

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 372: (IL ROUTE 171)
FROM JOLIET RD TO
THE SANITARY SHIP CANAL
SECTION FAP-372-22-BR
BRIDGE BEAM END REPAIRS
COOK COUNTY

C-91-189-22

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED WITHIN
VILLAGES OF MCCOOK AND
SUMMIT

TRAFFIC DATA

IL 171:

FUNCTIONAL CLASSIFICATION:
OTHER PRINCIPAL ARTERIAL

SN: 016-1005 (OVER JOLIET RD)
ADT(2019) = 30,000
P.V. = 88%, S.U. = 6%, M.U. = 6%

SN: 016-1026 (OVER DES PLAINES RIVER)
ADT (2019) = 7,000

SN: 016-0486, 016-0487 (OVER SANITARY SHIP CANAL)
ADT (2019) = 44,600
P.V. = 86%, S.U. = 7%, M.U. = 7%

POSTED SPEED LIMIT = 50 MPH



DATE SIGNED: 05-10-22
EXP. DATE: 11-30-23

BEAM END REPAIR
SN: 016-1005
BEGIN PROJECT:
STA. 76 + 40
END PROJECT:
STA. 80 + 50

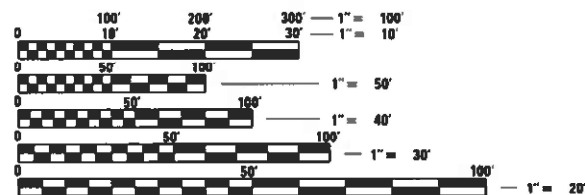
BEAM END REPAIR
SN: 016-1026
BEGIN PROJECT:
STA. 205 + 30
END PROJECT:
STA. 208 + 50

BEAM END REPAIR
SN: 016-0487
BEGIN PROJECT:
STA. 27 + 59
END PROJECT:
STA. 36 + 87

BEAM END REPAIR
SN: 016-0486
BEGIN PROJECT:
STA. 27 + 59
END PROJECT:
STA. 36 + 87



LOCATION MAP
(NOT TO SCALE)



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

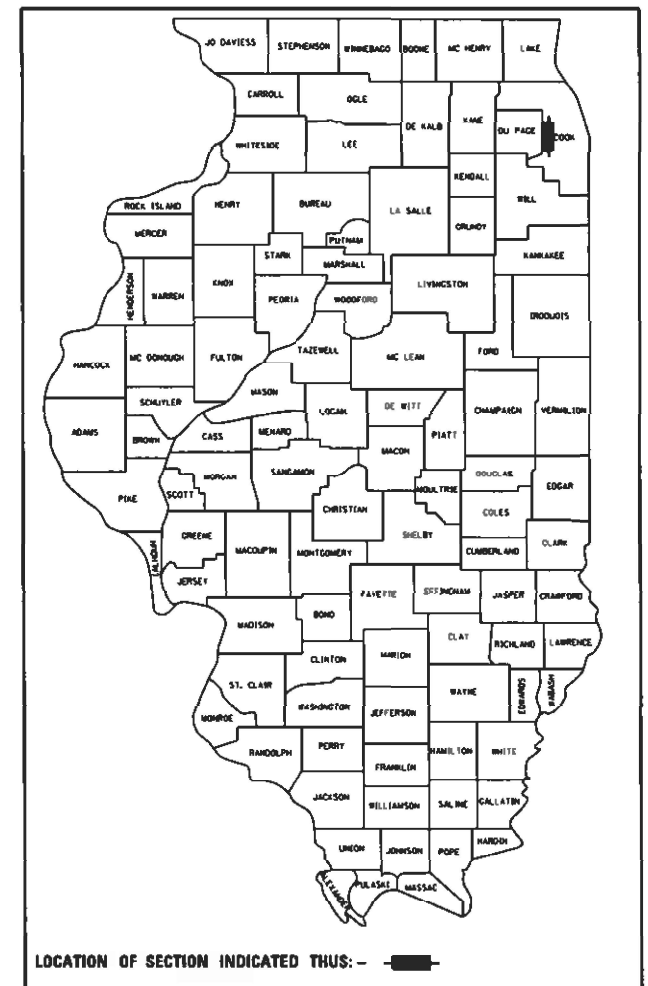
PROJECT ENGINEER: PRAVEEN KAINI, P.E. (847)705-4237
PROJECT MANAGER: J. ALAIN MIDY, P.E. (847)221-3056

CONTRACT NO. 62R56

GROSS LENGTH			
SN: 016-1005	=	355 FT.	= 0.07 MILE
SN: 016-1026	=	616 FT.	= 0.12 MILE
SN: 016-0486 AND 016-0487	=	856 FT.	= 0.16 MILE
NET LENGTH	=	1,827 FT.	= 0.35 MILE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP-372-22-BR	COOK	31	1
		ILLINOIS	CONTRACT NO. 62R56	

D-91-154-22



LOCATION OF SECTION INDICATED THIS: -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
SERVICE | SOLUTIONS | COMMITMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED MAY 17 2022
Jose Rios REGIONAL ENGINEER
June 10, 2022
Steph M. Smith ENGINEER OF DESIGN AND ENVIRONMENT
June 10, 2022
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-12	STRUCTURAL PLANS - SN 016-1005 (SB)
13-19	STRUCTURAL PLANS - SN 016-1026 (SB)
20-28	STRUCTURAL PLANS - SN 016-0486 (SB) & SN 016-0487 (NB)
29-31	DISTRICT DETAILS

DISTRICT ONE DETAILS

STANDARD NO.	DESCRIPTION
TC-8	ENTRANCE AND EXIT RAMP CLOSURE DETAILS
TC-17	PARTIAL RAMP AND SHOULDER CLOSURE DETAILS
TC-22	ARTERIAL ROAD INFORMATION SIGN

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOURS NOTIFICATION REQUIRED).
- NO CONSTRUCTION SHALL BEGIN UNTIL ALL PROPER TEMPORARY SIGNS AND BARRICADES HAVE BEEN INSTALLED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE LOCAL MUNICIPALITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES INCLUDING THOSE ATTACHED TO THE STRUCTURES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR KALPANA KANNAN-HOSADURGA AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO FIELD VARIATION. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATION SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR QUANTITY ACTUALLY FURNISHED BASED ON THE UNIT PRICE BID FOR THE WORK.
- TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO HOURS FROM THE TIME OF NOTIFICATION.
- ALL SAW CUTTING REQUIRED SHALL BE INCIDENTAL TO CORRESPONDING PAY ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVALS.
- THE CONTRACTOR SHALL CONTACT DES PLAINES RIVER AGENCY AND SANITARY SHIP CANAL AGENCY PRIOR TO STARTING CONSTRUCTION.
- THE DEPARTMENT HAS DETERMINED THAT IN STREAM WORK IS NOT REQUIRED FOR THE WORK SPECIFIED IN THIS CONTRACT. THE DEPARTMENT HAS NOT OBTAINED A 404 PERMIT. IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING AN USACE 404 PERMIT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER USACE PERMITS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE WATERWAY, OR ONTO THE RAILROAD, OR PAVEMENTS BELOW THE STRUCTURES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE ASSOCIATED PAY ITEMS.
- ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVALS SHOWN ON THE PLANS SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT.
- 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
(216) 902-6087

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5m) TO 24"(600mm) FROM PAVEMENT EDGE
701406-13	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701421-08	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS \geq 45 MPH TO 55 MPH
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701901-08	TRAFFIC CONTROL DEVICES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FROM JOLIET ROAD TO THE SANITARY SHIP CANAL
INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES

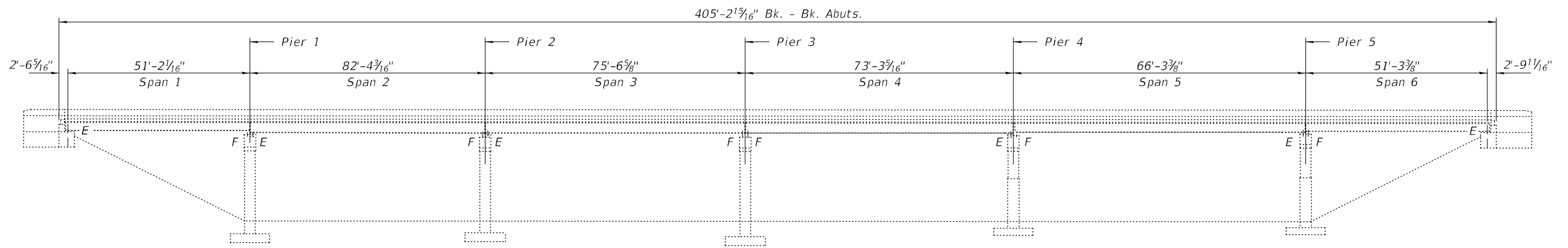
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP-372-22-BR	COOK	31	2
				CONTRACT NO. 62R56
		ILLINOIS	FED. AID PROJECT	

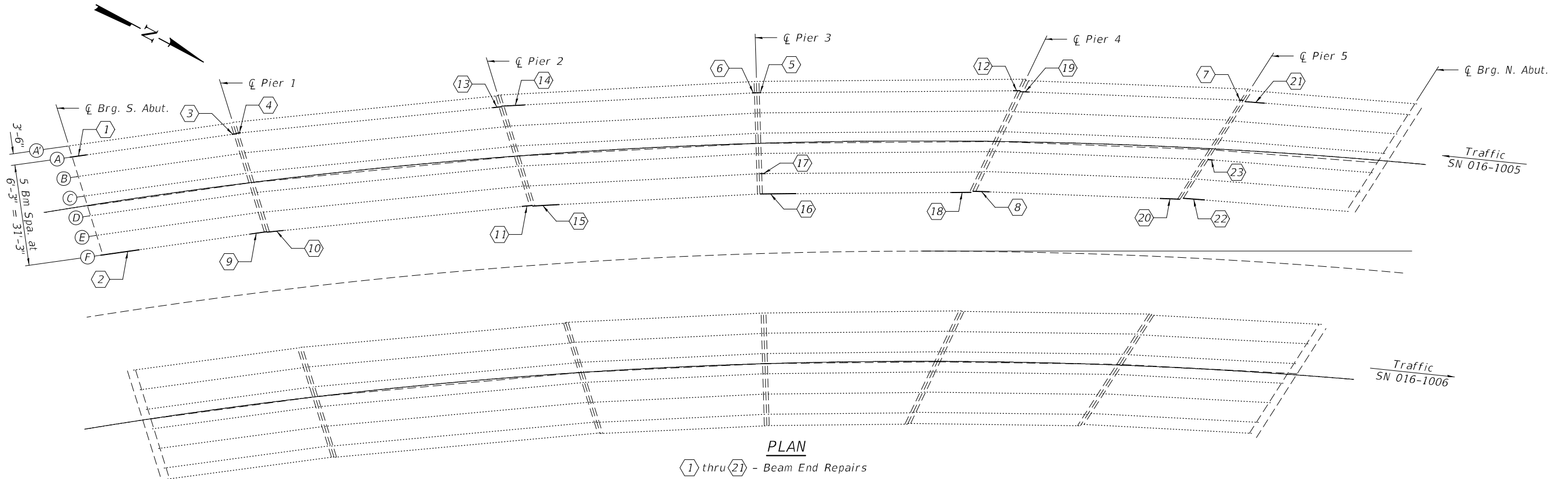
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USER NAME = joang	DESIGNED - JKP	REVISED -
	DRAWN - DMW	REVISED -
PLOT SCALE = 2,0000 ' / in.	CHECKED - SPF	REVISED -
PLOT DATE = 5/9/2022	DATE - 4/21/2022	REVISED -



ELEVATION



PLAN

① thru ②① - Beam End Repairs

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

Fasteners shall be high strength bolts. Bolts 3/4"Ø, open holes 1 3/16"Ø, unless otherwise noted.

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

All structural steel shall be hot dip galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel".

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

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	9050



EXPIRES 11-30-2022

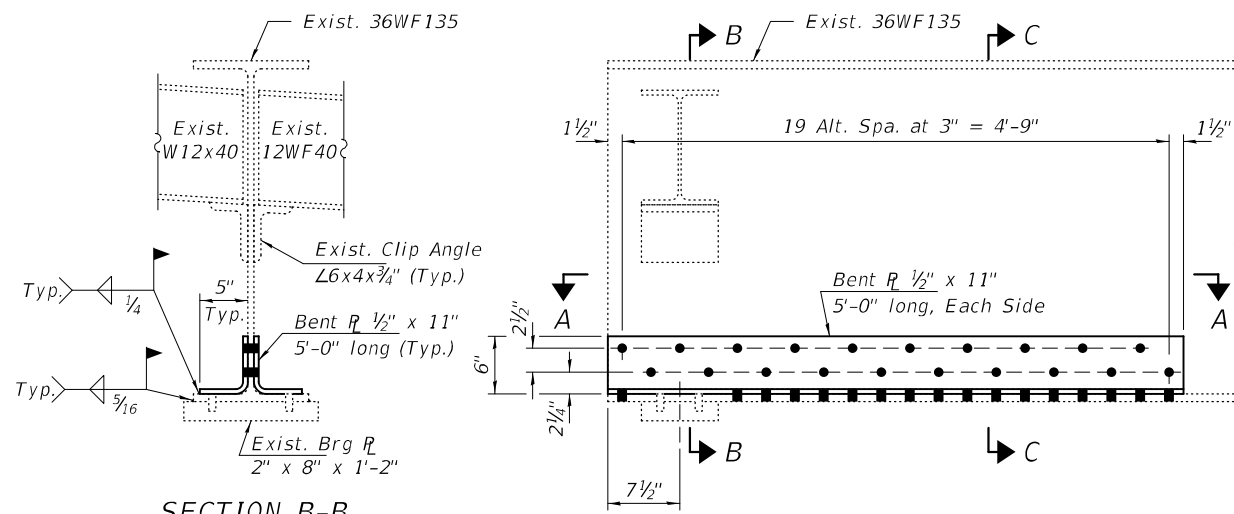
DESIGNED - Chi-Cheung Chau	EXAMINED	DATE - JUNE 8, 2022
CHECKED - Jeffrey S. Burke	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - daburdell	PASSED	REVISER -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
FAP 372 (IL 171) OVER JOLIET RD & BNSF RR SPUR
SN 016-1005 (SB)

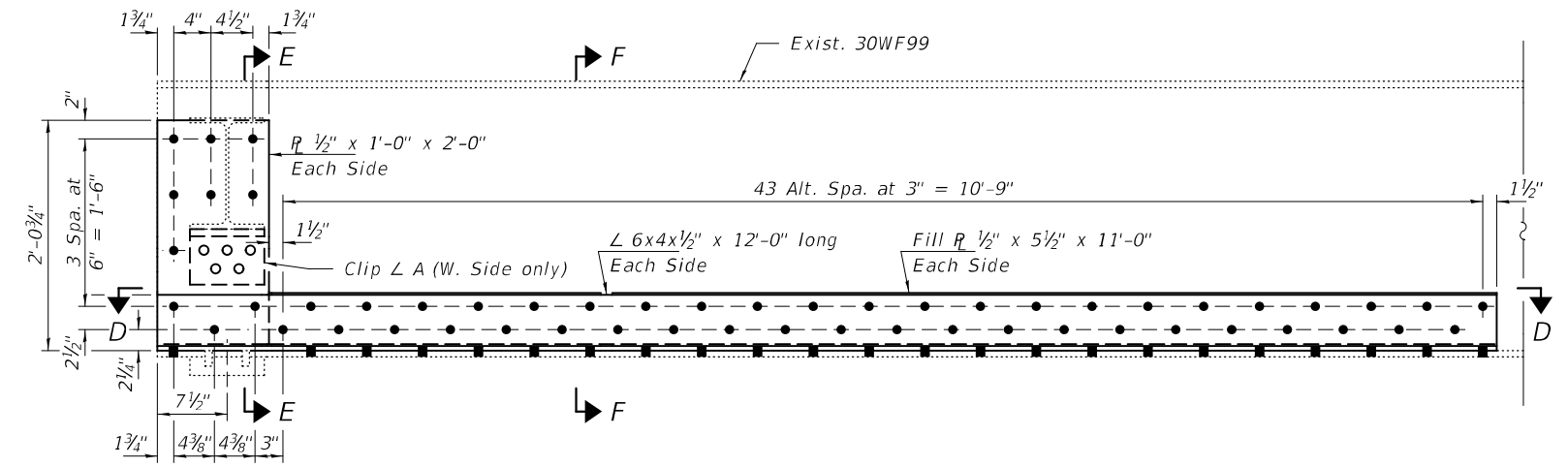
SHEET NO. 1 OF 9 SHEETS

F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 4
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	

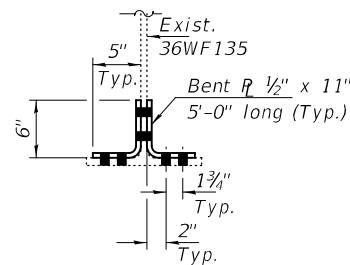


SECTION B-B

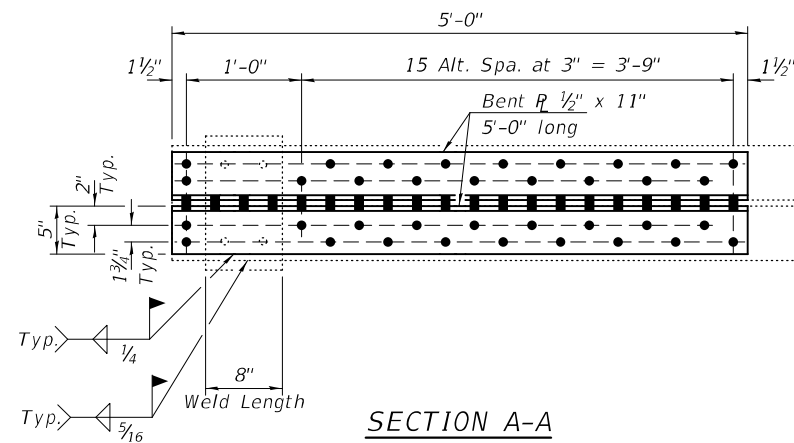
ELEVATION - REPAIR 1
(Beam A - S. Abut. - Span 1)



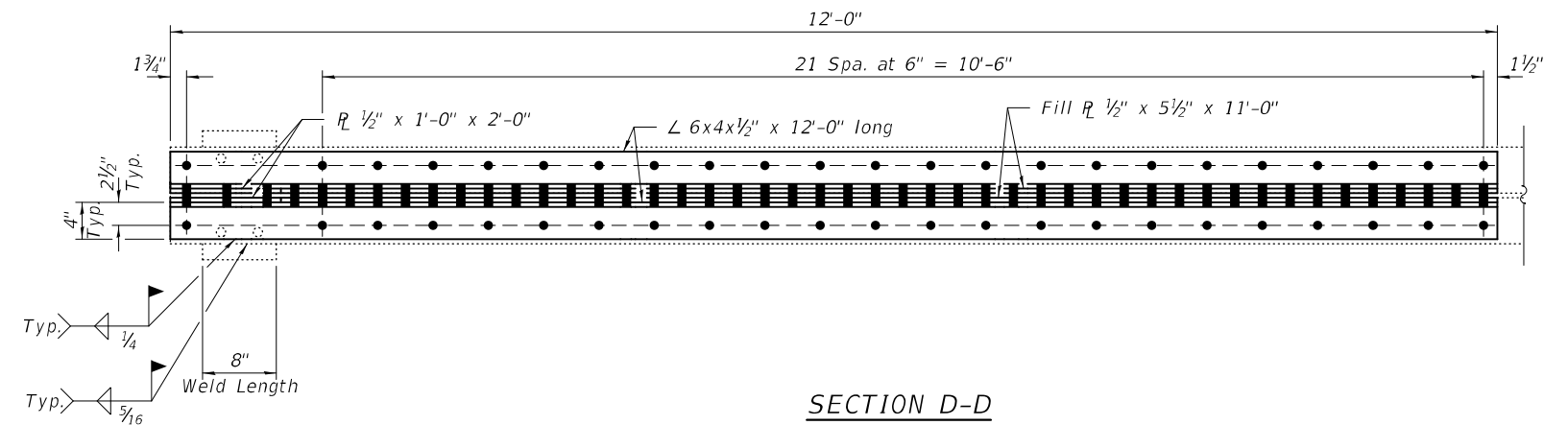
ELEVATION - REPAIR 2
(Beam F - S. Abut. - Span 1)



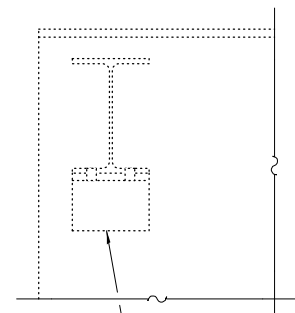
SECTION C-C



SECTION A-A



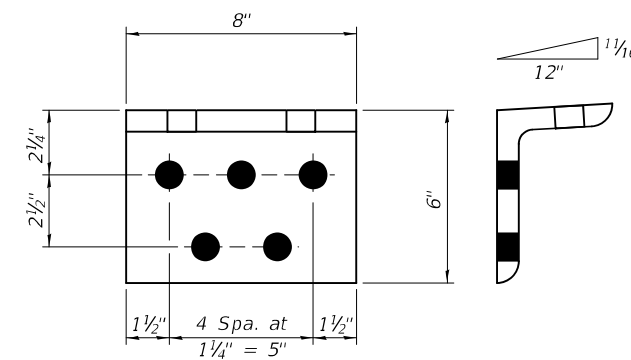
SECTION D-D



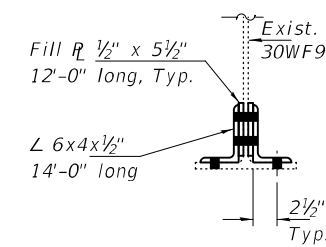
Existing clip angle to be removed using the air-arc method and grind smooth all weld material remaining on web.

EXISTING CLIP ANGLE REMOVAL DETAIL

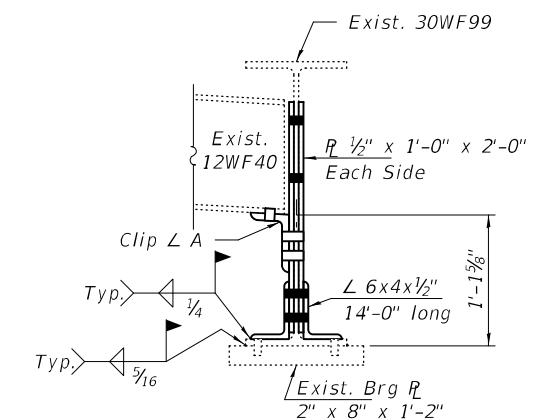
Cost included with Structural Steel Removal.



CLIP L A
L 6x4x3/4 x 8" long
(6 Required)



SECTION F-F



SECTION E-E

BOLT HOLE LEGEND

- - Field drill using existing steel as template.
- - Shop drill holes in new steel.

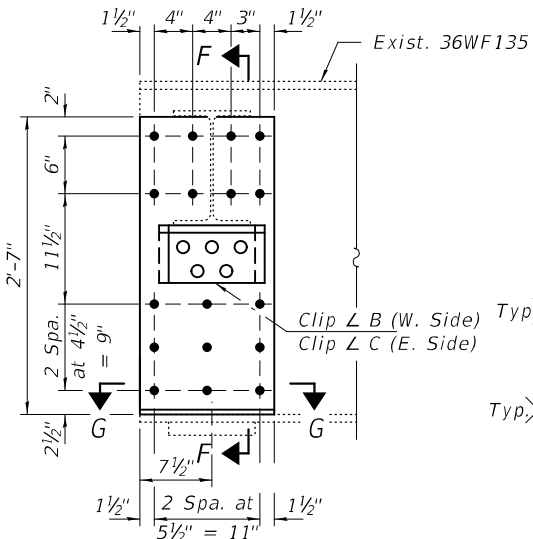
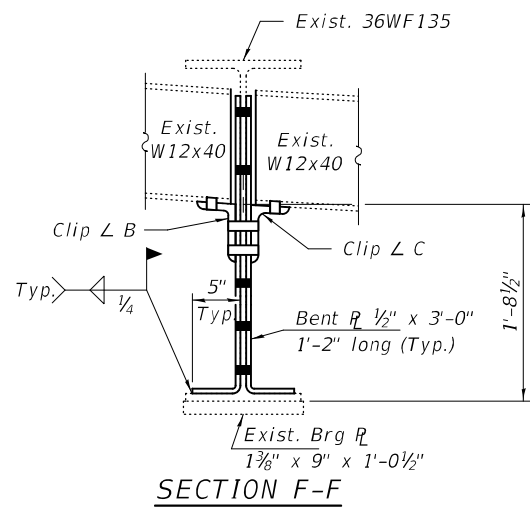
DESIGNED - CCC	EXAMINED - <i>Timothy A. Daburdell</i> ENGINEER OF STRUCTURAL SERVICES	DATE - JUNE 8, 2022
CHECKED - JSB	PASSED - <i>Carl R. Poyner</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - <i>daburdell</i>		REVISED -
CHECKED - CCC JSB		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

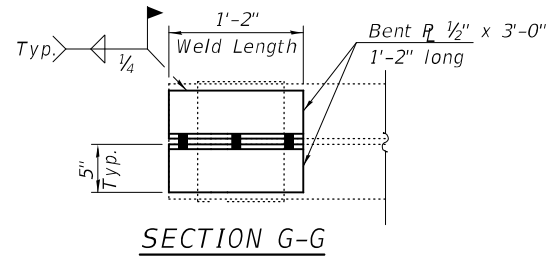
REPAIR DETAILS
SN 016-1005 (SB)

SHEET NO. 2 OF 9 SHEETS

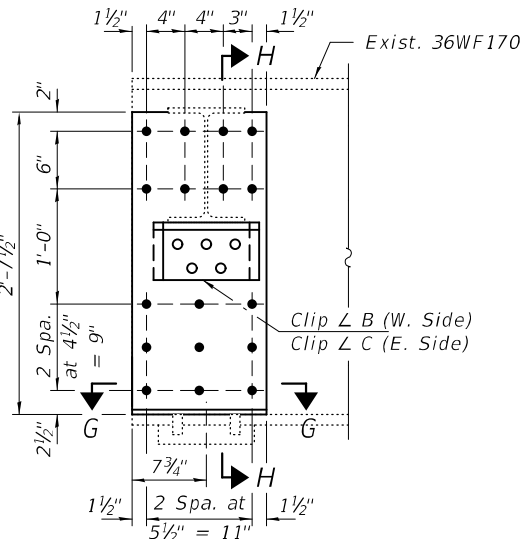
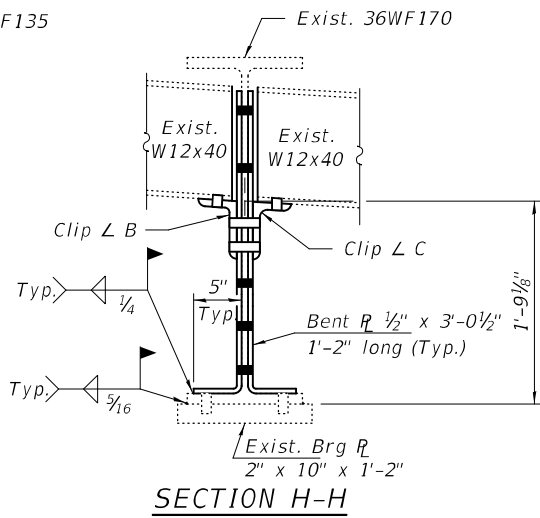
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP-372-22-BR	COOK	31	5
CONTRACT NO. 62R56				
ILLINOIS FED. AID PROJECT				



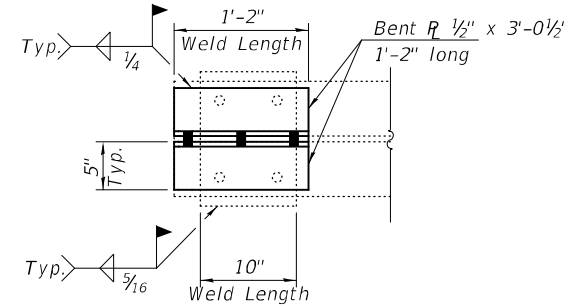
ELEVATION - REPAIR 3
(Beam A - Pier 1 - Span 1)



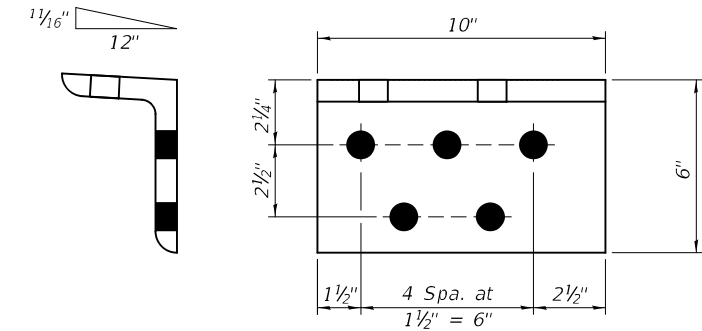
SECTION G-G



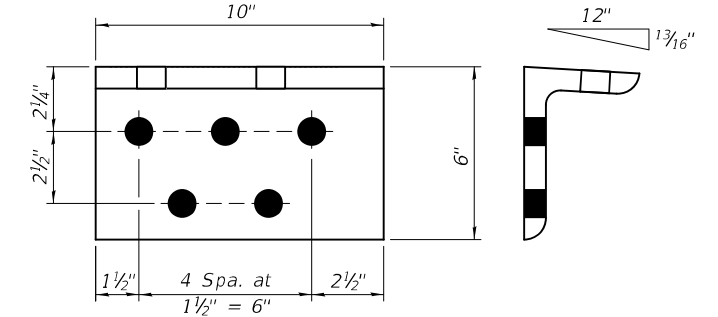
ELEVATION - REPAIR 4
(Beam A - Pier 1 - Span 2)



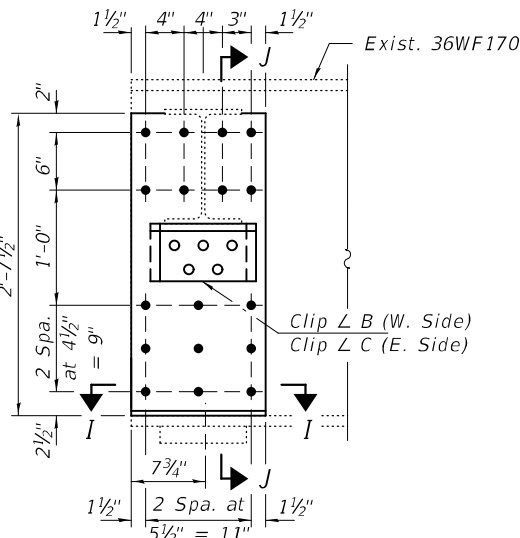
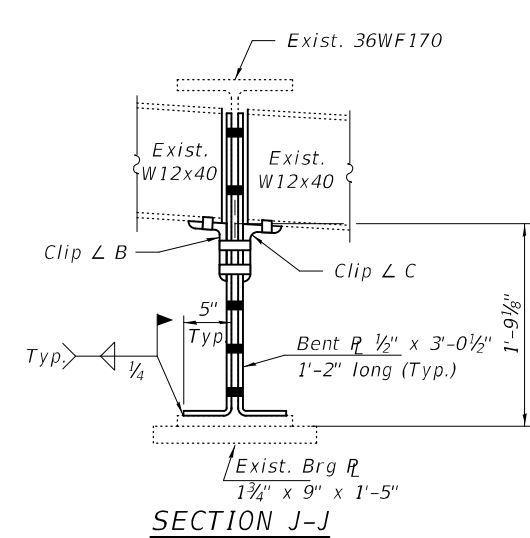
SECTION G-G



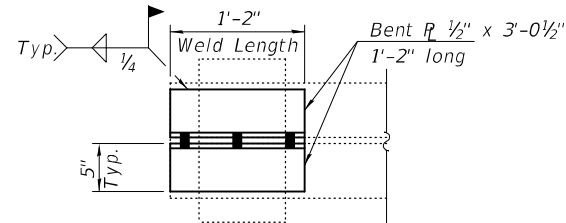
CLIP L B
L 6x4x3/4" x 10" long
(4 Required)



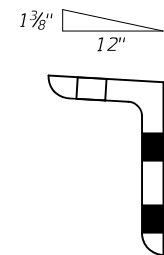
CLIP L C
L 6x4x3/4" x 10" long
(6 Required)



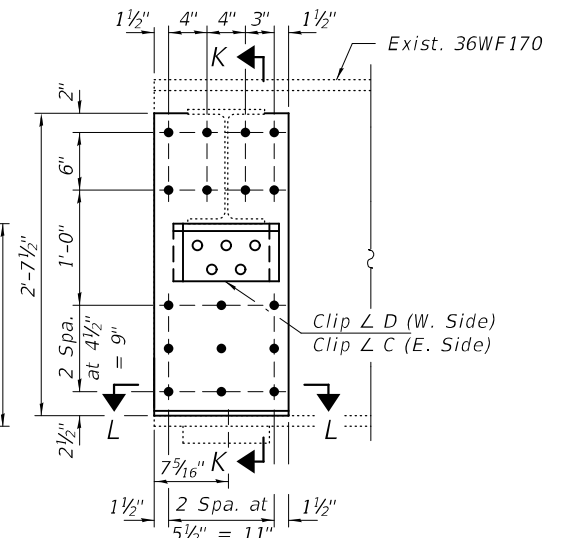
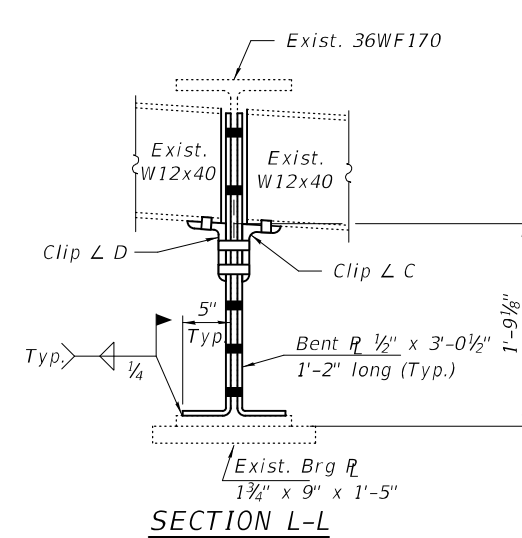
ELEVATION - REPAIR 5
(Beam A - Pier 3 - Span 4)



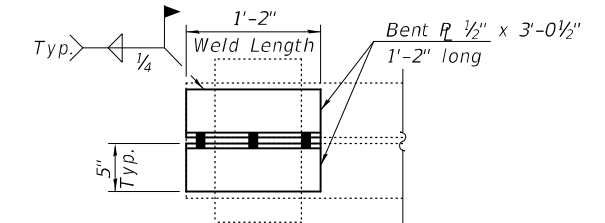
SECTION I-I



CLIP L D
L 6x4x3/4" x 10" long
(1 Required)



ELEVATION - REPAIR 6
(Beam A - Pier 3 - Span 3)



SECTION K-K

BOLT HOLE LEGEND

- - Field drill using existing steel as template.
- - Shop drill holes in new steel.

DESIGNED - CCC
CHECKED - JSB
DRAWN - daburdell
CHECKED - CCC JSB

EXAMINED
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

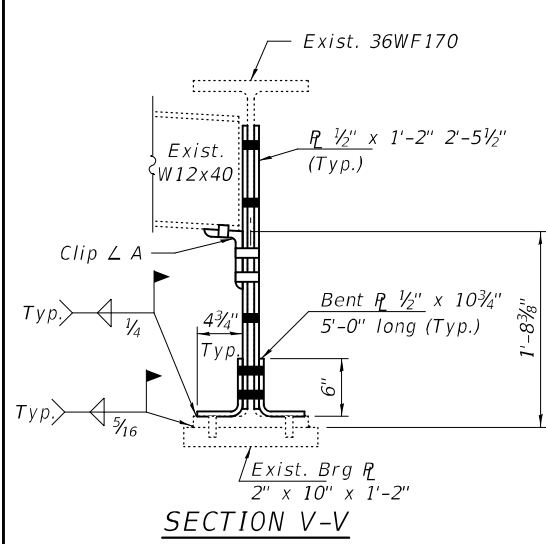
DATE - JUNE 8, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

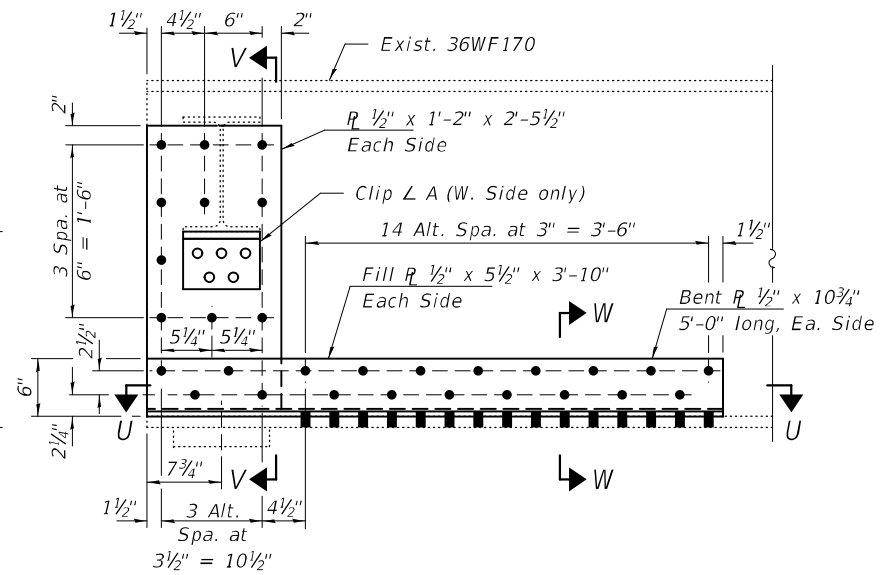
REPAIR DETAILS
SN 016-1005 (SB)

SHEET NO. 3 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP-372-22-BR	COOK	31	6
CONTRACT NO. 62R56				
ILLINOIS FED. AID PROJECT				

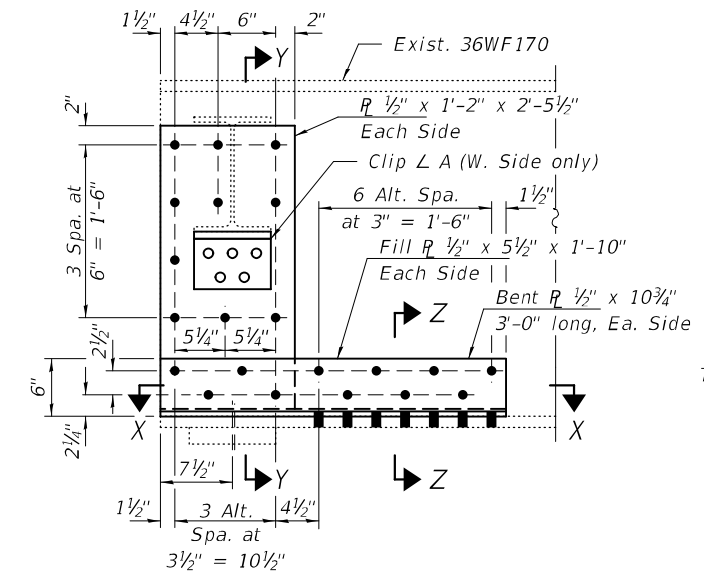


SECTION V-V



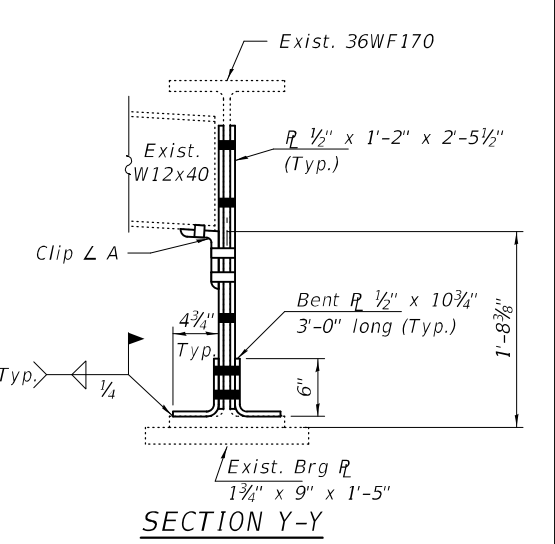
ELEVATION - REPAIR 10

(Beam F - Pier 1 - Span 2)

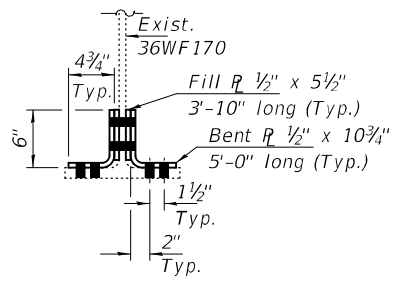


ELEVATION - REPAIR 11

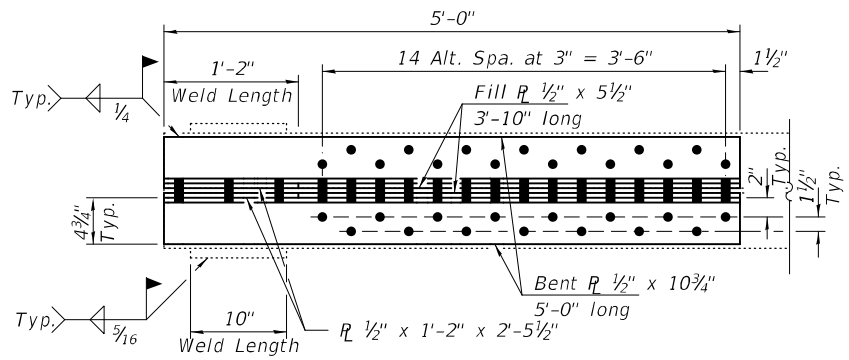
(Beam F - Pier 2 - Span 2)



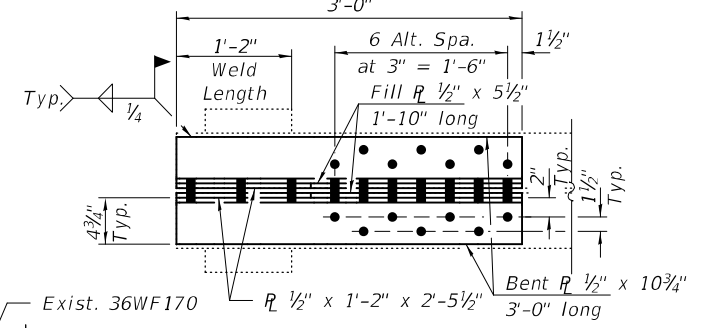
SECTION Y-Y



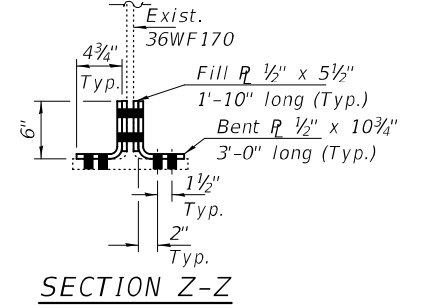
SECTION W-W



SECTION U-U

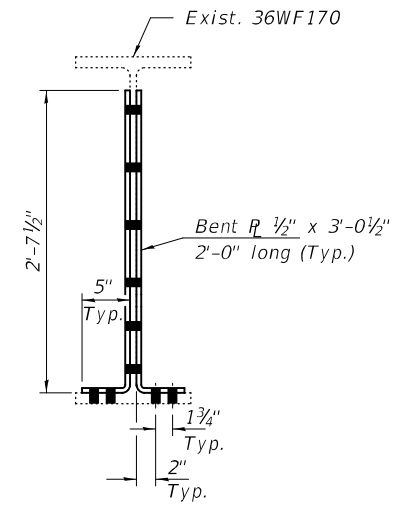


SECTION X-X

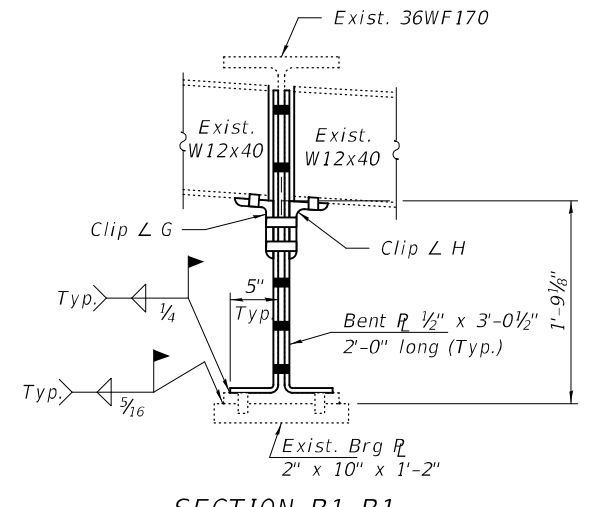


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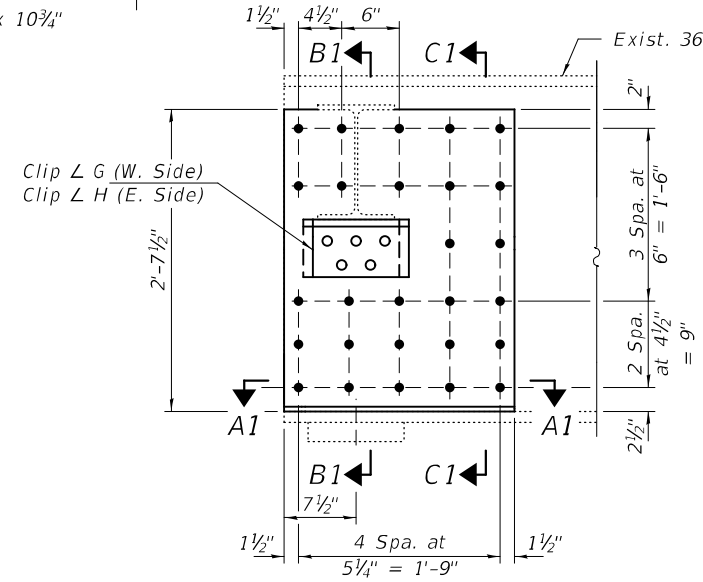
Note:
See sheet 2 of 9 for
Clip L A details.



SECTION C1-C1

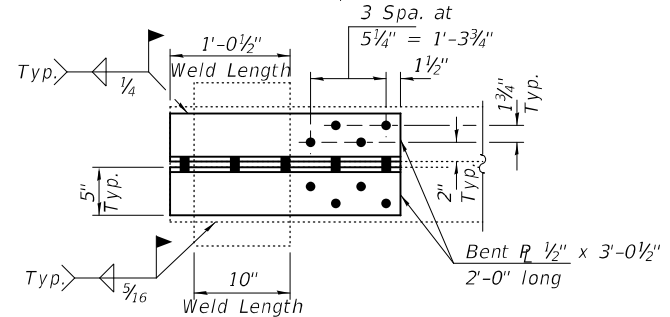


SECTION B1-B1

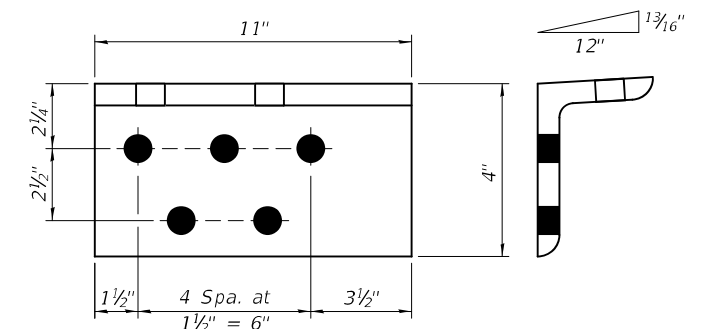


ELEVATION - REPAIR 12

(Beam A - Pier 4 - Span 4)

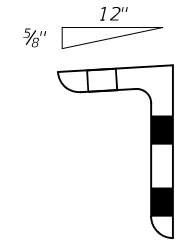


SECTION A1-A1



CLIP L G

∠ 6x4x3/4" x 11" long
(1 Required)



CLIP L H

∠ 6x4x3/4" x 11" long
(1 Required)

- BOLT HOLE LEGEND**
- - Field drill using existing steel as template.
 - - Shop drill holes in new steel.

DESIGNED - CCC	EXAMINED - <i>Timothy A. Dredel</i>
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES
DRAWN - <i>daburdell</i>	PASSED - <i>Carl R. Ruyter</i>
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES

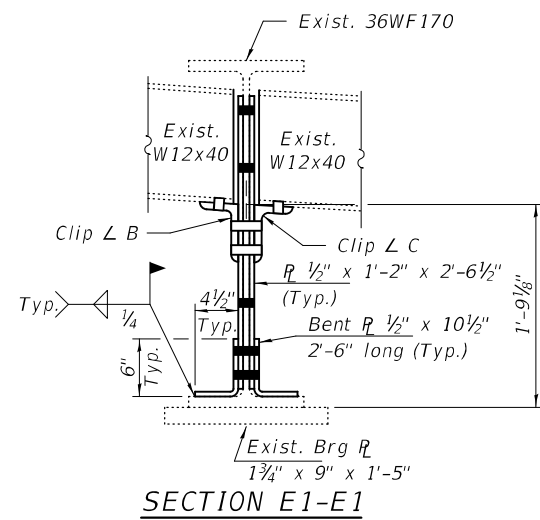
DATE - JUNE 8, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

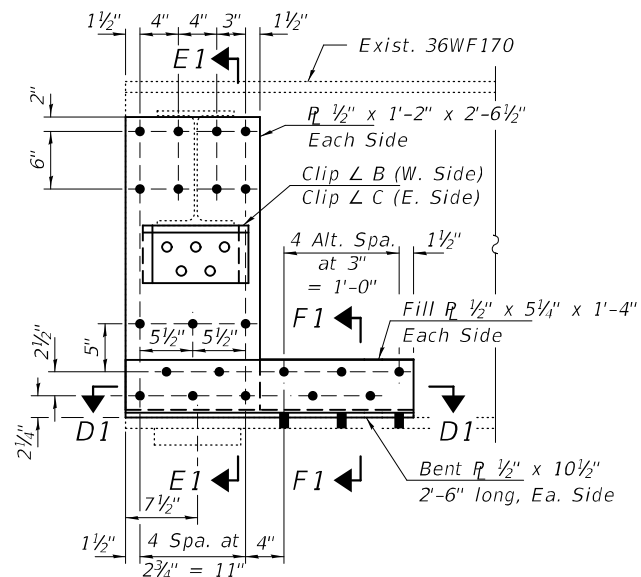
REPAIR DETAILS
SN 016-1005 (SB)

SHEET NO. 5 OF 9 SHEETS

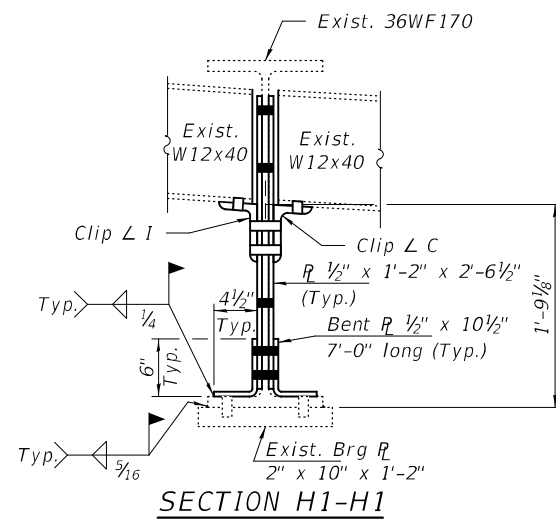
F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 8
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	



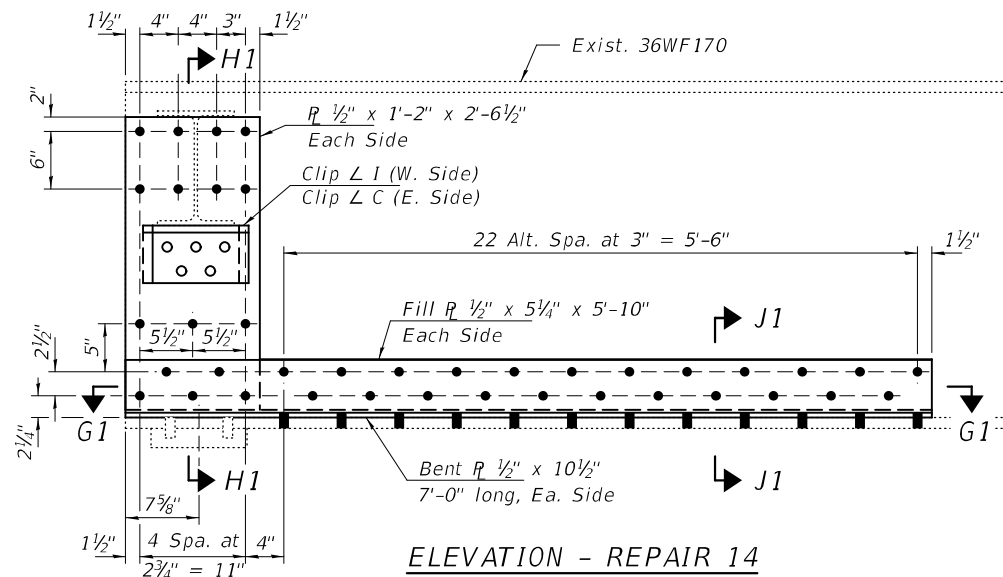
SECTION E1-E1



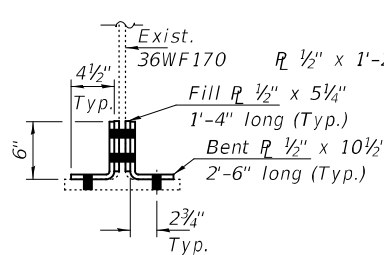
ELEVATION - REPAIR 13
(Beam A - Pier 2 - Span 2)



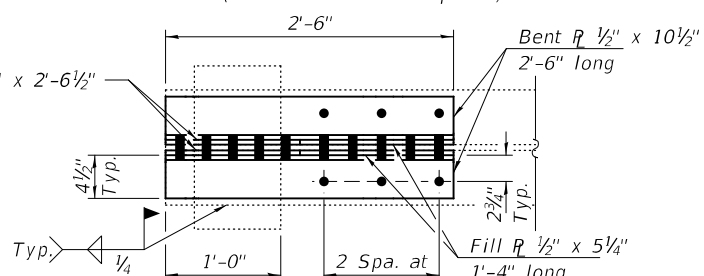
SECTION H1-H1



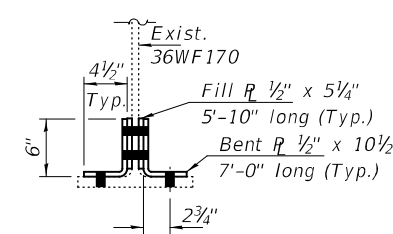
ELEVATION - REPAIR 14
(Beam A - Pier 2 - Span 3)



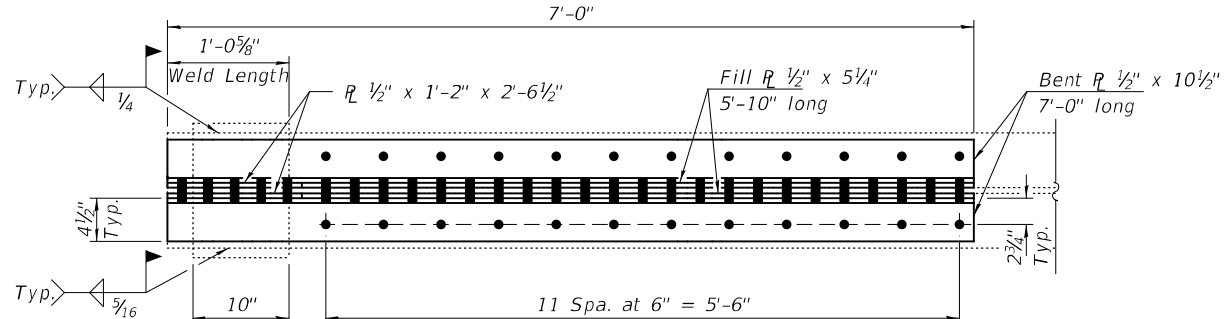
SECTION F1-F1



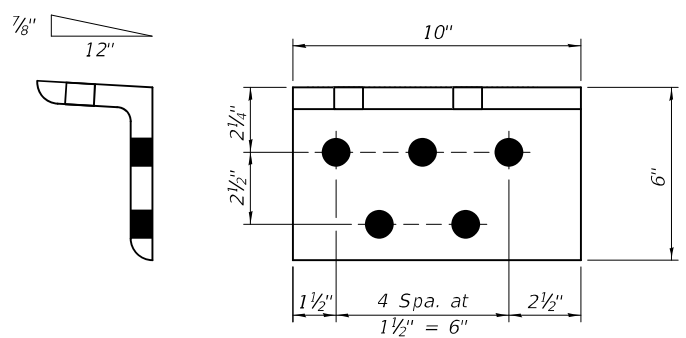
SECTION D1-D1



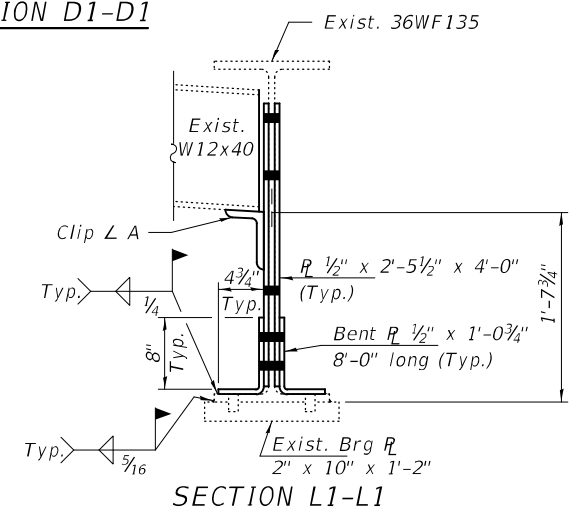
SECTION J1-J1



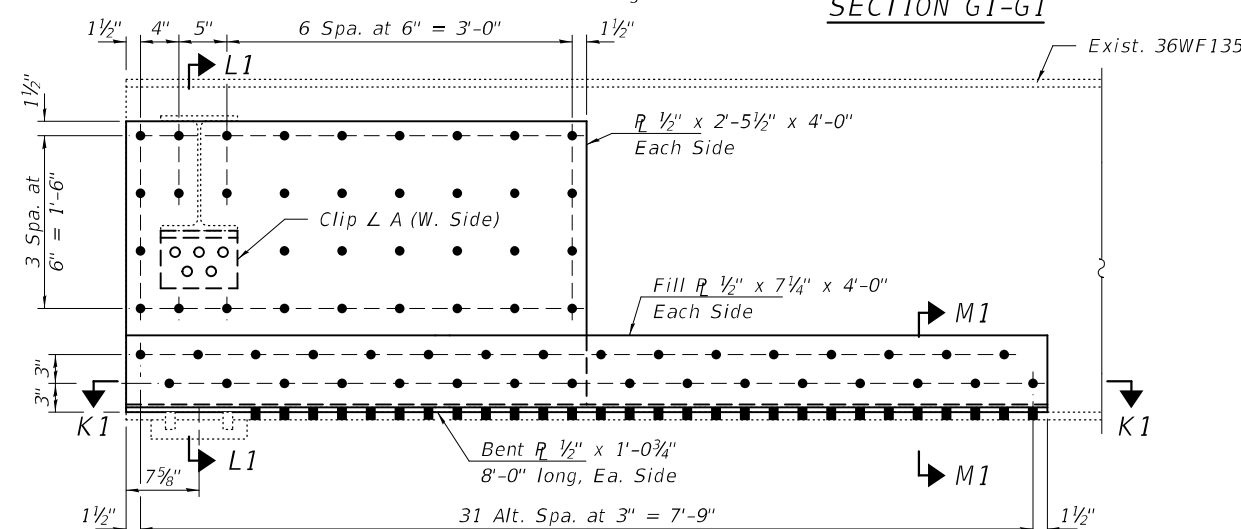
SECTION G1-G1



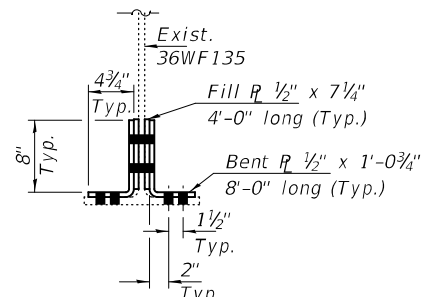
CLIP L1
L 6x4x3/4" x 10" long
(1 Required)



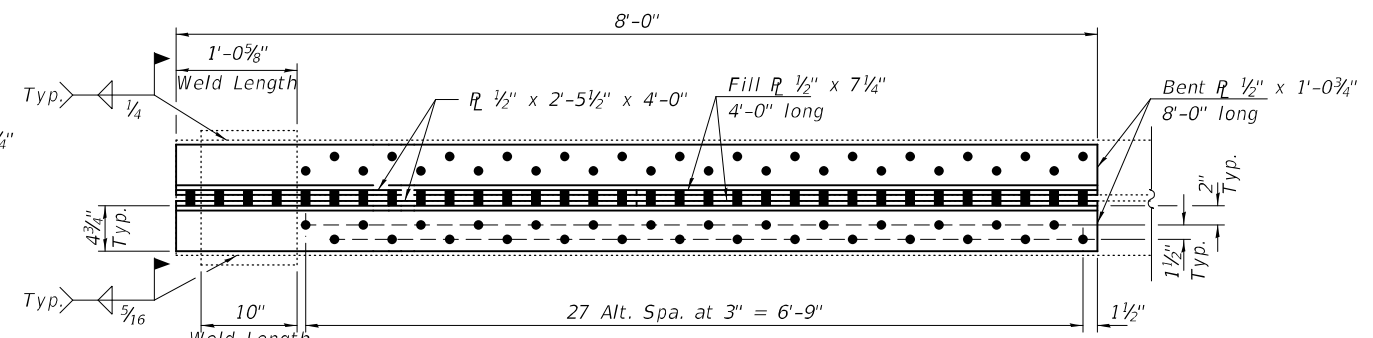
SECTION L1-L1



ELEVATION - REPAIR 15
(Beam F - Pier 2 - Span 3)



SECTION M1-M1



SECTION K1-K1

Note:
See sheet 2 of 9 for
Clip L A details.
See sheet 3 of 9 for
Clip L B & C details.

BOLT HOLE LEGEND

- - Field drill using existing steel as template.
- - Shop drill holes in new steel.

DESIGNED - CCC	EXAMINED - <i>Timothy A. Daulton</i>
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES
DRAWN - <i>daburdell</i>	PASSED - <i>Carl R. Meyer</i>
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES

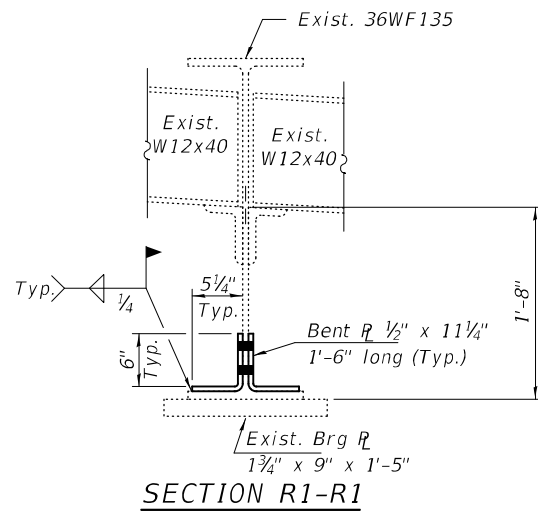
DATE - JUNE 8, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

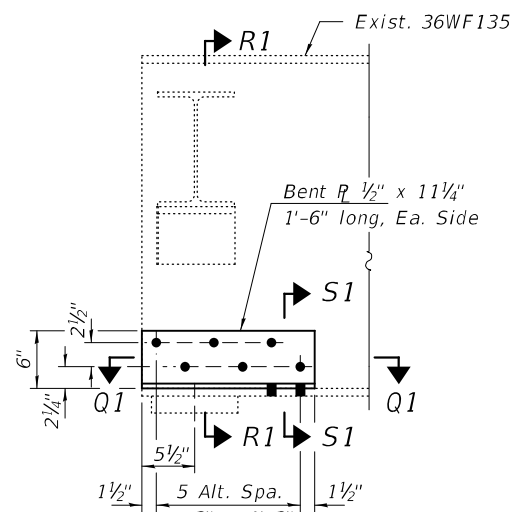
REPAIR DETAILS
SN 016-1005 (SB)

SHEET NO. 6 OF 9 SHEETS

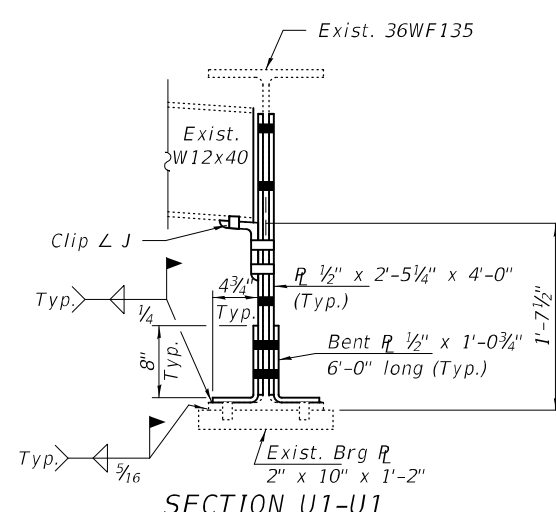
F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 9
CONTRACT NO. 62R56				ILLINOIS FED. AID PROJECT



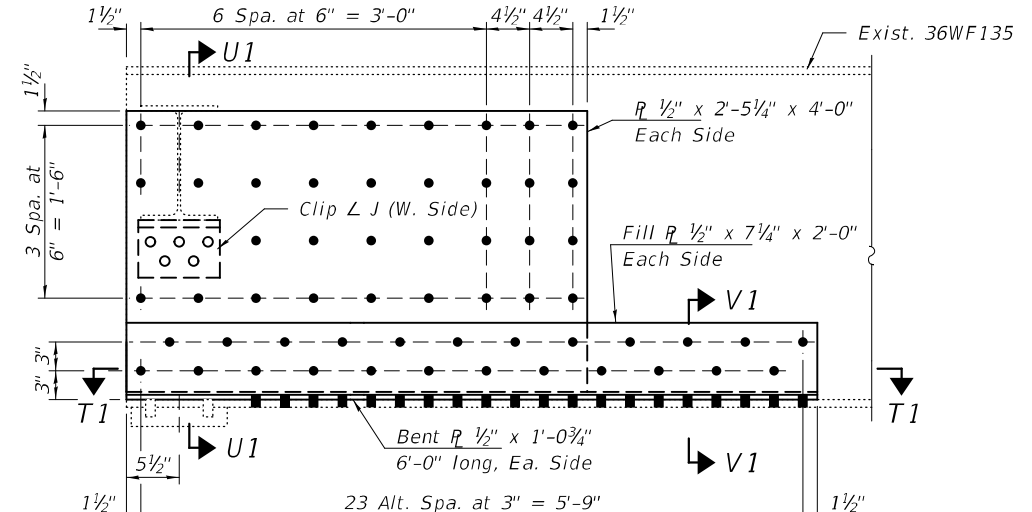
SECTION R1-R1



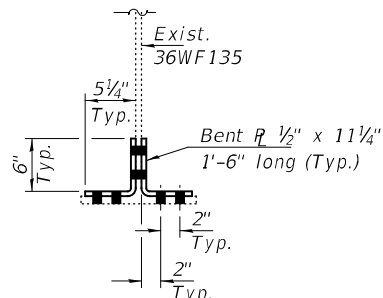
ELEVATION - REPAIR 17
(Beam E - Pier 3 - Span 4)



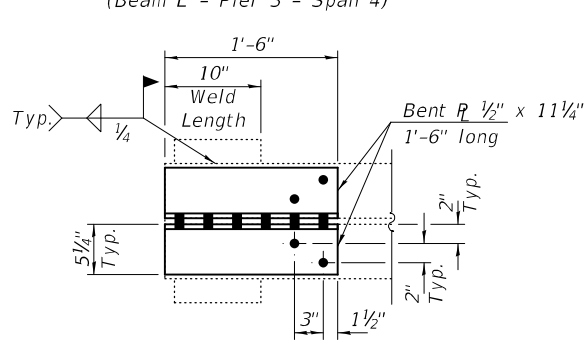
SECTION U1-U1



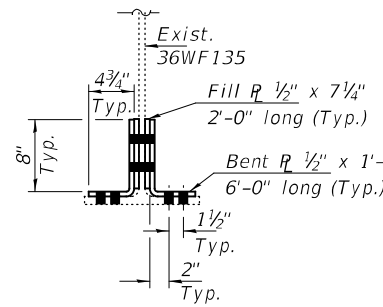
ELEVATION - REPAIR 18
(Beam F - Pier 4 - Span 4)



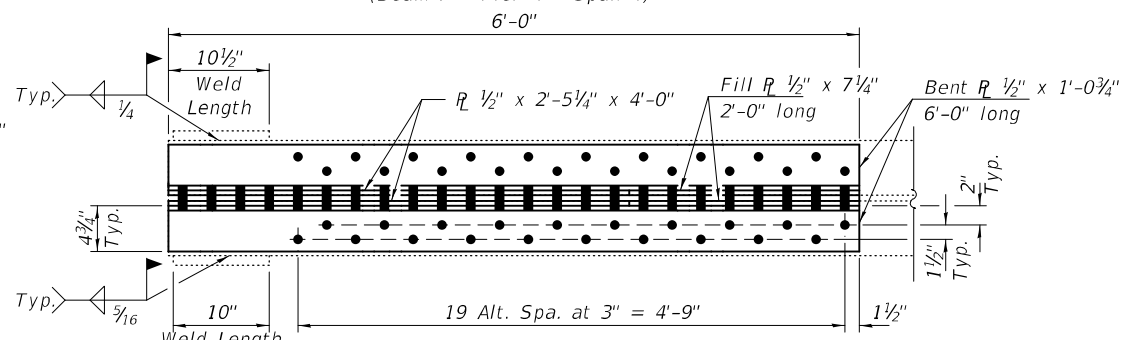
SECTION S1-S1



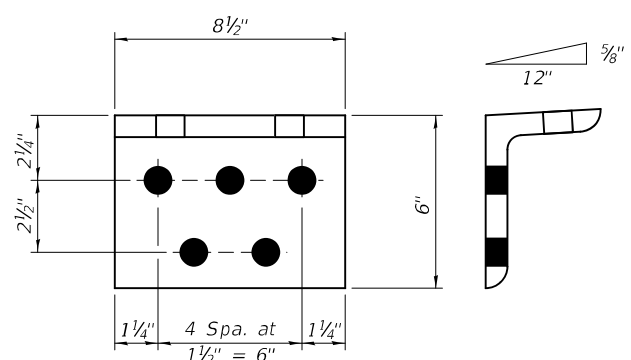
SECTION Q1-Q1



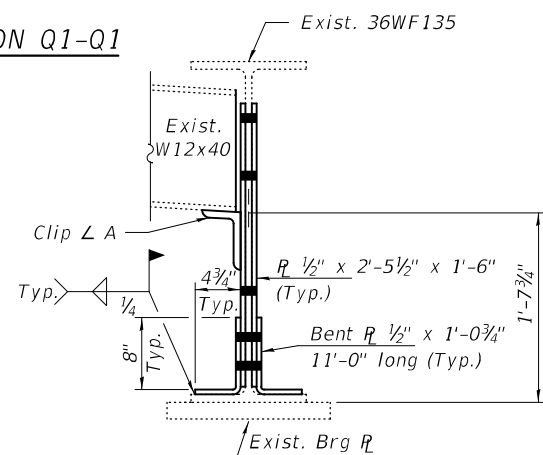
SECTION V1-V1



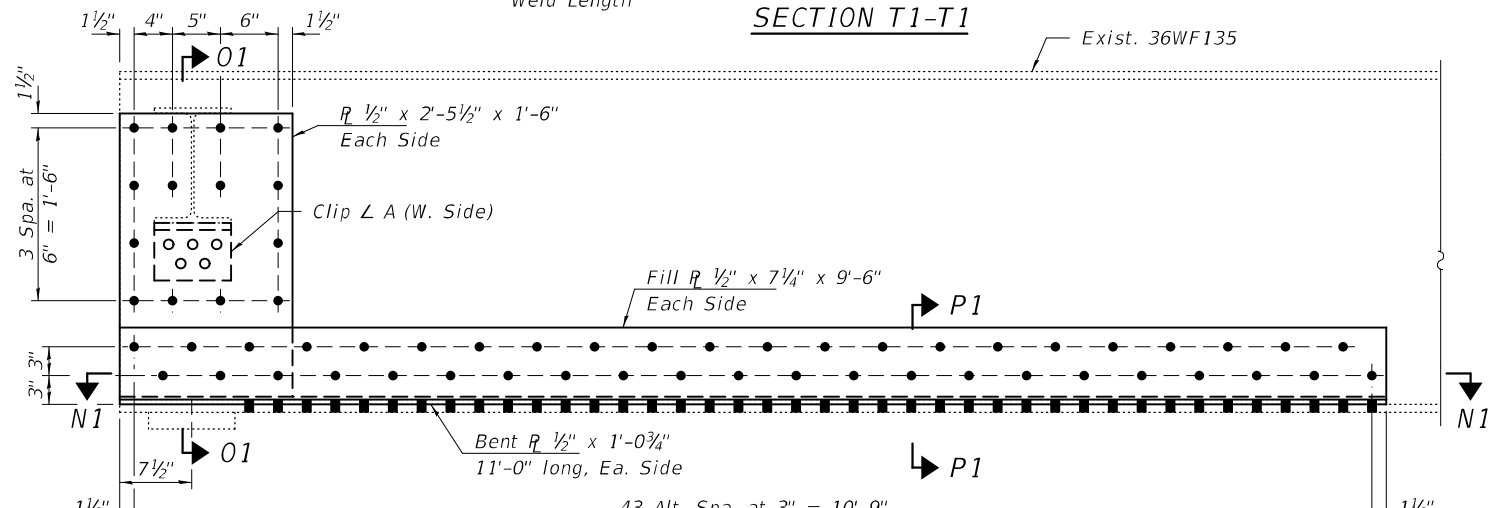
SECTION T1-T1



CLIP L J
L 6x4x3/4" x 8 1/2" long
(1 Required)



SECTION O1-O1

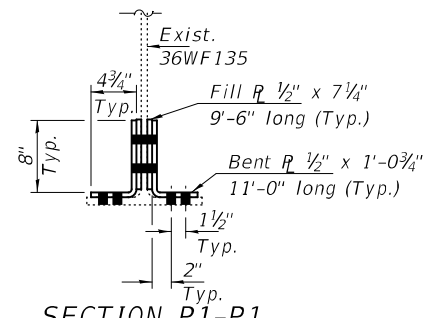


ELEVATION - REPAIR 16
(Beam F - Pier 3 - Span 4)

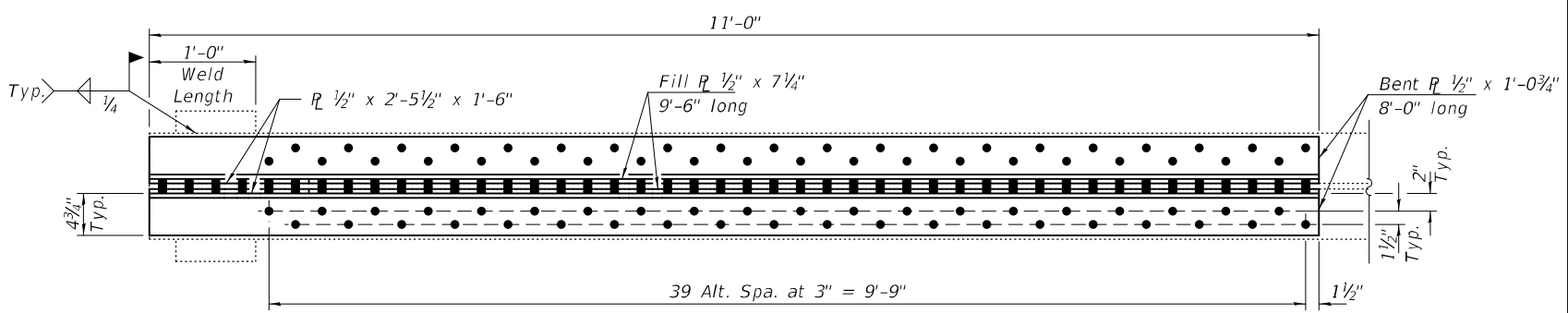
Note:
See sheet 2 of 9 for
Clip L A details.

BOLT HOLE LEGEND

- - Field drill using existing steel as template.
- - Shop drill holes in new steel.



SECTION P1-P1



SECTION N1-N1

DESIGNED - CCC	EXAMINED - <i>Timothy A. Daulton</i>
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES
DRAWN - <i>daburdell</i>	PASSED - <i>Carl R. Boyer</i>
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES

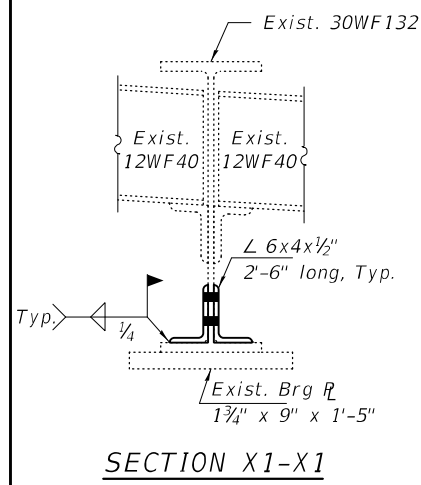
DATE - JUNE 8, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

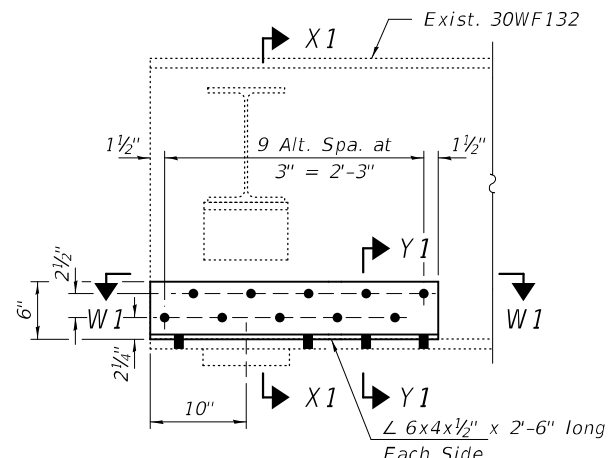
REPAIR DETAILS
SN 016-1005 (SB)

SHEET NO. 7 OF 9 SHEETS

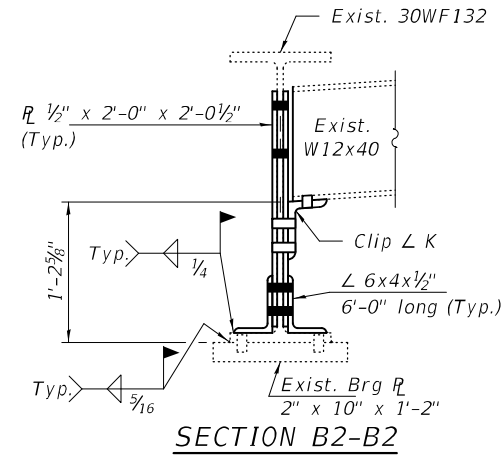
F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 10
CONTRACT NO. 62R56				
ILLINOIS FED. AID PROJECT				



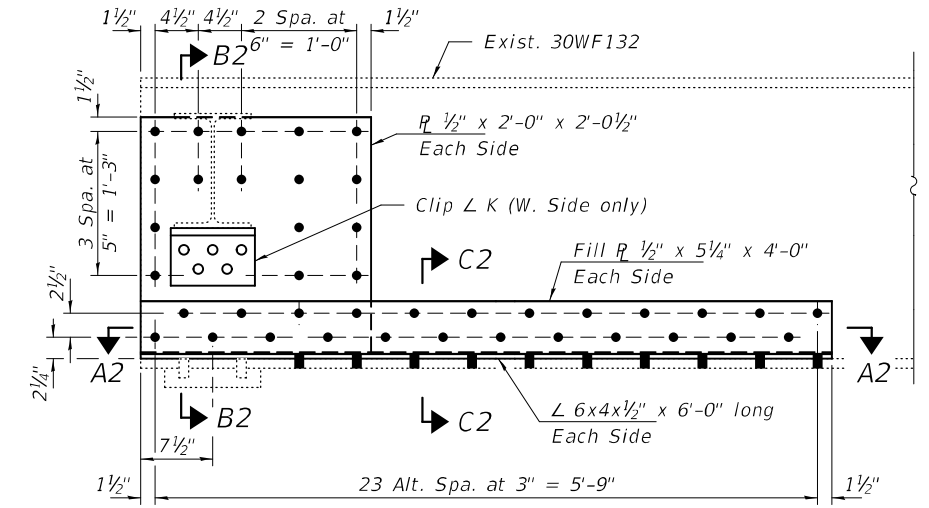
SECTION X1-X1



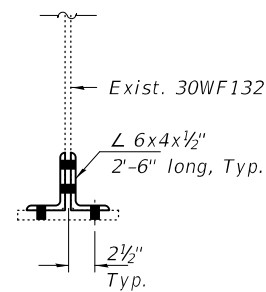
ELEVATION - REPAIR 19
(Beam A - Pier 4 - Span 5)



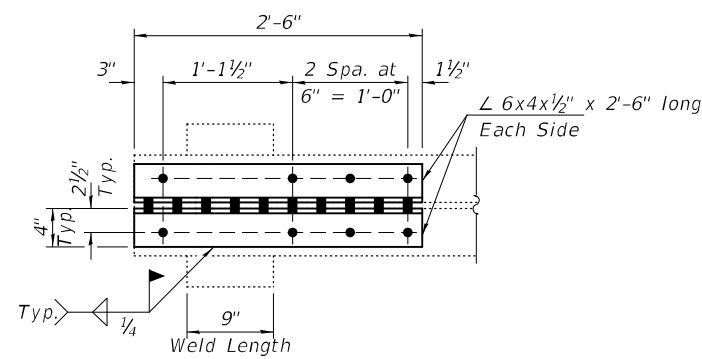
SECTION B2-B2



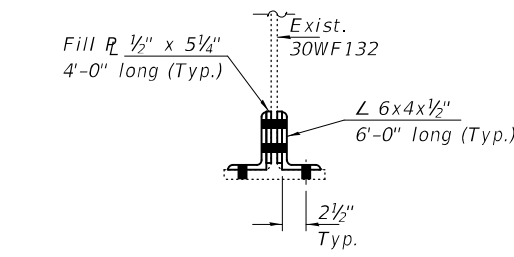
ELEVATION - REPAIR 20
(Beam F - Pier 5 - Span 5)



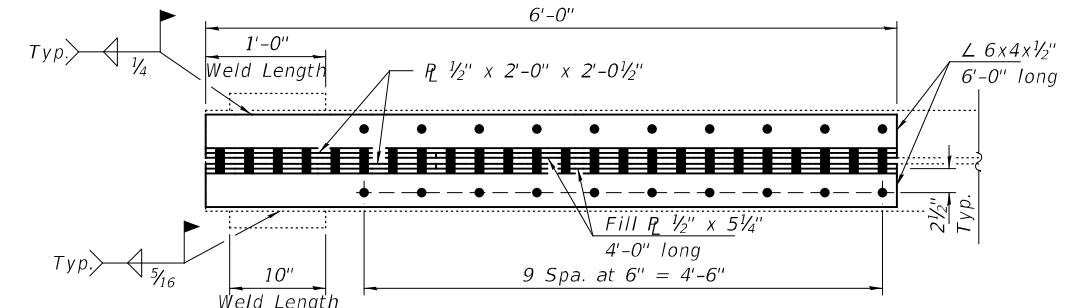
SECTION Y1-Y1



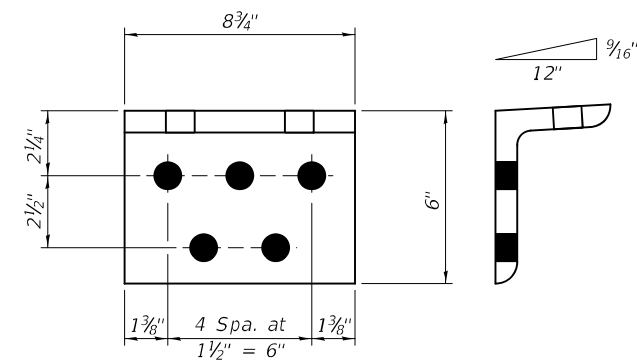
SECTION W1-W1



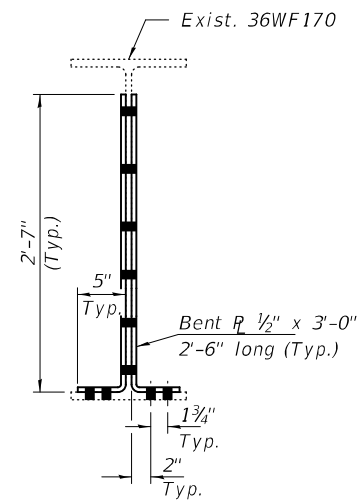
SECTION C2-C2



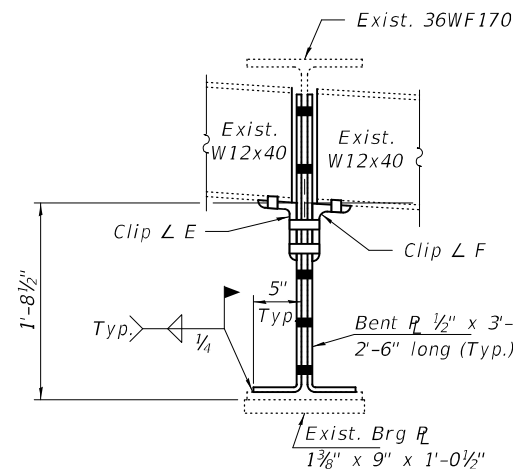
SECTION A2-A2



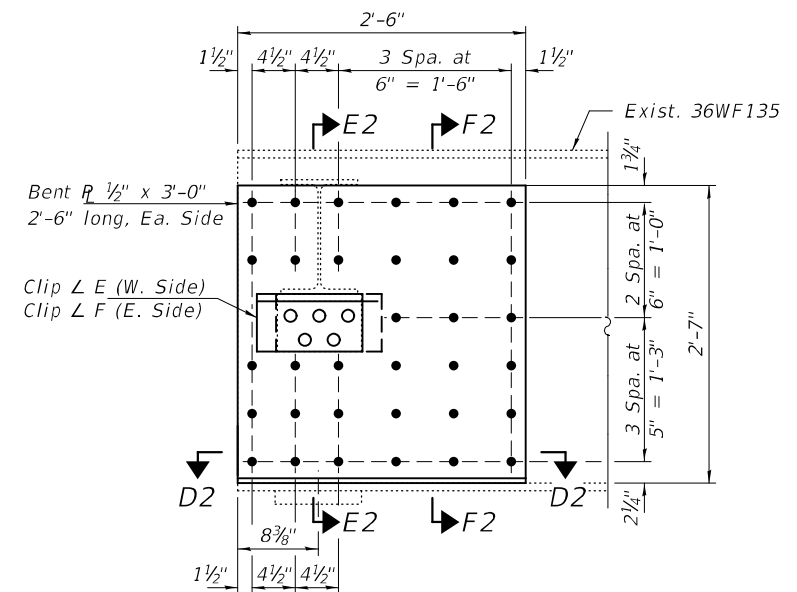
CLIP L K
L 6x4x3/4" x 8 3/4" long
(2 Required)



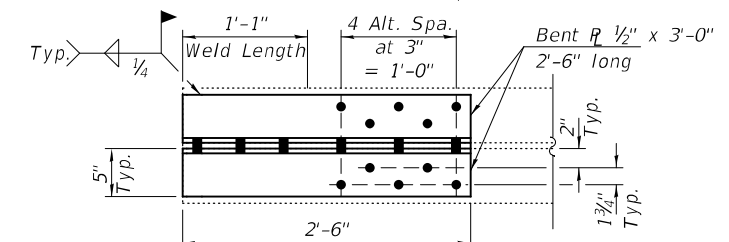
SECTION F2-F2



SECTION E2-E2



ELEVATION - REPAIR 21
(Beam A - Pier 5 - Span 6)



SECTION D2-D2

BOLT HOLE LEGEND

- - Field drill using existing steel as template.
- - Shop drill holes in new steel.

Note:
See sheet 4 of 9 for
Clip L E & F details.

DESIGNED - CCC	EXAMINED - <i>Timothy A. Daburdell</i>
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES
DRAWN - <i>daburdell</i>	PASSED - <i>Carl Ringer</i>
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES

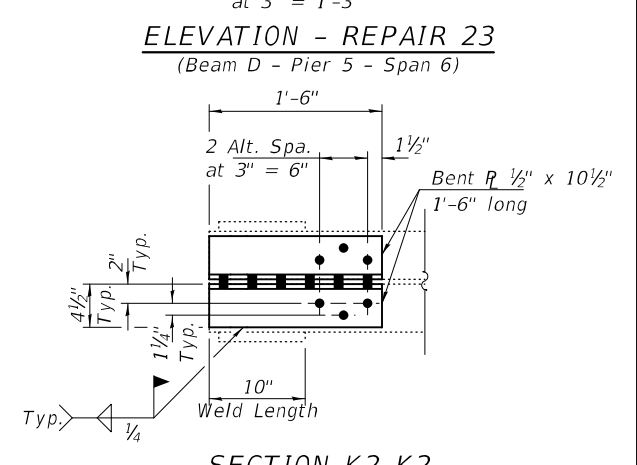
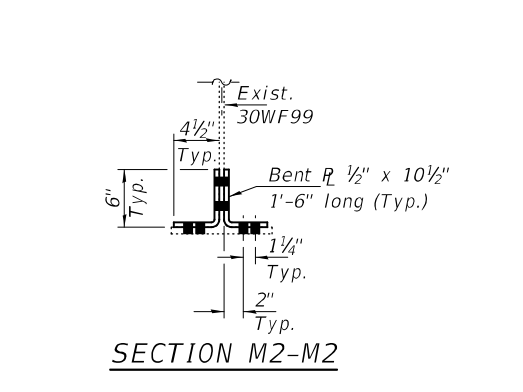
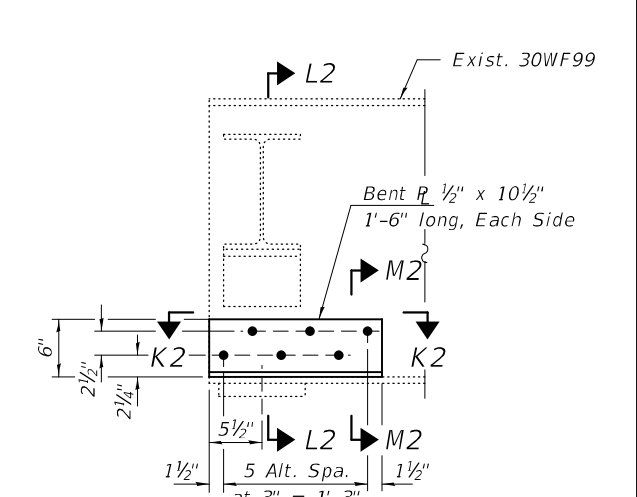
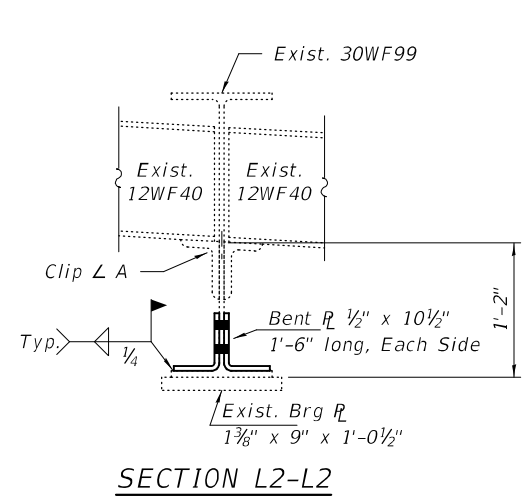
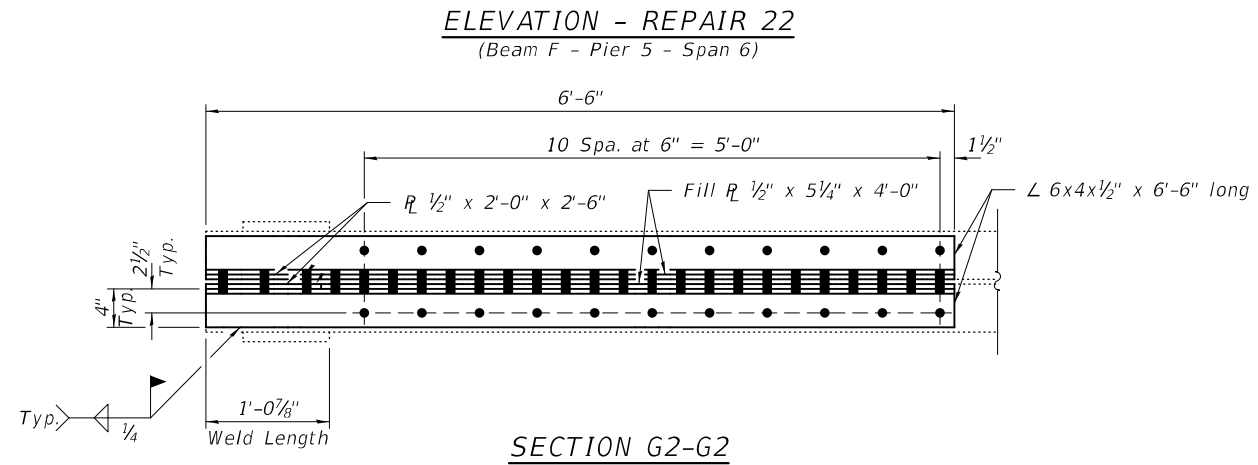
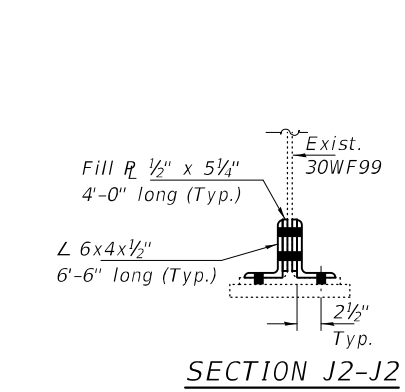
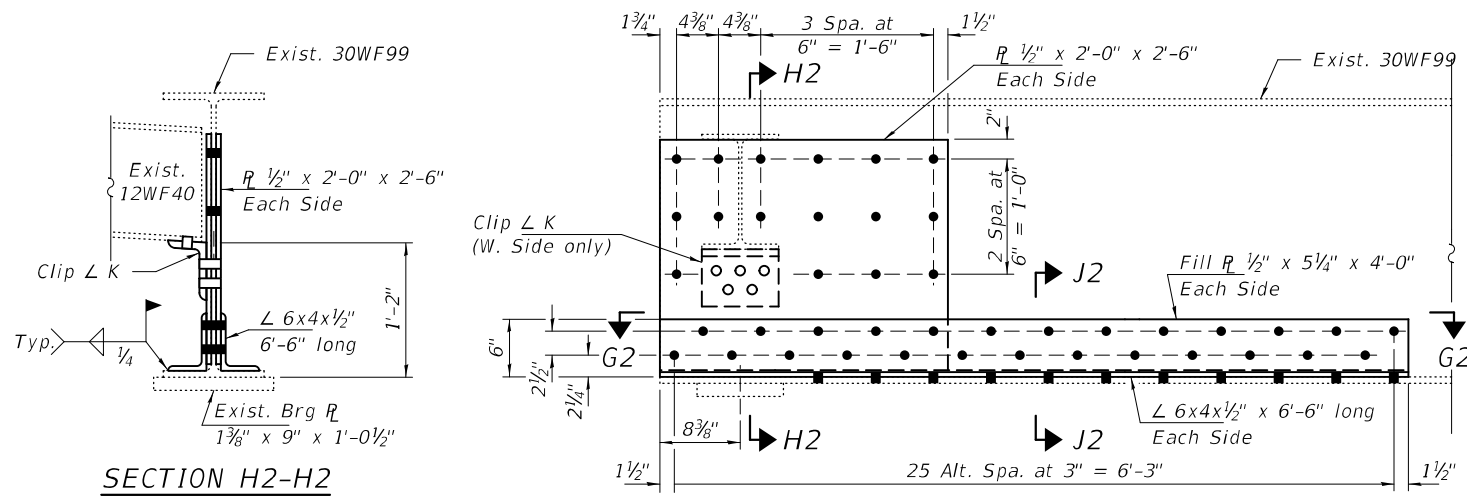
DATE - JUNE 8, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
SN 016-1005 (SB)

SHEET NO. 8 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP-372-22-BR	COOK	31	11
CONTRACT NO. 62R56				
ILLINOIS FED. AID PROJECT				

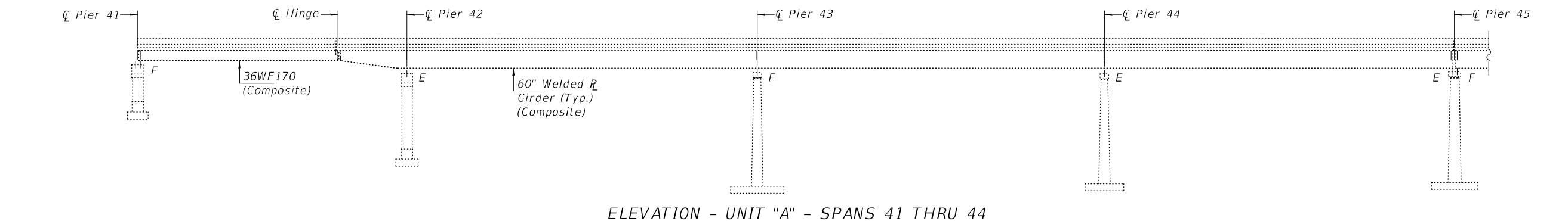


Note:
See sheet 8 of 9 for
Clip L K details.

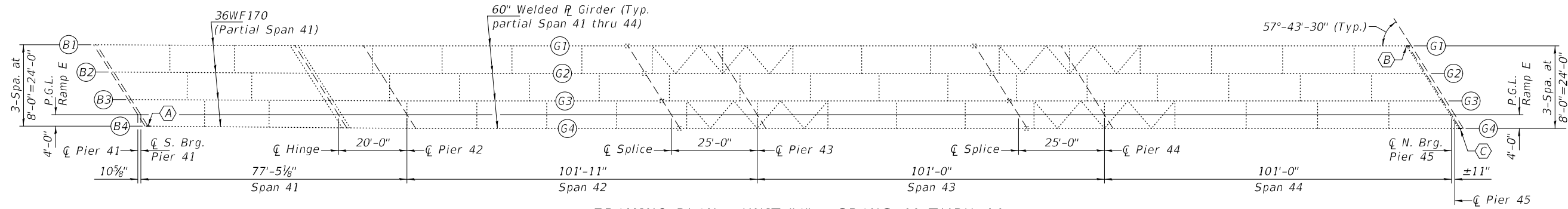
BOLT HOLE LEGEND

- - Field drill using existing steel as template.
- - Shop drill holes in new steel.

DESIGNED - CCC	EXAMINED - <i>Timothy A. Daburdell</i> ENGINEER OF STRUCTURAL SERVICES	DATE - JUNE 8, 2022	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR DETAILS SN 016-1005 (SB)	F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 12	
CHECKED - JSB	PASSED - <i>Carl R. Roper</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			CONTRACT NO. 62R56					
DRAWN - <i>daburdell</i>		REVISED -			SHEET NO. 9 OF 9 SHEETS					
CHECKED - CCC JSB					ILLINOIS FED. AID PROJECT					

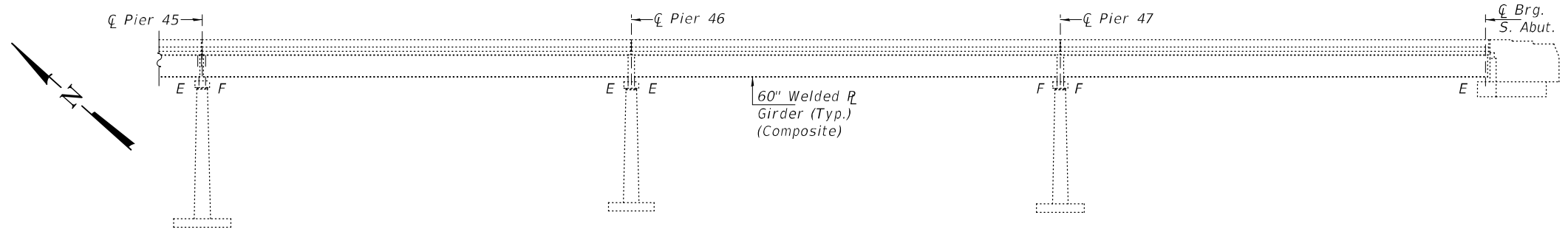


ELEVATION - UNIT "A" - SPANS 41 THRU 44

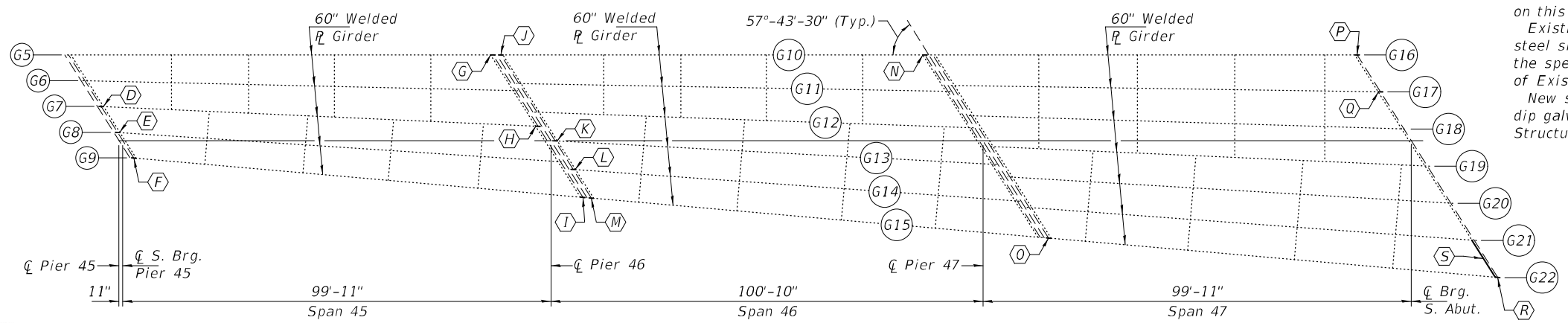


FRAMING PLAN - UNIT "A" - SPANS 41 THRU 44

(A) thru (C) - Beam/Girder End Repairs
(See sheets 2 & 3 of 7.)



ELEVATION - UNIT "B" - SPANS 45 THRU 47



FRAMING PLAN - UNIT "B" - SPANS 45 THRU 47

(D) thru (R) - Girder End Repairs
(See sheets 3 thru 7 of 7.)
(S) - Cross Frame Repair
(See sheets 6 of 7.)

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
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.
Fasteners shall be high strength bolts. Bolts 3/4"Ø, open holes 1 1/8"Ø, unless otherwise noted.
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
New structural steel, connection bolts, nuts and washers shall be hot dip galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel".

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	3000



Expires: November 30, 2022

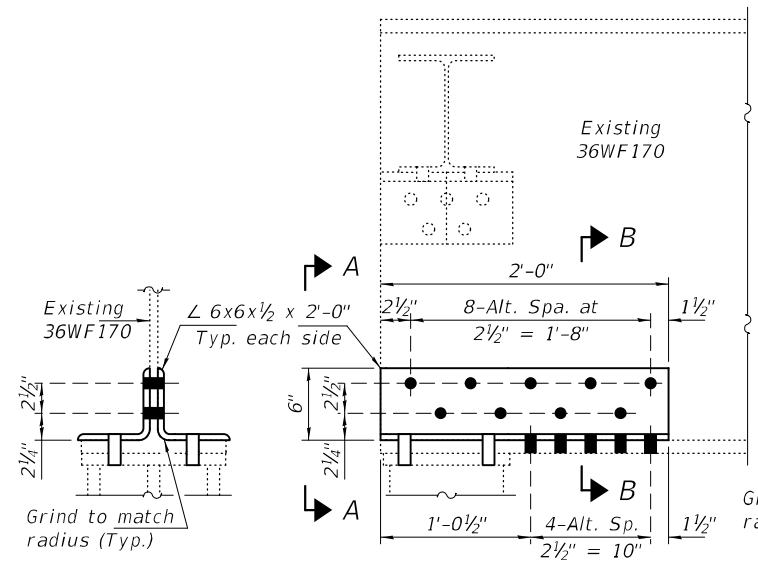
DESIGNED - Chi-Cheung Chau	EXAMINED	DATE - JUNE 9, 2022
CHECKED - Jeffrey S. Burke	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED	REVISER -
CHECKED - JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND ELEVATION
ILLINOIS 171 (S.B.) RAMP "E" OVER DES PLAINES RIVER
SN 016-1026

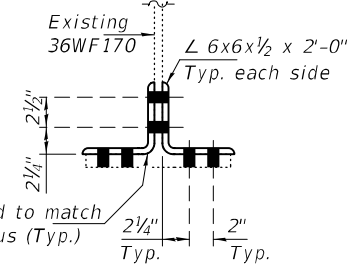
SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 13
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	

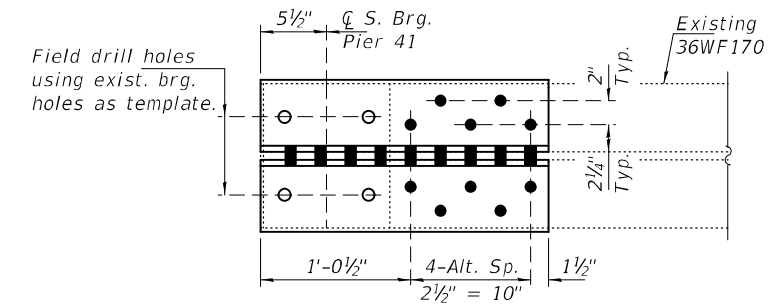


VIEW A-A

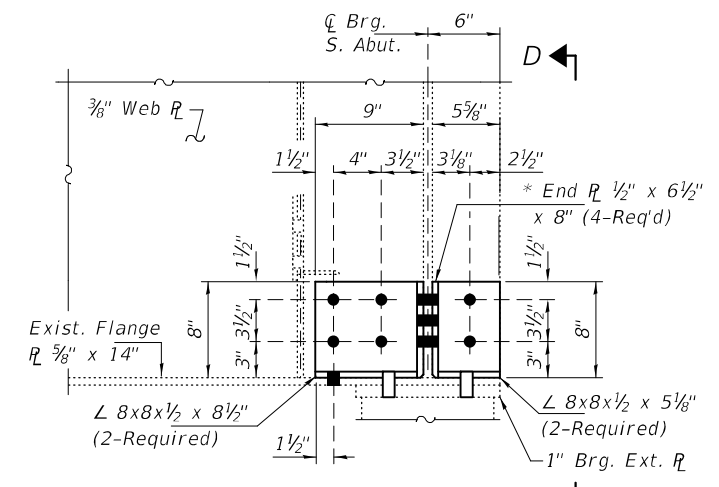
REPAIR "A" - ELEVATION
PIER 41 (SOUTH) - SP. 41 - BEAM B4
(Looking East)



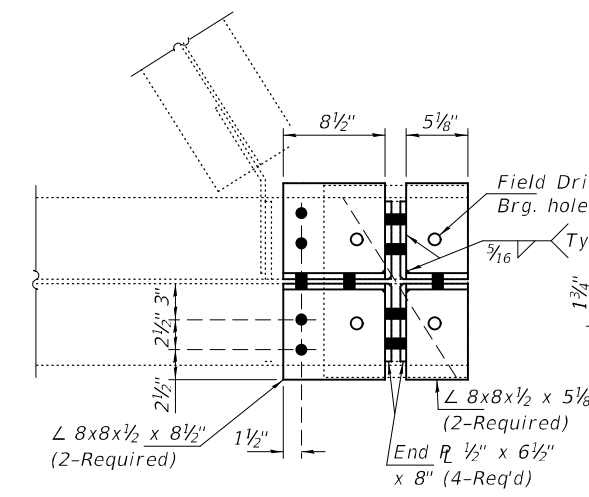
SECTION B-B



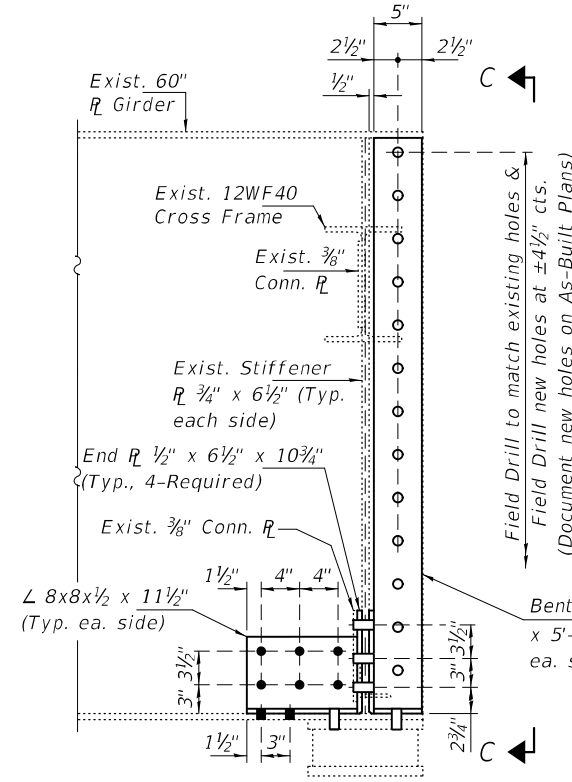
REPAIR "A" - PLAN
PIER 41 (SOUTH) - SP. 41 - BEAM B4



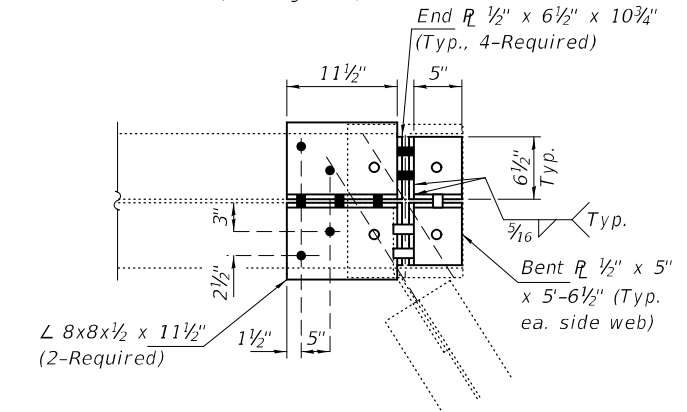
REPAIR "C" - ELEVATION
PIER 45 (NORTH) - SP. 44 - GIRDER G4
(Looking East)



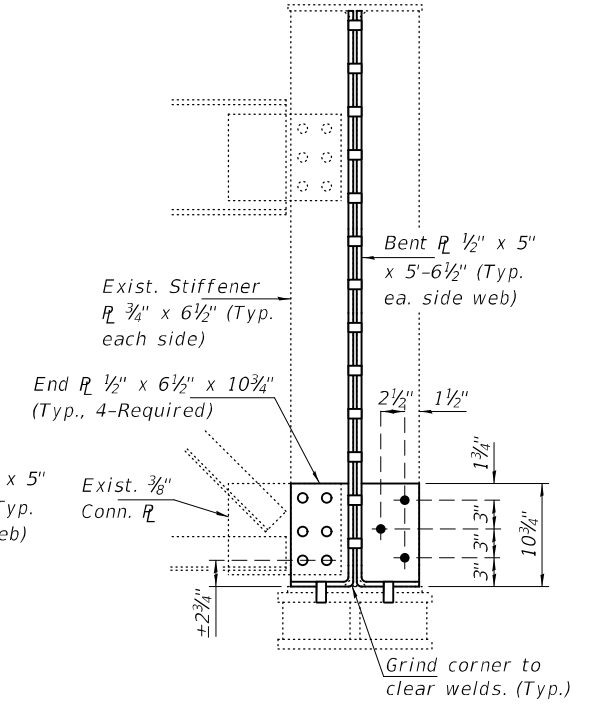
REPAIR "C" - PLAN
PIER 45 (NORTH) - SP. 44 - GIRDER G4



REPAIR "B" - ELEVATION
PIER 45 (NORTH) - SP. 44 - GIRDER G1
(Looking East)



REPAIR "B" - PLAN
PIER 45 (NORTH) - SP. 44 - GIRDER G1



VIEW C-C

- BOLT HOLE LEGEND**
- - Shop Drilled Holes
 - - Field Drilled Holes

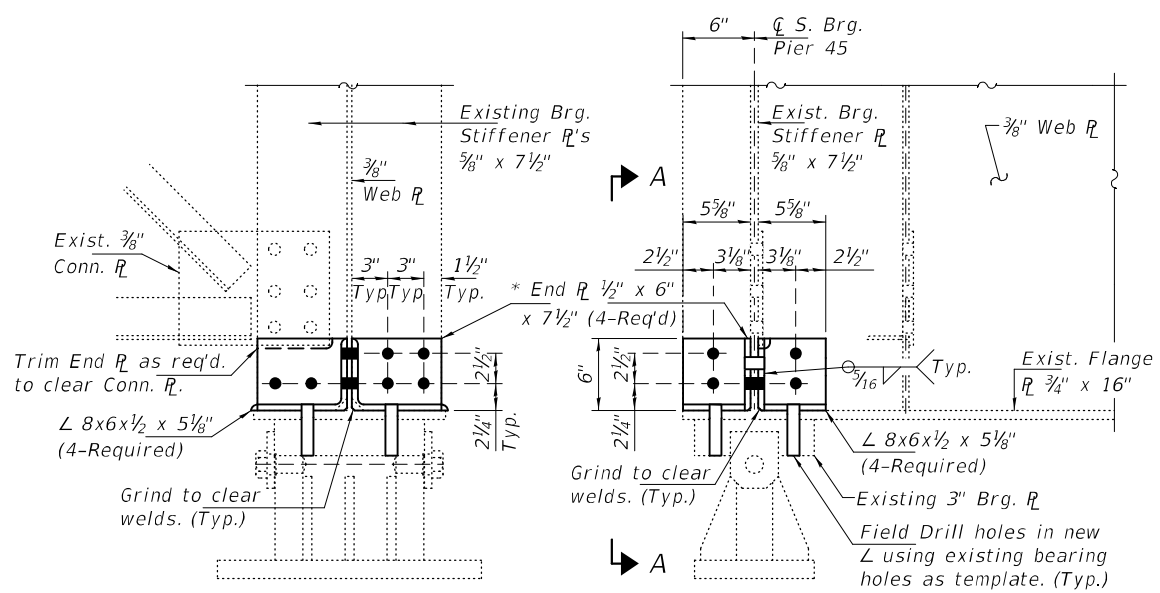
DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Jaime F. [Signature]</i>	REVISER -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS "A" THRU "C"
SN 016-1026

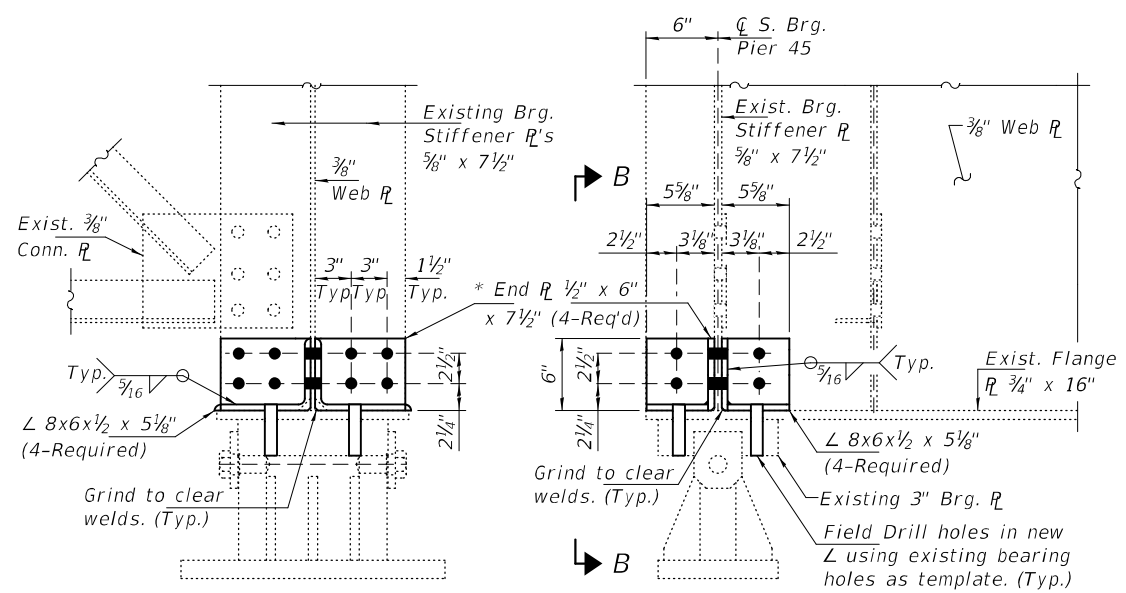
SHEET NO. 2 OF 7 SHEETS

F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 14
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62R56	



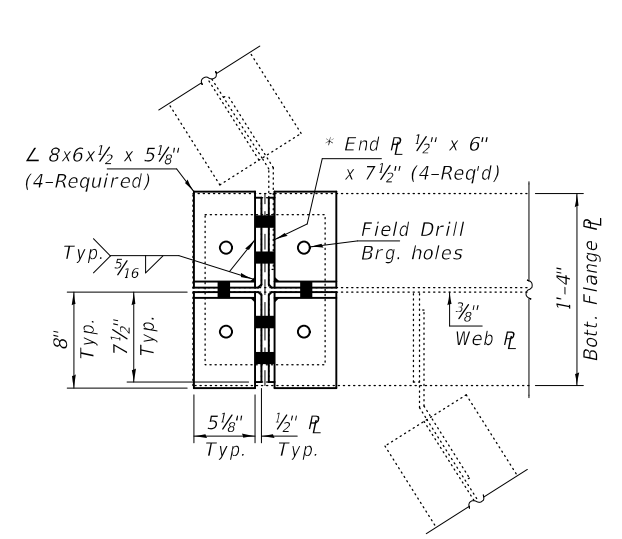
VIEW A-A

REPAIR "D" - ELEVATION
PIER 45 (SOUTH) - SP. 45 - GIRDER G7
(Looking East)



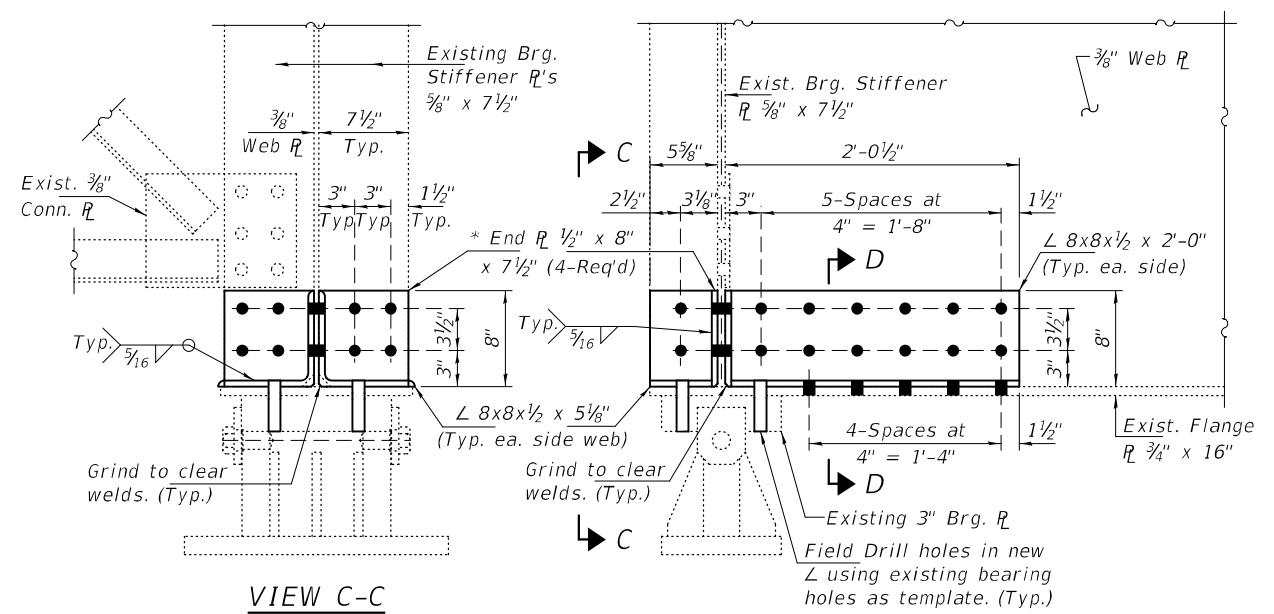
VIEW B-B

REPAIR "E" - ELEVATION
PIER 45 (SOUTH) - SPAN 45
GIRDER G8
(Looking East)



REPAIR "D" & "E" - PLAN VIEW
PIER 45 (SOUTH) - SPAN 45
GIRDER G7 & G8

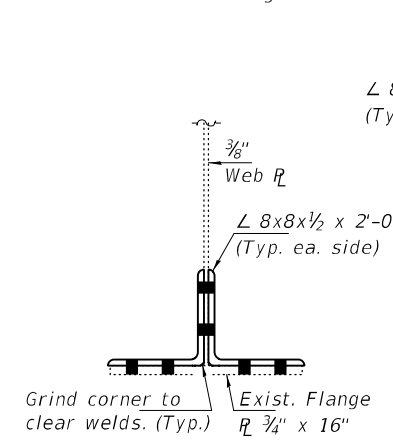
See Repair D & E Elevations and Views A-A & B-B this sheet for dimensions and details not shown.



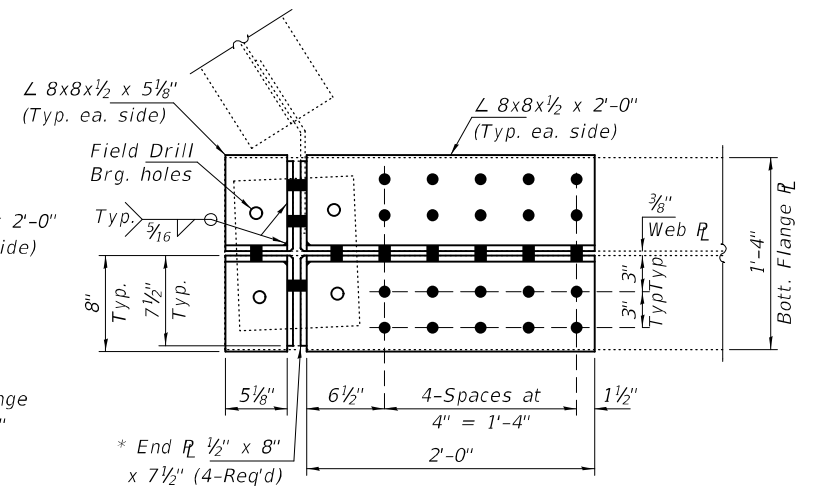
VIEW C-C

REPAIR "F" - ELEVATION
PIER 45 (SOUTH) - SP. 45 - GIRDER G9
(Looking East)

* Grind End P's as required to miss existing welds.



SECTION D-D



REPAIR "F" - PLAN VIEW
PIER 45 (SOUTH) - SP. 45 - GIRDER G9
See Repair F Elevation, View C-C & Section D-D this sheet for dimensions and details not shown.

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

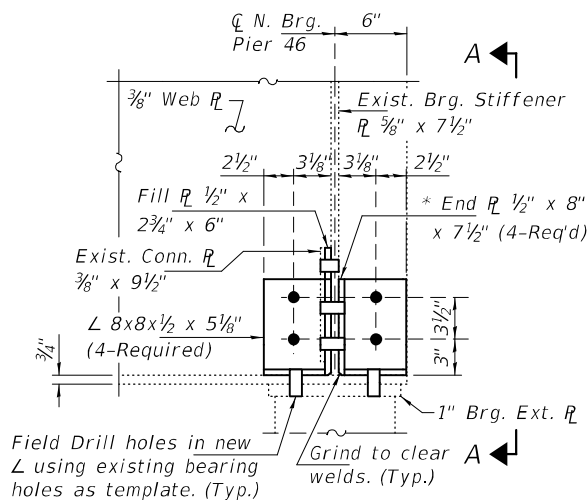
DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. [Signature]</i>	REVISED -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

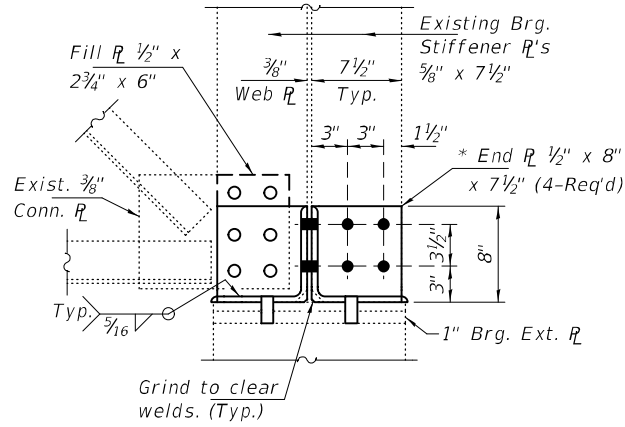
REPAIR DETAILS "D" THRU "F"
SN 016-1026

SHEET NO. 3 OF 7 SHEETS

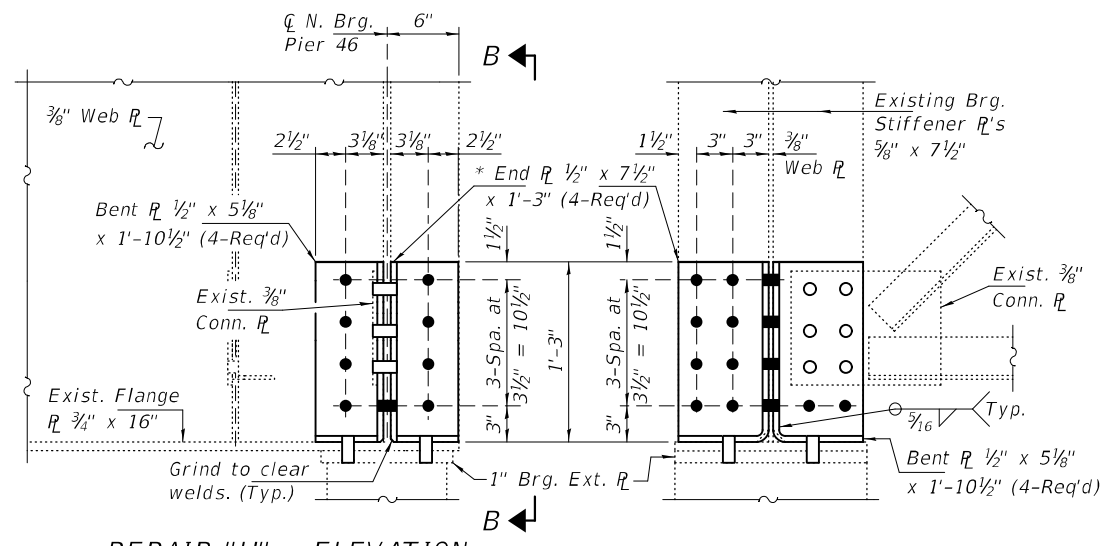
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP-372-22-BR	COOK	31	15
CONTRACT NO. 62R56				
ILLINOIS		FED. AID PROJECT		



REPAIR "G" - ELEVATION
PIER 46 (NORTH) - SPAN 45
GIRDER G5
 (Looking East)

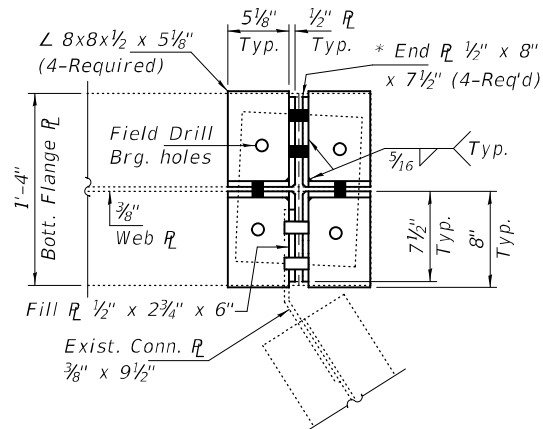


VIEW A-A



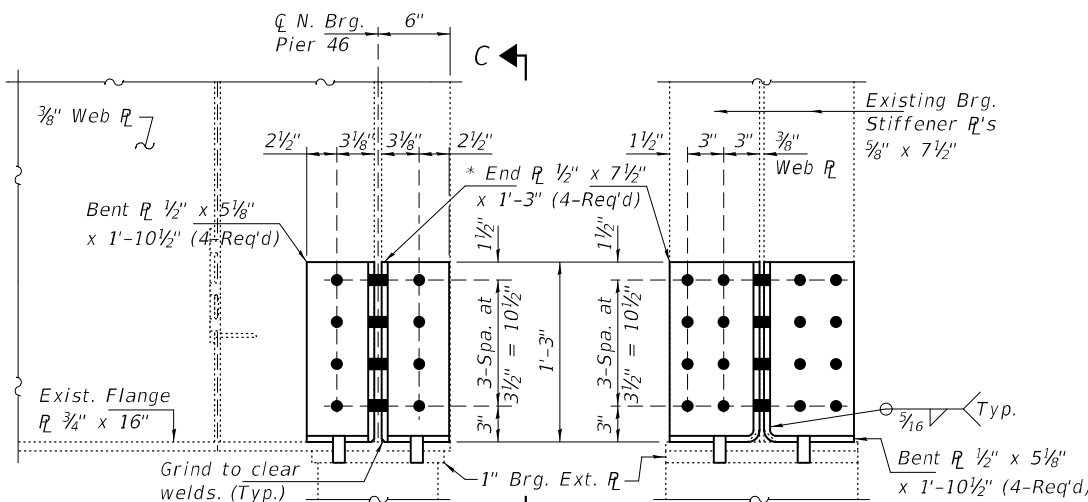
REPAIR "H" - ELEVATION
PIER 46 (NORTH) - SPAN 45
GIRDER G7
 (Looking East)

VIEW B-B



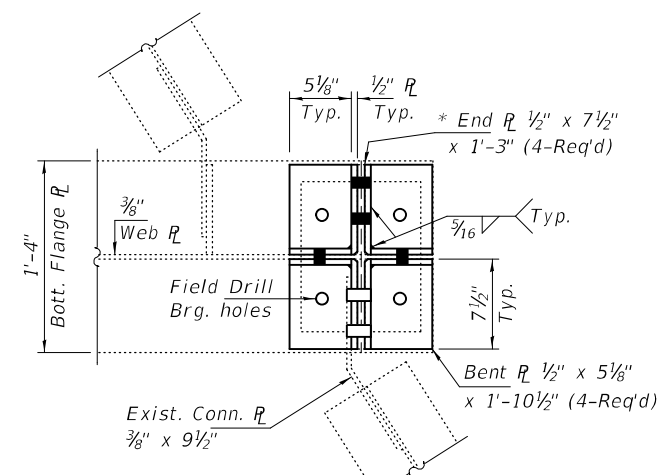
REPAIR "G" - PLAN VIEW
PIER 46 (NORTH) - SPAN 45
GIRDER G5

See Repair G Elevation and View A-A this sheet for dimensions and details not shown.



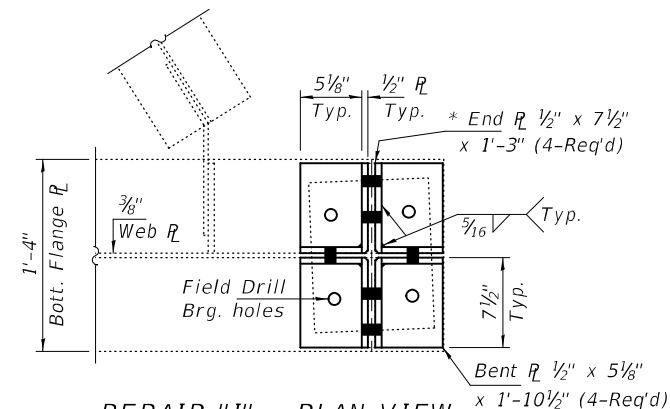
REPAIR "I" - ELEVATION
PIER 46 (NORTH) - SPAN 45
GIRDER G9
 (Looking East)

VIEW C-C



REPAIR "H" - PLAN VIEW
PIER 46 (NORTH) - SPAN 45
GIRDER G7

See Repair H Elevation and View B-B this sheet for dimensions and details not shown.



REPAIR "I" - PLAN VIEW
PIER 46 (NORTH) - SP. 45 - GIRDER G9

See Repair I Elevation and View C-C this sheet for dimensions and details not shown.

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES
DRAWN - STEFFEN	PASSED - <i>Jaime F. [Signature]</i>
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES

DATE - JUNE 9, 2022

REVISOR -

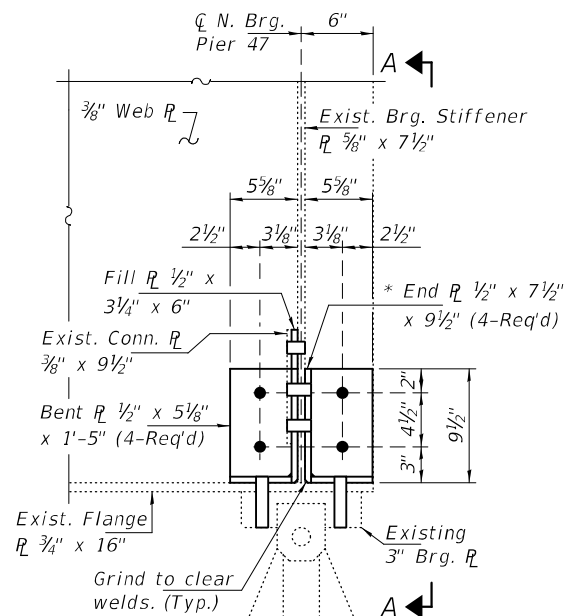
REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

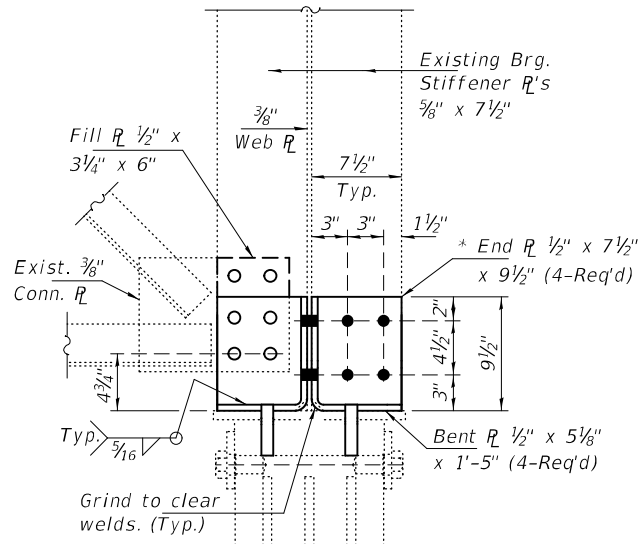
REPAIR DETAILS "G" THRU "I"
SN 016-1026

SHEET NO. 4 OF 7 SHEETS

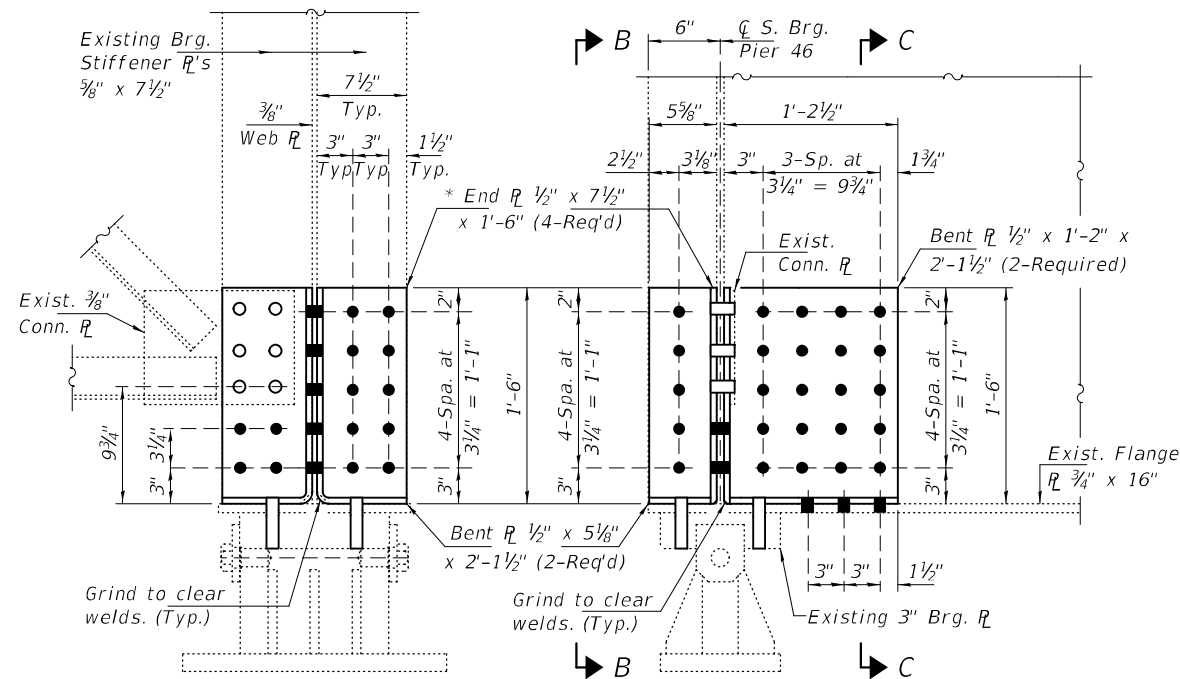
F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 16
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	



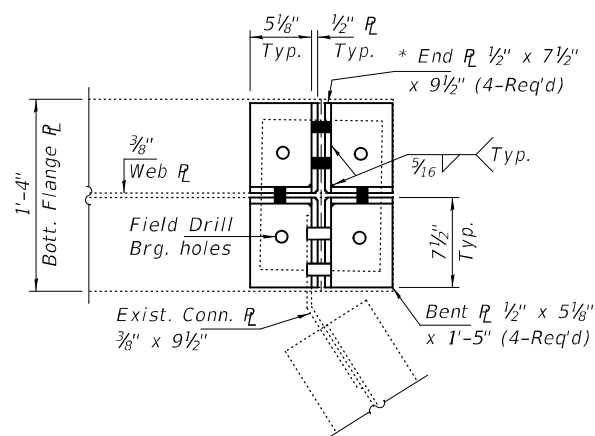
REPAIR "N" - ELEVATION
PIER 47 (NORTH) - SPAN 46
GIRDER G10
 (Looking East)



VIEW A-A

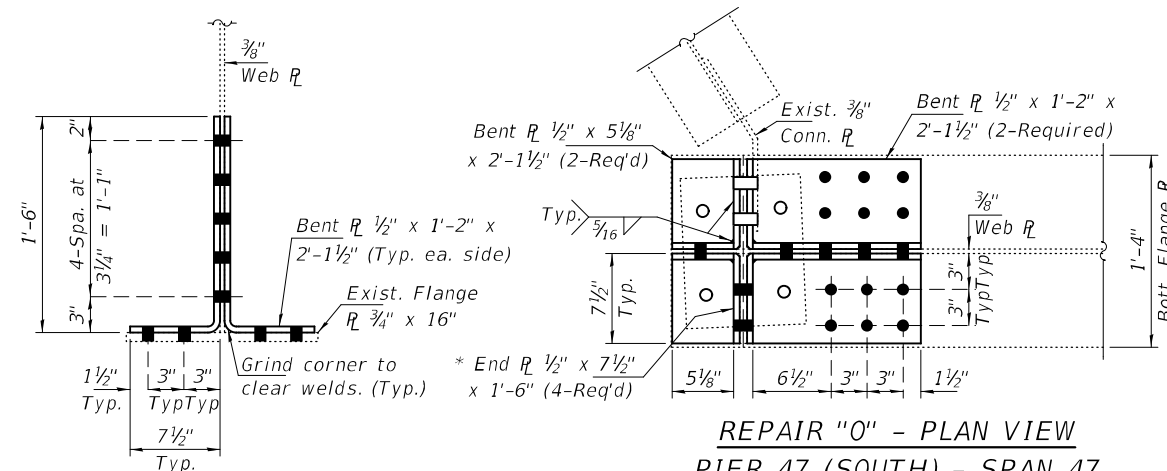


REPAIR "O" - ELEVATION
PIER 47 (SOUTH) - SPAN 47
GIRDER G22
 (Looking East)



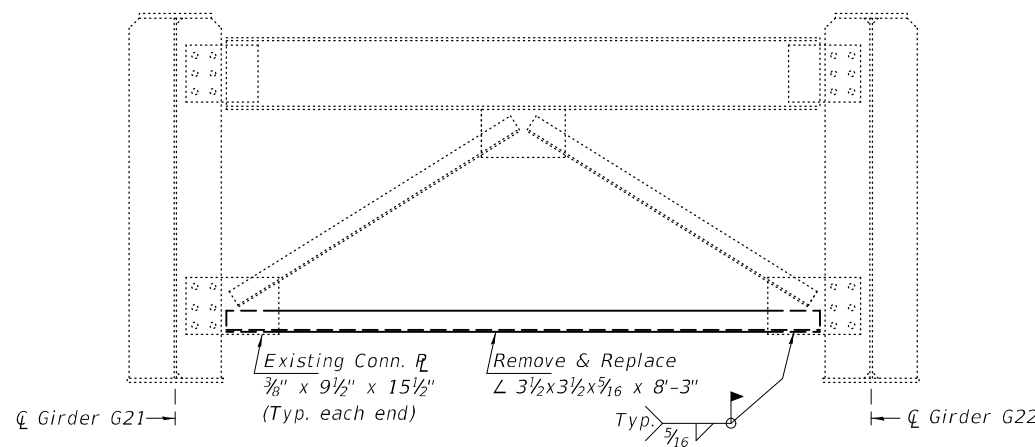
REPAIR "N" - PLAN VIEW
PIER 47 (NORTH) - SPAN 46
GIRDER G10

See Repair N Elevation and View A-A this sheet for dimensions and details not shown.



REPAIR "O" - PLAN VIEW
PIER 47 (SOUTH) - SPAN 47
GIRDER G22

See Repair O Elevation, View B-B & Section C-C this sheet for dimensions and details not shown.



CROSS FRAME REPAIR "S" DETAILS

Repair R's & L's at Girder G22 not shown for clarity.

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES
DRAWN - STEFFEN	PASSED - <i>James F. [Signature]</i>
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES

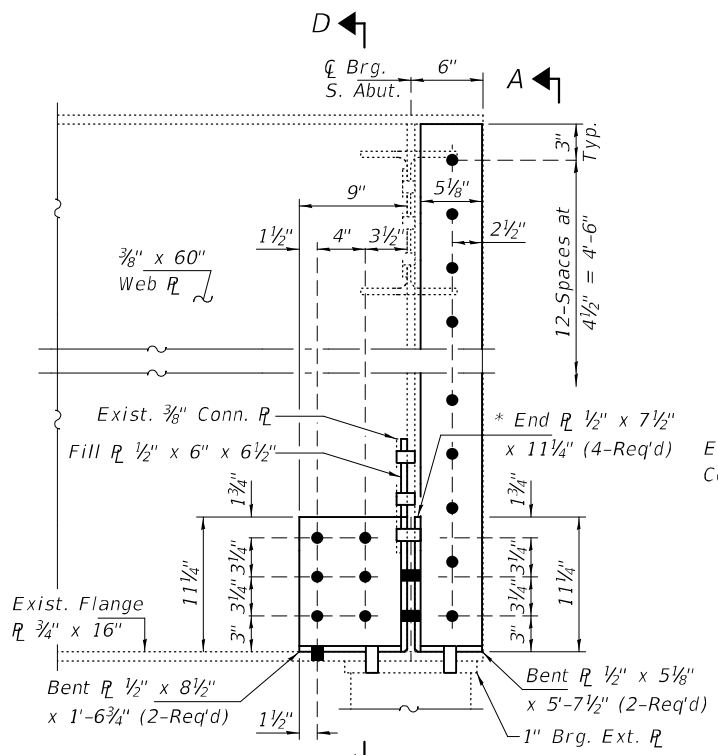
DATE - JUNE 9, 2022
REVISIONS
REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

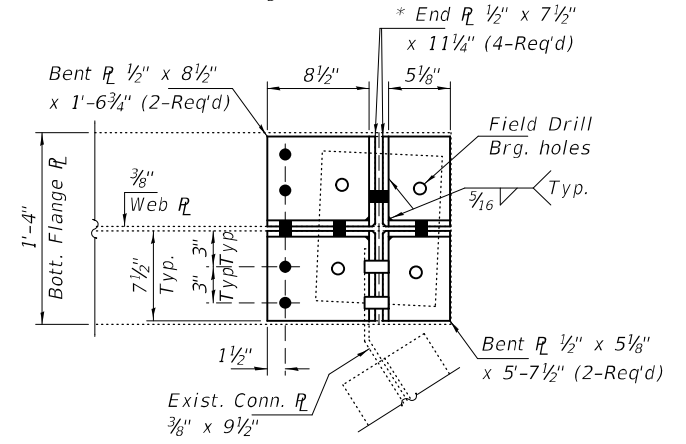
REPAIR DETAILS "O" & "N" & CROSS FRAME REPAIR "S"
SN 016-1026

SHEET NO. 6 OF 7 SHEETS

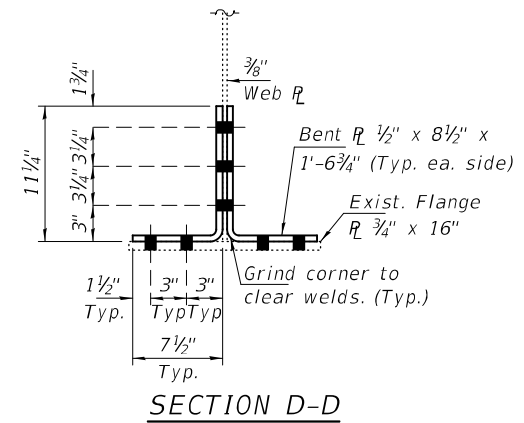
F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 18
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	



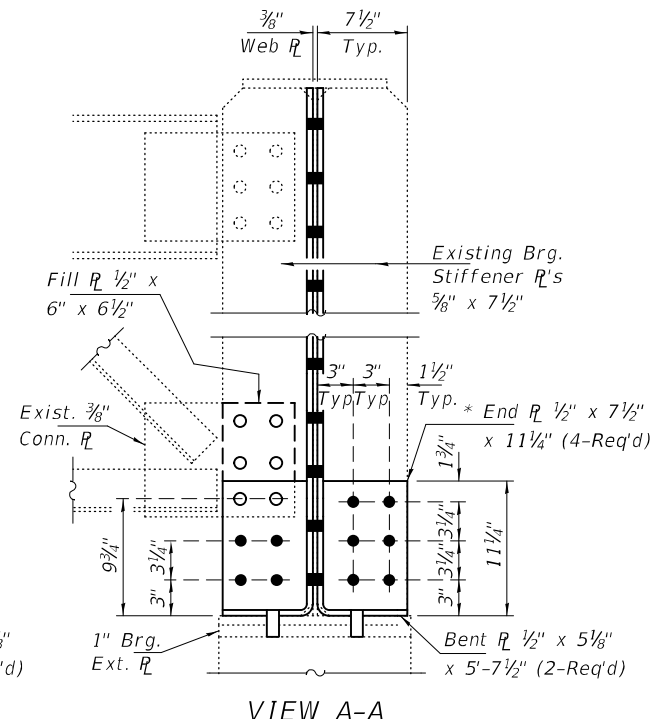
REPAIR "P" - ELEVATION
 S. ABUT. - SP. 47 - GIRDER G16
 (Looking East)



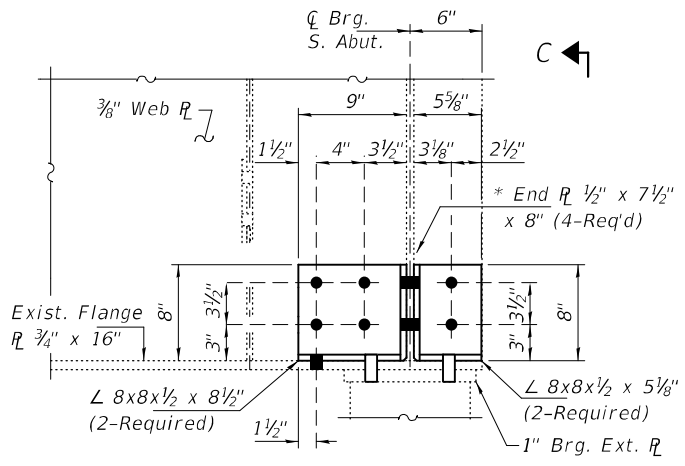
REPAIR "P" - PLAN VIEW
 S. ABUT. - SP. 47 - GIRDER G16
 See Repair P Elevation, View A-A & Section E-E
 this sheet for dimensions and details not shown.



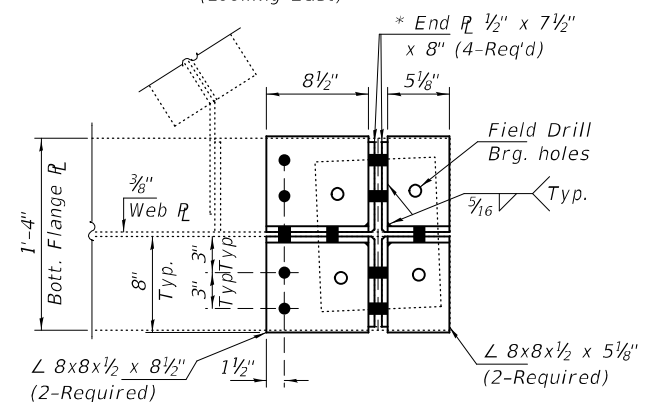
SECTION D-D



VIEW A-A

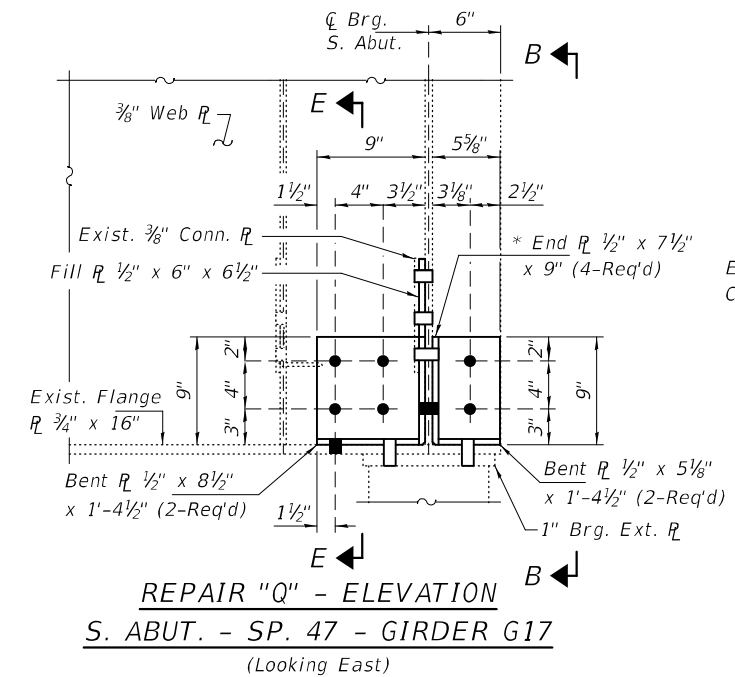


REPAIR "R" - ELEVATION
 S. ABUT. - SP. 47 - GIRDER G22
 (Looking East)

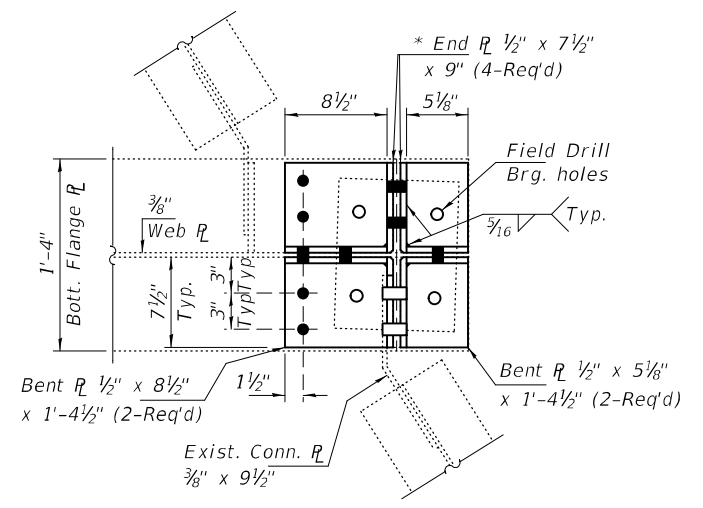


REPAIR "R" - PLAN VIEW

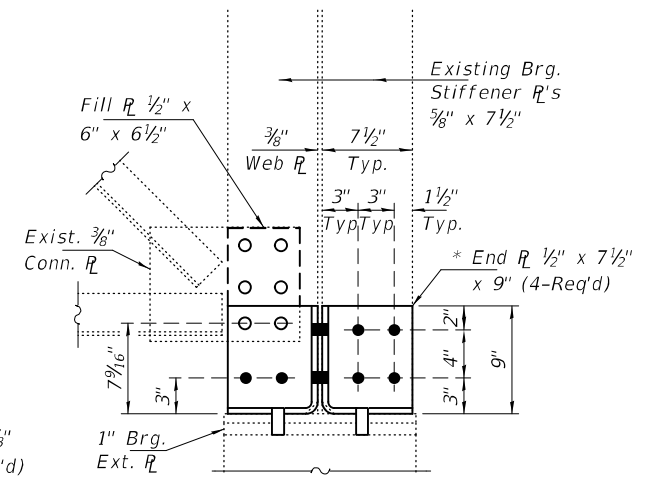
S. ABUT. - SP. 47 - GIRDER G22
 See Repair R Elevation, View C-C & Section E-E
 this sheet for dimensions and details not shown.



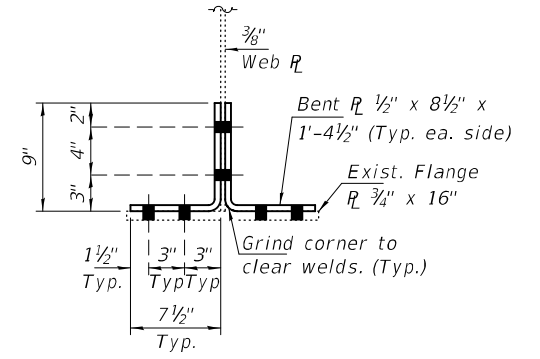
REPAIR "Q" - ELEVATION
 S. ABUT. - SP. 47 - GIRDER G17
 (Looking East)



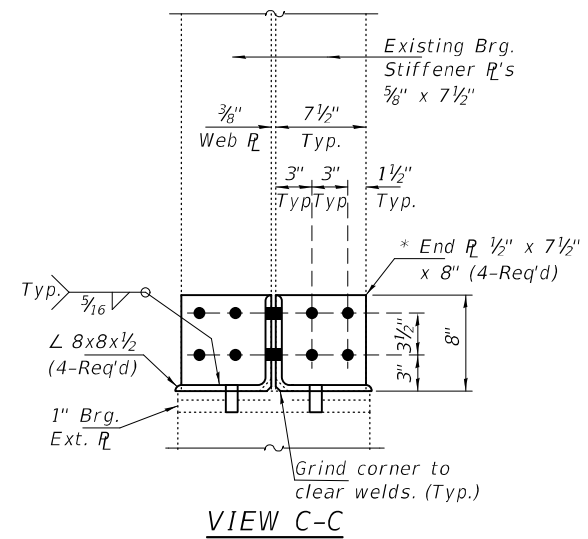
REPAIR "Q" - PLAN VIEW
 S. ABUT. - SP. 47 - GIRDER G17
 See Repair Q Elevation, View B-B & Section E-E
 this sheet for dimensions and details not shown.



VIEW B-B



SECTION E-E

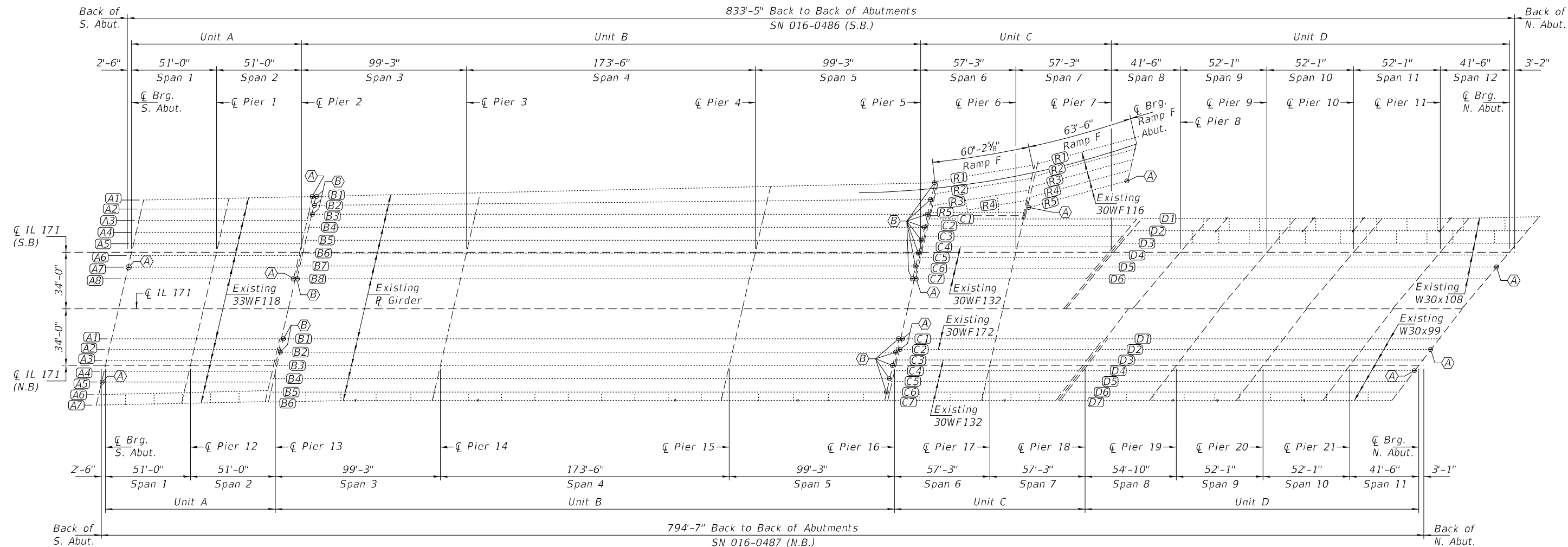


VIEW C-C

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

DESIGNED - CCC	EXAMINED - <i>Timothy A. Smith</i>	DATE - JUNE 9, 2022	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR DETAILS "P" THRU "R" SN 016-1026	F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 19
CHECKED - JSB	PASSED - <i>James F. Smith</i>	REVISIONS			SHEET NO. 7 OF 7 SHEETS		CONTRACT NO. 62R56		ILLINOIS FED. AID PROJECT



FRAMING PLAN

- (A) - Wide Flange Beam End Repair
- (B) - Welded R Girder End Repair

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

Fasteners shall be high strength bolts. Bolts 3/4"Ø, open holes 1 3/16"Ø, unless otherwise noted.

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

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

New structural steel, clip angles, connection bolts, nuts and washers shall be hot dip galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel".

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	6330



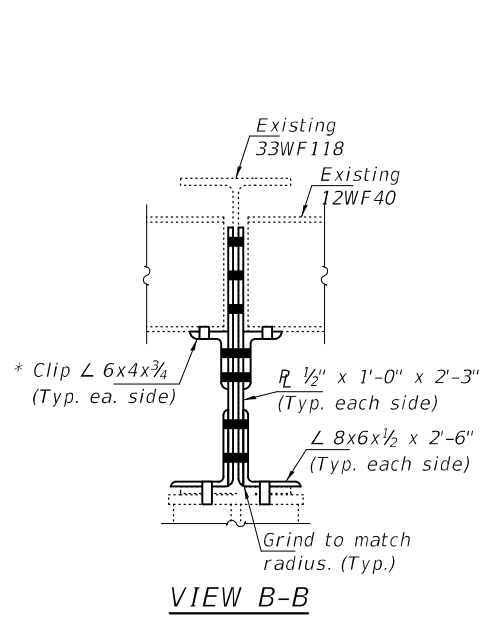
Expires: November 30, 2022

DESIGNED - Chi-Cheung Chau	EXAMINED	DATE - JUNE 9, 2022
CHECKED - Jeffrey S. Burke	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED	REVISER -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

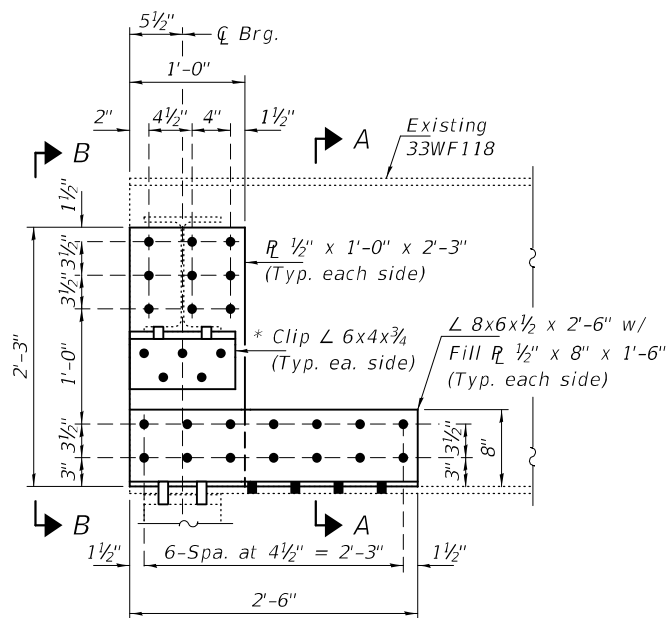
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
ILLINOIS ROUTE 171 FIRST AVE. OVER S&S CANAL
SN 016-0486 (S.B.) & -0487 (N.B.)
SHEET NO. 1 OF 9 SHEETS

F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 20
CONTRACT NO. 62R56				
ILLINOIS FED. AID PROJECT				

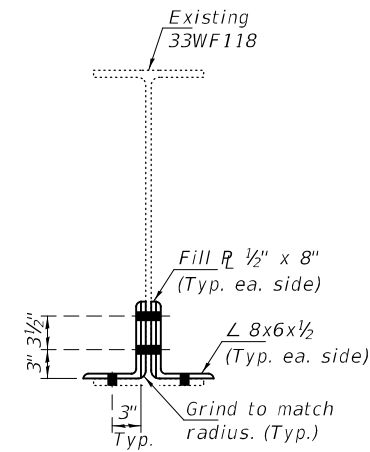


VIEW B-B

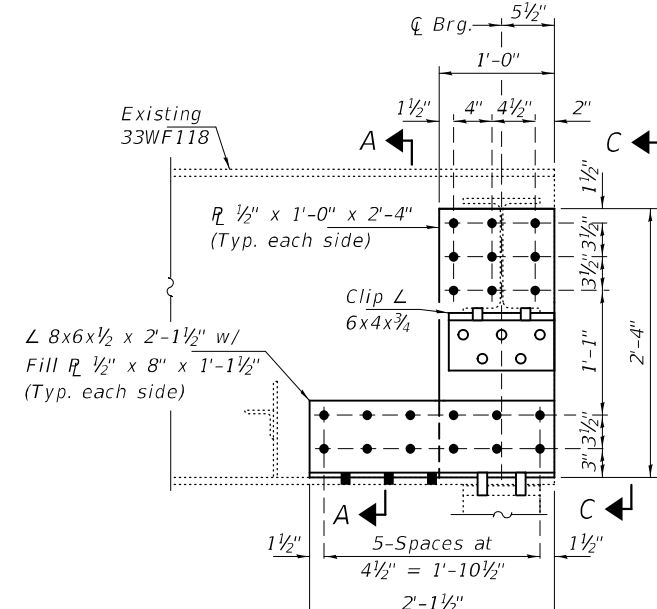


ELEVATION
BEAM A7 AT S. ABUT.
(Looking West)

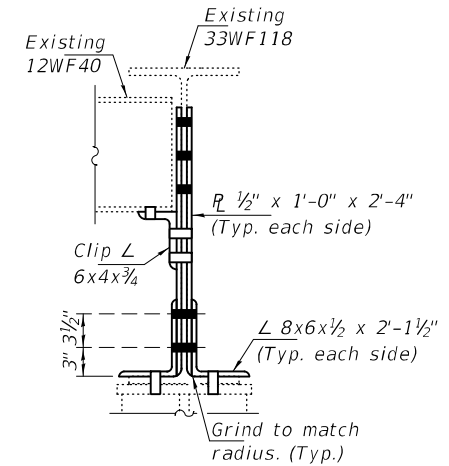
* Existing Clip L to be removed using the air-arc method and grind smooth all weld material remaining on the web.



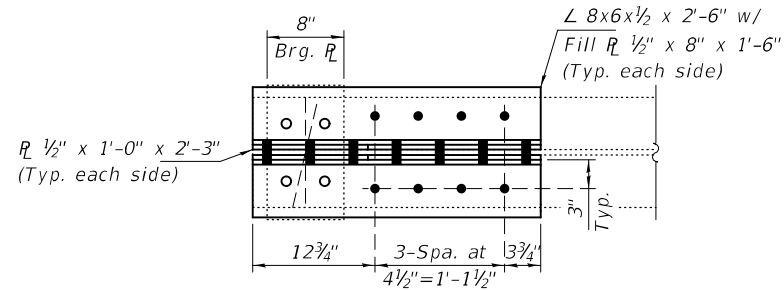
SECTION A-A



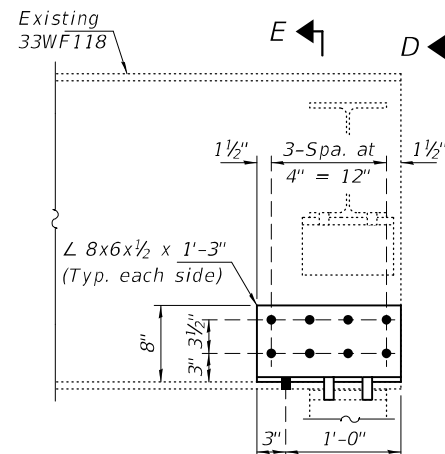
ELEVATION
BEAM A1 AT PIER 2 - SP. 2
(Looking West)



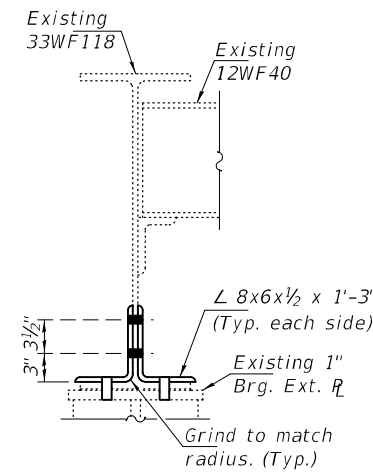
VIEW C-C



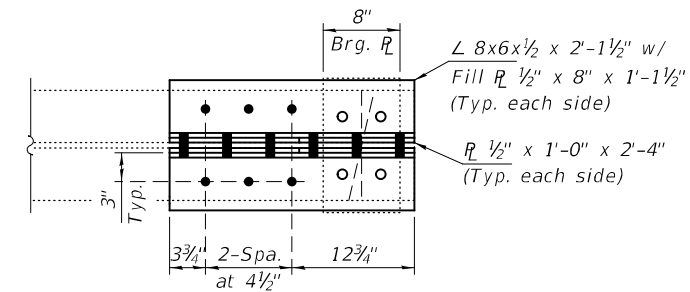
PLAN VIEW
BEAM A7 AT S. ABUT.



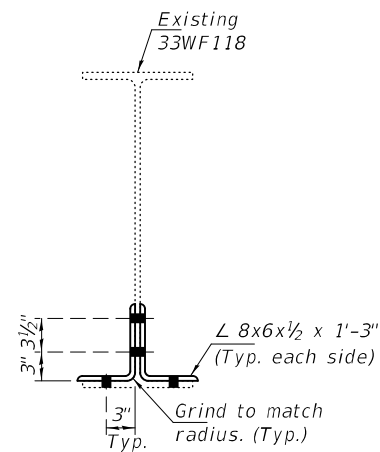
ELEVATION
BEAM A8 AT PIER 2 - SP. 2
(Looking West)



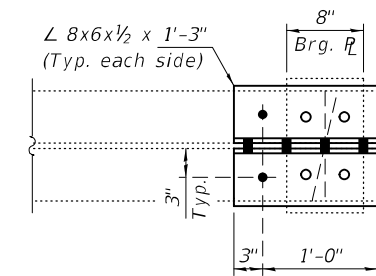
VIEW D-D



PLAN VIEW
BEAM A1 AT PIER 2 - SP. 2



SECTION E-E



PLAN VIEW
BEAM A8 AT PIER 2 - SP. 2

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

SOUTH ABUTMENT & PIER 2 - SPAN 2

DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES
DRAWN - STEFFEN	PASSED - <i>Jaime F. [Signature]</i>
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES

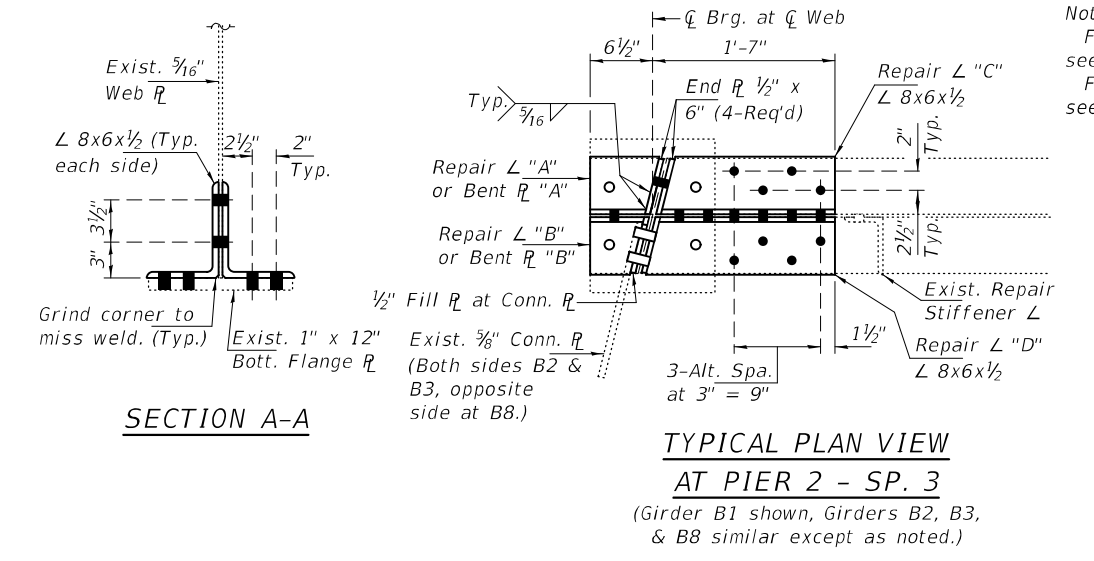
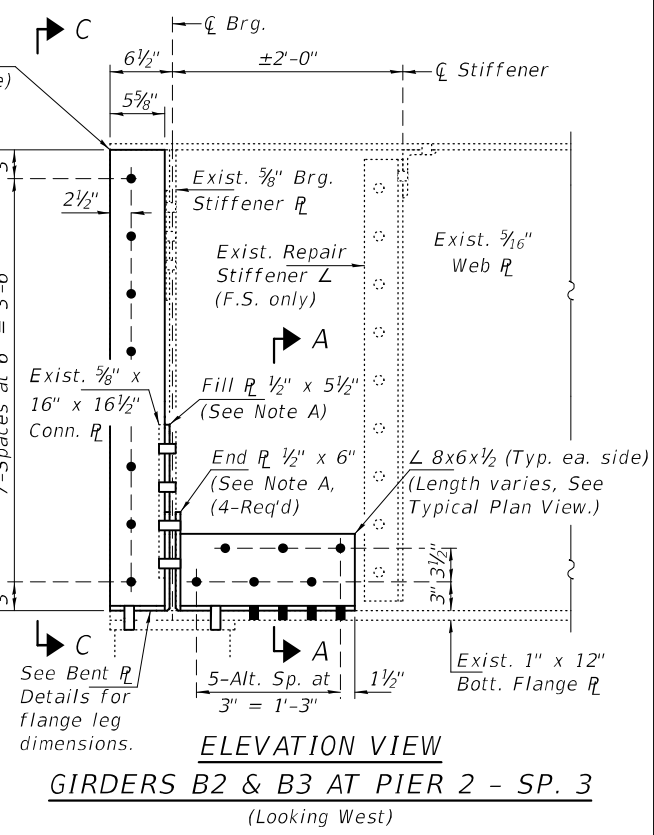
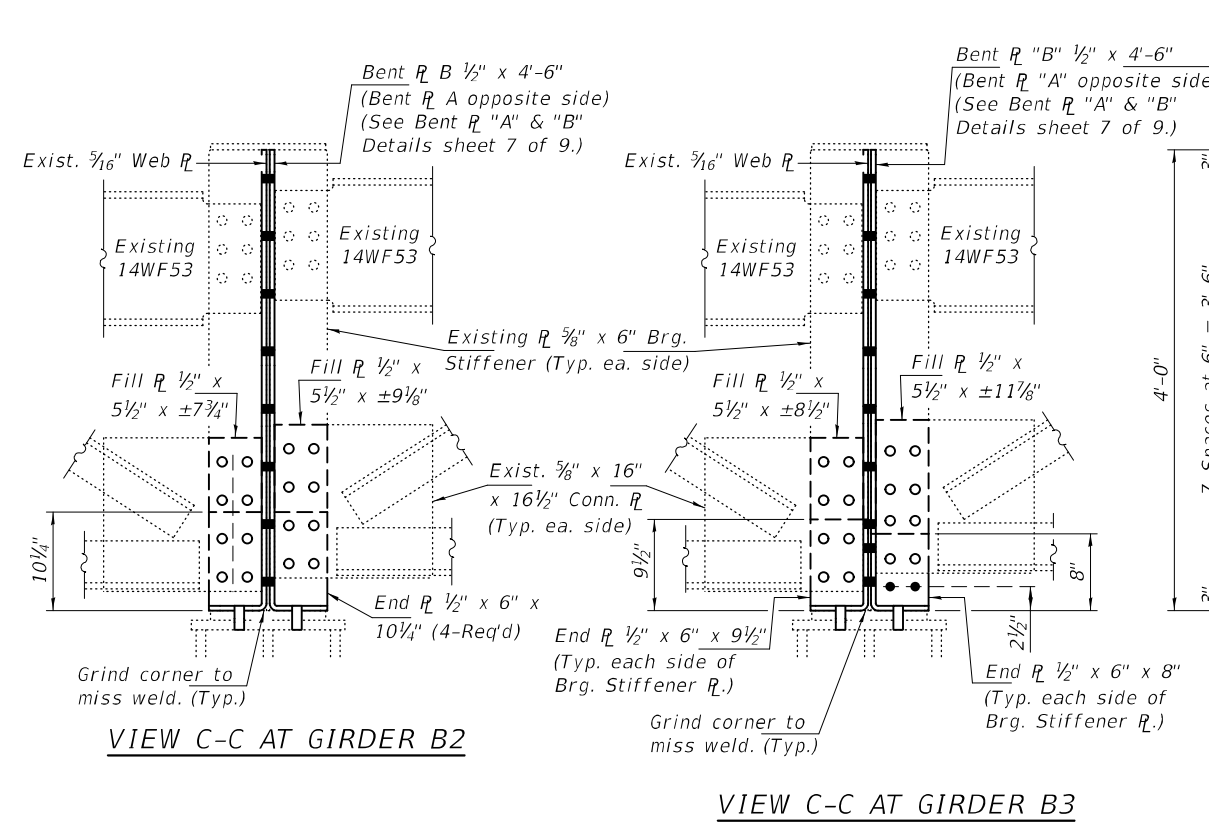
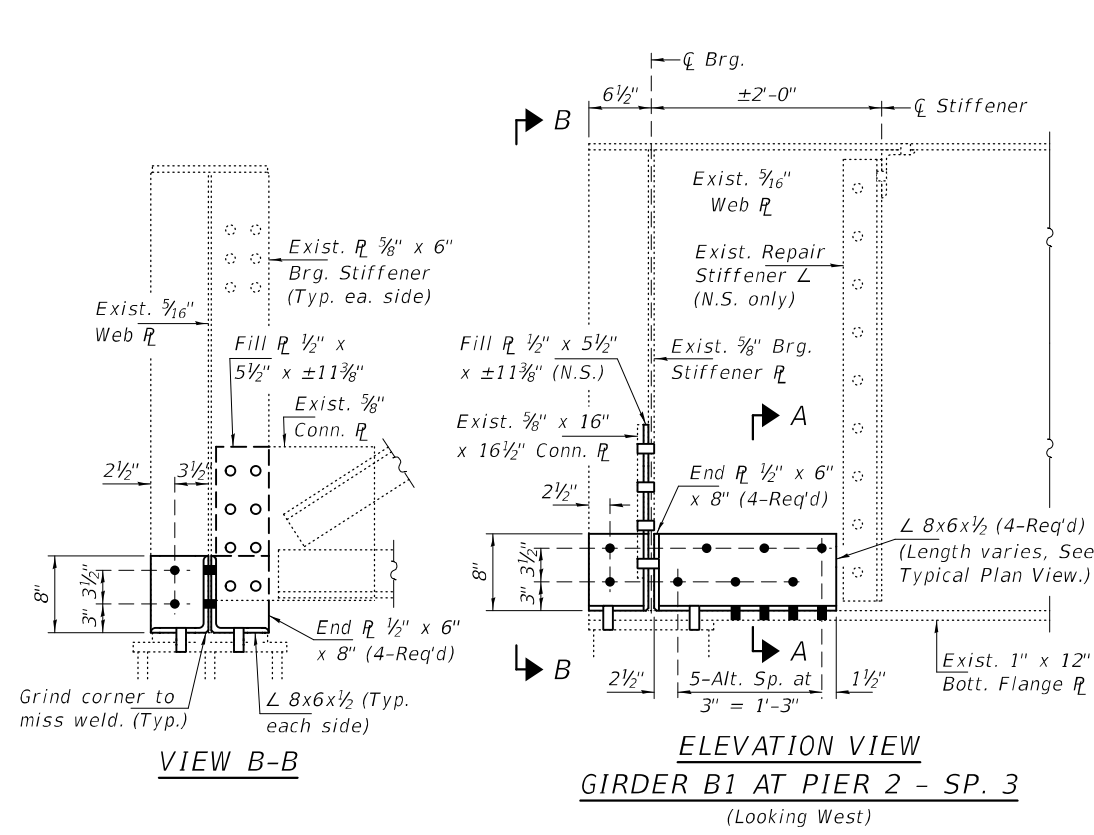
DATE - JUNE 9, 2022
REVISIONS
REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

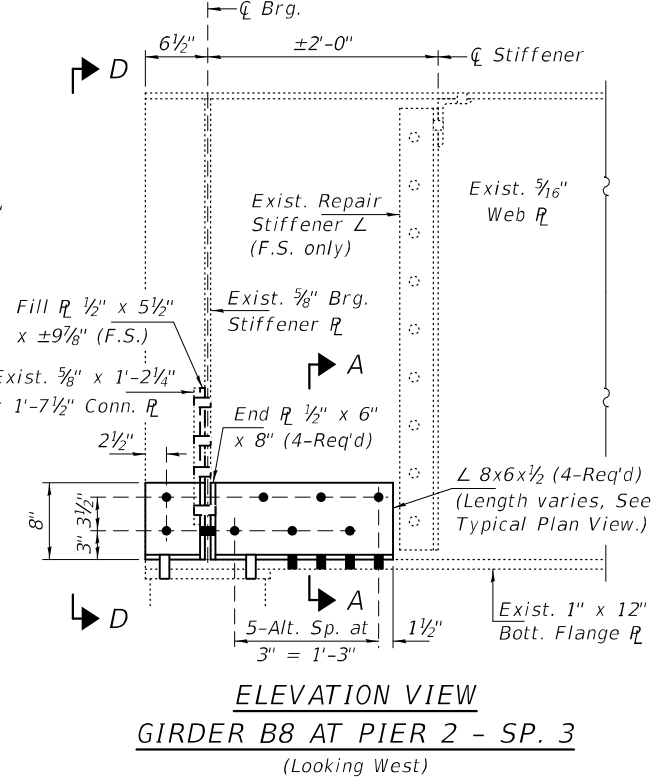
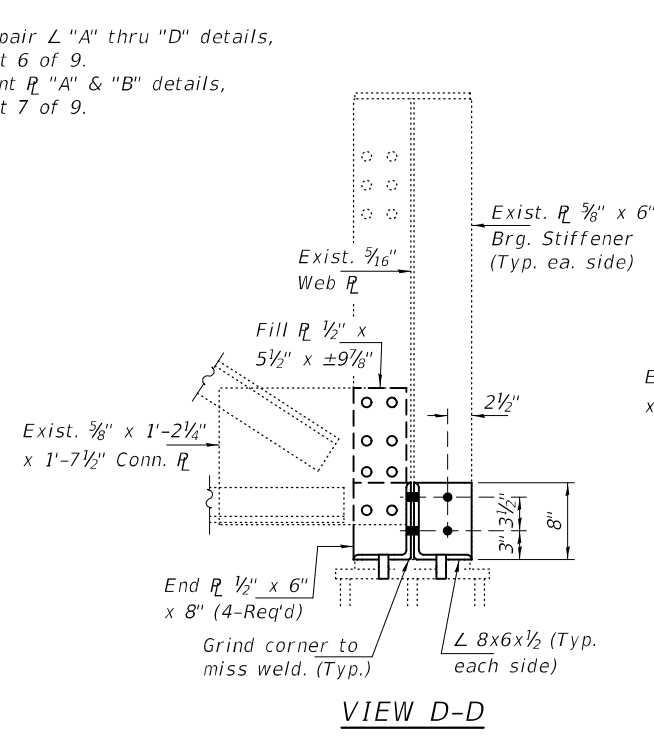
STRUCTURAL STEEL REPAIR DETAILS
SN 016-0486 (S.B.)

SHEET NO. 2 OF 9 SHEETS

F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 21
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	



Note:
For Repair L "A" thru "D" details,
see sheet 6 of 9.
For Bent PL "A" & "B" details,
see sheet 7 of 9.



Note A:
End PL and Fill PL height
varies. See View C-C.

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

PIER 2 - SPAN 3

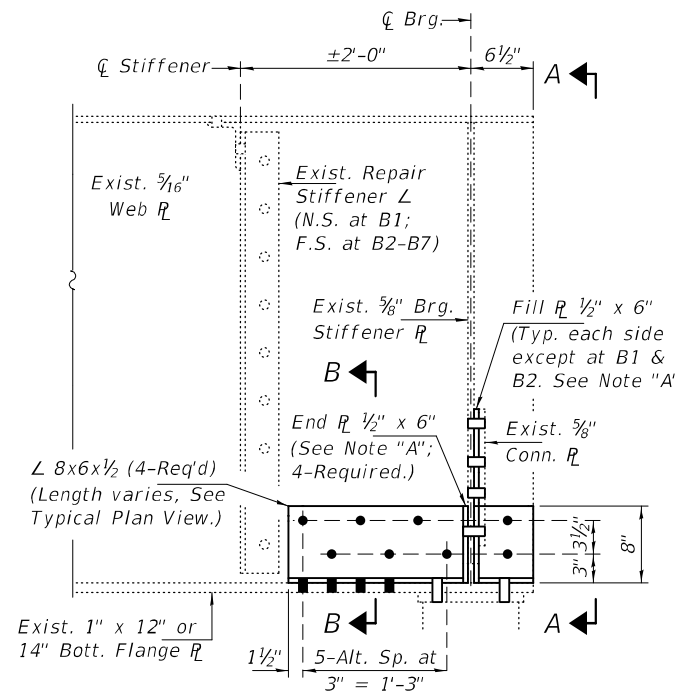
DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. [Signature]</i>	REVISER -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL REPAIR DETAILS
SN 016-0486 (S.B.)**

F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 22
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	

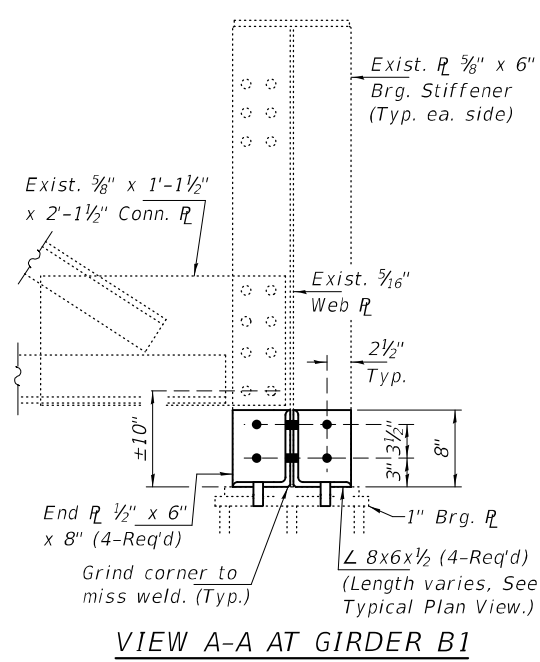
SHEET NO. 3 OF 9 SHEETS



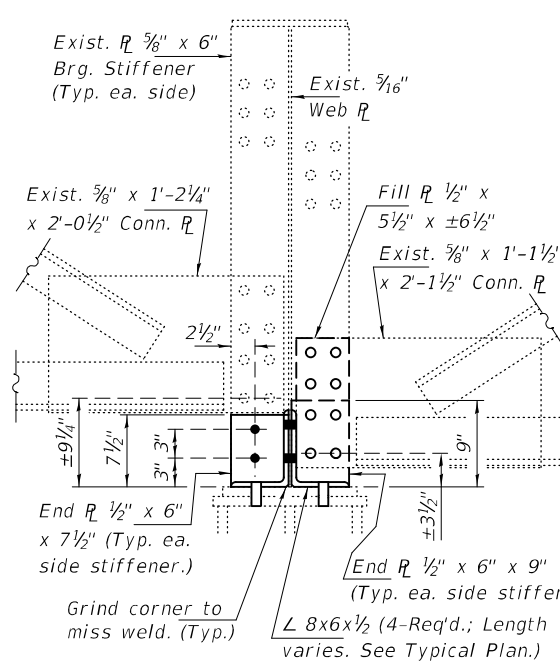
TYPICAL ELEVATION VIEW
GIRDERS B1 THRU B7 AT PIER 5 - SP. 5

(Looking West)
 (Girder B4 shown, Girders B1 thru B3 & B5 thru B7 similar except as noted.)

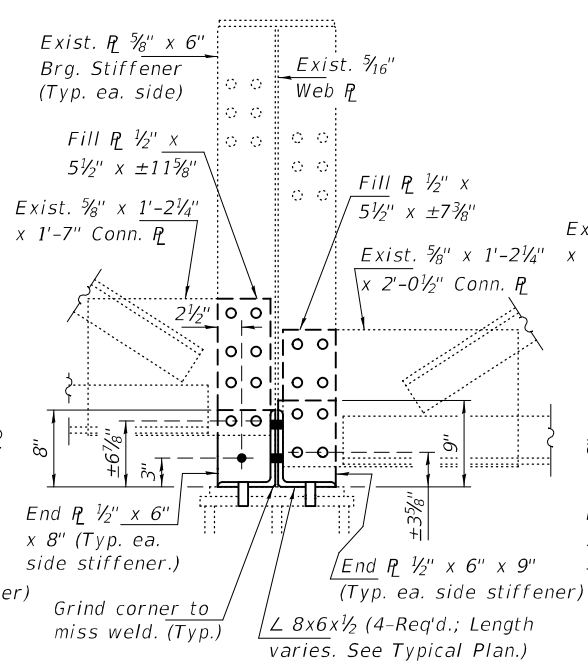
Note "A":
 Height and configuration of Fill R's & End R's vary at each location. See View A-A and Table of Dimensions.



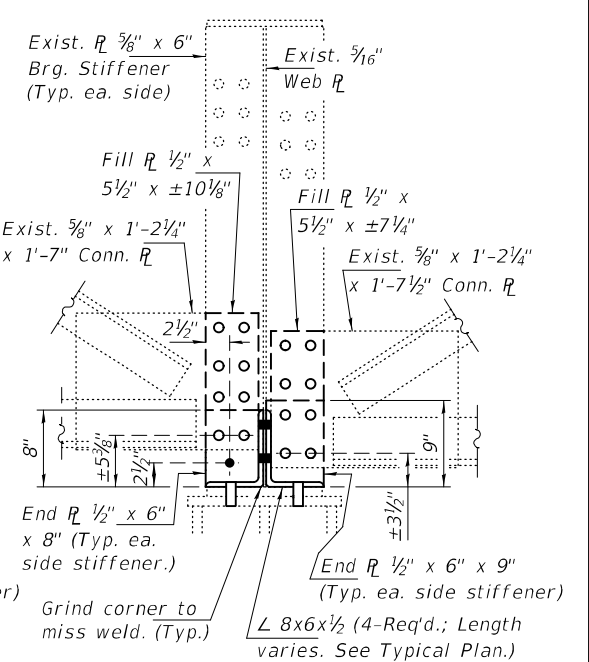
VIEW A-A AT GIRDER B1



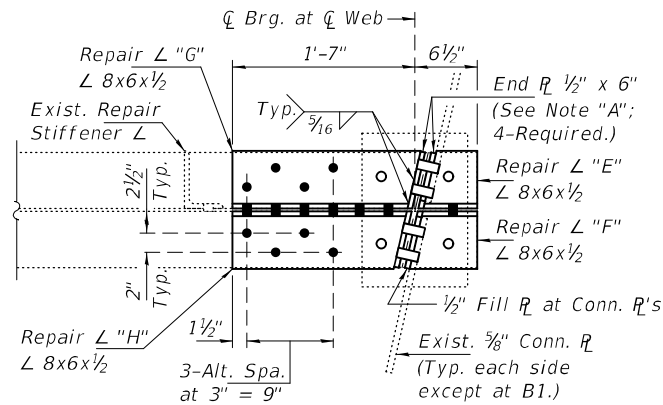
VIEW A-A AT GIRDER B2



VIEW A-A AT GIRDER B3



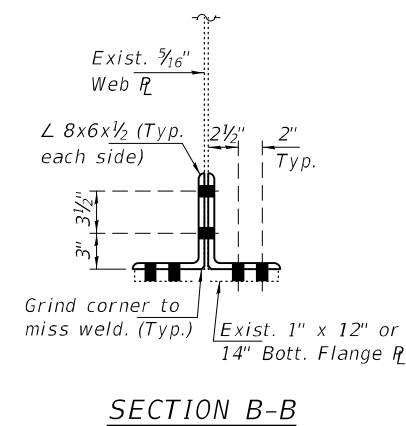
VIEW A-A AT GIRDER B4



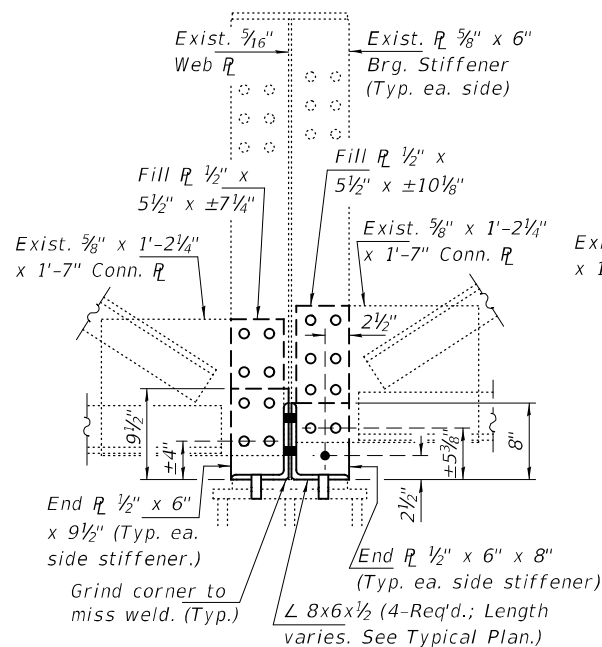
TYPICAL PLAN VIEW
GIRDERS B1 THRU B7 AT PIER 5 - SP. 5

(Girder B4 shown, Girders B1 thru B3 & B5 thru B7 similar except as noted.)

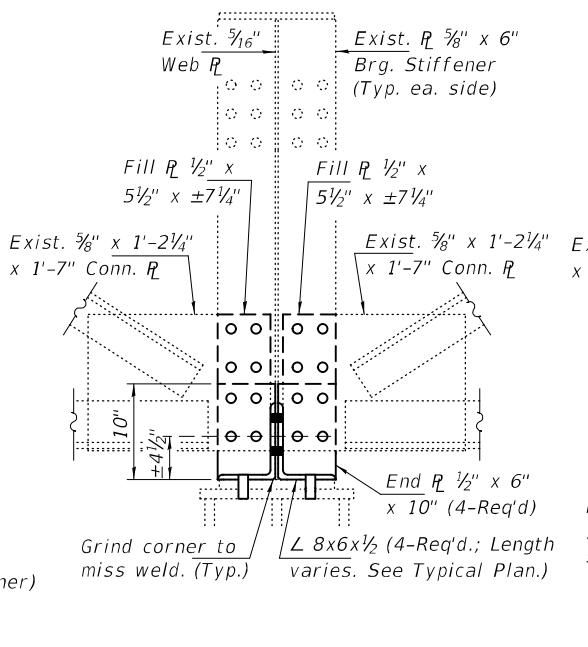
Note:
 For Repair L "E" thru "H" details & dimensions, see sheet 6 of 9.



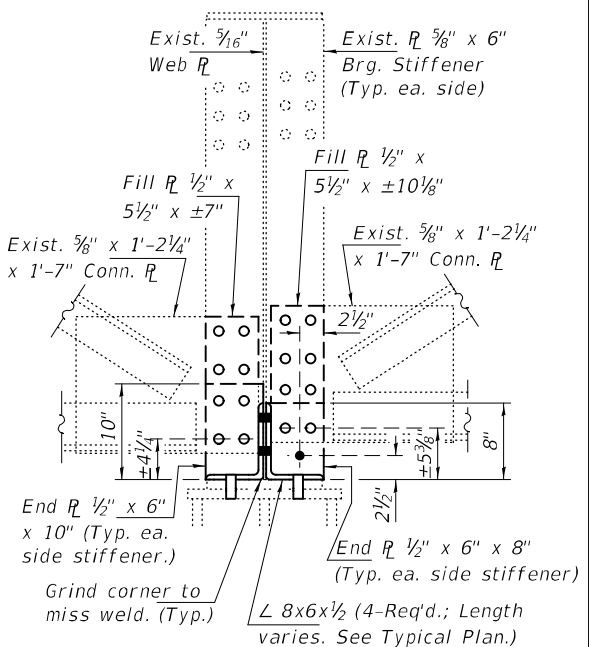
SECTION B-B



VIEW A-A AT GIRDER B5



VIEW A-A AT GIRDER B6



VIEW A-A AT GIRDER B7

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

PIER 5 - SPAN 5

DESIGNED - CCC	EXAMINED - [Signature]
CHECKED - JSB	PASSED - [Signature]
DRAWN - STEFFEN	
CHECKED - CCC JSB	

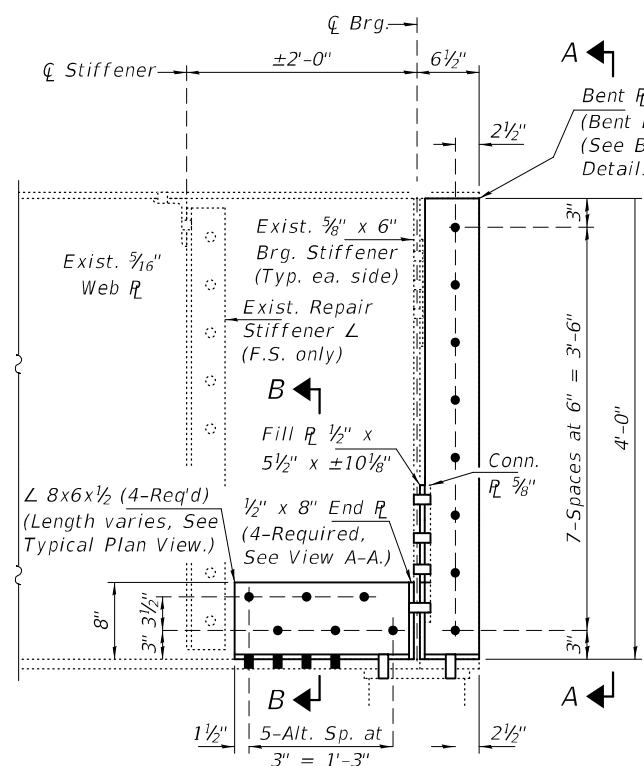
DATE - JUNE 9, 2022
REVISIONS -
REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

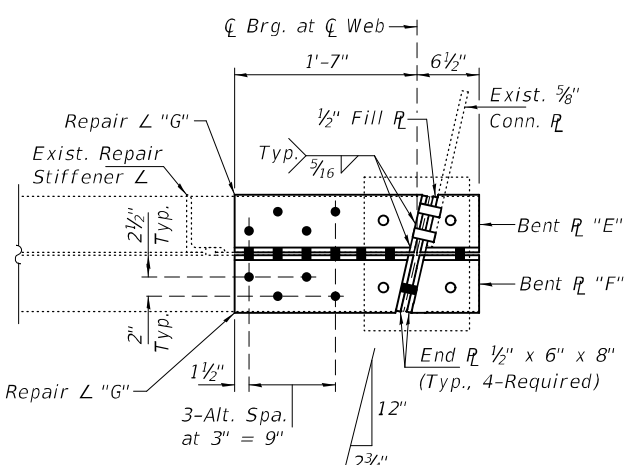
STRUCTURAL STEEL REPAIR DETAILS
 SN 016-0486 (S.B.)

SHEET NO. 4 OF 9 SHEETS

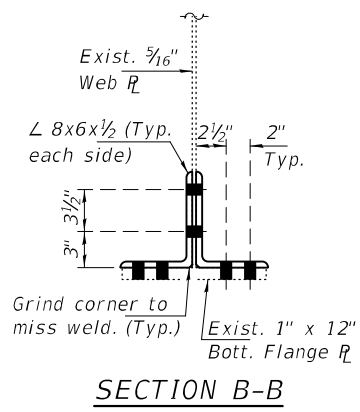
F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 23
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	



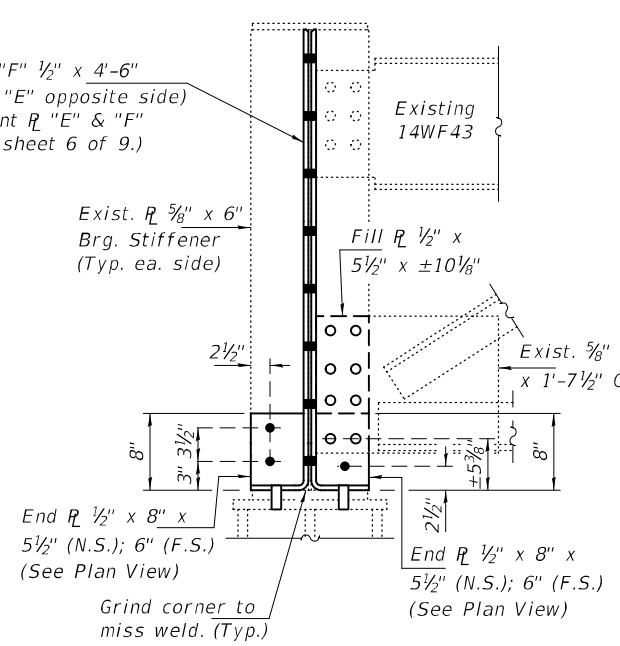
**ELEVATION VIEW
GIRDER B8 AT PIER 5 - SP. 5**
(Looking West)



**PLAN VIEW
GIRDER B8 AT PIER 5 - SP. 5**

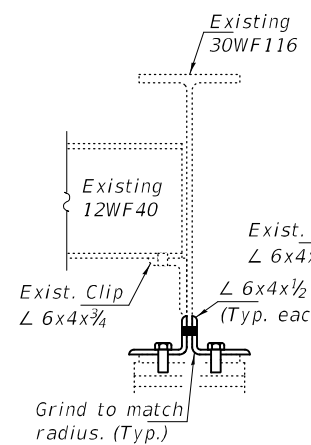


SECTION B-B

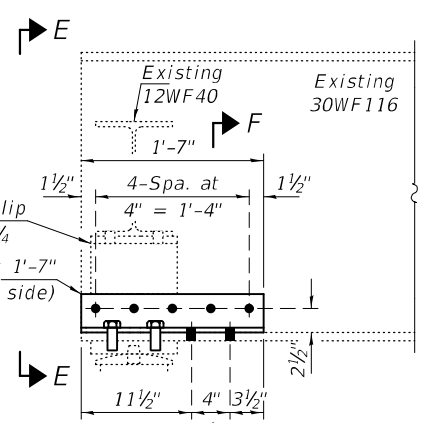


VIEW A-A

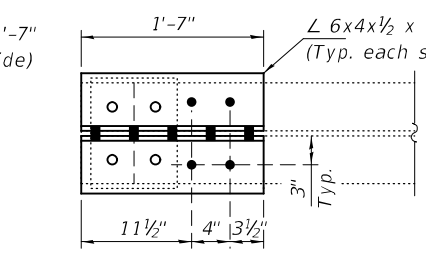
Note:
For Repair L "G" & "H" and
Bent R "E" & "F" details, see
sheet 6 of 9.



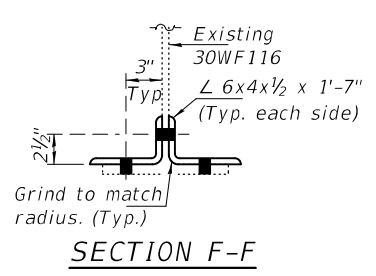
VIEW E-E



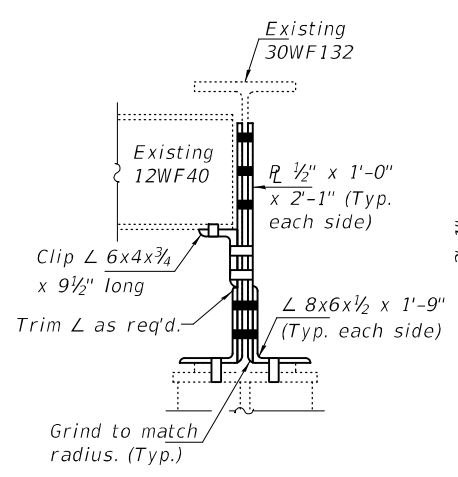
**ELEVATION VIEW - BEAM R5 AT
RAMP F - PIER 6 - SP. 7**
(Looking West)



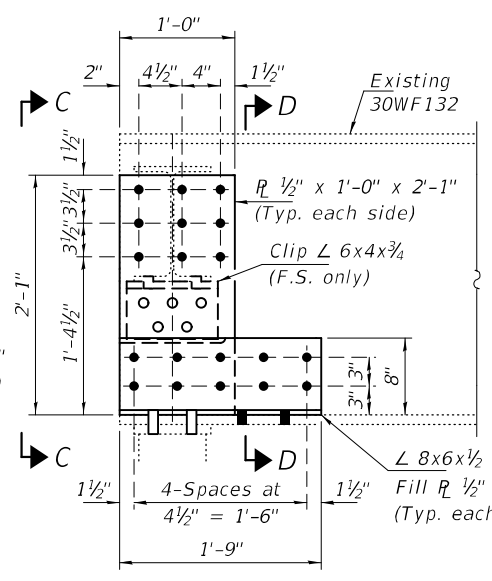
**PLAN VIEW - BEAM R5 AT
RAMP F - PIER 6 - SP. 7**



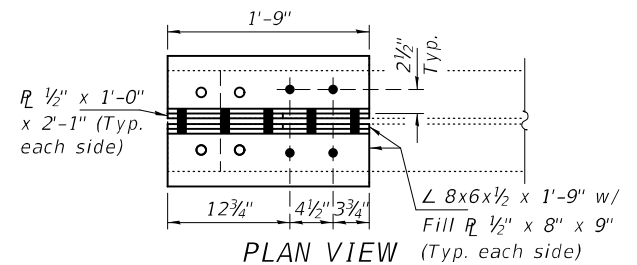
SECTION F-F



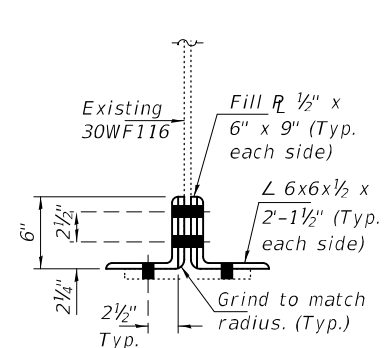
VIEW C-C



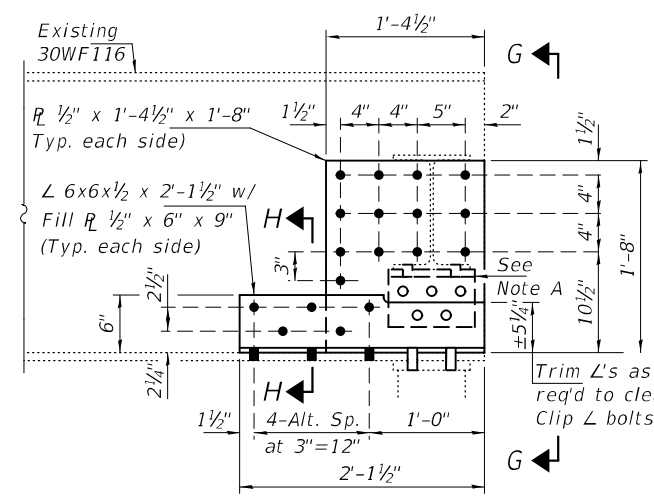
**ELEVATION VIEW
BEAM C7 AT PIER 5 - SP. 6**
(Looking West)



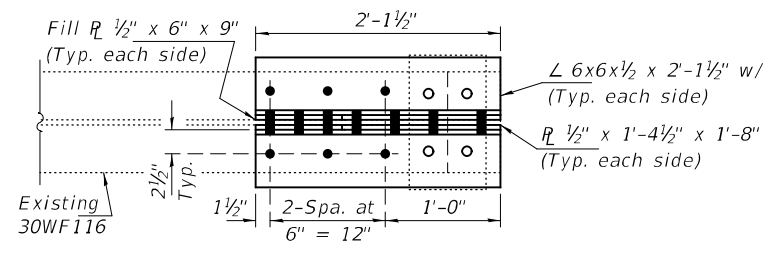
**PLAN VIEW
BEAM C7 AT PIER 5 - SP. 6**



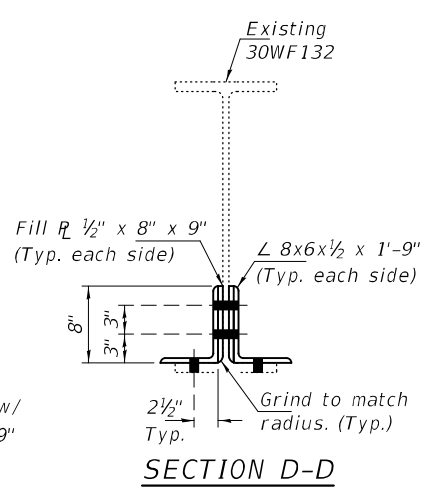
SECTION H-H



**ELEVATION VIEW - BEAM R5 AT
RAMP F - N. ABUT. - SP. 7**



**PLAN VIEW - BEAM R5 AT
RAMP F - N. ABUT. - SP. 7**



SECTION D-D

BOLT HOLE LEGEND

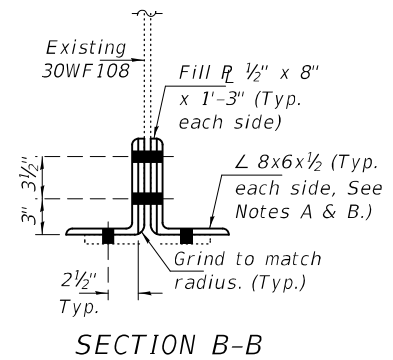
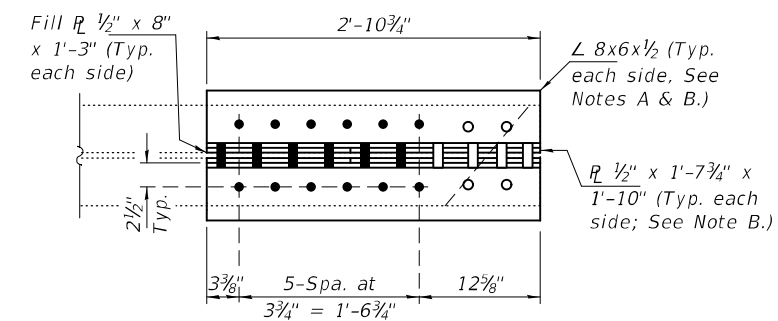
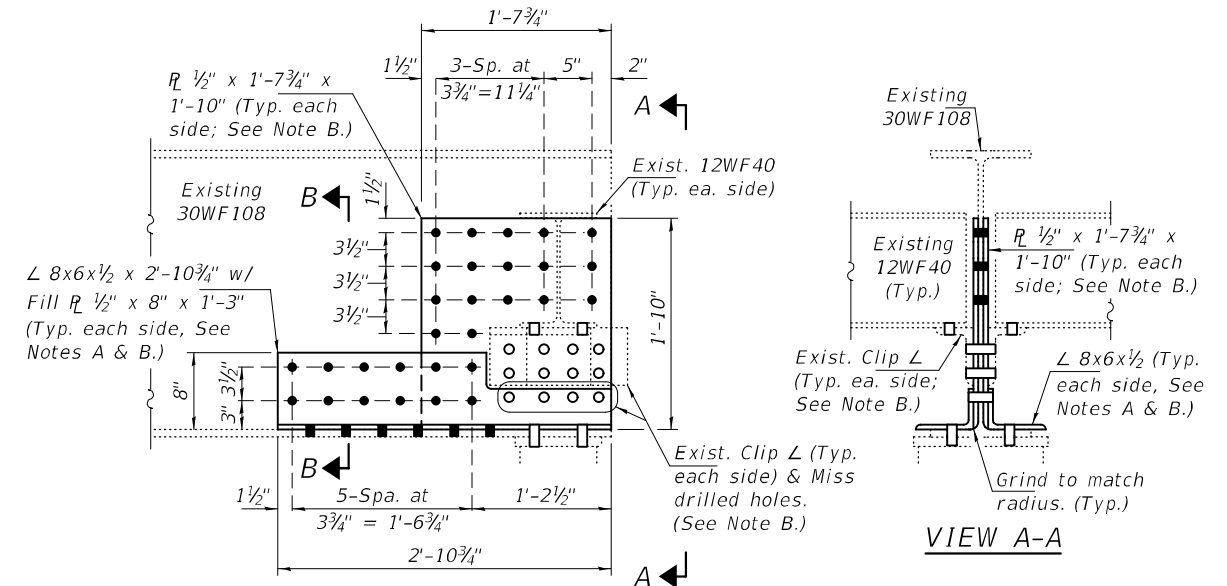
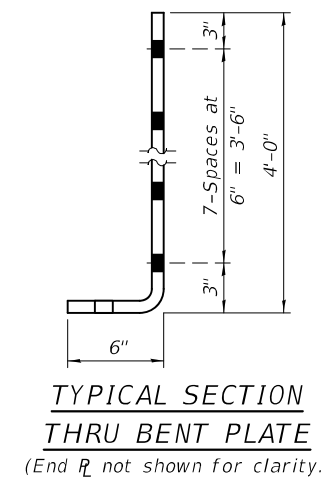
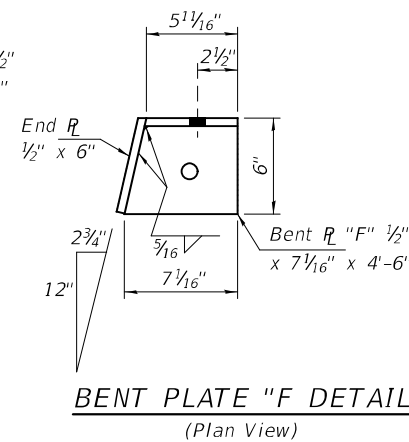
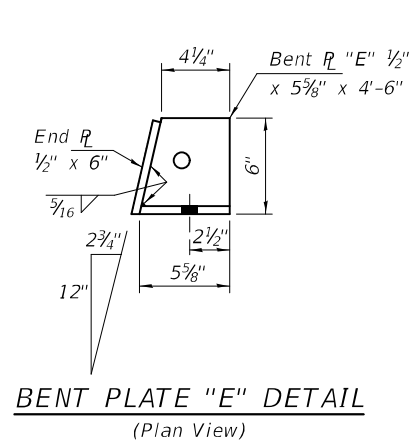
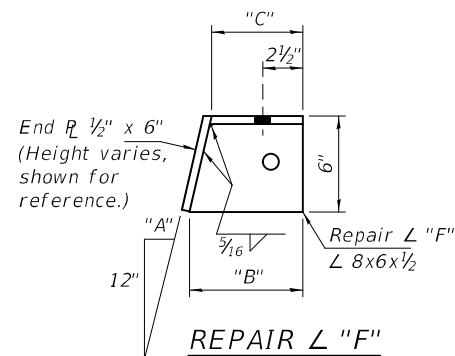
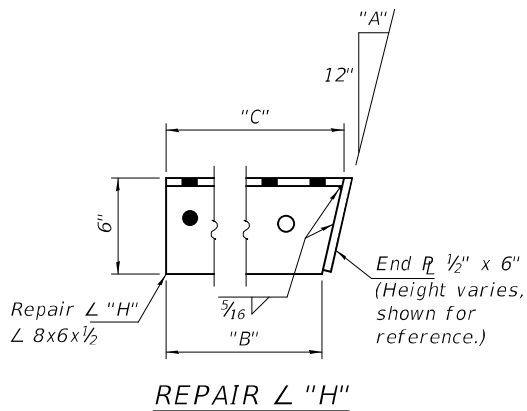
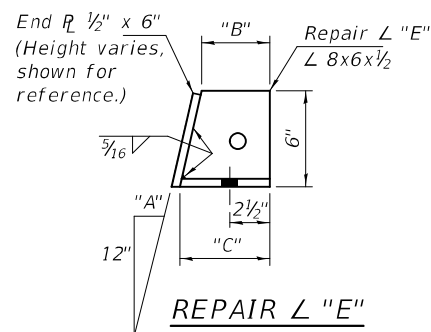
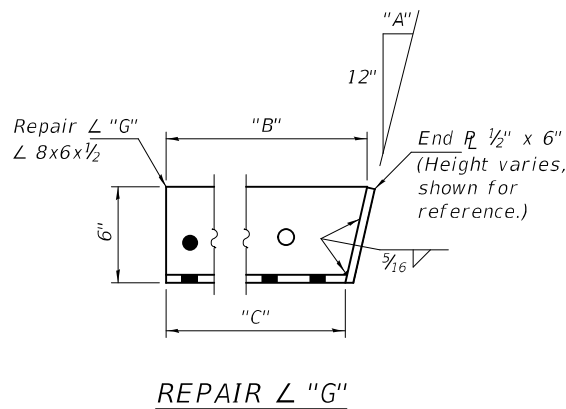
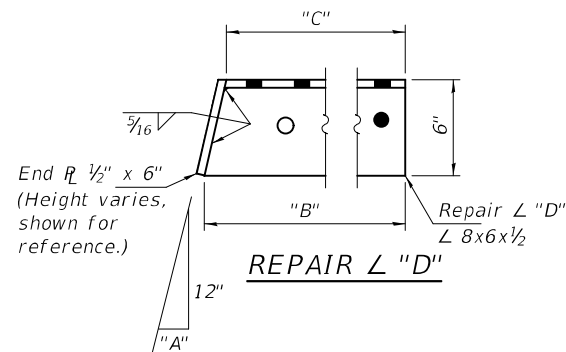
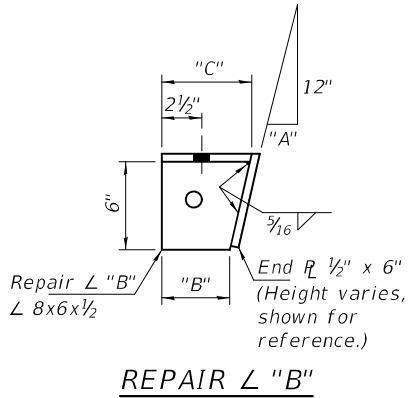
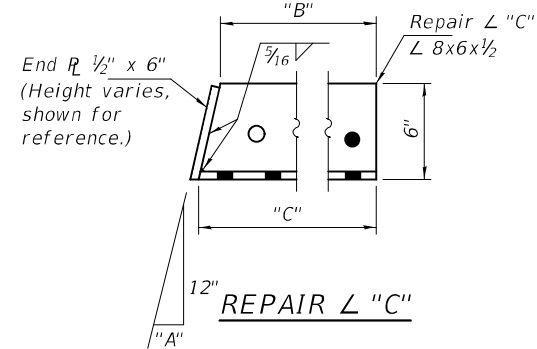
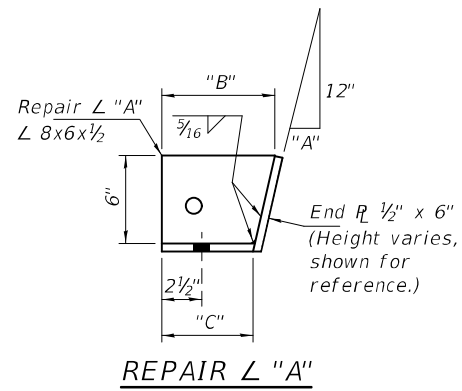
- - Shop Drilled Holes
- - Field Drilled Holes

Note "A":
New Clip L 6x4x3/4 x 9" long
with 1/2" Fill R as required.

DESIGNED - CCC	EXAMINED - <i>Timothy A. Smith</i> ENGINEER OF STRUCTURAL SERVICES	DATE - JUNE 9, 2022	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL REPAIR DETAILS SN 016-0486 (S.B)	F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 24
CHECKED - JSB	PASSED - <i>James F. Smith</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS			SHEET NO. 5 OF 9 SHEETS	ILLINOIS FED. AID PROJECT			
DRAWN - STEFFEN					CONTRACT NO. 62R56				
CHECKED - CCC JSB									

TABLE OF DIMENSIONS

LOCATION	Pier	Span	Girder	Angle Type	DIMENSION		
					"A"	"B"	"C"
2	3	B1		A	7 ³ / ₁₆ "	5 ¹ / ₁₆ "	
				B	4 ¹ / ₈ "	5 ⁵ / ₈ "	
				C	1'-4 ³ / ₈ "	1'-6 ¹ / ₈ "	
				D	1'-7 ¹ / ₁₆ "	1'-6 ³ / ₁₆ "	
2	3	B2		C	1'-4 ¹ / ₁₆ "	1'-6 ¹ / ₈ "	
				D	1'-7 ³ / ₈ "	1'-6 ³ / ₁₆ "	
				2 3/4"	E	4"	5 ⁵ / ₈ "
					F	7 ³ / ₁₆ "	5 ¹ / ₁₆ "
2	3	B8		A	7 ¹ / ₁₆ "	5 ¹ / ₁₆ "	
				B	4 ¹ / ₄ "	5 ⁵ / ₈ "	
				2 3/4"	C	1'-4 ³ / ₄ "	1'-6 ¹ / ₈ "
					D	1'-7 ¹ / ₁₆ "	1'-6 ³ / ₁₆ "
5	5	B1		E	4"	5 ⁵ / ₈ "	
				F	7 ³ / ₁₆ "	5 ¹ / ₁₆ "	
				G	1'-7 ¹³ / ₁₆ "	1'-6 ³ / ₁₆ "	
				H	1'-4 ¹ / ₂ "	1'-6 ¹ / ₈ "	
5	5	B2		E	4 ³ / ₁₆ "	5 ⁵ / ₈ "	
				F	7 ¹ / ₈ "	5 ¹ / ₁₆ "	
				G	1'-7 ³ / ₈ "	1'-6 ³ / ₁₆ "	
				H	1'-4 ¹ / ₂ "	1'-6 ¹ / ₈ "	
5	5	B3 thru B7		E	4 ¹ / ₄ "	5 ⁵ / ₈ "	
				F	7 ¹ / ₁₆ "	5 ¹ / ₁₆ "	
				2 3/4"	G	1'-7 ⁹ / ₁₆ "	1'-6 ³ / ₁₆ "
					H	1'-4 ³ / ₄ "	1'-6 ¹ / ₈ "
5	5	B8		G	1'-7 ⁹ / ₁₆ "	1'-6 ³ / ₁₆ "	
				H	1'-4 ³ / ₄ "	1'-6 ¹ / ₈ "	
				2 3/4"	A	7 ¹ / ₁₆ "	5 ¹ / ₁₆ "
					B	4 ¹ / ₄ "	5 ⁵ / ₈ "
13	3	B1 & B2		C	1'-4 ³ / ₄ "	1'-6 ¹ / ₈ "	
				D	1'-7 ⁹ / ₁₆ "	1'-6 ³ / ₁₆ "	
				2 3/4"	E	3 ³ / ₄ "	5 ¹ / ₈ "
					F	6 ⁹ / ₁₆ "	5 ³ / ₁₆ "
16	5	B1 thru B5		G	1'-7 ¹ / ₁₆ "	1'-6 ³ / ₁₆ "	
				H	1'-4 ³ / ₄ "	1'-6 ¹ / ₈ "	
				2 3/4"	A	7 ¹ / ₁₆ "	5 ¹ / ₁₆ "
					B	4 ¹ / ₄ "	5 ⁵ / ₈ "



Note A:
Repair L's to be trimmed as required to miss Clip L's.

Note B:
Location of existing Clip L's, bolt holes, & miss drilled holes to be field verified before fabrication of Repair R's & L's.

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

NORTH ABUTMENT

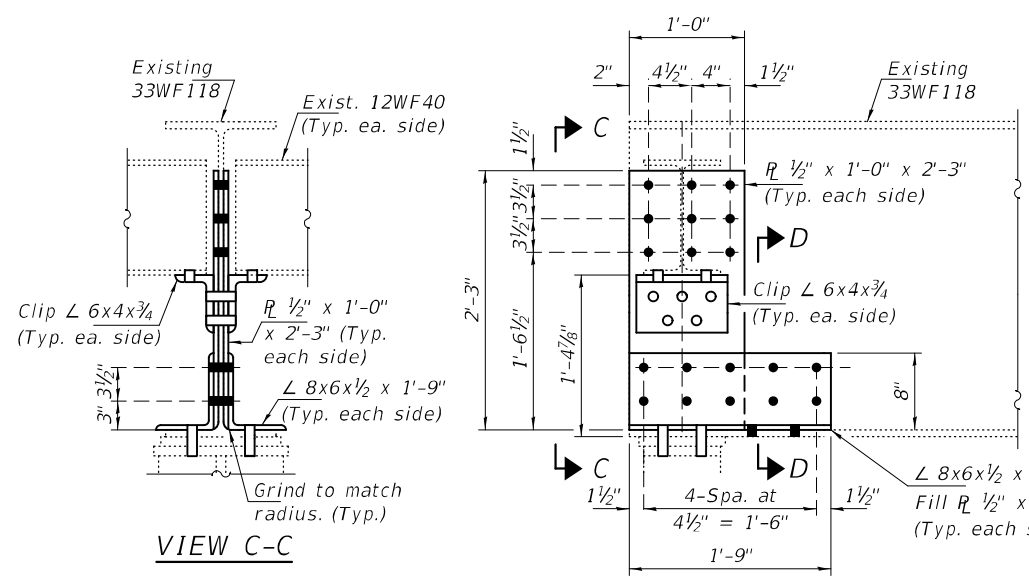
DESIGNED - CCC	EXAMINED - <i>Timothy A. Smith</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Jaime F. Smith</i>	REVISOR -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

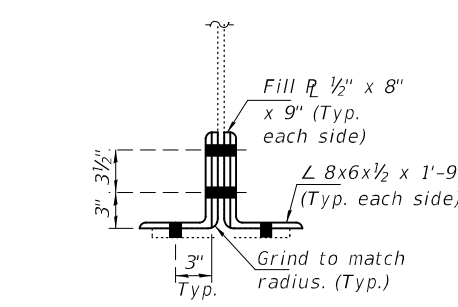
STRUCTURAL STEEL REPAIR DETAILS
SN 016-0486 (S.B.)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372/373	FAP-372-22-BR	COOK	31	25
CONTRACT NO. 62R56				
ILLINOIS		FED. AID PROJECT		

SHEET NO. 6 OF 9 SHEETS

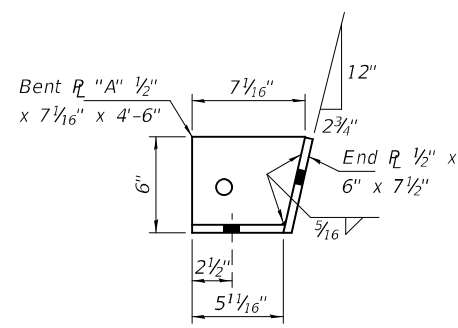


ELEVATION
BEAM A5 AT S. ABUT. (-0487)
(Looking West)

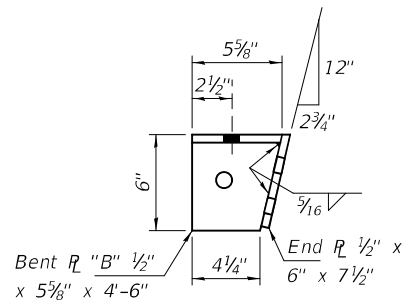


SECTION D-D

PLAN VIEW - BEAM A5 AT S. ABUT.



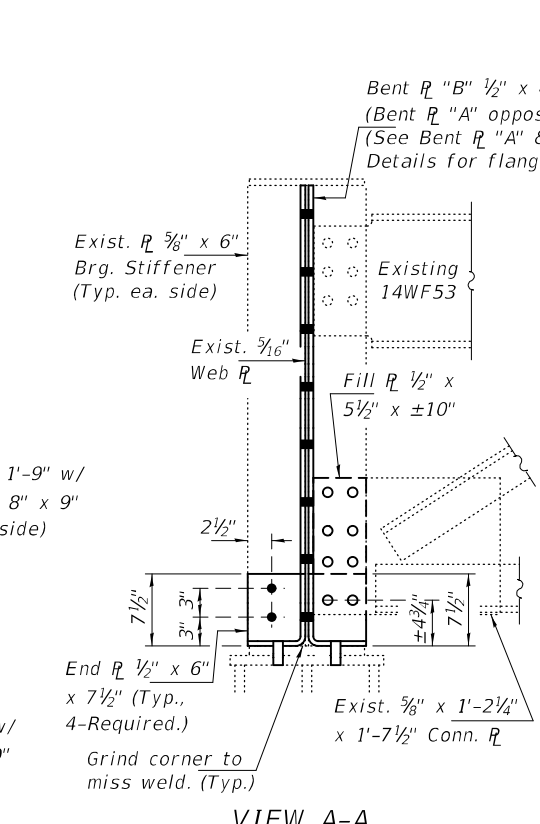
BENT PLATE "A" DETAIL
(Plan View)



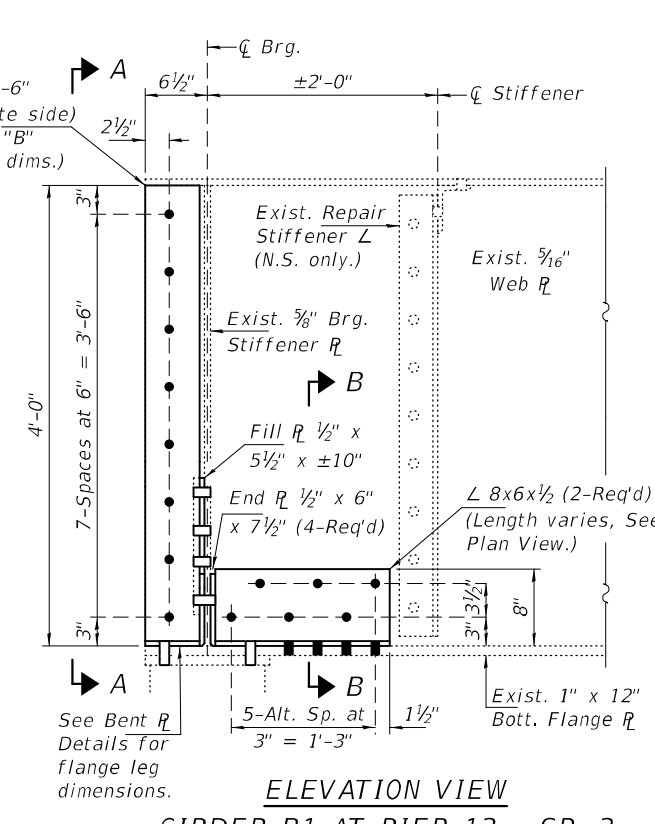
BENT PLATE "B" DETAILS
(Plan View)



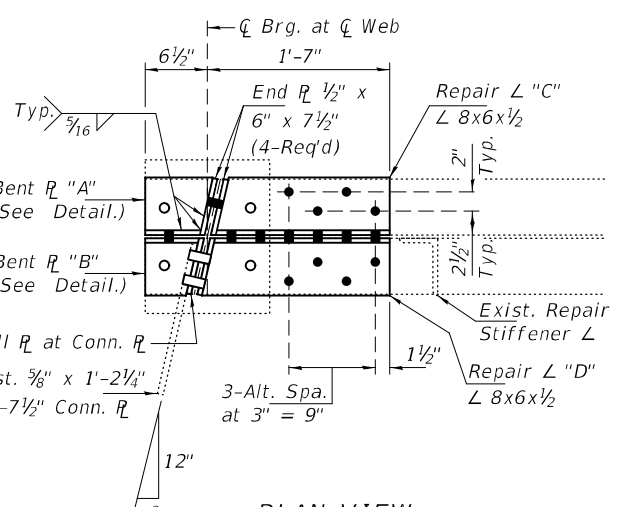
TYPICAL SECTION THRU BENT PLATE
(End R not shown for clarity.)



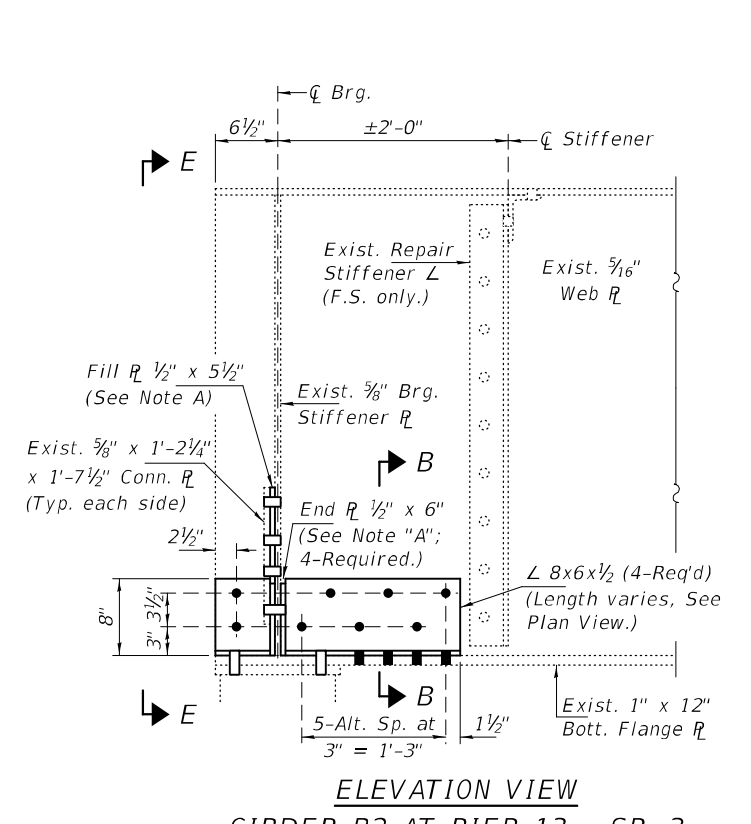
VIEW A-A



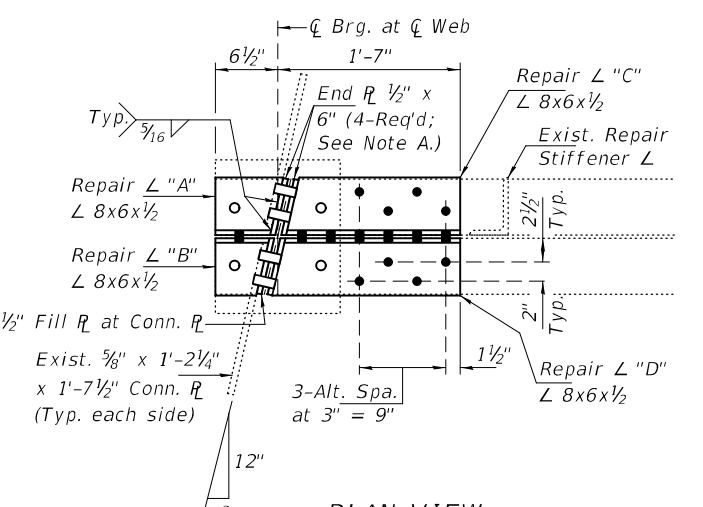
ELEVATION VIEW
GIRDER B1 AT PIER 13 - SP. 3
(Looking West)



PLAN VIEW
GIRDER B1 AT PIER 13 - SP. 3



ELEVATION VIEW
GIRDER B2 AT PIER 13 - SP. 3
(Looking West)



PLAN VIEW
GIRDER B2 AT PIER 13 - SP. 3

Note:
For Repair L "A" thru "D" details
& dimensions, see sheet 6 of 9.

Note "A":
Height and configuration of Fill R's
& End R's vary at each location due
to Cross Frame Connection R's.
See View E-E.

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

DESIGNED - CCC	EXAMINED - <i>Timothy A. Smith</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. Smith</i>	REVISER -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

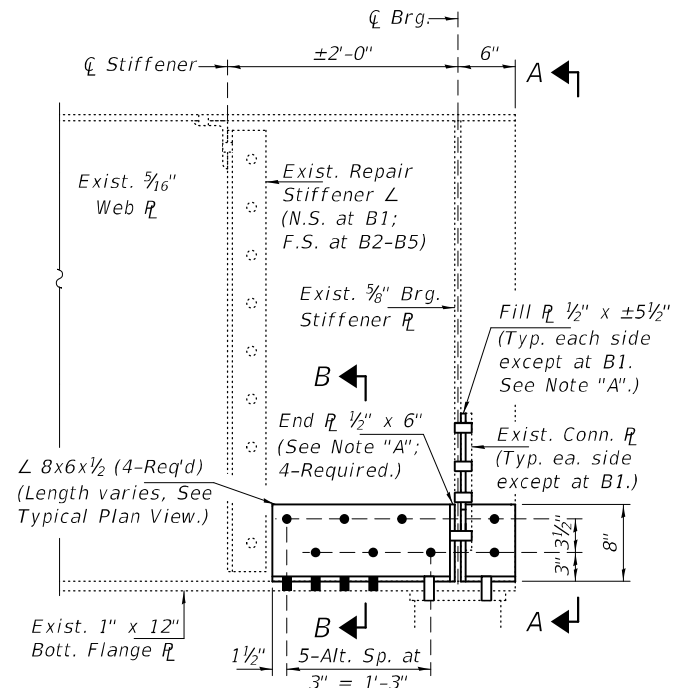
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT & PIER 13 - SPAN 3

STRUCTURAL STEEL REPAIR DETAILS
SN 016-0487 (N.B.)

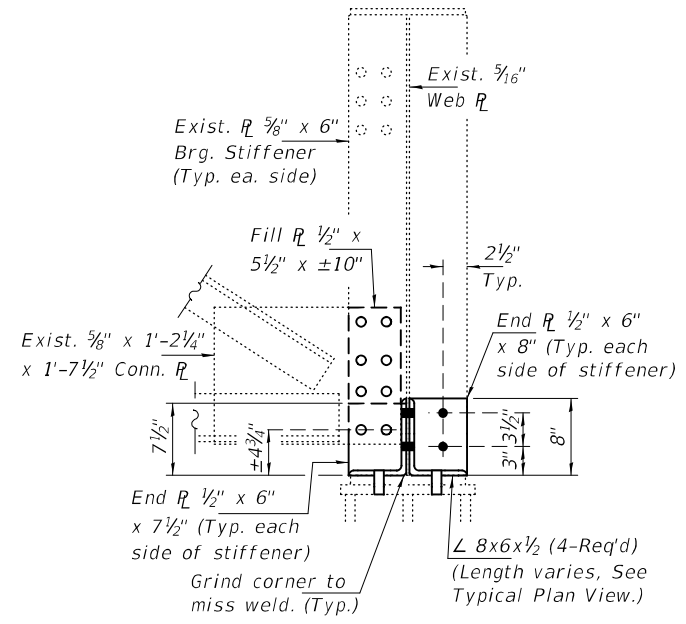
SHEET NO. 7 OF 9 SHEETS

F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 26
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	

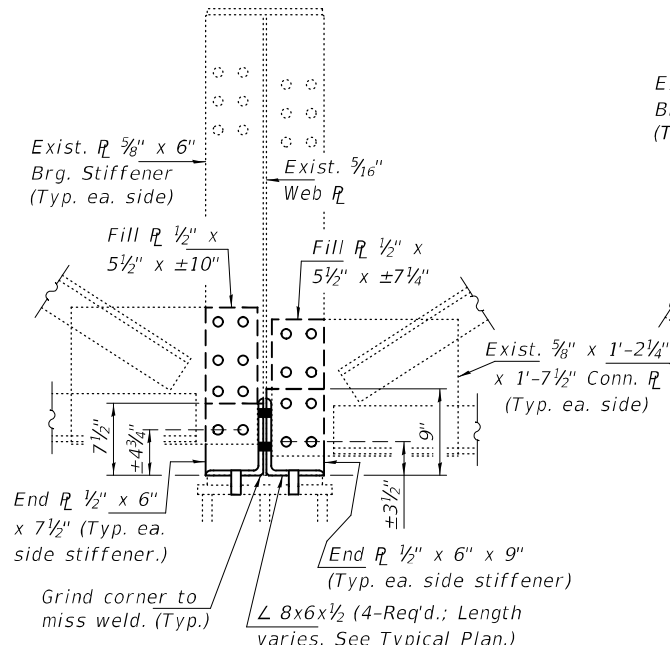


TYPICAL ELEVATION VIEW
GIRDERS B1 THRU B5 AT PIER 16 - SP. 5

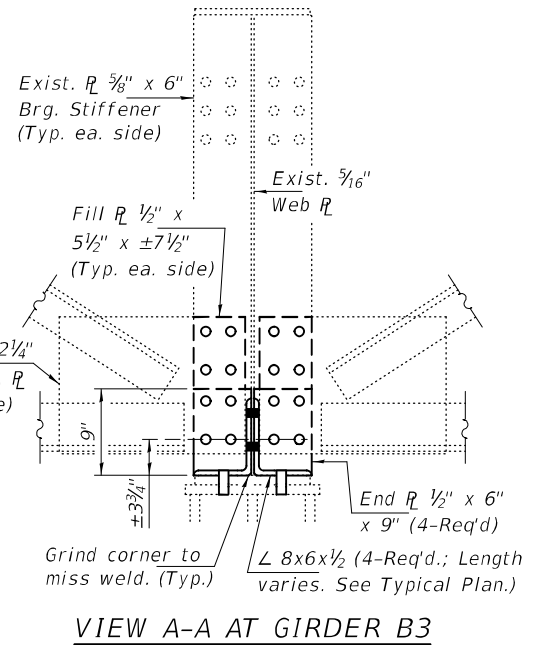
(Looking West)
 (Girder B1 shown, Girders B2 thru B5 similar except as noted.)



VIEW A-A AT GIRDER B1

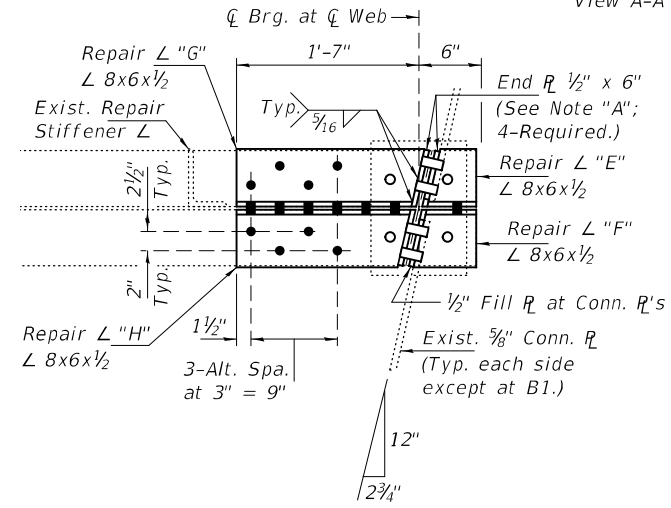


VIEW A-A AT GIRDER B2



VIEW A-A AT GIRDER B3

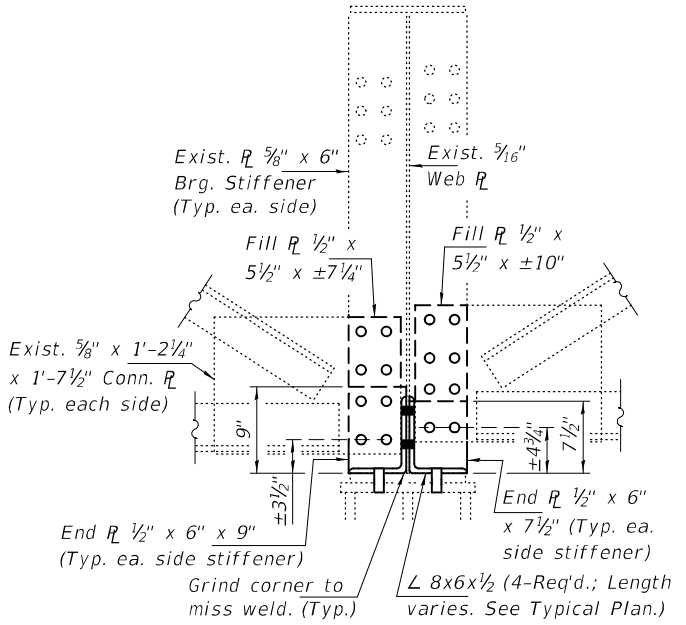
Note "A":
 Height and configuration of Fill R's & End R's vary at each location due to Cross Frame Connection R's. See View A-A for each location.



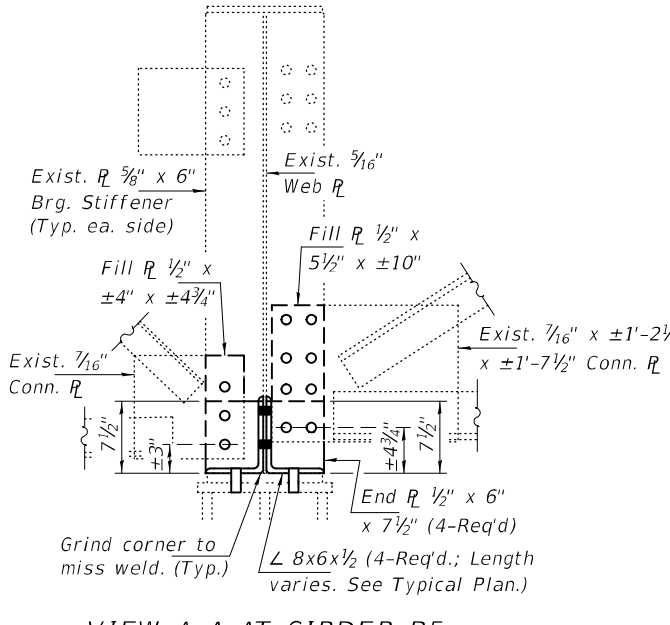
TYPICAL PLAN VIEW
GIRDERS B1 THRU B5 AT PIER 16 - SP. 5

(Girder B3 shown, Girders B1, B2, B4, & B5 similar except as noted.)

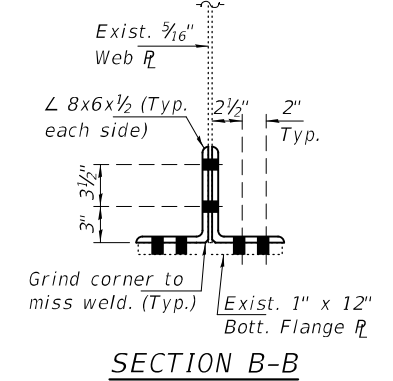
Note:
 For Repair L "E" thru "H" details & dimensions, see sheet 6 of 9.



VIEW A-A AT GIRDER B4



VIEW A-A AT GIRDER B5



SECTION B-B

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

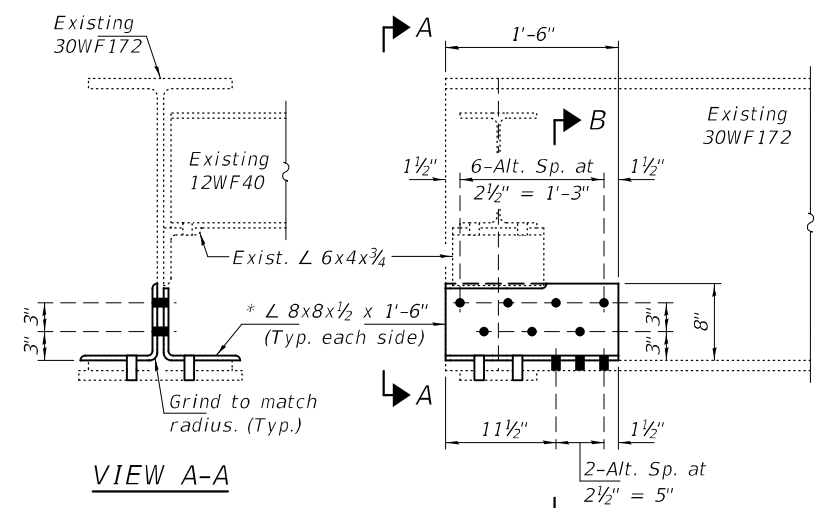
DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. [Signature]</i>	REVISER -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. [Signature]</i>	REVISER -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 16 - SPAN 5
STRUCTURAL STEEL REPAIR DETAILS
SN 016-0487 (N.B.)

F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 27
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	



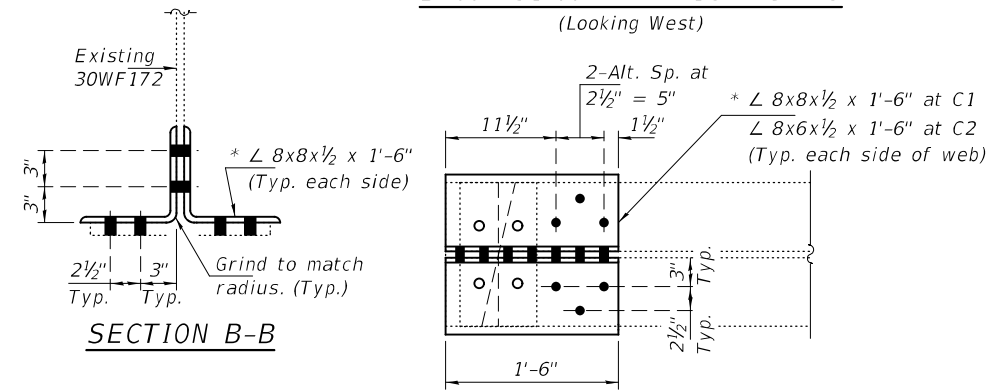
VIEW A-A

* Trim web leg of new Repair L as required to clear existing welded Bottom Clip L.

ELEVATION

BEAM C1 AT PIER 16 - SP. 6

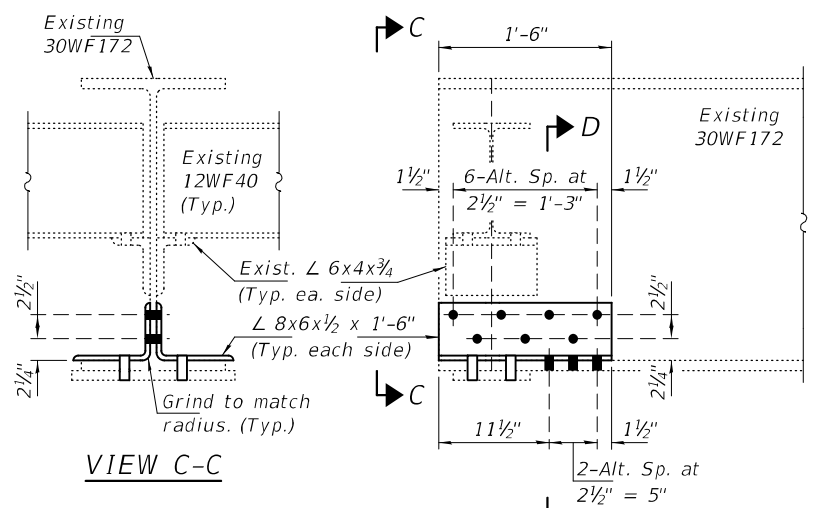
(Looking West)



SECTION B-B

TYPICAL PLAN VIEW

BEAMS C1 & C2 AT PIER 16 - SP. 6

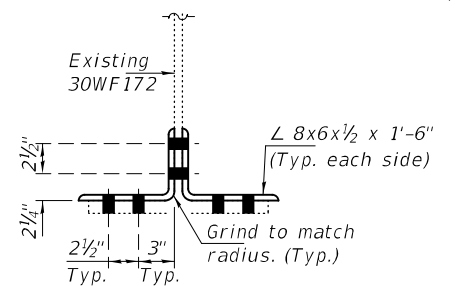


VIEW C-C

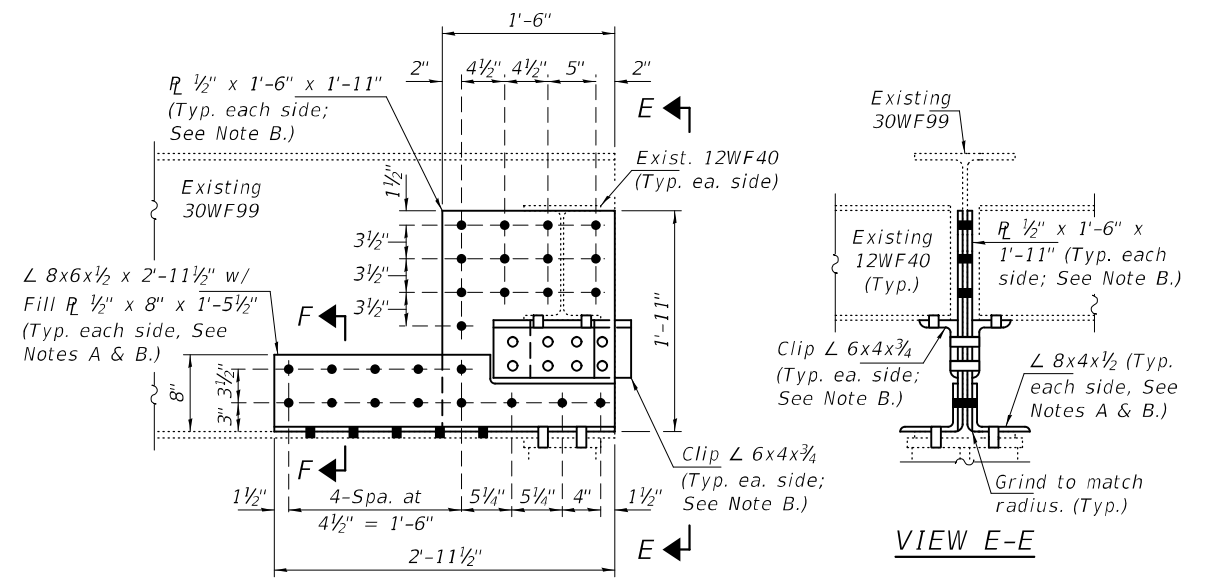
ELEVATION

BEAM C2 AT PIER 16 - SP. 6

(Looking West)



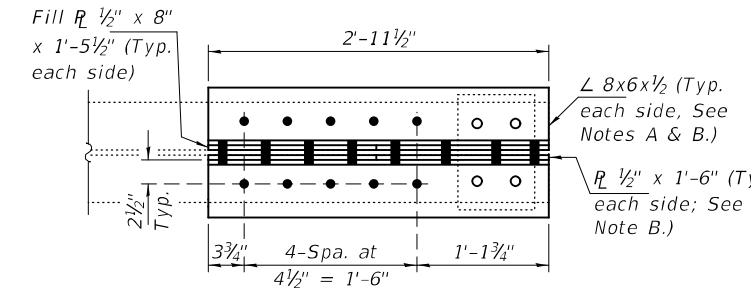
SECTION D-D



ELEVATION

BEAM D4 AT N. ABUT.

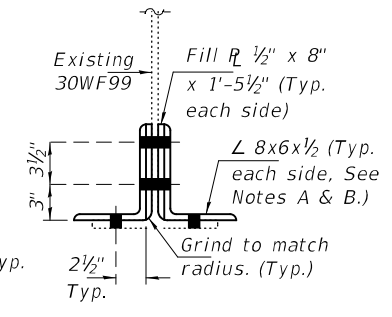
(Looking West)



TYPICAL PLAN VIEW

BEAMS D2 & D4 AT N. ABUT.

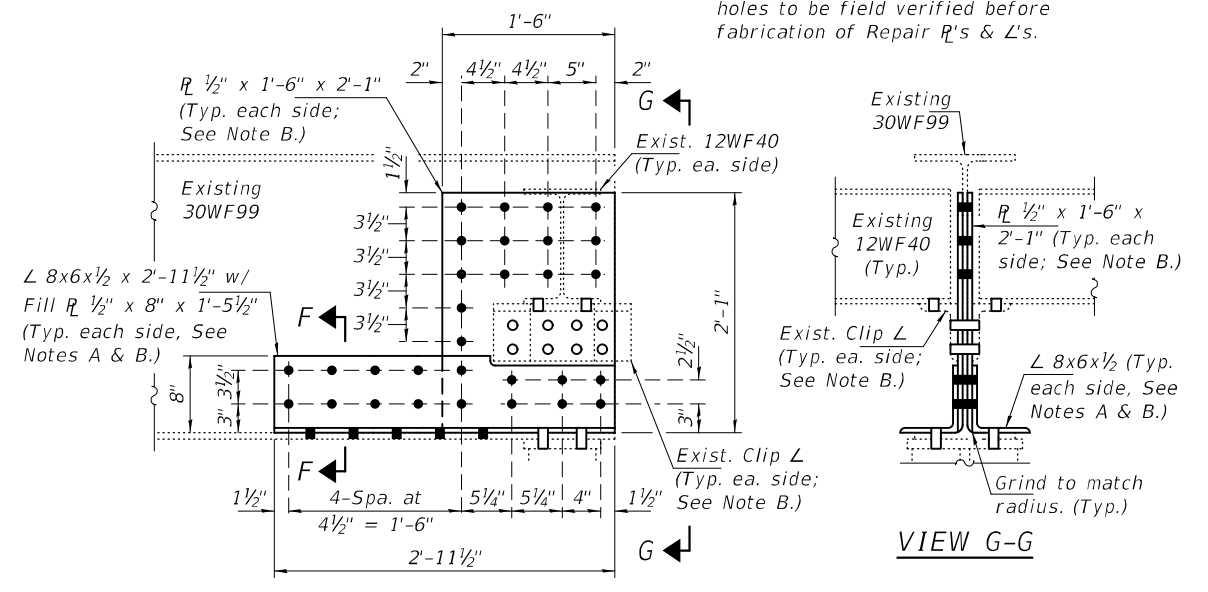
(Clip L's & Diaphragms not shown for clarity.)



SECTION F-F

Note A: Repair L's to be trimmed as required to miss Clip L's.

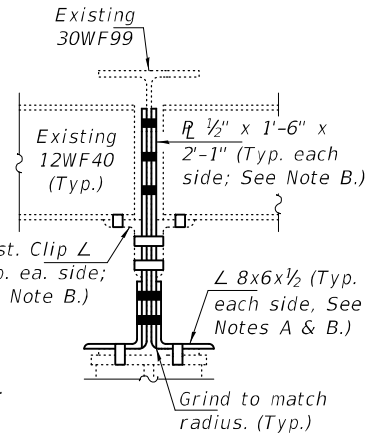
Note B: Location of existing Clip L's & bolt holes to be field verified before fabrication of Repair R's & L's.



ELEVATION

BEAM D2 AT N. ABUT.

(Looking West)



VIEW G-G

BOLT HOLE LEGEND

- - Shop Drilled Holes
- - Field Drilled Holes

PIER 16 - SPAN 6 & NORTH ABUTMENT

DESIGNED - CCC	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - JUNE 9, 2022
CHECKED - JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Jaime F. [Signature]</i>	REVISOR -
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -

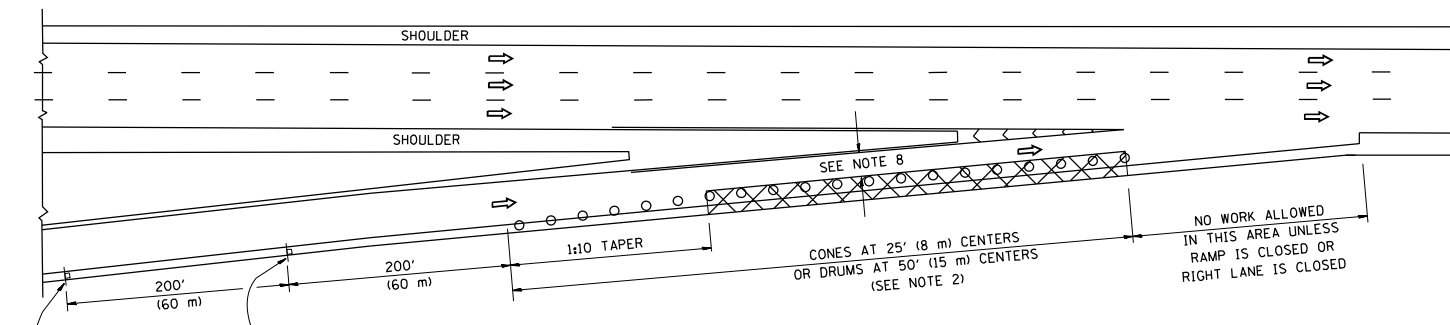
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR DETAILS
SN 016-0487 (N.B.)

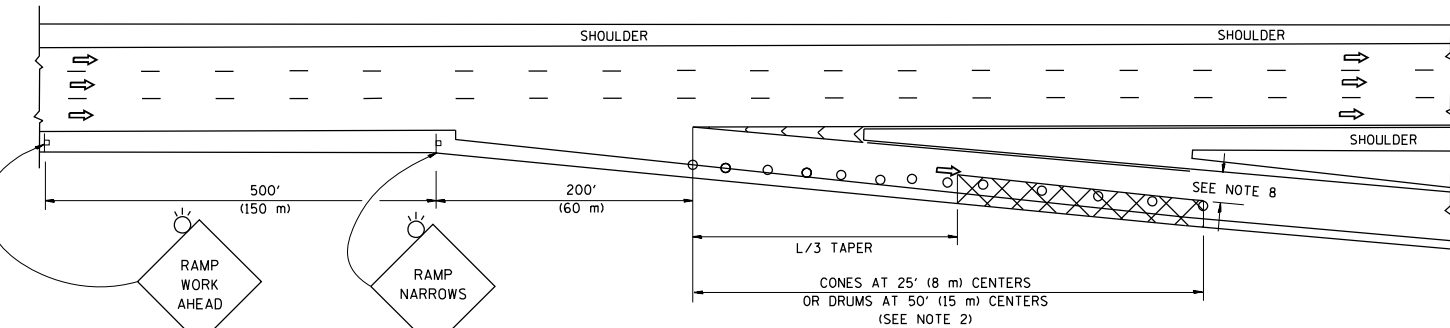
SHEET NO. 9 OF 9 SHEETS

F.A.P. RTE. 372/373	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 28
CONTRACT NO. 62R56			ILLINOIS FED. AID PROJECT	

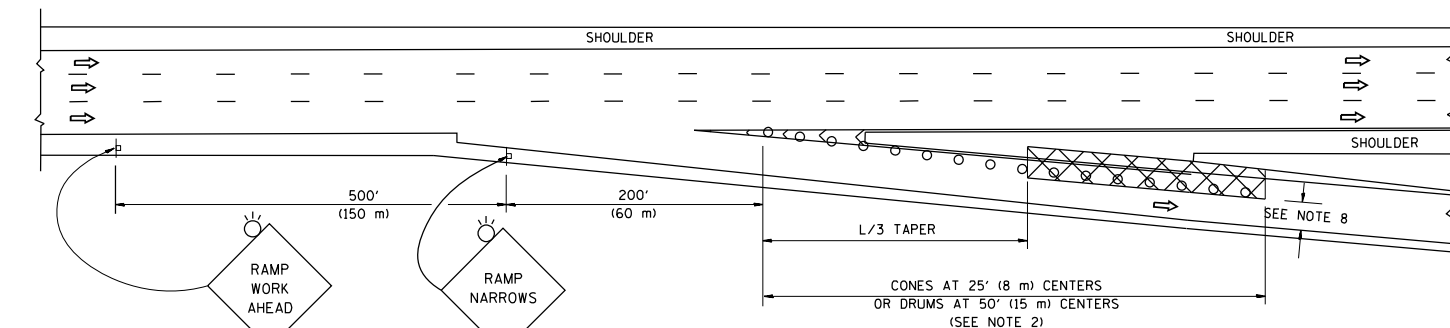
PARTIAL RAMP CLOSURE DETAILS



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

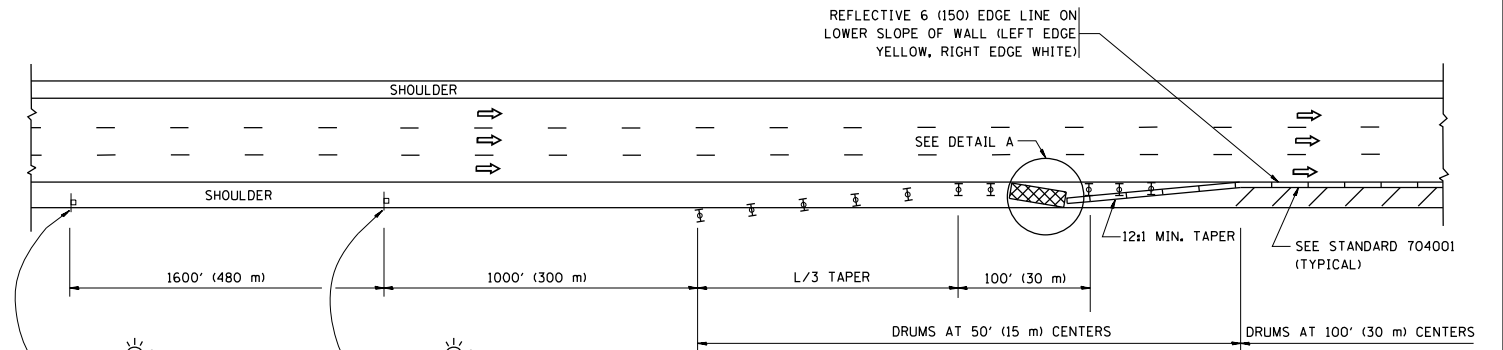
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

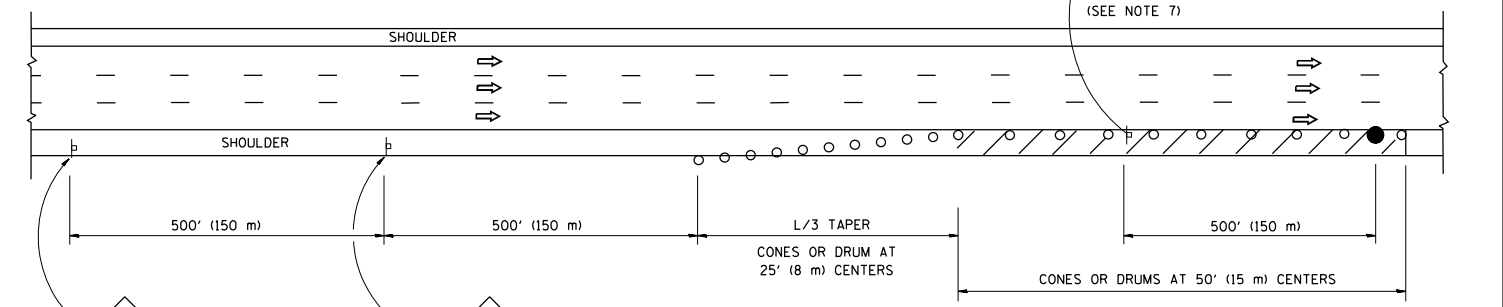
SPEED LIMIT	FORMULAS
45 mph (80 km/h)	METRIC ENGLISH
OR GREATER:	$L=0.65(W)(S)$ $L=(W)(S)$

W = WIDTH OF OFFSET IN FEET (METERS)
 S = NORMAL POSTED SPEED MPH (KM/H)
2. 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.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
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.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. 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.
8. 12' MIN. WIDTH TANGENT SECTION
 16' MIN. WIDTH CURVE SECTION.

SHOULDER CLOSURE DETAILS

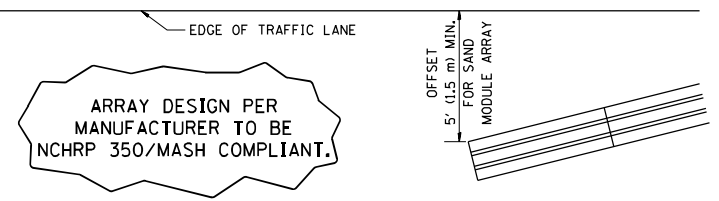


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

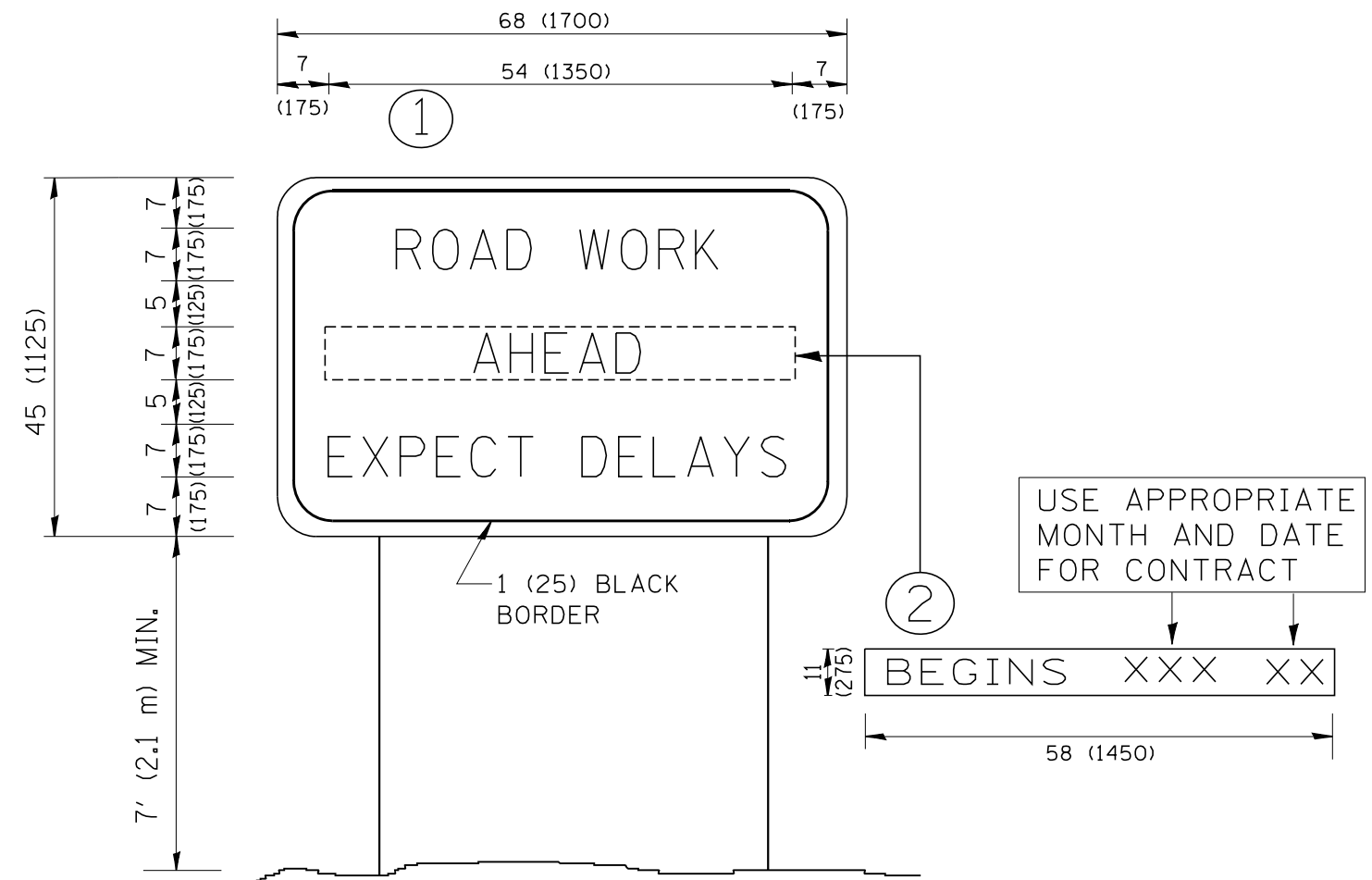
THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



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

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

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - S.P.B. 01-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default		CHECKED -	REVISED - S.P.B. 12-09			372	FAP-372-22-BR	COOK	31	30
		DATE - 11-96	REVISED - M.D. 06-13			TC-17		CONTRACT NO. 62R56		
			REVISED - M.D. 01-18			ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 372	SECTION FAP-372-22-BR	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 31
TC-22		CONTRACT NO. 62R56		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				