



| CODE NO. | ITEM   | UNIT  | TOTAL QUANTITY | CONSTRUCTION CODE     |                       |                       |                       |                       |                       |
|----------|--|---|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|          |  |   |                | 90% FEDERAL 10% STATE | 90% FEDERAL 10% STATE | 90% FEDERAL 10% STATE | 90% FEDERAL 10% STATE | 90% FEDERAL 10% STATE | 90% FEDERAL 10% STATE |
|          |  |   |                | BRIDGE 0047           | BRIDGE 0047           | BRIDGE 0047           | BRIDGE 0047           | BRIDGE 0047           | RESURF 0005           |
|          |  |   |                | S. N. 082-0005        | S. N. 082-0141        | S. N. 082-0144        | S. N. 082-0253        | S. N. 082-0254        | URBAN                 |
|          |  |  |                |                       |                       |                       |                       |                       |                       |
| Z0001905 | STRUCTURAL STEEL REPAIR  | POUND   | 8110           | 1820                  | 5860                  | 430                   |                       |                       |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0010605 | CLEANING DRAINAGE SYSTEM   | L SUM   | 1              |                       | 0. 43                 | 0. 45                 | 0. 06                 | 0. 06                 |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0012754 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT   | 3801           |                       | 3010                  |                       |                       | 791                   |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0012755 | STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)          | SQ FT   | 125            |                       | 100                   |                       |                       | 25                    |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0016001 | DECK SLAB REPAIR (FULL DEPTH, TYPE I)                                | SQ YD   | 186            |                       | 103                   | 60                    |                       | 23                    |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0016200 | DECK SLAB REPAIR (PARTIAL)   | SQ YD   | 2774           |                       | 1601                  | 849                   |                       | 324                   |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0021908 | SILICONE JOINT SEALER, 2"  | FOOT  | 175            |                       | 175                   |                       |                       |                       |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0021912 | SILICONE JOINT SEALER, 2.5"  | FOOT  | 38             |                       | 38                    |                       |                       |                       |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0021916 | SILICONE JOINT SEALER, 3"  | FOOT  | 37             |                       | 37                    |                       |                       |                       |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0033700 | LONGITUDINAL JOINT SEALANT   | FOOT  | 1132           |                       |                       |                       |                       |                       | 1132                  |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0041895 | POLYMER CONCRETE   | CU FT   | 18             |                       | 18                    |                       |                       |                       |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0048665 | RAILROAD PROTECTIVE LIABILITY INSURANCE                              | L SUM   | 1              | 0. 2                  | 0. 2                  | 0. 2                  | 0. 2                  | 0. 2                  |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0049790 | RELOCATING NAME PLATES   | EACH  | 2              |                       | 1                     |                       |                       | 1                     |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |
| Z0073200 | TEMPORARY SHORING AND CRIBBING                                       | EACH  | 2              |                       | 2                     |                       |                       |                       |                       |
|          |  |   |                |                       |                       |                       |                       |                       |                       |

• SPECIALTY ITEM

 REV. 10-25-2018

GENERAL NOTES

1. Dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to field verify such dimensions and details and make necessary approved adjustments prior to construction or ordering materials. Such variation shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

2. All structural steel shall be AASHTO M-270 Grade 36, unless noted otherwise.

3. No field welding is permitted except as specified in the contract documents.

4. Fasteners shall be ASTM A325, Type I, mechanically galvanized bolts. Bolts shall be 7/8 in. diameter and placed in 1 5/16 in. diameter holes unless noted otherwise.

5. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

6. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision, "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
7. All new structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair. All faying surfaces of bolted connections must meet the requirements for a class A surface as defined by AASHTO.

8. Reinforcing bars designated (E) shall be epoxy-coated. Damage to the epoxy coating during handling, placement, etc., shall be repaired according to the Special Provision "Field Coating Reinforcing Bars".

9. All accessories including bolsters, chairs, tie wire, etc., used to tie or support the epoxy-coated bars shall be epoxy coated.

10. The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of false work, in addition to allowance for dead load deflection.

11. Design and construction of form work shall be the responsibility of the Contractor and shall be performed in accordance with ACI 347 and the Standard Specification.

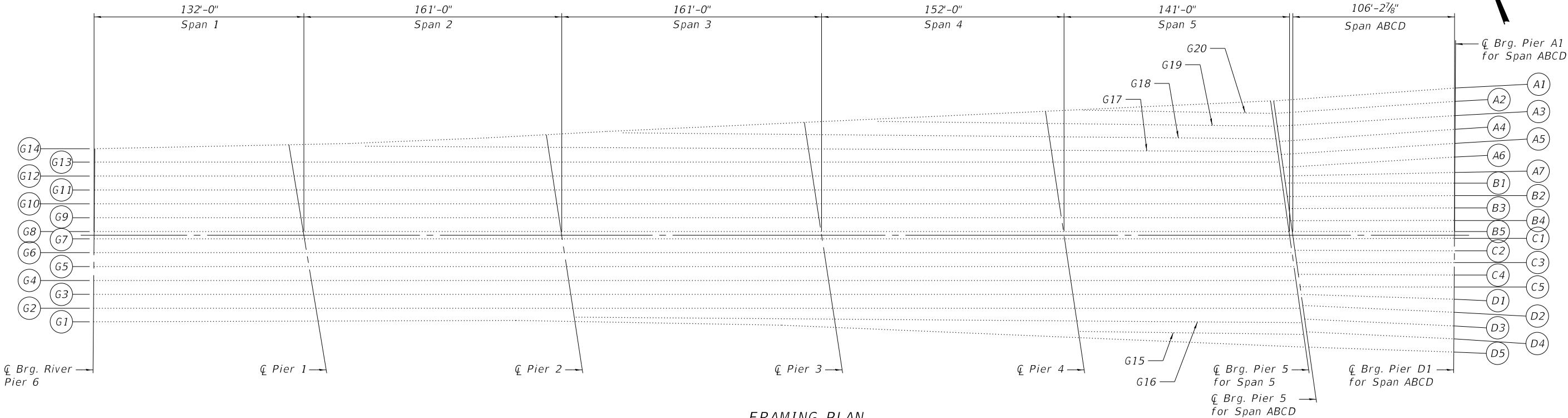
12. Joint openings shall be adjusted according to Article 520.04 of the Standard Specification when closure concrete is placed at an ambient temperature other than 50°F.

INDEX OF SHEETS

1. General Plan
2. General Data and Framing Plan
3. Expansion Joint Removal Detail
4. Expansion Joint Replacement Detail
5. Preformed Joint Strip Seal
6. Bearing Stiffener Repair Details
7. Bearing Stiffener Repair Details
8. Bar Splicer Assembly and Mechanical Splicer Details

TOTAL BILL OF MATERIAL

| ITEM                             | UNIT    | SUPER | SUB | TOTAL |
|----------------------------------|---------|-------|-----|-------|
| Concrete Removal                 | Cu. Yd. | 20.9  | 0.0 | 20.9  |
| Concrete Superstructure          | Cu. Yd. | 20.9  | 0.0 | 20.9  |
| Reinforcement Bars, Epoxy Coated | Pound   | 3310  | 0   | 3310  |
| Bar Splicers                     | Each    | 84    | 0   | 84    |
| Preformed Joint Strip Seal       | Foot    | 89    | 0   | 89    |
| Structural Steel Repair          | Pound   | 1820  | 0   | 1820  |
|                                  |         |       |     |       |
|                                  |         |       |     |       |



FRAMING PLAN

REV. 10-25-2018

PRINT DATE: 10/23/2018 10:06:02 AM Z:\5052 Poplar Street Complex\DCN\Bridge\Final\Plotsheets\Structure No.082-0005\002-General Data.dgn

WJE

ENGINEERS  
ARCHITECTS  
MATERIAL SCIENTISTS

Wiss, Janney, Elstner Associates, Inc.

330 Pingsten Road  
Northbrook, Illinois 60062  
847.272.7400 tel | 847.291.9595 fax  
www.wje.com

|                             |                  |                         |
|-----------------------------|------------------|-------------------------|
| USER NAME = acb             | DESIGNED - ARB   | REVISED - 10/23/2018 RW |
|                             | CHECKED - RW     | REVISED -               |
| PLOT SCALE = 0.1667' / 1" = | DRAWN - ACB      | REVISED -               |
| PLOT DATE = 10/23/2018      | DATE - 9/28/2018 | REVISED -               |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

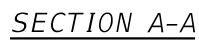
GENERAL DATA AND FRAMING PLAN  
S.N. 082-0005

SHEET NO. 2 OF 8 SHEETS

| F.A.I.<br>RTE.            | SECTION              | COUNTY    | TOTAL<br>SHEETS | SHEET<br>NO. |
|---------------------------|----------------------|-----------|-----------------|--------------|
| 70                        | 82-3HVB-2R-(2,1)-1-2 | ST. CLAIR | 238             | 68           |
| CONTRACT NO. 76945        |                      |           |                 |              |
| ILLINOIS FED. AID PROJECT |                      |           |                 |              |

**WJE** ENGINEERS  
ARCHITECTS  
MATERIAL SCIENTISTS

**Wiss, Janney, Elstner Associates, Inc.**  
330 Pilington Road  
Northbrook, Illinois 60062  
847.272.7400 tel | 847.291.9595 fax  
[www.wje.com](http://www.wje.com)

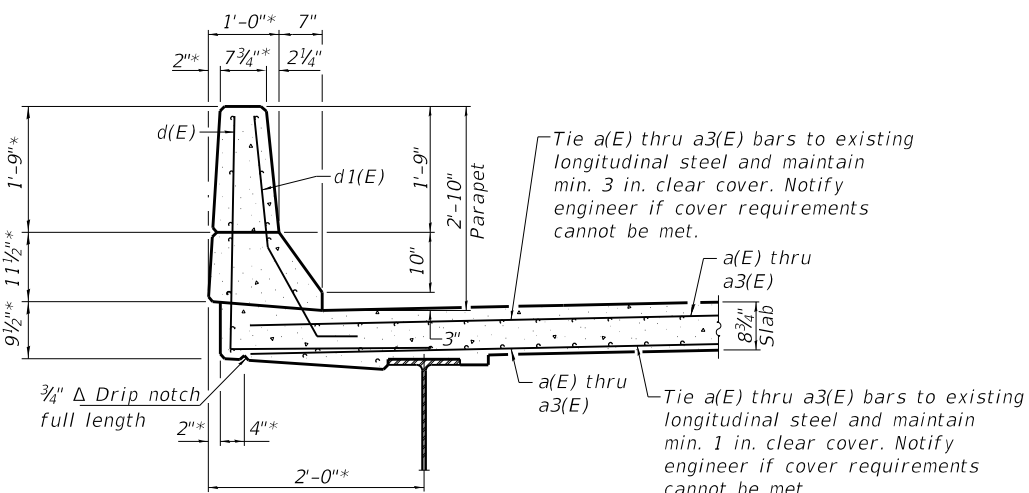
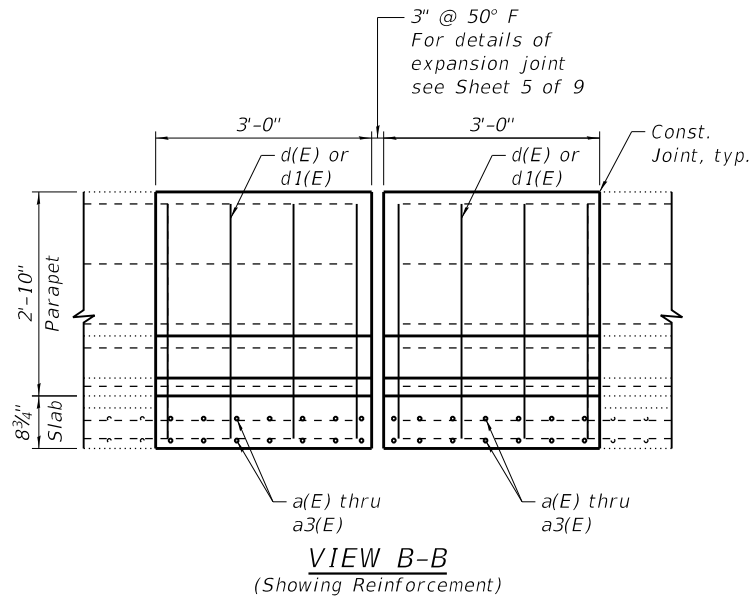
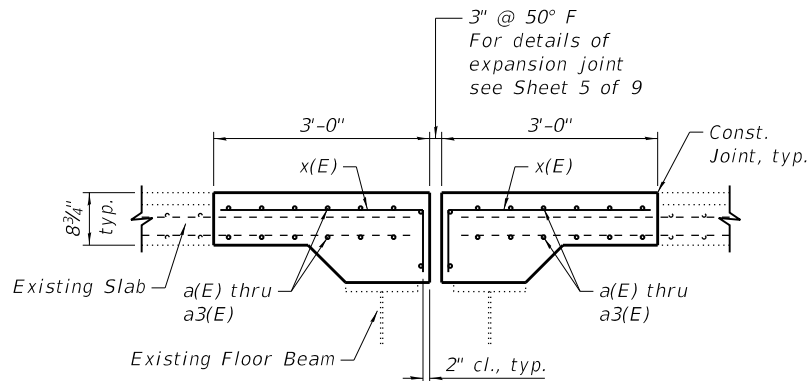
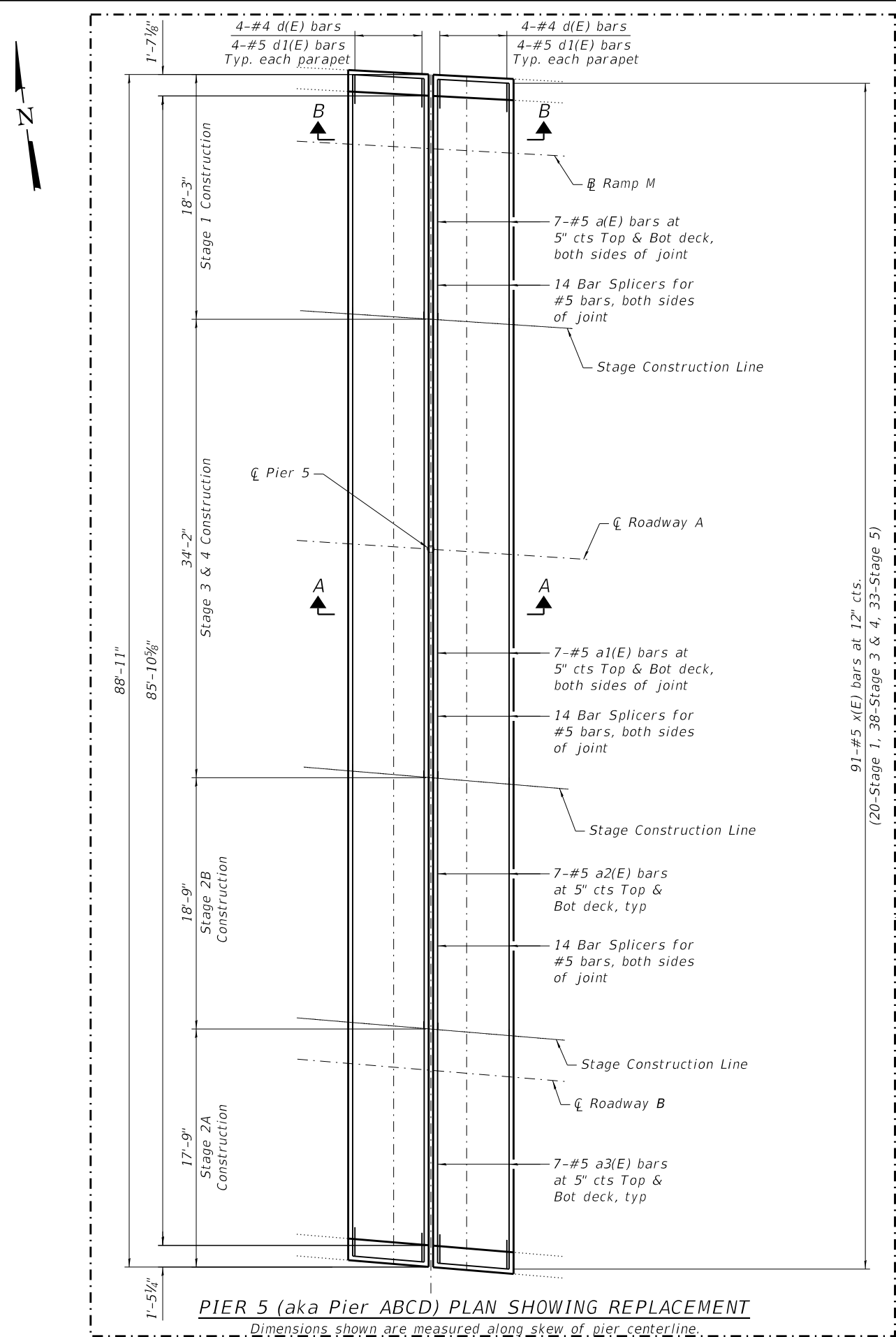


## BILL OF MATERIAL

1 REV. 10-25-2018

|                |                      |                    |                 |              |
|----------------|----------------------|--------------------|-----------------|--------------|
| F.A.I.<br>RTE. | SECTION              | COUNTY             | TOTAL<br>SHEETS | SHEET<br>NO. |
| 70             | 82-3HVB-2R-(2,1)-1-2 | ST. CLAIR          | 238             | 69           |
|                |                      | CONTRACT NO. 76945 |                 |              |
| ILLINOIS       |                      | FED. AID PROJECT   |                 |              |

PRINT DATE: 10/23/2018 10:06:03 AM Z:\5052 Poplar Street Complex\DCN\Bridge\Final\Plotsheets\Structure No.082-0005\004-Expansion Joint Replacement Details.dgn



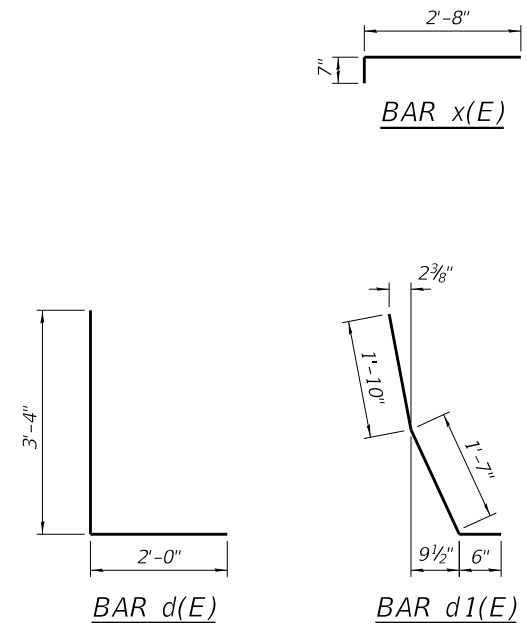
SECTION THRU NORTH PARAPET

\*Adjust to match existing dimensions of south parapet, which abuts WB parapet

Notes:

Existing reinforcing bars shall be field-coated with epoxy, in accordance with the Special Provision "Field Coating Reinforcing Bars with Epoxy".

New concrete deck surfaces adjacent to expansion joints shall have a tined finish as per Article 420.09(e)(1) of the Standard Specifications. At locations where the roadway will be open to traffic within two weeks or less of concrete placement due to construction staging, an accelerating admixture from IDOT Qualified Product List of Concrete Admixtures shall be used for deck slab repairs. Refer to the Roadway Plans and project schedule. Cost included with Concrete Superstructure.



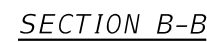
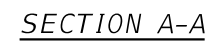
BILL OF MATERIAL

| Bar                              | No. | Size | Length   | Shape |
|----------------------------------|-----|------|----------|-------|
| a(E)                             | 28  | #5   | 17'-9"   |       |
| a1(E)                            | 28  | #5   | 33'-11"  |       |
| a2(E)                            | 28  | #5   | 18'-6"   |       |
| a3(E)                            | 28  | #5   | 17'-5"   |       |
| d(E)                             | 16  | #4   | 5'-4"    |       |
| d1(E)                            | 16  | #5   | 3'-11"   |       |
| x(E)                             | 182 | #5   | 3'-3"    |       |
| Reinforcement Bars, Epoxy Coated |     |      | Lbs.     | 3310  |
| Concrete Superstructure          |     |      | Cu. Yds. | 20.9  |
| Bar Splicer                      |     |      | Each     | 84    |

See Roadway Plans for extents of required traffic control.

REV. 10-25-2018





| <i>Girder</i> | <i>"A"</i>         | <i>"B"</i> |
|---------------|--------------------|------------|
| <i>A1</i>     | 9 $\frac{1}{8}$ "  | 3'-0"      |
| <i>A7</i>     | 9 $\frac{1}{8}$ "  | 3'-0"      |
| <i>B1</i>     | 10 $\frac{1}{2}$ " | 2'-6"      |
| <i>B5</i>     | 10 $\frac{1}{2}$ " | 2'-6"      |
| <i>C1</i>     | 10 $\frac{1}{2}$ " | 2'-6"      |
| <i>C5</i>     | 10 $\frac{1}{2}$ " | 2'-6"      |
| <i>D1</i>     | 8 $\frac{3}{4}$ "  | 3'-0"      |
| <i>D5</i>     | 8 $\frac{3}{4}$ "  | 3'-0"      |

| Item                    | Unit  | Total |
|-------------------------|-------|-------|
| Structural Steel Repair | Pound | 1230  |
|                         |       |       |

1 REV. 10-25-2018

PRINT DATE: 10/23/2018 9:47:54 AM Z:\5052 Poplar Street Complex\DCN\Bridge\Final\PlotSheets\Roadway A\002\_Rdw\_A\_GeneralData.dgn

GENERAL NOTES

- Dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to field verify such dimensions and details and make necessary approved adjustments prior to construction or ordering materials. Such variation shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- All structural steel shall be AASHTO M-270 Grade 36, unless noted otherwise.
- No field welding is permitted except as specified in the contract documents.
- Fasteners shall be ASTM A325, Type I, mechanically galvanized bolts. Bolts shall be 3/4 in. diameter and placed in 13/16 in. diameter holes unless noted otherwise.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision, "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- All new structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair or Furnishing and Erecting Structural Steel. All faying surfaces of bolted connections must meet the requirements for a class A surface as defined by AASHTO.
- Reinforcing bars designated (E) shall be epoxy-coated. Damage to the epoxy coating during handling, placement, etc., shall be repaired according to the Special Provision "Field Coating Reinforcing Bars".
- All accessories including bolsters, chairs, tie wire, etc., used to tie or support the epoxy-coated bars shall be epoxy coated.
- The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of false work, in addition to allowance for dead load deflection.
- Design and construction of form work shall be the responsibility of the Contractor and shall be performed in accordance with ACI 347 and the Standard Specification.
- Joint openings shall be adjusted according to Article 520.04 of the Standard Specification when closure concrete is placed at an ambient temperature other than 50°F.
- All post tensioning will conform to ASTM A416 Grade 270.

CONCRETE REPAIR NOTES

- Concrete deck and substructure repair areas as shown in the drawings for SN 082-0141 are estimated based on inspection data from February, 2016 with deck repair areas updated in March, 2018.
- It is expected that actual repair areas may be different in shape, size, and location than shown on the drawings. The exact locations shall be determined by the Engineer. The Engineer shall show actual repair areas and their dimensions on as-built plans.
- For full depth deck repairs at joints, saw cut perimeter of repair area and remove concrete on each side of joint, as required for each joint location. Extreme caution shall be exercised while removing concrete adjacent to beams. Any damage to beams shall be repaired at the Contractor's expense. Removal of existing expansion joint and stay-in-place metal pans shall be included in the cost of Concrete Removal.
- The Contractor shall ensure the construction activities are in compliance with the Railroad General Notes shown on Sheet 2 of the Roadway Plans. In particular, all work at or near Pier A21 shall strictly comply with the Union Pacific Railroad General Notes listed on Sheet 3, including compliance with the approved rubble management plan, as prepared and submitted by the Contractor, for any full depth deck cuts and/or concrete removal that is within 25 feet (horizontal) from the track centerline. No removal or cuts can proceed until the rubble plan has been approved by Union Pacific Railroad.
- Existing reinforcing bars shall be field-coated with epoxy, in accordance with the Special Provision "Field Coating Reinforcing Bars with Epoxy".
- New concrete deck surfaces adjacent to expansion joints and at horizontal surface patches shall have a tined finish as per Article 420.09(e)(1) of the Standard Specifications. Cost included with Deck Slab Repair or Concrete Superstructure.
- At locations where the roadway will be open to traffic within two weeks or less of concrete placement due to construction staging, an accelerating admixture from the IDOT Qualified Product List of Concrete Admixtures shall be used for concrete superstructure and deck slab repairs. Refer to the Roadway Plans and project schedule.
- A quantity of 100 square feet of Structural Repair of Concrete (depth greater than 5 inches) is included in the total bill of materials to account for some repair areas shown on the plans extending deeper than 5 inches. This quantity applies to vertical repairs to substructure elements.
- A quantity of 103 square yards of Deck Slab Repair (Full Depth - Type I) is included in the total bill of materials to account for some repair areas shown on the plans extending through the full deck depth. Actual depth of repairs to be verified by the Engineer.
- Use of shotcrete is not permitted.

INDEX OF SHEETS

- General Plan
- General Data
- General Plan and Elevation (Spans A1 thru A7)
- General Plan and Elevation (Spans A8 thru A14)
- General Plan and Elevation (Spans A15 thru A20)
- General Plan and Elevation (Spans A21 thru A24)
- General Plan and Elevation (Spans A25 thru A28)
- General Plan and Elevation (Spans A29 thru A34)
- General Plan and Elevation (Spans A35 thru A40)
- General Plan and Elevation (Spans A41 thru A45)
- Deck Patching Repairs (Spans A1 thru A4)
- Deck Patching Repairs (Spans A5 thru A9)
- Deck Patching Repairs (Spans A10 thru A13)
- Deck Patching Repairs (Spans A14 thru A17)
- Deck Patching Repairs (Spans A118 thru A28)
- Deck Patching Repairs (Spans A22 thru A25)
- Deck Patching Repairs (Spans A26 & A27)
- Deck Patching Repairs (Spans A28 thru A31)
- Deck Patching Repairs (Spans A32 thru A35)
- Deck Patching Repairs (Spans A36 thru A39)
- Deck Patching Repairs (Spans A40 thru A43)
- Deck Patching Repairs (Spans A44 & A45)
- Expansion Joint Removal Details
- Expansion Joint Replacement Details (Pier A1)
- Expansion Joint Replacement Details (Pier A1)
- Expansion Joint Replacement Details (Pier A5)
- Expansion Joint Replacement Details (Pier A5)
- Expansion Joint Replacement Details (Pier A8)
- Expansion Joint Replacement Details (Pier A11)
- Expansion Joint Replacement Details (Pier A12)
- Expansion Joint Replacement Details (Pier A15)
- Expansion Joint Replacement Details (Pier A18)
- Expansion Joint Replacement Details (Pier A21)
- Expansion Joint Replacement Details (Pier A25)
- Expansion Joint Replacement Details (Pier A35)
- Expansion Joint Replacement Details (Pier A35)
- Preformed Joint Strip Seal
- Finger Plate Replacement Details (Pier A1)
- Finger Plate Replacement Details (Pier A1)
- Finger Plate Replacement Details (Pier A1)
- Finger Plate Replacement Details (Pier A1)
- Finger Plate Replacement Details (Pier A25)
- Finger Plate Replacement Details (Pier A25)
- Finger Plate Replacement Details (Pier A25)
- Silicone Joint Seal Replacement Details
- Special Drainage Details
- Girder Flange Repair
- Floor Beam Repair
- Bearing Stiffener Repair
- Bearing Stiffener Repair
- Bearing Details
- Bearing Details
- Pier A1
- Pier A5
- Pier A8
- Pier A11
- Pier A12
- Pier A15
- Pier A18
- Pier A21
- Pier A24
- Pier A25
- Pier A29
- Pier A30
- Pier A34
- Pier A35
- Pier A36
- Pier A38
- Pier A41
- Pier A43
- Pier A44
- Pier A45
- Slopedwall Removal Details
- Concrete Repair Details
- Cable Tensioned Strands and Crack Arrest Hole Details
- Shim Stack Retainer Details
- Bar Splicer Assembly and Mechanical Splicer Details

TOTAL BILL OF MATERIAL

| ITEM   | UNIT    | SUPER  | SUB  | TOTAL  |
|--|---------|--------|------|--------|
| Stone Riprap, Class A3   | Sq. Yd. | 0      | 474  | 474    |
| Concrete Removal   | Cu. Yd. | 124.0  | 7.0  | 131.0  |
| Slope Wall Removal   | Sq. Yd. | 0      | 474  | 474    |
| Protective Shield  | Sq. Yd. | 815    | 0    | 815    |
| Concrete Superstructure  | Cu. Yd. | 123.3  | 0    | 123.3  |
| Reinforcement Bars, Epoxy Coated                                     | Pound   | 20,000 | 0    | 20,000 |
| Bar Splicers   | Each    | 44     | 0    | 44     |
| Preformed Joint Strip Seal   | Foot    | 374    | 0    | 374    |
| Finger Plate Expansion Joint, 3"                                     | Foot    | 53     | 0    | 53     |
| Finger Plate Expansion Joint, 4"                                     | Foot    | 33     | 0    | 33     |
| Fabric Reinforced Elastomeric Trough                                 | Foot    | 226    | 0    | 226    |
| Elastomeric Bearing Assembly, Type I                                 | Each    | 0      | 3    | 3      |
| Epoxy Crack Injection  | Foot    | 0      | 146  | 146    |
| Anchor Bolts, 1"   | Each    | 4      | 0    | 4      |
| Bolt Replacement   | Each    | 5      | 0    | 5      |
| Galvanic Anode   | Each    | 0      | 2992 | 2992   |
| Fiber Wrap   | Sq. Ft. | 0      | 120  | 120    |
| Column Tensioned Strands   | Each    | 0      | 75   | 75     |
| Jack and Remove Existing Bearings                                    | Each    | 0      | 3    | 3      |
| Structural Steel Repair  | Pound   | 5860   | 0    | 5860   |
| Structural Repair of Concrete (depth equal to or less than 5 inches) | Sq. Ft. | 0      | 3010 | 3010   |
| Structural Repair of Concrete (depth greater than 5 inches)          | Sq. Ft. | 0      | 100  | 100    |
| Deck Slab Repair (Full Depth, Type I)                                | Sq. Yd. | 103    | 0    | 103    |
| Deck Slab Repair (Partial)   | Sq. Yd. | 1601   | 0    | 1601   |
| Silicone Joint Sealer, 2"  | Foot    | 175    | 0    | 175    |
| Silicone Joint Sealer, 2.5"  | Foot    | 38     | 0    | 38     |
| Silicone Joint Sealer, 3"  | Foot    | 37     | 0    | 37     |
| Polymer Concrete   | Cu. Ft. | 18     | 0    | 18     |
| Relocating Name Plates   | Each    | 1      | 0    | 1      |
| Crack Arrest Holes   | Each    | 4      | 0    | 4      |
| Temporary Shoring and Cribbing                                       | Each    | 0      | 2    | 2      |

See Sheet 79 of 90 for the Total Bill of Material for all work relating to sign trusses.

INDEX OF SHEETS (Continued)

- Overhead Sign Structures - General Plan & Elevation - Aluminum Truss & Steel Supports
- Overhead Sign Structures - Aluminum Truss Details for Truss Types I-A, II-A and III-A
- Overhead Sign Structures - Aluminum Truss Details for Truss Types I-A, II-A and III-A
- Overhead Sign Structure Damping Device
- Overhead Sign Structures Support Frame for Type I-A Aluminum Truss
- Overhead Sign Structures Support Frame Details - Aluminum Truss
- Overhead Sign Structures Aluminum Walkway Details
- Overhead Sign Structures Aluminum Walkway Details
- Overhead Sign Structures Aluminum Handrail Details
- Overhead Sign Structures Slab Removal/Replacement Details
- Special Sign Details
- Location of Signs on Overhead Truss

REV. 10-25-2018

WJE

ENGINEERS  
ARCHITECTS  
MATERIAL SCIENTISTS

Wiss, Janney, Elstner Associates, Inc.

330 Pingsten Road  
Northbrook, Illinois 60062  
847.272.7400 tel | 847.291.9595 fax  
www.wje.com

|                             |                   |                         |
|-----------------------------|-------------------|-------------------------|
| USER NAME : acb             | DESIGNED - ACB    | REVISED - 10/23/2018 RW |
|                             | CHECKED - RW      | REVISED -               |
| PLOT SCALE = 0.1667 ' / in. | DRAWN - ACB       | REVISED -               |
| PLOT DATE = 10/23/2018      | DATE - 09/28/2018 | REVISED -               |

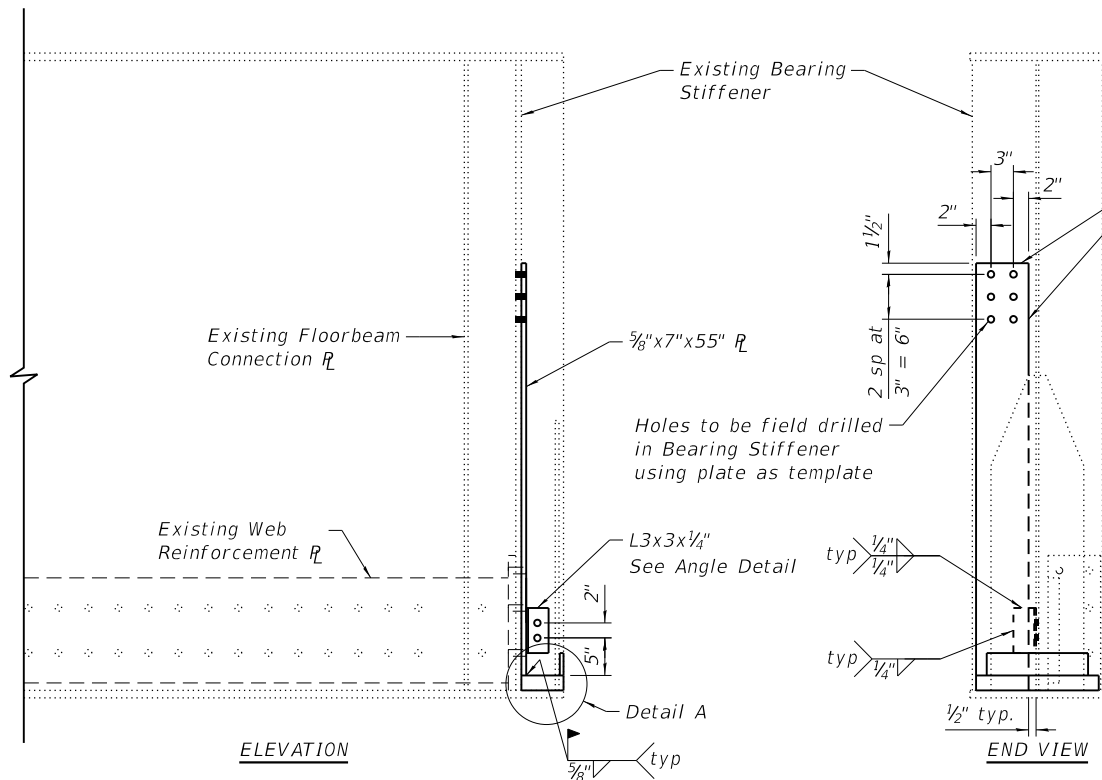
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL DATA  
S.N. 082-0141

SHEET NO. 2 OF 90 SHEETS

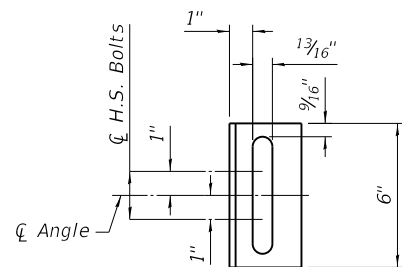
| F.A.I.<br>RTE. | SECTION              | COUNTY             | TOTAL<br>SHEETS | SHEET<br>NO. |
|----------------|----------------------|--------------------|-----------------|--------------|
| 70             | 82-3HVB-2R-(2,1)-1-2 | ST. CLAIR          | 238             | 76           |
|                |                      | CONTRACT NO. 76945 |                 |              |
| ILLINOIS       |                      | FED. AID PROJECT   |                 |              |

PRINT DATE: 10/23/2018 9:48:00 AM Z:\5052 Poplar Street Complex\DCN\Bridge\Final\PlotSheets\Roadway A\050-Roway A\_SteelBearing Stiffener Repair (Span A).dgn

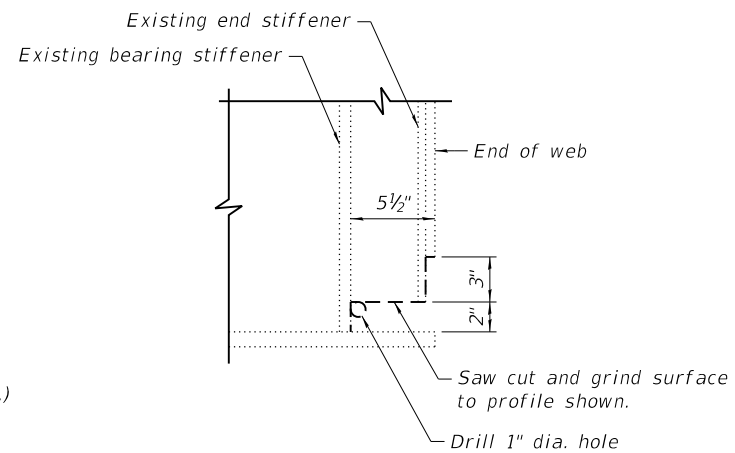


### BEARING STIFFENER REPAIR

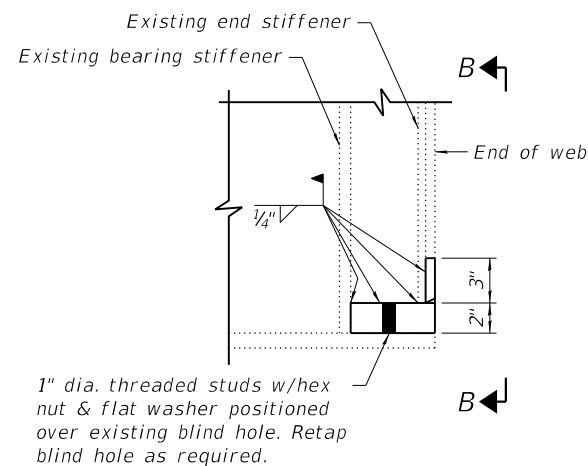
Span A1, Girder 1 (Opp. Hand)  
Span A1, Girder 2  
Span A4, Girder 1  
Span A20, Girder 2 (Opp. Hand)



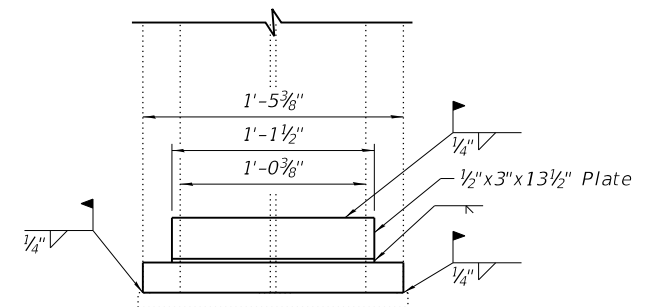
### ANGLE DETAIL



### DETAIL A - PREPARATION



### DETAIL A - INSTALLATION



### SECTION B-B

### Repair Preparation Procedure:

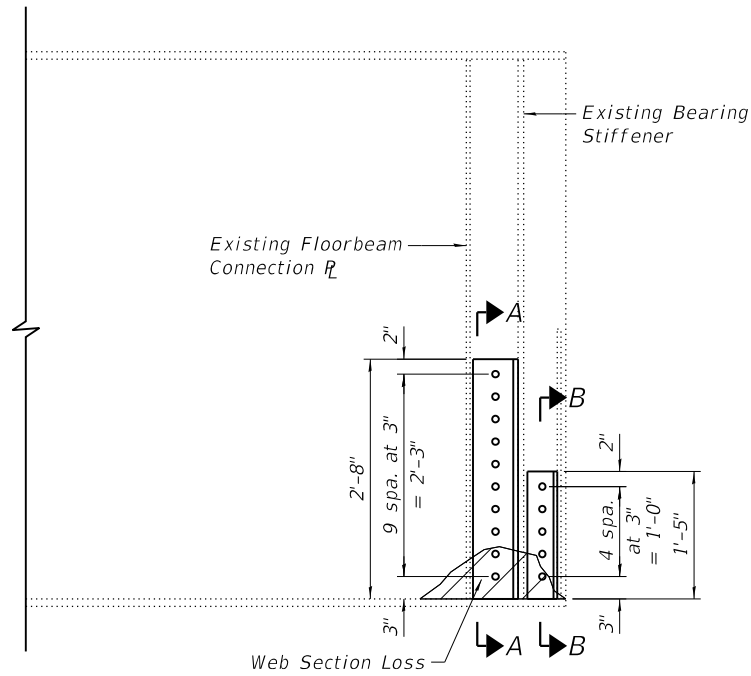
1. Complete repair while the deck is closed for repairs. Stage 1 for north bearing and Stage 3 & 4 for south bearing.
2. Remove existing 1" diameter bearing bolts.
3. Drill 1" diameter hole and saw cut web as shown in Detail A to accommodate 2" tall slot in web for new plate.
4. Use a carbide burr and dye grinder to remove end of web past end stiffener. Smooth all cut surfaces to achieve a Roughness Average (Ra) of 250 or less.
5. Grind top of bottom flange to create smooth, flat horizontal profile.

### BILL OF MATERIAL

| Item                    | Unit  | Total |
|-------------------------|-------|-------|
| Structural Steel Repair | Pound | 570   |

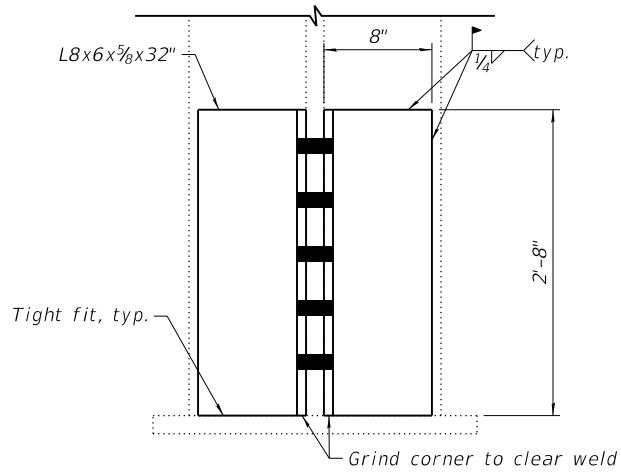


PRINT DATE: 10/23/2018 9:48:04 AM Z:\5052 Poplar Street Complex\DCN\Bridge\Final\Plotsheets\Roadway A\051\_Rdwy\_A\_SteelBearing\_Stiffener\_Repairs.dgn

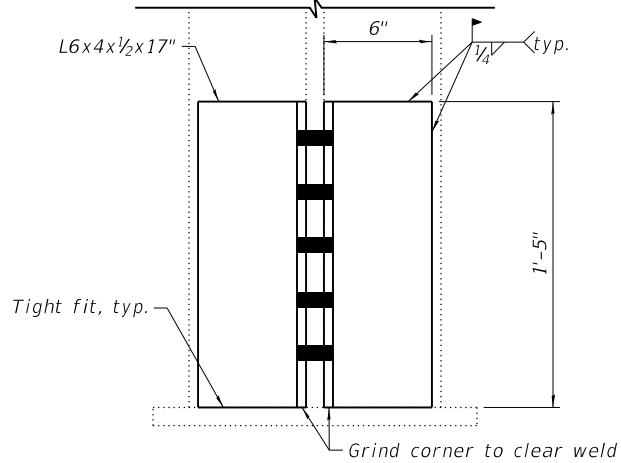


**BEARING STIFFENER REPAIR**

Span A37, Girder 1  
Span A37, Girder 2  
Span A41, Girder 1



**SECTION A-A**



**SECTION B-B**

**BILL OF MATERIAL**

| Item                    | Unit  | Total |
|-------------------------|-------|-------|
| Structural Steel Repair | Pound | 640   |

Notes:  
If the elastomeric trough at Pier A38 is removed to facilitate installation of the bearing stiffener repairs at this location, it shall be replaced in the manner shown on Sheet 47 of 90 upon completion of the bearing stiffener repairs.



REV. 10-25-2018

PRINT DATE: 10/23/2018 9:46:04 AM Z:\5052 Poplar Street Complex\DCN\Bridge\Final\Plotsheets\Roadway D\002\_Rdwy\_D\_GeneralData.dgn

GENERAL NOTES

- Dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to field verify such dimensions and details and make necessary approved adjustments prior to construction or ordering materials. Such variation shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete deck repair areas for SN 082-0144 are estimated based on inspection data from February, 2016 with deck repair areas updated through visual surveys conducted in March, 2018.
- Actual repair areas may be different in shape, size, and location than shown on the drawings. The exact locations shall be determined by the Engineer. The Engineer shall show actual repair areas and their dimensions on as-built plans.
- Only partial depth repairs are anticipated. However, nominal full depth repair quantities have been included for use in the event that removal operations extend to the bottom mat of reinforcement.
- A quantity of 60 square yards of Deck Slab Repair (Full Depth - Type I) is included in the total bill of materials to account for some repair areas shown on the plans extending through the full deck depth. Actual depth of repairs to be verified by the Engineer.
- At locations where the roadway will be open to traffic within two weeks or less of the concrete placement due to construction staging, an accelerating admixture from the IDOT Qualified Product List of Concrete Admixtures shall be used for concrete superstructure and deck slab repairs. Refer to the Roadway Plans and project schedule.
- Existing reinforcing bars shall be field-coated with epoxy, in accordance with the Special Provision "Field Coating Reinforcing Bars".
- Reinforcing bars designated (E) shall be epoxy-coated. Damage to the epoxy coating during handling, placement, etc., shall be repaired according to the Special Provision "Field Coating Reinforcing Bars".
- All accessories including bolsters, chairs, tie wire, etc., used to tie or support the epoxy-coated bars shall be epoxy coated.
- New concrete deck surfaces shall have a tined finish as per Article 420.09(e)(1) of the Standard Specifications. Cost included with Deck Slab Repair.
- All structural steel shall be AASHTO M-270 Grade 36, unless noted otherwise.
- No field welding is permitted except as specified in the contract documents.
- Fasteners shall be ASTM A325, Type 1, mechanically galvanized bolts. Bolts shall be 3/4 in. diameter and placed in 13/16 in. diameter holes unless noted otherwise.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision, "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- All new structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.

INDEX OF SHEETS

- General Plan
- General Data
- General Plan and Elevation (Spans D1 thru D9)
- General Plan and Elevation (Spans D10 thru D17)
- General Plan and Elevation (Spans D18 thru D25)
- General Plan and Elevation (Spans D26 thru D32)
- General Plan and Elevation (Spans D33 thru D39)
- General Plan and Elevation (Spans D40 thru D45)
- Deck Patching Repairs (Spans D1 thru D4)
- Deck Patching Repairs (Spans D5 thru D9)
- Deck Patching Repairs (Spans D10 thru D13)
- Deck Patching Repairs (Spans D14 thru D17)
- Deck Patching Repairs (Spans D18 thru D21)
- Deck Patching Repairs (Spans D22 thru D25)
- Deck Patching Repairs (Spans D26 & D27)
- Deck Patching Repairs (Spans D28 thru D31)
- Deck Patching Repairs (Spans D32 thru D35)
- Deck Patching Repairs (Spans D36 thru D39)
- Deck Patching Repairs (Spans D40 thru D43)
- Deck Patching Repairs (Spans D44 & D45)
- Bearing Stiffener Repair
- Concrete Repair Details
- Cable Protection Details

TOTAL BILL OF MATERIAL

| ITEM                                  | UNIT    | SUPER | SUB | TOTAL |
|---------------------------------------|---------|-------|-----|-------|
| Structural Steel Repair               | Pound   | 430   | 0   | 430   |
| Deck Slab Repair (Full Depth, Type I) | Sq. Yd. | 60    | 0   | 60    |
| Deck Slab Repair (Partial)            | Sq. Yd. | 849   | 0   | 849   |
| Cable Protection                      | Each    | 2     | 0   | 2     |
|                                       |         |       |     |       |

