06-13-2025 LETTING ITEM 147

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# STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

D-99-002-25



LOCATION OF SECTION INDICATED THUS: - -

# STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** SUBMITTED March 3 20 25

**PRINTED BY THE AUTHORITY** OF THE STATE OF ILLINOIS

FOR INDEX OF SHEETS, SEE SHEET NO. 3 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

# TRAFFIC DATA

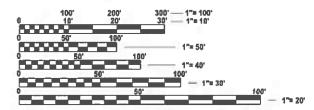
EAGLE POINT BAY ROAD 2021 ADT = 1150 7% TRUCKS

**TOWNSHIP** 

DESIGN DESIGNATION : N/A

COORDINATE SYSTEM STATE PLAN ZONE: ILLINOIS EAST

POSTED SPEED: 35 MPH



CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

1-800-892-0123 OR 811

**PROJECT ENGINEER EHREN KIRBY PROJECT DESIGNER THOMAS JEFFERSON**  Gorevill

NET LENGTH = 309.67 FT. = 0.058 MILE

GROSS LENGTH = 309.67 FT. = 0.059 MILE

CONTRACT NO. 78A96

**PROPOSED HIGHWAY PLANS** 

**FAI ROUTE 24 (I-24)** SECTION (44-3)BJŔ-1 BRIDGE JOINT RECONSTRUCTION **JOHNSON COUNTY** 

C-99-028-25

R2E

EAGLE POINT BAY ROAD OVER 1-24

Prepared By: Susan he

Examined By: Manage

Examined By: Carre nul

DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By:

**DISTRICT OPERATIONS ENGINEER** 

Examined By:

DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By:

Examined By: Aan Hang

SER NAME = stephen.dillard SIGNATURES **STATE OF ILLINOIS** DRAWN CHECKED REVISED -**DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 78A96 OF 11 SHEETS STA.

# **GENERAL NOTES**

NONE

# **COMMITMENTS**

ALL EMERGENCY SERVICES INCLUDING POSTAL SERVICES IN
JOHNSON AND WILLIAMSON COUNTY AND THE DISTRICT 9
TRAFFIC CONTROL SUPERVISOR SHALL BE NOTIFIED THREE
WEEKS PRIOR TO THE CLOSING OF EAGLE POINT BAY ROAD
FOR THE BRIDGE REPAIRS OF SN 044-0033.
THE ENGINEER SHALL NOTIFY BOTH THE JOHNSON AND
WILLIAMSON COUNTY ENGINEERS THREE WEEKS PRIOR TO CLOSURE.
BRANDON TANNER: 618-658-2741
GEORGE SHEPARD: 618-998-2145

# **INDEX OF SHEETS**

1	COVER SHEET
2	SIGNATURE SHEET
3	GENERAL NOTES, INDEX OF SHEETS AND STANDARDS
4	SUMMARY OF QUANTITIES
5	GENERAL PLAN AND ELEVATION SN 039-0074
6	JOINT RECONSTRUCTION DETAILS AT ABUTMENTS SN 039-0074
7	PREFORMED JOINT STRIP SEAL DETAILS
8	ROAD CLOSURE SIGN DETAIL
9-11	EXISTING PLANS

# **STANDARDS**

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701901-10	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR
	CONSTRUCTION ON RURAL LOCAL HIGHWAYS

 USER NAME
 = thomas.jefferson
 DESIGNED
 REVISED

 DRAWN
 REVISED

 CHECKED
 REVISED

 PLOT DATE
 = 12/18/2024
 DATE
 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

| F.A.I | SECTION | COUNTY | TOTAL | SHEET | S

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# SUMMARY OF QUANTITIES

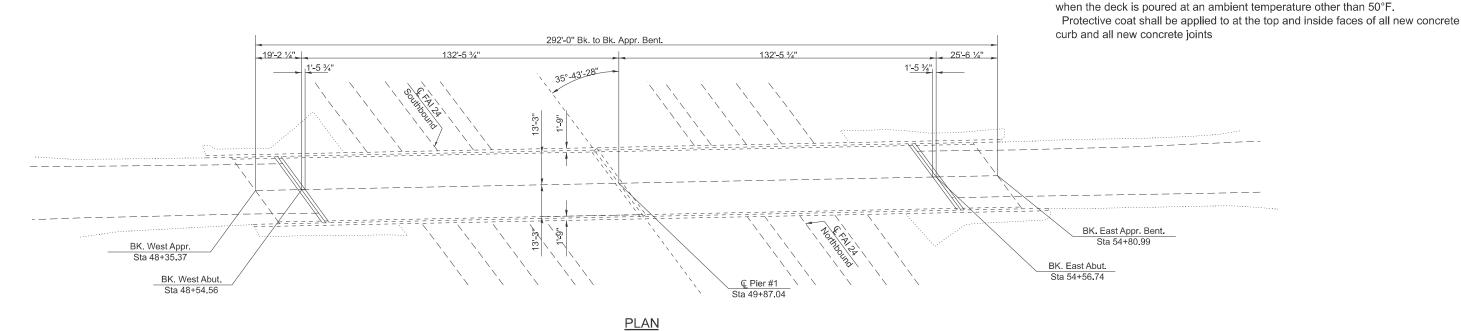
JOHNSON CO
FAI 24
100% STATE
RURAL

			KUKAL
CODE	ITEM DESCRIPTION	UNIT	SN 044-0033
NUMBER	TEM DESCRIPTION	ONT	0013
50102400	CONCRETE REMOVAL	CU YD	3.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	3.1
50300300	PROTECTIVE COAT	SQ YD	22
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,260
52000110	PREFORMED JOINT STRIP SEAL	FOOT	74
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3
67100100	MOBILIZATION	L SUM	1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	84
X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
X7200203	DETOUR SIGNING	L SUM	1

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

# **ELEVATION**



### SCOPE OF WORK

Abutment Joint Reconstruction

## **DESIGN SPECIFICATIONS**

2002 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES

# **DESIGN STRESSES**

FIELD UNITS (EXISTING CONSTRUCTION) **DESIGN LOADING HS15-44** f'c = 1,200 psi - Deck Slab

fc = 1,400 psi - Curb, Parapet, Substructure

f's = 20,000 psi (struct.)

f's = 20,000 psi (reinf.) Vc = 75,000 psi (Ftgs)

n = 10

# **NEW CONSTRUCTION**

f'c = 4000 psify = 60000 psi

# WINININ, 081-005540 THE OF ILLINIA

EXPIRES 11-30-2026

### TOTAL BILL OF MATERIAL

**GENERAL NOTES** 

splicer or anchorage system at the contractor's expense.

covering removal of the existing concrete.

at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck section, all heavy or loose rust, loose mill

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 priorto construction or ordering of materials. Such variations shallnot be cause foradditional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars

that are damaged during concrete removal shall be replaced with an approved bar

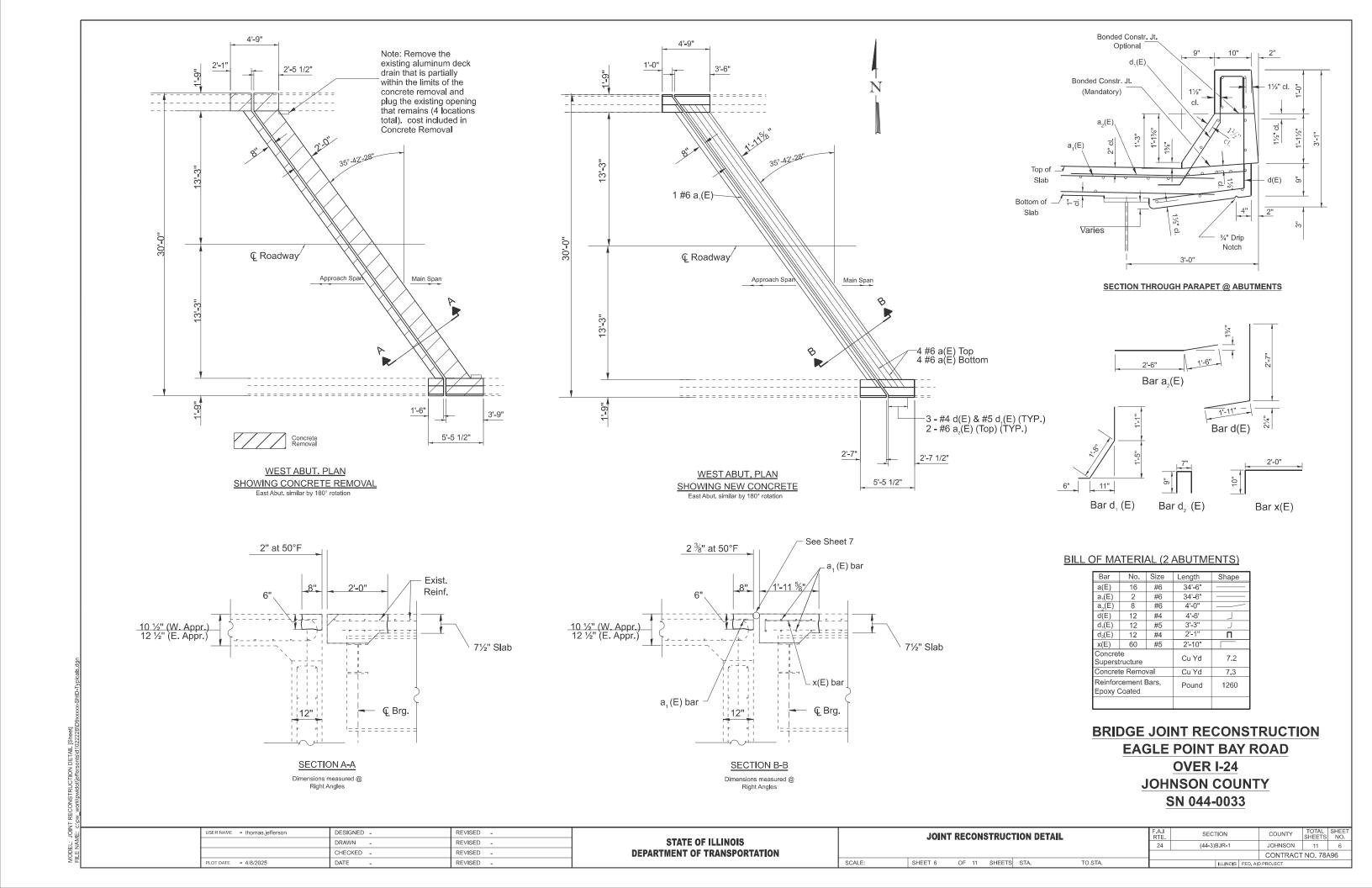
Joint openings shall be adjusted according to Article 520.04 of the Std. Specs.

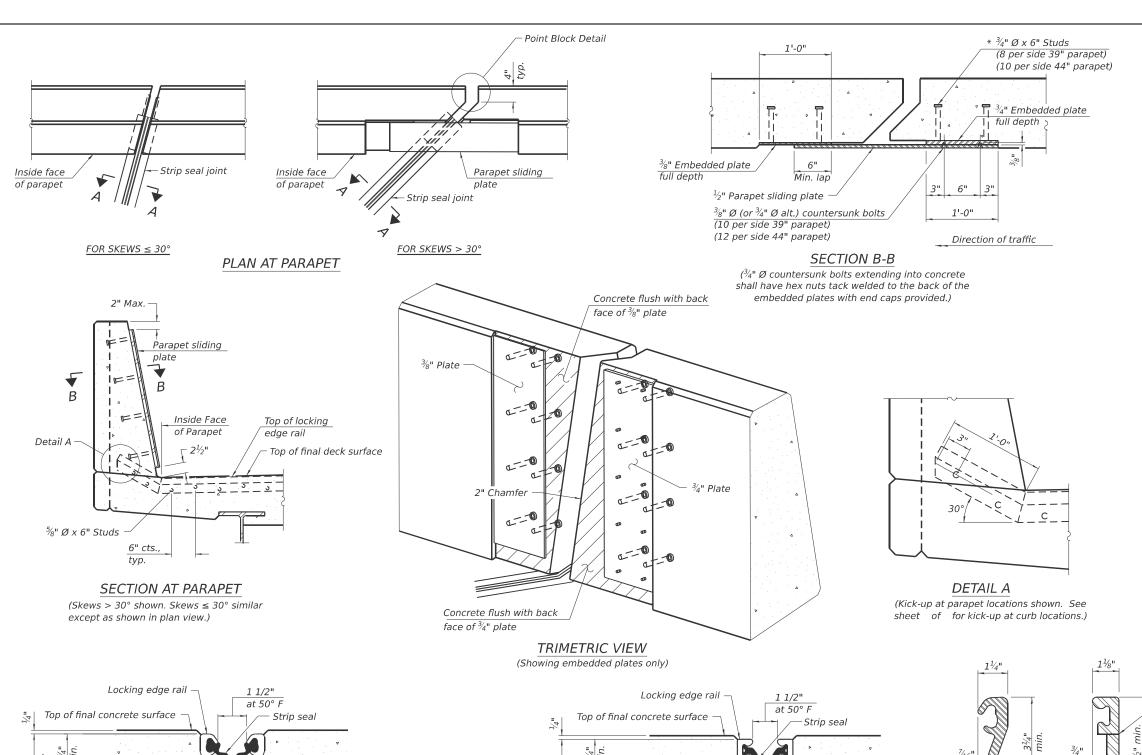
scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item

	ITEM	UNIT	TOTAL
Concrete Removal		Cu. Yd.	7.3
Concrete Superstructure		Cu. Yd.	7.2
Reinforcement Bars, Epoxy Coated		Pound	1260
Preformed Joint Strip Seal		Foot	74

# **BRIDGE JOINT RECONSTRUCTION EAGLE POINT BAY ROAD OVER I-24 JOHNSON COUNTY** SN 044-0033

USER NAME = thomas.jefferson	DESIGNED -	REVISED -			GENERAL PLAN AND ELEVATION	F.A.I RTE	SECTION	COUNTY TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS		OFITEINE I BAIL AID FEETA I JOIL	24	(44-3)BJR-1	JOHNSON 11 5
	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					CONTRACT NO. 78A96
PLOT DATE = 4/8/2025	DATE -	REVISED -		SCALE:	SHEET 5 OF 11 SHEETS STA. TO STA.		ILLINOIS FED, AII	D PROJECT





### Notes:

The strip seal shall be made continuous and shall have a minimum thickness of  $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the  $4\frac{1}{2}$ " maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be  $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal. 39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

# (EXTRUDED) RAIL

SCALE:

at 50° F

ROLLED

LOCKING EDGE RAILS

\*\* Back gouge not required if complete joint

penetration is verified by mock-up.

# WELDED RAIL

# LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

# BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	74

# SHOWING ROLLED RAIL JOINT

at 50° F

05-15-2023

EJ-SS

 $\frac{3}{8}$ " Ø threaded rods in  $\frac{7}{16}$ " Ø holes at 4'-0" ± cts.

the temperature during the deck pour. Place to

miss studs. All rods shall be burned, or sawed

for holding the proper joint opening based on

\*  $\frac{5}{8}$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

conforming to Article 1006.32 of the Std.

# off flush with the plates after concrete is set.

### SECTION A-A

\* Granular or solid flux filled headed studs Specs., automatically end welded.

Item	Unit	Total
Preformed Joint Strip Seal	Foot	74

COUNTY

JOHNSON

CONTRACT NO. 78A96

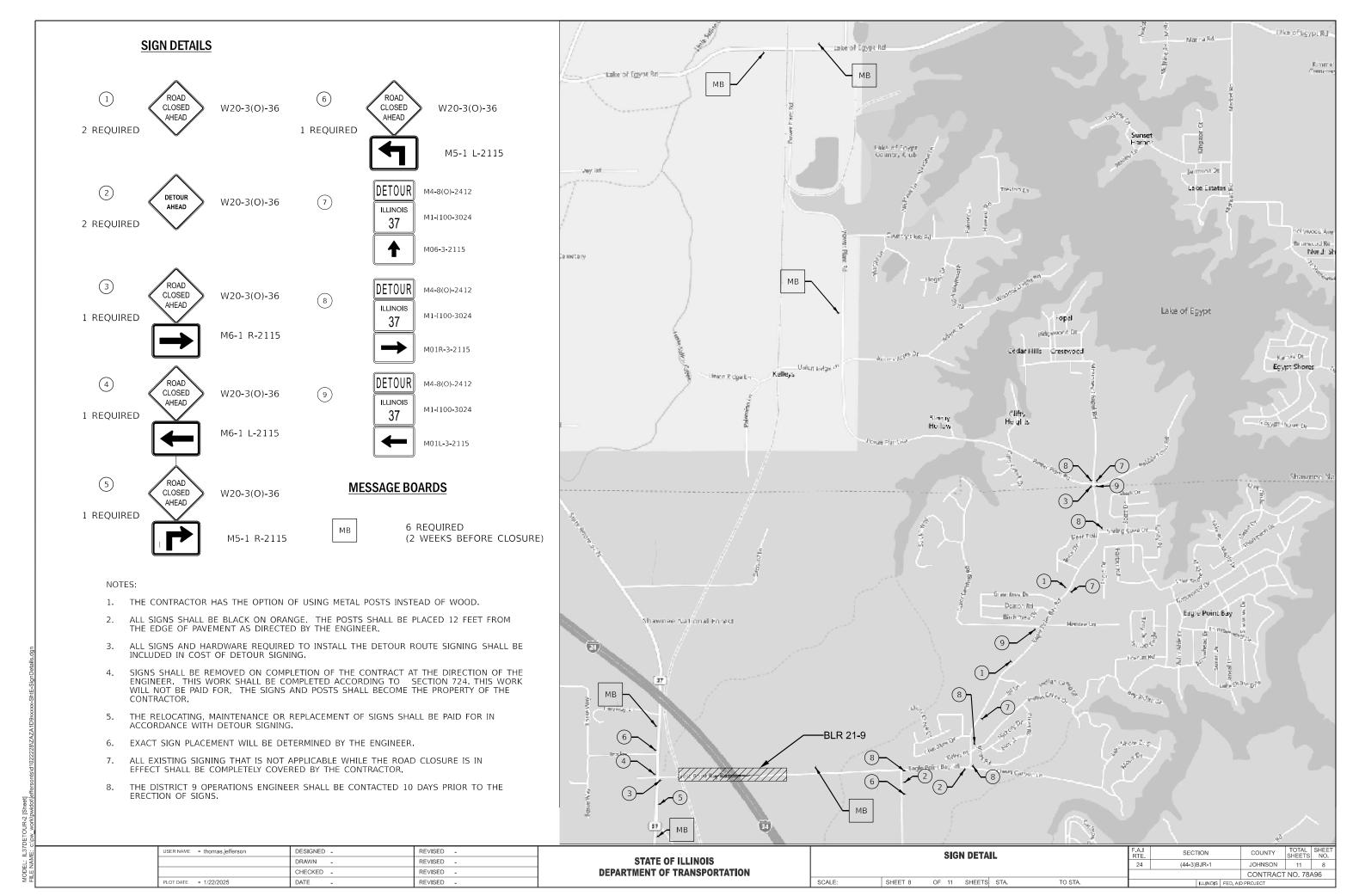
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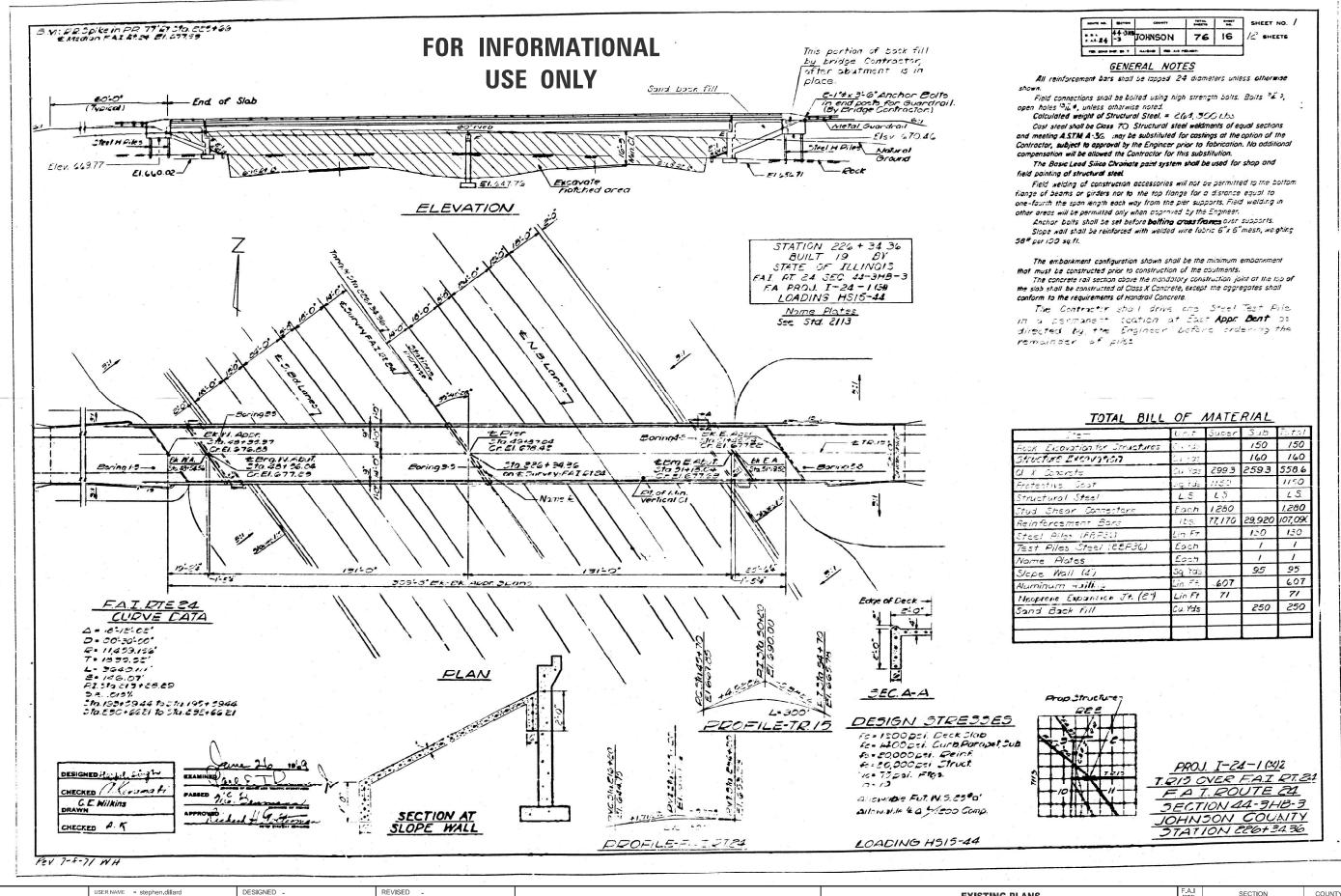
SER NAME = thomas.jefferson DESIGNED -REVISED DRAWN REVISED HECKED REVISED PLOT DATE = 4/7/2025 DATE REVISED

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

SHOWING WELDED RAIL JOINT

SECTION PREFORMED STRIP SEAL DETAIL (44-3)B.IR-1 SHEET 7 OF 11 SHEETS STA. TO STA.





MODEL: Existing Plans [Sheet]

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PLOT DATE = 2/20/2025

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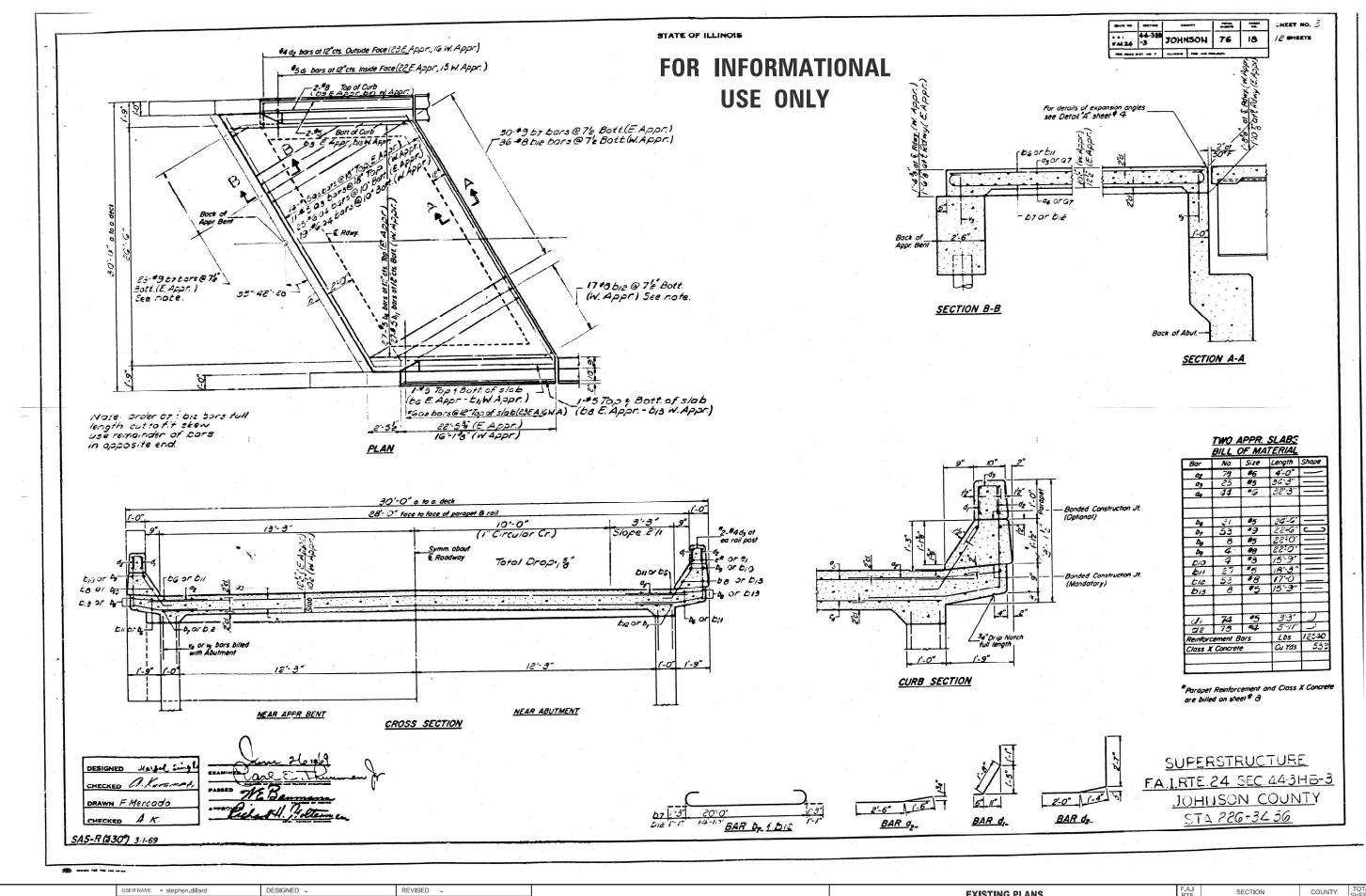
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OF 11 SHEETS STA.

SHEET 9



MODEL: Existing Plans-1 [Sheet]

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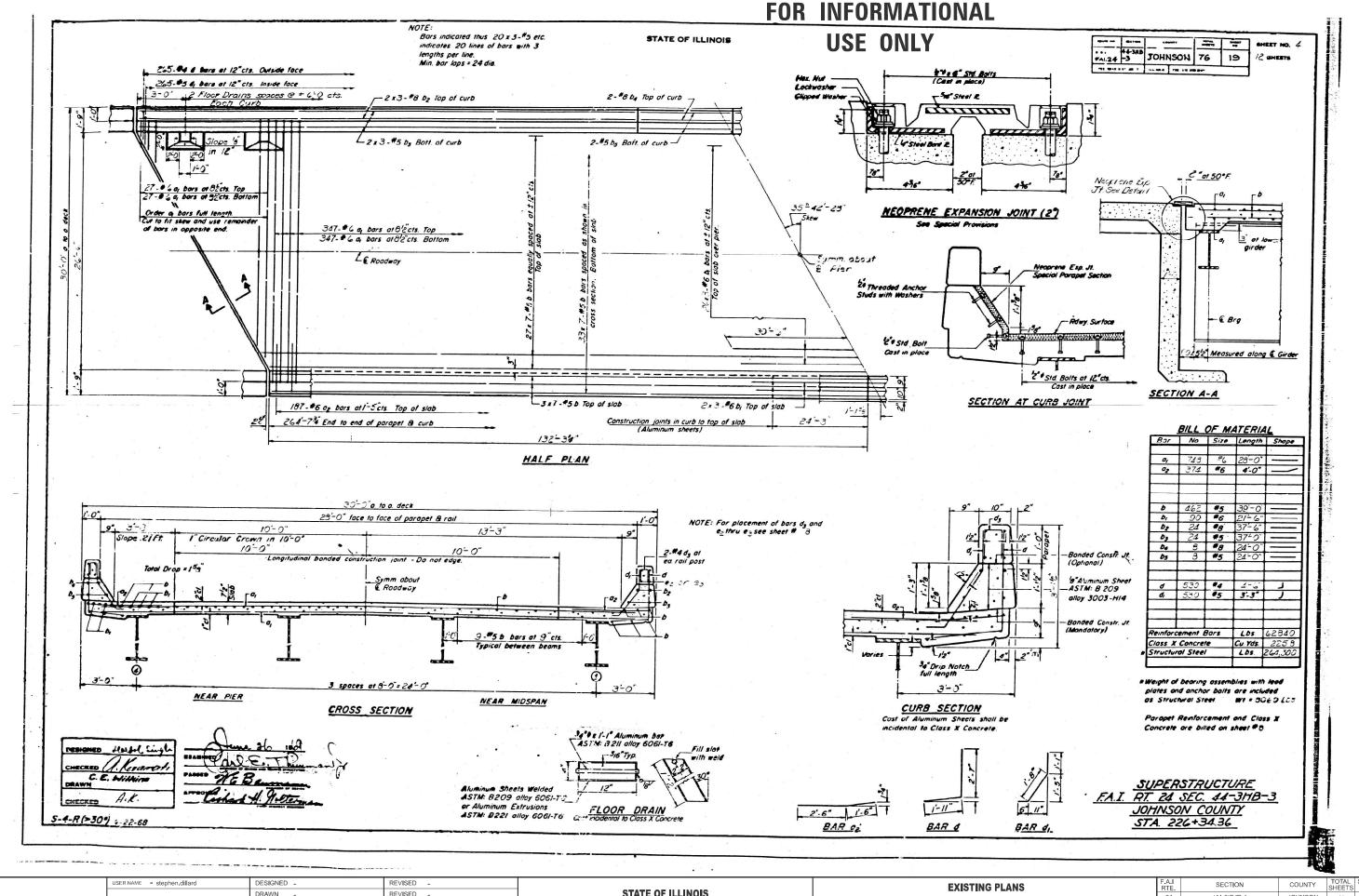
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DEPARTMENT OF TRANSPORTATION

SCALE:

EXISTING PLANS

SHEET 10 OF 11 SHEETS STA.

TO STA.



CHECKED

DATE

PLOT DATE = 2/20/2025

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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

SHEET 11 OF 11 SHEETS STA.

SCALE:

(44-3)BJR-1 11 11 JOHNSON CONTRACT NO. 78A96