### 09-19-2025 LETTING ITEM 035 **INDEX OF SHEETS**

- 1. COVER SHEET
- **GENERAL NOTES**
- SUMMARY OF QUANTITIES
- 6. TYPICAL SECTIONS
- 8 9 . STAGING DETAILS
- TEMPORARY CONCRETE BARRIER DELINEATION
- TRAFFIC CONTROL AND PROTECTION STANDARD 701321
- TEMPORARY INFORMATION SIGNING
- PRE-STAGE SHOULDER RECONSTRUCTION
- PAVEMENT MARKING
- STRUCTUR DETAILS FOR STRUCTURE NO. 006-0116

# **PROPOSED HIGHWAY PLANS**

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**F.A.I. ROUTE 80 (I-80)** (06-4HB-1)BRR BRIDGE REPAIRS **BUREAU COUNTY** 

C-93-019-26

PROJECT LOCATION

**STRUCTURE NO. 006-0116** 

### **HIGHWAY STANDARDS**

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 000001-08 001001-02 AREAS OF REINFORCEMENT BARS 001006 DECIMAL OF AN INCH AND OF A FOOT 442201-03 CLASS C AND D PATCHES 482001-02 HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' AWAY 701006-05 OFF-ROAD OPERATIONS 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH 701206-05 LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, 701426-09 LANE CLOSURE, MULTILANE INTERMITTENT OR MOVING OPERATION. FOR SPEEDS ≥ 45 MPH 701428-01 TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY 701901-10 TRAFFIC CONTROL DEVICES 704001-08 TEMPORARY CONCRETE BARRIER

**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.

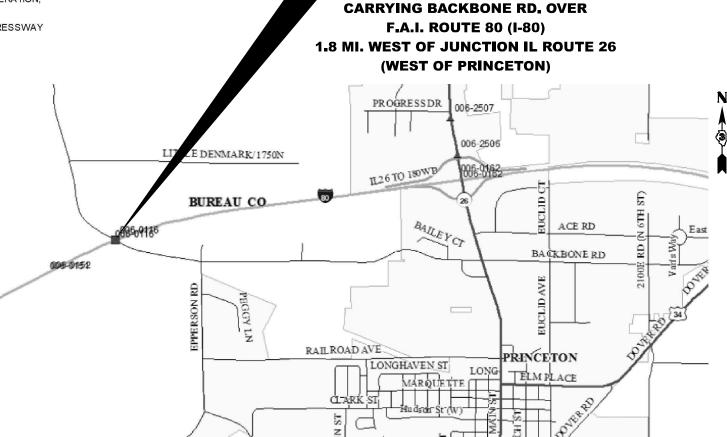
 $\circ$ 

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JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

**PROJECT ENGINEER JUNIOR SENAT UNIT CHIEF RON WOODSHANK DISTRICT 3 (815) 434-6131** 

**CONTRACT NO. 66R60** 

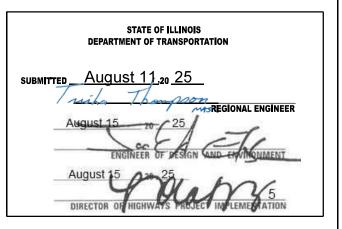


# BUREAU 23 1 ILLINOIS CONTRACT NO. 66R60

# D-93-003-26

### **SEE SHEET 2 OF 23 FOR ADT**

LOCATION OF SECTION INDICATED THUS: -



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

**COMMITMENTS** 

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE IDOT RIGHT OF WAY.

SHORT TERM PAVEMENT MARKING SHALL BE USED TO OUTLINE NO-PASSING ZONES IN EACH DIRECTION OF TRAFFIC.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION

`

FUNCTIONAL CLASSIFICATION

RURAL - INTERSTATE

F.A.I. ROUTE 80 (I-80)

2023 ADT = 19,000

P.V. 49.0 % S.U. 4.0 % M.U. 47.0 %

FUNCTIONAL CLASSIFICATION
RURAL - MAJOR COLLECTOR
BACKBONE RD
2023 ADT = 1,050

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT THREE AS BUILT INFORMATION

HMA MIXTURE REQUIREMENT TABLE LOCATIONS: BACKBONE RD BACKBONE RD BACKBONE RD BACKBONE RD MIXTURE USE(S): HMA SHOULDER HMA SHOULDER HMA PATCH HMA PATCH BOTTOM LIFT(S) TOP LIFT BOTTOM LIFT(S) TOP LIFT BINDER GRADE (PG): PG 64-22 PG 64-22 PG 64-22 PG 64-22 **DESIGN AIR VOIDS:** 4.0% @ N50 4.0% @ N50 4.0% @ N50 4.0% @ N50 MIXTURE COMPOSITION: IL 19.0 IL 9.5 IL 19.0 IL 9.5 (MIXTURE GRADATION) FRICTION AGGREGATE: MIXTURE C MIXTURE C 112.0 LB/SY/IN 112.0 LB/SY/IN MIXTURE WEIGHT: 112.0 LB/SY/IN 112.0 LB/SY/IN QUALITY MANAGEMENT PROGRAM: QC/QA QC/QA QC/QA QC/QA N/A N/A N/A N/A SUBLOT SIZE: DENSITY TEST METHOD: CORES/NUCLEAR | CORES/NUCLEAR | CORES/NUCLEAR | CORES/NUCLEAR MATERIAL TRANSFER DEVICE (REQUIRED): NO NO NO

	SUPERVISING CONSTRUCTION FIELD ENGINEER
	RESIDENT ENGINEER / TECHNICIAN
START & END DATES OF CONSTRUCTION:	
INSPECTORS:	

MODEL: Default FILE NAME: c:\pw\_work\pwidot\woo

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	100% STATE			
			BRIDGE	
CODE			TOTAL	0047
NO.	ITEM	UNIT	QUANTITY	S.N. 006-0116
		,		
20200500	EARTH EXCAVATION (WIDENING)	CU YD	304	304
			es e	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	313	313
44004250	PAVED SHOULDER REMOVAL	SQ YD	176	176
74004230	TAVES STOSESEN NEWSYNE	OQTE	170	170
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	464	464
50102400	CONCRETE REMOVAL	CU YD	10.2	10.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	10.4	10.4
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1620	1620
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1800	1800
50800515	BAR SPLICERS	EACH	28	28
50800530	MECHANICAL SPLICERS	EACH	18	18
52000110	PREFORMED JOINT STRIP SEAL	FOOT	76	76
				-
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	10	10
52100520	ANCHOR BOLTS, 1"	EACH	20	20
67100100	MOBILIZATION	L SUM	1	1
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

CONSTRUCTION CODE
CONTRACT MAINTENANCE

CONSTRUCTION CODE
CONTRACT MAINTENANC
100% STATE

				BRIDGE			
CODE			TOTAL	0047			
NO.	ITEM	UNIT	QUANTITY	S.N. 006-0116			
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1			
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1			
				-			
		<u> </u>					
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1			
70106700	TEMPORARY RUMBLE STRIPS	EACH	14	14			
70100700	ILIVIFORANT ROMBLE STRIFS	LACIT	14	14			
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	14	14			
		1					
70300100	SHORT TERM PAVEMENT MARKING	FOOT	160	160			
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	53	53			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	500	500			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	500	500			
70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2			
70600352	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2			
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	3200	3200			
7009004	WOODI IED ONE II MINE FAVEWENT WARNING - LINE 4		3200	3200			
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1056	1056			
*SPECIALI	TV   TT   10						

\*SPECIALITY ITEMS

USER NAME = ronald.woodshank	DESIGNED - RW	REVISED _
	DRAWN - RW	REVISED _
	CHECKED - JS	REVISED -
PLOT DATE = 5/12/2025	DATE - 4/28/2025	REVISED _

SCALE:

	eu	184844	DV	OF 0114	NTITIES		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SUMMARY OF QUANTITIES				80	(06-4HB-1)BRR	BUREAU	25	4		
									CONTRAC	T NO. 661	₹60
SHEET	2	OF	3	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		

	_	_

USER NAME = ronald.woodshank	DESIGNED	-	RW	REVISED	-
	DRAWN	-	RW	REVISED	-
	CHECKED	-	JS	REVISED	-
PLOT DATE = 7/8/2025	DATE	-	4/28/2025	REVISED	-

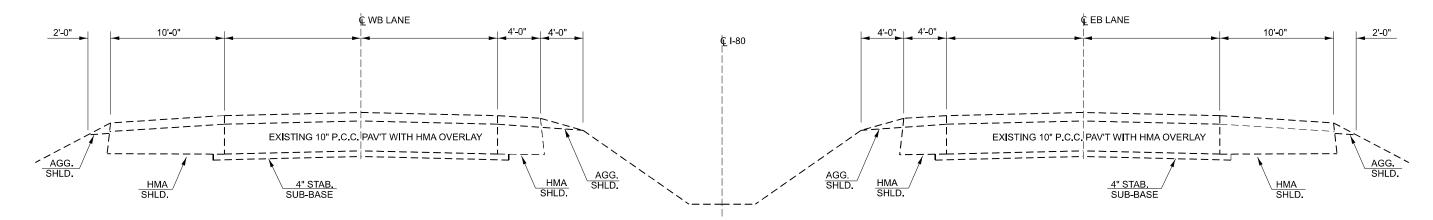
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

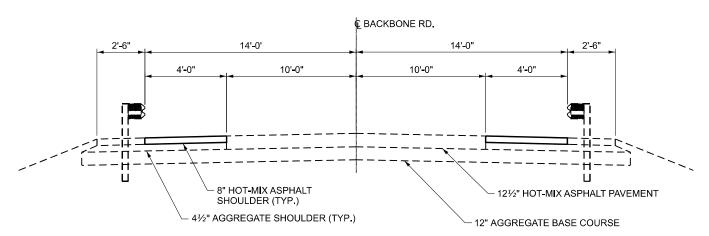
		•						F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
		St	JMM/	ARY	OF QU	ANTITI	ES	80	(06-4HB-1)BRR		BUREAU	23	5
									CONTRAC	T NO. 66F	₹60		
	SHEET	3	OF	3	SHEETS	STA	TO STA		II LINOIS	LEED AN	DDO IFOT		

				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0047 S.N. 006-0116
X7200061	TEMPORARY INFORMATION SIGNING	SQ FT	42	42
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	10	10

CONSTRUCTION CODE



# TYPICAL SECTION 1 F.A.I. ROUTE 80 (I-80)



# TYPICAL SECTION 2 BACKBONE RD.

USER NAME = ronald.woodshank	DESIGNED -	RW	REVISED -		TYPICAL SECTIONS		F.A.I. RTE	SECTION	COUNTY	TOTAL	SHEET S NO.					
	DRAWN -	RW	REVISED -	STATE OF ILLINOIS			TYPI	ICAL S	SECTION	ONS		80	(06-4HB-1)BRR	BUREAU	23	6
	CHECKED	JS	REVISED -	DEPARTMENT OF TRANSPORTATION										CONTRAC		R60د
PLOT DATE = 7/8/2025	DATE -	4/28/2025	REVISED -		SCALE:	SHEET 1	OF	1 SH	HEETS	STA.	TO STA.		ILLINOIS FED. AI	PROJECT		

### **SCHEDULE - TRAFFIC CONTROL AND PROTECTION**

	TRAFFIC	TRAFFIC	TEMPORARY	TEMPORARY	TEMPORARY	RELOCATE	IMPACT	IMPACT	TEMPORARY
	CONTROL	CONTROL	BRIDGE	RUMBLE	CONCRETE	TEMPORARY	ATTENUATORS	<b>ATTENUATORS</b>	INFORMATION
	AND	AND	TRAFFIC	STRIPS	BARRIER	CONCRETE	TEMPORARY	RELOCATE	SIGNING
LOCATION	PROTECTION	PROTECTION	SIGNALS			BARRIER	(NON-REDIRECTIVE,	(NON-REDIRECTIVE,	
	STANDARD	STANDARD					NARROW)	NARROW)	
	701321	701201					TEST LEVEL 3	TEST LEVEL 3	
	EACH	L SUM	EACH	EACH	FOOT	FOOT	EACH	EACH	SQ FT
STAGE I	0.5	0.5	1	6	500		2		42
STAGE II	0.5	0.5				500		2	
TOTAL	1	1	1	6	500	500	2	2	42

### **SCHEDULE - PAVEMENT MARKING**

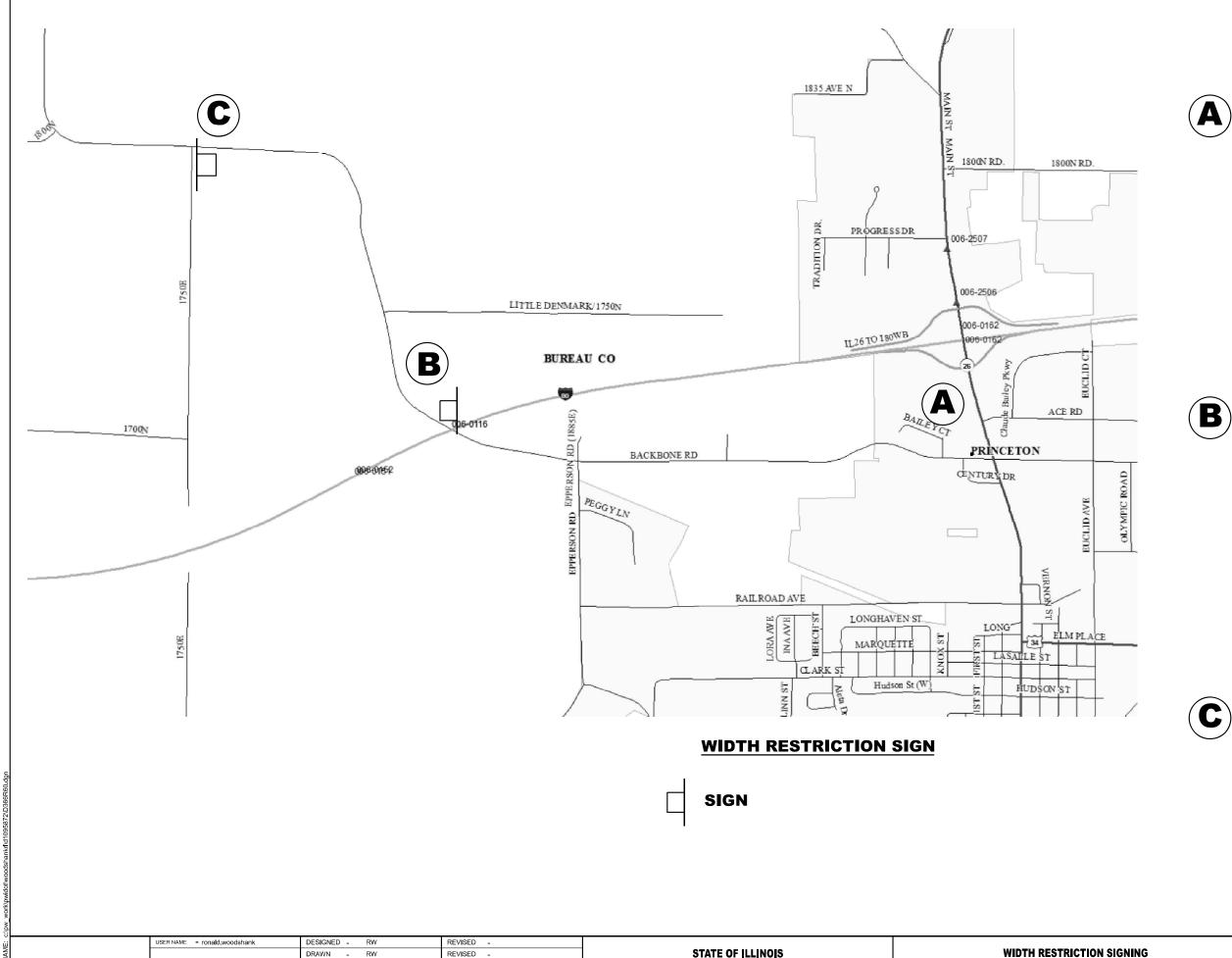
LOCATION		PAVEMENT MARKING REMOVAL	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	URE PAV MA LI	DIFIED THANE EMENT RKING NE 4" (YELLOW, DOUBLE NPZ)
		SQ FT	FOOT	SQ FT	I	-оот
BACKBONE RD. STAGE I		792				
STAGE II		264	160	53	1600	1600
TOTAL	TOTAL		160	53		3200

### **SCHEDULE - SHOULDERS**

		LENGTH	WIDTH	PAVED	EARTH	BITUN	IINOUS	HOT-MIX
				SHOULDER	<b>EXCAVATION</b>	MATE	RIALS	<b>ASPHALT</b>
LOCA	TION			REMOVAL	(WIDENING)	(TACK	(COAT)	SHOULDERS
						0.05 LBS/FT	0.025 LBS/FT	8"
		FEET	FEET	SY YD	CU YD	PO	UND	SQ YD
		190	4		18.9			
	NW CORNER	80	4	36	2			
		270	4			54	27	120
		113	4		11.2			
	NE CORNER	141	4	63	3.6			
BACKBONE RD.		254	4			51	25	113
BACKBONE RD.		80	4	36	2			
	SW CORNER	172	4		17.1			
		252	4			50	25	112
		92	4	41	17.5			
	SE CORNER	176	4		231.7			
		268	4			54	27	119
тот	AL			176	304	;	313	464

USER NAME = ronald.woodshank	DESIGNED	-	RW	REVISED -
	DRAWN	-	RW	REVISED -
	CHECKED	-	JS	REVISED -
PLOT DATE = 7/8/2025	DATE	-	4/28/2025	REVISED -

								F.A.I. RTE	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
				эсг	IEDULE	3		80	(06-4HE	3-1)BRR		BUREAU	23	7
												CONTRACT	NO. 66	R60
SCALE:	SHEET	1	OF	1	SHEETS	STA.	TO STA.			ILLINOIS	FED. All	D PROJECT		



MAX WIDTH

# 2 MILES AHEAD

W12-I103-4848

### WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.

MAX WIDTH

1/2 MILES A HEAD

W12-I103-4848

### WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.

MAX WIDTH

1½ MILES AHEAD

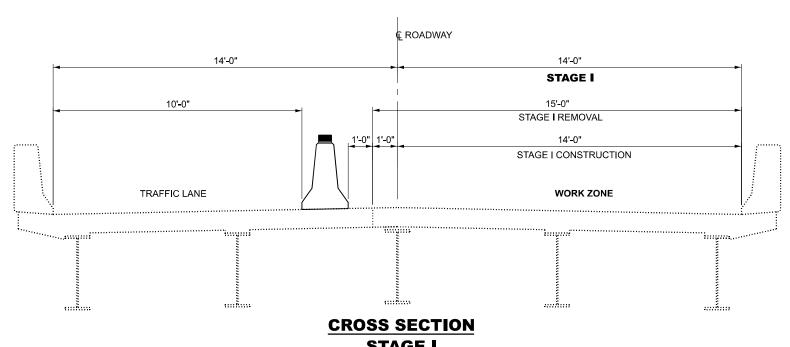
W12-I103-4848

### WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.

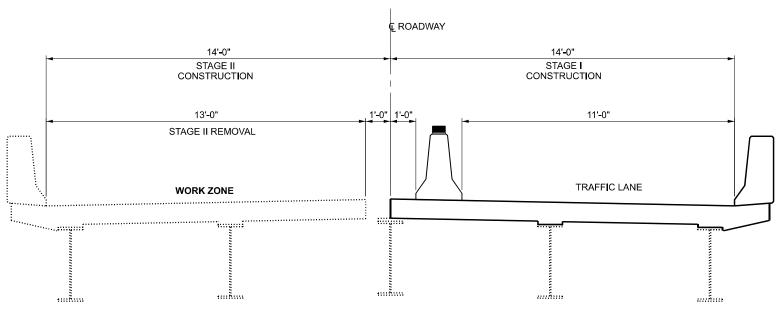
USER NAME = FORMING DESIGNED - RW REVISED - STATE OF ILLINOIS STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

| PLOT DATE | = 7/8/2025 | DATE | - 4/28/2025 | REVISED | - RW REVISED - RW REVISED - RW REVISED - RW REVISED - REVISED -



# STAGE I **BACKBONE RD.**

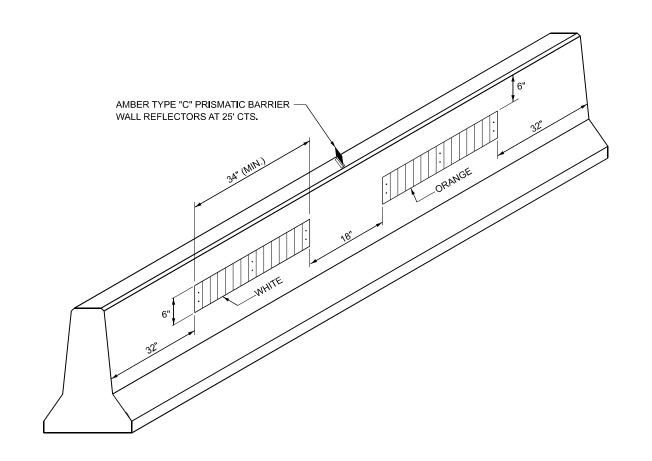
LOOKING EAST

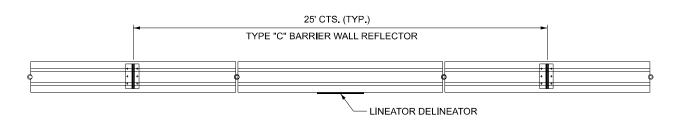


# **CROSS SECTION STAGE II BACKBONE RD.**

LOOKING EAST

USER NAME = ronald.woodshank	DESIGNED -	RW	REVISED -		STAGING DETAILS				F.A.I.	SECTIO	ON	COUNTY	TOTAL SHEET			
	DRAWN -	RW	REVISED -	STATE OF ILLINOIS		BACKBONE RD.				80	(06-4HB-1	)BRR	BUREAU	23 9		
	CHECKED -	JS	REVISED -	DEPARTMENT OF TRANSPORTATION				MUNI	BUNE ND.				, ,			CT NO. 66R60
PLOT DATE = 7/8/2025	DATE -	4/28/2025	REVISED -		SCALE:	SHEET 2	OF	2	SHEETS ST.	۹.	TO STA.		L	LINOIS FED. AID	PROJECT	

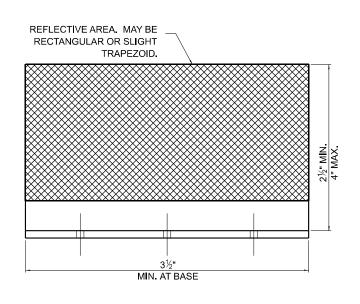


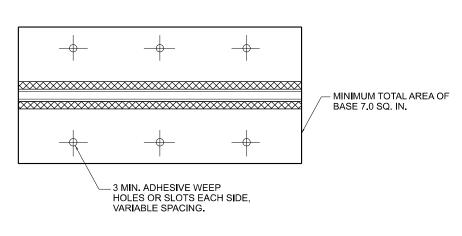


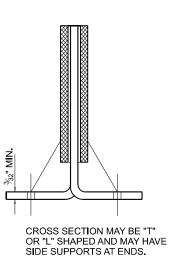
### TYPC "C" REFLECTOR FOR TEMPORARY CONCRETE BARRIER

NOTE:
DELINEATION INCLUDING LINEAR DELINEATION PANELS AND TYPE C REFLECTORS
FOR TEMPORARY CONCRETE BARRIER DELINEATION SHALL NOT BE PAID FOR
SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE TEMPORARY CONCRETE
BARRIER.

### LINEAR DELINEATOR PANELS FOR TEMPORARY CONCRETE BARRIER







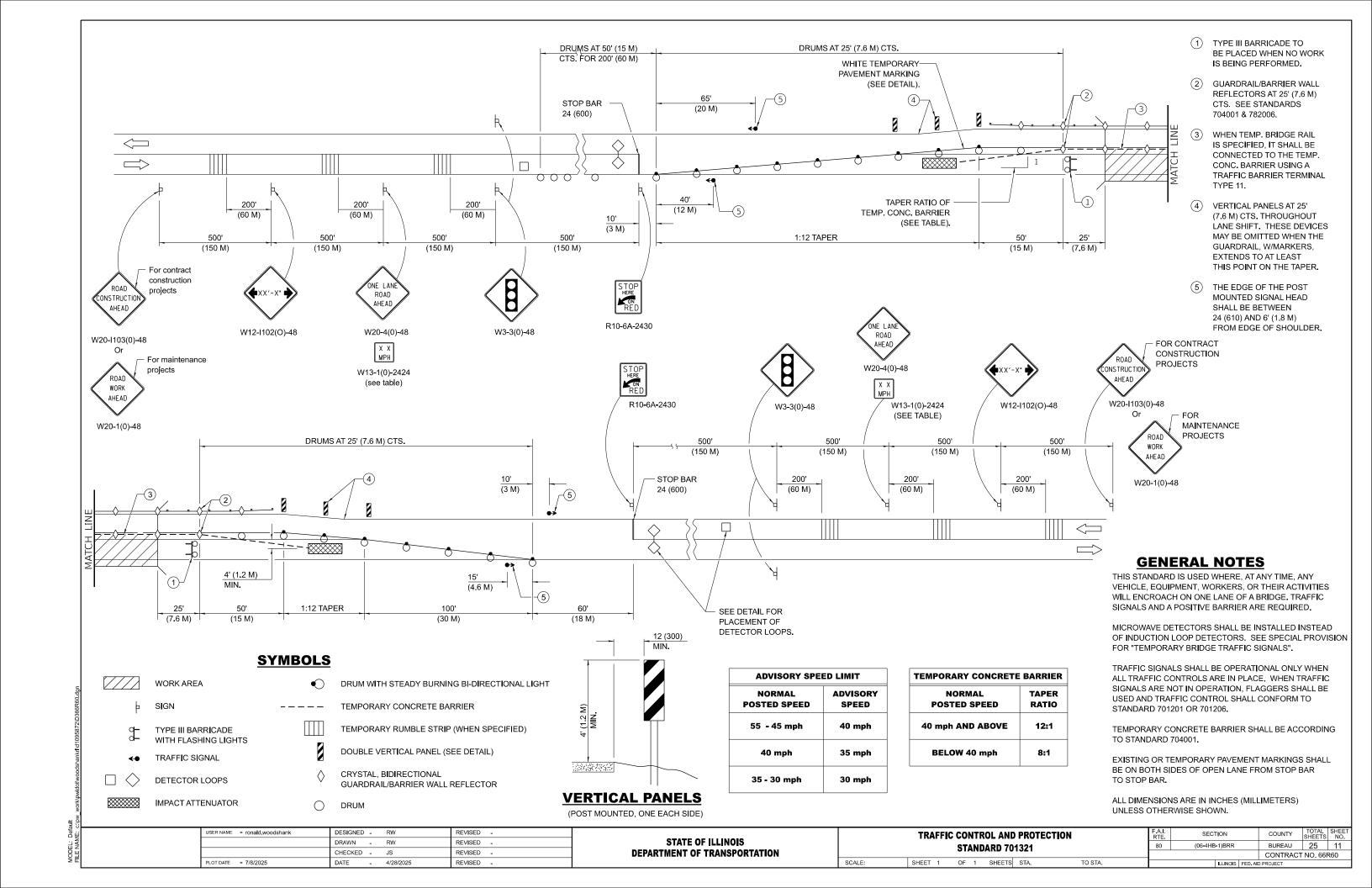
### **REFLECTOR TYPE C**

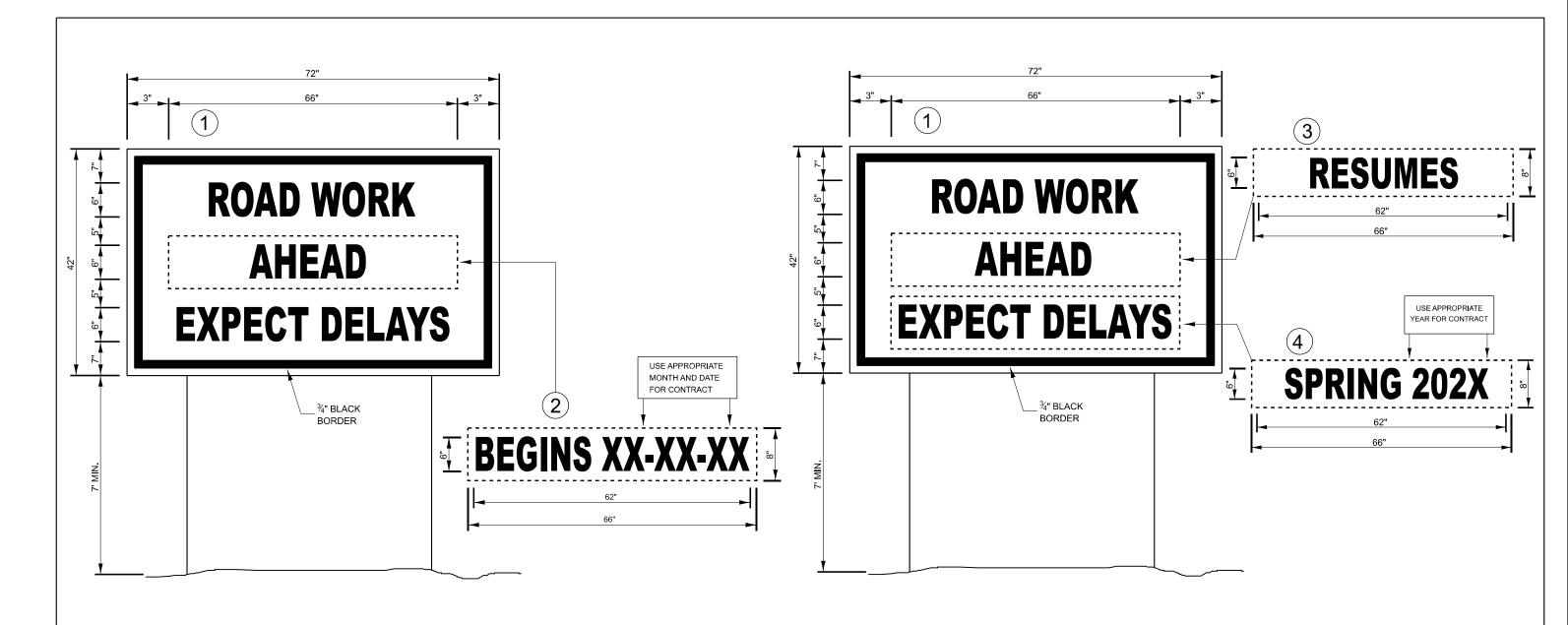
USER NAME = ronald.woodshank	DESIGNED	-	RW	REVISED	-
	DRAWN	-	RW	REVISED	-
	CHECKED	-	JS	REVISED	-
PLOT DATE = 7/8/2025	DATE	-	4/28/2025	REVISED	-

STATE OF ILLINOIS	
EPARTMENT OF TRANSPORTATION	

TEMPORARY CONCRETE BARRIER DELINEATION	F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TEMPURARY CONCRETE BARRIER DELINEATION	80	(06-4HB-1)BRR	BUREAU	23	10
			CONTRACT	NO. 66F	₹60
SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. AII	O PROJECT		

MODEL: Default





## **TEMPORARY INFORMATION SIGNING**

# WINTER SHUT DOWN SIGNING

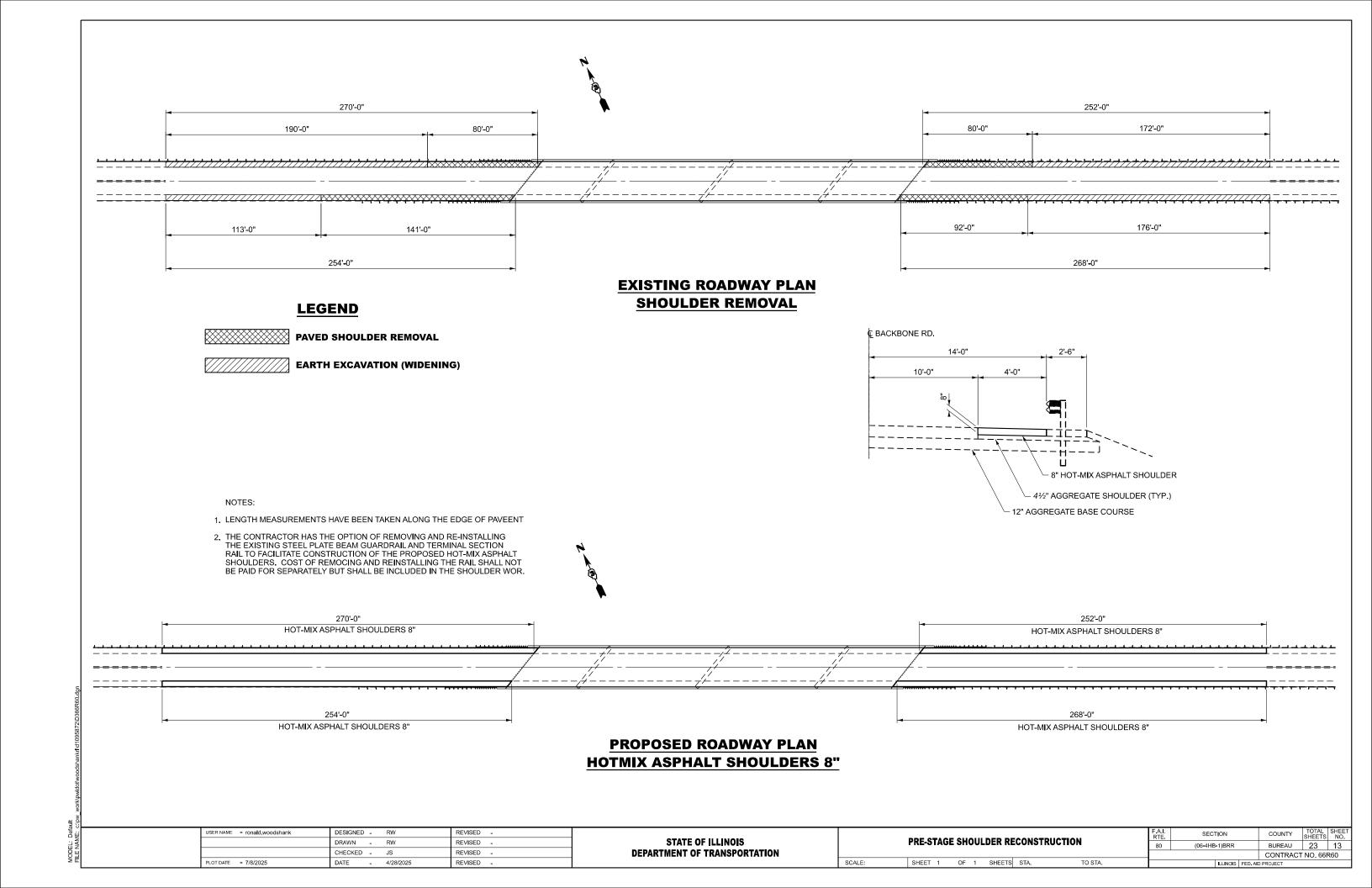
### NOTES:

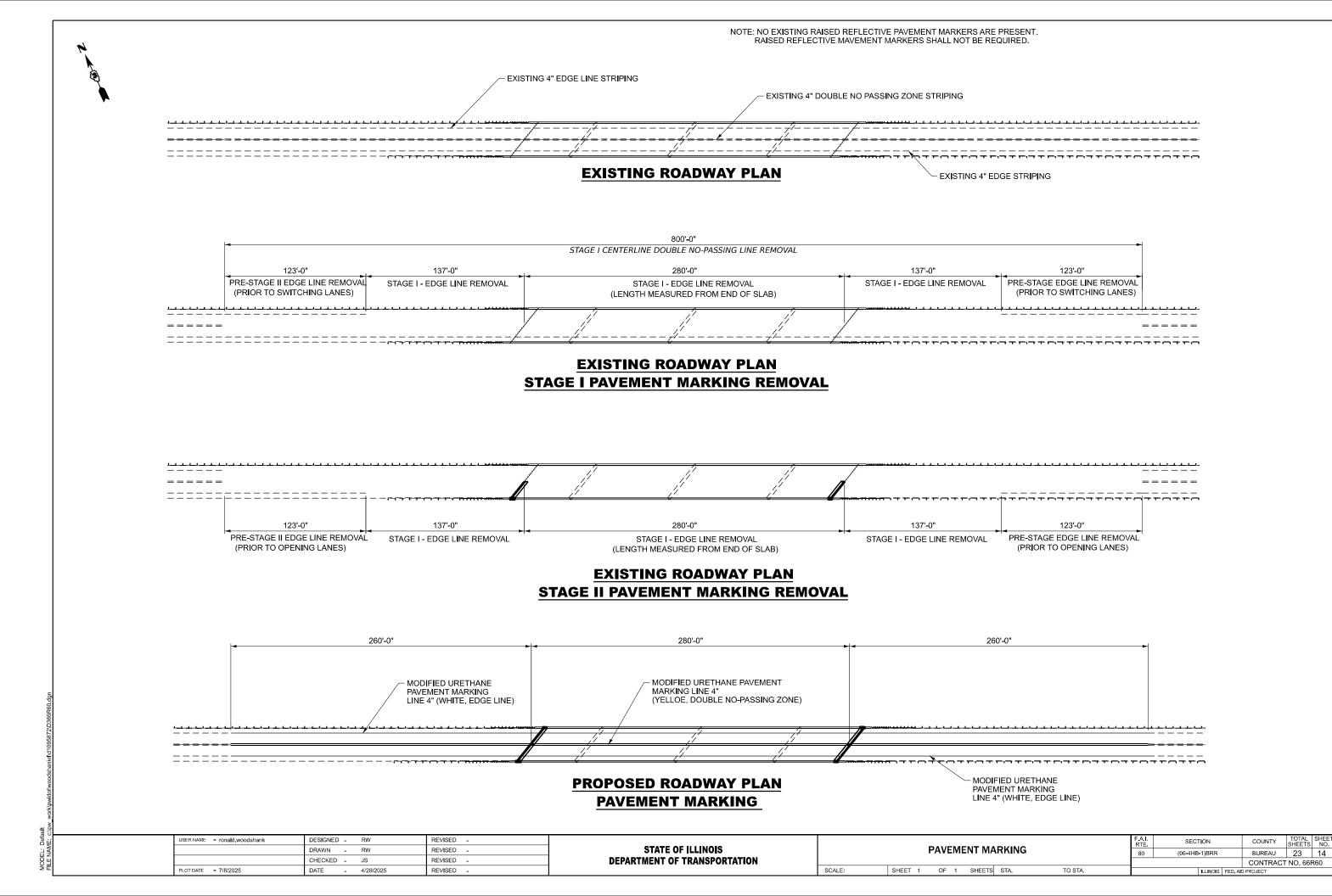
- 1. USE 6" D BLACK LETTERING ON FLOURESENT ORANGE BACKGROUND.
- ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN ① WITH INSTALLED PANEL ② A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE LANE CLOSURE.
- 4. REMOVE PANEL ② ON THAT DATE.
- 5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. WILL BE PAID FOR PER SQ FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT. THE DATE PANEL ② RESUMES PANEL ③ AND SPRING 202X PANEL ④ WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.

USER NAME = ronald.woodshank	DESIGNED	-	RW	REVISED -
	DRAWN	-	RW	REVISED -
	CHECKED	-	JS	REVISED -
PLOT DATE = 7/8/2025	DATE	_	4/28/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

lODEL: Derault ILE NAME: c:\pw\_work\pwidot\woodshankr





### **EXISTING STRUCTURE:**

Structure No. 006-0116. Built as F.A.S. 244 (Backbone Rd.) grade separation over F.A.I. 80 (I-80) in 1963.

New deck in 2006 with modified wing walls.

Consists of 4 spans of continuous non-composite wide flange beams. 280'-6" Bk. to Bk. Abutments. 31'-8" Out to Out of deck.

7½" thick concrete deck. supported on pile bent abutments and 3 piers.

2'-7" 49'-8 86'-3" 53'-2" 2'-7"

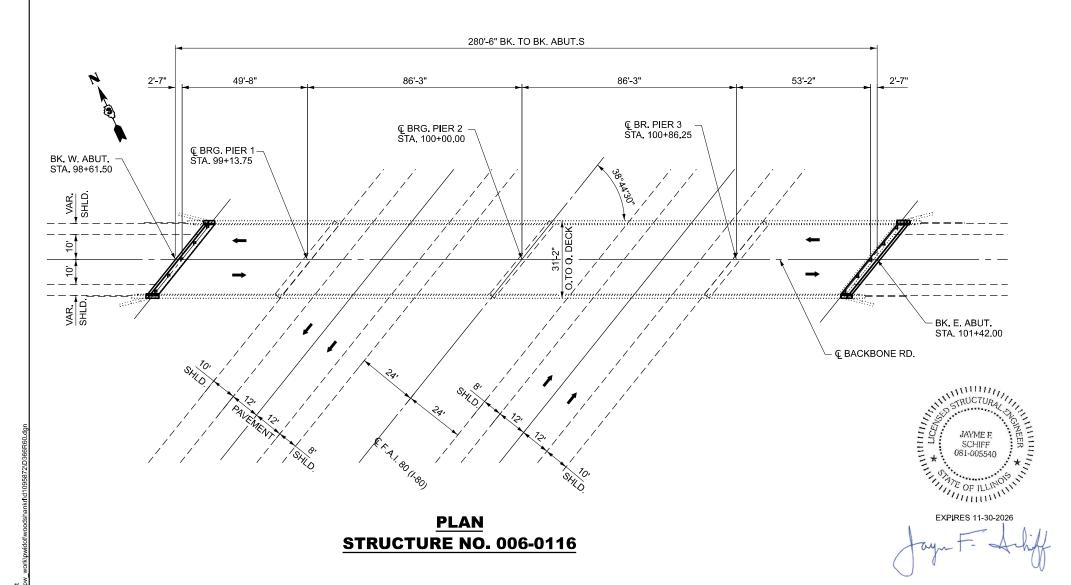
© PIER 2 PIER 3

EXP. EXP. W36X160 BEAMS

© WB I-80

W. ABUT.

### **ELEVATION**



### SCOPE OF WORK

- 1. REMOVE EXISTING CONCRETE SUPERSTRUCTURE
- 2. REMOVE EXISTING CONCRETE SUBSTRUCTURE
- 3. REMOVE EXISTING HOT-MIX ASPHALT PAVEMENT
- 4. REMOVE EXISTING ROCKER BEARING ASSEMBLIES
- 5. INSTALL STRIP SEAL EXPANSION JOINT
- 6. CONSTRUCT CONCRETE SUPERSTRUCTURE
- 7. CONSTRUCT CONCRETE SUBSTRUCTURE
- 8. INSTALL ELASTOMERIC BEARING WITH STEEL EXTENSION

### **GENERAL NOTES**

Plan dimensions and details relative to the existing structure have been taken from existing plans are subject to nominal construction variations. The Contactor 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.

All structural steel shall be AASHTO M270, Grade 36unless otherwise noted and shall be galvanized. See Special Provision for :Hot Dip Galvanizing for Structural Steel. Reinforcement bars designated (E) shall be epoxy coated.

Two  $\frac{1}{2}$  in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Fasteners shall be ASTM F 3125 Grade A325 Type 1. Fasteners shall be Hot Dip Galvanized. See Special Provision for "Hot Dip Galvanizing for Str4uctural Steel."

Existing reinforcement shall be cleaned, straightened, and incorporated into the new construction. Cost included with Concrete Removal.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose detrimental foreign material shall be removed from the surfaces in contact with concrete (SSPC-SP3 standards). 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 paid for according to Article 109.04 of the Standard Specifications.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ½ in. deep shall be identified and reported to the Bureau of Bridges & Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

# TOTAL BILL OF MATERIAL FOR TWO ABUTMENTS

UNIT	TOTAL
Cu Yd	10.2
Each	10
Cu Yd	10.4
Each	20
Pound	1800
Foot	76
1001	70
Fach	10
Lacii	10
Pound	1620
round	1020
Each	26
Each	18
	Cu Yd Each Cu Yd Each Pound Foot Each Pound Each

 USER NAME
 = ronald.woodshank
 DESIGNED
 RW
 REVISED

 DRAWN
 RW
 REVISED

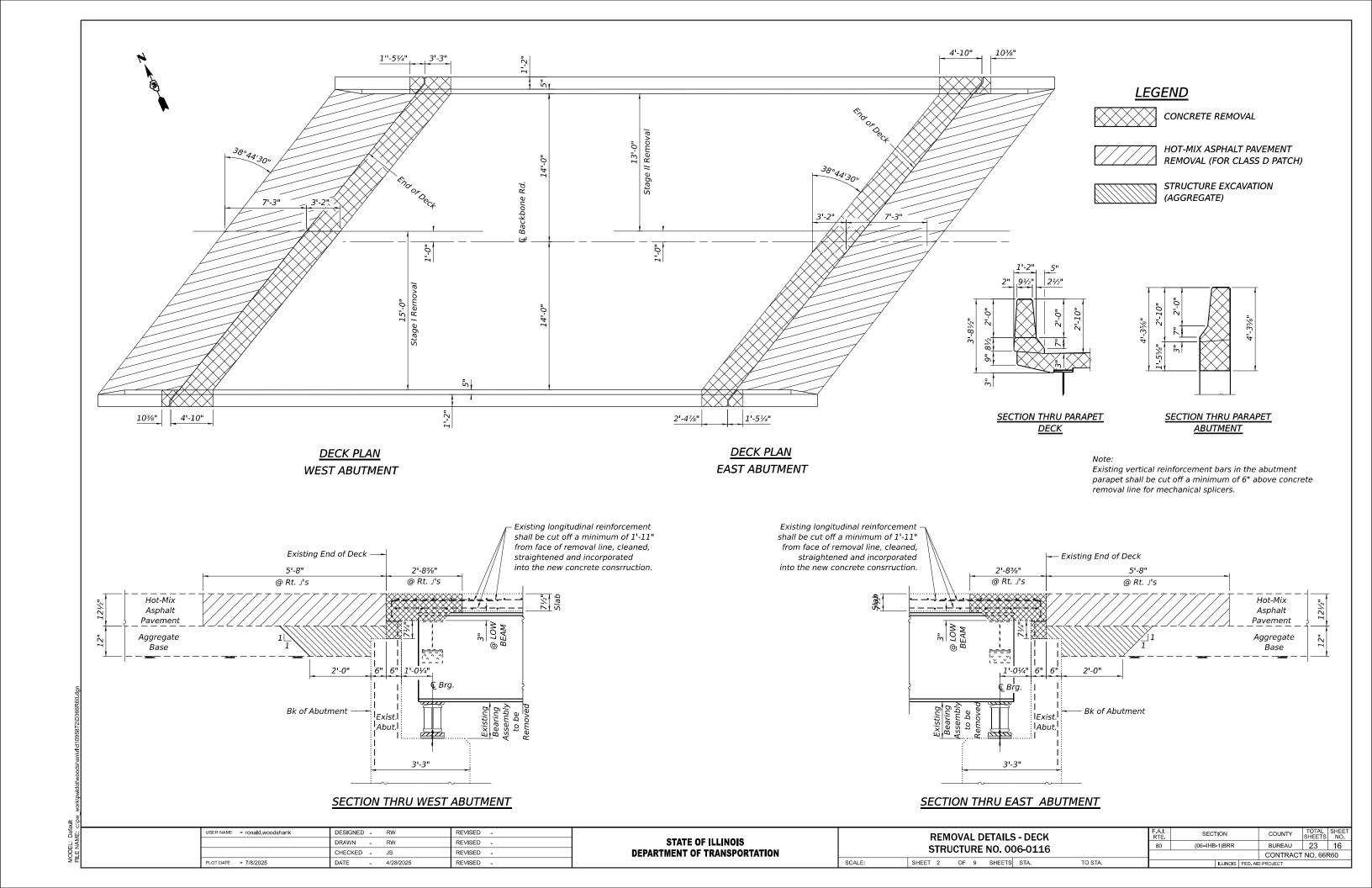
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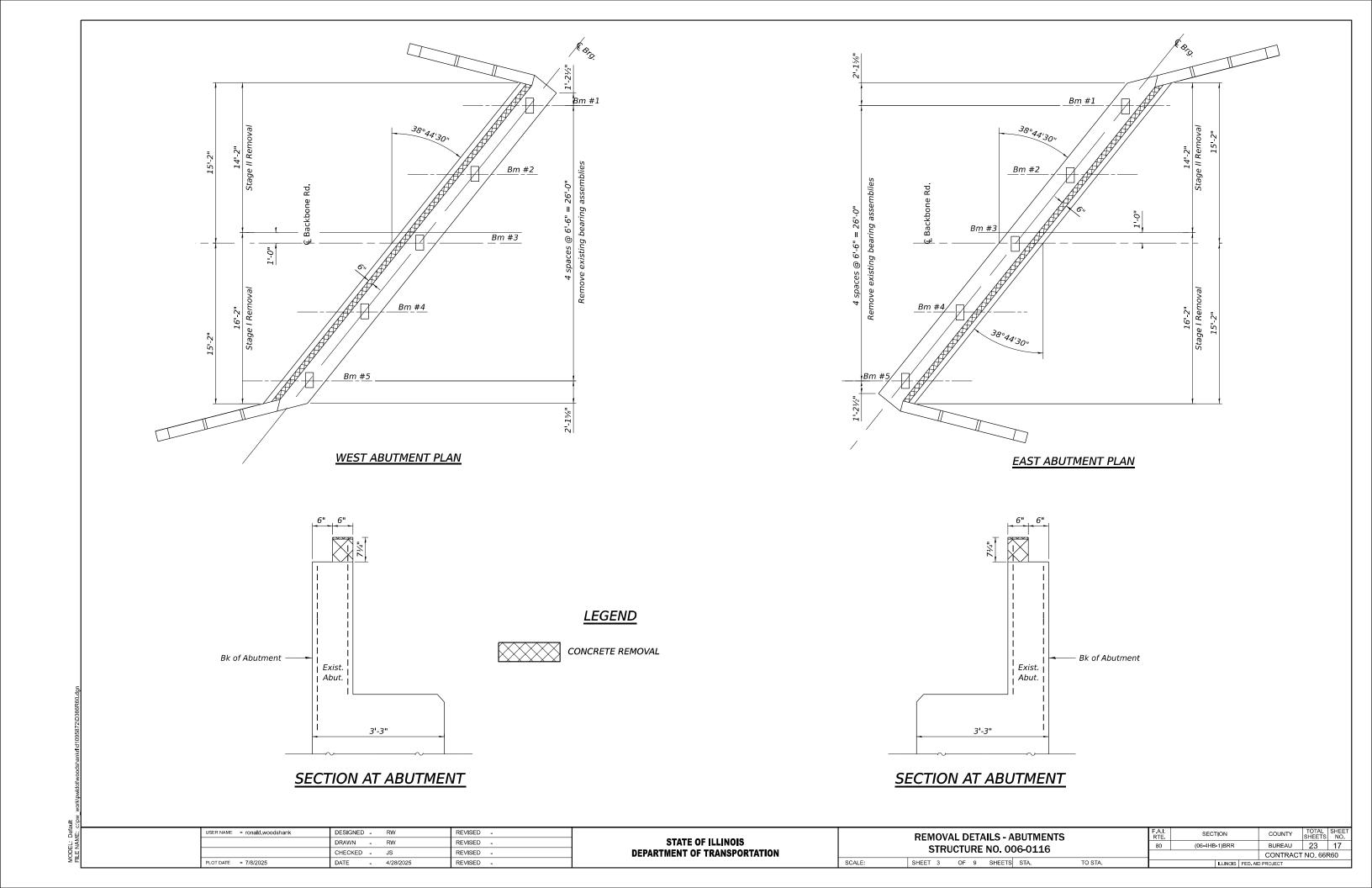
 PLOT DATE
 =
 7/8/2025
 REVISED

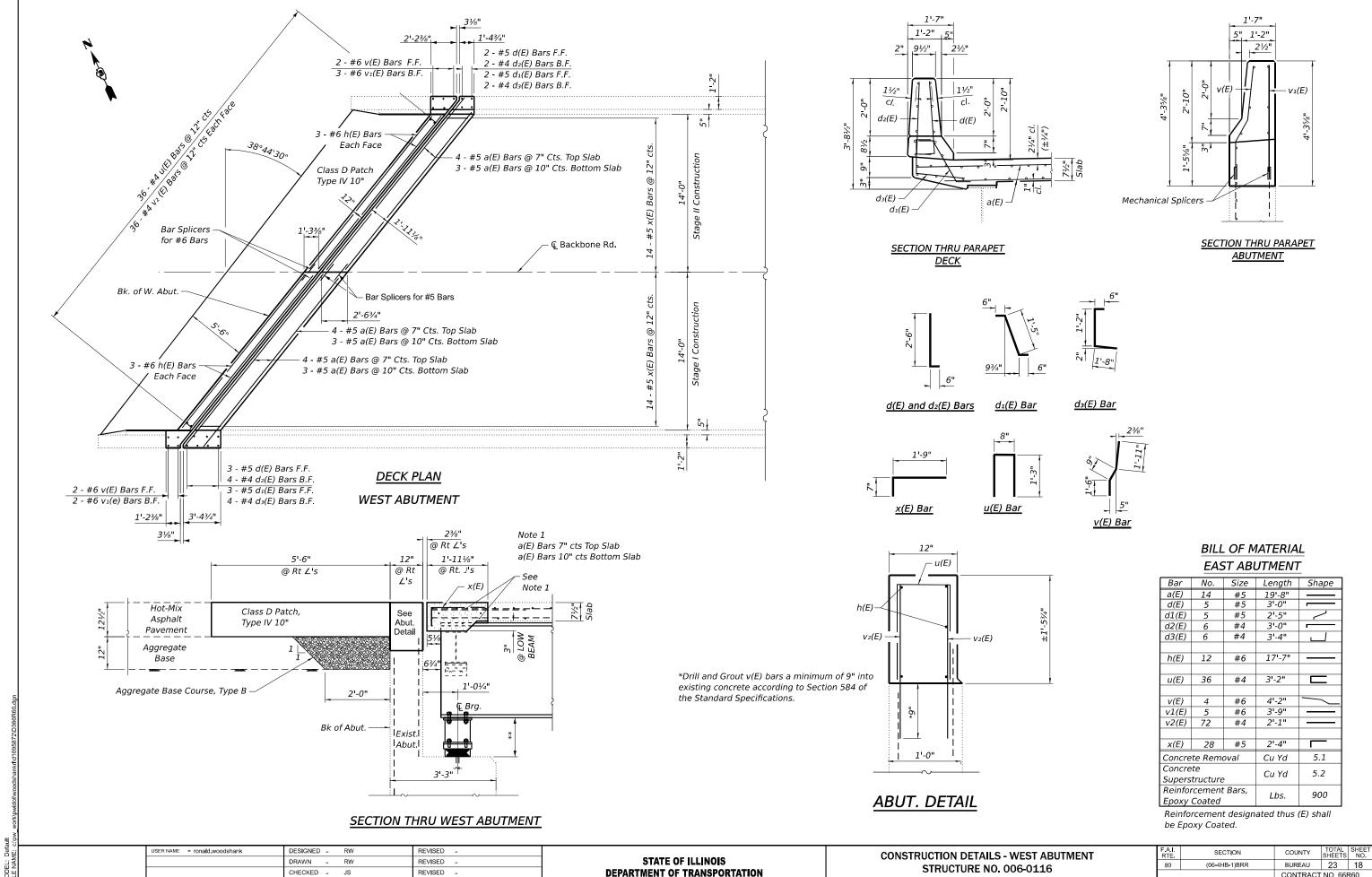
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLANS AND ELEVATION
STRUCTURE NO. 006-0116

SHEET 1 OF 9 SHEETS STA.







SCALE:

SHEET 4 OF 9 SHEETS STA.

TO STA.

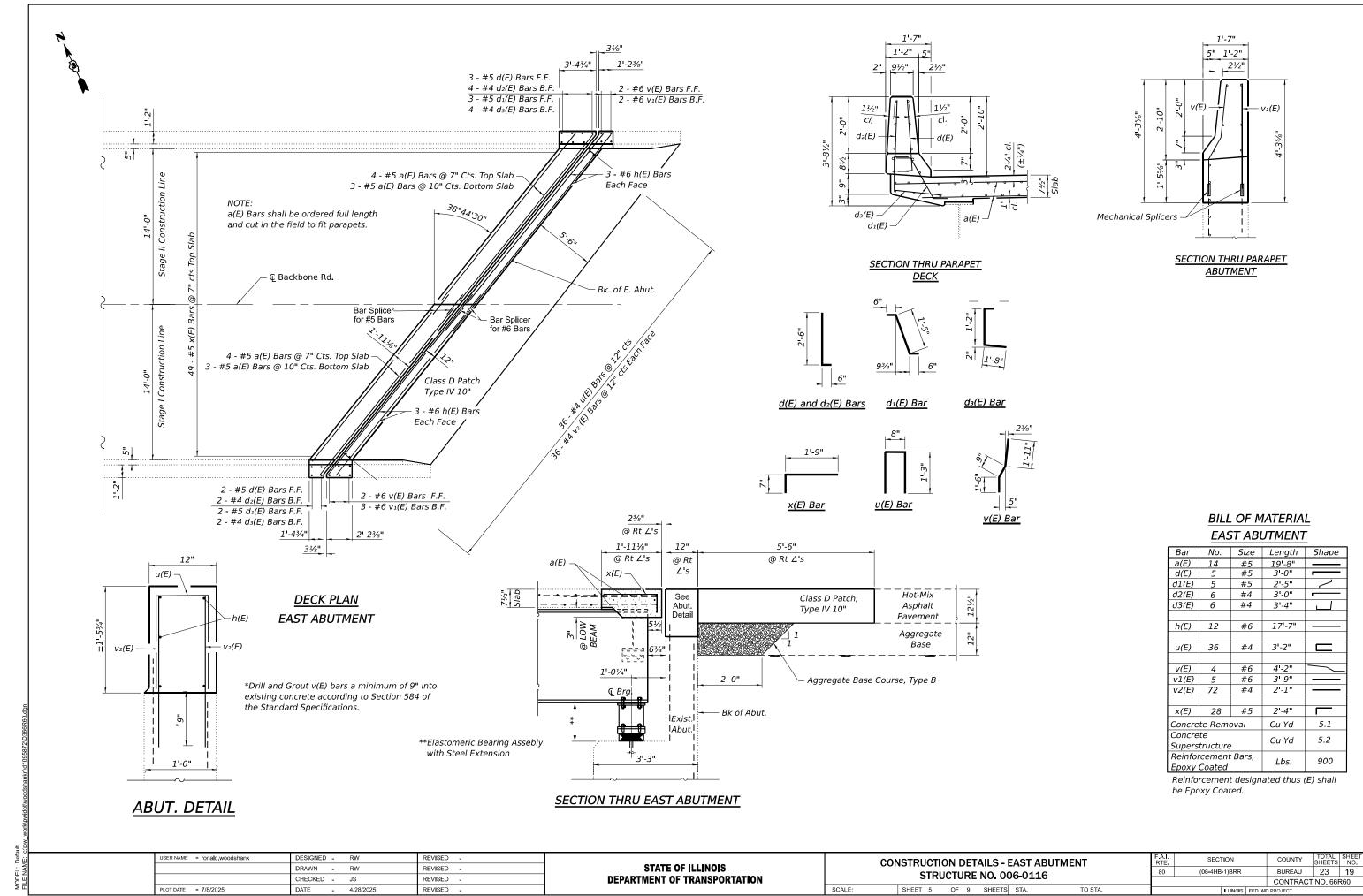
CONTRACT NO. 66R60

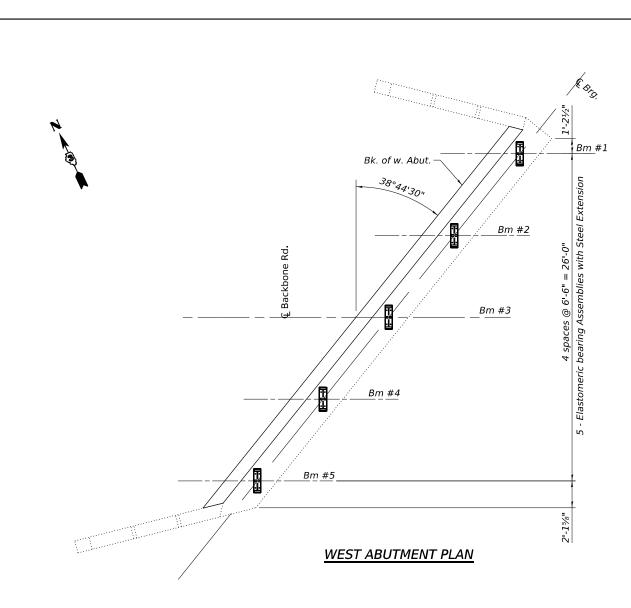
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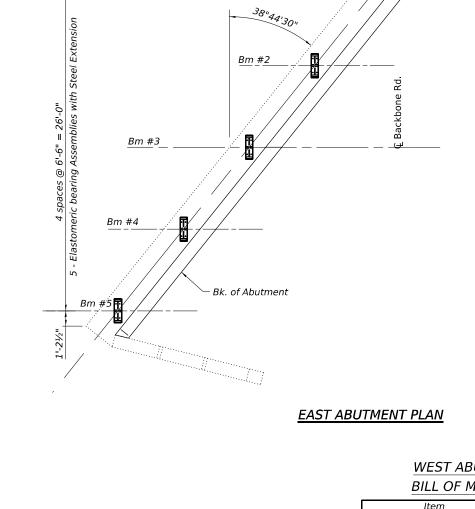
DATE

- 4/28/2025

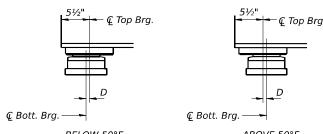
REVISED -







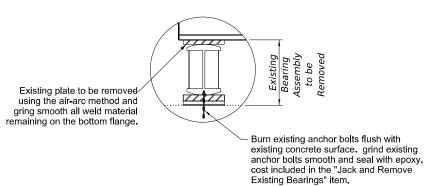
Bm #1



BELOW 50°F. ABOVE 50°F.  $D=\frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

### **EXPANSION BEARING ORIENTATION**

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.



### **BEARING REMOVAL**

### **WEST ABUTMENT** BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing	Each	5
Assembly, Type II	Eacii	)
Jack and Remove	Each	5
Existing Bearings	Eacii	ر
Furnishing and Erecting	Pound	810
Structural Steel	Found	810
Anchor Bolts, 1" Ø	Each	10

### EAST ABUTMENT **BILL OF MATERIAL**

· · · · · · · · · · · · · · · · · · ·		-
Item	Unit	Total
Elastomeric Bearing	Fach	5
Assembly, Type II	Eacii	ر
Jack and Remove	Fach	5
Existing Bearings	Eacii	ر
Furnishing and Erecting	Pound	810
Structural Steel	round	610
Anchor Bolts, 1" Ø	Each	10

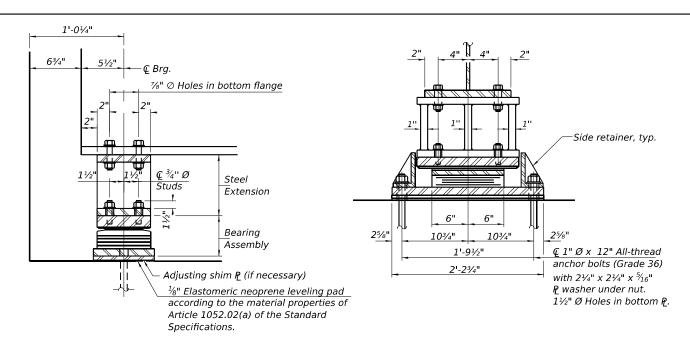
USER NAME = ronald.woodshank	DESIGNED	-	RW	REVISED -	
	DRAWN	-	RW	REVISED -	
	CHECKED	-	JS	REVISED -	
PLOT DATE = 7/8/2025	DATE	-	4/28/2025	REVISED -	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ELAS <sup>*</sup>	TOMER	C BEA	RIN	IG DET	AILS - A	ABUTMENTS	F.A.I. RTE	5
STRUCTURE NO. 006-0116							80	(06-
SCALE:	SHEET 6	OF	9	SHEETS	STA.	TO STA.		

COUNTY TOTAL SHEET NO.

BUREAU 23 20 SECTION 06-4HB-1)BRR CONTRACT NO. 66R60 ILLINOIS FED. AID PROJECT



### ELEVATION AT ABUT.

SECTION A-A

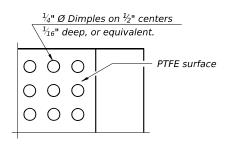
### TYPE II ELASTOMERIC EXP. BRG.

### **BEAM REACTIONS**

		W. Abut	E. Abut
R₽	(K)	15.5	17.7
R Ł	(K)	33.4	34.0
Imp.	(K)	9.6	9.5
R (Total)	(K)	58.5	61.2

### TABLE OF "t" DIMENSIONS

Location	Bm #1	Bm #2	Bm #3.	Bm #4	Bm #5
€ Brg W. Abut.	1/4"	_	_	_	_
€ Brg E. Abut.	_	3/8"	7/8"	7/s"	_



### TOP BEARING ASSEMBLY

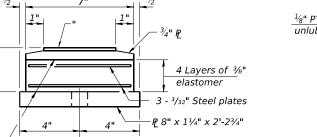
\*1/8" PTFE dimpled, unlubricated.

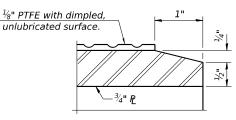
3/4" Ø Threaded stud

with flat washer & hex. nut. (4 req'd.) P 9" x 13/4" x 1'-2"

 $\frac{1}{4}$ " Max.

1/16" Stainless steel





### SECTION THRU PTFE

PLAN-PTFE SURFACE

## **BOTTOM BEARING ASSEMBLY**

-- € 1½" Ø Holes

5/15/2023

I-2E-2

Bonded

c.f.w.

JSER NAME = ronald.woodshank DESIGNED - RW REVISED DRAWN - RW REVISED -REVISED PLOT DATE = 7/8/2025 DATE - 4/28/2025 REVISED .

### STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

### **ELASTOMERIC BEARING DETAILS STRUCTURE NO. 006-0116** SHEET 7 OF 9 SHEETS STA.

TO STA.

SECTION COUNTY BUREAU 23 21 (06-4HB-1)BRR CONTRACT NO. 66R60

# assembly shall be included in the cost of Elastomeric Bearing Assembly,

€ %" Ø

Notes:

The  $\frac{1}{8}$ " 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 \(^1\gamma\)" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the

Side retainers and leveling pad required for the elastomeric bearing

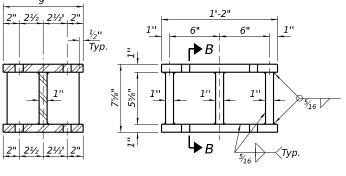
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

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 = 30 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

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 II.



SECTION B-B

STEEL EXTENSION DETAIL

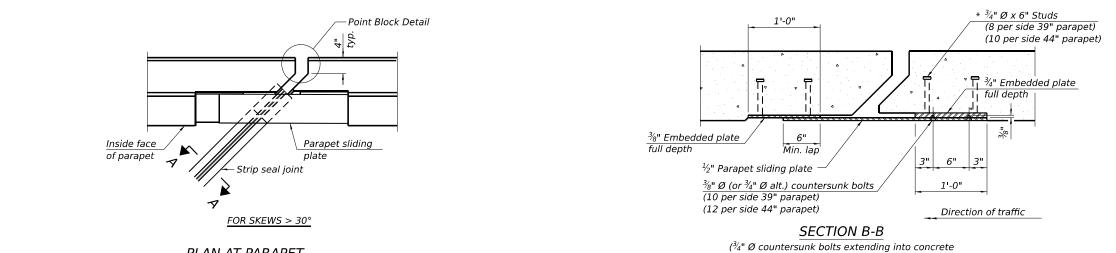
4"

PLAN TOP AND BOTTOM PLATE

€ Ø hole 53/4" SIDE RETAINER

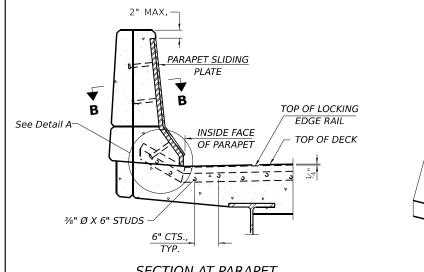
SCALE:

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



### PLAN AT PARAPET

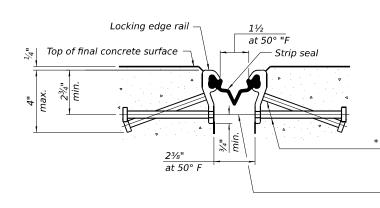
shall have hex nuts tack welded to the back of the embedded plates with end caps provided.)



### SECTION AT PARAPET Skews > 30° shown.

# Concrete flush with back face of 3/8" plate ¾" Plate 2" Chamfe 7. D (Mar) • Concrete flush with back face of 3/4" plate

TRIMETRIC VIEW (Showing embedded plates only)



SHOWING ROLLED RAIL JOINT

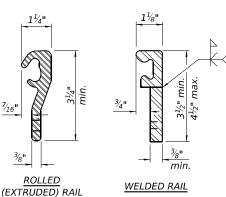
# Locking edge rail 11/2 at 50° "F Top of final concrete surface \* $\frac{5}{8}$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs) at 50° F $\frac{3}{8}$ " Ø threaded rods in $\frac{7}{16}$ " Ø holes at 4'-0" ± cts.

for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

### SECTION A-A

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

### DETAIL A



### LOCKING EDGE RAILS

penetration is verified by mock-up.

### 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.

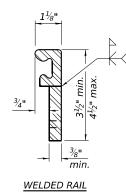
The manufacturer's recommended installation methods shall be followed.

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.



TO STA.

\*\* Back gouge not required if complete joint

### BILL OF MATERIAL **WEST ABUTMENT**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	38

SHEET 8 OF 9 SHEETS STA.

SCALE:

# BILL OF MATERIAL

EAST ABUTMENT

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail

groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

Item	Unit	Total
Preformed Joint Strip Seal	Foot	38

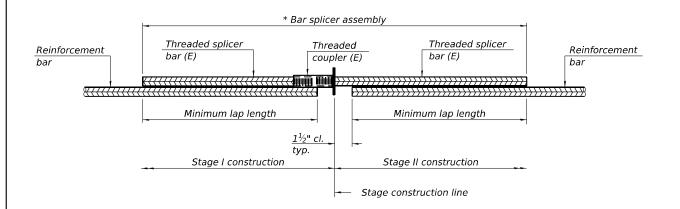
USER NAME = ronald woodshank	DESIGNED -	RW	REVISED -
	DRAWN -	RW	REVISED -
	CHECKED -	JS	REVISED -
PLOT DATE = 7/8/2025	DATE -	4/28/2025	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SHOWING WELDED RAIL JOINT

ELASTOMERIC BEARING DETAILS
FOR STRUCTURE NO. 006-0116

F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
80	(06-4HB-1)BRR		BUREAU	23	22
			CONTRACT	NO. 66F	₹60
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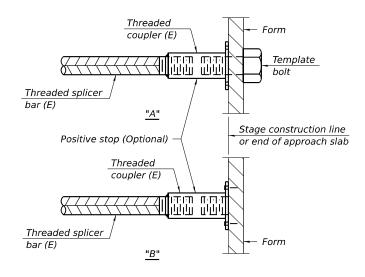
### STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length +  $1\frac{1}{2}$ " + thread length

\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

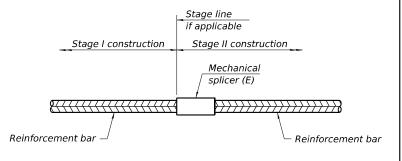
Location	Bar	No. assemblies	Minimum
Location	size	required	lap length
West Abut. Deck	#5	7	3'-6"
East Abut. Deck	#5	7	3'-6"
West Abut.	#6	6	4'-0"
East Abut.	#6	6	4'-0"



### INSTALLATION AND SETTING METHODS

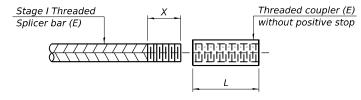
"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or

cementing to steel forms.
(E): Indicates epoxy coating.



### STANDARD MECHANICAL SPLICER

Location	Bar	No. assemblies
Location	size	required
W. Abut. NE Corner	#6	5
W. Abut. NW Corner	#6	4
E. Abut. SE Corner	#6	4
E. Abut. SW Corner	#6	5



### THREADING OF ASSEMBLIES

The threaded length "X" shall be no more than L/2. The bar should be tightened until 0-1 thread(s) is/are exposed.

### Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

4-4-2025

USER NAME = ronald.woodshank	DESIGNED	-	RW	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 006-0116

SCALE: SHEET 9 OF 9 SHEETS STA. TO STA.