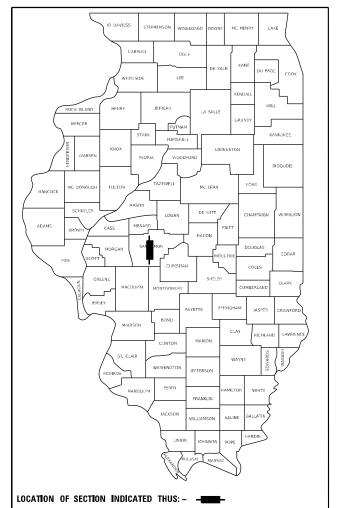
FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

 F.A.P. RTE.
 SECTION
 COUNTY SHEETS NO.

 662
 (3-VB)BRR
 SANGAMON
 7
 1

D-96-022-22



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

July P. My Egion

ENGINEER OF DESIGN AND ENVIRONMEN

May 12, 2023

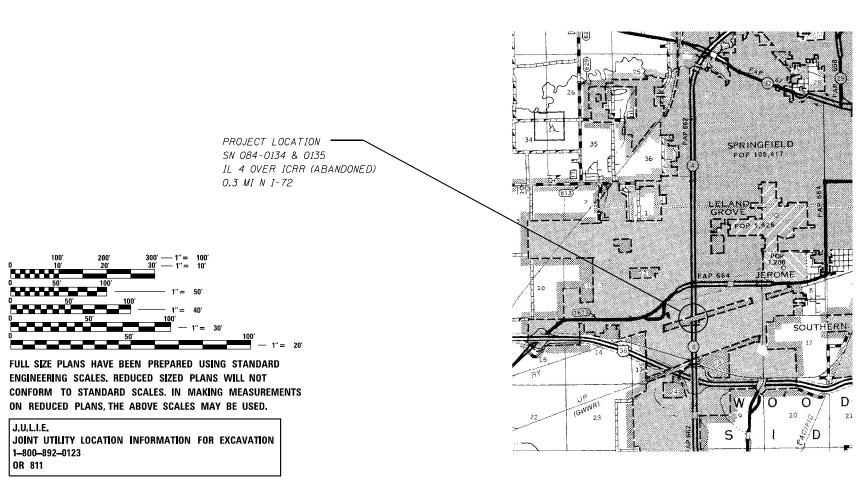
DIRECTOR OF HIGHWAYS PRO

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROPOSED CONTRACT MAINTENANCE

FAP ROUTE 662 (IL 4)
SECTION (3-VB)BRR
PROJECT (STATE ONLY)
BRIDGE BEARING REPLACEMENT
SANGAMON COUNTY

C-96-026-22



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

GROSS LENGTH = 155 FT. = 0.03 MILE NET LENGTH = 155 FT. = 0.03 MILE

CONTRACT NO. 72N45

 \bigcirc

INDEX OF SHEETS STANDARDS

1 COVER SHEET

2 INDEX, STANDARDS, SIGNATURES, & GENERAL NOTES

3 SUMMARY OF QUANTITIES

4-5 SN 084-0135 TRAFFIC CONTROL PLAN

6-7 SN 084-0134 & 0135 BRIDGE PLANS

000001-08 001001-02 001006 701101-05 701106-02 701422-10 701901-08

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.

TRAFFIC CONTROL FOR SN 084-0134 (SB) SHALL CONFORM TO STANDARD 701422. TRAFFIC CONTROL FOR SN 084-0135 (NB) SHALL CONFORM TO STANDARD 701422, EXCEPT AS MODIFIED IN THE TRAFFIC PLAN DETAILS.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT 6

EXAMINED March, 17 20 23

ENGINEER OF OPERATIONS

EXAMINED March, 21 20 23

ENGINEER OF PROJECT IMPLEMENTATION

EXAMINED March, 21 20 23

ENGINEER OF PROJECT IMPLEMENTATION

USER NAME = Brandon.Dudley	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -	
PLOT DATE = 3/22/2023	DATE -	REVISED -	

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

SCALE:

	INDEX OF SHEETS, STANDARDS, GENERAL NOTES, & SIGNATURES					F.A.P. RTE	SECT	ПОИ		COUNTY	TOTAL SHEETS	SHEET NO.
						662	(3-VB)BRR		SANGAMON	7	2
	GLIVENAL INDIES, & SIGNATURES									CONTRACT	NO. 72	2N45
	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AI			D PROJECT			

0-02178-6003 SN 084-0134/0135

100% STATE

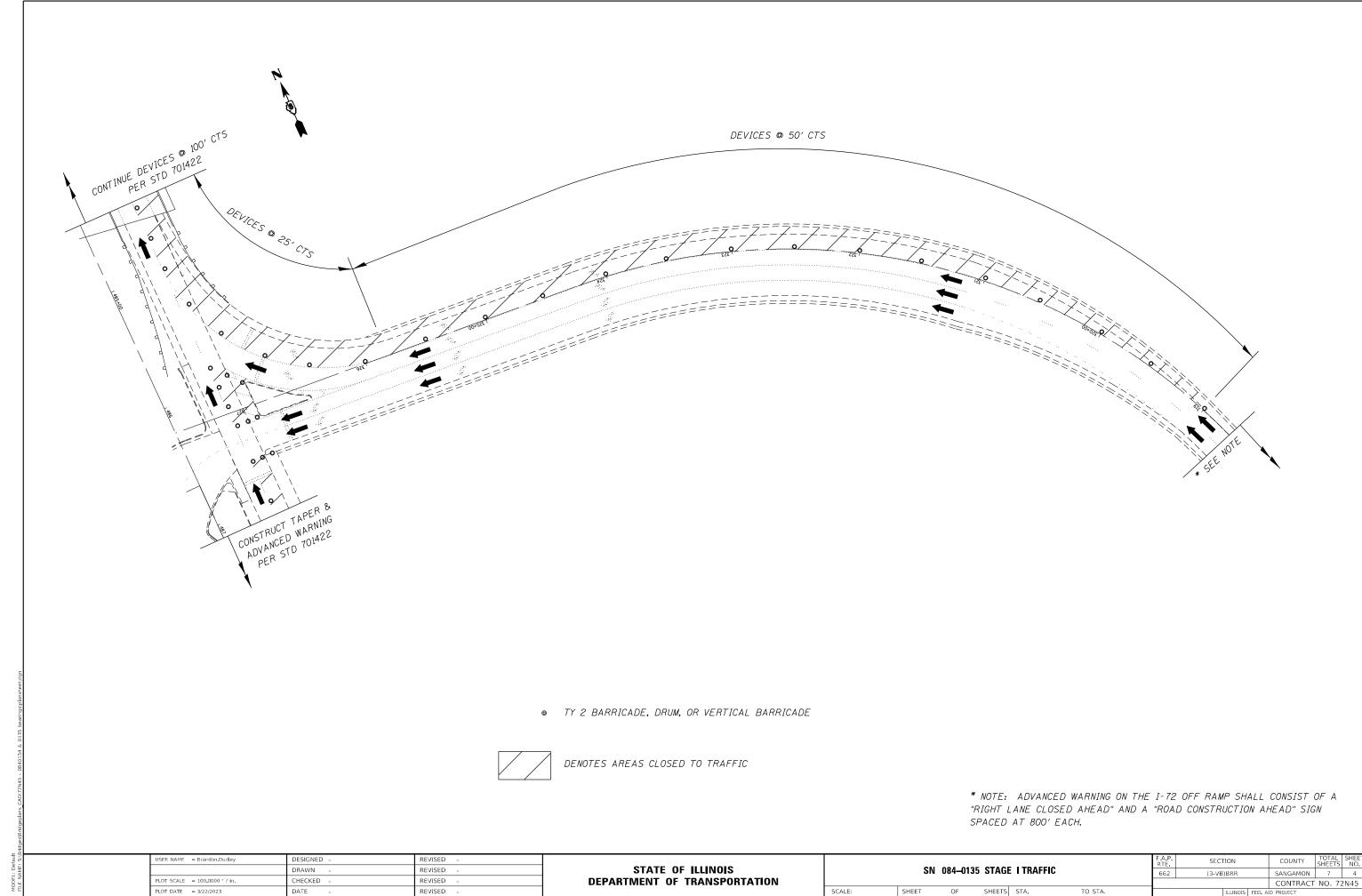
				BRIDGE/URBAN
CODE			TOTAL	0047
NO.	ITEM	UNIT	QUANTITY	SANGAMON
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3420	3420
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	24	24
52100520	ANCHOR BOLTS, 1"	EACH	48	48
67100100	MOBILIZATION	L SUM	1	1
70100320	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	L SUM	1	1
70107025	CHANGEABLE MESSAGE SIGNS	CAL DAY	60	60
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	24	24

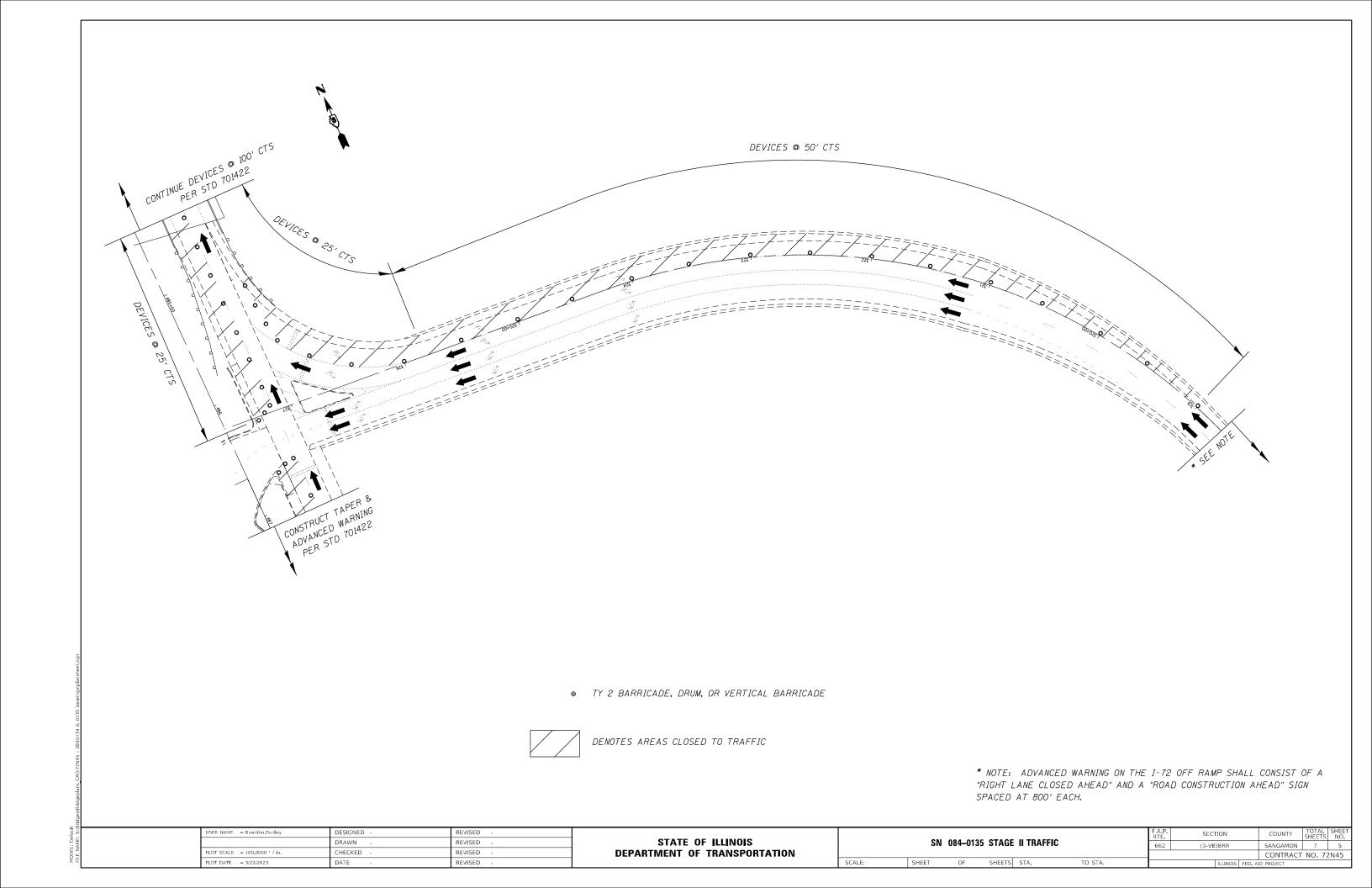
USER NAME = Brandon.Dudley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 3/22/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

	SUMMARY	OE OII	ANITITIES	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	SUIVIIVIANT	טר עט	ANTITIES		662	(3-VB)BRR	SANGAMON	7	3
						CONTRAC	T NO. 72	2N45	
SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT			





$A \blacktriangleleft_1$ - <u>@</u> Вгд. −Ç Beam holes in Beam Flange 21/4" 11/2" Steel Extension Side Retainer (Typ.) Bearing Assembly 101/2" 10½" 1'-9" \overline{w} ith $2\frac{1}{4}$ " \times $2\frac{1}{4}$ " \times $\frac{5}{16}$ " Rwasher under nut. ELEVATION AT BOTH ABUTMENT'S SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

BEAM REACTIONS

		N. Abut.	S. Abut.
R₽	(K)	24.6	24.6
R Ł	(K)	41	41
Imp.	(K)	11.8	11.8
R (Total)	(K)	77.4	77.4

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.

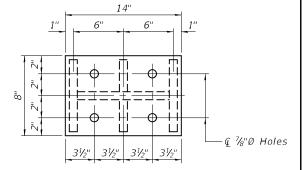
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 39 Tons.

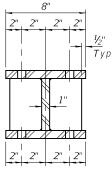
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of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



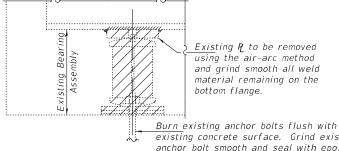
STEEL EXTENSION DETAIL

SECTION B-B

¾"Ø Threaded Stud with flat washer & hex nut. (4 Regd.) Bonded -P 1½" x 8" x 14" 3-Layers of ¾" Elastomer (N. Abut.) 5-Layers of 3/8" Elastomer (S. Abut.) N. Abut. S. Abut. Abut. $2 - \frac{3}{32}$ " Steel Plates (N. Abut.) 4 - ¾32" Steel Plates (S. Abut.)



Shim plates shall not be placed under Bearing Assembly.

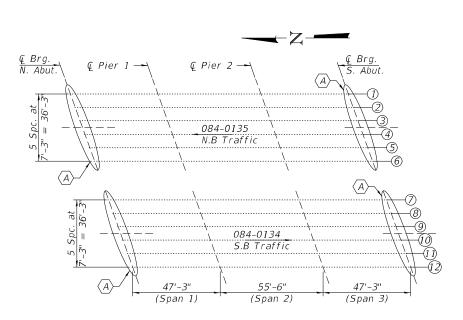


- Ç 1¼"Ø Hole

existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

EXISTING BEARING REMOVAL DETAIL Cost included with Jack and

Remove Existing Bearings.



PARTIAL FRAMING PLAN

 $\langle A \rangle$ - Bearing Removal and Replacement.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Jack and Remove Existing Bearings	Each	24
Elastomeric Bearing Assembly, Type I	Each	24
Furnishing and Erecting Structural Steel	Pound	3420
Anchor Bolts, 1"Ø	Each	48

-(+) 1/4" Stainless steel plate, A240, Type 304, No. 1 finish

SIDE RETAINER (48 Required)

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

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$, open holes $\frac{13}{16}$, unless otherwise noted.

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.

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". All new structural steel and bearing assembly shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel"

EXPIRES 11-30-2024

DESIGNED	-	Adrian T. Halloway		
CHECKED	-	Stephen M. Ryan		Layn F. Ashill
DRAWN	-	Venkat Ramana Reddy	PASSED	(10)
CHECKED	-	ATH SMR		ENGINEER OF BRIDGES AND STRUCTURES

MAY 11, 2023 REVISED REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION BEARING DETAILS VETERANS / IL 4 OVER OLD IC RR R.O.W. SN 084-0134 (SB) & 0135 (NB) SHEET NO. 1 OF 1 SHEETS

RTE.	SEC ⁻	TION	COUNTY	SHEETS	SHEET NO.	
662	D6 Bridge R	epairs 20	SANGAMON	7	6	
				CONTRACT	NO 721	N45
ILLINOIS FED. AID PROJECT						

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L	DESIGNED - ATH				DATE - MAY 11, 2023	CTATE OF U. INICIO	BLANK SHEET	F.A.P RTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
-	CHECKED - SMR DRAWN - Venkat Ramana Reddy	PASSED	Jayne F. Jeff	1	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SN 084-0134 (SB) & 0135 (NB)	662	D6 Bridge Repairs 2023	SANGAMON CONTRACT	7 7
	CHECKED - ATH SMR	-	ENGINEER OF BRIDGES AND STRUCT	TURES	REVISED -		SHEET NO. 1 OF 1 SHEETS		ILLINOIS FED. AI		1 110. 721143