

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	1
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* 99-4-1RS-3 & 99-4-1VB-1				

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN THE CITY OF JOLIET

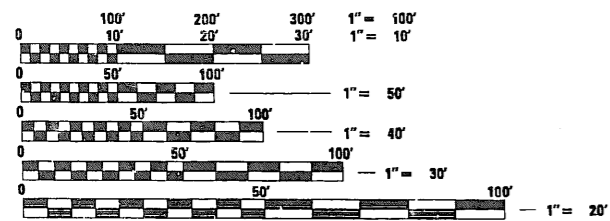
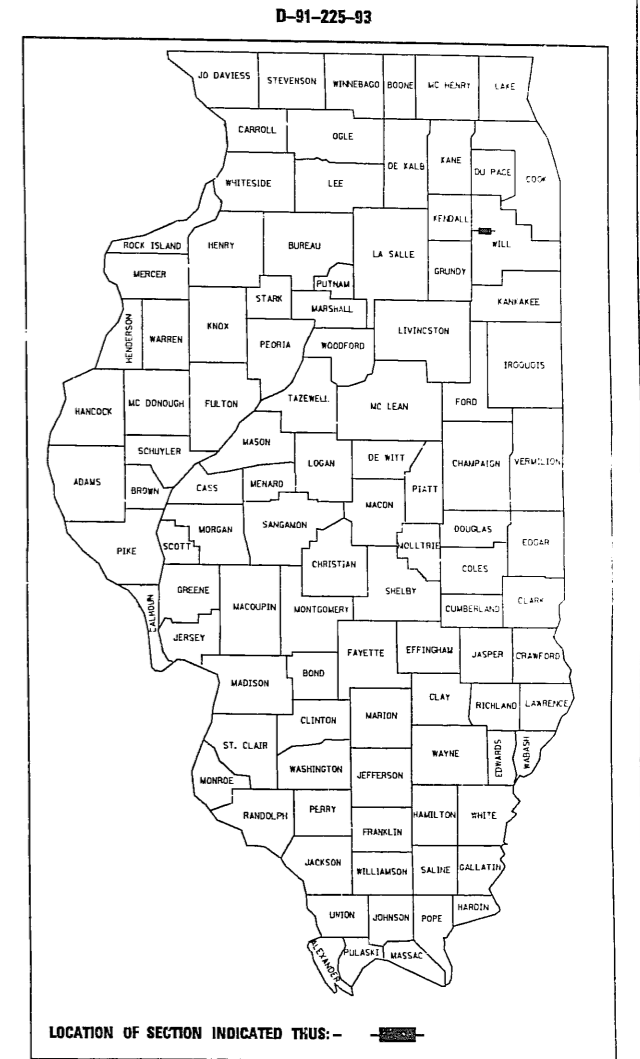
POSTED SPEED LIMIT  
F.A.I.-80: 55 MPH

TRAFFIC DATA  
F.A.I. 80  
1995 ADT = 75,200

PLANS FOR PROPOSED  
HIGHWAY

PLAN  
PROFILE HORIZ.  
PROFILE VERT.  
CROSS SECTIONS

F.A.I. ROUTE 80  
SECTION 99-4-1RS-3 & 99-4-1VB-1  
WEST OF ROWELL AVENUE TO U.S. ROUTE 30  
RESURFACING MAINTENANCE AND BRIDGE DECK REPAIRS  
WILL COUNTY  
C-91-225-93



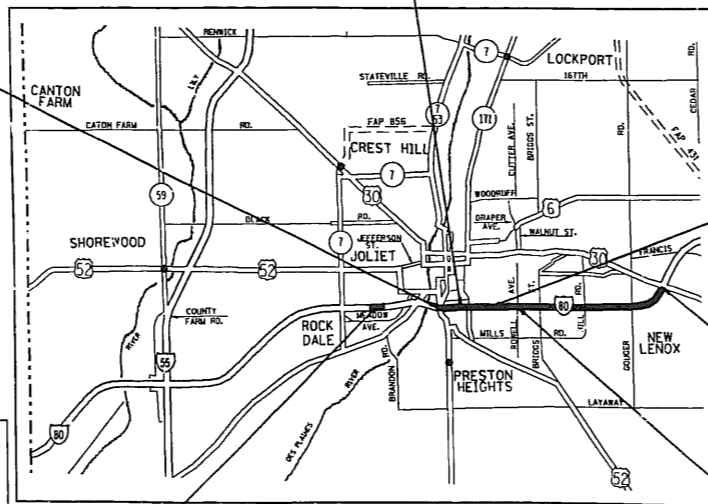
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 82263

IMPROVEMENT BEGINS  
STA. 432 + 05

STA. EQUATION  
STA. 456 + 00 BK =  
STA. 457 + 06.03 AH



F.A.I. 80 OVER SB MEADOW AVE (S.N. 099-0052/0053)  
F.A.I. 80 AT SOUTHBOND CENTER STREET TO EASTBOUND I-80 (S.N. 099-0054/0055)  
F.A.I. 80 AT DES PLAINES RIVER (S.N. 099-0056/0057)  
F.A.I. 80 AT IL. ROUTE 53 (S.N. 099-0058/0059)  
F.A.I. 80 AT ATSF / G.M.O. RR & GARDNER STREET (S.N. 099-0060/0061)  
F.A.I. 80 AT HICKORY CREEK (S.N. 099-0062/0063)  
F.A.I. 80 AT RICHARDS STREET (S.N. 099-0064/0065)  
F.A.I. 80 RAMP CA OVER SB CENTER ST (S.N. 099-0074)  
BRIDGE DECK PATCHING  
JOINT REPAIR

STA. EQUATION  
STA. 487 + 92.54 BK(PT) =  
STA. 488 + 81.44 AH

IMPROVEMENT ENDS  
STA. 664 + 00

F.A.I. 80 AT ROWELL AVENUE AND E.W. & E. R.R. (S.N. 099-0066/0067)  
DECK PATCHING, SCARIFICATION & LATEX OVERLAY  
PROPOSED ELASTOMERIC BEARINGS  
BRIDGE JOINT REPAIRS  
BRIDGE SIDEWALK REPAIRS  
STEEL BRIDGE RAIL RETROFIT

LAYOUT SCALE: 1" = 0.45 MILE

JOLIET AND NEW LENOX TOWNSHIPS  
GROSS AND NET LENGTH OF IMPROVEMENT = 22,999.67 FT. = 4.356 MI.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED August 19 19 98  
District Engineer

19  
ENGINEER OF PROJECT DEVELOPMENT AND IMPLEMENTATION  
October 2 19 98  
ENGINEER OF DESIGN AND ENVIRONMENT

October 2 19 98  
DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY AUTHORITY OF THE  
STATE OF ILLINOIS

PLAN PREPARATION ENGINEER: T. HOLTZ / J. POLLASTRINI (847) 705-4240

FBI	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
80	*	WILL	160	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

\*99-4-IRS-3 & 99-4-IVB-1

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

SHEET NO	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3-6	SUMMARY OF QUANTITIES
7-12	TYPICAL SECTIONS
13-34	SUGGESTED STAGING AND TRAFFIC CONTROL
35	CROSSOVER PLAN
36-48	ROADWAY PLAN
49-65	DRAINAGE & UTILITIES
66-79	PAVEMENT MARKING & LANDSCAPING
80-81	CROSSOVER PLAN TEMPORARY LIGHTING
*82-107	I-80 OVER ROWELL AVE
108	I-80 OVER SOUTHBOUND MEADOW AVE
109	I-80 OVER SOUTHBOUND CENTER ST TO EASTBOUND I-80
110-113	I-80 OVER DES PLAINES RIVER
114	I-80 OVER ILS3
115	I-80 OVER ATSF & GMD RR & GARDNER ST
116	I-80 OVER HICKORY CREEK
117	I-80 OVER RICHARDS ST
118-119	I-80 RAMP OVER SOUTHBOUND CENTER ST
120	TAPER DETAIL
121-122	I-80 HICKORY CREEK TO US30 DETAILS
123	CONCRETE COLLAR DETAILS
124	PAVED DITCH REMOVAL & REPLACEMENT, EXPANSION JOINT REHABILITATION, TEMPORARY SIGNING
125	CONSTRUCTION OF LUG SYSTEM
126	TEMPORARY INFORMATION SIGNING
127	TEMPORARY LIGHTING DETAIL
127A	DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
128	DETAILS FOR FRAME & LID ADJUSTMENT WITH MILLING
129	PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT (CLASS A OR B)
130	PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT
131	CURB OR CURB & GUTTER REMOVAL & REPLACEMENT
132	BUTT JOINTS & BITUMINOUS TAPER DETAIL
133	BITUMINOUS TAPER AT EDGE OF PCC PAVEMENT
134	DETAILS FOR STEEL PLATE BEAM GUARD RAIL, ADJUSTMENT TO CURB & GUTTER
135	PAVEMENT RELIEF JOINT
136	PCC PAVEMENT PATCHING
137	FREEWAY STANDARD - ONE LANE CLOSURE
138	ENTRANCE & EXIT RAMP CLOSURE
139	TRAFFIC CONTROL DETAILS FOR FREEWAY
140-141	MULTI-LANE FREEWAY PAVEMENT MARKING
142	TYPICAL PAVEMENT MARKING
143	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
144	TEMPORARY PAVEMENT MARKINGS LETTER & SYMBOL
145	TRAFFIC CONTROL FOR SHOULDER CLOSURE & PARTIAL RAMP CLOSURE
146	SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENING
147-148	I-80 MEDIAN AT BRIGGS CROSS SECTION
149-150	I-80 MEDIAN AT CHERRY HILL CROSS SECTION
151-152	I-80 MEDIAN AT GOUGAR CROSS SECTION
152A-152B	I-80 MEDIAN CROSS SECTION AT ATTENUATOR LOCATION STA 658+00
153-154	I-80 MEDIAN AT ROCK EXCAVATION LOCATION
155-157	I-80 MEDIAN AT CROSSOVER WEST OF ROWELL AVE
158-160	I-80 MEDIAN AT CROSSOVER EAST OF ROWELL AVE

STANDARD NO	DESCRIPTION
000001-02	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-01	TEMPORARY EROSION CONTROL SYSTEMS
420001-01	PAVEMENT JOINT
420401-01	BRIDGE APPROACH PAVEMENT
421201-01	7.2M CONTINUOUSLY REINFORCED PCC PAVEMENT WITH LUG SYSTEM
424001-01	CURB RAMPS ACCESSIBLE TO THE DISABLED
442001-01	CLASS A PATCHES
442101-01	CLASS B PATCHES
482011-01	BITUMINOUS SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING & RESURFACING
482101	RUMBLE STRIP FOR PCC OR BITUMINOUS SHOULDER
542601	REINFORCED CONCRETE PIPE ELBOW
542606	REINFORCED CONCRETE PIPE TEE
601001	SUB-SURFACE DRAINS
601101	CONCRETE HEADWALL FOR PIPE DRAINS
602001	CATCH BASIN, TYPE A
604086	FRAME & GRATE, TYPE 23
604091	FRAME & GRATE, TYPE 24
606001-01	CONCRETE CURB & COMBINATION CONCRETE CURB & GUTTER
606401	PAVED DITCH, TYPE A & B
630001-01	STEEL PLATE BEAM GUARD RAIL
630201-01	PCC/BIT STABILIZATION AT STEEL PLATE BEAM GUARD RAIL
631011-01	TRAFFIC BARRIER TERMINAL, TYPE 2
631026-01	TRAFFIC BARRIER TERMINAL, TYPE 5 & 5A
631031-01	TRAFFIC BARRIER TERMINAL, TYPE 6
635001	DELINEATORS
701101	OFF-ROAD OPERATIONS, MULTILANE, <15' AWAY, SPEED ≥45 MPH
701106	OFF-ROAD OPERATIONS, MULTILANE, >15' AWAY, SPEED ≥45 MPH
701411-01	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEED ≥45 MPH
701416-01	LANE CLOSURE, MULTILANE, DIV. WITH CROSSOVER & BARRIER FOR SPEED ≥45 MPH
701426	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION FOR SPEED ≥45 MPH
702001	TRAFFIC CONTROL BARRIER
704001	TEMPORARY CONCRETE BARRIER
720011	METAL POSTS (SIGNS, MARKERS & DELINEATORS)
814001	CONCRETE HANDHOLES
846001	DETECTOR LOOP INSTALLATIONS
846006	TYPICAL LAYOUT FOR DETECTION LOOPS

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)

10 FEET TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

BARRICADES: THE CONTRACTOR SHALL PROVIDE & INSTALL TWO WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED ONE WEIGHTED SANDBAG ACROSS EACH BOTTOM RAIL.

WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC & ADJOINING RESIDENTIAL AREAS.

USE #8 EPOXY-COATED TIE BARS CONFORMING TO ART 1006.10(B)(2) OF THE STANDARD SPECIFICATIONS FOR LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR AS SHOWN ON STATE STANDARD 420001 & FOR TIEING PC CONCRETE WIDENING TO EXISTING CONCRETE PAVEMENT AS SHOWN ON THE PLANS. THE TIE BARS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PAVEMENT ITEMS BEING CONSTRUCTED.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1/2" WHERE THE SPEED LIMIT IS 45 MPH OR LESS & 1" WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3" MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT & BITUMINOUS TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

STRIP REFLECTIVE CRACK CONTROL TREATMENT SHALL BE INSTALLED IMMEDIATELY IN FRONT OF THE BITUMINOUS SURFACING OPERATION IN SUCH A MANNER SO THAT TRAFFIC WILL NOT DISTURB IT PRIOR TO BEING COVERED BY BITUMINOUS SURFACING. ANY CRACK TREATMENT DISTURBED BY TRAFFIC WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL DRAINAGE STRUCTURES CLEANED AS PART OF THE CONTRACT MUST BE CLEANED AT THE COMPLETION OF THE CONTRACT.

\* 95 DELETED

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

SCALE \_\_\_\_\_ DRAWN BY \_\_\_\_\_

DATE \_\_\_\_\_ CHECKED BY \_\_\_\_\_

SECTION	COUNTY	TOTAL SHEETS
80	WILL	160
NO.		82

STA. TO STA.

FED. ROAD DIST. NO. 7 ILLINOIS

FED. AID PROJECT

\*99-4-IRS-3 & 99-4-IVB-1

CONSTRUCTION SEQUENCE

- Traffic Staging
- Deck Slab Repairs
- Remove and Replace Deck Drains
- Concrete Bridge Deck Scarification 3/4"
- Jack Existing Structure and Replace Bearings at Expansion Jts.
- Substructure Repairs
- Reconstruct Transverse Expansion Joints
- Bridge Deck Latex Concrete Overlay (2 3/4")
- Construct Steel Bridge Rail

GENERAL NOTES

Plan dimensions and details relative to the 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 dimension and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variation shall not be cause for additional compensation for a change in the scope of work, however, the contractor will be paid for the actual quantity furnished at the unit bid price for the work. The contractor must use extreme care during concrete removal as not to nick, cut, or damage any of the structural steel and not to damage or cut any existing reinforcement bars that are to be incorporated into the new construction, any damage shall be repaired at contractors expense. Any reinforcement bars that are damaged during construction shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal". Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53 Grade 60. All new structural steel shall conform to AASHTO M-270, GR.36 unless otherwise specified. All new fasteners shall be high strength bolts, holes shall be subpunched or subdrilled 1/16" Dia. and reamed in the field 13/16" Dia. for 3/4" Dia. high strength bolts (except as noted on the plans) after new structural steel sections are properly fitted into position.

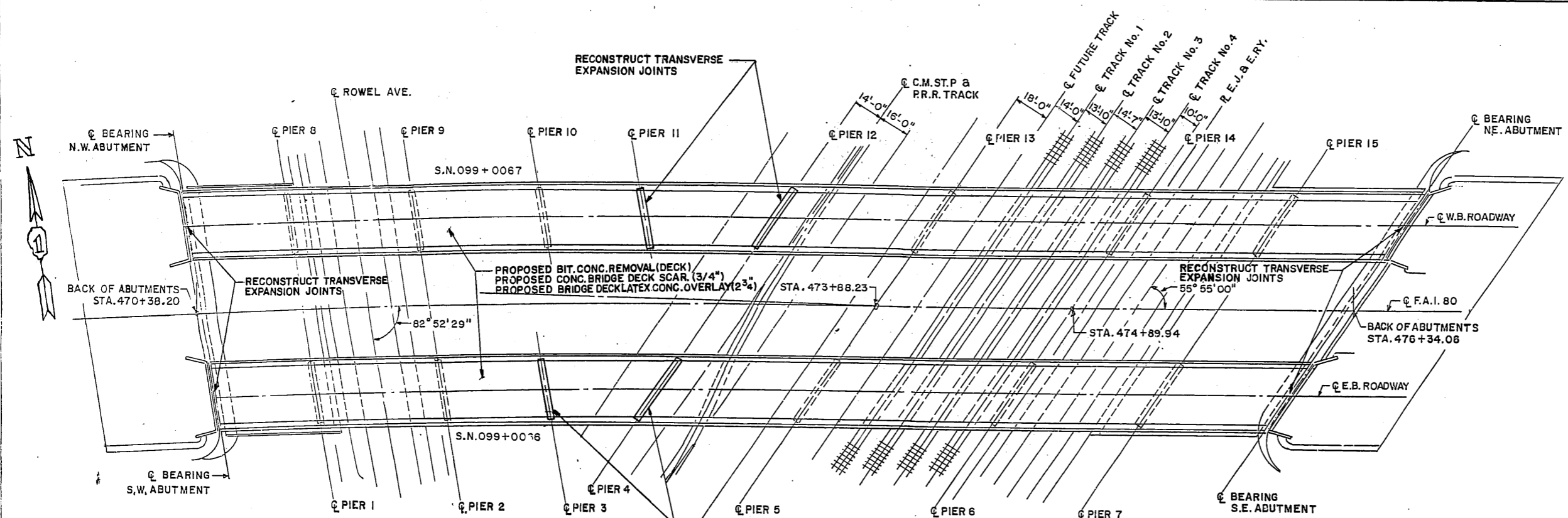
The cost of clipping the existing beam ends is included in the price of FURNISHING AND ERECTING STRUCTURAL STEEL.

The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Gray, Munsell No. 5B 7/1. See Special Provision "Cleaning and Painting New Metal Structures".

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

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

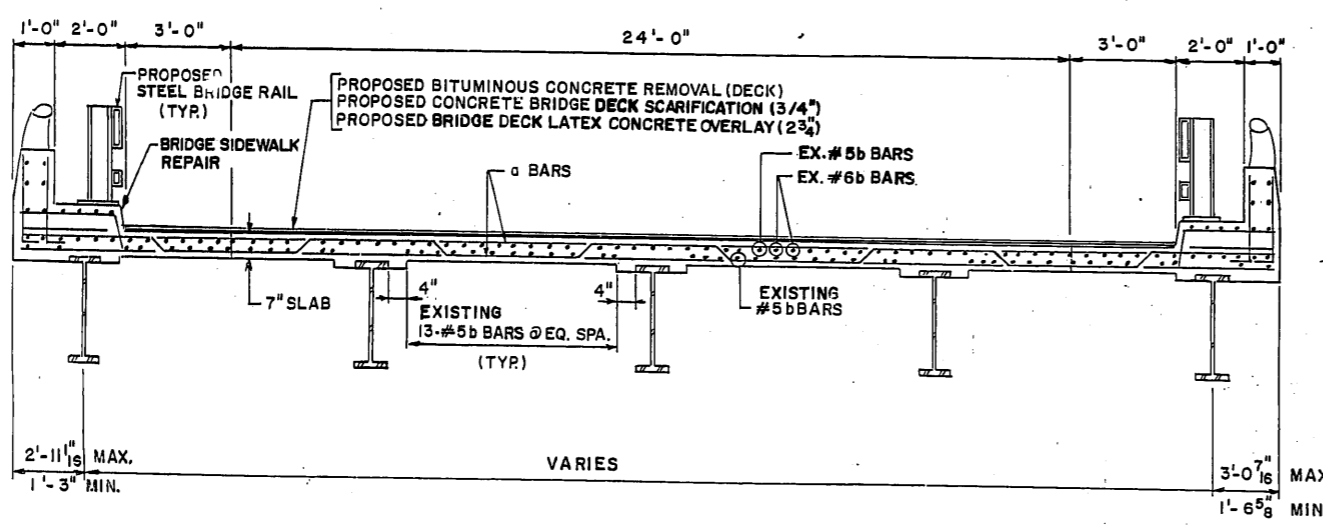
Joint plates and attached bars shall be shop painted with the inorganic zinc rich primer. No field paint required.



RECONSTRUCT TRANSVERSE EXPANSION JOINTS  
PLAN

SUMMARY OF BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
DECK SLAB REPAIRS (PARTIAL DEPTH)	SQ.YDS	250		250
DECK SLAB REPAIRS (FULL DEPTH, TYPE I)	SQ.YDS	100		100
DECK SLAB REPAIRS (FULL DEPTH, TYPE II)	SQ.YDS	50		50
FLOOR DRAINS	EACH	92		92
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ.YDS	3950		3950
CONCRETE BRIDGE DECK SCARIFICATION (3/4")	SQ.YDS	3950		3950
BRIDGE DECK LATEX CONCRETE OVERLAY (2 3/4")	SQ.YDS	3950		3950
HIGH PERFORMANCE ENHANCED SHOTCRETE	SQ.FT.		410	410
BRIDGE SIDEWALK REPAIR (FULL DEPTH)	SQ.FT.	350		350
EPOXY CRACK SEALING	FOOT		50	50
REINFORCEMENT BARS (EPOXY COATED)	LBS	6900		6900
CONCRETE REMOVAL	CU.YDS	45.5		45.5
CONCRETE SUPERSTRUCTURE	CU.YDS	52.5		52.5
PREFORMED JOINT SEAL (2 1/2")	FOOT	76		76
PREFORMED JOINT SEAL (4")	FOOT	38		38
NEOPRENE EXPANSION JOINT (2 1/2")	FOOT	37		37
NEOPRENE EXPANSION JOINT (4")	FOOT	87		87
NEOPRENE EXPANSION JOINT (2")	FOOT	87		87
BRIDGE SIDEWALK REPAIR (PARTIAL DEPTH)	SQ.FT.	50		50
FURNISHING AND ERECTING STRUCTURAL STEEL	LBS	3890	12380	16270
ELASTOMERIC BEARING ASSEMBLY TYPE I	EACH		30	30
ELASTOMERIC BEARING ASSEMBLY TYPE II	EACH		15	15
ELASTOMERIC BEARING ASSEMBLY TYPE III	EACH		5	5
JACK AND REMOVE EXISTING BEARINGS	EACH		50	50
PROTECTIVE SHIELD	SQ.YDS	50		50
BRIDGE DECK GROOVING	SQ.YDS	3710		3710
SLOPE WALL REMOVAL	SQ.YDS		1680	1680
SLOPE WALL 4"	SQ.YDS		1735	1735
POROUS GRANULAR EMBANKMENT	TON		200	200
STEEL BRIDGE RAIL	FOOT	2385		2385



CROSS SECTION

ILLINOIS DEPARTMENT OF TRANSPORTATION

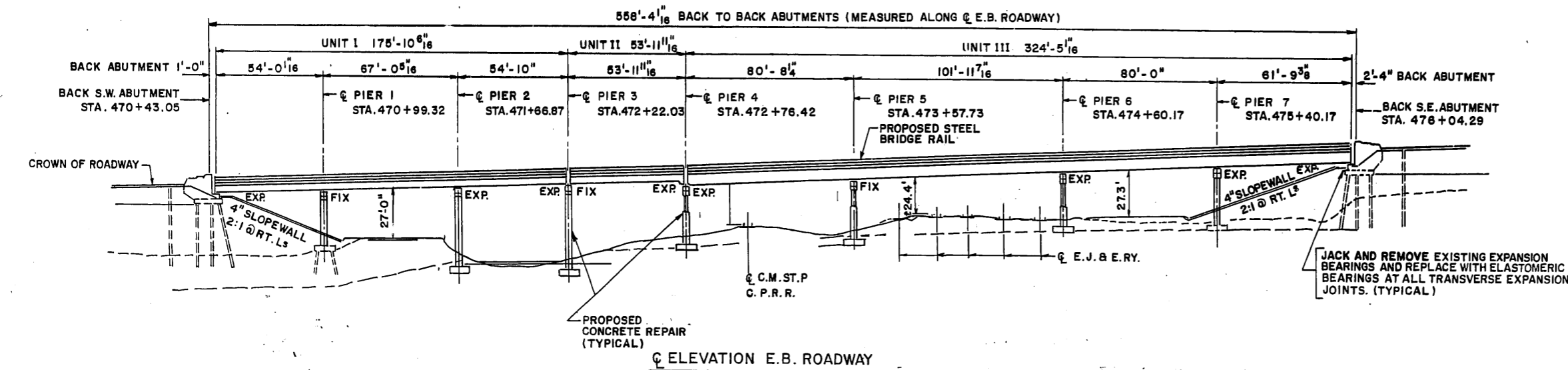
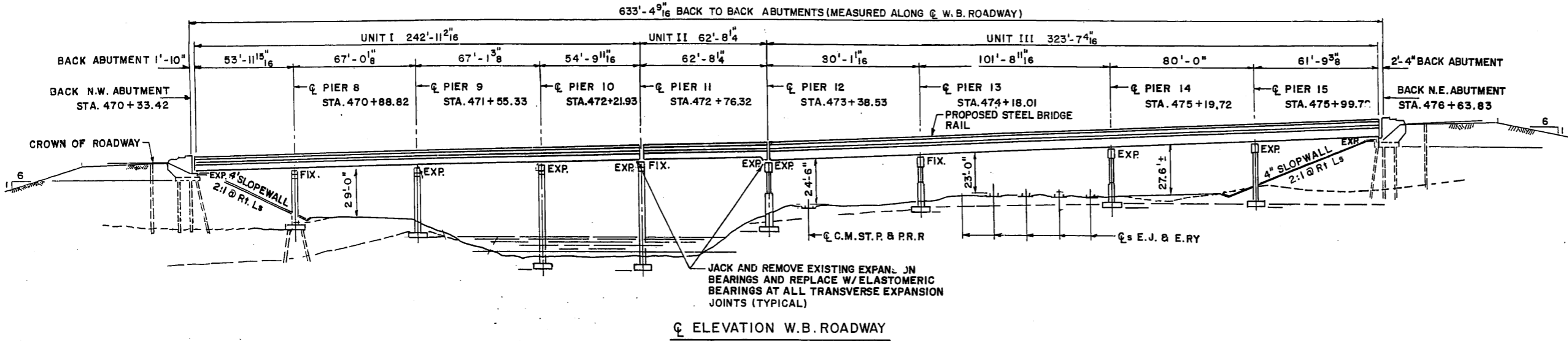
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N.099-0066/0067  
GENERAL PLAN AND CROSS SECTION

SCALE: VERT. HORIZ.  
DATE AUGUST, 1998

DRAWN BY MVT  
CHECKED BY JAF

REVISIONS	
NAME	DATE

SECTION	COUNTY	TOTAL SHEETS	SHEET NO
80	WILL	160	83
STA		TO STA	
FED. ROAD DIST. NO. 7		ILLINOIS	
		FED. AID PROJECT	
*99-4-IRS-3 & 99-4-IVB-1			



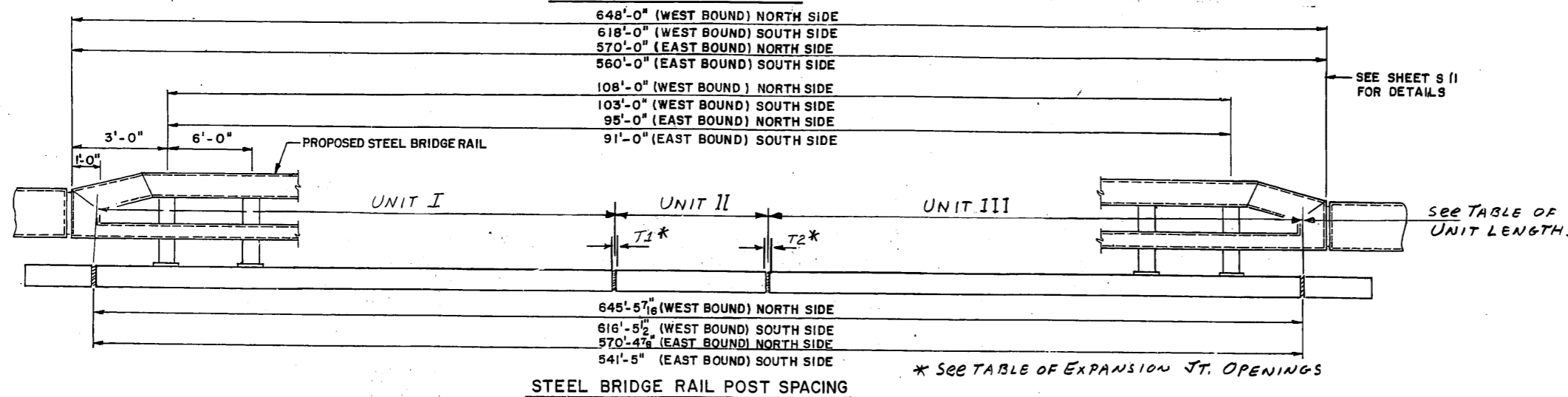
**UNIT LENGTH TABLE**

UNIT No.	SIDE	LENGTH
I - WB	NS	243' - 8 15/16"
I - WB	SS	243' - 9 1/16"
I - EB	NS	176' - 7 1/16"
I - EB	SS	176' - 7 1/4"
II - WB	NS	77' - 3 5/8"
II - WB	SS	48' - 11/16"
II - EB	NS	68' - 8 1/8"
II - EB	SS	39' - 3 1/16"
III - WB	NS	324' - 7 3/8"
III - WB	SS	324' - 10 1/8"
III - EB	NS	325' - 4 3/16"
III - EB	SS	325' - 9 3/16"

**JOINT OPENING TABLE**  
(@ 50 deg. F)

LOCATION	T1	T2
Pier 3	3/4"	-----
Pier 4 - NS	-----	15/16"
Pier 4 - SS	-----	3/4"
Pier 11	1 3/16"	-----
Pier 12 - NS	-----	1"
Pier 12 - SS	-----	13/16"

WB - West Bound  
EB - East Bound  
NS - North Side  
SS - South Side



**REVISIONS**

NAME	DATE

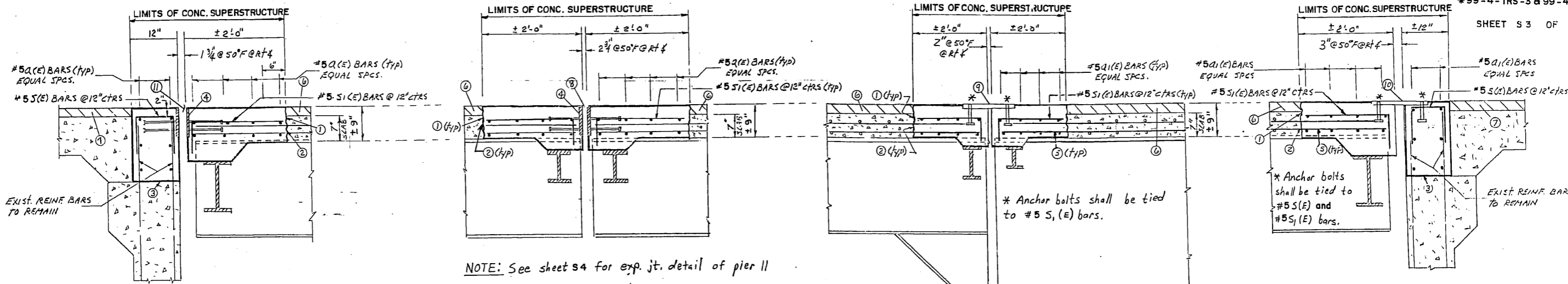
ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N.099-0066/0067  
WEST AND EAST BOUND ELEVATIONS

SCALE: VERT.    DRAWN BY MVT  
HORIZ.    CHECKED BY JAF  
DATE

NOTE: W. ABUT & PIERS 3 & 11 - EXIST. TRANSVERSE REINF. BARS IN THE CONC. REMOVAL AREAS SHALL BE REMOVED (PARALLEL TO JOINT). ALL LONG. REINF. BARS SHALL REMAIN.

NOTE: 3/4" SAWCUT INCLUDED CONCRETE REMOVAL

NOTE: E. ABUT & PIERS 4 & 12 - EXIST. TRANS. REINF. BARS IN THE CONC. REMOVAL AREAS ARE NOT PARALLEL TO THE JOINT, AND ARE TO REMAIN. ALL LONG. REINF. BARS SHALL REMAIN.



PROP. EXPANS. JOINT - W. ABUTS  
SEC: A-A

NOTE: See sheet s4 for exp. jt. detail of pier 11

PROP. EXPANSION JOINT - PIER 3  
SEC: B-B

PROP. EXPANS. JOINT - PIERS 4 & 12  
SEC: C-C

PROP. EXPANS. JOINT - E. ABUTS  
SEC: D-D

LEGEND

- ① 3/4" SAWCUT
- ② BONDED CONSTRUCTION JOINT.
- ③ CONSTRUCTION JOINT.
- ④ 7" x 3/4" ST. PCT. WITH STUDS.
- ⑤ EXISTING REINF. BARS TO REMAIN.
- ⑥ BRIDGE DECK LATEX CONCRETE OVERLAY (2 3/4")
- ⑦ 1 1/2" VAR. BIT. CONC.
- ⑧ PREFORMED JOINT SEAL 4"
- ⑨ 2" NEOPRENE JOINT.
- ⑩ 4" NEOPRENE JOINT.
- ⑪ PREFORMED JOINT SEAL 2 1/2"

NOTE: For joint reconstruction, concrete removal must include at least one foot of parapet removal at each end and both sides of joints.

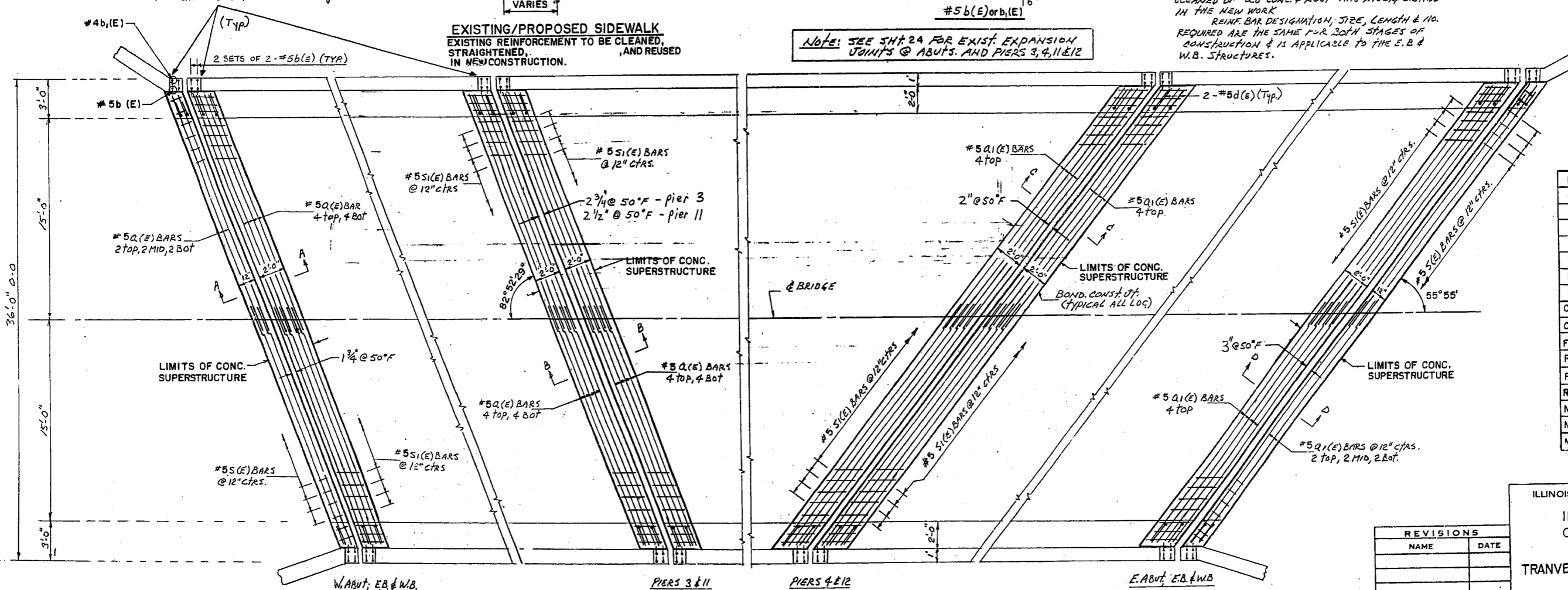
EXISTING/PROPOSED SIDEWALK  
EXISTING REINFORCEMENT TO BE CLEANED, STRAIGHTENED, AND REUSED IN NEW CONSTRUCTION.

SIZE	LAP
#5	2'-2"

NOTE: (E) INDICATES EPOXY COATED

NOTE: ALL REINF. BARS IN THE CONC. REMOVAL AREAS OF THE 2'-0" SAFETY WALK SHALL REMAIN IN PLACE, CLEANED OF OLD CONC. & RUST AND INCORPORATED IN THE NEW WORK. REINF. BAR DESIGNATION, SIZE, LENGTH & NO. REQUIRED ARE THE SAME FOR BOTH STAGES OF CONSTRUCTION & IS APPLICABLE TO THE E.B. & W.B. STRUCTURES.

NOTE: SEE SH. 24 FOR EXIST. EXPANSION JOINTS @ ABUTS. AND PIERS 3, 4, 11 & 12



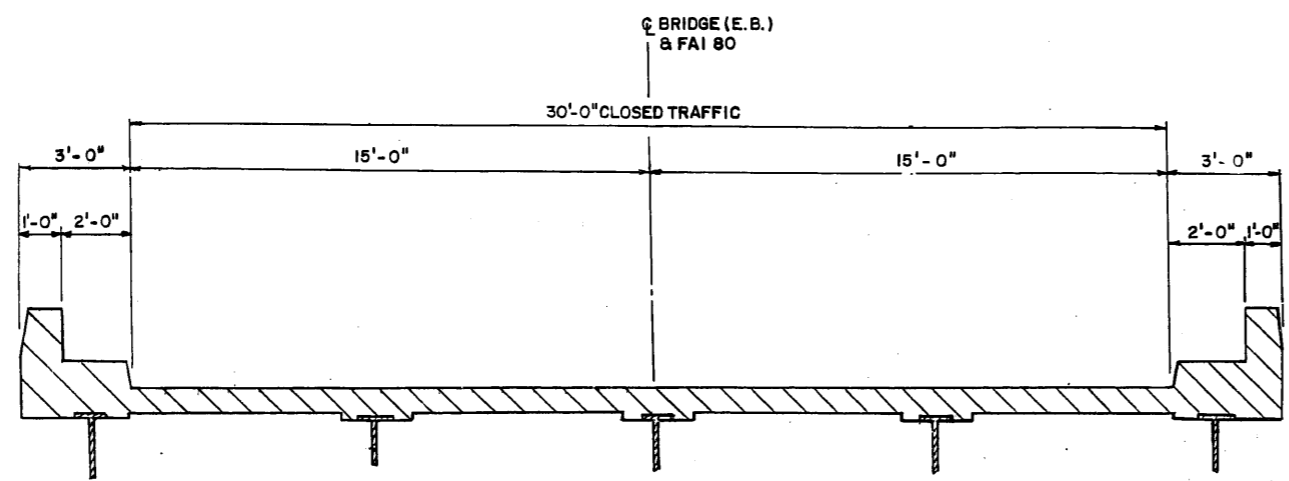
PLAN: REINF. LAYOUT E & W ABUTS, PIERS 3, 4, 11 & 12  
(E.B. & W.B. BRIDGES SIMILAR)

BAR	SIZE	NO.	LENGTH	SHAPE	
a (E)	#5	120	18'-1"	—	
a <sub>1</sub> (E)	#5	120	21'-5"	—	
s (E)	#5	154	2'-1"	□	
s <sub>1</sub> (E)	#5	462	2'-1"	□	
b (E)	#5	64	3'-3"	—	
b <sub>1</sub> (E)	#4	64	3'-3"	—	
d (E)	#5	64	3'-9"	—	
CONCRETE REMOVAL				CU.YD.	45.5
CONCRETE SUPERSTRUCTURE				CU.YD.	52.5
FURN. BERECT. STRUCT. STEEL				LBS	3690
PREFORMED JOINT SEAL 2 1/2"				FOOT	76
PREFORMED JOINT SEAL 4"				FOOT	38
REINFOR. BARS (EPOXY COATED)				LBS	6900
NEOPRENE EXPANSION JOINT 2"				FOOT	87
NEOPRENE EXPANSION JOINT 2 1/2"				FOOT	37
NEOPRENE EXPANSION JOINT 4"				FOOT	87

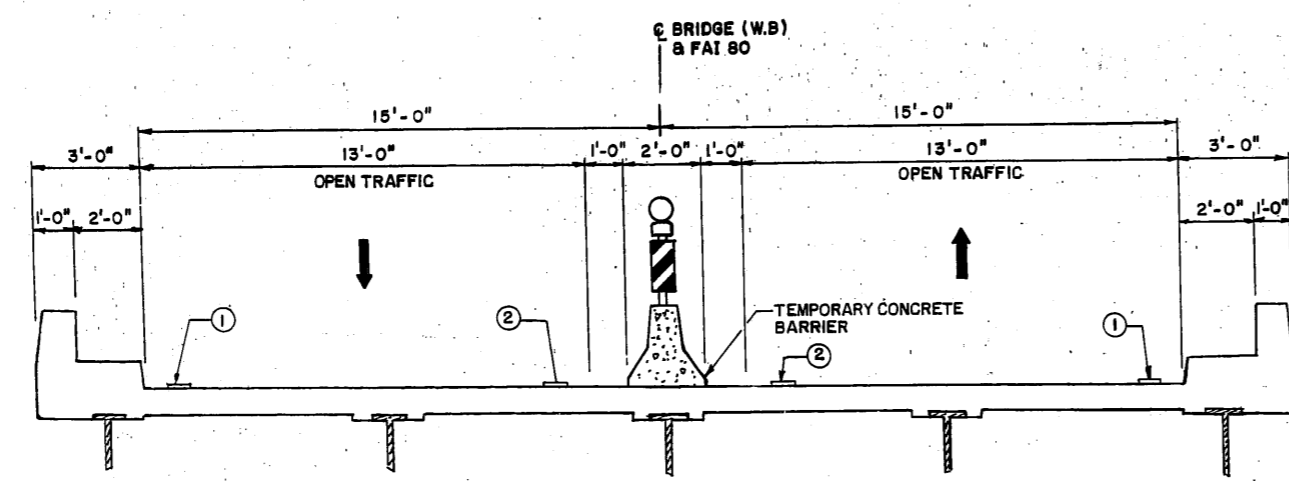
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N. 099 - 0066/0067  
TRANVERSE EXPANSION JOINT DETAIL  
SCALE: VERT.      DRAWN BY: MVT  
                  HORIZ.      CHECKED BY: JAF  
DATE

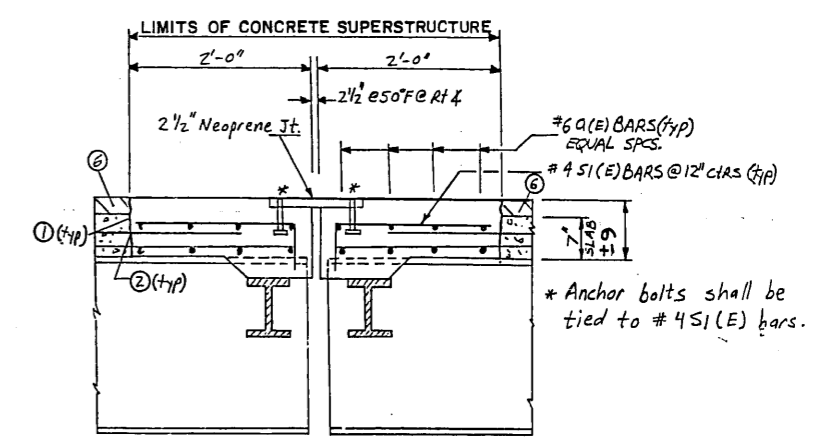
FAI #80	SECTION *	COUNTY WILL	TOTAL SHEETS 160	SHEET NO. 85
STA. TO STA.		FED. ROAD DIST NO 7 ILLINOIS FED. AID PROJECT *99-4-IRS-3 & 99-4-IVB-1		



TYPICAL SECTION: TRAFFIC CONTROL & PROTECTION  
STAGE I CONST. E.B. STRUCTURE



TYPICAL SECTION: TRAFFIC CONTROL & PROTECTION  
STAGE I CONST. W.B. STRUCTURE



PROP. EXPANSION JOINT - PIER II  
SEC: B-B (SEE SHEET S3)

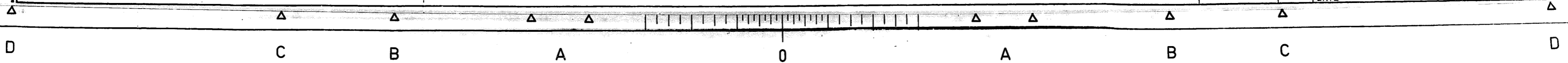
NOTES:  
STAGE II CONSTRUCTION SIMILAR OPERATION ON THE OPPOSITE STRUCTURE. SEE ROADWAY PLANS FOR DETAILS.

LEGEND

- ① Pavement Marking Tape, Type III 4" (white)
- ② Pavement Marking Tape, Type III 4" (yellow)

REVISIONS	
NAME	DATE

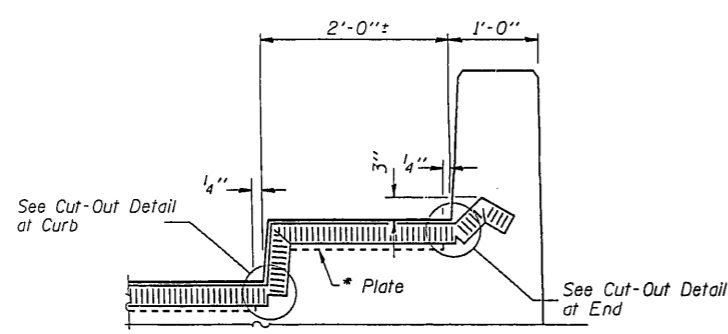
ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N. 099 - 0066/0067  
TRANSVERSE JOINT DETAIL/  
STAGE CONSTRUCTION TYPICAL SECTION  
SCALE: VERT. DRAWN BY MVT  
HORIZ. CHECKED BY JAF  
DATE





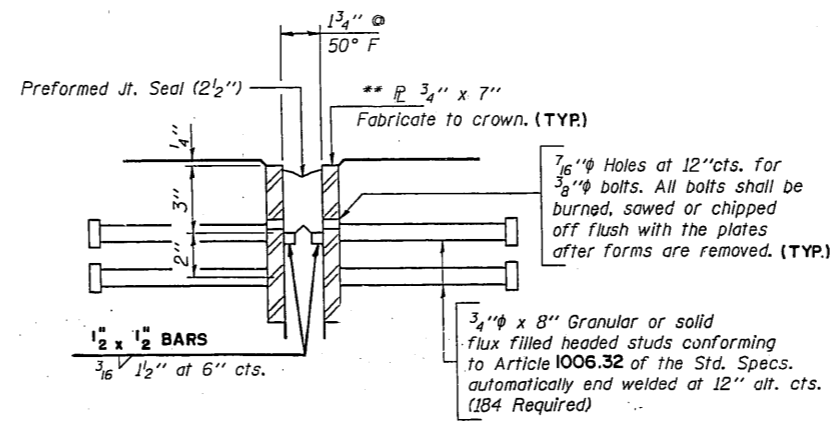
F. A. S. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	86
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\*99-4-IRS-3 & 99-4-IVB-1

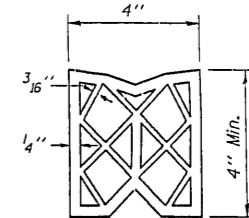


TYPICAL END OF SEAL TREATMENT

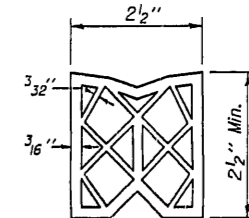
\*Cut retainer bars in sidewalk 6" short of curb face



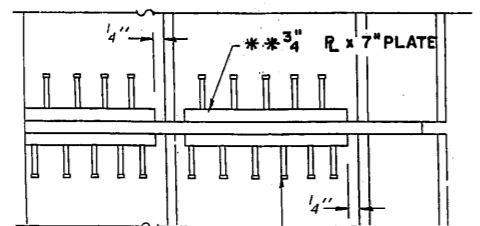
2 1/2" PREFORMED JOINT SEAL



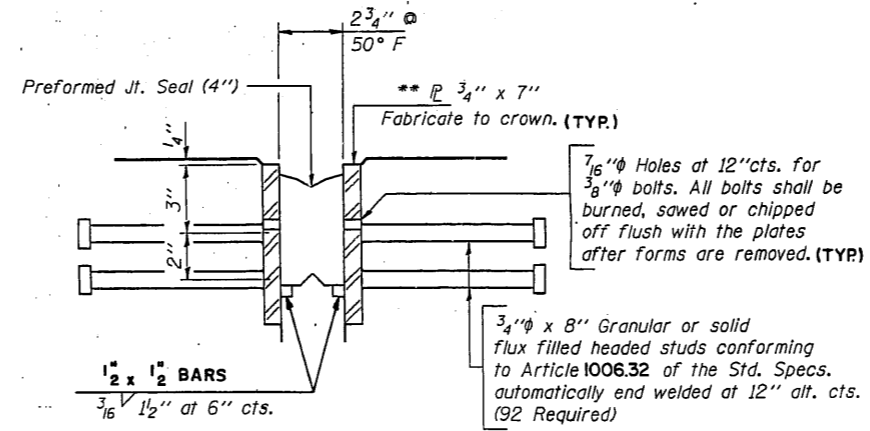
PREFORMED JOINT SEAL (4")



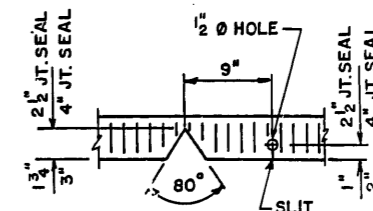
PREFORMED JOINT SEAL (2 1/2")



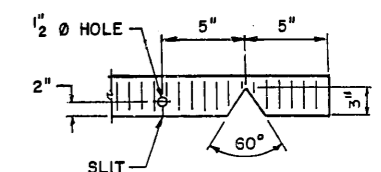
PLAN



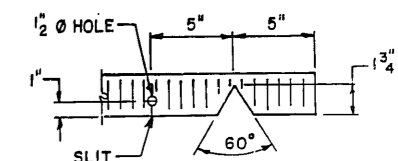
4" PREFORMED JOINT SEAL



SEAL CUT - OUT AT CURB



SEAL CUT - OUT (4")



SEAL CUT - OUT (2 1/2")

DETAIL "A"

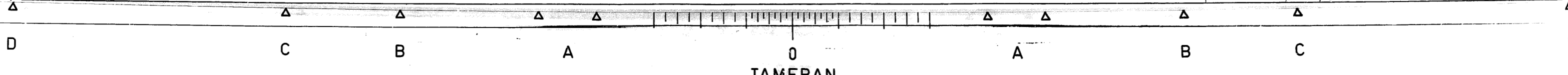
NOTES:  
 \*\* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel.

After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel. No. field painting required.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 INTERSTATE ROUTE 80  
 OVER ROWELL AVENUE  
 PREFORMED JOINT SEAL DETAIL  
 S.N. 099-0066/0067  
 SCALE: 50'=1"  
 DATE 08/01/95  
 DRAWN BY CADD  
 CHECKED BY JAF

Date Aug 1 07:57:05 1995  
 User: /usr/obj/ect/dll17393/dll17393b4.m32 LV=1-63



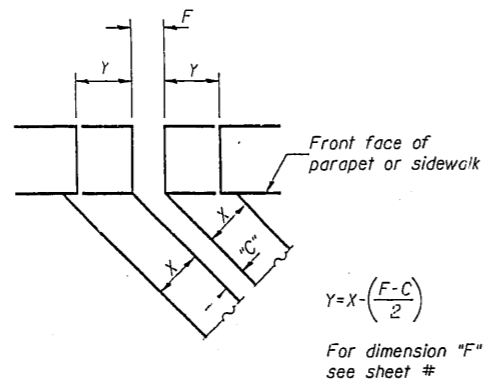
F. A. L. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	87
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 99-4-IRS-3 & 99-4-IVB-1				

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

**INSTALLATION NOTES**

- ① Install continuous seal in roadway, parapet, curb, and sidewalk.
- ② Install anchor blocks as indicated.

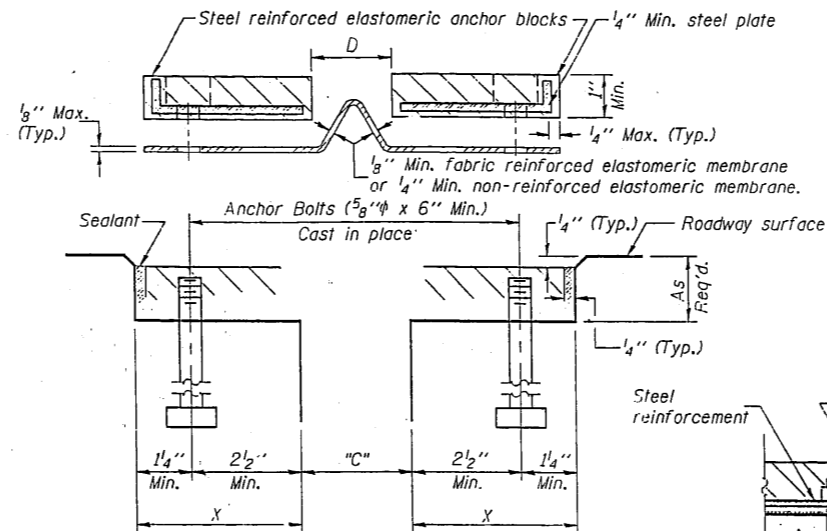
NOTE A: Maximum spacing of anchor bolts shall be 12" centers.



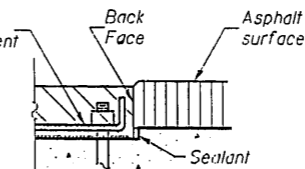
$$Y = X - \left( \frac{F - C}{2} \right)$$

For dimension "F" see sheet #

**FORMING BLOCKOUT SKETCH**



**CROSS SECTION**



**ANCHOR BLOCK WITH ASPHALT SURFACE**

**GENERAL NOTES**

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

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

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

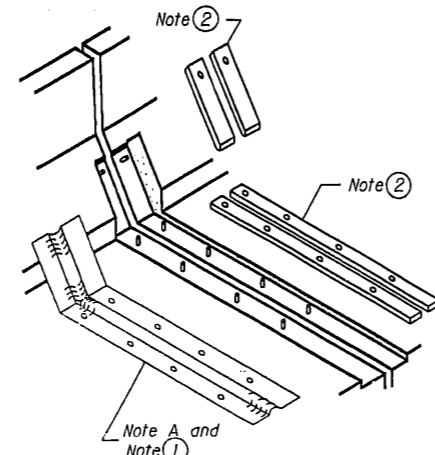
Joint openings shall be adjusted according to Article 503.01(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

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

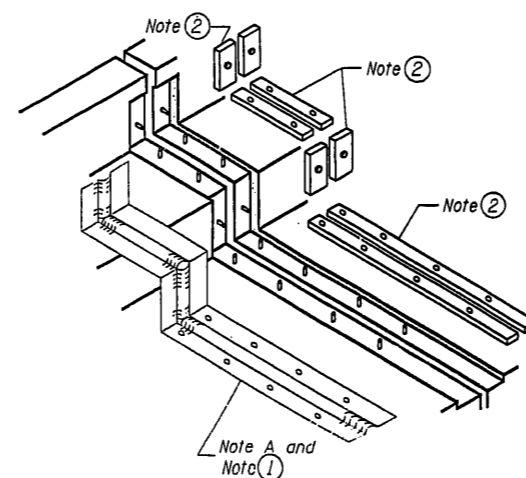
**SKREW LIMITATIONS**

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

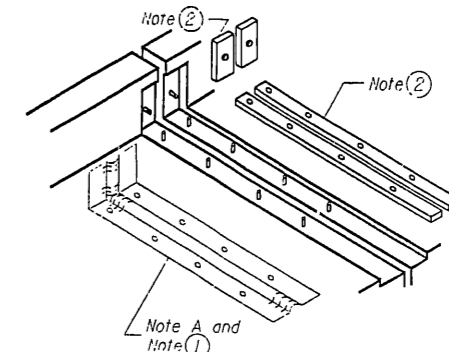
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



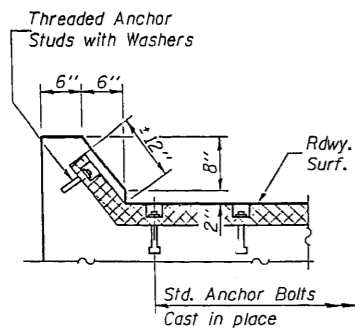
**AT PARAPET**



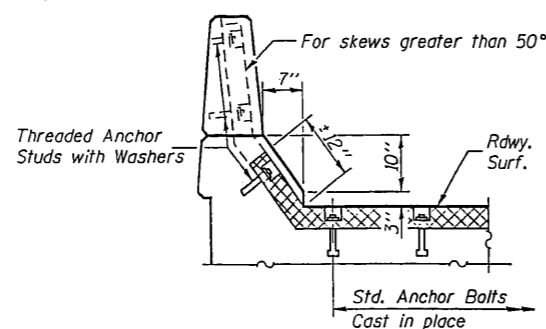
**AT SIDEWALK OR MEDIAN**



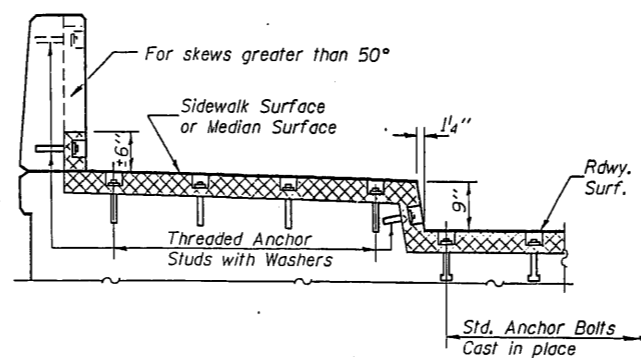
**AT WALL**



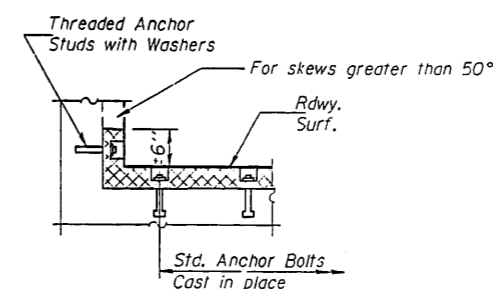
**AT CURB**



**AT PARAPET**



**AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS**



**AT WALL**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 INTERSTATE ROUTE 80  
 OVER ROWELL AVENUE  
 NEOPRENE EXPANSION JOINT  
 S.N. 099-0066/0067

SCALE: NONE  
 DATE 08/18/97

DRAWN BY C400  
 CHECKED BY TMS

EJ-CS 4-30-97

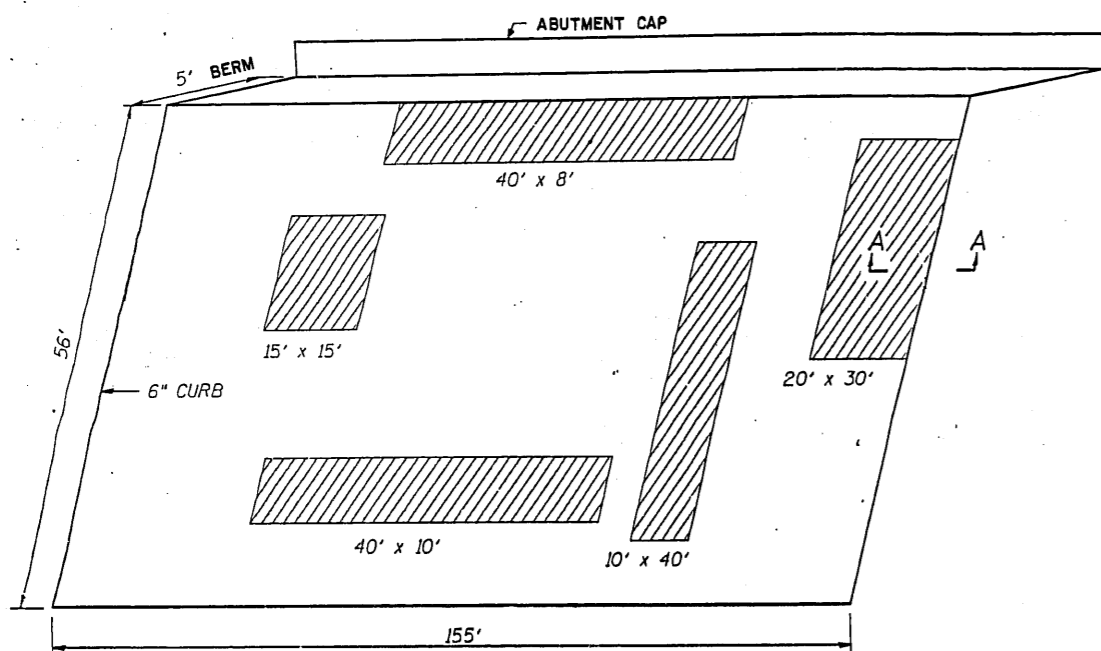






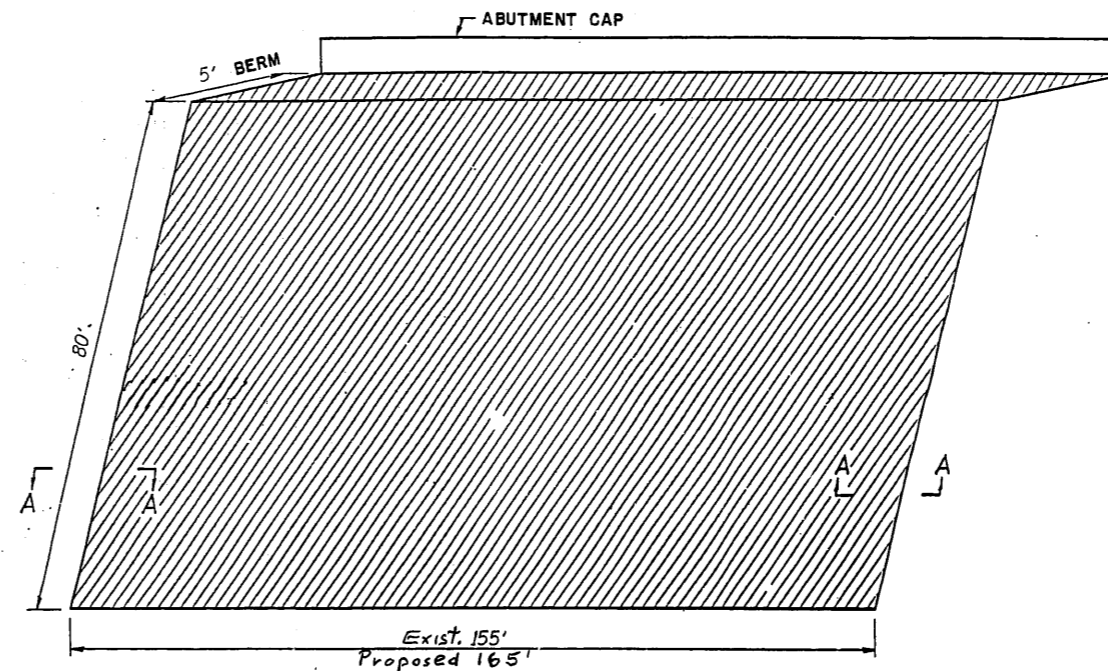
P. A. & ETC.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	90
STA.		TO STA.		
FED. ROAD DIST. NO.	BLK.	FED. AID PROJECT		

\*99-4-IRS-3 & 99-4-IVB-1



**EAST SLOPE WALL**

AREA TO BE REMOVED & REPLACED



**WEST SLOPE WALL**

AREA TO BE REMOVED & REPLACED

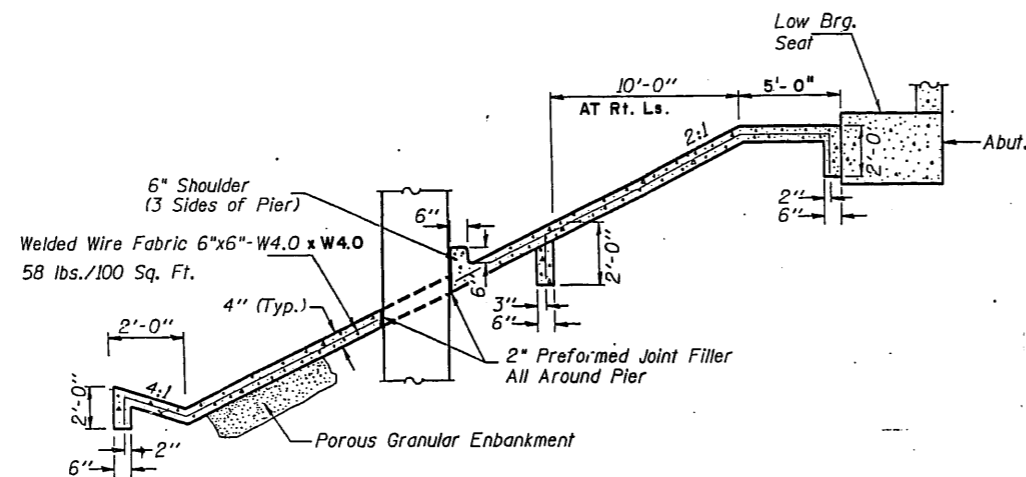
**NOTES**

Fill any void areas under slope wall with Porous Granular Embankment and repair existing slope wall.  
Hatched area indicates the limits of slope wall replacement.

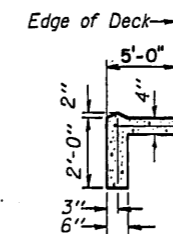
The space between the slope wall and pier shall be filled with two inch bituminous joint filler. The preformed joint filler shall be in accordance with the requirements of article 1051.03 of the Standard Specifications.  
Seal the top 1/4" with hot poured joint sealer as per article 1050.02 of the Standard Specifications. This work shall be considered incidental to the pay item "Slope Wall 4".

A 1/2" sawcut should be made at the proposed construction joint. Clean, straighten, and lap 6" of existing wire mesh form the existing adjacent slope wall with the proposed slope wall. This work shall be considered incidental to the pay item "Slope Wall Removal".

Furnishing, placing and compacting C.A. 6 crushed stone shall be done as directed by the engineer and paid for as tons of "Porous Granular Embankment".



**4" SLOPE WALL DETAIL**



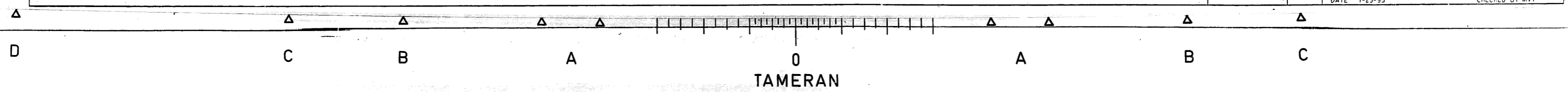
**SECTION A-A**

**BILL OF MATERIAL**

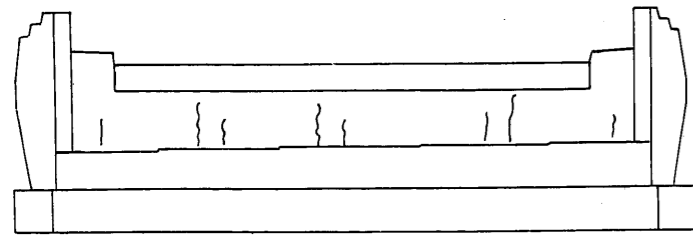
Item	Unit	Quantity
Slope Wall Removal	Sq. Yds.	1680
Slope Wall 4"	Sq. Yds.	1735
Porous Granular Embankment	Ton.	200

REVISIONS	
NAME	DATE

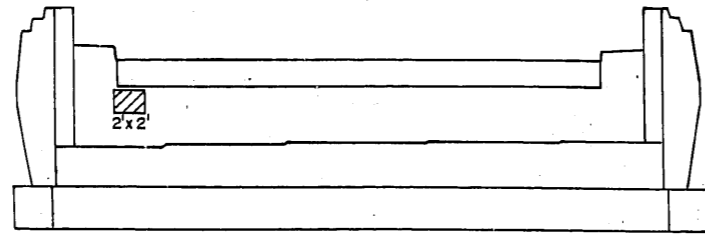
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 INTERSTATE ROUTE 80  
 OVER ROWELL AVENUE  
 S.N. 099-0066/0067  
 SLOPE WALL REPAIR DETAIL  
 SCALE: NONE  
 DATE 7-25-95  
 DRAWN BY JAF  
 CHECKED BY MVT



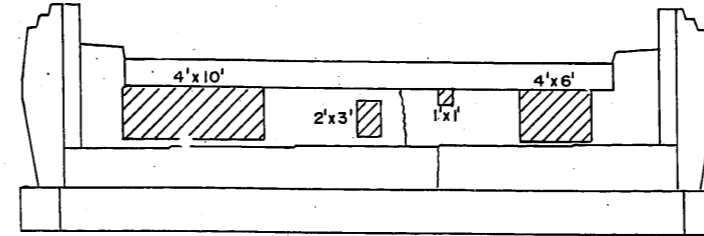
SECTION	COUNTY	TOTAL SHEETS	SHEET NO
80	WILL	160	91
STA		TO STA	
FED ROAD DIST NO 7		ILLINOIS	
FED AID PROJECT			
*99-4-IRS-3 & 99-4-IVB-1			



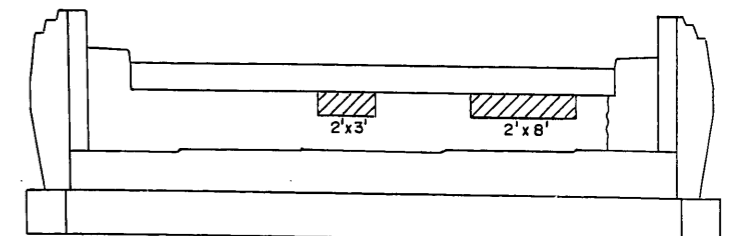
EAST ABUTMENT



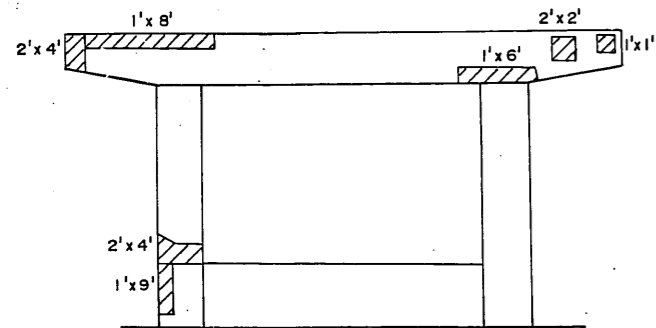
WEST ABUTMENT



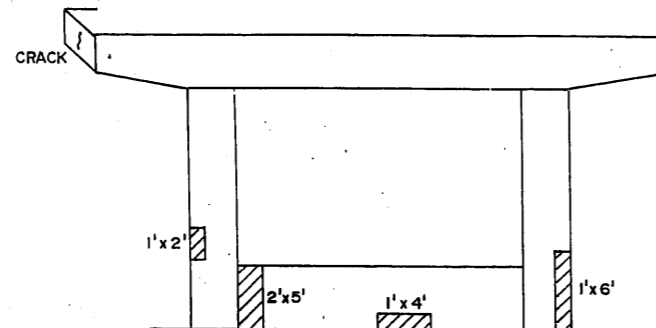
EAST ABUTMENT



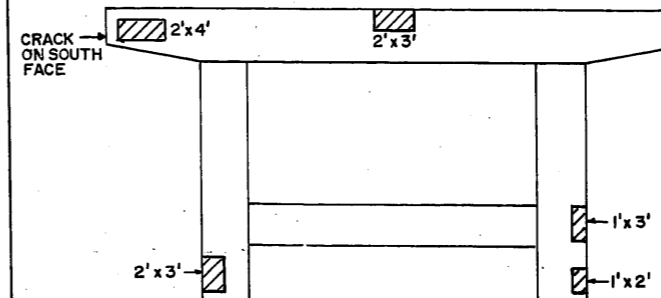
WEST ABUTMENT



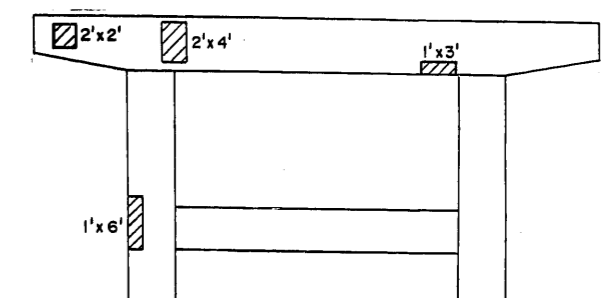
PIER 4  
EAST FACE



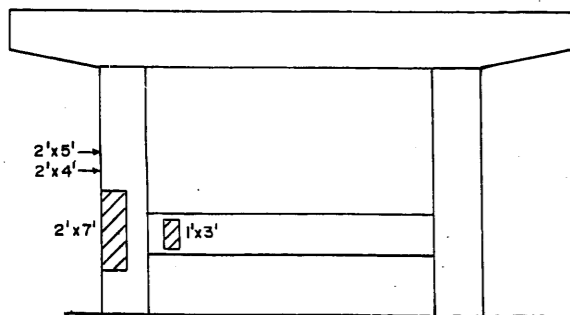
PIER 4  
WEST FACE



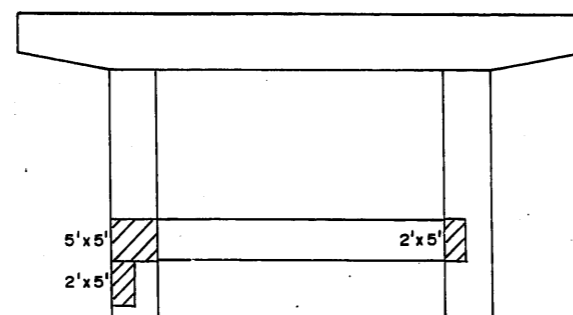
PIER 12  
EAST FACE



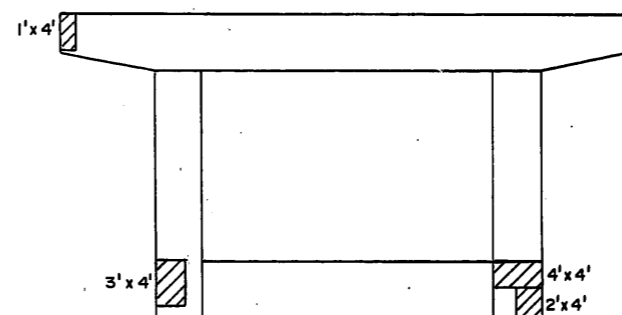
PIER 12  
WEST FACE



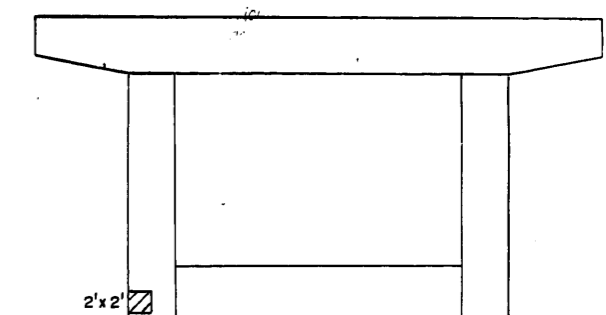
PIER 3  
EAST FACE



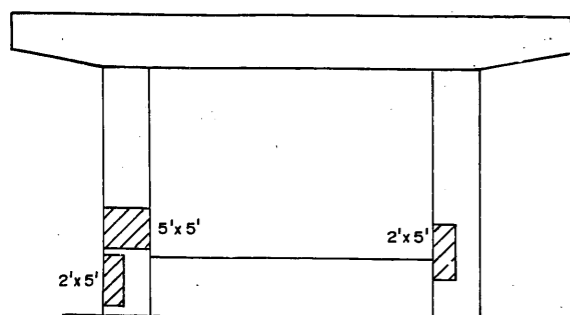
PIER 3  
WEST FACE



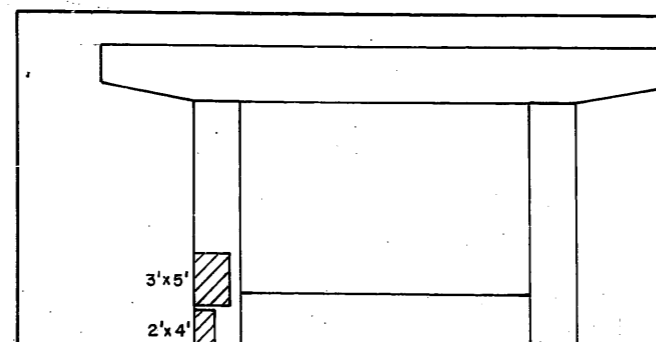
PIER 11  
EAST FACE



PIER 11  
WEST FACE



PIER 2  
WEST FACE



PIER 9  
WEST FACE

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
HIGH PERFORMANCE ENHANCED SHOTCRETE	SQ. FT.	410
EPOXY CRACK SEALING	FOOT	50

NOTES:

CONCRETE REPAIR IS TO DETERMINED IN THE FIELD AT THE RESIDENT ENGINEER'S DISCRETION.  
THE ENGINEER SHALL MARK THE LOCATION OF THE REPAIRS ON THE AS-BUILT PLANS.

LEGEND:

- HIGH PERFORMANCE ENHANCED SHOTCRETE
- EPOXY CRACK SEALING

ABUTMENTS AND PIERS INSPECTED BY: B.W.  
DATE: AUGUST, 1998

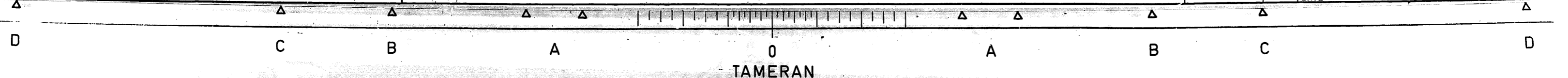
WEST BOUND I-80

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

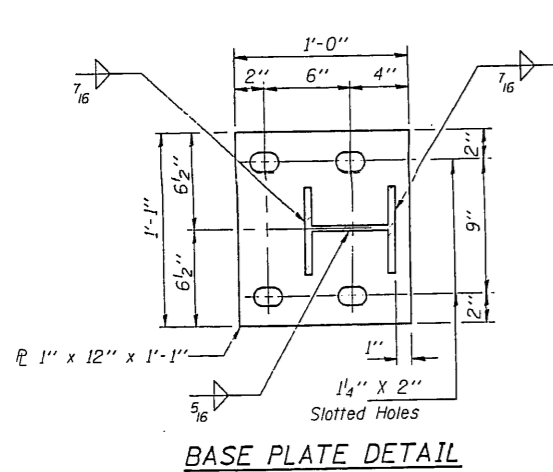
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
ABUTMENTS AND PIERS REPAIR DETAILS  
S.N.099-0066  
S.N.099-0067

SCALE: VERT.      DRAWN BY MVT  
HORIZ.              CHECKED BY TMS  
DATE

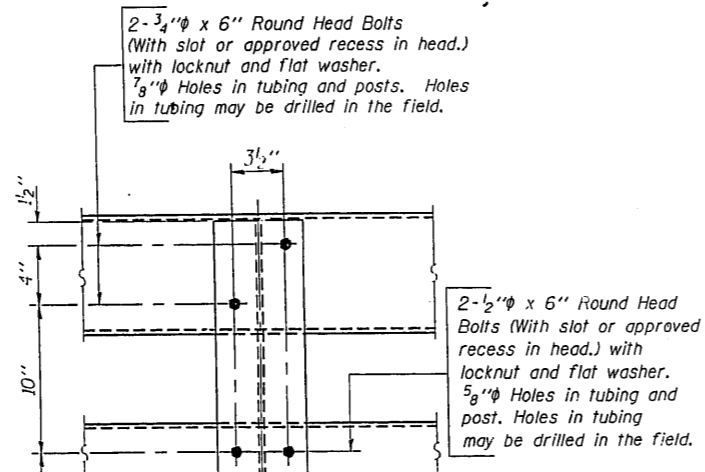


SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	WILL	160	92
STA. TO STA.			

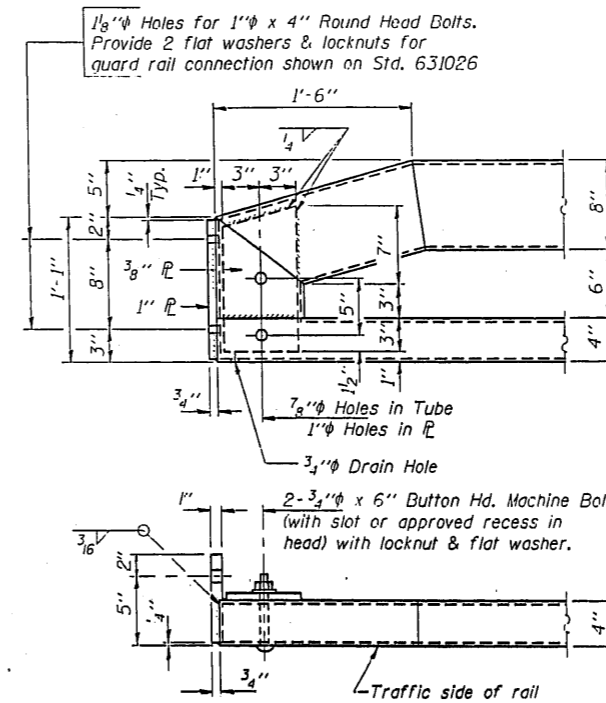
\*99-4-IRS-3 & 99-4-IVB-1



BASE PLATE DETAIL



SECTION A-A



END OF RAIL DETAILS

**NOTES**  
 Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0°F.  
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts shall conform to AASHTO M 270, Grade 50.  
 Bolts, cap screws and nuts shall conform to the requirements of ASTM designation A 307 except that threaded rods, nuts and washers shall conform to AASHTO M 154.  
 All bolts, nuts, cap screws and lock washers shall be galvanized according to AASHTO M 232.  
 All posts, railing, rail splices and anchor rods shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 395. Galvanized rail shall not be painted.  
 Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL BRIDGE RAIL.  
 All field drilled holes shall be coated with an approved zinc rich paint before erection.  
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.  
**STEEL BRIDGE RAIL expansion joint** shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.  
 Provide one 1/2" and two 1/8" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.  
 Expansion joint width shall be "D" at 50° F and shall be adjusted for other temperatures according to Article 503.10(c) of the Standard Specifications.  
 The Contractor shall use 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 shall be a sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.  
 Nuts for 1" threaded anchor rods connecting the base plate to the concrete shall be tightened to a snug fit and given an additional 1/2 turn.

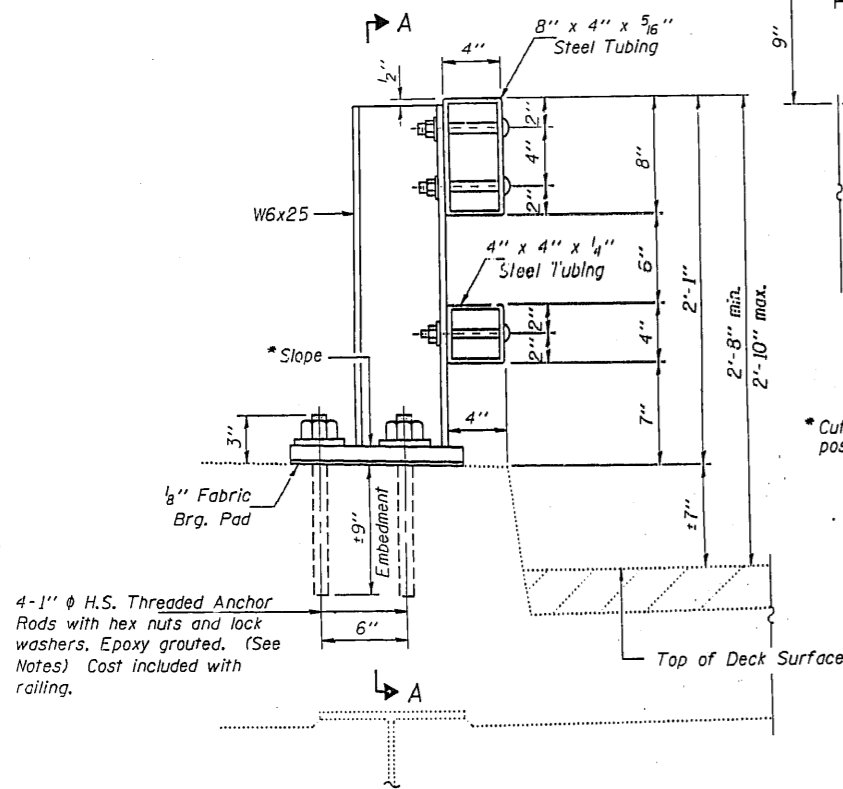
**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Bridge Rail	Foot	2385

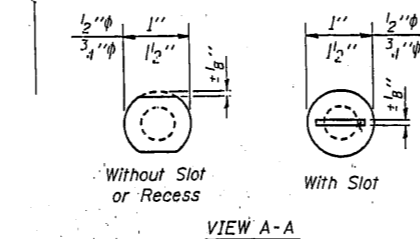
**SPLICE DIMENSIONS**

T	D	A	B	C	F
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 1/2"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/2"	1'-8"	2"	4"	—

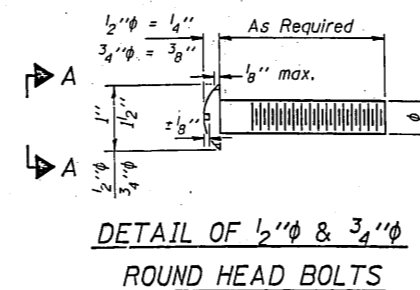
T = Total movement at expansion joint as shown on the design plans.



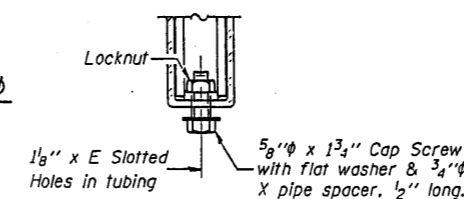
SECTION AT RAIL POST



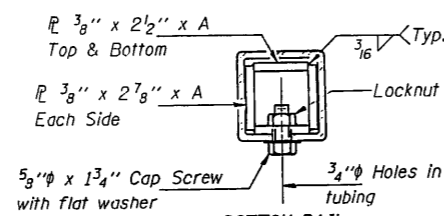
VIEW A-A



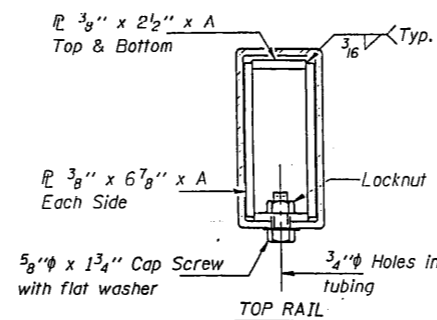
DETAIL OF 1/2" & 3/4" ROUND HEAD BOLTS



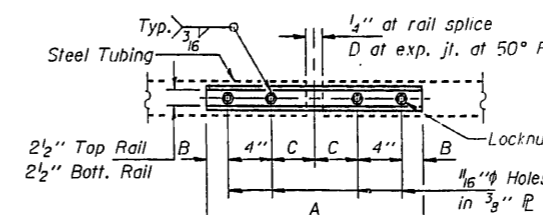
RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE (6'-3" Maximum Post Spacing)



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE R TYPICAL

REVISIONS	
NAME	DATE

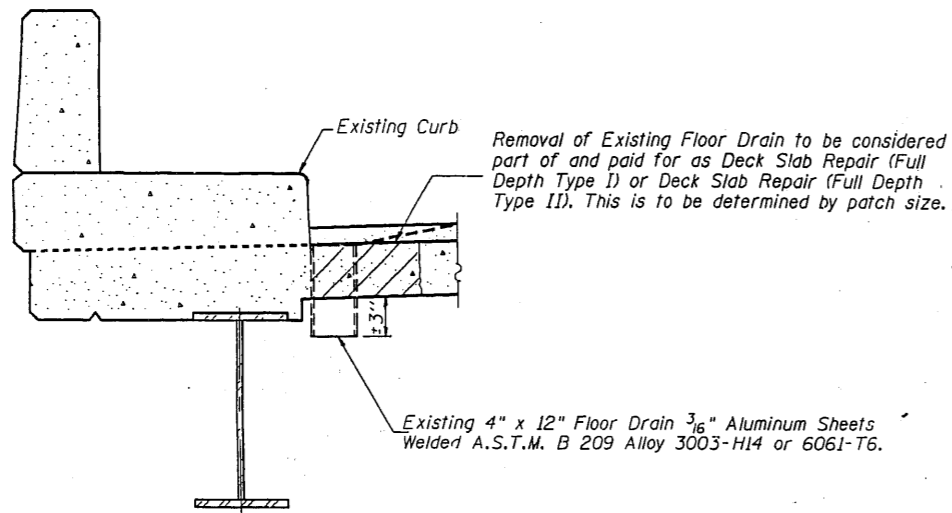
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 INTERSTATE ROUTE 80  
 OVER ROWELL AVENUE  
 STEEL BRIDGE RAIL-CURB MOUNTED  
 (2399)  
 S.N. 099-0066/0067  
 SCALE: NONE  
 DATE 08/18/97  
 DRAWN BY CADD  
 CHECKED BY TMS

Mod: Aug 18 10:34 1997  
 C:\projects\struct\stoc.stal.m32 LV1-63

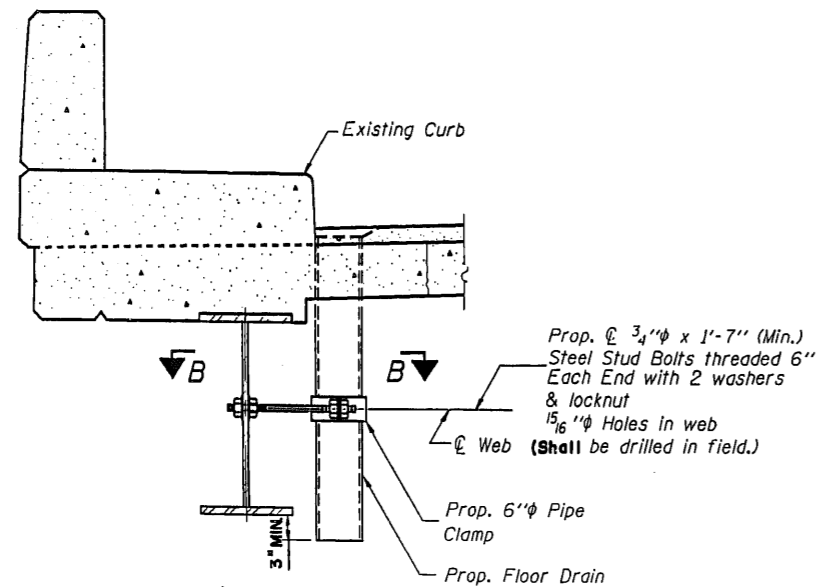
F. A. & ETL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	92
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\* 99-4-IRS-3 & 99-4-IVB-1

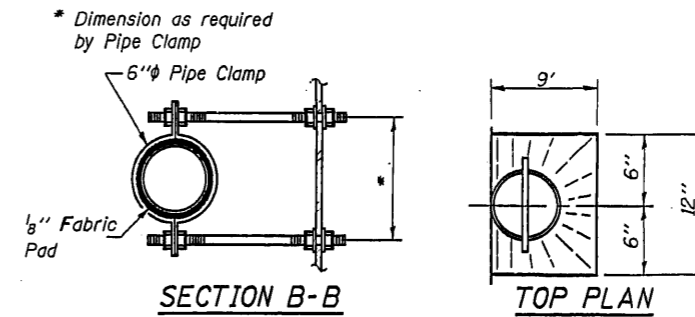
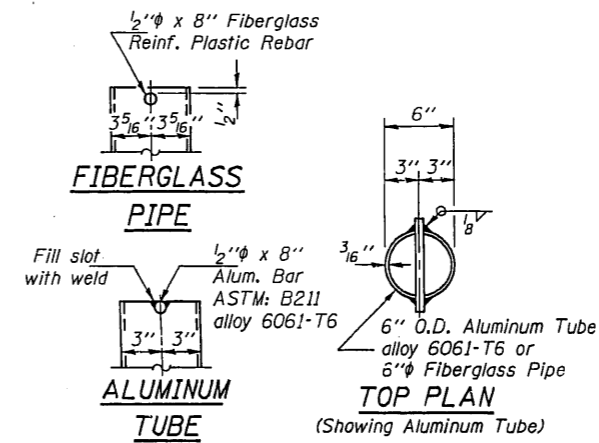
NOTE:  
REMOVE AND ELIMINATE DRAINS WITHIN  
10'-0" FROM FACE OF ABUTMENT  
OR PIER.



EXISTING SECTION THRU PARAPET



PROPOSED SECTION THRU PARAPET



Notes:  
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting Metal Structures. The exterior surfaces of the drain shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting.  
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass Pipe shall be free of bond inhibiting agents.

BILL OF MATERIAL

Item	Unit	Quantity
Floor Drains	Each	92

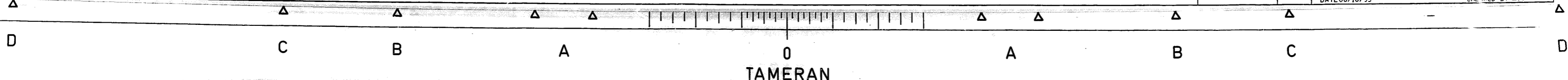
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
FLOOR DRAIN DETAIL  
S.N. 099-0066/0067

SCALE: NONE  
DATE 06/16/95

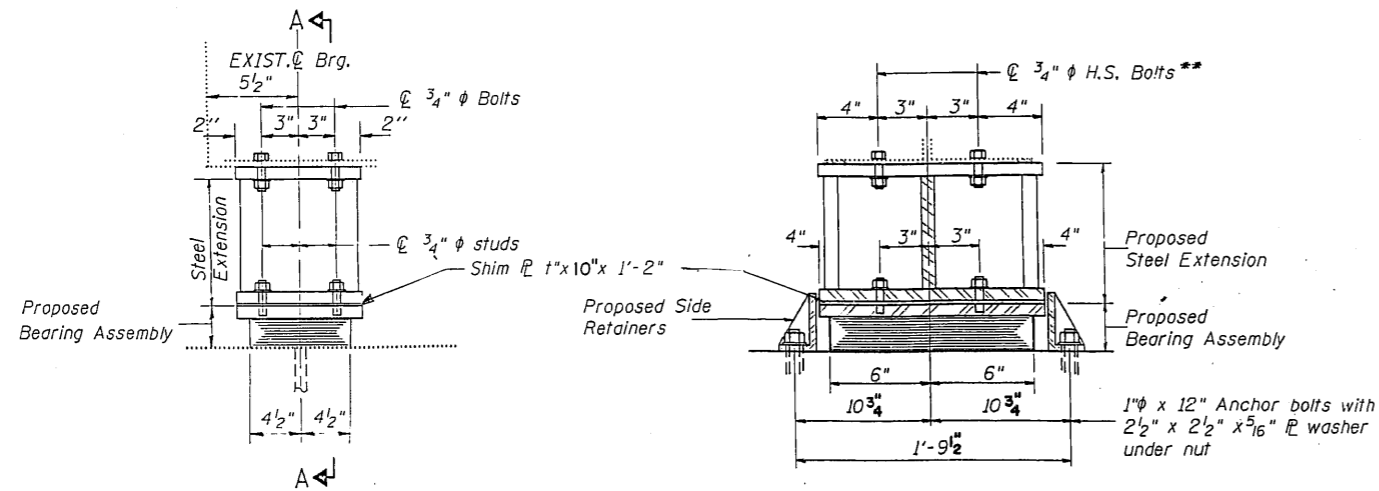
DRAWN BY JAF  
CHECKED BY MVT

FRI Jun 16 15:03:16 1995 /usr/project/dit/393/dit/393b4.snp LVI-63





SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	WILL	160	94
STA. TO STA.		FED. AID PROJECT	
* 99-4-IRS-3 & 99-4-IVB-1			



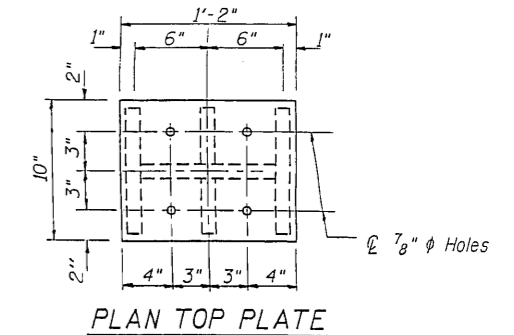
ELEVATION AT SOUTHWEST/NORTHWEST ABUTMENT AND PIER#4 (WEST BEARING)  
(15 Required)

SECTION A-A

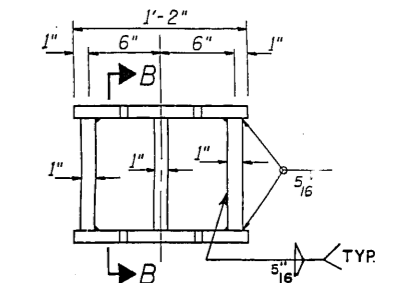
TYPE I ELASTOMERIC EXP. BRG.

GIRDER REACTIONS

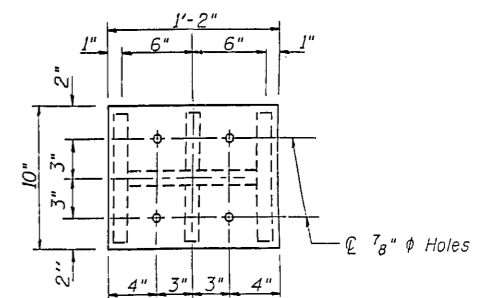
	N.W. ABUT.	S.W. ABUT.	PIER #4
RDL (K)	26.5	26.5	39.6
RL (K)	41.4	41.4	44.5
R Imp. (K)	11.6	11.6	11.6
R tot. (K)	79.5	79.5	95.7



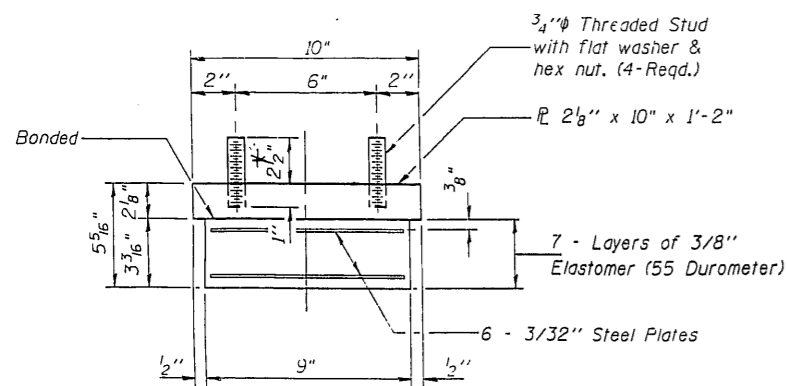
PLAN TOP PLATE



STEEL EXTENSION DETAIL



PLAN BOTTOM PLATE



BEARING ASSEMBLY

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

Table Of Dimension "I" For Shim Plates

Beam No.	F	G	H	J	K
PIER #4	1/4"	1/16"	1/16"	1/16"	1/4"

\* INCREASE HT OF THREADED STUD AS REQUIRED.

NOTES:

Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost included with Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

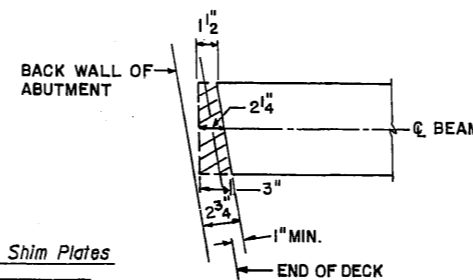
\*\* 1 5/16" diameter holes are to be drilled in the field to the bottom of existing beams. Cost included with Furnishing and Erecting Structural Steel.

For the details of existing bearings see sheet S24. Contractor shall submit jacking details for approval by the bridge office.

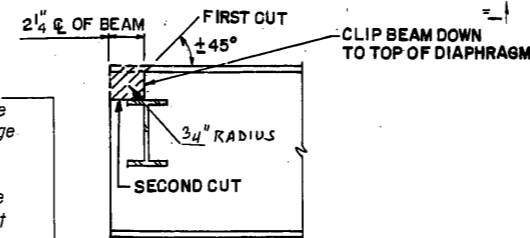
For anchor bolt details see sheet S 21. Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions

Diaphragm removal and replacement may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

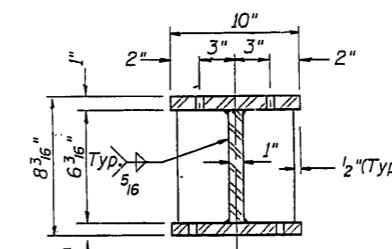
The cost of clipping the existing beam ends is included in the price of FURNISHING AND ERECTING STRUCTURAL STEEL.



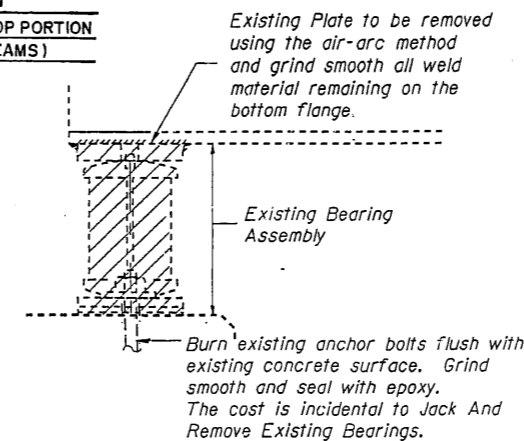
PLAN



ELEVATION WEST ABUTMENT TOP PORTION OF BEAM (ALL BEAMS)



SECTION B-B



EXISTING BEARING REMOVAL

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	15
Furnishing And Erecting Structural Steel	lbs.	3020
Jack And Remove Existing Bearings	Each	15

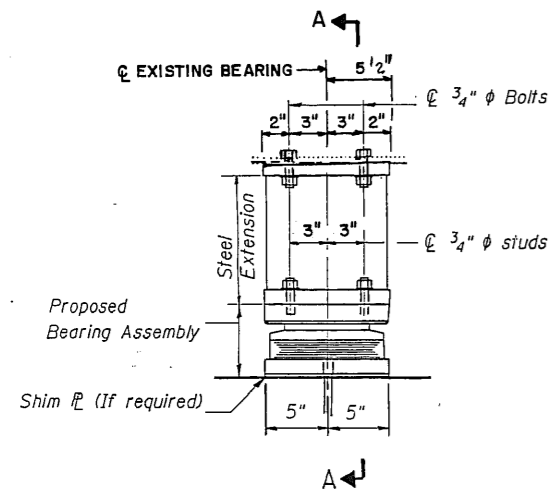
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
ELASTOMERIC BEARING DETAIL  
N.W./S.W. ABUT. & PIER #4 (W. BRG)  
S.N. 099-0066/0067  
SCALE: NONE  
DATE 08/02/95  
DRAWN BY CADO  
CHECKED BY JCF

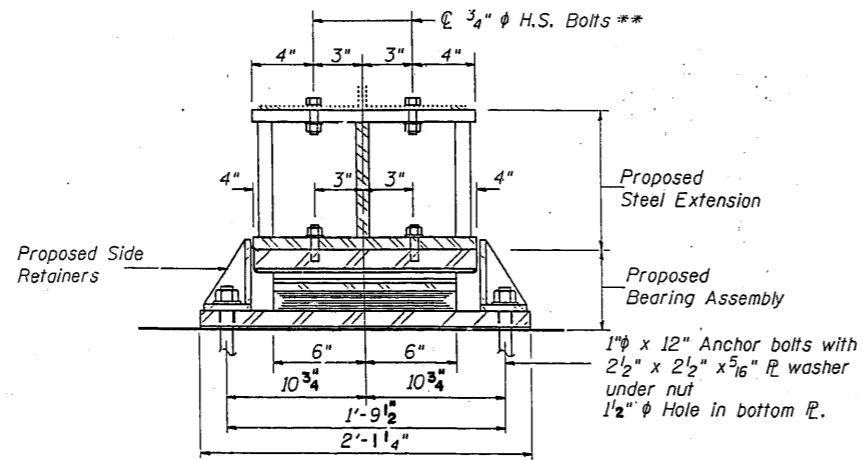
I-2-E1 2-26-93

F. A. L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	COOK	160	96
STA.		TO STA.		
FED. AID DIST. NO.		ILLINOIS		
		FED. AID PROJECT		

\* 99-4-IRS-3 8 99-4-IVB-1

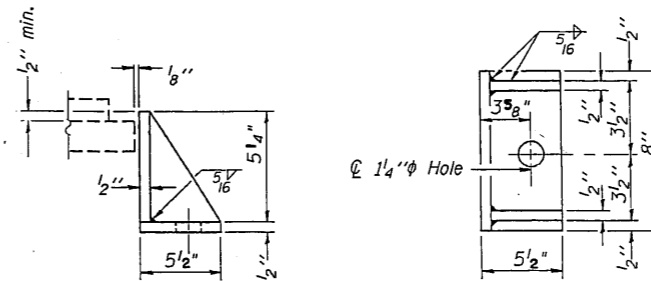


ELEVATION AT PIER #3 (WEST BEARING)  
(5 Required)



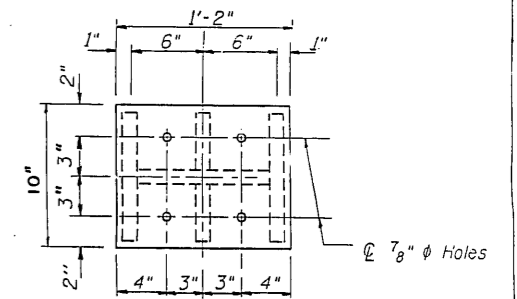
SECTION A-A

TYPE II ELASTOMERIC EXP. BRG.

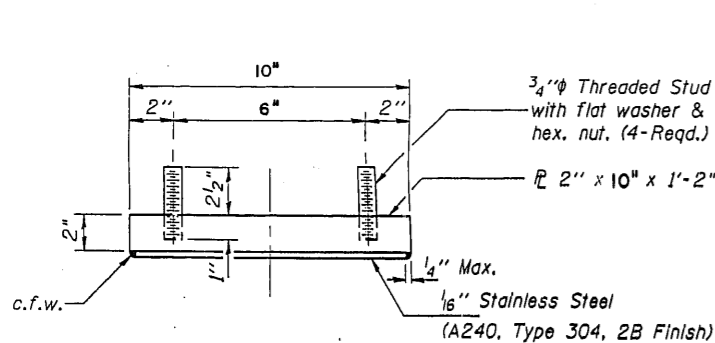


SIDE RETAINER

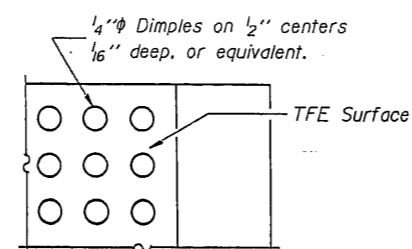
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel. (10 REQUIRED)



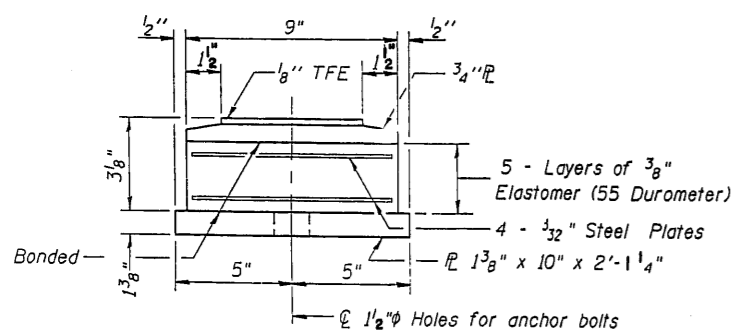
PLAN TOP PLATE



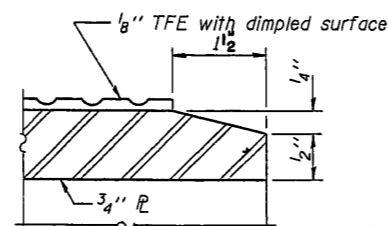
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



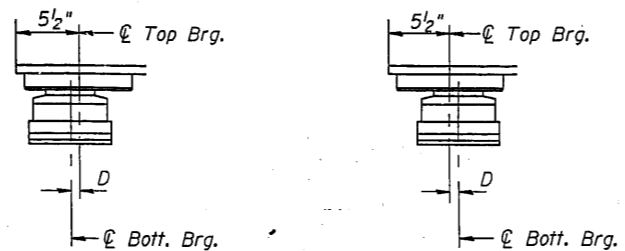
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

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.

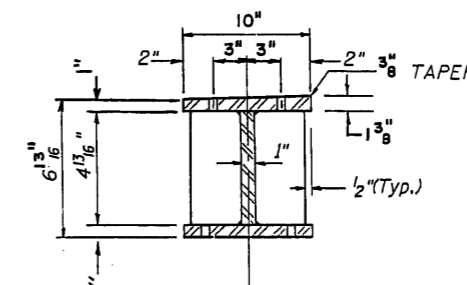
Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



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.



SECTION B-B

NOTES:

Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost included with Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

\*\* 3/16" diameter holes are to be drilled in the field to the bottom of existing beams. Cost included with Furnishing and Erecting Structural Steel.

For the details of existing bearings see sheets S 24. Contractor shall submit jacking details for approval by the bridge office.

For anchor bolt details see sheet S 21. Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions.

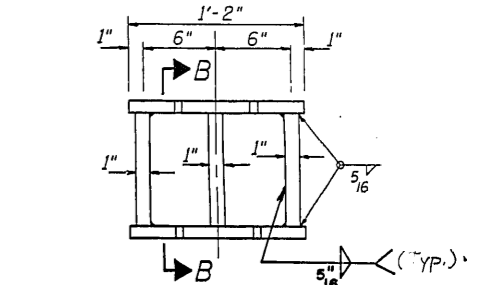
Diaphragm removal and replacement may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

Table Of Dimension "t" For Shim Plates

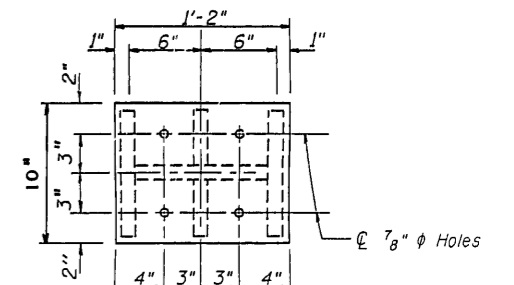
Beam No.	F	G	H	J	K
PIER #3	0	0	0	0	0

GIRDER REACTIONS

R DL (K)	26.5
R LL + Imp. (K)	53.0
R (Total) (K)	79.5



STEEL EXTENSION DETAIL



PLAN BOTTOM PLATE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Furnishing And Erecting Structural Steel	lbs.	1030
Jack And Remove Existing Bearings	Each	5

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
PIER #3 (WEST BEARING)  
ELASTOMERIC BEARING DETAIL  
S.N. 099-0066/0067

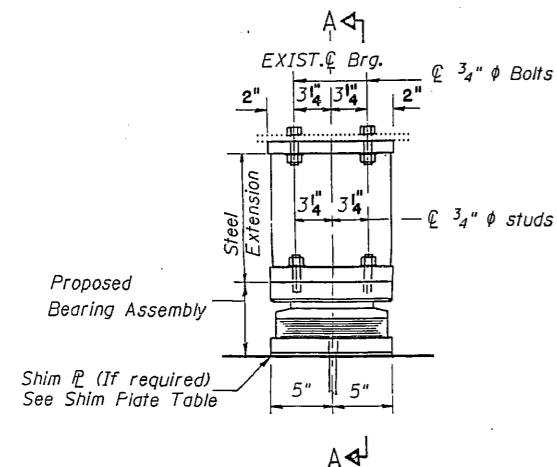
SCALE: NONE  
DATE 08/02/95

DRAWN BY CADD  
CHECKED BY JAF

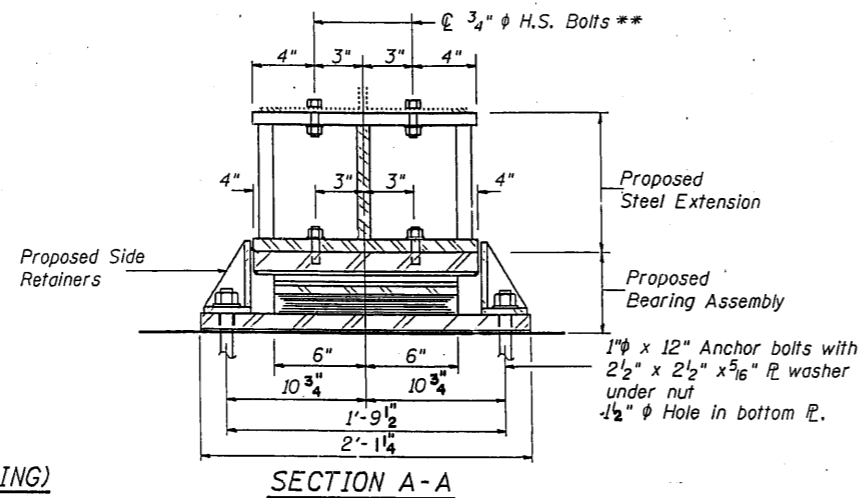
REVISIONS	
NAME	DATE

Wed Aug 2 07:12:59 1995  
/usr/pr/plot/dll7393/dll7393b2.m? LV-1-8,16,35

F.A.L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	97
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 99-4-IRS-3 B 99-4-IVB-I				

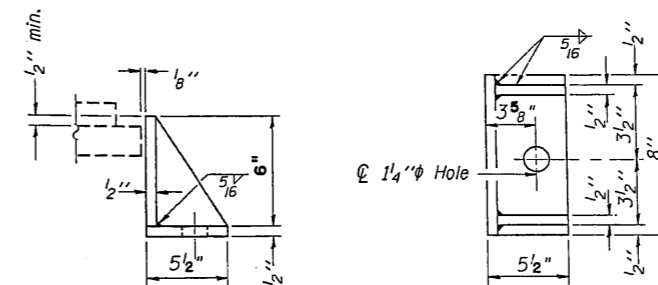


ELEVATION AT PIER #11 (WEST BEARING)  
(5 Required)

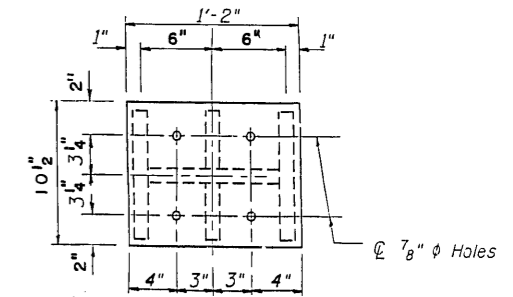


SECTION A-A

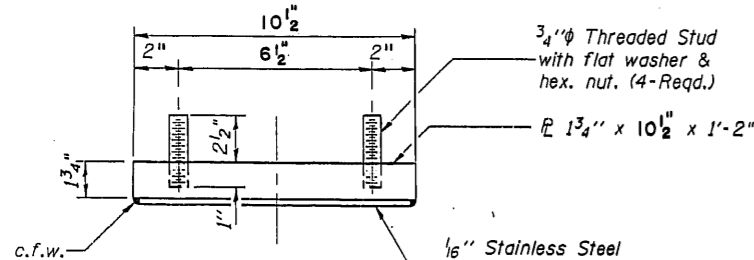
TYPE II ELASTOMERIC EXP. BRG.



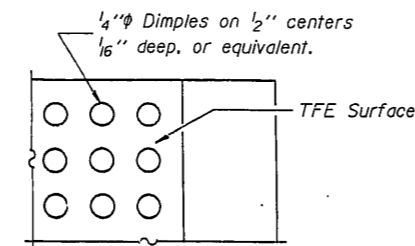
SIDE RETAINER  
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel. (10 REQUIRED)



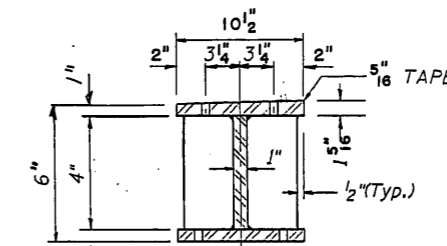
PLAN TOP PLATE



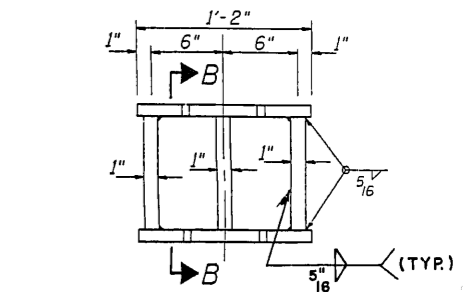
TOP BEARING ASSEMBLY



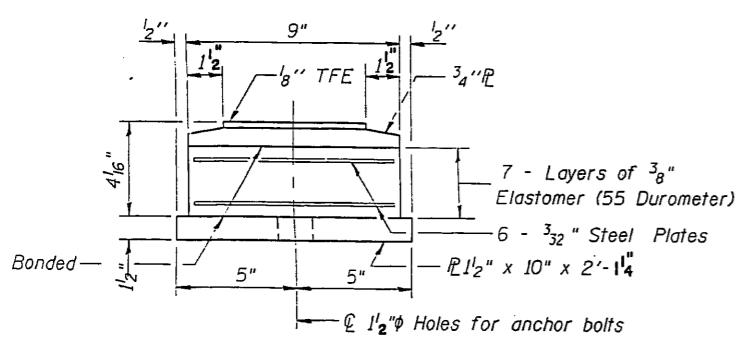
PLAN-TFE SURFACE



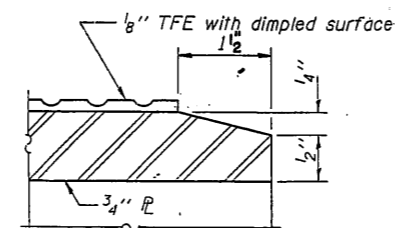
SECTION B-B



STEEL EXTENSION DETAIL



BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

NOTES:  
Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost included with Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

\*\* 1/16" diameter holes are to be drilled in the field to the bottom of existing beams. Cost included with Furnishing and Erecting Structural Steel.

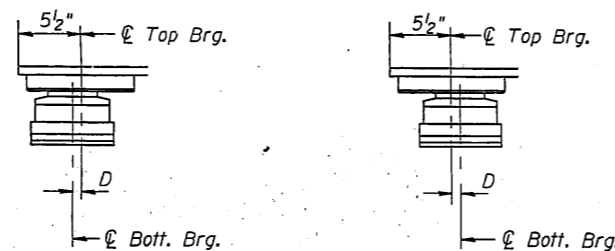
For the details of existing bearings see sheets S24. Contractor shall submit jacking details for approval by the bridge office. For anchor bolt details see sheet S21.

Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions.

Diaphragm removal and replacement may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

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.

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.



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.

Table Of Dimension "t" For Shim Plates

Beam No.	A	B	C	D	E
PIER #11	3/8"	0	0	0	0

GIRDER REACTIONS

RDL (K)	26.5
RLI+Imp. (K)	53.0
R (Total) (K)	79.5

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Furnishing And Erecting Structural Steel	lbs.	1100
Jack And Remove Existing Bearings	Each	5

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
PIER #11 (WEST BEARING)  
ELASTOMERIC BEARING DETAIL  
S.N. 099-0066/0067

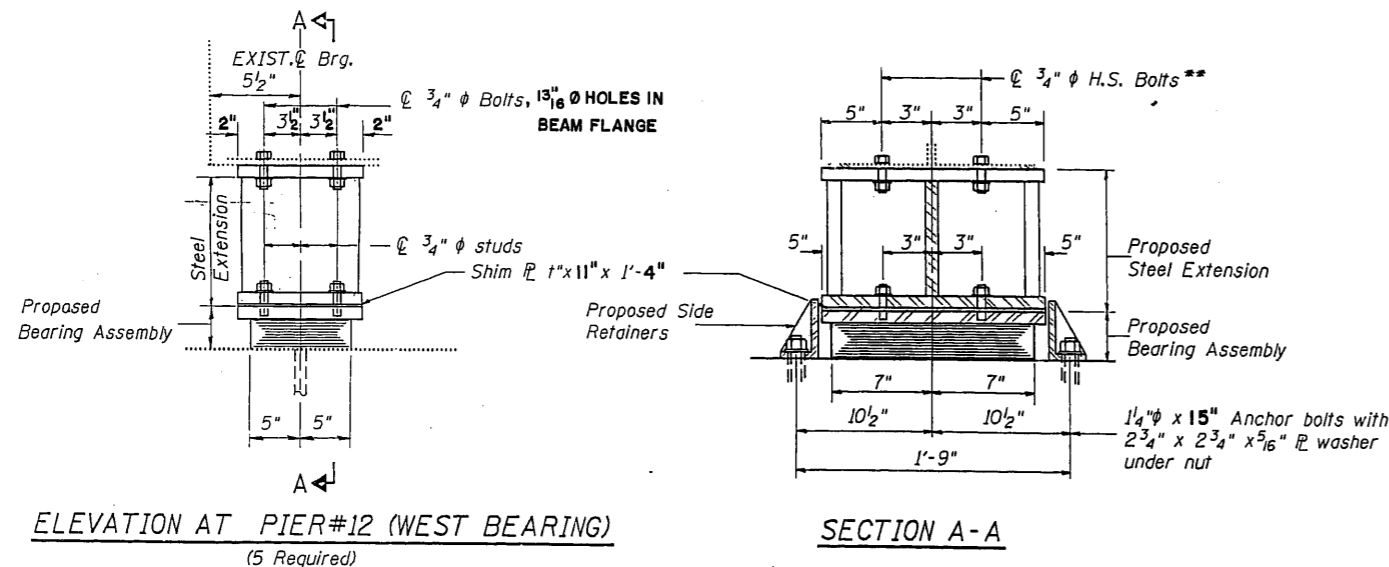
SCALE: NONE DRAWN BY CADD  
DATE 08/02/95 CHECKED BY JAF

REVISIONS	
NAME	DATE

I-2-E2 2-26-93  
 Re: I-2-E2 2-26-93  
 User: p/c/ict/d117333/d1173 2-26-93 11:31-8:16:35

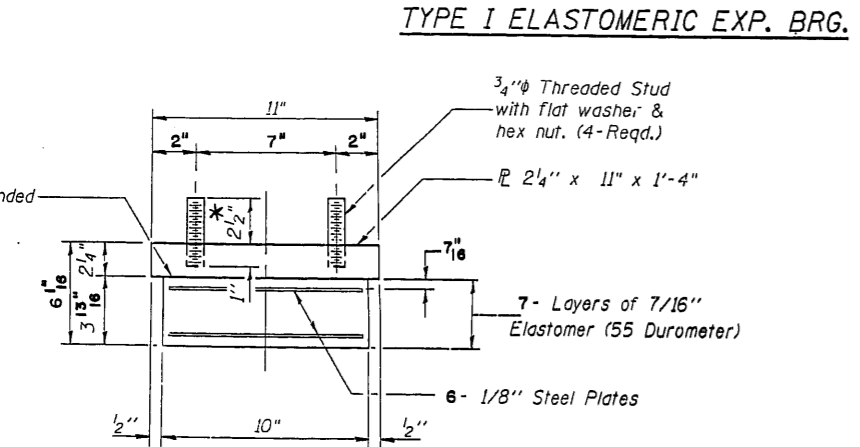
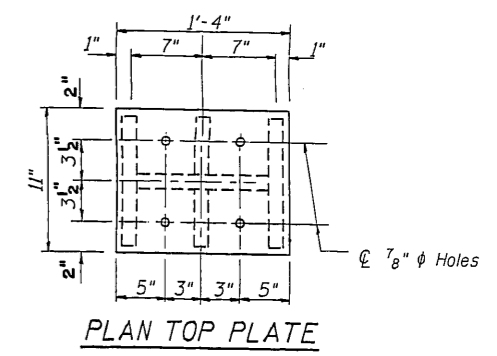
F.A.L. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	98
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\*99-4-IRS-3 & 99-4-IVB-1



**GIRDER REACTIONS**

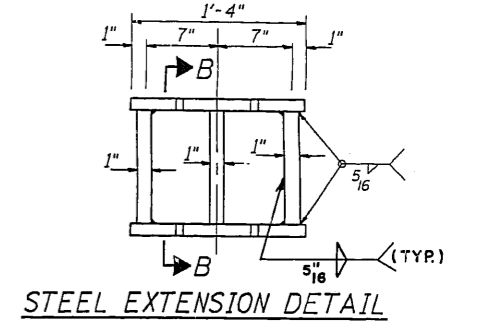
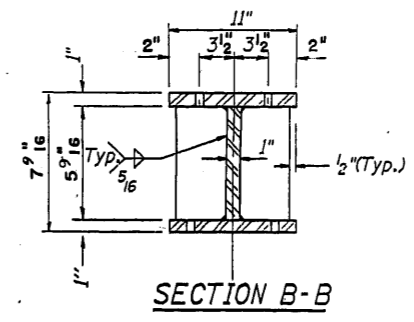
	PIER #12
RDL (K)	47.6
RLL+Imp. (K)	56.9
R (Total) (K)	104.5



**Table Of Dimension "I" For Shim Plates**

Beam No.	A	B	C	D	E
PIER #12	0	0	5/16"	5/16"	0

\* INCREASE HEIGHT OF THREADED STUD AS REQUIRED



**BEARING ASSEMBLY**

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

**NOTES:**  
 Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost included with Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

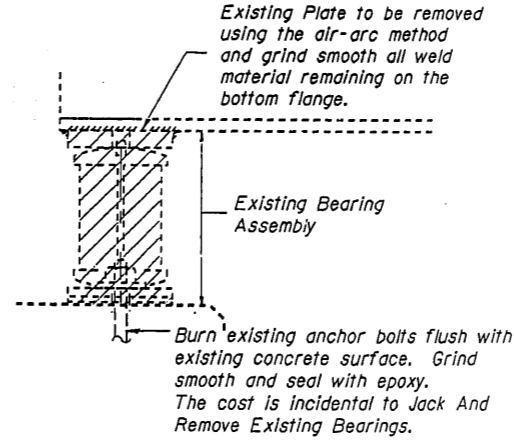
New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

\*\* 1 3/8" diameter holes are to be drilled in the field to the bottom of existing beams. Cost included with Furnishing and Erecting Structural Steel.

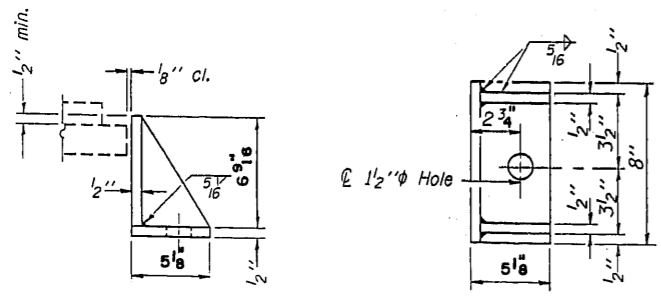
For the details of existing bearings see sheets S24. Contractor shall submit jacking details for approval by the bridge office.

For anchor bolt details see sheet S 21. Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions.

Diaphragm removal and replacement may be required to facilitate drilling. Cost included with Furnishing and Erecting Structural Steel.

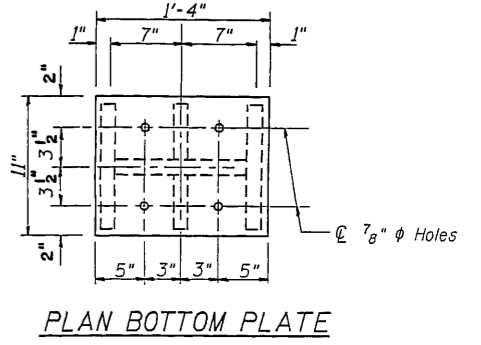


**EXISTING BEARING REMOVAL**



**SIDE RETAINER**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel. (10 REQUIRED)



**PLAN BOTTOM PLATE**

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Furnishing And Erecting Structural Steel	lbs.	1180
Jack And Remove Existing Bearings	Each	5

**REVISIONS**

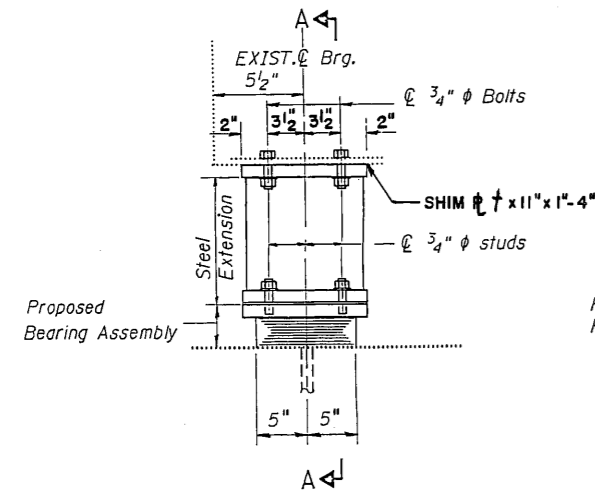
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 INTERSTATE ROUTE 80  
 OVER ROWELL AVENUE  
 ELASTOMERIC BEARING DETAIL  
 FOR PIER #12 (WEST BEARING)  
 S.N. 099-0066/0067  
 SCALE: NONE DRAWN BY CADD  
 DATE 08/01/95 CHECKED BY JAF

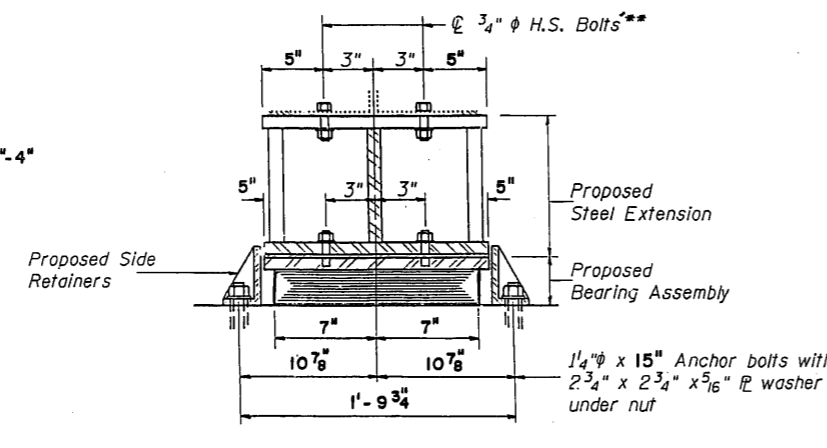
Tue Aug 1 15:11:44 1995  
 /usr/project/d117393/d11739322.m? L=1-8,16,35

I-2-E1 2-26-93

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	WILL	160	99
STA. TO STA.		FED. AID PROJECT	
FED. ROAD DIST. NO.		ILLINOIS	
* 99-4-IRS-3 & 99-4-IVB-1			



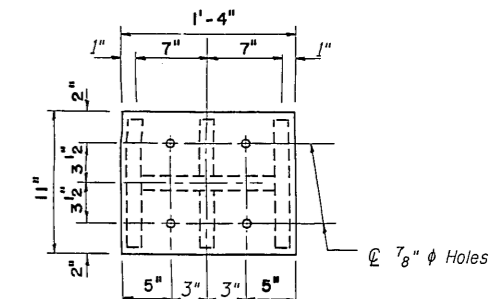
ELEVATION AT PIER(#4 & #12)(EAST BEARING)  
(10 Required)



SECTION A-A

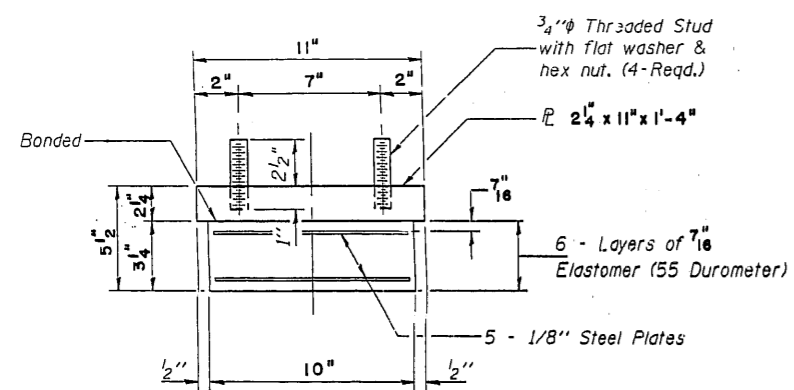
GIRDER REACTIONS

	PIER #4	PIER #12
RDL (K)	40.6	37.1
RLL+Imp. (K)	55.7	55.5
R (Total) (K)	96.3	92.6



PLAN TOP PLATE

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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

Table Of Dimension "7" For Shim Plates

Beam No.	A	B	C	D	E
PIER #12	3/8"	3/16"	0	0	0

NOTES:

Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost included with Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

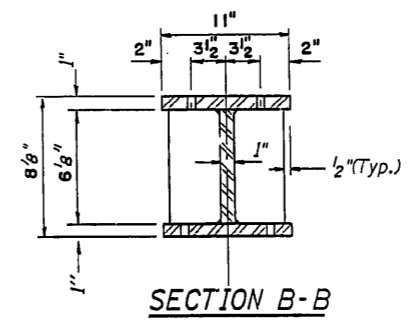
New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

\*\* 1 3/16" diameter holes are to be drilled in the field to the bottom of existing beams. Cost included with Furnishing and Erecting Structural Steel.

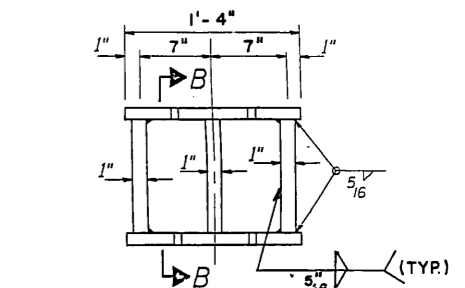
For the details of existing bearings see sheets S24. Contractor shall submit jacking details for approval by the bridge office.

For anchor bolt details see sheet S21. Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions.

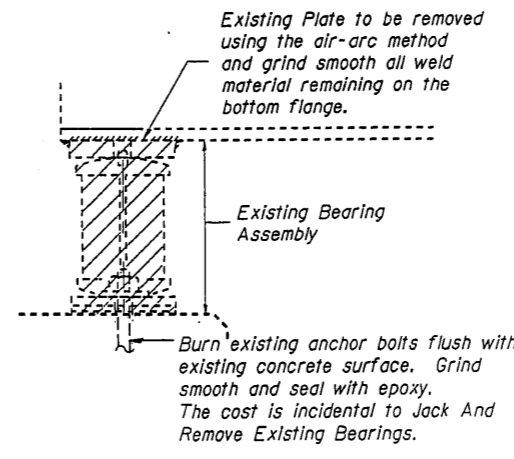
Diaphragm removal and replacement may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.



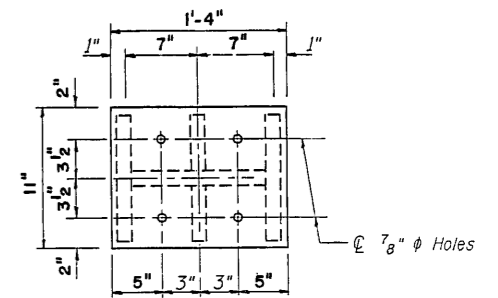
SECTION B-B



STEEL EXTENSION DETAIL



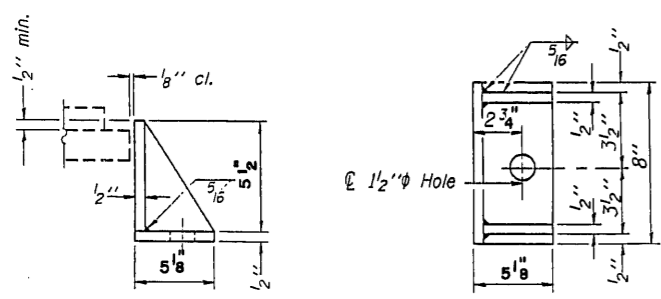
EXISTING BEARING REMOVAL



PLAN BOTTOM PLATE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	10
Furnishing And Erecting Structural Steel	lbs.	2740
Jack And Remove Existing Bearings	Each	10



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel. (20 REQUIRED)

REVISIONS

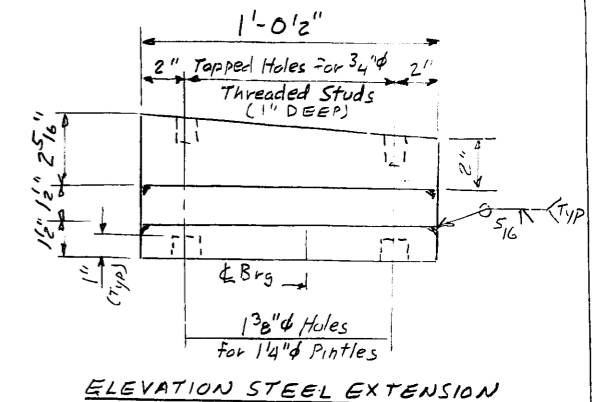
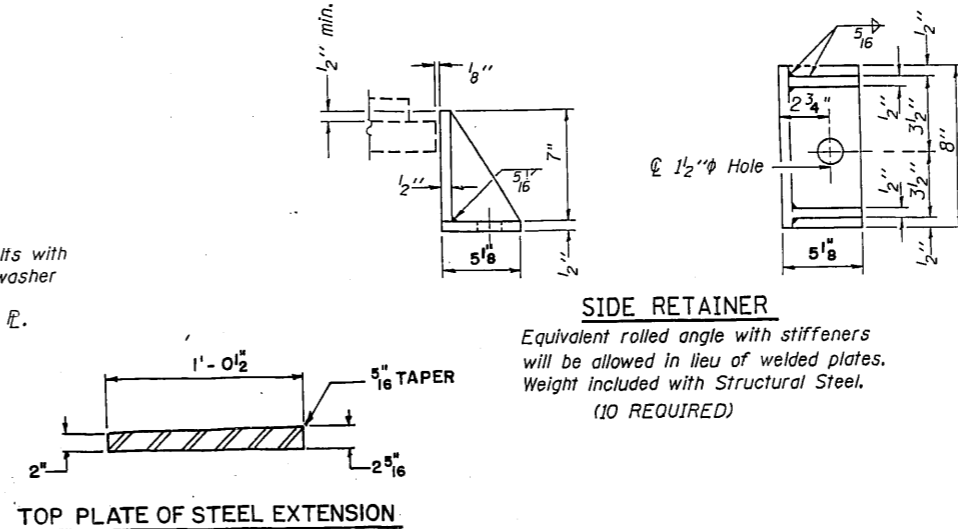
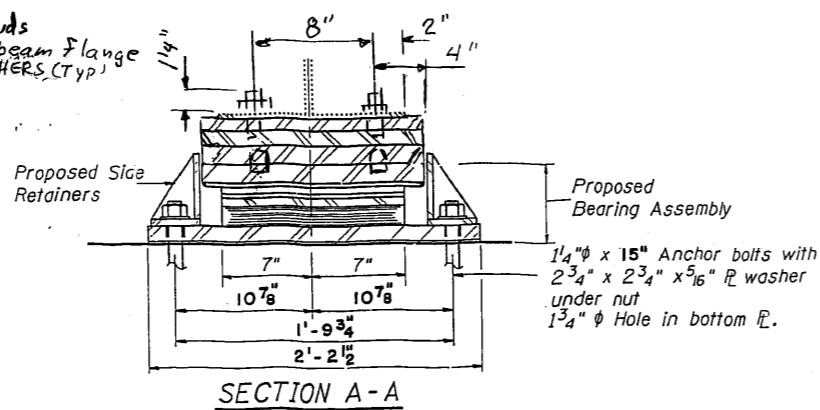
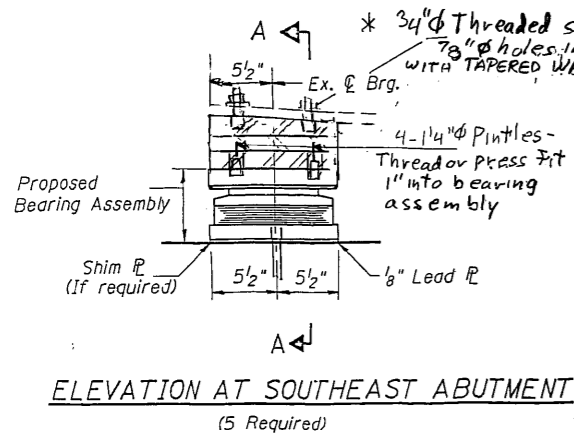
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
ELASTOMERIC BEARING DETAIL  
FOR PIER(#4 & #12)(EAST BEARING)  
S.N. 099-0066/0067  
SCALE: NONE DRAWN BY CADD  
DATE 08/01/95 CHECKED BY JEF

Tue Aug 1 15:01:57 1995 /usr/project/d117393/d117393.am37 11 1-8,16,35

I-2-E1 2-26-93

F.A.L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	100
STA.	TO STA.		FED. AID PROJECT	
			*99-4-IRS-3 & 99-4-IVB-I	



**TYPE III ELASTOMERIC EXP. BRG.**

\* 3/4" THREADED STUDS, SHALL BE PLACED IN THE FIELD

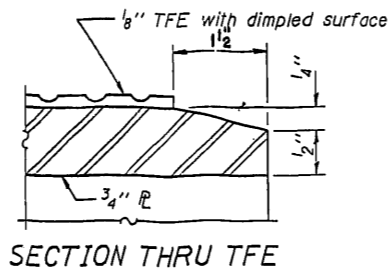
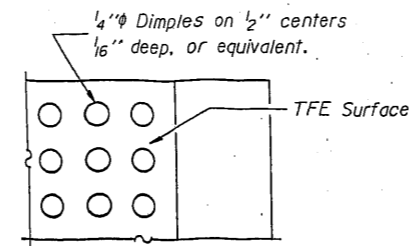
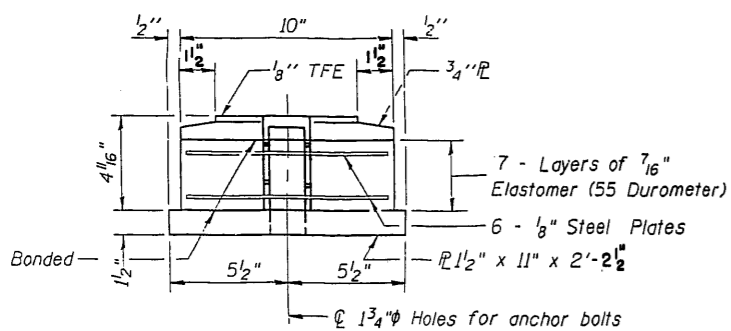
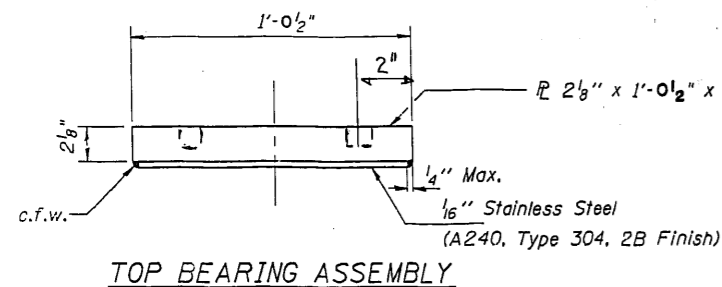
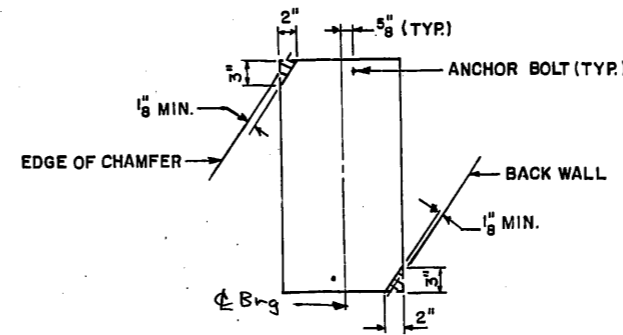


Table Of Dimension "I" For Shim Plates

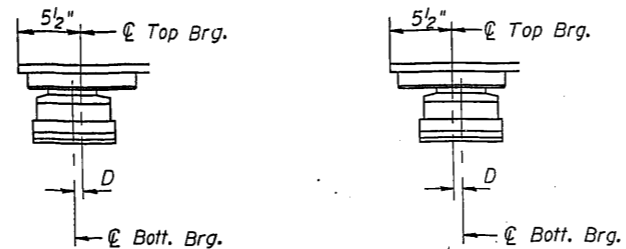
Beam No.	F	G	H	J	K
S.E. ABUT.	1/16"	1/16"	0	0	0



PORTION OF BEARING PLATE TO BE CLIPPED

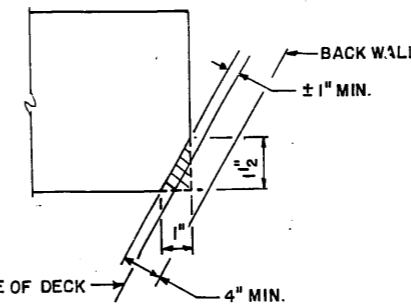
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

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.



**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.



PORTION OF BEAM TO BE CLIPPED

**GIRDER REACTIONS**

R <sub>DL</sub>	(K)	28.8
R <sub>LL+IMP.</sub>	(K)	55.0
R <sub>TOTAL</sub>	(K)	83.8

**NOTES:**  
Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost included with Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel. For the details of existing bearings see sheets S 24. Contractor shall submit jacking details for approval by the bridge office. For anchor bolt details see sheet S21. Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions.

7/8" holes are to be drilled in the field to the bottom of existing beams. Cost included with Furnishing and Erecting Structural Steel.

The cost of clipping the existing beam ends is included in the price of FURNISHING AND ERECTING STRUCTURAL STEEL.

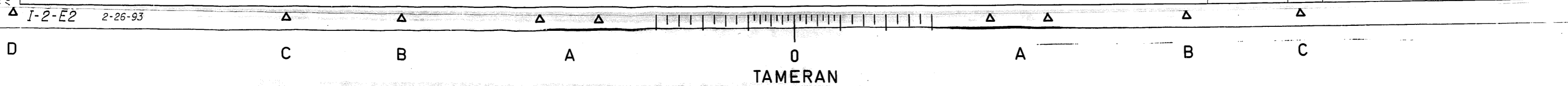
**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	5
Furnishing And Erecting Structural Steel	lbs.	1780
Jack And Remove Existing Bearings	Each	5

REVISIONS	
NAME	DATE

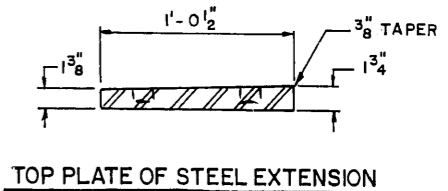
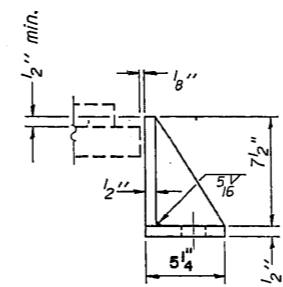
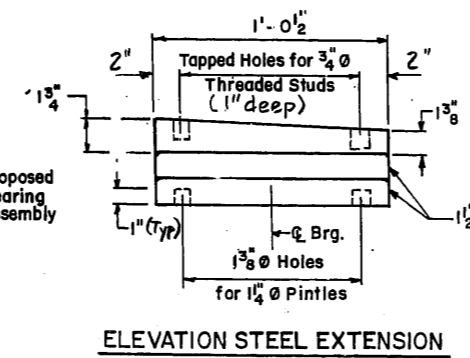
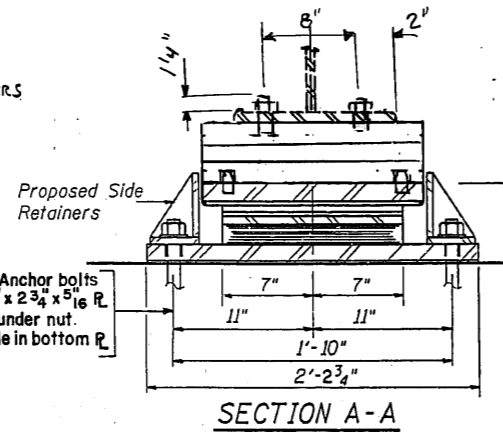
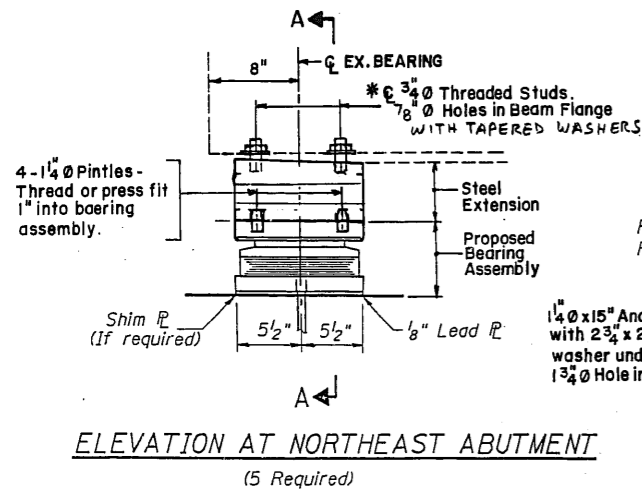
ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
SOUTHEAST ABUTMENT  
ELASTOMERIC BEARING DETAIL  
S.N. 099-0066/0067  
SCALE: NONE  
DATE: 08/03/95  
DRAWN BY: CAD  
CHECKED BY: JAF

Thu Aug 3 12:31:11 1995  
/usr/project/dll/31/01175/02.sfp 1/1 63





F. A. L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	101
STA.	TO STA.			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
*99-4-IRS-3 & 99-4-IVB-1				



**TYPE II ELASTOMERIC EXP. BRG.**

\* 3/4" Ø THREADED STUDS, SHALL BE PLACED IN THE FIELD.

**NOTE:**  
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL BEARING HEIGHT AND SHIM THICKNESS DIMENSIONS.

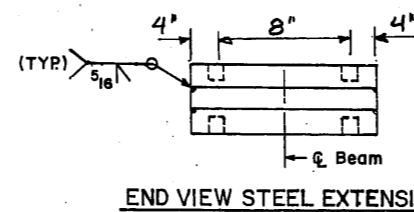


Table Of Dimension "t" For Shim Plates

Beam No.	A	B	C	D	E
N.E. ABUT.	0	3/16"	0	0	0

DIMENSION FOR CLIPPING PLATES

BEAM	a	b	c	d
A & B	3"	4"	3"	2"
C, D & E	2"	3"	2"	2"

**NOTES:**

Before installing the new bearing, remove the top plate of the existing bearing assembly from the bottom flange using the air-arc method and grind smooth all weld material remaining on the existing bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. The cost included with Jack And Remove Existing Bearings. See Existing Bearing Removal Detail.

New side retainers, shim plates, connection bolts, and anchor bolts are included in Furnishing and Erecting Structural Steel.

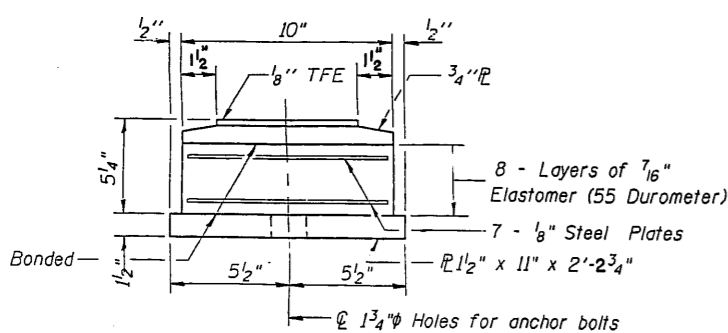
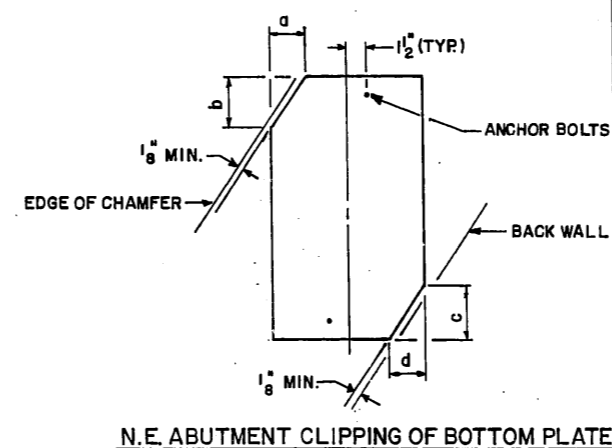
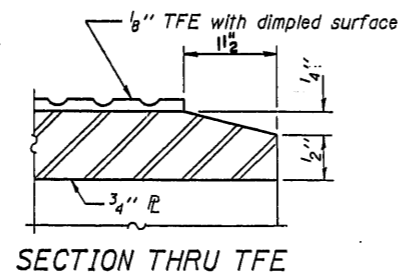
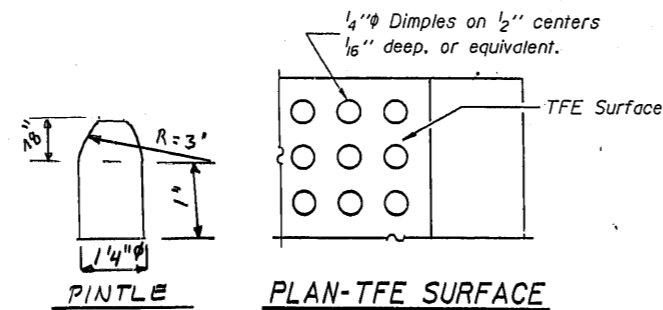
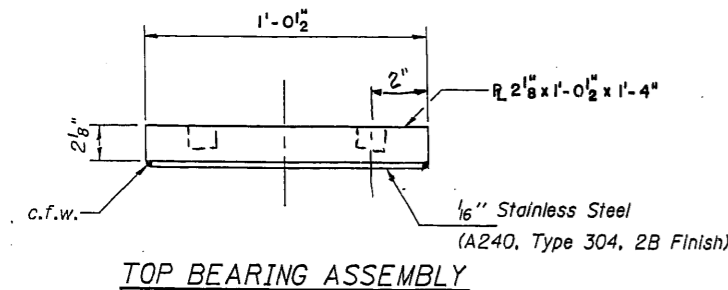
For the details of existing bearings see sheets S24. Contractor shall submit Jacking details for approval by the bridge office.

For anchor bolt details see sheet S21.

Prior to ordering any material, the contractor shall verify in the field all bearing heights and shim plate thickness dimensions.

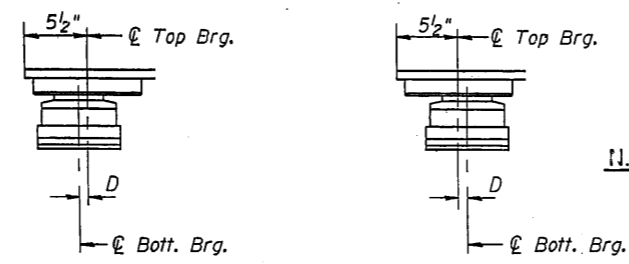
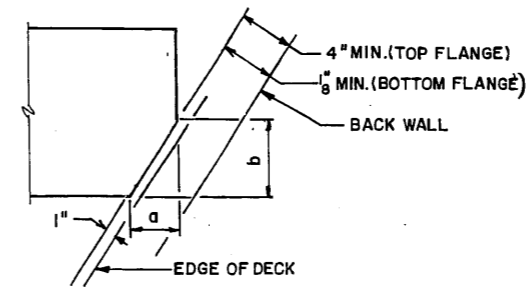
7/8" Ø holes are to be drilled in the field to the bottom of existing beams. Cost included with Furnishing and Erecting Structural Steel.

The cost of clipping the existing beam ends is included in the price of FURNISHING AND ERECTING STRUCTURAL STEEL.



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.

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.



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.

**GIRDER REACTIONS**

R <sub>DL</sub>	(K)	29.9
R <sub>LL ± IMP.</sub>	(K)	54.0
R <sub>TOTAL</sub>	(K)	83.9

**TOP FLANGE**

ALL BEAMS	a	b
	2"	3"

**BOTTOM FLANGE**

BEAMS	a	b
A & B	1"	2"

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Furnishing And Erecting Structural Steel	lbs.	1530
Jack And Remove Existing Bearings	Each	5

**REVISIONS**

NAME	DATE

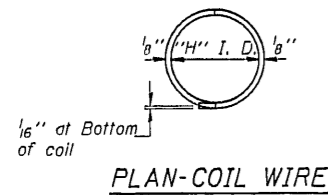
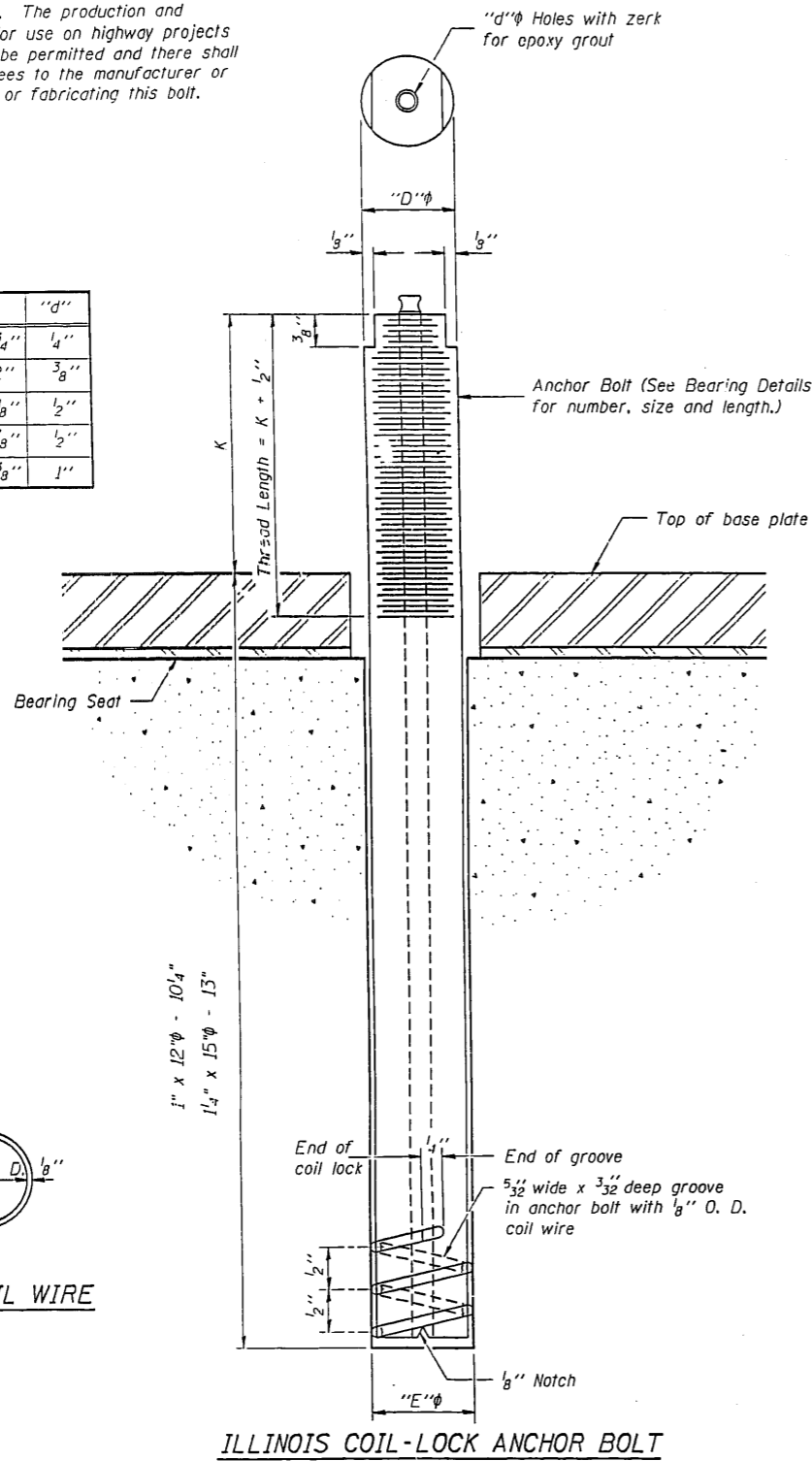
ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
NORTHEAST ABUTMENT  
ELASTOMERIC BEARING DETAIL  
S.N. 099-0066/0067  
SCALE: NONE DRAWN BY CADD  
DATE 08/03/95 CHECKED BY JAF

Thu Aug 13 12:46:43 1995 /usr/pc01sec7/dll17933/dll17933b2.en LV=1-8,16,35

F. A. L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	*	WILL	160	102
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 99-4-IRS-3 B 99-4-IVB-1				

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 3/8"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/2"	2"	3/8"
1 1/2"	1 5/8"	1 5/8"	2 1/8"	1/2"
2"	2 1/8"	1 3/4"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/8"	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 I 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.

### GENERAL NOTES

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

Location	Type *
Northwest Abutment	1" x 12"φ - 10 1/4"
Southwest Abutment	1" x 12"φ - 10 1/4"
Pier #4 (West Brg.)	1" x 12"φ - 10 1/4"
Pier #3 (West Brg.)	1" x 12"φ - 10 1/4"
Pier #11 (West Brg.)	1" x 12"φ - 10 1/4"
Pier #12 (West Brg.)	1 1/4" x 15"φ - 13"
Pier #4 (East Brg.)	1 1/4" x 15"φ - 13"
Pier #12 (East Brg.)	1 1/4" x 15"φ - 13"
Southeast Abutment	1 1/4" x 15"φ - 13"
Northeast Abutment	1 1/4" x 15"φ - 13"

\* A 307

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 INTERSTATE ROUTE 80  
 OVER ROWELL AVENUE  
 ANCHOR BOLT DETAILS  
 FOR BEARINGS  
 S.N. 099-0066/0067

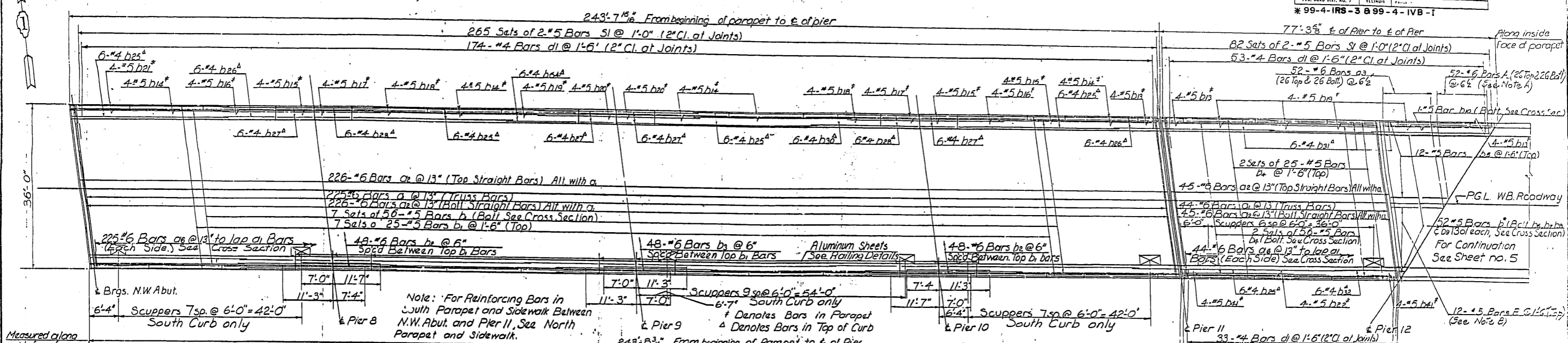
SCALE: NONE  
 DATE: 08/18/97  
 DRAWN BY: CADD  
 CHECKED BY: TMS

ABB-1 4-30-97

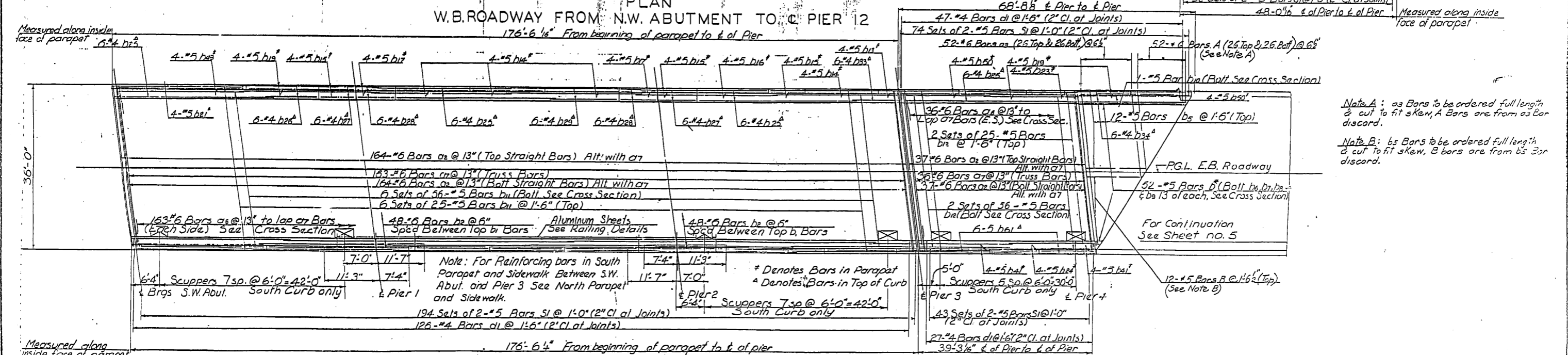
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

F.A. I. R. T. E.	SECTION	COUNTY	160	103
80	*	WILL		
* 99-4-IRS-3 & 99-4-IVB-1				

SHEET NO. 522  
OF SHEETS 526



PLAN  
W.B. ROADWAY FROM N.W. ABUTMENT TO C PIER 12



PLAN  
E.B. ROADWAY FROM S.W. ABUTMENT TO C PIER 4

NOTES:  
For General Notes See Sh. No. 2  
For Cross Section See Sh. No. 6  
For Bar List and Bill of Materials See Sh. No. 6

FOR INFORMATION ONLY

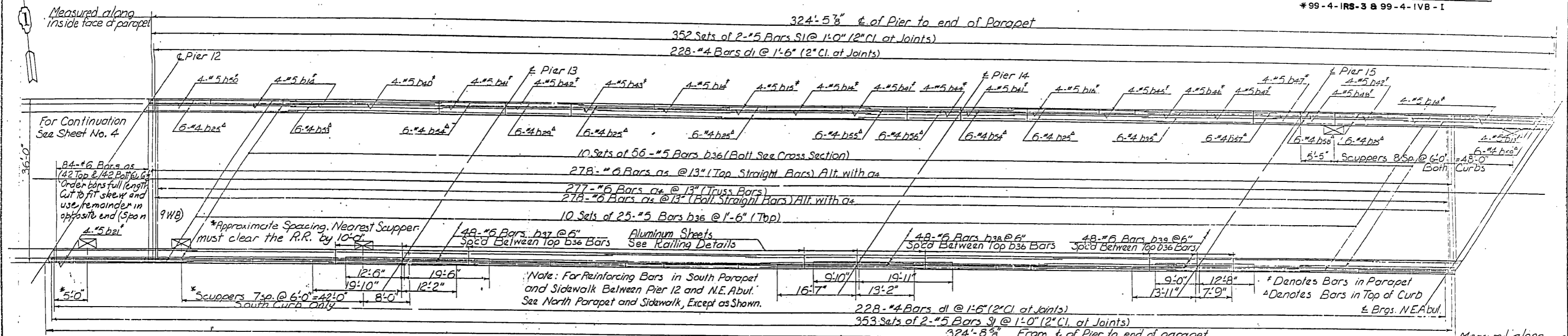
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N. 099-0066/0067  
EXISTING STRUCTURAL DETAILS

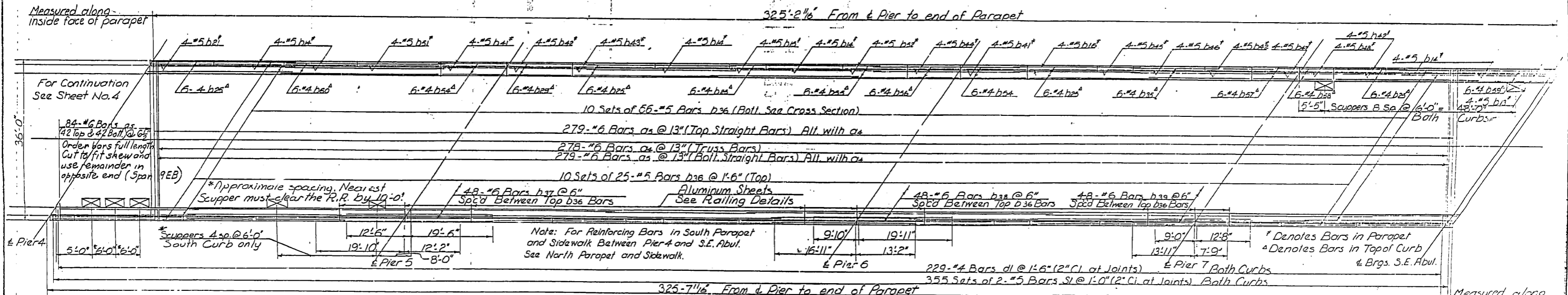
SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
CHECKED BY JAF

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

STATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S23 OF SHEETS S26
80	*	WILL	160	104	
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT	*99-4-IRS-3 899-4-IVB-1		



PLAN  
W.B. ROADWAY FROM PIER 12 TO N.E. ABUTMENT



PLAN  
E.B. ROADWAY FROM PIER 4 TO S.E. ABUTMENT

NOTES:  
For General Notes see Sh. No. 2  
For Cross Section see Sh. No. 6  
For Bar List and Bill of Materials See Sh. No. 6

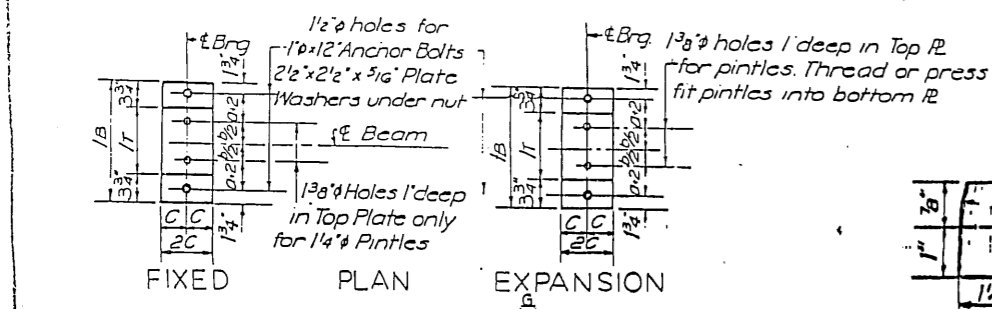
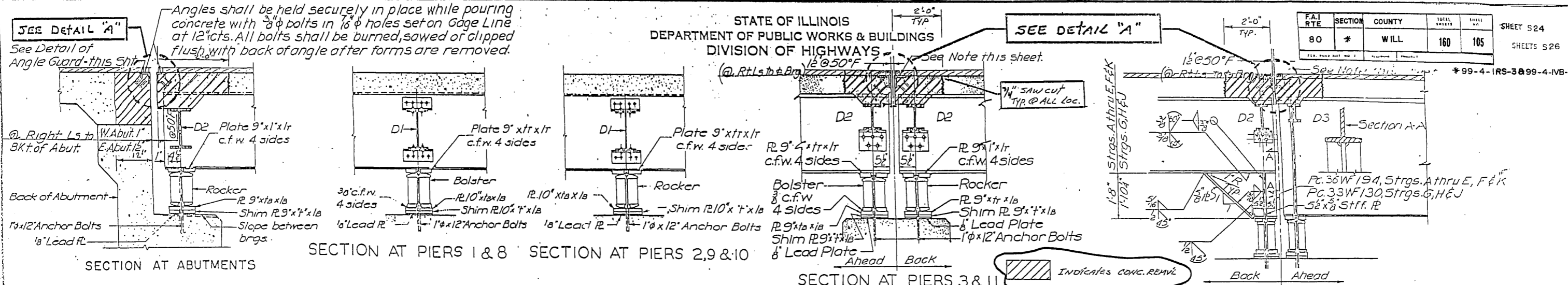
FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N.099-0066/0067  
EXISTING STRUCTURAL DETAILS

SCALE: VERT. HORIZ.  
DATE

DRAWN BY  
CHECKED BY JAF



Note: EXPANSION JOINTS AT THE ABUTMENTS, PIERS 3, 4, 11 & 12 ARE TO BE RECONSTRUCTED SEE SH. 3 FOR PROP. EXPANS. JOINT RECONST.

DIMENSIONS FOR BRGS.

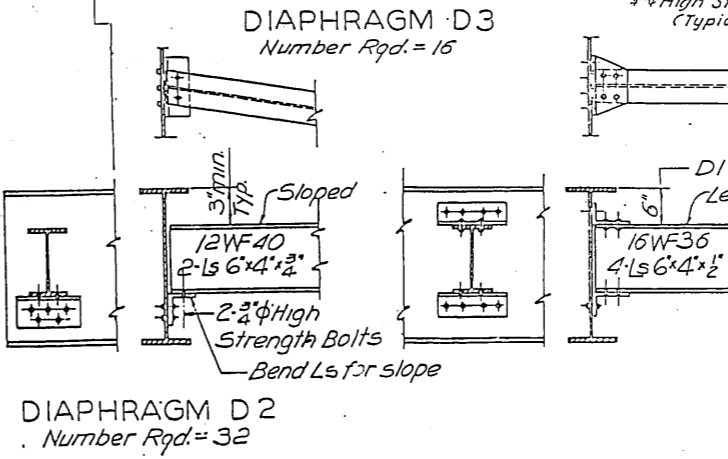
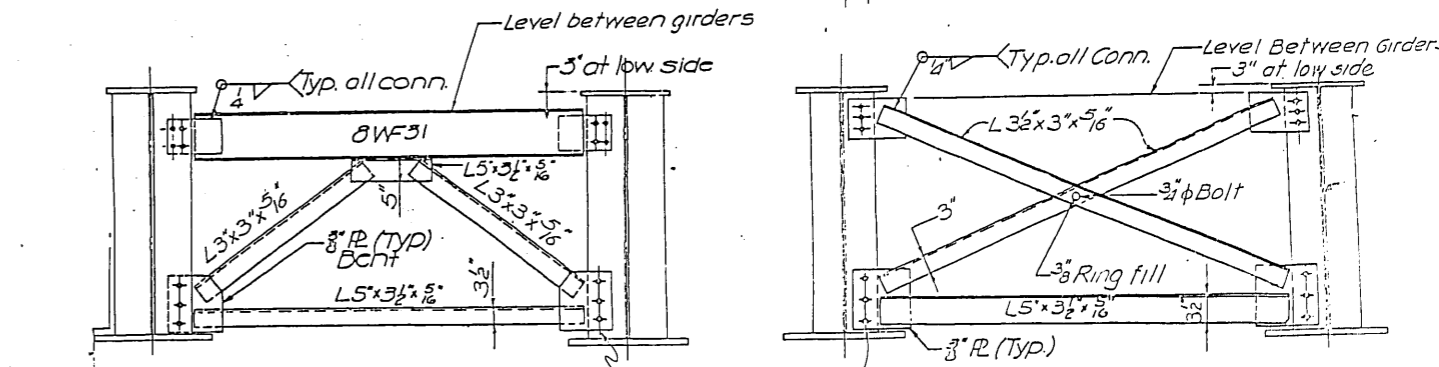
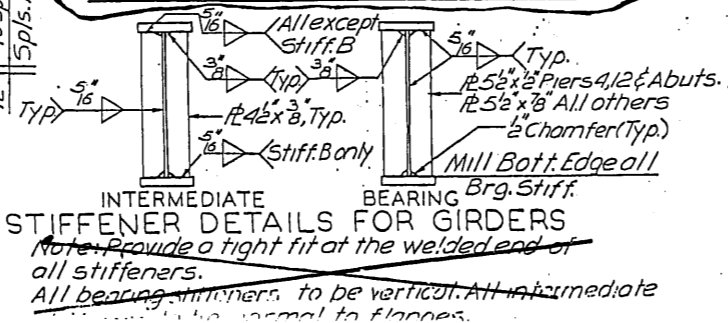
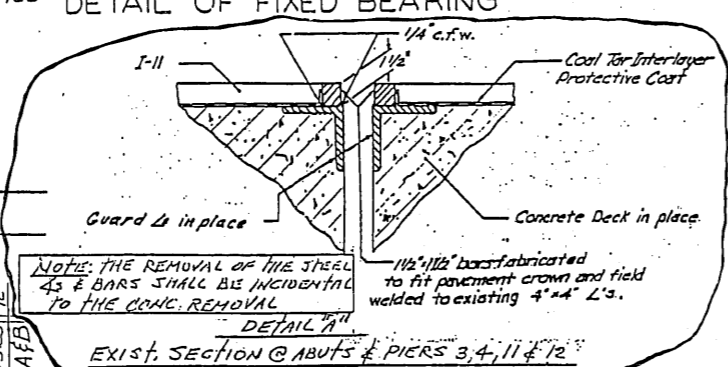
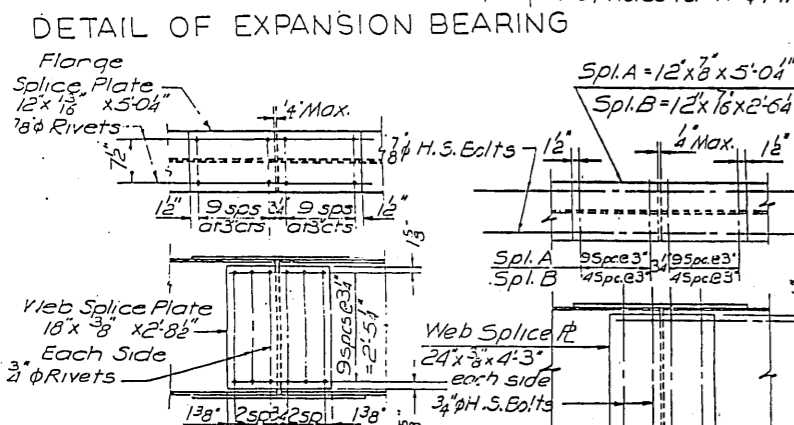
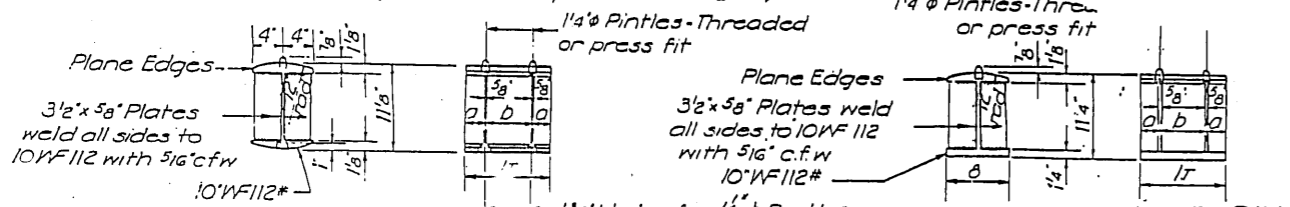
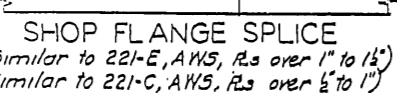
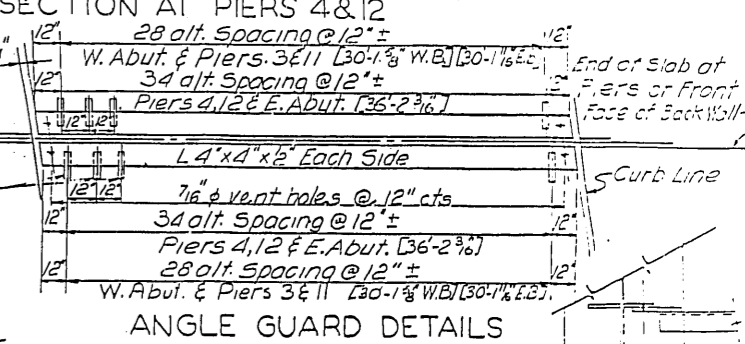
Brq.	IT	IB	CA	MA	IT	a	b	C
F1	12"	20"	1/2"	1/2"	1"	3"	6 1/2"	4 1/2"
F2	13"	20 1/2"	1/2"	1/2"	1"	3 1/2"	6 1/2"	4 1/2"
F3	13 1/2"	21"	1/2"	1/2"	1 1/8"	3 1/2"	6 1/2"	4 1/2"
F4	12"	19 1/2"	1/2"	1/2"	1"	3"	6"	5"
F1	12 1/2"	20"	1/2"	1/2"	1"	3"	6 1/2"	4 1/2"
F2	13"	20 1/2"	1/2"	1/2"	1"	3 1/2"	6 1/2"	4 1/2"
F3	13 1/2"	21"	1/2"	1/2"	1 1/8"	3 1/2"	6 1/2"	4 1/2"
F4	12"	19 1/2"	1/2"	1/2"	1"	3"	6"	5"

FOR 1/2" DIMENSIONS

Brq.	IT	IB	CA	MA	IT	a	b	C
A	12"	20"	1/2"	1/2"	1"	3"	6 1/2"	4 1/2"
B	13"	20 1/2"	1/2"	1/2"	1"	3 1/2"	6 1/2"	4 1/2"
C	13 1/2"	21"	1/2"	1/2"	1 1/8"	3 1/2"	6 1/2"	4 1/2"
D	12"	19 1/2"	1/2"	1/2"	1"	3"	6"	5"
E	12 1/2"	20"	1/2"	1/2"	1"	3"	6 1/2"	4 1/2"
F	13"	20 1/2"	1/2"	1/2"	1"	3 1/2"	6 1/2"	4 1/2"
G	13 1/2"	21"	1/2"	1/2"	1 1/8"	3 1/2"	6 1/2"	4 1/2"
H	12"	19 1/2"	1/2"	1/2"	1"	3"	6"	5"
J	12 1/2"	20"	1/2"	1/2"	1"	3"	6 1/2"	4 1/2"
K	13"	20 1/2"	1/2"	1/2"	1"	3 1/2"	6 1/2"	4 1/2"

Number in [ ] indicates total length of angle.

3/4" x 8" CR 1020 STL Granular or solid flux filled headed studs automatically end welded.



FOR INFORMATION ONLY

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N. 099-0066/0067  
EXISTING STRUCTURAL DETAILS

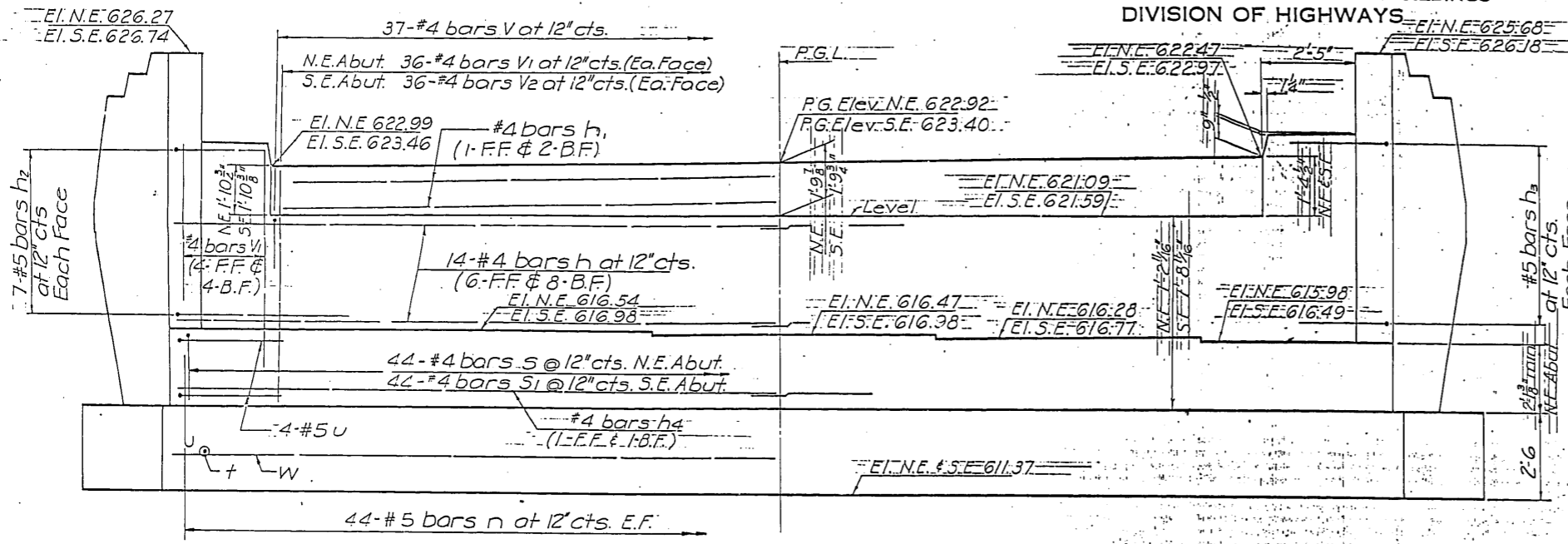
REVISIONS	
NAME	DATE

SCALE: VERT. HORIZ. DATE DRAWN BY CHECKED BY JAF

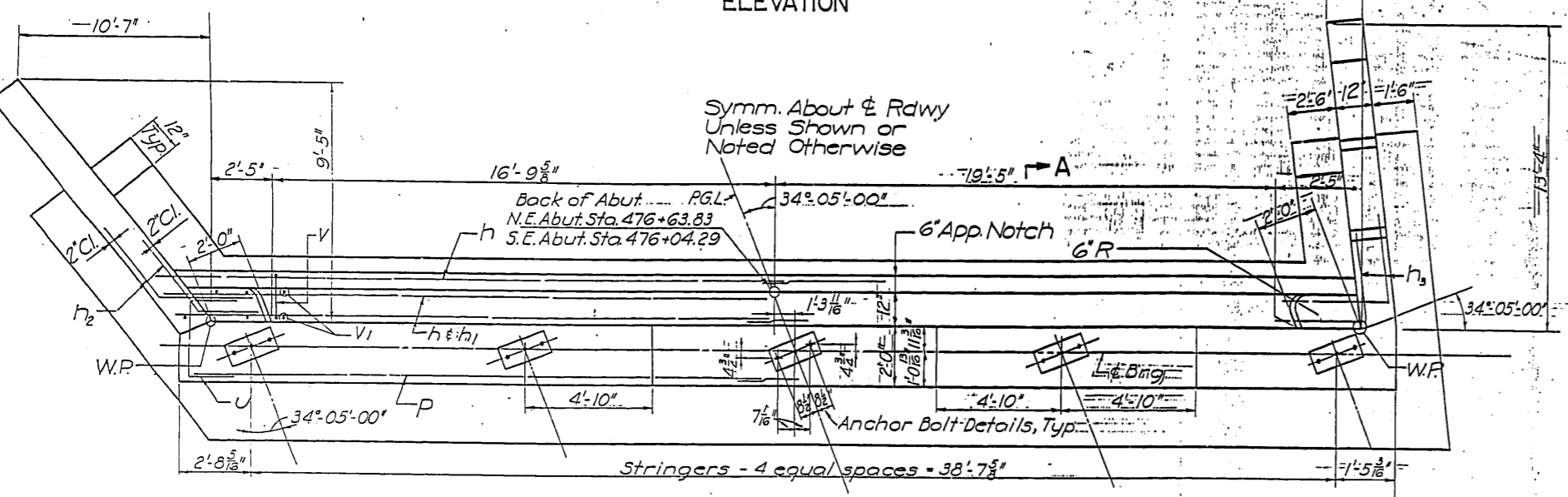


STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

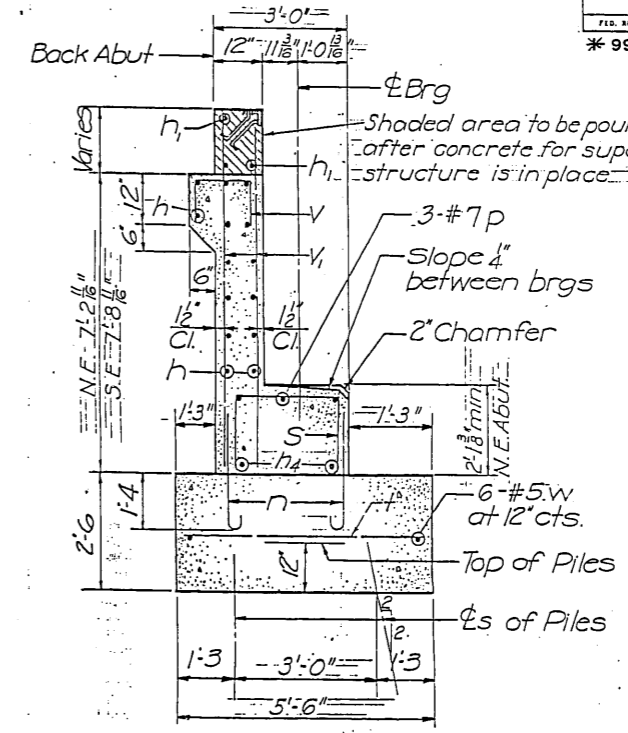
F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S 25
80	#	WILL	160	106	OF SHEETS S 25
FED. ROAD DIST. NO. 1		ILLINOIS PROJECT: 1	* 99-4-IRS-3 & 99-4-IVB-1		



Reinforcement  
ELEVATION  
Dimensions



Reinforcement  
PLAN  
Dimensions



SECTION A-A

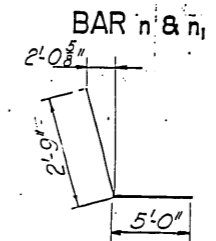
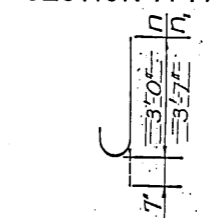
N.E. & S.E. ABUTMENTS  
BILL OF REINFORCEMENT

Bar	No.	Size	Lgth	Grade
h	56	#4	21'-8"	
h1	12	#4	18'-6"	
h2	28	#5	7'-5"	
h3	28	#5	7'-9"	
h4	8	#4	21'-8"	
n	176	#5	3'-7"	
n1	56	#5	2'-2"	
P	12	#7	21'-8"	
S	44	#4	6'-5"	
S1	44	#4	7'-5"	
t	92	#5	5'-0"	
t1	32	#5	4'-6"	
U	16	#5	5'-8"	
V	74	#4	2'-9"	
V1	104	#4	6'-11"	
V2	72	#5	7'-5"	
W	24	#5	23'-5"	
W1	12	#5	10'-5"	
W2	12	#5	10'-0"	

N.E. & S.E. ABUTMENTS  
BILL OF MATERIAL

Item	Unit	Qty
Class X Concrete	Cu Yds	62.2
Reinforcement Bars	Lbs.	3,492
10 BP 42 Piles	Lin. Ft.	560
Test Piles	Each	1
Class X Concrete	Cu Yds	64.7
Reinforcement Bars	Lbs.	3,730
10 BP 42 Piles	Lin. Ft.	600

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.



BAR	h2	h3	s	s1	u	v	v1	v2	w	w1	w2	
Length	2'-9"	2'-8"	1'-3"	2'-9"	1'-10"	1'-6"	9"	2'-4"	2'-9"	2'-8"	1'-3"	2'-9"

BARS s, s1, u & v

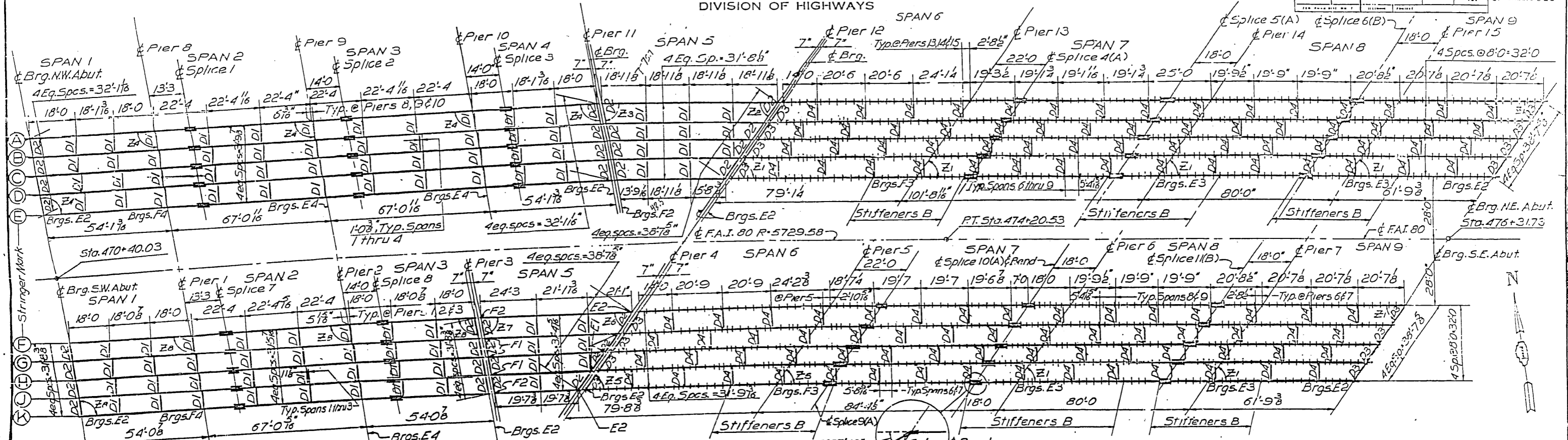
PILE DATA  
Type: 10 BP 42  
Capacity: 37 Ton Min.  
Est. Length: 15  
No. Req'd: 15  
30  
Indicates

FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N. 099-0066/0067  
EXISTING STRUCTURAL DETAILS  
SCALE: VERT. HORIZ.  
DRAWN BY  
DATE  
CHECKED BY JAF





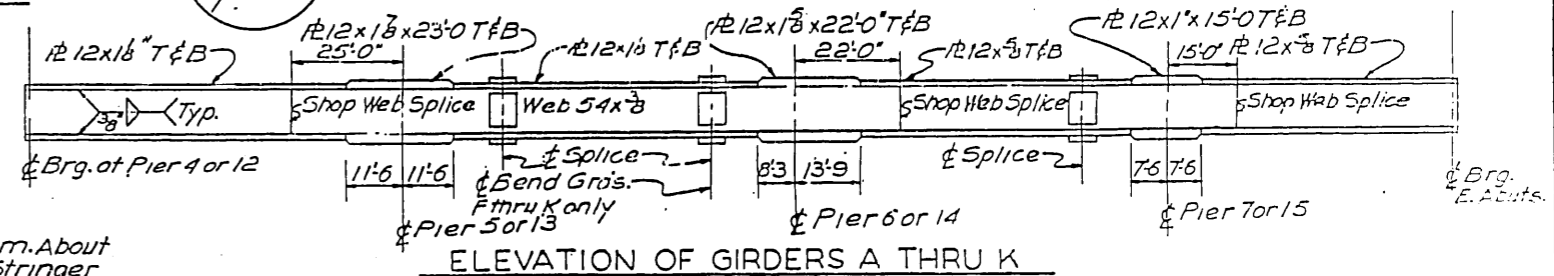
Notes: At piers 3, 11 & 12 7' brg. to pier dimension is measured along & Strgr.  
Diaphragms in Spans 5 are not offset.  
All dimensions shown are measured along & of Beam.

FRAMING PLAN

TABULATION FOR VALUES OF ANGLE Z

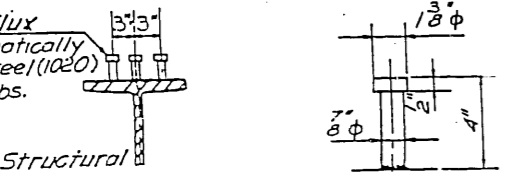
Angle	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8
Value	55°55'00"	55°04'11"	86°16'49"	97°23'41"	55°17'46"	54°15'24"	81°35'36"	97°10'23"

Note: Shop Web splices optional



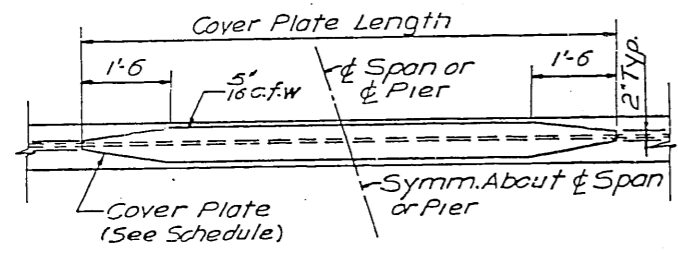
ELEVATION OF GIRDERS A THRU K

Granular or Solid Flux  
Filled Studs automatically  
end welded. C.R. Steel (1020)  
Est. Weight = 1963 lbs.

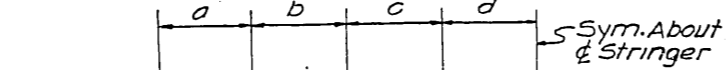


SHEAR CONNECTOR DETAILS

Weight included in Structural  
Steel Quantity.



DETAIL OF COVER PLATES



STRINGER DETAIL

COV. PL. LENGTHS EB & WB RDWYS

Star.	Section	Pier 1 & 2	Pier 8 & 10	Pier 9
A thru E	36 WF 150		9' x 1/2" x 10'0"	9' x 1/2" x 12'0"
F thru K	36 WF 150	9' x 1/2" x 9'0"		

STRINGER DATA

Span	Strgr.	Lengths Brg. to Brg.	Section	Bottom Cover Plate	Shear Connector Spacing						
					Pitch Lath	Pitch Lath	Pitch Lath	Pitch			
5	A	75'-8 1/2"	36 WF 194	11 x 1/2 x 540	6 1/2"	10'-10"	9 1/2"	7'-11"	11"	7'-4"	14"
	B	68'-10 1/2"	36 WF 160	11 x 1/2 x 520	6 1/2"	8'-8"	9"	8'-3"	11"	8'-3"	14"
	C	62'-0"	36 WF 135	11 x 1/2 x 483	6 1/2"	9'-9"	9"	7'-6"	11"	7'-4"	14"
	D	55'-3 1/2"	36 WF 135	11 x 1/2 x 419	6 1/2"	7'-7"	9"	6'-9"	11"	6'-5"	14"
	E	48'-5 1/2"	36 WF 150		7"	5'-3"	8 1/2"	8'-6"	11"	4'-7"	14"
	F	66'-5 1/2"	36 WF 135	11 x 1/2 x 466	6"	10'-0"	8"	8'-0"	10"	8'-4"	14"
	G	59'-7 1/2"	33 WF 130	10 1/2 x 1 x 440	6"	10'-0"	8"	8'-0"	10"	8'-4"	14"
	H	52'-9 1/2"	33 WF 118	10 1/2 x 8 x 400	6 1/2"	9'-9"	8 1/2"	5'-8"	10"	7'-6"	14"
	J	46'-0 3/8"	33 WF 118	9 x 1/2 x 356	6 1/2"	9'-9"	9"	4'-6"	11"	3'-8"	14"
5	K	39'-2 1/4"	36 WF 135		7 1/2"	8'-9"	10"	5'-10"			14"

Note: For Bearing, Diaphragm & Misc. Details See Sheet No. B  
For Girders, Stiffeners B as noted, all others are to be Stiffeners A

FOR INFORMATION ONLY

Welding Notes:  
The Contractor shall submit to the Engineer for approval a welding procedure for the fabrication of all parts.  
All welding shall be done in accordance with the "Standard Specifications for Welded Highway and Railway Bridges."  
Shop Web splices to be welded by submerged arc square butt weld (similar to 221A, AWS)  
Electrodes conforming to either the E 60XX or the E 70XX series of Tentative Specifications for Mild Steel Arc-Welding Electrodes (AWS Designation

A31, ASTM Designation A233) shall be used for A36 steel in thickness of 1/2" or less. Only E 70XX Low-Hydrogen electrodes shall be used on thickness of A36 steel over 1/2".  
Preference shall be given to flat position welding where feasible.  
In general all welded splices in webs and flanges shall be made before welding flanges to webs.  
Stringer sections shall be assembled for position welding with adequate support to maintain proper dimensions and alignments and to hold distortion to a minimum.

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
INTERSTATE ROUTE 80  
OVER ROWELL AVENUE  
S.N. 099-0066/0067  
EXISTING STRUCTURAL DETAILS

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY JAF