

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PROPOSED HIGHWAY PLANS

**FAP ROUTE 309 (US 30) OVER UP RAILROAD  
SECTION (17R-1VBR)BDR  
PROJECT NHPP-MB4S(595)  
BRIDGE REHABILITATION  
WHITESIDE COUNTY, IL**

F.P.E. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	(17R-1VBR)BDR	WHITESIDE	18*	1
		ILLINOIS	CONTRACT NO. 64P92	

\* 18 + 1 = 19 TOTAL SHEETS

**INDEX OF SHEETS**

- 1 COVER SHEET
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- 16 BAR ASSEMBLY AND MECHANICAL SPLICER DETAILS
- 17 BARRIER AND JOINT DETAILS
- 18 STEEL REPAIRS
- 19 PIER REPAIRS
- 15 SCUPPER DETAILS

*HOWARD J. HAMILTON*  
ENGINEER  
HOWARD J. HAMILTON  
ILLINOIS REGISTRATION NO.: 62047406  
EXPIRES: 11/30/2021

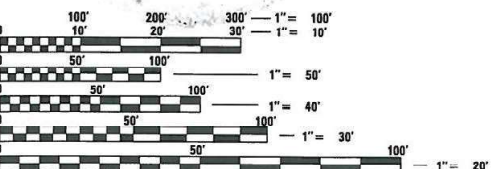
4/29/2021  
DATE

SEAL AND SIGNATURE APPLICABLE TO SHEETS 5 - 8,  
MAINTENANCE OF TRAFFIC.

*SCOTT T. WYATT*  
081.006432  
LICENSED  
STRUCTURAL  
ENGINEER  
ILLINOIS

4/29/21  
11/30/22

SEAL AND SIGNATURE APPLICABLE TO SHEETS 1-4 & 9-18.



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD

CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

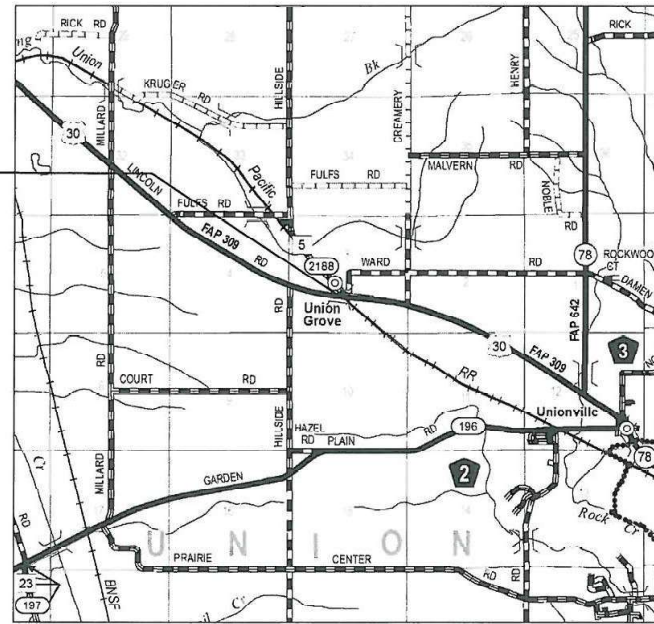
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER SCOTT WYATT, PE, SE  
PROJECT MANAGER MAHMOUD ETEMADI, PE

CONTRACT NO. 64P92

C-92-034-21

**EXISTING STRUCTURE**  
SN 098-0005 A 3 SPAN STEEL BEAM  
SUPERSTRUCTURE WITH OPEN ABUTMENTS  
AND MULTI COLUMN PIERS.  
BACK TO BACK LENGTH = 263'  
OUT TO OUT WIDTH = 42'-3"



**LOCATION MAP**  
GROSS LENGTH = 263.00 FT. = 0.049 MILE  
NET LENGTH = 263.00 FT. = 0.049 MILE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED May 03, 2021

*James A. Etk*  
REGIONAL ENGINEER

June 25, 2021

*James A. Etk*  
ENGINEER OF DESIGN AND ENVIRONMENT

June 25, 2021

*James A. Etk*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

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STATE HIGHWAY STANDARDS

00000-08	STANDARD SYMBOLS ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMALS OF AN INCH AND OF A FOOT
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

SUGGESTED SEQUENCE OF WORK

PRESTAGE

REMOVE GUARDRAIL AND TERMINAL ENDS FOR HMA SHOULDER WORK AND RE-ERECT AFTER SHOULDER BINDER IS INSTALLED.

REMOVE AND REPLACE THE HMA SHOULDER

SETUP STAGE 1 TRAFFIC CONTROL

STAGE 1

PERFORM STAGE 1 BRIDGE WORK AND HMA REMOVAL AND HMA BINDER

INSTALL TEMPORARY RAMPS AT BRIDGE AND BUTT JOINT

STAGE 2

PERFORM STAGE 2 BRIDGE WORK AND HMA REMOVAL AND HMA BINDER

INSTALL TEMPORARY RAMPS AT BRIDGE AND BUTT JOINT

POST STAGE

INSTALL HMA SURFACE

SUGGESTED MAINTENANCE OF TRAFFIC SEQUENCING

PRESTAGE

INSTALL CONSTRUCTION TRAFFIC CONTROL SIGNS AND BARRICADES. LOCATIONS DO NOT CHANGE DURING STAGE 1 OR 2 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

INSTALL PORTABLE TEMPORARY TRAFFIC SIGNALS AND DETECTION SYSTEM. LOCATIONS DO NOT CHANGE DURING STAGE 1 OR 2 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

REMOVE EXISTING PAVEMENT MARKINGS TO THE LIMITS SHOWN IN THE PLANS.

STAGE 1

INSTALL DRUM TAPERS AND TEMPORARY CONCRETE BARRIER FOR STAGE 1.

INSTALL TEMPORARY PAVEMENT MARKINGS FOR STAGE 1.

STAGE 2

BLACKOUT TAPE STAGE 1 TEMPORARY PAVEMENT MARKING TO PLAN LIMITS.

MOVE DRUM TAPERS, TEMPORARY CONCRETE BARRIER, AND IMPACT ATTENUATORS TO STAGE 2 LOCATIONS.

INSTALL TEMPORARY PAVEMENT MARKINGS FOR STAGE 2.

POST STAGE

REMOVE ALL TEMPORARY CONCRETE BARRIERS, IMPACT ATTENUATORS AND DRUMS.

REMOVE PORTABLE TEMPORARY SIGNALS, DETECTION.

REMOVE STAGE 1 AND 2 TEMPORARY PAVEMENT MARKINGS TO PLAN LIMITS.

INSTALL PERMANENT PAVEMENT MARKINGS.

REMOVE ALL REMAINING CONSTRUCTION SIGNS AND BARRICADES.

GENERAL NOTES

THE STRUCTURE WILL RETAIN THE SAME NUMBER: 098-0005

THE MAINTENANCE OF TRAFFIC CONTROL (MOT) PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY MODIFY THE MOT PLANS TO MEET CONSTRUCTION NEEDS, BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE MOT PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE MOT PLANS.

ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE MAINTENANCE OF TRAFFIC STRIPING SHALL BE REMOVED TO THE LIMITS SHOWN IN THE PLANS.

ALL TEMPORARY PAVEMENT MARKING WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL STRIPING SHALL BE REMOVED TO THE LIMITS SHOWN IN THE PLANS AND IN THE SCHEDULE OF PAVEMENT MARKING.

ALL TRAFFIC CONTROL DEVICES USED FOR THE MAINTENANCE OF TRAFFIC, AS DETAILED ON THE PLANS OR HIGHWAY STANDARD, SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL DRUMS, VERTICAL PANELS AND BARRICADES ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH BI-DIRECTIONAL STEADY-BURNING LIGHTS.

ALL EXISTING SIGNS WITHIN MAINTENANCE OF TRAFFIC LIMITS WHICH ARE OBTSCURED BY OR INTERFERE WITH CONSTRUCTION OPERATIONS AND MAINTENANCE OF TRAFFIC, SHALL BE COVERED OR REMOVED BY THE CONTRACTOR UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLE 107.25 OF THE IDOT STANDARD SPECIFICATIONS.

AS AN ADDITIONAL SOURCE OF INFORMATION IF NEEDED, ORIGINAL CONSTRUCTION SECTION NUMBER FOR STRUCTURE NUMBER 098-0005 WAS 17R-1VBR.

THE CONTRACTOR SHALL CONTACT THE IDOT DISTRICT 2 ENGINEER AT (815)284-2271 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

PAY ITEMS FOR MAINTENANCE OF TRAFFIC WORK

ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701201" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY TO WARN AND CONTROL TRAFFIC IN ACCORDANCE WITH IDOT STANDARD 701201 DURING INSTALLATION, IMPLEMENTATION AND REMOVAL OF TRAFFIC SIGNALS, TEMPORARY CONCRETE BARRIERS, AND ATTENUATORS.

ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY FOR THE INSTALLATION, MAINTENANCE AND ULTIMATE REMOVAL OF SIGNS, DRUMS, LIGHTS, PANELS, AND REFLECTORS NECESSARY FOR STAGED WORKZONE PROTECTION AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

ITEMS "TEMPORARY CONCRETE BARRIER" AND "RELOCATE TEMPORARY CONCRETE BARRIER" ARE INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY FOR STAGE 1 INSTALLATION, STAGE 2 RELOCATION, MAINTENANCE AND ULTIMATE REMOVAL OF TEMPORARY CONCRETE BARRIER TO THE LIMITS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

ITEMS "IMPACT ATTENUATORS, TEMPORARY" AND "IMPACT ATTENUATORS, RELOCATE" ARE INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY FOR STAGE 1 INSTALLATION, STAGE 2 RELOCATION, MAINTENANCE AND ULTIMATE REMOVAL OF TEMPORARY IMPACT ATTENUATORS OF THE TYPE, AND TO THE LIMITS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

ITEM "PAVEMENT MARKING TAPE" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY TO PLACE AND MAINTAIN TEMPORARY PAVEMENT MARKING TAPE OF THE TYPE, SIZE AND LIMITS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

ITEM "WORK ZONE PAVEMENT MARKING REMOVAL" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY TO REMOVE PERMANENT PAVEMENT MARKINGS TO THE LIMITS SPECIFIED IN THE PLANS.

ITEM "TEMPORARY PAVEMENT MARKING REMOVAL" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY TO REMOVE TEMPORARY TAPE TO THE LIMITS SPECIFIED IN THE PLANS.

ITEM "PAINT PAVEMENT MARKING LINE, 4" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY TO PLACE PERMANENT 4" PAVEMENT MARKING OF THE TYPE AND TO THE LIMITS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

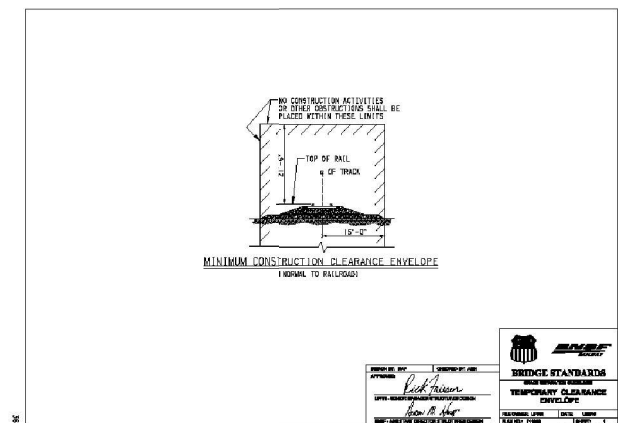
ITEM "TEMPORARY BRIDGE TRAFFIC INSTALLATION" IS INTENDED FOR THE PERMITTING, MATERIAL, EQUIPMENT AND LABOR NECESSARY TO INSTALL, OPERATE, MAINTAIN AND ULTIMATELY REMOVE A COMPLETE TEMPORARY TRAFFIC SIGNAL SYSTEM INCLUDING DETECTION AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

HMA

Location and Mixture Use(s):	Mainline		Shoulder	
	Surface	Binder	Surface	All Lower Lifts
Lift Thickness	2"	2"	2"	2"
PG:	SBS PG 70-28	SBS PG 70-28	PG 58-28	PG 58-28
Design Air Voids	4.0 @ N70	4.0 @ NG70	4.0 @ NG50	4.0 @ NG50
Mixture Composition (Gradation Mixture)	IL 9.5	IL 9.5, or 9.5FG	IL 9.5, or 9.5FG	IL 19.0
Friction Aggregate	D	N/A	C	N/A
20 Year ESAL	3.0	3.0	3.0	3.0
Mix Unit Weight	112 lbs/sy/in	N/A	112 lbs/sy/in	N/A
Quality Management Program to be Used	QC/QA	QC/QA	QC/QA	QC/QA
Sublot Tonnage	N/A	N/A	N/A	N/A
Number of Roller Passes	N/A	N/A	N/A	N/A

RAILROAD NOTES

- All permanent clearances shall be verified before project closing.
- The contractor must submit a proposed method of erosion and sediment control and have the method approved by the Railroad.
- Regardless of underlying land ownership, all shoring systems within Railroad right-of-way or that may impact the Railroad's operations and/or supports the Railroad's embankment shall be designed and constructed per current Railroad Guidelines for Temporary Shoring.
- The contractor submit and provide sufficient safety measures to protect unattended excavations to the Railroad for approval.
- All demolitions/removals within the Railroad's right-of-way and/or that may impact the Railroad's tracks or operations shall be in compliance with the current Railroad's Demolition Guidelines.
- Railroad requirements do not allow work within 50 feet of track centerline when a train passes the work site and all personnel must clear the area within 25 feet of the track centerline and secure all equipment.
- Call Before You Dig. Prior to excavation, disrupting, or working on the Railroad property the contractor shall locate and protect UPRR facilities by calling the UPRR "Call Before You Dig"(CBYD) phone number: 1-800-336-9193.
- Construction activities, including falsework/formwork, are not allowed within the "Minimum Construction Clearance Envelope" as they would otherwise disrupt Railroad operations.



MODEL Path: \\hcn03\project\1044210010-1\03\_098-0005\_US\_30-UP\_RR\_Summary-20-21\_Final\2021-10-Cen-HANDNOTES.dwg FILE NAME: \\hcn03\project\1044210010-1\03\_098-0005\_US\_30-UP\_RR\_Summary-20-21\_Final\2021-10-Cen-HANDNOTES.dwg

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PLOT DATE = 06/18/2021	CHECKED -	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US 30 CROSSING UP RR at UNION GROVE  
HIGHWAY STANDARDS AND GENERAL NOTES

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 309	SECTION (17R-1VBR)BDR	COUNTY WHITESIDE	TOTAL SHEETS 19	SHEET NO. 2
CONTRACT NO. 64P92				
ILLINOIS		FED. AID PROJECT		

0047  
80% FED  
20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
<b>40604162</b>	<b>POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5 MIX "D", N70</b>	<b>TON</b>	<b>42</b>
40603218	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE IL-9.5FG N70	TON	42
<b>44000159</b>	<b>HOT-MIXED ASPHALT SURFACE REMOVAL 2 1/2"</b>	<b>SQ YD</b>	<b>640</b>
40604000	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N50	TON	28
<b>44004250</b>	<b>PAVED SHOULDER REMOVAL</b>	<b>SQ YD</b>	<b>533</b>
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	533
<b>50157300</b>	<b>PROTECTIVE SHIELD</b>	<b>SQ YD</b>	<b>229</b>
40600990	TEMPORARY RAMP	SQ YD	96
<b>50102400</b>	<b>CONCRETE REMOVAL</b>	<b>CU YD</b>	<b>25</b>
<b>50300225</b>	<b>CONCRETE STRUCTURES</b>	<b>CU YD</b>	<b>5</b>
<b>50300255</b>	<b>CONCRETE SUPERSTRUCTURE</b>	<b>CU YD</b>	<b>25</b>
<b>50300300</b>	<b>PROTECTIVE COAT</b>	<b>SQ YD</b>	<b>1162</b>
<b>50800205</b>	<b>REINFORCING BARS EPOXY COATED</b>	<b>POUND</b>	<b>2088</b>
<b>50800515</b>	<b>BAR SPLICERS</b>	<b>EACH</b>	<b>24</b>
<b>52000110</b>	<b>PREFORMED JOINT STRIP SEAL</b>	<b>FOOT</b>	<b>134</b>
<b>52100020</b>	<b>ELASTOMERIC BEARING ASSEMBLY, TYPE II</b>	<b>EACH</b>	<b>1</b>
<b>52100520</b>	<b>ANCHOR BOLTS, 1"</b>	<b>EACH</b>	<b>2</b>
<b>60260100</b>	<b>INLETS TO BE ADJUSTED</b>	<b>EACH</b>	<b>1</b>

0047  
80% FED  
20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
<b>67100100</b>	<b>MOBILIZATION</b>	<b>L SUM</b>	<b>1</b>
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL TYPE A	FOOT	280
<b>70100405</b>	<b>TRAFFIC CONTROL AND PROTECTION, STANDARD 701321</b>	<b>EACH</b>	<b>1</b>
63301990	REMOVE AND REERECT TRAFFIC TERMINAL BARRIER TYPE 1	EACH	4
<b>70100450</b>	<b>TRAFFIC CONTROL AND PROTECTION, STANDARD 701201</b>	<b>L SUM</b>	<b>1</b>
<b>70106500</b>	<b>TEMPORARY BRIDGE TRAFFIC SIGNALS</b>	<b>EACH</b>	<b>1</b>
<b>70107004</b>	<b>PAVEMENT MARKING BLACKOUT TAPE, 4"</b>	<b>FOOT</b>	<b>320</b>
<b>70300904</b>	<b>PAVEMENT MARKING TAPE, TYPE IV 4"</b>	<b>FOOT</b>	<b>2539</b>
<b>70300924</b>	<b>PAVEMENT MARKING TAPE, TYPE IV 24"</b>	<b>FOOT</b>	<b>24</b>
<b>78300201</b>	<b>PAVMENT MARKING REMOVAL - GRINDING</b>	<b>SQ FT</b>	<b>537</b>
<b>70400100</b>	<b>TEMPORARY CONCRETE BARRIER</b>	<b>FOOT</b>	<b>488</b>
<b>70400200</b>	<b>RELOCATE TEMPORARY CONCRETE BARRIER</b>	<b>FOOT</b>	<b>488</b>
<b>70600251</b>	<b>IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW) TEST LEVEL 3</b>	<b>EACH</b>	<b>1</b>
<b>70600352</b>	<b>IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE, NARROW) TEST LEVEL 3</b>	<b>EACH</b>	<b>1</b>
<b>78001110</b>	<b>PAINT PAVEMENT MARKING LINE 4"</b>	<b>FOOT</b>	<b>2620</b>
<b>X5030250</b>	<b>BRIDGE DECK GROOVING (LONGITUDINAL)</b>	<b>SQ YD</b>	<b>801</b>

\*

\*= SPECIALTY ITEM



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US 30 CROSSING UP RR at UNION GROVE  
SUMMARY OF QUANTITIES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	(17R-1VBR)BDR	WHITESIDE	18	3
CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				

0047  
80% FED  
20% STATE

0047  
80% FED  
20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQFT	784
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	1
X5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUE, NO. 1	L SUM	1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1145
Z0012164	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/2"	SQ YD	1145
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	1122
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1
Z0018051	DRAINAGE SCUPPERS TO BE ADJUSTED	EACH	1

CODE NO.	ITEM	UNIT	TOTAL QUANTITY

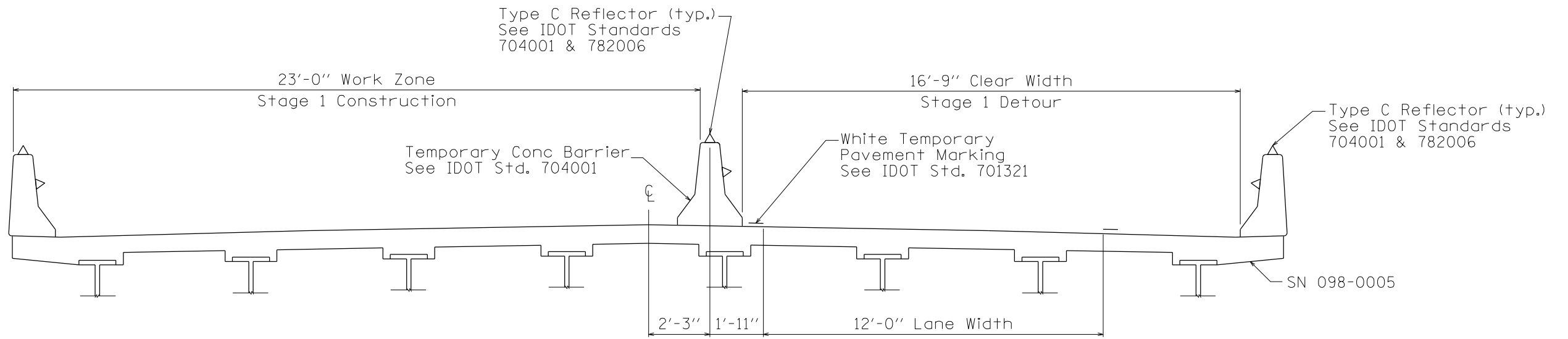


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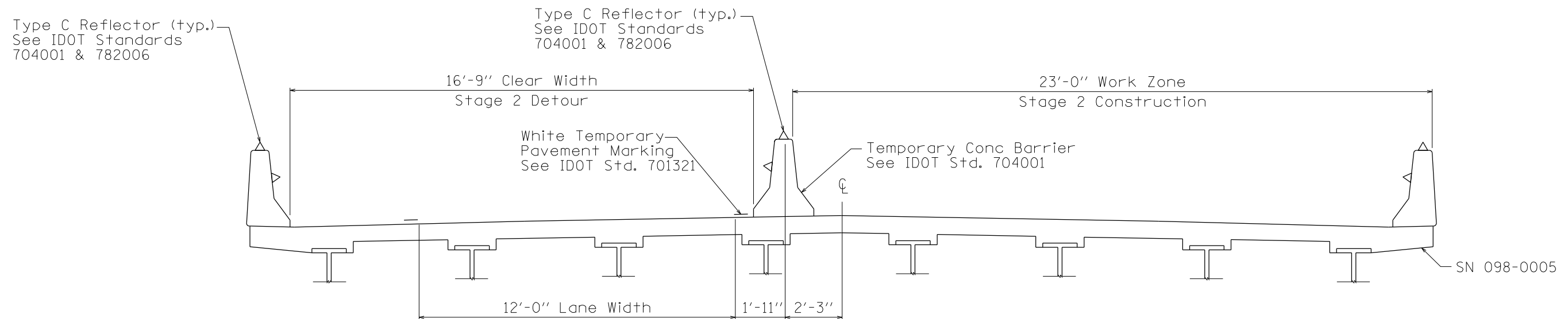
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US 30 CROSSING UP RR at UNION GROVE  
SUMMARY OF QUANTITIES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	(17R-1VBR)BDR	WHITESIDE	18	4
CONTRACT NO. 64P92			[ILLINOIS] FED. AID PROJECT	



STAGE 1



STAGE 2

MODEL Path: \\hcn03\project\042120210-1\03-098-0005-US-30-CUP-RR-Submittal\Final\2021-1-C-11-11-2021-SEC.dgn  
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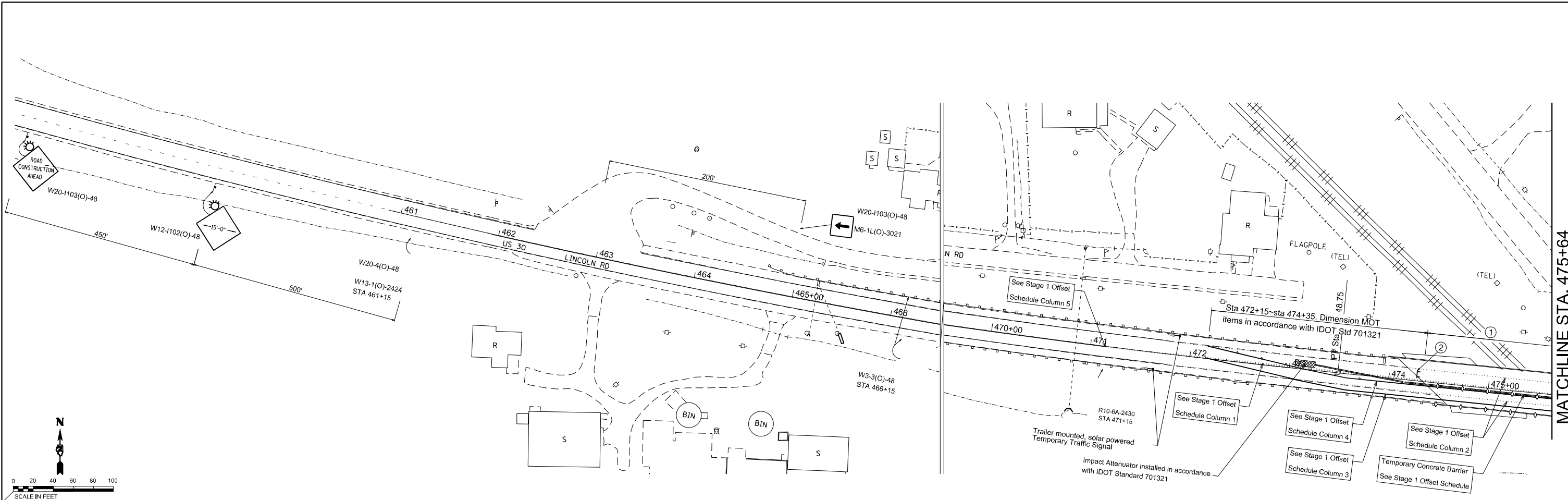
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

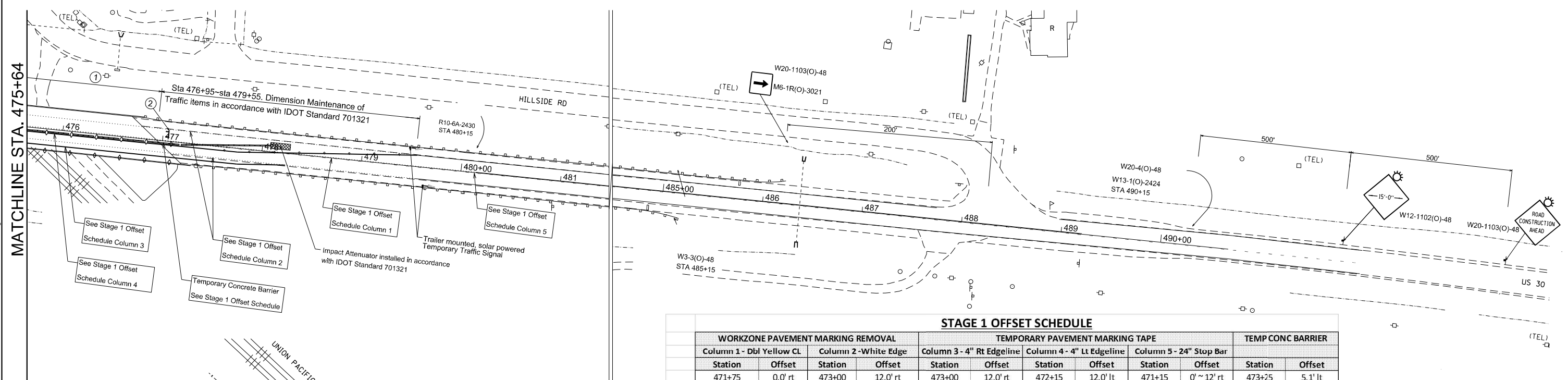
**US 30 CROSSING UP RR at UNION GROVE**  
**STAGING TYPICAL SECTION**

SCALE: NTS    SHEET 4 OF SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	(17R-1VBR)BDR	WHITESIDE	18	5
CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				



MATCHLINE STA. 475+64



MATCHLINE STA. 475+64

- ① sta 474+35-sta 476+95. Lt detour edge. Temp Barrier Walls with mounted Reflectors. Rt detour edge. Mount Reflectors to exist conc bridge rail. See IDOT Std 782006
  - ② Type III barricade to be placed when no work is being performed.
- See Offset Schedule for Pavement Marking, Temp Tape, and Temp Concrete Barrier breakpoint stations and offsets.

STAGE 1 OFFSET SCHEDULE									
WORKZONE PAVEMENT MARKING REMOVAL		TEMPORARY PAVEMENT MARKING TAPE						TEMP CONC BARRIER	
Column 1 - Dbl Yellow CL	Column 2 - White Edge	Column 3 - 4" Rt Edgeline	Column 4 - 4" Lt Edgeline	Column 5 - 24" Stop Bar					
Station	Offset	Station	Offset	Station	Offset	Station	Offset	Station	Offset
471+75	0.0' rt	473+00	12.0' rt	473+00	12.0' rt	472+15	12.0' lt	471+15	0' ~ 12' rt
473+15	0.0' rt	478+25	12.0' rt	473+55	15.9' rt	473+15	0.0' lt		
				477+75	15.9' rt	473+55	3.9' rt		
				478+20	0.0' rt	473+00	12.0' lt	477+75	3.9' rt
				479+60	0.0' rt	478+25	12.0' lt	479+55	12.0' lt
								480+15	0' ~ 12' lt
<b>TOTAL</b>	187 SF	350 SF		525'		742'		24'	488'

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	DATE -	REVISED -

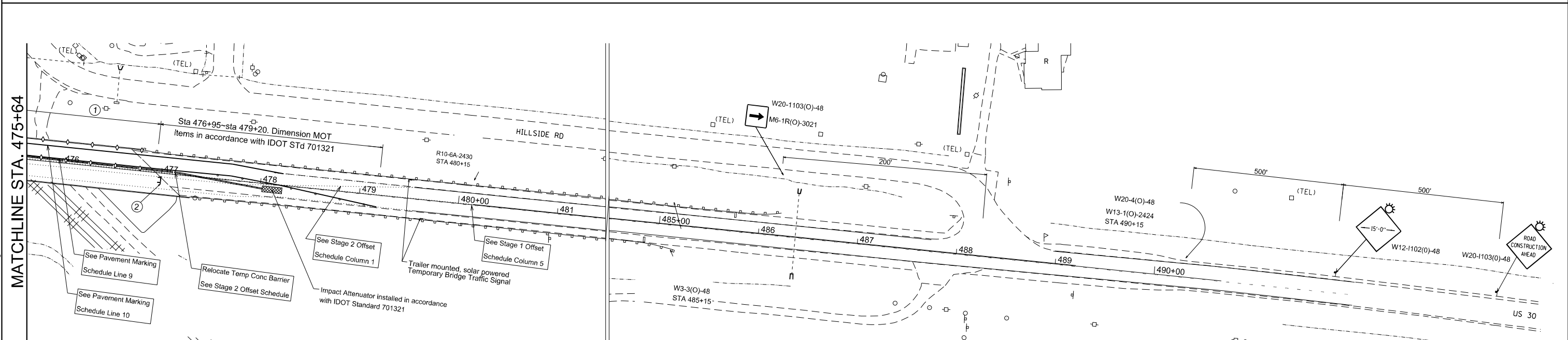
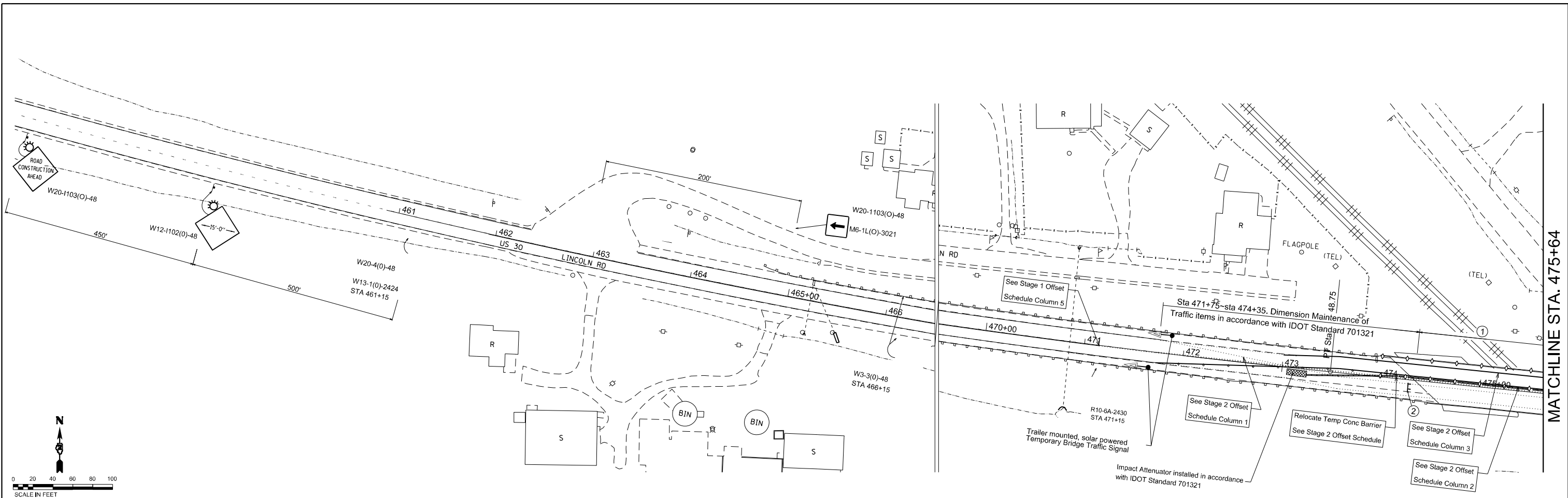
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**US 30 CROSSING UP RR at UNION GROVE MAINTENANCE OF TRAFFIC PLAN STAGE I**

F.A.P. RTE. 309	SECTION (17R-1VBR)BDR	COUNTY WHITESIDE	TOTAL SHEETS 18	SHEET NO. 6
ILLINOIS		FED. AID PROJECT		

SCALE: SHEET OF SHEETS STA. TO STA.





**STAGE 2 OFFSET SCHEDULE**

BLACKOUT TAPE (4")		TEMPORARY PAVEMENT MARKING TAPE (4")			TEMP CONC BARRIER (Relocate)		
Col 1 - Stage 1 Lt Edgeline	Column 2 - Right Edgeline	Column 3 - Left Edgeline	Station	Offset	Station	Offset	
472+15	12.0' lt	471+75	12.0' rt	473+00	12.0' lt	473+25	5.1' rt
473+55	3.9' rt	473+55	3.9' lt	473+55	15.9' lt	474+15	3.1' lt
		477+75	3.9' lt	477+75	15.9' lt	477+15	3.1' lt
		478+20	0.0' rt	478+25	12.0' lt	478+05	5.1' rt
479+55	12.0' lt	479+20	12.0' rt				
<b>TOTAL</b>	320'		747'		525'		488'

- ① sta 474+35-sta 476+95. Lt detour edge. Temp Barrier Walls with mounted Reflectors. Rt detour edge. Mount Reflectors to exist conc bridge rail. See IDOT Std 782006
  - ② Type III barricade to be placed when no work is being performed.
- See Offset Schedule for Pavement Marking, Temp Tape, and Temp Concrete Barrier breakpoint stations and offsets.

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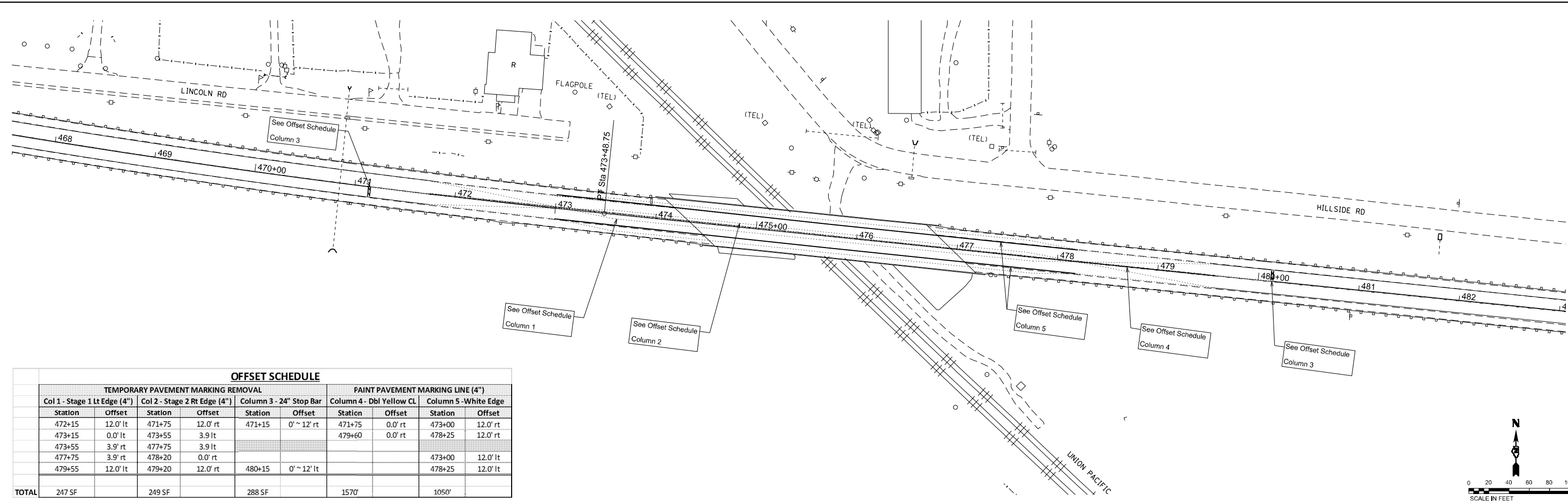
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US 30 CROSSING UP RR at UNION GROVE  
MAINTENANCE OF TRAFFIC PLAN STAGE 2**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 309	SECTION (17R-1VBR)BDR	COUNTY WHITESIDE	TOTAL SHEETS 18	SHEET NO. 7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64P92	



**OFFSET SCHEDULE**

TEMPORARY PAVEMENT MARKING REMOVAL					PAINT PAVEMENT MARKING LINE (4")				
Col 1 - Stage 1 Lt Edge (4")		Col 2 - Stage 2 Rt Edge (4")		Column 3 - 24" Stop Bar	Column 4 - Dbl Yellow CL		Column 5 - White Edge		
Station	Offset	Station	Offset	Station	Offset	Station	Offset	Station	Offset
472+15	12.0' lt	471+75	12.0' rt	471+15	0' ~ 12' rt	471+75	0.0' rt	473+00	12.0' rt
473+15	0.0' lt	473+55	3.9' lt			479+60	0.0' rt	478+25	12.0' rt
473+55	3.9' rt	477+75	3.9' lt						
477+75	3.9' rt	478+20	0.0' rt					473+00	12.0' lt
479+55	12.0' lt	479+20	12.0' rt	480+15	0' ~ 12' lt			478+25	12.0' lt
<b>TOTAL</b>	247 SF		249 SF		288 SF		1570'		1050'

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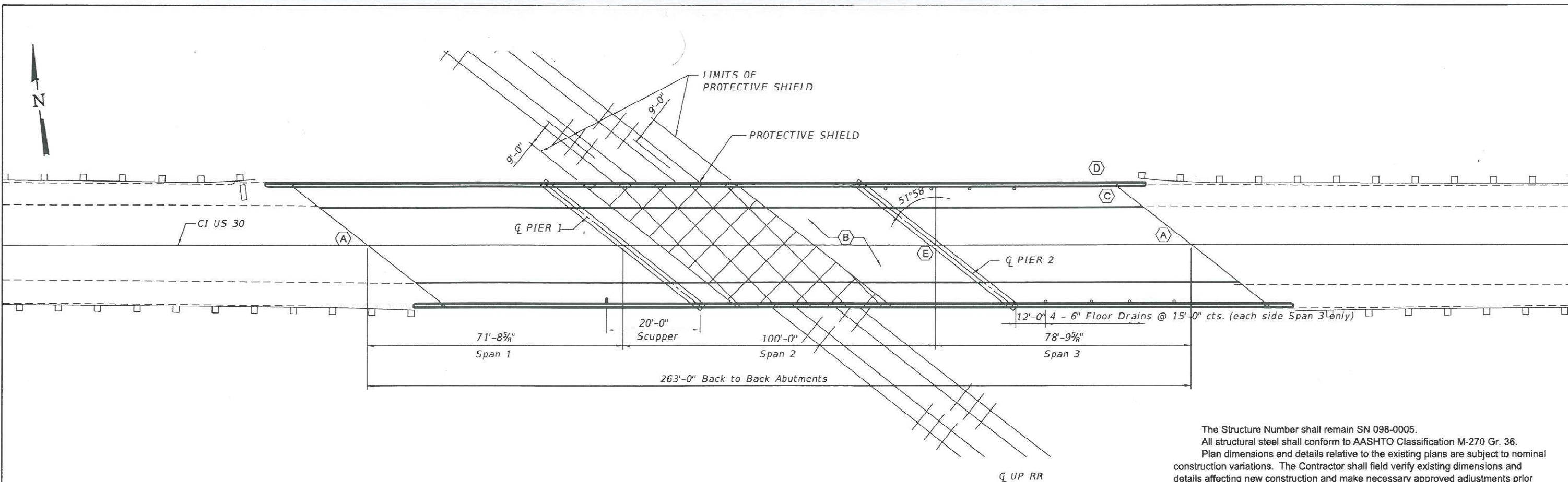
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US 30 CROSSING UP RR at UNION GROVE  
PERMANENT STRIPING PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

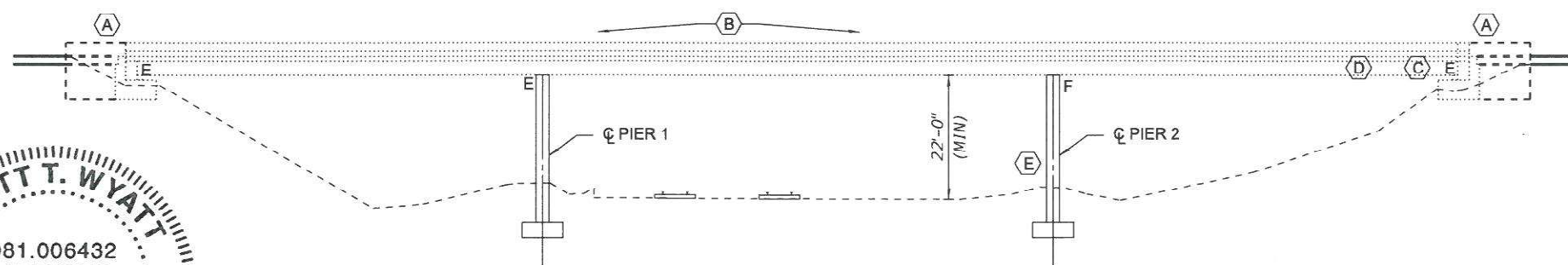
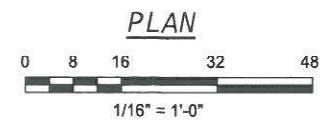
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309	(17R-1VBR)BDR	WHITESIDE	18	8
CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				



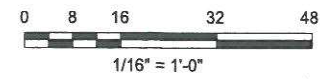


**SCOPE OF WORK**

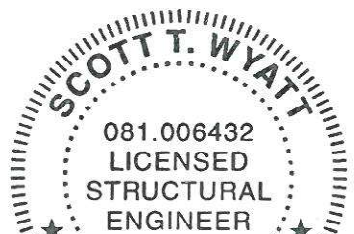
- (A) Remove and replace expansion joints with new Preformed Joint Strip Seals at abutments.
- (B) Scarify existing deck 3/4", Install new 2 1/2" Concrete Microsilica Overlay and Diamond Grind new overlay 1/4".
- (C) Clean and paint East end of Beam 1 and end diaphragm between Beam 1 and Beam 2 at East Abutment.
- (D) Replace existing bearing with new TFE Type II bearing under Beam 1 at East abutment.
- (E) Perform concrete repairs on Pier 2.



**ELEVATION**



The Structure Number shall remain SN 098-0005.  
 All structural steel shall conform to AASHTO Classification M-270 Gr. 36.  
 Plan dimensions and details relative to the existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering 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.  
 Prior to pouring the new concrete overlay, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be repaired with an approved bar splicer anchorage system. Cost included with Concrete Removal.  
 Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.  
 Traffic will be maintained using temporary signalization.  
 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"  
 The contact surfaces of the existing steel may contain lead. The Contractor shall take appropriate precautions for "Cleaning and Painting Existing Steel Structures" Cleaning and painting existing steel shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Structures" as specified below:  
 Existing structural steel where shown on the plans shall be cleaned per the requirements of near white blast cleaning (SPCC-SP-10) or per Commercial Grade Power Tool Cleaning (SSPC-SP15)  
 The cleaned area of the structural steel shall be primed per the requirement of "paint system 1-OZ/E/U."  
 The final finish coat shall be "Interstate green, munsell No. 7.5G 1/2."  
 The SSPC-QP1 certification will be required for this project.



6/25/21  
 EXP. 11/30/22

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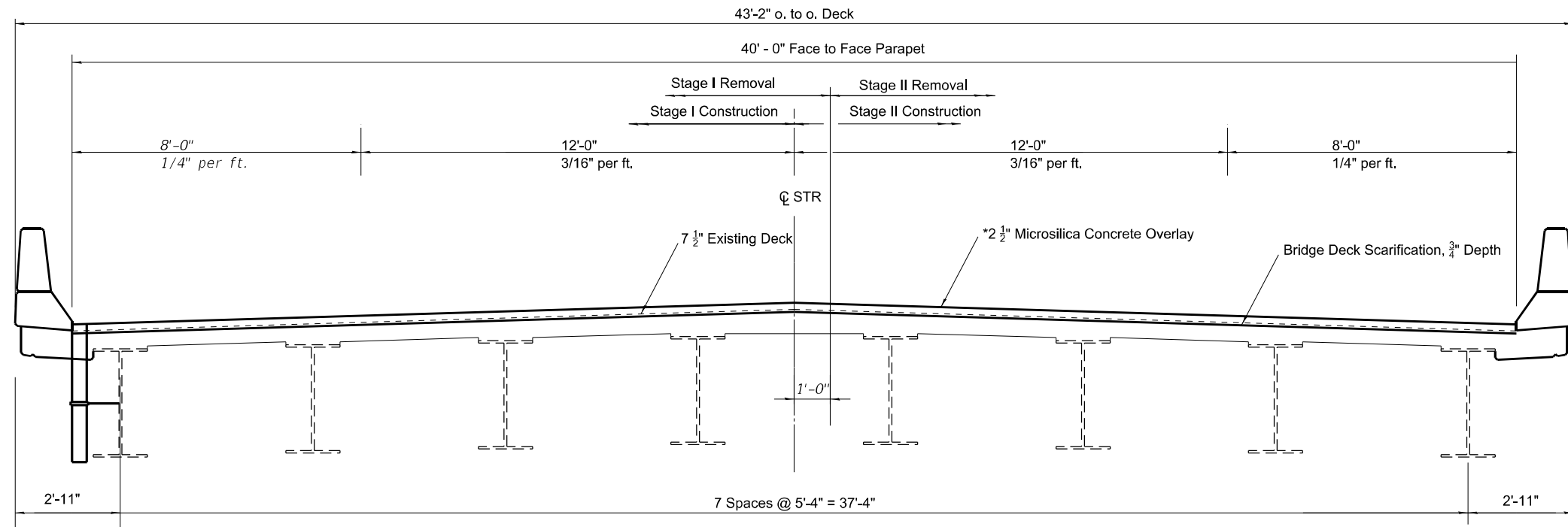


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	CHECKED -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
 PLAN AND ELEVATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	(17R-1VBR)BDR	WHITESIDE	19	9
CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				



**TYPICAL SECTION**  
(LOOKING EAST)

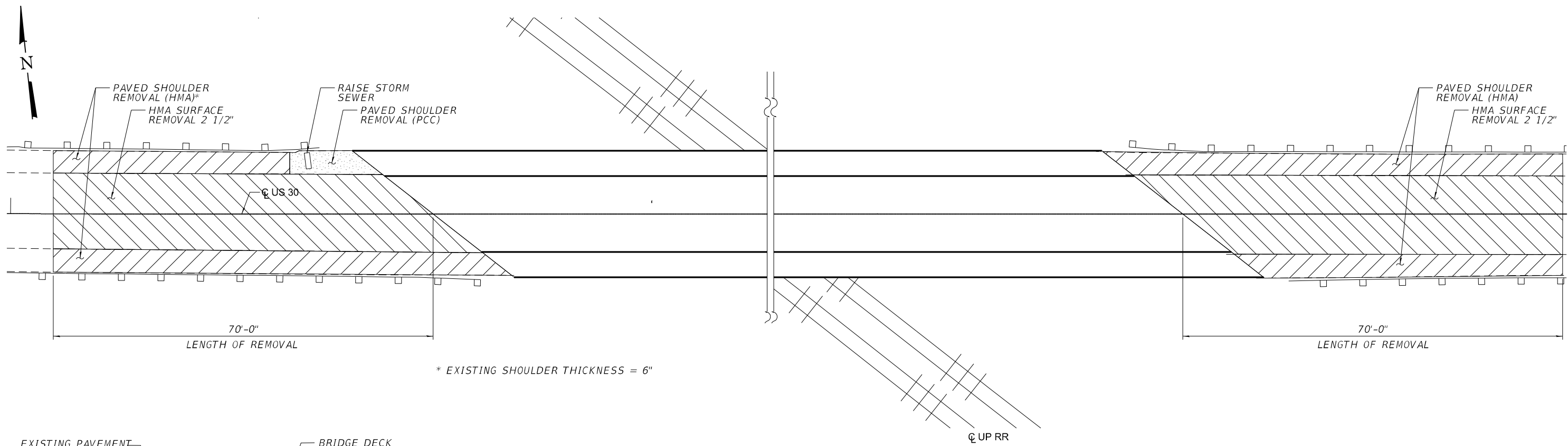
\* Overlay thickness prior to grinding

**TOTAL BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	25
Protective Shield	Sq. Yd	229
Concrete Structures	Cu. yd.	5
Concrete Superstructure	Cu. Yd	25
Bridge Deck Grooving (Longitudinal)	Sq. Yd	801
Reinforcement Bars, Epoxy Coated	Pound	2088
Bar Splicers	Each	24
Elastomeric Bearing Assembly, Type II	Each	1
Jack and Remove Existing Bearings	Each	1
Bridge Deck Concrete Microsilica Overlay, 2 1/2"	Sq. Yd	1145
Bridge Deck Scarification 3/4"	Sq. Yd	1145
Cleaning and Painting Steel Bridge, No. 1	L. Sum	1
Preformed Joint Strip Seal	Foot	134
Diamond Grinding (Bridge Section)	Sq. Yd	1122
** Protective Coat	Sq. Yd.	1162
Drainage Scuppers to be Adjusted	Each	1
Anchor Bolt, 1" dia.	Each	2
Containment and Disposal of non-Lead Paint Cleaning Residues, No. 1	L. Sum	1

\*\*On new concrete superstructures and overlays

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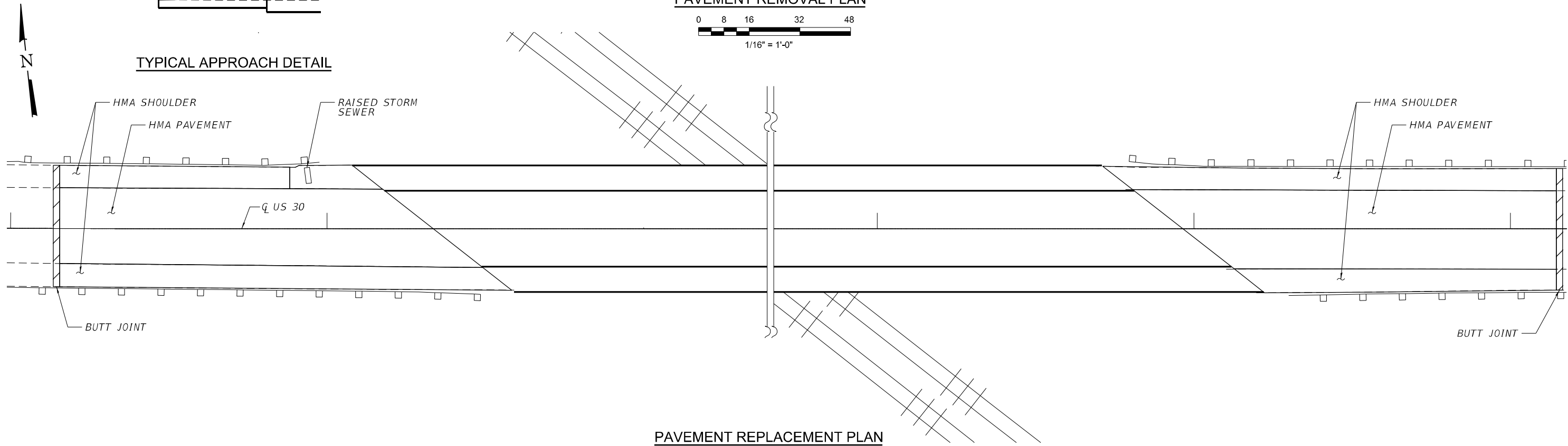
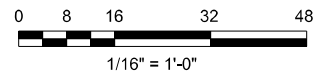


\* EXISTING SHOULDER THICKNESS = 6"

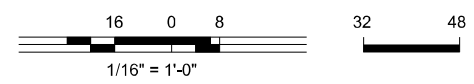


TYPICAL APPROACH DETAIL

PAVEMENT REMOVAL PLAN



PAVEMENT REPLACEMENT PLAN



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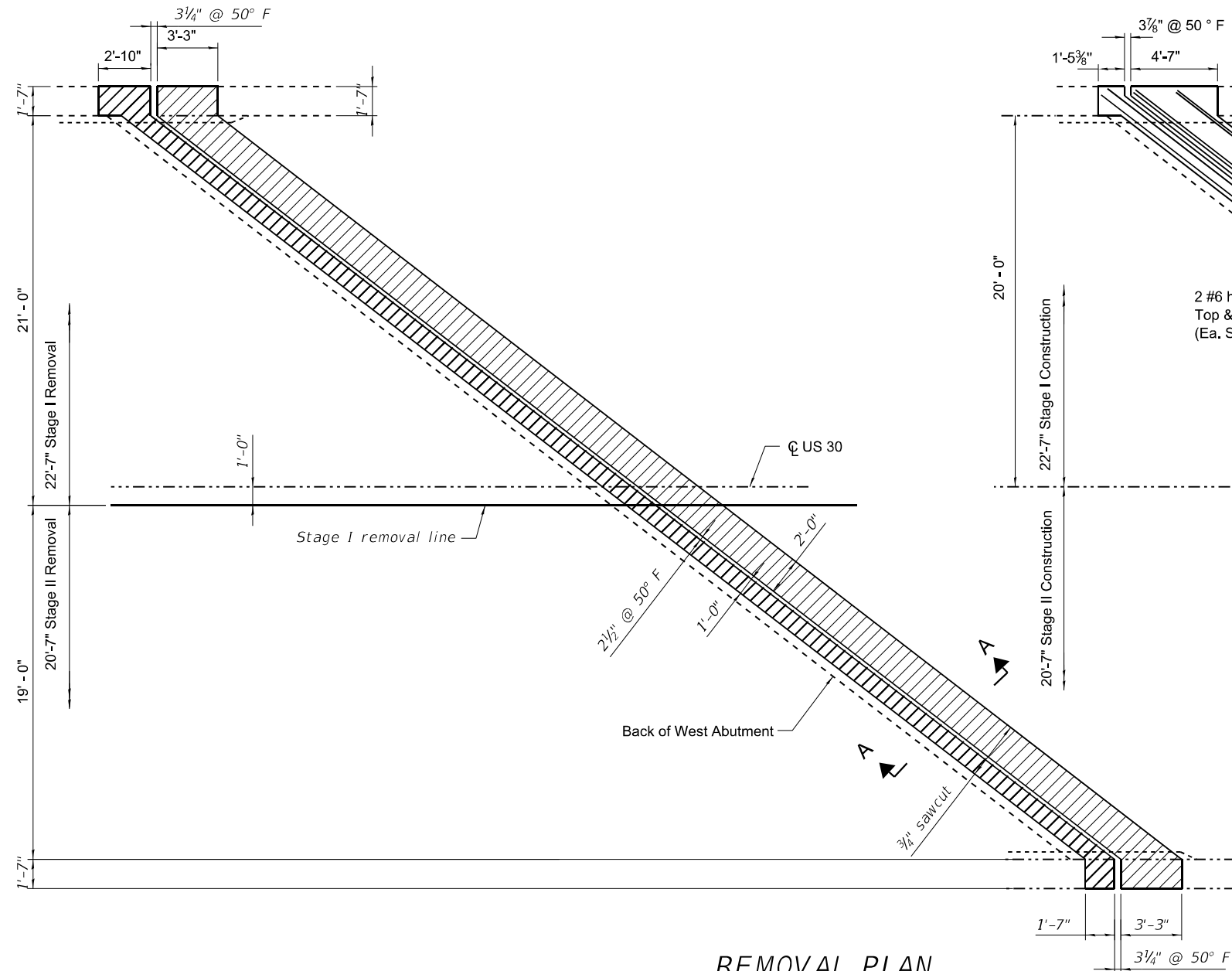
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 Consulting Engineers  
 1560 Sherman Ave.  
 Suite 1020

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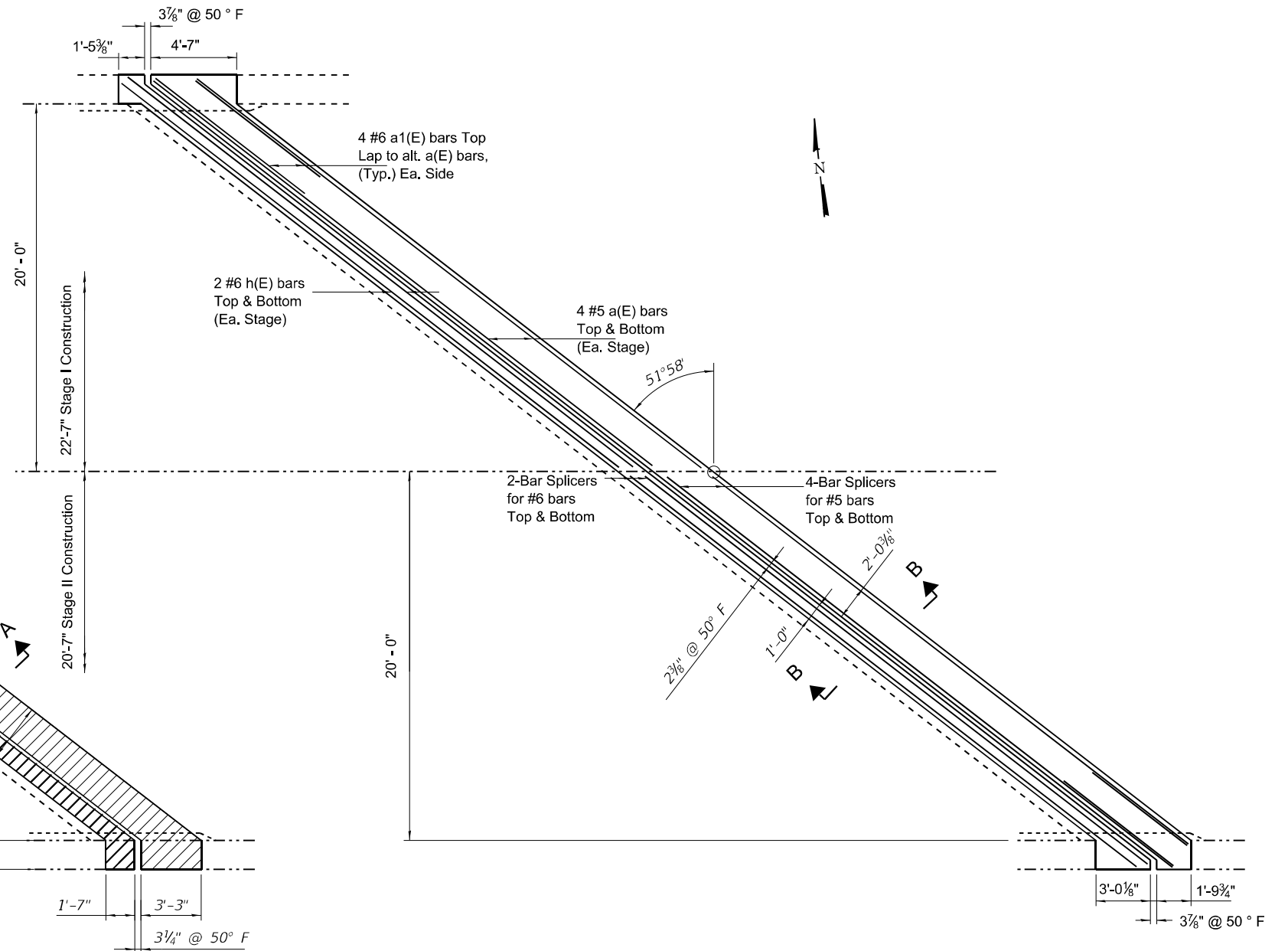
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
PAVEMENT DETAILS

F.A. RTE. 309	SECTION (17R-1VBR)BDR	COUNTY WHITESIDE	TOTAL SHEETS 19	SHEET NO. 11
CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				



**REMOVAL PLAN  
@ WEST ABUTMENT**



**REPLACEMENT PLAN  
@ WEST ABUTMENT**

**Notes:**

The anchorage section of the guardrail in conflict with the removal and reconstruction of the parapet shall be removed during concrete removal and reattached after the parapet concrete has cured. Cost included in concrete removal. Vertical and horizontal bars on approach parapets shall be cleaned, straightened and reused in new construction. See Sheet 14 of 19 for Sections A-A, B-B, Bill of Material and reinforcement bending diagrams. Hatched areas indicate concrete removal.

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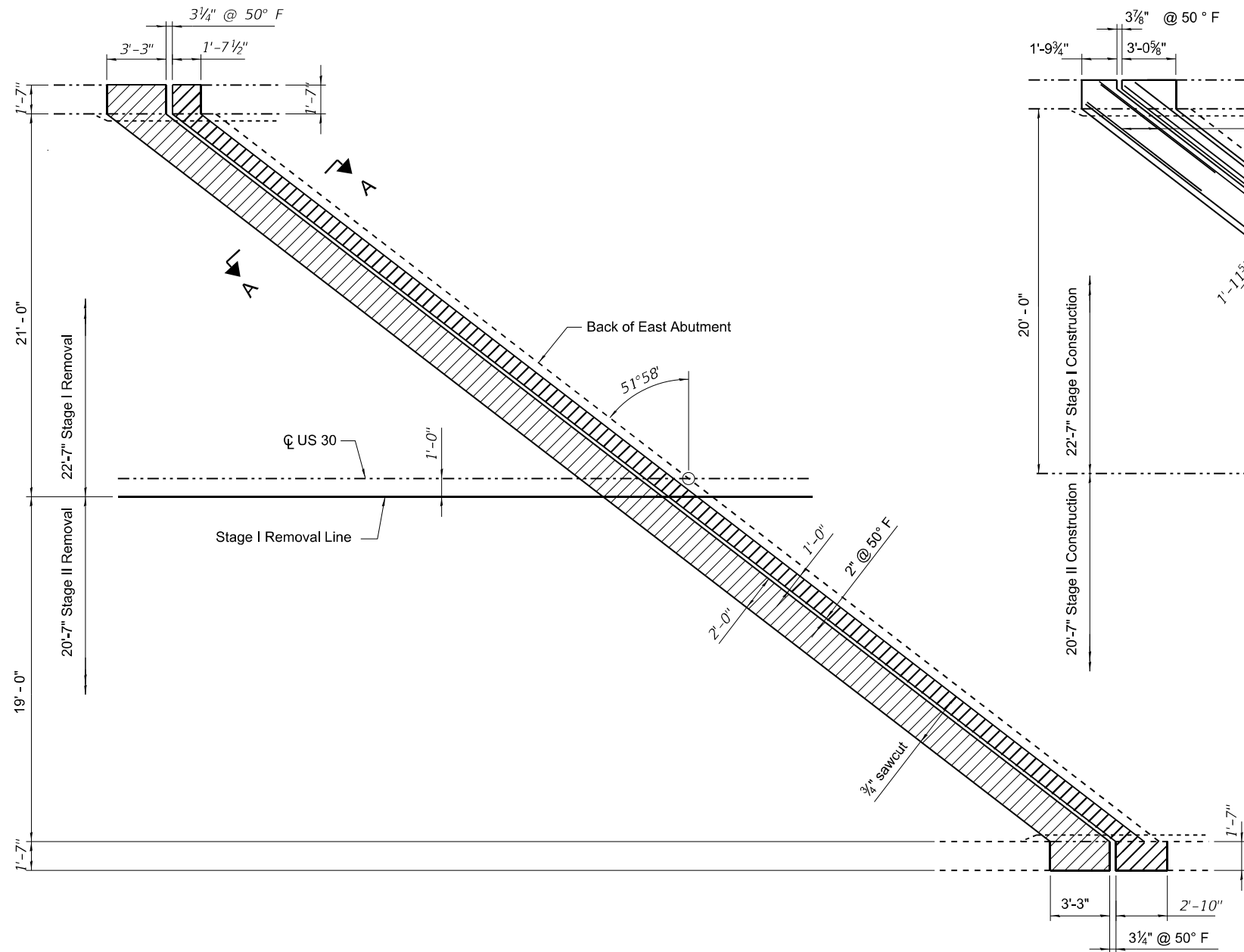


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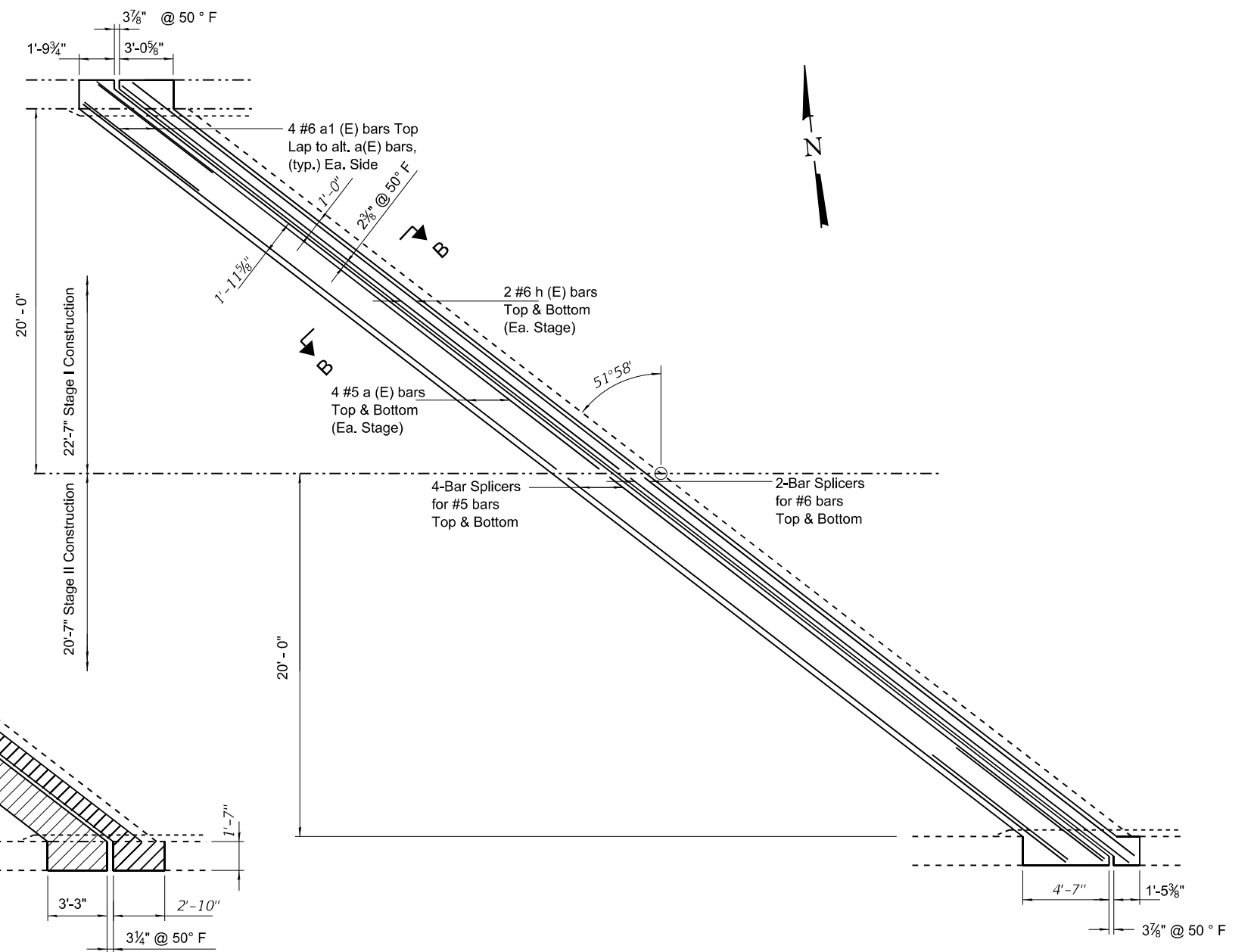
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
JOINT REPLACEMENT DETAILS AT WEST ABUTMENT

F.A. RTE. 309	SECTION (17R-1VBR)BDR	COUNTY WHITESIDE	TOTAL SHEETS 19	SHEET NO. 12
CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				



REMOVAL PLAN  
@ EAST ABUTMENT



REPLACEMENT PLAN  
@ EAST ABUTMENT

**Notes:**

The anchorage section of the guardrail in conflict with the removal and reconstruction of the parapet shall be removed during concrete removal and reattached after the parapet concrete has cured. Cost included in concrete removal. Vertical and horizontal bars on approach parapets shall be cleaned, straightened and reused in new construction. See sheet 14 of 19 for Sections A-A and B-B, Bill of Material and reinforcement bending diagrams. Hatched areas indicate concrete removal.

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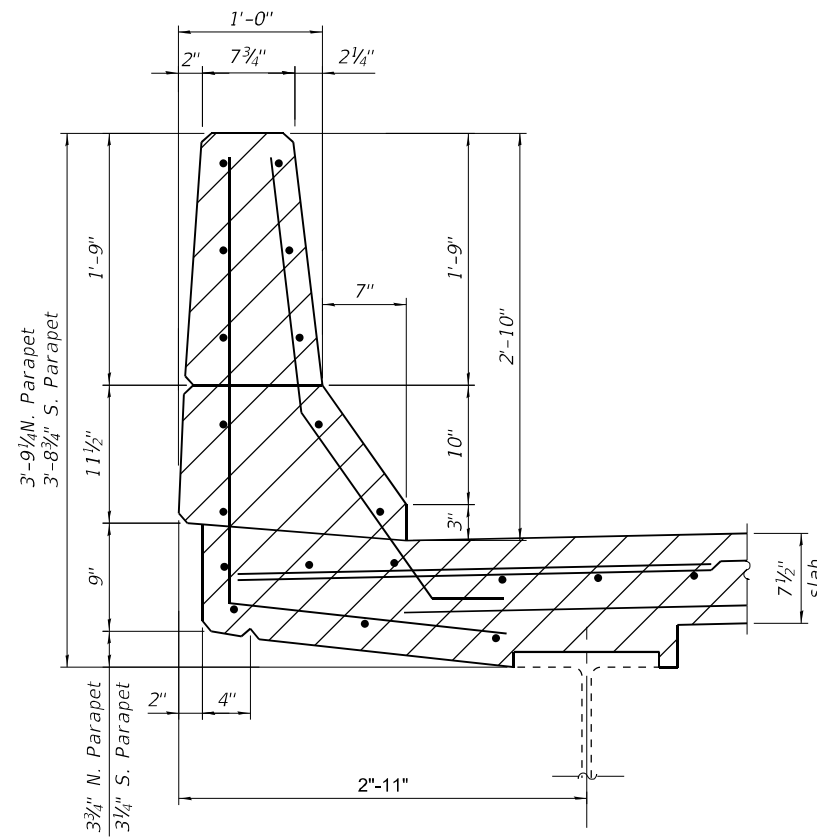


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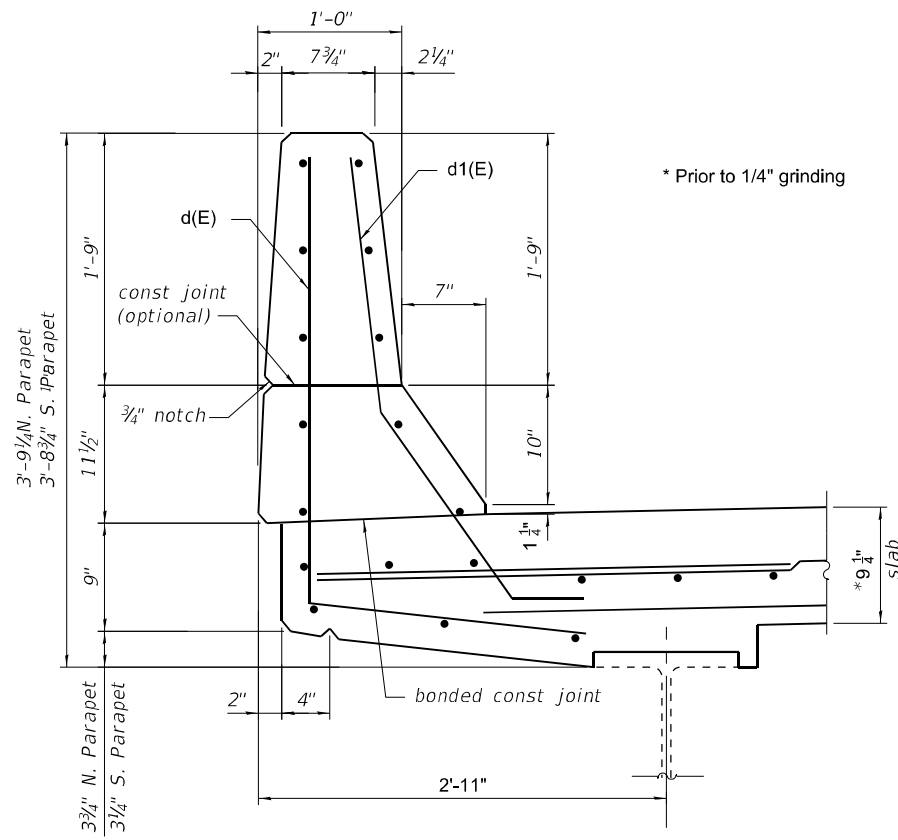
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
JOINT REPLACEMENT DETAILS AT EAST ABUTMENT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				

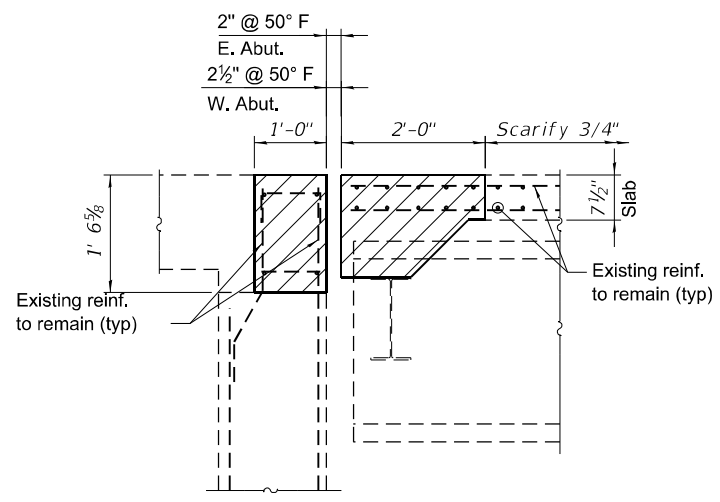


**SECTION THRU BRIDGE PARAPET**  
(Showing Removal)

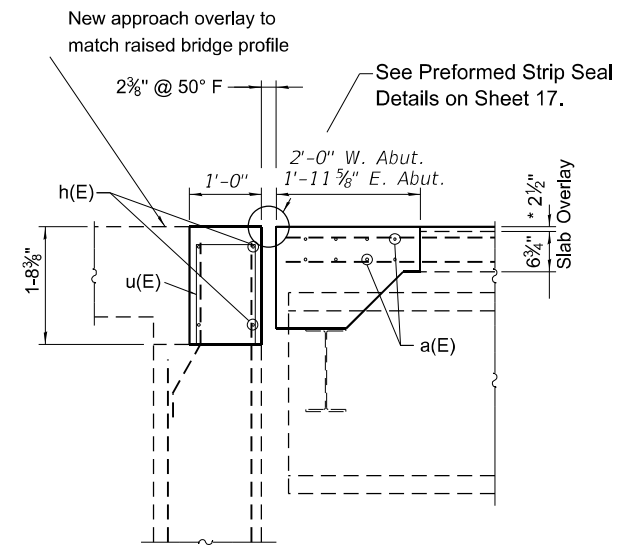


**SECTION THRU BRIDGE PARAPET**

\* Prior to 1/4" grinding



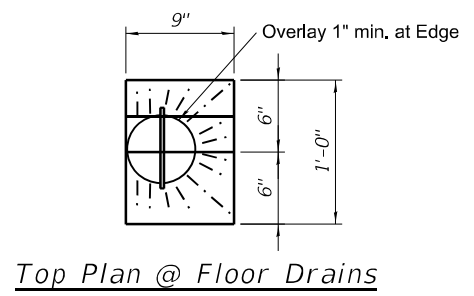
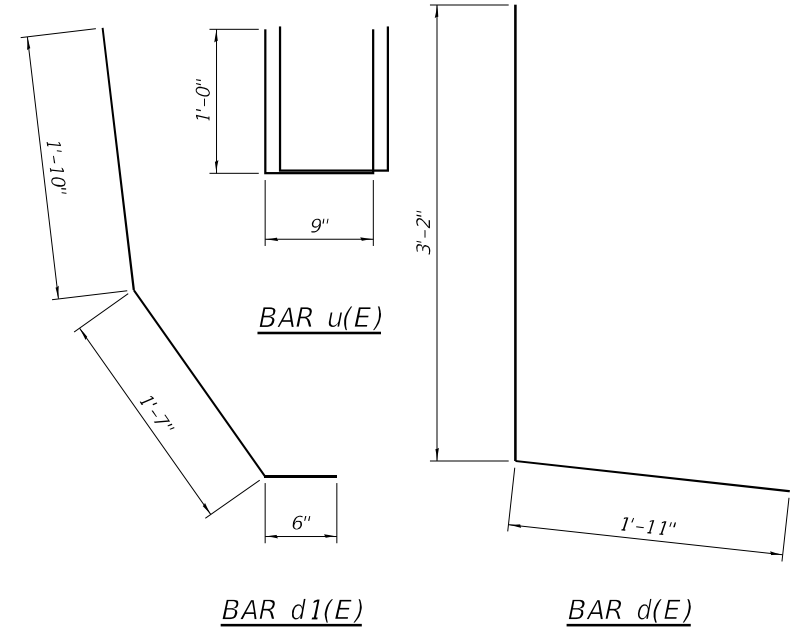
**SECTION A-A**



**SECTION B-B**

**BILL OF MATERIAL  
(TWO ABUTMENTS)**

Bar	No.	Size	Length	Shape
a(E)	32	5	34'-0"	—
a1(E)	16	6	4'-0"	—
d(E)	16	4	5'-1"	L
d1(E)	16	5	3'-11"	⌋
h(E)	16	6	34'-0"	—
u(E)	68	4	2'-9"	⌊
Concrete Removal			Cu. Yd	25
Concrete Superstructure			Cu. Yd	25
Bar Splicers			Each	24
Reinforcing Bars, Epoxy Coated			Pound	2088



**Top Plan @ Floor Drains**

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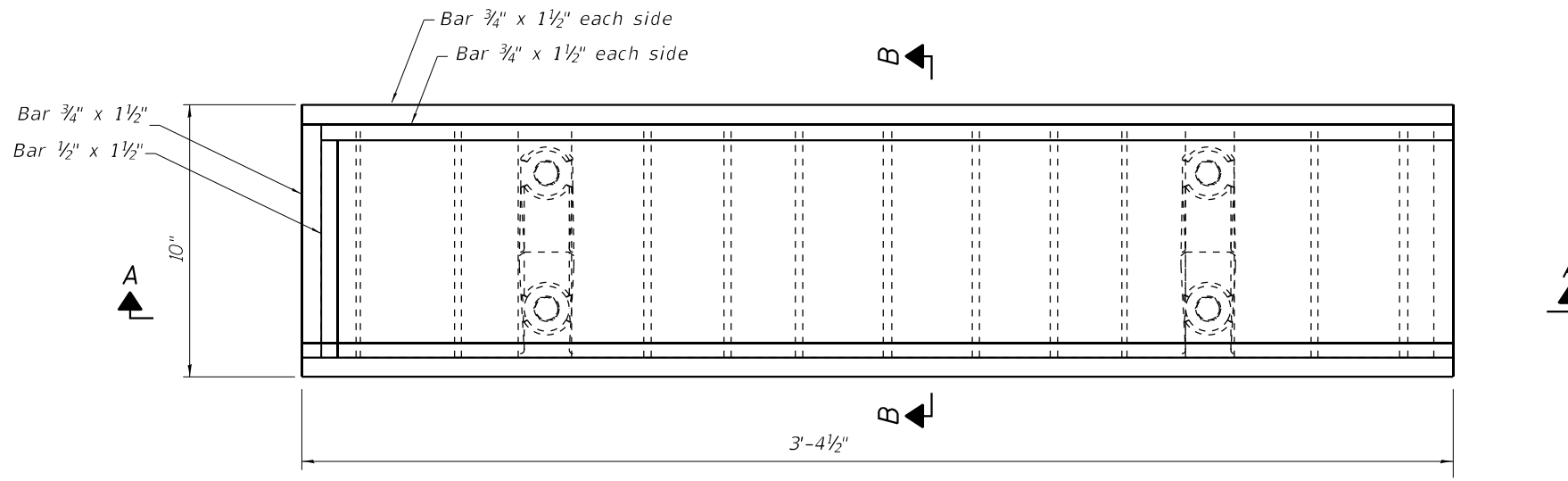
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DEPARTMENT OF TRANSPORTATION**

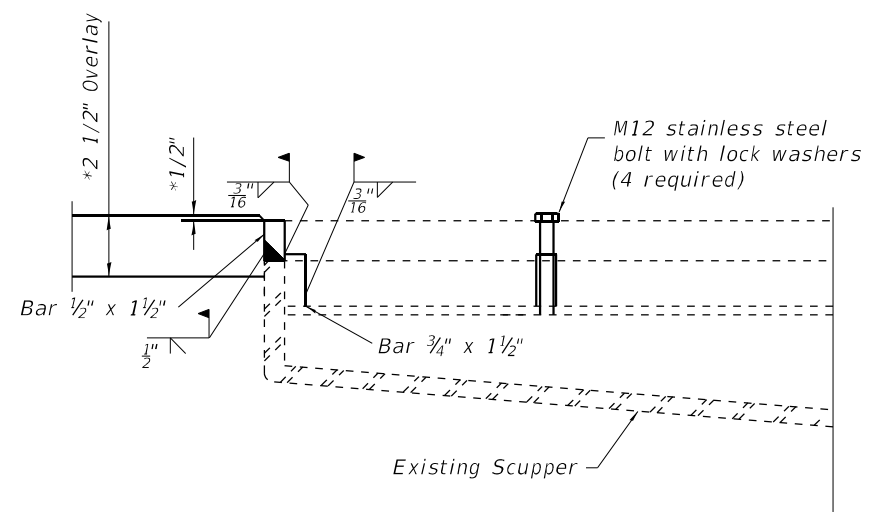
**SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
JOINT SECTIONS AND DETAILS**

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CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				



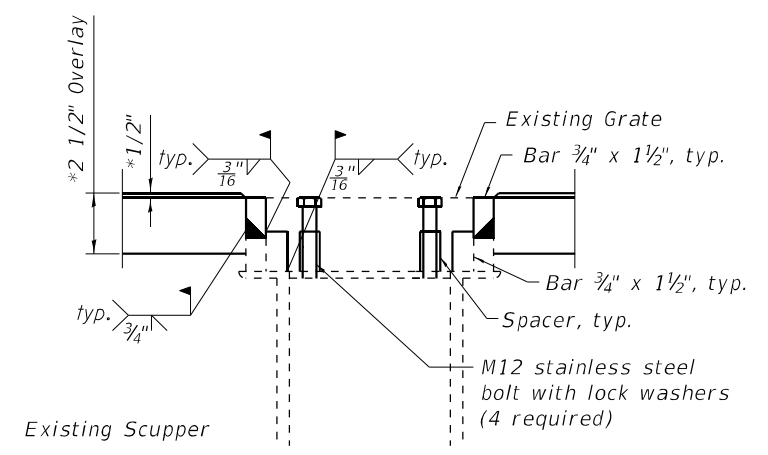


**PLAN**



**SECTION A-A**

\* Prior to 1/4" Grinding



**SECTION B-B**

**Notes:**  
 All structural steel shall conform to AASHTO M-270 Grade 36. The adjusting bars shall be galvanized according to AASHTO M111 and ASTM A385  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.  
 The Contractor shall field verify the Existing Dimensions and Details of the Existing Scupper and make necessary adjustments prior to construction or ordering materials for Drainage Scupper to be Adjusted.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 All labor and materials necessary to remove the existing grate, clean the existing scupper, install the adjusting bars, and reinstall the existing grate are included in the cost of Drainage Scuppers to be Adjusted.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper to be Adjusted	Each	1

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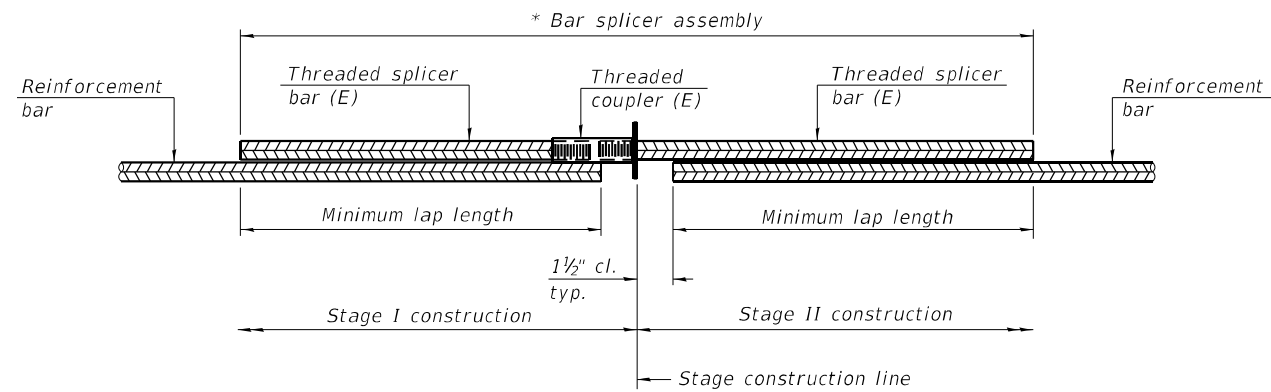
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 1560 Sherman Ave.  
 Suite 1020

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SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
 SCUPPER DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				



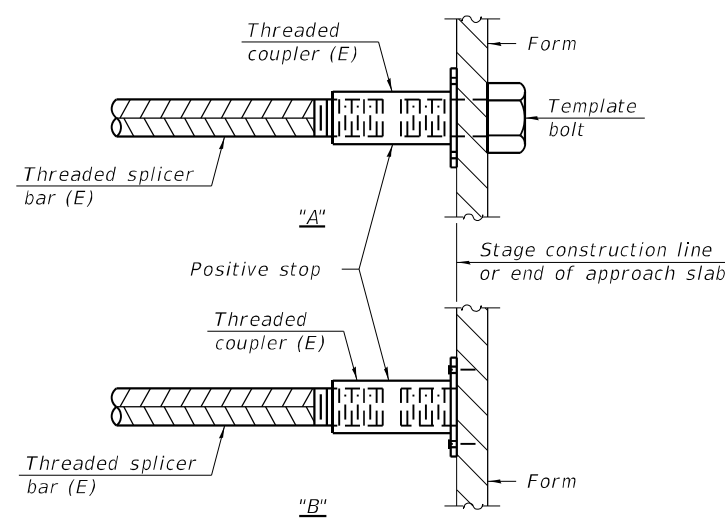
**STANDARD BAR SPLICER ASSEMBLY PLAN**

(All components shall be provided from one supplier)

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

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

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	16	3'-6"
Abutment	#6	8	4'-0"

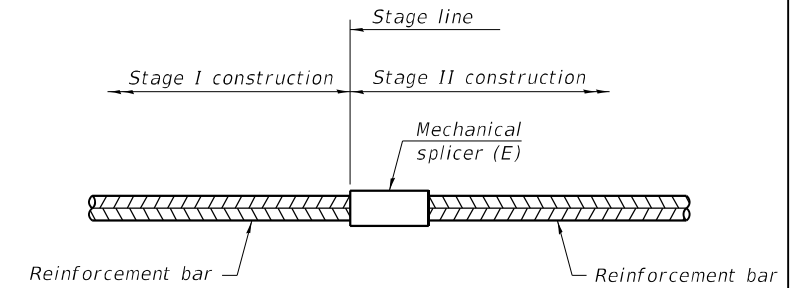


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required

**Notes:**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

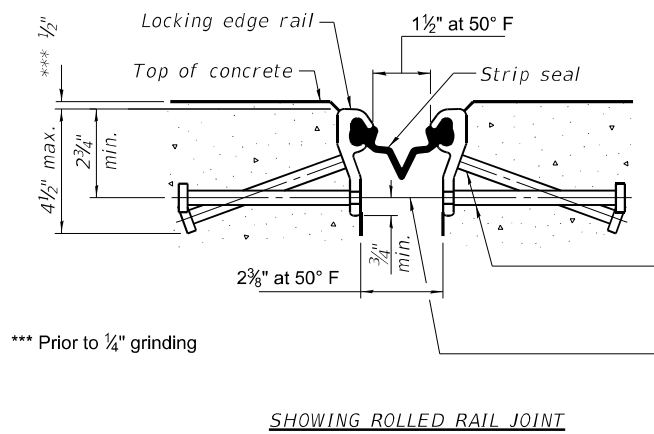
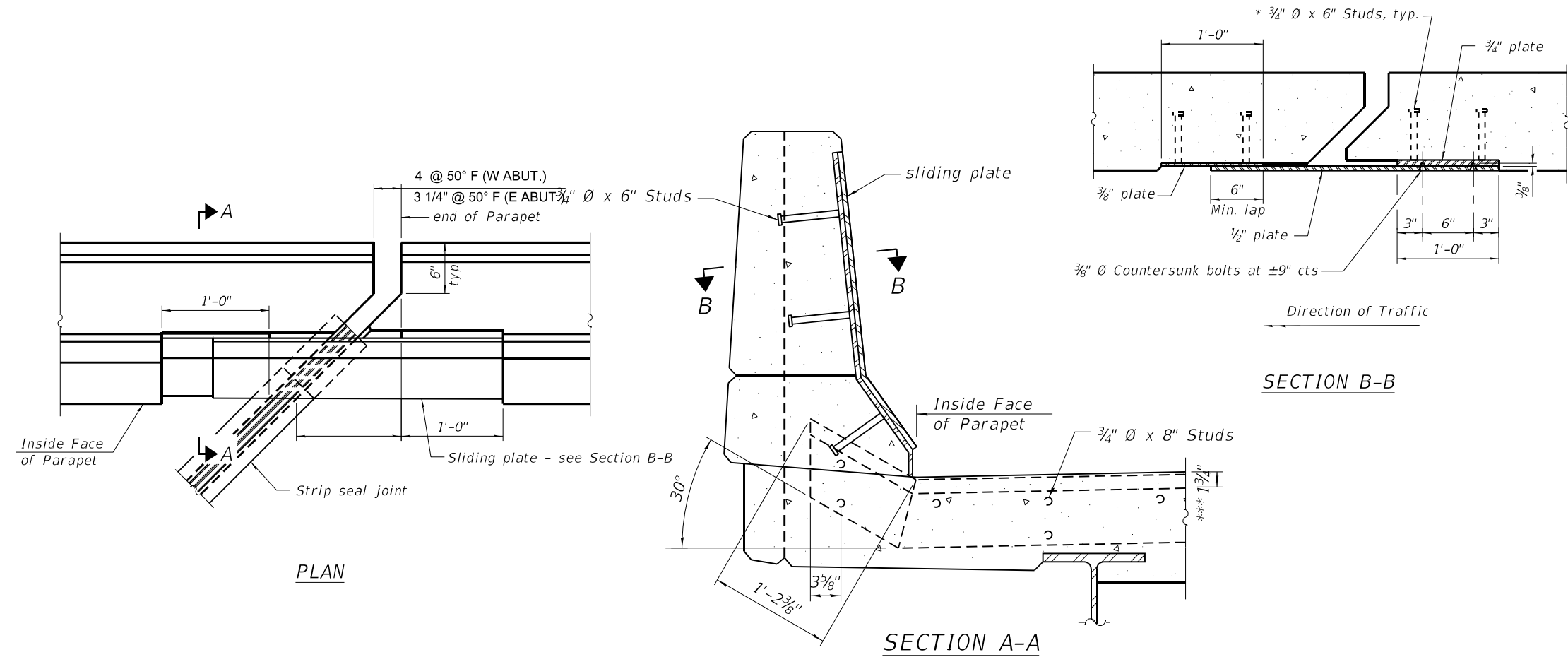
All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

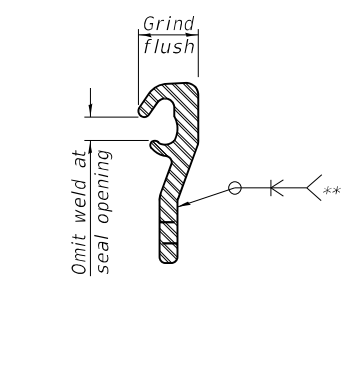
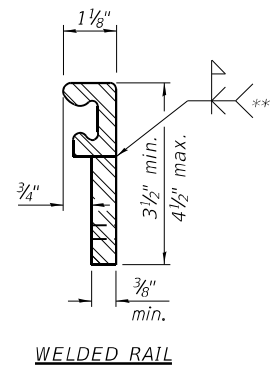
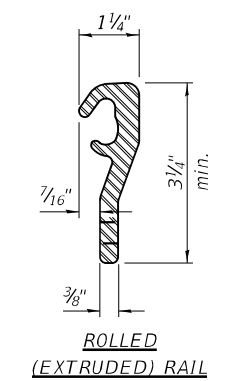
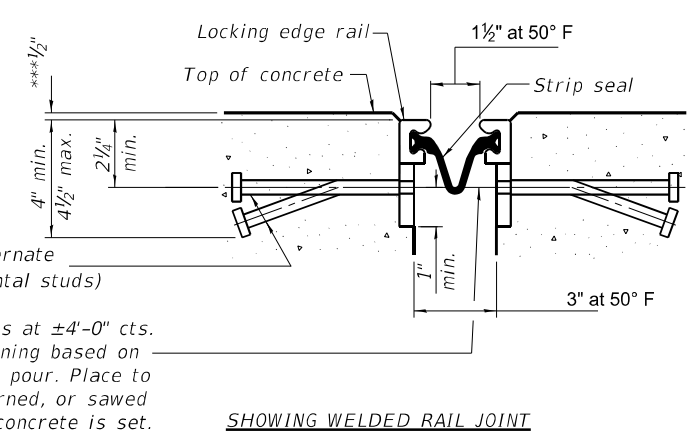
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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**Notes:**  
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.  
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.  
 The manufacturer's recommended installation methods shall be followed.  
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.  
 The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.  
 The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.  
 Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.  
 39" constant slope barrier shown, 44" constant slope barrier similar as noted.  
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



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



**SECTION A-A**

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

**LOCKING EDGE RAILS**

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

**LOCKING EDGE RAIL SPLICE**

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

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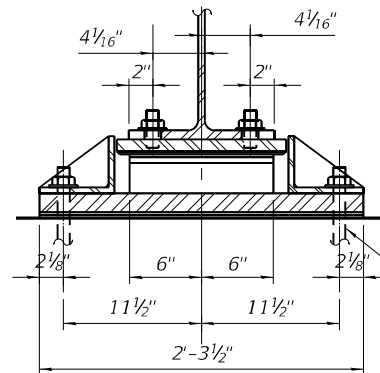


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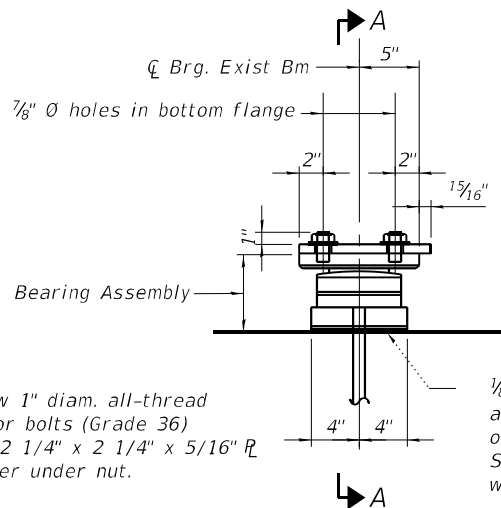
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SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
 BARRIER AND JOINT DETAILS

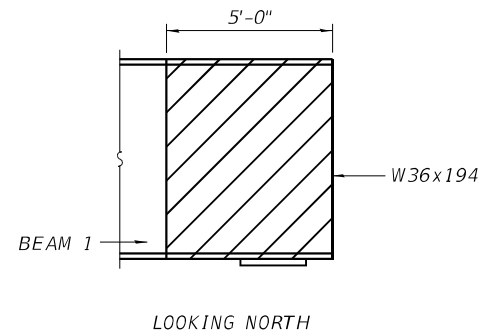
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CONTRACT NO. 64P92				
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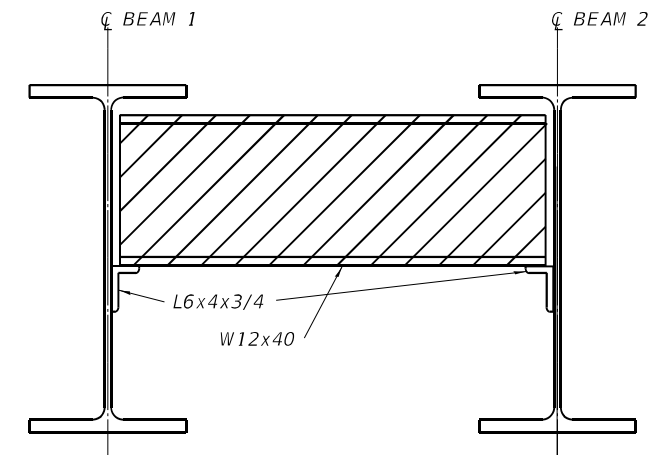
**SECTION A-A**



**ELEVATION AT ABUTMENT**

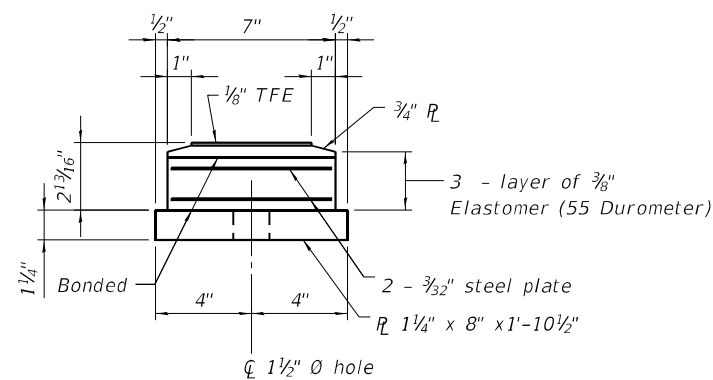


**LOOKING NORTH**

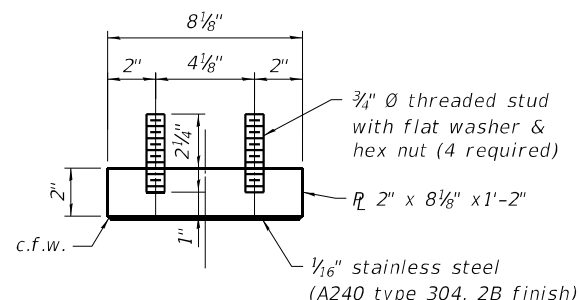


**ELEVATION**

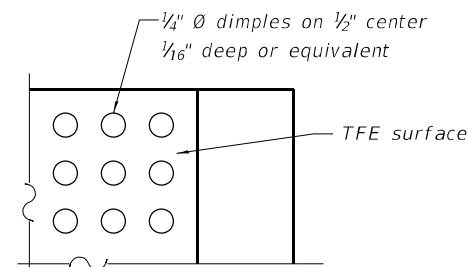
Clean and Paint end diaphragm between Beam 1 and 2 at E. Abut.  
Clean and Paint 5'-0" From the east end of Beam 1.  
All exposed faces for both members.



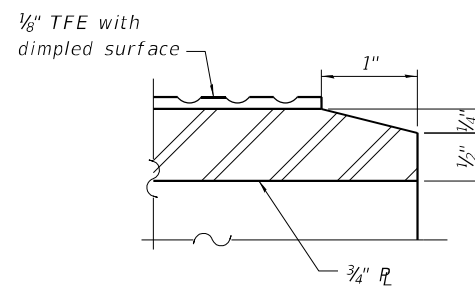
**BOTTOM BEARING ASSEMBLY**



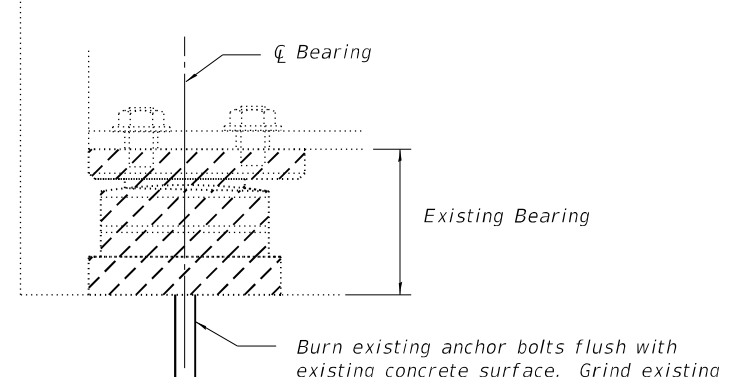
**TOP BEARING ASSEMBLY**



**PLAN-TFE SURFACE**

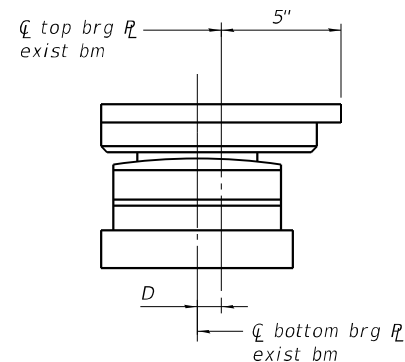


**SECTION THRU TFE**



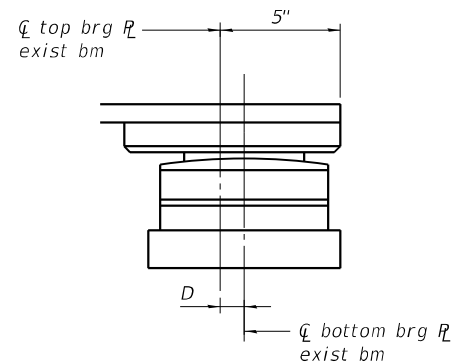
**EXISTING BEARING REMOVAL DETAIL**

Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost is included with "Jack and Remove Existing Bearings".



**ABOVE 50° F**

(move bottom brg toward fixed brg)

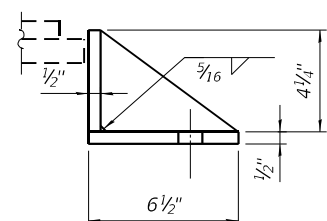


**BELOW 50° F**

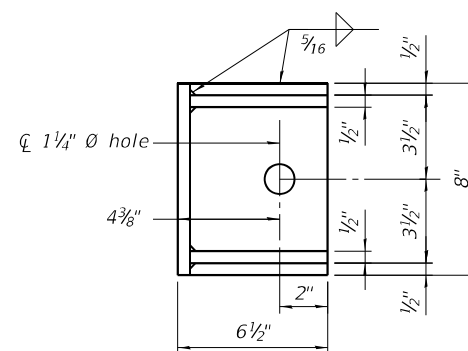
(move bottom brg away from fixed brg)

**SETTING ANCHOR BOLTS AT EXP BRG E ABUT**

$D = \frac{1}{8}$ " per each 100' of expansion for every 15° temp change from the normal temp of 50° F.



**SIDE RETAINER E. ABUT**



**JACK AND REMOVE EXISTING BEARING PROCEDURE**

1. The contractor shall submit for approval by the Engineer, plans for jacking existing beams and installing new bearings prior to commencing any field work. Minimum jack capacity is 50 tons.
2. Prior to ordering any material, the Contractor shall verify in the field the bearing height and all dimensions.
3. Jacking and removing existing bearings shall be done after the existing joint is removed and prior to placing the new joint.
4. Existing anchor bolts to be burnt flush with the existing concrete surface, ground smooth and sealed with epoxy.
5. Jacking lifts shall be limited in accordance with the special provision "Jack and Remove Existing Bearings."
6. The new bearings, plates, and side retainers shall be in place and the jack shall be lowered before the new concrete deck at the joints has been poured.

Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grades and dimensions specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. (Grade 36)  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

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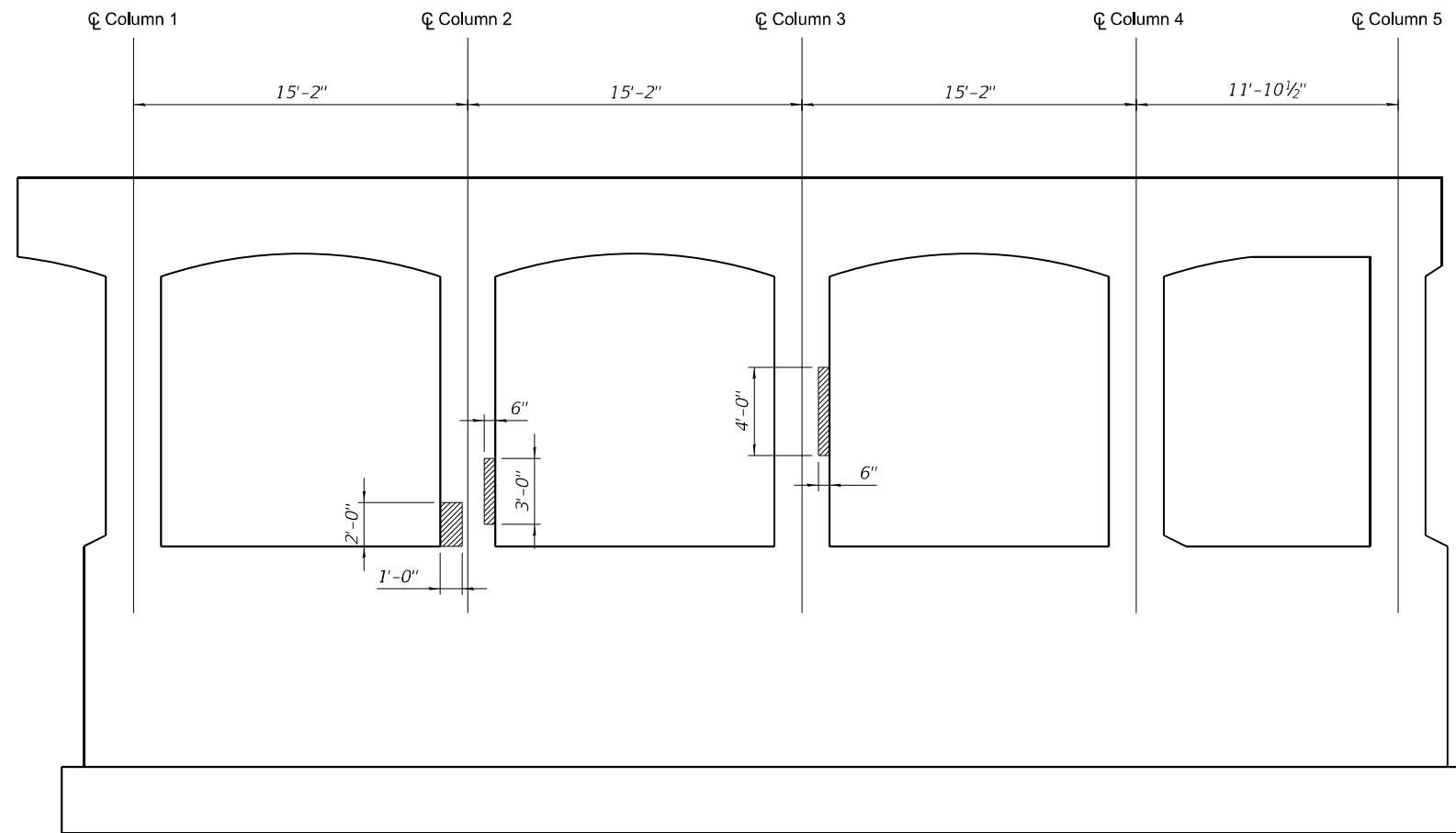
**kpf**  
Consulting Engineers  
1560 Sherman Ave.  
Suite 1020

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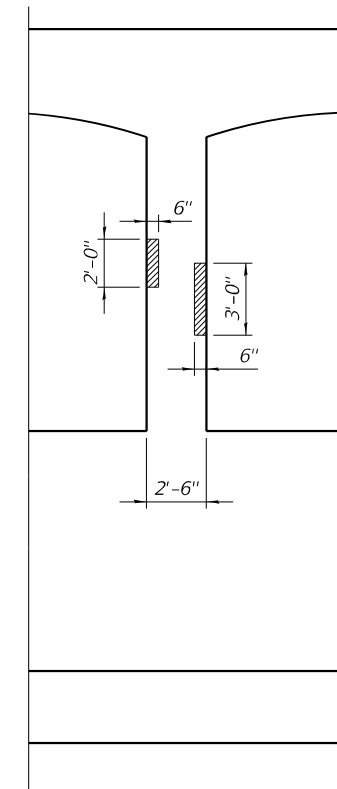
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STEEL REPAIRS

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WEST FACE PIER 2



EAST FACE PIER 2, COLUMN 4

NOTES:

Areas of pier repairs may extend to adjacent faces.  
 Areas of pier repairs estimated by visual inspection.  
 Contractor to notify the engineer if, during the course of repairs, additional areas of loose or delaminated concrete with exposed reinforcing steel are discovered.

LEGEND:

Area of Concrete Repair

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SN 098-0005 US 30 CROSSING UP RR at UNION GROVE  
 PIER REPAIRS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	(17R-1VBR)BDR	WHITESIDE	19	19
CONTRACT NO. 64P92				
ILLINOIS FED. AID PROJECT				