

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	1
		ILLINOIS		CONTRACT NO 74A70

FOR INDEX OF SHEETS, SEE SHEET NO. 2
ADT = 23400

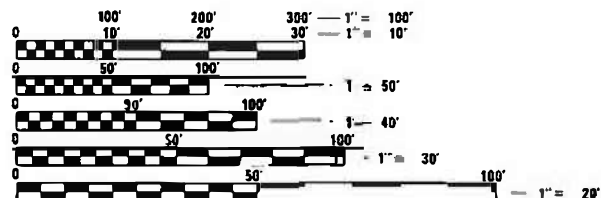
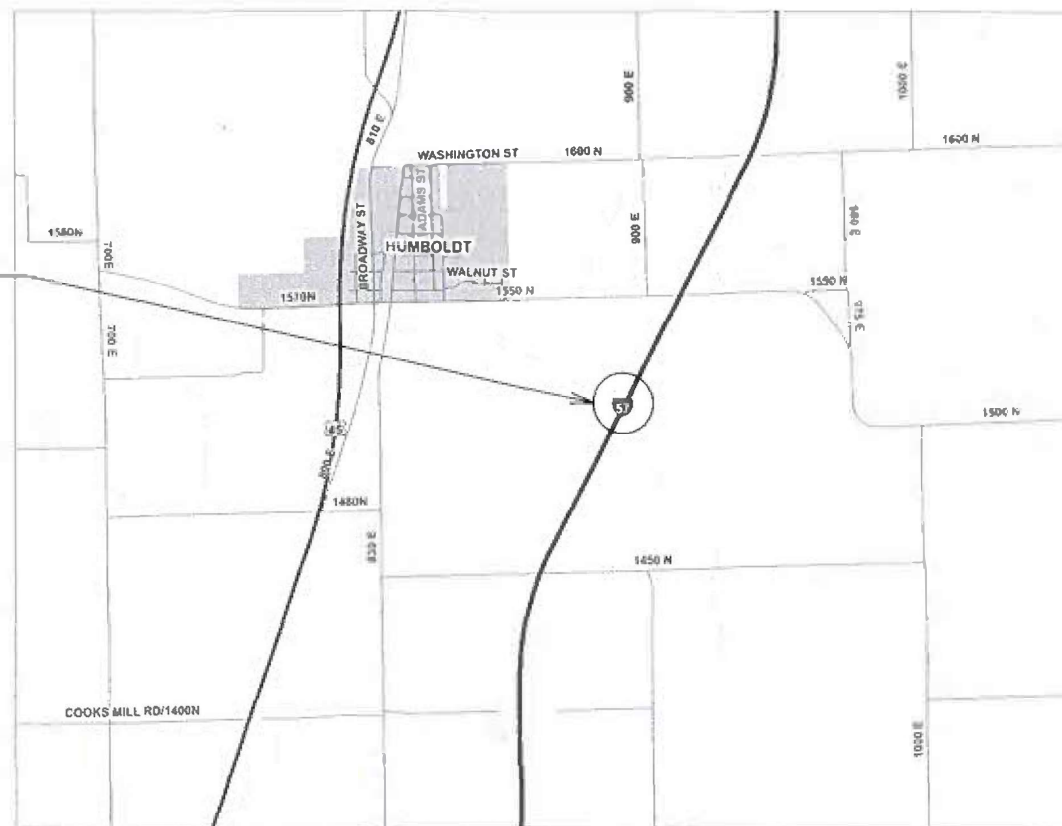
PROPOSED
HIGHWAY PLANS

FAI ROUTE 57 (I-57)
SECTION D7 BRIDGE REPAIRS 2023-2
PROJECT NHPP-P1SK(144)
BRIDGE DECK OVERLAY
COLES COUNTY

C-97-170-21



LOCATION OF PROJECT
SN 015-0009
SN 015-0010



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

PROJECT ENGINEER MATT BOWER
PROJECT MANAGER JASON TEASLEY
CONTRACT NO. 74A70

GROSS LENGTH = 152.50 FT. = 0.029 MILE
NET LENGTH = 152.50 FT. = 0.029 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 30 2022
Jeffrey P. Myer
REGIONAL ENGINEER

October 14, 2022
Scott A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 2022
Stephen M. Faria
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0013 90% FED 10% STATE		
35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SO YD	1111	1111		
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SO YD	267	267		
42000060	WELDED WIRE REINFORCEMENT	SO YD	1378	1378		
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SO YD	144	144		
42001300	PROTECTIVE COAT	SO YD	1365	1365		
44000100	PAVEMENT REMOVAL	SO YD	144	144		
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SO YD	802	802		
44004250	PAVED SHOULDER REMOVAL	SO YD	1378	1378		
50300100	FLOOR DRAINS	EACH	20	20		
50300225	CONCRETE STRUCTURES	CU YD	54	54		
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	227	227		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	90490	90490		
50800515	BAR SPLICERS	EACH	588	588		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0013 90% FED 10% STATE		
64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	1800	1800		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
67100100	MOBILIZATION	L SUM	1	1		
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	1	1		
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5		
70107007	PAVEMENT MARKING BLACKOUT TAPE, 7"	FOOT	2312	2312		
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	9884	9884		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	4643	4643		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1050	1050		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	850	850		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		

REV. - MS

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PLOT DATE = 8/30/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

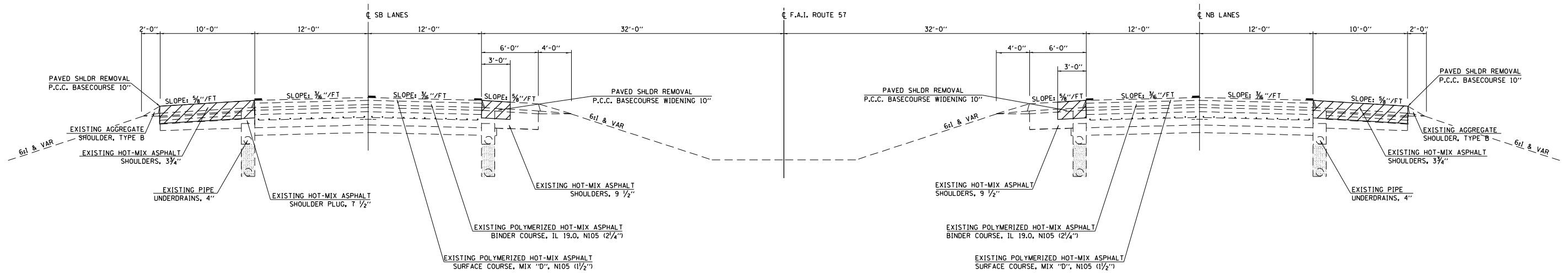
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	3
CONTRACT NO. 74A70				
ILLINOIS FED. AID PROJECT				

REV-SEP

TYPICAL CROSS SECTION
PAVED SHLDR REMOVAL /P.C.C. BASECOURSE WIDENING 10"

NBDL
 1171+74 TO 1174+94
 1176+47 TO 1178+27
NBPL
 1172+78 TO 1174+98
 1176+50 TO 1178+30
SBDL
 1176+66 TO 1179+86
 1173+33 TO 1175+13
SBPL
 1176+64 TO 1178+82
 1173+30 TO 1175+10



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74A70	

PAVEMENT MARKING SCHEDULE

STATION	TO	STATION	PAVEMENT MARKING BLACKOUT TAPE 7"	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	GROOVING FOR RECESSED PAVEMENT MARKING 7"	PREFORMED PLASTIC PAVEMENT MARKING TYPE - LINE 6"
			FOOT	FOOT	SQ FT	FOOT	FOOT
NB							
1157+07	TO	1167+07	250.0		145.8		
1173+57	TO	1178+10	453.0		264.3		
1173+57	TO	1178+10	453.0		264.3		
SB							
1173+50	TO	1178+03	453.0		264.3		
1173+50	TO	1178+03	453.0		264.3		
1184+53	TO	1194+53	250.0		145.8		
STAGE 1							
NB							
1157+07	TO	1177+60		2053.0	684.3		
1173+57	TO	1178+10		453.0	151.0		
SB							
1174+00	TO	1194+53		2053.0	684.3		
1173+50	TO	1178+03		453.0	151.0		
STAGE 2							
NB							
1173+57	TO	1178+10		453.0	151.0		
1157+77	TO	1177+60		1983.0	661.0		
SB							
1173+50	TO	1178+03		453.0	151.0		
1174+00	TO	1193+83		1983.0	661.0		
NB							
1174+95	TO	1176+48				346.0	346.0
SB							
1175+11	TO	1176+64				346.0	346.0
TOTAL			2312	9884	4643	692	692

WIDENING SCHEDULE

STATION	TO	STATION	PORTLAND CEMENT CONCRETE BASE COURSE, 1.0"	P.C.C. BASE COURSE WIDENING 10"	WELDED WIRE REINFORCEMENT	PAVED SHOULDER REMOVAL	SHOULDER RUMBLE STRIPS 1.6"
			SQ YD	SQ YD	SQ YD	SQ YD	FOOT
NB							
1171+74	TO	1174+94	355.6		355.6	355.6	320.0
1176+47	TO	1178+27	200.0		200.0	200.0	180.0
1172+78	TO	1174+98		73.3	73.3	73.3	220.0
11476+50	TO	1178+30		60.0	60.0	60.0	180.0
NORTH BOUND TOTALS			555.6	133.3	688.9	688.9	900.0
SB							
1176+66	TO	1179+86	355.6		355.6	355.6	320.0
1173+33	TO	1175+13	200.0		200.0	200.0	180.0
1176+62	TO	1178+82		73.3	73.3	73.3	220.0
1173+30	TO	1175+10		60.0	60.0	60.0	180.0
SOUTH BOUND TOTALS			555.6	133.3	688.9	688.9	900.0
TOTAL			1111	267	1378	1378	1800

TRAFFIC CONTROL DEVICES

STATION	TO	STATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEV ³	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEV ³
			FOOT	FOOT	EACH	EACH
STAGE 1						
NB	1172+47	TO	1174+57	250.0	-	1
NB	1174+57	TO	1176+85	275.0	-	-
SB						
SB	1174+77	TO	1177+03	275.0	-	-
SB	1177+03	TO	1179+15	250.0	-	1
STAGE 2						
NB	1172+83	TO	1174+57	-	150.0	-
NB	1174+57	TO	1176+85	-	275.0	-
SB						
SB	1174+74	TO	1177+03	-	275.0	-
SB	1177+03	TO	1178+78	-	150.0	-
TOTALS			1050	850	2	2

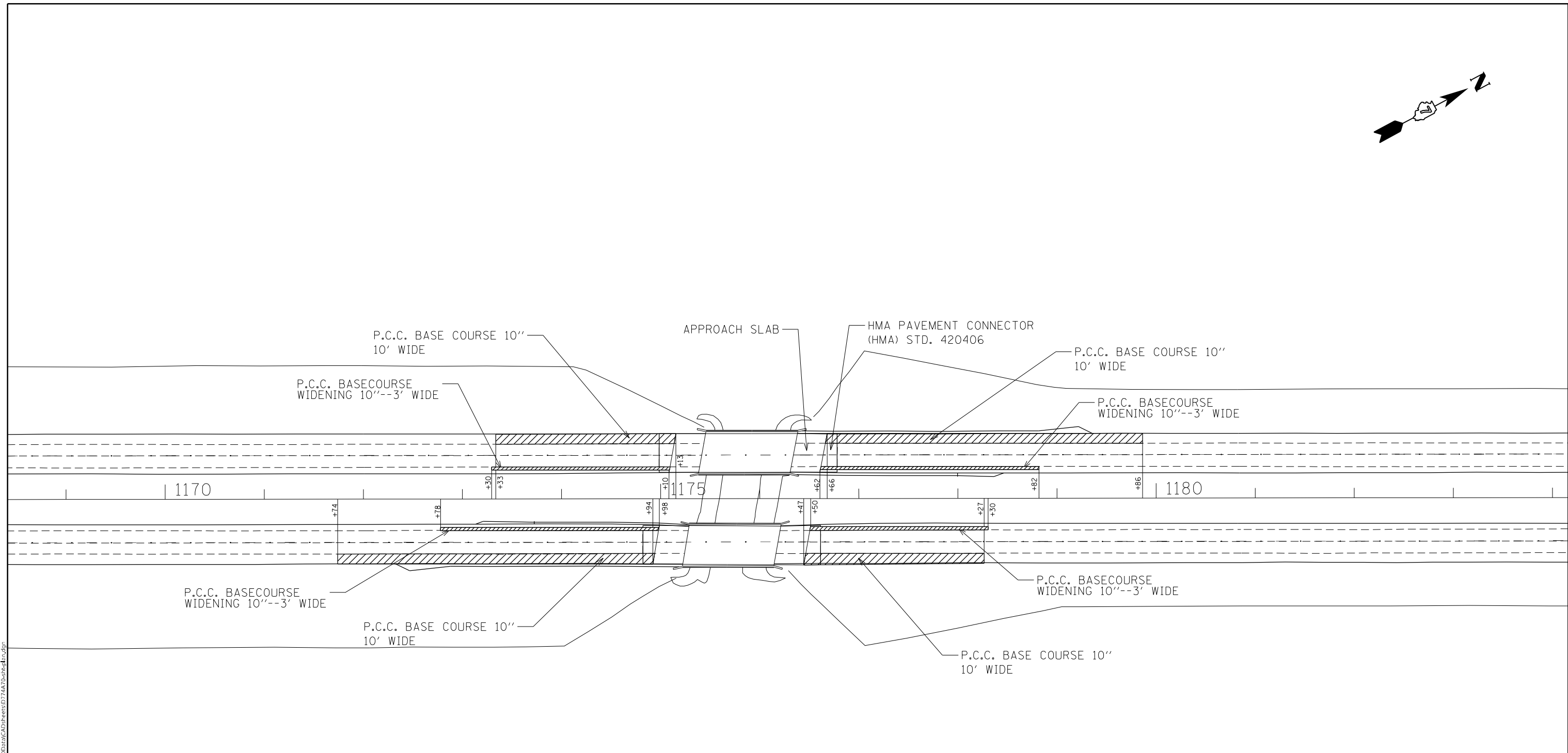
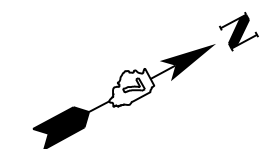
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	DRAWN -	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULES			
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	STA.	TO	STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	6
			CONTRACT NO. 74A70	
		ILLINOIS	FED. AID PROJECT	



 PAVED SHOULDER REMOVAL

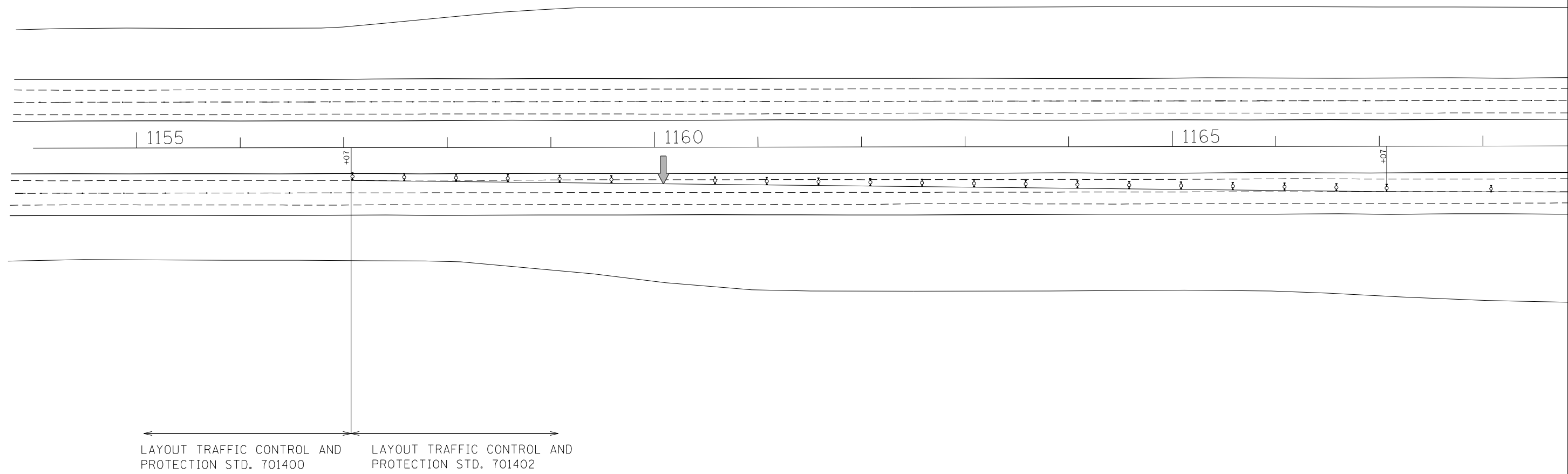
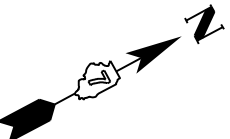
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
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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SCALE:	SHEET	OF	SHEETS
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	7
CONTRACT NO. 74A70				
ILLINOIS FED. AID PROJECT				



LEGEND

-  **ARROW BOARD**
-  **DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT**
-  **TYPE II BARRICADE DRUM OR VERTICAL BARRICADE**

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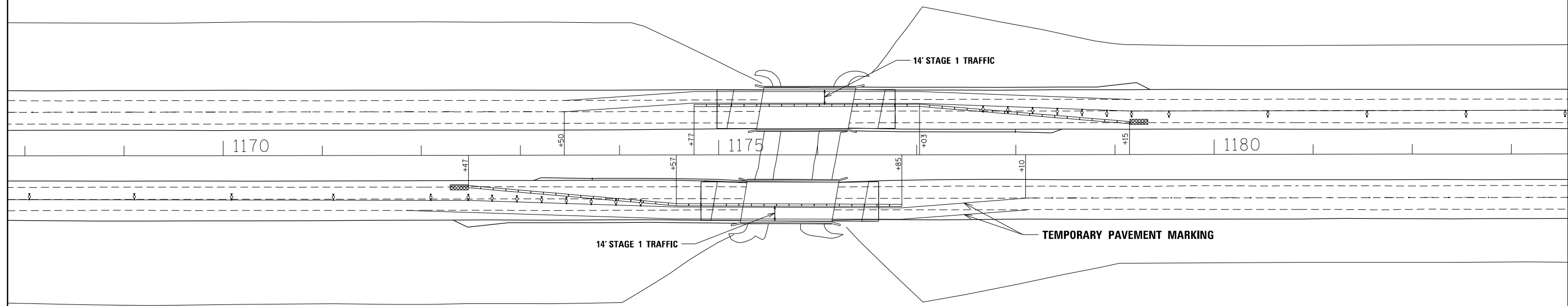
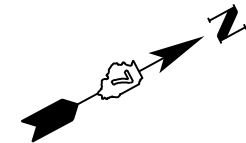
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**





STAGE 1 TRAFFIC CONTROL

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74A70	



LEGEND

-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE

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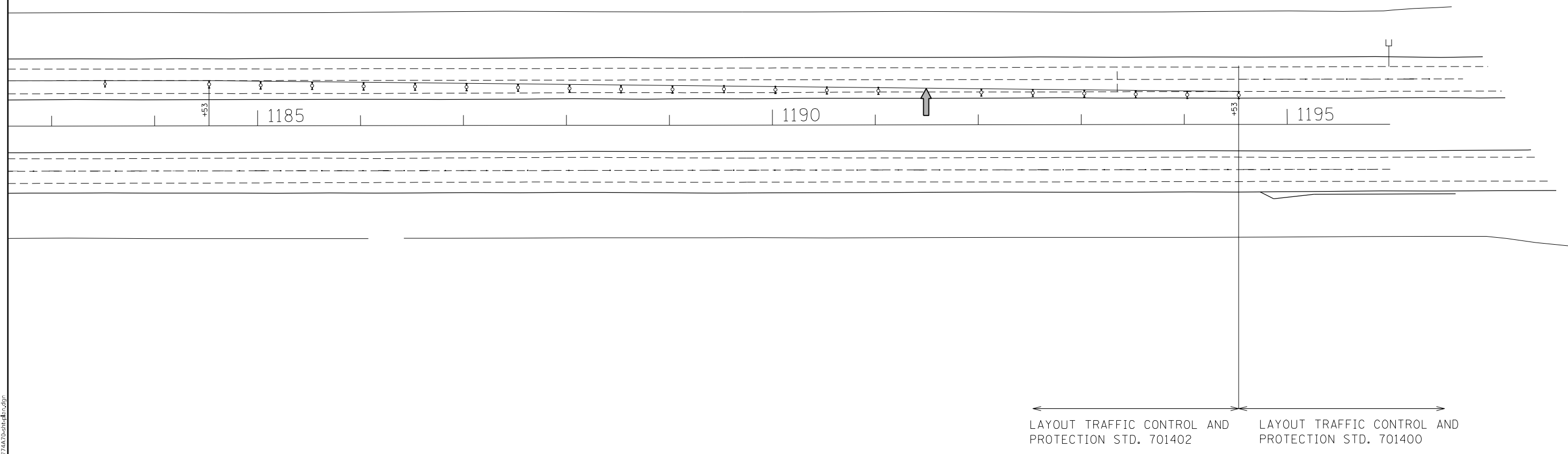
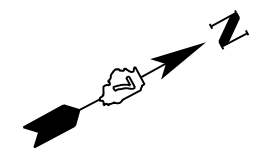
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




STAGE 1 TRAFFIC CONTROL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	9
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74A70	



LEGEND

-  **ARROW BOARD**
-  **DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT**
-  **TYPE II BARRICADE DRUM OR VERTICAL BARRICADE**

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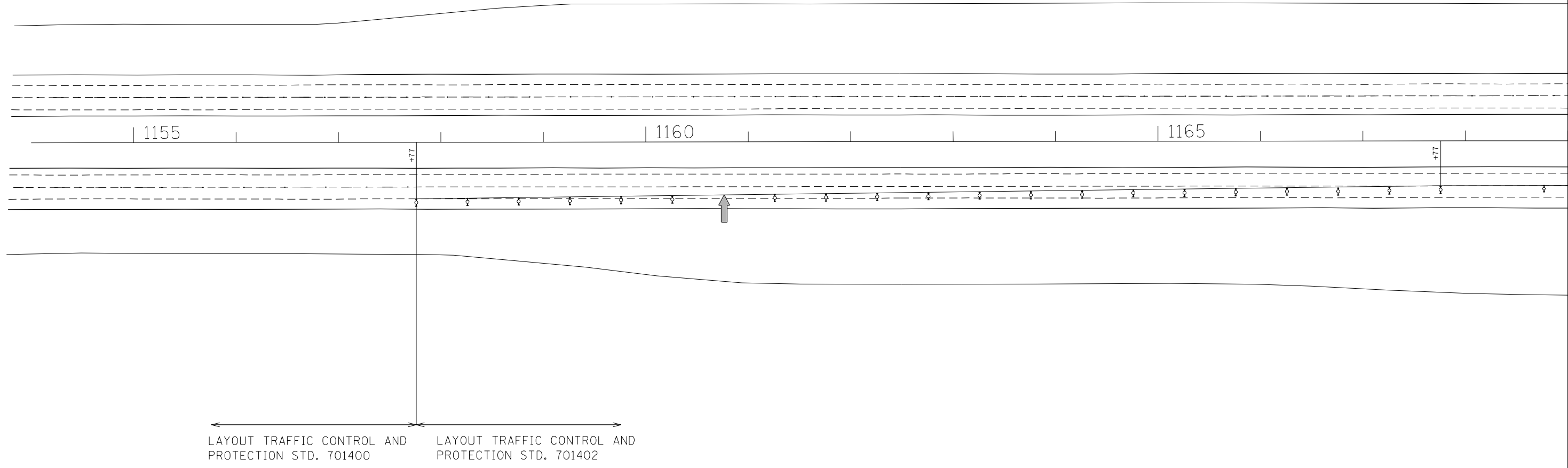
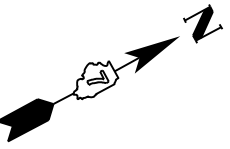
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 1 TRAFFIC CONTROL




SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	10
ILLINOIS			FED. AID PROJECT	

CONTRACT NO. 74A70



LEGEND

-  **ARROW BOARD**
-  **DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT**
-  **TYPE II BARRICADE DRUM OR VERTICAL BARRICADE**

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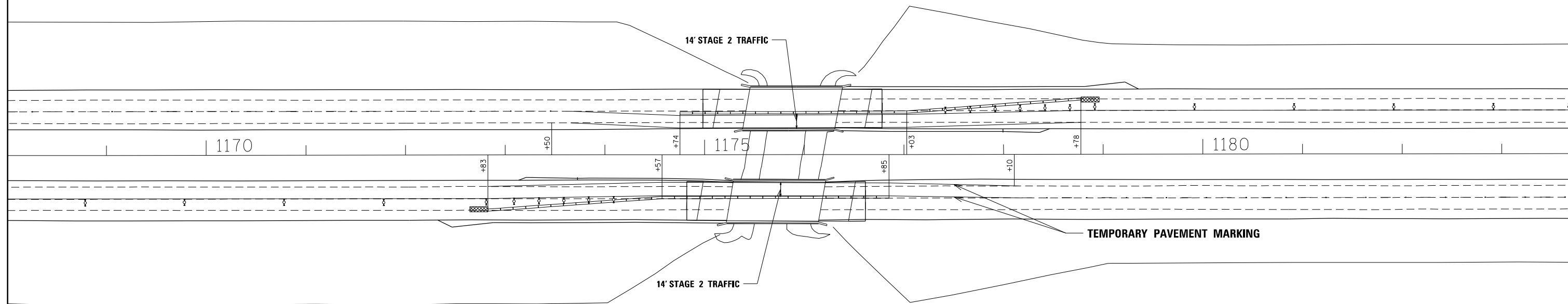
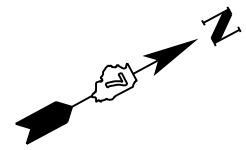
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**





STAGE 2 TRAFFIC CONTROL

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	11
			CONTRACT NO. 74A70	
ILLINOIS FED. AID PROJECT				



LEGEND

-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE

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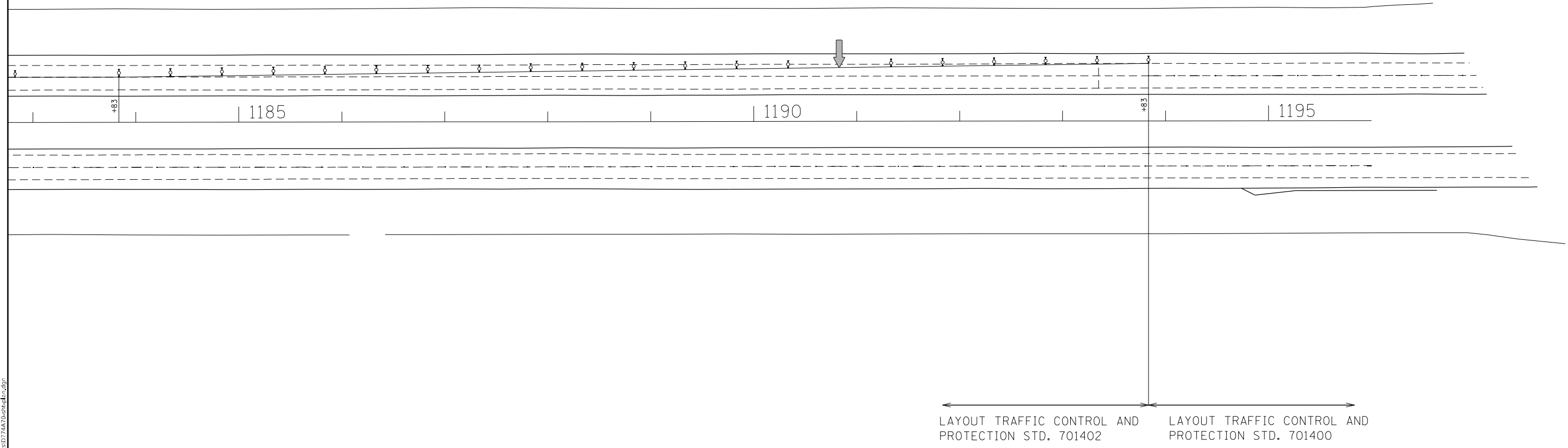
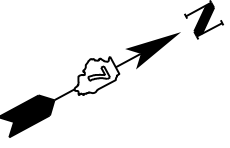
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2 TRAFFIC CONTROL




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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	12
ILLINOIS			FED. AID PROJECT	

CONTRACT NO. 74A70



LEGEND

-  **ARROW BOARD**
-  **DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT**
-  **TYPE II BARRICADE DRUM OR VERTICAL BARRICADE**

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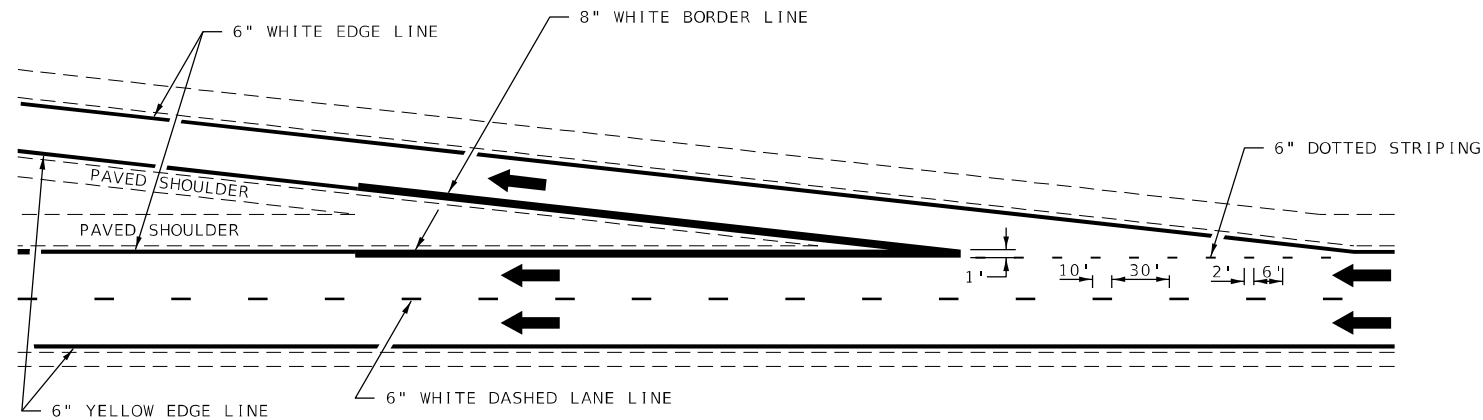
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PLOT DATE = 8/30/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

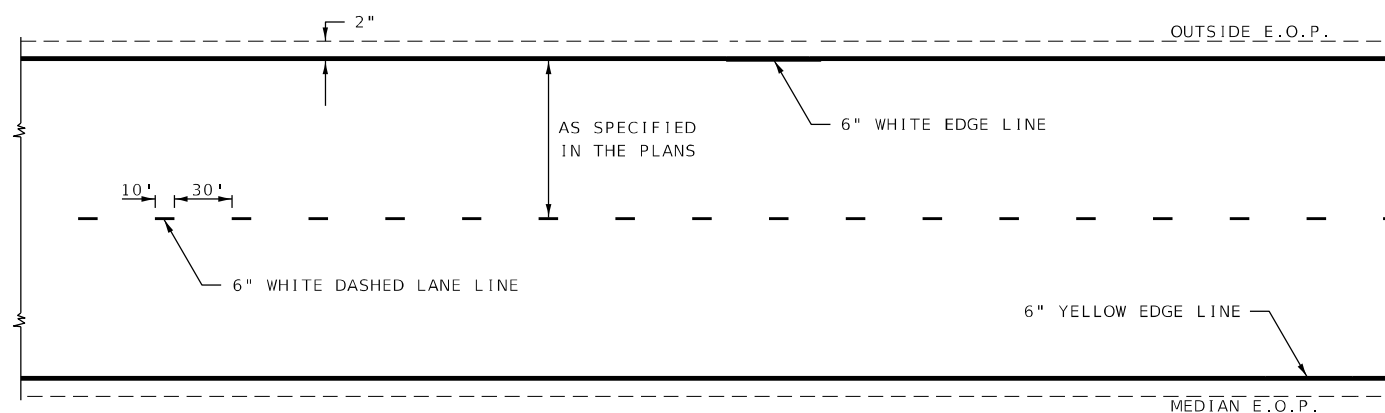
STAGE 2 TRAFFIC CONTROL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 74A70				
ILLINOIS FED. AID PROJECT				

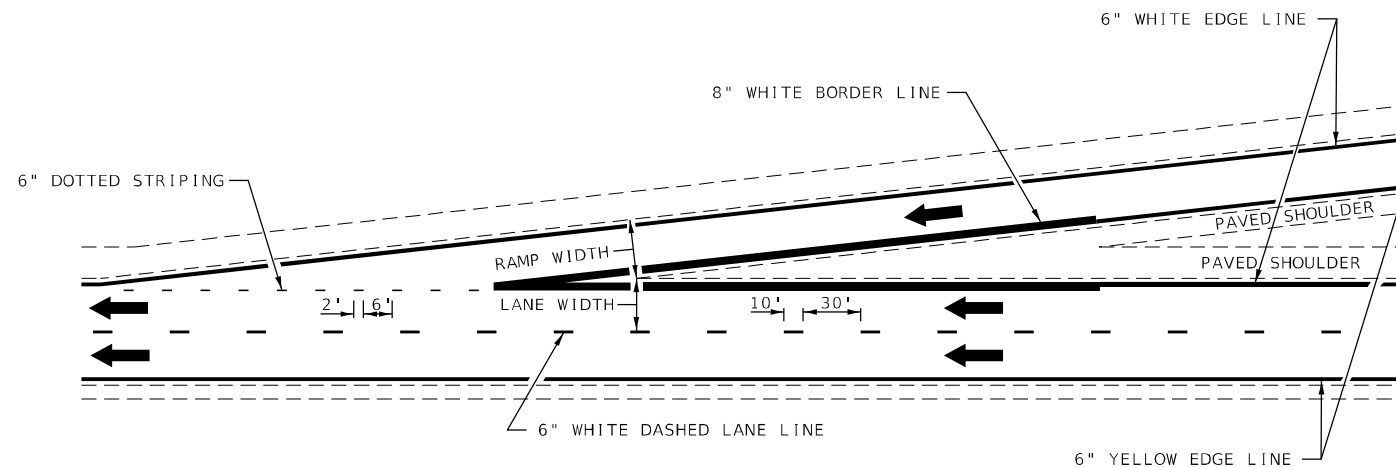
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TYPICAL EXIT RAMP MARKING



TYPICAL CENTERLINE & EDGELINE MARKINGS



TYPICAL ENTRANCE RAMP MARKING

NOT TO SCALE

DISTRICT 7 DETAIL NO. 78000002

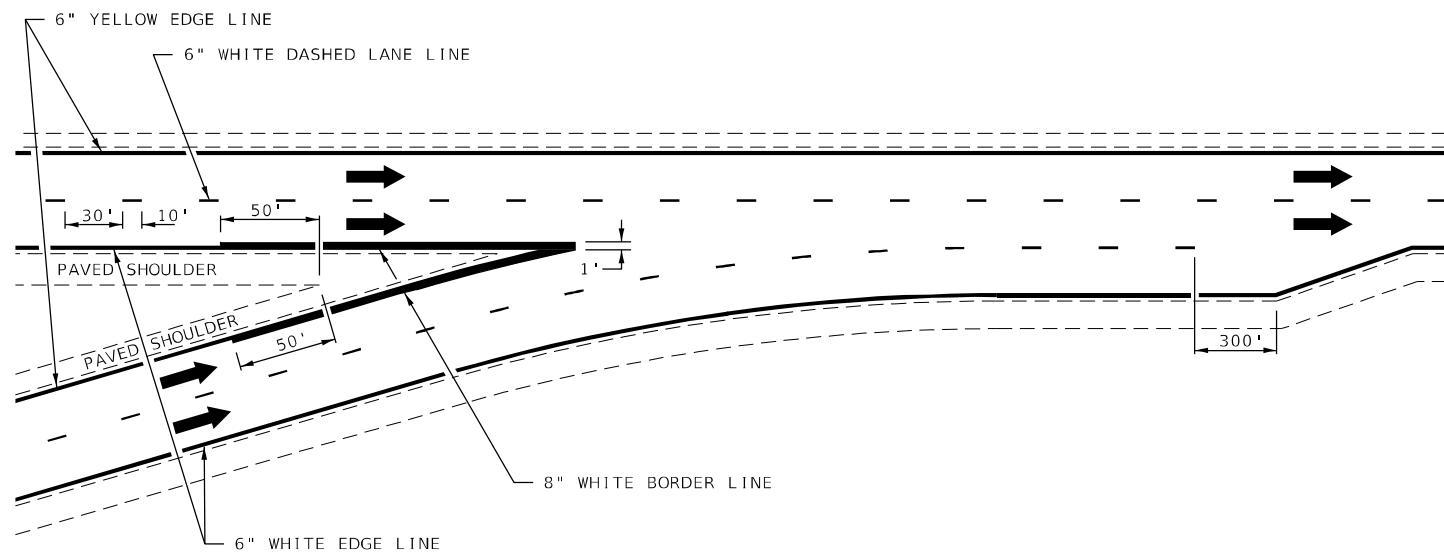
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TYPICAL APPLICATIONS OF FREEWAY/EXPRESSWAY
PAVEMENT MARKING**

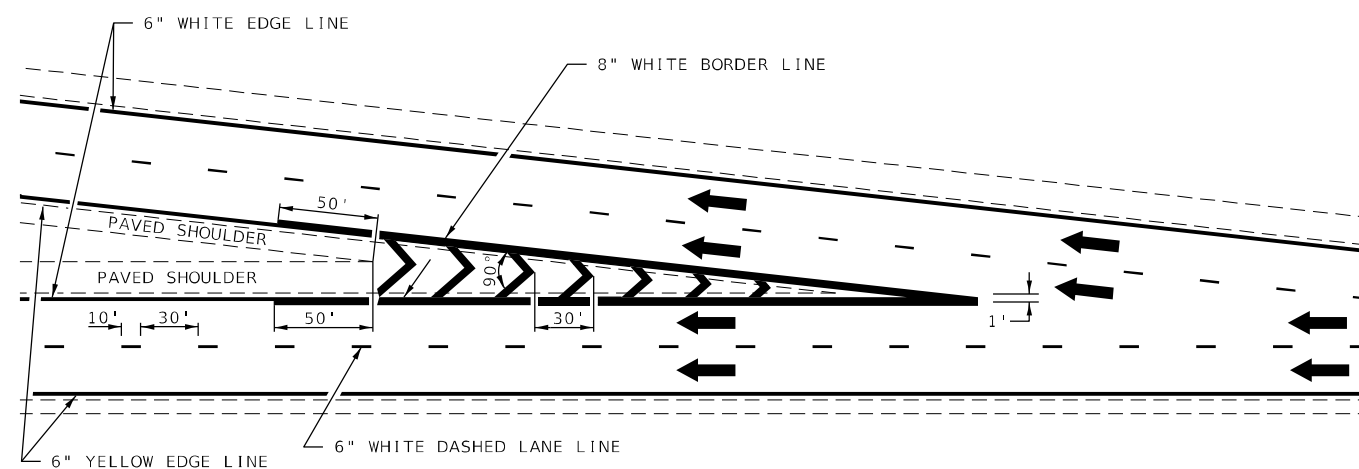
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57	D7 BRIDGE REPAIRS 2023-2	COLES	24	14
			CONTRACT NO. 74A70	
ILLINOIS FED. AID PROJECT				

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

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	DRAWN -	REVISED - DRM 01-09
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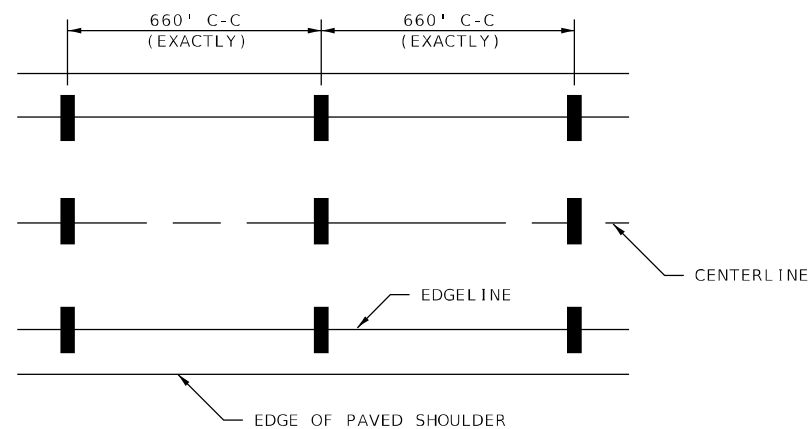


TYPICAL CONVERGENCE MARKING

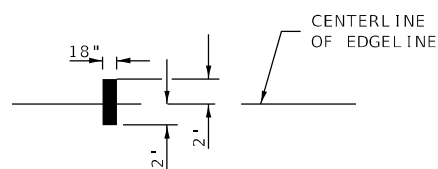


TYPICAL DIVERGENCE MARKING

AERIAL SPEED CHECK ZONES



IT WILL BE NECESSARY TO HAVE A REPRESENTATIVE OF THE STATE POLICE PRESENT SO THAT THE ACCURACY OF MEASUREMENT CAN BE ATTESTED TO IN COURT.



NOT TO SCALE

DISTRICT 7 DETAIL NO. 78000002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

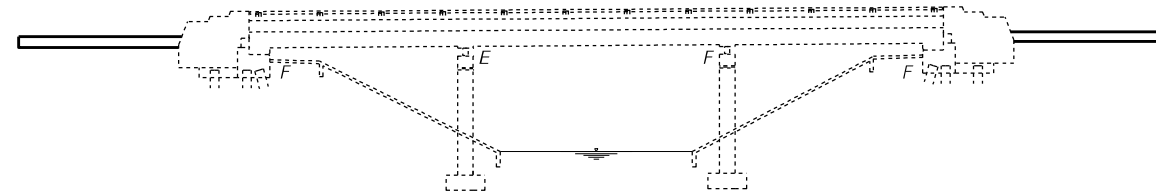
TYPICAL APPLICATIONS OF FREEWAY/EXPRESSWAY
PAVEMENT MARKING

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	15
			CONTRACT NO. 74A70	
ILLINOIS FED. AID PROJECT				

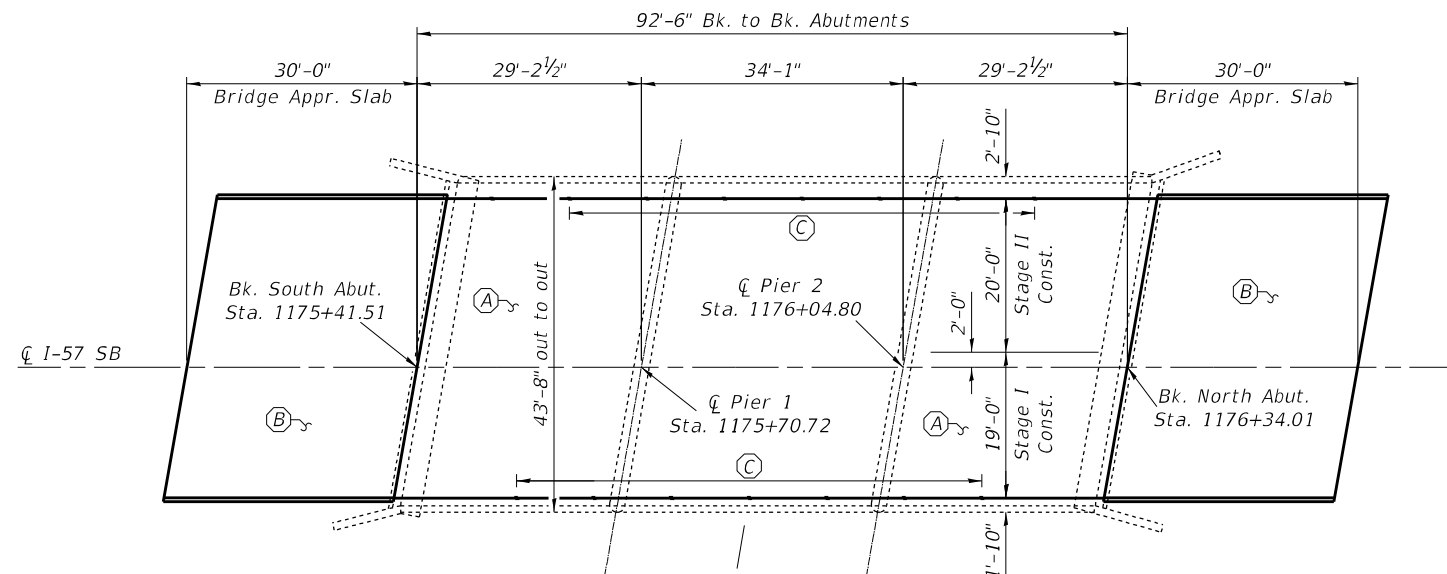
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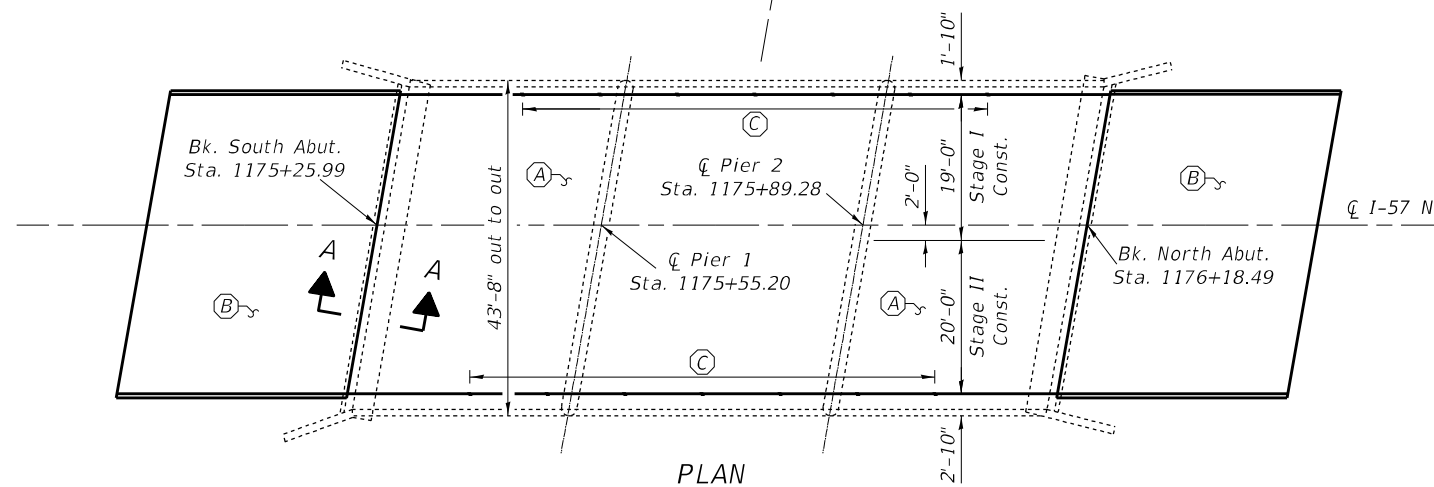
Existing Structures: SN. 015-0009 (NBL) & 015-0010 (SBL) carry I-57 over South Fork of Flat Branch. The existing three span, concrete slab structures were constructed in 1961, and the abutments were modified in 2002 to integral abutments. The proposed project consists of bridge deck scarification, full depth deck patching, curb repair, bridge deck overlay, deck drain replacement, new approaches, and diamond grinding.



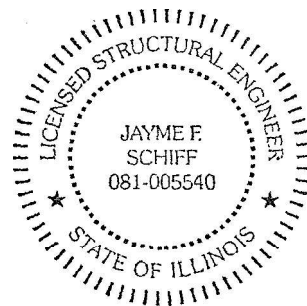
ELEVATION



- (A) - HMA Surface Removal 2 1/2", Bridge Deck Scarification 3/4", Deck Patching, Bridge Deck Fly Ash or GGBF Slag Concrete Overlay 3 1/4", Diamond Grinding (Bridge Section), & Bridge Deck Grooving (Longitudinal)
- (B) - Remove Existing Approaches & Construct New Bridge Approach Slabs, Diamond Grinding (Bridge Section), & Bridge Deck Grooving (Longitudinal)
- (C) - Remove and Replace Existing Floor Drains



PLAN



EXPIRES 11-30-2022

Jayme F. Schiff

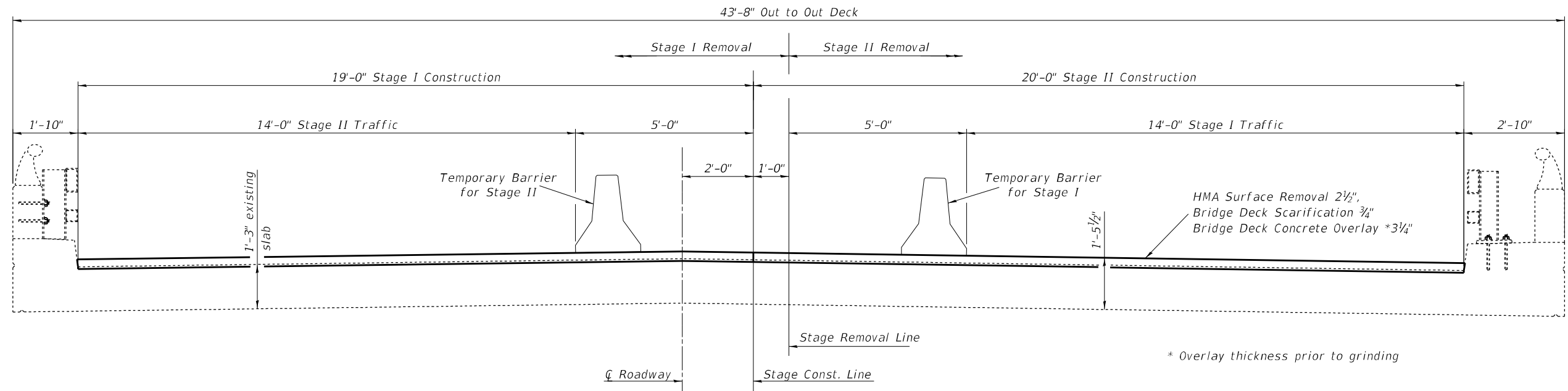
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PLOT DATE = 8/30/2022	DATE - August 2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
S.N. 015-0009 NBL & 015-0010 SBL

SCALE: SHEET 1 OF 9 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	16
CONTRACT NO. 74A70			ILLINOIS FED. AID PROJECT	



STAGE CONSTRUCTION DETAIL
SBL Looking South & NBL Looking North

GENERAL NOTES

Plan dimensions and details relative to existing plans 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement Bars designated (E) shall be epoxy coated.

Existing steel bridge rail posts and anchors should be left undisturbed if possible. If removal and re-erection of rail posts is necessary or if existing anchors are disturbed, then existing rail posts shall be reused and anchors shall be replaced with new anchors drilled and set according to Article 509.06 of the Standard Specifications. This work and all materials shall be included in the price of Structural Repair of Concrete.

It is anticipated that a full depth deck slab repair will be necessary at each existing floor drain location. Removal and disposal of the existing floor drains shall be included in the contract unit price for Deck Slab Repair (Full Depth, Type I).

Bridge Deck Grooving (Longitudinal) Shall be completed only after Diamond Grinding (Bridge Section) is complete.

Protective Coat to be applied to areas of new concrete only, including bridge deck concrete overlay & curb repair.

Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on as-built plans.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Superstructure (Approach Slab)	Cu. Yd.	227
Concrete Structures	Cu. Yd.	54
Reinforcement Bars, Epoxy Coated	Pound	90,490
Bar Splicers	Each	588
Hot-Mix Asphalt Surface Removal, 2 1/2"	Sq. Yd.	802
Bridge Deck Scarification, 3/4"	Sq. Yd.	802
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 3 1/4"	Sq. Yd.	802
Diamond Grinding (Bridge Section)	Sq. Yd.	1,420
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	813
Protective Coat	Sq. Yd.	1,365
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	13
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	22
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	204
Floor Drains	Each	20

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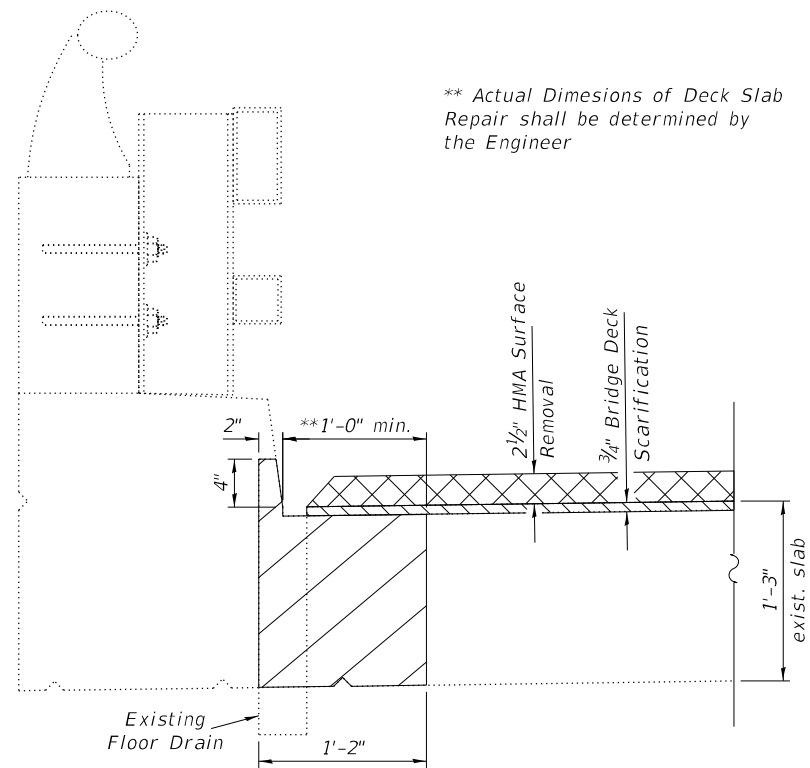
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PLOT DATE = 8/30/2022	DATE - August 2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

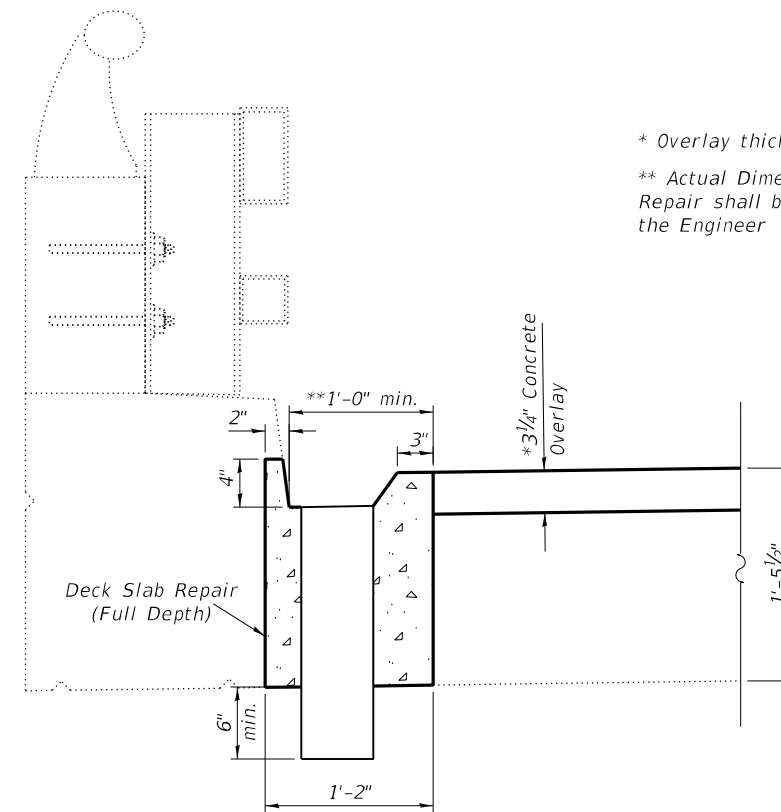
**STAGE CONSTRUCTION, GENERAL NOTES, &
BILL OF MATERIALS S.N. 015-0009 NBL & 015-0010 SBL**

SCALE: SHEET 2 OF 9 SHEETS STA. TO STA.

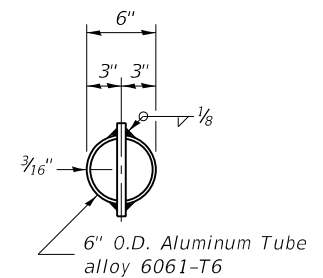
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57	D7 BRIDGE REPAIRS 2023-2	COLES	24	17
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74A70	



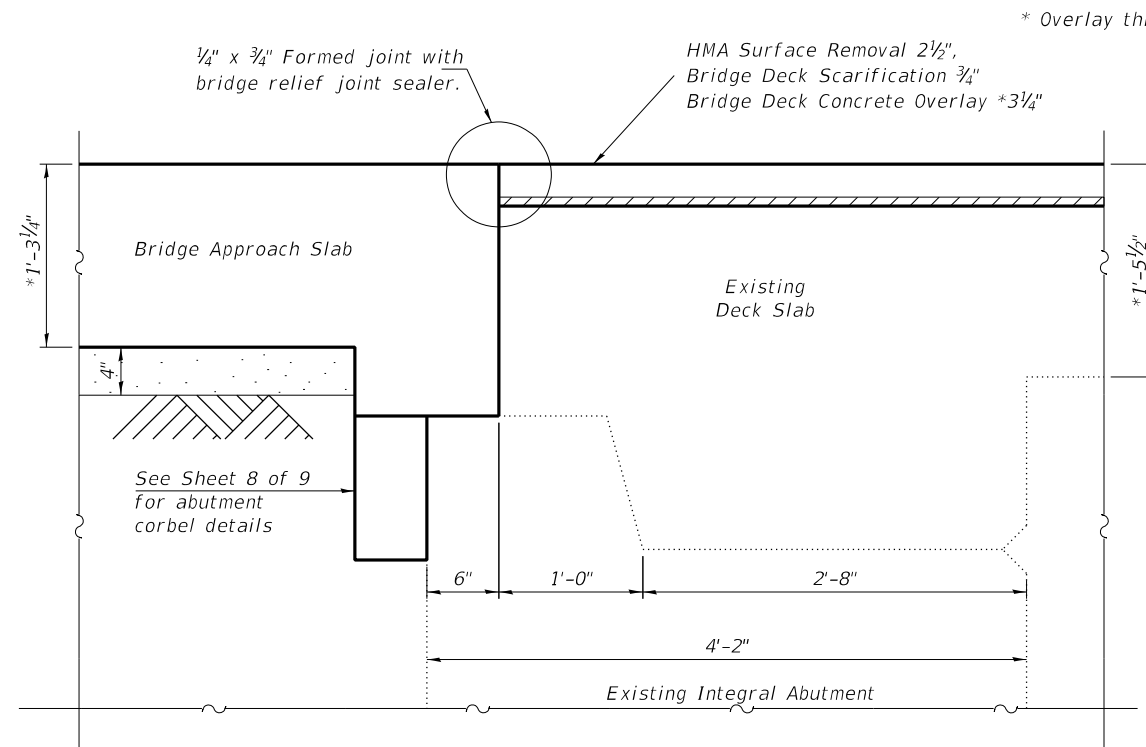
SECTION THRU EXISTING FLOOR DRAIN



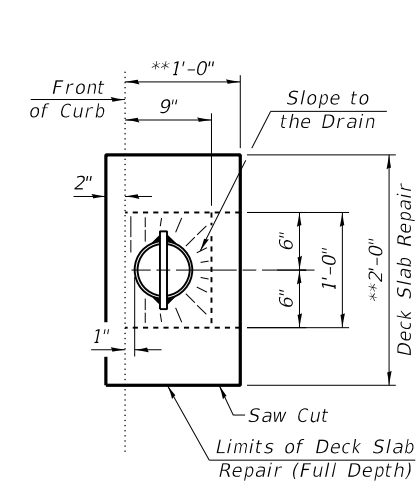
DRAIN REPLACEMENT DETAIL



TOP PLAN

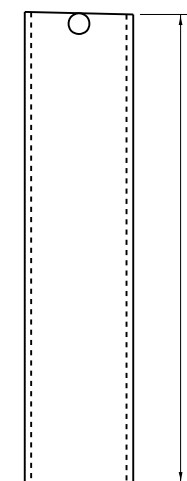


SECTION A-A



TOP PLAN DECK REPAIR AT PROPOSED DRAINS

From Bridge Manual



DRAIN DETAIL

20 Required

NOTES

Fiberglass pipe alternative shall not be allowed for floor drains.

Concrete removal and replacement quantities and locations for drains are included in Deck Slab Repair (Full Depth, Type 1) as shown on "Bridge Deck Patching" see sheet 4 & 5 of 9.

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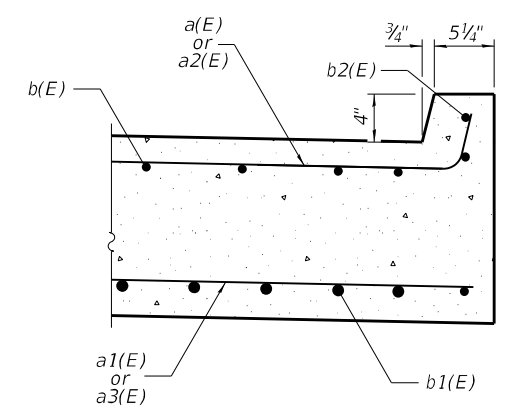
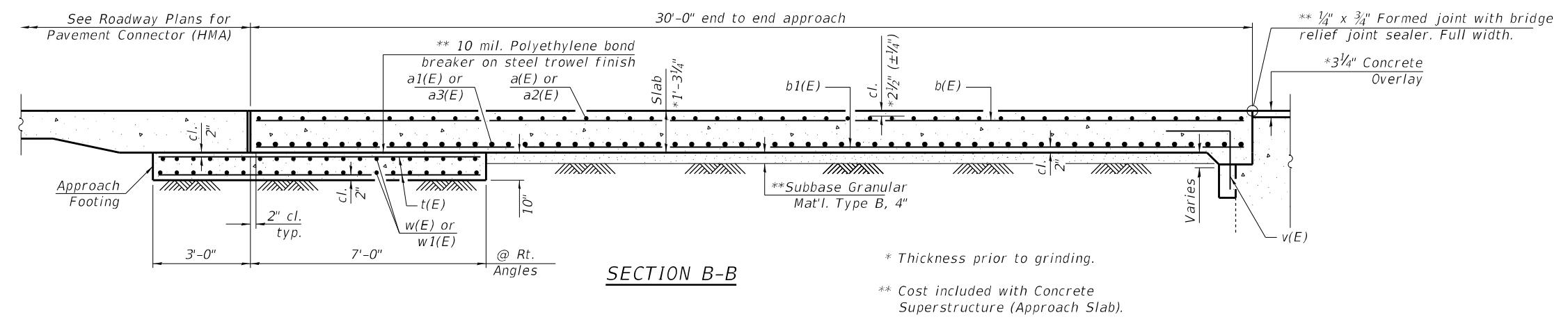
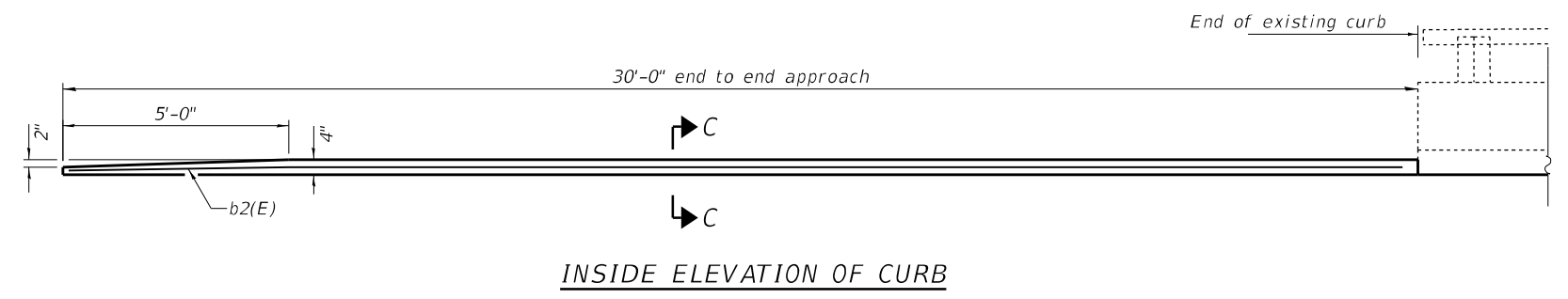
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK DRAIN DETAILS
S.N. 015-0009 NBL & 015-0010 SBL**

SCALE: SHEET 3 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	18
CONTRACT NO. 74A70			ILLINOIS FED. AID PROJECT	

Notes:
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.



**FOUR APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
a(E)	180	#5	19'-11"	┌───┐	
a1(E)	240	#8	19'-6"	┌───┐	
a2(E)	180	#5	20'-11"	┌───┐	
a3(E)	240	#8	20'-6"	┌───┐	
b(E)	244	#5	29'-8"	┌───┐	
b1(E)	388	#9	29'-8"	┌───┐	
b2(E)	8	#4	29'-8"	┌───┐	
t(E)	328	#4	9'-9"	┌───┐	
w(E)	160	#5	19'-6"	┌───┐	
w1(E)	160	#5	20'-6"	┌───┐	
Concrete Superstructure (Approach Slab)				Cu. Yd.	227
Concrete Structures				Cu. Yd.	50
Bar Splicers				Each	580
Reinforcement Bars, Epoxy Coated				Pound	88,960

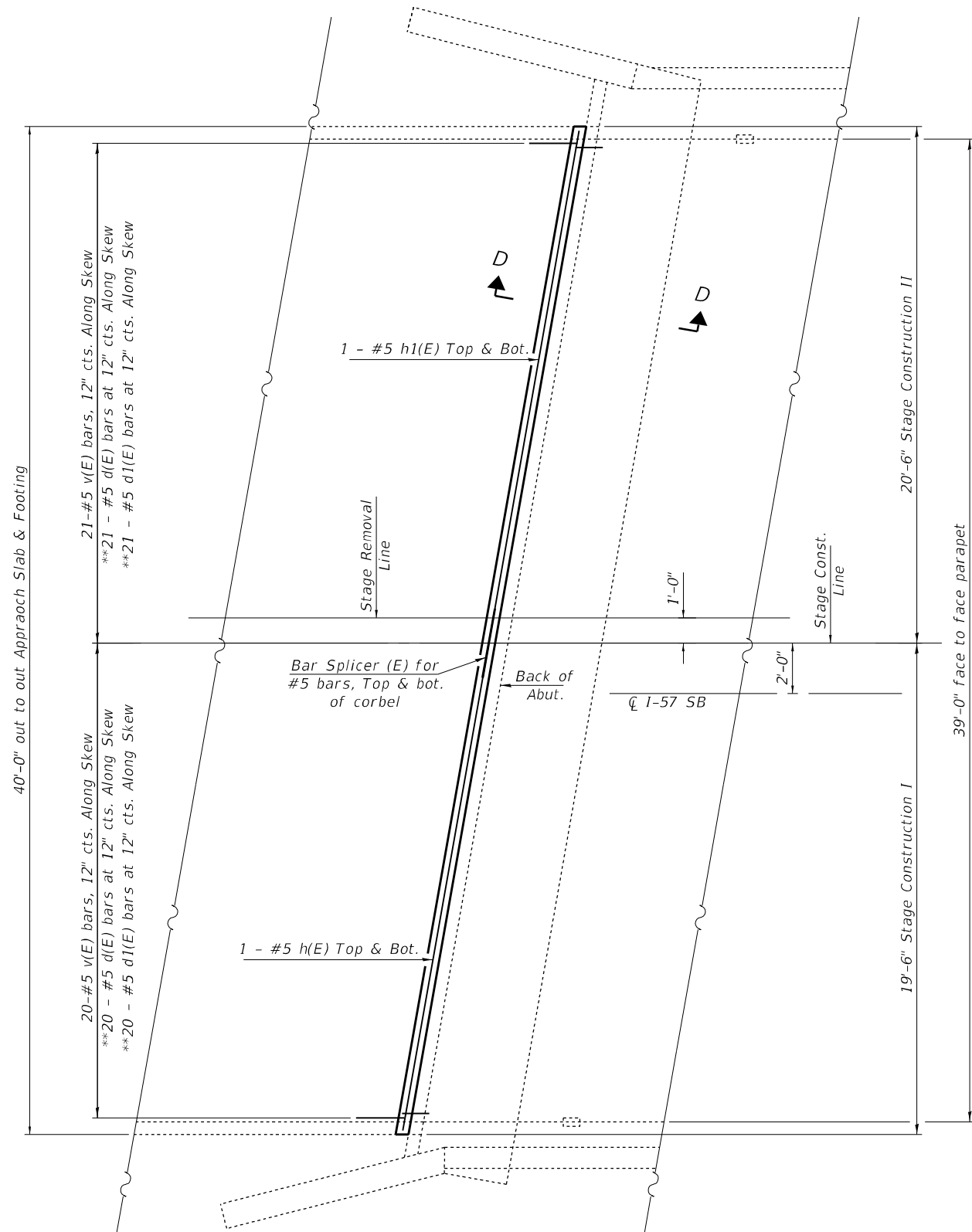
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DRAWN - T. Walk	REVISIONS -	
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

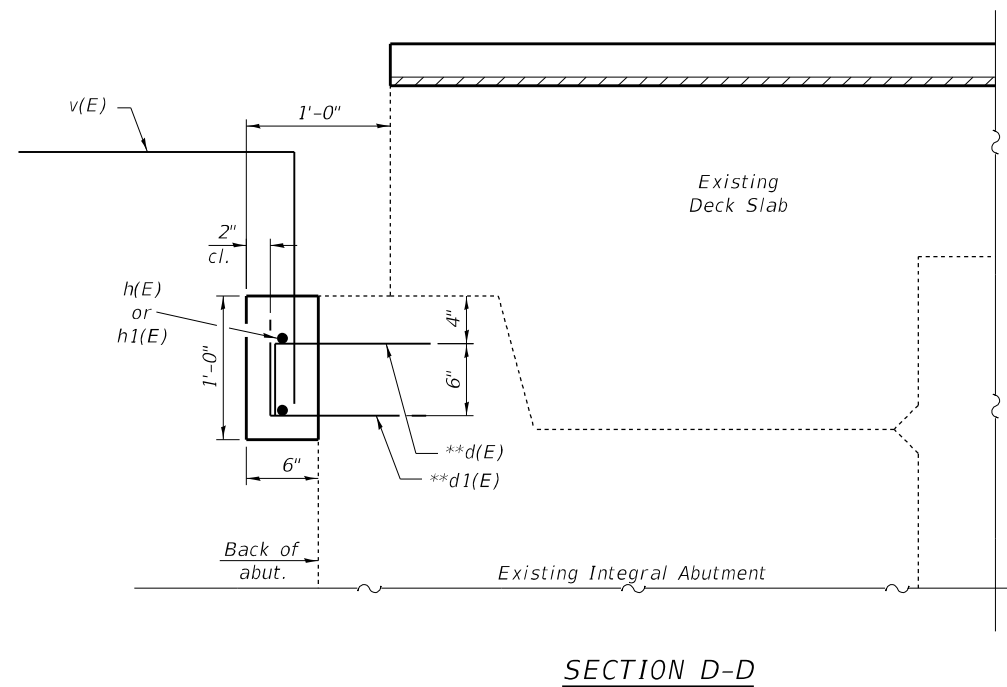
BRIDGE APPROACH SLAB DETAILS - SHEET 2 OF 2
S.N. 015-0009 NBL & 015-0010 SBL

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	22
SCALE: SHEET 7 OF 9 SHEETS STA. TO STA.			CONTRACT NO. 74A70	
ILLINOIS FED. AID PROJECT				



PROPOSED PARTIAL PLAN
 South Approach of SBL Shown
 North Approach of SBL Similar
 NBL Approaches Similar by Rotation

**Epoxy grout d(E) & d1(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

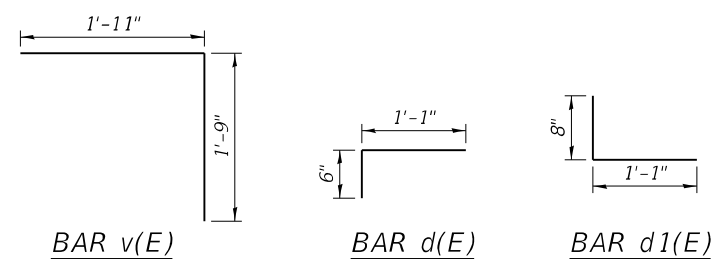


SECTION D-D

Notes:
 Abutment corbel concrete shall be paid for as Concrete Structures.
 Cost of excavation for approach footing and abutment corbel included with Concrete Structures.

BILL OF MATERIAL - FOUR ABUTMENTS

Bar	No.	Size	Length	Shape
d(E)	164	#5	1'-7"	┌
d1(E)	164	#5	1'-9"	└
h(E)	8	#5	19'-5"	—
h1(E)	8	#5	20'-5"	—
v(E)	164	#5	3'-8"	└
Concrete Structures			Cu. Yd.	3.2
Reinforcement Bars, Epoxy Coated			Pound	1,530
Bar Splicers			Each	8



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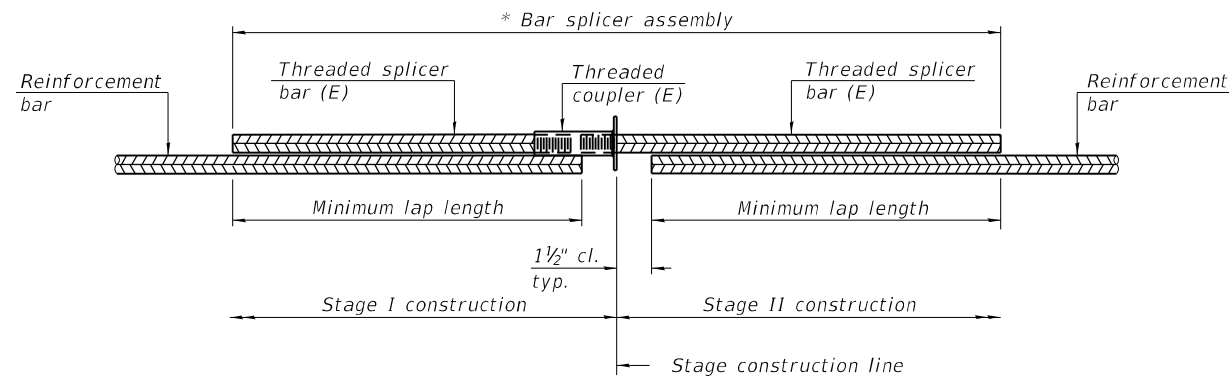
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	DATE - August 2021	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ABUTMENT MODIFICATIONS
 S.N. 015-0009 NBL & 015-0010 SBL**

SCALE: SHEET 8 OF 9 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	23
CONTRACT NO. 74470			ILLINOIS FED. AID PROJECT	

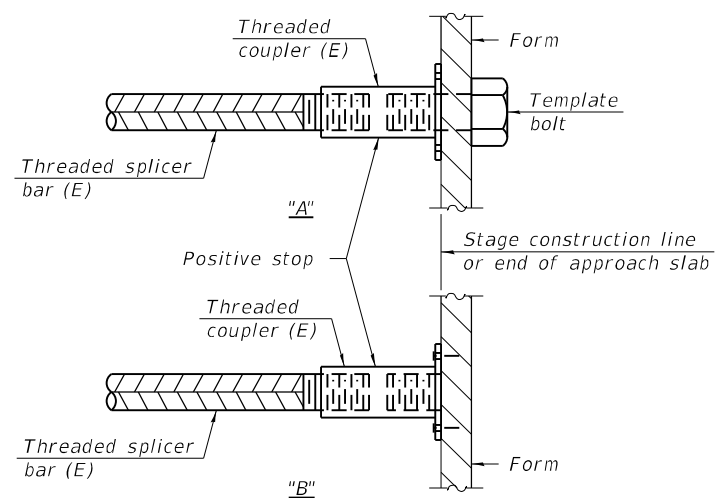


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

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

Location	Bar size	No. assemblies required	Minimum lap length
Abutment Corbel	#5	8	3'-0"
Approach	#5	180	3'-0"
Approach	#8	240	4'-9"
Approach Footing	#5	160	3'-0"

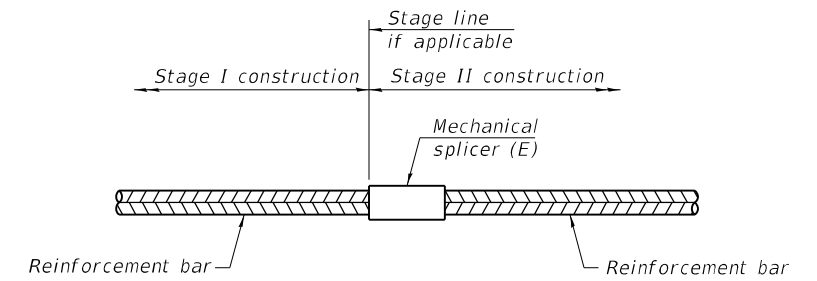


INSTALLATION AND SETTING METHODS

"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 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.

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BSD-1

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PLOT DATE = 8/30/2022	DATE - August 2021	REVISED -

**STATE OF ILLINOIS
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BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
S.N. 015-0009 NBL & 015-0010 SBL

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

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2023-2	COLES	24	24
ILLINOIS			FED. AID PROJECT	

CONTRACT NO. 74A70