

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

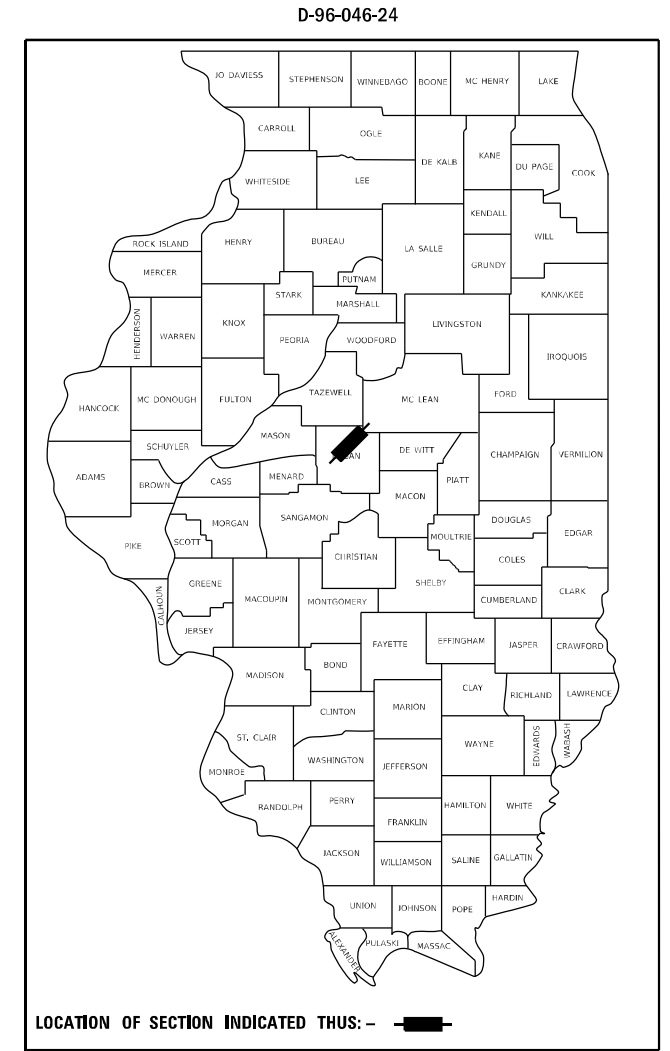
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-5HVB)BRR	LOGAN	5	1
		ILLINOIS	CONTRACT NO. 72740	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

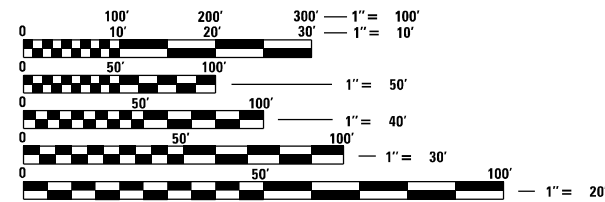
PROPOSED CONTRACT MAINTENANCE

FAI ROUTE 55 (I-55)
SECTION (54-5HVB)BRR
PROJECT (STATE ONLY)
BRIDGE BEARING REPLACEMENT
LOGAN COUNTY

C-96-067-24

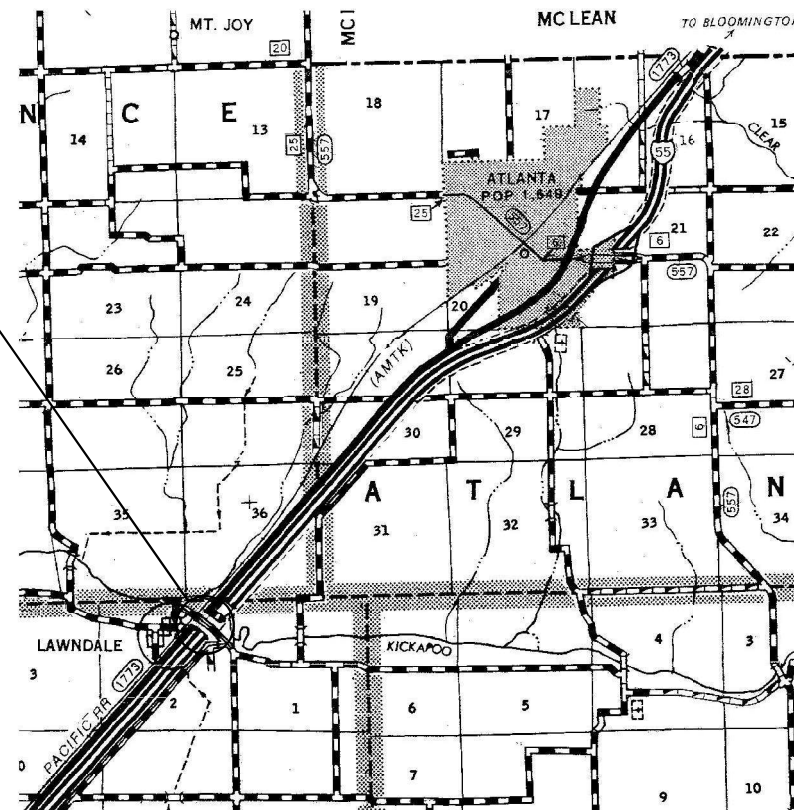


PROJECT LOCATION
SN 054-0062
TR 65A OVER
I-55/UPRR/WFR
AT LAWNDALE OVERHEAD



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



GROSS LENGTH = 501 FT. = 0.09 MILE
NET LENGTH = 501 FT. = 0.09 MILE

BRIDGE MAINTENANCE ENGINEER: BRANDON DUDLEY - (217) 785-9290

CONTRACT NO. 72740

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED May 9 2024

Jeff P. Meyer
REGIONAL ENGINEER

August 16, 2024
Scott A. Etkin
ENGINEER OF DESIGN AND ENVIRONMENT

August 16, 2024
James J. ...
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX, STANDARDS, SIGNATURES, & GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4-5 SN 054-0062 BRIDGE PLANS

STANDARDS

- 000001-08
- 001001-02
- 001006
- 701001-02
- 701006-05
- 701101-05
- 701106-02
- 701201-05
- 701901-09

GENERAL NOTES:

THE CONTRACTOR SHALL CORRECT ELEVATION DIFFERENCES IN THE PROFILE GRADE ACROSS THE EXISTING EXPANSION JOINTS AT THE ENDS OF THE DECK. THIS SHALL BE ACCOMPLISHED BY ADDING SHIM PLATES AT LOCATIONS SHOWN ON THE PLANS. NO MORE THAN 2 SHIM PLATES SHALL BE ADDED TO EACH BEARING LOCATION. HOWEVER, THE CONTRACTOR IS ENCOURAGED TO USE THE MINIMAL NUMBER OF SHIMS AT EACH LOCATION AND MINIMUM SHIM THICKNESS SHALL BE 1/8". THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING DIMENSIONS AND PROPOSE ALL VERTICAL ADJUSTMENTS TO THE ENGINEER PRIOR TO ORDERING THE EXTRA SHIMS. THE ALLOWABLE ELEVATION TOLERANCES BETWEEN THE TWO SIDES OF THE EXPANSION JOINTS SHALL BE ±1/4". RECORDING ACCURATE MEASUREMENTS AND ORDERING PROPERLY SIZED BEARING EXTENSIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6			
EXAMINED	April, 24	20	24
 ENGINEER OF OPERATIONS			
EXAMINED	April, 24	20	24
 ENGINEER OF PROJECT IMPLEMENTATION			
EXAMINED	May, 7	20	24
 ENGINEER OF PROGRAM DEVELOPMENT			

MODEL PATH: S:\Projects\Bridges\plans_CAD\72740 - 0540062\modrps\abnshcct.dgn

	USER NAME = Brandon.Dudley	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STANDARDS, GENERAL NOTES, & SIGNATURES			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
		DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	55	(54-5HVB)BRR	LOGAN	5	2
	PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 72740										
	PLOT DATE = 5/9/2024	DATE -	REVISED -		ILLINOIS FED. AID PROJECT										

0-02179-6012
SN 054-0062
100% STATE
BRIDGE/RURAL
0013
LOGAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1,880	1,880
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	8	8
52100520	ANCHOR BOLTS, 1"	EACH	12	12
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	8	8
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	25	25
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1

MODEL: Default
FILE NAME: S:\Bridges\Bridges\plans_CAD\172740 - 0540062 bearings\barbarsheet.dgn

REV. - MS

USER NAME = Brandon.Dudley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/9/2024	DATE -	REVISED -

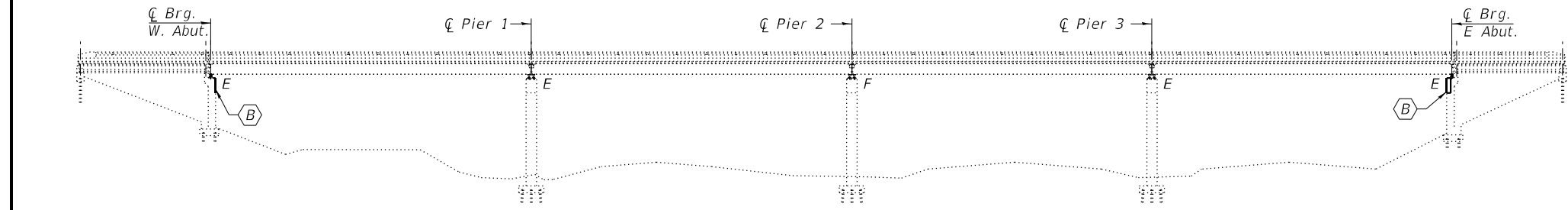
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

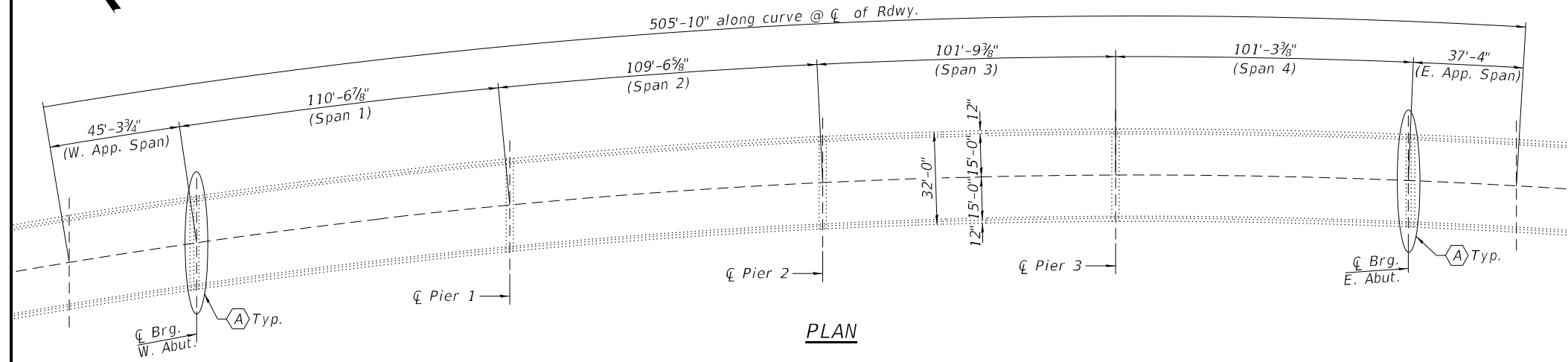
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-5HVB)BRR	LOGAN	5	3
CONTRACT NO. 72740				
ILLINOIS		FED. AID PROJECT		

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Fasteners shall be ASTM F 3125 Grade A325 Type 1. Fasteners shall be hot dip galvanized. See Special Provision for "Hot Dip Galvanizing for Structural Steel." Bolts 3/4"Ø, holes 13/16"Ø, unless otherwise noted.
 Plan dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.
 Reinforcement bars designated (E) shall be epoxy coated.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures", and the Standard Specifications. Cost included with Furnishing and Erecting Structural Steel.
 All new structural steel and bearing assemblies shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel".



ELEVATION



PLAN

- (A) - Bearing Removal and Replacement.
- (B) - Substructure Repair



ELEVATION WEST ABUTMENT
(Looking West)



ELEVATION EAST ABUTMENT
(Looking East)

REPAIR - B

Structural Repair of Concrete (Depth ≤ 5")

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Jack and Remove Existing Bearings	Each	8
Elastomeric Bearing Assembly, Type I	Each	8
Furnishing and Erecting Structural Steel	Pound	1880
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	25
Anchor Bolts, 1"Ø	Each	12

All Steel to be galvanized.

Expires: 11/30/2024

DESIGNED - Victor H. Veliz	EXAMINED -	DATE - AUGUST 16, 2024
CHECKED - Adrian T. Holloway	PASSED -	REVISIONS -
DRAWN - Venkat Ramana Reddy	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS -
CHECKED - VHV ATH	ENGINEER OF STRUCTURAL SERVICES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

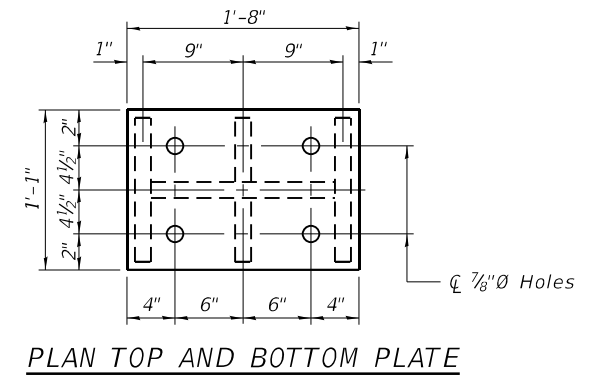
GENERAL PLAN AND ELEVATION
TR 65A OVER I-55/UP RR/W FR RD
SN 054 - 0062

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-5HV)BRR	LOGAN	5	4
CONTRACT NO. 72740			ILLINOIS FED. AID PROJECT	

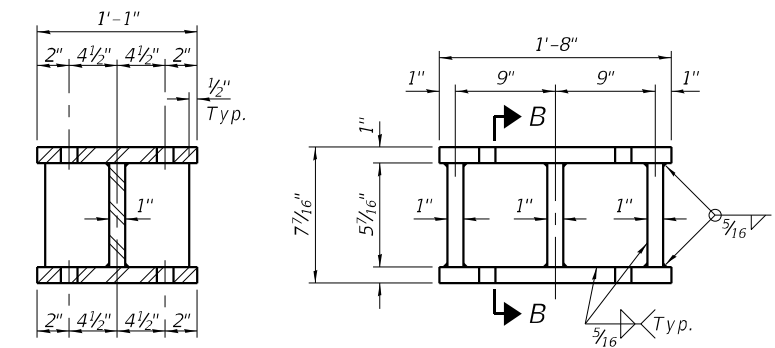
BEAM REACTIONS

		E. Abut.	W. Abut.
R ₂	(K)	57.7	62.6
R ₄	(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) all-thread. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 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.

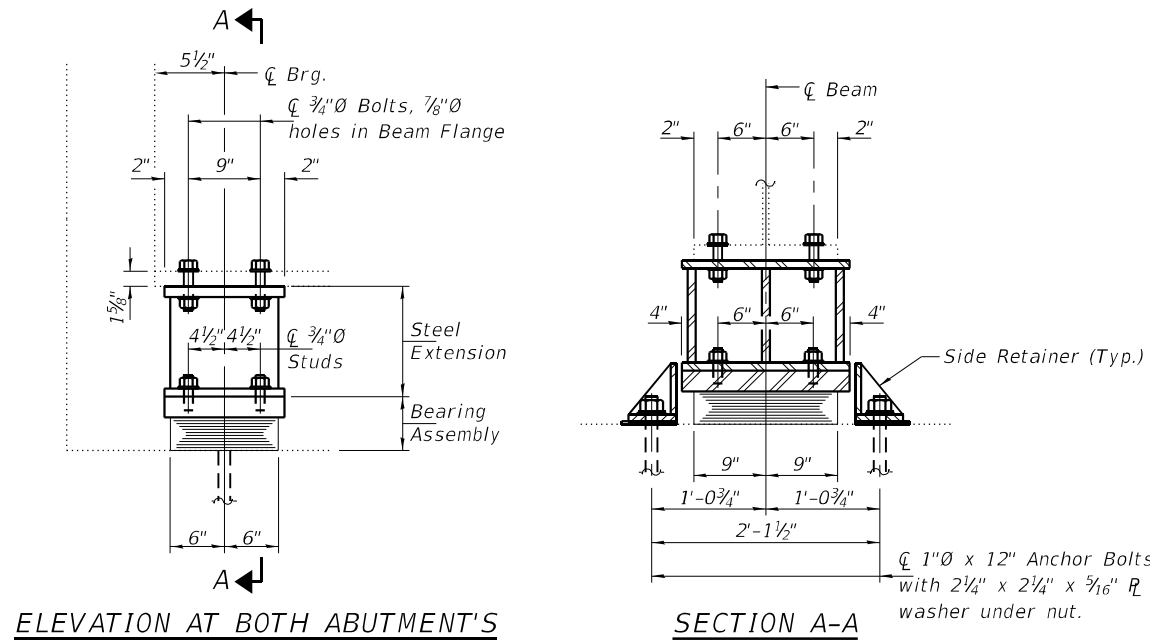


PLAN TOP AND BOTTOM PLATE



SECTION B-B

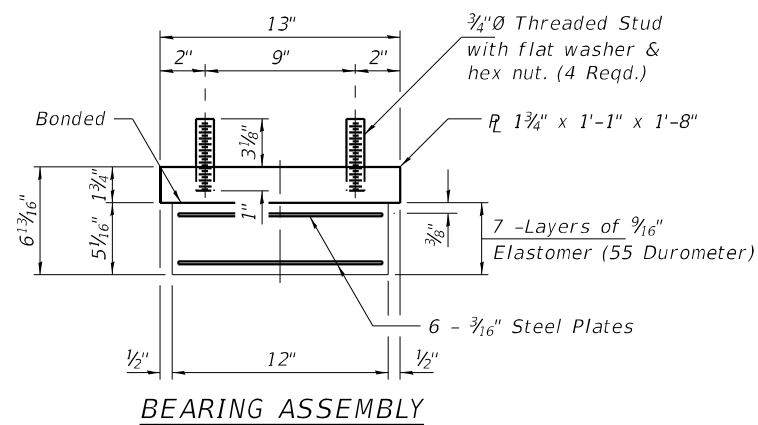
STEEL EXTENSION DETAIL



ELEVATION AT BOTH ABUTMENT'S

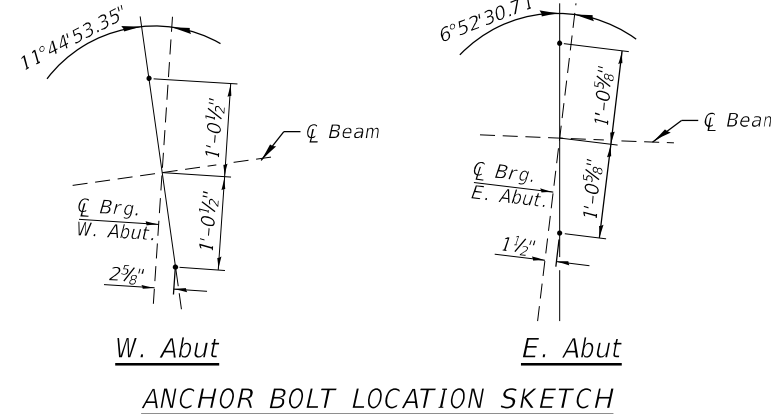
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

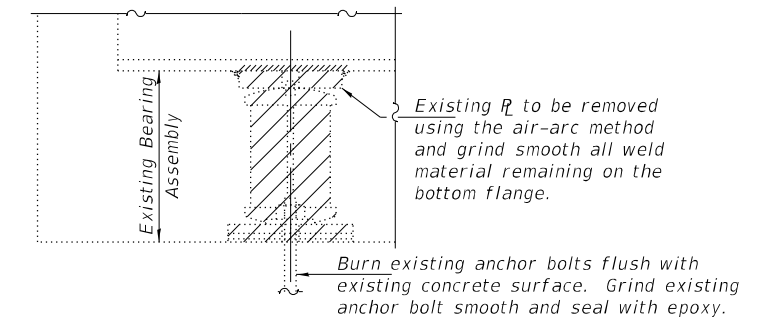
Note:
 Shim plates shall not be placed under Bearing Assembly.



W. Abut

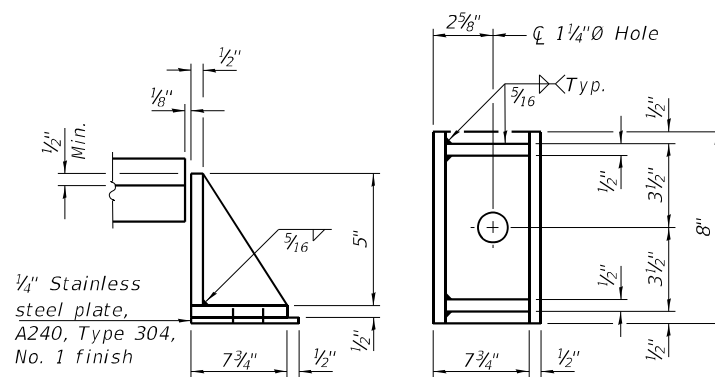
E. Abut

ANCHOR BOLT LOCATION SKETCH



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SIDE RETAINER

(12 Required)

(Omit Side Retainers on the outside of the fascia girders)
 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	8
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1880
Anchor Bolts 1"Ø	Each	12

DESIGNED - VHV
 CHECKED - ATH
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

EXAMINED
 ENGINEER OF STRUCTURAL SERVICES
 PASSED
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - AUGUST 16, 2024
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
 SN 054 - 0062

SHEET NO. 2 OF 2 SHEETS

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