

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	COOK	33	1
		ILLINOIS	CONTRACT NO. 62P55	

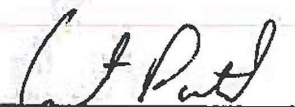
06-17-2022 LETTING ITEM 111
 FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

FUNCTIONAL CLASSIFICATION: INTERSTATE
 POSTED SPEED: 55 MPH
 ADT: 132,100 (2020)

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 94 (I-94)(BISHOP FORD FREEWAY)
 AT VARIOUS LOCATIONS
 SECTION 2021-137-BR
 BRIDGE REPAIR
 COOK COUNTY

APPLIES TO SHEETS 1-3

 LICENSED CIVIL ENGINEER, STATE OF ILLINOIS
 EXPIRES 11/30/2023

APPLIES TO SHEETS 4-12

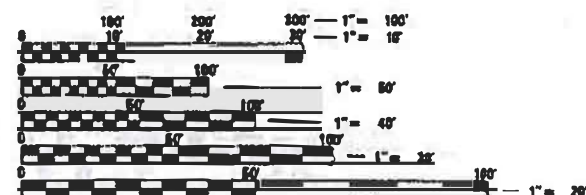
 LICENSED STRUCTURAL ENGINEER, STATE OF ILLINOIS
 EXPIRES 11/30/2022

APPLIES TO SHEETS 13-32

 LICENSED STRUCTURAL ENGINEER, STATE OF ILLINOIS
 EXPIRES 11/30/2022



MUNICIPALITIES:
 CITY OF DOLTON

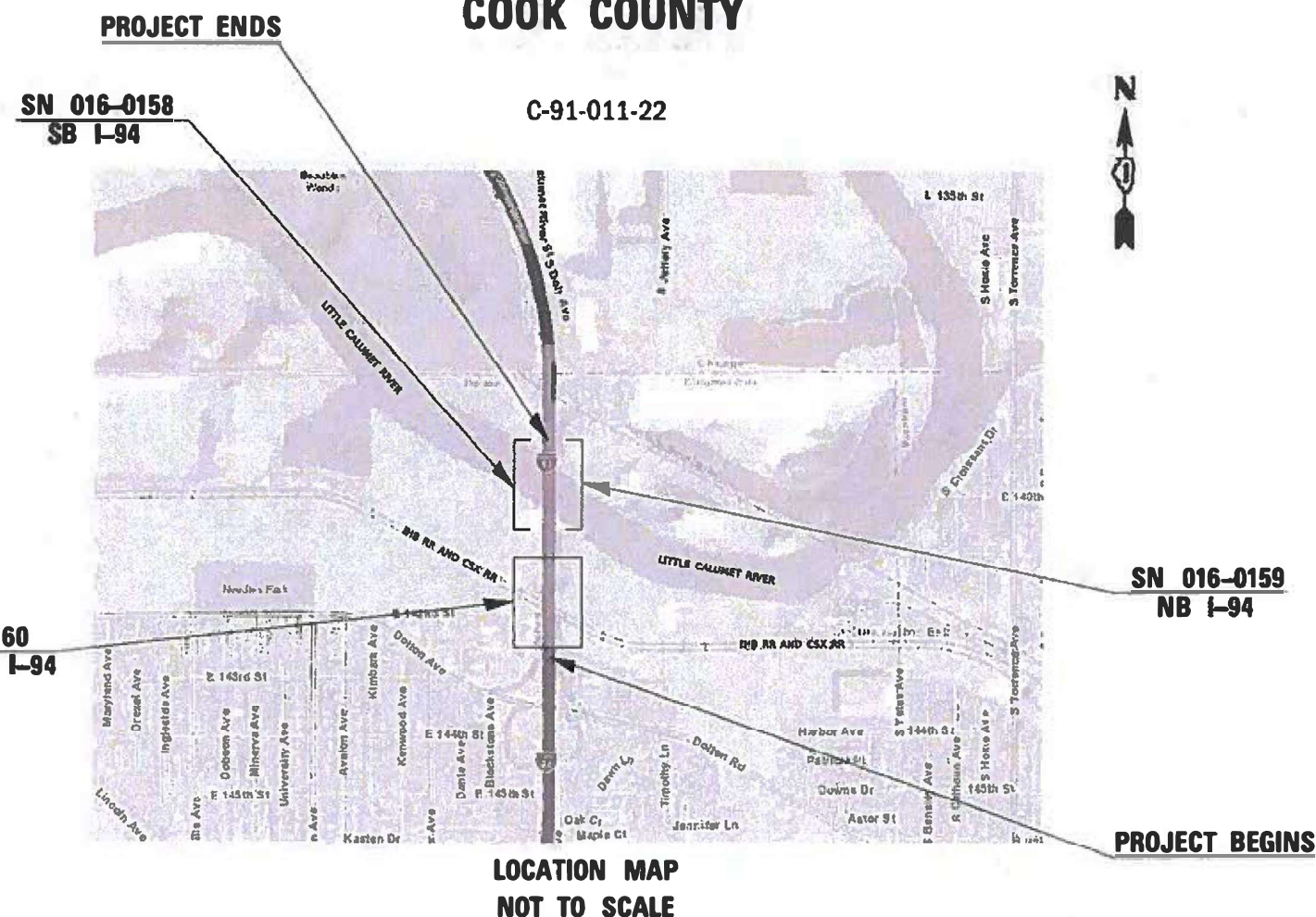


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
 ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
 CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
 ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: PRAVEEN KAINI, PE (847)-705-4237
 PROJECT MANAGER: J. ALAIN MIDY, PE (847)-221-3056

CONTRACT NO. 62P55



SN 016-0158 GROSS LENGTH = 796.0 FT. = 0.151 MILE
 SN 016-0159 GROSS LENGTH = 795.0 FT. = 0.145 MILE
 SN 016-0160 GROSS LENGTH = 416.6 FT. = 0.079 MILE

Bowman
 511 S. Wacker Drive, Suite 1900
 Chicago, Illinois 60606
 312-614-0280
 www.bowman.com

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED December 20, 2021
Joe Rios **REGIONAL ENGINEER**
 May 13, 2022
SE A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT
 May 13, 2022
Stephen M. Smith
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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 OF THE STATE OF ILLINOIS**

GENERAL NOTES

1.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
2.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF DOLTON.
3.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
5.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
6.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
7.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.
8.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS CONTRACT.
9.

EXISTING UNDERGROUND AND ABOVE-GROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED UPON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATION OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST OR THE EXISTENCE OF WHICH WAS NOT KNOWN AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY AND TO PROTECT ALL SUCH EXISTING FEATURES DURING CONSTRUCTION.
10.

ANY REFERENCE TO STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE LATEST EDITION.
11.

THE CONTRACTOR SHALL OBTAIN COAST GUARD APPROVAL FOR ANY WORK THAT MAY INTERFERE WITH NAVIGATIONAL OPERATIONS OF THE NAVIGABLE WATERS. A WORK PLAN SHALL BE PREPARED BY THE CONTRACTOR, REVIEWED AND APPROVED BY THE ENGINEER, AND BE SUBMITTED BY THE ENGINEER TO THE COAST GUARD AT THE ADDRESS LISTED BELOW FOR APPROVAL.

BRIDGE ADMINISTRATOR
US COAST GUARD
NINTH COAST GUARD DISTRICT
1240 E. NINTH ST
CLEVELAND, OH 44199-2060

INDEX OF SHEETS

- 1

COVER SHEET
- 2

GENERAL NOTES, INDEX OF SHEETS, AND HIGHWAY STANDARDS
- 3

SUMMARY OF QUANTITIES
- 4-12

BRIDGE REPAIRS (SN 016-0158)
- 13-18

BRIDGE REPAIRS (SN 016-0159)
- 19-32

BRIDGE REPAIRS (SN 016-0160)
- 33

TC-17 TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

IDOT HIGHWAY STANDARDS

- 000001-08

STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 001006

DECIMAL OF AN INCH AND OF A FOOT
- 701428-01

TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
- 701901-08

TRAFFIC CONTROL DEVICES

COMMITMENTS

NONE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS, AND
STATE STANDARDS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	DUPAGE	33	2
CONTRACT NO. 62P55				
		ILLINOIS	FED. AID PROJECT	

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



311 S. Wacker Drive, Suite 1950
Chicago, Illinois 60606
312-454-0360
www.bowman.com

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		CONSTRUCTION CODE				
		100% STATE				
CODE NO.	ITEM	UNIT	TOTAL QUANTITY URBAN	BRIDGE	BRIDGE	BRIDGE
				0013	0013	0013
				SN 016-0158	SN 016-0159	SN 016-0160
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	530	530		
58700300	CONCRETE SEALER	SQ FT	1,522			1,522
67100100	MOBILIZATION	L SUM	1	0.33	0.33	0.33
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	4	4	4
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	0.33	0.33	0.33
X7013820	TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS	CAL DA	105	35	35	35
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	500	500		
Z0001905	STRUCTURAL STEEL REPAIR	POUND	11,820	2,800	1,550	7,470
Z0010400	CLEANING BRIDGE SEATS	SQ FT	409			409
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1			1
Ø Z0076604	TRAINEES - TRAINING PROGRAM GRADUTE	HOURS	500	500		

Ø0042

* SPECIALTY ITEMS

Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-614-0360 www.bowman.com	USER NAME = kmaus	DESIGNED - KH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - KM	REVISED -							94	2021-137-BR	DUPAGE	33	3	
	PLOT SCALE = 2.0000' / in.	CHECKED - AP	REVISED -		SCALE: NONE			SHEET 1	OF 1	SHEETS	STA.	TO STA.	CONTRACT NO. 62P55		
	PLOT DATE = 09/07/2021	DATE - 09/07/2021	REVISED -								ILLINOIS FED. AID PROJECT				

Benchmark Chiseled Square cut in Northwest Wingwall (Northwest corner of deck) ELEV 627.29.

Existing Structure The existing structure No. 016-0158, SB I-94 over Little Calumet River was built in 1949 and reconstructed in 1994. The superstructure consists of three approach spans (57'-4"; 68'-10"; 57'-4") on each side and a steel truss main span that is 420'-0" long. The out-to-out deck width is 55'-7". The substructure consists of reinforced concrete abutments and six concrete piers supported on steel piles.

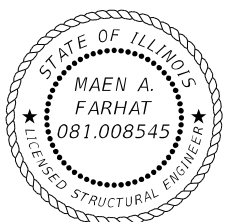
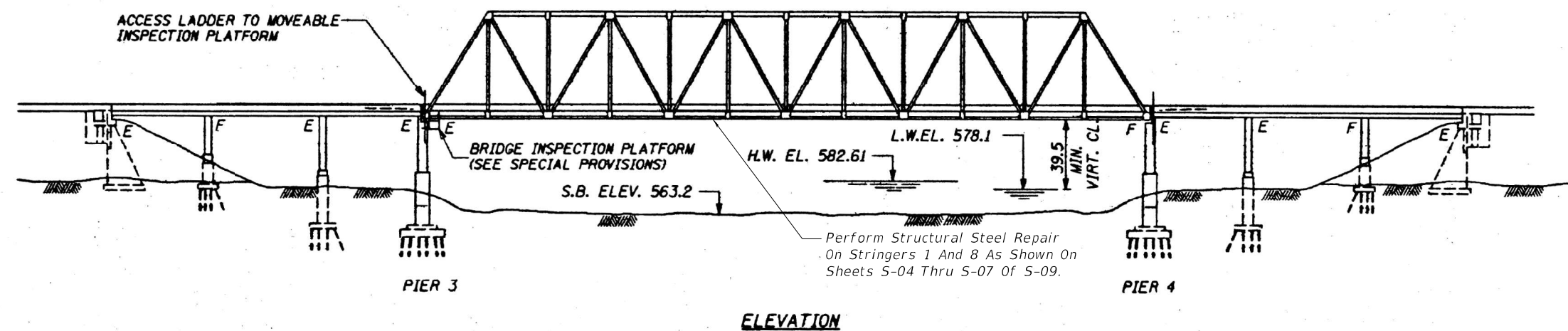
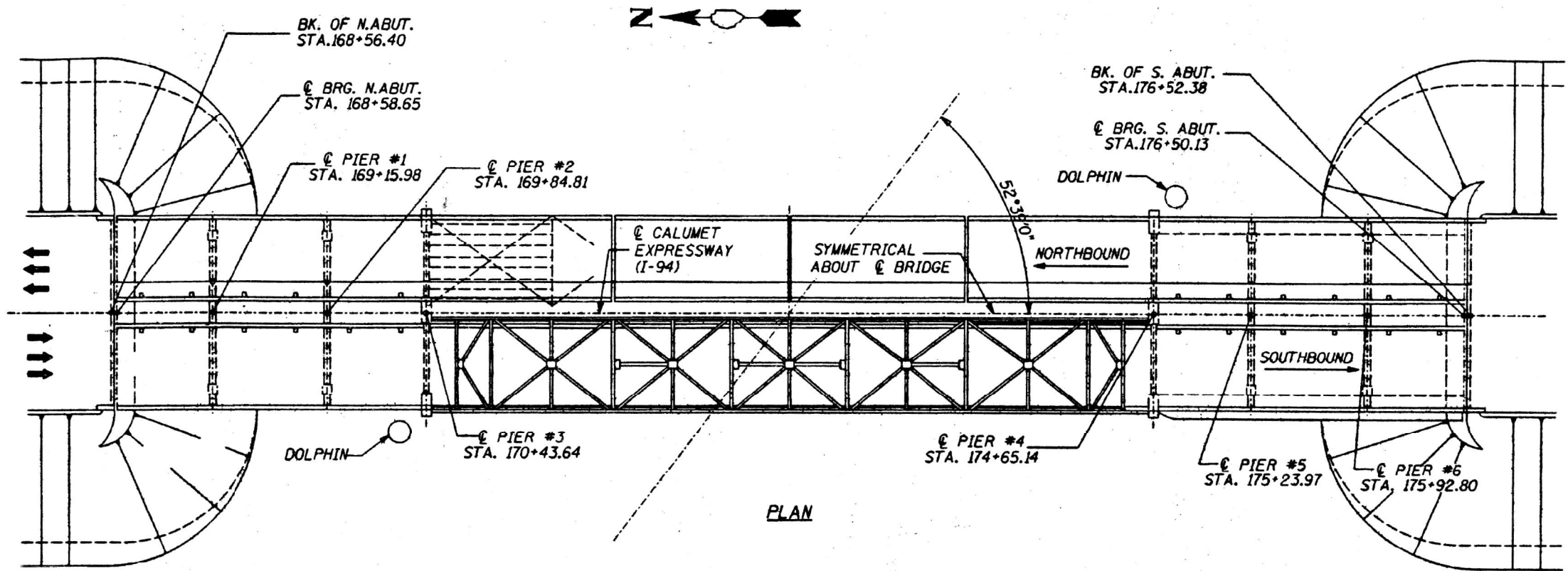
No Salvage

DESIGN SPECIFICATION
2002 AASHTO Standard Specification for Highway Bridges

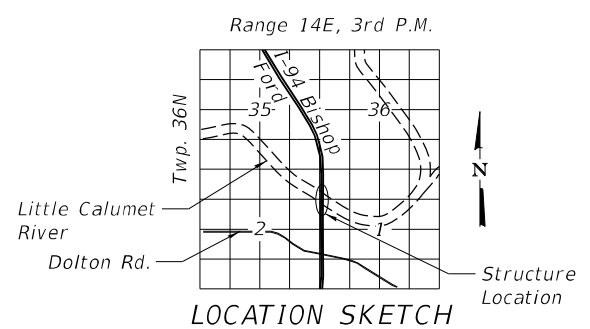
LOADING
HS 20-44 & ALT.
Allow for 25psf for Future Wearing Surface

DESIGN STRESSES
1994 RECONSTRUCTION
f'c = 3,500 psi
fy = 60,000 psi
fs = 20,000 psi (AASHTO M183)
fs = 27,000 psi (AASHTO M223, Gr.50)

SCOPE OF WORK
1. Perform Structural Steel Repairs as shown on sheets S-04 Thru S-07 of S-09.



Signed: *Maen Farhat*
MAEN A. FARHAT, SE
IL Lic. No.: 081-008545
Expires: 11/30/2022



GENERAL PLAN AND ELEVATION
SB I-94 BISHOP FORD OVER LITTLE
CALUMET RIVER
F.A.I. 94 SEC 42-B-11-I-3
COOK COUNTY
STATION 172+54.39
STRUCTURE NO. 016-0158

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

S.N. 016.0158 - I94 over Little Cal. River

SHEET S-01 OF S-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-11-I-3	COOK	33	4
		CONTRACT NO. 62P55		
ILLINOIS		FED. AID PROJECT		

GENERAL NOTES

1. *The existing structural steel coating may contain lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.*
2. *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".*
3. *All new structural steel and bearing assembly shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel". Cost included with Structural Steel Repair.*
4. *All new fasteners shall be ASTM A325, Type I hot-dipped galvanized bolts. Holes shall be $\frac{13}{16}$ " dia. for $\frac{3}{4}$ " dia. bolts, unless otherwise noted.*
5. *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 based at the unit price bid for the work.*
6. *Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans specified in the Special Provision shall be included with Structural Steel Repairs.*

INDEX OF SHEETS

S-01 General Plan and Elevation
S-02 General Notes, Index of Sheets & Total Bill of Material
S-03 Framing Plan
S-04 Structural Steel Repair and Details I
S-05 Structural Steel Repair and Details II
S-06 Structural Steel Repair and Details III
S-07 Structural Steel Repair and Details IV
S-08 Existing Condition Photos I
S-09 Existing Condition Photos II

TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL QUANTITY
<i>Furnishing and Erecting Structural Steel</i>	POUND	530
<i>Structural Steel Removal</i>	POUND	500
<i>Structural Steel Repair</i>	POUND	2800



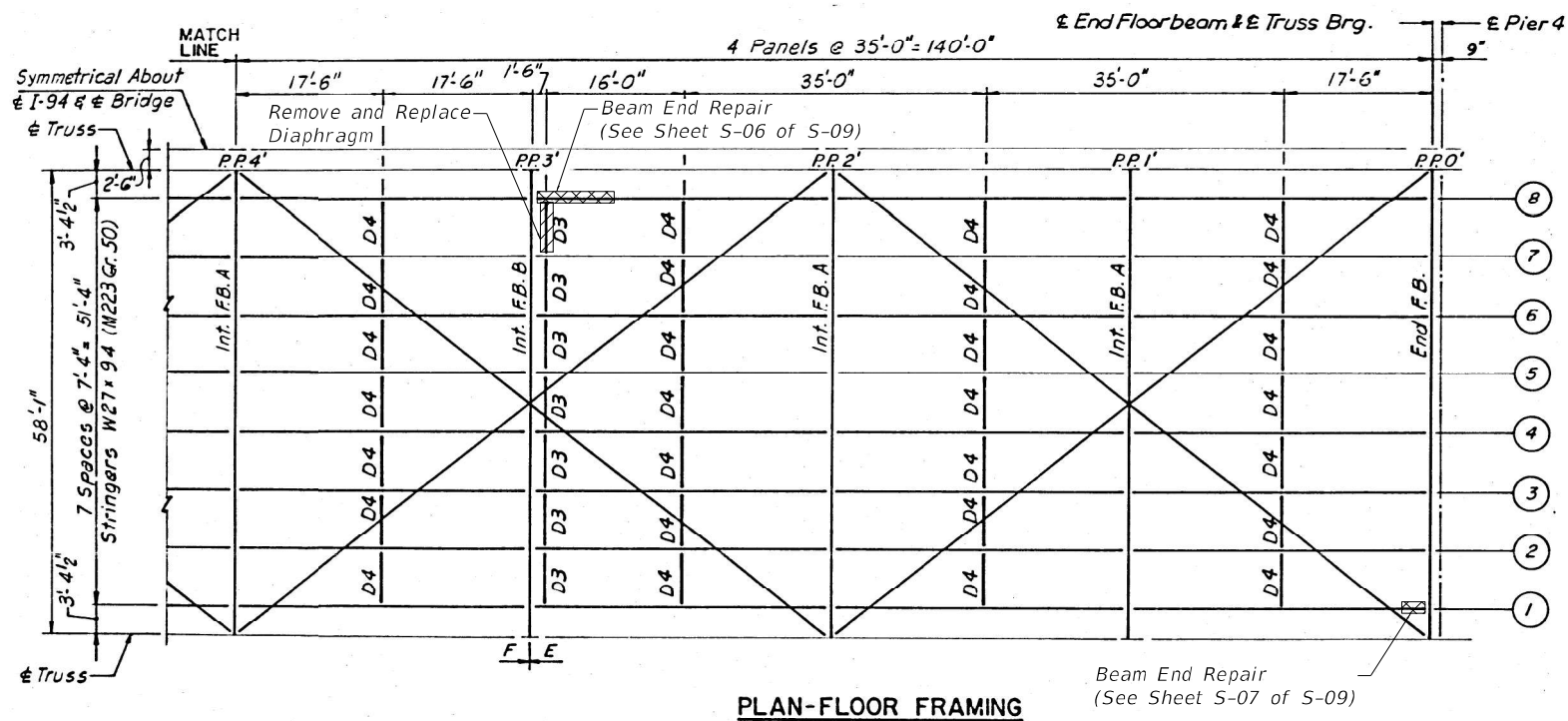
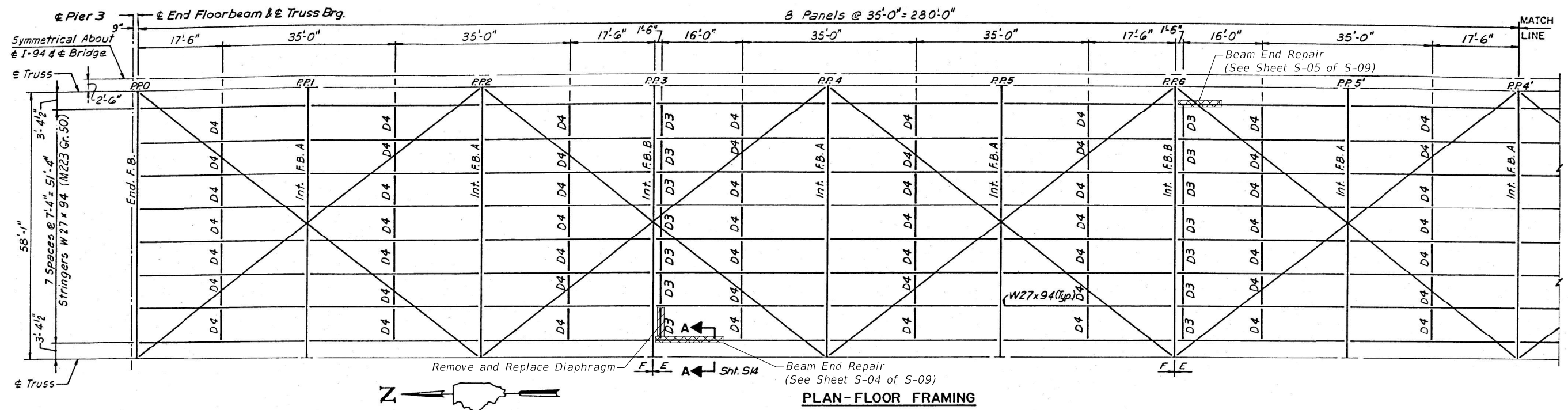
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

Gen. Notes, Index of sheets and Tot. BOM
S.N. 016.0158 - 194 over Little Cal. River

SHEET S-02 OF S-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-11-I-3	COOK	33	5
		CONTRACT NO. 62P55		
ILLINOIS		FED. AID PROJECT		



LEGEND

- Steel Diaphragm Repair
- Beam End Repair

NOTE:

- For Beam end repairs and Diaphragm removal and replacement details see Sheets S-04 Thru S-07 of S-09.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

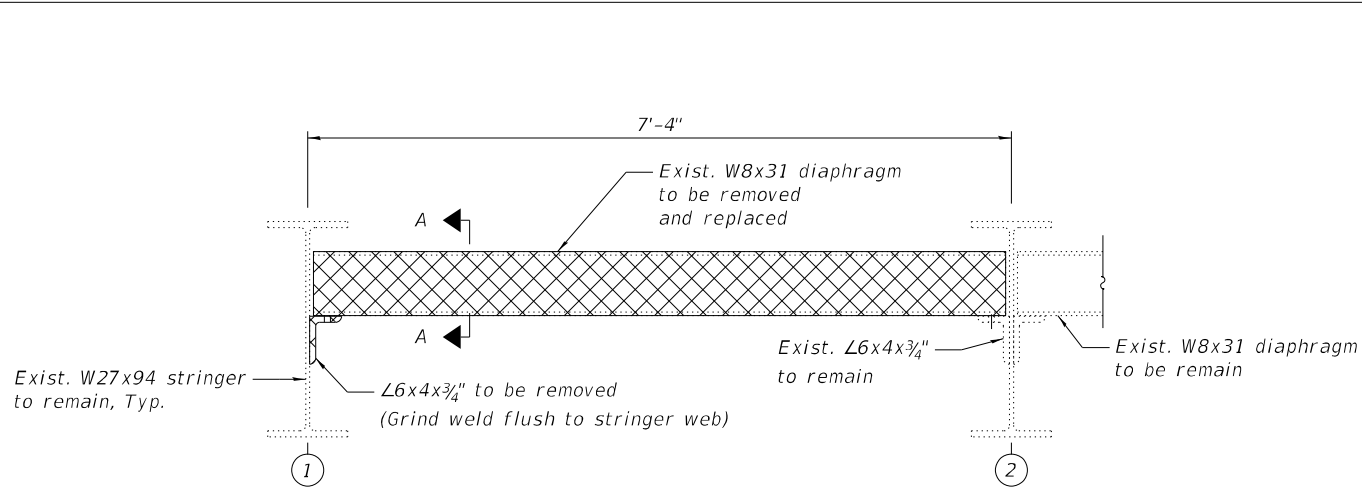
Framing Plan
S.N. 016.0158 - 194 over Little Cal. River

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-114-3	COOK	33	6
		CONTRACT NO.	62P55	
		ILLINOIS FED. AID PROJECT		

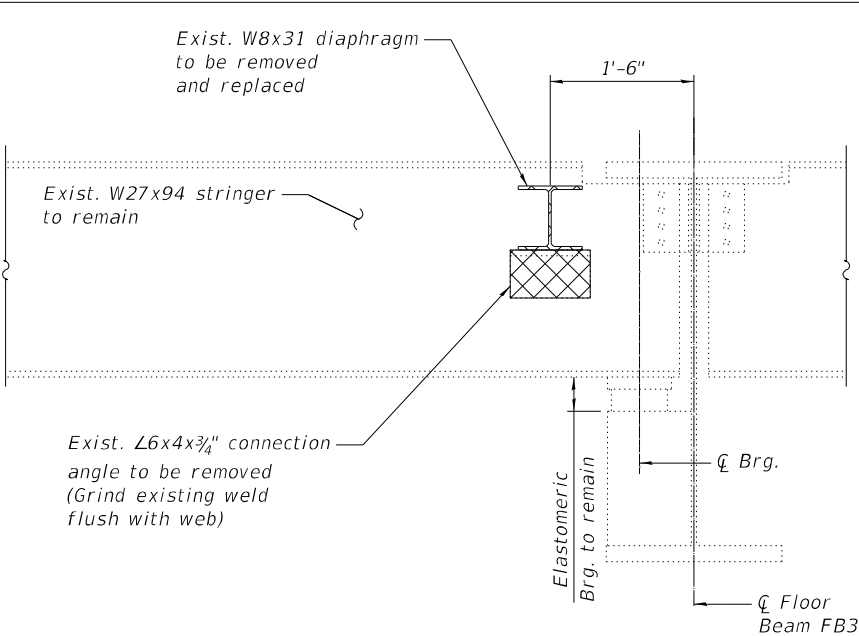
SHEET S-03 OF S-09 SHEETS

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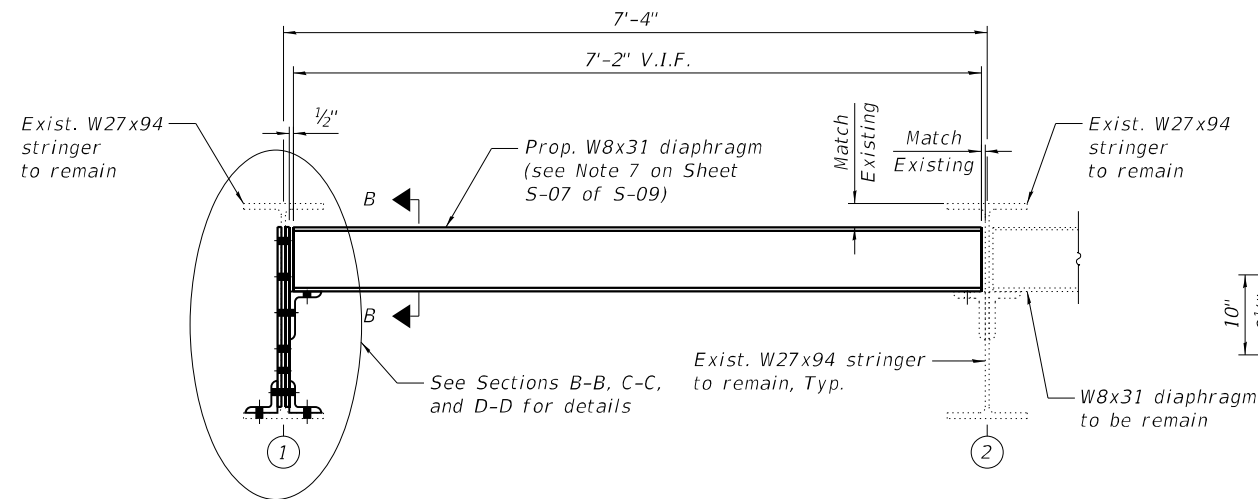


DIAPHRAGM REMOVAL ELEVATION

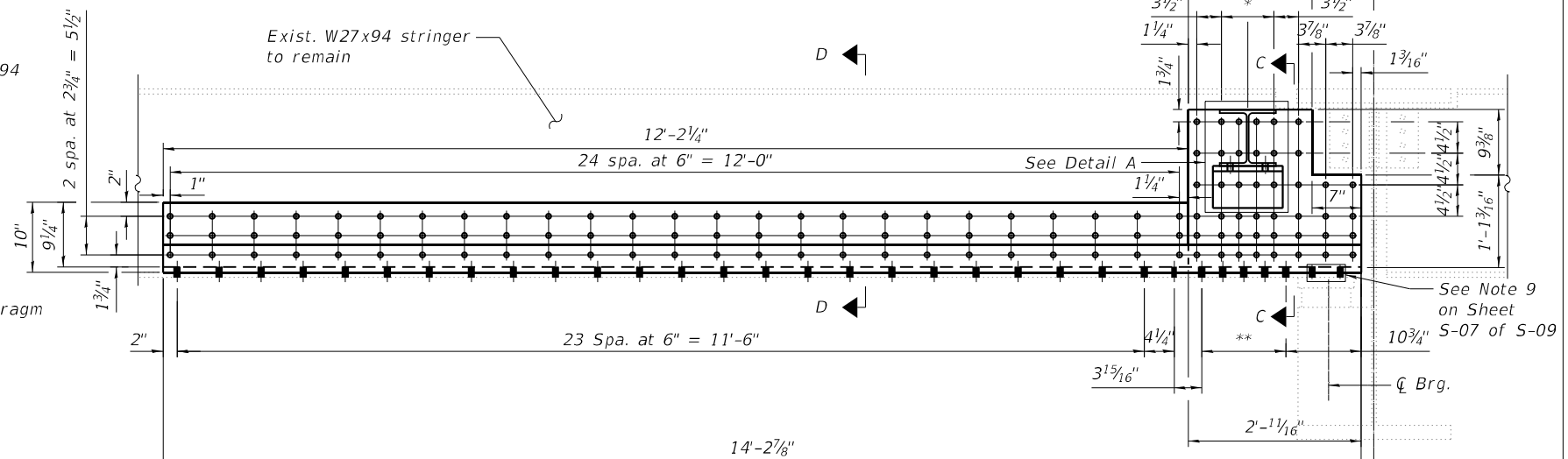


SECTION A-A

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	POUND	280
Structural Steel Removal	POUND	250
Structural Steel Repair	POUND	1160

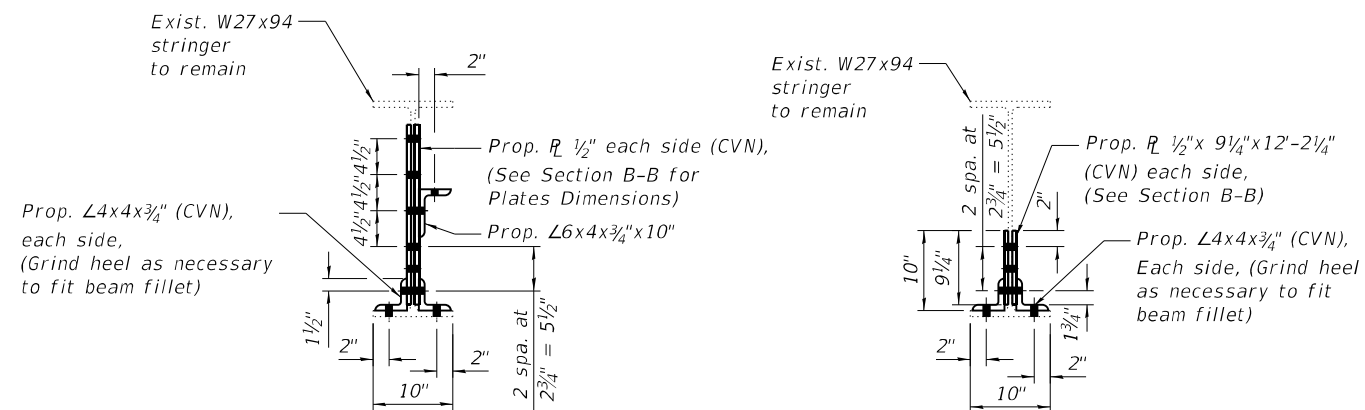


PROPOSED DIAPHRAGM ELEVATION



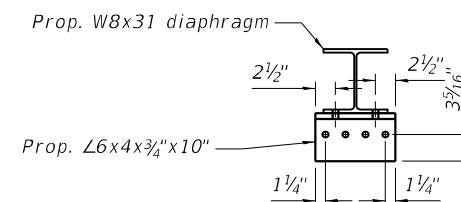
SECTION B-B

* 3 spa. at 2 1/2" = 7 1/2"
** 4 spa. at 3" = 1'-0"



SECTION C-C

SECTION D-D



DETAIL A

LEGEND

Structural Steel removal

NOTES:

1. See Sheet S-07 of S-09 for Notes.



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

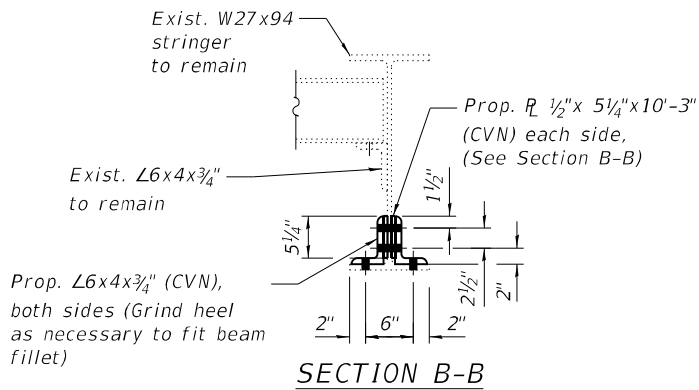
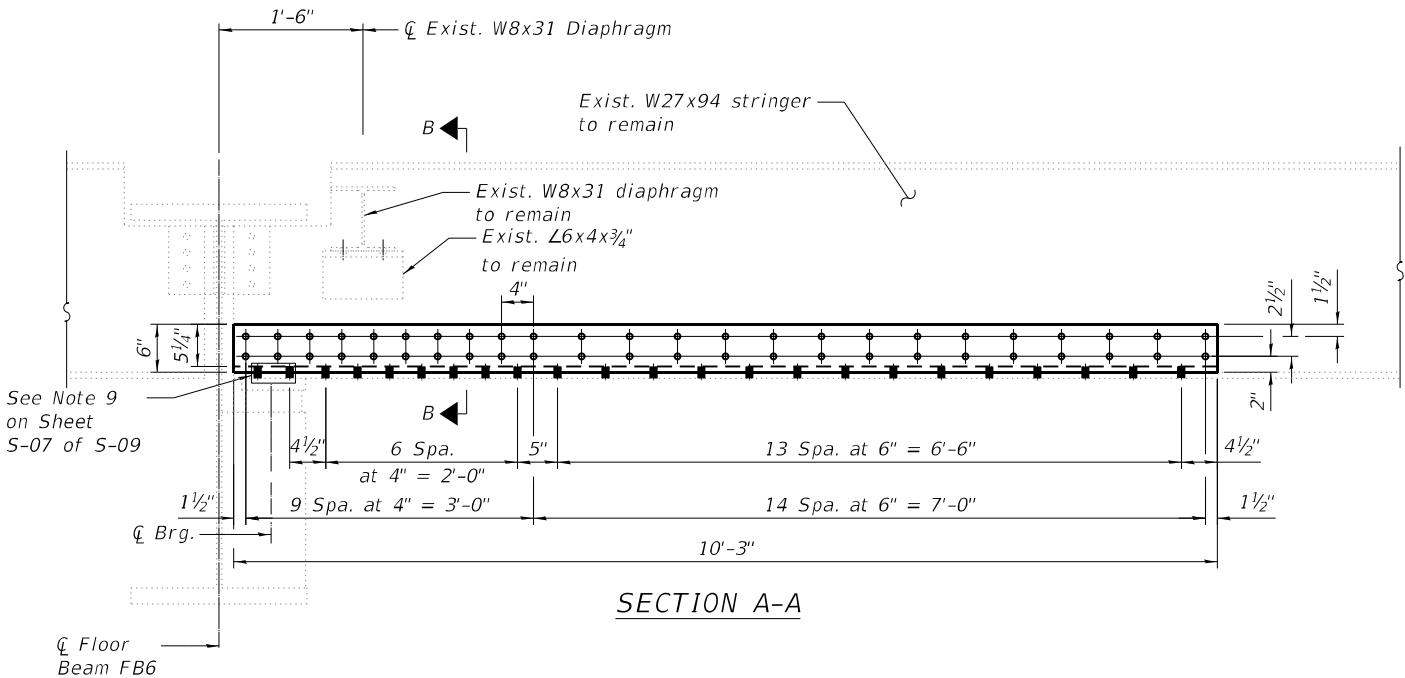
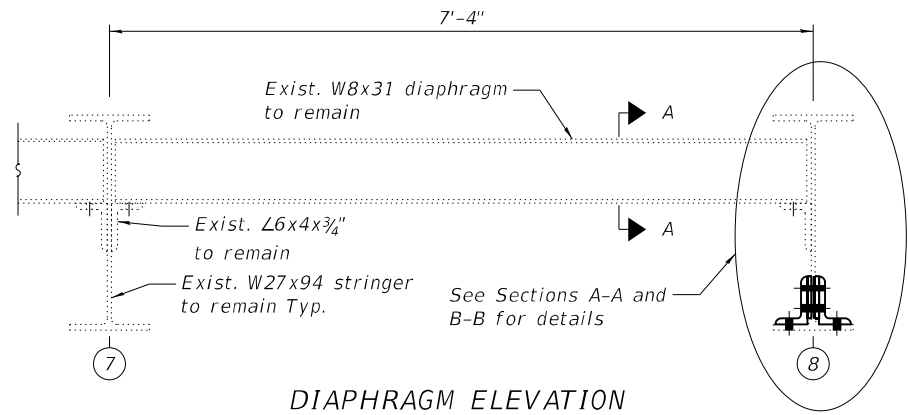
Structural Steel Repair and Details I
S.N. 016.0158 - 194 over Little Cal. River

SHEET S-04 OF S-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-11-I-3	COOK	33	7
		CONTRACT NO. 62P55		
ILLINOIS		FED. AID PROJECT		

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	POUND	740



NOTES:

1. See Sheet S-07 of S-09 for Notes.

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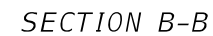
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Structural Steel Repair and Details II
S.N. 016.0158 - 194 over Little Cal. River

SHEET S-05 OF S-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-114-3	COOK	33	8
		CONTRACT NO. 62P55		
ILLINOIS		FED. AID PROJECT		



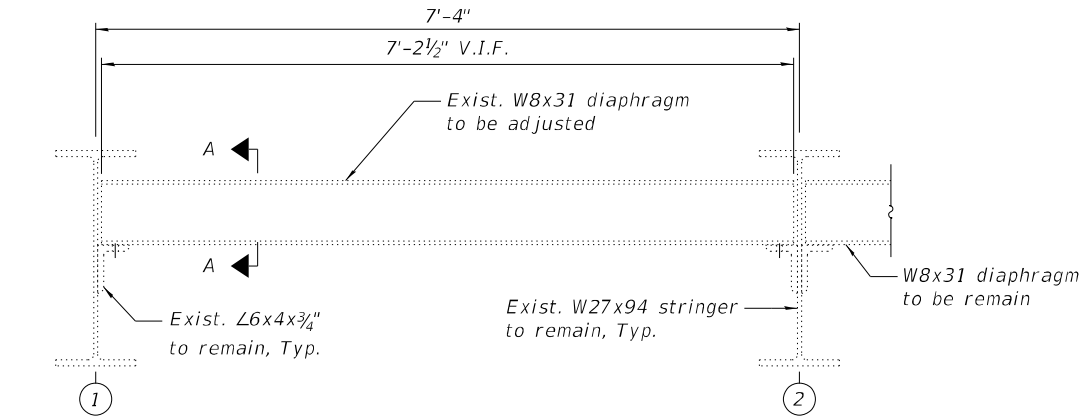
LEGEND

 *Structural Steel removal*

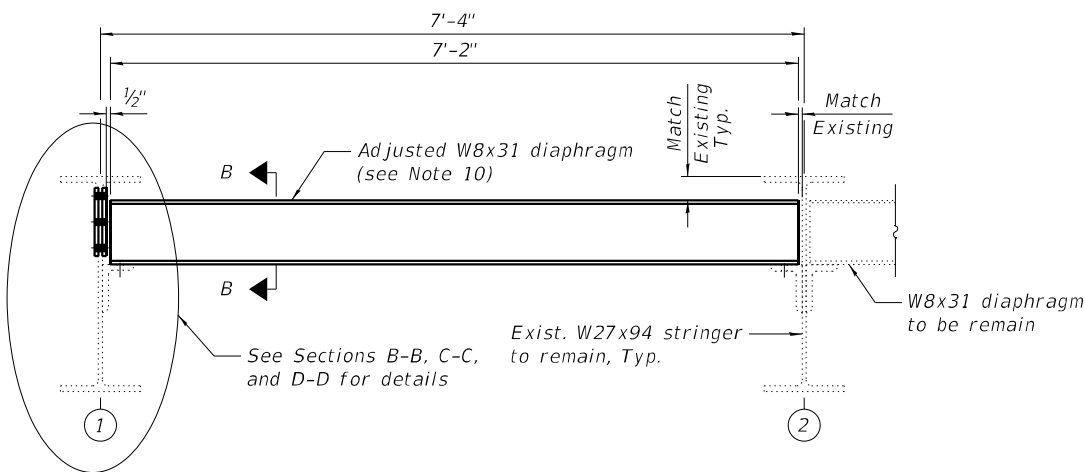
NOTES:

1. See Sheet S-07 of S-09 for Notes.

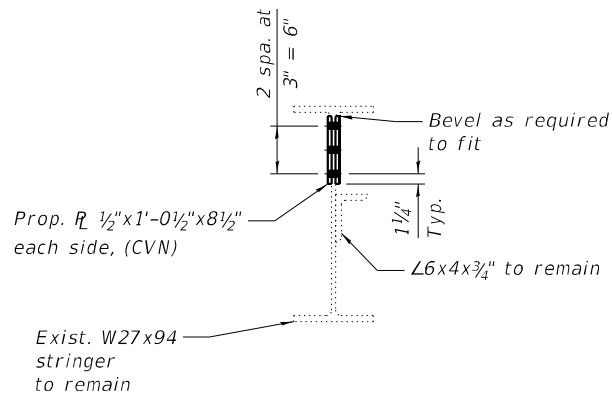
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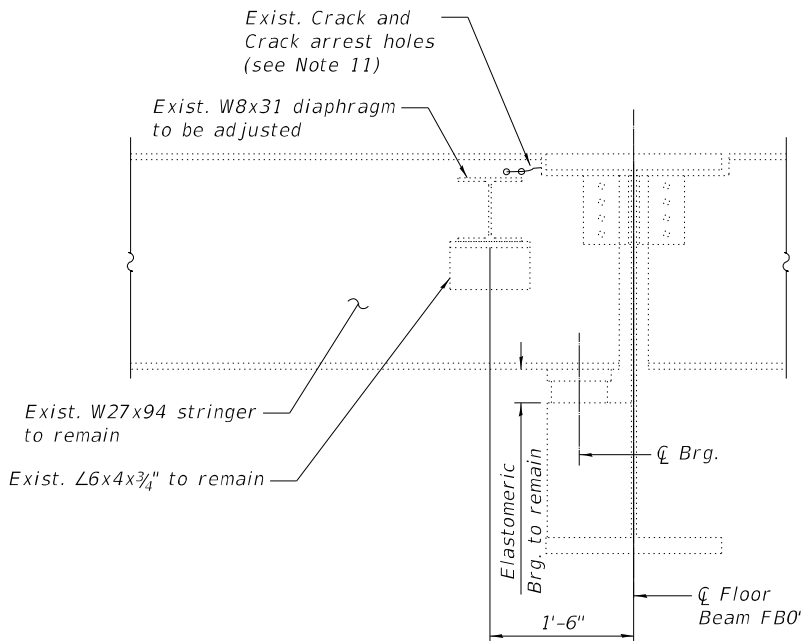
DIAPHRAGM REMOVAL ELEVATION



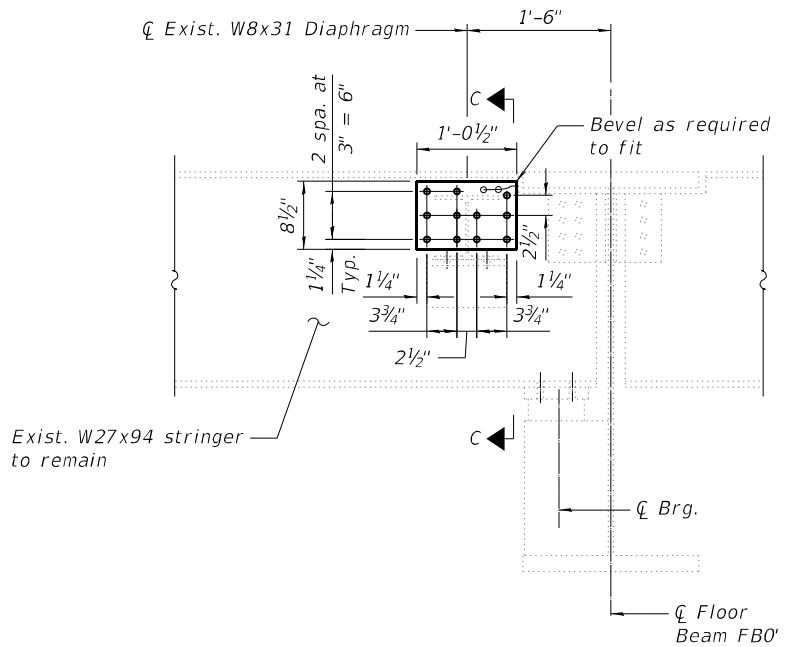
PROP. DIAPHRAGM ELEVATION



SECTION C-C



SECTION A-A



SECTION B-B

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	POUND	40

NOTES:

- For locations of Beam End Repairs and Diaphragm Removal/Replacement, see Framing Plan on Sheet S-03 of S-09.
- All Prop. beam end repair plates and bottom flange repair angles shall conform to the requirements of AASHTO M270 Grade 50. All Prop. diaphragms and their connection angles shall conform to the requirements of AASHTO M270 Grade 36.
- Diaphragm connection holes shall be $1\frac{3}{16}$ " $\varnothing$ for $\frac{3}{4}$ " $\varnothing$ bolts. Two hardened washers shall be required at diaphragm connections.
- Existing diaphragm and clip angle removal shall be paid for as Structural Steel Removal.
- All Prop. beam end repair plates, bottom flange repair angles, and associated bolts and fasteners shall be paid for as Structural Steel Repair. All Prop. diaphragms, connection angles and associated bolts, plate washers and fasteners shall be paid for as Furnishing and Erecting Structural Steel.
- Load carrying components designated "CVN" shall conform to the Impact Testing Requirement, Zone 2.
- Field drill bolt holes in proposed diaphragm using clip angle as template.
- Field drill bolt holes in beam web using repair plates and repair angles as template.
- Field drill bolt holes in repair angles using existing bearing bolts as template.
- Existing Diaphragm length shall be adjusted to fit and clear the repair plates. Cost included in Structural Steel Repair.
- Contractor shall verify the location of the existing crack arrest holes in the field. The Proposed bolt holes can be slightly shifted to clear the crack arrest holes.



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Structural Steel Repair and Details IV
S.N. 016.0158 - I94 over Little Cal. River

SHEET S-07 OF S-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-114-3	COOK	33	10
		CONTRACT NO.		62P55
ILLINOIS		FED. AID PROJECT		



East Face of Stringer 1 at Floor Beam FB3 South Looking South



Bottom of Stringer 1 between Floor Beams FB3 and FB4 Looking South



West Face of Stringer 1 at South Face of Floor Beam FB3



East Face of Stringer 1 at South Face of Floor Beam FB3



West Face of Stringer 8 at South Face of Floor Beam FB6

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PLOT DATE =	CHECKED - MAF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Condition Photos I
S.N. 016.0158 - 194 over Little Cal. River

SHEET S-08 OF S-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-114-3	COOK	33	11
		CONTRACT NO.		62P55
ILLINOIS		FED. AID PROJECT		

12/22/2021 11:03:10 AM



East Face of Stringer 8 at South Face of Floor Beam FB6



West Face of Stringer 8 at South Face of Floor Beam FB3'



East Face of Stringer 8 at South Face of Floor Beam FB3'



Stringer 1 at Floor Beam FB0' upper web crack



Stringer 1 at Floor Beam FB0' upper web crack that was arrested, no further propagation

MODEL: Default
FILE NAME: Q:\Engineering\LiveProjects\20004_IDOT DUR_Bowman\WO_13\CADD\01_Sheets\Structural\0160158-62P55-009-Photos II.dgn



USER NAME	=	DESIGNED - IH	REVISED -
		CHECKED - MAF	REVISED -
PLOT SCALE	=	DRAWN - IH	REVISED -
PLOT DATE	=	CHECKED - MAF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Condition Photos II
S.N. 016.0158 - I94 over Little Cal. River

SHEET S-09 OF S-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	42-B-11-1-3	COOK	33	12
		CONTRACT NO. 62P55		
ILLINOIS		FED. AID PROJECT		

Existing Structure: Existing SN 016-0159 carries mainline Northbound I-94 over Little Calumet River. The Existing Structure was built with stub abutments and multi-column piers. The bridge has 7 total spans and an overall length of 795'-0" with an overall length of 118'-8".

DESIGN STRESSES

FIELD UNITS (EXIST. CONST.)

f'c = 3,500 psi
fy = 60,000 psi
fy = 50,000 psi M223 Gr.50 & M222
fy = 36,000 psi M183

FIELD UNITS (NEW CONST.)

fy = 36,000 psi (Structural Steel)

DESIGN SPECIFICATIONS (EXIST.)

AASHTO 1989 Standard Specifications for Highway Bridges & Interims

LOADING HS-20 & ALT. (EXIST.)

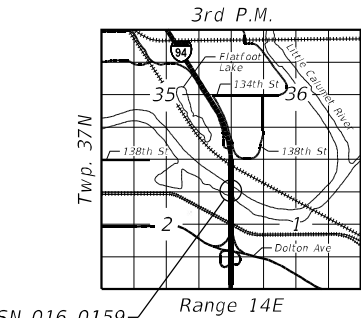
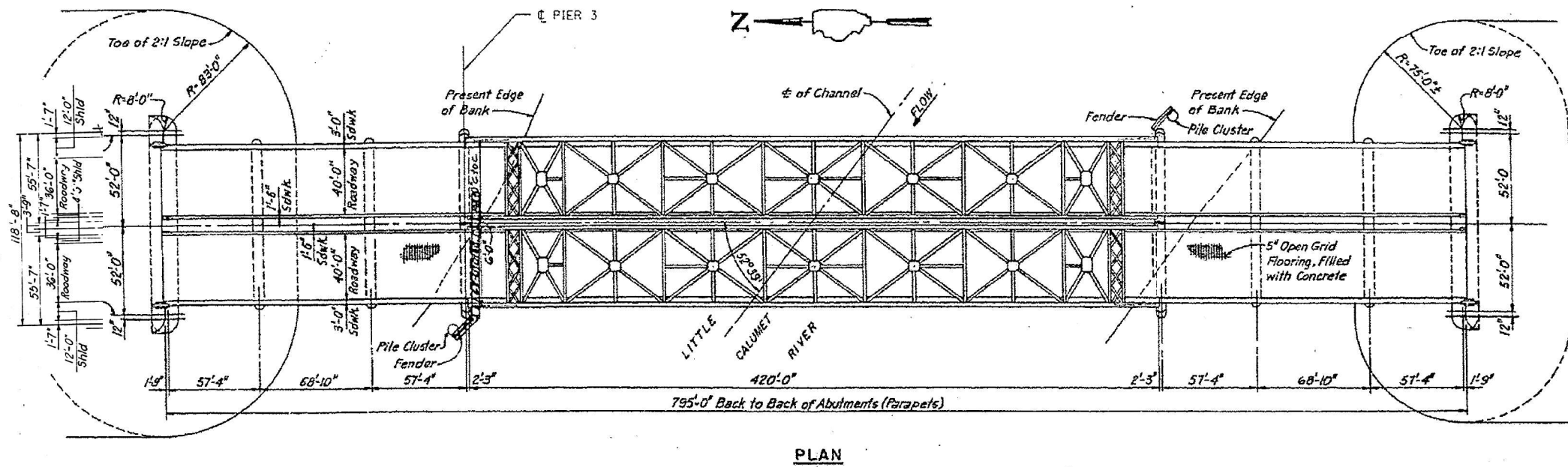
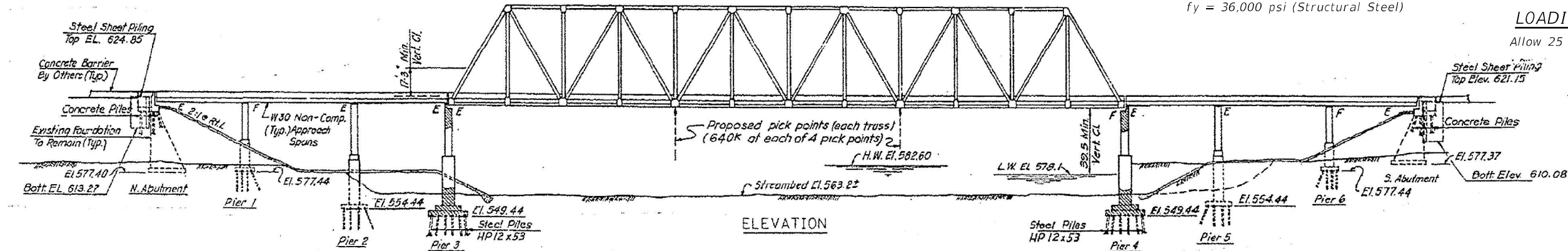
Allow 25 #/sq. ft. for Future Wearing Surface

SCOPE OF WORK

1. Steel Beam Repair

INDEX OF SHEETS

- SB-01 General Plan and Elevation
- SB-02 General Notes and Bill of Material
- SB-03 Steel Repair Locations
- SB-04 To SB-05 Steel Repair Details
- SB-06 Repair Photos



GENERAL PLAN AND ELEVATION
NB I-94 OVER LITTLE CALUMET RIVER
F.A.I. ROUTE 94
COOK COUNTY
STRUCTURE NO. 016-0159

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Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-415-0580 www.bowman.com	USER NAME = atiemann	DESIGNED - AT, JK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION NB I-94 OVER LITTLE CALUMET RIVER - SN 016-0159	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 09/07/2021	CHECKED - AJN	REVISED -			SHEET SB-01 OF SB-06 SHEETS				
							ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1.

Plan dimensions and details relative to the existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustment 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.
2.

All new fasteners shall be ASTM A325, Type I hot-dipped galvanized bolts. Holes shall be $\frac{13}{16}$ " diameter for $\frac{3}{4}$ " diameter bolts unless otherwise noted.
3.

All Structural Steel shall conform to AASHTO M270 Grade 36 Unless otherwise noted.
4.

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

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". Cost included in "Structural Steel Repair".
6.

Cost of field welding is included with the cost of Structural Steel Repair.
7.

All repair materials including structural steel plates, bolts, nuts, and washers shall be galvanized per the special provision "Hot Dip Galvanizing for Structural Steel". Cost included in "Structural Steel Repair".
8.

During repair operations, the Contractor shall locate and protect all utilities or facilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with Structural Steel Repair. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
9.

Use holes in new steel as template to field drill holes in existing steel.
10.

All repair plates are non Fracture Critical Members.
11.

All connection bolts and fasteners shall be paid for as Structural Steel Repair.
12.

No field welding is permitted except as shown or specified in the contract documents.
13.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans specified in the Special Provision shall be included with Structural Steel Repair.

BILL OF MATERIAL

PAY ITEM	DESCRIPTION	UNIT	SUPER	SUB	TOTAL
Z0001905	Structural Steel Repair	Pound	1,550	-	1,550

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		CHECKED - KH	REVISED -
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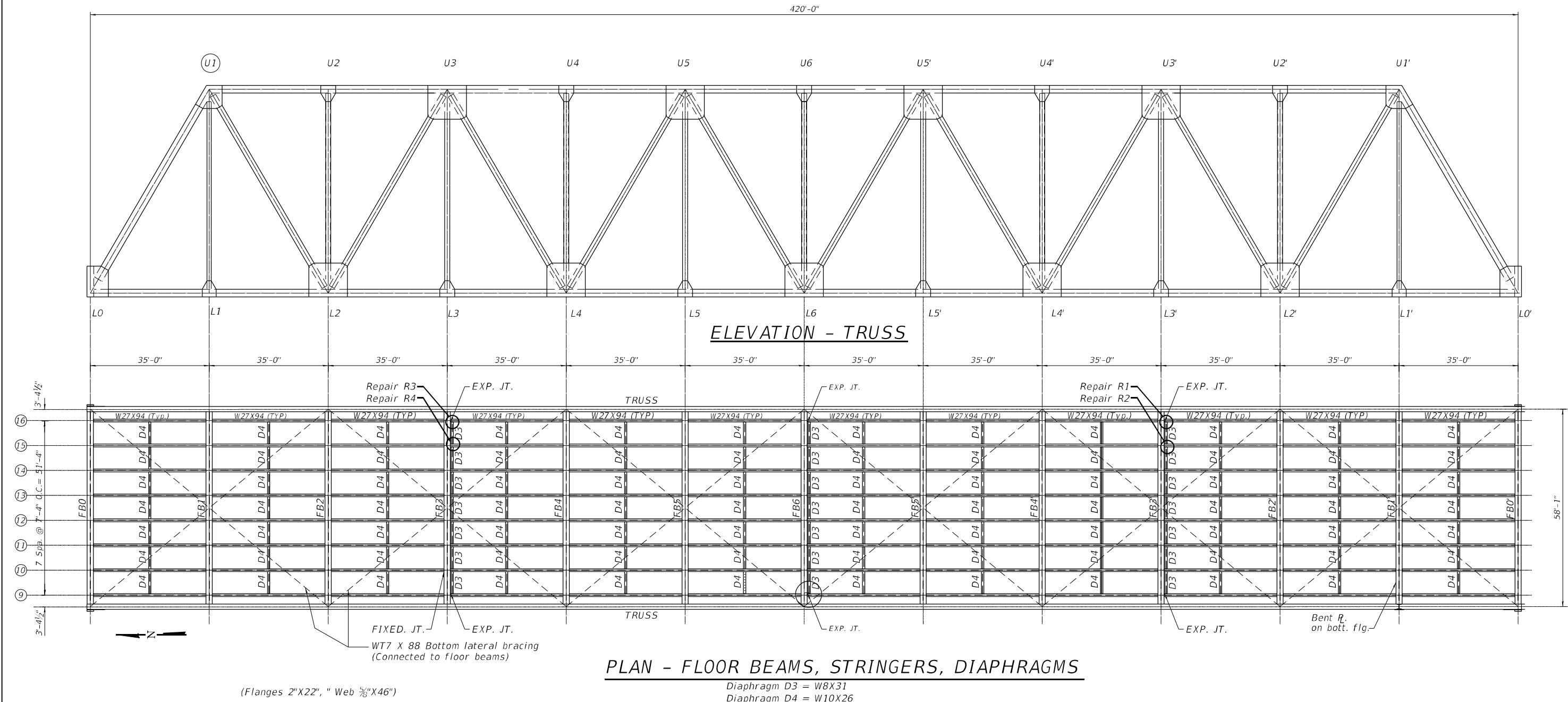
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, WELDING NOTES, AND BILL OF MATERIAL
NB I-94 OVER LITTLE CALUMET RIVER - SN 016-0159

SHEET SB-02 OF SB-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	COOK	33	14
CONTRACT NO.				62P55
		ILLINOIS	FED. AID PROJECT	

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311 S. Wacker Drive, Suite 1950
Chicago, Illinois 60606
312-415-0360
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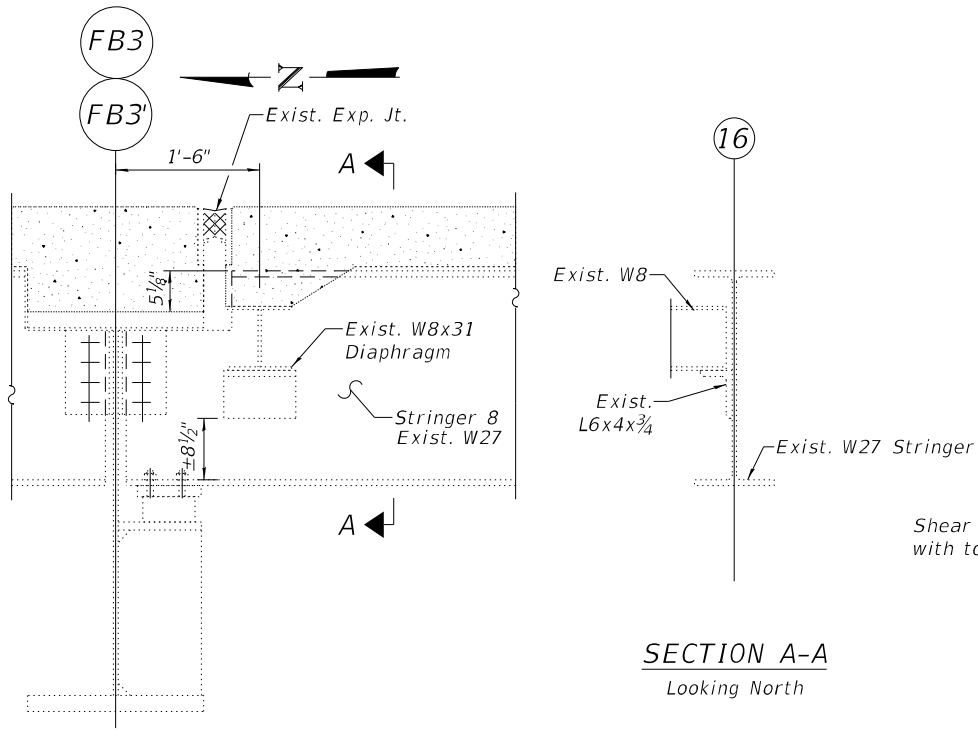


PLAN - FLOOR BEAMS, STRINGERS, DIAPHRAGMS

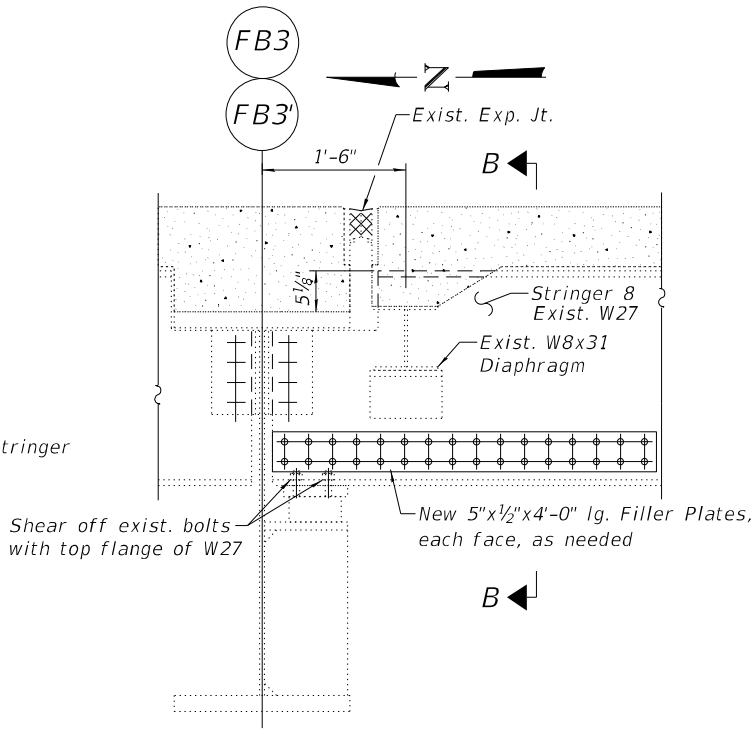
Diaphragm D3 = W8X31
Diaphragm D4 = W10X26

Bowman 391 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-464-0369 www.bowman.com	USER NAME = atiemann	DESIGNED - AT, JK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING FRAMING PLAN NB I-94 OVER LITTLE CALUMET RIVER - SN 016-0159	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CHECKED - AJN	REVISED -			ILLINOIS FED. AID PROJECT				
						SHEET SB-03 OF SB-06 SHEETS				

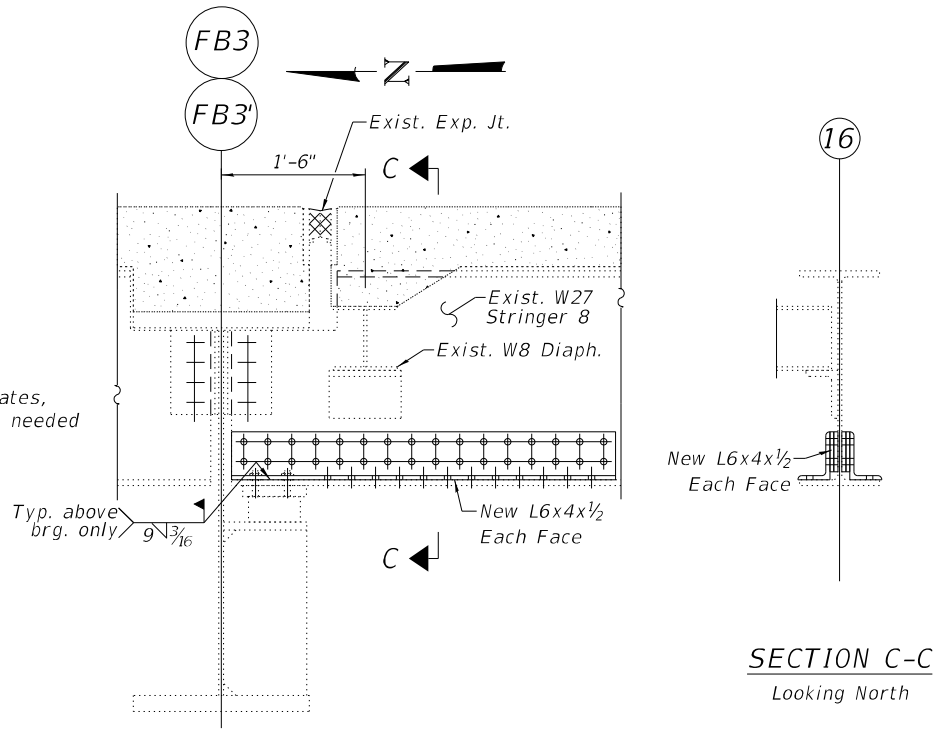
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311 S. Wacker Drive, Suite 1950
Chicago, Illinois 60606
312-415-0360
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SECTION A-A
Looking North



SECTION B-B
Looking North

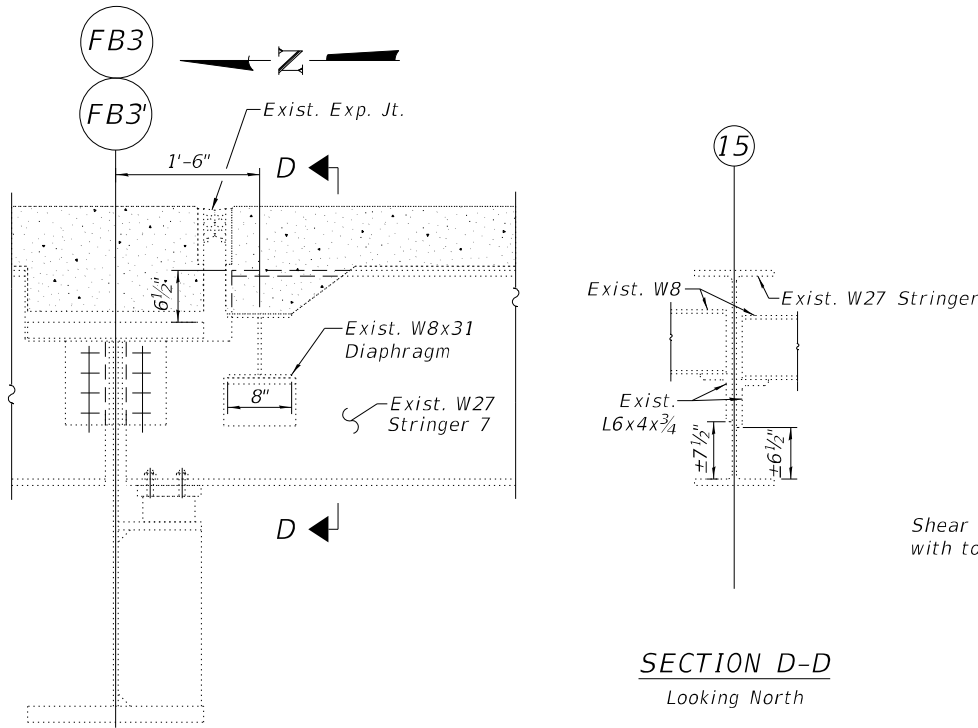


SECTION C-C
Looking North

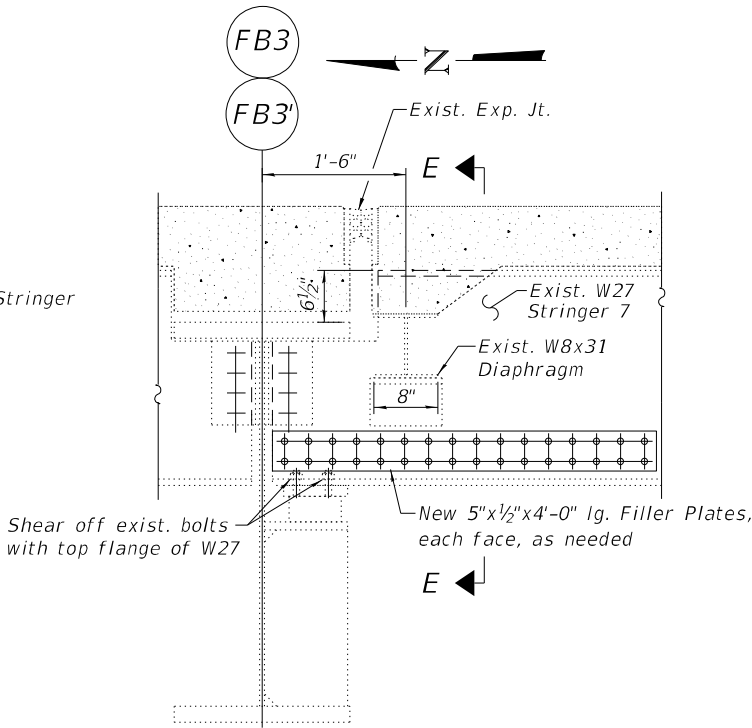
REPAIRS 1 & 3 - EXISTING STRINGER 16
R1 - FB3' South Beam-West Face - Photo 4
R3 - FB3 South Beam-West Face - Photo 6

REPAIRS 1 & 3 - SHOWING FILL PLATES

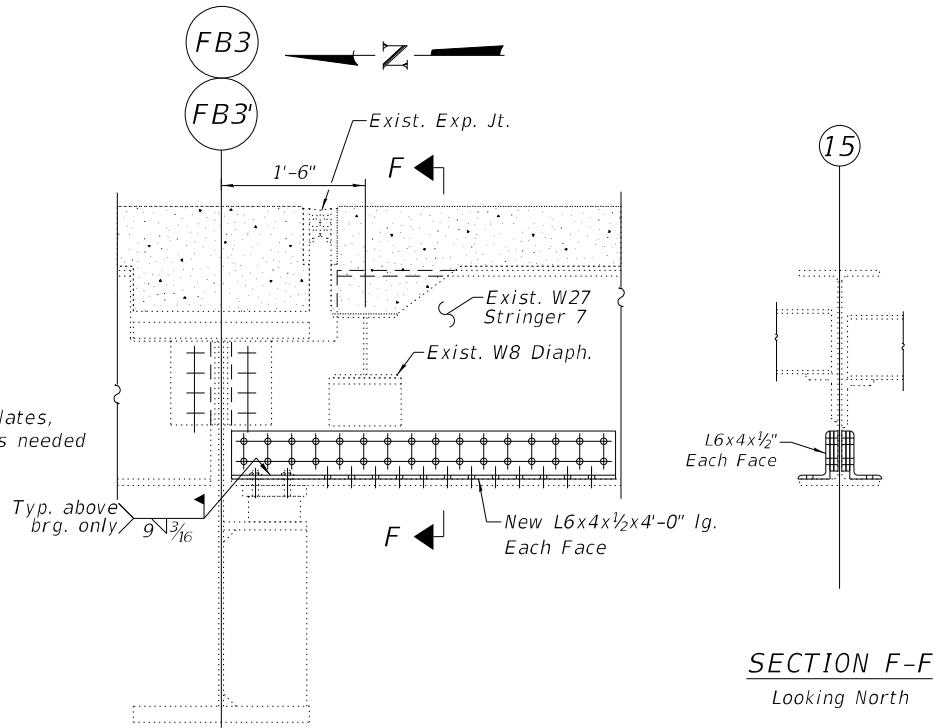
REPAIRS 1 & 3 - SHOWING L6x4



SECTION D-D
Looking North



SECTION E-E
Looking North



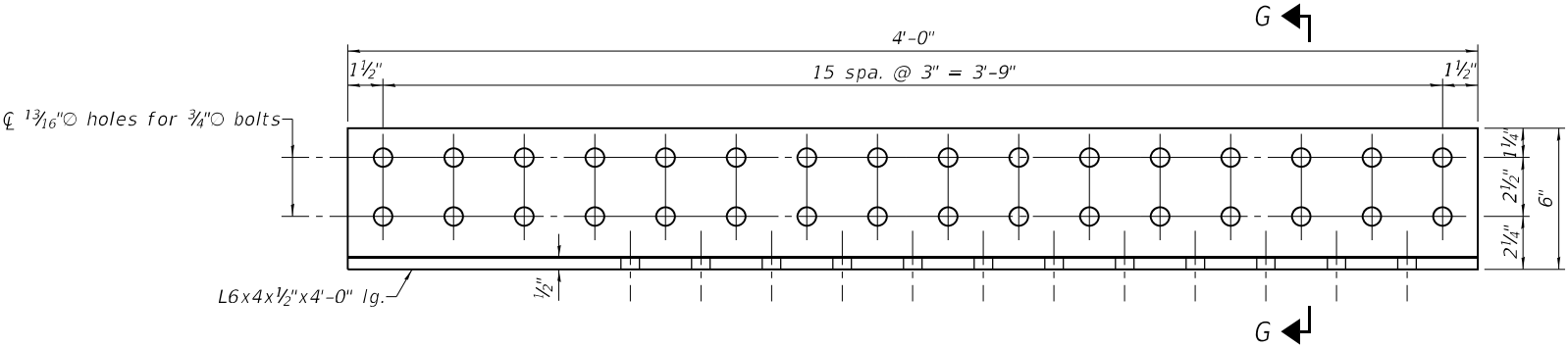
SECTION F-F
Looking North

REPAIRS 2 & 4 - EXISTING STRINGER 15
R2 - FB3' South Beam-West Face - Photo 5
R4 - FB3 South Beam-East Face - Photo 7

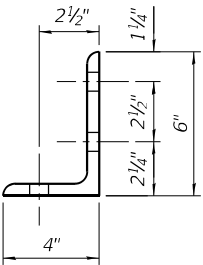
REPAIRS 2 & 4 - SHOWING FILL PLATES

REPAIRS 2 & 4 - SHOWING L6x4

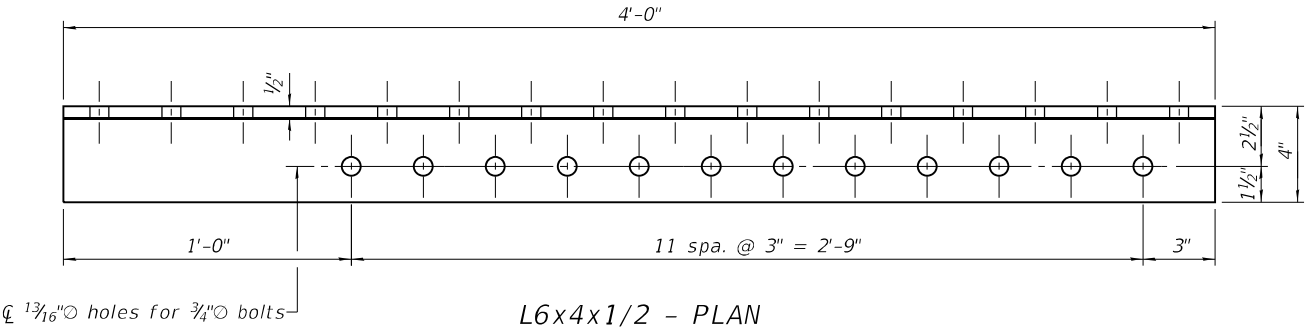
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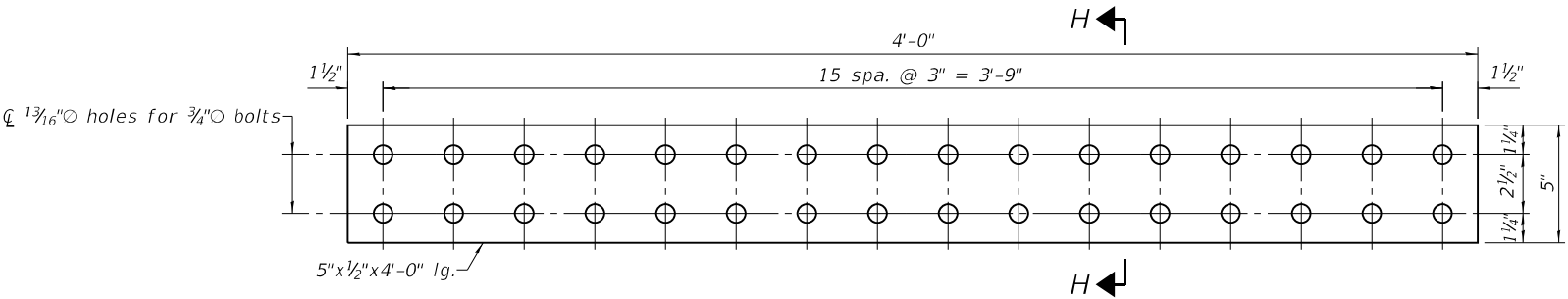
L6x4x1/2 - ELEVATION
(8 Required - 4 As Shown, 4 Opposite Hand)



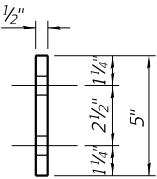
SECTION G-G



L6x4x1/2 - PLAN



5"x1/2" FILL PLATE - ELEVATION
(As Needed)



SECTION H-H

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PLOT DATE	=	09/07/2021	CHECKED	-	AJN	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIR DETAILS
NB I-94 OVER LITTLE CALUMET RIVER - SN 016-0159

SHEET SB-05 OF SB-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				62P55
ILLINOIS		FED. AID PROJECT		

SB-05

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PHOTO 4

REPAIR 1 - LOOKING NORTHWEST



PHOTO 5

REPAIR 2 - LOOKING NORTHWEST



PHOTO 6

REPAIR 3 - LOOKING NORTHWEST



PHOTO 7

REPAIR 4 - LOOKING NORTHEAST

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			CHECKED -	KH	REVISED -	
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			PLOT DATE =	09/07/2021	CHECKED -	AJN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR PHOTOS
NB I-94 OVER LITTLE CALUMET RIVER - SN 016-0159

SHEET SB-06 OF SB-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	COOK	33	18
CONTRACT NO.				62P55
ILLINOIS		FED. AID PROJECT		

SB-06

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FIELD UNITS (EXIST. CONST.)

FIELD UNITS (NEW CONST.)

Allow 25 #/sq. ft. for Future Wearing Surface

SC-01

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	COOK	33	19
CONTRACT NO.			62P55	
ILLINOIS		FED. AID PROJECT		

GENERAL NOTES

1.

Plan dimensions and details relative to the existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustment 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.
2.

All new fasteners shall be ASTM A325, Type I hot-dipped galvanized bolts. Holes shall be $\frac{13}{16}$ " diameter for $\frac{3}{4}$ " diameter bolts unless otherwise noted.
3.

All Structural Steel shall conform to AASHTO M270 Grade 36 Unless otherwise noted.
4.

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

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". Cost included in "Structural Steel Repair".
6.

Cost of field welding is included with the cost of Structural Steel Repair.
7.

All repair materials including structural steel plates, bolts, nuts, and washers shall be galvanized per the special provision "Hot Dip Galvanizing for Structural Steel". Cost included in "Structural Steel Repair".
8.

During repair operations, the Contractor shall locate and protect all utilities or facilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with Structural Steel Repair. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
9.

Use holes in new steel as template to field drill holes in existing steel.
10.

All repair plates are non Fracture Critical Members.
11.

All connection bolts and fasteners shall be paid for as Structural Steel Repair.
12.

No field welding is permitted except as shown or specified in the contract documents.
13.

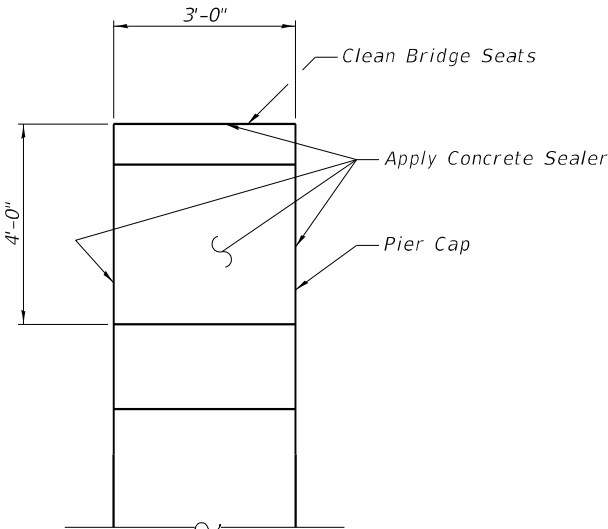
Top surface of the pier cap at Pier 2 shall be cleaned of all debris prior to installation of concrete sealer.
14.

Concrete Sealer shall be applied to the top face and sides of the pier cap at Pier 2.
15.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans specified in the Special Provision shall be included with Structural Steel Repair.

BILL OF MATERIAL

PAY ITEM	DESCRIPTION	UNIT	SUPER	SUB	TOTAL
58700300	Concrete Sealer	SQ FT	-	1,522	1,522
Z0001905	Structural Steel Repair	POUND	7,470	-	7,470
Z0010400	Cleaning Bridge Seats	SQ FT	-	409	409



END OF PIER 2

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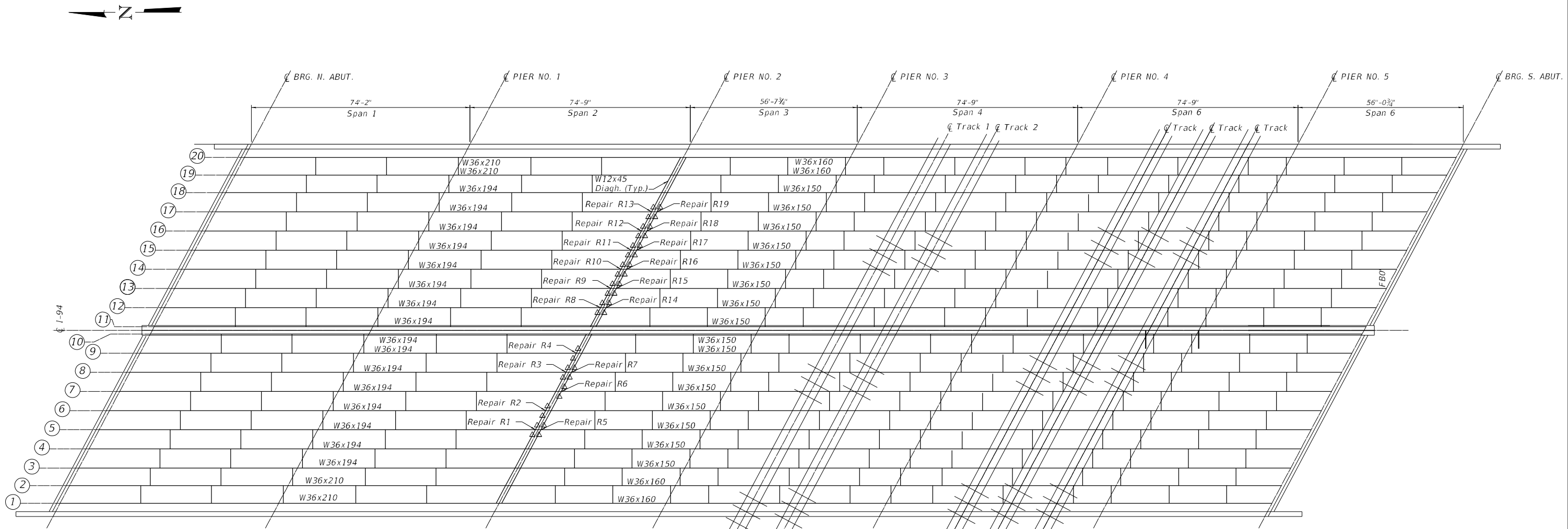
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, WELDING NOTES, AND BILL OF MATERIAL
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

SHEET SC-02 OF SC-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO.	62P55
		ILLINOIS	FED. AID PROJECT	

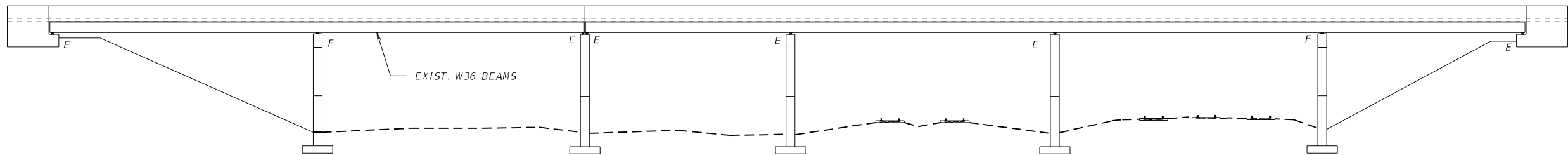
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△ - Temporary Shoring & Cribbing of End Diaphragm

PLAN

Track added after original construction



ELEVATION

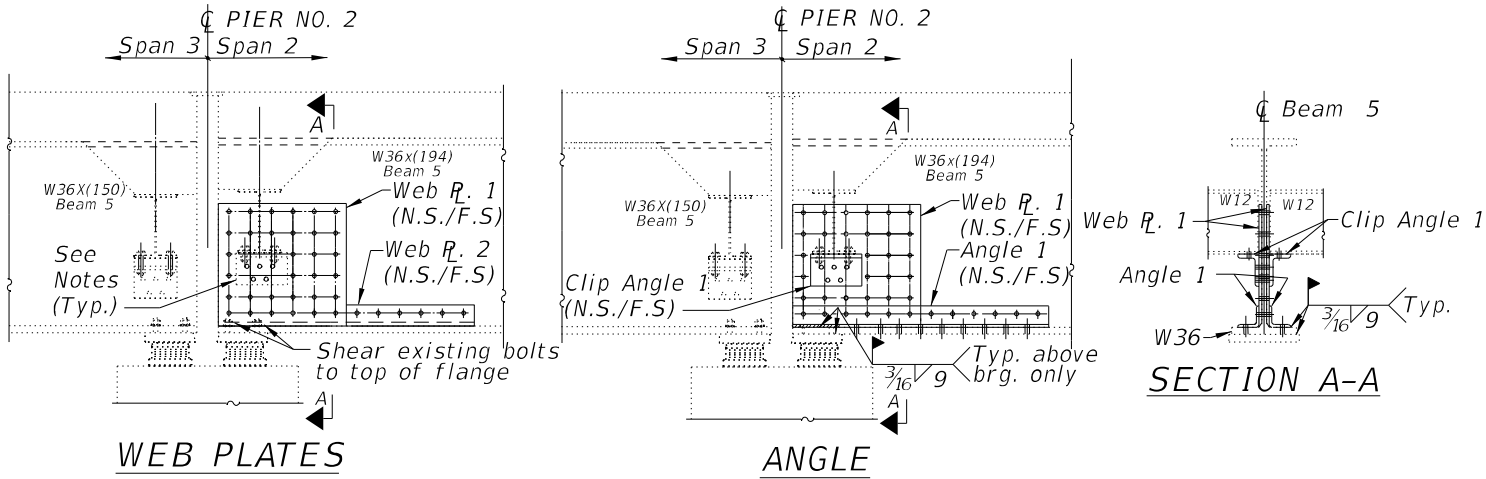
Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-464-0980 www.bowman.com	USER NAME = atiemann	DESIGNED - AT, JK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING FRAMING PLAN I-94 OVER IHB & CSX RAILROADS - SN 016-0160	F.A.I. RTE. 94	SECTION 2021-137-BR	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 21
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	PLOT DATE = 09/07/2021	CHECKED - AJN	REVISED -			SHEET SC-03 OF SC-14 SHEETS				
						ILLINOIS FED. AID PROJECT				

						EXISTING BEAM	
NO	PIER	SPAN	DIRECTION	BEAM	PHOTOS*	W SHAPE	NEW STEEL
R1	2	2	SB	5	1 & 2	W36 X 194	**WP1(2), WP2(2), A1(2), CA1(2)
R2	2	2	SB	6	3, 4 & 5	W36 X 194	WP3(2), WP4(2), A2(2), CA1(2)
R3	2	2	SB	8	8 & 9	W36 X 194	WP5(2), A3(2), CA1(2)
R4	2	2	SB	9	10 & 11	W36 X 194	WP5(2), A3(2), CA1(2)
R5	2	3	SB	5	1 & 2	W36 X 150	WP6(2), WP7(2), A4(2), CA1(2)
R6	2	3	SB	7	6 & 7	W36 X 150	WP6(2), WP8(2), A5(2), CA1(2)
R7	2	3	SB	8	8 & 9	W36 X 150	WP3(2), WP2(2), A1(2), CA1(2)
R8	2	2	NB	12	12 & 13	W36 X 194	WP6(2), WP4(2), A2(2), CA1(2)
R9	2	2	NB	13	14 & 15	W36 X 194	WP6(2), WP4(2), A2(2), CA1(2)
R10	2	2	NB	14	16 & 17	W36 X 194	WP1(2), WP4(2), A2(2), CA1(2)
R11	2	2	NB	15	18 & 19	W36 X 194	WP1(2), WP4(2), A2(2), CA1(2)
R12	2	2	NB	16	20 & 21	W36 X 194	WP1(2), WP4(2), A2(2), CA1(2)
R13	2	2	NB	17	22 & 23	W36 X 194	WP1(2), WP4(2), A2(2), CA1(2)
R14	2	3	NB	12	12 & 13	W36 X 150	WP1(2), WP7(2), A4(2), CA1(2)
R15	2	3	NB	13	14 & 15	W36 X 150	WP3(2), WP2(2), A1(2), CA1(2)
R16	2	3	NB	14	16 & 17	W36 X 150	WP1(2), WP8(2), A5(2), CA1(2)
R17	2	3	NB	15	18 & 19	W36 X 150	WP1(2), WP2(2), A1(2), CA1(2)
R18	2	3	NB	16	20 & 21	W36 X 150	WP1(2), WP4(2), A2(2), CA1(2)
R19	2	3	NB	17	22 & 23	W36 X 150	WP1(2), WP4(2), A2(2), CA1(2)

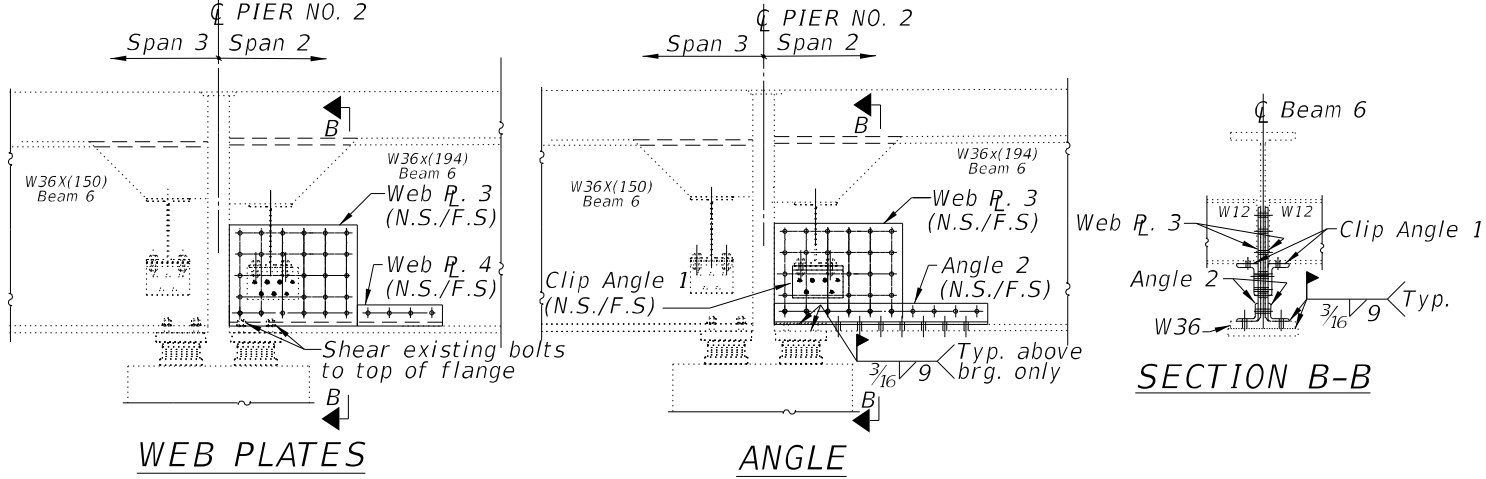
* SEE REPAIR PHOTOS SHEETS

****WP1(2) = 2 Web Plate 1's Required**
A1(2) = 2 Angle 1's Required
CA1(2) = 2 Clip Angle 1's Required

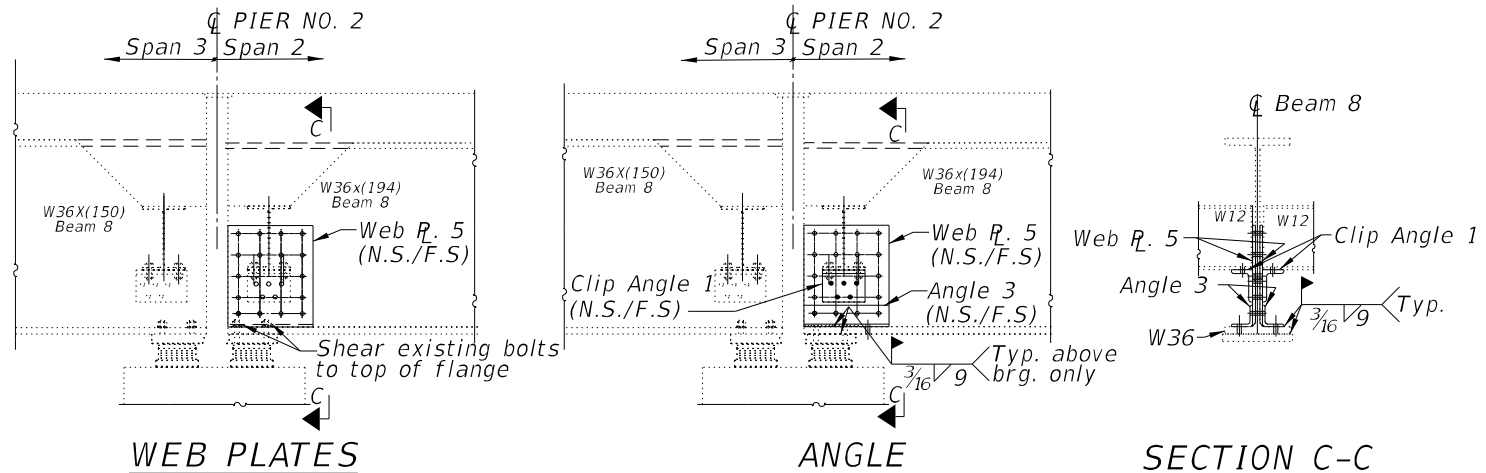
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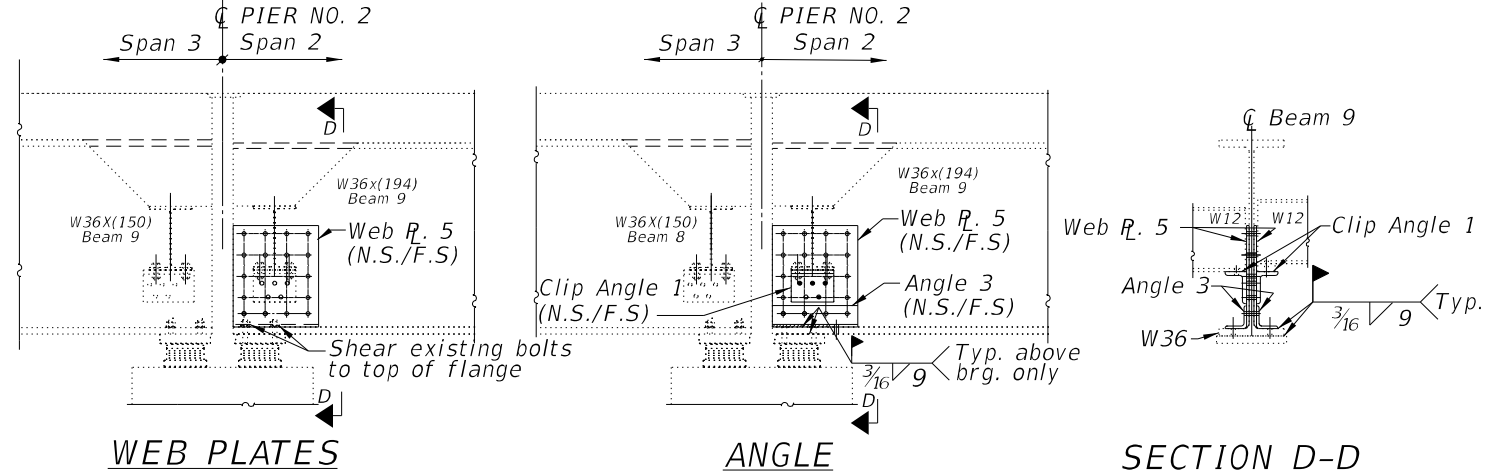
REPAIR R1
Beam 5-SP2-Looking West



REPAIR R2
Beam 6-SP2-Looking West



REPAIR R3
Beam 8-SP2-Looking West



REPAIR R4
Beam 9-SP2-Looking West

Notes:

1. Field verify all dimensions prior to fabrication.
2. Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans specified in the Special Provision shall be included with Structural Steel Repair.
3. The cribbing installation under the end diaphragms must be able to support 400# of weight under the diaphragm.

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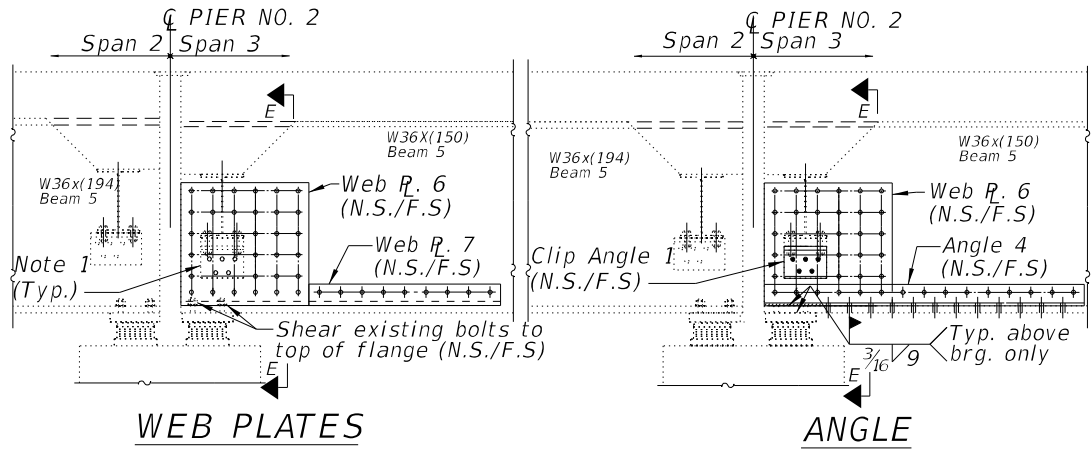
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STEEL REPAIRS - SPAN 2-SB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

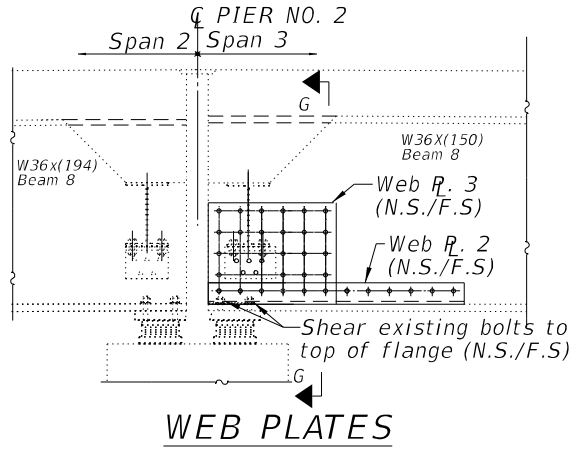
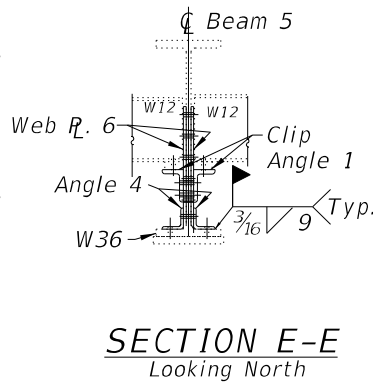
SHEET SC-05 OF SC-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				62P55
ILLINOIS		FED. AID PROJECT		

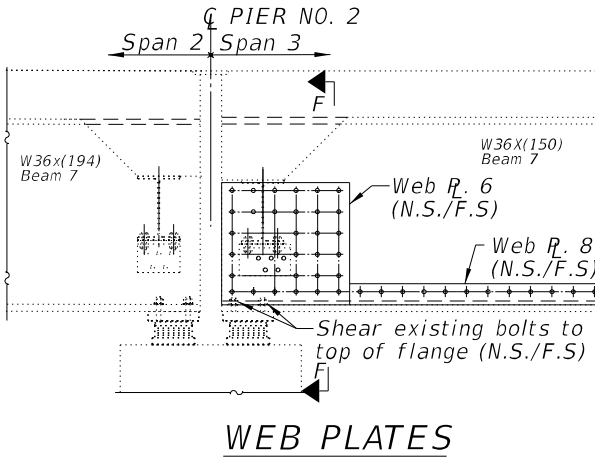
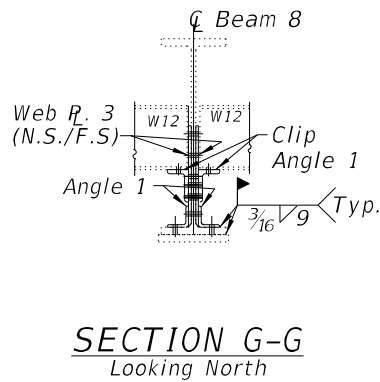
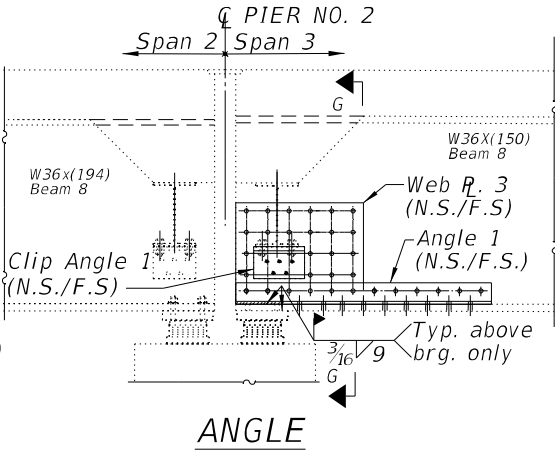
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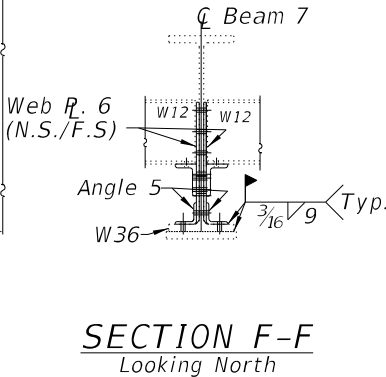
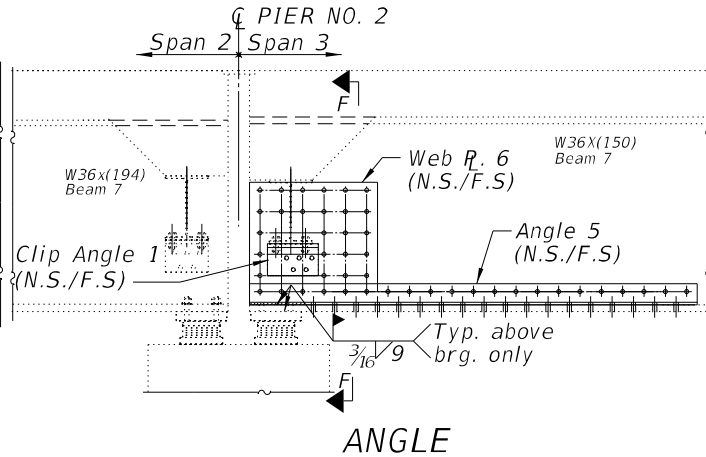
REPAIR R5
Beam 5-SP3-Looking East



REPAIR R7
Beam 8-SP3-Looking East



REPAIR R6
Beam 7-SP3-Looking East



Notes:

1. Field verify all dimensions prior to fabrication.
2. Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans specified in the Special Provision shall be included with Structural Steel Repair.
3. The cribbing installation under the end diaphragms must be able to support 400# of weight under the diaphragm.

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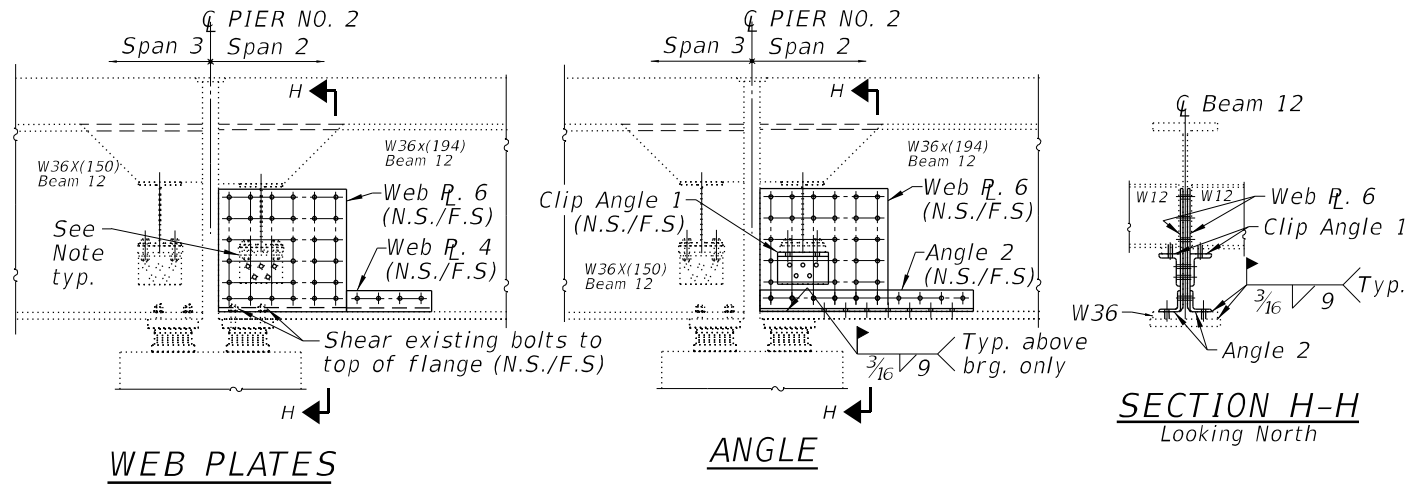
STEEL REPAIRS - SPAN 3-SB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

SHEET SC-06 OF SC-14 SHEETS

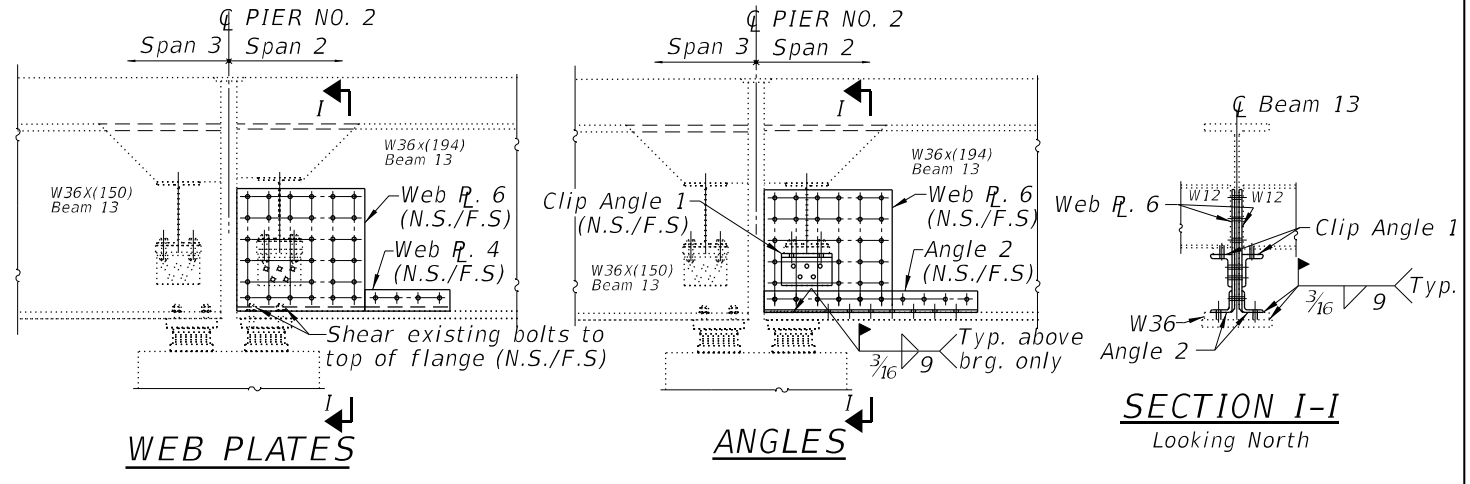
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CONTRACT NO.				62P55
ILLINOIS		FED. AID PROJECT		

SC-06

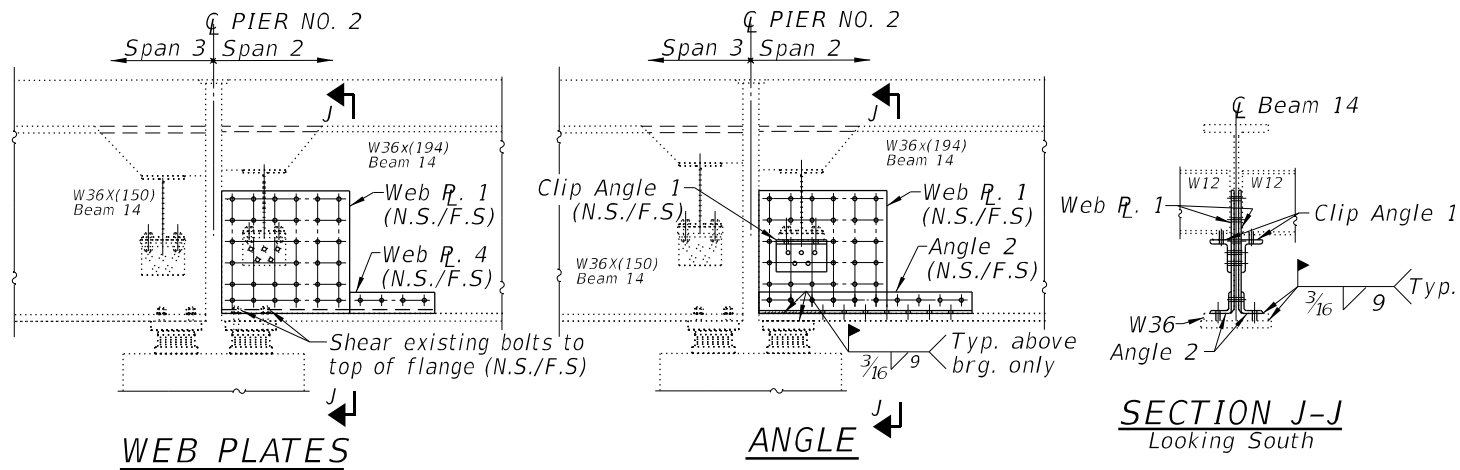
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REPAIR R8
Beam 12-SP2-Looking West



REPAIR R9
Beam 13-SP2-Looking West



REPAIR R10
Beam 14-SP2-Looking West

Notes:

1. Field verify all dimensions prior to fabrication.
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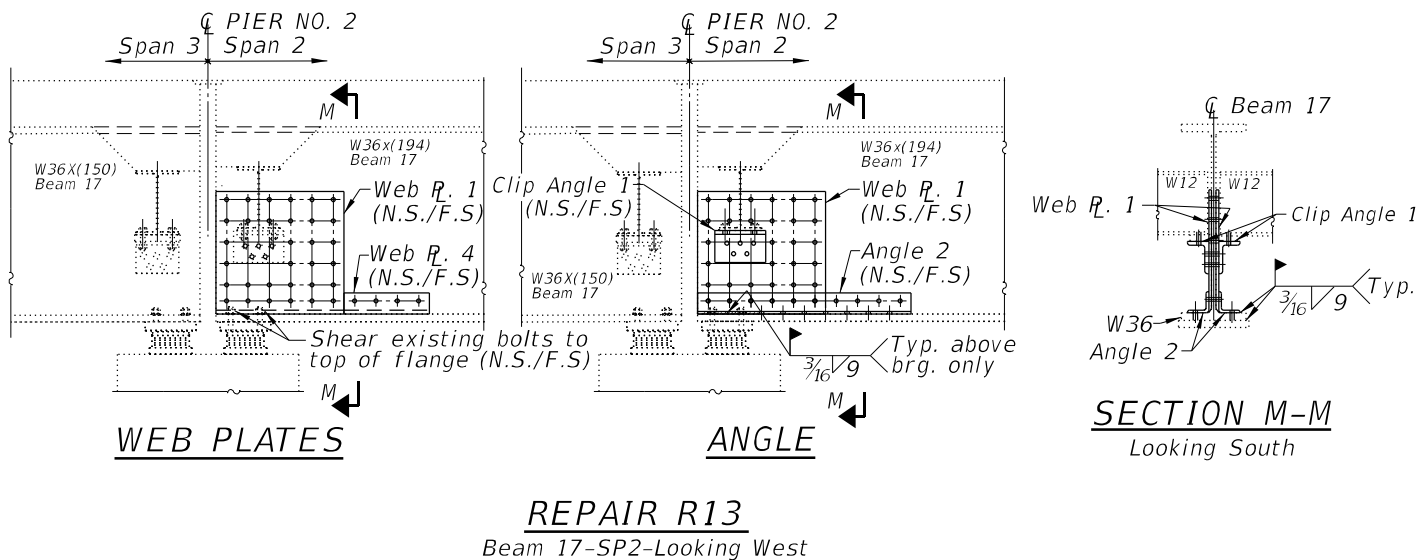
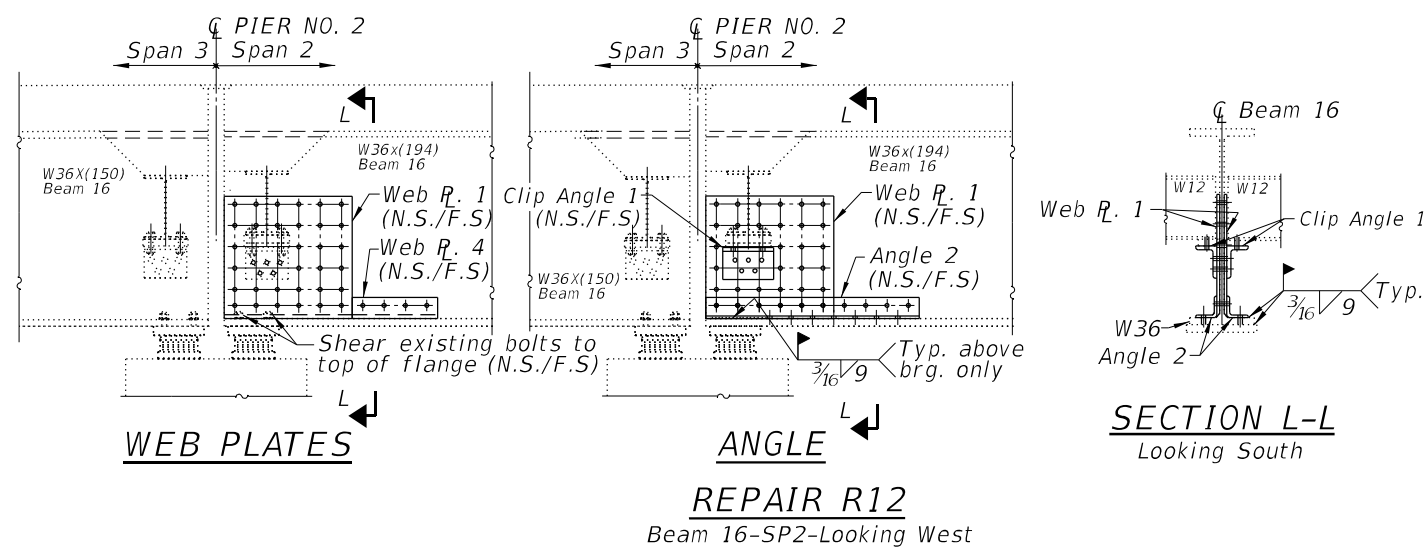
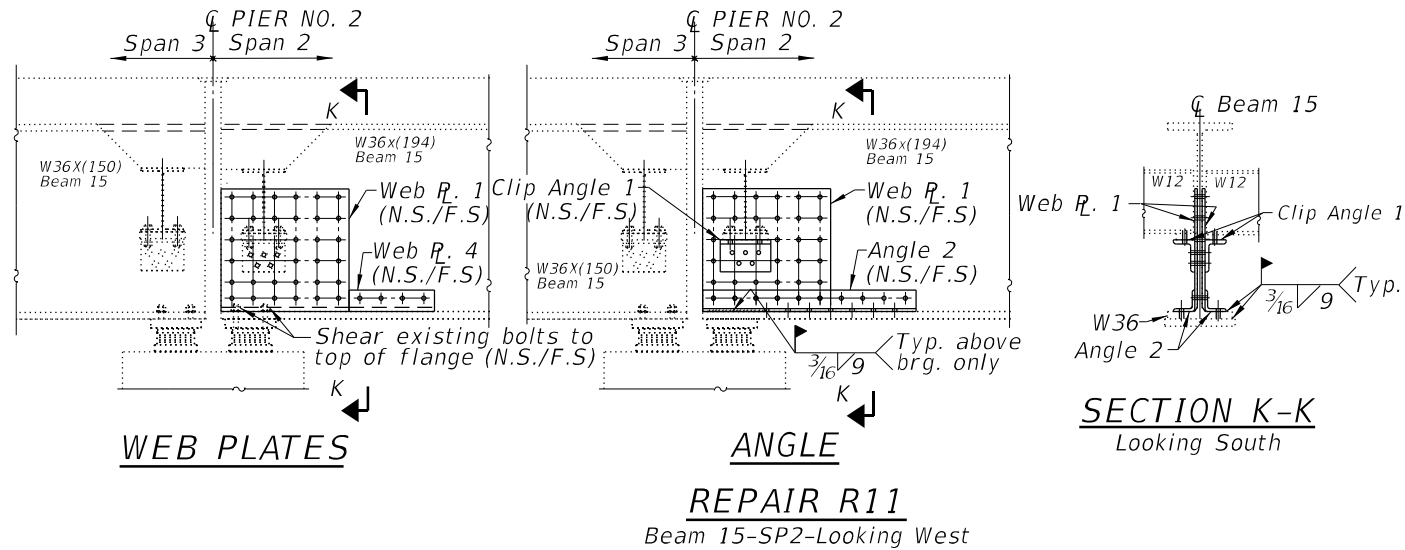
STEEL REPAIRS - SPAN 2-NB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

SHEET SC-07 OF SC-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				62P55
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SC-07

MODEL: D162P55-0160160 R2
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Notes:

1. Field verify all dimensions prior to fabrication.
2. Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans specified in the Special Provision shall be included with Structural Steel Repair.
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STEEL REPAIRS - SPAN 2-NB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

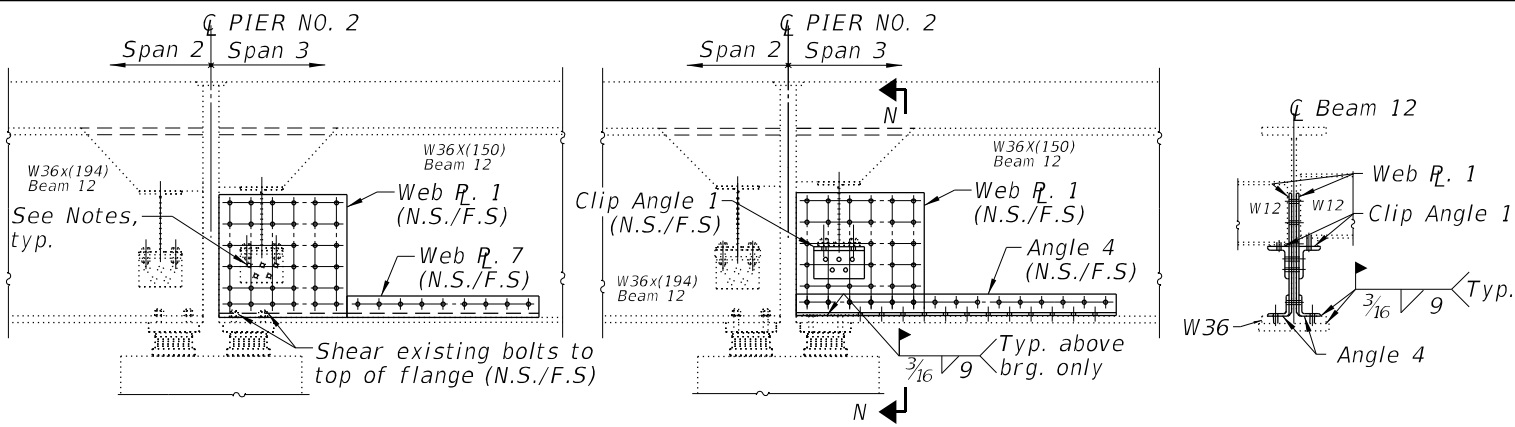
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SC-08

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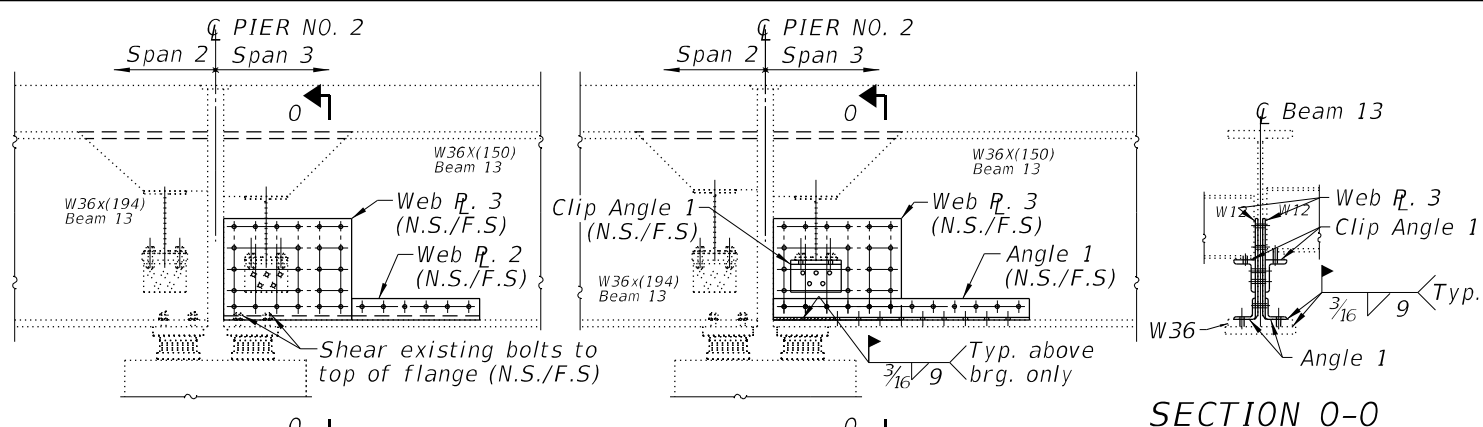


WEB PLATES

ANGLES

SECTION N-N
Looking North

REPAIR R14
Beam 12-SP3-Looking East

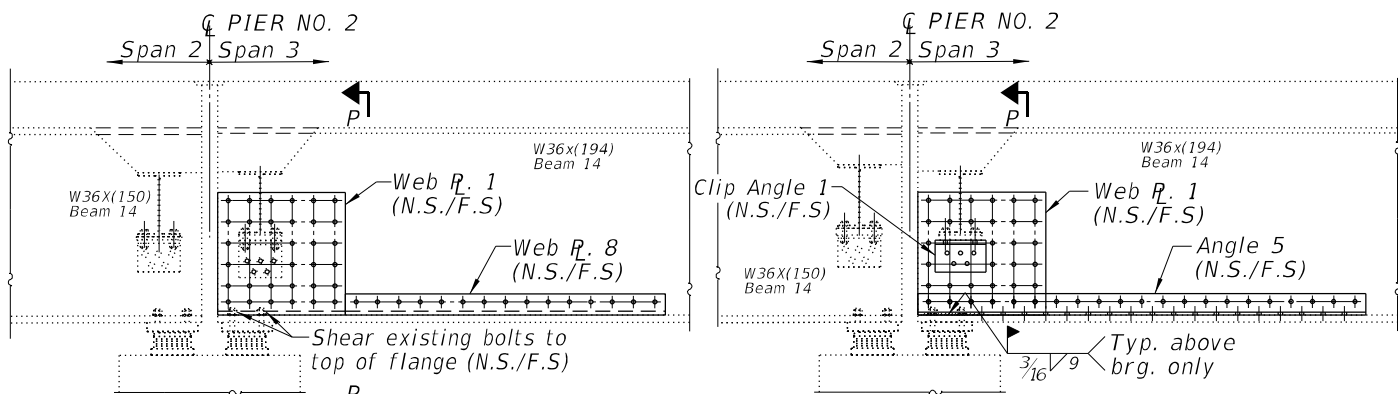


WEB PLATES

ANGLE

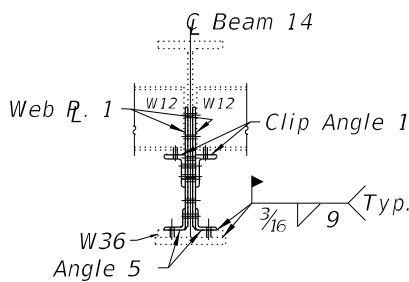
SECTION 0-0
Looking North

REPAIR R15
Beam 13-SP3-Looking East



WEB PLATES

ANGLE



SECTION P-P
Looking North

REPAIR R16
Beam 14-SP3-Looking East

Notes:

1. Field verify all dimensions prior to fabrication.
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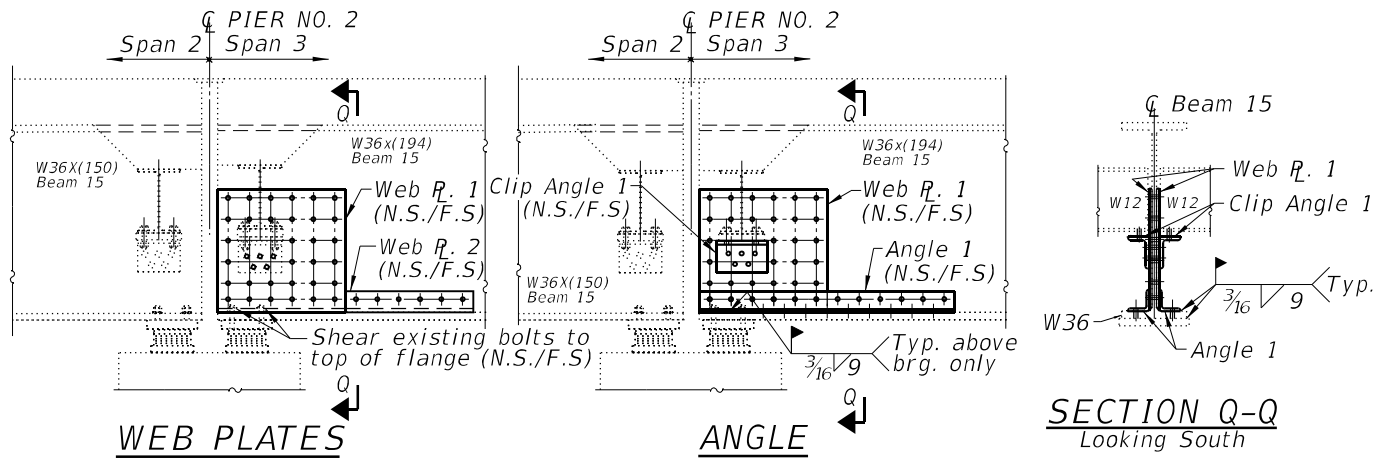
STEEL REPAIRS - SPAN 3-NB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

SHEET SC-09 OF SC-14 SHEETS

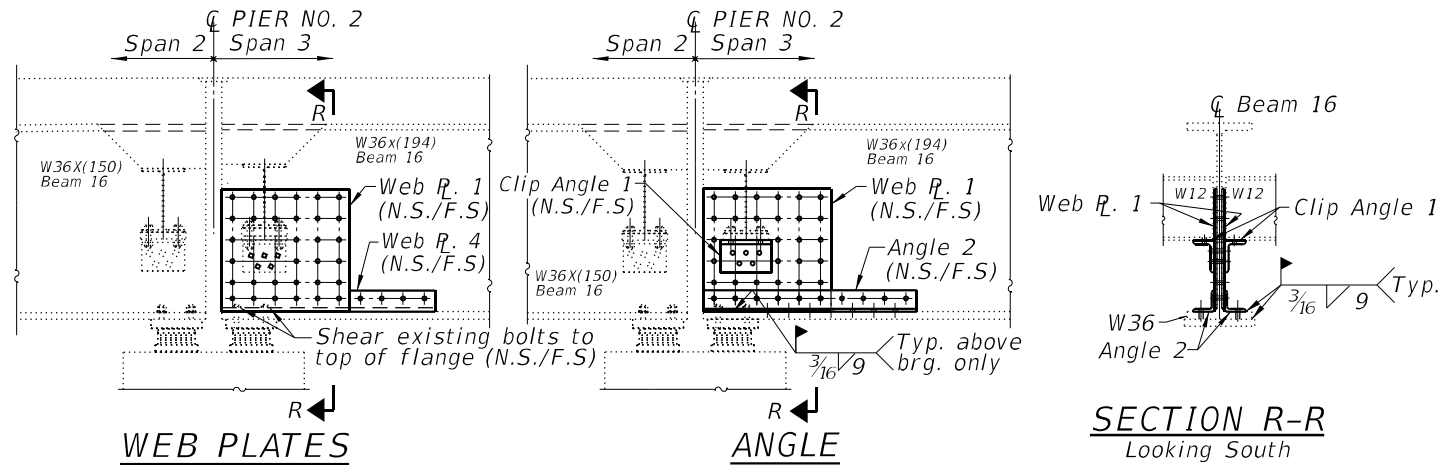
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CONTRACT NO.				62P55
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SC-09

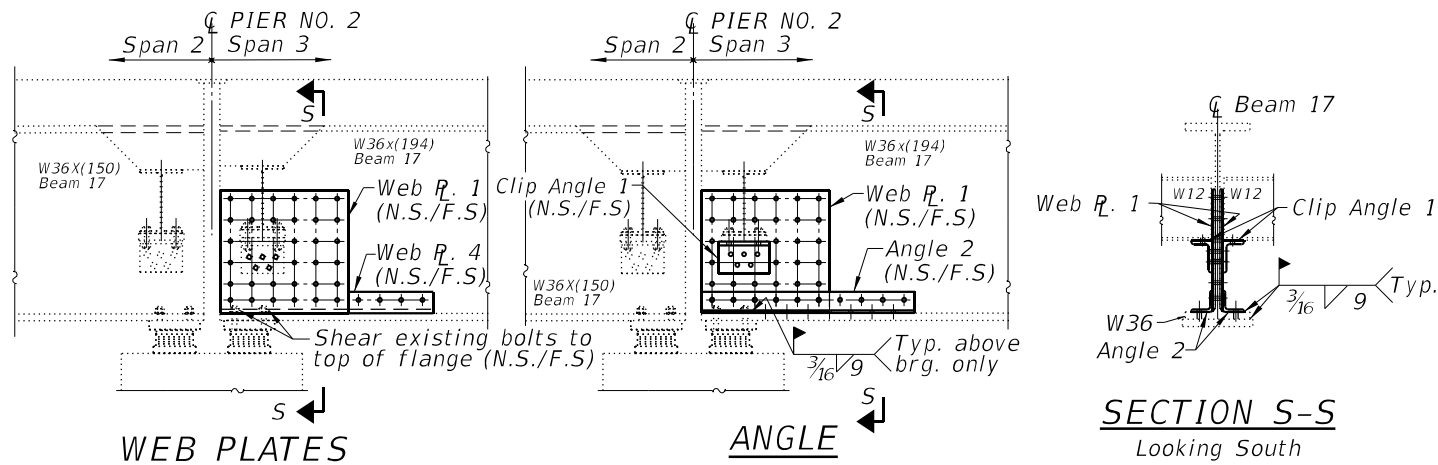
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REPAIR R17
Beam 15-SP3-Looking East



REPAIR R18
Beam 16-SP3-Looking East



REPAIR R19
Beam 17-SP3-Looking East

Notes:

1. Field verify all dimensions prior to fabrication.
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STEEL REPAIRS - SPAN 3-NB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

SHEET SC-10 OF SC-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				62P55
ILLINOIS		FED. AID PROJECT		

SC-10

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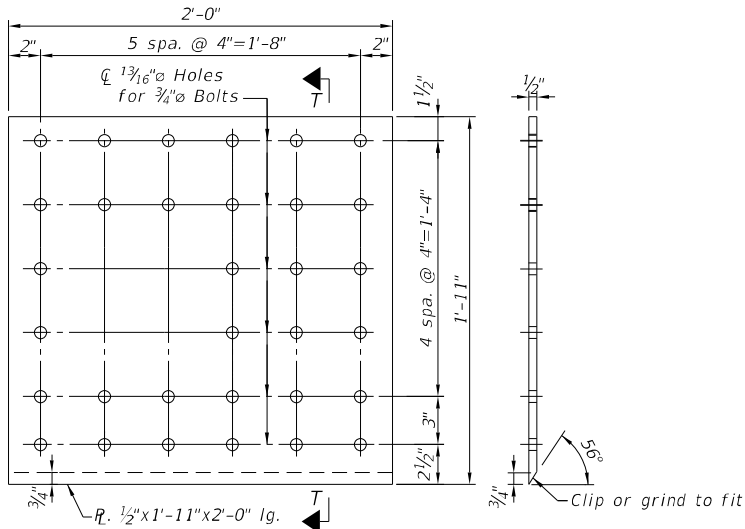
**STATE OF ILLINOIS
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**STEEL REPAIR DETAILS - SPAN 3-SB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160**

SHEET SC-11 OF SC-14 SHEETS

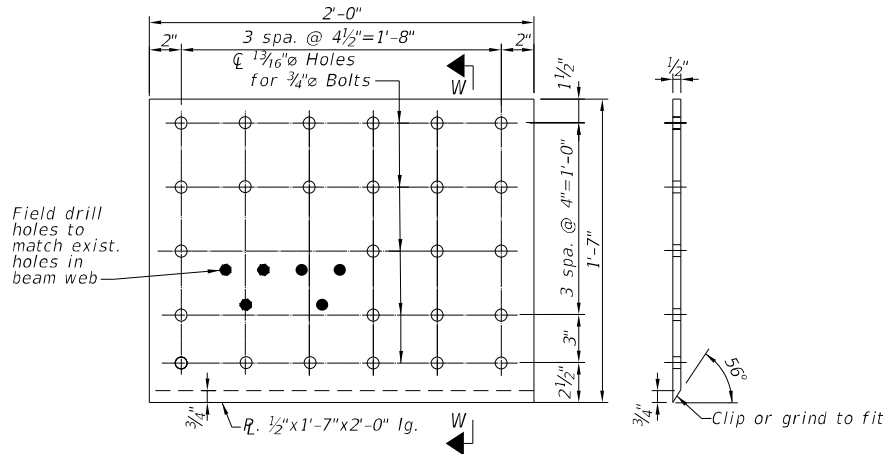
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ILLINOIS		FED. AID PROJECT		

SC-11



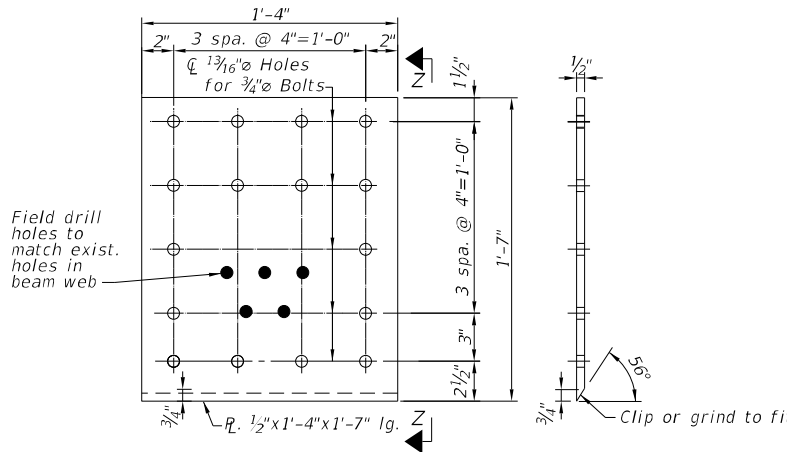
WEB PLATE 1

Repairs R1, R10, R11, R12, R13, R14, R16, R17, R18, R19
(2 required each)



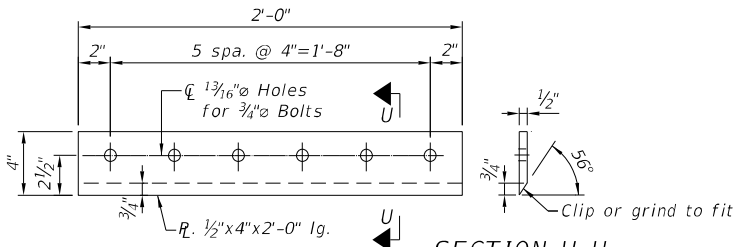
WEB PLATE 3

Repair R2 (2 required)
Repair R7 (2 required)
Repair R15 (2 required)



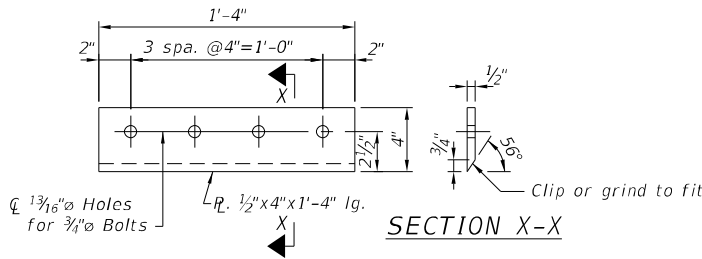
WEB PLATE 5

Repair R3 (2 required)
Repair R4 (2 required)



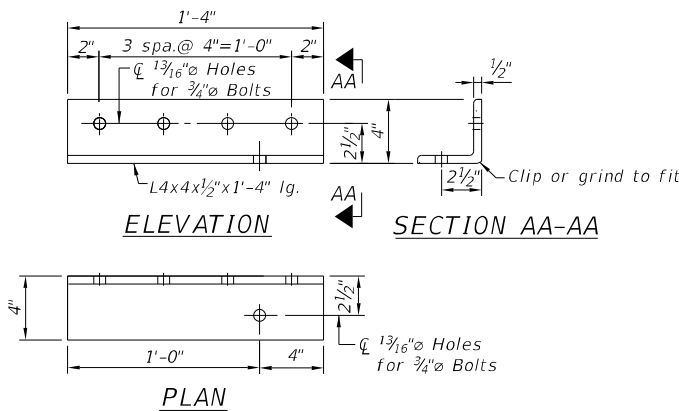
WEB PLATE 2

Repair R1 (2 required)
Repair R7 (2 required)
Repair R15 (2 required)
Repair R17 (2 required)



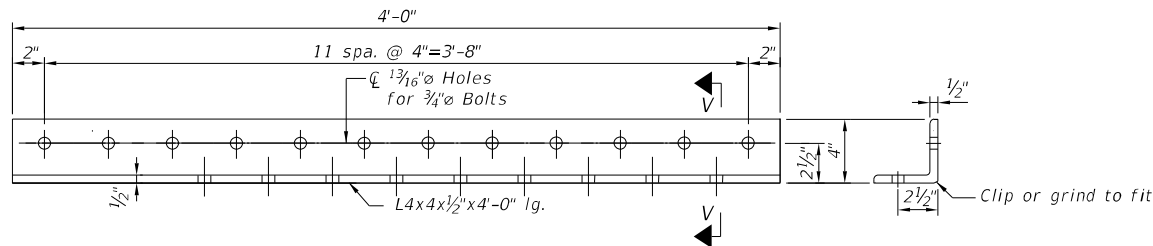
WEB PLATE 4

Repairs R2, R8, R9, R10, R11, R12, R13, R18, R19
(2 required, each)



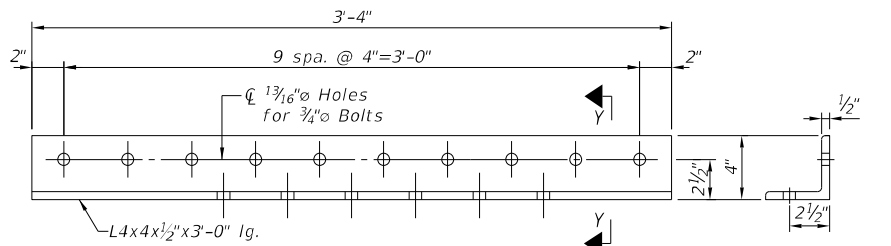
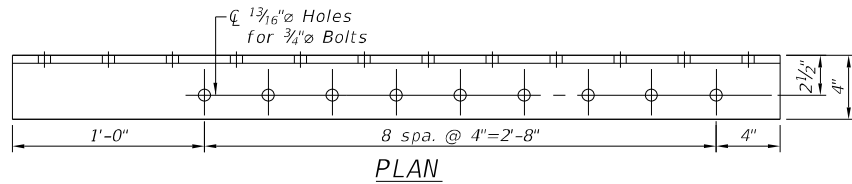
ANGLE 3

Repair R3 (2 required)
Repair R4 (2 required)



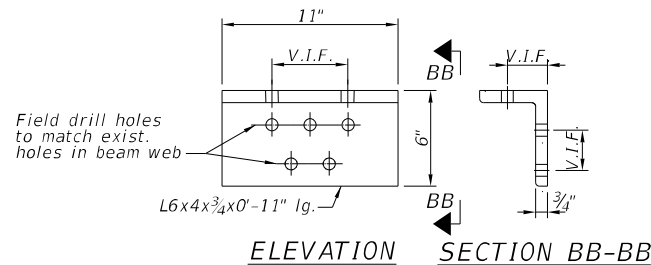
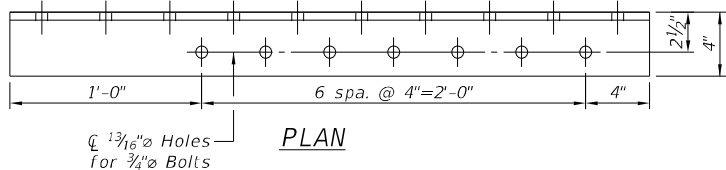
ANGLE 1

Repair R1 (2 required)
Repair R7 (2 required)
Repair R15 (2 required)
Repair R17 (2 required)



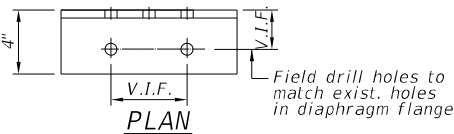
ANGLE 2

Repairs R2, R8, R9, R10, R11, R12, R13, R18, R19
(2 required, each)

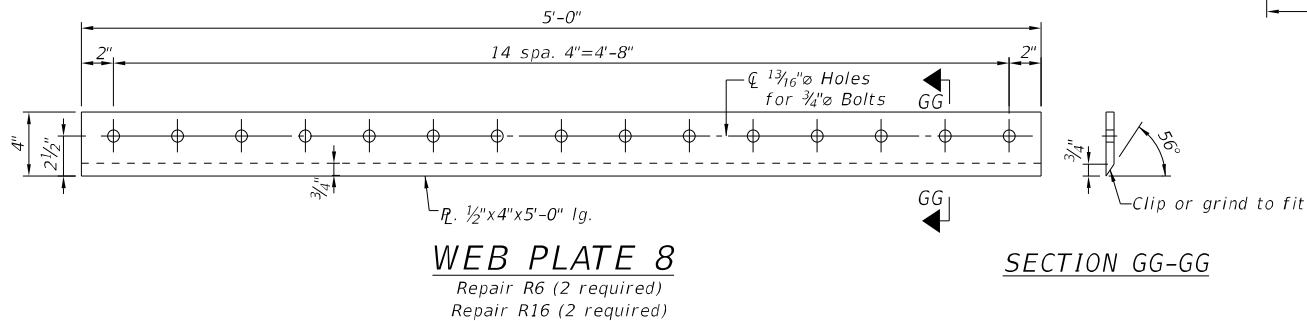
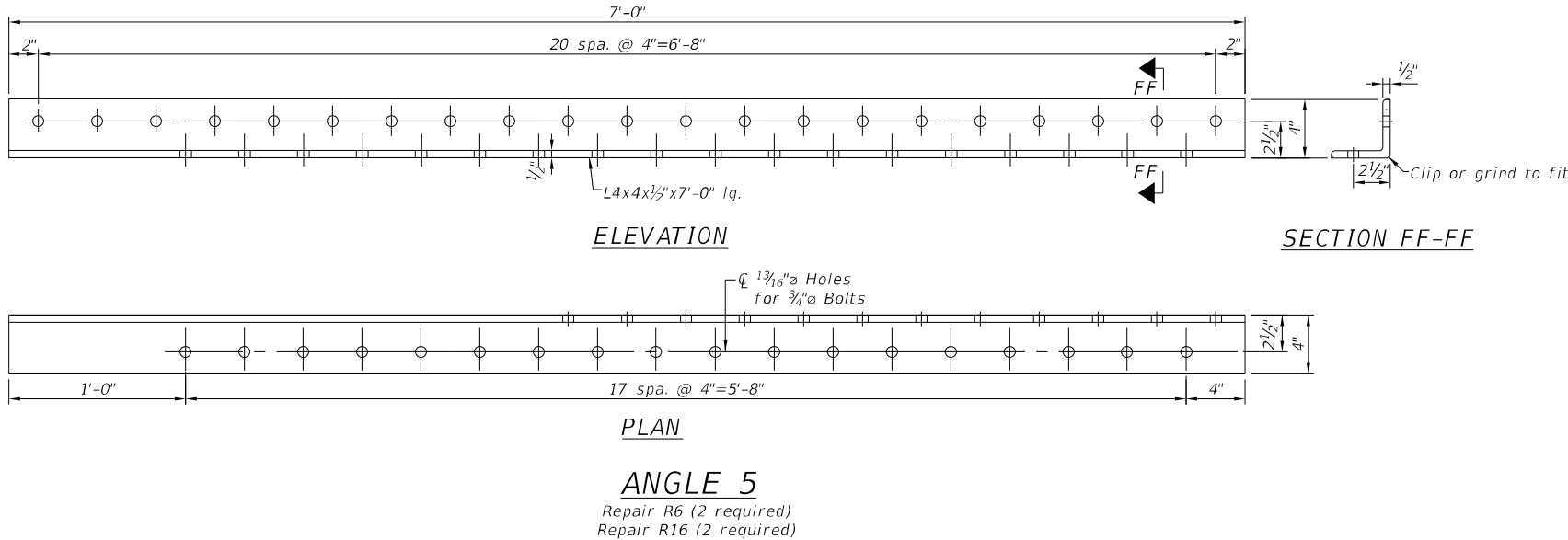
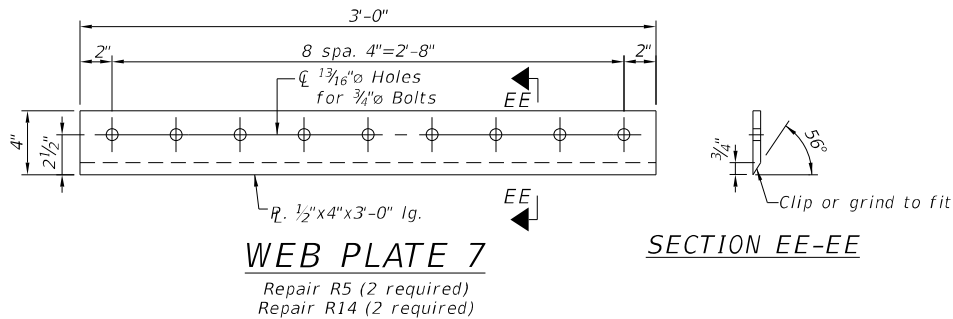
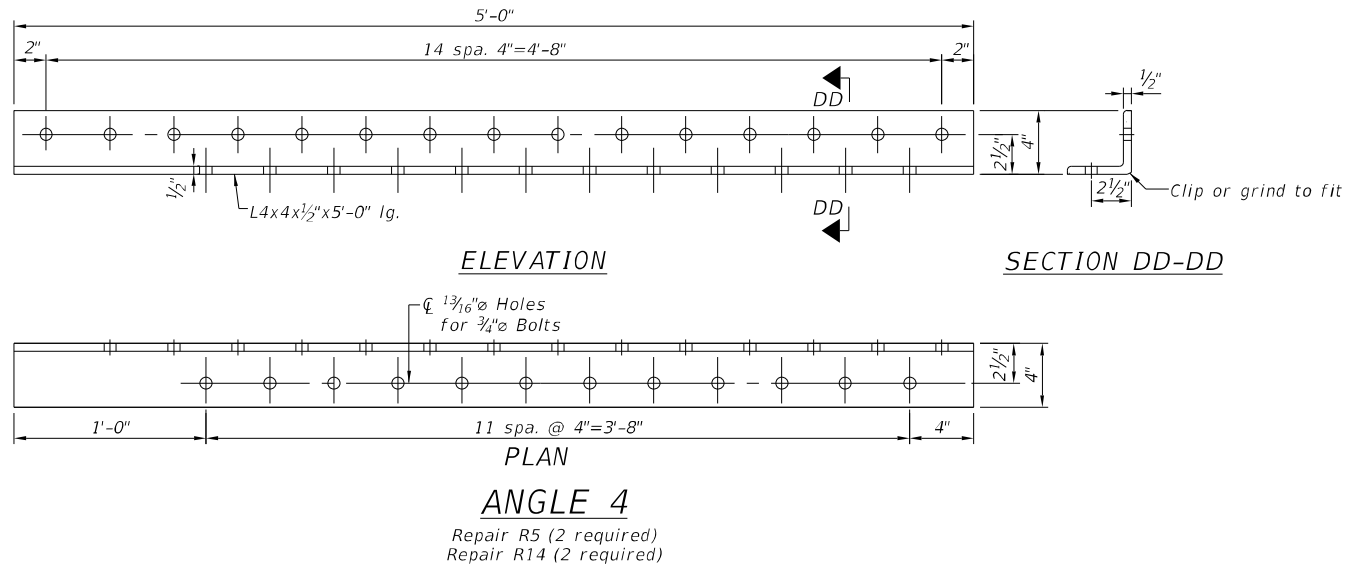
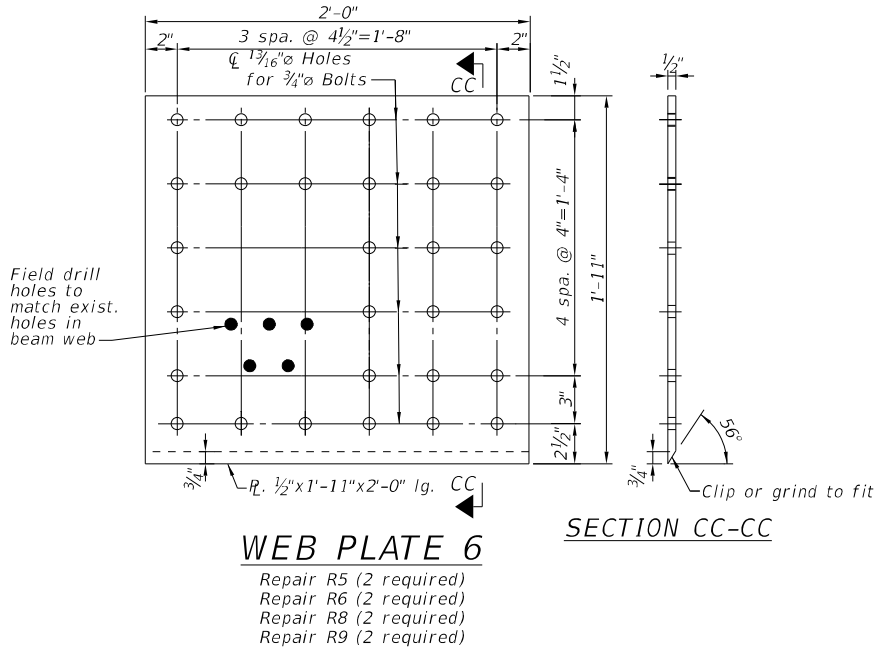


CLIP ANGLE 1

Repairs R1 through R19
(2 required each)



MODEL: D162P55-0160160 D2
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STEEL REPAIR DETAILS - SPAN 3-SB
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

SHEET SC-12 OF SC-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				62P55
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R5 Picture 1: P2; Beam 5 Looking W R1



Picture 3: P2; Beam 6 Looking W R2



R2 Picture 5: P2; Beam 6 Looking E



Picture 7: P2; Beam 7 Looking E R6



R1 Picture 2: P2; Beam 5 Looking E R5



R2 Picture 4: P2; Beam 6 West Face



R6 Picture 6: P2; Beam 7 Looking W



R7 Picture 8: P2; Beam 8 Looking W R3



R3 Picture 9: P2; Beam 8 Looking E R7



R4 Picture 11: P2; Beam 9 Looking E



R14 Picture 13: P2; Beam 12 Looking W R8



R15 Picture 15: P2; Beam 13 Looking W R9



Picture 10: P2; Beam 9 Looking W R4



R8 Picture 12: P2; Beam 12 Looking E R14



R9 Picture 14: P2; Beam 13 Looking E R15



R10 Picture 16: P2; Beam 14 Looking E R16

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STATE OF ILLINOIS
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REPAIR PHOTOS
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

SHEET SC-13 OF SC-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	COOK	33	31
CONTRACT NO. 62P55				
ILLINOIS		FED. AID PROJECT		

SC-13

MODEL: Default-2
FILE NAME: P:\040058 - IDOT\040058-01-002 (ENG) - PTB 195-016 Phase II Var Van\Engineering\WO 13 - 94 over LCR and RR\500 Drawings\502 CADD Sheets\ID162P55-0160160-sh1-518-Repair Photos02.dgn
09/07/2021 1:57:26 PM



R16 Picture 17: P2; Beam 14 Looking W R10



R17 Picture 19: P2; Beam 15 Looking W R11



R18 Picture 21: P2; Beam 16 Looking W R12



R13 Picture 23: P2; Beam 17 Looking E R19



R11 Picture 18: P2; Beam 15 Looking E R17



R12 Picture 20: P2; Beam 16 Looking E R18



R19 Picture 22: P2; Beam 17 Looking W R13

Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-464-0980 www.bowman.com	USER NAME = atiemann	DESIGNED - AT, JK	REVISED -
	PLOT SCALE = 0.2000 ' / in.	CHECKED - KH	REVISED -
	PLOT DATE = 09/07/2021	DRAWN - AT, JK	REVISED -
		CHECKED - AJN	REVISED -

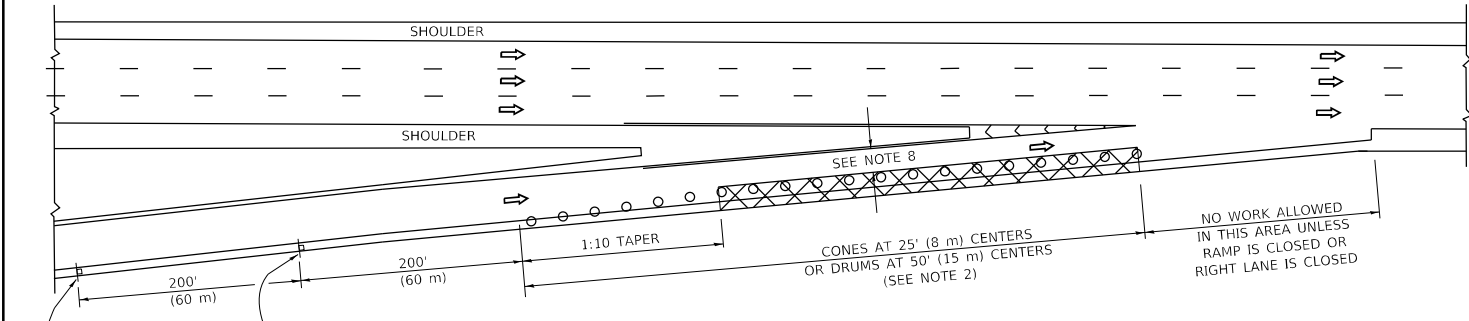
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR PHOTOS
I-94 OVER IHB & CSX RAILROADS - SN 016-0160

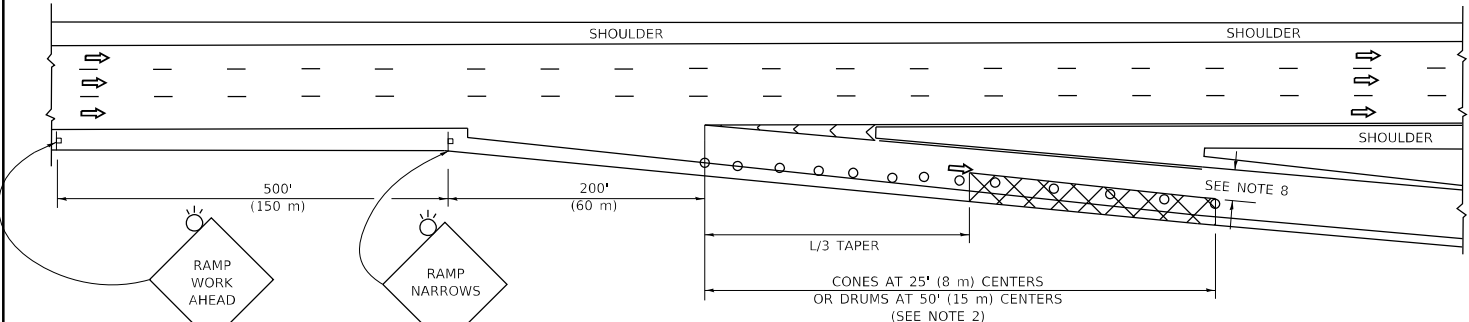
SHEET SC-14 OF SC-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	COOK	33	32
CONTRACT NO. 62P55				
ILLINOIS		FED. AID PROJECT		

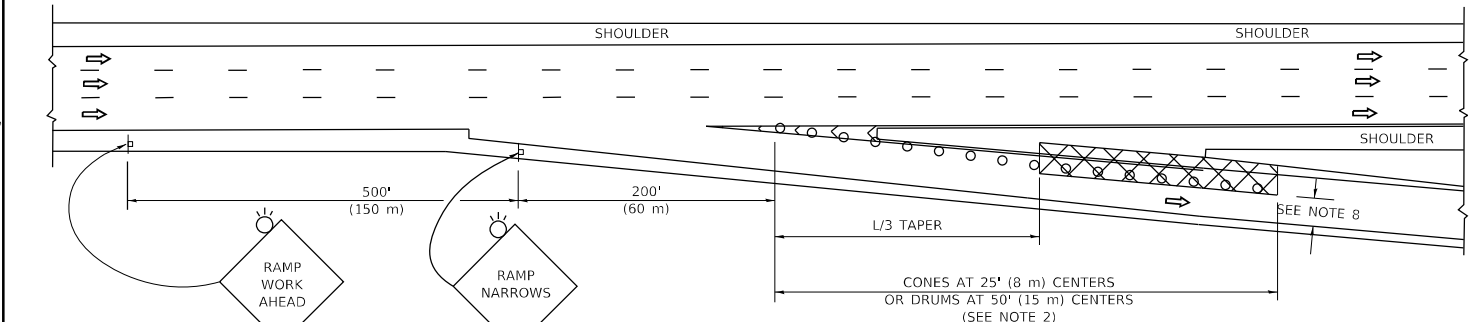
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

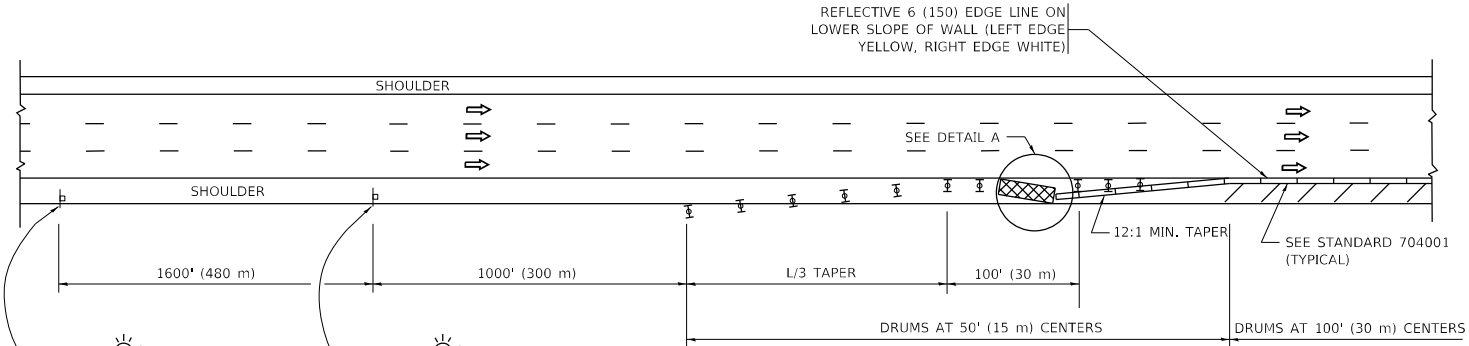
SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

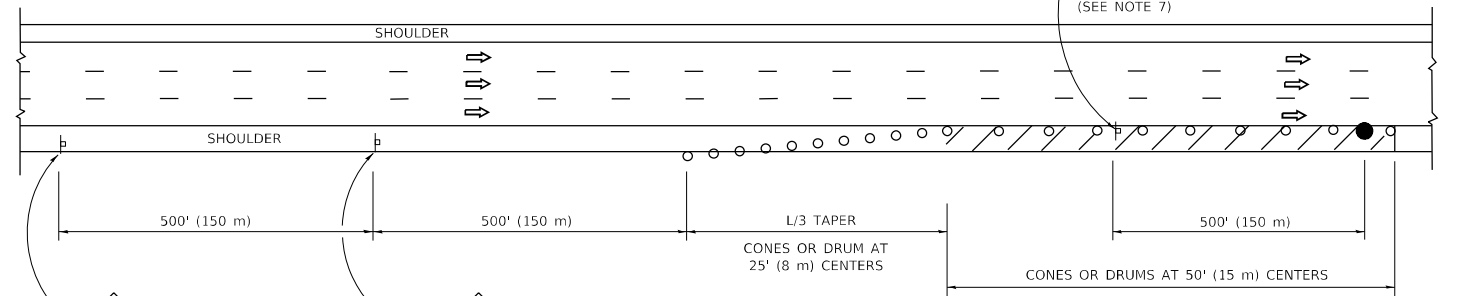
GENERAL NOTES:

- THE "L" DISTANCE EQUALS:
SPEED LIMIT FORMULAS
45 mph (80 km/h) METRIC ENGLISH
OR GREATER: L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
- TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

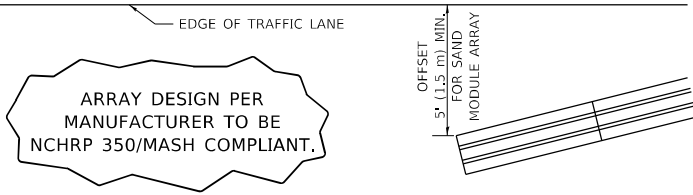
SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
- 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2021-137-BR	COOK	33	33
TC-17		CONTRACT NO. 62P55		
ILLINOIS		FED. AID PROJECT		