

### HMA SCHEDULE

LOCATION	40600290	40600370	40600985	40604162	NOTES
	BITUMINOUS MATERIALS (TACK COAT)	LONGITUDINAL JOINT SEALANT	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	
	POUND	FOOT	SQ YD	TON	
<i>FAP 67 (IL 97)</i>					
STA 40+08.0 TO 40+43.0	70	70	155.6	13.1	BUTT JOINT
STA 40+43.0 TO 41+00.2	114	114		21.4	APPROACH OVERLAY
STA 42+02.8 TO 42+73.3	141	141		26.3	APPROACH OVERLAY
STA 42+73.3 TO 43+08.3	70	70	155.6	13.1	BUTT JOINT
<b>TOTAL</b>	<b>395</b>	<b>395</b>	<b>311.1</b>	<b>73.8</b>	
<b>USE</b>	<b>395</b>	<b>395</b>	<b>312</b>	<b>74</b>	

### INLET SCHEDULE

LOCATION	60260100	Z0010615
	INLETS TO BE ADJUSTED	CLEANING EXISTING INLETS
	EACH	EACH
SN 084-0183		
WEST APPROACH	2	2
<b>TOTAL</b>	<b>2</b>	<b>2</b>

### EXPANSION JOINT REPLACEMENT SCHEDULE

LOCATION	X4420557	Z0073346	NOTES
	CLASS A PATCHES, TYPE III, 10 INCH (SPECIAL)	SLEEPER SLAB	
	SQ YD	SQ YD	
<i>FAP 67 (IL 97)</i>			
STA 39+94.0 TO 40+08.0	56.0		
STA 39+96.0 TO 40+04.0		32.0	
STA 43+08.3 TO 43+22.3	56.0		
STA 43+12.3 TO 43+20.3		32.0	
<b>TOTAL</b>	<b>112</b>	<b>64.0</b>	
<b>USE</b>	<b>112</b>	<b>64</b>	

### RAISED REFLECTIVE PM SCHEDULE

LOCATION	78300200
	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
	EACH
<i>FAP 67 (IL 97)</i>	
STA 39+94.00 TO STA 41+00.24	4
STA 42+02.82 TO STA 43+22.27	2
<b>TOTAL</b>	<b>6</b>

### TEMPORARY CONCRETE BARRIER

ACTIVITY/ STAGE	70400100	70400200
	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER
	FOOT	FOOT
SN 084-0183 STAGE 1	467	
SN 084-0183 STAGE 2		467
<b>TOTAL</b>	<b>467</b>	<b>467</b>

### TEMPORARY RAMP SCHEDULE

LOCATION	40600990	NOTES
	TEMPORARY RAMP	
	SQ YD	
STA 40+08.00 TO STA 40+14.00	26.7	6' X 40'
STA 40+94.24 TO STA 41+00.24	26.7	6' X 40'
STA 42+02.82 TO STA 42+08.82	26.7	6' X 40'
STA 43+02.27 TO STA 43+08.27	26.7	6' X 40'
<b>TOTAL</b>	<b>107</b>	

### PAVEMENT MARKINGS SCHEDULE

LOCATION	78009005	NOTES
	MODIFIED URETHANE PAVEMENT MARKING LINE 5"	
	FOOT	
<i>FAP 67 (IL 97)</i>		
STA 39+94.0 TO 43+22.3	82	SKIPPED DASH (WHITE)
<b>TOTAL</b>	<b>82</b>	

△ REVISED SHEET 4-19-2022

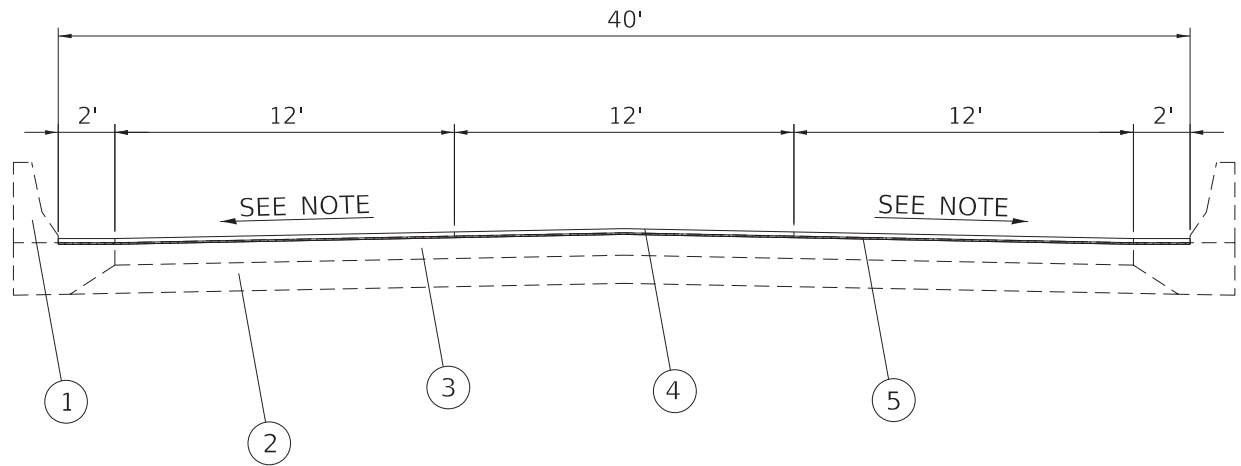
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	DRAWN - _____	REVISED - _____
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PLOT DATE = 2/14/2022	DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

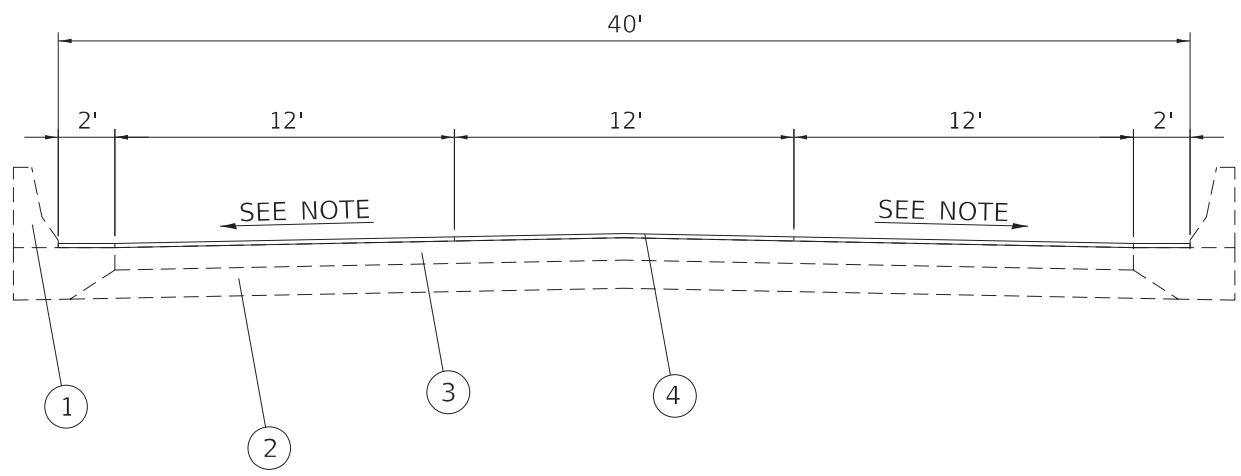
<b>SCHEDULE OF QUANTITIES</b>			
<b>FAP 67 (IL97 / MADISON ST)</b>			
SCALE: N/A	SHEET 1	OF 1 SHEETS	STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(1072) BDR-1	SANGAMON	24	5
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				



TYPICAL SECTION MADISON STREET

STA. 40+08.00 TO STA. 40+43.00 (BUTT JOINT)  
 STA. 42+73.27 TO STA. 43+08.27 (BUTT JOINT)



TYPICAL SECTION MADISON STREET

STA. 40+43.00 TO STA. 41+00.24  
 STA. 41+00.24 TO STA. 42+02.82 BRIDGE OMISSION  
 STA. 42+02.82 TO STA. 42+73.27

**LEGEND**

- ① EX CONCRETE PARAPET
- ② EX SUB-BASE GRANULAR MATERIAL 12"
- ③ EX PORTLAND CEMENT CONCRETE PAVEMENT 9 1/2" WITH PAVEMENT FABRIC
- ④ PR POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70 (1 3/4")
- ⑤ PR. HMA SURFACE REMOVAL (BUTT JOINT)

NOTE: TRANSITION FROM 2.1% @ STA.41+50 TO 1.6% @ BK.W. ABUT & TRANSITION FROM 1.6% SLOPE @BK.E.ABUT TO 2.1% SLOPE @ STA. 42+53.00

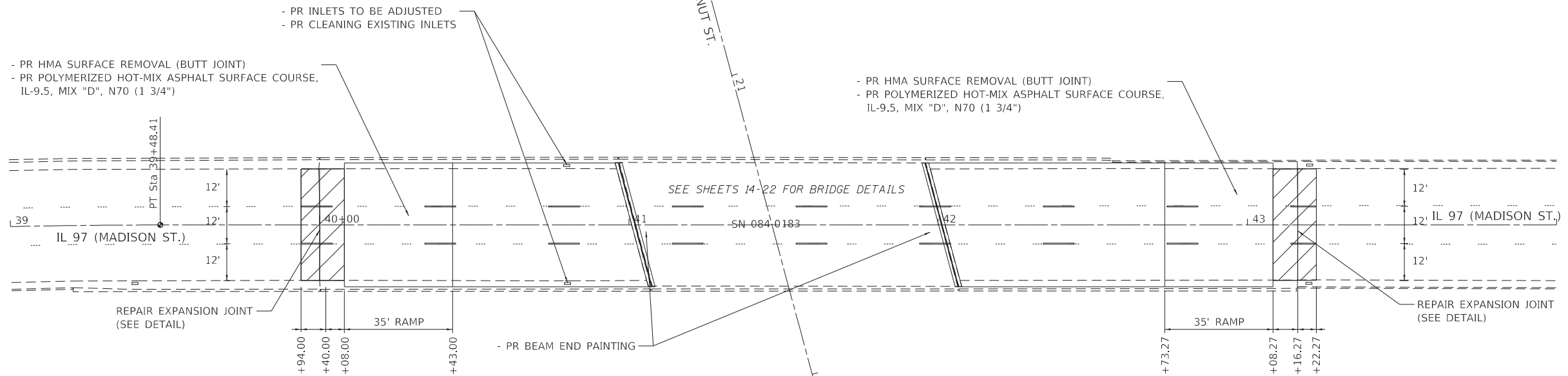
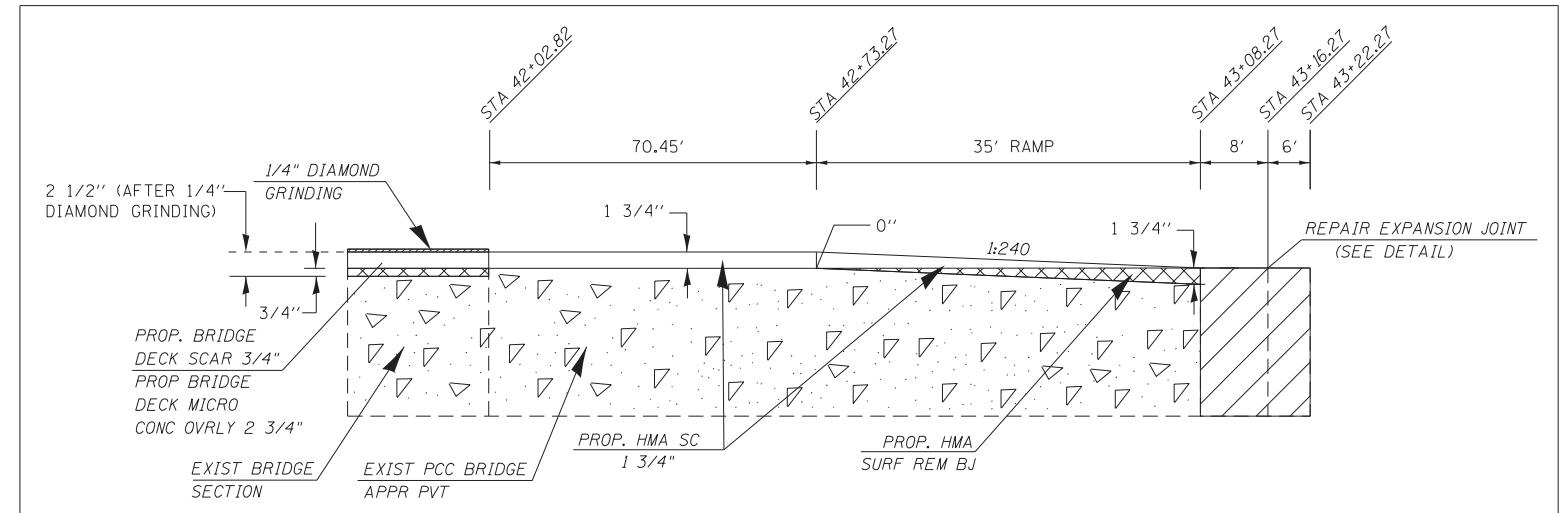
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△ REVISED SHEET 4-19-2022

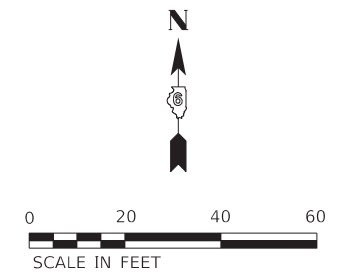
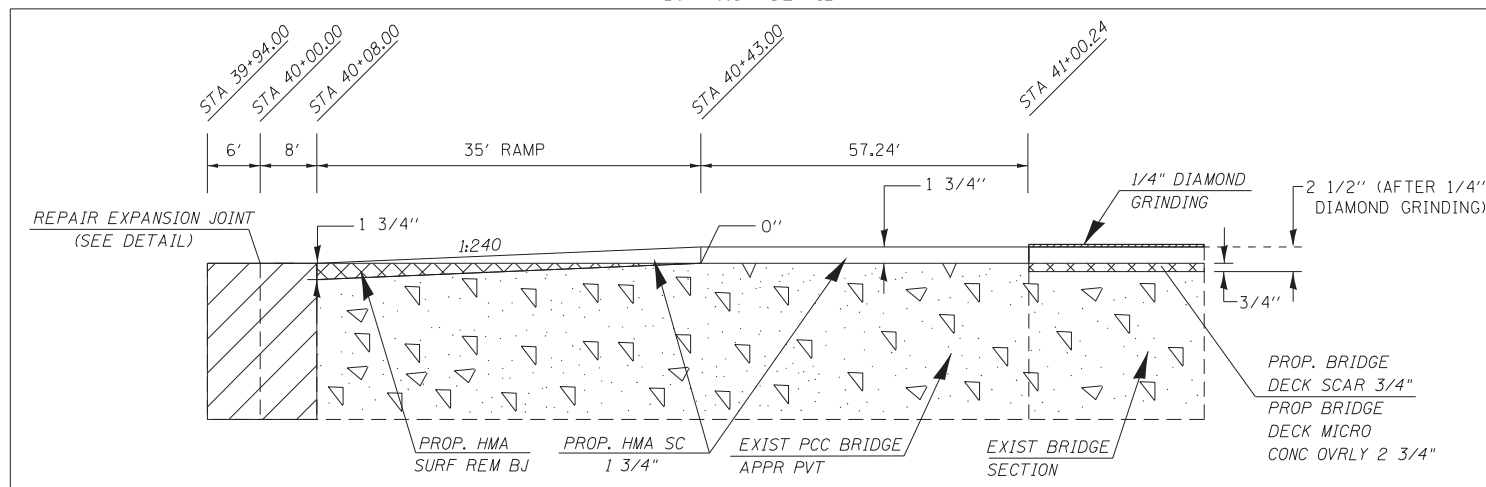
USER NAME = milesra DESIGNED - _____ DRAWN - _____ PLOT SCALE = NOT TO SCALE CHECKED - _____ PLOT DATE = 2/11/2022 DATE - _____	DESIGNED - _____ DRAWN - _____ CHECKED - _____ DATE - _____	REVISED - _____ REVISED - _____ REVISED - _____ REVISED - _____	<b>STATE OF ILLINOIS          DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS          FAP 67 (IL97 / MADISON ST)</b>	SCALE: N/A SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A	<table border="1"> <tr> <th>F.A.P. RTE.</th> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>67</td> <td>(107Z) BDR-1</td> <td>SANGAMON</td> <td>24</td> <td>6</td> </tr> <tr> <td colspan="5">CONTRACT NO. 72M29</td> </tr> <tr> <td colspan="5">ILLINOIS FED. AID PROJECT</td> </tr> </table>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	67	(107Z) BDR-1	SANGAMON	24	6	CONTRACT NO. 72M29					ILLINOIS FED. AID PROJECT				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																						
67	(107Z) BDR-1	SANGAMON	24	6																						
CONTRACT NO. 72M29																										
ILLINOIS FED. AID PROJECT																										

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BUTT JOINT DETAIL



BUTT JOINT DETAIL



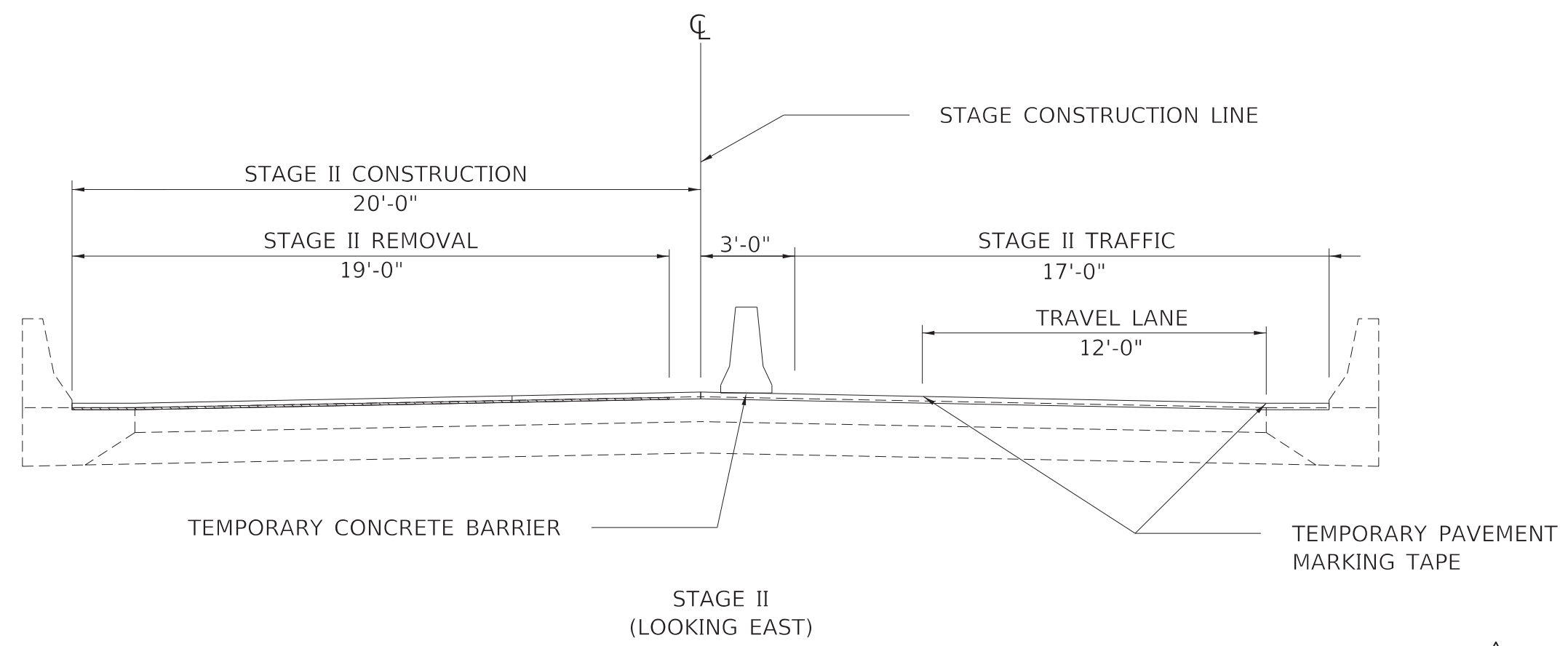
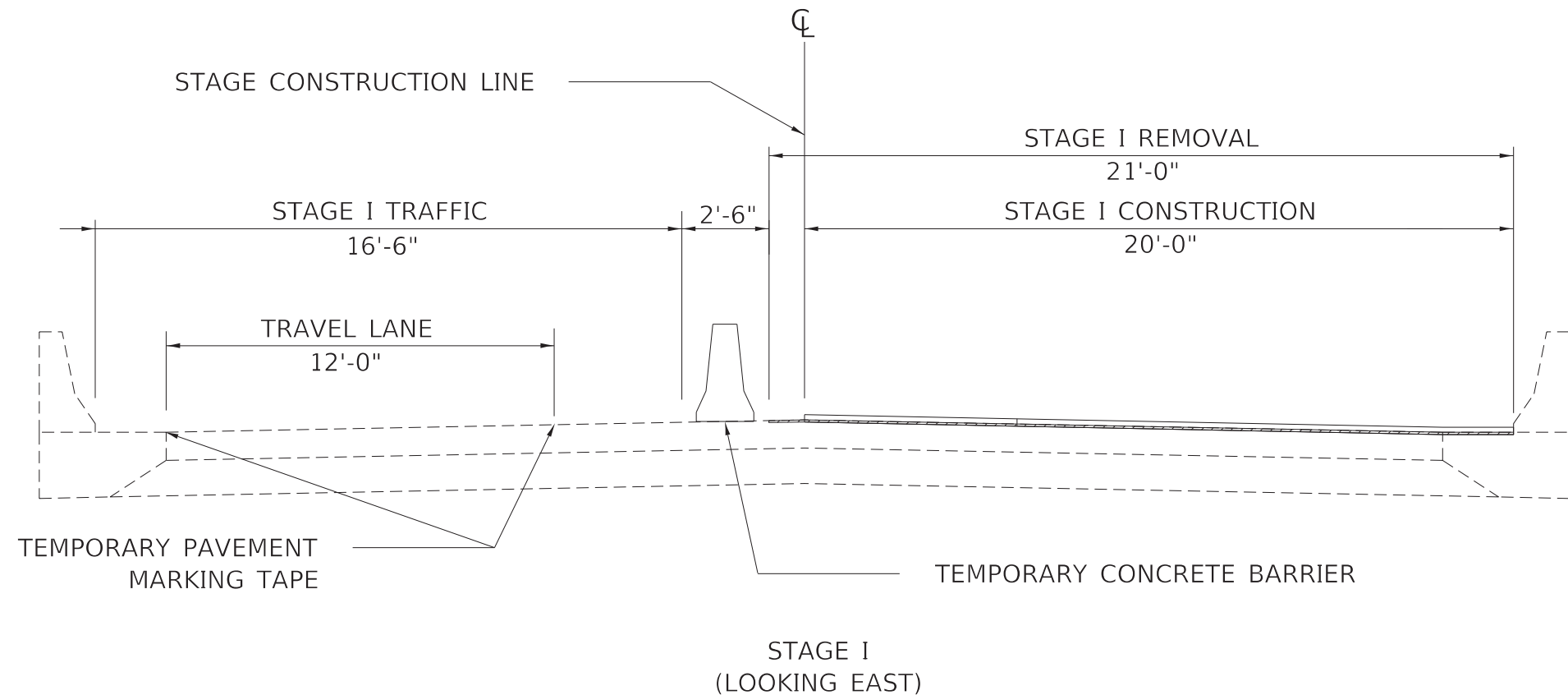
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PLOT DATE = 2/11/2022	DATE - _____	REVISOR - _____

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>PLAN SHEET</b>			
<b>FAP 67 (IL97 / MADISON ST)</b>			
SCALE: 20	SHEET 1	OF 1 SHEETS	STA. 39+00.00 TO STA. 44+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(1072) BDR-1	SANGAMON	24	7
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				



REVIS<sup>2</sup> SHEET 4-19-2022

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PLOT DATE = 2/11/2022	DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**






**STAGING TYPICAL SECTIONS - STAGE 1  
FAP 67 (IL97 / MADISON ST)**

SCALE: N/A    SHEET 1 OF 1 SHEETS    STA. N/A    TO STA. N/A

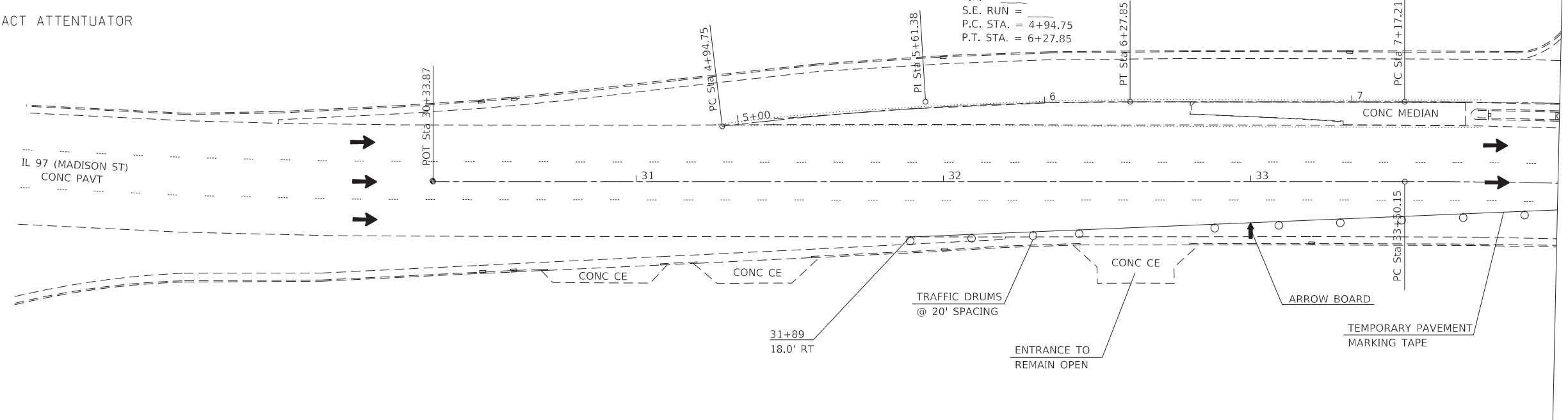
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67	(107Z) BDR-1	SANGAMON	24	8
CONTRACT NO. 72M29			ILLINOIS FED. AID PROJECT	



LEGEND

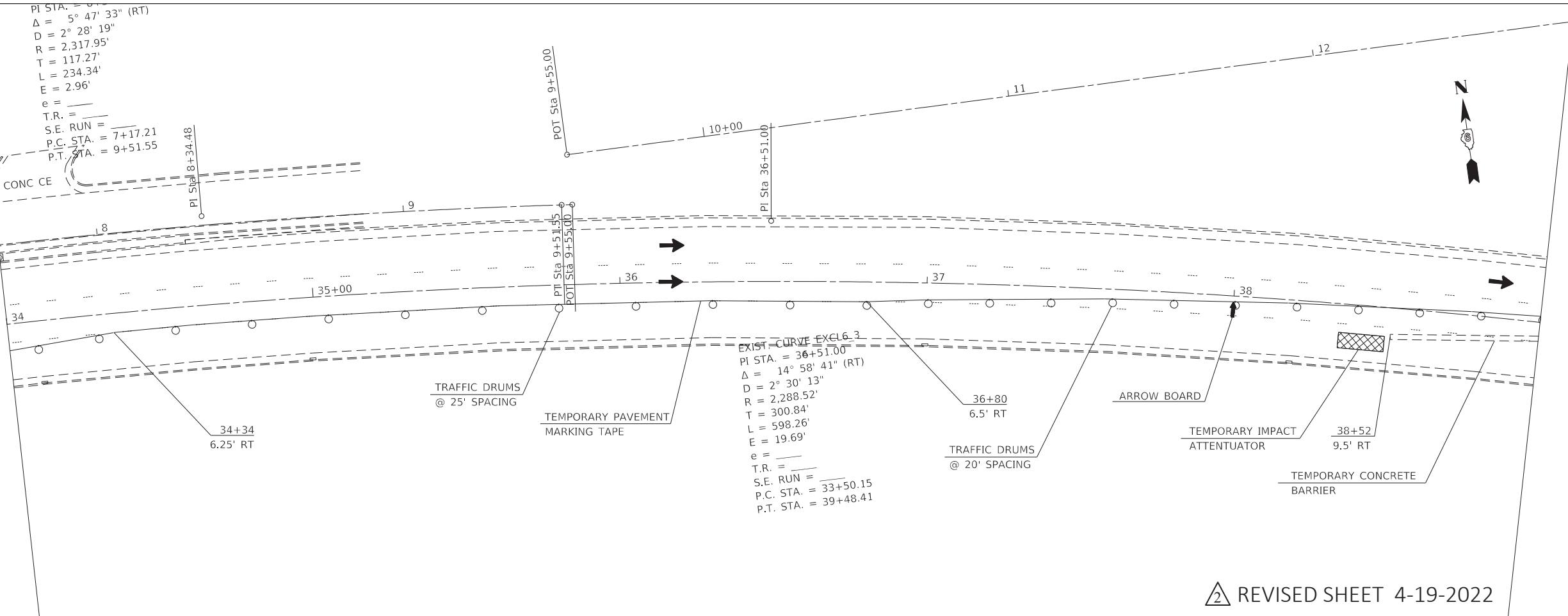
-  DRUM WITH STEADY BURNING LIGHTS
-  WORK AREA
-  DIRECTION OF TRAFFIC
-  SIGN
-  TEMPORARY IMPACT ATTENUATOR

EXIST. CURVE EXCL9\_1  
 PI STA. = 5+61.38  
 $\Delta = 6^\circ 53' 45''$  (RT)  
 D = 5° 10' 51"  
 R = 1,105.91'  
 T = 66.63'  
 L = 133.10'  
 E = 2.01'  
 e = \_\_\_\_\_  
 T.R. = \_\_\_\_\_  
 S.E. RUN = \_\_\_\_\_  
 P.C. STA. = 4+94.75  
 P.T. STA. = 6+27.85



PI STA. = 7+17.21  
 $\Delta = 5^\circ 47' 33''$  (RT)  
 D = 2° 28' 19"  
 R = 2,317.95'  
 T = 117.27'  
 L = 234.34'  
 E = 2.96'  
 e = \_\_\_\_\_  
 T.R. = \_\_\_\_\_  
 S.E. RUN = \_\_\_\_\_  
 P.C. STA. = 7+17.21  
 P.T. STA. = 9+51.55

EXIST. CURVE EXCL6\_3  
 PI STA. = 36+51.00  
 $\Delta = 14^\circ 58' 41''$  (RT)  
 D = 2° 30' 13"  
 R = 2,288.52'  
 T = 300.84'  
 L = 598.26'  
 E = 19.69'  
 e = \_\_\_\_\_  
 T.R. = \_\_\_\_\_  
 S.E. RUN = \_\_\_\_\_  
 P.C. STA. = 33+50.15  
 P.T. STA. = 39+48.41



REVISIED SHEET 4-19-2022

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PLOT DATE = 2/11/2022	DATE - _____	REVISIONS - _____

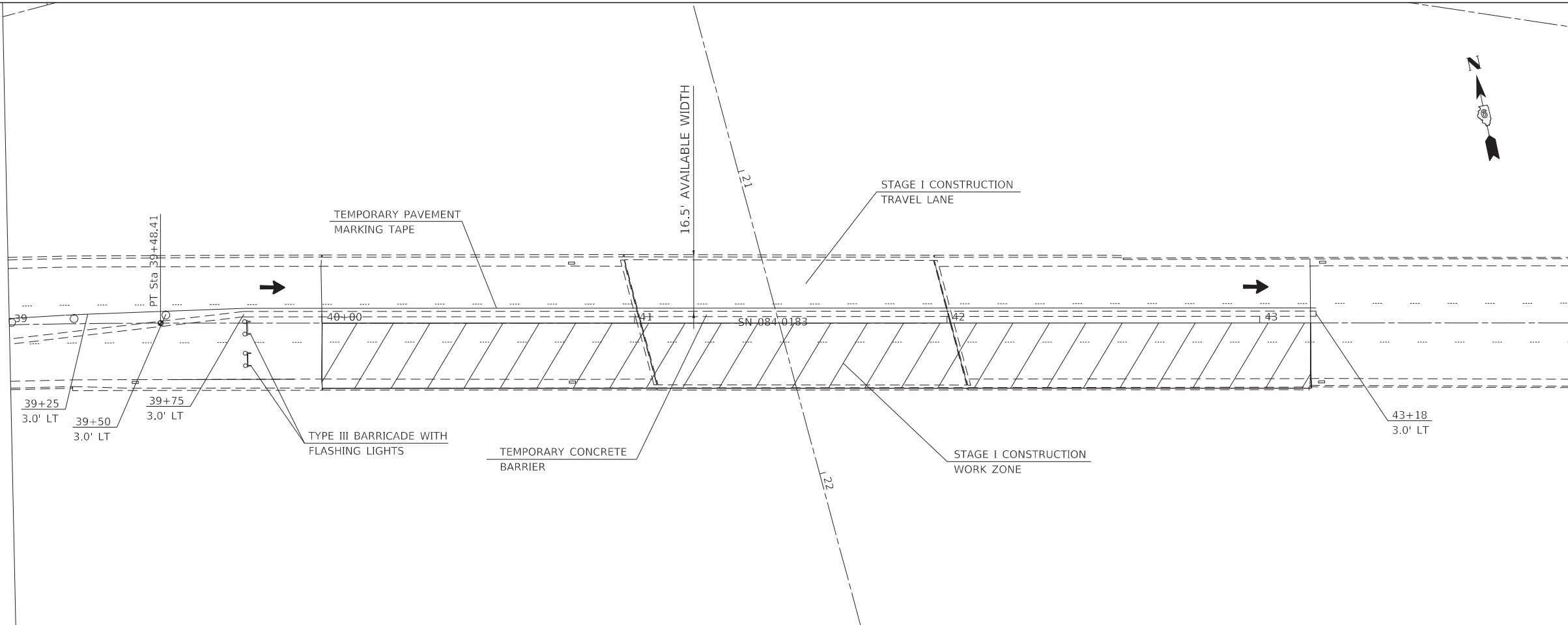
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN - STAGE 1  
 FAP 67 (IL97 / MADISON ST)

SCALE: N/A SHEET 2 OF 5 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE. 67	SECTION (107Z) BDR-1	COUNTY SANGAMON	TOTAL SHEETS 24	SHEET NO. 10
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				

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**2** REVISED SHEET 4-19-2022

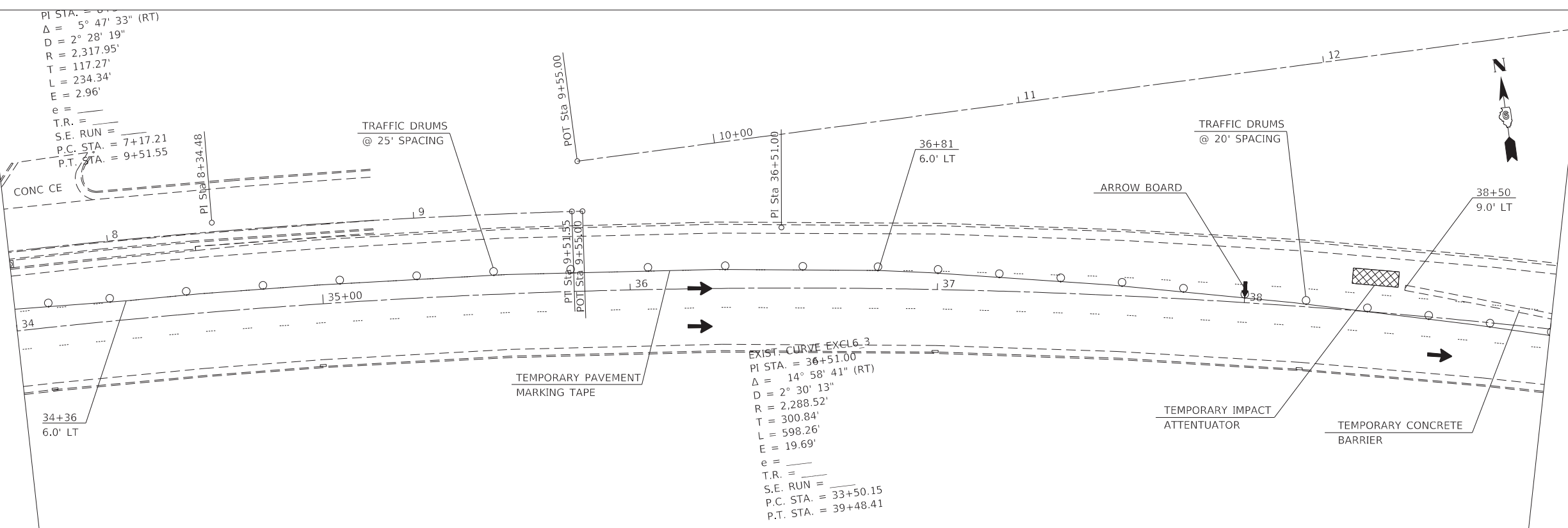
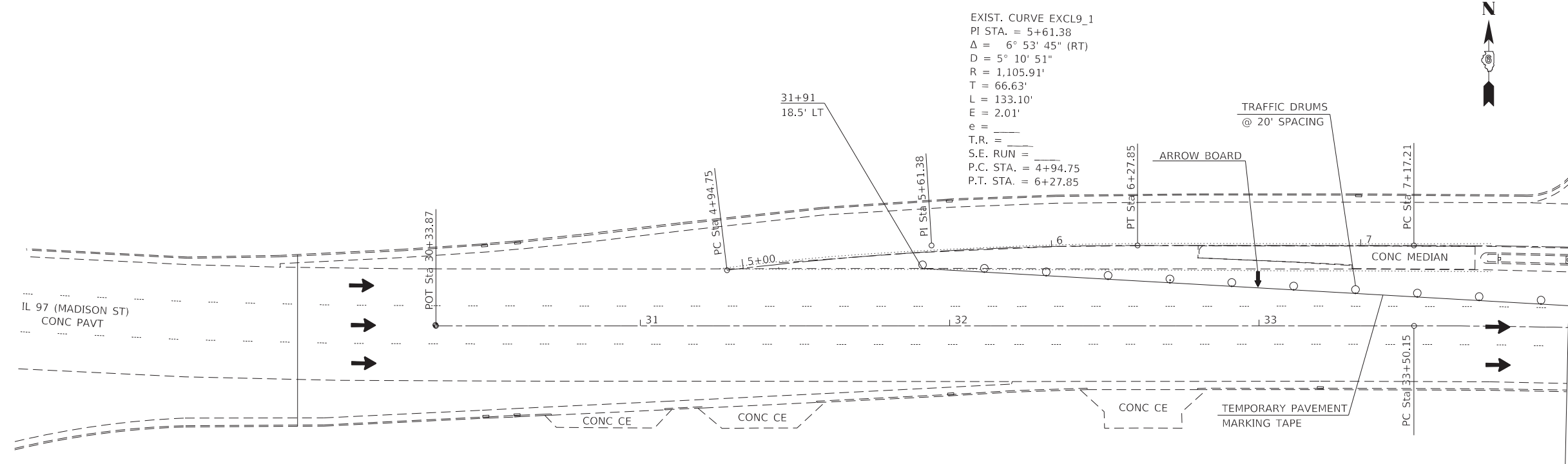
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	DRAWN - _____	REVISED - _____
PLOT SCALE = 40.0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 2/11/2022	DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL PLAN - STAGE 1  
 FAP 67 (IL97 / MADISON ST)**

SCALE: N/A    SHEET 3 OF 5 SHEETS    STA. N/A    TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(107Z) BDR-1	SANGAMON	24	11
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				



REVISOR'S MARK: REVISED SHEET 4-19-2022

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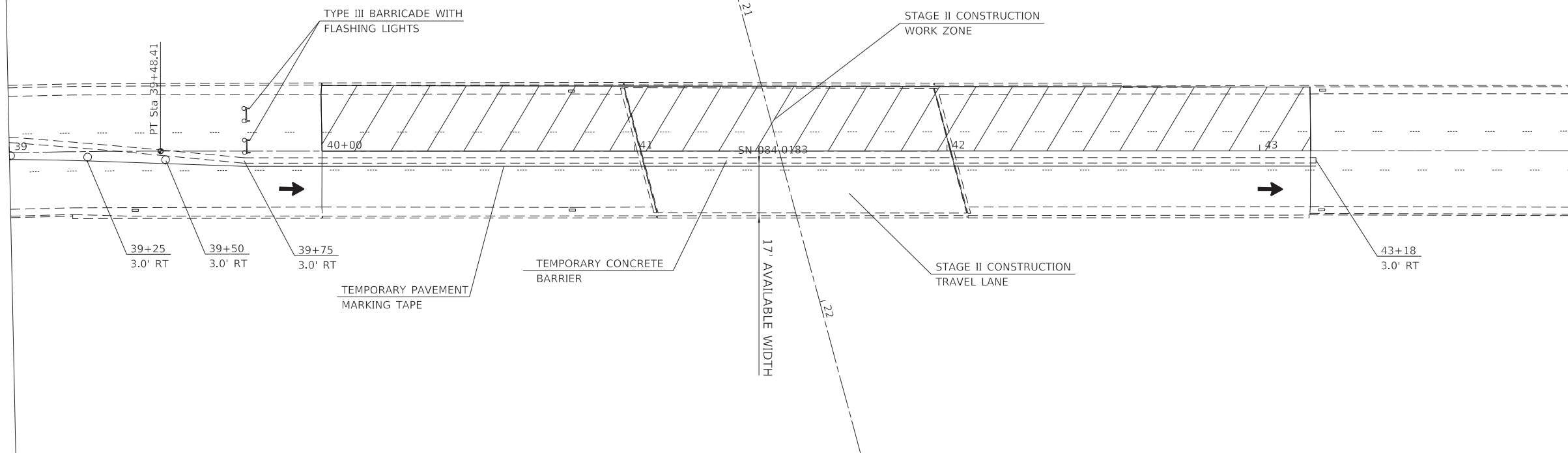
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PLOT DATE = 2/11/2022	DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC CONTROL PLAN - STAGE 2    FAP 67 (IL97 / MADISON ST)</b>			
SCALE: N/A	SHEET 4	OF 5 SHEETS	STA. N/A TO STA. N/A

F.A.P. RTE. 67	SECTION (107Z) BDR-1	COUNTY SANGAMON	TOTAL SHEETS 24	SHEET NO. 12
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				





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2 REVISED SHEET 4-19-2022

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DRAWN - _____	REVISIONS - _____	REVISIONS - _____
PLOT SCALE = 40.0000' / in.	CHECKED - _____	REVISIONS - _____
PLOT DATE = 2/11/2022	DATE - _____	REVISIONS - _____

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

**TRAFFIC CONTROL PLAN - STAGE 2**  
**FAP 67 (IL97 / MADISON ST)**

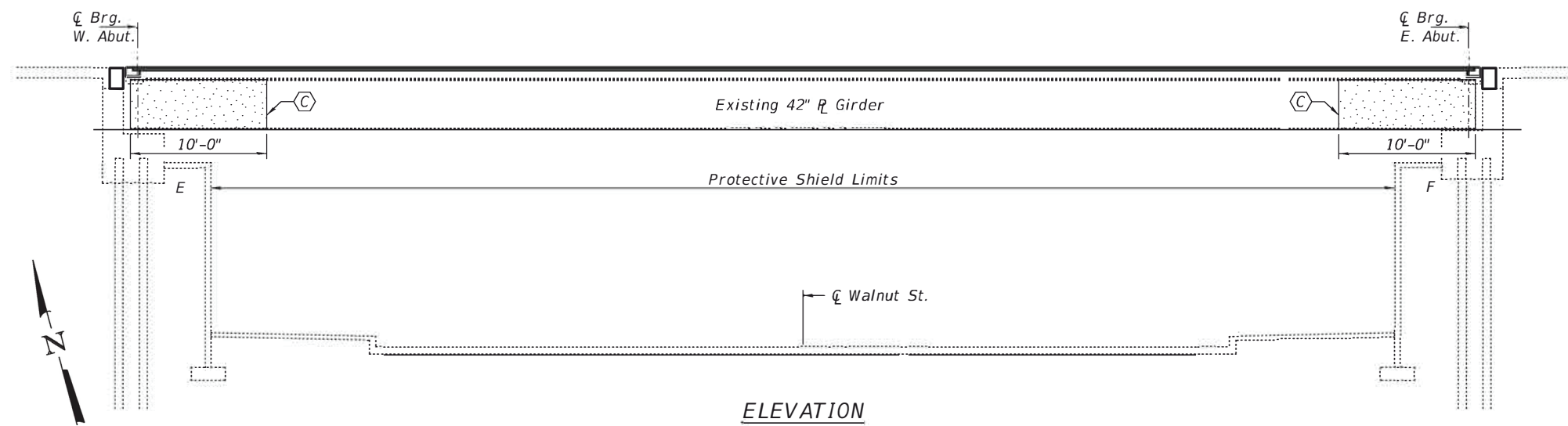
SCALE: N/A    SHEET 5 OF 5 SHEETS    STA. N/A    TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(107Z) BDR-1	SANGAMON	24	13
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				

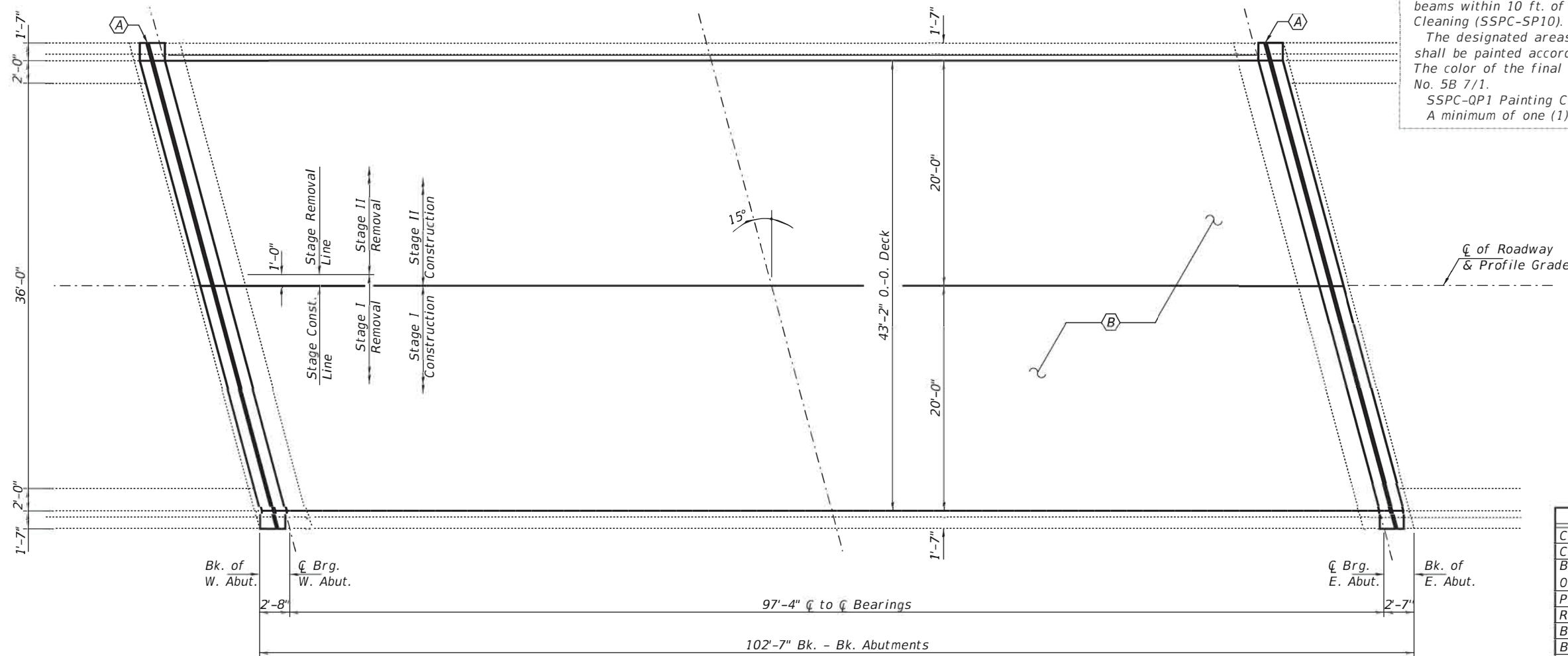
**GENERAL NOTES**

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.  
 Prior to pouring the new concrete deck, 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 replaced with an approved bar splicer or 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 stage construction.

Cleaning and painting of the existing structural steel shall be specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams within 10 ft. of the beam ends shall be cleaned per Near White Blast Cleaning (SSPC-SP10).  
 The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) shall be painted according to the requirements of Paint System 1 (OZ/E/U). The color of the final finish coat for all steel surfaces shall be Gray, Munsell No. 5B 7/1.  
 SSPC-QP1 Painting Contractor Certifications will be required for this contract. A minimum of one (1) air monitor is required for this project.



**ELEVATION**



**PLAN**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	4.3
Concrete Superstructure	Cu. Yd.	5.2
Bridge Deck Microsilica Concrete Overlay 2 3/4"	Sq. Yd.	432
Preformed Joint Strip Seal	Foot	87
Reinforcement Bars, Epoxy Coated	Pound	790
Bar Splicers	Each	8
Bridge Deck Scarification 3/4"	Sq. Yd.	432
Diamond Grinding (Bridge Section)	Sq. Yd.	388
* Protective Coat	Sq. Yd.	452
Protective Shield	Sq. Yd.	405
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	274
Cleaning and Painting Steel Bridge No. 1	L. Sum	1
Containment and Disposal of Non Lead Paint Cleaning Residues No. 1	L. Sum	1
Deck Slab Repair (Full Depth Type II)	Sq. Yd.	5

\* Apply to new concrete only.

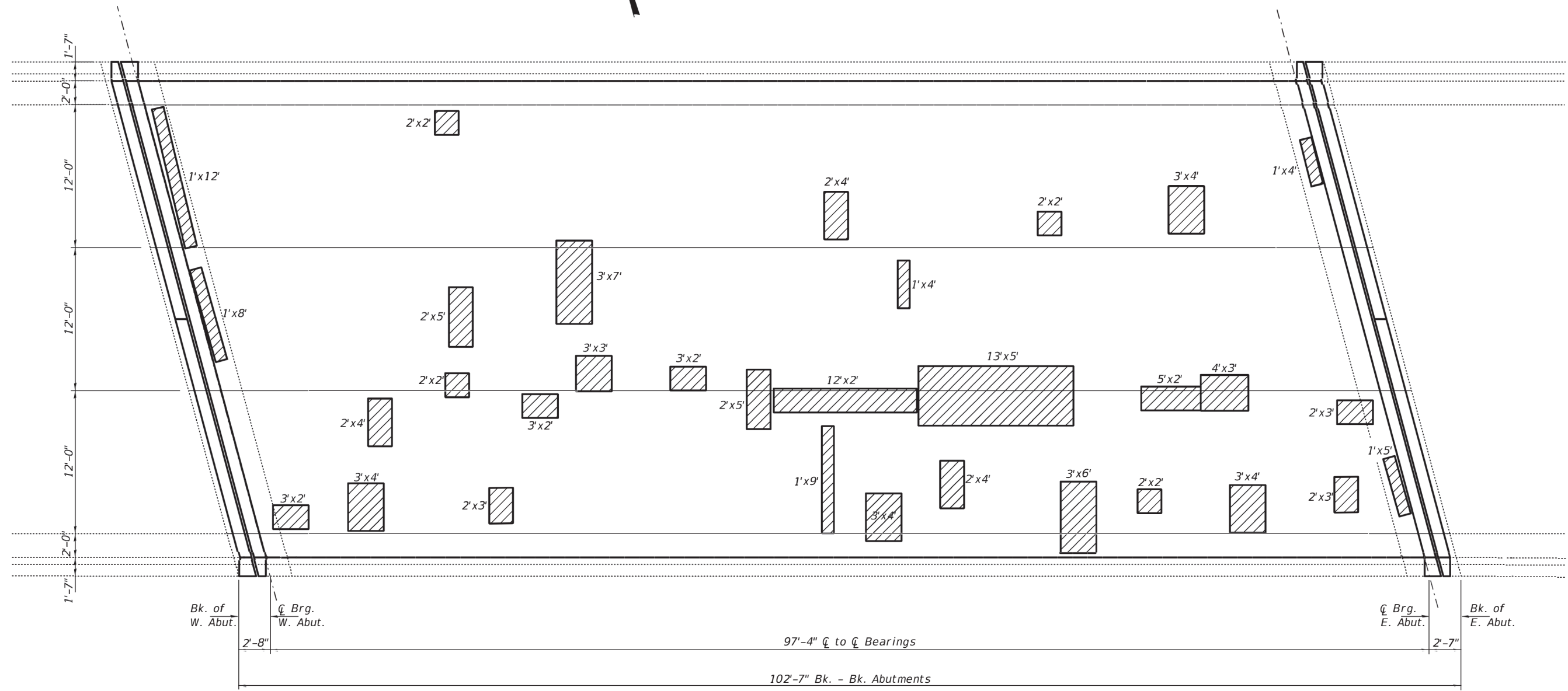
① REVISED 4-14-2022  
 ② REVISED SHEET 4-19-2022

- Ⓐ - Remove existing Neoprene Joints and install new Preformed Joint Strip Seal.
- Ⓑ - 3/4" Bridge Deck Scarification, 2 3/4" Microsilica Concrete Overlay & 1/4" Diamond Grinding
- Ⓒ - Paint 10' of all Beam Ends.



EXPIRES 11-30-2022

DESIGNED - Adrian T. Hal Iowa	EXAMINED - <i>Tig A. Dost</i>	DATE - MARCH 16, 2022	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN AND ELEVATION IL 97 (MADISON STREET) OVER WALNUT STREET SN 084 - 0183</b>	F.A.P. RTE. 67	SECTION (1072) BDR-1	COUNTY SANGAMON	TOTAL SHEETS 24	SHEET NO. 14	
CHECKED - Stephen M. Ryan	PASSED - <i>Jayme F. Schiff</i>	REVISOR 04/13/2022 ATH			CONTRACT NO. 72M29					
DRAWN - Venkat Ramana Reddy	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -			SHEET NO. 1 OF 9 SHEETS					
CHECKED - ATH SMR			ILLINOIS / FED. AID PROJECT							



PLAN

Deck Slab Repair (Partial Depth)

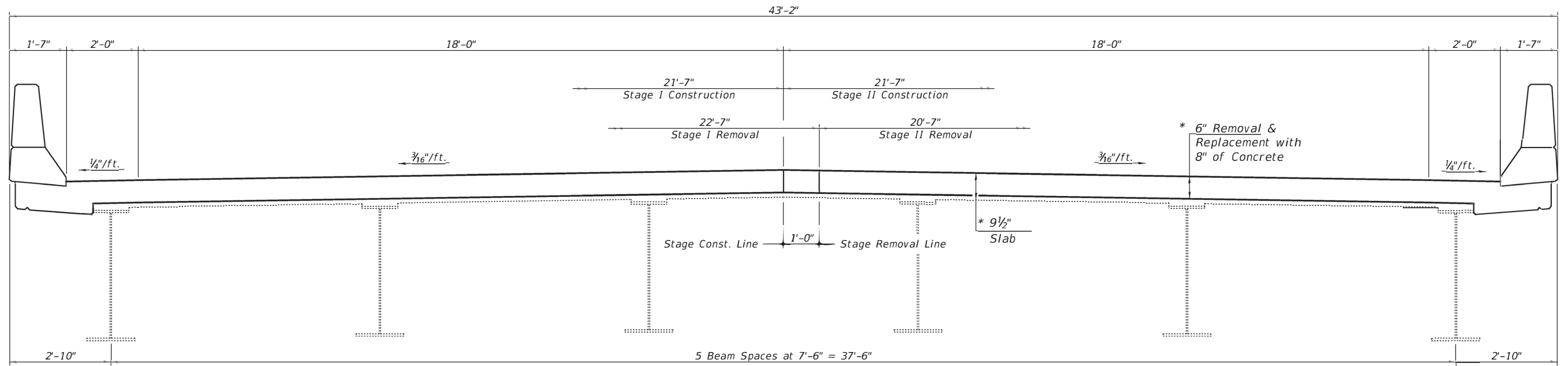
**BILL OF MATERIAL**

Item	Unit	Total
* Deck Slab Repair (Full Depth Type II)	Sq. Yd.	5

\* No Full Depth patches anticipated. Nominal value included.

REVISI**2** SHEET 4-19-2022

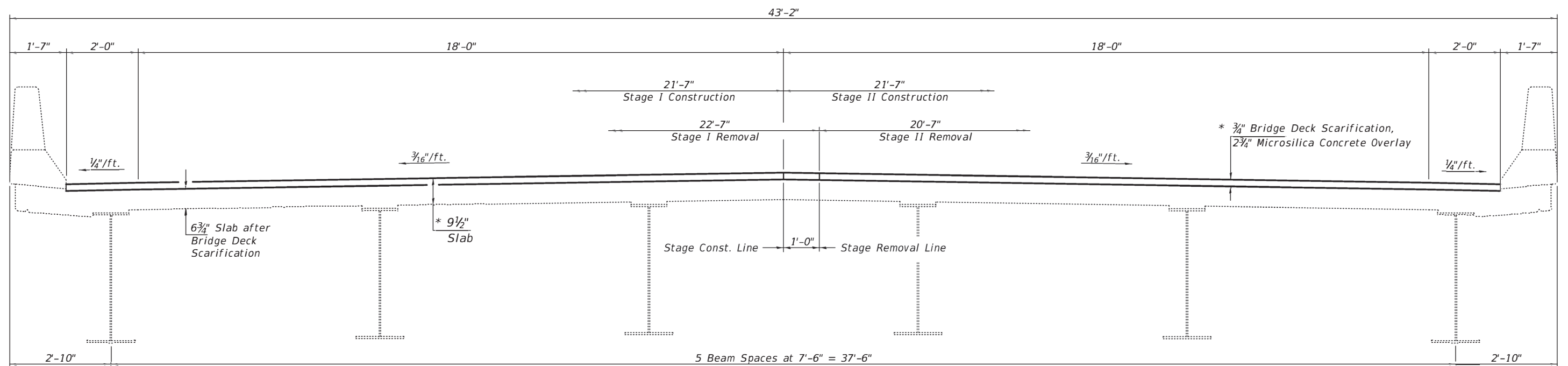
DESIGNED - ATH	EXAMINED -	DATE - MARCH 16, 2022	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DECK REPAIR DETAILS 084 - 0183</b>	F.A.P. RTE. - 67	SECTION - (107Z) BDR-1	COUNTY - SANGAMON	TOTAL SHEETS - 24	SHEET NO. - 15	
CHECKED - SMR	PASSED -	REVISED -			CONTRACT NO. 72M29					
DRAWN - Venka Ramana Reddy	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			SHEET NO. 2 OF 9 SHEETS					
CHECKED - ATH	SMR				ILLINOIS FED. AID PROJECT					



**CROSS SECTION AT ABUTMENTS**

(Looking West)

\* Prior to 1/4" Diamond Grinding



**CROSS SECTION AT MID SPAN**

(Looking West)

REVISD SHEET 4-19-2022

DESIGNED - ATH  
 CHECKED - SMR  
 DRAWN - Venkat Ramana Reddy  
 CHECKED - ATH SMR

EXAMINED  
 PASSED  
 ENGINEER OF STRUCTURAL SERVICES  
 ENGINEER OF BRIDGES AND STRUCTURES

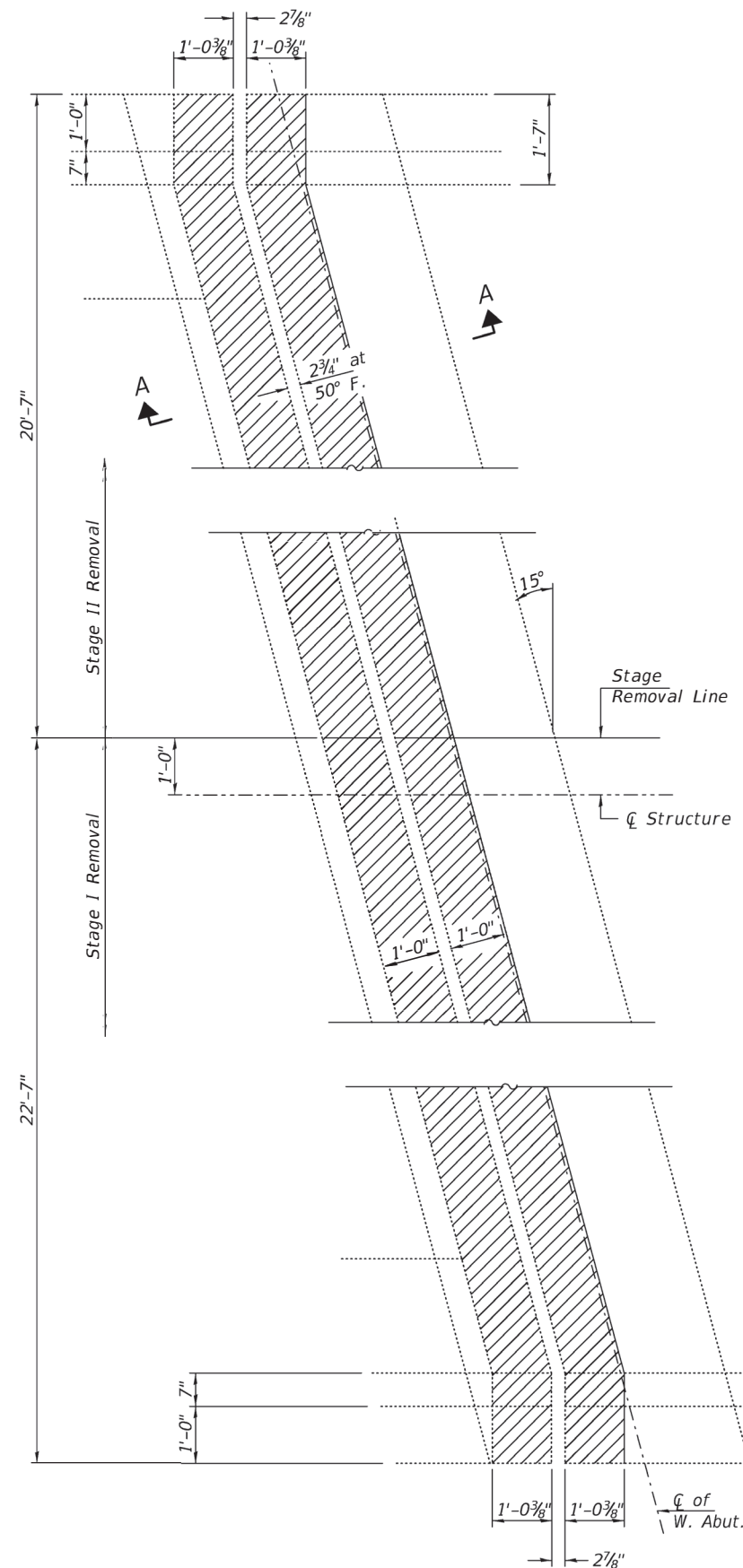
DATE - MARCH 16, 2022  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

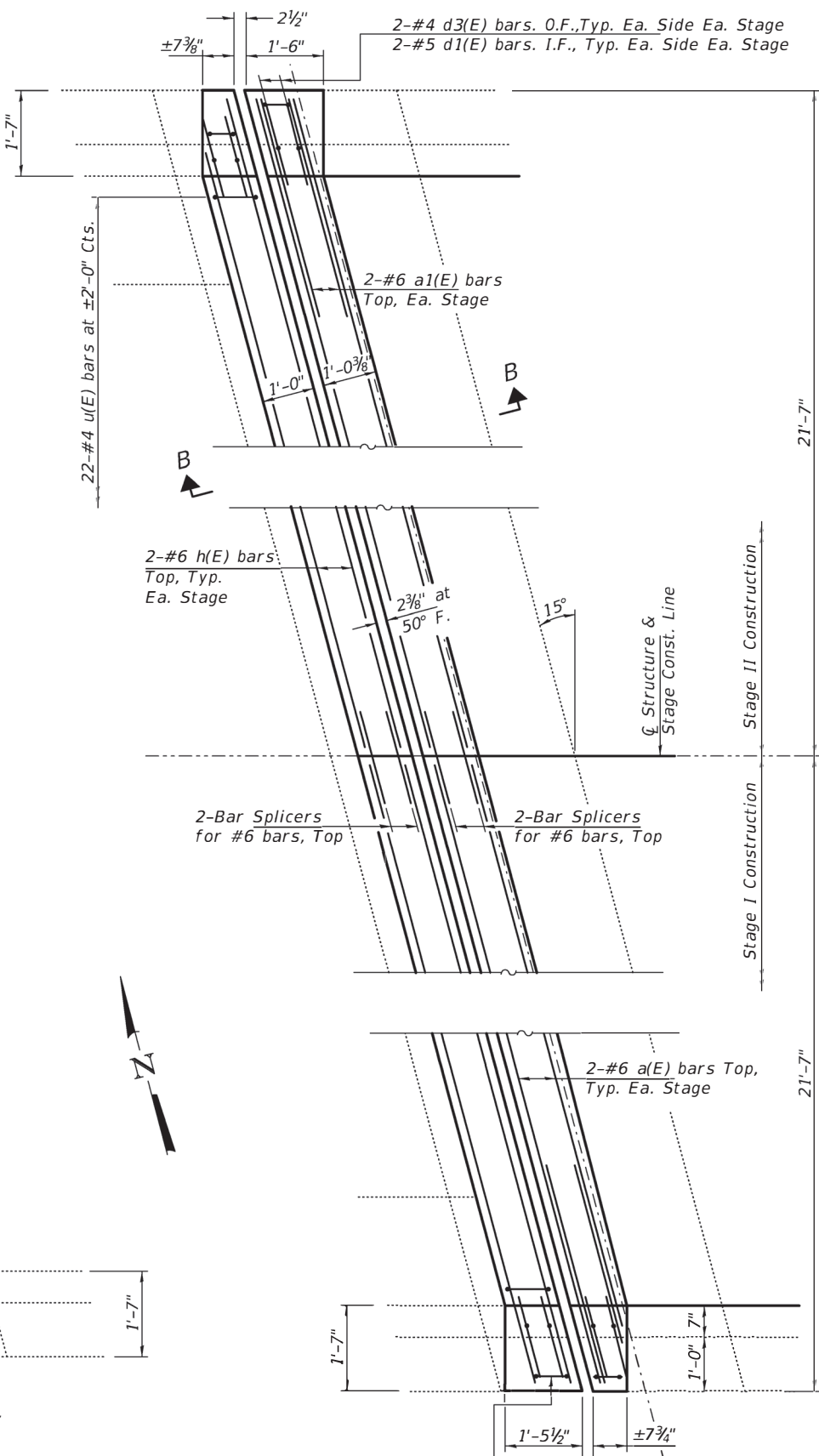
CROSS SECTIONS & STAGING DETAILS  
 084 - 0183

SHEET NO. 3 OF 9 SHEETS

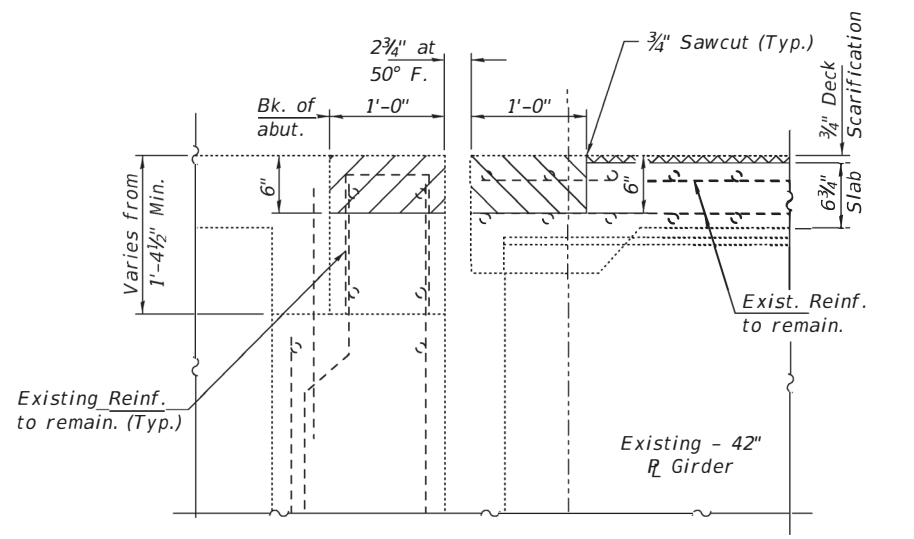
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(107Z) BDR-1	SANGAMON	24	16
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				



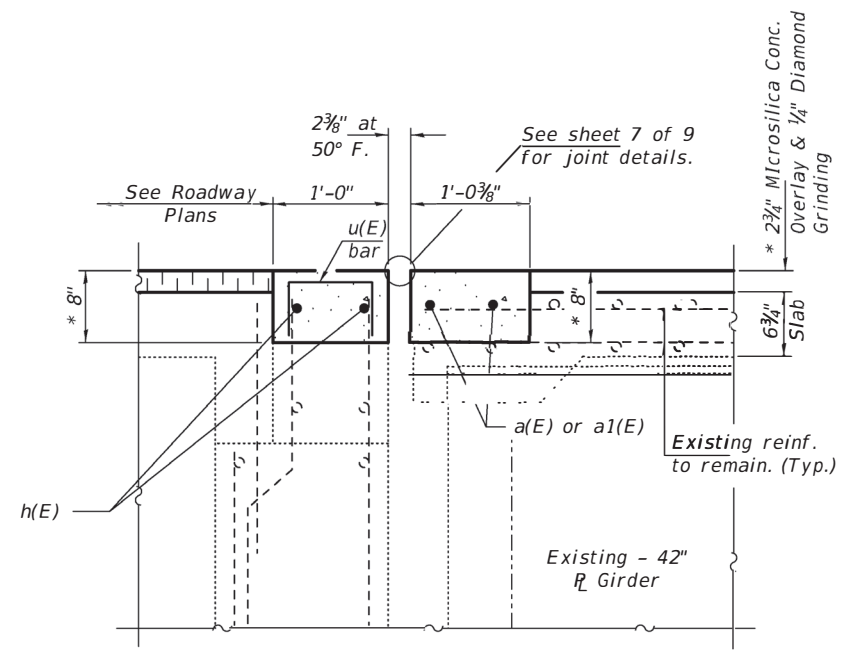
**REMOVAL PLAN**  
(West Abutment)



**REPLACEMENT PLAN**  
(West Abutment)



**SECTION A-A**



**SECTION B-B**

\* Prior to 1/4" Grinding

Note:  
See Sheet 6 of 9 for Reinforcement and Parapet Details.

DESIGNED - ATH  
CHECKED - SMR  
DRAWN - Venkat Ramana Reddy  
CHECKED - ATH SMR

EXAMINED  
PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

DATE - MARCH 16, 2022  
REVISED -  
REVISED -

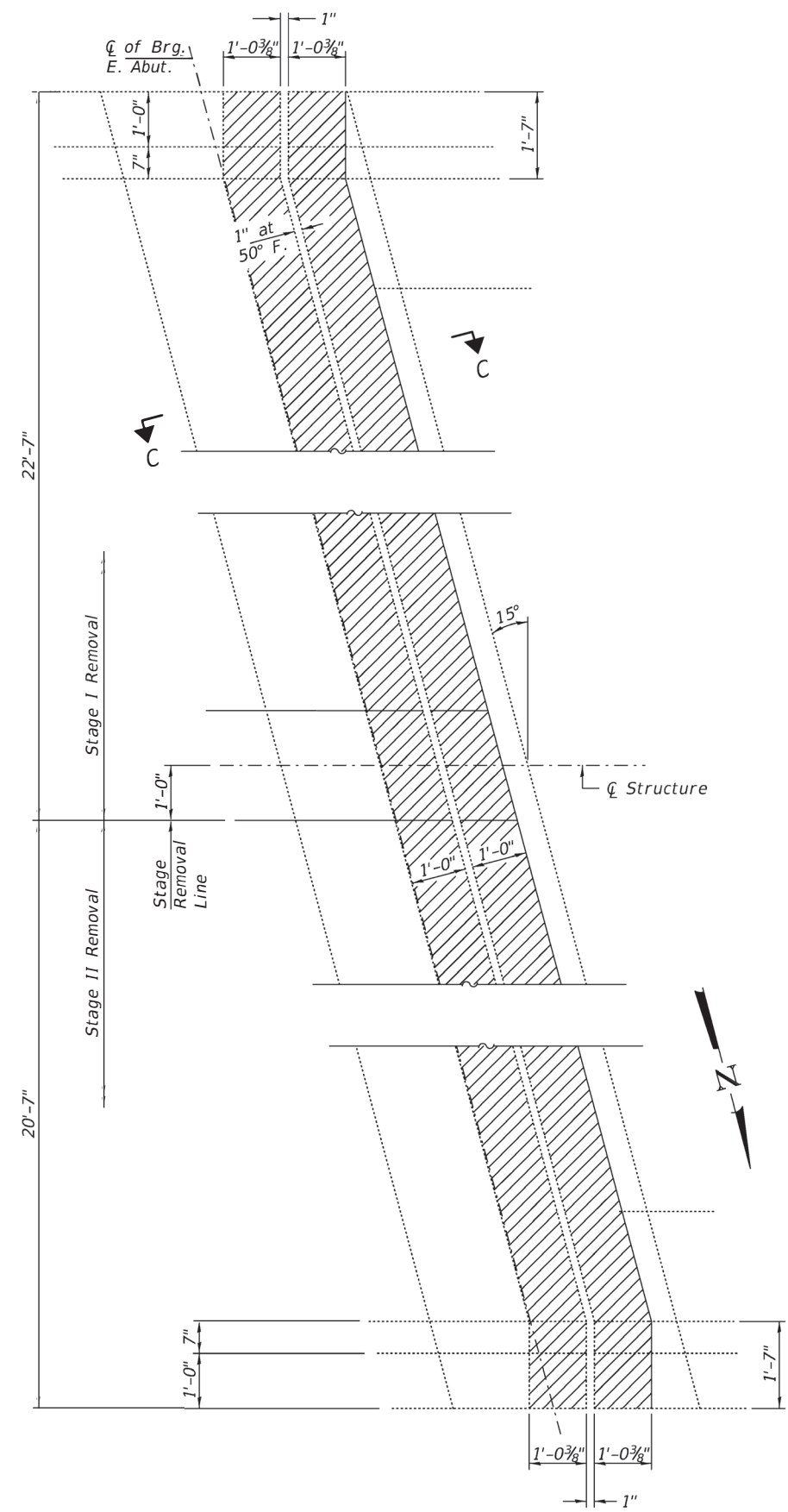
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL & REPLACEMENT DETAILS - WEST ABUTMENT  
084 - 0183

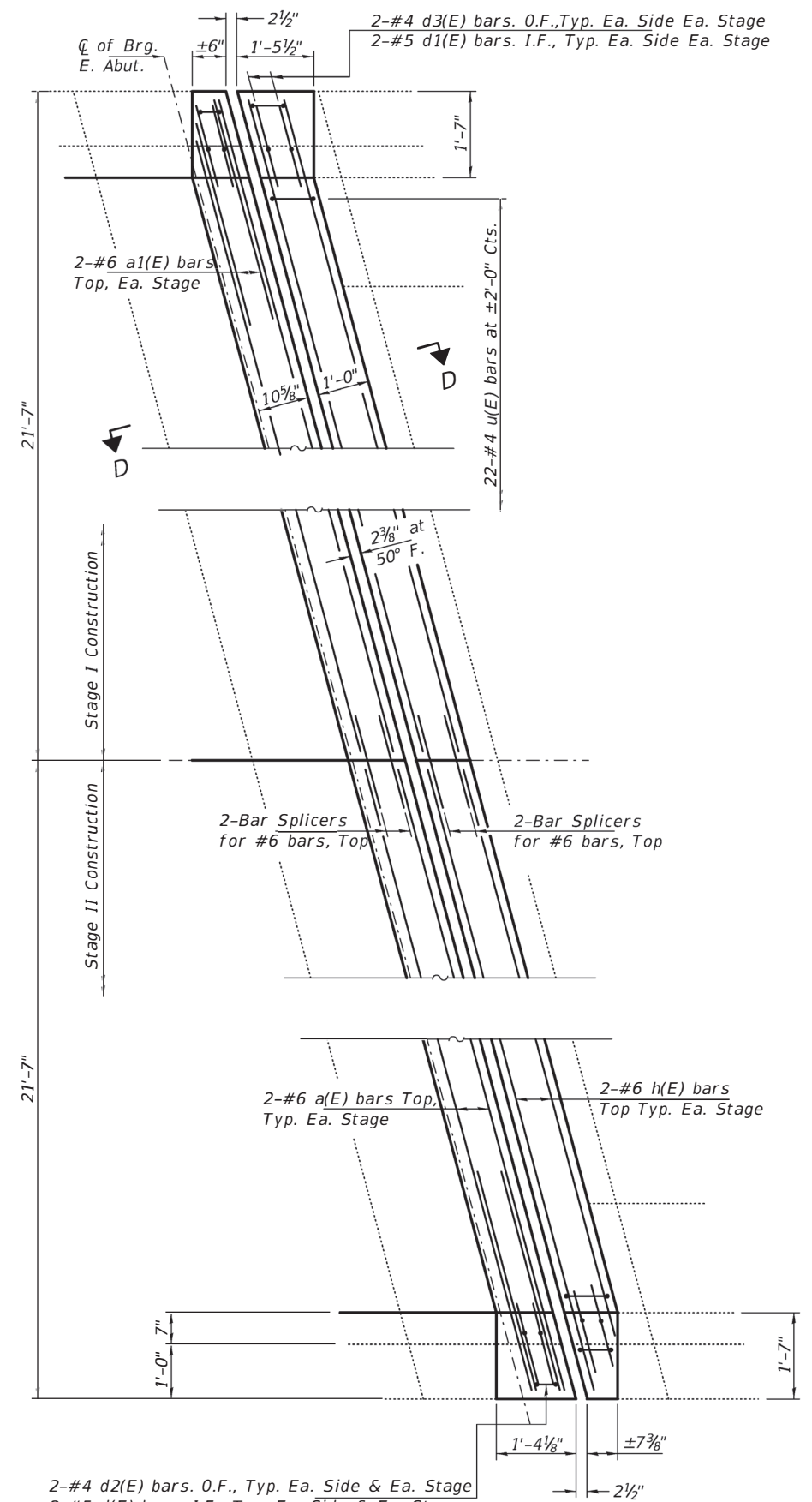
SHEET NO. 4 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(107Z) BDR-1	SANGAMON	24	17
CONTRACT NO. 72M29				
ILLINOIS FED. AID PROJECT				

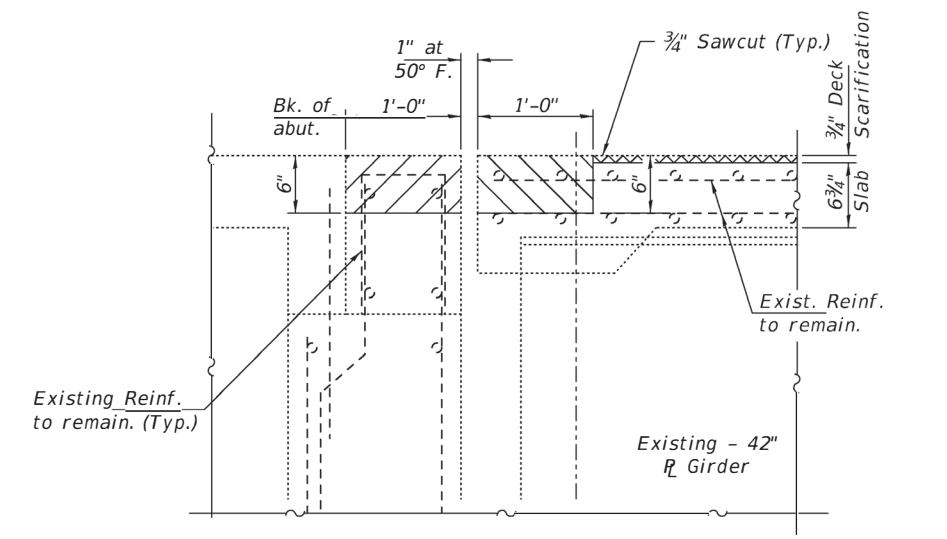
REVISED SHEET 4-19-2022



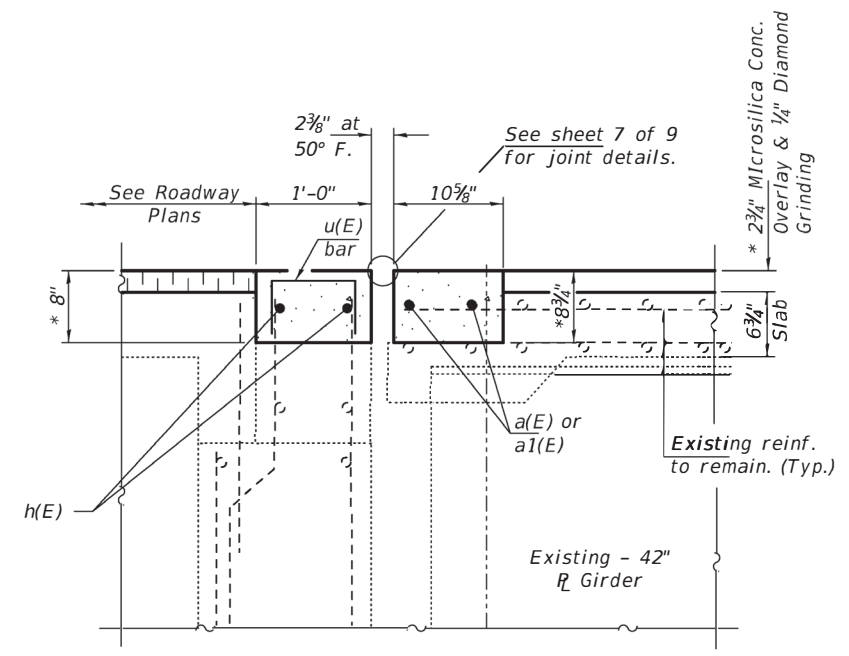
**REMOVAL PLAN**  
(East Abutment)



**REPLACEMENT PLAN**  
(East Abutment)



**SECTION C-C**



**SECTION D-D**

\* Prior to 1/4" Grinding

Note:  
See Sheet 6 of 9 for Reinforcement and Parapet Details.

DESIGNED - ATH	EXAMINED - <i>Timothy A. Smith</i>	DATE - MARCH 16, 2022
CHECKED - SMR	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED - <i>James F. Smith</i>	REVISER -
CHECKED - ATH	SMR	REVISER -
	ENGINEER OF BRIDGES AND STRUCTURES	

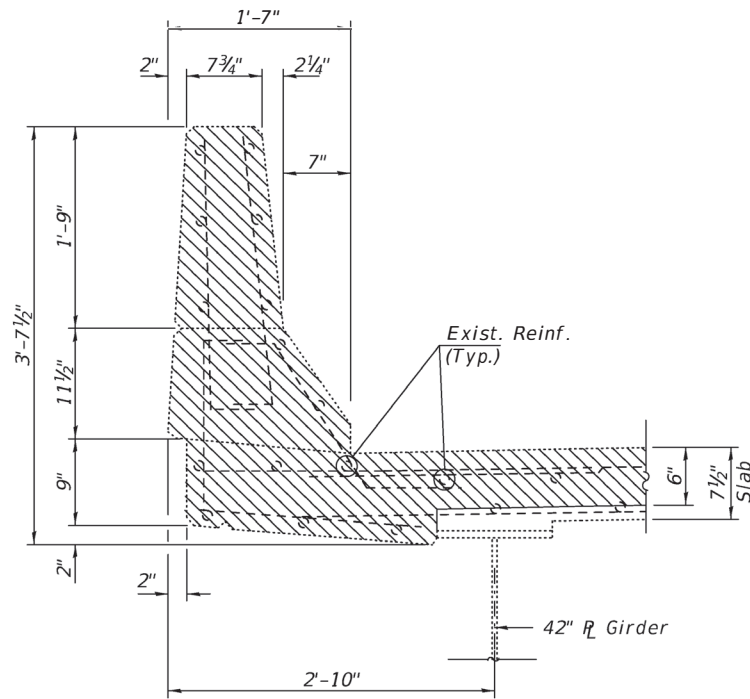
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**JOINT REMOVAL & REPLACEMENT DETAILS - EAST ABUTMENT**  
**084 - 0183**

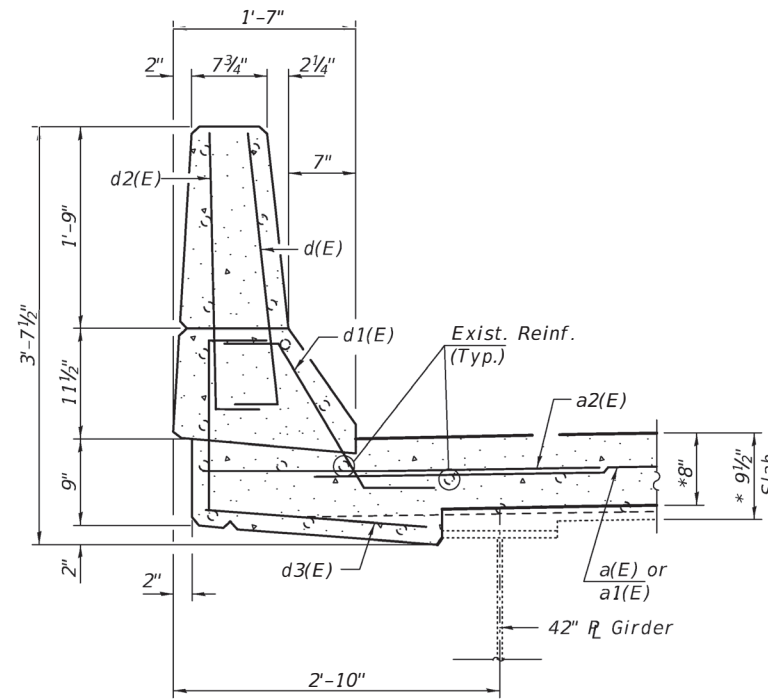
SHEET NO. 5 OF 9 SHEETS

F.A.P. RTE. 67	SECTION (107Z) BDR-1	COUNTY SANGAMON	TOTAL SHEETS 24	SHEET NO. 18
CONTRACT NO. 72M29			ILLINOIS FED. AID PROJECT	

**REVISOR** REVISED SHEET 4-19-2022



REMOVAL DETAILS



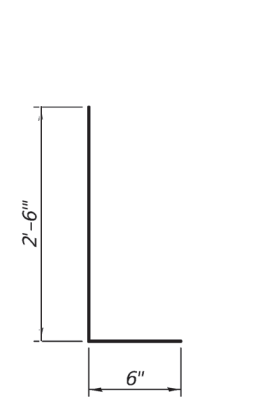
REPLACEMENT DETAILS

\* Prior to 1/4" Grinding

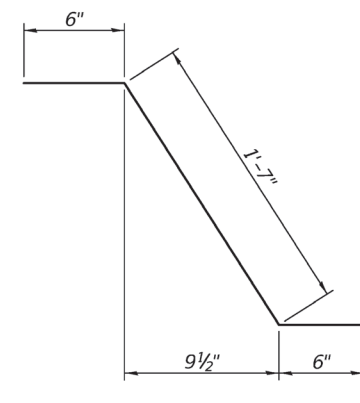
SECTION THRU BRIDGE PARAPET AT BOTH ABUTMENTS

Concrete Replacement

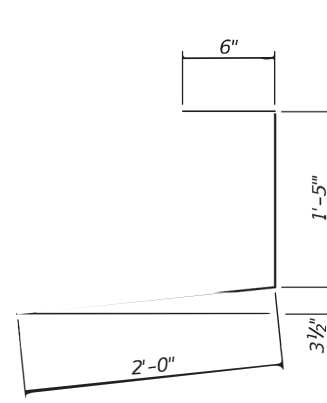
Concrete Replacement



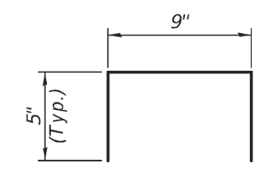
BAR d(E) & d2(E)



BAR d1(E)



BAR d3(E)

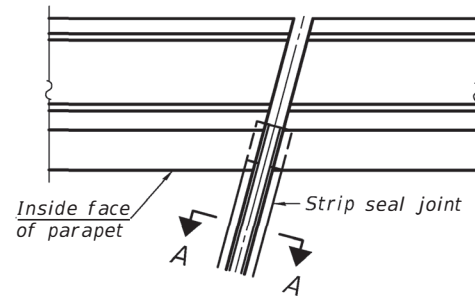


BAR u(E)

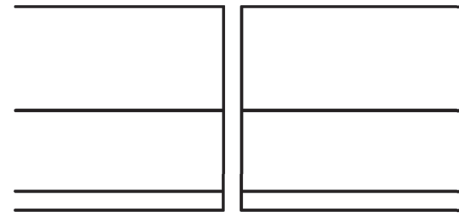
BILL OF MATERIAL  
(TWO ABUTMENTS)

Bar	No.	Size	Length	Shape
a(E)	8	#6	21'-10"	—
a1(E)	8	#6	4'-0"	—
d(E)	16	#5	3'-0"	L
d1(E)	16	#5	2'-7"	L
d2(E)	16	#4	3'-0"	L
d3(E)	16	#4	3'-11"	L
h(E)	8	#6	22'-0"	—
u(E)	44	#4	1'-7"	U
Concrete Removal			Cu. Yd.	4.3
Concrete Superstructure			Cu. Yd.	5.2
Protective Coat			Sq. Yd.	452
Bar Splicers			Each	8
Reinforcement Bars, Epoxy Coated			Pound	790

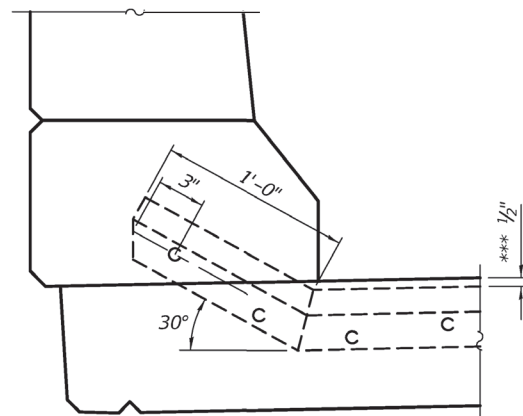
2 REVISED SHEET 4-19-2022



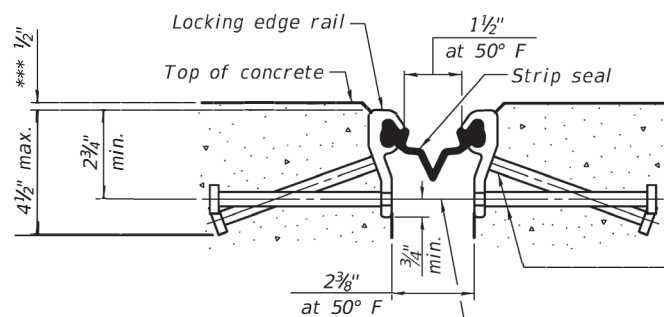
FOR SKEWS ≤ 30°  
PLAN AT PARAPET



ELEVATION AT PARAPET



PARAPET ELEVATION AT ABUTMENTS  
 (Skews ≤ 30°)

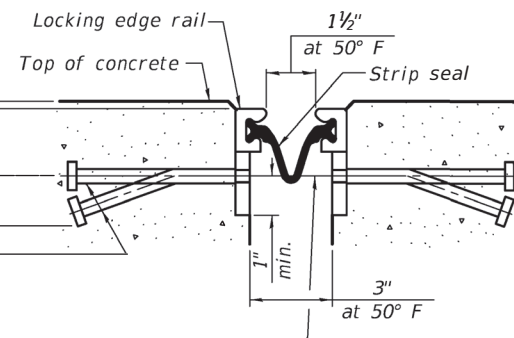


SHOWING ROLLED RAIL JOINT

\* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)  
 3/8" φ threaded rods in 7/16" φ 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.

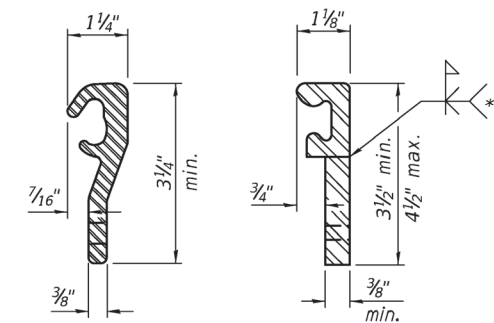
SECTION A-A

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



SHOWING WELDED RAIL JOINT

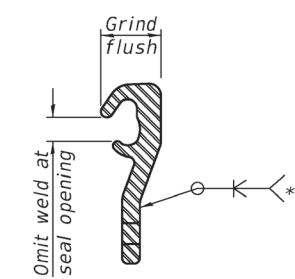
\*\*\*Prior to 1/4" Grinding



ROLLED (EXTRUDED) RAIL      WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	87

REVISD SHEET 4-19-2022

EJ-SS1 LT30/REPS

2-25-20

DESIGNED - ATH	EXAMINED
CHECKED - SMR	PASSED
DRAWN - Venkat Ramana Reddy	
CHECKED - ATH	SMR

 TIMOTHY A. SMITH ENGINEER OF STRUCTURAL SERVICES	DATE - MARCH 16, 2022
 JAMES F. SMITH ENGINEER OF BRIDGES AND STRUCTURES	REVISED - REVISED -

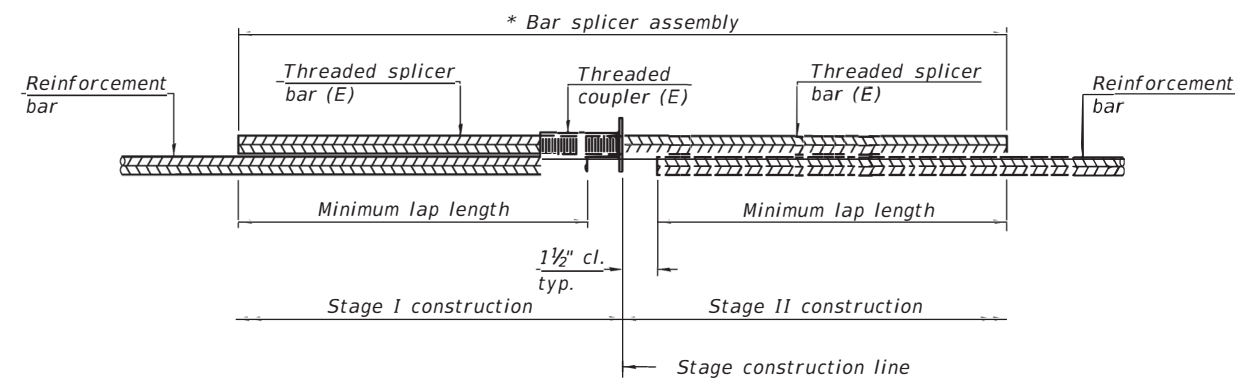
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
 084 - 0183

SHEET NO. 7 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(1072) BDR-1	SANGAMON	24	20
				CONTRACT NO. 72M29
		ILLINOIS	FED. AID PROJECT	



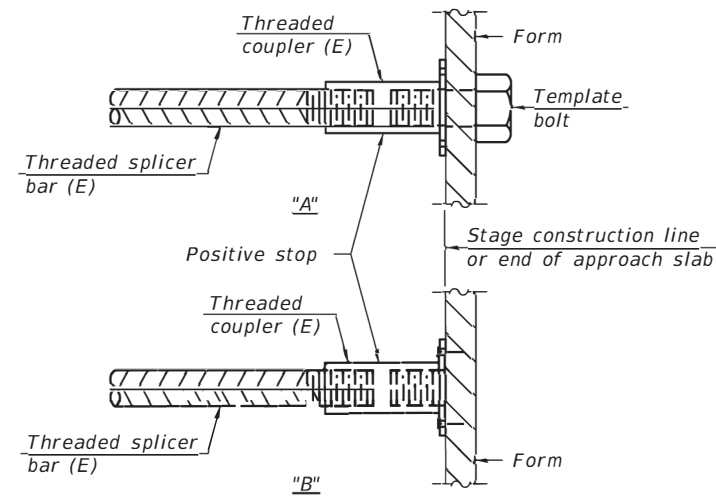


**STANDARD BAR SPLICER ASSEMBLY PLAN**  
 (All components shall be provided from one supplier)

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
East Abutment	#6	2	3'-7"
East Abutment Hatch Block	#6	2	4'-0"
West Abutment	#6	2	3'-7"
West Abutment Hatch Block	#6	2	4'-0"

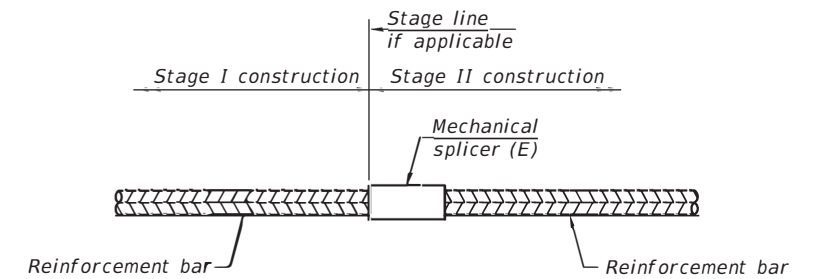


**INSTALLATION AND SETTING METHODS**

"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.

BSD-1

1-1-2020

DESIGNED - ATH	EXAMINED	DATE - MARCH 16, 2022
CHECKED - SMR	<i>Timothy A. Smith</i> ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED	REVISED -
CHECKED - ATH	SMR	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 SN 084 - 0183

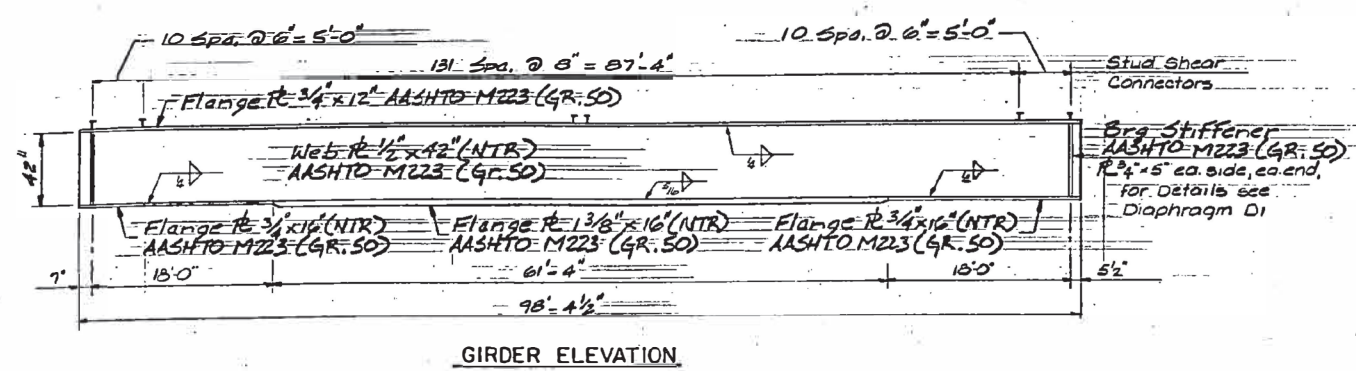
SHEET NO. 8 OF 9 SHEETS

REVISD SHEET 4-19-2022

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(107Z) BDR-1	SANGAMON	24	21
			CONTRACT NO. 72M29	
ILLINOIS FED. AID PROJECT				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	*	SANGAMON	95	43
STA. FROM STA.		TO STA.		
1150+00		1150+00		

Sht. 5 of 9 Shts.  
\*Sec. 107Z-6, K-5 & 107Z HB-1



GIRDER ELEVATION

INTERIOR GIRDER MOMENT TABLE

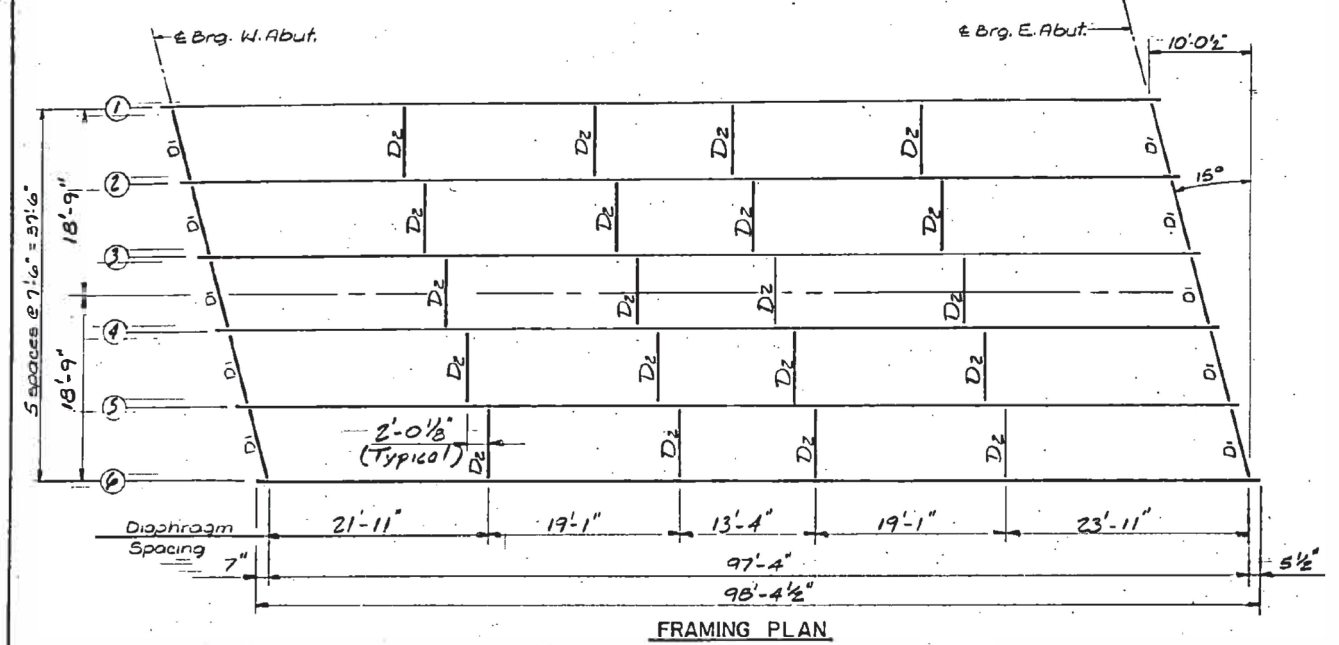
$I_x$	(in <sup>4</sup> )	5,920
$I_y$	(in <sup>4</sup> )	15,990
$S_x$	(in <sup>3</sup> )	45,400
$S_y$	(in <sup>3</sup> )	946
$I_c$	(in <sup>4</sup> )	1313
$I_d$	(in <sup>4</sup> )	0.930
$M_D$	(k)	1079
$S_D$	(k)	0.355
$M_{D, E}$	(k)	420
$M_L$	(k)	1006
$M_I$	(k)	221
$M_{D+I}$	(k)	2045
$M_a$	(k)	4634
$f_s$ Non-Comp. (ksi)		13.94
$f_s$ Comp. (ksi)		3.84
$f_s$ (L+I) (ksi)		18.69
$f_s$ (Overload) (ksi)		36.47
$V_R$	(k)	54.4
$M_u$	(k)	4918

INTERIOR GIRDER REACTION TABLE

		Abutment
$R_E$	(k)	62.5
$R_L$	(k)	44.4
$R_Z$	(k)	10.0
$R_{TOTAL}$	(k)	116.9

$I_x$  &  $S_x$  are the Moment of Inertia and section modulus of the steel section used in Computing  $f_s$  (Overload); and  $f_s$  (Total).  
 $I_c$  &  $S_c$  are the Moment of Inertia and section modulus of the Composite section used in Computing  $f_s$  (Overload), and  $f_s$  (Total).  
 $V_R$  is the Maximum Live Load + Impact Shear Range in Span.  
 $M_a$  (Applied Moment) =  $1.3[M_D + M_s + S/2(M_L + I)]$ .  
 $M_u$  is the Moment Capacity for Braced-Non compact section Computed according to AASHTO Art. 10.50.1.2.  
 $f_s$  (Overload) is the sum of the stresses due to  $M_D + M_s + S/2(M_L + I)$ .  
 $M_D$  = Moment due to Loads on Non-Composite Section.  
 $M_s$  = Moment due to dead Loads on Composite Section.  
 $M_L$  = Moment due to Live Loads on Composite Section.  
 $I$  = Live Load Impact.  
 $M_I$  = Moment due to Impact on Composite Section.

145'  
2 splices  
1/2" x 42 Web  
1/4" x 14 TF  
2" x 1/8" RF

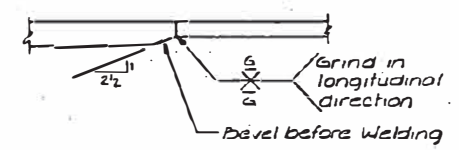


FRAMING PLAN

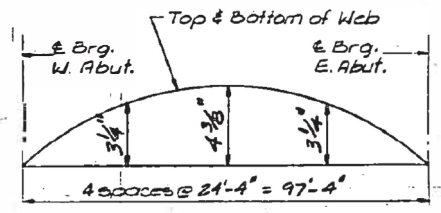
TOP OF WEB ELEVATIONS \*\*

Girder	1	2	3	4	5	6
E Brg. West Abut.	591.46	591.56	591.66	591.64	591.50	591.36
E Brg. East Abut.	590.49	590.59	590.69	590.67	590.53	590.39

\*\* Elevations are for Fabrication only.



WELDED FLANGE SPLICE

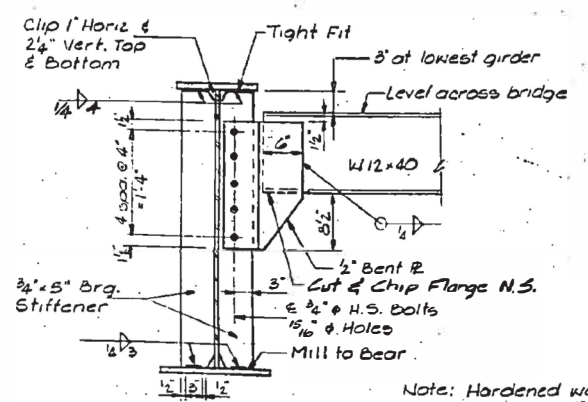
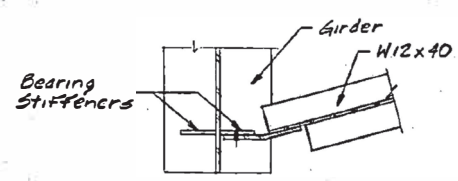


CAMBER DIAGRAM

NOTES  
Plates Noted (NTR) Indicate Notch Toughness Requirements Zone 2 are Applicable.

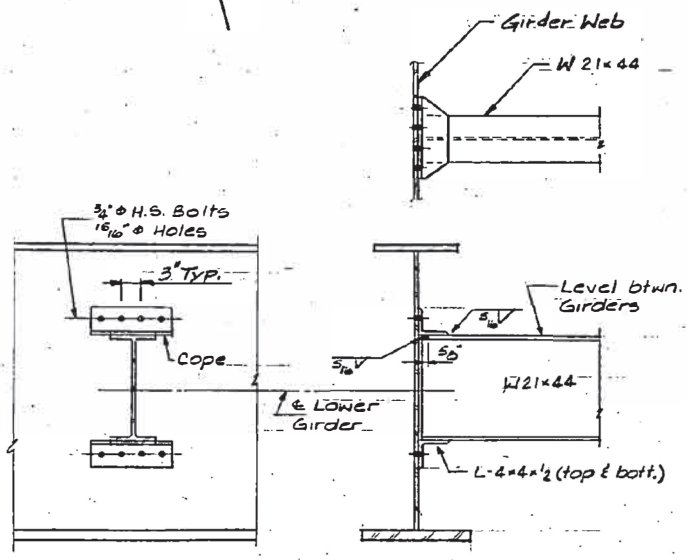
FOR INFORMATION ONLY

REVISD SHEET 4-19-2022

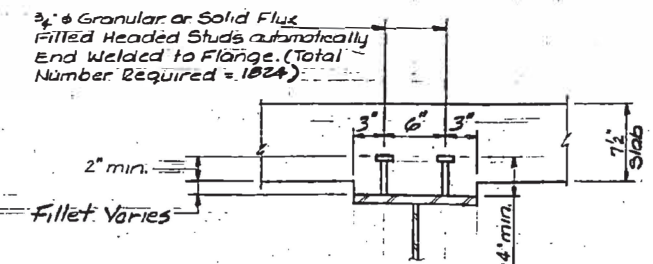


DIAPHRAGM D1  
10 Req'd.

Note: Hardened washers required over all 1/8" holes  
2 Washers per Bolt (One Ea. Side)



DIAPHRAGM D2  
20 Req'd.



SHEAR CONNECTOR DETAIL

STRUCTURAL STEEL  
BRIDGE OVER WALNUT STREET  
CITY OF SPRINGFIELD  
F.A.P. ROUTE 67 (MADISON STREET)  
SECTION 107 Z HB-1  
SANGAMON COUNTY  
STATION 41+51.53