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11. MISCELLANEOUS CONSTRUCTION DETAILS
12. PREFORMED JOINT STRIP SEAL
13. BAR SPLICER ASSEMBLY
14. DECK DRAIN DETAILS

**STANDARDS**

- |           |  |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                               |
| 001001-02 | AREAS OF REINFORCEMENT BARS  |
| 001006    | DECIMAL OF AN INCH AND OF A FOOT   |
| 701001-02 | OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY                     |
| 701006-03 | OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701201-03 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH                        |
| 701301-03 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS                                |
| 701316-04 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS ≥ 45 MPH                   |
| 701901-01 | TRAFFIC CONTROL DEVICES  |

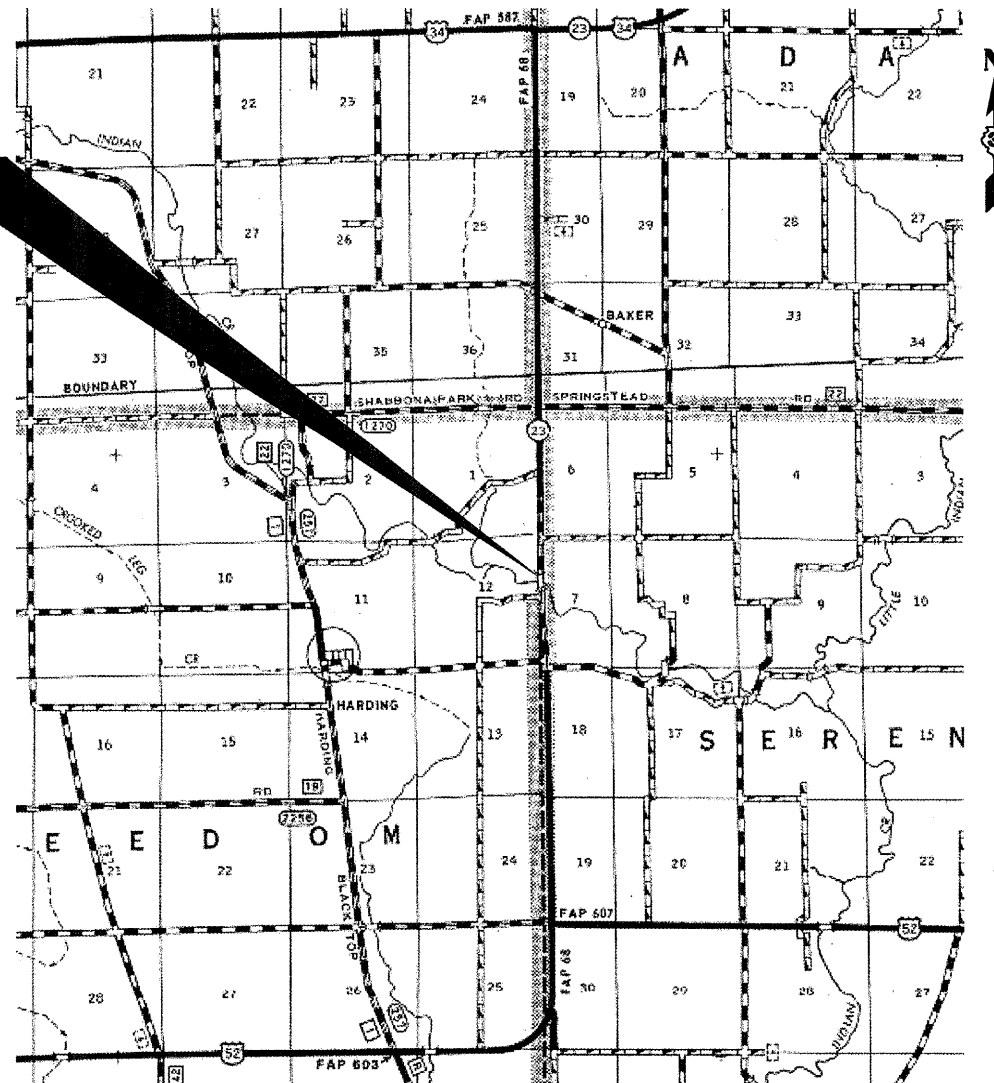
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**

**FAP ROUTE 68 (IL 23)**  
**SECTION (3BR)I**

**BRIDGE REPAIR**  
**LASALLE COUNTY**

**C-93-072-09**

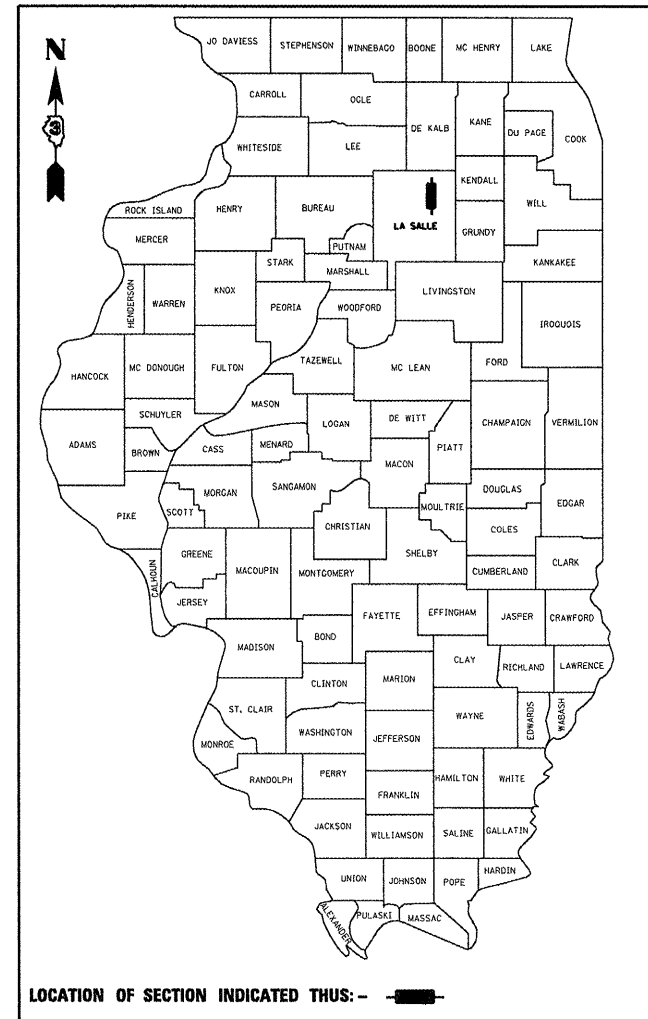
**PROJECT LOCATION**  
**SN 050-0159**  
**CARRYING FAP ROUTE 68 (IL 23)**  
**OVER INDIAN CREEK**  
**2.63 MILES NORTH OF US ROUTE 52**



POINT LOCATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3BR)I	LASALLE	14	1
		ILLINOIS	CONTRACT NO. 66936	

D-93-002-09



LOCATION OF SECTION INDICATED THUS: —

**FUNCTIONAL CLASSIFICATION**  
RURAL - MINOR ARTERIAL  
F.A.P. ROUTE 68 (IL 23)  
2007 ADT = 1900  
P.V = 81.6% M.U. = 10.5% S.U. = 7.9%

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

**PROJECT ENGINEER: JOE KANNEL**  
**UNIT CHIEF: RON WOODSHANK**  
**TOWNSHIP: SERENA**  
**CONTRACT NO. 66936**

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

SUBMITTED 4/8 2009  
George Ryan  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 8, 2009  
Charles G. Ingersoll  
ENGINEER OF DESIGN AND ENVIRONMENT

May 8, 2009  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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**OF THE STATE OF ILLINOIS**

# GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING ROADWAY OR STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND TO MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT BID FOR THE WORK.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE COST OF ANY SAW CUTS MADE TO COMPLETE THE WORK AS DESCRIBED IN PLAN DETAILS, UNLESS OTHERWISE NOTED SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE VARIOUS PAY REMOVAL PAY ITEMS INVOLVED.

	<b>HMA SURFACE</b>
<b>PG GRADE</b>	<b>PG64-22</b>
<b>MAX % RAP ALLOWABLE</b>	<b>**15%</b>
<b>DESIGN AIR VOIDS</b>	<b>4.0% @ N50</b>
<b>MIXTURE COMPOSITION</b>	<b>IL 12.5 or IL 9.5</b>
<b>FRICTION AGGREGATE</b>	<b>MIXTURE C</b>
<b>DENSITY CONTROL METHOD</b>	<b>*NUCLEAR</b>

\*MATERIAL SHALL BE COMPACTED TO 93.0 - 97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.

\*\*WHEN MORE THAN 20% RAP IS USED, A SOFTER ASPHALT BINDER (PG58-22) MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.

DATE: 4.7.09

PREPARED BY: [Signature]  
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: [Signature]  
DISTRICT CONSTRUCTION ENGINEER

[Signature]  
DISTRICT MATERIALS ENGINEER

[Signature]  
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -
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	PLOT SCALE = 40.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = Apr 03, 2009 - 11:29:55 AM	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3BR1)	LASALLE	14	2
CONTRACT NO. 66936			ILLINOIS	

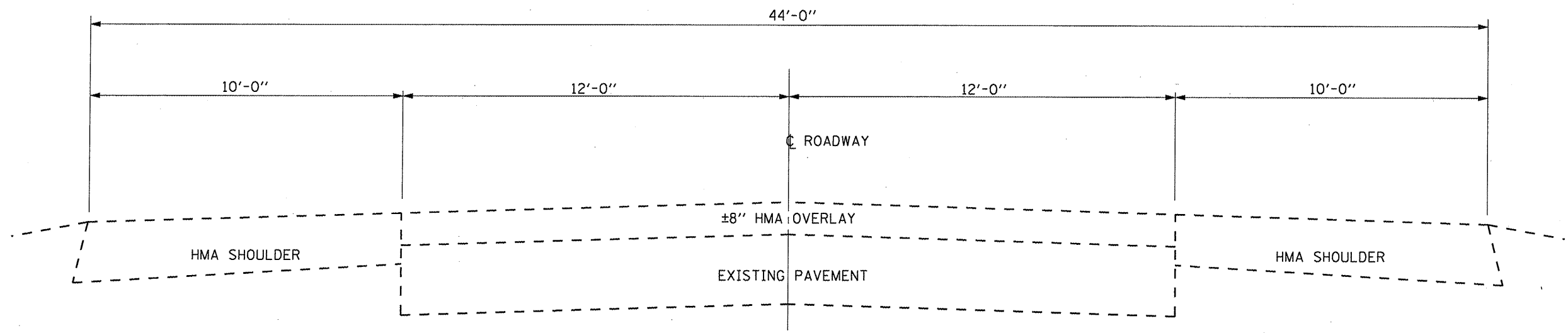
## SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE:

SFTY-2A

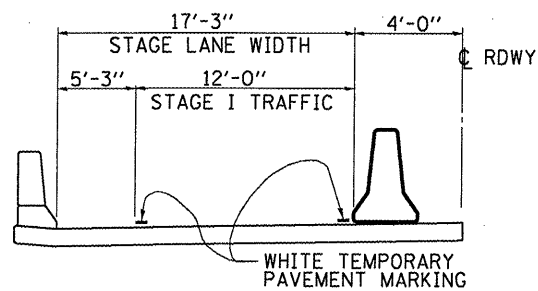
CODE NO.	ITEM	UNIT	RURAL 100% STATE TOTAL QUANTITY
28100707	STONE DUMPED RIPRAP, CLASS A4	SQ YD	33
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	58
44000915	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	687
50102400	CONCRETE REMOVAL	CU YD	13
50300225	CONCRETE STRUCTURES	CU YD	0.7
50300255	CONCRETE SUPERSTRUCTURE	CU YD	12.3
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1940
50800515	BAR SPLICERS	EACH	24
52000110	PREFORMED JOINT STRIP SEAL	FOOT	93
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	687
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	400
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	400
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	800
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	720
78300100	PAVEMENT MARKING REMOVAL	SQ FT	569
X0321468	PLUG EXISTING DECK DRAINS	EACH	20
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	20
X0550300	SLOPE WALL BREAKING	SQ YD	33
50300530	FLOOR DRAIN EXTENSION	EACH	20
Z0016000	DECK SLAB REPAIR (FULL DEPTH)	SQ YD	30
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	70

**\* SPECIALTY ITEMS**



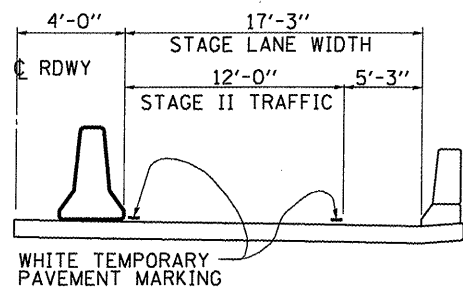
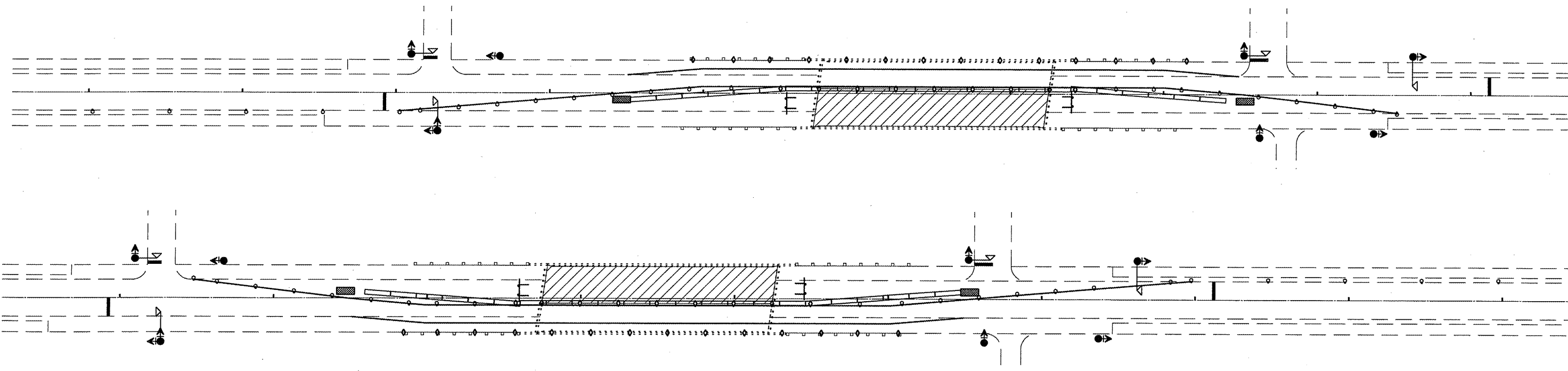
## EXISTING TYPICAL SECTION

FILE NAME =	USER NAME = woodshankr1	DESIGNED - ---	REVISED - ---	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTION</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwr\work\PIWIDOT\WOODSHANKRL\dms91680	D366936-details.dgn	DRAWN - ---	REVISED - ---			68	(3BR)I	LASALLE	14	4	
	PLOT SCALE = 48.0000' / IN.	CHECKED - ---	REVISED - ---			CONTRACT NO. 66936					
	PLOT DATE = Apr 03, 2009 - 11:30:04 AM	DATE - ---	REVISED - ---			ILLINOIS					
				SCALE: _____ SHEET NO. 1 OF 1 SHEETS		STA. _____ TO STA. _____					

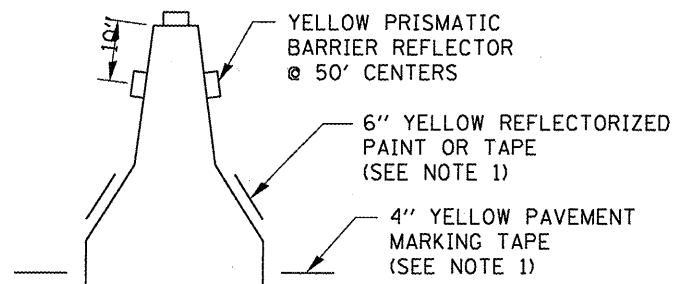


TEMPORARY PAVEMENT MARKING  
STAGE I

- SYMBOLS**
- WORK AREA
  - SIGN
  - TRAFFIC SIGNAL WITH BACK PLATE
  - MICROWAVE DETECTOR
  - TEMPORARY CONCRETE BARRIER
  - DRUM WITH STEADY BURNING LIGHT AT 25' CTS.
  - TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
  - CRYSTAL, BIDIRECTIONAL PARAPET/GUARDRAIL MARKER AT 25' CTS.
  - TYPE III BARRICADE WITH FLASHING LIGHT



TEMPORARY PAVEMENT MARKING  
STAGE II



BARRIER WALL DELINEATION

**GENERAL NOTES**

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

THE CONTRACTOR HAS THE OPTION OF USING THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.

THIS DETAIL SHALL BE USED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701316.

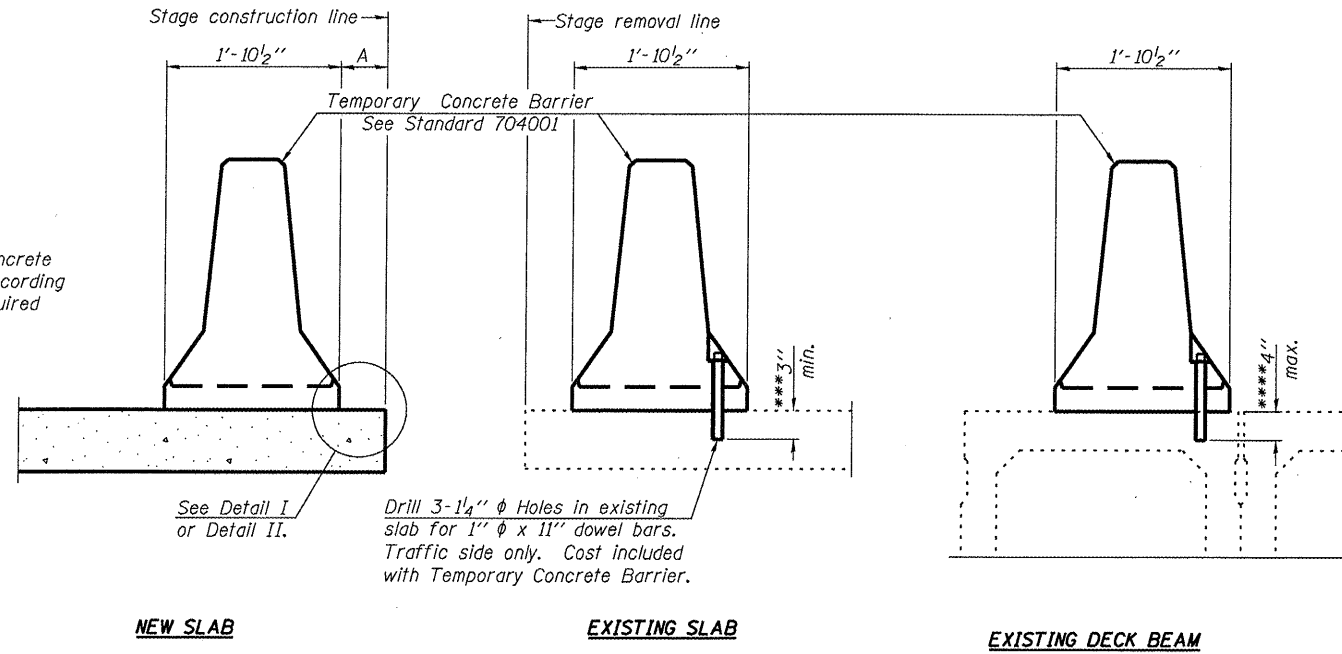
THE COST OF THE REFLECTORS AND BARRIER MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.

WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701201.

BI-DIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ALONG THE CENTERLINE WHERE THE WORK AREA IS SEPARATED FROM THE TRAVELED LANE USING BARRICADES OR DRUMS. MONODIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ON ALL OTHER BARRICADES OR DRUMS.

FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STAGING DETAILS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\WOODSHANKR1\dms91688	D366936-detail1.dgn	DRAWN -	REVISED -			68	(3BR1)	LASALLE	14	5	
PLOT SCALE = 48,0000' / IN.	CHECKED -	REVISED -				CONTRACT NO. 66936					
PLOT DATE = Apr 03, 2009 - 11:38:09 AM	DATE -	REVISED -				ILLINOIS					

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

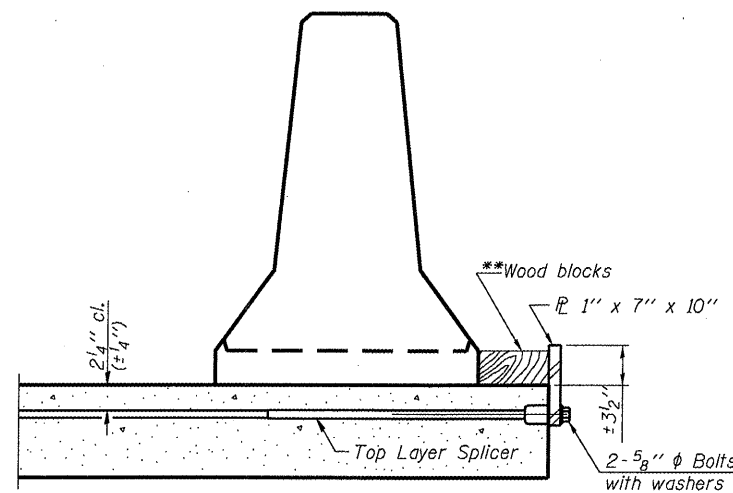
**Detail I - With Bar Splicer or Couplers:**  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

**Detail II - With Extended Reinforcement Bars:**  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

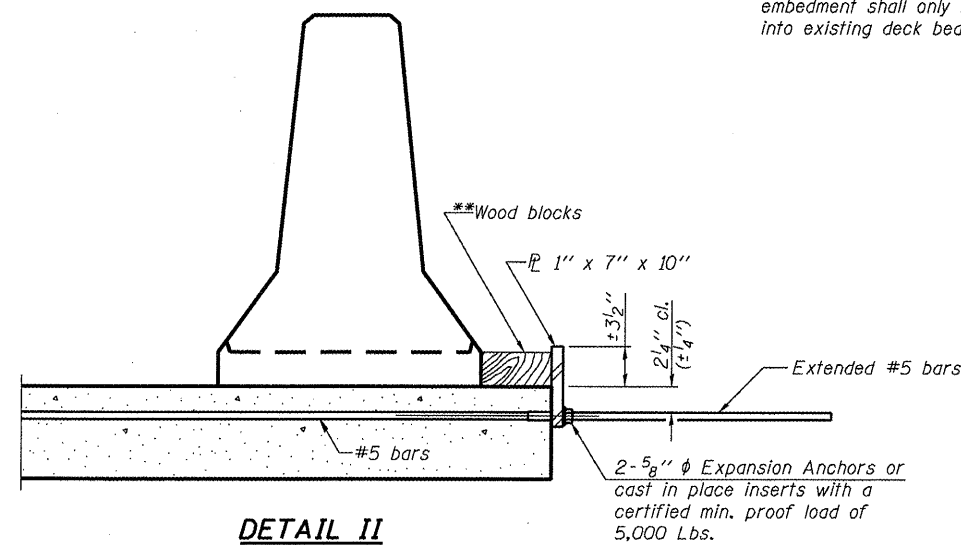
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.

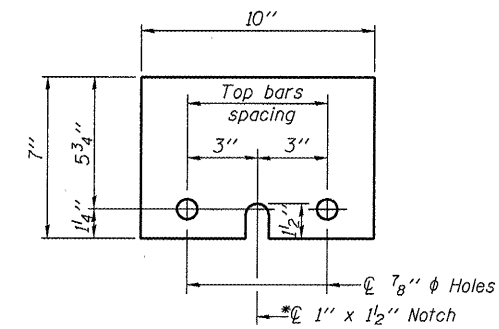


**DETAIL I**



**DETAIL II**

\*\*Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.



**STEEL RETAINER  $\bar{P}$  1" x 7" x 10"**

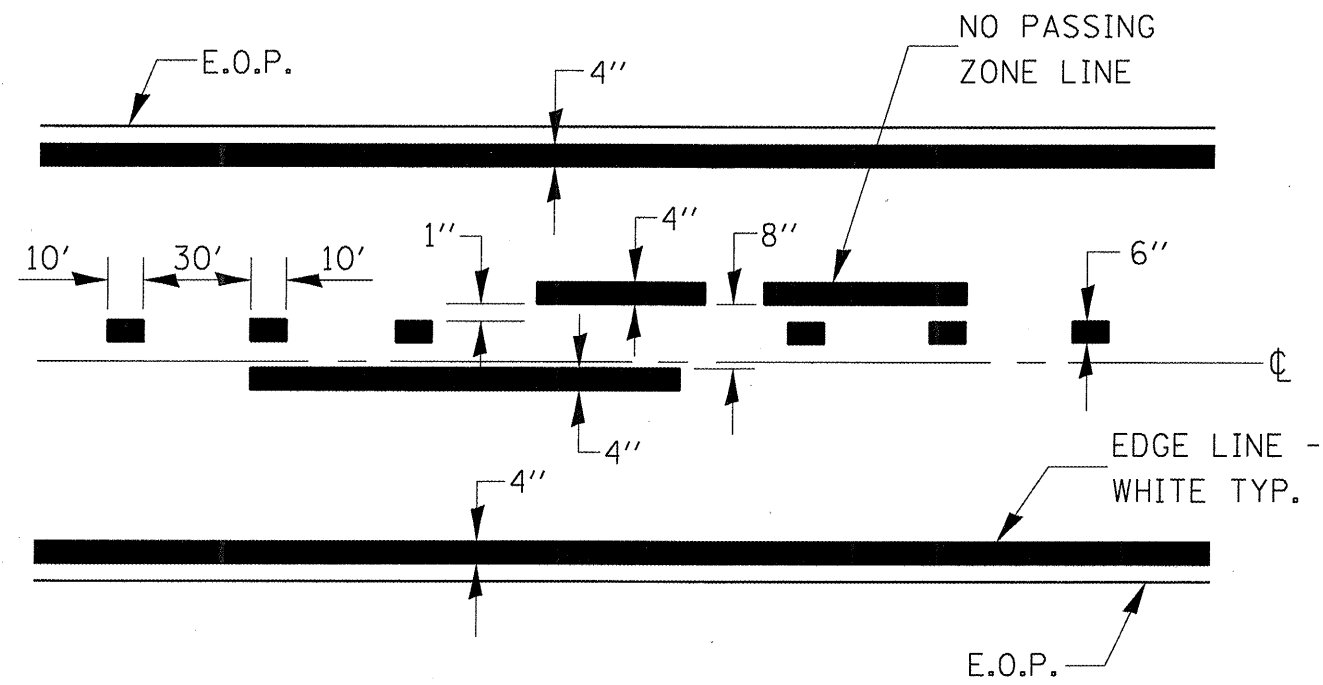
\* Required only with Detail II

R-27

10-1-08

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 050-0159**

FILE NAME =	USER NAME = woodahankr1	DESIGNED -	REVISD -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY CONCRETE BARRIER</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct\pw_work\PW100T\WOODSHANKRL\dms91688	0366936-detail1.dgn	DRAWN -	REVISD -			68	(3BR)I	LASALLE	14	6	
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PLOT DATE = Apr 03, 2009 - 11:30:13 AM	DATE -	REVISD -	REVISD -			ILLINOIS CONTRACT NO. 66936					

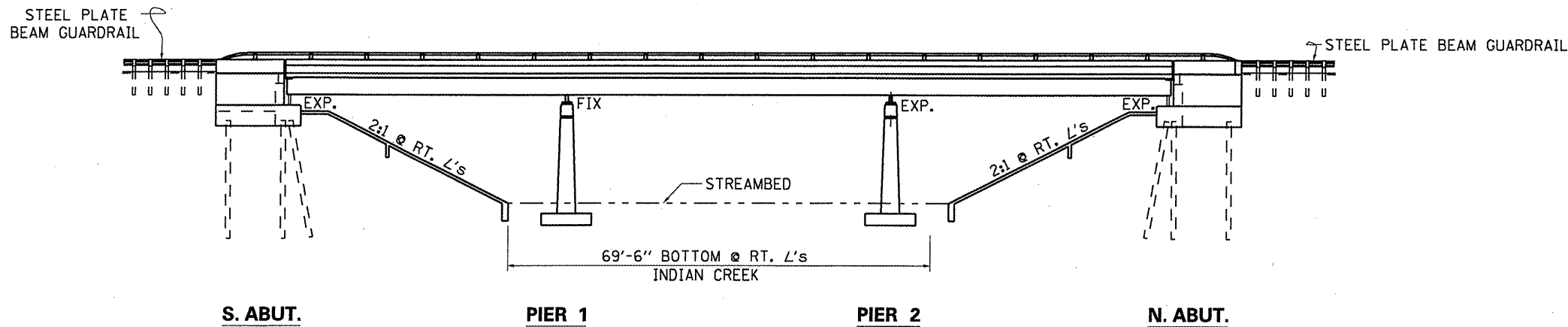


CENTERLINE & NO PASSING  
ZONE LINES - YELLOW

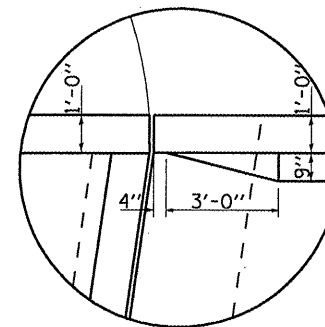
(SEE TYPICAL SECTIONS)

## PAVEMENT MARKING

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PLOT SCALE = 40.0000' / IN.						SCALE: _____	SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 66936			
PLOT DATE = Apr 03, 2009 - 11:30:20 AM						ILLINOIS						
DATE - _____		REVISED - _____										



**ELEVATION**



**CORNER DETAIL  
TYPICAL**

**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 THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED BASED UPON THE UNIT BID FOR THE WORK.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60. SEE SPECIAL PROVISIONS.

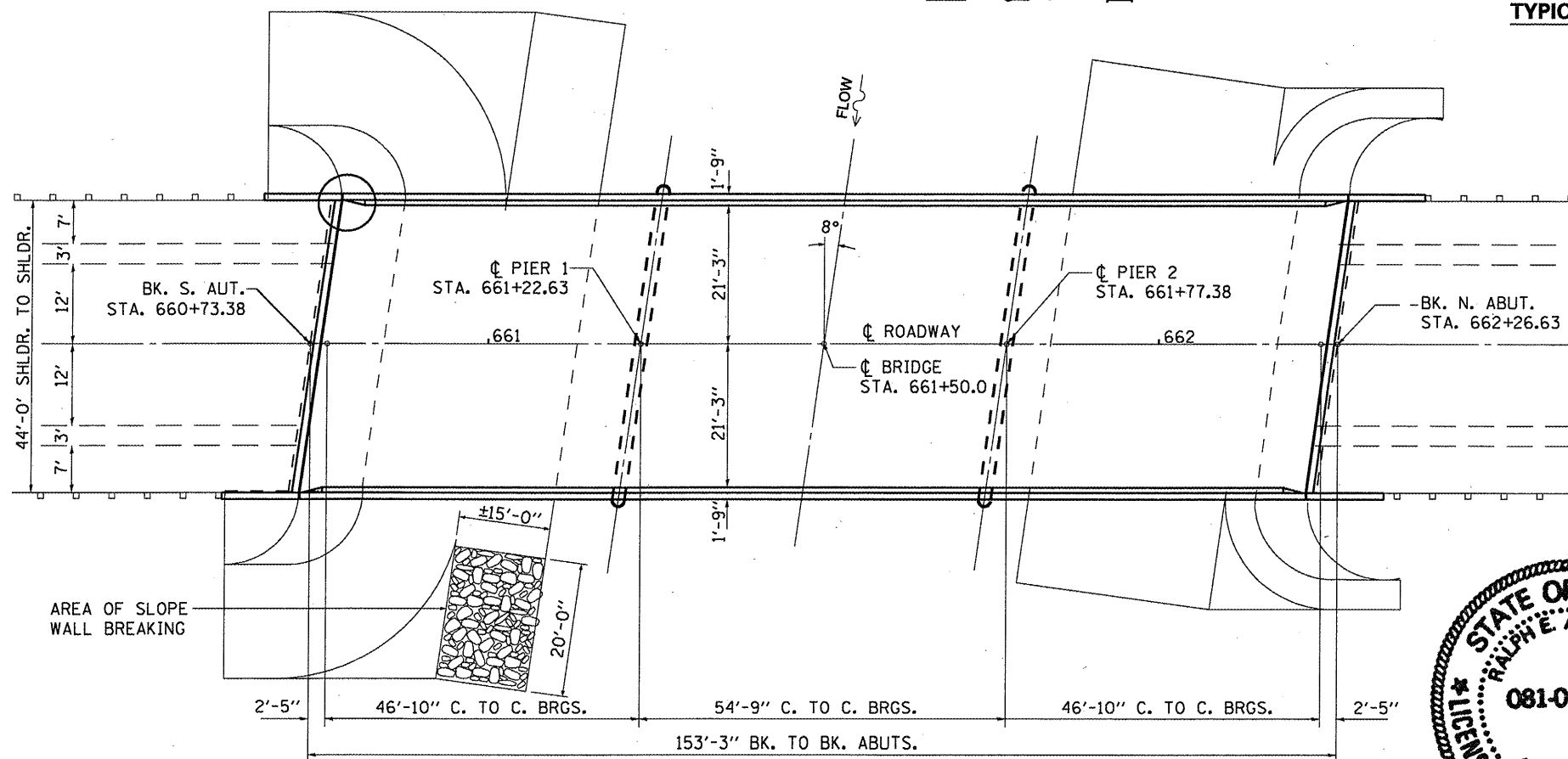
JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50

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

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

EXISTING REINFORCEMENT BARS EXTENDING INTO 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 CONTRACTOR WILL BE REQUIRED TO MARK ON THE TOP OF THE CONCRETE DECK THE LOCATIONS OF THE TOP FLANGE OF ALL STEEL BEAMS PRIOR TO ANY REMOVAL OF THE BRIDGE CONCRETE DECK. SAW CUTTING DIRECTLY OVER THE TOP OF BEAM FLANGES IS NOT PERMITTED.



**PLAN**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
HMA SURFACE REMOVAL (DECK)	SQ YD	687		687
CONCRETE REMOVAL	CU YD	12.3	0.7	13
REINFORCEMENT BARS, EPOXY COATED	POUND	960	980	1940
BAR SPLICERS	EACH	12	12	24
CONCRETE STRUCTURES	CU YD		0.7	0.7
CONCRETE SUPERSTRUCTURE	CU YD	12.3		12.3
PREFORMED JOINT STRIP SEAL	FOOT	90		90
WATERPROOFING MEMBRANE SYSTEM	SQ YD	687		687
HOT-MIX ASPHALT, SURFACE CSE. MIX C, N50	TON	58		58
Floor DRAIN EXTENSION	EACH	20		20
SLOPE WALL BREAKING	SQ YD		33	33
STONE DUMPED RIPRAP, CL A4	SQ YD		33	33
PLUG EXISTING DECK DRAIN	SQ YD	20		20

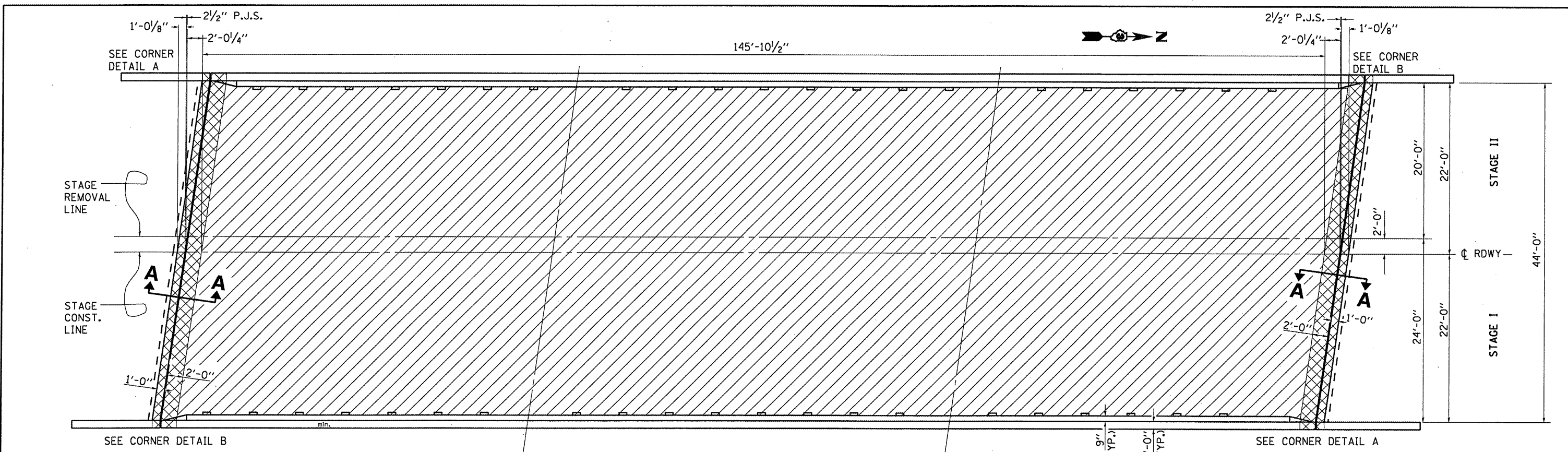


Expires 11-30-2010

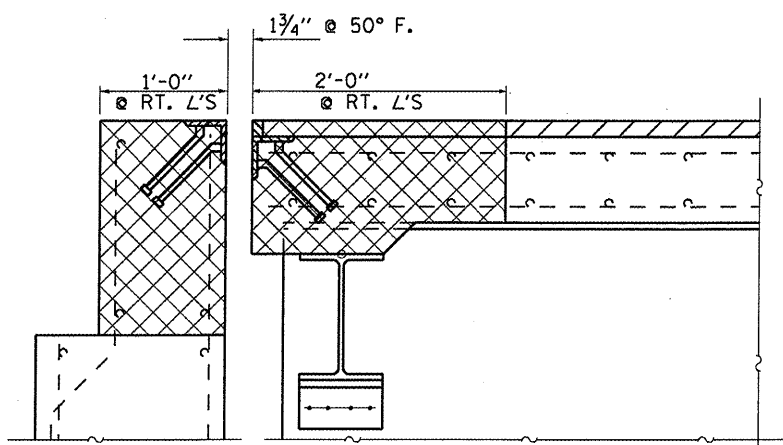
**IL 23 (FAP 68) OVER  
INDIAN CREEK  
SN 050-0159  
STA. 661+50**

FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN AND ELEVATION</b>	F.A.P. RTE. 68	SECTION (3BR)	COUNTY LASALLE	TOTAL SHEETS 14	SHEET NO. 8	
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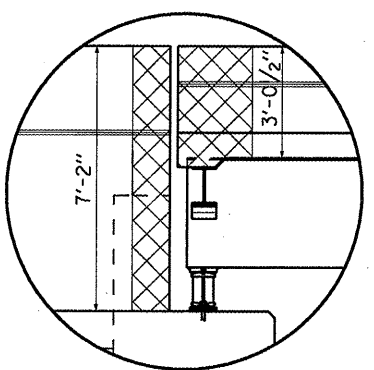


**PLAN**

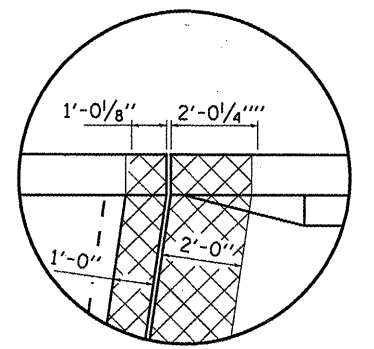


**SECTION A-A**

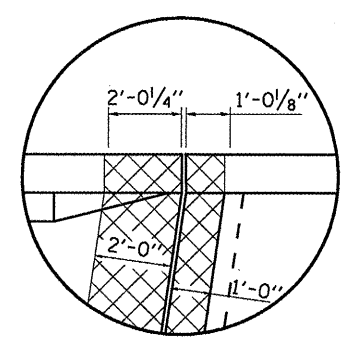
- HOT-MIX ASPHALT SURFACE REMOVAL (DECK)**
- CONCRETE REMOVAL**



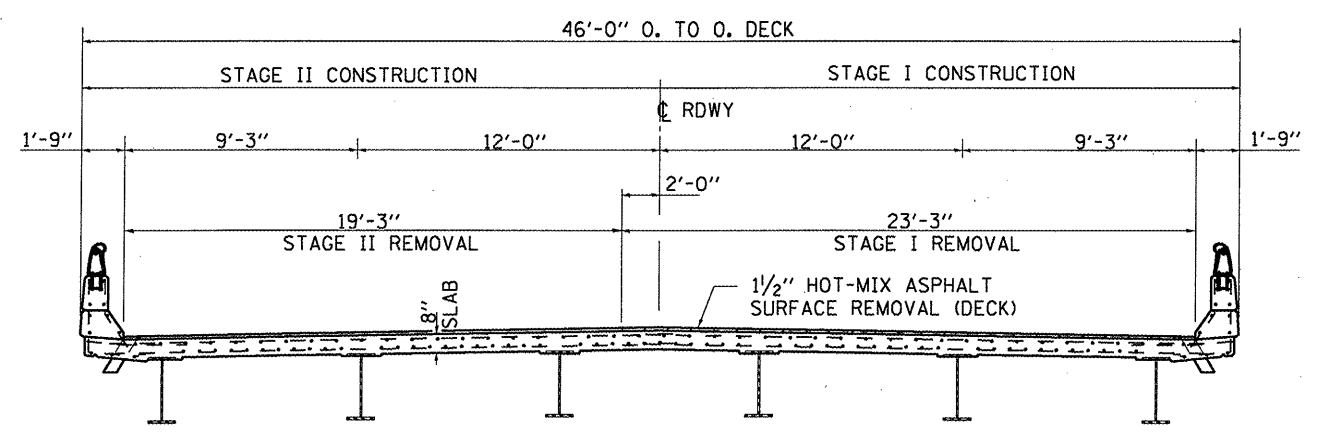
**WING DETAIL**



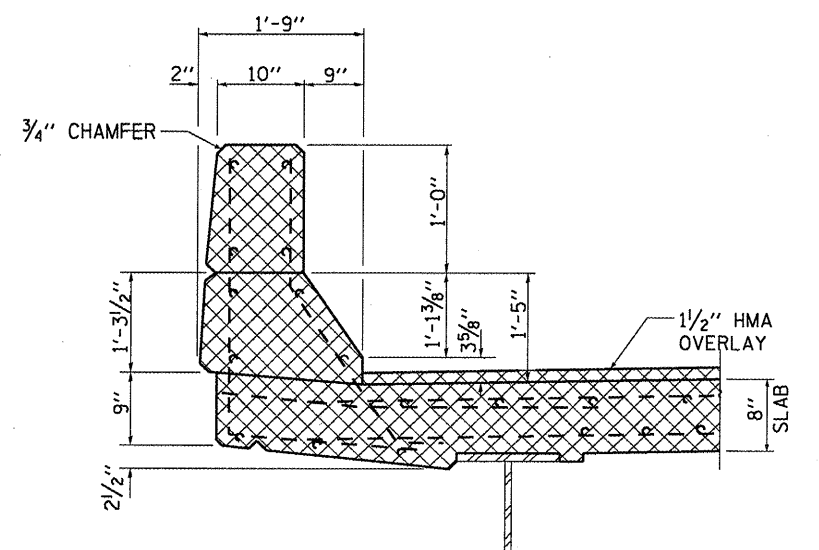
**CORNER DETAIL A**



**CORNER DETAIL B**



**CROSS SECTION  
LOOKING NORTH**



**CURB SECTION  
AT EXPANSION JOINTS**

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D366936-detaile.dgn  
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PLOT DATE = Apr 03, 2009 - 11:30:30 AM

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

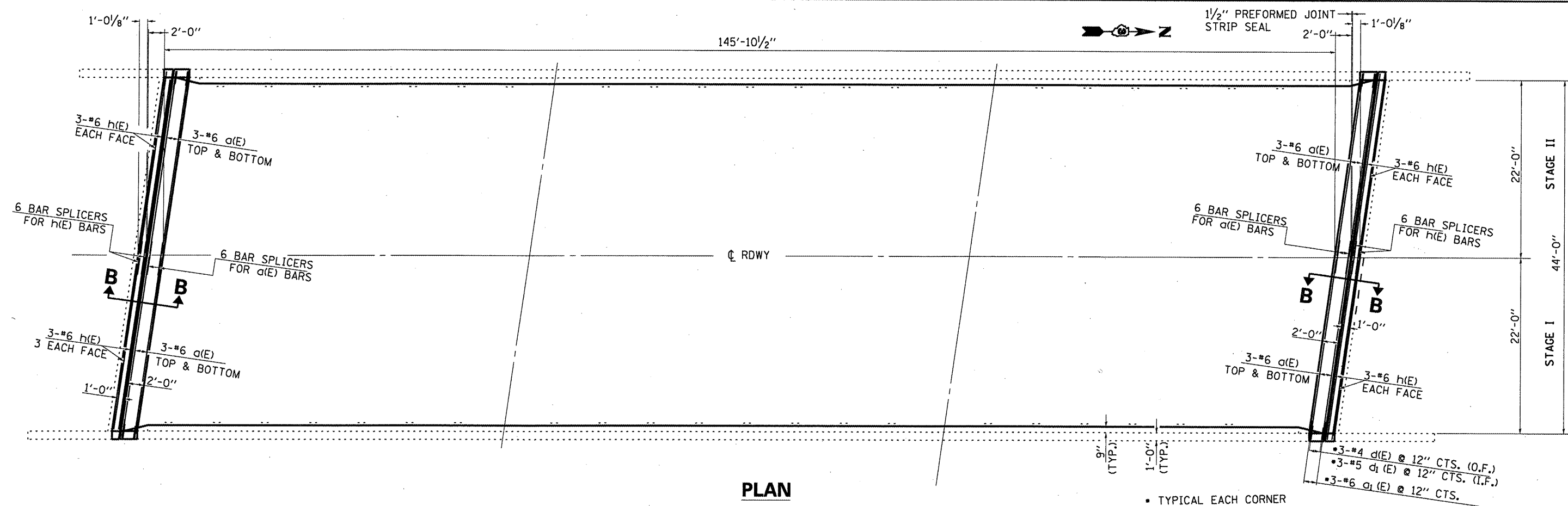
REVISED -  
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

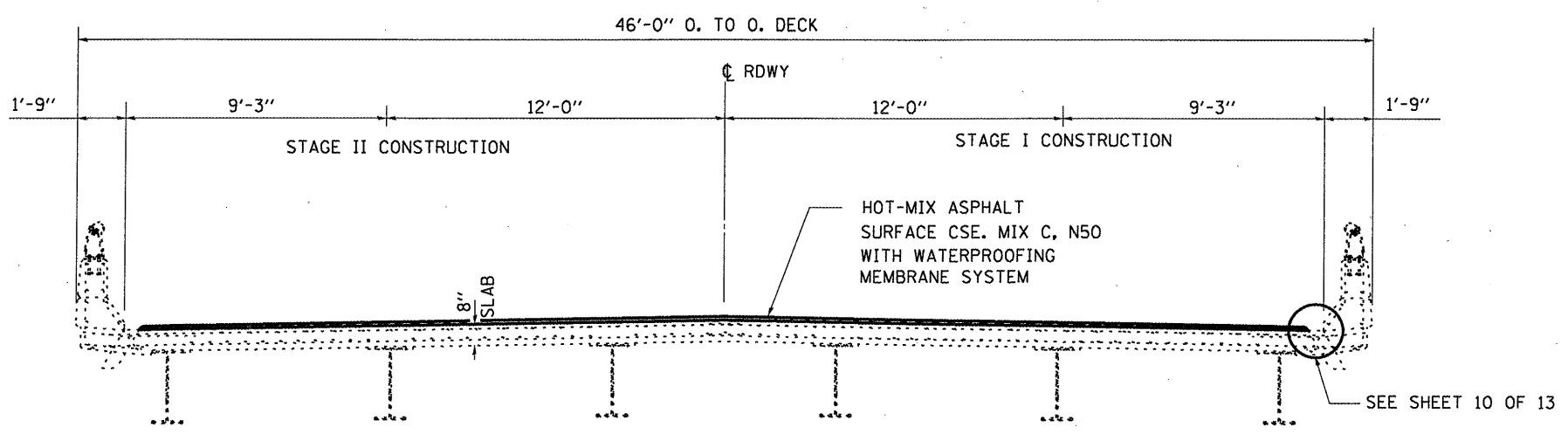
**PLAN AND CROSS SECTION  
REMOVAL DETAILS**

SCALE: \_\_\_\_\_ SHEET NO. 2 OF 7 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

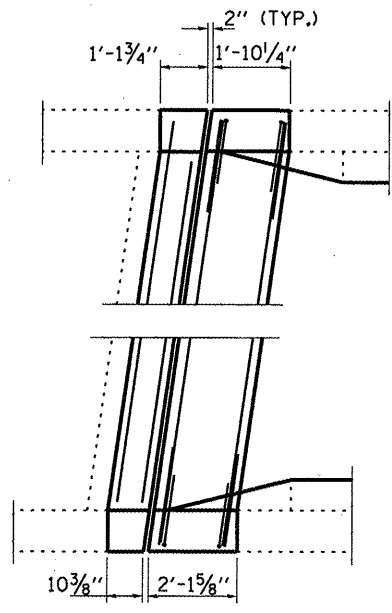
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3BR)I	LASALLE	14	9
ILLINOIS			CONTRACT NO. 66936	



**PLAN**



**CROSS SECTION**  
LOOKING NORTH



**CORNER DETAIL**  
(TYPICAL)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	24	#6	22'-6"	—
a <sub>1</sub> (E)	12	#6	4'-0"	—
d(E)	12	#4	4'-7"	—
d <sub>1</sub> (E)	12	#5	3'-1"	—
h(E)	24	#6	22'-0"	—
v(E)	16	#6	6'-11"	—
REINFORCEMENT BARS, EPOXY COATED		POUND	1940	
BAR SPLICERS		POUND	24	
CONCRETE REMOVAL		CU YD	13	
CONCRETE STRUCTURES		CU YD	0.7	
CONCRETE SUPERSTRUCTURE		CU YD	12.3	
PREFORMED JOINT STRIP SEAL		FOOT	90	
HMA SURFACE REMOVAL (DECK)		SQ YD	687	
WATERPROOFING MEMBRANE SYSTEM		SQ YD	687	
HMA SURFACE CSE, MIX C, N50		TON	58	
Flex DRAIN EXTENSIONS		EACH	20	
PLUG EXISTING DECK DRAINS		EACH	20	

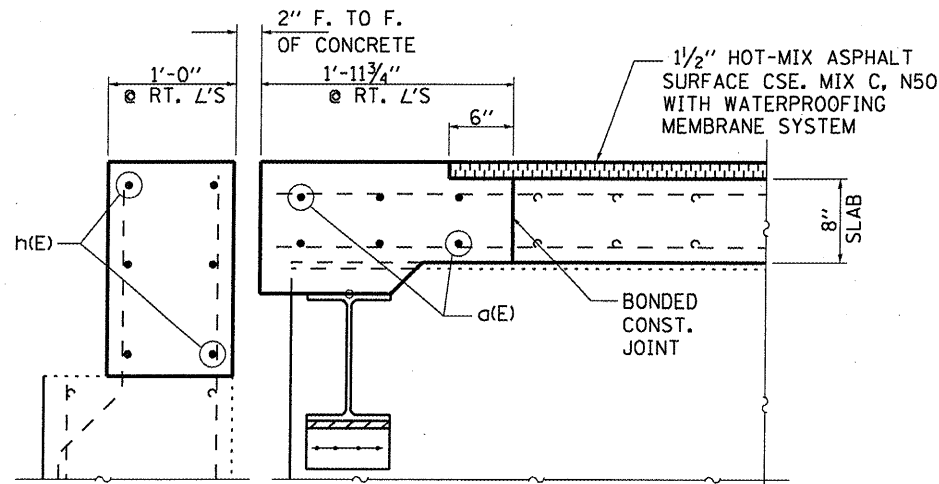
FILE NAME =	USER NAME = woodshankr1	DESIGNED -	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

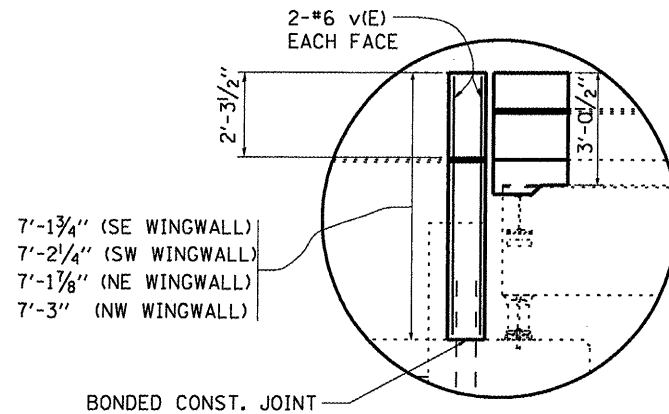
**PLAN AND CROSS SECTION**  
**CONSTRUCTION DETAILS**

SCALE: \_\_\_\_\_ SHEET NO. 3 OF 7 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

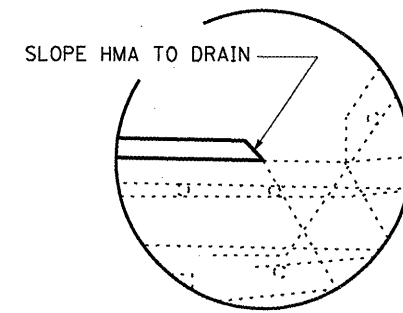
F.A.P. RTE. 68	SECTION (3BR)I	COUNTY LASALLE	TOTAL SHEETS 14	SHEET NO. 10
			CONTRACT NO. 66936	
ILLINOIS				



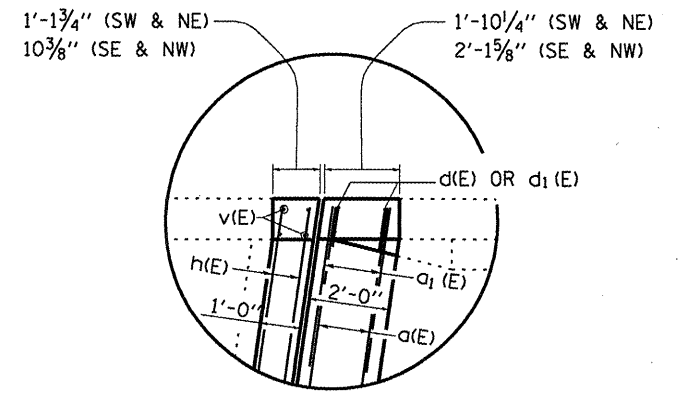
**SECTION B-B**  
 SEE SHEET OF FOR EXPANSION JOINT DETAILS



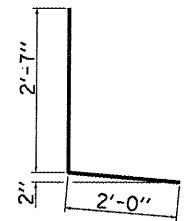
**WING DETAIL**



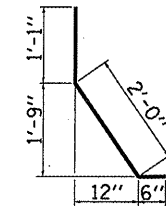
**DETAIL C**



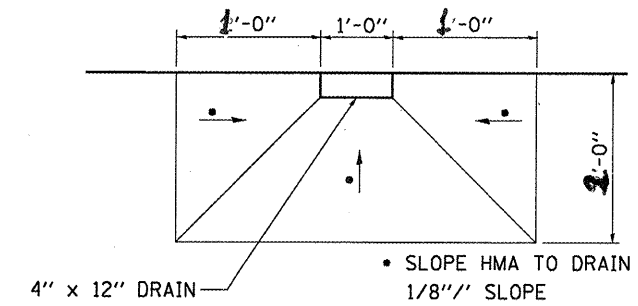
**CORNER DETAIL (TYP.)**



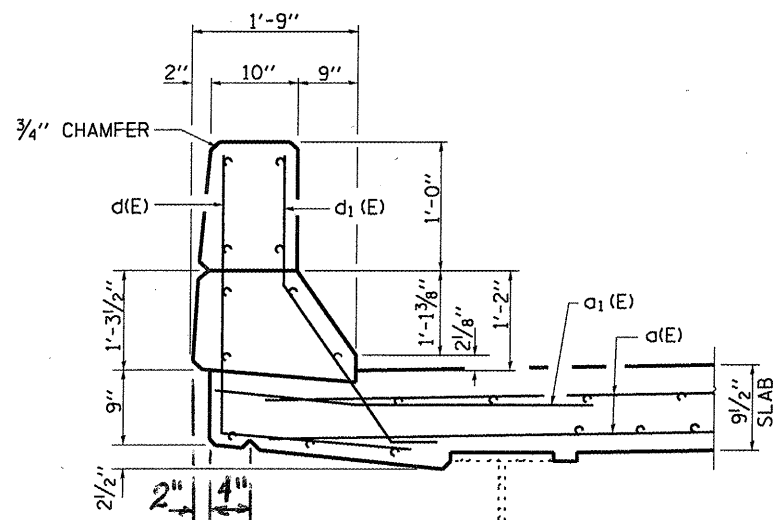
**BAR d(E)**



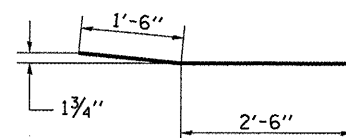
**BAR d1(E)**



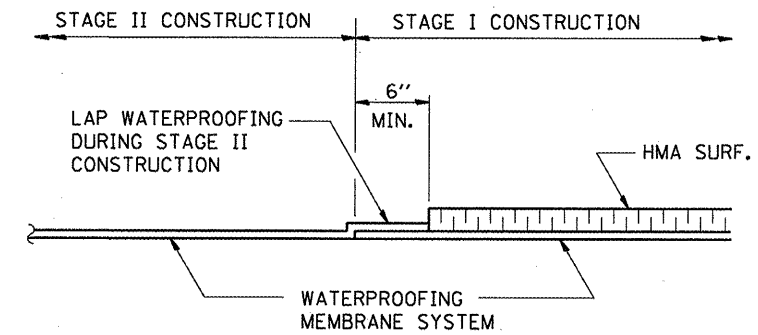
**PLAN AT DRAIN**



**CURB SECTION AT EXPANSION JOINTS**



**BAR a1(E)**



**WATERPROOFING TREATMENT AT STAGE CONSTRUCTION**

FILE NAME =	USER NAME = woodshankr-1	DESIGNED -	REVISED -
c:\pwwork\pww\DOT\WOODSHANKR\dma\91688	D366936-details.dgn	DRAWN -	REVISED -
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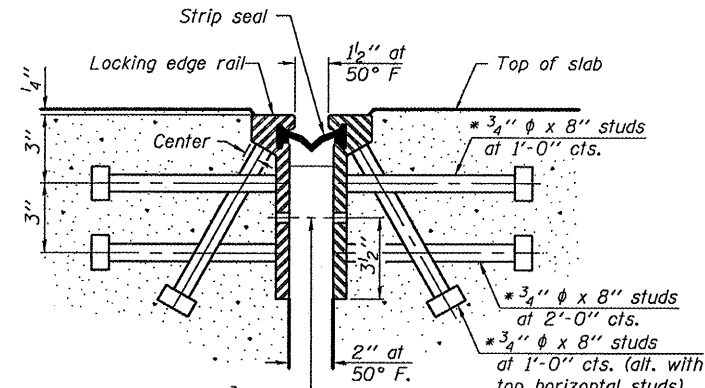
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS CONSTR. DETAILS

SCALE: SHEET NO. 4 OF 7 SHEETS STA. TO STA.

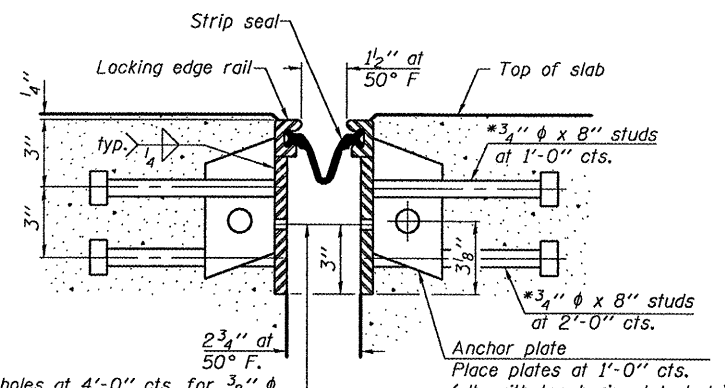
F.A.P. RTE. 68	SECTION (3BR)I	COUNTY LASALLE	TOTAL SHEETS 14	SHEET NO. 11
CONTRACT NO. 66936				ILLINOIS

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



7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

**SECTION THRU ROLLED RAIL JOINT**



7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

**SECTION THRU WELDED RAIL JOINT**

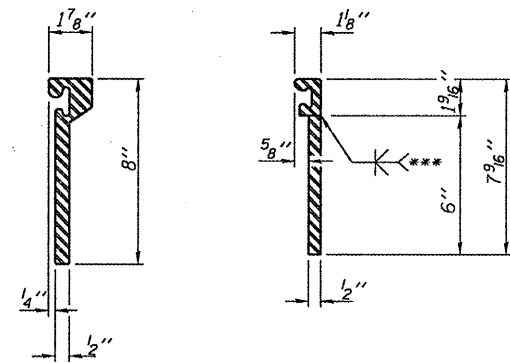
**Notes:**

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.

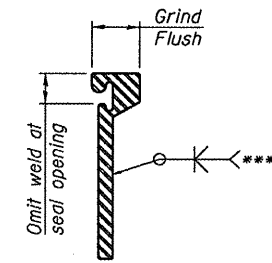
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

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.



**ROLLED EXTRUDED RAIL WELDED RAIL**

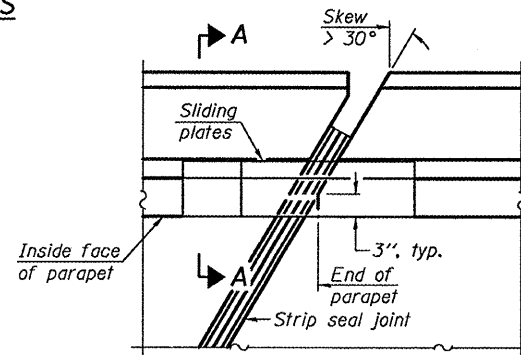


\*\*\*Back gouge not required if complete joint penetration is verified by mock-up.

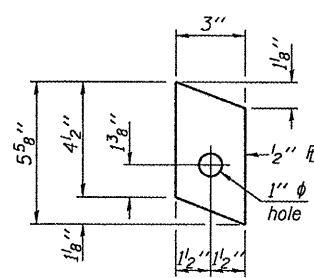
**LOCKING EDGE RAIL SPLICE**

The inside of the locking edge rail groove shall be free of weld residue.

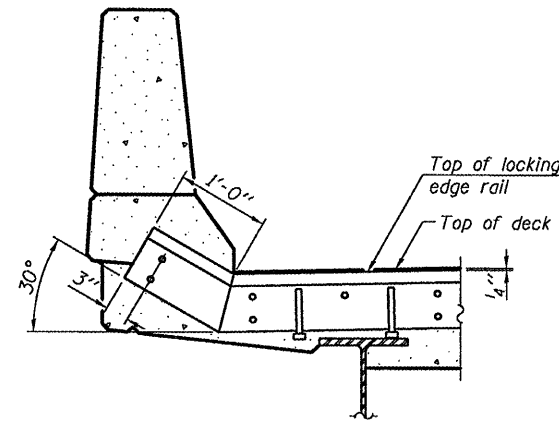
**LOCKING EDGE RAILS**



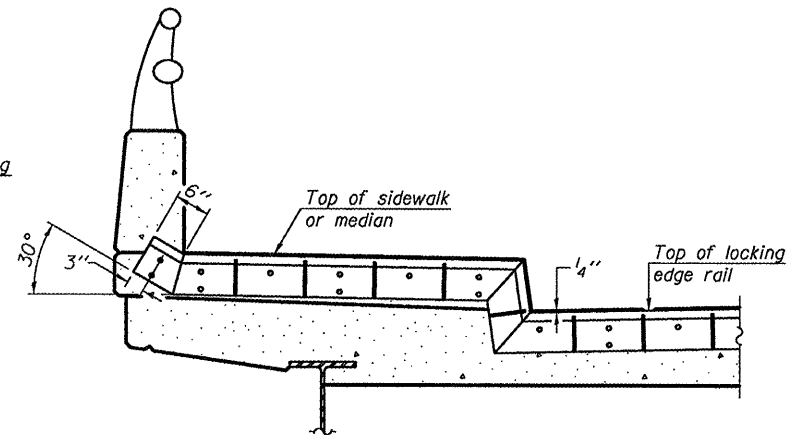
**PLAN**



**ANCHOR PLATE (for welded rail)**



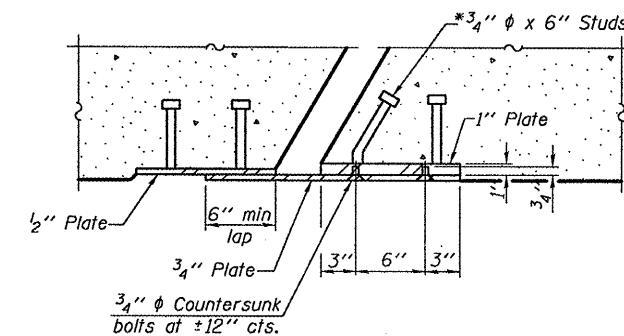
**AT PARAPET**



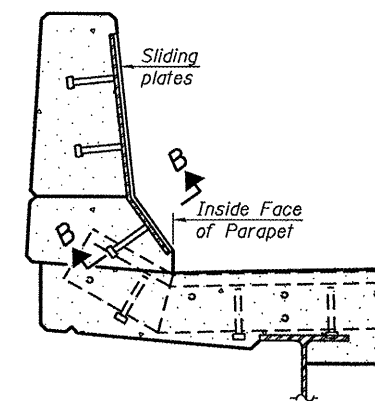
**AT SIDEWALK OR MEDIAN**

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

**TYPICAL END TREATMENTS**



**SECTION B-B**



**SECTION A-A**

**POINT BLOCK DETAILS (for skews > 30°)**

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	90

**PREFORMED JOINT STRIP SEAL STRUCTURE NO. 050-0159**

EJ-SSJ

10-1-08

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
#FILE#		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE -	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL**

SCALE: SHEET NO. 5 OF 7SHEETS STA. TO STA.

F.A.P. RTE. 68	SECTION (3BR1)	COUNTY LASALLE	TOTAL SHEETS 14	SHEET NO. 12
			CONTRACT NO. 66936	
ILLINOIS				

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity =  $1.25 \times f_y \times A_t$   
(Tension in kips)
- ② Minimum \*Pull-out Strength =  $0.66 \times f_y \times A_t$   
(Tension in kips)

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
 \* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

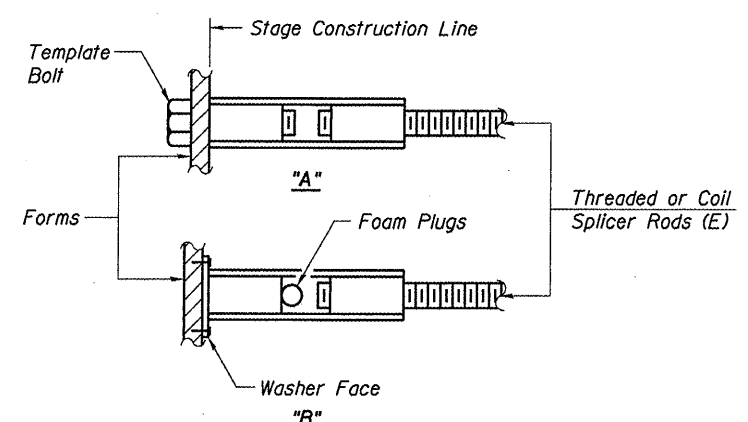
Wire Connector



**WELDED SECTIONS**

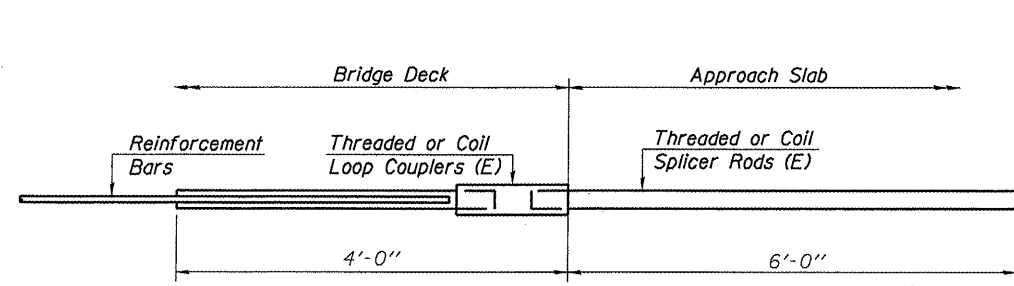
**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



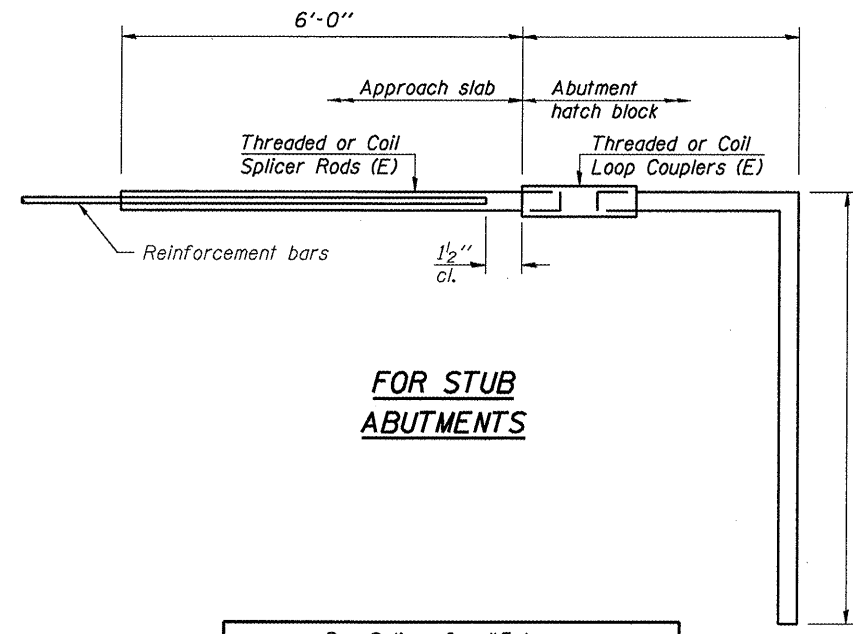
**INSTALLATION AND SETTING METHODS**

"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.



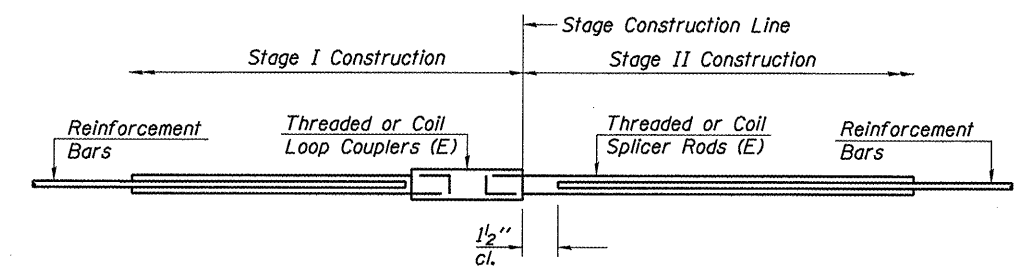
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



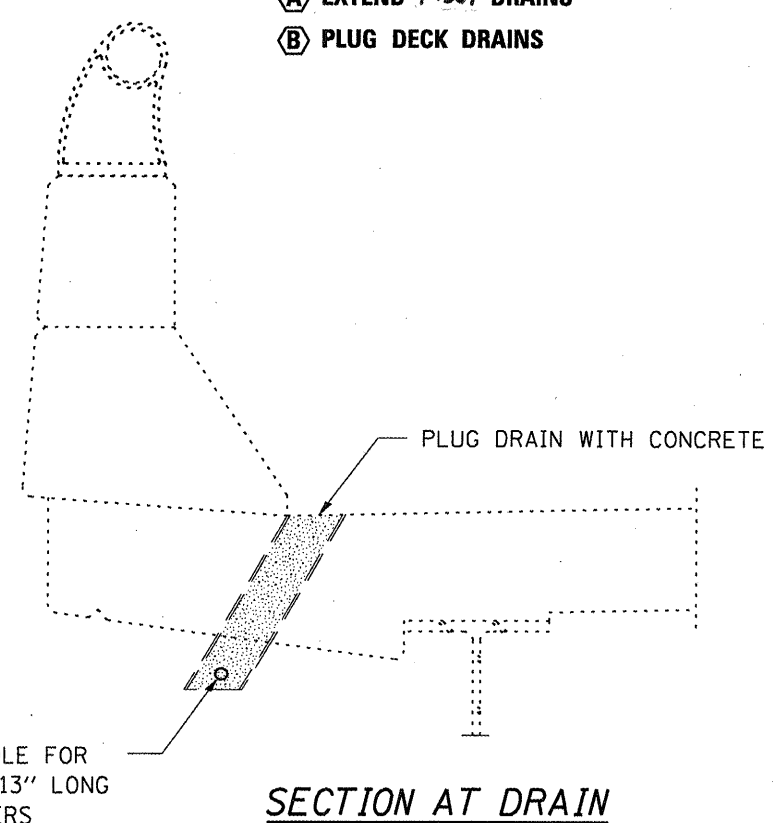
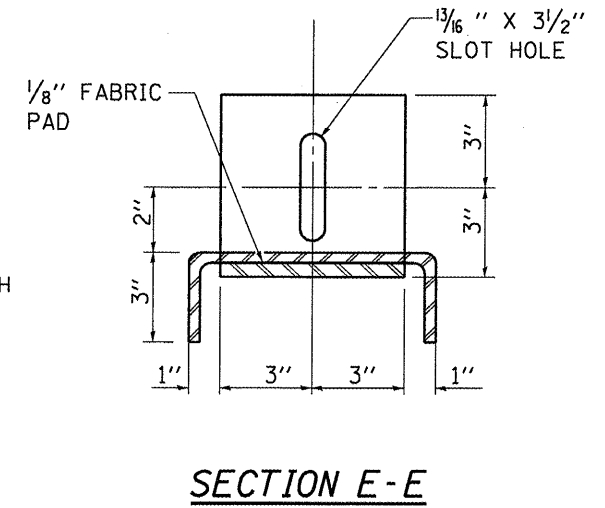
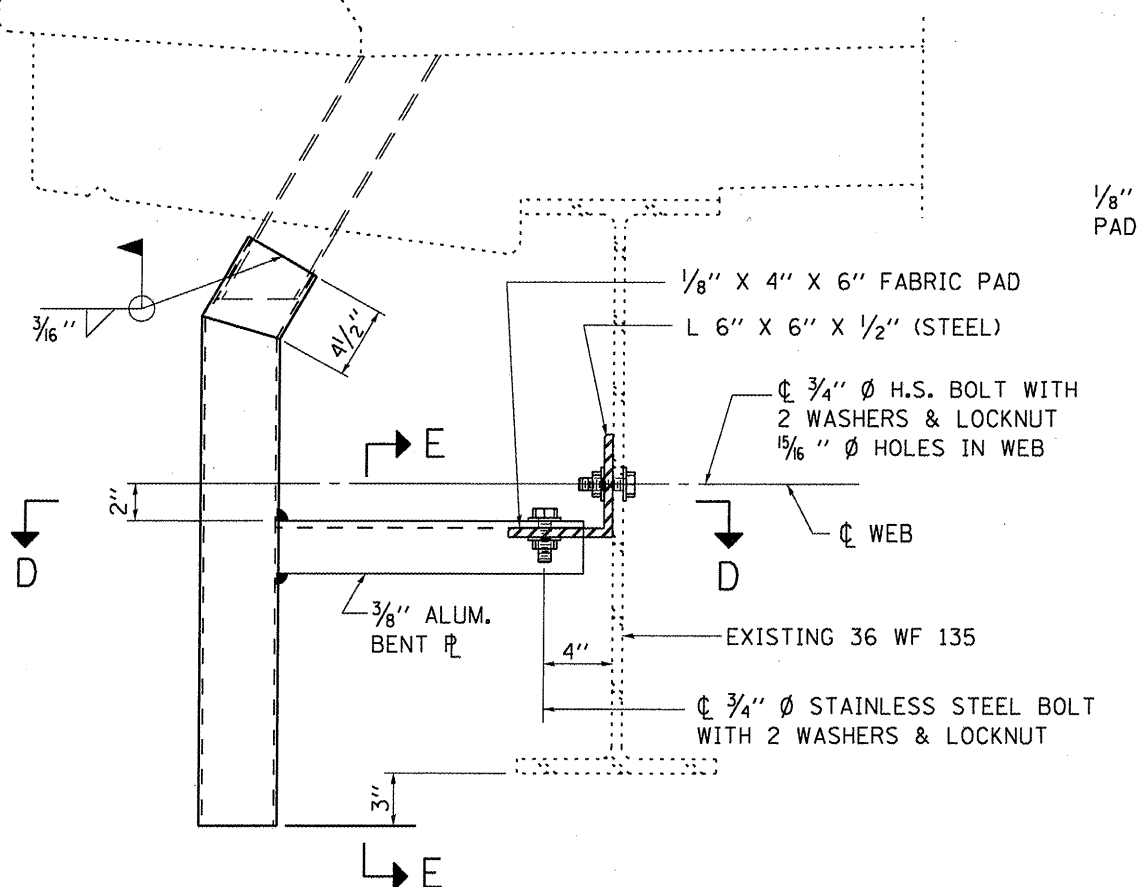
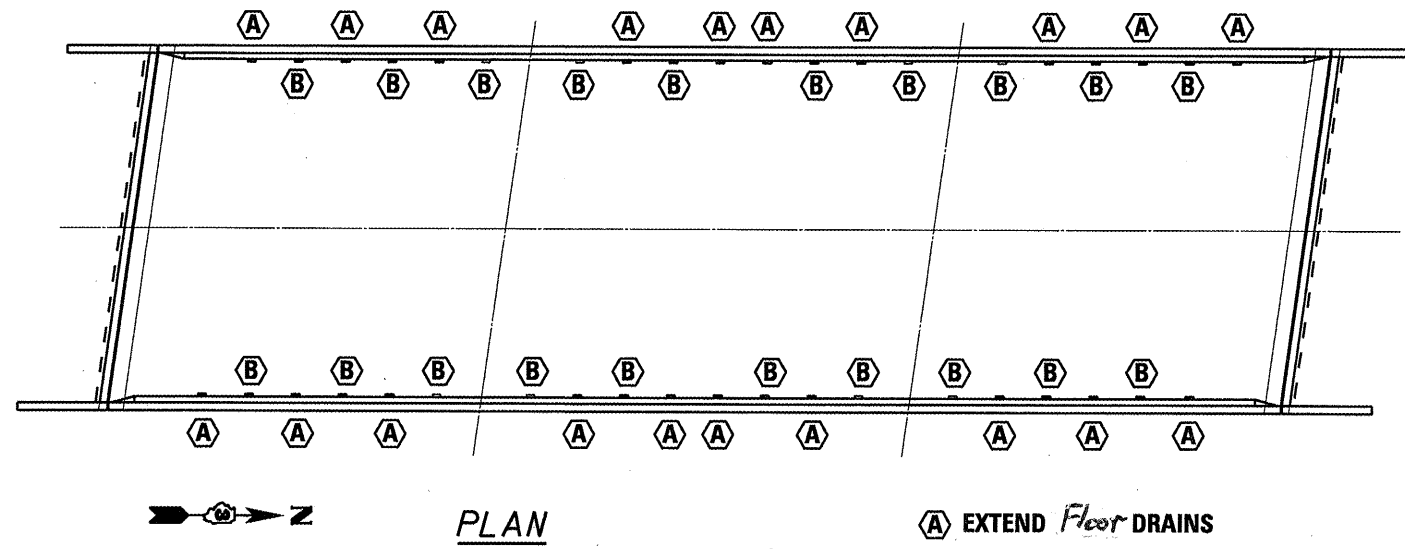
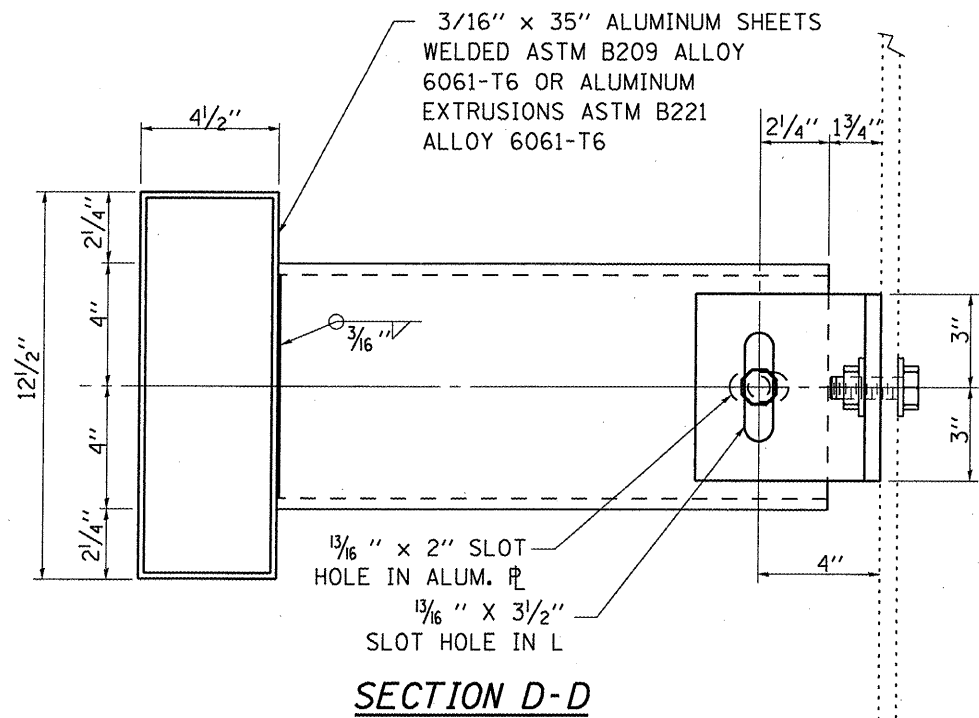
**FOR STUB ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



**STANDARD**

Bar Size	No. Assemblies Required	Location
#6	12	DECK
#6	12	ABUT.



**DRAIN ELIMINATION DETAIL  
PLUG**

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
PLUG EXISTING FLOOR DRAIN	EACH	20
FLOOR DRAIN EXTENSION	EACH	20

**NOTE:**  
THE CONTRACTOR SHALL FIELD VERIFY ALL  
DIMENSIONS PRIOR TO ORDERING OF MATERIALS

**DRAIN EXTENSION**