

INDEX OF SHEETS

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- 8-9. LANE CLOSURE, 2L, 2W BRIDGE REPAIR WITH BARRIER STANDARD 701321 FOR STAGE CONSTRUCTION
- 10-16. STRUCTURE PLANS

STANDARDS

- |           |  |
|-----------|--|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                               |
| 001001-02 | AREAS OF REINFORCEMENT BARS  |
| 001006    | DECIMAL OF AN INCH AND OF A FOOT   |
| 482011-03 | HMA SHOULDER STRIPS/SHOULDERS WITH RS OR WIDENING & RS PROJECTS            |
| 701006-05 | OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701201-04 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH                        |
| 701206-03 | LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH                      |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS                                |
| 701311-03 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY                         |
| 701321-14 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER                           |
| 701901-04 | TRAFFIC CONTROL DEVICES  |
| 704001-07 | TEMPORARY CONCRETE BARRIER   |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

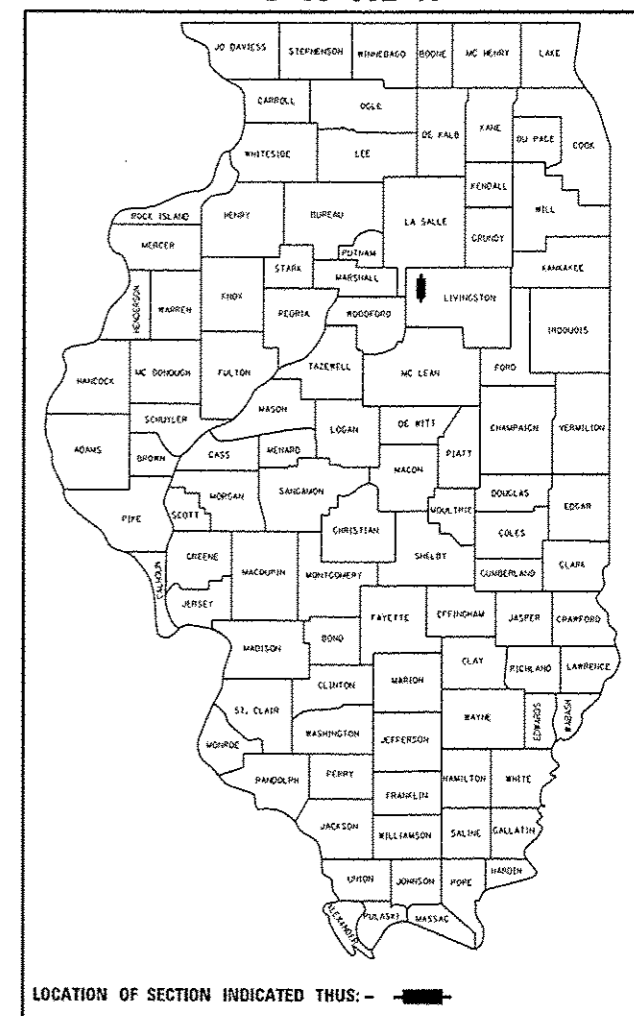
# PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 68 (IL 23)  
SECTION (101-B-1)I-2  
STRUCTURE REPAIRS  
STRUCTURE NO. 053-0154  
OVER LONG POINT CREEK  
3.46 MILES SOUTH OF IL 17  
LIVINGSTON COUNTY

C-93-033-15

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(101-B-1)I-2	LIVINGSTON	16	1
		ILLINOIS	CONTRACT NO. 66E43	

D-93-002-15



LOCATION OF SECTION INDICATED THUS: - [black bar] -

RURAL	
MINOR ARTERIAL	
F.A.P. 68 (IL 23)	
2013	
ADT	1650
P.V.	82.42%
S.U.	12.73%
M.U.	4.85%

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

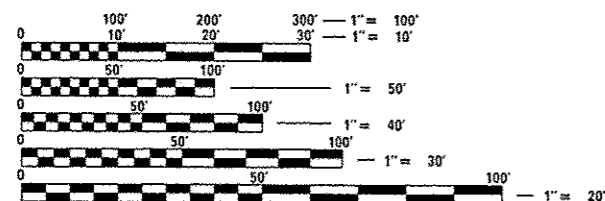
SUBMITTED July 16<sup>TH</sup> 2015  
Paul a. [Signature]  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Aug 14 2015  
John D. Baranzelli P.E.  
ENGINEER OF DESIGN AND ENVIRONMENT

Aug 14 2015  
Omer Osman P.E.  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

**PROJECT LOCATION**

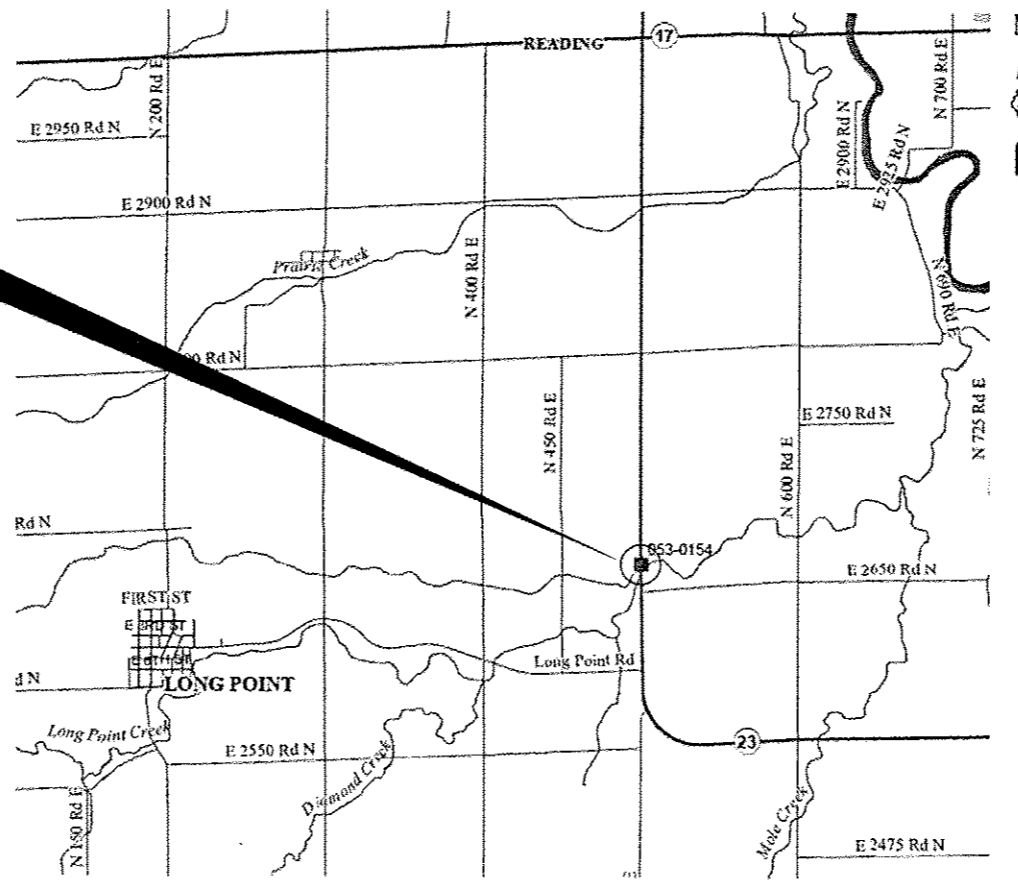


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: JOE KANNEL P.E.  
UNIT CHIEF: RON WOODSHANK  
TOWNSHIP: LONG POINT

CONTRACT NO. 66E43



GROSS LENGTH = 200 FT. = 0.038 MILE  
NET LENGTH = 200 FT. = 0.038 MILE



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT.
				100% STATE
				BRIDGE
				0014
				053-0154
20200500	EARTH EXCAVATION (WIDENING)	CU YD	118	118
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	10	10
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	526	526
50102400	CONCRETE REMOVAL	CU YD	29.2	29.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	32.6	32.6
50300260	BRIDGE DECK GROOVING	SQ YD	943	943
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3964	3964
50800515	BAR SPLICERS	EACH	36	36
52000110	PREFORMED JOINT STRIP SEAL	FOOT	168	168
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	450	450
63301990	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 1	EACH	4	4
63302700	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 6	EACH	4	4
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1

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		DRAWN :	REVISED :
		== RW	==
		CHECKED :	REVISED :
		== EP	==
		DATE :	REVISED :
		== 12/9/2014	==

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: \_\_\_\_\_ SHEET NO. 1 OF 3 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(101-B-1)1-2	LIVINGSTON	16	3
			CONTRACT NO. 66E43	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT. 100% STATE BRIDGE 0014 053-0154
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100455	TRAFFIC CONTROL AND PROTECTION, STANDARD 701206	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	30	30
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	500	500
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	500	500
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1488	1488
* 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	186	186
78200520	BARRIER WALL MARKERS, TYPE B	EACH	12	12
78300100	PAVEMENT MARKING REMOVAL	SO FT	584	584
X0326443	SILANE SURFACE SEALER	SO YD	1121	1121
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SO YD	938	938

\*SPECIALITY ITEMS

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		CHECKED : EP	REVISED : _____
		DATE : 12/9/2014	REVISED : _____

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

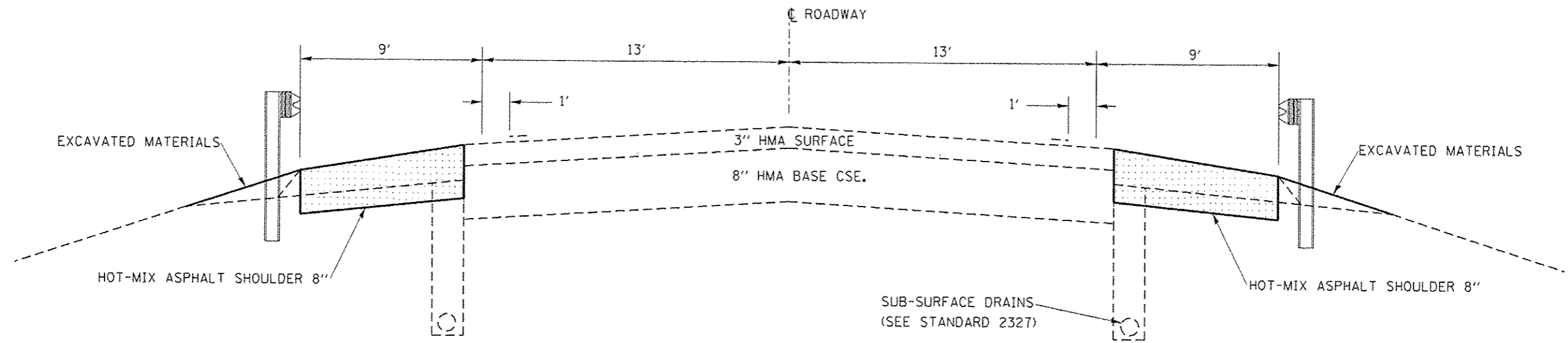
SUMMARY OF QUANTITIES

SCALE: \_\_\_\_\_ SHEET NO. 2 OF 3 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE. 68	SECTION (101-6-1)-2	COUNTY LIVINGSTON	TOTAL SHEETS 16	SHEET NO. 4
CONTRACT NO. 66E43			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT. 100% STATE BRIDGE 0014 053-0154
Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	863	863
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	863	863
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	42	42

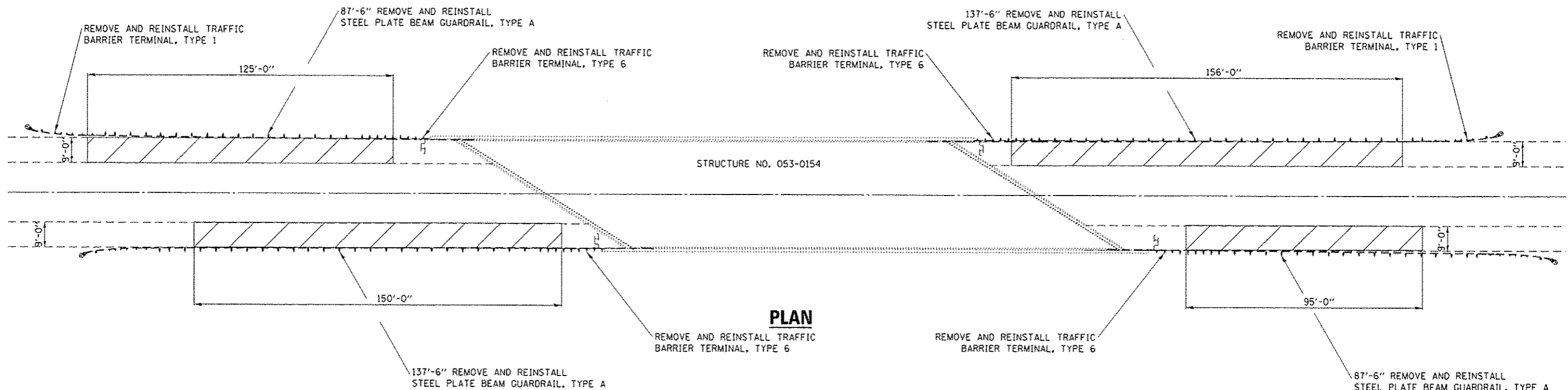
3



**TYPICAL SECTION**

STA. 405+11 TO STA. 406+81 LT.  
 STA. 405+91 TO STA. 407+51 RT.  
 STA. 409+29 TO STA. 410+89 LT.  
 STA. 409+99 TO STA. 411+09 RT.

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	PLOT SCALE : 100.0000' = 1"	CHECKED : EP	REVISED : _____			SCALE : _____	SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 66E43	ILLINOIS FED. AID PROJECT	
PLOT DATE : 4/10/2015	DATE : 12/9/2014	REVISED : _____									



**PLAN**

 **HMA SHOULDERS 8"**

- NOTES:**
1. TRAFFIC CONTROL AND PROTECTION FOR SHOULDER WORK SHALL BE ACCORDING TO TRAFFIC CONTROL AND PROTECTION STANDARD 701201.
  2. HMA SHOULDERS SHALL BE DONE ACCORDING TO STANDARD 482001.
  3. ALL SHOULDER WORK SHALL BE COMPLETED PRIOR TO BEGINNING STAGE CONSTRUCTION WORK.

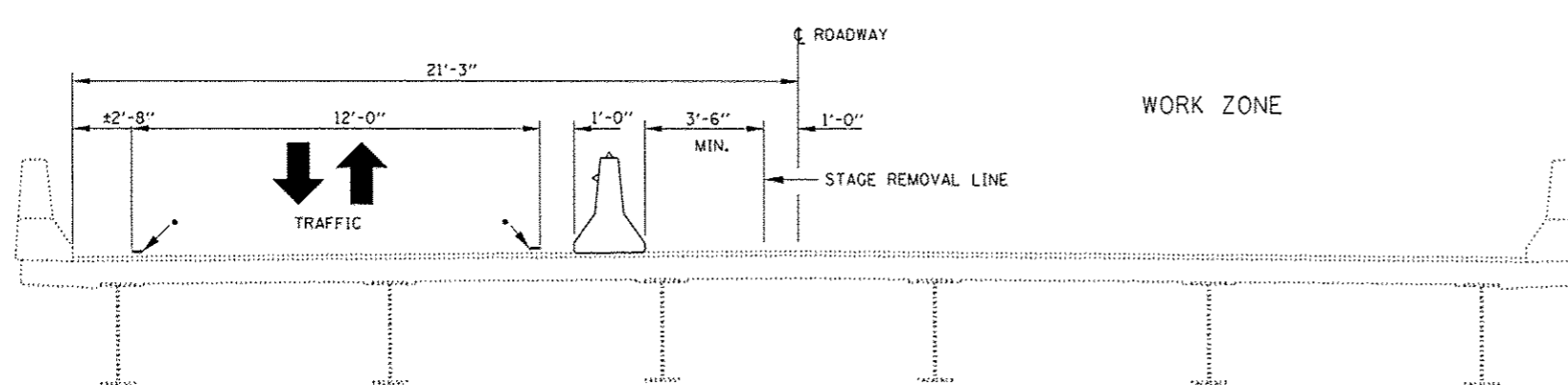
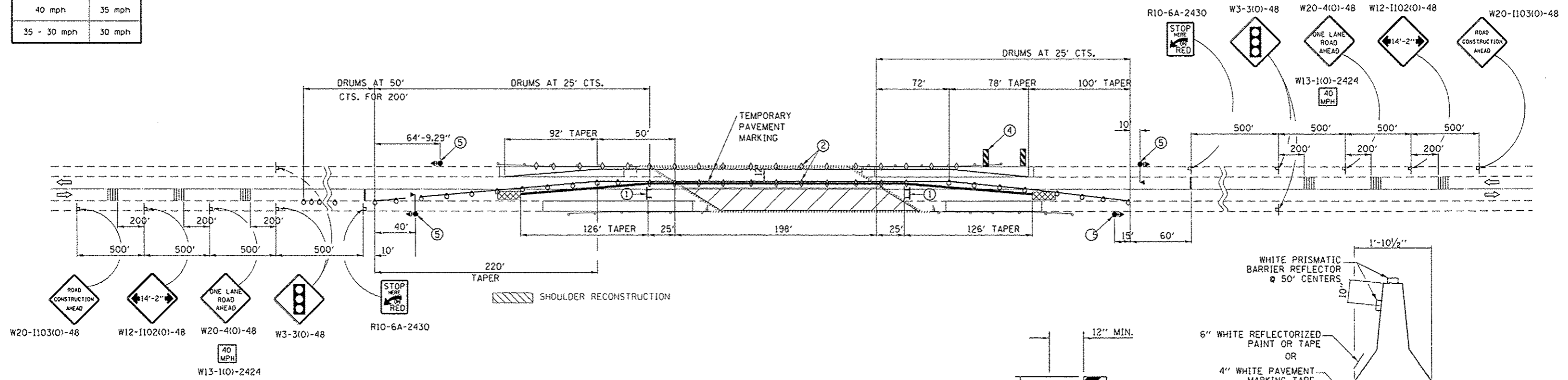
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	66E43-shr-details.dgn	DRAWN = RW	REVISED =			SCALE: _____	SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	ILLINOIS FED. AID PROJECT		
	PLOT SCALE = 100.0000 1" = 100'	CHECKED = EP	REVISED =								
PLOT DATE = 4/10/2015	DATE = 12/9/2014	REVISED =									

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 MPH AND ABOVE	12:1
BELOW 40 MPH	8:1

TRAFFIC SIGNAL SEQUENCE						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
NORTHBOUND OR EASTBOUND	G	Y	R	R	R	R
SOUTHBOUND OR WESTBOUND	R	R	R	G	Y	R

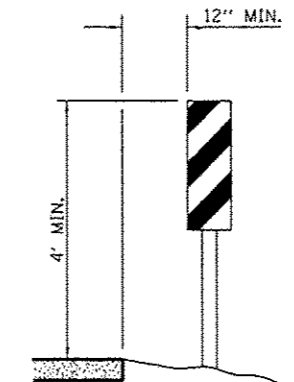
ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph

- TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011.
- WHEN TEMP. BRIDGE RAIL IS SPECIFIED, IT SHALL BE CONNECTED TO THE TEMP. CONC. BARRIER USING A TRAFFIC BARRIER TERMINAL TYPE 11.
- THESE VERTICAL PANELS AT 25' CTS. MAY BE OMITTED WHEN THE GUARDRAIL, W/MARKERS, EXTENDS TO AT LEAST THIS POINT ON THE TAPER.
- THE EDGE OF THE POST MOUNTED SIGNAL HEAD SHALL BE BETWEEN 24" AND 6" FROM EDGE OF SHOULDER.

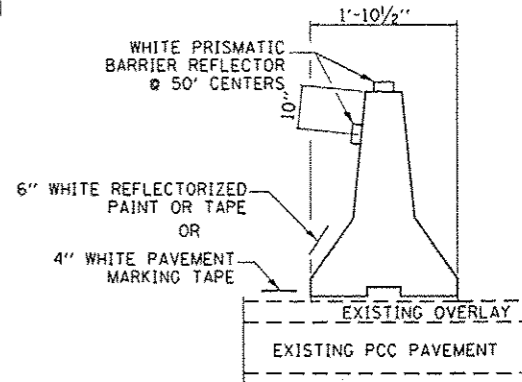


**CROSS SECTION  
STAGE I CONSTRUCTION**

- SYMBOLS**
- WORK AREA
  - SIGN
  - TYPE III BARRICADE
  - TRAFFIC SIGNAL WITH BACKPLATE
  - IMPACT ATTENUATOR



**VERTICAL PANELS  
(POST MOUNTED, ONE EACH SIDE)**



**TEMPORARY CONCRETE BARRIER**

**GENERAL NOTES**

ALL SHOULDER RECONSTRUCTION OPERATIONS SHALL BE COMPLETED PRIOR TO BEGINNING STAGE I CONSTRUCTION OPERATIONS.

THIS STANDARD IS USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCROACH ON ONE LANE OF A BRIDGE. TRAFFIC SIGNALS AND A POSITIVE BARRIER ARE REQUIRED.

TRAFFIC SIGNALS SHALL BE OPERATIONAL ONLY WHEN ALL TRAFFIC CONTROLS ARE IN PLACE. WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO STANDARD 701201 OR 701206.

TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF OPEN LANE FROM STOP BAR TO STOP BAR.

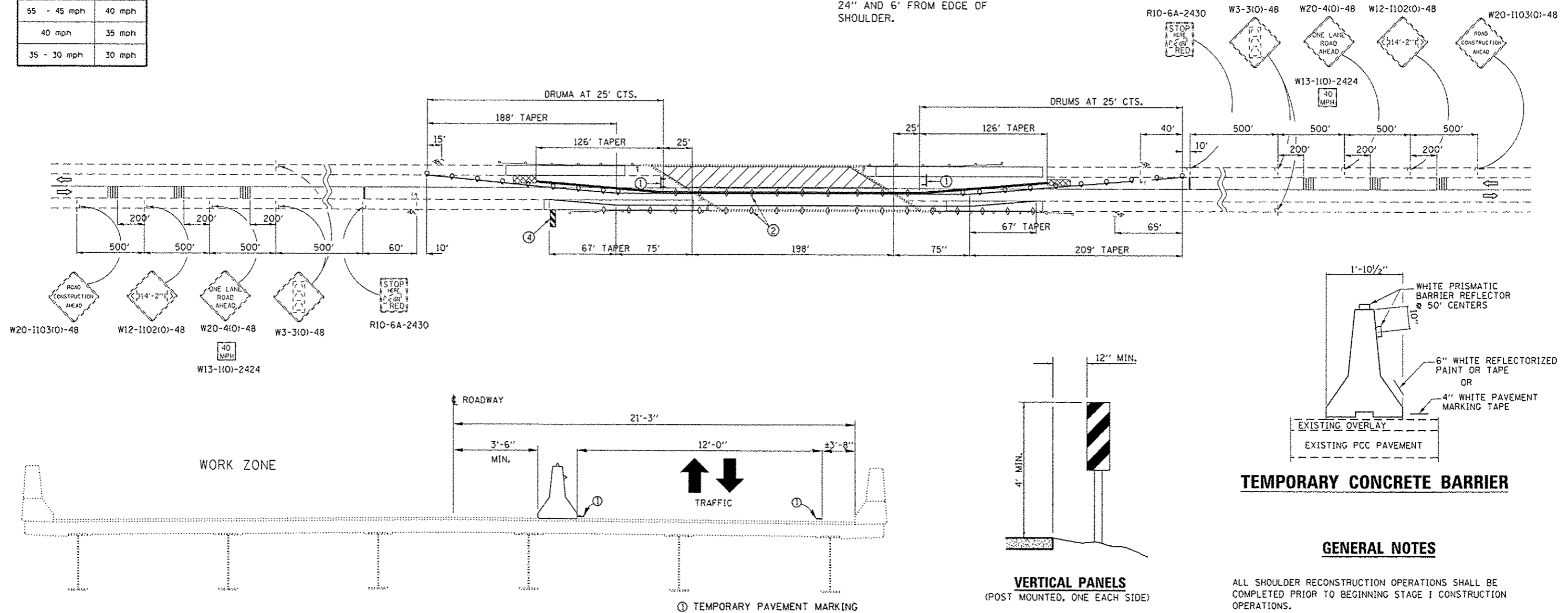


TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 MPH AND ABOVE	12:1
BELOW 40 MPH	8:1

TRAFFIC SIGNAL SEQUENCE						
PHASE	A	B				
INTERVAL	1	2	3	4	5	6
NORTHBOUND OR EASTBOUND	G	Y	R	R	R	R
SOUTHBOUND OR WESTBOUND	R	R	R	G	Y	R

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph

- TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011.
- WHEN TEMP. BRIDGE RAIL IS SPECIFIED, IT SHALL BE CONNECTED TO THE TEMP. CONC. BARRIER USING A TRAFFIC BARRIER TERMINAL TYPE 11.
- THESE VERTICAL PANELS AT 25' CTS. MAY BE OMITTED WHEN THE GUARDRAIL, W/MARKERS, EXTENDS TO AT LEAST THIS POINT ON THE TAPER.
- THE EDGE OF THE POST MOUNTED SIGNAL HEAD SHALL BE BETWEEN 24" AND 6' FROM EDGE OF SHOULDER.



**CROSS SECTION  
STAGE II CONSTRUCTION**

- SYMBOLS**
- WORK AREA
  - SIGN
  - TYPE III BARRICADE
  - TRAFFIC SIGNAL WITH BACKPLATE
  - IMPACT ATTENUATOR
  - DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
  - TEMPORARY CONCRETE BARRIER
  - TEMPORARY RUMBLE STRIP
  - DOUBLE VERTICAL PANEL (SEE DETAIL)
  - CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

**TEMPORARY CONCRETE BARRIER**

**GENERAL NOTES**

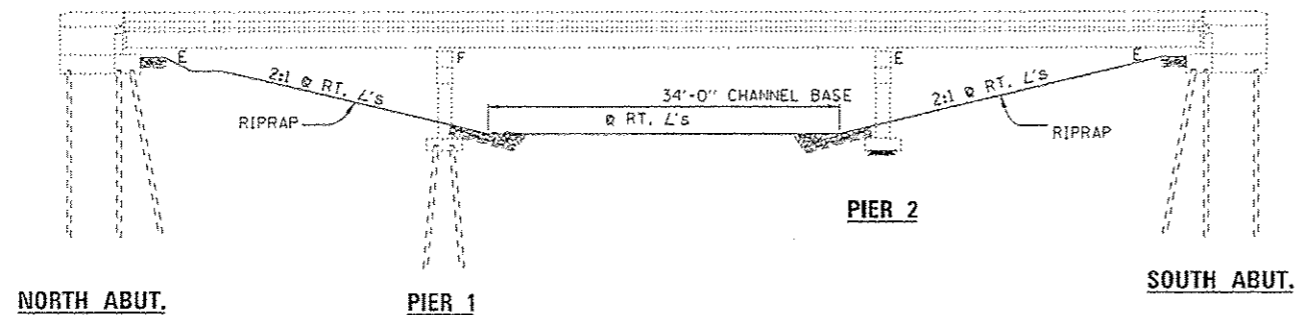
ALL SHOULDER RECONSTRUCTION OPERATIONS SHALL BE COMPLETED PRIOR TO BEGINNING STAGE I CONSTRUCTION OPERATIONS.

THIS STANDARD IS USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCROACH ON ONE LANE OF A BRIDGE. TRAFFIC SIGNALS AND A POSITIVE BARRIER ARE REQUIRED.

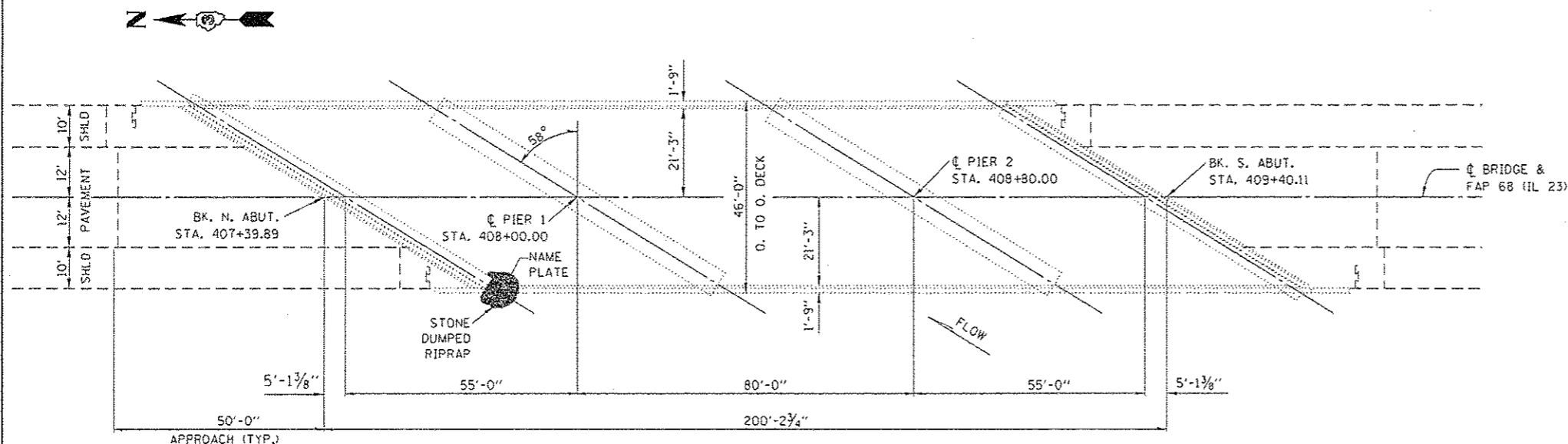
TRAFFIC SIGNALS SHALL BE OPERATIONAL ONLY WHEN ALL TRAFFIC CONTROLS ARE IN PLACE. WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO STANDARD 701201 OR 701206.

TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF OPEN LANE FROM STOP BAR TO STOP BAR.



**ELEVATION**



**PLAN**

**GENERAL NOTES**

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 WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

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.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR 36, UNLESS OTHERWISE NOTED.

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.

NO FIELD WELDING IS PERMITTED EXCEPT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

COST OF REMOVAL AND RE-INSTALLATION OF ALL MEMBERS NECESSARY TO COMPLETE THE WORK AS DETAILED ON THE PLANS AND AS SPECIFIED IN THE SPECIAL PROVISIONS SHALL BE INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

JOINT OPENING SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50 DEGREES F.

EXISTING NAME PLATE SHALL BE REMOVED AND REINSTALLED. COST INCLUDED WITH CONCRETE REMOVAL.



*David Carl Puzey 8/10/15*  
Expires 11/30/16

**EXISTING DESIGN STRESSES**

**FIELD UNITS**  
 FY = 60,000 PSI (DECK SLAB)  
 FC = 3500 PSI (DECK SLAB)  
 FC = 1,400 PSI (CURB, PARAPET, SUB.)  
 FS = 20,000 PSI (STRUCT.)  
 FS = 20,000 PSI (RIENF.)

**LOADING HS 20-44**

ALLOW 25"/SQ. FT. FOR FUTURE WEARING SURFACE.

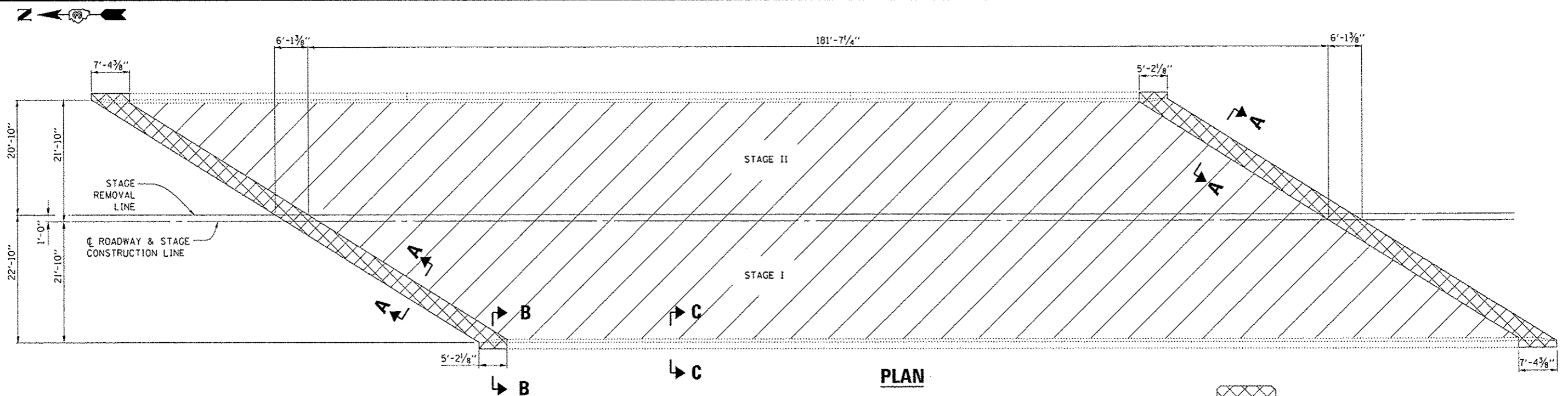
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 BUILT 1984 BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 68 SEC. 101B-1  
 LOADING HS20  
 STRUCTURE NO. 053-0154

**EXISTING NAME PLATE**

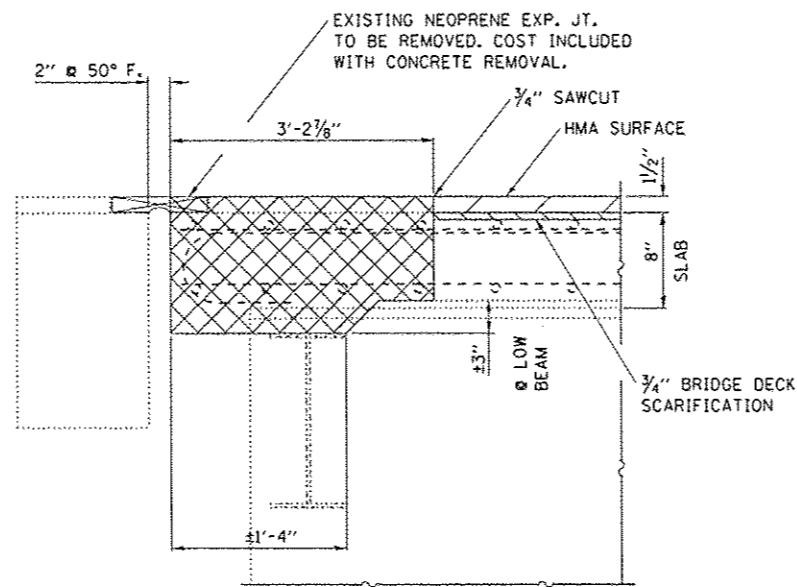
**TOTAL BILL OF MATERIALS**

ITEM	UNIT	SUPER	SUB	TOTAL
CONCRETE REMOVAL	CU YD	29.2		29.2
CONCRETE SUPERSTRUCTURE	CU YD	32.6		32.6
SILANE SURFACE SEALER	SO YD	1121		1121
REINFORCEMENT BARS, EPOXY COATED	POUND	3964		3964
BAR SPLICERS	EACH	36		36
PREFORMED JOINT STRIP SEAL	FOOT	168		168
HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SO YD	938		938
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SO YD	863		863
BRIDGE DECK SCARIFICATION 3/4"	SO YD	863		863
STONE DUMPED RIPRAP, CLASS A4	TON		10	10
BRIDGE DECK GRODDING	SO YD	943		943

FILE NAME =	USER NAME = woodshenkr	DESIGNED = RW	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION FOR STRUCTURE NO. 053-0154	F.A.P. RTE. 68	SECTION 1101-B-111-2	COUNTY LIVINGSTON	TOTAL SHEETS 16	SHEET NO. 10	
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PLOT SCALE = 100.0000 / / in.	DATE = 12/9/2014	REVISED =	REVISED =								
PLOT DATE = 8/7/2015	REVISED =	REVISED =	REVISED =								

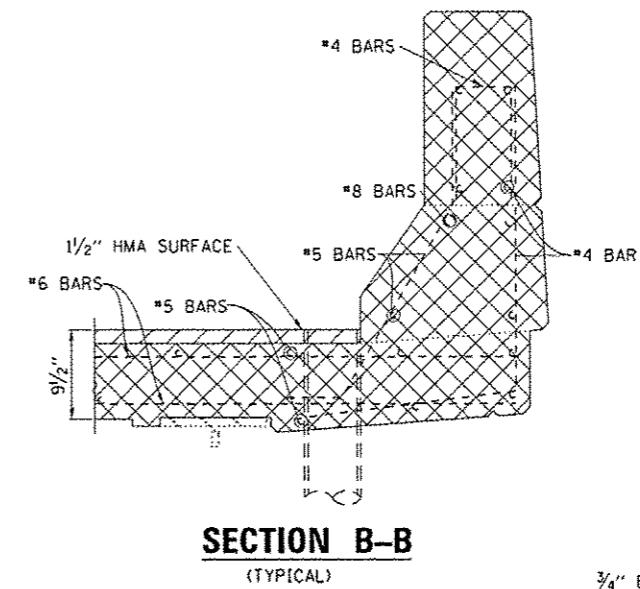


**PLAN**



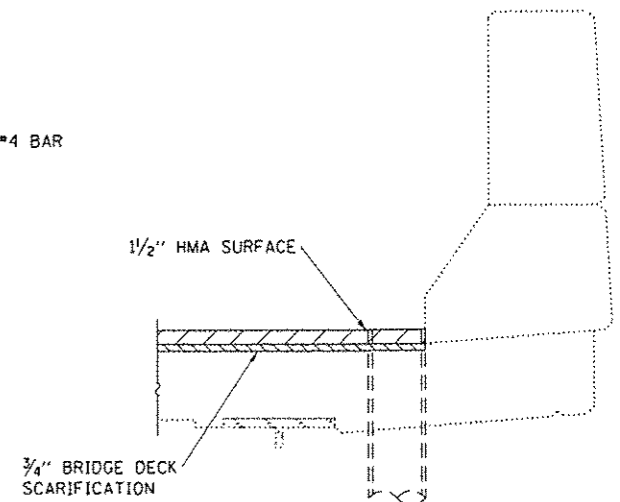
**SECTION A-A**

LONGITUDINAL MEASUREMENTS AT RT. L's TO JOINT



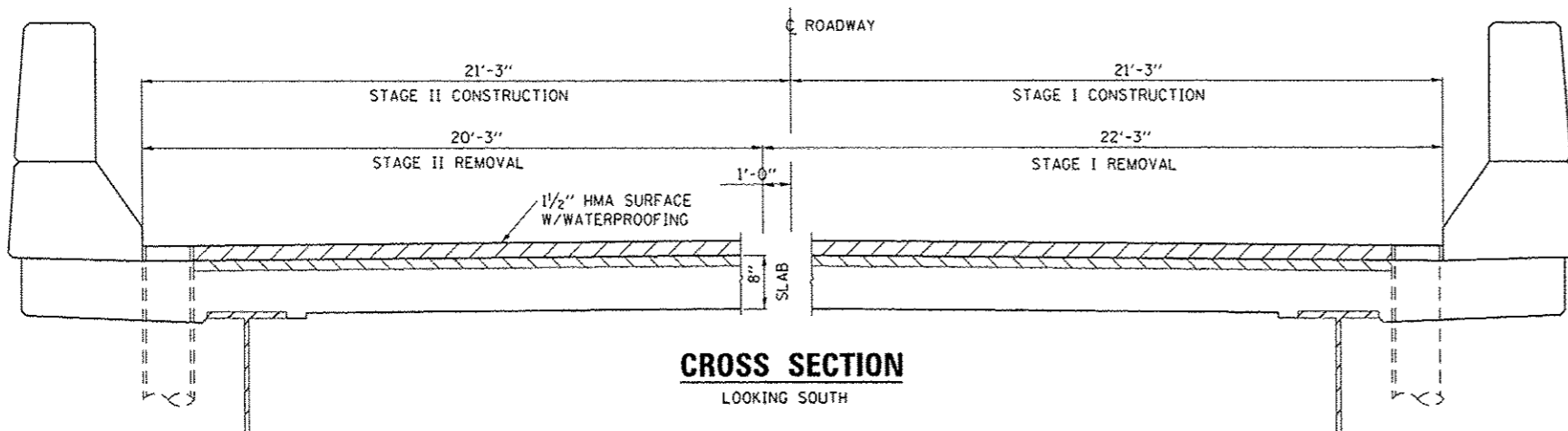
**SECTION B-B**

(TYPICAL)



**SECTION C-C**

(TYPICAL)



**CROSS SECTION**

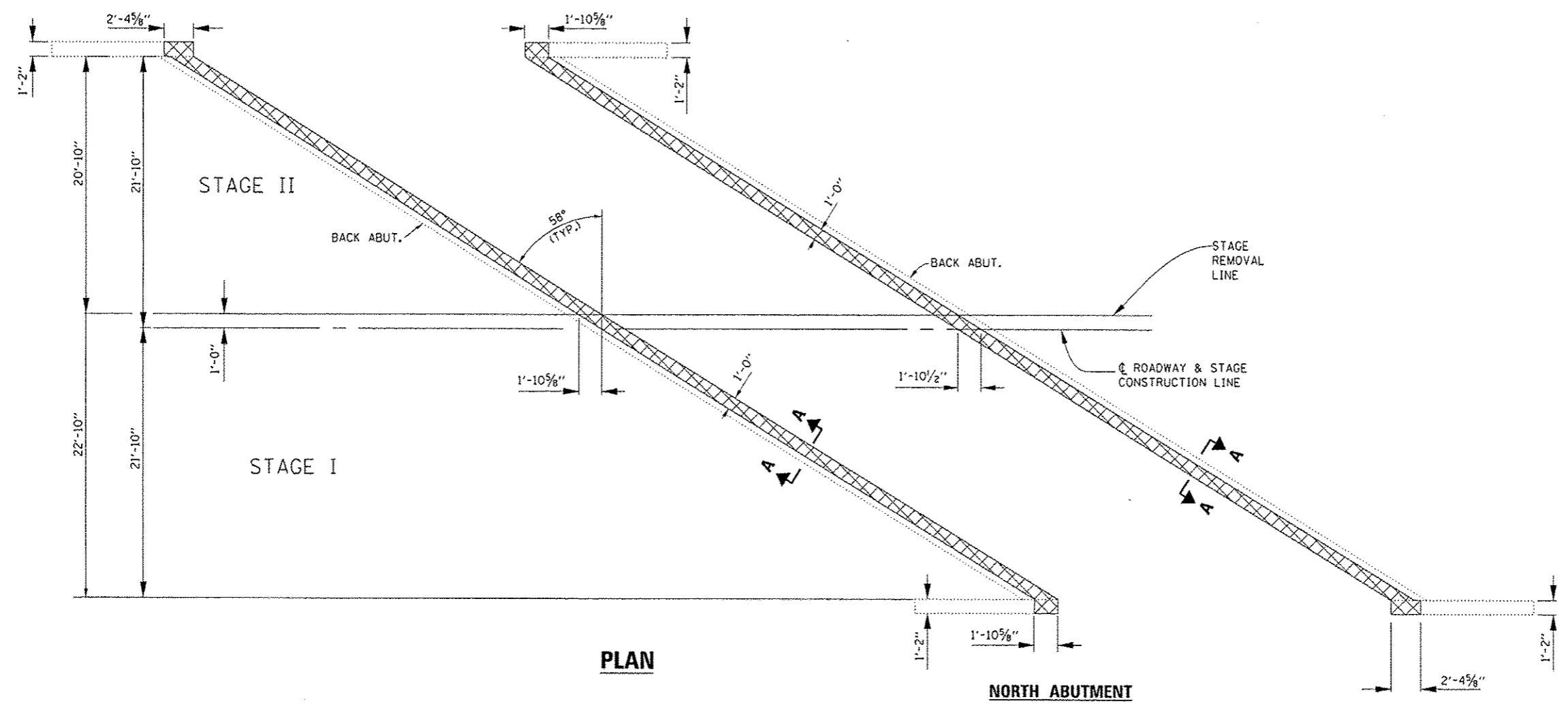
LOOKING SOUTH

NOTES:  
EXISTING LONGITUDINAL REINFORCEMENT IN PARAPET SHALL BE CUT OFF FLUSH WITH CONCRETE REMOVAL LINE.

ALL EXISTING VERTICAL REINFORCEMENT IN THE PARAPET WITHIN CONCRETE REMOVAL AREA SHALL BE REMOVED AND REPLACED WITH EPOXY COATED BARS, DRILLED AND GROUTED INTO EXISTING CONCRETE.

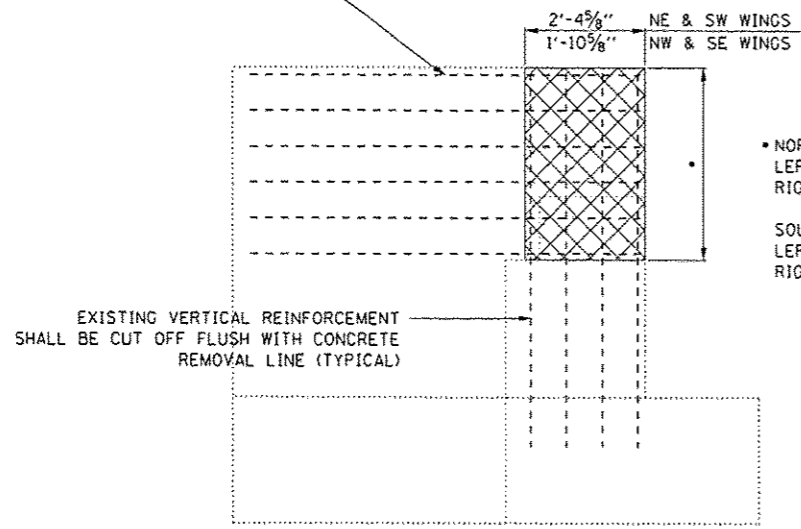
ALL EXISTING LONGITUDINAL AND TRANSVERSE REINFORCEMENT IN THE DECK SLAB SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION.

FILE NAME =	USER NAME = woodshankr1	DESIGNED = RW	REVISED =	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUPERSTRUCTURE REMOVAL DETAILS FOR STRUCTURE NO. 053-0154</b>	F.A.P. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =	
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PLOT DATE = 4/10/2015		DATE = 12/9/2014	REVISED =								



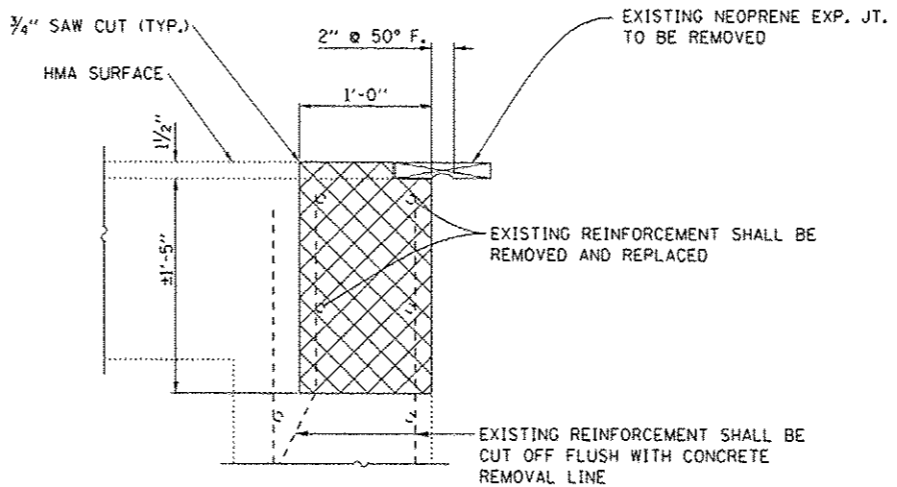
**PLAN**

EXISTING LONGITUDINAL REINFORCEMENT SHALL BE CUT OFF FLUSH WITH CONCRETE REMOVAL LINE (TYPICAL)



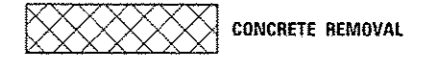
**ELEVATION WING WALL**

- NORTH ABUT.  
LEFT WING - 4'-4 3/4"  
RIGHT WING - 4'-0 3/4"
- SOUTH ABUT.  
LEFT WING - 4'-5 1/4"  
RIGHT WING - 4'-0 7/8"



**SECTION A-A**

LONGITUDINAL MEASUREMENTS AT RT. L's TO JOINT



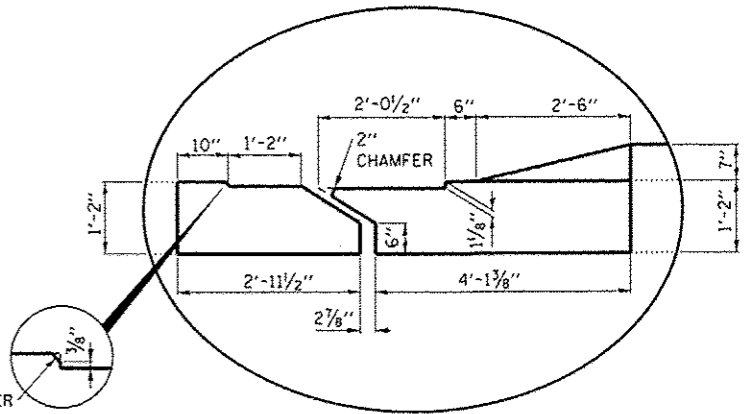
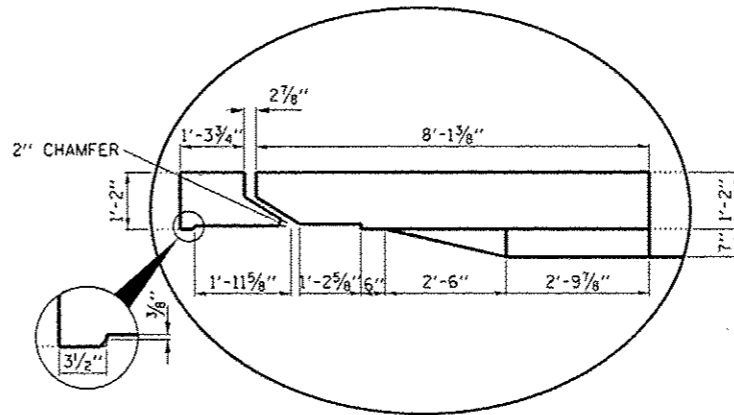
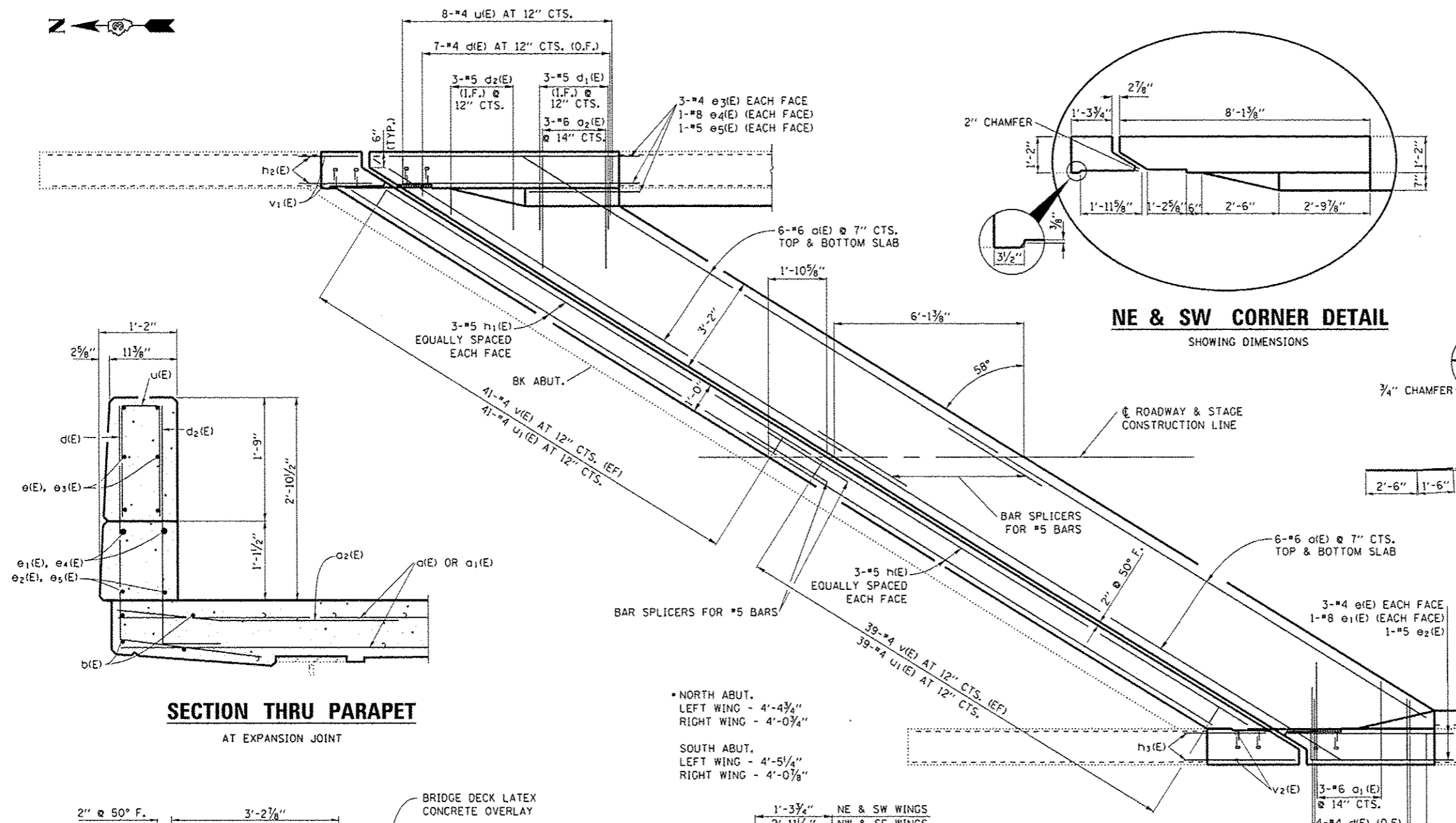
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		CHECKED : EP	REVISED : _____
		DATE : 12/9/2014	REVISED : _____

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

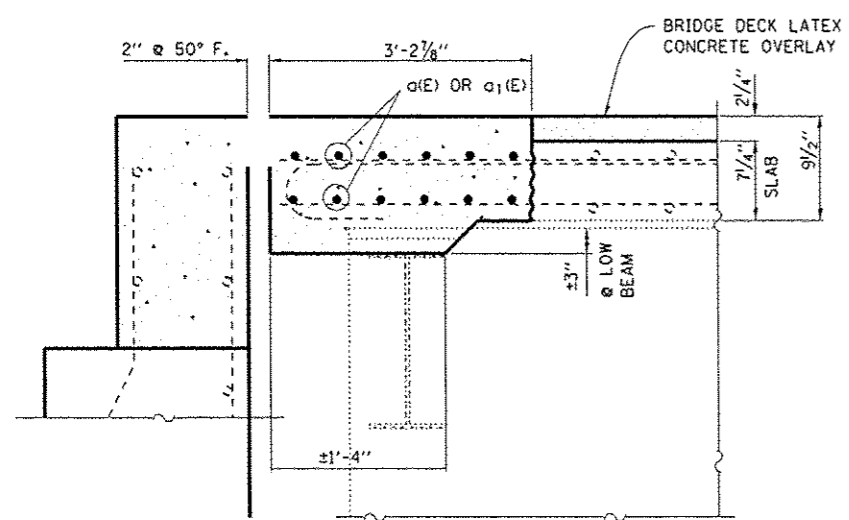
**SUBSTRUCTURE REMOVAL DETAILS  
FOR STRUCTURE NO. 053-0154**

SCALE: \_\_\_\_\_ SHEET NO. 3 OF 7 SHEETS STA. 407+39.89 TO STA. 409+40.11

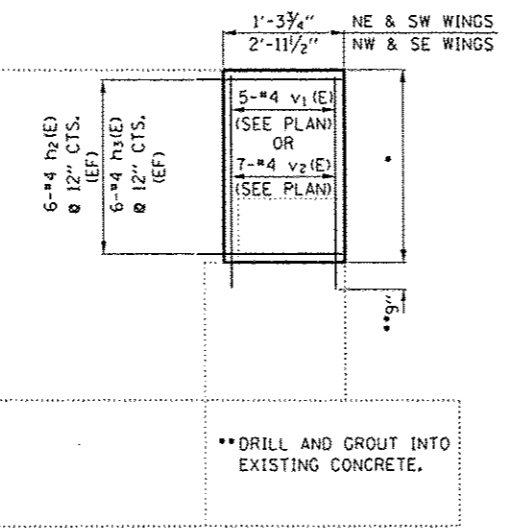
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(101-B-D)-2	LIVINGSTON	16	12
CONTRACT NO. 66E43			ILLINOIS FED. AID PROJECT	



**SECTION THRU PARAPET**  
AT EXPANSION JOINT



\*NORTH ABUT.  
LEFT WING - 4'-4 3/4"  
RIGHT WING - 4'-0 3/4"  
SOUTH ABUT.  
LEFT WING - 4'-5 1/4"  
RIGHT WING - 4'-0 1/8"



**PLAN**

NORTH ABUTMENT SHOWN  
SOUTH ABUTMENT SIMILAR THRU 180° ROTATION

**NOTES:**

- ALL REINFORCEMENT BARS SHALL BE ORDERED FULL LENGTH. WHENEVER NECESSARY THE REINFORCEMENT BARS SHALL BE CUT TO FIT THE NEW CONSTRUCTION.
- e(E) THRU e<sub>5</sub>(E) BARS SHALL BE DRILLED AND GROUTED A MIN. OF 9" INTO EXISTING PARAPET CONCRETE IN ACCORDANCE WITH ARTICLE 584 OF THE STANDARD SPECIFICATIONS.
- h<sub>2</sub>(E) & v<sub>1</sub>(E) BARS SHALL BE DRILLED AND GROUTED A MIN. OF 9" INTO EXISTING ABUT. WALL CONCRETE IN ACCORDANCE WITH ARTICLE 584 OF THE STANDARD SPECIFICATIONS.
- ARTICLE 584 OF THE STANDARD SPECIFICATIONS.

SEE SHEET 14 OF 15 FOR EXPANSION JOINT DETAILS.

**BILL OF MATERIALS FOR ONE ABUTMENT**

BAR	NO.	SIZE	LENGTH	SHAPE
a	24	6	24'-0"	=====
a1	3	6	3'-2"	=====
a2	3	6	4'-0"	=====
d	11	4	4'-9"	=====
d1	3	5	3'-7"	=====
d2	6	5	3'-4"	=====
e	6	4	5'-4"	=====
e1	2	8	5'-4"	=====
e2	1	5	5'-4"	=====
e3	6	4	8'-7"	=====
e4	2	8	8'-7"	=====
e5	2	5	8'-7"	=====
h	6	5	21'-10"	=====
h1	6	5	22'-0"	=====
h2	12	4	2'-3"	=====
h3	12	4	3'-7"	=====
u	13	4	3'-9"	=====
u1	80	4	3'-3"	=====
v	160	4	2'-5"	=====
v1	5	4	5'-0"	=====
v2	7	4	4'-8"	=====
CONCRETE REMOVAL			CU YD	14.6
CONCRETE SUPERSTRUCTURE			CU YD	16.3
REINFORCEMENT BARS			POUND	1943
EPOXY COATED				
BAR SPLICERS			EACH	18
PREFORMED JOINT STRIP SEAL			FOOT	84

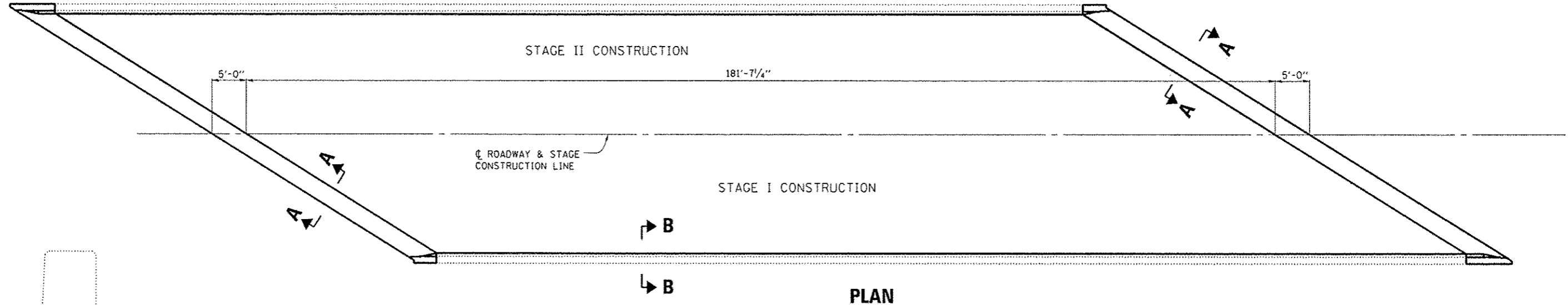
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	PLOT DATE = 4/10/2015	DATE : 12/9/2014	REVISED : _____

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

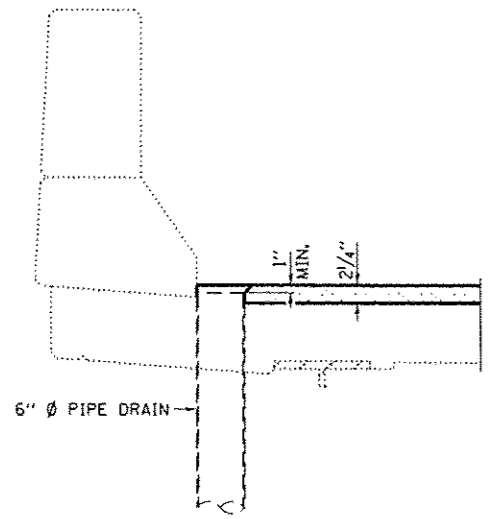
**SUPERSTRUCTURE RECONSTRUCTION DETAILS**  
**FOR STRUCTURE NO. 053-0154**

SCALE: \_\_\_\_\_ SHEET NO. 4 OF 7 SHEETS STA. 407+39.89 TO STA. 409+40.11

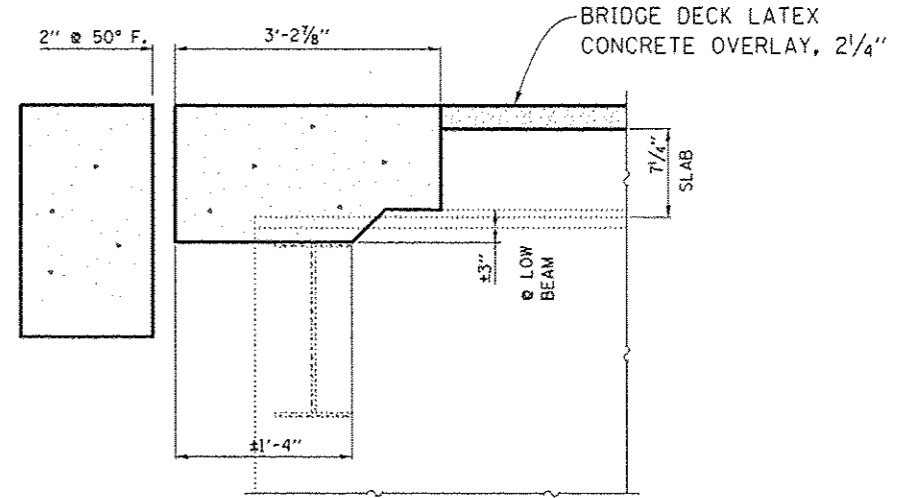
F.A.P. RTE. 68	SECTION (101-B-111-2	COUNTY LIVINGSTON	TOTAL SHEETS 16	SHEET NO. 13
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E43	



**PLAN**

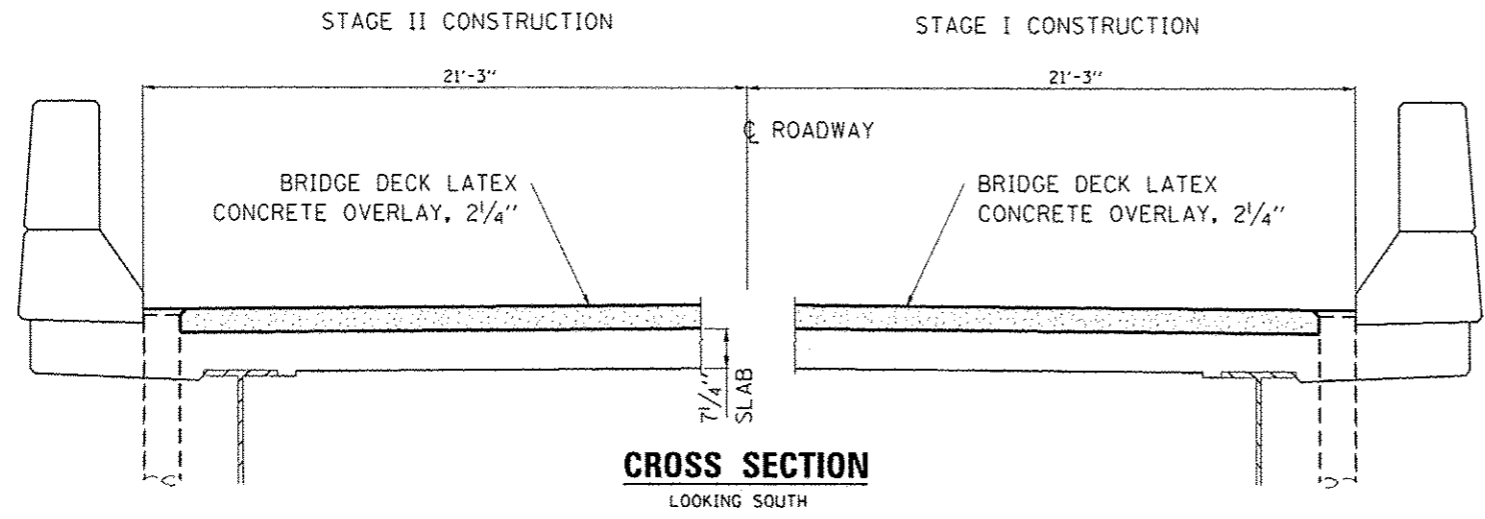


**SECTION B-B**  
(TYPICAL)



**SECTION A-A**

LONGITUDINAL MEASUREMENTS AT RT. L's TO JOINT



**CROSS SECTION**  
LOOKING SOUTH

**BILL OF MATERIALS**

SILANE SURFACE SEALER	SO YD	1121
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SO YD	868
BRIDGE DECK SCARIFICATION 3/4"	SO YD	868

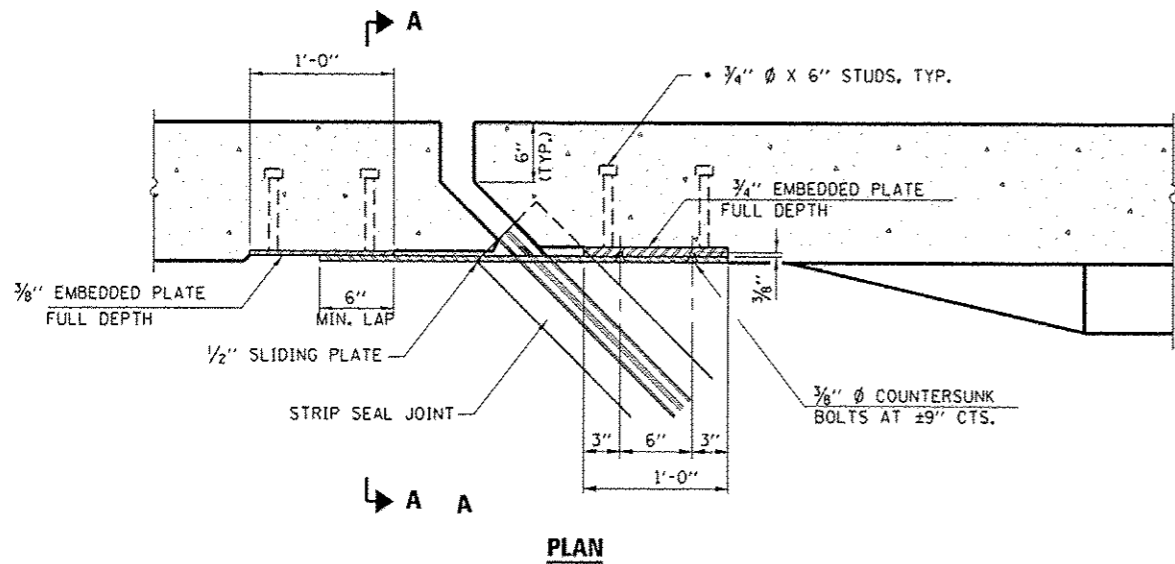
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

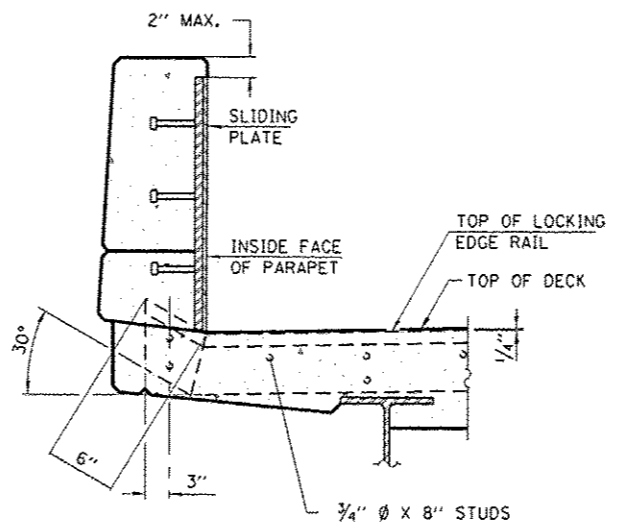
**SUPERSTRUCTURE OVERLAY DETAILS  
FOR STRUCTURE NO. 053-0154**

SCALE: \_\_\_\_\_ SHEET NO. 5 OF 7 SHEETS STA. 407+39.89 TO STA. 409+40.11

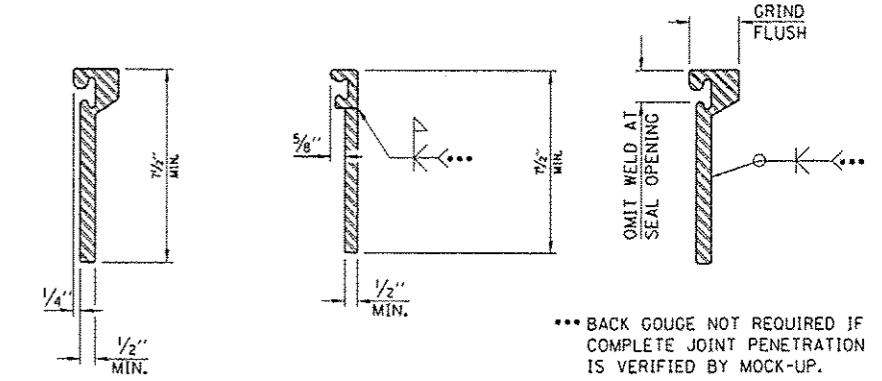
F.A.P. RTE. 68	SECTION 101-B-111-2	COUNTY LIVINGSTON	TOTAL SHEETS 16	SHEET NO. 14
[ILLINOIS] FED. AID PROJECT			CONTRACT NO. 66E43	



PLAN



SECTION A-A



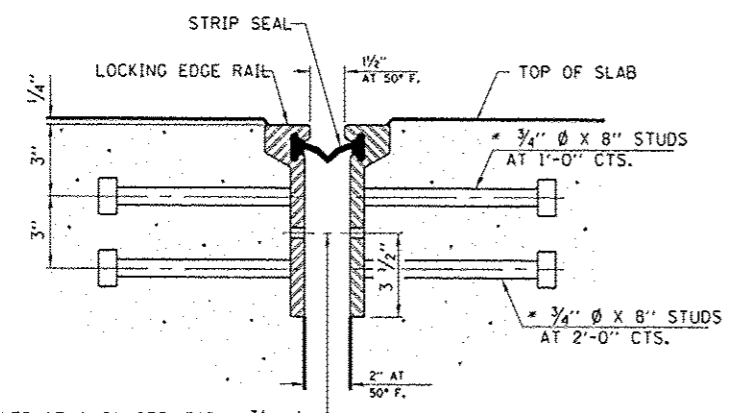
ROLLED EXTRUDED RAIL

WELDED RAIL

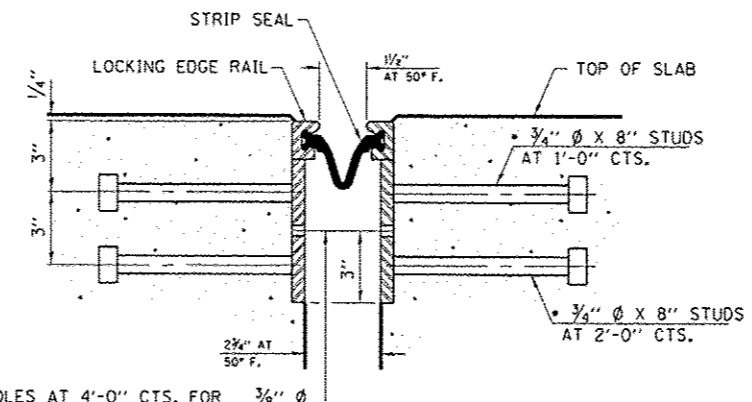
LOCKING EDGE RAIL SPLICE

THE INSIDE OF THE LOCKING EDGE RAIL GROOVE SHALL BE FREE OF WELD RESIDUE. ROLLED RAIL SHOWN, WELDED RAIL SIMILAR.

LOCKING EDGE RAILS



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT

1/16" Ø HOLES AT 4'-0" CTS. FOR 3/8" Ø BOLTS. ALL BOLTS SHALL BE BURNED, SAWED, OR CHIPPED OFF FLUSH WITH THE PLATES AFTER FORMS ARE REMOVED, TYP.

1/16" Ø HOLES AT 4'-0" CTS. FOR 3/8" Ø BOLTS. ALL BOLTS SHALL BE BURNED, SAWED, OR CHIPPED OFF FLUSH WITH THE PLATES AFTER FORMS ARE REMOVED, TYP.

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 CONCEPTUAL ONLY. EXCEPT FOR THE MINIMUM DIMENSIONS SHOWN, THE ACTUAL CONFIGURATION OF THE LOCKING EDGE RAILS AND MATCHING STRIP SEAL MAY VARY FROM MANUFACTURER TO MANUFACTURER. FLANGED EDGE RAILS WILL NOT BE ALLOWED. LOCKING EDGE RAILS MAY BE SPLICED AT SLOPE DISCONTINUITIES.

THE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS SHALL BE FOLLOWED.

THE JOINT OPENING AND DECK DIMENSIONS DETAILED ON THE SUPERSTRUCTURE ARE BASED ON A ROLLED RAIL EXPANSION JOINT. IF THE CONTRACTOR ELECTS TO USE THE WELDED RAIL EXPANSION JOINT, THE OPENING AND DECK DIMENSIONS SHALL BE MODIFIED ACCORDING TO THE DIMENSIONS DETAILED ON THIS SHEET. REQUIRED MODIFICATIONS SHALL BE MADE AT NO ADDITIONAL COST TO THE STATE.

ALL STEEL COMPONENTS SHALL BE GALVANIZED AFTER FABRICATION ACCORDING TO ARTICLE 520.03 OF THE STANDARD SPECIFICATIONS.

MAXIMUM SPACE BETWEEN RAIL SEGMENTS SHALL BE 3/16". SEALED WITH A SUITABLE SEALANT. JOINTS IN RAILS WITHIN 10 FT. OF CURBS SHALL BE WELDED.

PARAPET PLATES AND ANCHORAGE STUDS FOR SKEWS > 30' SHALL BE INCLUDED IN THE COST OF PREFORMED JOINT STRIP SEAL.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
PREFORMED JOINT STRIP SEAL	FOOT	168

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

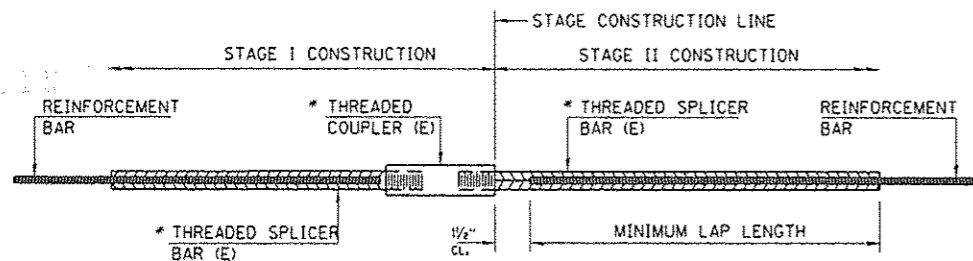
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PLOT DATE : 4/18/2015		DATE : 12/9/2014	REVISED : _____

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
FOR STRUCTURE NO. 053-0154

F.A.P. RTE. : 68	SECTION : 1101-B-111-2	COUNTY : LIVINGSTON	TOTAL SHEETS : 16	SHEET NO. : 15
SCALE: _____			CONTRACT NO. 66E43	
SHEET NO. 6 OF 7 SHEETS		STA. 407+39.89 TO STA. 409+40.11		

ILLINOIS FED. AID PROJECT



**STANDARD BAR SPLICER ASSEMBLY**

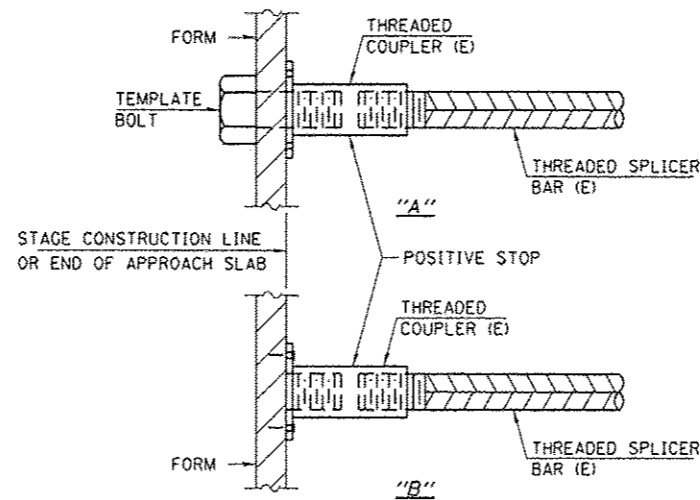
BAR SIZE TO BE SPLICED	MINIMUM LAP LENGTHS					
	TABLE 1	TABLE 2	TABLE 3	TABLE 4	TABLE 5	TABLE 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- TABLE 1: BLACK BAR, 0.8 CLASS C
- TABLE 2: BLACK BAR, TOP BAR LAP, 0.8 CLASS C
- TABLE 3: EPOXY BAR, 0.8 CLASS C
- TABLE 4: EPOXY BAR, TOP BAR LAP, 0.8 CLASS C
- TABLE 5: EPOXY BAR, CLASS C
- TABLE 6: EPOXY BAR, TOP BAR TOP, CLASS C

THREADED SPLICER BAR LENGTH = MIN. LAP LENGTH + 1/2" + THREAD LENGTH

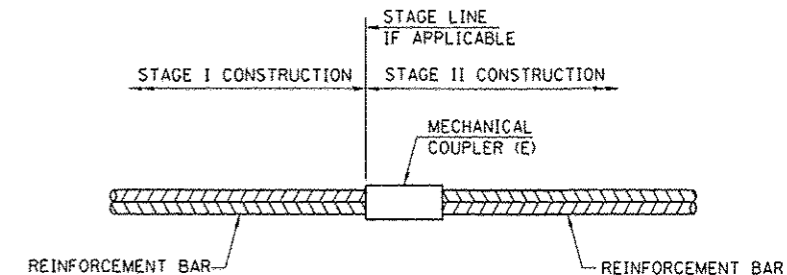
- EPOXY NOT REQUIRED ON BAR SPLICER ASSEMBLY COMPONENTS USED IN CONJUNCTION WITH BLACK BARS.

LOCATION	BAR SIZE	NO. ASSEMBLIES REQUIRED	TABLE FOR MINIMUM LAP LENGTH
W. ABUT	#5	6	3
WEST END DECK	#6	12	3
E. ABUT	#5	6	3
EAST END DECK	#6	12	3



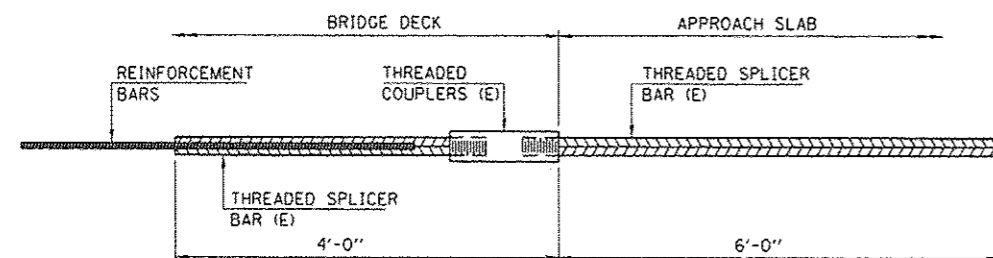
**INSTALLATION AND SETTING METHODS**

- "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.



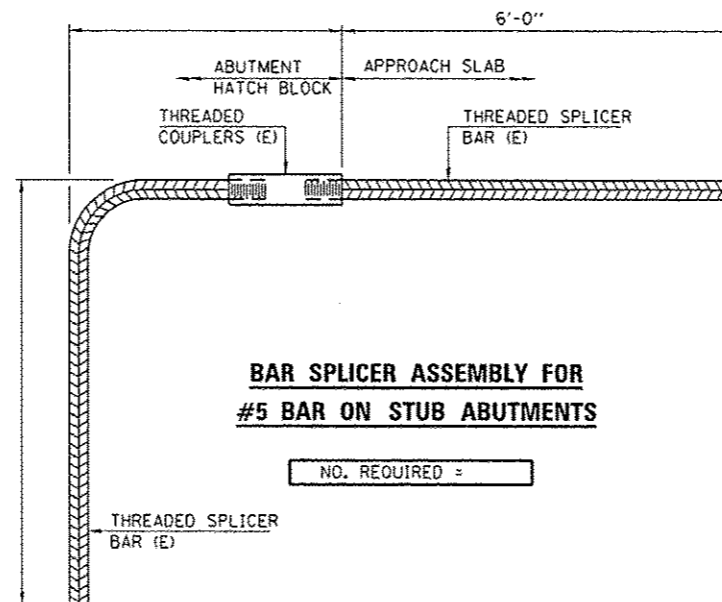
**STANDARD MECHANICAL SPLICER**

LOCATION	BAR SIZE	NO. ASSEMBLIES REQUIRED



**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

NO. REQUIRED =



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

NO. 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

8-31-12

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PLOT DATE : 4/10/2015			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BAR SPLICERS ASSEMBLY DETAILS  
FOR STRUCTURE NO. 053-0154**

SCALE: SHEET NO. 7 OF 7 SHEETS STA. 407+39.89 TO STA. 409+40.11

F.A.P. RTE. 68	SECTION (101-B-1)1-2	COUNTY LIVINGSTON	TOTAL SHEETS 16	SHEET NO. 16
CONTRACT NO. 66E43			ILLINOIS FED. AID PROJECT	