STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

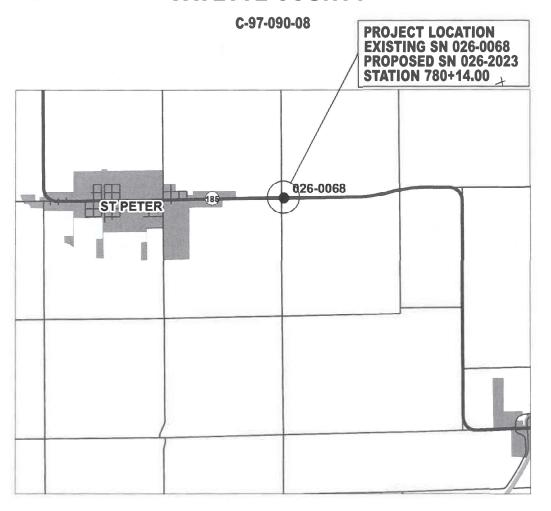
D-97-042-08

FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT = 1450 (2025) ADDT = 225 (2025)

PROPOSED HIGHWAY PLANS

FAP ROUTE 750 (ILL 185)
SECTION (114)B-1
PROJECT HBIP-F9K2(491)
BRIDGE REPLACEMENT
FAYETTE COUNTY



GROSS LENGTH = 29.4 FT. NET LENGTH = 29.4 FT.

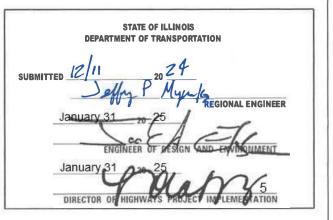
CONTRACT NO. 74327

 \bigcirc

MERCER

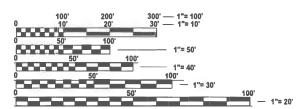
MERCER

MANAGE



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV - MS



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.LE.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: MATTHEW BOWER

PROJECT MANAGER: TRAVIS WALK

GENERAL NOTES

SHORT TERM PAVEMENT MARKINGS SHALL BE TAPE.

INDEX OF SHEETS

SHEET NO.	<u>ITEM</u>
1	COVER SHEET
2	INDEX OF SHEETS, LIST OF STANDARDS, AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5-6	TYPICAL SECTIONS
7	SCHEDULE OF QUANTITIES
8-12	PLAN SHEETS
13-24	STRUCTURE PLANS
25	GUARDRAIL DETAILS
26-28	CROSS SECTION SHEETS

20 20	SHOOD DESTROY OFFEETO
THE FOLLOWING STANDARD NO.	ANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-10	PAVEMENT JOINTS
420101-07	24' JOINTED PCC PAVEMENT
483001-06	PCC SHOULDER
515001-04	NAME PLATE FOR BRIDGES
630001-13	STEEL PLATE BEAM GUARDRAIL
630101-11	STRONG POST GUARDRAIL ATTACHED TO CULVERT
630301-09	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-19	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING ≥ 45 MPH
701901-10	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING TYPICAL
B.L.R. 21-9	APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION
	ON RURAL LOCAL HIGHWAYS

USER NAME = Travis.Walk	DESIGNED - T. WALK	REVISED -
	DRAWN - T. WALK	REVISED -
	CHECKED -	REVISED -
PLOT DATE - 11/10/2024	DATE	REVISED -

SCALE:

INDEX OF SHEETS, GENERAL NOTES, & LIST OF STANDARDS					
	SHEET 1	OF 1	SHEETS	STA.	TO STA.

TION		COUNTY	TOTAL SHEETS	SI-
I)B-1		FAYETTE	28	
		CONTRACT	NO. 743	327
LILLINIOIO LEET	AID D	DO IDOT		

REV - MS

80% FED 20% STATE

CONSTR. CODE

CODE			TOTAL	NONE 0010
NO.	ITEM	UNIT	QUANTITY	RURAL
		J	, q.,	1131312
20200500	EARTH EXCAVATION (WIDENING)	CU YD	188	188
20300100	CHANNEL EXCAVATION	CU YD	377	377
20700110	POROUS GRANULAR EMBANKMENT	TON	668	668
28100109	STONE RIPRAP, CLASS A5	SQ YD	160	160
20200200	EN TER FARRIC	SQ YD	100	100
28200200	FILTER FABRIC	SQTD	160	160
35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ YD	676	676
42000501	PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)	SQ YD	294	294
44000100	PAVEMENT REMOVAL	SQ YD	294	294
		1		105
44004250	PAVED SHOULDER REMOVAL	SQ YD	485	485
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	59	59
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	172	172
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
-				
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	149	149
50000405	DEINFORGEMENT DADO	DOUNE	42050	42050
50800105	REINFORCEMENT BARS	POUND	43250	43250
	<u>.</u>	<u></u>		

^{*} SPECIALTY ITEM

80% FED 20% STATE

CONSTR. CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	NONE 0010 RURAL
50800515	BAR SPLICERS	EACH	145	145
51500100	NAME PLATES	EACH	1	1
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	274	274
54003000	CONCRETE BOX CULVERTS	CU YD	178.9	178.9
59100100	GEOCOMPOSITE WALL DRAIN	SQYD	192	192
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	162.5	162.5
63000007	STEEL PLATE BEAM GUARDRAIL, TYPE B, 6 FOOT POSTS	FOOT	50	50
63000030	STRONG POST GUARDRAIL ATTACHED TO CULVERT	FOOT	69	69
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2
63200310	GUARDRAIL REMOVAL	FOOT	352	352
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	9
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1

REV - MS

USER NAME = Travis.Walk	DESIGNED - T. WALK	REVISED _
	DRAWN - T. WALK	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/10/2024	DATE =	REVISED =

SCALE:

80% FED 20% STATE

CONSTR. CODE

CODE			TOTAL	NONE 0010
NO.	ITEM	UNIT	QUANTITY	RURAL
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	3	3
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH		1.
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	884	884
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28
70300100	SHORT TERM PAVEMENT MARKING	FOOT	112	112
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	361	361
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	1796	1796
70400100	TEMPORARY CONCRETE BARRIER	FOOT	368	368
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	33	33
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	342	342
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2

* SPECIALTY ITEM

80% FED 20% STATE CONSTR. CODE

NONE CODE TOTAL 0010 UNIT QUANTITY RURAL NO. ITEM ***** 72501000 TERMINAL MARKER - DIRECT APPLIED 4 4 **EACH *** 78001110 PAINT PAVEMENT MARKING - LINE 4" FOOT 1796 1796 ***** 78200005 GUARDRAIL REFLECTORS, TYPE A **EACH** 8 X2501000 SEEDING, CLASS 2 (SPECIAL) ACRE 0.25 0.25 X5810103 MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES SQ YD 192 192 ***** X6330725 STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) FOOT 50 50 L SUM X7011800 TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 1 ***** Z0054517 ROCK FILL - FOUNDATION TON 268 268 Z0073351 TEMPORARY SLAB SUPPORT SYSTEM L SUM

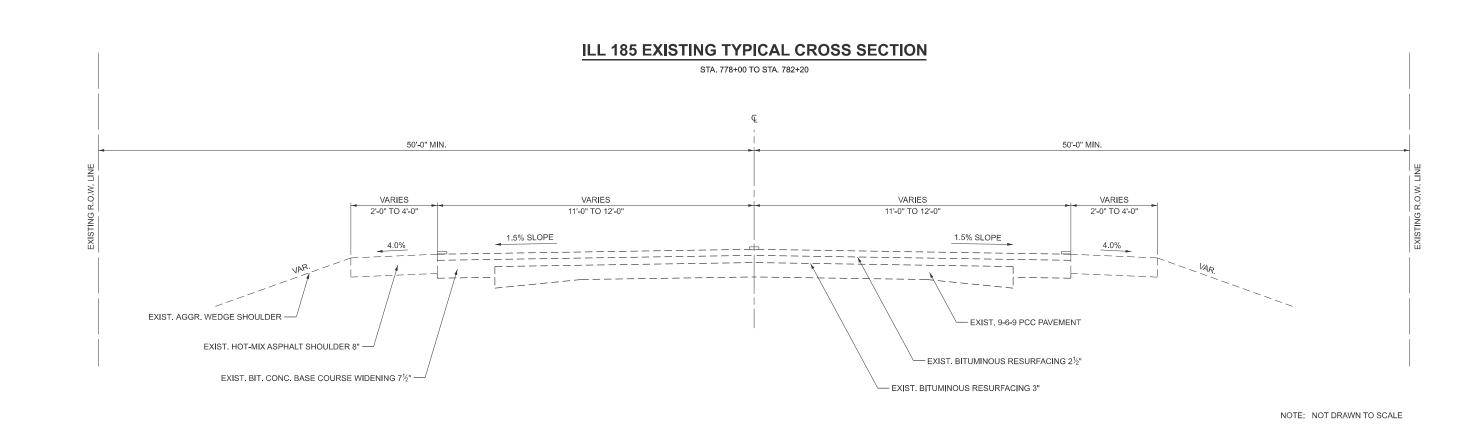
REV - MS

USER NAME = Travis.Walk	DESIGNED - T. WALK	REVISED -
	DRAWN - T. WALK	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/10/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

SUMMARY OF QUANTITIES					F.A.P RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
·				750	(114)B-1		FAYETTE	28	4		
									CONTRACT	NO. 743	327
	SHEET 2	OF 2	SHEETS	STA.	TO STA.	ILLINOIS FED, AID PROJECT					



/UDEL: EXISURG Typical Section [Sheet] E NAME: c:\pw_work\pwidot\walktm\d0985850\D774327-sht-typicals.dgn

 USER NAME
 = Travis.Walk
 DESIGNED
 T. WALK
 REVISED

 DRAWN
 T. WALK
 REVISED

 CHECKED
 REVISED

 PLOT DATE
 = 12/10/2024
 DATE
 REVISED

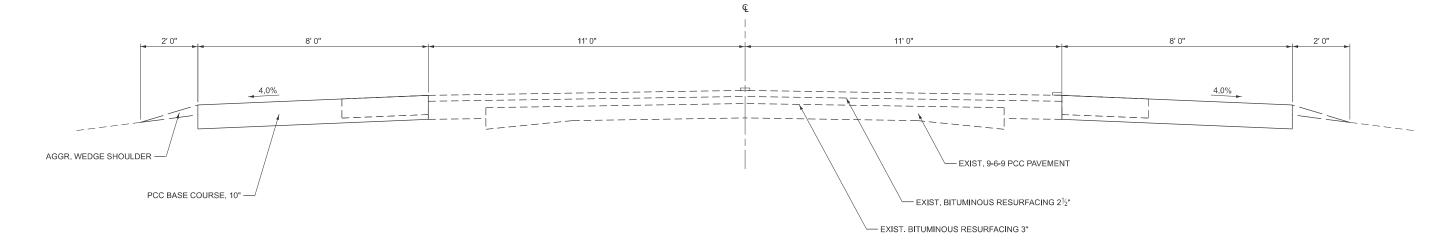
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

| F.A.P | SECTION | TOTAL SHEETS | NO. | TOTAL SHEE



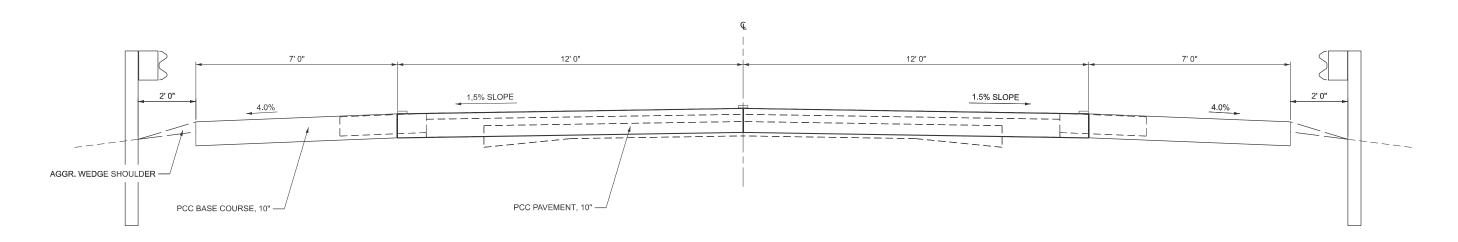
LT. STA. 778+00 TO STA. 779+49 LT. STA. 780+59 TO STA. 782+20 RT. STA. 777+85 TO STA. 779+49 RT. STA. 780+59 TO STA. 782+35



NOTE: NOT DRAWN TO SCALE

ILL 185 PROPOSED TYPICAL CROSS SECTION

STA. 779+49 TO STA. 780+59



NOTE: NOT DRAWN TO SCALE

ii g ii	USER NAME = Travis.Walk	DESIGNED - T. WALK	REVISED -			PROPOSED TYPICAL SECTIONS	F.A.P RTF	SECTION	COUNTY TOTAL SHEET SHEET NO.
ii Š		DRAWN - T. WALK	REVISED -	STATE OF ILLINOIS		THE COLD IT IS ALL CLOTTERS	750	(114)B-1	FAYETTE 28 6
틸비		CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				'	CONTRACT NO. 74327
5 IL	PLOT DATE = 12/10/2024	DATE -	REVISED -		SCALE:	SHEET 2 OF 2 SHEETS STA. TO STA.		ILLINOIS F	ED. AID PROJECT

SUGGESTED SEQUENCE OF OPERATIONS:

CONSTRUCT WIDENING FOR STAGE 1
INSTALL TRAFFIC CONTROL STANDARD 701321
CONSTRUCT NORTH PORTION OF BOX CULVERT
CONSTRUCT PAVEMENT AND SHOULDER FOR WESTBOUND
CONSTRUCT WIDENING FOR STAGE 2
INSTALL GUARDRAIL ON NORTH SIDE OF ROAD
RELOCATE BARRIER FOR STAGE 2 AND MOVE TRAFFIC TO NEW PAVEMENT
CONSTRUCT SOUTH PORTION OF BOX CULVERT
CONSTRUCT PAVEMENT AND SHOULDER FOR EASTBOUND
INSTALL GUARDRAIL ON SOUTH SIDE OF ROAD
REMOVE BARRIER AND RESTORE TWO-WAY TRAFFIC
CONSTRUCT RIP RAP AND PAVEMENT MARKING

		EARTHWORK SCHEDULE		
				EARTHWORK
		EXCAVATION TO BE		BALANCE
	EARTH	USED IN EMBANKMENT		WASTE(+)
LOCATION	EXCATION	ADJUSTED FOR SHRINKANGE	EMBANKMENT	SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
EARTH EXCAVATION WIDENING	188	141		141
REM. & DISP. UNSUITABLE MATL.	149	112		112
CHANNEL EXCAVATION	377	283		283
TOTALS	714	536	0	536

				PAVEMENT MARKING
				BLACKOUT TAPE, 5"
LINE TYPE/				70107005
LOCATION	STATION	TO	STATION	(FOOT)
STAGE 1				
SD CL	775+93		778+71	69.5
RT EL	777+85		782+25	440.0
SD CL	781+34		783+91	64.3
STAGE 2				
LT EL	778+00		779+49	149.0
LTEL	780+59		782+20	161.0
			TOTAL	884.0

SD = SKIP DASH EL = EDGELINE

					SHORT TERM
					PAVEMENT MARKING
					REMOVAL
LINE TYPE/				LENGTH	70300150
LOCATION	STATION	TO	STATION	(FOOT)	(SQ FT)
STAGE 1					
SD CL	775+93		778+71	69.5	29.0
RT EL	777+85		779+49	164.0	68.3
RT EL	780+59		782+25	166.0	69.2
SD CL	781+34		783+91	64.3	26.8
STAGE 2					
LT EL	778+00		779+49	149.0	62.1
LT EL	780+59		782+20	161.0	67.1
				TOTAL	323.0

LINE/SD/NPZ	LT/RT/CL	LOCATION				LENGTH	STRIPE WIDTH	NUMBER OF STRIPES	SHORT TERM PAVEMENT MARKING WHITE YELLOW 70300100		PAVEMEN REM	RT TERM NT MARKING MOVAL	TEMPORARY PAVEMENT MARKING - LINE 4" - PAINT WHITE YELLOW 70300221		MARKING WHITE	No. 1000 No. 10 10000
			STATION	TO	STATION	(FOOT)	(INCH)		(FC	OT)	(S	Q FT)	(FO	OT)	(FO	OT)
LINE	LT & RT	EL	775+93		783+91	798.00	4.00	2.00	32.0		11.0		1,596.0		1,596.0	
SD	CL	CL	775+93		783+91	798.00	4.00	0.25		80.0		27.0		200.0		200.0
	•	•						TOTAL	11	2.0		8.0	1,79	96.0	1,79	96.0

 SEEDING, CLASS 2 (SPECIAL)

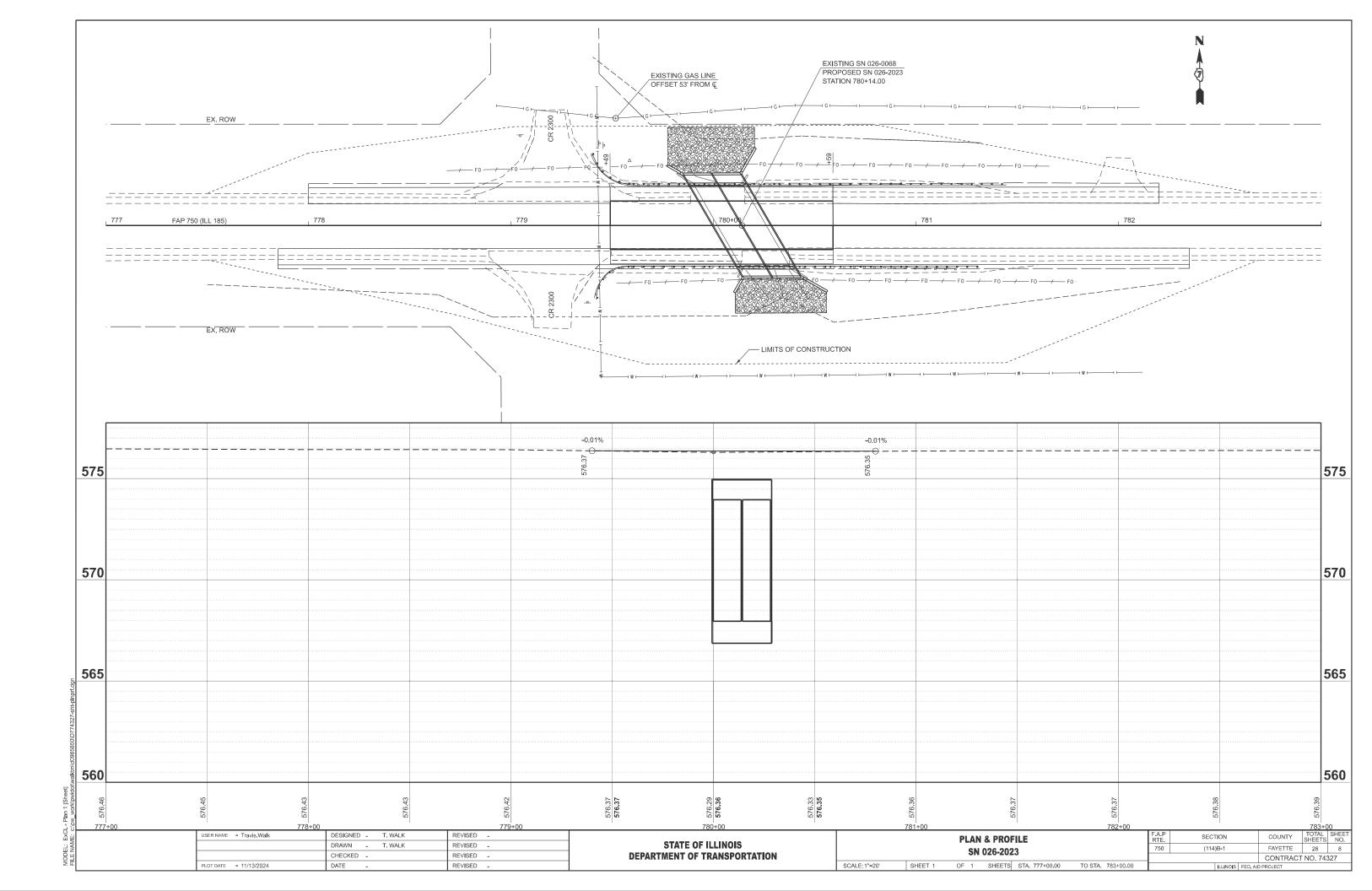
 STA. 779+49 TO 780+59
 0.25 ACRE

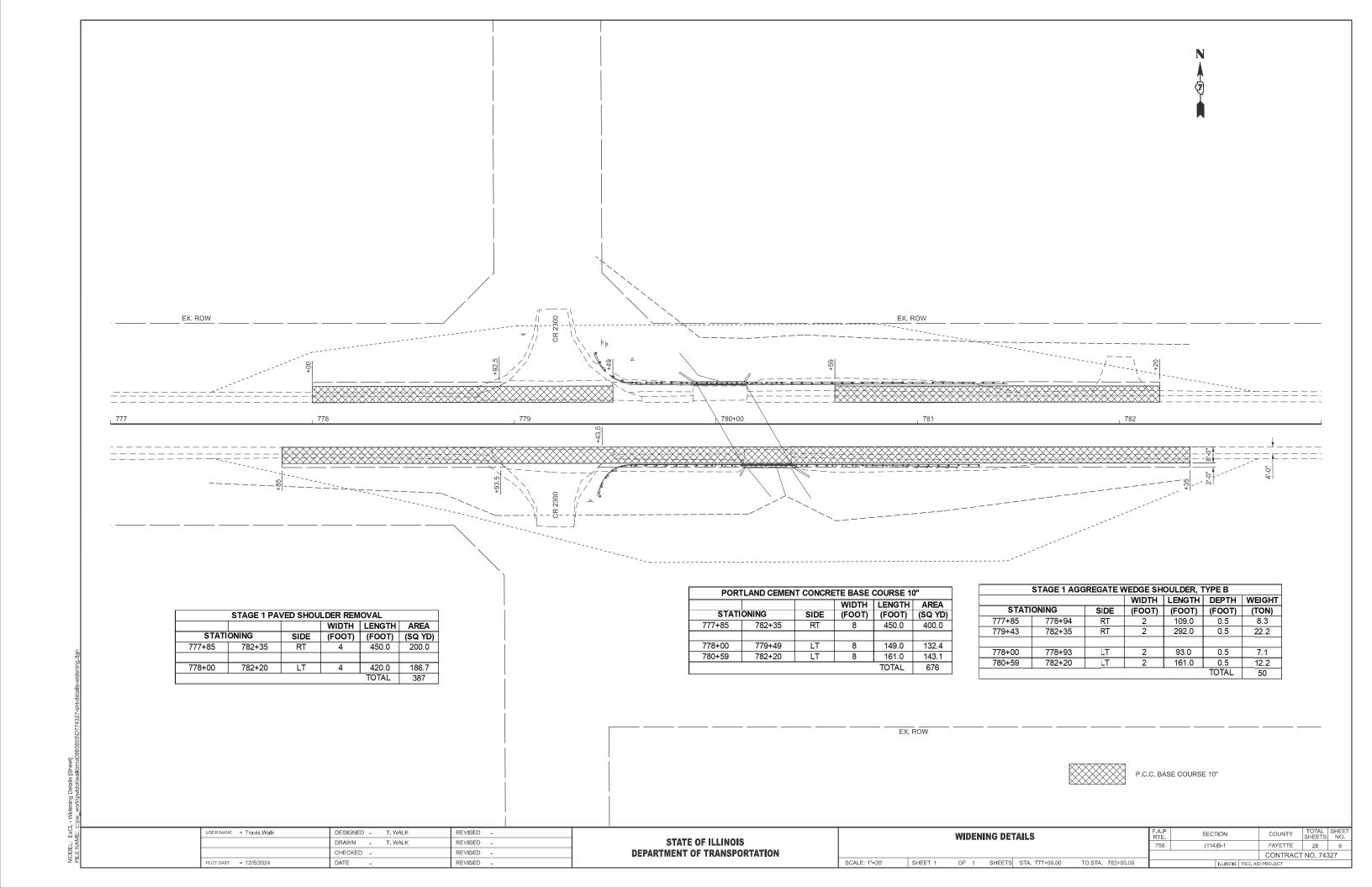
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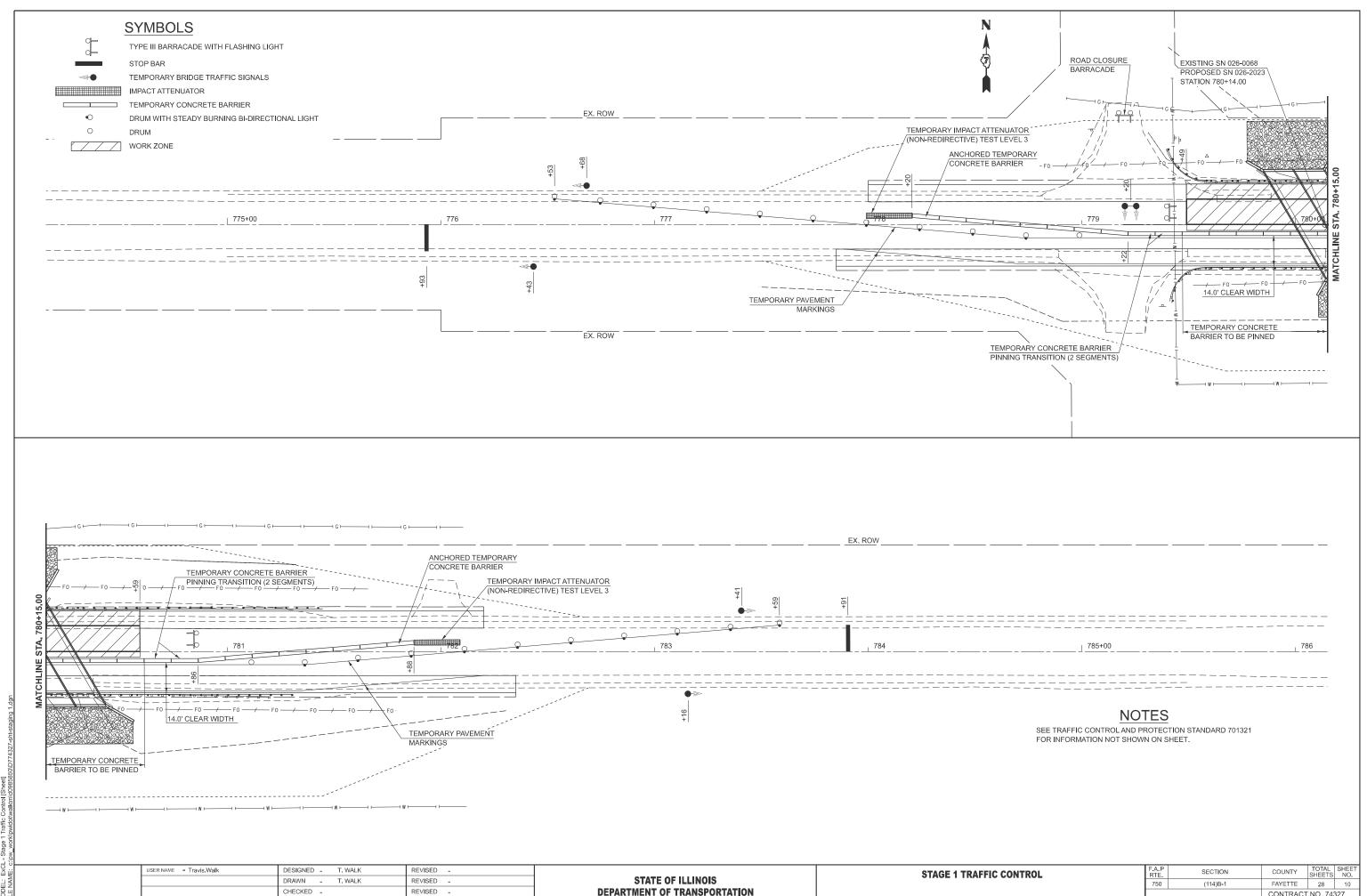
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FILE NAME: c:\pw_work\pwidot\walktm\

USER NAME = Travis.Walk	DESIGNED - I. WALK	REVISED -
	DRAWN - T. WALK	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/10/2024	DATE -	REVISED -

SCHEDULES						SECTION	COUNTY TOTAL SHEETS		SHEET NO.
						(114)B-1 FAYETTE		28	7
							CONTRACT	NO. 743	327
SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		







SCALE: 1"=20'

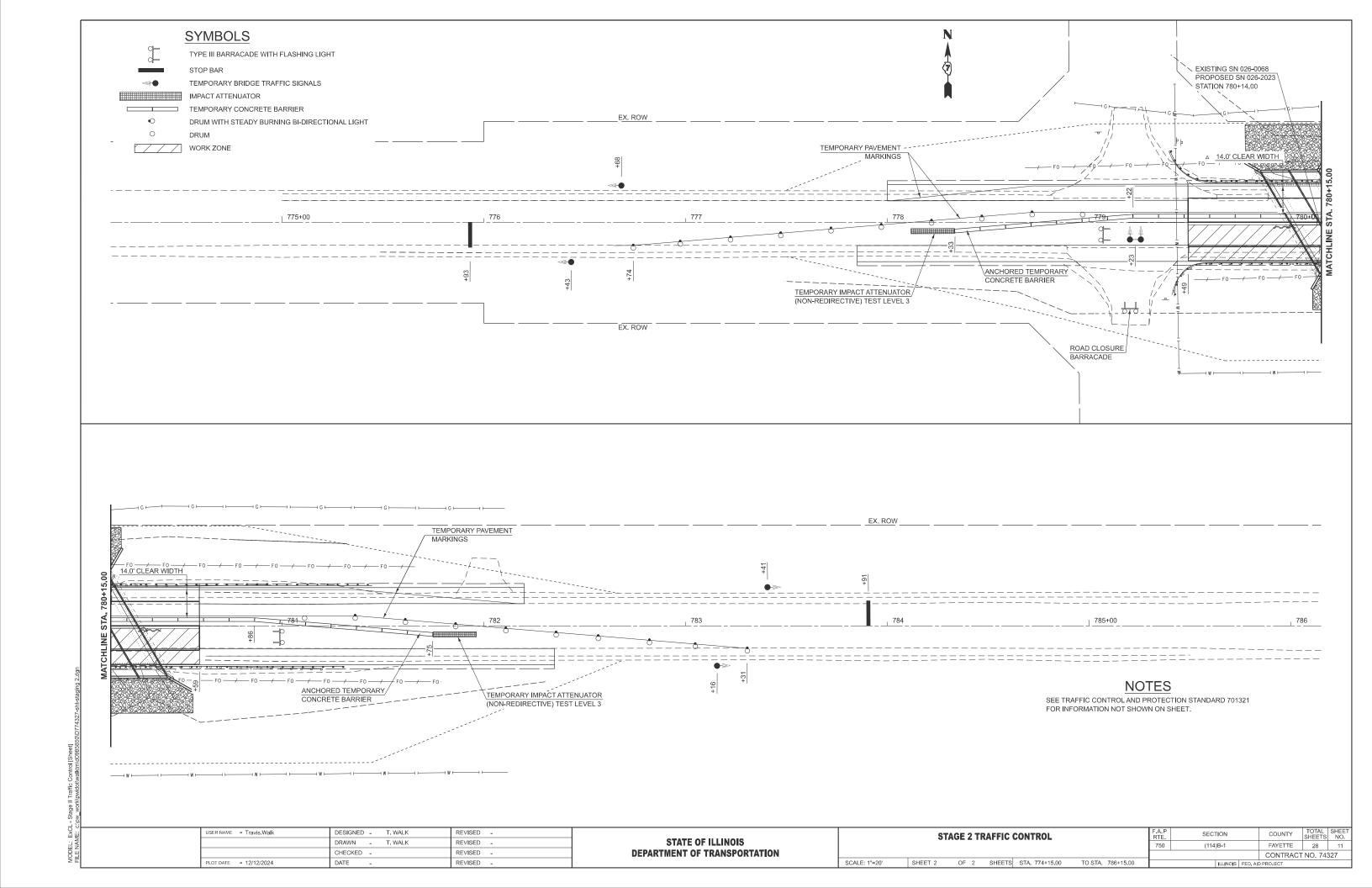
SHEET 1 OF 2 SHEETS STA. 774+15.00 TO STA. 786+15.00

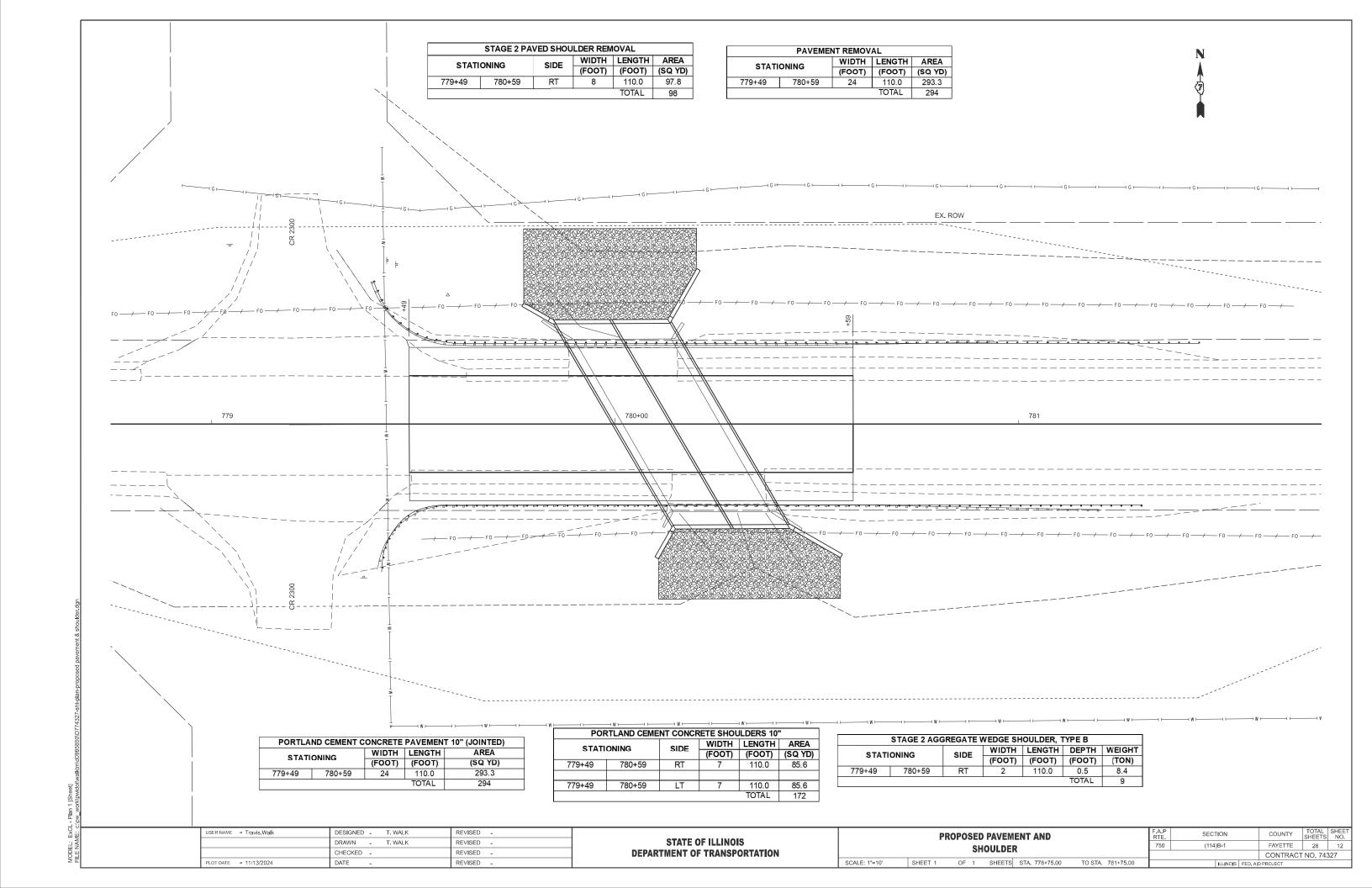
CONTRACT NO. 74327

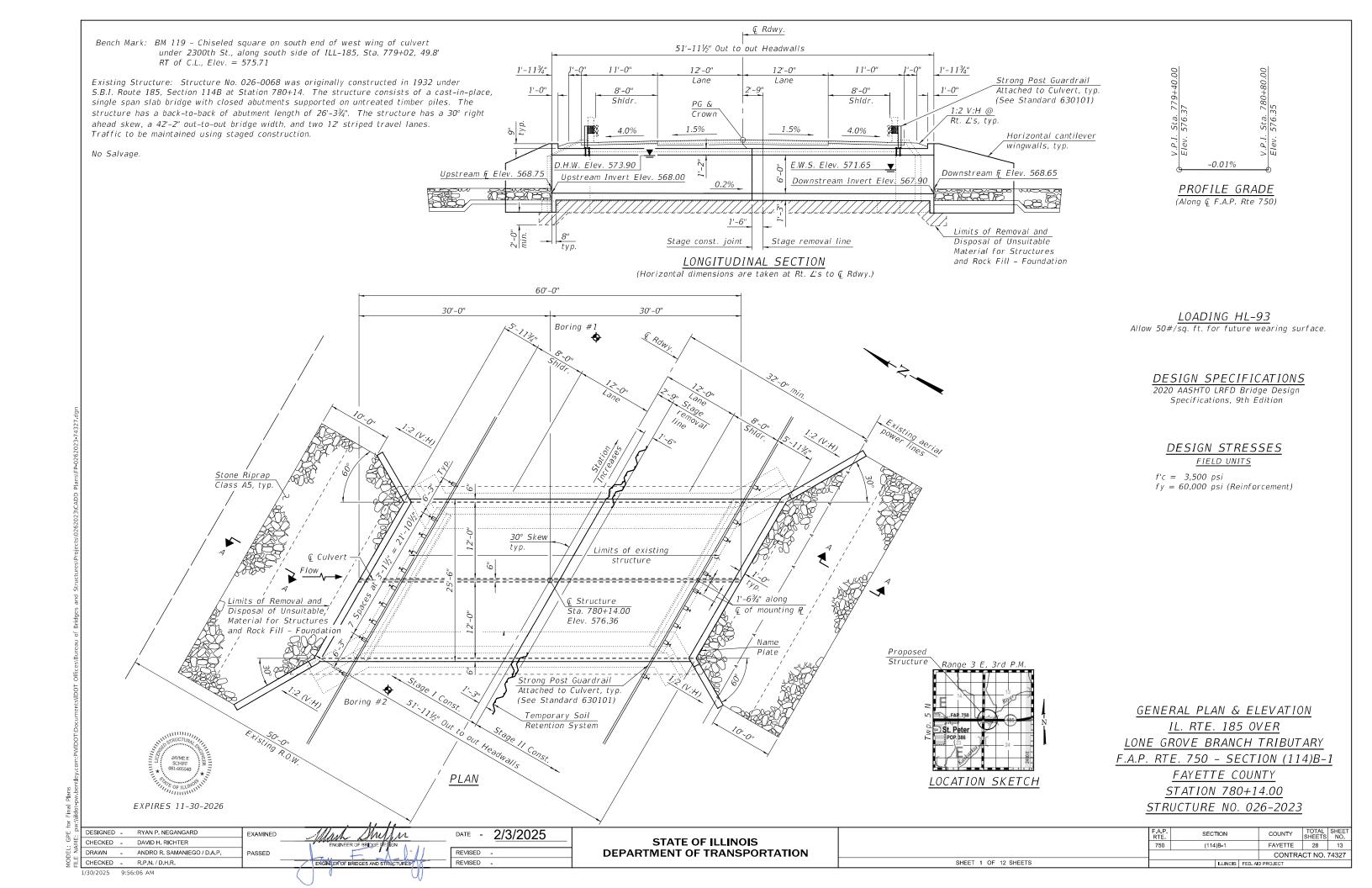
PLOT DATE = 12/5/2024

DATE

REVISED







Notch formed by rough finished

SECTION B-B

PHOEBE NESTING
SITE DETAILS
(Downstream End Only)

WATERWAY INFORMATION

Drainage Area = 1.2	mi.²			ng Overto sed Over			_		
Flood	Freq.	Q	Openi	ng Ft²	Nat.	Неас	1 - Ft.	Headw	ater El.
Fiood	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Ten-Year	10	438	89	104	573.1	0.1	0.0	573.2	573.1
Design	50	710	106	124	573.9	0.5	0.3	574.4	574.2
Base	100	832	112	124	574.2	1.1	0.5	575.3	574.7
Max. Calc.	500	1,130	120	124	574.6	1.5	1.5	576.1	576.1

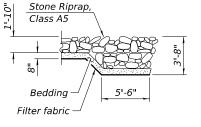
10 Year velocity through existing bridge = 4.9 ft/s 10 Year velocity through proposed bridge = 4.6 ft/s

GENERAL NOTES

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the exising superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Precast alternate is not allowed.



SECTION A-A

STA. 780+14.00
BUILT BY
STATE OF ILLINOIS
F.A.P. RTE. 750 SEC. (114)B-1
LOADING HL-93
STR. NO. 026-2023

NAME PLATE
See Std. 515001

INDEX OF SHEETS

- 1. General Plan & Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Soil Retention System
- 5. Temporary Concrete Barrier
- 6. Cuvert Details Top & Bottom Slab
- 7-10. Culvert Details
- 11. Bar Splicer Details
- 12. Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A5	Sq. Yd.	160
Filter Fabric	Sq. Yd.	160
Removal of Existing Structures	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	149
Reinforcement Bars	Pound	43,250
Bar Splicers	Each	145
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	274
Concrete Box Culverts	Cu. Yd.	178.9
Geocomposite Wall Drain	Sq. Yd.	192
Strong Post Guardrail Attached to Culvert	Foot	69
Membrane Waterproofing System for Buried Structures	Sq. Yd.	192
Rock Fill - Foundation	Ton	268
Temporary Slab Support System	L. Sum	1

DESIGNED - RYAN P. NEGANGARD

EXAMINED

DESIGNED - RYAN P. NEGANGARD

EXAMINED

DATE - FEBRUARY 3, 2025

ANGINEER OF BEILOG DESIGN

DRAWN - DENNIS A. POP

DRAWN - DENNIS A. POP

PASSED

PASSED

PASSED

REVISED
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

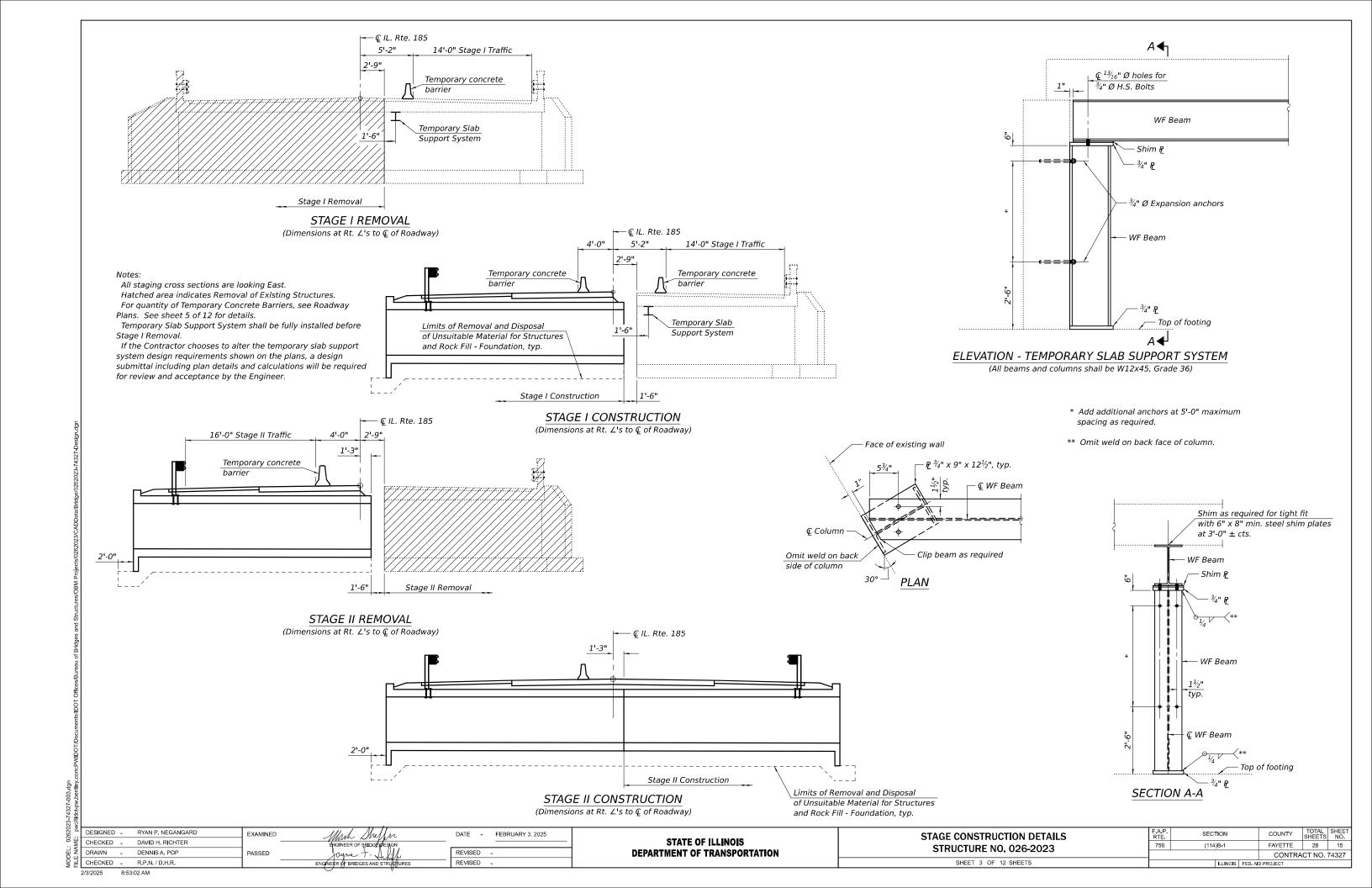
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 F.A.P. RTE.
 SECTION
 COUNTY SHEETS
 SHEET NO.

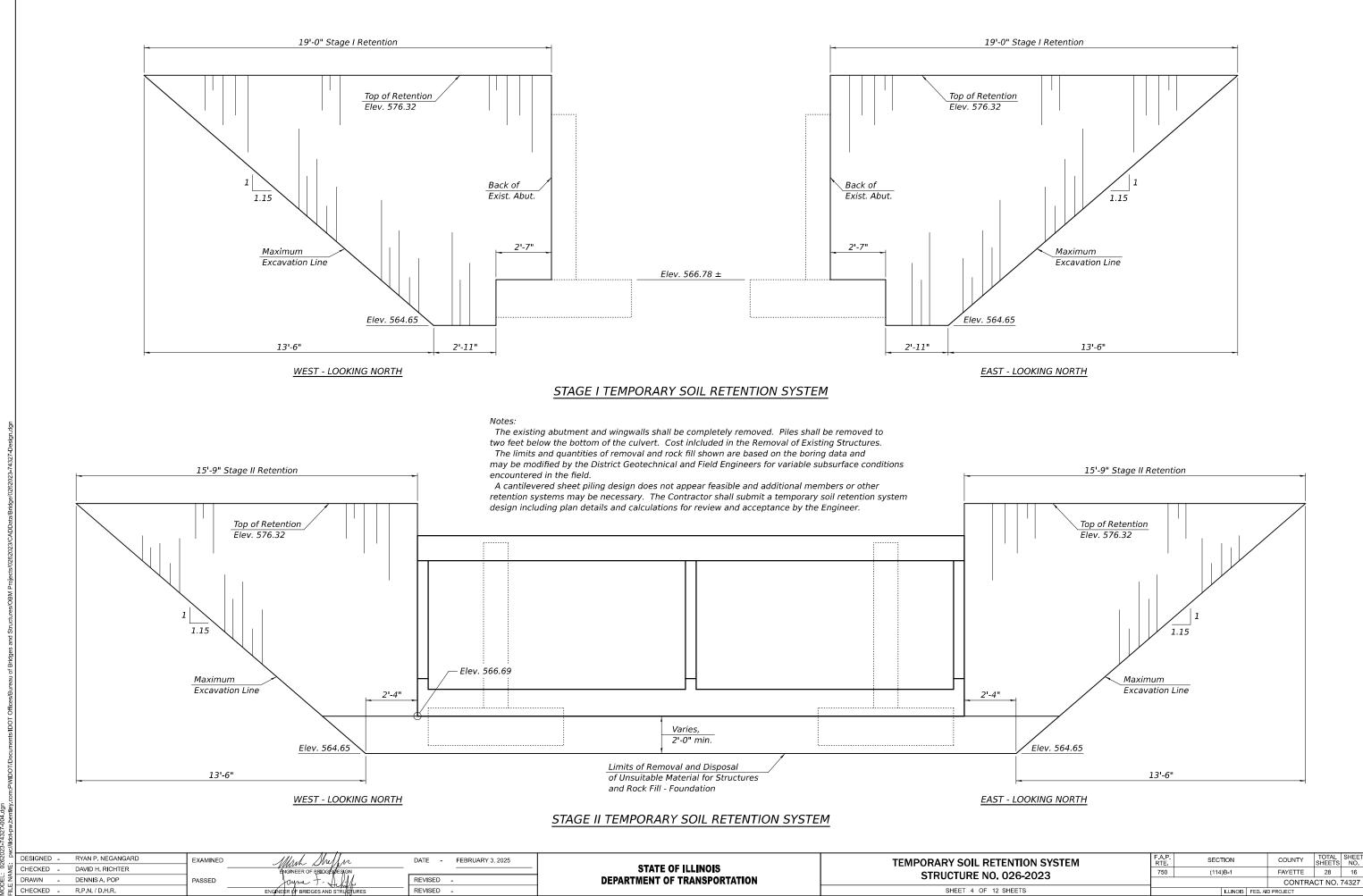
 STRUCTURE NO. 026-2023
 750
 (114)B-1
 FAYETTE
 28
 14

 CONTRACT NO. 74327

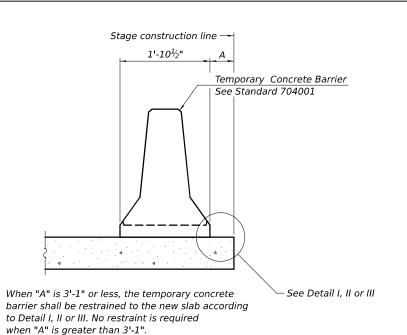
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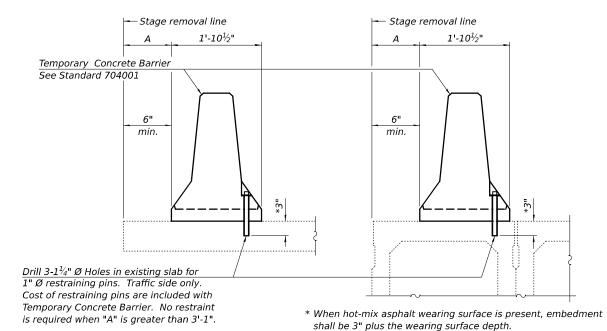
2/3/2025 8:52:40 AM





2/3/2025 9:12:32 AM





1x8 UNC 7/16" Ø hole US Std. $1\frac{1}{16}$ " I.D. $\times 2\frac{1}{2}$ " O.D. x approx. 8 gauge thick washer 1" Ø pin RESTRAINING PIN

NEW SLAB OR NEW DECK BEAM

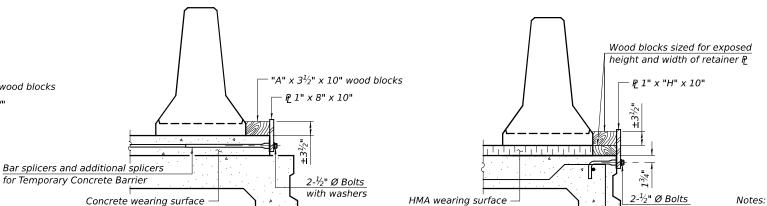
2-5/8" Ø Bolts

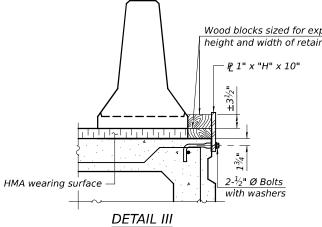
with washers

DETAIL I

SECTIONS THRU SLAB OR DECK BEAM

DETAIL II





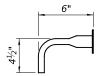
− Ç ¾" Ø Holes

10"

STEEL RETAINER P 1" x "H" x 10"

(Detail III)

EXISTING DECK BEAM



BAR SPLICER FOR #4 BAR - DETAIL III

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate ${\mathfrak C}$ of each temporary concrete barrier.

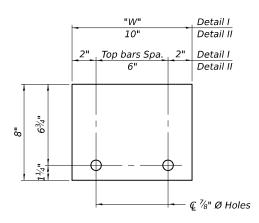
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.



STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)

RAILING CRITERIA

	····
NCHRP 350 Test Level	3
Railing Weight (plf)	440

Top Bar Splicers -

R-27 5-15-2023

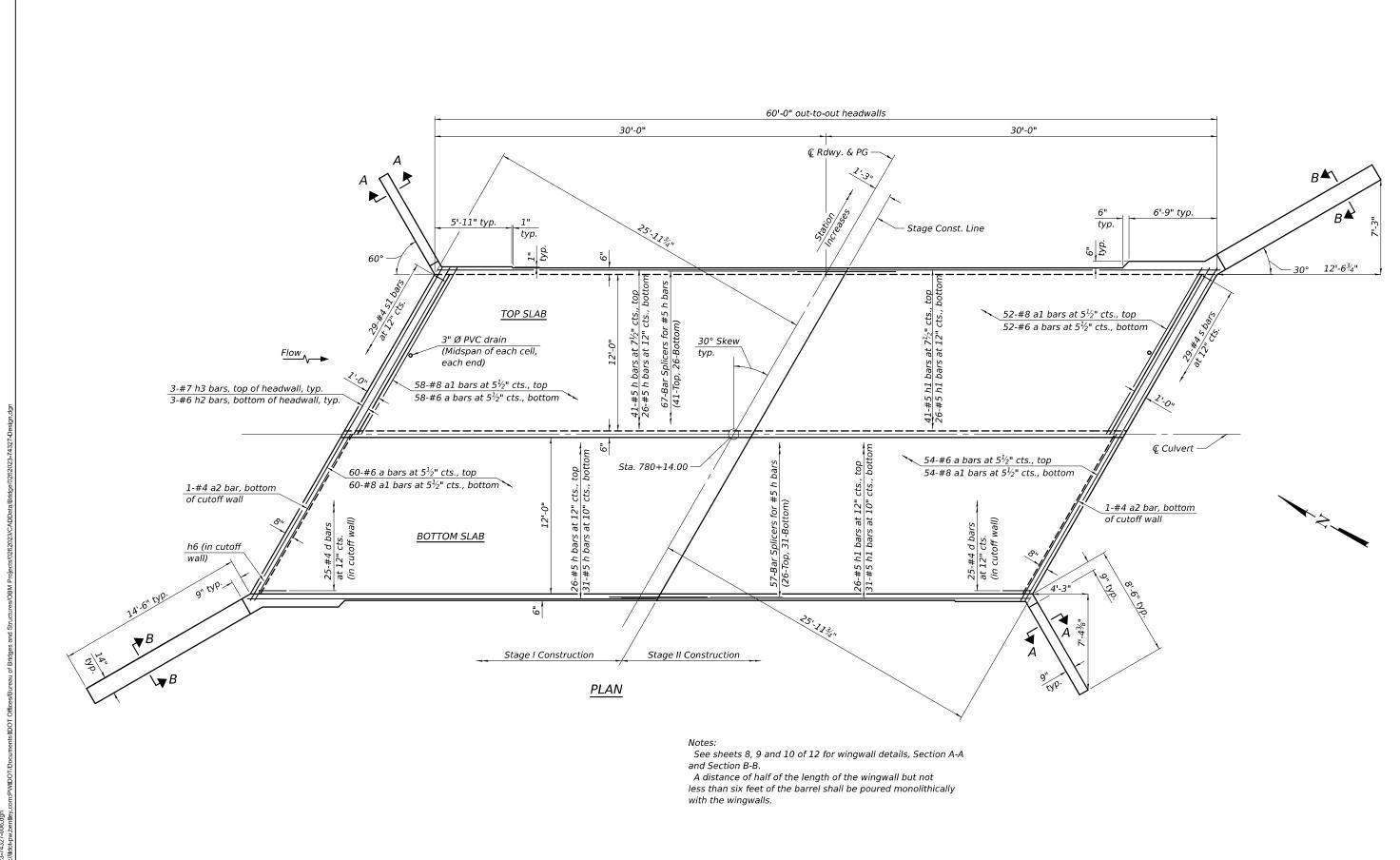
3						
<u>б</u> 	DESIGNED	- RYAN P. NEGANGARD EX	XAMINED MU	sh Sheffer	DATE -	FEBRUARY 3, 2025
Ä	CHECKED	- DAVID H. RICHTER		EER OF BRIDGENESIGN		
Ž		- DENNIS A. POP PA	ASSED Jou	me +. All	REVISED -	
분		- R.P.N. / D.H.R.	ENGINEER O	F BRIDGES AND STRUCTURES	REVISED -	
	2/3/2025	9:12:52 AM	0 -	· · · · · · · · · · · · · · · · · · ·		

"A" $\times 3\frac{1}{2}$ " \times "W" wood blocks

P 1" x 8" x "W"

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION COUNTY TEMPORARY CONCRETE BARRIER FAYETTE 750 (114)B-1 28 17 STRUCTURE NO. 026-2023 CONTRACT NO. 74327 SHEET 5 OF 12 SHEETS



우금 CHECKED - R.P.N./D.H.R. 2/3/2025 9:13:15 AM

DESIGNED - RYAN P. NEGANGARD

DENNIS A. POP

CHECKED - DAVID H. RICHTER

EXAMINED

PASSED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

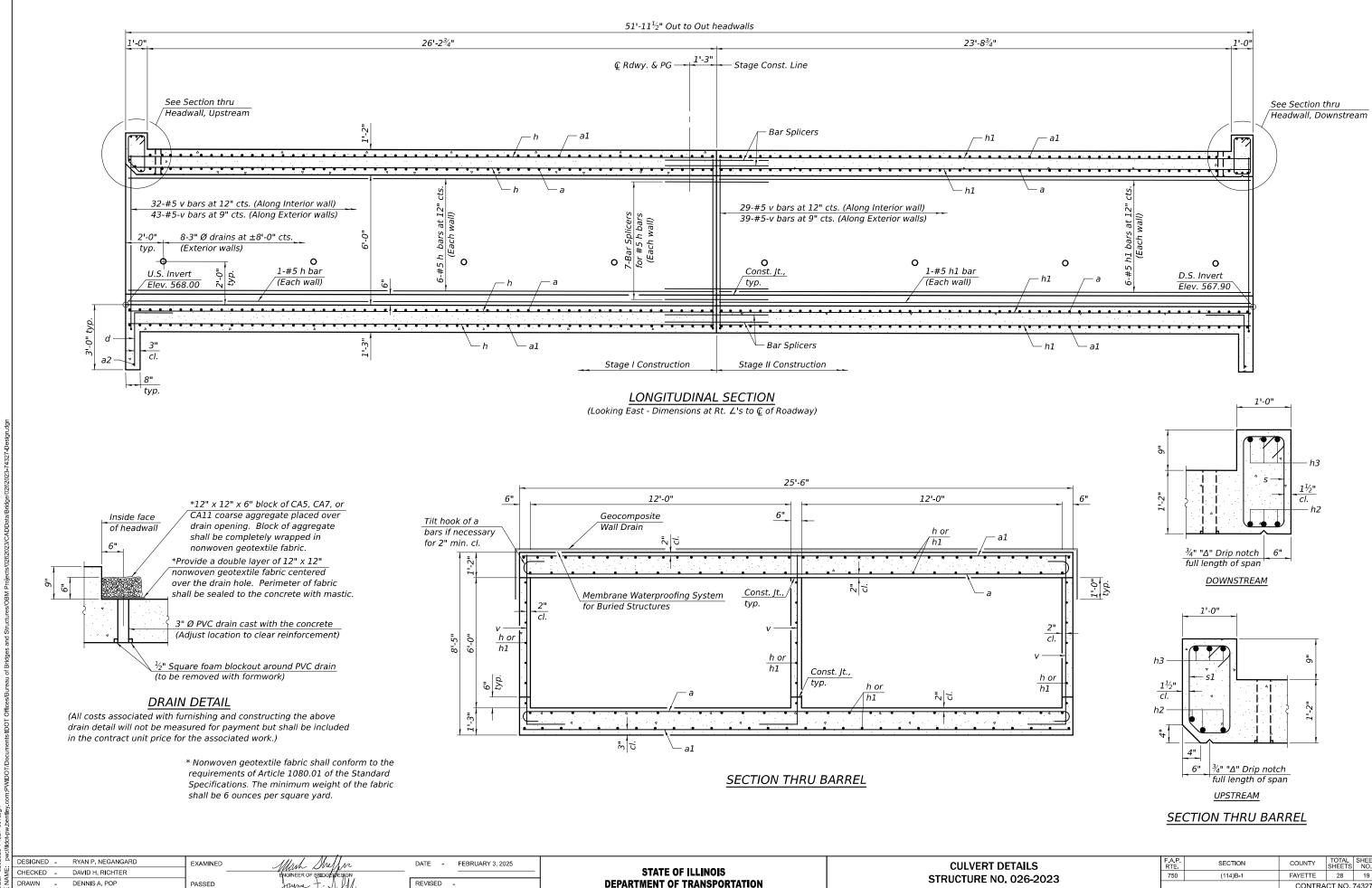
DATE - FEBRUARY 3, 2025

REVISED -

CULVERT DETAILS - TOP & BOTTOM SLAB STRUCTURE NO. 026-2023 SHEET 6 OF 12 SHEETS

COUNTY TOTAL SHEET NO.

FAYETTE 28 18 SECTION 750 (114)B-1 CONTRACT NO. 74327

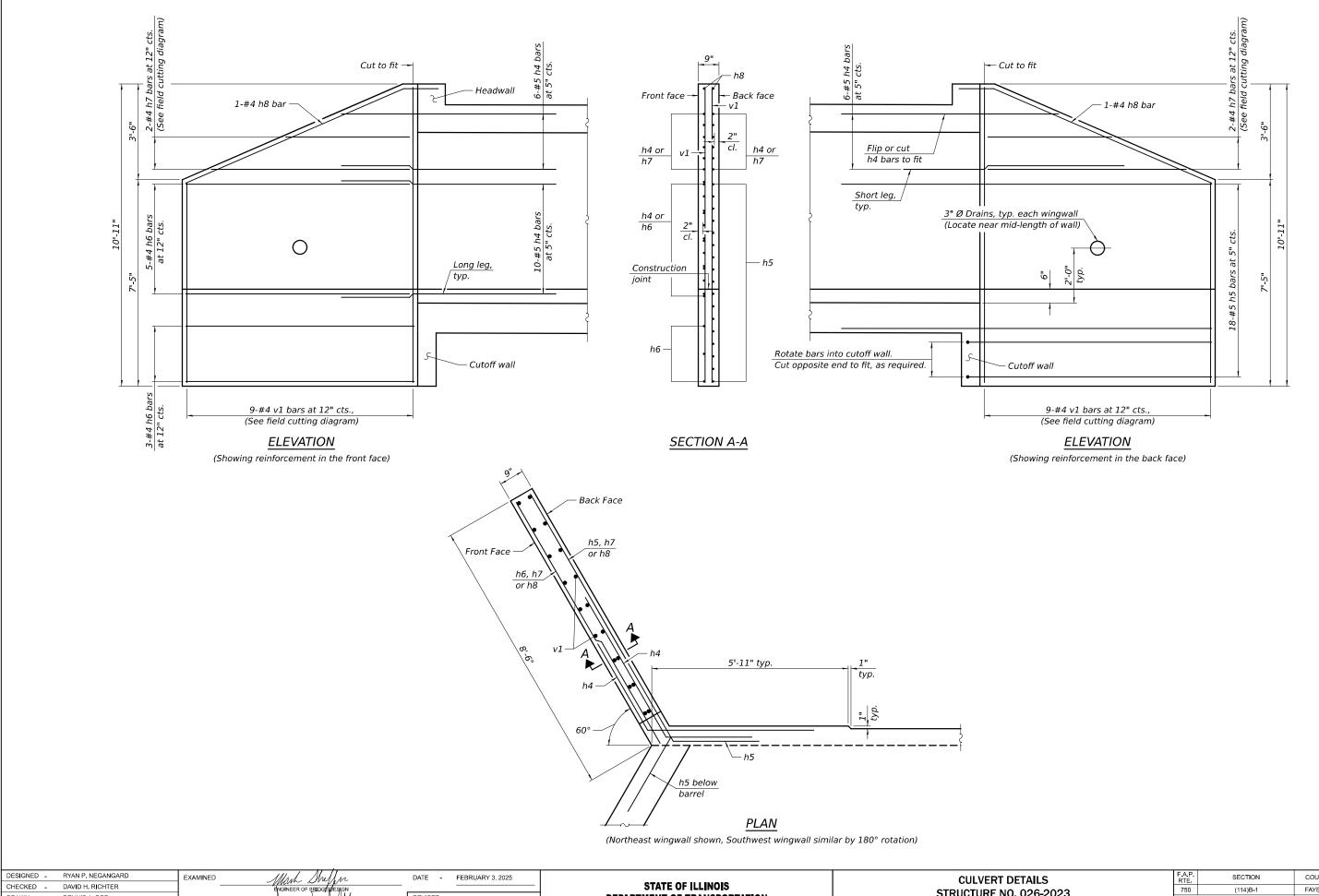


CONTRACT NO. 74327

SHEET 7 OF 12 SHEETS

문 CHECKED - R.P.N. / D.H.R.

2/3/2025 9:14:02 AM



및 금 CHECKED - R.P.N./D.H.R. 2/3/2025 9:15:54 AM

DENNIS A. POP

PASSED

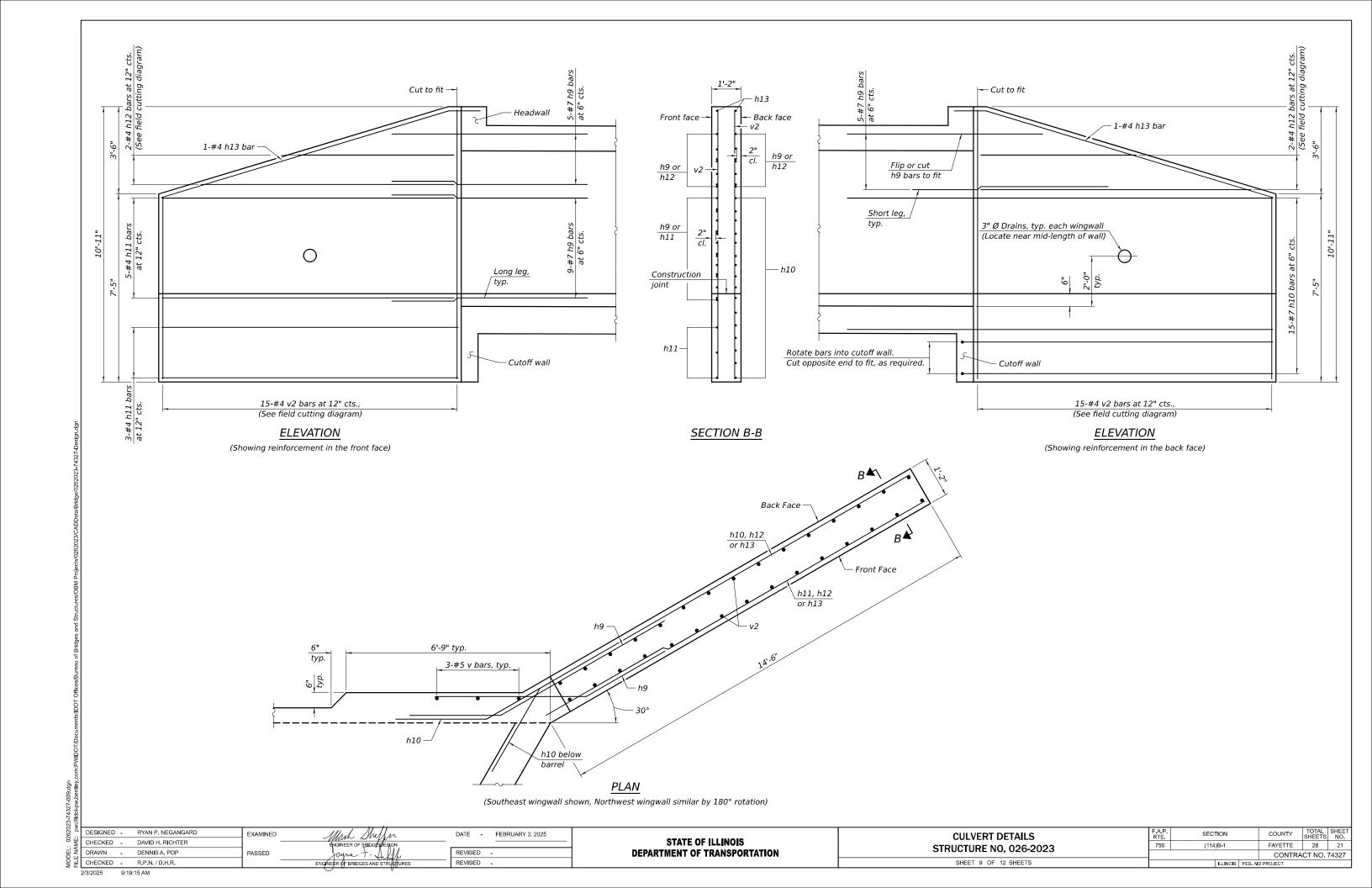
REVISED -

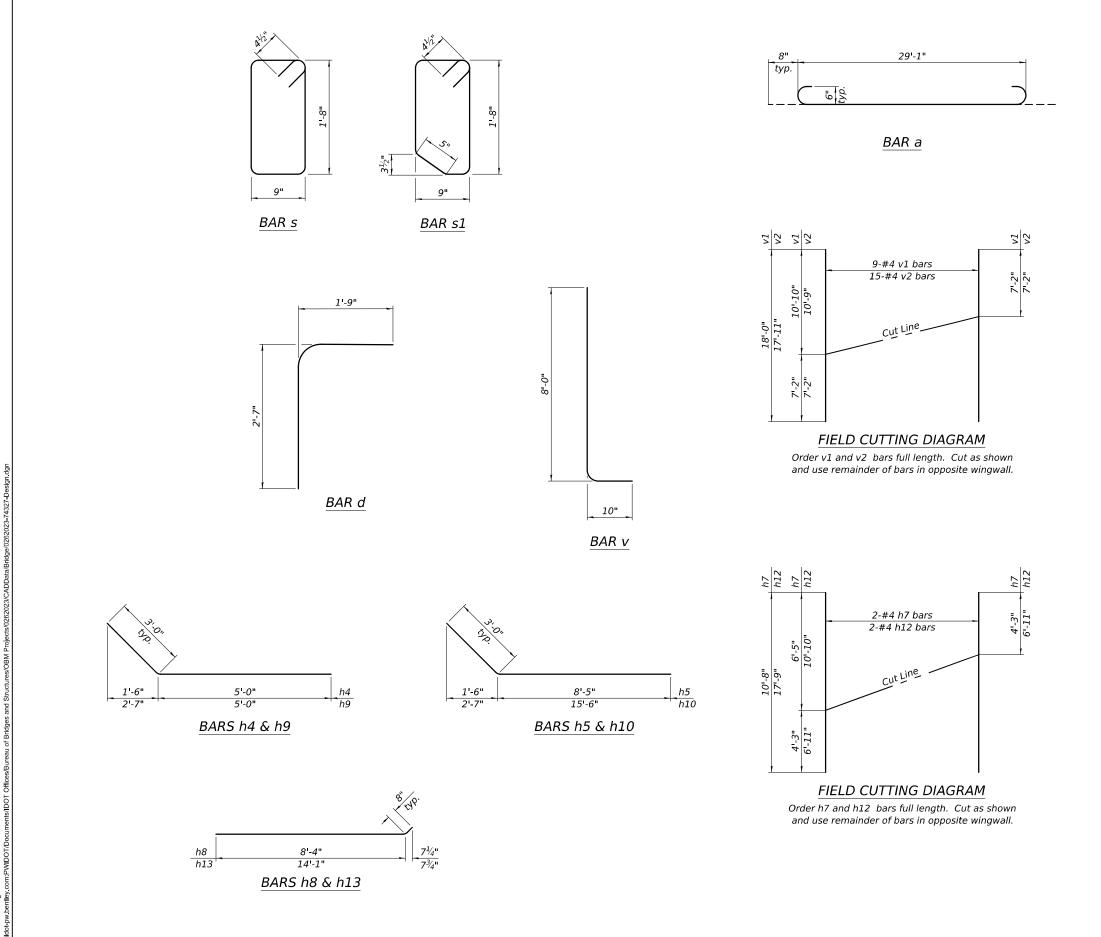
REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** **STRUCTURE NO. 026-2023** SHEET 8 OF 12 SHEETS

COUNTY TOTAL SHEETS NO.

FAYETTE 28 20 (114)B-1 CONTRACT NO. 74327





DESIGNED - RYAN P. NEGANGARD DATE - FEBRUARY 3, 2025 SECTION EXAMINED **CULVERT DETAILS** COUNTY STATE OF ILLINOIS CHECKED - DAVID H. RICHTER FAYETTE 28 22 750 (114)B-1 **STRUCTURE NO. 026-2023 DEPARTMENT OF TRANSPORTATION** DRAWN - DENNIS A. POP PASSED REVISED -CONTRACT NO. 74327 일급 CHECKED - R.P.N./D.H.R. REVISED SHEET 10 OF 12 SHEETS 2/3/2025 9:19:39 AM

BILL OF MATERIAL

#8 #4

#4

#5

#5

#6

#7

#5

#5

#4

#7

#4

#4

#4

#5

#4

#4

Concrete Box Culverts Cu. Yd. 178.9 Reinforcement Bars Pound 43,250

224 #6 30'-5"

Size Length Shape

29'-1" 29'-1"

4'-4"

31'-1"

28'-3" 29'-1" 29'-1"

8'-0"

11'-5"

8'-4"

#4 10'-8"

#4 9'-0"

#7 18'-6"

#4 14'-4" 17'-9" 14'-9"

#4 5'-7"

5'-5"

8'-10"

18'-0"

17'-11"

No.

224

50

145

145

6

6

44

36 16

4

4

38

30

16

4

4

29

29

231

18

30

a1 a2

h1

h2

h3

h4

h5

h6

h8

h9

h10

h11

h12

h13

*s*1

v1

v2

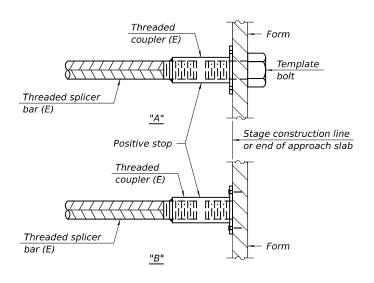
STANDARD BAR SPLICER ASSEMBLY PLAN

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
Top slab	#5	67	2'-2"
Walls	#5	21	2'-9"
Bottom slab	#5	57	2'-9"

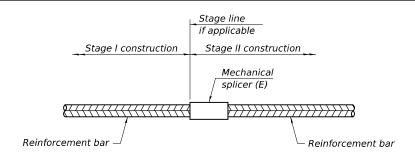


INSTALLATION AND SETTING METHODS

"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 size	No. assemblies required

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

2/3/2025 9:20:03 AM

5-15-2023

DESIGNED - RYAN P. NEGANGARD

EXAMINED

DESIGNED - RYAN P. NEGANGARD

EXAMINED

DATE - FEBRUARY 3, 2025

BY DRAWN - DENNIS A. POP

DRAWN - DENNIS A. POP

PASSED

PASSED

PASSED

PASSED

ENGINEER & BRIDGES AND STRUGUIRES

REVISED
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL DETAILS STRUCTURE NO. 026-2023

SHEET 11 OF 12 SHEETS

FA.P.	SECTION	COUNTY	TOTAL SHEETS	NO.
750	(114)B-1	FAYETTE	28	23
CONTRACT NO. 74327				

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Illinois Dep of Transpo	ıtatı	711		_	SOIL BORING L	ou	Date	9/2	22,
District - Materials ROUTE FAP 750 (IL-185)	DESCRIP	TION		II -1	.85 Over Lone Grove Branch Tributary	LOG	GED BY	E. San	
SECTION (114B1)B-1	-	OCATIO			vest 1/4 of Southwest 1/4, SEC. 24, TWP				
			_	Latitud	le N 38.868000, Longitude W 88.8254	10			
COUNTY Fayette DRIL 026-0068 (Existing)	LING METH	UD		ollow Si	tem auger & split spoon HAMMER	Auto ETF	= 91.8%	@ 57.4) D
STRUCT NO. 026-2023 (Proposed) Station 780+14	_ E	B L	U	M 0	Surface Water Elev. 569.83 Stream Bed Elev. 568.43	- it	D B	U	
BORING NO. 1 East Abutment	— Р Т	0 W	S	S	Groundwater Elev.:		P 0 T W	S	
Station 780+65 Offset 13.0 ft LT	_ H	S	Qu	T	First Encounter Dry Upon Completion Dry	_ ft	H S	Qu	
Ground Surface Elev. 576.09	_ ft (ft)	(/6")	(tsf)	(%)	After 0 Hrs Backfilled		ft) (/6")	(tsf)	
	575 . 39 —				Very dense, wet, grey, SANDY CLAY Till	555.09	- 27 37	NT NT	Γ
Grey, SILTY CLAY	_				Benchmark: BM 119 - Chiseled	000,00	#	ļ	t
	_	1			Square on South End of West Wingwall of SN 026-0068, Sta.	_	-		
Very soft, moist	_	1 2	0.2 B	21	779+02, 49.8 feet RT. Elevation = 575.718 feet	_	7		
	_	_			End of Boring	_	╛		
	-5	1				-:	25		
Stiff	_	2	1.1 B	19		_	Ì		
	_	3	В			-			
		1				_	7		
Medium	_	1	0.6	25		_			
	_	1	В				\dashv		
	-10	1				_	30		
	-10	5 4	0.8	25					
	_	4	В			-	-		
	63.59	1				_	7		
Very stiff, moist, brown, SANDY		3	2.9	15		_	_		
CLAY	_	4	В				-		
	61.59	2				_)E		
Very stiff, moist, grey, CLAY LOAM Till	-13	6	2.7	12			35		
		10	В			_	-		
	59.09	,				_	1		
Very dense, moist, grey, SANDY LOAM Till	_	3 23	NT	8			\dashv		
	_	31	NT			_	7		
_						-	_		
Ę	56.09 -20	2					10		l

	Division of Highways District - Materials							Date	
ROUTE	FAP 750 (IL-185)	_ DESCRI	PTION		IL-1	85 Over Lone Grove Branch Tributary	LOG	GED BY	E <u>. S</u>
SECTION	(114B1)B-1		LOCATIO	ON _		vest 1/4 of Southwest 1/4, SEC. 24, TWP		3E, 3rd P	М,
COUNTY	Fayette DR	LLING METH	IOD	Н		le N 38.867996, Longitude W 88.8256 tem auger & split spoon HAMMER		R = 91.8%	@ 5
CTDUOT NO	026-0068 (Existing)	\	В	U	М	Confere Weter Floor		р в	Τ
STRUCT. NO. Station	026-2023 (Proposed) 780+14	_ E	Ĺ	c	0	Surface Water Elev 569.83 Stream Bed Elev 568.43	- ft ft	E L	
		— Р	0	S	ı		- ''	P 0	1
BORING NO.	2 West Abutment	_ [W	_	S	Groundwater Elev.:		T W	Ι.
Station	779+84	_ "	S	Qu	Т	First Encounter 561.6		H S	١ '
Offset Ground Surface	13.0 ft LT e Elev. 576.13	— _{ft} _(ft)	(/6")	(tsf)	(%)	Upon Completion 561.1 After 0 Hrs. Backfilled	_ft∑	(ft) (/6")	10
Asphalt		_ " "	00,	(10.1)	(,,,	Hard, moist, grey, CLAY LOAM	_ "	13	+
Grey, SILTY CLA		575.43 —	1			тш	555.13	15	1
uicy, SILII ULA	1					Benchmark: BM 119 - Chiseled			Г
			<u>.</u>			Square on South End of West Wingwall of SN 026-0068, Sta.	_		
Medium, moist		_	1	0.0		779+02, 49.8 feet RT. Elevation =			
ricululli, IIIOISL			1 2	0.6 B	24	575.718 feet	-		
		_	+ <u> </u>	P P	-	End of Boring		\dashv	
		571.63	1				-	-	
Soft, wet, grey,		571.05	1					25	
			WH	0.3	28		_		
			1	В			_		
		_	1						
		E60 63	WH.				_	\dashv	
Madium moist	grey, SILTY CLAY	568.63	- WП	0.7	24			\dashv	
LOAM	giey, Silli CLAI		2	В			-	-	
		_						\dashv	
		566.63]				_		
Medium, moist	grey, CLAY LOAM	-10		1.0	- 00			30	
		_	1 1	1.0 B	23			\perp	
			+-	D	-		-	\dashv	
		_	1					\dashv	
		563.63	1				-		
Very stiff, moist			2	2.3	12				
LOAM TIII		_	5	В			_	\Box	
		EC1 C2	-				-		
Madium m=!=4		561.63 <u>v</u>	2					35	
Medium, moist, fine-grained, S/	ND .		5	NT	16		_	30	
19.5% passing	#200 sieve	560.43 —	12	NT				\dashv	
Very stiff, moist	grey, SANDY						-		
CLAYTIII		559.13]				_		
Hard, wet, grey,	CLAY LOAM TIII		4		10				
			16 38	5.5	10		_	_	1
		_	30	S	-			\dashv	
			-				-	-	
			1	1	1	ll .		- 1	1

The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO 1206), WH-Weight of Hammer, NR-No Recovery, NT-Not Tested.

2 ≥ 1								
2620	DESIGNED	-	RYAN P. NEGANGARD	EXAMINED	Mark Sheffer	DATE -	- FEBRUARY 3, 2025	
8 ₩	CHECKED	-	DAVID H. RICHTER		ENGINEER OF BRIDGENESIGN			
MODEL FILE NA	DRAWN	-	DENNIS A. POP	PASSED -	Jayne +. Jehly	REVISED	-	
	CHECKED	-	R.P.N. / D.H.R.		ENGINEER OF BRIDGES AND STRUCTURES	REVISED	-	
	2/3/2025	9:20	42 AM					

SOIL BORING LOGS STRUCTURE NO. 026-2023 SHEET 12 OF 12 SHEETS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.P. RTE. 750 COUNTY TOTAL SHEET NO.

FAYETTE 28 24 SECTION (114)B-1 CONTRACT NO. 74327 ILLINOIS FED. AID PROJECT

