06-10-2016 LETTING ITEM 115

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	1
	ILLINOIS	CONTRACT NO. 72J06		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

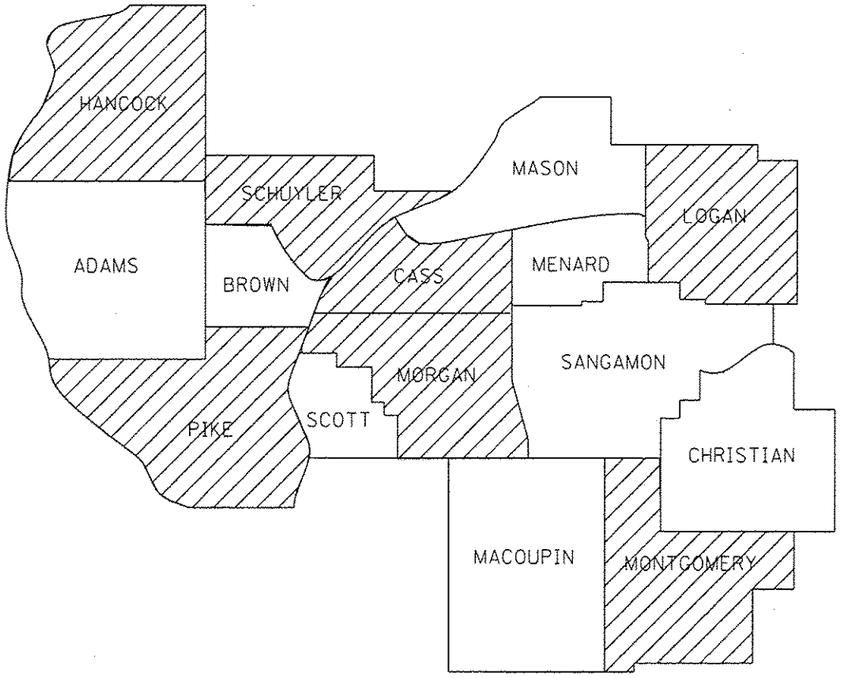
PROPOSED
CONTRACT MAINTENANCE

VARIOUS ROUTES
SECTION D6 BRIDGE PAINTING 2016

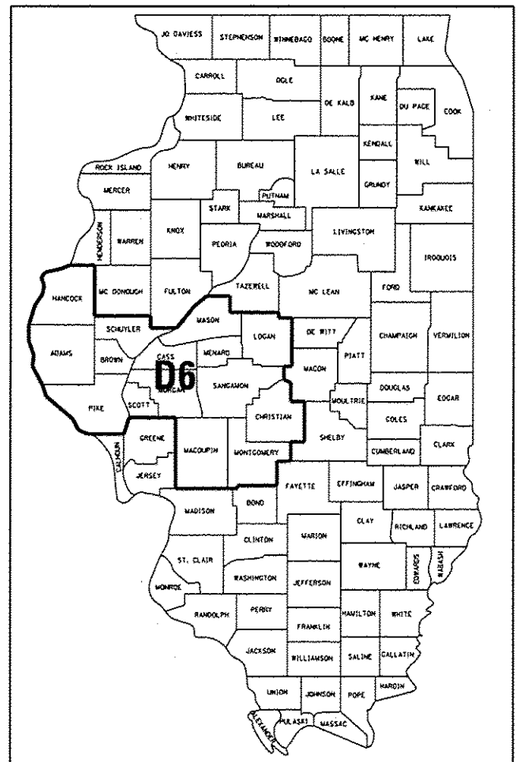
BRIDGE PAINTING
VARIOUS COUNTIES

C-96-043-16

FOR INDEX OF SHEETS, SEE SHEET NO. 2



D-96-043-16



LOCATION OF SECTION INDICATED THUS: –

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 3/23 2016
REGION FOUR ENGINEER
May 6 2016
ENGINEER OF DESIGN AND ENVIRONMENT
May 6 2016
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

GROSS LENGTH = NA
NET LENGTH = NA

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 72J06

INDEX OF SHEETS

HIGHWAY STANDARDS

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

GENERAL NOTES:

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 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.

2 THE USE OF AIR MONITORS WILL BE REQUIRED AT STRUCTURES SPECIFIED ON THE PLAN SHEETS. A MINIMUM OF 2 MONITORS WILL BE REQUIRED AT EACH SPECIFIED BRIDGE TO MONITOR ABRASIVE BLASTING OPERATIONS AT THOSE SITES. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

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.

4. THE SSPC-QP-1 AND SSPC-QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THESE BRIDGES.

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.

6. UPON COMPLETION OF PAINTING OPERATIONS AT EACH LOCATION, THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM PIER OR ABUTMENT CAPS UPON WHICH PAINTING OPERATIONS TOOK PLACE. FINAL CLEANUP SHALL BE CONSIDERED INCIDENTAL TO THE PAINT PAY ITEM FOR THE RESPECTIVE LOCATION. THE ENGINEER SHALL HAVE THE RIGHT TO WITHOLD PAYMENT UNTIL SATISFACTORY CLEANUP IS ACHIEVED.

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 March 17th 20 16
John C Wagamon
ENGINEER OF OPERATIONS

EXAMINED March 23 20 16
Ron Duchambeau
ENGINEER OF PROJECT IMPLEMENTATION

EXAMINED March 21 20 16
Jeffrey P Myers
ENGINEER OF PROGRAM DEVELOPMENT

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STANDARDS, GENERAL NOTES, & SIGNATURES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	2
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0-01623-6003 100% STATE 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

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0-01623-6003 100% STATE BRIDGE 0014 VARIOUS
Z0010511	CLEANING AND PAINTING STEEL BRIDGE NO. 11	L SUM	1	1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1

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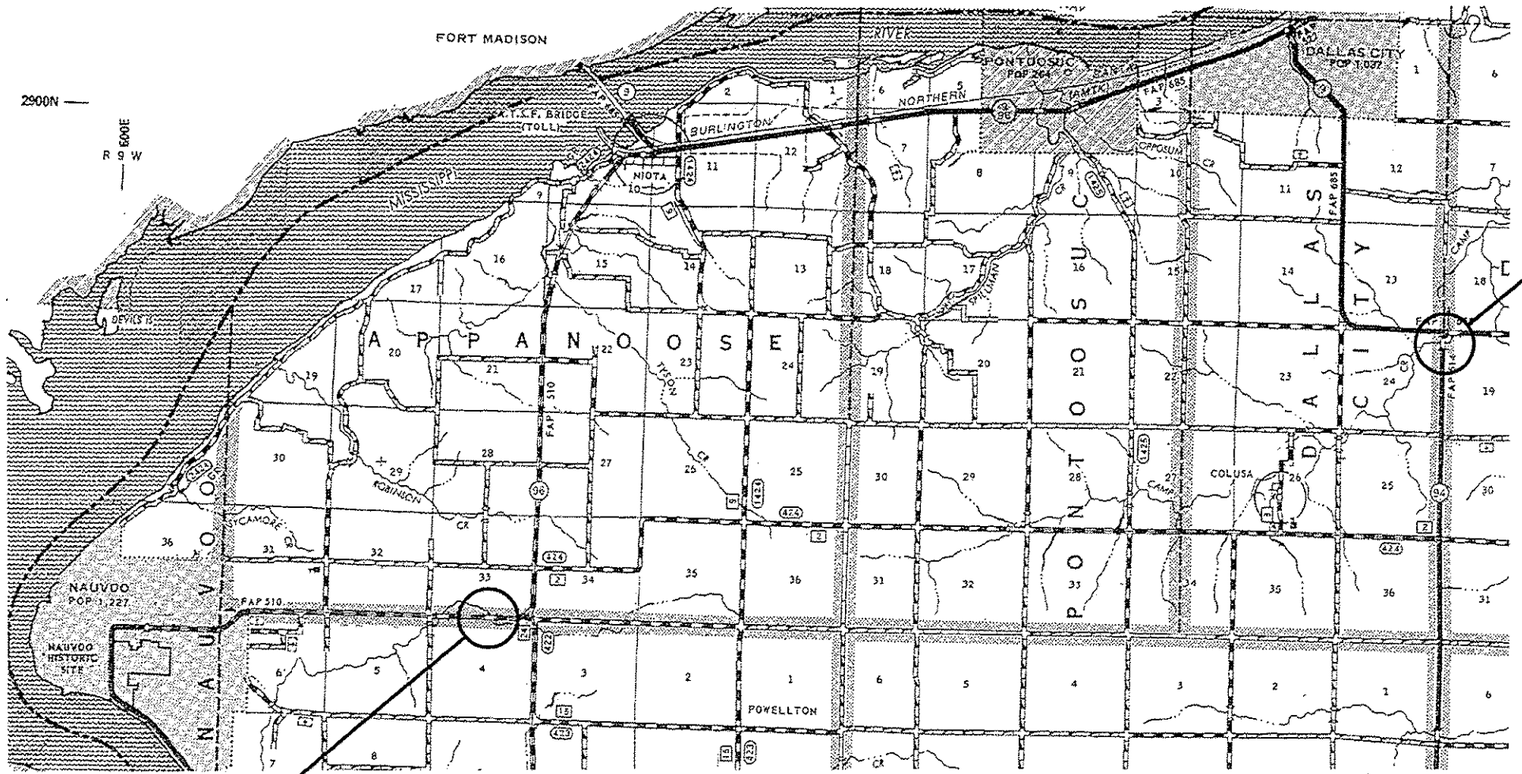
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	06 BRIDGE PAINTING 2016	VARIOUS	46	3
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			



HANCOCK COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 1
SN 034-0018, IL 96 OVER DRAINAGE DITCH
3.8 MILE EAST OF NAUVOO CENTER
40.5515°N 91.3155°W

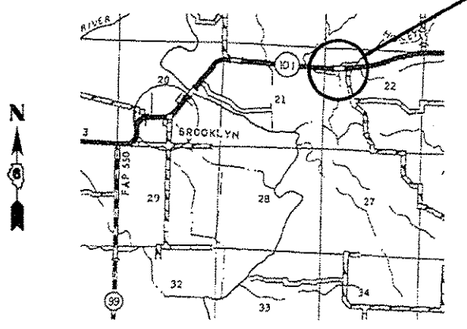
WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS. BEAM END PAINTING (12 ENDS) SHALL EXTEND 5' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR ALL AREAS SHALL BE GRAY.

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

CLEANING AND PAINTING STEEL BRIDGE NO. 2
SN 034-0060, IL 94 OVER CAMP CREEK
JUST SOUTH OF IL 9/94 JCT
40.5931°N 91.1376°W

WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT THE SOUTH ABUTMENT. BEAM END PAINTING (4 ENDS) SHALL EXTEND 10' FROM THE ENDS OF THE BEAMS LONGITUDINALLY. THE COLOR OF THE FINAL FINISH COAT FOR ALL AREAS SHALL BE GRAY.

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



SCHUYLER COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 3
SN 085-0026, IL 101 HONEY BROOK
2.4 MILES EAST OF IL 99
40.2328°N 90.7319°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 ALL AREAS SHALL BE GRAY.

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

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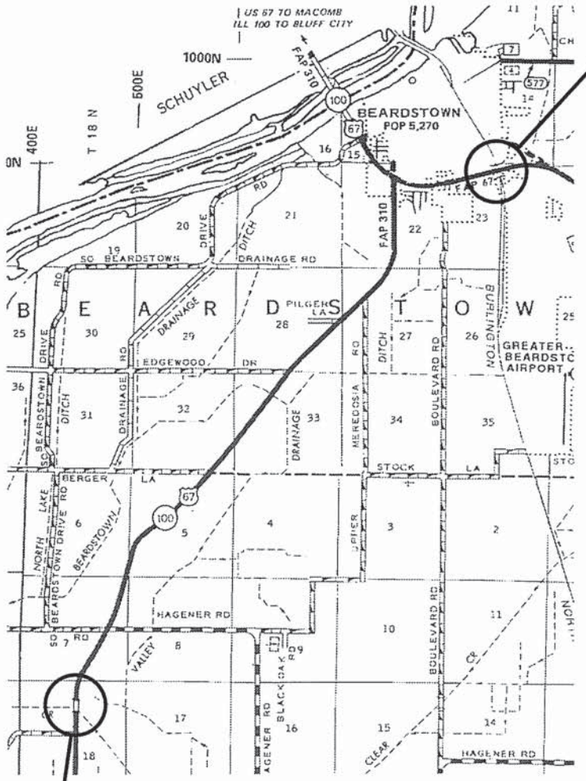
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -						VAR.	06 BRIDGE PAINTING 2016	VARIOUS	46	4
Default	PLOT DATE = 3/22/2016	DATE -	REVISED -		SCALE:	SHEET OF SHEETS	STA.	TO STA.			CONTRACT NO. 72J06		
											ILLINOIS FED. AID PROJECT		



CASS COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 4
SN 009-0002, IL 125 OVER BNSF RR
1 MILE EAST OF US 67 IN BEARDSTOWN
40.0052°N 90.4190°W

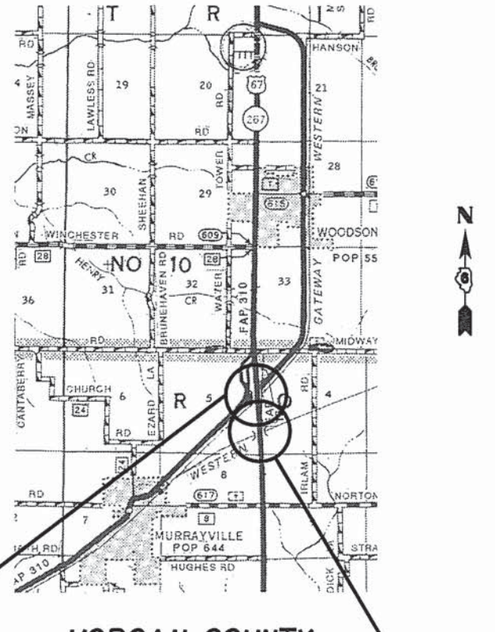
WORK SHALL CONSIST OF BLASTING AND PAINTING ALL BEAM ENDS, END DIAPRRAGMS OR CROSS FRAMES, AND STEEL COMPONENTS OF BEARINGS AT BOTH ABUTMENTS AND PIER 3. BEAM END PAINTING (32 ENDS) SHALL EXTEND 10' FROM THE ENDS OF THE BEAMS LONGITUDINALLY ON ALL FASCIA BEAMS. ALL OTHER BEAM ENDS SHALL BE PAINTED 5'. 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 AND RAILRAOD PROTECTIVE LIABLITY INSURANCE WILL BE REQUIRED.

CLEANING AND PAINTING STEEL BRIDGE NO. 5
SN 009-0012, US 67 OVER INDIAN CREEK
6 MILES SOUTH OF BEARDSTOWN
39.9305°N 90.4940°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 10' FROM THE ENDS OF THE BEAMS LONGITUDINALLY ON ALL FASCIA BEAMS. ALL OTHER BEAM ENDS SHALL BE PAINTED 5'. THE COLOR OF THE FINAL FINISH COAT SHALL BE GRAY IN ALL AREAS.

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



MORGAN COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 6
SN 069-0024, IL 267 OVER HWY 967 AND GWRR
0.3 MILES SOUTH OF OLD US 67
39.6012°N 90.2288°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. PAINTING OF THE SOUTHEAST FASCIA BEAM SHALL EXTEND TO 20' FROM THE BEAM 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. RAILROAD PROTECTIVE LIABILITY INSURANCE WILL BE REQUIRED.

CLEANING AND PAINTING STEEL BRIDGE NO. 7
SN 069-0025, IL 267 OVER GWRR
0.7 MILES SOUTH OF OLD US 67
39.5958°N 90.2283°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 AT THE SOUTH ABUTMENT. PAINTING SHALL EXTEND 15' FROM THE BEAM ENDS AT THE NORTH ABUTMENT. 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. RAILROAD PROTECTIVE LIABILITY INSURANCE WILL BE REQUIRED.

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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE LOCATION MAPS

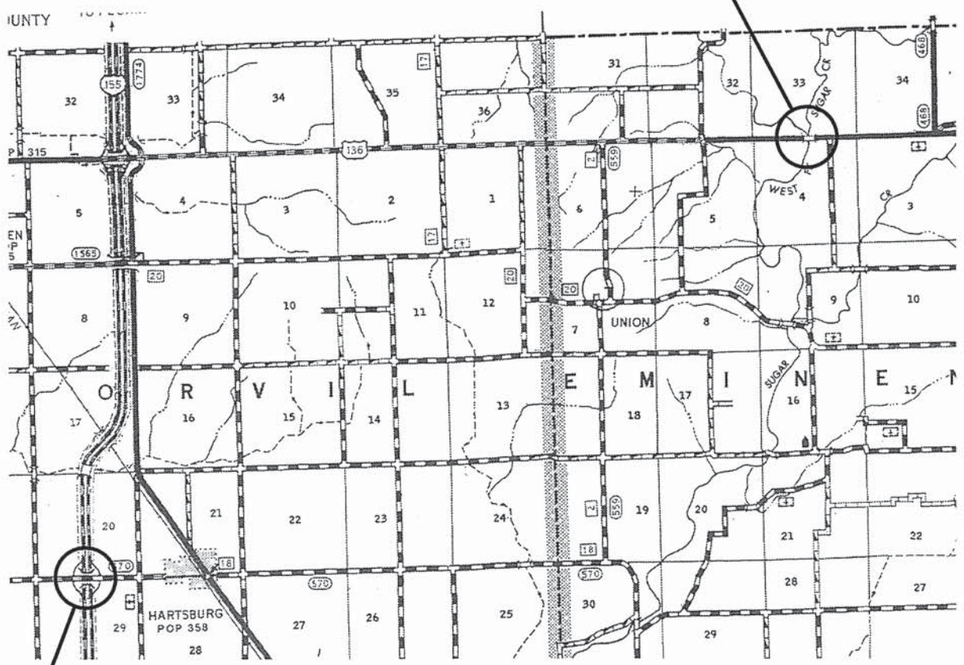
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	5
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

CLEANING AND PAINTING STEEL BRIDGE NO. 9
SN 054-0026, US 136 OVER W FORK SUGAR CREEK
1.2 MILES WEST OF ARMINGTON RD
40.3100°N 89.3296°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 ALL AREAS SHALL BE GRAY.

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

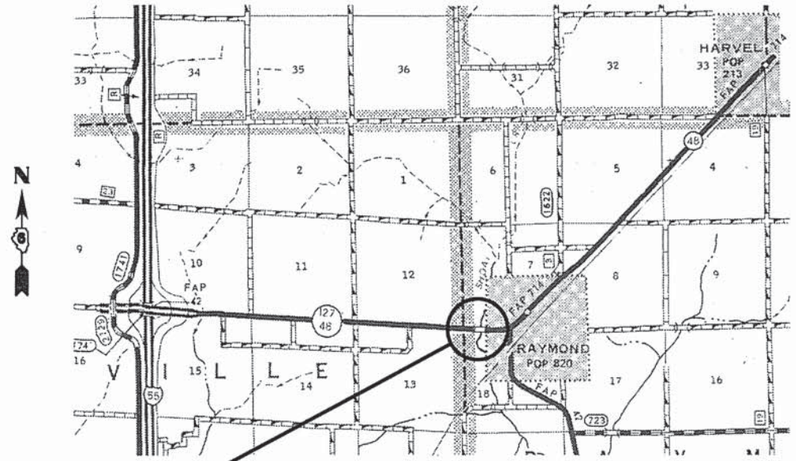


LOGAN COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 8
SN 054-0075, TR 33 OVER I-155
AT THE HARTSBURG INTERCHANGE
40.2495°N 89.4614°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 (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.

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

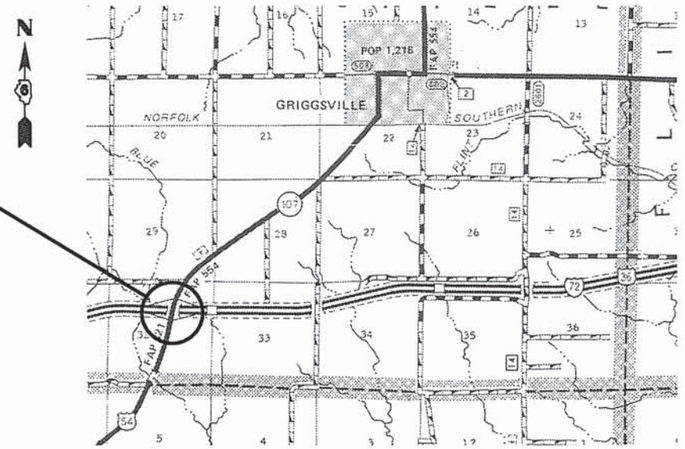


MONTGOMERY COUNTY

CLEANING AND PAINTING STEEL BRIDGE NO. 10
SN 068-0018, IL 48/127 OVER W FORK SHOAL CREEK
RAYMOND WEST CITY LIMITS
39.3196°N 89.5827°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 ALL AREAS 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. 11
SN 075-0112, IL 107 OVER I-72
AT THE GRIGGSVILLE INTERCHANGE
39.6743°N 90.7686°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 (16 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.

PIKE COUNTY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE LOCATION MAPS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	6
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

Bench Mark: #25G Chisled square top of S.E. wingwall at abutment. Elev. 660.36

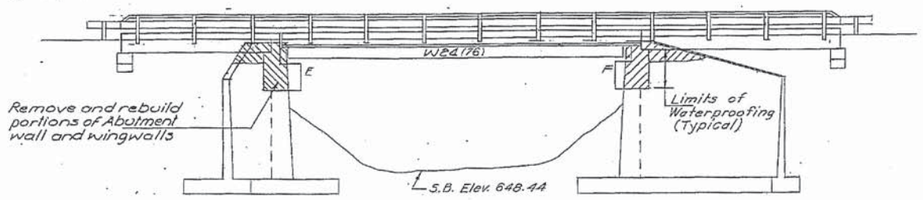
Existing Structure: #034-0018 was built in 1979 on SBI Rte. 96, Sec. 119B at Sta. 289+36.03 as a single span R.C. deck girder over closed abutments with a roadway width 21'-0" and 46.7' bk. to bk. abutments. The existing superstructure shall be removed and replaced with a R.C. deck over W-beams. The existing abutments will be widened and rehabilitated. One lane of traffic shall be maintained at all times by utilizing stage construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 510	119BR	HANCOCK	41	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 1
18 SHEETS

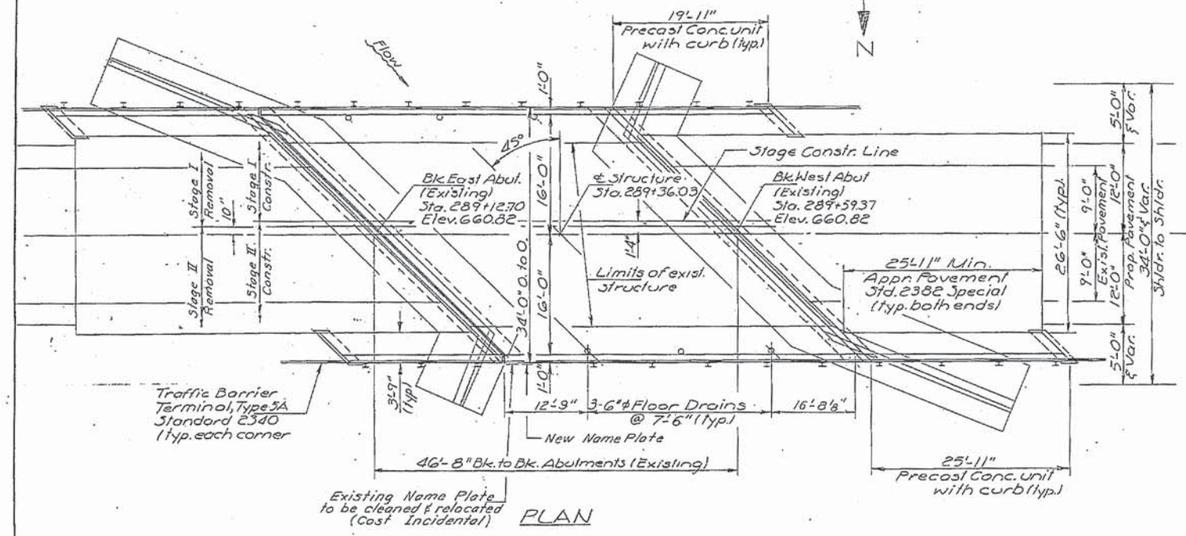


ELEVATION

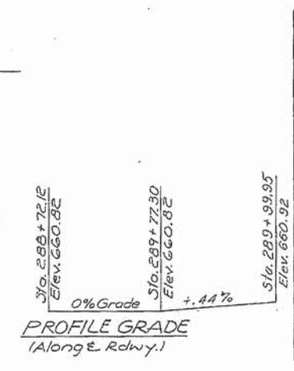
STATION 289+36.03
REBUILT 198 BY
STATE OF ILLINOIS
F.A.P. RT. 510 SEC. 119BR

LOADING HS20
STR. No. 034-0018

NAME PLATE
See Std. 2113



PLAN



PROFILE GRADE
(Along ℄ Rdwy.)

GENERAL NOTES

Calculated weight of Structural Steel = 6,380 lbs. (M183)
19,910 lbs. (M223) Gr. 50

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

Anchor bolts shall be set before batting 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.

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.

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

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

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		15	15
Structure Excavation	Cu. Yd.		38	38
Floor Drains	Each	6		6
Class X Concrete	Cu. Yd.	47.0	49.0	96.0
Structural Steel	L. S.			1
Stud Shear Connectors	Each	768		768
Reinforcement Bars	Lbs.	130	5,060	5,190
Reinforcement Bars (Epoxy Coated)	Lbs.	9,240		9,240
Name Plates	Each	1		1
Preformed Joint Seal 1 3/4"	Lin. Ft.	47		47
Neoprene Expansion Joint (2")	Lin. Ft.	48		48
Precast Concrete Bridge Slab	Sq. Ft.	345		345
Steel Railing Type T-1	Lin. Ft.	186		186
Elastomeric Bearing Assembly, Type I	Each			6
Protective Coat	Sq. Yds.	182		182
Temporary Bridge Rail	Lin. Ft.	170		170
Epoxy Crack Sealing	Lin. Ft.		17	17
Temporary Support System	L. S.			1

WATERWAY INFORMATION

Drainage Area 3.83 Sq. Mi. Low Grade Elev. 660.49 @ Sta. 289+59

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	1290	212	212	656.76	1.24	1.24	658.00	658.00
Base	100	1480	220	220	657.03	1.56	1.56	658.59	658.59
Overlopping									
Max. Calc.	500	1920	222	222	657.60	2.64	2.64	660.24	660.24

DESIGNED Gary M Kowalski
CHECKED Tewelde Debesai
Paul Summer
DRAWN jas
CHECKED TD

March 11 1986
EXAMINED Engineer of Bridge Design
PASSED James T. Kaufmann Engineer of Bridges and Structures
APPROVED Director of Highways

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 50,000 psi (M223 Gr.50)(Beams)
fy = 36,000 psi (M183) (Struct.)

PRECAST UNITS

f'c = 4,500 psi
fc = 1,800 psi
fs = 20,000 psi
n = 8

Allow 25#/sq.ft. for future wearing surface.
Design Specifications: 1983 AASHTO & 1984 interims
LOADING HS20-44

LOCATION SKETCH

GENERAL PLAN
ILL. RTE. 96 OVER
RILEY CREEK BRANCH
F.A.P. RTE. 510 - SEC. 119BR
HANCOCK COUNTY
STATION 289+36.03
STRUCTURE NO. 034-0018

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -
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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 034-0018
(FOR INFORMATION ONLY)

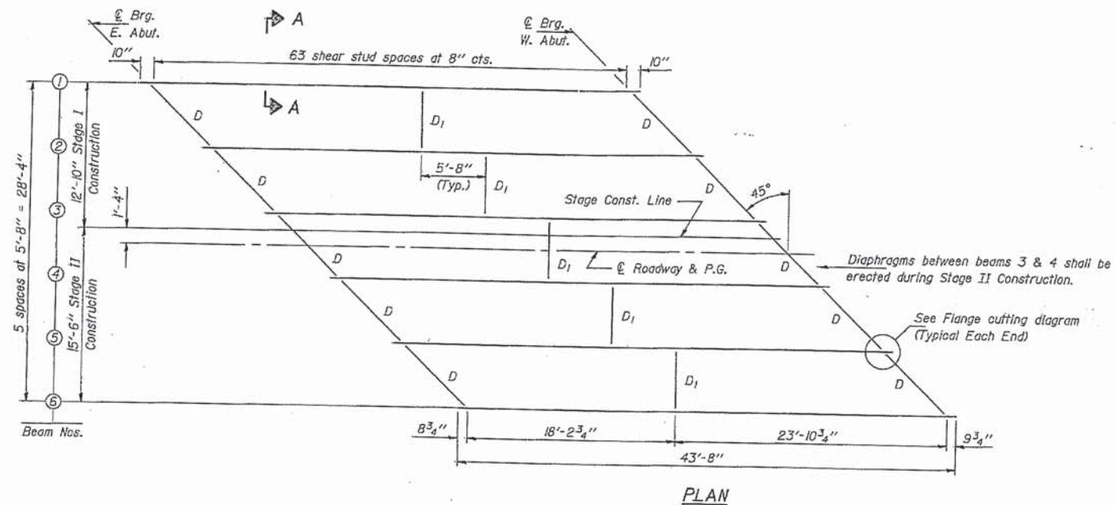
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	7
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

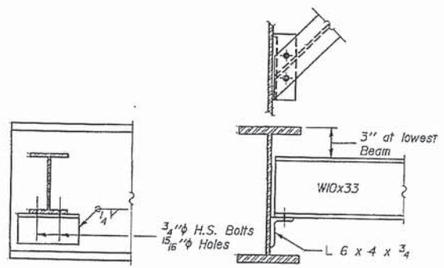
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 510	119BR	HANCOCK	41	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 13
18 SHEETS

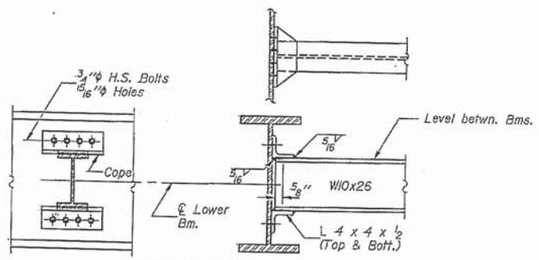


PLAN

Note: All beams shall be W24x76 AASHTO M223, Grade 50 and shall conform to the Supplemental Requirments for Notch Toughness Zone 2. All other structural steel shall be AASHTO M183.

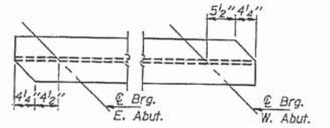


DIAPHRAGM D
(10 Required)

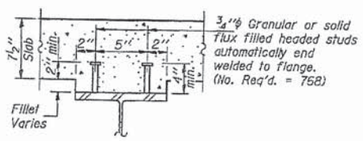


DIAPHRAGM D1
(5 Required)

Note: Two hardened washers shall be required over all 15/16"ϕ holes.



FLANGE CUTTING DIAGRAM



SECTION A-A

INTERIOR BEAM MOMENT TABLE		0.5 Span
Is	(in⁴)	2,100
Ic	(in⁴)	6,584
Ss	(in³)	176
Sc	(in³)	279
℄	(K/ft.)	0.620
M℄	('K)	139
S℄	(K/ft.)	0.194
Ms℄	('K)	44
M½	('K)	253
M (Imp)	('K)	76
5/3(M½+I)	('K)	549
Ma	('K)	951
Mu	('K)	1,629
fs℄ non-comp(k.s.i.)		9.5
fs℄ (comp)	(k.s.i.)	1.9
fs 5/3 (½+I)	(k.s.i.)	23.6
fs (Overload)	(k.s.i.)	34.9
VR	(K)	37.6

INTERIOR BEAM REACTION TABLE		Abuts.
R℄	(K)	17.3
R½	(K)	28.9
Imp.	(K)	8.6
R (Total)	(K)	54.8

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

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Overload).

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

Ma (Applied Moment) = 1.3[M℄ + Ms℄ + 5/3(M½ + I)].

Mu is the Full Plastic Moment Capacity for Compact, Braced section.

fs (Overload) is the sum of the stresses due to M℄ + Ms℄ + 5/3(M½ + I).

* Top of Beam Elevations						
	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
℄ Brg. E. Abut.	659.92	660.02	660.11	660.11	660.02	659.92
℄ Brg. W. Abut.	659.92	660.02	660.11	660.11	660.02	659.92

* (For Fabrication Only)

DESIGNED	GARY M. KOWALSKI	EXAMINED	March 11 1986
CHECKED	Tewelde Debesai	PASSED	Engineer of Bridges and Structures
DRAWN	Paul Summer	APPROVED	Engineer of Operations
CHECKED	T.D.		

I-2-D 8-30-80

STRUCTURAL STEEL
F.A.P. RT. 510 SEC. 119BR
HANCOCK COUNTY
STA. 289+36.03

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Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

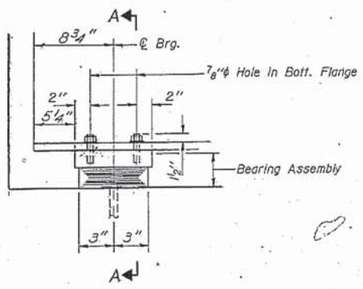
EXISTING BRIDGE PLANS, SN 034-0018
(FOR INFORMATION ONLY)
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	8
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

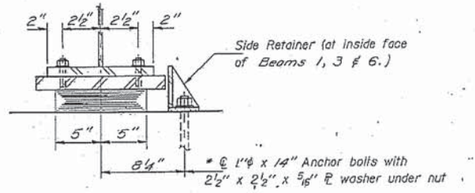
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 510	119BR	HANCOCK	41	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 14
18 SHEETS

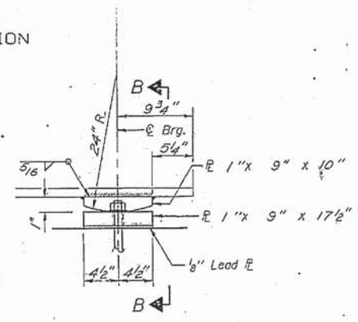


ELEVATION AT E. ABUT.

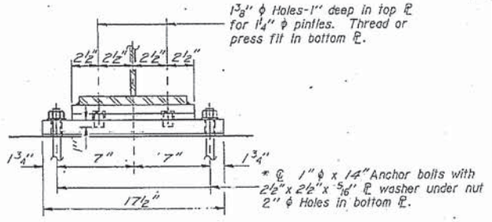


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



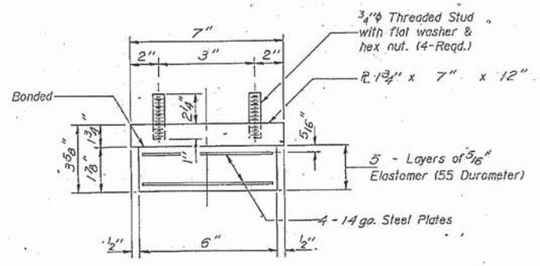
ELEVATION AT W. ABUT.



SECTION B-B

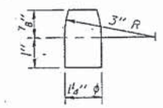
* Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet 15/18 for Anchor Bolt installation.

FIXED BEARING

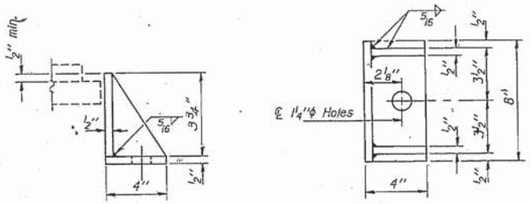


BEARING ASSEMBLY

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



PINTLE



SIDE RETAINER

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

DESIGNED	GARY M Kowalski
CHECKED	Tewelde Bebecai
DRAWN	Paul Summer
CHECKED	T.D

I-2-EI. 12-1-83

March 11 1986
EXAMINED Oraj O. Kaspar
ENGINEER OF BRIDGE DESIGN
PASSED James T. Rayburn
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6

BEARING DETAILS
F.A.P. RT. 510 SEC. 119BR
HANCOCK COUNTY
STA. 289+36.03

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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 034-0018
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	9
		CONTRACT NO. 72J06		
	ILLINOIS	FED. AID PROJECT		

B.M.: "7 R.R. Spike in root of 20" dia. tree. 49' Rt. of Sta.604+44.20 Elev. 595.84

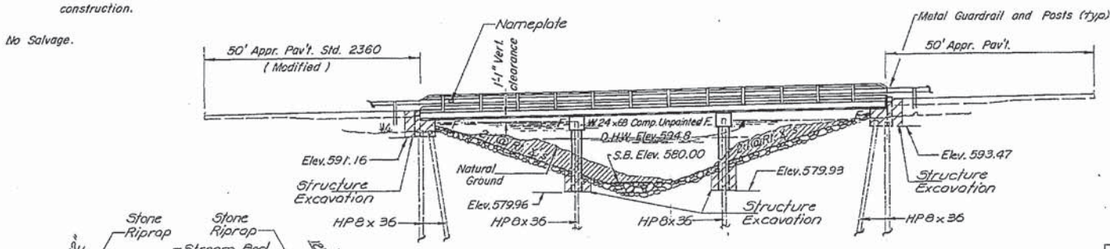
Existing Structure: "034-0038 Built as S.B.I. Rte. 95-A, Section 106 B, at Sta. 7+54.50 in 1932. The existing simple span R.C. Girder on Closed Abutments shall be removed and the roadway relocated downstream. The existing structure is ± 53'-0" long by ± 26'-0" wide. New structure "034-0060 shall be a three span W24 x68 continuous Wide Flange Superstructure on pile bent abuts. and pile bent piers. Traffic shall be maintained over the existing structure during construction.

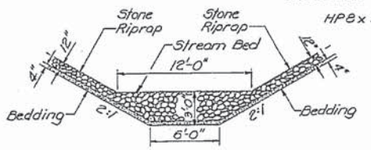
No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. No. 514	106B-1	HANCOCK	67	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
12 SHEETS





STONE RIPRAP ANCHOR DETAIL

PROFILE GRADE

STATION 7+33.00
BUILT 198 BY
STATE OF ILLINOIS
F.A.P. RT. 514 SEC. 106B-1
FA PROJ. BR-F-514(2)
LOADING HS20
STR. NO. 034-0060

NAME PLATE
(See Std. 2113)

GENERAL NOTES

See Proposal for Boring Data.

Fasteners shall be high strength bolts (AASHTO M 164, Type 3.) Bolts ¾"ϕ, open holes ⁱ³/₁₆"ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 43690 Lbs.

All structural steel shall be AASHTO M222 unpainted steel.

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

All structural steel for a distance of three times the depth of the beams or girders, but not exceeding 10 feet, each way from deck joints shall be cleaned and given one coat of the basic lead silico chromate primer and maroon field coat. Both coats to be applied in the shop with spot painting only in the field.

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 contractor shall drive one (1) Steel HP8x36 test pile in a permanent location at N. Abut. 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 ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

All contact surfaces of joints for the diaphragms shall be free of paint or lacquer.

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 and all splice plate material.

Layout of Stone Riprap may be varied in the field to suit ground conditions as directed by the Engineer.

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Removal of Existing Structures No.2	Each			1
Structure Excavation	Cu. Yd.		218	218
Floor Drains	Each	6		6
Protective Coat	Sq. Yd.	443		443
Class X Concrete	Cu. Yd.	103.1	198.1	301.2
Structural Steel	L.S.			1
Stud Shear Connectors	Each	1668		1668
Steel Railing, Type T-1	Lin. Ft.	232		232
Reinforcement Bars	Pound	11840	11830	23670
Reinforcement Bars (Epoxy Coated)	Pound	20150	50	20200
Furnishing Steel Piles HP8x36	Lin. Ft.		541	541
Test Pile Steel HP8x36	Each		1	1
Nome Plates	Each			1
Neoprene Expansion Joint (2")	Lin. Ft.	47		47
Stone Riprap	Sq. Yd.		2282	2282
Channel Excavation	Cu. Yd.		1775	1775
Selling Piles in Rock	Each		14	14
Driving Steel Piles	Lin. Ft.		247	247

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 50,000 psi (Struct.) M 222

WATERWAY INFORMATION

Drainage Area = 20.4 sq. mi. Low Grade Elev. 597.7 @ Sta. 6+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	3566	613	576	594.8	1.62	1.26	596.42	596.06
Base	100	4088	638	610	595.3	1.86	1.56	596.16	596.56
Overtopping	300	4904		664	596.1		1.60		597.70

LOADING HS 20-44

Design Specifications: 1977 AASHTO; 1978, 1979, 1980 and 1981 Interim Specifications.

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

DESIGNED Robert K. Peters
CHECKED Patrick M. Petrone
DRAWN pws S.G.F.
CHECKED P.M.P.

March 29, 1982
EXAMINED James T. Hawkinson ENGINEER OF BRIDGE DESIGN
PASSED ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

GENERAL PLAN
F.A.P. Rte. 514-ILL. Rte. 94 Over CAMP CREEK
F.A.P. Rte. 514 SECTION 106 B-1
Sta. 7+33.00 ℄ Channel
HANCOCK COUNTY

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -
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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 034-0060
(FOR INFORMATION ONLY)

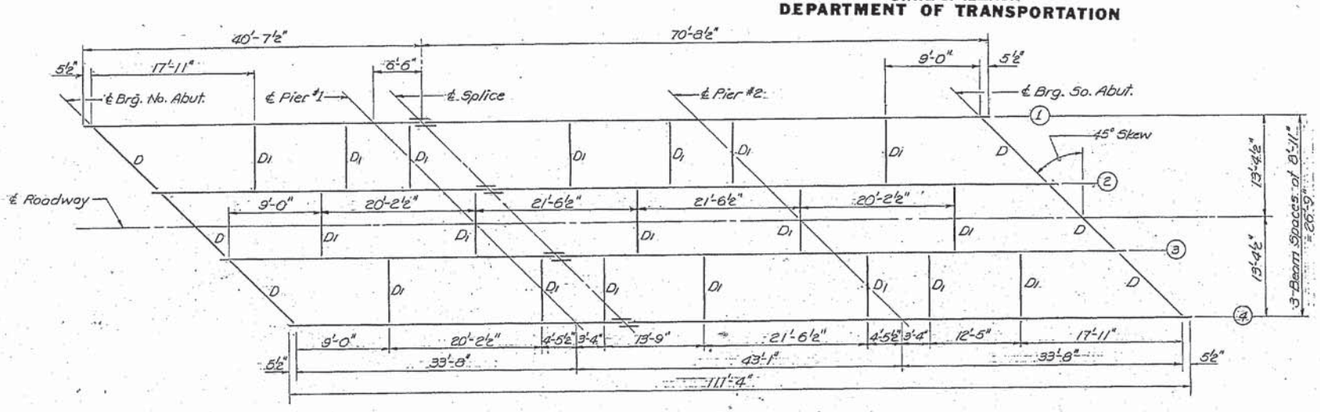
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	10
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

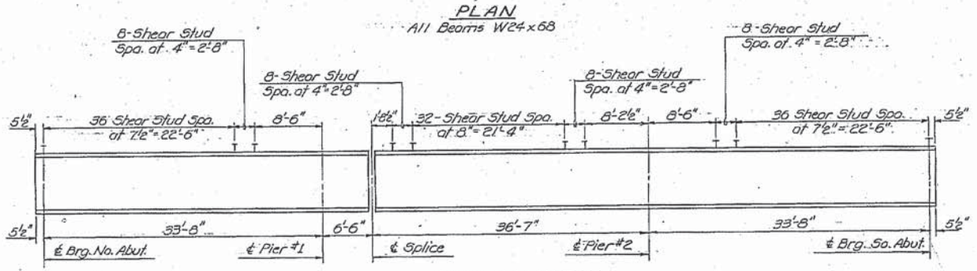
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. RTE. 514	106B-1	HANCOCK	69	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

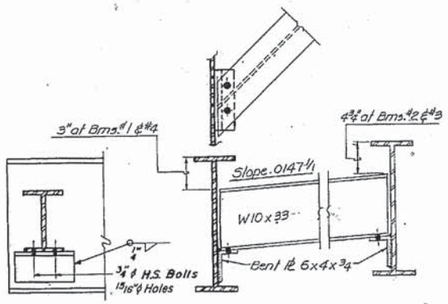
SHEET NO. 6
12 SHEETS



PLAN
All Beams W24x68



BEAM ELEVATION
See Sheet #1 for Notch Toughness Requirements



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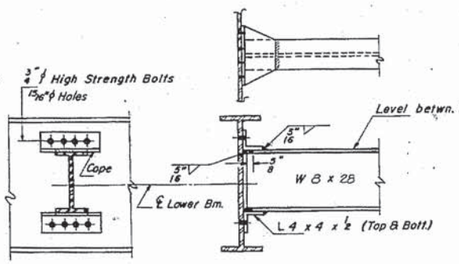
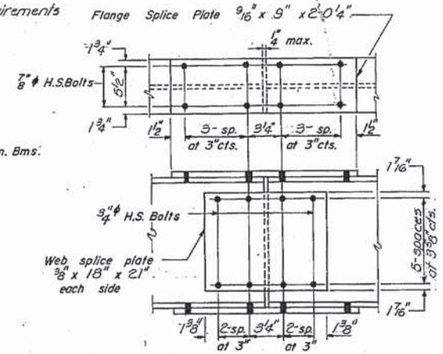
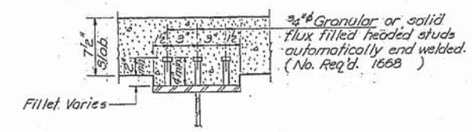


DIAPHRAGM D1
19 Required



SPLICE

Note: Two hardened washers shall be required over all 15/16" ϕ holes. All contact surfaces of joints shall be free of paint or lacquer.



SHEAR STUDS

DESIGNED	Robert K. Peters
CHECKED	Patrick M. Petrone
DRAWN	Stu Ferchow
CHECKED	P.M.P.

March 29, 1982
EXAMINED Thomas J. Kaylor
Engineer of Bridge Design
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

I-2-D 8-30-80

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1 0.6 Sp. 2	Pier 1 & 2	0.5 Sp. 2
Is	(in.⁴)	1830	1830	1830
Ic	(in.⁴)	5963	——	5963
Ss	(in.³)	154	154	154
Sc	(in.³)	248	——	248
ℓ	(K/ι)	0.928	1.227	0.928
M ℓ	('K)	92	225	99
V R	(K)	58	——	49
S ℓ	(K/ι)	0.299	——	0.299
M S ℓ	('K)	35	——	47
M ℓ	('K)	511	292	635
M Imp.	('K)	153	87	189
M Total	('K)	791	604	970
M Capacity		1424	642	1424
M Overload		607	469	745
M Overload Rating		938	513	936

INTERIOR BEAM REACTION TABLE			
		Abuts.	Piers
R ℓ	(K)	20	68
R ℓ	(K)	88	112
Imp.	(K)	26	34
R Total	(K)	134	214

Is and Ss are the moment of inertia and section modulus of the steel section.
Ic and Sc are the moment of inertia and section modulus of the composite section.
VR is the maximum ℓ + Impact shear range in span.
The load factor $(1.3)[D + S + \frac{5}{3}(\ell + Imp.)]$ is used for computing moments & reactions

TOP OF FLANGE ELEVATIONS

	Beam #1	Beam #2	Beam #3	Beam #4
℄ Brg. N. Abut.	597.76	598.10	598.28	598.32
℄ Brg. Pier #1	598.46	598.80	598.98	599.02
℄ Splice	598.59	598.93	599.11	599.15
℄ Brg. Pier #2	599.35	599.69	599.87	599.91
℄ Brg. S. Abut.	600.05	600.39	600.57	600.61

*For fabrication only

STRUCTURAL STEEL
F.A.P. RT. 514 SEC. 106B-1
STA. 7+33.00 ℄ Channel
HANCOCK COUNTY

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

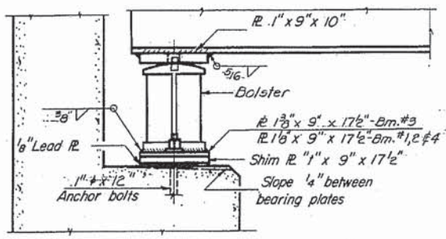
EXISTING BRIDGE PLANS, SN 034-0060
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	06 BRIDGE PAINTING 2016	VARIOUS	46	11
		CONTRACT NO. 72J06		
		ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 514	1068-1	HANCOCK	67	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 7
12 SHEETS



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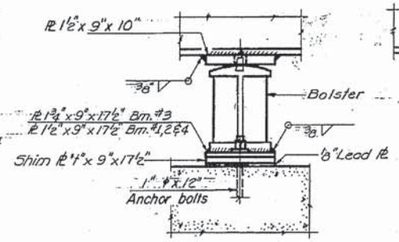

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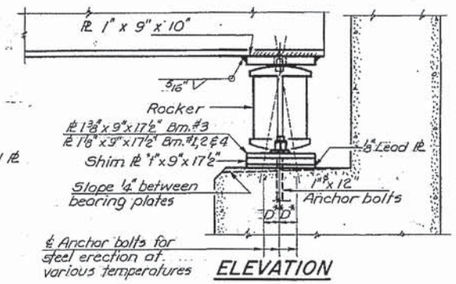

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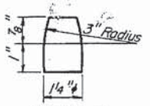
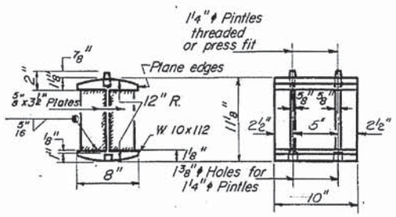
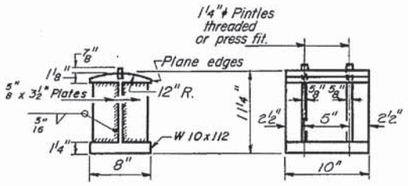


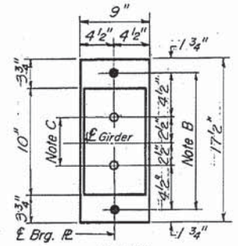
PINTLE



ROCKER

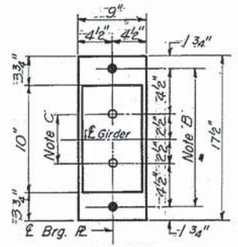


BOLSTER



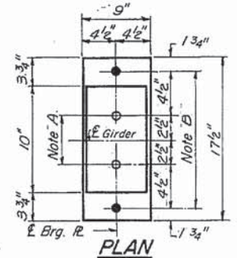
PLAN

AT N. ABUTMENT
(FIX)



PLAN

AT PIERS 1 & 2
(FIX)



PLAN

AT S. ABUTMENT
(EXP.)

NOTE A
$1\frac{3}{8}$" ϕ Holes – 1" deep in top R. for pintles. Thread or press fit pintles into bottom R.

NOTE B
$1\frac{1}{2}$" ϕ Holes for 1" ϕ anchor bolts. $\frac{5}{16}$" x 2 1/2" x 2 1/2" R. Washers under nut.

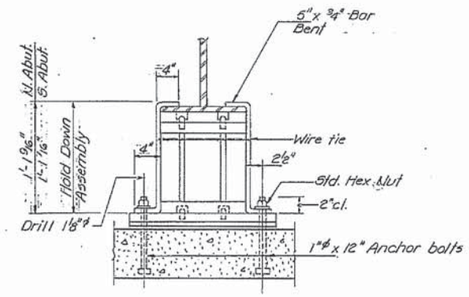
NOTE C
$1\frac{3}{8}$" ϕ Holes 1" deep in top R. only for 1 1/4" ϕ pintles.

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 girders 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



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.

DESIGNED	Robert D. Peters
CHECKED	Patrick M Petrine
DRAWN	Stu Ferchow
CHECKED	P.M.P.

EXAMINED March 29, 1982
PASSED
ENGINEER OF BRIDGES CLERK
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

I-2-B 4-1-79

BEARING DETAILS
F.A.P. RT. 514 SEC. 106 B-1
STA. 7+33.00 ℄ Channel
HANCOCK COUNTY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 034-0060
(FOR INFORMATION ONLY)

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

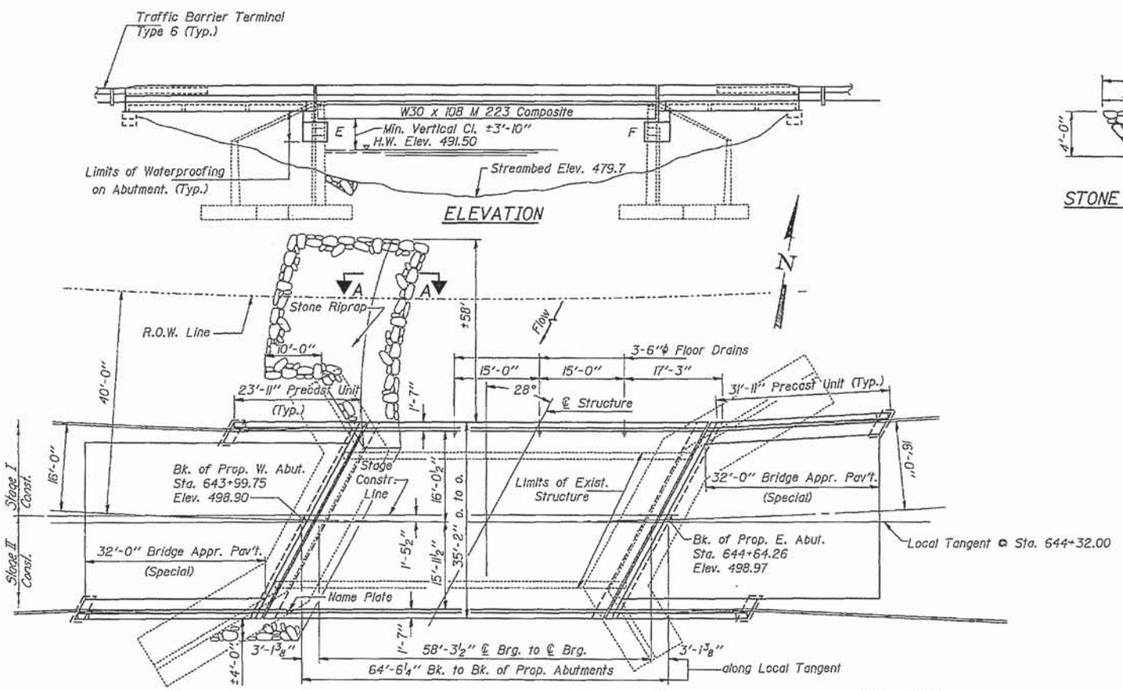
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	06 BRIDGE PAINTING 2016	VARIOUS	46	12
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

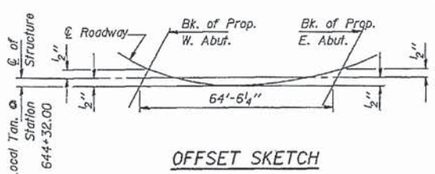
Bench Mark: U.S.G.S. LA-1973 STND. Disk on N.W. wingwall of bridge over Honey Brook Creek - Elev. 498.26.

Existing Structure: #085-0026. The existing structure was built as S.B.I. Rte. 101, Section 120-B in 1929. The single span R. C. T-beam bridge measures 24.0' out to out and 60.2' bk. to bk. of existing abutments. The existing superstructure is to be removed and a new widened WF superstructure is to be constructed. The existing substructure is to be repaired as specified and new caps are to be constructed to support the proposed superstructure. One lane traffic is to be maintained utilizing stage construction. No salvage.

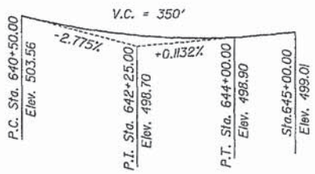
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	PROJECT NO.	SHEET NO. 1
F.A.S. No. 713	120BR	Schuyler	27	9	17 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: BHF-713(4)			

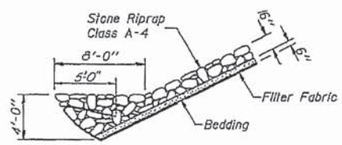




OFFSET SKETCH



PROPOSED PROFILE GRADE
(along ℄ Rdwy.)



SECTION A-A
STONE RIPRAP ANCHOR DETAIL

STATION 644+32.00
BUILT IN BY
STATE OF ILLINOIS
F.A. RT. 713 SEC. 120BR
PROJECT BHF-713(4)
LOADING HS20
STR. NO. 085-0026

NAME PLATE
See Std. 2113

CURVE DATA
Δ = 8° 38' 15"
E = 16.75'
T = 444.22'
R = 5882.19'
D = 0° 58' 26"
L = 886.91'
P.C. Sta. 638+49.45
P.I. Sta. 642+93.67
P.T. Sta. 647+36.36
S.E. = 0.028'/'

DESIGN SPECIFICATIONS
1983 AASHTO, 1984 thru 1987 Interims

LOADING HS20-44
Allow 25#/sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi Reinf.
fy = 50,000 psi Struct. (M 223)
fy = 36,000 psi Struct. (M183)

PRECAST UNITS
f'c = 4,500 psi
fc = 1,800 psi
fs = 20,000 psi n = 8

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$"ϕ, open holes $\frac{15}{16}$"ϕ, unless otherwise noted.

Calculated weight of Structural Steel M183 = 8620 Lb., M223 = 38,890 Lb.

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

Expansion joint plates and attached bars shall be shop painted with the zinc-silicate primer.

Field welding of construction accessories will not be permitted to the bottom flange of beams. 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 structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 223.

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.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

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

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

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

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		11	11
Structure Excavation	Cu. Yd.		48	48
Floor Drains	Each	3		3
Preformed Joint Seal 2½"	Lin. Ft.	40		40
Preformed Joint Seal 1¼"	Lin. Ft.	40		40
Class X Concrete Superstructure	Cu. Yd.	82.3		82.3
Protective Coat	Sq. Yd.	97		97
Elastomeric Bearing Assembly Type I	Each		6	6
Class X Concrete	Cu. Yd.		48.3	48.3
Precast Concrete Bridge Slab	Sq. Ft.	419		419
Structural Steel	L.S.	1		1
Stud Shear Connectors	Each	948		948
Temporary Bridge Rail	Lin. Ft.	65		65
Reinforcement Bars	Pound		4620	4620
Reinforcement Bars, Epoxy Coated	Pound	16330		16330
Furnishing Steel Piles HP8x36	Lin. Ft.		26	26
Name Plates	Each	1		1
Stone Riprap Class A4	Sq. Yd.		202	202
Filter Fabric for use with Riprap	Sq. Yd.		257	257
Epoxy Crack Sealing	Lin. Ft.		27	27
Repair Concrete Structures	Sq. Ft.		54	54

WATERWAY INFORMATION

Drainage Area = 9.59 sq.mi. Low Grade Elev. 498.62 ℄ Sta.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	3023	276	276	* 491.5	2.30	2.30	493.80	493.80
Base	100	3480	286	286	491.7	2.47	2.47	494.17	494.17
Overtopping									
Max. Calc.	500	4561		311	492.2		3.57		495.77

* Highwater elevation could be 497.5± from backwater of the La Moine River.

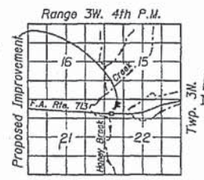
DESIGNED	Thomas Rondinone	
CHECKED	Charles L. Ramsey	
DRAWN	P.W.S.	W.D.C.
CHECKED	A.L.N.	G.R.

December 22 1988

EXAMINED Joseph D. Kassar
DIRECTOR OF HIGHWAYS

PASSED James T. Kaufmann
ENGINEER OF BRIDGE DESIGN

APPROVED
ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS



LOCATION SKETCH

GENERAL PLAN
ILLINOIS ROUTE 101 OVER
HONEY BROOK CREEK
F.A. ROUTE 713 SECTION 120BR
SCHUYLER COUNTY
STATION 644+32.00
STRUCTURE NO. 085-0026

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

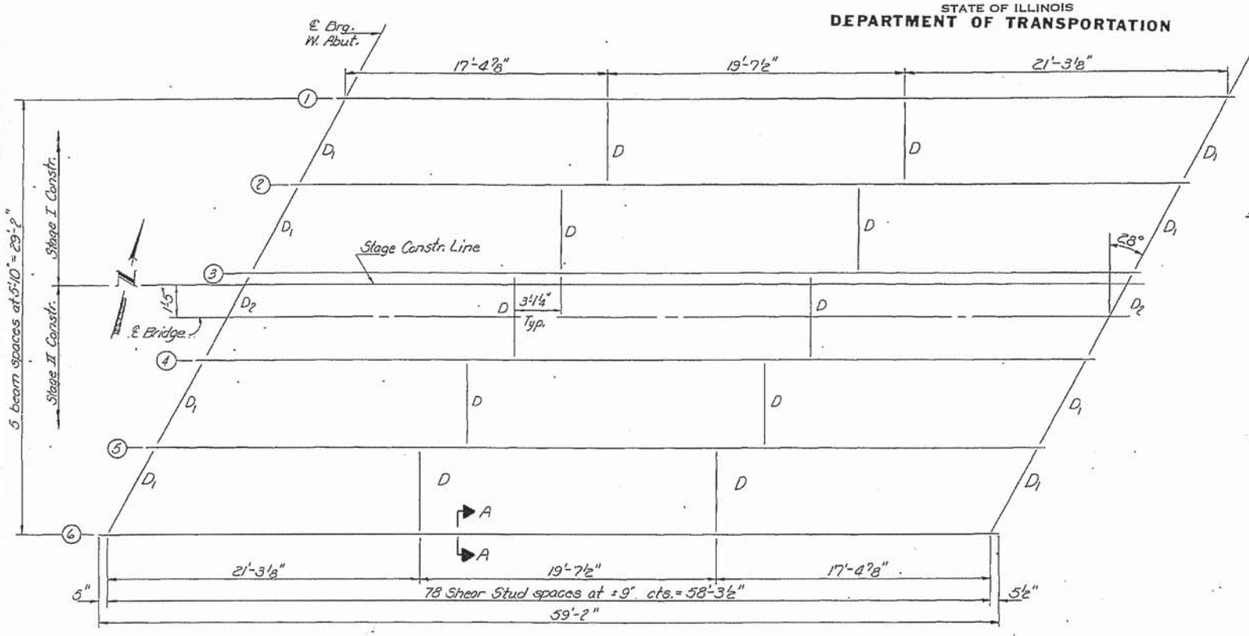
EXISTING BRIDGE PLANS, SN 085-0026
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	13
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 10
17 SHEETS



FRAMING PLAN

All beams are W 30x108 AASHTO M223 Grade 50 and shall meet Notch Toughness Requirements.

* TOP OF FLANGE ELEVATIONS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
℄ Brg. W. Abut.	497.823	497.983	498.143	498.303	498.464	498.625
℄ Brg. E. Abut.	497.892	498.051	498.210	498.370	498.529	498.689

*For fabrication only.

INTERIOR BEAM REACTION TABLE

	Abut's.
R℄ (K)	28.6
R℄ (K)	32.1
Rimp. (K)	8.8
RTOTAL (K)	69.5

INTERIOR BEAM MOMENT TABLE

	.5 Span
Is (in.4)	4470
Ic (in.4)	12,287
Ss (in.3)	299
Sc (in.3)	450
℄ (K/I)	.697
M℄ (1K)	296
S℄ (K/I)	.283
MS℄ (1K)	120
MI℄ (1K)	412
M Imp. (1K)	112
⅗(M℄+I) (1K)	873
Ma (1K)	1676
Mu (1K)	2609
fs ℄ non-comp(ksi)	11.9
fs ℄(comp) (k.s.i.)	3.2
fs ⅗(℄+I) (k.s.i.)	23.3
fs (Overload)(k.s.i.)	38.4
VR (K)	40.8

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs Overload.
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs Overload.
VR is the maximum ℄+ impact shear range in span.
Mu is FULL Plastic Moment Capacity for Compact, Braced section and is computed according to AASHTO 10.48.1 and 10.50.1.1.
Ma (Applied Moment) = 1.3[M℄+MS℄+⅗(M℄+I)].
fs (Overload) is the sum of the stresses due to M℄+MS℄+⅗(M℄+I).

DIAPHRAGM D1

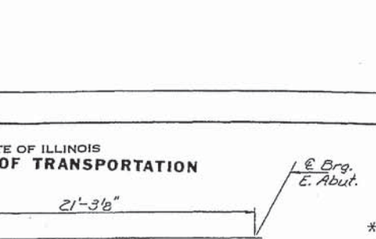
8 Required

DIAPHRAGM D

10 Required

Diaphragms D at the Stage Constr. Line shall be placed during Stage II Constr. The bolts for the slotted holes shall only be finger-tightened prior to the deck slab pouring and then be fully-tightened after the completion of the pouring.

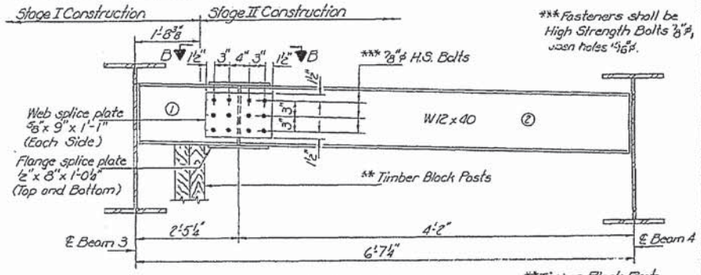
Note: Two hardened washers shall be required over all 15/16"ϕ holes, in diaphragms.



SEC. A-A

VIEW B-B

Stage I Construction | Stage II Construction



*** Fasteners shall be High Strength Bolts ⅞"ϕ, oaen holes 15/16"ϕ.

DIAPHRAGM D2

2 Required
Dimensions are along ℄ diaphragm. (Looking West)
For details of connections to beams see diaphragm D1.

DIAPHRAGM D2 CONSTRUCTION SEQUENCE

1.) Order Diaphragm D2 in two sections with lengths of 2'-4⅝" and 4'-1⅛".
2.) Attach part ① of Diaphragm to Beam 3 during Stage I Construction.
3.) Place Timber Block Posts between part ① of Diaphragm and abutment bearing seat.
4.) Attach part ② of diaphragm to both Beam 4 and part ① of diaphragm during Stage II Construction.
5.) Attach all splice plates to part ① and part ② of diaphragms.
6.) Remove Timber Block Posts.

** Timber Block Posts are cost incidental to Structural Steel.

DESIGNED	Terran Poinsett	Dec. 27	19 81
CHECKED	Charles L. Kennedy	EXAMINED	Oreste D. Kaspar, ENGINEER OF BRIDGE DESIGN
J.D. DRAWN	Joe Sutherland	PASSED	James T. Kaufman, ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	A.L.N. GR	APPROVED	DIRECTOR OF HIGHWAYS

I-2-D 8-30-80

STRUCTURAL STEEL DETAILS
F.A. RT. 713 SEC. 120 BR
SCHUYLER COUNTY
STATION 644+32.00

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Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

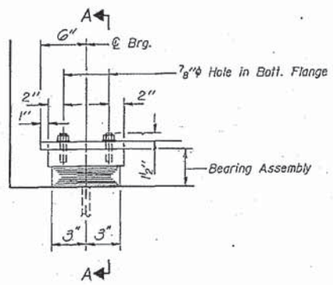
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 085-0026
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

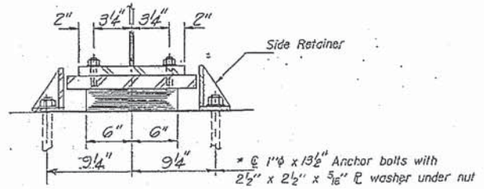
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	14
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S.			21	SHEET NO. 13
FED.ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJ. NO.		17 SHEETS

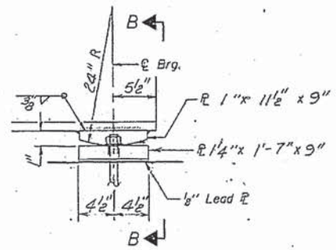


ELEVATION AT W. ABUT.

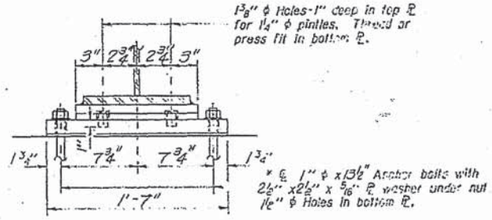


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



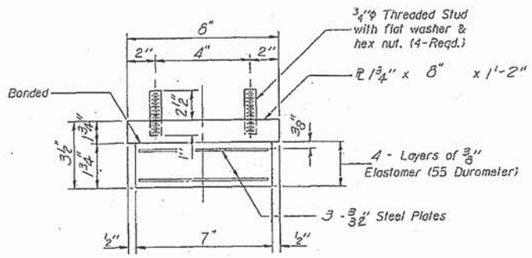
ELEVATION AT EAST ABUT.



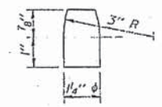
SECTION B-B

FIXED BEARING

* Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sh. 14 of 17 for Anchor Bolt installation.

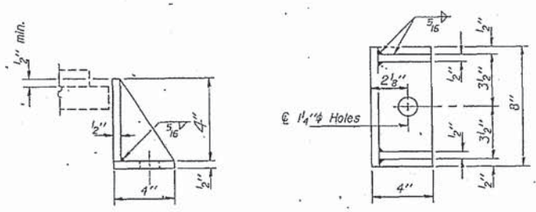


BEARING ASSEMBLY



PINTLE

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.

DESIGNED	Jerry Ponceau	EXAMINED	Dec. 22 1988
CHECKED	Angelo L. Nemsky	PASSED	ENGINEER OF BRIDGE DESIGN
DRAWN	F.M.	APPROVED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	ALN. GR		DIRECTOR OF HIGHWAYS

I-2-EI 12-1-83

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6

BEARING DETAILS
F.A.RTE.713 SEC.120 BR
SCHUYLER COUNTY
STA. 644+32.00

FILE NAME = D:\OPERATIONS\Bridges\Bridgeplans_CAD\72J06 - beam end paint FY17 CM\plansheet.dgn	USER NAME = dudleybm	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING BRIDGE PLANS, SN 085-0026
(FOR INFORMATION ONLY)**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	15
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 67	86VBR	Cass	57	8
FED.ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- *		

SHEET NO. 1
33 SHEETS

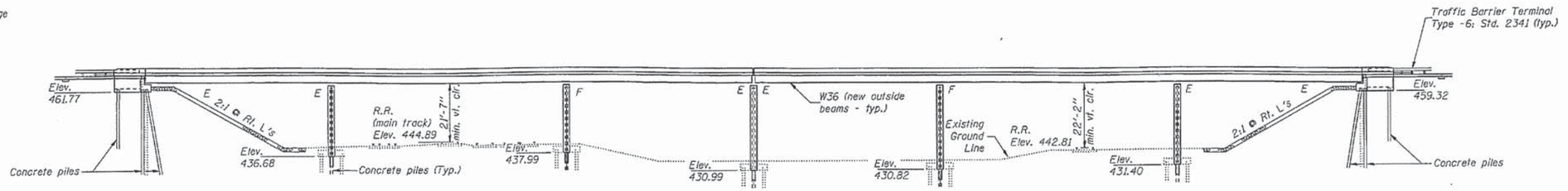
* BHF-STPP-67(48)

Bench Mark: #147 - Spike in telegraph pole. Station 147+92.4, 20' Lt., Elev. 445.71

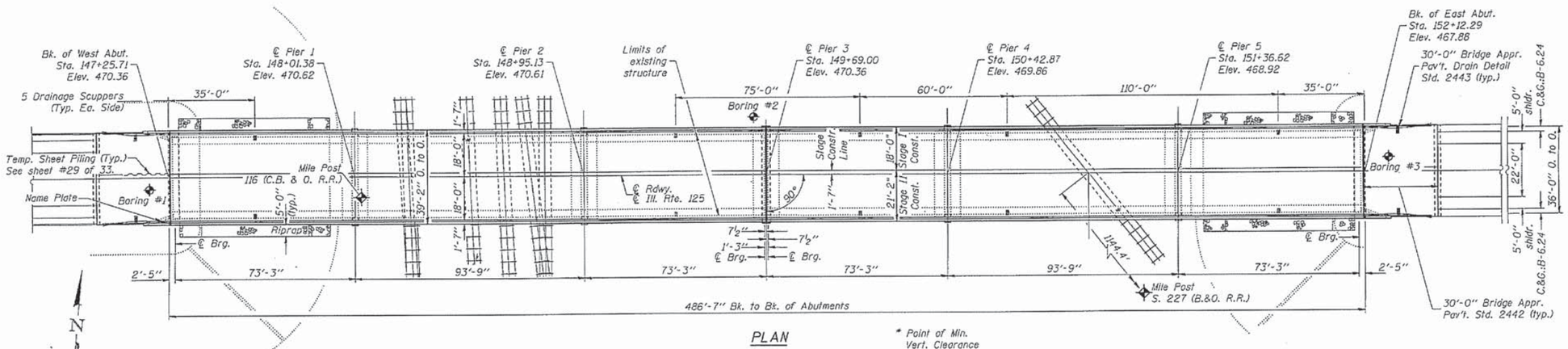
Existing Structure: The existing structure was built in 1956 under F.A. 4, Section 86VB. The structure is a 6 span non-composite superstructure with an overall length of 485'-4" bk. to bk. of abutments and out to out width of 33'-8". The spans are continuous except for an open joint @ Pier 3. Stage construction is to be utilized maintaining one lane of traffic at all times.

No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

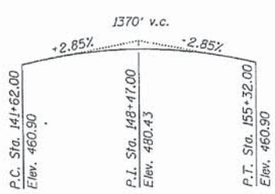


ELEVATION

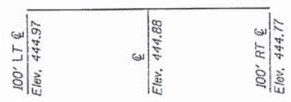


PLAN

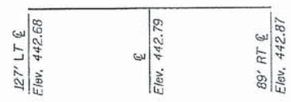
* Point of Min. Vert. Clearance



PROFILE GRADE
(along ℄ roadway)



PROFILE GRADE
(Main Track)



PROFILE GRADE
(East Track)

DESIGNED	H. Albright	March 29 1993	
CHECKED	John Ciccone	EXAMINED	Engineer of Bridge Design
DRAWN	H. Albright	PASSED	Engineer of Bridges and Structures
CHECKED	SDS JLC	APPROVED	Director of Highways

STATE OF ILLINOIS RALPH E. ANDERSON 081-004525 REGISTERED STRUCTURAL ENGINEER

DESIGN SPECIFICATIONS

1989 AASHTO, 1990 & 1991 Interim Specifications
AASHTO Seismic Acceleration Coefficient = .046

LOADING HS20-44

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

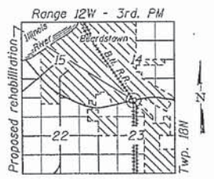
DESIGN STRESSES

FIELD UNITS (NEW CONSTRUCTION)

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 36,000 psi (struct. steel) (M270 Gr.36)

EXISTING

f_y = 33,000 psi (struct. steel)



LOCATION SKETCH

GENERAL PLAN
ILLINOIS ROUTE 125 OVER B.N. RAILROAD
F.A.P. ROUTE 67 - SECTION 86VBR
CASS COUNTY
STA. 149+69.00
STRUCTURE NO. 009-0002

SN0090002, 0090002; P-96-010-91

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -
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	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 009-0002
(FOR INFORMATION ONLY)

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

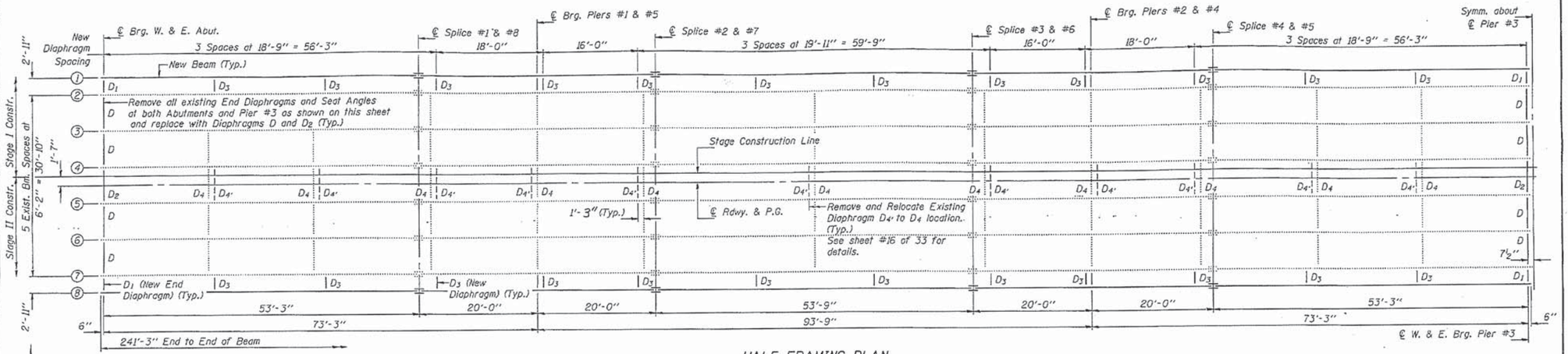
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	16
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

POINTE VEL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N.H.S.				
F.A.P. RTE.	67	86VBR	Cass	57	22
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	*

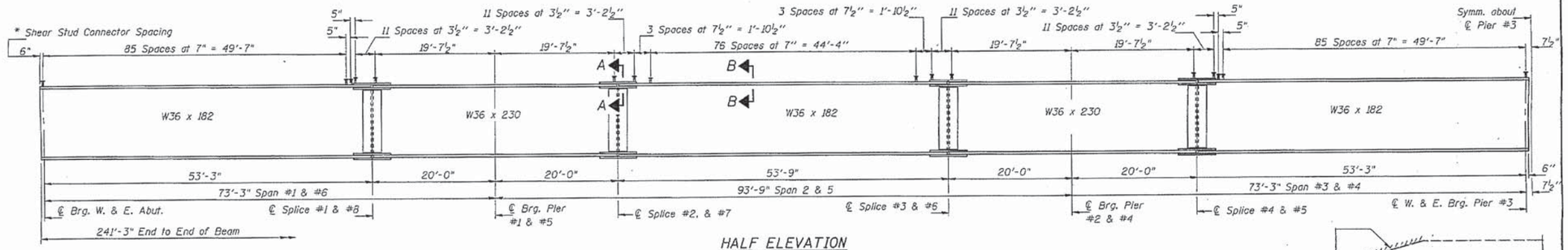
SHEET NO. 15
33 SHEETS

*BHF-STPF-67(A9)

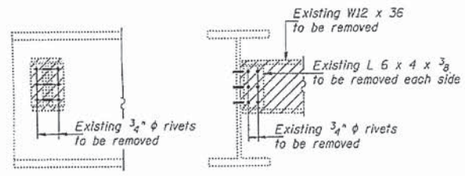
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



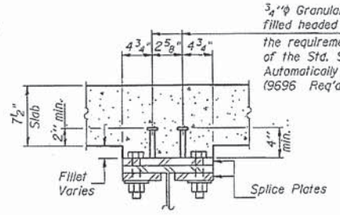
HALF FRAMING PLAN



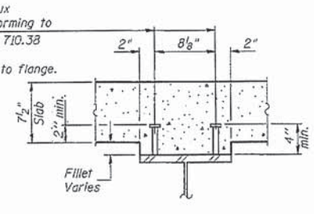
HALF ELEVATION
(Showing New Beam)



EXISTING END DIAPHRAGM REMOVAL DETAILS
(Total 20 Diaphragms to be removed)



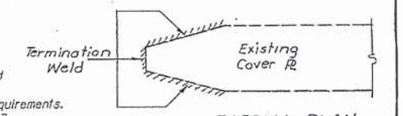
SECTION A-A



SECTION B-B

Notes:
* Shear stud spacing is the same for new and existing Beams.
All new Beams shall meet Notch Toughness Requirements.
For details of Diaphragms see sheet #16 of 33.
For details of Splices see sheet #17 of 33.
For top of beam elevations see sheet #17 of 33.
Existing Diaphragms at Stage Construction Line (Diaphragm D4) shall be relocated to the location designated as D4'. See sheet #16 of 33 for details.
** Diaphragms between Beams #2 and #4 and Beams #5 and #7 at Piers #1, #2, #4 and #5 shall be removed to allow for Anchor Bolt installation and reinstalled. Remove ¾"ϕ Rivets and reinstall using ¾"ϕ High Strength bolts. (512-¾"ϕ H.S. Bolts required paid as Structural Steel)
Existing Blast Plate attachment angles on the Beams shall be removed. See sheet #16 of 33 for details.
Weight of Rivets to be removed is included with structural steel removal.

**Cost of removing and reinstalling diaphragms is incidental to Elastomeric Bearing.



PARTIAL PLAN

All cover plate termination welds to existing beams shall be thoroughly cleaned and then checked for cracks by the use of dye penetration. Any cracks discovered shall be reported to the Engineer for further evaluation. Cost incidental to the Structural Steel.

DESIGNED	Judith D. Ludwig
CHECKED	John Cisna
DRAWN	John F. Schneller Jr.
CHECKED	SDS JLC

March 23 1993
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures
APPROVED Director of Highways

STRUCTURAL STEEL
F.A.P. RT. 67 SEC. 86VBR
CASS COUNTY
STATION 149+69.00

FILE NAME = D:\OPERATIONS\Bridges\Bridgeplans_CAD\72J86 - beam end paint FY17 CM\plansheet.dgn	USER NAME = dudleybm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 009-0002
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	17
		CONTRACT NO. 72J06		
		ILLINOIS	FED. AID PROJECT	

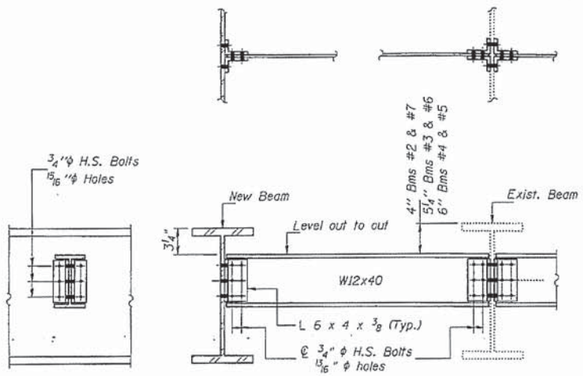
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 67	86VBR	Cass	57	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: *		

SHEET NO. 16
33 SHEETS

*BHF-STPF-67(48)

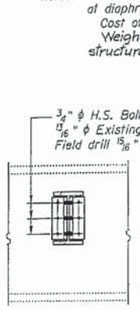
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

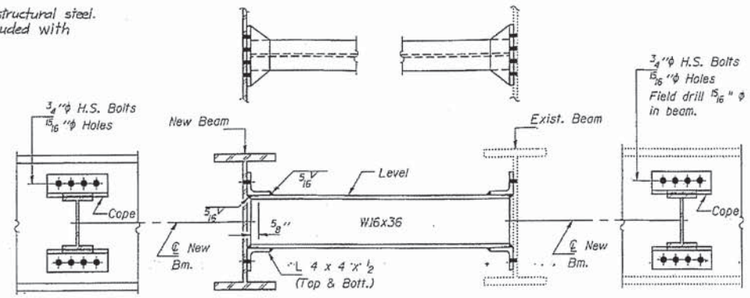
Notes: Two hardened washers shall be required over all $^{15}/_{16}$" ϕ holes at diaphragm and beam connections.
Cost of field drilling holes is incidental to structural steel.
Weight of Rivets to be removed is included with structural steel removal.



DIAPHRAGM D & D1

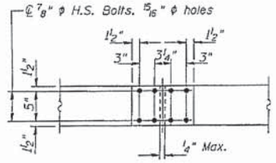
(Showing Diaphragm D)
(D = 16 Required)
(D_1 = 8 Required)



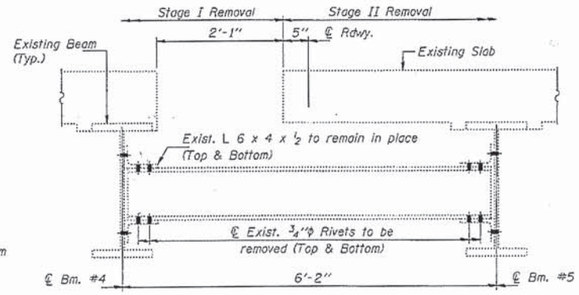


DIAPHRAGM D3

(48 Required)

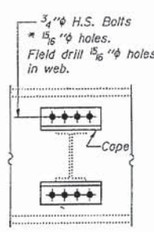


VIEW A-A

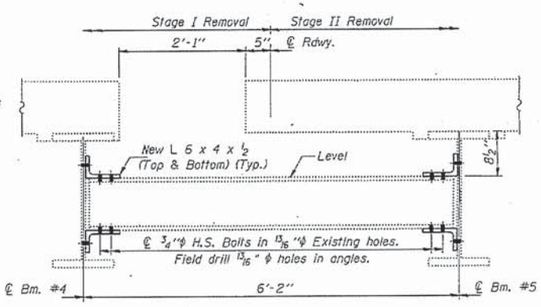


DIAPHRAGM D4

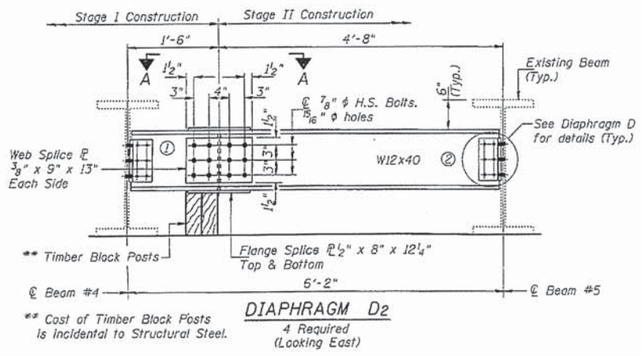
(Rivets to be removed = 16 ea. diaphragm)



* 1 1/2" Vert. x 15/16" slotted holes in top and bottom Angles at Beam #5 only. 15/16" ϕ holes in web to be field drilled at bottom of slots.



DIAPHRAGM D4'



** Timber Block Posts

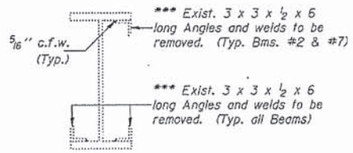
** Cost of Timber Block Posts is incidental to Structural Steel.

DIAPHRAGM D2

4 Required
(Looking East)

EXISTING DIAPHRAGM RELOCATION DETAILS

(22 to be relocated)
(Looking East)



BLAST PL ATTACHMENT ANGLE REMOVAL DETAIL

*** Remove existing angles by grinding existing welds. Final grind 1/16" to 1/8" deep into flange at removed welds to reduce residual concentrations. Final grinding shall be parallel to the web of the beams. The ground areas shall be checked for micro-cracks by the use of dye penetration. Any cracks discovered shall be removed by grinding if less than 1/8" deep. Cracks over 1/8" deep shall be reported to the Engineer for resolution.

EXISTING DIAPHRAGM RELOCATION PROCEDURE

1.) Remove 2'-1" strip full length of Deck (See sheet 2 of 34 for details.)
2.) Remove rivets securing Diaphragm D_4 to Angles. Note: Angles shall not be removed from Beam.
3.) Move Diaphragm to D_4' location. Drill holes in web of Beams #4 & #5. Attach Diaphragm to Beam #4 and temporarily support end of Diaphragm at Beam #5. Complete Stage I Removal.
4.) Prior to pouring Stage II Deck, attach Diaphragm to Beam #5. The bolts for slotted holes in Angles at Beam #5 shall only be finger-tightened and then be fully-tightened after completion of pouring
5.) Cost of Existing Diaphragm Relocation including new angles is incidental to "Jacking Existing Structure". See Special Provisions.

DIAPHRAGM D2 CONSTRUCTION SEQUENCE

1.) Order Diaphragm D_2 in two sections with lengths of 4'-7 1/4" and 1'-5 1/4".
2.) Attach section ① of Diaphragm to Beam 4 and top flange splice PL during Stage I Construction.
3.) Place Timber Block Posts between section ① of diaphragm and abutment bearing seat.
4.) Attach section ② of diaphragm to both Beam #5 and top flange splice PL during Stage II Construction.
5.) Attach web splice plates to sections ① and ② of diaphragms.
6.) Removed Timber Block Posts.
7.) Attach bottom flange splice plate to sections ① and ② of diaphragms.

DESIGNED	Jeff D. Schneller	March 29 1993
CHECKED	John Timmons	EXAMINED Greg D. Kaspar, ENGINEER OF BRIDGE DESIGN
DRAWN	John F. Schneller Jr.	PASSED Ralph E. Anderson, ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	SDS JLC	APPROVED, DIRECTOR OF HIGHWAYS

STRUCTURAL STEEL DETAILS
F.A.P. RT. 67 SEC. 86VBR
CASS COUNTY
STATION 149+69.00

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -
O:\OPERATIONS\Bridges\Bridgeplans_CAD\72J06 - beam end paint FY17 CM\plansheet.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 009-0002
(FOR INFORMATION ONLY)

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

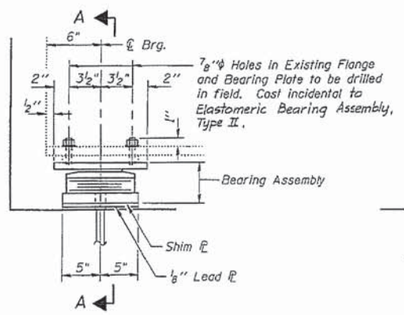
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	18
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

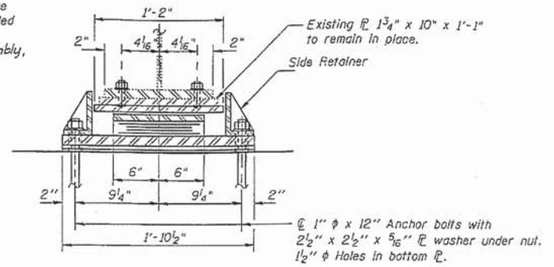
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 67	86VBR	Cass	57	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT *		

SHEET NO. 18
33 SHEETS

* BHF-STPF-67(48)

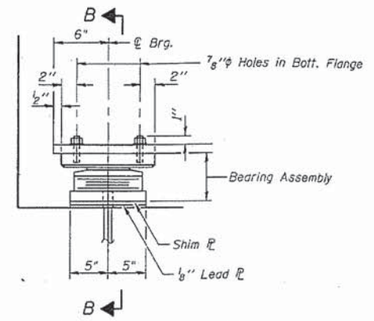


ELEVATION AT W. ABUTMENT

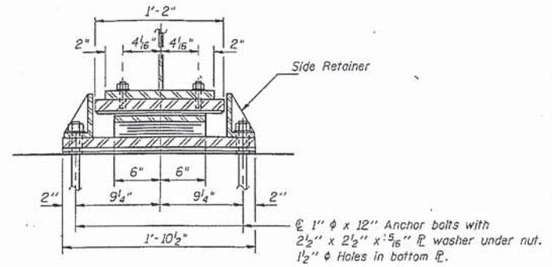


SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG. (EXISTING BEAMS)
(6 Required)

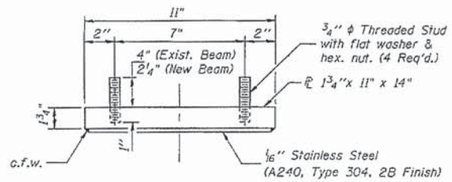


ELEVATION AT W. ABUTMENT

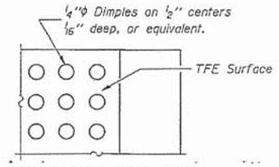


SECTION B-B

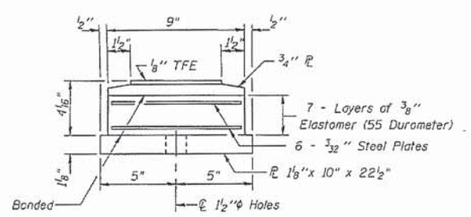
TYPE II TFE ELASTOMERIC EXP. BRG. (NEW BEAMS)
(2 Required)



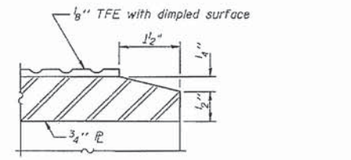
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



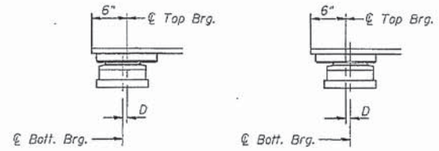
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

Note: The ⅛" 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 ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

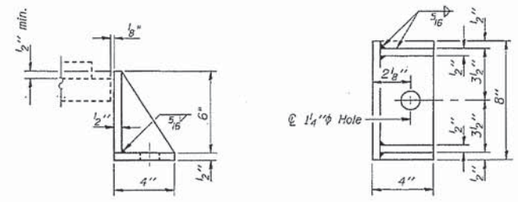


BELOW 50°F. (Move bott. brg. away from fixed brg.)

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

SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	8

See sheet #23 of 33 for Anchor Bolt installation.

DESIGNED	Ruth D. Dudley	EXAMINED	March 29 1993
CHECKED	John Cisne	PASSED	Engineer of Bridge Design
DRAWN	H. Albright	APPROVED	Engineer of Bridges and Structures
CHECKED	SDS JLC		Director of Highways

BEARING DETAILS
WEST ABUTMENT
F.A.P. RT. 67 SEC. 86VBR
CASS COUNTY
STATION 149+69.00

FILE NAME = D:\OPERATIONS\Bridges\Bridgeplans.CAD\72J06 - beam end paint FY17 CM\plansheet.dgn	USER NAME = dudleybm	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 009-0002
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

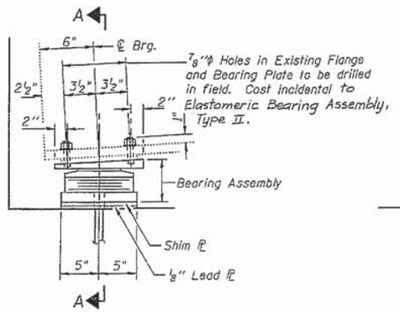
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	06 BRIDGE PAINTING 2016	VARIOUS	46	19
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

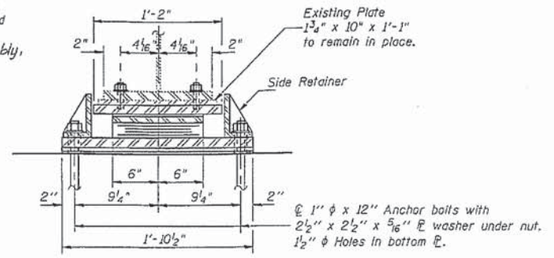
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 67	86VBR	Cass	57	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT #		

SHEET NO. 19
33 SHEETS

#BHF-STPF-67(48)

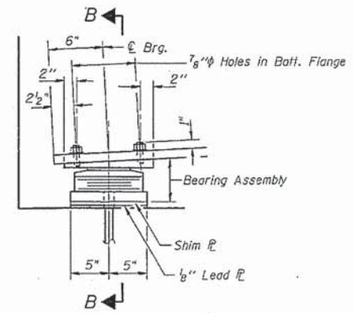


ELEVATION AT E. ABUTMENT
(Looking South)

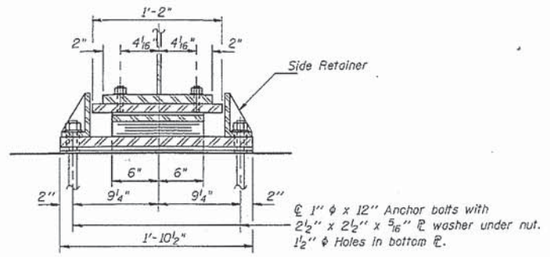


SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG. (EXISTING BEAMS)
(6 Required)

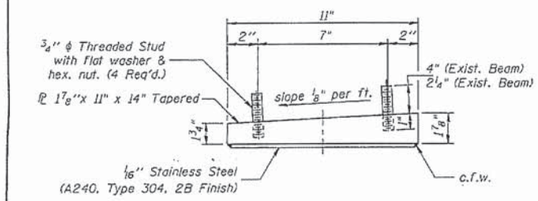


ELEVATION AT E. ABUTMENT
(Looking South)

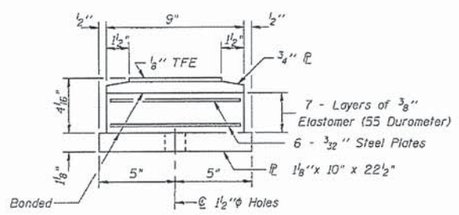


SECTION B-B

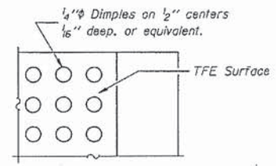
TYPE II TFE ELASTOMERIC EXP. BRG. (NEW BEAMS)
(2 Required)



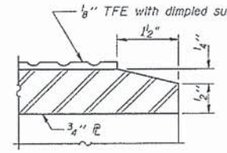
TOP BEARING ASSEMBLY
with Tapered Plate



BOTTOM BEARING ASSEMBLY



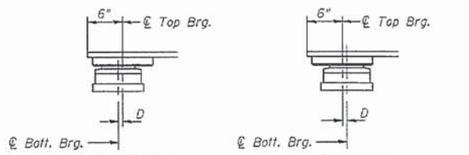
PLAN-TFE SURFACE



SECTION THRU TFE

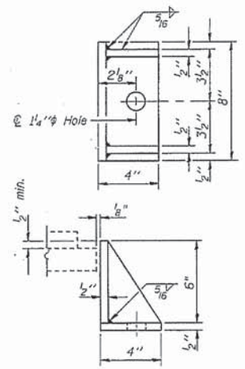
Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" 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=⅛" per each 100° of expansion for every 15° temp. change from the normal temp. of 50°F.



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	8

See sheet #23 of 33 for Anchor Bolt installation.

BEARING DETAILS
EAST ABUTMENT
F.A.P. RT. 67 SEC. 86VBR
CASS COUNTY
STATION 149+69.00

DESIGNED	Keith D. Ingland	March 29 1993
CHECKED	John Cicmanec	EXAMINED Draj. D. Kaspar ENGINEER OF BRIDGE DESIGN
DRAWN	H. Albright	PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	SDS JLC	APPROVED DIRECTOR OF HIGHWAYS

FILE NAME = O:\OPERATIONS\Bridges\Bridgeplans_CAD\72J06 - beam end paint FY17 CM\plansheet.dgn	USER NAME = dudleybm	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 009-0002
(FOR INFORMATION ONLY)

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

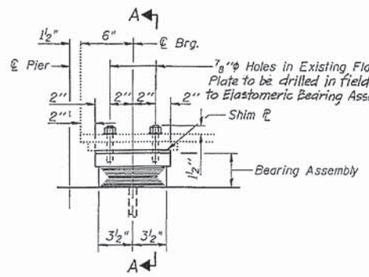
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	20
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

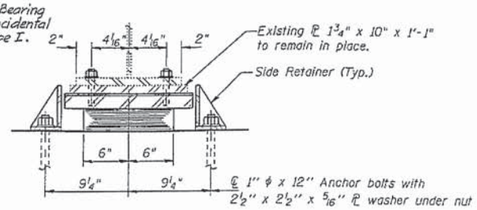
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 67	66VBR	Cass	57	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT *		

SHEET NO. 22
33 SHEETS

* BHF-STPF-67(48)

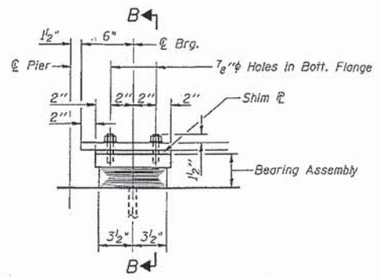


ELEVATION AT PIER 3

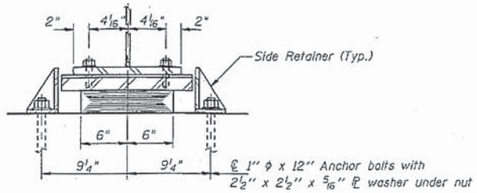


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. (EXISTING BEAMS)
(12 Required)



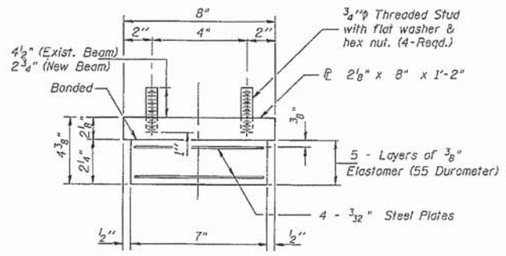
ELEVATION AT PIER 3



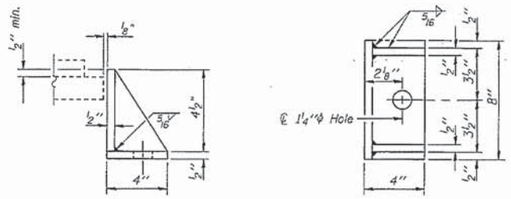
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG. (NEW BEAMS)
(4 Required)

Note: Shim plates shall not be placed under Bearing Assembly.
See sheet #23 of 33 for Anchor Bolt installation.



BEARING ASSEMBLY



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	16

DESIGNED	I. H. O. Langford	March 29 1993
CHECKED	John Cicone	EXAMINED Engineer of Bridge Design
DRAWN	H. Albright	PASSED Engineer of Bridges and Structures
CHECKED	SOS JLC	APPROVED Director of Highways

I-2-E1 12-1-83

BEARING DETAILS
PIER 3
F.A.P. RT. 67 SEC. 86VBR
CASS COUNTY
STATION 149+69.00

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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 009-0002
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	21
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

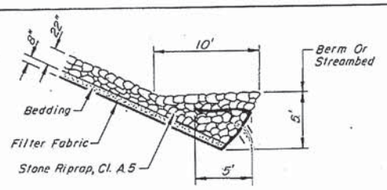
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	114B-1	CASS	42	13
STA.	TO STA.			

SHEET NO. 1
22 SHEETS

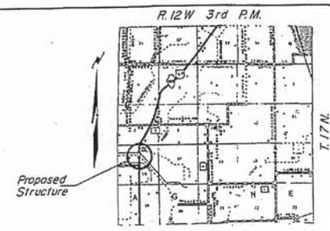
BM #6-255: C&GS Tablet in east end of north abutment, at Sta, 352+22.8, 18' Left, Elev. 449.15.

Existing Structure: S.N. 009-0010 Originally built in 1934 as a 4 span continuous reinf. concrete T-Beam bridge. It was widened in 1958, and at the same time reinforced concrete approach spans were added. The structure is 255'-0" bk. to bk. of appr. bents, and 28'-0" fc. to fc. of curbs. Piers are reinforced concrete on pile supported footings, and abuts. are closed concrete on pile supported footings. The contractor shall remove the entire structure & replace it with a 4 span steel wide flange struct. 292'-0" bk. to bk. of abutments.

Stage construction will be utilized. No salvage.



RIPRAP PLACEMENT DETAIL



LOCATION PLAN

General Notes:

See Proposal for Boring Data.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

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 the piles.

Layout of stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.

Fasteners shall be high strength bolts. Bolts ⅞"ø, open holes 15/16"ø, unless otherwise noted.

Calculated weight of Structural Steel = 247,660 LBS. (AASHTO M223, Grade 50)
28,530 LBS. (AASHTO M183)

The Zinc-Silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted. The color of the vinyl finish coat shall be Munsell No. 10 Y 7/1 light grey.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor 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.

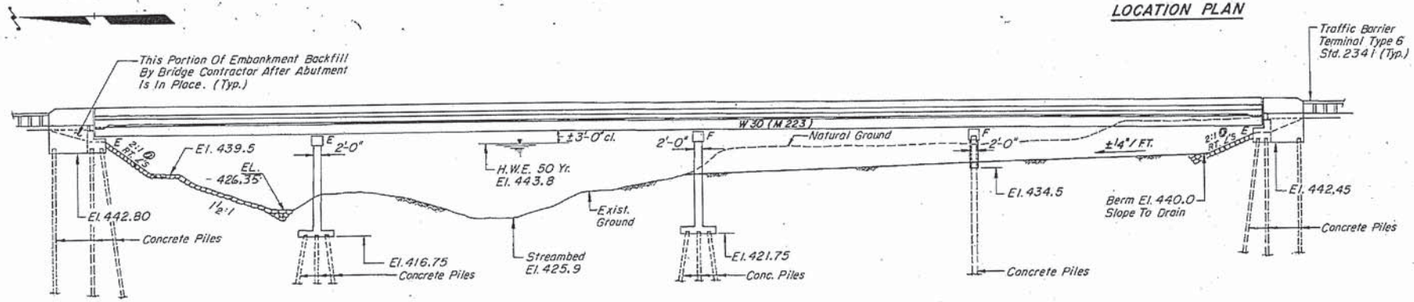
Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile strass shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

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 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. (For Type I Elastomeric Bearings, shims of the dimensions of top plate shall be provided and placed as detailed).

The quantity of Bridge Seat Sealer is 23 Sq. Yds. total at abutments.

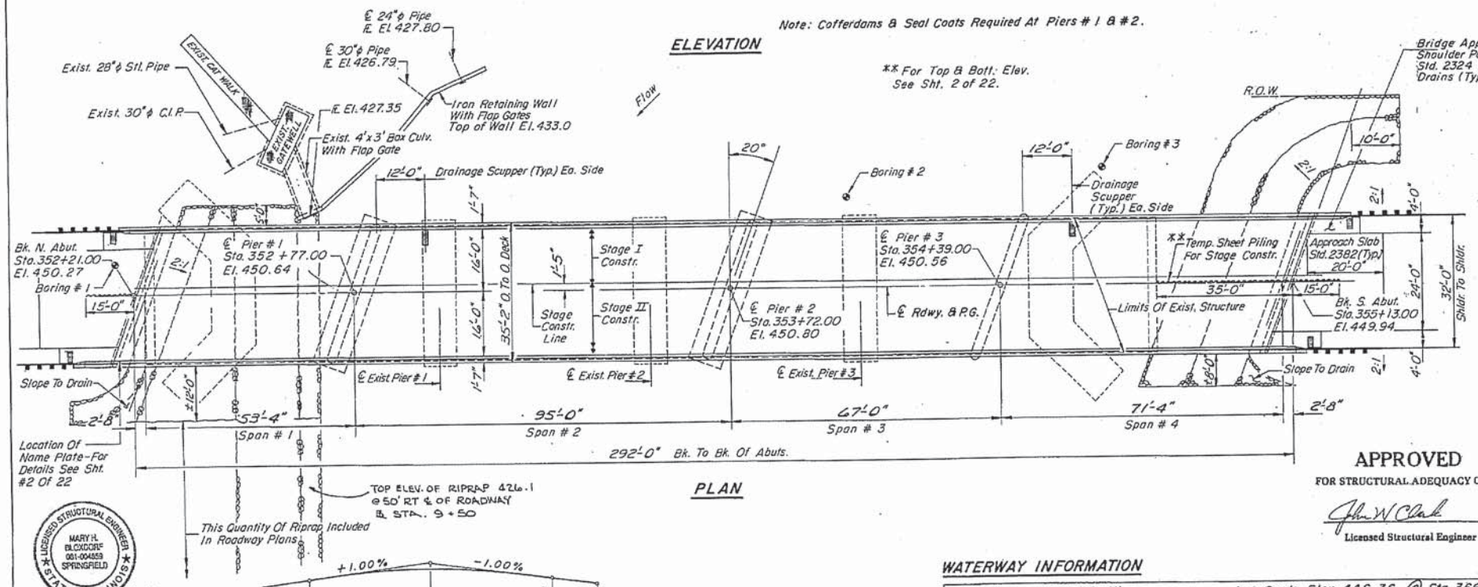
The information shown for temporary sheet piling is estimated. It is the contractors responsibility to provide a design and computations of the temporary sheet piling and associated members, if required, subject to approval of the Engineer.



ELEVATION

Note: Cofferdams & Seal Coats Required At Piers # 1 & #2.

** For Top & Bott. Elev. See Sht. 2 of 22.



PLAN

PROFILE GRADE

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
*	REMOVAL OF EXISTING STRUCTURES	EACH			1
	STRUCTURE EXCAVATION	CU YD		221	221
	COFFERDAM EXCAVATION	CU YD		717	717
	COFFERDAMS	EACH		2	2
	NEOPRENE EXPANSION JOINT 2"	LIN. FT	74		74
	CLASS X CONCRETE SUPERSTRUCTURE	CU YD	315.7		315.7
	PROTECTIVE COAT	SQ YD	274		274
	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	6		6
	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12		12
	CLASS X CONCRETE	CU YD		286.0	286.0
	SEAL COAT CONCRETE	CU YD		236.9	236.9
	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM			1
	STUD SHEAR CONNECTORS	EACH	2184		2184
	REINFORCEMENT BARS	POUND		2540	2540
	REINFORCEMENT BARS, EPOXY COATED	POUND	71,490	25,980	97,470
	FURNISHING CONCRETE PILES	LIN FT		3223	3223
	DRIVING CONCRETE PILES	LIN FT		3223	3223
	TEST PILE CONCRETE	EACH		5	5
*	TEMPORARY SHEET PILING	SQ FT			1463
	NAME PLATES	EACH	1		1
*	STONE RIPRAP, CLASS A5	TON		379	379
*	BRIDGE SEAT SEALER	L.SUM		1	1
*	FILTER FABRIC FOR USE WITH RIPRAP	SQ.YD.		568	568
	DRAINAGE SCUPPERS	EACH	4		4
*	BRIDGE DECK GROOVING	Sq. Yd	1039		1039

* See Special Provisions

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
John W Clark
Licensed Structural Engineer

MARY H. DUDLOYBF 001-004359 SPRINGFIELD
LICENSED STRUCTURAL ENGINEER * STATE OF ILLINOIS *

DESIGNED	Mary H. Dudloybf
CHECKED	S.E. Ozyurt
DRAWN	
CHECKED	JWC

DESIGN STRESSES

f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Reinf.)
fy = 50,000 p.s.i. (AASHTO M223, Grade 50)
fy = 36,000 p.s.i. (AASHTO M183)

LOADING HS 20-44

Allow 25#/Sq. Ft. For Future Wearing Surface
Design Specifications 1989 AASHTO, 1990 Interims & 1983 Seismic Guide Specifications

WATERWAY INFORMATION

Drainage Area = 265 Sq. Mi. Low Grade Elev. 446.36 @ Sta. 356+72

Flood	Freq. Yr.	Q C.F.S.	Opening Exist.	Opening Prop.	Sq. Ft. Prop.	Nat. H.W.E.	Head – Ft. Exist.	Head – Ft. Prop.	Headwater Elev. Exist.	Headwater Elev. Prop.
Design	50	14440	1665	1965	443.8	0.1	0.1	443.9	443.9	
Base	100	16590	1825	2165	444.6	0.2	0.2	444.8	444.8	
Overtopping										
Max. Calc.	500	21720	1940	2320	445.2	0.4	0.4	445.6	445.6	

GENERAL PLAN
U.S. 67 AND ILLINOIS 100 OVER INDIAN CREEK
F.A.P. ROUTE 10 SECTION 114B-1
STA. 353 + 67.00
CASS COUNTY
STRUCTURE NO. 009-0012

811 WEST CAPITOL SPRINGFIELD, ILLINOIS 62704 (217) 528-2936
Ozyurt Engineers, Inc.
CONSULTING ENGINEERS
FILE No. 90-03A
DATE

Rev 4-23-91 R78: Changed FURNISHING & DRIVING CONCRETE PILES From 3006 to 3223 Lin Ft.
Added Bridge Deck Grooving - 1039 Sq Yds

REV. 4-12-90 BY HLC: CHANGED SEAL COAT CONCRETE FROM 190 TO 236.9 CU. YD. AND COFFERDAM EXCAVATION FROM 618 TO 717 CU. YD.

FILE NAME =	USER NAME = dudloybm	DESIGNED -	REVISED -
O:\OPERATIONS\Bridges\Bridgeplans.CAD\72J06 - beam and paint FY17 CM\plansheet.dgn	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

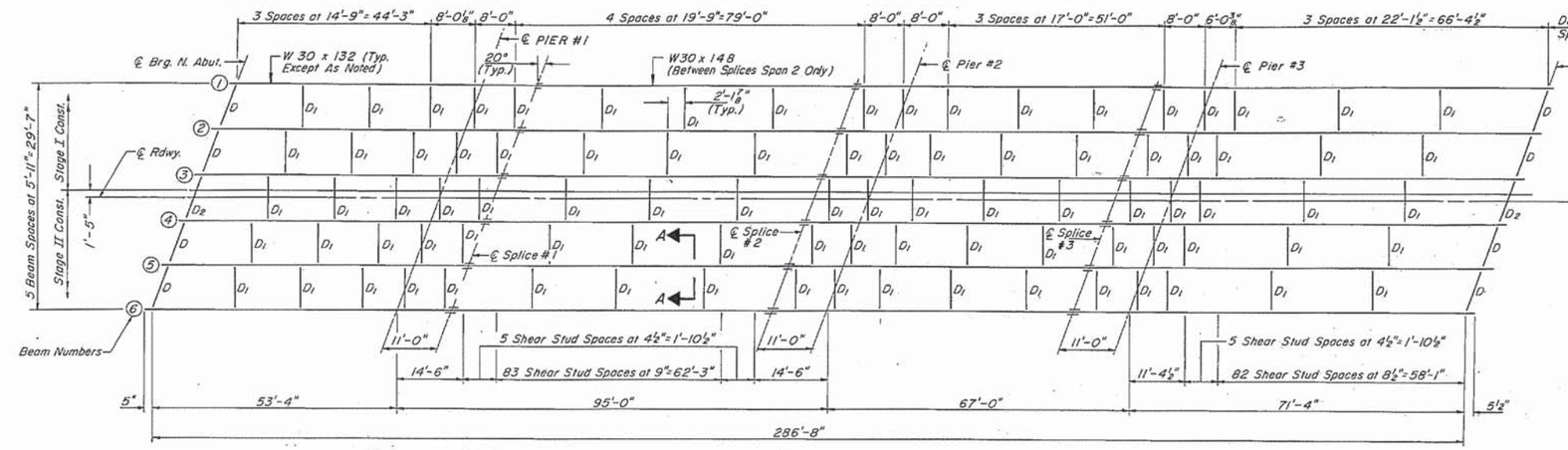
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

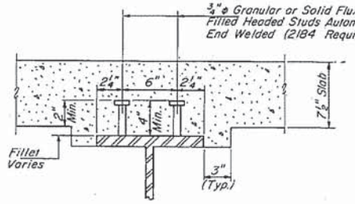
EXISTING BRIDGE PLANS, SN 009-0012
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	22
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	114B-1	CASS	42	24
STA.	TO STA.			
FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT		

SHEET NO. 12
22 SHEETS

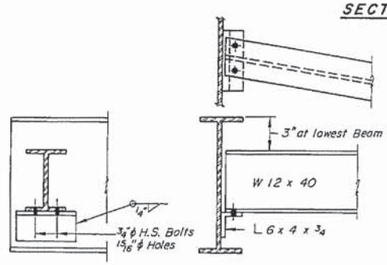




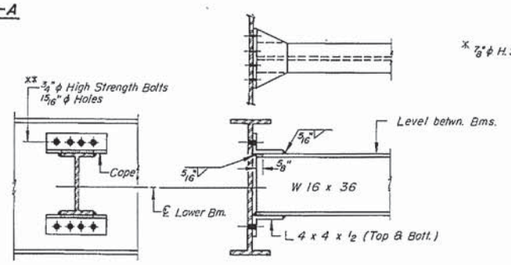
SECTION A-A

FRAMING PLAN

All Beams and Splice Plate Material Shall be AASHTO M223, Grade 50. The Diaphrams and Connecting Angles Shall be AASHTO M183.

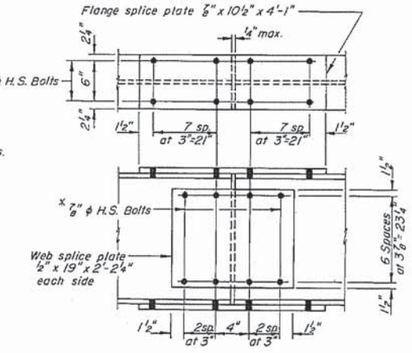


DIAPHRAGM D
8 Required



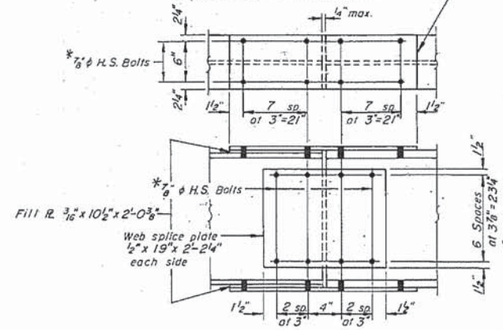
DIAPHRAGM D1
90 Required

Note: Two hardened washers shall be required over all oversize holes for diaphragms.



SPLICE #3

* Threads shall be excluded from the shear plane.



SPLICE #1 & 2
Looking East Splice # 1
Looking West Splice # 2

Note: Work this sheet with #13 of 22.

** Use 13/16" x 1½" Slotted Holes In The Connection Angles At Bm. # 3 For Diaphragms On West Side Only. Provide ⅝" Structural Plate Washers For Slotted Holes. Bolts Shall Be Finger-Tightened Prior To The Deck Pour For Stage II Construction, And Then Will Be Fully Tightened After The Deck Pour For Stage II Construction.

DESIGNED	Mary H. Bleyaert
CHECKED	G. P. Ozyurt
DRAWN	C. Lamm
CHECKED	MWB

8-30-80

STRUCTURAL STEEL DETAILS

F.A.P. ROUTE 10 SECTION 114B-1
STA. 353 + 67.00
CASS COUNTY
STRUCTURE NO. 009-0012

811 WEST CAPITOL SPRINGFIELD, ILLINOIS 62704 (217) 528-8868
Ozyurt Engineers, Inc.
CONSULTING ENGINEERS

FILE NO. 90-03A
DATE

I-2-D

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Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

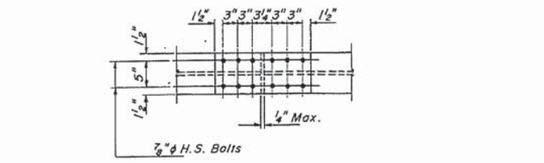
EXISTING BRIDGE PLANS, SN 009-0012
(FOR INFORMATION ONLY)

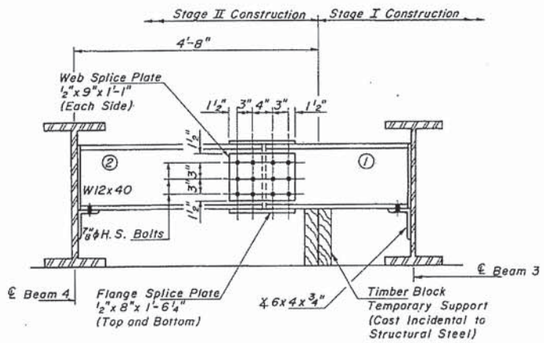
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	23
		CONTRACT NO. 72J06		
		ILLINOIS	FED. AID PROJECT	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	114B-1	CASS	42	25
STA.	TO STA.			
FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT		

SHEET NO. 13
22 SHEETS





DIAPHRAGM D_2

(2 Req'd)
(Looking North)

Dimensions Are Along ℄ Diaphragm
For Diaphragm Connection Details See
Diaphragm D On Sheet # 12 of 22.

DIAPHRAGM D_2 CONSTRUCTION SEQUENCE

1.) Order Diaphragm D_2 in two sections with lengths of 2'-5½" (part 1) and 3'-5" (part 2).
2.) Attach part 1 of Diaphragm to Beam 3 during Stage 1 Construction.
3.) Place Temporary Support System between part 1 of Diaphragm and abutment bearing seat.
4.) Attach part 2 of Diaphragm to both Beam 4 and part 1 of Diaphragm during Stage 2 Construction.
5.) Attach all splice plates to parts 1 and 2 of diaphragm.
6.) Remove Temporary Support System.

INTERIOR BEAM MOMENT TABLE							
	0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.5 Span 3	Pier 3	0.6 Span 4
Is (in.4)	5770	5770	6680	5770	5770	5770	5770
Ic (in.4)			16088				14409
Ss (in.3)	380	380	436	380	380	380	380
Sc (in.3)			611				543
Z (in.3)		437		437		437	
℄ (K/I)	1.009	1.009	0.740	1.009	1.009	1.009	0.725
M℄ ('K)	100	612	385	574	60	436	313
S℄ (K/I)			0.284				0.284
Ms℄ ('K)			177				131
M& ('K)	301	297	567	315	310	269	471
M Imp. ('K)	82	76	129	75	80	70	120
S_3(M&+I)('K)	638	622	1160	650	650	565	985
Ma ('K)	959	1603	2239	1591	923	1301	1858
Mu ('K)		1821		1821		1821	
fs ℄ non-comp.(k.s.i.)	3.2	19.3	10.6	18.1	1.9	13.8	9.9
fs ℄ (comp) (k.s.i.)			3.8				3.1
fs S_3(&+I) (k.s.i.)	20.1	19.6	22.8	20.5	20.5	17.8	21.8
fs (Overload) (k.s.i.)	23.3	38.9	37.2	38.6	22.4	31.6	34.8
fs (Total) (k.s.i.)	30.3		48.4		29.1		45.2
VR (K)	44.9		42.9		48.6		45.1

INTERIOR BEAM REACTION TABLE					
	N. Abut.	Pier 1	Pier 2	Pier 3	S. Abut.
R ℄+S℄ (K)	15.4	87.4	84.1	73.9	30.0
R & (K)	34.5	47.4	48.2	45.2	35.6
Imp. (K)	9.7	12.1	11.8	11.6	9.0
R Total (K)	59.6	146.9	144.1	130.7	74.6

** TOP OF FLANGE ELEVATIONS								
BEAM	℄ Brg. N. Abut.	℄ Pier 1	℄ Splice 1	℄ Splice 2	℄ Pier 2	℄ Splice 3	℄ Pier 3	℄ Brg. S. Abut.
1	449.42	449.68	449.73	449.83	449.79	449.59	449.51	449.00
2	449.51	449.78	449.83	449.94	449.90	449.71	449.63	449.13
3	449.58	449.86	449.91	450.03	450.00	449.81	449.74	449.24
4	449.57	449.85	449.91	450.03	450.00	449.82	449.75	449.26
5	449.46	449.74	449.80	449.94	449.91	449.74	449.67	449.19
6	449.33	449.63	449.69	449.84	449.81	449.65	449.57	449.11

** *For Fabrication Only. Elevations are to Top Flange of W30x132.*

Mu = Full Plastic Moment Capacity for Compact, Braced section.
Ma(Applied Moment) = $1.3(MD_L + MD_1 + S_3(ML_1 + I))$.
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).
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).
VR is the maximum L_L + impact shear range in span.
Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.
The Fully Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1.
f_s(Total) is the sum of the stresses due to $1.3(MD_L + M_3D_1 + S_3(ML_1 + I))$.
f_s(Overload) is the sum of the stresses due to $MD_L + M_3D_1 + S_3(ML_1 + I)$.

Note: Work this sheet with #12 of 22.

DESIGNED	Mary H. Dudley
CHECKED	S. E. Ozyurt
DRAWN	C. Emm
CHECKED	MHD

STRUCTURAL STEEL DETAILS

F.A.P. ROUTE 10 SECTION 114B-1
STA. 353+67.00
CASS COUNTY
STRUCTURE NO. 009-0012

811 WEST CAPITOL SPRINGFIELD, ILLINOIS 62704 (217) 528-2988
Ozyurt Engineers, Inc.
CONSULTING ENGINEERS

FILE NO. 90-03A
DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

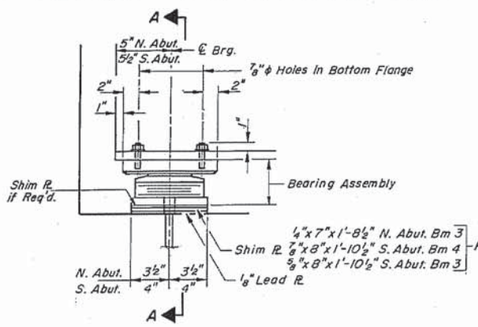
EXISTING BRIDGE PLANS, SN 009-0012
(FOR INFORMATION ONLY)

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

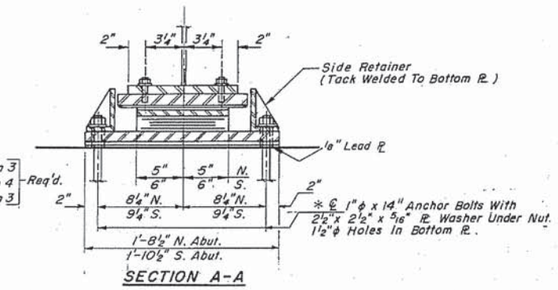
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	24
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	114B-1	CASS	42	26
STA.	TO STA.			

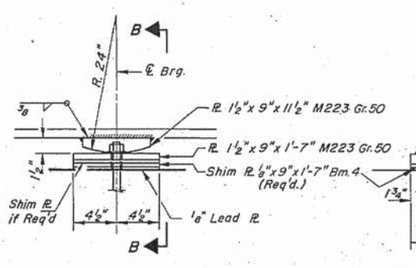
SHEET NO. 14 , 22 SHEETS



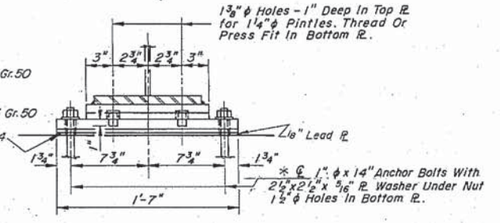
ELEVATION AT ABUTS.



SECTION A-A



ELEVATION AT PIER #3

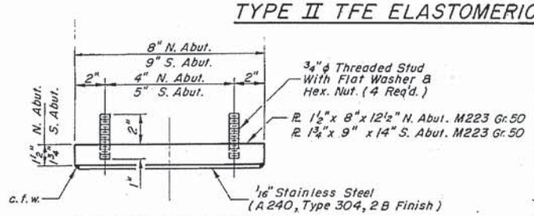


SECTION B-B

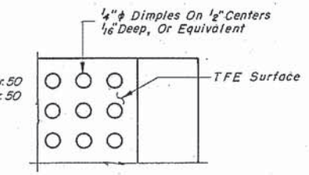
TYPE II TFE ELASTOMERIC EXP. BRG.

* Notes: Anchor Bolts At Fixed Bearings May Be Built Into The Masonry.
See Sheet #16 of 22 For Anchor Bolt Installation.

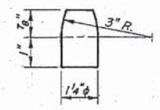
FIXED BEARING



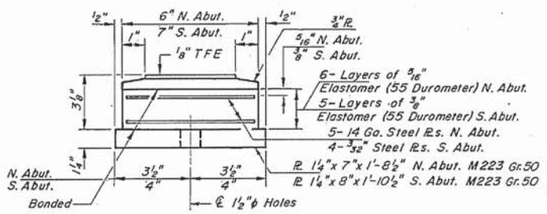
TOP BEARING ASSEMBLY



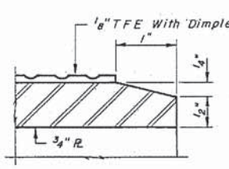
PLAN - TFE SURFACE



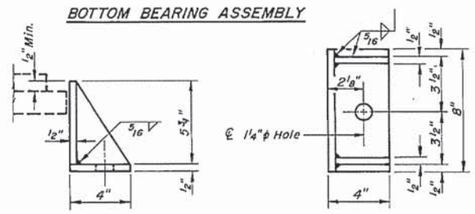
PINTLE



SECTION THRU TFE



BOTTOM BEARING ASSEMBLY

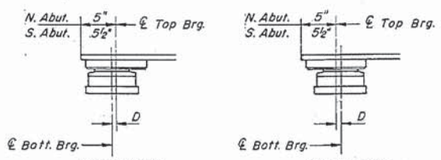


SIDE RETAINER

Equivalent Rolled Angle With Stiffeners Will Be Allowed In lieu Of Welded Plates.

Note: The ⅛" 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 ⅛" TFE Sheet During Vulcanizing Process Will Be Permitted Provided The Process And Method Of Adjusting Assembly Height Is Approved By The Engineer.



BELOW 50° F. (Move Bott. Brg. Away From Fixed Brg.)

ABOVE 50° F. (Move Bott. Brg. Toward Fixed Brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D= ⅛" Per Each 100' Of Expansion For Every 15° Temp. Change From The Normal Temp. Of 50° F.

DESIGNED	Mary H. Dudley
CHECKED	G.P. Ozyurt
DRAWN	C. Conner
CHECKED	MHB

(24 Req'd) (12 N. Abut.) (12 S. Abut.)

12-1-83

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12

BEARING DETAILS, ABUTS & PIER 3.
U.S. 67 AND ILLINOIS 100 OVER INDIAN CREEK
F.A.P. ROUTE 10 SECTION 114B-1
STA. 353+67.00
CASS COUNTY
STRUCTURE NO. 009-0012

811 WEST CAPITOL SPRINGFIELD, ILLINOIS 62704 (217) 698-8848
Ozyurt Engineers, Inc. CONSULTING ENGINEERS

FILE NO. 90-03A
DATE

I-2-E2

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 009-0012
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	25
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 310	*	MORGAN	75	18
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
21 SHEETS

*6 (VBR, VBR-L, RS-2)

B.M.

CHISELED SQUARE EAST HEADWALL AT CULVERT UNDER US RT. 67
RT. STA. 935+60 ELEV. 688.53

EXISTING STRUCTURE NUMBER 069-0024

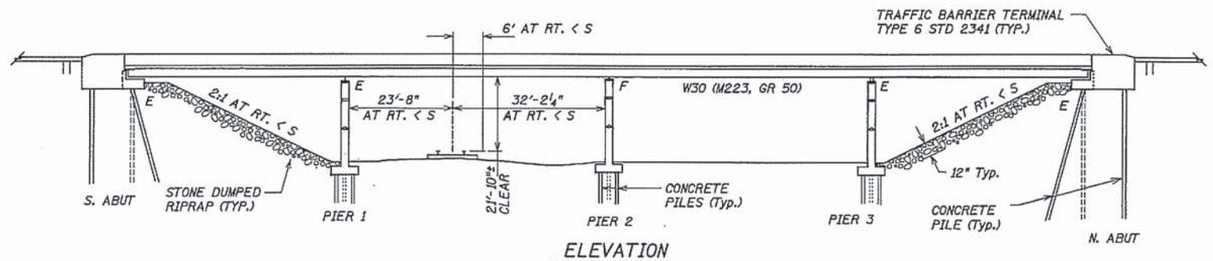
SUPERSTRUCTURE- FOUR SPAN CONTINUOUS STEEL BEAM WITH CAST IN PLACE CONCRETE DECK ON CONCRETE COLUMN PIERS AND OPEN PILE BENT ABUTMENTS.

STRUCTURE LENGTH 283' BK. TO BK. ABUTMENTS.
SUPERSTRUCTURE TO BE REMOVED AND STRUCTURE WIDENED.
TRAFFIC TO BE MAINTAINED USING STAGE CONSTRUCTION.
NO SALVAGE.

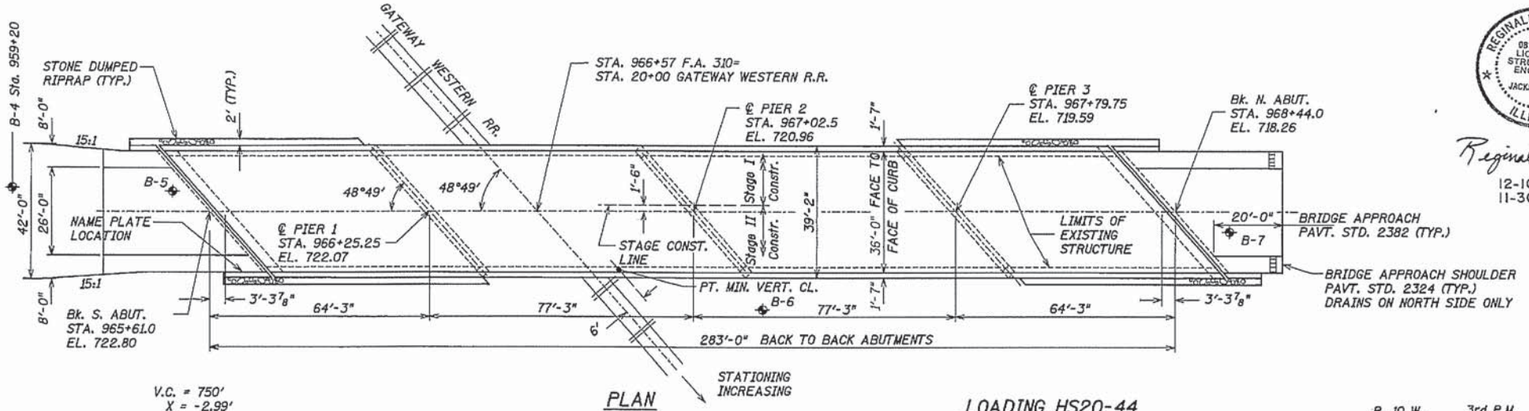
STATION 967+02.5
BUILT 199_ BY
STATE OF ILLINOIS
F.A. RT. 310 SEC. 6VBR
F.A. PROJECT BHF-NHF-310(3)
LOADING HS20
STR. NO. 069-0024

NAME PLATE
See Std. 2113

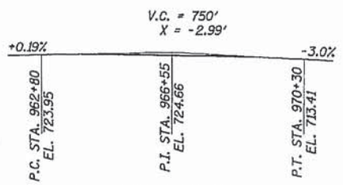
Existing Name Plate shall be salvaged & mounted adjacent to New Name Plate (Incidental to "Name Plate")



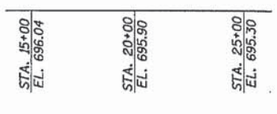
ELEVATION



PLAN



PROFILE GRADE
F.A. 310 ℄ ROADWAY
NOTE: PROFILE ELEVATIONS SHOWN INCLUDES 2½" PROPOSED RESURFACING

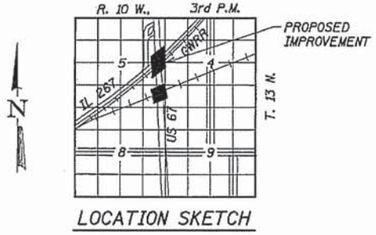


RAILROAD PROFILE
(ALONG TOP OF NORTH RAIL)

LOADING HS20-44
NO ALLOWANCE FOR FUTURE WEARING SURFACE

DESIGN STRESSES
f'c = 3500 psi
fy = 60000 psi (Reinf.)
fy = 50000 psi (AASHTO M223, GR. 50 STRUCTURAL STEEL)
fy = 36000psi (AASHTO M183, GR. 36 STRUCTURAL STEEL).

DESIGN SPECIFICATIONS
1989 AASHTO AND 1990 INTERIMS
SEISMIC RETROFITTING GUIDELINES FOR HIGHWAY BRIDGES



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY.
Ralph E. Anderson
Engineer of Bridges and Structures

REGINALD H. BENTON
081-004823
LICENSED STRUCTURAL ENGINEER OF
JACKSONVILLE
ILLINOIS

Reginald H Benton
12-10-91
11-30-92

GENERAL NOTES:

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

The Contractor shall drive one concrete test pile in a permanent location at the North Abutment, South Abutment and one at Pier #2 as directed by the Engineer before ordering the remainder of the piles.

Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$"ϕ, open holes $\frac{15}{16}$"ϕ, unless otherwise noted.

Calculated weight of structural M183, GR. 36 steel = 27583 LBS.

Calculated weight of structural M223, GR. 50 steel = 202077 LBS.

The Zinc-Silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted. The color of the vinyl finish coat shall be Munsell No. 7.5 G 4 / 8 Interstate Green.

Field welding or construction accessories will not be permitted to the bottom flange of beams nor 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 and all splice plate material except fill plates.

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 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates of shims. For Type I Elastomeric Bearings, shims or the dimensions of top plate shall be provided and placed as detailed.

The estimated quantity of Bridge Seat Sealer is 301 Sq. Ft. total at abutments.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M223 Grade 50.

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.

All structural steel shall be AASHTO M223, GR. 50 except diaphragms, which shall be AASHTO, M183, GR. 36.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Structure Excavation	Cu. Yd.		142	142
Neoprene Expansion Joint 2"	Lin. Ft.	100		100
Class X Concrete Superstructure	Cu. Yd.	325.7		325.7
Elastomeric Bearing Assembly, Type I	Each	12		12
Elastomeric Bearing Assembly, Type II	Each	12		12
Class X Concrete	Cu. Yd.		183.6	183.6
Furnishing & Erecting Structural Steel	L. Sum	.7		.7
Stud Shear Connectors	Each	4776		4776
Reinforcement Bars Epoxy Coated	Lbs.	80610	16930	97540
Furnishing Concrete Piles	Lin. Ft.		633	633
Driving Concrete Piles	Lin. Ft.		633	633
Test Pile Concrete	Each		3	3
Name Plate	Each	1		1
Stone Dumped Riprap, Class B3	Ton		300	300
Bridge Seat Sealer	L. Sum		0.6	0.6
Bridge Deck Grooving	Sq. Yd.	1132		1132
Concrete Removal	Cu. Yd		71	71

DRAWN BY R.A.H.
CHECKED BY R.D.O.
APPROVED BY R.H.B.
DATE DEC. 1991

REVISIONS
DATE | BY

FIELD BOOK

GENERAL, PLAN AND ELEVATION
FA 310 (U.S. 67) OVER GATEWAY WESTERN R.R.
SECTION 6VBR, STA. 967+02.5, MORGAN COUNTY

STRUCTURE NUMBER 069-0024

Benton and Associates, Inc.
CONSULTING ENGINEERS / LAND SURVEYORS
2001 WEST LAFAYETTE AVE. JACKSONVILLE, ILLINOIS 62650

SCALE: | PROJ. NO. 501 | SHEET ____ OF ____

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0024
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	26
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

ROUTE NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. F.A. 310	*	MORGAN	75	23
FED. ROAD DIST. NO. #	ILLINOIS	FED. AID PROJECT-	**	

SHEET NO. 6
21 SHEETS

*6 (VBR, VBR-1, RS-2)
**BHF-F-310( )

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	96563.91	3.33	722.719	722.719
℄ Brg. S. Abut	96567.23	3.33	722.689	722.689
A	96577.23	3.33	722.584	722.613
B	96587.23	3.33	722.474	722.522
C	96597.23	3.33	722.361	722.409
D	96607.23	3.33	722.242	722.277
E	96617.23	3.33	722.120	722.133
℄ Pier 1	96628.16	3.33	721.982	721.982
F	96638.16	3.33	721.850	721.866
G	96648.16	3.33	721.715	721.758
H	96658.16	3.33	721.575	721.639
I	96668.16	3.33	721.431	721.500
J	96678.16	3.33	721.283	721.341
K	96688.16	3.33	721.131	721.164
L	96698.16	3.33	720.974	720.982
℄ Pier 2	96705.41	3.33	720.858	720.858
M	96715.41	3.33	720.693	720.708
N	96725.41	3.33	720.525	720.566
O	96735.41	3.33	720.353	720.415
P	96745.41	3.33	720.176	720.245
Q	96755.41	3.33	719.995	720.054
R	96765.41	3.33	719.809	719.845
S	96785.41	3.33	719.620	719.630
℄ Pier 3	96782.66	3.33	719.480	719.480
T	96792.66	3.33	719.283	719.293
U	96802.66	3.33	719.081	719.114
V	96812.66	3.33	718.876	718.923
W	96822.66	3.33	718.666	718.715
X	96832.66	3.33	718.452	718.484
℄ Brg. N. Abut	96843.59	3.33	718.214	718.214
Bk. of N. Abut	96846.91	3.33	718.144	718.144

BEAM 5

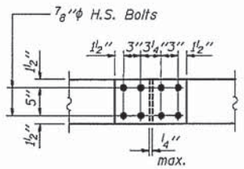
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	96569.75	10.00	722.554	722.554
℄ Brg. S. Abut	96573.07	10.00	722.524	722.524
A	96583.07	10.00	722.416	722.446
B	96593.07	10.00	722.304	722.352
C	96603.07	10.00	722.188	722.236
D	96613.07	10.00	722.067	722.101
E	96623.07	10.00	721.943	721.955
℄ Pier 1	96634.00	10.00	721.801	721.801
F	96644.00	10.00	721.668	721.683
G	96654.00	10.00	721.530	721.572
H	96664.00	10.00	721.387	721.452
I	96674.00	10.00	721.241	721.310
J	96684.00	10.00	721.090	721.148
K	96694.00	10.00	720.935	720.969
L	96704.00	10.00	720.776	720.784
℄ Pier 2	96711.25	10.00	720.658	720.658
M	96721.25	10.00	720.491	720.506
N	96731.25	10.00	720.321	720.362
O	96741.25	10.00	720.146	720.208
P	96751.25	10.00	719.966	720.036
Q	96761.25	10.00	719.783	719.842
R	96771.25	10.00	719.595	719.630
S	96781.25	10.00	719.403	719.413
℄ Pier 3	96788.50	10.00	719.261	719.261
T	96798.50	10.00	719.062	719.072
U	96808.50	10.00	718.858	719.890
V	96818.50	10.00	718.650	719.697
W	96828.50	10.00	718.438	719.486
X	96838.50	10.00	718.221	718.253
℄ Brg. N. Abut	96849.43	10.00	717.980	717.980
Bk. of N. Abut	96852.75	10.00	717.910	717.910

BEAM 6

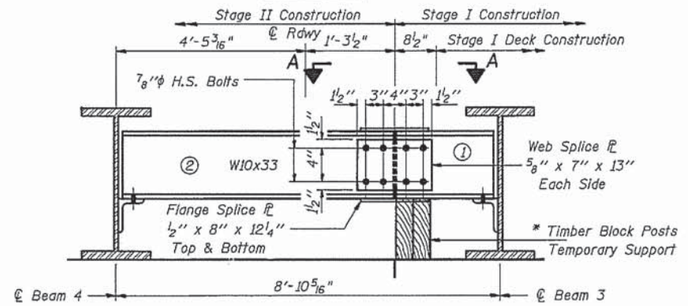
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	96575.59	16.67	722.303	722.303
℄ Brg. S. Abut	96578.91	16.67	722.333	722.333
A	96588.91	16.67	722.223	722.252
B	96598.91	16.67	722.108	722.156
C	96608.91	16.67	721.989	722.037
D	96618.91	16.67	721.866	721.900
E	96628.91	16.67	721.739	721.752
℄ Pier 1	96639.84	16.67	721.595	721.595
F	96649.84	16.67	721.459	721.474
G	96659.84	16.67	721.318	721.361
H	96669.84	16.67	721.174	721.238
I	96679.84	16.67	721.025	721.094
J	96689.84	16.67	720.872	720.930
K	96699.84	16.67	720.714	720.748
L	96709.84	16.67	720.552	720.560
℄ Pier 2	96717.09	16.67	720.433	720.433
M	96727.09	16.67	720.264	720.278
N	96737.09	16.67	720.090	720.131
O	96747.09	16.67	719.913	719.975
P	96757.09	16.67	719.731	719.800
Q	96767.09	16.67	719.545	719.604
R	96777.09	16.67	719.355	719.390
S	96787.09	16.67	719.160	719.170
℄ Pier 3	96794.34	16.67	719.016	719.016
T	96804.34	16.67	718.814	718.825
U	96814.34	16.67	719.608	718.641
V	96824.34	16.67	718.398	718.445
W	96834.34	16.67	718.183	718.231
X	96844.34	16.67	717.964	717.996
℄ Brg. N. Abut	96855.27	16.67	717.720	717.720
Bk. of N. Abut	96858.59	16.67	717.650	717.650

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	96561.00	0.00	722.801	722.801
℄ Brg. S. Abut	96564.32	0.00	722.771	722.771
A	96574.32	0.00	722.667	722.697
B	96584.32	0.00	722.559	722.606
C	96594.32	0.00	722.446	722.494
D	96604.32	0.00	722.329	722.363
E	96614.32	0.00	722.208	722.221
℄ Pier 1	96625.25	0.00	722.071	722.071
F	96635.25	0.00	721.941	721.957
G	96645.25	0.00	721.807	721.850
H	96655.25	0.00	721.668	721.732
I	96665.25	0.00	721.526	721.595
J	96675.25	0.00	721.379	721.437
K	96685.25	0.00	721.227	721.261
L	96695.25	0.00	721.072	721.080
℄ Pier 2	96702.50	0.00	720.957	720.957
M	96712.50	0.00	720.794	720.808
N	96722.50	0.00	720.627	720.668
O	96732.50	0.00	720.455	720.517
P	96742.50	0.00	720.280	720.349
Q	96752.50	0.00	720.100	720.159
R	96762.50	0.00	719.916	719.951
S	96772.50	0.00	719.727	719.737
℄ Pier 3	96779.75	0.00	719.588	719.588
T	96789.75	0.00	719.393	719.403
U	96799.75	0.00	719.193	719.225
V	96809.75	0.00	718.988	719.036
W	96819.75	0.00	718.780	718.828
X	96829.75	0.00	718.567	718.599
℄ Brg. N. Abut	96840.68	0.00	718.330	718.330
Bk. of N. Abut	96844.00	0.00	718.260	718.260



VIEW A-A



DIAPHRAGM D

2 Required
(Looking South)

For details of connections to beams see diaphragm D on Sheet 10 of 21
Dimensions are along ℄ of Diaphragm

* Cost of Timber Block Posts is incidental to Structural Steel.

DIAPHRAGM D CONSTRUCTION SEQUENCE

1.) Order Diaphragm D in two sections with lengths of 3'-0" and 5'-8" .
2.) Attach section ① of Diaphragm to Beam 3 and top flange splice ℄ during Stage I Construction
3.) Place Timber Block Posts between section ① of diaphragm and abutment bearing seat.
4.) Attach section ② of diaphragm to both Beam 4 and section ① of diaphragm during Stage II Construction.
5.) Attach all remaining splice plates to sections ① and ② of diaphragms.
6.) Remove Timber Block Posts.

d:\501d\4span\6.dgn Jan. 2, 1902 12:22:35

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0024
(FOR INFORMATION ONLY)

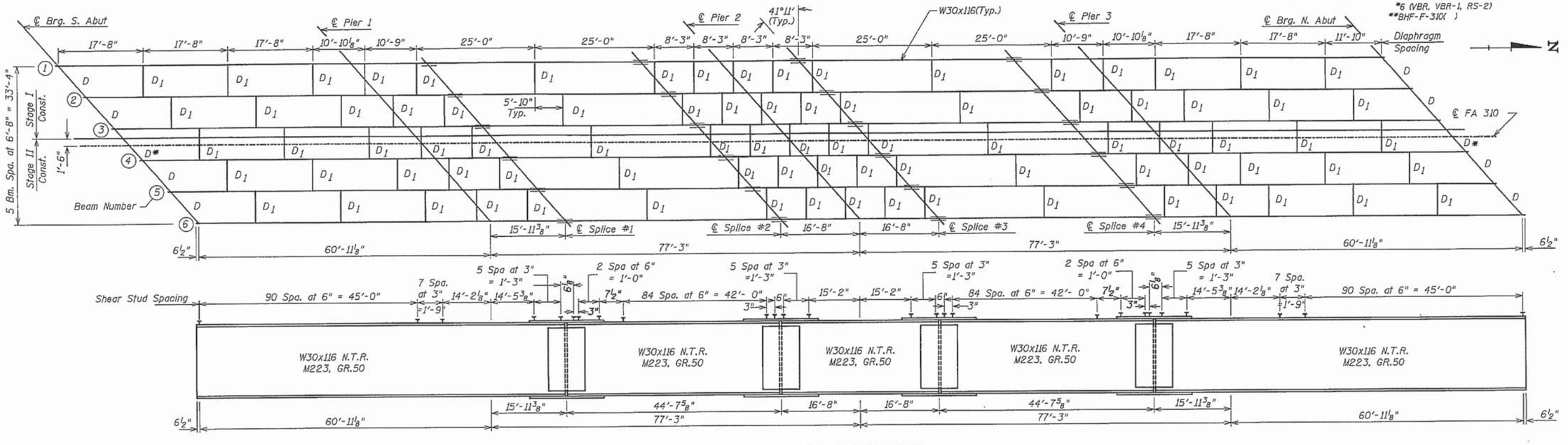
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	06 BRIDGE PAINTING 2016	VARIOUS	46	27
		CONTRACT NO. 72J06		
	ILLINOIS	FED. AID PROJECT		

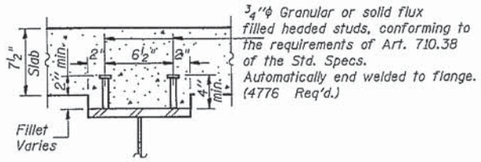
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S.R.S. F.A. 310	*	MORGAN	75	27
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT- **		

SHEET NO. 10
21 SHEETS

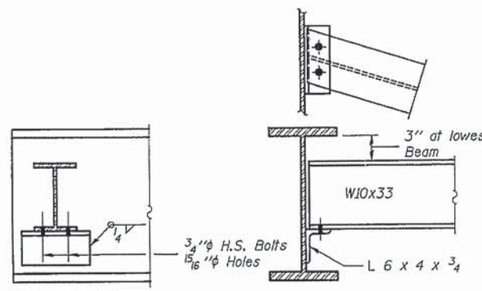
*6 (VBR, VBR-1, RS-2)
**BHF-F-310( )



BEAM ELEVATION



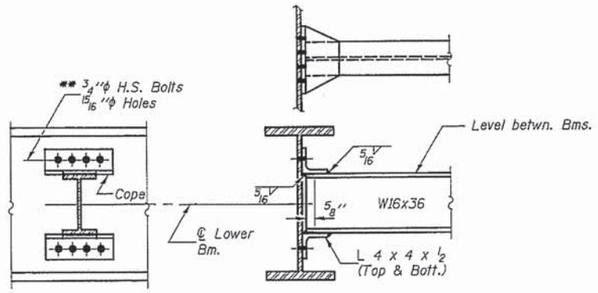
SHEAR CONNECTOR DETAIL



DIAPHRAGM D

10 Required

*For Diaphragm D Details at Stage Constructions Line See Sheet 6 of 21

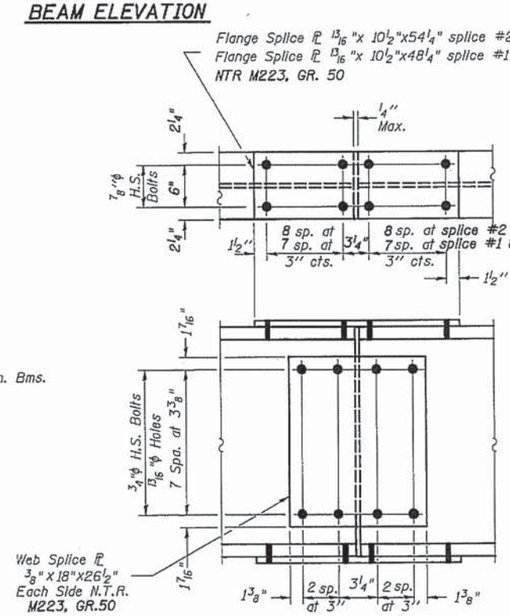


DIAPHRAGM D_1

85 Required

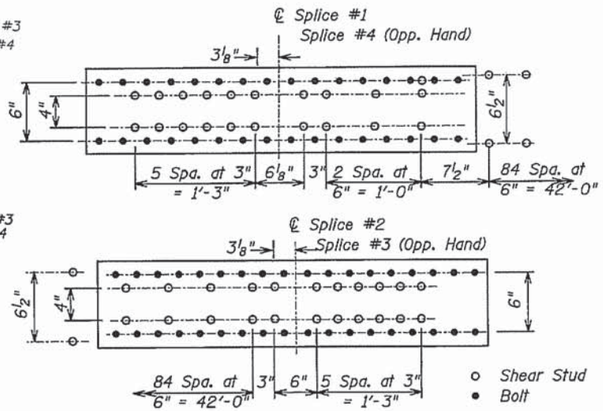
Note: Two hardened washers shall be required over all oversize holes for diaphragms.

** 1½" Vertical x 15/16" Slotted holes in connection angle at beam #3 with 5/16" structural plate washers. The bolts for the slotted holes shall be only finger tightened prior to pouring the deck slab and then fully tightened after completion of the pour.



SPLICE

24 Required



SHEAR STUDS AT SPLICE PLATE

Note: N.T.R. refers to Notch Toughness Requirements

DRAWN BY R.A.H.	STRUCTURAL STEEL
CHECKED BY R.D.O.	FA 310 (U.S. 67) OVER GATEWAY WESTERN RR
APPROVED BY R.H.B.	SECTION 6VBR, STA 967+02.5, MORGAN COUNTY
DATE DEC. 1991	STRUCTURE NUMBER 069-0024
REVISIONS DATE / BY	Benton and Associates, Inc.
	CONSULTING ENGINEERS / LAND SURVEYORS
	2001 WEST LAFAYETTE AVE. JACKSONVILLE, ILLINOIS 62650
FIELD BOOK	SCALE: / PROJECT NO. 501 / SHEET ____ OF ____

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0024
(FOR INFORMATION ONLY)

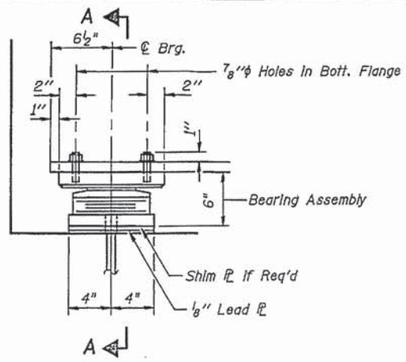
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	28
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

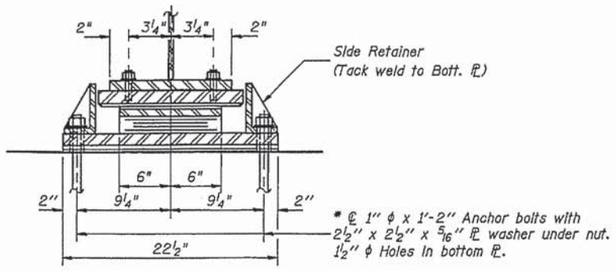
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 310	*	MORGAN	46	30
FED. ROAD CONT. NO. 6		ILLINOIS	FED. AID PROJECT- **	

SHEET NO. 13
21 SHEETS

*6 (VBR, VBR-1, RS-2)
**BHF-F-310( )



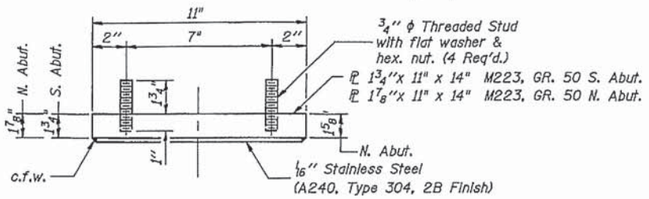
ELEVATION AT ABUT.



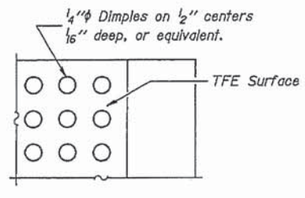
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

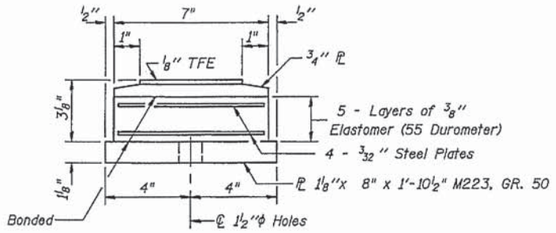
Taper Top Plate N. Abut.

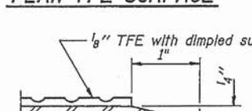


TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



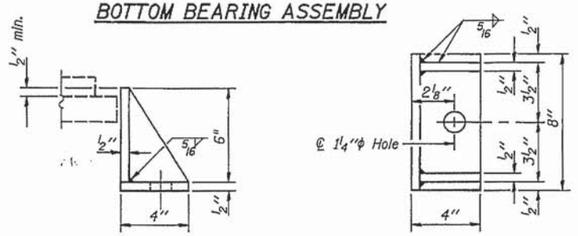


SECTION THRU TFE

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.

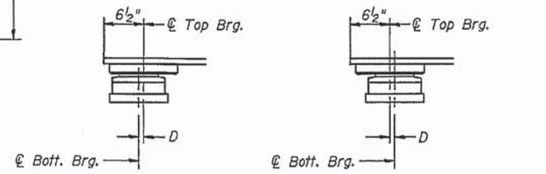
Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

BOTTOM BEARING ASSEMBLY



SIDE RETAINER

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



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

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

SETTING ANCHOR BOLTS AT EXP. BRG.

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

* Notes:

See sheet #14 for Anchor Bolt installation.

Weight of adjusting shims, lead plates, side retainers, and anchor bolts shall be included in "Structural Steel".

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12

c:\2016\depan\L12x2-dep.dgn Dec. 18, 2021 12:42:34

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0024
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	29
		CONTRACT NO. 72J06		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 310	*	MORGAN	75	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
18 SHEETS

*6 (VBR, VBR-1, RS-2)

B.M.
CHISELED SQUARE EAST HEADWALL AT CULVERT UNDER US RT. 67
RT. STA. 935+60 ELEV. 688.53

EXISTING STRUCTURE NUMBER 069-0025

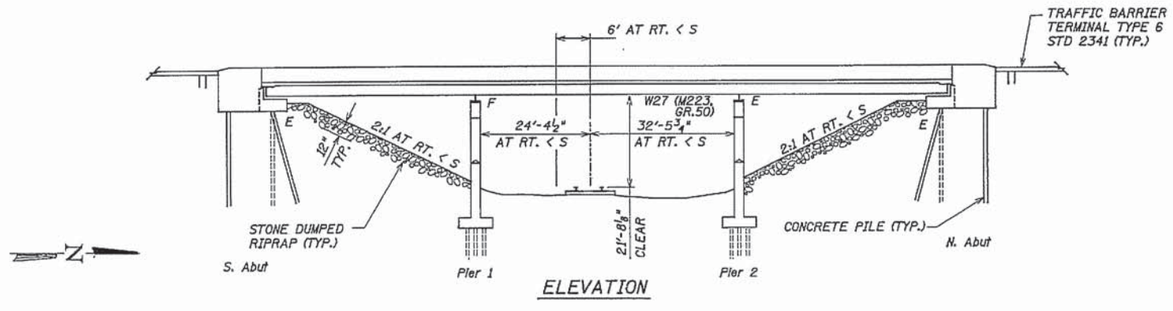
SUPERSTRUCTURE- THREE SPAN CONTINUOUS STEEL BEAM WITH CAST IN PLACE CONCRETE DECK ON CONCRETE COLUMN PIERS AND OPEN PILE BENT ABUTMENTS.

STRUCTURE LENGTH 162' BK. TO BK. ABUTMENTS
SUPERSTRUCTURE TO BE REMOVED AND STRUCTURE WIDENED
TRAFFIC TO BE MAINTAINED USING STAGE CONSTRUCTION
NO SALVAGE.

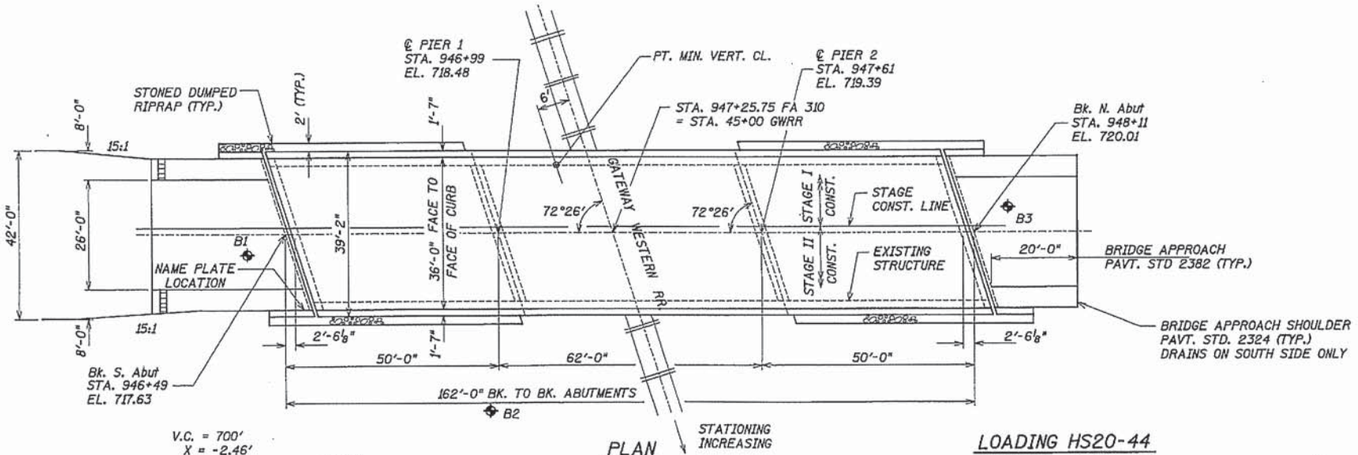
STATION 947+30
BUILT 199_ BY
STATE OF ILLINOIS
F.A. RT. 310 SEC. 6VBR-1
F.A. PROJECT BHF-NHF-310(B)
LOADING HS20
STR. NO. 069-0025

NAME PLATE
See Std. 2113

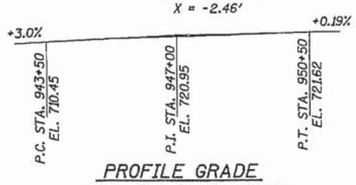
Existing Name Plate shall be salvaged & mounted adjacent to new Name Plate. (Incidental to "Name Plate")



ELEVATION

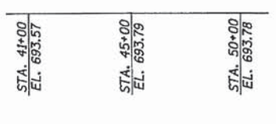


PLAN



PROFILE GRADE
F.A. 310 ℄ ROADWAY

NOTE: PROFILE ELEVATIONS SHOWN INCLUDES 2½" PROPOSED RESURFACING



RAILROAD PROFILE
(ALONG TOP OF NORTH RAIL)

LOADING HS20-44
NO ALLOWANCE FOR FUTURE WEARING SURFACE

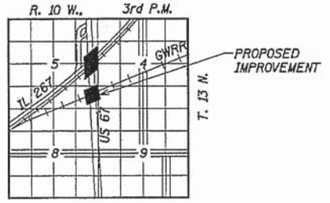
DESIGN STRESSES
f'c = 3500 psi
fy = 60000 psi (Reinf.)
fy = 50000 psi (AASHTO M223, GR. 50 STRUCTURAL STEEL)
fy = 36000 psi (AASHTO M183, GR. 36 STRUCTURAL STEEL)

DESIGN SPECIFICATIONS
1989 AASHTO AND 1990 INTERIMS
SEISMIC RETROFITTING GUIDELINES FOR HIGHWAY BRIDGES

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Rabih E. Anderson
Engineer of Bridges and Structures

REGINALD H. BENTON
081-004623
LICENSED STRUCTURAL ENGINEER
OF
JACKSONVILLE
ILLINOIS

Reginald H. Benton
12-12-91
11-30-92



LOCATION SKETCH

GENERAL NOTES:

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

The Contractor shall drive one concrete test pile in a permanent location at the North Abutment and South Abutment as directed by the Engineer before ordering the remainder of the piles.

Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$"ϕ, open holes $\frac{15}{16}$"ϕ, unless otherwise noted.

Calculated weight of M183, GR. 36 structural steel = 17196 LBS.

Calculated weight of M223, GR. 50 structural steel = 83048 LBS.

The Zinc-Silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted. The color of the vinyl finish coat shall be Munsell No. 7.5 G 4 / 8 Interstate Green.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor 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 and all splice plate material except fill plates.

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 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. For Type I Elastomeric Bearings, shims or the dimensions of top plate shall be provided and placed as detailed.

The estimated quantity of Bridge Seat Sealer is 240 Sq. Ft. total at abutments.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M223 Grade 50.

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.

All structural steel shall be AASHTO M223, GR. 50 except diaphragms, expansion joint plates and attached bars which shall be AASHTO M183, GR. 36

For cantilever forming brackets see special provisions

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Structure Excavation	Cu. Yd.		74	74
Preformed Joint Seal 2½"	Lin. Ft.	41		41
Preformed Joint Seal 4"	Lin. Ft.	41		41
Class X Concrete Superstructure	Cu. Yd.	187.2		187.2
Elastomeric Bearing Assembly, Type I	Each	12		12
Elastomeric Bearing Assembly, Type II	Each	6		6
Class X Concrete	Cu. Yd.		84.8	84.8
Furnishing & Erecting Structural Steel	L. Sum.	.3		.3
Stud Shear Connectors	Each	3020		3020
Reinforcement Bars Epoxy Coated	Lbs.	45830	10060	55890
Furnishing Concrete Piles	Lin. Ft.		300	300
Driving Concrete Piles	Lin. Ft.		300	300
Test Pile Concrete	Each		2	2
Name Plate	Each	1		1
Stone Dumped Riprap Class B3	Ton		234	234
Bridge Seat Sealer	L. Sum.		0.4	0.4
Bridge Deck Grooving	Sq. Yd.	634		634
Concrete Removal	Cu. Yd.		38	38

* Quantity Includes Bridge Deck Surface

DRAWN BY	R.A.H.
CHECKED BY	R.D.O.
APPROVED BY	R.H.B.
DATE	DEC. 1991

REVISIONS
DATE | BY

GENERAL PLAN AND ELEVATION
FA 310 (U.S. 67) OVER GATEWAY WESTERN R.R.
SECTION 6VBR-1, STA. 947+30, MORGAN COUNTY

STRUCTURE NUMBER 069-0025

Benton and Associates, Inc.
CONSULTING ENGINEERS / LAND SURVEYORS
2001 WEST LAFAYETTE AVE. JACKSONVILLE, ILLINOIS 62650

FIELD BOOK | SCALE: | PROJ. NO. 501 | SHEET ____ OF ____

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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

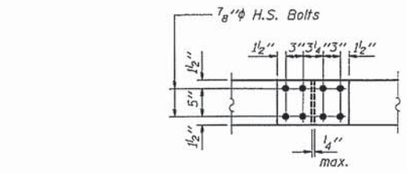
EXISTING BRIDGE PLANS, SN 069-0025
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	30
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

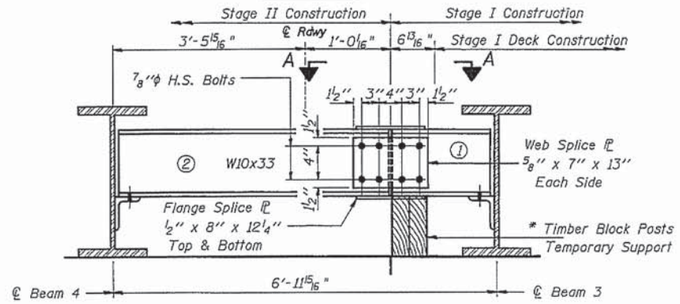
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. R.A. 310	*	MORGAN	75	43
FED. ROAD DIST. NO. 8		ILLINOIS	FED. AID PROJECT- **	

SHEET NO. 5
18 SHEETS

*6 (VBR, VBR-1, RS-2)
**BHF-F-310( )



VIEW A-A



DIAPHRAGM D

2 Required
(Looking South)

* Cost of Timber Block Posts is incidental to Structural Steel.

For details of connections to beams see diaphragm D on Sheet 10 of 18
Dimensions are along ℄ of Diaphragm

DIAPHRAGM D CONSTRUCTION SEQUENCE

1.) Order Diaphragm D in two sections with lengths of 2'-5¼" and 4'-5¼" .
2.) Attach section ① of Diaphragm to Beam 3 and top flange splice ℄ during Stage I Construction
3.) Place Timber Block Posts between section ① of diaphragm and abutment bearing seat.
4.) Attach section ② of diaphragm to both Beam 4 and section ① of diaphragm during Stage II Construction.
5.) Attach all remaining splice plates to sections ① and ② of diaphragms.
6.) Remove Timber Block Posts.

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	94650.05	3.33	717.597	717.597
℄ Brg. S. Abut	94652.56	3.33	717.637	717.637
A	94662.56	3.33	717.814	717.835
B	94672.56	3.33	717.987	717.016
C	94682.56	3.33	718.155	718.175
D	94692.56	3.33	718.320	718.324
℄ Pier 1	94700.05	3.33	718.440	718.440
E	94710.05	3.33	718.598	718.617
F	94720.05	3.33	718.751	718.805
G	94730.05	3.33	718.901	718.956
H	94740.05	3.33	719.046	719.093
I	94750.05	3.33	719.187	719.211
℄ Pier 2	94762.05	3.33	719.352	719.352
J	94772.05	3.33	719.484	719.493
K	94782.05	3.33	719.613	719.639
L	94792.05	3.33	719.737	719.767
M	94802.05	3.33	719.858	719.875
℄ Brg. N. Abut	94809.54	3.33	719.946	719.946
Bk. of N. Abut	94812.05	3.33	719.966	719.966

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	94652.16	10.00	717.531	717.531
℄ Brg. S. Abut	94654.67	10.00	717.571	717.571
A	94664.67	10.00	717.746	717.768
B	94674.67	10.00	717.918	717.948
C	94684.67	10.00	717.086	718.106
D	94694.67	10.00	718.249	718.254
℄ Pier 1	94702.16	10.00	718.369	718.369
E	94712.16	10.00	718.526	718.545
F	94722.16	10.00	718.679	718.723
G	94732.16	10.00	718.827	718.883
H	94742.16	10.00	718.972	719.019
I	94752.16	10.00	719.112	719.136
℄ Pier 2	94764.16	10.00	719.276	719.276
J	94774.16	10.00	719.408	719.416
K	94784.16	10.00	719.535	719.560
L	94794.16	10.00	719.659	719.688
M	94804.16	10.00	719.779	719.796
℄ Brg. N. Abut	94811.66	10.00	719.866	719.866
Bk. of N. Abut	94814.17	10.00	719.886	719.886

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	94654.28	16.67	717.440	717.440
℄ Brg. S. Abut	94656.79	16.67	717.480	717.480
A	94666.79	16.67	717.654	717.676
B	94676.79	16.67	717.825	717.855
C	94686.79	16.67	717.992	718.012
D	94696.79	16.67	717.155	718.160
℄ Pier 1	94704.27	16.67	718.274	718.274
E	94714.27	16.67	718.430	718.449
F	94724.27	16.67	718.582	718.626
G	94734.27	16.67	718.729	718.785
H	94744.27	16.67	718.873	718.920
I	94754.27	16.67	719.013	718.036
℄ Pier 2	94766.27	16.67	719.175	719.175
J	94776.27	16.67	719.306	719.314
K	94786.27	16.67	719.433	719.457
L	94796.27	16.67	719.556	719.585
M	94806.27	16.67	719.675	719.692
℄ Brg. N. Abut	94813.77	16.67	719.761	719.761
Bk. of N. Abut	94816.28	16.67	719.781	719.781

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	94649.00	0.00	717.631	717.631
℄ Brg. S. Abut	94651.51	0.00	717.671	717.671
A	94661.51	0.00	717.848	717.869
B	94671.51	0.00	718.021	718.050
C	94681.51	0.00	718.189	718.210
D	94691.51	0.00	718.354	718.359
℄ Pier 1	94699.00	0.00	718.475	718.475
E	94709.00	0.00	718.633	718.652
F	94719.00	0.00	718.787	718.831
G	94729.00	0.00	718.937	718.993
H	94739.00	0.00	719.083	719.130
I	94749.00	0.00	719.225	719.248
℄ Pier 2	94761.00	0.00	719.390	719.390
J	94771.00	0.00	719.523	719.531
K	94781.00	0.00	719.652	719.676
L	94791.00	0.00	719.776	719.806
M	94801.00	0.00	719.897	719.915
℄ Brg. N. Abut	94808.48	0.00	719.985	719.985
Bk. of N. Abut	94811.00	0.00	720.010	720.010

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0025
(FOR INFORMATION ONLY)

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

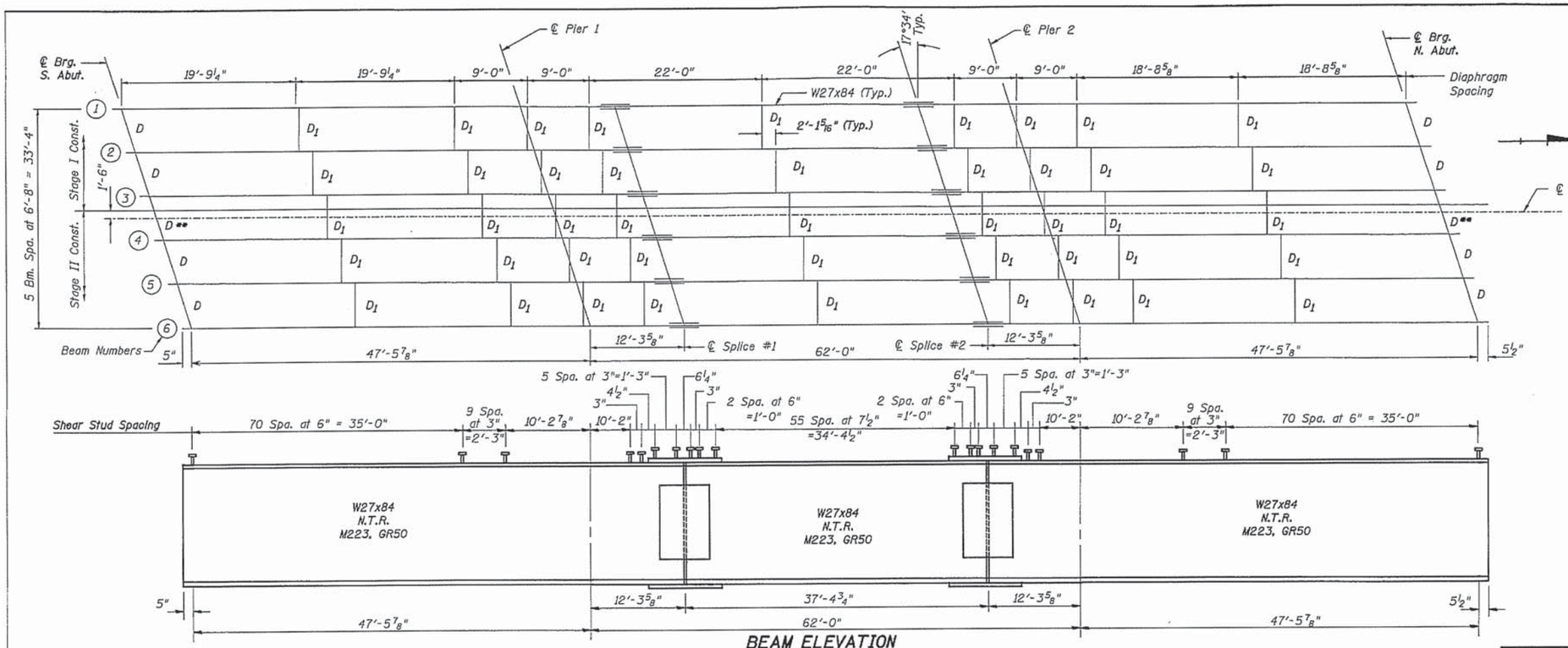
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	06 BRIDGE PAINTING 2016	VARIOUS	46	31
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. F.A. 310	*	MORGAN	75	47
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT- **		

SHEET NO. 9
18 SHEETS

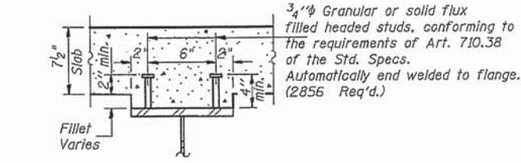
*6 (VBR, VBR-1, RS-2)
**BHF-F-310( )

INTERIOR BEAM REACTION TABLE			
		Abuts.	Pier
RP	(K)	14.9	52.2
RL	(K)	38.6	44.2
Imp.	(K)	11.2	12.3
R (Total)	(K)	64.7	108.7



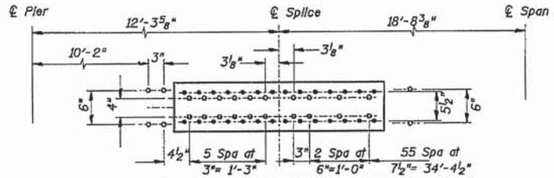
BEAM ELEVATION

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. #1 or 0.6 Sp. #3	Pier	.5 Sp. #2
Is	(in⁴)	2850	2850	2850
Ic	(in⁴)	8673		8673
Ss	(in³)	213	213	213
Sc	(in³)	333		333
wP	(K/ft.)	0.722	0.855	0.722
MP	('K)	106.6	255.1	125.0
sP	(K/ft.)	0.133		0.133
MsP	('K)	22.8		30.8
ML	('K)	303.6	172	368.5
M (Imp)	('K)	88.4	48	98.5
S3(ML+I)	('K)	653.3	366.7	778.3
Ma	('K)	1017.2	808.1	1214.9
fsP non-comp	(k.s.i.)	6.0	14.3	7.0
fsP (comp)	(k.s.i.)	0.9		1.2
fsS3(L+I)	(k.s.i.)	23.6	20.6	28.1
fs (Overload)	(k.s.i.)	30.5	34.9	36.4
fs (Total)	(k.s.i.)	39.6	45.4	47.3
VR	(K)	53		42

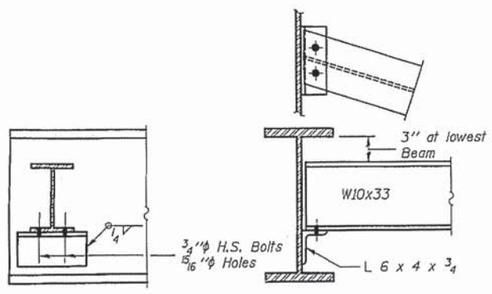


¾"ϕ Granular or solid flux filled headed studs, conforming to the requirements of Art. 710.38 of the Std. Specs. Automatically end welded to flange. (2856 Req'd.)

SHEAR CONNECTOR DETAIL



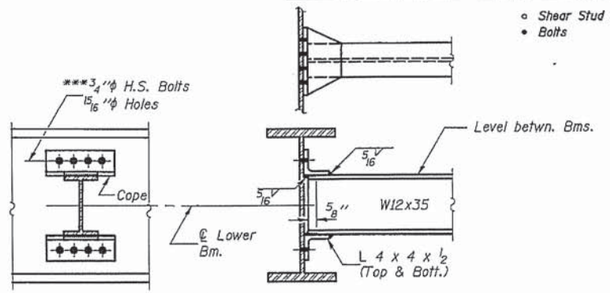
SHEAR STUDS AT SPLICE PLATE



DIAPHRAGM D

10 Required

**For Diaphragm D Details at Stage Line See Sht. 5 of 18

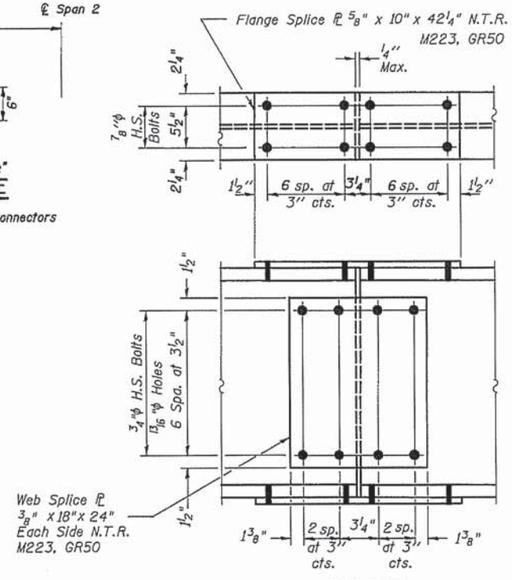


DIAPHRAGM D1

45 Required

*** 1½" Vertical x 13/16" slotted holes in connection angle at beam #3 with 5/16" structural plate washers. The bolts for the slotted holes shall only be finger tightened prior to pouring the desk slab and then tightened after completion of the pour.

Note: Two hardened washers shall be required over all oversize holes for diaphragms.



SPLICE

12 Required

TOP OF BEAM ELEVATIONS*						
	BM. 1	BM. 2	BM. 3	BM. 4	BM. 5	BM. 6
℄ Brg. S. Abut	716.62	716.79	716.93	716.97	716.90	716.81
℄ Brg. Pier 1	717.38	717.54	717.68	717.71	717.64	717.54
℄ Splice 1	717.58	717.74	717.88	717.91	717.84	717.74
℄ Splice 2	718.14	718.30	718.43	718.46	718.39	718.29
℄ Brg. Pier 2	718.31	718.47	718.60	718.63	718.56	718.46
℄ Brg. N. Abut	718.97	719.12	719.25	719.28	719.20	719.09

* Top of Beam Elevations are for Fabrication Only.

Note: N.T.R. refers to Notch Toughness Requirement

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

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).

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

Ma (Applied Moment)=1.3[M P + Ms P + S3(M L + I)].

fs (Overload) is the sum of the stresses due to MP + MsP + S3(ML + I).

fs (Total) is the sum of the stresses due to 1.3[MP + MsP + S3(ML + I)].

DRAWN BY	R.A.H
CHECKED BY	R.D.O
APPROVED BY	R.H.B.
DATE	DEC. 1991

REVISIONS	
DATE	BY

FIELD BOOK

STRUCTURAL STEEL
FA 310 (U.S. 67) OVER GATEWAY WESTERN R.R.
SECTION 6VBR-1, STA. 947+30, MORGAN COUNTY

STRUCTURE NUMBER 069-0025

Benton and Associates, Inc.
CONSULTING ENGINEERS / LAND SURVEYORS
2601 WEST LAFAYETTE AVE. JACKSONVILLE, ILLINOIS 62650

SCALE: | PROJECT NO. 501 | SHEET ____ OF ____

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0025
(FOR INFORMATION ONLY)

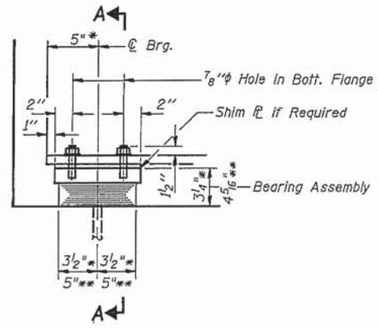
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	32
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

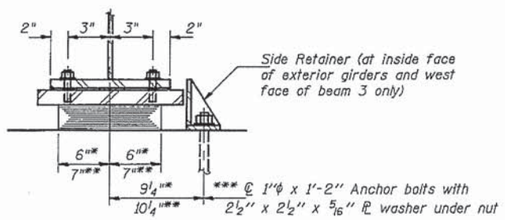
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S.L. F.A. 310	*	MORGAN	75	48
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT- ##		

SHEET NO. 10
18 SHEETS

* S. ABUT.
** PIER 2



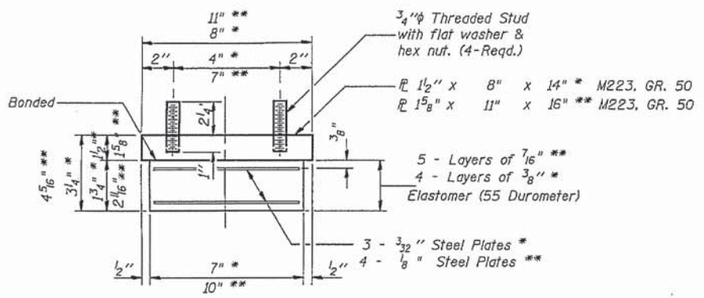
ELEVATION AT S ABUT. & PIER 2



SECTION A-A

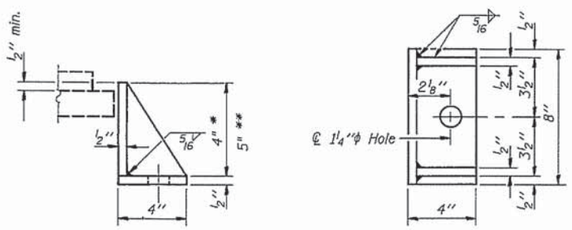
TYPE I ELASTOMERIC EXP. BRG.

*** Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet #12 for Anchor Bolt installation.
Weight of adjusting shims side retainers, and anchor bolts shall be included in "Structural Steel".



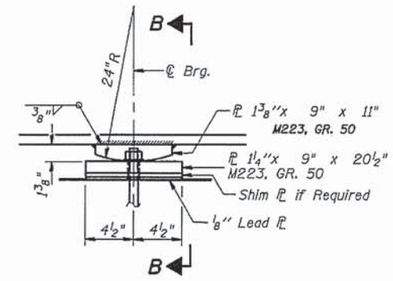
BEARING ASSEMBLY

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

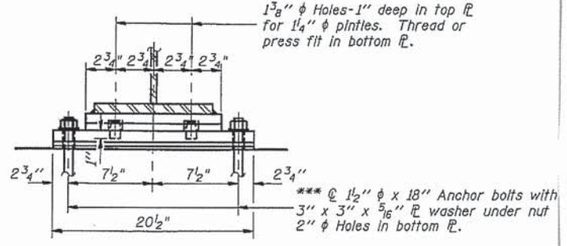


SIDE RETAINER

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

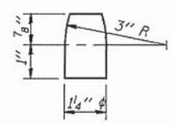


ELEVATION AT PIER 1



SECTION B-B

FIXED BEARING



PINTLE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0025
(FOR INFORMATION ONLY)

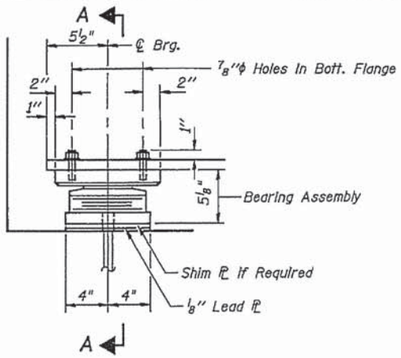
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	33
		CONTRACT NO. 72J06		
		ILLINOIS	FED. AID PROJECT	

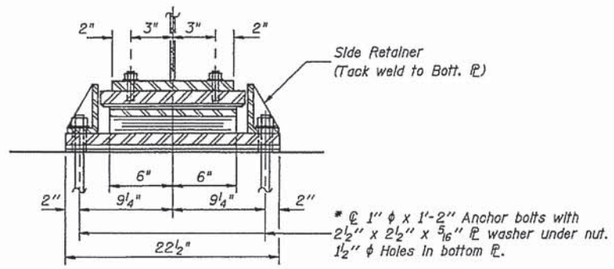
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 310	*	MORGAN	75	49
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT- **		

SHEET NO. 11
18 SHEETS

*6 (VBR, VBR-1,RS-2)
**BHF-F-310( )



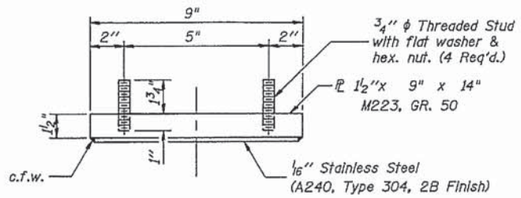
ELEVATION AT N ABUT.



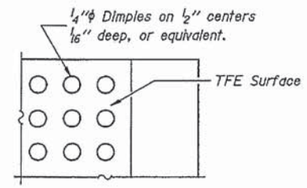
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

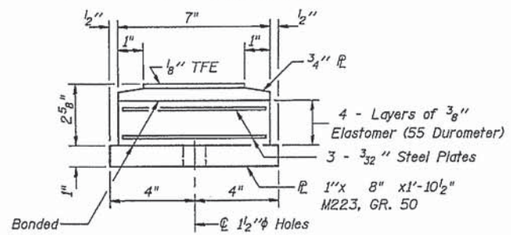
* Notes: See sheet #12 for Anchor Bolt installation.
Weight of adjusting shims, lead plates, side retainers, and anchor bolts shall be included in "Structural Steel".

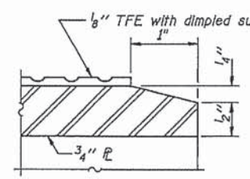


TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



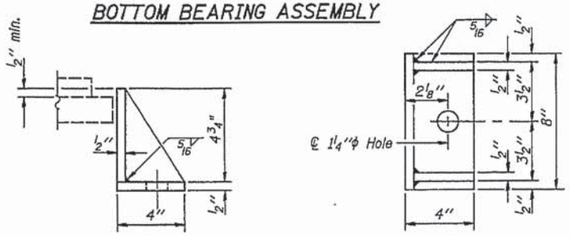


SECTION THRU TFE

Note: The ⅛" 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.

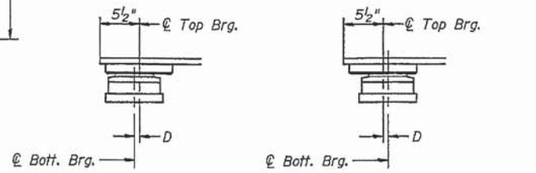
Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

BOTTOM BEARING ASSEMBLY



SIDE RETAINER

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



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

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

SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	6

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 069-0025
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	34
		CONTRACT NO. 72J06		
	ILLINOIS	FED. AID PROJECT		

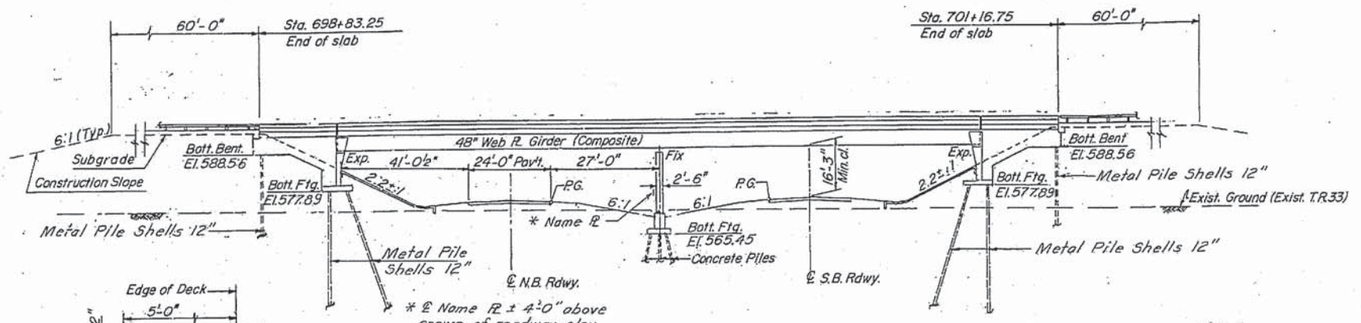
B.M. #U R.R. Spike in Fe. Corner
133' Rt. Sta. 270+66 Elev. 571.50

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

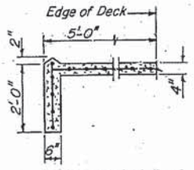
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 406	*	LOGAN	85	30
* FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 1
14 SHEETS

* 54-10HB-2



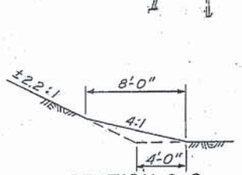
ELEVATION



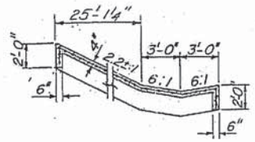
SECTION A-A

STATION 270+95.44
BUILT 198 BY
STATE OF ILLINOIS
F.A. RT. 406 SEC. 54-10 HB-2
E.A. PROJ.
LOADING HS20-44
STR. NO. 054-0075

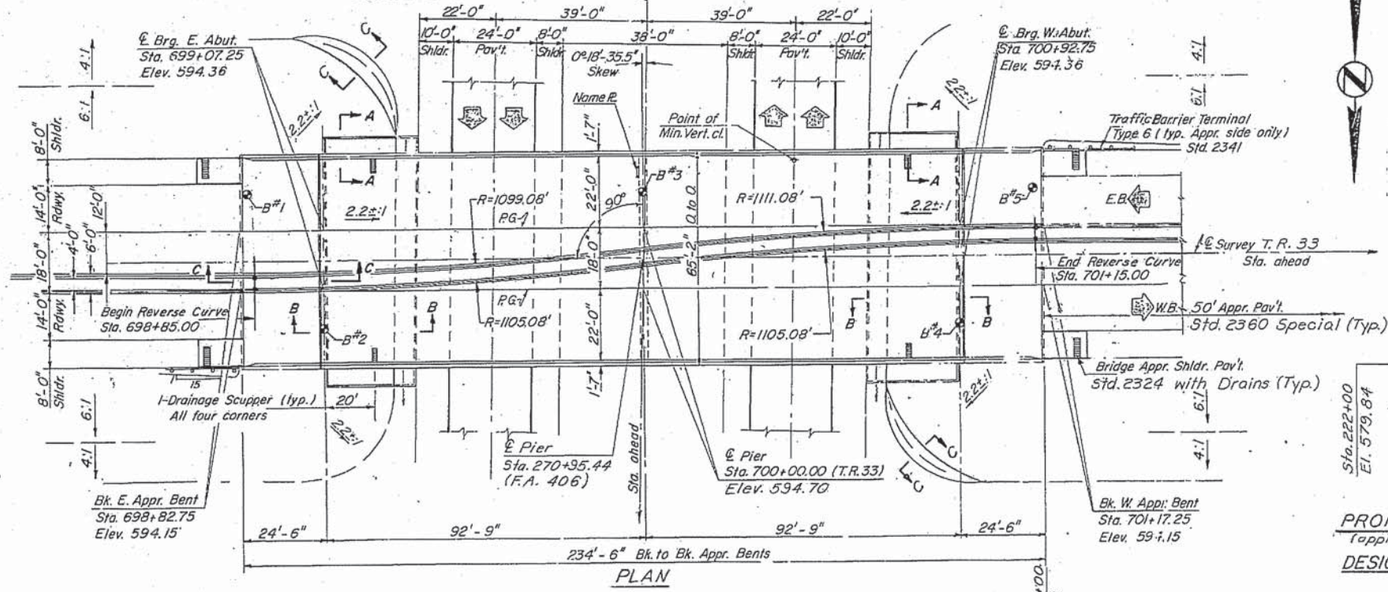
NAME PLATE
See Std. 2113



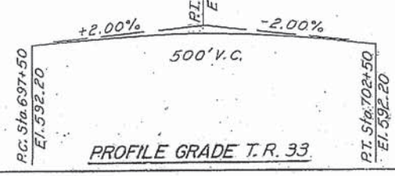
SECTION C-C



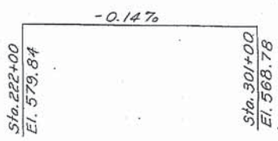
SECTION B-B



PLAN



PROFILE GRADE T.R. 33



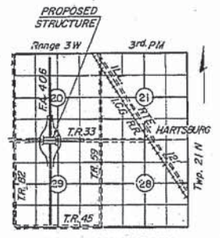
PROFILE GRADE F.A. 406
(applies at median edge of pavt.)

DESIGN STRESSES

f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. Reinf.
fs = 20,000 p.s.i. Struct. Steel

Allow 25#/sq. ft. for future W.S.

Loading HS-20-44
Design Spec.: 1973 AASHTO (as applicable)
[Structural Steel Only]
1983 AASHTO and 1984 & 1985 Interims.



LOCATION SKETCH

GENERAL NOTES

See Proposal for Boring Data.
Fasteners shall be high strength bolts. Bolts ⅞"ϕ, open holes 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.
All girders, diaphragms and welded attachments, other than stud shear connectors and new splice & fill plates, have been previously fabricated and are located in the District 6 Maintenance Depot, calculated weight = 333,450 Lbs. All this structural steel shall be cleaned in the shop by Method I, and shop & field painted with the zinc-silicate and vinyl paint system. It shall be the Contractor's responsibility to identify, transport, clean, paint and erect all previously fabricated structural steel, see Special Provisions. The Contractor is also responsible for relocating 27 girders that hinder the accessibility of the girders for this structure. The girders to be relocated shall be done so without damage and placed on contractors supplied supports above the ground. Relocation cost shall be incidental to Erecting Structural Steel. All girders to be used for this structure are marked TR 33
Calculated weight of Structural Steel to be furnished and erected by Contractor = 17,570 Lbs.
Field welding of construction accessories will not be permitted to the bottom flange of the 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.
All splice plate material shall conform to the Supplemental Requirements for Notch Toughness Zone 2.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.
Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x 4.0, weighing 58 Lbs. per 100 sq. ft.
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 ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛" adjusting shims, of the dimensions of the bottom bearing plate, shall other be provided for each bearing at the Pier in addition to all plates or shims. At the Abutments adjustments shall be made by grinding the surface.
The contractor shall drive one concrete test pile in a permanent location at the Pier and one metal shell test pile in a permanent location at the West Abutment as directed by the Engineer before ordering the remainder of piles.
Metal Pile Shells at the abutments and approach bents shall be driven in holes precored through the embankment and natural ground, to the following elevations; East Appr. Bent - Elev. 549.4; East Abut. - Elev. 548.7; West Abut. - Elev. 549.8 and the West Appr. Bent - Elev. 549.0. The Minimum size diameter auger to be used is 13". Precoring shall be in accordance with Artical 513.09(c) of the Standard Specifications, except precoring shall continue into natural ground.
The Contractor shall remove and dispose of all splice and filler plates attached to the girders prior to shop cleaning, cost incidental. Plates shall be removed without damaging the girders, and any tack welds found shall be ground smooth prior to cleaning and checked by magnetic particle inspection.
The Zinc-silicate and vinyl paint system shall be used for shop and field painting of all Structural Steel except where otherwise noted.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Structure Excavation	Cu. Yd.		630	630
Drainage Scuppers	Each	4		4
Protective Coat	Sq. Yd.	1,850		1,850
Class X Concrete	Cu. Yd.	479.6	369.3	848.9
Structural Steel	L. Sum			1
Erecting Structural Steel	L. Sum			1
Reintorcement Bars	Lbs.	46,580	78,520	125,100
Reinforcement Bars (Epoxy Coated)	Lbs.	101,850		101,850
Furnishing Metal Pile Shells 12"	Lin. Ft.		4,148	4,148
Concrete Piles	Lin. Ft.		966	966
Test Pile Metal Shells	Each		1	1
Test Pile Concrete	Each		1	1
Name Plates	Each			1
Slope Wall 4"	Sq. Yd.		561	561
Preformed Joint Seal 4"	Lin. Ft.	132		132
Elastomeric Bearing Assembly Type I	Each	18		18
Stud Shear Connectors	Each	2,988		2,988
Sand Backfill	Cu. Yd.		186	186
Driving and Filling Shells	Lin. Ft.		4,148	4,148

DESIGNED	Mary H. Bloxdorf	December 16 1986
CHECKED	Eric E. Dowdy	
DRAWN	RS	
CHECKED	MHB	EEG

EXAMINED Graf O. Kaspar — ENGINEER OF BRIDGE DESIGN
PASSED James I. Rayburn — ENGINEER OF BRIDGES AND STRUCTURES
APPROVED — DIRECTOR OF HIGHWAYS

GENERAL PLAN & ELEVATION
I.R. 33 OVER F.A. RTE. 406
SEC. 54-10HB-2
LOGAN COUNTY
STA. 700+00.00 (T.R. 33)
STA. 270+95.44 (F.A. RTE. 406)
STR. NO. 054-0075

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0075
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

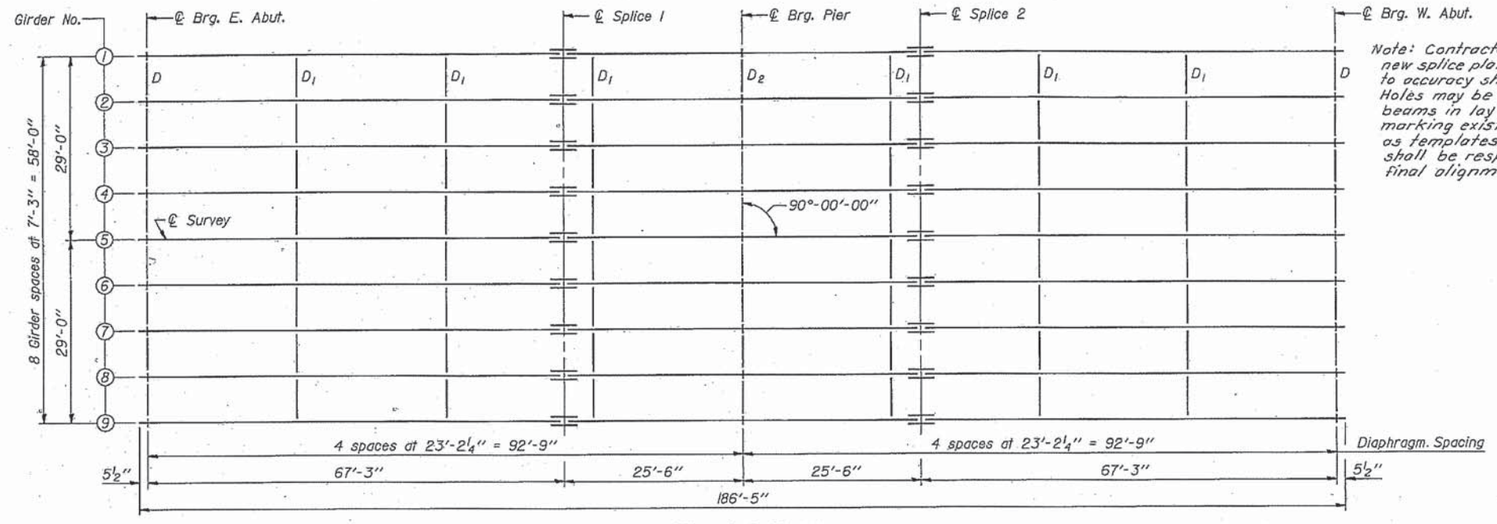
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	35
		CONTRACT NO. 72J06		
		ILLINOIS	FED. AID PROJECT	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Bond'L F.A. 406	*	LOGAN	85	38
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 9
14 SHEETS

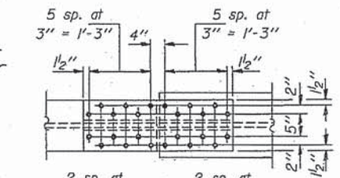
*54-10HB-2

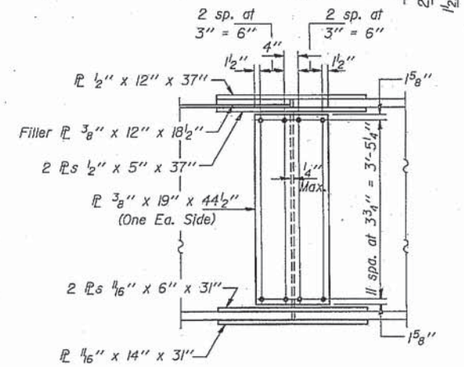
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

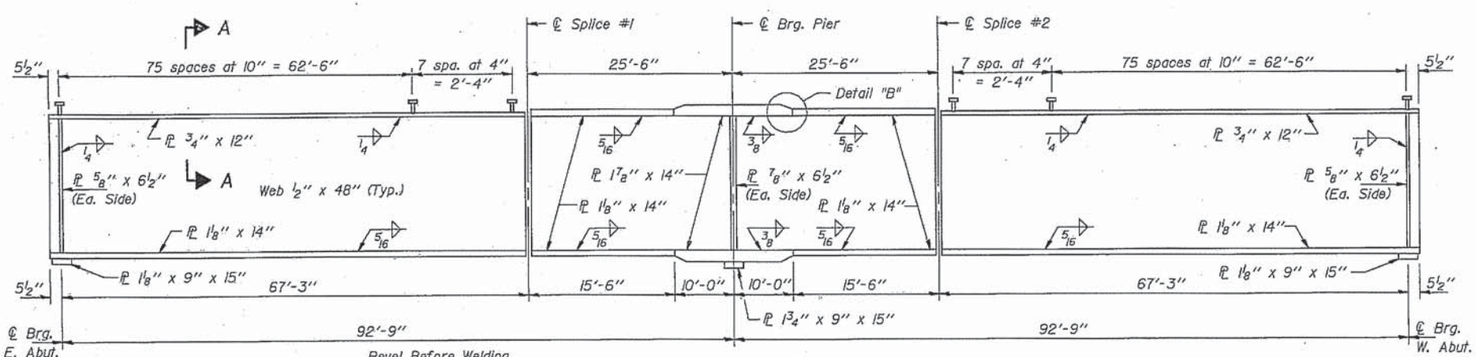


FRAMING PLAN

Note: Contractor shall fabricate new splice plates and fill plates to accuracy shown in Art. 507.04(d). Holes may be located by placing beams in lay down or by match-marking existing splice plates as templates, but the contractor shall be responsible for proper final alignment.







GIRDER ELEVATION

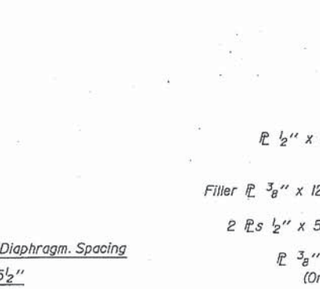
SECTION A-A

DETAIL "B"

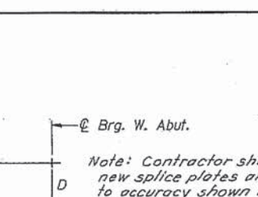
DIAPHRAGM D_1
(48 Required)

Two hardened washers shall be required over all 15/16"ϕ and 1"ϕ holes.

DIAPHRAGM D
(16 Required)

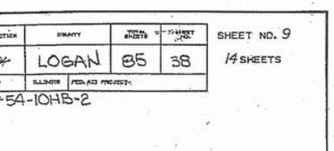


DIAPHRAGM D_2
(8 Required)



SECTION AT PIER

SECTION AT ABUTMENT



FIELD SPLICE DETAIL

Use ⅞"ϕ H.S. Bolts
All splice plate material shall conform to the Supplemental Requirements for Notch Toughness Zone 2.

NOTE:
ALL GIRDERS, DIAPHRAGMS AND WELDED ATTACHMENTS, OTHER THAN STUD SHEAR CONNECTORS, HAVE BEEN PREVIOUSLY FABRICATED AND ARE LOCATED IN THE DISTRICT 6 MAINTENANCE DEPOT. NEW STRUCTURAL STEEL, WHICH INCLUDES SPLICE PLATES, FILLER PLATES AND HIGH STRENGTH BOLTS AND WASHERS, SHALL BE FURN. & ERECTED BY CONTRACTOR.

DESIGNED	Mary H. Bloxdorf
CHECKED	Eric E. Mowdy
DRAWN	Paul Summer
CHECKED	MHB

Dec. 16 1986

EXAMINED Greg D. Kaspar
ENGINEER OF BRIDGE DESIGN

PASSED James T. Rayburn
ENGINEER OF BRIDGE AND STRUCTURES

APPROVED
DIRECTOR OF HIGHWAYS

G-1 4-1-79
Revised 3-18-87 M.H.B.

STRUCTURAL STEEL
F.A. RT. 406 SEC. 54-10HB-2
LOGAN COUNTY
STA. 270+95.44

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0075
(FOR INFORMATION ONLY)

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

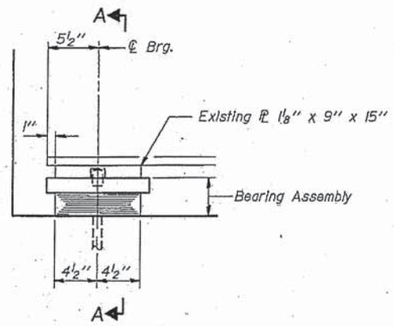
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	36
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

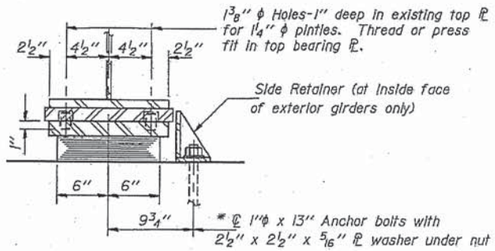
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 406	*	LOGAN	85	39
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 10
14 SHEETS

54-10HB-2

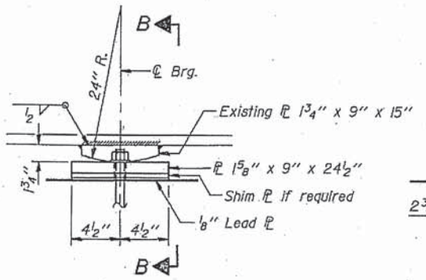


ELEVATION AT ABUTS.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



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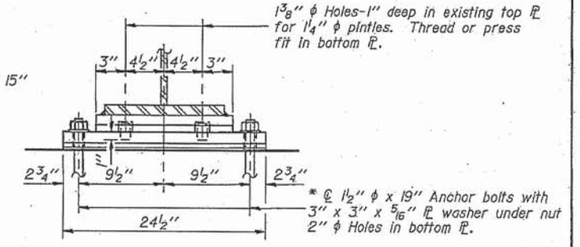
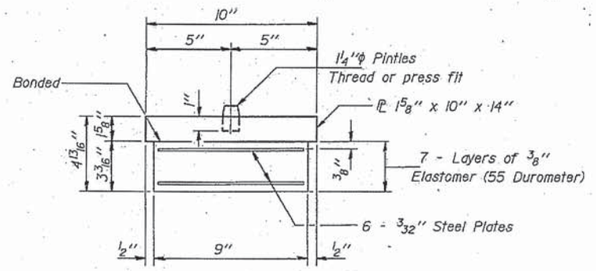
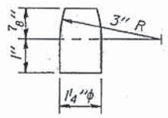


SECTION B-B

FIXED BEARING



BEARING ASSEMBLY



PINTLE

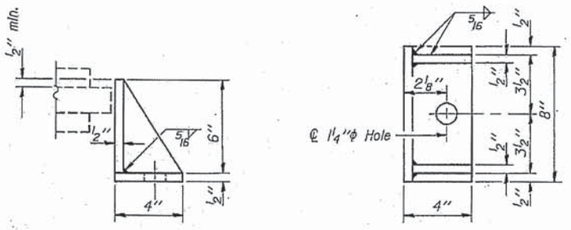
* Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet 11 of 14 for Anchor Bolt installation.

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. #1 or 0.6 Sp. #2	Pier
Is	(in⁴)	18,884	37,272
Ic	(in⁴)	48,953	
Ss	(in³)	670	1,440
Sc	(in³)	1,200	
wℓ	(K/ft.)	0.897	1.311
Mℓ	('K)	477	1,427
fsℓ non-comp(k.s.i.)		8.5	11.9
sℓ	(K/ft.)	0.318	
Msℓ	('K)	206	
M℄	('K)	764	593
M (Imp)	('K)	176	136
TOTAL	('K)	1,146	729
fs-comp	(k.s.i.)	11.5	6.1
fs TOTAL	(k.s.i.)	20.0	18.0
VR	(K)	56.1	

INTERIOR GIRDER REACTION TABLE			
		Abuts.	Piers
Rℓ	(K)	41.0	143.4
R℄	(K)	41.7	65.0
Imp.	(K)	9.6	15.0
R TOTAL	(K)	92.3	223.4

Is and *Ss* are the moment of inertia and section modulus of the steel section used in computing fs TOTAL
Ic and *Sc* are the moment of inertia and section modulus of the composite section used in computing fs TOTAL.
VR is the maximum Live Load + Impact shear range in span.

NOTE:
NEW STRUCTURAL STEEL, TO BE FURN. & ERECTED BY CONTRACTOR SHALL INCLUDE THE BOTTOM BEARING PLATES OF THE FIXED BEARING, SHIM PLATES, LEAD PLATES, PINTLES, ANCHOR BOLTS, NUTS & WASHERS AND THE SIDE RETAINERS.



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18

DESIGNED	Mary H. Blotdorf	Dec. 16	1986
CHECKED	Eric E. Howdy	EXAMINED	Roj. D. Kaspar ENGINEER OF BRIDGE DESIGN
DRAWN	Paul Summer	PASSED	James T. Kaubum ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	MHB	APPROVED	DIRECTOR OF HIGHWAYS

I-2-EI 12-1-83
Revised 3-1A-87 M.H.B.

BEARING DETAILS
F.A. RT. 406 SEC. 54-10HB-2
LOGAN COUNTY
STA. 270+95.44

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Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0075
(FOR INFORMATION ONLY)

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

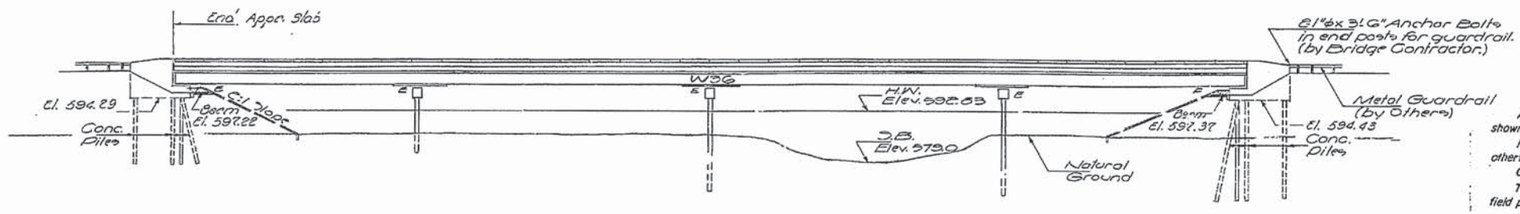
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	37
		CONTRACT NO. 72J06		
		ILLINOIS	FED. AID PROJECT	

B.M.- "□" cut on N.E. wingwall of bridge Station 76+00 Elev. 603.68
Existing Structure-Old Station 76+10 Built 1937 on S.B.I. Rte. 119A
Sec. 117B R.C. Slab on Steel I Bms. R.C. Pile Bent Piers and Spill
Thru Abutments. Superstructure to be removed. No Salvage
Substructure to be widened.
Temporary Bridge to furnish 800 ft² roadway opening HS 15 loading.
Existing Structure is 285'-8" ft. long & 27'-6" wide.

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DIST. F.A. 119	117BR	LOGAN	46	13
FED. ROAD DIST. NO. ?	PLANS FED. AID PROJECT:			

SHEET NO. 1
10 SHEETS



ELEVATION

—— indicates existing

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Fasteners shall be high strength bolts. Bolts ¾"ø; open holes 13/16"ø, unless otherwise noted.

Calculated weight of Structural Steel. = 340,580 Lbs.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

Anchor bolts shall be set before bolting diaphragms over supports.

Slope wall shall be reinforced with welded wire fabric 6"x 6" mesh, weighing 58# per 100 sq. ft.

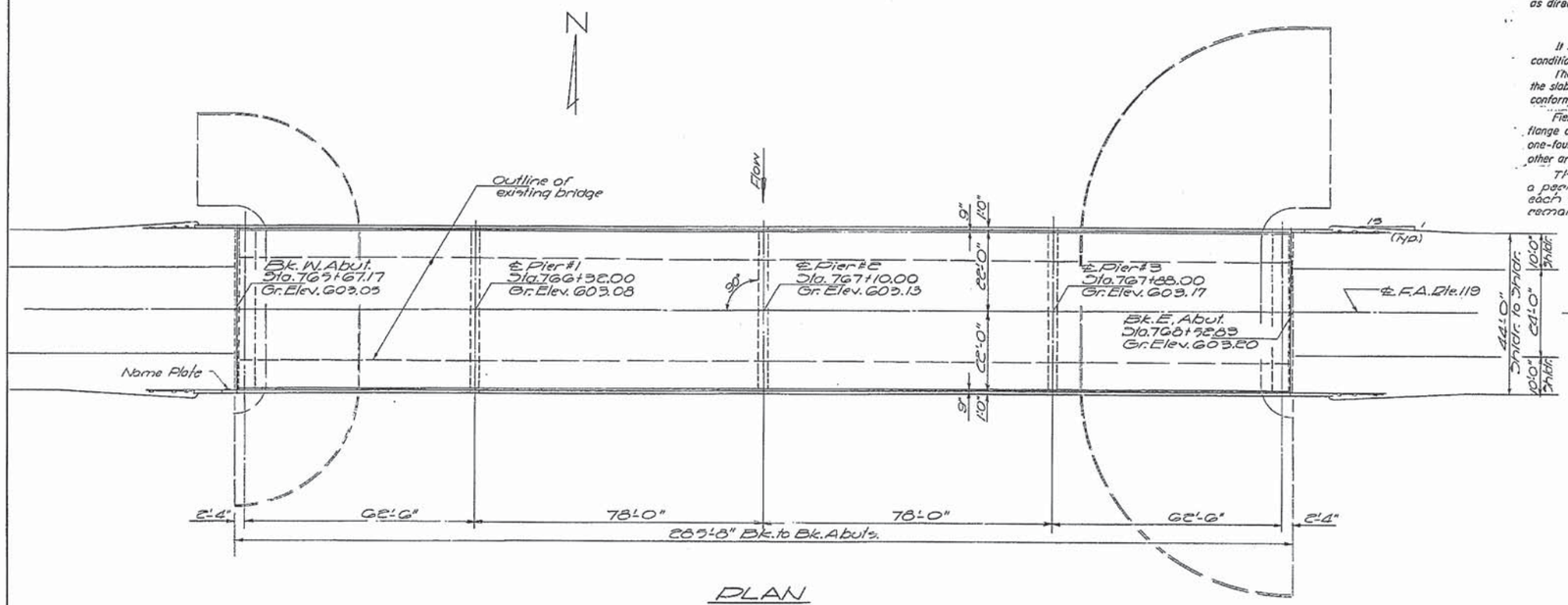
Layout of slope walls may be varied in the field to suit ground conditions as directed by the Engineer.

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

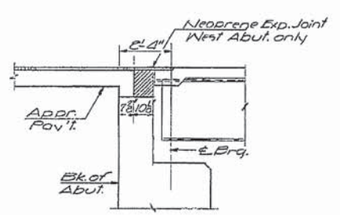
The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

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 Contractor shall drive one Concrete test pile in a permanent location at West Abutment & Pier 3 one each as directed by the Engineer before ordering the remainder of piles.



PLAN



SEC. THRU ABUT.

DESIGNED	Feb. 23, 19	
CHECKED	James Powell	
DRAWN	JAS	
CHECKED	JP	

EXAMINED W. D. Zimmermann
PASSED W. D. Zimmermann
APPROVED Richard H. McTeman

WATERWAY INFORMATION

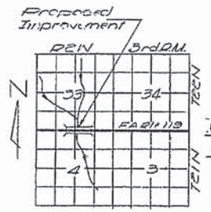
Drainage Area ——————— 186.3 Sq. Miles
Character ——————— rolling, hilly, clay
Present Opening ——————— 2040 Sq. Ft.
Required Opening - (50 Yr. Flood) - 2040 Sq. Ft.
Proposed Opening ——————— 2041 Sq. Ft.
Q (50) = 12,280 cfs.

DESIGN STRESSES

f'c = 1200 psi — Deck Slab
f'c = 1400 psi — Curb, Parapet, Sub.
fs = 20,000 psi — Reinf.
fs = 20,000 psi — Struct.
Vc = 75 psi — Flgs.
n = 10

Allowable Future W. S. 23#/Sq. Ft.
Design Specifications 1969 AASHO as applicable

LOADING H S20-44



LOCATION SKETCH

GENERAL PLAN & ELEVATION OVER WEST FORK SUGAR CREEK

F.A. ROUTE 119
SECTION 117BR
LOGAN COUNTY
STATION 76+10

K & E CO. 19-1253

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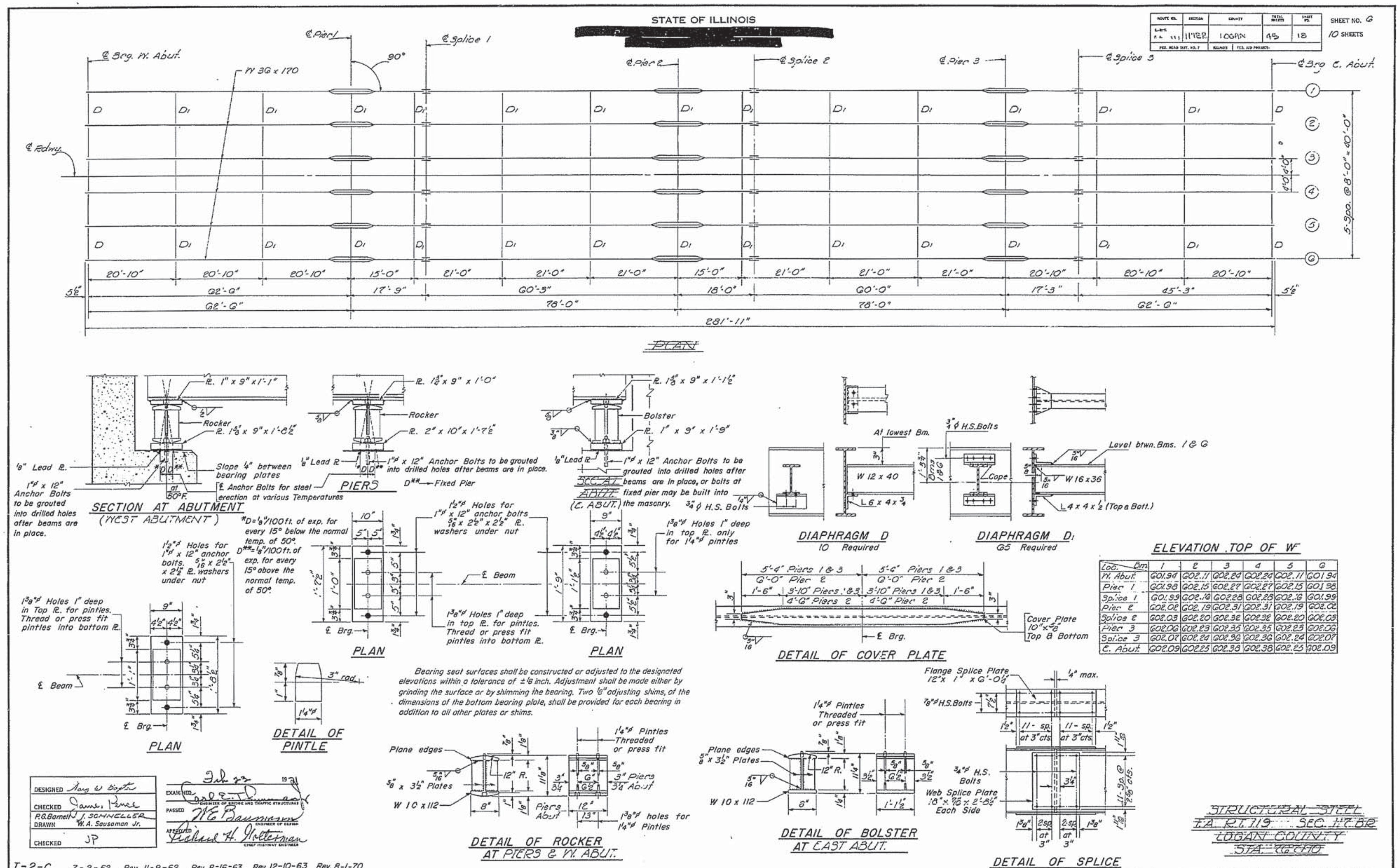
Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0026
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	38
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			



ELEVATION, TOP OF WF

Loc. \ Bm.	1	2	3	4	5	6
W. Abut.	601.94	602.11	602.24	602.24	602.11	601.94
Pier 1	601.98	602.15	602.27	602.27	602.15	601.98
Splice 1	601.99	602.16	602.28	602.28	602.16	601.99
Pier 2	602.02	602.19	602.31	602.31	602.19	602.02
Splice 2	602.03	602.20	602.32	602.32	602.20	602.03
Pier 3	602.06	602.23	602.35	602.35	602.23	602.06
Splice 3	602.07	602.24	602.36	602.36	602.24	602.07
E. Abut.	602.09	602.25	602.38	602.38	602.25	602.09

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Default	PLOT DATE = 3/22/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0026
(FOR INFORMATION ONLY)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	39

CONTRACT NO. 72J06

ILLINOIS | FED. AID PROJECT

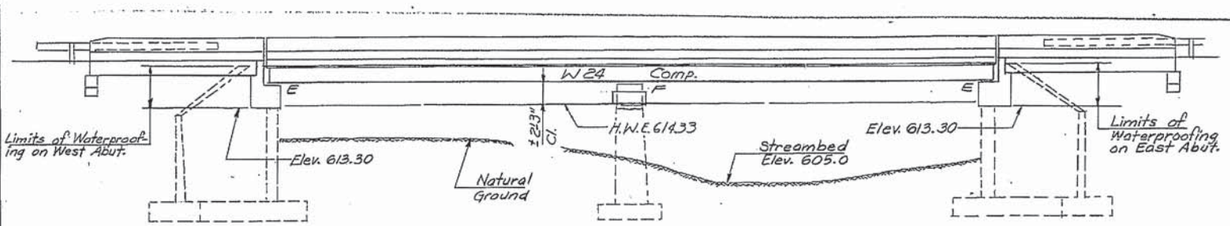
Bench Mark: □ Cut in top of N.W. wingwall.
Elev. 619.00

Existing Structure: #068-0018 Built as SBI Rte. 127, Section 101-B, at Station 972+01 in 1930. The exist. R.C.G. Superstr. 24'-8" wide by 86'-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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. S. F. A. 42	101BR	MONTGOMERY	22	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

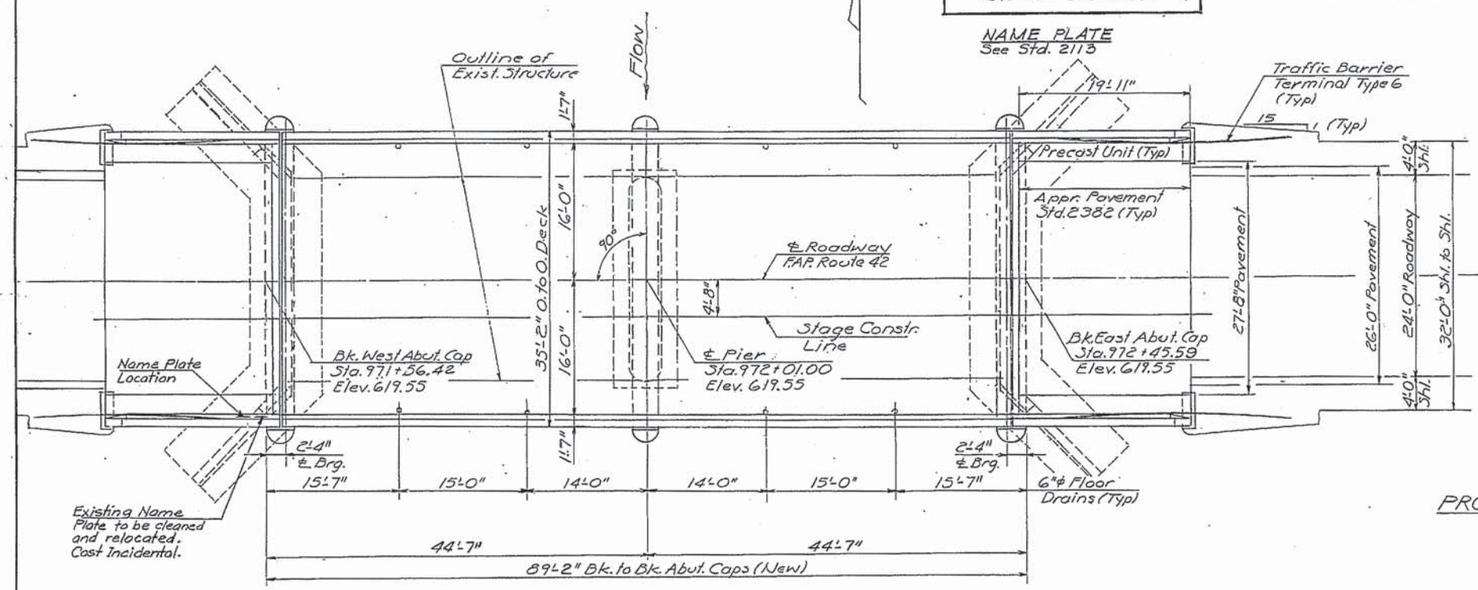
SHEET NO. 1
15 SHEETS



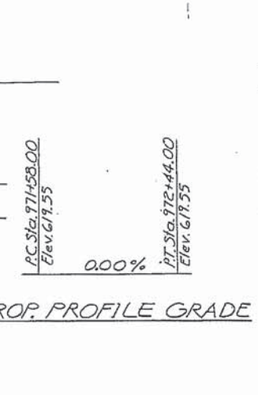
ELEVATION

STATION 972+01.00
REBUILT 198_ BY
STATE OF ILLINOIS
F.A.P. RT. 42 SEC. 101 BR
F.A. PROJ. BHF-42(56)
LOADING HS20
STR. NO. 068-0018

NAME PLATE
See Std. 2113



PLAN



PROP. PROFILE GRADE

GENERAL NOTES

Fasteners shall be high strength bolts (AASHTO M 164, Type 3). Bolts ⅞" ϕ, open holes 15/16" ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 40,730 Lbs. (M-222), 1,840 Lbs. (M-183).

The basic lead silico chromate paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.

All structural steel shall be AASHTO M 222 except Temporary Support System and expansion joint angles and attached bars which shall be AASHTO M 183

Expansion joint angles and attached bars shall be shop painted with two coats of basic lead silico chromate paint.

AASHTO M 222 structural steel shall not be painted except, that for a distance of three times the depth of the beams or girders (but not exceeding 10 feet) each way from deck joints, the AASHTO M 222 structural steel shall be cleaned and given one coat of the basic lead silico chromate primer and maroon field coat. Both coats to be applied in the shop with spot painting only in the field.

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 structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 222.

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, 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.

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

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

Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and ¾"ϕ x 12" hooked bolts.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛" 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).

Timber Bracing is required behind the Abutments for excavation and Cost is incidental to "Structure Excavation." The timber bracing used shall be adequate to protect the embankment, and the Contractor is responsible for its safety.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Class X Concrete	Cu.Yds.	104.3	48.4	152.7
Reinforcement Bars	Lbs.	1460	5260	6720
Reinforcement Bars (Epoxy Coated)	Lbs.	24240		24240
Removal of Existing Superstructure	Each	1		1
Concrete Removal	Cu.Yds.		19	19
Expansion Bolts (¾" ϕ)	Each		50	50
Structure Excavation	Cu.Yds.		37	37
Floor Drains	Each	8		8
Structural Steel	L.Sum			L.S.
Name Plates	Each	1		1
Stud Shear Connectors	Each	1200		1200
Elastomeric Bearing Assembly, Type I	Each	10		10
Preformed Joint Seal (2½")	Lin.Ft.	70		70
Repair Concrete Structures	Sq.Ft.		60.1	60.1
Temporary Bridge Rail	Lin.Ft.	86		86
Precast Concrete Bridge Slab	Sq.Ft.	299		299
Protective Coat	Sq.Yds.	434		434
Temporary Support Systems	Each		1	1

WATERWAY INFORMATION

Drainage Area 16.47 Sq.Mi. Low Grade Elev. 619.3 @ Sta. 972+01

Flood	Freq. Yr.	Q C.F.S.	Opening Sq.Ft. Exist.	Opening Sq.Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	2700	422	422	614.33	1.54	1.54	615.87	615.87
Base	100	3100	443	443	614.58	1.88	1.88	616.46	616.46
Overtopping									
Max. Calc.	500	3970	484	484	615.08	2.63	2.63	617.71	617.71

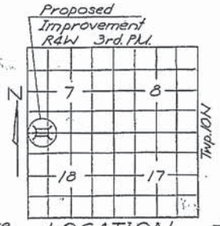
DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi Reinf.
fy = 50,000 psi Struct. steel (AASHTO M-222)

PRECAST UNITS
f'c = 4,500 psi
fc = 1,800 psi
fs = 20,000 psi
n = 8

Allow 25#/sq.ft. for future wearing surface.
Design Specifications: 1977 AASHTO, 1978 thru 1982 interim specs. as applicable.

LOADING HS20-44



LOCATION SKETCH

GENERAL PLAN
ILL. RTE. 48 & 127 OVER
WEST SHOAL CREEK
F.A.P. ROUTE 42
SECTION 101BR
MONTGOMERY COUNTY
STATION 972+01.00

DESIGNED	Shalom P. Ohanchi
CHECKED	R. F. Rosken
DRAWN	E.V. Taylor JOS
CHECKED	R.F.R. G.R.A.

August 15, 1983
EXAMINED James J. Kaczkowski
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

CARL J. TRUCKS, JR. STATE OF ILLINOIS 22871 REGISTERED STRUCTURAL ENGINEER

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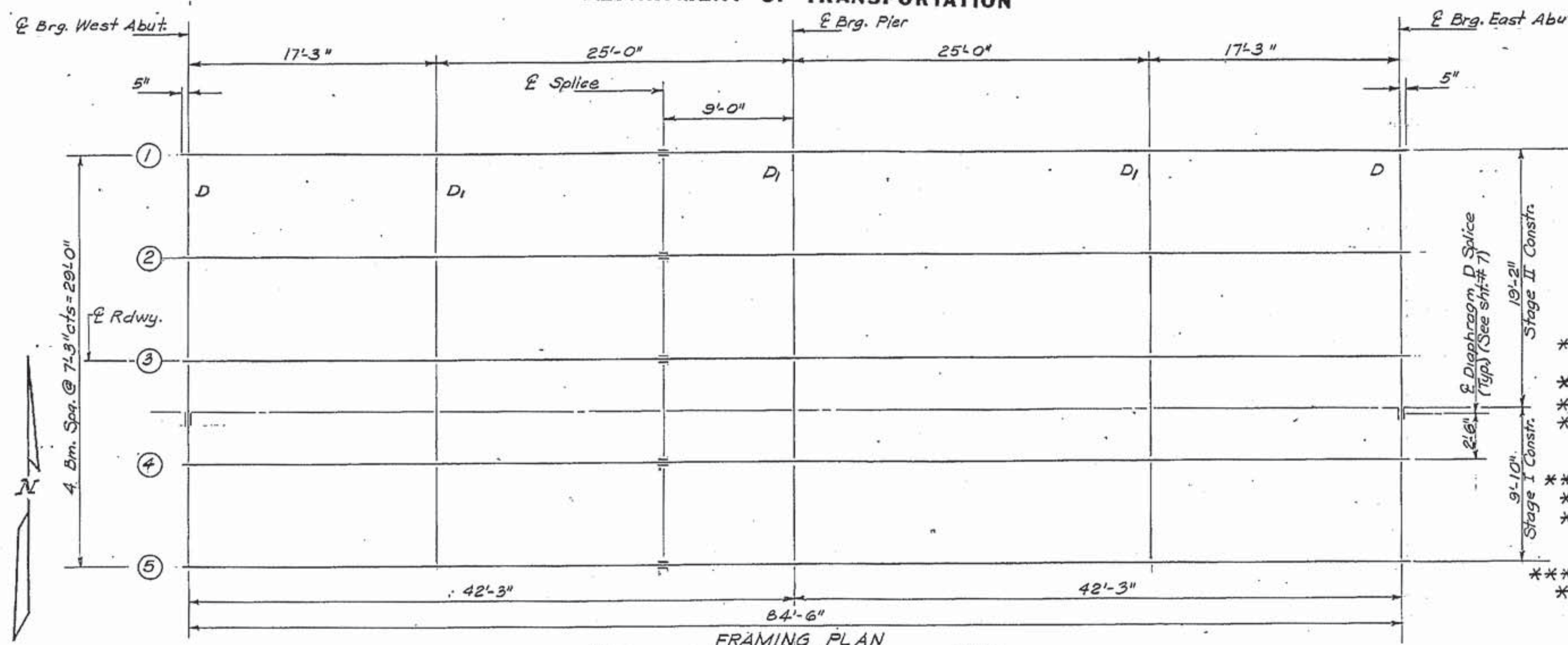
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 068-0018
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	40
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

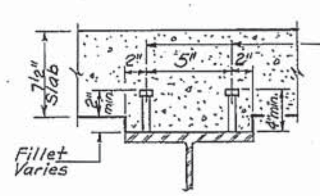
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



**** TOP OF FLANGE ELEVATIONS

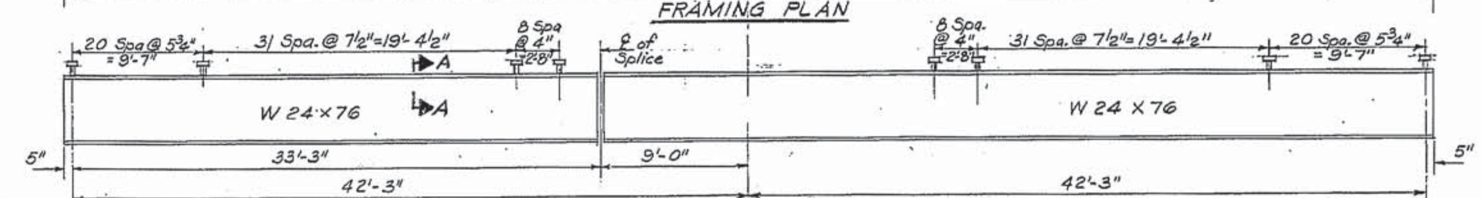
	℄ BRG. W. & E. ABUT.	℄ SPLICE	℄ PIER
BEAM #1	618.54	618.54	618.54
BEAM #2	618.67	618.67	618.67
BEAM #3	618.78	618.78	618.78
BEAM #4	618.67	618.67	618.67
BEAM #5	618.54	618.54	618.54

**** For fabrication only.



3/4"ϕ Granular or solid flux filled headed studs automatically end welded to flange. (No. Req'd. = 1200)

SECTION A-A



GIRDER ELEVATION

INTERIOR BEAM MOMENT TABLE

		0.4 Span #1	Pier	0.6 Span #2
	Is (in.4)	2100	2100	2100
	Ic (in.4)	6934	——	6934
	Ss (in.3)	176	176	176
	Sc (in.3)	285	——	285
	D (K/')	0.787	1.132	0.787
*	M. D ('K)	98	227	98
	S D (K/')	0.345	——	0.345
*	MS D ('K)	53	——	53
*	M LL ('K)	278	125	278
*	M IMP. ('k)	83	37	83
	5/3 (M LL + I) ('K)	602	270	602
	Ma ('K)	980	647	980
**	Mu ('K)	1830	——	1830
*	fs D NON-COMP (ksi)	6.7	15.5	6.7
*	fs S D COMP (ksi)	2.2	——	2.2
	fs 5/3 (LL + I) (ksi)	25.4	18.4	25.4
	fs (OVERLOAD) (ksi)	34.3	33.9	34.3
***	fs (Total) (ksi)	——	44.1	——
*	VR (k)	49.6	——	49.6

INTERIOR BEAM REACTION TABLE

		West Abut.	Pier	East Abut.
*	R D (K)	18.5	58.6	18.5
*	R LL (k)	35.7	42.9	35.7
*	Imp. (k)	10.7	12.8	10.7
*	R TOTAL (K)	64.9	114.3	64.9

*These values are service load..

**Mu = Full Plastic Moment Capacity for Compact, Braced Section

***Non-compact section

Ma (Applied Moment) = $1.3[M_D + M_{SD} + \frac{5}{3}(M_{LL} + I)]$

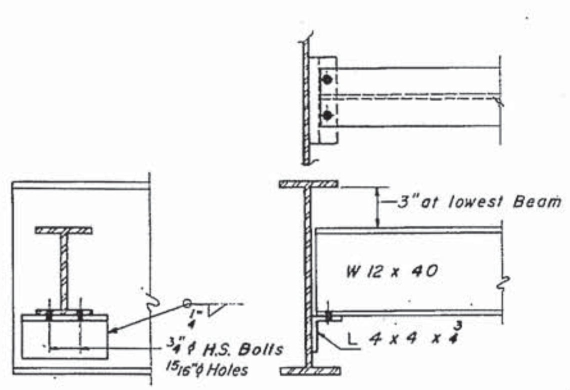
I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (TOTAL and OVERLOAD).

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).

VR is the maximum LL + impact shear range in span.

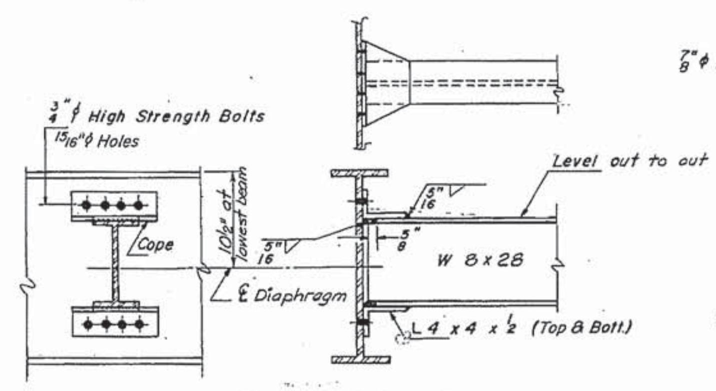
f_s (TOTAL) is the sum of the stresses due to $1.3[M_D + M_{SD} + \frac{5}{3}(M_{LL} + I)]$.

f_s (OVERLOAD) is the sum of the stresses due to $M_D + M_{SD} + \frac{5}{3}(M_{LL} + I)$.



DIAPHRAGM D

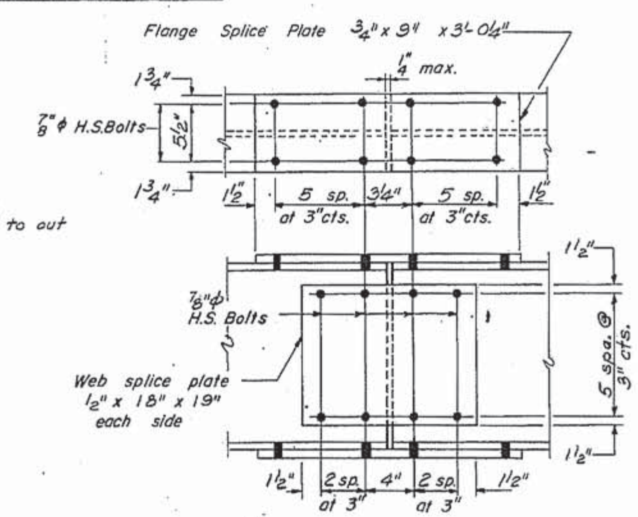
8 Required



DIAPHRAGM D1

12 Required

Note: Two hardened washers shall be required over all 15/16" ϕ holes. All contact surfaces of joints shall be free of paint or lacquer.



SPLICE

DESIGNED	*[signature]*
CHECKED	L. F. Rosilen
DRAWN	E. V. Taylor
CHECKED	RFR G.R.A.

August 15 1983

EXAMINED *[signature]* ENGINEER OF BRIDGE DESIGN

PASSED *[signature]* ENGINEER OF BRIDGES AND STRUCTURES

APPROVED DIRECTOR OF HIGHWAYS

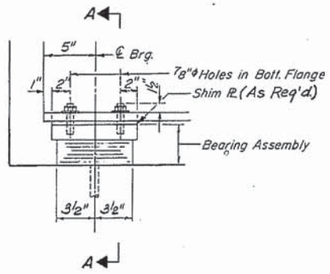
I-2-D 8-30-80

STRUCTURAL STEEL
F.A.P. RTE. 42 SECTION 101 BR
MONTGOMERY COUNTY
STA. 972+01.00

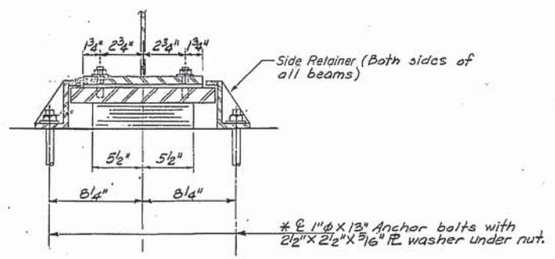
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 42	101BR	MONTGOMERY	22	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

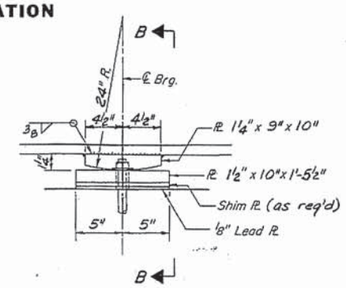
SHEET NO. 10
15 SHEETS



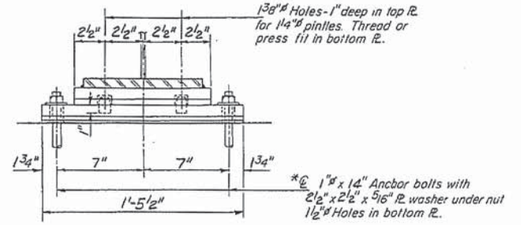
ELEVATION AT ABUT.



SECTION A-A



ELEVATION AT PIER

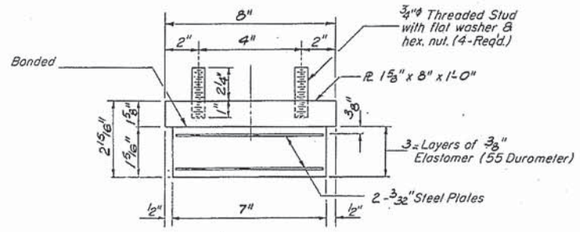


SECTION B-B

FIXED BEARING

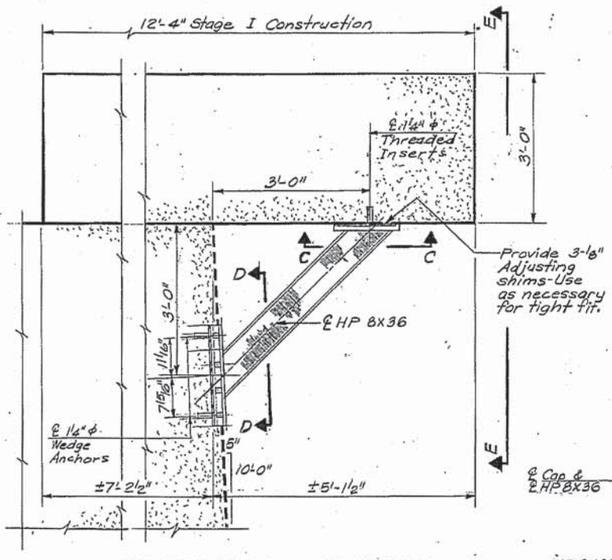
TYPE I ELASTOMERIC EXP. BRG.

*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. See Sht. #11 for Anchor Bolt Details.

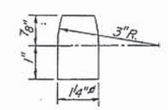


BEARING ASSEMBLY

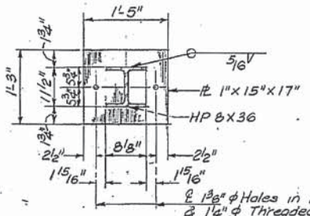
Note: Shim plates shall not be placed under Bearing Assembly.



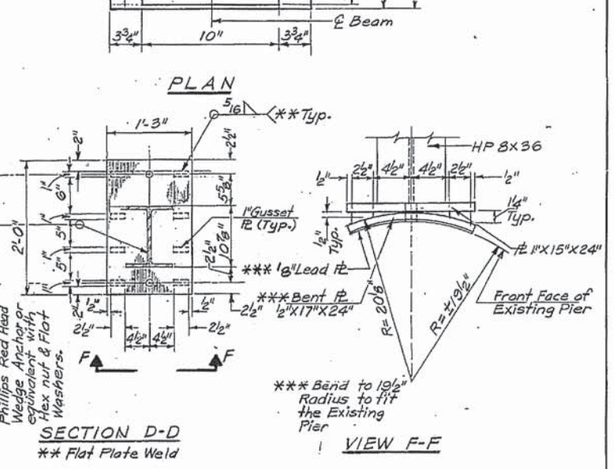
TEMPORARY SUPPORT SYSTEM
(Stage I Construction)



PINTLE



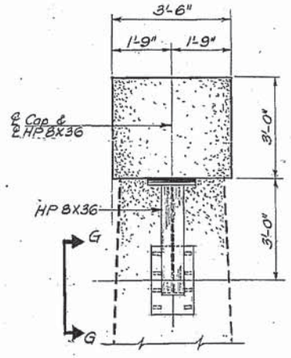
SECTION C-C



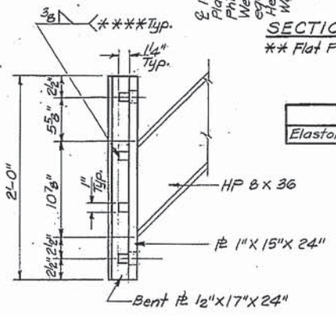
SECTION D-D
** Flat Plate Weld

*** Bend to 19½" Radius to fit the Existing Pier

VIEW F-F



VIEW E-E



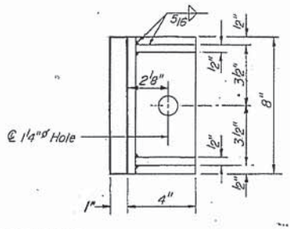
**** Bent Plate Weld

VIEW G-G

PLAN

BILL OF MATERIAL

Item	Unit	Quantity
Elastomeric Bearing Assembly, Type I	Each	10



SIDE RETAINER

Sequence for Installation of Temporary Support System.

1- Construct Stage I Pier Cap (The Temporary support System shall not be used to support Pier Cap Form work).
2- Install Temporary Support System as shown. A tight fit shall be attained by using shims at the top as necessary.
3- Erect Stage I Beams and continue Stage I Construction.
4- Remove Temporary Support System after completion of Stage II Construction.
5- Wedge anchors shall be cut off flush and covered with 2" cement mortar.

Note: Estimated weight of Structural Steel for Temporary Support System is 2801bs. not including HP 8X36 section and shim plates.

DESIGNED	Shalom R. Hauch
CHECKED	R. F. Rodiek
DRAWN	E. V. Taylor
CHECKED	R. F. R. G. R. A.

August 15, 1983
EXAMINED James V. Rayburn
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

I-2-E1 6-1-82

BEARING DETAILS
F.A.P. RTE. 42 SECTION 101 BR
MONTGOMERY COUNTY
STA. 972+01.00

FILE NAME =	USER NAME = dudleybm	DESIGNED -	REVISED -
O:\OPERATIONS\Bridges\Bridgeplans_CAD\72J06 - beam end paint FY17 CM\plansheet.dgn		DRAWN -	REVISED -
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	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 068-0018
(FOR INFORMATION ONLY)

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

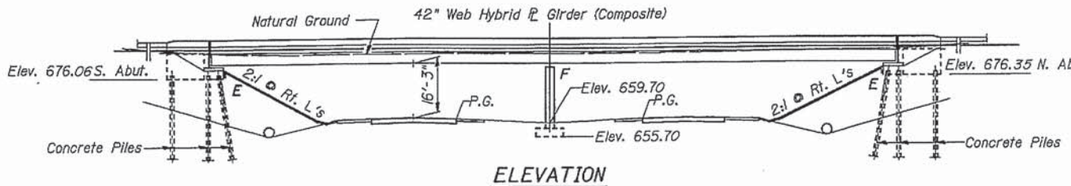
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	42
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

Bench Mark: #17, Top of brass plug stamped FE-8, 538' Rt. Sta. 233+97.00 (F.A. 408) Elev. 684.81

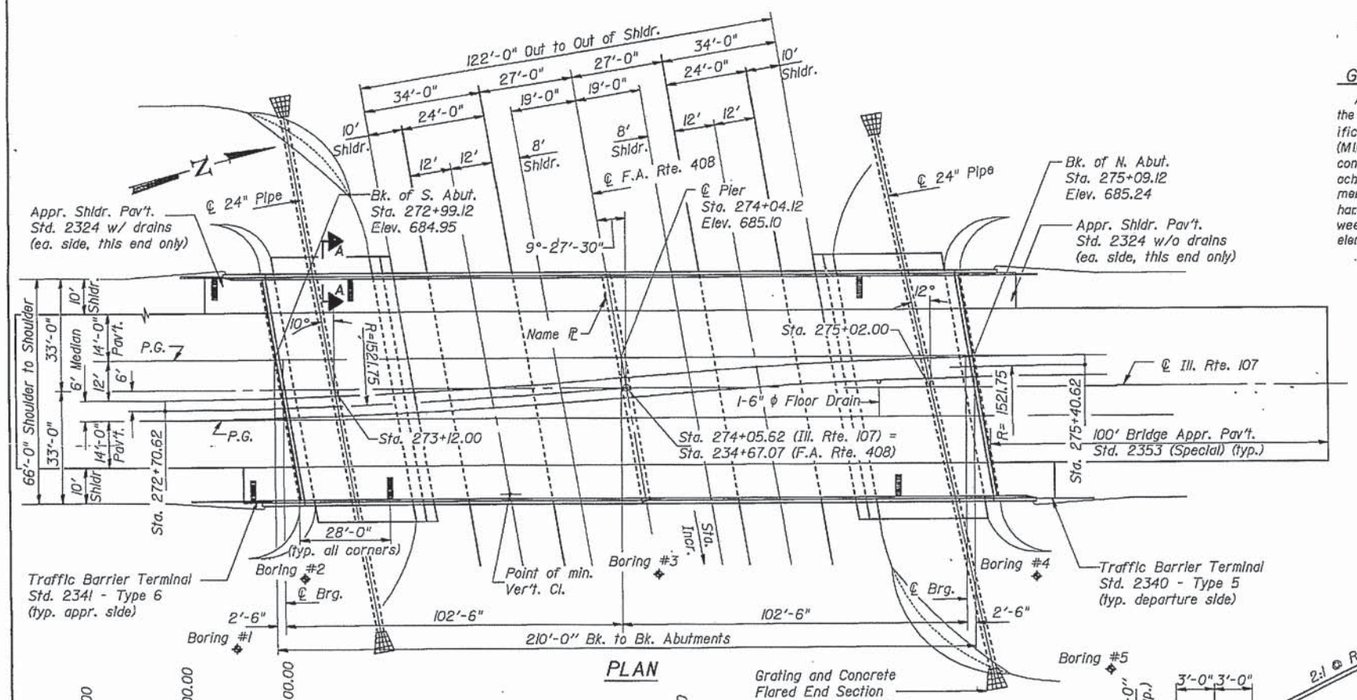
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A. 408	75-5 HB-1	Pike	147	50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
16 SHEETS



ELEVATION

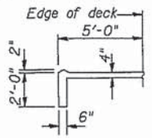


PLAN

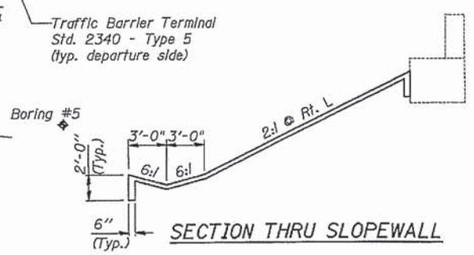
PROFILE GRADE
F.A. Route 408
(℄ median edge of Roadway)

PROFILE GRADE
Ill. Route 107
(℄ median edge of Roadway)

Grating and Concrete Flared End Section Std. 2364 for 24"ϕ Pipe (typ. Ea. End)



SECTION A-A



SECTION THRU SLOPEWALL

STATION 234+67.07
BUILT 198 BY
STATE OF ILLINOIS
F.A. RTE. 408 SEC. 75-5HB-1
LOADING HS20
STR. NO. 075-0112

NAME PLATE
See Std. 2113

GENERAL NOTES CONTINUED

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. The method of bolt tightening shall be achieved by the use of direct tension indicators meeting the requirements of ASTM F959. A hardened round steel washer shall be used between the direct tension indicator and the turned element.

DESIGN SPECIFICATIONS
AASHTO (1983), 1984 and 1985 Interims
LOADING HS 20-44
Allow 25#/sq. ft. for future wearing suface.

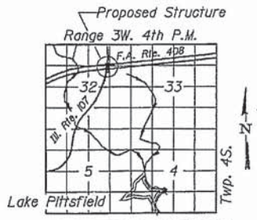
DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
Hybrid Girder { fy = 50,000 psi (M223) Flange; fy = 36,000 psi (M183) Web

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.
Calculated weight of AASHTO M223, Grade 50 Structural Steel = 202,920.
Calculated weight of AASHTO M183, Structural Steel = 164,940.
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 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 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.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.
Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x 4.0, weighing 58 lbs. per 100 sq. ft.
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 $\frac{1}{8}$ 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. For Type I Elastomeric Bearings, shims of the dimensions of top plate shall be provided and placed as detailed.
The contractor shall drive one concrete test pile in a permanent location at the South Abutment as directed by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.		329	329
Concrete Piles	Lin. Ft.		1257	1257
Test Piles Concrete	Each		1	1
Reinforcement Bars	Pound		40,330	40,330
Reinforcement Bars (Epoxy Coated)	Pound	117,460	40	117,500
Class X Concrete Superstructures	Cu. Yd.	407.7		407.7
Class X Concrete	Cu. Yd.		265.7	265.7
Structural Steel	L. S.	1		1
Stud Shear Connectors	Each	4064		4064
Elastomeric Bearing Assembly, Type I	Each	16		16
Drainage Scuppers	Each	4		4
Floor Drains	Each	1		1
Preformed Joint Seal 4"	Lin. Ft.	142		142
Slope Wall 4"	Sq. Yd.		753	753
Protective Coat	Sq. Yd.	191		191
Name Plates	Each	1		1



LOCATION SKETCH

GENERAL PLAN
ILL. ROUTE 107 OVER F.A. ROUTE 408
F.A. ROUTE 408 SECTION 75-5HB-1
PIKE COUNTY
STATION 234+67.07 (F.A. RTE. 408)
STATION 274+05.62 (ILL. RTE. 107)
STRUCTURE NUMBER 075-0112

DESIGNED	Bruce J. Dreith, Jr.
CHECKED	Kevin L. Riechers
DRAWN	R. Sommer
CHECKED	DLG KLR

April 7, 1987
EXAMINED Greg D. Kaspar, ENGINEER OF BRIDGE DESIGN
PASSED
APPROVED James L. Rayburn, ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

As Revised 4-24-87 R.E.A.

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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

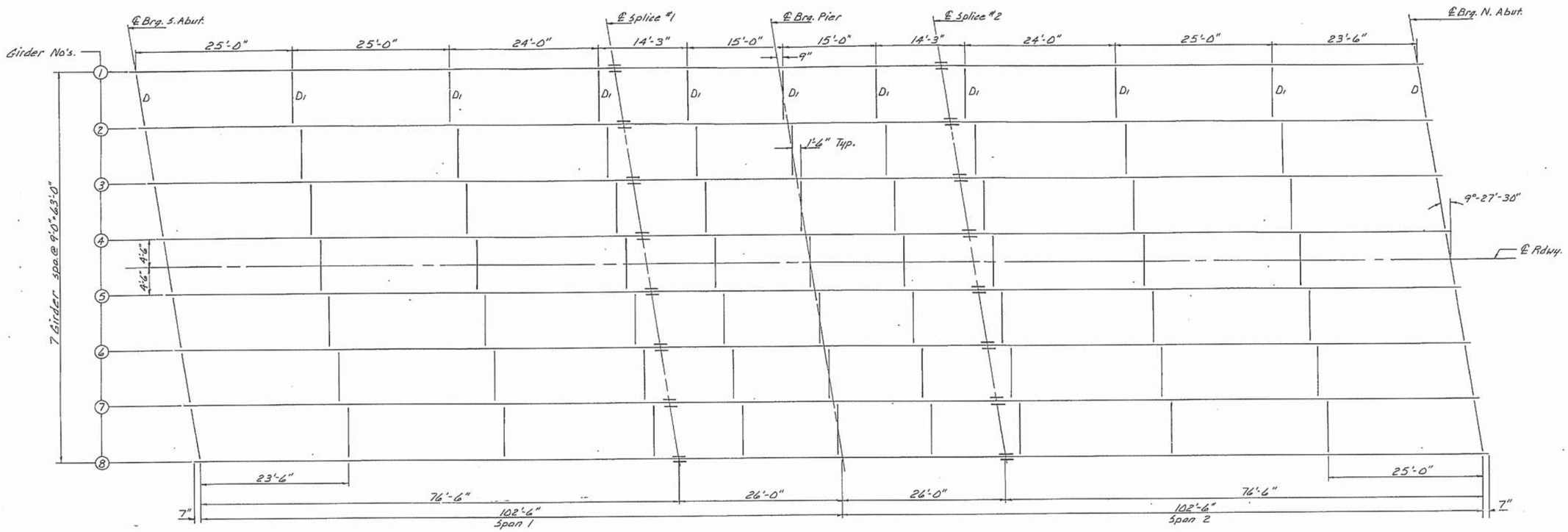
EXISTING BRIDGE PLANS, SN 075-0112
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	43
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

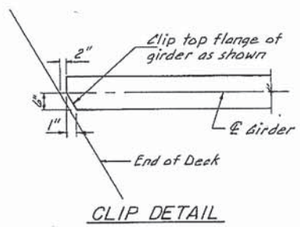
ROUTE NO.	SECTION	REMARKS	TOTAL SHEETS	SHEET NO.
F.A. RTE.				58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO 9
16 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN



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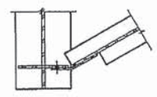
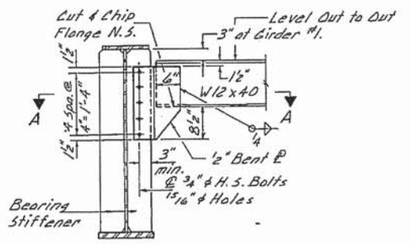
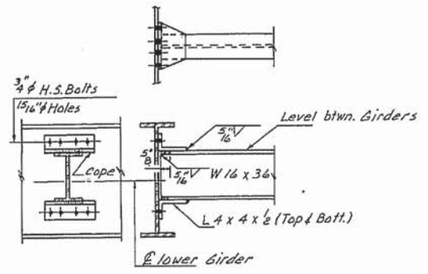


SECTION A-A



DIAPHRAGM D
14 Required



DIAPHRAGM D1
63 Required

Note: Hardened washers shall be required over 15/16" ϕ holes in angles. (2 washers per bolt.)

DESIGNED	Jan D. Murphy	April 7,	1987
CHECKED	Kenneth L. Richeson	EXAMINED	Engineer of Bridge Design
DRAWN	R. Sommer	PASSED	Engineer of Bridges and Structures
CHECKED	DLG	APPROVED	Director of Highways

FRAMING PLAN
F.A. RTE. 408 SEC. 75-5HB-
PIKE COUNTY
STA. 234+67.07

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Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 075-0112
(FOR INFORMATION ONLY)
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	44
		CONTRACT NO. 72J06		
	ILLINOIS FED. AID PROJECT			

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R.O.I. P.A.				59
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

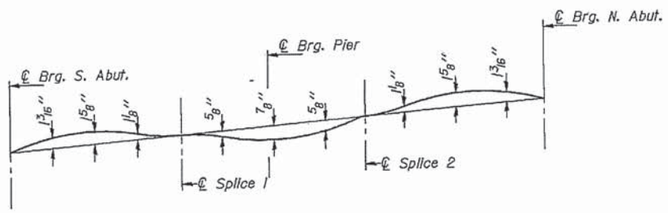
SHEET NO. 10
16 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEB ELEVATION

Location	Girder #1	Girder #2	Girder #3	Girder #4	Girder #5	Girder #6	Girder #7	Girder #8
℄ Brg. S. Abut.	683.66	683.84	683.98	684.13	684.13	683.99	683.85	683.67
℄ Splice #1	683.84	684.02	684.17	684.31	684.31	684.17	684.03	683.85
℄ Brg. Pier	683.80	683.99	684.13	684.27	684.27	684.13	684.00	683.81
℄ Splice #2	683.91	684.10	684.24	684.38	684.38	684.24	684.11	683.92
℄ Brg. N. Abut.	683.94	684.13	684.27	684.41	684.42	684.28	684.14	683.96

For Fabrication only. Elevations at splices have been adjusted for camber.



CAMBER DIAGRAM

INTERIOR GIRDER MOMENT TABLE

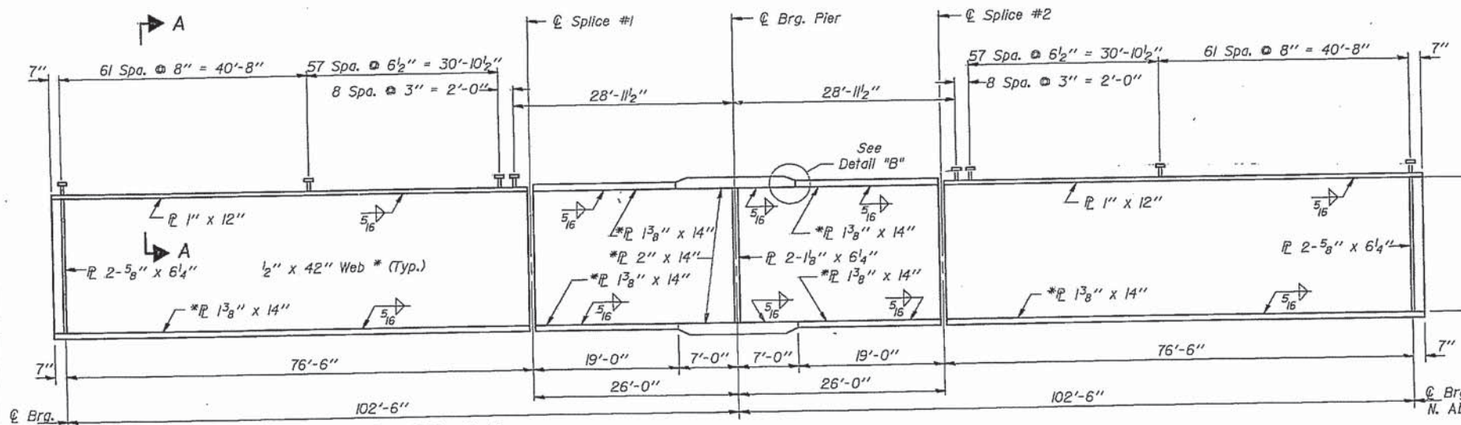
	0.4 Sp. 1	Pier
Is (in.4)	17205	30210
Ic (in.4)	44516	
Ss (in.3)	890	1314
Sc (in.3)	1210	
ℳ (k/ι)	1.080	1.482
M ℳ (ιk)	728	2031
s ℳ (k/ι)	0.402	
Ms ℳ (ιk)	328	
M ℒ (ιk)	1079	827
M Imp. (ιk)	237	182
5/3 (M ℒ + I) (ιk)	2193	1682
Ma (ιk)	4224	4827
** Mu (ιk)	4546	5407
fs ℳ non-comp. (k.s.i.)	9.8	18.5
fs ℳ (comp.) (k.s.i.)	3.3	
fs 5/3 (ℒ + I) (k.s.i.)	21.7	15.4
fs (Overload) (k.s.i.)	34.8	33.9
fs (Total) (k.s.i.)	45.2	44.1
VR (k)	69.7	

INTERIOR GIRDER REACTION TABLE

	Abut.	Pier
R ℳ (K)	56.1	191.5
R ℒ (K)	52.5	86.3
Imp. (K)	11.5	19.0
R Total (K)	120.1	296.8

** Mu = Moment capacity for Braced noncompact hybrid section computed according to AASHTO 10.53.1 & 10.53.2.
Ma (Applied Moment) = 1.3 [M ℳ + Ms ℳ + 5/3 (M ℒ + I)]

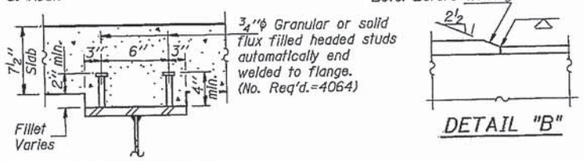
Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total and Overload).
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total and Overload).
VR is the maximum ℒ + Impact shear range in span.
fs (Total) is the sum of the stresses due to 1.3[MℳDL + MsDL + 5/3 (MℒL + I)].
fs (Overload) is the sum of the stresses due to M ℳ + Ms ℳ + 5/3 (M ℒ + I).
M ℳ - Moment due to dead loads on noncomposite section.
Ms ℳ - Moment due to dead loads on composite section.
M ℒ - Moment due to live load on non-composite or composite section.
I - Live load impact.



GIRDER ELEVATION

* Denotes plates to which notch toughness requirements are applicable.

Note: All flanges and flange splice plate material shall be AASHTO M-223, Grade 50.
All other structural steel shall be AASHTO M-183.

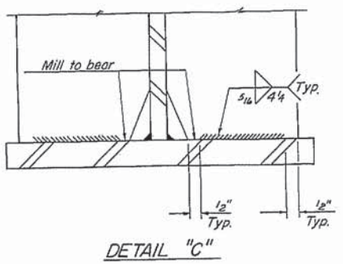


SECTION A-A

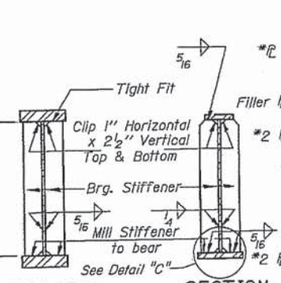
DETAIL "B"

DESIGNED	Daniel Dudley	April 7 1987
CHECKED	Kevin L. Kierpaw	EXAMINED Raj. D. Kaspar ENGINEER OF BRIDGE DESIGN
DRAWN	R. Sommer	PASSED James T. Rayburn ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	DLG	APPROVED DIRECTOR OF HIGHWAYS

G-1 4-1-79

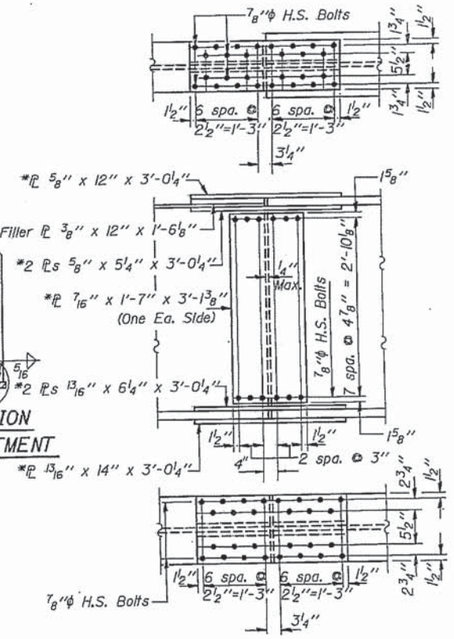


DETAIL "C"



SECTION AT PIER

SECTION AT ABUTMENT



FIELD SPLICE DETAIL

STRUCTURAL STEEL
F.A. RTE. 408 SEC. 75-5HB-1
PIKE COUNTY
STA. 234+67.07

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	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 3/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

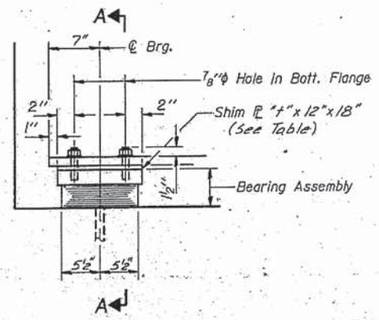
EXISTING BRIDGE PLANS, SN 075-0112
(FOR INFORMATION ONLY)

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

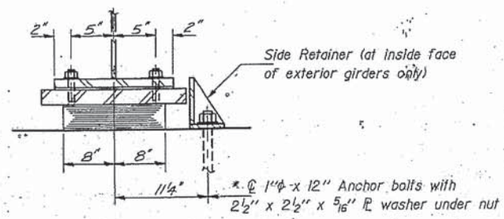
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	45
		CONTRACT NO. 72J06		
		ILLINOIS FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. F.A.			60	SHEET NO. //
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		// SHEETS

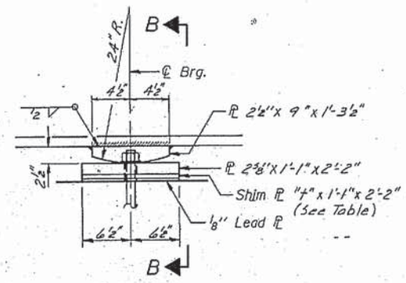
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUT.



SECTION A-A



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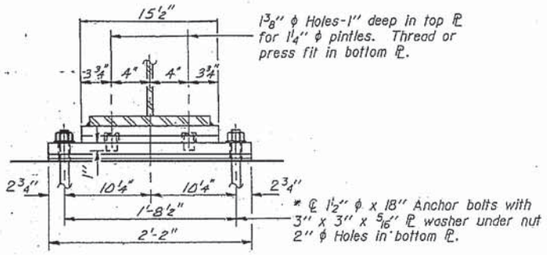
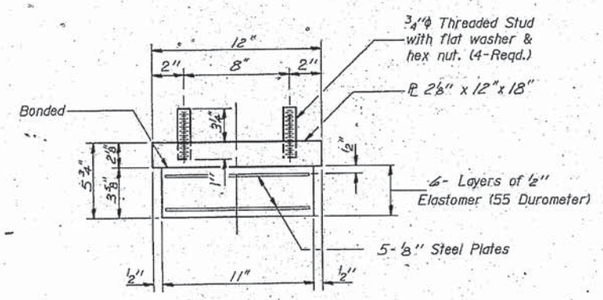


SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.

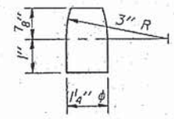
FIXED BEARING

* Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet #15 of 16 for Anchor Bolt installation.



BEARING ASSEMBLY

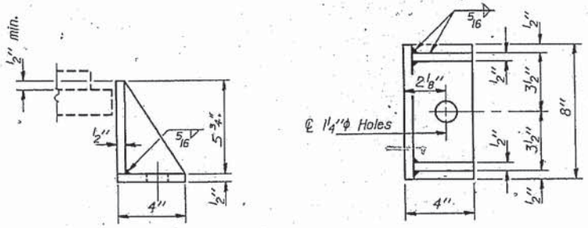
Note: Shim plates shall not be placed under Bearing Assembly.



PINTLE

TABLE OF "t" DIMENSIONS

Beam No.	1	2	3	4	5	6	7	8
S. Abut.	—	—	—	—	—	—	—	⅛"
Pier	—	—	—	—	—	—	—	⅛"
N. Abut.	—	—	—	—	—	—	—	⅛"



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	16

BEARING DETAILS
F.A. RTE. 408 SEC. 75-5HB-1
PIKE COUNTY
STA. 234+67.07

DESIGNED	David J. Dreiza	April 7, 1987
CHECKED	Kevin L. Riechers	EXAMINED Greg O. Kaspar, ENGINEER OF BRIDGE DESIGN
DRAWN	R. Sommer	PASSED James T. Kaufhern, ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	DLG	APPROVED , DIRECTOR OF HIGHWAYS

I-2-E1 12-1-83

FILE NAME = D:\OPERATIONS\Bridges\Bridgeplans_CAD\72J06 - beam end paint FY17 CM\plansheet.dgn	USER NAME = dudleybm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D6 BRIDGE PAINTING 2016	VARIOUS	46	46
		CONTRACT NO. 72J06		
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