01-16-2026 LETTING ITEM 089

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-4HVB,5HVB)BP	LOGAN	18	1
	ILLINOIS	CONTRACT NO. 72653		

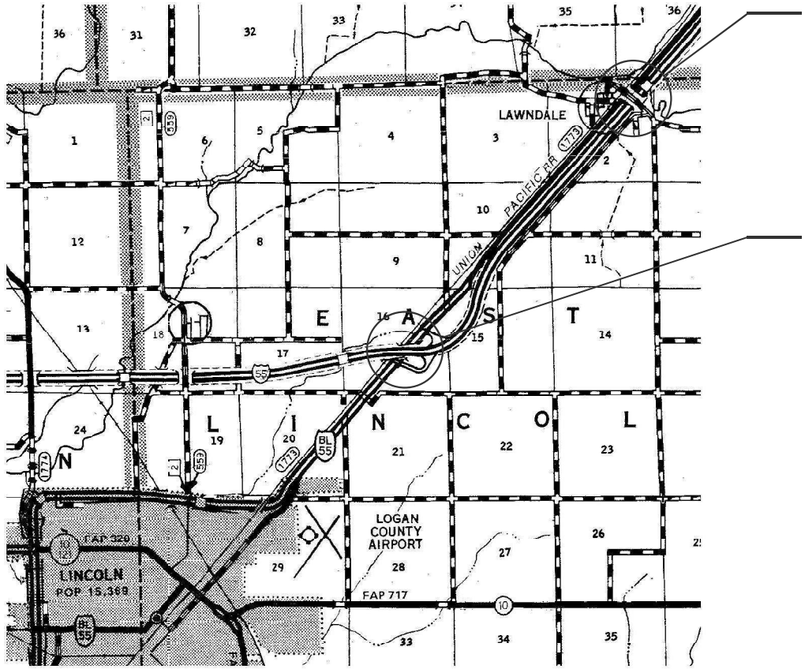
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

FAI ROUTE 55 (I-55)
SECTION (54-4HVB,5HVB)BP
PROJECT NHPP-EEX3(877)
BRIDGE PAINTING
LOGAN COUNTY

C-96-026-25



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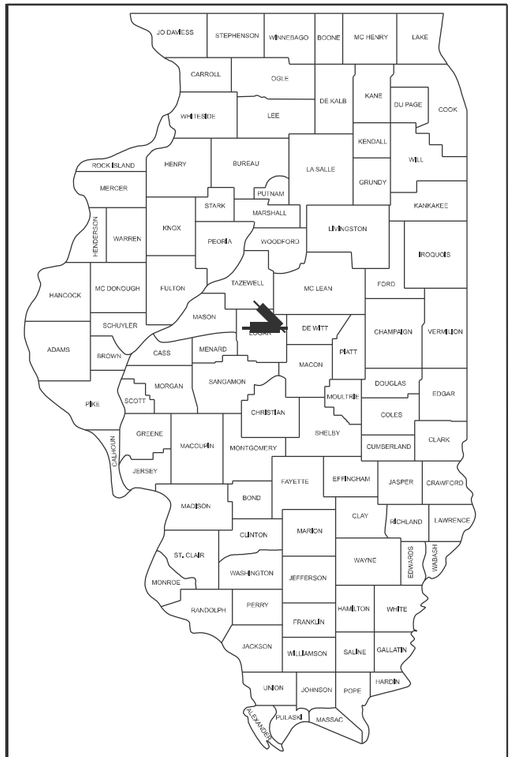

LOCATION OF SECTION INDICATED THUS: -

N

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

PROJECT ENGINEER: BRANDON DUDLEY - (217) 785-9290
PROJECT MANAGER

CONTRACT NO. 72653

GROSS LENGTH = x.xx FT. = x.xxx MILE
NET LENGTH = x.xx FT. = x.xxx MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 14 20 25
Teresa C. Price
REGIONAL ENGINEER

October 3 20 25
ENGINEER OF DESIGN AND ENVIRONMENT

October 3 20 25
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-09
001006
701001-02
701006-05
701101-05
701106-02
701400-12
701402-12
701423-10
701428-01
701901-11
704001-08
782006-01
BLR21-9

GENERAL NOTES:

1. WORK SHALL CONSIST OF BLASTING AND PAINTING STRUCTURAL STEEL AT LOCATIONS DESCRIBED IN THE SPECIAL PROVISIONS. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL AREAS TO BE PAINTED SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL EXISTING STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1- OZ/E/U. THE COLOR OF THE FINAL FINISH COATS SHALL BE AS DESCRIBED IN THE SPECIAL PROVISIONS.

2 THE USE OF AIR MONITORS WILL BE REQUIRED AT LOCATIONS AS CALLED OUT IN THE SPECIAL PROVISIONS.

3. THE SSPC-QP-1 AND SSPC-QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED.

4. 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. RUBBER COMPONENTS SHALL NOT BE PAINTED.

5. UPON COMPLETION OF PAINTING OPERATIONS, 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.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT 6

EXAMINED August 14, 20 25
Susan C. Powell
ENGINEER OF OPERATIONS

EXAMINED August 14, 20 25
Susan C. Powell
ENGINEER OF PROJECT IMPLEMENTATION

EXAMINED August 13, 20 25
ENGINEER OF PROGRAM DEVELOPMENT

REV - MS

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PLOT DATE = 6/10/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, & SIGNATURES

SCALE: | SHEET OF 1 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	2
		CONTRACT NO. 72653		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0-01379-6001 NHPP 90/10 SN 054-0060 & 0061 0047-RURAL LOGAN	0-01379-6001 NHPP 90/10 SN 054-0062 0047-RURAL LOGAN
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	0	2
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	2	2	0
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	70	14	56
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1400	800	600
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1400	800	600
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	2	2
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	2	2
X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR21	L SUM	1	0	1

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PLOT DATE = 7/15/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF 2 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	3
		CONTRACT NO. 72653		
	ILLINOIS FED. AID PROJECT			

					0-01379-6001	0-01379-6001
					NHPP 90/10	NHPP 90/10
CODE NO.	ITEM	UNIT	TOTAL QUANTITY		SN 054-0060 & 0061 0047-RURAL LOGAN	SN 054-0062 0047-RURAL LOGAN
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1		1	0
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1		1	0
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1		0	1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1	0
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1		1	0
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1		0	1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1		0.5	0.5
Z0076600	TRAINEES	HOUR	1000		1000	
Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1000		1000	

Ø 0042

REV - MS

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PLOT DATE = 7/15/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF 2 SHEETS | STA. | TO STA.

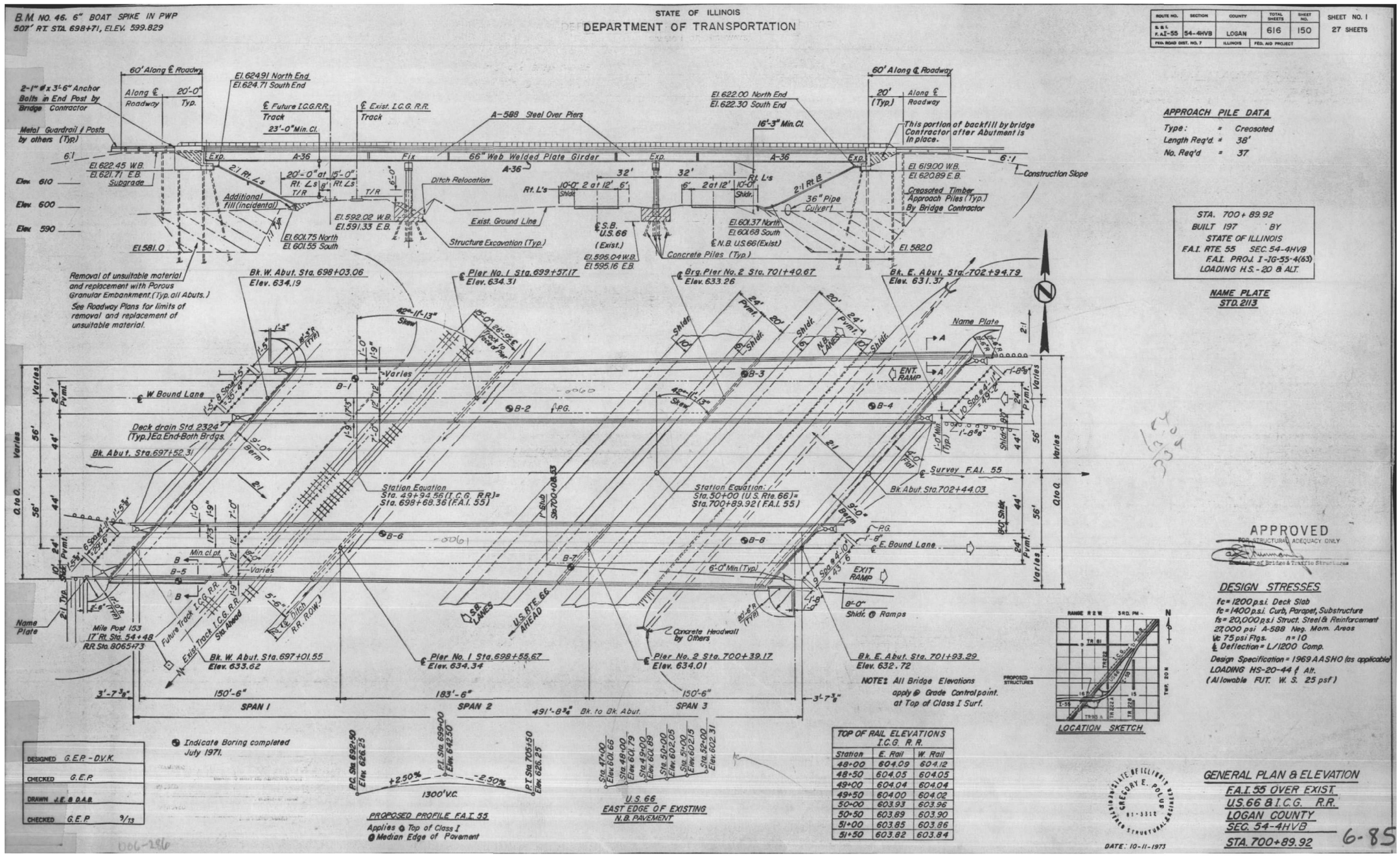
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	4
		CONTRACT NO. 72653		
	ILLINOIS FED. AID PROJECT			

B.M. NO. 46. 6" BOAT SPIKE IN PWP
507' RT. STA. 698+71, ELEV. 599.829

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. & I. F.A.I.-55	54-4HVB	LOGAN	616	150
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 1
27 SHEETS



APPROACH PILE DATA

Type: = Creosoted
Length Req'd. = 38'
No. Req'd = 37

STA. 700+89.92
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RTE. 55 SEC. 54-4HVB
F.A.I. PROJ. I-IG-55-4(63)
LOADING H.S.-20 & ALT.

NAME PLATE
STD. 2113

TOP OF RAIL ELEVATIONS I.C.G. R.R.

Station	E. Rail	W. Rail
48+00	604.09	604.12
48+50	604.05	604.05
49+00	604.04	604.04
49+50	604.00	604.02
50+00	603.93	603.96
50+50	603.89	603.90
51+00	603.85	603.86
51+50	603.82	603.84

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridge & Traffic Structures

DESIGN STRESSES

fc = 1200 p.s.i. Deck Slab
fc = 1400 p.s.i. Curb, Parapet, Substructure
fs = 20,000 p.s.i. Struct. Steel & Reinforcement
27,000 psi A-588 Neg. Mom. Areas
Vc 75 psi Flgs. n = 10
℄ Deflection = L/1200 Comp.
Design Specification = 1969 AASHO (as applicable)
LOADING HS-20-44 & Alt.
(Allowable FUT. W. S. 25 psf)

STATE OF ILLINOIS
GREGORY E. POLUP
81-3312
REGISTERED STRUCTURAL ENGINEER
DATE: 10-11-1973

GENERAL PLAN & ELEVATION
F.A.I. 55 OVER EXIST. U.S. 66 & I.C.G. R.R.
LOGAN COUNTY
SEC. 54-4HVB
STA. 700+89.92

6-85

DESIGNED	G.E.P. - D.V.K.		
CHECKED	G.E.P.		
DRAWN	J.E.B. D.A.B.		
CHECKED	G.E.P.	9/73	

006-286

USER NAME = brandon.dudley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 7/16/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)

SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB, 5HVB)BP	LOGAN	18	5
		CONTRACT NO. 72653		
		ILLINOIS	FED. AID PROJECT	

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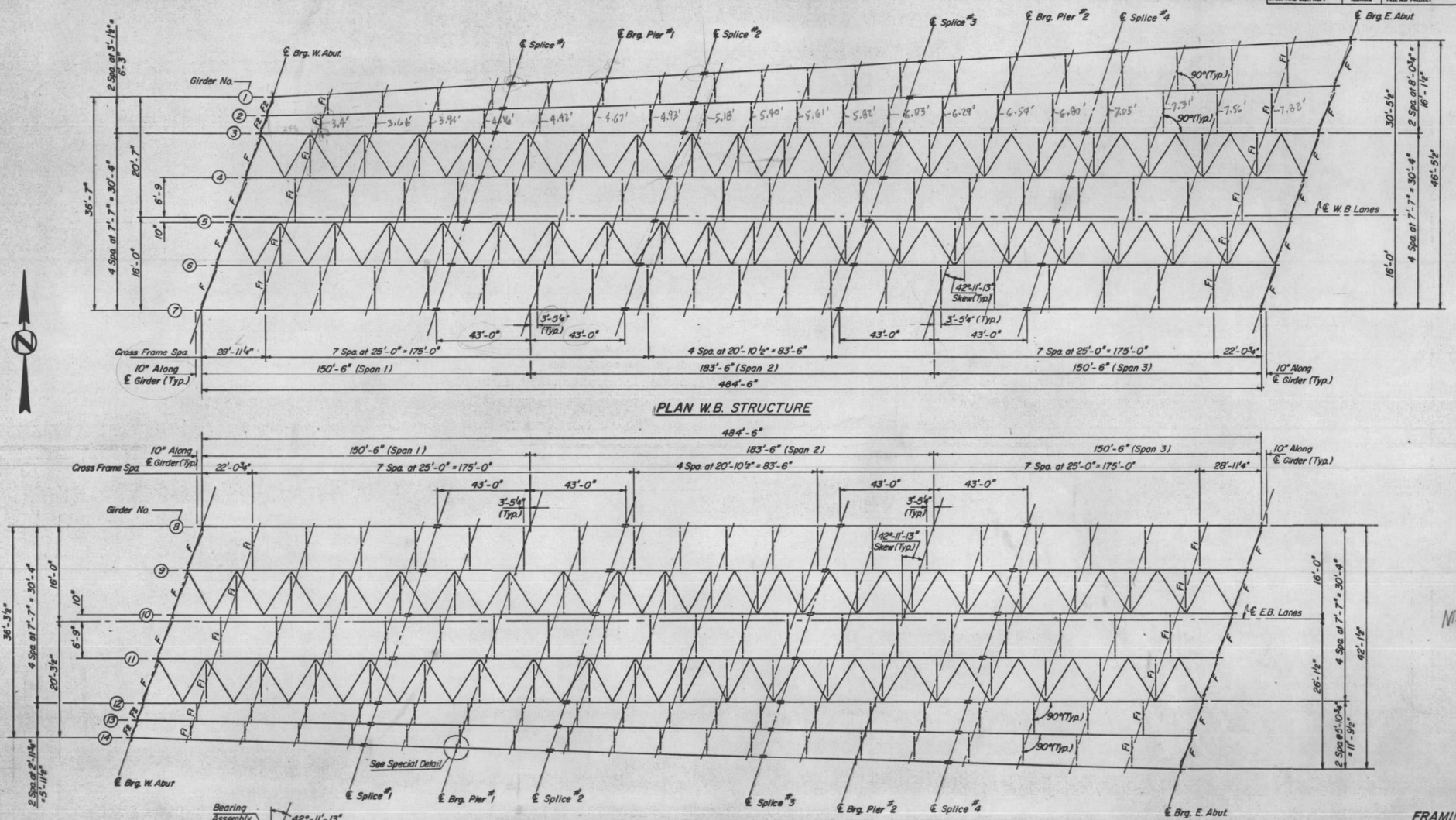
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S.R.T. F.A.I. 55	54-4HVB	LOGAN	616	162
*FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 13
27 SHEETS

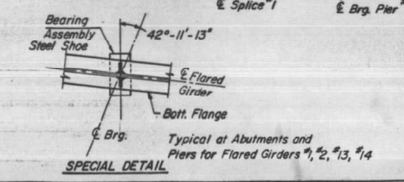


PLAN W.B. STRUCTURE

58

PLAN E.B. STRUCTURE

NB



SPECIAL DETAIL

DESIGNED	D.V.K.
CHECKED	G.E.P.
DRAWN	J.T.
CHECKED	G.E.P.

FRAMING PLAN
STRUCTURAL STEEL
F.A.I. 55 OVER EXIST.
U.S. 66 & I.C.G. R.R.
LOGAN COUNTY
SEC. 54-4HVB
STA. 700+89.92

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PLOT DATE = 7/16/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)

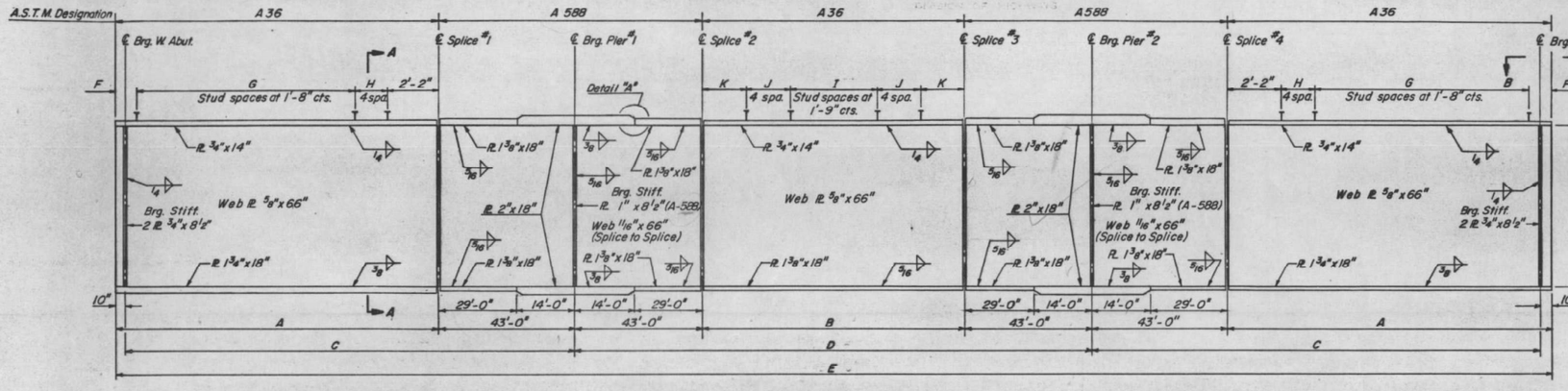
SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	6
		CONTRACT NO. 72653		
	ILLINOIS FED. AID PROJECT			

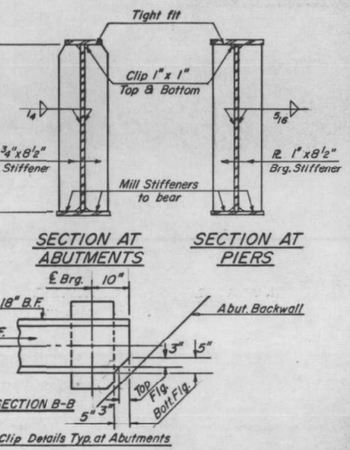
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

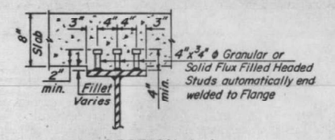
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S. & I. F.A. I-55	54-4HVB	LOGAN	616	163
*FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 14
27 SHEETS



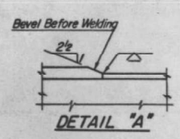
GIRDER ELEVATION





SECTION A-A

Girder No.	No. Studs ea. Gdr.
1 & 2	591
3 Thru 12	582
13	573
14	570
Total	8145



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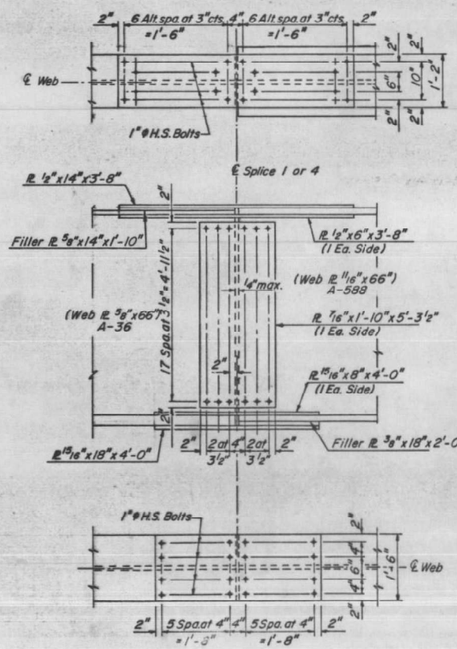
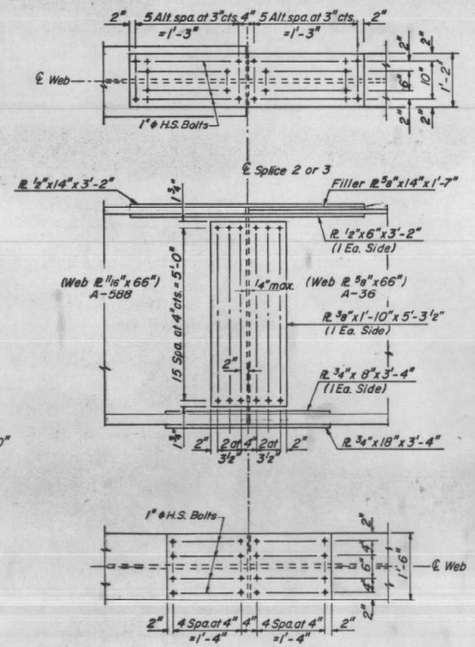


FIELD SPLICE NO. 1 & NO. 4
1" ϕ High Strength Bolts
A-36 Steel



FIELD SPLICE NO. 2 & NO. 3
1" ϕ High Strength Bolts
A-36 Steel

GIRDER DIMENSIONS

Gdr. \ Dim.	A	B	C	D	E	F	G	H	I	J	K
Gdr. 1	111'- 1 5/8"	100'-11 1/4"	153'-3 5/8"	186'-11 1/4"	495'-2 1/2"	11 5/8"	105'-0"	3'-0"	91'-0"	2'-8"	2'-7 5/8"
Gdr. 2	109'-8 3/4"	99'-2 1/2"	151'-10 3/4"	185'-2 1/2"	490'-8"	10 3/4"	105'-0"	1'-8"	91'-0"	2'-0"	2'-1 1/4"
Gdr. 3-12	108'-4"	97'-6"	150'-6"	183'-6"	486'-2"	10"	103'-4"	2'-0"	89'-3"	2'-0"	2'-1 1/2"
Gdr. 13	107'-6 1/8"	96'-6"	149'-8 1/8"	182'-6"	483'-6 1/4"	1'-0 1/8"	101'-8"	2'-8"	87'-6"	2'-4"	2'-2"
Gdr. 14	106'-8 3/8"	95'-6 1/8"	148'-10 3/8"	181'-6 1/8"	480'-10 5/8"	10 3/8"	101'-8"	2'-0"	85'-9"	2'-8"	2'-2 9/16"

TOP OF WEB ELEVATIONS

Loc. \ Gdr.	℄ Brg. W. Abut	℄ Splice #1	℄ Brg. Pier #1	℄ Splice #2	℄ Splice #3	℄ Brg. Pier #2	℄ Splice #4	℄ Brg. E. Abut
1	633.17	633.16	632.99	632.87	632.17	631.70	631.27	629.70
2	633.23	633.25	633.10	632.99	632.34	631.89	631.49	629.99
3	633.29	633.39	633.21	633.14	632.53	632.07	631.71	630.27
4	633.39	633.52	633.36	633.30	632.72	632.27	631.92	630.51
5	633.46	633.62	633.47	633.41	632.86	632.42	632.08	630.70
6	633.32	633.51	633.36	633.32	632.80	632.37	632.04	630.69
7	633.15	633.37	633.23	633.21	632.71	632.29	631.97	630.65
8	632.75	633.26	633.25	633.34	633.12	632.82	632.62	631.60
9	632.84	633.38	633.38	633.49	633.28	633.00	632.81	631.81
10	632.91	633.48	633.49	633.61	633.43	633.15	632.98	632.01
11	632.76	633.36	633.39	633.51	633.36	633.10	632.94	631.99
12	632.58	633.21	633.24	633.38	633.25	633.00	632.85	631.94
13	632.50	633.07	633.15	633.26	633.14	632.92	632.75	631.87
14	632.41	632.98	633.06	633.17	633.05	632.84	632.67	631.80

DESIGNED	D.V.K.
CHECKED	G.E.P.
DRAWN	J.T. - R.H.H.
CHECKED	D.V.K.

STRUCTURAL STEEL DETAILS
F.A.I. 55 OVER EXIST.
U.S. 66 & I.C.G. R.R.
LOGAN COUNTY
SEC. 54-4HVB
STA. 700+89.92

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	CHECKED -	REVISED -	
PLOT DATE = 7/16/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

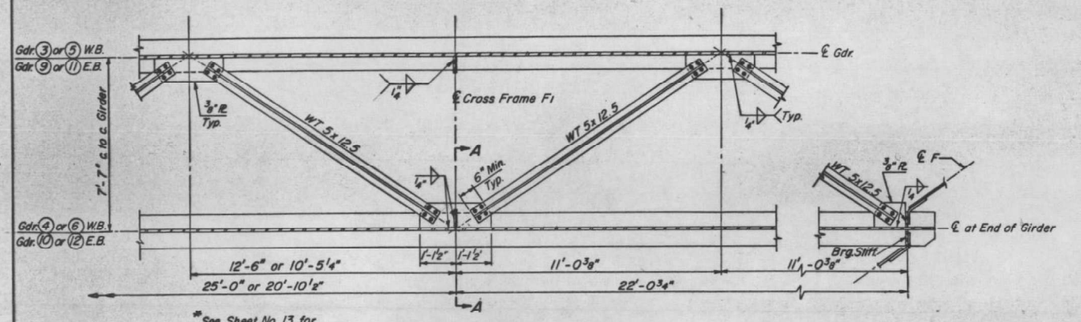
EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)
SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	7
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

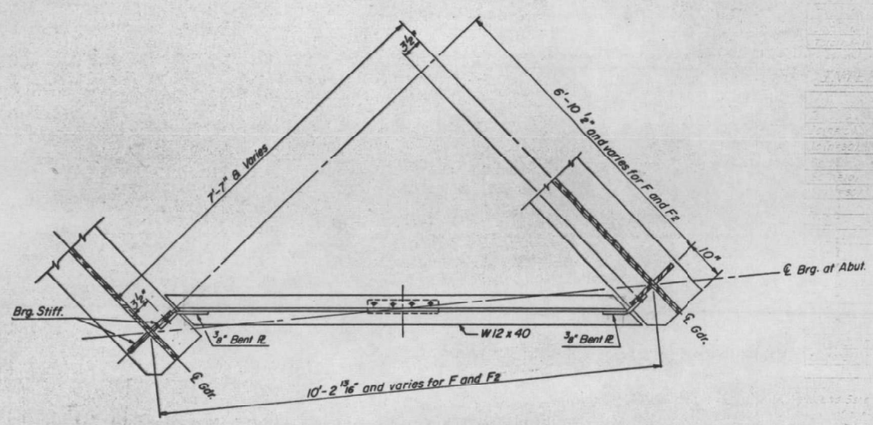
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I-55	54-4HVB	LOGAN	616	164
*FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 15
27 SHEETS

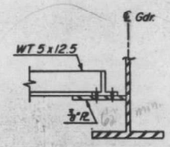


*See Sheet No. 13 for Diaph. spacing.

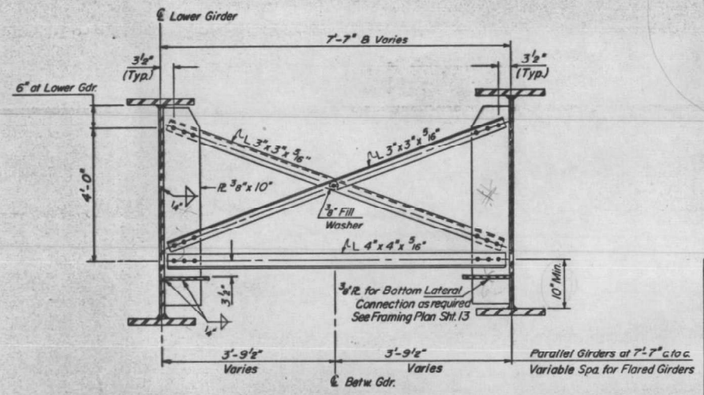
TYPICAL LATERAL BRACING PLAN



Bolts 3/4" ø
Open Holes 13/16" ø
15/16" ø holes in gusset R.s for 3/4" ø bolts

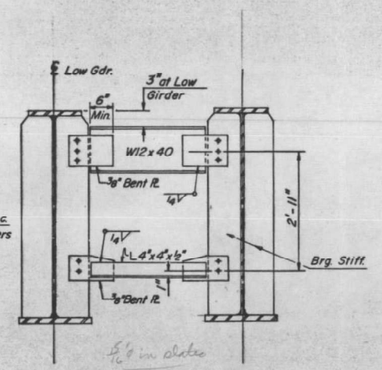


SECTION A-A



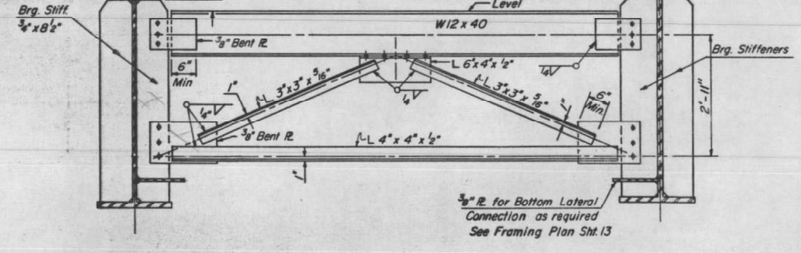
INTERIOR CROSS FRAME F1

No. Required = 152 ea. for 7'-7" Gdr. Spa.
76 ea. for Flared Gdrs.
Bolts 3/4" ø
Open Holes 13/16" ø
15/16" ø holes in gusset R.s for 3/4" ø bolts.



END CROSS FRAME F2

No. Required = 4 ea.
Bolts 3/4" ø
Open Holes 13/16" ø



END CROSS FRAME F

No. Required = 20 Ea.
Bolts 3/4" ø
Open Holes 13/16" ø
15/16" ø holes in gusset R. for 3/4" ø bolts

DESIGNED	D.V.K.
CHECKED	G.E.P.
DRAWN	J.T.
CHECKED	D.V.K.

STRUCTURAL STEEL DETAILS
F.A.I. 55 OVER EXIST. U.S. 66 & I.C.G. R.R.
LOGAN COUNTY
SEC. 54-4HVB
STA. 700+89.92

MODEL: Bridge-4 [Sheet]
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 7/16/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)

SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	8
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-55	54-4HVB	LOGAN	616	165
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 16
27 SHEETS

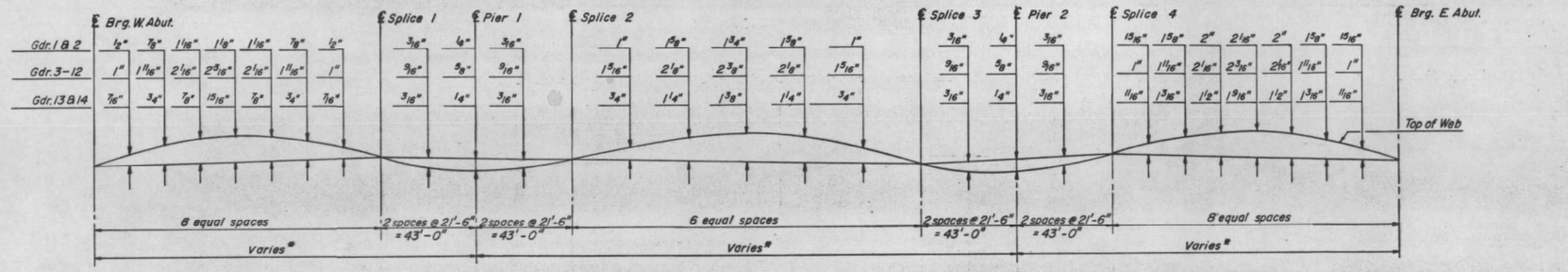
INTERIOR GIRDER REACTION TABLE

	ABUTMENTS	PIERS
R ℄ (k)	85.9	291.2
R ℄ (k)	48.5	103.6
Imp. (k)	8.8	17.7
Total (k)	143.2	412.5

INTERIOR GIRDER MOMENT TABLE

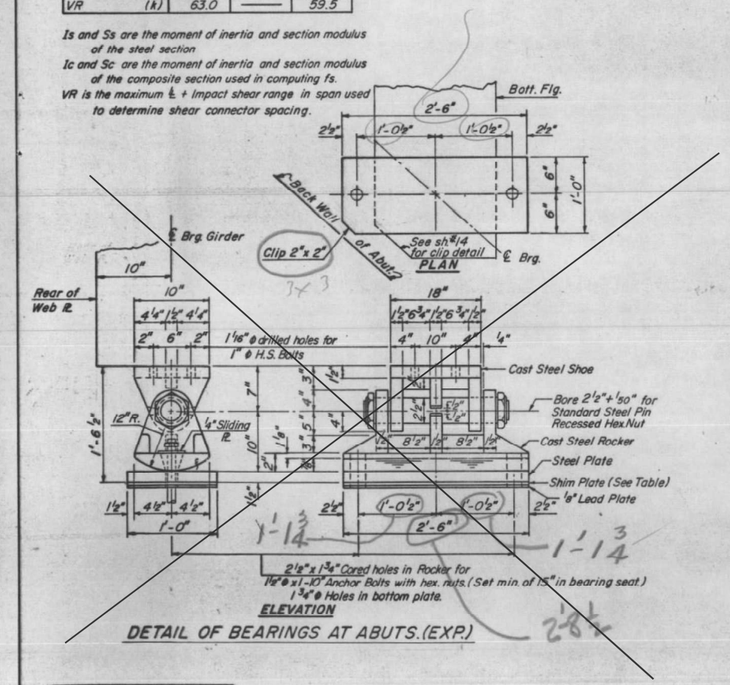
		0.4Span1 or 3	Pier 1 or 2	0.5Span 2
Is	(in^4)	56,656	99,727	51,708
Ic(n=10)	(in^4)	140,509	———	124,536
Ic(n=30)	(in^4)	97,166	———	87,614
Ss	(in^3)	2167.3	2849.3	1,943.0
Sc(n=10)	(in^3)	2941.5	———	2,513.6
Sc(n=30)	(in^3)	2654.4	———	2,265.7
℄	(k/')	1.097	1.680	1.070
M ℄	('k)	1627.2	4538.2	1163.5
fs ℄	ksi	9.02	19.11	7.58
S ℄	(k/')	0.446	———	0.446
Ms ℄	('k)	755.6	———	733.0
fs S ℄(n=30)	('k)	3.42	———	3.88
M ℄	('k)	1440.5	1595.2	1518.3
M Imp	('k)	260.7	272.8	246.0
Total	('k)	1701.2	1868.0	1764.3
fs(℄+I)(n=10)	ksi	6.94	7.87	8.42
fs (total)	ksi	19.38	26.98	19.88
VR	(k)	63.0	———	59.5

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 used in computing *f*s.
VR is the maximum ℄ + Impact shear range in span used to determine shear connector spacing.

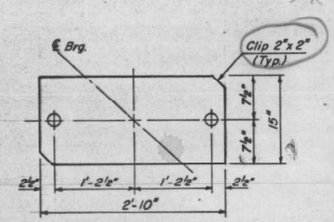


*For girder lengths, See Sheet #14.

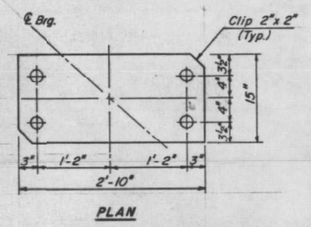
CAMBER DIAGRAM

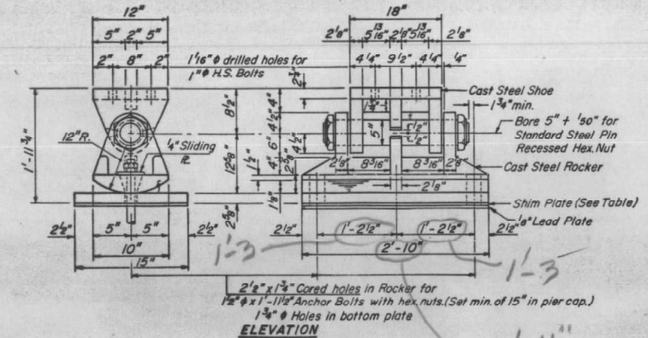


DETAIL OF BEARINGS AT ABUTS. (EXP.)



Bob Rush of BNH Eng. called 4-26-74
~~5305 Hohman Ave~~
5305 Hohman ave
Hammond, Ind.
219-937-1100





DETAILS OF BEARINGS AT PIER #2 (EXP.)

SHIM TABLE

Gdr. \ Loc.	West Abut.	East Abut.	Pier No. 2
3	5/8"	———	———
6	———	1/2"	5/8"
10	———	1/4"	3/8"

Provide Shim Plates of the same dimensions of the bottom bearing plate and thickness shown. See Shim Table.

Structural Steel weldments of equal sections and strength may be substituted for the castings.

See Special Detail, Sheet #13 for flared girder-steel shoe arrangement.

DETAIL OF BEARINGS AT PIER #1 (FIXED)

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 "adjusting" shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

BEARING ASSEMBLIES
F.A.I. 55 OVER EXIST. U.S. 66 & I.C.G. R.R.
LOGAN COUNTY
SEC. 54 - 4HVB
STA. 700+89.92

DESIGNED	G.E.P.
CHECKED	D.V.K.
DRAWN	J.T—R.H.H.
CHECKED	G.E.P.

MODEL: Bridge-5 [Sheet]
FILE NAME: c:\pw_work\pwdot\dudleybm\d1021619\D672653-Plansheet.dgn

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 7/16/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)

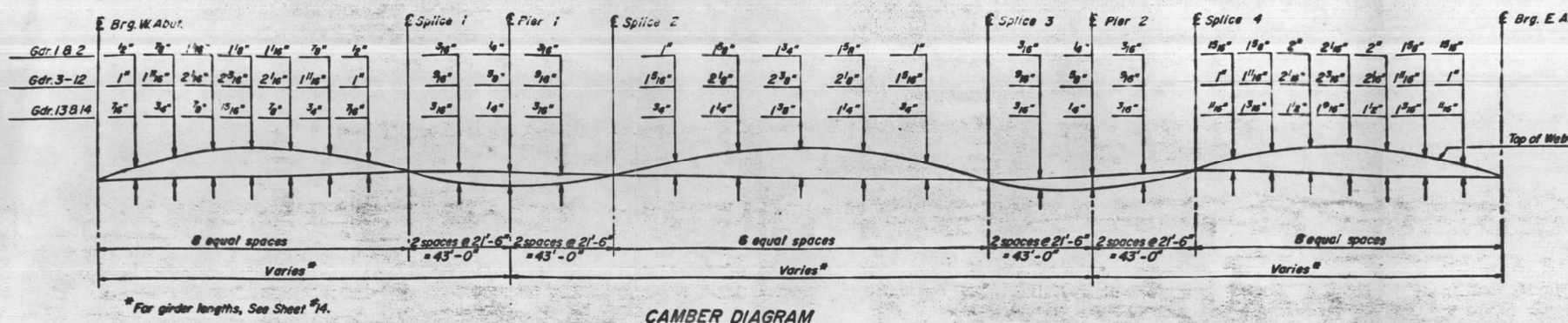
SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	9
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

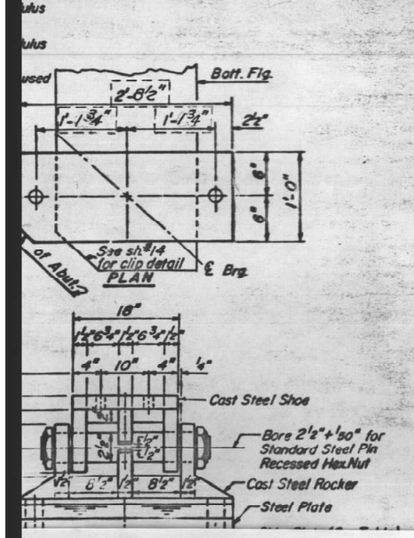
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RTE. 55	54-4HVB	LOGAN	616	165A
ARMD. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

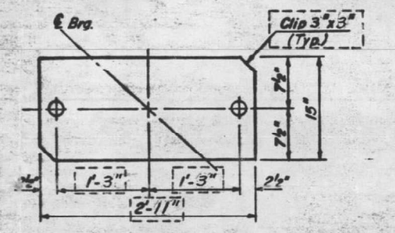
SHEET NO. 16
27 SHEETS

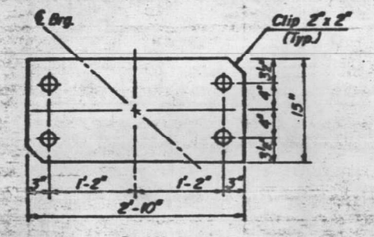


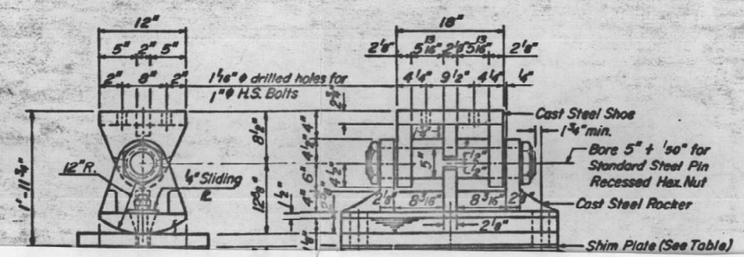
*For girder lengths, See Sheet #14.

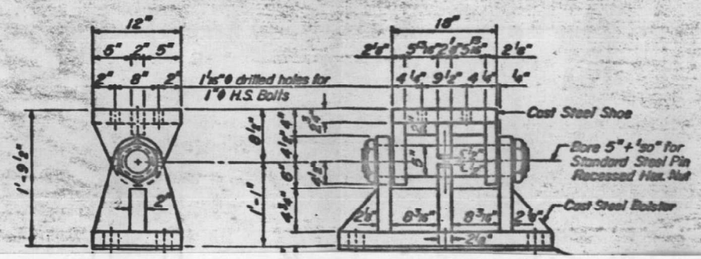
CAMBER DIAGRAM











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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 7/16/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)

SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	10
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

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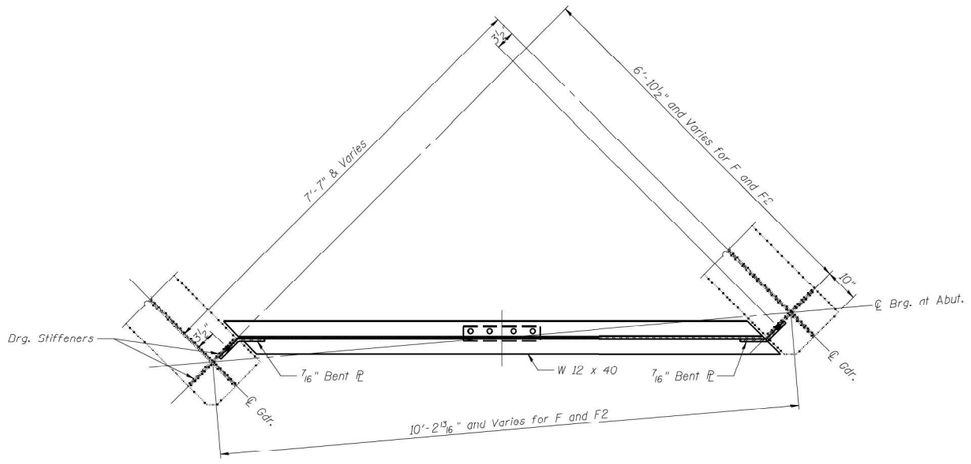
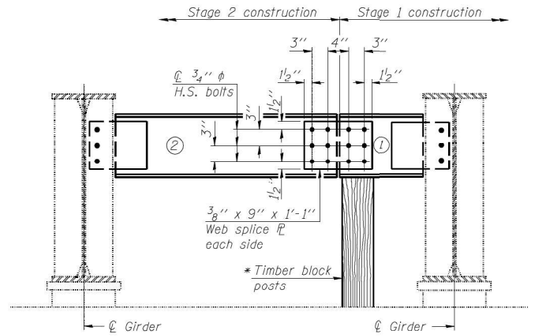


* Cost of Timber Block Posts is included with Furnishing and Erecting Structural Steel.

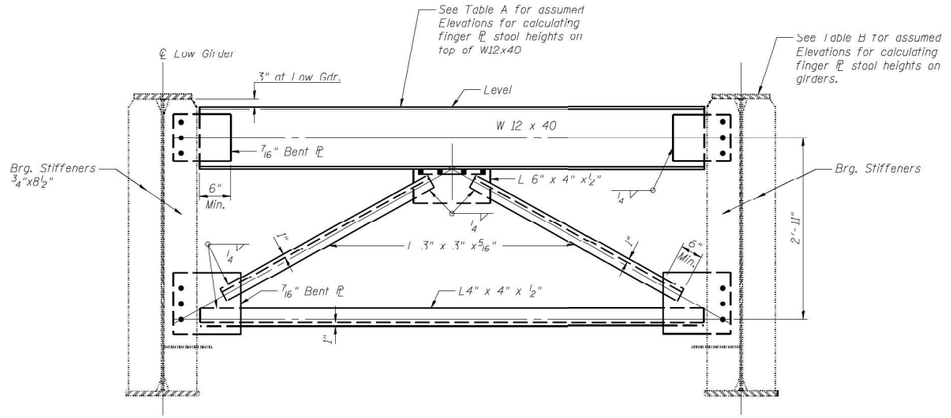


END DIAPHRAGM

Note: Use above detail with top W12x40 only.
Install lower portion of cross frame after Stage 2.

END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE

1.) Order diaphragm in two sections.
2.) Attach section (1) of diaphragm to girder .
3.) Place timber block posts between section (1) of diaphragm and abutment bearing section.
4.) Attach section (2) of diaphragm to both girder and section (1) of diaphragm during stage II construction with splice plates.
5.) Remove timber block posts.



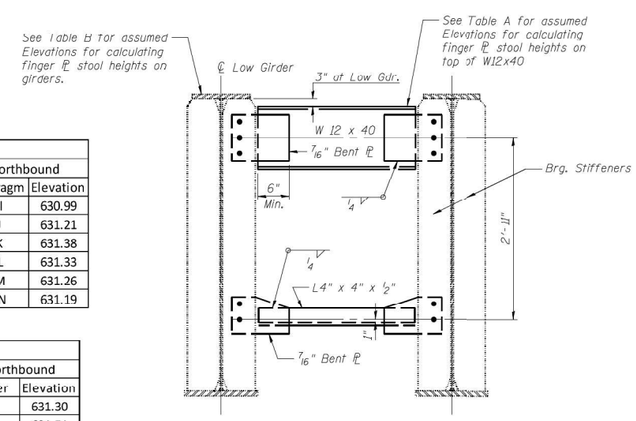
END CROSS FRAME F

No. Required = 20 Ea.
Bolts ¾" ϕ
Open Holes 13/16" ϕ
15/16" ϕ holes in gusset PL for ¾" ϕ bolts

Table A			
Southbound		Northbound	
Diaphragm	Elevation	Diaphragm	Elevation
A-B	629.09	H-I	630.99
B-C	629.38	I-J	631.21
C-D	629.66	J-K	631.38
D-E	629.90	K-L	631.33
E-F	630.08	L-M	631.26
F-G	630.04	M-N	631.19

Table B			
Southbound		Northbound	
Girder	Elevation	Girder	Elevation
A	629.40	H	631.30
B	629.69	I	631.51
C	629.97	J	631.71
D	630.21	K	631.69
E	630.40	L	631.64
F	630.39	M	631.57
G	630.35	N	631.50

Note: Finger PL stool heights listed on sheets 30 and 31 shall be adjusted if above elevations do not match actual elevations measured in the field.



END CROSS FRAME F2

No. Required = 4 Ea.
Rnits ¾" ϕ
Open Holes 13/16" ϕ

CEC Cummins Engineering Corporation — Civil and Structural Engineering			
JOB = 2265.2	DESIGNED - AAN	REVISED -	
FILE = 0540060.0061-72E11-33-35-StructSteel.dgn	CHECKED - MDC	REVISED -	
DATE = 3/18/2013	DRAWN - SJS	REVISED -	
	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL
STRUCTURE NO. 054-0060 (SB) & STRUCTURE NO. 054-0061 (NB)
SHEET NO. 35 OF 53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 LOGAN CO BR 2011-1	LOGAN	429	265
		CONTRACT NO. 72E11		
	ILLINOIS FED. AID PROJECT			

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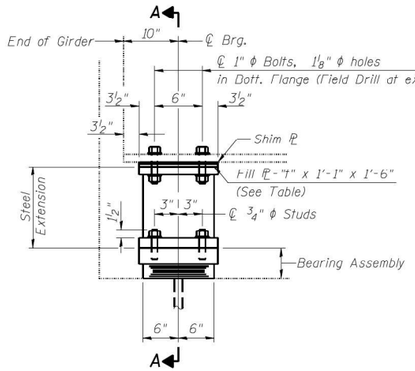
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 7/16/2024	DATE -	REVISED -

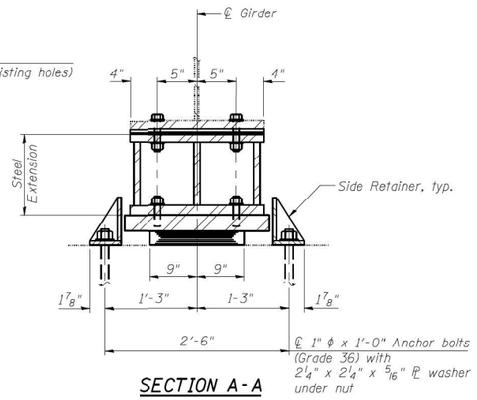
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)
SCALE: SHEET OF 14 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	11
		CONTRACT NO. 72653		
	ILLINOIS FED. AID PROJECT			



ELEVATION AT ABUT

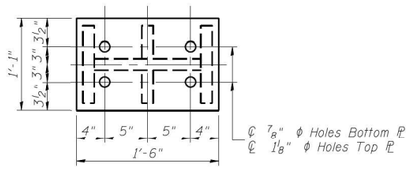


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT W. ABUT. S.B. & W. ABUT. N.B.

FILL "T" DIMENSIONS

S.B. Lanes	A	B	C	D	E	F	G
℄ Brg. W. Abut.	—	—	5/8"	—	—	—	—

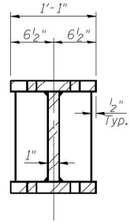


PLAN - TOP & BOTTOM

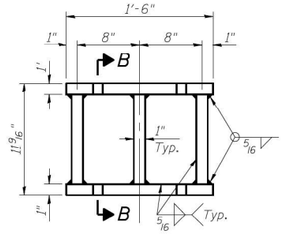
INTERIOR GIRDER REACTION TABLE

Location W. Abutment	
RDL (K) (steel only)	18.1
RLL (K)	45.2
RIMP (K)	8.2
RTOTAL (K)	145.5
Min. Jack Capacity (T)	23

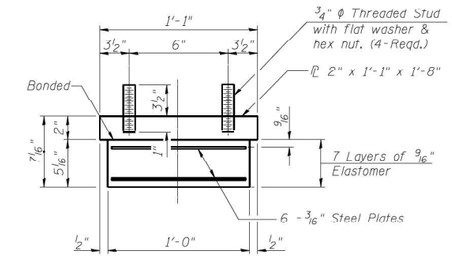
Min. Jack Capacity = RDL + 1/2 (RLL+RIMP)



SECTION B-B

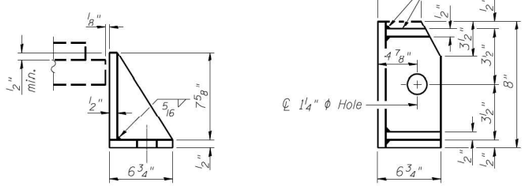


ELEVATION



BEARING ASSEMBLY

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



ABUTMENT SIDE RETAINER - W. ABUT. S.B. & W. ABUT. N.B.

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

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

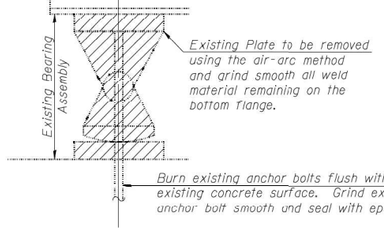
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on the bearing details.

STEEL EXTENSION AT W. ABUT. S.B. & W. ABUT. N.B.



EXISTING BEARING REMOVAL DETAIL

Cost Included with "Jack and Remove Existing Bearings"

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	14
Anchor Bolts 1"	Each	28
Elastomeric Bearing Assembly Type I	Each	14
Furnishing and Erecting Structure Steel	Pound	3900

CEC Cummins Engineering Corporation — Civil and Structural Engineering

JOB = 2265.2 | DESIGNED - AAN | REVISED -
FILE = 0540060.0061-72E11-36-37-Bearings.dgn | CHECKED - MDC | REVISED -
DATE = 12/17/2012 | DRAWN - SJS | REVISED -
CHECKED - MDC | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPE I BEARING DETAILS AT WEST ABUTMENTS
STRUCTURE NO. 054-0060 (SB) & STRUCTURE NO. 054-0061 (NB)
SHEET NO. 36 OF 53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 LOGAN CO BR 2011-1	LOGAN	429	266
		CONTRACT NO. 72E11		
		ILLINOIS FED. AID PROJECT		

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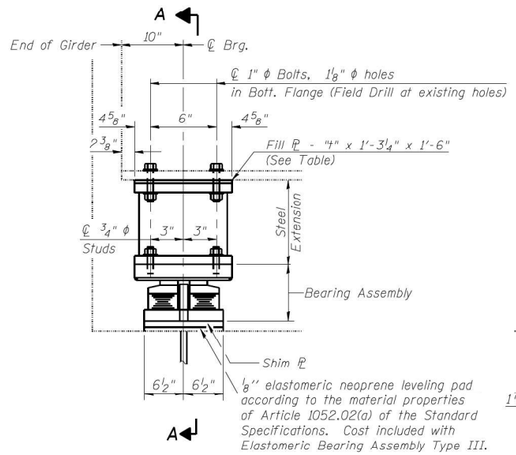
DRAWN - | REVISED -
CHECKED - | REVISED -
PLOT DATE = 7/16/2024 | DATE - | REVISED -

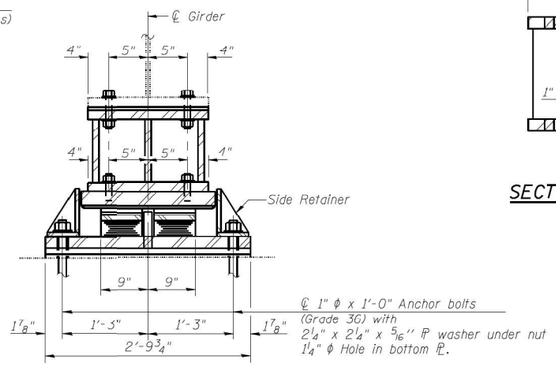
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)
SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	12
		CONTRACT NO. 72653		
		ILLINOIS FED. AID PROJECT		

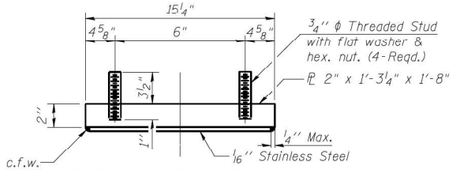


ELEVATION AT ABUT.



SECTION A-A

TYPE III ELASTOMERIC EXP. BRG. AT E. ABUT. S.B. & E. ABUT. N.B.

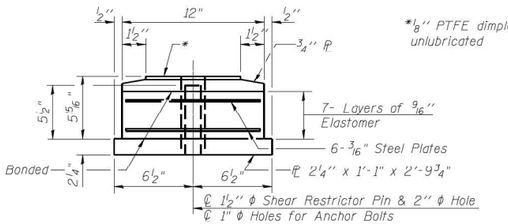


TOP BEARING ASSEMBLY

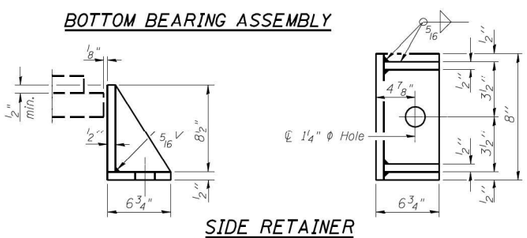
INTERIOR GIRDER REACTION TABLE

Location E. Abutment	
R_{PL} (K) (steel only)	18.1
R_L (K)	45.2
R_{IMP} (K)	8.2
R_{TOTAL} (K)	145.5
Min. Jack Capacity (T)	23

Min. Jack Capacity = $R_{PL} + \frac{1}{2}(R_L + R_{IMP})$

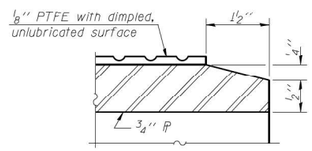


BOTTOM BEARING ASSEMBLY

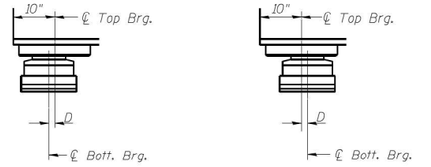


SIDE RETAINER

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



SECTION THRU PTFE

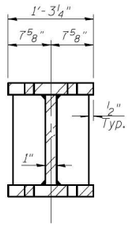


BELOW 50° F. (Move bottom brg. away from fixed brg.)

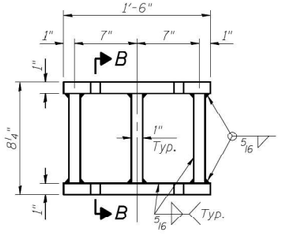
ABOVE 50° F. (Move bottom brg. toward fixed brg.)

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.

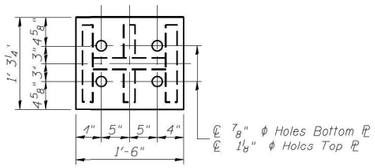


SECTION B-B

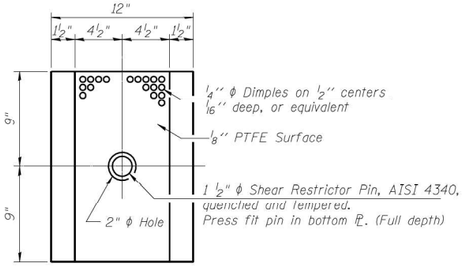


ELEVATION

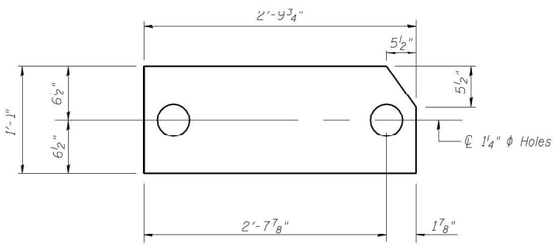
STEEL EXTENSION



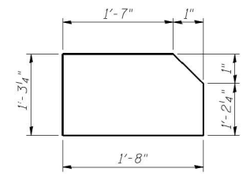
PLAN - TOP & BOTTOM



PLAN-PTFE ELASTOMERIC BRG.



BOTTOM BEARING PLATE PLAN



TOP BEARING PLATE PLAN

FILL "t" DIMENSIONS

S.B. Lanes	A	B	C	D	E	F	G
℄ Brg. E. Abut.	—	—	—	—	—	½"	—

N.B. Lanes	H	I	J	K	L	M	N
℄ Brg. E. Abut.	—	—	¼"	—	—	—	—

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for Type III bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type III.

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

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown in the bearing details.

See Sheet 36 of 53 for existing Bearing Removal Detail.

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	14
Anchor Bolts 1"	Each	28
Elastomeric Bearing Assembly Type I	Each	14
Furnishing and Erecting Structure Steel	Pound	3770

CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB = 2265.2	DESIGNED - AAN	REVISED -
	FILE = 0540060.0061-72E11-36-37-Bearings.dgn	CHECKED - MDC	REVISED -
	DATE = 12/17/2012	DRAWN - SJS	REVISED -
		CHECKED - MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPE III BEARING DETAILS AT EAST ABUTMENTS
STRUCTURE NO. 054-0060 (SB) & STRUCTURE NO. 054-0061 (NB)

SHEET NO. 37 OF 53 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 LOGAN CO BR 2011-1	LOGAN	429	267
		CONTRACT NO. 72E11		
	ILLINOIS FED. AID PROJECT			

USER NAME = brandon.dudley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 7/16/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0060 & 0061
(FOR INFORMATION ONLY)

SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	13
		CONTRACT NO. 72653		
	ILLINOIS FED. AID PROJECT			

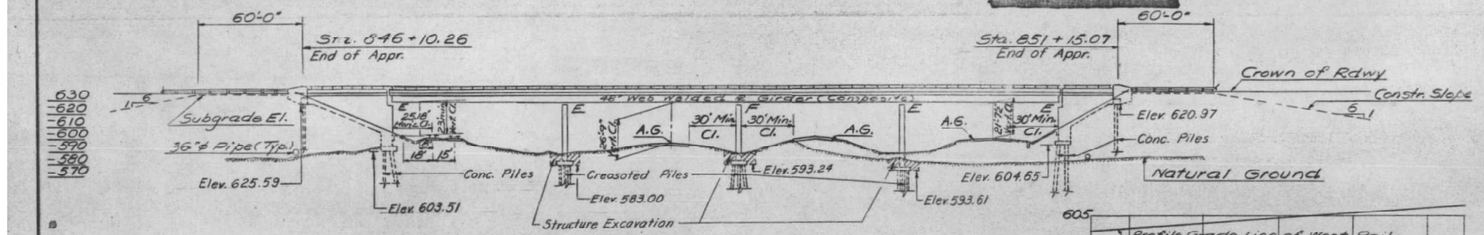
MODEL: Bridge-9 [Sheet]
FILE NAME: c:\pw_work\pwidot\dudleybmd1021619\D672653-Plansheet.dgn

BM: #57 - Horz. R.R. Spike in Power Pole 7.5' Lt. of Sta. 269+59 - Elev. 595.57
NO EXISTING STRUCTURE.

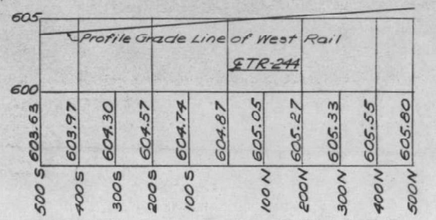
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	54-5HVB	Logan	53	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

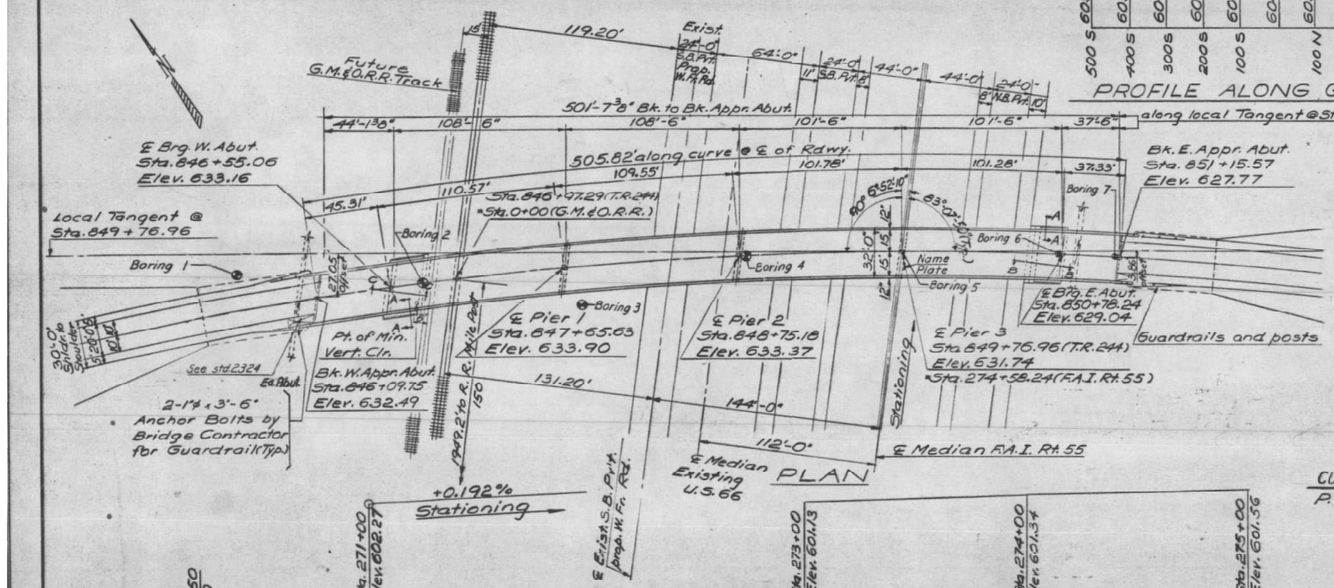
SHEET NO. 1
24 SHEETS



ELEVATION



PROFILE ALONG G.M.&O.R.R.



PLAN

PROFILE GRADE F.A.I. RTE. 55 PROFILE ELEV. EXIST. S.B. PVT. & PROP. WEST FRONT. RD.

STATION 274+58.24
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RT. 55 SEC. 54-5HVB
F.A. PROJ. I-55-4(64)
LOADING HS 15

NAME PLATE
See Std. 2113

CURVE DATA T.R. 244
P.I. Sta 849+31.26
Δ = 25° 00' 02"
D = 2° 18' 10"
T = 551.26'
R = 2487.87'
L = 1085.56'
E = 60.41'
SE = 0.042'/'
S.E.T. Sta 854+23 to 855+48

GENERAL NOTES

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

Fasteners shall be high strength bolts. Bolts 3/4" ø; open holes 13/16", unless otherwise noted.

Calculated weight of Structural Steel. = 423,800 lbs.

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

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.

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

Concrete piles at Appr. Bents shall be driven in holes precored through the embankment in accordance with Article 513.09(c) of the Standard Specifications

An alternate strand pattern using Extra High Strength Prestressing strand (270 k.s.i.) is permitted.

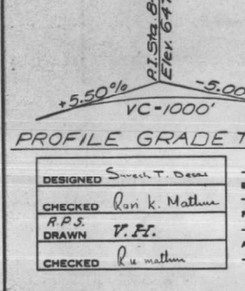
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

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.

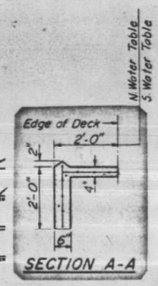
The Contractor shall drive one Concrete test pile in a permanent location at E Abut. and one timber test pile in a permanent location at pier 2 as directed by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

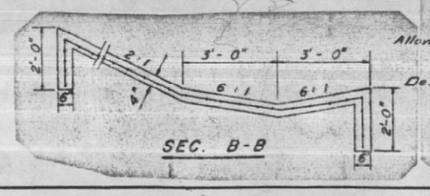
Item	Unit	Super	Sub	Total
Earth Excavation	Cu. Yds.		815	815
Porous Granular Embankment	Cu. Yds.		815	815
Structure Excavation	Cu. Yds.		210	210
Protective Coat	Sq. Yds	1986		1986
Class X Concrete	Cu. Yds	5032	4491	9523
Furnishing & Erecting P.P.C. I-Beams 36"	Lin. Ft.	235		235
Structural Steel	L.S.	L.S.		L.S.
Stud Shear Connectors	Each	1236		1236
Aluminum Railing	Lin. Ft.	1002		1002
Reinforcement Bars	lbs.	123100	61160	184260
Creosoted Piles (20.1 to 38 Ft.)	Lin. Ft.		3172	3172
Concrete Piles	Lin. Ft.		2323	2323
Test Piles Timber	Each		1	1
Test Piles Concrete	Each		1	1
Name Plate	Each		1	1
Slope Wall (4")	Sq. Yds.		223	223
Neoprene Expansion Joint (4")	Lin. Ft.	64		64



PROFILE GRADE TR 244



SECTION A-A



SEC. B-B

DESIGN STRESSES

fc =	1200 psi	(Deck Slab)
fc =	1400 psi	(Curb, Parapet, Sub)
fs =	20000 psi	(Reinf.)
fs =	20000 psi	(Struct)
Vc =	75 psi	(Ftgs.)
n =	10	

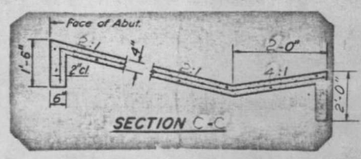
Allowable ℄ Deflection L/1200 (Composite)
Allow 25#/Sq. Ft. for Future W.S.

LOADING HS 15-44
Design Specification 1969 AASHO as applicable

PRECAST PRESTRESSED UNITS

f'c =	5,000 psi
fci =	4,000 psi
f's =	240,000 psi (Strands)
fsi =	173,600 psi (Strands)

LOCATION SKETCH



SECTION C-C

GENERAL PLAN & ELEVATION
PROJECT I-55-4(64)134
T.R. 244 OVER F.A.I. RTE. 55 WEST FRONTAGE RD. AND G.M.&O.R.R.
F.A.I RTE. 55 - SECTION 54-5HVB
LOGAN COUNTY
STA. 274+58.24 (F.A.I. RTE. 55)
STA. 849+76.96 (T.R. 244)

DESIGNED	Sweet T. Dean
CHECKED	Ron K. Mathew
R.P.S. DRAWN	V.H.
CHECKED	R K mathew

EXAMINED April 10 19 77
BUREAU OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF BRIDGES
APPROVED
CHIEF HIGHWAY ENGINEER

#29 · 5-1-73

6-86

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 7/16/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0062
(FOR INFORMATION ONLY)

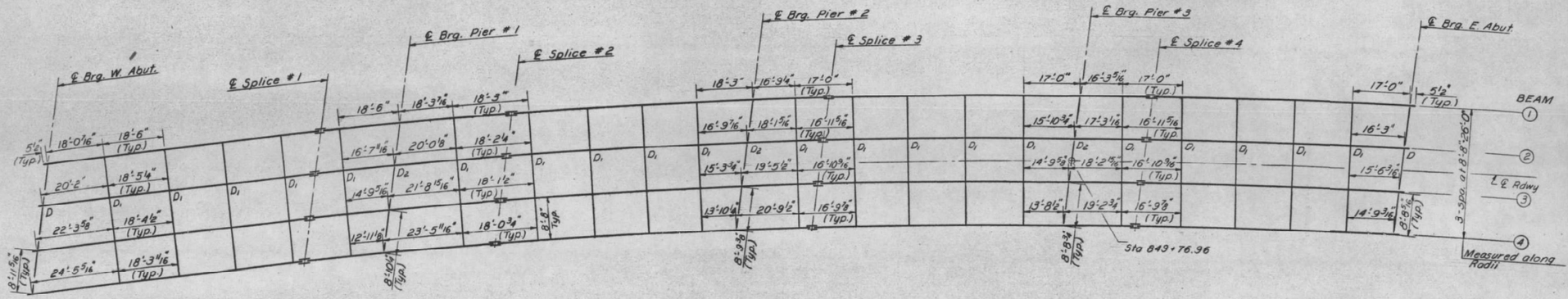
SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	14
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	54-5HVB	Logan	53	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

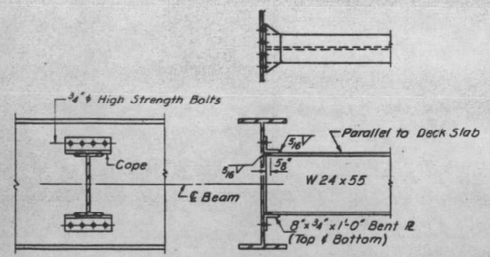
SHEET NO. 11
24 SHEETS



PLAN

ANGLE "B"

	W. Abut.	Pier 1	Pier 2	Pier 3	E. Abut.
Beam 1	14°-12'-25"	11°-40'-29"	9°-09'-54"	6°-50'-01"	4°-30'-48"
Beam 2	14°-15'-27"	11°-42'-57"	9°-11'-50"	6°-51'-27"	4°-31'-45"
Beam 3	14°-18'-30"	11°-45'-26"	9°-13'-47"	6°-52'-53"	4°-32'-42"
Beam 4	14°-21'-34"	11°-47'-56"	9°-15'-44"	6°-54'-21"	4°-33'-39"



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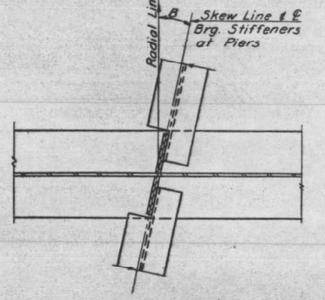

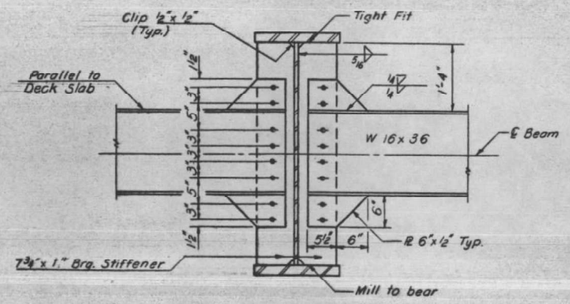

DIAPHAGM D2
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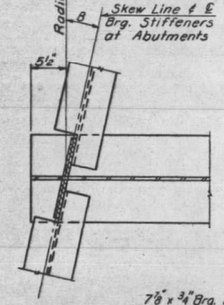

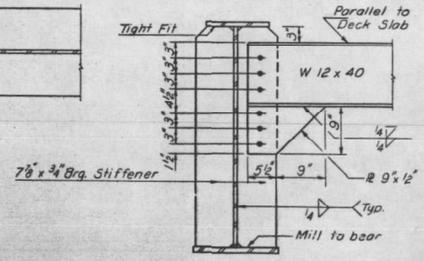

DIAPHRAGM D
No. Req'd 6

DESIGNED	Suresh T. Desai
CHECKED	Ravi K Mattur
DRAWN	R. P. Summer
CHECKED	Ravi K Mattur

EXAMINED April 10 1972
PASSED
APPROVED

STRUCTURAL STEEL
F.A.I. RT. 55 SEC. 54-5HVB
LOGAN COUNTY
STATION 274+58.24

MODEL: Bridge-11 [Sheet]
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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 7/16/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0062
(FOR INFORMATION ONLY)

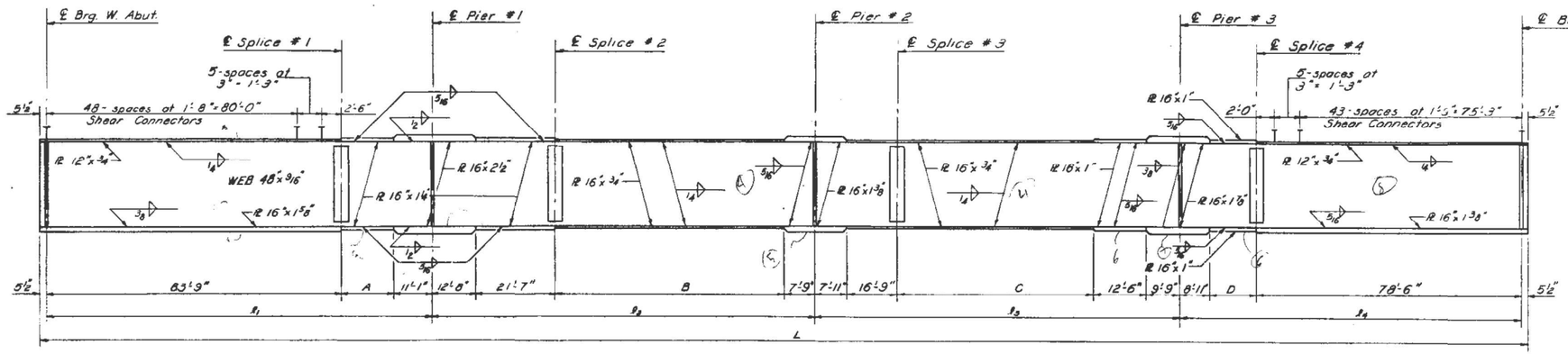
SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	15
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. I-55	54-5HVB	Logan	53	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

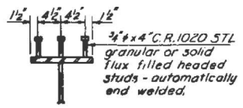
SHEET NO. 12
24 SHEETS



ELEVATION

BEAM DIMENSIONS

	Beam 1	Beam 2	Beam 3	Beam 4
A	15'-8 1/16"	15'-8 1/16"	15'-8 15/16"	15'-9 3/16"
ℓ_1	110'-6 7/16"	110'-6 11/16"	110'-6 13/16"	110'-7 3/16"
B	67'-6 7/16"	67'-6 7/16"	67'-6 7/16"	67'-6 7/16"
ℓ_2	109'-6 7/16"	109'-6 3/16"	109'-6 11/16"	109'-6 15/16"
C	54'-10 1/16"	54'-10 5/16"	54'-10 9/16"	54'-10 13/16"
ℓ_3	101'-9 1/16"	101'-9 5/16"	101'-9 9/16"	101'-9 13/16"
D	13'-10 5/16"	13'-10 9/16"	13'-10 13/16"	13'-11 1/16"
ℓ_4	101'-3 5/16"	101'-3 5/16"	101'-3 9/16"	101'-3 13/16"
L	424'-0 7/16"	424'-0 7/16"	424'-1 3/16"	424'-2 1/16"
Radius	2500.870	2492.203	2483.537	2474.870



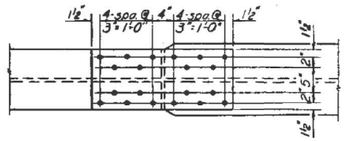
¾" ø x 4" C.R. 1020 STL granular or solid flux filled headed studs - automatically end welded.

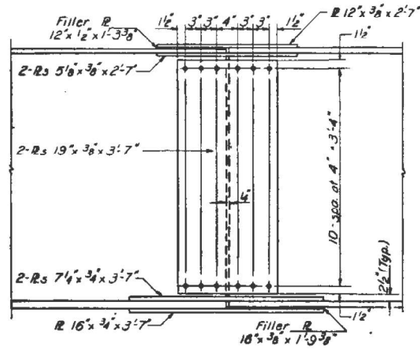
SHEAR CONNECTORS
309 Req'd. Ea. Beam

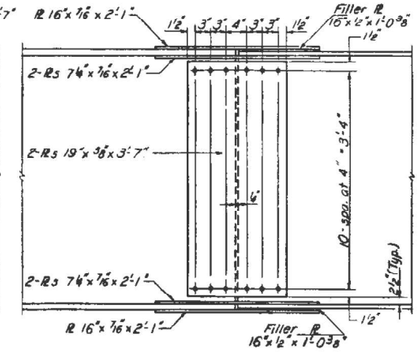
Notes:
All Beams shall be fabricated according to their respective radii.
All longitudinal dimensions are given along ℄ Beam.
All D, Diaphragms are radial.

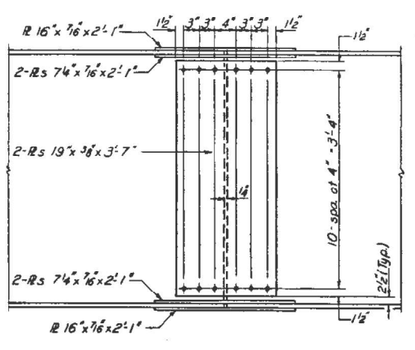
DESIGNED	Suresh T. Desai
CHECKED	Ravi K. Mattam
DRAWN	R. P. Summer
CHECKED	Ravi K. Mattam

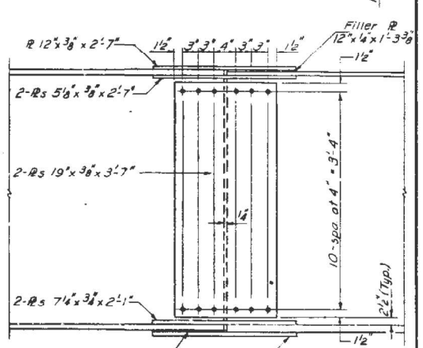
EXAMINED April 10 1972
PASSED
APPROVED

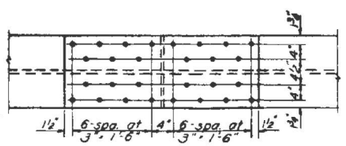




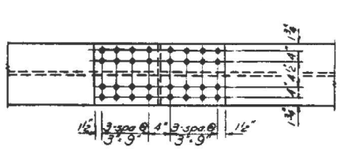




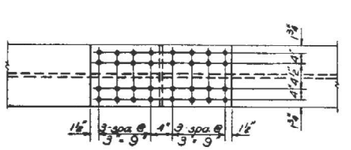




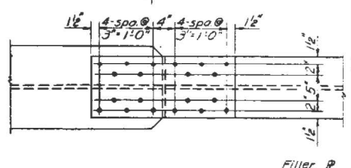
SPLICE # 1
⅞" ø H.S. Bolts

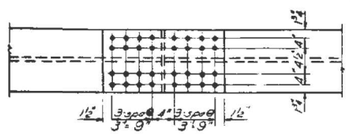


SPLICE # 2
⅞" ø H.S. Bolts



SPLICE # 3
⅞" ø H.S. Bolts





SPLICE # 4
⅞" ø H.S. Bolts

STRUCTURAL STEEL
F.A.I. RT. 55 SEC. 54-5HVB
LOGAN COUNTY
STATION 274+58.24

MODEL: Bridge-12 [Sheet]
FILE NAME: c:\pw_work\pwidot\dudley\dm1d1021619\D672653-Plansheet.dgn

USER NAME = brandon.dudley	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 7/16/2024	DATE -	REVISED -	

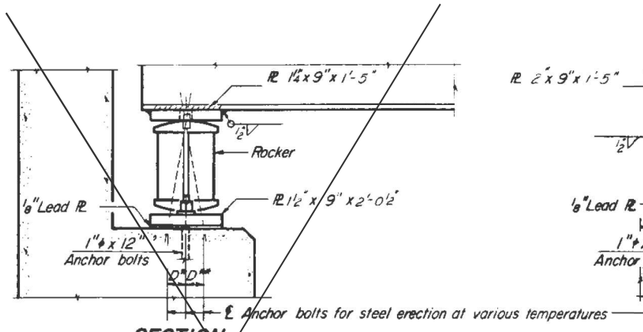
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 054-0062
(FOR INFORMATION ONLY)
SCALE: | SHEET OF 14 SHEETS | STA. | TO STA.

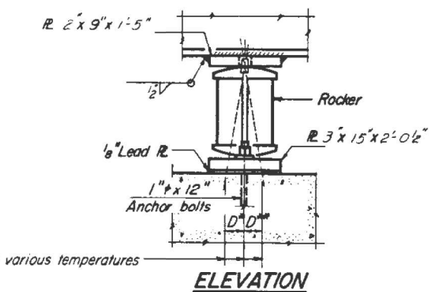
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	16
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

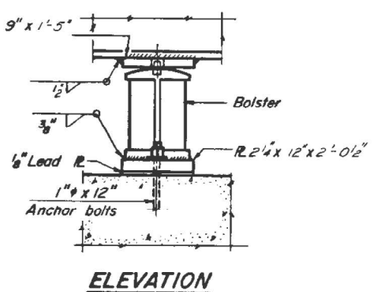
			TOTAL SHEETS	SHEET NO.	SHEET NO. 14
I-55	54-5HVB	Logan	53	22	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



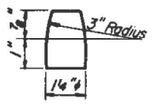
SECTION AT W. ABUT.



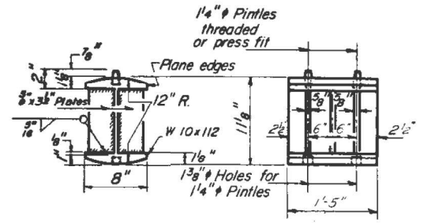
ELEVATION AT PIER #1



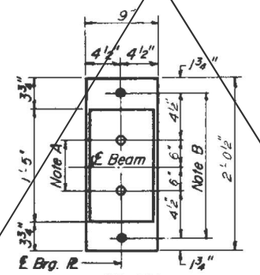
ELEVATION AT PIER # 2



PINTLE

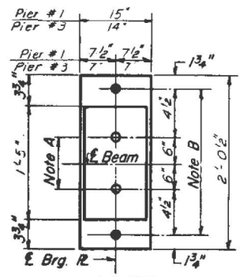


ROCKER



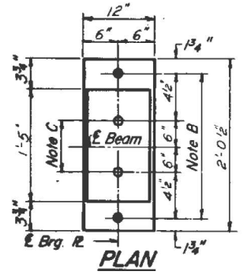
PLAN AT ABUTMENTS

NOTE A
1⅜"ϕ Holes - 1" deep in top ℄ for pintles. Thread or press fit pintles into bottom ℄.



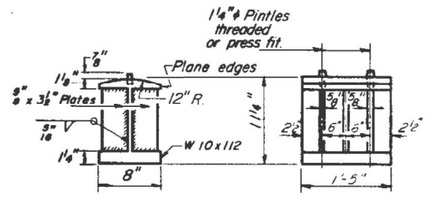
PLAN AT PIER 1 & 3

NOTE B
1½"ϕ Holes for 1"ϕ anchor bolts. 16 x 2½" x 2½" ℄. Washers under nut.



PLAN AT PIER #2

NOTE C
1⅜"ϕ Holes 1" deep in top ℄ only for 1¼"ϕ pintles.



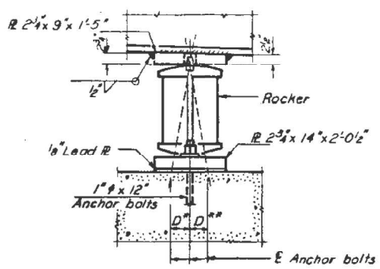
BOLSTER

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

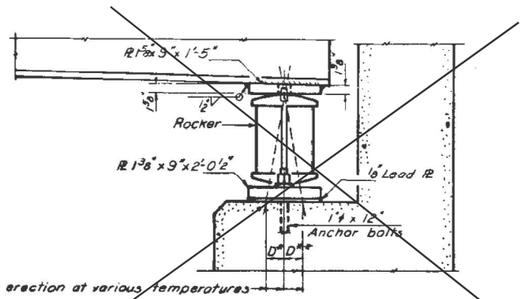
a) D* (Side of brg. away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
D** (Side of brg. toward fixed brg.)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.

b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS



ELEVATION AT PIER #3
(Looking North)



SECTION AT E. ABUT.
(Looking North)

DESIGNED	Suresh T. Desai
CHECKED	Ravi K Mallina
R.P.S. DRAWN	P.G. Bamett
CHECKED	Ravi K Mallina

EXAMINED April 10 1972
Engineer of Bridge and Traffic Structures
PASSED
Director of Highways
APPROVED
Chief Highway Engineer

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

BEARING DETAILS
F.A.I. RT. 55 SEC. 54-5HVB
LOGAN COUNTY
STATION 274+58.24

USER NAME = brandon.dudley	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 7/16/2024	DATE -	REVISED -	

EXISTING BRIDGE PLANS, SN 054-0062
(FOR INFORMATION ONLY)
SCALE: SHEET OF 14 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	17
		CONTRACT NO. 72653		
	ILLINOIS FED. AID PROJECT			

MODEL: Bridge-13 [Sheet]
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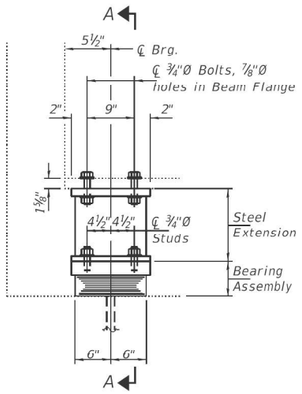
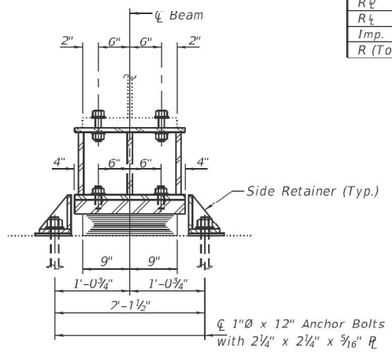


ELEVATION AT BOTH ABUTMENT'S



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

BEAM REACTIONS

		E.Abut.	W.Abut.
R℄	(K)	57.7	62.6
R↓	(K)	38.0	38.3
Imp.	(K)	8.1	8.0
R (Total)	(K)	103.8	109.0

Notes:

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

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

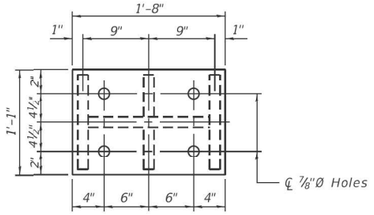
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 65 Tons.

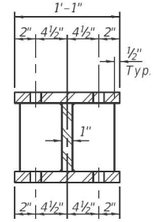
Anchor bolts shall be ASTM F1554 Grade 55.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

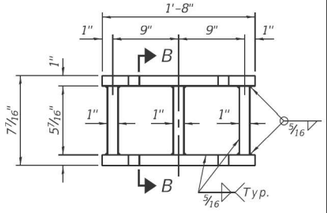
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



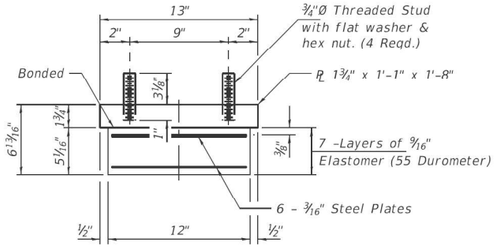
PLAN TOP AND BOTTOM PLATE



SECTION B B

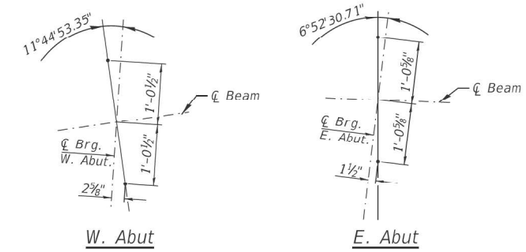


STEEL EXTENSION DETAIL



BEARING ASSEMBLY

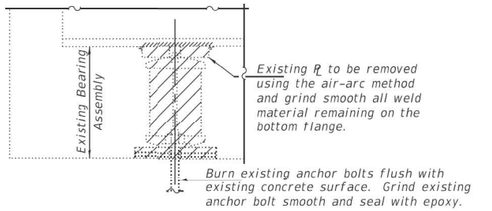
Note:
Shim plates shall not be placed under Bearing Assembly.



W. Abut E. Abut

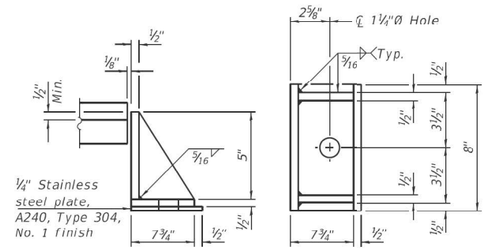
ANCHOR BOLT LOCATION SKETCH

(Omit Side Retainer on the outside of the fascia girders)



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SIDE RETAINER

(16 Required)

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

DRAFT

DATE: 7/11/2024

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	8
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1880
Anchor Bolts 1"Ø	Each	16

DESIGNED - ATH	EXAMINED	DATE - JULY 11, 2024	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - JSB	PASSED	REVISED -	
DRAWN - Venkat Ramana Reddy	ENGINEER OF STRUCTURAL SERVICES	REVISED -	
CHECKED - ATH JSB	ENGINEER OF BRIDGES AND STRUCTURES		

ABUTMENT BEARING DETAILS
SN 054 - 0062
SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-5HVB)BRR	LOGAN	5	5
		CONTRACT NO. 72740		
	ILLINOIS	FED. AID PROJECT		

USER NAME = brandon.dudley	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 7/16/2024	DATE -	REVISED -	

EXISTING BRIDGE PLANS, SN 054-0062
(FOR INFORMATION ONLY)

SCALE: SHEET OF 14 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(54-4HVB,5HVB)BP	LOGAN	18	18
		CONTRACT NO. 72653		
	ILLINOIS	FED. AID PROJECT		

MODEL: Bridge-14 [Sheet]
FILE NAME: c:\dw_work\pwdot\dudleybmd\d1021619\D672653-Plansheet.dgn