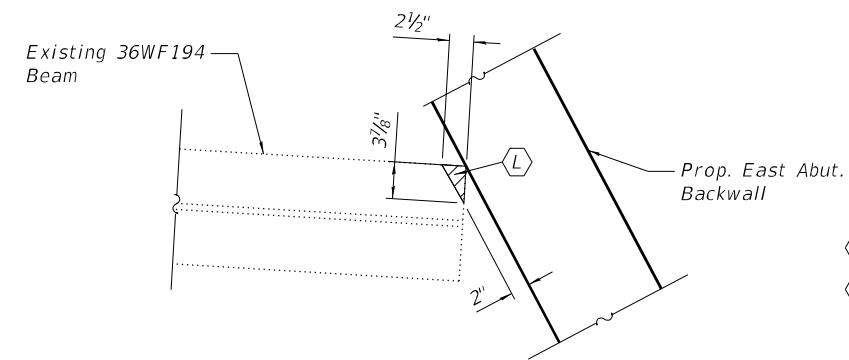


PARTIAL FRAMING PLAN
(Replacement)

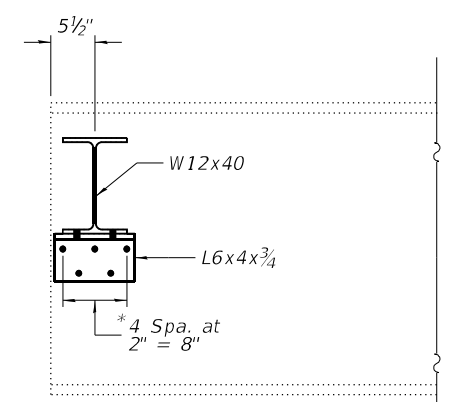


BEAM END REMOVAL DETAILS
(Top View)

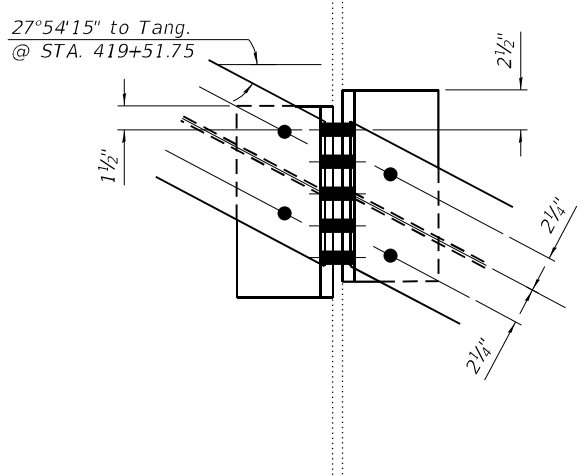
- (K) Remove and Replace Diaphragm
- (L) Saw cut the corners of the top and bottom flange of each beam so that there is a 2 1/2" space (measured parallel to the beam) between the end of the beam and the Proposed East Abutment Backwall. Cost included with Structural Steel Removal. (See Beam End Removal Details)

NOTE

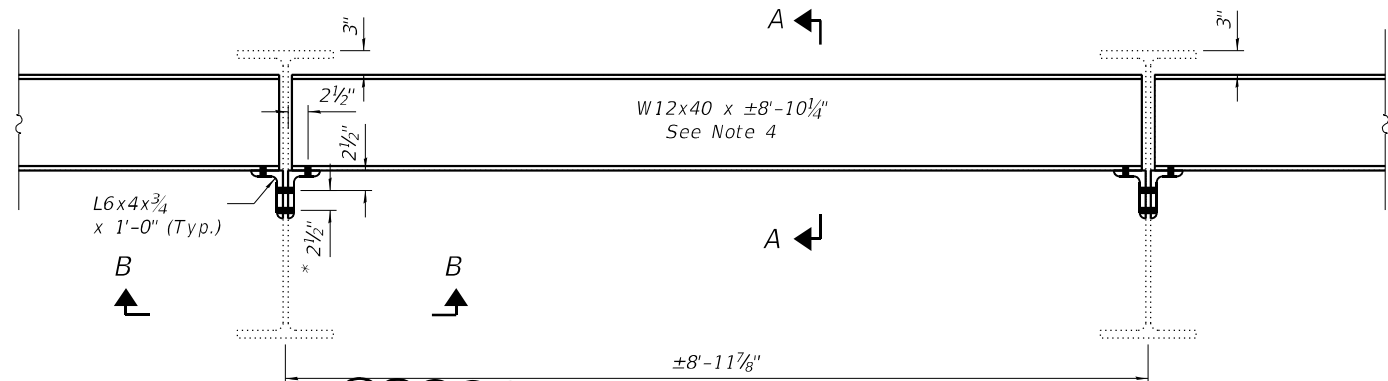
1. Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 2. New Steel Extensions and Connection Bolts are included with Furnishing and Erecting Structural Steel.
 3. Hatching indicates Removal
 4. Contractor shall measure as-built dimensions in the field before ordering any material.
- * Field drill holes in new angle using holes in existing beams as template



SECTION A-A
Replacement



SECTION B-B
Replacement



DIAPHRAGM REPLACEMENT DETAIL
(5 Required)

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--|-------|----------|
| Furnishing and Erecting Structural Steel | Pound | 2006 |
| Structural Steel Removal | Pound | 2006 |

⚠️ REVISED 10-20-2021

MODEL: 0960043-74997-013
FILE NAME: J:\201002_WD# 2. 8 Bridge Repairs in D7\DRAWINGS\096-0043 & 096-0044\0960043-74997.dgn

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
3501 CONSTITUTION DRIVE
SPRINGFIELD, ILLINOIS 62711
PROFESSIONAL DESIGN FIRM NO. 04-0061179
ILLINOIS REG. NO. 04-0061179

| | | |
|-------------------------|----------------|-----------|
| USER NAME = BenB | DESIGNED - KAS | REVISED - |
| PLOT SCALE = 0:2" / in. | CHECKED - MC | REVISED - |
| PLOT DATE = 8/31/2021 | DRAWN - PG | REVISED - |
| | CHECKED - MC | REVISED - |

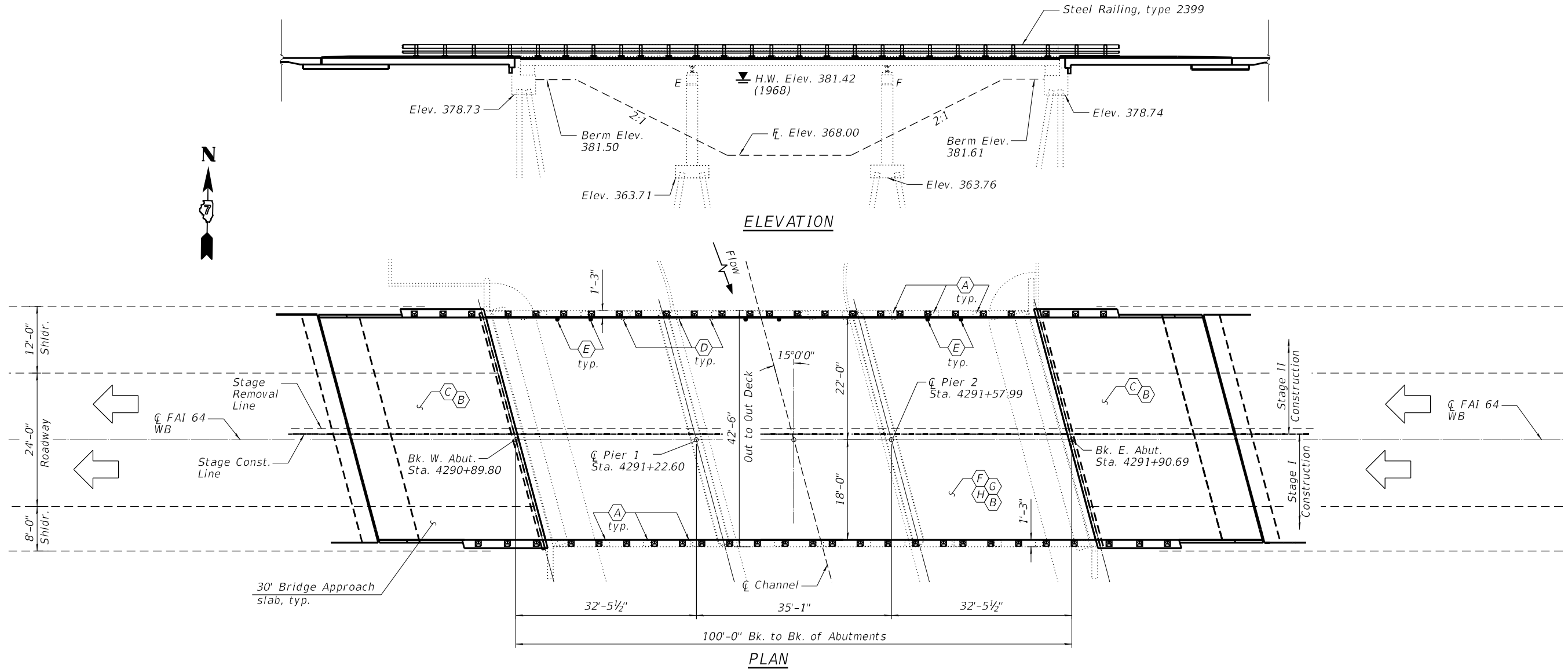
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM REPLACEMENT DETAILS
SN. 096-0043 (EB)

SHEET 13 OF 18 SHEETS

| | | | | |
|---------------------------|----------------------------------|--------------|--------------------|--------------|
| F.A.I. RTE. 64 | SECTION D7 BRIDGE REPAIRS 2022-3 | COUNTY WAYNE | TOTAL SHEETS 152 | SHEET NO. 67 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 74997 | |

The existing three span reinforced concrete slab structure was constructed in 1974 as F.A.I. Route 64 Section 96-3B-3 at STA. 4291+53.00. S.N. 096-0048 (WB) carries F.A.I. Route 64 (I-64) over Skillet Fork Branch. The proposed project consists of new approach slabs, new deck drains, bridge deck scarification, new concrete overlay, bridge deck patching, and new bridge railings with Stage Construction.



STRUCTURE INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|-----------|---|
| 1 | General Plan & Elevation |
| 2 | General Notes, Bill of Materials & Stage Construction Details |
| 3 | Bridge Deck Patching |
| 4 | Deck Drain Replacement Details |
| 5 | Bridge Approach Slab Details-I |
| 6 | Bridge Approach Slab Details-II |
| 7 | Bridge Railing Removal Details |
| 8 | Bridge Railing Replacement Details |
| 9 | Steel Railing, Type 2399 |
| 10 | Abutment Repairs |
| 11 | Bar Splicer Assembly and Mechanical Splicer Details |

SCOPE OF WORK

- (A) - Remove Existing Concrete Bridge Railing
Install Steel Railing, Type 2399, (See Sheet 7-9 of 11)
- (B) - Perform Diamond Grinding (Bridge Section) and Bridge Deck Grooving (Longitudinal)
- (C) - Remove and Replace Bridge Approach Slab (See Sheet 5-6 of 11)
- (D) - Eliminate Floor Drains (See Sheet 3-4 of 11)
- (E) - Remove Existing Floor Drains and Install New 6"-Dia. Floor Drains. (See Sheet 3-4 of 11)
- (F) - Scarify Deck 2½" to remove existing Microsilica Concrete Overlay, (See Sheet 2 of 11)
- (G) - Install Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2½" (See Sheet 2 of 11)
- (H) - Install Bridge Deck Patches. (See Sheet 3 of 11)

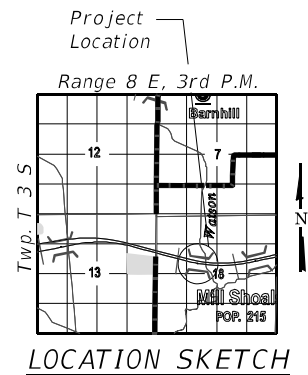
M. Choudhry



Dated **8/31/2021**
 Mahboob A Choudhry
 Licensed Structural Engineer
 In Illinois No. 081-004380
 Expires: 11/30/2022

DESIGN STRESSES
 FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)



REVISD SHEET 10-20-2021

MODEL: 0960048-74997-001
 FILE NAME: I:\201002_W0# 2 8 Bridge Repairs in D7\DRAWINGS\096-0047 & 096-0048\0960048-74997.dgn

GREENE & BRADFORD, INC.
 OF SPRINGFIELD
CONSULTING ENGINEERS
 3541 CONSTRUCTION DRIVE
 SPRINGFIELD, ILLINOIS 62711
 PROFESSIONAL DESIGN FIRM NO. 081-0061179
 PROFESSIONAL LAND SURVEYING FIRM NO. 048-000098
 (217) 754-8844, 752-6227, 751

| | | |
|---------------------------|----------------|-----------|
| USER NAME = BenB | DESIGNED - KAS | REVISED - |
| PLOT SCALE = 0:2" / 1 in. | CHECKED - MC | REVISED - |
| PLOT DATE = 8/31/2021 | DRAWN - PG, BB | REVISED - |
| | CHECKED - MC | REVISED - |

| | |
|----------------|-----------|
| DESIGNED - KAS | REVISED - |
| CHECKED - MC | REVISED - |
| DRAWN - PG, BB | REVISED - |
| CHECKED - MC | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
SN. 096-0048 (WB)

SHEET 01 OF 11 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|--------------------------|----------|------------------|-----------|
| 64 | D7 BRIDGE REPAIRS 2022-3 | WAYNE | 152 | 135 |
| CONTRACT NO. 74997 | | | | |
| | | ILLINOIS | FED. AID PROJECT | |