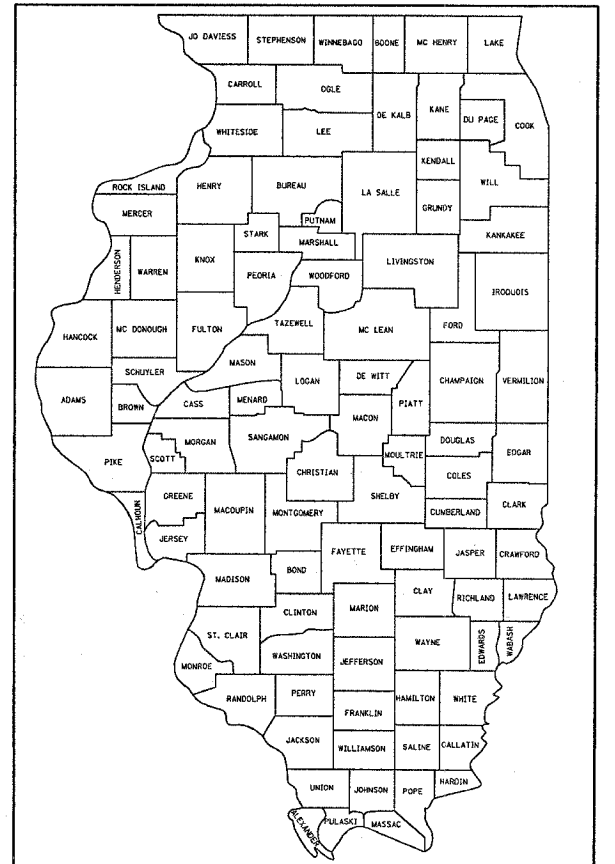


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	••	•••	13	1

• FAI 80 & 74  
 •• (37-5HB-2 & 81-1HB)M  
 ••• Henry & Rock Island Counties

D-92-015-06



LOCATION OF SECTION INDICATED THUS: - ■ -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

**PROPOSED  
 HIGHWAY PLANS**

**FAI 80 (I-80) & FAI 74 (I-74)  
 SECTION (37-5HB-2 & 81-1HB)M  
 HENRY & ROCK ISLAND COUNTIES**

C-92-017-06

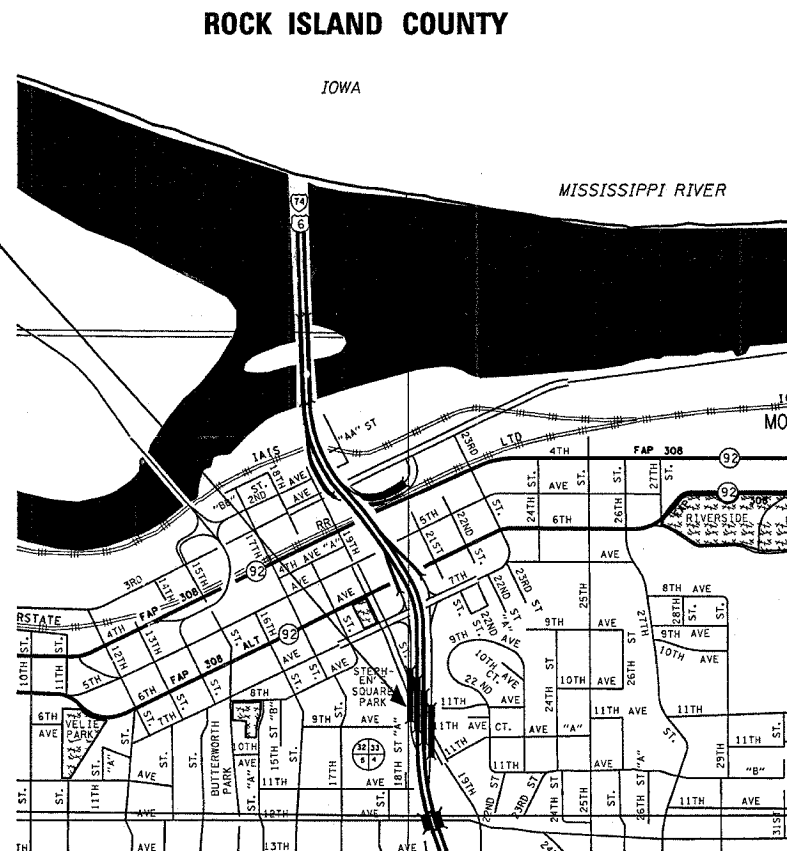
**INDEX OF SHEETS**

1. Cover Sheet, Index of Sheets, Standards
2. Summary of Quantities and General Notes  
Bridge Plans Structure Number 081-0115
3. General Plan and Elevation
4. Substructure Concrete Removal
5. Proposed Abutment and Approach Details  
Bridge Plans Structure Number 037-0116
6. General Plan and Elevation
7. Deck Plan and Details
8. Abutment Details
9. Existing Bearing Removal
10. Elastomeric Bearings South Abutment
11. Elastomeric Bearings North Abutment
12. Anchor Bolts
13. TRAFFIC CONTROL FOR ROAD CLOSURE

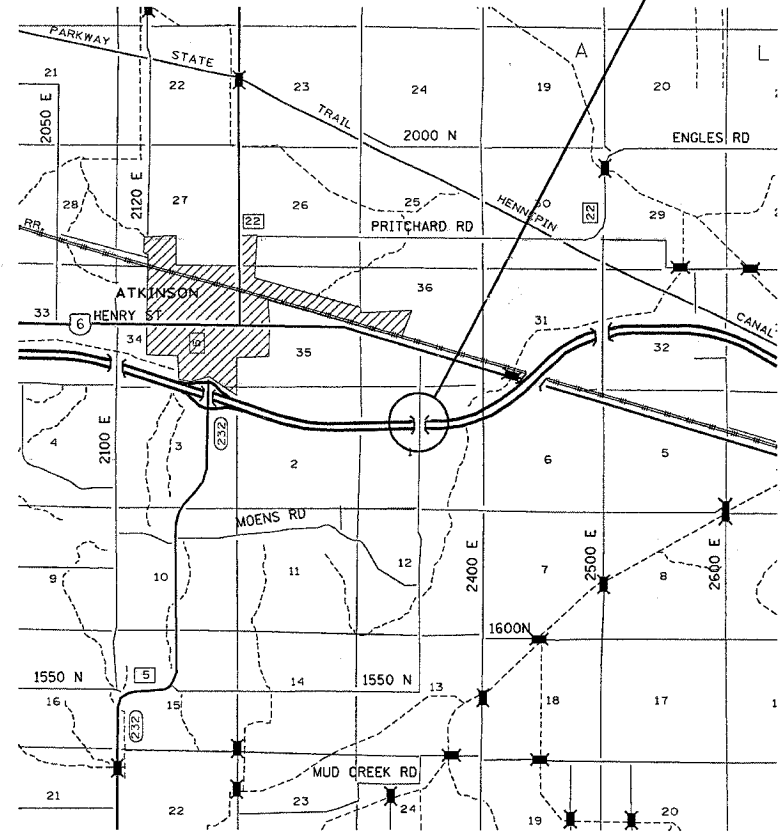
**STANDARDS**

District Standard 40.1

Project Location  
 Structure No. 081-0115



Project Location  
 Structure No. 037-0116  
 HENRY COUNTY



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

CONTRACT NO. 64B94

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED MARCH 21 2006  
Gregory L. Mountain  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
May 12, 2006  
Mike Hene  
 ENGINEER OF DESIGN AND ENVIRONMENT  
May 12, 2006  
William P. Sewe P.E.  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
 OF THE STATE OF ILLINOIS**

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	13	2
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

# SUMMARY OF QUANTITIES

# GENERAL NOTES

Paycode	Abbreviation	Units	Total Quantity	Structure No. 037-0116	Structure No. 081-0115
			100% State	HENRY CO.	ROCKISLAND CO.
			SFTY-2A		URBAN
2070220	POROUS GRANULAR EMBANKMENT	CU YD	20	20	
2070400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	54		54
50102400	CONCRETE REMOVAL	CU YD	16	3.2	12.8
5020100	STRUCTURE EXCAVATION	CU YD	74	20	54
50300130	PREFORMED JOINT SEAL 4"	FOOT	32		32
5030225	CONCRETE STRUCTURES	CU YD	12.9	2.7	10.2
5030255	CONCRETE SUPERSTRUCTURE	CU YD	0.5	0.5	
5030320	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	10	10	
5050405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1970	1550	420
5050715	JACK AND REMOVE EXISTING BEARINGS	EACH	10	10	
5080205	REINFORCEMENT BARS, EPOXY COATED	POUND	990	240	750
5910100	GEOCOMPOSITE WALL DRAIN	SQ YD	32		32
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	54	20	34
60611600	COMBINATION CONCRETE CURB AND GUTTER; (SPECIAL)	FOOT	40		40
6710100	MOBILIZATION	L SUM	1	0.5	0.5
X0301424	SILICONE JOINT SEALER	FOOT	31		31
Z001500	APPROACH SLAB REMOVAL & REPLACEMENT	SQ YD	54		54
X7013015	TRAFFIC CONTROL FOR ROAD CLOSURE	L SUM	1	0.5	0.5

The final top 100 mm (four inches) of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2<sup>3</sup>/<sub>2</sub> deep) of soil profiles of local soils.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 6 (modified) shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1 (modified). Class 6 (modified) shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches. This work will be included in the contract unit price per Cubic Yard for STRUCTURE EXCAVATION.

Fertilizer shall be applied to all disturbed areas and incorporated into the seedbed prior to seeding or placement of sod at the rate specified in Sections 250 and 252 of the Standard Specifications. This work shall be included in the cost of EARTH EXCAVATION.

Mulch Method II shall be applied over all seeded areas. This shall be included in the cost of the STRUCTURE EXCAVATION.

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 JULIE number is 800 892 0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

**HENRY COUNTY LOCATION**

Geneseo Telephone Company  
 Ameren IP  
 Mediacom

**ROCK ISLAND COUNTY LOCATION**

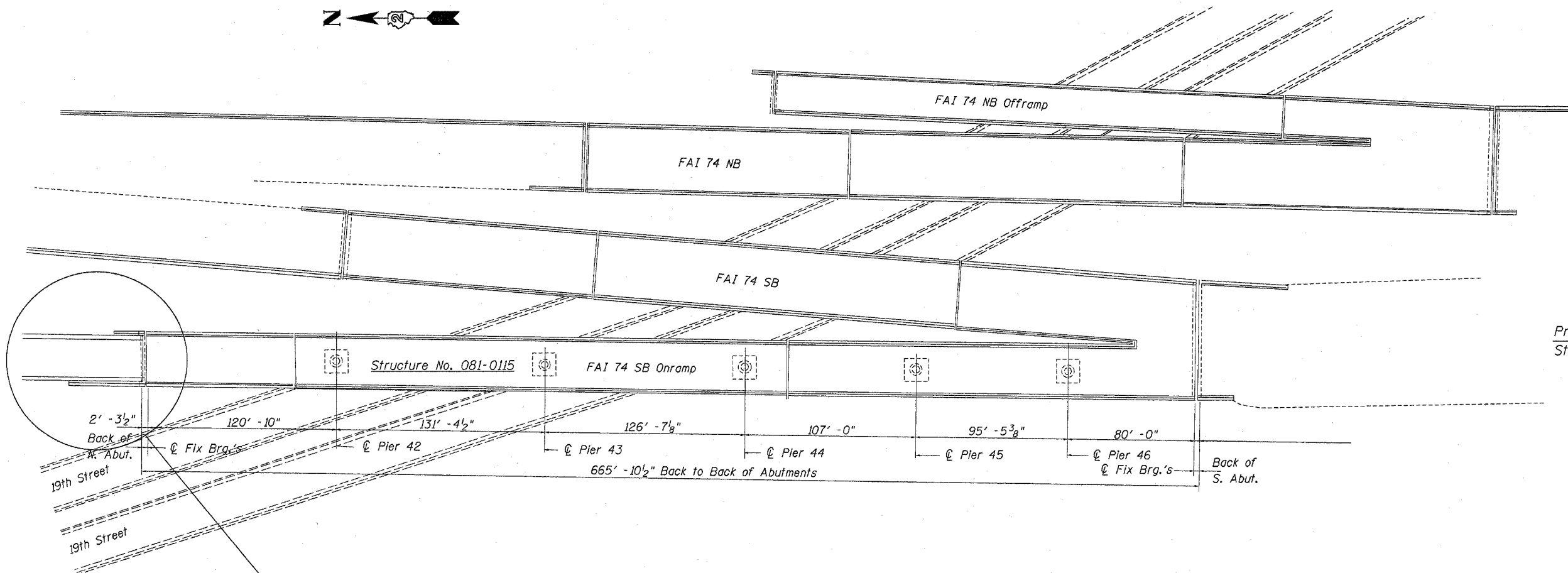
SBC/Ameritech Telephone Co  
 MidAmerican Energy  
 McLeod USA  
 City of Moline  
 Kone, Inc

Summary of Quantities & General Notes  
 FAI Route 80 (I-80) & FAI Route 74 (I-74)  
 Section (37-5-2 & 81-1HB)M  
 Henry & Rock Island Counties  
 Structure No.'s 037-0116 & 081-0115

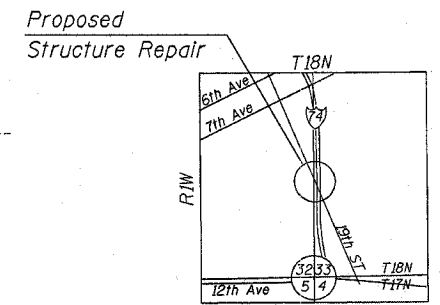
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	••	•••	13	3
STA. _____ TO STA. _____				
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties

Sheet 1 of 3



Plan

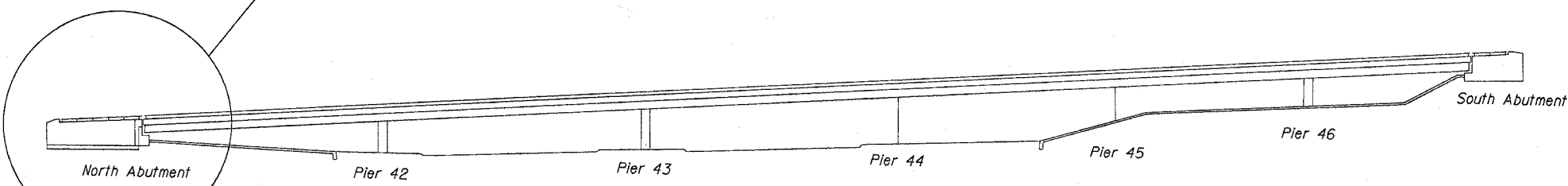


Location Plan

Location of Repairs

Total Bill of Materials

ITEM	UNIT	QUANTITY
Concrete Removal	Cu Yd	12.8
Approach Slab Removal & Replacement	Sq Yd	54
Concrete Structures	Cu Yd	10.2
Combination Concrete Curb and Gutter (Special)	Foot	40
Structural Steel	Pound	420
Reinforcement Bars (Epoxy Coated)	Pound	750
Structure Excavation	Cu Yd	54
Porous Granular Embankment (Special)	Cu Yd	54
Pipe Underdrains for Structures	Foot	34
Silicone Joint Sealer	Foot	31
Preformed Joint Sealer 4"	Foot	32
Geocomposite Wall Drain	Sq Yd	32



Elevation

General Notes

All structural steel shall be AASHTO M 270 Grade 36.

Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost Included with Furnish & Erect Structural Steel.

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

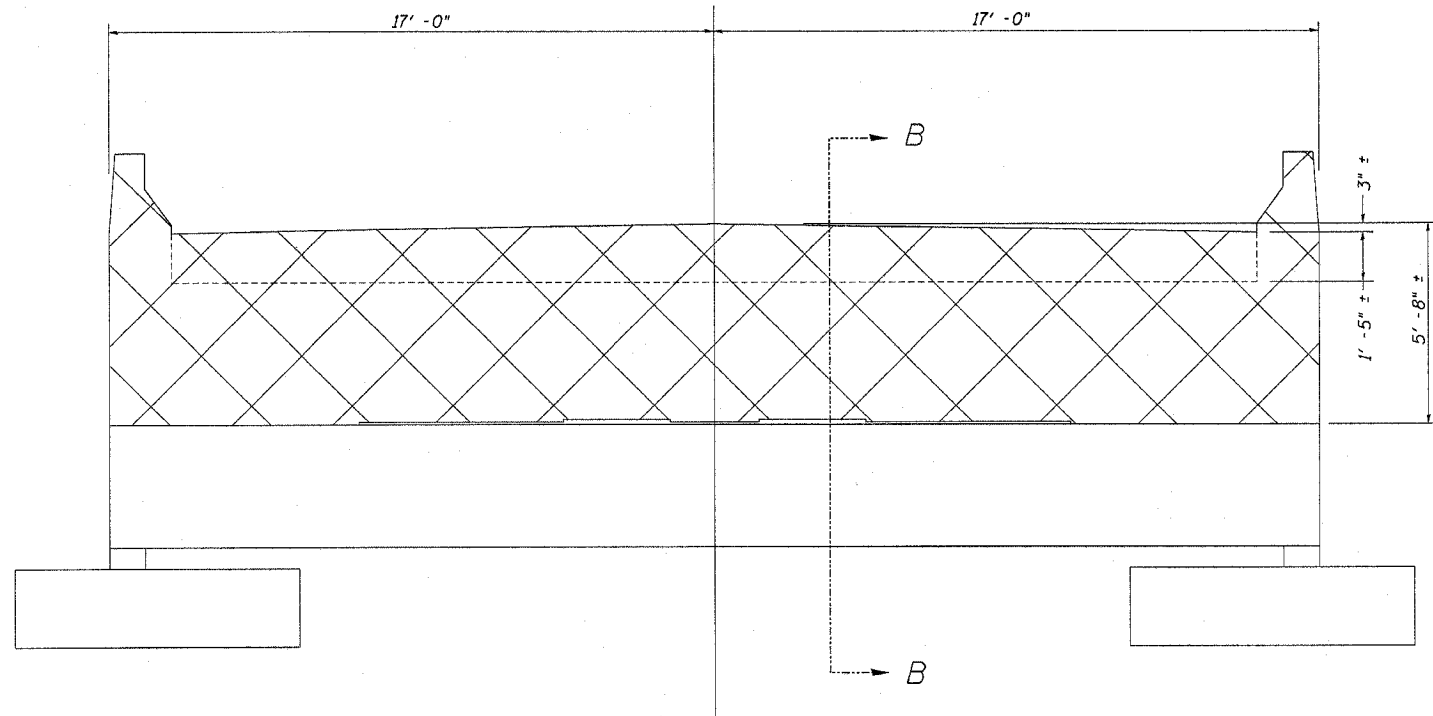
All construction joints shall be bonded.

Plan dimensions and details relative to existing structure 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

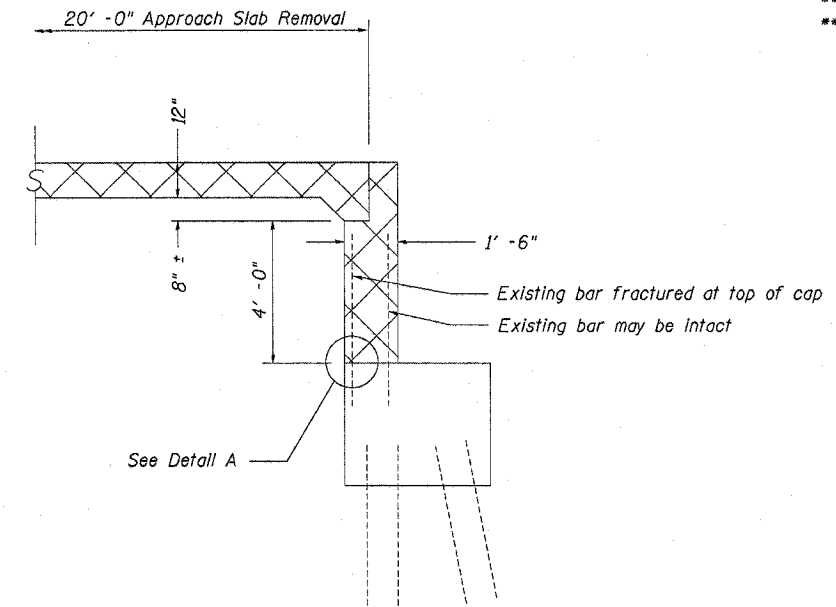
General Plan & Elevation  
 FAI Route 74 Section (81-1HB)M  
 Rock Island County  
 Structure No. 081-0115  
 I-74 SB Onramp over 19th Street  
 in Moline

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	13	4
STA. _____ TO STA. _____		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties



Elevation-North Abutment  
 Showing Removal



Existing Section B-B

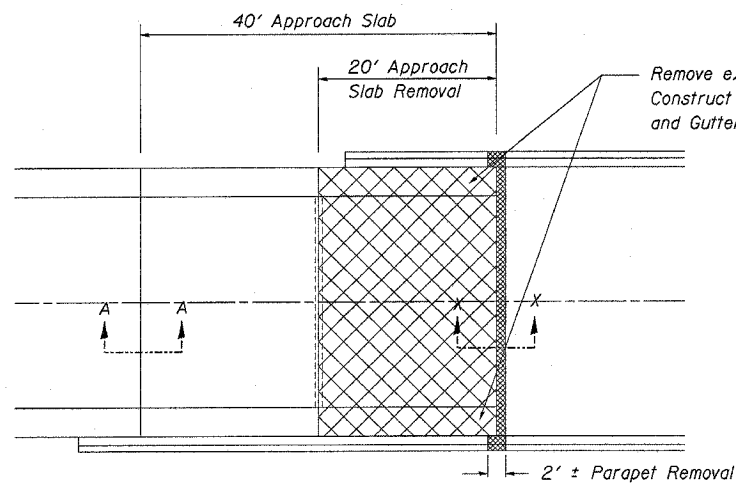
Bill of Material (Substructure)

BAR	NO.	SIZE	LENGTH	SHAPE
h <sub>10</sub> (e)	10	4	3' - 2"	—
h <sub>21</sub> (e)	10	4	1' - 9"	—
h <sub>37</sub> (e)	11	5	15' - 0"	—
h <sub>42</sub> (e)	11	5	20' - 0"	—
s <sub>2</sub> (e)	2	4	5' - 9"	□
s <sub>3</sub> (e)	2	4	7' - 3"	□
v (e)	31	4	5' - 4"	—
v <sub>54</sub> (e)	6	4	3' - 9"	—
v <sub>56</sub> (e)	31	4	4' - 10"	—
v <sub>57</sub> (e)	6	5	6' - 8"	—
v <sub>59</sub> (e)	6	4	2' - 9"	—
v <sub>65</sub> (e)	6	4	8' - 10"	—

Concrete Removal	Cu Yd	12.8
Approach Slab Removal & Replacement	Sq Yd	54
Concrete Structures	Cu Yd	10.2
Combination Concrete Curb and Gutter (Special)	Foot	40
Structural Steel	Pound	420
Reinforcement Bars (Epoxy Coated)	Pound	750
Structure Excavation	Cu Yd	54
Porous Granular Embankment (Special)	Cu Yd	54
Pipe Underdrains for Structures	Foot	34
Silicone Joint Sealer	Foot	31
Preformed Joint Sealer 4"	Foot	32

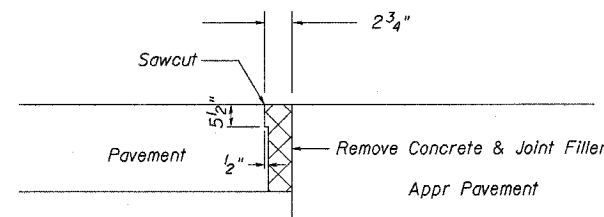
\* Drill & Grout bars 12" deep

Substructure Concrete Removal  
 FAI Route 74 Section (81-1HB)M  
 Rock Island County  
 Structure No. 081-0115  
 I-74 SB Onramp over 19th Street  
 in Moline



Plan - North Approach

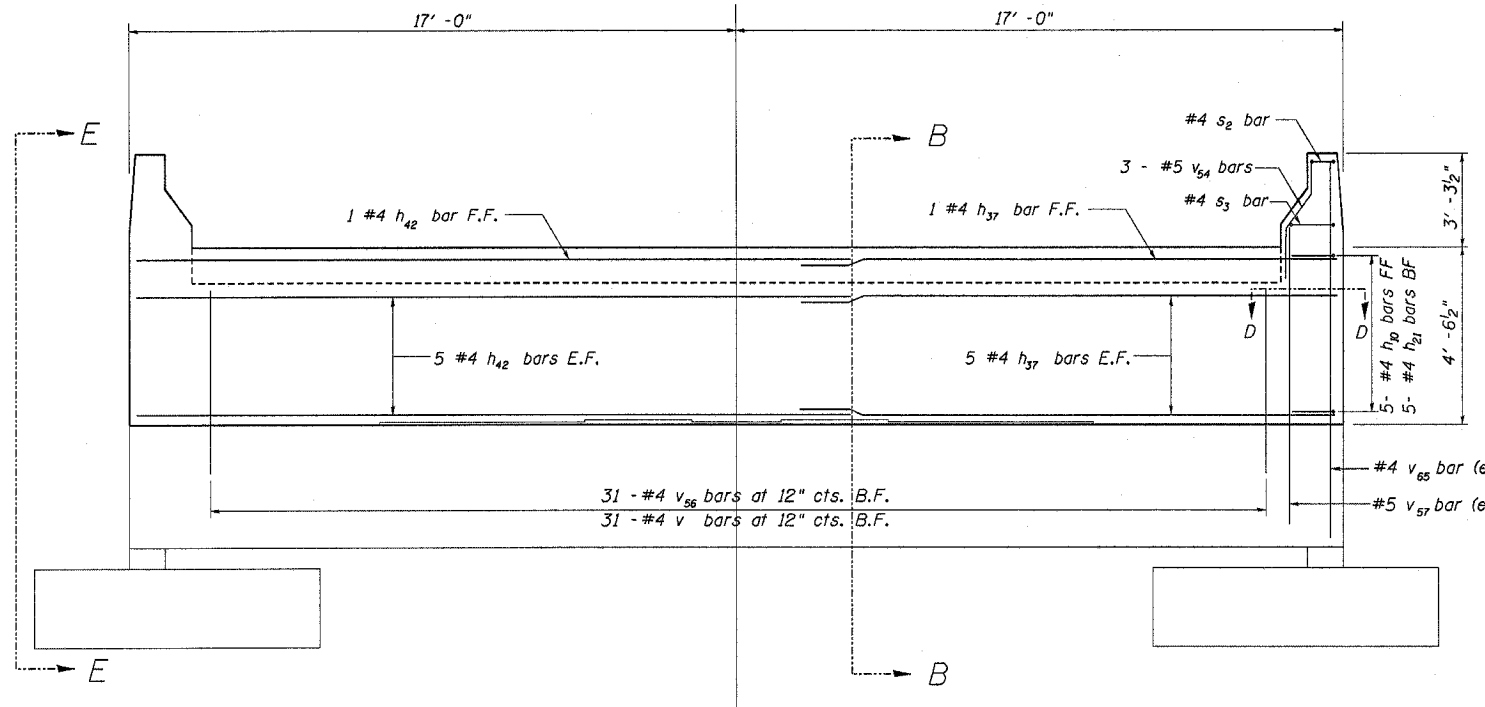
For Section X-X, See sheet 3 of 3 sheets.



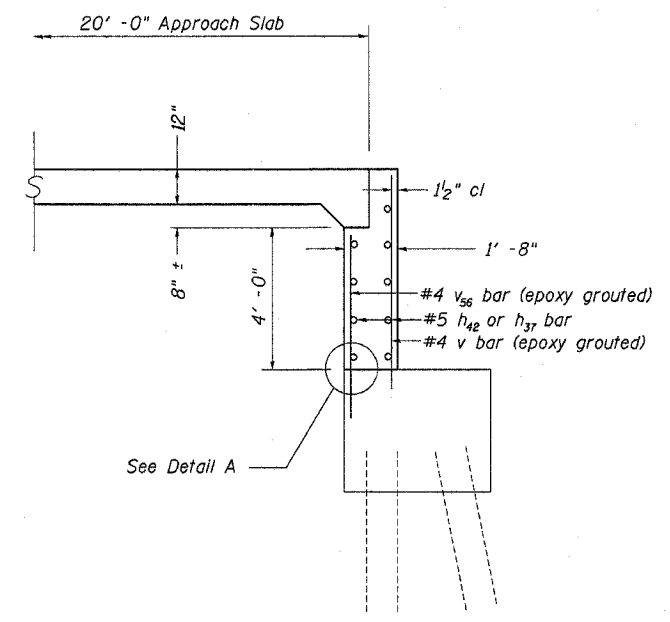
Existing Section A-A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	13	5
STA. _____ TO STA. _____				
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

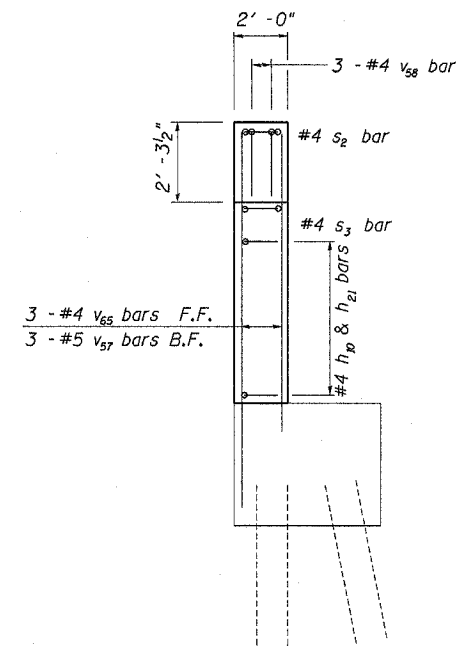
\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties



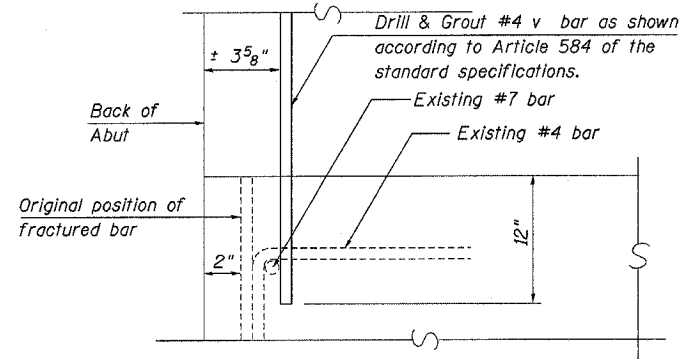
Proposed Elevation-North Abutment



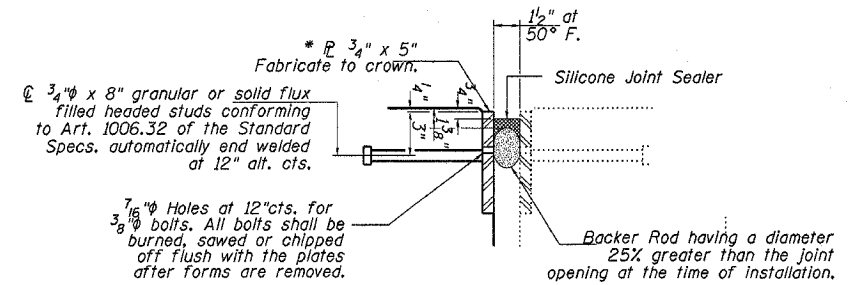
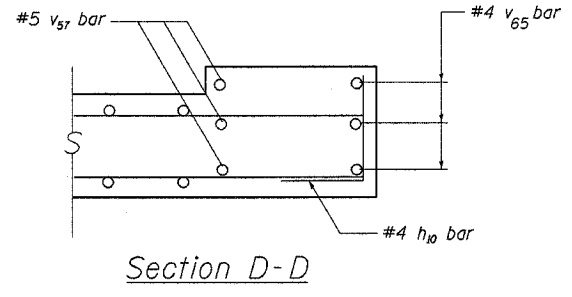
Proposed Section B-B



Proposed Section E-E

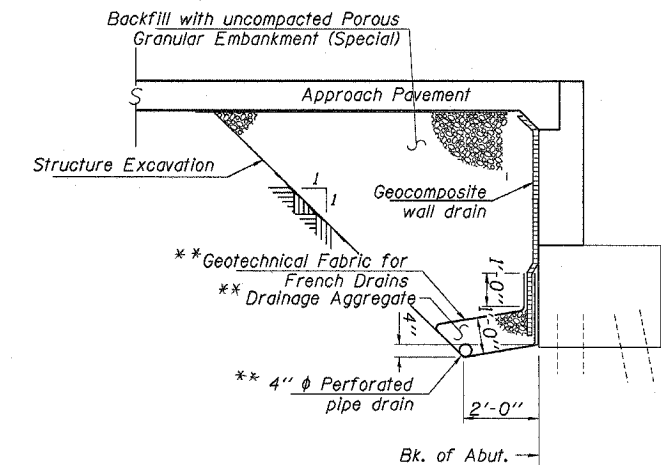


Detail A



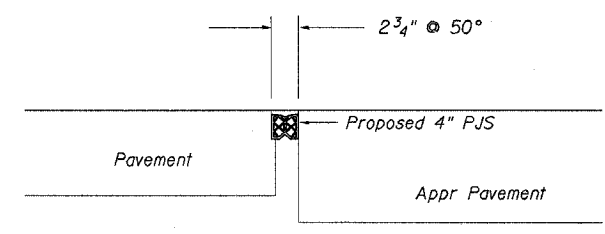
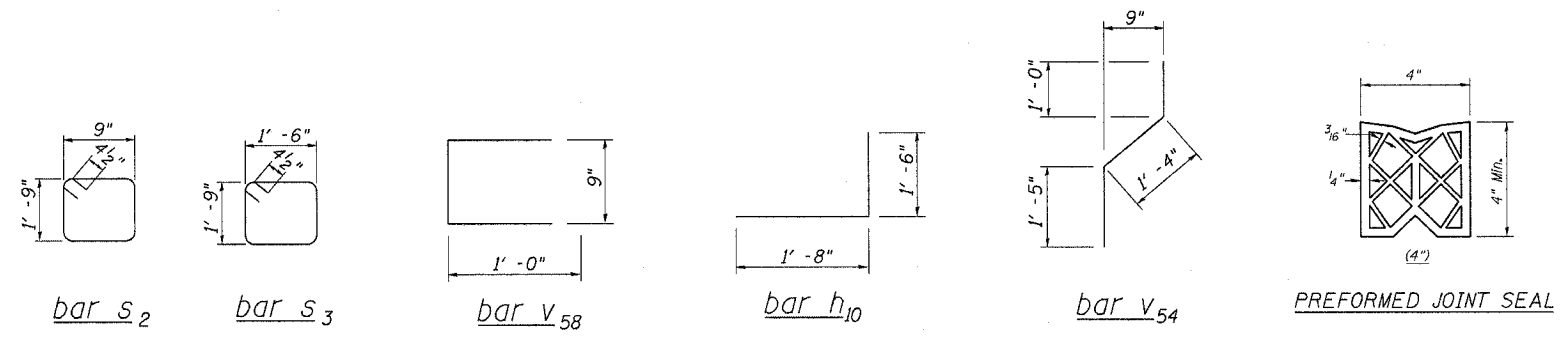
Section X-X

\* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel. After fabrication, all surfaces of the steel shall be given one shop coat of paint specified for structural steel. No field painting required.



SECTION THRU ABUTMENT (Horiz. dim. @ Rt. L's)

\*\* Included in the cost of Pipe Underdrains for Structures.

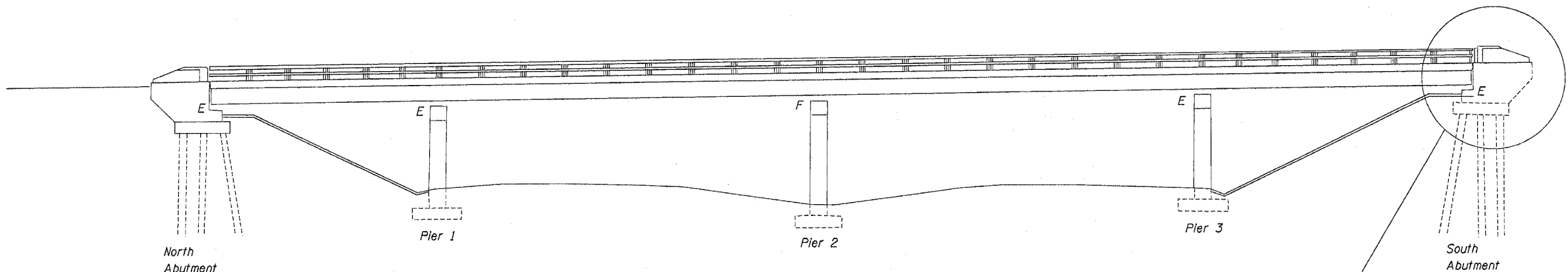


Proposed Section A-A

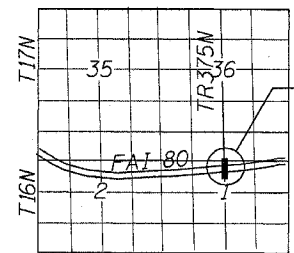
Proposed Abutment and Approach Details  
 FAI Route 74 Section (81-1HB)M  
 Rock Island County  
 Structure No. 081-0115  
 I-74 SB Onramp over 19th Street  
 in Moline

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
..	..	...	13	6
STA. ....		TO STA. ....		
FED. ROAD DIST. NO. ...		ILLINOIS FED. AID PROJECT		

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties

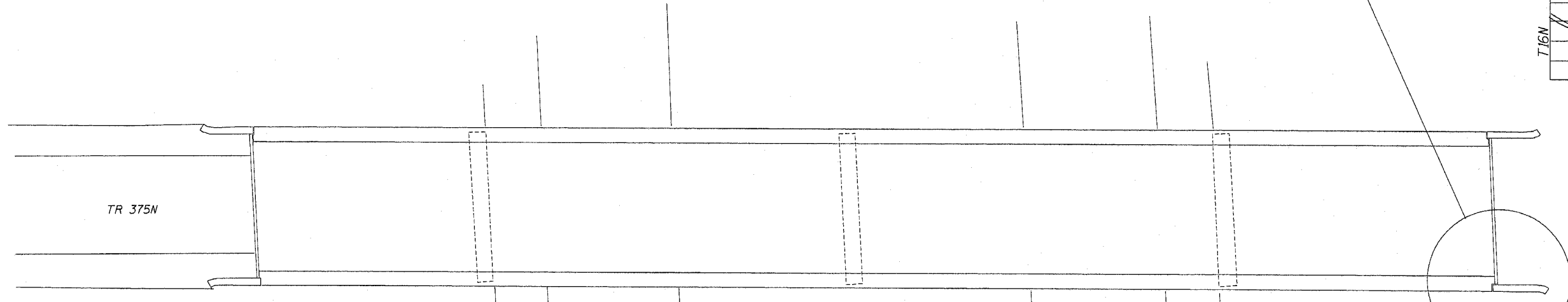


Elevation



Proposed Structure Repair

R4E Location Sketch



Plan

General Notes:

All structural steel shall be AASHTO M 270 Grade 36.

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

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

All construction joints shall be bonded.

Backfill shall be placed behind the abutment after the superstructure has been poured and the falsework removed. See Article 502.10 of the Standard Specifications.

Plan dimensions and details relative to existing structure 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

Total Bill of Materials

ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu Yd	20
Structure Excavation	Cu Yd	20
Concrete Removal	Cu Yd	3.2
Concrete Structures	Cu Yd	2.7
Concrete Superstructure	Cu Yd	0.5
Elastomeric Brg Assembly TY	Ea	10
Jack & Remove Existing Bearings	Ea	10
F & E Structural Steel	Pound	1550
Reinforcement Bars (Epoxy Coated)	Lbs	240
Pipe Underdrains for Structures	Foot	20

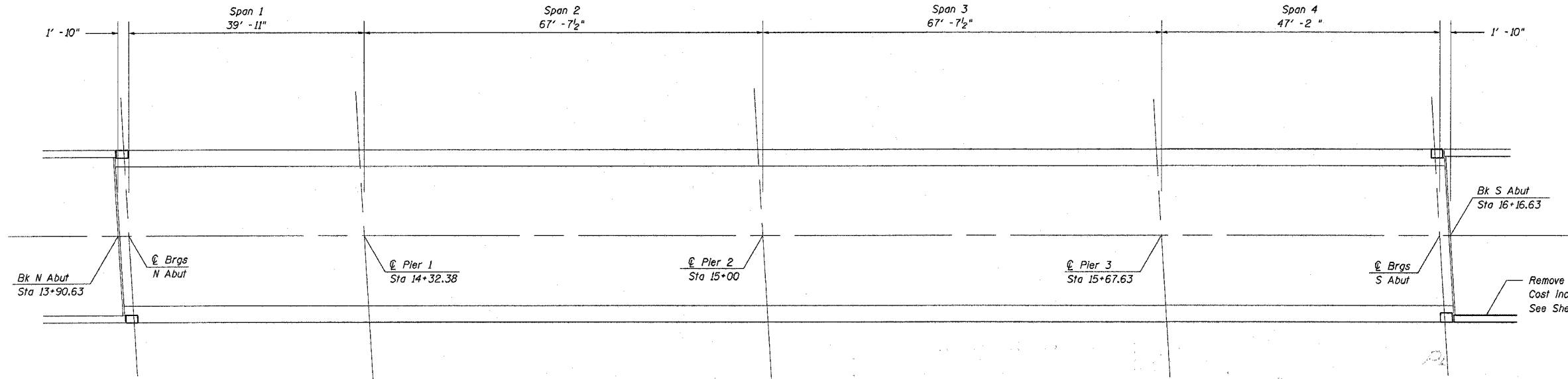
General Plan & Elevation  
 FAI Route 80 Section (37-5HB-2)M  
 Henry County  
 Structure No. 037-0116  
 TR 375N over Interstate 80

PLOT DATE = Tue Mar 21 15:09:47 2006  
 FILE NAME = D:\Users\valens\Henry County\0370116\081015.dgn  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = jlmj

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-IHB)M  
 \*\*\* Henry & Rock Island Counties

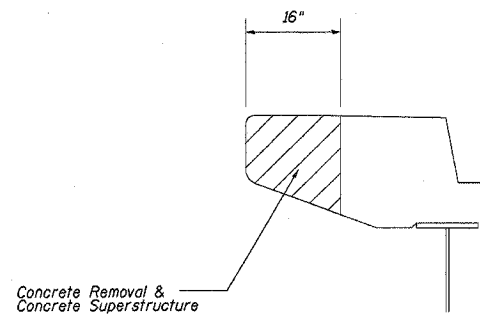
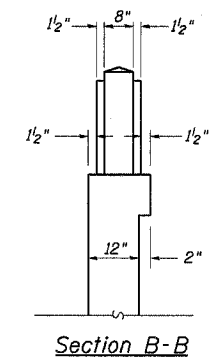
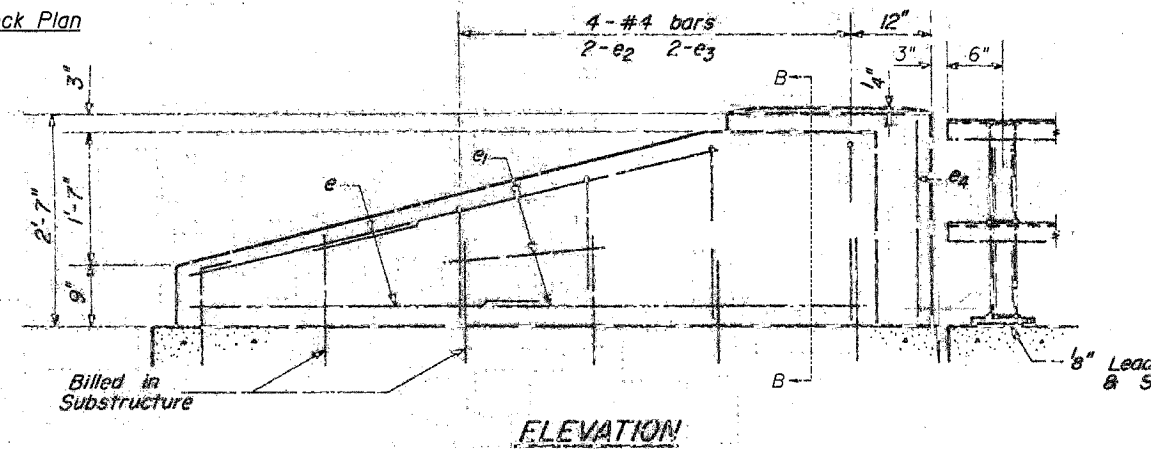
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	13	7

STA. \_\_\_\_\_ TO STA. \_\_\_\_\_  
 FED. ROAD DIST. NO. \_\_\_\_\_ ILLINOIS FED. AID PROJECT



Remove guardrail and re-attach to reconstructed wingwall.  
 Cost Included In Concrete Structures.  
 See Sheet 3 of 5 for details.

Deck Plan

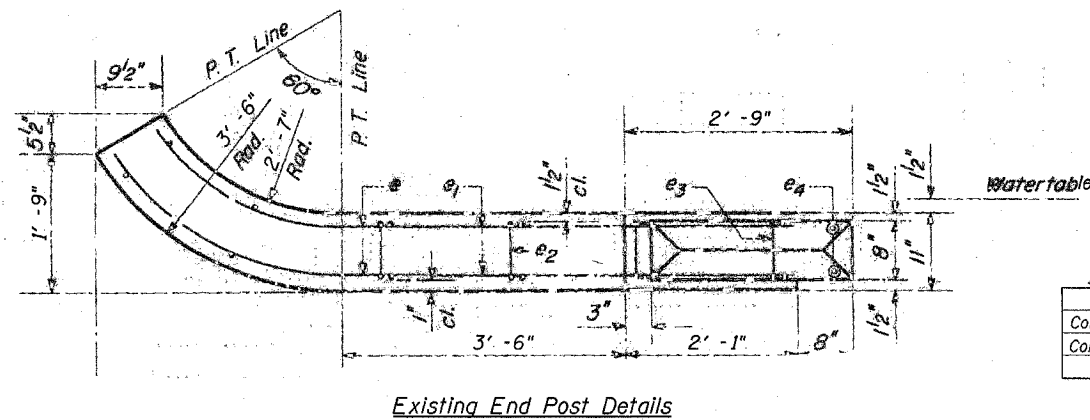


Section A-A

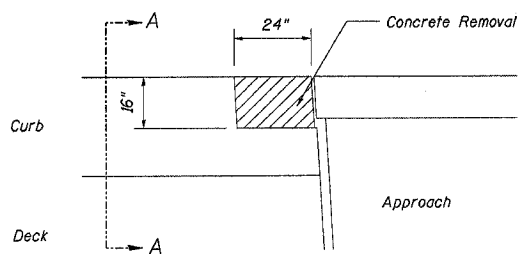
ELEVATION

Bill of Material (Deck)

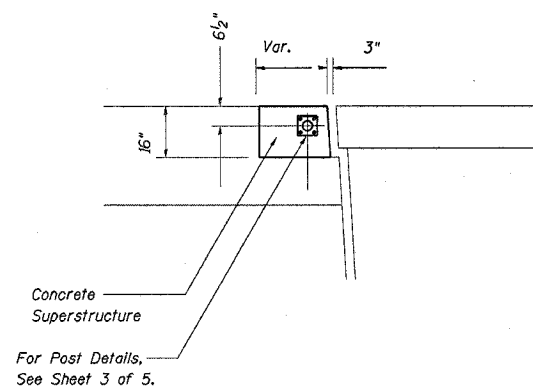
ITEM	UNIT	QUANTITY
Concrete Removal	Cu Yd	0.5
Concrete Superstructure	Cu Yd	0.5



Existing End Post Details



End of Deck Detail  
 (4 Locations)

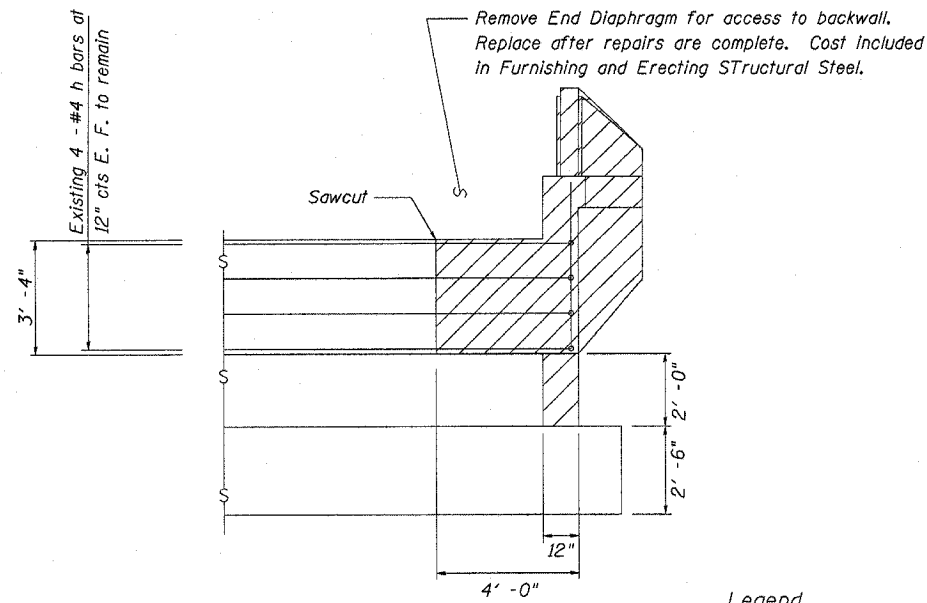


NOTE: EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREAS SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

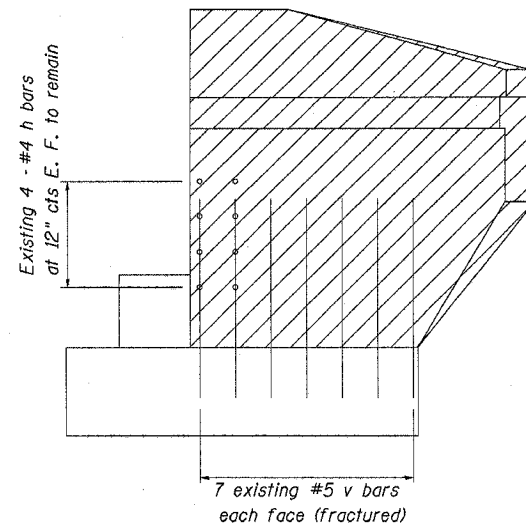
Deck Plan & Details  
 FAI Route 80 Section (37-5HB-2)M  
 Henry County  
 Structure No. 037-0116  
 TR 375N over Interstate 80

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2	Henry	13	8
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

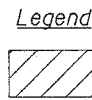
FAI 80 & 74  
 (37-5HB-2 & 81-1HB)M  
 Henry & Rock Island Counties  
 Sheet 3 of 7



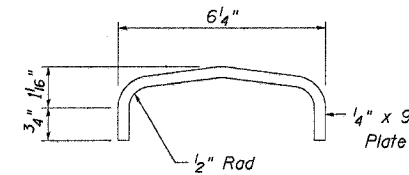
Southwest Wingwall - Looking South  
 (Showing Concrete Removal)



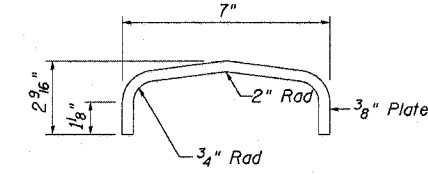
Elevation - Southwest Wingwall  
 (Showing Concrete Removal)



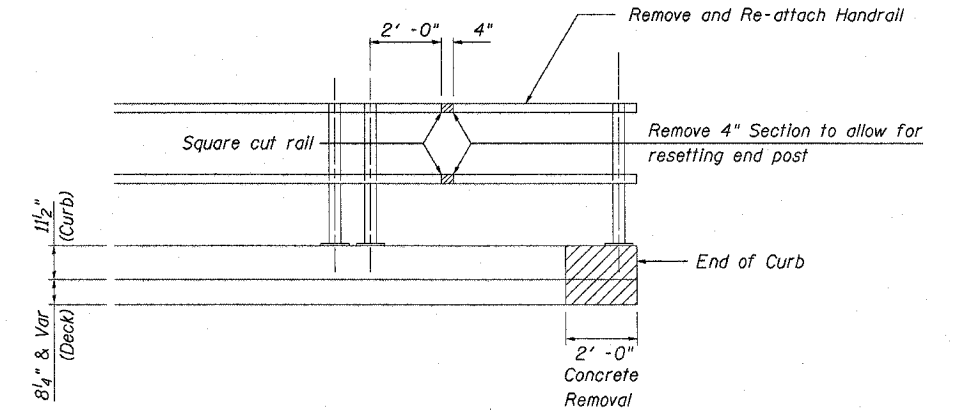
Concrete Removal



Proposed Splice Plate Detail  
 (8 Required)



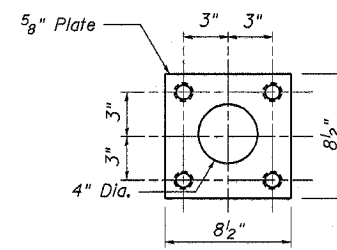
Existing Rail Detail



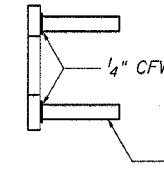
End of Rail Elevation

Notes:

Backfill the void around the reconstructed wingwall with fine aggregate as defined in article 1003.04 of the standard specifications. This material shall be capped with 4 inches of soil capable of supporting vegetation.



Plan



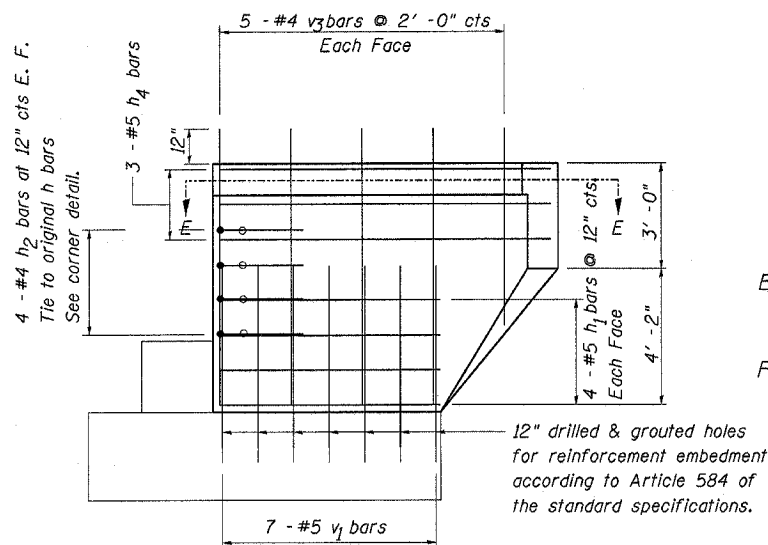
Side View

1/4" Double Extra Strong Pipe.  
 Ream & Tap for 1"  $\phi$  x 3 1/2" long  
 Hex Bolt. Thread bolt 3".

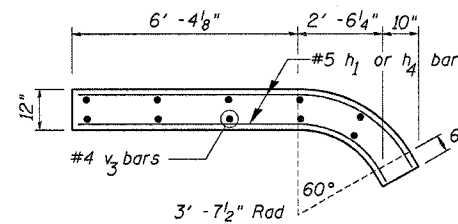
Bill of Material (Substructure)

BAR	NO.	SIZE	LENGTH	SHAPE
e(e)	4	4	4' - 6"	
e1(e)	6	4	5' - 0"	
e2(e)	2	4	3' - 4"	
e3(e)	2	4	5' - 0"	
e4(e)	2	4	2' - 3"	
h1(e)	8	5	7' - 0"	
h2(e)	8	4	3' - 0"	
h4(e)	6	5	9' - 6"	
v1(e)	14	5	5' - 0"	
v3(e)	10	4	4' - 9"	

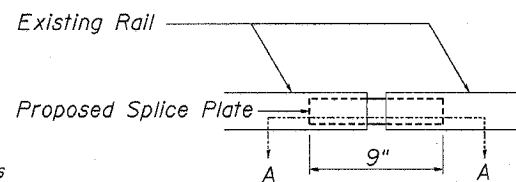
ITEM	UNIT	QUANTITY
Concrete Removal	Cu Yd	2.7
Concrete Structures	Cu Yd	2.7
Structure Excavation	Cu Yd	20
Porous Granular Embankment	Cu Yd	20



Elevation - Proposed Southwest Wingwall

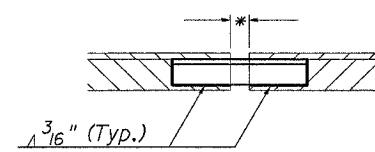


Section E-E

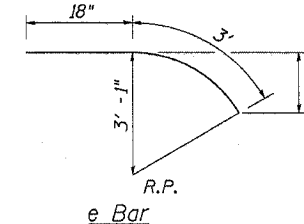


Elevation - Proposed Rail Splice

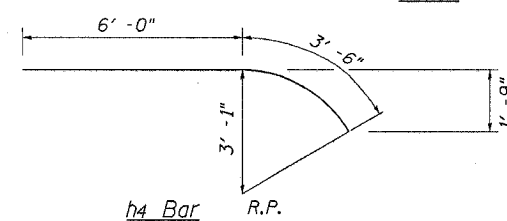
\* Dimension varies as needed to re-install end post



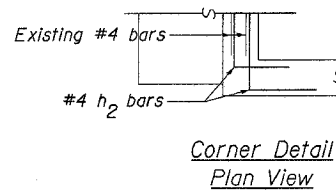
Section A-A



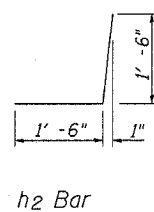
e Bar



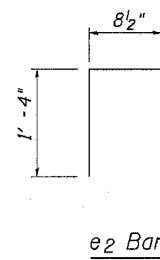
h4 Bar



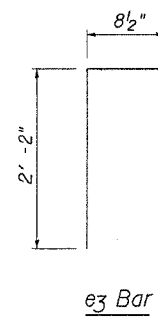
Corner Detail  
 Plan View



h2 Bar



e2 Bar



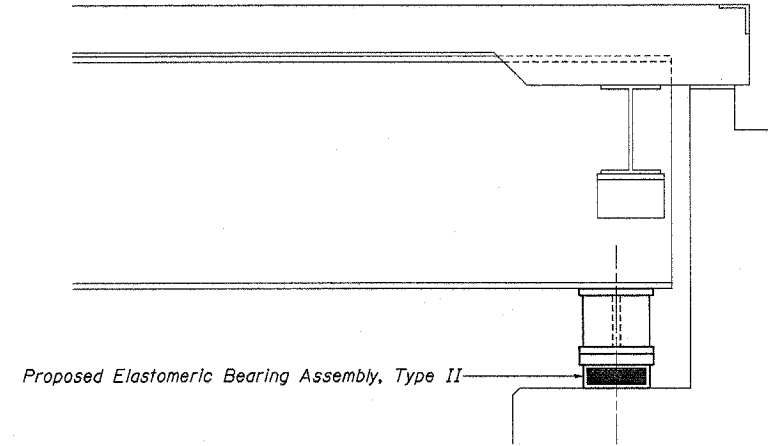
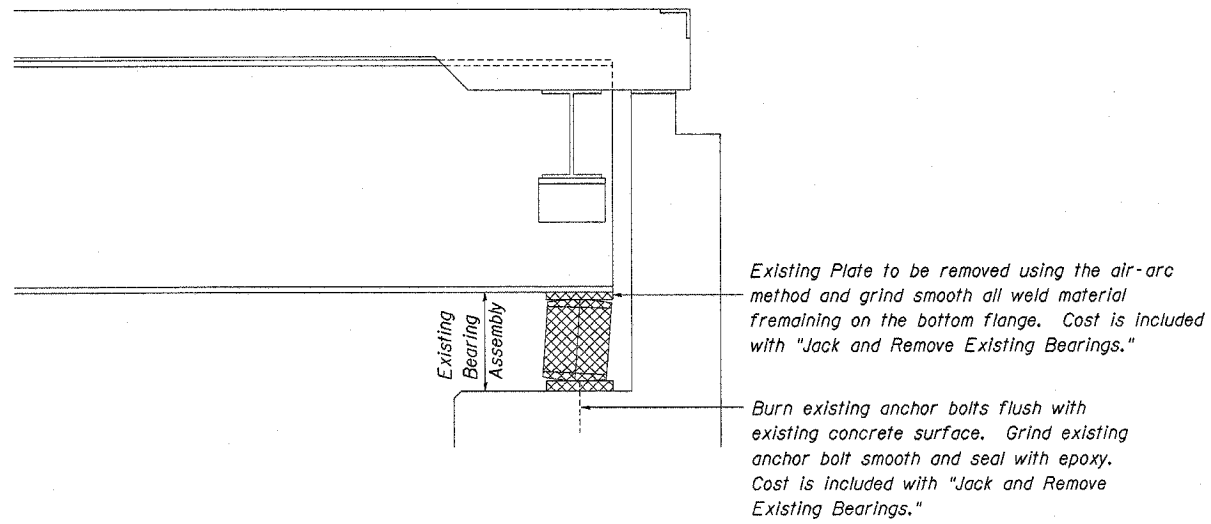
e3 Bar

Abutment Details  
 FAI Route 80 Section (37-5HB-2)M  
 Henry County  
 Structure No. 037-0116  
 TR 375N over Interstate 80



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	13	9
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties



**Bill of Material (Substructure)**

ITEM	UNIT	QUANTITY
Jack & Remove Existing Bearings	Each	10

Bearings  
 FAI Route 80 Section (37-5HB-2)M  
 Henry County  
 Structure No. 037-0116  
 TR 375N over Interstate 80

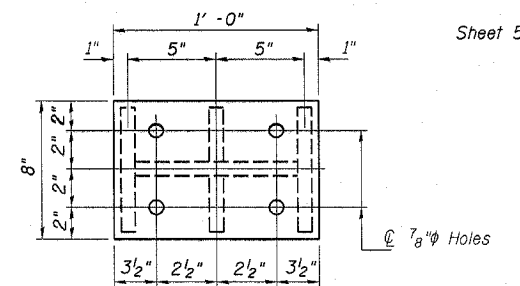
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	13	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties

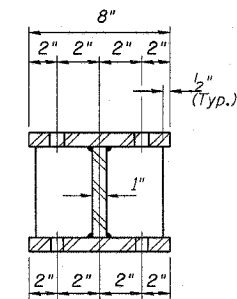
**BEAM REACTIONS**

R <sub>L</sub>	(K)	16.1
R <sub>R</sub>	(K)	30.1
Imp.	(K)	8.7
R (Total)	(K)	54.4

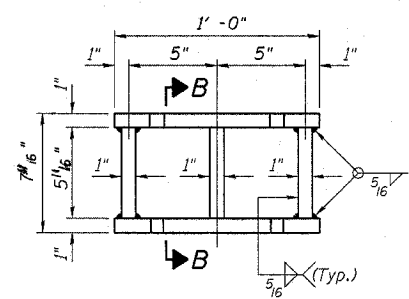
Notes:  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, side retainers, shim plates, connection bolts, and anchor bolts are included with Furnishing and Erecting Structural Steel.  
 See Sheet 7 of 7 for Anchor Bolt installation.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
 Min. jack capacity = 25 Tons.



**PLAN TOP AND BOTTOM PLATE**



**SECTION B-B**



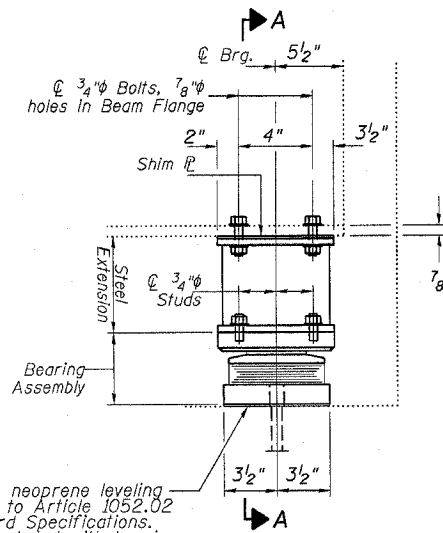
**STEEL EXTENSION DETAIL**

For existing bearing removal detail, see sheet 4 of 7

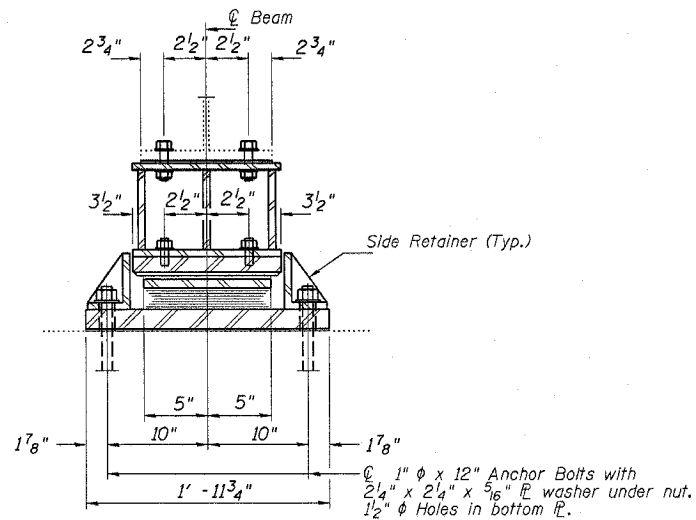
**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	735

South Abutment  
 Elastomeric Bearings  
 FAI Route 80 Section (37-5HB-2)M  
 Henry County  
 Structure No. 037-0116  
 TR 375N over Interstate 80

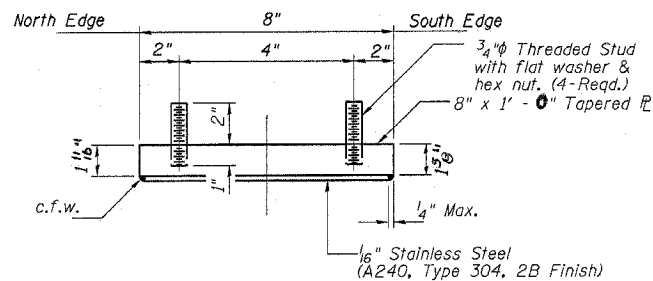


**ELEVATION AT SOUTH ABUTMENT**

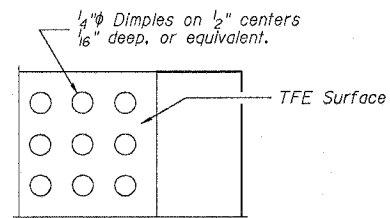


**SECTION A-A**

**TYPE II TFE ELASTOMERIC EXP. BRG.**



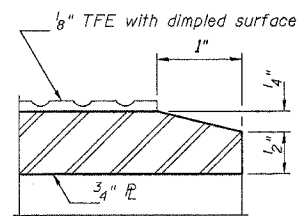
**TOP BEARING ASSEMBLY**



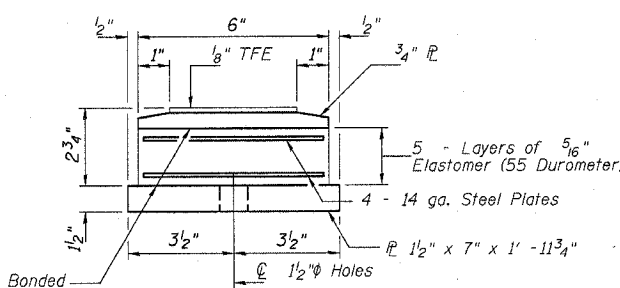
**PLAN-TFE SURFACE**

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type 1. The bond agent shall be applied on the full area of the contact surfaces.

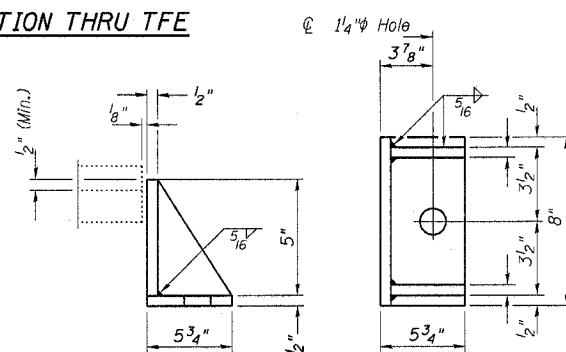
Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



**SECTION THRU TFE**

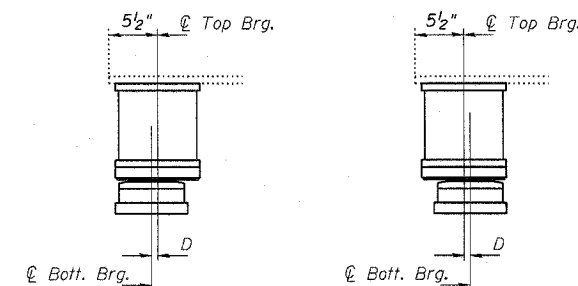


**BOTTOM BEARING ASSEMBLY**



**SIDE RETAINER**

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



BELOW 50° F. (Move bott. brg. away from fixed brg.)  
 ABOVE 50° F. (Move bott. brg. toward fixed brg.)

**SETTING ANCHOR BOLTS AT EXP. BRG.**

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

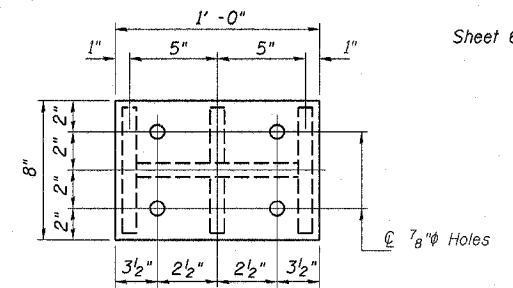
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
..	..	..	13	11

STA. \_\_\_\_\_ TO STA. \_\_\_\_\_  
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT  
 \* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties

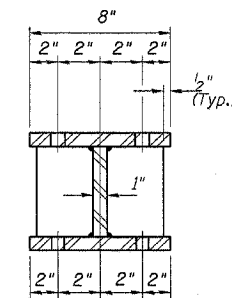
**BEAM REACTIONS**

R <sub>L</sub>	(K)	11.6
R <sub>R</sub>	(K)	28.7
Imp.	(K)	8.6
R (Total)	(K)	48.9

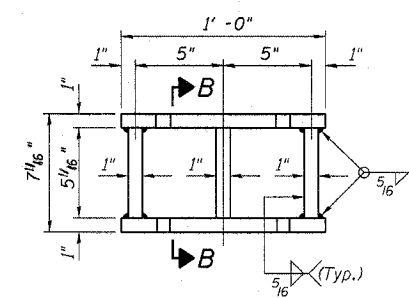
Notes:  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, side retainers, shim plates, connection bolts, and anchor bolts are included with Furnishing and Erecting Structural Steel.  
 See Sheet of for Anchor Bolt installation.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
 Min. Jack capacity = 25 Tons.



**PLAN TOP AND BOTTOM PLATE**



**SECTION B-B**



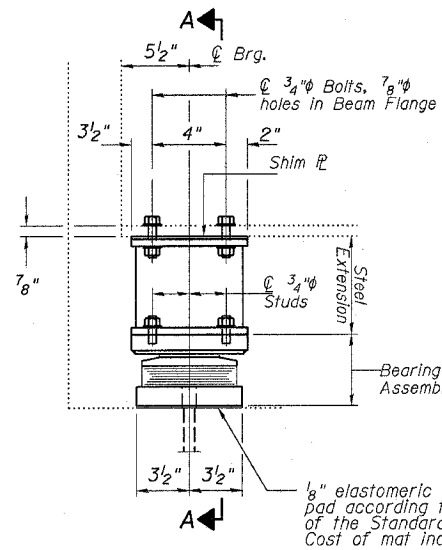
**STEEL EXTENSION DETAIL**

For existing bearing removal detail, see sheet 4 of 7

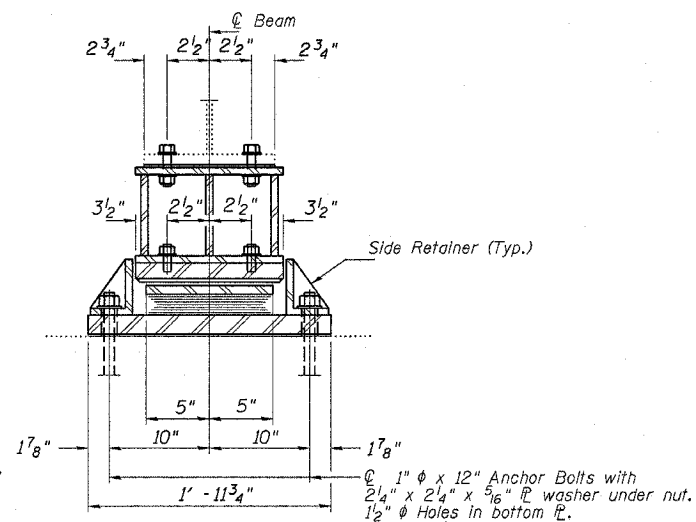
**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	735

North Abutment  
 Elastomeric Bearings  
 FAI Route 80 Section (37-5HB-2)M  
 Henry County  
 Structure No. 037-0116  
 TR 375N over Interstate 80

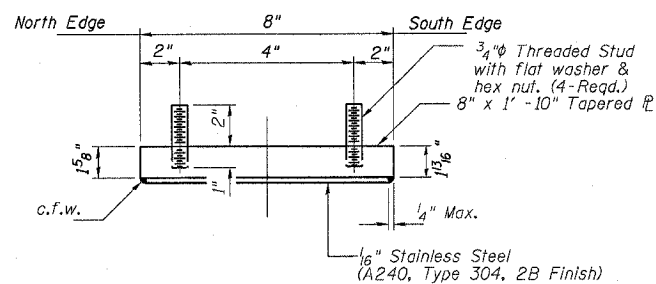


**ELEVATION AT NORTH ABUTMENT**

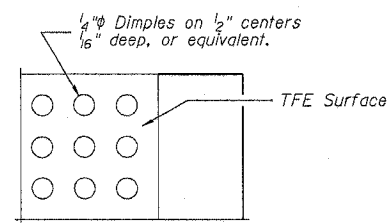


**SECTION A-A**

**TYPE II TFE ELASTOMERIC EXP. BRG.**



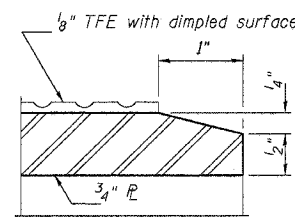
**TOP BEARING ASSEMBLY**



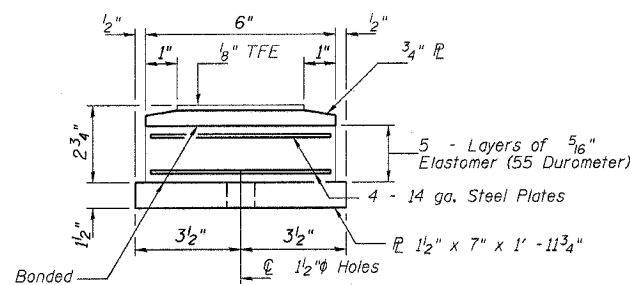
**PLAN-TFE SURFACE**

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

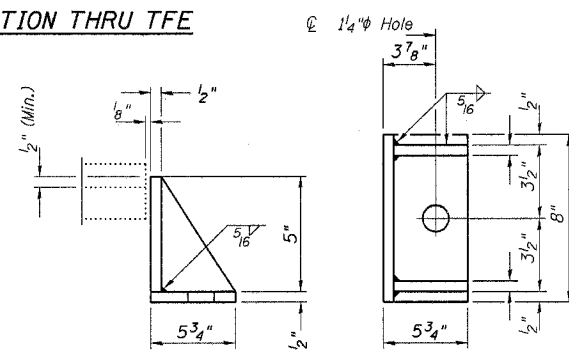
Banding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



**SECTION THRU TFE**

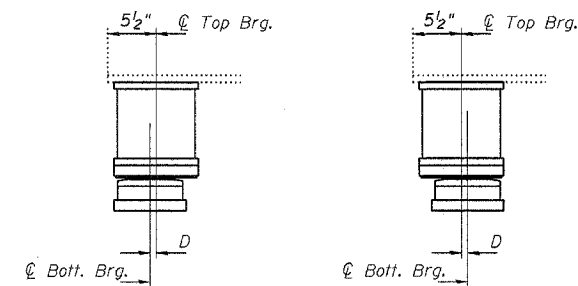


**BOTTOM BEARING ASSEMBLY**



**SIDE RETAINER**

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



**SETTING ANCHOR BOLTS AT EXP. BRG.**

BELOW 50° F. (Move bott. brg. away from fixed brg.) ABOVE 50° F. (Move bott. brg. toward fixed brg.)

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

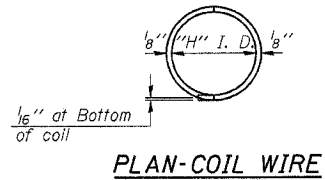
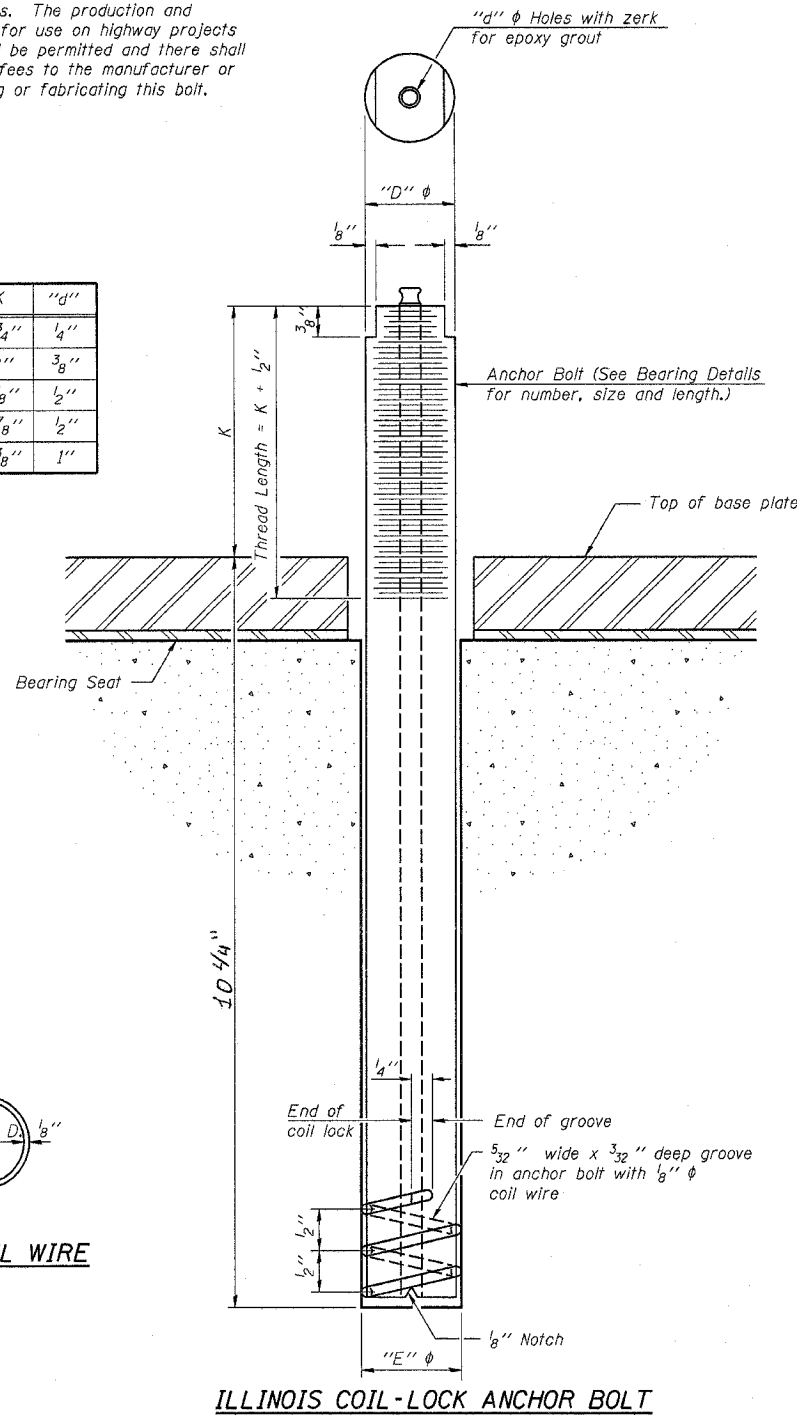
PLOT DATE = Tue Mar 21 15:38:41 2006  
 FILE NAME = D:\37-5HB\Henry County\0370116\0810115.dgn  
 PLOT SCALE = 50.0000 1/16"  
 USER NAME = linked

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	••	•••	13	12
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties

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"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 3/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



**MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT**

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

**INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT**

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

**ALTERNATE ANCHOR BOLTS**

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

Location	Type
APPTS.	A 307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

**GENERAL NOTES**

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

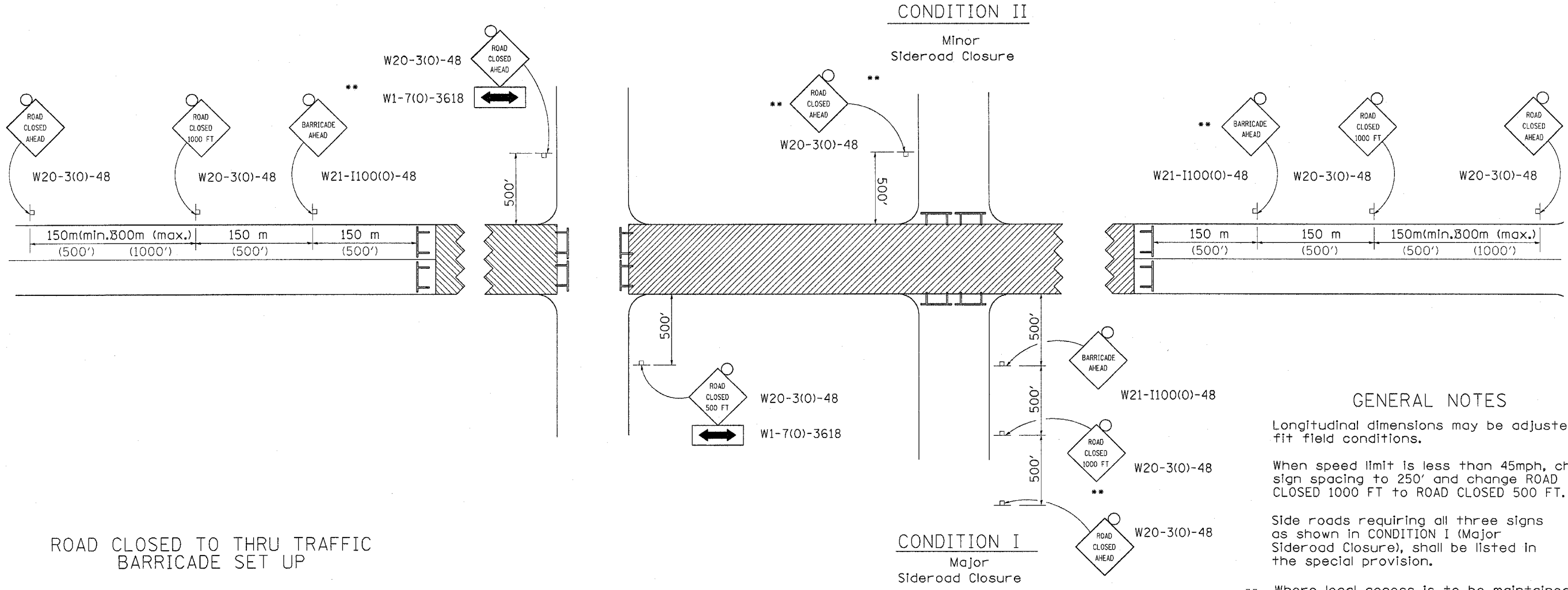
**ANCHOR BOLT DETAILS FOR BEARINGS**

FAI Route 80 Section (37-5HB-2)M  
 Henry County  
 Structure No. 037-0116  
 TR 375N over Interstate 80

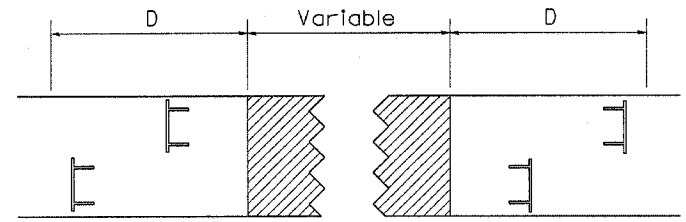
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
.	**	...	13	13
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

\* FAI 80 & 74  
 \*\* (37-5HB-2 & 81-1HB)M  
 \*\*\* Henry & Rock Island Counties




# TRAFFIC CONTROL FOR ROAD CLOSURE



ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To All Thru Traffic" detail on Highway Standard 702001. If the distance "D" exceeds 600 m (2000') an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

- SYMBOLS**
-  Work area
  -  Type III Barricade with Flashers
  -  Sign with flashing light

**GENERAL NOTES**

Longitudinal dimensions may be adjusted to fit field conditions.

When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

\*\* Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic.

Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 702001.

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

TYPICAL APPLICATION FOR ROAD CLOSURE

PLOT DATE = Tue Mar 21 15:09:35 2006  
 FILE NAME = O:\b\sp\lans\Henry County\82720116&0810115.dgn  
 PLOT SCALE = 50:0000 / IN.  
 REFERENCE = WHPF