

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

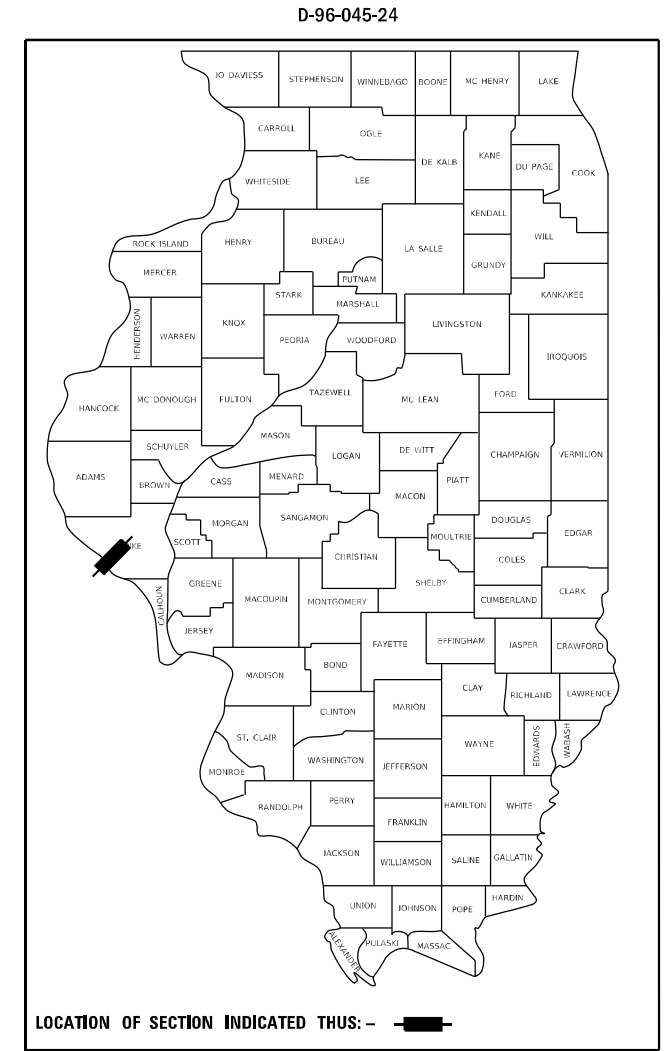
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
321	(105BR-1)BRR	PIKE	5	1
		ILLINOIS	CONTRACT NO. 72739	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

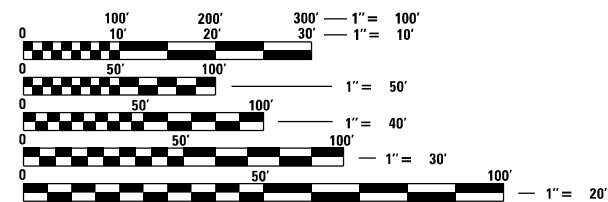
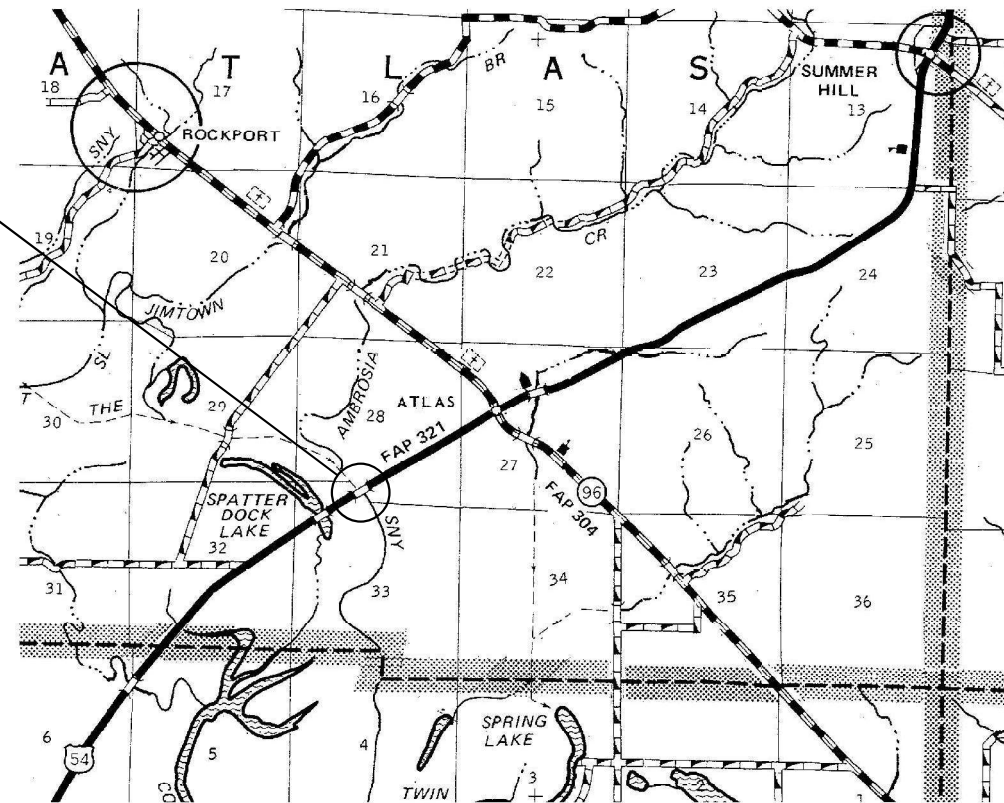
PROPOSED CONTRACT MAINTENANCE

FAP ROUTE 321 (US 54)
SECTION (105BR-1)BRR
PROJECT (STATE ONLY)
BRIDGE BEARING REPLACEMENT
PIKE COUNTY

C-96-066-24



PROJECT LOCATION
SN 075-0080
US 54 OVER THE SNY
1.0 MI SW IL 96



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

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

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

GROSS LENGTH = 216 FT. = 0.04 MILE
NET LENGTH = 216 FT. = 0.04 MILE

CONTRACT NO. 72739

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 26 20 24

John P. Meyer
REGIONAL ENGINEER

May 10, 2024 *John A. Etkin*
ENGINEER OF DESIGN AND ENVIRONMENT

May 10, 2024 *Stephen M. Smith*
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

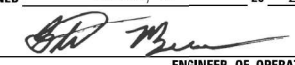

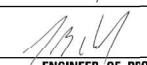
- 1 COVER SHEET
- 2 INDEX, STANDARDS, SIGNATURES, & GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4-5 SN 084-0169 BRIDGE PLANS

STANDARDS

- 000001-08
- 001001-02
- 001006
- 701001-02
- 701006-05
- 701301-04
- 701316-13
- 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	March, 15 20 24
 ENGINEER OF OPERATIONS	
EXAMINED	March, 15 20 24
 ENGINEER OF PROJECT IMPLEMENTATION	
EXAMINED	March, 26 20 24
 ENGINEER OF PROGRAM DEVELOPMENT	

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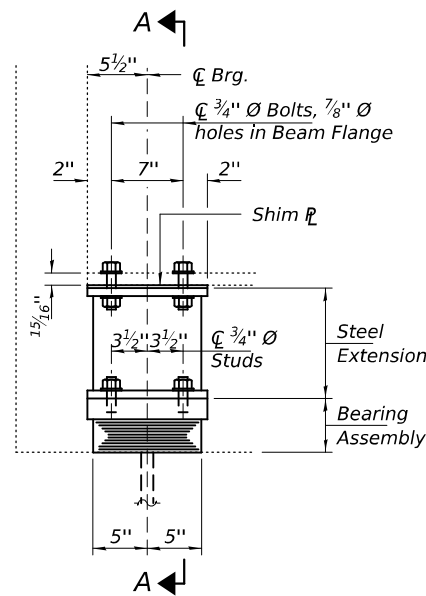
USER NAME = Brandon.Dudley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/26/2024	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

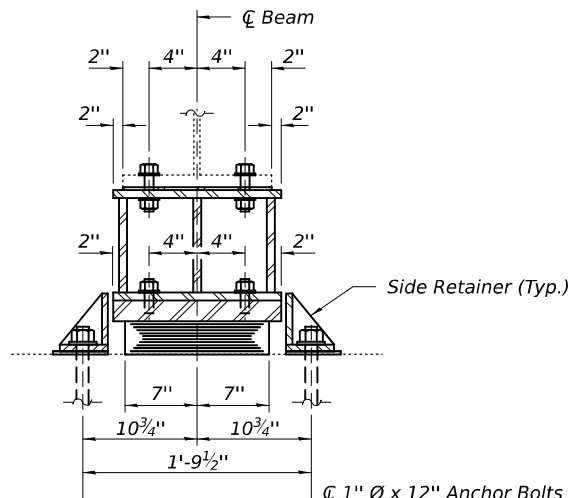
**INDEX OF SHEETS, STANDARDS,
GENERAL NOTES, & SIGNATURES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
321	(105BR-1)BRR	PIKE	5	2
			CONTRACT NO. 72739	
ILLINOIS FED. AID PROJECT				



ELEVATION AT ABUTMENT

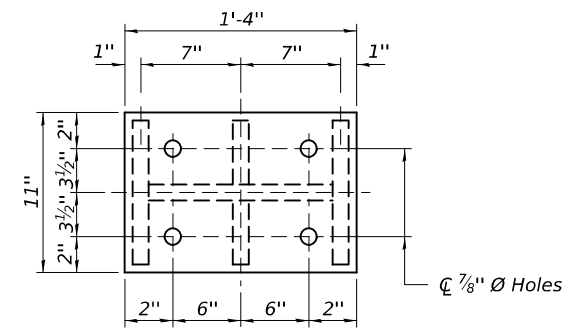


SECTION A-A

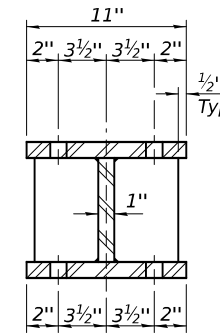
BEAM REACTIONS

R _l	(K)	39.0
R _r	(K)	48.0
Imp.	(K)	12.1
R (Total)	(K)	99.1

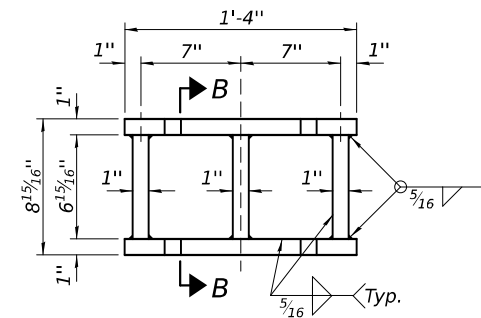
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, 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 = 55 Tons.
 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.
 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

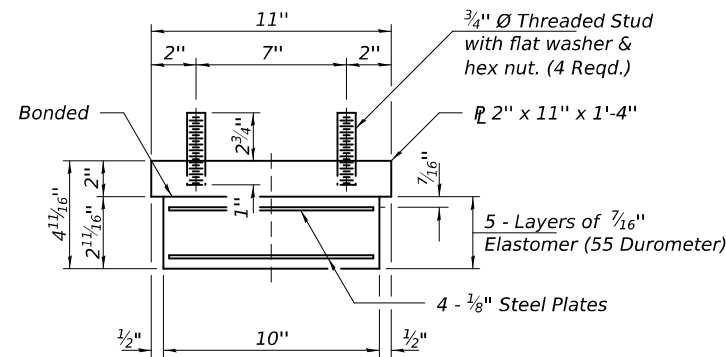


SECTION B-B



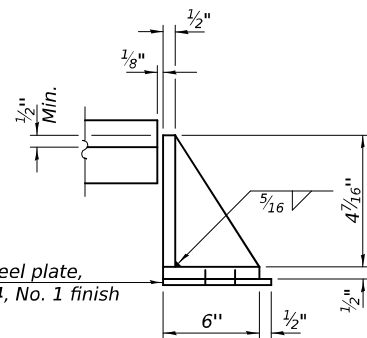
STEEL EXTENSION DETAIL

TYPE I ELASTOMERIC EXP. BRG.



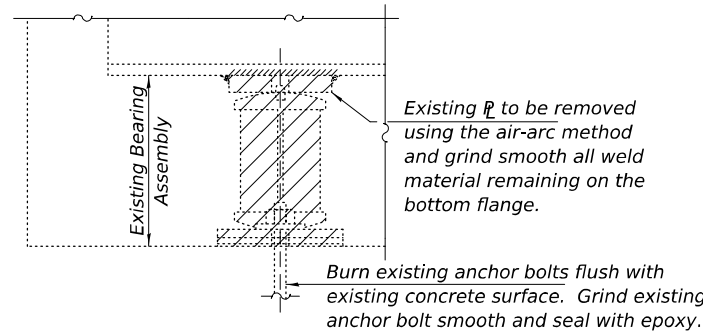
BEARING ASSEMBLY

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

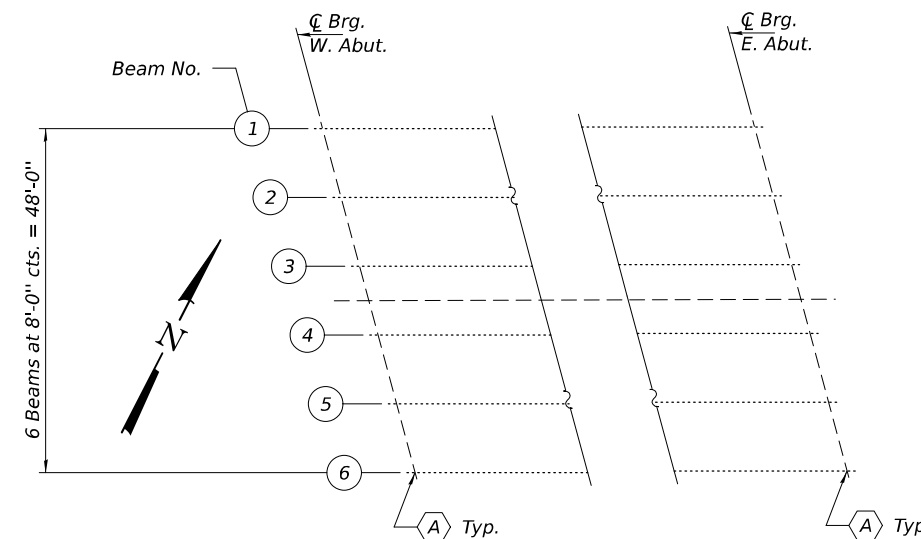


SIDE RETAINER

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



EXISTING BEARING REMOVAL DETAIL
 Cost included with Jack and Remove Existing Bearings.



PARTIAL FRAMING PLAN

(A) - Remove and replace existing bearing.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Plan dimensions and details relative to the existing structure have been taken from existing plans 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.
 Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts 7/8"Ø, holes 1 1/16"Ø, unless otherwise noted.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 All new structural steel and bearing assemblies shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel".
 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.

TOTAL BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pound	2550
Anchor Bolts, 1"Ø	Each	24

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Expires: November 30, 2024

TY I-REPS 4/30/2024

DESIGNED -	Victor H. Veliz
CHECKED -	Chi-Cheung Chau
DRAWN -	daburdell
CHECKED -	VHV CCC

EXAMINED	<i>[Signature]</i>	DATE -	MAY 10, 2024
PASSED	ENGINEER OF STRUCTURAL SERVICES	REVISED -	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING REPLACEMENT DETAILS
 FAP 321 (US 54) OVER THE SNY
 SN 075-0080

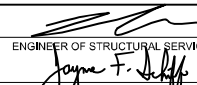
SHEET 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
321	(105BR-1)BRR	PIKE	5	4
CONTRACT NO. 72739				
ILLINOIS FED. AID PROJECT				

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DESIGNED - VHV
CHECKED - CCC
DRAWN - <i>daurdell</i>
CHECKED - VHV CCC

EXAMINED	 ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 10, 2024
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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SN 075-0080

SHEET 2 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
321	(105BR-1)BRR	PIKE	5	5
CONTRACT NO. 72739				
ILLINOIS FED. AID PROJECT				