01-17-2025 LETTING ITEM 021

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR SUMMARY OF QUANTITIES SEE SHEET(S) 3-4

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED

FAI ROUTE 74 (I-74) SECTION (10-4-1HB-1)BR PROJECT BR-6Z51(628) BRIDGE DECK OVERLAY, BRIDGE REPAIR

C-95-068-22

AT TURKEY FARM ROAD (OVERHEAD) W OF MAHOMET

HIGHWAY PLANS

CHAMPAIGN COUNTY

2024 ADT 22,800 2034 ADT 23,900 2044 AM D 2044 PM D 1,505 N/A N/A 1,950 PV+PC%

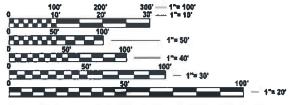
CURRENT TRAFFIC DATA

TURKEY 1-74 FARM RD

DESIGN DESIGNATION

F.A.I. 74 (INTERSTATE) C.H. 29 (LOCAL)

0

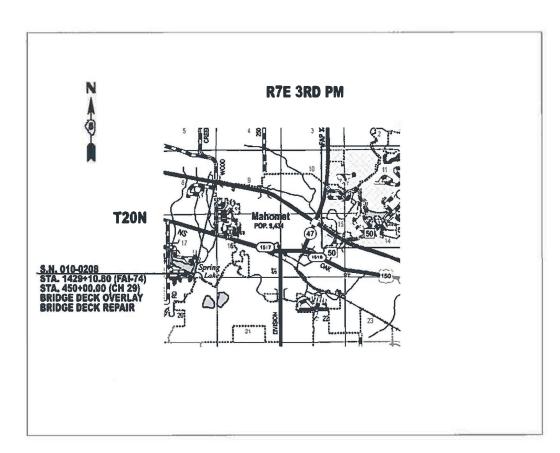


ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

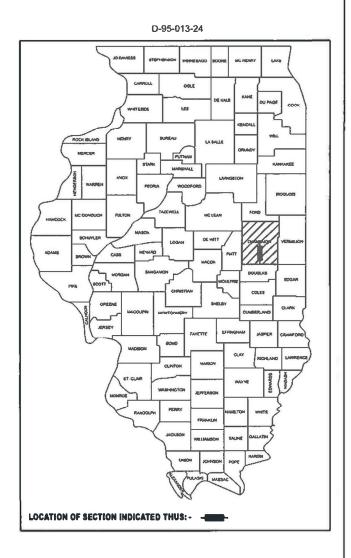
J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT ENGINEER: JEFF M. SHERER PROJECT MANAGER: TIM BRANDENBURG

CONTRACT NO. 70D78



GROSS LENGTH = 348.918 FT. = 0.066 MILE NET LENGTH = 348.918 FT. = 0.066 MILE



CHAMPAIGN 23 1

ELLINOIS CONTRACT NO. 70D78



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	<u>ITEM</u>
1 2 3-4 5	COVER SHEET INDEX OF SHEETS/ HIGHWAY STANDARDS/ GENERAL NOTES SUMMARY OF QUANTITIES EXISTING DECK CROSS-SECTION
6 7 8-9	PROPOSED DECK CROSS-SECTION GENERAL PLAN AND ELEVATION S.N. 010-0208 DETAIL OF REMOVAL AT DECK ENDS
10-11 12 13 14	DETAIL OF CONSTRUCTION AT DECK ENDS DETAIL OF STRIP SEAL JOINT WEARING SURFACE PLAN DETAIL OF FLOOR DRAINS
15 16 17-19	DETAIL OF REMOVAL AT ABUTMENTS DETAIL OF CONSTRUCTION AT ABUTMENTS DETAIL OF DECK SLAB REPAIR
20 21 22 23	DETAIL OF STEEL REPAIRS DETAIL OF ELASTOMERIC BEARINGS DETAIL OF TRAFFIC CONTROL & PROTECTION (SPECIAL) DETAIL OF ROAD CLOSURE

LIST OF STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF RD OPERATIONS, 2L, 2W, 15' FROM PAVEMENT EDGE
701006-05	OFF RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATION
701400-12	APPROACH TO LANE CLOSURE FREEWAY/ EXPRESSWAY
701406-13	LANE CLOSURE FREEWAY/ EXPRESSWAY DAY ONLY
701901-10	TRAFFIC CONTROL DEVICES

GENERAL NOTES

G.N.-1004.01

SCALE: NONE

COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

THERE ARE NO COMMITMENTS ASSOCIATED WITH THIS PROJECT

METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100

G.N.-406 THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE

ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED,

G.N. -406H

GN 406H Mixture Requirements

Contract: 70D78

Location	CH 29
Mixture Use	Mainline
AC/PG	PG 64-22
Design Air Voids	4.0% @ Ndes=50
Mix Comp(Gradation)	IL 9.5
Friction Aggregate	Mix C
Mixture Weight	112
Quality Management Program	QC/QA
Sublot Size	3000
Material Transfer Device (Required ?)	NO

COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

USER NAME = Jeff.Sherer	DESIGNED -	REVISED -
1	DRAWN -	REVISED _
	CHECKED -	REVISED -
PLOT DATE = 9/18/2024	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

INDEX OF SHEETS/ GENERAL NOTES				F.A.I. RTE.	SECTION	C	
			10	74	(10-4-1HB-1)BR	CHA	
							CO
SHEET 1	OF 1	SHEETS S	TA.	TO STA.		ILLINOIS FED	AID PROJ

CHAMPAIGN COUNTY
FAI-74 (I-74))
URBAN
BRIDGE DECK OVERLAY/ REPAIRS
S.N. 010-0208
90% FED/ 10% STATE

0655				0.55
CODE			TOTAL	0059
NO.	ITEM	UNIT	QUANTITY	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	95.0	95.0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	210.0	210.0
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	21.0	21.0
50102400	CONCRETE REMOVAL	CUYD	24.9	24.9
50157300	PROTECTIVE SHIELD	SQ YD	251.0	251.0
50300100	FLOOR DRAINS	EACH	8.0	8.0
E030033E	CONCRETE STRUCTURES	CHAD	45.2	45.0
50300225	CONCRETE STRUCTURES	CUYD	15.2	15.2
50300255	CONCRETE SUPERSTRUCTURE	CUYD	13.3	13.3
30300233	CONCRETE SUPERSTRUCTURE	CO 1D	13.3	13.3
50300260	BRIDGE DECK GROOVING	SQYD	691.0	691.0
50300300	PROTECTIVE COAT	SQ YD	762.4	762.4
1				
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3810.0	3810.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4470.0	4470.0
52000110	PREFORMED JOINT STRIP SEAL	FOOT	62.0	62.0
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	8.0	8.0
52100520	ANCHOR BOLTS, 1"	EACH	16.0	16.0
20 <u></u>				
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	5.0	5.0

* SPECIALTY ITEM

DRAWN - REVISED -	
CHECKED - REVISED -	i i
PLOT DATE = 10/9/2024 DATE - REVISED -	Ĭ,

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

,11	SUMMARY OF QUANTITIES		F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	SUMMART OF QUANTITIES			(10-4-1HB-1)BR	CHAMPAIGN	23	3
,			l)		CONTRACT	Γ NO. 70I	278
	SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.	1		ILLINOIS FED.	AID PROJECT		

CHAMPAIGN COUNTY
FAI-74 (I-74))
URBAN
BRIDGE DECK OVERLAY/ REPAIRS
S.N. 010-0208
90% FED/ 10% STATE

70100700 TRA 70107025 CH	OBILIZATION RAFFIC CONTROL AND PROTECTION, STANDARD 701406 HANGEABLE MESSAGE SIGN EMPORARY CONCRETE BARRIER IPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	L SUM CAL DA	1.0 1.0 28.0	1.0
70100700 TRA 70107025 CH	RAFFIC CONTROL AND PROTECTION, STANDARD 701406 HANGEABLE MESSAGE SIGN EMPORARY CONCRETE BARRIER	L SUM	1.0	1.0
70100700 TRA 70107025 CH	RAFFIC CONTROL AND PROTECTION, STANDARD 701406 HANGEABLE MESSAGE SIGN EMPORARY CONCRETE BARRIER	L SUM	1.0	1.0
70107025 CH. 70400100 TEI	HANGEABLE MESSAGE SIGN EMPORARY CONCRETE BARRIER	CAL DA	28.0	
70107025 CH. 70400100 TEI	HANGEABLE MESSAGE SIGN EMPORARY CONCRETE BARRIER	CAL DA	28.0	
70400100 TEI	EMPORARY CONCRETE BARRIER			28.0
70400100 TEI	EMPORARY CONCRETE BARRIER			28.0
		FOOT	620.0	
		FOOT	620.0	4
70600250 IMF	IPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3			620.0
70600250 IMF	IPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3			
		EACH	2.0	2.0
X7010216 TRA	RAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.0	1.0
Z0001899 JAC	ACK AND REMOVE EXISTING BEARINGS	EACH	8.0	8.0
Z0001903 STF	TRUCTURAL STEEL REMOVAL	POUND	2330.0	2330.0
Z0001905 ST	TRUCTURAL STEEL REPAIR	POUND	3130.0	3130.0
Z0012111 BR	RIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 2 1/2"	SQ YD	716.0	716.0
Z0012130 BR	RIDGE DECK SCARIFICATION 3/4"	SQ YD	716.0	716.0
Z0013798 CO	ONSTRUCTION LAYOUT	L SUM	1.0	1.0
Z0016002 DE	ECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	57.0	57.0
СП	TRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5			
	CHES)	SQ YD	97.0	97.0
Z0041895 PO	DLYMER CONCRETE	CUFT	4.0	4.0

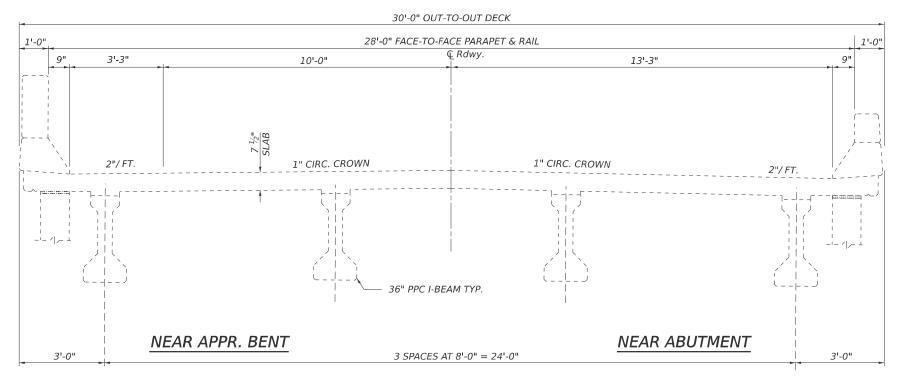
* SPECIALTY ITEM

USER NAME = Jeff.Sherer	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 10/9/2024	DATE -	REVISED -

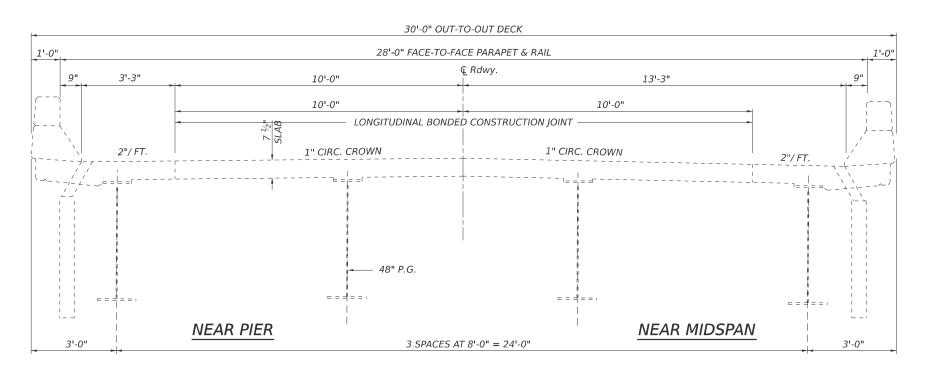
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

EXISTING TYPICAL CROSS—SECTION (APPROACH BENT LOOKING NORTH)



EXISTING TYPICAL CROSS—SECTION (DECK LOOKING NORTH)



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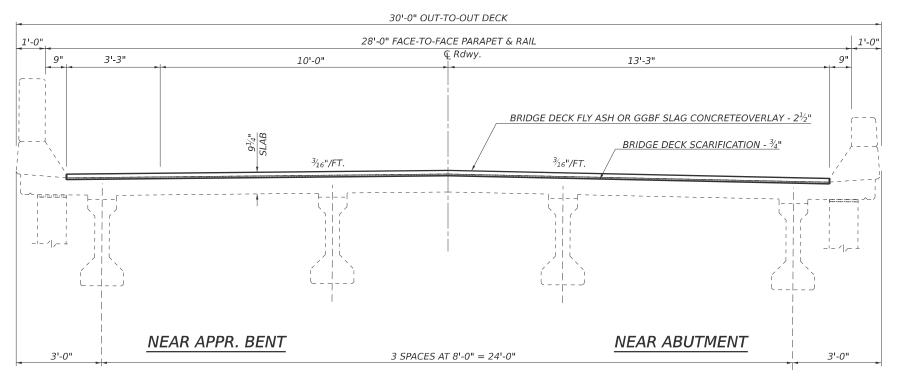
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

SHEET

EXISTING DECK CROSS-SECTION				F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
S.N. 010-0208			74	(10-4-1HB-1)BR		CHAMPAIGN	23	5		
						CONTRACT	NO. 701	078		
IEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS F	ED. AID	PROJECT		

PROPOSED TYPICAL CROSS-SECTION (APPROACH BENT LOOKING NORTH)



PROPOSED TYPICAL CROSS-SECTION (DECK LOOKING NORTH)

DEPARTMENT OF TRANSPORTATION

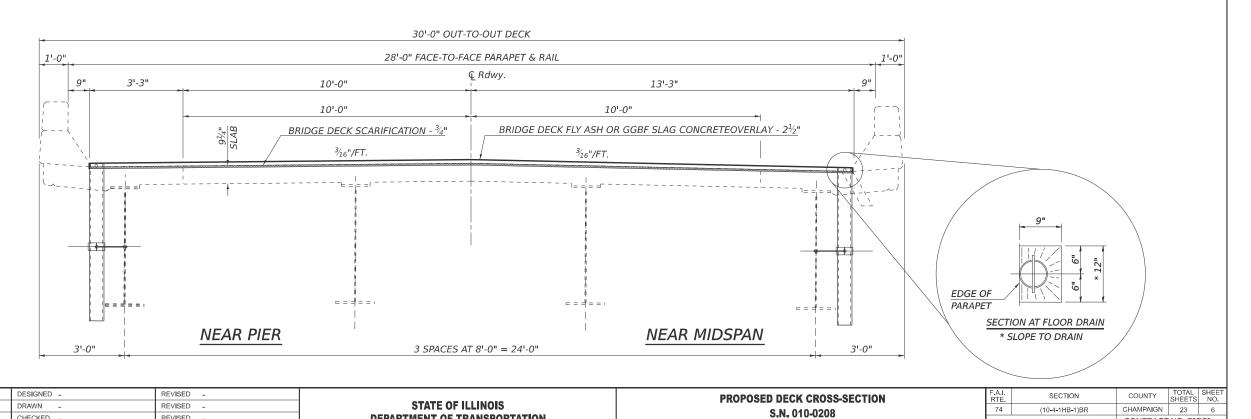
JSER NAME = Jeff.Sherer

PLOT DATE = 9/18/2024

CHECKED

DATE

REVISED



SCALE: NONE

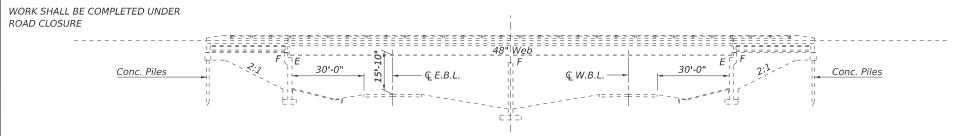
SHEET 1

OF 1 SHEETS STA.

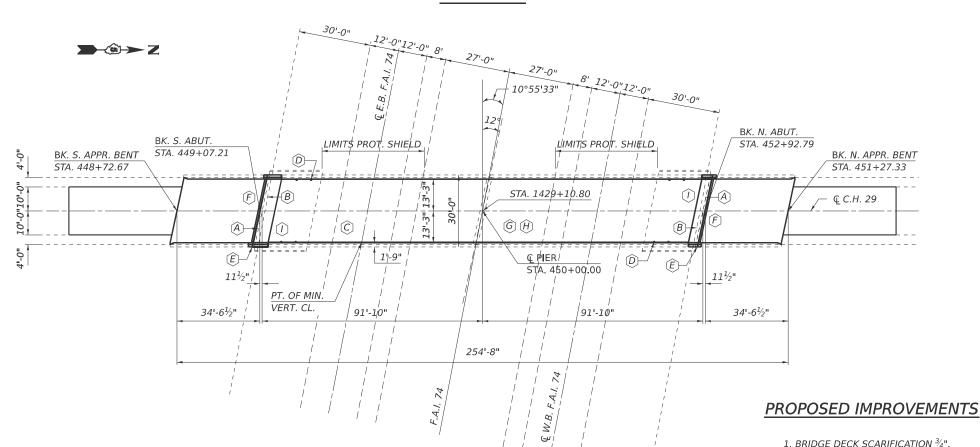
TO STA.

S.N. 010-0208 WAS BUILT IN 1969 AS FAI-74 (I-74), SECTION 10-4-1HB-1 AT STATION 1429+10.80 IN CHAMPAIGN COUNTY. THE STRUCTURE HAS A BACK-TO-BACK ABUTMENT LENGTH OF 185'-7", TOTAL STRUCTURE LENGTH OF 254'-8", OUT-TO-OUT WIDTH OF 30'-0", BRIDGE ROADWAY WIDTH OF 26'-6", AND AN APPROACH ROADWAY WIDTH OF 20'-0".

SEE PROPOSED IMPROVEMENTS ON THIS SHEET



ELEVATION



PLAN

HILLIAM TO JAYME F 081-005540 EXPIRES 11-30-2026

- (A) STRUCTURAL STEEL REPAIR (ALL BEAM ENDS)
- (B) REPLACE ALL END DIAPHRAGMS
- © DECKS SLAB REPAIR (FULL-DEPTH)
- (D) FLOOR DRAINS
- (E) PREFORMED JOINT STRIP SEAL
- (F) ELASTOMERIC BEARINGS WITH STEEL **EXTENSION**

- **G** BRIDGE DECK SCARIFICATION
- (H) BRIDGE DECK CONCRETE OVERLAY
- (I) ABUTMENT REPAIRS

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS HAVE BEEN TAKEN FROM EXISTING STRUCTURE AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR 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 WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

PRIOR TO POURING NEW CONCRETE DECK, ALL HEAVY OR LOOSE RUST, LOOSE MILL SCALE, AND OTHER LOOSE OR POTENTIALLY DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE SURFACE 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 COVERING REMOVAL

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED

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 SPLICER OR ANCHORAGE SYSTEM AT THE CONTRACTOR'S EXPENSE. COST INCLUDED

PROTECTIVE COAT SHALL BE APPLIED TO ALL NEW CONCRETE SUPERSTRUCTURE AND ALL NEW CONCRETE OVERLAYS AS SPECIFIED IN ARTICLE 503.19 OF THE STANDARD

SYNTHETIC FIBERS SHALL BE INCLUDED IN THE BRIDGE DECK CONCRETE OVERLAY SPECIFIED. SEE SPECIAL PROVISIONS.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 36, UNLESS OTHERWISE NOTED.

FASTENERS SHALL BE ASTM F 3125 GRADE A325 TYPE 1. FASTENERS SHALL BE HOT DIPPED GALVANIZED. SEE SPECIAL PROVISION FOR "HOT DIP GALVANIZING FOR STRUCTURAL STEEL ." BOLTS $\frac{3}{4}$ " \emptyset , HOLES $\frac{13}{16}$ " \emptyset , UNLESS OTHERWISE NOTED.

DIAPHRAGM CONNECTION HOLES SHALL BE $^{15}\!\!/_6$ " \oslash FOR $^3\!\!/_4$ " \oslash BOLTS. TWO HARDENED WASHERS SHALL BE REQUIRED AT DIAPHRAGM CONNECTIONS.

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

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. COST INCLUDED WITH STRUCTURAL STEEL REPAIR.

ALL NEW STRUCTURAL STEEL AND BEARING ASSEMBLIES SHALL BE HOT-DIPPED $\textit{GALVANIZED}. \ \ \textit{SEE SPECIAL PROVISION FOR "HOT DIP GALVANIZIING FOR}$ STRUCTURAL STEEL".

TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU. YD.	24.9
PROTECTIVE SHIELD	SQ. YD.	251.0
FLOOR DRAINS	EACH	8.0
CONCRETE STRUCTURES	CU. YD.	15.2
CONCRETE SUPERSTRUCTURE	CU. YD.	13.3
BRIDGE DECK GROOVING	SQ. YD.	691.0
PROTECTIVE COAT	SQ. YD.	762.4
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3,810.0
REINFORCEMENT BARS, EPOXY COATED	POUND	4.470.0
PREFORMED JOINT STRIP SEAL	FOOT	62.0
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	8.0
ANCHOR BOLTS, 1"	EACH	16.0
JACK AND REMOVE EXISTING BEARINGS	EACH	8.0
STRUCTURAL STEEL REMOVAL	POUND	2,330.0
STRUCTURAL STEEL REPAIR	POUND	3,130.0
BRIDGE DECK SCARIFICATION 3/4"	SQ. YD.	716.0
BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY $2^{1}/2$ "	SQ. YD.	716.0
STRUCTURAL REPAIR OF CONCRETE LESS THAN OR EQUAL TO 5"	SQ. YD.	97.0
DECK SLAB REPAIR (FULL-DEPTH TYPE II)	SQ. YD.	57.0
POLYMER CONCRETE	CU. FT.	4.0

* NEW CONCRETE AND OVERLAY

SCALE: 1" = 20'

SHEET

2. DECK SLAB REPAIR (FULL-DEPTH). 3. CONCRETE REMOVAL AT ABUTMENTS,

4. STRUCTURAL STEEL REPAIR AT

7.PLACE BRIDGE DECK CONCRETE

5. REMOVE AND REPLACE BEARINGS

6. STRUCTURAL REPAIR OF CONCRETE

8. Apply protective coat to bridge deck.

DECK ENDS.

ALL BEAM ENDS.

AT ABUTMENTS.

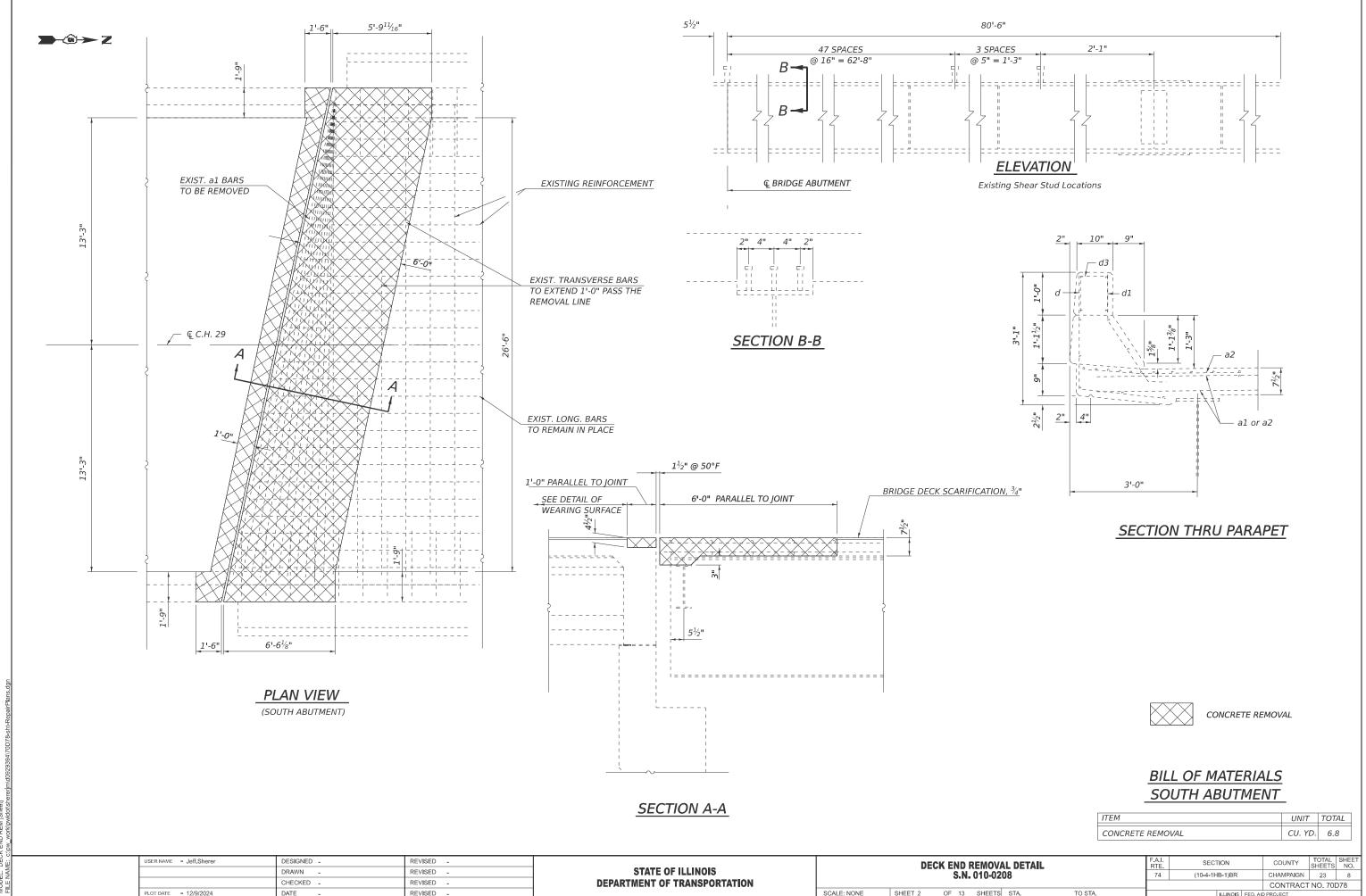
OVERLAY $2\frac{1}{2}$ ".

AT SELECT LOCATIONS.

OCH THE OCH ON ON	DEGIONED -	THE VIOLES -	
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PLOT DATE = 12/9/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

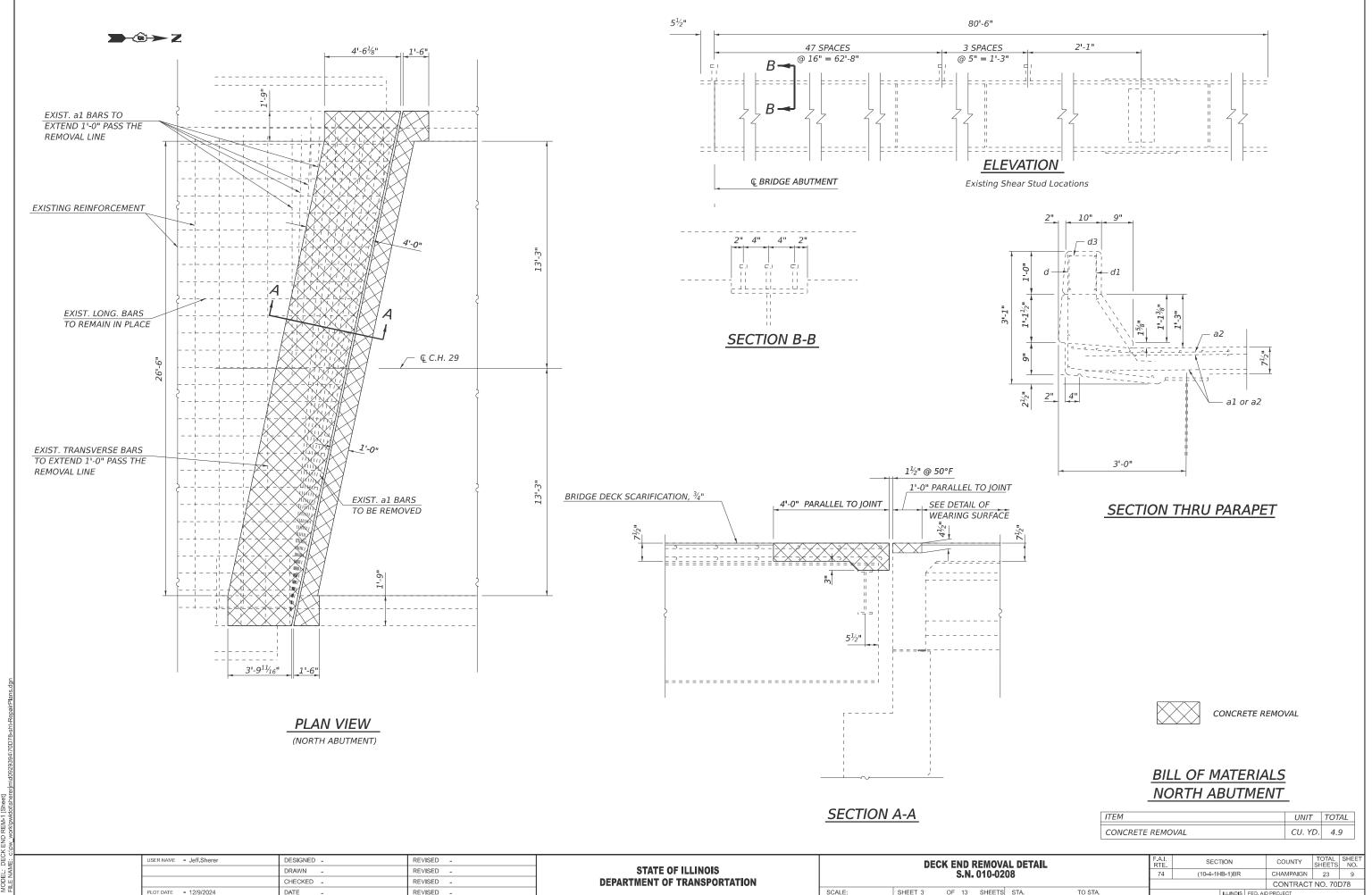
GENERAL PLAN AND ELEVATION					F.A.I. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.	
S.N. 010-0208			74	(10-4-1	HB-1)BR		CHAMPAIGN	23	7			
							CONTRACT	NO. 701	078			
1	OF	13	SHEETS	STA.	TO STA.			ILLINOIS	FED. AII	D PROJECT		



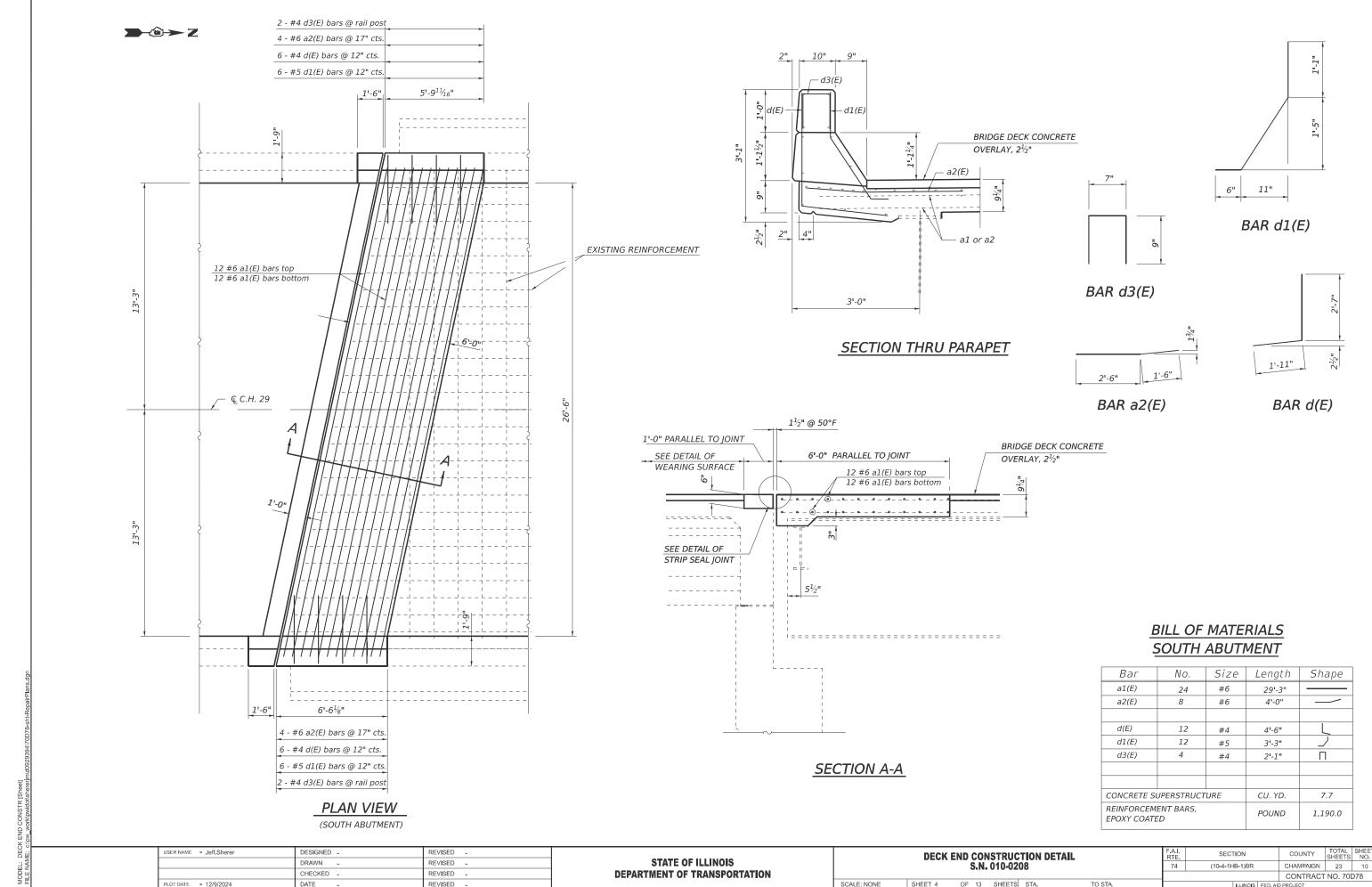
PLOT DATE = 12/9/2024

DATE

SHEET 2 OF 13 SHEETS STA.

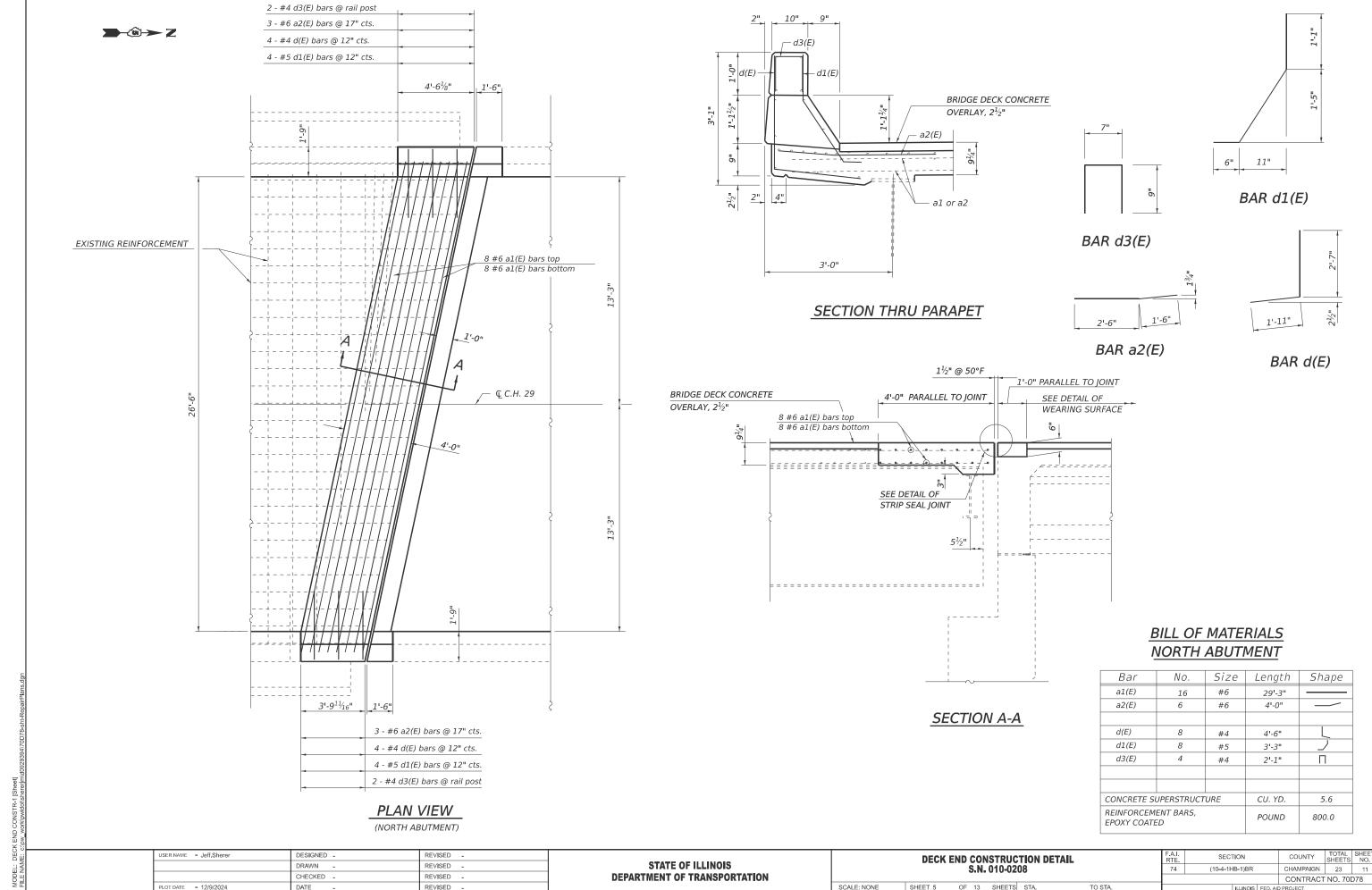


SCALE: SHEET 3 OF 13 SHEETS STA. TO STA.



CHECKED REVISED PLOT DATE = 12/9/2024 DATE REVISED

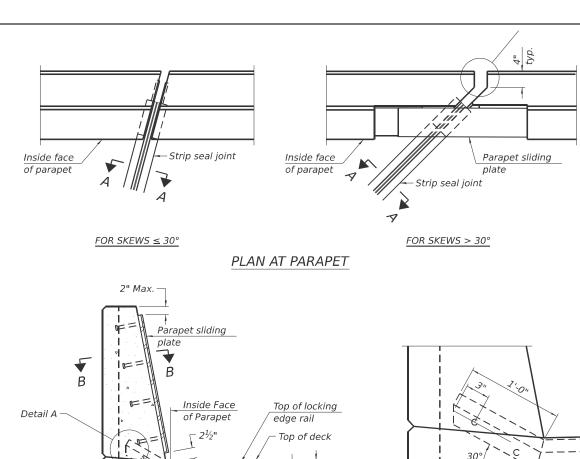
SHEET 4 OF 13 SHEETS STA. TO STA.



DATE

REVISED

SHEET 5 OF 13 SHEETS STA.

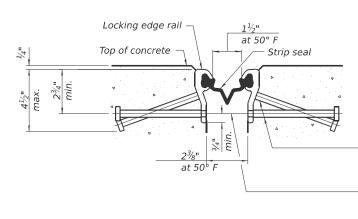


SECTION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

6" cts., typ.

5⁄8" Ø x 6" Studs



SHOWING ROLLED RAIL JOINT

DETAIL A

* 5/8" Ø x 6" studs @ 6" cts. (alternate

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

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

off flush with the plates after concrete is set.

full depth 3/8" Embedded plate full depth 6" $\frac{1}{2}$ " Parapet sliding plate 3/8" Ø Countersunk bolts 1'-0" (10 per side 39" parapet) (12 per side 44" parapet) Direction of traffic SECTION B-B Concrete flush with back face of 3/8" plate ⅓" Plate

a---

0--0

Concrete flush with back face of 3/4" plate

TRIMETRIC VIEW

0--0

(Showing embedded plates only) Locking edge rail – at 50° F Top of concrete -Strip seal 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.

SHOWING WELDED RAIL JOINT

11/4" ½6" 3/8" 3/8" <u>ROLLED</u> WELDED RAIL (EXTRUDED) RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.

Notes:

(8 per side 39" parapet) (10 per side 44" parapet)

្រី ¾" Embedded plate

¾" Plate

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 con 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

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.

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	58.5

EJ-SS 5-15-2023

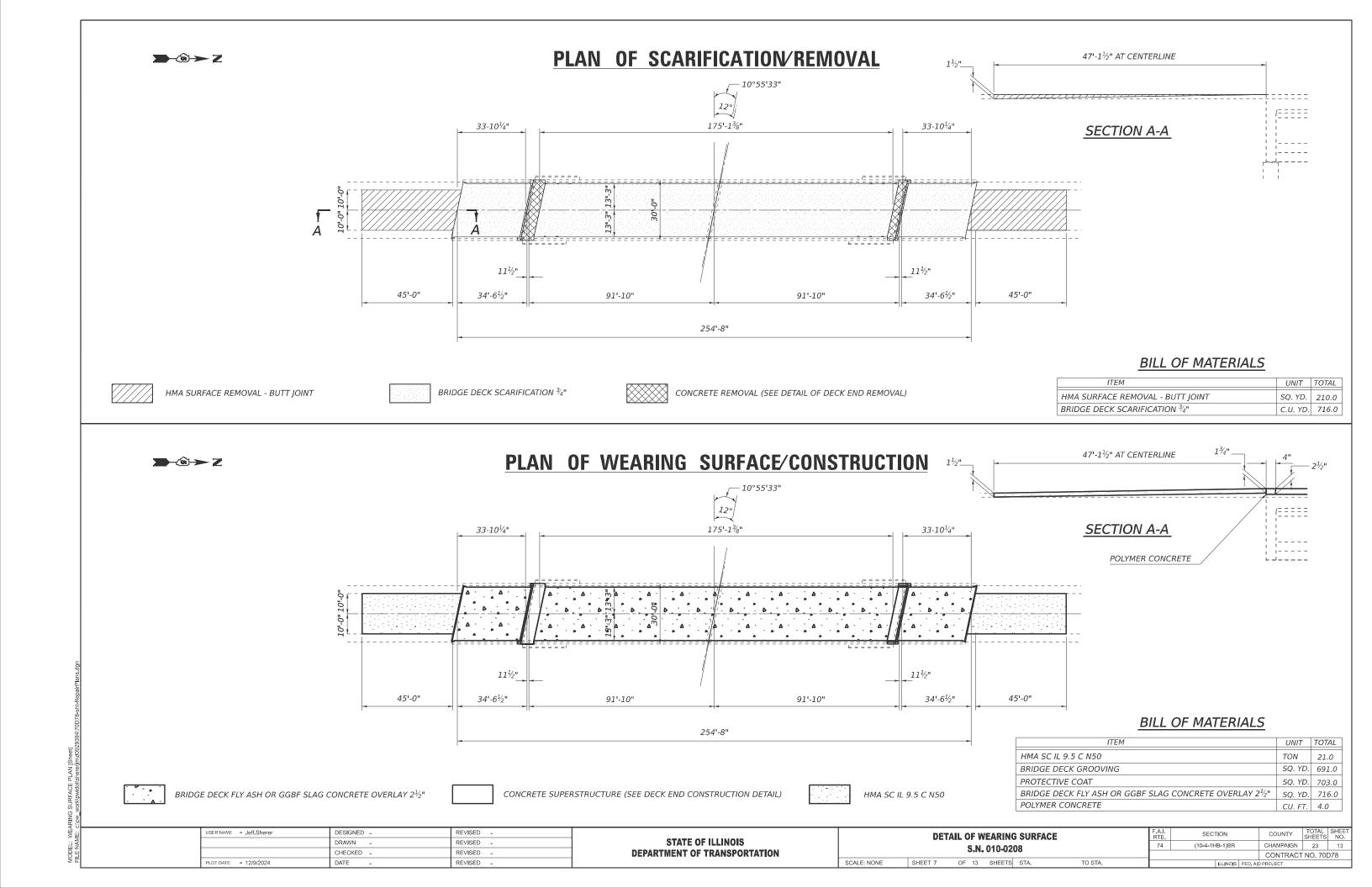
USER NAME = Jeff.Sherer	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 9/18/2024	DATE -	REVISED -

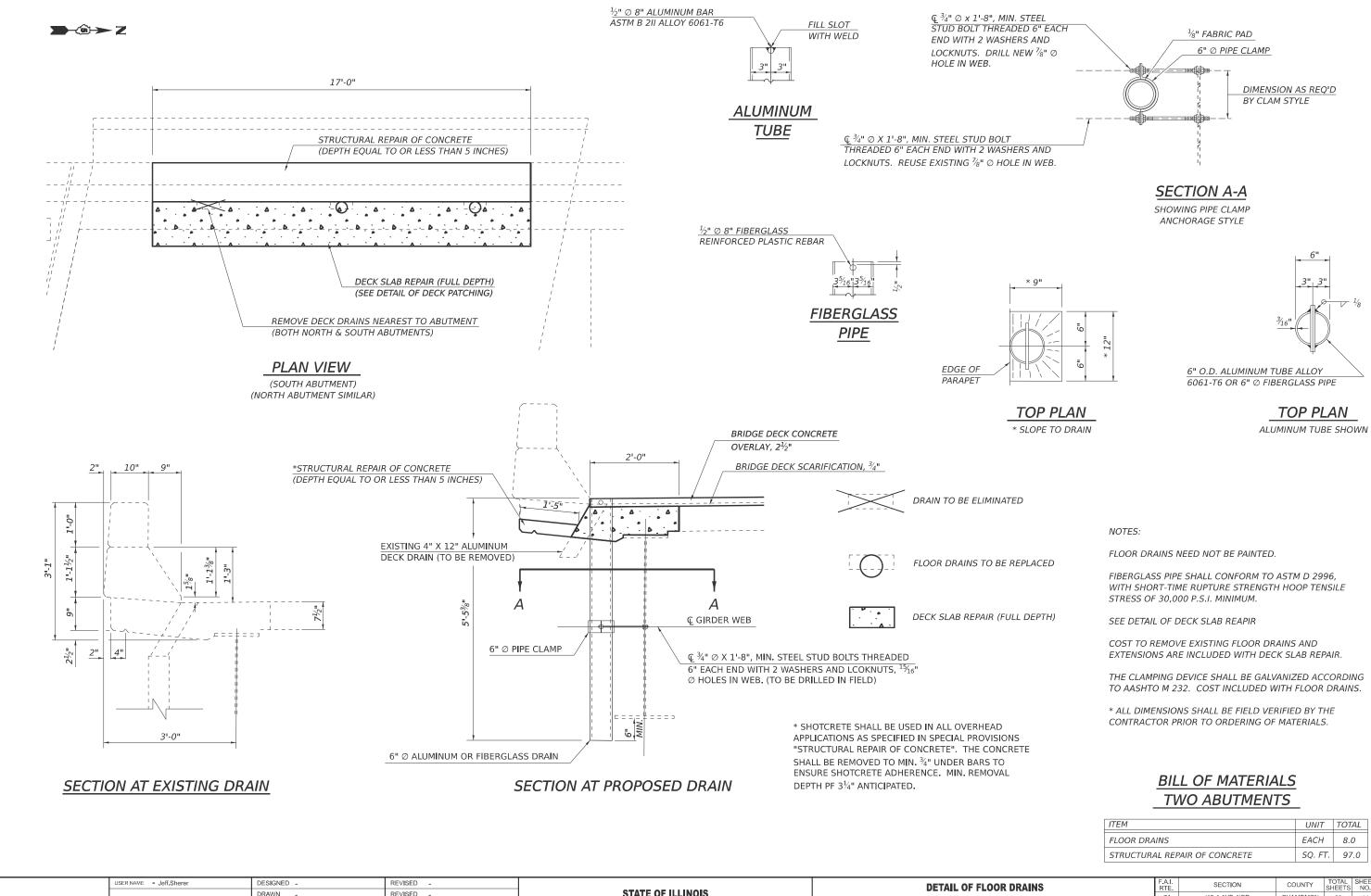
STATE OF ILLINOIS

	DETAIL O			RMED JO . 010-020		RIP SEAL
SCALE: NONE	SHEET 6	OF	13	SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
74	(10-4-1HB-1)BR		CHAMPAIGN	23	12	
		CONTRACT	NO. 70	078		
ILLINOIS FED. A			D PROJECT			

DEPARTMENT OF TRANSPORTATION





MODEL: FLOOR DRAINS [Sheet]

CHECKED

DATE

PLOT DATE = 10/16/2024

REVISED

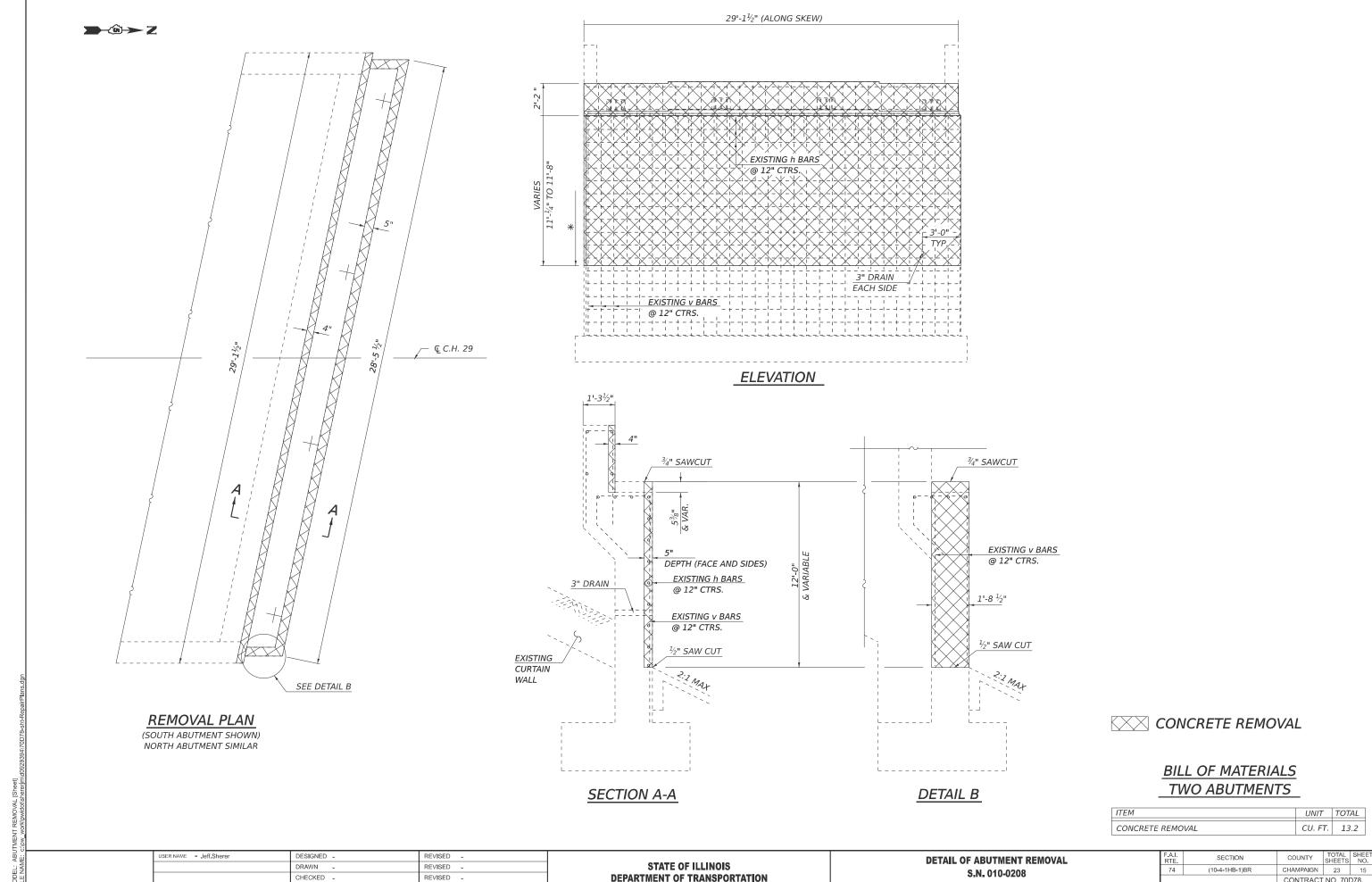
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF FLOOR DRAINS
S.N. 010-0208
SHEET 8 OF 13 SHEETS STA.

TO STA.

SCALE: NONE



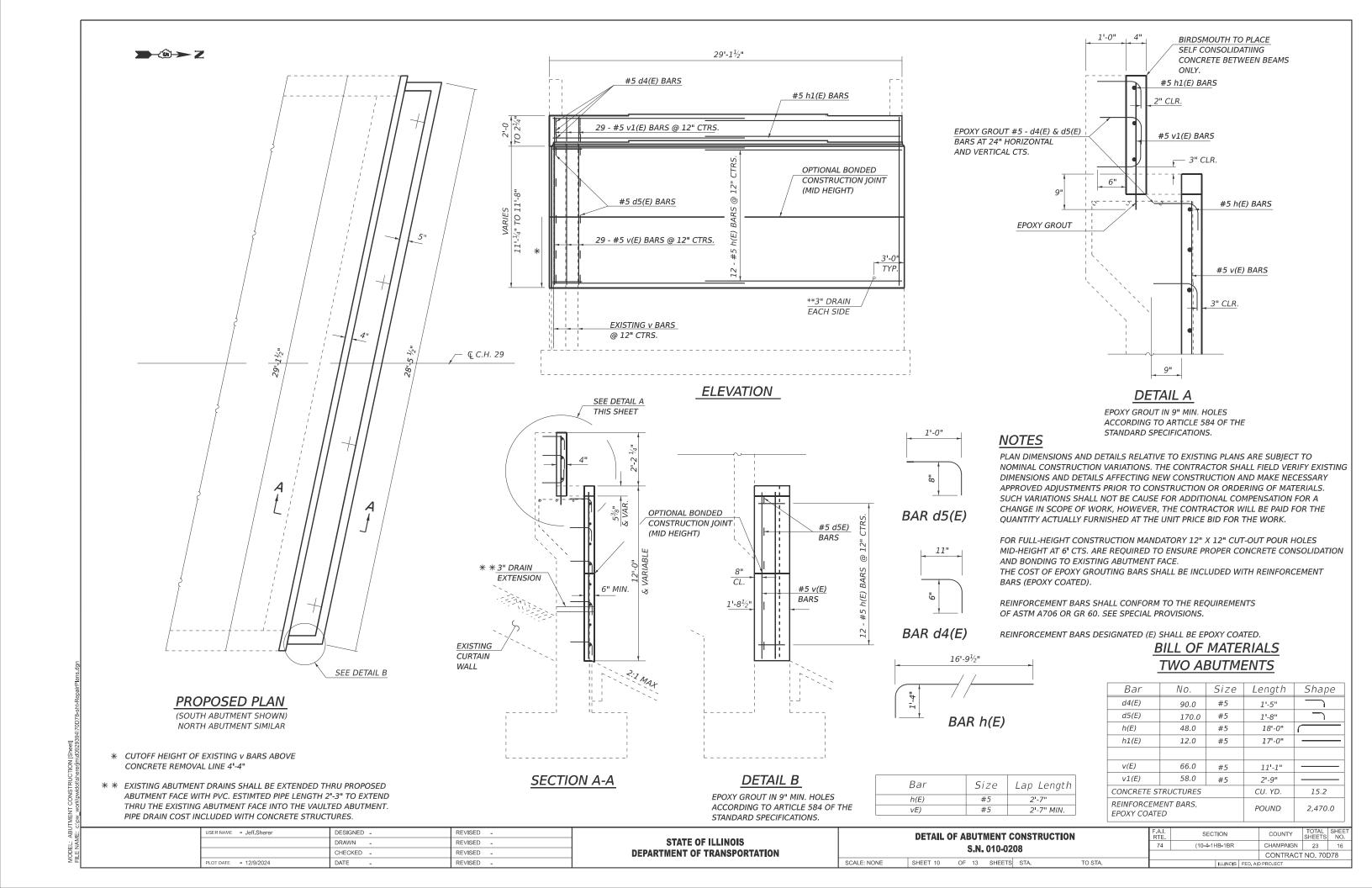
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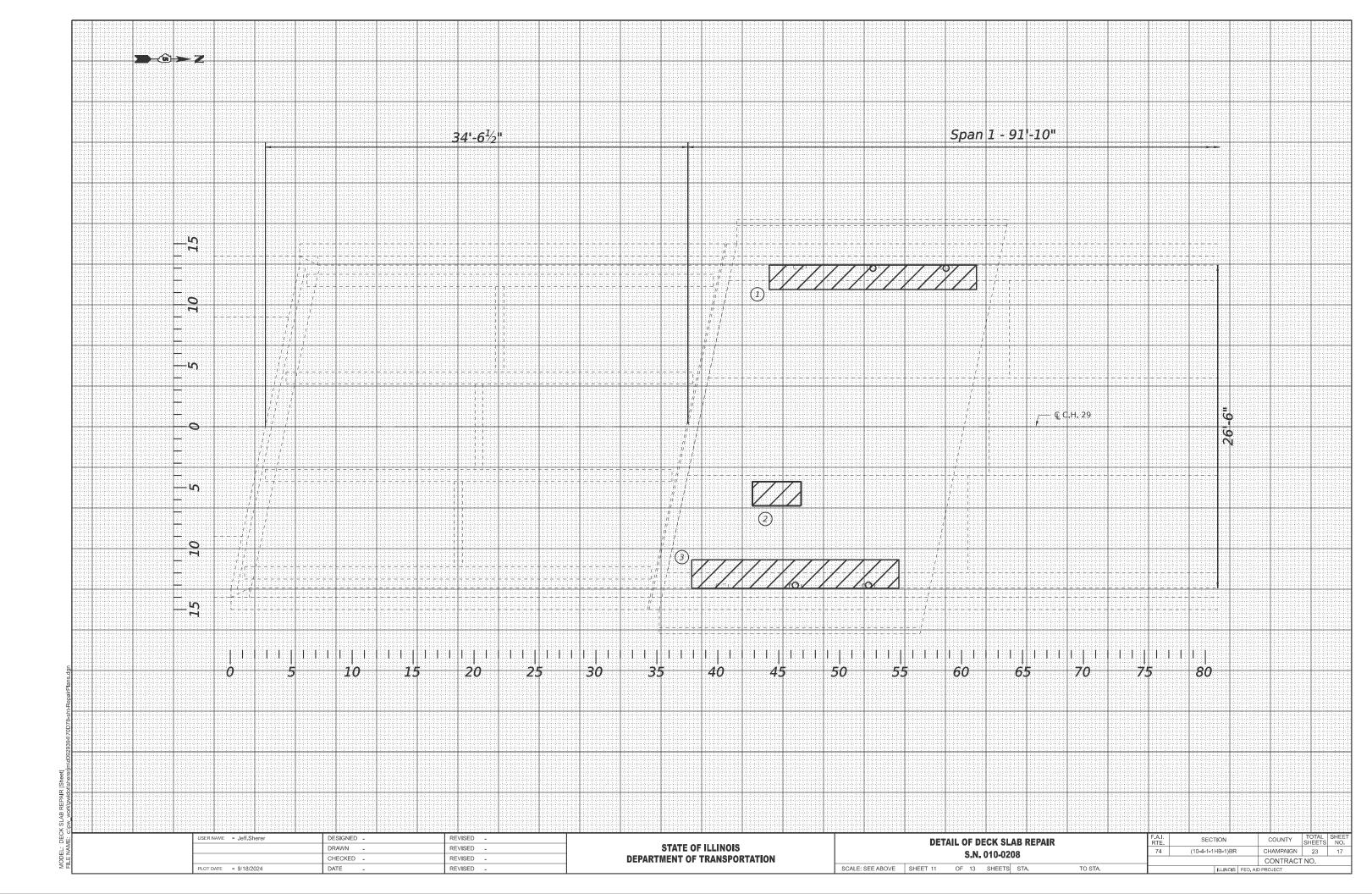
DATE

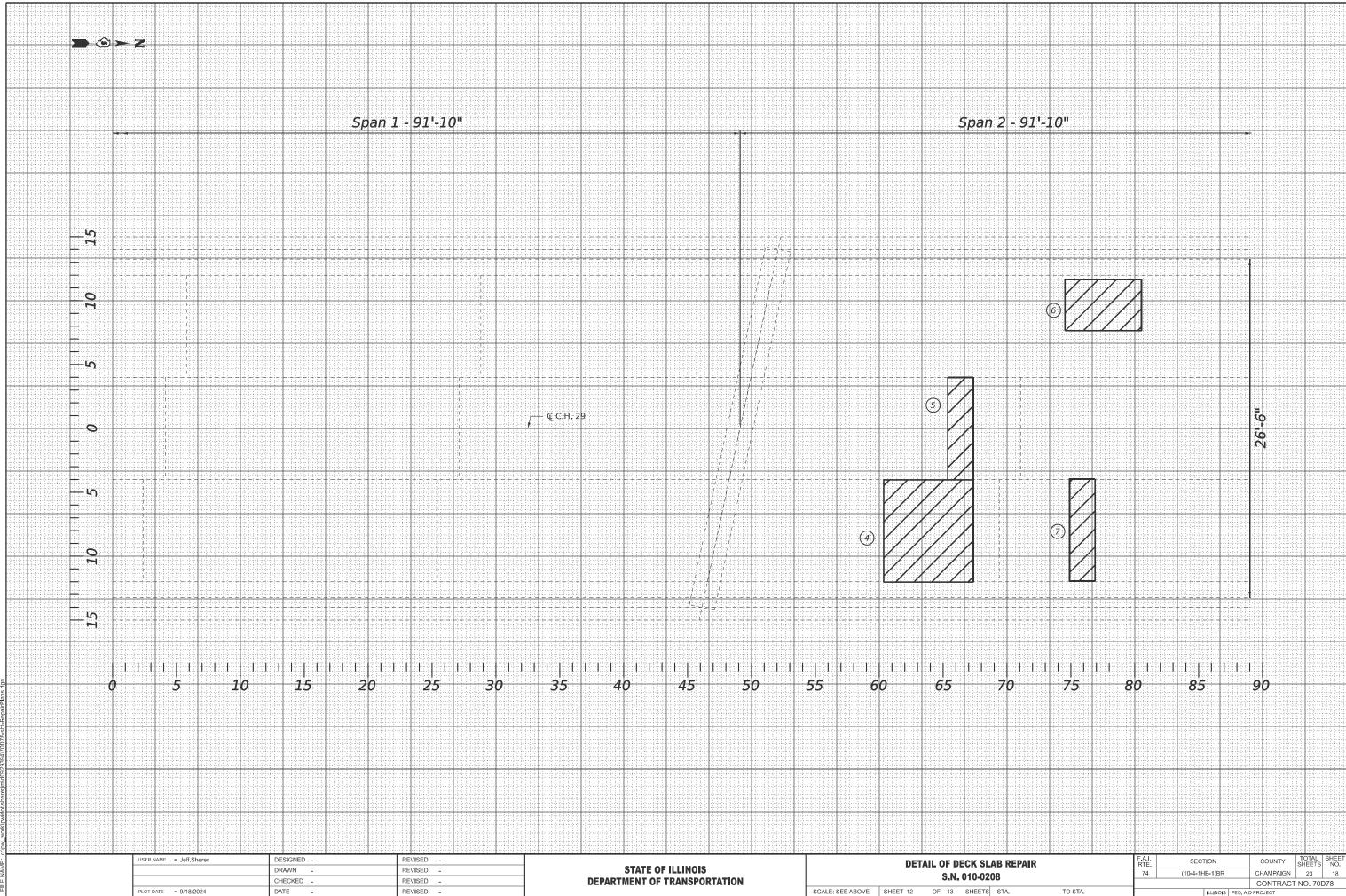
DEPARTMENT OF TRANSPORTATION

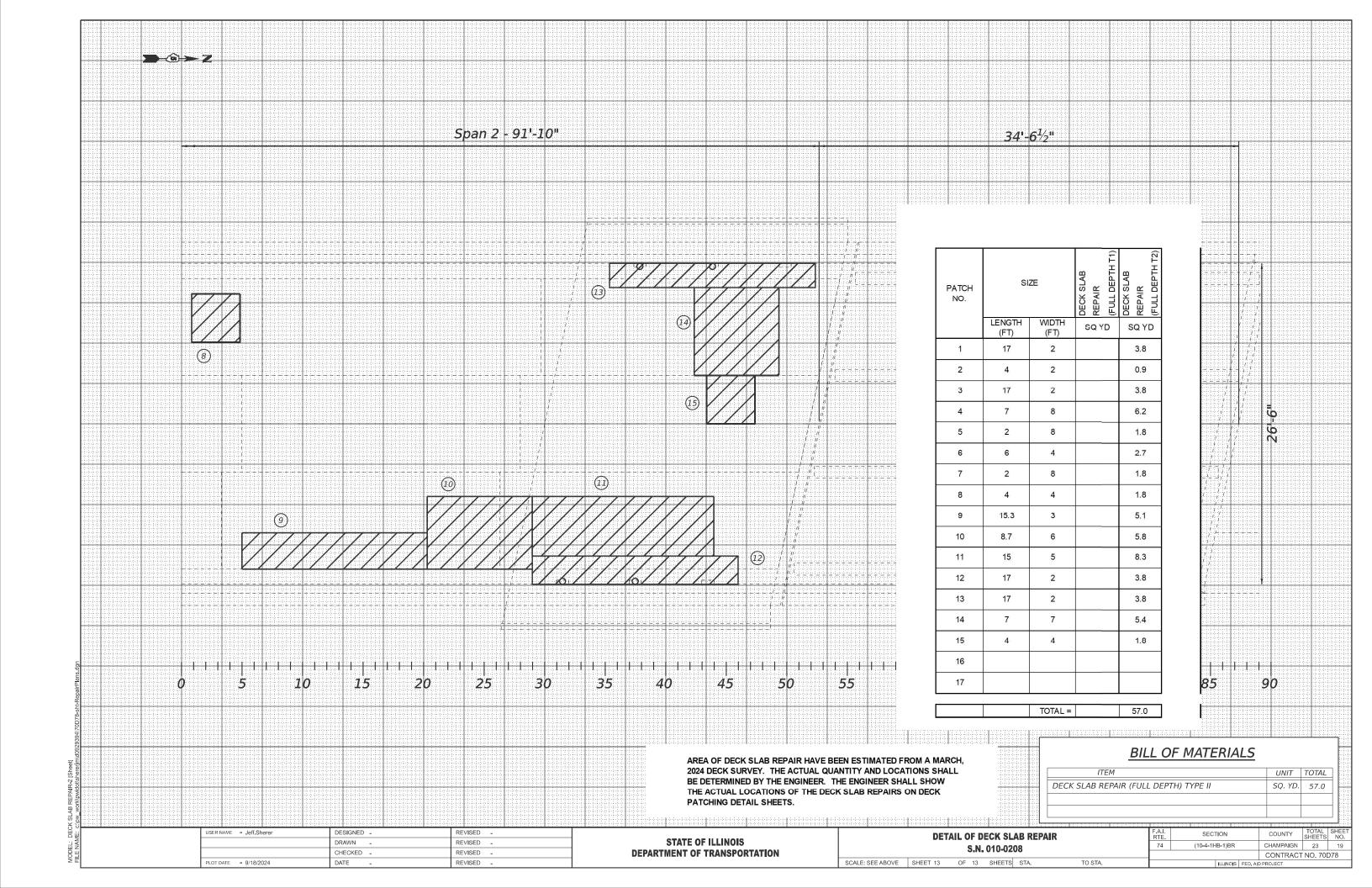
S.N. 010-0208 SHEET 9 OF 13 SHEETS STA. TO STA.

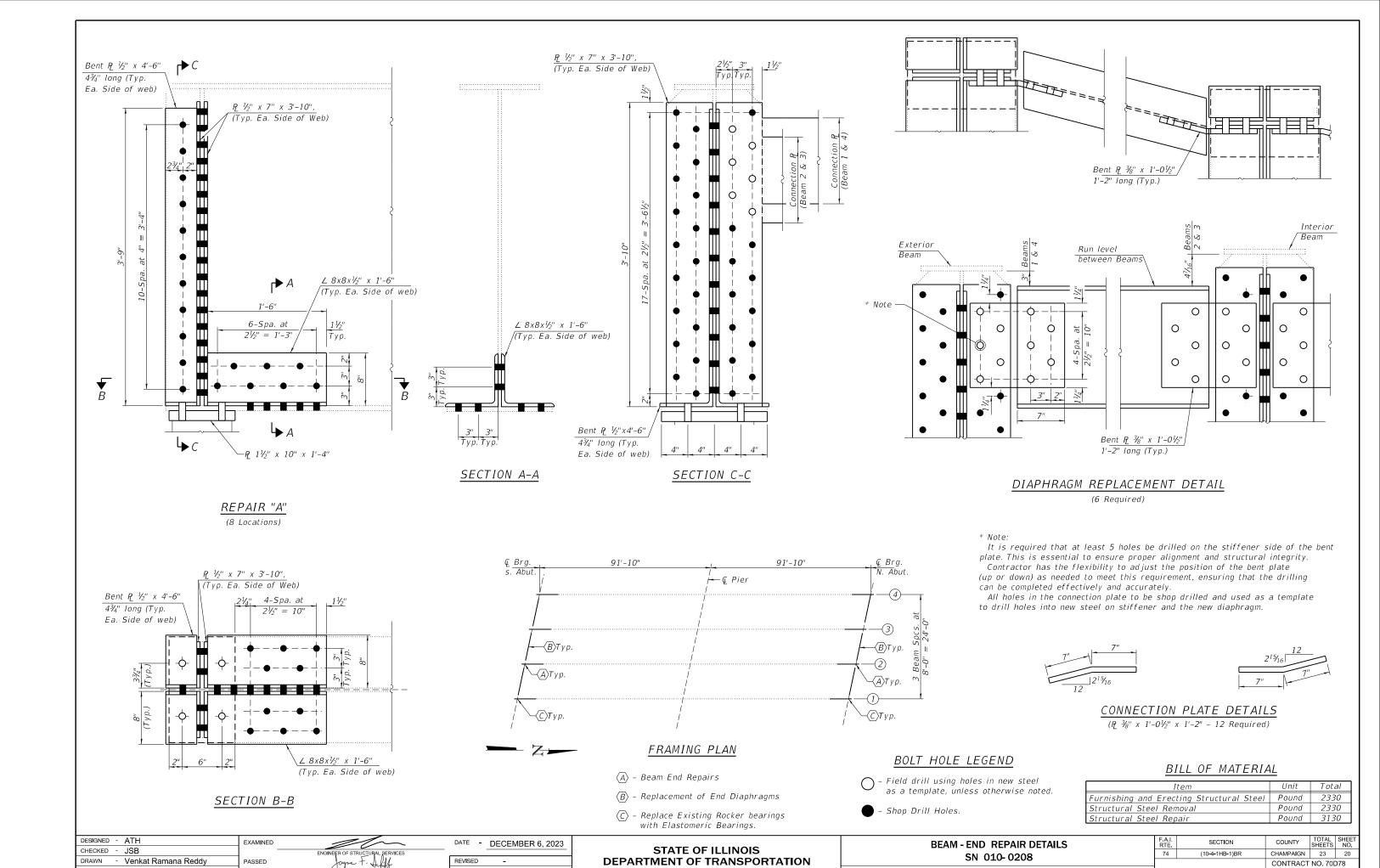
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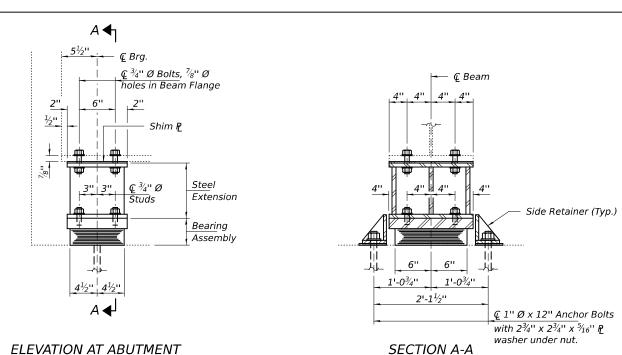




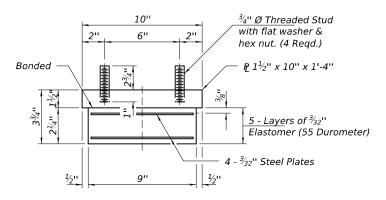


SHEET NO. 1 OF 2 SHEETS

CHECKED - ATH

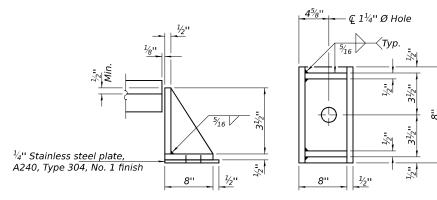


TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

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

BEAM REACTIONS

R₽	(K)	45.8
R Ł	(K)	34.7
Imp.	(K)	8.0
R (Total)	(K)	88.5

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

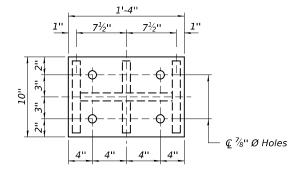
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 51 Tons.

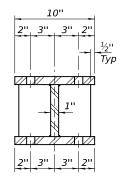
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of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

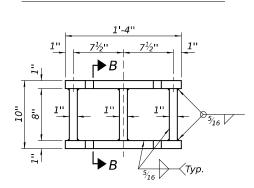
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



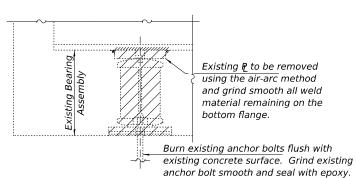
PLAN TOP AND BOTTOM PLATE





SECTION B-B

STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing	Each	0
Assembly, Type I	Each	0
Jack and Remove	Each	8
Existing Bearings	Each	0
Furnishing and Erecting	Pound	1490
Structural Steel	Pouria	1490
Anchor Bolts, 1"Ø	Each	16
•		

TY I-REPS

4/30/2024

DESIGNED - ATH EXAMINED DECEMBER 6, 2024 CHECKED - JSB DRAWN -Venkat Ramana Reddy PASSED REVISED -OHECKED - ATH REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REPAIR DETAILS SN 010 - 0208 SHEET 2 OF 2 SHEETS

SECTION COUNTY 74 (10-4-1HB-1)BR CHAMPAIGN 23 21 CONTRACT NO. 70D78

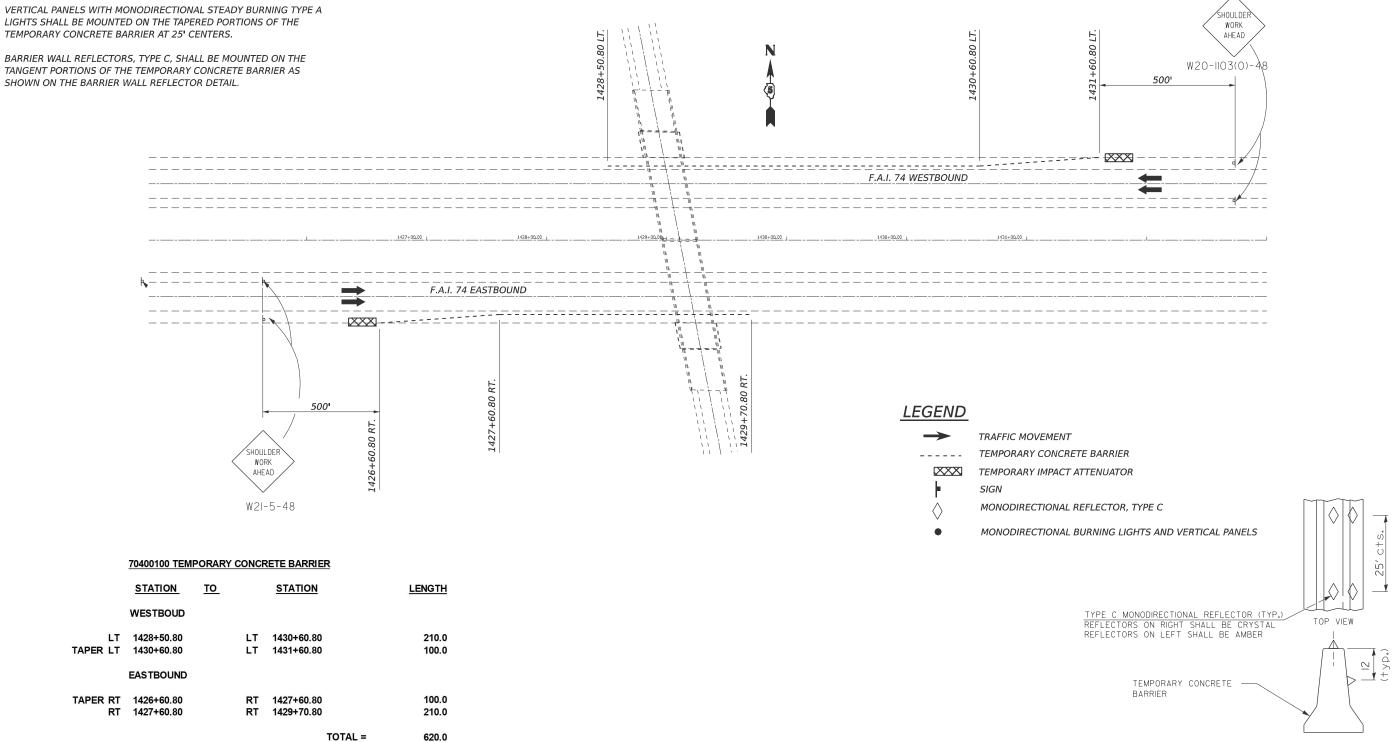
12/6/2024 3:44:36 PM

TRAFFIC CONTROL AND PROTECTION (SPECIAL) PLAN NOTES: UTILIZE TRAFFIC CONTROL STANDARD 701406 FOR PLACEMENT OF TEMPORARY CONCRETE BARRIER. (FLAGGER REQUIRED UNTIL BARRIER PLACEMENT COMPLETED.) TAPERED PORTION OF THE TEMPORARY CONCRETE BARRIER SHALL

VERTICAL PANELS WITH MONODIRECTIONAL STEADY BURNING TYPE A LIGHTS SHALL BE MOUNTED ON THE TAPERED PORTIONS OF THE

BE PLACED USING A 12:1 TAPER RATE AS SHOWN ON THE PLANS.

BARRIER WALL REFLECTORS, TYPE C, SHALL BE MOUNTED ON THE TANGENT PORTIONS OF THE TEMPORARY CONCRETE BARRIER AS SHOWN ON THE BARRIER WALL REFLECTOR DETAIL.



BARRIER WALL MARKERS

	USER NAME = Jeff.Sherer	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
	PLOT DATE = 8/28/2024	DATE -	REVISED -

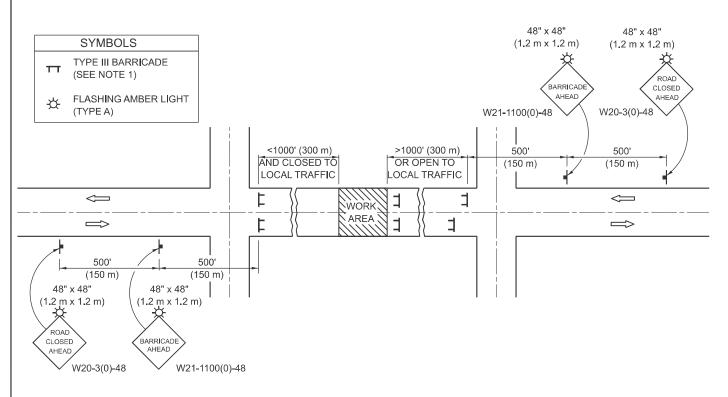
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAIL OF TRAFFIC CONTROL & PROTECTION (SPECIAL) S.N. 010-0208 SCALE: NONE SHEET 1 OF 1 SHEETS STA.

SECTION (10-4-1HB-1)BR CHAMPAIGN 23 22 CONTRACT NO. 70D78

ROAD CLOSURE

SIDEROAD / STREET CLOSURE



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 701901 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
- WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
- 4. STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
- 5. IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.

- 6. REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TY III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
- 7. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- 8. A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES
- 9. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- 10. FORMS BT. 725 AND BT. 726 ARE REQUIRED.
- WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
- 12. AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

FLASHING LIGHT FLAGGER WITH TRAFFIC CONTROL SIGN (WHILE WORK IS BEING PERFORMED) پر W20-3(0)48 W20-3(0)48 CONE (DAYLIGHT HOURS ONLY), DRUM, 🔆 W21-1100(0)-48 W21-1100(0)-48 TYPE I OR TYPE II BARRICADE CLOSED ARRICAD AHEAD **WORK AREA** AHEAD W20-7(0)-48 W20-7(0)-48 OR STOP W20-7a(0)-48 OR STOP W20-7a(0)-48 CLOSED , FLAGMA AHEAD W20-5(0)-48 SEE NOTE #2 FLAGMAN AHEAD V20-5(0)-48 30' (9.0 m) MIN. 100' (30.0 m) MAX. MAINLINE ROUTE (UNDER CONSTRUCTION SEE NOTE #9) CLOSED RIGHT OR LEFT RIGHT OR LEFT CLOSED CLOSED CLOSED LEFT HALF RIGHT HALF MAJOR STREET MINOR STREET CLOSED CLOSED HALF CLOSED HALF CLOSED W21-1100(0)48 CLOSED CLOSED AHEAD

GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
- 3. STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES
- 4. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
- 6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- 7. FORMS BT 725 AND BT 726 ARE REQUIRED.
- THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.

SYMBOLS

TT TYPE III BARRICADE (SEE NOTE)

9. ALL FLAGGERS REQUIRED AT SIDE ROADS
AND ENTRANCES REMAINING OPEN TO TRAFFIC
AND/OR ADDITIONAL BARRICADES REQUIRED BY
THE ENGINEER TO CLOSE SIDE ROADS AND
ENTRANCES WILL BE PAID FOR ACCORDING
TO ARTICLE 109.04.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

				DISTRICT 5 DETAIL NO. 70200000					
USER NAME = Jeff.Sherer	DESIGNED -	REVISED _ 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL & PROTECTION DEVICES		SECTION	COUNTY	TOTAL SHE SHEETS NO	EET
	DRAWN -	REVISED - 12/07			74	(10-4-1HB-1)BR	CHAMPAIGN	23 25	23
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED - 09/09 KJT		(ROAD & SIDEROAD / STREET CLOSURES)			CONTRACT NO. 70D78		
PLOT DATE = 6/24/2024	DATE -	REVISED -		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED.	AID PROJECT		