

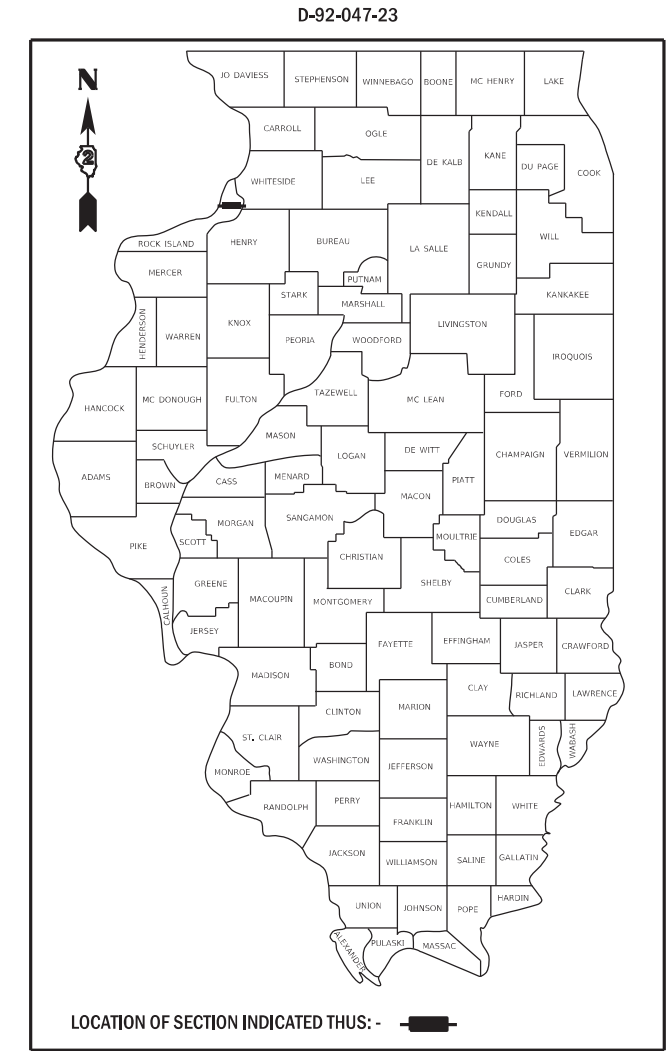
**INDEX OF SHEETS**

- 01 COVER SHEET
- 02 HIGHWAY STANDARDS & GENERAL NOTES
- 03 SUMMARY OF QUANTITIES
- 04 SCHEDULE OF QUANTITIES
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- 06 TRAFFIC CONTROL PLAN
- 07 GENERAL PLAN AND ELEVATION
- 08 DECK REPAIR AND OVERLAY PLAN
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- 13 MODIFIED PREFORMED JOINT STRIP SEAL
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**

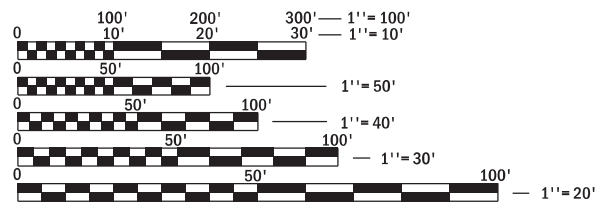
FAI ROUTE 88 (I-88)  
 SECTION (161-1HB-7) BDR  
 BRIDGE REPAIR  
 ROCK ISLAND COUNTY  
 C-92-007-23  
 NHPP-8JTE(720)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	1
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		



**DESIGN DESIGNATIONS**

**MAJOR COLLECTOR**  
 CURRENT ADT: 650 (2020)  
 DESIGN SPEED: 55 MPH  
 POSTED SPEED: 55 MPH



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 EXCAVATION  
 1-800-892-0123  
 OR 811

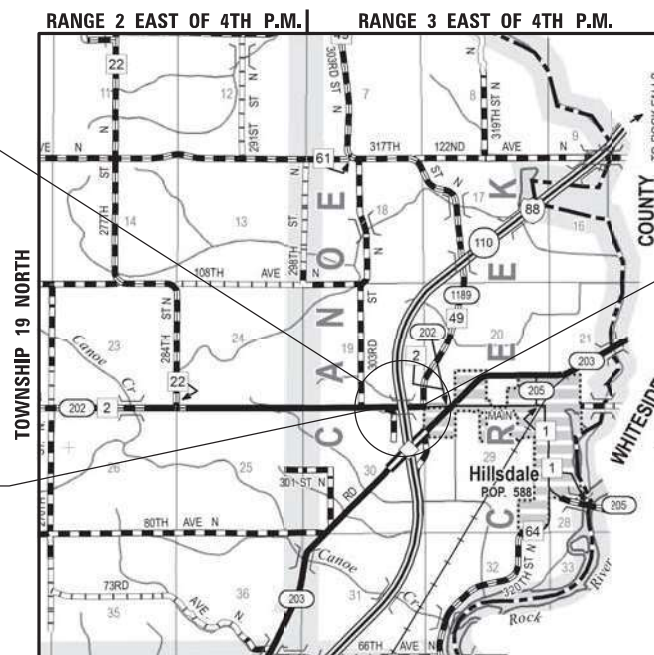
**PROJECT ENGINEER LUKE NELSON, P.E.**  
**PROJECT MANAGER MAHMOUD ETEMADI, P.E.**

**CONTRACT NO. 64S15**

**EXISTING STRUCTURE**  
 S.N. 081-0131 A TWO SPAN STEEL GIRDER BRIDGE WITH OPEN ABUTMENTS AND A MULTI COLUMN PIER.  
 BACK TO BACK LENGTH = 211'-10"  
 OUT TO OUT WIDTH = 46'-0"

**PROJECT BEGINS**  
 STA. 47 + 70

**PROJECT ENDS**  
 STA. 52 + 26



MAP NOT TO SCALE

**LOCATION MAP**

GROSS LENGTH = 456' FT. = 0.086 MILE  
 NET LENGTH = 456' FT. = 0.086 MILE



DATE: 11/08/22  
 EXPIRES 11/30/23

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUBMITTED December 08, 2022

*[Signature]*  
 REGIONAL ENGINEER

February 3, 2023 *[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

February 3, 2023 *[Signature]*  
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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

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## HIGHWAY STANDARDS

000001-08 001001-02 001006 701400-11 701401-13 701411-09 701901-08 720001-01 720006-04 720011-01 729001-01 780001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS AREAS OF REINFORCEMENT BARS DECIMAL OF AN INCH AND OF A FOOT APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY LANE CLOSURE, FREEWAY/EXPRESSWAY LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP TRAFFIC CONTROL DEVICES SIGN PANEL MOUNTING DETAILS SIGN PANEL ERECTION DETAILS METAL POSTS FOR SIGNS, MARKERS & DELINEATORS APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS) TYPICAL PAVEMENT MARKINGS
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## GENERAL NOTES

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTH MOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE AREA TO BE TACKED OR PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED WITH HMA ON THE NEXT DAY'S PRODUCTION, BUT NO MORE THAN FIVE DAYS IN ADVANCE OF THE PLACEMENT OF THE HMA, UNLESS APPROVED BY THE ENGINEER.

THE STRUCTURE WILL RETAIN THE SAME NUMBER: 081-0131.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.39 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCED NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBER OF JULIE.

IDOT IS NOT A MEMBER OF JULIE. IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC OFFICE AND 815-284-5469 AT LEAST 48 HOURS PRIOR TO WORK.

## HMA MIX DESIGN

LOCATION(S):	PAVEMENT & SHOULDER
MIXTURE USE(S):	SURFACE
PG:	PG 58-28
DESIGN AIR VOIDS:	4.0 @ N50
MIXTURE COMPOSITION:	IL 9.5
FRICTION AGGREGATE:	C
MIXTURE WEIGHT:	112 LBS / SY / IN
QUALITY MANAGEMENT PROGRAM:	QC / QA
SUBLOT SIZE:	N/A
MATERIAL TRANSFER DEVICE:	N/A

\*FOLLOW REQUIREMENTS OF SECTION 582 OF THE STANDARD SPECIFICATIONS FOR HMA SURFACING ON BRIDGE DECKS.



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PLOT DATE =	DATE - 09/01/2022	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**HIGHWAY STANDARDS & GENERAL NOTES**

SHEET 1 OF 1 SHEET

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	02
WHA# 1054D22			CONTRACT NO. 64S15	
ILLINOIS			FED. AID PROJECT	

CONSTRUCTION CODE : 0047

90% FED  
10% STATE

### SUMMARY OF QUANTITIES

SPECIAL	PAY CODE	PAY ITEM	UNIT	QUANTITY
		NAME		
	28000510	INLET FILTERS	EACH	2
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	313
	40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	177.2
	50102400	CONCRETE REMOVAL	CU YD	9.9
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	10
	50300300	PROTECTIVE COAT	SQ YD	128.0
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,450
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	90
	58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	1,181
	59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	1
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2.0
	67100100	MOBILIZATION	L SUM	1
	70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	2
	70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1

SPECIAL	PAY CODE	PAY ITEM	UNIT	QUANTITY
		NAME		
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1,824
*	78011025	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	1,824
*	Z0004560	BRIDGE WEARING SURFACE REMOVAL	SQ YD	1,181
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	20
	Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	20
	Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	1
	Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	1
	Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	25
	Z0021904	SILICONE JOINT SEALER, 1"	FOOT	89
	Z0041895	POLYMER CONCRETE	CU FT	5
	Z0053750	RETROFIT CONCRETE PARAPET	FOOT	501
	X0326440	SURFACE REMOVAL, VARIABLE DEPTH (SPECIAL)	SQ YD	694
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1



**WILLET HOFMANN & ASSOCIATES INC**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

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PLOT SCALE =	DATE = 09/01/2022	REVISED =
PLOT DATE =		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**  
SHEET 1 OF 1 SHEET

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	3
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		

\* = SPECIALTY ITEM

**SCHEDULE OF QUANTITIES**

**28000510 INLET FILTERS**

STATION	EACH	REMARKS
PORT BYRON ROAD		
51+24 LEFT 20'	1	EAST BOUND
51+24 RIGHT 20'	1	WEST BOUND
<b>PROJECT TOTAL</b>	<b>2</b>	

**40600290 BITUMINOUS MATERIALS (TACK COAT)**

STATION	POUND	REMARKS
PORT BYRON ROAD		
		0.05 LB / SQ FT
47+70 - 48+69	153	PAVEMENT & SHOULDER
51+23 - 52+26	160	PAVEMENT & SHOULDER
<b>PROJECT TOTAL</b>	<b>313</b>	

**40604050 HOT-MIX ASPHALT SURFACE COURSE,  
IL-9.5, MIX "C", N50**

STATION	TON	REMARKS
PORT BYRON ROAD		
		112 LB/SY/IN
47+70 - 48+69	38	PAVEMENT & SHOULDER
51+23 - 52+26	40	PAVEMENT & SHOULDER
<b>PROJECT TOTAL</b>	<b>78</b>	

**70100205 TRAFFIC CONTROL AND PROTECTION,  
STANDARD 701401**

STATION	EACH	REMARKS
I-88		
EAST BOUND LANES	1	
WEST BOUND LANES	1	
<b>PROJECT TOTAL</b>	<b>2</b>	

**70100420 TRAFFIC CONTROL AND PROTECTION,  
STANDARD 701411**

STATION	CAL DAY	REMARKS
PORT BYRON ROAD		
EASTBOUND LANES	1	
<b>PROJECT TOTAL</b>	<b>1</b>	

**70107025 CHANGEABLE MESSAGE SIGN**

STATION	CAL DAY	REMARKS
PORT BYRON ROAD		
EASTBOUND	14	2 WEEKS BEFORE CONSTRUCTION STARTS
WESTBOUND	14	
<b>PROJECT TOTAL</b>	<b>28</b>	

**78000200 THERMOPLASTIC PAVEMENT MARKING- LINE 4"**

STATION	FOOT	REMARKS
PORT BYRON ROAD		
47+70 - 52+26	912	DOUBLE YELLOW CENTERLINE
47+70 - 52+26	912	SOLID WHITE EDGE LINES
<b>PROJECT TOTAL</b>	<b>1,824</b>	

**78011025 GROOVING FOR RECESSED PAVEMENT  
MARKING, 5"**

STATION	FOOT	REMARKS
PORT BYRON ROAD		
47+70 - 52+26	912	DOUBLE YELLOW CENTERLINE
47+70 - 52+26	912	SOLID WHITE EDGE LINES
<b>PROJECT TOTAL</b>	<b>1,824</b>	

**X0326440 SURFACE REMOVAL, VARIABLE DEPTH (SPL.)**

STATION	SQ YD	REMARKS
PORT BYRON ROAD		
47+70 - 48+69	339	PAVEMENT & SHOULDER
51+23 - 52+26	355	PAVEMENT & SHOULDER
<b>PROJECT TOTAL</b>	<b>694</b>	

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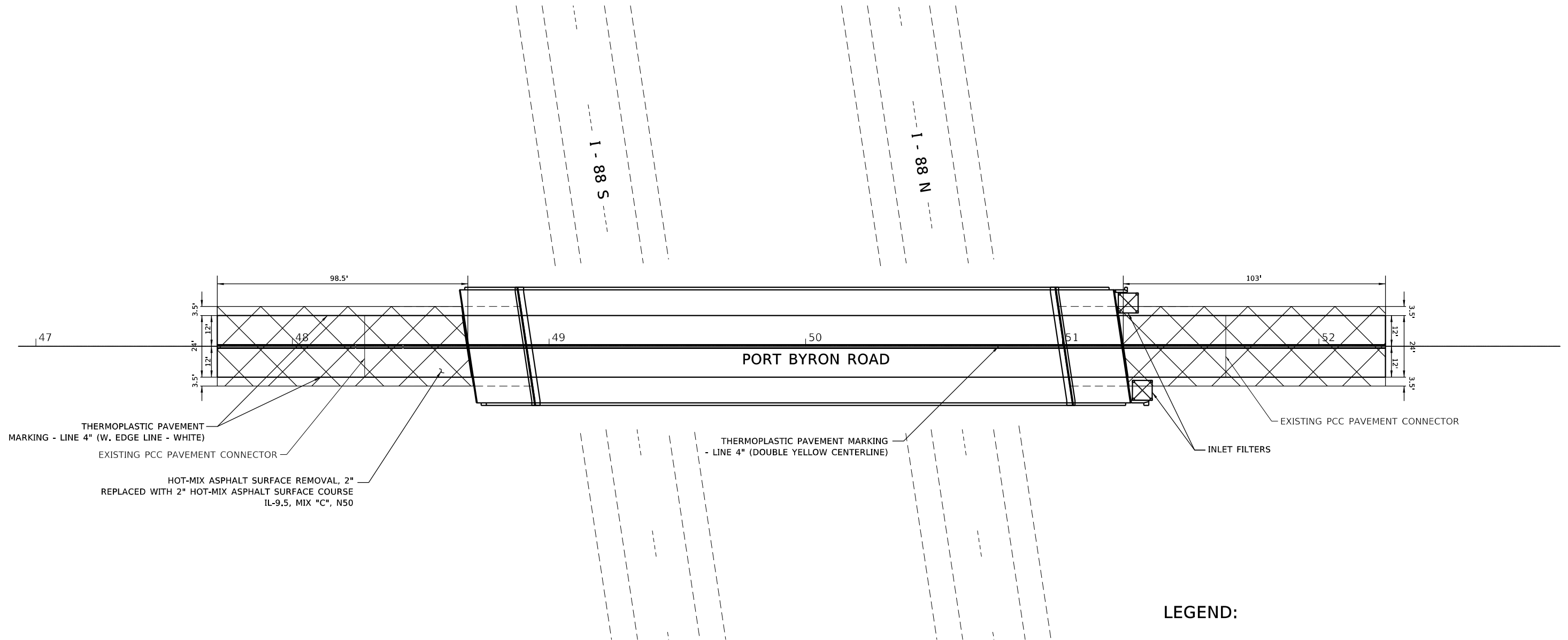
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES**  
 SHEET 1 OF 1 SHEET

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	4
	WHA# 1054D22			CONTRACT NO. 64S15
	ILLINOIS	FED. AID PROJECT		

**GENERAL NOTES:**

- 1) SEE STRUCTURAL SHEETS FOR HMA REMOVAL AND REPAVING ON THE BRIDGE.
- 2) REFER TO QUANTITY SCHEDULES FOR PAVEMENT MARKING EXTENTS.



THERMOPLASTIC PAVEMENT MARKING - LINE 4" (W. EDGE LINE - WHITE)  
 EXISTING PCC PAVEMENT CONNECTOR

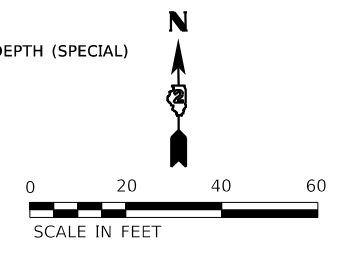
HOT-MIX ASPHALT SURFACE REMOVAL, 2" REPLACED WITH 2" HOT-MIX ASPHALT SURFACE COURSE IL-9.5, MIX "C", N50

THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW CENTERLINE)

EXISTING PCC PAVEMENT CONNECTOR  
 INLET FILTERS

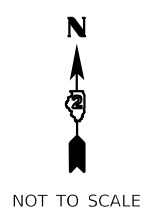
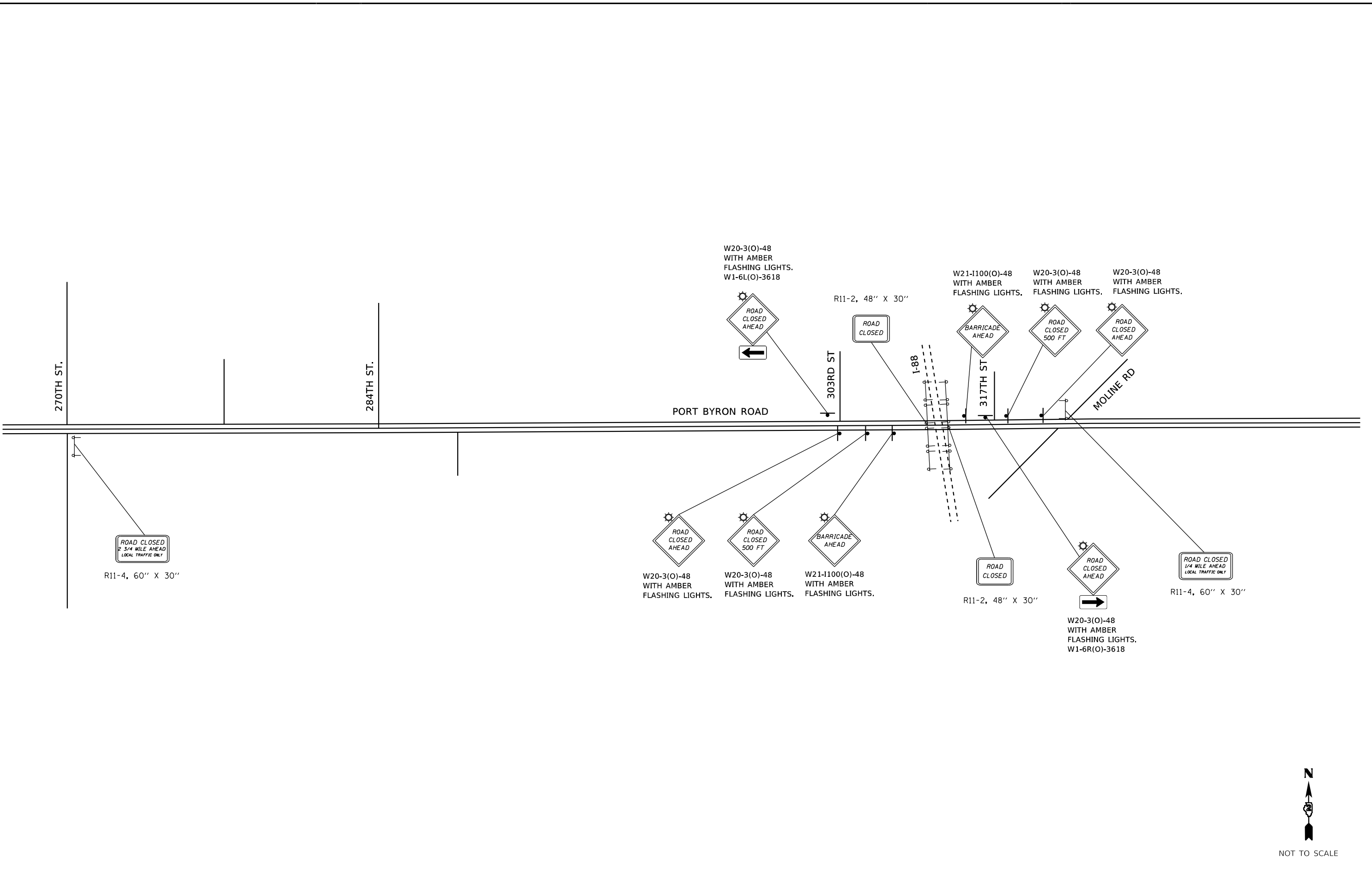
**LEGEND:**

 SURFACE REMOVAL, VARIABLE DEPTH (SPECIAL) & HMA REPLACEMENT



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PLOT DATE =	DATE - 09/01/2022	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	5
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		



NOT TO SCALE



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PLOT DATE =	DATE - 09/01/2022	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

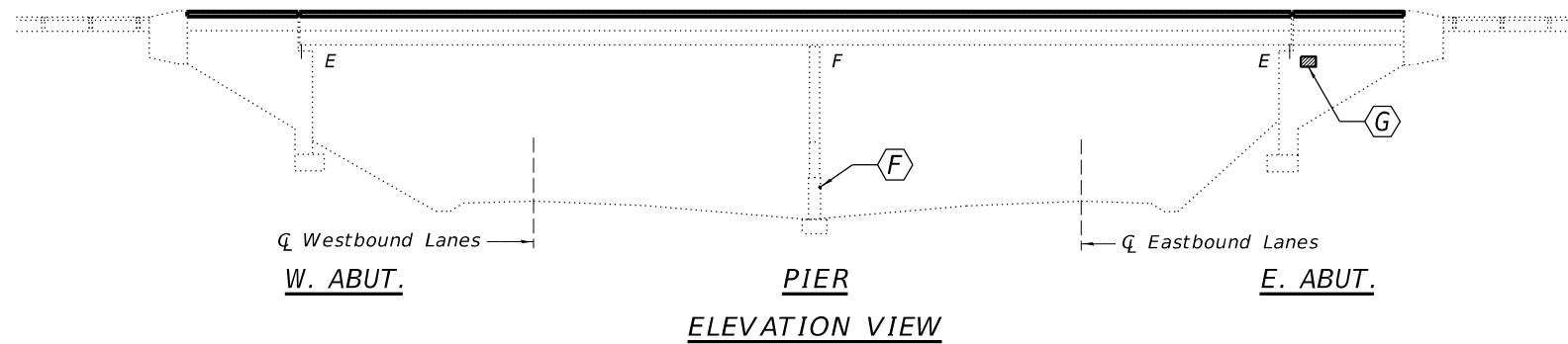
TRAFFIC CONTROL PLAN

SHEET 1 OF 1 SHEET

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	6
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		

**EXISTING STRUCTURE:** S.N. 081-0131: Originally built in 1975 and rehabilitated in 2003 as a two span (108'-0"; 100'-0") steel beam bridge with vaulted abutments and a multi-column pier. The total length back to back of approach bents is 256'-0". The deck width is 46'-0" out to out. Structure to be repaired as detailed in these plans.

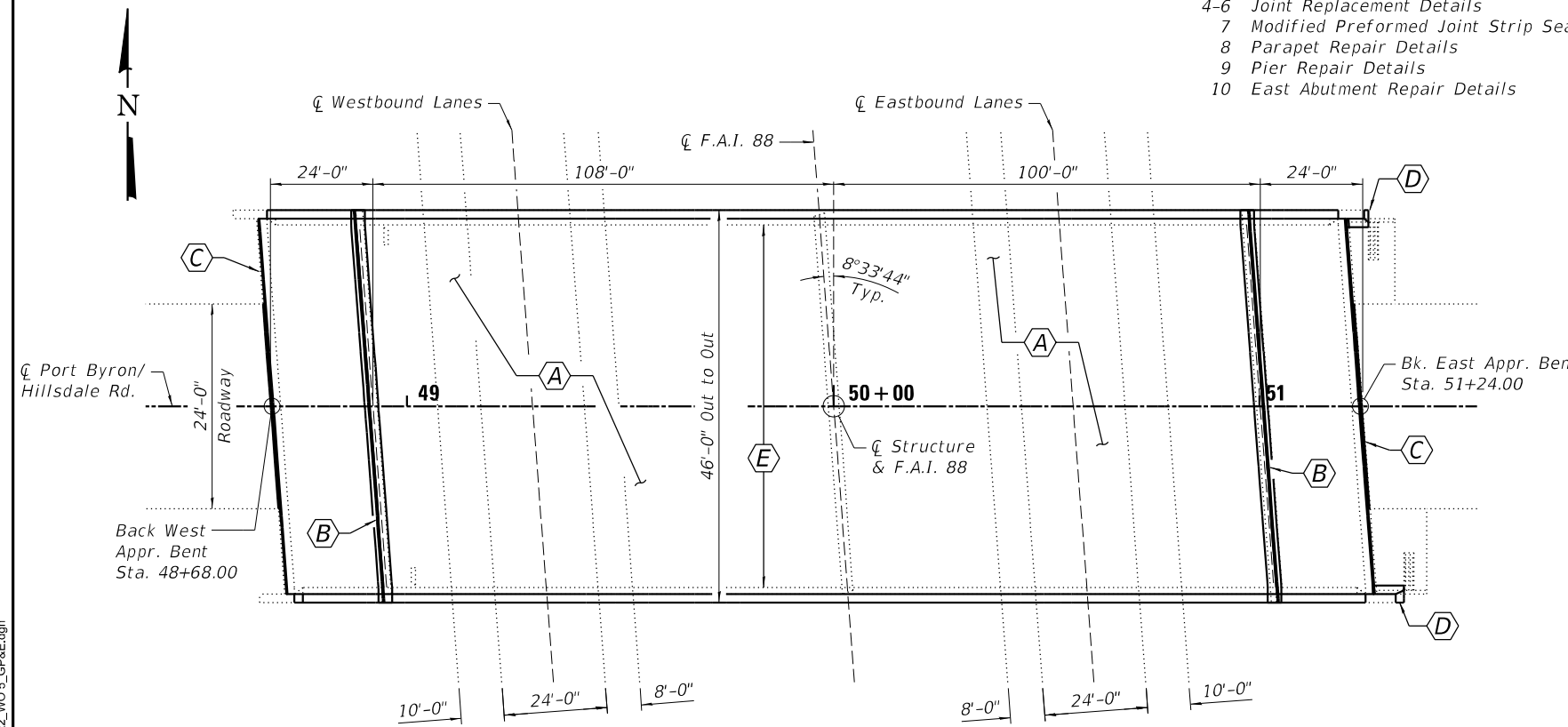
No salvage.



**ELEVATION VIEW**

**INDEX OF SHEETS**

- 1 General Plan and Elevation
- 2 Deck Repair and Overlay Plan
- 3 Overlay Details
- 4-6 Joint Replacement Details
- 7 Modified Preformed Joint Strip Seal
- 8 Parapet Repair Details
- 9 Pier Repair Details
- 10 East Abutment Repair Details



**PLAN VIEW**

**LOADING HS20-44**  
Existing and Proposed

**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications  
for Highway Bridges, 17th. Edition

**DESIGN STRESSES**

**FIELD UNITS (NEW CONSTRUCTION)**

$f'_c = 4,000$  psi (Superstructure)  
 $f_y = 60,000$  psi (Reinforcement)

**FIELD UNITS (EXISTING CONSTRUCTION)**

$f'_c = 3,000$  psi (Superstructure)  
 $f_y = 40,000$  psi (Reinforcement - 1975 Original)  
 $f_y = 60,000$  psi (Reinforcement - 2003 Rehab.)

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "C", N50	Ton	99.2	—	99.2
Concrete Removal	Cu. Yd.	9.9	—	9.9
Concrete Superstructure	Cu. Yd.	9.6	—	9.6
Protective Coat	Sq. Yd.	128	—	128
Reinforcement Bars, Epoxy Coated	Pound	1,450	—	1,450
Preformed Joint Strip Seal	Foot	90	—	90
* Waterproofing Membrane System	Sq. Yd.	1,181	—	1,181
* Controlled Low-Strength Material	Cu. Yd.	0.7	—	0.7
* Bridge Wearing Surface Removal	Sq. Yd.	1,181	—	1,181
* Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	7	13	20
* Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	—	20	20
* Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1	—	1
* Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	1	—	1
* Deck Slab Repair (Partial)	Sq. Yd.	25	—	25
* Silicone Joint Sealer, 1"	Foot	89	—	89
* Polymer Concrete	Cu. Ft.	5	—	5
* Retrofit Concrete Parapet	Foot	501	—	501

\* See Special Provisions

**GENERAL NOTES:**

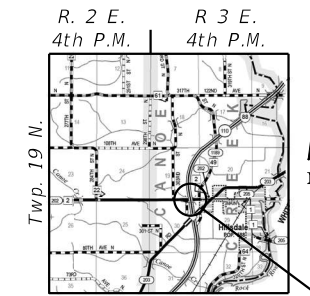
This structure will retain the same number 081-0131.  
Reinforcement bars designated (E) shall be epoxy coated.  
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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.  
Repair dimensions and locations shown are estimates and will be determined by the Engineer in the field.  
Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the polymer concrete nosing is poured at an ambient temperature other than 50° F.  
Prior to pouring the new concrete deck section, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.  
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 the concrete removal shall be replaced with approved bar splicer or anchorage system. Cost included with Concrete Removal.  
The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

**SCOPE OF WORK:**

- (A) Perform deck slab repair, install sheet waterproofing membrane system and HMA overlay over the deck, approach slab, and approach shoulder slabs. See Structural Sheets 2 & 3 of 10 for details.
- (B) Remove and replace existing expansion joints at abutments. See Structural Sheets 4-7 of 10.
- (C) Remove and replace existing expansion joints at ends of approach slab. See Structural Sheets 4-6 of 10.
- (D) Approach pavement curb repairs. See Structural Sheets 4-6 of 10.
- (E) Remove railing & install parapet extensions. Repair of concrete parapets at various locations shown on plans. See Structural Sheet 8 of 10.
- (F) Structural concrete repair at pier. See Structural Sheet 9 of 10.
- (G) Structural concrete repair at abutment. See Structural Sheet 10 of 10.



DATE: 12-7-2022  
EXPIRES 11/30/24



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
F.A.S. 202 (PORT BYRON RD.) OVER I-88  
SECTION (161-1HB-7)BDR  
ROCK ISLAND COUNTY  
STATION 50+00  
STRUCTURE NO. 081-0131

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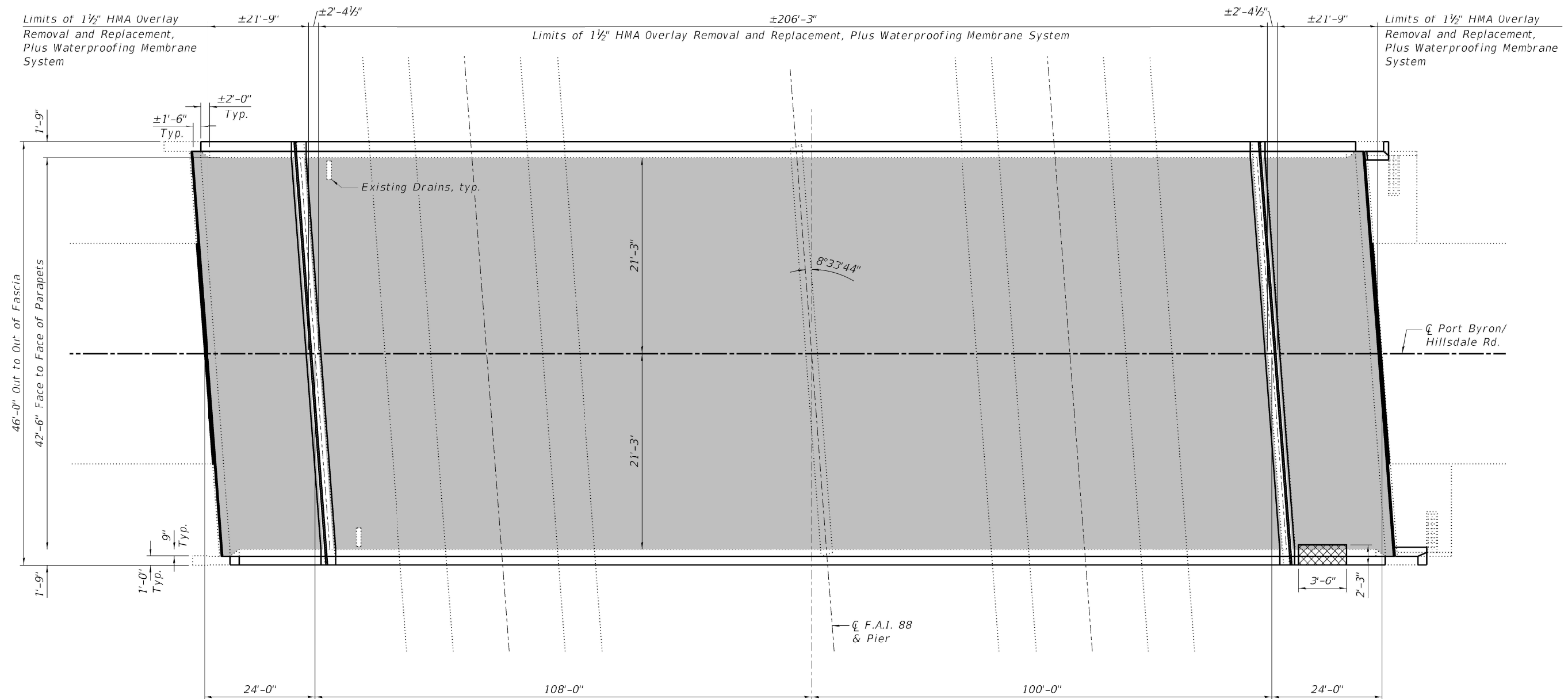
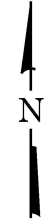


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PLOT DATE =	DATE - 09/01/2022	REVISED -

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

STRUCTURAL SHEET 1 OF 10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7)BDR	ROCK ISLAND	20	7
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		



**PLAN**

**NOTES:**

See Structural Sheet 3 of 10 for overlay details.  
 Deck slab repair (Partial) and Deck slab repair (Full Depth, Type I) are contingency pay items. If required, the limits shall be determined by the Engineer in field.  
 \* These pay items shall be applicable for any repair needed on deck and approach slab as determined by the Engineer in the field.

**LEGEND**

- Deck Slab Repair (Full Depth, Type II)
- 1 1/2" HMA Overlay Removal & Replacement plus Waterproofing Membrane System

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "C", N50	Ton	99.2
Bridge Wearing Surface Removal	Sq. Yd.	1,181
* Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
* Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	1
* Deck Slab Repair (Partial)	Sq. Yd.	25
Waterproofing Membrane System	Sq. Yd.	1,181



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DRAWN - RDA	REVISOR -	
PLOT SCALE =	CHECKED - DCB	REVISED -
PLOT DATE =	DATE - 09/01/2022	REVISED -

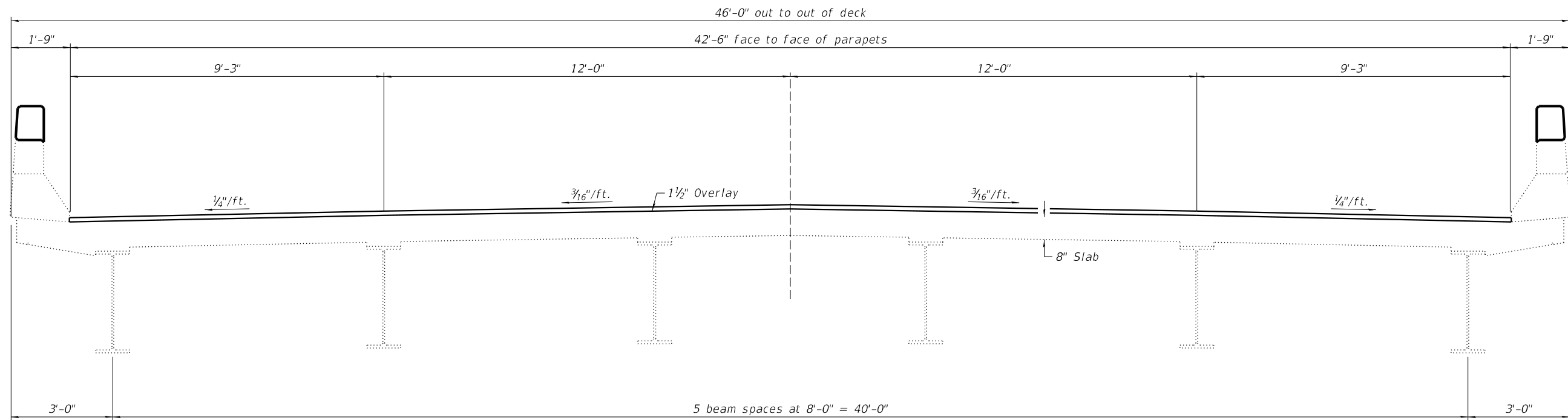
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DECK REPAIR AND OVERLAY PLAN  
 STRUCTURE NO. 081-0131**

STRUCTURAL SHEET 2 OF 10 SHEETS

F.A.I. RTE. 88	SECTION (161-1HB-7) BDR	COUNTY ROCK ISLAND	TOTAL SHEETS 20	SHEET NO. 8
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		





**CROSS SECTION**  
(Looking East)

**NOTES:**

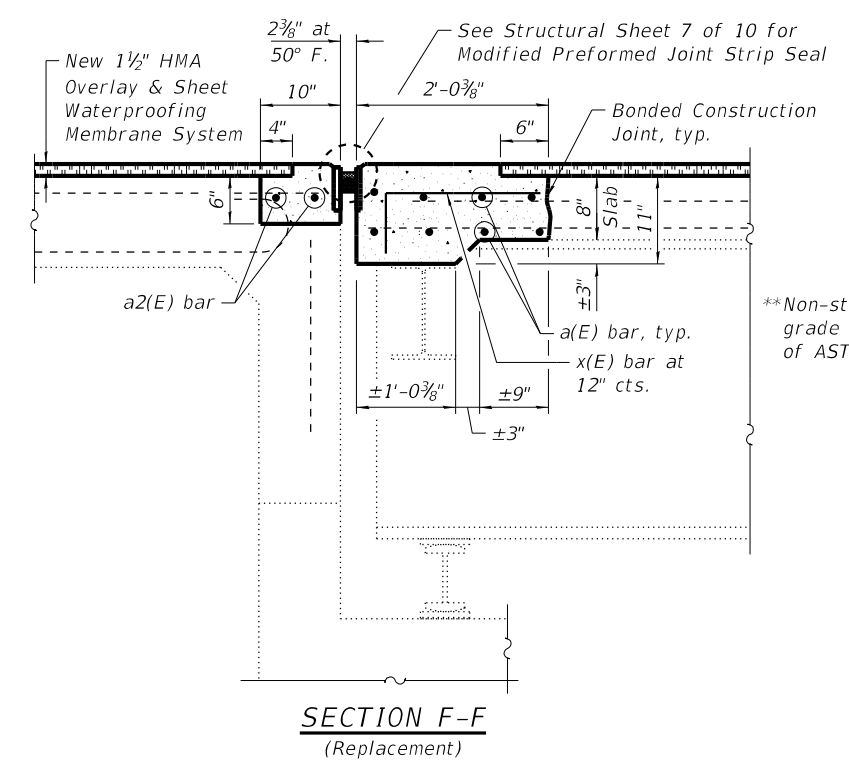
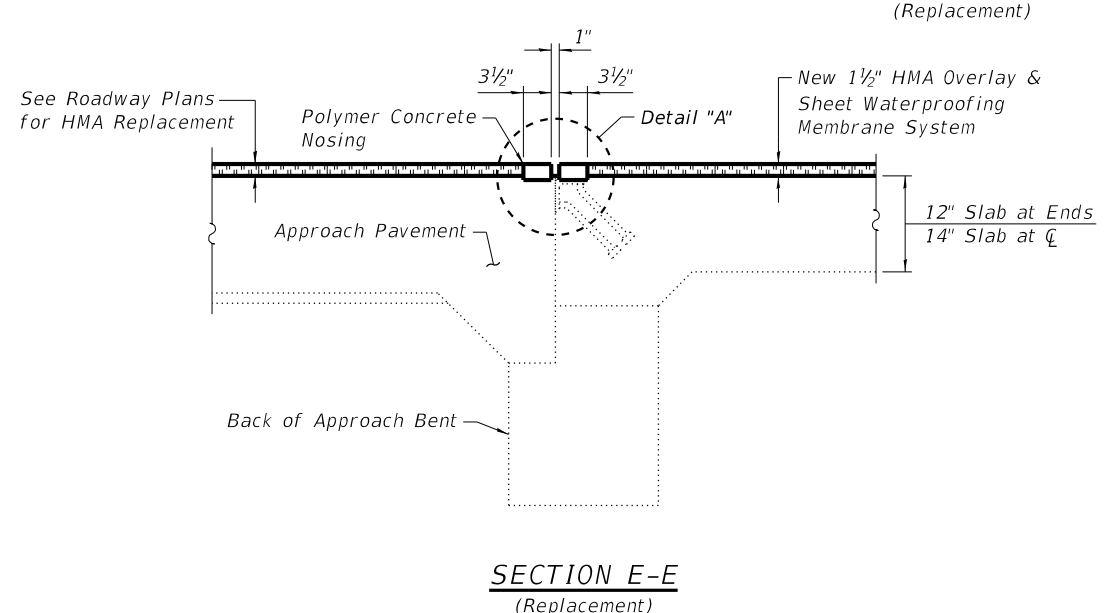
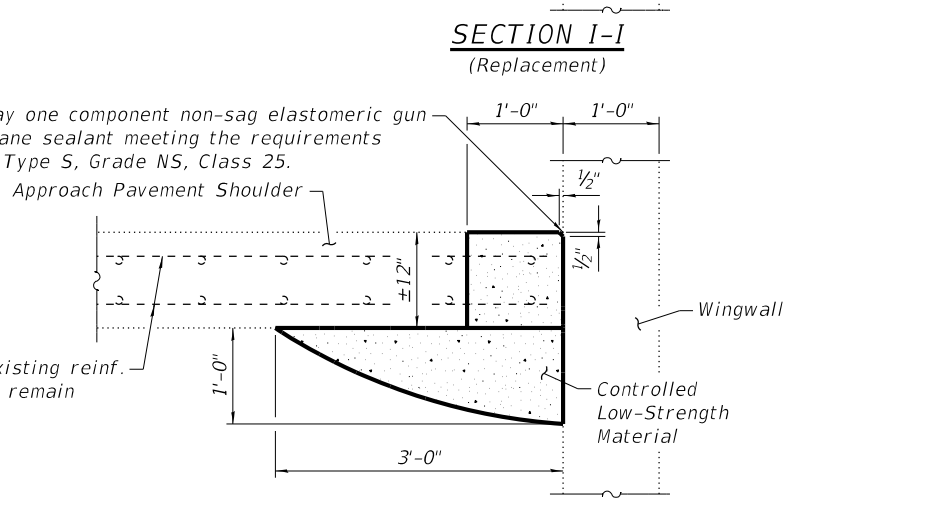
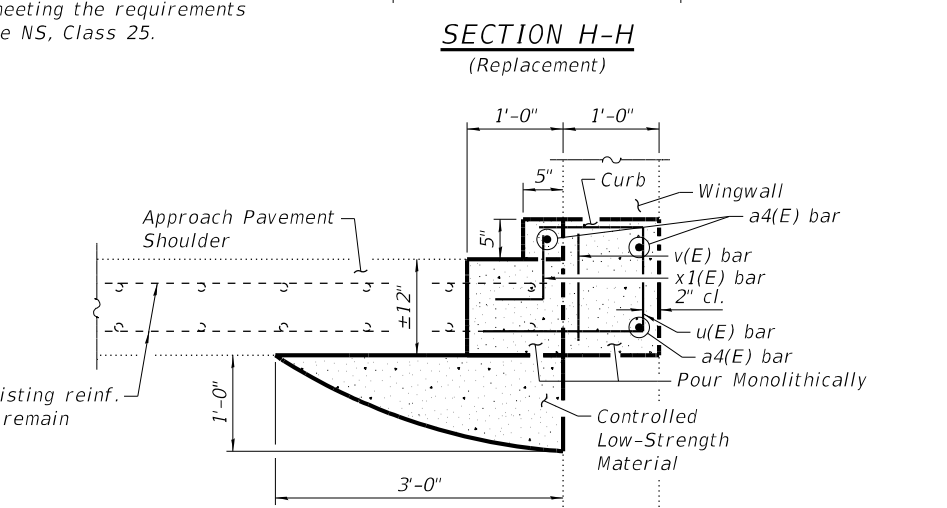
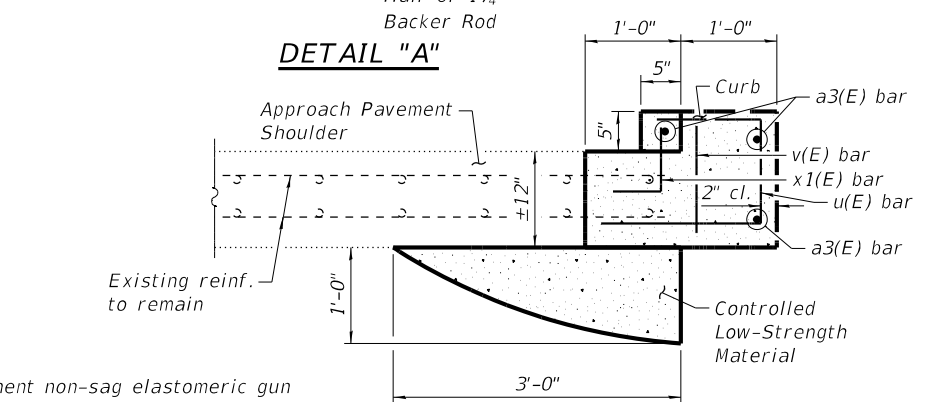
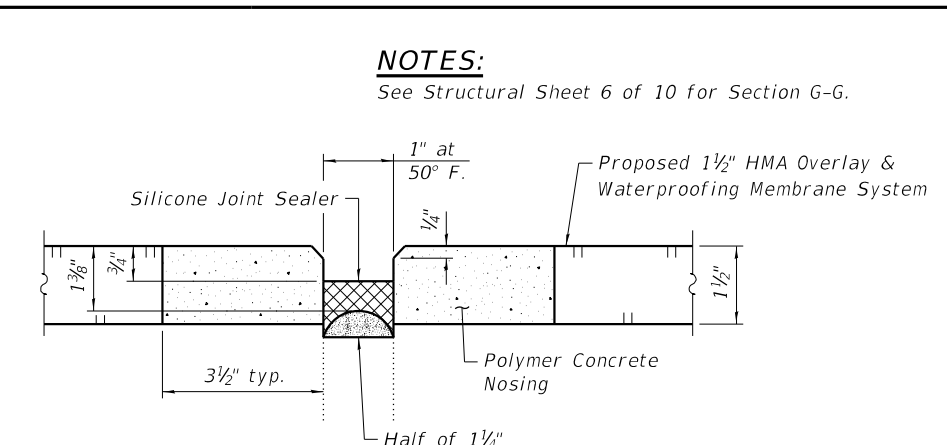
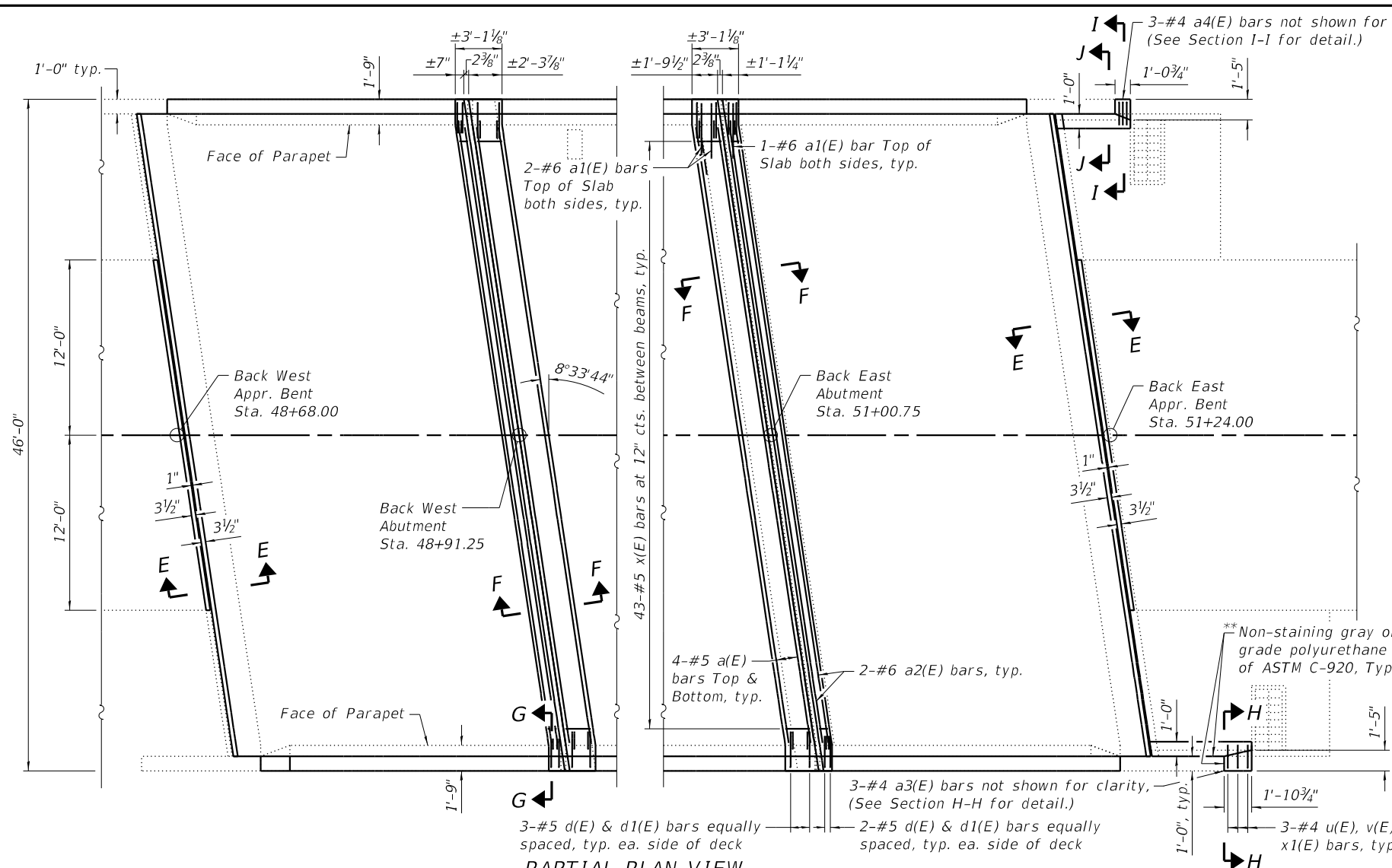
See Structural Sheet 2 of 10 for overlay limits and Bill of Material.

USER NAME =	DESIGNED - SM	REVISED -
DRAWN - RDA	REVISED -	
PLOT SCALE =	CHECKED - DCB	REVISED -
PLOT DATE =	DATE - 09/01/2022	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	9
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		



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\*\*Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25.

\*\*Cost included with Concrete Superstructure

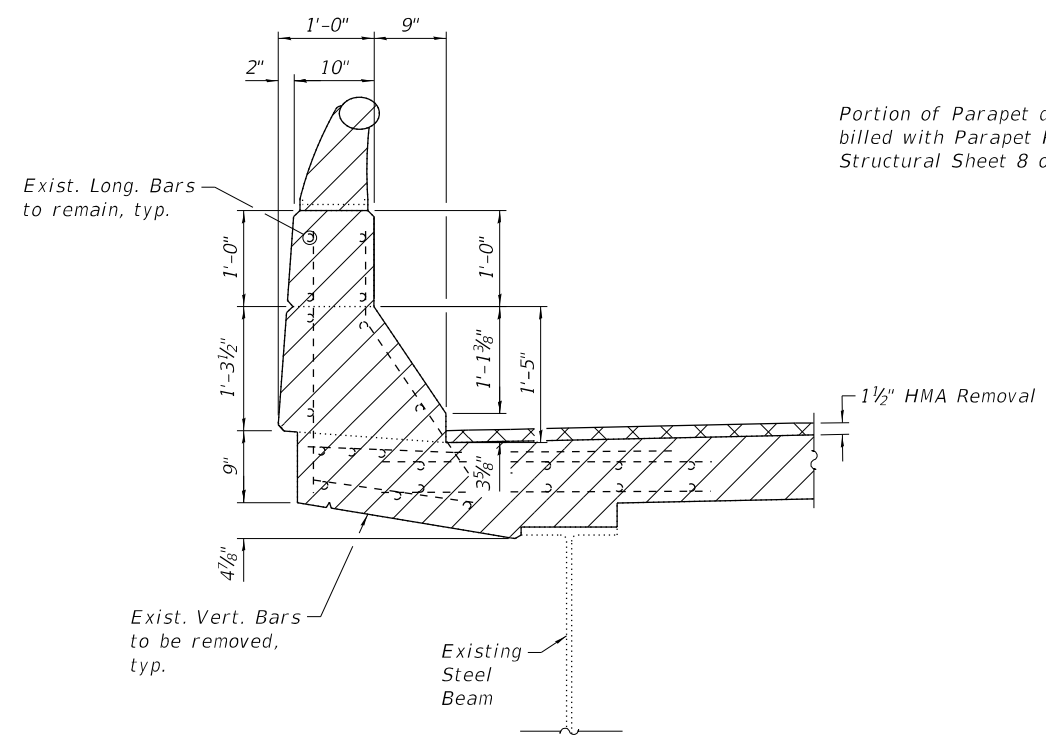


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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

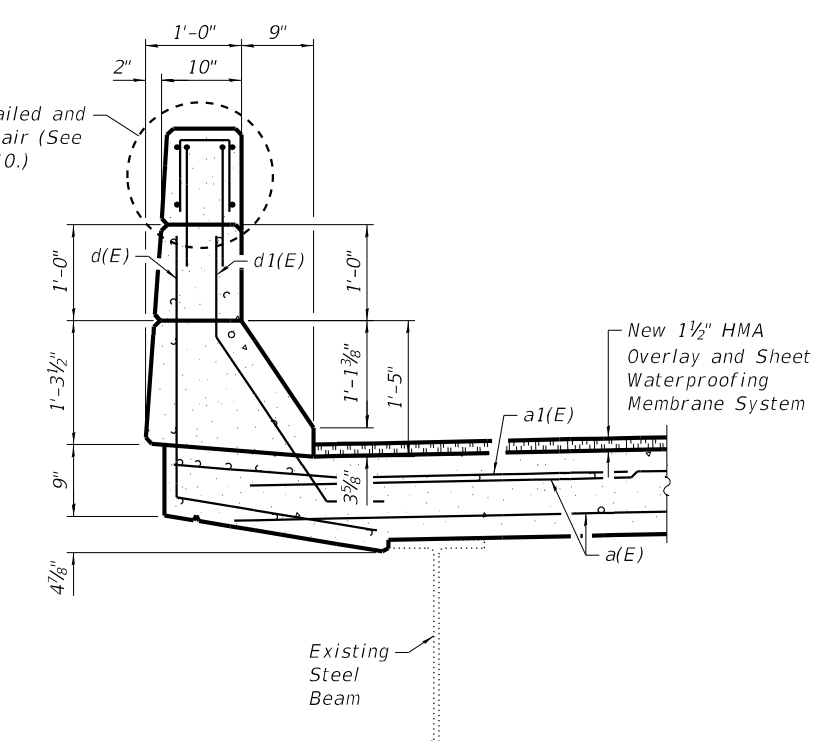
**JOINT REPLACEMENT DETAILS - 2 OF 3  
STRUCTURE NO. 081-0131**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		

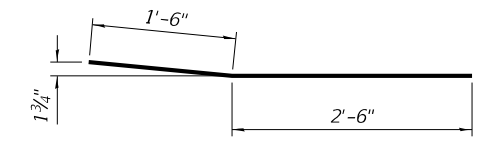


**SECTION C-C**  
(Removal)

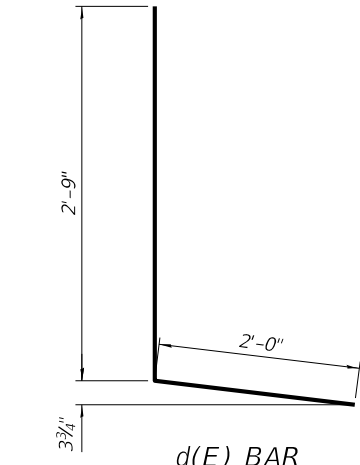
Portion of Parapet detailed and billed with Parapet Repair (See Structural Sheet 8 of 10.)



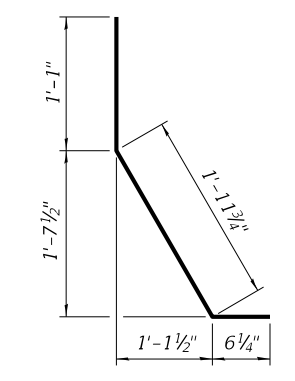
**SECTION G-G**  
(Replacement)



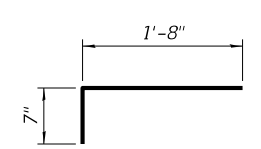
**a1(E) BAR**



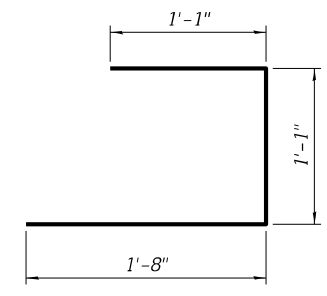
**d(E) BAR**



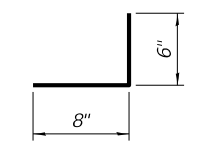
**d1(E) BAR**



**x(E) BAR**



**u(E) BAR**



**x1(E) BAR**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	16	#5	42'-7"	—
a1(E)	12	#6	4'-0"	└
a2(E)	4	#6	42'-7"	—
a3(E)	3	#4	1'-6"	—
a4(E)	3	#4	0'-8"	—
d(E)	20	#5	4'-9"	└
d1(E)	20	#5	3'-7"	└
u(E)	6	#4	3'-10"	└
v(E)	6	#4	1'-1"	—
x(E)	86	#5	2'-3"	└
x1(E)	6	#4	1'-2"	└
Concrete Removal			Cu. Yd.	9.9
Concrete Superstructure			Cu. Yd.	9.6
Protective Coat			Sq. Yd.	22
Reinforcement Bars, Epoxy Coated			Pound	1,450
Controlled Low-Strength Material			Cu. Yd.	0.7
Silicone Joint Sealer, 1"			Foot	89
Polymer Concrete			Cu. Ft.	5

**NOTES:**  
 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 approved bar splicer or anchorage system. Cost included with Concrete Removal.  
 For Overlay details, see Cross Section on Structural Sheet 3 of 10.  
 All exposed concrete edges to have 3/4" chamfers.  
 Controlled low-strength material is a contingency pay item. If required, the limits shall be determined by the Engineer in field.



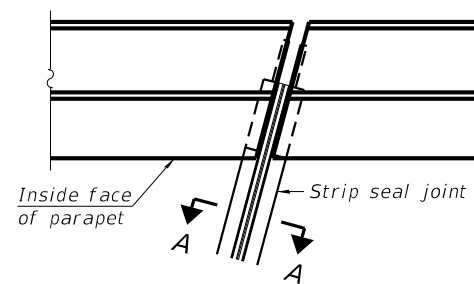
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DRAWN - RDA	REVISED -	
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

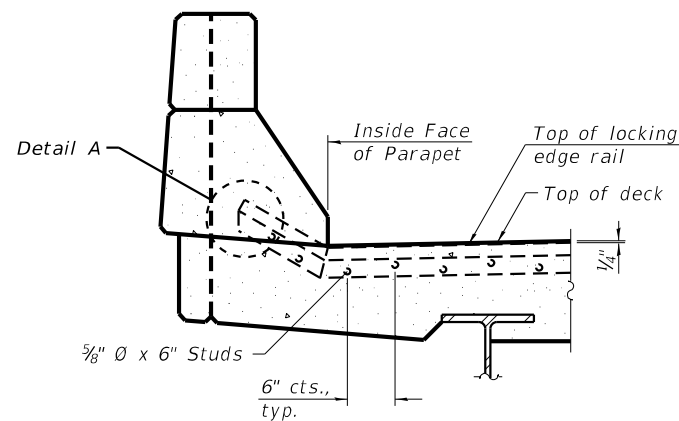
**JOINT REPLACEMENT DETAILS - 3 OF 3**  
**STRUCTURE NO. 081-0131**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	12
	WHA# 1054D22		CONTRACT NO. 64S15	
	ILLINOIS	FED. AID PROJECT		

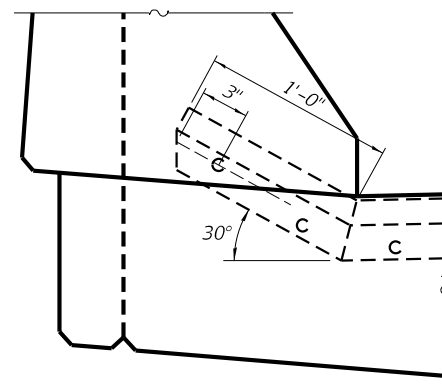
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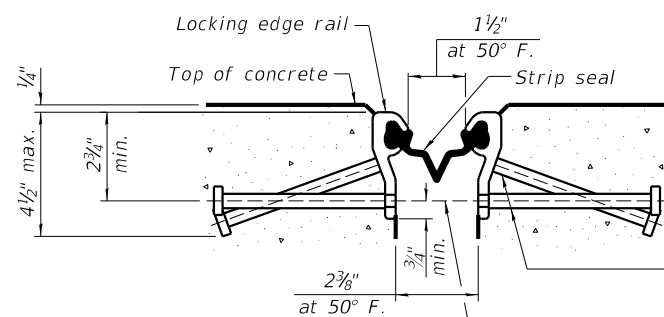
**PLAN AT PARAPET**



**SECTION AT PARAPET**



**DETAIL A**



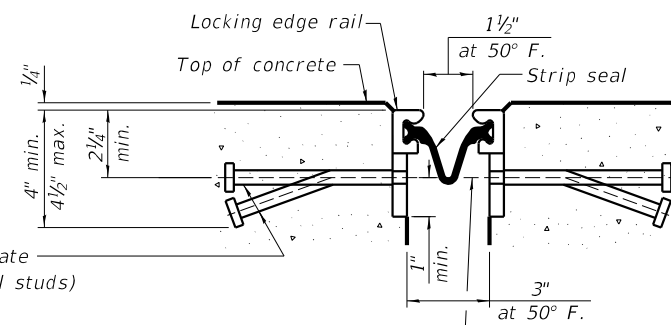
**SHOWING ROLLED RAIL JOINT**

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

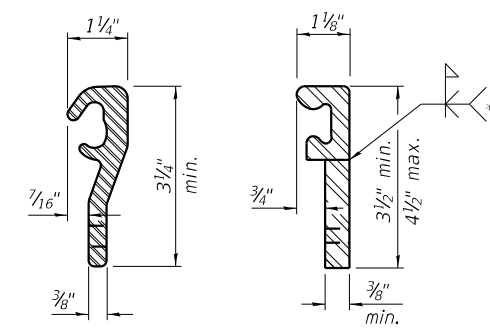
3/8"  $\emptyset$  threaded rods in 7/16"  $\emptyset$  holes at  $\pm 4'-0"$  cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

**SECTION A-A**

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

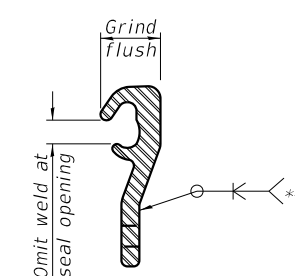


**SHOWING WELDED RAIL JOINT**



**LOCKING EDGE RAILS**

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



**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	90

**NOTES:**

The strip seal shall be made continuous and shall have a minimum thickness of 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 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 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of anchorage studs and locking edge rails included with preformed joint strip seal.

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.



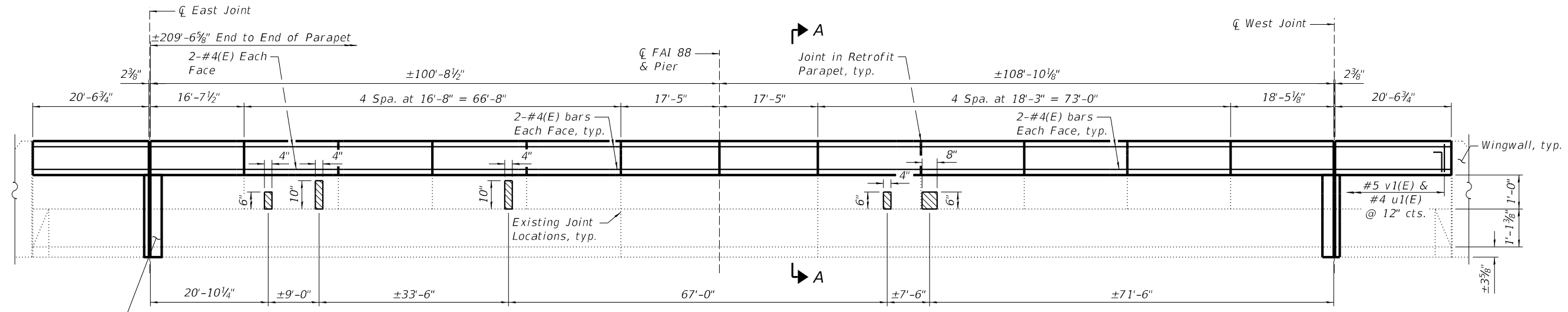
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DRAWN - RDA	REVISED -	
PLOT SCALE =	CHECKED - DCB	REVISED -
PLOT DATE =	DATE - 09/01/2022	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MODIFIED PREFORMED JOINT STRIP SEAL  
STRUCTURE NO. 081-0131**

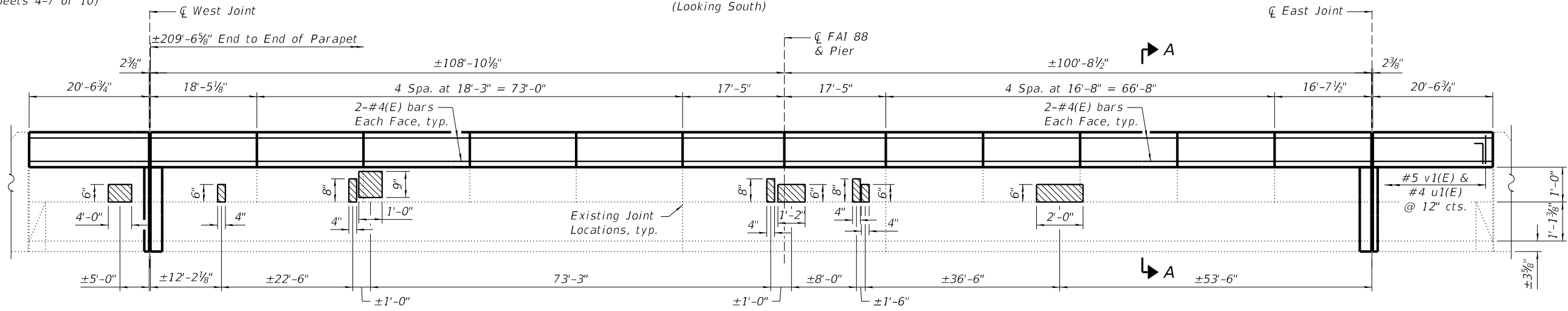
STRUCTURAL SHEET 7 OF 10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		

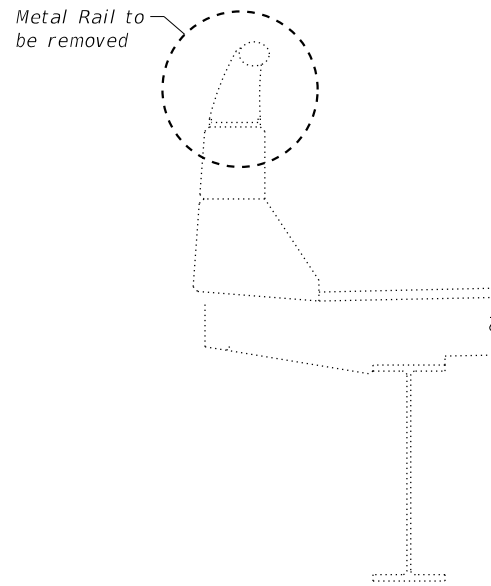


Portion of Parapet to be rebuilt with Expansion Joint Replacement, typ. (See Structural Sheets 4-7 of 10)

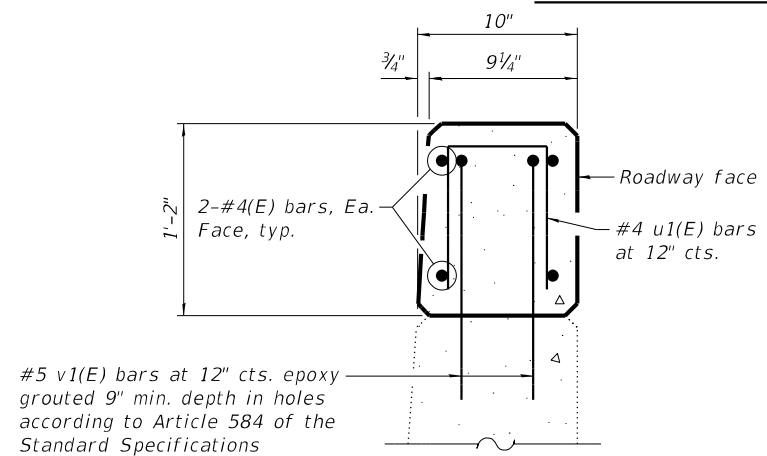
**INSIDE ELEVATION OF SOUTH PARAPET REPAIRS**  
(Looking South)



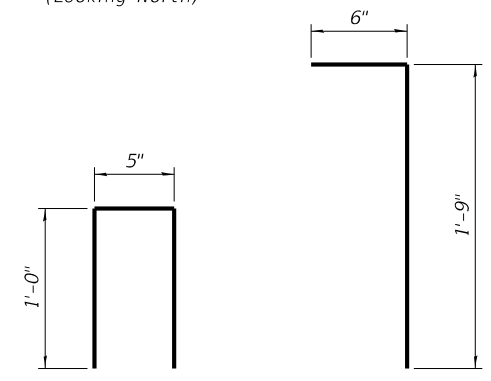
**INSIDE ELEVATION OF NORTH PARAPET REPAIRS**  
(Looking North)



**EXISTING BARRIER SECTION**



**SECTION A-A**



**BAR u1(E)**

**BAR v1(E)**

**NOTES:**

- All Concrete Removal Regions shall have a 3/4" sawcut around perimeter prior to Concrete Removal operations. Cost included in Structural Repair of Concrete (Depth Equal to or Less Than 5").
- Class SI Concrete shall be used.
- All exposed edges shall be chamfered 3/4".
- Cost of all materials, labor, and equipment to complete the work as detailed and as specified in the Special Provisions shall be included in the cost of "Retrofit Concrete Parapet".
- Epoxy grout v1(E) bars in 7/8" Ø x 9" (min.) holes. The grout and the method of application shall be approved by the department. (See Section 584 of the Standard Specifications). Cost included with "Retrofit Concrete Parapet".
- The existing railings shall be removed and disposed of according to Article 501.05 of the Standard Specifications. Cost included with "Retrofit Concrete Parapet".
- Quantity for Structural Repair of Concrete (Depth Equal to or Less Than 5") is estimated. Areas to be repaired shall be determined in the field by the Engineer.
- If the anchorage section of the approach guardrail conflicts with the barrier improvements, it shall be removed during rail removal and replaced after the barrier concrete has cured. Cost included with "Retrofit Concrete Parapet".

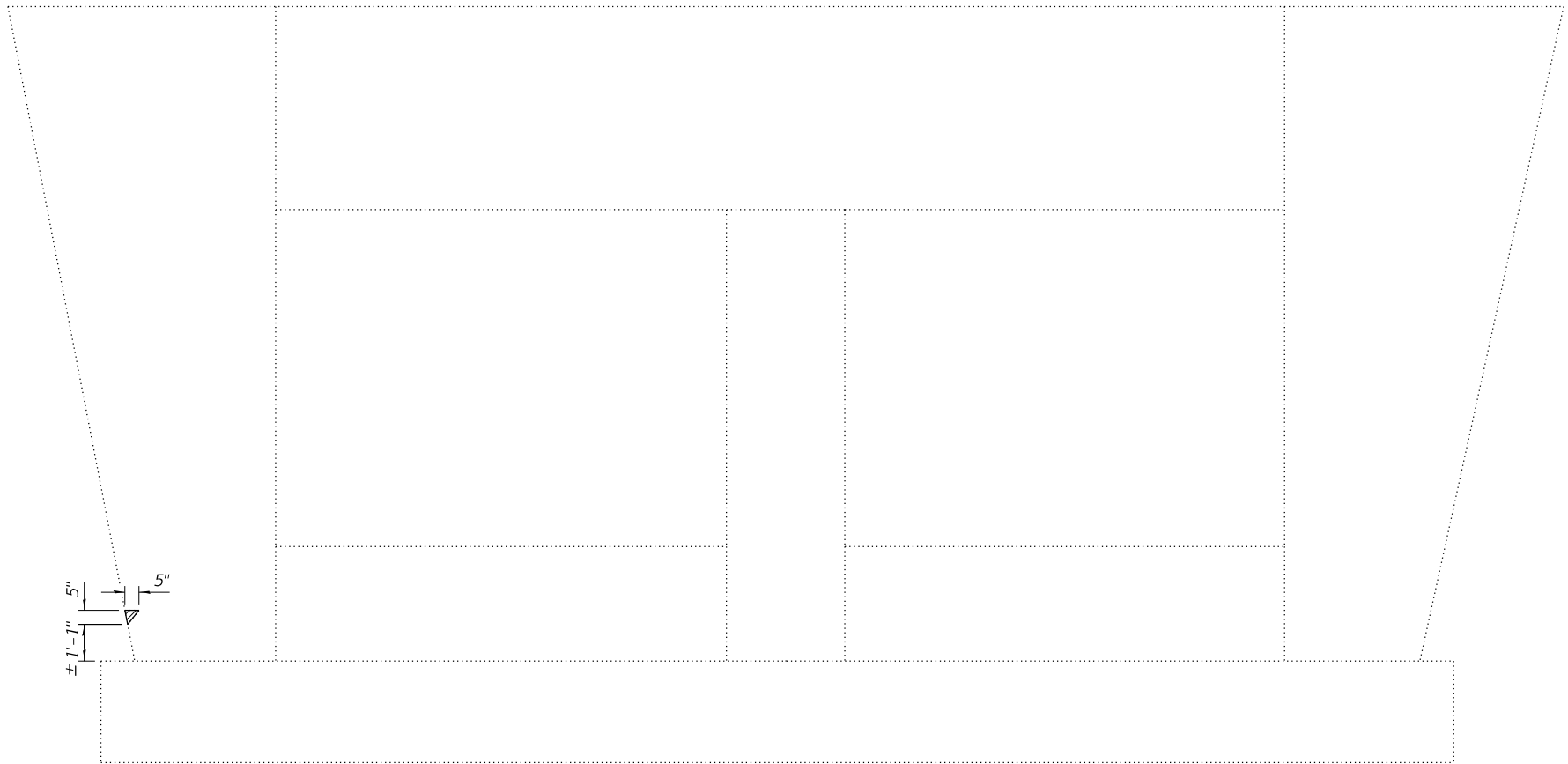
**BILL OF MATERIAL**

Item	Unit	Quantity
Protective Coat	Sq. Yd.	106
Retrofit Concrete Parapet	Foot	501
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	7

**LEGEND**

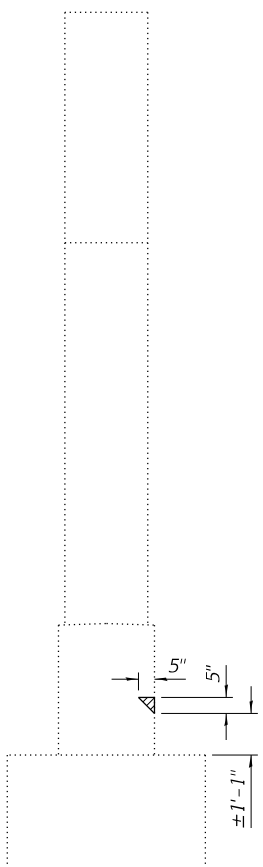
Structural Repair of Concrete (Depth Equal to or Less Than 5")

➤ A



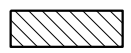
➤ A

**ELEVATION**  
(Looking West)



**VIEW A-A**

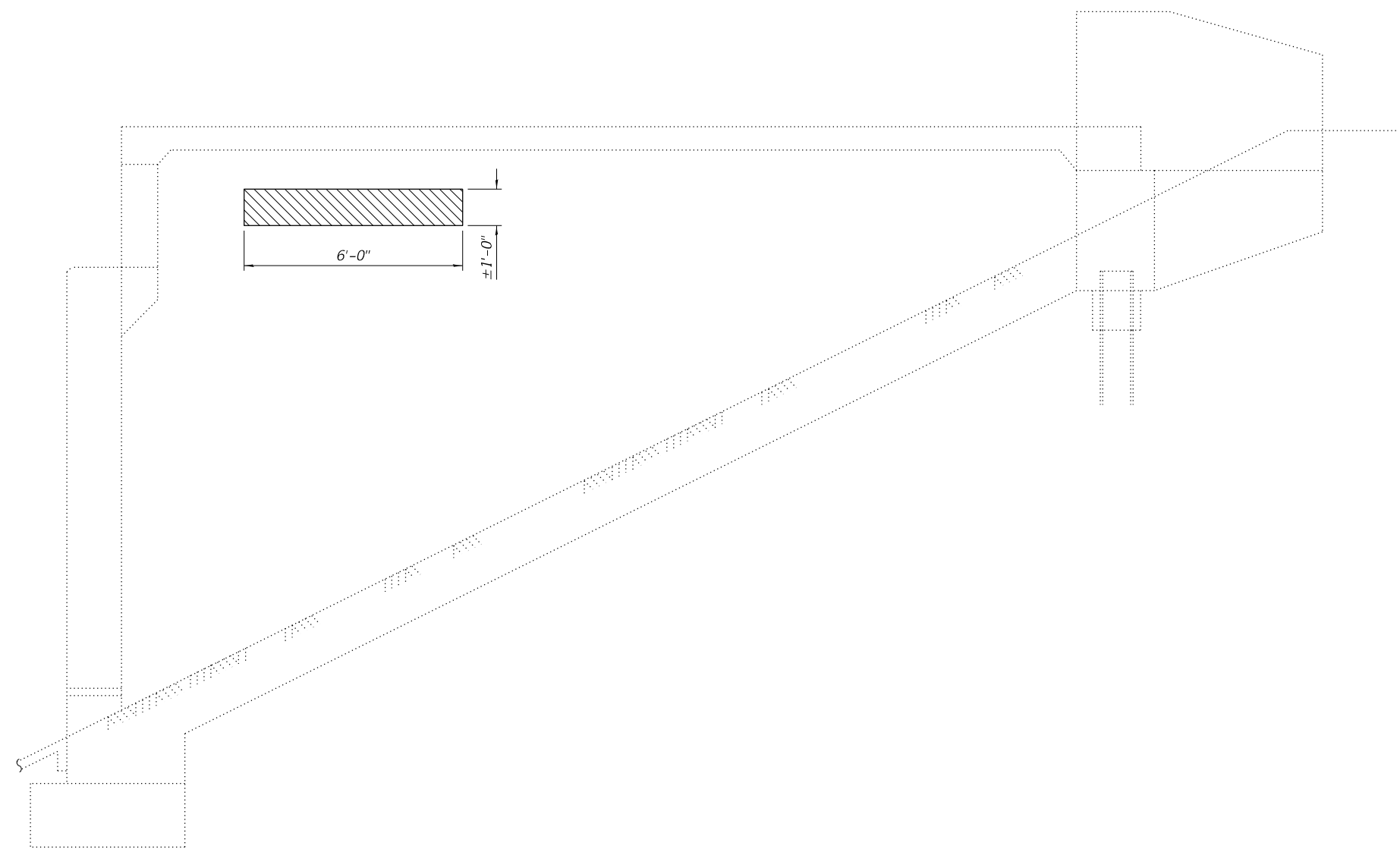
**LEGEND**

 Structural Repair of Concrete  
(Depth equal to or less than 5 inches)

**BILL OF MATERIAL**


ITEM	UNIT	QUANTITY
* Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	13

\*Quantity increased for contingency.  
Determined by the Engineer in the field.



**EAST ABUTMENT SOUTH ELEVATION**  
 (Looking North)  
 (Parapet not shown for clarity)

**LEGEND**

 Structural Repair of Concrete  
 (Depth greater than 5 inches)

\* Quantity increased for contingency.  
 Determined by the Engineer in the field.

**BILL OF MATERIAL**

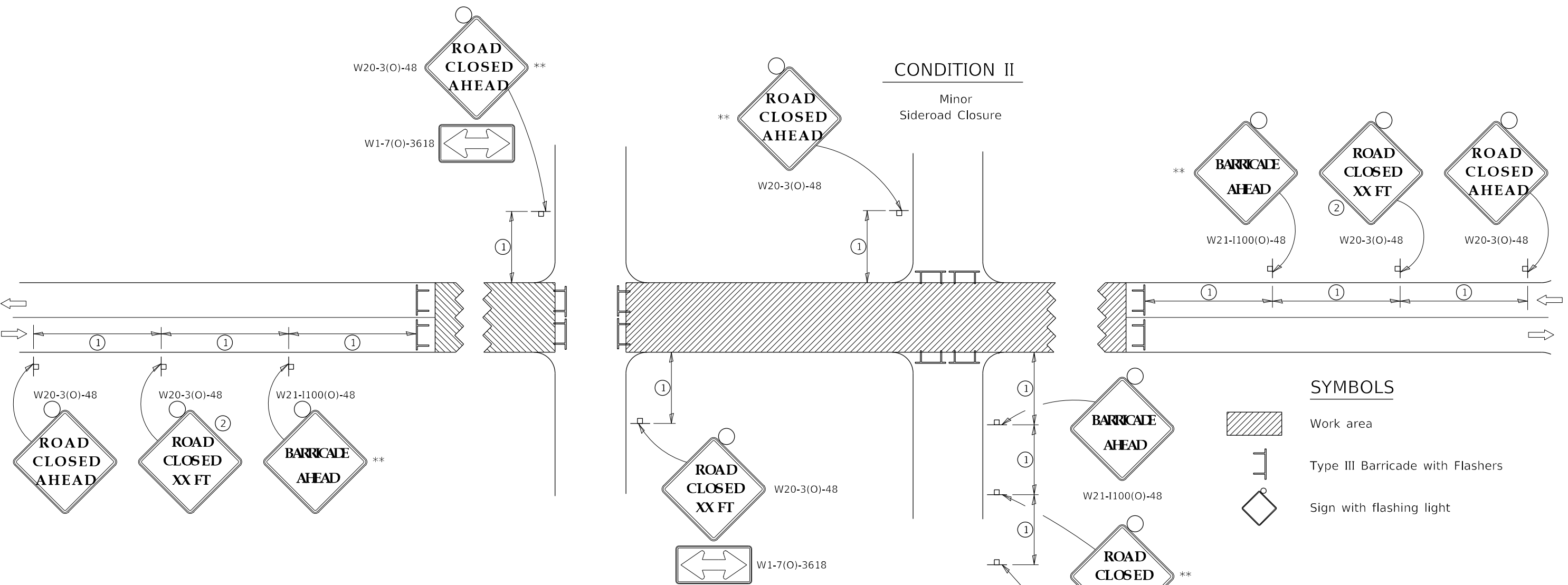
ITEM	UNIT	QUANTITY
* Structural Repair of Concrete (Depth greater than 5 inches)	Sq. Ft.	20



# TRAFFIC CONTROL FOR ROAD CLOSURE

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**SYMBOLS**

- Work area
- Type III Barricade with Flashers
- Sign with flashing light

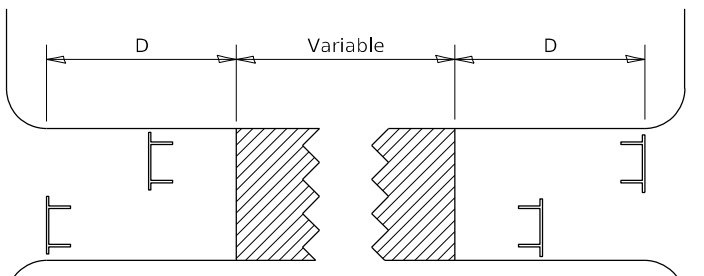
① **SIGN SPACING TABLE**

Posted Speed	Sign Spacing
45 MPH and above	500'
Below 45 MPH	250'

② **SIGN LEGEND**

Posted Speed Limit	Distance
45 MPH and above	1000'
Below 45 MPH	500'

**ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP**



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

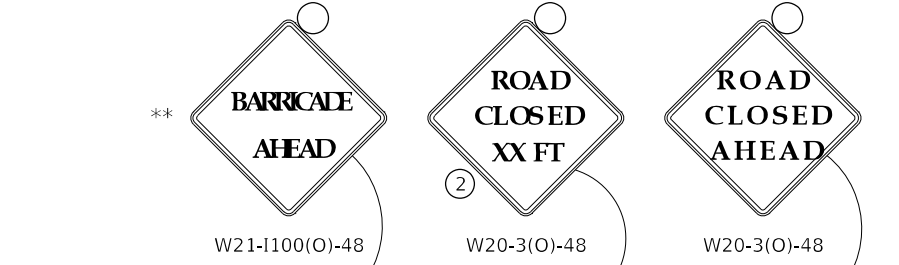
**CONDITION I**

Major Sideroad Closure



**CONDITION II**

Minor Sideroad Closure



**GENERAL NOTES**

- Longitudinal dimensions may be adjusted to fit field conditions.
- Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.
- \*\* Where local access is to be maintained, barricades are to be set up as shown in "Road Closed To Thru Traffic". Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.
- All dimensions are in inches unless otherwise shown.

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	DRAWN - KM	REVISED - 1-05-16
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DEPARTMENT OF TRANSPORTATION**

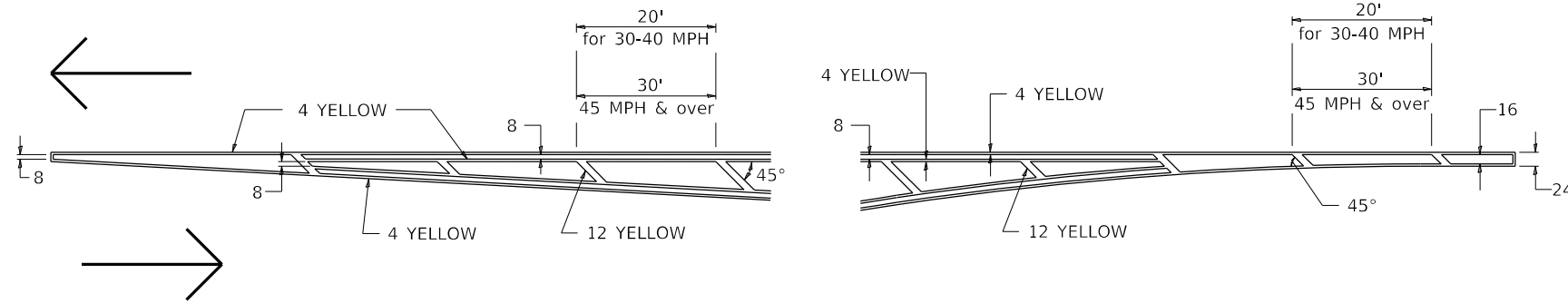
**DETAIL SHEETS**

SHEET 1 OF 4 SHEETS

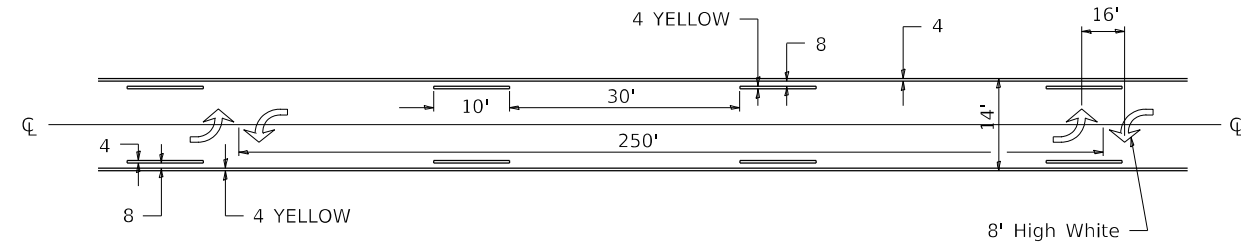
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	17
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		

# TYPICAL PAVEMENT MARKINGS

## TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

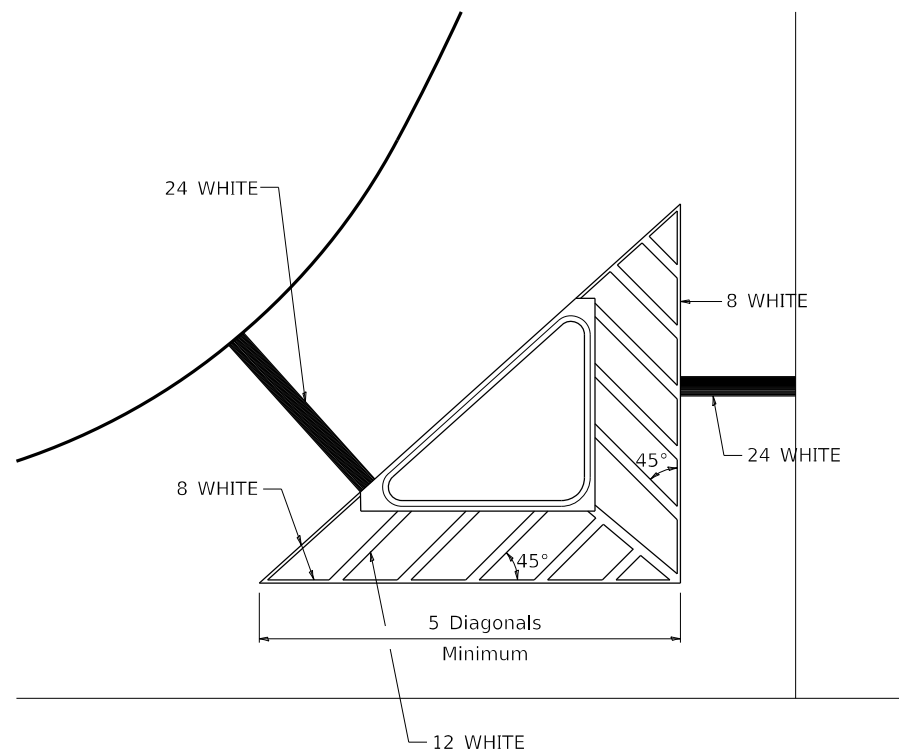


## MEDIAN PAVEMENT MARKING



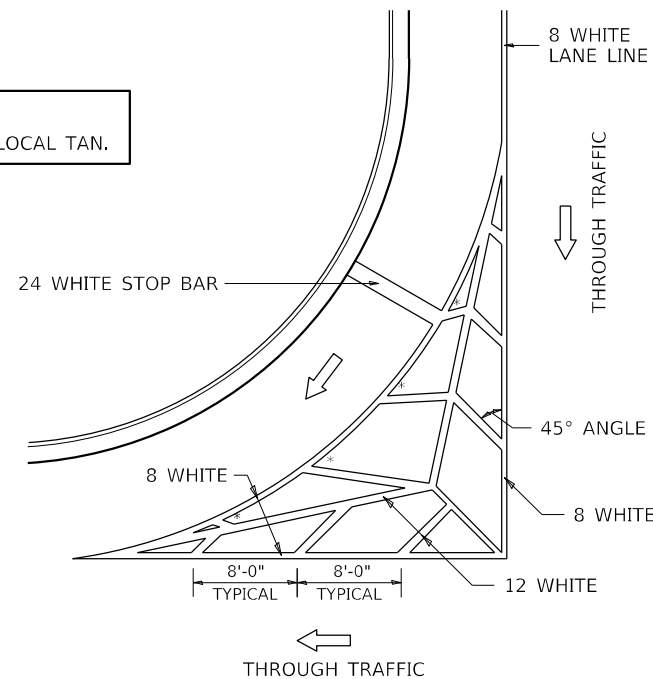
\*\* ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

## TYPICAL ISLAND OFFSET SHOULDER WIDTH



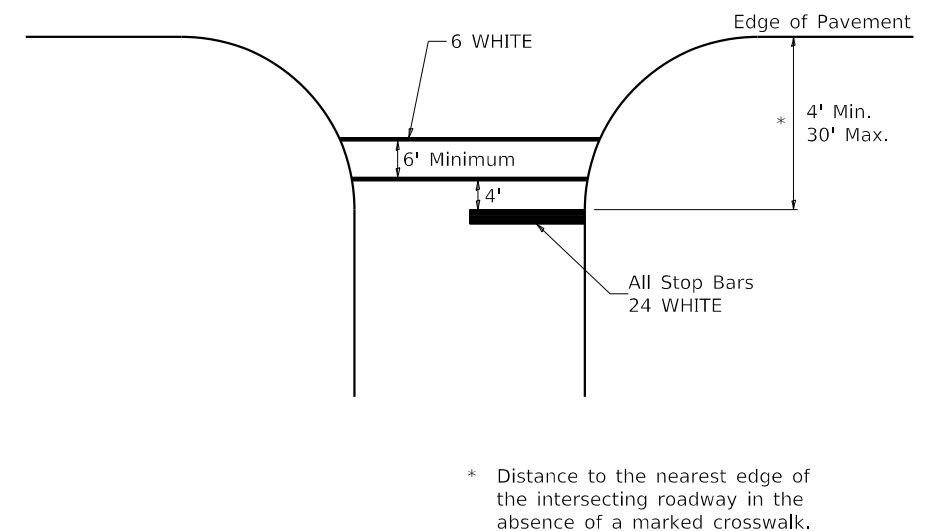
## TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:  
\* 45° TO LOCAL TAN.



## STANDARD CROSSWALK MARKING

See Schedules for Locations



\* Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

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PLOT DATE =	DATE - 09/01/2022	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

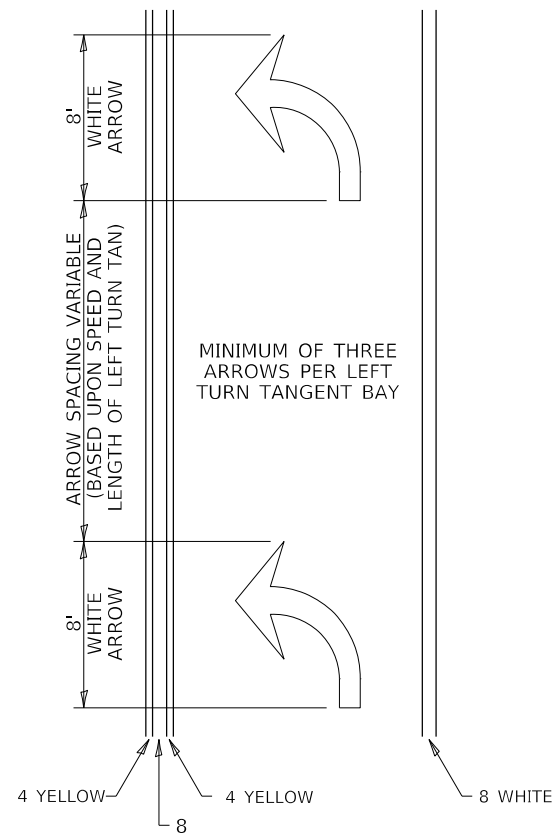
DETAIL SHEETS

SHEET 2 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	18
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		

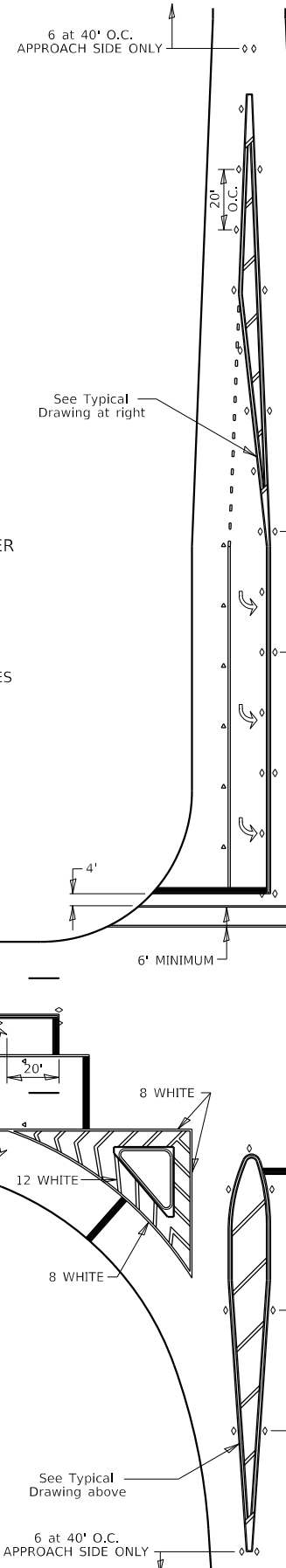
# TYPICAL PAVEMENT MARKINGS

## ARROW LAYOUT

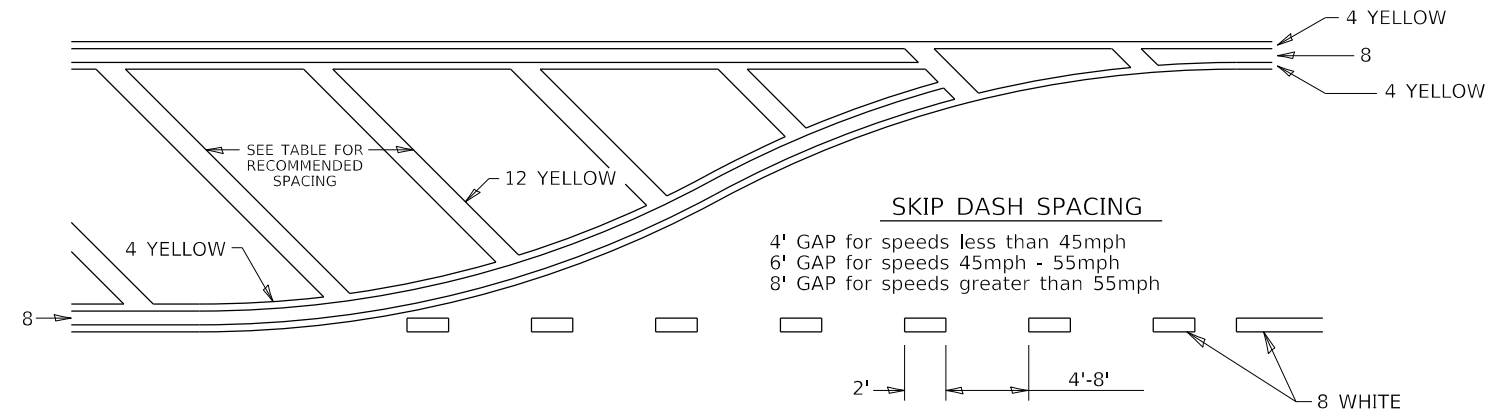


- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◇ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



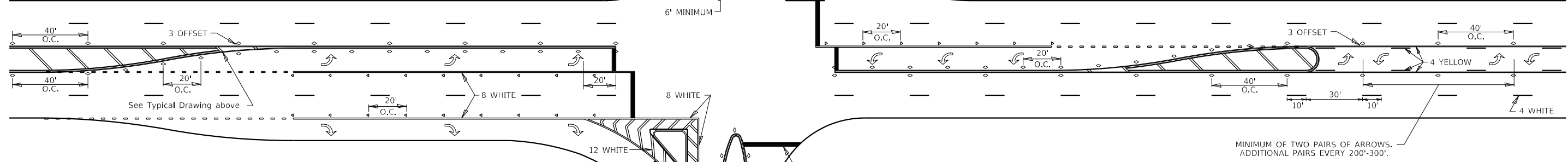
## TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



### RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 30MPH	50'	15'	10'
30-40MPH	75'	20'	15'
45MPH & over	75'	30'	20'

NOTE: if the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



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 12/7/2022 10:10:45 AM - PLOTTED



USER NAME =	DESIGNED - KM	REVISED - 6-27-14
DRAWN - KM	REVISED - 3-05-12	
PLOT SCALE =	CHECKED - LGN	REVISED -
PLOT DATE =	DATE - 09/01/2022	REVISED -

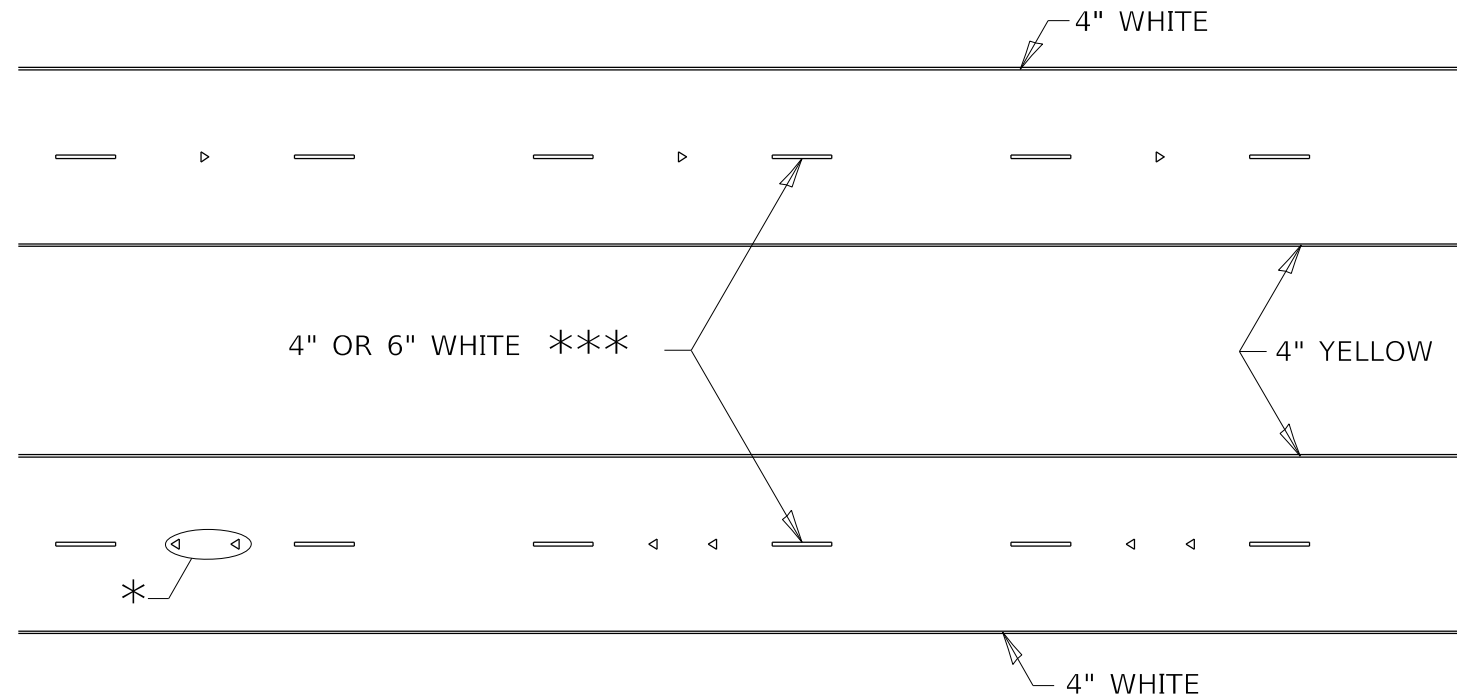
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAIL SHEETS

SHEET 3 OF 4 SHEETS

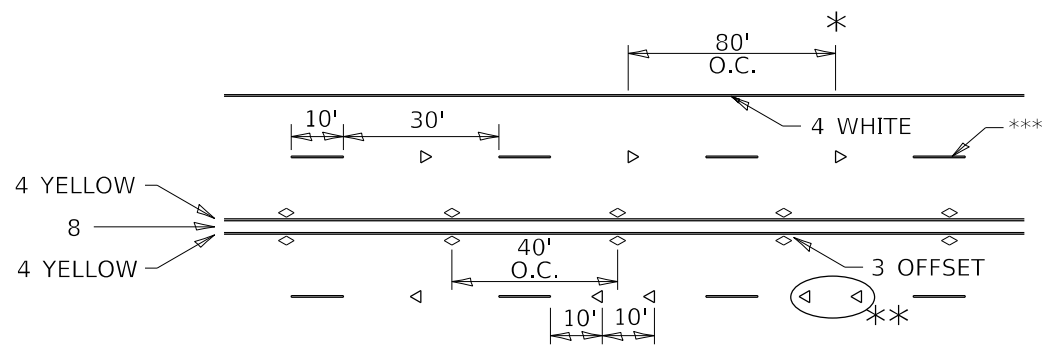
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	19
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		

# TYPICAL PAVEMENT MARKINGS



\* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.  
USE DOUBLE MARKERS WHEN ADT  $\geq$  20,000.

## MULTI-LANE / DIVIDED



\* REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.

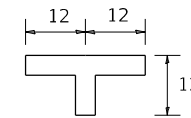
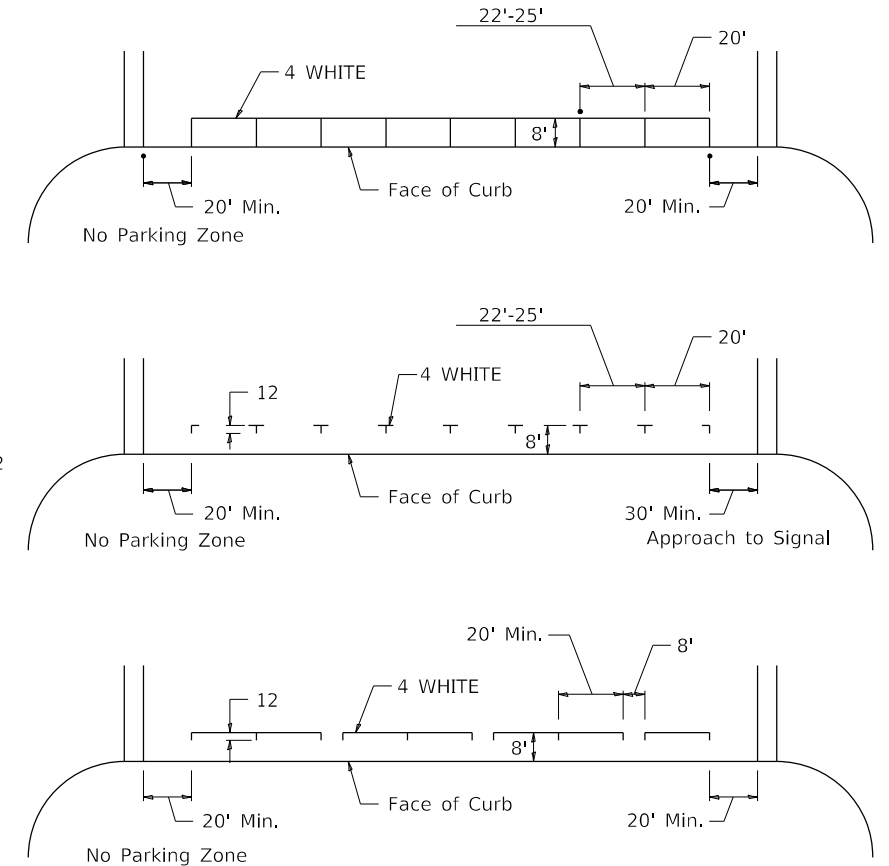
\*\* USE DOUBLE MARKERS WHEN ADT  $\geq$  20,000

\*\*\* CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE. SPEED LIMIT 40 MPH AND OVER USE 6" LINE.

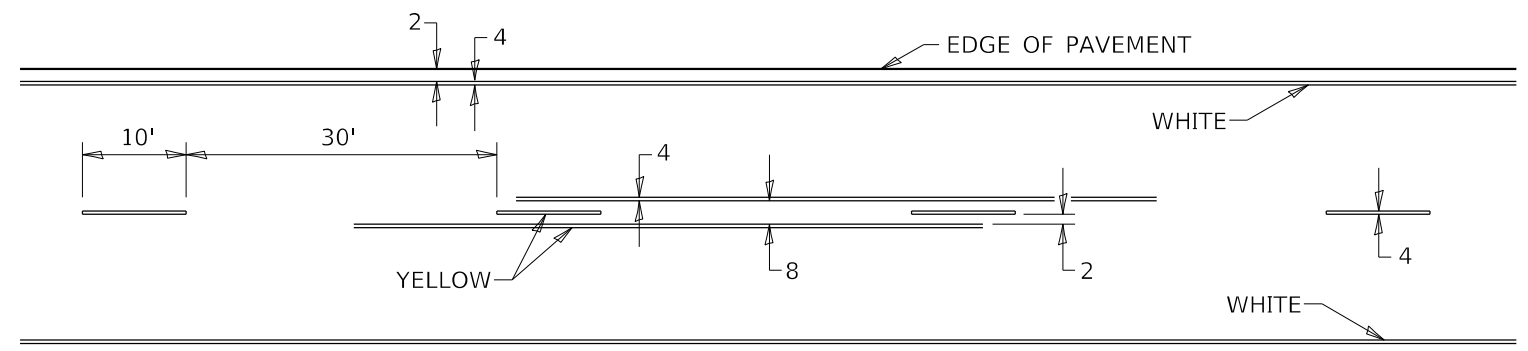
## MULTI-LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

## TYPICAL PARKING SPACING



## TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES



## SYMBOLS

12/7/2022 10:10:46 AM - PLOTTED

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USER NAME =	DESIGNED - KM	REVISED - 6-27-14
DRAWN - KM	REVISED - 8-27-13	
PLOT SCALE =	CHECKED - LGN	REVISED - 11-28-12
PLOT DATE =	DATE - 09/01/2022	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAIL SHEETS

SHEET 4 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	(161-1HB-7) BDR	ROCK ISLAND	20	20
WHA# 1054D22		CONTRACT NO. 64S15		
ILLINOIS		FED. AID PROJECT		