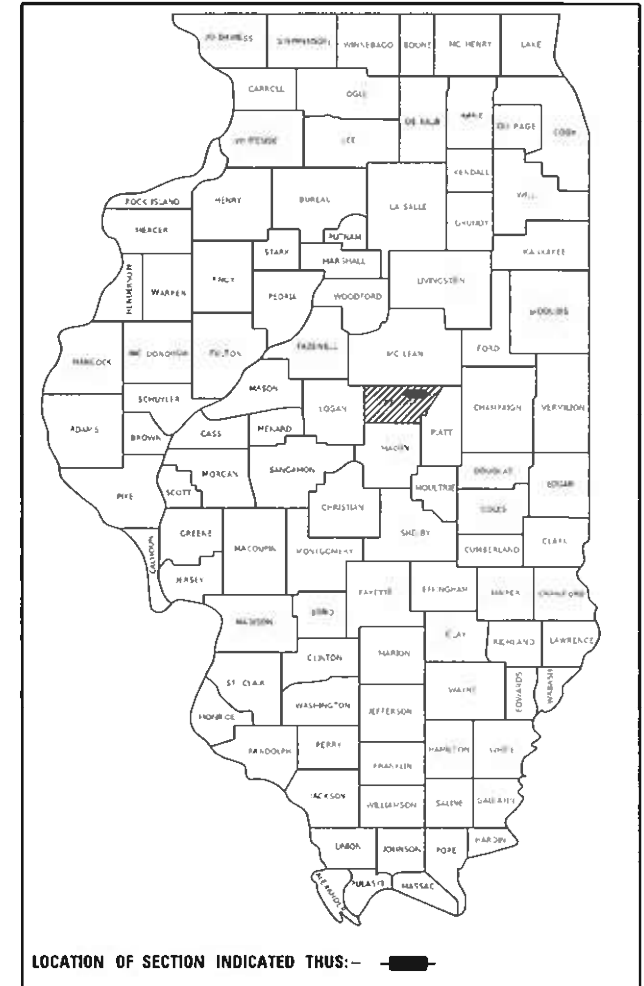


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS       | SHEET NO. |
|-------------|---------|--------|--------------------|-----------|
| 71          | 15 BR-1 | DEWITT | 24                 | 1         |
| ILLINOIS    |         |        | CONTRACT NO. 70C93 |           |

D-95-026-20



PROPOSED  
HIGHWAY PLANS

F.A.P. ROUTE 71 (IL 54)  
SECTION 15 BR-1  
PROJECT STP-NP26(319)  
BRIDGE DECK OVERLAY  
DEWITT COUNTY

C-95-088-20

S.N. 020-0043  
STA. 2338 + 94.50  
BRIDGE DECK OVERLAY

T20N



R3E

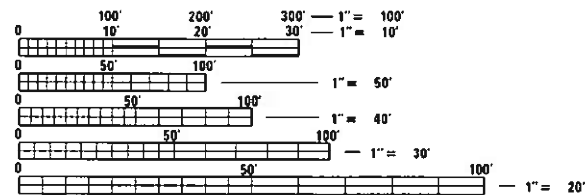
FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR HIGHWAY STANDARDS LIST, SEE SHEET NO. 2  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-5

CURRENT TRAFFIC DATA

| FAP 71 (IL 54) |          |       |
|----------------|----------|-------|
| 2020           | ADT      | 2,200 |
| 2030           | ADT      | 2,300 |
| 2040           | ADT      | 2,400 |
| 2040           | DHV (AM) | 265   |
| 2040           | DHV (PM) | 280   |
|                | PU/PC%   | 87.7  |
|                | SU%      | 7.3   |
|                | MU%      | 5.0   |

DESIGN DESIGNATION

MINOR ARTERIAL



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER TIM BRANDENBURG  
PROJECT MANAGER JEFF M. SHERER

CONTRACT NO. 70C93

GROSS LENGTH = 236.50 FT. = 0.0826 MILE  
NET LENGTH = 236.50 FT. = 0.0826 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 1, 2020  
*[Signature]*  
REGIONAL ENGINEER

January 29, 2021  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

January 29, 2021  
*[Signature]*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

# INDEX OF SHEETS

| SHEET NO. | ITEM  |
|-----------|---|
| 1         | COVER SHEET                                       |
| 2         | INDEX OF SHEETS/ HIGHWAY STANDARDS/ GENERAL NOTES |
| 3-5       | SUMMARY OF QUANTITIES                             |
| 6         | EXISTING TYPICAL CROSS-SECTION                    |
| 7-9       | STAGING DETAILS                                   |
| 10        | GENERAL PLAN AND ELEVATION SHEET                  |
| 11        | EXPANSION JOINT DETAILS                           |
| 12        | DETAIL OF STRIP SEAL JOINT                        |
| 13        | BAR SPLICER AND MECHANICAL SPLICER DETAIL         |
| 14-16     | DETAIL OF DRAINAGE STRUCTURES                     |
| 17        | DETAIL OF WEARING SURFACE                         |
| 18        | DETAIL OF COMPRESSION BLOCK REPAIRS               |
| 19-20     | FRP REPAIR DETAILS                                |
| 21        | DETAIL OF STRUCTURAL REPAIR OF CONCRETE           |
| 22-23     | DETAIL OF EROSION REPAIR AT ABUTMENTS             |
| 24        | DETAIL OF TEMPORARY CONCRETE BARRIER              |

# LIST OF STANDARDS

| STANDARD NO. | DESCRIPTION  |
|--------------|--|
| 000001-08    | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS             |
| 001001-02    | AREAS OF REINFORCEMENT BARS                              |
| 001006       | DECIMAL OF AN INCH AND OF A FOOT                         |
| 701001-02    | OFF RD OPERATIONS, 2L, 2W, 15' FROM PAVEMENT EDGE        |
| 701006-05    | OFF RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE |
| 701011-04    | OFF RD MOVING OPERATION, 2L, 2W, DAY ONLY                |
| 701201-05    | LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEEDS ≥ 45 MPH       |
| 701301-04    | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS                  |
| 701321-18    | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR + BARRIER            |
| 701901-08    | TRAFFIC CONTROL DEVICES                                  |
| 704001-08    | TEMPORARY CONCRETE BARRIER                               |

# GENERAL NOTES

## G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

## G.N.-105.09

ALL ELEVATIONS SHOWN IN PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

## G.N.-406

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

## G.N. -406H

### MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

|                            |                   |
|----------------------------|-------------------|
| Location                   | IL 54             |
| Mixture Use                | Surface, Shoulder |
| AC/PG                      | PG 64-22          |
| Design Air Voids           | 4.0% @ Ndes = 90  |
| Mix Comp(Gradation)        | IL 9.5            |
| Friction Aggregate         | Mix C             |
| Mixture Weight             | 112               |
| Quality Management Program | QC/QA             |
| Sublot Size                | N.A.              |

## G.N.-1004.01

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

THERE ARE NO COMMITMENTS ASSOCIATED WITH THIS PROJECT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS/HIGHWAY STANDARDS  
GENERAL NOTES

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 2         |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |

**DEWITT COUNTY**  
**FAP 71 (IL 54)**  
**RURAL TWO-LANE**  
**BRIDGE DECK OVERLAY**  
**S.N. 020-0043**  
**80% STATE 20% FED**

| CODE NO. | ITEM   | UNIT  | TOTAL QUANTITY | 0059    |
|----------|--|-------|----------------|---------|
| 28100709 | STONE DUMPED RIPRAP, CLASS A5                        | SQ YD | 108.0          | 108.0   |
| 40600290 | BITUMINOUS MATERIALS (TACK COAT)                     | POUND | 440.0          | 440.0   |
| 40604050 | HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50 | TON   | 49.0           | 49.0    |
| 44000155 | HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"              | SQ YD | 985.0          | 985.0   |
| 48203100 | HOT-MIX ASPHALT SHOULDERS                            | TON   | 41.0           | 41.0    |
| 50102400 | CONCRETE REMOVAL                                     | CU YD | 25.6           | 25.6    |
| 50157300 | PROTECTIVE SHIELD                                    | SQ YD | 88.0           | 88.0    |
| 50300100 | FLOOR DRAINS   | EACH  | 14.0           | 14.0    |
| 50300255 | CONCRETE SUPERSTRUCTURE                              | CU YD | 27.8           | 27.8    |
| 50300260 | BRIDGE DECK GROOVING                                 | SQ YD | 1,075.0        | 1,075.0 |
| 50300300 | PROTECTIVE COAT                                      | SQ YD | 1,130.0        | 1,130.0 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED                     | POUND | 2,330.0        | 2,330.0 |
| 50800515 | BAR SPLICERS   | EACH  | 34.0           | 34.0    |
| 52000110 | PREFORMED JOINT STRIP SEAL                           | FOOT  | 92.0           | 92.0    |
| 59300100 | CONTROLLED LOW-STRENGTH MATERIAL                     | CU YD | 7.2            | 7.2     |

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 PROJECTS\DOT\Office\Drawings\70c93\70c93.dwg

|                              |            |                        |
|------------------------------|------------|------------------------|
| USER NAME = shererJM         | DESIGNED - | REVISED - 12-11-20 JMS |
| PLOT SCALE = 40.0000 ' / in. | DRAWN -    | REVISOR -              |
| PLOT DATE = 12/11/2020       | CHECKED -  | REVISOR -              |
|                              | DATE -     | REVISOR -              |

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

**SUMMARY OF QUANTITIES**

SCALE: NONE    SHEET 1 OF 3 SHEETS    STA.    TO STA.

| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS       | SHEET NO. |
|---------------------------|---------|--------|--------------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24                 | 3         |
|                           |         |        | CONTRACT NO. 70C93 |           |
| ILLINOIS FED. AID PROJECT |         |        |                    |           |



**DEWITT COUNTY**  
**FAP 71 (IL 54)**  
**RURAL TWO-LANE**  
**BRIDGE DECK OVERLAY**  
**S.N. 020-0043**  
**80% STATE 20% FED**

| CODE NO. | ITEM   | UNIT  | TOTAL QUANTITY | 0059    |
|----------|--|-------|----------------|---------|
| Z0012130 | BRIDGE DECK SCARIFICATION 3/4"                                       | SQ YD | 1,064.0        | 1,064.0 |
| Z0012754 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 33.4           | 33.4    |
| Z0016002 | DECK SLAB REPAIR (FULL DEPTH, TYPE II)                               | SQ YD | 31.0           | 31.0    |
| Z0018002 | DRAINAGE SCUPPERS, DS-11   | EACH  | 4.0            | 4.0     |
| Z0043800 | PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR                           | SQ FT | 303.0          | 303.0   |

SPECIALTY ITEMS

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|-----------------------------|------------|-----------|
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|                             | DRAWN -    | REVISED - |
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| PLOT DATE = 12/7/2020       | DATE -     | REVISED - |

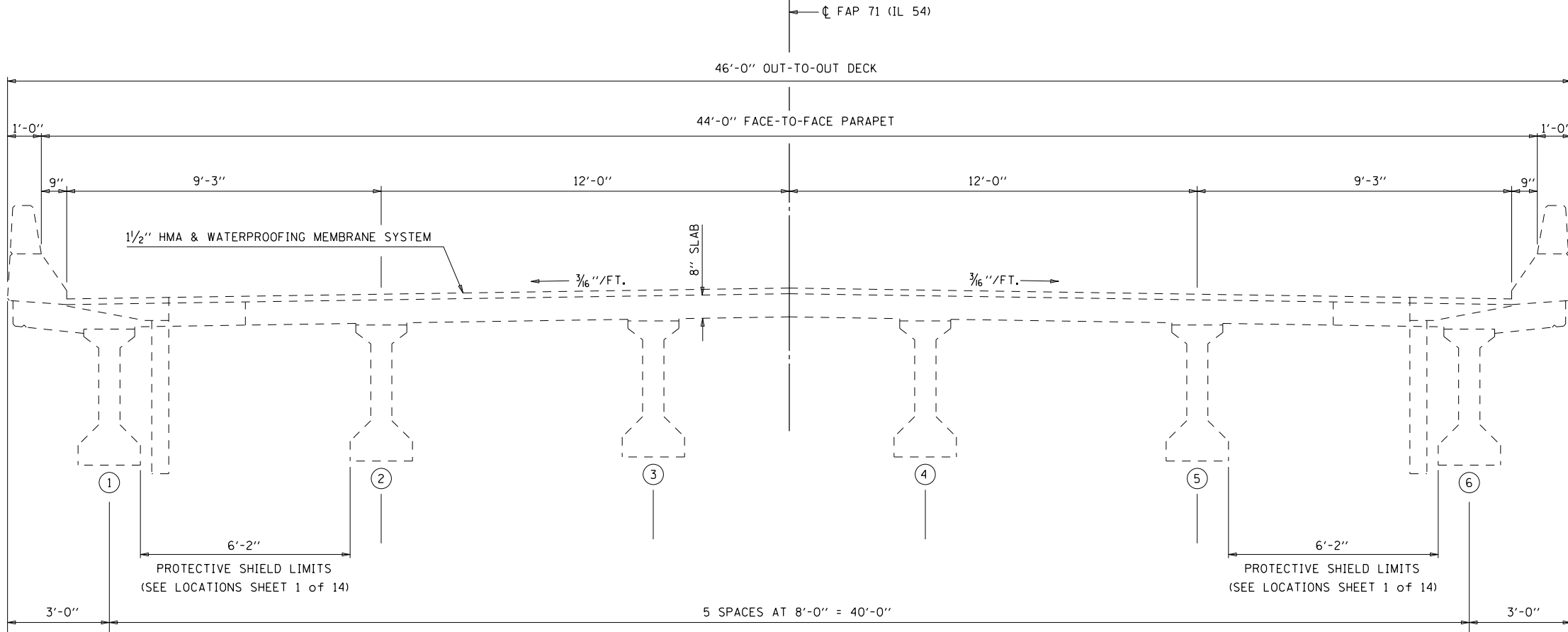
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: NONE SHEET 3 OF 3 SHEETS STA. TO STA.

| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 5         |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |

**EXISTING TYPICAL CROSS-SECTION  
(LOOKING EAST)**



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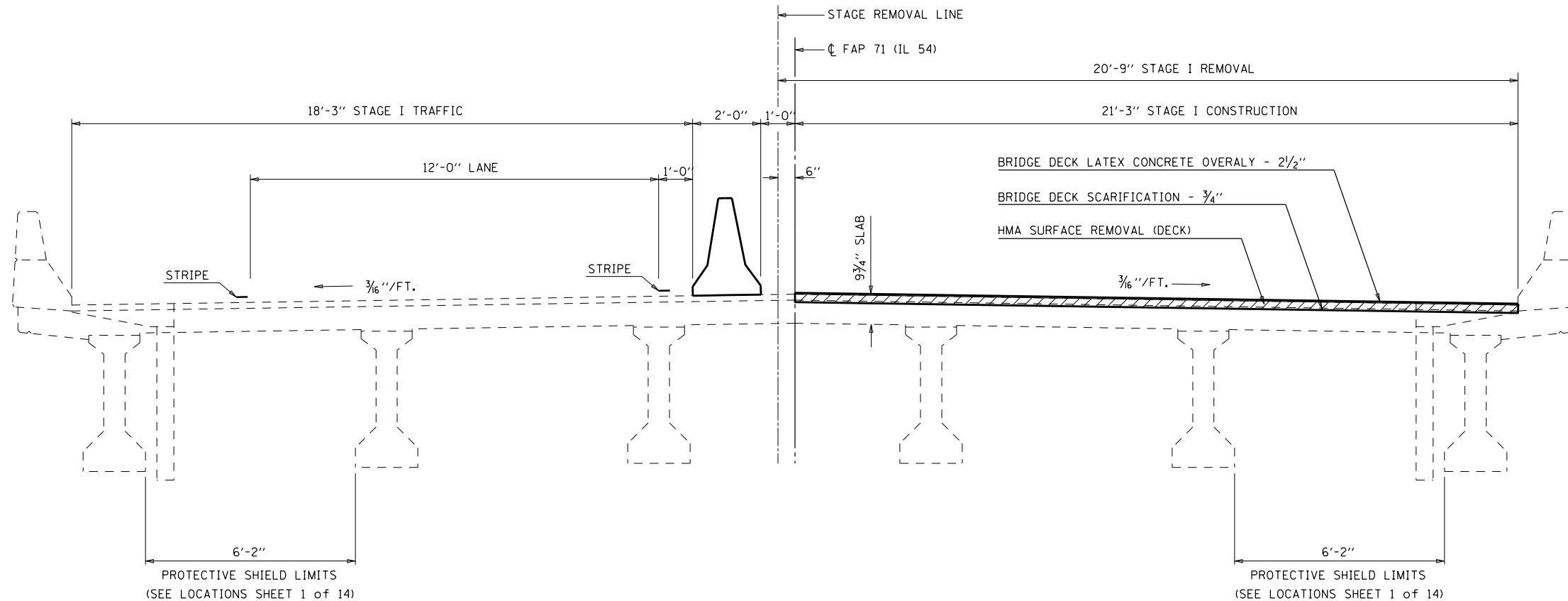
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| USER NAME = shererjm        | DESIGNED - JMS | REVISIONS              |
| PLOT SCALE = 40.0000' / in. | DRAWN - JMS    | REVISED - 12-11-20 JMS |
| PLOT DATE = 12/11/2020      | CHECKED -      | REVISED -              |
|                             | DATE - 052020  | REVISED -              |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

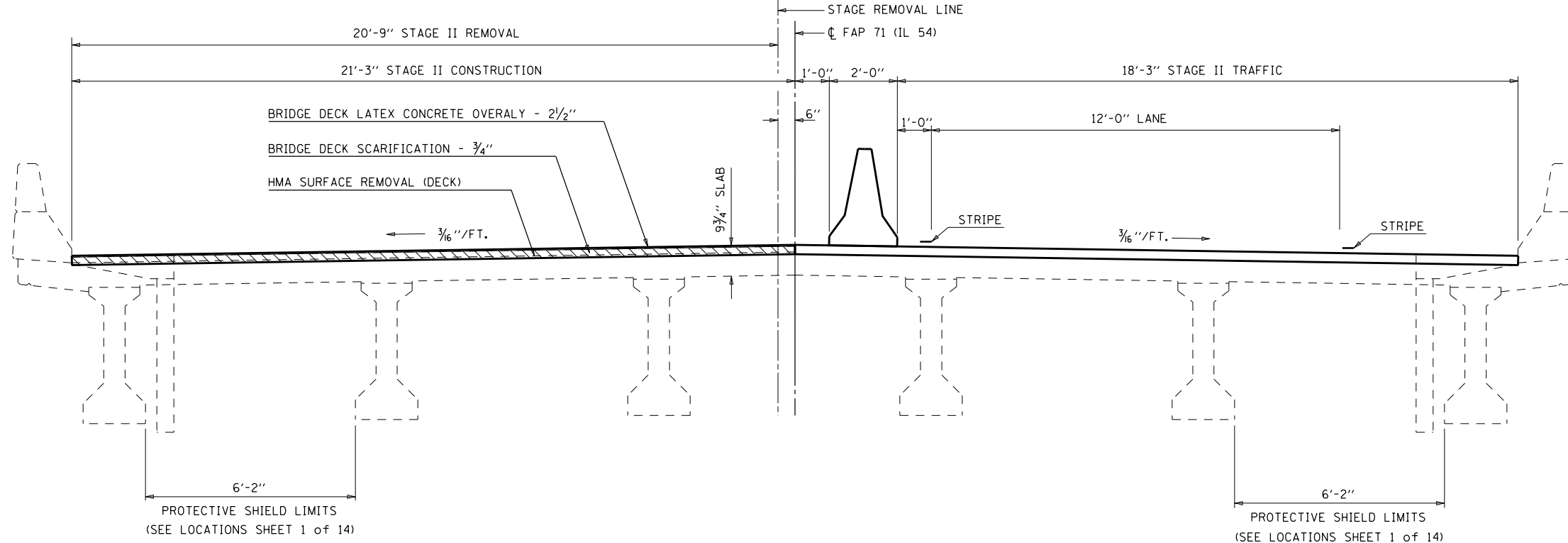
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| <b>TYPICAL CROSS-SECTION</b> |                     |              |
| <b>S.N. 020-0043</b>         |                     |              |
| SCALE: NONE                  | SHEET 1 OF 1 SHEETS | STA. TO STA. |

|                           |         |        |              |           |
|---------------------------|---------|--------|--------------|-----------|
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 71                        | 15 BR-1 | DEWITT | 24           | 6         |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |

**STAGE I CONSTRUCTION DETAIL  
(LOOKING EAST)**



**STAGE II CONSTRUCTION DETAIL  
(LOOKING EAST)**



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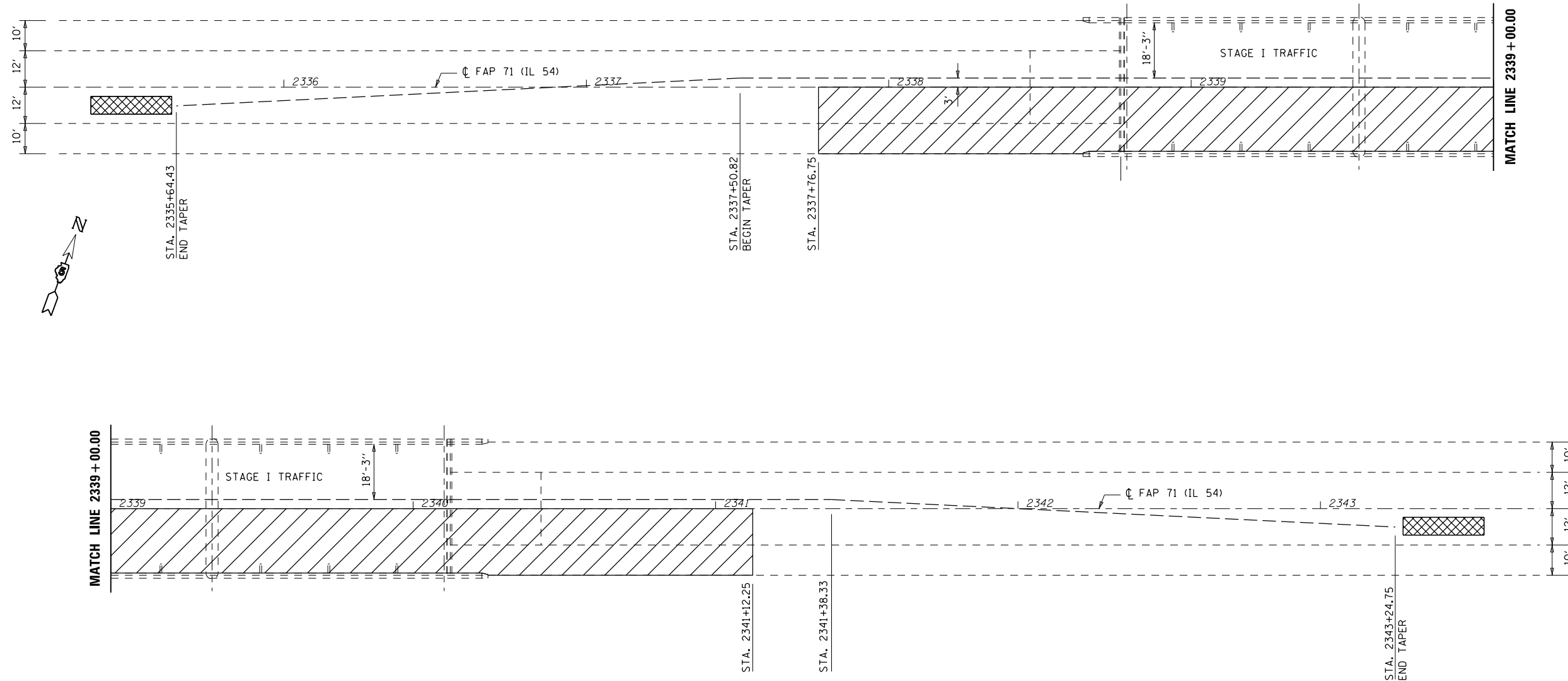
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|------------------------------|-----------------|------------------------|
| USER NAME = shererJM         | DESIGNED - JMS  | REvised - 12-11-20 JMS |
|                              | DRAWN - JMS     | REvised -              |
| PLOT SCALE = 40.0000 ' / in. | CHECKED -       | REvised -              |
| PLOT DATE = 12/11/2020       | DATE - 05/20/20 | REvised -              |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

|                                    |                     |              |
|------------------------------------|---------------------|--------------|
| <b>STAGE I CONSTRUCTION DETAIL</b> |                     |              |
| <b>S.N. 020-0043</b>               |                     |              |
| SCALE: NONE                        | SHEET 1 OF 3 SHEETS | STA. TO STA. |

| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS       | SHEET NO. |
|---------------------------|---------|--------|--------------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24                 | 7         |
|                           |         |        | CONTRACT NO. 70C93 |           |
| ILLINOIS FED. AID PROJECT |         |        |                    |           |

# STAGE I TEMPORARY CONCRETE BARRIER LAYOUT



- TEMPORARY CONCRETE BARRIER
- PROPOSED WORK AREA
- IMPACT ATTENUATOR

**PLAN NOTES:**

ALL STAGING DETAILS SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321 AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH LOCATION.

ALL WORK WITHOUT TEMPORARY CONCRETE BARRIER IN PLACE SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARDS 701201, 701301 AND 701311.

FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY CONCRETE BARRIER, SEE HIGHWAY STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. PAVEMENT MARKINGS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

REFLECTORS SHALL BE ATTACHED TO GUARDRAIL AND BARRIER WALL AT 25 FOOT CENTERS. COST INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

**70400100 TEMPORARY CONCRETE BARRIER**

|       | STATION       | TO | STATION       | LENGTH |
|-------|---------------|----|---------------|--------|
| TAPER | RT 2335+64.43 |    | RT 2337+50.82 | 187.5  |
|       | RT 2337+50.82 |    | RT 2341+38.33 | 387.5  |
| TAPER | RT 2341+38.33 |    | RT 2343+24.75 | 187.5  |

**SUB-TOTAL = 762.5**

**BILL OF MATERIALS**

| ITEM   | UNIT | TOTAL |
|--|------|-------|
| TEMPORARY CONCRETE BARRIER                                 | FOOT | 762.5 |
| IMPACT ATTENUATOR TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3 | EACH | 2.0   |

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|                             |                |           |
|-----------------------------|----------------|-----------|
| USER NAME = shererjm        | DESIGNED - JMS | REVISED - |
|                             | DRAWN - JMS    | REVISED - |
| PLOT SCALE = 40.0000' / in. | CHECKED -      | REVISED - |
| PLOT DATE = 11/5/2020       | DATE - 052020  | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

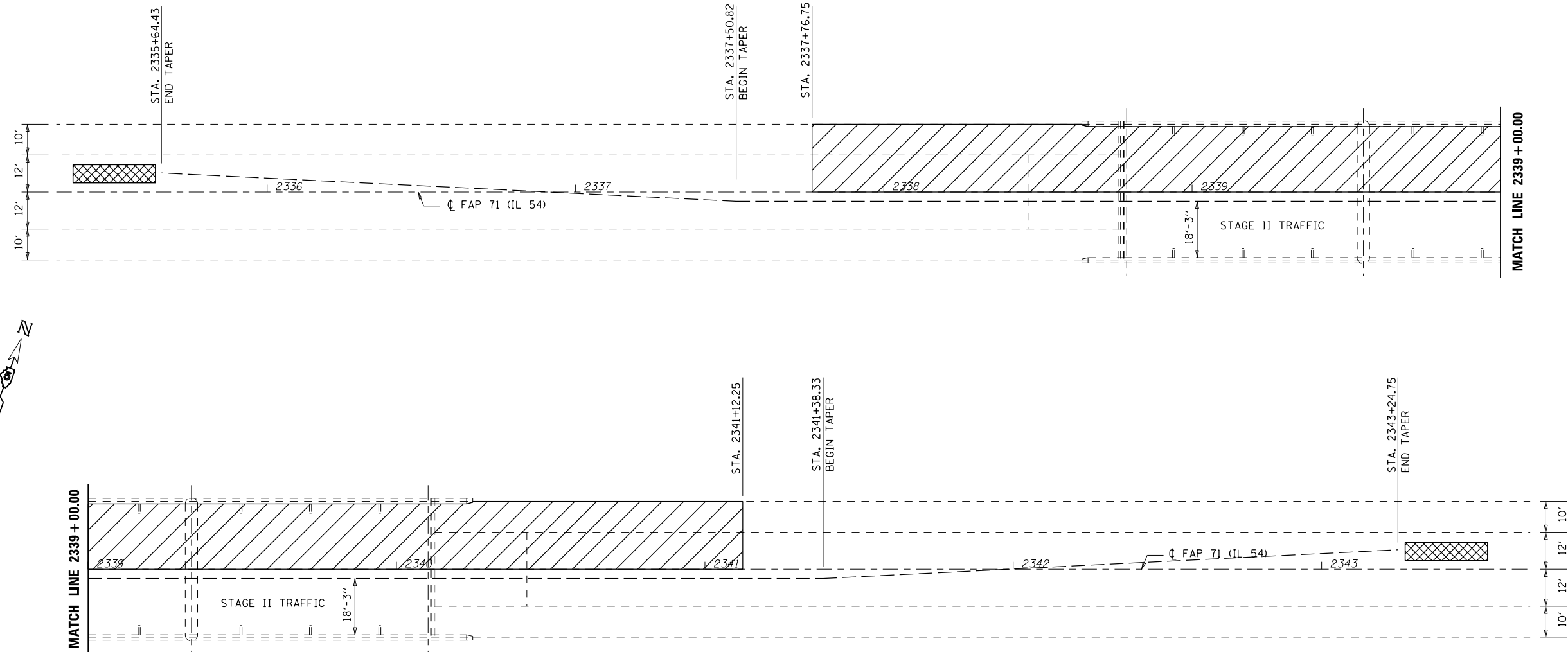
**TEMPORARY CONCRETE BARRIER LAYOUT  
S.N. 020-0043**

SCALE: 1" = 20'    SHEET 2 OF 3 SHEETS    STA.    TO STA.

|                           |         |        |              |           |
|---------------------------|---------|--------|--------------|-----------|
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 71                        | 15 BR-1 | DEWITT | 24           | 8         |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



# STAGE II TEMPORARY CONCRETE BARRIER LAYOUT



- TEMPORARY CONCRETE BARRIER
- PROPOSED WORK AREA
- IMPACT ATTENUATOR

**PLAN NOTES:**

ALL STAGING DETAILS SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321 AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH LOCATION.

ALL WORK WITHOUT TEMPORARY CONCRETE BARRIER IN PLACE SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARDS 701201, 701301 AND 701311.

FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY CONCRETE BARRIER, SEE HIGHWAY STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. PAVEMENT MARKINGS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

REFLECTORS SHALL BE ATTACHED TO GUARDRAIL AND BARRIER WALL AT 25 FOOT CENTERS. COST INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

**70400200 RELOCATE TEMPORARY CONCRETE BARRIER**

|          | STATION    | TO | STATION       | LENGTH |
|----------|------------|----|---------------|--------|
| TAPER LT | 2335+64.43 |    | LT 2337+50.82 | 187.5  |
| LT       | 2337+50.82 |    | LT 2341+38.33 | 387.5  |
| TAPER LT | 2341+38.33 |    | LT 2343+24.75 | 187.5  |

**SUB-TOTAL = 762.5**

**BILL OF MATERIALS**

| ITEM  | UNIT | TOTAL |
|---|------|-------|
| REL TEMPORARY CONCRETE BARRIER                            | FOOT | 762.5 |
| IMPACT ATTENUATOR RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3 | EACH | 2.0   |

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|                             |                |           |
|-----------------------------|----------------|-----------|
| USER NAME = shererjm        | DESIGNED - JMS | REVISED - |
| DRAWN - JMS                 | CHECKED -      | REVISED - |
| PLOT SCALE = 40.0000' / in. | DATE - 052020  | REVISED - |
| PLOT DATE = 11/5/2020       |                |           |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER LAYOUT  
S.N. 020-0043**

SCALE: 1" = 20' SHEET 3 OF 3 SHEETS STA. TO STA.

|                    |         |        |                           |           |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.P. RTE.        | SECTION | COUNTY | TOTAL SHEETS              | SHEET NO. |
| 71                 | 15 BR-1 | DEWITT | 24                        | 9         |
| CONTRACT NO. 70C93 |         |        | ILLINOIS FED. AID PROJECT |           |

Structure Number 020-0043 was built in 1976, Section 15BR at Station 2338+94.50 by the State of Illinois in DeWitt County. The structure is a three (3) span 7 1/2" thick reinforced concrete deck, Pre-Cast Concrete continuous stringer/multi-beam girder beam bridge on concrete spread footing supported abutments and steel and concrete pile supported piers.

The existing structure has a back-to-back abutment length of 236'-6", and out-to-out width of 46'-0", clear width of 42'-6", and an approach roadway width of 43'-0".

### PROPOSED WORK

1. Remove Existing HMA Wearing Surface
2. Remove Existing HMA Surface at Approach Pavements
3. Remove Concrete at Abutments
4. Remove Concrete at Deck Ends
5. Place New Preformed Joint Strip Seal
6. Place Concrete Superstructure at Abutments and Deck Ends
7. Remove and Replace Select Deck Drains
8. Repair Select Areas on PCC Beams
9. Place Latex Concrete Wearing Surface
10. Place HMA Surface at Approach Pavements
11. Place Protective Coat
12. Perform erosion control at abutments

### GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however the contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement Bars Designated (E) Shall be Epoxy Coated.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

Joint Openings shall be adjusted according to article 520.04 of the Standard Specifications. When the deck is poured at an ambient temperature of 50° F.

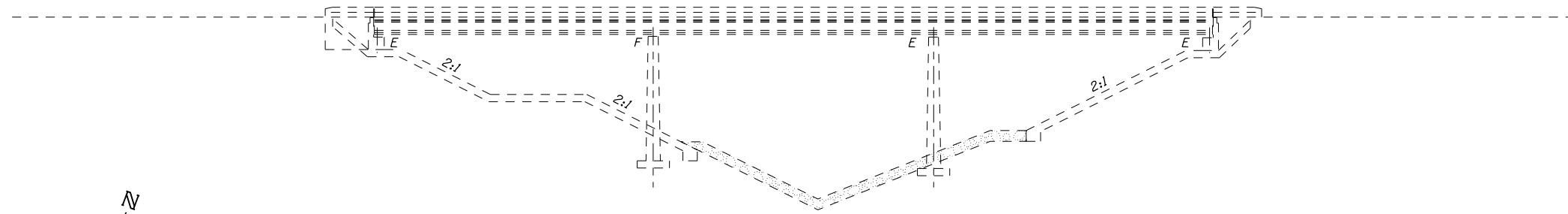
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction, cost included with Deck Slab Repair.

Areas of repairs shown are estimated. The Engineer shall show actual locations of the repairs on AS-BUILT PLANS.

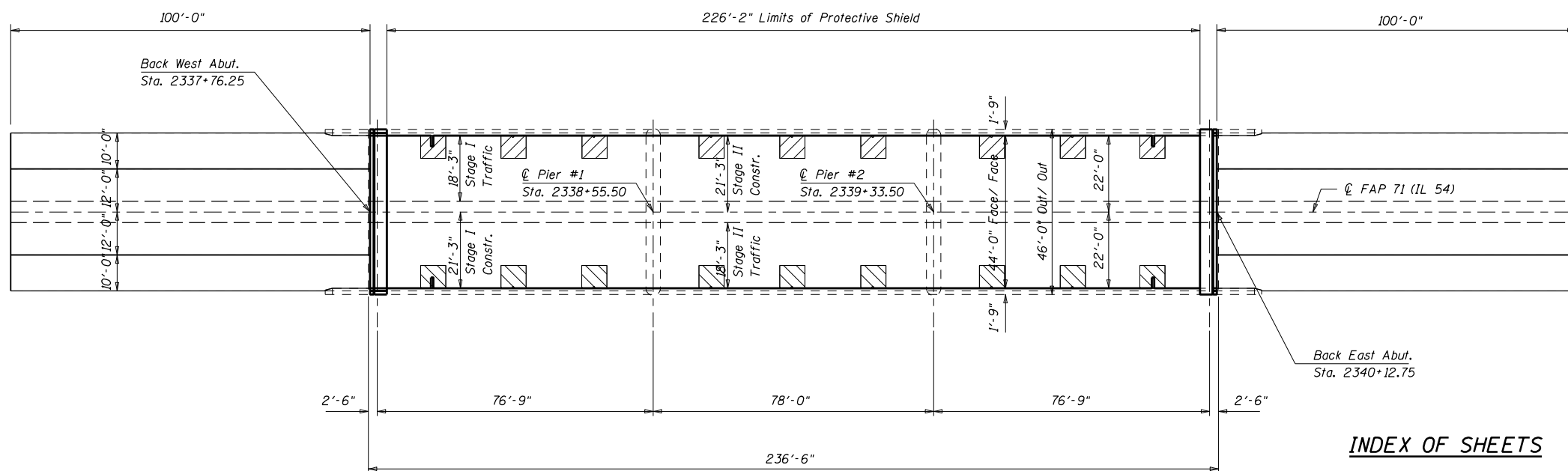
Protective coat shall be applied to the top and inside face of parapets and deck surface of new concrete adjacent to joints and the new overlay.

### TOTAL BILL OF MATERIAL

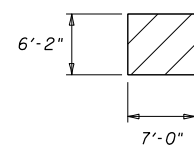
| ITEM                                      | UNIT    | TOTAL   |
|---|---------|---------|
| Protective Shield                         | Sq. Yd. | 88.0    |
| Concrete Removal                          | Cu. Yd. | 25.6    |
| Floor Drains                              | Each    | 14.0    |
| Concrete Superstructure                   | Cu. Yd. | 27.8    |
| Bridge Deck Grooving                      | Sq. Yd. | 1,075.0 |
| Protective Coat                           | Sq. Yd. | 1,130.0 |
| Reinforcement Bars, Epoxy Coated          | Pound   | 2,330.0 |
| Bar Splicers                              | Each    | 34.0    |
| Preformed Joint Strip Seal                | Foot    | 92.0    |
| Controlled Low Strength Material          | Cu. Yd. | 7.2     |
| Pumpable Concrete Mix                     | Cu. Ft. | 3.0     |
| Acrylic Coating                           | Sq. Yd. | 39.0    |
| Fiber Wrap                                | Sq. Ft. | 315.0   |
| HMA Surface Removal (Deck)                | Sq. Yd. | 1,102.0 |
| Bridge Deck Latex Concrete Overlay 2 1/2" | Sq. Yd. | 1,064.0 |
| Bridge Deck Scarification 3/4"            | Sq. Yd. | 1,064.0 |
| Structural Repair of Conc. Dpth. < 5"     | Sq. Ft. | 33.4    |
| Deck Slab Repair (Full Depth, Type II)    | Sq. Yd. | 31.0    |
| Drainage Scuppers, DS-II                  | Each    | 4.0     |
| Prec. Prestr. Concrete I-Beam Repair      | Sq. Ft. | 303.0   |



### ELEVATION



### PLAN



### Protective Shield

(At each drain/scupper location typical)



Expires 11-30-2022

*David Carl Puzev*

01/28/2021

### INDEX OF SHEETS

1. General Plan and Elevation
2. Expansion Joint Details
3. Detail of Strip Seal Joint
4. Bar Splicers Assembly and Mechanical Splicer Details
5. Detail of Proposed Drainage Structures
6. Detail of Drainage Scupper/ Floor Drains
7. Drainage Scupper, DS-II Detail
8. Wearing Surface Plan
9. Compression Block Repairs
10. General Plan FRP
11. Repair Details FRP
12. Detail of Structural Repair of Concrete > = 5"
- 13.-14. Detail of Erosion Repair at Abutments

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
S.N. 020-0043

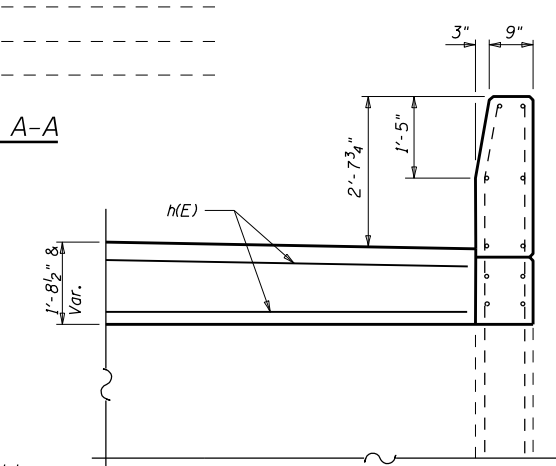
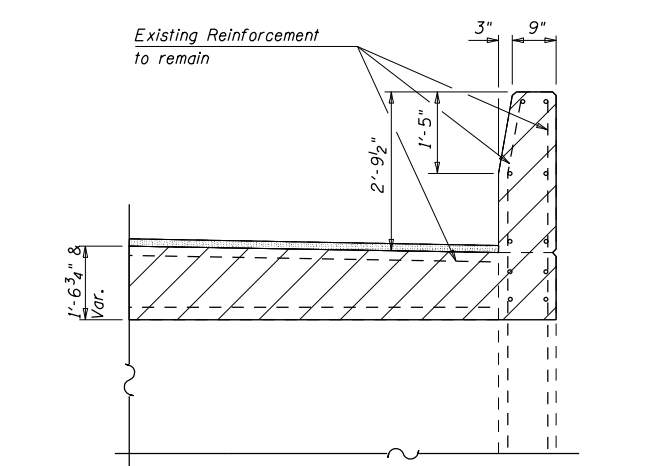
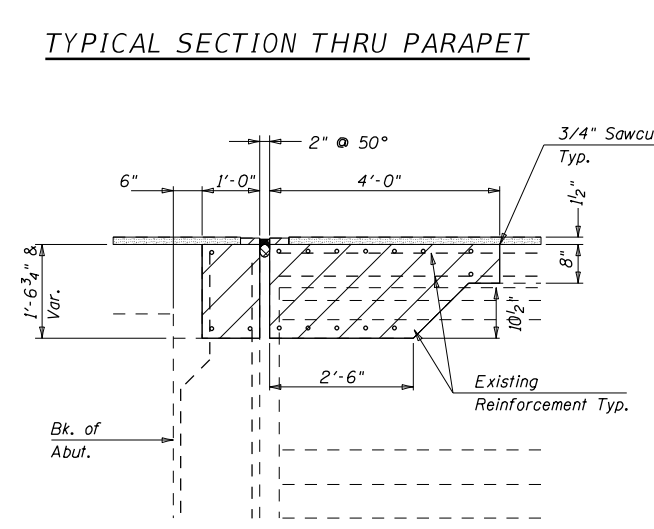
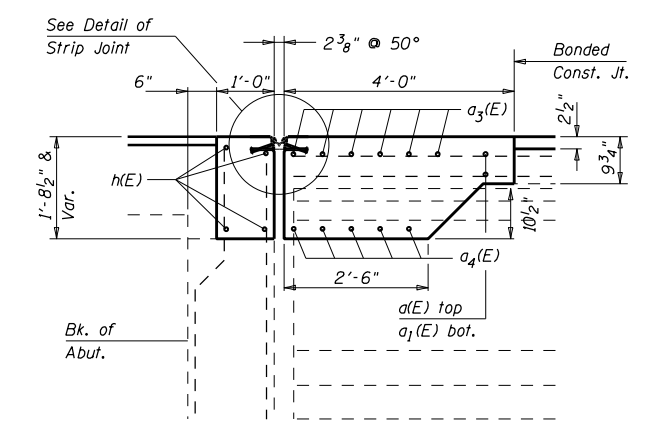
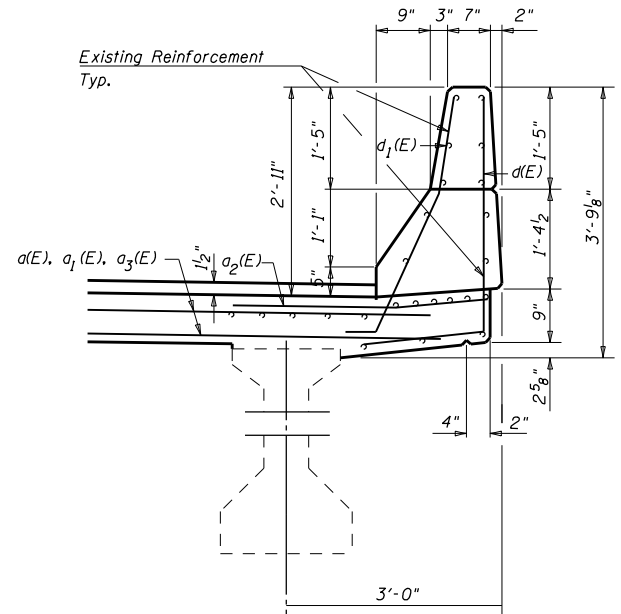
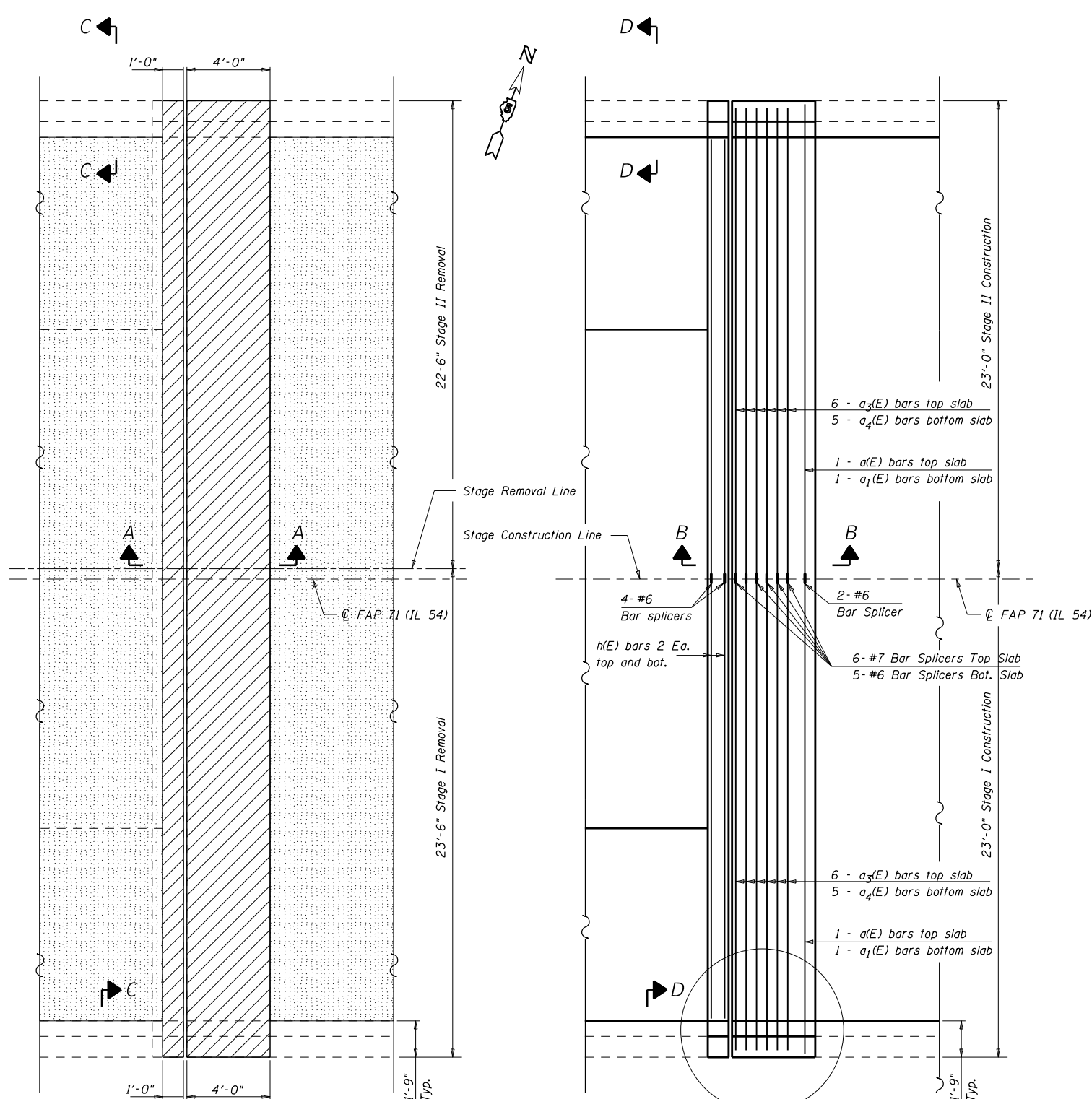
SCALE: 1" = 20'

SHEET 1 OF 14 SHEETS

STA.

TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS              | SHEET NO. |
|-------------|---------|--------|---------------------------|-----------|
| 71          | 15 BR-1 | DEWITT | 24                        | 10        |
|             |         |        | CONTRACT NO. 70C93        |           |
|             |         |        | ILLINOIS FED. AID PROJECT |           |

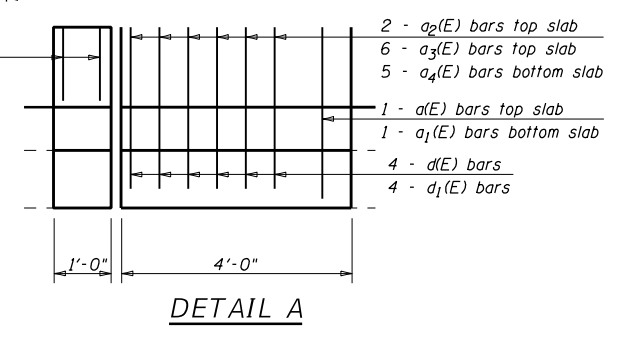
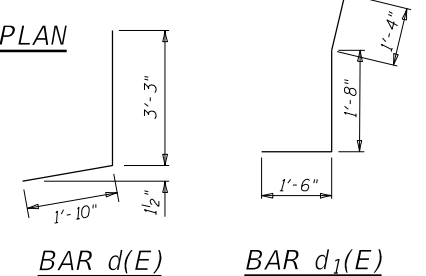


**PARTIAL REMOVAL PLAN**

West Abutment shown  
East Abutment similar

**PARTIAL PROPOSED PLAN**

West Abutment shown  
East Abutment similar



**BILL OF MATERIAL  
( 2 ABUTMENT )**

| Bar                                 | No. | Size  | Length  | Shape |
|-------------------------------------|-----|-------|---------|-------|
| a(E)                                | 4   | #6    | 22'-10" | —     |
| a1(E)                               | 4   | #6    | 22'-0"  | —     |
| a2(E)                               | 8   | #6    | 4'-0"   | —     |
| a3(E)                               | 24  | #7    | 22'-8"  | —     |
| a4(E)                               | 20  | #6    | 7'-1"   | —     |
| d(E)                                | 16  | #4    | 5'-1"   | J     |
| d1(E)                               | 16  | #5    | 4'-9"   | J     |
| h(E)                                | 16  | #6    | 22'-9"  | —     |
| Concrete Removal                    |     | Cu Yd | 25.6    |       |
| Protective Coat                     |     | Sq Yd | 1,130.0 |       |
| Reinforcement Bars,<br>Epoxy Coated |     | Pound | 2,330.0 |       |
| Bar Splicers                        |     | Each  | 34.0    |       |
| Concrete<br>Superstructures         |     | Cu Yd | 27.8    |       |

MODEL: \\MODELS\MAHMS  
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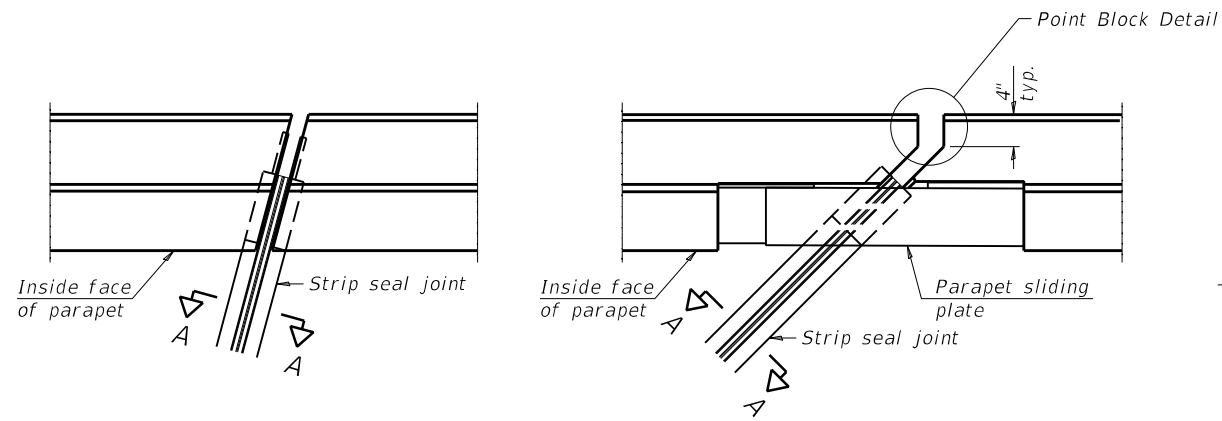
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|------------------------------|----------------|-----------|
| USER NAME = shererJM         | DESIGNED - JMS | REVISED - |
| DRAWN - JMS                  | REVISED -      |           |
| PLOT SCALE = 40.0000 ' / in. | CHECKED -      | REVISED - |
| PLOT DATE = 1/27/2021        | DATE - 052020  | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT DETAILS  
S.N. 020-0043**

SCALE: NONE SHEET 2 OF 14 SHEETS STA. TO STA.

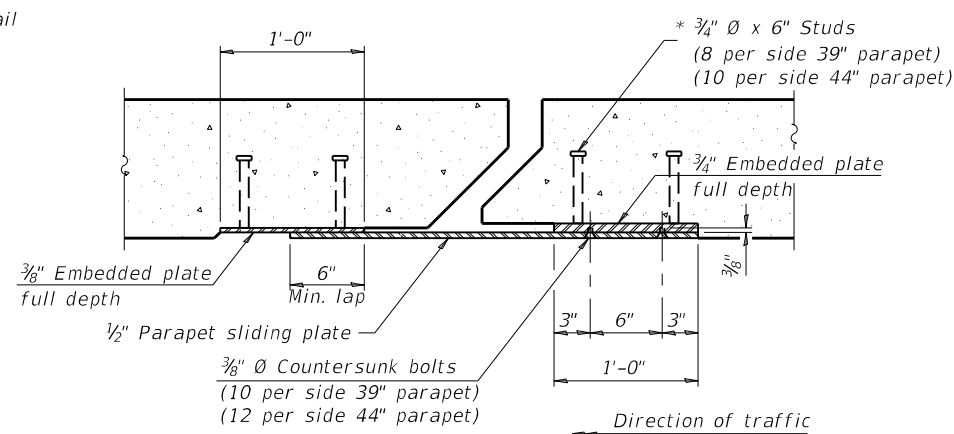
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 11        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



FOR SKEWS  $\leq 30^\circ$

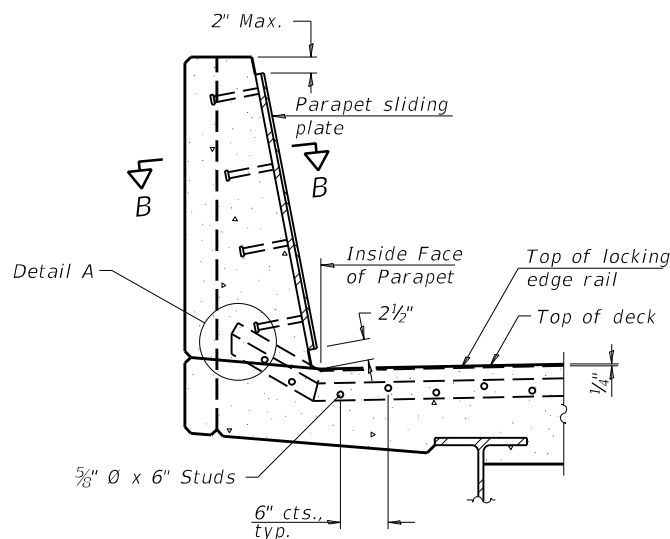
PLAN AT PARAPET

FOR SKEWS  $> 30^\circ$



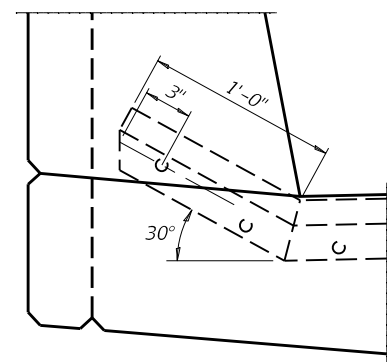
SECTION B-B

**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.

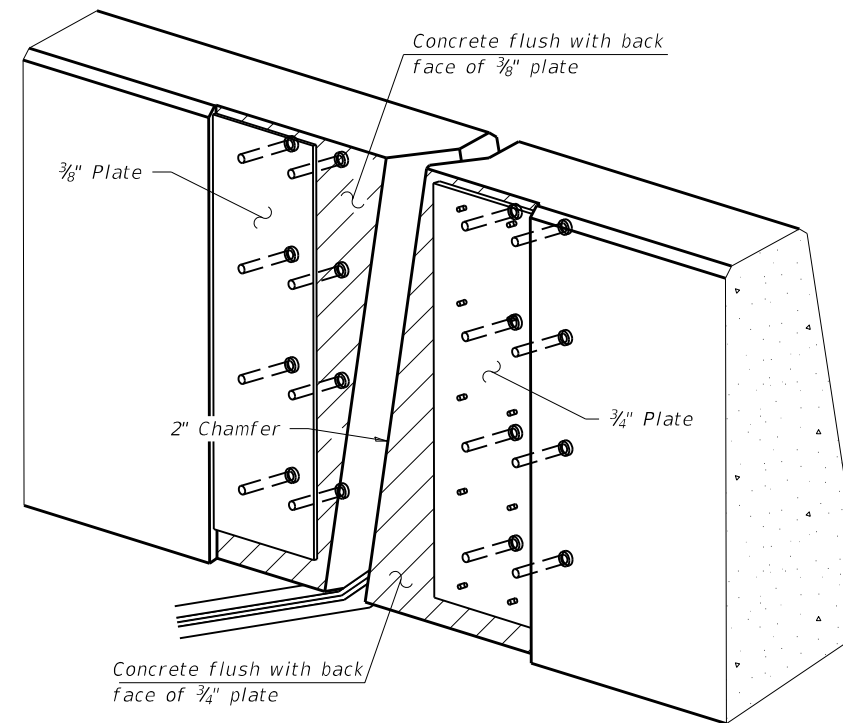


SECTION AT PARAPET

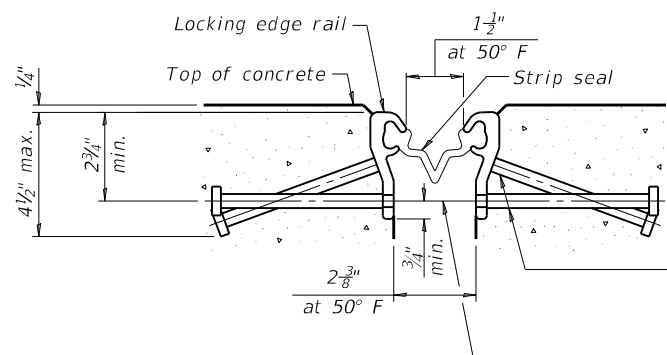
(Skews  $> 30^\circ$  shown. Skews  $\leq 30^\circ$  similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW  
(Showing embedded plates only)

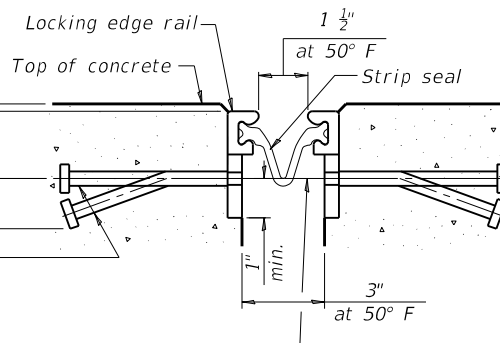


SHOWING ROLLED RAIL JOINT

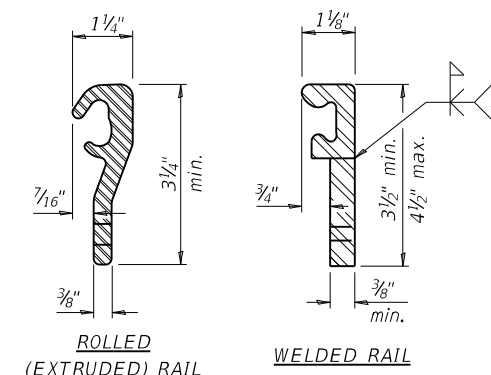
\*  $5/8$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)  
 $3/8$ " Ø threaded rods in  $7/16$ " Ø holes at  $\pm 4$ "-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

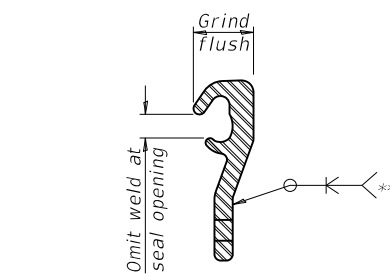


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

| Item                       | Unit | Total |
|----------------------------|------|-------|
| Preformed Joint Strip Seal | Foot | 92.0  |

EJ-SS

1-1-2020

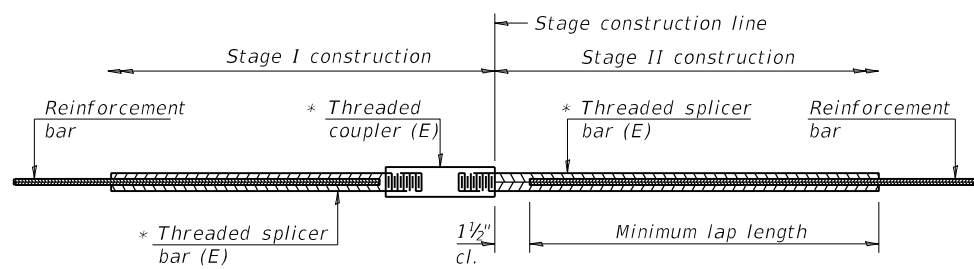
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| PROJECT =                   | DRAWN =               | CHECKED -      | REVISED -              |
| PLOT SCALE = 40.0000' / in. | DATE = 070620         |                |                        |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAIL OF STRIP SEAL JOINT  
S.N. 020-0043

SCALE: NONE SHEET NO. 3 OF 14 SHEETS STA. TO STA.

|                           |         |        |              |           |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RE.                | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 71                        | 15 BR-1 | DEWITT | 24           | 12        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |

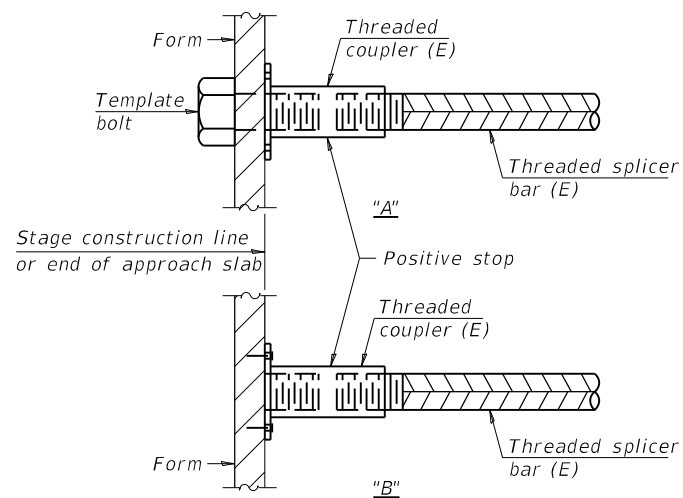


**STANDARD BAR SPLICER ASSEMBLY**

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

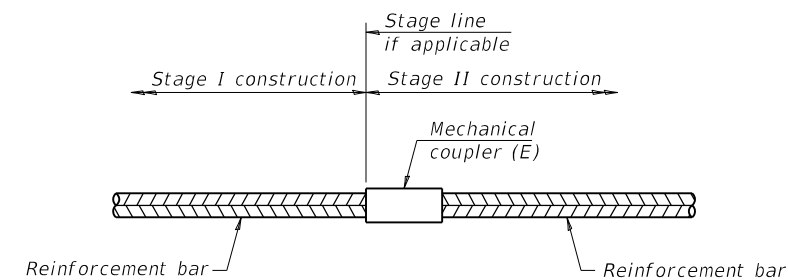
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Location      | Bar size | No. assemblies required | Minimum lap length |
|---------------|----------|-------------------------|--------------------|
| East Abutment | #6       | 4.0                     | 4'-0"              |
| East Deck     | #6       | 7.0                     | 4'-0"              |
| East Deck     | #7       | 6.0                     | 4'-8"              |
| West Abutment | #6       | 4.0                     | 4'-0"              |
| West Deck     | #6       | 7.0                     | 4'-0"              |
| West Deck     | #7       | 6.0                     | 4'-8"              |



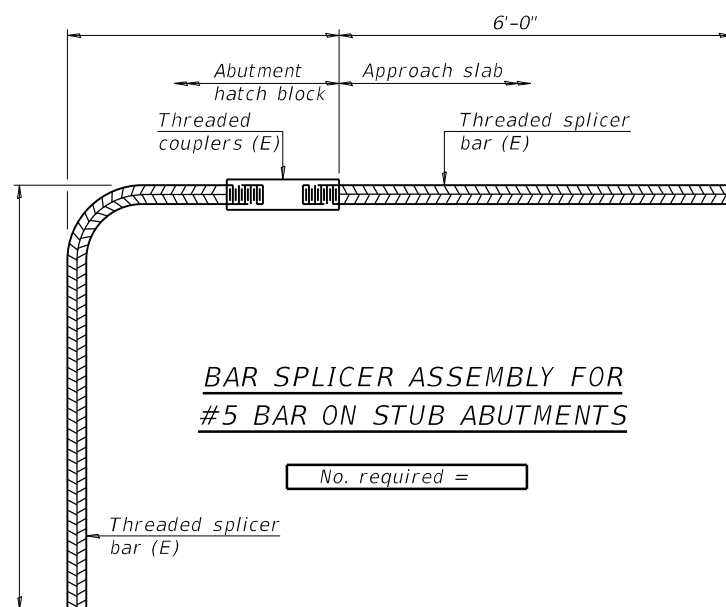
**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.  
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
 (E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
|          |          |                         |
|          |          |                         |
|          |          |                         |
|          |          |                         |



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

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

MODEL: \\MODELS\MHMF5  
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BSD-1 2-17-2017

|                              |                |                        |
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| USER NAME = shererjm         | DESIGNED - JMS | REVISED - 12-11-20 JMS |
| DRAWN - JMS                  | REVISIONS -    |                        |
| PLOT SCALE = 40.0000 ' / in. | CHECKED -      | REVISIONS -            |
| PLOT DATE = 12/11/2020       | DATE - 070620  | REVISIONS -            |

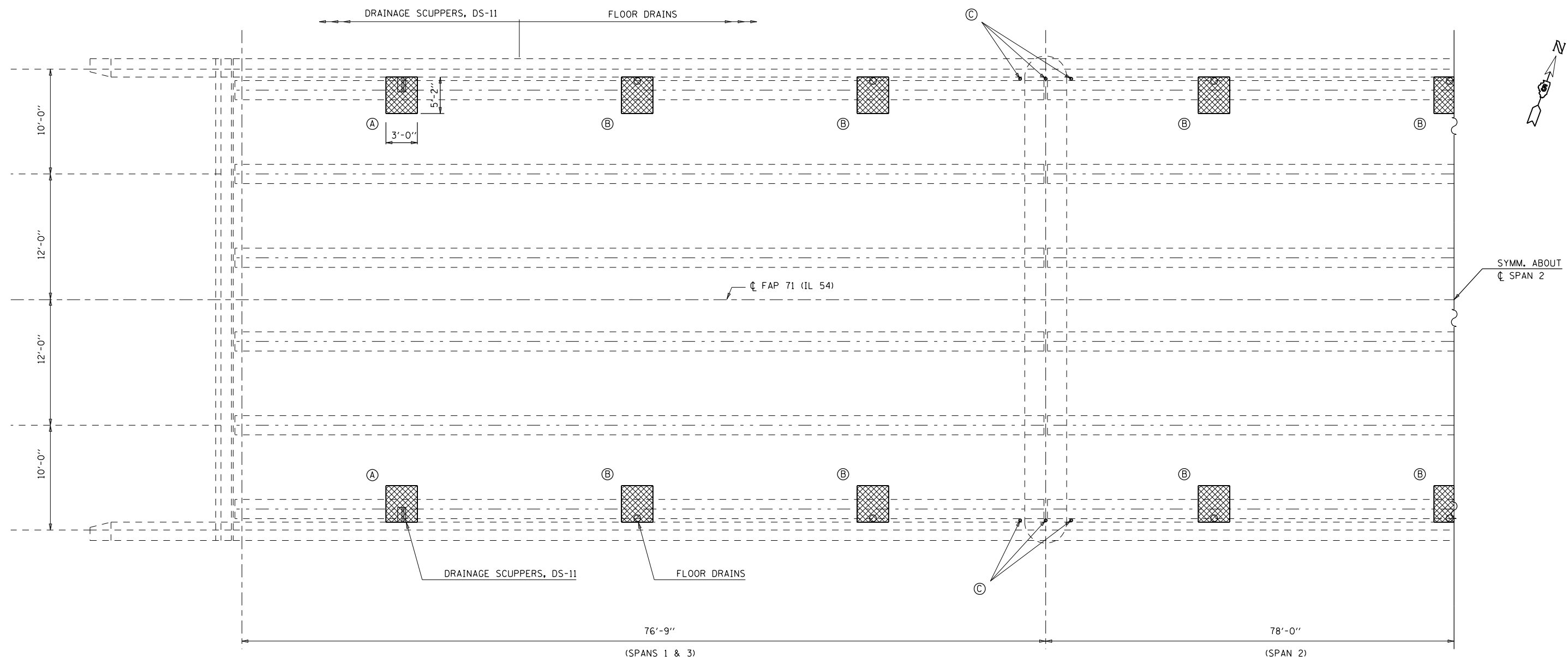
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS**  
S.N. 020-0043

SCALE: NONE SHEET 4 OF 14 SHEETS STA. TO STA.

| F.A.I. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 13        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |

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### HALF PLAN (PROPOSED SCUPPERS/FLOOR DRAINS)

- (A) DRAINAGE SCUPPER, DS-11
- (B) FLOOR DRAINS
- (C) 1/2" Ø DRAIN HOLES TO BE PLUGGED WITH EPOXY CRACK INJECTION PRIOR TO PLACING WEARING SURFACE (COST INCLUDED IN BRIDGE DECK LATEX CONCRETE OVERLAY)

| PATCH | SIZE        |            | DECK SLAB REPAIR (FULL DEPTH T2)<br>SQ YD |
|-------|-------------|------------|---|
|       | LENGTH (FT) | WIDTH (FT) |   |
| A     | 3           | 5.17       | 1.7                                       |
| B     | 3           | 5.17       | 1.7                                       |

TOTAL QTY 4 DRAINAGE SCUPPERS = 6.8  
 TOTAL QTY 14 FLOOR DRAINS = 23.8  
 TOTAL QTY = 30.6  
 USE = 31.0

#### BILL OF MATERIALS

| ITEM                                  | UNIT  | TOTAL |
|---------------------------------------|-------|-------|
| DECK SLAB REPAIR (FULL DEPTH TYPE II) | SQ YD | 31.0  |

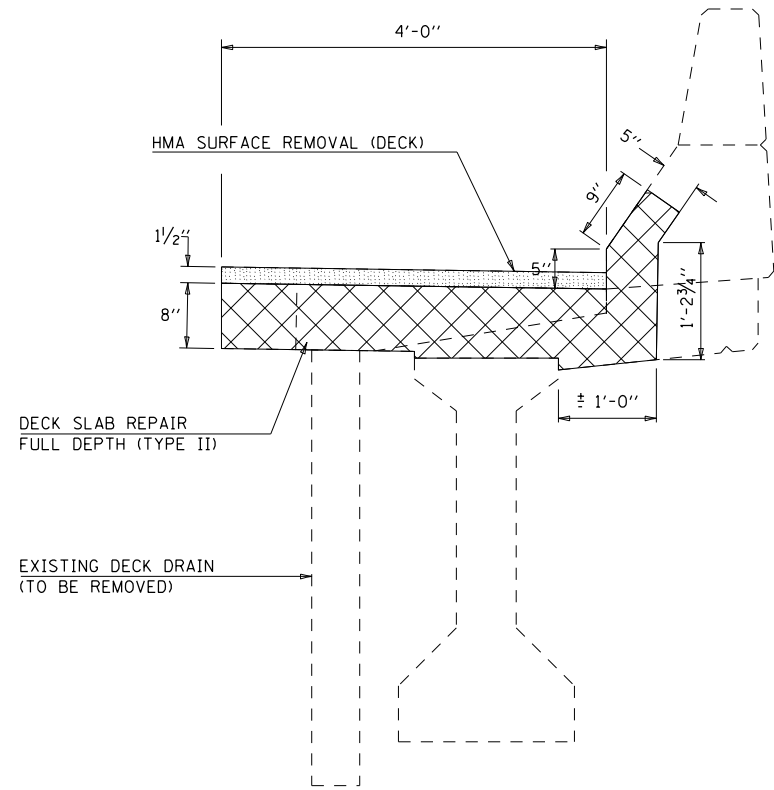
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| USER NAME = shererjm        | DESIGNED - JMS | REVISED - |
| DRAWN - JMS                 | CHECKED -      | REVISED - |
| PLOT SCALE = 40.0000' / in. | DATE - 052020  | REVISED - |
| PLOT DATE = 11/5/2020       |                |           |

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

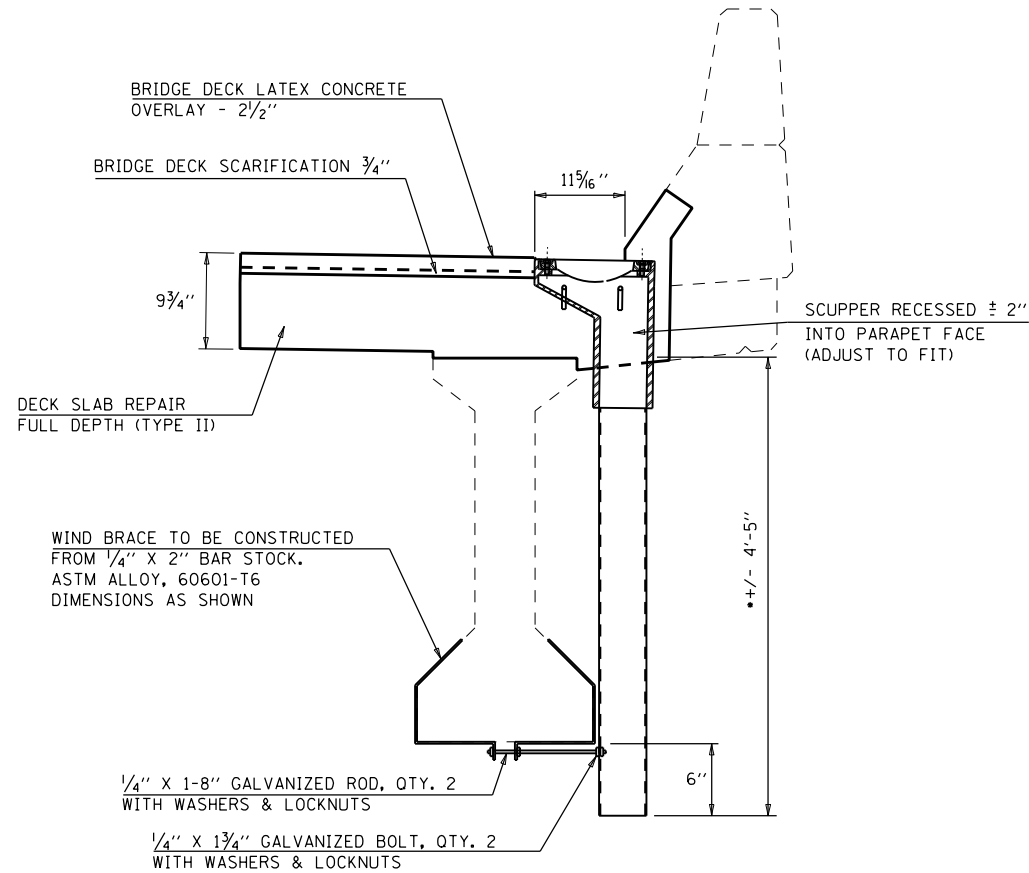
**DETAIL OF PROPOSED DRAINAGE STRUCTURES**  
**S.N. 020-0043**

SCALE: NONE    SHEET 5 OF 14 SHEETS    STA.    TO STA.

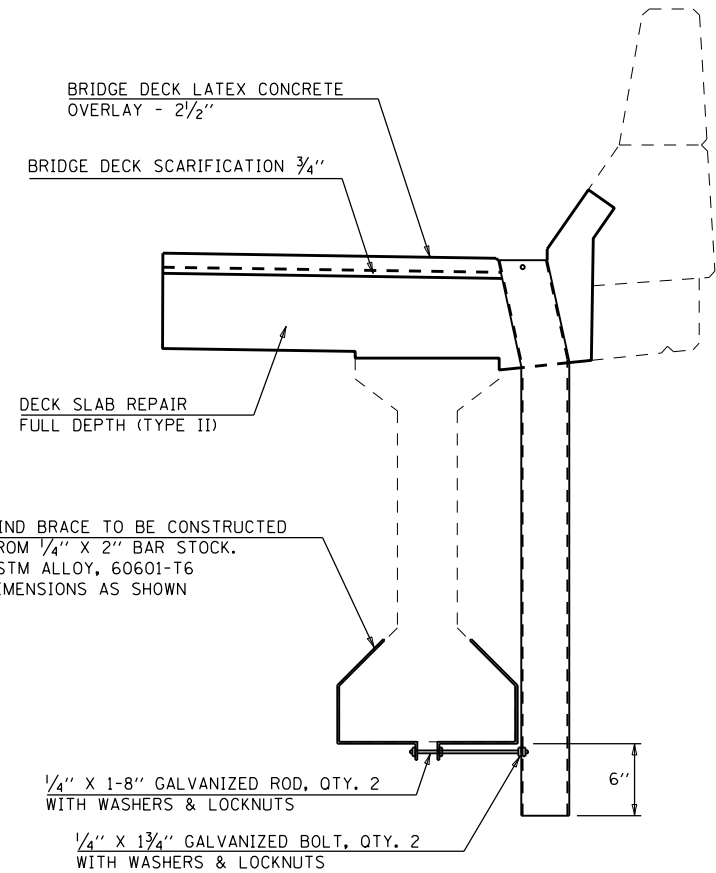
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 14        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



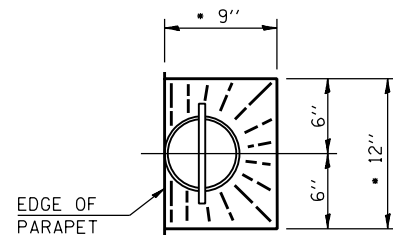
SECTION AT EXISTING DRAIN



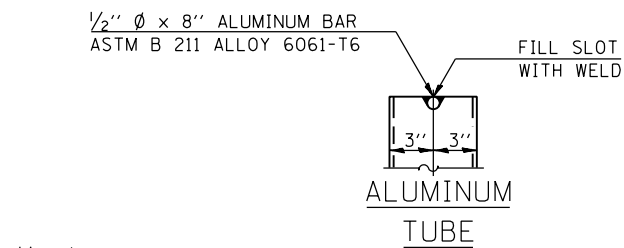
SECTION AT DRAINAGE SCUPPER, DS-11  
(SEE DETAIL OF DRAINAGE SCUPPER, DS-11)



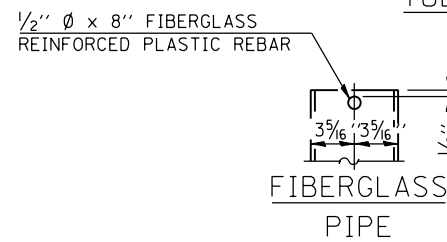
SECTION AT FLOOR DRAINS



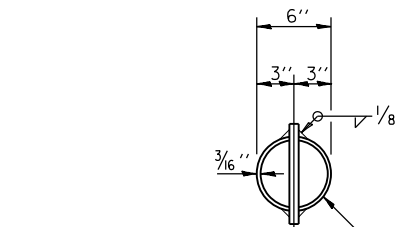
TOP PLAN  
• SLOPE TO DRAIN



ALUMINUM TUBE

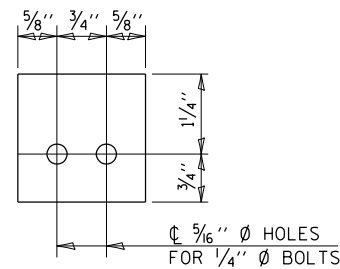


FIBERGLASS PIPE

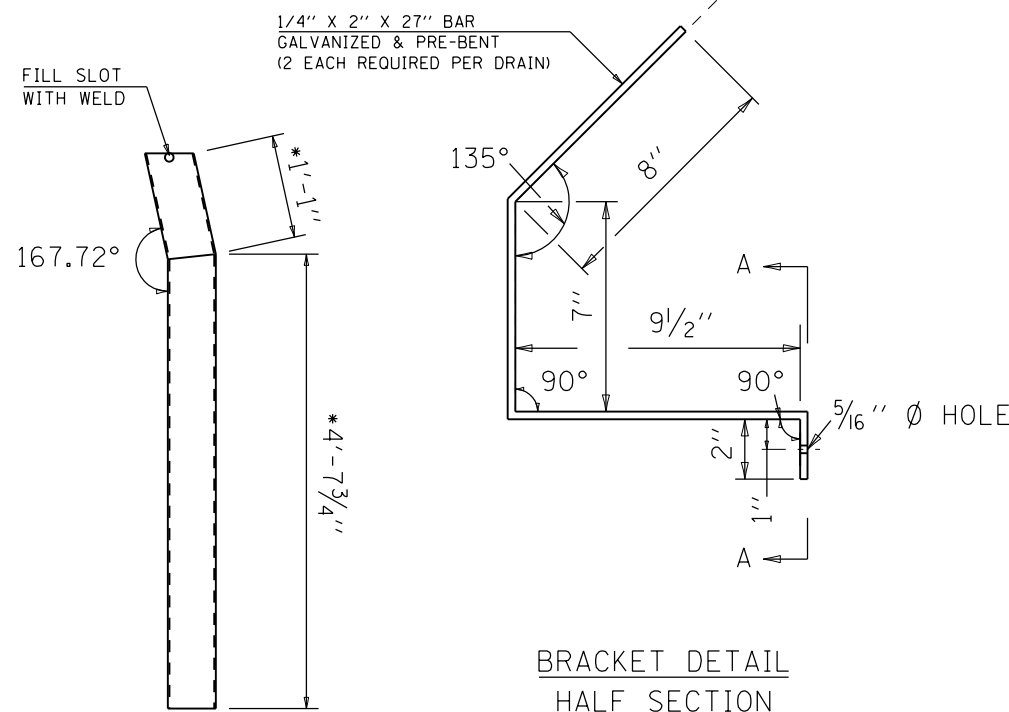


6" O.D. ALUMINUM TUBE ALLOY 6061-T6 OR 6" Ø FIBERGLASS PIPE

TOP PLAN  
(ALUMINUM TUBE SHOWN)



SECTION A-A



BRACKET DETAIL  
HALF SECTION

•DIMENSIONS TO BE FIELD VERIFIED

NOTES:

FLOOR DRAINS NEED NOT BE PAINTED.

FIBERGLASS PIPE SHALL CONFORM TO ASTM D 2996, WITH SHORT-TIME RUPTURE STRENGTH HOOP TENSILE STRESS OF 30,000 P.S.I. MINIMUM.

ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING OF MATERIALS.

COST OF REMOVAL OF EXISTING SCUPPERS IS INCLUDED IN DECK SLAB REPAIR.

COST OF WIND BRACE INCLUDED IN FLOOR DRAINS.

BILL OF MATERIALS

| ITEM         | UNIT | TOTAL |
|--------------|------|-------|
| FLOOR DRAINS | EACH | 14.0  |

MODEL: \\MODELS\MHMS  
 FILE: \\models\pub\pbl\m\dot\Documents\DOT\_Offices\Dratet\B\Projects\DS70C93\CADD\Bridges\Structures\70C93\sh-StructurePlans.dgn

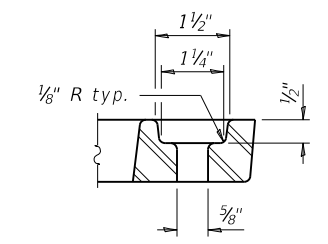
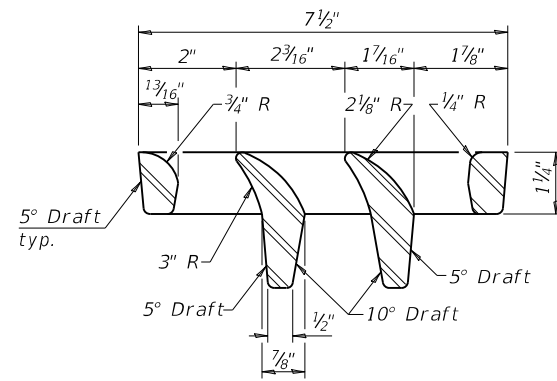
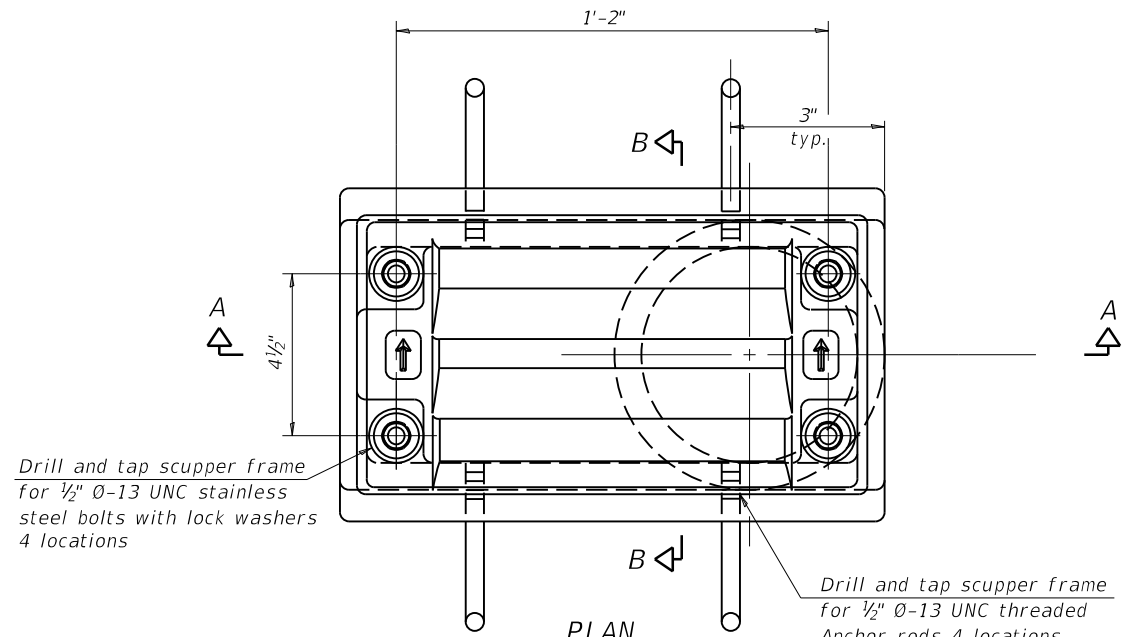
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| USER NAME = shererJM         | DESIGNED - JMS | REVISED - |
| DRAWN - JMS                  | REVISIONS -    |           |
| PLOT SCALE = 40.0000 ' / in. | CHECKED -      | REVISED - |
| PLOT DATE = 11/5/2020        | DATE - 052020  | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

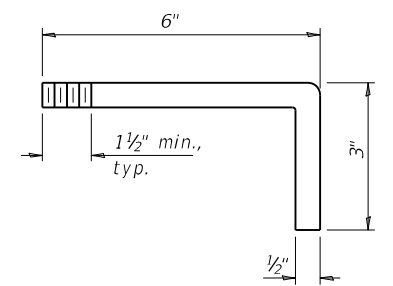
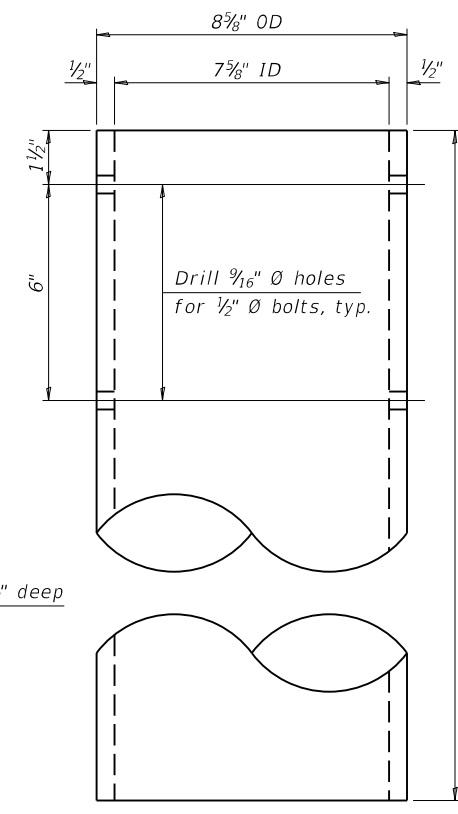
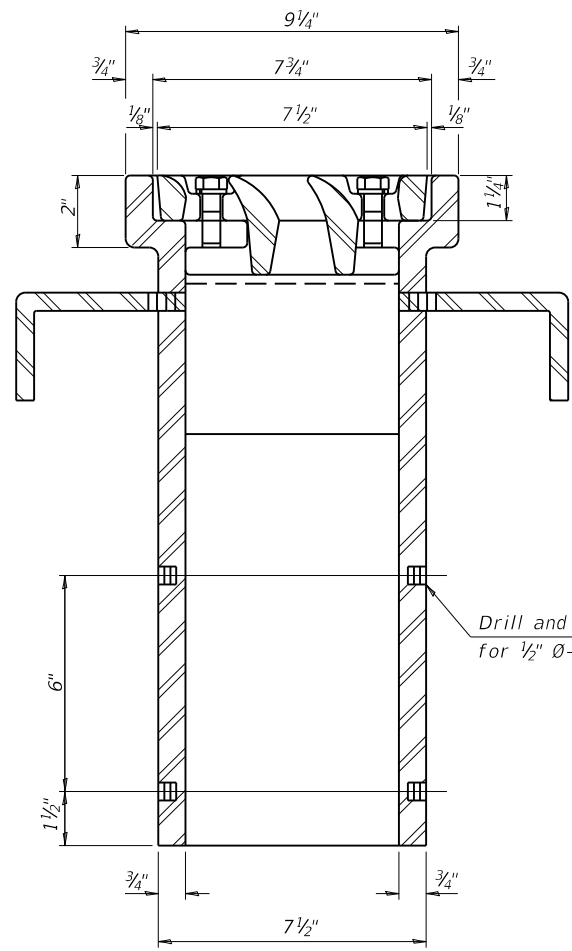
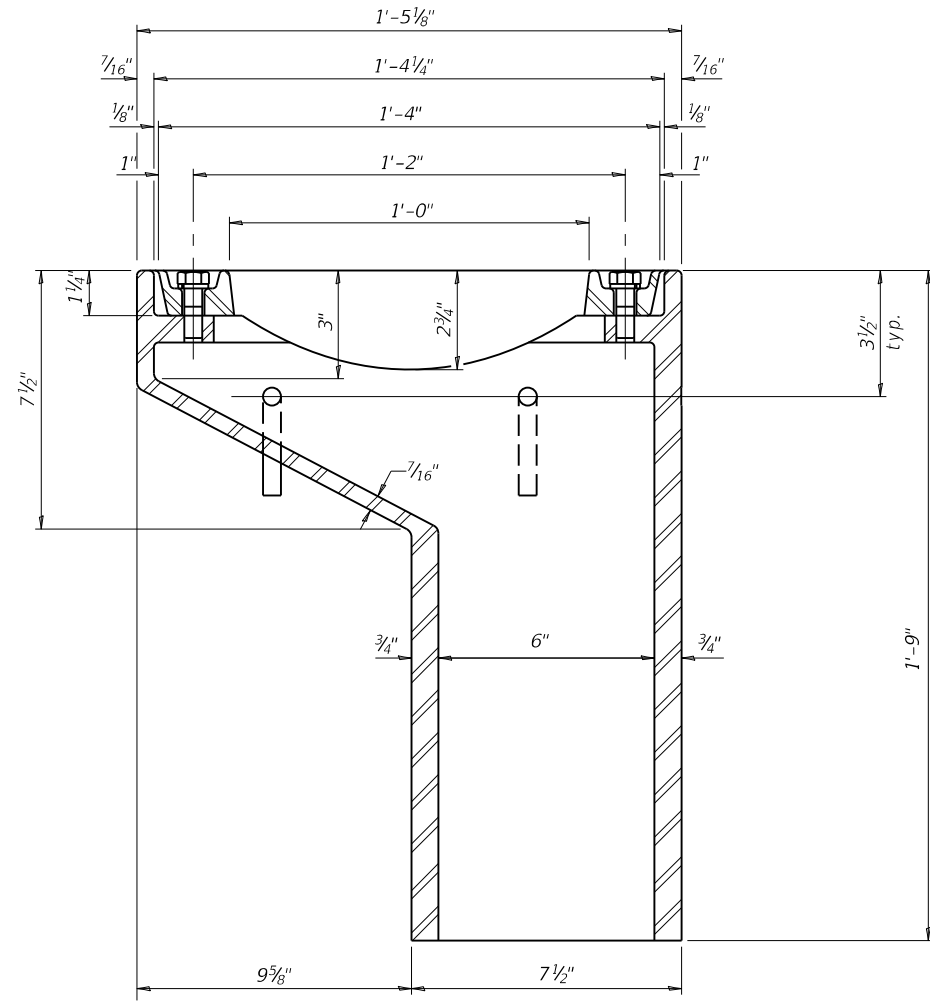
DETAIL OF DRAINAGE SCUPPERS /FLOOR DRAINS  
S.N. 020-0043

SCALE: NONE SHEET 6 OF 14 SHEETS STA. TO STA.

| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 15        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



Notes:  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.  
 Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.  
 Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.  
 Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.  
 As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.  
 Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be treated as specified on sheet of .  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-11.



See sheet of for scupper location relative to parapet.

Drill and tap 4 holes 1/2" deep for 1/2" Ø-13 UNC bolts.

**DOWNSPOUT**

**BILL OF MATERIAL**

| ITEM                    | UNIT | QUANTITY |
|-------------------------|------|----------|
| Drainage Scupper, DS-11 | Each | 4.0      |

DS-11

1-1-2020

|                              |                |           |
|------------------------------|----------------|-----------|
| USER NAME = shererjm         | DESIGNED - JMS | REVISED - |
| PLOT SCALE = 40.0000 ' / in. | DRAWN - JMS    | REVISED - |
| PLOT DATE = 11/5/2020        | CHECKED -      | REVISED - |
|                              | DATE - 052020  | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

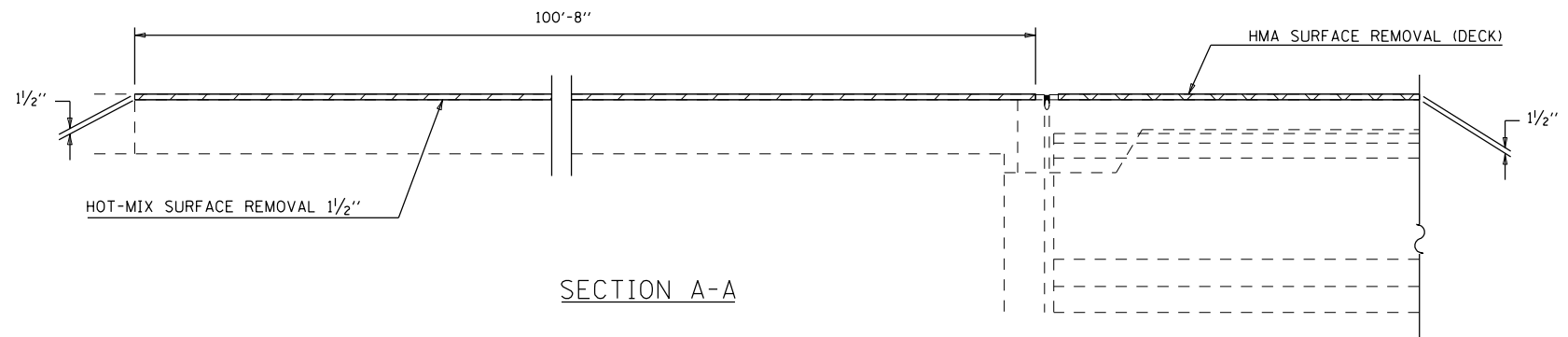
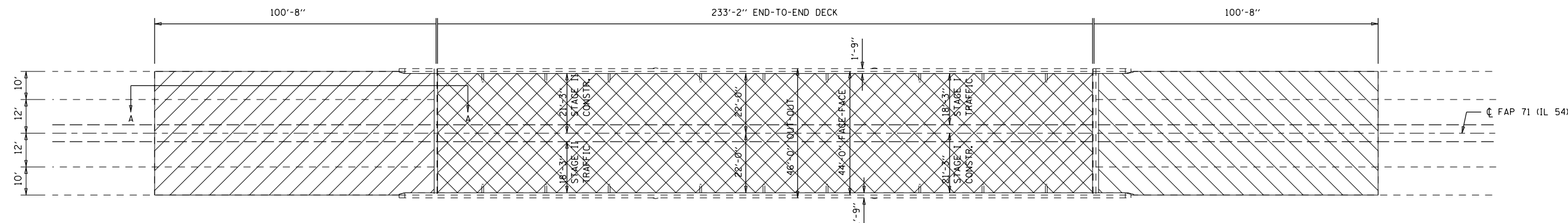
DRAINAGE SCUPPERS, DS-11  
S.N. 020-0043

SCALE: NONE SHEET 7 OF 14 SHEETS STA. TO STA.

|                    |         |        |                           |           |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.P. RTE.        | SECTION | COUNTY | TOTAL SHEETS              | SHEET NO. |
| 71                 | 15 BR-1 | DEWITT | 24                        | 16        |
| CONTRACT NO. 70C93 |         |        | ILLINOIS FED. AID PROJECT |           |

MODEL: I:\MODELS\MHFS  
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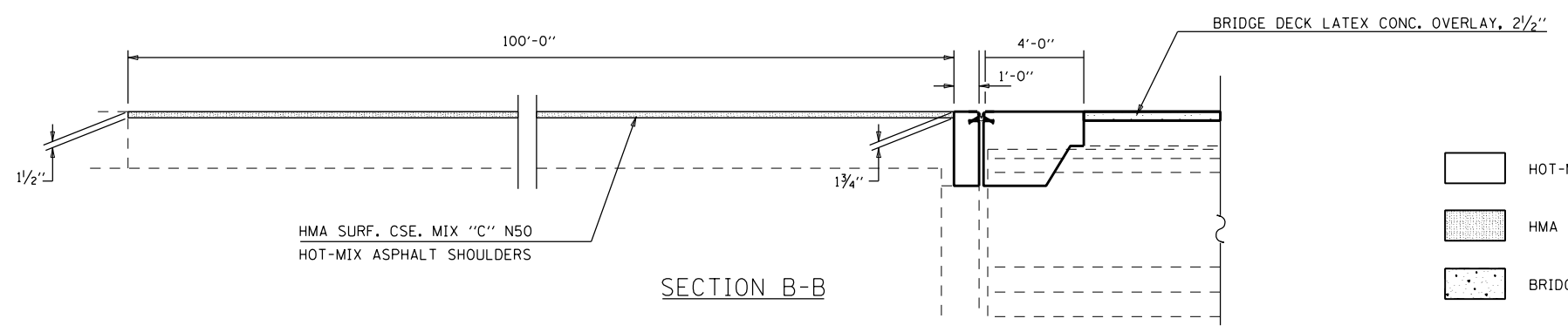
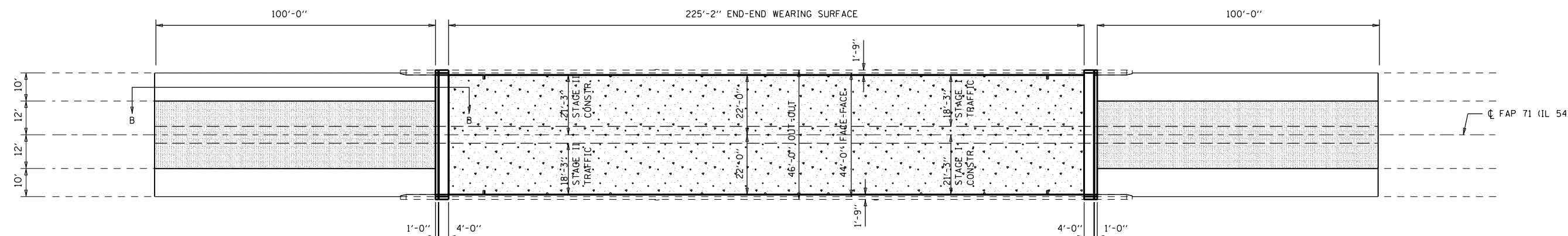


SEE EXPANSION JOINT DETAILS SHEET OF  
SEE DETAIL OF PATCHING AT DRAINAGE SCUPPERS SHEET OF

- HMA SURFACE REMOVAL (DECK)
- HOT-MIX SURFACE REMOVAL 1/2"

**BILL OF MATERIALS**

| ITEM                             | UNIT  | TOTAL   |
|----------------------------------|-------|---------|
| BRIDGE DECK SCARIFICATION - 3/4" | SQ YD | 1,064.0 |
| HMA SURFACE REMOVAL 1/2"         | SQ YD | 985.0   |
| HMA SURFACE REMOVAL (DECK)       | SQ YD | 1,102.0 |



SEE EXPANSION JOINT DETAILS SHEET 2 OF 14  
SEE DETAIL OF PROPOSED DRAINAGE STRUCTURES 5 SHEET 14 OF

- HOT-MIX ASPHALT SHOULDERS
- HMA SURF. CSE. IL 9.5 MIX "C" N50
- BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2"

**BILL OF MATERIALS**

| ITEM                                | UNIT  | TOTAL   |
|-------------------------------------|-------|---------|
| HMA SURF COURSE, IL 9.5 MIX "C" N50 | TON   | 49.0    |
| HOT-MIX ASPHALT SHOULDERS           | TON   | 41.0    |
| BRIDGE DECK LATEX CONC OVLY, 2 1/2" | SQ YD | 1,064.0 |
| BRIDGE DECK GROOVING                | SQ YD | 1,075.0 |

MODEL: \\MODELS\MHMF5  
 FILE: \\mshs\proj\p150000\dat\illinois\p150000\Documents\DOT Office\Drawings\Projects\0520C93\CADD\Drawings\Structures\70C93-ash-StructurePlans.dgn

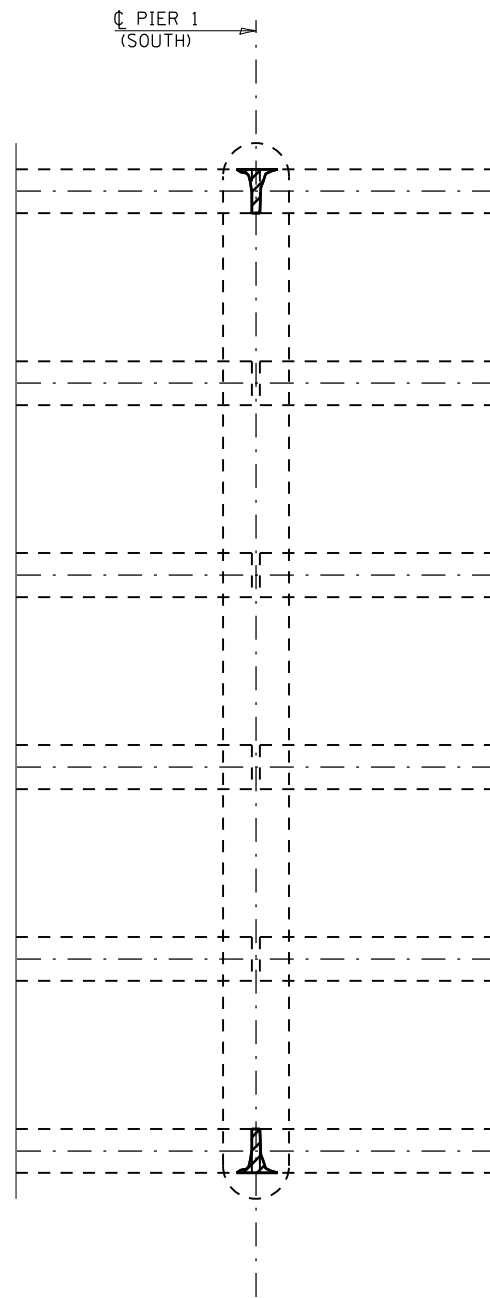
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|-----------------------------|----------------|-----------|
| USER NAME = shererJM        | DESIGNED - JMS | REVISED - |
| PLOT SCALE = 40.0000' / in. | DRAWN - JMS    | REVISED - |
| PLOT DATE = 11/17/2020      | CHECKED -      | REVISED - |
|                             | DATE - 052020  | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

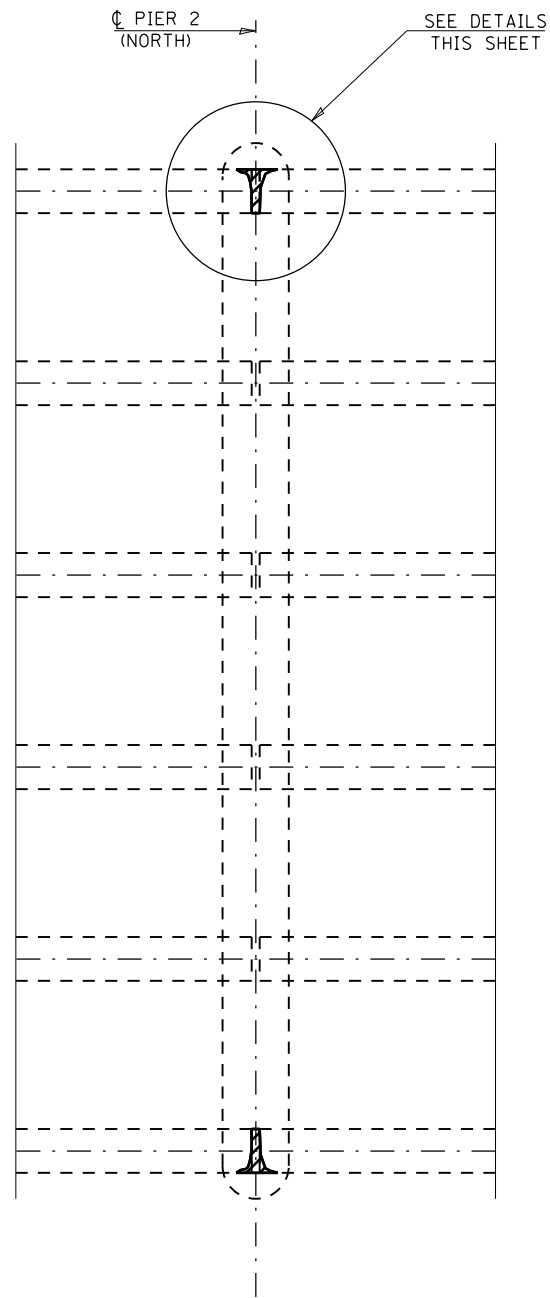
**WEARING SURFACE PLAN  
S.N. 020-0043**

SCALE: 1" = 20'    SHEET 8    OF 14 SHEETS    STA.    TO STA.

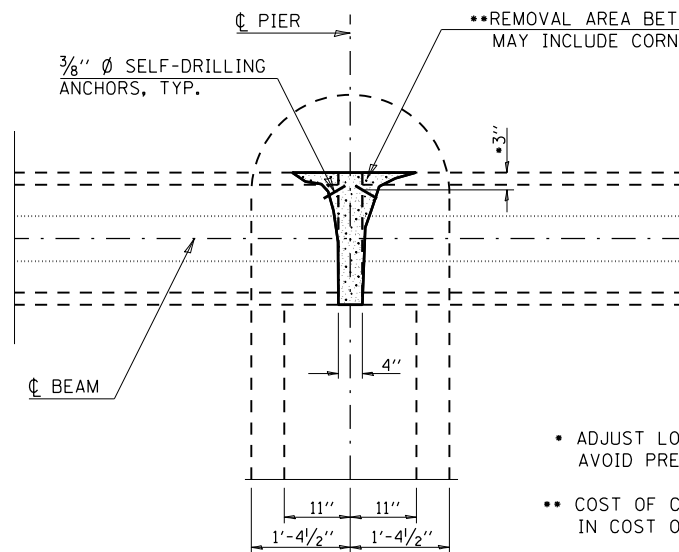
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 17        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



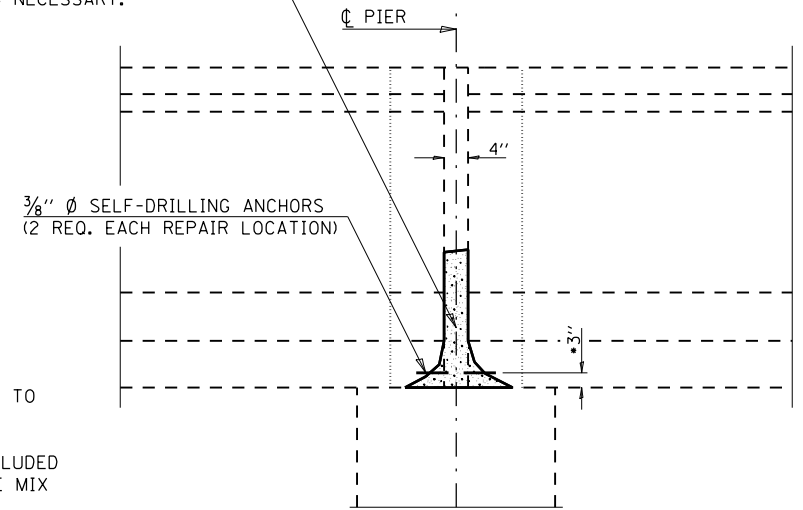
PLAN AT PIER 1  
(SHOWING REPAIR LOCATIONS)



PLAN AT PIER 2  
(SHOWING REPAIR LOCATIONS)



PLAN  
(COMPRESSION BLOCK REPAIR)



ELEVATION  
(COMPRESSION BLOCK REPAIR)

- ADJUST LOCATION AS NECESSARY TO AVOID PRESTRESSING STRANDS
- COST OF CONCRETE REMOVAL INCLUDED IN COST OF PUMPABLE CONCRETE MIX

**NOTES**

THE REMOVAL OF THE EXISTING CONCRETE AT THE COMPRESSION BLOCK REPAIR LOCATIONS SHALL BE LIMITED TO ALL LOOSE OR DELAMINATED CONCRETE ONLY. THE CONTRACTOR SHALL USE EXTREME CARE DURING THIS REMOVAL PROCESS TO PREVENT ANY DAMAGE TO THE EXISTING PRE-STRESSING STRANDS. SPECIAL ATTENTION SHALL ALSO BE GIVEN WHEN USING SELF-DRILLING ANCHORS IN THE PATCH AREAS. THE ANCHORS SHOULD NOT MAKE CONTACT WITH ANY OF THE PRE-STRESSING STRANDS.

THE CONTRACTOR SHALL USE A PUMPABLE CONCRETE MIX FOR THE REPAIR. SEE SPECIAL PROVISION FOR PUMPABLE CONCRETE MIX FOR MIX REQUIREMENTS. COSTS FOR ALL WORK AND MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN ON THIS SHEET SHALL BE INCLUDED IN COST OF PUMPABLE CONCRETE MIX.

**BILL OF MATERIALS**

| ITEM                  | UNIT  | TOTAL |
|-----------------------|-------|-------|
| PUMPABLE CONCRETE MIX | CU FT | 3.0   |
|                       |       |       |

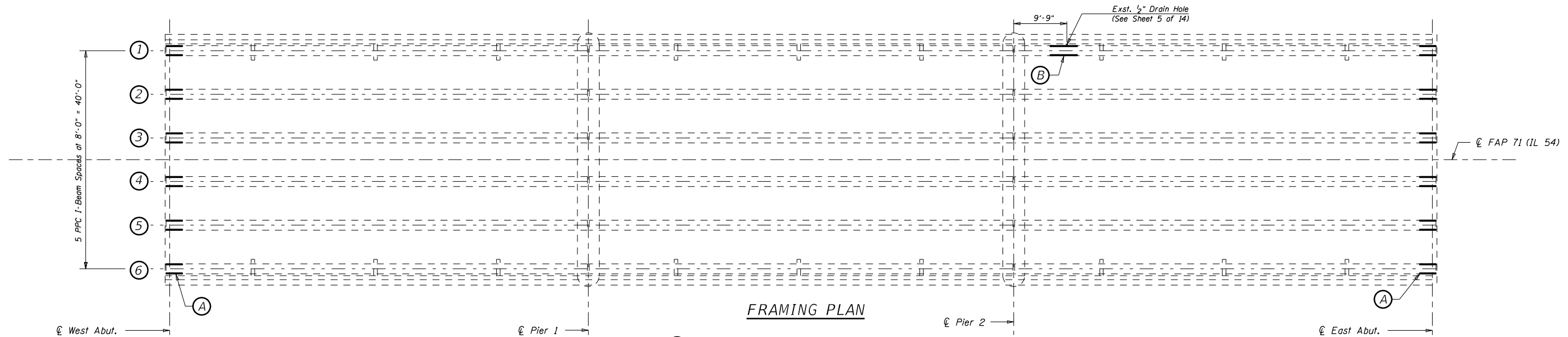
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|-------------|----------------------|----------------|-----------|
| FILE NAME = | USER NAME = shererJM | DESIGNED - GMS | REVISED - |
|             |                      |                |           |
|             |                      |                |           |
|             |                      |                |           |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**COMPRESSION BLOCK REPAIRS  
S.N. 020-0043**

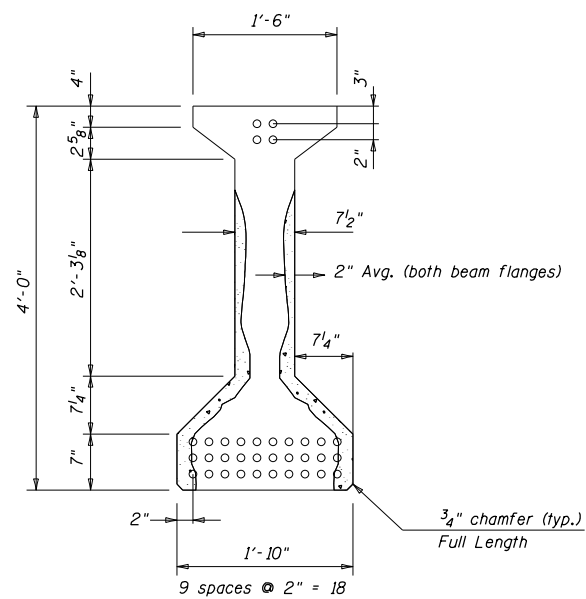
SCALE: NONE      SHEET NO. 9 OF 14 SHEETS      STA.      TO STA.

|   |         |        |              |           |
|---|---------|--------|--------------|-----------|
| F.A.P. RTE.                                   | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 71  | 15 BR-1 | DEWITT | 24           | 18        |
| CONTRACT NO. 70C931                           |         |        |              |           |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |         |        |              |           |

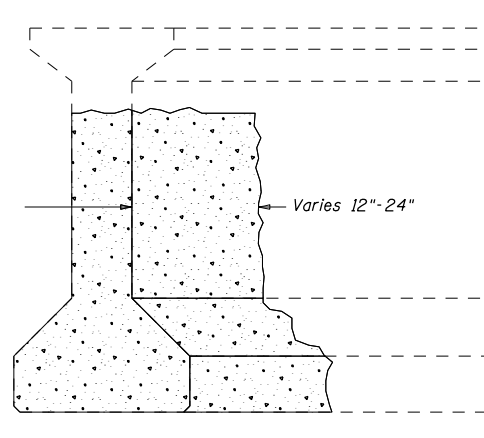


**FRAMING PLAN**

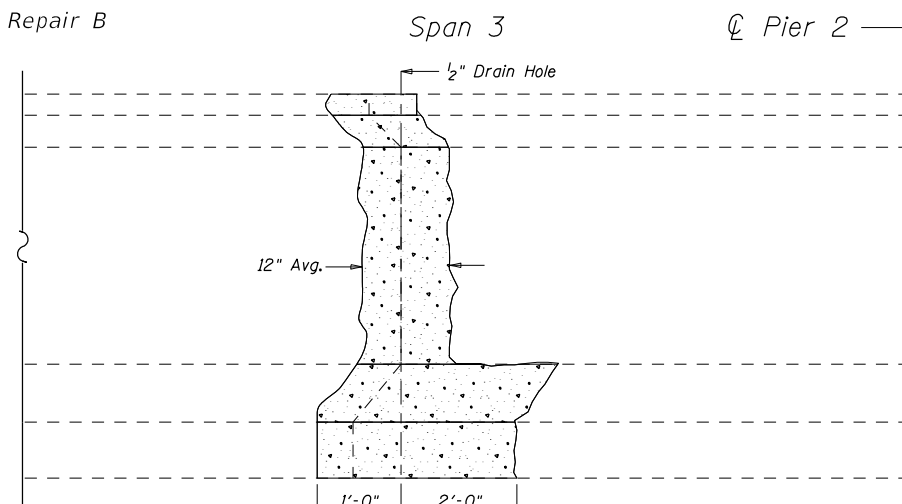
- (A) Location of PPC I-Beam Repair - Repair A
- (B) Location of PPC I-Beam Repair - Repair B



**CROSS-SECTION**  
(Showing Dimensions & Pre-Stressing Strands)



**ISOMETRIC VIEW BEAM ENDS**  
(West Abutment Shown, East Abutment Similar)



**ISOMETRIC VIEW BEAM ENDS**  
(Beam 1 Looking South, East of Pier #2)

**NOTES**

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

The existing concrete surface shall be cleaned and prepared in accordance with the Special Provisions.

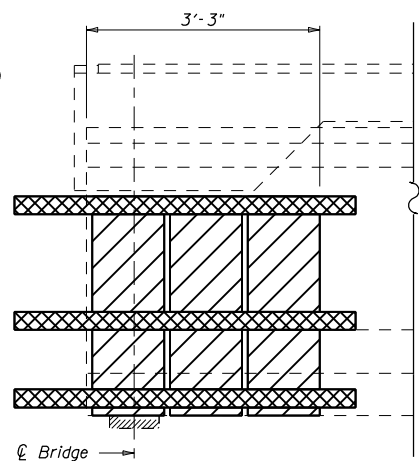
See Special Provision for "FRP Strengthening for PPC I-Beam Repairs".  
See Special Provision for "Precast Prestressed I-Beam Repairs".

Acrylic Coating shall be placed over the Fiber Wrap repairs. Two Coats shall be applied.

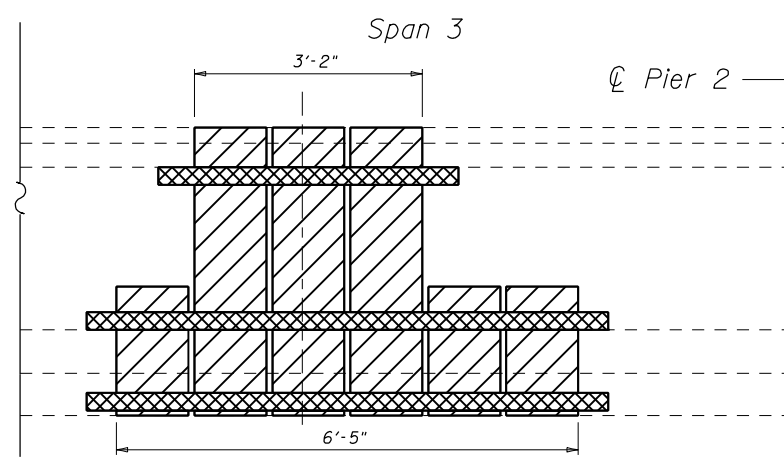
**BILL OF MATERIAL**

| Item                                       | Unit    | Total |
|--|---------|-------|
| Fiber Wrap                                 | Sq. Ft. | 315.0 |
| Acrylic Coating                            | Sq. Yd. | 39.0  |
| Precast Prestressed Concrete I-Beam Repair | Sq. Ft. | 303.0 |

- Precast Prestressed Concrete I-Beam Repair
- Fiber Wrap
- Fiber Wrap (Strips)



**REPAIR A**  
(12 Locations)



**REPAIR B**  
(1 Locations)

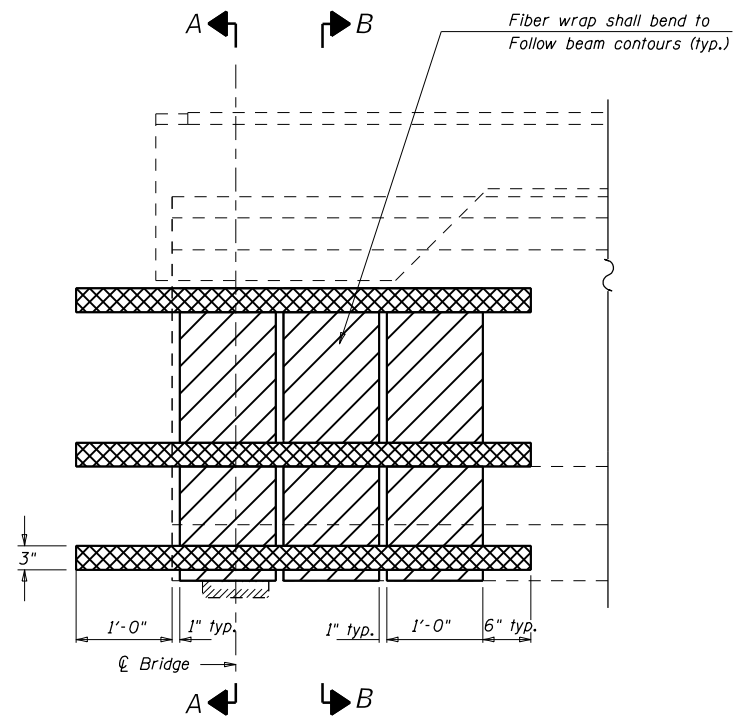
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| FILE NAME =                 | USER NAME = sherer-JM | DESIGNED - JMS | REVISED - 12-11-20 JMS |
| PROJECT =                   | PROJECT =             | CHECKED -      | REVISED -              |
| PLOT SCALE = 40.0000' / in. | DATE = 030518         | CHECKED -      | REVISED -              |
| PLOT DATE = 12/11/2020      | DATE = 030518         | CHECKED -      | REVISED -              |

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

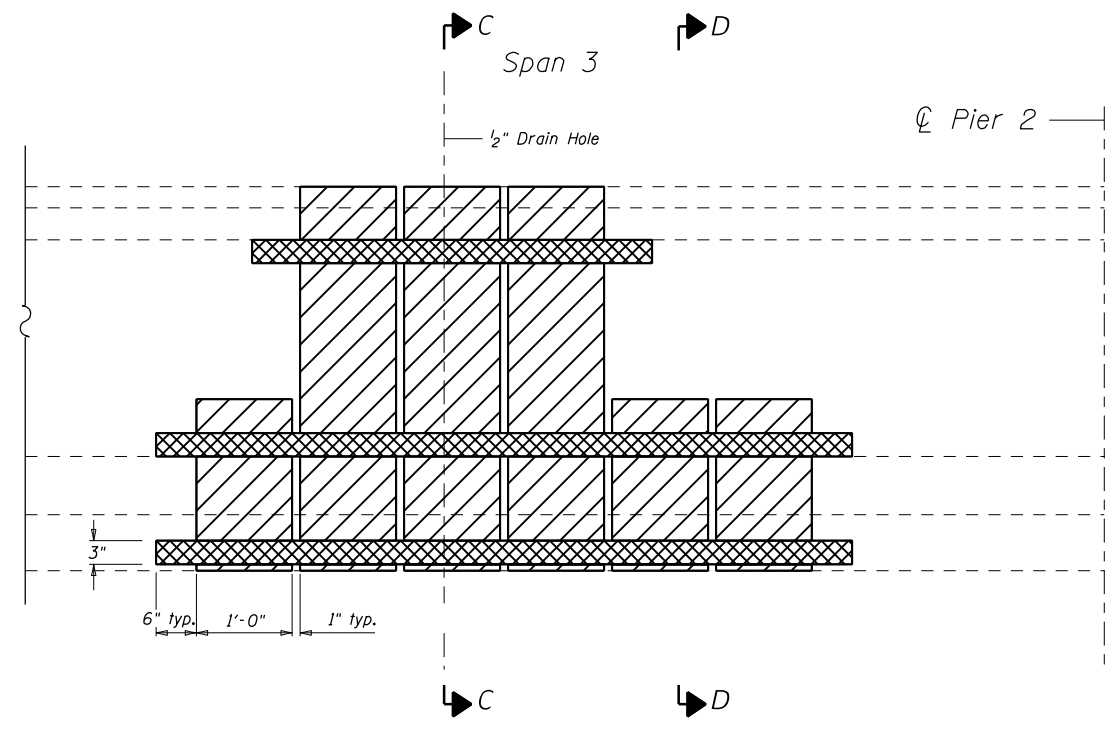
**GENERAL PLAN FRP**  
**S.N. 020-0043**

SCALE: NONE SHEET NO. 10 OF 14 SHEETS STA. TO STA.

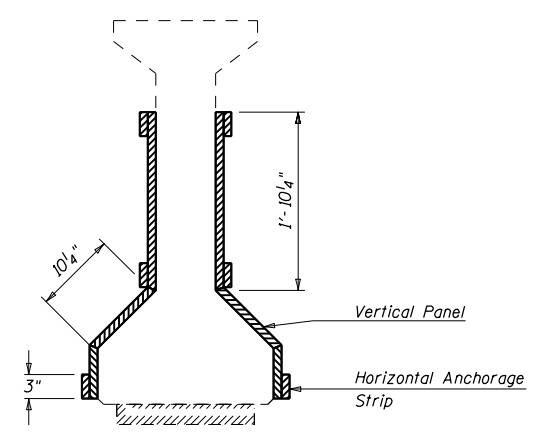
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|---------------------------|---------|--------|--------------|-----------|
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 71                        | 15 BR-1 | DEWITT | 24           | 19        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



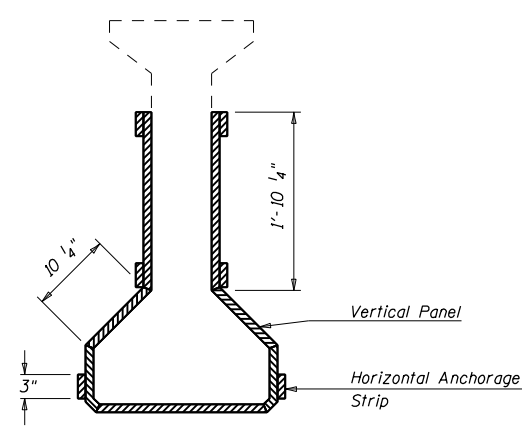
TYPICAL BEAM END ELEVATION



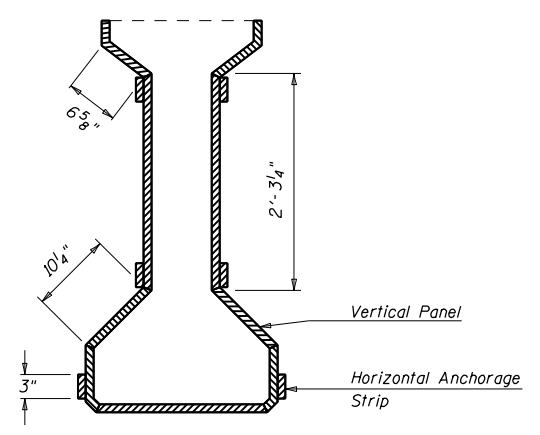
TYPICAL BEAM END ELEVATION  
MID SPAN



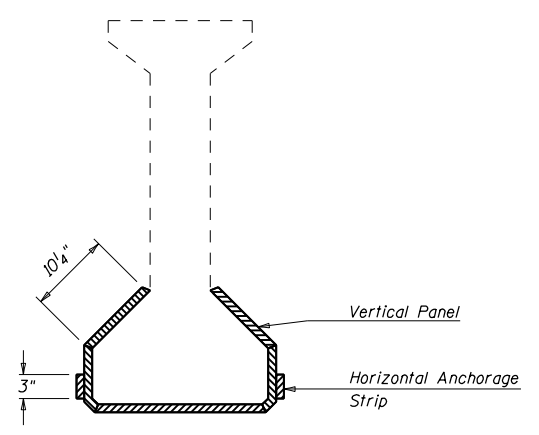
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

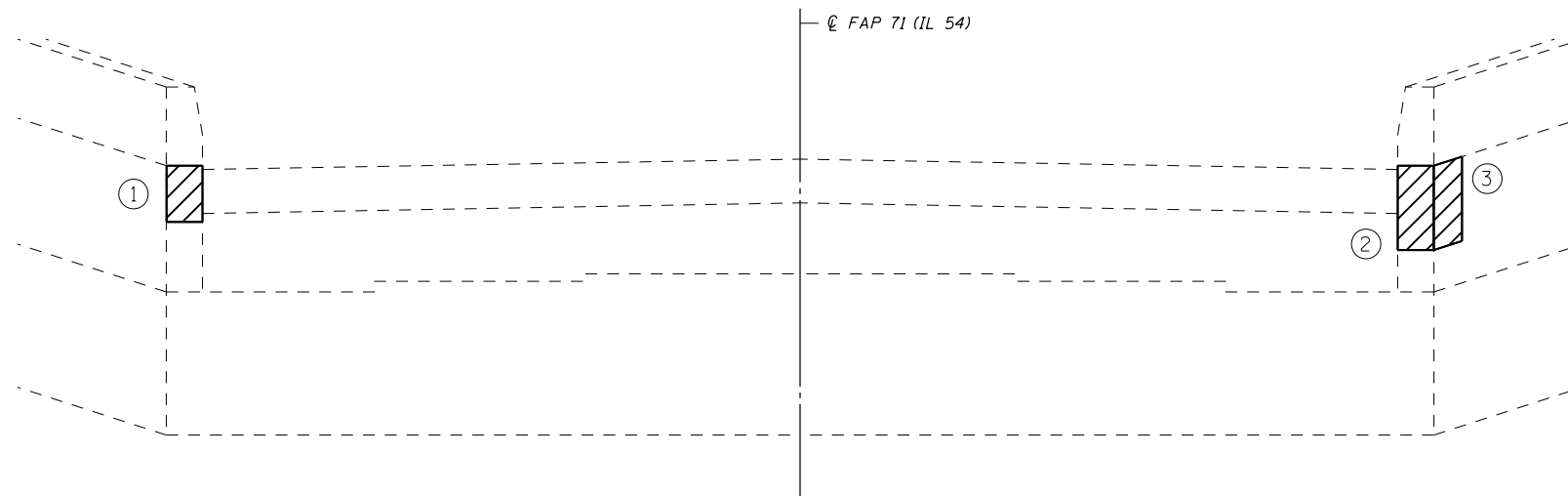
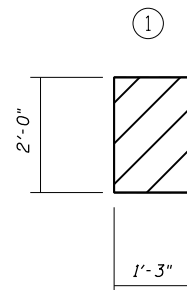
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|  | PLOT SCALE = 40.0000' / in. | DATE - 030518  | REVISED -              |
|  | PLOT DATE = 12/11/2020      |                |                        |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

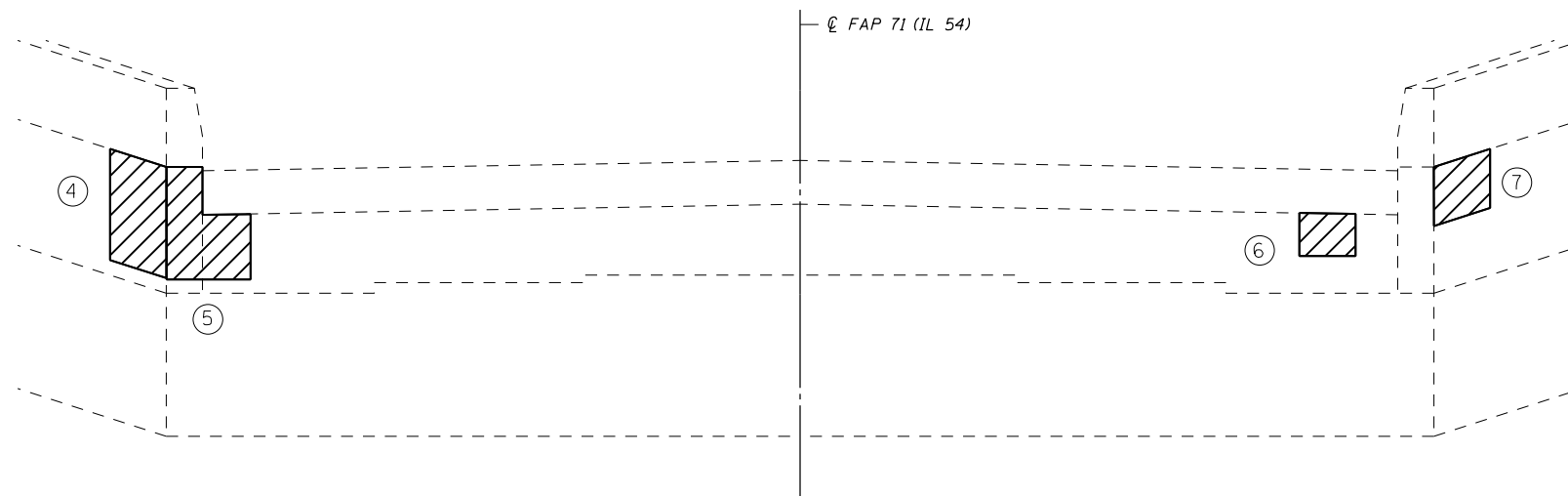
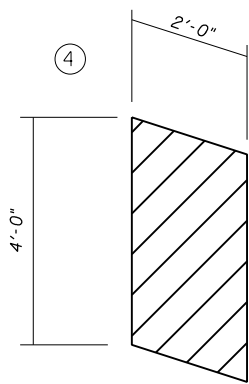
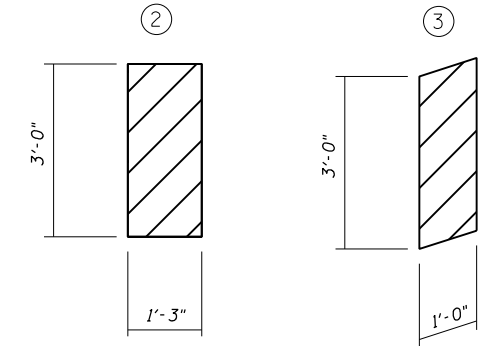
REPAIR DETAILS FRP  
S.N. 020-0043

SCALE: NONE SHEET NO. 11 OF 14 SHEETS STA. TO STA.

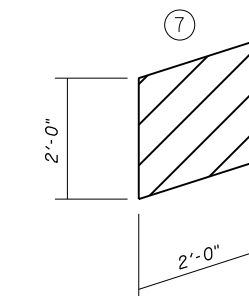
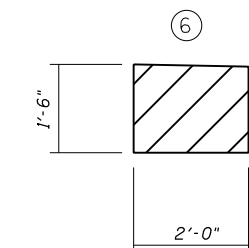
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 20        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



**ABUTMENT ELEVATION**  
(East Abutment Looking East)

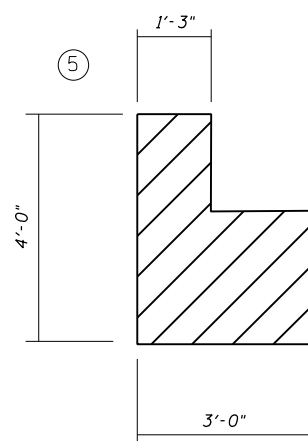


**ABUTMENT ELEVATION**  
(West Abutment Looking West)



**BILL OF MATERIAL**  
(EAST & WEST ABUTMENT)

| Item  | Unit  | Total |
|---|-------|-------|
| Structural Repair of Concrete<br>(Depth) <=5" | Sq Ft | 33.4  |

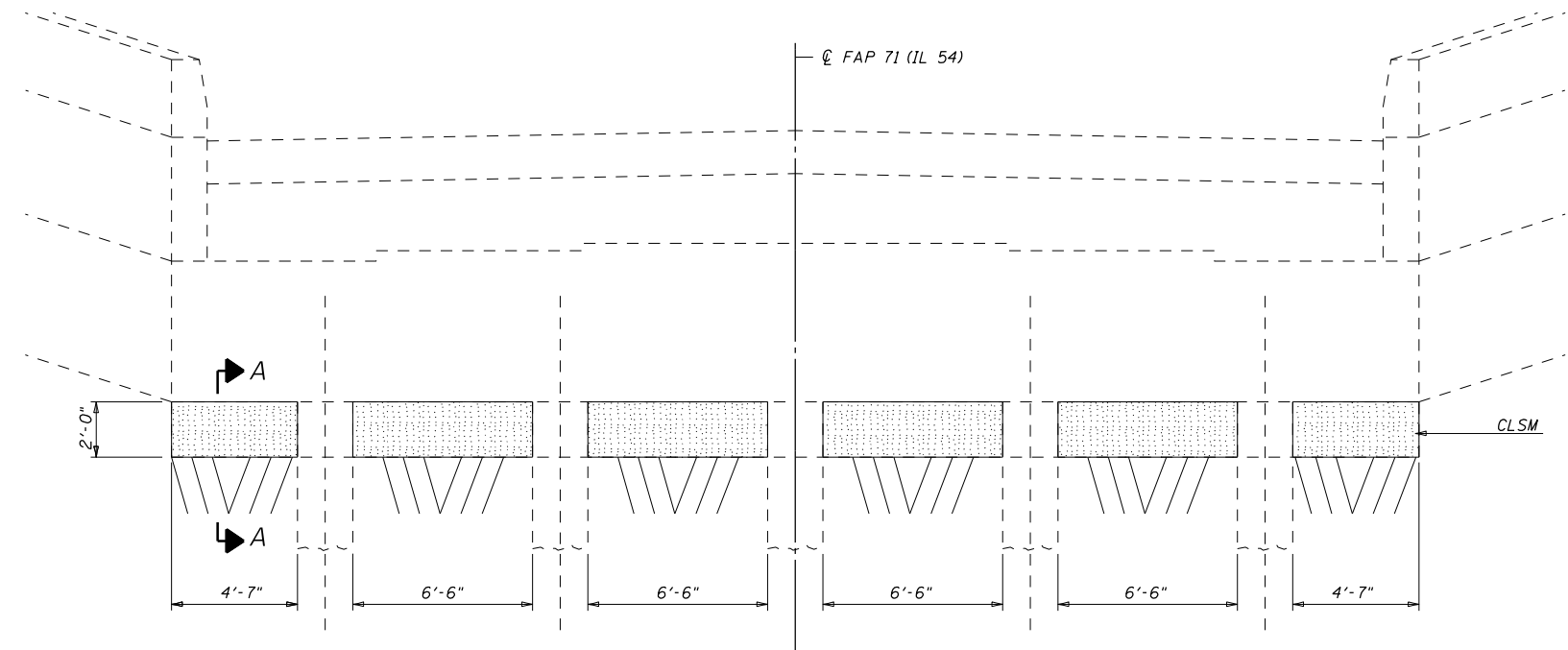


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|   | PLOT SCALE = 40.0000' / in. | CHECKED -      | REVISED - |
|   | PLOT DATE = 11/5/2020       | DATE - 030518  | REVISED - |

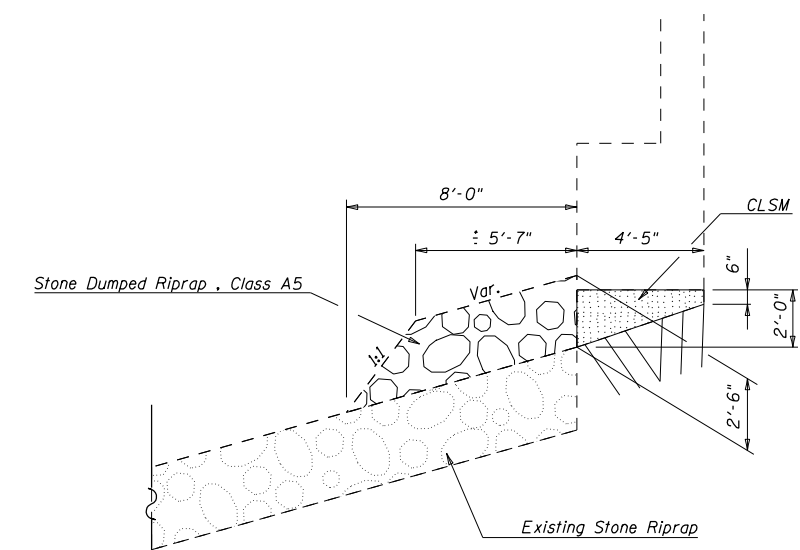
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

|   |                           |      |         |
|---|---------------------------|------|---------|
| <b>DETAIL OF STRUCTURAL REPAIR</b>        |                           |      |         |
| <b>OF CONCRETE &lt;= 5" S.N. 020-0043</b> |                           |      |         |
| SCALE: NONE                               | SHEET NO. 12 OF 14 SHEETS | STA. | TO STA. |

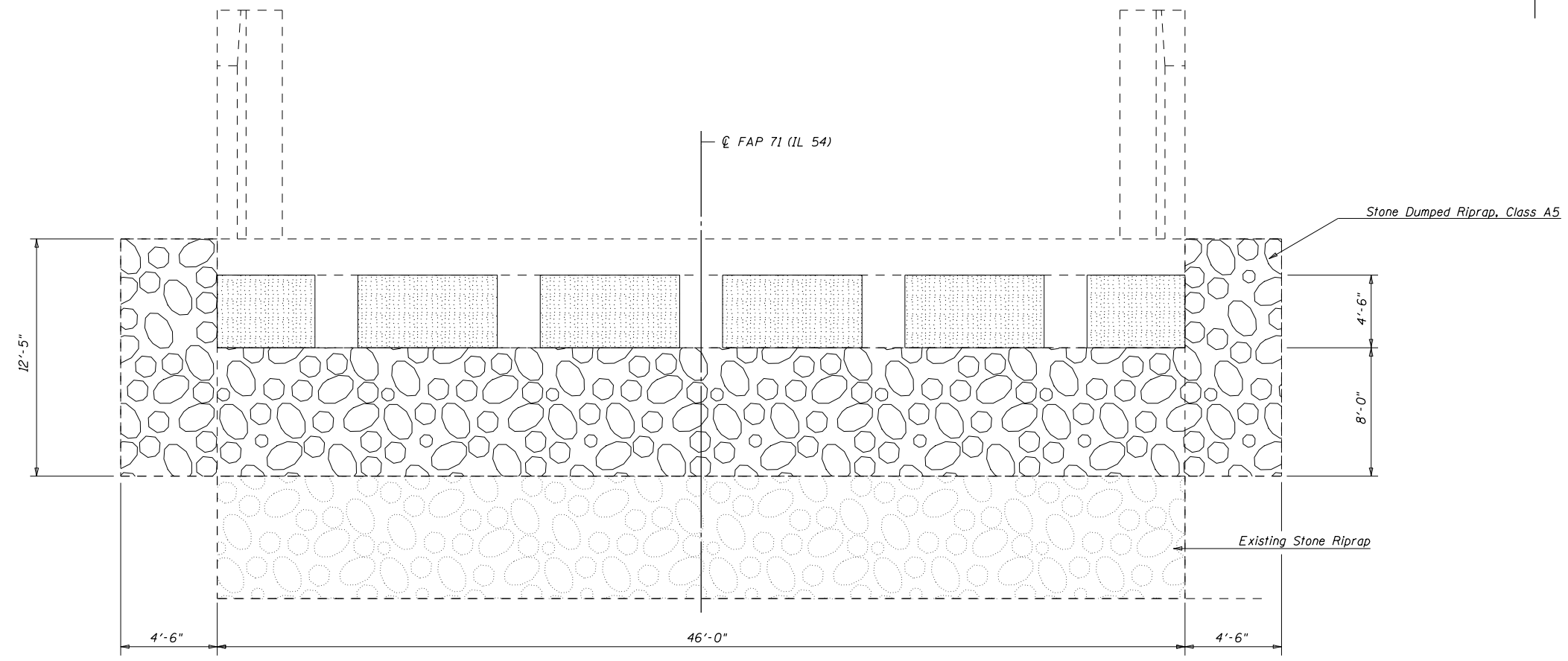
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 71                        | 15 BR-1 | DEWITT | 24           | 21        |
| CONTRACT NO. 70C93        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |



**ABUTMENT ELEVATION**  
(East Abutment Looking East)



**SECTION A-A**



**PLAN EAST ABUTMENT**

**NOTES**

- Controlled Low-Strength Material will be placed prior to placing Stone Riprap, Class A5.
- Care shall be taken not to damage the PPC I-Beams during riprap placement.
- No work shall be allowed in Clinton Lake.

**BILL OF MATERIAL**

| Item                             | Unit    | Total |
|----------------------------------|---------|-------|
| Controlled Low-Strength Material | Cu. Yd. | 7.2   |
| Stone Dumped Rip Rap, Class A5   | Sq. Yd. | 54.0  |

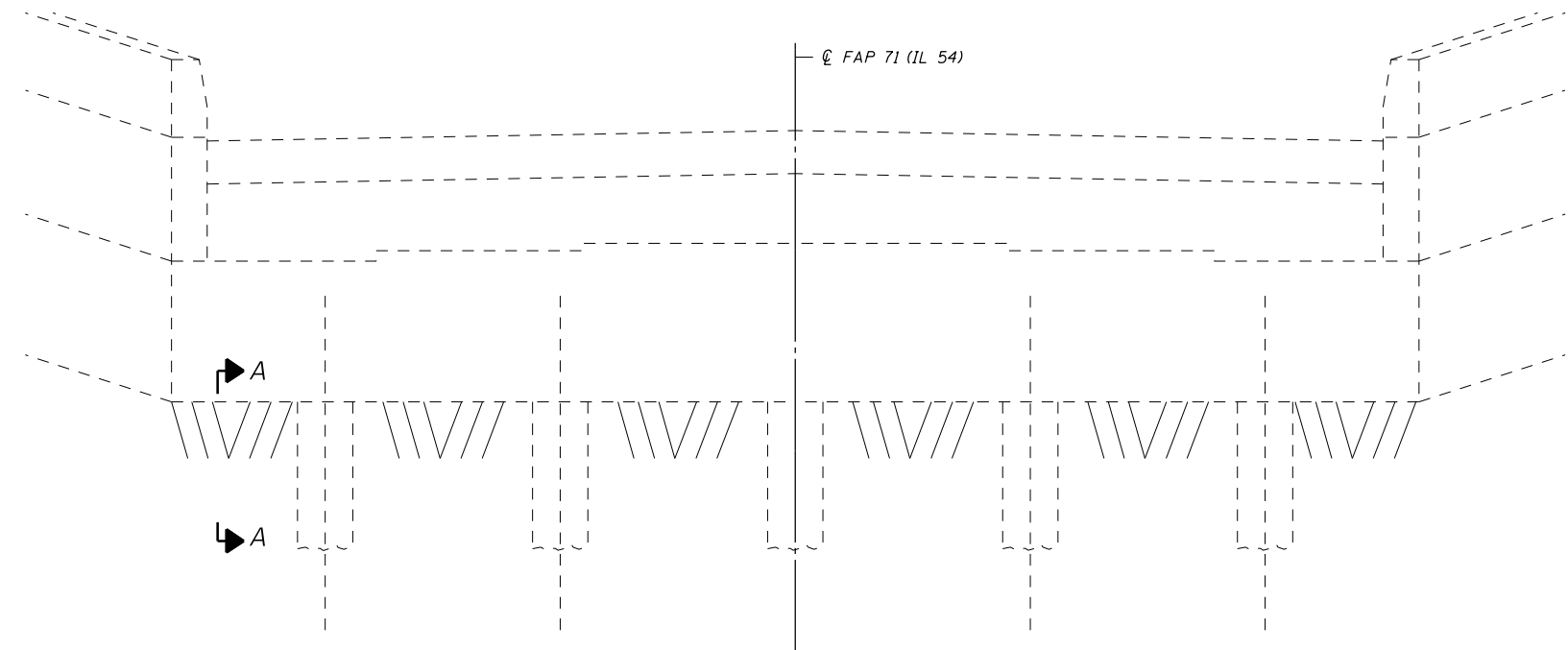
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|   | PLOT SCALE = 40.0000' / in. | DATE - 030518  | REVISED - |
|   | PLOT DATE = 11/5/2020       |                |           |

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

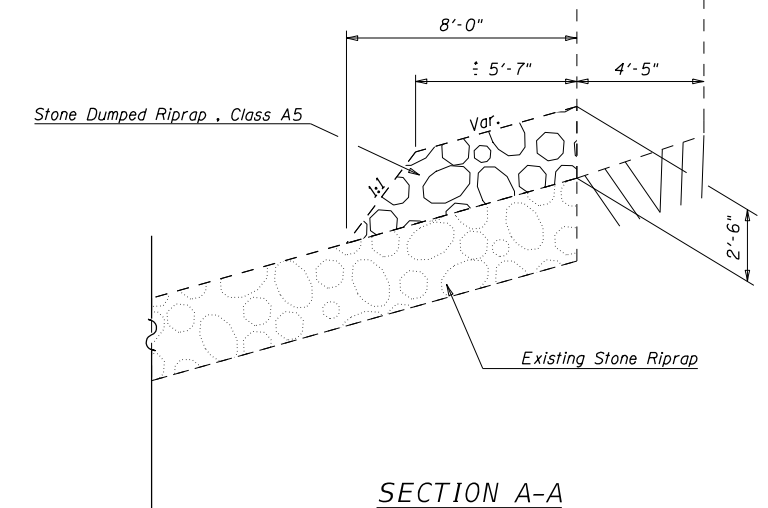
**DETAIL OF EROSION REPAIR AT ABUTMENTS**  
**S.N. 020-0043**

SCALE: NONE    SHEET NO. 13 OF 14 SHEETS    STA.    TO STA.

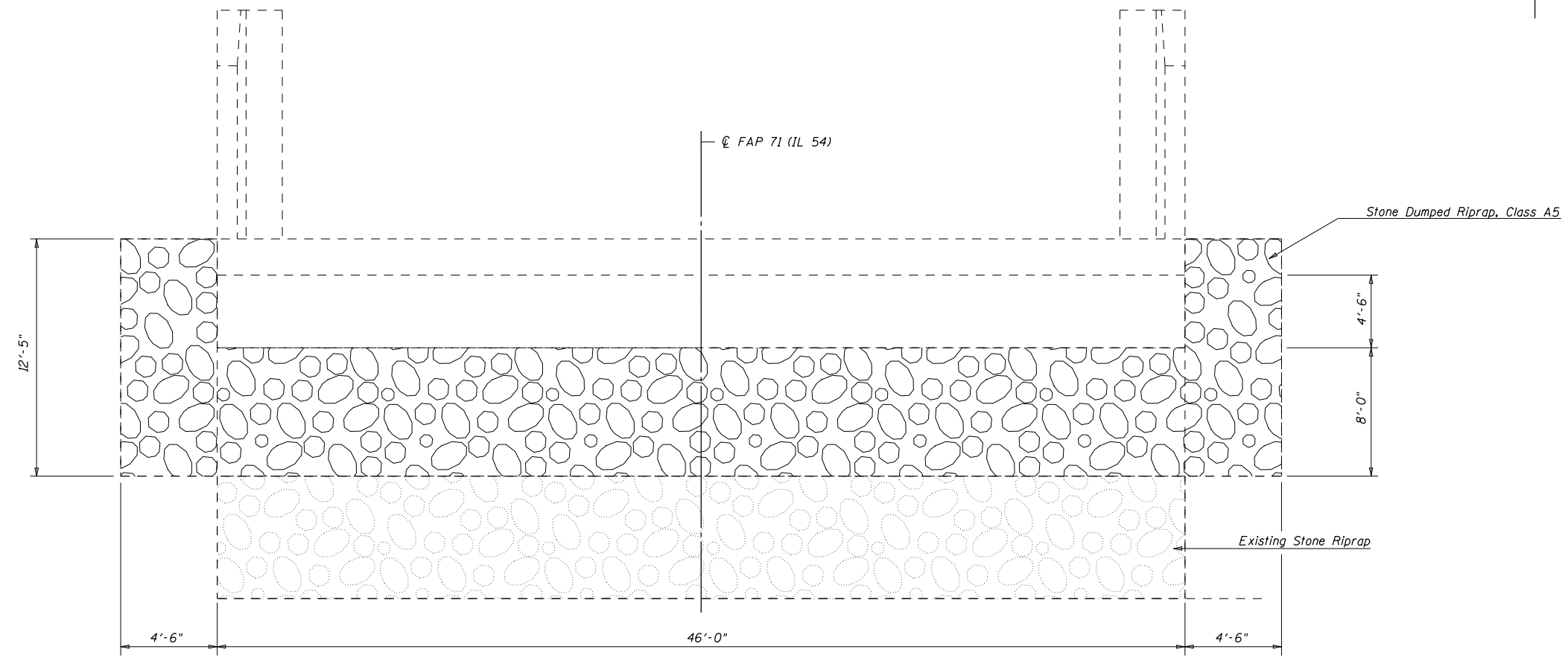
| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO.          |
|---------------------------|---------|--------|--------------|--------------------|
| 71                        | 15 BR-1 | DEWITT | 24           | 22                 |
|                           |         |        |              | CONTRACT NO. 70C93 |
| ILLINOIS FED. AID PROJECT |         |        |              |                    |



**ABUTMENT ELEVATION**  
(West Abutment Looking West)



**SECTION A-A**



**PLAN WEST ABUTMENT**

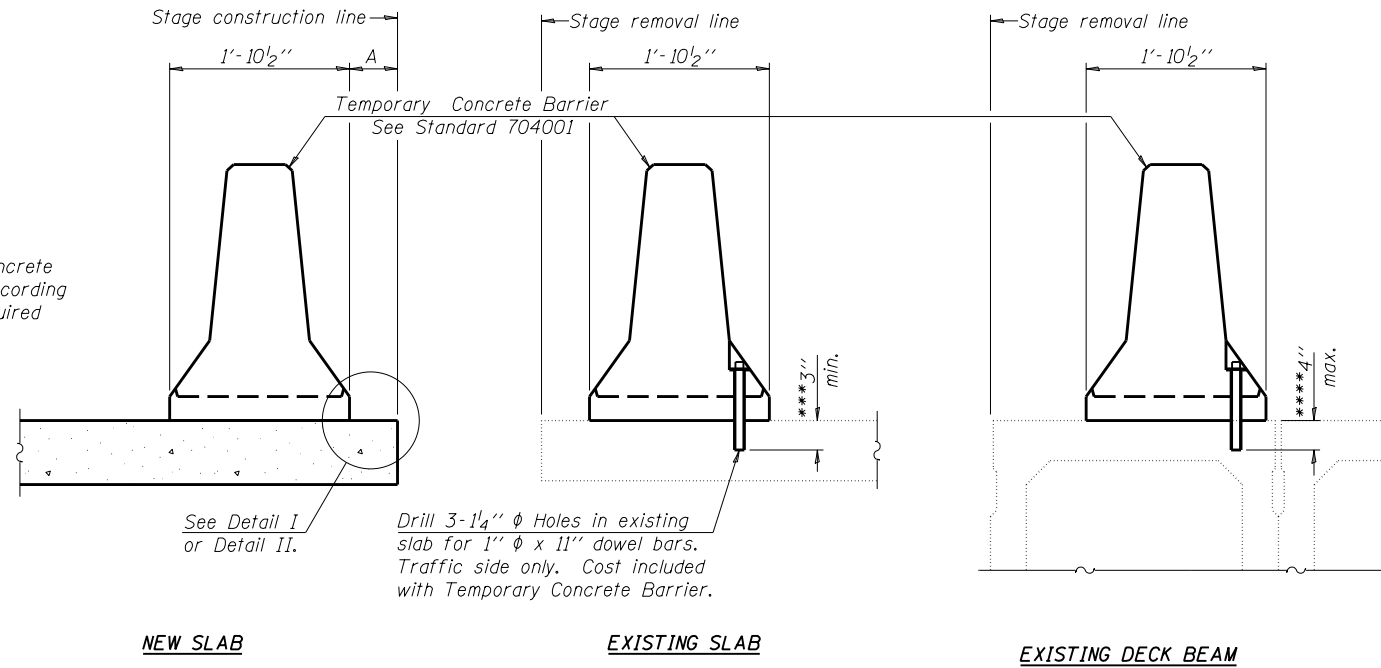
**NOTES**

- Controlled Low-Strength Material will be placed prior to placing Stone Riprap, Class A5.
- Care shall be taken not to damage the PPC I-Beams during riprap placement.
- No work shall be allowed in Clinton Lake.

**BILL OF MATERIAL**

| Item                           | Unit    | Total |
|--------------------------------|---------|-------|
| Stone Dumped Rip Rap, Class A5 | Sq. Yd. | 54.0  |

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

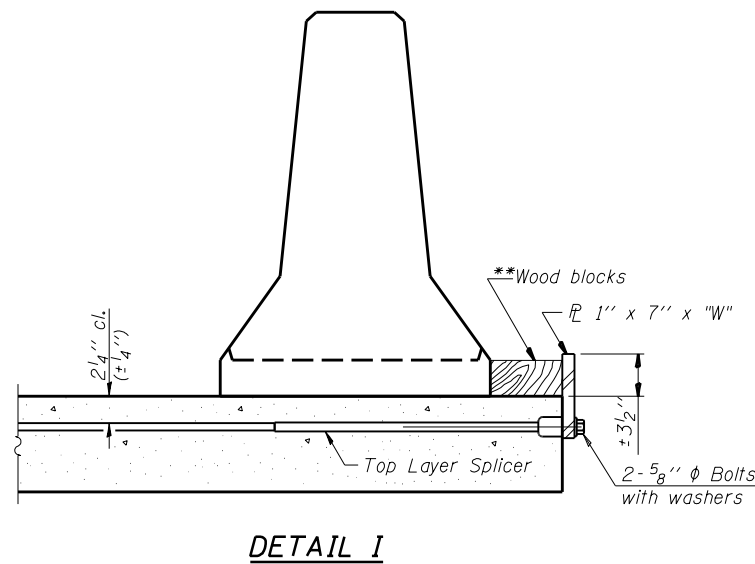
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

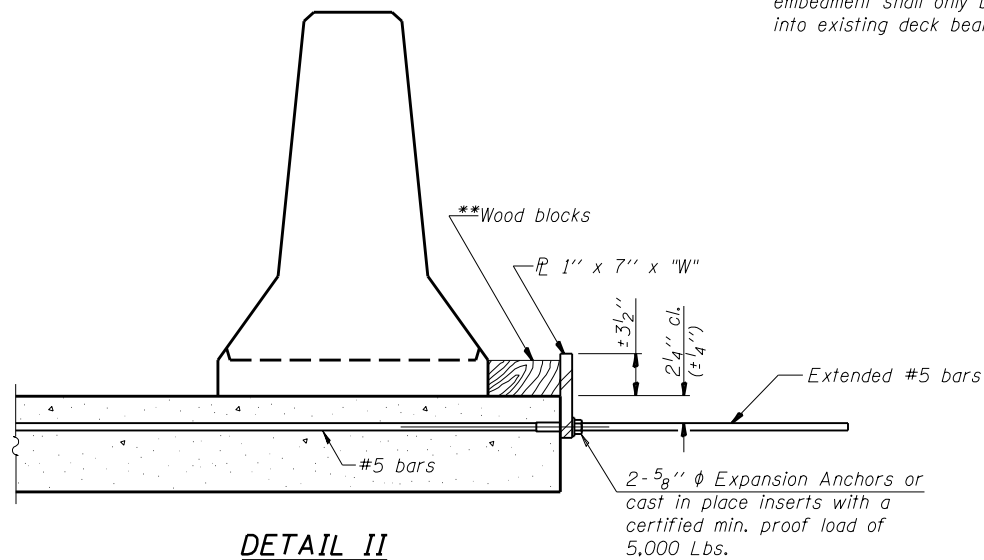
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

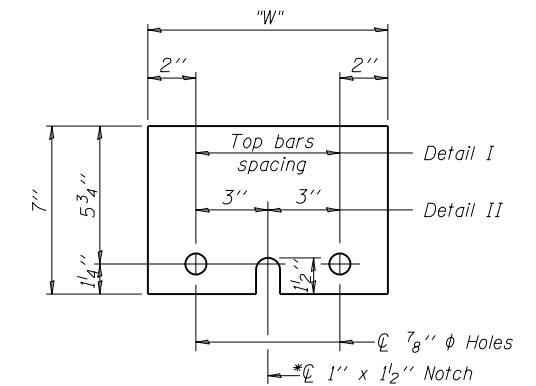
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER PL 1' x 7' x "W"**

\* Required only with Detail II

\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

|   |                      |            |                           |   |  |             |      |             |         |        |              |           |
|---|----------------------|------------|---------------------------|---|--|-------------|------|-------------|---------|--------|--------------|-----------|
| FILE NAME =   | USER NAME = shererJM | DESIGNED - | REVISED -                 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION<br/>S.N. 020-0043</b> |             |      | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| px:\planroom.dot\illinois.gov\PWIDOT\Documents\IDOT Offices\District 5\Projects\0570C93-Structure\70C93-sht-Structure | DRAWN -              | REVISED -  | 71                        |   |  |             |      | 15 BR-1     | DEWITT  | 24     | 24           |           |
| PLOT SCALE = 40.0000' / in.   | CHECKED -            | REVISED -  | CONTRACT NO. 70C93        |   |  |             |      |             |         |        |              |           |
| PLOT DATE = 11/5/2020   | DATE -               | REVISED -  | ILLINOIS FED. AID PROJECT |   |  |             |      |             |         |        |              |           |
|   |                      |            |                           | SCALE: None   | SHEET 1  | OF 1 SHEETS | STA. | TO STA.     |         |        |              |           |