

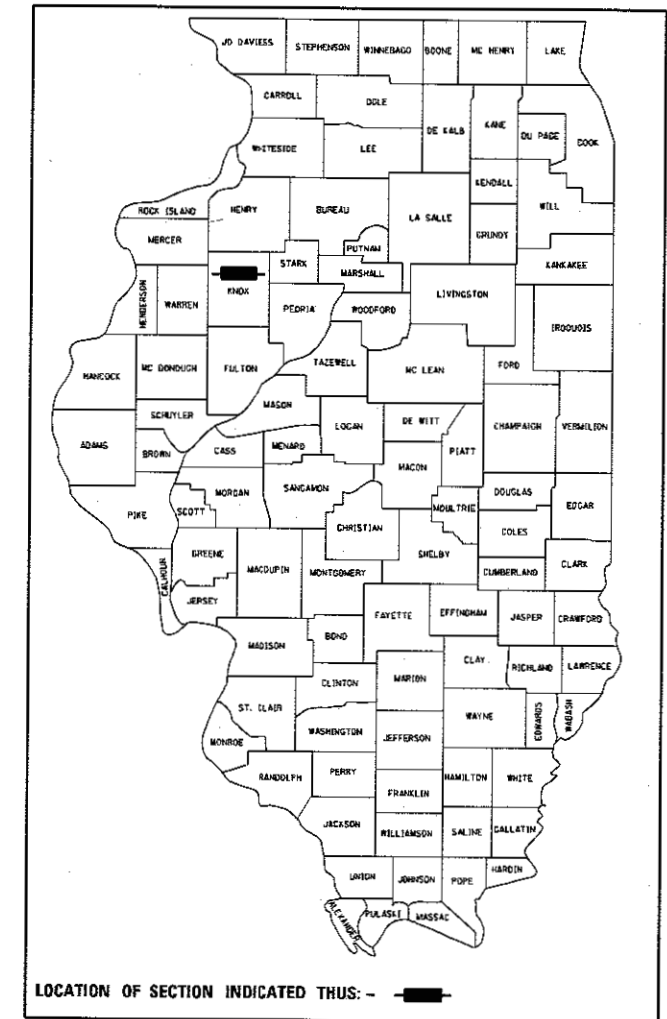
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAP 313 (US 34) / IL 110  
SECTION (21-HB-1)BRR  
MCHD CLAIM #796541  
KNOX COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(21-HB-1)BRR	KNOX	12	1
BEAM REPLACEMENT		ILLINOIS	CONTRACT NO. 68D92	

11+1 = 12 TOTAL SHEETS  
D-94-005-18



INDEX OF SHEETS:

1. COVER SHEET
2. GENERAL NOTES & COMMITMENTS
3. SUMMARY OF QUANTITIES
4. EXISTING TYPICAL SECTIONS
5. SCHEDULE OF QUANTITIES
- 6-8. TRAFFIC CONTROL DETAILS
- 9-11. DETAIL SHEETS

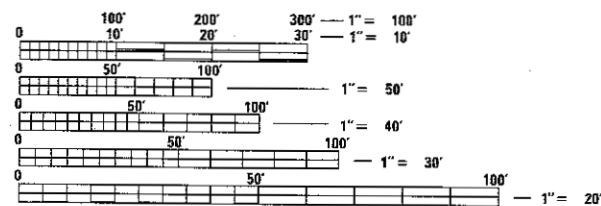
STANDARDS:

- |           |           |
|-----------|-----------|
| 701001-02 | 701401-10 |
| 701006-05 | 701801-06 |
| 701011-04 | 701901-06 |
| 701201-04 | 720001-01 |
| 701400-09 |           |

TRAFFIC COUNT:

US34  
ADT = 12800 (2013)  
SU = 11900  
MU = 2750

LINCOLN PARK  
ADT = 950

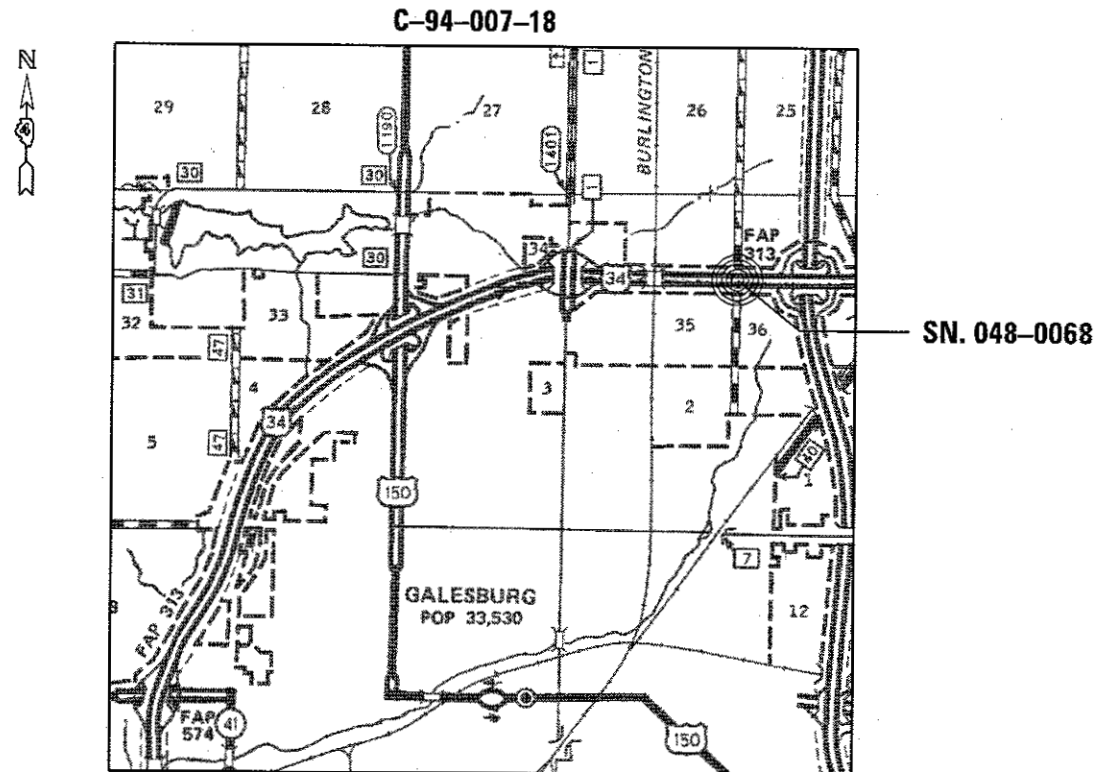


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: NICK JACK  
PROJECT MANAGER: MIKE LEWIS

CONTRACT NO. 68D92 CAT. NO. 035524-00D



GROSS LENGTH = 1000 FT.  
NET LENGTH = 1000 FT.

This project consists of Beam Replacement on SN 048-0068, carrying Lincoln Park Drive over US 34 in Galesburg due to motorist caused damage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED August 31 2017

*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 13 2017  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 13 2017  
*[Signature]*  
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

1/1/17

COMMITMENTS

No Commitments have been made for this project.

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

PROJECT SPECIFIC NOTES

The Contractor shall verify existing beam lengths and flange widths prior to ordering Structural Steel. Sign locations may vary from the stations shown on the plans in accordance with directions from the Engineer at the time of construction. Sign locations may be adjusted in the field to avoid any found utilities. All wood post locations shall be verified with the Bureau of Operations, Traffic Section, before installation.

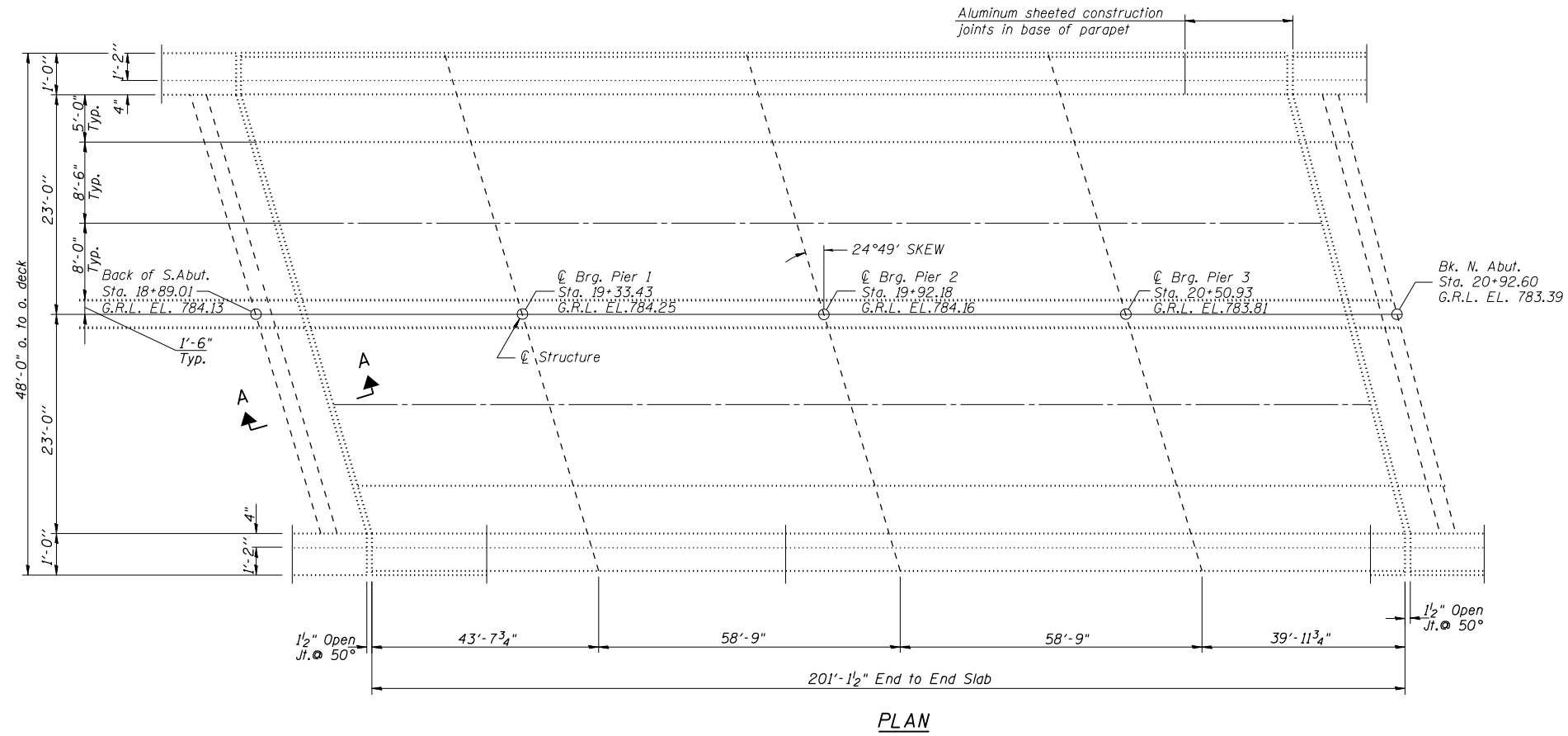
FILE NAME =	USER NAME = aubreys	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES &amp; COMMITMENTS IL 110 OVER US34 SN 048-0068</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C:\Users\aubreygs\Desktop\68092\Plans\048-0068_Xfer.dgn	DRAWN -	REVISED -	313			(2)-HB-11BRR	KNOX	11	2	
PLOT SCALE = 20.0000' / 1" =	CHECKED -	REVISED -	MCHD BEAM REPLACEMENT			CONTRACT NO. 68092				
Default	PLOT DATE = 8/31/2017	DATE -	REVISED -			SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				0013 100% STATE ✓
50102400	CONCRETE REMOVAL	CU YD	1.6	1.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1.6	1.6
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	5520	5520
67100100	MOBILIZATION	LSUM	1	1
70100450	TRAFFIC CONTROL & PROTECTION, STANDARD 701201	LSUM	1	1
70100800	TRAFFIC CONTROL & PROTECTION, STANDARD 701401	LSUM	1	1
70102640	TRAFFIC CONTROL & PROTECTION, STANDARD 701801	LSUM	1	1
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	250	250
X7010216	TRAFFIC CONTROL & PROTECTION, (SPECIAL)	LSUM	1	1
X7015005	CHANGEABLE MESSAGE SIGN	CALDA	5	5
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	82.5	82.5
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	5520	5520
Z0073300	TEMPORARY SHORING AND CRIBBING	LSUM	1	1
Z0073351	TEMPORARY SLAB SUPPORT SYSTEM	LSUM	1	1

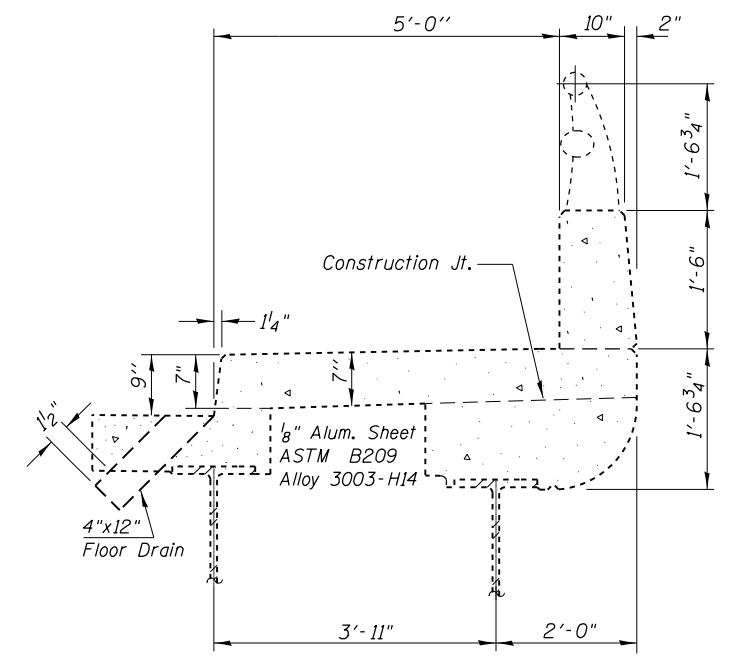
14

FILE NAME =	USER NAME = aubreygs	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES IL 110 OVER US34 SN 048-0068</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = 8/31/2017	CHECKED -	REVISED -			MCHD BEAM REPLACEMENT		CONTRACT NO. 68092			
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

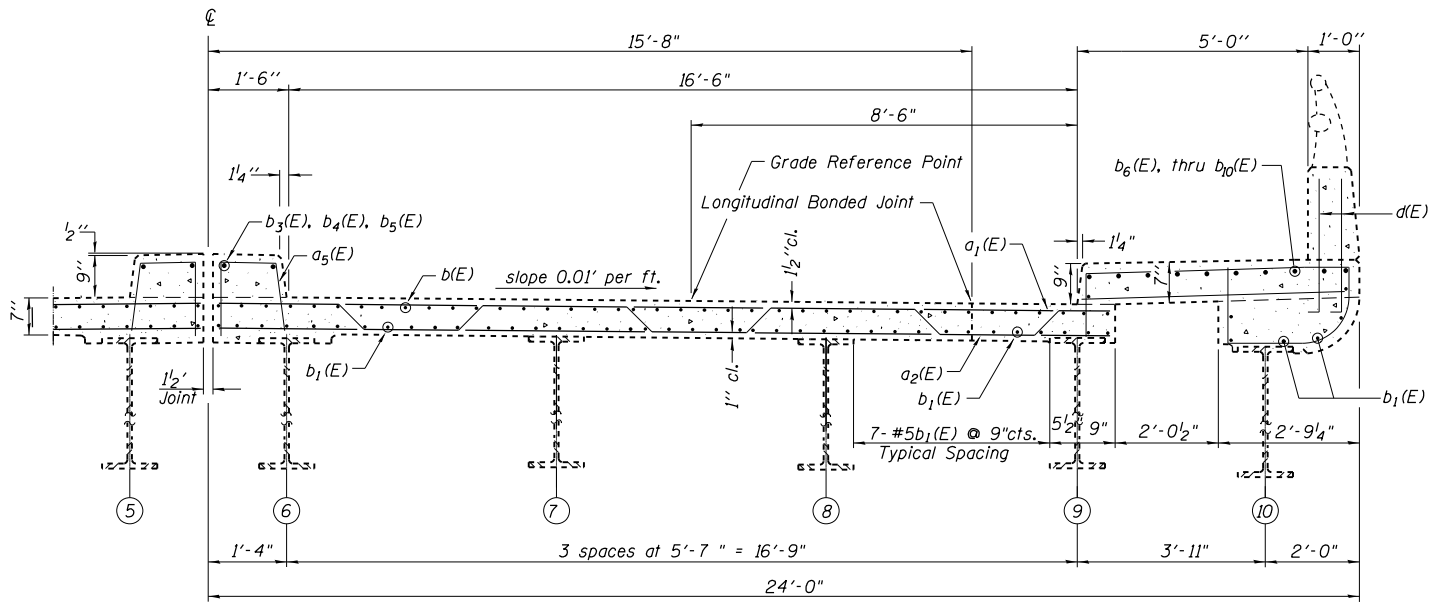
REV



PLAN



CURB DETAIL



HALF CROSS SECTION  
(Looking North)

Notes:  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
 Section views drawn "FOR INFORMATION ONLY" to be used as reference for beam repair.

MODEL: Default  
 FILE: Model\68D92\Aubr\repts\Default\68D92\Aubr\048-0068\_Xfr.dgn

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PLOT SCALE = 20.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/31/2017	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS  
 IL 110 OVER US34 SN 048-0068

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(21-HB-1)BRR	KNOX	11	4
MCHD BEAM REPLACEMENT		CONTRACT NO. 68D92		
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES

LOCATION Sta. to Sta.	PVMT. MARKING TAPE TYPE IV	TEMPORARY PVMT. MARKING REMOVAL	CHANGEABLE MESSAGE SIGN
	FOOT	SQ FT	CAL DA
JOB SITE	250	82.5	5
<i>Total</i>	250	82.5	5

LOCATION Sta. to Sta.	CONCRETE REMOVAL	CONCRETE SUPERSTRUCTURE	TC & P Std. 701201	TC & P Std. 701801
	CU YD	CU YD	LSUM	LSUM
20+00-20+61 (N.B.Lincoln Park Dr.)	1.6	1.6	1	1
<i>Total</i>	1.6	1.6	1	1

LOCATION Sta. to Sta.	TEMP. SHORING & CRIBBING	TEMP. SLAB SUPPORT SYS.	TC & P STD. 701401
	LSUM	LSUM	LSUM
524+75-575+25 (W.B. US34)	1	1	1
<i>Total</i>	1	1	1

LOCATION Sta. to Sta.	STRUCTURAL STEEL REM.	FURN. & ERECT. STRUCT. STEEL
	POUND	POUND
524+75-575+25 (W.B. US34)	5480	1
<i>Total</i>	5480	1

LOCATION Sta. to Sta.	TC & P SPECIAL
	LSUM
524+75-575+25 (W.B. US34)	1
<i>Total</i>	1

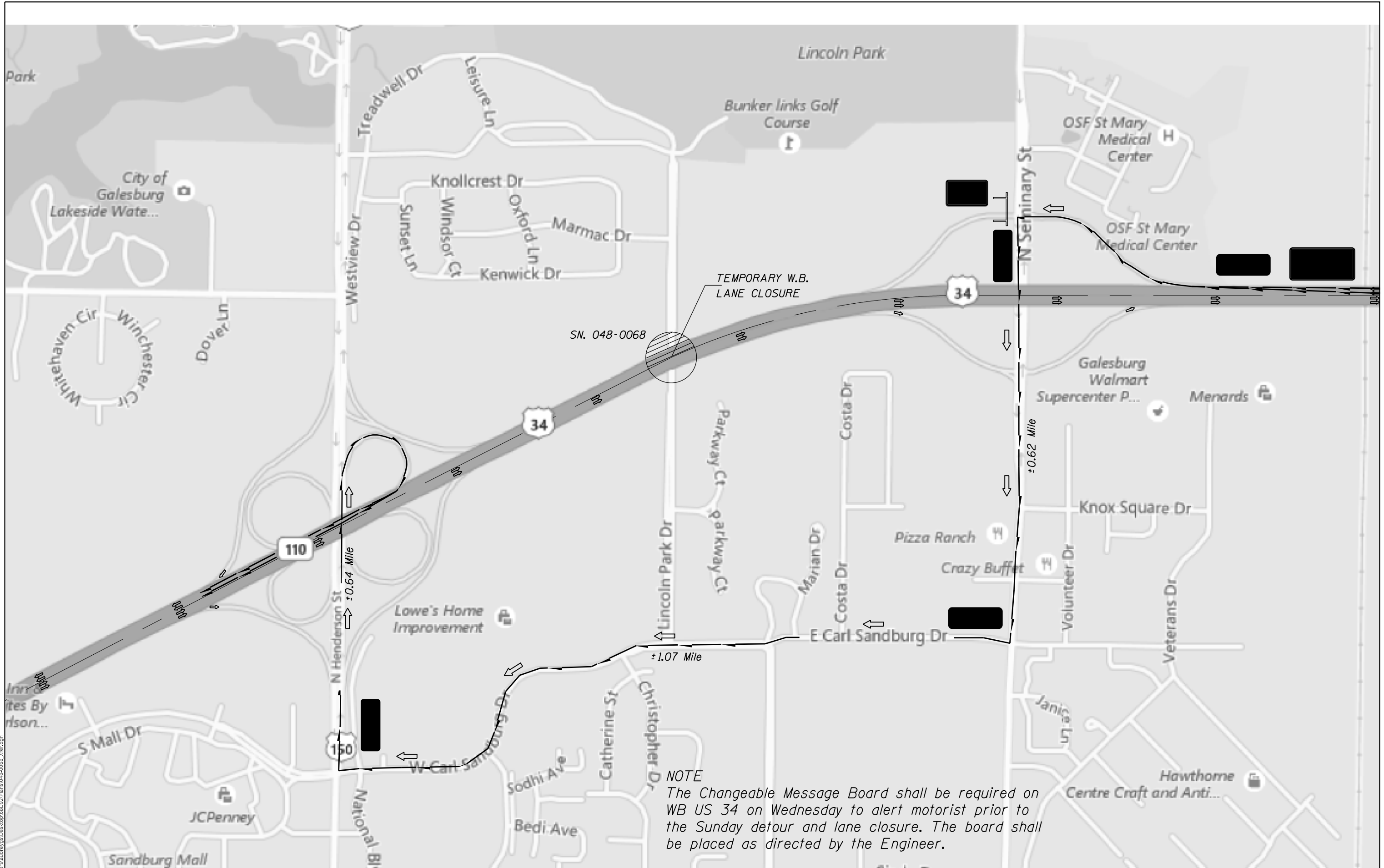
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	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/31/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULE OF QUANTITIES IL 110 OVER US34 SN 048-0068</b>			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(21-HB-1)BRR	KNOX	11	5
MCHD BEAM REPLACEMENT			CONTRACT NO. 68D92	
ILLINOIS FED. AID PROJECT				



**NOTE**  
 The Changeable Message Board shall be required on WB US 34 on Wednesday to alert motorist prior to the Sunday detour and lane closure. The board shall be placed as directed by the Engineer.

MODEL: Default  
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	DRAWN -	REVISED -
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PLOT DATE = 8/31/2017	DATE -	REVISED -

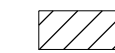


**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

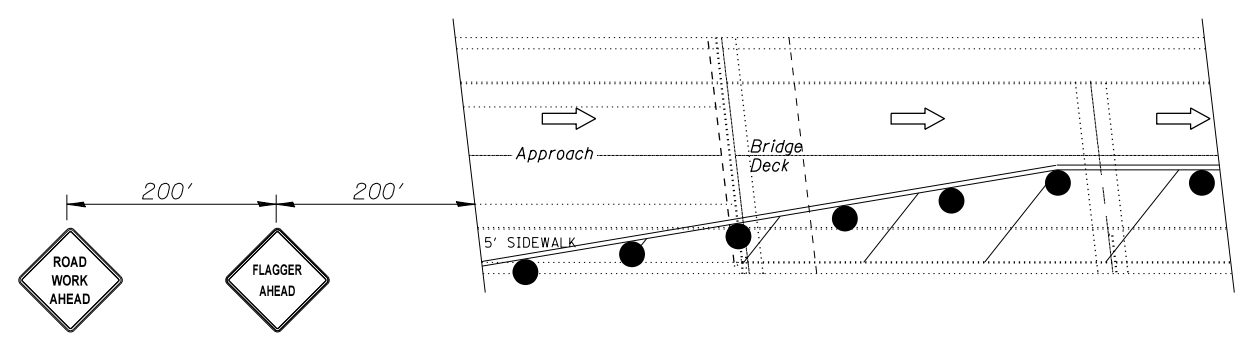
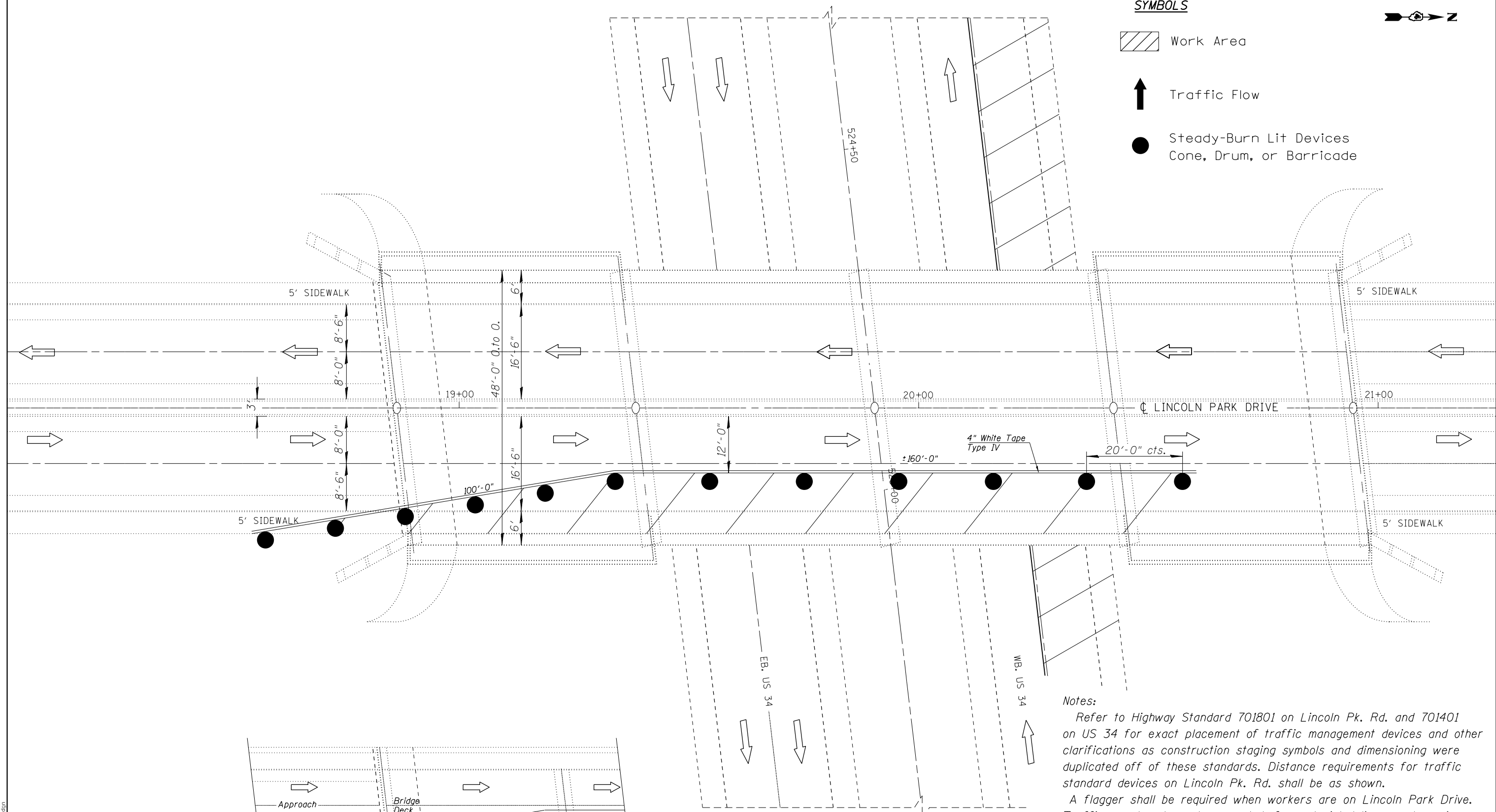
**TRAFFIC CONTROL DETAILS**  
**LINCOLN PARK OVER US 34, SN 048-0068**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(21-HB-1)BRR	KNOX	11	6
MCHD BEAM REPLACEMENT			CONTRACT NO. 68D92	
ILLINOIS FED. AID PROJECT				

**SYMBOLS**

-  Work Area
-  Traffic Flow
-  Steady-Burn Lit Devices  
Cone, Drum, or Barricade



**PLAN**

**Notes:**

Refer to Highway Standard 701801 on Lincoln Pk. Rd. and 701401 on US 34 for exact placement of traffic management devices and other clarifications as construction staging symbols and dimensioning were duplicated off of these standards. Distance requirements for traffic standard devices on Lincoln Pk. Rd. shall be as shown.

A flagger shall be required when workers are on Lincoln Park Drive. Traffic may be stopped as needed, for material delivery and carrier beam work. The flagger and traffic control devices shown shall be incidental to existing traffic control standards.

For the sole purpose of beam or beam section removal and replacement both lanes of WB US 34 may be temporarily closed. See Special Provision "US 34 Lane Closures".

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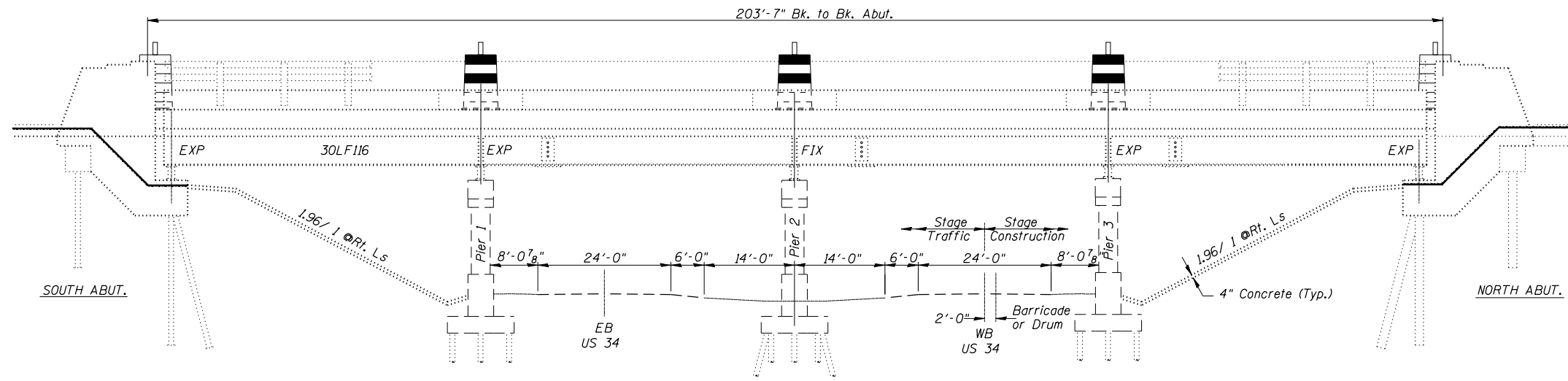
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PLOT DATE = 8/31/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

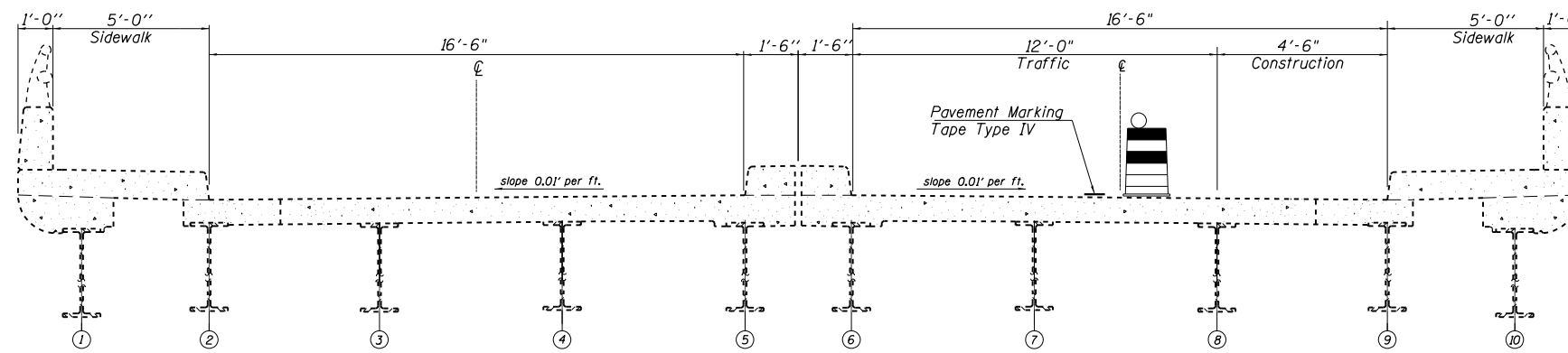
**TRAFFIC CONTROL  
IL 110 OVER US34 SN 048-0068**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(21-HB-1)BRR	KNOX	11	7
MCHD BEAM REPLACEMENT		CONTRACT NO. 68D92		
ILLINOIS		FED. AID PROJECT		

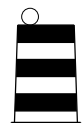


ELEVATION



LINCOLN PARK DRIVE  
(Looking North)

SYMBOLS



Cone, Drum or Barricade

MODEL: Default  
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	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/31/2017	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL  
IL 110 OVER US34 SN 048-0068

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(21-HB-1)BRR	KNOX	11	8
MCHD BEAM REPLACEMENT			CONTRACT NO. 68D92	
ILLINOIS FED. AID PROJECT				



**GENERAL NOTES**

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

Fasteners shall be high strength bolts. Flange splice holes shall be  $\frac{15}{16}$ "  $\phi$  for  $\frac{7}{8}$ "  $\phi$  bolts. Web splice holes shall be  $\frac{13}{16}$ "  $\phi$  for  $\frac{3}{4}$ "  $\phi$  bolts. Diaphragm connection holes shall be  $\frac{15}{16}$ "  $\phi$  for  $\frac{3}{4}$ "  $\phi$  bolts. Two hardened washers shall be required at diaphragm connections.

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

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.

Cost of removal and/or 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 in the cost of Furnishing and Erecting Structural Steel.

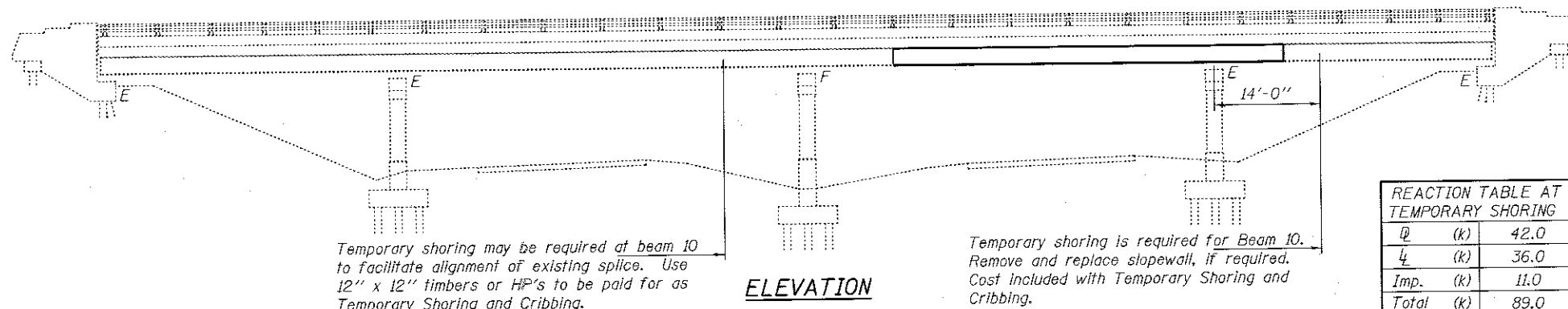
The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

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".

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

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.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat be Reddish Brown Munsell No. 2.5YR 3/4.

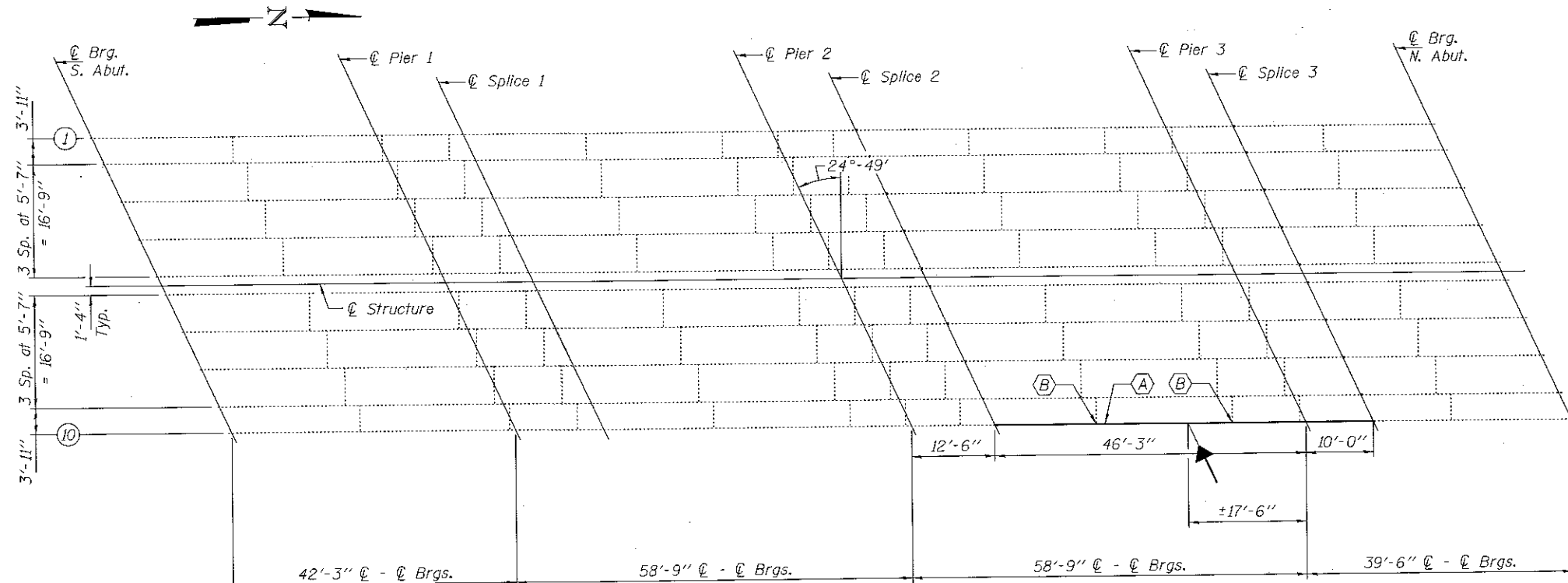


Temporary shoring may be required at beam 10 to facilitate alignment of existing splice. Use 12" x 12" timbers or HP's to be paid for as Temporary Shoring and Cribbing.

Temporary shoring is required for Beam 10. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing.

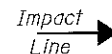
Q (k)	42.0
L (k)	36.0
Imp. (k)	11.0
Total (k)	89.0

**ELEVATION**



**FRAMING PLAN**

- (A) - Replace beam section.
- (B) - Replace bottom clip angle.



EXPIRES 11-30-2018

DESIGNED: *Victor H. Velazquez*  
 CHECKED: *[Signature]*  
 DRAWN: *balva*  
 CHECKED: *[Signature]*

PASSED: *[Signature]*  
 ENGINEER OF BRIDGES AND STRUCTURES

DATE: SEPTEMBER 20, 2017

REVISED: \_\_\_\_\_  
 REVISED: \_\_\_\_\_

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

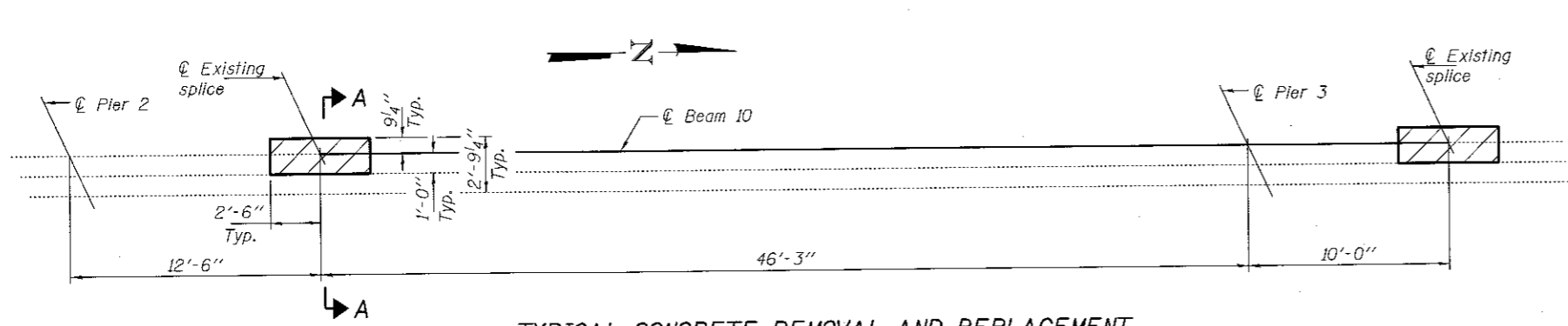
PLAN AND ELEVATION  
 FAP 313 (LINCOLN PARK DRIVE) OVER US 34  
 SN 048-0068

SHEET NO. 1 OF 3 SHEETS

**TOTAL BILL OF MATERIAL**

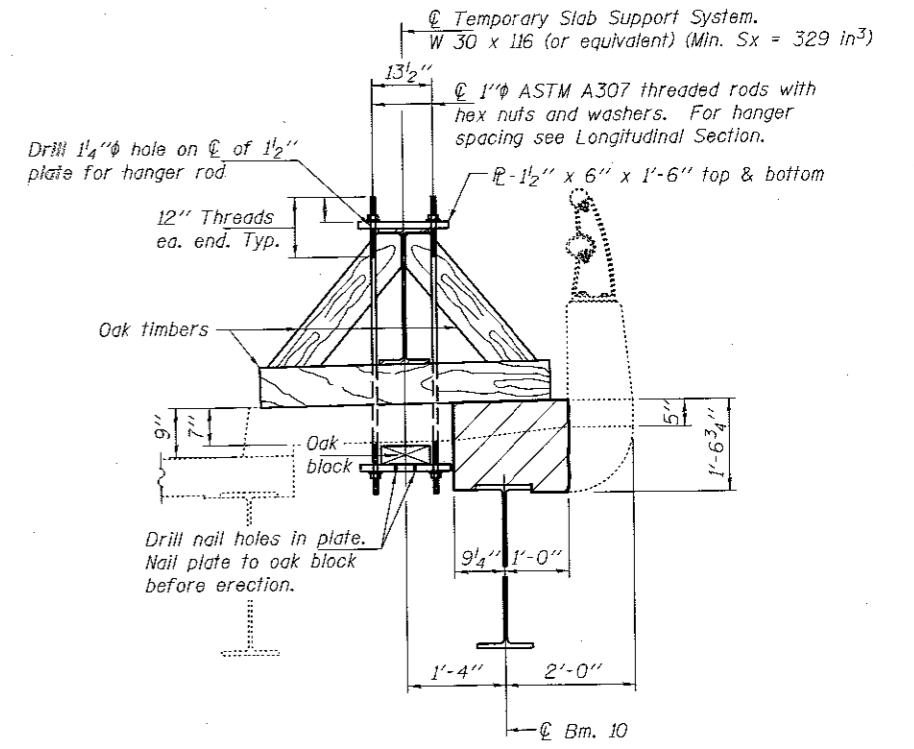
ITEM	UNIT	QUANTITY
Structural Steel Removal	Pound	5520
Furnishing and Erecting Structural Steel	Pound	5520
Concrete Removal	Cu. Yd.	1.6
Concrete Superstructure	Cu. Yd.	1.6
Temporary Shoring and Cribbing	LS	1
Temporary Slab Support System	LS	1

F.A.P. RTE. 313	SECTION 021-1B-10RR	COUNTY KNOX	TOTAL SHEETS 11	SHEET NO. 9
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68D92	

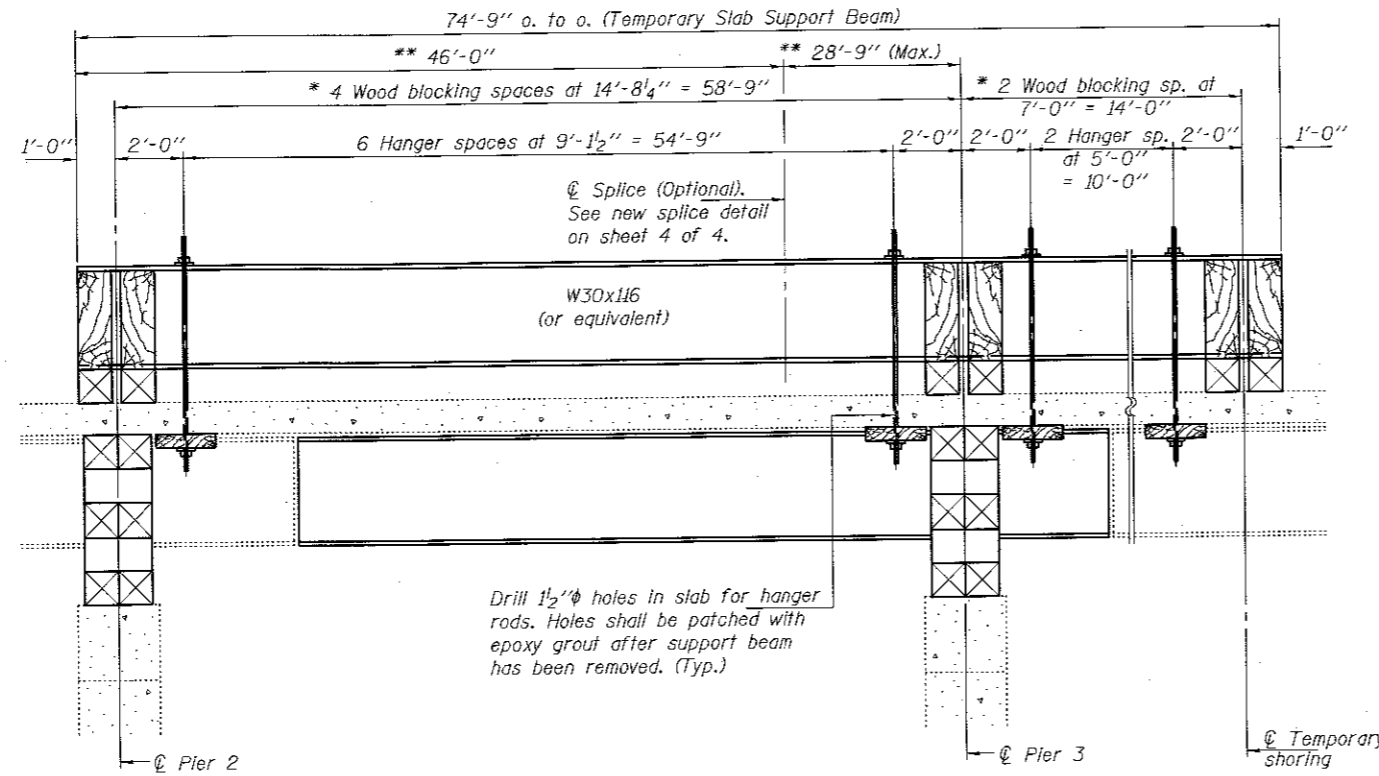


**TYPICAL CONCRETE REMOVAL AND REPLACEMENT**

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut  $\frac{3}{4}$ " prior to the removal of concrete. Reinforcement shall be cut only if required for fitting bolts. Cut reinforcement shall be spliced as directed by the Engineer. Cost shall be included with Concrete Removal.



**SECTION A-A**



**LONGITUDINAL SECTION  
SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM**

\* Wood blocking between piers to be placed after support beam deflects under its own weight.  
 \*\* These dimensions may vary for available beams in stock.

DESIGNED VHV  
 CHECKED DAB  
 DRAWN dgburdell  
 CHECKED

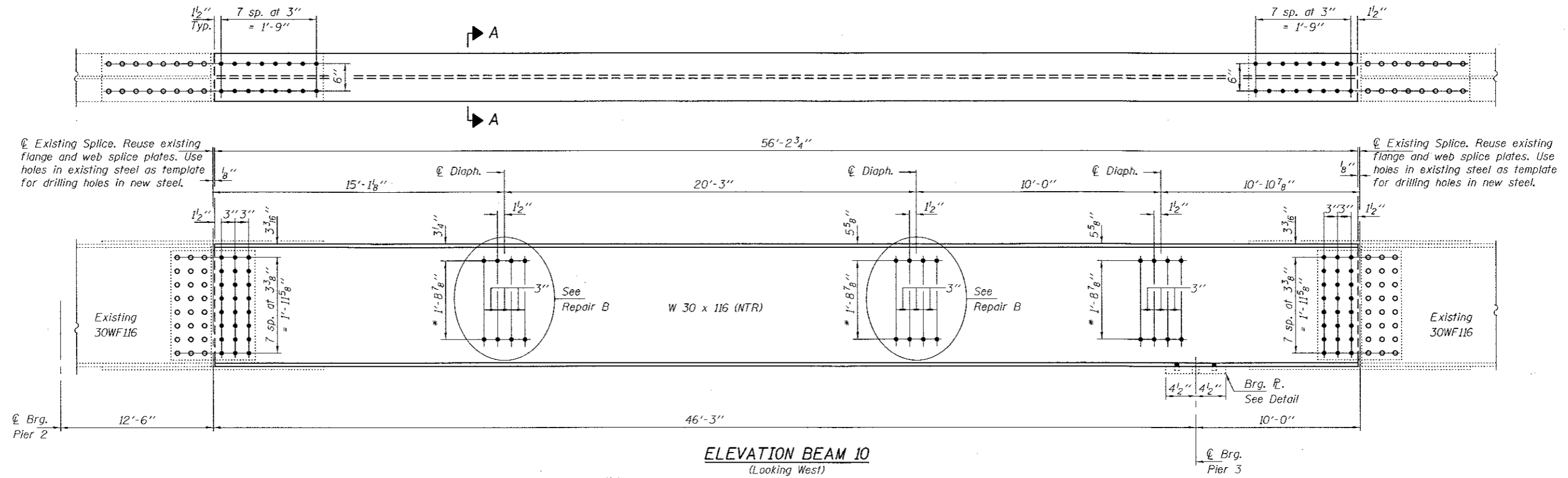
PASSED  
 [Signature]  
 ENGINEER OF BRIDGES AND STRUCTURES

DATE SEPTEMBER 20, 2017  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BEAM 10 REPAIR DETAILS  
 SN 048-0068  
 SHEET NO. 2 OF 3 SHEETS

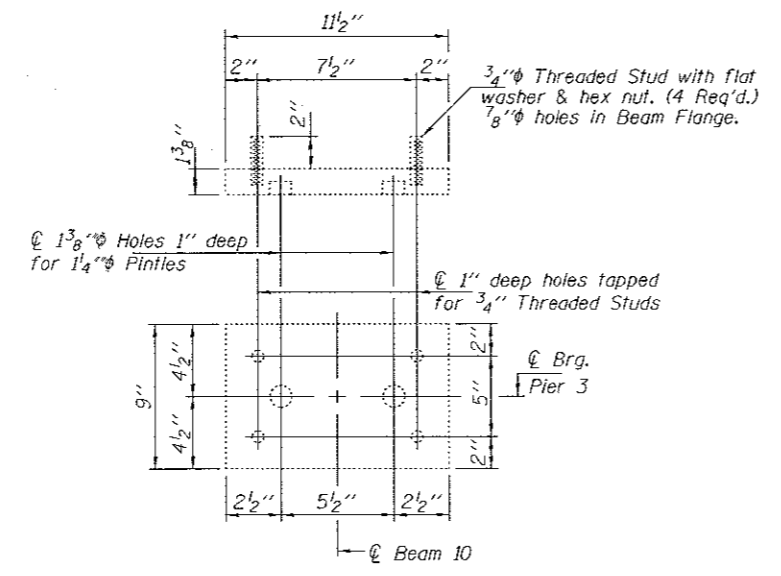
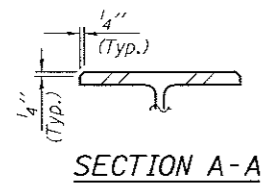
F.A.P. RTE. 313	SECTION (21-HB-118RR)	COUNTY KNOX	TOTAL SHEETS 11	SHEET NO. 10
CONTRACT NO. 68D92				
ILLINOIS FED. AID PROJECT				



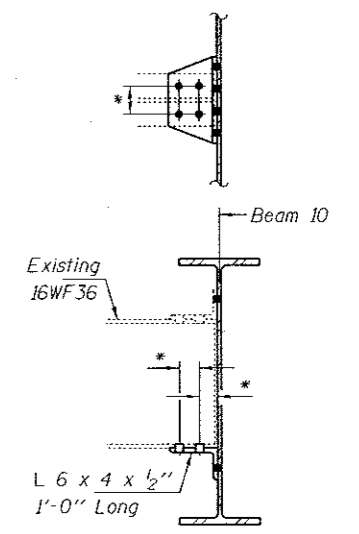
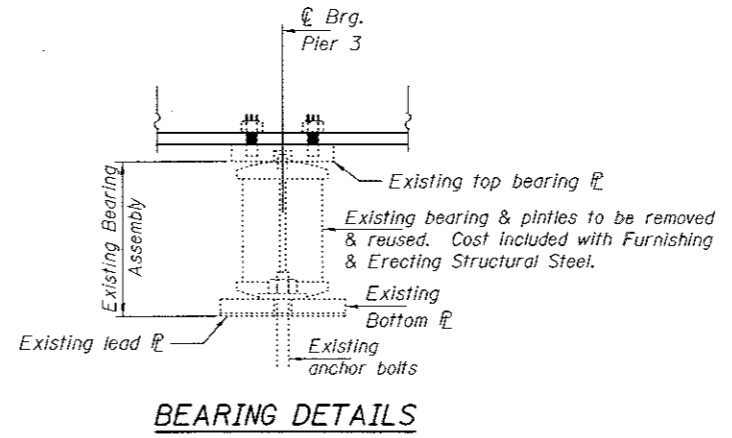
**ELEVATION BEAM 10**  
(Looking West)

Notes:  
Natural camber of new beam shall be placed upward for fabrication.  
NTR denotes plates to which Notch Toughness Requirements apply.

\* Use existing or new diaphragm angle holes as template to field drill holes in new beam. Typ. Cost included with Furnishing & Erecting Structural Steel.



**TOP EXISTING BEARING PLATE**  
To be removed & replaced. Cost included with Furnishing & Erecting Structural Steel.



DESIGNED VHV  
CHECKED **DAB**  
DRAWN daburdell  
CHECKED

PASSED  
*Carl Perry*  
ENGINEER OF BRIDGES AND STRUCTURES

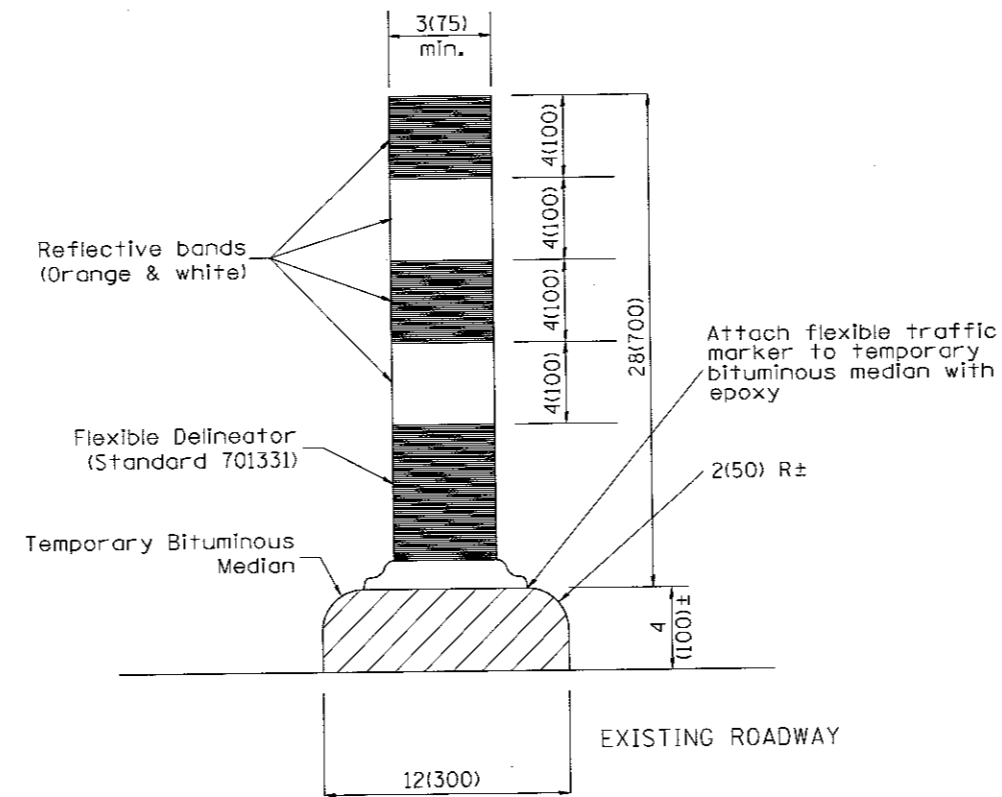
DATE SEPTEMBER 20, 2017  
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

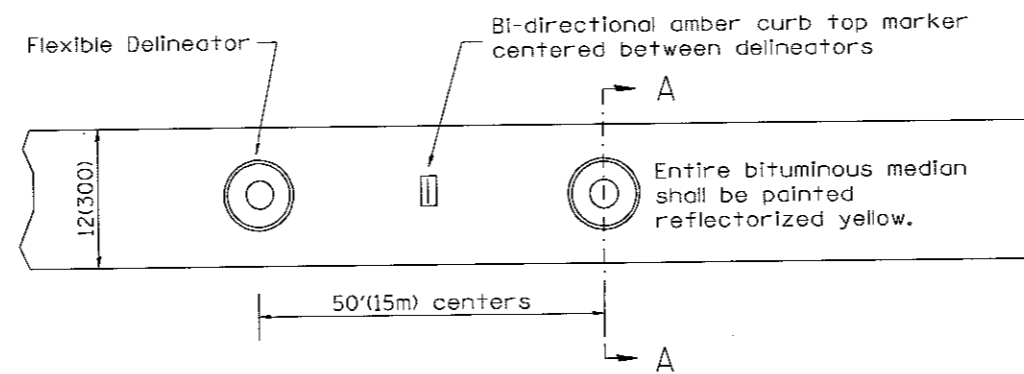
BEAM 10 REPAIR DETAILS  
SN 048-0068  
SHEET NO. 3 OF 3 SHEETS

F.A.P. RTE. 313	SECTION (21-HB-118RR)	COUNTY KNOX	TOTAL SHEETS 11	SHEET NO. 11
CONTRACT NO. 68092				
ILLINOIS FED. AID PROJECT				

DESIGNER NOTES:  
 1. Include State Std. 702001  
 2. Include District Special Provision.



SECTION A-A



PLAN

All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. F-6.02, NEW REVISION BOX	T.P.
10-16-06	REVISED TO 2007 SPEC.	M.A.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY BITUMINOUS MEDIAN

NOT TO SCALE

CADD STD. 702001-04

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(21-4B-1) BRB	Knox	11	11A
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		