

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|-------------------------|---------------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | JACKSON/UNION | 23 | 1 |
| CONTRACT NO. 78A78 | | | | |

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-5

TRAFFIC DATA

STRUCTURE NO. 039-0048
2025 ADT = 1,430
15.73% Trucks

STRUCTURE NO. 091-0031
2025 ADT = 1,120
20.09% Trucks

TOWNSHIPS

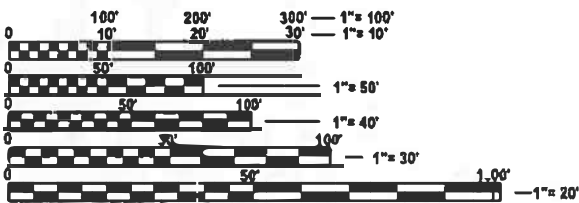
STRUCTURE NO. 039-0048
SAND RIDGE

STRUCTURE NO. 091-0031
GRAND TOWER
UNION

DESIGN DESIGNATION : N/A

COORDINATE SYSTEM : N/A

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

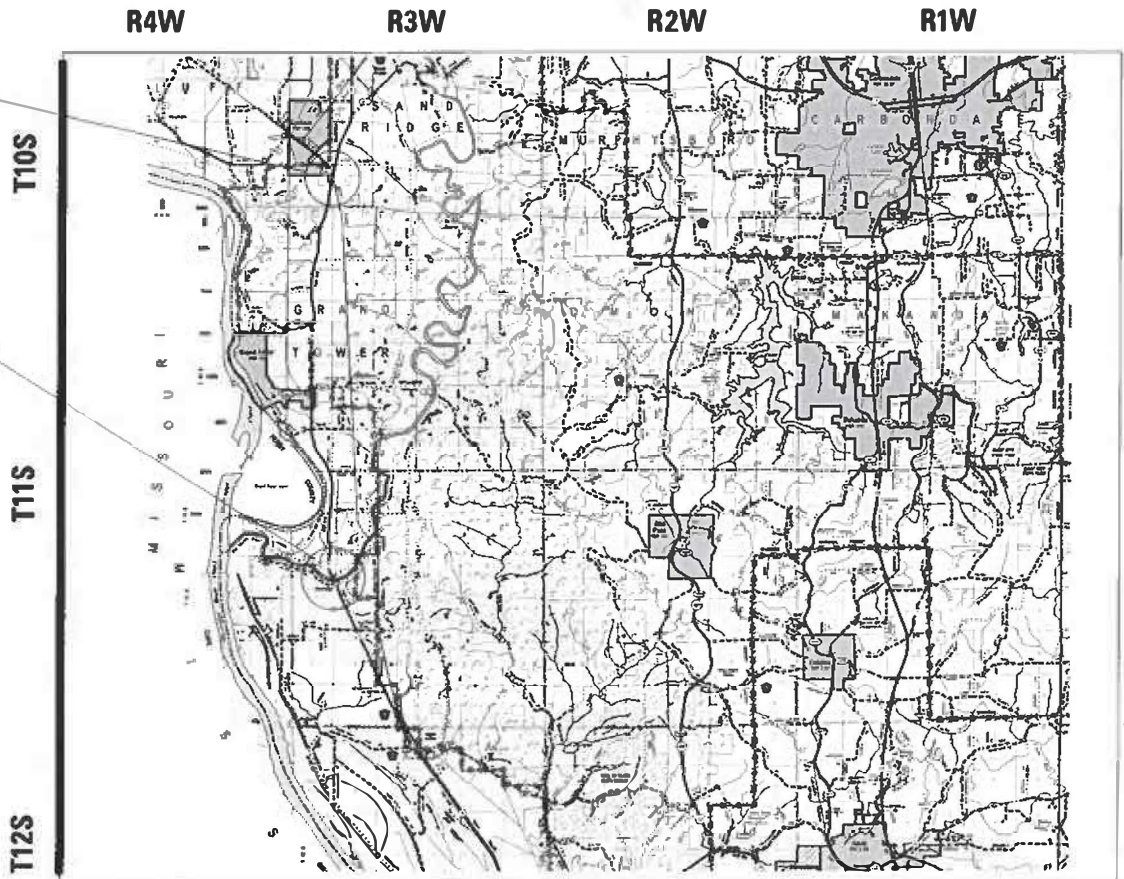
PROJECT ENGINEER EHREN KIRBY
PROJECT MANAGER DEREK SNIDER

CONTRACT NO. 78A78

PROPOSED
HIGHWAY PLANS

FAP ROUTE 312 (IL 3)
SECTION D9 Bridge Repair 2025-3
CONTRACT MAINTENANCE
BRIDGE REPAIR
JACKSON/UNION COUNTY

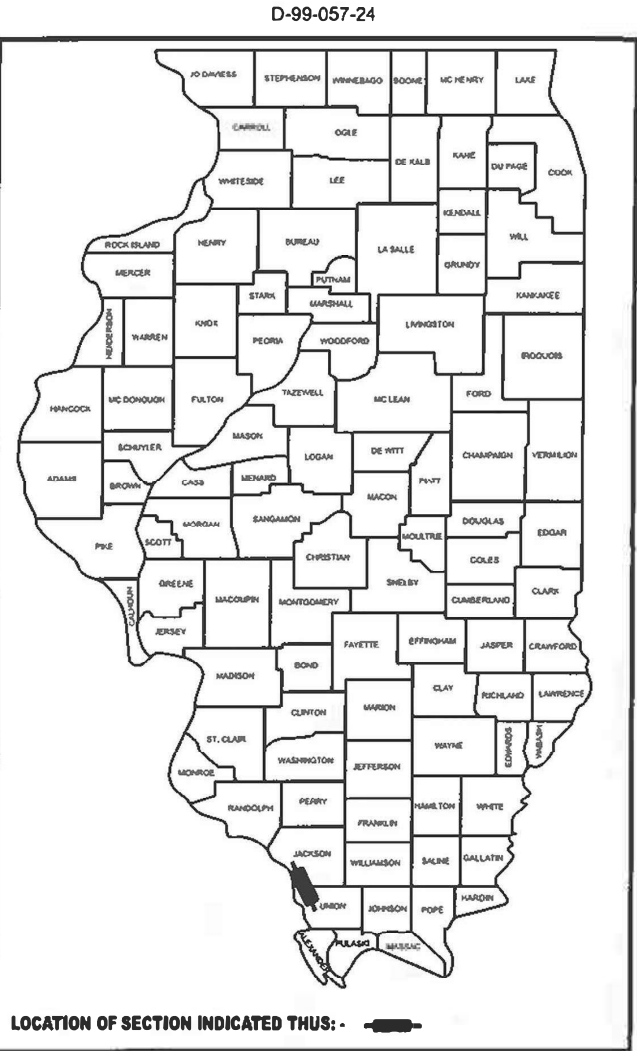
C-99-104-24



SN 039-0048
IL 3 OVER RAILROAD
JACKSON COUNTY

SN 091-0031
IL 3 OVER BIG MUDDY RIVER
UNION COUNTY

GROSS LENGTH = 896 FT. = 0.17 MILE
NET LENGTH = 896 FT. = 0.17 MILE



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 25, 2025
Lora S. Remington
REGIONAL ENGINEER

May 9, 2025
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2025
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

MODEL: Signature [Sheet]
FILE NAME: c:\pwworking\illinois\pwr_derek.snider\025256[D9xxxx-SHA-Cover_Sig.dgn

| | | | | | |
|-----------|----------------|----------|---|---------|---|
| USER NAME | = derek.snider | DESIGNED | - | REVISED | - |
| | | DRAWN | - | REVISED | - |
| | | CHECKED | - | REVISED | - |
| PLOT DATE | = 3/19/2025 | DATE | - | REVISED | - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

SCALE: SHEET 2 OF 23 SHEETS STA. TO STA.

| F.A.P RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|-----------------|--------------|
| 312 | D9 Bridge Repair 2025-3 | . | 23 | 2 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union

Prepared By: Susan Poe
DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy Lee
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Con Nelo
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: RCS
DISTRICT OPERATIONS ENGINEER

Examined By: _____
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Brenda Wills
DISTRICT CONSTRUCTION ENGINEER

Examined By: Aam Hays
DISTRICT MATERIALS ENGINEER

INDEX OF SHEETS

| | |
|-------|---|
| 1 | COVER SHEET |
| 2 | SIGNATURES |
| 3 | GENERAL NOTES, INDEX OF SHEETS, AND STANDARDS |
| 4-5 | SUMMARY OF QUANTITIES |
| 6 | PAVEMENG T MARKING SCHEDULE |
| 6-13 | SN 039-0048 REPAIR DETAILS |
| 14-18 | SN 091-0031 REPAIR DETAILS |
| 19-22 | DISTRICT DETAILS |

STANDARDS

| | |
|-----------|--|
| 000001-08 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 515001-04 | NAME PLATE FOR BRIDGES |
| 701001-02 | OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY |
| 701006-05 | OFF-ROAD OPERATIONS, 2L, 2W, 15' to 24" FROM PAVEMENT EDGE |
| 701201-05 | LANE CLOSURE, 2L, 2W DAY ONLY |
| 701321-19 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 701326-04 | LANE CLOSURE, 2L ,2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH |
| 701901-10 | TRAFFIC CONTROL DEVICES |
| 704001-08 | TEMPORARY CONCRETE BARRIER |
| 780001-05 | TYPICAL PAVEMENT MARKINGS |
| 862001-01 | UNINTERRUPTABLE POWER SUPPLY (UPS) |

MODEL: Index [Sheet]
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| | | | | | | | | | | | | |
|--|--------------------------|------------|-----------|---|----------------------------|---------|--------------|--------------------|-------------------------|-----------------------------|--------------|-----------|
| | USER NAME = derek.snider | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | INDEX OF SHEETS, STANDARDS | | | F.A.P RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | DRAWN - | REVISED - | | | | | 312 | D9 Bridge Repair 2025-3 | * | 23 | 3 |
| | | CHECKED - | REVISED - | | | | | CONTRACT NO. 78A78 | | | | |
| | PLOT DATE = 3/19/2025 | DATE - | REVISED - | | SCALE: | SHEET 3 | OF 23 SHEETS | STA. | TO STA. | ILLINOIS FED. AID PROJECT | | |

SUMMARY OF QUANTITIES

| CODE NUMBER | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY | COUNTY: | JACKSON CO | UNION CO |
|----------------|---|--------|-------------------|-----------|----------------|----------------|
| | | | | ROUTE: | FAP 312 (IL 3) | FAP 312 (IL 3) |
| | | | | FUNDING: | 100% STATE | 100% STATE |
| | | | | LOCATION: | BRIDGE | BRIDGE |
| | | | | | SN 039-0048 | SN 091-0031 |
| | | | | | 0047 | 0047 |
| | | | | | | |
| 35400500 | PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10" | SQ YD | 178 | | 0 | 178 |
| | | | | | | |
| 44004250 | PAVED SHOULDER REMOVAL | SQ YD | 178 | | 0 | 178 |
| | | | | | | |
| 50102400 | CONCRETE REMOVAL | CU YD | 65.5 | | 57.3 | 8.2 |
| | | | | | | |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 53.9 | | 46.2 | 7.7 |
| | | | | | | |
| 50300300 | PROTECTIVE COAT | SQ YD | 145 | | 121 | 24 |
| | | | | | | |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 9,790 | | 8,660 | 1,130 |
| | | | | | | |
| 50800515 | BAR SPLICERS | EACH | 60 | | 26 | 18 |
| | | | | | | |
| 50800530 | MECHANICAL SPLICERS | EACH | 283 | | 217 | 66 |
| | | | | | | |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 177 | | 103 | 74 |
| | | | | | | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 8 | | 4 | 4 |
| | | | | | | |
| 67100100 | MOBILIZATION | L SUM | 1 | | 0.5 | 0.5 |
| | | | | | | |
| 70100405 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 | EACH | 2 | | 1 | 1 |
| | | | | | | |
| 70100450 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 | L SUM | 1 | | 0.5 | 0.5 |
| | | | | | | |
| 70100500 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701326 | L SUM | 1 | | 0.5 | 0.5 |
| | | | | | | |
| 70103815 | TRAFFIC CONTROL SURVEILLANCE | CAL DA | 12 | | 6 | 6 |
| | | | | | | |

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SUMMARY OF QUANTITIES - CONT

| CODE NUMBER | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY | COUNTY: | JACKSON CO | UNION CO |
|----------------|--|--------|-------------------|-------------|----------------|----------------|
| | | | | ROUTE: | FAP 312 (IL 3) | FAP 312 (IL 3) |
| | | | | FUNDING: | 100% STATE | 100% STATE |
| | | | | LOCATION: | BRIDGE | BRIDGE |
| | | | | SN 039-0048 | | SN 091-0031 |
| | | | | 0047 | | 0047 |
| | | | | | | |
| 70106500 | TEMPORARY BRIDGE TRAFFIC SIGNALS | EACH | 2 | | 1 | 1 |
| | | | | | | |
| 70106700 | TEMPORARY RUMBLE STRIPS | EACH | 12 | | 6 | 6 |
| | | | | | | |
| 70107005 | PAVEMENT MARKING BLACKOUT TAPE, 5" | FOOT | 1,612 | | 0 | 1,612 |
| | | | | | | |
| 70107025 | CHANGEABLE MESSAGE SIGN | CAL DA | 56 | | 28 | 28 |
| | | | | | | |
| 70300100 | SHORT TERM PAVEMENT MARKING | FOOT | 81 | | 81 | 0 |
| | | | | | | |
| 70300150 | SHORT TERM PAVEMENT MARKING REMOVAL | SQ FT | 699 | | 27 | 672 |
| | | | | | | |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 1,287.5 | | 625.0 | 662.5 |
| | | | | | | |
| 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 1,162.5 | | 500.0 | 662.5 |
| | | | | | | |
| 70600251 | IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3 | EACH | 4 | | 2 | 2 |
| | | | | | | |
| 70600352 | IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE,NARROW), TEST LEVEL 3 | EACH | 4 | | 2 | 2 |
| | | | | | | |
| * 78001110 | PAINT PAVEMENT MARKING - LINE 4" | FOOT | 2,165 | | 2,147 | 18 |
| | | | | | | |
| 78300201 | PAVEMENT MARKING REMOVAL - GRINDING | SQ FT | 715 | | 715 | 0 |
| | | | | | | |
| * 86200300 | UNINTERRUPTABLE POWER SUPPLY, EXTENDED | EACH | 2 | | 1 | 1 |
| | | | | | | |
| Z0034390 | MODULAR EXPANSION JOINT 6" | FOOT | 102 | | 102 | 0 |
| | | | | | | |
| | | | | | | |

* SPECIALTY ITEM

MODEL: S00-2 [Sheet]
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MODEL: Plan Sheet 6 [Sheet]
FILE NAME: c:\pwwork\idot\illinois.gov_derek.snider@illinois.gov\1029256\D9xxxx-ShtD-Typicals.dgn

| PAVEMENT MARKING | | | | | | | | |
|----------------------------|----|-------------|--|---------------------------------------|--------------------------------|---|----------------------------------|--------------|
| STATION | | | PAVEMENT MARKING REMOVAL - GRINGING | PAVEMENT MARKING BLACKOUT TAPE, 5" | SHORT TERM PAVEMENT MARKING | SHORT TERM PAVEMENT MARKING REMOVAL | PAINT PAVEMENT MARKING - LINE 4" | |
| | | | | | | | SOLID WHITE | SOLID YELLOW |
| | | | SQ FT | FOOT | FOOT | SQ FT | FOOT | FOOT |
| JACKSON COUNTY SN 039-0048 | | | | | | | | |
| 245 + 13.75 | TO | 250 + 38.13 | 349 | | | | 1049 | |
| 248 + 88.45 | TO | 251 + 90.09 | 202 | | | | | 604 |
| 243 + 00 | TO | 245 + 46.95 | 164 | | | | | 494 |
| 248 + 88.45 | TO | 251 + 90.09 | | | | | | |
| 243 + 00 | TO | 251 + 90.09 | | | 81 | 27 | | |
| TOTAL | | | 715 | | 81 | 27 | 2147 | |
| UNION COUNTY SN 091-0031 | | | | | | | | |
| 783 + 81.72 | TO | 790 + 43.81 | | 1324 | | 552 | | |
| 782 + 29.76 | TO | 793 + 78.83 | | 288 | | 120 | | |
| 784 + 91 | TO | 784 + 94 | | | | | 6 | 3 |
| 789 + 42 | TO | 789 + 45 | | | | | 6 | 3 |
| TOTAL | | | | 1612 | | 672 | 18 | |
| GRAND TOTAL | | | 715 | 1612 | 81 | 699 | 2165 | |

* AT 

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

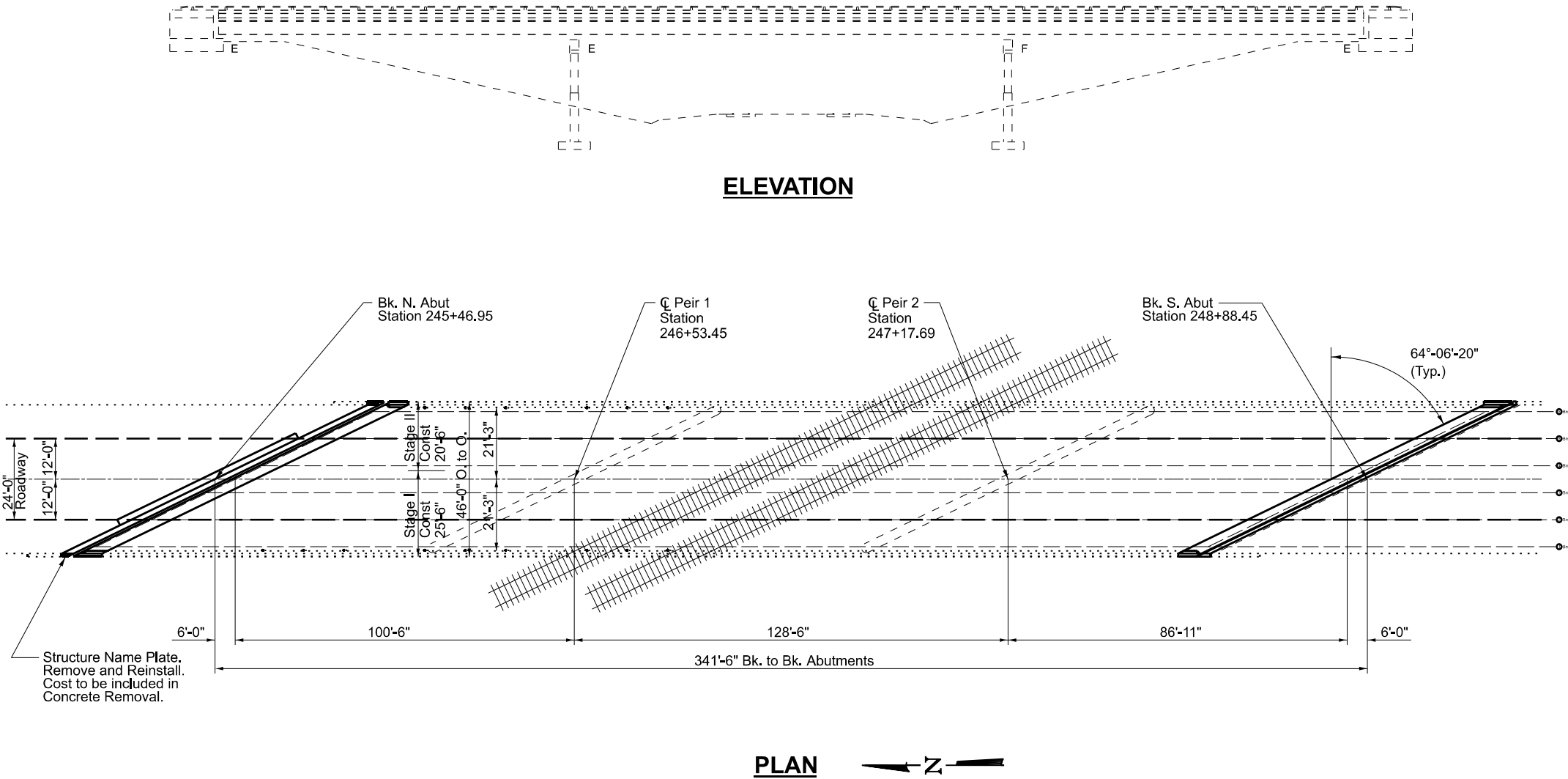
Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

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

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. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

Protective Coat shall be applied to all new concrete superstructure and all new concrete overlays as specified in Article 503.19 of Standard Specifications.



DESIGN STRESSES

(From Existing Plans)
Design Loading HS 20-44
Design Stresses
f'c=3,500 psi
fy=60,000psi (Reinf.)
fy=50,000 psi (Structure)

(New)
f'c=4,000 psi
fy=60,000psi (Reinf.)

Design Specifications
2002 AASHTO Standard Specifications for Highway Bridges, 17 Edition.

SCOPE OF WORK

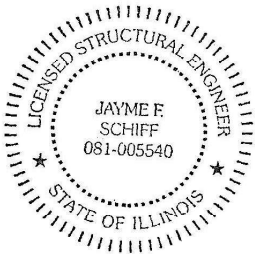
Preformed Joint Strip Seal at South Abutment
Modular Expansion Joint 6" at North Abutment

TOTAL BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|----------------------------------|---------|----------|
| Bar Splicers | Each | 36 |
| Mechanical Splicers | Each | 217 |
| Concrete Superstructure | Cu. Yd. | 46.2 |
| Concrete Removal | Cu. Yd. | 57.3 |
| Reinforcement Bars, Epoxy Coated | Pound | 8660 |
| Preformed Joint Strip Seal | Foot | 103 |
| Modular Expansion Joint 6" | Foot | 102 |
| * Protective Coat | Sq. Yd. | 121 |

* On New Concrete Only

GENERAL PLAN & ELEVATION
IL 3 OVER RAILROAD
FAP 312 - D9 BRIDGE REPAIR 2025-3
JACKSON COUNTY
STRUCTURE NO. 039-0048

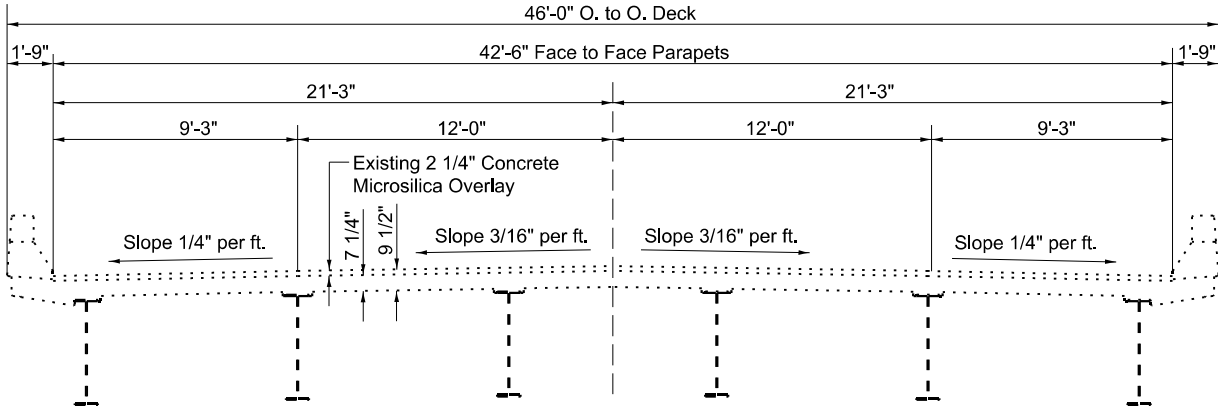


EXPIRES 11-30-2026

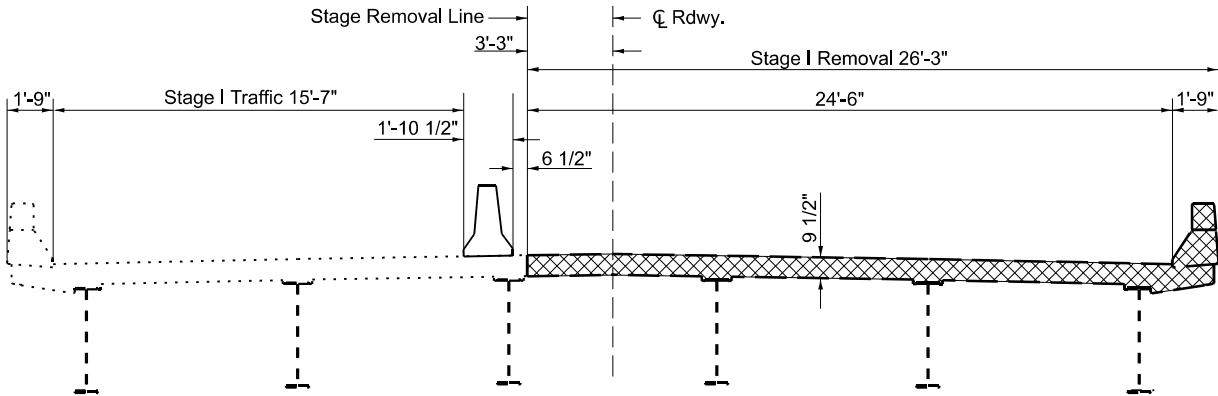
Jayme F. Schiff

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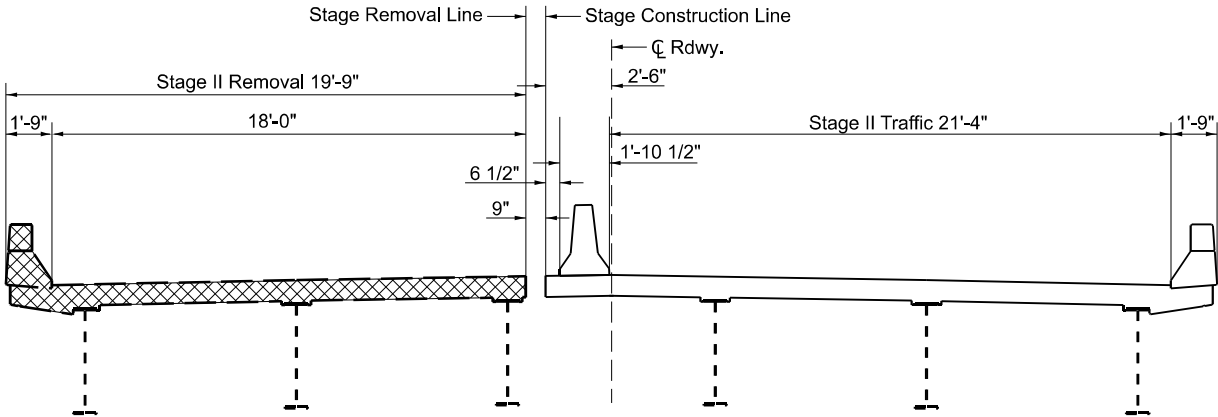
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| | DRAWN - | REVISED - | | | | | | | | |
| | CHECKED - | REVISED - | | | | | | | | |
| | DATE - | REVISED - | | | | | | | | |
| PLOT DATE = 3/21/2025 | | | | SCALE: | SHEET 7 | OF 23 | SHEETS | STA. | TO STA. | |
| | | | | | | | | ILLINOIS | FED. AID PROJECT | Jackson/Union |



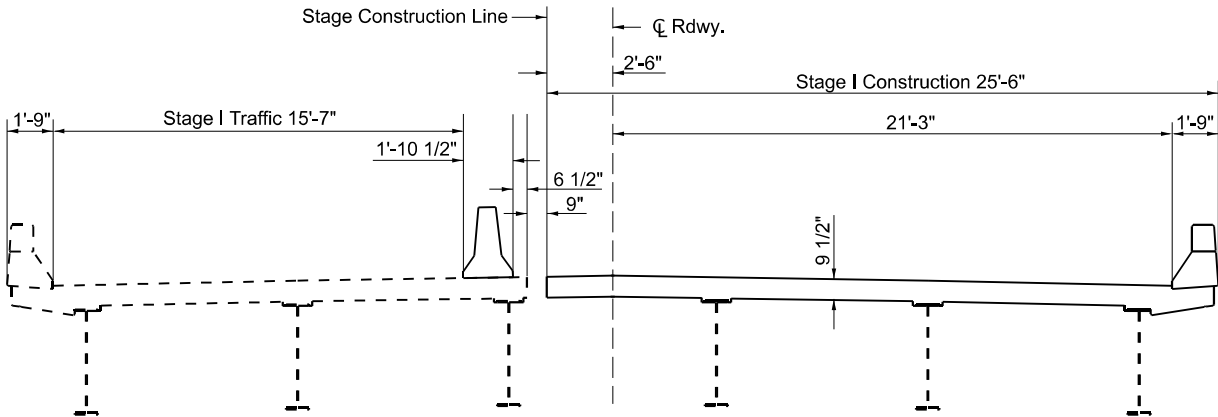
TYPICAL BRIDGE SECTION - EXISTING



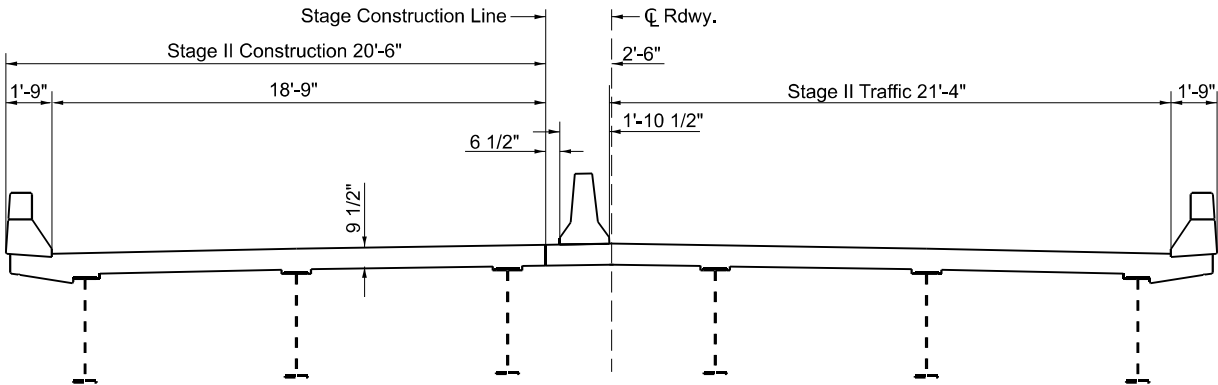
STAGE I REMOVAL
(AT JOINT LOCATIONS ONLY)



STAGE II REMOVAL
(AT JOINT LOCATIONS ONLY)



STAGE I CONSTRUCTION
(AT JOINT LOCATIONS ONLY)



STAGE II CONSTRUCTION
(AT JOINT LOCATIONS ONLY)

Concrete Removal

Notes: All Sections Looking Upstation (South)

MODEL: Plan Sheet 8 (Sheet)
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| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 3/19/2025 | DATE - | REVISED - |

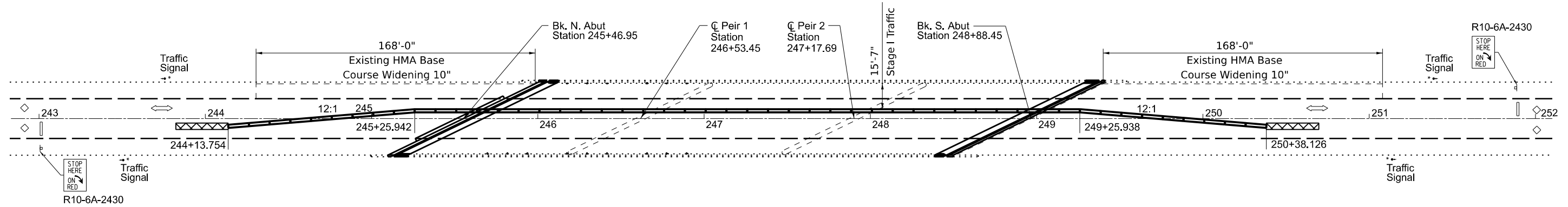
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION & STAGING DETAILS
SN 039-0048

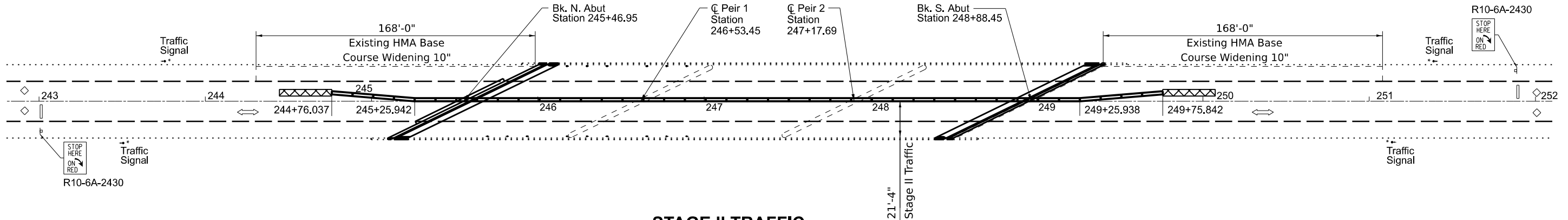
SCALE: SHEET 8 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 8 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

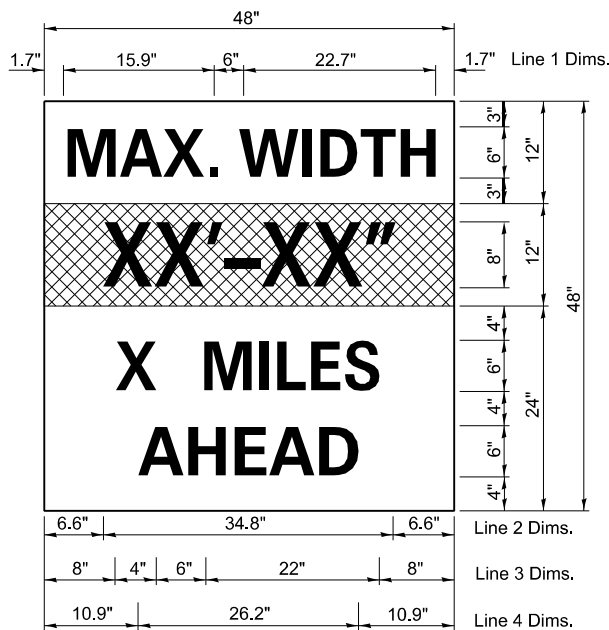
*Jackson/Union



STAGE I TRAFFIC



STAGE II TRAFFIC



W12-I103

W12-I103, No Border
"MAX WIDTH" 6D, No Border, Black on White
"XX'-XX'" 8D, No Border, Black on Orange
"X MILES" 6D, No Border, Black on White
"AHEAD" 6D, No Border, Black on White

Notes for Max Width Sign:

1. Install a Max Width Sign each direction on IL 3 to give traffic approaching work zone enough advance notice to change routes if needed. Exact locations as directed by engineer.
2. The contractor shall furnish the posts and erect the signs at the locations directed by the engineer. All signs shall be post mounted.
3. The noted work, including signs, posts, hardware and labor shall be included in the contract unit price, each, for Traffic Control and Protection, Std. 701321, no other compensation will be allowed.
4. The width shown on the W12-I103 sign shall be 18" less than what is shown in the staged lane widths or as directed by the Engineer.
5. The "X" MILES AHEAD will be determined by the engineer.

LEGEND:

Impact Attenuator

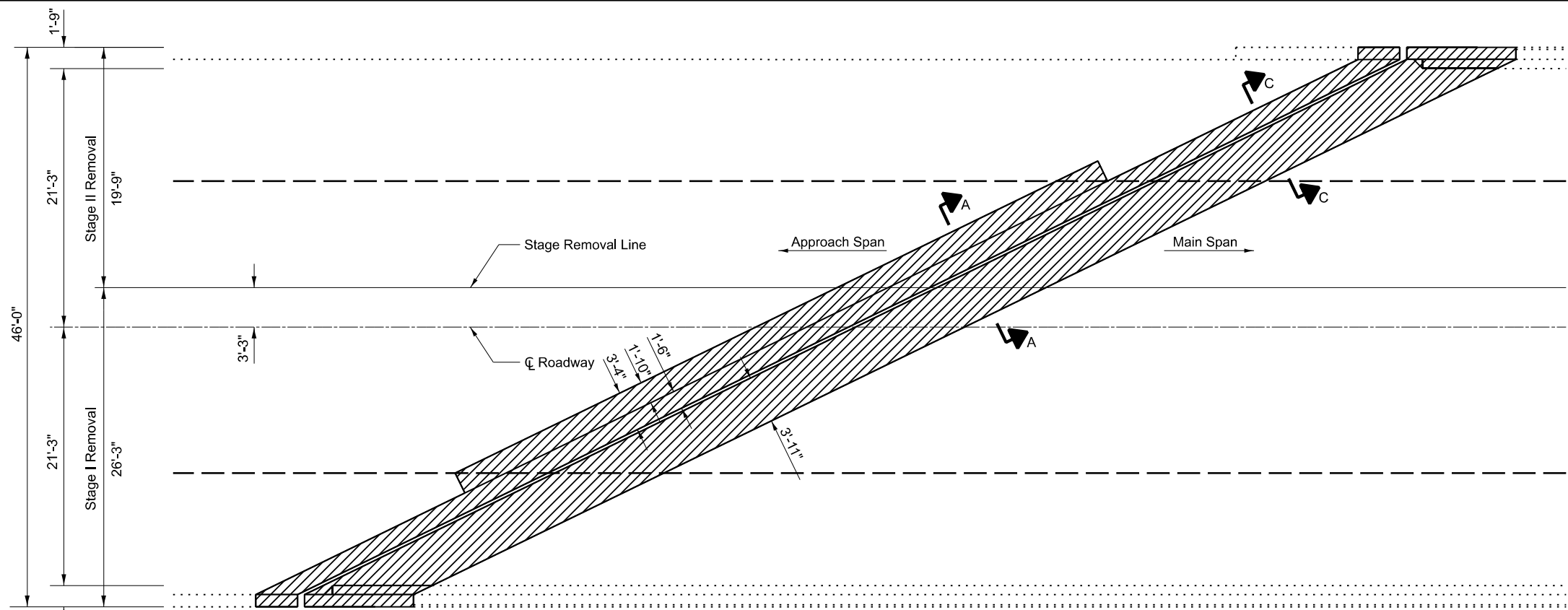
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLAN
SN 039-0048

SCALE: SHEET 9 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 9 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

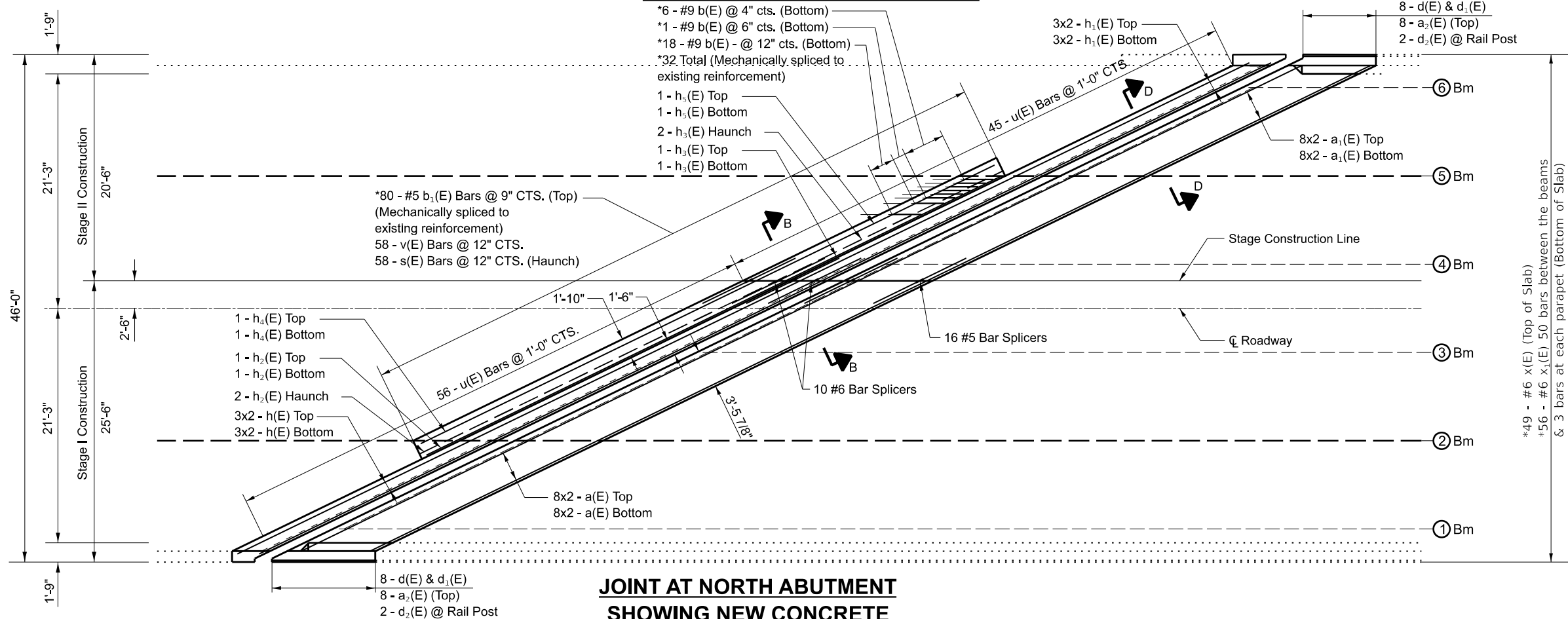
*Jackson/Union



*Cut existing reinforcement 6"
from removal line to facilitate
installation of mechanical splicer

Minimum Lap Length:
#5 Rebar - 3'-6"
#6 Rebar - 4'-0"

JOINT AT NORTH ABUTMENT SHOWING CONCRETE REMOVAL



JOINT AT NORTH ABUTMENT SHOWING NEW CONCRETE

*49 - #6 x(E) (Top of Slab)
*56 - #6 x(E) 50 bars between the beams
& 3 bars at each parapet (Bottom of Slab)
See section through parapet
(Mechanically spliced to existing reinforcement)

MODEL: Plan Sheet 10 (Sheet)
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| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 3/19/2025 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

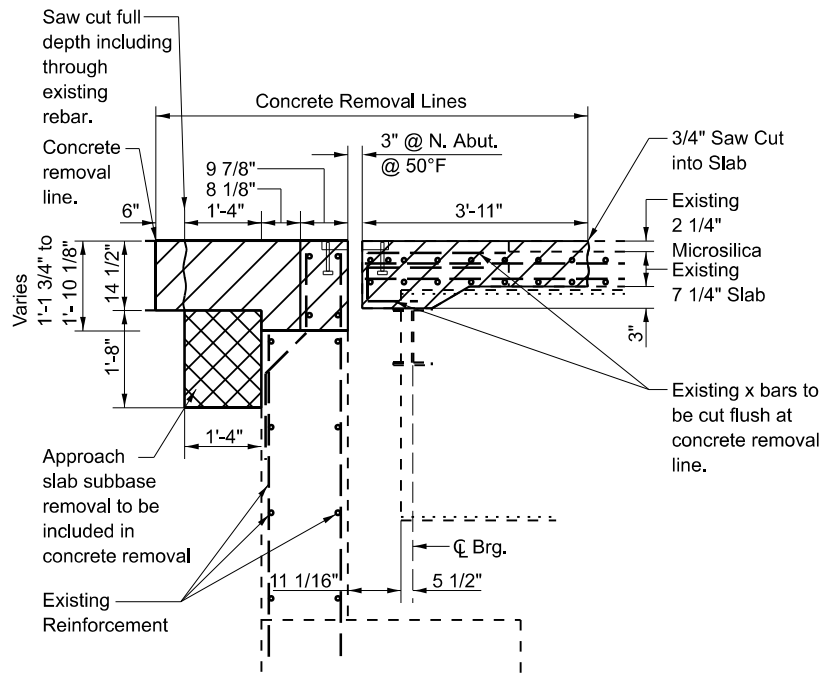
JOINT RECONSTRUCTION DETAILS
AT NORTH ABUTMENT SN 039-0048

SCALE: SHEET 10 OF 23 SHEETS STA. TO STA.

| F.A.P RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|-----------------|--------------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 10 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

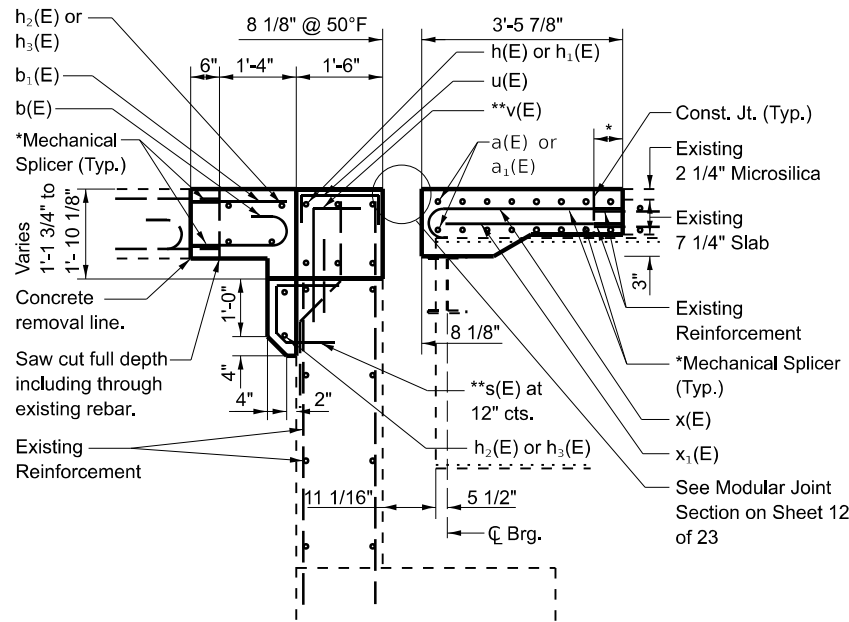
(SHEET 1 of 3)

*Jackson/Union

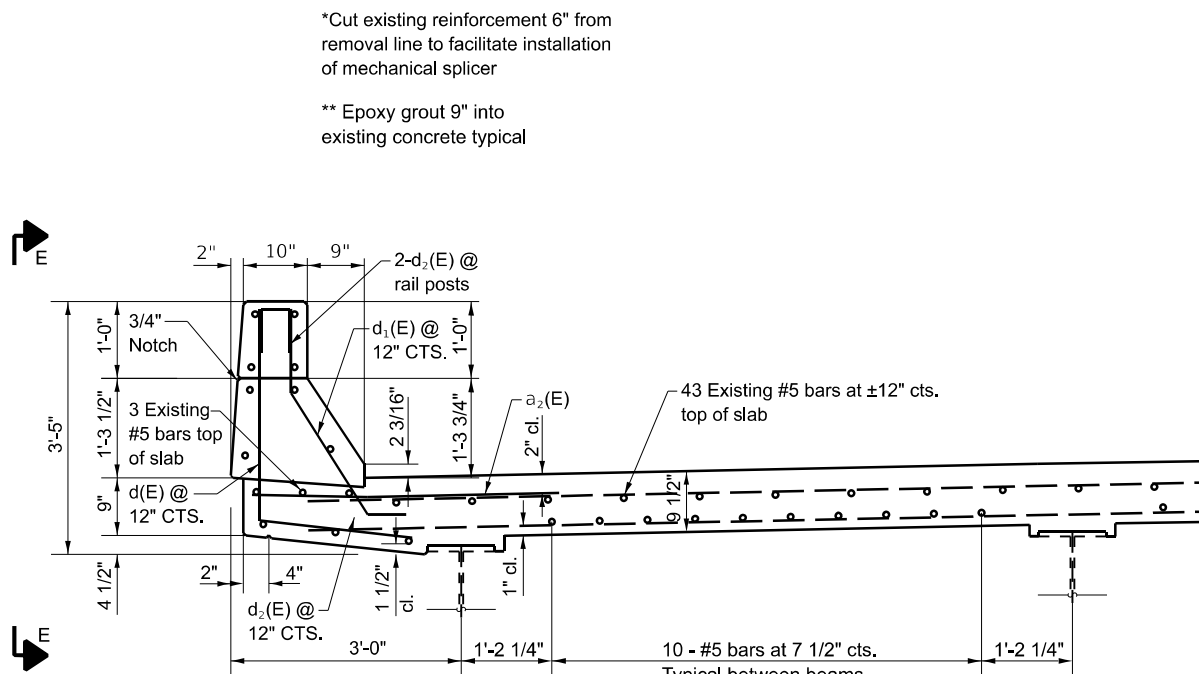


SECTION A-A
(Dimensions are at Right Angles)

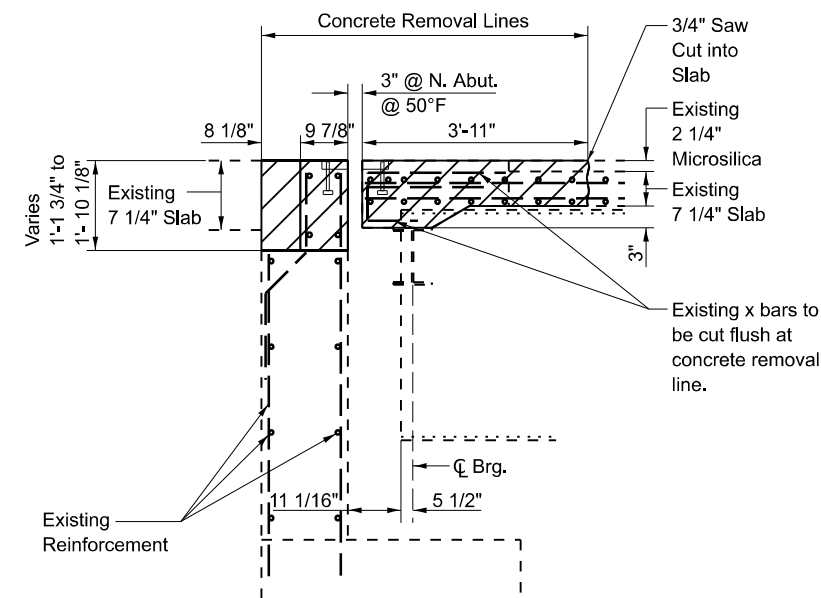
Concrete Removal



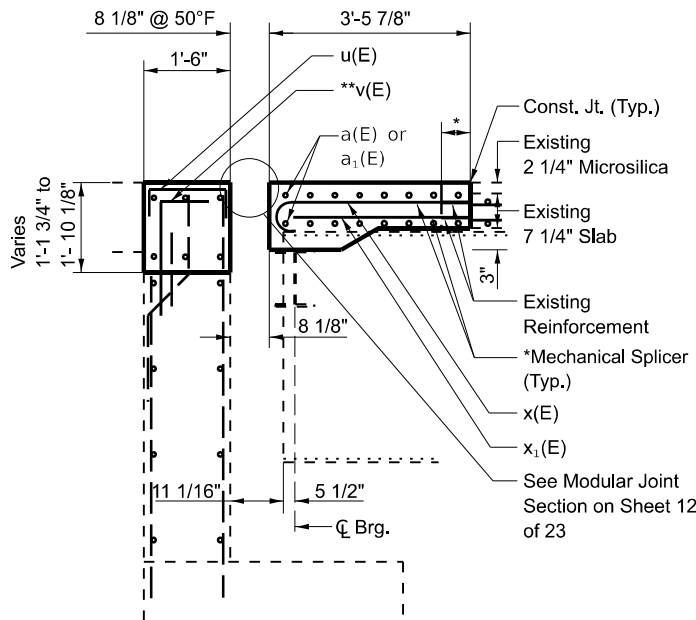
SECTION B-B
(Dimensions are at Right Angles)



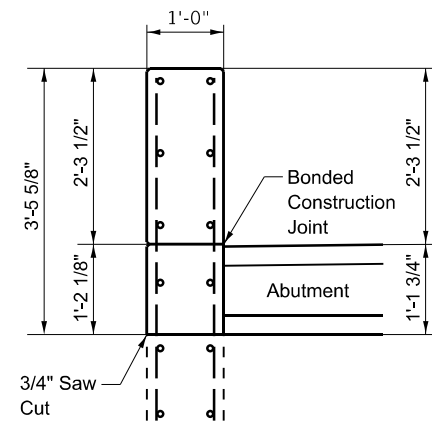
SECTION THROUGH PARAPET
(on main span)



SECTION C-C
(Dimensions are at Right Angles)

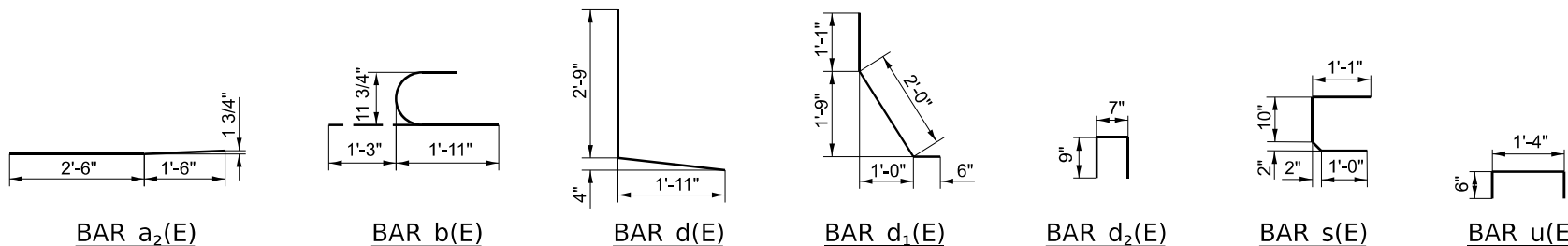


SECTION D-D
(Dimensions are at Right Angles)



SECTION THROUGH WING WALL
(on approach span)

Note: Clean and incorporate existing rebar.
No additional rebar needed in this section.



BILL OF MATERIAL (NORTH ABUTMENT)

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| a(E) | 32 | #5 | 32'-2" | — |
| a1(E) | 32 | #5 | 26'-5" | — |
| a2(E) | 16 | #6 | 4'-0" | — |
| b(E) | 32 | #9 | 3'-2" | — |
| b1(E) | 80 | #5 | 1'-4" | — |
| d(E) | 16 | #4 | 4'-8" | — |
| d1(E) | 16 | #5 | 3'-7" | — |
| d2(E) | 4 | #4 | 2'-1" | — |
| h(E) | 20 | #6 | 32'-4" | — |
| h1(E) | 20 | #6 | 26'-7" | — |
| h2(E) | 4 | #6 | 36'-0" | — |
| h3(E) | 4 | #6 | 22'-0" | — |
| h4(E) | 2 | #6 | 34'-0" | — |
| h5(E) | 2 | #6 | 24'-0" | — |
| s(E) | 58 | #5 | 3'-3" | — |
| u(E) | 101 | #4 | 2'-4" | — |
| v(E) | 58 | #5 | 2'-10" | — |
| x(E) | 49 | #6 | 3'-1" | — |
| x1(E) | 56 | #6 | 3'-4" | — |
| Mechanical Splicer | | Each | 217 | |
| Bar Splicer | | Each | 26 | |
| Concrete Superstructure | | Cu. Yd. | 27.4 | |
| Concrete Removal | | Cu. Yd. | 36.4 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 5920 | |

(SHEET 2 of 3)

MODEL: Plan Sheet 11 (Sheet)
FILE NAME: c:\pwworking\illinois.gov\derek.snider\1029256\09xxxx-StdD-Typicals.dgn

| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 3/21/2025 | DATE - | REVISED - |

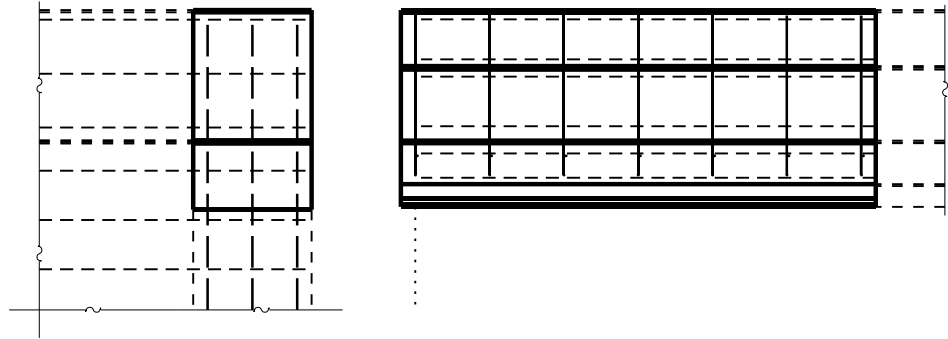
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT RECONSTRUCTION DETAILS
AT NORTH ABUTMENT SN 039-0048

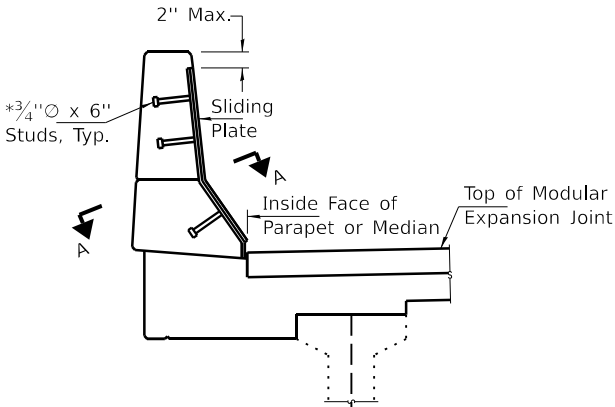
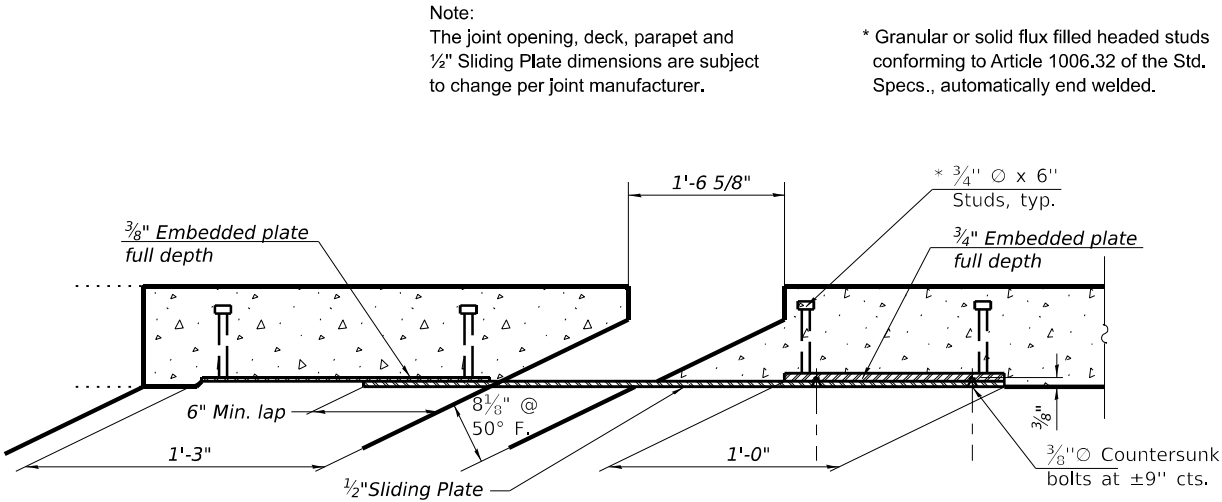
SCALE: SHEET 11 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 11 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union



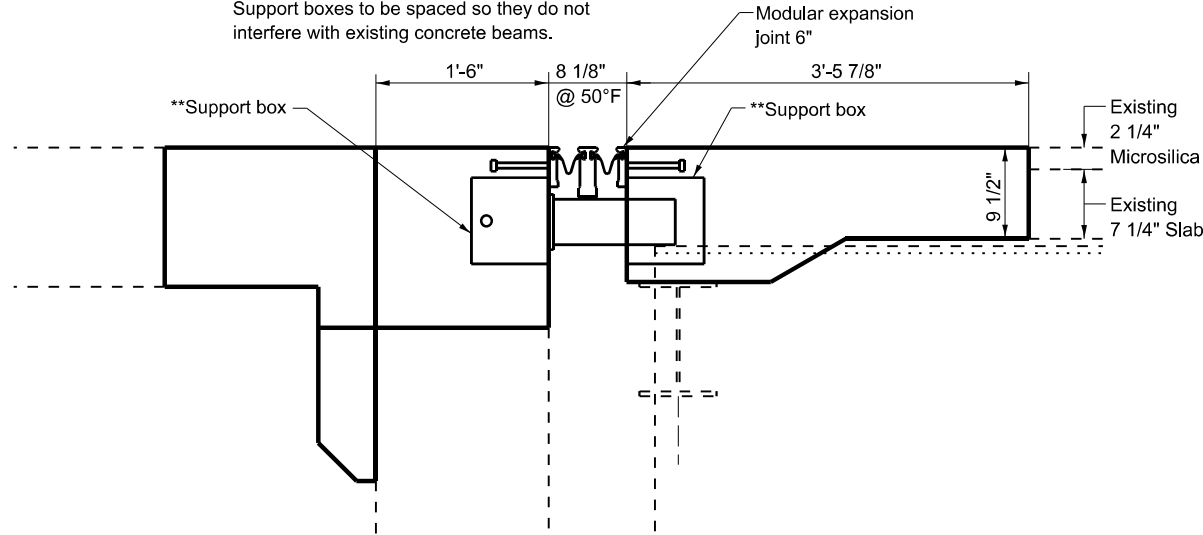
VIEW E-E



SLIDING PLATE DETAILS
FOR PARAPETS & MEDIAN

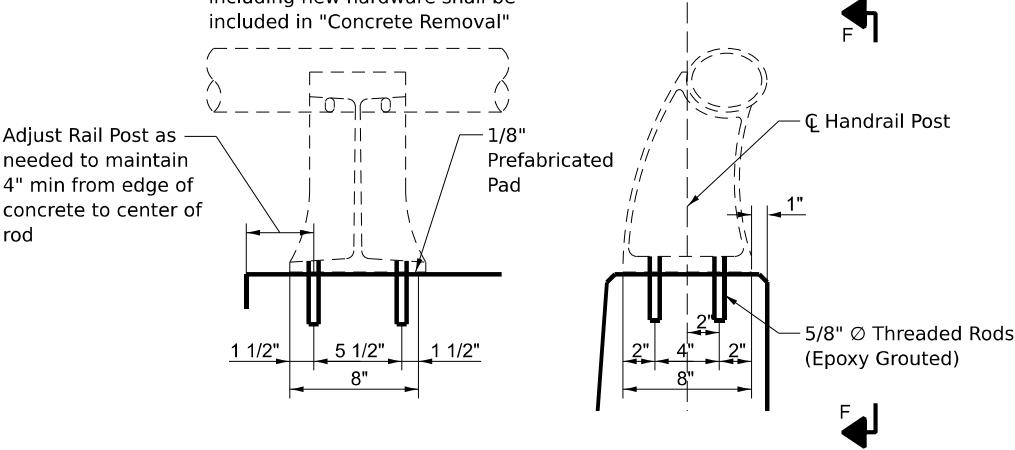
Cost included with modular expansion joint

**Support box spacing per manufacturer.
Support boxes to be rigidly attached to diaphragms and beams by adjustable brackets, stools, or shims as determined by manufacturer.
Support boxes to be spaced so they do not interfere with existing concrete beams.



SECTION THROUGH MODULAR
EXPANSION JOINT AT SUPPORT BOX
(Reinforcement not shown for clarity)

Note: Cost of removing, location adjustment, & reinstalling railposts, including new hardware shall be included in "Concrete Removal"



VIEW F-F

SECTION THRU POST

RAIL POST DETAILS

(SHEET 3 of 3)

MODEL: Plan Sheet 12 (Sheet)
FILE NAME: c:\pwworking\illinois.gov\derek.snider\1029256\D9xxxx-ShtD-Typicals.dgn

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|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 3/19/2025 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

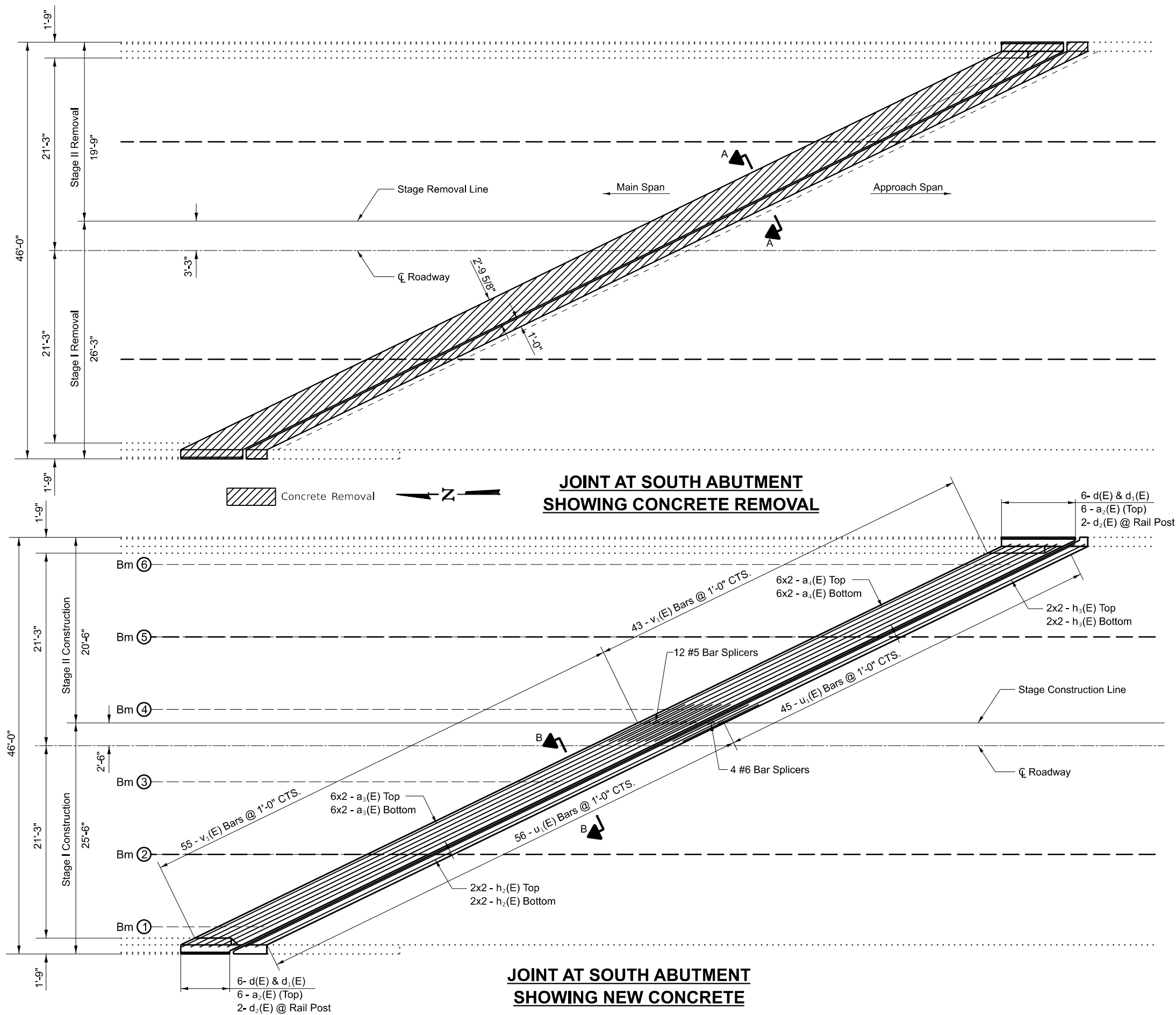
JOINT RECONSTRUCTION DETAILS
AT NORTH ABUTMENT SN 039-0048

SCALE: SHEET 12 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|-----------------|--------------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 12 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union

MODEL: Plan Sheet 13 (Sheet)
FILE NAME: c:\pwworkspace\illinois.gov_derek.snider\1029256D9xxxx-ShtD-Typicals.dgn



Minimum Lap Length:
#5 Rebar - 3'-6"
#6 Rebar - 4'-0"

**JOINT AT SOUTH ABUTMENT
SHOWING NEW CONCRETE**

(SHEET 1 of 2)

| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| | DATE - | REVISED - |
| PLOT DATE = 3/19/2025 | | |

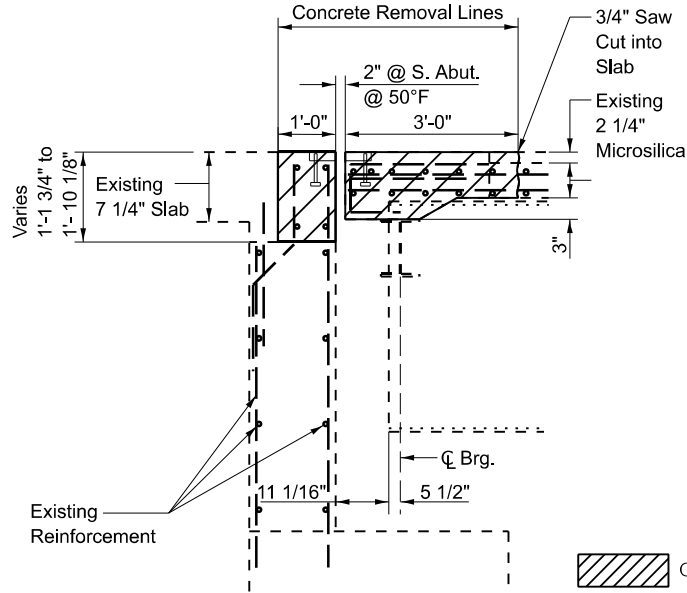
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT RECONSTRUCTION DETAILS
AT SOUTH ABUTMENT SN 039-0048

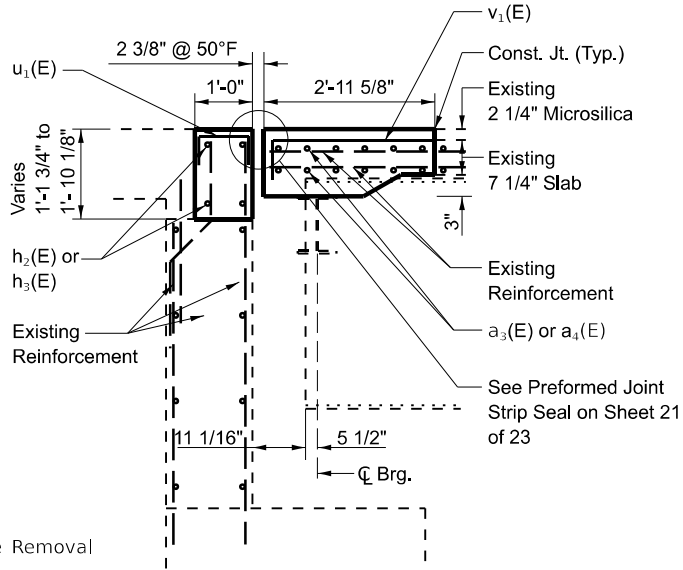
SCALE: SHEET 13 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 13 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

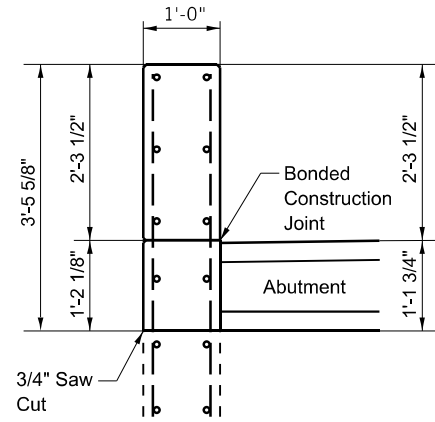
*Jackson/Union



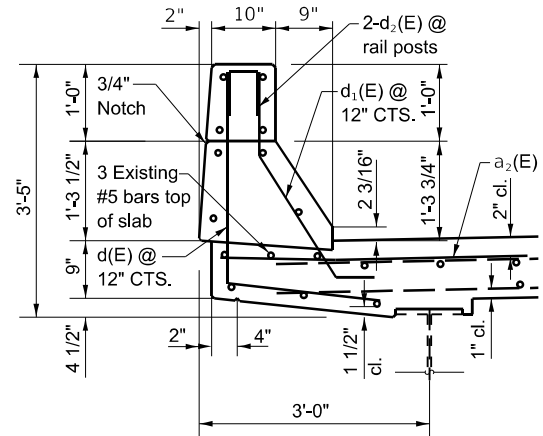
SECTION A-A
(Dimensions are at Right Angles)



SECTION B-B
(Dimensions are at Right Angles)



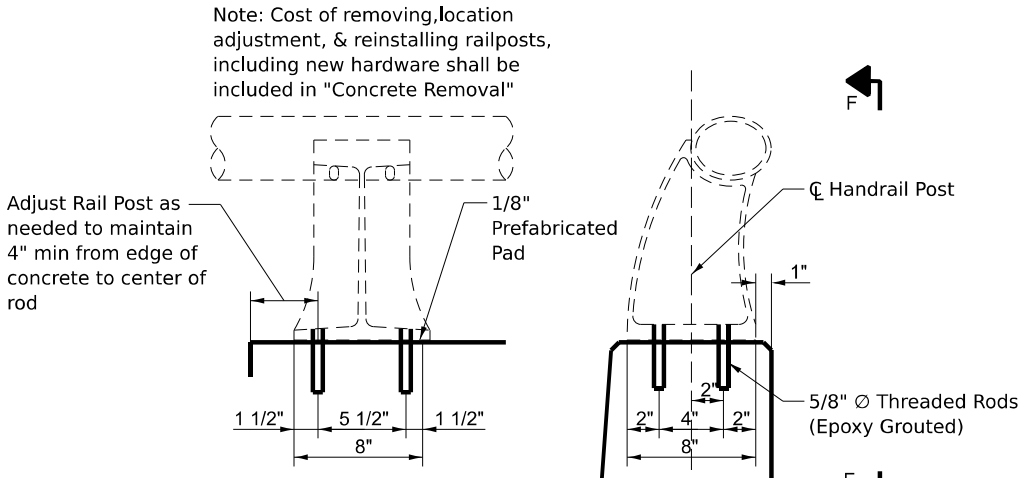
SECTION THROUGH WING WALL
(on approach span)
Note: Clean and incorporate existing rebar.
No additional rebar needed in this section.



SECTION THROUGH PARAPET
(on main span)

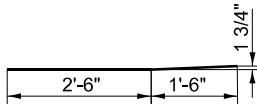
BILL OF MATERIAL (SOUTH ABUTMENT)

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| a ₂ (E) | 12 | #6 | 4'-2" | — |
| a ₃ (E) | 24 | #5 | 32'-2" | — |
| a ₄ (E) | 24 | #5 | 26'-5" | — |
| d(E) | 12 | #4 | 4'-8" | L |
| d ₁ (E) | 12 | #5 | 3'-7" | — |
| d ₂ (E) | 4 | #4 | 1'-4" | □ |
| h ₂ (E) | 8 | #6 | 32'-4" | — |
| h ₃ (E) | 8 | #6 | 26'-7" | — |
| u ₁ (E) | 101 | #4 | 1'-10" | □ |
| v ₁ (E) | 98 | #5 | 3'-5" | — |
| Bar Splicer | | | Each | 16 |
| Concrete Superstructure | | | Cu. Yd. | 18.8 |
| Concrete Removal | | | Cu. Yd. | 20.9 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 2740 |

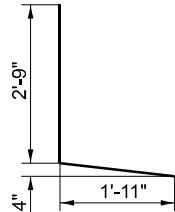


VIEW F-F **SECTION THRU POST**

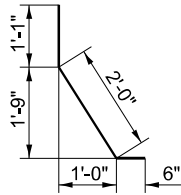
RAIL POST DETAILS



BAR a₂(E)



BAR d(E)



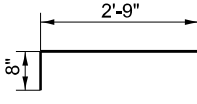
BAR d₁(E)



BAR d₂(E)



BAR u₁(E)



BAR v₁(E)

| | | | | | |
|-----------|----------------|----------|---|---------|---|
| USER NAME | = derek.snider | DESIGNED | - | REVISED | - |
| DRAWN | - | REVISION | - | REVISED | - |
| CHECKED | - | REVISION | - | REVISED | - |
| PLOT DATE | = 3/21/2025 | DATE | - | REVISED | - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT RECONSTRUCTION DETAILS
AT SOUTH ABUTMENT SN 039-0048

SCALE: SHEET 14 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 14 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, 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 (SSPC-SP3). 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.

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

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. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

Protective Coat shall be applied to all new concrete superstructure and all new concrete overlays as specified in Article 503.19 of Standard Specifications. At structure 091-0031 where stage I and II traffic drives over the existing southbound and northbound outside shoulders, each existing ±3'-0" x ±1'-0" drainage scupper shall be covered with a metal plate to adequately protect it from carrying the full weight of traffic impacts. The metal plate shall be offset 6" from the toe of the parapet to allow for drainage of the roadway. The metal plate shall be fastened to the deck surrounding the scupper as approved by the engineer. The cost of furnishing, installing, maintaining, and removing the metal plates is included in traffic control and protection 701321.

The contractor shall use extream care during concrete removal so as not to damage the bridge/ girder.

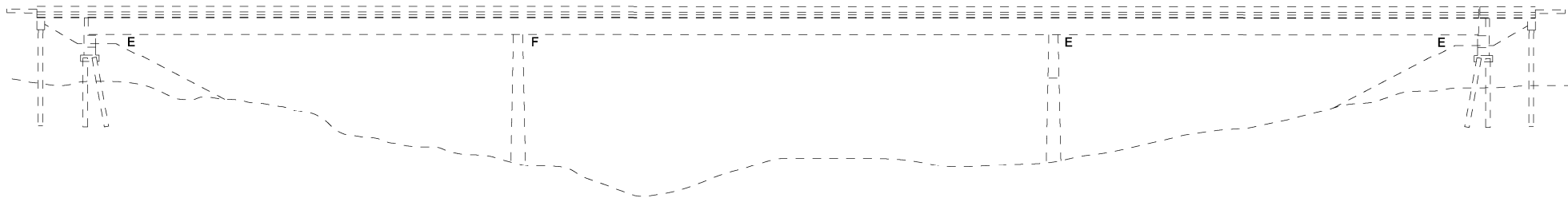
The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

TOTAL BILL OF MATERIAL

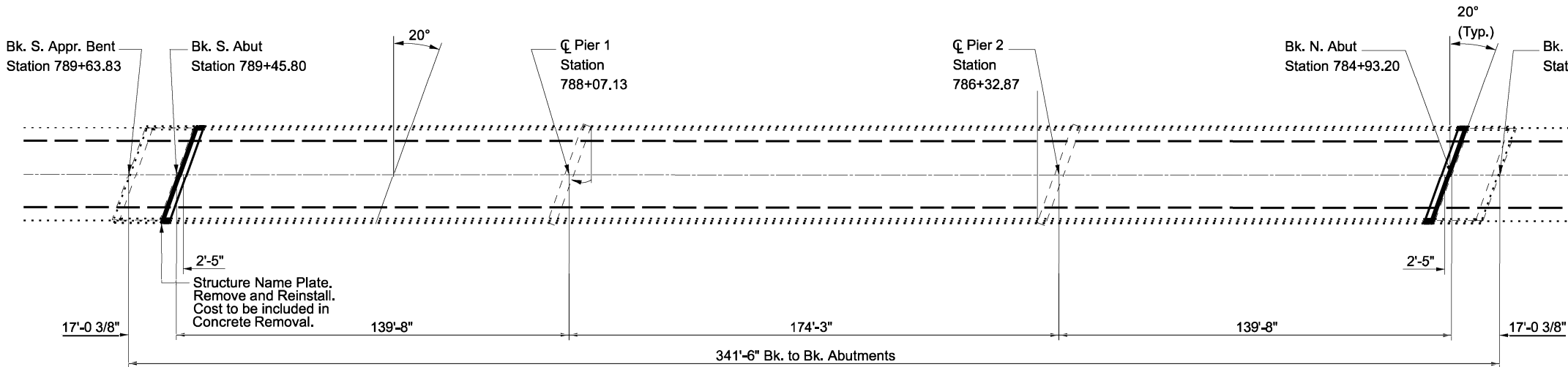
| ITEM | UNIT | QUANTITY |
|----------------------------------|---------|----------|
| Bar Splicers | Each | 18 |
| Mechanical Splicers | Each | 66 |
| Concrete Superstructure | Cu. Yd. | 7.8 |
| Concrete Removal | Cu. Yd. | 8.2 |
| Reinforcement Bars, Epoxy Coated | Pound | 1280 |
| Preformed Joint Strip Seal | Foot | 74 |
| * Protective Coat | Sq. Yd. | 24 |

* On New Concrete Only

GENERAL PLAN & ELEVATION
IL 3 OVER BIG MUDDY RIVER
FAP 312 - D9 BRIDGE REPAIR 2025-3
UNION COUNTY
STRUCTURE NO. 091-0031



ELEVATION



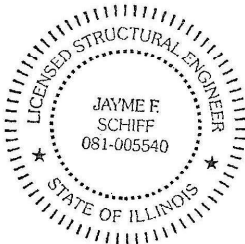
PLAN

DESIGN STRESSES

(From Existing Plans)
Design Loading HS 20-44
Design Stresses
f_c=3,500 psi
f_y=60,000psi (Reinf.)
f_y=50,000 psi (Structure)

(New)
f_c=4,000 psi
f_y=60,000psi (Reinf.)

Design Specifications
2002 AASHTO Standard Specifications for Highway Bridges, 17 Edition.



EXPIRES 11/30/2026

Jayme F. Schiiff

SCOPE OF WORK

Preformed Joint Strip Seal

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
SN 091-0031

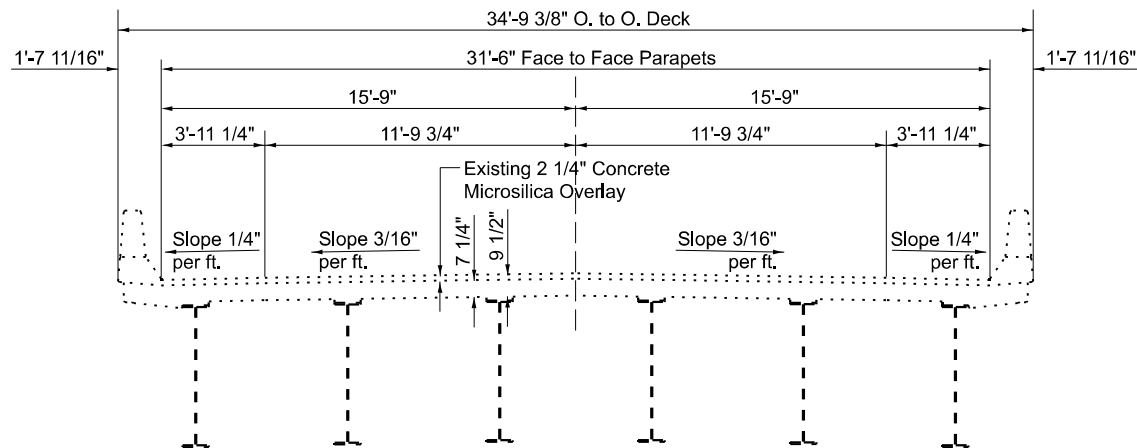
SCALE: SHEET 15 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 15 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

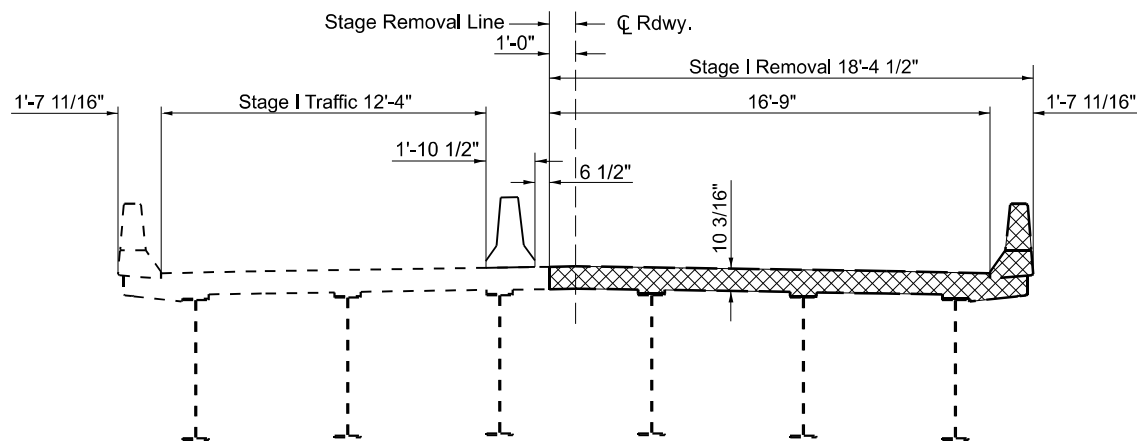
*Jackson/Union

MODEL: Plan Sheet 15 (Sheet)
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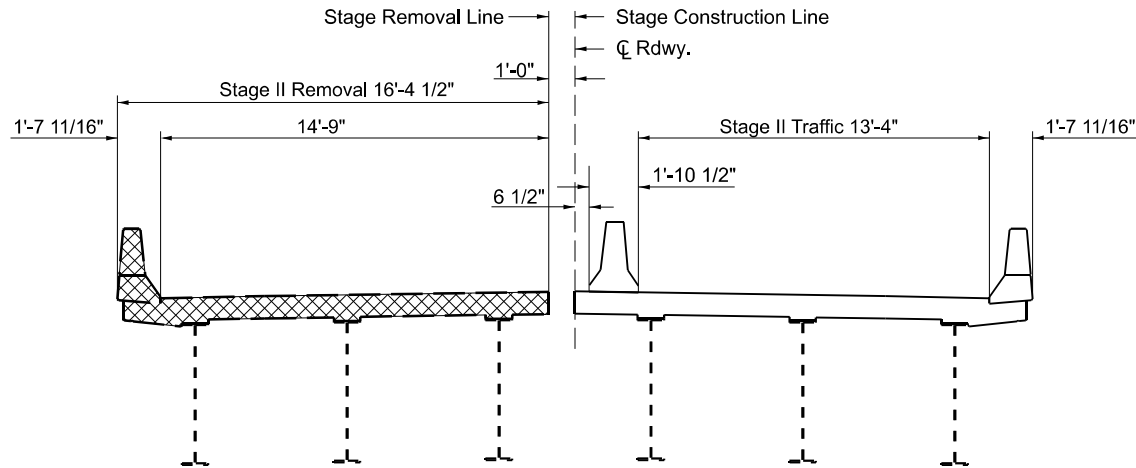
| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 5/9/2025 | DATE - | REVISED - |



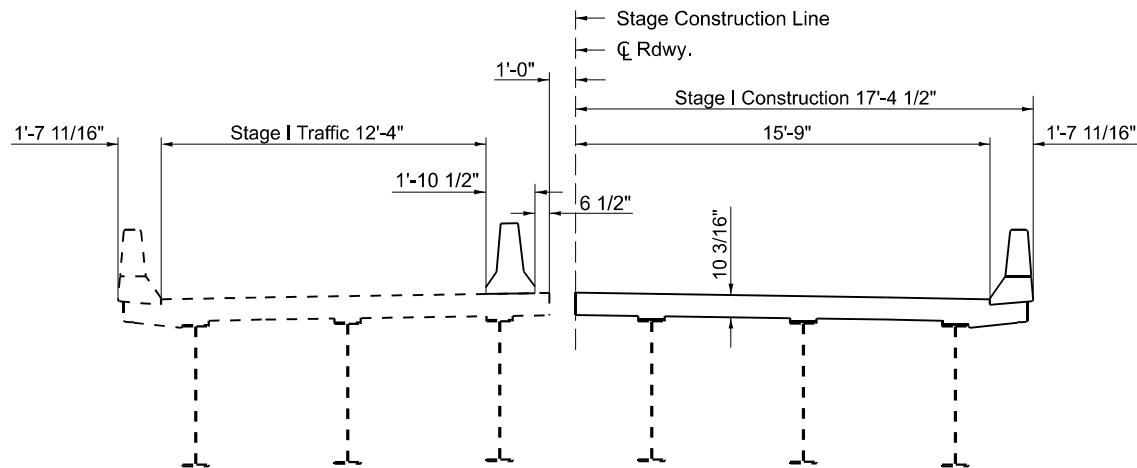
TYPICAL BRIDGE SECTION - EXISTING



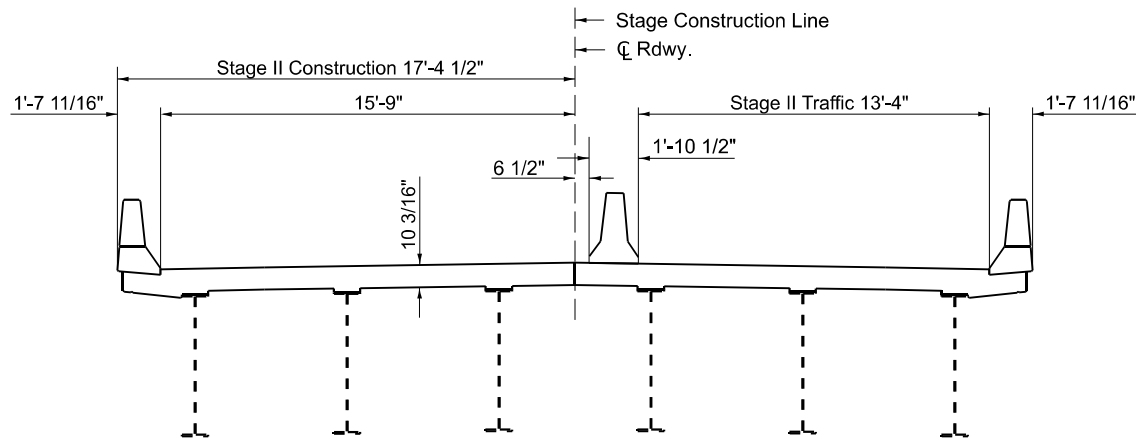
STAGE I REMOVAL
(AT JOINT LOCATIONS ONLY)



STAGE II REMOVAL
(AT JOINT LOCATIONS ONLY)



STAGE I CONSTRUCTION
(AT JOINT LOCATIONS ONLY)



STAGE II CONSTRUCTION
(AT JOINT LOCATIONS ONLY)

 Concrete Removal

Notes: All Sections Looking Upstation (South)

MODEL: Plan Sheet 16 (Sheet)
FILE NAME: c:\pwworking\illinois.gov\derek.snider\1029256\D9xxxx-ShtD-Typicals.dgn

| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 3/19/2025 | DATE - | REVISED - |

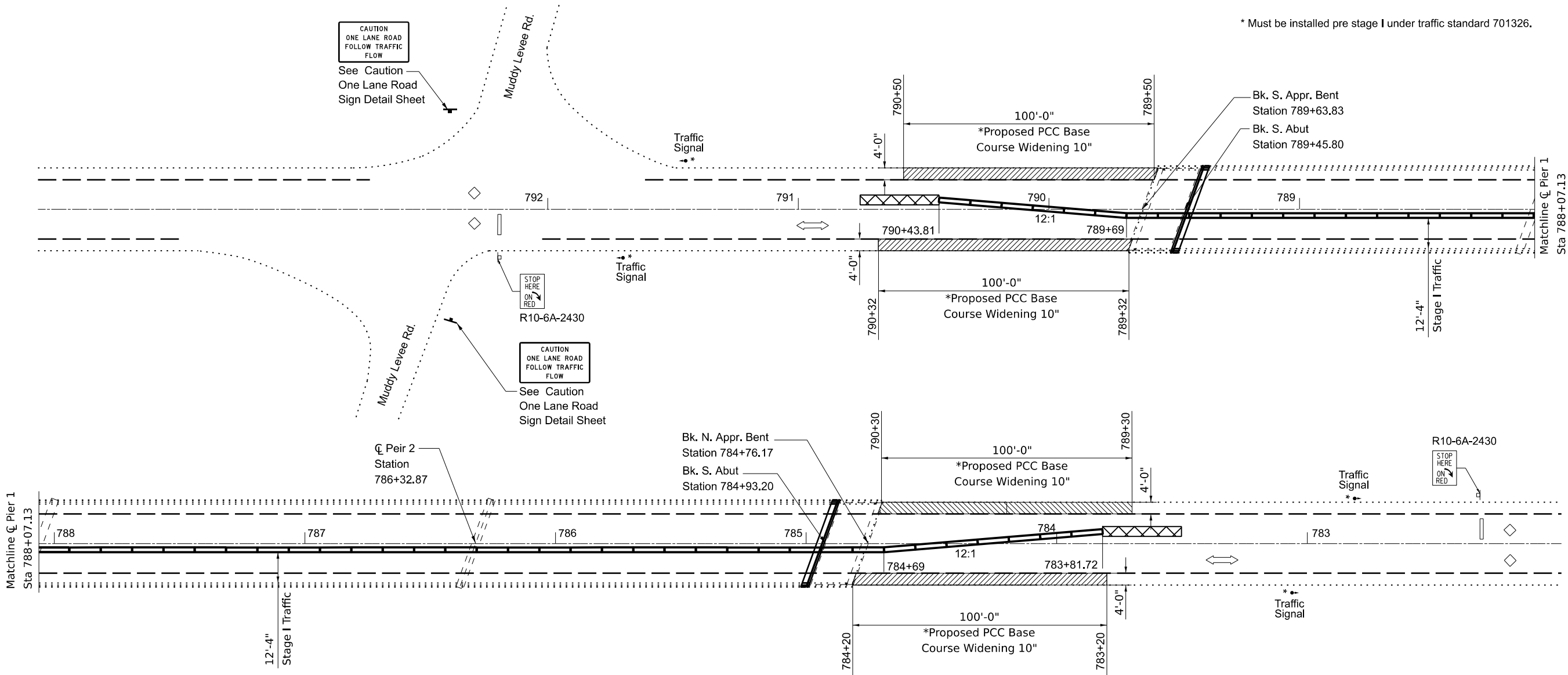
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION & STAGING DETAILS
SN 091-0031

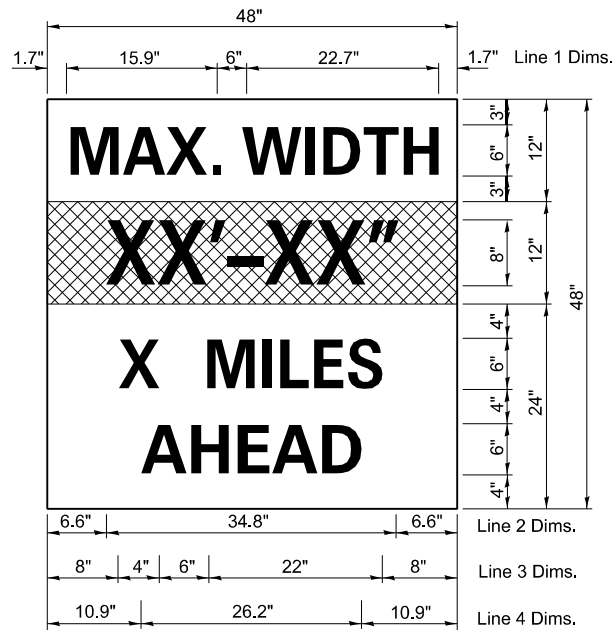
SCALE: SHEET 16 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 16 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union



* Must be installed pre stage I under traffic standard 701326.



W12-I103

W12-I103, No Border
"MAX WIDTH" 6D, No Border, Black on White
"XX'-XX"" 8D, No Border, Black on Orange
"X MILES" 6D, No Border, Black on White
"AHEAD" 6D, No Border, Black on White

Notes for Max Width Sign:

1. Install a Max Width Sign each direction on IL 3 to give traffic approaching work zone enough advance notice to change routes if needed. Exact locations as directed by engineer.
2. The contractor shall furnish the posts and erect the signs at the locations directed by the engineer. All signs shall be post mounted.
3. The noted work, including signs, posts, hardware and labor shall be included in the contract unit price, each, for Traffic Control and Protection, Std. 701321, no other compensation will be allowed.
4. The width shown on the W12-I103 sign shall be 18" less than what is shown in the staged lane widths or as directed by the Engineer.
5. The "X" MILES AHEAD will be determined by the engineer.

STAGE I TRAFFIC

LEGEND:

Impact Attenuator

MODEL: Plan Sheet 17 (Sheet)
FILE NAME: c:\pwworking\illinois.gov\d1029256\D9xxxx-ShtD-Typicals.dgn

| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 3/19/2025 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

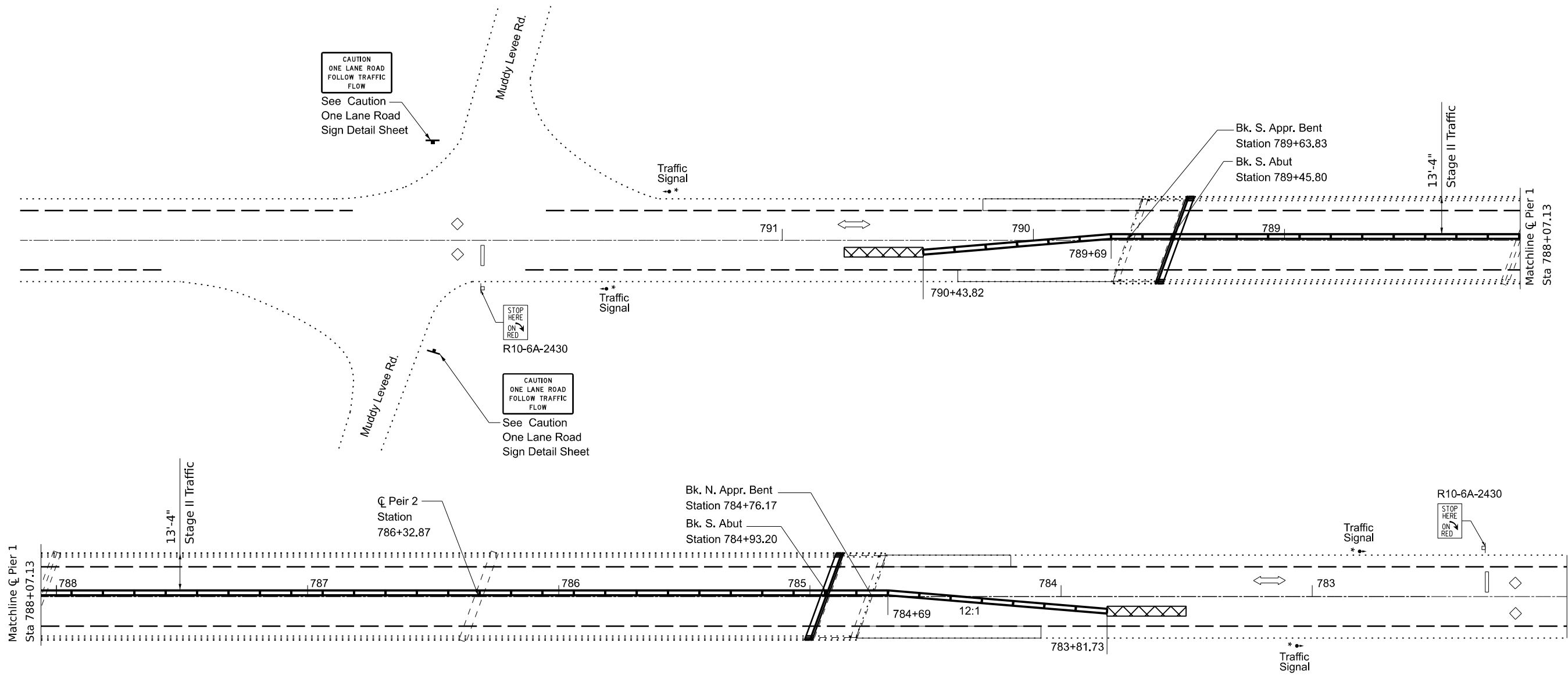
STAGE I PLAN
SN 091-0031

SCALE: SHEET 17 OF 23 SHEETS STA. TO STA.

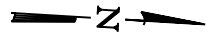
| F.A.P RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 17 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union

MODEL: Plan Sheet 18 (Sheet)
FILE NAME: c:\pwworking\illinois.gov\derek.snider\1029256\D9xxxx-ShtD-Typicals.dgn



STAGE II TRAFFIC



LEGEND:

Impact Attenuator

| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 3/19/2025 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

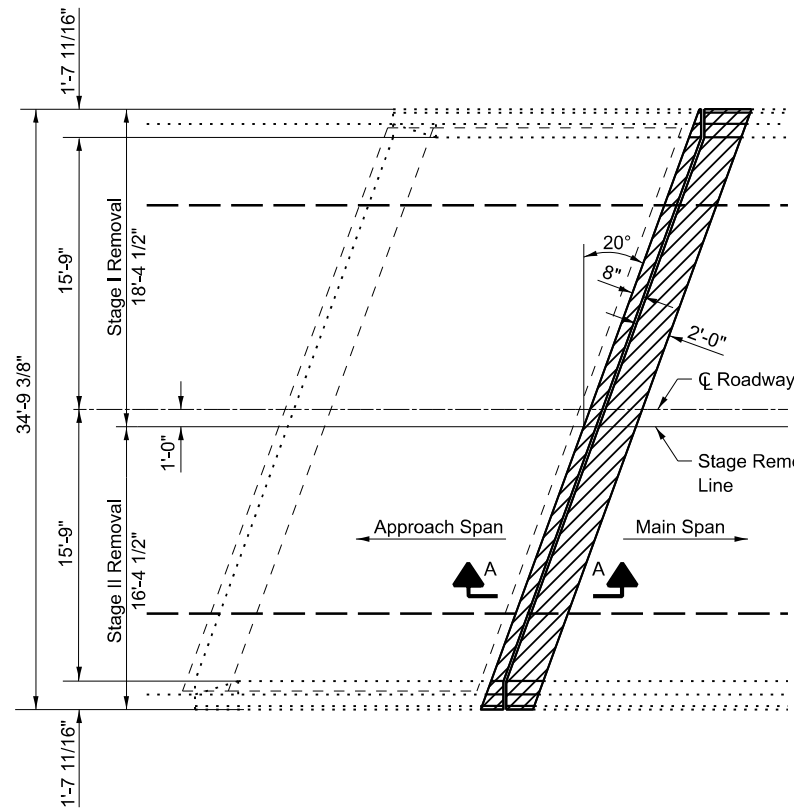
STAGE II PLAN
SN 091-0031

SCALE: SHEET 18 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|-----------------|--------------|
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| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

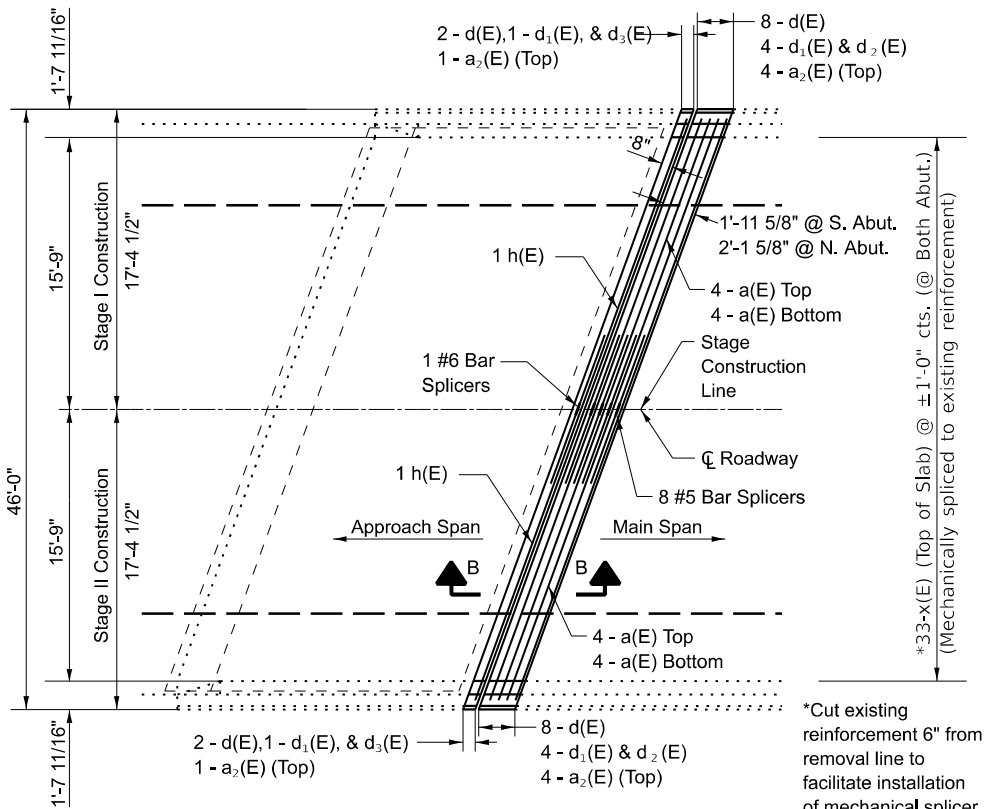
*Jackson/Union

MODEL: Plan Sheet 19 (Sheet)
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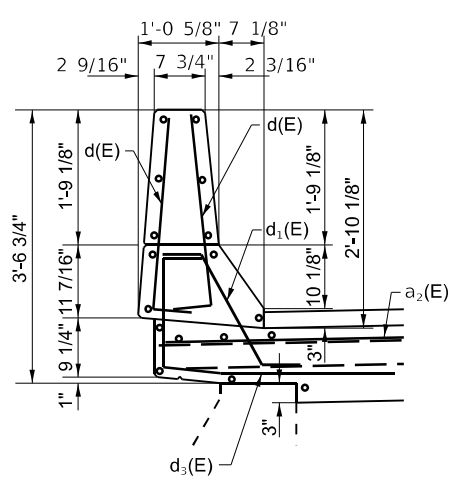


**JOINT AT SOUTH ABUTMENT
SHOWING CONCRETE REMOVAL
(NORTH ABUTMENT SIMILAR)**

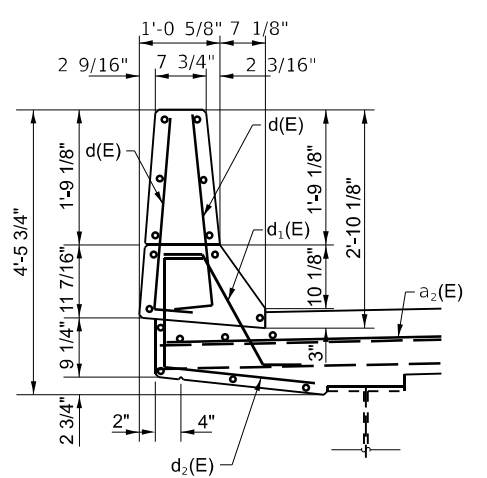
Concrete Removal



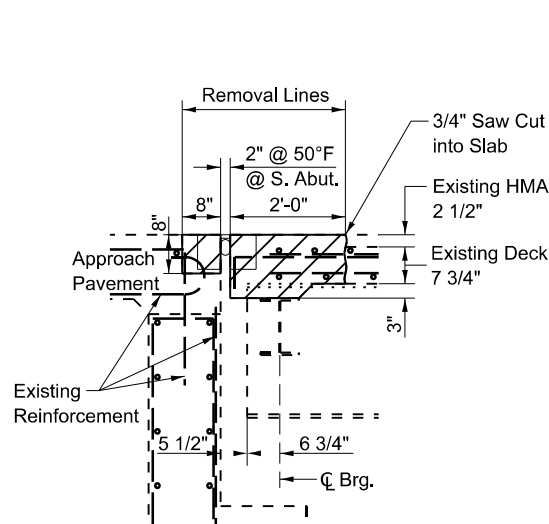
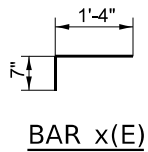
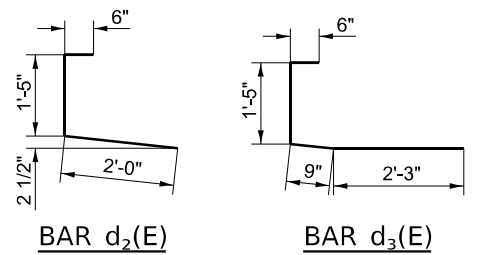
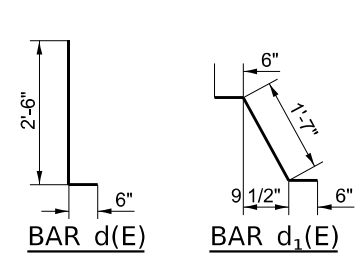
**JOINT AT SOUTH ABUTMENT
SHOWING NEW CONCRETE
(NORTH ABUTMENT SIMILAR)**



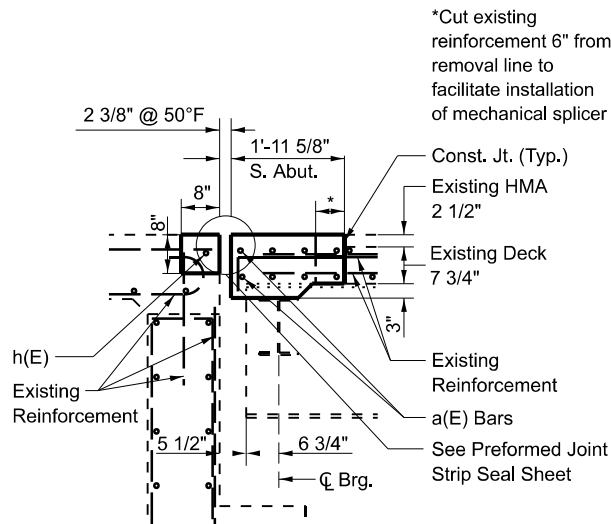
SECTION THROUGH WINGWALL



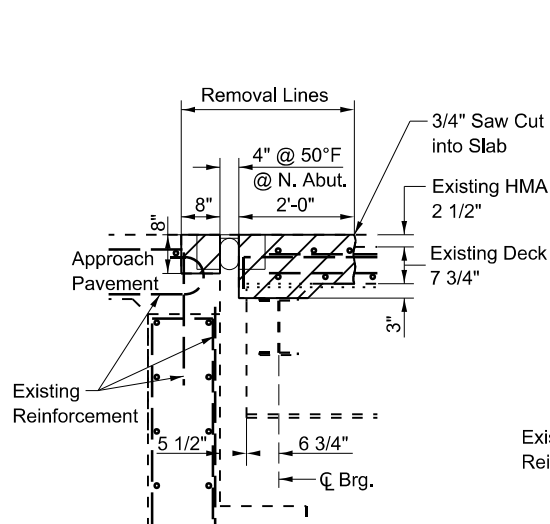
SECTION THROUGH PARAPET



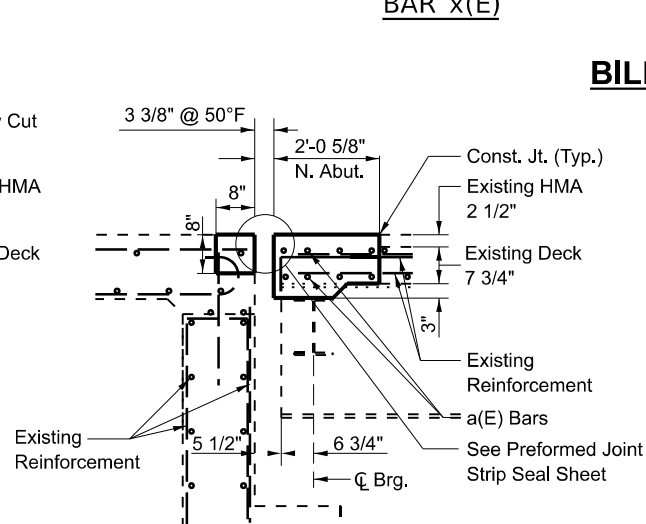
**SECTION A-A
SOUTH ABUTMENT**
(Dimensions are at Right Angles)



**SECTION B-B
SOUTH ABUTMENT**
(Dimensions are at Right Angles)



**SECTION A-A
NORTH ABUTMENT**
(Dimensions are at Right Angles)



**SECTION B-B
NORTH ABUTMENT**
(Dimensions are at Right Angles)

BILL OF MATERIAL (BOTH ABUTMENTS)

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| a(E) | 32 | #5 | 17'-9" | — |
| a2(E) | 20 | #6 | 6'-0" | — |
| d(E) | 40 | #5 | 3'-0" | └ |
| d1(E) | 20 | #5 | 2'-7" | └ |
| d2(E) | 16 | #5 | 3'-11" | └ |
| d3(E) | 4 | #5 | 4'-11" | └ |
| h(E) | 4 | #6 | 17'-9" | — |
| x(E) | 66 | #5 | 1'-11" | └ |
| Mechanical Splicer | | | Each | 66 |
| Bar Splicer | | | Each | 18 |
| Concrete Superstructure | | | Cu. Yd. | 7.8 |
| Concrete Removal | | | Cu. Yd. | 8.2 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 1280 |

| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 5/9/2025 | DATE - | REVISED - |

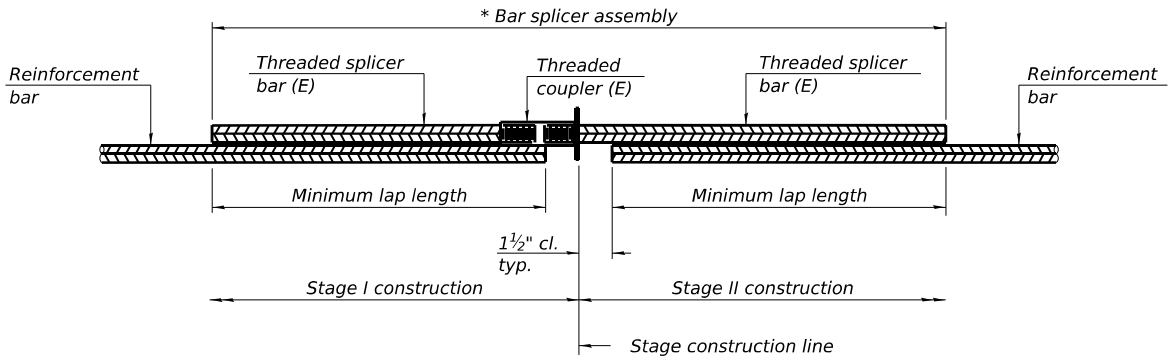
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**JOINT RECONSTRUCTION DETAILS
SN 091-0031**

SCALE: SHEET 19 OF 23 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 19 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union



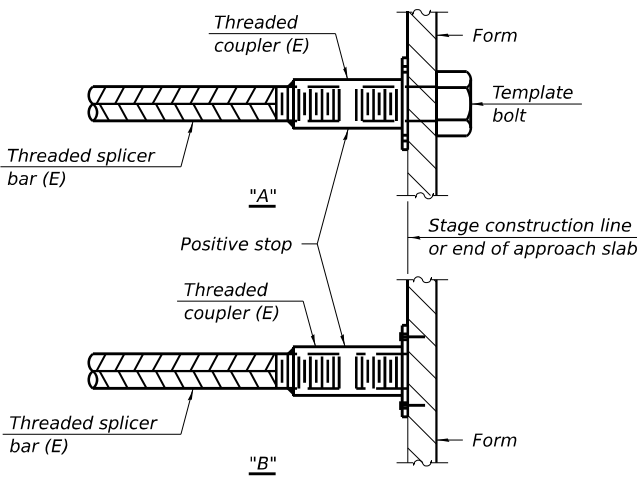
STANDARD BAR SPLICER ASSEMBLY PLAN

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

Threaded splicer bar length = min. lap length + 1½" + thread length

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

| SN 091-0031 | | | |
|--------------|----------|-------------------------|--------------------|
| Location | Bar size | No. assemblies required | Minimum lap length |
| Deck | #5 | 16 | 3'-6" |
| Approch Bent | #6 | 2 | 4'-0" |
| | | | |
| | | | |

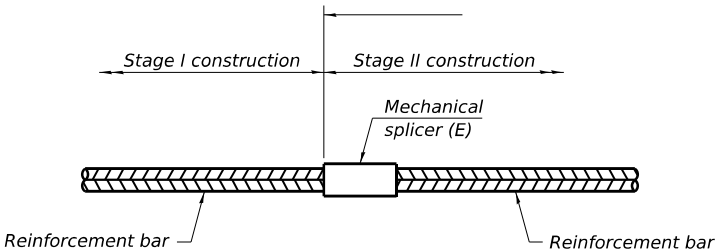


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

| SN 091-0031 | | |
|-------------|----------|-------------------------|
| Location | Bar size | No. assemblies required |
| Deck | #5 | 66 |
| | | |
| | | |
| | | |
| | | |

Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

5-15-2023

MODEL: Pln Sheet 20 [Sheet]
FILE NAME: c:\pwworking\illinois.gov_derek.snider\illinois.gov_derek.snider\10292561D9xxxx-ShtD-Typicals.dgn

| | | | |
|--|--------------------------|------------|-----------|
| | USER NAME = derek.snider | DESIGNED - | REVISED - |
| | | DRAWN - | REVISED - |
| | | CHECKED - | REVISED - |
| | PLOT DATE = 5/9/2025 | DATE - | REVISED - |

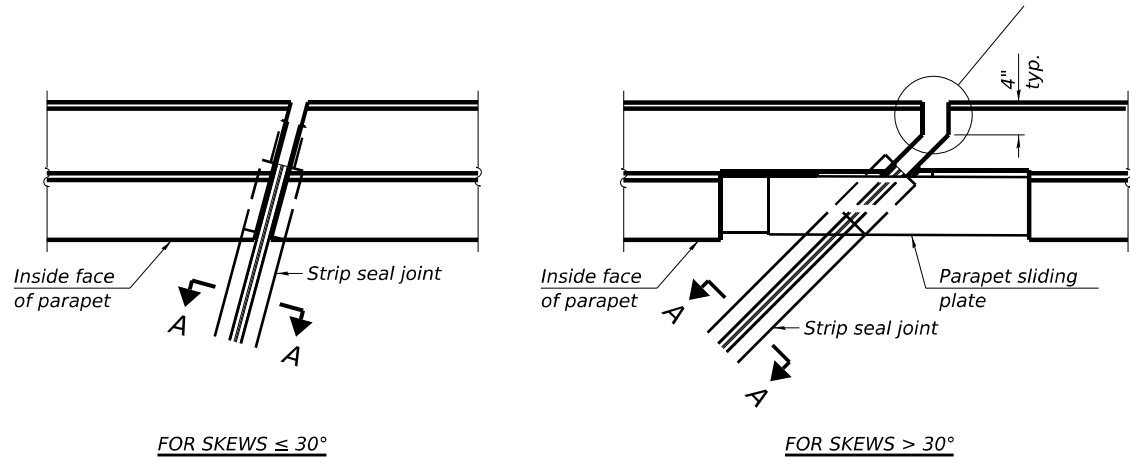
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 039-0048 & SN 091-0031

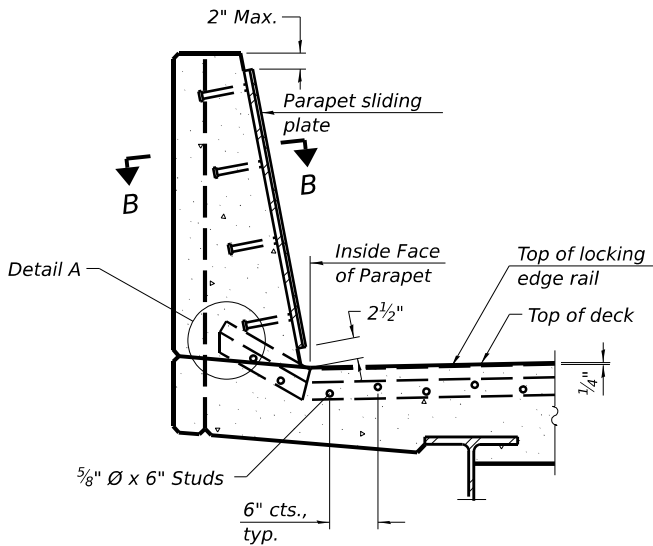
SCALE: SHEET 20 OF 23 SHEETS STA. TO STA.

| F.A.P RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 20 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union

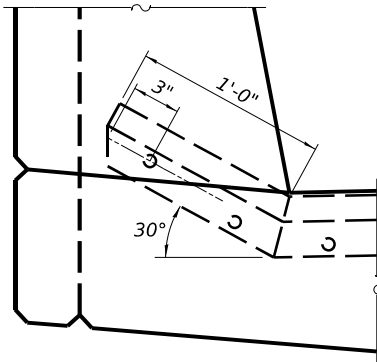


PLAN AT PARAPET

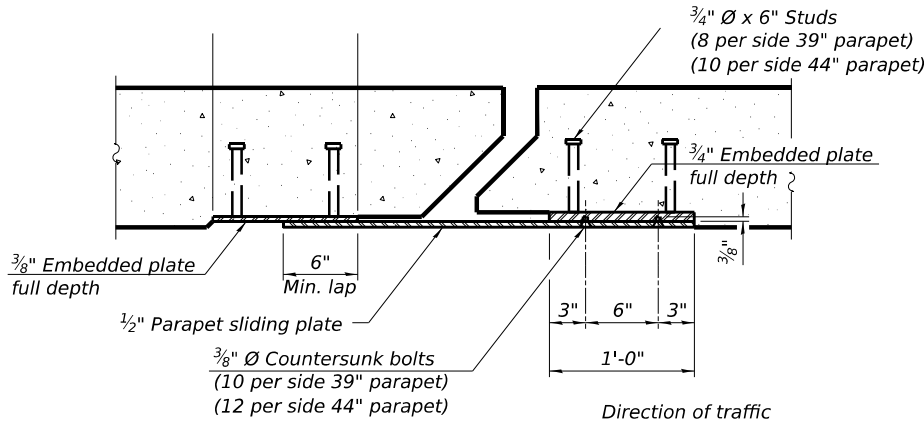


SECTION AT PARAPET

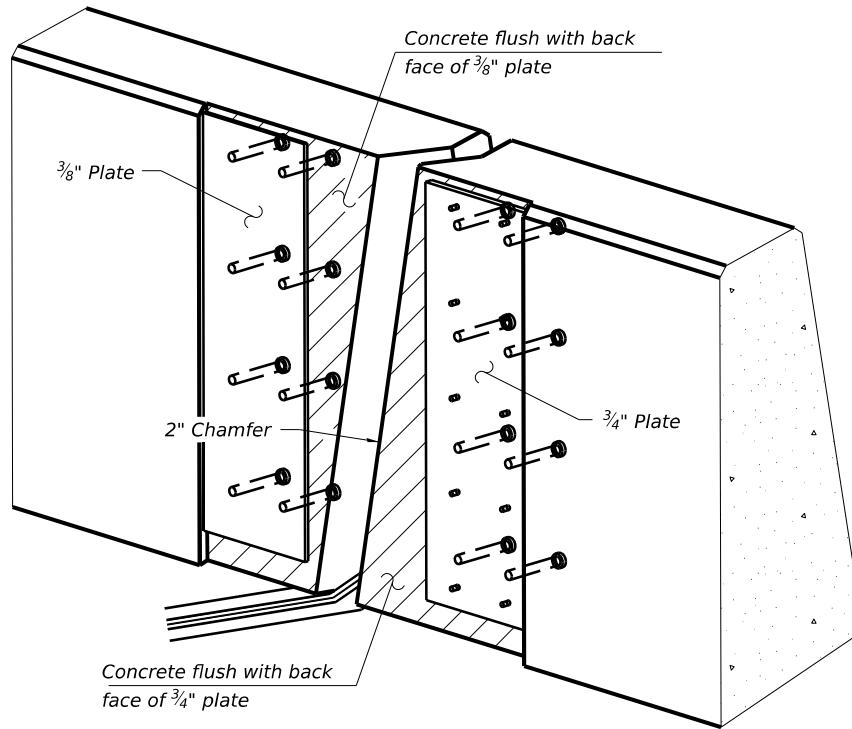
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A



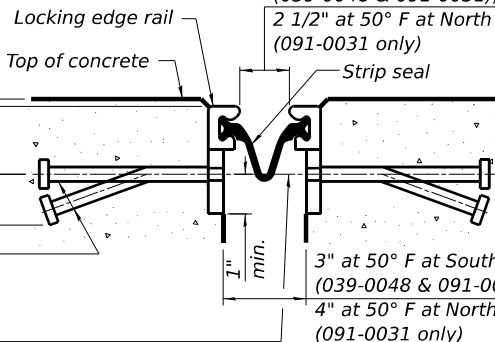
SECTION B-B



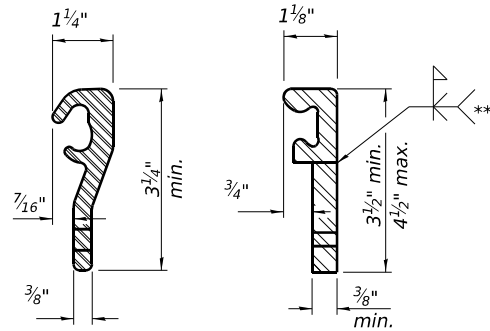
TRIMETRIC VIEW

(Showing embedded plates only)

1 1/2" at 50° F at South Abutment (039-0048 & 091-0031);
2 1/2" at 50° F at North Abutment (091-0031 only)



SHOWING WELDED RAIL JOINT

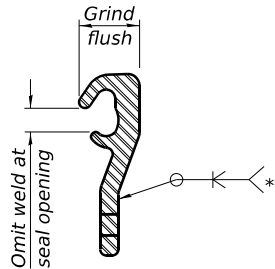


ROLLED (EXTRUDED) RAIL

WELDED RAIL

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

| SN 091-0031 | | |
|----------------------------|------|-------|
| Item | Unit | Total |
| Preformed Joint Strip Seal | Foot | 74 |

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 c" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

MODEL: Plan Sheet 21 (Sheet)
FILE NAME: c:\pwworking\illinois.gov_derek.snider\1029256\09xxxx-ShtD-Typicals.dgn

EJ-SS

5-15-2023

| | | |
|--------------------------|------------|-----------|
| USER NAME = derek.snider | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| | CHECKED - | REVISED - |
| PLOT DATE = 5/9/2025 | DATE - | REVISED - |

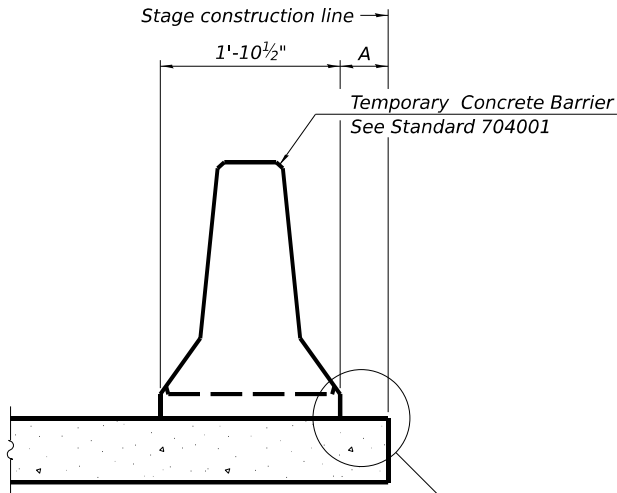
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEALS
SN 039-0048 & SN 091-0031

SCALE: SHEET 21 OF 23 SHEETS STA. TO STA.

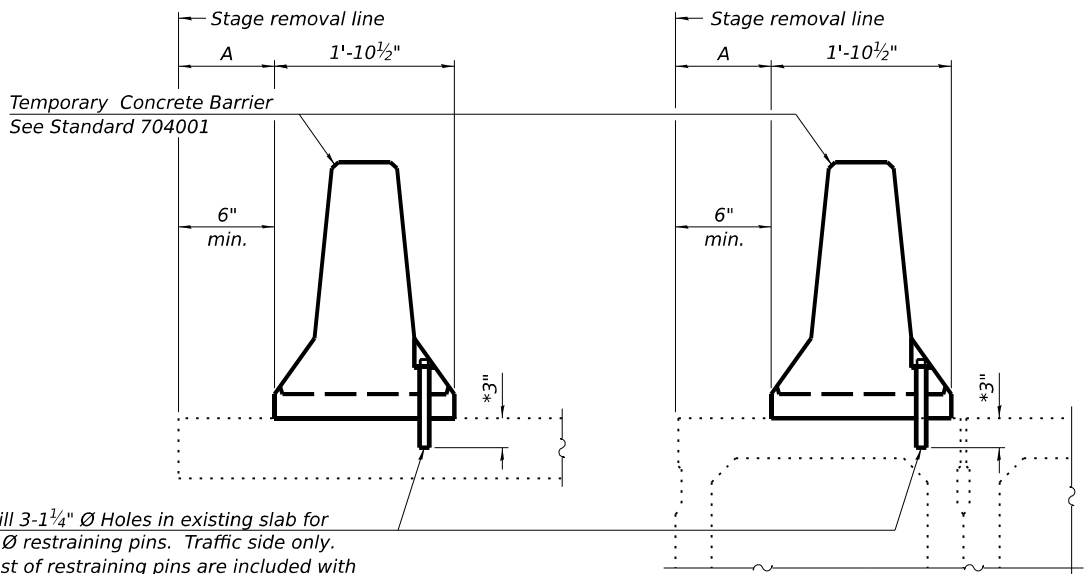
| F.A.P RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 21 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

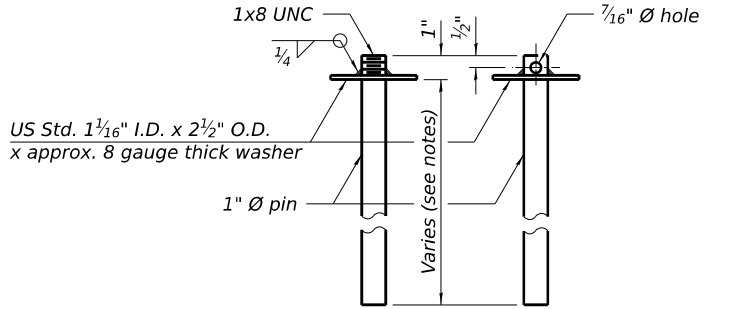
NEW SLAB OR NEW DECK BEAM



Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

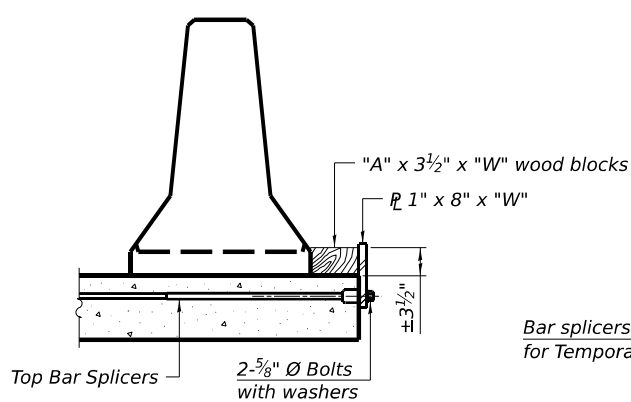
EXISTING SLAB

EXISTING DECK BEAM

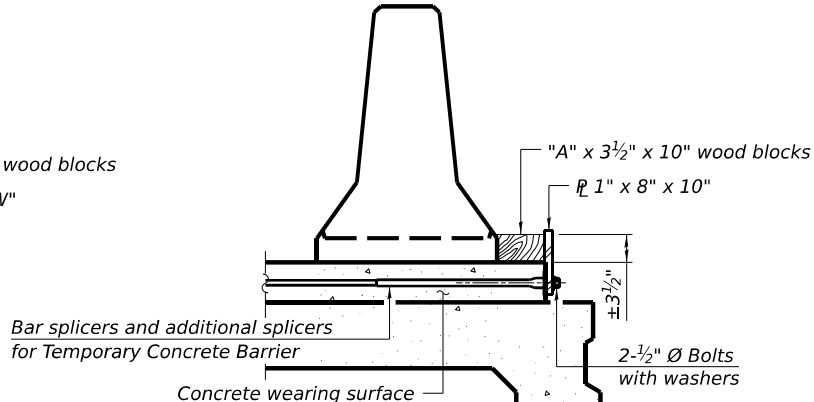


RESTRAINING PIN

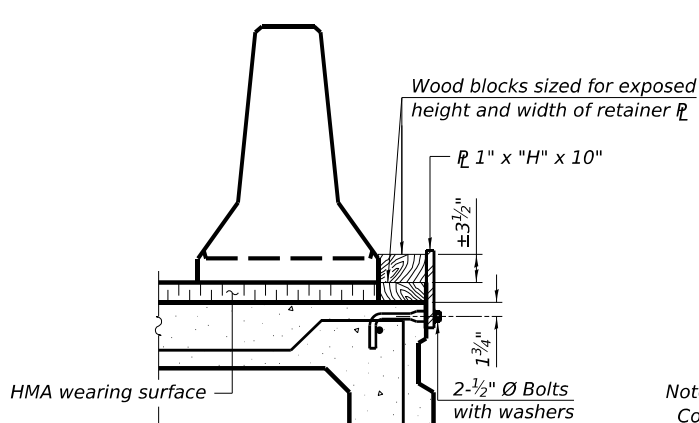
SECTIONS THRU SLAB OR DECK BEAM



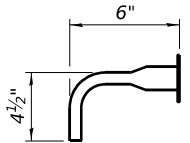
DETAIL I



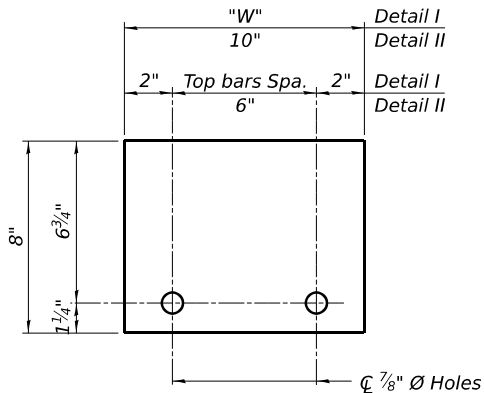
DETAIL II



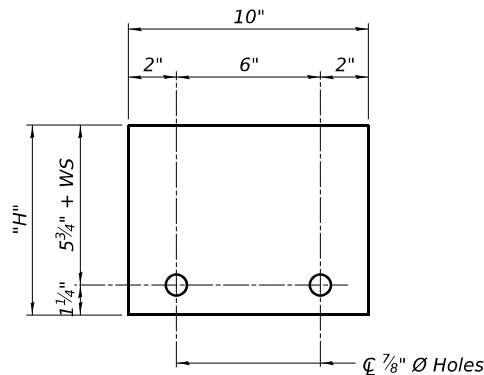
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER 1" x "H" x 10"
(Detail III)

Notes:
Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate 1/2" of each temporary concrete barrier.
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

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

RAILING CRITERIA

| | |
|----------------------|-----|
| NCHRP 350 Test Level | 3 |
| Railing Weight (plf) | 440 |

R-27

5-15-2023

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION

SCALE: SHEET 22 OF 23 SHEETS STA. TO STA.

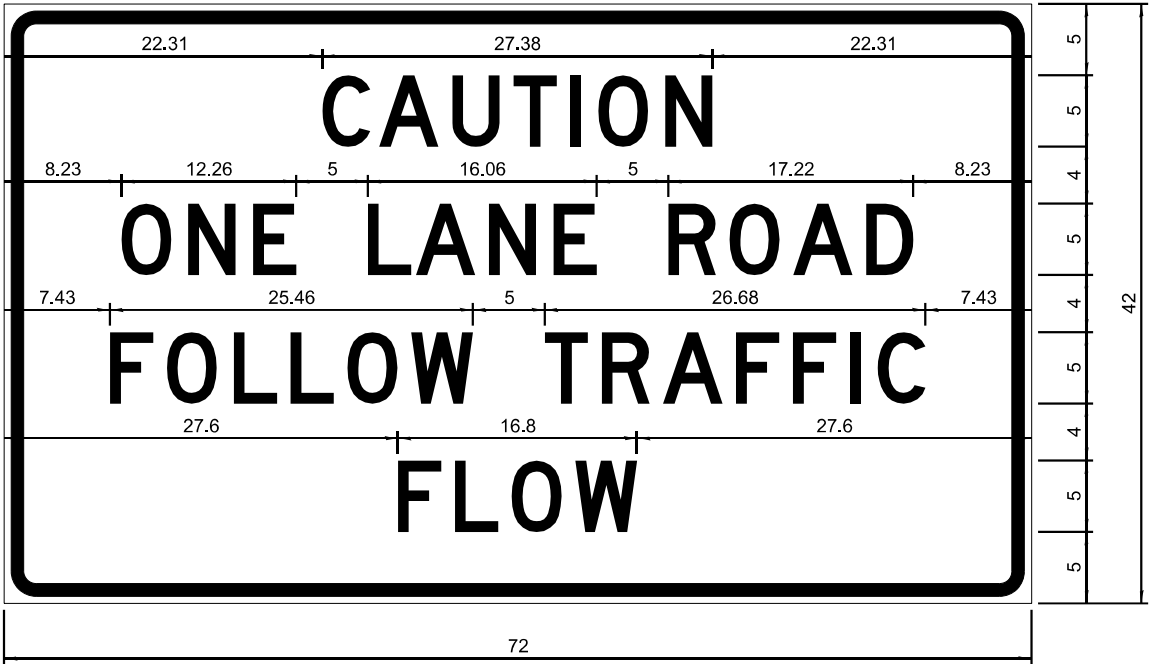
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------------------|--------|--------------|-----------|
| 312 | D9 Bridge Repair 2025-3 | * | 23 | 22 |
| CONTRACT NO. 78A78 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*Jackson/Union

MODEL: Plan Sheet 23 (Sheet)
FILE NAME: c:\pwworking\illinois.gov\derek.snider@illinois.gov\derek.snider\1029256\D9xxxx-ShtD-Typicals.dgn

ENTRANCE SIGN FOR USE
WITH TEMPORARY SIGNALS

2



COLOR LEGEND AND BORDER BLACK NON-REFLECTORIZED
 ORANGE REFLECTORIZED

2,25" Radius, 0,88" Border, 0,50" Indent;
[CAUTION] D; [ONE LANE ROAD] D;
[FOLLOW TRAFFIC] D; [FLOW] D

2 This sign shall be installed at entrances located between the temporary signals as shown in the staging plans.

Table Of Widths And Spaces

| | | | | | | | | | | | | | | | | | | | | | |
|-------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|-------|
| 22.31 | C | 3.36 | 0.62 | A | 4.18 | 0.94 | U | 3.36 | 0.94 | T | 3.04 | 0.94 | I | 0.78 | 1.17 | O | 3.52 | 1.17 | N | 3.36 | 22.31 |
|-------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|-------|

| | | | | | | | | |
|------|---|------|------|---|------|------|---|------|
| 8.23 | O | 3.51 | 1.17 | N | 3.36 | 1.18 | E | 3.04 |
|------|---|------|------|---|------|------|---|------|

| | | | | | | | | | | | |
|------|---|------|------|---|------|------|---|------|------|---|------|
| 5.00 | L | 3.05 | 0.31 | A | 4.18 | 0.94 | N | 3.36 | 1.17 | E | 3.05 |
|------|---|------|------|---|------|------|---|------|------|---|------|

| | | | | | | | | | | | | |
|------|---|------|------|---|------|------|---|------|------|---|------|------|
| 5.00 | R | 3.36 | 0.93 | O | 3.52 | 0.94 | A | 4.18 | 0.93 | D | 3.36 | 8.23 |
|------|---|------|------|---|------|------|---|------|------|---|------|------|

| | | | | | | | | | | | | | | | | | |
|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|
| 7.43 | F | 3.04 | 0.94 | O | 3.52 | 1.17 | L | 3.04 | 0.94 | L | 3.05 | 0.94 | O | 3.51 | 0.94 | W | 4.37 |
|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|

| | | | | | | | | | | | | | | | | | | | | | |
|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|
| 5.00 | T | 3.05 | 0.94 | R | 3.36 | 0.94 | A | 4.18 | 0.93 | F | 3.05 | 0.94 | F | 3.04 | 0.94 | I | 0.78 | 1.18 | C | 3.35 | 7.43 |
|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|

| | | | | | | | | | | | | |
|-------|---|------|------|---|------|------|---|------|------|---|------|-------|
| 27.60 | F | 3.05 | 0.94 | L | 3.04 | 0.94 | O | 3.52 | 0.93 | W | 4.38 | 27.60 |
|-------|---|------|------|---|------|------|---|------|------|---|------|-------|

GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

Sign not to scale

STD. 9-34

| | |
|---------|-----------|
| DRAWN | 3-2-16 D2 |
| REVISED | 03-12-24 |
| REVISED | |
| REVISED | |

| | | | | | | | | | | | | |
|--|--------------------------|------------|-----------|---|-----------------------------------|--|--|---------------------------|-------------------------|--------|--------------|-----------|
| | USER NAME = derek.snider | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CAUTION ONE LANE ROAD SIGN DETAIL | | | F.A.P RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | DRAWN - | REVISED - | | | | | 312 | D9 Bridge Repair 2025-3 | * | 23 | 23 |
| | | CHECKED - | REVISED - | | | | | CONTRACT NO. 78A78 | | | | |
| | PLOT DATE = 3/19/2025 | DATE - | REVISED - | | | | | ILLINOIS FED. AID PROJECT | | | | |