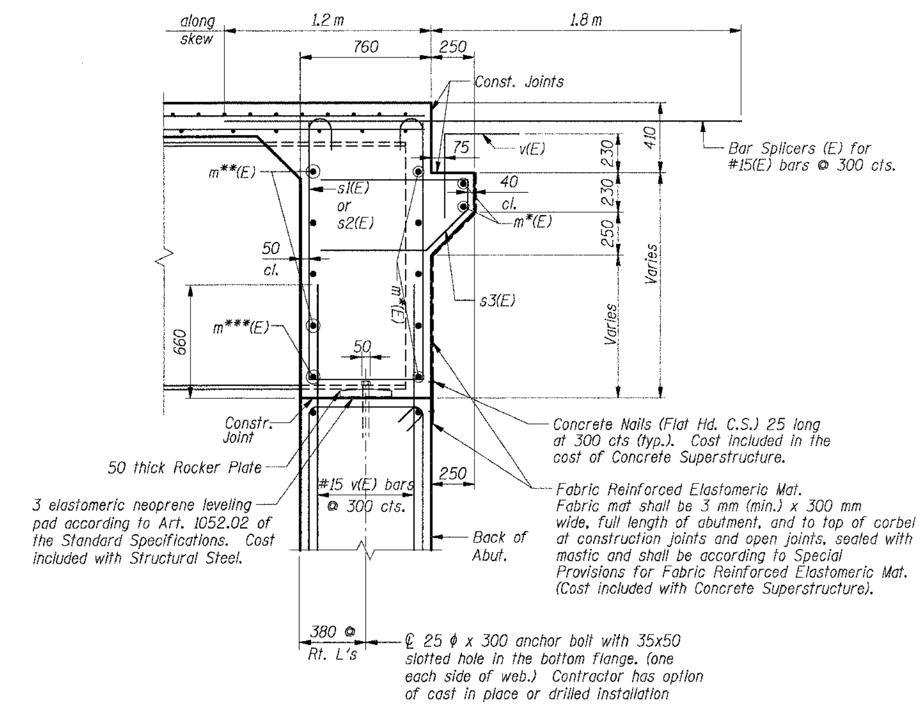
• (2425 & 2626) R-2 CONTRACT NO. 62111



ELEVATION - I

(Looking East)

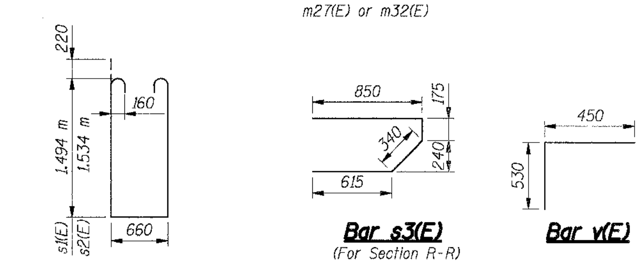
FOR INFORMATION ONLY
CONSTRUCTED IN PREVIOUS CONTRACT 62110



SECTION R-R

(Deck thickness varies from 195 to 235)

*m1(E), m15(E), m16(E), m17(E), m20(E), m23(E), m24(E), m25(E), m26(E) or m29(E)
**m4(E), m8(E), m9(E), m17(E), m21(E), m26(E), m28(E), m30(E) or m31(E)
***m11(E), m14(E), m18(E), m19(E), m22(E), m27(E) or m32(E)



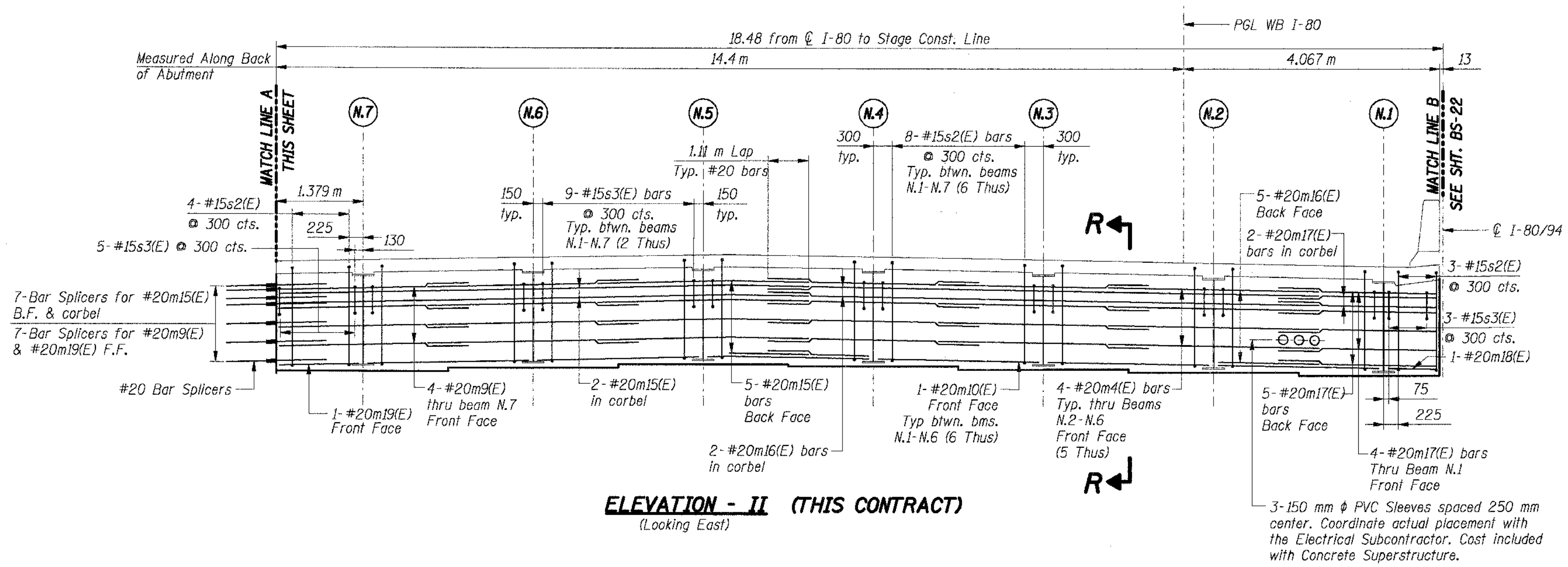
Bars s1(E) & s2(E)

(For Section R-R)

Bar s3(E)

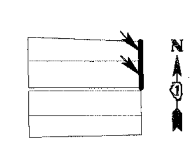
(For Section R-R)

Bar v(E)



ELEVATION - II (THIS CONTRACT)

(Looking East)



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Section M-M & Section S-S, see Sht. BS-19.
5. For Bar Splicer details, see Sht. BS-56.
6. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
7. Work this Sheet with Shts. BS-15, BS-16 & BS-22..
8. F.F. Denotes Front Face
   B.F. Denotes Back Face.
9. All edges shall have a 20 mm chamfer unless noted otherwise.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

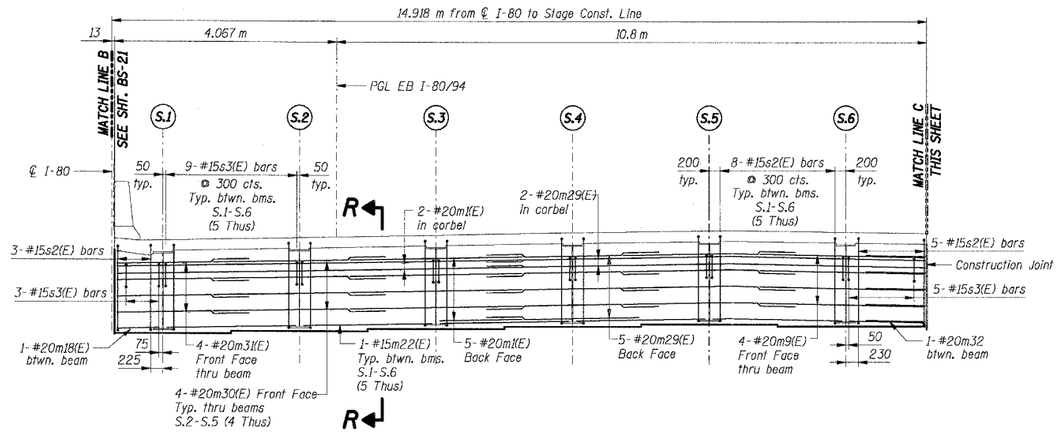
EAST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - I & II

DATE: 7/18/2005 DRAWN BY: LAR CHECKED BY: MJK

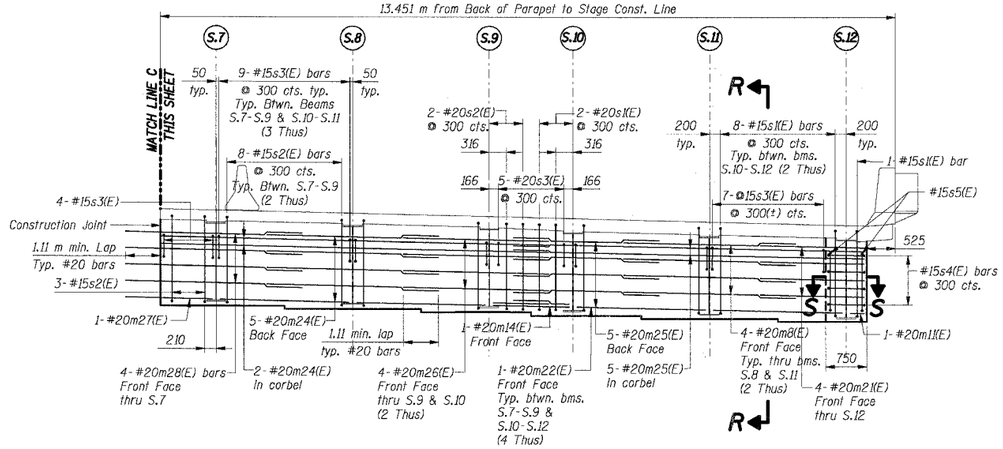
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	464
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



ELEVATION - III (THIS CONTRACT)
(Looking East)



ELEVATION - IV (THIS CONTRACT)
(Looking East)

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Section R-R, see Sht. BS-21.
5. For Section S-S, see Sht. BS-19.
6. For Reinforcement Bar List & Bill of Material, see Sht. BS-23.
7. Work this Sheet with Shts. BS-19 thru BS-21.
8. F.F. Denotes Front Face
   B.F. Denotes Back Face.
9. All edges shall have a 20 mm chamfer unless noted otherwise.

KEY PLAN

SHT. BS-22 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

EAST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - III & IV

DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	465
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

BAR LIST (FOR PLAN-I)*

(FOR INFORMATION ONLY)
(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

Bar	No.	Size	Length (m)	Shape
a1(E)	370	#15	6.45	
a2(E)	85	#15	6.55	
a3(E)	95	#15	6.35	
a4(E)	90	#15	6.15	
a5(E)	100	#15	5.95	
a6(E)	510	#20	8.05	
a7(E)	120	#15	5.20	
a8(E)	125	#15	5.00	
a9(E)	130	#15	4.80	
a10(E)	135	#15	4.60	
a11(E)	255	#20	1.40	
b1(E)	596	#15	9.00	
b2(E)	45	#15	5.00	
b3(E)	42	#15	3.30	
b4(E)	40	#15	7.20	
b5(E)	79	#20	11.80	
d1(E)	240	#15	1.15	
d2(E)	240	#15	0.73	
m1(E)	14	#20	7.65	
m2(E)	7	#20	5.45	
m3(E)	7	#20	4.65	
m4(E)	16	#20	3.85	
m5(E)	8	#20	2.25	
m6(E)	4	#20	2.95	
m7(E)	4	#20	2.50	
m8(E)	4	#20	3.60	
m9(E)	4	#20	3.25	
m10(E)	6	#20	2.55	
m11(E)	2	#20	0.25	
m12(E)	2	#20	1.10	
m13(E)	1	#20	2.20	
m14(E)	1	#20	1.40	
s1(E)	42	#15	4.38	
s2(E)	27	#15	4.30	
s3(E)	73	#15	2.00	
s4(E)	12	#15	2.35	
s5(E)	4	#15	2.98	
v(E)	77	#15	0.98	

BAR LIST (FOR PLAN-II)*

(THIS CONTRACT)

Bar	No.	Size	Length (m)	Shape
a101(E)	370	#15	7.05	
a102(E)	370	#15	8.75	
a103(E)	370	#15	3.80	
a104(E)	510	#15	3.00	
a105(E)	510	#15	8.75	
a106(E)	510	#15	7.90	
a107(E)	255	#20	1.40	
b1(E)	917	#15	9.00	
b2(E)	68	#15	5.00	
b3(E)	68	#15	3.30	
b4(E)	63	#15	7.20	
b5(E)	122	#20	11.80	
d2(E)	240	#15	0.73	
d3(E)	220	#15	1.12	
m4(E)	40	#20	3.85	
m9(E)	8	#20	3.25	
m10(E)	12	#20	2.55	
m15(E)	14	#20	8.65	
m16(E)	14	#20	9.25	
m17(E)	22	#20	2.75	
m18(E)	2	#20	0.80	
m19(E)	2	#20	1.26	
s2(E)	110	#15	4.30	
s3(E)	124	#15	2.00	
v(E)	120	#15	0.98	

BAR LIST (FOR PLAN-III)*

(THIS CONTRACT)

Bar	No.	Size	Length (m)	Shape
a121(E)	332	#15	8.60	
a122(E)	332	#15	6.77	
a123(E)	473	#15	7.45	
a124(E)	473	#15	8.00	
a125(E)	237	#20	1.40	
b1(E)	728	#15	9.00	
b2(E)	53	#15	5.00	
b3(E)	53	#15	3.30	
b4(E)	51	#15	7.20	
b5(E)	98	#20	11.80	
d2(E)	240	#15	0.73	
d3(E)	220	#15	1.12	
m1(E)	14	#20	7.65	
m9(E)	8	#20	3.25	
m18(E)	2	#20	0.80	
m22(E)	10	#20	2.35	
m29(E)	14	#20	8.25	
m30(E)	32	#20	3.65	
m31(E)	8	#20	2.65	
m32(E)	2	#20	1.36	
s2(E)	96	#15	4.30	
s3(E)	106	#15	2.00	
v(E)	96	#15	0.98	

BAR LIST (FOR PLAN-IV)*

(THIS CONTRACT)

Bar	No.	Size	Length (m)	Shape
a131(E)	332	#15	6.20	
a132(E)	70	#15	8.55	
a133(E)	70	#15	8.35	
a134(E)	70	#15	8.15	
a135(E)	70	#15	7.95	
a136(E)	53	#15	7.75	
a137(E)	473	#15	4.95	
a138(E)	105	#15	5.65	
a139(E)	95	#15	5.45	
a140(E)	100	#15	5.25	
a141(E)	100	#15	5.05	
a142(E)	73	#15	4.85	
a143(E)	473	#20	5.10	
a144(E)	237	#20	1.40	
b1(E)	680	#15	9.00	
b2(E)	51	#15	5.00	
b3(E)	47	#15	3.30	
b4(E)	47	#15	7.20	
b5(E)	92	#20	11.80	
d1(E)	220	#15	1.15	
d2(E)	240	#15	0.73	
m8(E)	24	#20	3.60	
m11(E)	2	#20	0.25	
m14(E)	1	#20	1.40	
m20(E)	7	#20	7.15	
m21(E)	8	#20	2.15	
m22(E)	9	#20	2.35	
m23(E)	7	#20	8.95	
m24(E)	7	#20	8.45	
m25(E)	7	#20	6.65	
m26(E)	8	#20	3.15	
m27(E)	2	#20	2.10	
m28(E)	8	#20	3.95	
s1(E)	39	#15	4.38	
s2(E)	44	#15	4.30	
s3(E)	90	#15	2.00	
s4(E)	12	#15	2.35	
s5(E)	4	#15	2.98	
v(E)	91	#15	0.98	

BILL OF MATERIAL (FOR PLAN-I)*

(FOR INFORMATION ONLY)
(CONSTRUCTED IN PREVIOUS CONTRACT 62110)

Item	Unit	Total
Concrete Superstructure	Cu m	201.5
Reinforcement Bars, Epoxy Coated	kg	35,800

BILL OF MATERIAL (FOR PLAN-II)*

(THIS CONTRACT)

Item	Unit	Total
Concrete Superstructure	Cu m	280.2
Reinforcement Bars, Epoxy Coated	kg	49,120

BILL OF MATERIAL (FOR PLAN-III)*

(THIS CONTRACT)

Item	Unit	Total
Concrete Superstructure	Cu m	224.4
Reinforcement Bars, Epoxy Coated	kg	37,310

BILL OF MATERIAL (FOR PLAN-IV)*

(THIS CONTRACT)

Item	Unit	Total
Concrete Superstructure	Cu m	225.4
Reinforcement Bars, Epoxy Coated	kg	37,580

*Includes deck and integral backwalls.

Notes:

1. See Sht. BS-25 for South Parapet Bill of Material.
2. See Sht. BS-27 for Median Parapet Bill of Material.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

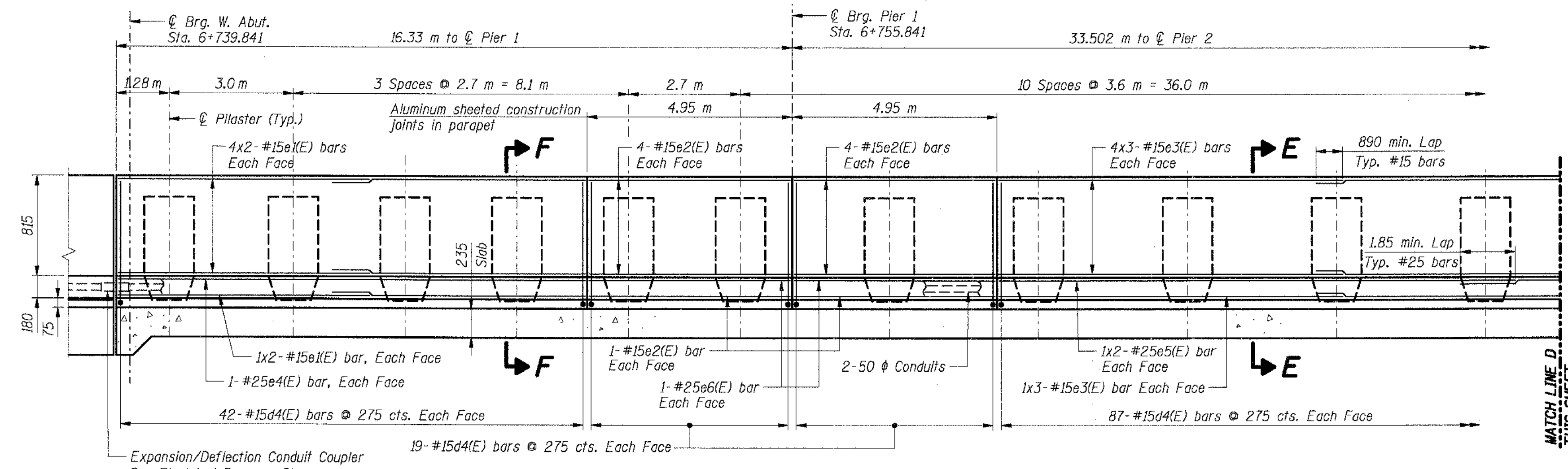
DECK BAR LIST & BILL OF MATERIAL

DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

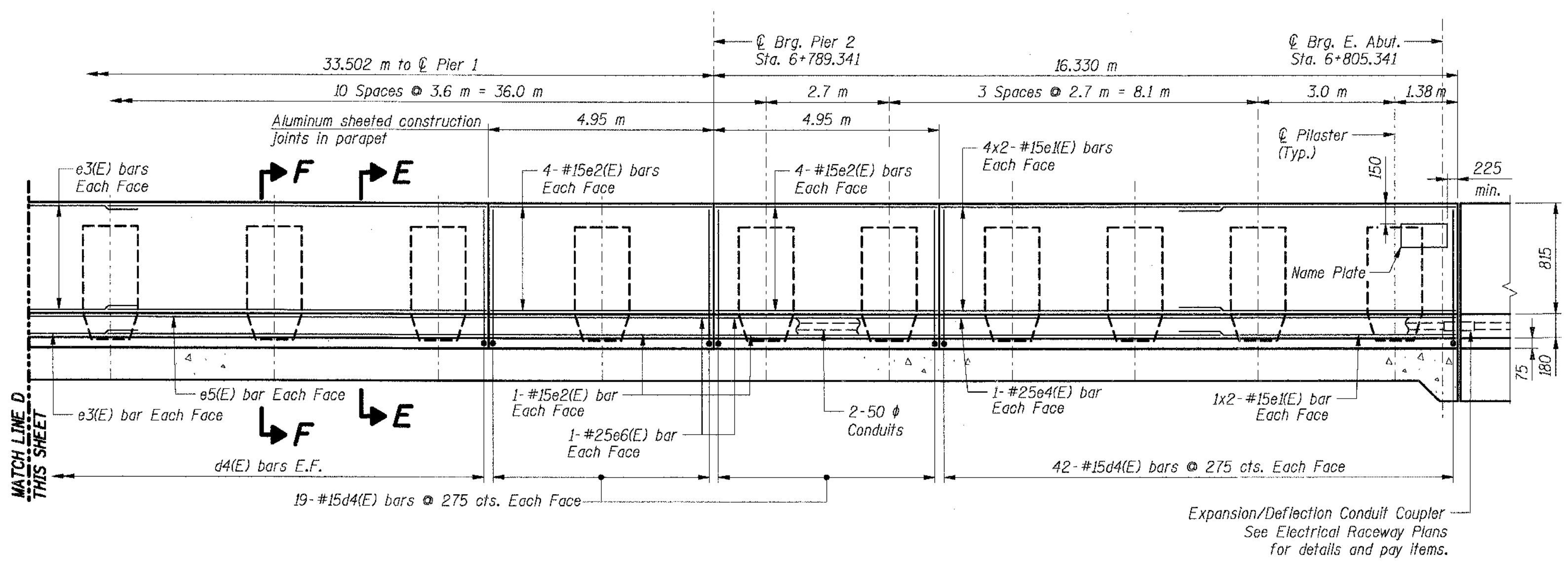
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	466
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



INSIDE ELEVATION OF NORTH EXTERIOR PARAPET



INSIDE ELEVATION OF NORTH EXTERIOR PARAPET

BAR LIST

Bar	No.	Size	Length (m)	Shape
d4(E)	494	#15	1.10	—
d5(E)	147	#15	1.37	⌡
e1(E)	40	#15	6.15	—
e2(E)	40	#15	4.85	—
e3(E)	30	#15	8.45	—
e4(E)	4	#25	11.35	—
e5(E)	4	#25	12.75	—
e6(E)	8	#25	4.85	—
e7(E)	63	#15	2.56	⌴
e8(E)	21	#15	2.20	⌴
u1(E)	147	#20	2.05	⌐

BILL OF MATERIAL

Item	Unit	Total
Concrete Superstructure	Cu m	40.1
Reinforcement Bars, Epoxy Coated	kg	3,820
Noise Abatment Wall Anchor Rod Assembly	Each	21
Name Plates	Each	1

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Sections E-E and F-F, see Sht. BS-26.
5. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
6. All edges shall have a 20 mm chamfer unless noted otherwise.
7. For Name Plate Detail see Sht. BS-3.
8. For Reinforcement Bar bending diagrams, see Sht. BS-26.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-24 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

NORTH PARAPET ELEVATION

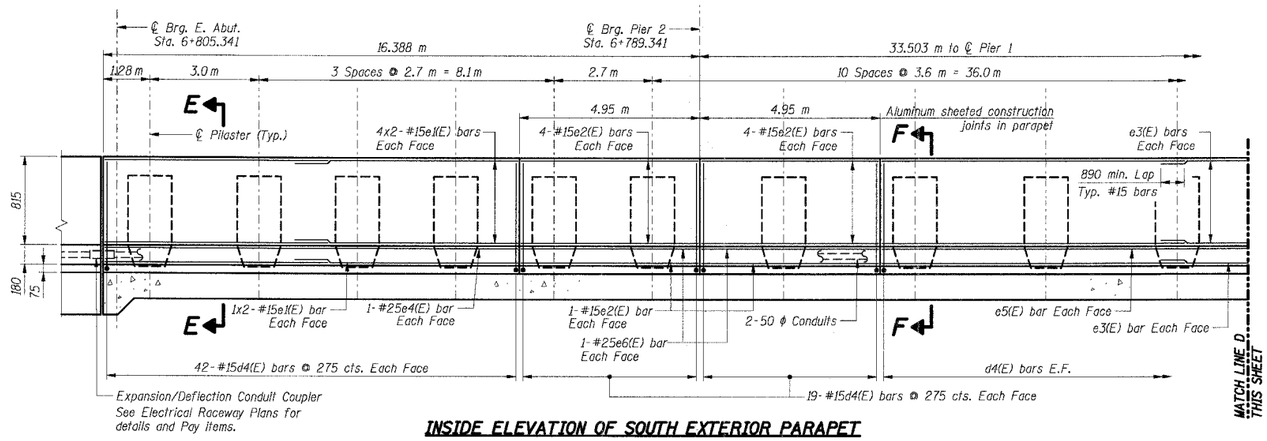
DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

TENG

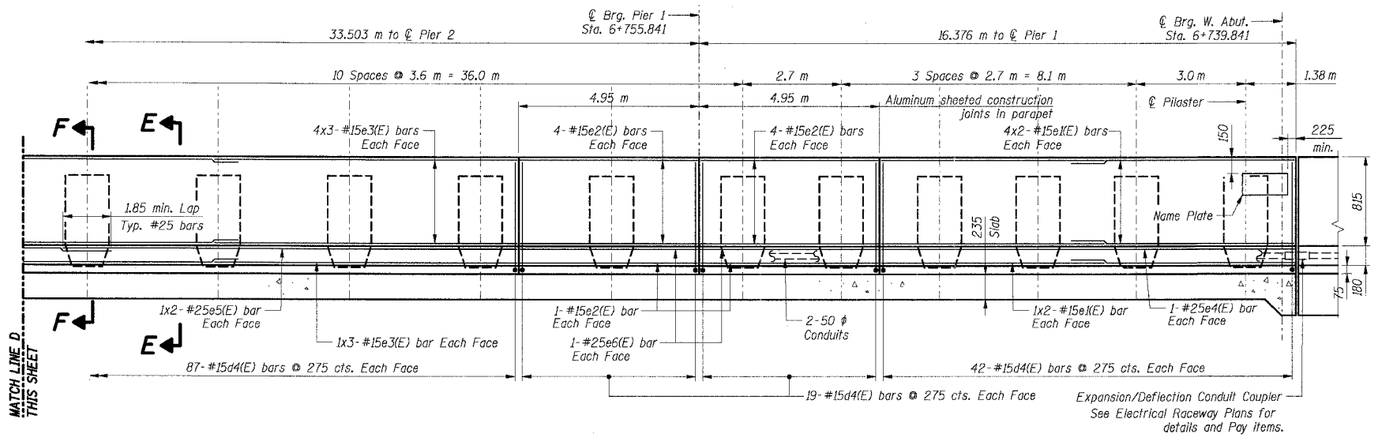
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	467
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 12425 & 2626) R-2 CONTRACT NO. 62111



INSIDE ELEVATION OF SOUTH EXTERIOR PARAPET



INSIDE ELEVATION OF SOUTH EXTERIOR PARAPET

BAR LIST

Bar	No.	Size	Length (m)	Shape
d4(E)	494	#15	1.10	
d5(E)	147	#15	1.37	
e1(E)	40	#15	6.15	
e2(E)	40	#15	4.85	
e3(E)	30	#15	8.45	
e4(E)	4	#25	11.35	
e5(E)	4	#25	12.75	
e6(E)	8	#25	4.85	
e7(E)	63	#15	2.56	
e8(E)	21	#15	2.20	
u1(E)	147	#20	2.05	

BILL OF MATERIAL

Item	Unit	Total
Concrete Superstructure	Cu m	40.1
Reinforcement Bars, Epoxy Coated	kg	3,820
Noise Abatment Wall Anchor Rod Assembly	Each	21
Name Plates	Each	1

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Sections E-E and F-F, see Sht. BS-26.
5. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
6. All edges shall have a 20 mm chamfer unless noted otherwise.
7. For Name Plate Detail, see Sht. BS-3.
8. For Reinforcement bar bending diagrams, see Sht. BS-26.

SHT. BS-25 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

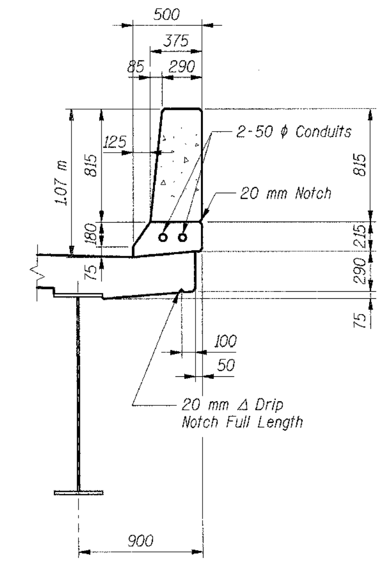
SOUTH PARAPET ELEVATION

DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

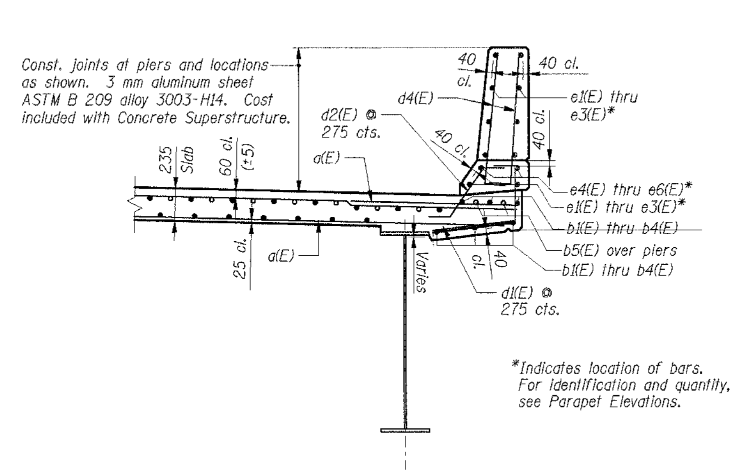
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	468
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

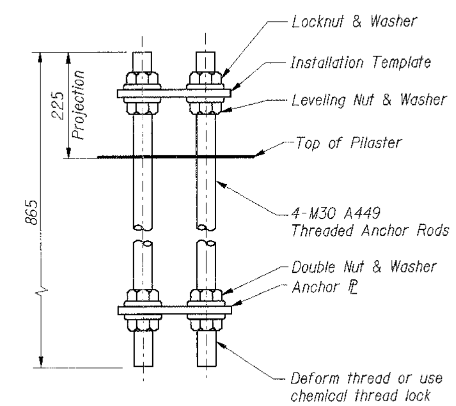
* (2425 & 2626) R-2 CONTRACT NO. 62111



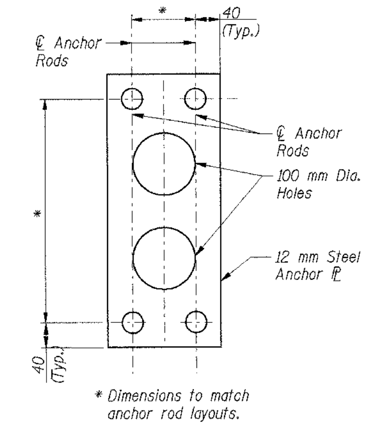
SECTION E-E
(Showing Geometry)



SECTION E-E
(Showing Reinforcement)



ELEVATION

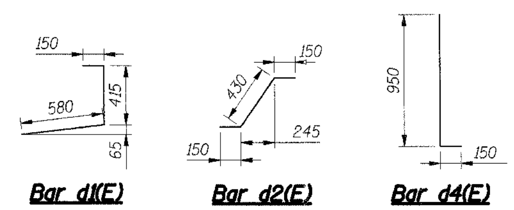


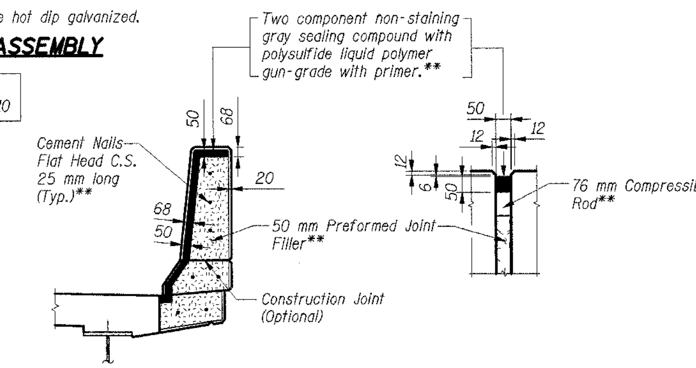
PLAN

Note: Entire anchor rod assembly including anchor plate shall be hot dip galvanized.

NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY

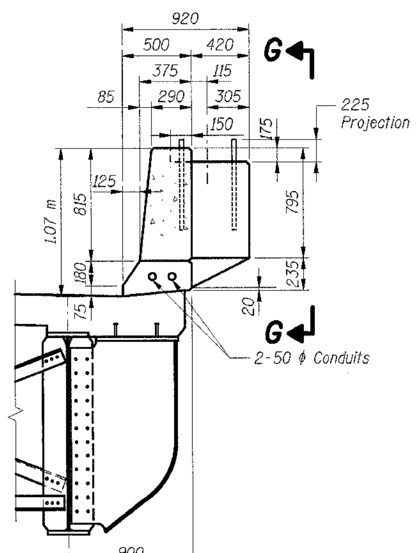
21 THIS CONTRACT
21 BY OTHERS IN PREVIOUS CONTRACT 62110



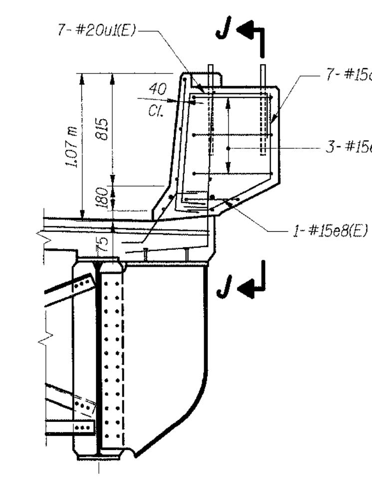


PARAPET EXPANSION JOINT DETAIL AT RETAINING WALL**

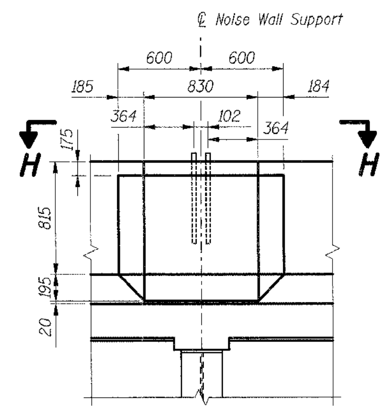
** Cost included with Concrete Superstructure



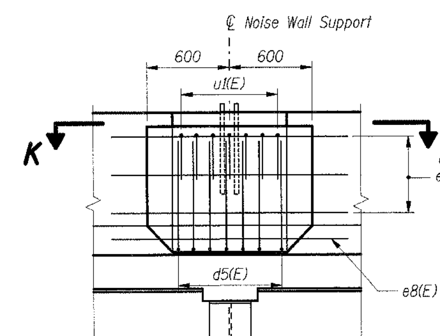
SECTION F-F
(Showing Geometry)



SECTION F-F
(Showing Reinforcement)



SECTION G-G

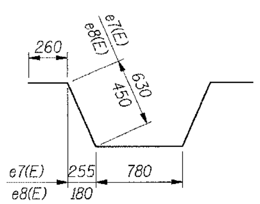


SECTION J-J

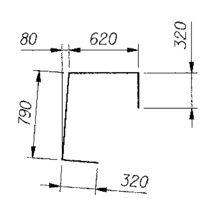
Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. For Parapet Elevation, see Sht. BS-25.
5. For Reinforcement Bar List & Bill of Material, see Sht. BS-25.
6. Work this Sheet with Shts. BS-15 thru BS-23.
7. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
8. All edges shall have a 20 mm chamfer unless noted otherwise.

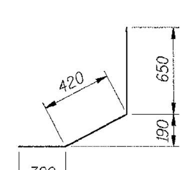
SOUTH PARAPET ONLY CONSTRUCTED IN THIS CONTRACT



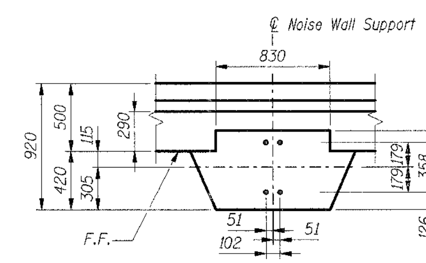
Bars e7(E) & e8(E)



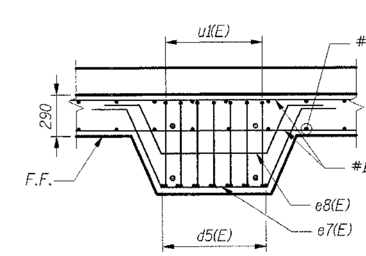
Bar u1(E)



Bar d5(E)



SECTION H-H



SECTION K-K

*Indicates location of bars. For identification and quantity, see Parapet Elevations

SHT. BS-26 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

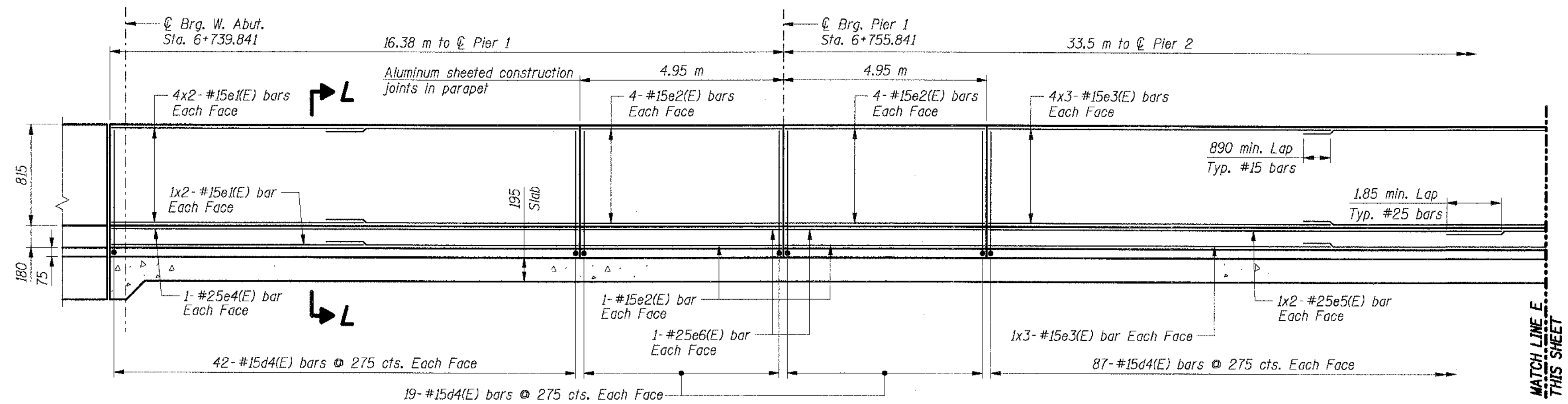
NORTH & SOUTH PARAPET DETAILS

DRAWN BY: LAR
CHECKED BY: MJK
DATE: 9/13/05

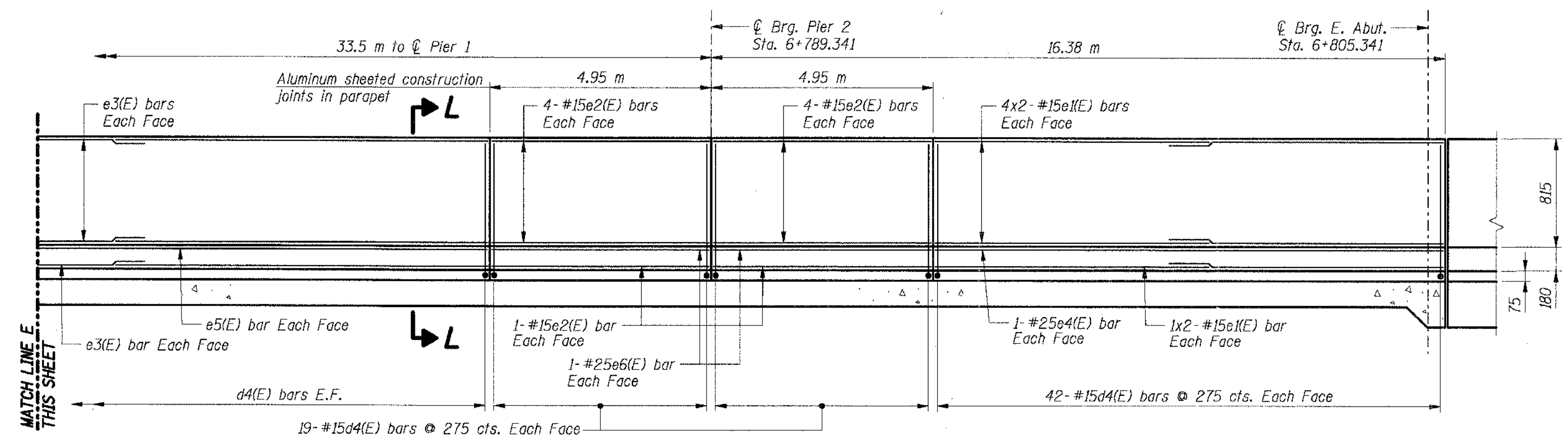
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	469
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

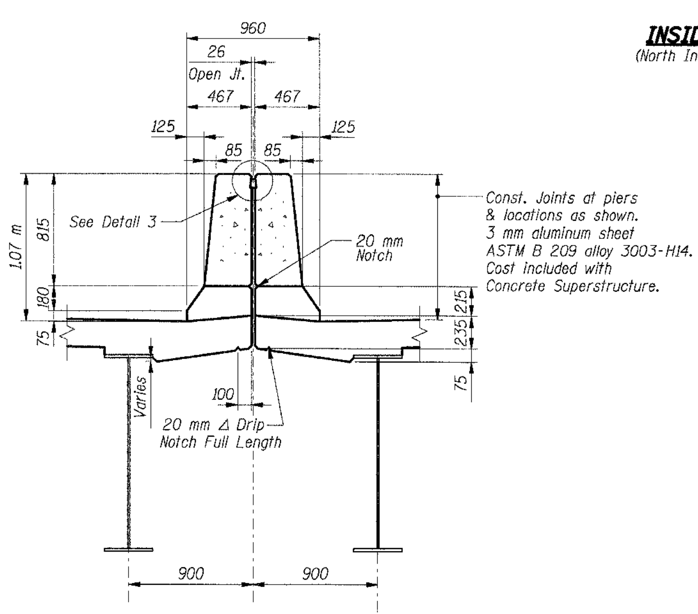
* (2425 & 2626) R-2 CONTRACT NO. 62111



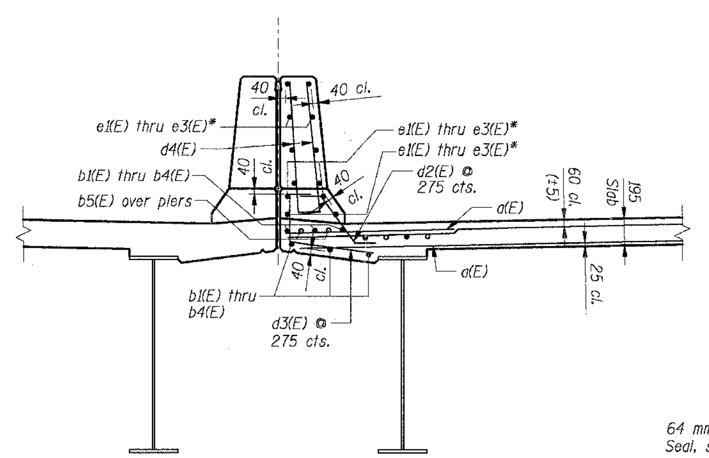
INSIDE ELEVATION OF MEDIAN PARAPET
(North Interior Parapet shown, South Interior parapet opposite hand)



INSIDE ELEVATION OF MEDIAN PARAPET
(North Interior Parapet shown, South Interior parapet opposite hand)

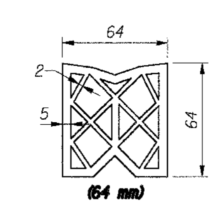


SECTION L-L
(Showing Geometry)

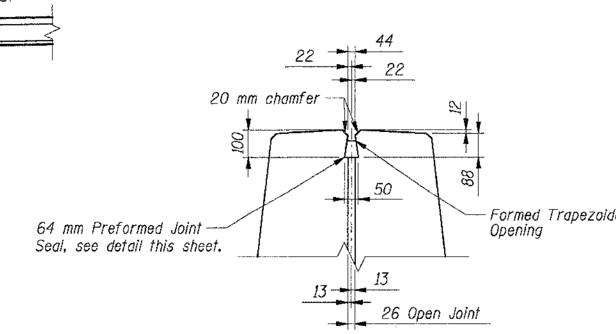


SECTION L-L
(Showing Reinforcement)

*Indicates for location of bars, for identification and quantity, see Parapet Sections



PREFORMED JOINT SEAL



DETAIL 3

BAR LIST
(For Each Parapet)

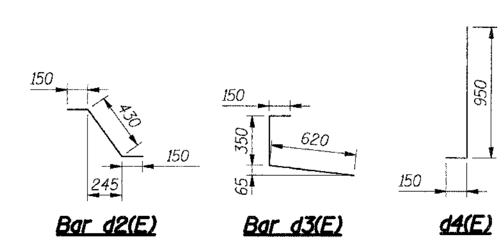
Bar	No.	Size	Length (m)	Shape
d4(E)	247	#15	1.10	┌──
e1(E)	40	#15	6.15	──
e2(E)	40	#15	4.85	──
e3(E)	30	#15	8.45	──
e4(E)	4	#25	11.35	──
e5(E)	4	#25	12.75	──
e6(E)	8	#25	4.85	──

BILL OF MATERIAL
(For Each Parapet)

Item	Unit	Total
Concrete Structures	Cu m	30.0
Reinforcement Bars, Epoxy Coated	kg	2,050
Preformed Joint Seal 64 mm	Meter	66.3 **

**Quantity for PJS 64 mm shall not be doubled

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
4. Work this Sheet with Shts. BS-15 thru BS-23.
5. I.F. Denotes Inside Face
   O.F. Denotes Outside Face.
6. All edges shall have a 20 mm chamfer unless noted otherwise.



SHT. BS-27 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

MEDIAN PARAPET ELEVATION & DETAILS

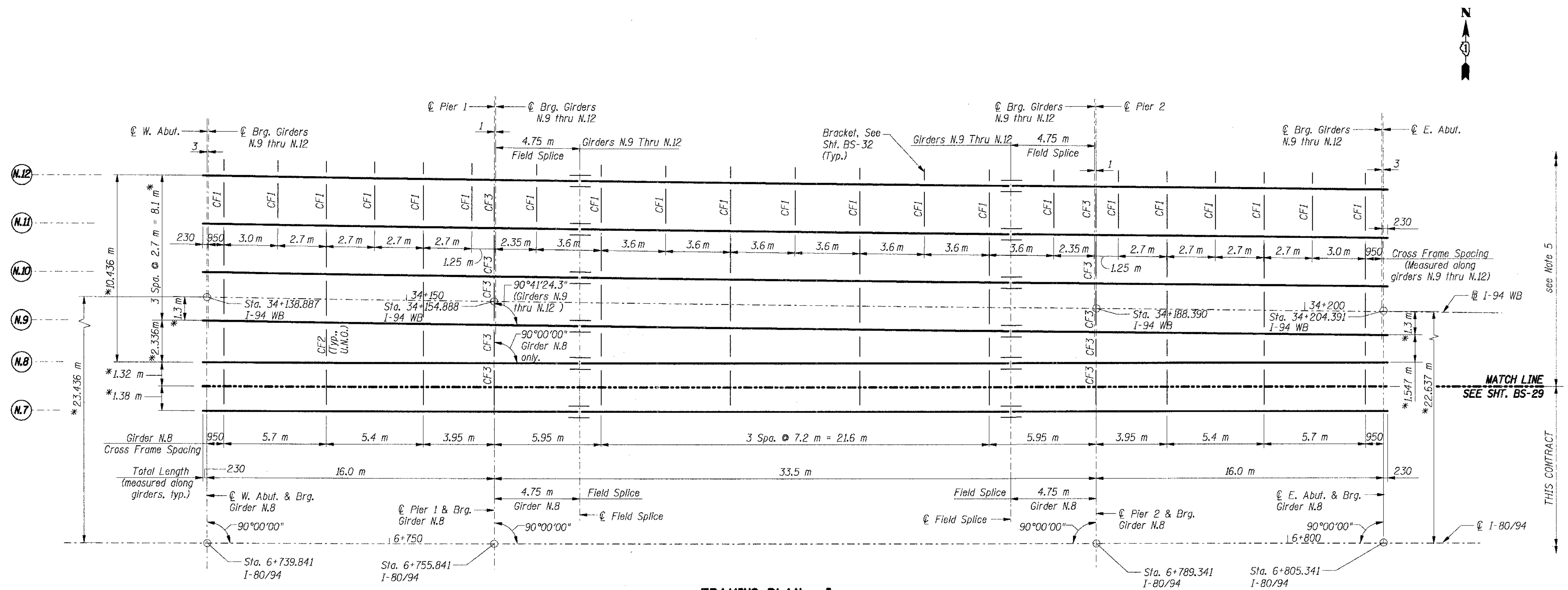
DATE: 7/18/2005
DRAWN BY: LAR
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

BAJZEKKJ
..\SU9980I2A.DGN...\AB9800I2A.DGN
7-12-2005, 10:26:42 T:\DOCUMENT\9317501\STRUCT\DGN\SU176\72A.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	470
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2626) R-2 CONTRACT NO. 62111



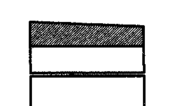
FRAMING PLAN - I

* Denotes measured along ℄ Brgs. perpendicular to ℄ I-80/94

THIS SHEET FOR INFORMATION ONLY

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. For Girder Elevations See Shts. BS-30
3. For Cross Frame and Bracket Details See Sht. BS-32
4. For Field Splice Details See Shts. BS-33.
5. Girders N.8 thru N.12 are existing girders erected by others under Contract 62110.



KEY PLAN

SHT. BS-28 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

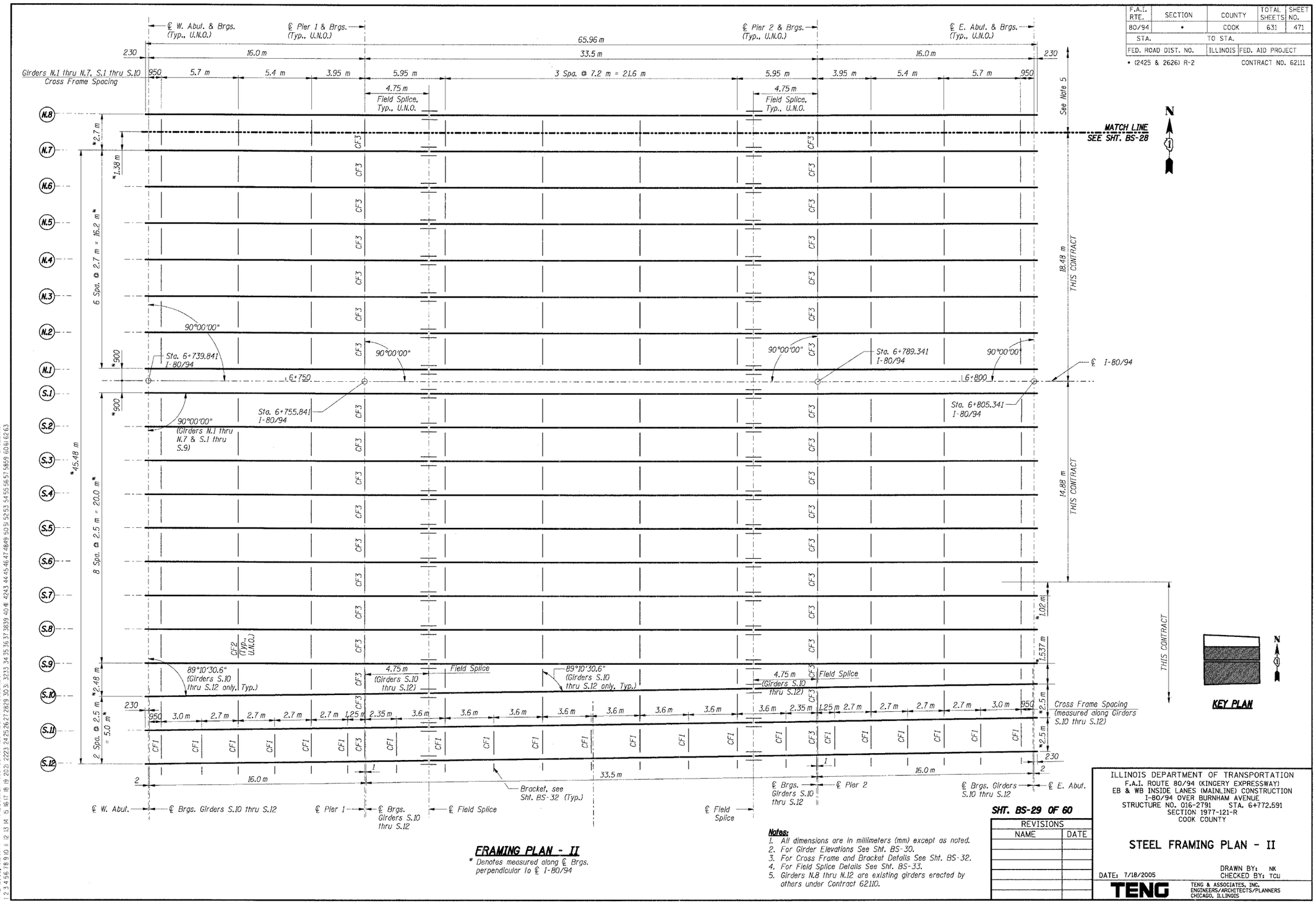
STEEL FRAMING PLAN - I

DATE: 7/18/2005 DRAWN BY: NK CHECKED BY: TCU

TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	471
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2626) R-2 CONTRACT NO. 62111



FRAMING PLAN - II

* Denotes measured along ℄ Brgs. perpendicular to ℄ I-80/94

Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. For Girder Elevations See Sht. BS-30.
3. For Cross Frame and Bracket Details See Sht. BS-32.
4. For Field Splice Details See Sht. BS-33.
5. Girders N.8 thru N.12 are existing girders erected by others under Contract 62110.

SHT. BS-29 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

STEEL FRAMING PLAN - II

DATE: 7/18/2005 DRAWN BY: NK CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

\\FP99WI02A.DGN, \\FP99RI32A.DGN, \\FP99RI02A.DGN, \\AB99D02A.DGN, \\AB99D02A.DGN
7-12-2005, 10:26:46
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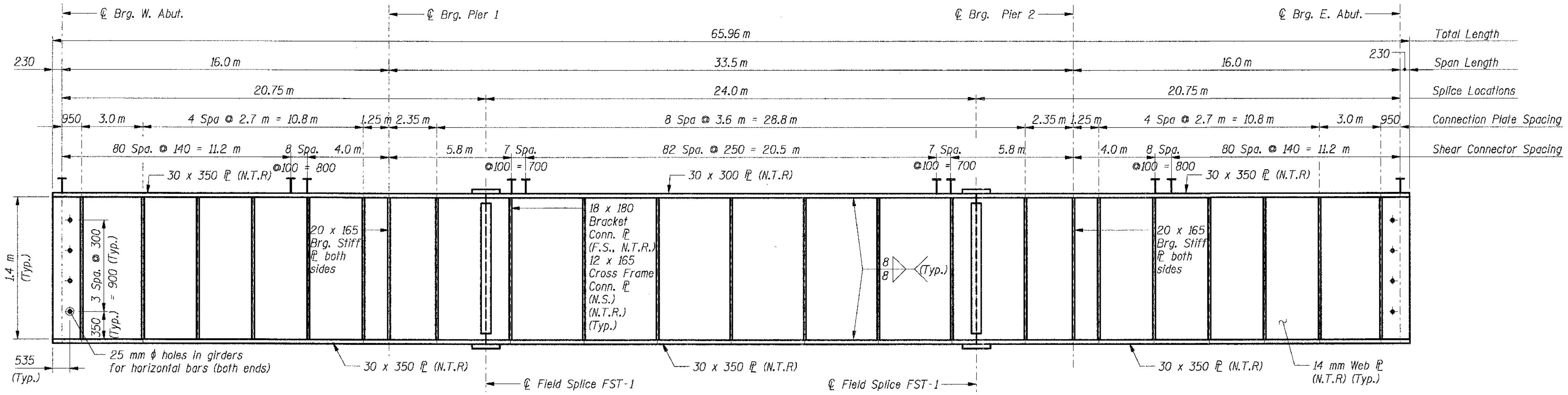
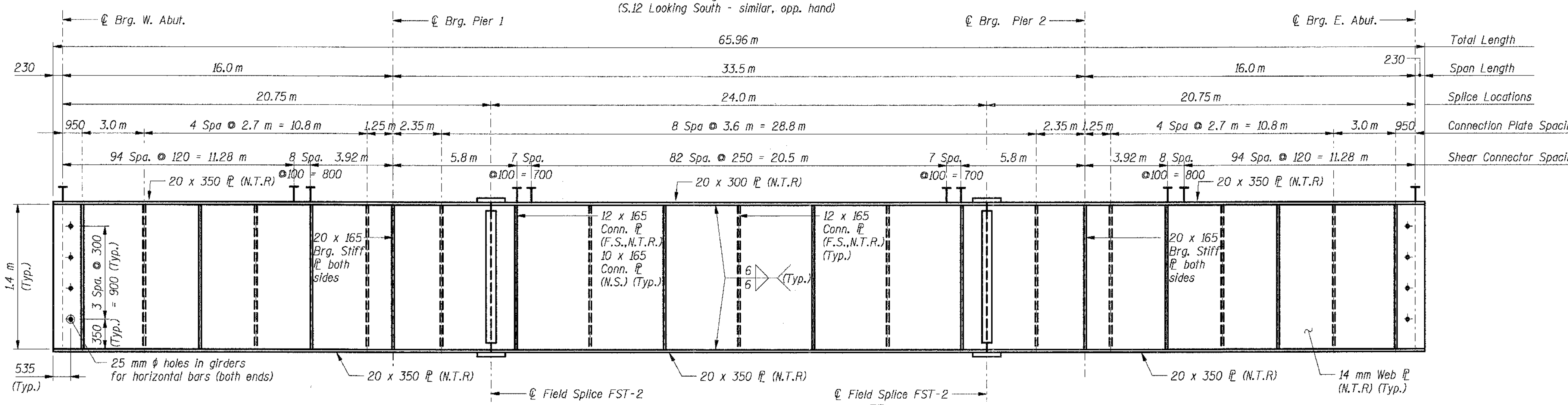
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	472
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



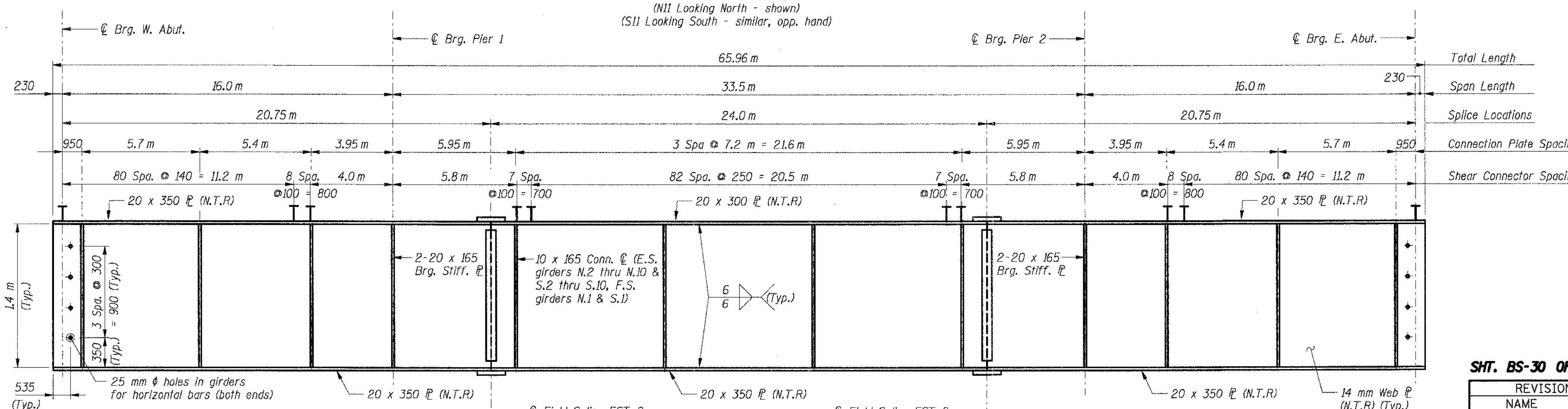
ELEVATION - GIRDERS N.12 & S.12**

(N.12 Looking North - shown)
(S.12 Looking South - similar, opp. hand)



ELEVATION - GIRDERS N.11 & S.11**

(N11 Looking North - shown)
(S11 Looking South - similar, opp. hand)



ELEVATION - GIRDERS N.1 THRU N.10 & S.1 THRU S.10**

(N.1 thru N.10 Looking North - shown)
(S.1 thru S.10 Looking South - similar, opp. hand)

**GIRDERS N.1 THRU N.7 & S.1 THRU S.12 TO BE ERECTED IN THIS CONTRACT

BILL OF MATERIAL**

Item	Unit	Total
Stud Shear Connectors	Each	15,759

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. N.T.R. denotes steel subject to Supplemental Requirements for Notch Toughness (Zone 2).
3. For Camber Diagram and Top of Web Elevations, see Sht. BS-31
4. For Shear Connector, Bearing Stiffener, and Connection Plate Details, see Sht. BS-33.
5. For Field Splice Details, see Sht. BS-33.
6. N.S. = Near Side
   F.S. = Far Side
   E.S. = Each Side

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

SHT. BS-30 OF 60

REVISIONS	
NAME	DATE

GIRDER ELEVATIONS

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	473
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

TOP OF WEB ELEVATIONS (m)*

(For fabrication use only)

Beam	℄ Brg. W. Abut.	℄ Pier 1	℄ Field Splice	℄ Field Splice	℄ Pier 2	℄ Brg. E. Abut.
N.12	189.038	189.033	189.031	188.990	188.978	188.938
N.11	189.118	189.118	189.118	189.078	189.063	189.013
N.10	189.183	189.183	189.183	189.143	189.128	189.078
N.9	189.288	189.288	189.288	189.248	189.233	189.183
N.8	189.343	189.343	189.343	189.302	189.283	189.218
N.7	189.403	189.403	189.403	189.362	189.343	189.278
N.6	189.453	189.453	189.453	189.412	189.393	189.328
N.5	189.493	189.493	189.493	189.452	189.433	189.368
N.4	189.468	189.468	189.468	189.427	189.408	189.343
N.3	189.418	189.418	189.418	189.377	189.358	189.293
N.2	189.363	189.363	189.363	189.322	189.303	189.238
N.1	189.303	189.303	189.303	189.262	189.243	189.178
S.1	189.303	189.303	189.303	189.262	189.243	189.178
S.2	189.363	189.363	189.363	189.322	189.303	189.238
S.3	189.413	189.413	189.413	189.372	189.353	189.288
S.4	189.453	189.453	189.453	189.411	189.393	189.328
S.5	189.493	189.493	189.493	189.452	189.433	189.368
S.6	189.468	189.468	189.468	189.427	189.408	189.343
S.7	189.428	189.428	189.428	189.387	189.368	189.303
S.8	189.378	189.378	189.378	189.337	189.318	189.253
S.9	189.313	189.313	189.313	189.272	189.253	189.188
S.10	189.218	189.218	189.218	189.189	189.173	189.118
S.11	189.158	189.158	189.158	189.124	189.108	189.053
S.12	189.083	189.078	189.077	189.042	189.028	188.983

GIRDERS N.1-N.9 & S.1-S.9 REACTION TABLE

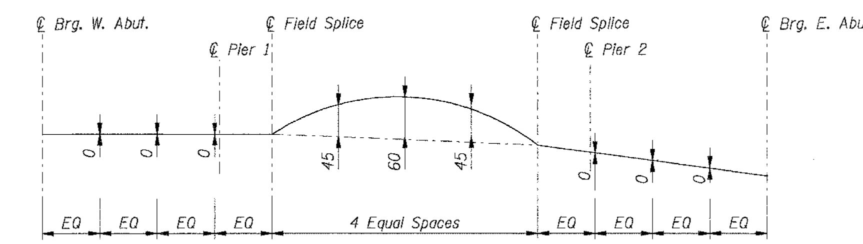
	End Support	Interior Pier
R DL (kN)	78	698
R LL (kN)	223	313
Imp. (kN)	63	76
R (Total) (kN)	364	1087

GIRDERS N.10, N.11 & S.10, S.11 REACTION TABLE

	End Support	Interior Pier
R DL (kN)	84	746
R LL (kN)	223	312
Imp. (kN)	63	76
R (Total) (kN)	369	1134

GIRDERS N.12 & S.12 REACTION TABLE**

	End Support	Interior Pier
R DL (kN)	138	1170
R LL (kN)	181	277
Imp. (kN)	51	67
R (Total) (kN)	370	1515



TYPICAL CAMBER DIAGRAM*

GIRDERS N.1-N.9 & S.1-S.9 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2
Is	(10^6 mm^4)	10260	10260	9740
Ic (n)	(10^6 mm^4)			24950
Ic (3n)	(10^6 mm^4)			18280
Ss	(10^3 mm^3)	14250	14250	13950
Sc (n)	(10^3 mm^3)			20280
Sc (3n)	(10^3 mm^3)			18310
Z	(10^3 mm^3)			
DL	(kN/m)	23.74	23.74	16.03
M DL	(kN-m)	13	1789	970
s DL	(kN/m)			7.65
Ms DL	(kN-m)			561
M LL	(kN-m)	612	717	1309
M (Imp)	(kN-m)	172	174	279
5/3[M LL + M(Imp)]	(kN-m)	1308	1485	2646
Ma	(kN-m)	1717	4256	5429
Mu	(kN-m)			7656
fs DL non-comp	(MPa)	1	126	70
fs DL (comp)	(MPa)			31
fs 5/3[M LL + M(Imp)]	(MPa)	92	104	130
fs (Overload)	(MPa)	93	230	231
fs (Total)	(MPa)	120	299	
VR	(kN)	331		328

MOMENT TABLE - Symmetrical Composite 3 Span
(Composite in positive moment area only)

GIRDERS N.10, N.11 & S.10, S.11 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2
Is	(10^6 mm^4)	10260	10260	9740
Ic (n)	(10^6 mm^4)			26870
Ic (3n)	(10^6 mm^4)			19960
Ss	(10^3 mm^3)	14250	14250	13950
Sc (n)	(10^3 mm^3)			20900
Sc (3n)	(10^3 mm^3)			18990
Z	(10^3 mm^3)			
DL	(kN/m)	25.38	25.38	17.67
M DL	(kN-m)	16	1908	1069
s DL	(kN/m)			7.65
Ms DL	(kN-m)			574
M LL	(kN-m)	611	702	1327
M (Imp)	(kN-m)	172	170	282
5/3[M LL + M(Imp)]	(kN-m)	1306	1455	2682
Ma	(kN-m)	1719	4371	5623
Mu	(kN-m)			7753
fs DL non-comp	(MPa)	1	134	77
fs DL (comp)	(MPa)			30
fs 5/3[M LL + M(Imp)]	(MPa)	92	102	128
fs (Overload)	(MPa)	93	236	235
fs (Total)	(MPa)	121	307	
VR	(kN)	330		328

MOMENT TABLE - Symmetrical Composite 3 Span
(Composite in positive moment area only)

GIRDERS N.12 & S.12 MOMENT TABLE**

		0.4 Span 1	Pier 1	0.5 Span 2
Is	(10^6 mm^4)	13940	13940	13140
Ic (n)	(10^6 mm^4)			32250
Ic (3n)	(10^6 mm^4)			23740
Ss	(10^3 mm^3)	19090	19090	18710
Sc (n)	(10^3 mm^3)			25980
Sc (3n)	(10^3 mm^3)			23660
Z	(10^3 mm^3)			
DL	(kN/m)	40.03	40.03	16.64
M DL	(kN-m)	66	2908	1004
s DL	(kN/m)			23.30
Ms DL	(kN-m)			1688
M LL	(kN-m)	542	643	1147
M (Imp)	(kN-m)	153	156	244
5/3[M LL + M(Imp)]	(kN-m)	1158	1332	2319
Ma	(kN-m)	1592	5512	6515
Mu	(kN-m)			10036
fs DL non-comp	(MPa)	3	152	54
fs DL (comp)	(MPa)			71
fs 5/3[M LL + M(Imp)]	(MPa)	61	70	89
fs (Overload)	(MPa)	64	222	214
fs (Total)	(MPa)	83	289	
VR	(kN)	273		270

MOMENT TABLE - Symmetrical Composite 3 Span
(Composite in positive moment area only)

Notes:

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

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

Ic(3n) and Ss(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).

s DL, Ms DL, and tabulated DL Reactions include the future wearing surface.

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment) = 1.3[M DL + Ms DL + 5/3(M LL + M imp)].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M DL + Ms DL + 5/3(M LL + M imp).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[M DL + Ms DL + 5/3(M LL + M imp)].

* Top of web elevations and camber diagram exclude the Noise Abatement Wall selfweight.

** s DL, Ms DL, and tabulated DL reactions of Girders N.12 and S.12 include the Noise Abatement Wall selfweight.

SHT. BS-31 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

DESIGN DATA TABLES, TOP OF WEB ELEVATIONS & CAMBER DIAGRAM

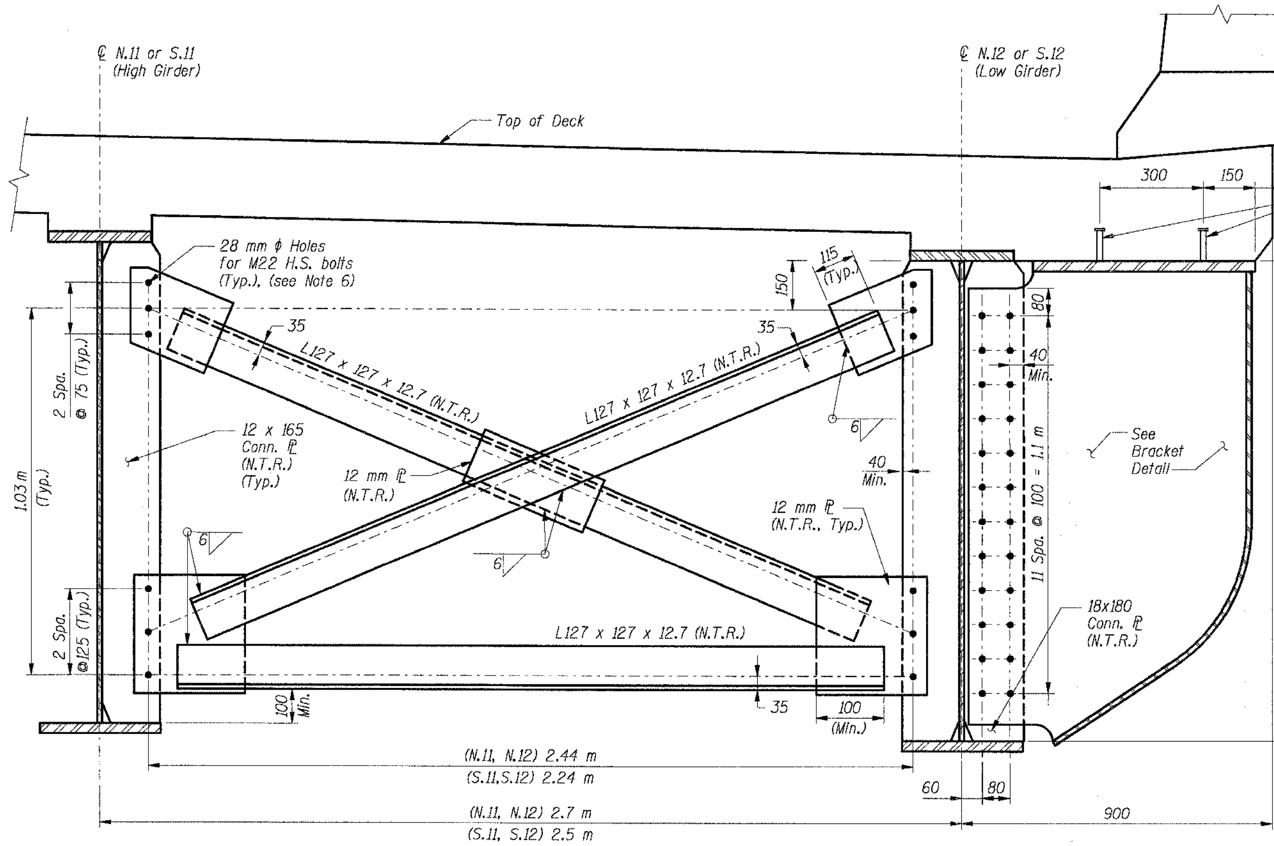
DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	474
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

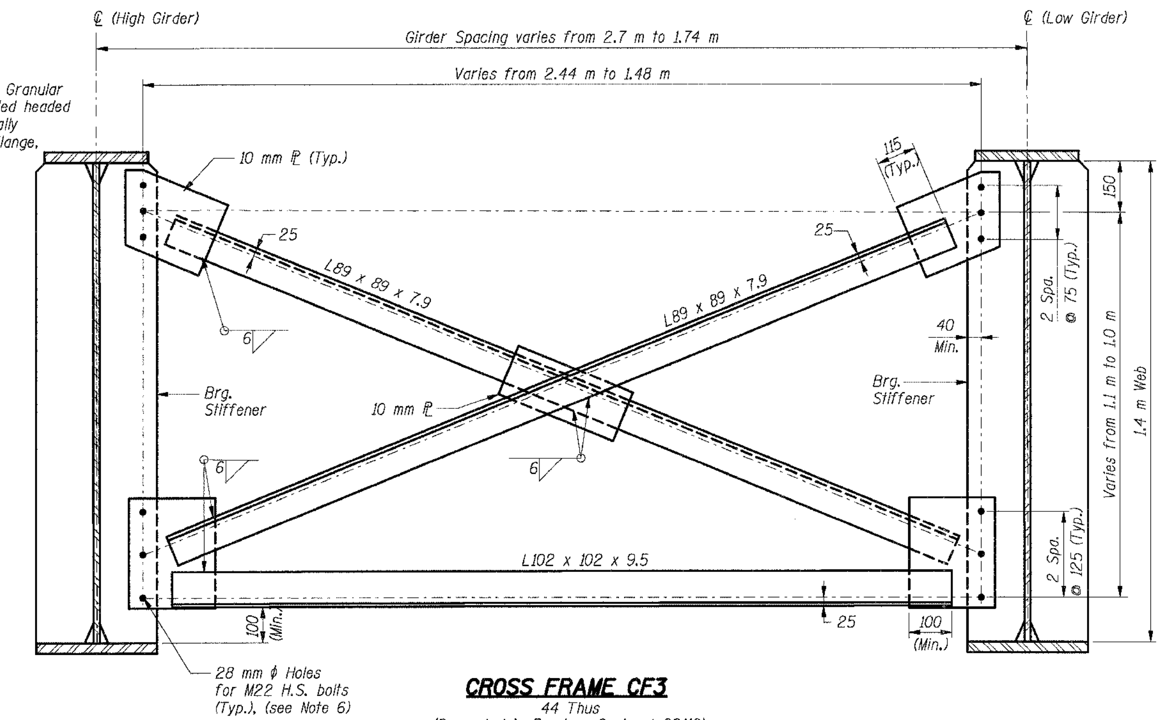
* (2425 & 2626) R-2

CONTRACT NO. 62111



CROSS FRAME CF1 AND BRACKET

42 Thus
(21 erected in Previous Contract 62110)
(21 erected in This Contract)

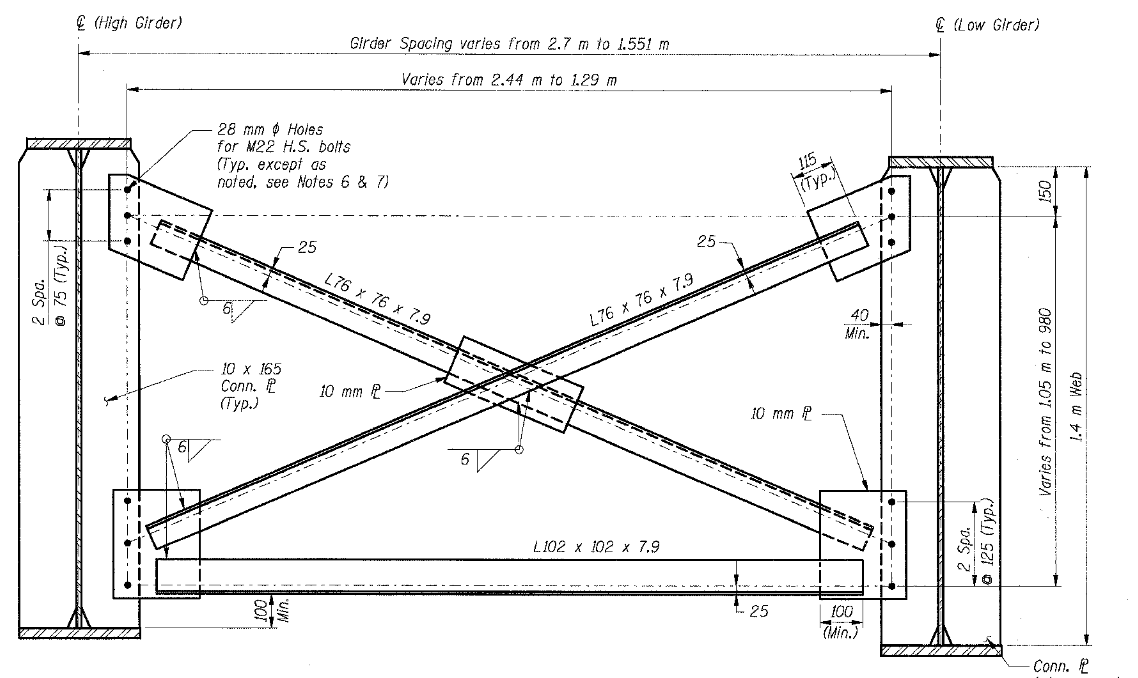


CROSS FRAME CF3

44 Thus
(8 erected in Previous Contract 62110)
(36 erected in This Contract)

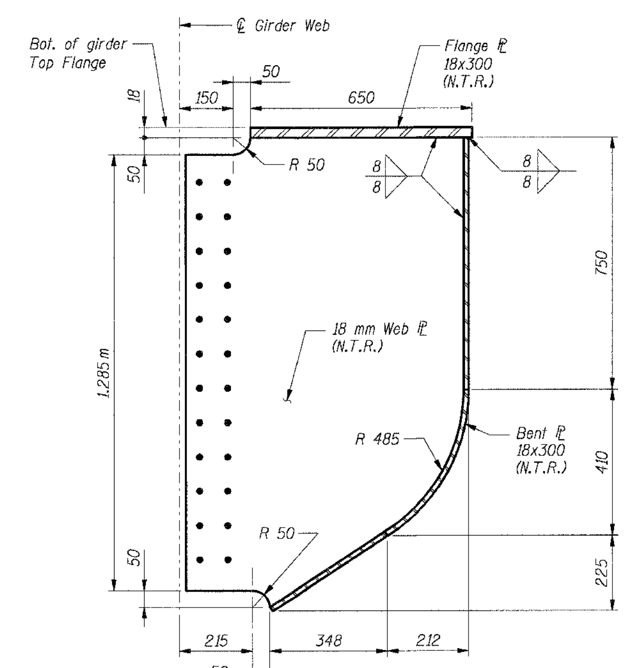
BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	126



CROSS FRAME CF2

200 Thus
(30 erected in Previous Contract 62110)
(170 erected in This Contract)



BRACKET DETAIL

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. N.T.R. denotes steel subject to Supplemental Requirements for Notch Toughness (Zone 2).
3. For Bearing Stiffener and Connection Plate to Girder Weld details, see Sht. BS-33
4. For Shear Connector details see Sht. BS-33.
5. All steel for cross frame members and gusset plates shall be AASHTO M 270M Grade 250.
6. All bolts for cross frames shall be M22 AASHTO M 164M Bolts with 28 mm oversized holes unless otherwise noted. Two hardened washers shall be provided for all oversized holes.
7. Provide vertical long slotted holes in one of the connected parts of cross frame connections in Span 2, at the stage construction line as follows:
   north side of N.7 / south side of N.8
   south side of S.6 / north side of S.7
   Provide oversized holes in the matching connected part. Provide one hardened washer for the oversized hole, and a 8 mm ℄ washer or 8 mm bar with standard holes to fully cover the long slotted holes.
8. At girder bays encompassing deck stage construction lines, install cross frame connection bolts finger tight prior to deck casting. Finish torquing bolts after deck casting.

SHT. BS-32 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

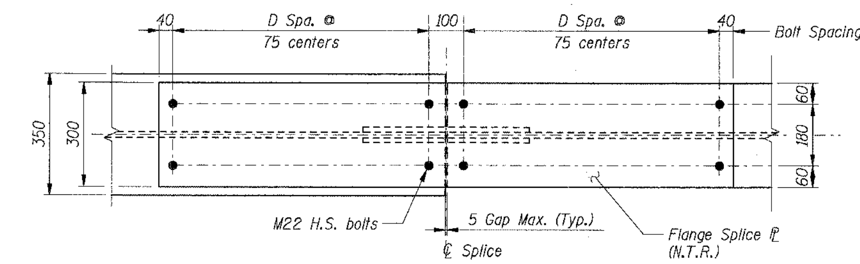
STEEL DETAILS - I

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

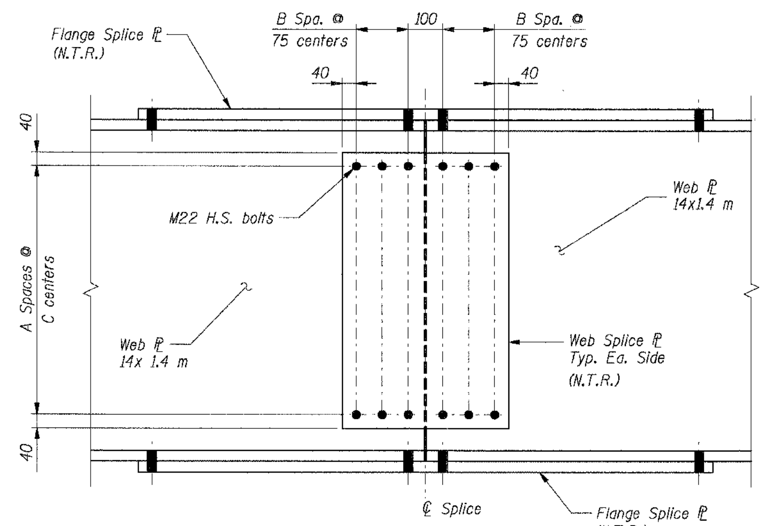
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	475
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

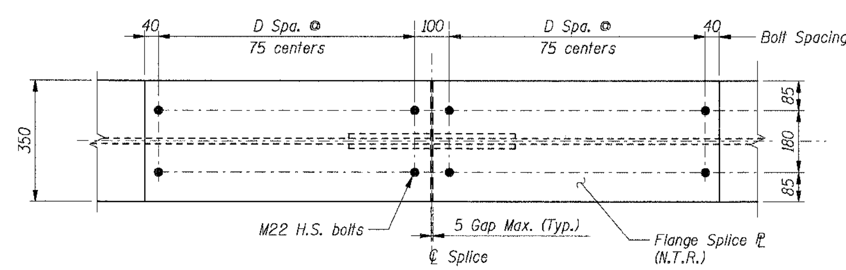
• (2425 & 2626) R-2 CONTRACT NO. 62111



TOP FLANGE



ELEVATION

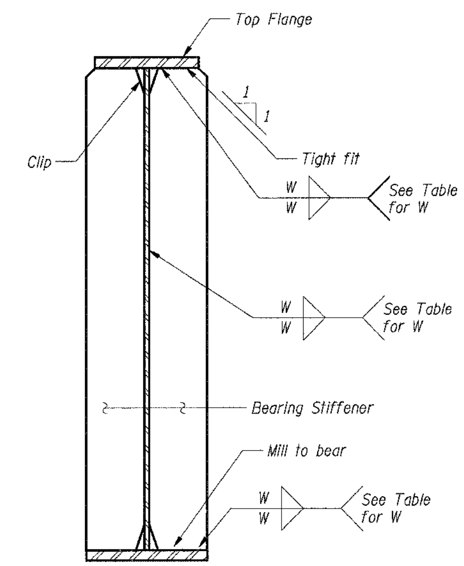


BOTTOM FLANGE

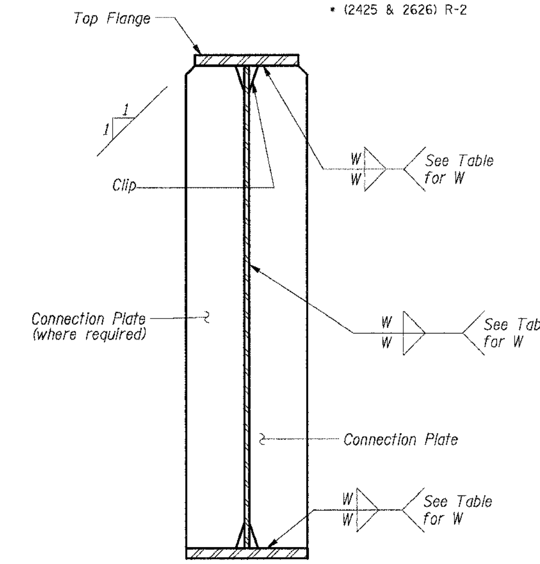
FIELD SPLICE TYPE 1 & 2

FIELD SPLICE TABLE

		WEB SPLICE				TOP FLANGE SPLICE			BOTTOM FLANGE SPLICE		
FIELD SPLICE DESIGNATION	GIRDERS	SPLICE ℙ	A	B	C	SPLICE ℙ	FILL ℙ	D	SPLICE ℙ	FILL ℙ	D
FST-1	N.12, S.12	10x480x1.28 m	12	2	100	30x300x1.98 m	-	12	30x350x1.98 m	-	12
FST-2	N.1 - N.11 & S.1 - S.11	10x480x1.28 m	12	2	100	20x300x1.38 m	-	8	20x350x1.53 m	-	9



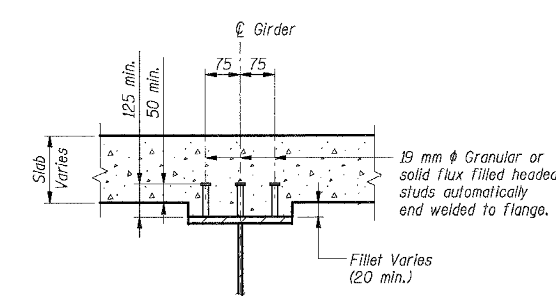
TYPICAL BEARING STIFFENER DETAIL



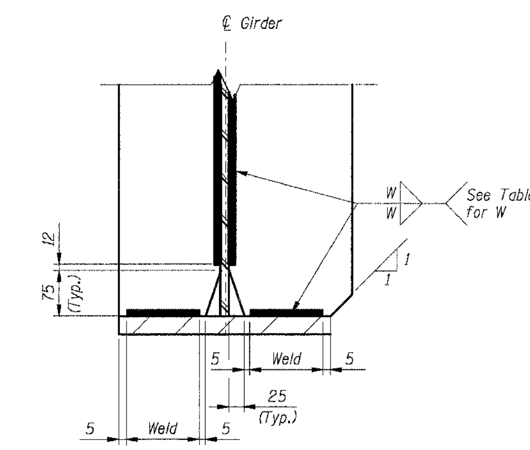
TYPICAL CONNECTION PLATE DETAIL

WELD SIZES "W"

Thickness "T" of Thicker ℙ to be Joined	Min. Size of Fillet Weld
T ≤ 20	6
T > 20	8



SHEAR CONNECTOR DETAIL



TYPICAL END OF BEARING STIFFENER OR CONNECTION PLATE DETAIL

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. All steel shown on this sheet shall be AASHTO M 270M Grade 345, except fill plates which can be Grade 250.
3. N.T.R. denotes steel subject to Supplemental Requirements for Notch Toughness (Zone 2).
4. All bolts shall be M22 AASHTO M 164M bolts unless noted otherwise.

SHT. BS-33 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

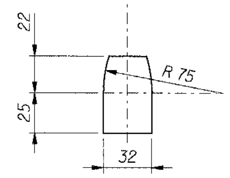
STEEL DETAILS - II

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

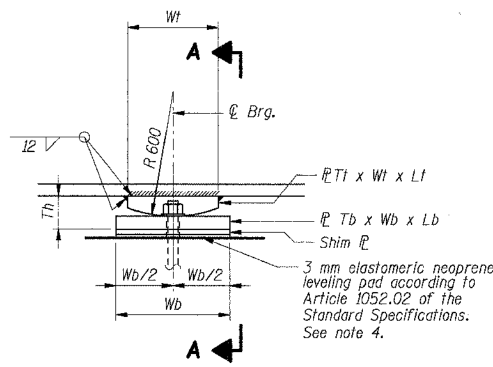
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	476
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

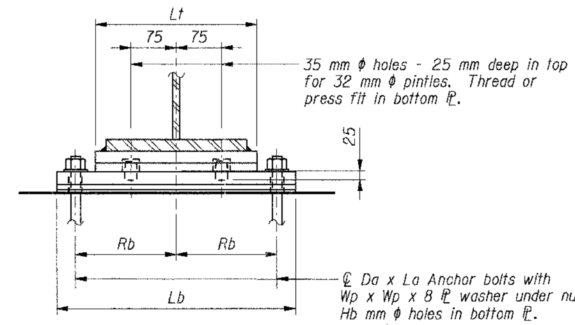
• (2425 & 2626) R-2 CONTRACT NO. 62111



PINTLE
(M270M Gr. 345)



ELEVATION AT PIER



SECTION A-A

LOW PROFILE FIXED BEARINGS @ PIERS
(38 Thus)

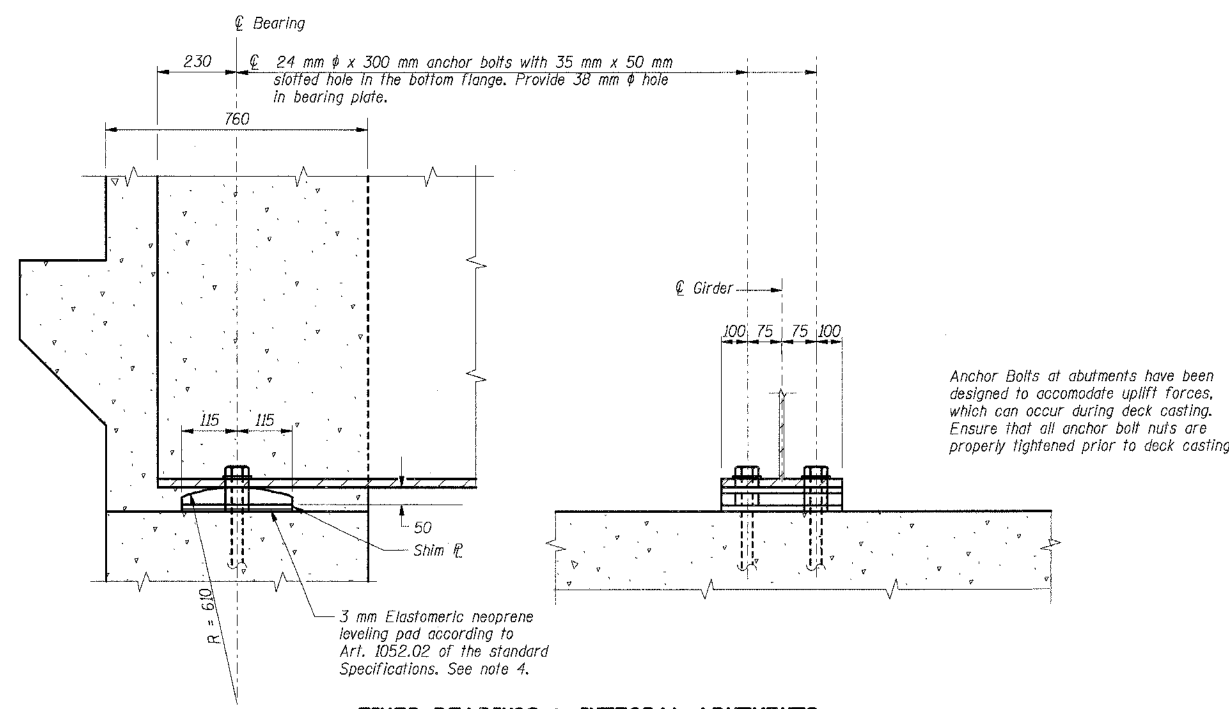
BEARING SEAT ELEVATIONS
(For Information Only)

Girder	W. Abut.	Pier 1	Pier 2	E. Abut.
N.12	187.555	187.485	187.430	187.455
N.11	187.645	187.595	187.540	187.540
N.10	187.710	187.660	187.605	187.605
N.9	187.815	187.765	187.710	187.710
N.8	187.870	187.820	187.760	187.745
N.7	187.930	187.880	187.820	187.805
N.6	187.980	187.930	187.870	187.855
N.5	188.020	187.970	187.910	187.895
N.4	187.995	187.945	187.885	187.870
N.3	187.945	187.895	187.835	187.820
N.2	187.890	187.840	187.780	187.765
N.1	187.830	187.780	187.720	187.705
S.1	187.830	187.780	187.720	187.705
S.2	187.890	187.840	187.780	187.765
S.3	187.940	187.890	187.830	187.815
S.4	187.980	187.930	187.870	187.855
S.5	188.020	187.970	187.910	187.895
S.6	187.995	187.945	187.885	187.870
S.7	187.955	187.905	187.845	187.830
S.8	187.905	187.855	187.795	187.780
S.9	187.840	187.790	187.730	187.715
S.10	187.745	187.695	187.650	187.645
S.11	187.685	187.635	187.585	187.580
S.12	187.600	187.530	187.480	187.500

BEARING SCHEDULE

	Bearing Location	Girders	No. Req'd.	Th mm	Top Plate			Bottom Plate			Anchor Bolts				
					Wt mm	Lt mm	Tt mm	Wb mm	Lb mm	Tb mm	Da	La mm	Rb mm	Hb mm	Wp mm
*	Pier 1 & Pier 2	N.12	2	115	350	400	50	380	640	65	M30	380	260	46	65
*	Pier 1 & Pier 2	N.8 thru N.11	8	100	300	380	50	300	570	50	M24	300	240	40	60
	Pier 1 & Pier 2	N.1 thru N.7	14	100	300	380	50	300	570	50	M24	300	240	40	60
	Pier 1 & Pier 2	S.1 thru S.11	22	100	300	380	50	300	570	50	M24	300	240	40	60
	Pier 1 & Pier 2	S.12	2	115	350	400	50	380	640	65	M30	380	260	46	65

* For Information Only. Erected in previous Contract 62110.



FIXED BEARINGS @ INTEGRAL ABUTMENTS
(38 Thus)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Anchor bolts shall be furnished and installed under the pay item Furnishing and Erecting Structural Steel. See Sht. BS-35 for details.
3. All steel bearing plates shall conform to the requirements of AASHTO M 270M Grade 345, unless otherwise noted.
4. Fixed bearing assemblies including pintles, shim plates, adjusting shims, and elastomeric neoprene leveling pads will be furnished by the Fabrication Contrator and shall be installed under the pay item Erecting Structural Steel.
5. Adjusting shim plates shall be placed as required during erection, see General Notes on Sht. BS-2.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

BEARING DETAILS

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

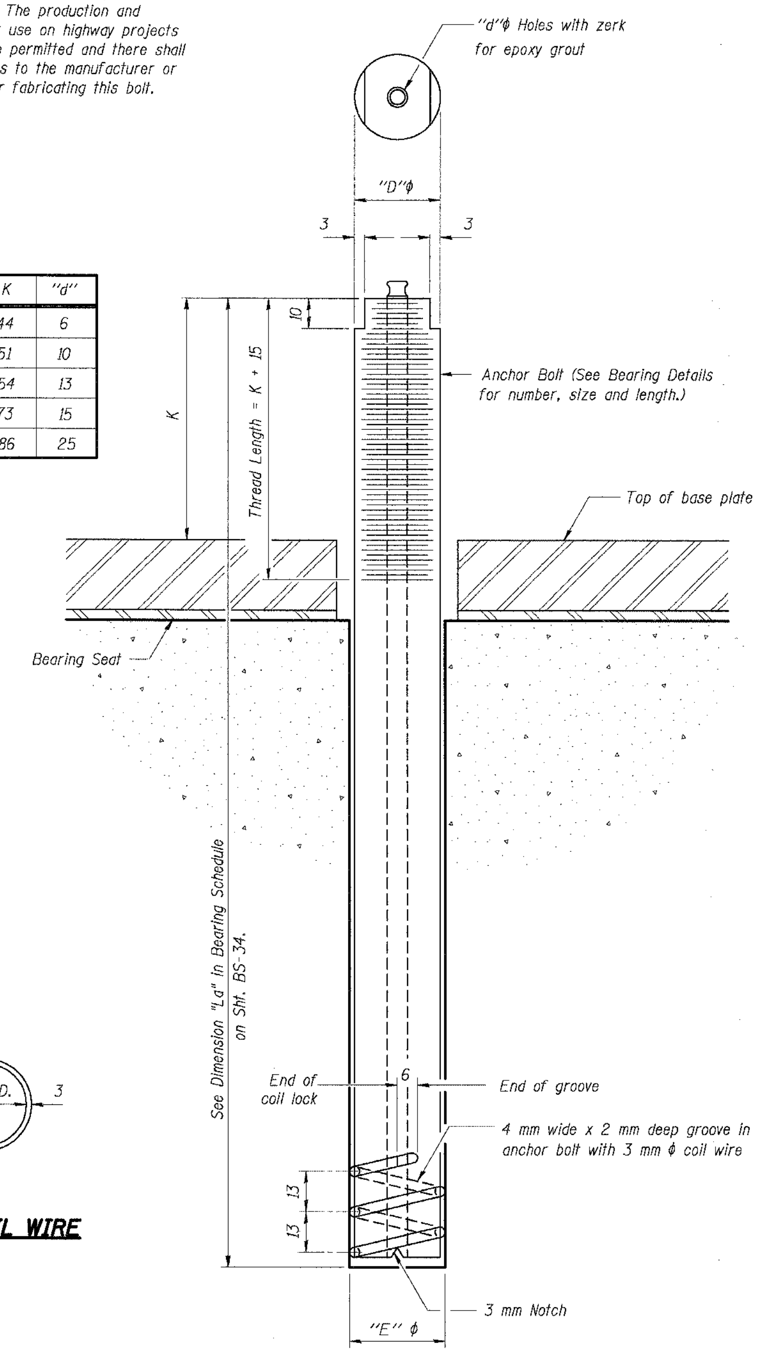
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	477
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

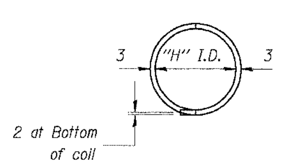
• (2425 & 2626) R-2 CONTRACT NO. 62111

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

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



ILLINOIS COIL-LOCK ANCHOR BOLT



PLAN-COIL WIRE

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 comforming 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
All	ASTM A449

ASTM F 1554 (Fy=724 MPa), ASTM A 449 and AASHTO M 314 (Fy=724 MPa) anchor rods 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.

ABB-1 (M) 4-30-99

SHT. BS-35 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

ANCHOR BOLT DETAILS

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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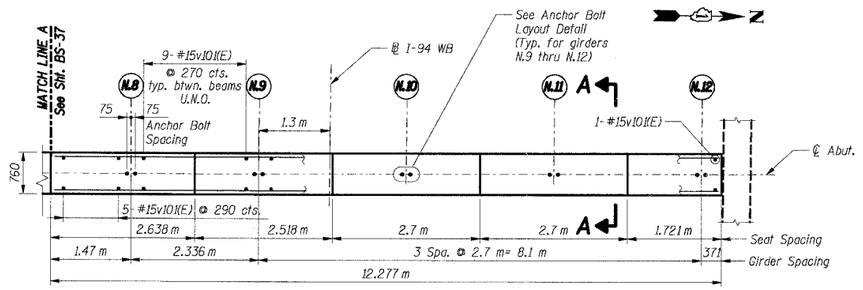
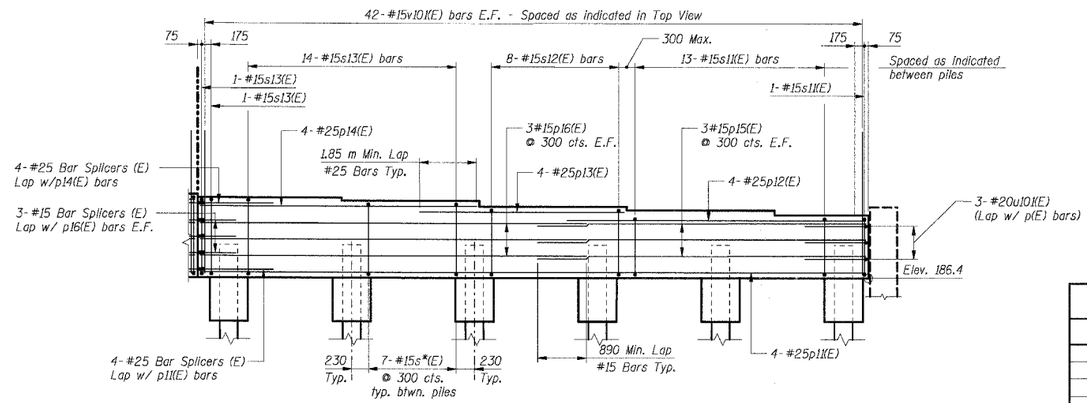
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	478
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		

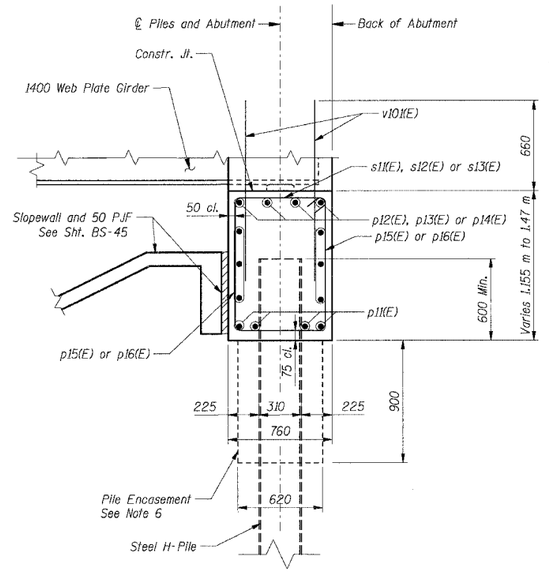


TOP VIEW



ELEVATION (Looking West)

*s11(E), s12(E) or s13(E)



SECTION A-A

BAR LIST

Bar	No.	Size	Length (m)	Shape
p11(E)	4	12.17	#25	
p12(E)	4	6.27	#25	
p13(E)	4	4.55	#25	
p14(E)	4	5.05	#25	
p15(E)	6	6.00	#15	
p16(E)	6	7.07	#15	
s11(E)	14	3.64	#15	
s12(E)	8	3.96	#15	
s13(E)	16	4.16	#15	
u10(E)	3	2.85	#20	
v10(E)	84	1.32	#15	

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	12.4
Reinforcement Bars, Epoxy Coated	kg	990
Structure Excavation	Cu m	2
Bar Splicers	Ea	14

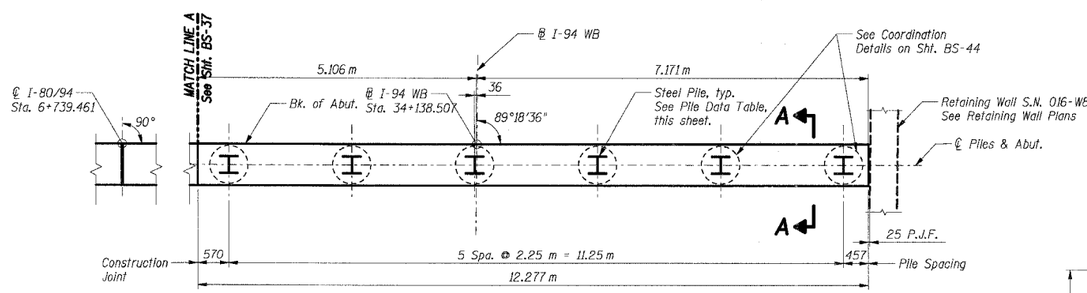
PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 28 m
No. Required: 5 + 1 Test Pile

KEY PLAN

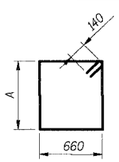
BEARING SEAT ELEVATIONS

Girder	West Abutment	Steps
N.8	187.870	55
N.9	187.815	105
N.10	187.710	65
N.11	187.645	90
N.12	187.555	

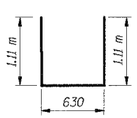


FOOTING PLAN

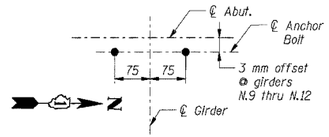
Bar	A (m)
s11(E)	1.02
s12(E)	1.18
s13(E)	1.28



bar s11(E) thru bar s13(E)



bar u10(E)



ANCHOR BOLT LAYOUT DETAIL

THIS SHEET FOR INFORMATION ONLY

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheet BS-37.
5. For Bar Splicer details, see sheet BS-56.
6. For Pile Encasement details, see sheet BS-3.

SHT. BS-36 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

WEST ABUTMENT PLAN, ELEVATION & SECTION - I

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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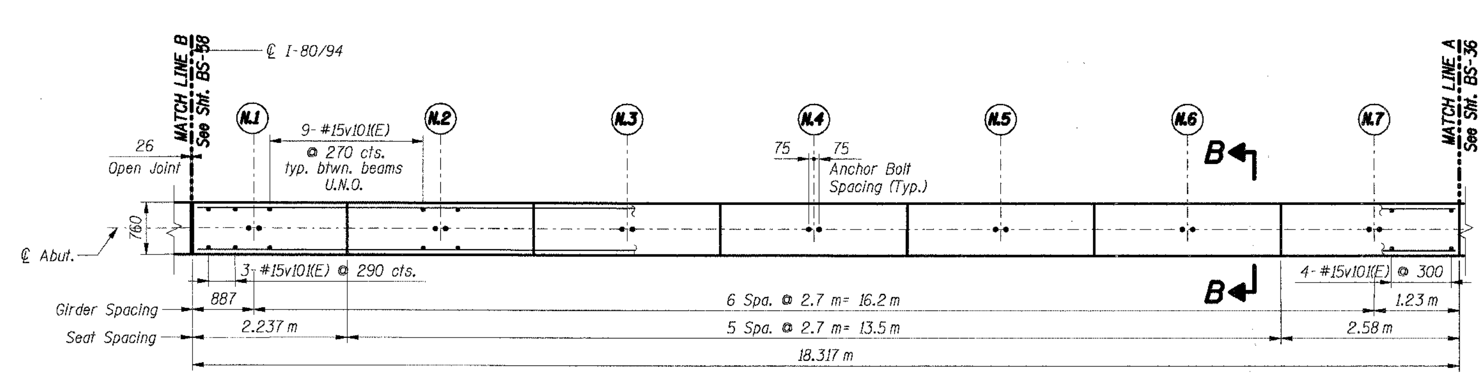
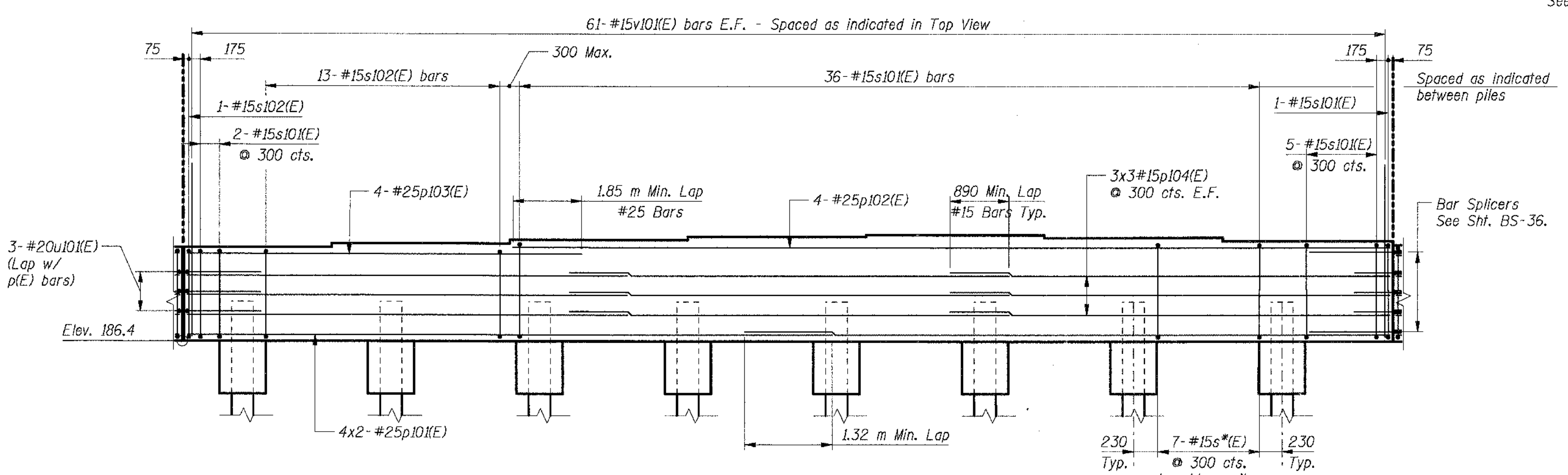
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	479
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

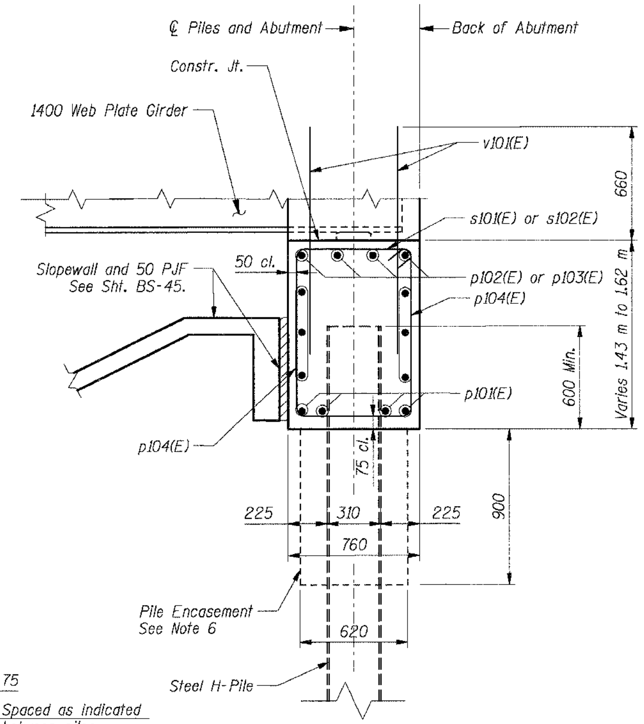


TOP VIEW

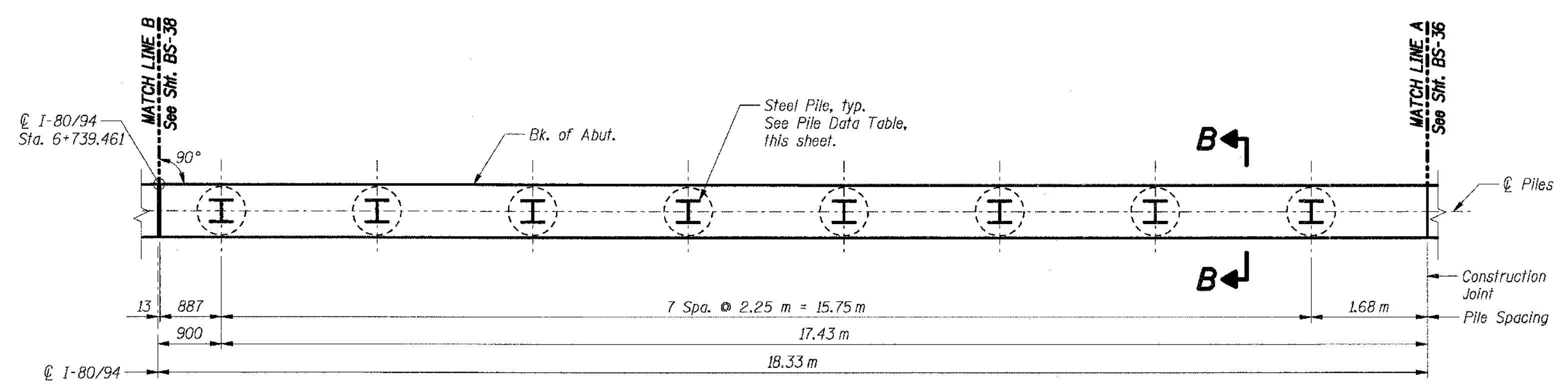


ELEVATION (Looking West)

*s101(E) or s102(E)



SECTION B-B



FOOTING PLAN

BAR LIST

Bar	No.	Size	Length (m)	Shape
p101(E)	8	#25	9.77	——
p102(E)	4	#25	13.28	——
p103(E)	4	#25	6.79	——
p104(E)	18	#15	6.67	——
s101(E)	42	#15	4.40	▢
s102(E)	16	#15	4.20	▢
u101(E)	3	#20	2.85	⊔
v101(E)	122	#15	1.32	——

BILL OF MATERIAL

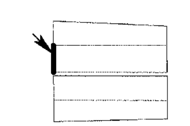
Item	Unit	Total
Concrete Structures	Cu m	21.5
Reinforcement Bars, Epoxy Coated	kg	1,480
Structure Excavation	Cu m	31

BEARING SEAT ELEVATIONS

Girder	West Abutment	Steps
N.1	187.830	
N.2	187.890	60
N.3	187.945	55
N.4	187.995	50
N.5	188.020	25
N.6	187.980	40
N.7	187.930	50

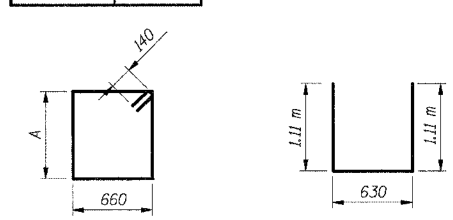
PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 28 m
No. Required: 8



KEY PLAN

Bar	A (m)
s101(E)	1.40
s102(E)	1.30



bar s101(E) and bar s102(E) bar u101(E)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Bars indicated thus: 4x2#15 etc. indicates 4 lines of bars with 2 lengths per line.
5. Work this sheet with sheets BS-36 and BS-38.
6. For Pile Encasement details, see sheet BS-3.
7. For Bar Splicer details, see Sht. BS-56.

SHT. BS-37 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

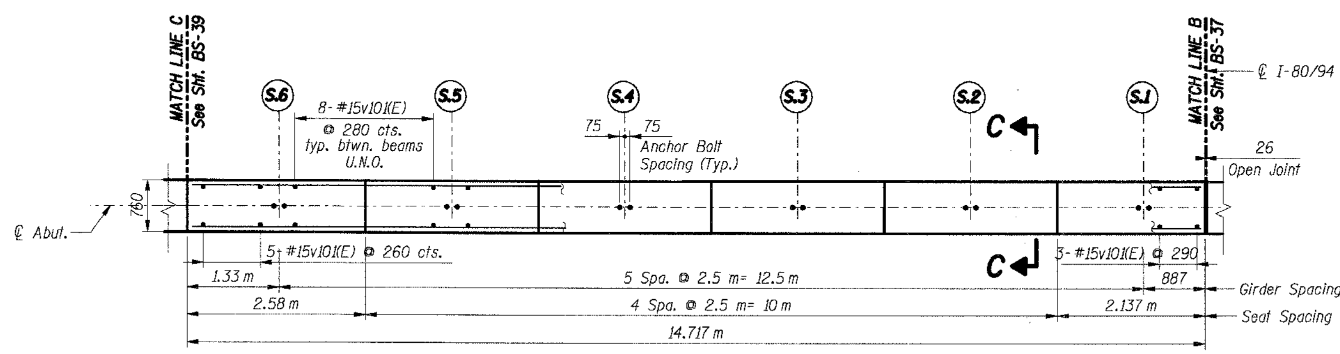
WEST ABUTMENT PLAN, ELEVATION & SECTION - II

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

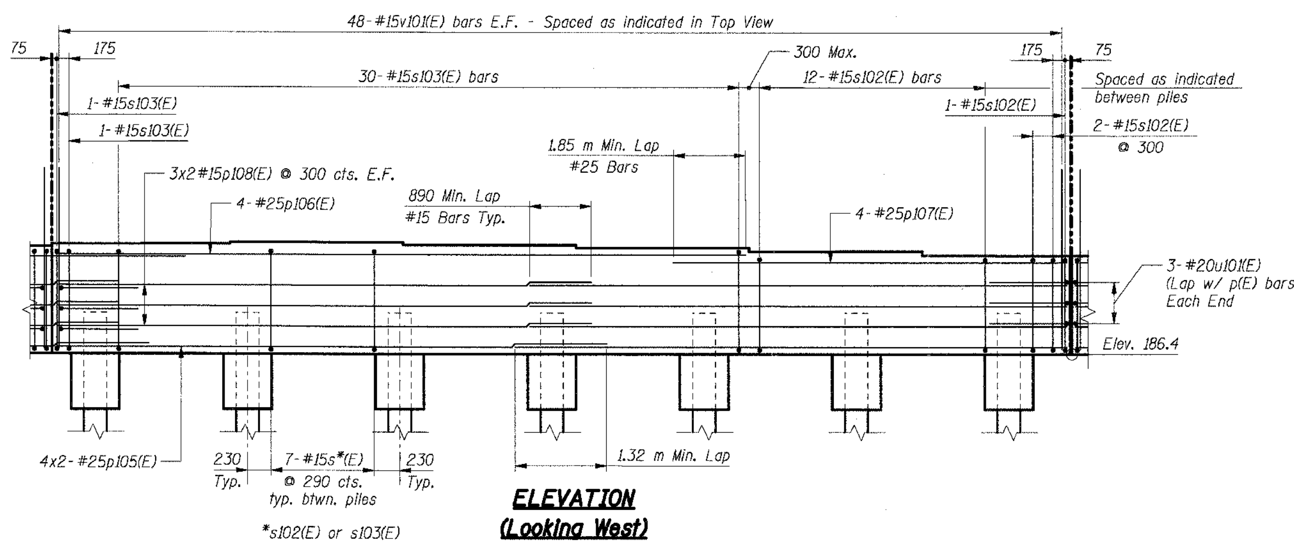
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	480
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

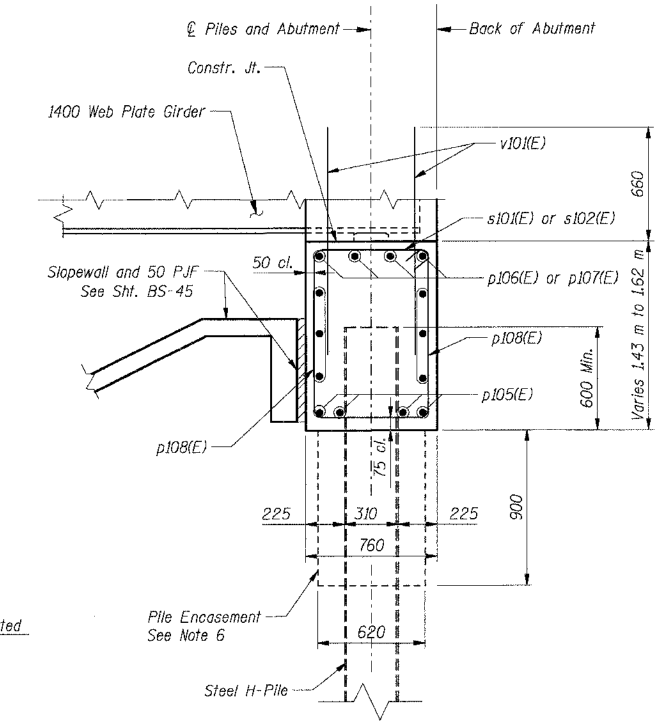
* (2425 & 2626) R-2 CONTRACT NO. 62111



TOP VIEW



ELEVATION (Looking West)



SECTION C-C

BAR LIST

Bar	No.	Size	Length (m)	Shape
p105(E)	8	#25	7.97	——
p106(E)	4	#25	9.98	——
p107(E)	4	#25	6.49	——
p108(E)	12	#15	7.76	——
s102(E)	15	#15	4.20	◻
s103(E)	32	#15	4.42	◻
u101(E)	6	#20	2.85	⊔
v101(E)	96	#15	1.32	——

BILL OF MATERIAL

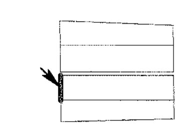
Item	Unit	Total
Concrete Structures	Cu m	17.3
Reinforcement Bars, Epoxy Coated	kg	1,220
Structure Excavation	Cu m	19

BEARING SEAT ELEVATIONS

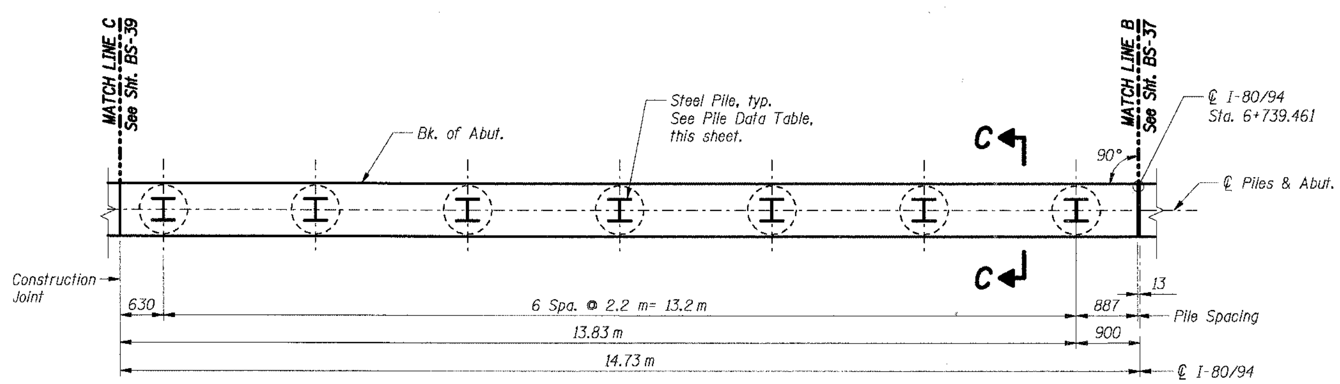
Girder	West Abutment	Steps
S.6	187.995	
S.5	188.020	25
S.4	187.980	40
S.3	187.940	40
S.2	187.890	50
S.1	187.830	60

PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 28 m
No. Required: 7

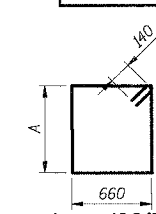


KEY PLAN

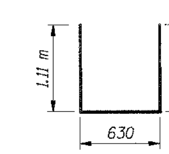


FOOTING PLAN

Bar	A (m)
s102(E)	1.30
s103(E)	1.41



bar s102(E) and bar s103(E)



bar u101(E)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Bars indicated thus: 4x2#15 etc. indicates 4 lines of bars with 2 lengths per line.
5. Work this sheet with sheets BS-37 and BS-39.
6. For Pile Encasement details, see sheet BS-3.

SHT. BS-38 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

WEST ABUTMENT PLAN, ELEVATION & SECTION - III

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

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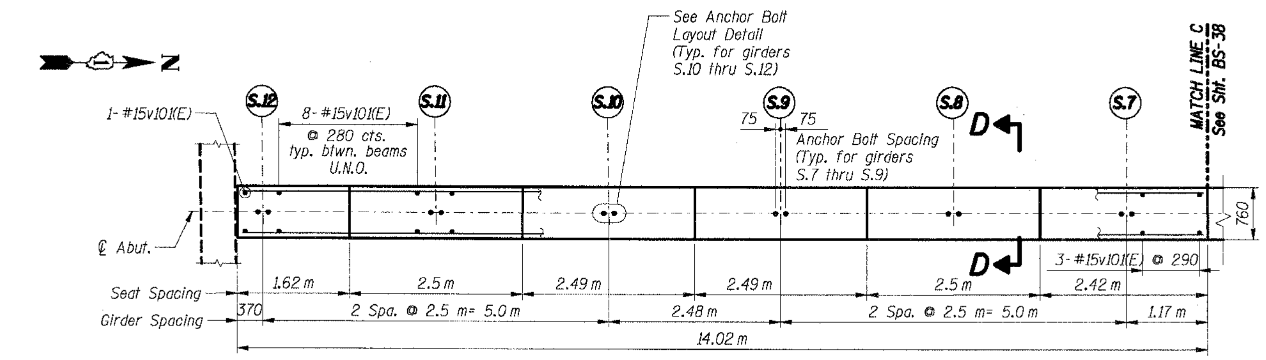
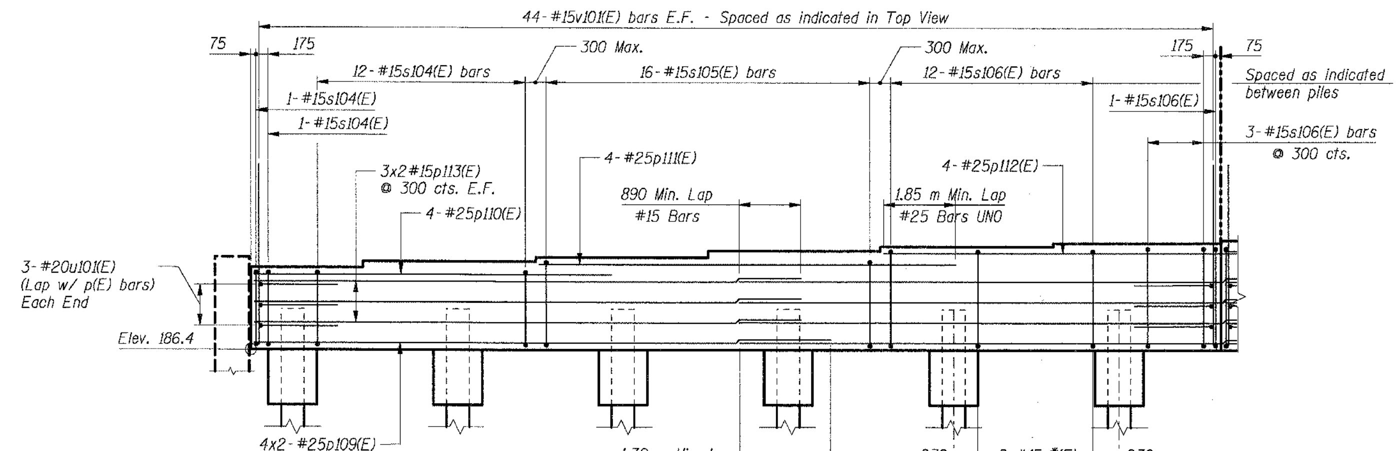
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	481
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

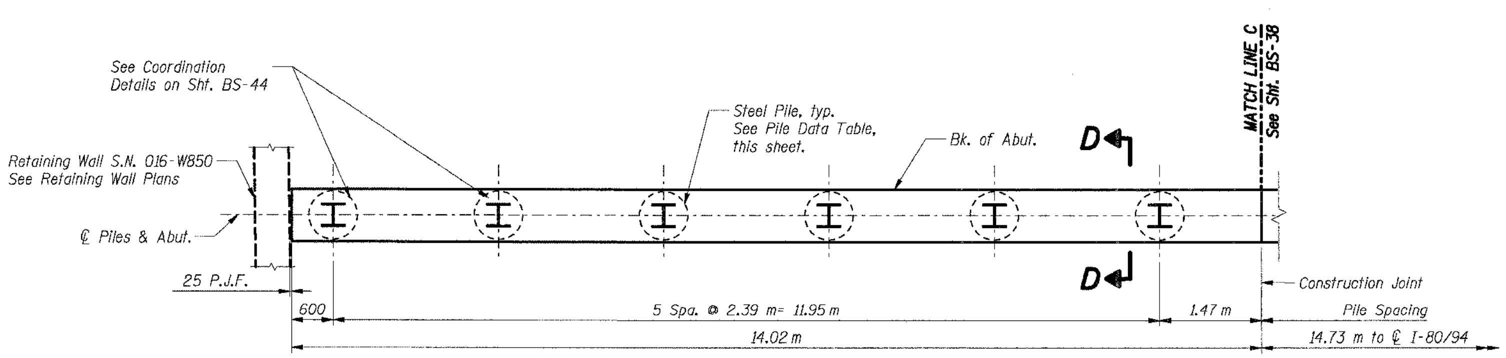


TOP VIEW

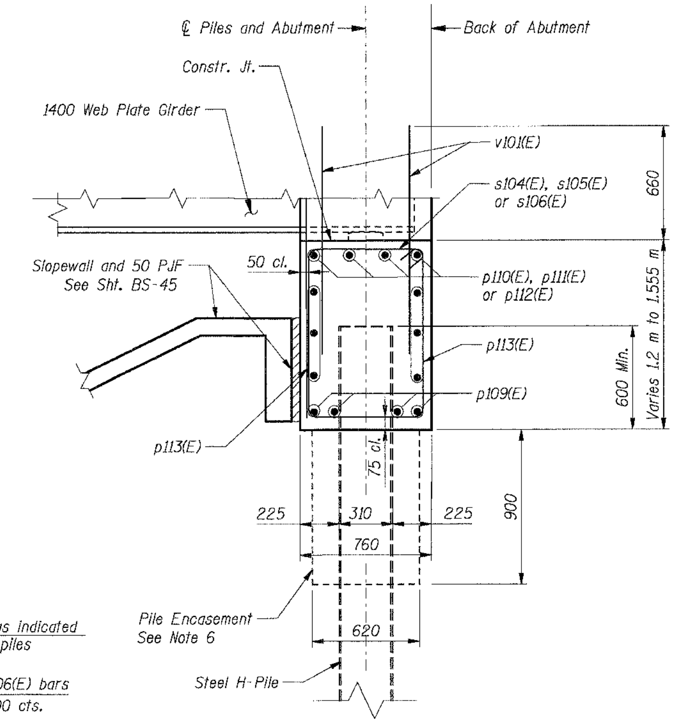


ELEVATION (Looking West)

*s104(E), s105(E) or s106(E)



FOOTING PLAN



SECTION D-D

BAR LIST

Bar	No.	Size	Length (m)	Shape
p109(E)	8	#25	8.33	——
p110(E)	4	#25	5.97	——
p111(E)	4	#25	6.83	——
p112(E)	4	#25	6.77	——
p113(E)	12	#15	7.90	——
s104(E)	14	#15	3.74	◻
s105(E)	16	#15	4.02	◻
s106(E)	16	#15	4.34	◻
u101(E)	6	#20	2.85	⊔
v101(E)	88	#15	1.32	——

BILL OF MATERIAL

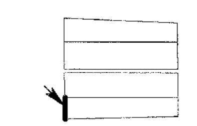
Item	Unit	Total
Concrete Structures	Cu m	14.9
Reinforcement Bars, Epoxy Coated	kg	1,230
Structure Excavation	Cu m	5

BEARING SEAT ELEVATIONS

Girder	West Abutment	Steps
S.12	187.600	85
S.11	187.685	60
S.10	187.745	95
S.9	187.840	65
S.8	187.905	50
S.7	187.955	

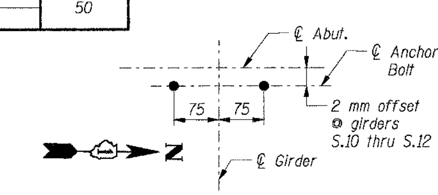
PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 28 m
No. Required: 5 + 1 Test Pile



KEY PLAN

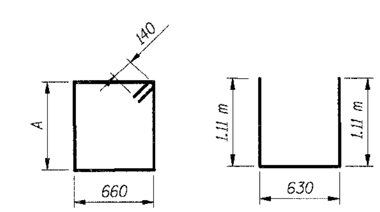
Bar	A (m)
s104(E)	1.07
s105(E)	1.21
s106(E)	1.37



ANCHOR BOLT LAYOUT DETAIL

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Bars indicated thus: 4x2#15 etc. indicates 4 lines of bars with 2 lengths per line.
5. Work this sheet with sheet BS-38.
6. For Pile Encasement details, see sheet BS-3.



bars s104(E) thru s106(E) **bar u101(E)**

SHT. BS-39 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

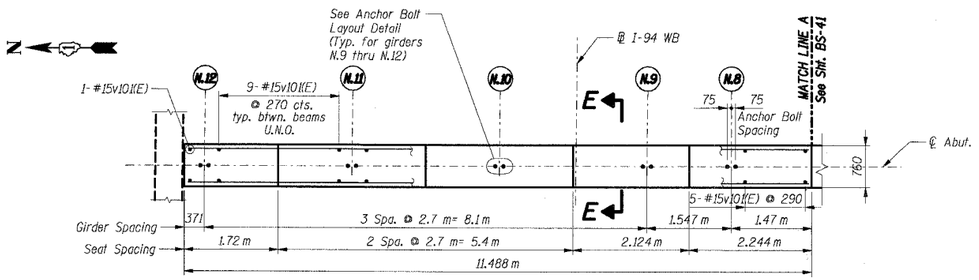
WEST ABUTMENT
PLAN, ELEVATION & SECTION - IV

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

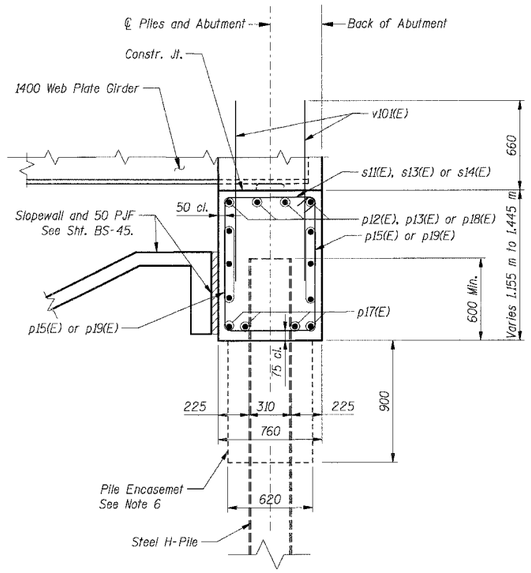
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	482
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* 12425 & 26261 R-2 CONTRACT NO. 62111



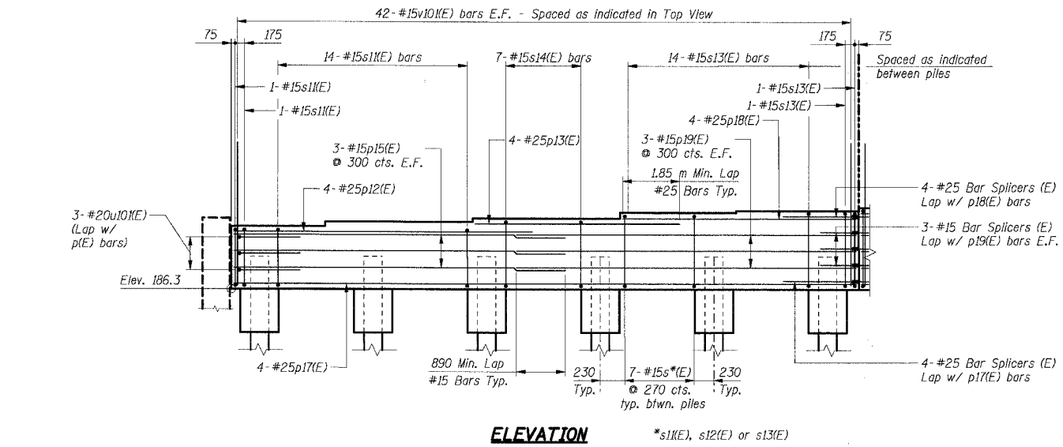
TOP VIEW



SECTION E-E

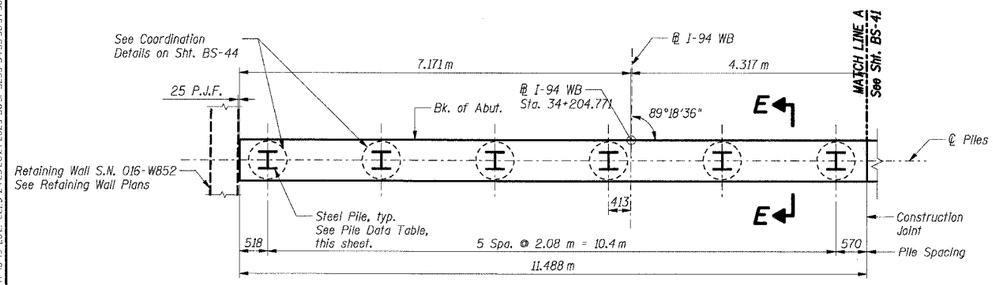
BAR LIST

Bar	No.	Size	Length (m)	Shape
p12(E)	4	#25	6.27	
p13(E)	4	#25	4.55	
p15(E)	6	#15	6.00	
p17(E)	4	#25	11.47	
p18(E)	4	#25	4.26	
p19(E)	6	#15	6.27	
s11(E)	16	#15	3.64	
s13(E)	16	#15	4.16	
s14(E)	7	#15	3.94	
u10l(E)	3	#20	2.85	
v10l(E)	84	#15	4.32	



ELEVATION (Looking East)

*s11(E), s12(E) or s13(E)

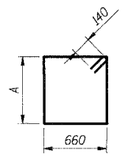


FOOTING PLAN

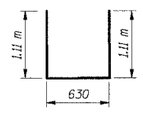
BEARING SEAT ELEVATIONS

Girder	East Abutment	Steps
N.12	187.455	85
N.11	187.540	65
N.10	187.605	105
N.9	187.710	35
N.8	187.745	

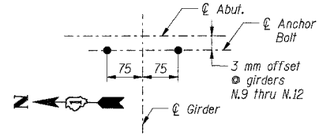
Bar	A (m)
s11(E)	1.02
s13(E)	1.28
s14(E)	1.17



bars s11(E), s13(E) and s14(E)



bar u10l(E)



ANCHOR BOLT LAYOUT DETAIL

PILE DATA

Type:	HP 310x79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	29 m
No. Required:	6

KEY PLAN

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	11.5
Reinforcement Bars, Epoxy Coated	kg	970
Structure Excavation	Cu m	0
Bar Splicers	Ea	14

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheet BS-41.
5. See sheet BS-56 for Bar Splicer details.
6. For Pile Encasement details, see sheet BS-3.
7. For Bar Splicer details, see Sht. BS-56.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-40 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

EAST ABUTMENT PLAN, ELEVATION & SECTION - I

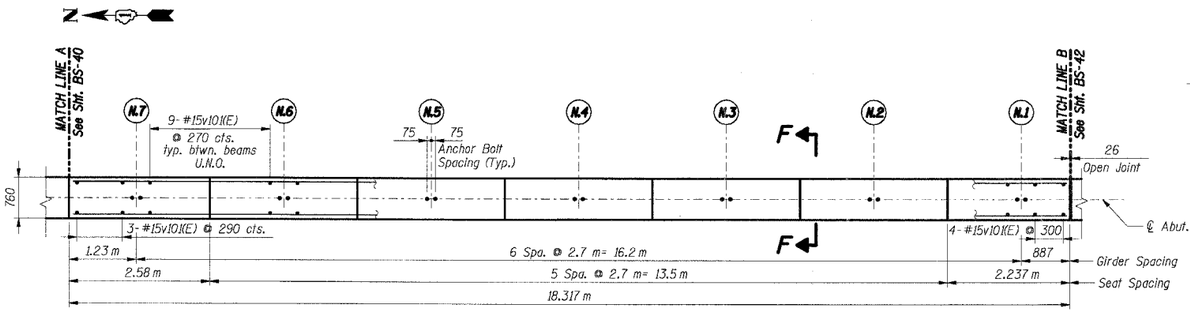
DATE: 7/18/2005 DRAWN BY: LS CHECKED BY: TCU

TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

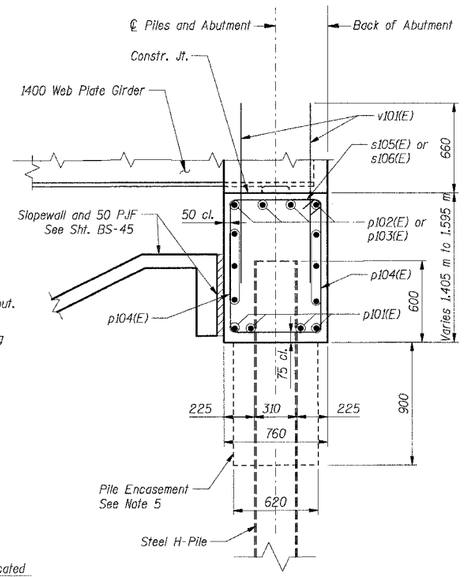
..\AB99R02A.DGN, ..\AB99M12A.DGN, ..\AB99M12A.DGN, ..\AB99C02A.DGN, ..\HR99R022A.DGN, ..\S199RG32A.DGN, ..\S199RG32A.DGN, ..\AB99M12A.DGN
7-12-2005, 0:26:52 T:\DOCUMENTS\93750\STRUCTVGN\ABT672A.DGN BAJZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	483
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

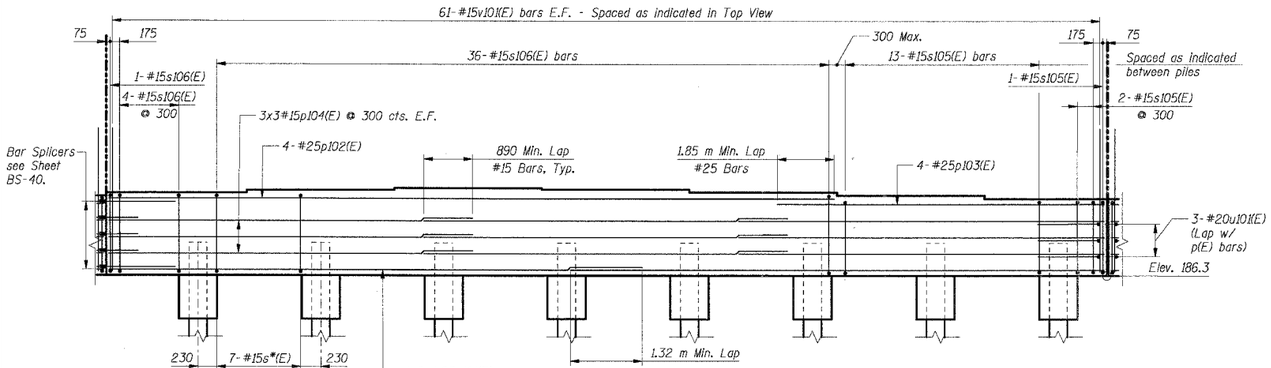
* 12425 & 2626) R-2 CONTRACT NO. 62111



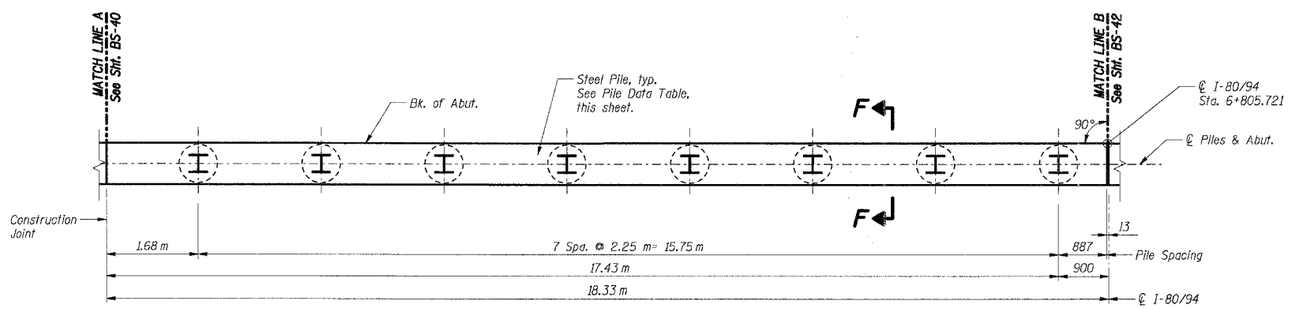
TOP VIEW



SECTION F-F



ELEVATION (Looking East)



FOOTING PLAN

BAR LIST

Bar	No.	Size	Length (m)	Shape
p101(E)	8	#25	9.77	——
p102(E)	4	#25	13.28	——
p103(E)	4	#25	6.79	——
p104(E)	18	#15	6.67	——
s105(E)	16	#15	4.14	☑
s106(E)	41	#15	4.34	☑
u101(E)	3	#20	2.85	⌊ ⌋
v101(E)	122	#15	1.32	——

BILL OF MATERIAL

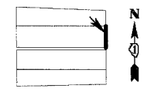
Item	Unit	Total
Concrete Structures	Cu m	21.2
Reinforcement Bars, Epoxy Coated	kg	1,470
Structure Excavation	Cu m	34

BEARING SEAT ELEVATIONS

Girder	East Abutment	Steps
N.7	187.805	50
N.6	187.855	40
N.5	187.895	25
N.4	187.870	50
N.3	187.820	55
N.2	187.765	60
N.1	187.705	

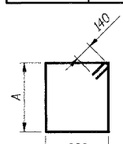
PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 29 m
No. Required: 8

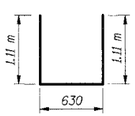


KEY PLAN

Bar	A (m)
s105(E)	1.27
s106(E)	1.37



bar s105(E) and bar s1065(E)



bar u101(E)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. Indicates each face.
4. Work this sheet with sheets BS-40 and BS-42.
5. For Bar Splicer details, see sheet BS-56.
6. For Pile Encasement details, see sheet BS-3.
7. Bars indicated thus 4x2- #15 etc. indicates 4 lines of bars with 2 lengths per line.

SHT. BS-41 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

EAST ABUTMENT PLAN, ELEVATION & SECTION - II

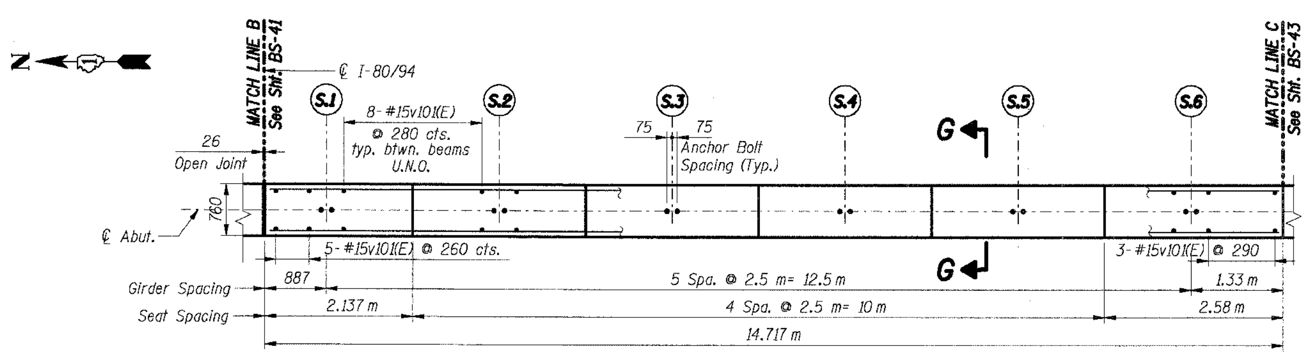
DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

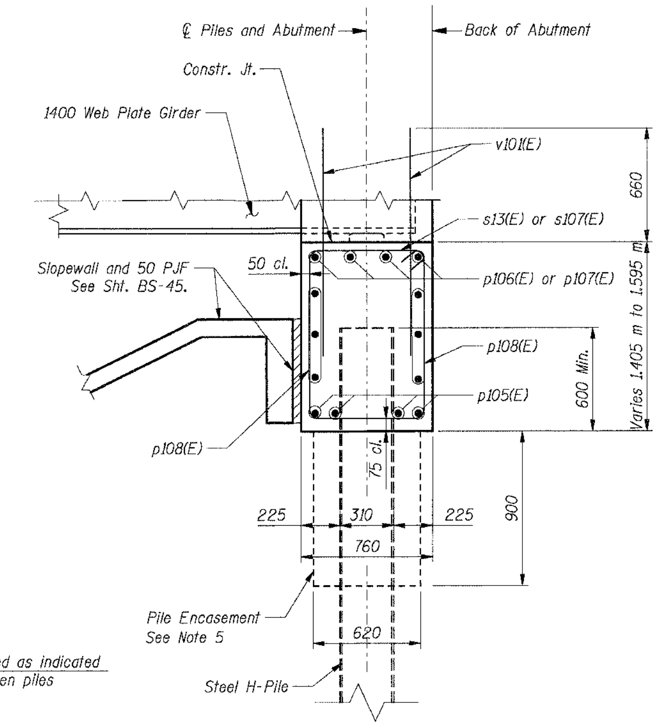
...\A099R012A.DGN...\A099W32A.DGN...\A099W32A.DGN...\A099D012A.DGN...\SL099D32A.DGN
7-22-2005, 10:26:53 F:\DOCUMENTS\937501\STRUCTURE\DGN\A099R012A.DGN
BAJZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	484
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

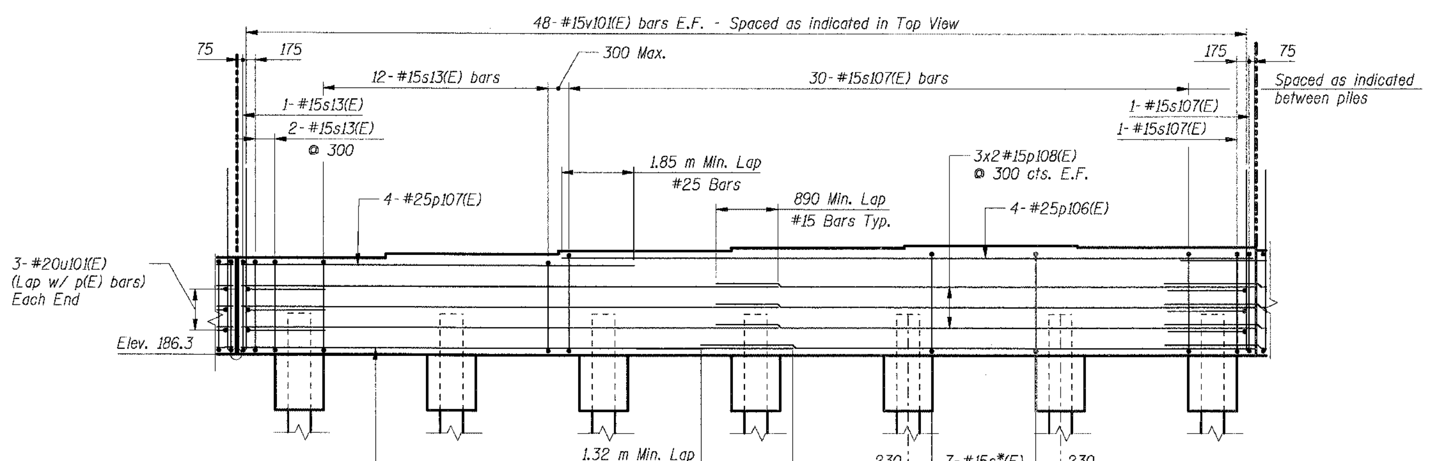
• (2425 & 2626) R-2 CONTRACT NO. 62111



TOP VIEW

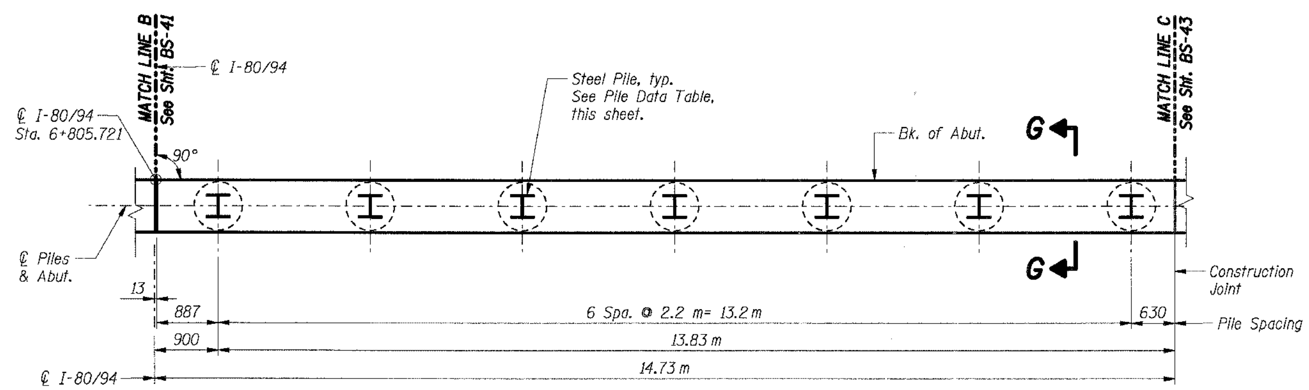


SECTION G-G



ELEVATION (Looking East)

*s13(E) or s107(E)



FOOTING PLAN

BAR LIST

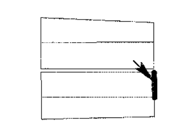
Bar	No.	Size	Length (m)	Shape
p105(E)	8	#25	7.97	——
p106(E)	4	#25	9.98	——
p107(E)	4	#25	6.49	——
p108(E)	12	#15	7.76	——
s13(E)	15	#15	4.16	◻
s107(E)	32	#15	4.38	◻
u101(E)	6	#20	2.85	⊔
v101(E)	96	#15	1.32	——

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	17.0
Reinforcement Bars, Epoxy Coated	kg	1,210
Structure Excavation	Cu m	28

PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 29 m
No. Required: 7

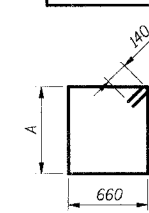


KEY PLAN

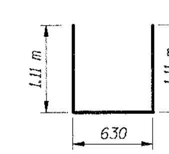
BEARING SEAT ELEVATIONS

Girder	East Abutment	Steps
S.1	187.705	
S.2	187.765	60
S.3	187.815	50
S.4	187.860	45
S.5	187.895	35
S.6	187.870	25

Bar	A (m)
s13(E)	1.28
s107(E)	1.39



bar s13(E) and bar s107(E)



bar u101(E)

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheets BS-41 and BS-43.
5. For Pile Encasement details, see sheet BS-3.
6. Bars indicated thus 4x2-#15 etc. indicates 4 lines of bars with 2 lengths per line.

SHT. BS-42 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

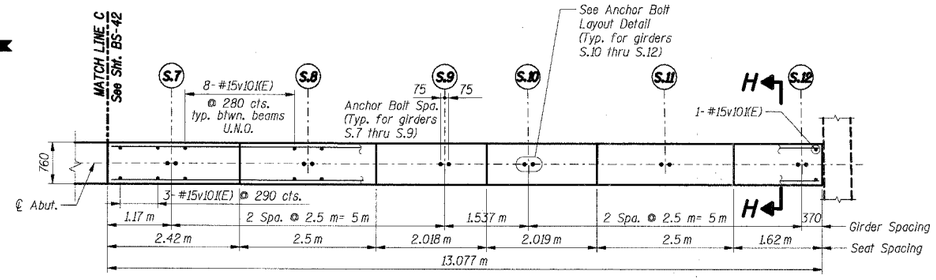
EAST ABUTMENT
PLAN, ELEVATION & SECTION - III

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

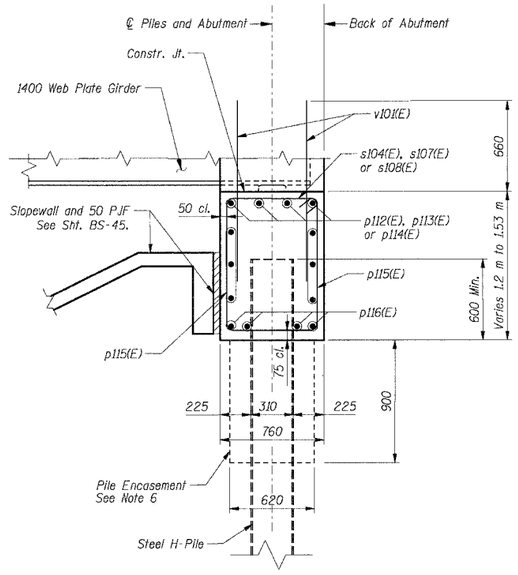
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	485
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

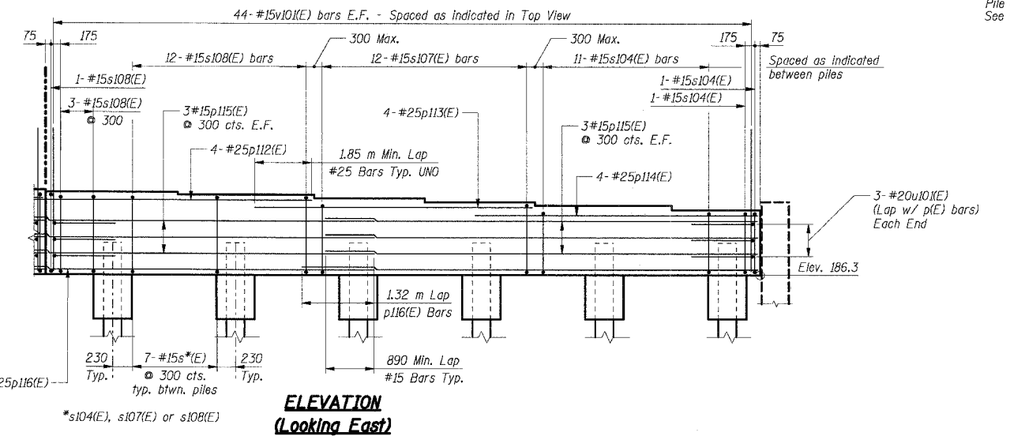
* (2425 & 2626) R-2 CONTRACT NO. 62111



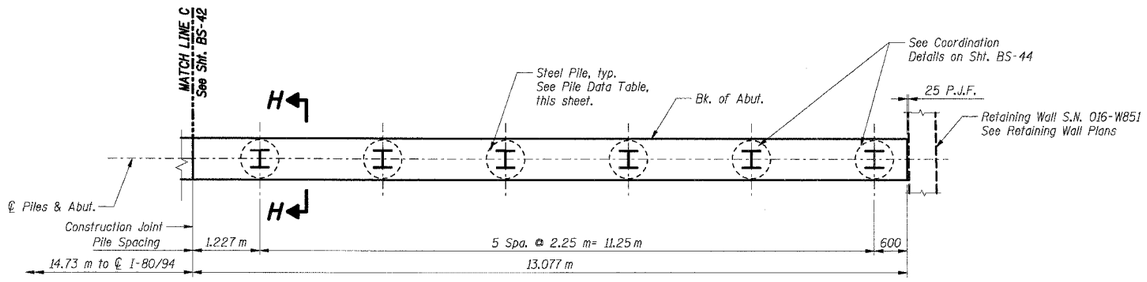
TOP VIEW



SECTION H-H



ELEVATION (Looking East)



FOOTING PLAN

BAR LIST

Bar	No.	Size	Length (m)	Shape
p112(E)	4	#25	6.77	——
p113(E)	4	#25	6.83	——
p114(E)	4	#25	5.92	——
p115(E)	12	#15	7.43	——
p116(E)	8	#25	7.86	——
s104(E)	13	#15	3.74	☐
s107(E)	12	#15	4.04	☐
s108(E)	16	#15	4.32	☐
u10(E)	6	#20	2.85	⊔
v10(E)	88	#15	1.32	——

BILL OF MATERIAL

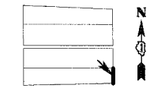
Item	Unit	Total
Concrete Structures	Cu m	13.8
Reinforcement Bars, Epoxy Coated	kg	1,180
Structure Excavation	Cu m	6

BEARING SEAT ELEVATIONS

Girder	East Abutment	Steps
S.7	187.830	50
S.8	187.780	65
S.9	187.715	70
S.10	187.645	65
S.11	187.580	80
S.12	187.500	

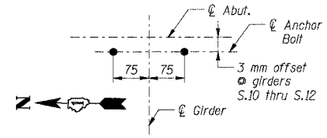
PILE DATA

Type: HP 310x79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 29 m
No. Required: 6



KEY PLAN

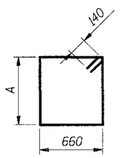
Bar	A (m)
s104(E)	1.07
s107(E)	1.22
s108(E)	1.36



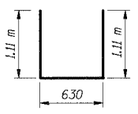
ANCHOR BOLT LAYOUT DETAIL

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates each face.
4. Work this sheet with sheet BS-42.
5. For Pile Encasement details, see sheet BS-3.



bars s104(E), s107(E) and s108(E)



bar u10(E)

SHT. BS-43 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

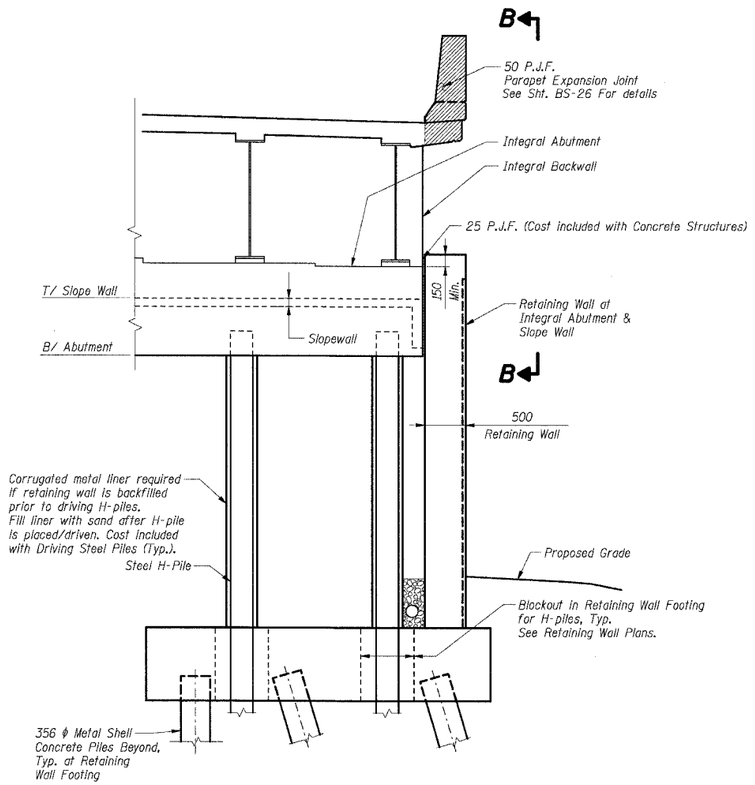
EAST ABUTMENT PLAN, ELEVATION & SECTION - IV

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCU

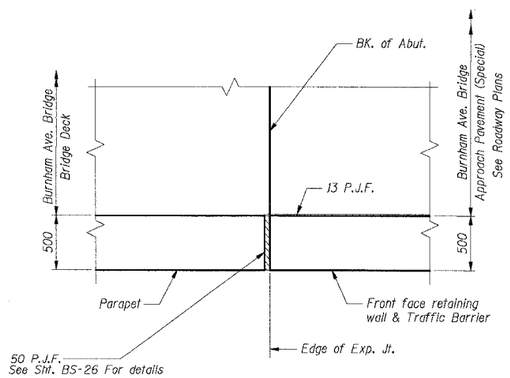
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	486
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

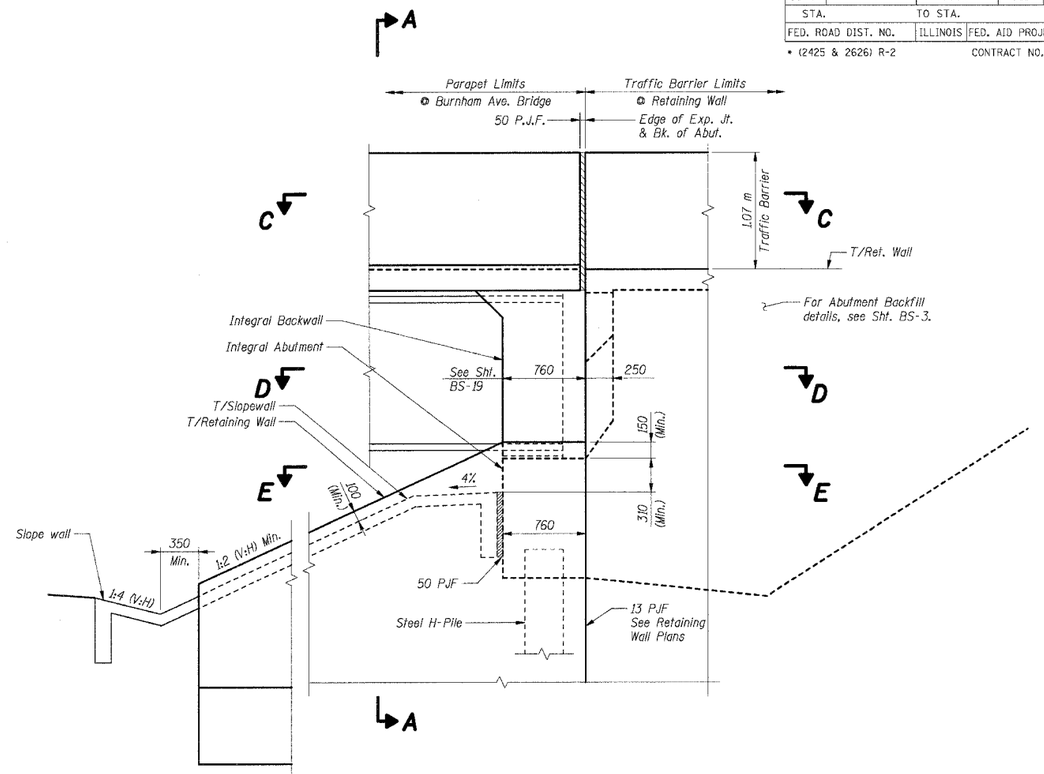
* (2425 & 2626) R-2 CONTRACT NO. 62111



SECTION A-A

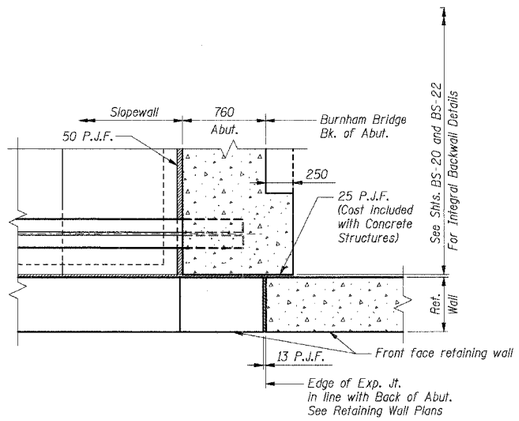


PLAN DETAIL C-C

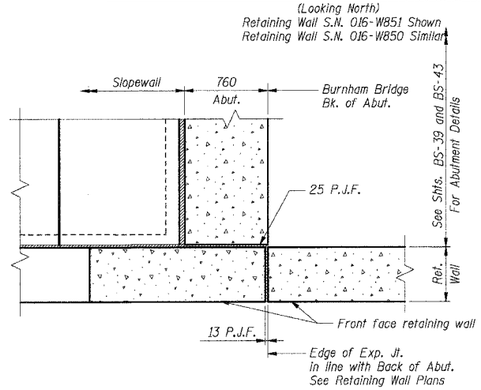


SOUTH ELEVATION B-B AT ABUTMENT/RETAINING WALL

(Looking North)
Retaining Wall S.N. 016-W851 Shown
Retaining Wall S.N. 016-W850 Similar



SECTION D-D



SECTION E-E

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. See Sht. BS-45 for slopewall details.
3. See Shts. BS-20 and BS-22 For Integral Backwall details.
4. See Shts. BS-19 and BS-43 For Abutment details.

SHT. BS-44 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

ABUTMENT & RETAINING WALL COORDINATION DETAILS

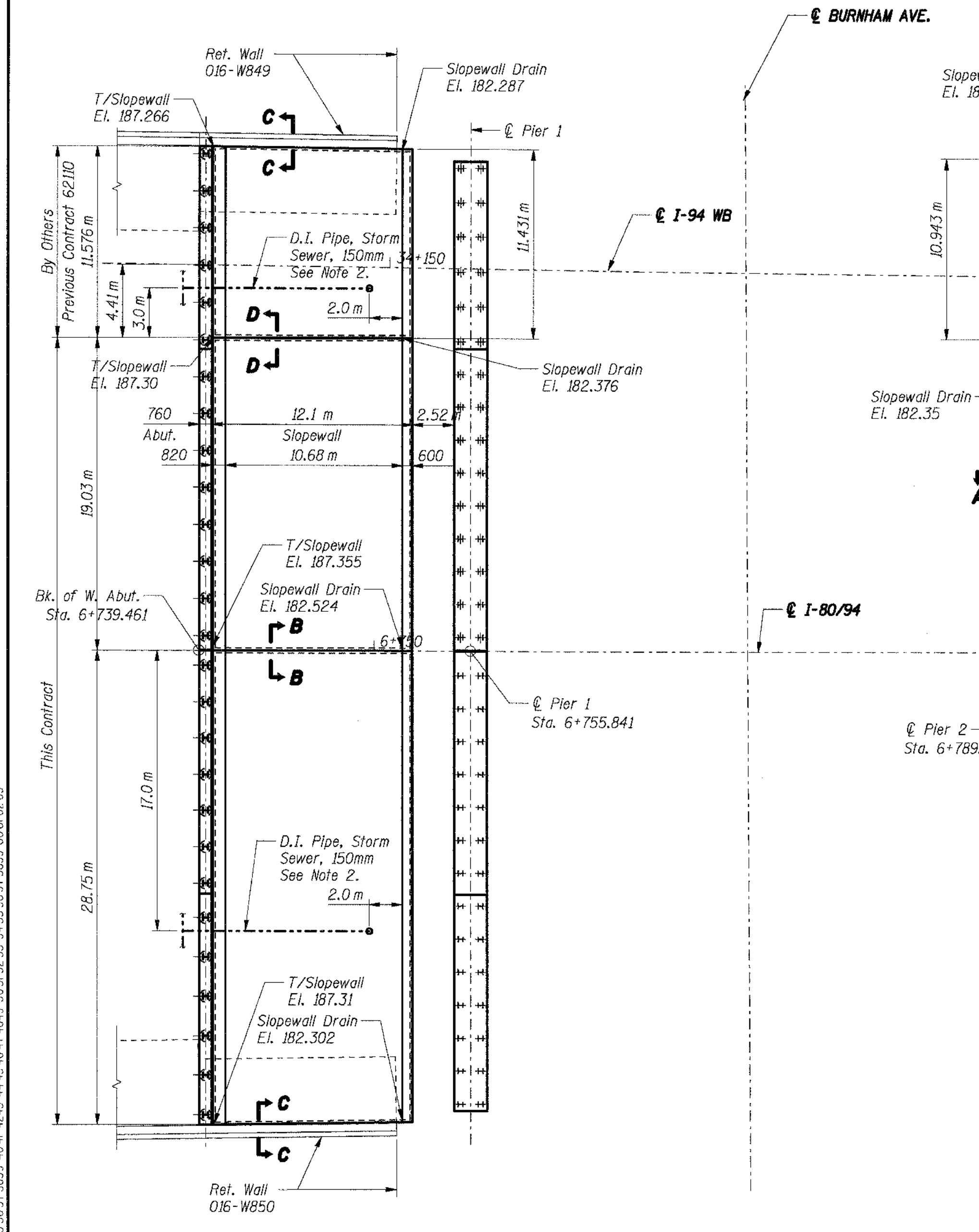
DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

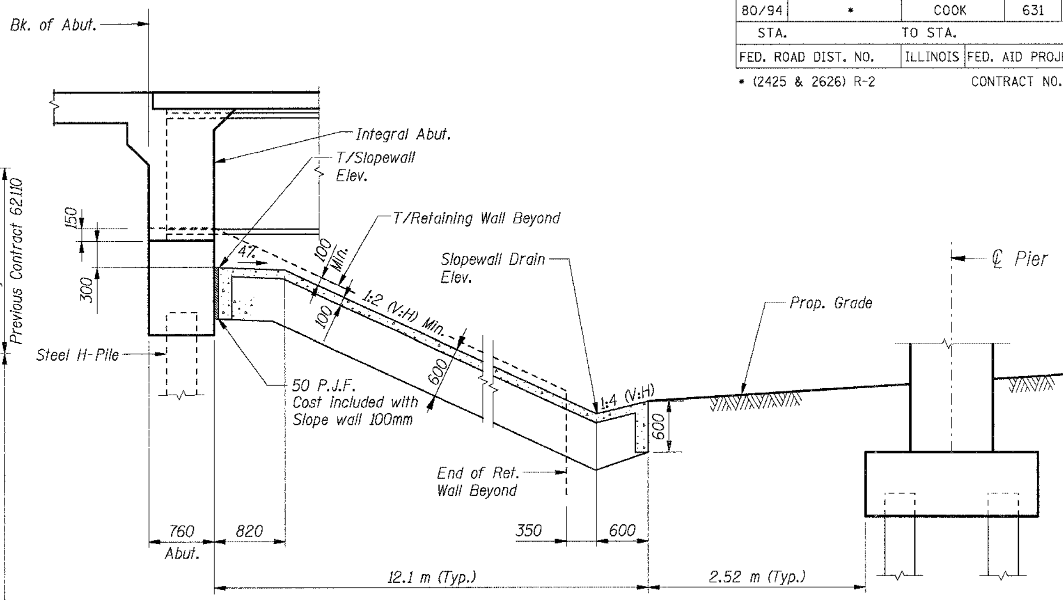
..\AB99G012A.DGN ..\AB99R032A.DGN
7-12-2005, 03:26:54
I:\DOCUMENT\B3750\STRUCTVGN\AB176252A.DGN
BAJZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	487
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

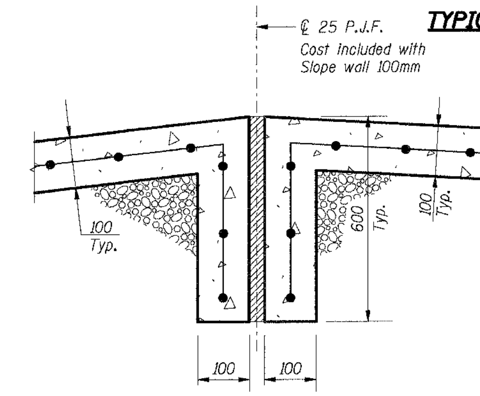
* (2425 & 2626) R-2 CONTRACT NO. 62111



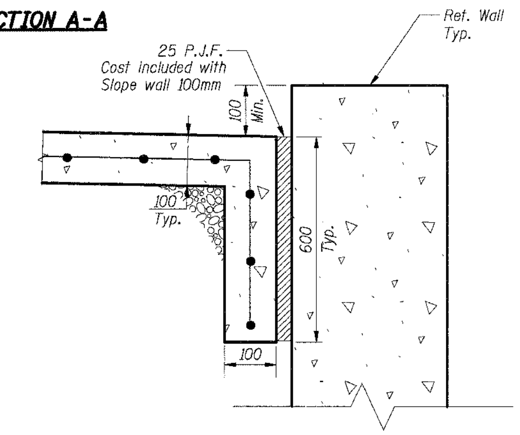
SLOPE WALL PLAN



TYPICAL SECTION A-A



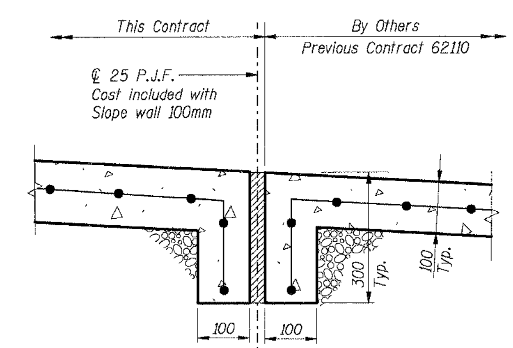
SECTION B-B



SECTION C-C

BILL OF MATERIAL

Item	Unit	Total
Slope Wall 100mm	Sq m	1,264



SECTION D-D

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. See Sht. BS-3 for invert elevations and connecting pipe underdrain. See Roadway Plans for pay items and quantities.
3. Protect slope wall constructed in Previous Contract 62110. Damage to slope caused by operations during this contract shall be repaired as directed by Engineer. Repairs to the existing slopewall shall not be measured for payment and shall be included with Slope Wall 100 mm.

SHT. BS-45 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

SLOPEWALL DETAILS

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

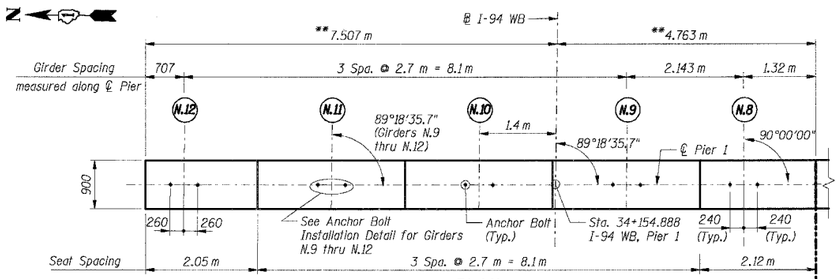
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	488
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* 12425 & 2626) R-2 CONTRACT NO. 62111

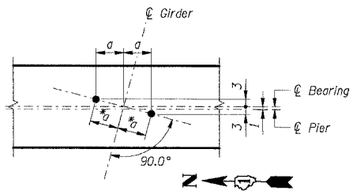
Bearing Seat Elevation

Girders	Elevations
N.12	187.485
N.11	187.595
N.10	187.660
N.9	187.765
N.8	187.820



PLAN

** measured along ℄ Pier

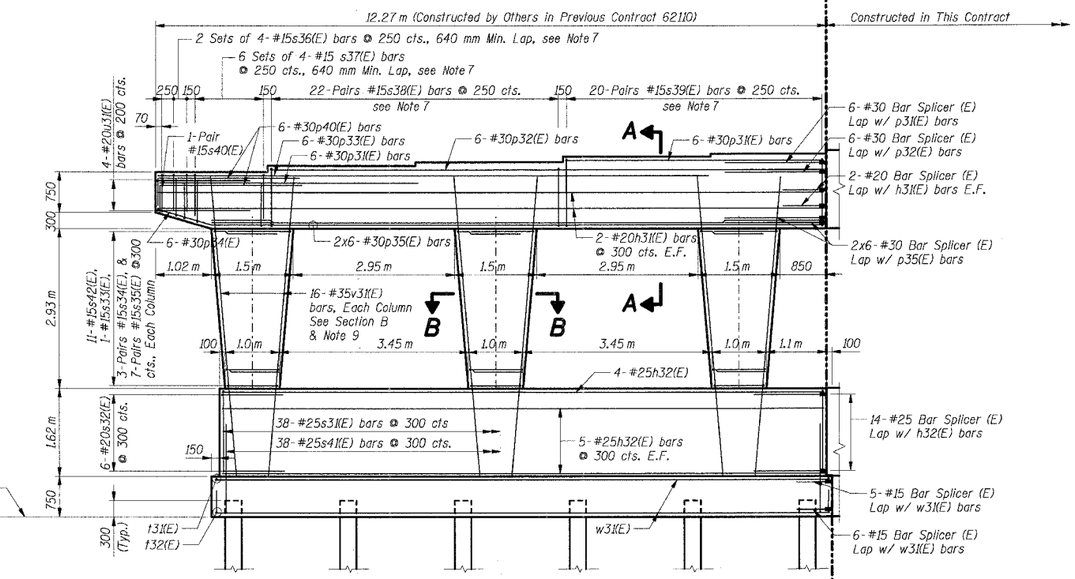


ANCHOR BOLT INSTALLATION DETAIL

(Girders N.9 thru N.12)

* a = 260 mm for Girder N.12,
240 mm for Girders N.9 thru N.11

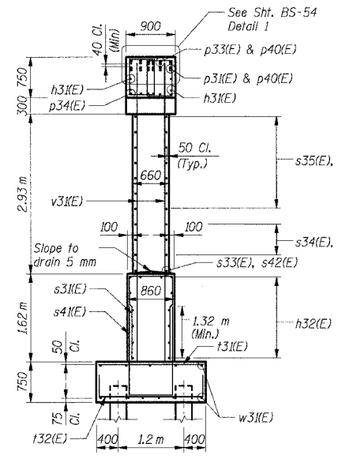
a = 260 mm for Girder N.12,
240 mm for Girders N.9 thru N.11



ELEVATION

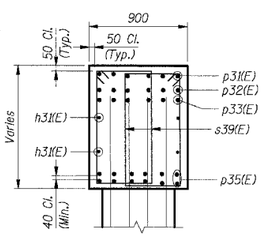
(Looking East)

MATCH LINE A
SEE SHT. BS-47

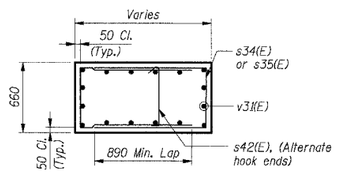


END VIEW

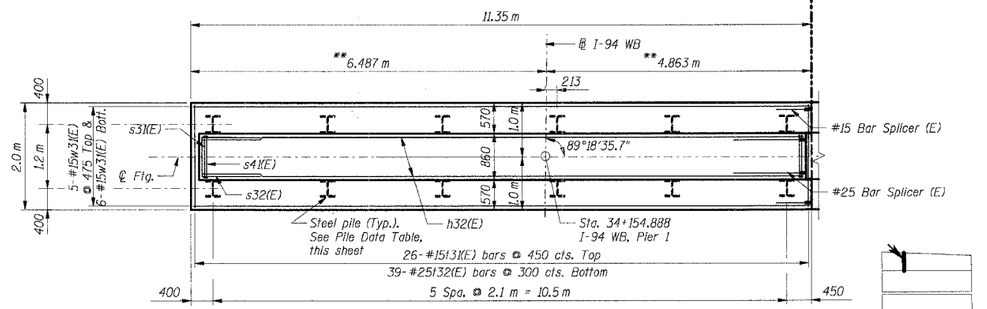
(Looking South)



SECTION A-A



SECTION B-B



FOOTING PLAN

** measured along ℄ Footing

KEY PLAN

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	22 m
No. Required:	12

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. Indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-54.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details see Sht. BS-35.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-46 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

PIER 1
PLAN, ELEVATION & SECTION - I

DATE: 7/18/2005

DRAWN BY: NK
CHECKED BY: TCU

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

..\P1996G2A.DGN, ..\P1996I2A.DGN, ..\AB93002A.DGN
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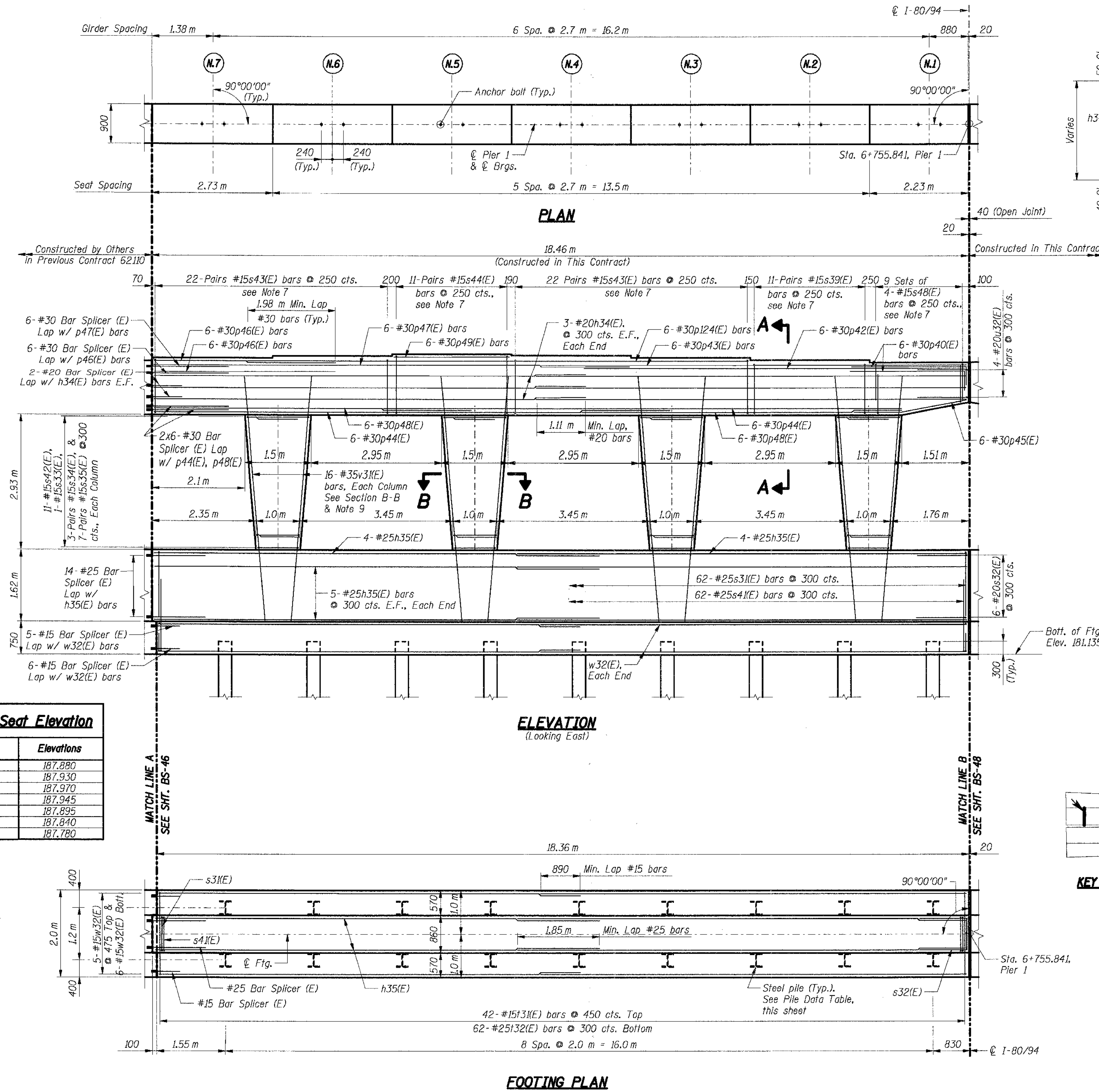
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
PA.ZEKKJ

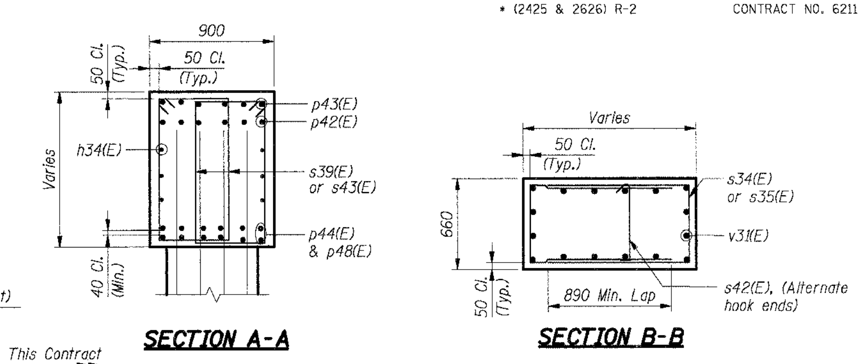
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	489
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

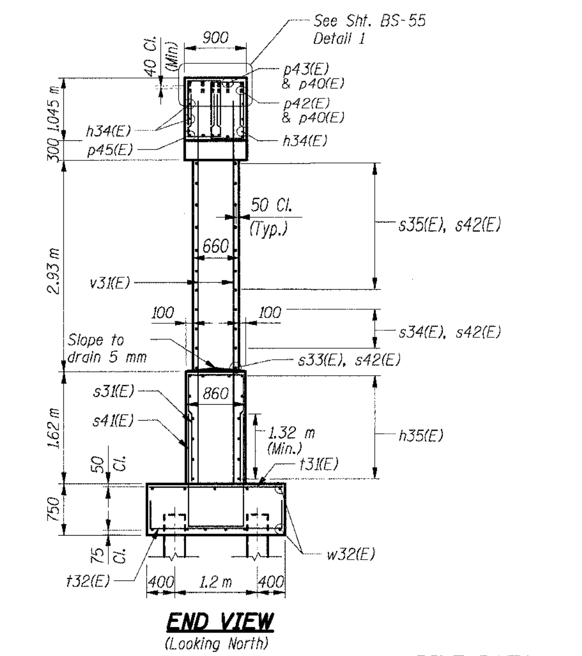
• (2425 & 2626) R-2 CONTRACT NO. 62111

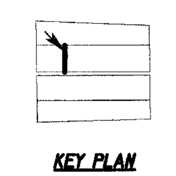


Bearing Seat Elevation

Girders	Elevations
N.7	187.880
N.6	187.930
N.5	187.970
N.4	187.945
N.3	187.895
N.2	187.840
N.1	187.780







PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	22 m
No. Required:	18

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-55.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details see Sht. BS-35.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

SHT. BS-47 OF 60

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

PIER 1
PLAN, ELEVATION & SECTION - II

REVISIONS	
NAME	DATE

DATE: 7/18/2005 DRAWN BY: NK CHECKED BY: TCU

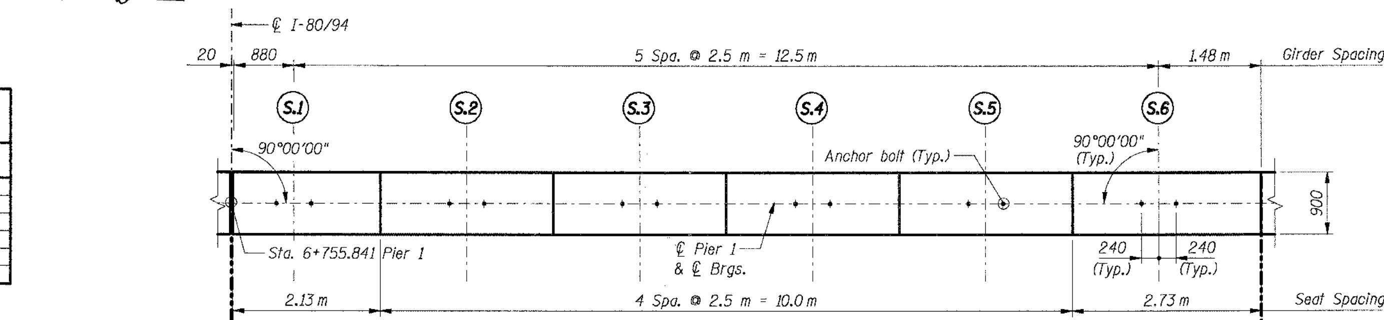
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	490
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

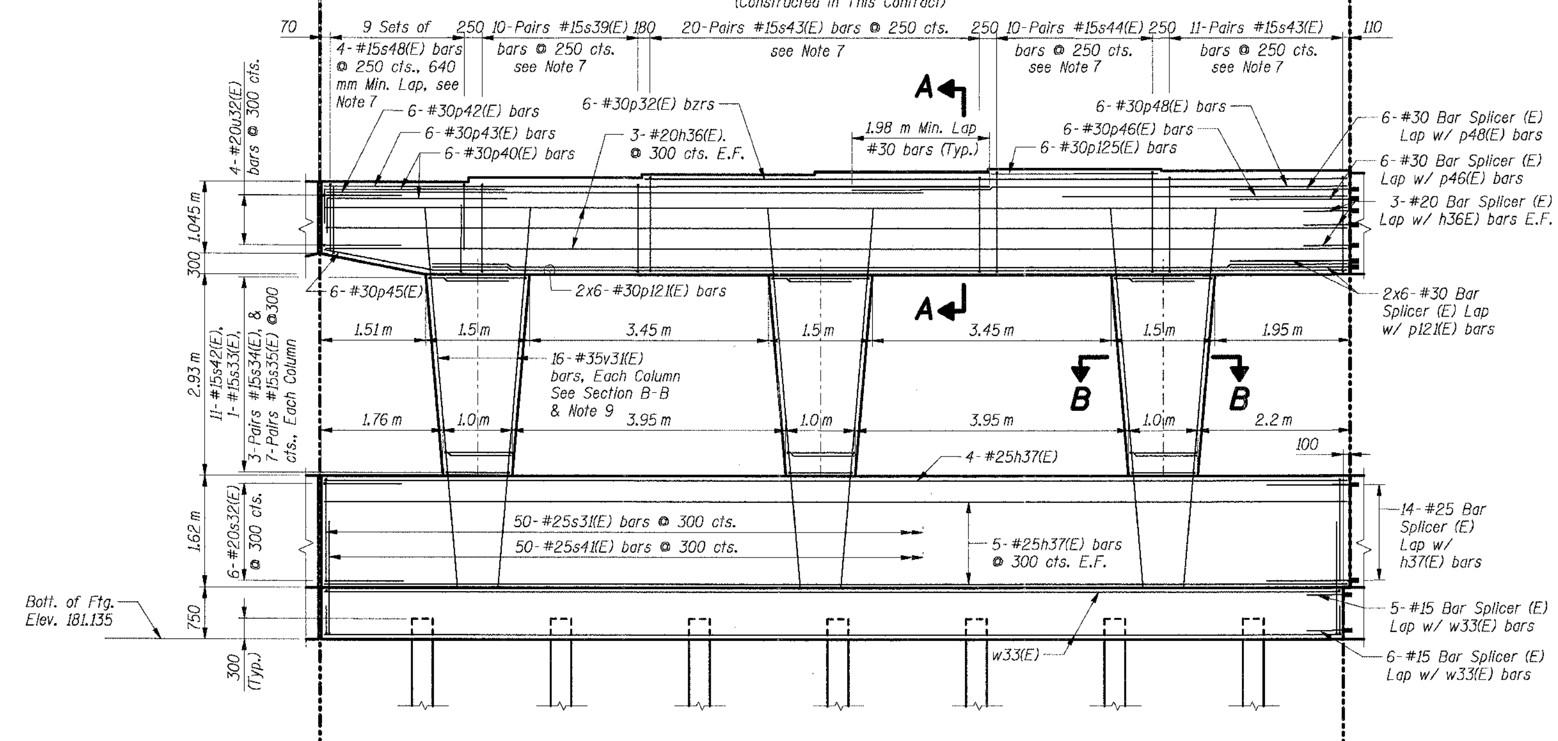
• (2425 & 2626) R-2 CONTRACT NO. 62111

Bearing Seat Elevation

Girders	Elevations
S.1	187.780
S.2	187.840
S.3	187.890
S.4	187.930
S.5	187.970
S.6	187.945



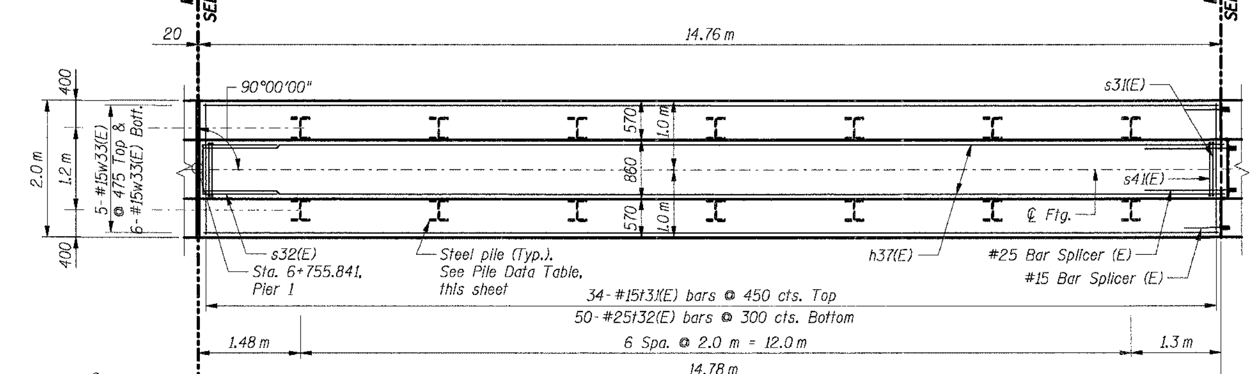
PLAN



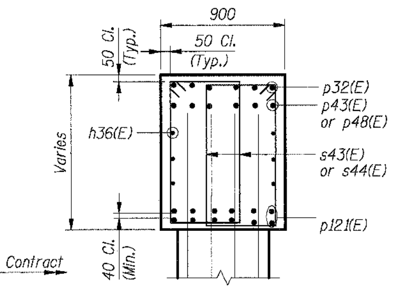
ELEVATION
(Looking East)

MATCH LINE B SEE SHT. BS-47

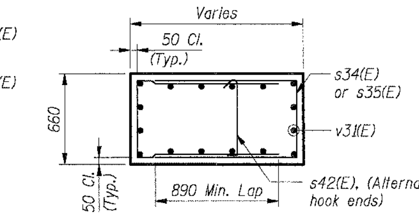
MATCH LINE C SEE SHT. BS-49



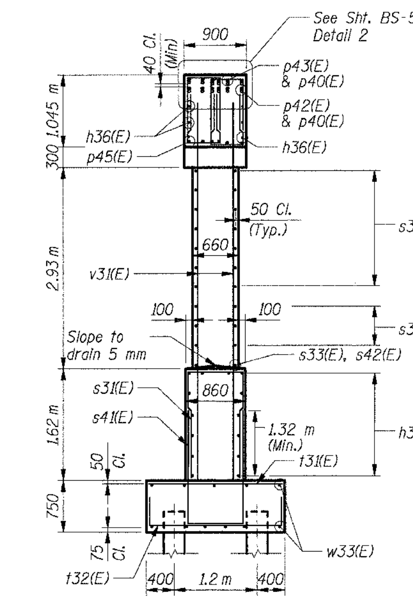
FOOTING PLAN



SECTION A-A



SECTION B-B



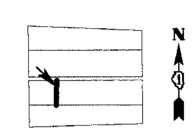
END VIEW
(Looking South)

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	22 m
No. Required:	14

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-55.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details see Sht. BS-35.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.



KEY PLAN

SHT. BS-48 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

PIER 1
PLAN, ELEVATION & SECTION - III

DATE: 7/18/2005 DRAWN BY: NK CHECKED BY: TCU

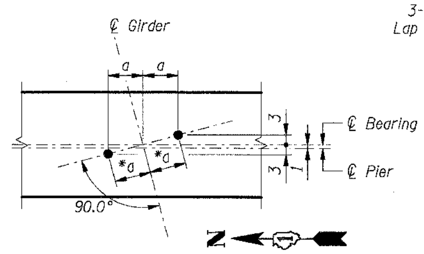
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	491
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

Bearing Seat Elevation

Girders	Elevations
S.7	187.905
S.8	187.855
S.9	187.790
S.10	187.695
S.11	187.635
S.12	187.530

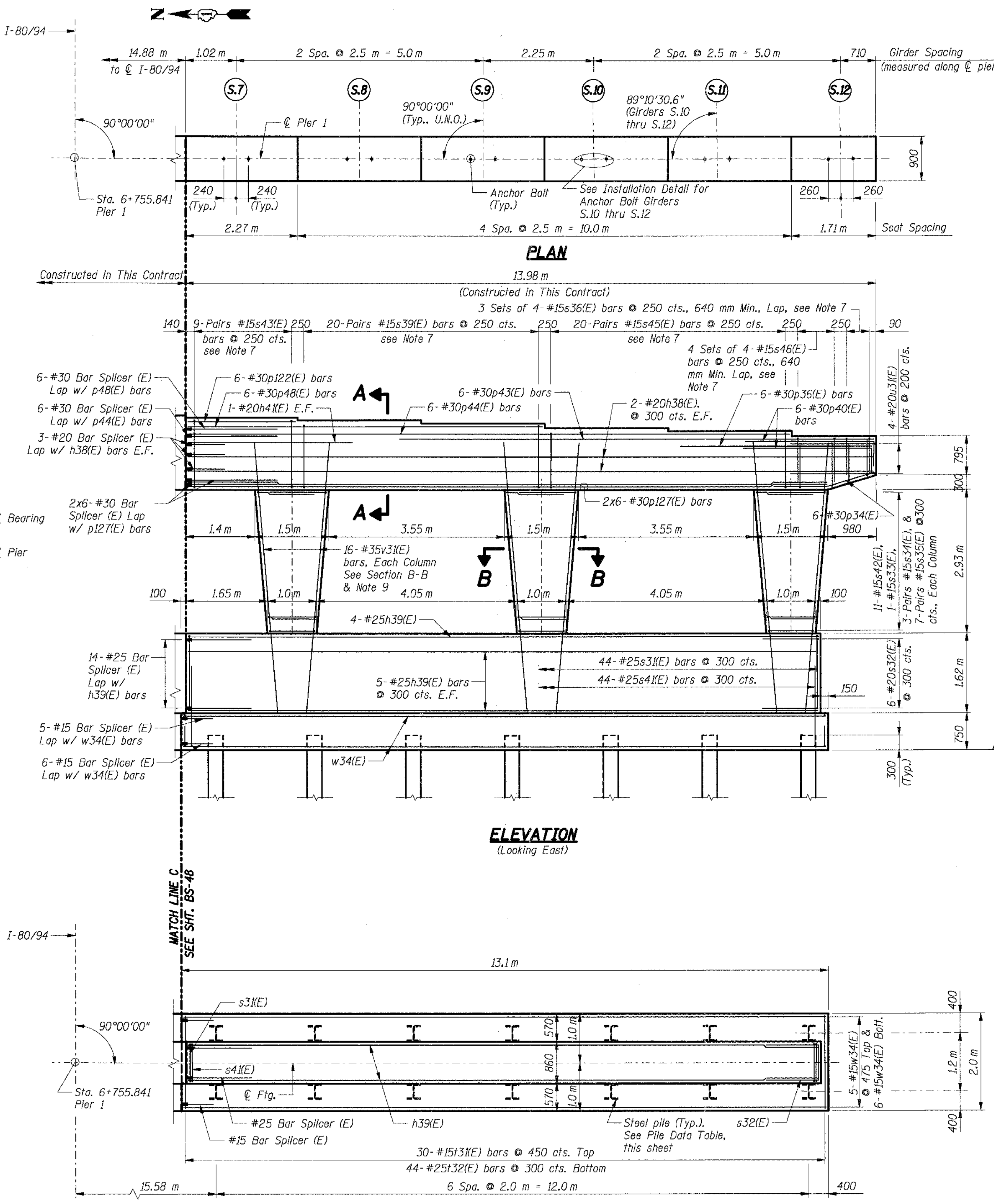


ANCHOR BOLT INSTALLATION DETAIL

(Girders S.10 thru S.12)

* a = 260 mm for Girder N.12, 240 mm for Girders N.9 thru N.11

a = 260 mm for Girder N.12, 240 mm for Girders N.9 thru N.11

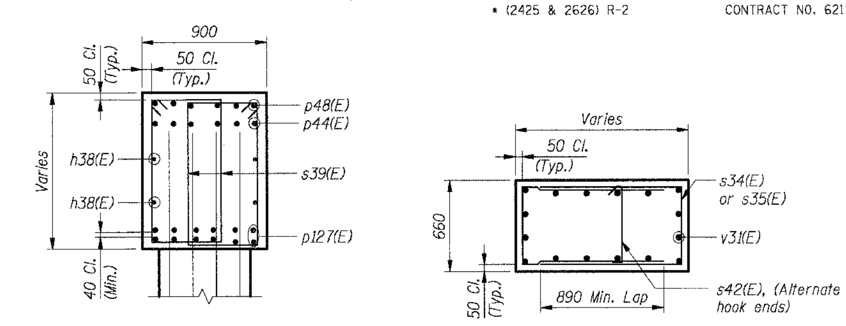


PLAN

ELEVATION

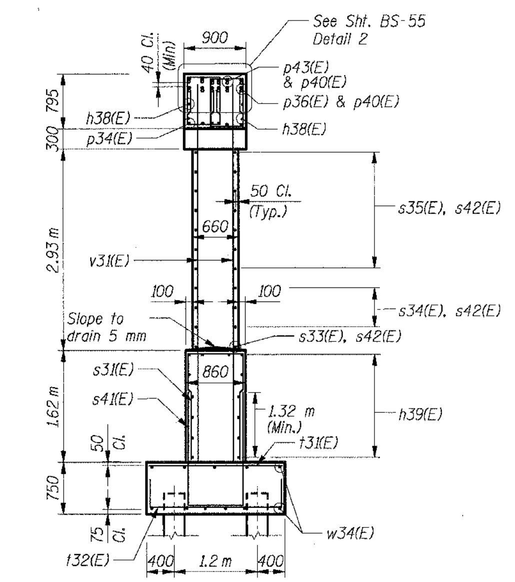
(Looking East)

FOOTING PLAN



SECTION A-A

SECTION B-B



END VIEW

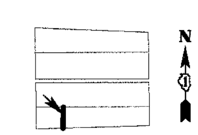
(Looking North)

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	22 m
No. Required:	14

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-55.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details see Sht. BS-35.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.



KEY PLAN

SHT. BS-49 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

PIER 1
PLAN, ELEVATION & SECTION- IV

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

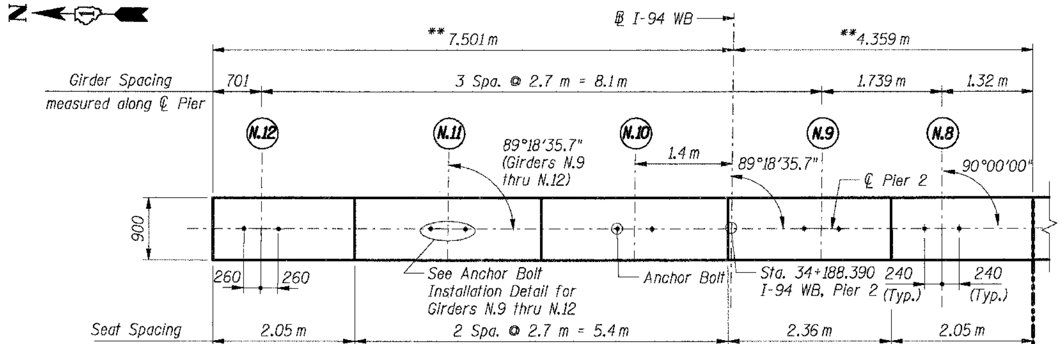
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	492
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2626) R-2 CONTRACT NO. 62111

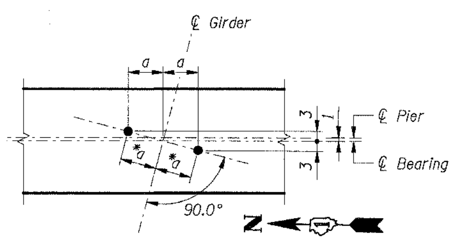
Bearing Seat Elevation

Girders	Elevations
N.12	187.430
N.11	187.540
N.10	187.605
N.9	187.710
N.8	187.760



PLAN

**measured along ℄ Pier

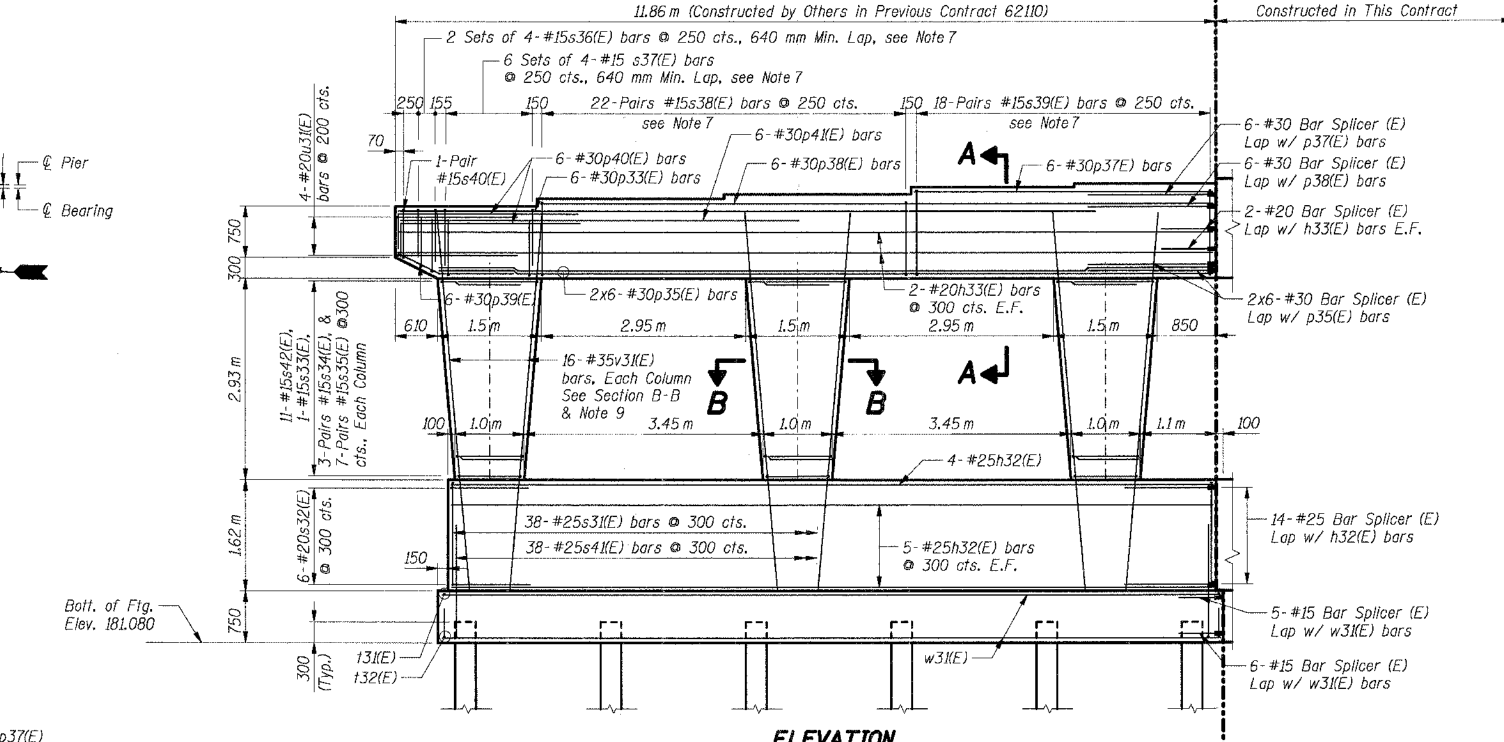


ANCHOR BOLT INSTALLATION DETAIL

(Girders N.9 thru N.12)

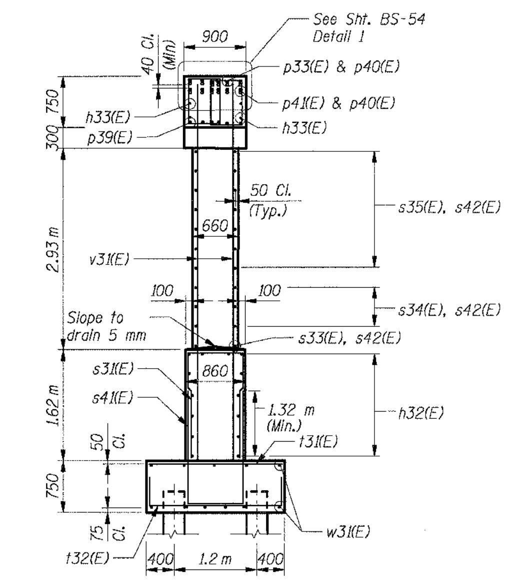
*a = 260 mm for Girder N.12, 240 mm for Girders N.9 thru N.11

a = 260 mm for Girder N.12, 240 mm for Girders N.9 thru N.11



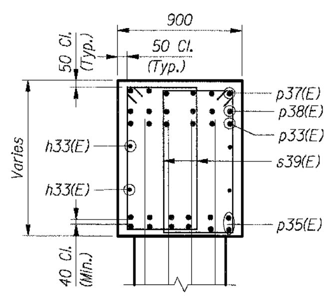
ELEVATION

(Looking East)

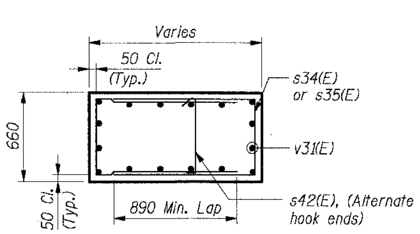


END VIEW

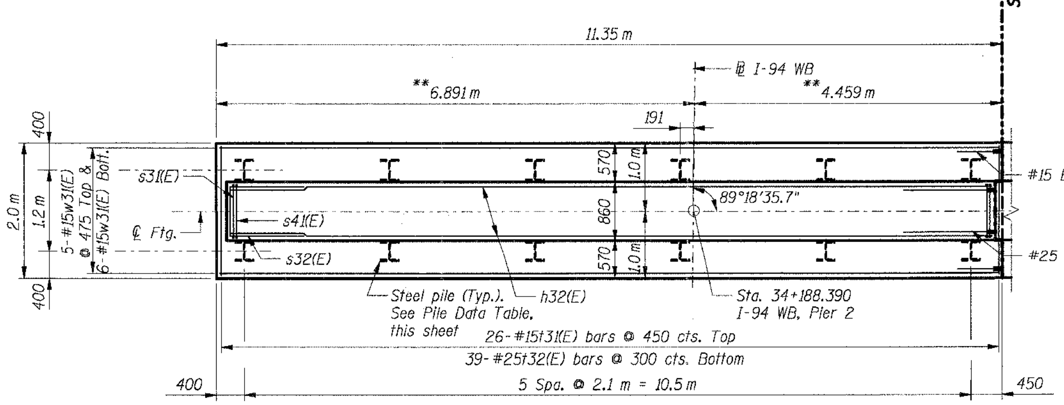
(Looking South)



SECTION A-A

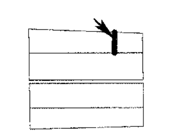


SECTION B-B



FOOTING PLAN

**measured along ℄ Footing



KEY PLAN

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	23 m
No. Required:	11 + 1 Test Pile

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-54.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details see Sht. BS-35.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-50 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

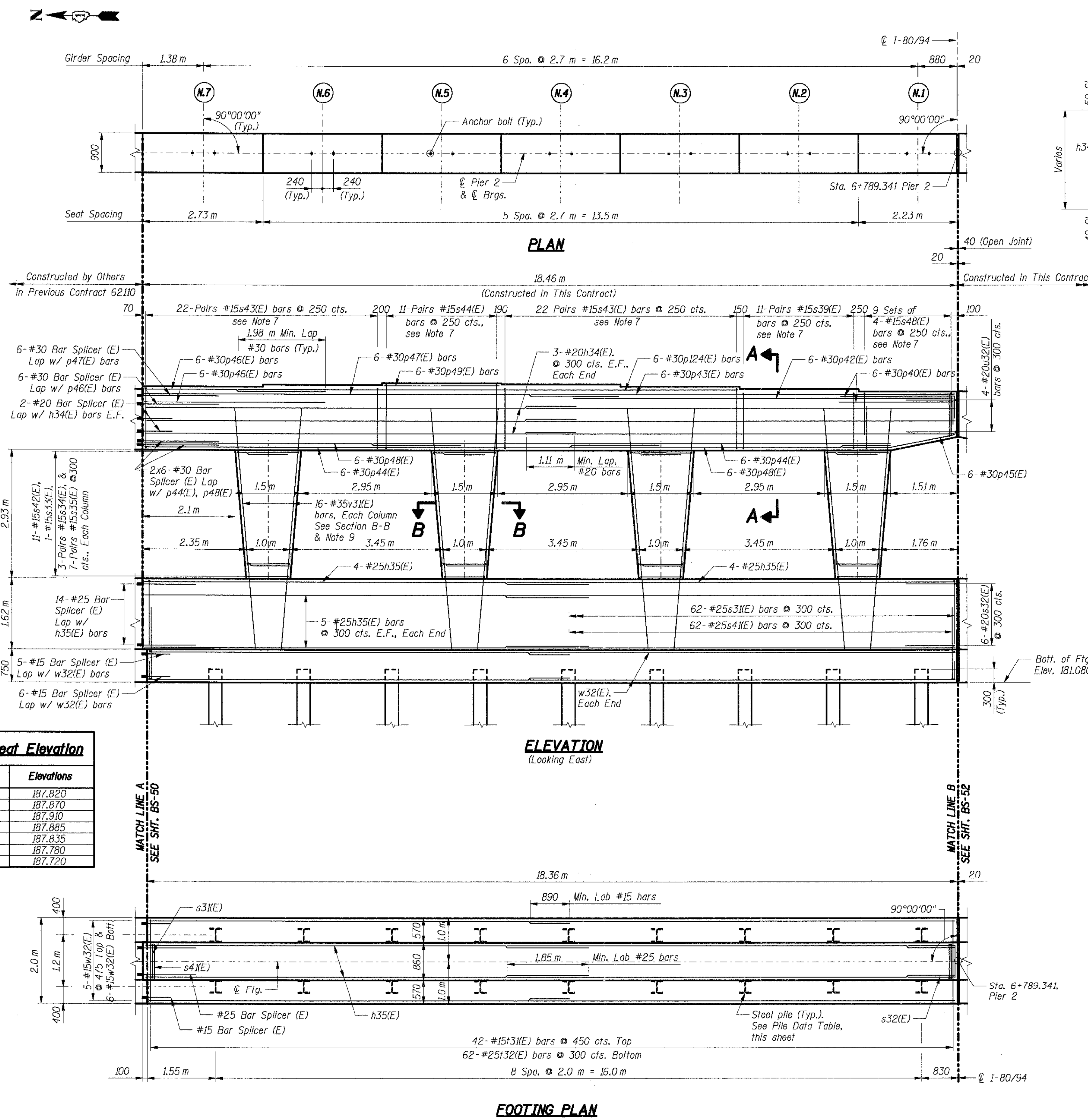
PIER 2
PLAN, ELEVATION & SECTION - I

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

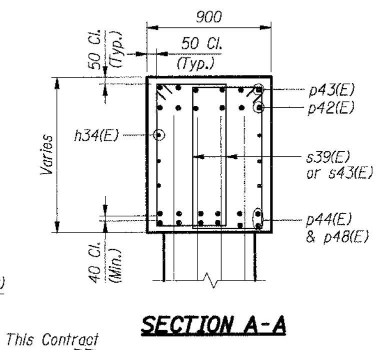
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	493
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

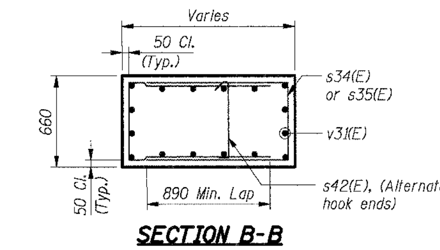
* (2425 & 2626) R-2 CONTRACT NO. 62111

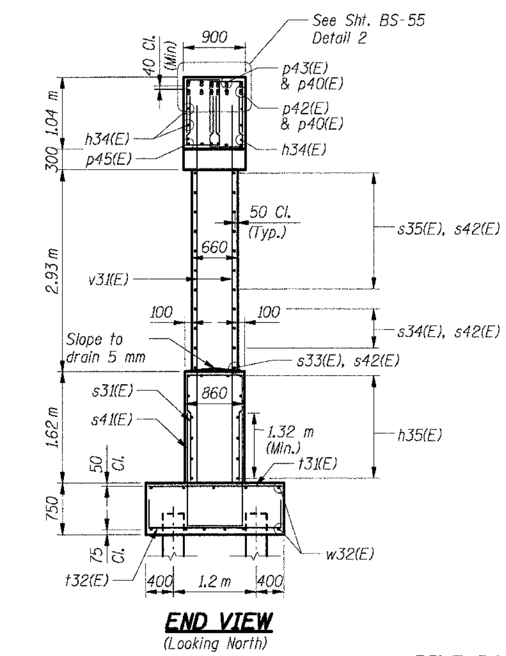


Bearing Seat Elevation

Girders	Elevations
N.7	187.820
N.6	187.870
N.5	187.910
N.4	187.885
N.3	187.835
N.2	187.780
N.1	187.720

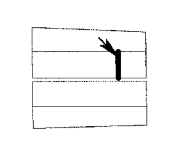






PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	23 m
No. Required:	18



KEY PLAN

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-55.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details, see Sht. BS-35.
9. All column "v" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.

SHT. BS-51 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

PIER 2
PLAN, ELEVATION & SECTION - II

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

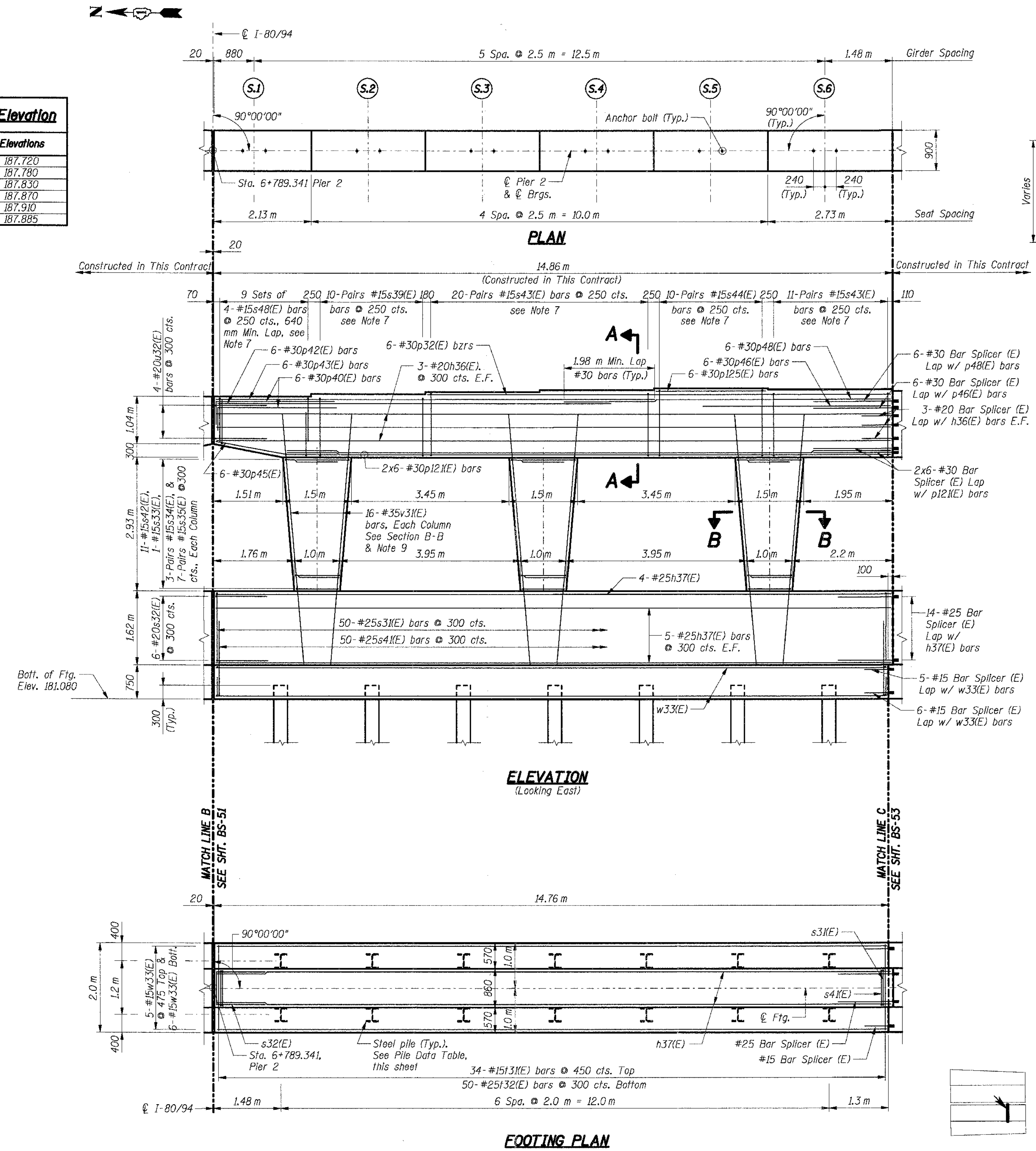
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

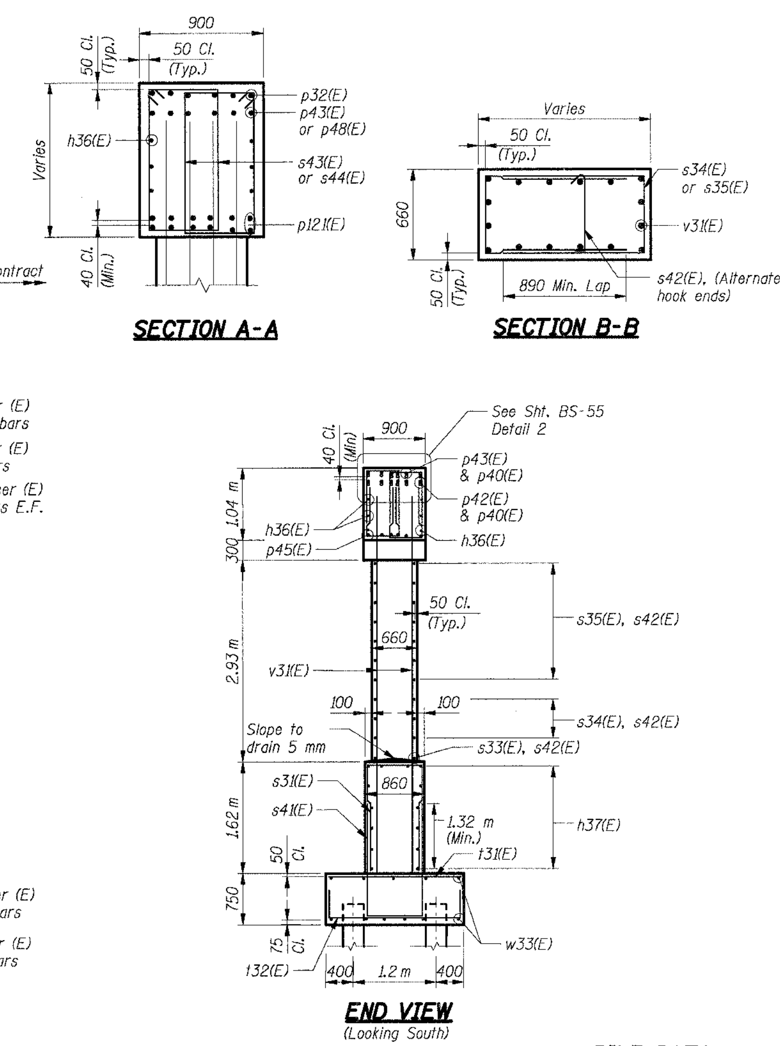
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	494
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

Bearing Seat Elevation

Girders	Elevations
S.1	187.720
S.2	187.780
S.3	187.830
S.4	187.870
S.5	187.910
S.6	187.885





PILE DATA

Type: HP 310 x 79
Design Capacity: 600 kN
Required Bearing: 900 kN
Est. Length: 23 m
No. Required: 14

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-55.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details see Sht. BS-35.
9. All column "v" bars shall be tied and firmly fixed in position prior to casting crashwall portion of pier.

KEY PLAN

SHT. BS-52 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

PIER 2
PLAN, ELEVATION & SECTION - III

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

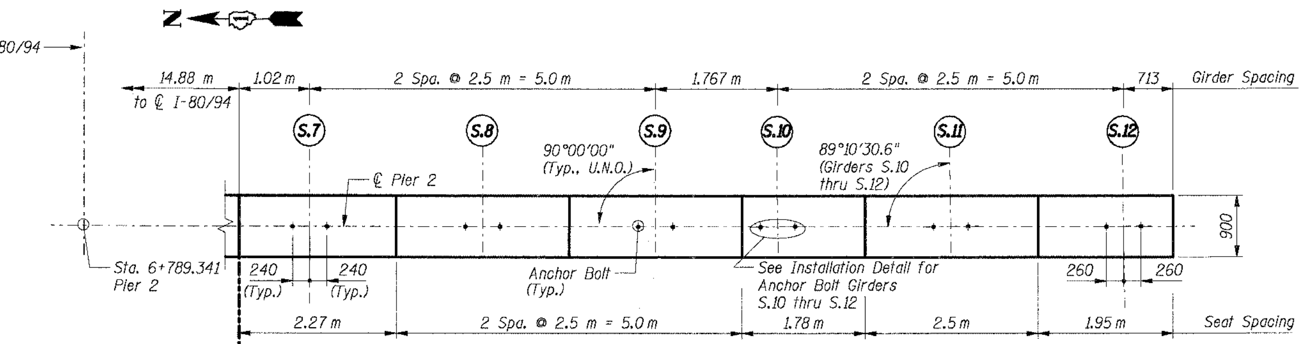
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	495
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

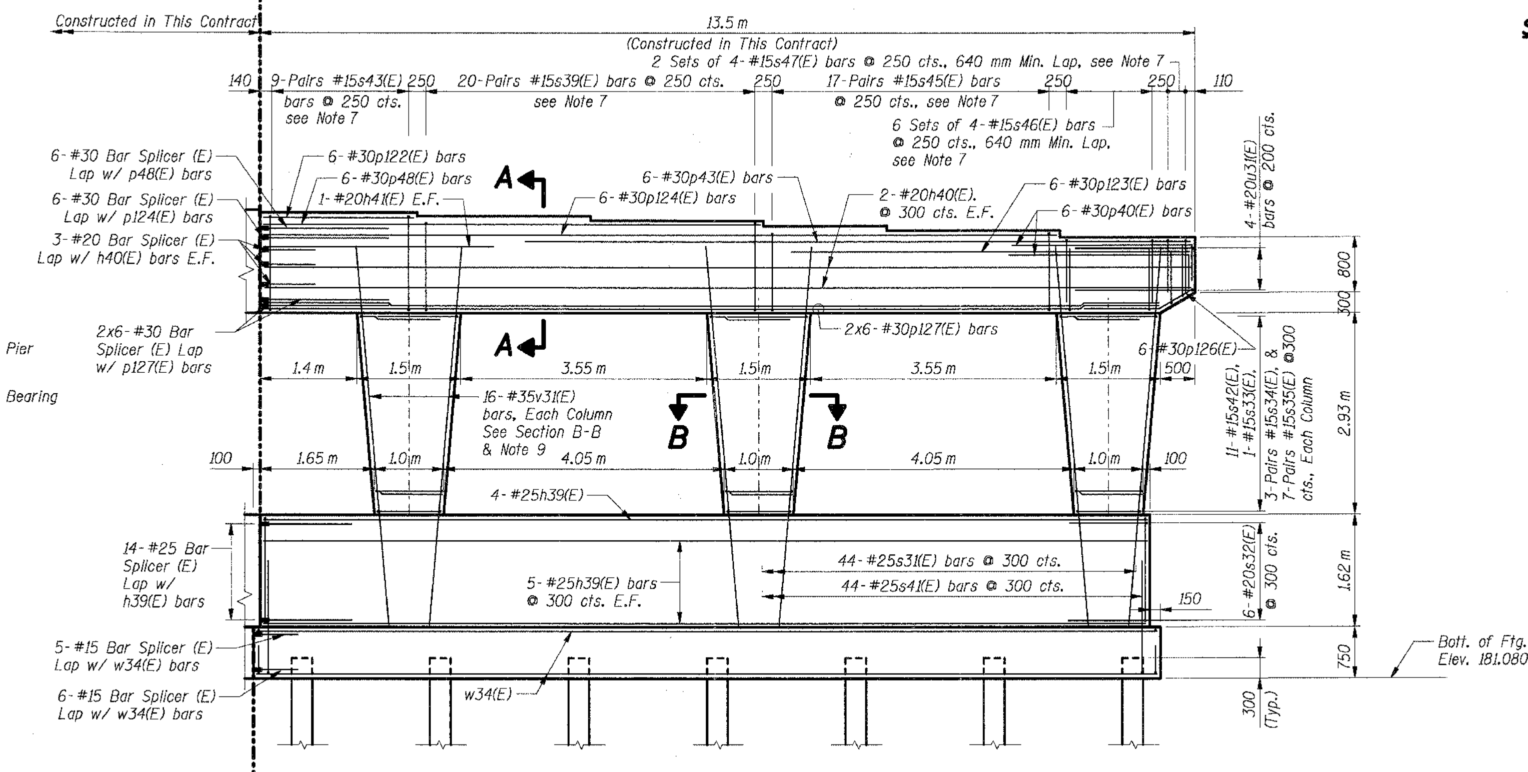
* (2425 & 2626) R-2 CONTRACT NO. 62111

Bearing Seat Elevation

Girders	Elevations
S.7	187.845
S.8	187.795
S.9	187.730
S.10	187.650
S.11	187.585
S.12	187.480

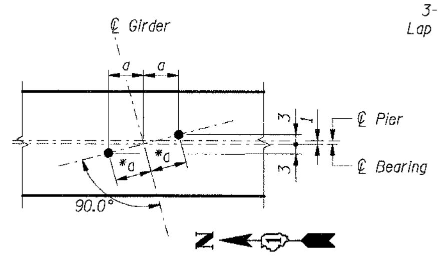


PLAN



ELEVATION

(Looking East)

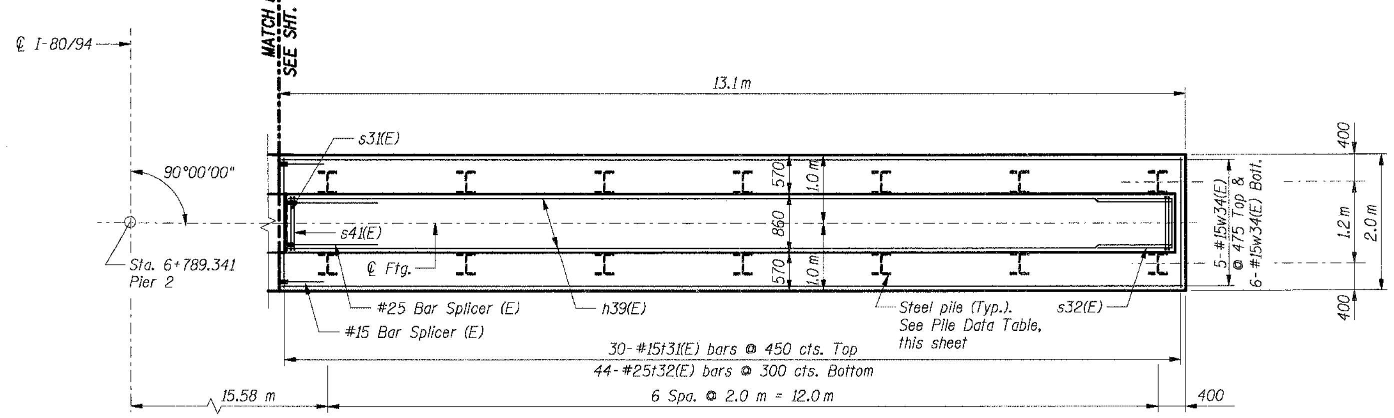


ANCHOR BOLT INSTALLATION DETAIL

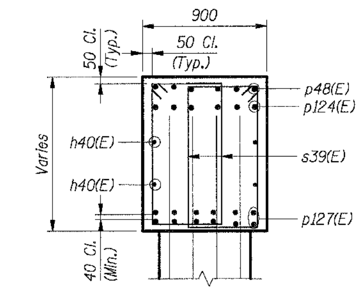
(Girders S.10 thru S.12)

*a = 260 mm for Girder N.12, 240 mm for Girders N.9 thru N.11

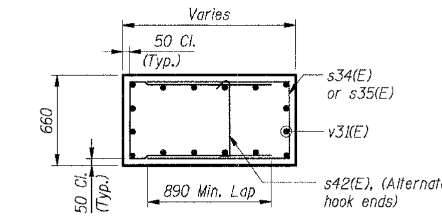
a = 260 mm for Girder N.12, 240 mm for Girders N.9 thru N.11



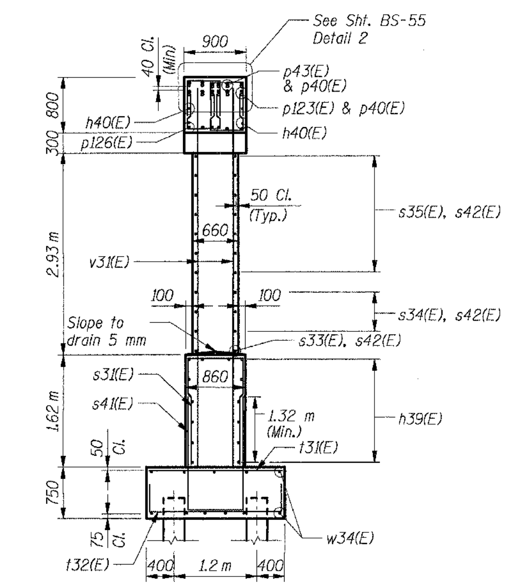
FOOTING PLAN



SECTION A-A



SECTION B-B



END VIEW

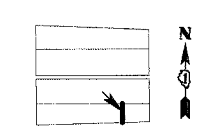
(Looking North)

PILE DATA

Type:	HP 310 x 79
Design Capacity:	600 kN
Required Bearing:	900 kN
Est. Length:	23 m
No. Required:	13 + 1 Test Pile

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. E.F. indicates Each Face.
4. All edges shall have 20 mm chamfers except as noted.
5. For bar splicer details see Sht. BS-56.
6. Work this sheet with Sht. BS-55.
7. Space reinforcement in cap to miss anchor bolts.
8. For Anchor Bolt details see Sht. BS-35.
9. All column "V" bars shall be firmly tied and fixed in position prior to casting crashwall portion of pier.



KEY PLAN

SHT. BS-53 OF 60

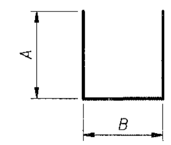
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

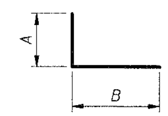
PIER 2
PLAN, ELEVATION & SECTION - IV

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

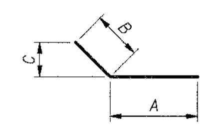
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS



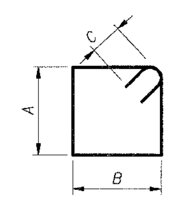
Bar	A (mm)	B (mm)
s31(E)	1520	760
s32(E)	1110	710
s34(E)	970	560
s35(E)	1120	560
s36(E)	730	500
s37(E)	800	500
s41(E)	2050	760
t32(E)	400	1900
u31(E)	1680	770



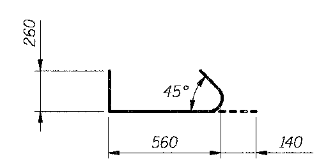
Bar	A (mm)	B (mm)
p40(E)	500	2590



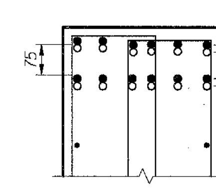
Bar	A (mm)	B (mm)	C (mm)
p34(E)	1090	1000	300
p39(E)	1090	630	300



Bar	A (mm)	B (mm)	C (mm)
s33(E)	910	560	140
s38(E)	1060	500	140
s39(E)	1240	500	140
s40(E)	660	500	140



Bar s42(E)



DETAIL 1

Notes:

1. p31(E), p33(E), and p41(E) bars shall be placed level (horizontally).
2. See pier elevation Shts. BS-46 and BS-50 for location and number of p(E) bars.

Legend:

- ● Straight bars
- ○ Hooked bars

PIER 1
BAR LIST

Bar	No. I	Size	Length (m)	Shape
h31(E)	4	#20	12.15	
h32(E)	14	#25	11.00	
p31(E)	12	#30	4.72	
p32(E)	6	#30	10.12	
p33(E)	6	#30	10.00	
p34(E)	6	#30	2.09	
p35(E)	12	#30	11.15	
p40(E)	12	#30	3.09	
s31(E)	38	#25	3.80	
s32(E)	6	#20	2.93	
s33(E)	3	#15	3.22	
s34(E)	18	#15	2.50	
s35(E)	42	#15	2.80	
s36(E)	8	#15	1.96	
s37(E)	24	#15	2.10	
s38(E)	44	#15	3.40	
s39(E)	40	#15	3.76	
s40(E)	2	#15	2.60	
s41(E)	38	#25	4.86	
s42(E)	33	#15	0.96	
t31(E)	26	#15	1.90	
t32(E)	39	#25	2.70	
u31(E)	4	#20	4.13	
v31(E)	48	#35	5.55	
w31(E)	11	#15	11.25	

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	53.0
Reinforcement Bars, Epoxy Coated	kg	7,750
Structure Excavation	Cu m	31

PIER 2
BAR LIST

Bar	No. I	Size	Length (m)	Shape
h32(E)	14	#25	11.00	
h33(E)	4	#20	11.75	
p33(E)	6	#30	10.00	
p35(E)	12	#30	11.15	
p37(E)	6	#30	4.30	
p38(E)	6	#30	9.70	
p39(E)	6	#30	1.72	
p40(E)	12	#30	3.09	
p41(E)	6	#30	4.70	
s31(E)	38	#25	3.80	
s32(E)	6	#20	2.93	
s33(E)	3	#15	3.22	
s34(E)	18	#15	2.50	
s35(E)	42	#15	2.80	
s36(E)	8	#15	1.96	
s37(E)	24	#15	2.10	
s38(E)	44	#15	3.40	
s39(E)	36	#15	3.76	
s40(E)	2	#15	2.60	
s41(E)	38	#25	4.86	
s42(E)	33	#15	0.96	
t31(E)	26	#15	1.90	
t32(E)	39	#25	2.70	
u31(E)	4	#20	4.13	
v31(E)	48	#35	5.55	
w31(E)	11	#15	11.25	

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu m	52.5
Reinforcement Bars, Epoxy Coated	kg	7,680
Structure Excavation	Cu m	33

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. See Sht. BS-56 for Bar Splicer details and Bill of Material.
4. Work this sheet with Shts. BS-46 and BS-50.

THIS SHEET FOR INFORMATION ONLY

SHT. BS-54 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

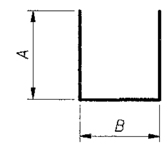
PIER 1 & 2 BAR LIST & BILL OF MATERIAL - I

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

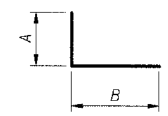
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	497
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

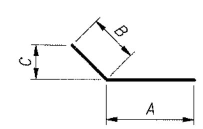
* (2425 & 2626) R-2 CONTRACT NO. 62111



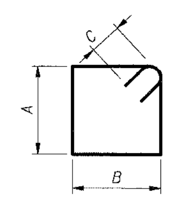
Bar	A (mm)	B (mm)
s31(E)	1520	760
s32(E)	1110	710
s34(E)	970	560
s35(E)	1120	560
s36(E)	730	500
s41(E)	2050	760
s46(E)	820	500
s47(E)	760	500
s48(E)	950	500
t32(E)	400	1900
u31(E)	1680	770
u32(E)	1110	770



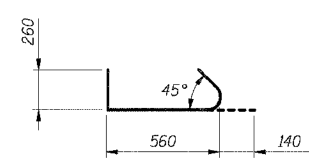
Bar	A (mm)	B (mm)
p40(E)	500	2590



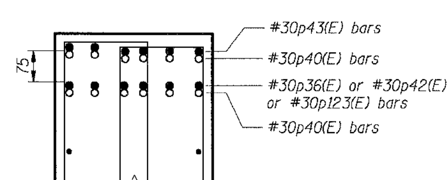
Bar	A (mm)	B (mm)	C (mm)
p34(E)	1090	1000	300
p45(E)	1090	1500	300
p126(E)	1090	530	300



Bar	A (mm)	B (mm)	C (mm)
s33(E)	910	560	140
s39(E)	1240	500	140
s43(E)	1350	500	140
s44(E)	1430	500	140
s45(E)	1100	500	140



Bar s42(E)



DETAIL 2

Notes:

1. p36(E), p42(E), p43(E), and p123(E) bars shall be placed level (horizontally).
2. See pier elevation Shts. BS-47 thru BS-49 and BS-51 thru BS-53 for location and number of p(E) bars.

Legend:

- ● Straight bars
- o Hooked bars

PIER 1
BAR LIST

Bar	No. II	No. III	No. IV	Size	Length (m)	Shape
h34(E)	12			#20	9.75	
h35(E)	28			#25	10.11	
h36(E)		6		#20	14.76	
h37(E)		14		#25	14.76	
h38(E)			4	#20	13.88	
h39(E)			14	#25	12.75	
h41(E)			2	#20	3.40	
p32(E)		6		#30	10.12	
p34(E)			6	#30	2.09	
p36(E)			6	#30	4.00	
p40(E)	12	12	12	#30	3.09	
p42(E)	6	6		#30	8.25	
p43(E)	6	6	6	#30	9.60	
p44(E)	12		6	#30	12.17	
p45(E)	6	6		#30	2.59	
p46(E)	12	6		#30	4.10	
p47(E)	6			#30	10.85	
p48(E)	12	6	6	#30	7.17	
p49(E)	6			#30	2.60	
p121(E)		12		#30	13.25	
p122(E)			6	#30	2.17	
p124(E)	6			#30	11.45	
p125(E)		6		#30	2.40	
p127(E)			12	#30	12.90	
s31(E)	62	50	44	#25	3.80	
s32(E)	6	6	6	#20	2.93	
s33(E)	4	3	3	#15	3.22	
s34(E)	24	18	18	#15	2.50	
s35(E)	56	42	42	#15	2.80	
s36(E)			12	#15	1.96	
s39(E)	22	20	40	#15	3.76	
s41(E)	62	50	44	#25	4.86	
s42(E)	44	33	33	#15	0.96	
s43(E)	88	62	18	#15	3.98	
s44(E)	22	20		#15	4.14	
s45(E)			40	#15	3.48	
s46(E)			16	#15	2.14	
s48(E)	36	36		#15	2.40	
t31(E)	42	34	30	#15	1.90	
t32(E)	62	50	44	#25	2.70	
u31(E)			4	#20	4.13	
u32(E)	4	4		#20	2.99	
v31(E)	64	48	48	#35	5.55	
w32(E)	22			#15	9.60	
w33(E)		11		#15	14.66	
w34(E)			11	#15	13.00	

BILL OF MATERIAL

Item	Unit	Stage 2	Stage 3	Stage 4	Total
Concrete Structures	Cu m	86.5	69.1	60.8	216.4
Reinforcement Bars, Epoxy Coated	kg	12,100	9,390	8,550	30,040
Structure Excavation	Cu m	80	64	49	193

PIER 2
BAR LIST

Bar	No. II	No. III	No. IV	Size	Length (m)	Shape
h34(E)	12			#20	9.75	
h35(E)	28			#25	10.11	
h36(E)		6		#20	14.76	
h37(E)		14		#25	14.76	
h39(E)			14	#25	12.75	
h40(E)			4	#20	13.40	
h41(E)			2	#20	3.40	
p32(E)		6		#30	10.12	
p40(E)	12	12	12	#30	3.09	
p42(E)	6	6		#30	8.25	
p43(E)	6	6	6	#30	9.60	
p44(E)	12			#30	12.17	
p45(E)	6	6		#30	2.59	
p46(E)	12	6		#30	4.10	
p47(E)	6			#30	10.85	
p48(E)	12	6	6	#30	7.17	
p49(E)	6			#30	2.60	
p121(E)		12		#30	13.25	
p122(E)			6	#30	2.17	
p123(E)			6	#30	4.82	
p124(E)	6		6	#30	11.45	
p125(E)		6		#30	2.40	
p126(E)			6	#30	1.62	
p127(E)			12	#30	12.90	
s31(E)	62	50	44	#25	3.80	
s32(E)	6	6	6	#20	2.93	
s33(E)	4	3	3	#15	3.22	
s34(E)	24	18	18	#15	2.50	
s35(E)	56	42	42	#15	2.80	
s39(E)	22	20	40	#15	3.76	
s41(E)	62	50	44	#25	4.86	
s42(E)	44	33	33	#15	0.96	
s43(E)	88	62	18	#15	3.98	
s44(E)	22	20		#15	4.14	
s45(E)			34	#15	3.48	
s46(E)			24	#15	2.14	
s47(E)			8	#15	2.02	
s48(E)	36	36		#15	2.40	
t31(E)	42	34	30	#15	1.90	
t32(E)	62	50	44	#25	2.70	
u31(E)			4	#20	4.13	
u32(E)	4	4		#20	2.99	
v31(E)	64	48	48	#35	5.55	
w32(E)	22			#15	9.60	
w33(E)		11		#15	14.66	
w34(E)			11	#15	13.00	

BILL OF MATERIAL

Item	Unit	Stage 2	Stage 3	Stage 4	Total
Concrete Structures	Cu m	86.4	69.0	60.2	215.7
Reinforcement Bars, Epoxy Coated	kg	12,100	9,390	8,520	30,010
Structure Excavation	Cu m	98	79	49	226

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. See Sht. BS-56 for Bar Splicer details and Bill of Material.
4. Work this sheet with Shts. BS-47 thru BS-49 and BS-51 thru BS-53.

SHT. BS-55 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

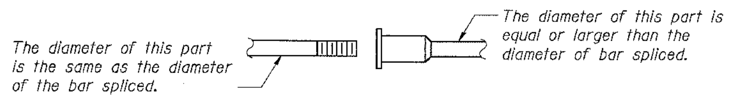
PIER 1 & 2 BAR LIST & BILL OF MATERIAL - II, III & IV

DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: TCU

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

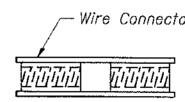
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	498
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111



ROLLED THREAD DOWEL BAR

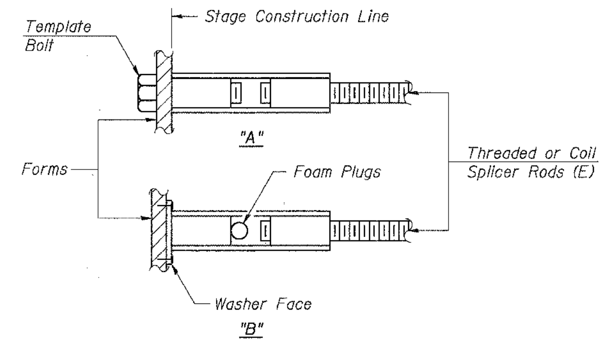
** ONE PIECE



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.

NOTES

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

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

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

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

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

① Minimum Capacity (Tension in kN) $= 1.25 \times fy \times A_t$

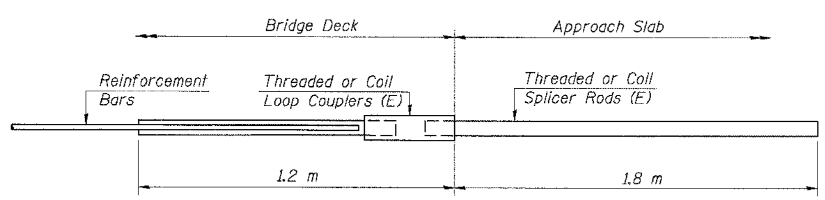
② Minimum *Pull-out Strength (Tension in kN) $= 1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in MPa.
fs_{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	640 mm	100	40
#20	790 mm	150	60
#25	1.32 m	250	100
#30	1.85 m	350	140
#35	2.64 m	500	200

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."

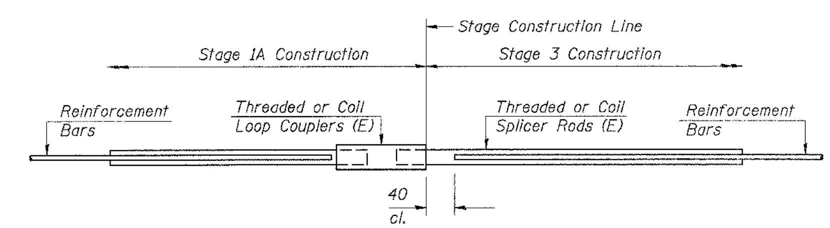
All dimensions in millimeters (mm) except as noted.



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #15 bar			
Min. Capacity = 100 kN - tension			
Min. Pull-out Strength = 40 kN - tension			
No. Required =	Deck Plan	Construction Stage	
77	I	1	**
120	II	4	
96	III	2 & 3	
91	IV	2	

** Provided in Previous Contract 62110. See Note 1.



STANDARD

No. Assemblies Required					
Bar Size #15	Bar Size #20	Bar Size #25	Bar Size #30	Locations	
6		8		W. Abutment	**
11	4	14	24	Pier 1	
11	4	14	24	Pier 2	
11	6	14	24	Pier 1	**
11	6	14	24	Pier 2	**
6		8		E. Abutment	**
880	24			Deck Plan I/II	**
805	24			Deck Plan III/IV	

** Provided in Previous Contract 62110. See Note 1.

Note:

1. Bar Splicers were paid for and the coupler ends installed during a previous contract. The splicer rods are in storage under ownership of the Department. The Contractor shall obtain the splicer rods from the Engineer and install them under this contract. Installation of the splicer rods including cleaning of coupler ends and splicer rods shall be included with Concrete Structures or Concrete Superstructure as applicable.

SHT. BS-56 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

BAR SPLICER DETAILS

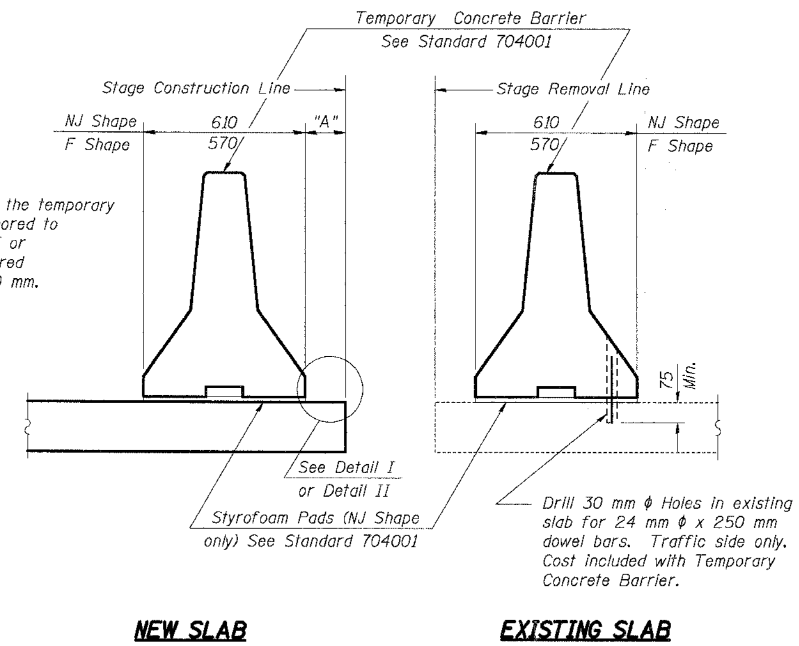
DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

BSD-1 9-31-03 (MODIFIED FOR METRIC)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	499
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2   CONTRACT NO. 62111



SECTIONS THRU SLAB

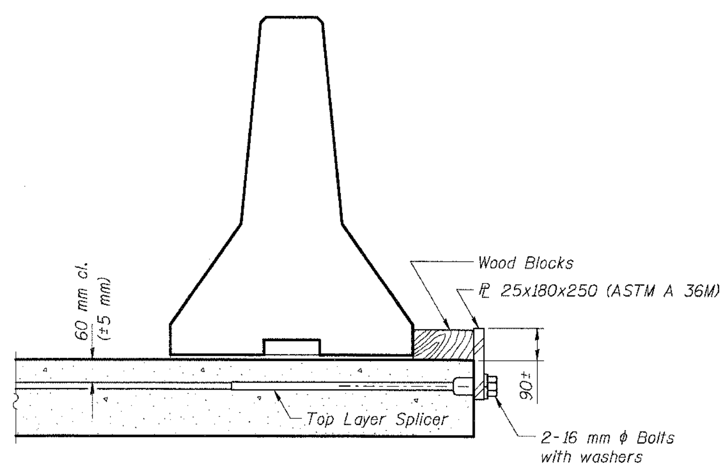
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 25x180x250 steel PL to the top layer of couplers with 2-16 mm ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 25x180x250 steel PL to the concrete slab with 2-16 mm ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

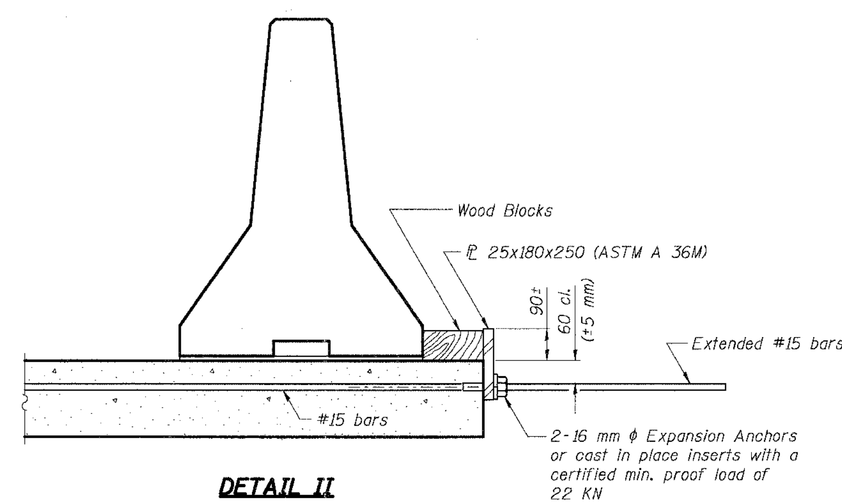
Cost of anchorage included with Temporary Concrete Barrier.

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



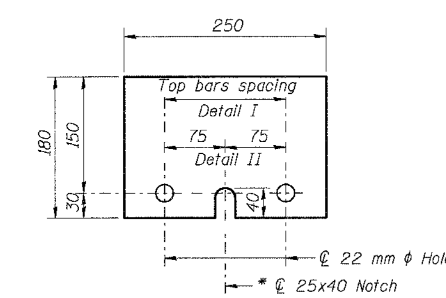
DETAIL I

The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



PL 25x180x250

* Required only with Detail II

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

SHT. BS-57 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

DATE: 7/18/2005
DRAWN BY:
CHECKED BY:

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	500
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* (2425 & 2626) R-2 CONTRACT NO. 62111

Boring No. 39, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 1 of 2 Date 2/27/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2791 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 39
Station 6+737 (CL I-80/94)
Offset 15.50m LT.
Surface Elev. 186.50 m
Surface Water Elev. ___
Groundwater Elev.: when drilling ___ at Completion ___ after ___ Hrs. ___

Description	Elev.	Depth	Blows	Qu (kPa)	W (%)
ASPHALT	186.33				
CRUSHED STONE	186.20				
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel and roots			4, 3, 3	168 P	23
		-1.5	2, 3, 4	182 B	23
			3, 4, 5	278 B	20
		-3.0	3, 3, 4	163 B	20
			3, 5, 5	278 B	20
		-4.5	2, 3, 4	216 P	19
FILL	181.85				
Medium Stiff to Hard, Brown and Gray SILTY CLAY trace - gravel			3, 6, 6	517 B	18
		-6.0	3, 4, 5	201 B	20
Gray after 6.15 m			3, 4, 4	201 B	19
		-7.5	2, 4, 4	316 B	20
			2, 3, 2	163 B	24
		-9.0	2, 3, 4	77 B	24
	177.05				
Medium Dense, Gray SILTY LOAM		-10.5	5, 7, 13		16
	175.55				
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel		-12.0	3, 4, 5	163 B	19
		-13.5	3, 4, 6	240 B	20
		-15.0	4, 5, 6	278 B	20

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 40, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 1 of 2 Date 2/21/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2791 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 40
Station 6+756 (CL I-80/94)
Offset 27.00m LT.
Surface Elev. 181.60 m
Surface Water Elev. ___
Groundwater Elev.: when drilling ___ at Completion ___ after 24 Hrs. 170.5

Description	Elev.	Depth	Blows	Qu (kPa)	W (%)
TOPSOIL	181.30				
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel and roots			2, 3, 5	105 S	22
		-1.5	4, 5, 6	211 B	22
			3, 4, 6	172 B	20
Gray after 2.4 m		-3.0	2, 4, 6	115 B	20
			2, 4, 7	105 B	23
		-4.5	2, 5, 6	115 S	23
	176.95				
Medium Dense, Gray SILTY LOAM			2, 5, 8		17
		-6.0	6, 7, 10		18
	175.45				
Very Stiff, Gray SILTY CLAY LOAM trace - gravel			4, 4, 6	240 S	20
	174.70				
Loose, Gray SILTY LOAM trace to little - sand		-7.5	1, 2, 5		24
	173.95				
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel			4, 5, 7	278 B	20
		-9.0	3, 5, 7	240 B	20
		-10.5	3, 4, 8	172 B	21
		-12.0	3, 5, 9	240 B	20
	169.15				
Hard, Gray CLAY LOAM trace - gravel		-13.5	5, 8, 11	517 B	14
		-16.0	4, 7, 9	479 B	12

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 41, Page 1 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 1 of 2 Date 2/22/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EASTOF BURNHAM AVE. STRUCT. NO. 016-2791 DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION I-80/94 S. ___, TWP. 36 N, RNG. 14E/15 E

Boring No. 41
Station 6+789 (CL I-80/94)
Offset 26.00m LT.
Surface Elev. 182.00 m
Surface Water Elev. ___
Groundwater Elev.: when drilling ___ at Completion ___ after ___ Hrs. ___

Description	Elev.	Depth	Blows	Qu (kPa)	W (%)
TOPSOIL	181.70				
Stiff to Hard, Brown and Gray SILTY CLAY trace - gravel and roots			3, 4, 6	287 S	19
		-1.5	3, 4, 6	393 B	26
			2, 5, 7	249 B	21
Gray after 2.4 m		-3.0	2, 4, 6	134 B	20
			2, 3, 5	163 B	21
	178.10				
Medium Dense, Gray SILTY LOAM		-4.5	2, 7, 11		19
			5, 8, 12		20
		-6.0	4, 6, 7		20
	175.85				
Stiff, Gray SILTY CLAY LOAM trace - gravel			2, 3, 5	115 B	20
	175.10				
Loose, Gray SILTY LOAM trace - gravel		-7.5	3, 3, 5		19
	174.35				
Medium Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel			2, 3, 7	77 B	20
		-9.0	2, 4, 6	163 B	20
		-10.5	4, 5, 7	201 B	21
		-12.0	4, 8, 7	316 B	19
		-13.5	7, 7, 9	316 B	13
	168.20				
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel		-15.0	10, 11, 12	431 B	14

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 39, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 2 of 2 Date 2/27/02

STRUCTURE NO. 016-2791
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 39
Station 6+737 (CL I-80/94)
Offset 15.50m LT.
Surface Elev. 171.50 m

Description	Elev.	Depth	Blows	Qu (kPa)	W (%)
		-16.5	5, 7, 8	259 B	20
	169.55				
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel		-18.0	7, 9, 13	517 B	13
		-19.5	9, 11, 13	517 B	13
		-21.0	7, 9, 11	556 B	12
		-22.5	13, 16, 50	556 B	13
		-24.0	13, 18, 20	556 B	13
END OF BORING	162.50				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 40, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 2 of 2 Date 2/21/02

STRUCTURE NO. 016-2791
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 40
Station 6+756 (CL I-80/94)
Offset 27.00m LT.
Surface Elev. 166.60 m

Description	Elev.	Depth	Blows	Qu (kPa)	W (%)
		-16.5	5, 7, 10	393 B	13
		-18.0	6, 7, 10	431 P	15
	163.30				
Medium Dense, Gray SILTY LOAM trace - gravel		-19.5	6, 9, 11		14
		-21.0	6, 8, 15		14
	160.30				
Very Dense, Gray SILTY LOAM (Hardpan) trace to little - gravel		-22.5	21, 25, 32		10
END OF BORING	159.10				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Boring No. 41, Page 2 of 2

Everest Engineering Company
STRUCTURE BORING LOG
Page 2 of 2 Date 2/22/02

STRUCTURE NO. 016-2791
ROUTE FAI 80/94
SECTION WEST OF IL 83 TO EASTOF BURNHAM AVE.
COUNTY COOK

Boring No. 41
Station 6+789 (CL I-80/94)
Offset 26.00m LT.
Surface Elev. 167.00 m

Description	Elev.	Depth	Blows	Qu (kPa)	W (%)
		-16.5	8, 8, 10	383 P	14
		-18.0	7, 10, 12	431 B	14
		-19.5	6, 9, 11	479 B	14
		-21.0	11, 13, 16	671 S	13
END OF BORING	161.00				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

SHT. BS-58 OF 60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER BURNHAM AVENUE
STRUCTURE NO. 016-2791 STA. 6+772.591
SECTION 1977-121-R
COOK COUNTY

BORING LOGS - I

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS