

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	NO.
39	(50-1VB)I-3	LASALLE	16	1
FED. ROAD DIST. NO. - ILLINOIS		NON-FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

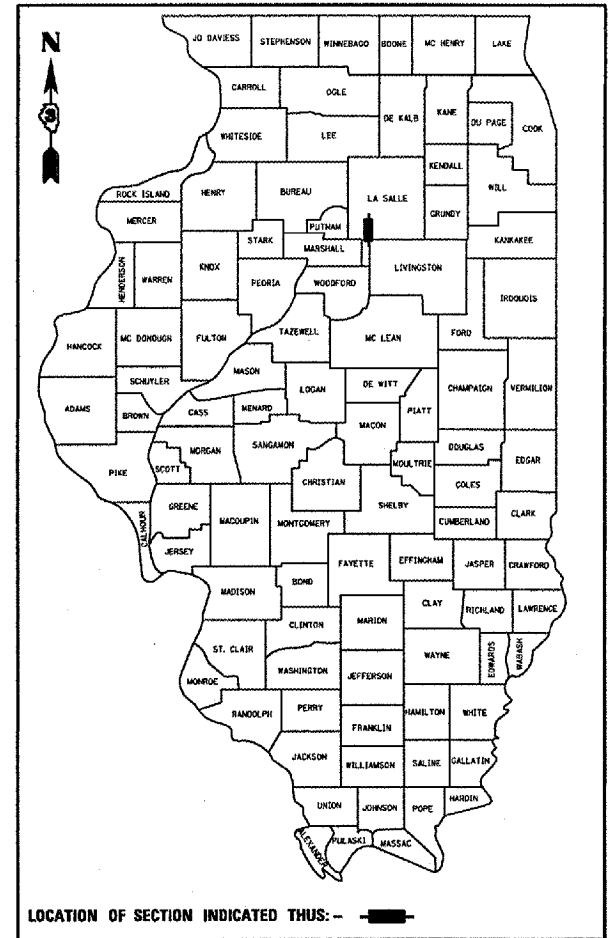
F.A.I. ROUTE 39 (I-39)  
SECTION (50-1VB)I-3

LASALLE COUNTY

C-93-069-06

**BRIDGE APPROACH SLAB & BRIDGE SUBSTRUCTURE  
REMOVAL & REPLACEMENT**

D-93-002-06



LOCATION OF SECTION INDICATED THUS: - ■ -

FUNCTIONAL CLASSIFICATION

RURAL: INTERSTATE

FAI ROUTE 39

2005 ADT = 17500

P.V = 58.6% M.U. = 36.0% S.U. = 5.4%

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *6/16* 20 *06*  
*Gregory M. ...*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
*August 18, 2006*  
*Mike Hine*  
ENGINEER OF DESIGN AND ENVIRONMENT  
*August 18, 2006*  
*Milton R. Sees P.E.*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

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16. TYPICAL PAVEMENT MARKINGS

STANDARDS

- |           |   |
|-----------|---|
| 000001-04 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                                  |
| 001001    | AREAS OF REINFORCEMENT BARS   |
| 001006    | DECIMAL OF AN INCH AND OF A FOOT  |
| 420401-05 | BRIDGE APPROACH PAVEMENT  |
| 421001-01 | BAR REINFORCEMENT FOR CRC PAVEMENT  |
| 609001-02 | BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN                                   |
| 609006-02 | BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)                                       |
| 630001-05 | STEEL PLATE BEAM GUARDRAIL  |
| 631031-05 | TRAFFIC BARRIER TERMINAL, TYPE 6  |
| 701101-01 | OFF-ROAD OPERATIONS MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE |
| 701106-01 | OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY                    |
| 701400-02 | APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY                                  |
| 702001-05 | TRAFFIC CONTROL DEVICES   |
| 704001-02 | TEMPORARY CONCRETE BARRIER  |

MICROFILMED \_\_\_\_\_  
REEL NUMBER \_\_\_\_\_  
AWARDED \_\_\_\_\_  
RESIDENT ENGINEER \_\_\_\_\_  
AS BUILT CHANGES WERE MADE  
ON THE FOLLOWING SHEETS \_\_\_\_\_

JULIE 1-800-892-0123

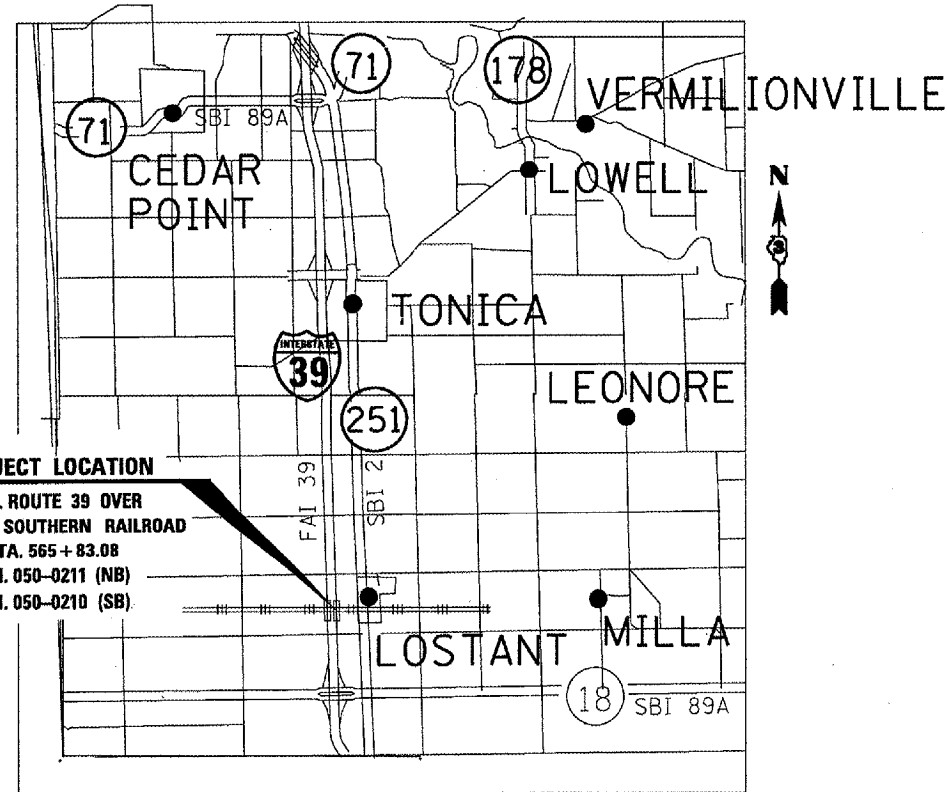
DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: JOE KANNEL (815) 434-8420

UNIT CHIEF: RON WOODSHANK (815) 434-8419

TOWNSHIP: HOPE

**CONTRACT NO. 66649**



**PROJECT LOCATION**  
F.A.I. ROUTE 39 OVER  
NORFOLK SOUTHERN RAILROAD  
STA. 565 + 83.08  
S.N. 050-0211 (NB)  
S.N. 050-0210 (SB)

GROSS LENGTH OF PROJECT = 60 FEET = 0.011 MI.

NET LENGTH OF PROJECT = 60 FEET = 0.011 MI.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)I-3	LASALLE	16	2
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	

**GENERAL NOTES**

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING 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.

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 REMOVAL PAY ITEMS INVOLVED.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EXCAVATION WORK INVOLVED.

ALL NEW REINFORCEMENT BARS DESIGNATED (E) SHALL BE "EPOXY COATED"

ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE INORGANIC ZINC RICH PRIMER PER AASHTO M300, TYPE 1. COST INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 503.10(c) OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50° F.

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.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS INCLUDED IN THE PLANS.

ALL DETAILS, SCHEDULES, QUANTITIES AS SHOWN ON PLAN SHEETS REFLECT THE NORTHBOUND STRUCTURE (S.N. 050-0211) ONLY. THE PLAN SHEETS SHALL BE USED FOR THE REPAIR TO THE SOUTHBOUND STRUCTURE AS WELL. THE QUANTITIES AS SHOWN ON THE SUMMARY OF QUANTITIES PAGE REFLECT QUANTITIES FOR BOTH STRUCTURES.

DATE: 7-10-06

PREPARED BY: Rick Powell Jr.  
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: [Signature]  
DISTRICT CONSTRUCTION ENGINEER

Matthew J. Jacobson  
DISTRICT MATERIALS ENGINEER

Bruce A. Huber  
DISTRICT OPERATIONS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**GENERAL NOTES**  
F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
F.A.I. ROUTE 39 SECTION: (50-1VB)I-3  
LASALLE COUNTY  
STA. 565+86.08

Date: 05/09/2006  
File: c:\projects\cma\m07\cm303\defa11s.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)1-3	LASALLE	16	3
FED. ROAD DIST. NO. . ILLINOIS		NON-FED. AID PROJECT		

### SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY-2A

CODE NO.	ITEM	UNIT	RURAL 100% STATE TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	248
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	19
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	44
42001300	PROTECTIVE COAT	SQ YD	339
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	275
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	54
44000700	APPROACH SLAB REMOVAL	SQ YD	192
44004510	PORTLAND CEMENT CONCRETE SHOULDER REMOVAL	SQ YD	87
48101200	AGGREGATE SHOULDERS, TYPE B	TON	5
50102400	CONCRETE REMOVAL	CU YD	11.2
50300120	PREFORMED JOINT SEAL 2 1/2"	FOOT	86
50300225	CONCRETE STRUCTURES	CU YD	13.2
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1520
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2080
60101805	PIPE DRAINS, 8" (SPECIAL)	FOOT	90

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUMMARY OF QUANTITIES**  
 F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
 F.A.I. ROUTE 39 SECTION: (50-1VB)1-3  
 LASALLE COUNTY  
 STA. 565 + 86.08

Date: 05/09/2006  
File: cv\projects\constr\107\m303\def\11s.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	150-1VB11-3	LASALLE	16	4
FED. ROAD DIST. NO.	ILLINOIS	NON-FED. AID PROJECT		

## SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY-2A

CODE NO.	ITEM	UNIT	RURAL 100% STATE TOTAL QUANTITY
63302700	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4
67100100	MOBILIZATION	L SUM	1
70101605	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	2
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	4390
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1116
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1056
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	13304
* 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	100
78300100	PAVEMENT MARKING REMOVAL	SQ FT	4390
X0300136	BRIDGE APPROACH SHOULDER REMOVAL	SQ YD	51
XX006432	AGGREGATE SUBGRADE (SPECIAL)	TON	469
Z0002600	BAR SPLICERS	EACH	240
● Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
● Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2

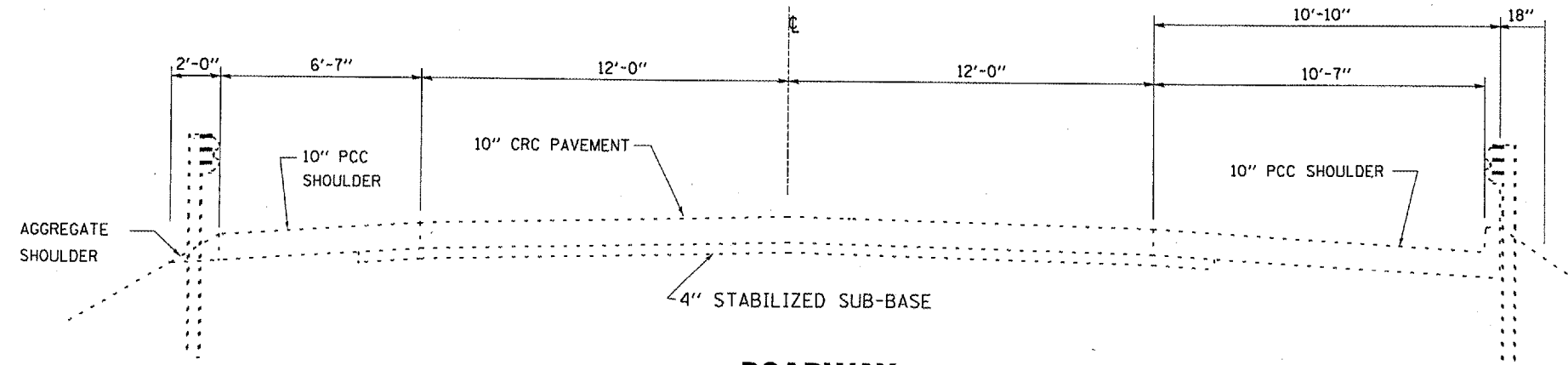
● SFTY 3N \* SPECIALTY ITEM

REVISIONS	
NAME	DATE

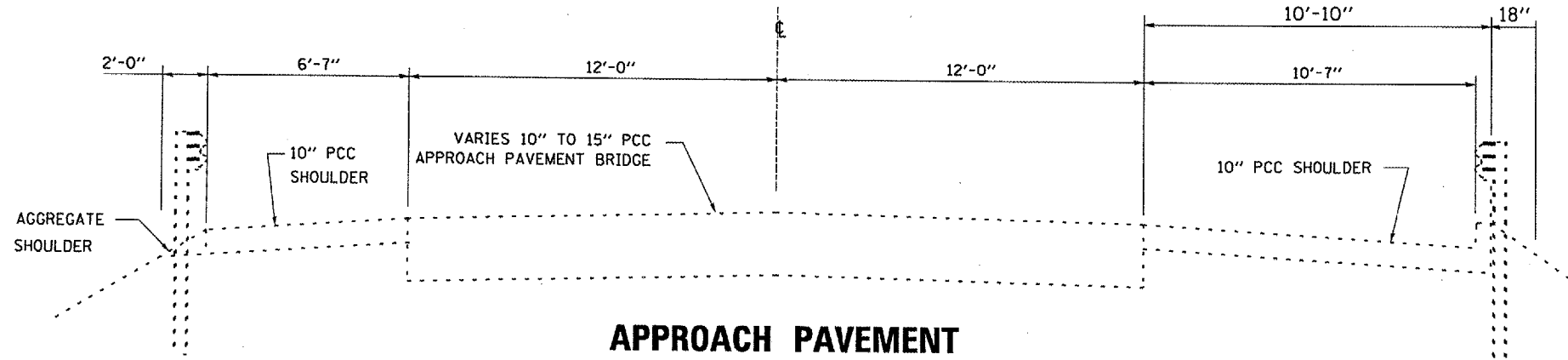
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUMMARY OF QUANTITIES**  
 F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
 F.A.I. ROUTE 39 SECTION: (50-1VB)1-3  
 LASALLE COUNTY  
 STA. 565 + 86.08

Date: 05/09/2006  
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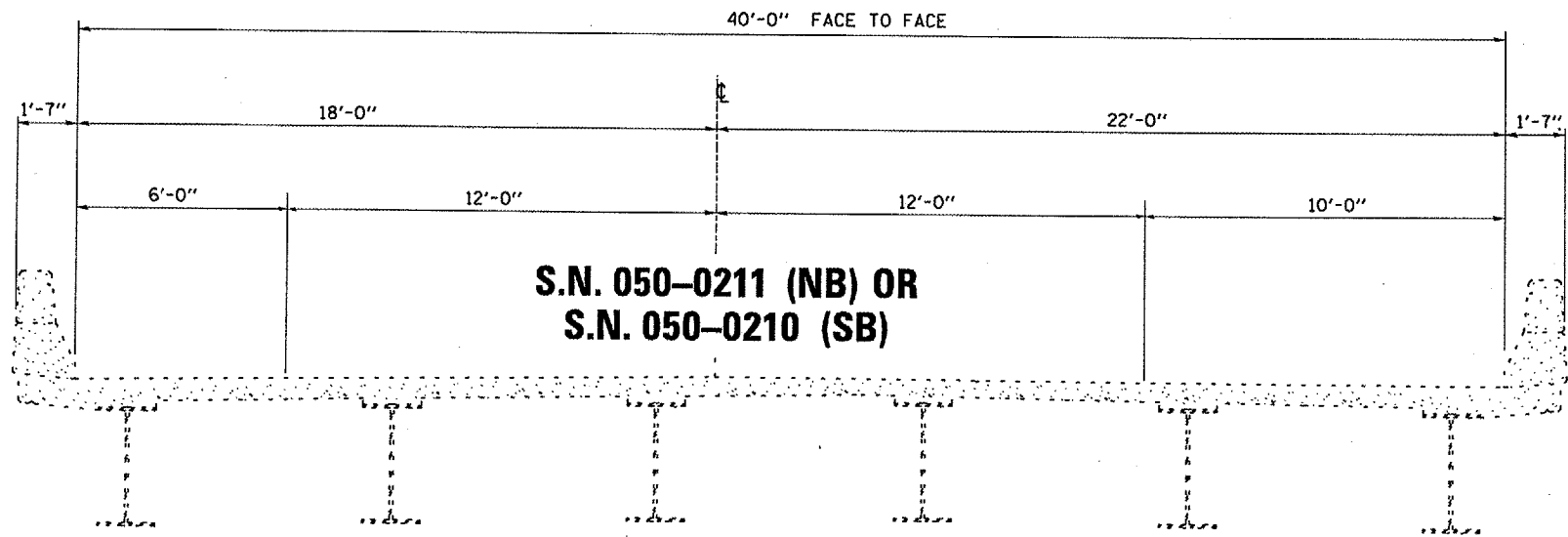
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39	(50-1VB)I-3	LASALLE	16	5
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



**ROADWAY**  
LOOKING WITH DIRECTION OF TRAFFIC



**APPROACH PAVEMENT**  
LOOKING WITH DIRECTION OF TRAFFIC



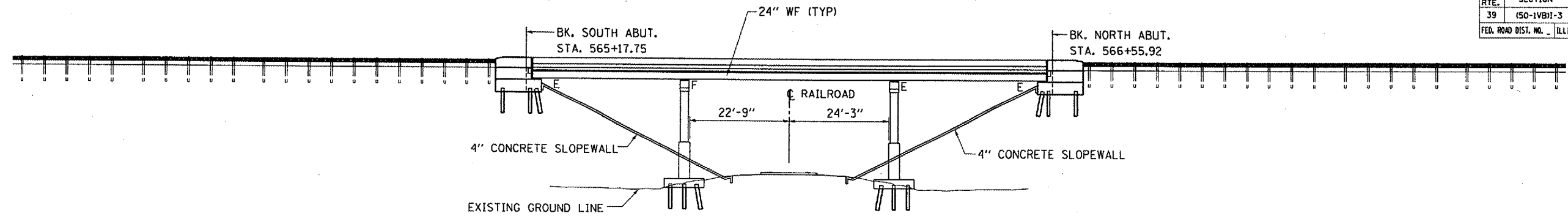
**STRUCTURE**  
LOOKING WITH DIRECTION OF TRAFFIC

REVISIONS	
NAME	DATE

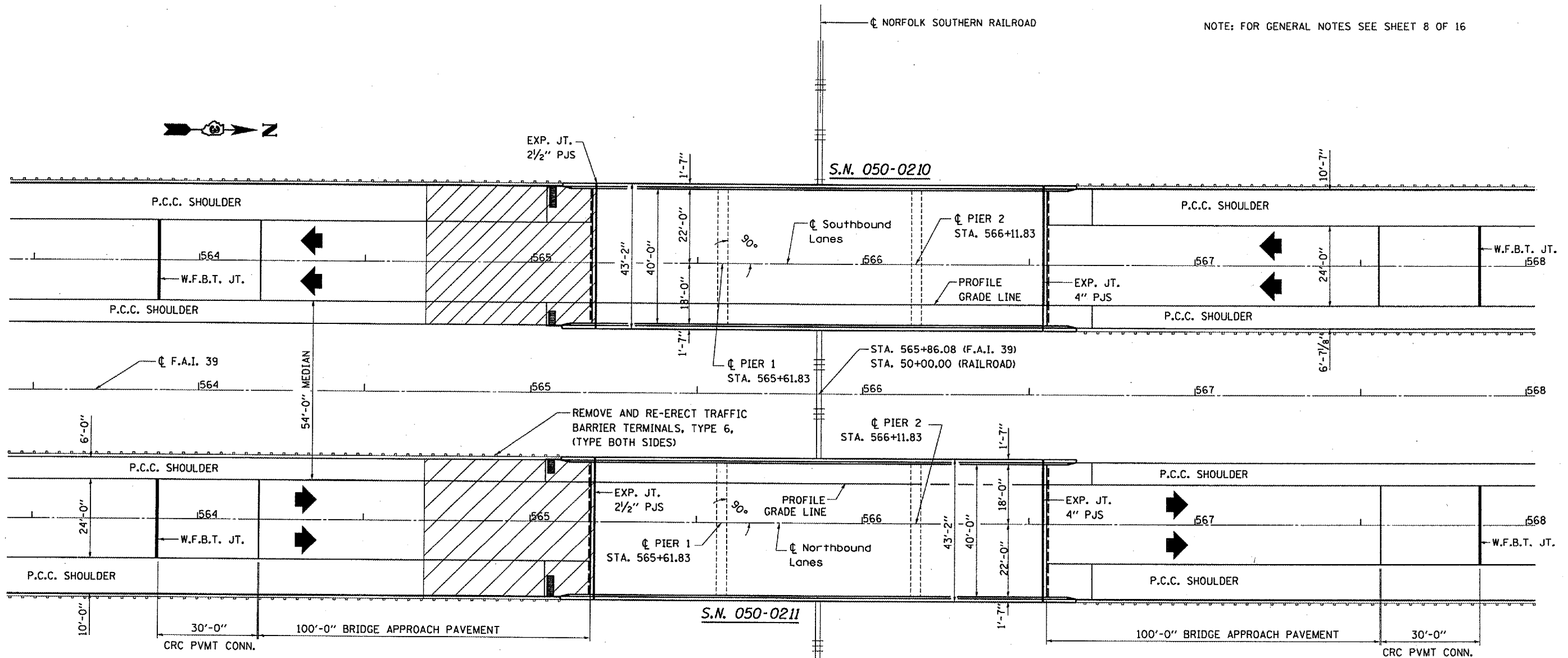
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TYPICAL SECTIONS**  
F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
F.A.I. ROUTE 39 SECTION: (50-1VB)I-3  
LASALLE COUNTY  
STA. 565+86.08

Date: 05/09/2006  
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)1-3	LASALLE	16	6
FED. ROAD DIST. NO. ILLINOIS			NON-FED. AID PROJECT	



NOTE: FOR GENERAL NOTES SEE SHEET 8 OF 16

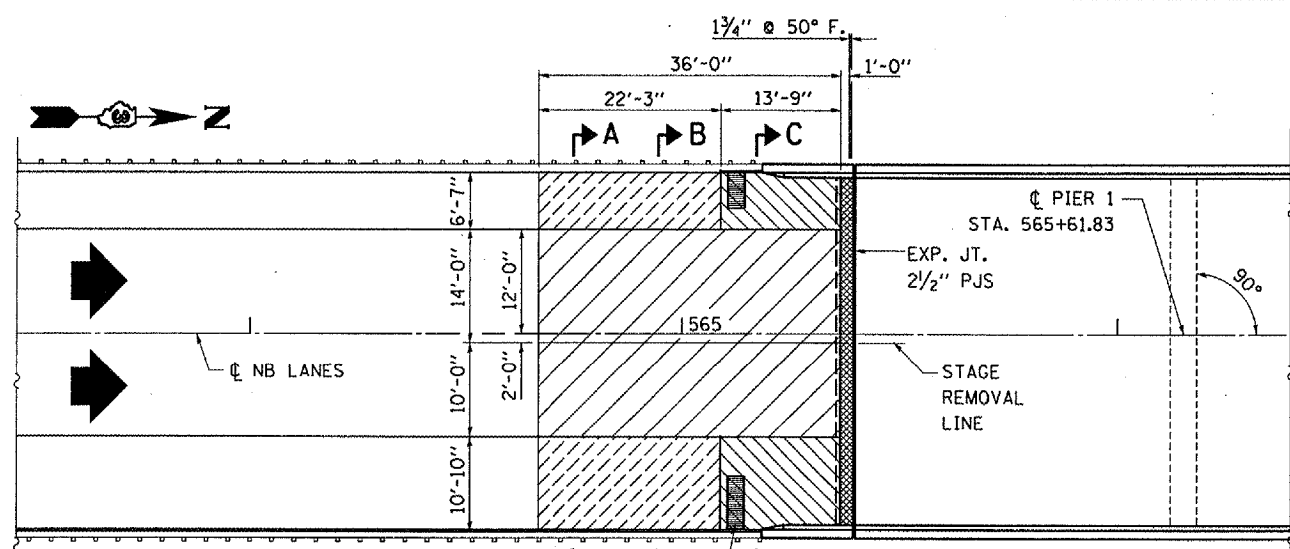


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**GENERAL PLAN & ELEVATION**  
 F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
 F.A.I. ROUTE 39 SECTION: (50-1VB)1-3  
 LASALLE COUNTY  
 STA. 565 + 86.08

Date: 05/08/2006  
 File: c:\p\proj\ecr\ecr\m07\cm303\del\el1.s.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)1-3	LASALLE	16	7
FED. ROAD DIST. NO. ILLINOIS NON-FED. AID PROJECT				



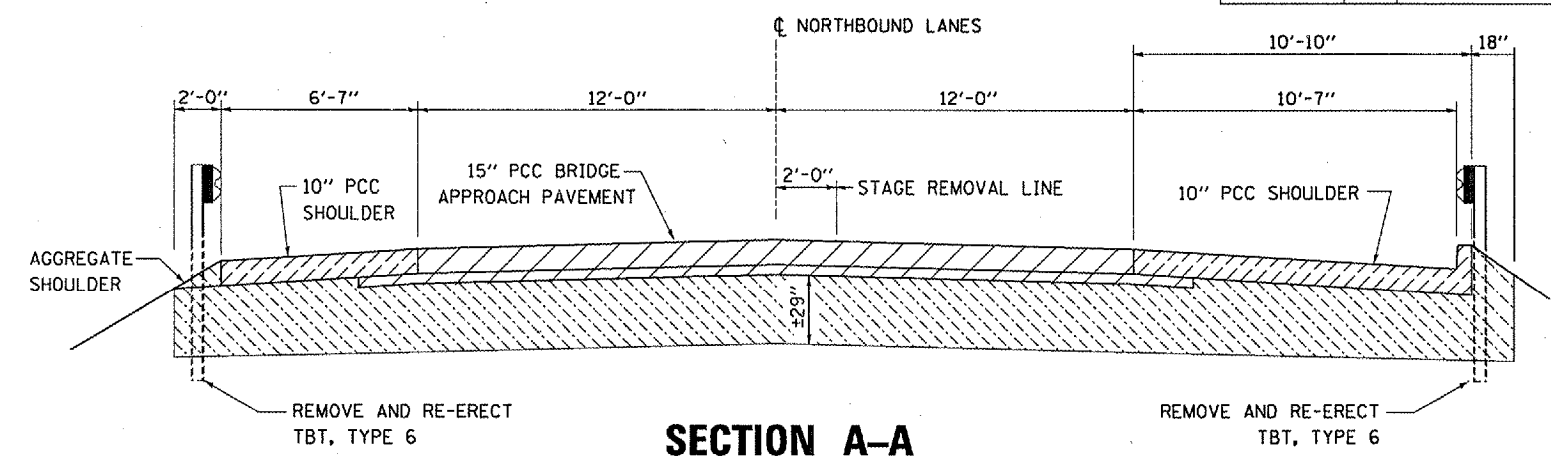
**PLAN DETAIL**

**STAGE REMOVAL**  
 NORTHBOUND STRUCTURE SHOWN  
 SOUTHBOUND STRUCTURE SIMILAR

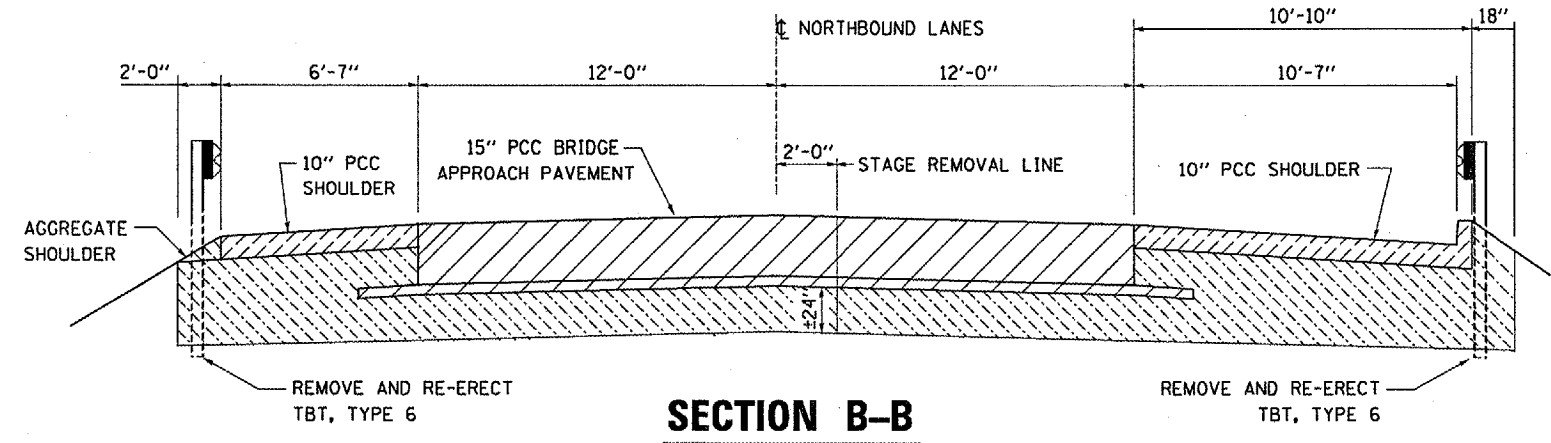
- APPROACH SLAB REMOVAL**
- EARTH EXCAVATION**
- PCC SHOULDER REMOVAL**
- BRIDGE APPROACH SHOULDER REMOVAL**
- CONCRETE REMOVAL**

EXISTING SHOULDER INLET BOXES AND GRATES SHALL REMAIN IN PLACE. (TYP)

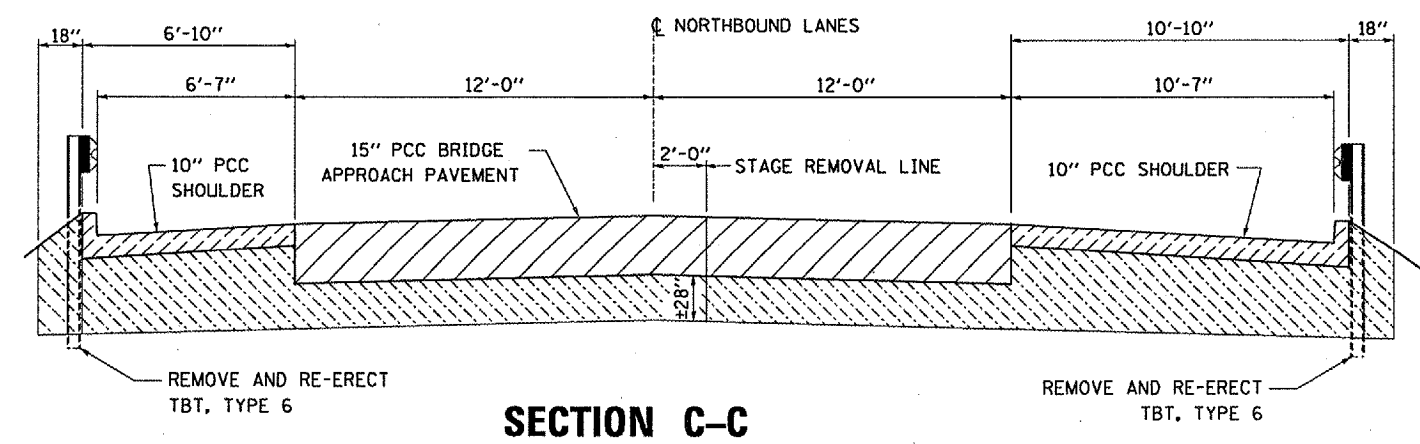
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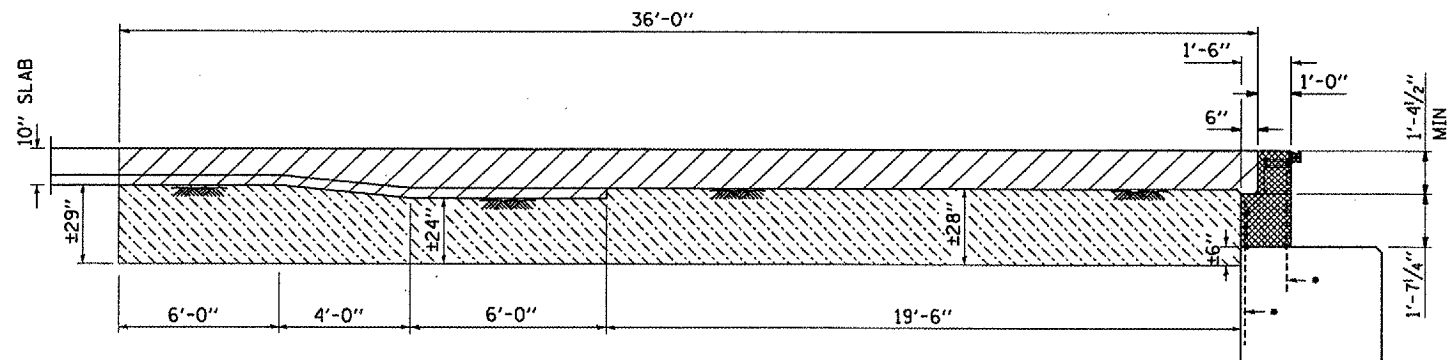
**SECTION A-A**



**SECTION B-B**



**SECTION C-C**



• EXISTING VERTICAL REINFORCEMENT SHALL BE CUT OFF 1'-5" INTO REMOVAL AREA, STRAIGHTENED, CLEANED AND INCORPORATED INTO THE NEW CONSTRUCTION

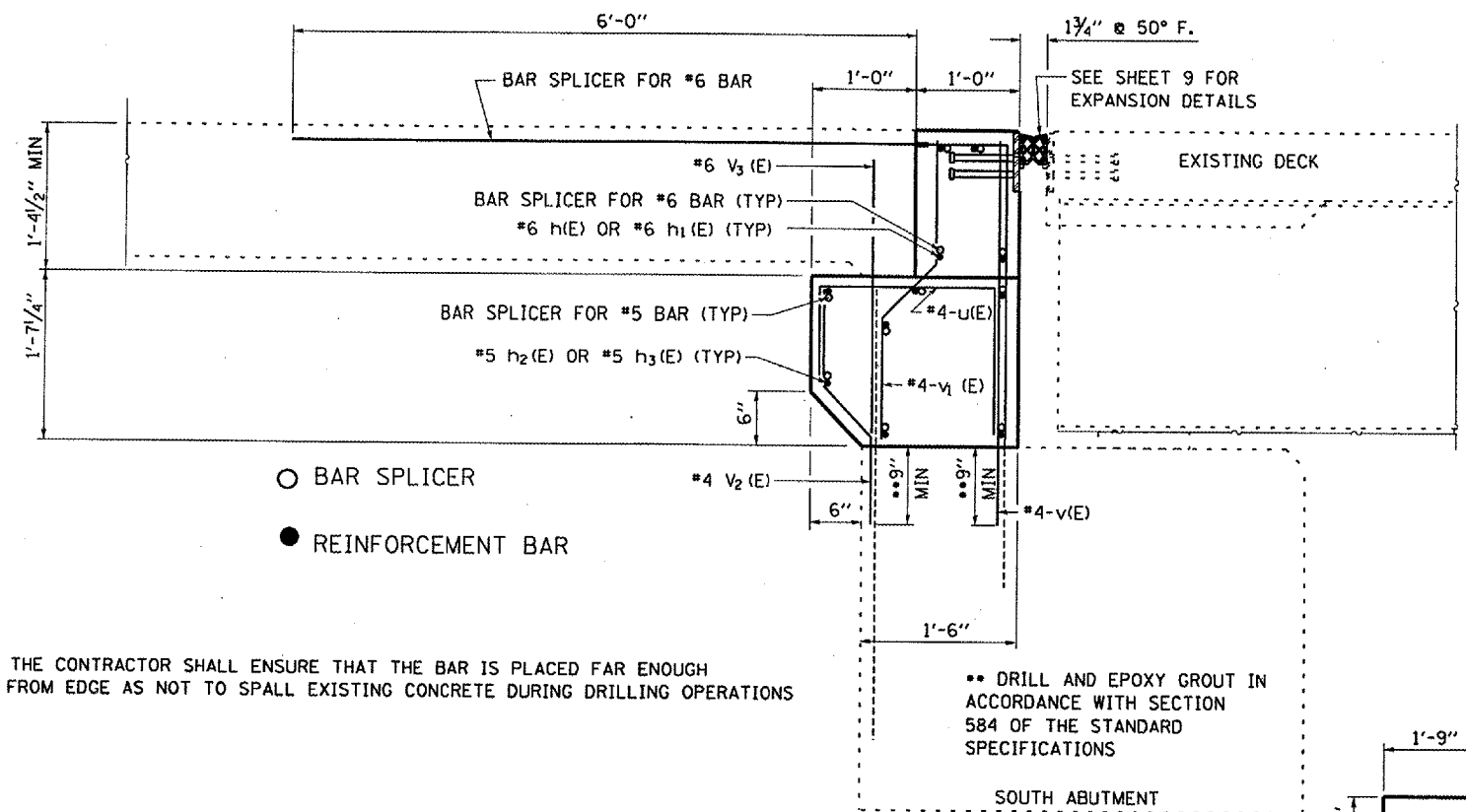
NOTE: DETAILS SHOWN FOR NORTHBOUND STRUCTURE ONLY  
 SOUTHBOUND STRUCTURE SAME THROUGH ROTATION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**REMOVAL DETAILS**  
 F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
 F.A.I. ROUTE 39 SECTION: (50-1VB)1-3  
 LASALLE COUNTY  
 STA. 565 + 86.08

Date: 05/09/2006  
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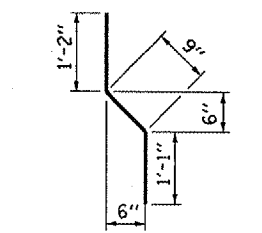
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39	150-1VB1-3	LASALLE	16	8
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



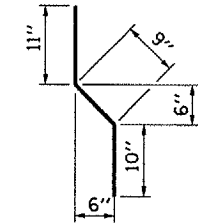
○ BAR SPLICER  
● REINFORCEMENT BAR

•• NOTE: THE CONTRACTOR SHALL ENSURE THAT THE BAR IS PLACED FAR ENOUGH FROM EDGE AS NOT TO SPALL EXISTING CONCRETE DURING DRILLING OPERATIONS

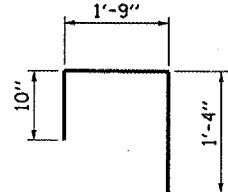
•• DRILL AND EPOXY GROUT IN ACCORDANCE WITH SECTION 584 OF THE STANDARD SPECIFICATIONS



#4 V<sub>1</sub> (E) BAR



#4 V<sub>2</sub> (E) BAR



#4 u(E) BAR

**SECTION D-D**

**GENERAL NOTES**

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE OR ROADWAY 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 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 PRICE FOR THE WORK.

ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH INORGANIC ZINC RICH PRIMER PER AASHTO M300 TYPE 1. COST INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

BACK FILL SHALL BE PLACED BEHIND THE ABUTMENT AFTER THE END DAM HAS BEEN POURED AND THE FALSEWORK REMOVED. SEE ARTICLE 502.10 OF THE STANDARD SPECIFICATIONS.

ALL CONSTRUCTION JOINTS SHALL BE BONDED.

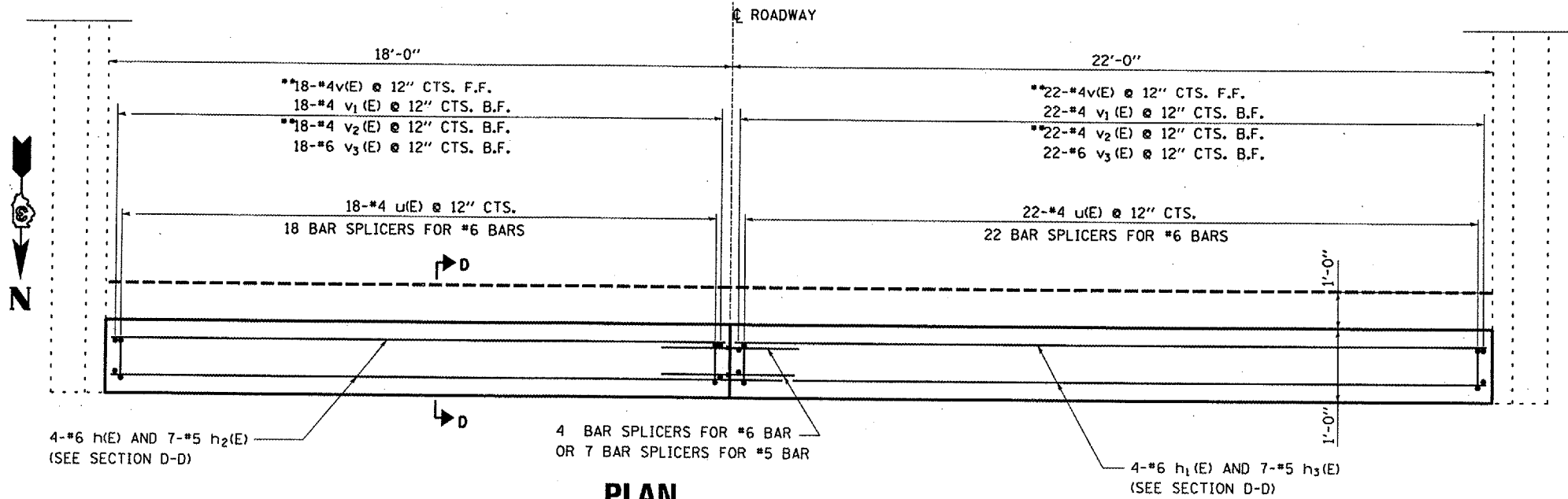
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

EXCAVATION BEHIND THE ABUTMENT SHALL BE DONE BEFORE REMOVING THE EXISTING BACKWALL. THE CONTRACTOR SHALL SAW CUT THE EXISTING ABUTMENTS AT THE STAGE REMOVAL LINE BEFORE STAGE I REMOVAL.

ALL SURFACES OF THE ABUTMENT AND WINGWALLS THAT WILL COME IN CONTACT WITH POROUS GRANULAR EMBANKMENT SHALL BE WATERPROOFED ACCORDING TO ARTICLE 503.18 OF THE STANDARD SPECIFICATIONS. COST OF THIS WORK SHALL BE ACCORDING TO ARTICLE 503.22 OF THE STANDARD SPECIFICATIONS.

**BILL OF MATERIALS FOR ONE ABUTMENT ONLY**

BAR	NO. BARS	SIZE	LENGTH	SHAPE
h(E)	4	6	17'-9"	—
h1(E)	4	6	21'-9"	—
h2(E)	7	5	17'-9"	—
h3(E)	7	5	21'-9"	—
u(E)	40	4	4'-9"	┌
v(E)	40	4	3'-6"	—
v1(E)	40	4	3'-0"	—
v2(E)	40	4	2'-4"	—
v3(E)	40	6	2'-9"	—
CONCRETE REMOVAL			CU YD	5.6
CONCRETE SUPERSTRUCTURE			CU YD	6.6
FURNISHING AND ERECTING STRUCTURAL STEEL			POUNDS	760
REINFORCEMENT BARS			POUNDS	1040
EPOXY COATED				
BAR SPLICER			EACH	51



**PLAN SOUTH ABUTMENT**

NOTE: DETAILS SHOWN FOR NORTHBOUND STRUCTURE ONLY  
SOUTHBOUND STRUCTURE SAME THROUGH ROTATION

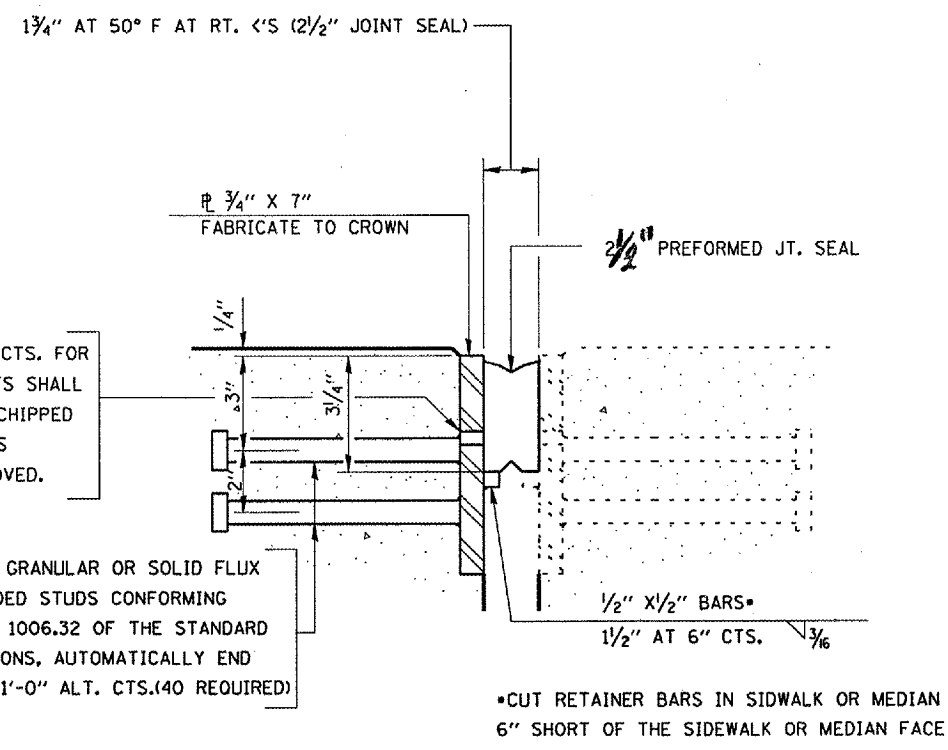
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ABUTMENT RECONSTRUCTION DETAILS**  
F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
F.A.I. ROUTE 39 SECTION: (50-1VB)I-3  
LASALLE COUNTY  
STA. 565+86.08

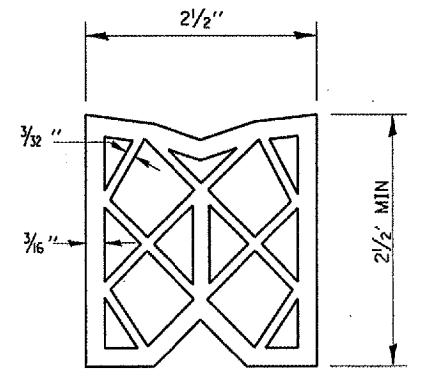
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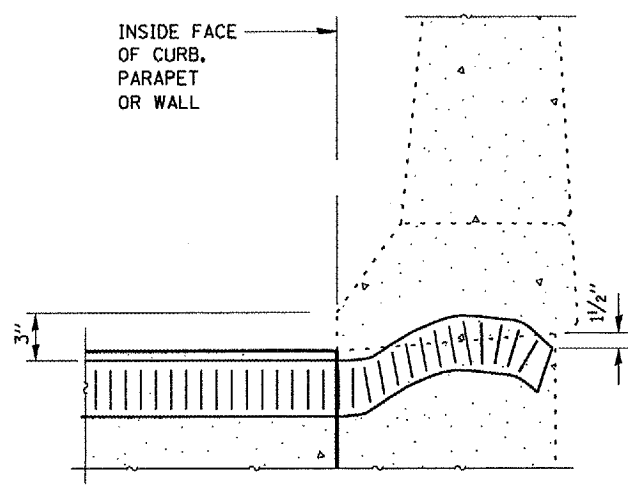
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)I-3	LASALLE	16	9
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



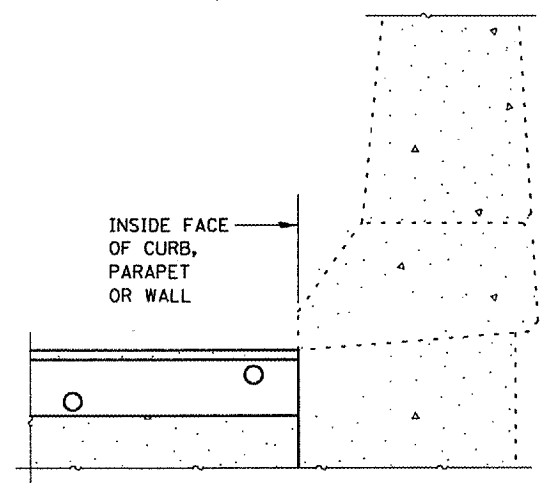
**SECTION THRU EXPANSION JOINT**  
(2 1/2" JOINT SEALS)



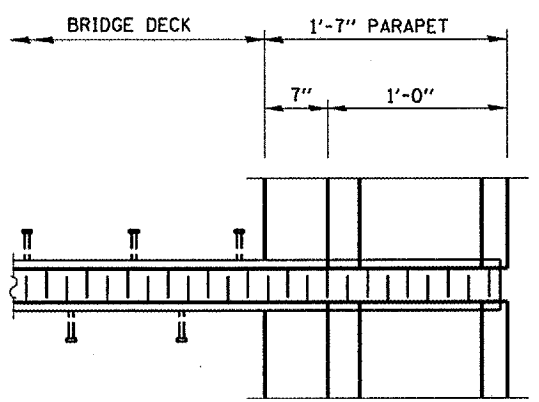
**PREFORMED JOINT SEAL**  
(2 1/2")



**AT PARAPET**  
(SHOWING SEAL)



**AT PARAPET**  
(Showing plate)



**PLAN AT PARAPET**

**GENERAL NOTES**

FURNISH STEEL PLATES IN SEGMENTS OF 20 FEET MAXIMUM LENGTH. MAXIMUM SPACE BETWEEN INSTALLED SEGMENTS SHALL BE 3/16". SEAL SPACE WITH SILICONE SEALANT SUITABLE FOR STRUCTURAL STEEL.

**TYPICAL END TREATMENTS**

**BILL OF MATERIAL FOR ONE ABUTMENT ONLY**

Item	Unit	Total
PREFORMED JOINT SEAL 2 1/2"	FOOT	43

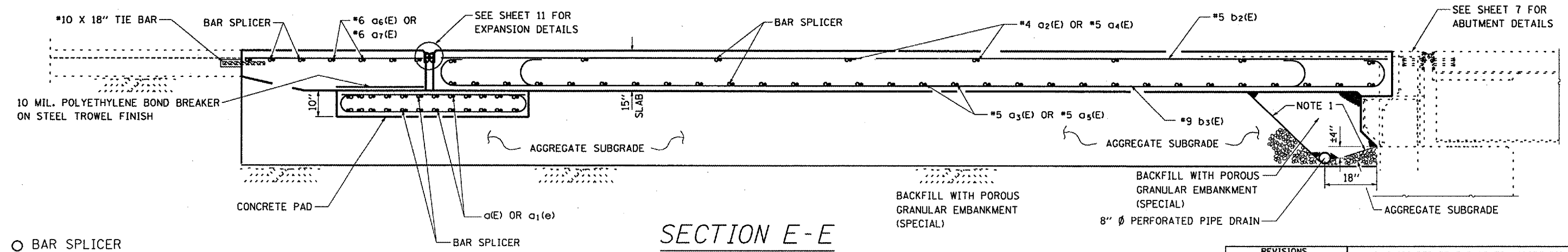
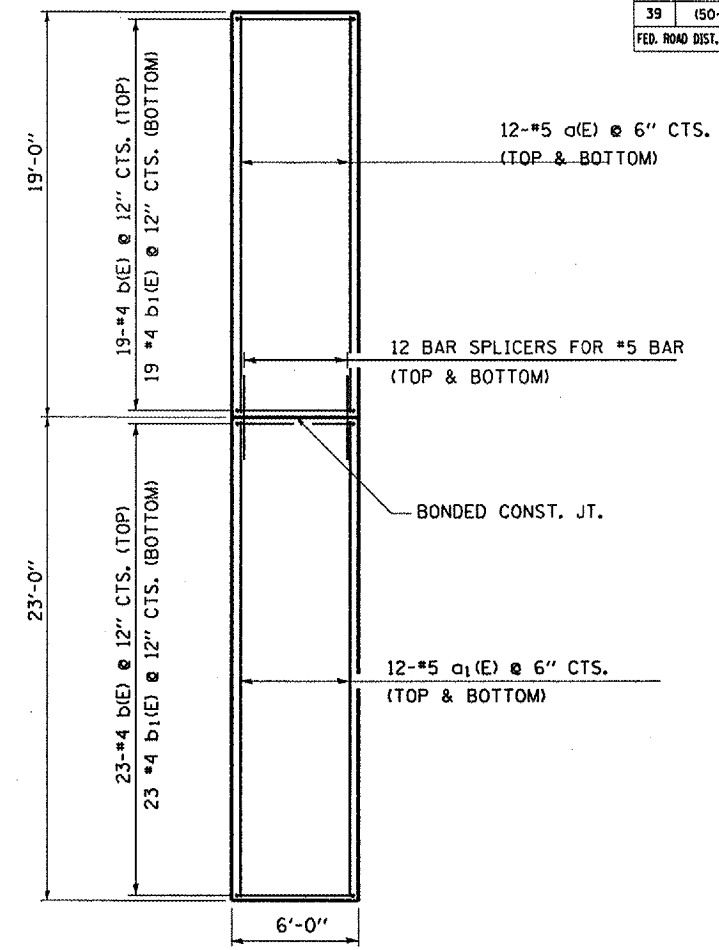
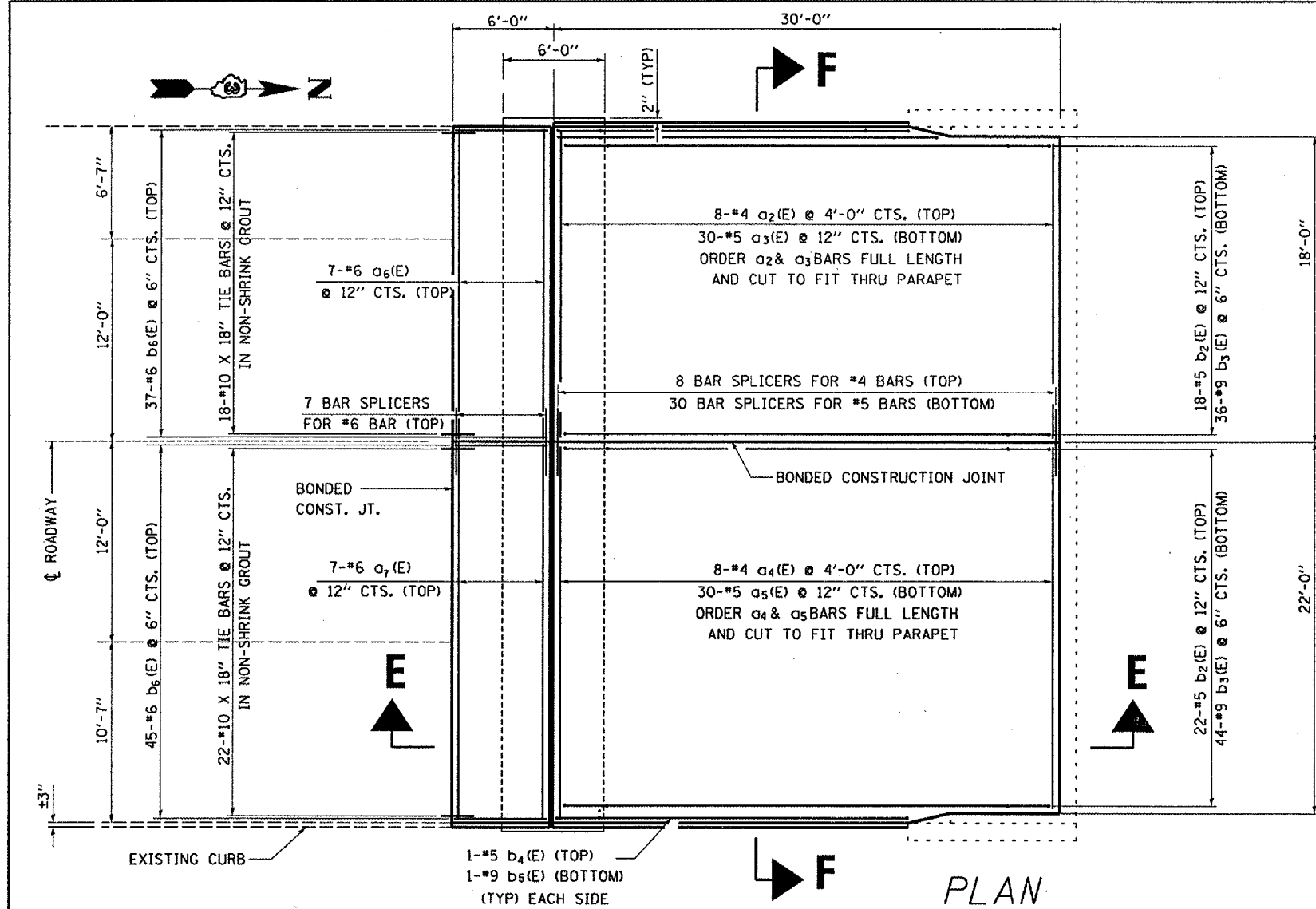
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EXPANSION JOINT ASSEMBLY DETAILS**  
 F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
 F.A.I. ROUTE 39 SECTION: (50-1VB)I-3  
 LASALLE COUNTY  
 STA. 565 + 86.08

NOTE: DETAILS SHOWN FOR NORTHBOUND STRUCTURE ONLY  
 SOUTHBOUND STRUCTURE SAME THROUGH ROTATION

Date: 05/09/2006 File: c:\projects\cma\107\cm303\details.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)1-3	LASALLE	16	10
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



- BAR SPLICER
- REINFORCEMENT BAR

NOTE 1: PLACE GEOTECHNICAL FABRIC FOR GROUND STABILIZATION TO THE LINES AS SHOWN

NOTE: DETAILS SHOWN FOR NORTHBOUND STRUCTURE ONLY  
SOUTHBOUND STRUCTURE SAME THROUGH ROTATION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**APPROACH PAVEMENT RECONSTRUCTION**  
F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
F.A.I. ROUTE 39 SECTION: (50-1VB)1-3  
LASALLE COUNTY  
STA. 565 + 86.08

Date: 05/09/2006  
File: c:\proj\ecis\cma1107\cm303\def\11.s.dgn



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)-3	LASALLE	16	12
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	

**NOTES**

BAR SPLICER ASSEMBLIES SHALL BE OF AN APPROVED TYPE AND SHALL DEVELOPE 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 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 (TENSION IN KIPS) =  $1.25 \times f_y \times A_t$
- ② MINIMUM PULL-OUT STRENGTH (TENSION IN KIPS) =  $1.25 \times f_{s_{allow}} \times A_t$

WHERE  $f_y$  = YIELD STRENGTH OF LAPPED REINFORCEMENT BARS IN KSI.

$f_{s_{allow}}$  = ALLOWABLE TENSILE STRESS IN LAPPED REINFORCEMENT BARS IN KSI (SERVICE LOAD)

$A_t$  = TENSILE STRESS AREA OF LAPPED REINFORCEMENT BARS.

• = 28 DAY CONCRETE

BAR SPLICER ASSEMBLIES			
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	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

BAR SPLICER ASSEMBLIES SHALL BE ACCORDING TO SECTION 508 OF THE STANDARD SPECIFICATIONS, EXCEPT AS NOTED. THE FURNISHING AND INSTALLATION OF BAR SPLICERS ASSEMBLIES WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "BAR SPLICERS".

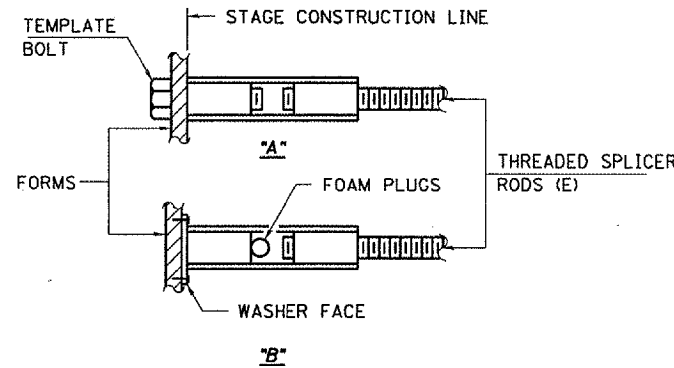
THE DIAMETER OF THIS PART IS THE SAME AS THE DIAMETER OF THE BAR SPLICED.

THE DIAMETER OF THIS PART IS EQUAL OR LARGER THEN THE DIAMETER OF THE BAR SPLICED.

**ROLLED THREAD DOWEL BAR**

**BAR SPLICER ASSEMBLY ALTERNATIVES**

••HEAVY HEX NUTS CONFORMENG TO ASTM A 563, GRADE C, D OR DH MAY BE USED

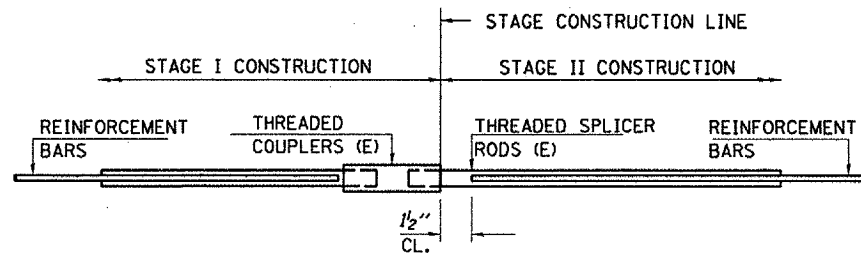


**INSTALLATION AND SETTING METHODS**

"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.



**STANDARD**

NOTE: QUANTITIES REFLECT ONE STRUCTURE ONLY

**CONCRETE PAD**

BAR SPLICER FOR #5 BAR
MIN. CAPACITY = 23.0 KIPS - TENSION
MIN. PULL-OUT STRENGTH = 9.2 KIPS - TENSION
NO. REQUIRED = 24

**ABUTMENT BACKWALL**

BAR SPLICER FOR #5 BAR
MIN. CAPACITY = 23.0 KIPS - TENSION
MIN. PULL-OUT STRENGTH = 9.2 KIPS - TENSION
NO. REQUIRED = 7

**APPROACH PAVEMENT**

BAR SPLICER FOR #4 BAR
MIN. CAPACITY = 14.7 KIPS - TENSION
MIN. PULL-OUT STRENGTH = 5.9 KIPS - TENSION
NO. REQUIRED = 8

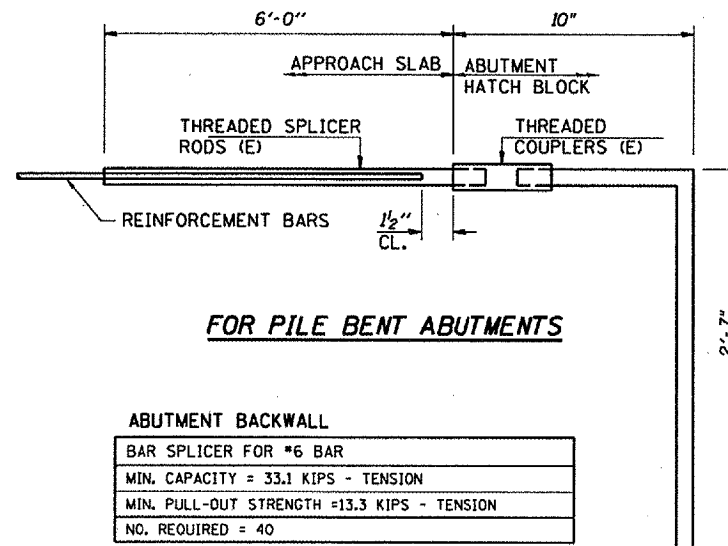
**BAR SPLICER FOR #6 BAR**

BAR SPLICER FOR #6 BAR
MIN. CAPACITY = 33.1 KIPS - TENSION
MIN. PULL-OUT STRENGTH = 13.3 KIPS - TENSION
NO. REQUIRED = 4

BAR SPLICER FOR #5 BAR
MIN. CAPACITY = 23.0 KIPS - TENSION
MIN. PULL-OUT STRENGTH = 9.2 KIPS - TENSION
NO. REQUIRED = 30

**APPROACH PAVEMENT CONNECTOR**

BAR SPLICER FOR #6 BAR
MIN. CAPACITY = 33.1 KIPS - TENSION
MIN. PULL-OUT STRENGTH = 13.3 KIPS - TENSION
NO. REQUIRED = 7



**FOR PILE BENT ABUTMENTS**

**ABUTMENT BACKWALL**

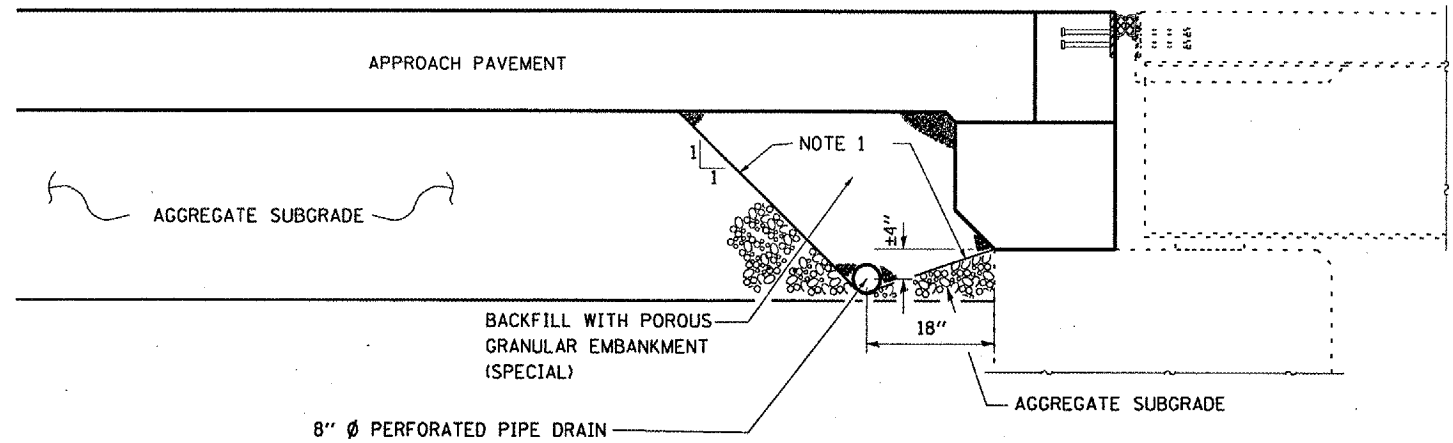
BAR SPLICER FOR #6 BAR
MIN. CAPACITY = 33.1 KIPS - TENSION
MIN. PULL-OUT STRENGTH = 13.3 KIPS - TENSION
NO. REQUIRED = 40

NOTE: QUANTITIES SHOWN REFLECT ONE STRUCTURE ONLY

REVISIONS	
NAME	DATE

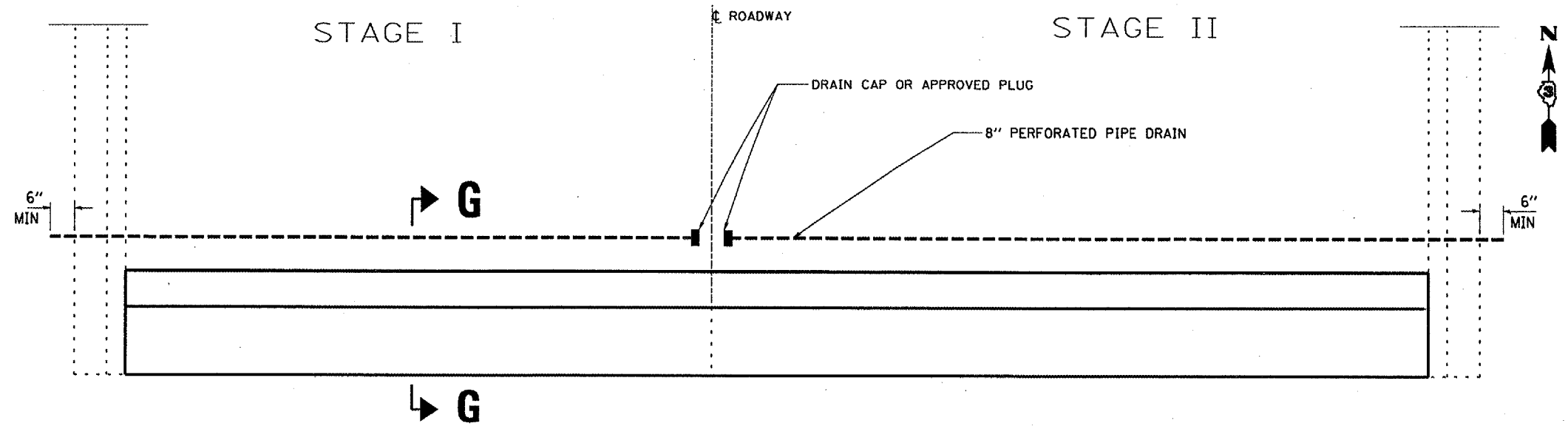
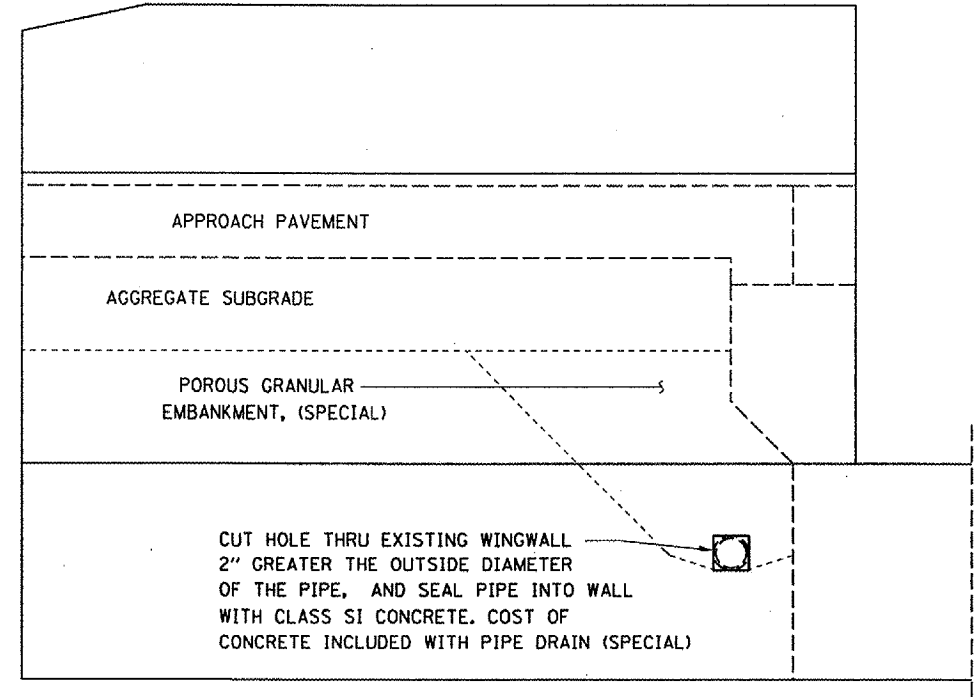
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**BAR SPLICER ASSEMBLY DETAILS**  
 F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
 F.A.I. ROUTE 39 SECTION: (50-1VB)-3  
 LASALLE COUNTY  
 STA. 565+86.08

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)I-3	LASALLE	16	13
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



NOTE 1: GEOTECHNICAL FABRIC FOR GROUND STABILIZATION

SECTION G-G



PLAN

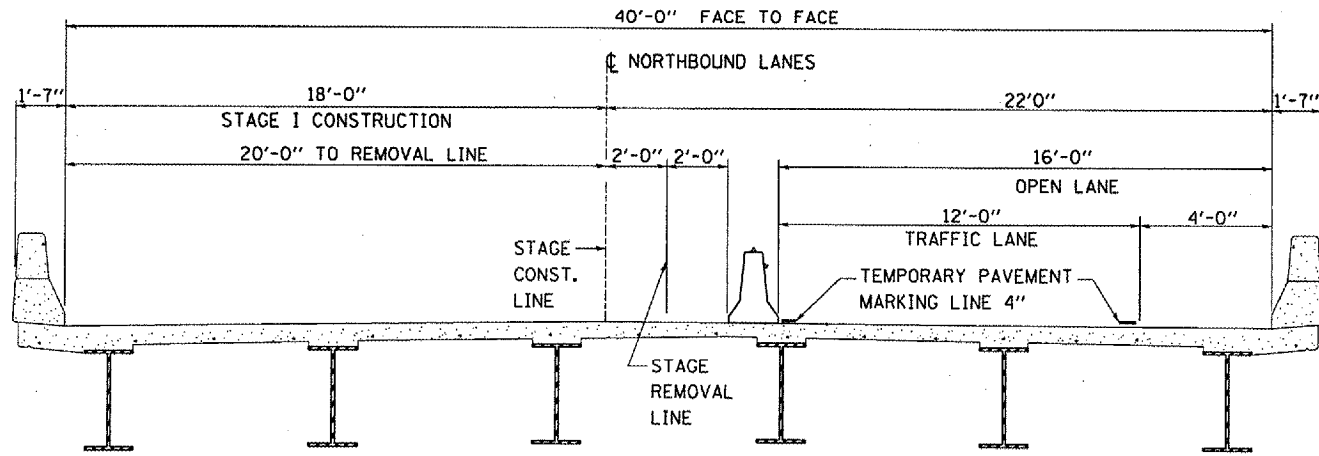
NOTE: DETAILS SHOWN FOR NORTHBOUND STRUCTURE "ONLY"  
SOUTHBOUND STRUCTURE SAME THROUGH ROTATION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PIPE DRAIN DETAILS**  
F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
F.A.I. ROUTE 39 SECTION: (50-1VB)I-3  
LASALLE COUNTY  
STA. 565 + 86.08

Date: 05/09/2006  
File: c:\pro\jects\cma\m07\cm\037\drain1a.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)-3	LASALLE	16	14
FED. ROAD DIST. NO. - ILLINOIS		NON-FED. AID PROJECT		



**SYMBOLS**

- Arrow board
- Work area
- Worker
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- Flagger with traffic control sign

① ReflectORIZED temporary pavement marking tape shall be placed throughout the taper and alongside the work area as shown on this detail when the closure time is greater than fourteen days. The right edge line shall be white and the left edge line shall be yellow.

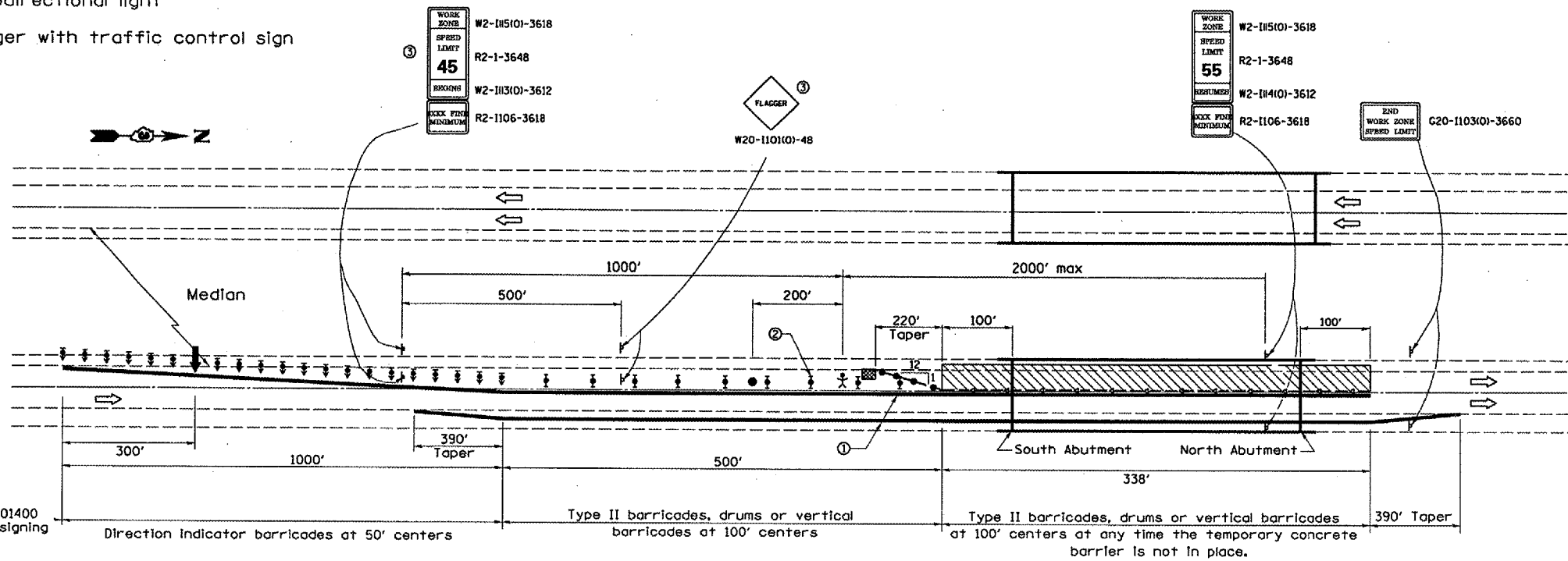
Temporary raised reflectORIZED pavement markers at 25' centers shall be used to supplement the pavement marking tape.

② Type II barricades, drums or vertical barricades shall be placed along side the work area and shall remain in place until the temporary concrete barrier has been placed.

Type II barricades, drums or vertical barricades shall be placed along side the work area prior to the removal of the temporary concrete barrier

③ Work Zone speed limit signs and Flagger signs shall be moved as necessary to maintain the required spacing between the signs and the workers during the placing of the temporary concrete barrier.

The Work Zone and Flagger signs shall be removed or covered at the option of the contractor after the temporary concrete barrier has been placed and reinstalled or uncovered prior to the removal of the temporary concrete barrier.



**GENERAL NOTES**

This Standard is used where at any time any vehicle, equipment, workers or their activities will encroach on the lane adjacent to the shoulder, or on the shoulder within 24" of the edge of pavement.

This Standard must always be used in combination with Standard 701400.

This Standard also applies when work is being performed in the left lane. Under these conditions, the set up would be a mirror image to what is shown.

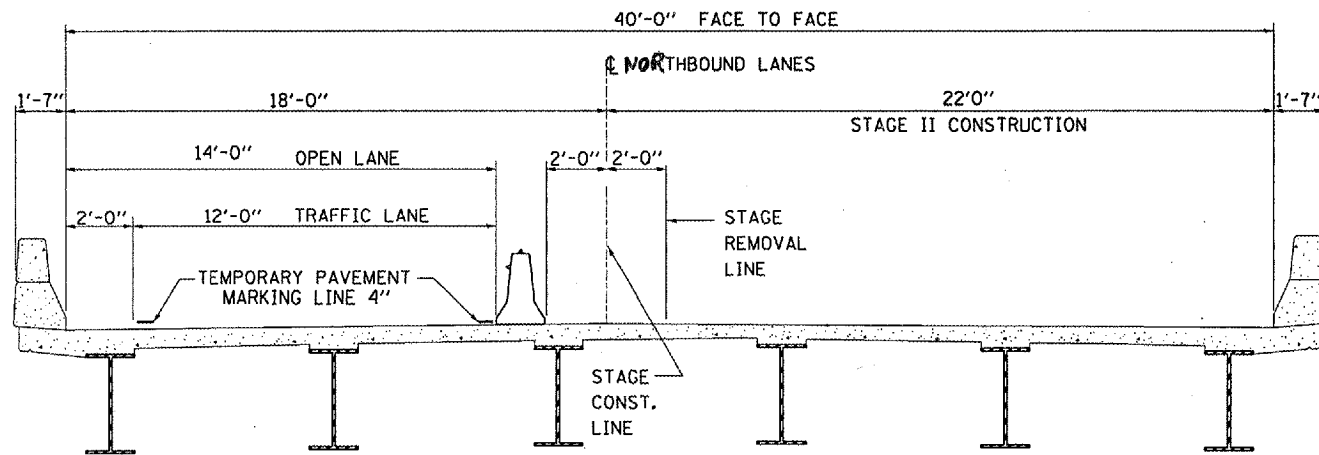
A check barricade shall be placed in the middle of the closed lane and at the shoulder at 1000' centers.

**NOTE: DETAILS SHOWN FOR NORTHBOUND STRUCTURE ONLY  
SOUTHBOUND STRUCTURE SAME THROUGH ROTATION**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL AND PROTECTION,  
STANDARD 701402 (SPECIAL) - STAGE I**  
F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
F.A.I. ROUTE 39 SECTION: (50-1VB)-3  
LASALLE COUNTY  
STA. 565 + 86.08

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	150-1VB11-3	LASALLE	16	15
FED. ROAD DIST. NO.		ILLINOIS NON-FED. AID PROJECT		



**SYMBOLS**

- Arrow board
- Work area
- Worker
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- Flagger with traffic control sign

① ReflectORIZED temporary pavement marking tape shall be placed throughout the taper and alongside the work area as shown on this detail when the closure time is greater than fourteen days. The right edge line shall be white and the left edge line shall be yellow.

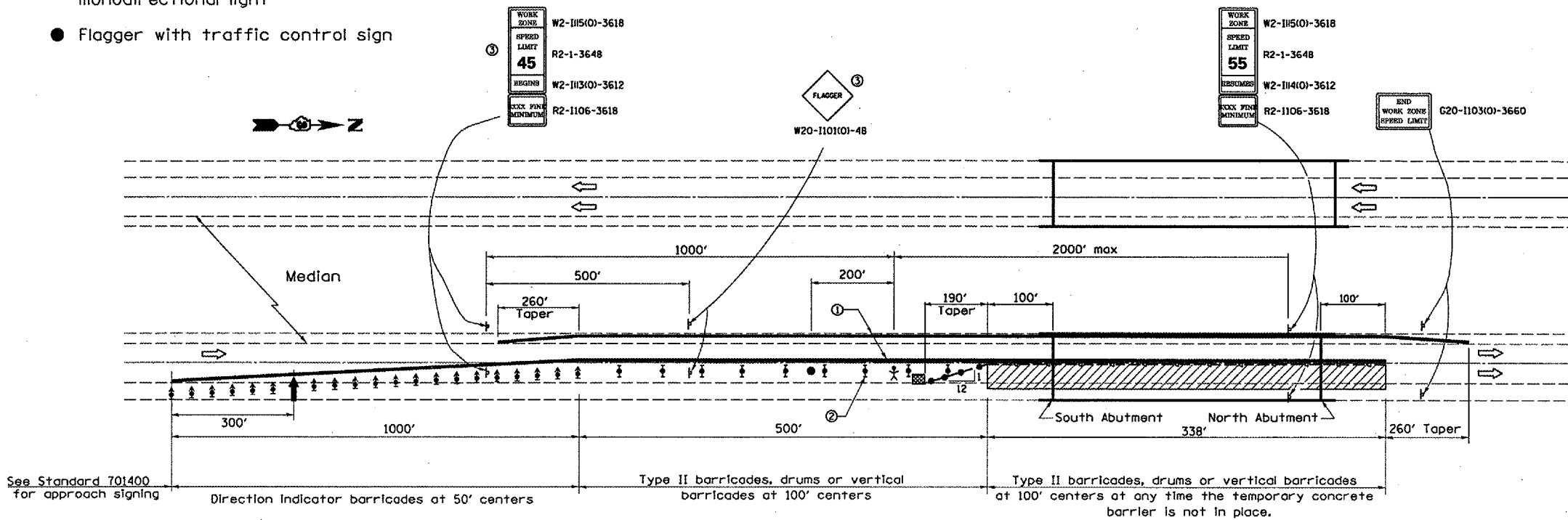
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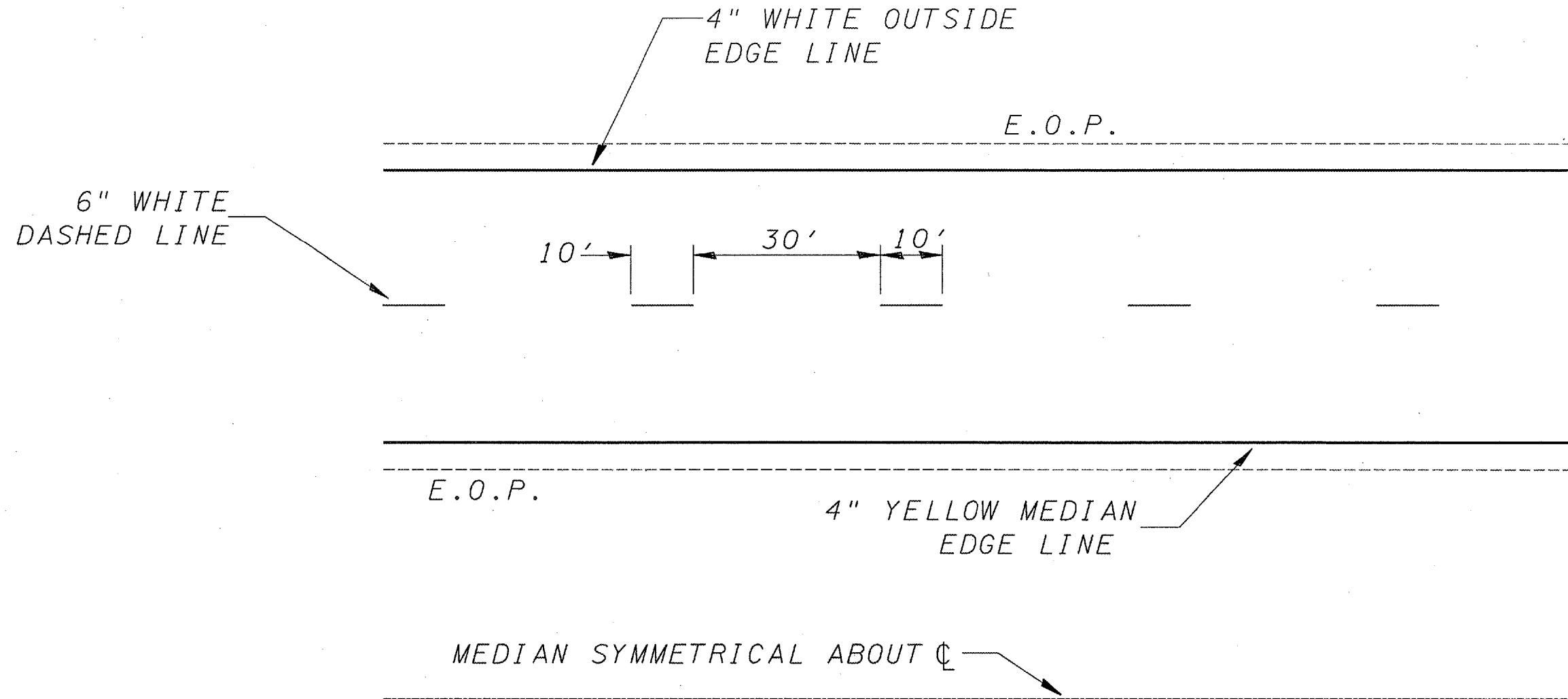
A check barricade shall be placed in the middle of the closed lane and at the shoulder at 1000' centers.

NOTE: DETAILS SHOWN FOR NORTHBOUND STRUCTURE ONLY  
SOUTHBOUND STRUCTURE SAME THROUGH ROTATION

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION <b>TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL) - STAGE 2</b> F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD F.A.I. ROUTE 39 SECTION: (50-1VB)1-3 LASALLE COUNTY STA. 565 + 86.08
NAME	DATE	

Date: 05/09/2006  
File: c:\proj\trcs\cma\1107\cm303\sepal15.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	150-1VB11-3	LASALLE	16	16
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



## TYPICAL PAVEMENT MARKINGS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TYPICAL PAVEMENT MARKINGS**

F.A.I. ROUTE 39 OVER NORFOLK SOUTHERN RAILROAD  
F.A.I. ROUTE 39 SECTION: (50-1VB)1-3  
LASALLE COUNTY  
STA. 565 + 86.08

Date: 05/08/2006  
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