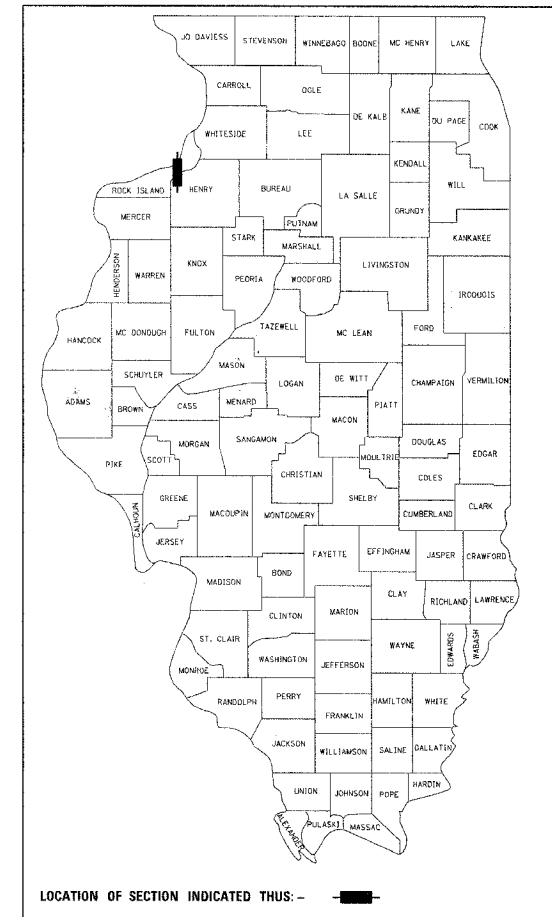


CONTRACT NO. 64C95

F.A.I. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BR)M	HENRY	14	1
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

D-92-033-07



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**HIGHWAY**  
**F.A.I. ROUTE-80 (I-80)**  
**NORTHBOUND BRIDGE OVER ROCK RIVER**  
**SECTION: (81-37-2BR) M**  
**FINGER PLATE JOINT REPLACEMENT**  
**HENRY COUNTY**  
**JOB NO. C-92-027-07**

**STATE STANDARDS**

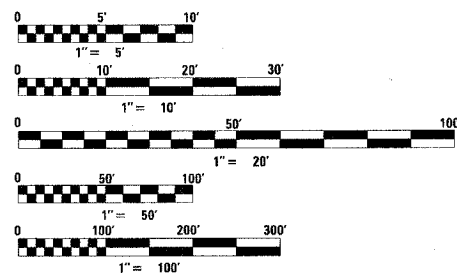
- 701400-02 APPROACH TO LANE CLOSURE, FREEWAY / EXPRESSWAY
- 701402-05 LANE CLOSURE, FREEWAY / EXPRESSWAY, WITH BARRIER
- 702001-06 TRAFFIC CONTROL DEVICES
- 704001-03 TEMPORARY CONCRETE BARRIER
- 720011 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001 TELESCOPING STEEL SIGN SUPPORT
- 729001 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

FOR INDEX OF SHEETS  
SEE SHEET 2

**TRAFFIC DATA**

EXISTING ADT  
18,900 (2005)  
SPEED LIMIT 65 MPH

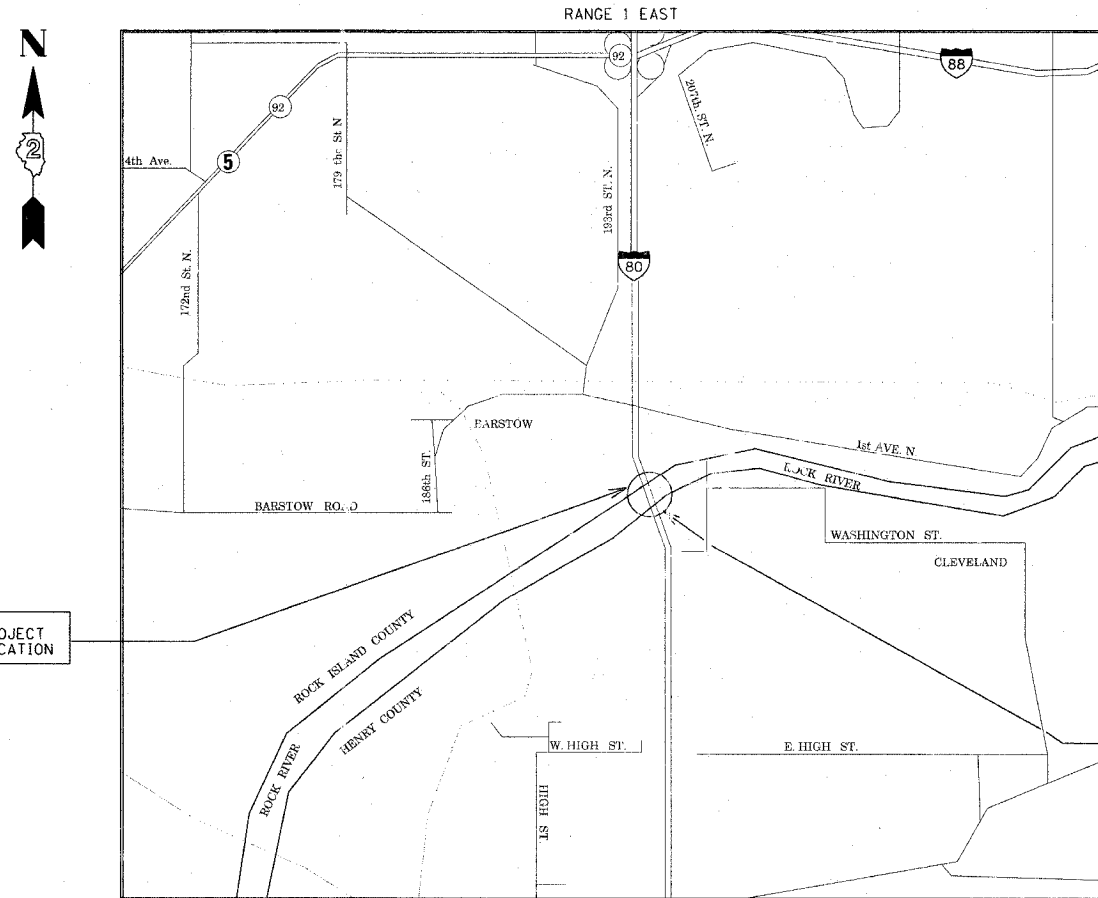
**PROJECT LOCATED IN HENRY COUNTY**



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

CONTRACT NO. 64C95

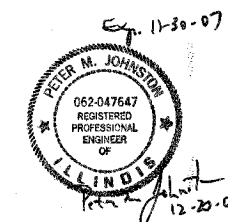


PROJECT LOCATION

HAMPTON TOWNSHIP  
NOT TO SCALE

GROSS AND NET LENGTH OF PROJECT: 12,819 FT (2.43 MI)

DISTRICT TWO PLAN PREPARATION ENGINEER: MAHMOUD ETEMADI (815) 284-5393



STRUCTURE NO. 037-0022



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**


SUBMITTED DEC 22 2006  
*[Signature]*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

February 2, 2007  
*[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

February 2, 2007  
*[Signature]*  
 DIRECTOR, DIVISION OF HIGHWAYS

DISTRICT 2, DIXON, IL

PRINTED BY THE AUTHORITY OF  
THE STATE OF ILLINOIS


**GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC.**  
 ENGINEERS & SCIENTISTS  
 8501 W. Higgins Road, Suite 280  
 Chicago, Illinois 60631  
 (773) 399-0112

CONTRACT NO. 64C95

F.A.J. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BR)M	HENRY	14	2
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

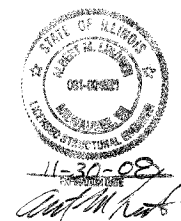
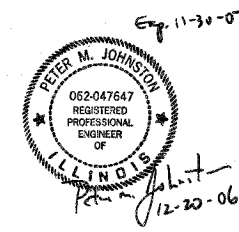
THIS STRUCTURE WILL RETAIN THE SAME NUMBER 037-0022 (NB)

AT BRIDGE EXPANSION JOINTS, IF TEMPORARY EXPANSION JOINT BULKHEADS ARE ATTACHED TO ADJACENT DECK SLABS OR ABUTMENTS FOR SUPPORT, THE CONTRACTOR SHALL CUT THE ATTACHMENTS AS SOON AS THE CONCRETE HAS SET TO PREVENT JOINT DAMAGE DUE TO HORIZONTAL CONTRACTION OR EXPANSION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE J.U.L.I.E. NUMBER IS 800-892-0123.

INDEX OF SHEETS

1. TITLE SHEET
2. GENERAL NOTES & INDEX
3. SUMMARY OF QUANTITIES
4. MOT TYPICAL SECTIONS, STAGE 1
5. MOT TYPICAL SECTIONS, STAGE 2
6. MOT PLAN STAGE 1
7. MOT PLAN STAGE 2
8. GENERAL PLAN & ELEVATION
9. CONSTRUCTION STAGING
10. CONCRETE REMOVAL PLAN
11. CONCRETE PLACEMENT PLAN
12. JOINT PLAN & ELEVATION
13. JOINT DETAIL
14. MISCELLANEOUS DETAILS



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAI ROUTE - 80 BRIDGE OVER ROCK RIVER STRUCTURE NUMBER: 037-0022 SECTION: (81-37-2BR)M FINGER PLATE JOINT REPLACEMENT S.N. 037-0022 GENERAL NOTES AND INDEX DATE: 12/22/06
NAME	DATE	
		DRAWN BY: LT CHECKED BY: RJS

GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC.  
CHICAGO, ILLINOIS


CONTRACT NO. 64C95

F.A.I. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BR)M	HENRY	14	3
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

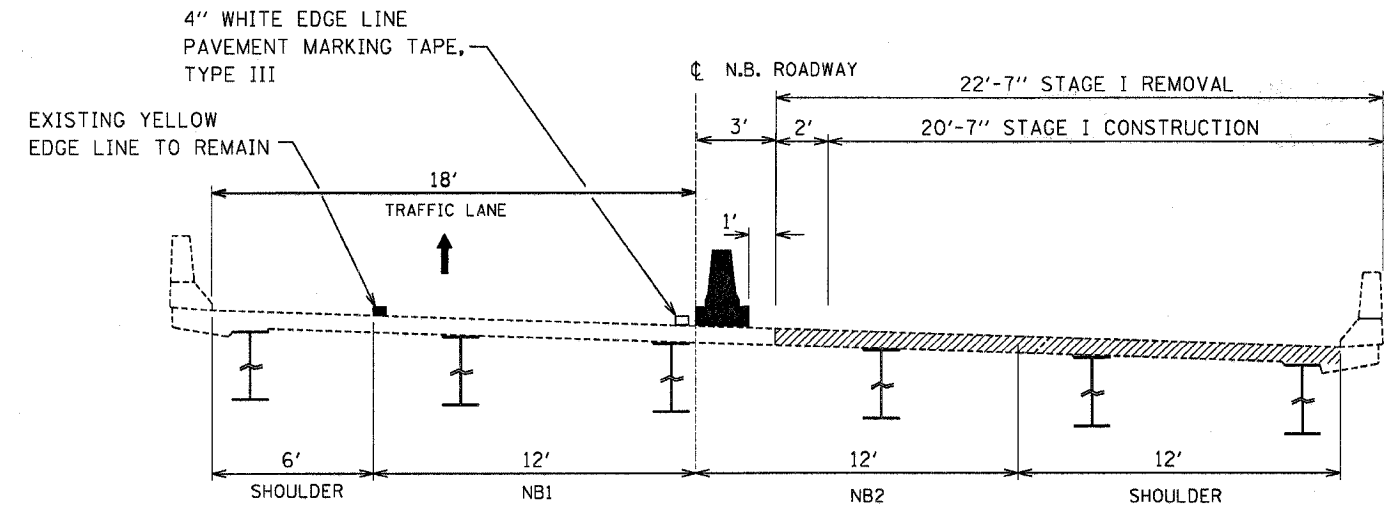
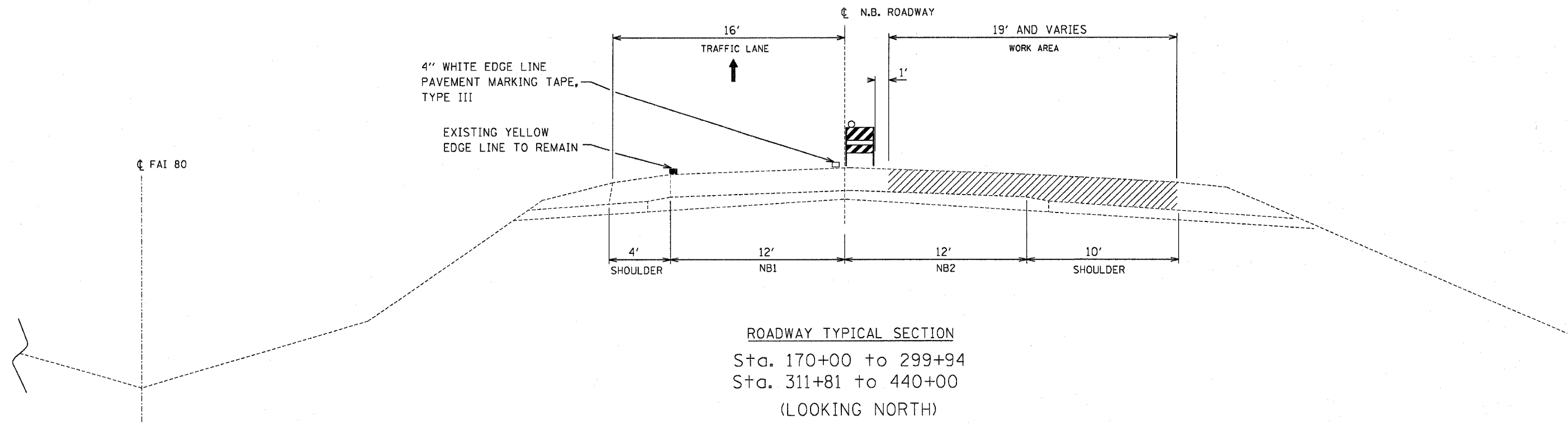
Code No	DESCRIPTION	UNIT	URBAN
			100% STATE QUANTITY
50102400	CONCRETE REMOVAL	CU YD	11.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	11.6
50300300	PROTECTIVE COAT	SQ YD	26
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	943
52000220	FINGER PLATE EXPANSION JOINT, 6"	FOOT	44.2
67100100	MOBILIZATION	L SUM	1
70100207	TRAFFIC CONTROL AND PROTECTIOIN, STANDARD 701402	EACH	1
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	4720
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1575
70400100	TEMPORARY CONCRETE BARRIER	FOOT	300
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	300
78300100	PAVEMENT MARKING REMOVAL	SQ FT	850
*78008210	POLYUREA PAVEMENT MARKING - TYPE I-LINE 4"	FOOT	2550
X0321781	MECHANICAL SPLICE	EACH	104
● Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1
● Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1

● SFTY-3N \* SPECIALTY ITEM

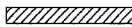


REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAI ROUTE - 80 BRIDGE OVER ROCK RIVER STRUCTURE NUMBER: 037-0022 SECTION: (81-37-2BR)M FINGER PLATE JOINT REPLACEMENT S.N. 037-0022 SUMMARY OF QUANTITIES DRAWN BY: LT CHECKED BY: RJS
NAME	DATE	
 GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC. CHICAGO, ILLINOIS		

CONTRACT NO. 64C95

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BRIM)	HENRY	14	4
STA. 299+94		TO STA. 311+81		
FED. AID PROJECT		ILLINOIS FED. ROAD DIST. NO. .		



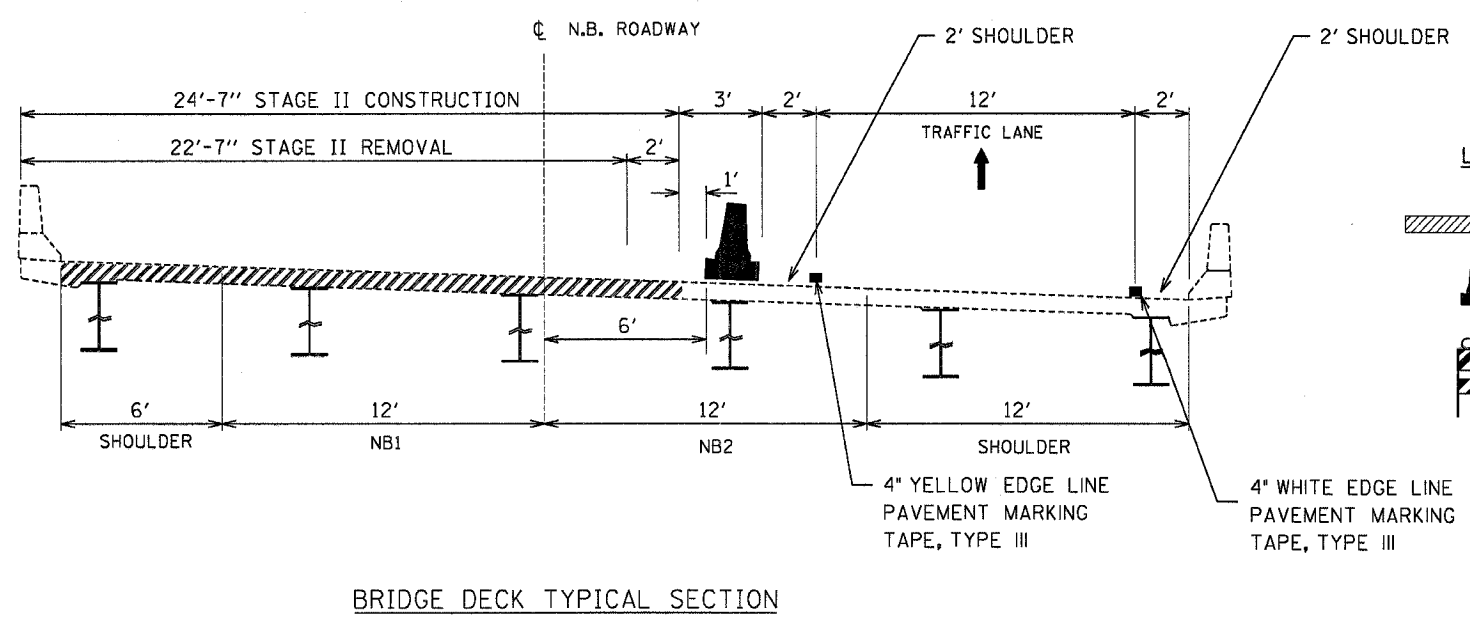
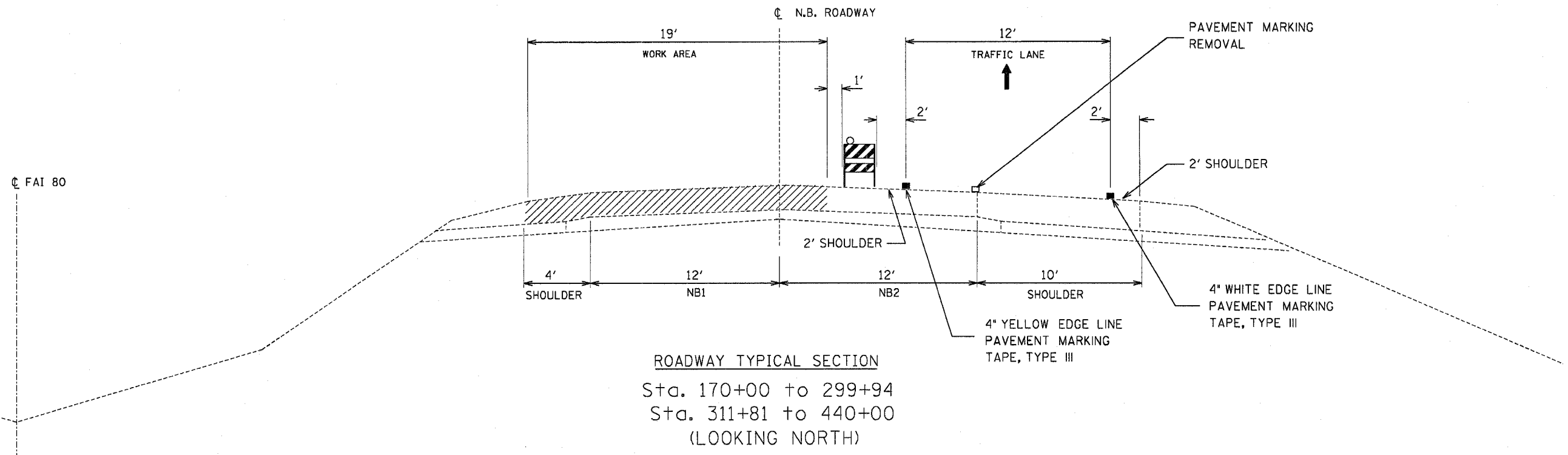
**LEGEND:**

-  WORK AREA
-  TEMPORARY CONCRETE BARRIER
-  TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURNING LIGHT

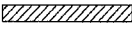


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. ROUTE - 80  
BRIDGE OVER ROCK RIVER  
STRUCTURE NUMBER: 037-0022  
SECTION: (81-37-2BRIM)  
FINGERPLATE JOINT REPLACEMENT  
S.N. 037-0022  
MOT TYPICAL SECTIONS STAGE 1  
SCALE: NTS  
DATE: 12/22/06  
DRAWN BY: LT  
CHECKED BY: RJS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BR)M	HENRY	14	5
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT		



**LEGEND:**

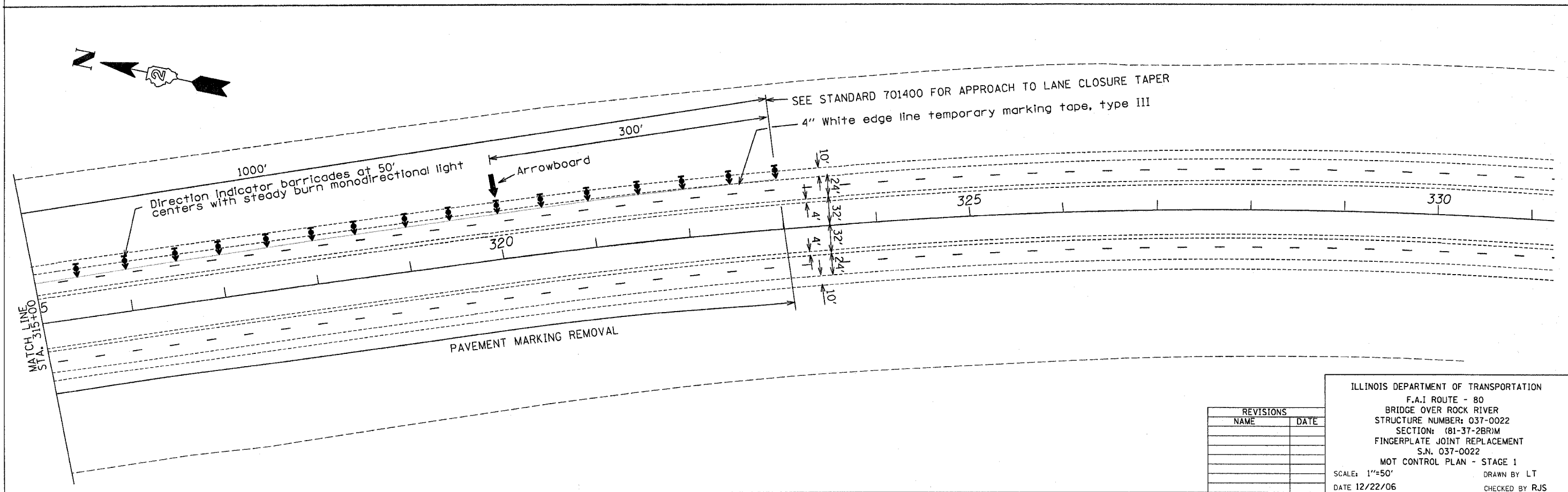
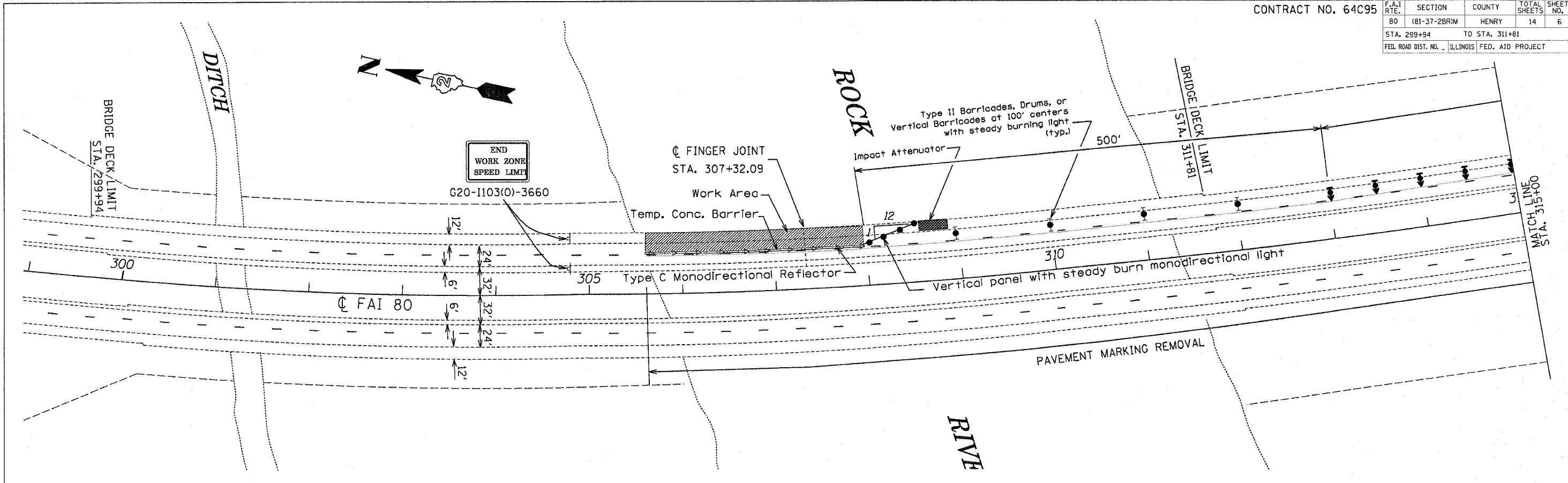
-  WORK AREA
-  TEMPORARY CONCRETE BARRIER
-  TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURNING LIGHT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. ROUTE - 80  
BRIDGE OVER ROCK RIVER  
STRUCTURE NUMBER: 037-0022  
SECTION: (81-37-2BR)M  
FINGERPLATE JOINT REPLACEMENT  
S.N. 037-0022  
MOT TYPICAL SECTIONS STAGE 2  
SCALE: NTS  
DATE: 12/22/06  
DRAWN BY: LT  
CHECKED BY: RJS

CONTRACT NO. 64C95

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	181-37-2BRIM	HENRY	14	6
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



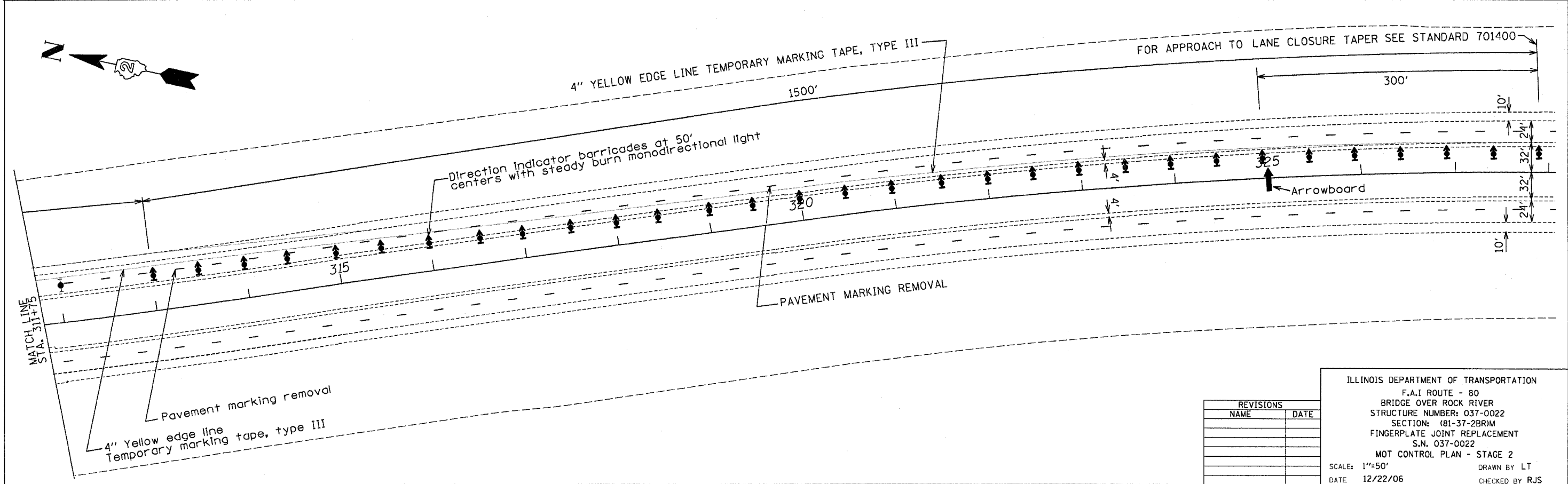
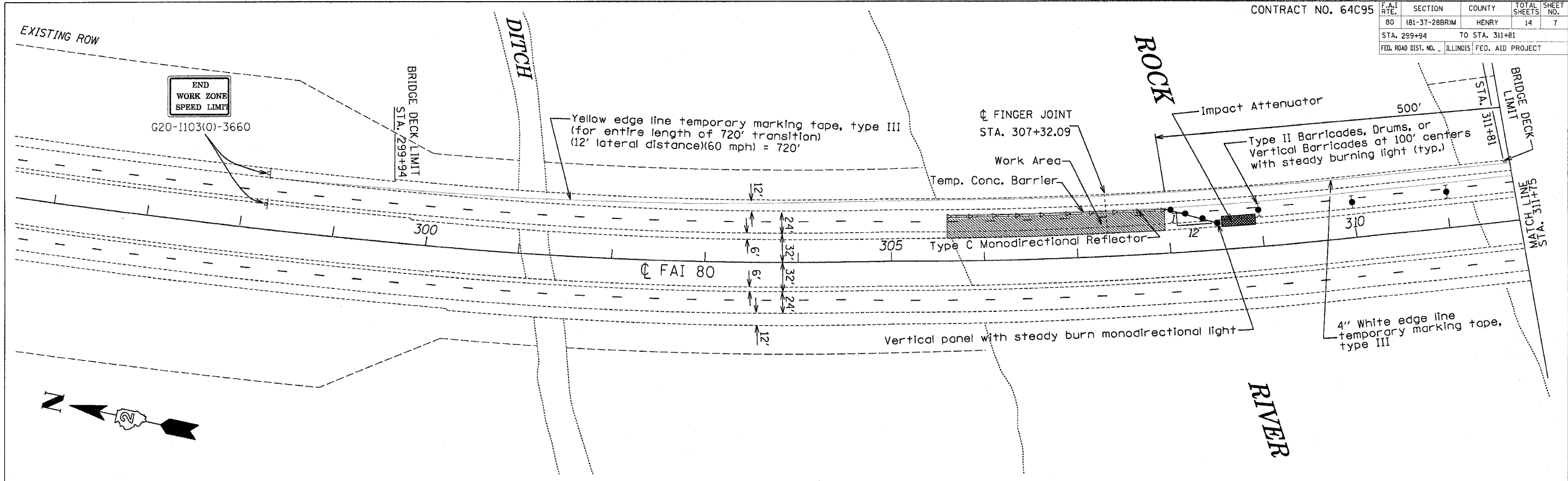
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. ROUTE - 80  
 BRIDGE OVER ROCK RIVER  
 STRUCTURE NUMBER: 037-0022  
 SECTION: 181-37-2BRIM  
 FINGERPLATE JOINT REPLACEMENT  
 S.N. 037-0022  
 MOT CONTROL PLAN - STAGE 1  
 SCALE: 1"=50'  
 DATE 12/22/06  
 DRAWN BY LT  
 CHECKED BY RJS

FILE: H:\Jobs2001\14014-07\CAD\Site\dgn\00\MOTS\tagel.dgn  
 DATE: 17-Oct-06 10:48

CONTRACT NO. 64C95

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-28BRIM)	HENRY	14	7
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



REVISIONS	
NAME	DATE

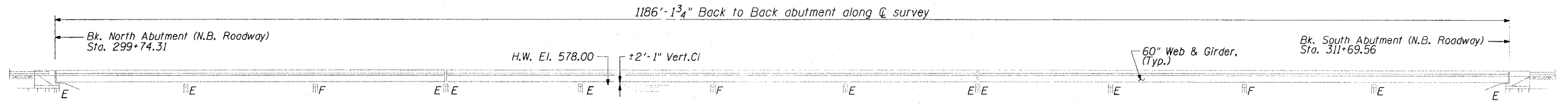
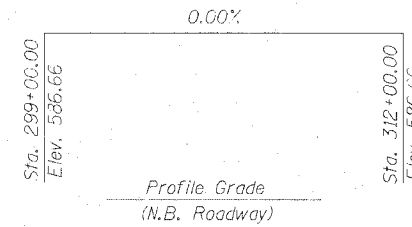
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. ROUTE - 80  
 BRIDGE OVER ROCK RIVER  
 STRUCTURE NUMBER: 037-0022  
 SECTION: (81-37-2BRIM)  
 FINGERPLATE JOINT REPLACEMENT  
 S.N. 037-0022  
 MOT CONTROL PLAN - STAGE 2  
 SCALE: 1"=50'  
 DATE: 12/22/06  
 DRAWN BY: LT  
 CHECKED BY: RJS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BRM)	HENRY	14	8
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

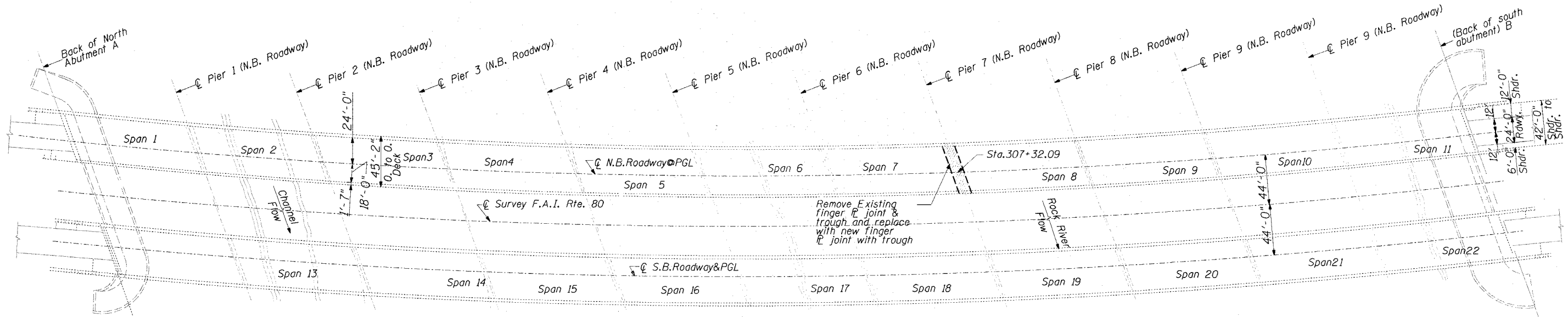
T.B.M. No.3 Chiseled 'a' on N.W. wingwall, north end of S.B. F.A.I. Rte. 80 bridge.  
64" Rt. of Sta. 300+15.00 Elev. 588.15

**Horizontal Curve Data**

☉ Survey F.A.I. Rte.80  
 $\Delta = 17^{\circ}56'10''$  Lt.  
 $D = 1^{\circ}00'00''$   
 $R = 5729.65'$   
 $L = 1793.61'$   
 $T = 904.21'$   
 $E = 70.91'$   
 P.C. Sta. = 294+90.89  
 P.I. Sta. = 303+95.10  
 P.T. Sta. = 312+84.50  
 Super. = 0.034 Ft./Ft.



**ELEVATION**



**PLAN**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	11.6
Concrete Superstructure	Cu. Yd.	11.6
Reinforcement Bars, Epoxy Coated	Pound	940
Mechanical Splice	Each	104
Protective Coat	Sq. Yd.	26
Finger Plate Expansion Joint 6"	Foot	44

**DESIGN STRESSES**

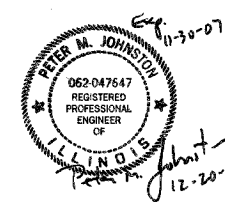
**NEW CONSTRUCTION**

$f'c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $F_y = 50,000$  psi Structural Steel M270 Grade 50

Range 1E, 4th P.M., Range 2E



**LOCATION SKETCH**



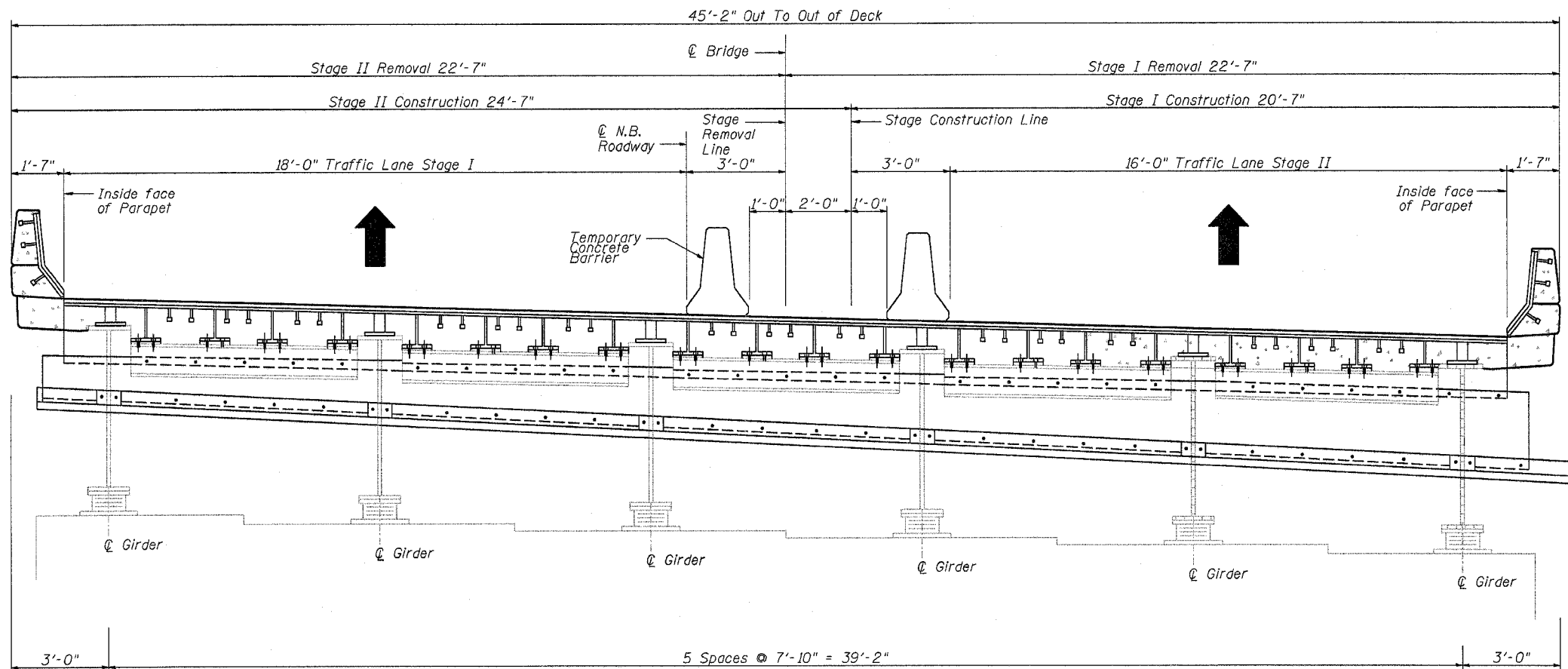
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. ROUTE - 80  
 BRIDGE OVER ROCK RIVER  
 SECTION: (81-37-2BRM)  
 FINGERPLATE JOINT REPLACEMENT  
 S.N. 037-0022  
 GENERAL PLAN AND ELEVATION

SCALE: DATE 12/22/06  
 DRAWN BY BM  
 CHECKED BY KW



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BRIM)	HENRY	14	9
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**STAGE CONSTRUCTION DIAGRAM**  
(Looking North)

**GENERAL NOTES**

All new structural steel shall conform to AASHTO M-270 Gr. 50, unless otherwise noted.

All new fasteners shall be high strength bolts. Holes shall be  $\frac{13}{16}$ " diameter for  $\frac{3}{4}$ " diameter bolts, unless otherwise noted. Holes shall be  $\frac{15}{16}$ " diameter for  $\frac{7}{8}$ " diameter bolts, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions

Finger Plate Expansion Joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

Existing structural steel shall only be cleaned and painted as required by the Special Provisions "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Cost of removal and/or re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included in the cost of **Finger Plate Expansion Joint, 6"**

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with **Finger Plate Expansion Joint, 6"**.

Joint openings shall be adjusted according to Article 520.04 of The Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Reinforcement bars designated (E) shall be epoxy coated.

Provide  $\frac{1}{4}$ " normal shim plus one  $\frac{1}{8}$ ", one  $\frac{1}{16}$ ", and one 1" shim for height adjustment under the stools. 1" thick shims are based on field measurements. Contractor shall field verify existing dimensions before ordering the finger plates. Tapered shims shall be added under the stools as required by the Engineer to make a smooth finger joint. Cost shall be included in the cost of "Finger Plate Expansion Joint 6".

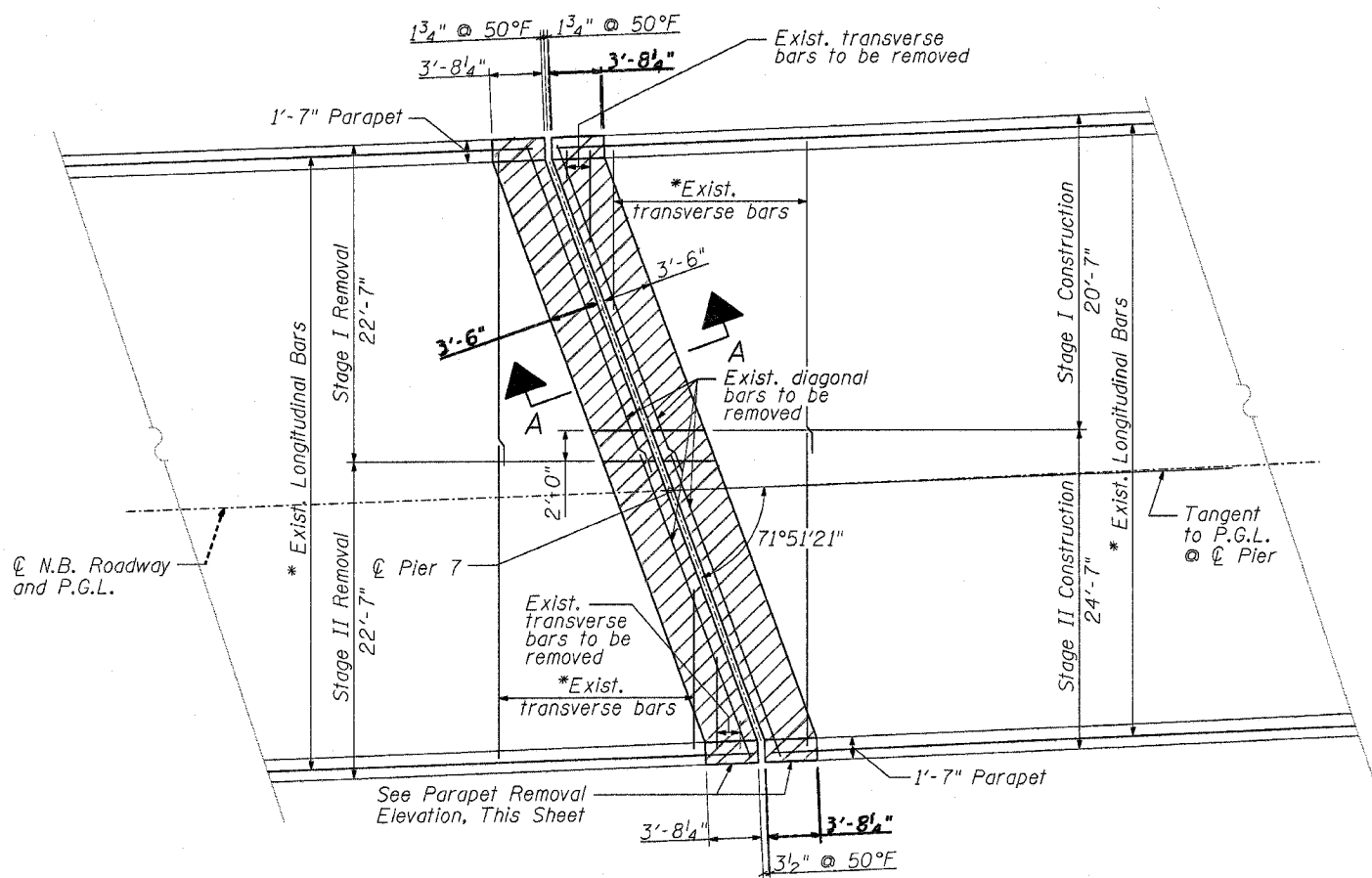
Cost for the fabric reinforced elastomeric trough and all associated hardware shall be included in the cost of "Finger Plate Expansion Joint, 6".

REVISIONS	
NAME	DATE
Rev. 1	1-9-07

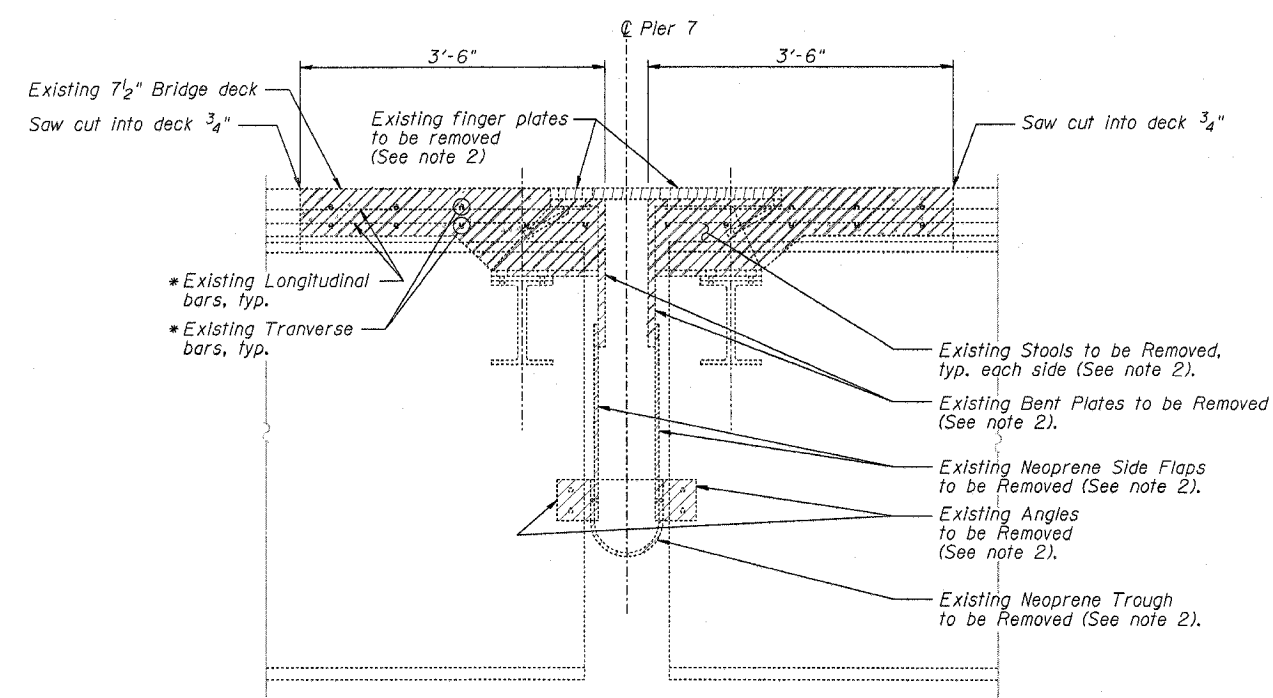
ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. ROUTE - 80  
BRIDGE OVER ROCK RIVER  
SECTION: (81-37-2BRIM)  
FINGERPLATE JOINT REPLACEMENT  
S.N. 037-0022  
CONSTRUCTION STAGING  
AND GENERAL NOTES

SCALE: DRAWN BY BM  
DATE 12/22/06 CHECKED BY KW

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BR)M	HENRY	14	10
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



Concrete Removal Plan



SECTION A-A

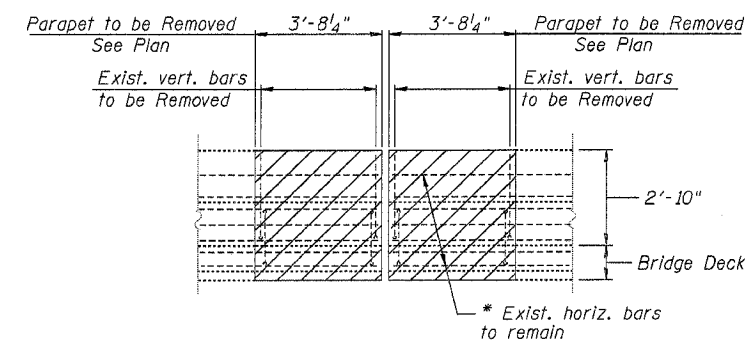
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	11.6

NOTES

- \*Existing reinforcement extending into the removal area shall be cleaned, straightened, cut to fit, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included with "Concrete Removal".
- Cost for Removal of existing finger & joint components shall be included with "Concrete Removal".

= Concrete Removal



PARAPET REMOVAL ELEVATION

(Looking East)

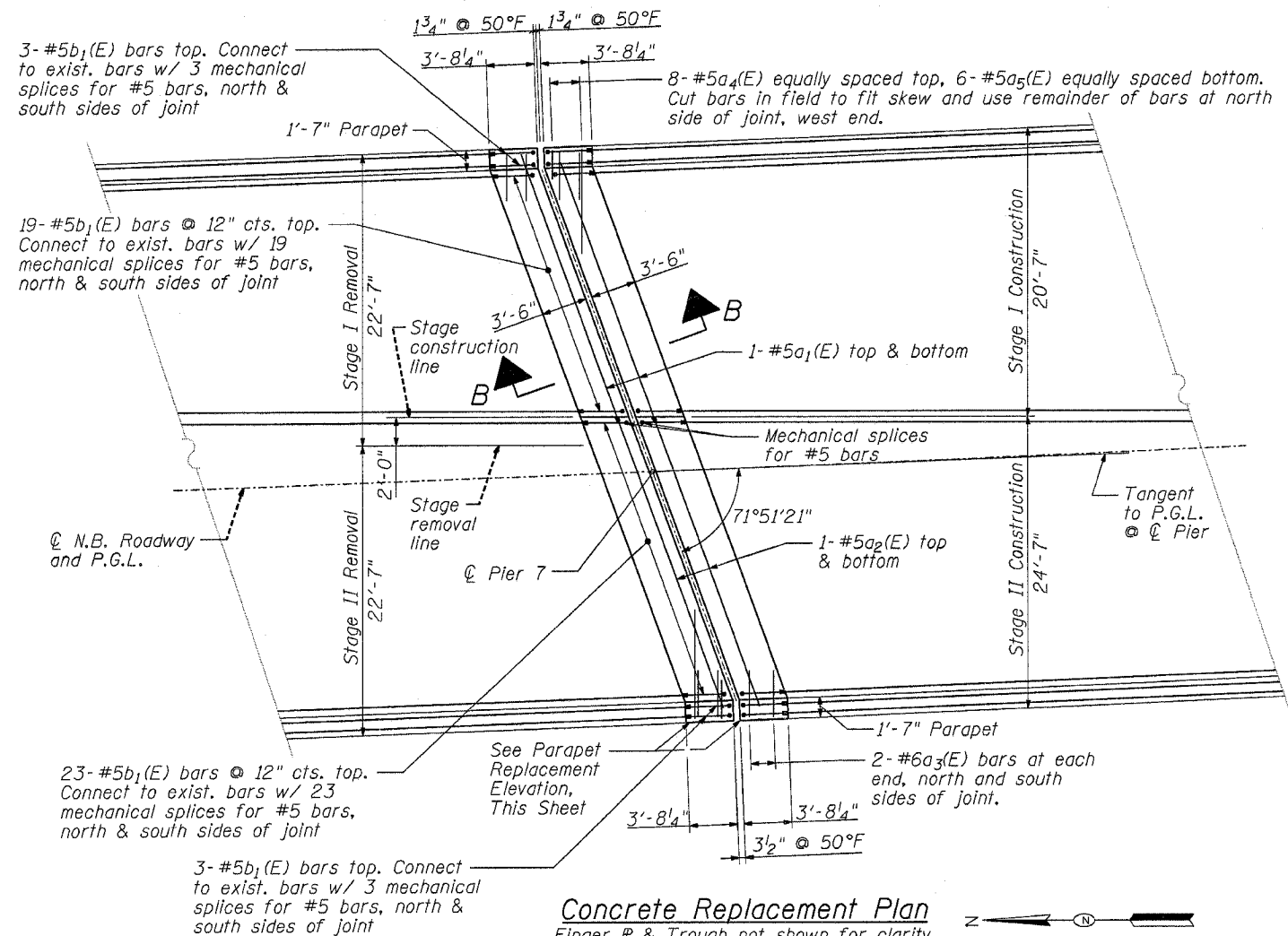
REVISIONS	
NAME	DATE
Rev. 1	1-09-07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. ROUTE - 80  
 BRIDGE OVER ROCK RIVER  
 SECTION: (81-37-2BR)M  
 FINGERPLATE JOINT REPLACEMENT  
 S.N. 037-0022  
 CONCRETE REMOVAL

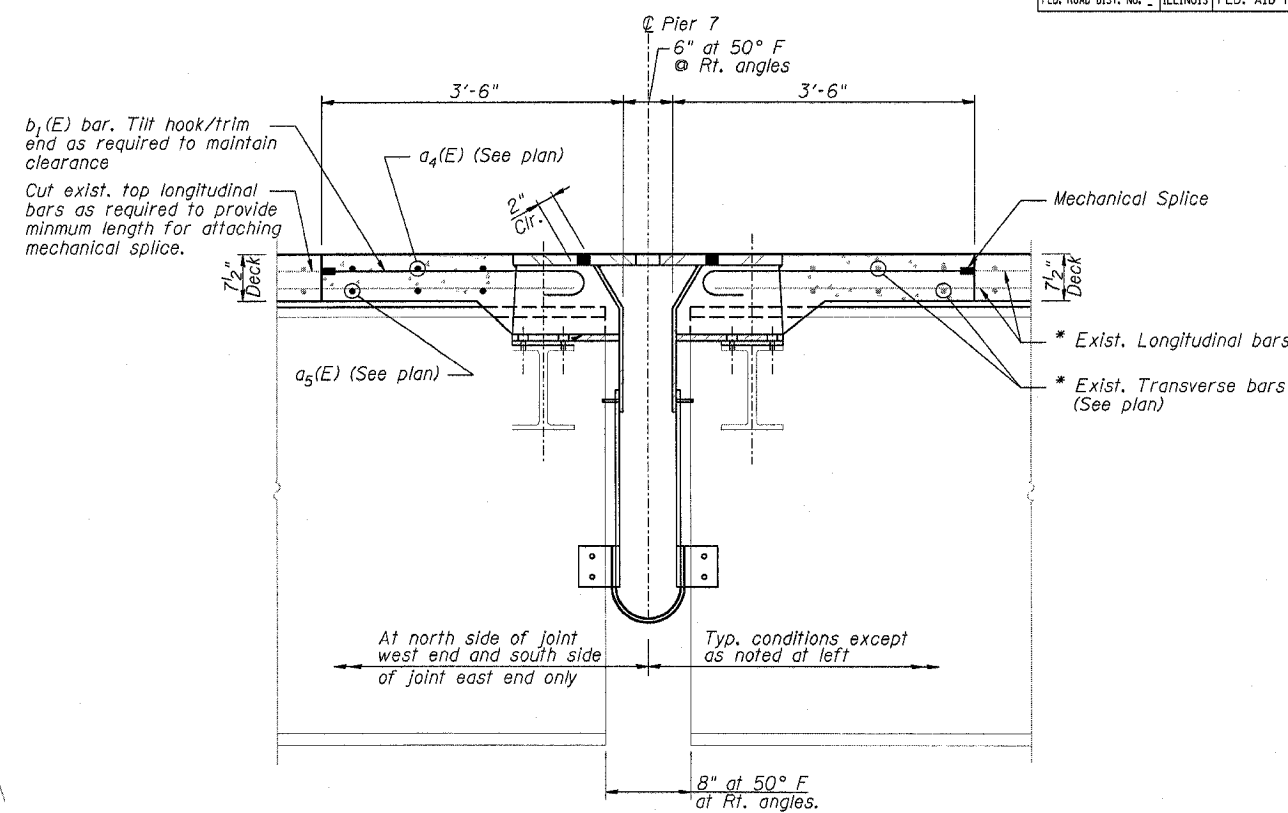
SCALE: DATE 12/22/06  
 DRAWN BY BM  
 CHECKED BY KW

L:\projects\2004\04-07\CAD\Structural\0010\Concrete Removal\_Plan.dgn  
 06/28/06 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BRIM	HENRY	14	11
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



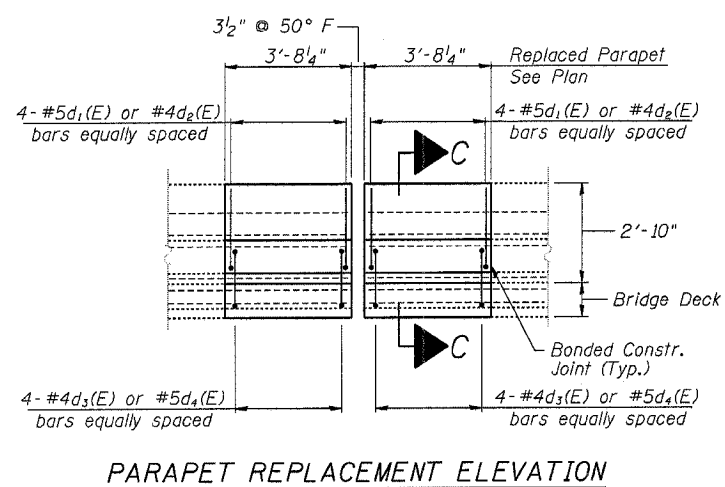
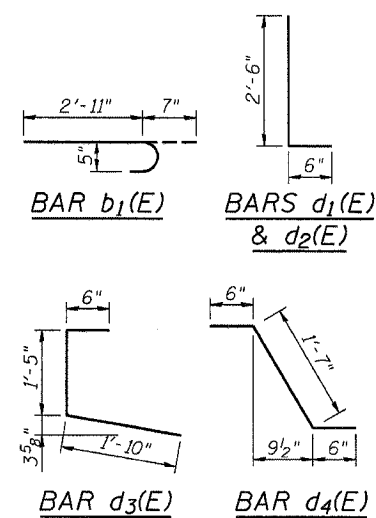
**Concrete Replacement Plan**  
Finger & Trough not shown for clarity



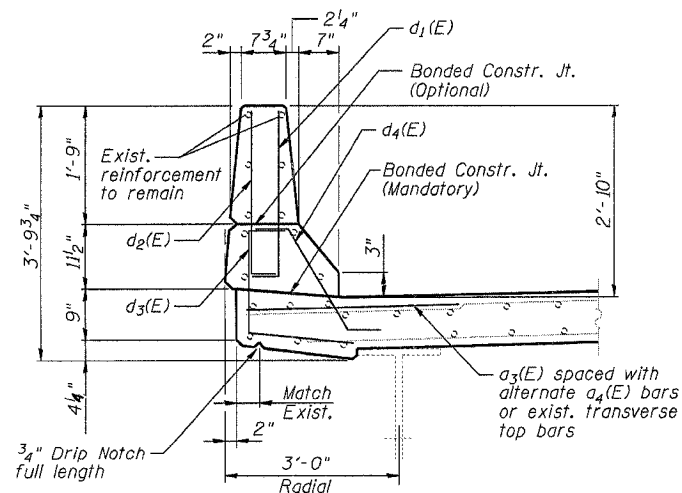
**SECTION B-B**

**BILL OF MATERIAL**

BAR MARK	NO. REQ'D.	SIZE	LENGTH	SHAPE
a <sub>1</sub> (E)	4	#5	22'-1"	—
a <sub>2</sub> (E)	4	#5	22'-4"	—
a <sub>3</sub> (E)	8	#6	4'-6"	—
a <sub>4</sub> (E)	8	#5	12'-8"	—
a <sub>5</sub> (E)	6	#5	12'-8"	—
b <sub>1</sub> (E)	96	#5	3'-6"	U
d <sub>1</sub> (E)	16	#5	3'-0"	┘
d <sub>2</sub> (E)	16	#4	3'-0"	┘
d <sub>3</sub> (E)	16	#4	3'-9"	┘
d <sub>4</sub> (E)	16	#5	2'-7"	┘



**PARAPET REPLACEMENT ELEVATION**



**SECTION C-C**

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Superstructure	Cu. Yd.	11.6
Reinforcement Bars, Epoxy Coated	Pound	940
Mechanical Splice	Each	104
Protective Coat	Sq. Yd.	26

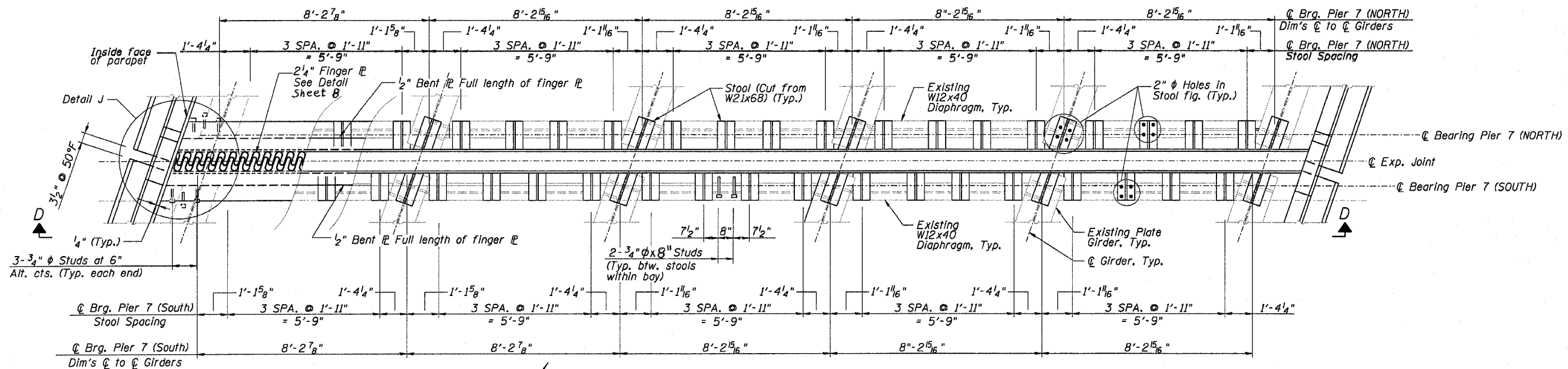
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. ROUTE - 80  
BRIDGE OVER ROCK RIVER  
SECTION: (81-37-2BRIM)  
FINGERPLATE JOINT REPLACEMENT  
S.N. 037-0022  
CONCRETE REPLACEMENT

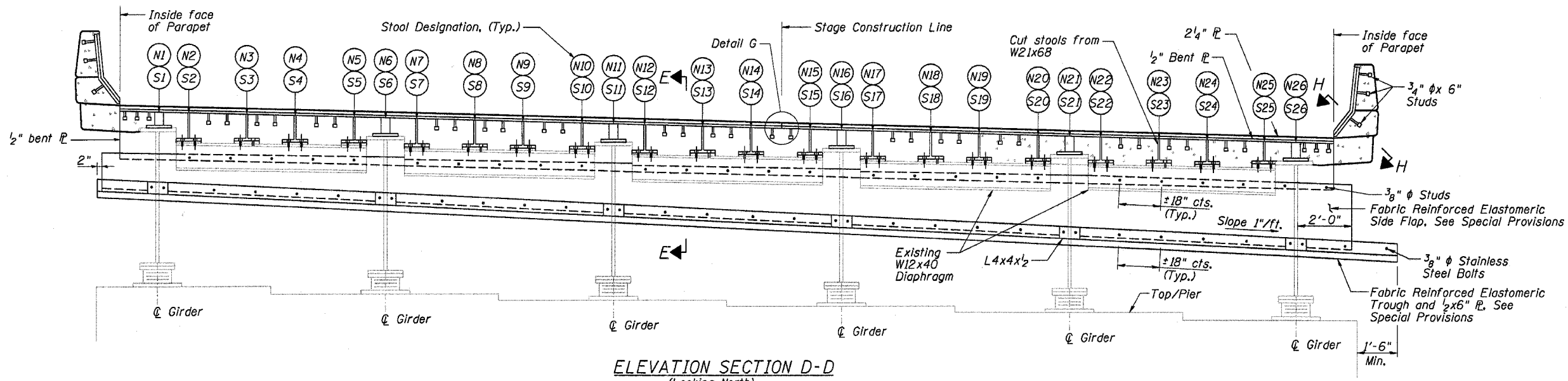
SCALE:  
DATE 12/22/06

DRAWN BY BM  
CHECKED BY KW

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-37-2BRIM)	HENRY	14	12
STA. 299+94		TO STA. 311+81		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PLAN OF FINGER PLATE JOINT AT PIER 7



ELEVATION SECTION D-D (Looking North)

- Notes:**
- See sheet 6 for section E-E, detail G, and detail J
  - See sheet 7 for section H-H
  - For stool elevations and heights, see "Stool Variable Table" on sheet 6.

REVISIONS	
NAME	DATE
Rev. 1	1-9-07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. ROUTE - 80  
 BRIDGE OVER ROCK RIVER  
 SECTION: (81-37-2BRIM)  
 FINGERPLATE JOINT REPLACEMENT  
 S.N. 037-0022  
 JOINT PLAN AND ELEVATION

SCALE: DATE 12/22/06  
 DRAWN BY BM  
 CHECKED BY KW

I:\Projects\64C95\64C95-001\64C95-001-01\CD\Structural\vdan\0012\_01\1-PlanElevation.dgn  
 12/22/2006 09:34:41 PM



