

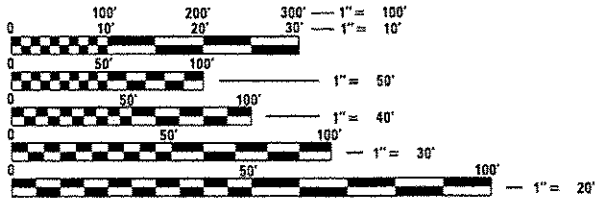
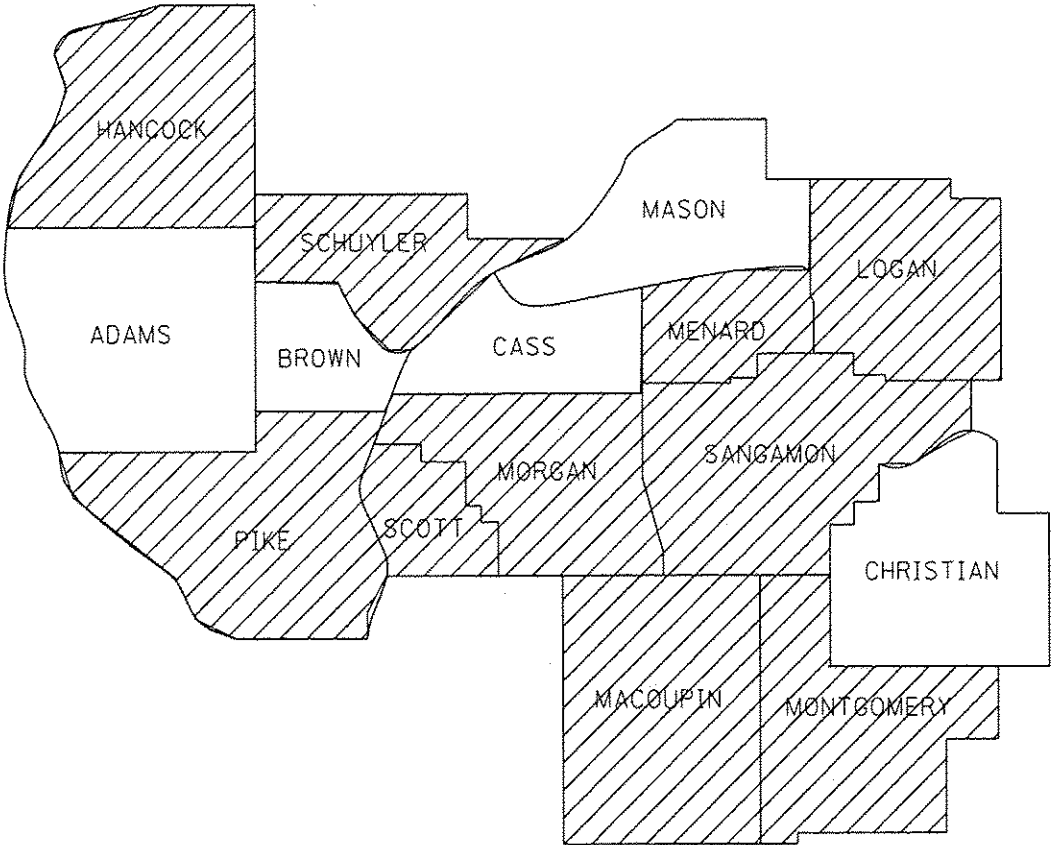
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
CONTRACT MAINTENANCE**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

VARIOUS ROUTES
SECTION D6 BDGE PAINTING 2015-1

BRIDGE PAINTING
VARIOUS COUNTIES

C-96-008-15



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
OR 811

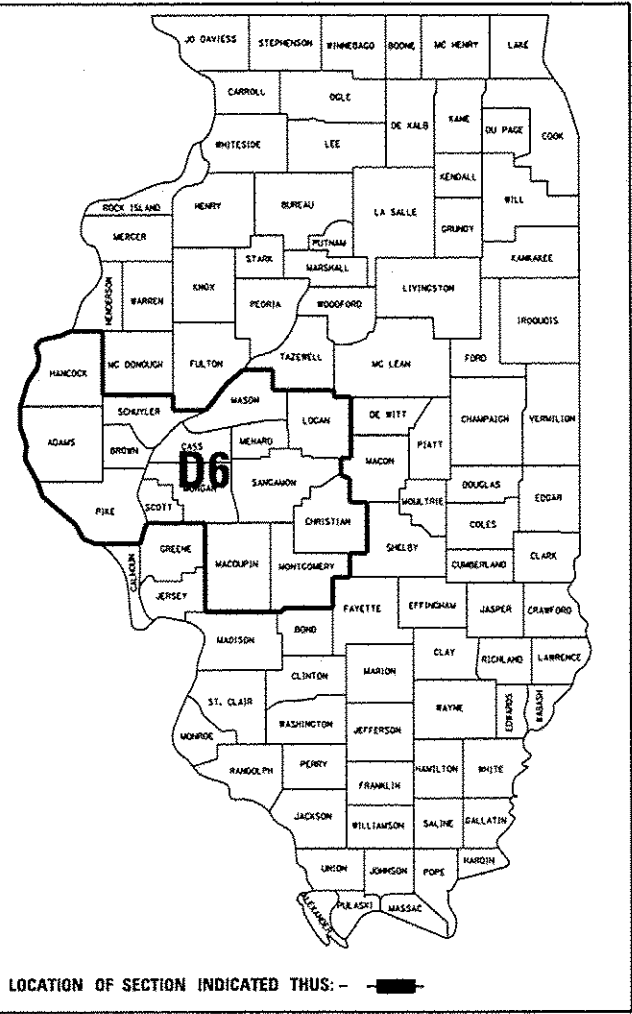
BRIDGE MAINTENANCE ENGINEER – BRANDON DUDLEY (217) 785-9290
BRIDGE INSPECTION ENGINEER – DAVE COPENBARGER (217) 785-5306

CONTRACT NO. 72H37

GROSS LENGTH = NA
NET LENGTH = NA

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BDGE PAINTING 2015-1	VARIOUS	58	1
ILLINOIS		CONTRACT NO. 72H37		

D-96-008-15



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED August 21 20 14
Reg. 2505
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Oct 17 20 14
John D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 17 20 14
Chris Simon, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

1 COVER SHEET
2 INDEX, STANDARDS, GENERAL NOTES, SIGNATURES, & SUMMARY OF QUANTITIES
3-7 BRIDGE LOCATION MAPS
8-58 EXISTING BRIDGE PLANS (FOR INFORMATION ONLY)

701001-02
701006-05
701101-04
701106-02
701201-04
701301-04
701901-03

1. STRUCTURES TO BE PAINTED SHALL BE AS SPECIFIED ON THE PLAN SHEETS. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". THE AREAS TO BE PAINTED ON EACH BRIDGE SHALL BE AS SPECIFIED ON THE PLAN SHEETS. ALL AREAS TO BE PAINTED SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL EXISTING STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR EACH BRIDGE SHALL BE AS SPECIFIED ON THE PLAN SHEETS. THE COLORS SPECIFIED ON THE PLAN SHEETS SHALL CORRESPOND WITH THE COLOR SPECIFICATIONS SHOWN IN THE TABLE ON THIS PAGE.

3. THE "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" AND "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES" PAY ITEMS SHALL BE APPLICABLE AS CALLED OUT IN THE PLAN NOTES FOR EACH INDIVIDUAL STRUCTURE. THE ENGINEER SHALL PRORATE THESE PAY ITEMS FOR PAYMENT AS A PERCENTAGE OF THE LUMP SUM BID PRICE AT EACH STRUCTURE ONCE SATISFACTORY DISPOSAL OF CLEANING RESIDUES HAS BEEN COMPLETED AT EACH STRUCTURE.

5. CARE SHALL BE TAKEN NOT TO DAMAGE RUBBER BEARING OR JOINT COMPONENTS DURING BLASTING AND CLEANING OPERATIONS. ANY DAMAGE TO THESE COMPONENTS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

7. LANE CLOSURES ON 2-LANE ROADS WILL BE PERMITTED ONLY DURING THE DAYTIME AND WILL ONLY BE ALLOWED WITH APPROVAL OF THE ENGINEER. NO LANE CLOSURES OF MULTI-LANE ROADS WILL BE PERMITTED.

COLOR SPECIFICATION TABLE	
COLOR SPECIFIED	COLOR SPECIFICATION
GRAY	MUNSELL 5B 7/1
GREEN	MUNSELL 7.5G 4/8
RED	FEDERAL COLOR STANDARD 595A 20045

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT 6

EXAMINED AUGUST 14th 20 14
John C. Nguyen
ENGINEER OF OPERATIONS

EXAMINED August 6 20 14
Ron Lechambon
ENGINEER OF PROJECT IMPLEMENTATION

EXAMINED August 6 20 14
Jeffrey E. Meyer
ENGINEER OF PROGRAM DEVELOPMENT

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE
				0014 VARIOUS
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	1
Z0007114	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES	L SUM	1	1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1	1
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1	1
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	L SUM	1	1
Z0010506	CLEANING AND PAINTING STEEL BRIDGE NO. 6	L SUM	1	1
Z0010507	CLEANING AND PAINTING STEEL BRIDGE NO. 7	L SUM	1	1
Z0010508	CLEANING AND PAINTING STEEL BRIDGE NO. 8	L SUM	1	1
Z0010509	CLEANING AND PAINTING STEEL BRIDGE NO. 9	L SUM	1	1
Z0010510	CLEANING AND PAINTING STEEL BRIDGE NO. 10	L SUM	1	1
Z0010511	CLEANING AND PAINTING STEEL BRIDGE NO. 11	L SUM	1	1
Z0010512	CLEANING AND PAINTING STEEL BRIDGE NO. 12	L SUM	1	1
Z0010513	CLEANING AND PAINTING STEEL BRIDGE NO. 13	L SUM	1	1
Z0010514	CLEANING AND PAINTING STEEL BRIDGE NO. 14	L SUM	1	1
Z0010515	CLEANING AND PAINTING STEEL BRIDGE NO. 15	L SUM	1	1
Z0010516	CLEANING AND PAINTING STEEL BRIDGE NO. 16	L SUM	1	1
Z0010517	CLEANING AND PAINTING STEEL BRIDGE NO. 17	L SUM	1	1
Z0010518	CLEANING AND PAINTING STEEL BRIDGE NO. 18	L SUM	1	1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1

CLEANING AND PAINTING STEEL BRIDGE NO. 1
SN 054-0078, EMDEN ROAD OVER I-155
1 MILE SOUTH OF US 136, 40.2934°N 89.4525°W

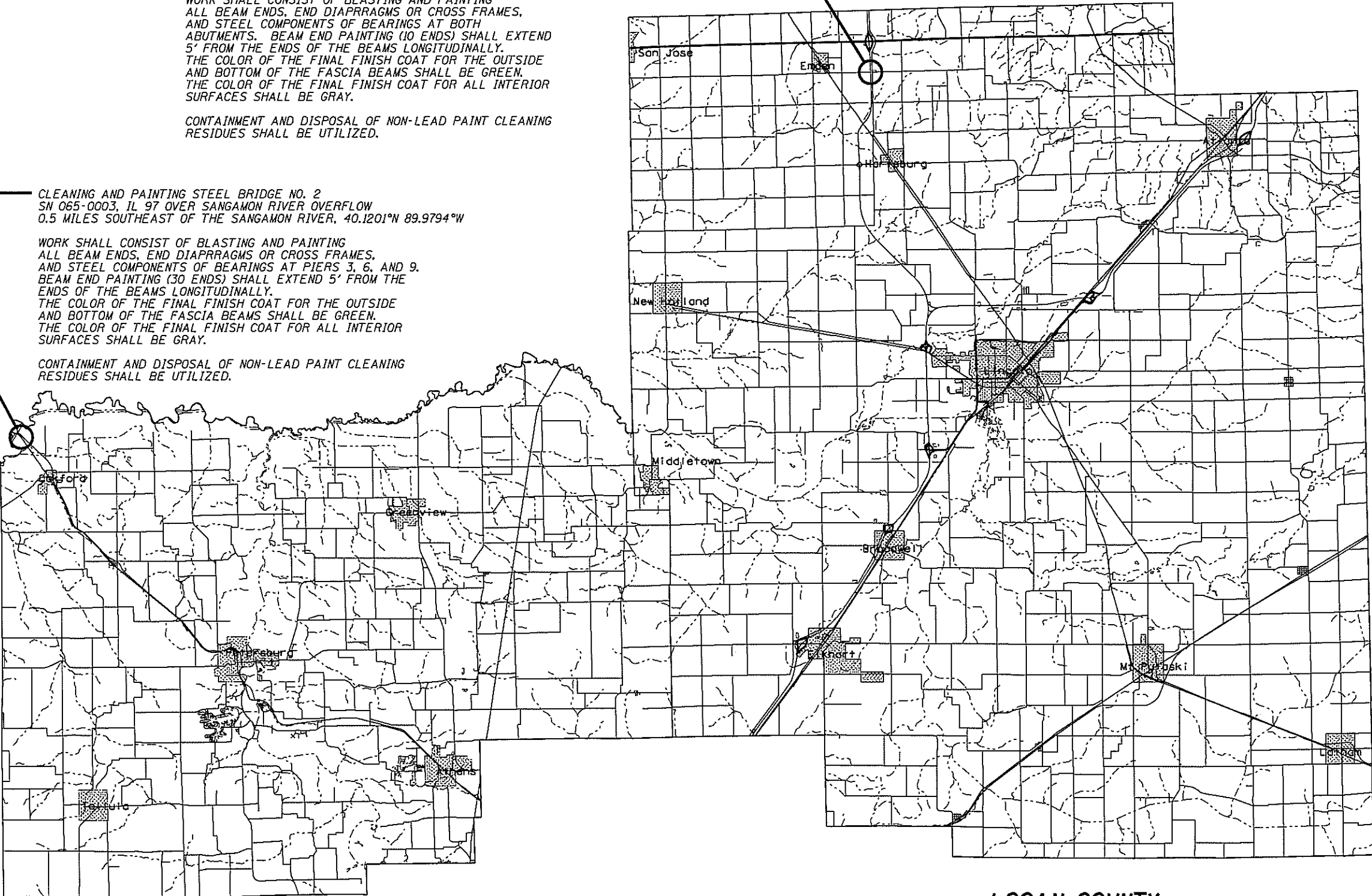
WORK SHALL CONSIST OF BLASTING AND PAINTING
ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES,
AND STEEL COMPONENTS OF BEARINGS AT BOTH
ABUTMENTS. BEAM END PAINTING (10 ENDS) SHALL EXTEND
5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY.
THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE
AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN.
THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR
SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING
RESIDUES SHALL BE UTILIZED.

CLEANING AND PAINTING STEEL BRIDGE NO. 2
SN 065-0003, IL 97 OVER SANGAMON RIVER OVERFLOW
0.5 MILES SOUTHEAST OF THE SANGAMON RIVER, 40.1201°N 89.9794°W

WORK SHALL CONSIST OF BLASTING AND PAINTING
ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES,
AND STEEL COMPONENTS OF BEARINGS AT PIERS 3, 6, AND 9.
BEAM END PAINTING (30 ENDS) SHALL EXTEND 5' FROM THE
ENDS OF THE BEAMS LONGITUDINALLY.
THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE
AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN.
THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR
SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING
RESIDUES SHALL BE UTILIZED.



MENARD COUNTY

LOGAN COUNTY

FILE NAME =	USER NAME = dudleygm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOGAN & MENARD COUNTY STRUCTURE MAP	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G:\OPERATIONS\Bridges\plans_CAD\72H37 - beam and point FY15 CM\plansheet.dgn	DRAWN -	REVISED -	VAR.			D6 BDGE PAINTING 2015-1	VARIOUS	58	3	
PLOT SCALE = 180.1523 ' / in.	CHECKED -	REVISED -								
PLOT DATE = Oct-02-2014 10:25:52AM	DATE -	REVISED -								
Default					SCALE: _____	SHEET _____	OF _____ SHEETS	STA. _____	TO STA. _____	CONTRACT NO. 72H37
[ILLINOIS] FED. AID PROJECT										

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

RAILROAD LIABILITY INSURANCE WILL BE REQUIRED

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

RAILROAD LIABILITY INSURANCE WILL BE REQUIRED

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND LONGITUDINALLY 5' FROM THE ENDS OF THE BEAMS EXCEPT FOR THE EAST FASCIA, WHICH SHALL EXTEND 15' FROM THE NORTH END AND 10' FROM THE SOUTH END. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CLEANING AND PAINTING STEEL BRIDGE NO. 4
SN 068-0046, I-55 NB OVER ICRR (ABANDONED)
4.5 MILES SOUTH OF IL 108, 39.2160°N 89.6509°W

WORK SHALL CONSIST OF BLASTING AND PAINTING
ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES,
AND STEEL COMPONENTS OF BEARINGS AT BOTH
ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND
5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY.
THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE
AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN.
THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR
SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING
RESIDUES SHALL BE UTILIZED.

MONTGOMERY COUNTY

FILE NAME =	USER NAME = dudleybm	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MACOUPIN & MONTGOMERY COUNTY STRUCTURE MAP				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\\OPERATIONS\Bridgplans\CAD\72H37 - beam and point FY15 CM\plansheet.dgn		DRAWN - _____	REVISED - _____		VAR.	D6 BDGE PAINTING 2015-1	VARIOUS	58	4				
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PLOT DATE = Oct-02-2014 10:25:17AM	DATE - _____	REVISED - _____			ILLINOIS FED. AID PROJECT								
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CLEANING AND PAINTING STEEL BRIDGE NO. 8
SN 075-0081, IL 104 OVER MCKEE CREEK
EAST EDGE OF CHAMBERSBURG, 39.8175°N 90.6544°W

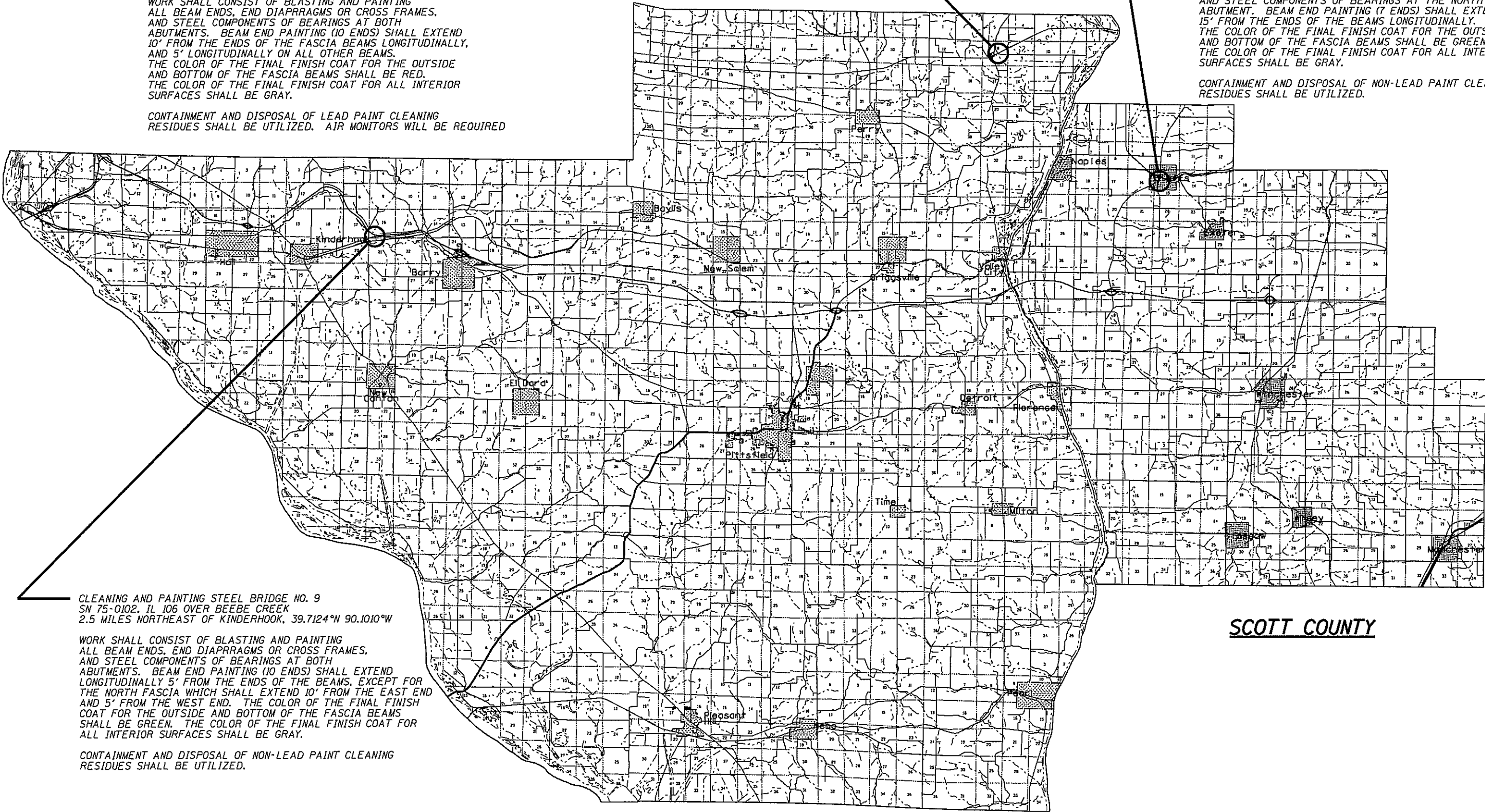
WORK SHALL CONSIST OF BLASTING AND PAINTING
ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES,
AND STEEL COMPONENTS OF BEARINGS AT BOTH
ABUTMENTS. BEAM END PAINTING (10 ENDS) SHALL EXTEND
10' FROM THE ENDS OF THE FASCIA BEAMS LONGITUDINALLY,
AND 5' LONGITUDINALLY ON ALL OTHER BEAMS.
THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE
AND BOTTOM OF THE FASCIA BEAMS SHALL BE RED.
THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR
SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING
RESIDUES SHALL BE UTILIZED. AIR MONITORS WILL BE REQUIRED

CLEANING AND PAINTING STEEL BRIDGE NO. 10
SN 086-0006, IL 100 OVER WOLF RUN CREEK
IN BLUFFS, 39.7478°N 90.5352°W

WORK SHALL CONSIST OF BLASTING AND PAINTING
ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES,
AND STEEL COMPONENTS OF BEARINGS AT THE NORTH
ABUTMENT. BEAM END PAINTING (7 ENDS) SHALL EXTEND
15' FROM THE ENDS OF THE BEAMS LONGITUDINALLY.
THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE
AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN.
THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR
SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING
RESIDUES SHALL BE UTILIZED.



CLEANING AND PAINTING STEEL BRIDGE NO. 9
SN 75-0102, IL 106 OVER BEEBE CREEK
2.5 MILES NORTHEAST OF KINDERHOOK, 39.7124°N 90.1010°W

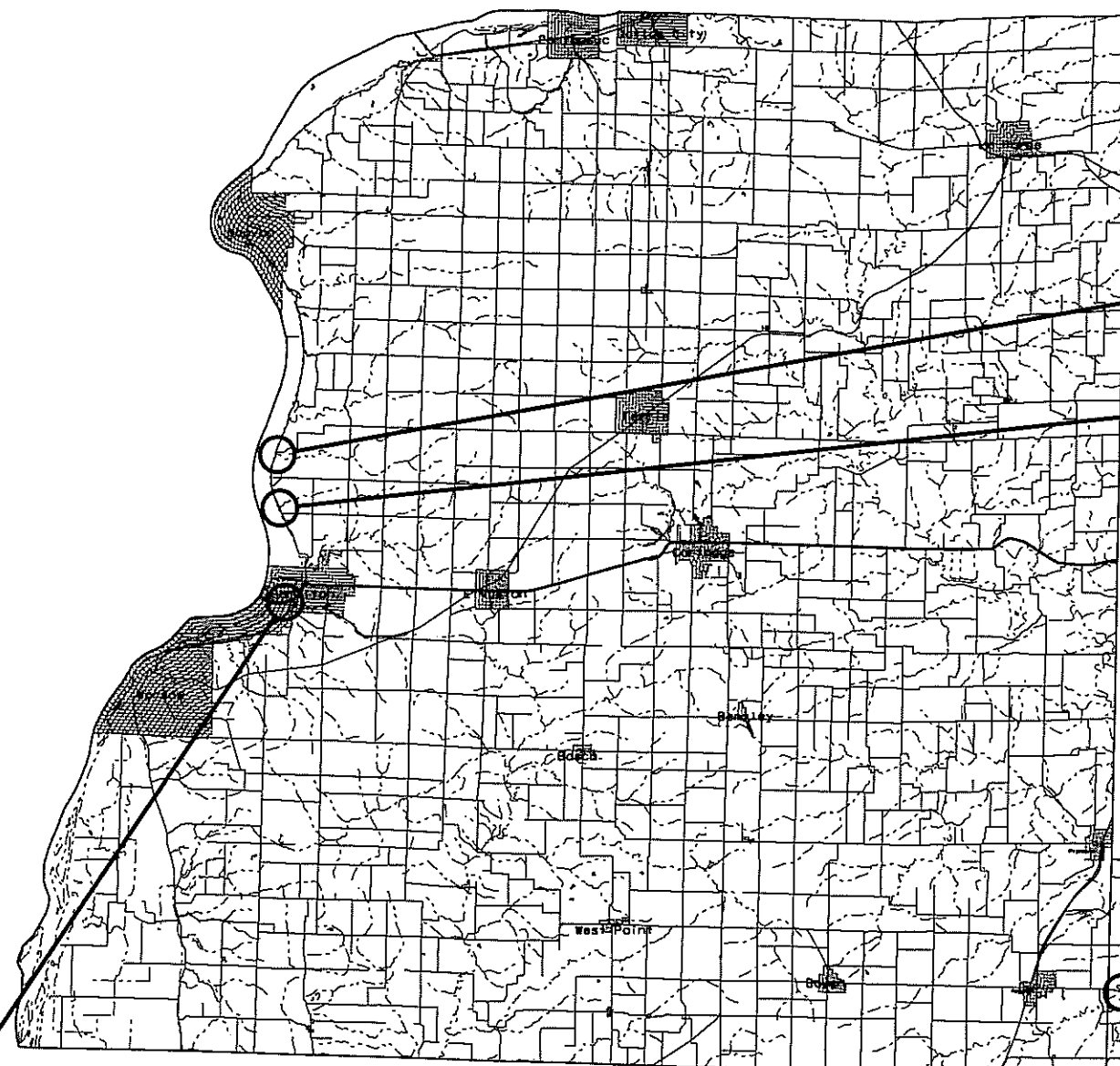
WORK SHALL CONSIST OF BLASTING AND PAINTING
ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES,
AND STEEL COMPONENTS OF BEARINGS AT BOTH
ABUTMENTS. BEAM END PAINTING (10 ENDS) SHALL EXTEND
LONGITUDINALLY 5' FROM THE ENDS OF THE BEAMS, EXCEPT FOR
THE NORTH FASCIA WHICH SHALL EXTEND 10' FROM THE EAST END
AND 5' FROM THE WEST END. THE COLOR OF THE FINAL FINISH
COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS
SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR
ALL INTERIOR SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING
RESIDUES SHALL BE UTILIZED.

SCOTT COUNTY

PIKE COUNTY

FILE NAME = G:\OPERATIONS\Bridges\plans\CAD\72H37 - beam and paint FY15 CH\plansheet.dgn Default	USER NAME = dudleybm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIKE & SCOTT COUNTY STRUCTURE MAP	SCALE: SHEET OF SHEETS STA. TO STA.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -				VAR.	D6 BDGE PAINTING 2015-1	VARIOUS	58	5
		PLOT SCALE = 100.0000' / in.	CHECKED -				CONTRACT NO. 72H37				
		PLOT DATE = Oct-02-2014 10:27:03AM	DATE -				[ILLINOIS] FED. AID PROJECT				



HANCOCK COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 11
SN 034-0001, US 136 OVER HAMILTON SLOUGH
0.1 MILES EAST OF THE KEOKUK BRIDGE, 40.3891°N 91.3638°W

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (22 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE RED. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES SHALL BE UTILIZED.

CLEANING AND PAINTING STEEL BRIDGE NO. 12
SN 034-0056, IL 96 OVER GRAY BAY
2.5 MILES NORTH OF US 136, 40.4288°N 91.3670°W

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE RED. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES SHALL BE UTILIZED. AIR MONITORS WILL BE REQUIRED

CLEANING AND PAINTING STEEL BRIDGE NO. 13
SN 034-0058, IL 96 OVER WAGGONER CREEK
4.2 MILES NORTH OF US 136, 40.4513°N 91.3693°W

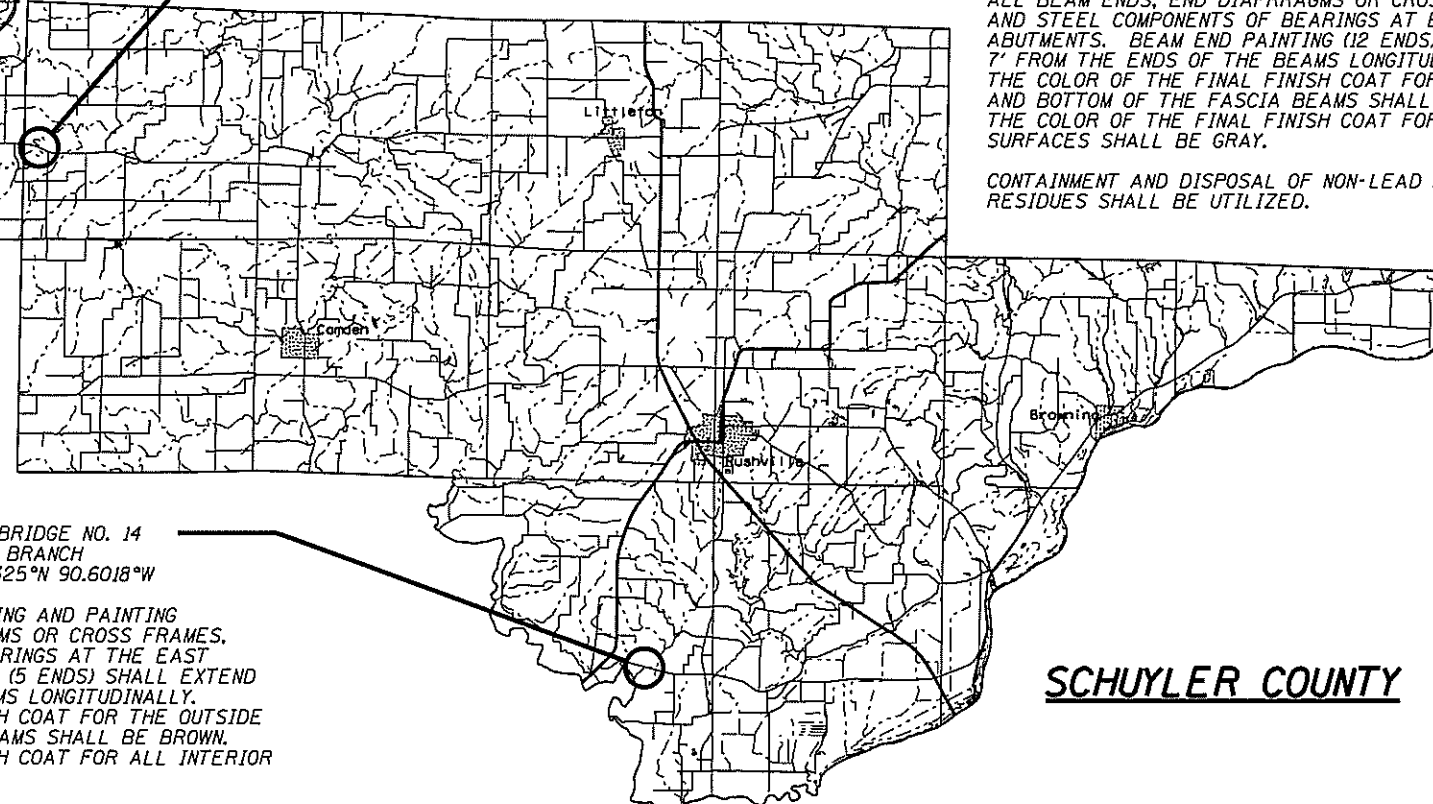
WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (10 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE RED. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES SHALL BE UTILIZED.

CLEANING AND PAINTING STEEL BRIDGE NO. 15
SN 085-0025, IL 101 OVER WILLIAMS CREEK
2.5 MILES EAST OF IL 61, 40.2280°N 90.9035°W

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND 7' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES SHALL BE UTILIZED.



SCHUYLER COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 14
SN 085-0004, IL 103 OVER TOWN BRANCH
1.3 MILES EAST OF US 24, 40.0325°N 90.6018°W

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT THE EAST ABUTMENT. BEAM END PAINTING (5 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE BROWN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES SHALL BE UTILIZED.

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HANCOCK & SCHUYLER COUNTY STRUCTURE MAP		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -								
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WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (18 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CLEANING AND PAINTING STEEL BRIDGE NO. 18
SN 084-0077, I-72 EB OVER 6TH STREET (BL 55)
SOUTH EDGE OF SPRINGFIELD, 39.7427°N 89.6445°W

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (20 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (20 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY.

CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES SHALL BE UTILIZED. AIR MONITORS WILL BE REQUIRED

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPHRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (24 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR ALL AREAS SHALL BE GRAY.

MORGAN COUNTY

SANGAMON COUNTY

FILE NAME =	USER NAME = dudleybm	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MORGAN & SANGAMON COUNTY STRUCTURE MAP				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C:\OPERATIONS\Bridgplans\CAD\72H37 - beam end point FY15 CM\plans\head.dgn	PLOT SCALE = 100.0000 ' / in.	DRAWN - _____	REVISED - _____		VAR.	06 BDGE PAINTING 2015-1	VARIOUS	58	7				
Default	PLOT DATE = Oct-02-2014 10:27:52AM	CHECKED - _____	REVISED - _____		CONTRACT NO. 72H37								
		DATE - _____	REVISED - _____		SCALE: _____	SHEET _____ OF _____ SHEETS	STA. _____ TO STA. _____	ILLINOIS FED. AID PROJECT					

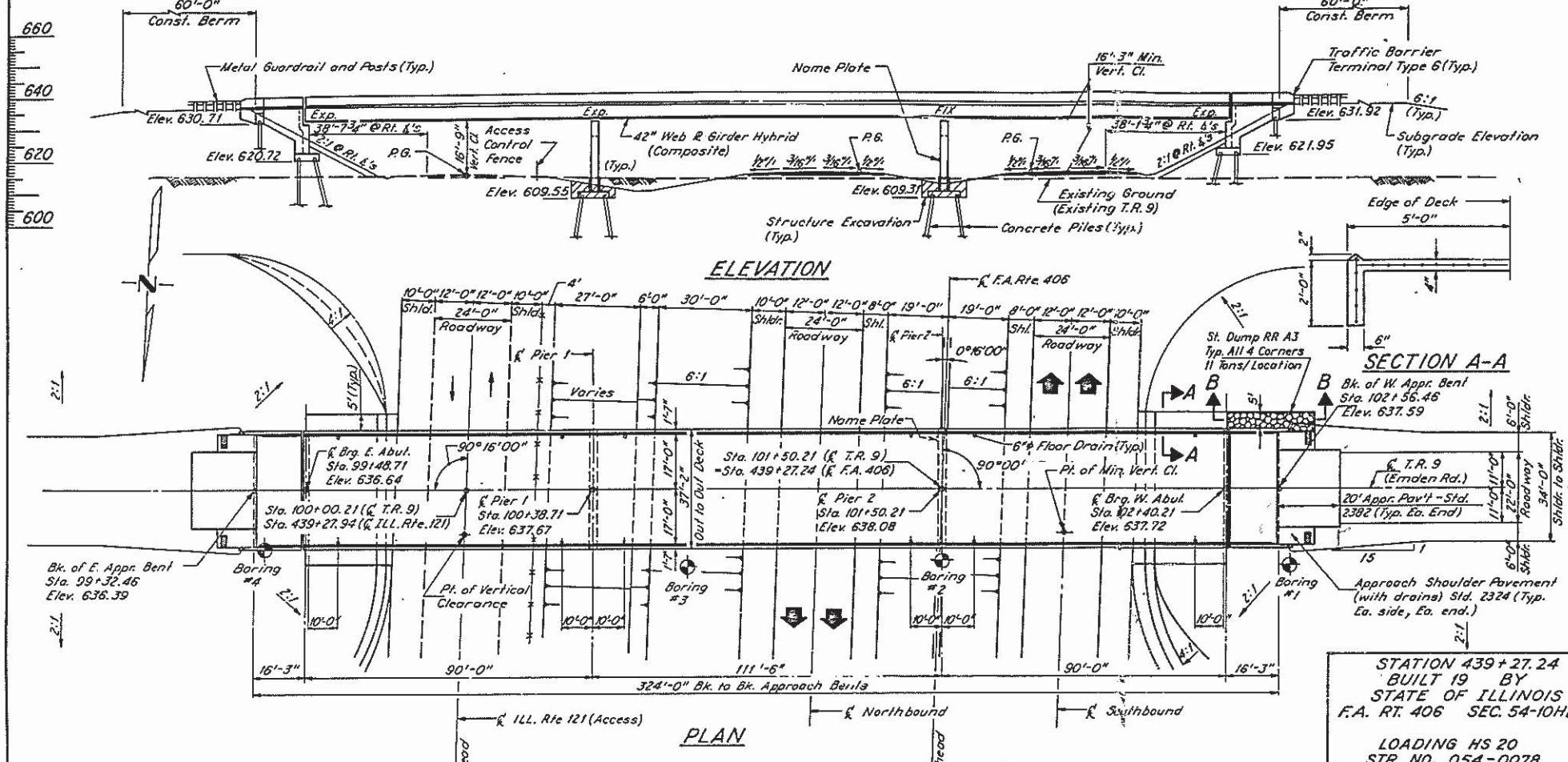
054-0078

054-0078

SHEET 1 OF 16

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
406	54-10HB-3	LOGAN	51	18
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJ.		

D.M. No. 507, Cylind on S.W. Corner of Hdwl.
Sta. 100+31 T.R. 9 (Emden Rd.) Elev. 615.12



GENERAL NOTES:

- See Proposal for Boring Data.
- Fasteners shall be high strength bolts. Bolts 7/8\" open holes 15/16\" unless otherwise noted.
- Calculated Weight of Structural Steel: M223 = 132450 Lbs. and M183 = 136620 Lbs.
- The zinc-silicate and vinyl paint system shall be used for shop and field painting of structural steel. THE COLOR OF THE FINAL FINISH COAT SHALL BE MUMFELL NO. 756 416.
- Field welding of construction accessories will not be permitted to the bottom flange of girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The contractor shall drive one concrete test pile in a permanent location at each substructure unit as directed by the Engineer before ordering the remainder of piles.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustments shall be made either by grinding the surface or by shimming the bearing. Two 1/2\" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of the top plate shall be provided and placed as detailed.

- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Match Toughness Zone 2. These components are the tension flanges, webs and all splice plate material of the steel girders.
- Reinforcement bars shall conform to AASHTO M-31, M-42 or M-53 Grade 60.
- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
- Concrete piles of approach bents shall be driven in holes prepared thru the embankment in accordance with Article 513.09(C) of the Standard Specifications.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Registered Structural Engineer

STATION 439+27.24
BUILT 19 BY
STATE OF ILLINOIS
F.A. RT. 406 SEC. 54-10HB-3
LOADING HS 20
STR. NO. 054-0078
NAME PLATE
See Std. 2113

NOTE: See Sheet 14 for Name Plate location.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER-STRUCT.	SUB-STRUCT.	TOTAL
Structure Excavation	Cu. Yds.		132	132
Protective Coat *	Sq. Yds.	1490		1490
Class X Concrete Superstructure	Cu. Yds.	374.7		374.7
Class X Concrete	Cu. Yds.		273.5	273.5
Furnishing and Erecting Structural Steel	Yump Sum	1		1
Reinforcement Bars	Lbs.	4870	24040	24910
Reinforcement Bars - Epoxy Coated	Lbs.	90760	5160	95920
Concrete Piles	Lin. Ft.		3956	3956
Test Piles - Concrete	Each		4	4
Neoprene Expansion Joint (4")	Lin. Ft.	36		36
Preformed Joint Seal (4")	Lin. Ft.	37		37
Name Plates	Each		1	1
Slope Wall	Sq. Yds.		326	326
Stud Shear Connectors	Each	2775		2775
Sand Backfill	Cu. Yds.		156	156
Elastomeric Bearing Assembly, Type I	Each		10	10
Elastomeric Bearing Assembly, Type II	Each		5	5
Floor Drains	Each	12		12
STONE DUMPED RIPRAP CLASS A5	TON		44	44
BRIDGE SEAT SEALER	L.GUM			1

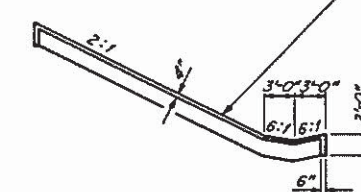
*EST. AREA FOR BRIDGE SEAT SEALER = 123 SQ. FT.
*INCLUDES BRIDGE DECK, APPROACH SLABS, AND FACE AND TOP OF PARAPETS AND WINGWALLS
REV 4-12-10 BY HLG. CHANGED REINFORCEMENT BARS FROM 20340 TO 24910 LBS. CHANGED REINFORCEMENT BARS - EPOXY COATED FROM 42430 TO 46730 LBS.
ADDED STONE DUMPED RIPRAP CLASS A5 44 TON. ADDED BRIDGE SEAT SEALER 1 L.GUM

LOADING HS 20-44

DESIGN STRESSES

$F_c = 3,500$ psi
 $F_y = 60,000$ psi (Reinf.)
 $F_y = 50,000$ psi (M223, GR50) Flange
36,000 psi (M183)
Hybrid Girder

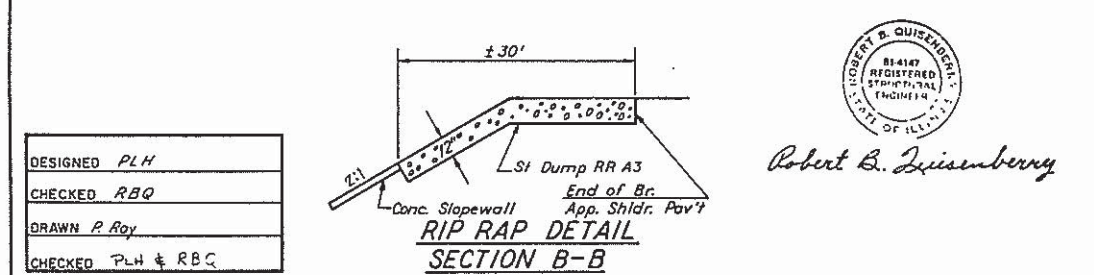
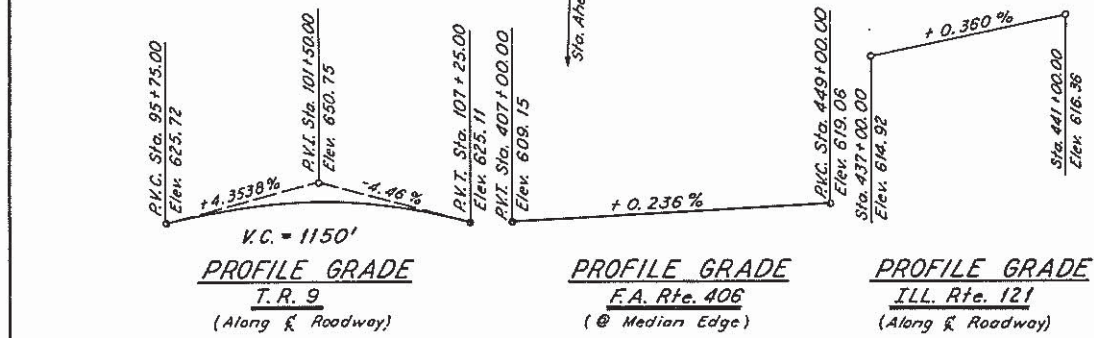
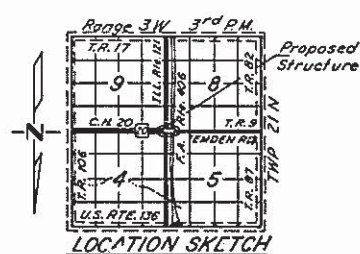
Sloped wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.



SLOPEWALL DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

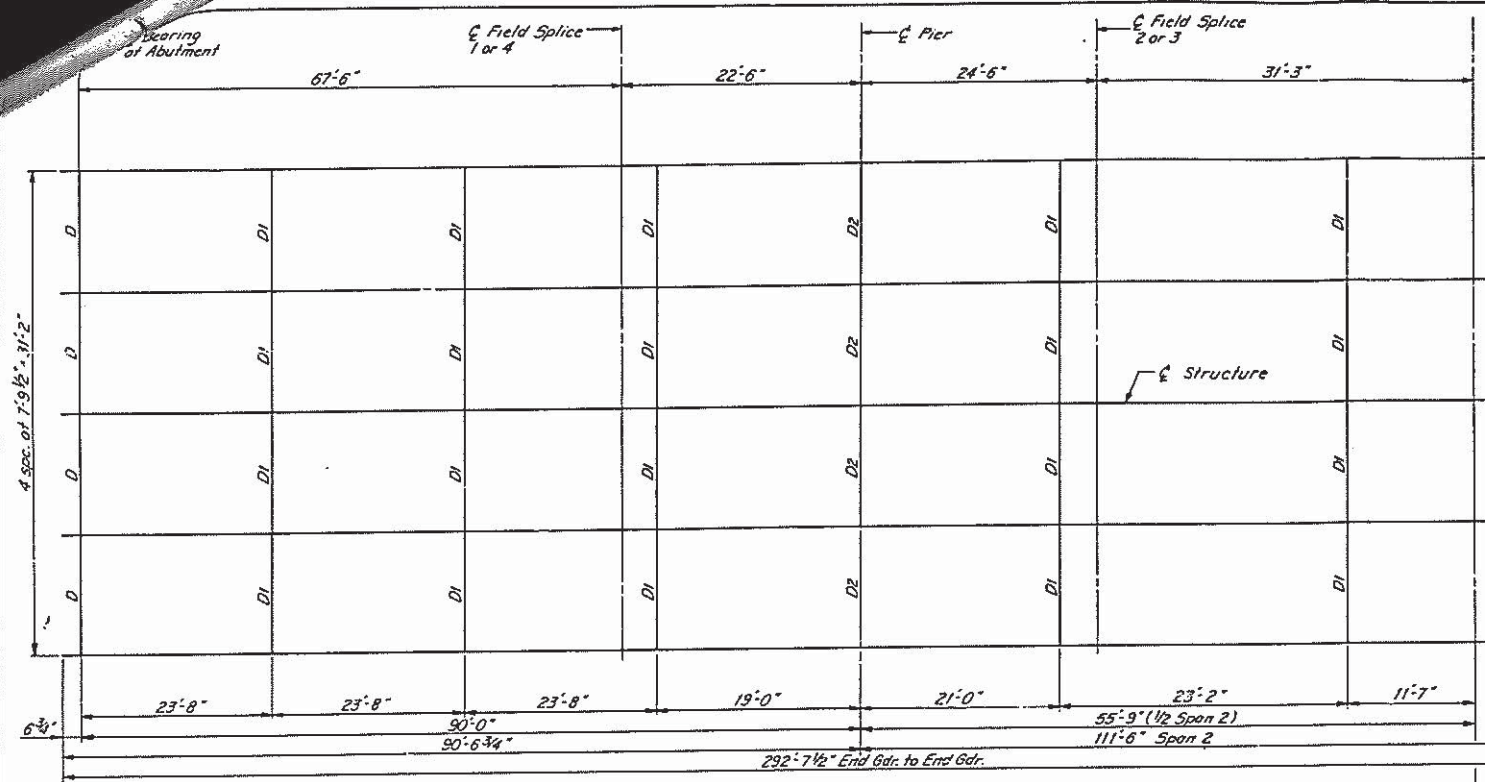
GENERAL PLAN
EMDEN ROAD OVER ILLINOIS ROUTE 121
F.A. RTE. 406 SECTION 54-10HB-3
Sta. 101+50.21 (EMDEN ROAD)
Sta. 439+27.24 (F.A. RTE. 406)
LOGAN COUNTY
STRUCTURE NUMBER 054-0078



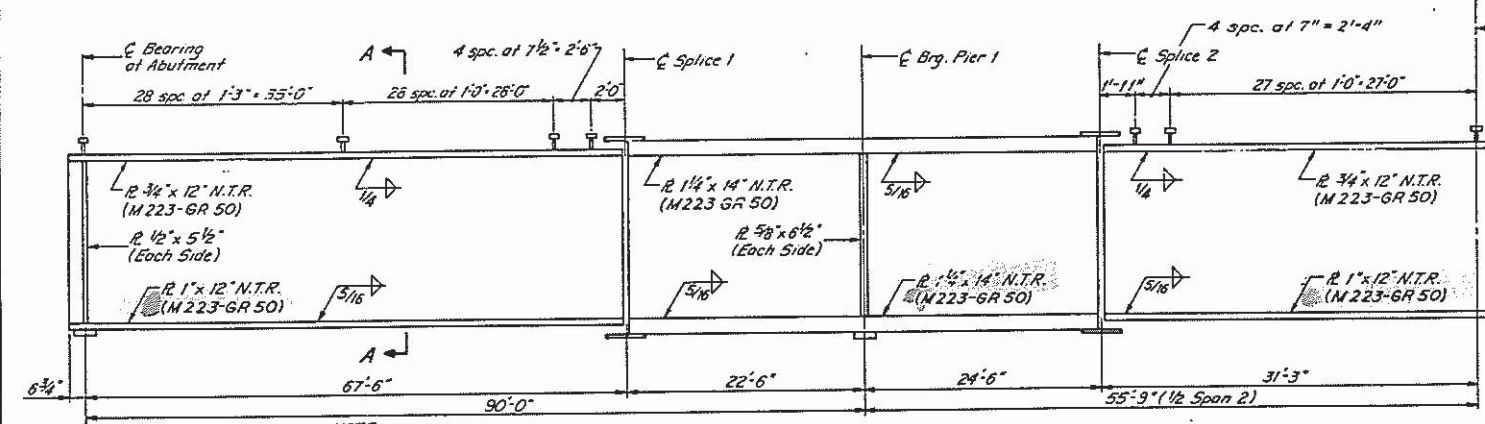
DESIGNED PLH
CHECKED RBQ
DRAWN P. Roy
CHECKED PLH & RBQ

Robert B. Quisenberry
REGISTERED PROFESSIONAL ENGINEER
ILLINOIS

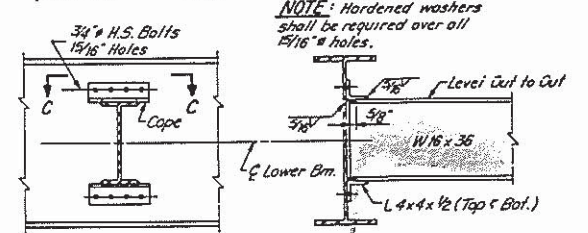
054-0070



HALF PLAN

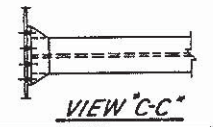


HALF GIRDER ELEVATION



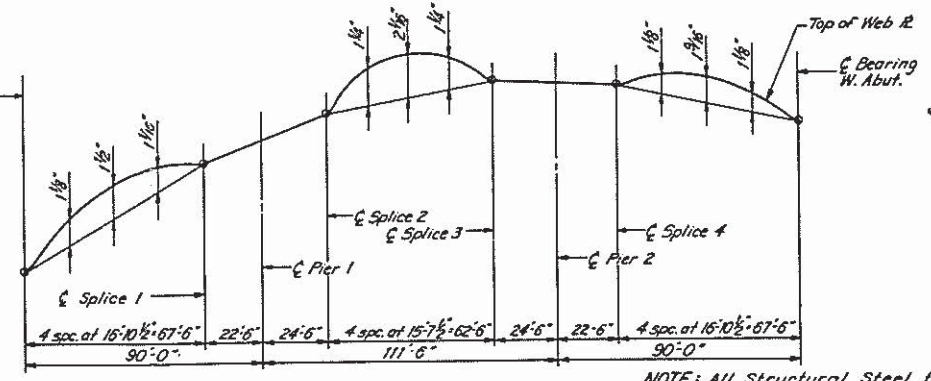
INTERIOR DIAPHRAGM D1

DESIGNED	PLH
CHECKED	RBQ
DRAWN	WOLK
CHECKED	PLH & RBQ

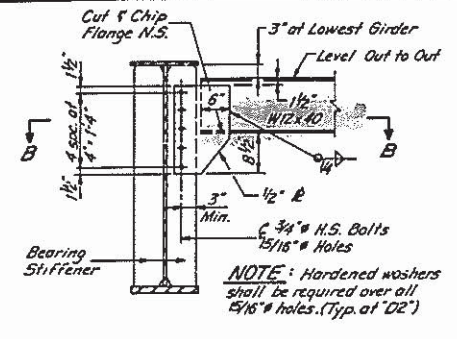


VIEW C-C

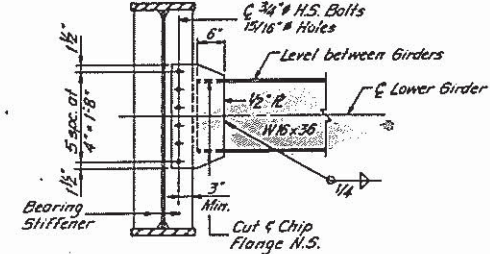
TOP OF WEB ELEVATIONS					
LOCATION	1	2	3	4	5
Br. E. Abut.	635.62	635.77	635.89	635.77	635.62
Splice 1	636.42	636.57	636.69	636.57	636.42
Pier 1	636.61	636.76	636.88	636.76	636.61
Splice 2	636.79	636.94	637.06	636.94	636.79
Splice 3	637.02	637.17	637.29	637.17	637.02
Pier 2	637.02	637.17	637.29	637.17	637.02
Splice 4	637.00	637.15	637.27	637.15	637.00
Br. W. Abut.	636.70	636.85	636.97	636.85	636.70



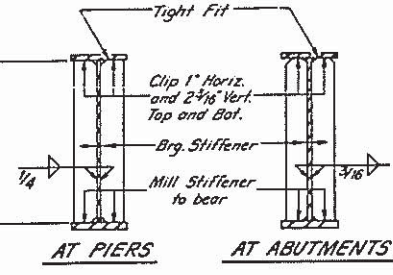
CAMBER DIAGRAM



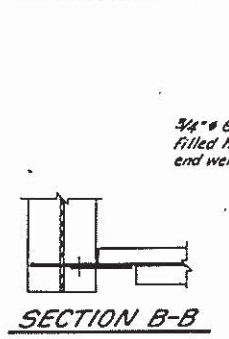
DIAPHRAGM D AT ABUTMENTS



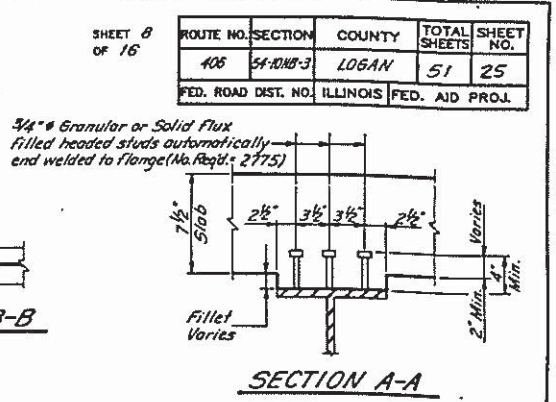
DIAPHRAGM D2 AT PIERS



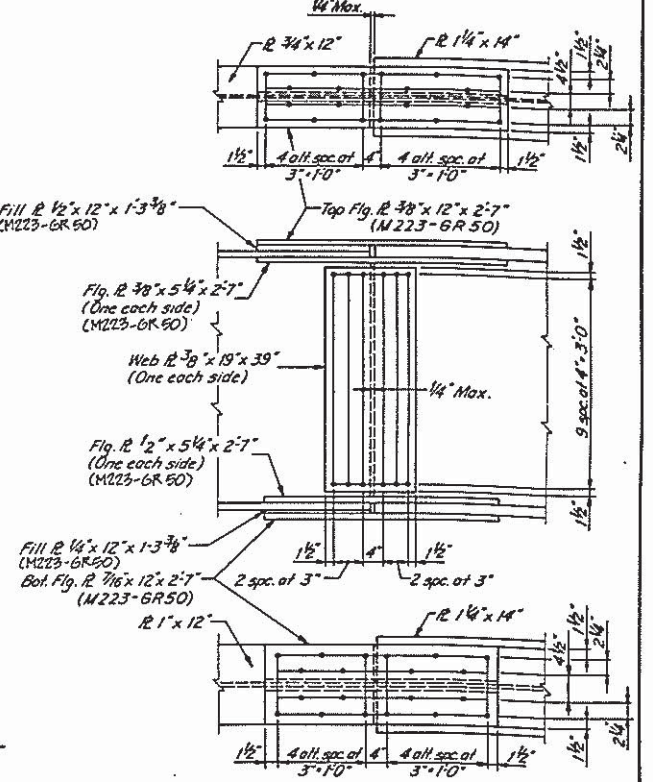
BEARING STIFFENERS



SECTION B-B

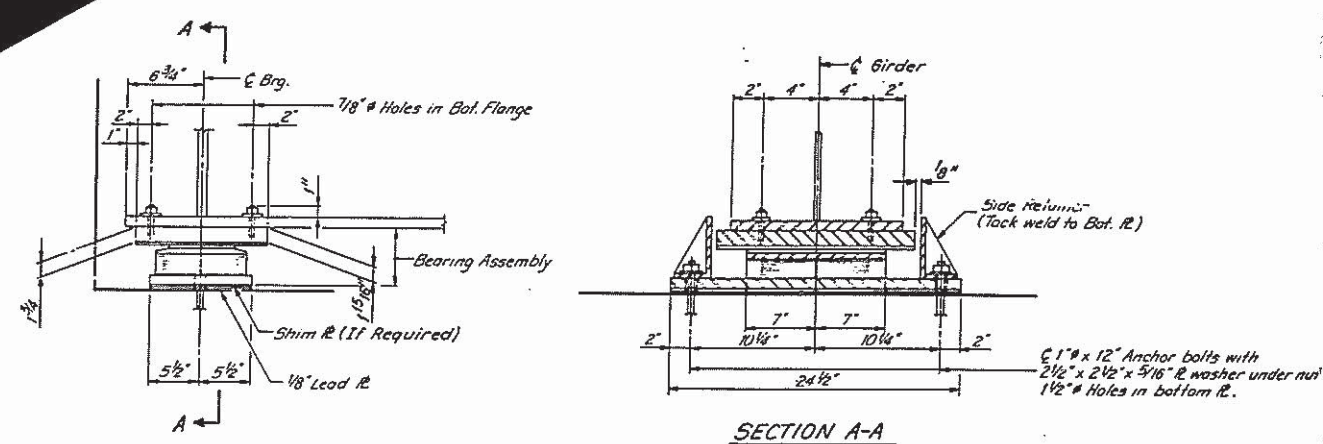


SECTION A-A

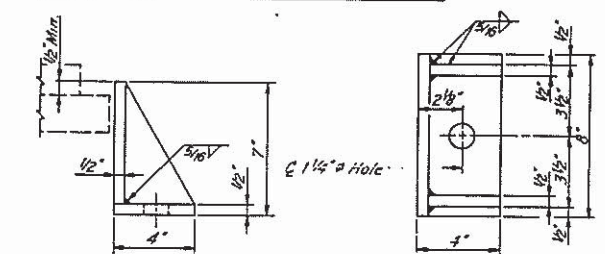
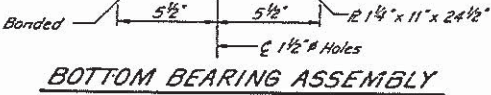
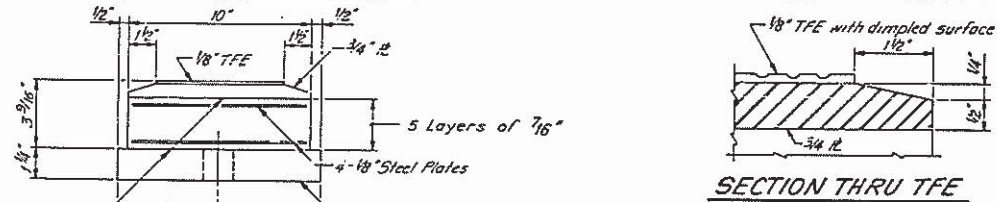
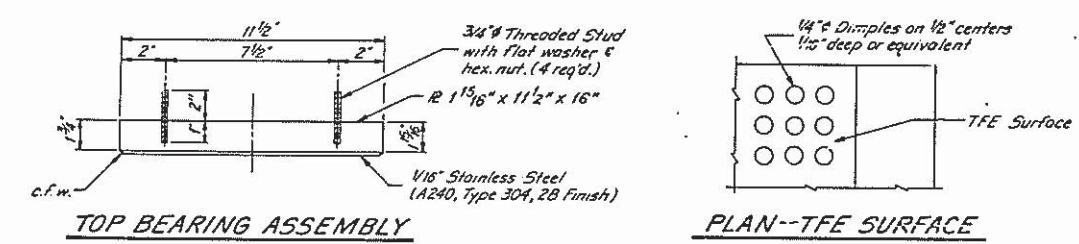


FIELD SPICE DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
STRUCTURAL STEEL DETAILS
EMDEN ROAD OVER ILLINOIS ROUTE 121
F.A. RTE. 406 SECTION 54-10HB-3
Sta. 101+50.21 (EMDEN ROAD)
Sta. 439+27.24 (F.A. RTE. 406)
LOGAN COUNTY
STRUCTURE NO. 054-0078



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

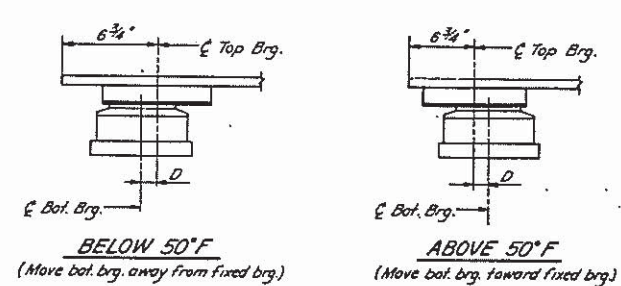


SIDE RETAINER
Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates

DESIGNED	PLH
CHECKED	RBQ
DRAWN	VOLK
CHECKED	PLH & RBQ

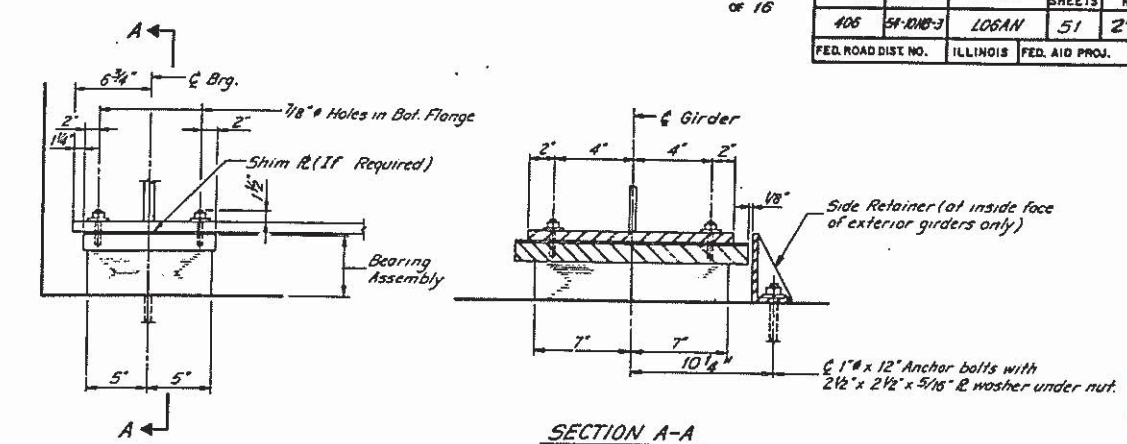
NOTE: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

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.

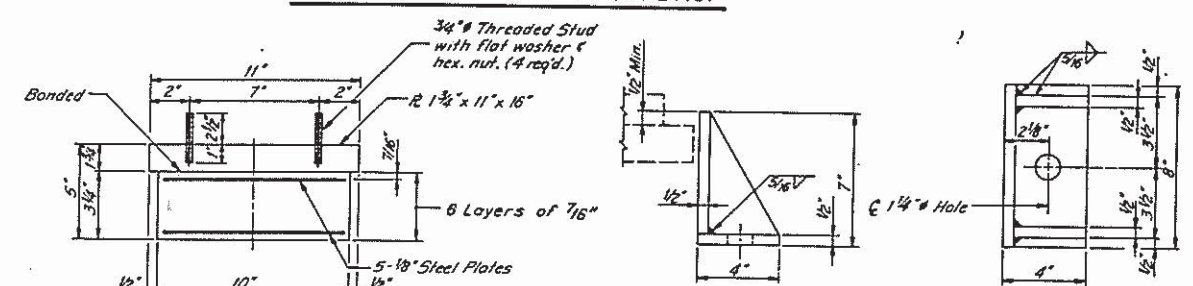


SETTING ANCHOR BOLTS AT EXP. BRG.

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



**WEST ABUTMENT
TYPE I ELASTOMERIC EXP. BRG.**



NOTE: Shim plates shall not be placed under assembly.

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

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Elastomeric Bearing Assembly Type I	Each	10
Elastomeric Bearing Assembly Type II	Each	5

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
EMDEN ROAD OVER ILLINOIS ROUTE 121
F.A. RTE. 406 SECTION 54-10HB-3
Sta. 101+50.21 (EMDEN ROAD)
Sta. 439+27.24 (F.A. RTE. 406)
LOGAN COUNTY
STRUCTURE NO. 054 0078

Bench Mark: 6 M. C. Ensl. 2 On N.E. Corner of Bridge On
Wheel Guard Sta. 750+00 12.6' L.T. El. 481.93
Existing Structure: 12' Wide Frame Spans w/ Poured In Place
Concrete Deck All On Pile Bent Abutments and Piers.
Bk. to Bk. Abutments 800'-0" and 25'-0" wide. (Str. No. 065-0003)
Salvage: None

DESIGN SPECIFICATIONS

Design Specifications = ARSNTD 1983
And 1984, 1985 Interim Specifications.

Allow 25' sq. ft. for future wearing surface.

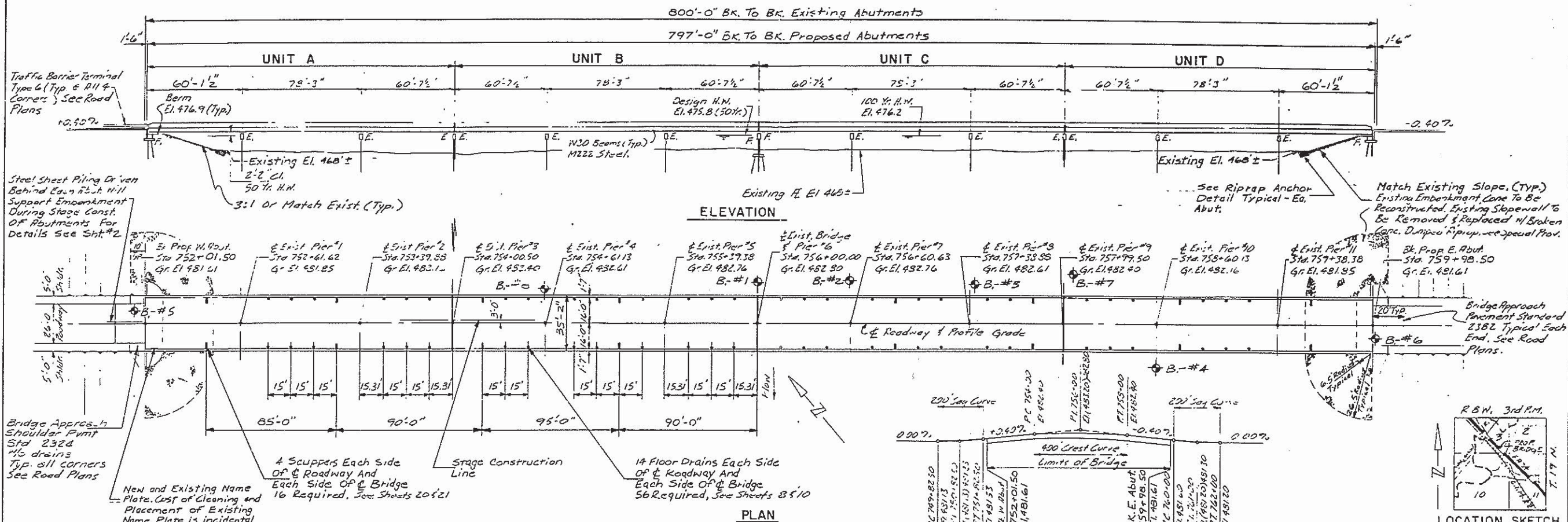
DESIGN STRESSES

$f_c = 3500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (MZZ Structural Steel)

* Epoxy coated reinforcement bars shall be used in the deck slab.

FILE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34	2BR-1	Menard	39	8

Sheet 1 of 26 Sheets



BORING LOCATIONS

Boring No.	Locations
B-#1	Sta 756+00 26.5' L.T.
B-#2	Sta 756+60.5 27' L.T.
B-#3	Sta 757+42 25.5' L.T.
B-#4	Sta 758+60 27.5' R.T.
B-#5	Sta 751+91 6.5' L.T.
B-#6	Sta 760+07 6.5' R.T.
B-#7	Sta 758+06 27' L.T.
B-#8	Sta 754+61 22' L.T.

STATION 756+00
BUILT 198 BY
STATE OF ILLINOIS
F.A. RT. 34 SEC. 2BR-1
F.A. PROJ. 113-F-34(14)
LOADING HS20
STR. NO. 065-0003

NAME PLATE

WATERWAY INFORMATION

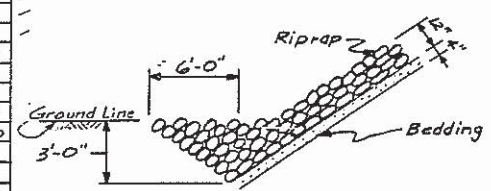
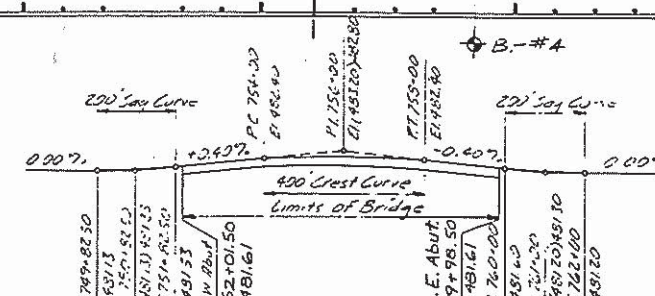
Drainage Area - 5120 Sq. Mi.		Low Grade Elev		Sts	
Flood	Flow	Existing	Prop	Headwater El	Headwater El
Design	50	10426	10426		
Base	100	8471	8471		
Max. Overflow		71800	86971	475.8	0.82
Base		81700		476.2	0.90
Max. Overflow				477.10	477.10

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Removal Of Existing Structures	L. Sum	-	-	-
Structure Excavation	Cu. Yd.	-	-	560
Floor Drains	Each	56	-	56
Protective Coat	Sq. Yd.	3476	-	3476
Class X Concrete	Cu. Yd.	864.7	360.3	1225.0
Structural Steel	L. Sum	-	-	-
Stud Shear Connectors	Each	11,660	-	11,660
Reinforcement Bars	Pound	-	39,700	39,700
Reinforcement Bars (Epoxy Coated)	Pound	219,490	-	219,490
Precast Concrete Piles 16"	Lin. Ft.	-	2353	2353
Concrete Piles	Lin. Ft.	-	960	960
Test Piles Precast Concrete	Each	-	4	4
Test Pile Concrete	Each	-	3	3
Temporary Sheet Piling	Sq. Ft.	-	-	400
Name Plates	Each	-	-	1
Preformed Joint Seal 2 1/2"	Lin. Ft.	35	-	35
Elastomeric Bearing Assembly, Type I	Each	-	-	40
Elastomeric Bearing Assembly, Type II	Each	-	-	20
Temporary Concrete Barrier	Lin. Ft.	-	-	1600
Drainage Scuppers	Each	16	-	16
Neoprene Expansion Joint 6 1/2"	Lin. Ft.	68	-	68
Broken Concrete Dumped Riprap	Sq. Yd.	-	-	600
Slope Wall Removal	Sq. Yd.	-	-	525

* See Special Provisions

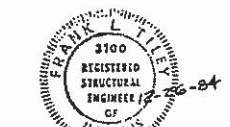
PROPOSED ROADWAY PROFILE (#1 & #2 Route 34)



RIPRAP ANCHOR DETAIL

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

John W. Rayburn
REGISTERED PROFESSIONAL ENGINEER
No. 125-84



Frank A. Shiley
ILLINOIS STRUCTURAL NO. 3100

LOADING HS20-44

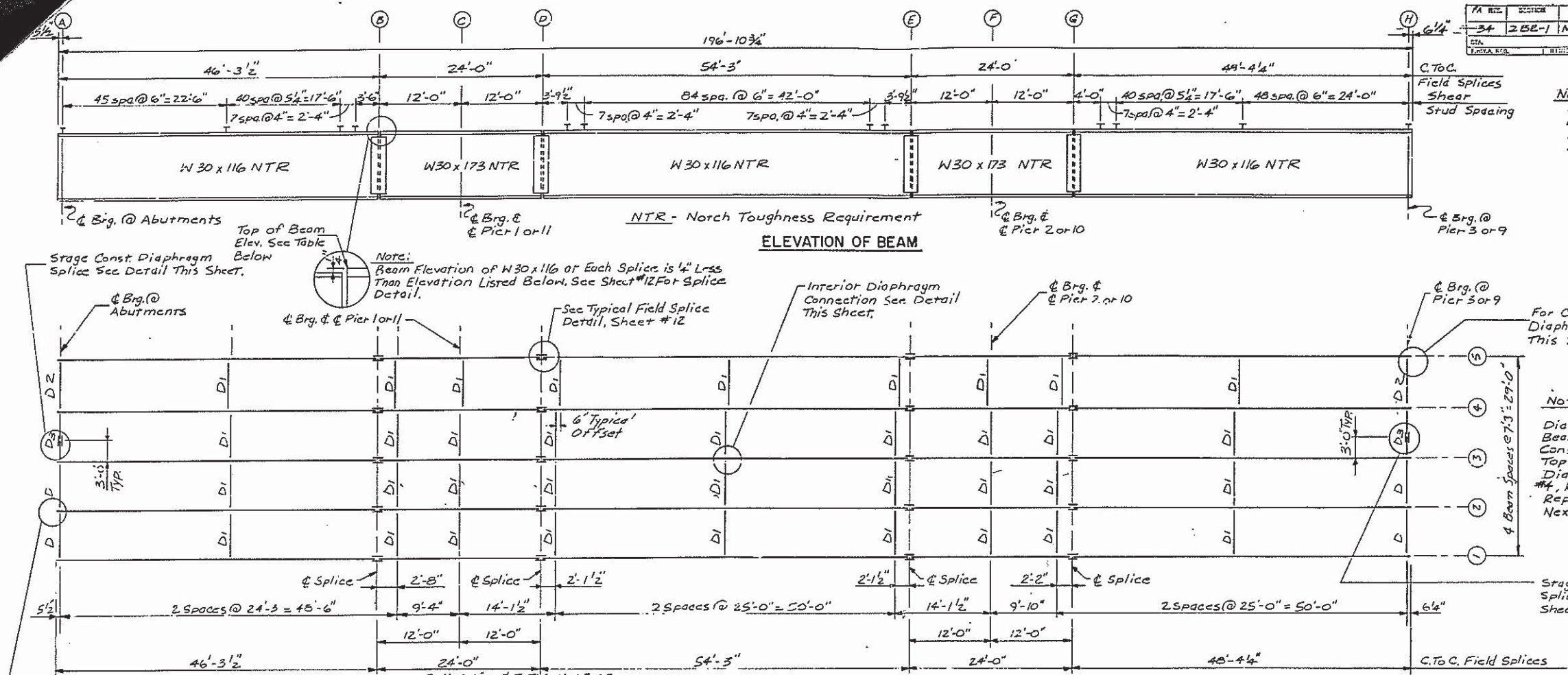
GENERAL PLAN & ELEVATION
SANGAMON RIVER OVERFLOW BRIDGE
F.A. ROUTE 34 (ILLINOIS ROUTE 97)
SECTION 2BR-1
MENARD COUNTY
STATION 756+00

Ralph Hahn and Associates
Consulting and Design Engineers Inc.
1320 South State Street
Springfield, Illinois 62704

FA. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34	2BR-1	Menard	39	18
TO STA.				
FROM STA.				

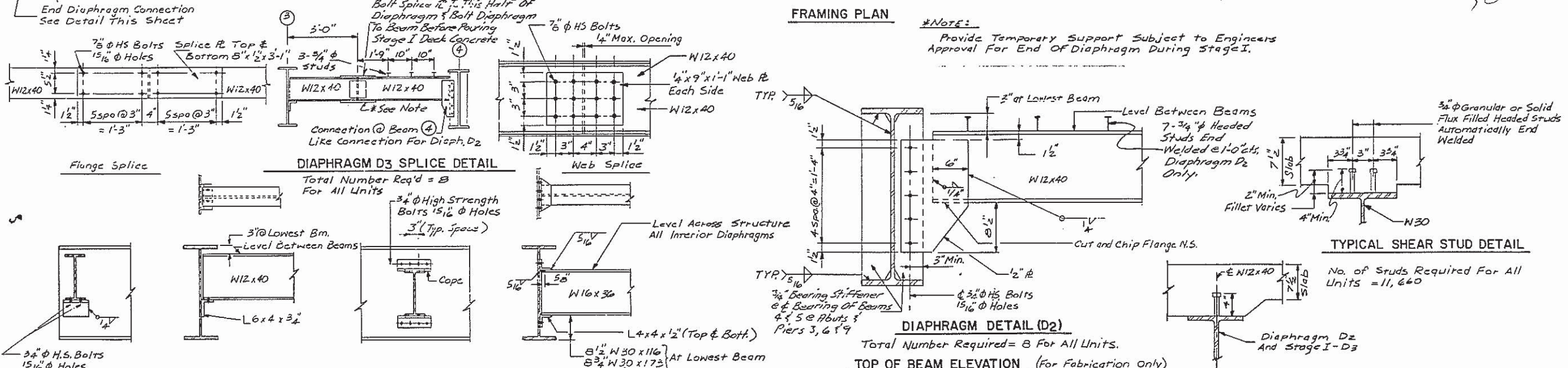
Sheet 11 of 26 Sheets

NOTES:
All Structural Steel to be M222.
All Bolts to be High Strength M-164 Type 5



NOTE:
Diaphragm Connection Angles @ Beam #4 Overlap 6". For Stage II Construction, Remove Two Bolts From Top & Bottom Angles. Install Diaphragm Between Beams #3 & #4, Replace Bolts. Bolts to be Replaced Before Loosening Bolts at Next Diaphragm Line.

NOTE:
Provide Temporary Support Subject to Engineers Approval For End OF Diaphragm During Stage I.

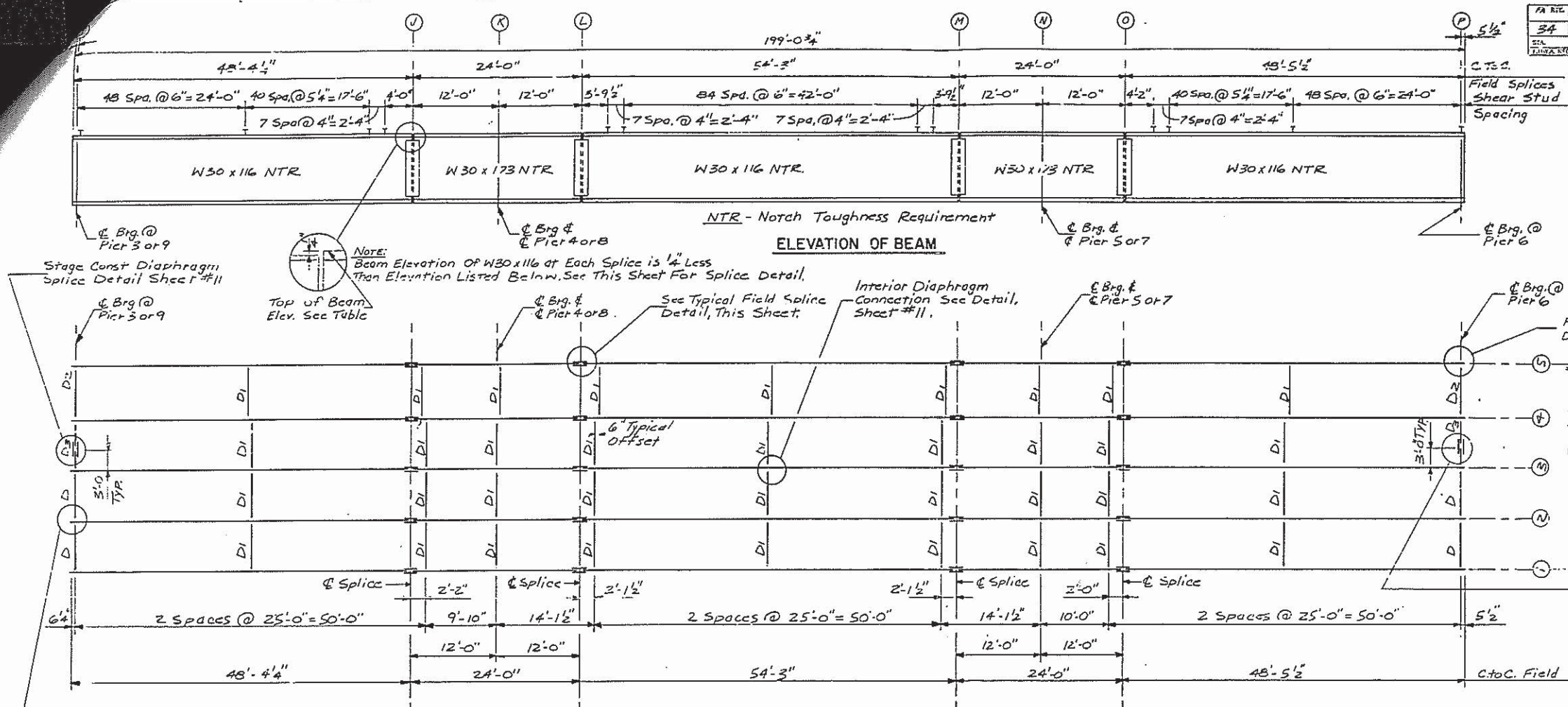


Beam	(A) @ Abuts.	(B) @ Pier 1 or 11	(C) @ Pier 2 or 10	(D) @ Pier 3 or 9	(E) @ Pier 4 or 8	(F) @ Pier 5 or 7	(G) @ Pier 6 or 6
Beam #1	480.56	480.77	480.82	480.86	481.08	481.13	481.35
Beam #2	480.69	480.90	480.95	480.99	481.21	481.26	481.48
Beam #3	480.80	481.01	481.06	481.10	481.32	481.37	481.59
Beam #4	480.69	480.90	480.95	480.99	481.21	481.26	481.48
Beam #5	480.56	480.77	480.82	480.86	481.08	481.13	481.35

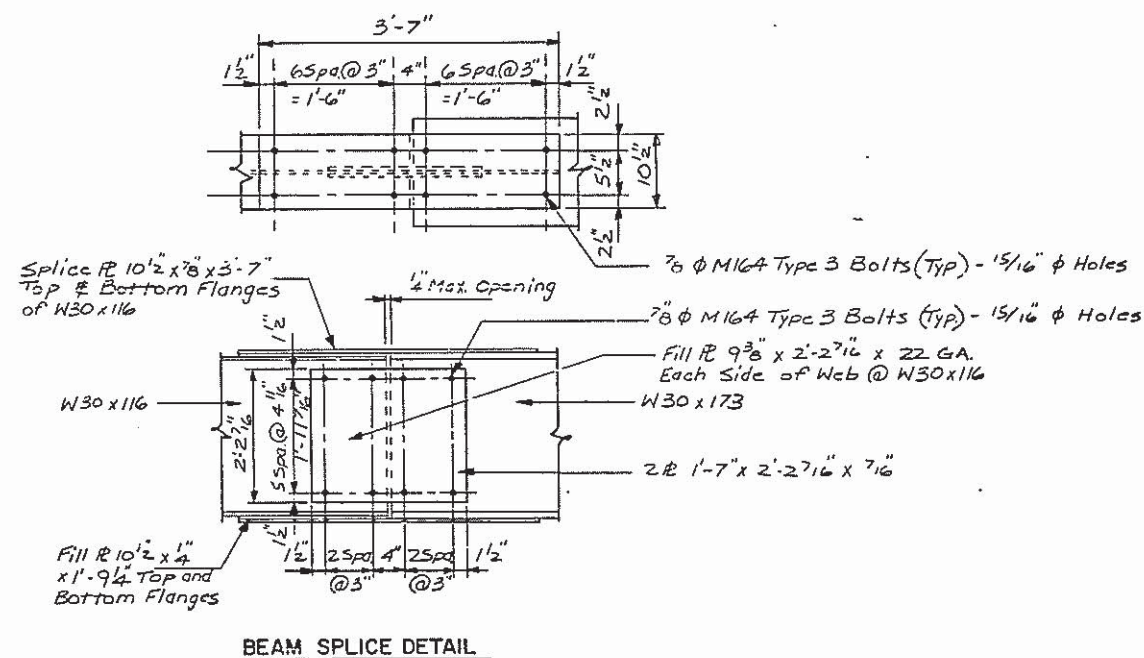
FRAMING PLAN - UNITS A & D
SANGAMON RIVER OVERFLOW BRIDGE
F.A. ROUTE 34 (ILLINOIS ROUTE 97)
SECTION 2BR-1
MENARD COUNTY
STATION 756+00

FA RTE	SECTION	COUNTY	TOTAL SHEET NO.
34	2BR-1	Menard	39 19
STA.	TO STA.		
756+00	756+00		

Sheet 12 of 26 Sheets



FRAMING PLAN



BEAM SPLICE DETAIL

All Units

INTERIOR BEAM MOMENT TABLE			
	0.45 P1	Pier	5 P1 Int Spd
Is (in ⁴)	4930	8200	4930
Ic (in ⁴)	13700	—	13700
Ss (in ³)	329	539	329
Sc (in ³)	494	—	494
Q (K/I)	.887	.887	.887
M ₂ (K)	.196	.487	.199
S ₂ (K/I)	.345	.345	.345
M ₅ (K)	.90	.145	.119
M ₆ (K)	.444	.326	.502
M _{IMP} (K)	.120	.84	.124
M _{2+I} (K)	.940	.683	.1043
M ₀ (K)	.1594	.1700	.1770
M _U (K)	.2791	—	.2791
φ ₃ (non-comp) KSI	7.1	14.1	7.2
φ ₃ (comp) KSI	2.2	—	2.9
φ ₃ (L+I) KSI	22.8	15.2	25.3
φ ₃ (Overload) KSI	32.1	29.3	33.4
φ ₃ (Total) KSI	41.8	38.1	46.1
φ ₃ (K)	55	56.9	46

All Units

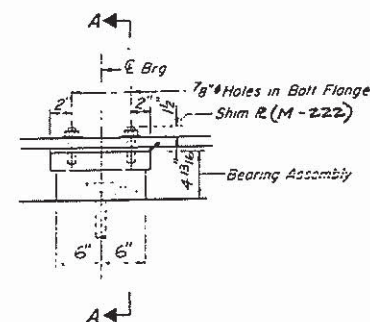
INTERIOR BEAM REACTION TABLE		
	ABUT.	Pier
R ₂ (K)	26.5	95.6
R ₆ (K)	43.6	55.1
IMP (K)	11.8	13.8
R _{TOTAL} (K)	81.9	164.5

* Mu = Full Plastic Moment Capacity for Compact, Braced Section.
 M_0 (Applied Moment) = $1/3 [M_2 + M_6 + \frac{1}{2} (M_2 + I)]$

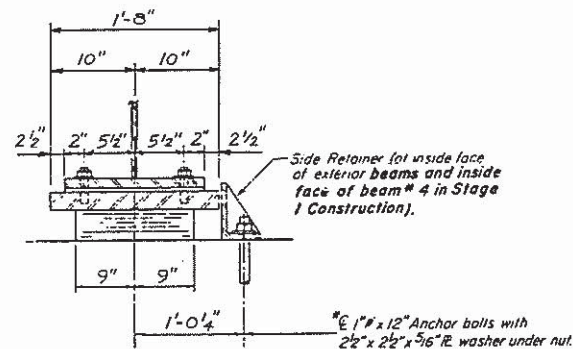
TOP OF BEAM ELEVATION

Beam	①	②	③	④	⑤	⑥	⑦
Beam #1	481.48	481.54	481.58	481.61	481.72	481.73	481.75
Beam #2	481.61	481.67	481.71	481.74	481.85	481.86	481.88
Beam #3	481.72	481.78	481.82	481.85	481.96	481.97	481.99
Beam #4	481.61	481.67	481.71	481.74	481.85	481.86	481.88
Beam #5	481.48	481.54	481.58	481.61	481.72	481.73	481.75

FRAMING PLAN - UNITS B & C
 SANGAMON RIVER OVERFLOW BRIDGE
 F.A. ROUTE 34 (ILLINOIS ROUTE 97)
 SECTION 2BR-1
 MENARD COUNTY
 STATION 756+00

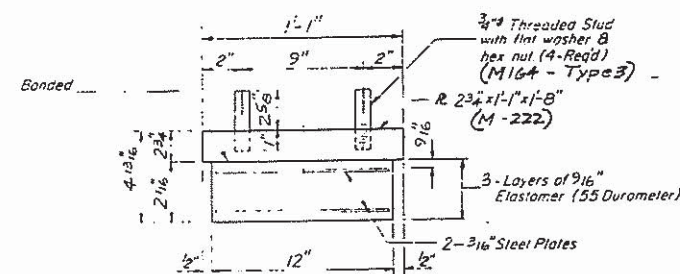


ELEVATION AT PIER



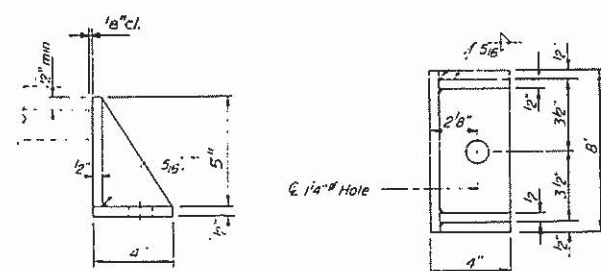
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Note Shim plates shall not be placed under Bearing Assembly.

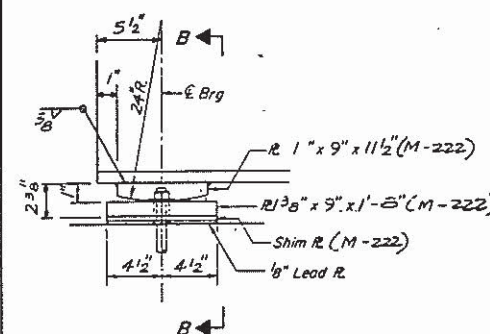


SIDE RETAINER

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

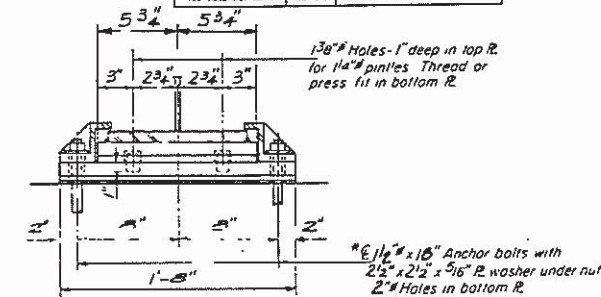
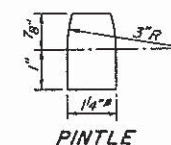
PIERS 1,5,7 & 11

*Note: After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.



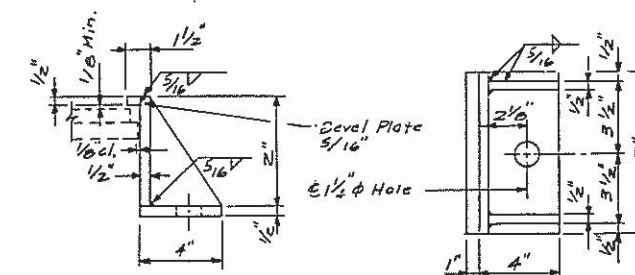
ELEVATION AT ABUT. OR PIER

FIXED BEARING



SECTION B-B

*Note: After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.



SIDE RETAINER
(20 - REQUIRED)

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

ABUTMENTS & PIER 6

BEARINGS AT ABUTS. & PIERS 1,5,6,7 & 11
SANGAMON RIVER OVERFLOW BRIDGE
F.A. ROUTE 34 (ILLINOIS ROUTE 97)
SECTION 2BR-1
MENARD COUNTY
STATION 756+00

065-0003

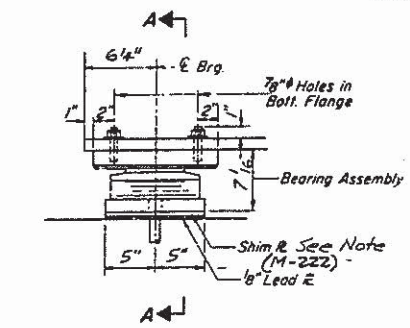
Ralph Hahn and Associates
Consulting and Design Engineers Inc.
1320 South State Street
Springfield, Illinois 62704

SECTION 2BR-1
MENARD COUNTY
STATION 756+00

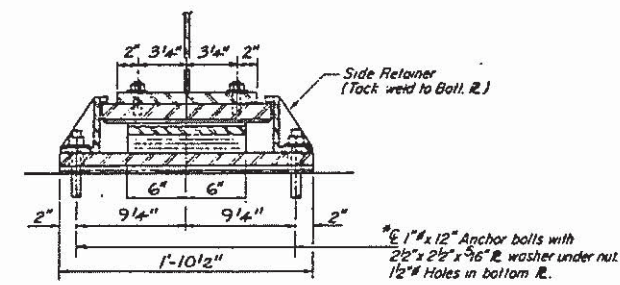
FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 065-0003 (FOR INFORMATION ONLY)		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Q:\OPERATIONS\Bridges\plans\CAD\72H37 - beam and point FY15 CH\plansheet.dgn		DRAWN -	REVISED -		SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____		VAR.	D6 BDGE PAINTING 2015-1	VARIOUS	58	14
PLOT SCALE = 1/8"=1'-0"		CHECKED -	REVISED -				CONTRACT NO. 72H37				
PLOT DATE = Aug-20-2014 8:14:23PM		DATE -	REVISED -				ILLINOIS FED. AID PROJECT				

NOTES: 1 1/2" x 10" x 1/4" Shim Plates (M-222)
 Required @ Beams 1, 2, 3, 4 & 5 @
 Piers 3 & 9. Unit B & C Only.

DATE	3/28/11	DESIGNED	Menard	39	26	SHEET NO. 190
BY	3/28/11	CHECKED				26 SHEETS

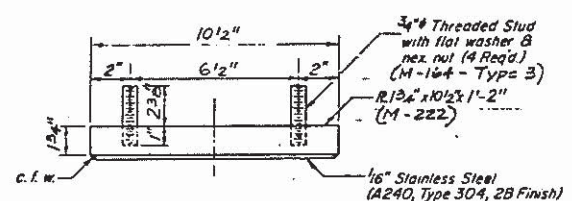


ELEVATION AT PIER

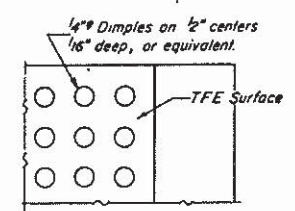


SECTION A-A

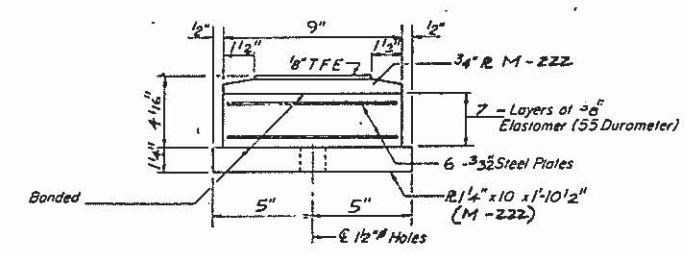
TYPE II TFE ELASTOMERIC EXP BRG.



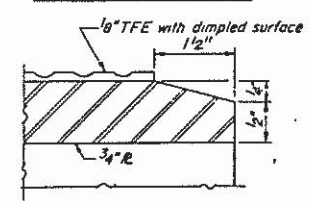
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



BOTTOM BEARING ASSEMBLY

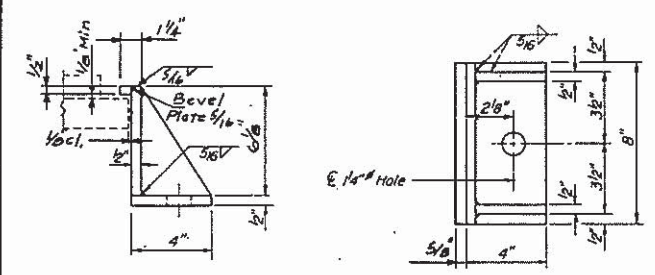


SECTION THRU TFE

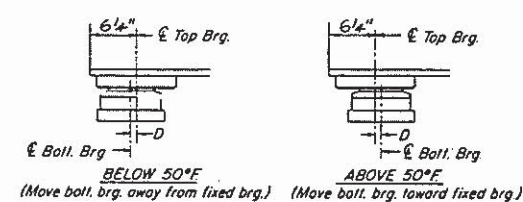
Note: After beams have been erected
 holes of expansion bearings shall be
 drilled and anchor bolts grouted in place.
 Anchor bolts at fixed bearings may be
 built into the masonry.

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.



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



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

PIERS 3 & 9

BEARINGS AT PIERS 3 & 9
 SANGAMON RIVER OVERFLOW BRIDGE
 F.A. ROUTE 34 (ILLINOIS ROUTE 97)
 SECTION 2BR-1
 MENARD COUNTY
 STATION 756+00

065-0003

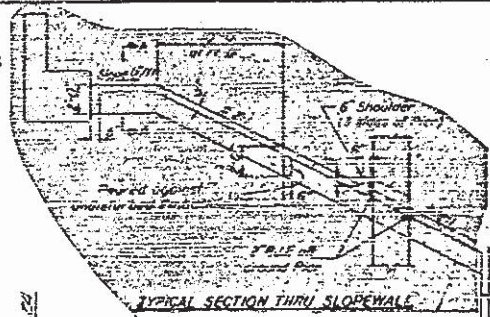
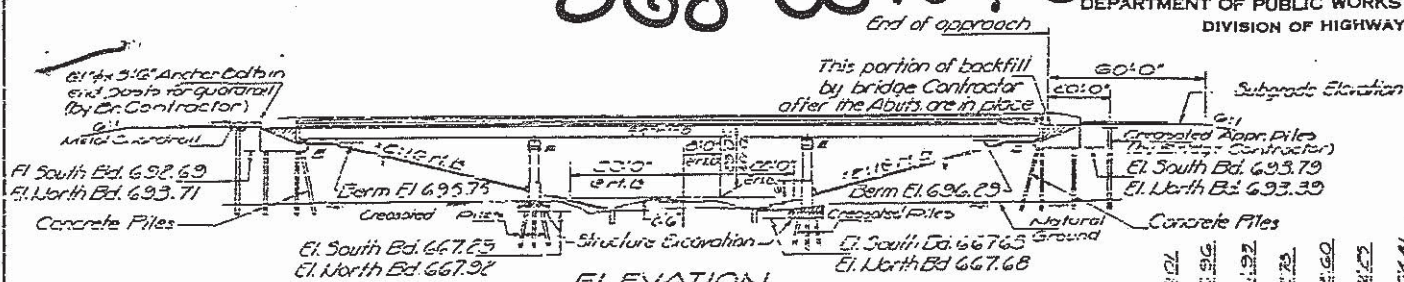
Rolph Hahn and Associates
 Consulting and Design Engineers Inc.
 1320 South State Street

F.A. ROUTE 34 (ILLINOIS ROUTE 97)
 SECTION 2BR-1
 MENARD COUNTY

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS	EXISTING PLANS SN 065-0003	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OPERATIONS\Bridges\plans\CAO\72H37 - beam and point FY15 CH\plans\std\gdn	audleybm	DRAWN -	REVISED -	DEPARTMENT OF TRANSPORTATION	(FOR INFORMATION ONLY)	VAR.	D6 BOGE PAINTING 2015-1	VARIOUS	58	15
PLOT SCALE * 1/8"=1'-0"	PLOT DATE * Aug-28-2014 01:42:38PM	CHECKED -	REVISED -							CONTRACT NO. 72H37
Default		DATE -	REVISED -							ILLINOIS FED. AID PROJECT

068-0045 & 068-0046
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

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



DATE	AMOUNT	CURRENCY	TOTAL CURRENCY	TOTAL %
2.02				
2.02 55	18-10	MONTGOMERY	268	14
Page 2 of 2				

0045 & 46

Note

NOTE
Those spans which will have railroad
signal or communication lines under
them shall have the deck drains spaced
to clear the cross arms of these wire signal
poles by 10' as determined in the field by the
Engineer. No deck drains shall be permitted
to open over railroad tracks.

APPROACH FILE DATA

Type: Creosoted
Est. Length: 29'
No. Req'd.: 36

GENERAL NOTES

All reinforcement bars shall be spaced 24" maximum unless otherwise specified.
 Fasteners shall be high strength bolts. Bolts 1/2" or less holes 3/4" unless otherwise noted.
 Calculated weight of Superstructure = 220,560 lbs.
 The Superstructure shall be fully loaded operation shall be tested for such loads.
 Field welding of structural steel
 Field welding of construction accessories will not be permitted in the bottom flange of beams or girders nor in the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
 Anchor bolts shall be set before forming cross frames and subframes.
 Deck will shall be reinforced and placed over fabric 6" x 6" mesh, weighing 50# per 100 sq. ft.

The concrete test section above the mandatory construction joint at the top of the slab shall be constructed of Class A Concrete, except the aggregates shall conform to the requirements of Normal Concrete.

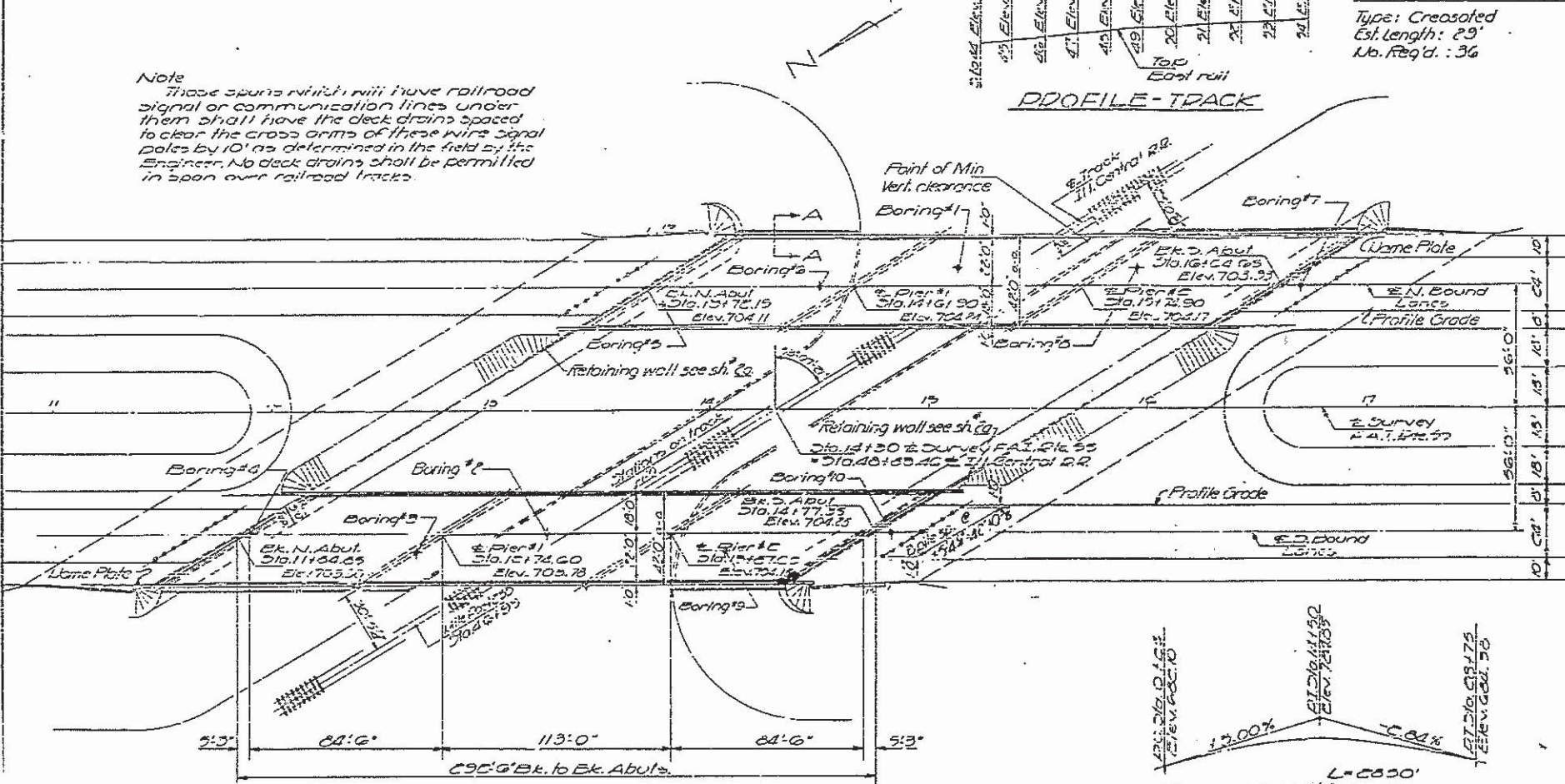
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

Concrete piers or abutments shall be driven in piles prepared through the embankment in accordance with Article 513.09(c) of the Standard Specifications.

Foundation piles shall not be required to conform to what is stated in Article 513.09(c) of the Standard Specifications.

The contractor shall drive two concrete test piles in permanent locations, one at South Abut. No. 64, lanes and one at North Abut. So. Bd. lanes and two timber test piles in permanent locations, one at Pier 1 Lb. Bd. lanes, and one at Pier 2 So. Bd. lanes.

The supervisor of project



PLAN

PROFILE
F.A.I. ROUTE 55
(@ Median Edge) Top of Class

DESIGN STRESSES
 $f_c = 1200$ psi --- Deck Slab
 $f_c = 1400$ psi --- Curb, Parapet, Sub
 $f_s = 20,000$ psi --- Reinfr.
 $f_s = 20,000$ psi --- Strand

$V_c = 75 \text{ psi}$ --- Footing $n = 10$
 $E_s = 29,000,000$ Composite
 Allowable Future W.S. 25 #/ft^2
 Design Specifications
 1909, 6.42 HO as applicable

L'ONCLE HENRI

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Biluminous Concrete				
Surface Course Class I	Tons	202.5		202.5
Structure Excavation	Cu.Yds.			761
Protective Coat	Sq. Yds.	513		513
Class X Concrete	Cu.Yds.	144.1	1012.8	1756.3
Structural Steel	L.S.	L.S.		6.5
Steel Shear Connectors	Each	7272		7272
Aluminum Rolling	Lin.Ft.	1145		1145
Reinforcement Bars	Lbs.	137750	103570	301120
Grouted Pipes 6" to 36"	Lin.Ft.			5186
Anchor Plates	Lin.Ft.		3430	3430
Test Pile Timber	Each		?	?
Test Pile Concrete	Each		?	?
Urine Holes	Each		?	?
Slope wall 4"	Sq.Yds.			4560
Grout Seal Joints	L.S.			6.5
Coat for Interiors	Sq.Yds.	2465		2465
Protective Coat	Sq.Yds.	2465		2465

*Includes quantities for Retaining Walls. See Sh. 29

GENERAL PLAIN & ELEVATION
FA. PROJ. 1-16-55-2 (20150)
FA. RT. 55 OVER ILLINOIS CENT. R.R.
FA. RT. 55 SEC. 68-116
MONTGOMERY COUNTY
TOWNSHIP 16-55-20

LOCATION
SKETCH

068 0045 f 46

DESIGNED <i>A. J. Kelly, 1970</i>	DATE <i>December 31 1970</i>
CHECKED <i>R. G. G. K.</i>	EXAMINED <i>DR. [Signature]</i>
DRAWN <i>[Signature]</i>	PASSED <i>[Signature]</i>
CHECKED <i>R. G. G. K.</i>	APPROVED <i>[Signature]</i>

Edge of Deck 5'-0"

SEC. A-A

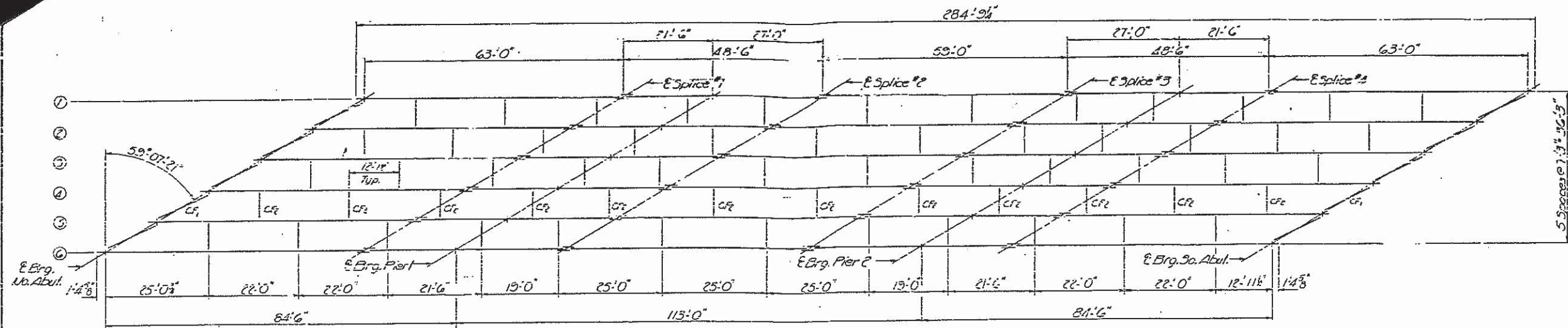
I.C. R.R.
BUILT 19 BY
STATE OF ILLINOIS
FAI. RT. 55 SEC. 68-1VB
F.A. PROJ. IG-55-2(20)
STATION 14+30
LOADING H5 20 C.A.T.

NAME PLATE
(Faint text below)

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

0045 E 46

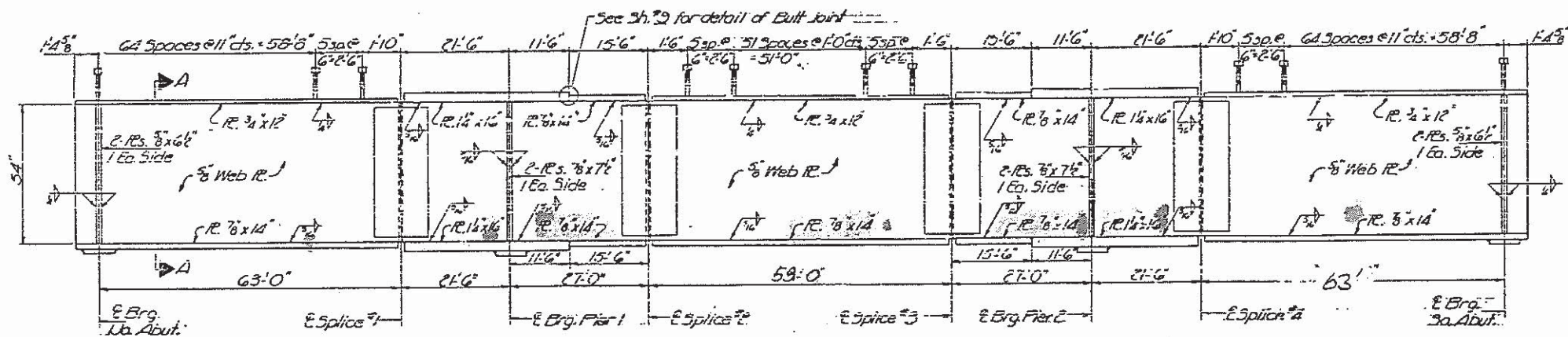
DATE	BY	REVISION	DATE	BY	REVISION
11-15-55	18-715	MONTGOMERY	268	51	26
SHEET NO. 8					
26 SHEETS					



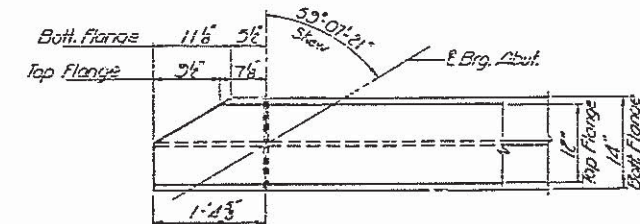
FRAMING PLAN
North & South Bound Lanes

3/4" x 4" C.R. 1020 STZ granular or solid fill
filled hooded studs automatically and welded.

SEC. A-A



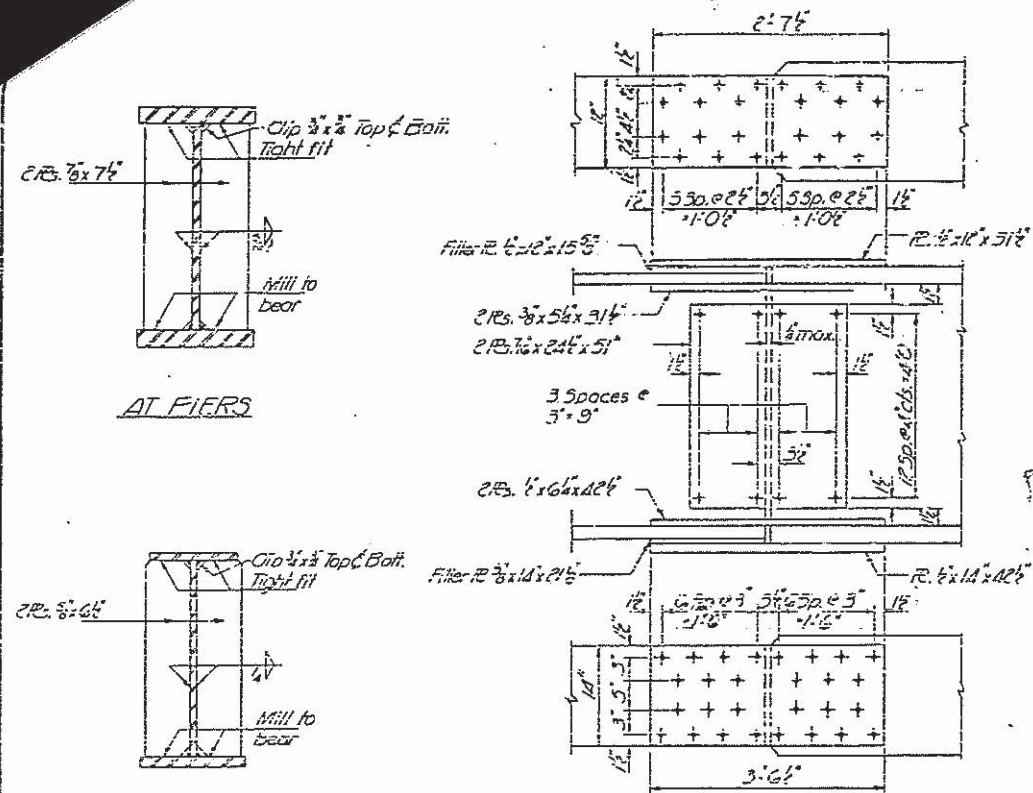
ELEVATION



END OF GIRDERS (At Abutments)
North Abutment shown
South Abutment by rotation of 180°

DESIGNED: A.Y. Mayes	EXAMINED: [Signature]
DRAWN: R.G.K.	PASSED: [Signature]
CHECKED: R.G.K.	APPROVED: [Signature]

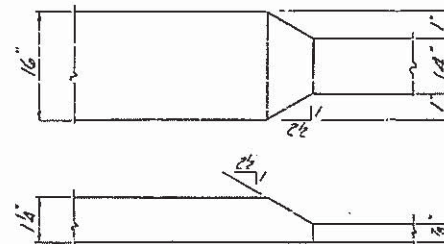
STRUCTURAL STEEL
F.A. RT. 55 SEC. 68-116
MONTGOMERY COUNTY
STA. 14+00.00



AT PIERS

AT ABUTTS

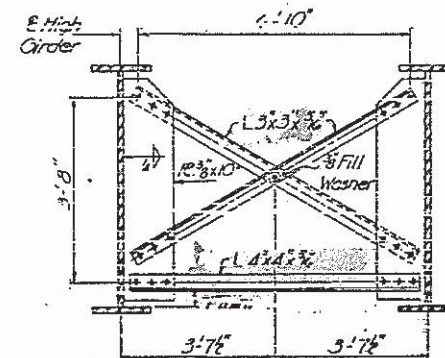
BEARING STIFFENERS



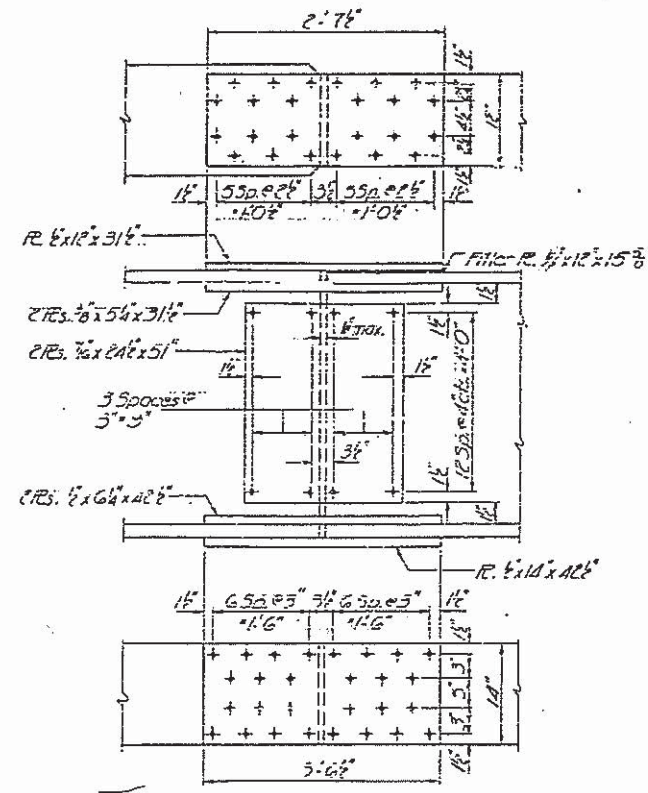
BUTT JOINT DETAIL

DESIGNED: A. J. K. 12/21/70	EXAMINED: [Signature]
CHECKED: Rao, G. K.	PASSED: [Signature]
DRAWN: J. D.	APPROVED: [Signature]
CHECKED: Rao, G. K.	

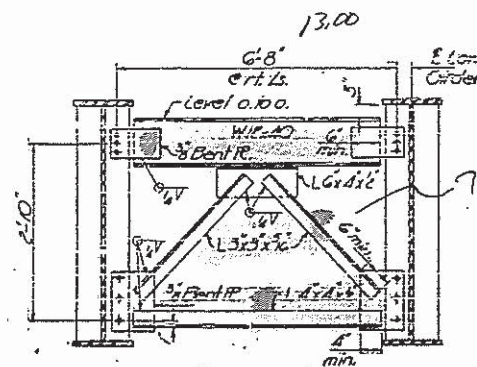
FIELD SPLICES 1&4
(24 req'd)
(Use 3/8" H.S. Bolts)



TYPICAL CROSS FRAME CF2
(120 req'd)
(Use 3/8" H.S. Bolts)



FIELD SPLICES 2&3
(24 req'd)
(Use 3/8" H.S. Bolts)



TYPICAL CROSS FRAME CF1
(20 req'd)
(Use 3/8" H.S. Bolts)

*TOP OF WEB ELEVATIONS TO BOUND LINES

LOCATION	1	2	3	4	5	6
E. Br. No. Abut.	702.98	703.11	703.20	703.24	703.09	702.93
E. Splice #1	702.91	703.11	703.22	703.25	703.15	703.00
E. Br. Pier 1	702.95	703.14	703.25	703.31	703.19	703.04
E. Splice #2	703.01	703.17	703.30	703.32	703.21	703.10
E. Br. Pier 2	702.94	703.11	703.25	703.33	703.23	703.10
E. Br. Pier 3	702.85	703.02	703.17	703.25	703.16	703.04
E. Splice #3	702.77	702.95	703.10	703.19	703.10	702.99
E. Br. So. Abut.	702.61	702.81	702.98	703.04	703.01	702.91

*TOP OF WEB ELEVATIONS SO. BOUND LINES

LOCATION	1	2	3	4	5	6
E. Br. No. Abut.	702.34	702.43	702.47	702.33	702.14	701.91
E. Splice #1	702.31	702.49	702.75	702.61	702.44	702.23
E. Br. Pier 1	702.72	702.86	702.86	702.74	702.57	702.36
E. Splice #2	702.85	702.94	703.01	702.90	702.73	702.53
E. Splice #3	703.01	703.11	703.20	703.10	702.95	702.76
E. Br. Pier 2	703.04	703.13	703.22	703.13	702.95	702.80
E. Splice #4	703.03	703.15	703.24	703.16	703.02	702.84
E. Br. So. Abut.	703.12	703.26	703.37	703.30	703.18	703.01

*For fabrication only

INTERIOR GIRDER
REACTION TABLE

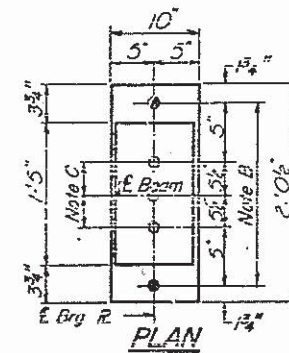
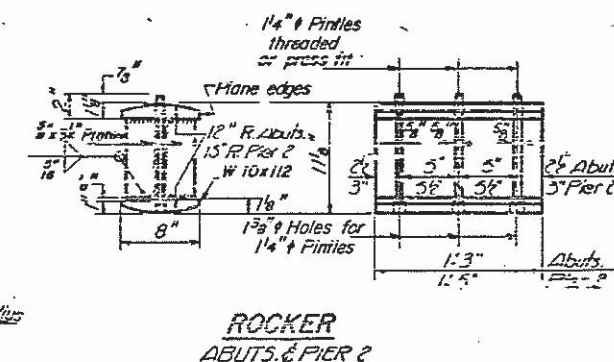
RE	Abut.	Pier 1 or 2
RE (K)	28.33	108.45
RE (K)	15.88	55.18
RE (K)	21.23	45.12
Imd. (K)	9.83	14.65
Total (K)	55.33	243.70

INTERIOR GIRDER MOMENT TABLE

Location	1045 to 1046	1046 to 1047	1047 to 1048
1st - (ft)	24022.6	38732.1	24022.6
1st - (in)	58628.4	94528.4	58628.4
2nd - (ft)	915.4	1371.0	915.4
2nd - (in)	1306.0	1506.0	1306.0
3rd - (ft)	970	1474	970
3rd - (in)	403.60	1526.22	472.38
4th - (ft)	5.25	13.36	6.28
4th - (in)	504	504	504
5th - (ft)	249.93	547.17	547.17
5th - (in)	693.53	603.46	781.45
6th - (ft)	165.06	135.18	164.11
Total (ft)	1107.52	738.64	1292.73
1st - (in)	10.18	6.46	11.88
2nd - (in)	15.47	12.82	18.16
3rd - (in)	57.34	50.11	50.11

1st and 2nd are the moment of inertia and section modulus of the steel section.
3rd and 4th are the moment of inertia and section modulus of the composite section used in computing fs.
5th is the maximum & impact shear range.

STRUCTURAL STEEL DETAILS
F.A. RT. 55 - SEC. 68-1WB
MONTGOMERY COUNTY
512.14-30.06



AT PIER 1

BOLSTER
PIER!

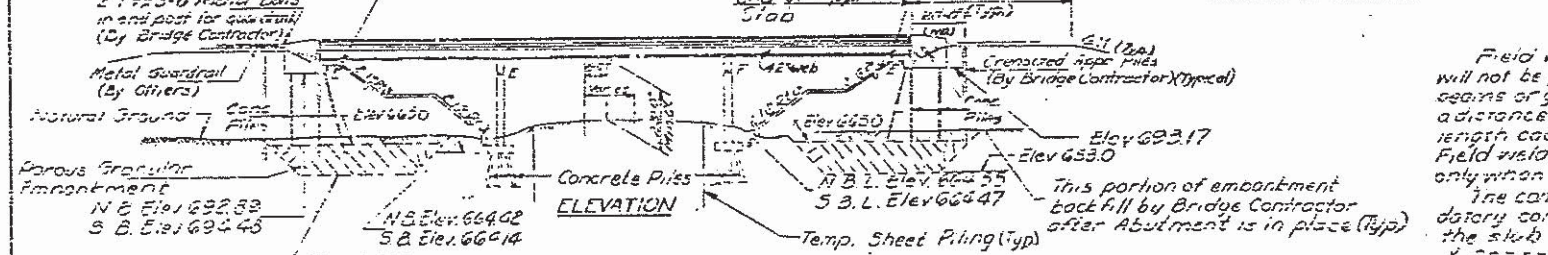
North Bound Lanes	South Bound Lanes
North Abut. Girder 1 = 8"	North Abut. Girder 3 =
North Abut. Girder 4 = 5"	
Pier 1 Girder 1 = 3"	

NOTE C
1³/₈" ∇ Holes 1" deep in top R
only for 1¹/₄" ∇ pintles.

Dec. 21 1970
EXAMINED
PASSED
APPROVED

BEARING DETAILS
F.A.I. RT. 55 SEC. 68-1VB
MONTGOMERY COUNTY
STA. 14+30.00

068-0048 & 0049



APPROACH FILE DATA

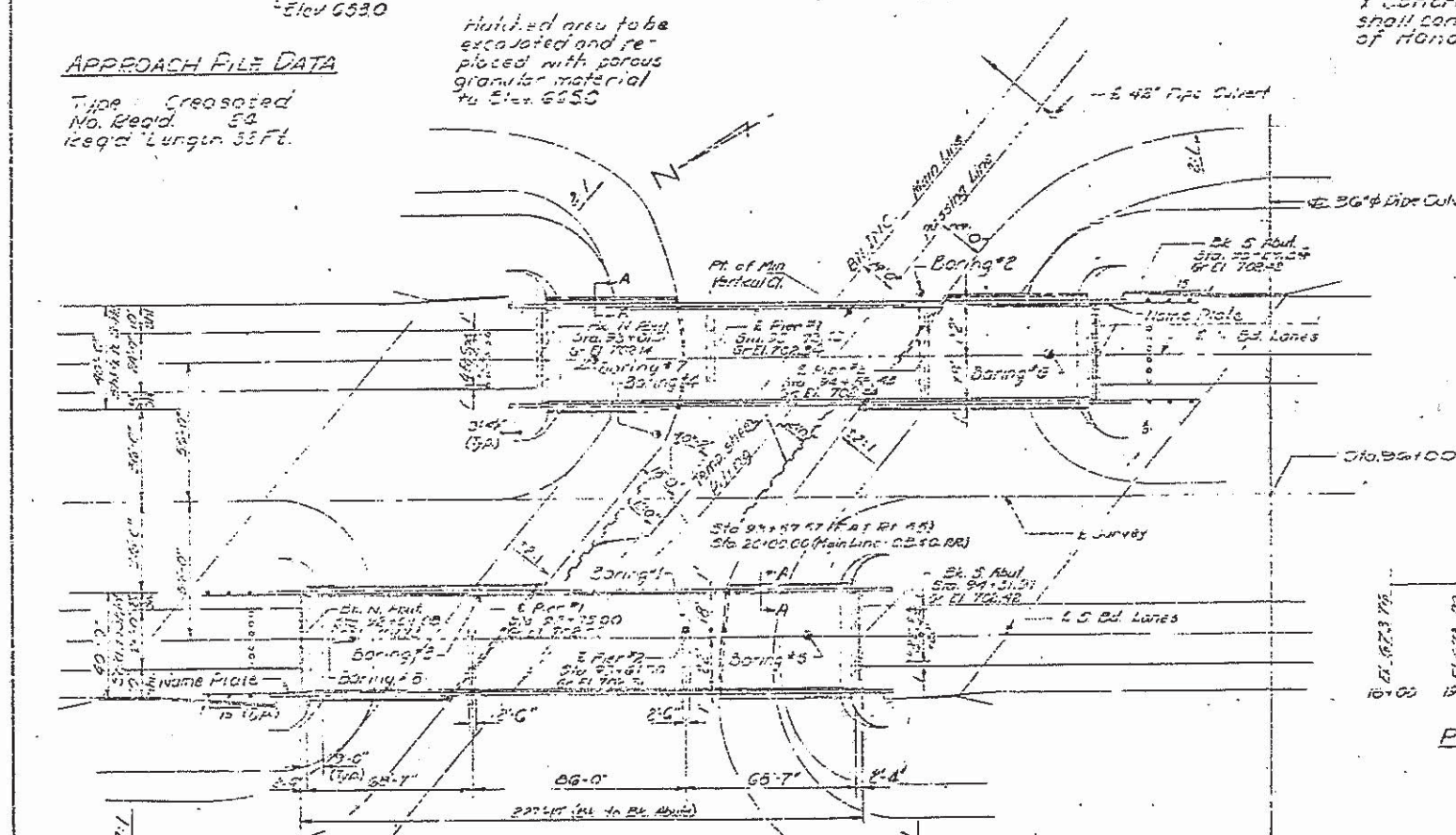
Type - Crenosated
No. Reqd. 52
Reqd. Length 33 Ft.

Hatched area to be excavated and replaced with porous granular material to Elev. 6550

Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer. The concrete reinforcement above the mandatory construction joint at the top of the slab shall be constructed of Class X concrete, except the aggregates shall conform to the requirements of Railroad Concrete.

GENERAL NOTES
All reinforcement bars shall be lapped 49 diameters unless otherwise shown.
Fasteners shall be high strength bolts Bolts 3/4", open holes 1/2" unless otherwise noted.
Diaphragm connections may be adopted to shop welding subject to approval by the Engineer.
Slope nail shall be reinforced with welded wire fabric 6"x6" mesh, weighing 36# per 100 sq. ft.
Concrete piles at abutments shall be driven in holes precored through the embankment in accordance with Article 513.03(c) of the Standard Specifications.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of abutments.
Calculated weight of Structural Steel: 479,460 lbs.
The Basic 1 and Silco Chromate paint system shall be used for shop and field painting of structural steel. Minor bolts shall be set before bolting diaphragms over supports.
The Contractor shall drive 4 Concrete Test piles in permanent locations before ordering remainder of piles, as follows: 1 @ N Abut N.B.L., 1 @ Pier 2 N.B.L., 1 @ South S.B.L., 1 @ Pier 1 S.B.L.
Protective coat shall not be applied to surfaces to which Cool Tar Interlayer Protective Coat is applied.
The Engineer shall determine in the field the location of the deck drains in the spans where E.R. signal and communication poles lines are involved. No deck drains shall be permitted in spans over R.R.



PROFILE - TRACK

TOTAL BILL OF MATERIAL

Item	Unit	Super	SUB	Total
Bit Concr Surf. Cse Class 1	Tons	156		156
Coat for Int. Layer - Protective	Sq Yds	1000		1000
Structure Excavation	Sq Yds	875		875
Protective Coat	Sq Yds	5574		5574
Class 4 Concrete	Cu Yds	5574	5002	10576
Aluminum Coating	Lb Ft	383		383
Reinforcement Bars	Lbs	13270		13270
Crenosated Pile (20" to 36")	Lb Ft		763	763
Concrete Piles	Lb Ft		5163	5163
Test Piles (Concrete)	Each		0	2
Name Plates	Each	2		2
Slope nail (4")	Sq Yds		1765	1765
Bridge Seat Sealer	L.S.		L.S.	L.S.
Preformed Joint Sealer	Lb Ft		82	82
Structural Steel	L.S.			L.S.
Porous Granular Embankmt	Cu Yds		3200	3200
Temporary Sheet Piling	Sq Ft		12500	12500

* N Abut. only.
+ S. Abut. only.

SEC. A-A

DESIGNED	EXAMINED
DRAWN	APPROVED
CHECKED	

SEPTEMBER 9 1970
PAUSED
APPROVED

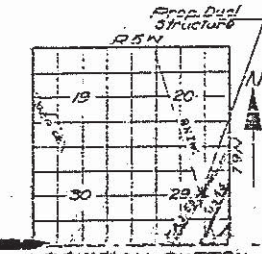
STATION 33+57.57
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. 27.55
F.A. PROJ. 10-55-2(20)
LOADING H220 ALT

NAME PLATE
See Std 2113

PROFILE - F.A.I. RTE. 55
(Median Edge of Pavt)

DESIGN STRESSES
f_c = 1200 psi - Deck Slab
f_c = 1400 psi - Parapet, Sub
f_s = 20,000 psi - Reinf.
f_s = 20,000 psi - Struct. Steel.
v_c = 75 psi - Flyc
n = 10

Allowable Future W2 23"/39 ft.
Allowable L.A. = 4/1000
LOADING H220-44 RAIL



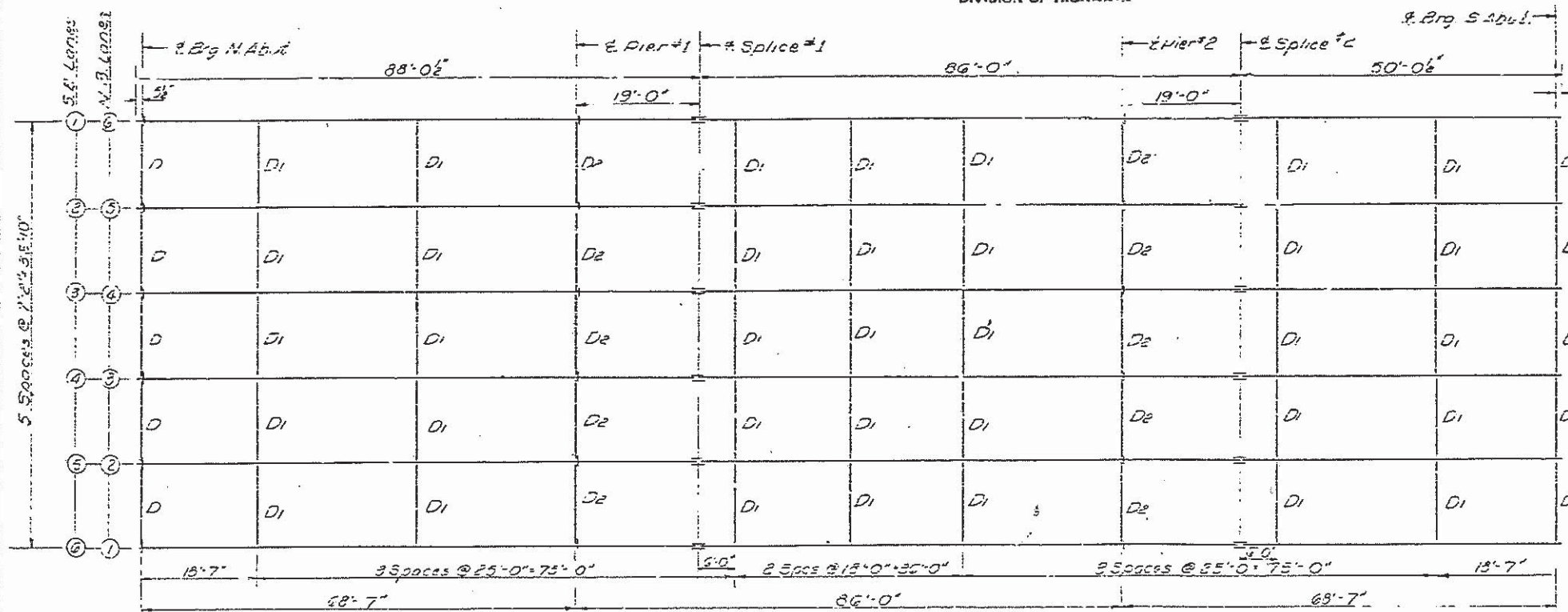
PROJ. 10-55-2(20)50
GENERAL PLAN & ELEVATION
OVER BN INC.
F.A.I. ROUTE 55
SECTION 68-10-1
MONTGOMERY COUNTY
STATION 33+57.57

EXHIBIT - J

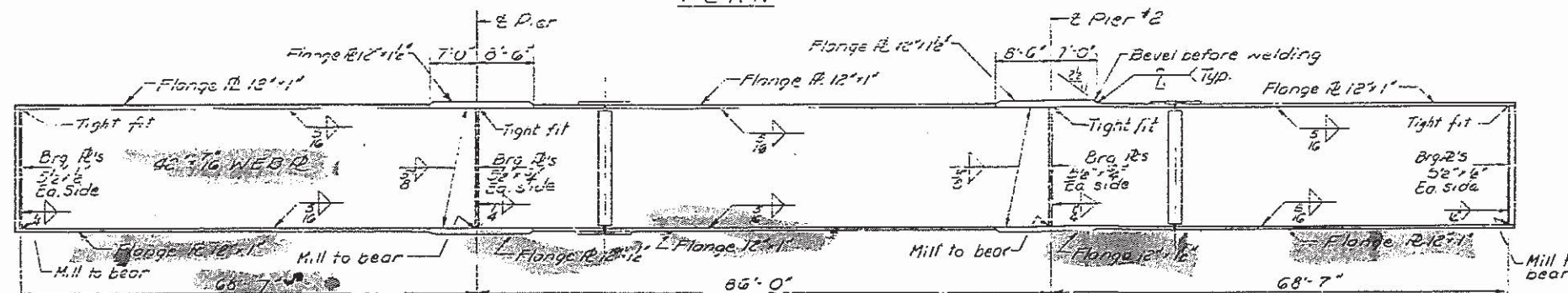
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	REVISION	DATE	BY
10/15/10	ST	10/15/10	10/15/10	ST
10/15/10	ST	10/15/10	10/15/10	ST

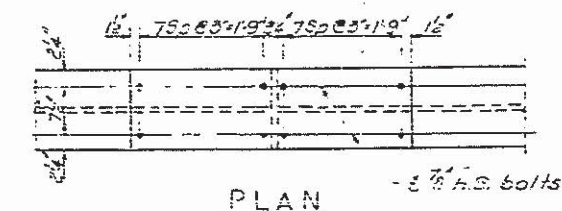
SHEET NO. 7
15 SHEETS



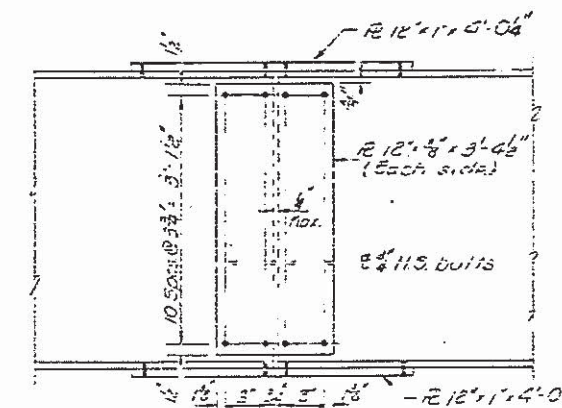
PLAN



ELEVATION



PLAN



DETAIL OF FIELD SPLICES

INTERIOR GIRDER MOMENTS

	4 Sp. 1st & 2nd	1st & 2nd	3rd & 4th
I	13800	10789	13500
D.L. K	123	123	123
M.D.L. K	37229	77829	34960
M.L.L. K	50878	48457	50372
Imp. K	12516	11280	12391
M Total K	101123	138206	97723
TS psi	19340	18910	18700

INTERIOR GIRDER REACTIONS

	Abut.	Pier
D.L. K	3094	10564
L.L. K	3170	4514
Imp. K	780	1110
Total K	6999	16188

TOP OF WEB ELEVATIONS

(For fabrication only)

NORTH BOUND LANE

GIRDER LOCATION	1	2	3	4	5	6
E. Brg. N. Abut.	701.19	701.32	701.43	701.37	701.25	701.10
E. Pier #1	701.32	701.45	701.56	701.50	701.38	701.23
E. Splice #1	701.36	701.49	701.60	701.54	701.42	701.27
E. Pier #2	701.41	701.54	701.65	701.59	701.47	701.32
E. Splice #2	701.43	701.56	701.67	701.61	701.49	701.34
E. Brg. S. Abut.	701.47	701.60	701.71	701.65	701.53	701.38

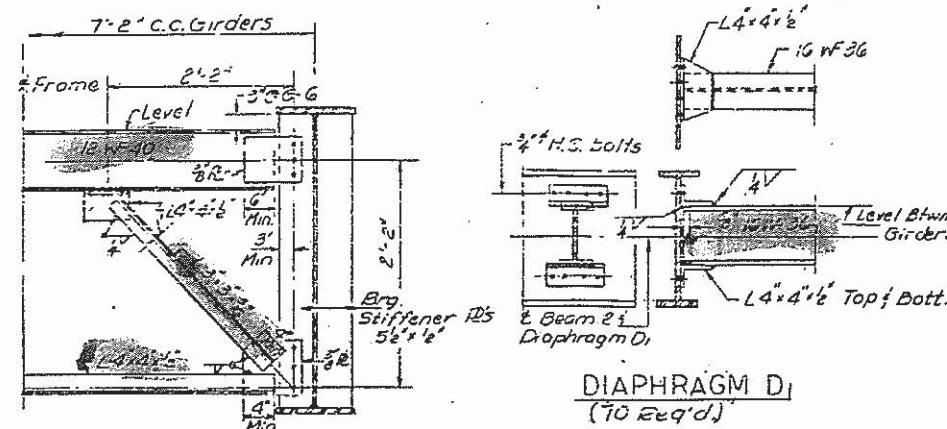
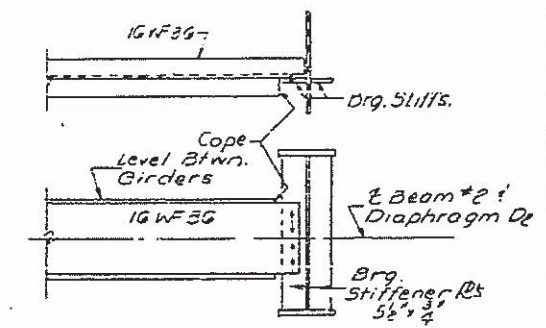
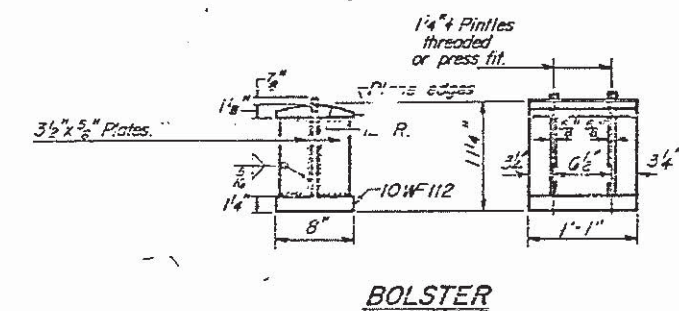
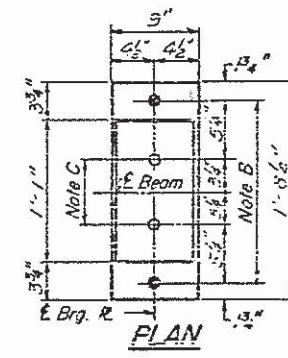
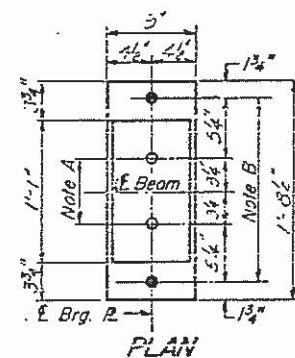
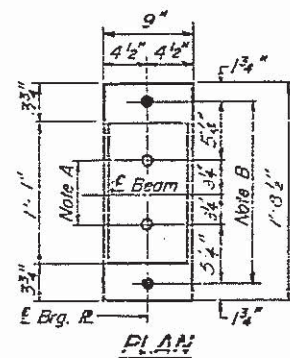
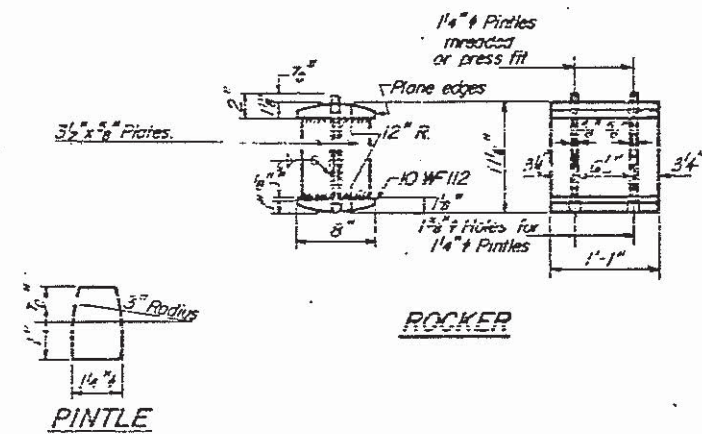
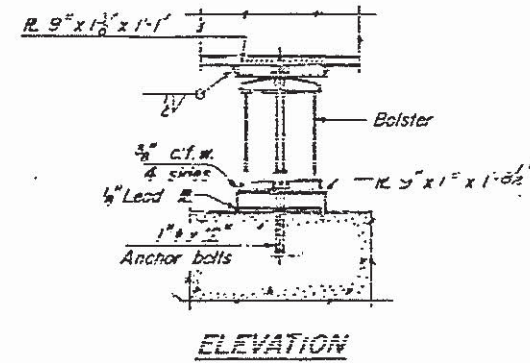
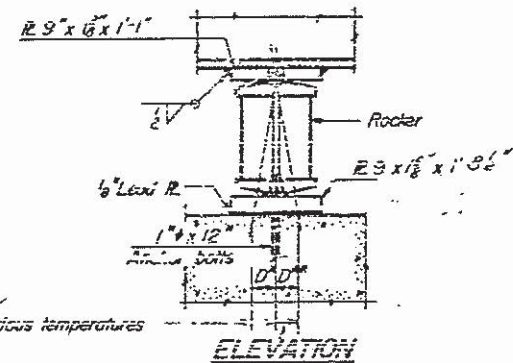
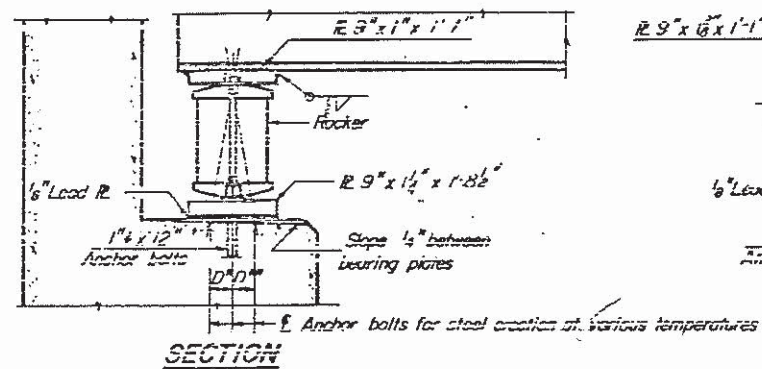
SOUTH BOUND LANE

GIRDER LOCATION	1	2	3	4	5	6
E. Brg. N. Abut.	700.78	701.91	701.02	700.96	700.84	700.69
E. Pier #1	701.04	701.17	701.28	701.22	701.10	700.95
E. Splice #1	701.11	701.24	701.35	701.29	701.17	701.02
E. Pier #2	701.29	701.42	701.53	701.47	701.35	701.20
E. Splice #2	701.34	701.47	701.58	701.52	701.40	701.25
E. Brg. S. Abut.	701.47	701.60	701.71	701.65	701.53	701.38

DESIGNED	ST 9
CHECKED	ST 9
DRAWN	ST 9
CHECKED	ST 9

EXAMINED	ST 9
APPROVED	ST 9

STRUCTURAL STEEL
FAT. RT. 5.5 SEC. 68-LVB-1
MONTGOMERY COUNTY
STA. 03+57.57



DIAPHRAGM D2
(20 Req'd.)

DIAPHRAGM 5

BEARING DETAILS
F.A.I. RT.55 SEC.68-IVB

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D^* (Side of brg. away from fixed brg.)
 $D^* = \frac{1}{8}"$ per each 100' of expansion for
 every 15° fall below the normal temp.
 of 50°F.
 D^{**} (Side of brg. toward fixed brg.)
 $D^{**} = \frac{1}{8}"$ per each 100' of expansion for
 every 15° rise above the normal temp.
 of 50°F.
- b) After beams have been erected and dimensions D^* or D^{**} determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS

DESIGNED	(710) Culmell
CHECKED	AYO-YITH L.C.
DRAWN	F.M. P.G. Barnett (710)

SEPT. 9 1970
EXAMINED
PASSED

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-808	1258R	MACDOUGH	33	7
STA. _____ TO STA. _____				
F.H.W.A. REGION 5		ILLINOIS PROJECT		

SHEET NO.: 1
SHEETS: 17

EXISTING STRUCTURE:
STA. 10054+80, FAP RTE. 608, MARKED IL RTE. 111 SECTION
125BR, STRUCTURE NUMBER 059-0014 YEAR BUILT 1929
SUPERSTRUCTURE: 3 SIMPLE SPANS CAST-IN-PLACE
REINFORCED T-BEAM
SUBSTRUCTURE: 2 CLOSED ABUTMENTS & 2 SOLD PIERS
THE EXISTING SUPERSTRUCTURE IS TO BE REMOVED WITH NO
SALVAGE. EXISTING ABUTMENTS & PIERS SHALL BE WIDENED
AND REUSED.
:

LOADING HS-20
STR. NO. 059-0014

FOR APPROACH CAP DETAILS SEE SHEETS 13 & 14

H.W. ELEV. 535.50 (50 YR.)

TRAFFIC BARRIER TERMINAL

ELEV. 532.35

E

F

EL. 524.0±

PROPOSED CHANNEL CLEANOUT (SEE ROADWAY PLANS)

W24

ELEV. 532.24

E

EXISTING GROUND LINE

4:1

4:1

4:1

10'-0"

F.L. ELEV. 521.8

STONE DUMPED RIPRAP 2'-0" THICK (MIN.)

ELEVATION

FIELD UNITS:
 $F'_C = 3,500 \text{ PSI}$
 $F_Y = 60,000 \text{ PSI}$ (REINFORCEMENT)
 $F_Y = 50,000 \text{ PSI}$ (STRUCTURAL STEEL) AASHTO M223, GRADE 50
 $F_Y = 36,000 \text{ PSI}$ (STRUCTURAL STEEL) AASHTO M183

PRECAST UNITS:
 $f'_c = 4,500$ PSI
 $f_c = 1,800$ PSI
 $f_s = 24,000$ PSI
 $N = 8$

HS 20-44 (ALLOW 25#/FT² FOR FUTURE WEARING SURFACE)

1983 AASHTO AND INTERIM SPECIFICATIONS 1984 THRU 1988

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUBSTR.	TOTAL
REMOVAL OF EXISTING SUPERSTRUCTURES	L. SUM	1		1
CONCRETE REMOVAL	CU. YD.		40.2	40.2
FLOOR DRAINS	EACH	12		12
PERFORMED JOINT SEAL, 2 1/2"	LIN. FT.	82		82
CLASS X CONCRETE SUPERSTRUCTURE	CU. YD.	133.9		133.9
PROTECTIVE COAT	SQ. YD.	539.1		539.1
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12		12
CLASS C CONCRETE	CU. YD.		60.9	60.9
PRECAST CONCRETE BRIDGE SLAB	SQ. FT.	358		358
FURNISHING & ERECTING STRUCTURAL STEEL	L. SUM	1		1
STUD SHEAR CONNECTORS	EACH	2052		2052
REINFORCEMENT BARS	POUND		3080	3080
REINFORCEMENT BARS (EPOXY COATED)	POUND	29560	4220	33780
NAME PLATES	EACH	1		1
STONE DUMPED RIPRAP, CLASS A5	TON		165	165
TEMPORARY SUPPORT SYSTEM	L. SUM	1		1
BRIDGE SEAT SEALER	L. SUM		1	1
STRUCTURE EXCAVATION	CU. YD.		42	42
TEMPORARY SHEET PILING	SQ. FT.		360	360
FILTER FABRIC FOR USE W/ RIPRAP	SQ. YD.		118	118

① INCLUDES BRIDGE DECK & PARAPET SURFACES

Plan view of the proposed bridge structure. The diagram shows the layout of the bridge piers, abutments, and roadway. Key features include:

- PIER 1:** STA. 1005+60.77, ELEV. 538.58. P.C. & E. F.A. RTE. 608.
- PIER 2:** STA. 1005+99.23, ELEV. 538.55.
- STRUCTURE:** STA. 1005+80.00.
- ABUTMENTS:**
 - BK. NORTH ABUT. (PROP.) STA. 1005+20.85, ELEV. 538.63.
 - BK. SOUTH ABUT. (PROP.) STA. 1006+39.15, ELEV. 538.51.
- ROADWAY:** 32'-0" SHldr. ROADWAY SHldr. 12'-0" 27'-11" MIN. APPR. PAVEMENT STD. 2382 SPECIAL (TYP.)
- BRIDGE SLABS:** PRECAST CONC. BRIDGE SLAB 27'-0" 19'-11" PRECAST CONC. BRIDGE SLAB
- TRAFFIC BARRIER:** TERMINAL TYPE 6 STD. 2341 (TYP. ALL 4 CORNERS)
- TEMPORARY SHEET PILING:** TOP ELEV. 539.0 (TYP.) 80TT. ELEV. 521.0 (TYP.)
- 6" Ø FLOOR DRAIN SPA. (TYP.)**
- FLOW:** Indicated by an arrow pointing right.

PLAN

John W. Clark
Registered Structural Engineer

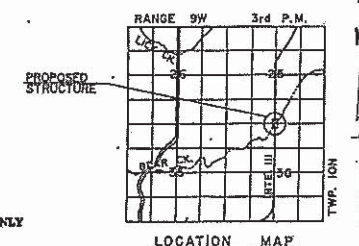


Diagram of a vertical curve with two grades: -5.82% and $+0.10\%$. The curve starts at P.V.C. STA. 1000+85 (Elev. 551.64) and ends at P.V.T. STA. 1009+25 (Elev. 538.62). The curve is divided into two segments: L.V.C. = 440' and L.V.C. = 200'. The curve passes through P.V.I. STA. 1003+05 (Elev. 538.84) and P.V.C. STA. 1006+50 (Elev. 538.50). The curve ends at P.V.T. STA. 1008+50 (Elev. 538.50).

PROFILE GRADE

WATERWAY INFORMATION

DRAINAGE AREA 25.7 SQ. MI.		LOW GRADE ELEV. 538.45 @ STA. 1007+50						
FLOOD YEAR	FREQ. C.F.S.	OPENING SQ. FT.	F.P. NAT. H.W.E.	HEAD FT.	EXHAUST PROP.	HEADWATER ELEV.	EXHAUST PROP.	
DESIGN	50 5940	730	765	535.5	1.61	1.61	537.11	537.11
BASE	100 6802	730	765	536.0	2.11	2.11	538.11	538.11
OVERTOPPING	100 6802		765	536.0		2.11		538.11
MAX. CALC. 500								

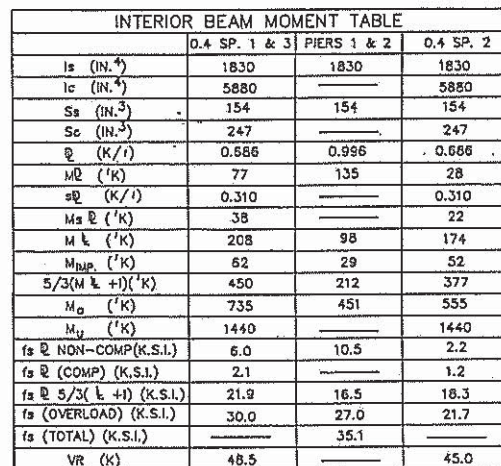
[illegible]

CROSS SECTION
(LOOKING SOUTH)

① CONTRACTOR SHALL PROVIDE FULL DEPTH SAW CUT, COST INCIDENTAL TO REMOVAL OF EXISTING SUPERSTRUCTURES.

GENERAL PLAN
ILLINOIS ROUTE 111 OVER
BEAR CREEK
F.A. RTE.608 SECTION 125BR
MACOUPIN COUNTY
STATION 1005 + 80.00
STRUCTURE NO. 059-0014

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.: 7 SHEETS: 17
FA-608	125BR	MACOUPIN	33	13	
STA.		TO STA.			
F.R.W.A. REGION 5		R/LINGS PROJECT			



INTERIOR BEAM REACTION TABLE		
	ABUT'S.	PIERS
R _D (K)	15.2	41.5
R _L (K)	35.3	36.7
IMP. (K)	10.8	11.0
R _{TOTAL} (K)	61.1	89.2

1. I_s and S_s ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE STEEL SECTION USED IN COMPUTING f_s (TOTAL AND OVERLOAD).
2. I_c AND S_c ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE COMPOSITE SECTION USED IN COMPUTING f_s (TOTAL AND OVERLOAD).
3. V_R IS THE MAXIMUM $\dot{L}$ + IMPACT SHEAR RANGE IN SPAN.
4. THE FULLY PLASTIC MOMENT CAPACITY (M_p) IS COMPUTED ACCORDING TO AASHTO 10.48.1 & 10.50.1.1.
5. f_s (TOTAL) IS THE SUM OF THE STRESSES DUE TO $1.3[M_D + M_{SD} + 5/3(M_L + I)]$.
6. f_s (OVERLOAD) IS THE SUM OF THE STRESSES DUE TO $[M_D + M_{SD} + 5/3(M_L + I)]$
7. M_D → MOMENT DUE TO DEAD LOADS ON NON-COMPOSITE SECTION.
8. M_{SD} → MOMENT DUE TO DEAD LOADS ON COMPOSITE SECTION.
9. M_L → MOMENT DUE TO LIVE LOAD ON NON-COMPOSITE OR COMPOSITE SECTION.
10. I → LIVE LOAD IMPACT.
11. M_o (APPLIED MOMENT) = $1.3[M_D + M_{SD} + 5/3(M_L + I)]$.
12. N.T.R. INDICATES NOTCH TOUGHNESS REQUIREMENT

TOP OF BEAM ELEVATIONS *						
	BEAM #1	BEAM #2	BEAM #3	BEAM #4	BEAM #5	BEAM #6
℄ BRG. N. ABUT.	537.66	537.75	537.84	537.84	537.73	537.63
℄ BRG. PIER #1	537.62	537.71	537.81	537.80	537.70	537.60
℄ SPLICE	537.61	537.70	537.80	537.79	537.69	537.59
℄ BRG. PIER #2	537.58	537.67	537.76	537.76	537.66	537.56
℄ BRG. S. ABUT.	537.54	537.63	537.73	537.73	537.62	537.52

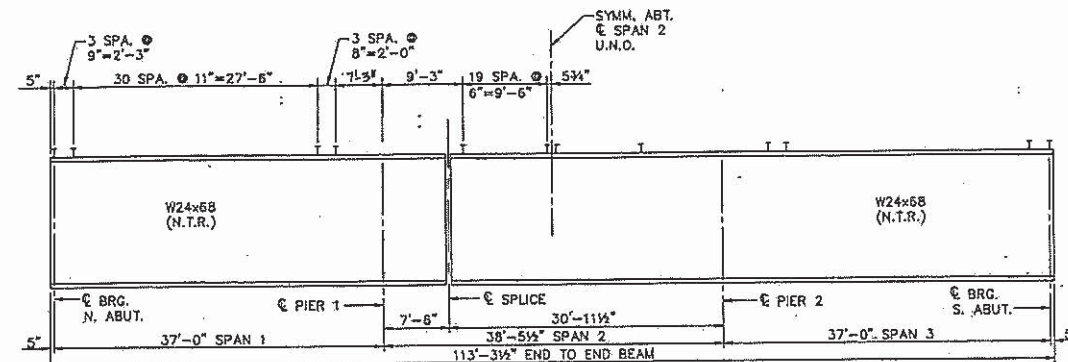
* FOR FABRICATION ONLY

• FOR FABRICATION ONLY

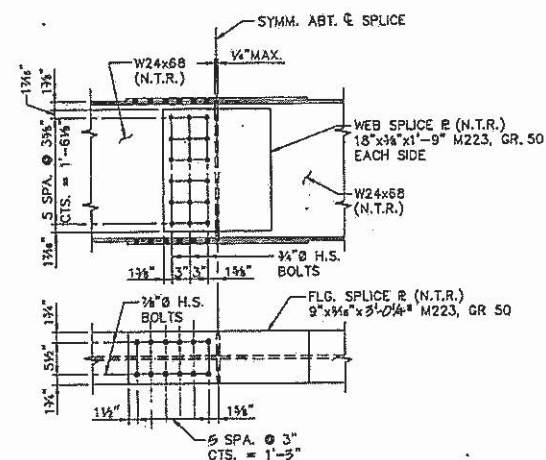
FRAMING PLAN
ILLINOIS ROUTE 111 OVER
BEAR CREEK
F.A. RTE.608 SECTION 125BR
MACOUPIN COUNTY
STATION 1005 + 80.00
STRUCTURE NO. 059-0014

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

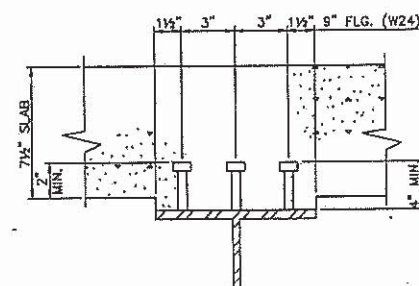
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-608	125BR	MACOUPH	33	14
SHEET NO.: 8				
SHEETS: 17				
F.A. RTE. 608 SECTION 125BR MACOUPH COUNTY ILLINOIS PROJECT				



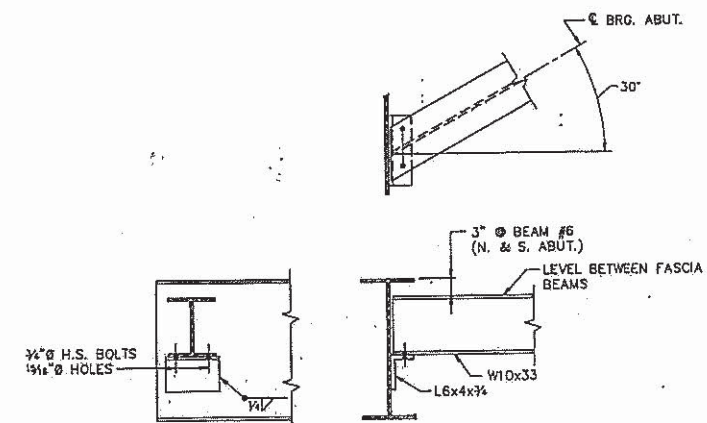
BEAM ELEVATION



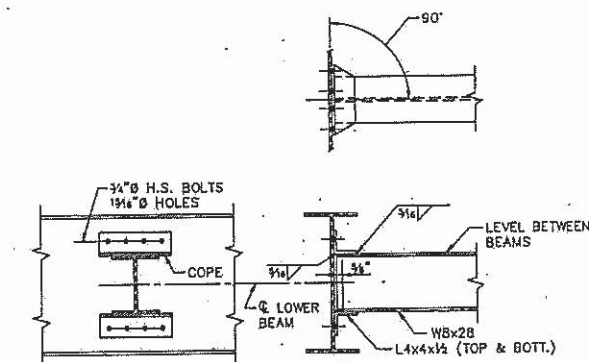
FIELD SPLICE DETAIL



TYPICAL SHEAR
STUD DETAIL



END DIAPHRAGM D



INTERIOR DIAPHRAGM D1

- NOTES:
1. BEAMS AND SPLICE MATERIAL SHALL BE M223, (GRD. 50)
 2. ALL STUDS TO BE 1/2" GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED TO FLANGE. (NO. REQ'D = 2052)
 3. USE TWO HARDENED WASHERS PER BOLT FOR ALL OVERSIZED HOLES IN DIAPHRAGM CONNECTIONS.
 4. "NTR" - NOTCH TOUGHNESS REQUIREMENT.
 5. PROVIDE 1/4" H.S. HOLES FOR ALL 1/2" H.S. BOLTS AND 1/4" H.S. HOLES FOR ALL 1/4" H.S. BOLTS. (UNLESS NOTED OTHERWISE)

BEAM DETAILS
ILLINOIS ROUTE 111 OVER
BEAR CREEK
F.A. RTE.608 SECTION 125BR
MACOUPH COUNTY
STATION 1005 + 80.00
STRUCTURE NO. 059-0014

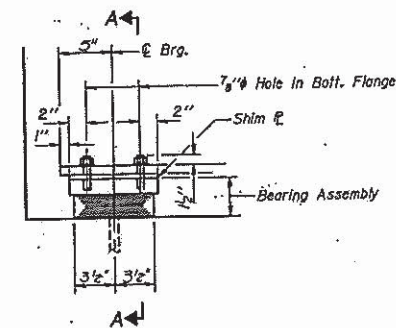
REVISED BY HLC 6-10-01

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 059-0014 (FOR INFORMATION ONLY)		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D:\OPERATIONS\Bridges\plans\CAD\72H37 - beam and point FY15 CH\plansheet.dgn		DRAWN -	REVISED -				VAR.	D5 BDGE PAINTING 2015-1	VARIOUS	58	25
PLOT SCALE = 1/80.0000' / in.		CHECKED -	REVISED -				CONTRACT NO. 72H37				
Default	PLOT DATE = Aug-20-2014 01:43:01PM	DATE -	REVISED -				ILLINOIS FED. AID PROJECT				

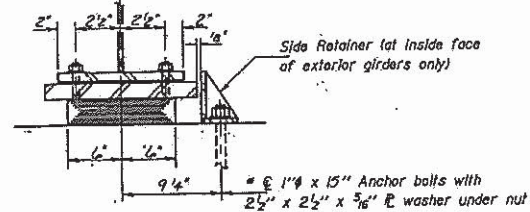
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SEQ.	COUNTY	SECTION	SHEET
FA-608	125BR	MACOUPIN	33	15
STA.	TO STA.		PROJECT	
FED. ROAD DIST. NO. 7	ILLINOIS		PROJECT	

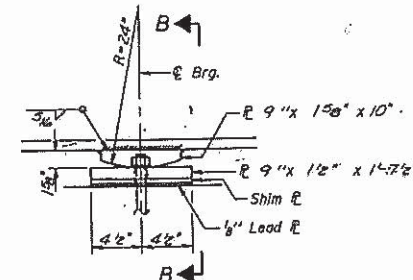
SHEET No. 9
SHEETS: 17



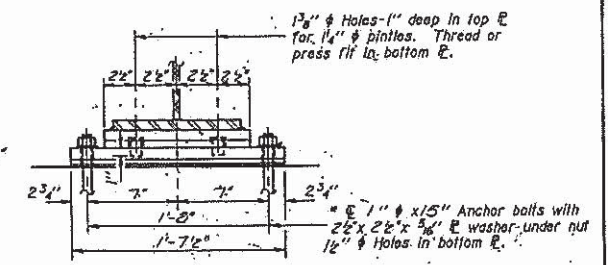
ELEVATION AT ABUT.



SECTION A-A

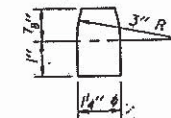


ELEVATION AT PIER

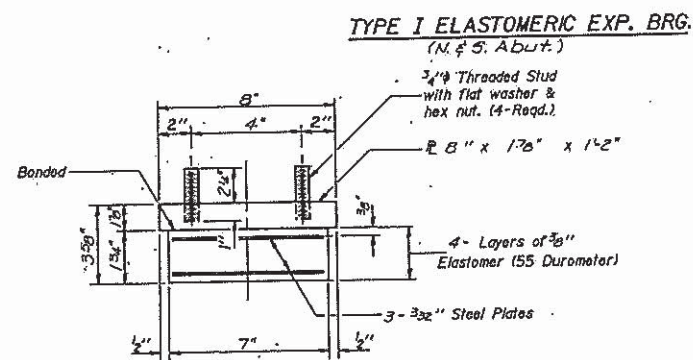


SECTION B-B

FIXED BEARING
(Piers 1 & 2)

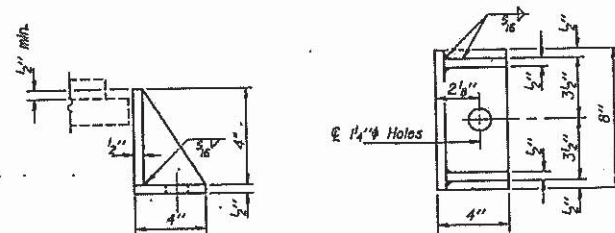


PINTLE



BEARING ASSEMBLY

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



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (if REQUIRED)

TABLE OF SHIM PLATES				
BEAM	N. ABUT.	PIER 1	PIER 2	S. ABUT.
1	0	0	0	0
2	0	0	0	0
3	0	1/8	1/8	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

BILL OF MATERIAL

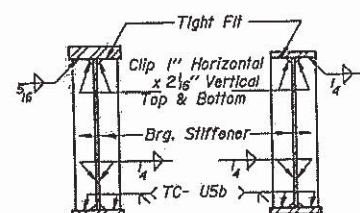
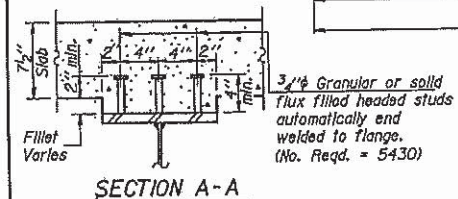
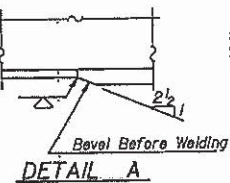
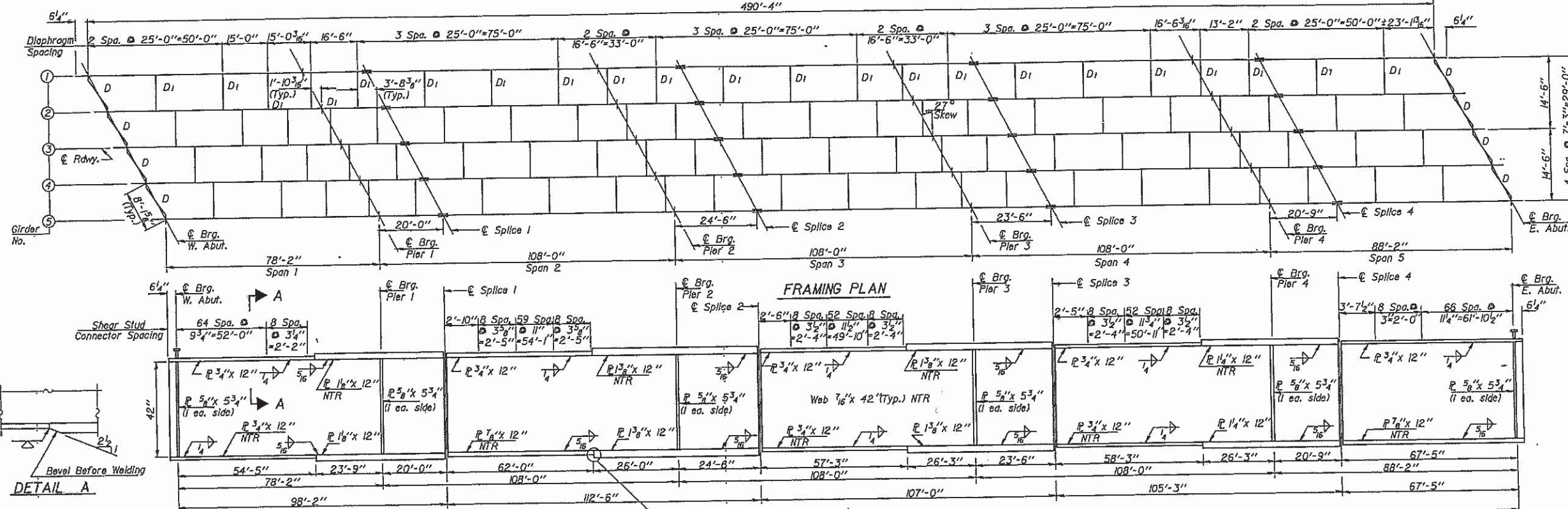
Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12

BEARINGS
ILLINOIS ROUTE III OVER
BEAR CREEK
F.A. RTE. 608 SECTION 125BR
MACOUPIN COUNTY
STATION 1005 + 80.00
STRUCTURE NO. 059-0014

REVISED BY HLC 5-15-01

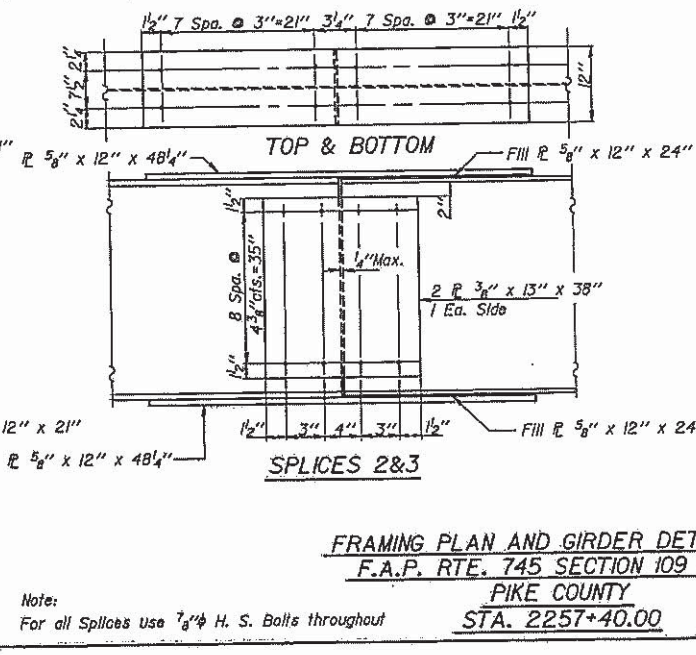
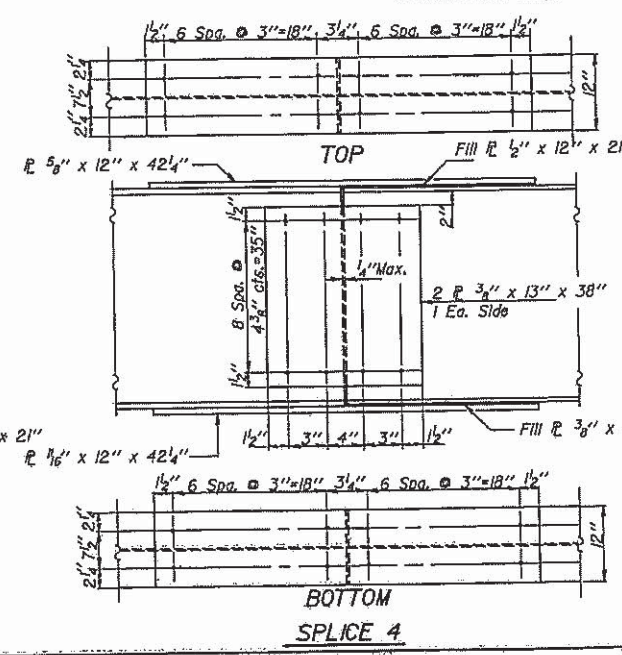
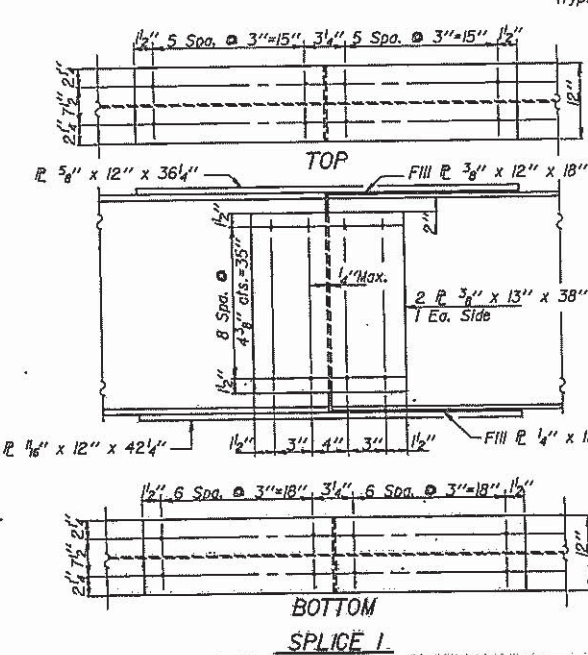
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	POST MILES	SHEET NO.
1048R	Pike	45	23	22 SHEETS



DESIGNED	James J. Balcer
CHECKED	Kenny D. Culver
DRAWN	R. SOMMER
CHECKED	KDC

EXAMINED	James J. Balcer
PASSED	Kenny D. Culver
APPROVED	R. SOMMER

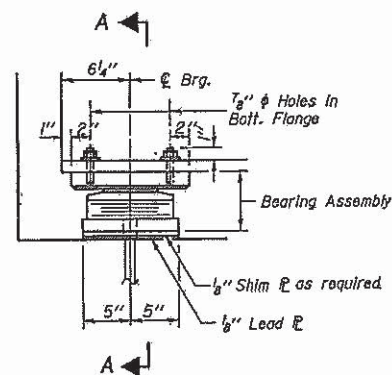


FRAMING PLAN AND GIRDER DETAILS
F.A.P. RTE. 745 SECTION 109 BR.
PIKE COUNTY
STA. 2257+40.00

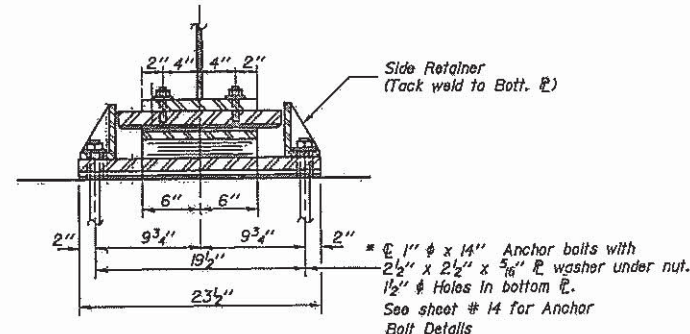
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SHEET NO.	SECTION	DATE	BY	CHKD.	APP'D.
745	109BR	Pike	45	24		

SHEET NO. 12
22 SHEETS

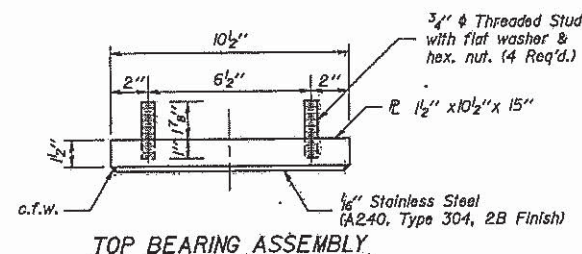


ELEVATION AT ABUTS

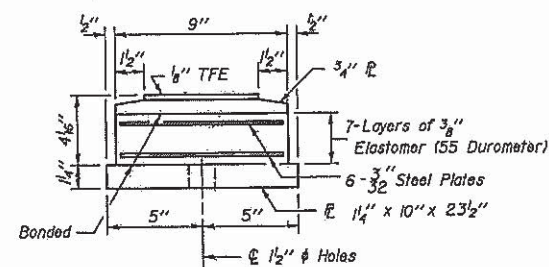


SECTION A-A

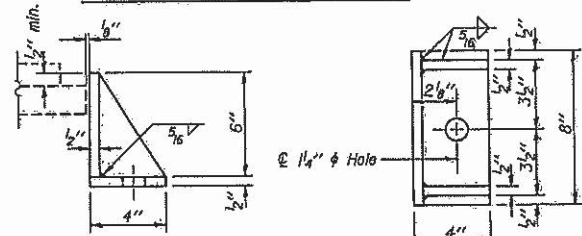
TYPE II TFE ELASTOMERIC EXP. BRG.



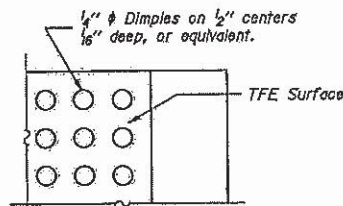
TOP BEARING ASSEMBLY



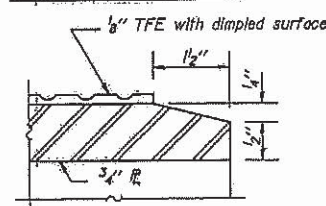
BOTTOM BEARING ASSEMBLY



SIDE RETAINER

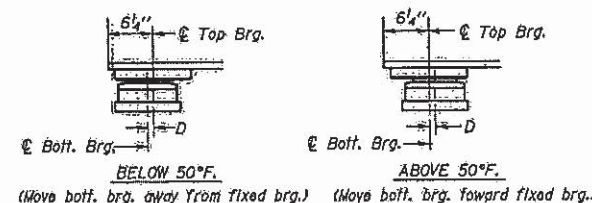


PLAN-TFE SURFACE



SECTION THRU TFE

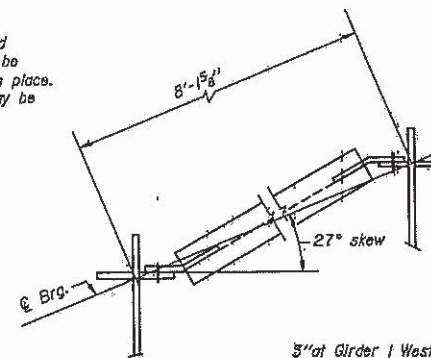
Note: The 1/2" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/2" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



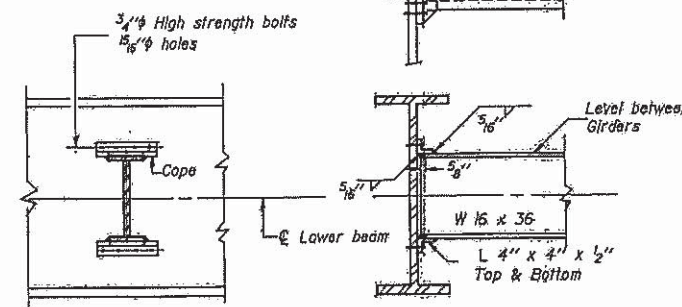
SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/2" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

* Note: After girders have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.



DIAPHRAGM D
8 Required



DIAPHRAGM D1
(88 Required)

INTERIOR GIRDER MOMENT TABLE

		4Sp.1	Pier 1	5Sp.2	Pier 2	5Sp.3	Pier 3	5Sp.4	Pier 4	6Sp.5
Is	in ⁴	10926	15254	11611	18223	10926	18223	10926	16730	11611
Ic	in ⁴	27956	-	30243	-	27956	-	27956	-	30243
Ss	in ³	502	689	553	814	502	814	502	752	553
Sc	in ³	713	-	779	-	713	-	713	-	779
Q	in ⁴	.868	.192	.868	.192	.868	.192	.868	.192	.868
M ₀	in ⁴	315	1043	389	1243	336	1202	349	1194	441
S ₀	in ³	324	-	324	-	324	-	324	-	324
M ₀ E	in ⁴	142	-	205	-	179	-	191	-	193
M ₀ E	in ⁴	631	526	770	656	755	659	755	585	733
M ₀ E	in ⁴	156	121	165	141	162	142	162	132	172
S ₀ (M ₀ E)	in ³	1312	1078	1558	1328	1528	1335	1528	1195	1508
M ₀	in ⁴	2300	2757	2798	3342	2656	3298	2688	3106	2785
F ₀ NonComp.	ksi	7.5	18.2	8.4	18.3	8.0	17.7	8.3	19.1	9.6
F ₀ Comp.	ksi	2.4	-	3.2	-	3.0	-	3.2	-	3.0
F ₀ (M ₀ E)	ksi	22.1	18.8	24.0	19.6	25.7	19.7	25.7	19.1	23.2
F ₀ Overload	ksi	32.0	37.0	35.6	37.9	36.7	37.4	37.2	38.2	35.8
F ₀ Total	ksi	41.6	48.1	46.3	49.3	47.7	48.6	48.4	49.7	46.5
V ₀	ksi	56.5	-	48.8	-	48.8	-	48.7	-	56.6

M₀ (Applied Moment) = 1.3 (M₀ E + M₀ S₀ (M₀ E + I)).

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing F₀ (Total and Overload).

I_c and S_c are the moment of inertia and section modulus of the composite section used in computing F₀ (Total and Overload).

V₀ is the maximum 1/2" impact shear range in span.

F₀ (Total) is the sum of the stresses due to 1.3 (M₀ E + M₀ S₀ (M₀ E + I)).

F₀ (Overload) is the sum of the stresses due to M₀ E + M₀ S₀ (M₀ E + I).

INTERIOR GIRDER REACTION TABLE

	W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	E. Abut.
R ₀ + S ₀ E	33.2	122.4	131.0	128.4	130.4	39.0
R ₀ E	40.8	65.1	68.5	68.3	65.7	34.5
R ₀ S ₀ E	10.0	14.5	14.7	14.7	14.8	8.1
R ₀ Total	84.0	200.0	214.2	211.4	210.9	81.6

TOP OF WEB ELEVATIONS

LOCATION	GIRDER	1	2	3	4	5
Brig. W. Abut.		453.52	453.69	453.84	453.77	453.67
Brig. Pier 1		454.19	454.35	454.50	454.42	454.33
Splice 1		454.36	454.52	454.67	454.59	454.50
Brig. Pier 2		455.03	455.18	455.31	455.22	455.11
Splice 2		455.21	455.36	455.49	455.39	455.28
Brig. Pier 3		455.33	455.48	455.57	455.45	455.32
Splice 3		455.37	455.49	455.59	455.47	455.34
Brig. Pier 4		454.96	455.06	455.15	455.01	454.86
Splice 4		454.86	454.96	455.04	454.89	454.74
Brig. E. Abut.		454.44	454.54	454.62	454.48	454.32

(For fabrication purposes only)

BEARINGS AND STRUCTURAL STEEL DETAILS

F.A.P. RTE. 745 SECTION 109 BR

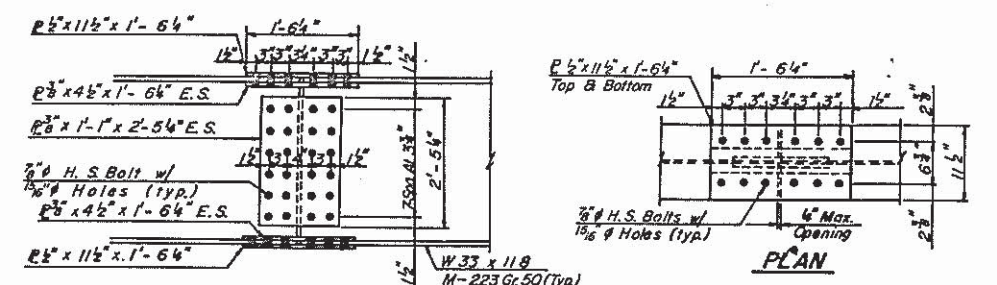
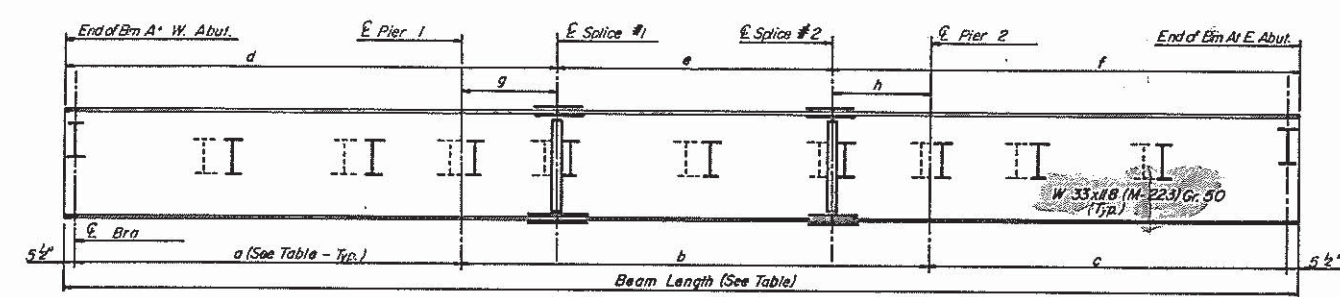
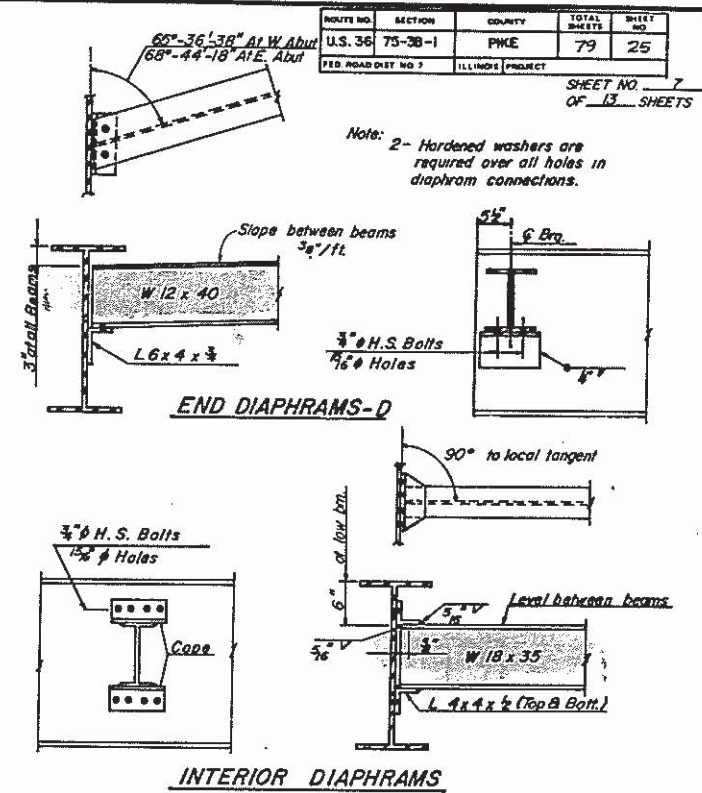
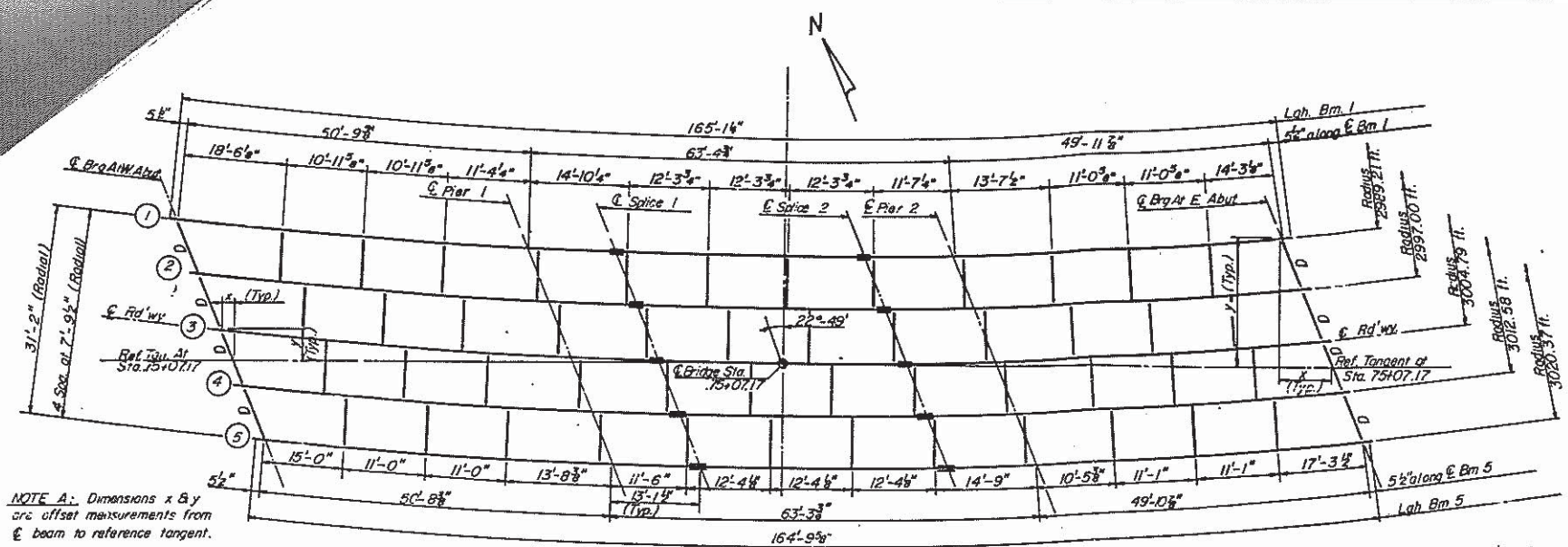
PIKE COUNTY

STA. 2257 + 40.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S. 36	75-36-1	PIKE	79	19
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT	

SHEET NO. 1
OF 13 SHEETS

FILE NAME =	USER NAME = dudleybm	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 075-0102 (FOR INFORMATION ONLY)				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D:\OPERATIONS\Bridgeplans\CAD\72H37 - b	am and point FY15 CMplansheet.dgn	DRAWN - _____	REVISED - _____		VAR. D6 BOGE PAINTING 2015-1	VARIOUS	58	30					
	PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____		CONTRACT NO. 72H37								
Default	PLOT DATE = Aug-20-2014 01:43:12PM	DATE - _____	REVISED - _____		SCALE: _____	SHEET _____ OF _____ SHEETS	STA. _____ TO STA. _____	ILLINOIS FED. AID PROJECT					



NOTE: 1. All beams W33 x 118 and splice plates shall be M-223 Gr. 50, & NTR.
2. NTR designates Notch Toughness Requirements

TABLE OF BEAM DIMENSIONS									
Beam No.	E Radius	a	b	c	d	e	f	g	h
1	2989.21'	50'-9 3/8"	63'-4 3/8"	49'-11 3/8"	64'-4 3/8"	37'-1 3/8"	63'-6 3/8"	13'-1 1/2"	13'-1 1/2"
2	2997.00'	50'-9 3/8"	63'-4 3/8"	49'-11 3/8"	64'-4 3/8"	37'-1 3/8"	63'-6 3/8"	13'-1 1/2"	13'-1 1/2"
3	3004.79'	50'-9"	63'-4"	49'-11 3/8"	64'-4"	37'-1"	63'-6 3/8"	13'-1 1/2"	13'-1 1/2"
4	3012.58'	50'-8 3/8"	63'-3 3/8"	49'-11 3/8"	64'-3 3/8"	37'-0 3/8"	63'-6 3/8"	13'-1 1/2"	13'-1 1/2"
5	3020.37'	50'-8 3/8"	63'-3 3/8"	49'-10 3/8"	64'-3 3/8"	37'-0 3/8"	63'-5 3/8"	13'-1 1/2"	13'-1 1/2"

TABLE OF OFFSET DIMENSIONS x & y to Ref. Tan.											
At E. Br. W. Abut.				At E. Pier 1				At E. Splice #1			
x	y	x	y	x	y	x	y	x	y	x	y
7'-13"	16'-11"	6'-7 3/8"	15'-10"	6'-7 3/8"	15'-10"	6'-7 3/8"	15'-10"	6'-7 3/8"	15'-10"	6'-7 3/8"	15'-10"
3'-9 3/8"	9'-0 1/2"	3'-4 3/8"	8'-0"	3'-3 3/8"	7'-10 1/2"	3'-3 3/8"	7'-10 1/2"	3'-3 3/8"	7'-10 1/2"	3'-3 3/8"	7'-10 1/2"
0'-5 3/8"	1'-1 3/8"	0'-0 3/8"	0'-2"	0'-0 3/8"	0'-0 3/8"	0'-0 3/8"	0'-0 3/8"	0'-0 3/8"	0'-0 3/8"	0'-0 3/8"	0'-0 3/8"
2'-10 1/8"	6'-9"	3'-2 3/8"	7'-7 3/8"	3'-3 3/8"	7'-9"	3'-3 3/8"	7'-9"	3'-3 3/8"	7'-9"	3'-3 3/8"	7'-9"
6'-1 3/8"	14'-7 3/8"	6'-6 3/8"	15'-5 3/8"	6'-6 3/8"	15'-5 3/8"	6'-6 3/8"	15'-5 3/8"	6'-6 3/8"	15'-5 3/8"	6'-6 3/8"	15'-5 3/8"

Is and Sx are the moment inertia and section modulus of the steel section used in computing Is (Total & Overload)
Ma (Applied Moment) = 1.3 CMQ + MsQ + 3/4 (ML + I)
Is (Overload) is the sum of the stresses due to ML + MsQ + 3/4 (ML + I)
Is (Total) (Non-compact section) is the sum of the stresses due to 1.3 CMQ + MsQ + 3/4 (ML + I)
ML Moment due to dead loads
I - Live load impact
Sx is the section modulus for one flange plate for lateral flange bending
fw is the calculated normal stress at the edge of flange due to lateral flange bending (factored)

INTERIOR GIRDER REACTION TABLE			
	Abutts	Piers	
RQ	(K)	23.4	79.4
RL	(K)	39.8	49.0
Imp	(K)	11.3	13.5
R (Total)	(K)	74.5	141.9

INTERIOR GIRDER MOMENT TABLE					
	0.4 Sp. 1	Pier 1	0.5	Sp. 2	
Is	(in ⁴)	5900	5900	5900	
Sx	(in ³)	359	359	359	
St	(in ³)	16.3	16.3	16.3	
Q	(K/ft)	1237	1237	1237	
ML	(K)	219.7	412.4	215.5	
ML	(K)	401.6	283.4	390.3	
M (Imp)	(K)	114.1	77.6	103.7	
3/4 (ML + I)	(K)	859.5	601.7	823.3	
Ma	(K)	1402.9	138.3	1350.4	
fsQ	(ksi)	7.3	13.8	7.2	
fs (L + I)	(ksi)	28.7	20.1	27.5	
fw	(ksi)	1.3	1.8	1.2	
fs (Overload)	(ksi)	36.0	33.9	34.7	
fs Total	(ksi)	46.8	44.1	45.1	
fs + fw	(ksi)	48.1	45.9	46.3	

ELEVATIONS - TOP OF BEAMS*					
Location	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5
E. Br. - W. Abut.	525.12	525.40	525.67	525.95	526.23
E. Pier 1	525.07	525.35	525.63	525.91	526.19
E. Splice #1	525.07	525.35	525.63	525.91	526.19
E. Splice #2	525.07	525.36	525.64	525.92	526.20
E. Pier 2	525.08	525.36	525.65	525.93	526.21
E. Br. - E. Abut.	525.14	525.42	525.71	526.00	526.28

REVISIONS

NO.	BY	DATE

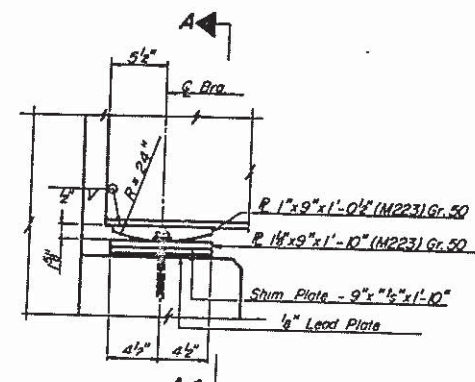
DESIGNED BY: *Red*
DRAWN BY: *Red*
CHECKED BY: *Red*
APPROVED BY: *Red*

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIKE COUNTY
F.A. RTE. 408
SECTION 75-3B-1
STATION 75+07.17
STRUCTURAL DETAILS

SCALE: *1"=10'*
DATE: 12/15/86
SHEET 25 OF 79 SHEETS

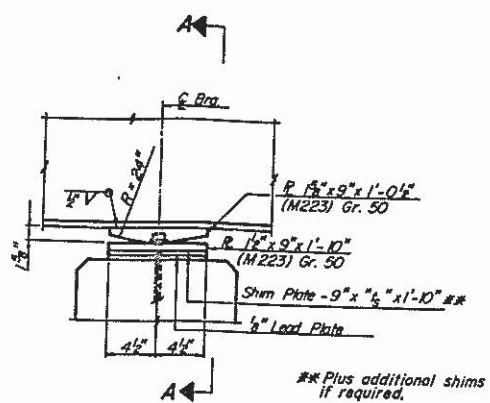
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S. 36	75-38-1	PIKE	79	26
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT			



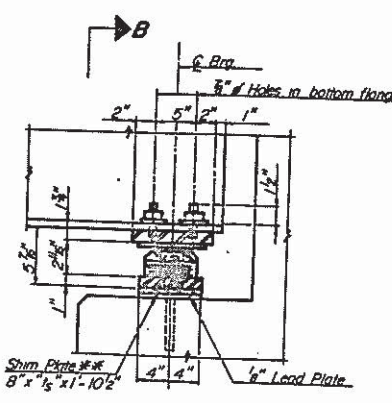
SECTION AT WEST ABUT.

TABLE OF SHIM R. DIMENSIONS "1/8"

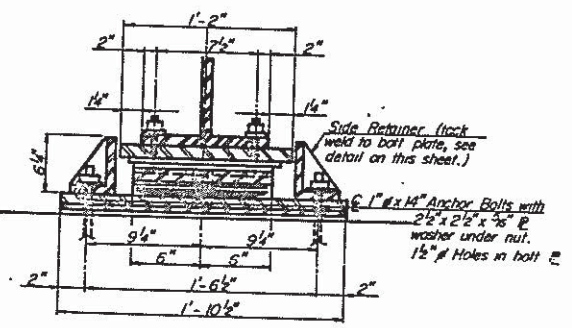
	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5
at W. Abut. Brgs.	0	0	0	0	0
at Pier 2 Brgs.	0	0	0	0	0
at Pier 1 Brgs.	0	0	0	0	0
at E. Abut. Brgs.	0	0	0	0	0



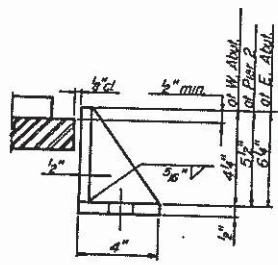
SECTION AT PIERS 1 & 2



SECTION AT EAST ABUTMENT

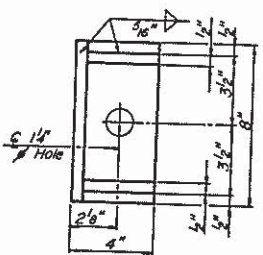


SECTION B-B

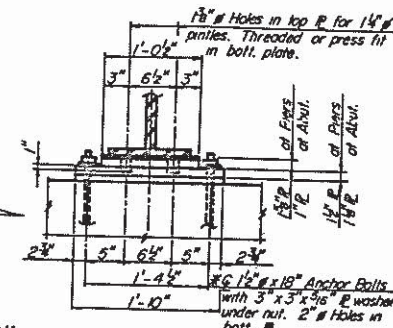


SIDE RETAINER

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



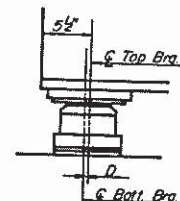
PINTLE DETAIL



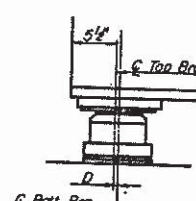
SECTION A-A

FIXED BEARING DETAILS

* After beams have been erected, holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearing at one of the piers may be built into the masonry.



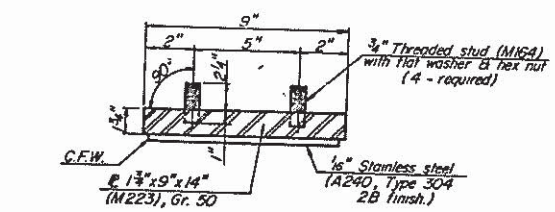
BELOW 50° F
(Move bott. brg. away from fixed brg.)



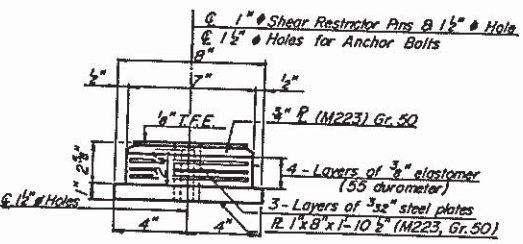
ABOVE 50° F
(Move bott. brg. towards fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 3/16" for every 15° temp. change from the normal temp. of 50°F.



TOP BEARING ASSEMBLY



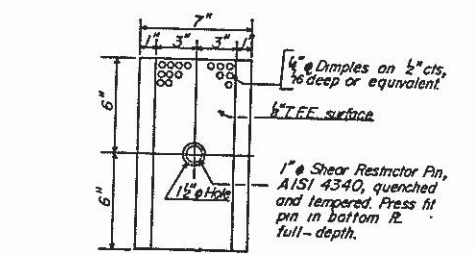
BOTT. BEARING ASSEMBLY

TYPE III ELASTOMERIC EXP. BRG. AT E. ABUT.

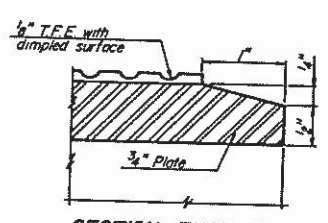
- NOTES:
- 1) The 1/2" T.F.E. sheet shall be bonded directly to top steel plate with a two (2) component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specifications MM-M-A-134, Type I. The bond agent, shall be applied on the full area of the contact surfaces.
 - 2) Bonding of the 1/2" T.F.E. sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the engineer.
 - 3) Threaded studs shall be at right angles to surfaces of plates, typical all bearings.

BILL OF MATERIAL

Item	Unit	Quantity
Elastomeric Brg. Assy. Type III	ea.	5



PLAN T.F.E. SURFACE



SECTION THRU T.F.E.

NOTE: Work this sheet with sheets 7, 8, 9 of 13.

REVISIONS		
NO.	BY	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PIKE COUNTY
F.A. RTE. 408
SECTION 75-38-1
STATION 75+07.17
BEARING DETAILS

SCALE: _____ JOB NO. _____
DATE 12/12/06

SANDOVAL ENGINEERS, INC.

Bench Mark: #U-245 Sta. 274+53.10 (S.S. tablet station) 11-2-25 top of east end of north abutment of bridge, 15.6' Lt.
Elev. 472.28

Existing Structure: Sta. 274+90.00 S.B.I. Rte. 100, Section 116-C, Built in 1931, Structure Number #086-0006
Superstructure is a one span pony truss 75'-10" Bk. to Bk. abut. with a clear roadway width of 22'-6" and a 4'-0" sidewalk, on closed abutments. The south abutment and superstructure are to be removed and replaced with a 2 span WF superstructure on pile bent pier and new south abutment. Existing north abut. will be reused. Stage construction shall be utilized, and the contractor shall provide for pedestrian traffic during all stages of construction. Contractors plans for temporary pedestrian structure shall be submitted to the district office for approval. Temporary pedestrian structure shall be billed as "Temporary Bridge Complete".

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

See Proposal for Boring Data.
Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$ " ϕ , open holes $\frac{15}{16}$ " ϕ , unless otherwise noted.
All high strength bolt connections shall conform to the requirements of the latest issue of the "Specifications for Structural Joints Using ASTM A325 (M164) or A490 (M253) Bolts" for slip-critical connections. Except tightening methods using either the load indicating washers or the calibrated wrench are not allowed.
Calculated weight of Structural Steel: 12,910 Lbs. (AASHTO M183)
Calculated weight of Structural Steel: 58,640 Lbs. (AASHTO M223)
The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.
Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier support. Field welding in other areas will be permitted only when approved by the Engineer.
Anchor bolts shall be set before bolting diaphragms over supports.
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beam (W21x83) and all splice plate material of the wide flange beams.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

Shoulder transition to wingwall shall be shaped with broken concrete. Cost Incidental.

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

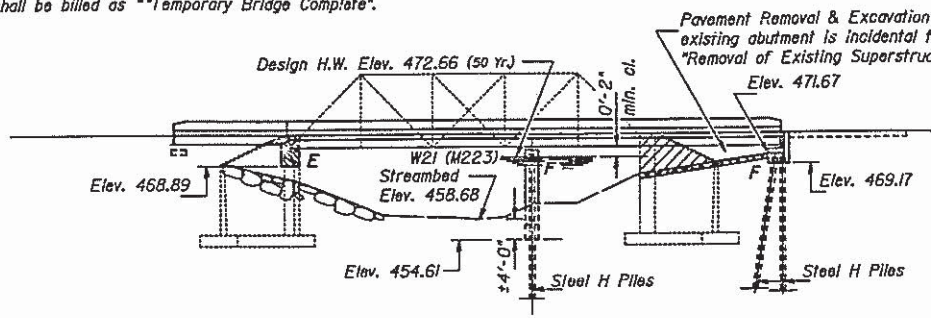
Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and $\frac{3}{4}$ " ϕ x 12" hooked bolts.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

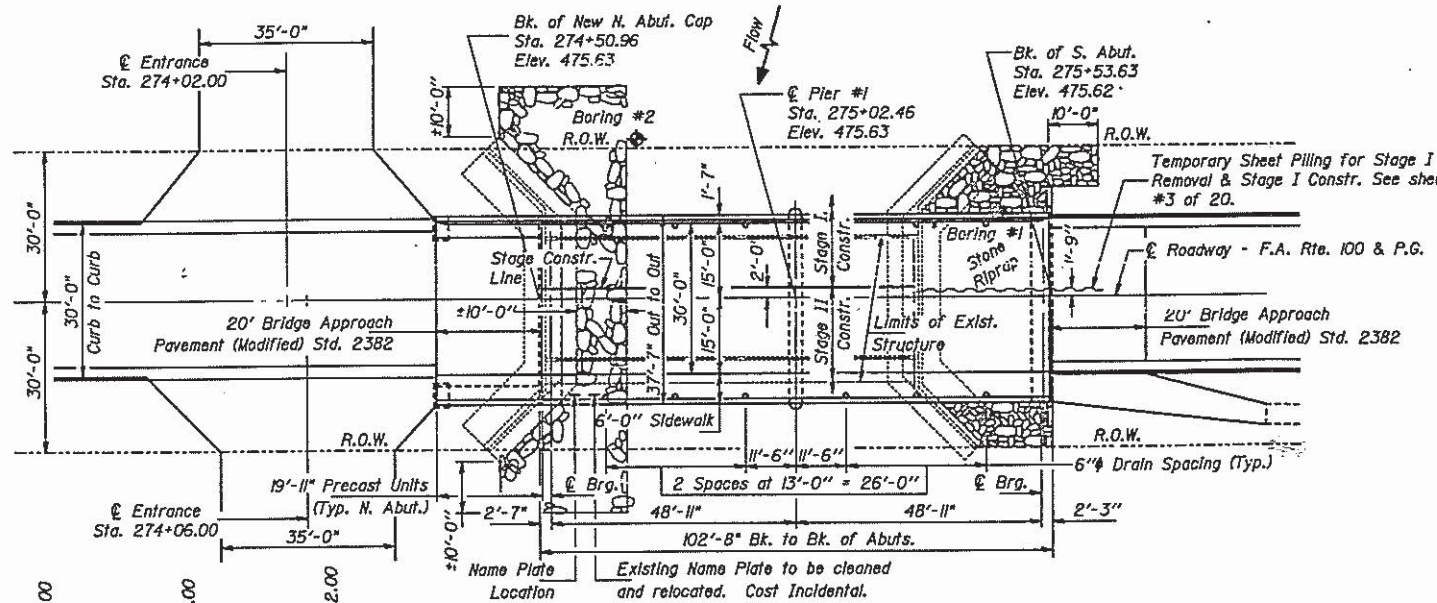
The contractor shall drive one steel (HPI0x42) test pile in a permanent location at the South Abutment as directed by the Engineer before ordering the remainder of piles.

For cantilever forming brackets see special provisions.

Note: The Contractor shall provide temporary timber shoring to protect the roadway at the North Abutment during Stage I and II Construction and at the new South Abutment during Stage II Construction. Cost is Incidental to "Structure Excavation".



ELEVATION



PLAN

PROFILE GRADE

V.C. = 90'
F.A. Rte. 562
(Along ϕ of Roadway)

DESIGNED Victor Veliz
CHECKED Y Esmaili
DRAWN John F. Schneller Jr.
CHECKED V.V.

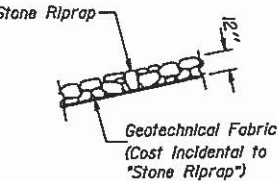
APPROVED [Signature]
APPROVED [Signature]
APPROVED [Signature]

* "Temporary Bridge Complete" specifications shall be:

- 4'-0" Min. Width
- 76'-0" Min. Length
- 729 Sq. Ft. Min. waterway opening
- 85 Lbs. per Sq. Ft. design live load

WATERWAY INFORMATION

Drainage Area = 9.57 sq. mi. Low Grade Elev. 472.42 @ Sta. 272+50.00									
Flood	Freq.	Q	Opening	Sq. Ft.	Nat.	Head	- Ft.	Headwater	El.
	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	50	4110	729	741	472.66	0.38	0.34	473.04	473.00
Base	100	4730	729	741	473.39	0.44	0.44	473.83	473.83
Overtopping	35	3750	-	703	472.18	-	0.22	-	472.4
Max. Calc.	500	-	-	-	-	-	-	-	-



STONE RIPRAP DETAIL

STATION 275+02.30
REBUILT BY
STATE OF ILLINOIS
F.A. RT. 562 SEC. 16BR-1
F.A. PROJ. BHF-562(3)
LOADING HS20
STR. NO. 086-0006

NAME PLATE

See Std. 2113

DESIGN SPECIFICATIONS

AASHTO 1983, 1984 and 1985 Interims.

LOADING HS 20-44

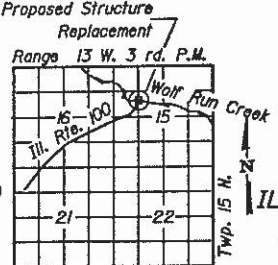
Allow 25# / sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)
 $f_y = 50,000$ psi (AASHTO M223 Gr. 50) (Structural Steel)
 $f_y = 36,000$ psi (AASHTO M183) (Structural Steel)
PRECAST UNITS
 $f'_c = 4,500$ psi
 $f_s = 20,000$ psi (Reinf.)
 $f_c = 1,800$ psi

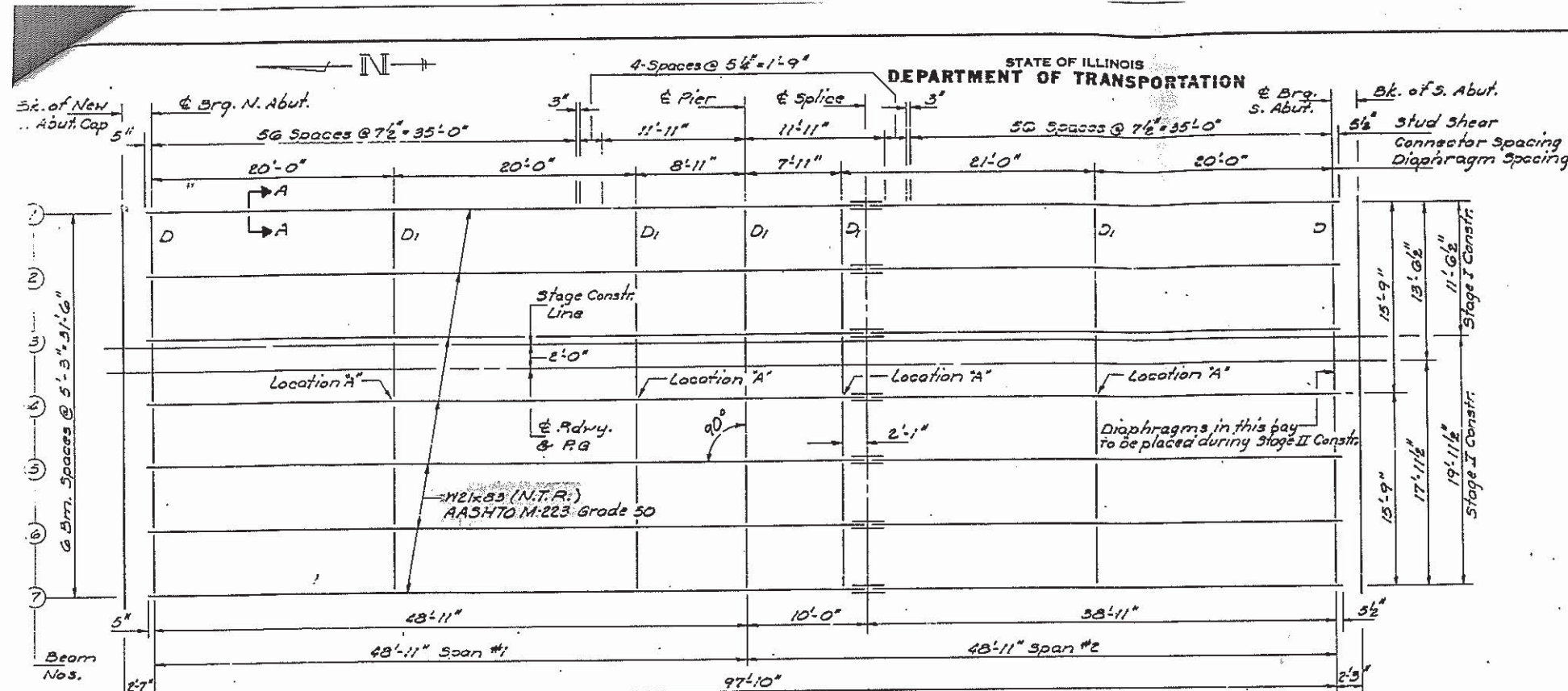
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Class X Concrete Superstructure	Cu. Yd.	133.0		133.0
Class X Concrete	Cu. Yd.		89.2	89.2
Floor Drains	Each	12		12
Reinforcement Bars (Epoxy Coated)	Lbs.	25,480		25,480
Reinforcement Bars	Lbs.	820	9,340	10,160
Steel Piles (HPI0x42)	Lin. Ft.		793	793
Test Piles Steel (HPI0x42)	Each		1	1
Roller Plates	Each	1		1
Stone Riprap	Tons		150	150
Structure Excavation	Cu. Yd.		124	124
Prefabricated Joint Seal (1 1/2")	Lin. Ft.	40		40
Prefabricated Joint Seal (4")	Lin. Ft.	40		40
Temporary Bridge Roll	Lin. Ft.	143		143
Protective Coat	Sq. Yd.	133		133
Structural Steel	L.S.			1
Temporary Support System	L.S.			1
Aluminum Rolling, Type I	Lin. Ft.	119		119
Elastomeric Bearing Assembly, Type II	Each	7		7
Expansion Bolts (3/4")	Each	30		30
Removal of Existing Superstructure	Each			1
Concrete Removal	Cu. Yd.		35	35
Precast Concrete Bridge Slab	Sq. Ft.		150	150
Stud Shear Connectors	Each	1,736		1,736
Furnishing Steel Pile (HP8x36)	Lin. Ft.		15	15
Epoxy Crack Sealing	Lin. Ft.		8	8
Temporary Sheet Piling	Sq. Ft.		936	936
Temporary Bridge Complete	Each			1



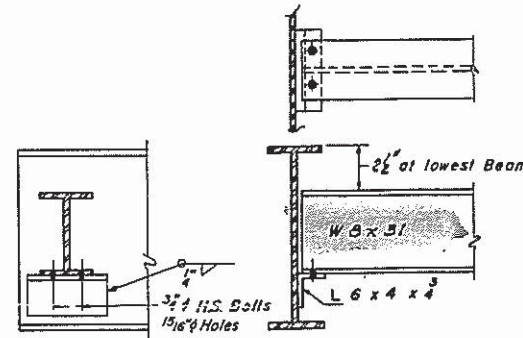
LOCATION SKETCH

GENERAL PLAN
ILL. ROUTE 100 OVER WOLF RUN CREEK
F.A. ROUTE 562 SECTION 116 BR-1
SCOTT COUNTY
STATION 275+02.30
STRUCTURE NUMBER 086-0006



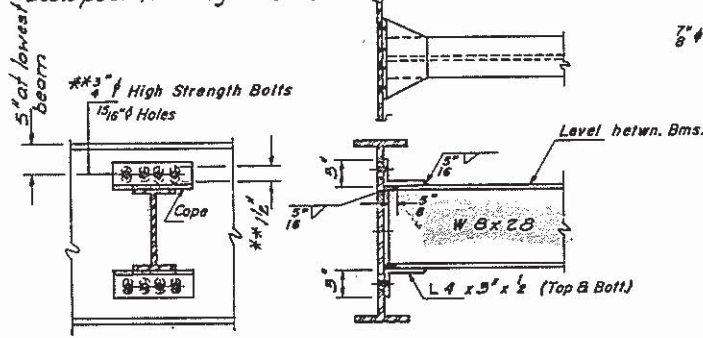
FRAMING PLAN
(N.T.R. denotes Notch Toughness Requirements)

**Use 1 1/2" x 1 1/2" slotted holes in Bm. #4, Location 'A' only. Provide 5/16" structural plate washers for slotted holes. Bolts shall be finger-tightened prior to the deck pour for Stage II Construction and then be fully tightened after completion of the deck pour for Stage II Construction.

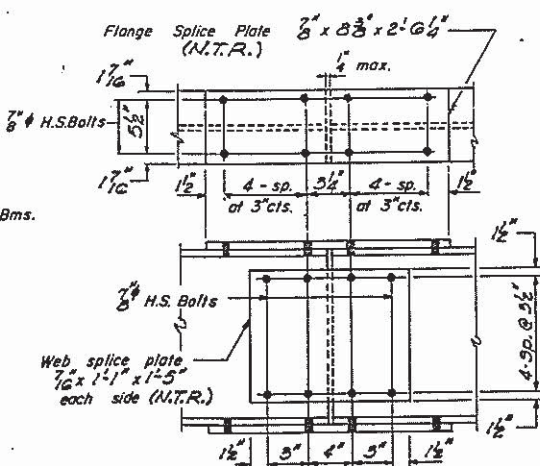


DIAPHRAGM D
(12 Required)

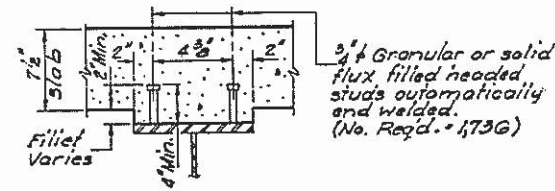
Note: Two hardened washers shall be required over all 1 1/2" holes. All structural steel shall be AASHTO M-183 except as noted.



DIAPHRAGM D1
(30 Required)



SPLICE
All splice plate material shall be AASHTO M-223 Grade 50.



SEC. A-A

DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8-30-80	116BR	SCOTT	32	24

INTERIOR BEAM MOMENT TABLE		
	Brig. N. Abut.	Pier
Is (in ⁴)	1830	1830
Is (in ⁴)	5799	
Is (in ⁴)	171	171
Is (in ⁴)	276.8	
MR (K/ft)	0.607	0.921
MR (K)	102	247.1
MR (K/ft)	0.314	
MR (K)	64.3	
MR (K)	250.1	117.6
MR (K)	71.8	33.8
MR (K)	556.5	252.3
MR (K)	913.9	649.2
VR (K)	7.16	17.34
VR (K)	2.79	
VR (K)	25.24	17.71
VR (K)	33.19	35.05
VR (K)	45.17	45.56
VR (K)	57.3	

INTERIOR BM. REACTION TABLE		
	Abut.	Pier
RR (K)	17.6	55.2
RR (K)	27.0	31.9
RR (K)	7.8	9.2
RR (K)	52.4	96.3

Is and Is are the moment of inertia and section modulus of the steel section used in computing Is (Total & Overload).
Is and Is are the moment of inertia and section modulus of the composite section used in computing Is (Total & Overload).
VR is the maximum Live Load + Impact shear range in span.
MR (Applied Moment) = 1.3 [MR + MR + Is (MR + I)].
Is (Overload) is the sum of the stresses due to MR + MR + Is (MR + I).
Is (Total) is the sum of the stresses due to 1.3 [MR + MR + Is (MR + I)].
*Service Load Values.

TOP OF FLANGE ELEVATION

	#1	#2	#3	#4	#5	#6	#7
Brig. N. Abut.	474.75	474.84	474.92	474.94	474.85	474.77	474.66
Pier	474.65	474.74	474.83	474.84	474.76	474.67	474.56
Splice	474.65	474.74	474.80	474.82	474.73	474.65	474.54
Brig. S. Abut.	474.73	474.82	474.91	474.92	474.84	474.75	474.64

***For fabrication only

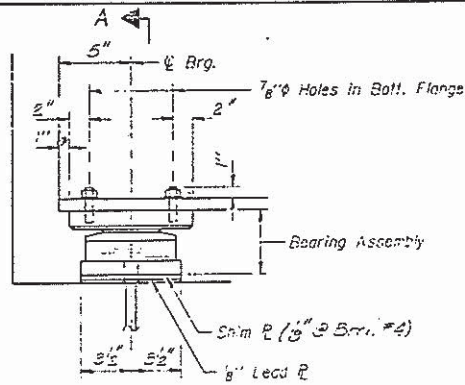
STRUCTURAL STEEL
F.A. RT. 562 SEC. 116BR-I
SCOTT COUNTY
STA. 275+02.30

DESIGNED: VICTOR VELTZ
CHECKED: Y. Esmaili
DRAWN: J. SCHNEIDER
CHECKED: V.V.
APPROVED: [Signature]
DATE: April 2, 1987

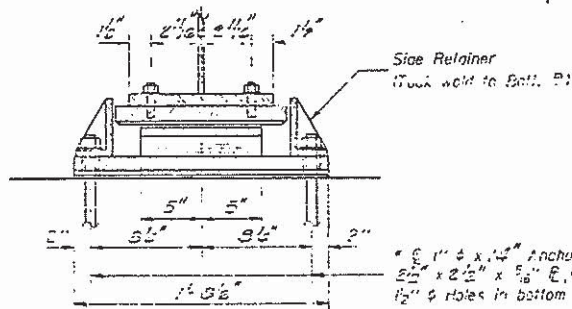
I-2-D 8-30-80

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

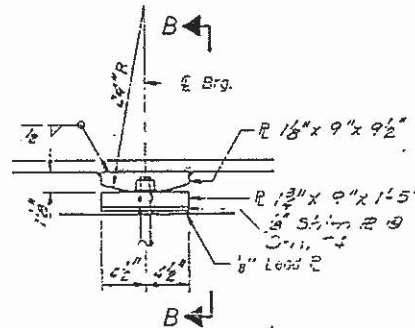
DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11/03/14	11/03/14	SCOTT	32	10
FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11/03/14	11/03/14	SCOTT	32	10



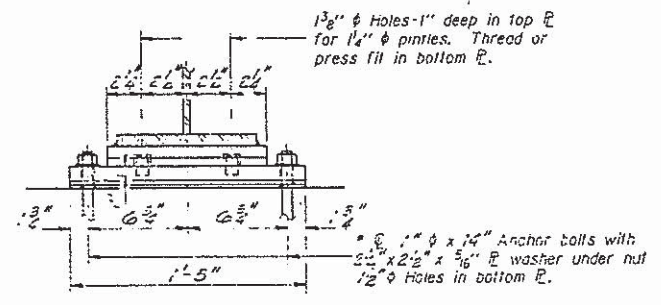
ELEVATION AT N. ABUT.



SECTION A-A

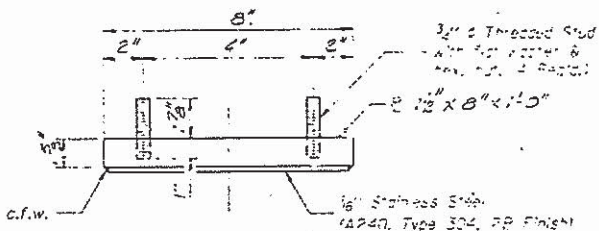


ELEVATION AT PIER

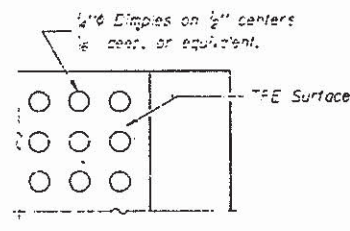


SECTION B-B

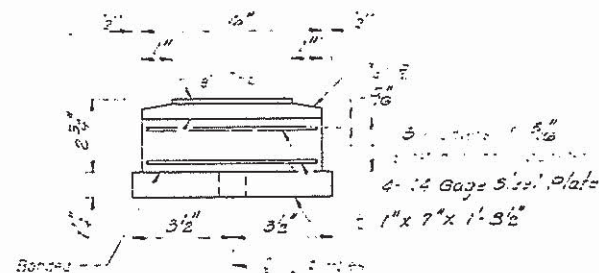
TYPE II TFE ELASTOMERIC EXP. BRG.



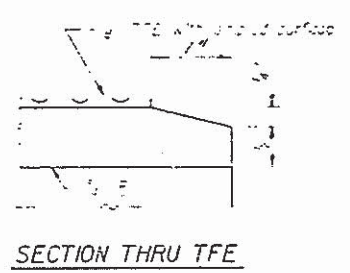
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



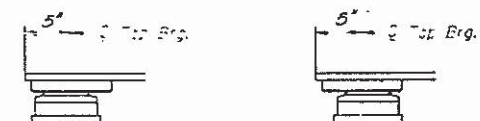
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

Notes: The TFE bearing shall be bonded directly to the top steel deck with a minimum thickness of 1/2 inch. The bearing shall conform to the requirements of the Federal Highway Administration (FHWA) Type II. The bond agent shall be applied to the full area of the contact surfaces.

Bonding of the TFE bearing during construction shall be permitted provided the process and method of adjusting the bond height is approved by the Engineer.



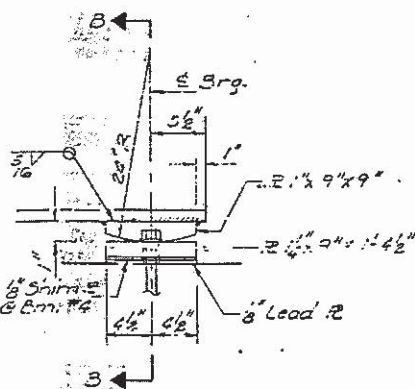
SIDE RETAINER

DESIGNED: J. E. L. 10/12/14	EXAMINED: J. E. L. 10/12/14
CHECKED: Y. Esmaili	APPROVED: J. E. L. 10/12/14
DRAWN: J. SCHNEIDER	
CHECKED: J. J.	

I-2-E2 12-1-63

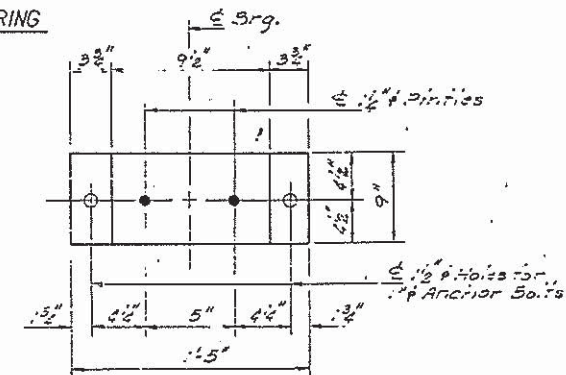
SETTING ANCHOR BOLTS AT EXP. BRG.

Drill 1/2" per inch 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

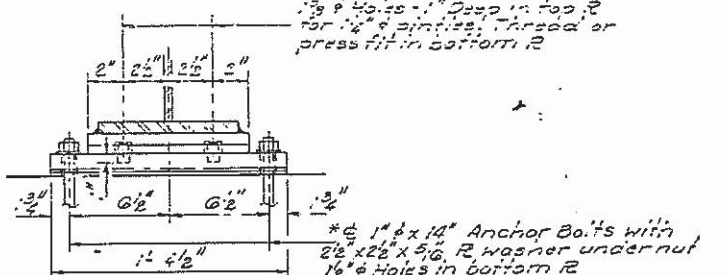


ELEVATION AT S. ABUT.

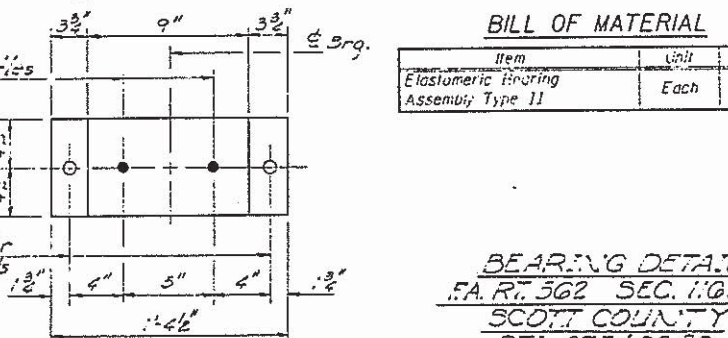
FIXED BEARING



PLAN BOTTOM PLATE (At Pier)



SECTION B-B



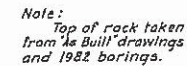
PLAN BOTTOM PLATE (At Abut.)

BILL OF MATERIAL

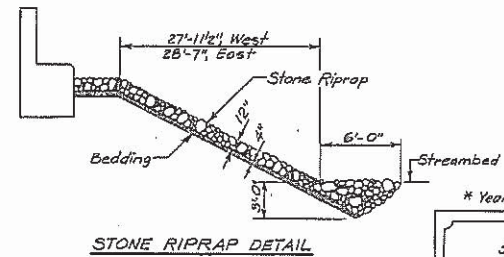
Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	7

BEARING DETAILS
F.A. RT. 502 SEC. 1103R-1
SCOTT COUNTY
STA. 275+02.50

The existing structure, built in 1956, carries one lane of traffic in each direction over Hamilton Slough. It is a three span, continuous rolled beam, bridge with reinforced concrete deck and abutments and reinforced concrete solid piers. Back to back of abutment is 210 feet.



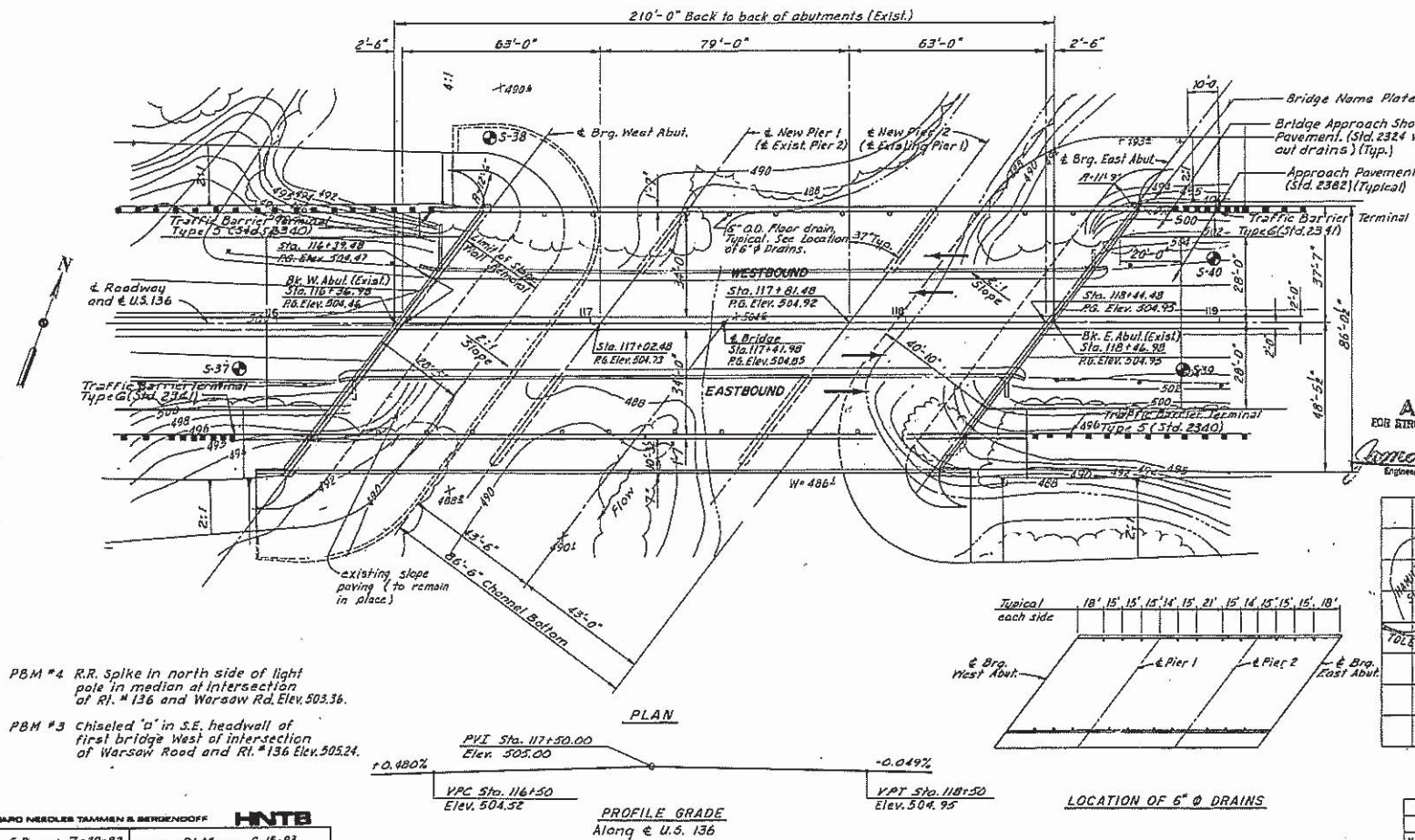
This portion of Embankment backfill by Bridge Contractor after Abutment is in place.



* Year bridge is completed

STATION 117+41.98
BUILT IN 198(X)
F.A. RT 53 SEC. 23 BR
F.A. PROJ. BRJ-53(47) -
LOADING H520
STR. NO XX

BRIDGE NAME PLATE
(Std 2113)
A STR. NO shall be provided
by the Engineer.



PBM #4 R.R. Spike in north side of light pole in median at intersection of Rt. # 136 and Warsaw Rd. Elev. 503.36.

PBM #3 chiseled 'D' in S.E. headwall of first bridge West of intersection of Warsaw Road and Rt. #136 Elev. 505.24

HOWARD NICHOLS TAMMEN & BERGENDOFF **HNTB**
MADE G.D. DATE 7-20-82 CHECKED DLM DATE 6-15-83

WATERWAY INFORMATION									
Drainage Area 10.26 sq.miles Low Grade Elev. 502.8						@ Sta. 110 + 30			
Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	4300	866	866	498.44	0	0	498.44	498.44
Base	100	5000	884	884	498.54	0	0	498.54	498.54
Overlapping ^(Bank Full)	5	2000	848	848	498.34	0	0	498.34	498.34
Max. Calc.	500	6550	902	902	498.64	0	0	498.64	498.64

Bank Full Design Flood = 2000 cfs

Bank Full Design Flood = 2000 cfs

The structure is sized as an overflow structure for the Mississippi River. Total waterway opening under low beam is about 1130 ft². Due to the configuration of the upstream flood plain, overland flow to the Mississippi River occurs when the channel banks fill with a 5 year or greater flood. The flow conditions reported are based upon headwater conditions only. (When the Mississippi River is not in flood stage.)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

James J. Karstetter
Engineer of Bridges and Structures

SIGNED: Paul L. Heineman
DATE: 11/28/84
PAUL L. HEINEMAN S.E. ILL. REG. NO. 81-3117

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

F.A. ROUTE 53, SECTION 238R
HANCOCK COUNTY
STA. 117 + 41.98

U.S. 136 OVER HAMILTON SLOUGH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

F.A. ROUTE 53, SECTION 238R
HANCOCK COUNTY
STA. 117 + 41.98
U.S. 136 OVER HAMILTON SLOUGH

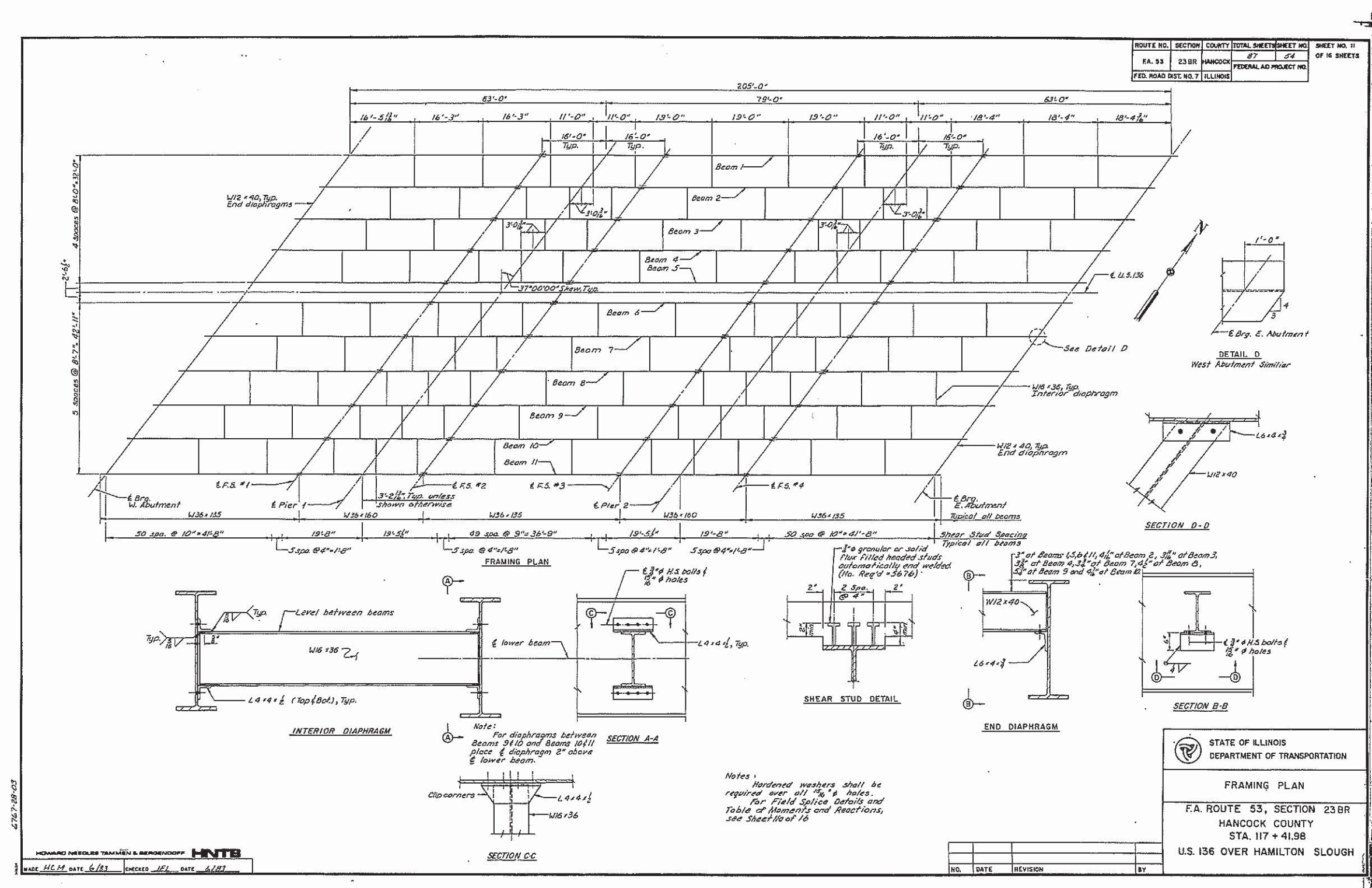
EXISTING PLANS SN 034-0001
(FOR INFORMATION ONLY)

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

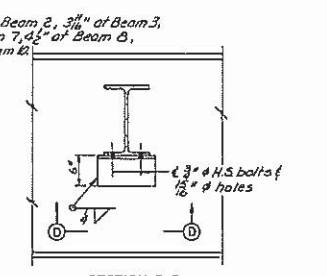
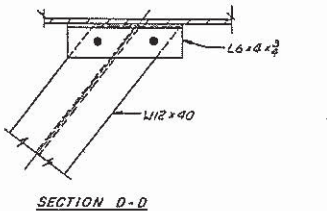
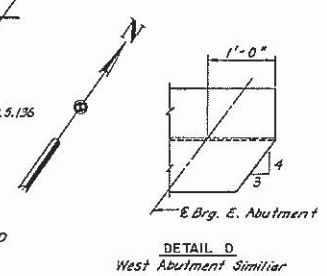
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BDGE PAINTING 2015-1	VARIOUS	58	36
		CONTRACT NO. 72H37		
ILLINOIS FED. AID PROJECT				

FILE NAME =	USER NAME = dvelaybn	DESIGNED -	REVISED -
O:\OPERATIONS\Bridgplans\CAD\72H37 - beam and point F15 CHyplnsheet.dgn		DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.		CHECKED -	REVISED -
Default	PLOT DATE = Aug-28-2014 01:43:25PM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



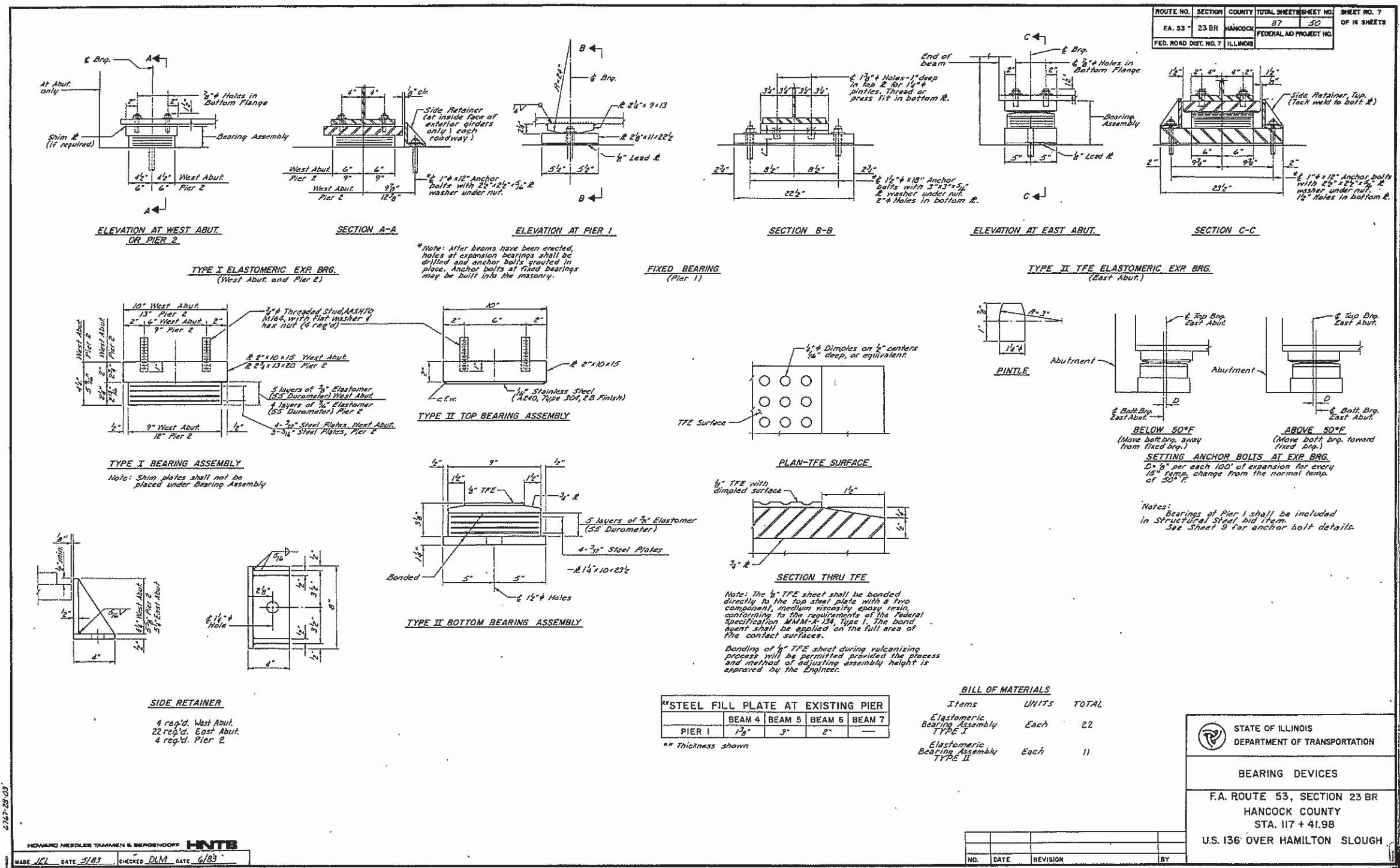
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
FA. 53	23BR	HANCOCK	87	54	OF 16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS				



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN

F.A. ROUTE 53, SECTION 23BR
HANCOCK COUNTY
STA. 117 + 41.98
U.S. 136 OVER HAMILTON SLOUGH



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 OF 16 SHEETS
FA. 53	23 BR	HANCOCK	87	50	
FED. ROAD DIST. NO. 7	ILLINOIS		FEDERAL AID PROJECT NO.		

STEEL FILL PLATE AT EXISTING PIER				
	BEAM 4	BEAM 5	BEAM 6	BEAM 7
PIER 1	1 1/2"	3"	2"	—

Thickness shown

BILL OF MATERIALS		
Items	UNITS	TOTAL
Elastomeric Bearing Assembly TYPE I	Each	22
Elastomeric Bearing Assembly TYPE II	Each	11



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DEVICES

F.A. ROUTE 53, SECTION 23 BR
HANCOCK COUNTY
STA. 117 + 41.98

U.S. 136 OVER HAMILTON SLOUGH

NO.	DATE	REVISION	BY

B.M. 54 Chisel 'x' in Hubguard, SW Corner of Bridge, R.L.
Sta. 975+21 El. 528.69
Existing Structure: No. 034-0025 Built as SB1 Rte. 96
Sec. 120 E-WPH of Sta. 974+87. Built in 1935.
The existing R.C. structure is to be removed by
stage construction, replaced with W21 on pile bents
abut. Traffic shall be maintained during constr.

No Salvage:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

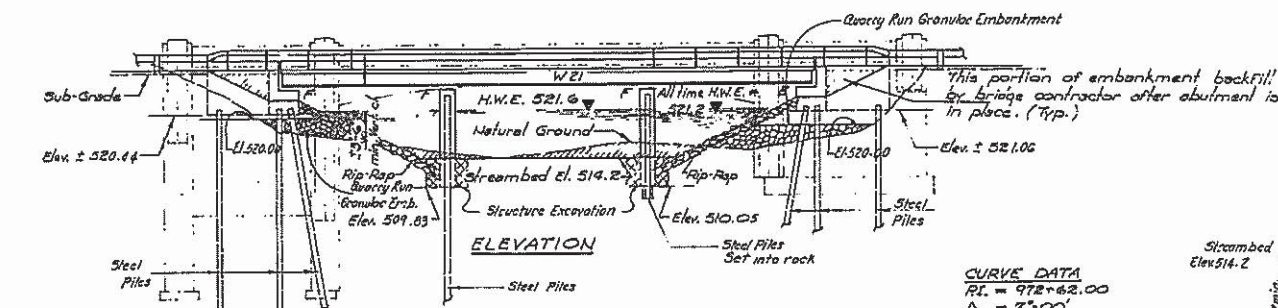
PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
120-0025	BR-4	25	12
PROJECT NO. 120-0025	BR-4	25	12

GENERAL NOTES

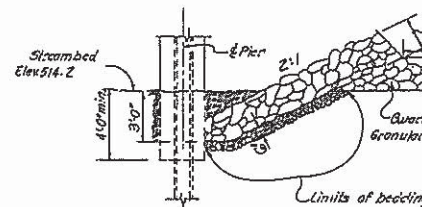
See Proposal for Boring Data.
Fasteners shall be high strength bolts. Bolts 3/4" open holes 1 1/4",
unless otherwise noted.
Calculated weight of Structural Steel = 183,990 pounds
All structural steel shall be AASHTO H222 unpainted except
expansion joint angles and attached bars which shall be AASHTO H183
and shop painted with two coats of basic lead silico chromate paint.
Field welding of construction accessories will not be permitted to the
bottom flange of beams or girders nor to the top flange for a distance equal
to one-fourth the span length each way from the pier supports. Field welding
in other areas will be permitted only when approved by the Engineer.
Anchor bolts shall be set before bolting diaphragms over supports.

The concrete rail section above the mandatory construction joint
at the top of the slab shall be constructed of Class X concrete, except
the aggregate shall conform to the requirements of Hotmix Concrete.
Bearing seat surfaces shall be constructed or adjusted to the
designated elevations within a tolerance of 1/8". Adjustment shall be
made either by grinding the surface or by shimming the bearing. The
adjusting shims, of the dimensions of the bottom bearing plate, shall be
provided for each bearing in addition to all other plates or shims.
The Contractor shall drive two steel test piles in permanent location
one test pile HP8x36 and one test pile HP8x36+50. Abut. as directed by
the Engineer before ordering the remainder of piles.
Layout of Rip-Rap may be varied in the field to suit ground
conditions as directed by the Engineer.
The main load carrying member composite is subject to tensile
stress shall conform to the Supplemental Requirements for AASHTO
Toughness Zone 2. These components are the tension flanges, webs
and all spline plate material of the steel wide flange beams.

Reinforcement bars shall conform to the requirements of
AASHTO M-31 Grade 60.

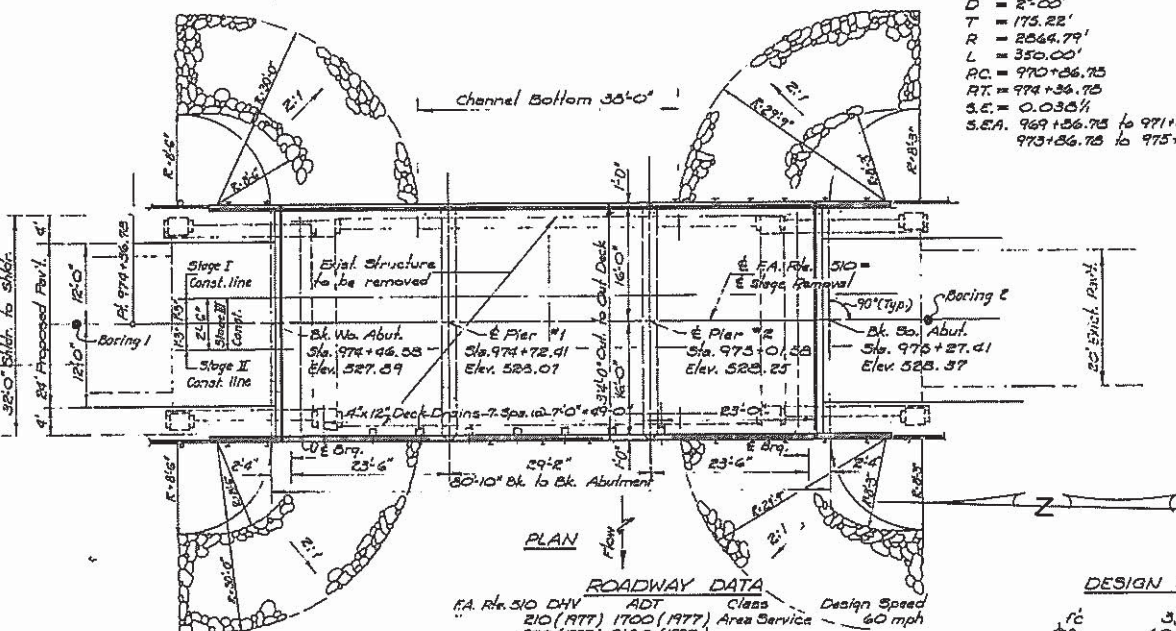


CURVE DATA
RI = 972+62.00
D = 7'-00"
Δ = 2'-00"
T = 175.22'
R = 2544.79'
L = 350.00'
PC = 970+06.75
PT = 974+36.75
SE = 0.035 1/4
S.E.A. 969+36.75 to 971+36.75
973+36.75 to 975+36.75



SKETCH OF RIP-RAP

- 1) Quarry Run Granular Embankment is to be used as fill material up to an elevation of 520.00
- 2) Limit 6" bedding material in those areas where Quarry Run Granular Embankment is placed.



STATION 974+87
BUILT 197 BY
STATE OF ILLINOIS
F.A. Rte. 510, SEC. 120 BR-4
PROJECT 68-510 (7)
LOADING HS 20
STR. NO.

NAME PLATE

(See Std. 2113)
** Structure Number to be supplied by District.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Callendaris	Each	2	2	
Structure Excavation	Cu.Yd.	65	65	
Removal of Existing Structure	Each	1	1	
Protective Coat	Sq.Yd.	312	312	
Structural Steel	L.S.			
Class X Concrete	Cu.Yd.	71.3	132.4	203.7
Reinforcement Bars	Pound	7670	10600	18270
Reinforcement Bars (Epoxy coated)	Pound		11230	11230
Steel Piles HP 10x42	Lin.Ft.	246	246	
Steel Piles HP 8x36	Lin.Ft.	555	555	
Test Pile Steel HP 8x36	Each	2	2	
Name Plates	Each	1	1	
Stone Riprap	Sq.Yd.	599	599	
Temporary Bridge Rail	Lin.Ft.	108	108	
Set Pile in Rock	Each	6	6	
Preformed Joint Sealer, 2 1/2"	Lin.Ft.	36	36	
Steel Rolling Type T	Lin.Ft.	210	210	
Aluminous Concrete Surface Course, Class I	Sq.Yd.	151	151	
Floor Drains	Each	8	8	

*** See note on rail painting - Std. 211

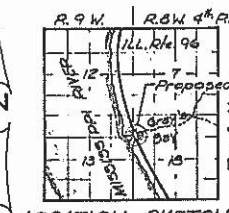
DESIGN STRESSES

f_c 3,500 psi
f_y 60,000 psi (Reinf.)
f_y 50,000 psi (Struct.)
Epoxy coated Reinf. Bars shall be
used in the top layer of the slab.

LOADING HS 20-44

Allow 25% sq. ft. future wearing surface
Design Specification: 1977 AASHTO,
1978 Interim Specifications.

PROFILE GRADE F.A. Rte. 510



GENERAL PLAN & ELEVATION
F.A. Rte. 510 Over GRAY'S BAY
F.A. Rte. 510 SECTION 120 BR-4
HANCOCK COUNTY
Sta. 974+87.00

DESIGNED <i>James A. Balise</i>	EXAMINED <i>James A. Balise</i>
CHECKED <i>Michael K. Tuckett</i>	PASSED
DRAWN <i>James A. Balise</i>	APPROVED
CHECKED <i>Michael K. Tuckett</i>	

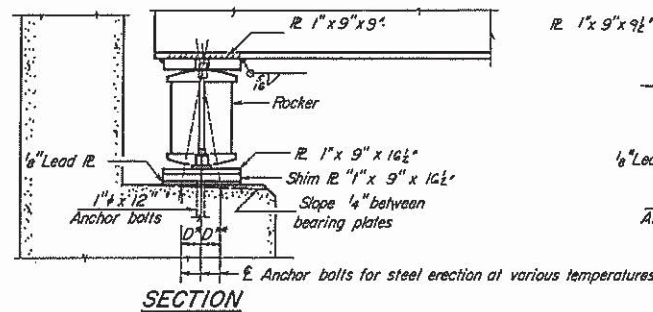
WATERWAY INFORMATION	
Existing Opening	323 sq. ft.
Required Opening	340 sq. ft.
Proposed Opening	340 sq. ft.
Drainage Area	1.70 sq. mi.
25 yr. Flood Head	16.00 c.f.s.
50 yr. Flood Head	10.50 c.f.s.
100 yr. Flood Head	0.94'
50 yr. Elev.	521.6 el.
100 yr. Elev.	522.0 el.
All time Mississippi River high water	521.2 el.



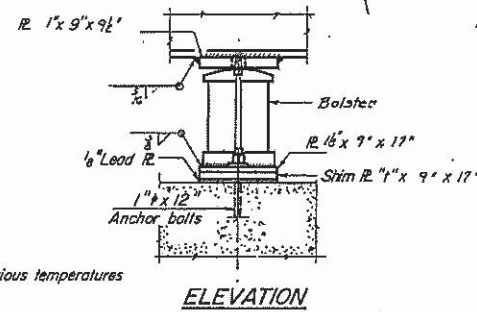
Rev. S.U. 3-27-1979.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

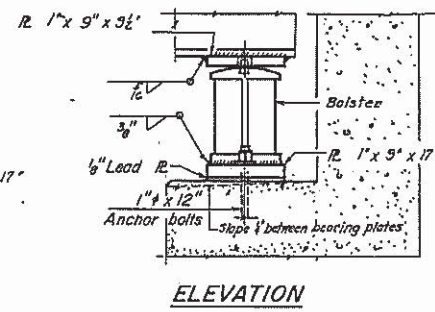
DATE	REVISION	REVISION	REVISION	REVISION	SHEET NO.
1/20	1/20	1/20	1/20	1/20	11
1/20	1/20	1/20	1/20	1/20	11
1/20	1/20	1/20	1/20	1/20	11



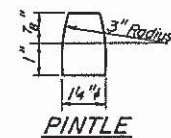
SECTION



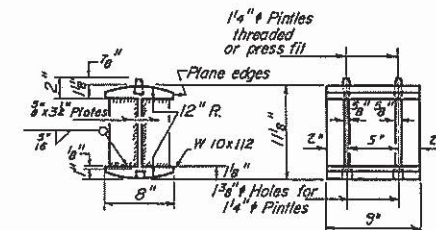
ELEVATION



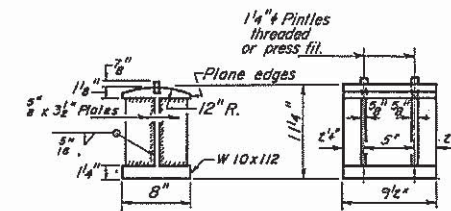
ELEVATION



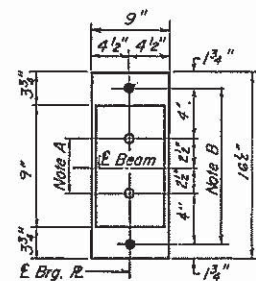
PINTLE



ROCKER

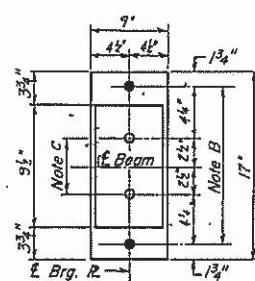


BOLSTER



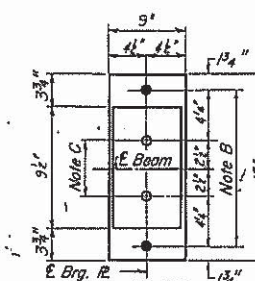
PLAN

AT ABUTMENT-SOUTH



PLAN

AT PIERS 1&2



PLAN

AT ABUT-NORTH

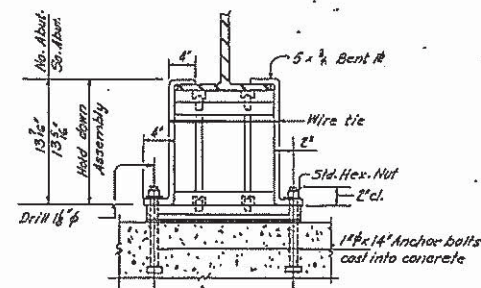
NOTE A
1 1/2" Holes - 1" deep in top R.
for pintles. Thread or press fit
pintles into bottom R.

NOTE B
1 1/2" Holes for 1" anchor bolts.
1/2" x 2 1/2" x 2 1/2" R. Washers
under nut.

NOTE C
1 1/2" Holes 1" deep in top R.
only for 1 1/4" pintles.

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg. away from fixed brg.)
D* = 1/8" per each 100' of expansion for
every 15° fall below the normal temp.
of 50°F.
D** (Side of brg. toward fixed brg.)
D** = 1/8" per each 100' of expansion for
every 15° rise above the normal temp.
of 50°F.
- b) After beams have been erected and dimensions D* or D**
determined, holes shall be drilled and anchor bolts shall
be grouted in place. All fixed anchor bolts may be built
into the masonry.



BEAM HOLD DOWN DETAIL

Note:
Beams shall be held down at the Abutment on the
opposite end of Bridge from which the deck pour is
commenced. After pouring is completed the Hold Down
Assembly shall be removed and nuts placed on
Anchor Bolts.
Cost of Hold Down Assembly, incidental to Class X Concrete.

TOP OF BEAM ELEVATIONS	1	2	3	4	5	6
1. Abut. No. 1	527.425	527.337	527.247	527.117	526.947	526.776
2. Brg. Pier 1	527.466	527.431	527.388	527.292	527.145	526.970
3. Splice	527.473	527.431	527.420	527.384	527.193	527.043
4. Brg. Pier 2	527.483	527.511	527.519	527.477	527.355	527.223
5. Brg. No. 2	527.470	527.549	527.616	527.579	527.477	527.384

DIMENSION	1	2	3	4	5	6
1. Abutment	1	2	3	4	5	6
2. Pier 1	1	2	3	4	5	6
3. Pier 2	1	2	3	4	5	6

INTERIOR BEAM MOMENT TABLE	1	2	3
1. Span 1	84.3	84.3	84.3
2. Span 2	81.6	81.6	81.6
3. Span 3	81.6	81.6	81.6
4. Span 4	81.6	81.6	81.6
5. Span 5	81.6	81.6	81.6
6. Span 6	81.6	81.6	81.6
7. Span 7	81.6	81.6	81.6
8. Span 8	81.6	81.6	81.6
9. Span 9	81.6	81.6	81.6
10. Span 10	81.6	81.6	81.6

* Ultimate Moment
Mu = 1/2 [Wd + 1/2 (Wt + Imp)]
* Ultimate Stresses in Brn.
fs = 1/3 [f'c / (1 + 1/2 (Wt + Imp))]

INTERIOR BEAM REACTION TABLE	1	2	3
1. Span 1	2.1	2.1	2.1
2. Span 2	2.2	2.2	2.2
3. Span 3	2.2	2.2	2.2
4. Span 4	2.2	2.2	2.2
5. Span 5	2.2	2.2	2.2
6. Span 6	2.2	2.2	2.2
7. Span 7	2.2	2.2	2.2
8. Span 8	2.2	2.2	2.2
9. Span 9	2.2	2.2	2.2
10. Span 10	2.2	2.2	2.2

STRUCTURAL STEEL-BRGS.
F.A. 510 SEC. 120 BR-4
HANCOCK COUNTY
STA. 974+87.00

DESIGNED	Michael K. Tachet
CHECKED	Michael K. Tachet
DRAWN	A. K.
CHECKED	M. K. T.

I-2-B 9-1-65, 8-1-70

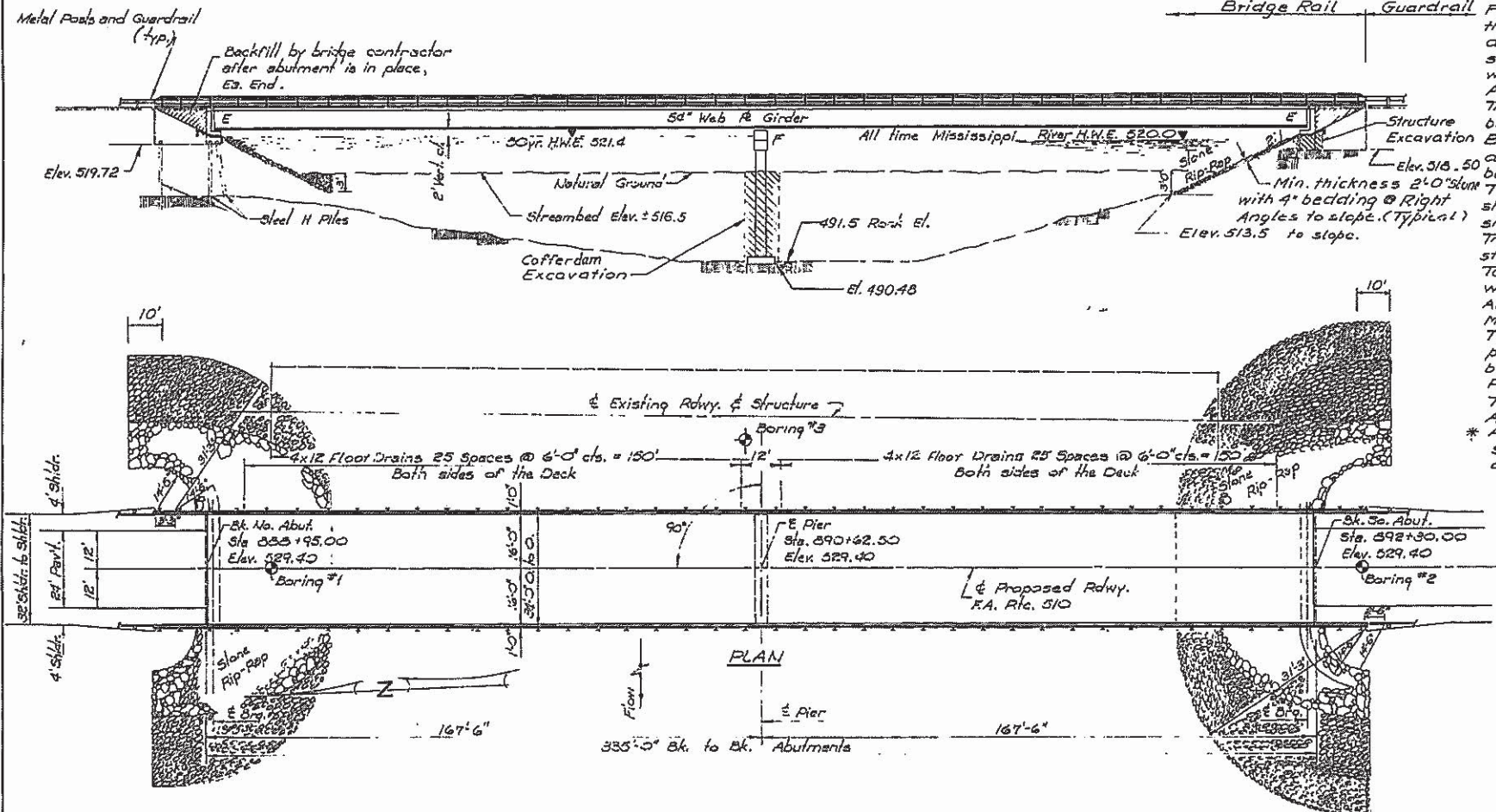
B.M. "X" cut on NW corner of W. Wing - N. Abutment - Right
Sta. 389+15 Elev. 528.51
Existing Structure: #034-0027 Built as S.B.T. Rte. 96,
Sec. 120-B1 at Sta. 390+57.00 in 1936, Width 25'-0", Length 286'-0"
The existing two span steel truss superstructure on R.C.C.
abutments and pier shall be removed after the new two
span plate girder structure is built. The existing
structure shall be used for traffic during construction
of the new bridge.
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8/15/10	#	HANCOCK	40	23
R120 (N-3, R5-3), 120N & 120 BR-3				

GENERAL NOTES

See Proposal for Boring Data.
Fasteners shall be high strength bolts. Bolts 3/4", open holes 13/16",
unless otherwise noted.
Calculated weight of Structural Steel-449440 lbs. M-222
Field welding of construction accessories will not be permitted to
the bottom flange of girders nor to the top flange for a
distance equal to one-fourth the span length each way from the pier
supports. Field welding in other areas will be permitted only
when approved by the Engineer.
Anchor bolts shall be set before bolting cross frames over supports.
The embankment configuration shown shall be the minimum embankment
that must be constructed prior to construction of the abutments.
Bearing seat surfaces shall be constructed or adjusted to the
designated elevations within a tolerance of 1/8 inch. Adjustment shall
be made either by grinding the surface or by shimming the bearing.
Two 6" adjusting shims, of the dimensions of the bottom bearing plate,
shall be provided for each bearing in addition to all other plates or
shims.
The main load carrying member components subject to tensile
stress shall conform to the Supplemental Requirements for Notch
Toughness Zone 2. These components are the tension flanges,
webs and all splice plate material of the steel girders.
All reinforcement bars shall conform to the requirements of AASHTO
M-31 or M-53, Grade 60.
The Contractor shall drive one Steel HP8x36 test pile in
permanent location at the N. Abut., as directed by the Engineer
before ordering the remainder of piles.
Fasteners shall conform to requirements of AASHTO M 154 (A525)
Type 3 High strength bolts.
All Structural Steel shall be AASHTO M 222 unpainted steel.
* All railings and accessories shall be painted with basic lead
silicon chromate paint system except that the final field coat shall be
a maroon finish coat. See Special Provisions.



TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Removal of Existing Structures	Each			1
Structure Excavation	Cu.Yds.		82	82
Protective Coat	Sq.Yds.	1307		1307
Class "X" Concrete	Cu.Yds.	303.3	159.0	462.3
Structural Steel	L.S.			L.S.
Stud Shear Connectors	Each	2610		2610
Reinforcement Bars	Lbs.	29830	20220	50050
Reinf. Bars (Epoxy Ctd.)	Lbs.	15380		15380
Steel Piles (HP8x36)	Lin. Ft.		204	204
Test Pile Steel (HP8x36)	Each		1	1
Name Plates	Each			1
Stone Rip Rap	Sq.Yd.			500
Neoprene Exp. Jt. 24"	Lin. Ft.	67		67
Cofferdams	Ea		1	1
Cofferdam excavation	Cu.Yd.		292	292
Steel Railing (Type T)	Lin. Ft.	722		722
Rock Excavation for Structure	Cu.Yds.		11	11
Floor Drains	Each	104		104

STATION 390+62.50
BUILT 198 BY
STATE OF ILLINOIS
F.A.R.T.E. 510 SEC 120 BR-3
LOADING HS20
* STR. NO.

NAME PLATE
(See Std. 2113)

* Structure number shall be supplied by
District.

DESIGNED	Str. J. Meyer
CHECKED	R. M.
DRAWN	W. J.
CHECKED	W. J.

EXAMINED	June 13, 2012
PASSED	W. J.
APPROVED	W. J.

WATERWAY INFORMATION

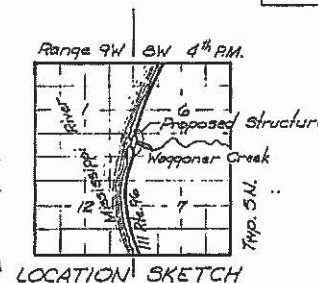
Drainage Area	=	7.2 sq. mile
Existing Opening	=	1200 sq. ft.
Required Opening	=	800 sq. ft.
Proposed Opening	=	1200 sq. ft.
Design Discharge	=	3000 cfs.
Created Head for Design Flood	=	0.5'
100yr Discharge	=	3450 cfs.
100yr Flood	=	0.5'
H.W.E. (30yr)	=	521.4 Elev.
H.W.E. (100yr)	=	521.9 Elev.
All time Mississippi River high water	=	520.0

DESIGN STRESSES

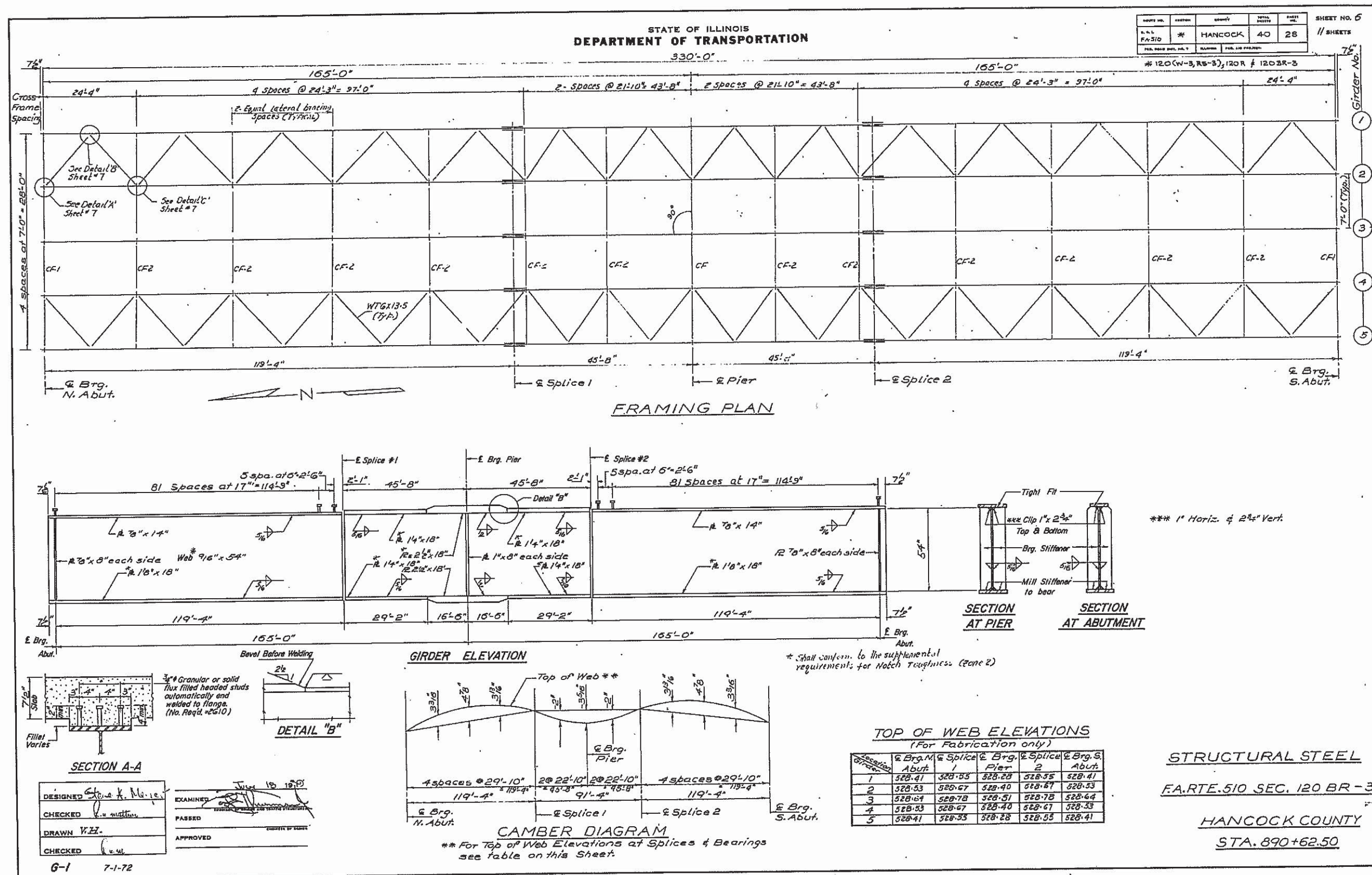
F_c = 3,500 psi
F_y = 60,000 psi (Reinforcement)
F_y = 50,000 psi (Structural)
Epoxy coated Reinforcement Bars shall
be used in top layer of slab.

LOADING HS 20-44

Allow 25"/sq.ft. future wearing surface.
Design Specification: 1977 AASHTO;
and 78 AASHTO Interim specifications



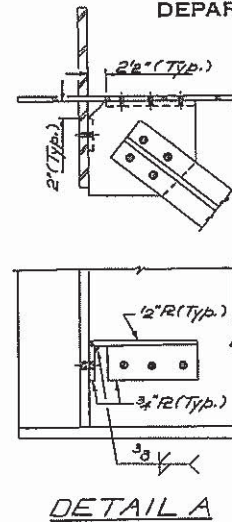
GENERAL PLAN & ELEVATION
F.A. Rte. 510 Over WAGGONER CREEK
F.A. Rte. 510 SECTION 120 BR-3
HANCOCK COUNTY
Sta. 390+62.50



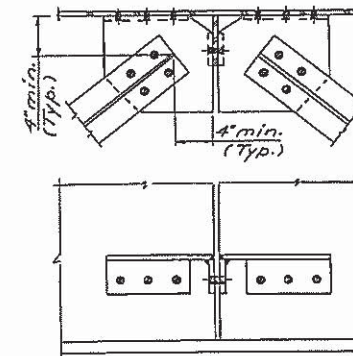
ROUTE NO.	SECTION	QUANTITY	TOTAL QUANTITY	SHEET NO.
R.R. & N.E. 10	46	HANCOCK	40	29
FED. ROAD DIST. NO. 7		REMARKS	FED. AID PROJECT NO.	

* 120 (W-3, R5-3), 120 R f 120 BR-3

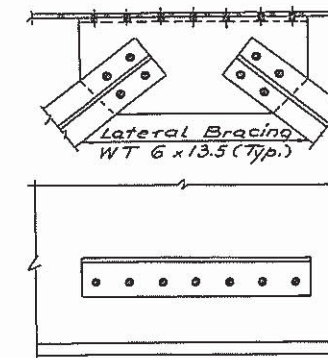
SHEET NO. 7
// SHEETS



DETAIL A



DETAIL B



DETAIL C

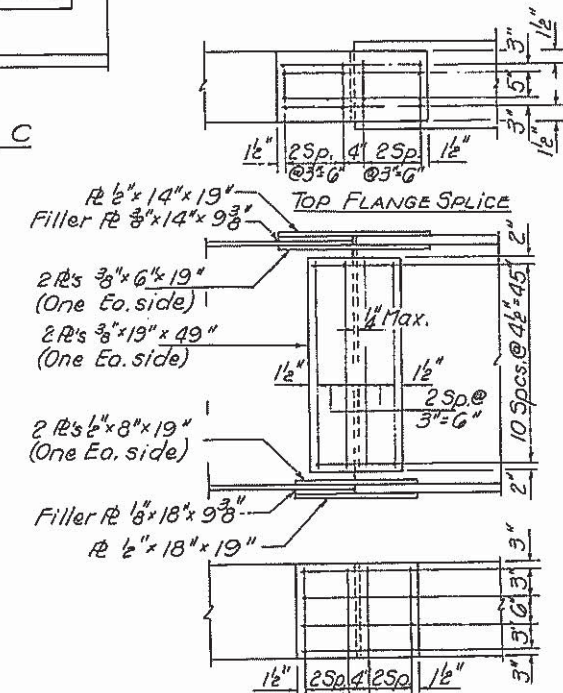
Technical drawing of a truss section. The drawing shows a cross-section of a truss with various dimensions and components labeled. The top chord is labeled "Level across all Girders" and "3". The top chord is supported by a "W 12 x 40" girder. The bottom chord is supported by a "Brg. Stiff." (Bridging Stiffener). The truss members are labeled with their dimensions: "2 x 8" R, "2 x 6 x 4 x 2", "2 x 3 x 3 x 5/8", "2 x 3 x 3 x 5/8", "2 x 6 x 4 x 2", and "2 x 8" R. The dimensions are given in feet and inches, with some values in parentheses indicating alternative or minimum values. The overall height of the truss is labeled "3'-2\"". The overall width of the truss is labeled "6'-2\"". The drawing also shows the "5 Lowest Girder" and "Brg. Stiff." (Bridging Stiffener) at the bottom.

CROSS FRAME CF-1
(8 Req'd)

INTERIOR GIRDER MOMENT TABLE		
	0.4 Sp.1065p.2	Pier
I_s (in ⁴)	31213	79260
I_c (in ⁴)	69256	—
I_s (in ⁴)	1269	2687
I_c (in ⁴)	1644	—
Q (in ³)	-942	1173
M_g (ft-k)	1983	6038
I_s -non-composite	10-8	270
S_g (in ³)	.231	—
M_{sg} (ft-k)	583	—
M_{fg} (ft-k)	3155	3691
M_{mp} (ft-k)	544	636
TOTAL (ft-k)	4321	4327
I_s -composite	315	193
I_s -TOTAL (ft-k)	50.3	46.3
V.R. (ft-k)	60.6	—

INTERIOR GIRDER REACTION TABLE		
	Abutments	Pier
R_Q (K)	68.6	249.8
R_L (K)	46.0	100.1
Imp (K)	7.9	17.2
R_{TOTAL} (K)	122.5	367.1

Is and Ss are the moment of inertia and section modulus of the steel section used in computing f_s TOTAL
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing f_s TOTAL
VR is the maximum $4 + \text{Impact}$ shear range in span used to determine shear connector spacing.
Moments in the table include the appropriate load factors
DL factor = 1.3
LL factor = $1.3 \times 3 = 2.17$



FIELD SPLICE DETAIL

(Use 7/8" H.S. Bolts
4 15/16" open holes)

Note: All splice plates shall conform to the Supplemental Requirements for Notch Toughness (Zone 2.)

STRUCTURAL STEEL DETAILS

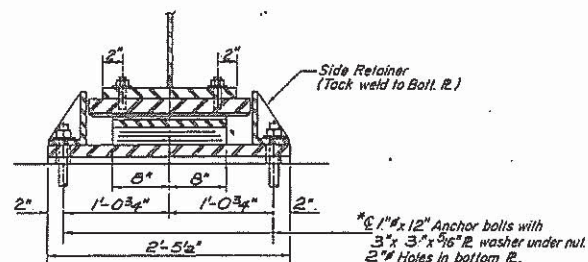
F.A.RTE.510 SEC. 120 BR -3

HANCOCK COUNTY
STA. 890+62.50

DESIGNED <i>Stewart H. Keys</i>	EXAMINED <i>[Signature]</i> DESIGNED BY OFFICE AND TOURS DIVISION
CHECKED <i>R. W. Nathan</i>	PASSED
DRAWN <i>V.H.</i>	APPROVED
CHECKED <i>R. W. Nathan</i>	REVIEWED BY INSPECTOR

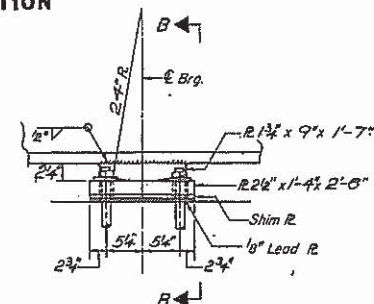
ADULT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B. & L. FASIO	#	HANCOCK	40	30

SHEET NO. 6
// SHEETS

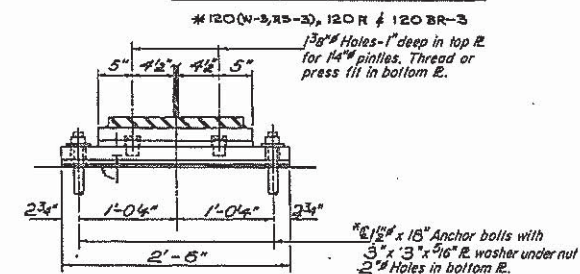


SECTION AT ABUT.

SECTION A-A

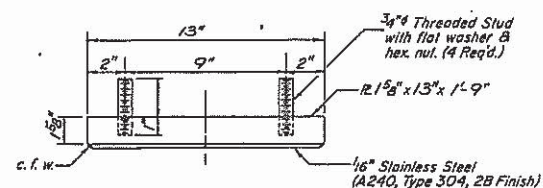


ELEVATION AT PIER

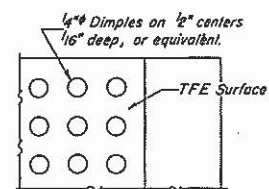


SECTION B-B

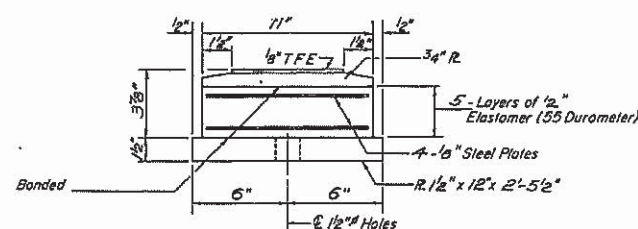
TYPE II TFE ELASTOMERIC EXP. BRG.



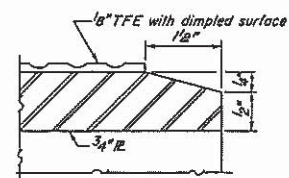
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



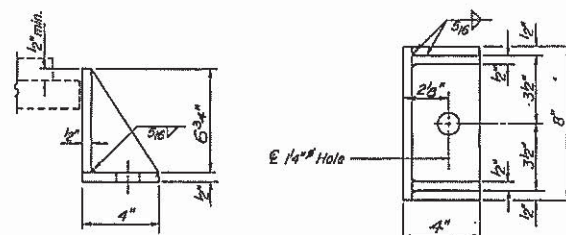
BOTTOM BEARING ASSEMBLY



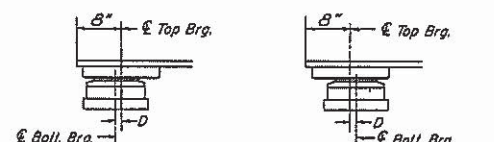
SECTION THRU TFE

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.



SIDE RETAINER



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

SETTING ANCHOR BOLTS AT EXP. BRG.

$D = \frac{1}{8}"$ per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F

DESIGNED	Steve L. Meyer
CHECKED	R. Mottum
DRAWN	V. H.
CHECKED	R. M.

July 18 1979

EXAMINED _____
PASSED _____
APPROVED _____

SIGNATURE OF SENIOR AND CHIEF ENGINEER

I-2-E2 12-1-78

BRG. DETAILS

FA-RTE.510 SEC. 120 BR-3

HANCOCK COUNTY

STA. 890+62.50

No Salvage.

DATE NO.	PROJECT	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. / // SHEETS
P.A. 47	MBR	SCHUYLER	33	12	
P.C., ROAD DIST. NO. 7		ALIGNED	P.C., ARE PROJECT.		

2nd reinforcement bars shall be lapped 24 diameters w/ ties after heavy storm.

3rd shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

Protective Coating shall not be applied to surfaces to which Membrane System is applied.
Calculated weight of Structural Steel = 83-500 Lbs.
Excursion 6" in steel consist of sec^y drilling excursion, anchors and 2" x 12" hooked bolts.
Anchors bolts shall be set before bolting diaphragms over supports.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\pm .015$. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bearing, shall be provided for each bearing in addition to all other plates or shims.

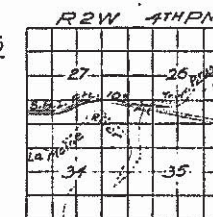
The main load carrying member components subject to the Supplemental Requirements for Hatch Overlays are the flanges, ribs, and splice plates of the steel girders.

Field welding of construction accessories will not be permitted in the bottom storage of beams. Field welding in other areas will be permitted only when approved by the Engineer.

All structural steel shall be AASHO M 222 unpainted except expansion joint angles and attached bars which shall be AASHO M 183 and shop painted with two coats of basic lead silico chromate paint.

Item	Unit	Sugar	Sys	Total
Plumitious Concrete Surface Course, Class F	Tons	27		27
Portland Cement Concrete Pavement (10")	Sq. Yds.	39		39
Pavement Fabric	Sq. Yds.	39		39
Concrete Removal	Cu. Yds.		40	40
Expansion Joints (4" x 8)	Each	62		62
Class X Concrete	Cu. Yds.	85.0	73.1	158.1
Structural Steel	L. S.			L. S.
Steel Piling, Type T	L/in. P.	286		286
Reinforcement Bars	Lbs.	23,920	6,280	30,200
Protective Coat	Sq. Yds.	48		48
Removal of Existing Superstructures	Each	1		1
Waterproofing Membrane System	Sq. Yds.	371		371
Home Plates	Each		1	1
Stud Shear Connectors	Each	915		915
Preformed Joint Sealer (4")	Lir. Ft.	61		61
Precast Concrete Bridge Slab	Sq. Ft.	373		373

GENERAL PLAN & ELEVATION
S.B.I. RTE.103 OVERTOWN BRANCH
S.B.I. RTE.103 SECTION 101 BR
SCHUYLER CO.
STA: 78+05.00



Drainage area 9344 ac.
Character: hilly, clay, wooded
Present opening 819 sq. ft.
Required opening 819 sq. ft.
Presented opening 819 sq. ft.

$f_c = 1,200$ psi (Deck slab)
 $f_c = 1,400$ psi (Curb, Parapet, Sub.)
 $f_s = 20,000$ psi (Reinf.)
 $f_s = 27,000$ psi (Struct. M-22.2)
 $n = 10$

$f_c = 4,500 \text{ psi}$
 $f_c = 1,800 \text{ psi}$
 $f_s = 20,000 \text{ psi}$
 $n = 8$

Loading H520-44
Allow 25 #/d' for future W.S.
Design Specifications 1973 AASHTO, as
applicable.

DESIGNED	<i>Amr Am Lee</i>	DECEMBER 10 1974
CHECKED	Suresh Desai	EXAMINED <i>AS</i> <i>AMR S</i>
DRAWN	V.H. S.S.	RECOMMENDED FOR GRADING AND SURVEY PROPOSAL
CHECKED	S.D. <i>Lee</i>	APPROVED

ROUTE NO.	METHOD	SUBJECT	TOTAL # SHEETS	SPACE IN
2.2.1 P. 47	101BR	SCHUYLER	33	0
FOR ROAD DIST. USE		SLIPST	FOR AIR PHOTOGRAPHY	

SHEET NO. // SHEETS



085-0025

6-52, 171

Bench Mark: Chiseled "a" on N.W. wingwall of bridge over Williams Creek 16.0 feet left of Sta. 142+27.00, Elev. 594.10 -

Existing Structure: #085-0025 Built as S.B.I. Rte. 101, Section 119-B at Station 143+00 in 1928. The existing (3 simple spans) R.C.D.G. superstructure 24'-8" wide by 144'-0" long shall be removed and the existing substructure modified to carry a new widened W24 beam superstructure. Stage construction shall be utilized so as to maintain one way traffic during reconstruction. No salvage

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE	BY	CHKD	APPD	SHEET NO.
10/26/88	SCOTT J. ELLIS	36	0	16 SHEETS

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts 7/8" open holes 5/8". Unless otherwise noted.

Calculated weight of Structural Steel M-183 = 15,150 Lbs.

M-223 = 75,400 Lbs.

The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.

The structural steel bearing plates of the Elastomeric Bearing Assembly and the Fixed Bearing shall conform to the requirements of AASHTO M-223, 6-50.

The back face of Closed Abutments shall be waterproofed according to Article 503.11 of the Standard Specifications.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports.

Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2.

These Components are the wide flange beams (W24x84) and all splice plate material of the wide flange beams.

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.

Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials.

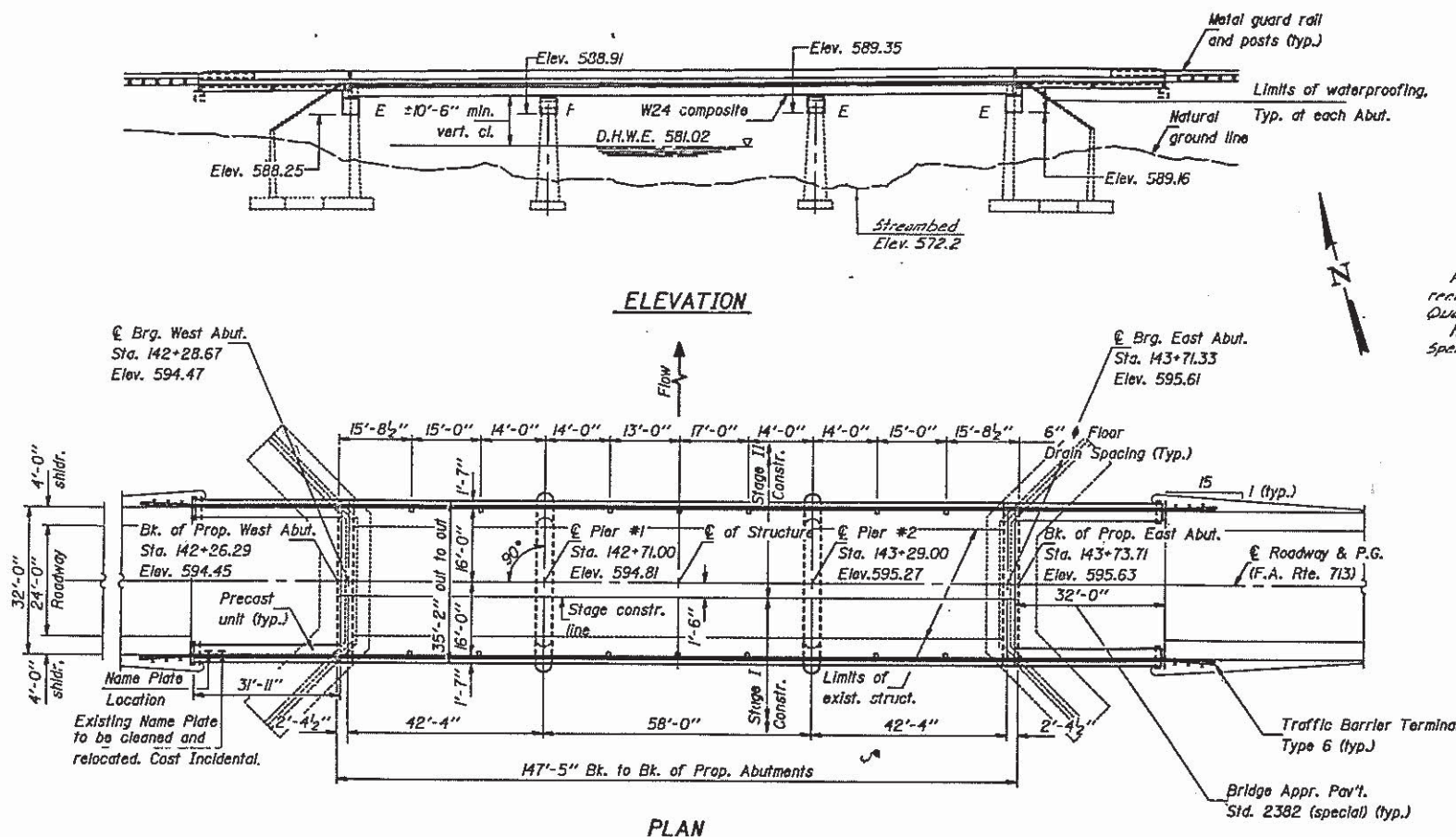
Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/4 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of top plate shall be provided and placed as detailed.

Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,000 lbs. and 3/4" x 12" hooked bolts.

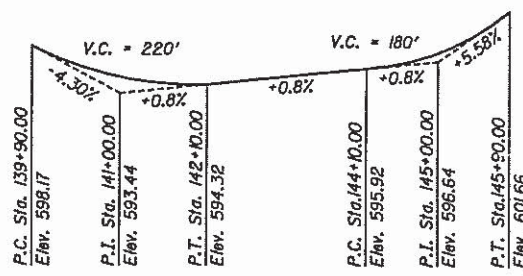
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Class X Concrete	Cu. Yd.		58.3	58.3
Reinforcement Bars	Lbs.		6920	6920
Reinforcement Bars (Epoxy Coated)	Lbs.	39310	40	39350
Temporary Bridge Roll	Lin. Ft.	144		144
Elastomeric Bearing Assembly, Type I	Each		12	12
Elastomeric Bearing Assembly, Type II	Each		6	6
Floor Drains	Each	14		14
Name Plates	Each	1		1
Stud Shear Connectors	Each	2232		2232
Preformed Joint Seal 2 1/2"	Lin. Ft.	35		35
Preformed Joint Seal 4"	Lin. Ft.	35		35
Protective Coat	Sq. Yd.	117		117
Epoxy Crack Sealing	Lin. Ft.		73	73
Removal of Existing Superstructure	Each	1		1
Structure Excavation	Cu. Yd.		34	34
Concrete Removal	Cu. Yd.		25	25
Structural Steel	L.S.	1		1
Precast Concrete Bridge Slab	Sq. Ft.	479		479
Expansion Bolts (3/4")	Each		96	96
Furnishing Steel Piles HP8x36	Lin. Ft.		26	26
Bridge Seat Sealer	L.S.		1	1
Class X Concrete Superstructure	Cu. Yd.	170.0		170.0



GENERAL NOTES CONTINUED
All seat areas of abutments shall receive Bridge Seat Sealer. Estimated Quantity = 123 Sq. Ft.
For Cantilever Forming Brackets see Special Provisions.

6 beams



PROFILE GRADE

(Il. Route 101 - F.A. Route 713)

STATION 143+00.00
BUILT 198 BY
STATE OF ILLINOIS
F.A. RTE. 713 SEC. 119BR
F.A. PROJ.
LOADING HS20
STR. NO. 085-0025
NAME PLATE
See Std. 2113

Note: For quantity of Temporary Concrete Barrier see the Roadway Plans.

DESIGN STRESSES

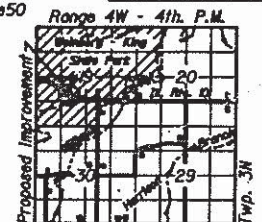
Field Units
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinf.)
fy = 50,000 p.s.i. (struct. steel) AASHTO M-223-Grade 50
fy = 36,000 p.s.i. (struct. steel) AASHTO M-183
Precast Units
f'c = 4,500 p.s.i.
fc = 1,800 p.s.i.
fs = 20,000 p.s.i. n=8

DESIGN SPECIFICATIONS

AASHTO 1983, 1984 & 1995 Interims

LOADING HS20-44

(New Construction)
Allow 25#/sq. ft. for future wearing surfaces.



LOCATION SKETCH

GENERAL PLAN
ILLINOIS ROUTE 101 OVER
WILLIAMS CREEK
F.A. ROUTE 713 SECTION 119BR
SCHUYLER COUNTY
STATION 143+00.00
STRUCTURE NO. 085-0025

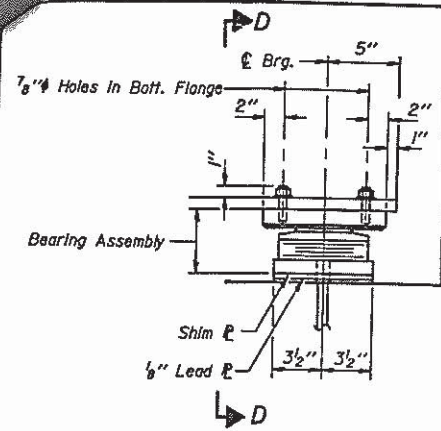
DESIGNED *Dudley*
CHECKED *Kelly J. Hughes*
DRAWN *RON BORDEN*
CHECKED *DKM*
APPROVED *James H. Hughes*
DIRECTOR OF HIGHWAYS

WATERWAY INFORMATION

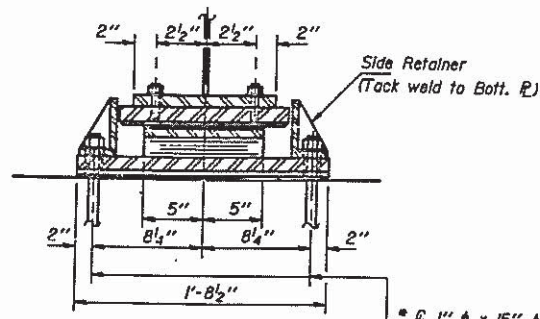
Drainage Area = 30.0 sq. mi. Low Grade Elev. 594.24 @ Sta. 142+00									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Prop. H.W.E.	Prop. Exist. Prop.	Headwater El.	Prop. Exist. Prop.
Design	50	4635	836	836	581.0	0.02	0.02	581.02	581.02
Base	100	5306	916	916	581.6	0.0	0.0	581.6	581.6
Overtopping									
Max. Calc.	500	6867		1076	582.8		0.0		582.8

AS REVISED: 7-20-88 R.E.A.

$\frac{3}{4}$ " ϕ Granular or solid
flux filled headed studs, conforming
to the requirements of Art. 710.3B of the
Standard Specifications, automatically end
welded to flange. (No. Req'd. 2232)

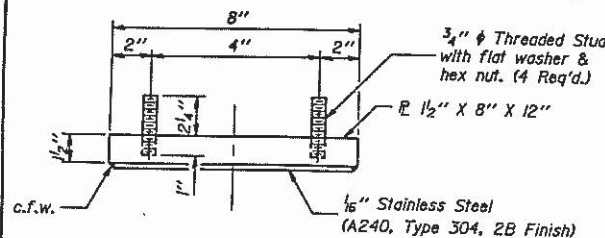


ELEVATION AT E. ABUT.

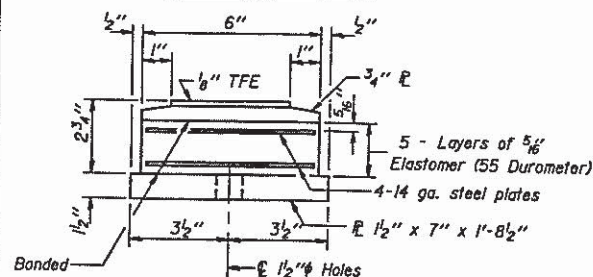


SECTION D-D

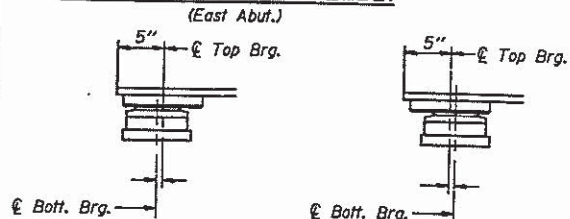
TYPE II TFE ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY



BOTTOM BEARING ASSEMBLY



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

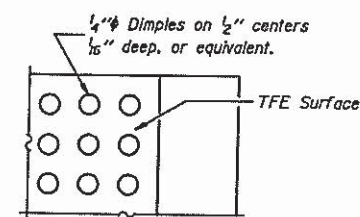
SETTING ANCHOR BOLTS AT EXP. BRG. AT EAST ABUT.

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

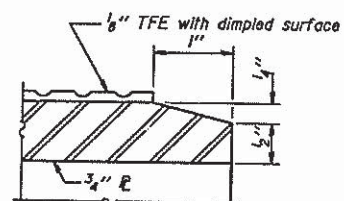
DESIGNED: *OKM/M*
CHECKED: *OKM/M*
DRAWN: *R.S.*
CHECKED: *DKM*

I-2-E2 12-1-83

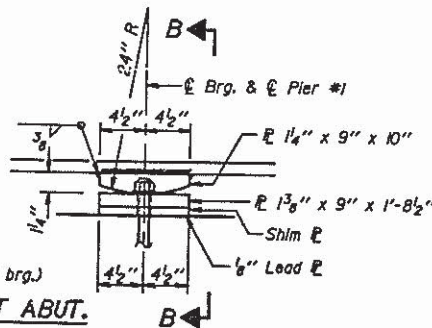
AS REVISED: 7-20-88 R.E.A.



PLAN-TFE SURFACE



SECTION THRU TFE



ELEVATION AT PIER #1

FIXED BEARING

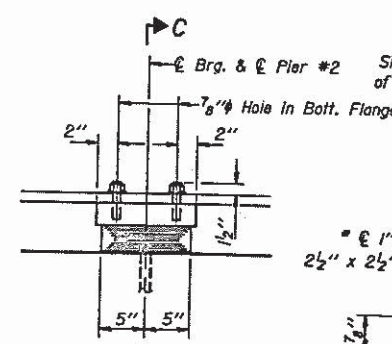
DEPARTMENT OF TRANSPORTATION
STATE OF ILLINOIS

* Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet #13 of 16 for Anchor Bolt Installation.
The Structural Steel bearing plates for the Elastomeric Bearing Assembly and Fixed Bearing shall be A.A.S.H.T.O. W223, Grade 50.

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 MM-A-144, 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.

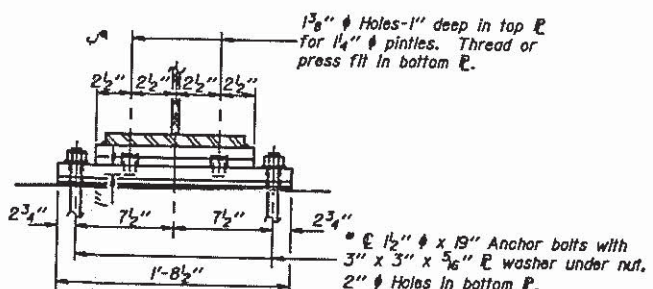
* 1" x 15" Anchor bolts with 2 1/2" x 2 1/2" x 5/16" washers under nut. 1/2" holes in bottom flange.



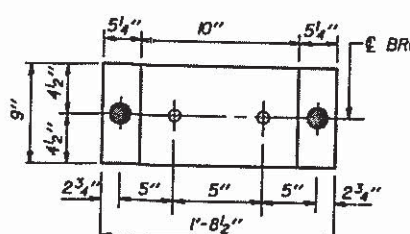
ELEVATION AT PIER #2

* 1" x 15" Anchor bolts with 2 1/2" x 2 1/2" x 5/16" washers under nut.

PINTLE

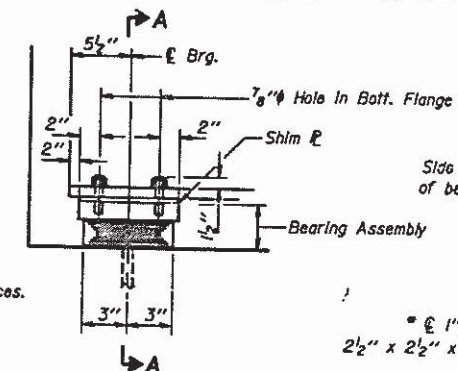


SECTION B-B



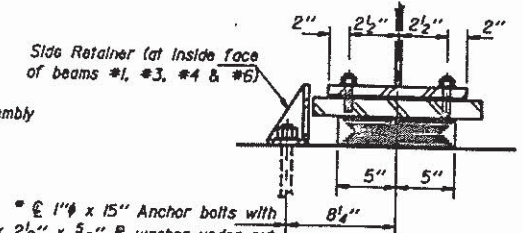
PLAN-BOTTOM PLATE

(Fixed Bearing)



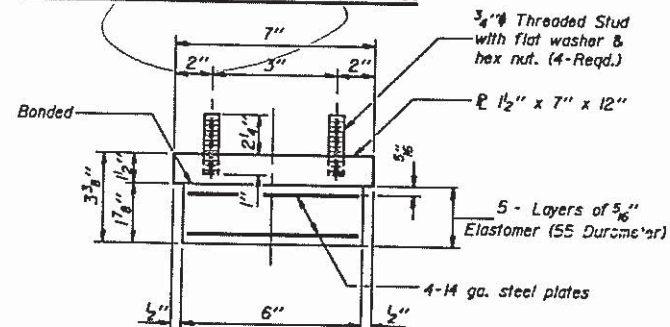
ELEVATION AT W. ABUT.

DATE	BY	CHKD	APP'D	SHEET NO.
7-15	119BR	SCHUYLER	26	20
				15 SHEETS



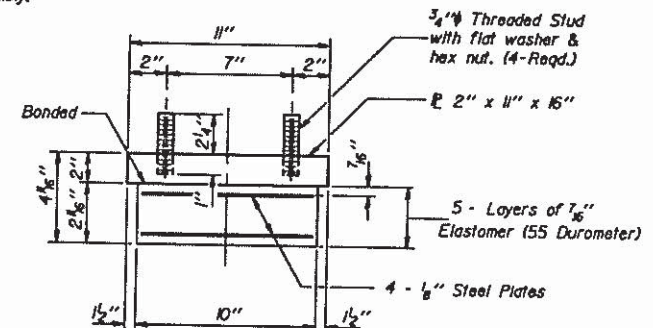
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

(West Abut.)



BEARING ASSEMBLY

(Pier #2)

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Elastomeric Bearing Assembly Type II	Each	6

BEARING DETAILS

F.A. RTE. 713 SECTION 119BR
SCHUYLER COUNTY
STA. 143+00.00

SIDE RETAINER

(20 Req'd)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

E.M. 72 " CUT too N.E. Corner too H.W. Minnwan of
Bridge I.P.R. 27. Sta. 11+13 Elev. 575.37
Existing Structure: R.C.T.G. 1 Span @ 50' clear with a 20' rdwy. on
R.C. closed abut. Bridge to be removed by Bridge
Contractor after N. half of proposed structure
is completed.
Salvage: None

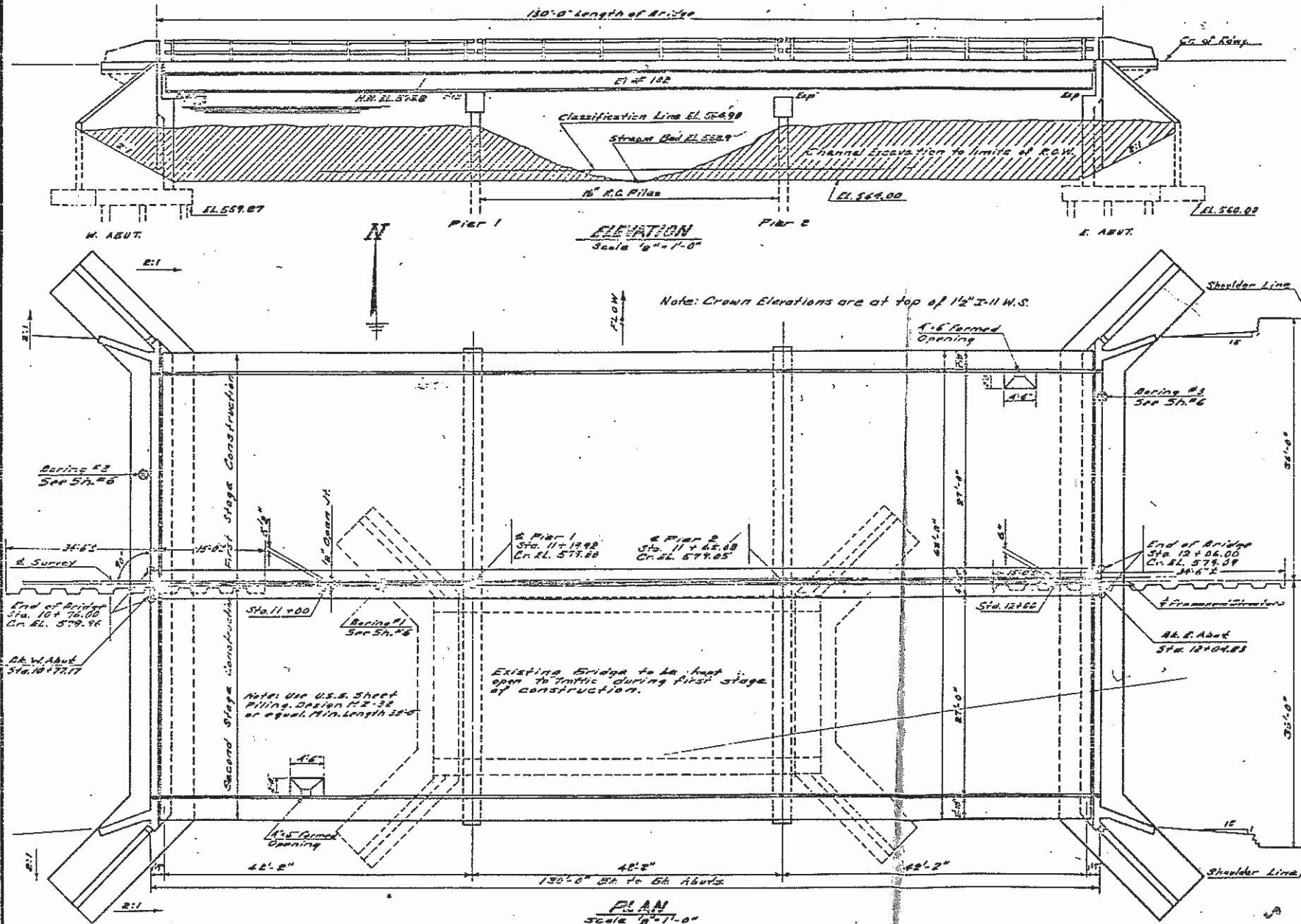
FORM NO. 1	SECTION	QUANTITY	TYPE (Indicate)	SHEET NO.
E.R.I. 10	25FR	Morgan	7	6
P.L.	33.65		14	6
FORM NO. 1	SECTION	QUANTITY	TYPE (Indicate)	SHEET NO.

SHEET NO. /
7 SHEETS

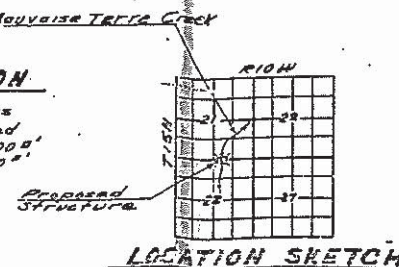
Class & Concrete shall be used thruout except in End Posts.
Handrail Concrete shall be used in End Posts.
The Concrete Floor Slab shall be poured in one continuous operation between joints and shall be finished in accordance with Art. 51.12 (a) of the Standard Specifications.
The Curb and Slab outside of Longitudinal Construction Joints shown on cross section, shall be poured monolithically.
No Transverse Construction Joints shall be made in the slab except by written permission of the Engineer.
Metal Handrail and Structural Steel shall receive one shop coat of red lead paint and two field coats of aluminum paint after inspection by the Illinois Division of Highways. See Article 57.1 to 57.5 inclusive of the Standard Specifications.
All paint shall be furnished and applied by the Contractor.
All I Beam Splices shall be subpunched $\frac{1}{4}$ " and reamed to proper size.
All I Beams shall be assembled to their proper grade and alignment, with or without diaphragms, and inspected and reamed while so assembled.
Rollings shall be adjusted to true alignment after Curb has been poured. All Rail Pads shall be vertical.
All Bolts, bearing Ribs, Keel Ribs, Flanges and Anchor Bolts shall be furnished, painted and set in accordance with Article 51.12 of the Standard Specifications and are included for payment as Structural Steel. Estimated weight of this steel 125,350 lbs.
Anchor Bolts shall be set before riveting diaphragms over abutments and piers.
Expansion Guards shall be fabricated and erected in accordance with Article 51.12(c) of the Standard Specifications.
All Metal Handrail, including Rail Post Anchors, is included for payment as Metal Handrail. The number of lineal feet is measured face to face of concrete and posts.
The Contract Unit Price for metal handrail includes installing and painting the handrail.
The Contractor shall drive & Test Piles, in permanent locations, as shown on plans before ordering or casting the remainder of Piles.
Wood Shoring shall comply with Article 55.4 (c) of the Std. Specs.
Back of Abutments and Wing Walls from top of embankment to bottom of Walls shall be water-proofed in accordance with Article 51.22 of the Standard Specifications.
Boring Data are given on the plans and are given to Bidders in estimating soil conditions which may be encountered in the work.



ITEM		SUPER	SUB	TOTAL	TOTAL
				500,388	556,388
Class X Concrete	Cu.Yds	2078	446.6	622.8	
Hardpan Concrete	Cu.Yds	18		18	
Reinforcement Bars	Lbs.	32,770	24,500	69,270	
Structural Steel	Lbs.	155,380		155,380	155,380
Hot-Set Handrail	Lin.Ft	859		859	859
Name Plates	EA	1		1	
16" Precast Concrete Piles	Sq.		800	800	
16" Precast Conc. Test Piles	Sq.		2	2	
Class A Excavation for Street Curb			1,080	1,080	
Class B Excavation for Street Curb			820	820	
Channel Excavation	Cu.Yds		3,500	3,500	
Removal of Existing Structure	EA			1	
Undrained Timber Piles	Lin.Ft		4,450	4,450	
Test Piles (Timber)	EA		2	2	
Temporary Steel Street Piling	Sq.Ft		3,760	3,760	



Drainage Area-----21,600 Acres
Character-----Rolling, Cultivated
Required Opening@3 yr. Flood-----1200"
Present Opening-----430"
Proposed Opening-----1283"



$f_C = 1400^{\text{sq. ft.}} \text{ Super}$
 $f_D = 300^{\text{sq. ft.}} \text{ Sub.}$
 $f_E = 20,000^{\text{sq. ft.}} \text{ Roof.}$
 $f_F = 10,000^{\text{sq. ft.}} \text{ Struct.}$
 $n = 10$

STATION 11+41
BUILT 195 BY
STATE OF ILLINOIS
S.B.I. #110-353325
P.A. PRODUCT 0-4576
LOADING 280-516
DATA
2000 JAN 21/3

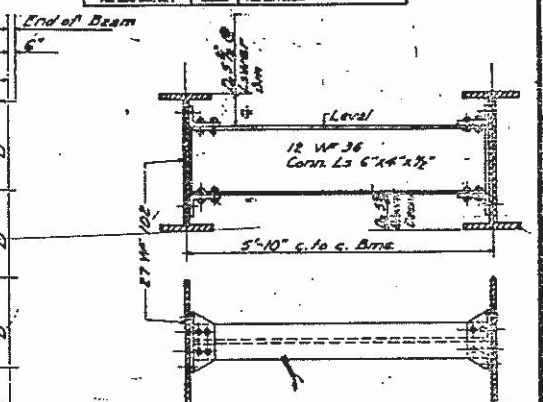
BRIDGEPORT
MAVIALE TEBECCHIN
S. T. ELIO - SEC. REP. FA
R. A. FROST - U. TECH.
MORGAN COUNTY
STATION #141

DESIGNED <i>Pearson</i>	EXAMINED <i>W. B. R. [Signature]</i>
CHECKED <i>OK</i>	EXAMINED BY PEOPLE AND TRAFFIC STRUCTURES
DRAWN <i>G. W. [Signature]</i>	PASSED <i>[Signature]</i>
CHECKED <i>OK H. [Signature]</i>	APPROVED <i>R. B. [Signature]</i>

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 069-0009 (FOR INFORMATION ONLY)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C:\OPERATIONS\Bridgplans\CA0\72H37 - beam end paint FY15 CM\plansheet.dgn		DRAWN -	REVISED -			VAR. 06 BDGE PAINTING 2015-1	VARIOUS	58	51	
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -			CONTRACT NO. 72H37				
Default	PLOT DATE = Aug-28-2014 01:44:16PM	DATE -	REVISED -			SCALE: _____	SHEET _____ OF _____ SHEETS	STA. _____ TO STA. _____	ILLINOIS FED. AID PROJECT	

STATE NO.	SECTION	SUBJECT	TOTAL SHEETS	SHEET NO.
ELL 10 A.A.	335A 335B	Morgan	7 14	6 8

SHEET NO. 3
/ SHEETS

[illegible]

of Burma Mt 1' into Gulf R.

1-7

BOTTOM R AT BELTS.
As Required

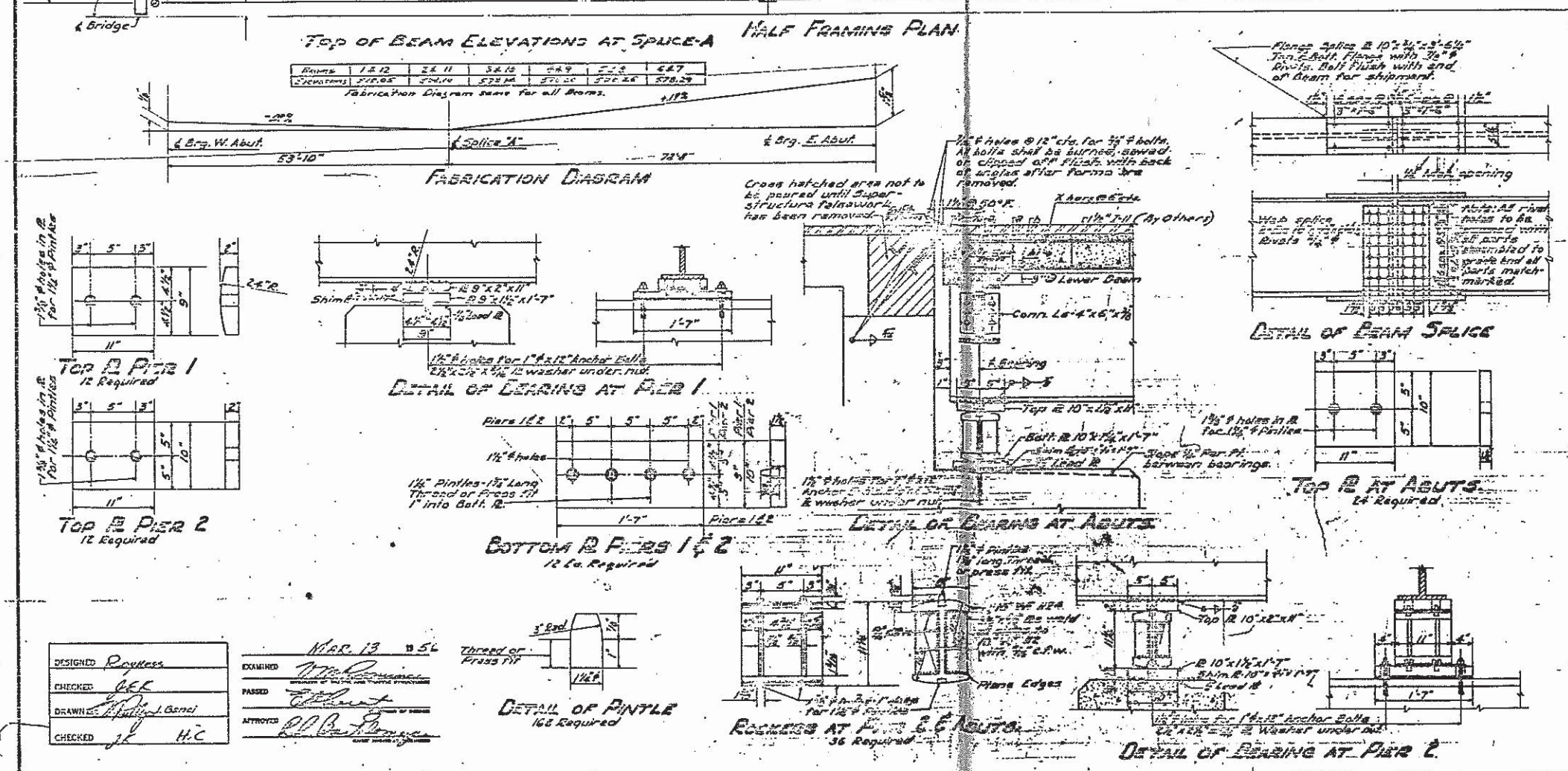
Location	H	D	E	S	I	O	N	A	R	C	T
Beam No.	1	8	3	4	5	6	7	8	9	10	11
1-1-1-1-1-1-1-1-1-1-1-1	a	b	c	d	e	f	g	h	i	j	k

BILL OF MATERIAL
Structural Steel 175,360 Lbs.

DETAILS
BRIDGE OVER
MALVAISE TERRE CREEK

S.B. Rt. 10 Sec. 33 DR-PR
MORGAN COUNTY
STATION 11-41

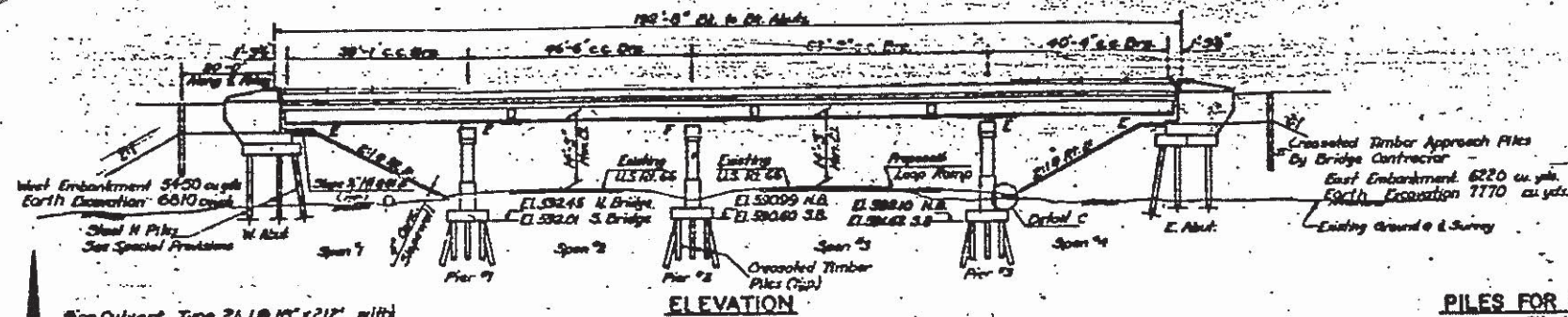
MAR. 13 1956
 EXAMINED *Wm. J. ...*
 PASSED *E. J. ...*
 APPROVED *R. B. ...*
 (Signature)



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

DATE	BY	CHKD	APPD	REV
10-24-2014	J. M. Smith	J. M. Smith	J. M. Smith	1

SHEET 1 OF 10



Pipe Culvert, Type 2A, 10' x 21' with
Std. F76-D-10-2
US. F.L. EL. 593.84 H2 LK Sta. 673+31.31
D.S. F.L. EL. 593.14 100' R/L Sta. 673+34.64
Included in Sec. 04-31B-4
C.I. X Concrete (Headwall) = 1.3 Cu. Yds.
Reinforcement Bars = 60 lbs.

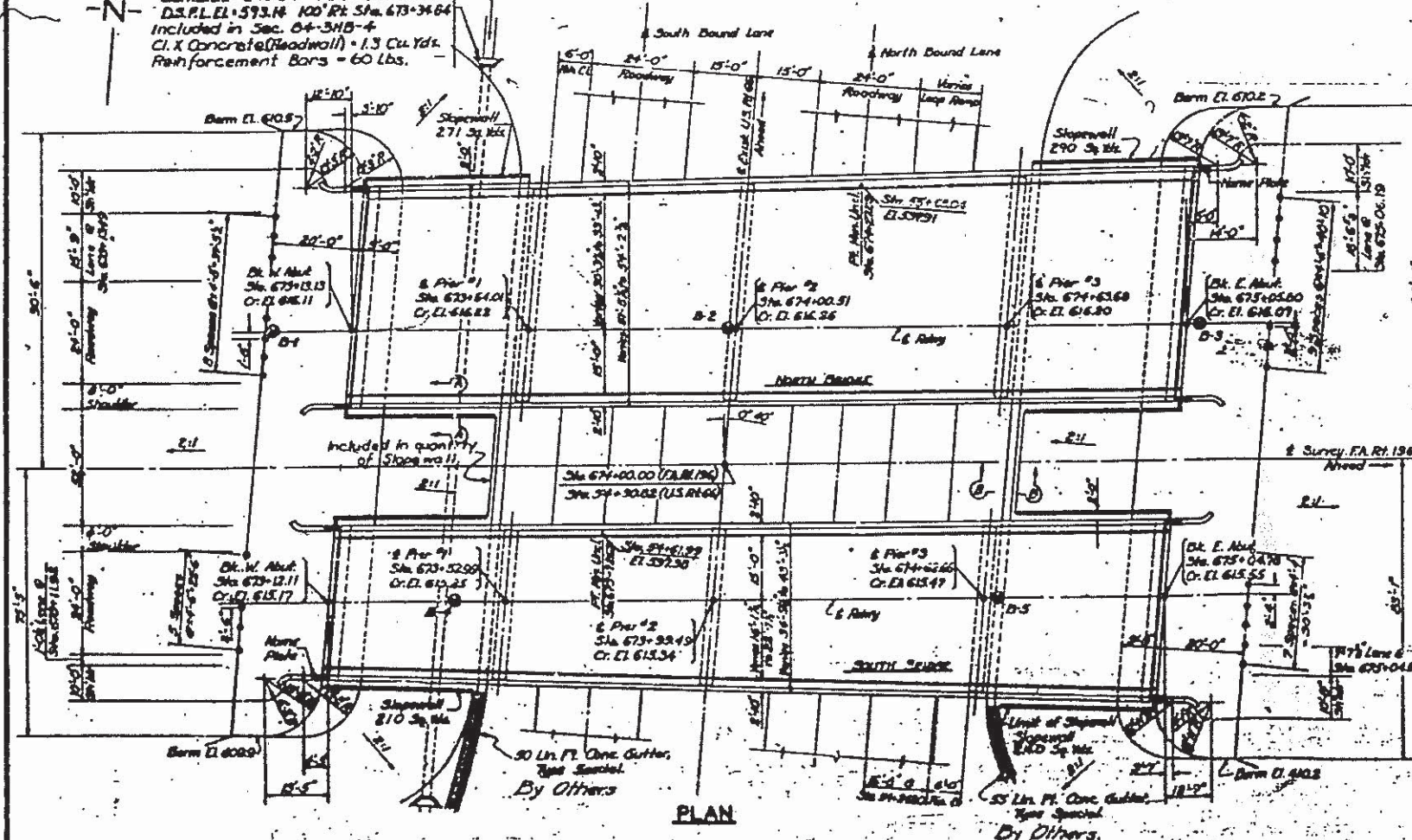
ELEVATION

PILES FOR METHOD II

Standard P108-3
Type - Grouted
Min. Capacity - 15 Tons
Est. Length - 30 FT
No. Req'd - 33
990 Lin. Ft. Total

LETTERING FOR NAME PLATE

STATION 674+00
BUILT BY
STATE OF ILLINOIS
F.A. RT. 196 SEC. 04-31B-4
EA. PROJ. U-277(1)
LOADING: H20-316



PLAN

PROFILE OF WEST BOUND F.A. RT. 196

@ Median Edge of Pavement

PROFILE OF EAST BOUND F.A. RT. 196

@ Median Edge of Pavement

PROFILE OF SOUTH BOUND U.S. RT. 66

@ Median Edge of Pavement

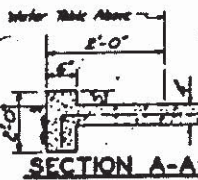
PROFILE OF NORTH BOUND U.S. RT. 66

@ Median Edge of Pavement

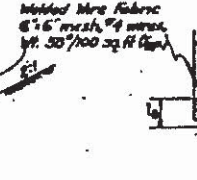
DESIGN STRESSES

L = 1408 p.s.f.
L = 20,000 p.s.f. (Roof)
L = 10,000 p.s.f. (Struct)
V = 25 p.s.f. (Footings)
H = 10

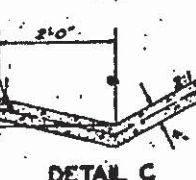
Loading: H20-316-44



SECTION A-A



SECTION B-B



DETAIL C

NOTE:
For Bearings, General Notes,
and Bill of Material see Sh. 2 of 19

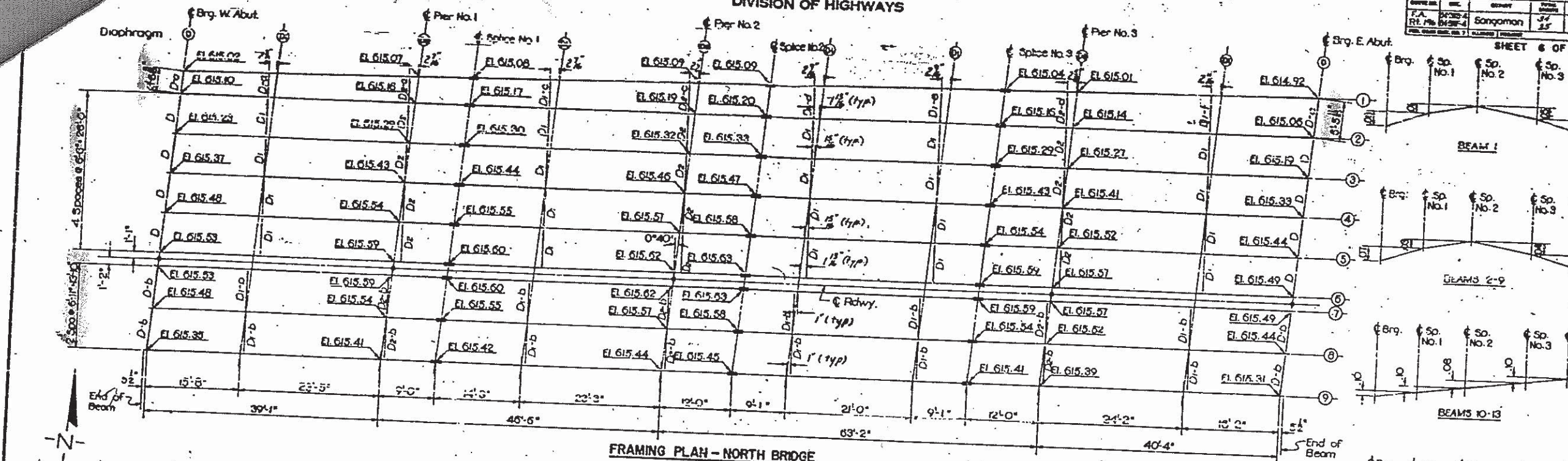
James C. Rice
Illinois Structural #2194

GENERAL PLAN & ELEVATION
F.A. RT. 196 OVER U.S. RT. 66
PROJECT U-277(1)
F.A. ROUTE 196 SEC. 04-31B-4
SANGAMON COUNTY
STATION 674+00

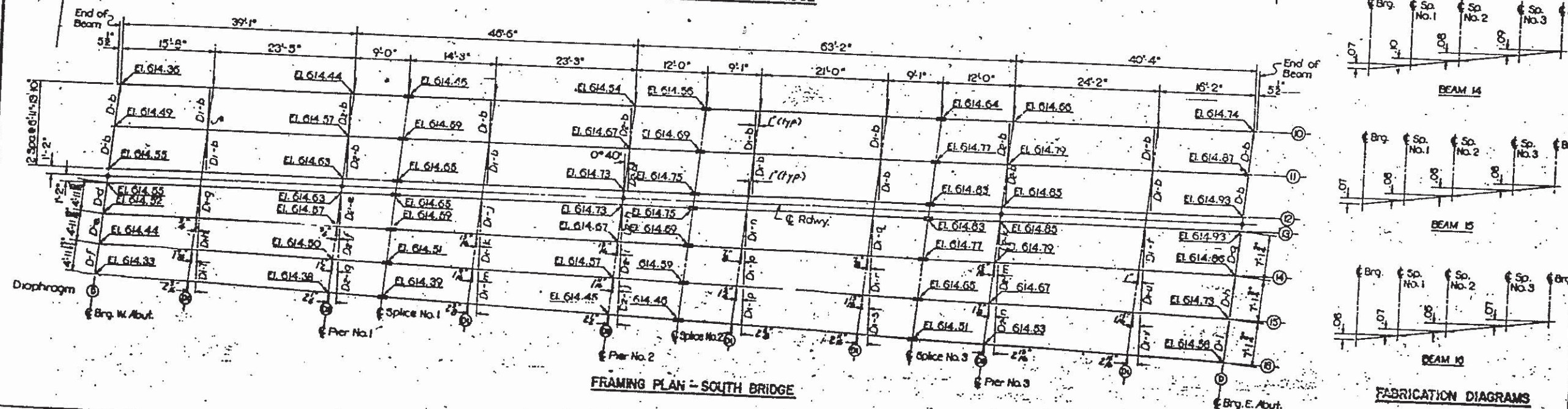
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	REVISION	BY	REVISION
10/25/04	RL	1	RL	1
11/15/04	RL	2	RL	2

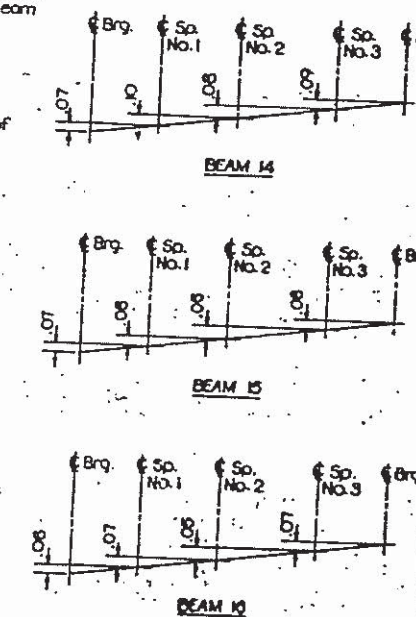
SHEET 6 OF 11



FRAMING PLAN - NORTH BRIDGE



FRAMING PLAN - SOUTH BRIDGE



FABRICATION DIAGRAMS

Notes:
All beams 33 W 130
All elevations shown are
given at the top of the top flange of
the beams @ Brg. or @ Splice.
Diaphragms D₁ & D₂ to be perpendicular
to & Rdwy.
Work this sheet with sheet 7 of 19

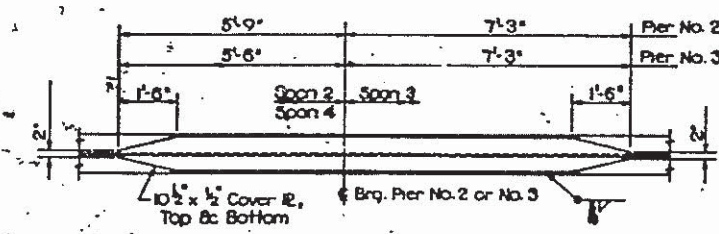
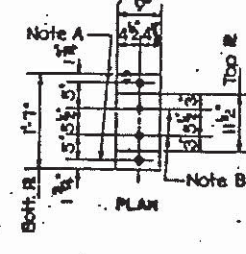
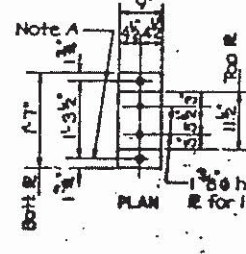
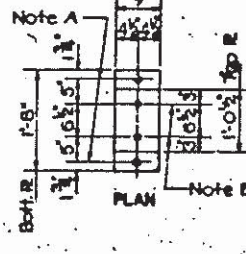
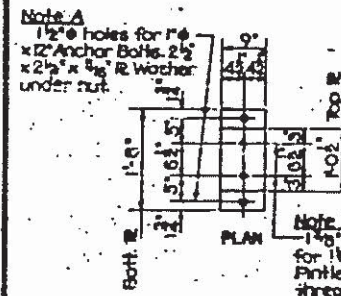
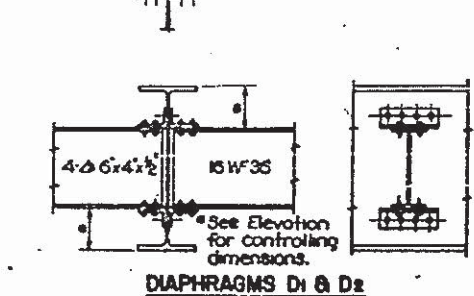
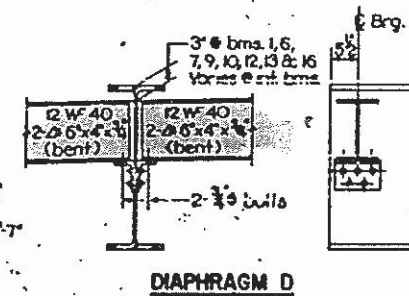
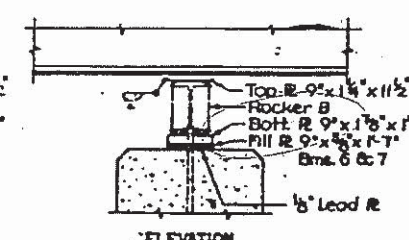
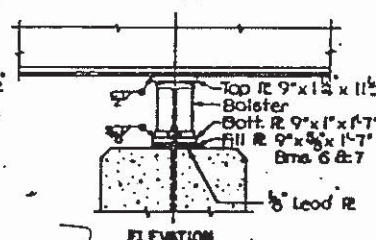
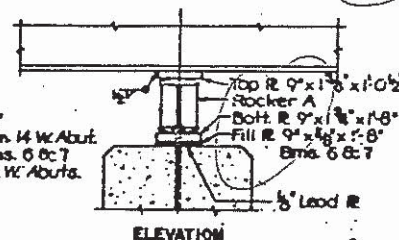
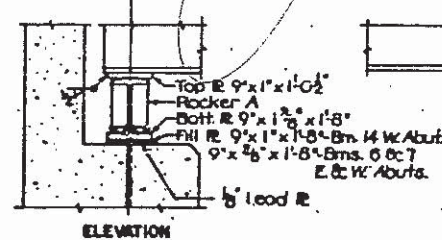
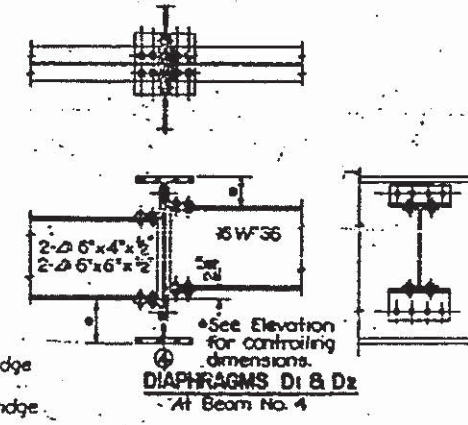
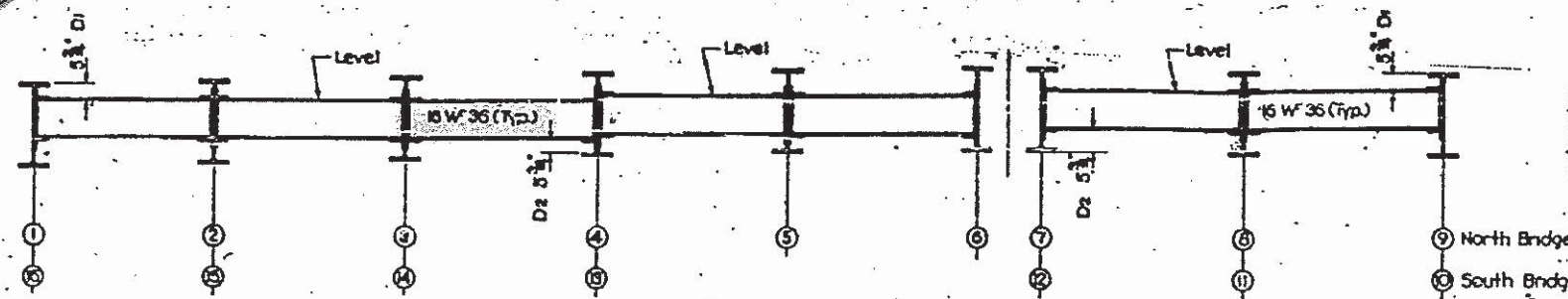
STRUCTURAL STEEL
F.A. RT. 196 OVER U.S. RT. 66
F.A. ROUTE 196 SEC. 84-3HB-4-F
SANGAMON COUNTY
STATION 674+00

DESIGNED	RLS
CHECKED	RLS
DRAWN	D.P.O.
THICKER	RLS

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

DATE	BY	CHECKED	APPROVED	SCALE
10/1/10	JAC	JAC	JAC	1" = 10'
10/1/10	JAC	JAC	JAC	1" = 10'

SHEET 7 OF 10

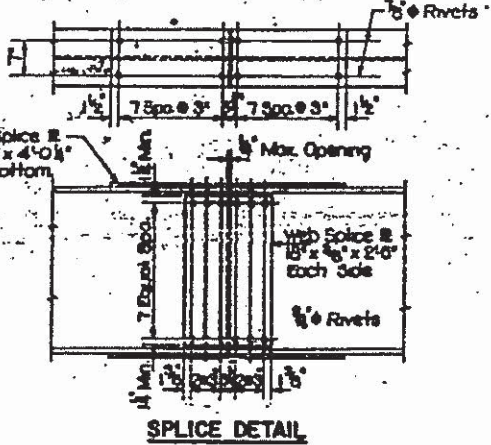
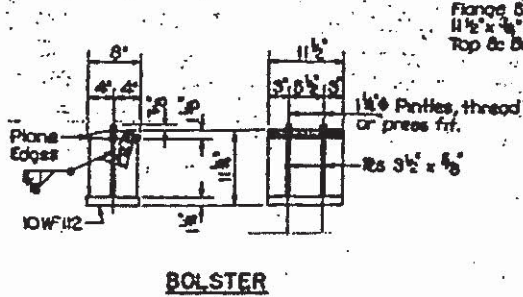
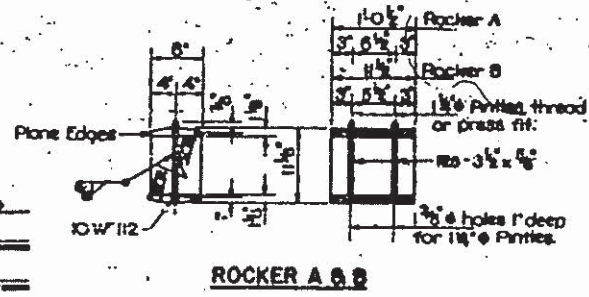
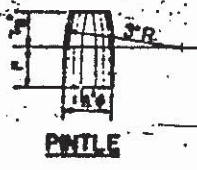


ABUTMENTS

PIER 1

PIER 2

PIER 3

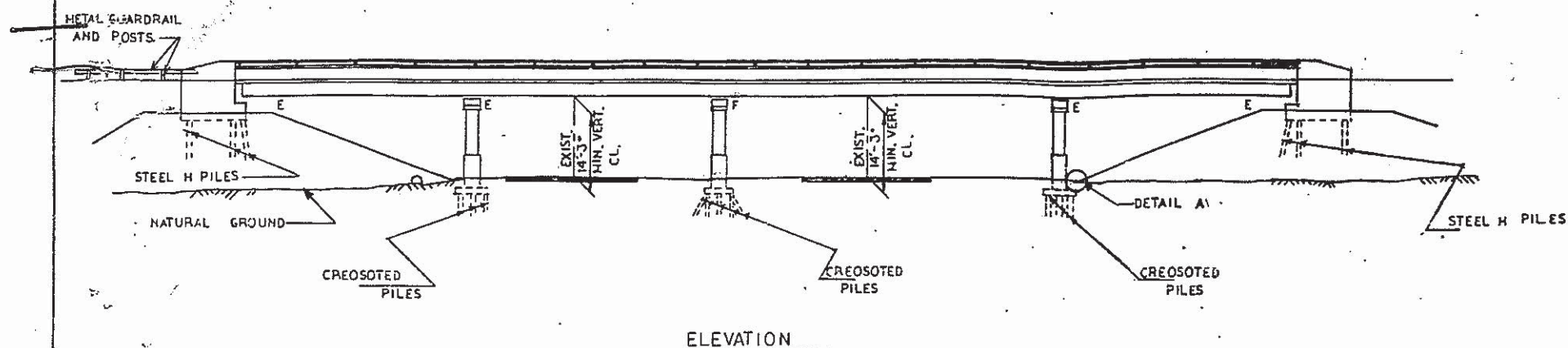


STRUCTURAL STEEL DETAILS
F.A. RT. 196 OVER U.S. RT. 66
F.A. ROUTE 196 SEC 84-3B-4-F
SANGAMON COUNTY
STATION 674+00

084-0077

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 319	*	SANGAMON	4	2
SANGAMON COUNTY, ILLINOIS				

* (84-9-4HB-2) I

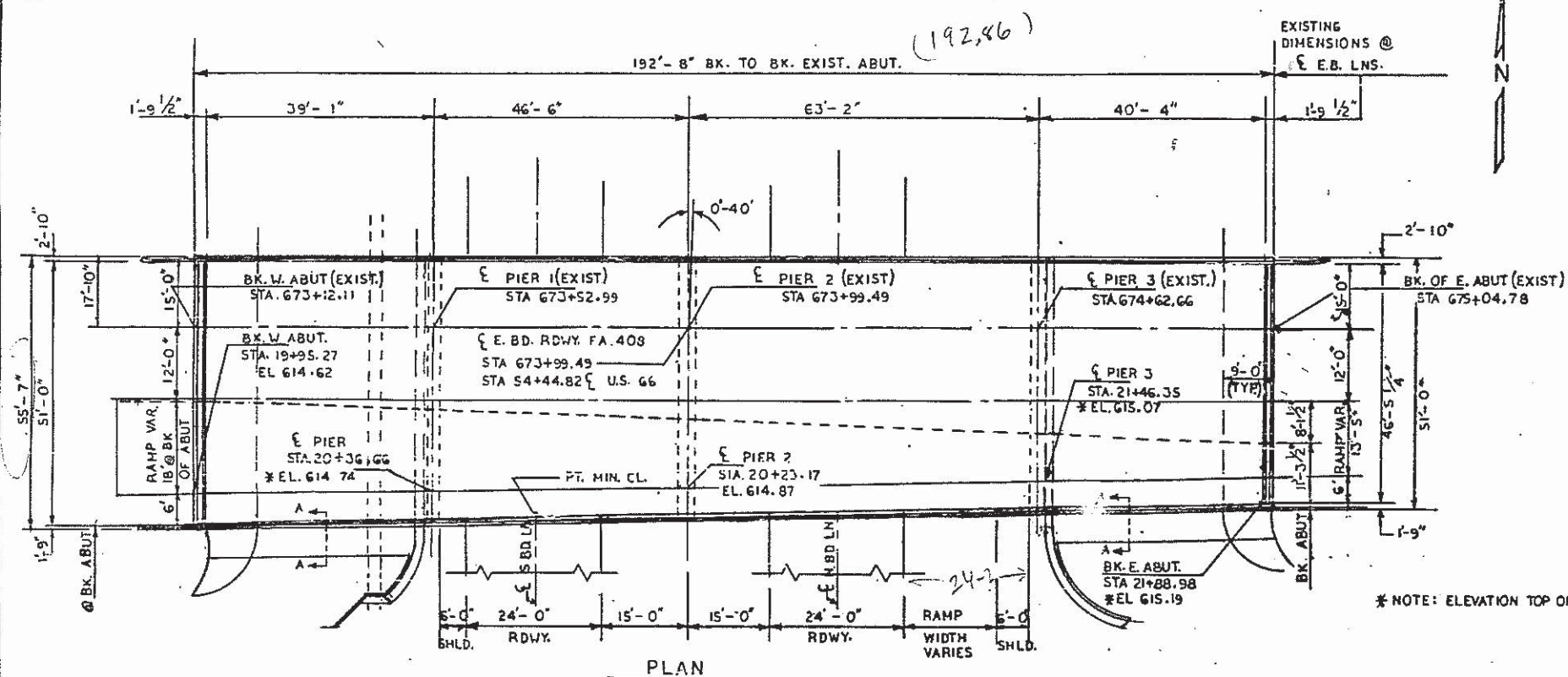


GENERAL NOTES

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO CLASSIFICATION M-31, M-42 OR M-53 GRADE 60. TRAFFIC CONTROL SHALL BE DETERMINED BY THE DISTRICT. PRIOR TO POURING THE NEW CONCRETE FOR THE DECK, ALL LOOSE RUST, LOOSE MILL SCALE, LOOSE PAINT AND ALL OTHER FOREIGN MATERIAL SHALL BE REMOVED FROM THE EMBEDDED PORTIONS OF FLANGES OF STRINGERS (GIRDERS). THE REMOVAL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SSPC SURFACE PREPARATION SPECIFICATIONS SP11 FOR POWER TOOL CLEANING OR SP2 FOR HAND TOOL CLEANING. COST SHALL BE INCIDENTAL TO CONCRETE REMOVAL.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

EXPANSION JOINT PLATES AND ATTACHED BARS SHALL BE SHOP PAINTED WITH THE ZINC-SILICATE PRIMER.



* NOTE: ELEVATION TOP OF CLASS I

EXAMINED	1997
DISTRICT TRAFFIC ENGINEER	1997
EXAMINED	1997
DISTRICT MAINTENANCE ENGINEER	1997
EXAMINED	1997
DISTRICT CONSTRUCTION ENGINEER	1997
EXAMINED	1997
DISTRICT MATERIALS ENGINEER	1997
EXAMINED	1997
DISTRICT DESIGN ENGINEER	1997

EXAMINED	1997
DISTRICT TRAFFIC ENGINEER	1997
EXAMINED	1997
DISTRICT MAINTENANCE ENGINEER	1997
EXAMINED	1997
DISTRICT CONSTRUCTION ENGINEER	1997
EXAMINED	1997
DISTRICT MATERIALS ENGINEER	1997
EXAMINED	1997
DISTRICT DESIGN ENGINEER	1997

GENERAL PLAN & ELEVATION
EAST-BOUND BRIDGE
F.A. ROUTE 319 (U.S. 36)
SECTION (84-9-4HB-2) I
SANGAMON COUNTY
STATION 673+99.49

FILE NAME =	USER NAME = dudleygm	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 084-0076 & 084-0077 (FOR INFORMATION ONLY)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Q:\OPERATIONS\Bridges\plans\CAD\72H37 - beam end point FY15 CH\plans\sheet.dgn		DRAWN - _____	REVISED - _____							
PLOT SCALE = 100.0000' / 1" =		CHECKED - _____	REVISED - _____							
Default	PLOT DATE = Aug-20-2014 8:44:26PM	DATE - _____	REVISED - _____							
SCALE: _____		SHEET ____ OF ____ SHEETS		STA. _____ TO STA. _____						
						(ILLINOIS) FED. AID PROJECT				

FORM NO.	REVISION	QUANTITY	DATE, PERIOD	PRICE PER	SHEET NO. 6 13 SHEETS
A.L. A-406	64-9-4 418-21	Sargamam	109	40	
FOR: ROAD DIST. VOL. 7		REASON	FOR: AND PURPOSE		



5'-0" E Brg. W. Abut. E Pier #1 9'-0" E Pier #2 12'-0" E Pier #3 12'-0" E Brg. E. Abut. 5'-0"

3'-0" at 3' cts. = 9'-0" 3'-0" at 3' cts. = 9'-0"

24 Shear Stud spaces at 1'-4" cts. = 32'-0"

W27x114

E Splice #1 E Splice #2 E Splice #3

Diagram illustrating a shear stud connection. The slab thickness is 7". The studs are 3/4" diameter and 3" high. The fillet weld is 1/4" thick. The distance between studs is 3". The fillet varies. The text specifies: 3/4" Granular or solid flux filled headed studs automatically welded (No. Reg'd. 279).

Dim. Beams	L	A	B	C	D	E	F
1	189° 0"	39° 1"	46° 54"	63° 11"	40° 4"	17° 2"	17° 7"
2	189° 11"	39° 1"	46° 6"	63° 21"	40° 4"	18° 0"	18° 10"
3	189° 2"	39° 13"	46° 6"	63° 24"	40° 44"	14° 11"	19° 11"

JULY 24, 1973
 SEARCHED *[initials]*
 INDEXED *[initials]*
 SERIALIZED *[initials]*
 FILED *[initials]*
 AUG 7 1973
 FBI - NEW YORK
 RECORDED
 INDEXED
 7. KUSBAUM

STRUCTURAL STEEL
SOUTH BRIDGE
FA. RT. 408 SEC. 84-9-(1, 4 HB-21)
SANGAMON COUNTY
STATION 673+99.49

Survey No.	22749	Country	India	Sheet No.	13
S. & L. No.	1349-2 408	Sangamon	109	41	13 SHEETS

Loc. Beams	£ Brg. W. Abut.	£ Brg. Pier 1	£ Splice #1	£ Brg. Pier 2	£ Splice #2	£ Splice #3	£ Brg. Pier 3	£ Brg. Abut.
1	614.06	614.08	614.09	614.16	614.18	614.26	614.30	614.44
2	613.90	613.94	613.95	614.04	614.07	614.18	614.23	614.33
3	613.74	613.80	613.81	613.92	613.96	614.10	614.15	614.34

