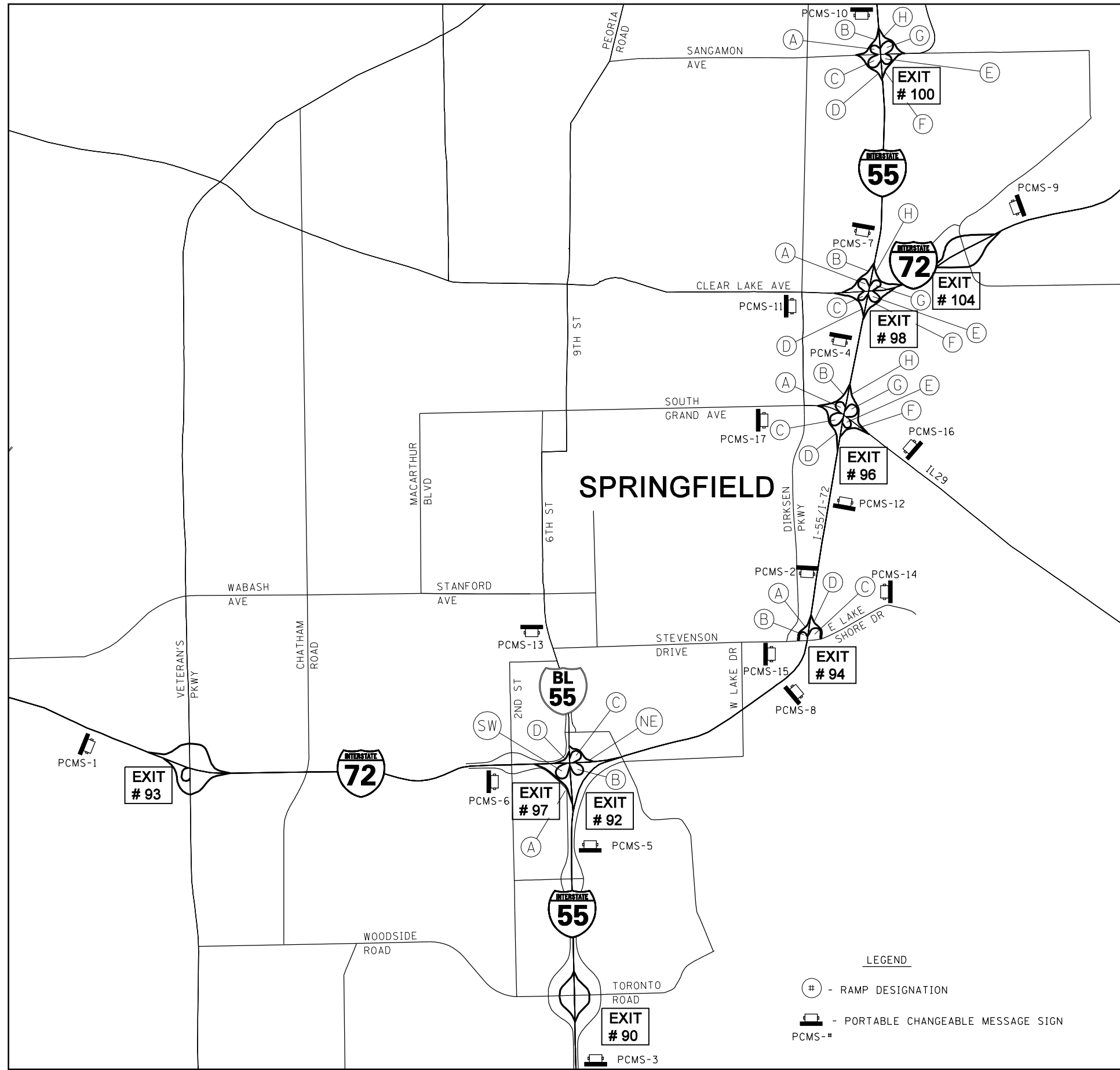


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	201
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)				
** D6 INTERSTATE RS,BR,M CAB 2008				



NOTE:  
 ALL MESSAGE BOARDS SHALL BY PROTECTED  
 BY THREE, TYPE III BARRICADES, DRUMS, OR  
 VERTICAL BARRICADES AT 50' CENTERS.

PLOT DATE : Oct-22-2007 08:23:26AM  
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 USER NAME : laughlin-1

REVISIONS	
NAME	DATE

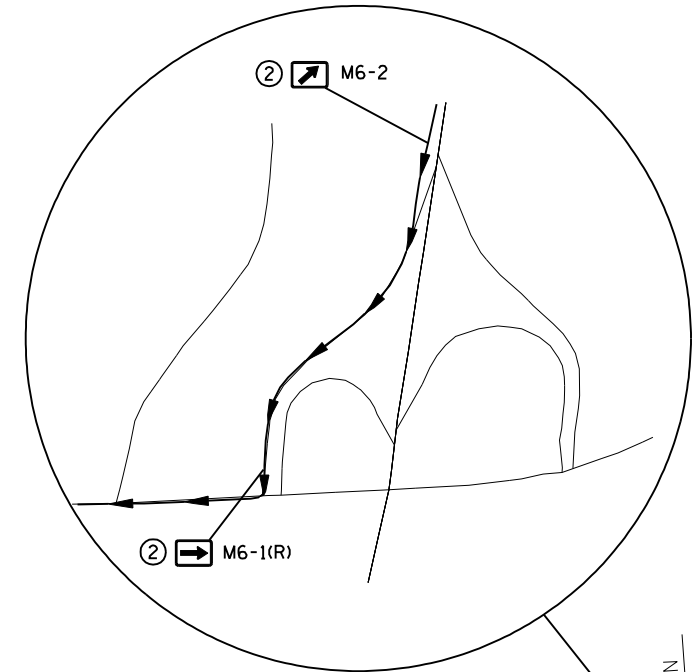
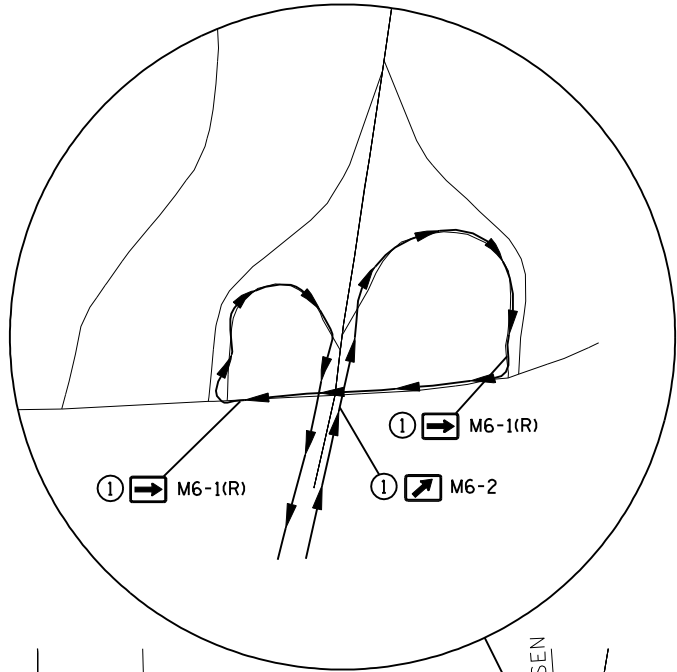
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**MESSAGE BOARD  
 PLACEMENT SHEET**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY

SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 DATE \_\_\_\_\_ CHECKED BY \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	202
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)				
** D6 INTERSTATE RS,BR,M CAB 2008				

EB I-72 TO SB I-55 OR NB BL-55

SB I-55 TO 6TH ST (BL-55)



USE FOR CLOSING SIXTH STREET INTERCHANGE RAMP A, B

- ① DETOUR ORANGE/BLACK M4-8 (30X15)
- MI-1 (48X48)

- FOR RAMP A ORANGE/BLACK
- FOR RAMP B ORANGE/BLACK

NOTE: USE BOTH 'TO' SIGNS AT THE STEVENSON INTERCHANGE

USE FOR CLOSING SIXTH STREET INTERCHANGE NE RAMP

- ② DETOUR ORANGE/BLACK M4-8 (30X15)
- MI-1 (48X48)
- ORANGE/BLACK (30X15)

REVISIONS	
NAME	DATE

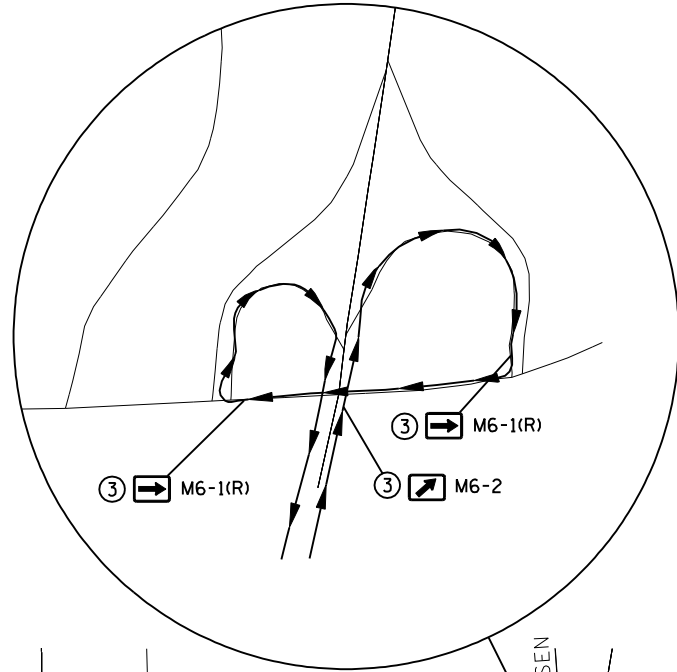
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 DATE: \_\_\_\_\_ CHECKED BY \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	203

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)	
** D6 INTERSTATE RS,BR,M CAB 2008	

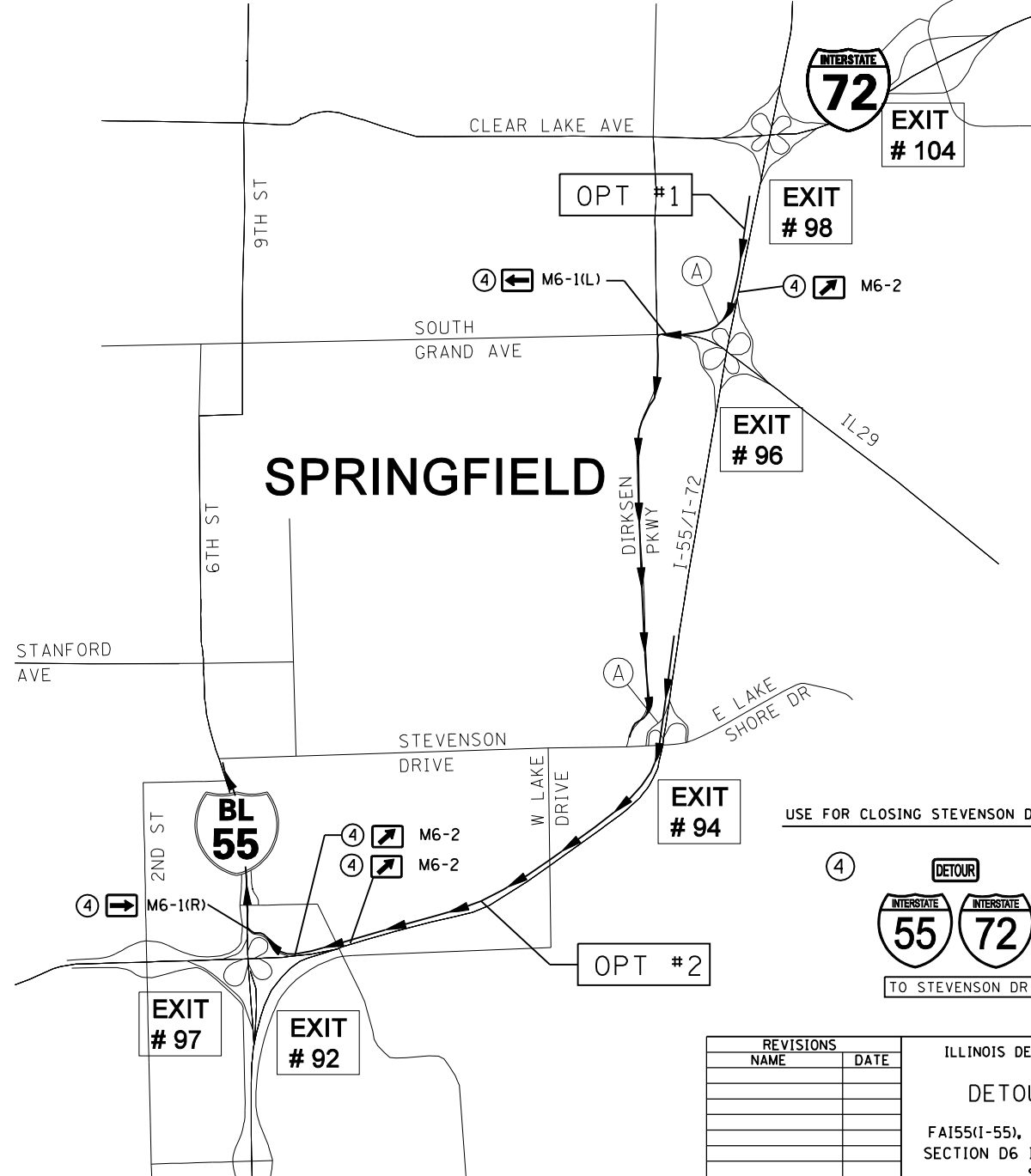
NB I-55 TO WB I-72

SB I-55 TO STEVENSON DR



USE FOR CLOSING SIXTH STREET INTERCHANGE RAMP C

- ③ DETOUR ORANGE/BLACK M4-8 (30X15)
- M1-1 (48X48)
- TO WB I-72 ORANGE/BLACK (30X15)



USE FOR CLOSING STEVENSON DR INTERCHANGE RAMP A

- ④ DETOUR ORANGE/BLACK M4-8 (30X15)
- M1-1 (48X48)
- TO STEVENSON DR ORANGE/BLACK (30X15)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DETOUR SIGNING PLAN

FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
SECTION D6 INTERSTATE RS,BR,M CAB 2008  
SANGAMON COUNTY

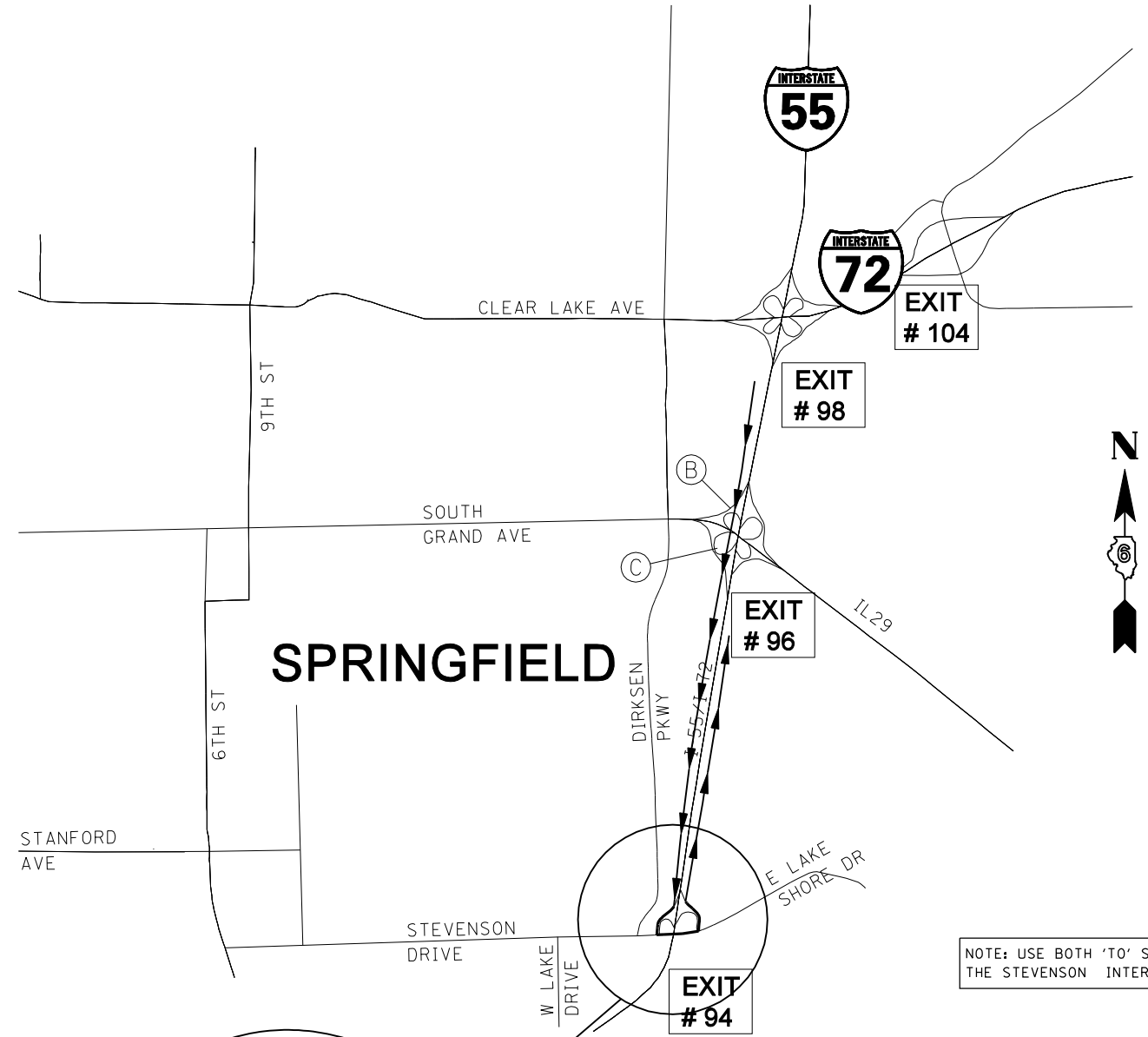
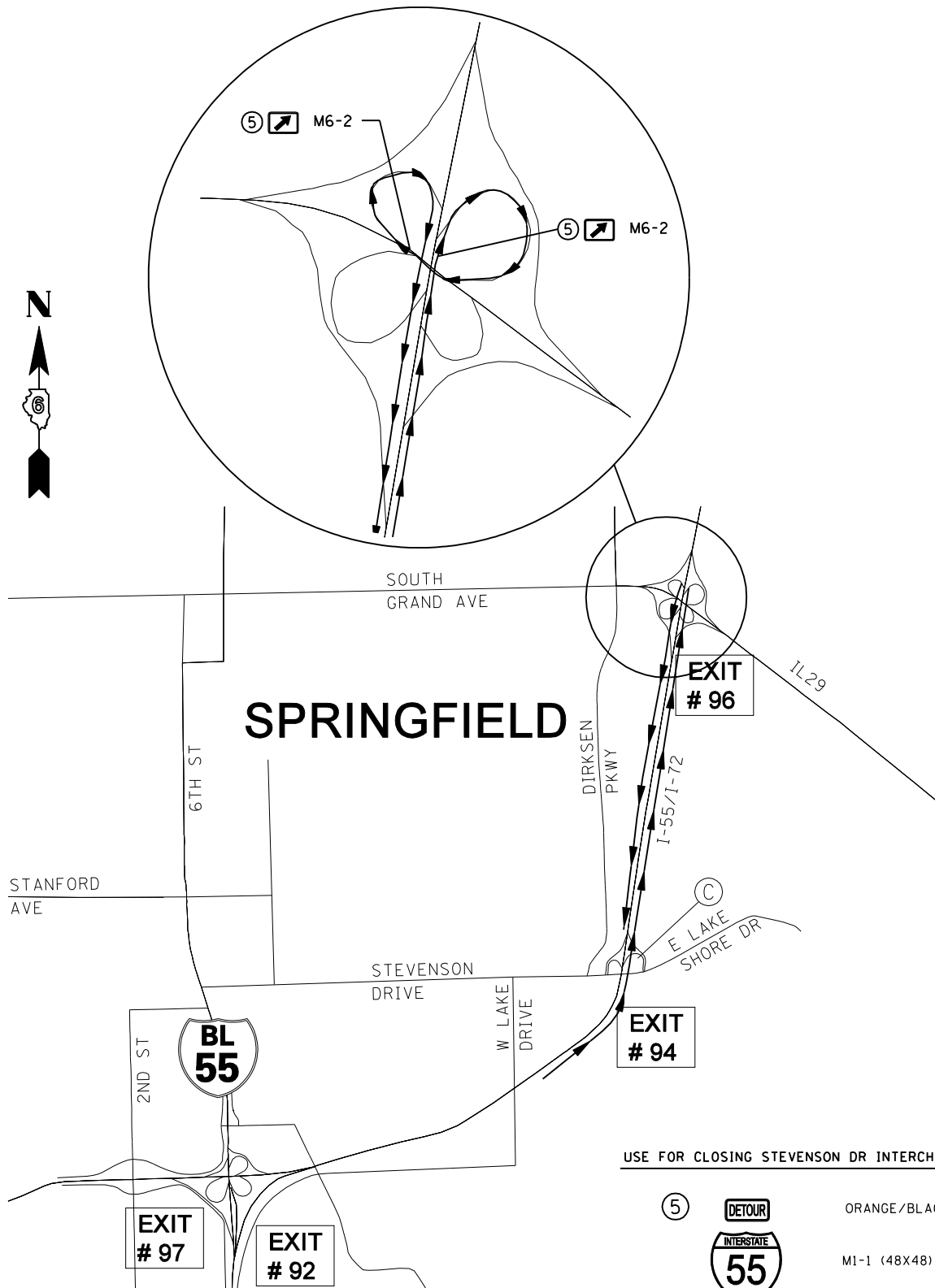
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DATE: CHECKED BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	204

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)	
** D6 INTERSTATE RS,BR,M CAB 2008	

NB I-55 TO STEVENSON DR

SB I-55 TO SOUTH GRAND AVE



USE FOR CLOSING STEVENSON DR INTERCHANGE RAMP C

⑤ ORANGE/BLACK M4-8 (30X15)  
 MI-1 (48X48)  
 ORANGE/BLACK (30X15)

NOTE: USE BOTH 'TO' SIGNS AT THE STEVENSON INTERCHANGE

USE FOR CLOSING SOUTH GRAND INTERCHANGE RAMP B, C

⑦ ORANGE/BLACK M4-8 (30X15)  
 MI-1 (48X48)  
 FOR RAMP B ORANGE/BLACK (30X15)  
 FOR RAMP C

REVISIONS	
NAME	DATE

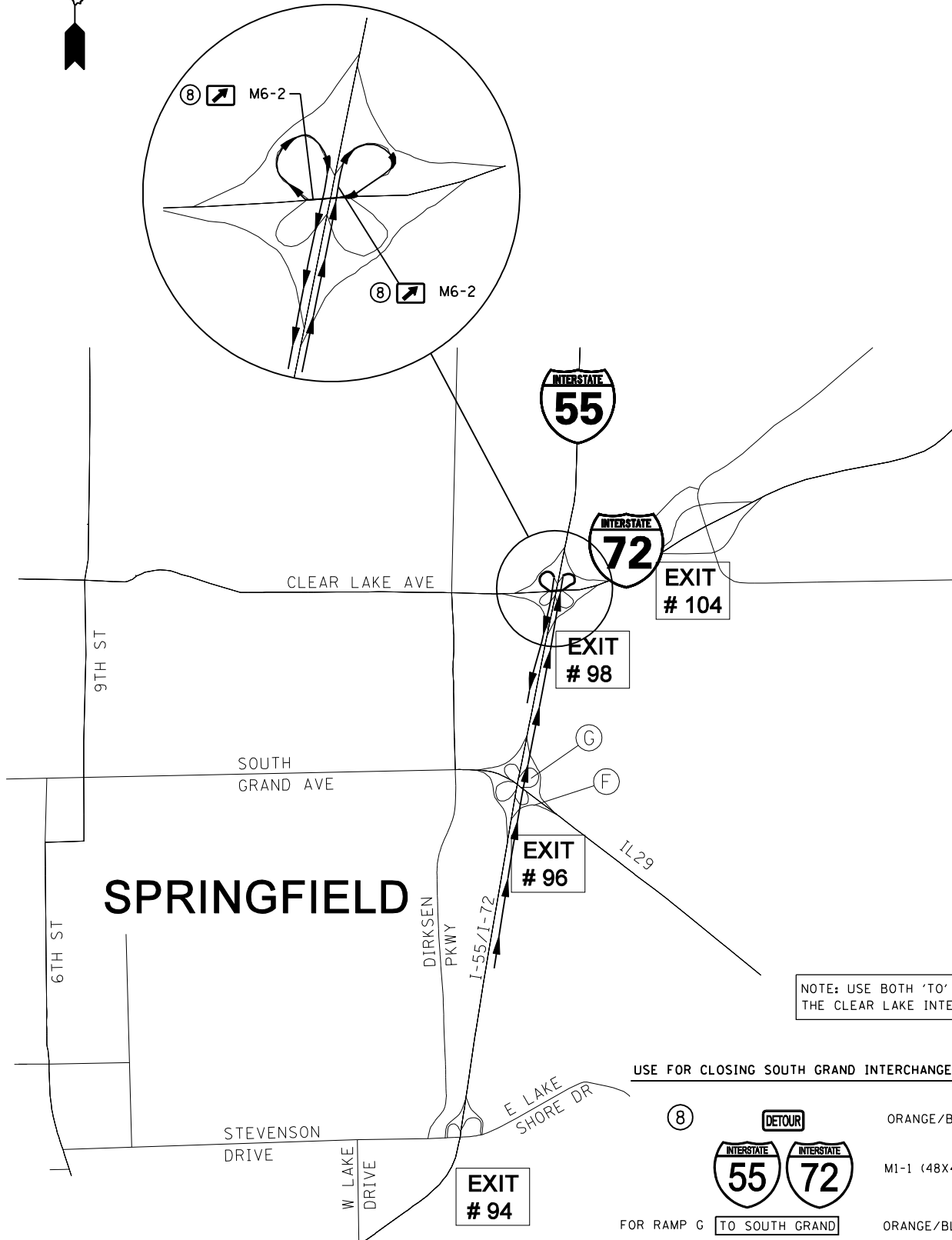
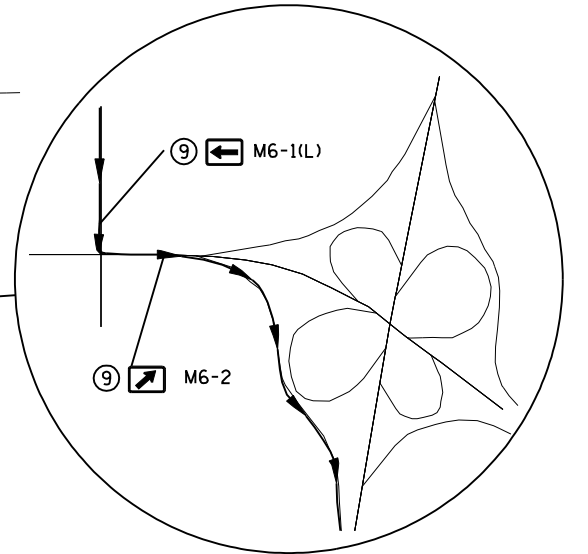
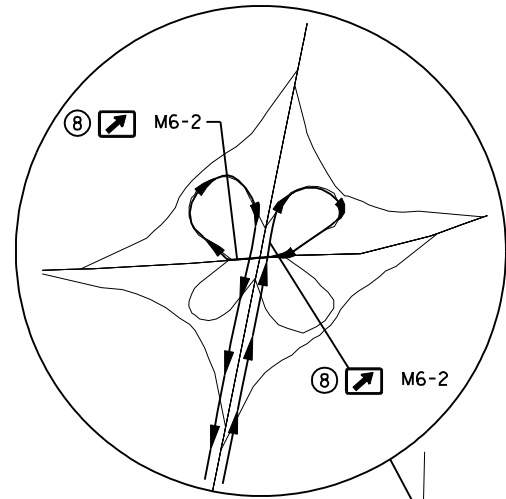
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 DATE: \_\_\_\_\_ CHECKED BY \_\_\_\_\_

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 USER NAME = laughlin-1

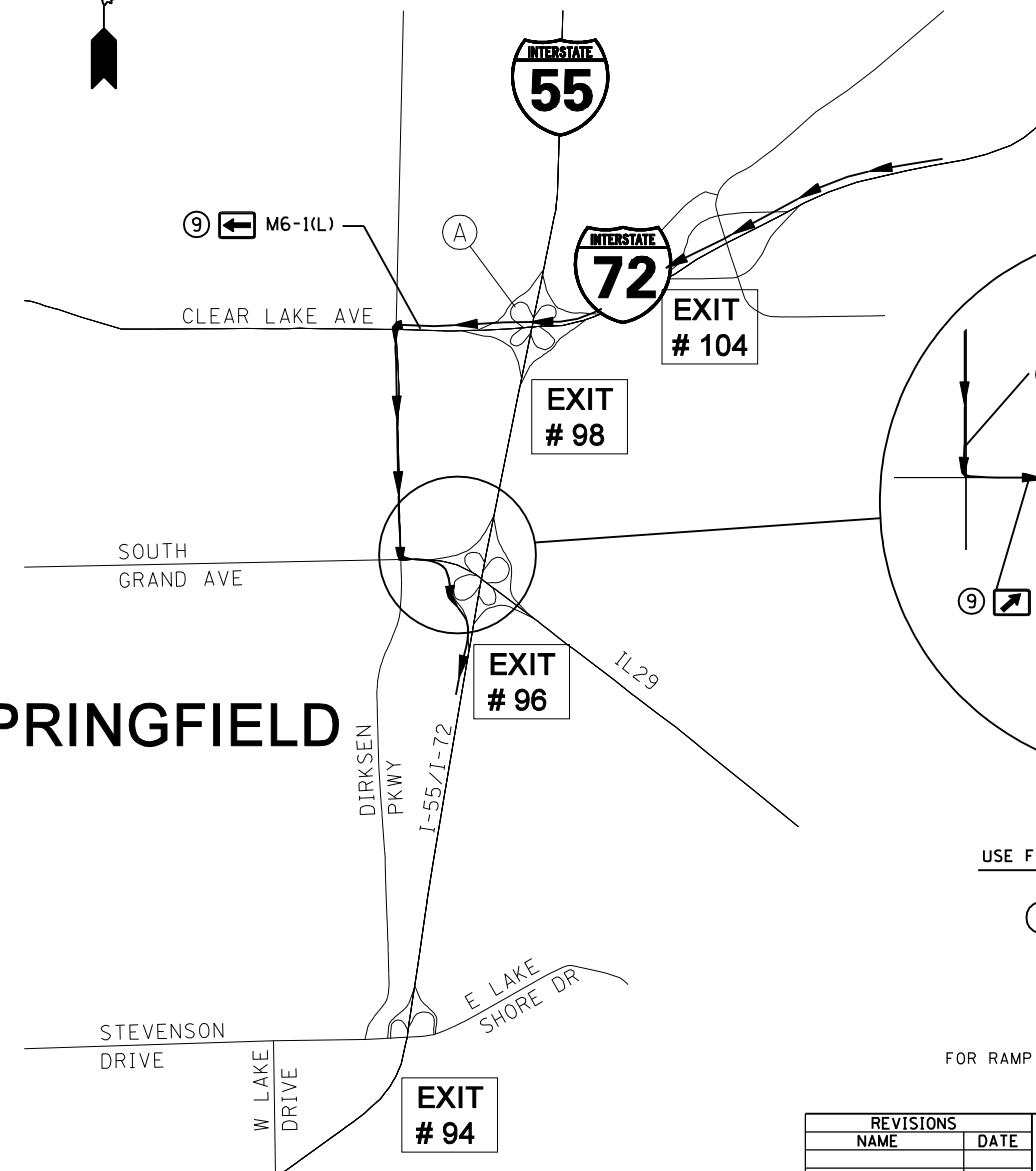
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*	**	SANGAMON	248	205
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)				
** D6 INTERSTATE RS,BR,M CAB 2008				

NB I-55 TO SOUTH GRAND / IL 29

WB I-72 TO SB I-55 / WB I-72



SPRINGFIELD



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: DRAWN BY  
 DATE: CHECKED BY

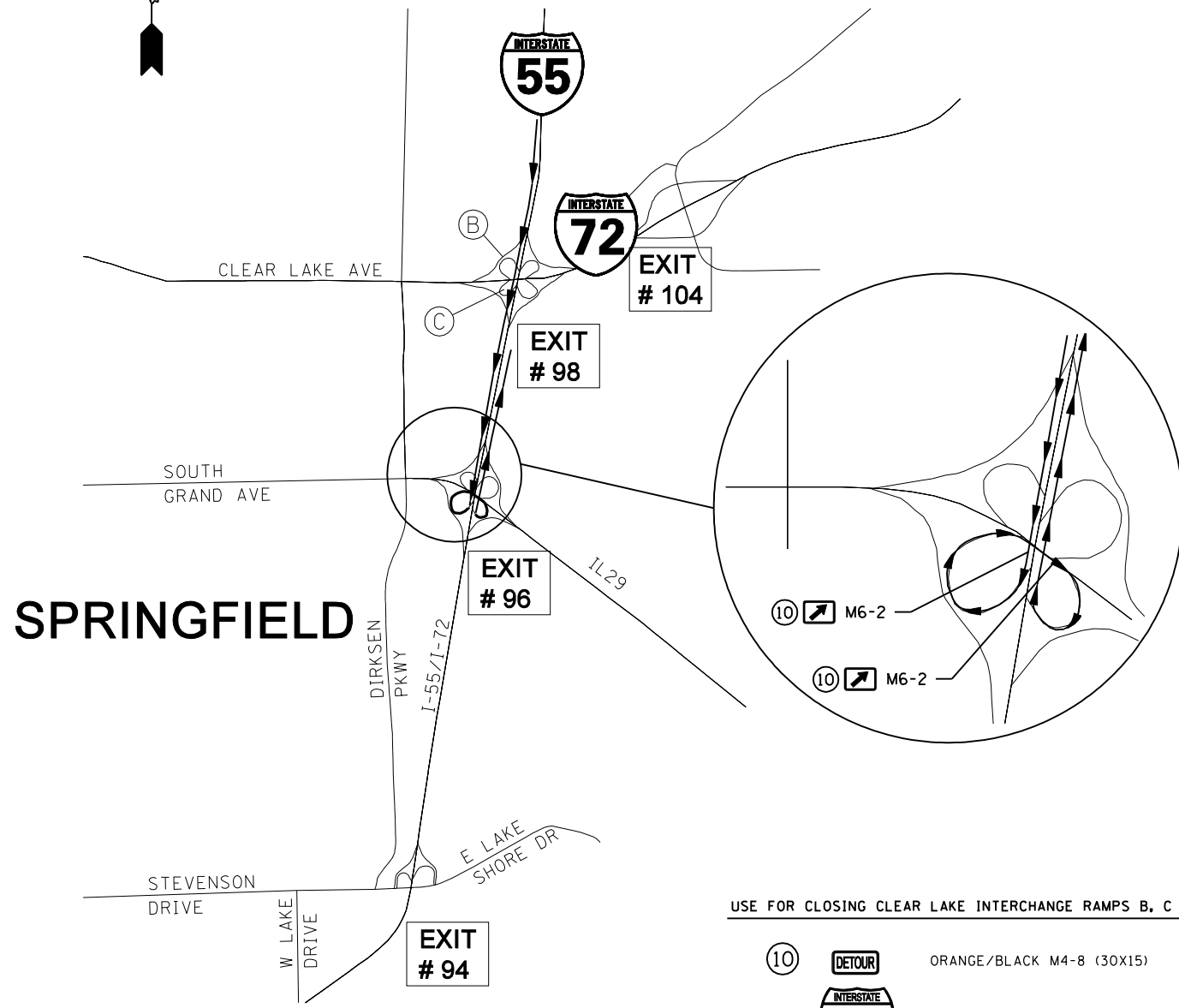
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*	**	SANGAMON	248	206

STA.	TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT  
 \* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 \*\* D6 INTERSTATE RS,BR,M CAB 2008

SB I-55 TO CLEAR LAKE OR EB I-72

IL 97 TO NB I-55 OR SB I-55 / WB I-72



SPRINGFIELD

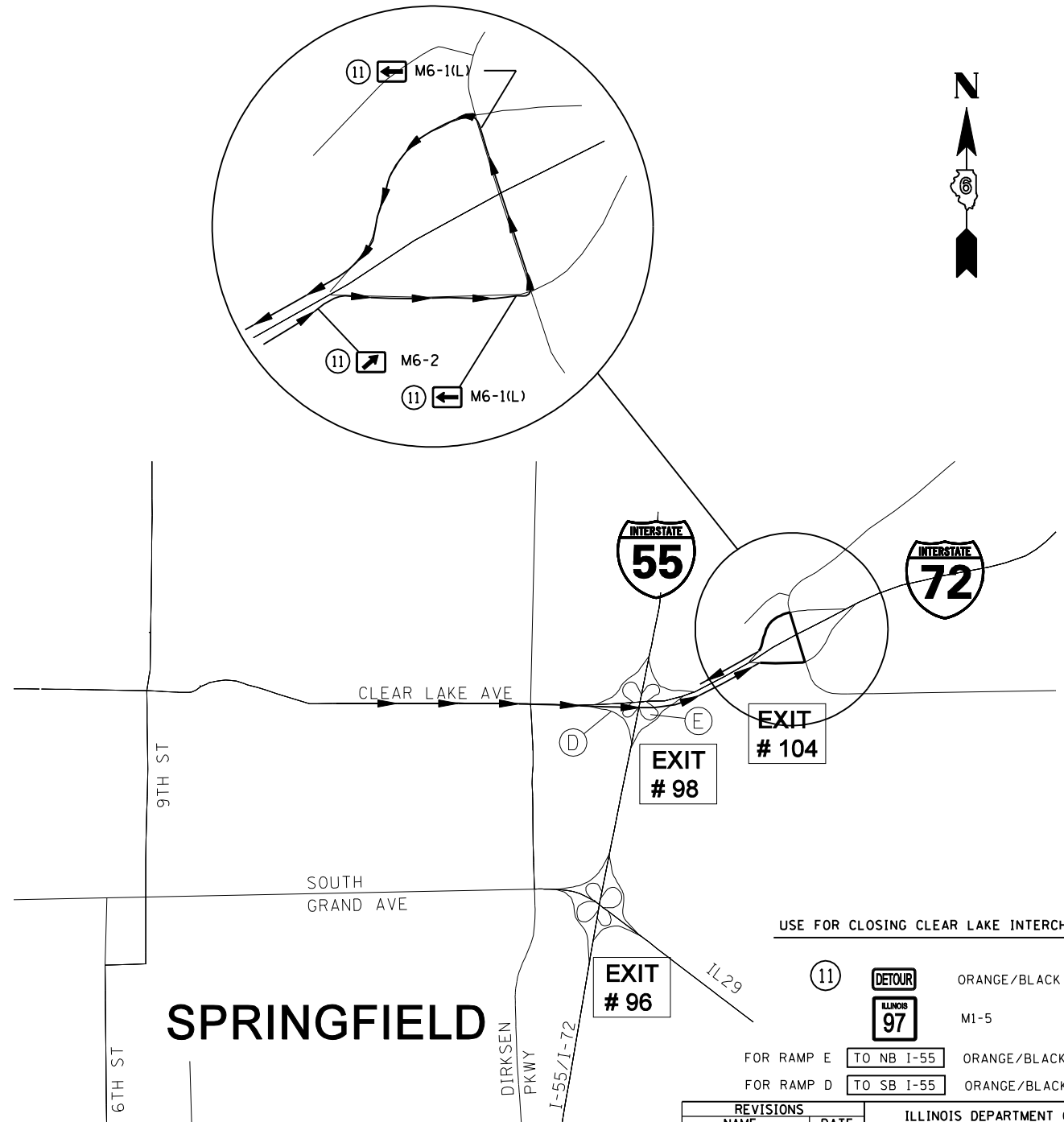
SPRINGFIELD

USE FOR CLOSING CLEAR LAKE INTERCHANGE RAMP B, C

- (10) ORANGE/BLACK M4-8 (30X15)
- MI-1 (48X48)

FOR RAMP B ORANGE/BLACK (30X15)  
 FOR RAMP C

NOTE: USE BOTH 'TO' SIGNS AT THE SOUTH GRAND INTERCHANGE



USE FOR CLOSING CLEAR LAKE INTERCHANGE RAMP D, E

- (11) ORANGE/BLACK M4-8 (30X15)
- MI-5

FOR RAMP E ORANGE/BLACK (30X15)  
 FOR RAMP D ORANGE/BLACK (30X15)

NOTE: USE BOTH 'TO' SIGNS AT THE CAMP BUTLER INTERCHANGE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 DATE: \_\_\_\_\_ CHECKED BY \_\_\_\_\_

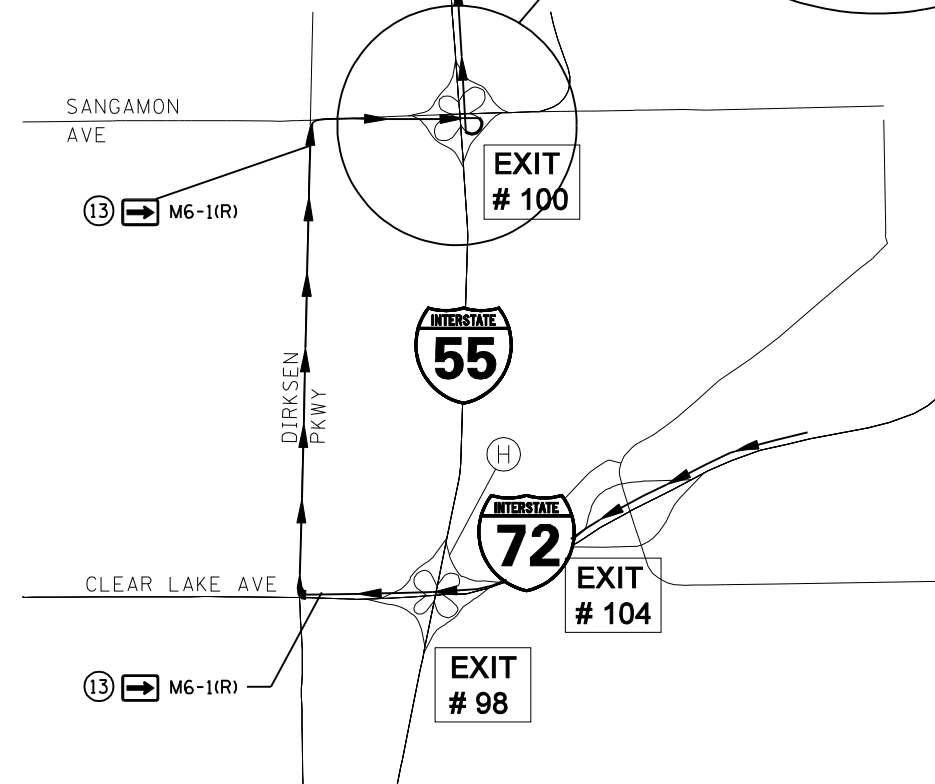
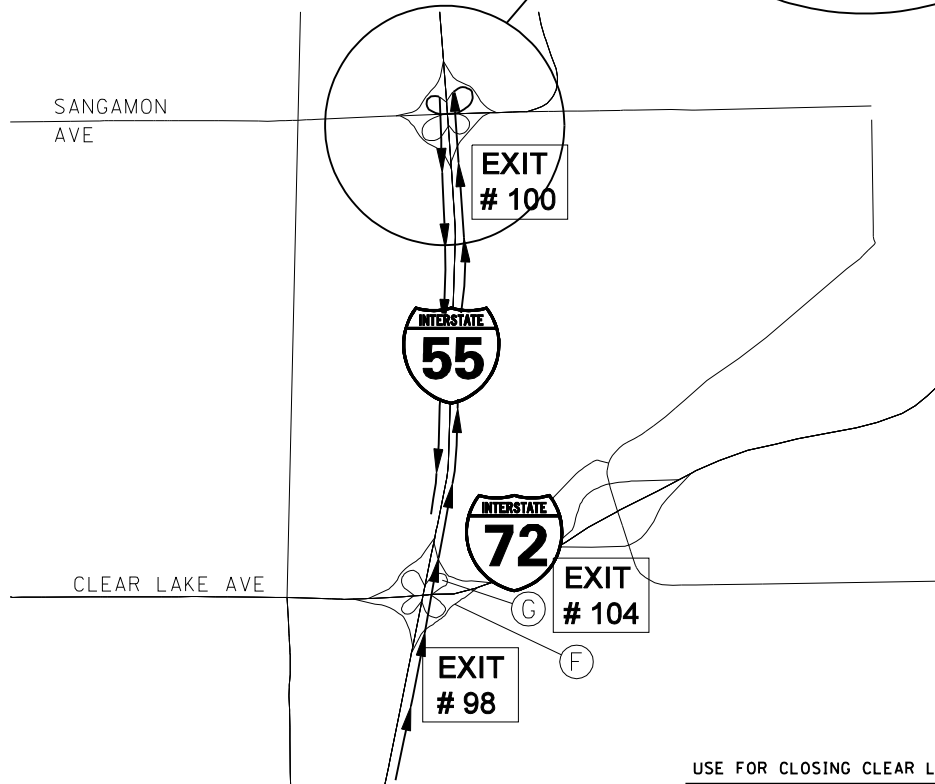
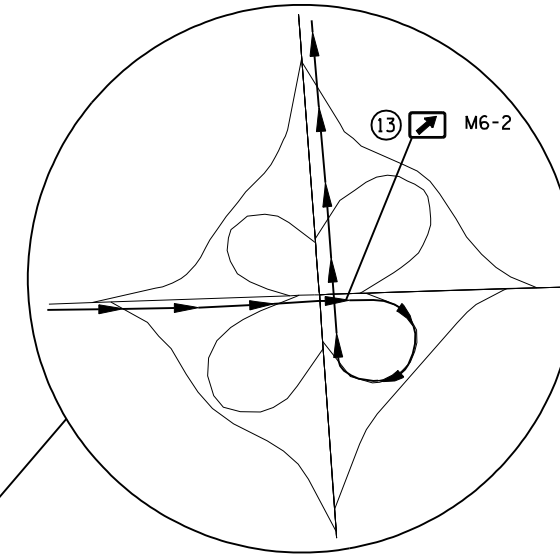
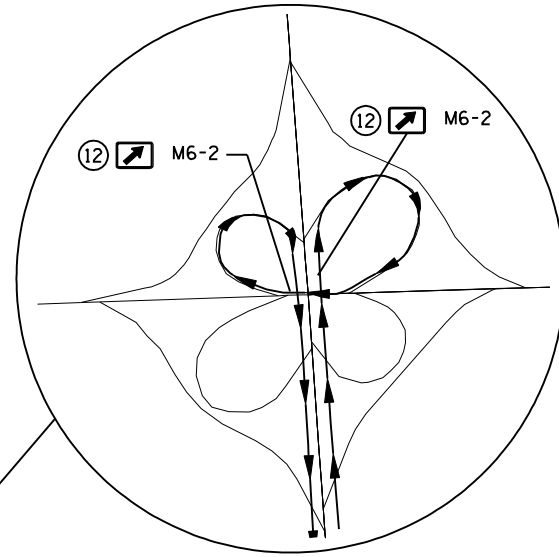
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	207

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)	
** D6 INTERSTATE RS,BR,M CAB 2008	

NB I-55 / EB I-72 TO CLEAR LAKE OR EB I-72

NB I-55 / EB I-72 TO CLEAR LAKE OR EB I-72



USE FOR CLOSING CLEAR LAKE INTERCHANGE RAMP F, G

USE FOR CLOSING CLEAR LAKE INTERCHANGE RAMP H

NOTE: USE BOTH 'TO' SIGNS AT SANGAMON INTERCHANGE

- ⑫ ORANGE/BLACK M4-8 (30X15)
- M1-1 (48X48)
- FOR RAMP F ORANGE/BLACK (30X15)
- FOR RAMP G ORANGE/BLACK (30X15)

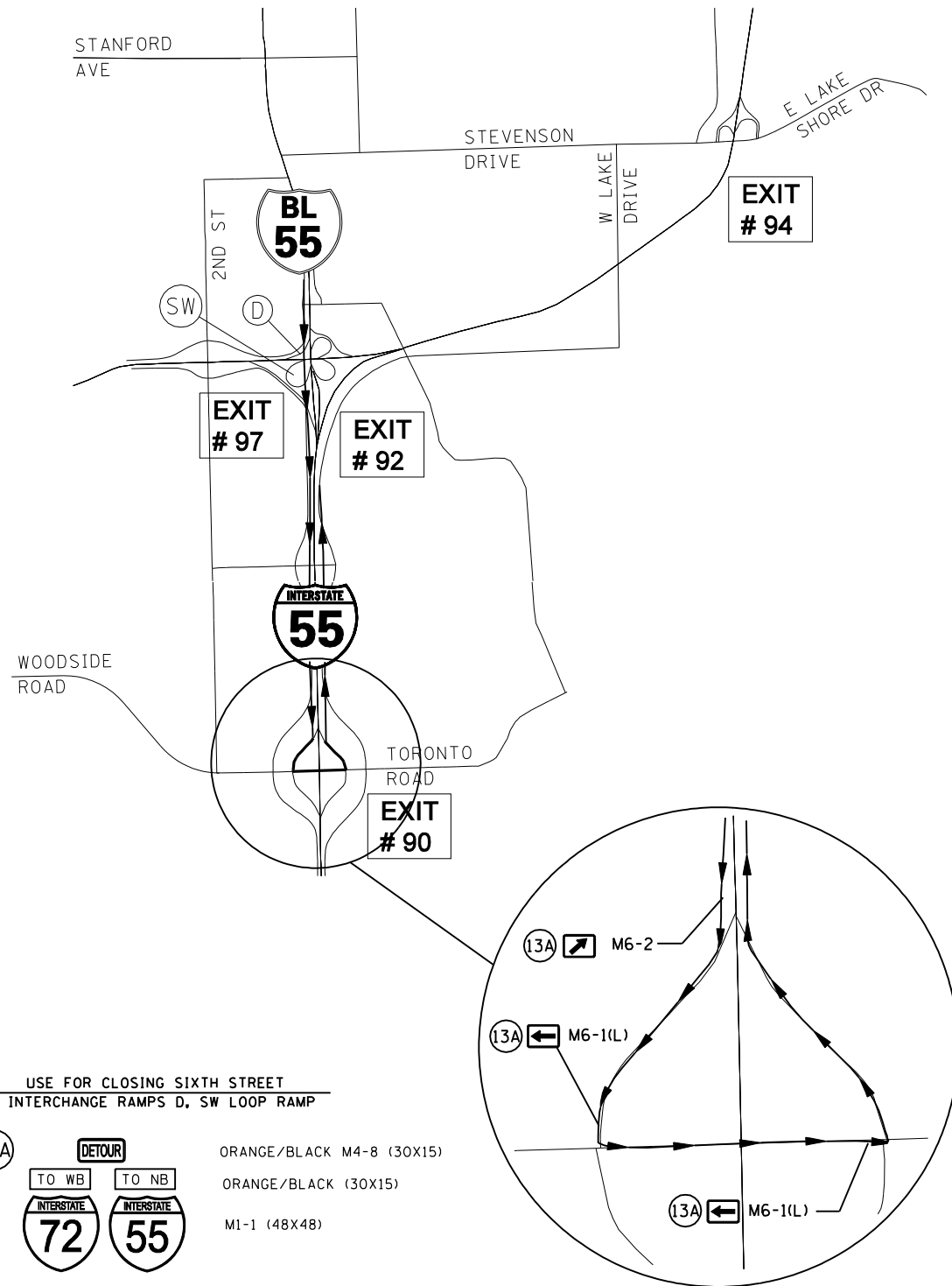
- ⑬ ORANGE/BLACK M4-8 (30X15)
- M1-1 (48X48)
- ORANGE/BLACK (30X15)

REVISIONS	
NAME	DATE

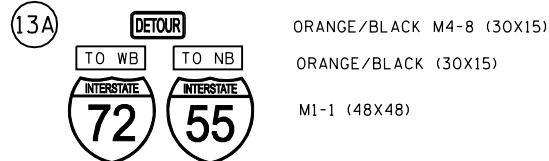
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 DATE: \_\_\_\_\_ CHECKED BY \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	208
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)				
** D6 INTERSTATE RS,BR,M CAB 2008				

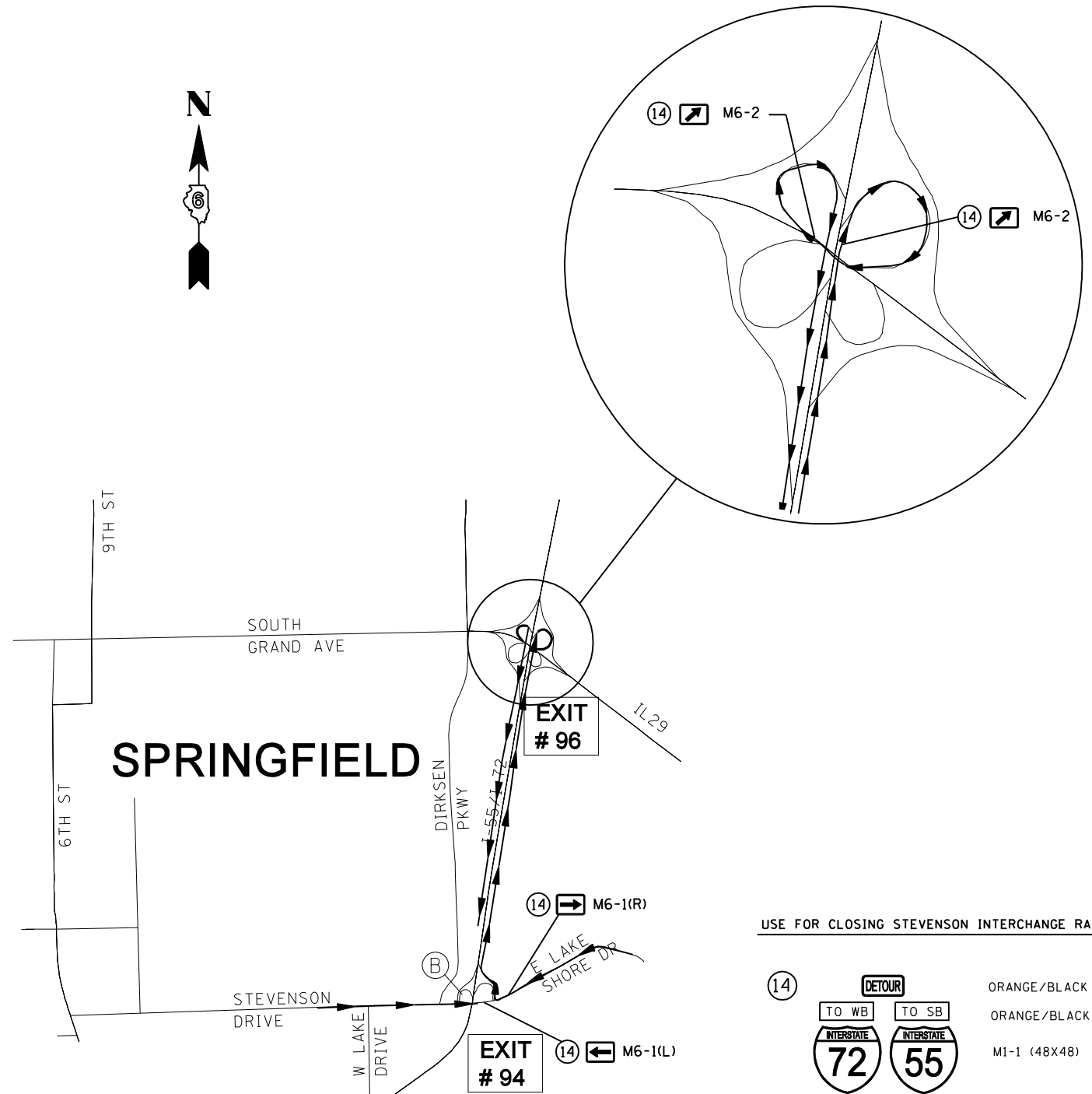
6TH ST BL-55 TO WB I-72 OR NB I-55 / EB I-72



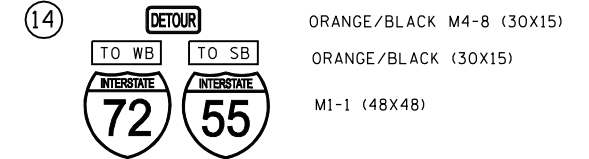
USE FOR CLOSING SIXTH STREET INTERCHANGE RAMP D, SW LOOP RAMP



STEVENSON DR / EAST LAKE SHORE DR TO SB I-55



USE FOR CLOSING STEVENSON INTERCHANGE RAMP B



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: DRAWN BY  
 DATE CHECKED BY

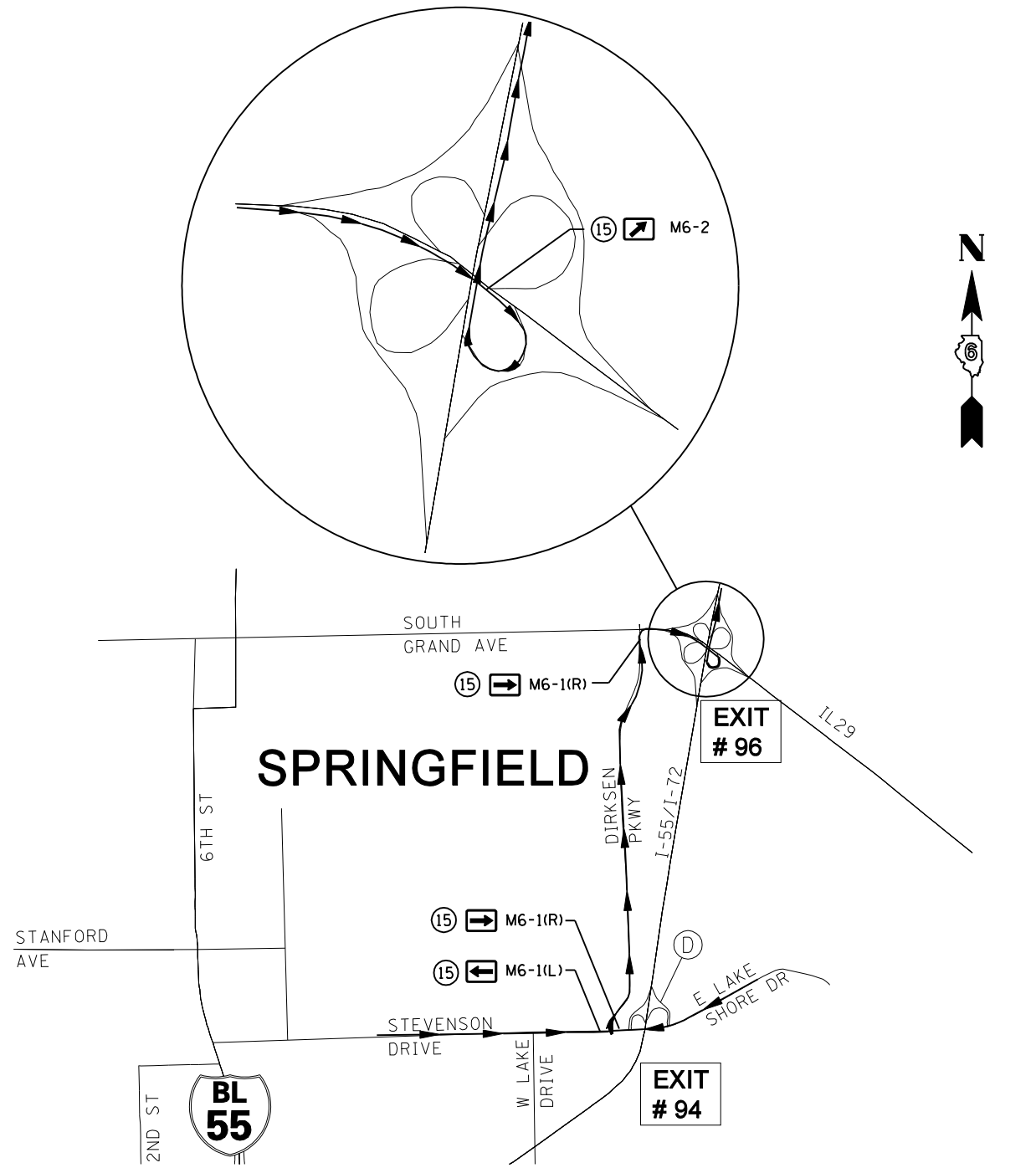
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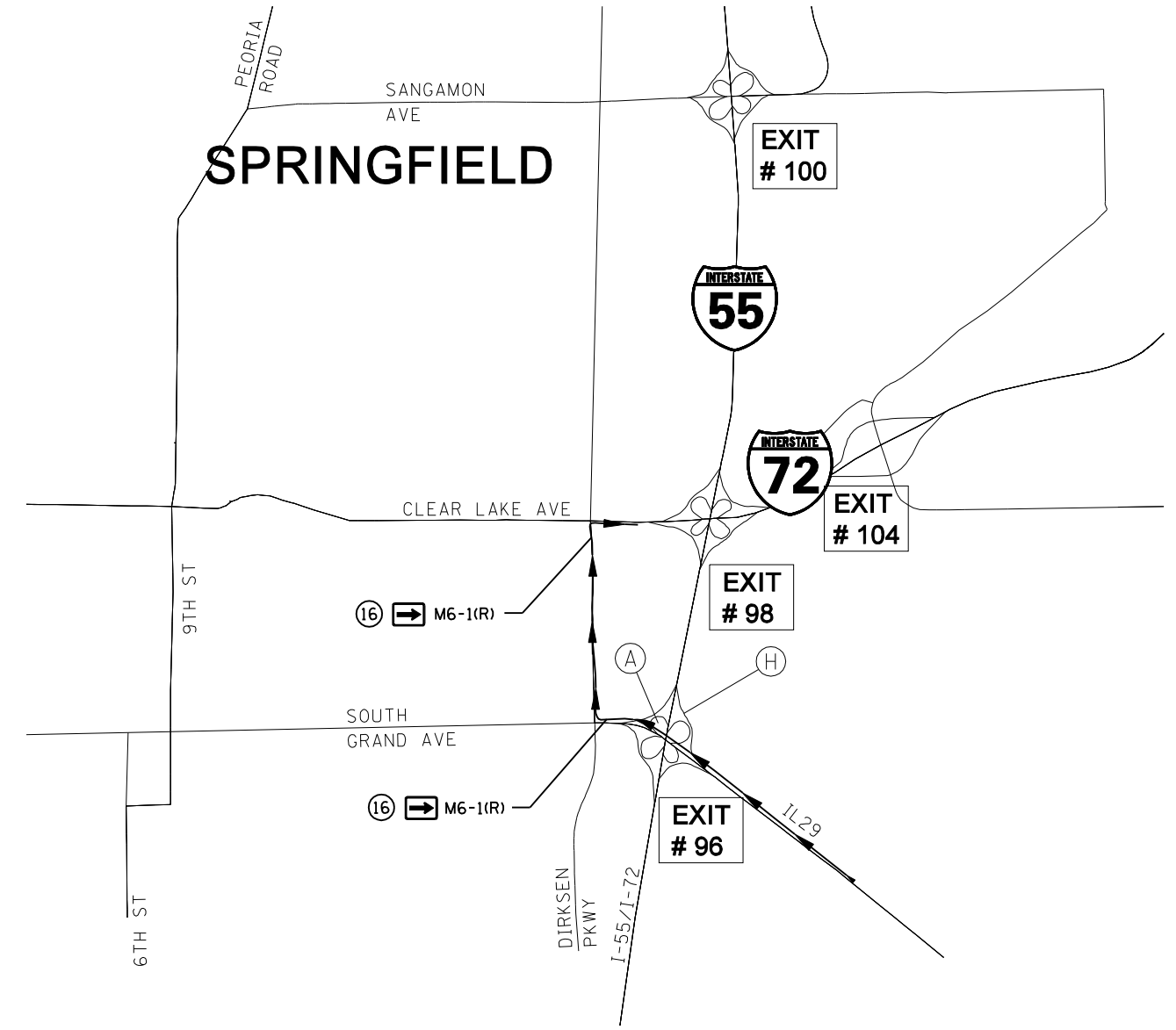
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS)				
** D6 INTERSTATE RS,BR,M CAB 2008				

STEVENSON DR / EAST LAKE SHORE DR TO NB I-55 / EB I-72

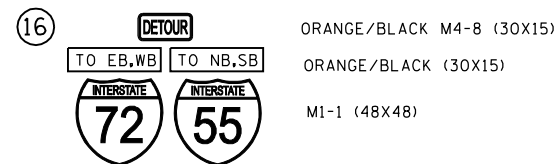
NB IL 29 TO NB I-55 /EB I-72 OR SB I-55/WB I-72



USE FOR CLOSING STEVENSON INTERCHANGE RAMP D



USE FOR CLOSING SOUTH GRAND INTERCHANGE RAMPS A,H



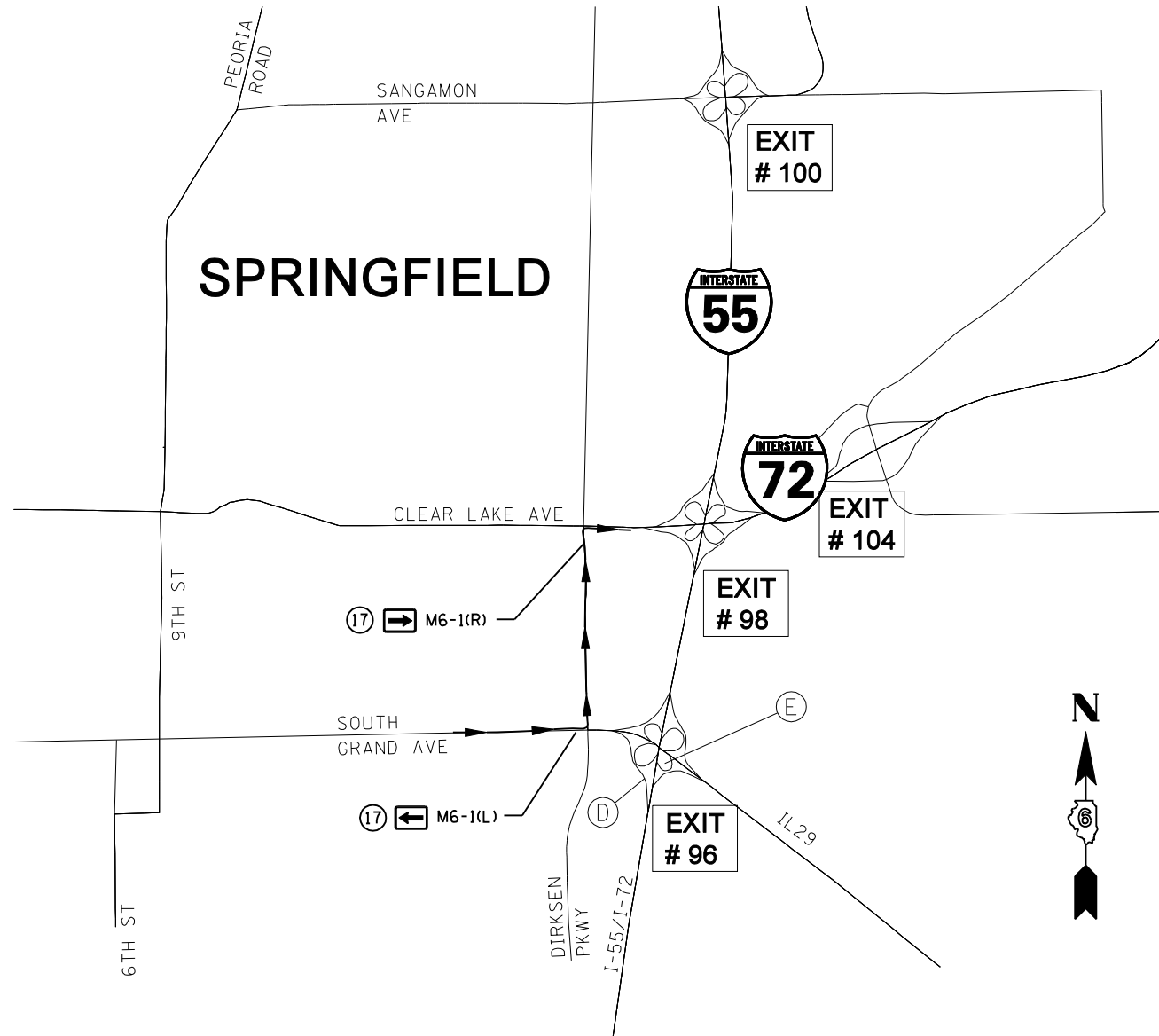
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
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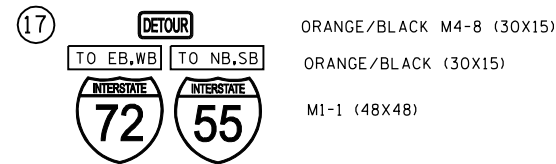
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	210
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* FA155(I-55), FA172(I-72), FAP666(I-55 BUS) ** D6 INTERSTATE RS,BR,M CAB 2008				

SOUTH GRAND TO NB I-55 /EB I-72 OR SB I-55/WB I-72



USE FOR CLOSING SOUTH GRAND INTERCHANGE RAMPS D,E



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING PLAN**  
 FA155(I-55), FA172(I-72), FAP666(I-55 BUS)  
 SECTION D6 INTERSTATE RS,BR,M CAB 2008  
 SANGAMON COUNTY  
 SCALE: \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 DATE \_\_\_\_\_ CHECKED BY \_\_\_\_\_

**Existing Structure:**

The existing structure, built in 1963, is a three span plate girder bridge with spill-through abutments on steel piles and hammerhead piers on timber piles. 280'-3" back to back of abutments, 36'-0" out to out.

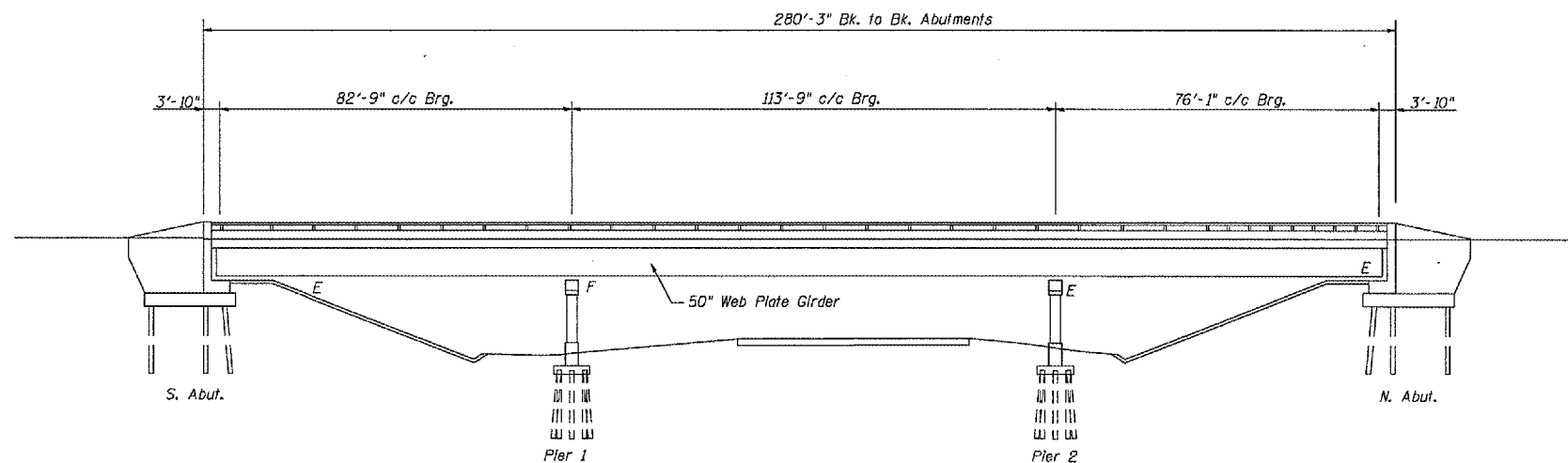
**Proposed Improvements:**

Work to be completed at this bridge includes: installation of permanent protective shield.

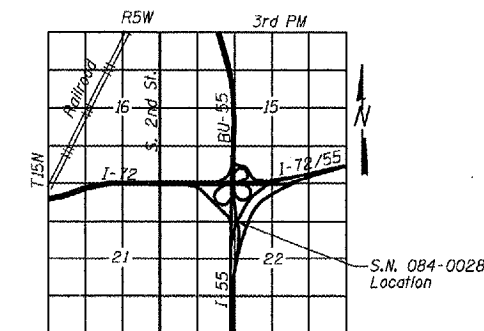
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659			
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.
•	**	SANGAMON	248 211
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
* F.A.I. 55, F.A.I. 72, F.A.P. 666			
** D6 Interstate R5, BR, M CAB 2008			

Sheet No. 1  
of 2 Sheets



**ELEVATION**



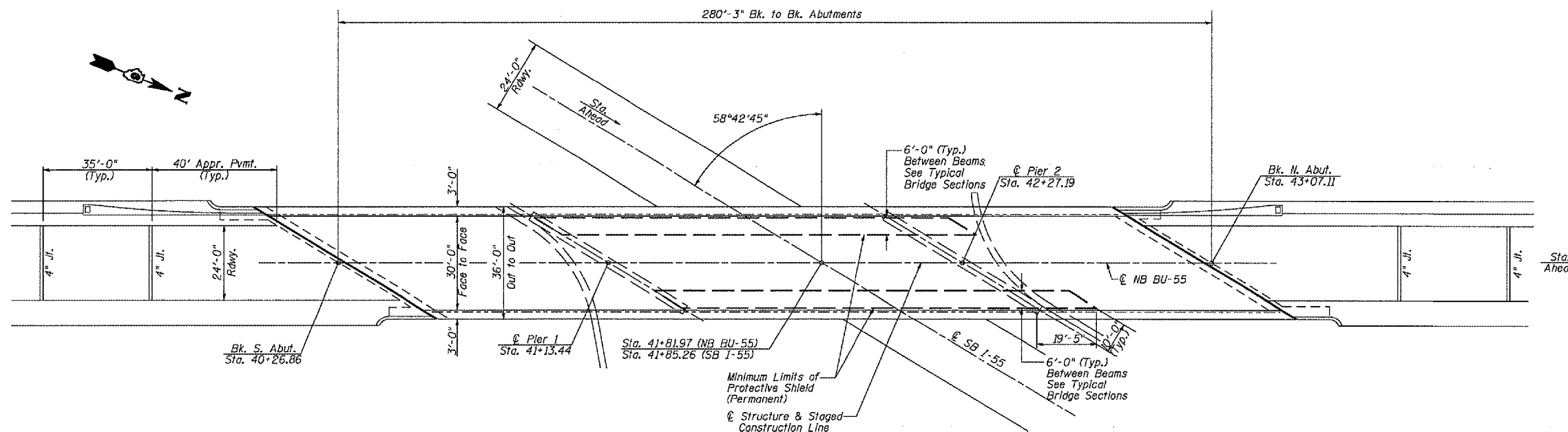
**LOCATION SKETCH**

**GENERAL NOTES**

- Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

**TOTAL BILL OF MATERIAL (S.N. 084-0028)**

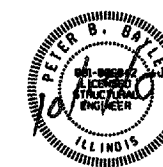
Item	Unit	Quantity
Protective Shield (Permanent)	Sq. Yd.	178



**PLAN**

**INDEX OF SHEETS**

- General Plan and Elevation
- Protective Shield Details



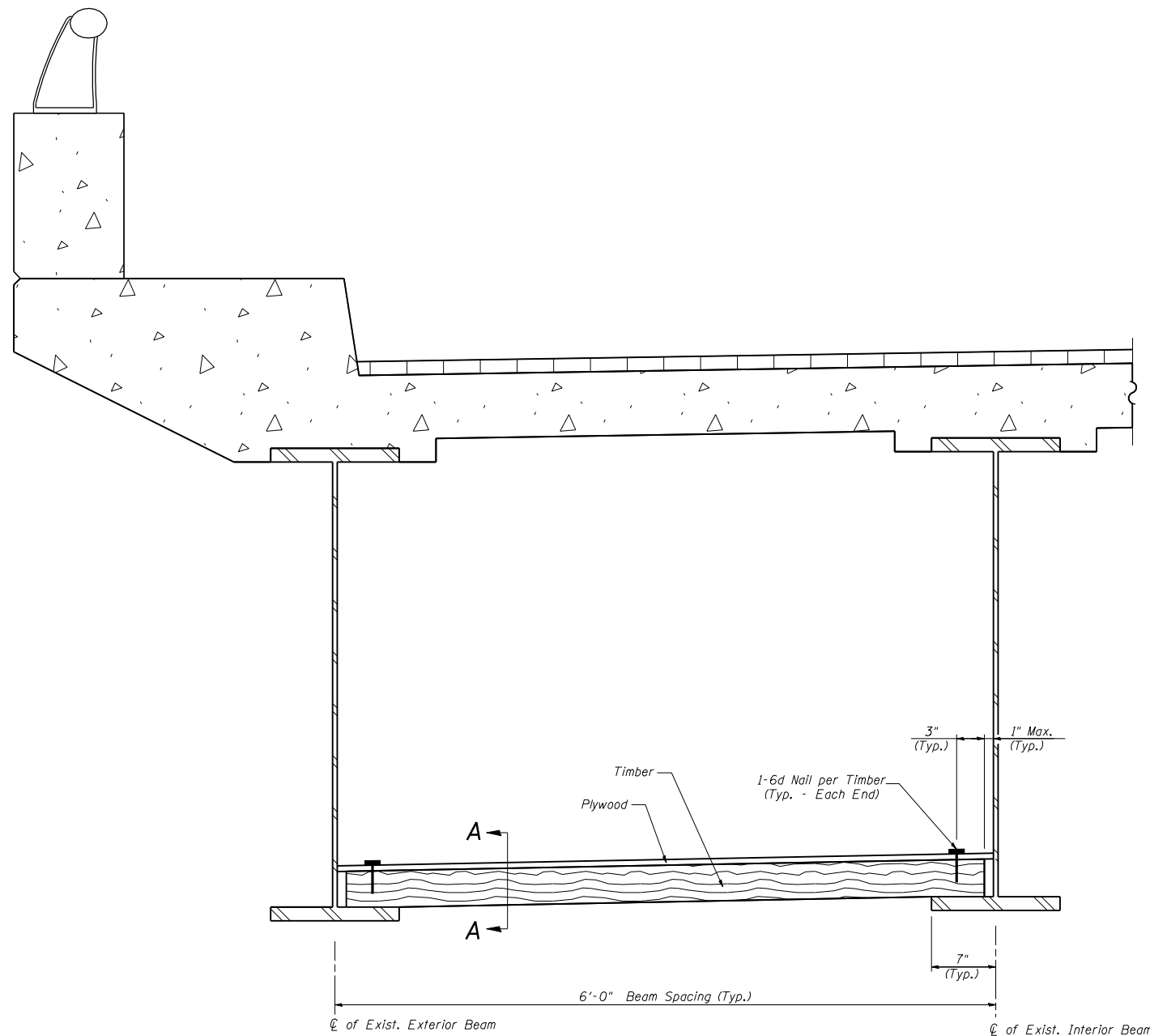
*Peter B. Bayles*  
Peter B. Bayles, P.E., S.E.  
Structural Engineer License No. 081-006042  
Expiration Date: 11/30/2008

**GENERAL PLAN & ELEVATION**  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate R5, BR, M CAB 2008  
Sangamon County  
NB BU-55 Over SB I-55  
S.N. 084-0028

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	212
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* F.A.I. 55, F.A.I. 72, F.A.P. 666				
** D6 Interstate RS, BR, M CAB 2008				

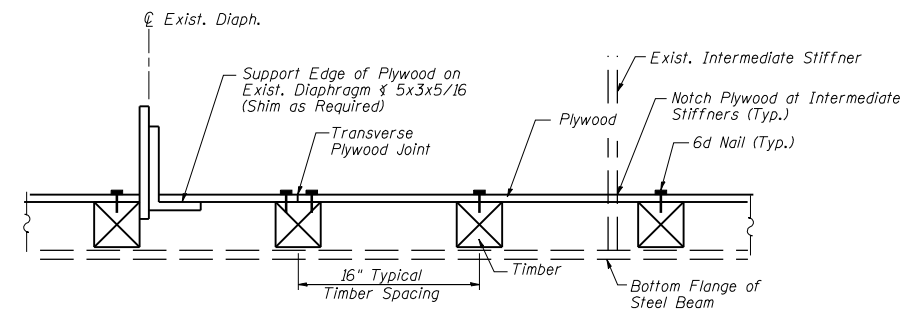
Sheet No. 2  
of 2 Sheets



TYPICAL SECTION THRU PROTECTIVE SHIELD (PERMANENT)

GENERAL NOTES

See Special Provisions for Protective Shield (Permanent).  
See Sheet 1 of 2 for Limits of Protective Shield (Permanent).  
Plywood shall be 3/8" Standard C-D Group 1 Exterior Glue (CDX) Plywood.  
Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.  
Transverse plywood joints shall be supported by timbers.  
Timber sizes shown are nominal sizes and have been determined using allowable stresses with all adjustment factors necessary for the design live load of 200 psf.  
Timbers shall be placed perpendicular to existing beams.  
When 6" x 4" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.  
The minimum  $F_b$  and  $F_v$  values shown are the tabulated design values given in the AASHTO Standard Specifications for Highway Bridges without adjustment factors applied.  
Timbers shall be one of the following:  
a) 4" x 4" with minimum  $F_b = 1300\text{psi}$ ;  $F_v = 100\text{psi}$   
b) 6" x 4" with minimum  $F_b = 900\text{psi}$ ;  $F_v = 65\text{psi}$   
c) 6" x 6" with minimum  $F_b = 425\text{psi}$ ;  $F_v = 40\text{psi}$



SECTION A-A

BILL OF MATERIAL

Item	Unit	Quantity
Protective Shield (Permanent)	Sq. Yd.	178

PROTECTIVE SHIELD  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate R5, BR, M CAB 2008  
Sangamon County  
NB BU-55 Over SB I-55  
S.N. 084-0028

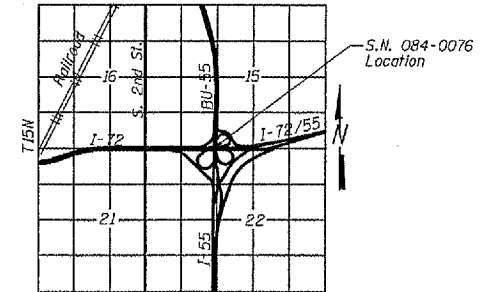
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	213

Sheet No. 1  
of 7 Sheets

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT  
\* F.A.I. 55, F.A.I. 72, F.A.P. 666  
\*\* D6 Interstate R5, BR, M CAB 2008

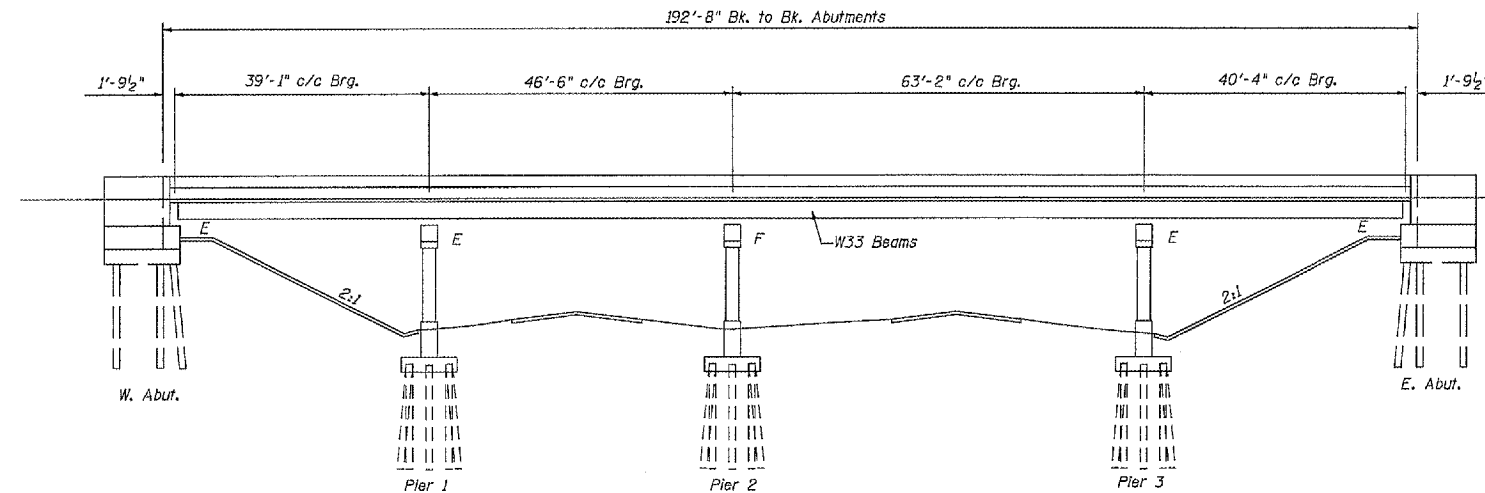


Existing Structure:

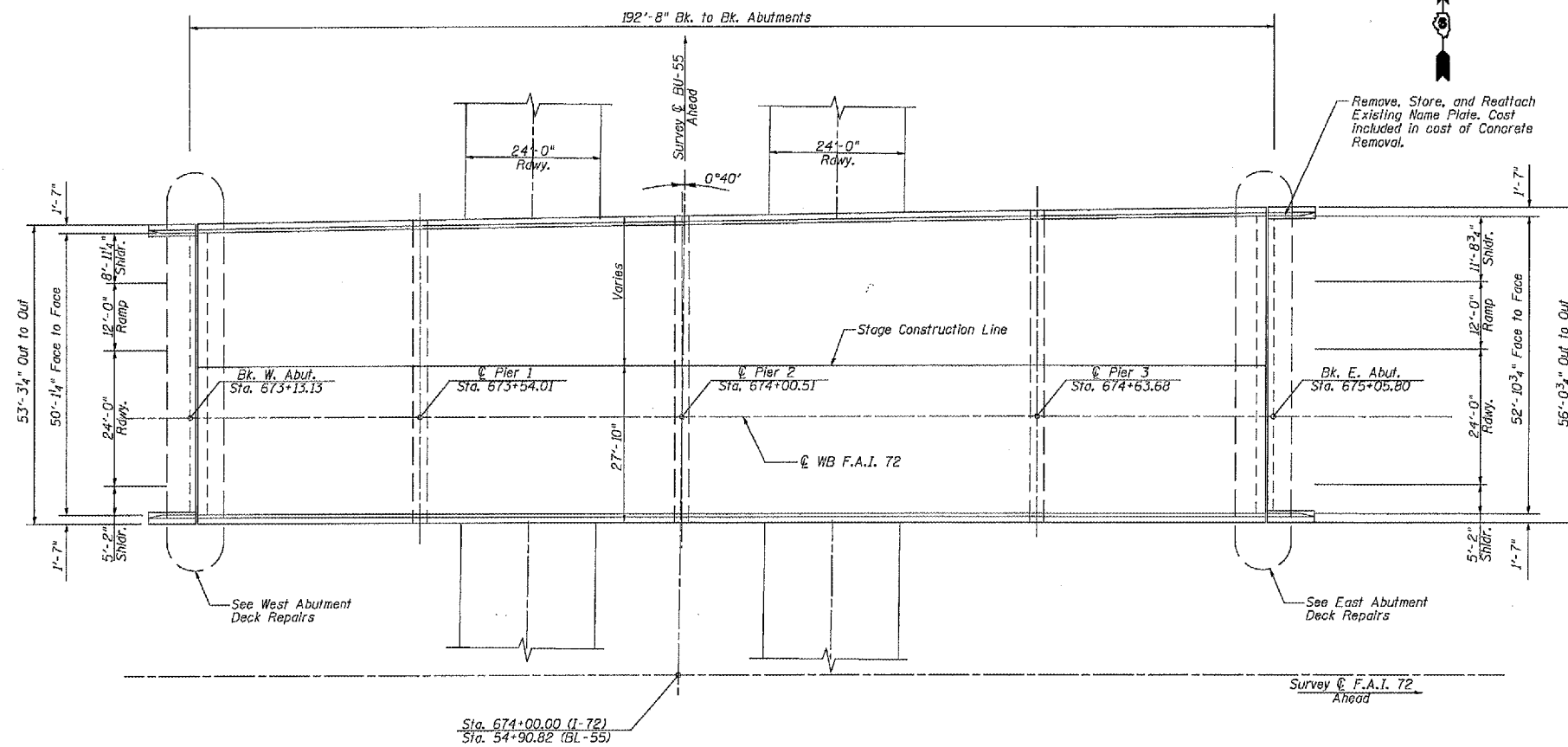
The existing structure, built in 1963 and deck replaced in 1981, is a four span rolled beam bridge with spill-through abutments on steel piles and hammerhead piers on timber piles. 192'-8" back to back of abutments, 53'-3 3/4" to 56'-0 3/4" out to out.

Proposed Improvements:

Work to be completed at this bridge includes: remove and replace portions of the existing deck, hatch blocks, and expansion joint replacement.



ELEVATION



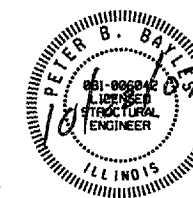
PLAN

GENERAL NOTES

- Work will be completed utilizing stage construction with two lanes of WB I-72 open to traffic. See Traffic Control Plan details.
- Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- 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.
- As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that can not be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.

TOTAL BILL OF MATERIAL (S.N. 084-0076)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	18.3
Concrete Superstructure	Cu. Yd.	18.3
Bridge Deck Grooving	Sq. Yd.	37
Protective Coat	Sq. Yd.	60
Stud Shear Connectors	Each	243
Reinforcement Bars, Epoxy Coated	Pound	3180
Bar Splicers	Each	39
Polymer Concrete	Cu. Ft.	7.5
Silicone Joint Sealer, 2"	Foot	105



*Peter B. Bayles*  
Peter B. Bayles, P.E., S.E.  
Structural Engineer License No. 081-006042  
Expiration Date: 11/30/2008

INDEX OF SHEETS

- General Plan and Elevation
- Typical Bridge Sections
- Temporary Concrete Barrier
- E. Abutment Deck Repair
- E. Abutment Deck Repair Details
- W. Abutment Deck Repairs
- Bar Splicer Details

GENERAL PLAN & ELEVATION

F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate, R5, BR, M CAB 2008  
Sangamon County  
WB I-72 Over BU-55  
S.N. 084-0076

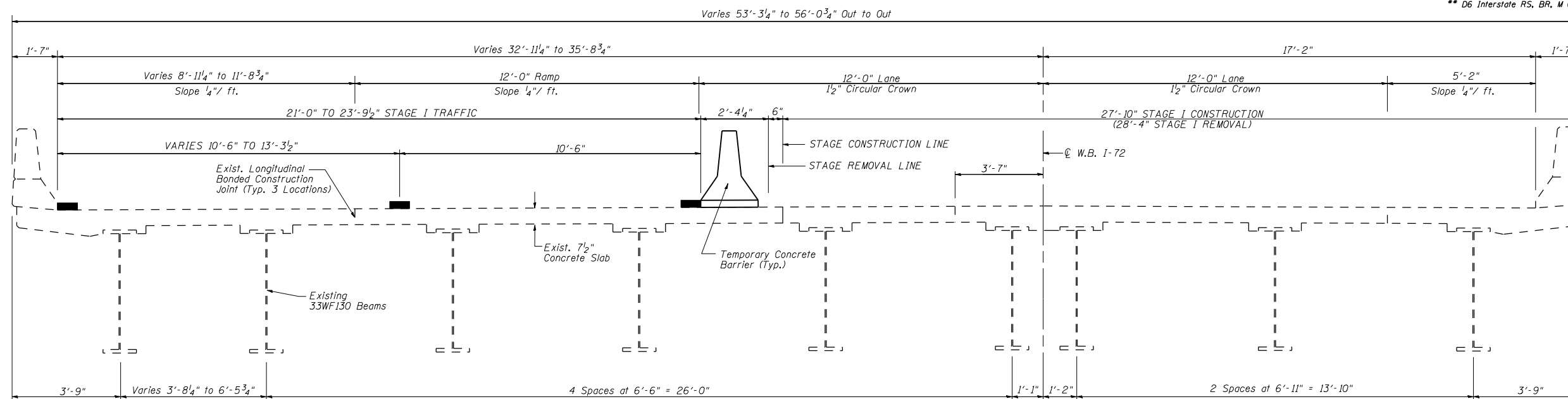
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659

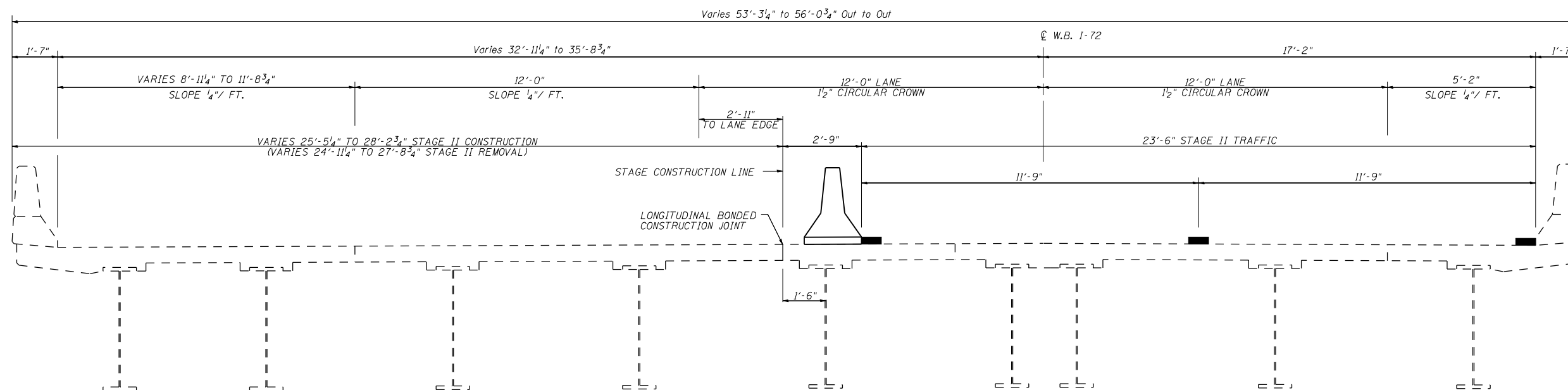
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	214

Sheet No. 2  
of 7 Sheets

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT  
\* F.A.I. 55, F.A.I. 72, F.A.P. 666  
\*\* D6 Interstate R5, BR, M CAB 2008



**STAGE I TYPICAL BRIDGE SECTION**  
(Looking East)



**STAGE II TYPICAL BRIDGE SECTION**  
(Looking East)

**NOTES:**

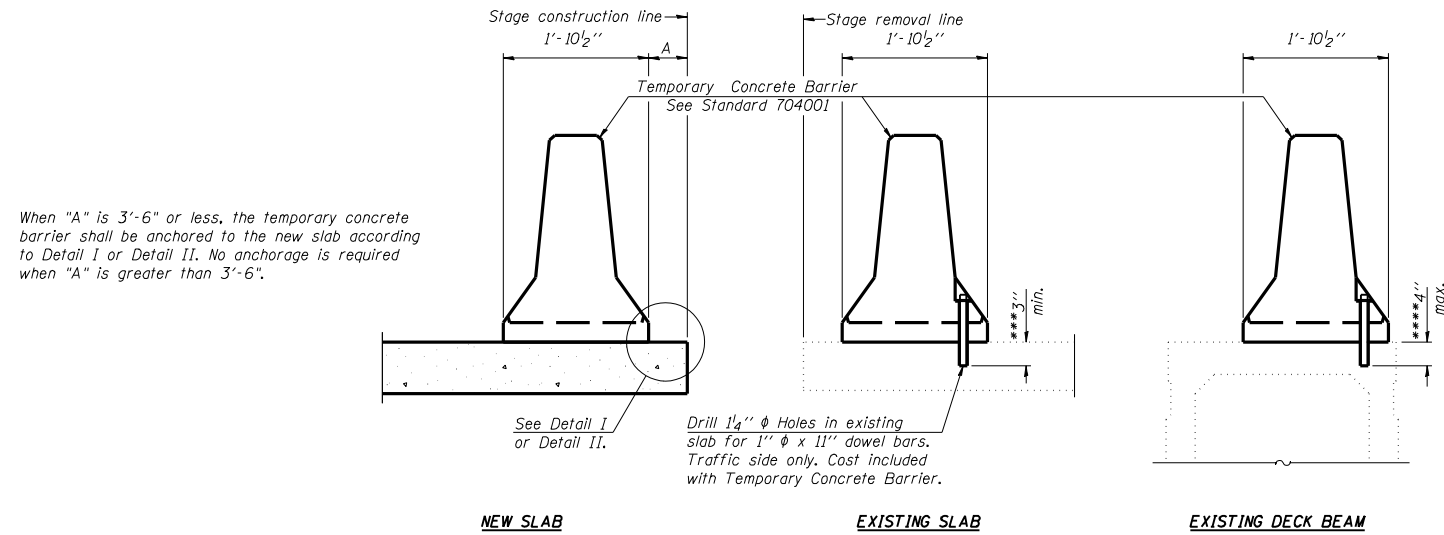
1. For details of Temporary Concrete Barrier, See sheet 3 of 7.
2. For quantities of Temporary Concrete Barrier, See Roadway Plans.

**TYPICAL BRIDGE SECTIONS**  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate, R5, BR, M CAB 2008  
Sangamon County  
WB I-72 Over BU-55  
S.N. 084-0076

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	215
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* F.A.I. 55, F.A.I. 72, F.A.P. 666				
** D6 Interstate R5, BR, M CAB 2008				

Sheet No. 3  
of 7 Sheets



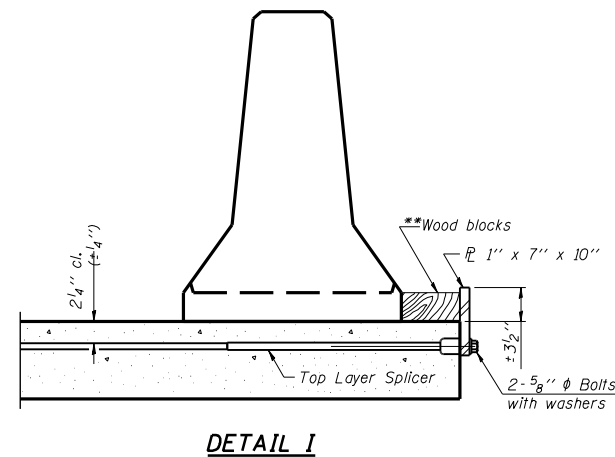
**NOTES**

**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.

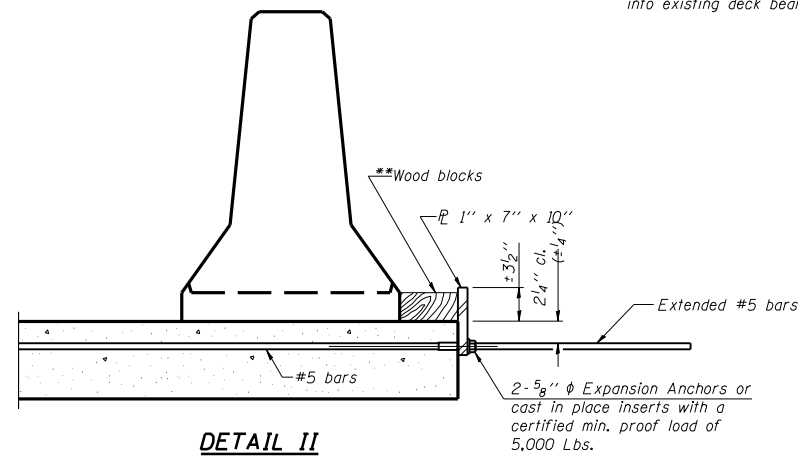
**Detail II - With Extended Reinforcement Bars:**  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place Inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

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.

**SECTIONS THRU SLAB OR DECK BEAM**



**DETAIL I**

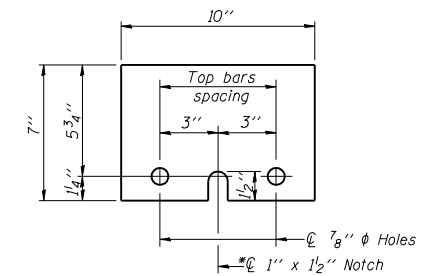


**DETAIL II**

\*\*\*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.

\*\*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

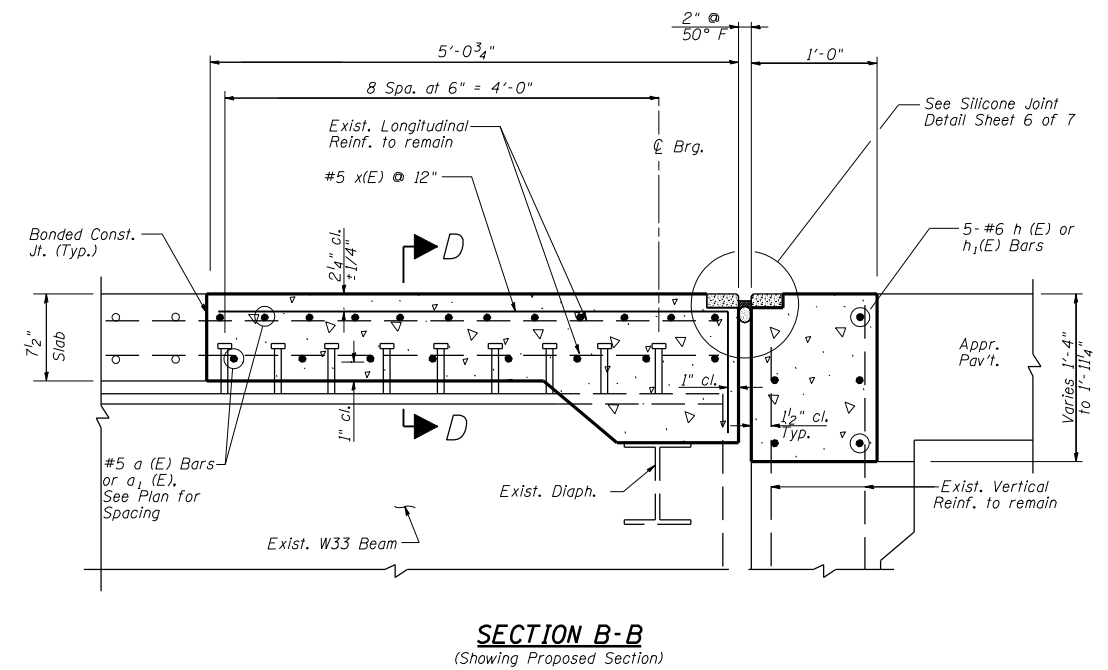
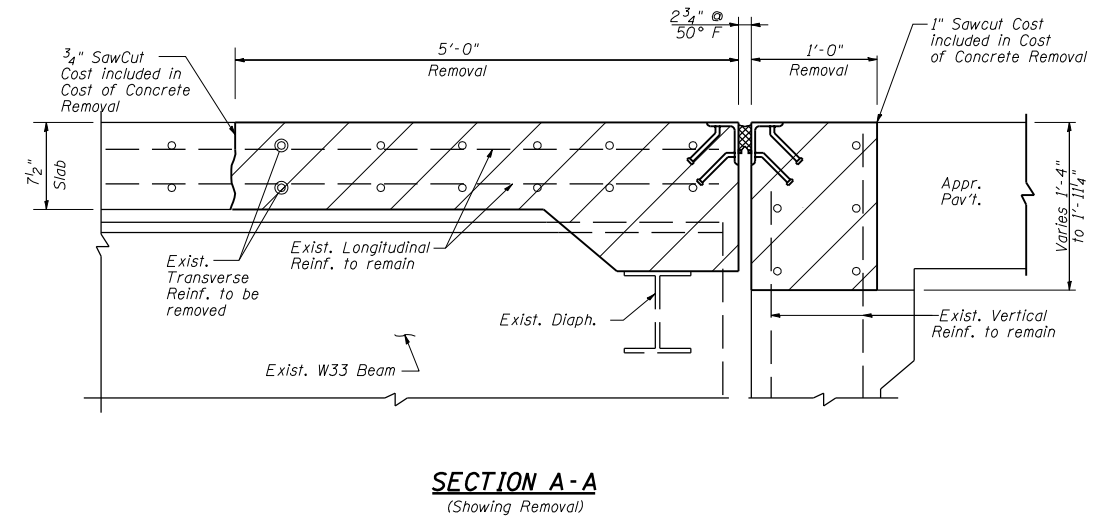
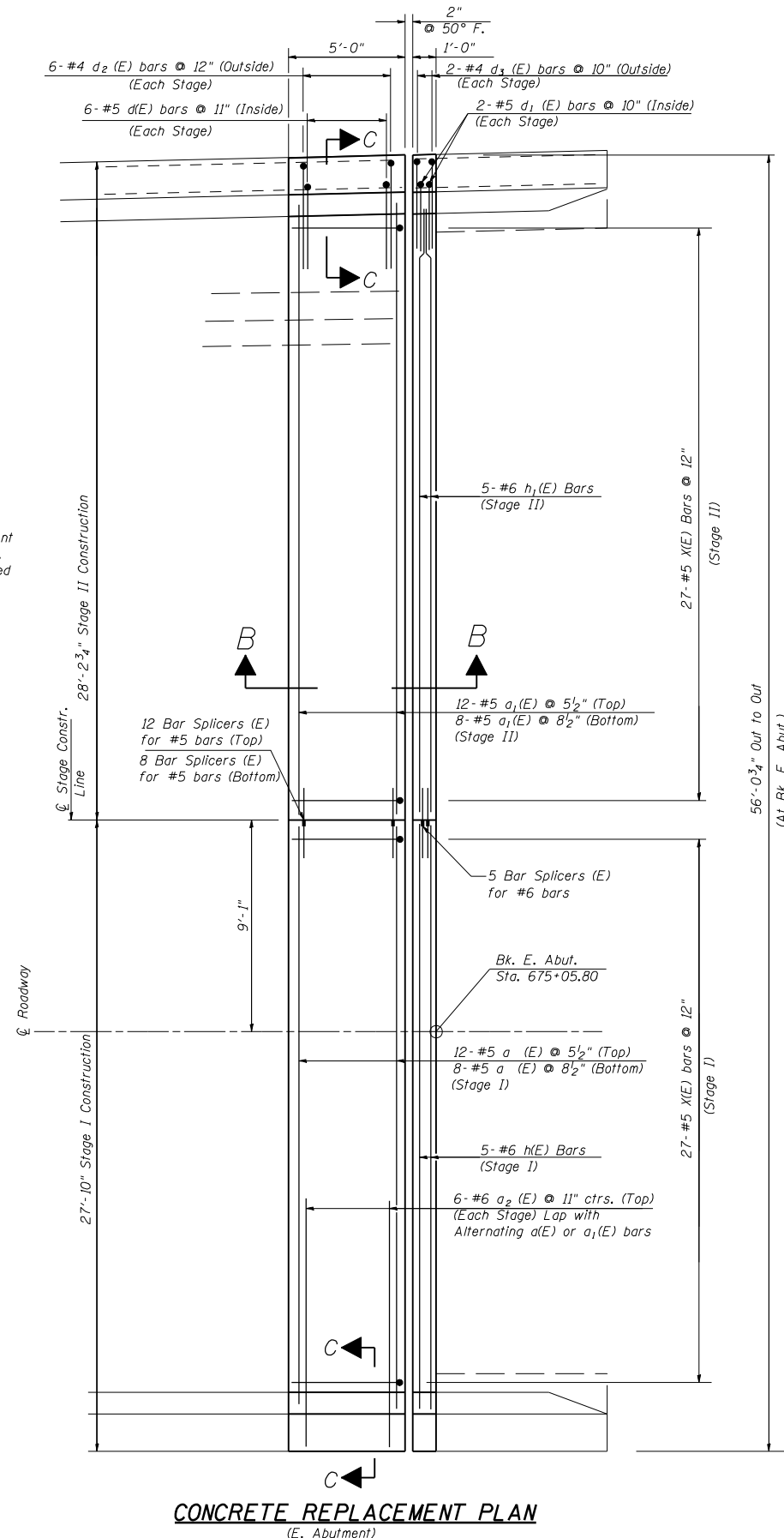
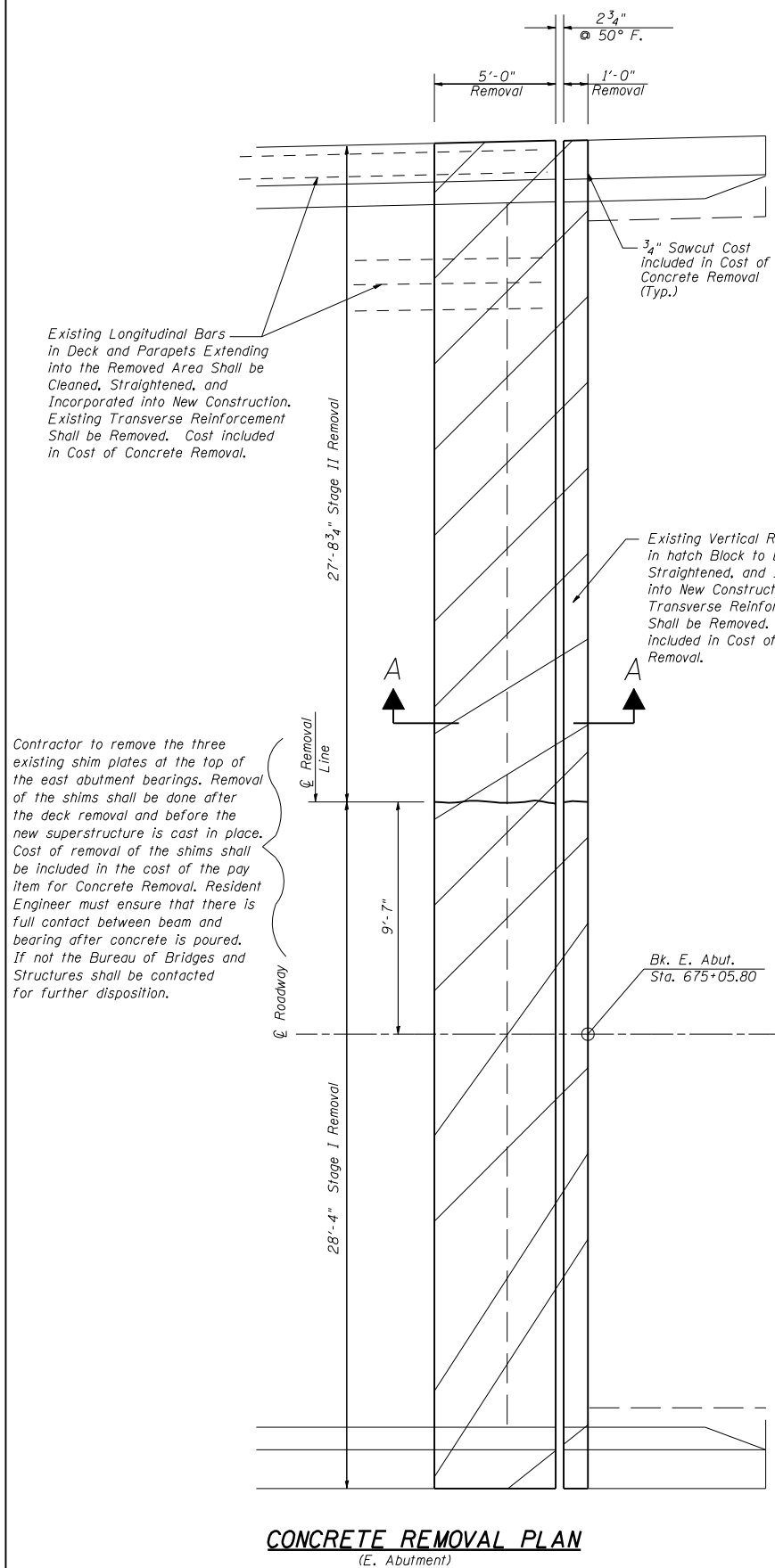
R-27

9-3-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. T2659				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	216
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* F.A.I. 55, F.A.I. 72, F.A.P. 666				
** D6 Interstate R5, BR, M CAB 2008				

Sheet No. 4  
of 7 Sheets



**NOTES:**

1. Work this Sheet with Sheet 6 of 7.
2. Hatched areas indicate location of Concrete Removal.
3. For Section C-C and D-D. See sheet 6 of 7.

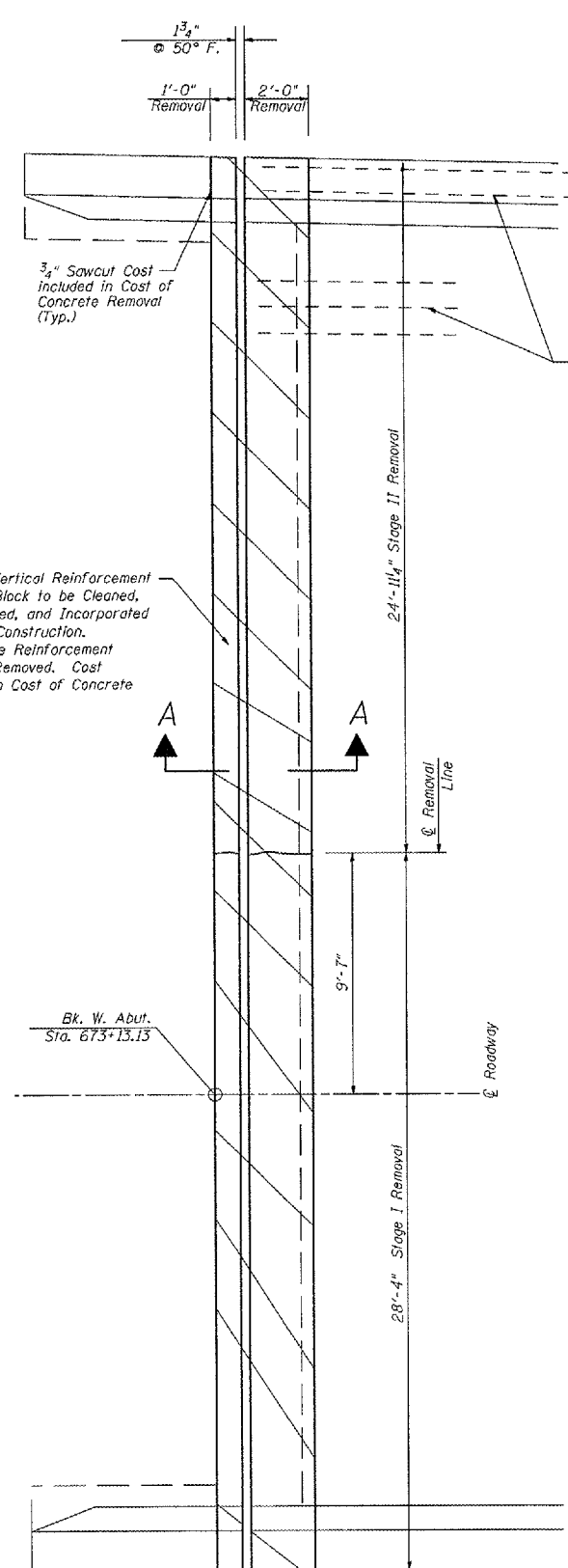
**EAST ABUTMENT DECK REPAIRS**  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate, R5, BR, M CAB 2008  
Sangamon County  
WB 1-72 Over BU-55  
S.N. 084-0076



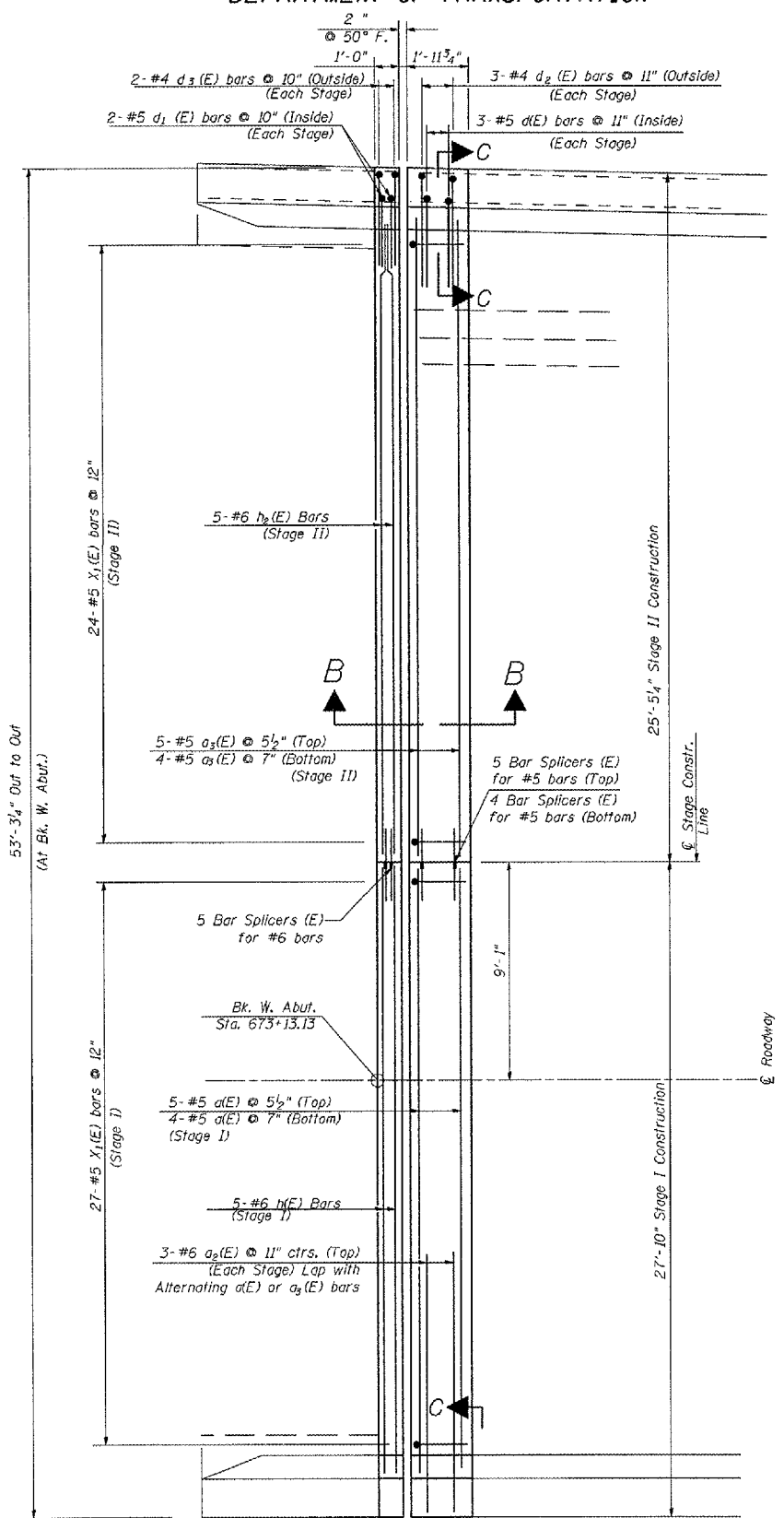
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659		TOTAL SHEETS	
F.A.I. RTE.	SECTION	COUNTY	NO.
•	••	SANGAMON	248
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	
• F.A.I. 55, F.A.I. 72, F.A.P. 666		217	
• D6 Interstate R5, BR, M CAB 2008			

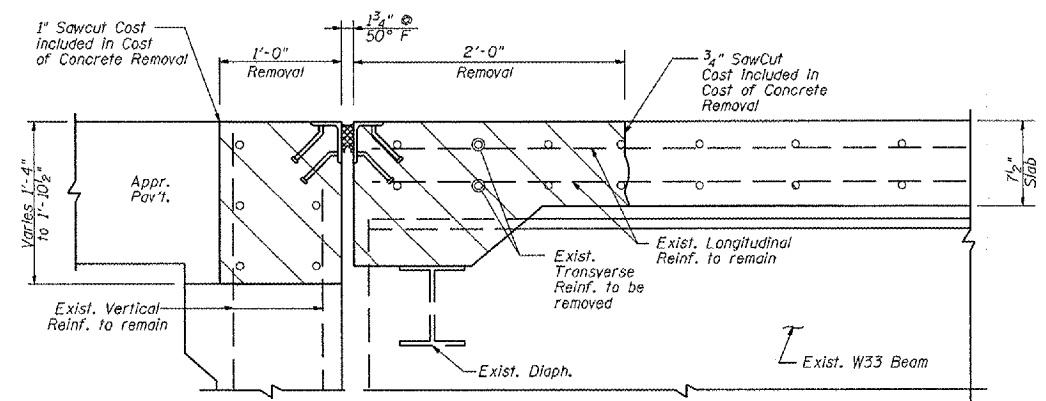
Sheet No. 5  
of 7 Sheets



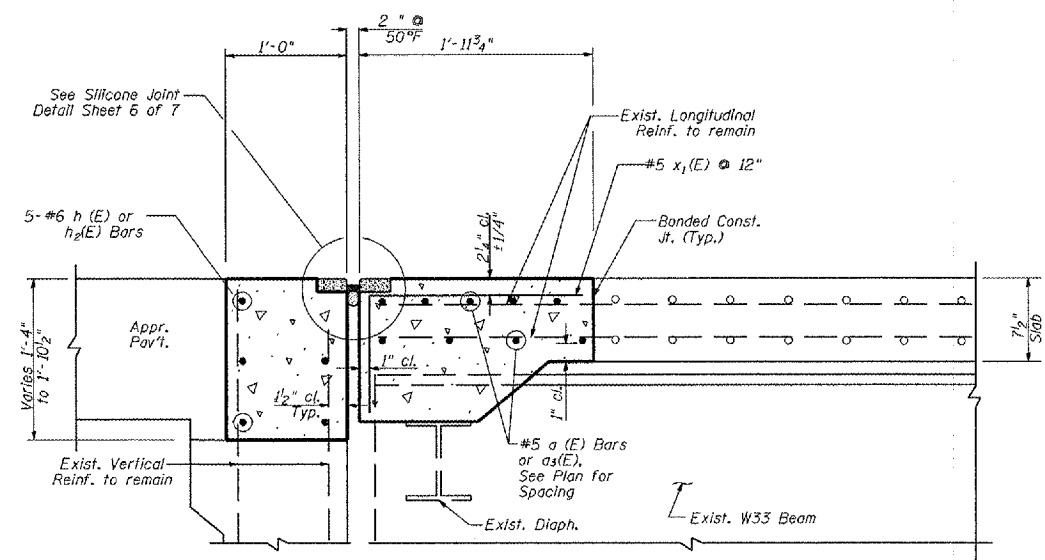
CONCRETE REMOVAL PLAN  
(W. Abutment)



CONCRETE REPLACEMENT PLAN  
(W. Abutment)



SECTION A-A  
(Showing Removal)



SECTION B-B  
(Showing Proposed Section)

- NOTES:**
1. Work this Sheet with Sheet 6 of 7.
  2. Hatched areas indicate location of Concrete Removal.
  3. For Section C-C and D-D, See sheet 6 of 7.

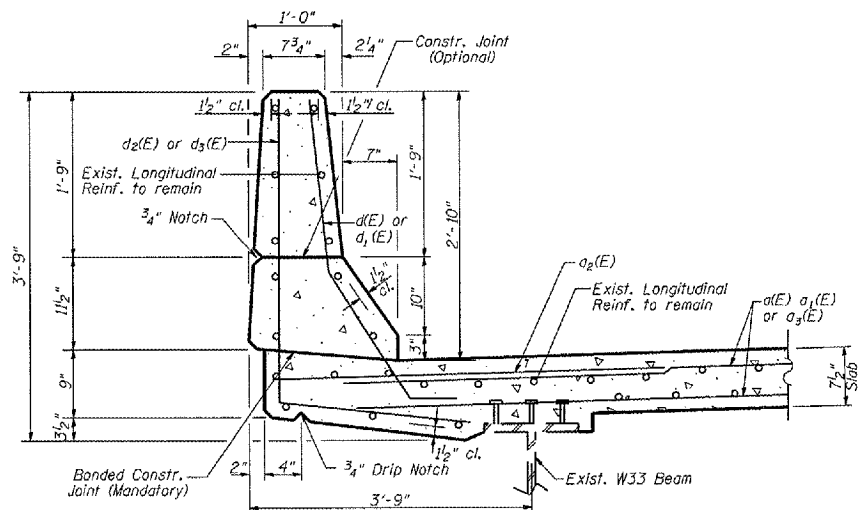
WEST ABUTMENT DECK REPAIRS  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate, R5, BR, M CAB 2008  
Sangamon County  
WB I-72 Over BU-55  
S.M. 084-0076

REV.

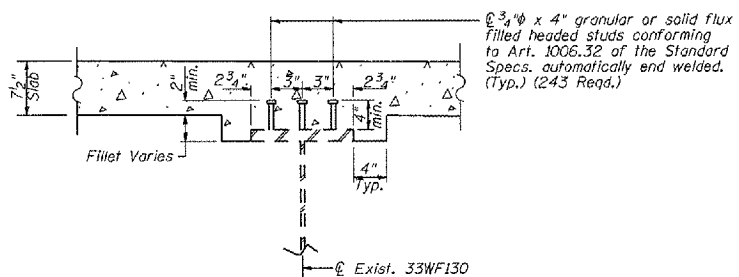
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. T2659			
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
	**	SANGAMON	248
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	
* F.A.I. 55, F.A.I. 72, F.A.P. 666		** D6 Interstate R5, BR. M CAB 2008	

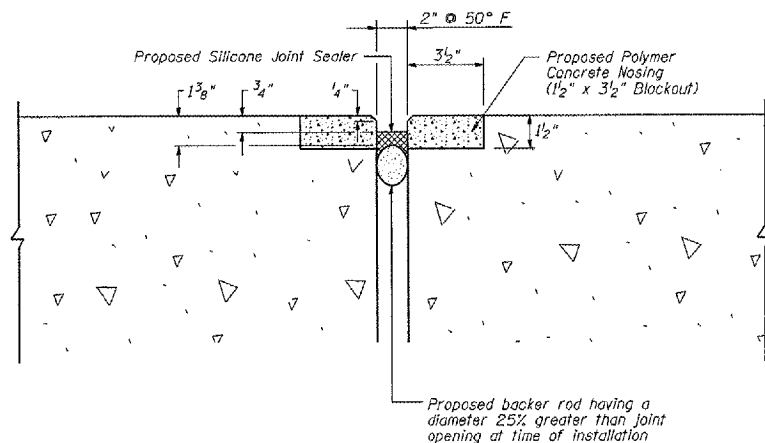
Sheet No. 6  
of 7 Sheets



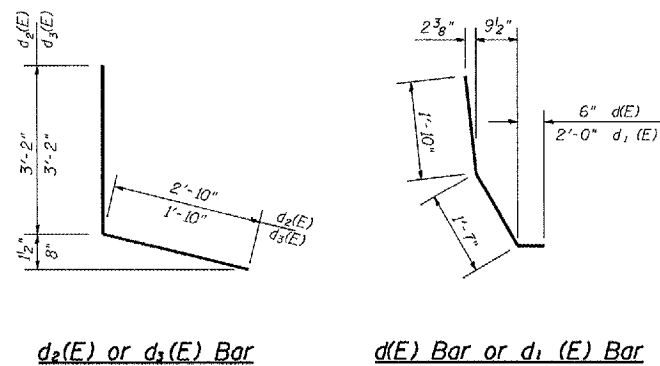
**SECTION C-C**  
(Showing Proposed Parapet)



**SECTION D-D**  
(Showing Proposed Shear Studs)

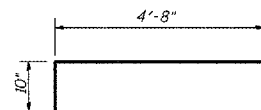


**SILICONE JOINT DETAIL**

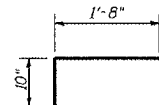


**$d_2(E)$  or  $d_3(E)$  Bar**

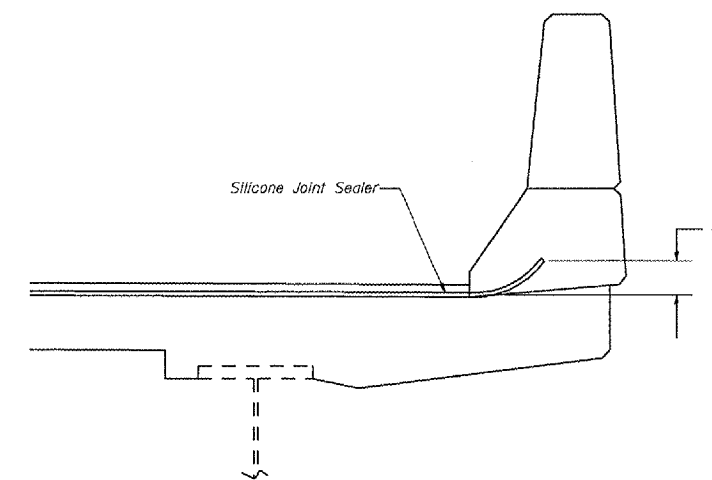
**$d(E)$  Bar or  $d_1(E)$  Bar**



**$X(E)$  Bar**



**$X_1(E)$  Bar**



**TYPICAL END OF SEAL TREATMENT**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$a_2(E)$	29	#5	26'-8"	—
$a_1(E)$	20	#5	27'-1"	—
$a_3(E)$	18	#6	4'-0"	—
$a_3(E)$	9	#5	24'-3"	—
$h(E)$	10	#6	27'-5"	—
$h_1(E)$	5	#6	27'-10"	—
$h_2(E)$	5	#6	25'-0"	—
$d(E)$	18	#5	3'-11"	L
$d_1(E)$	8	#5	5'-5"	L
$d_2(E)$	18	#4	6'-0"	L
$d_3(E)$	8	#4	5'-0"	L
$x(E)$	54	#5	5'-6"	—
$x_1(E)$	51	#5	2'-6"	—
Concrete Removal			Cu. Yd.	18.3
Concrete Superstructure			Cu. Yd.	18.3
Bridge Deck Grooving			Sq. Yd.	37
Protective Coat			Sq. Yd.	60
Stud Shear Connectors			Each	243
Reinforcement Bars, Epoxy Coated			Pound	3180
Bar Splicers			Each	39
Polymer Concrete			Cu. Ft.	7.5
Silicone Joint Sealer, 2"			Foot	105

**NOTES:**

1. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of Concrete Removal.
2. Abrasive blasting and priming of the Concrete Surfaces shall be performed in accordance with the surface preparation requirements of the special provision for "Silicone Bridge Joint Sealer."
3. Joint openings shall be adjusted according to Article 503.10 (c) of the Standard Specifications when ambient temperature is other than 50° F.
4. Work this Sheet With Sheet 4 of 7 and Sheet 5 of 7.

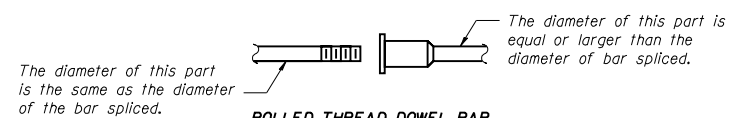
**EAST & WEST ABUTMENT  
DECK REPAIR DETAILS**  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate, R5, BR. M CAB 2008  
Sangamon County  
WB I-72 Over BU-55  
S.N. 084-0076

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. T2659

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	219
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* F.A.I. 55, F.A.I. 72, F.A.P. 666				
** D6 Interstate R5, BR, M CAB 2008				

Sheet No. 7  
of 7 Sheets

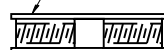


ROLLED THREAD DOWEL BAR



\*\* ONE PIECE

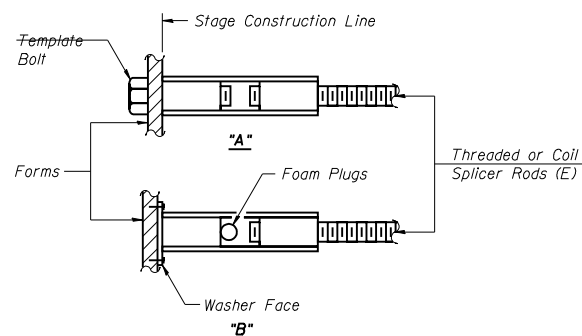
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



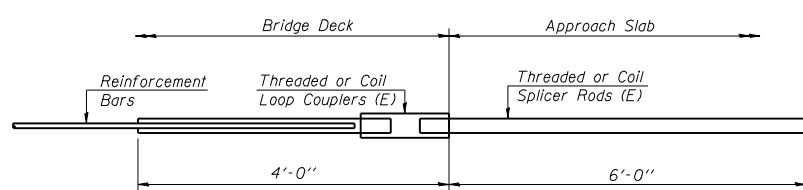
INSTALLATION AND SETTING METHODS

"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.

**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:

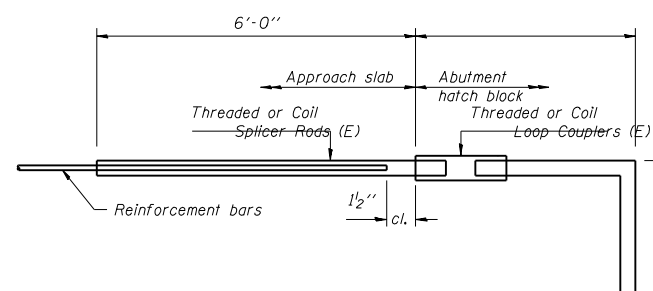
- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_l$
  - ② Minimum \*Pull-out Strength (Tension in kips) =  $0.66 \times f_y \times A_l$
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_l$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day 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



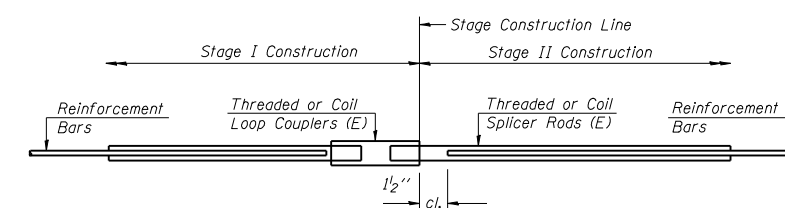
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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
#5	20	E. End of Deck
#6	5	E. Hatch Block
#5	9	W. End of Deck
#6	5	W. Hatch Block

BSD-1

11-1-06

BAR SPLICER DETAILS  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate, R5, BR, M CAB 2008  
Sangamon County  
WB 1-72 Over BU-55  
S.N. 084-0076

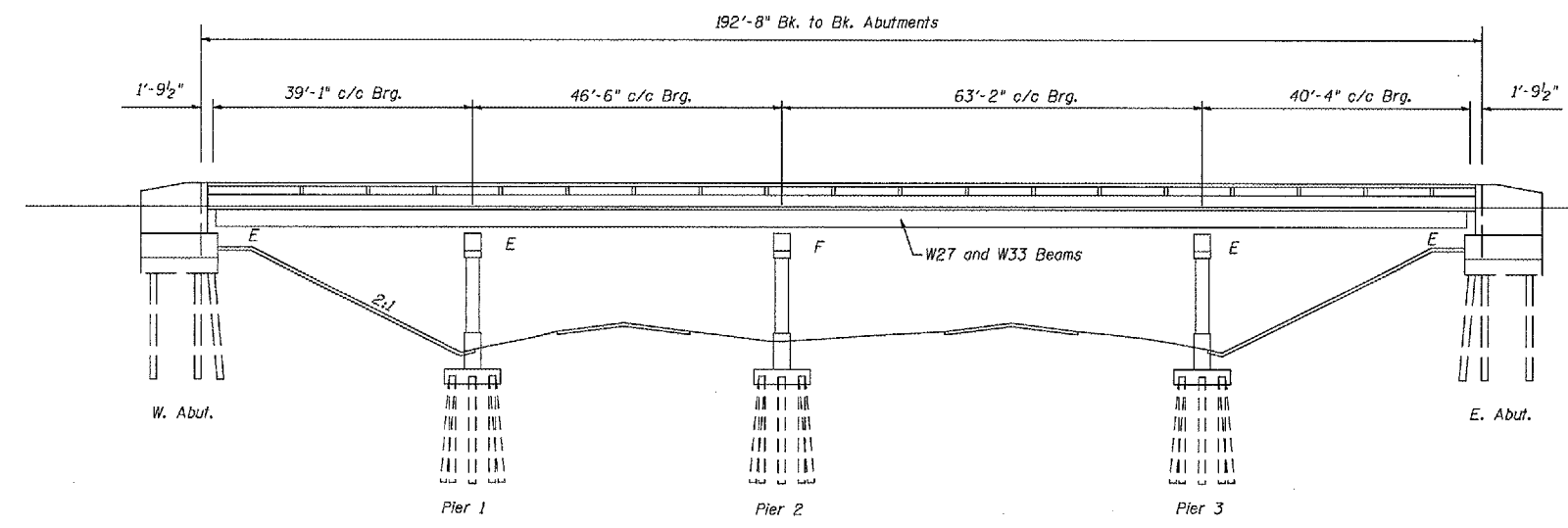
**Existing Structure:**  
The existing structure, built in 1963 and widened in 1974, is a four span rolled beam bridge with spill-through abutments on steel piles and hammerhead piers on timber piles. 192'-8" back to back of abutments, varies 50'-11<sup>3</sup>/<sub>4</sub>" to 54'-10" out to out.

**Proposed Improvements:**  
Work to be completed at this bridge includes: installation of temporary protective shield, deck patching, expansion joint replacement, waterproofing and wearing surface replacement, and remove and replace portions of the existing deck and parapet.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659			
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
	**	SANGAMON	210
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
		** F.A.I. 55, F.A.I. 72, F.A.P. 666	
		** D6 Interstate R5, BR, M CAB 2008	

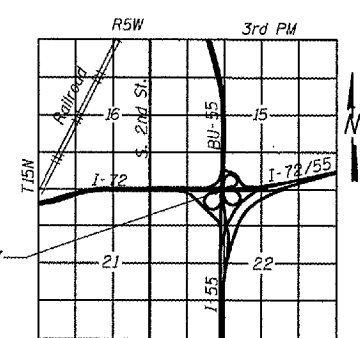
Sheet No. 1  
of 7 Sheets



ELEVATION

DESIGN STRESSES

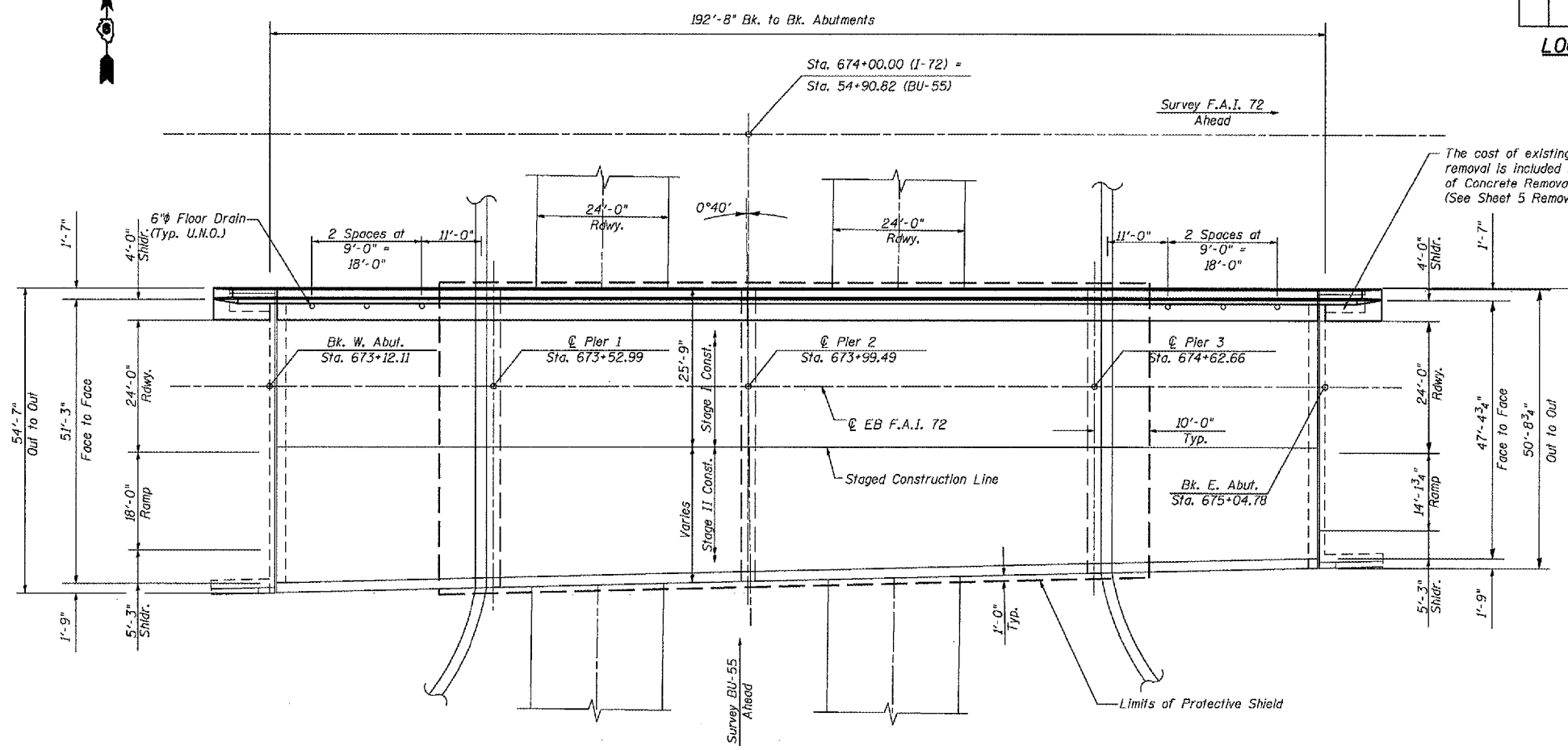
Field Units  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)



LOCATION SKETCH

GENERAL NOTES

1. Work will be completed utilizing stage construction with two lanes of EB I-72 remaining open to traffic. See Traffic Control Plan for details.
2. Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
3. Protective Coat shall not be applied to surfaces to which waterproofing membrane system is applied.
4. 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.
5. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that can not be removed by grinding 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
6. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
7. No field welding is permitted except as specified in the contract documents.
8. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
9. Reinforcement bars designated (E) shall be epoxy coated.



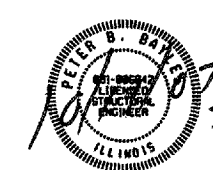
PLAN

TOTAL BILL OF MATERIAL (S.N. 084-0077)

Item	Unit	Quantity
Polymerized Hot-Mix Asphalt Surface	Ton	86.4
Course, Mix "E", N105		
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1000
Concrete Removal	Cu. Yd.	50.9
Protective Shield	Sq. Yd.	793
Floor Drains	Each	6
Concrete Superstructure	Cu. Yd.	56.1
Protective Coat	Sq. Yd.	90
Reinforcement Bars, Epoxy Coated	Pound	1410
Waterproofing Membrane System	Sq. Yd.	1027
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	0.6
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	13.2
Deck Slab Repair (Partial)	Sq. Yd.	54.6
Dowel Bars	Each	18
Silicone Joint Sealer, 2 3/4"	Foot	106

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Typical Bridge Sections
- 3 Temporary Concrete Barrier Details
- 4 Superstructure
- 5 Superstructure Details
- 6 Expansion Joint Details
- 7 Deck Patching Details



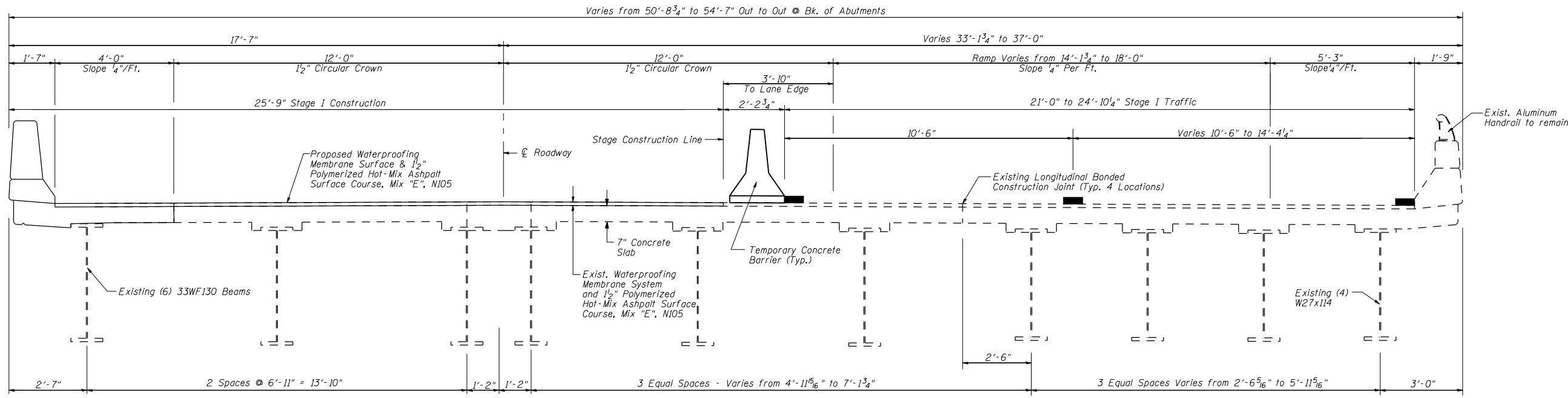
*Peter B. Boyles*  
Peter B. Boyles, P.E., S.E.  
Structural Engineer License No. 081-006042  
Expiration Date: 11/30/2008

GENERAL PLAN & ELEVATION  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate R5, BR, M CAB 2008  
Sangamon County  
EB I-72 Over BU-55  
S.N. 084-0077

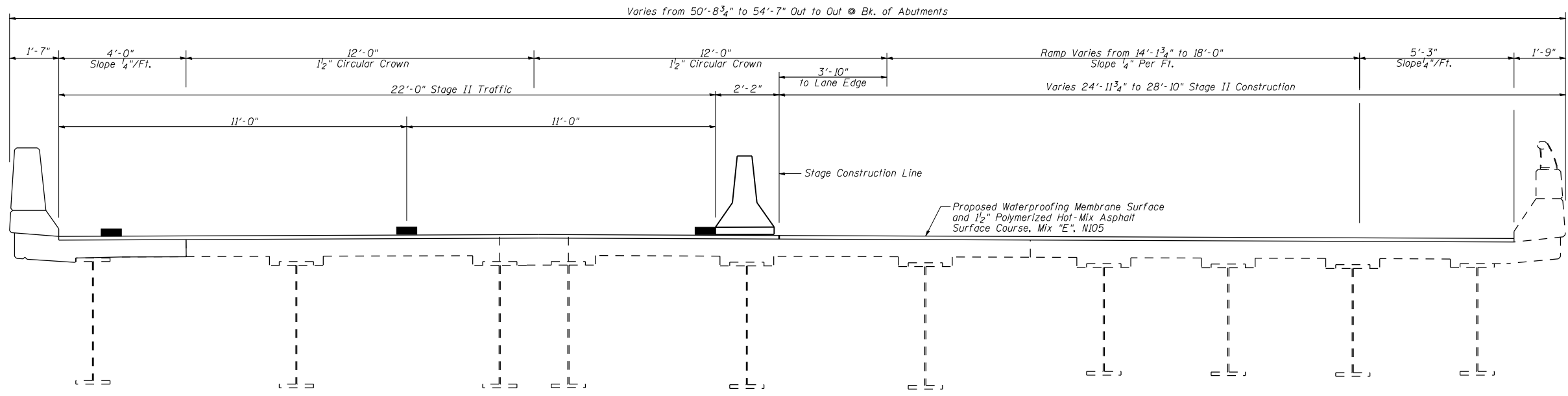
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659			
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
*	**	SANGAMON	248 221
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT
* F.A.I. 55, F.A.I. 72, F.A.P. 666		** D6 Interstate R5, BR, M CAB 2008	

Sheet No. 2  
of 7 Sheets



**STAGE I TYPICAL BRIDGE SECTION**  
(Looking East)



**STAGE II TYPICAL BRIDGE SECTION**  
(Looking East)

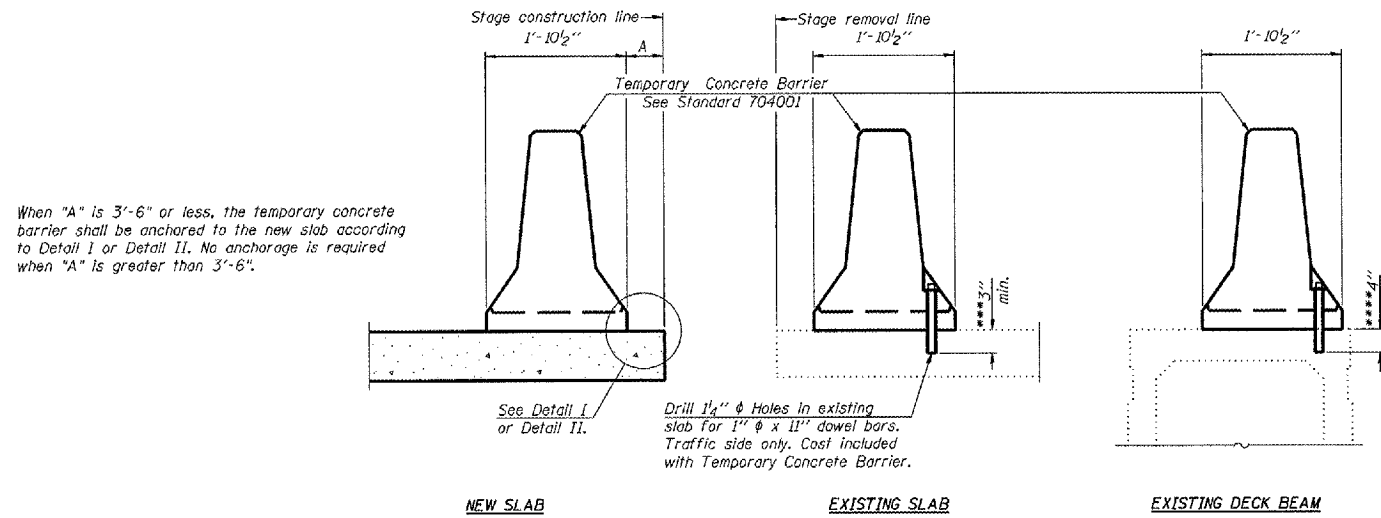
- NOTES:**
1. For details of Temporary Concrete Barrier, See sheet 3 of 7.
  2. For quantities of Temporary Concrete Barrier, See Roadway Plans.

**TYPICAL BRIDGE SECTIONS**  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate R5, BR, M CAB 2008  
Sangamon County  
EB 1-72 Over BU-55  
S.N. 084-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659			
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
•	••	SANGAMON	248
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			222
* F.A.I. 55, F.A.I. 72, F.A.P. 666			
** D6 Interstate R5, BR. M CAB 2008			

Sheet No. 3  
of 7 Sheets

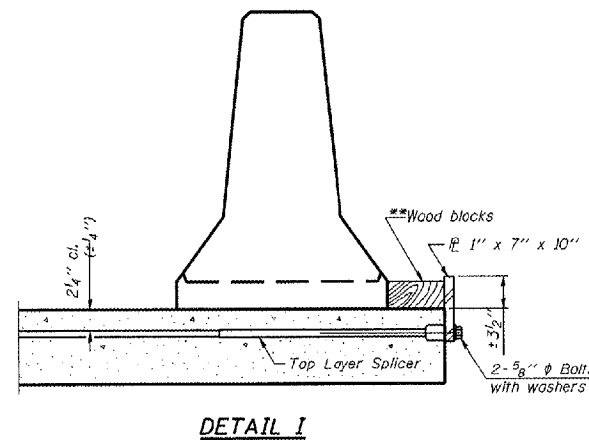


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

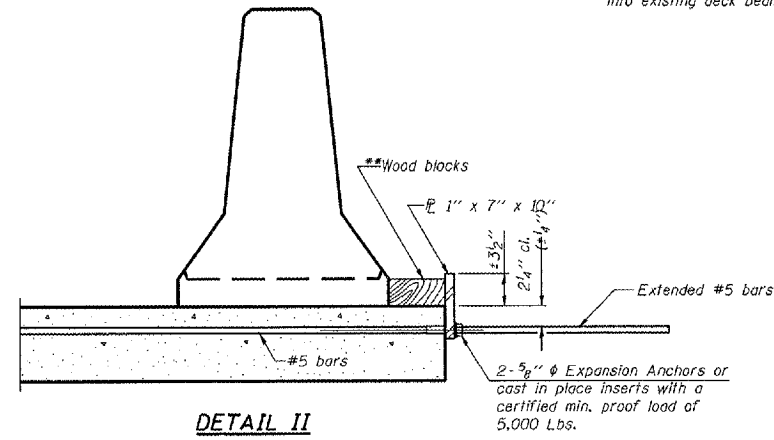
NOTES

- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the top layer of couplers with 2- $\frac{5}{8}$ "  $\phi$  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- $\frac{5}{8}$ "  $\phi$  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.

SECTIONS THRU SLAB OR DECK BEAM



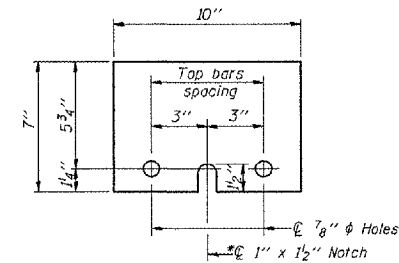
DETAIL I



DETAIL II

- \*\*\*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.

\*\*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"

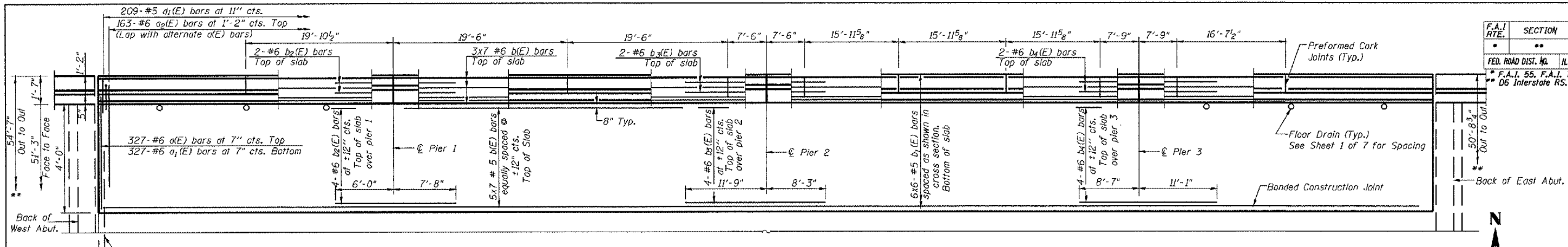
\* Required only with Detail II

TEMPORARY CONCRETE BARRIER

F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate R5, BR. M CAB 2008  
Sangamon County  
EB I-72 over BU-55  
S.N. 084-0077

R-27

9-3-07

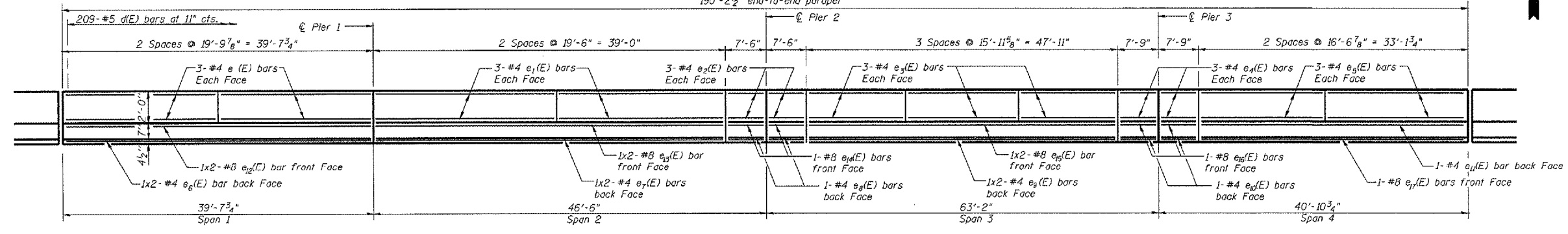


PLAN

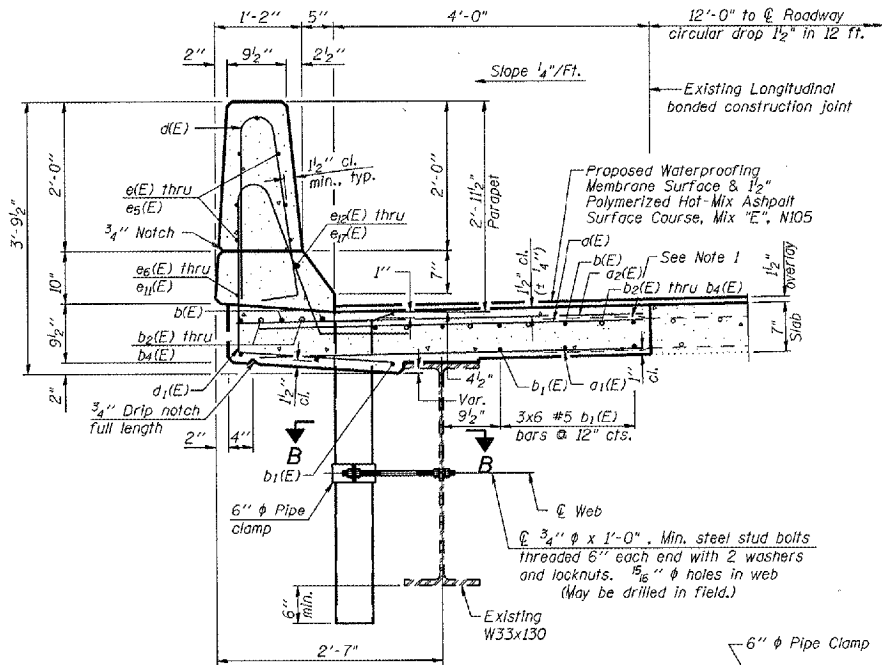
**SUPERSTRUCTURE  
 BILL OF MATERIAL  
 (Includes Wingwalls)**

Bar	No.	Size	Length	Shape
d1(E)	327	#6	4'-9"	
a1(E)	327	#6	4'-5"	
a2(E)	163	#6	4'-0"	
b1(E)	56	#5	29'-1"	
b1(E)	36	#5	33'-6"	
b2(E)	6	#6	13'-8"	
b3(E)	6	#6	20'-0"	
b4(E)	6	#6	19'-8"	
b5(E)	32	#5	8'-0"	
d(E)	229	#5	5'-11"	
d1(E)	209	#5	7'-4"	
d2(E)	20	#5	7'-1"	
e(E)	12	#4	19'-6"	
e1(E)	12	#4	19'-2"	
e2(E)	12	#4	7'-2"	
e3(E)	18	#4	15'-7"	
e4(E)	12	#4	7'-5"	
e5(E)	12	#4	16'-3"	
e6(E)	2	#4	20'-7"	
e7(E)	2	#4	20'-2"	
e8(E)	2	#4	7'-2"	
e9(E)	2	#4	24'-8"	
e10(E)	2	#4	7'-5"	
e11(E)	1	#4	32'-11"	
e12(E)	2	#8	22'-0"	
e13(E)	2	#8	21'-7"	
e14(E)	2	#8	7'-2"	
e15(E)	2	#8	26'-1"	
e16(E)	2	#8	7'-2"	
e17(E)	1	#8	32'-11"	
e18(E)	16	#4	8'-0"	
e19(E)	2	#8	8'-0"	
h(E)	8	#4	5'-4"	
h1(E)	36	#5	5'-4"	
Reinforcement Bars, Epoxy Coated		Pound	M110	
Concrete Superstructure		Cu. Yds.	56.1	
Floor Drains		Each	6	
Protective Coat		Sq. Yd.	90	
Concrete Removal		Cu. Yd.	50.9	
Dowel Bars		Each	18	

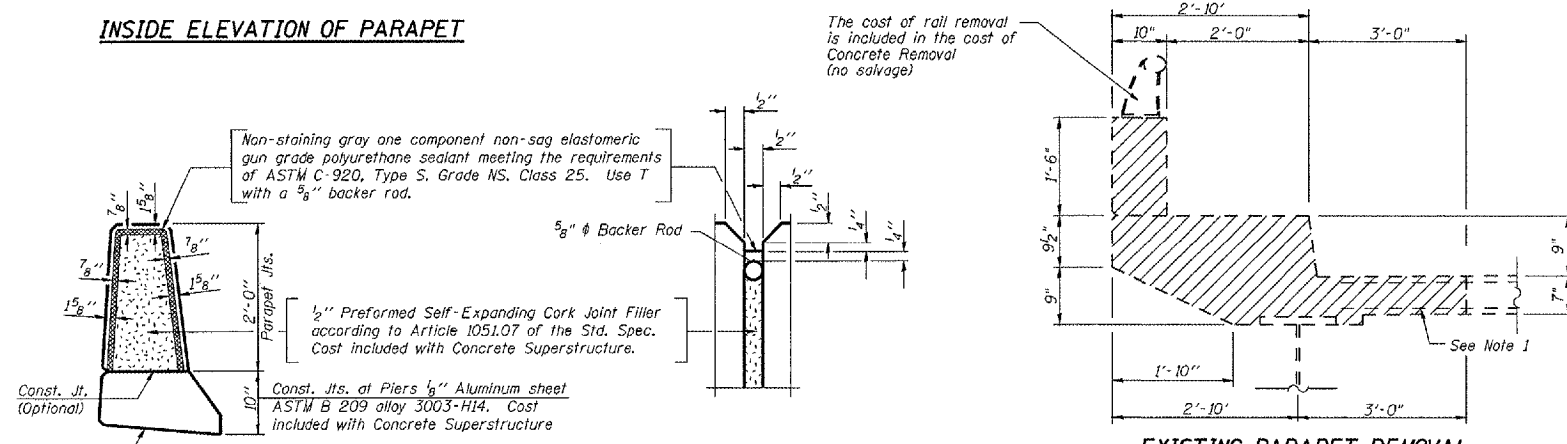
Bars indicated thus 1 x 2 - #4 etc. Indicates 1 line of bars with 2 lengths per line.



INSIDE ELEVATION OF PARAPET

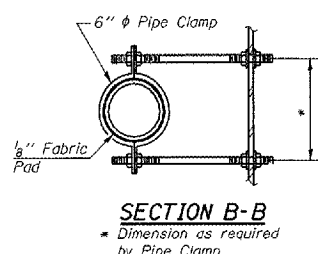


SECTION THRU PARAPET

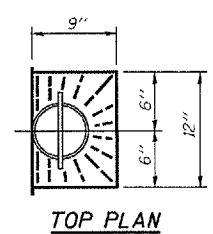


PARAPET JOINT DETAILS

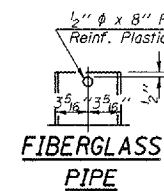
Notes:  
 The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



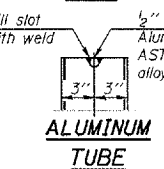
SECTION B-B  
 Dimension as required by Pipe Clamp



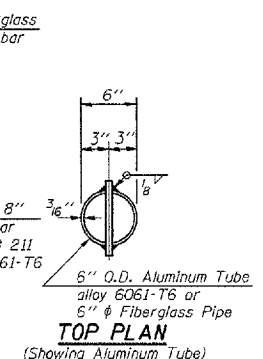
TOP PLAN



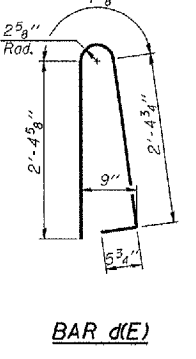
FIBERGLASS PIPE



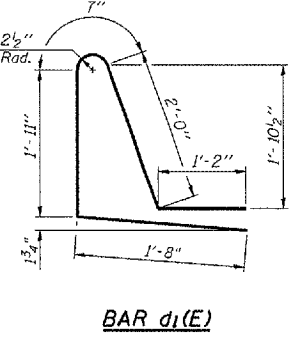
ALUMINUM TUBE



TOP PLAN (Showing Aluminum Tube)



BAR d(E)



BAR d1(E)

**MINIMUM BAR LAP**

- #4 bar = 1'-8"
- #5 bar = 2'-2"
- #8 bar = 4'-6"

- Notes:
- Existing reinforcement extending into new construction shall be cleaned, straightened, and incorporated into the new construction. The minimum length of bar to be left in place to lap with new d(E) bars is 2'-8". Cast included in Concrete Removal.
  - \*\* Limits of expansion joint replacement.

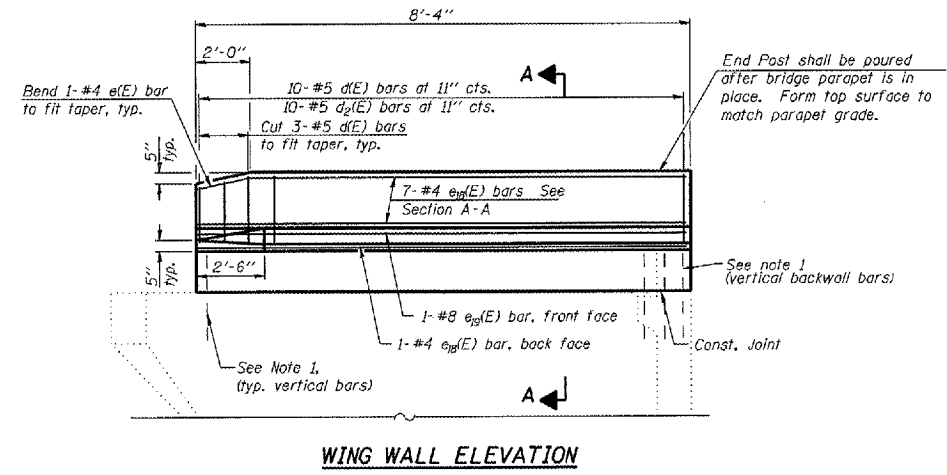
**SUPERSTRUCTURE**

F.A.I. 55, F.A.I. 72, F.A.P. 666  
 Section D6 Interstate R5, BR. M CAB 2008  
 Sangamon County  
 EB I-72 Over BU-55  
 S.N. 084-0077

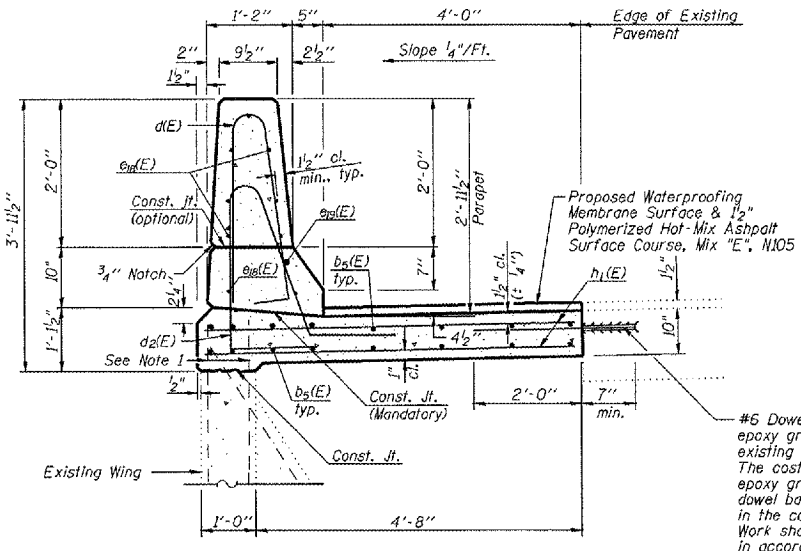
Rev.

CONTRACT NO. T2659			
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
•	••	SANGAMON	248
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			SHEET NO. 224
* F.A.I. 55, F.A.I. 72, F.A.P. 666			
** D6 Interstate R5, BR. W CAB 2008			

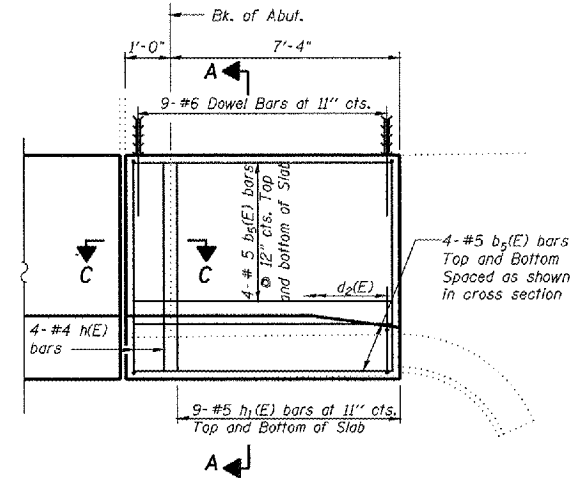
Sheet No. 5 of 7 Sheets



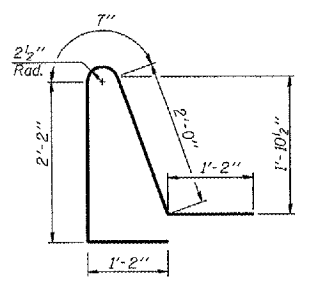
WING WALL ELEVATION



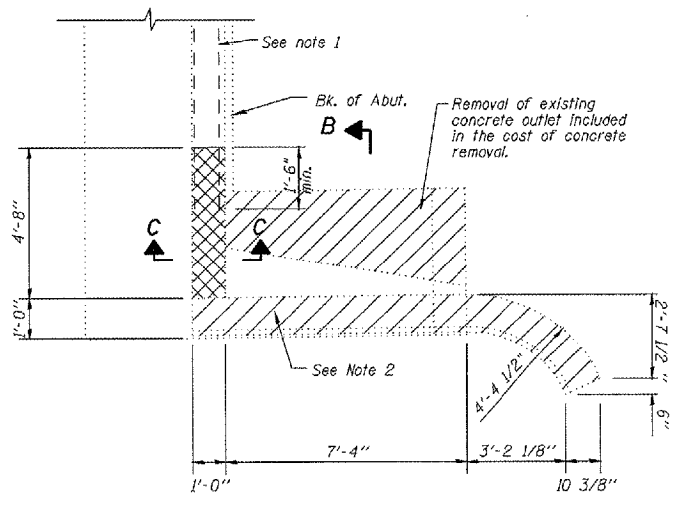
SECTION A-A



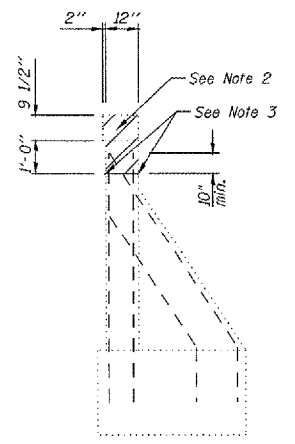
PLAN



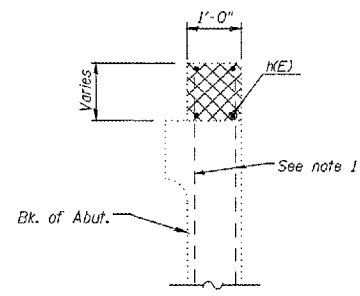
BAR d2(E)



REMOVAL PLAN



SECTION B-B



SECTION C-C

- Notes:
- Existing reinforcement extending into new construction shall be cleaned, straightened, and incorporated into the new construction. Cost included in Concrete Removal.
  - Hatched areas indicate location of Concrete Removal.
  - A 3/4" deep saw cut shall be made each side of wingwall at the removal line. Cost of saw cut included in Concrete Removal.
  - Quantity of concrete in end post included with Concrete Superstructure on sheet 4 of 7.
  - Quantity of Concrete Removal of end post included with Concrete Removal on Sheet 4 of 7.
  - Quantity of reinforcement bars in end posts included with reinforcement bars, epoxy coated on Sheet 4 of 7.

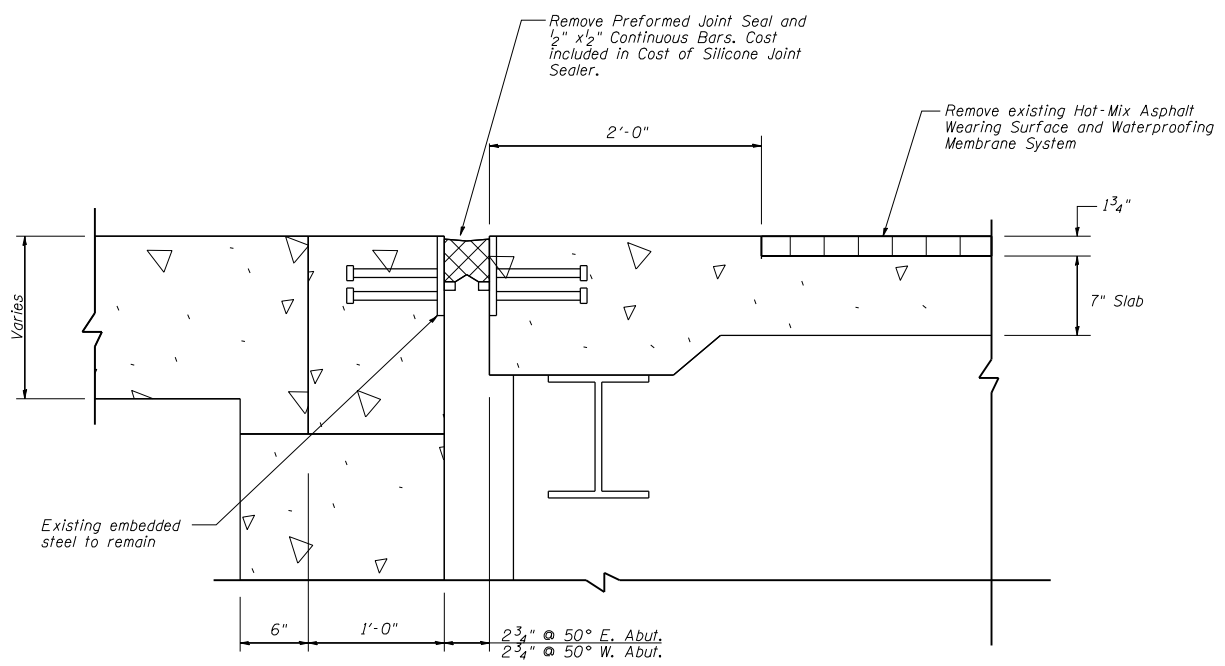
**SUPERSTRUCTURE DETAILS**  
 F.A.I. 55, F.A.I. 72, F.A.P. 666  
 Section D6 Interstate R5, BR. W CAB 2008  
 Sangamon County  
 EB I-72 Over BU-55  
 S.N. 084-0077



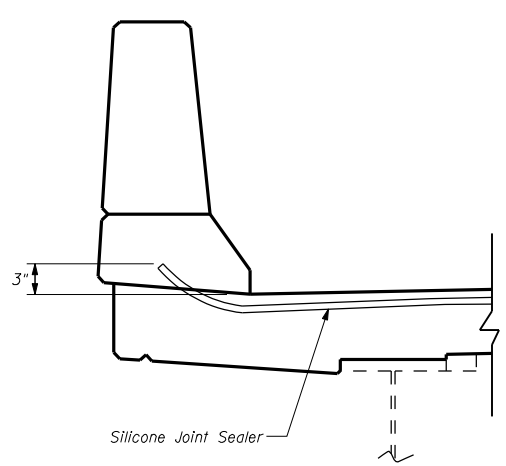
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	225
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* F.A.I. 55, F.A.I. 72, F.A.P. 666				
** D6 Interstate RS, BR, M CAB 2008				

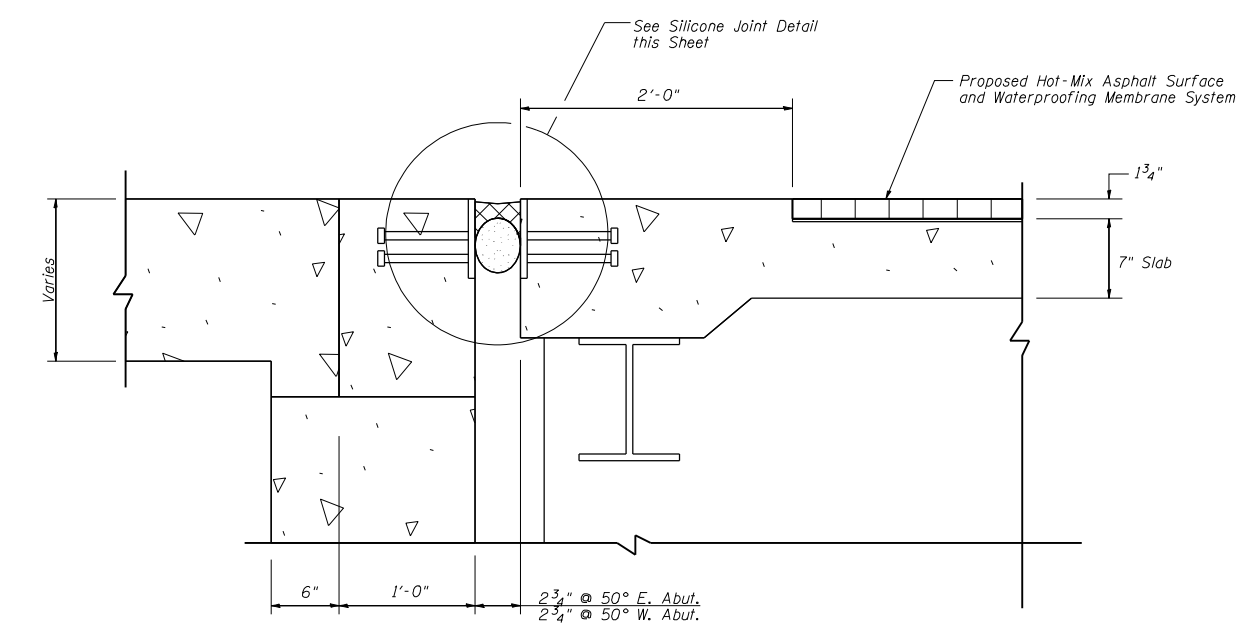
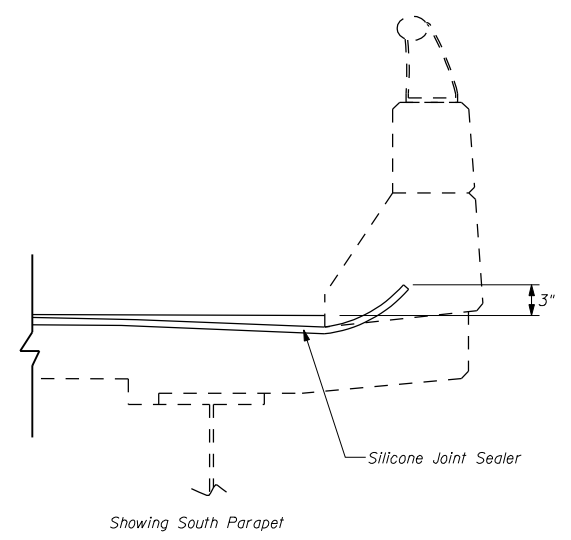
Sheet No. 6  
of 7 Sheets



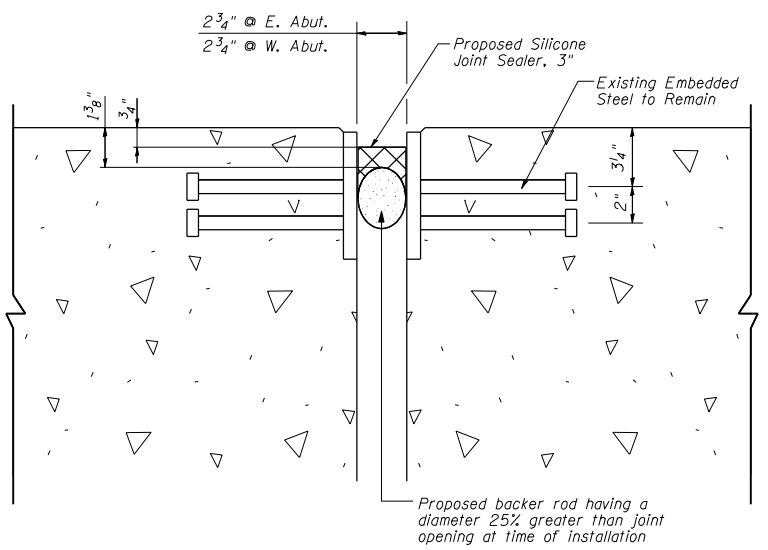
**EXISTING SECTION AT ABUTMENT**



**TYPICAL END OF SEAL TREATMENT**



**PROPOSED SECTION AT ABUTMENT**



**SILICONE JOINT DETAIL**

**BILL OF MATERIAL**

Item	Unit	Quantity
Silicone Joint Sealer, 2 3/4"	Foot	106

**NOTES:**

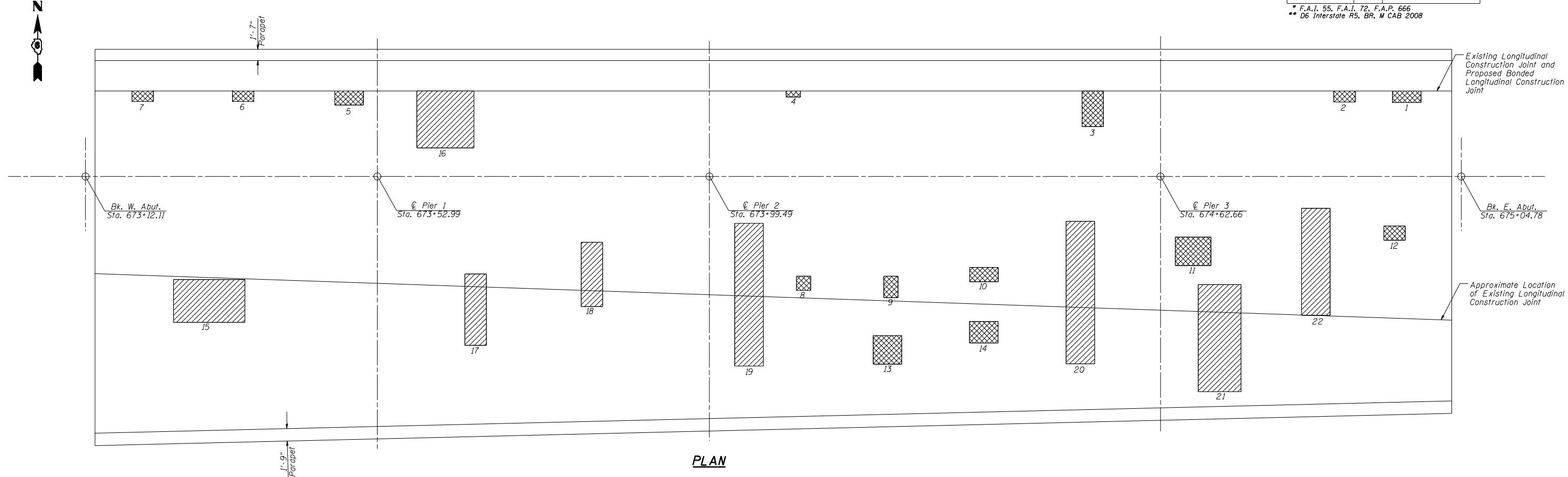
1. See Sheet 4 of 7 for Limits of Expansion Joint Replacement.
2. Abrasive blasting and priming of the embedded steel plates shall be performed in accordance with the surface preparation requirements of the special provision for "Silicone Bridge Joint Sealer."

**EXPANSION JOINT DETAILS**  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate RS, BR, M CAB 2008  
Sangamon County  
EB 1-72 Over BU-55  
S.N. 084-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 72659				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	226
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* F.A.I. 55, F.A.I. 72, F.A.P. 666				
** D6 Interstate R5, BR, M CAB 2008				

Sheet No. 7  
of 7 Sheets



PLAN

Date of Survey: 6-27-07  
Survey By: Dave Copenbarger

LEGEND

- Deck slab repair (Full depth) - Sq. Yd.
- Deck slab repair (Partial depth) - Sq. Yd.

NOTES:

1. Areas of deck slab repairs shown are estimated. The engineer shall record the actual deck slab repair areas in the "As Built" plans.

Deck Slab Repair (Full Depth)

Patch	Length (Ft)	Width (Ft)	Area Type I (Sq Yd)	Area Type II (Sq Yd)
1	4	2		0.9
2	3	2		0.7
3	3	5		1.7
4	2	1	0.2	
5	4	2		0.9
6	3	2		0.7
7	3	2		0.7
8	2	2	0.4	
9	2	3		0.7
10	4	2		0.9
11	5	4		2.2
12	3	2		0.7
13	4	4		1.8
14	4	3		1.3
<b>Total</b>			<b>0.6</b>	<b>13.2</b>

Deck Slab Repair (Partial Depth)

Patch	Length (Ft)	Width (Ft)	Area (Sq Yd)
15	10	6	6.7
16	8	8	7.1
17	3	10	3.3
18	3	9	3.0
19	4	20	8.9
20	4	20	8.9
21	6	15	10.0
22	4	15	6.7
<b>Total</b>			<b>54.6</b>

BILL OF MATERIAL

Item	Unit	Quantity
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	0.6
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	13.2
Deck Slab Repair (Partial Depth)	Sq. Yd.	54.6

DECK PATCHING DETAILS  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
Section D6 Interstate R5, BR, M CAB 2008  
Sangamon County  
EB 1-72 Over BU-55  
S.N. 084-0077

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	227

STA. TO STA. TO STA.

FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

\* F.A.I. 55, F.A.I. 72, F.A.P. 666  
 \*\* D6 Interstate R5, BR, M CAB 2008

TEMPORARY RAISED REFLECTIVE MARKER

STATION TO	STATION	EACH
672+70.00	675+20.00	6

PAVEMENT MARKING REMOVAL

STATION TO	STATION	FOOT
668+60.00	673+13.13	110
668+60.00	673+13.13	453
668+60.00	673+13.13	453
675+05.80	684+10.00	230
675+05.80	684+10.00	904
675+05.80	676+03.22	97
676+11.00	677+23.91	113
676+11.00	684+10.00	799
TOTAL		3159

\*\*\* SHOULDERS TO BE REPLACED BY BASE COURSE WIDENING SHALL MATCH EXISTING WIDTHS AND SLOPES OR AS DIRECTED BY THE ENGINEER

IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

STATION	EACH
678+89.25	1

\*\*\* HOT-MIX ASPHALT BASE COURSE WIDENING, 12"

STATION TO	STATION	SQ YD
671+28.08	673+13.13	142
675+05.80	676+03.22	81
676+11.00	683+54.26	855
TOTAL		1078

PAVED SHOULDER REMOVAL

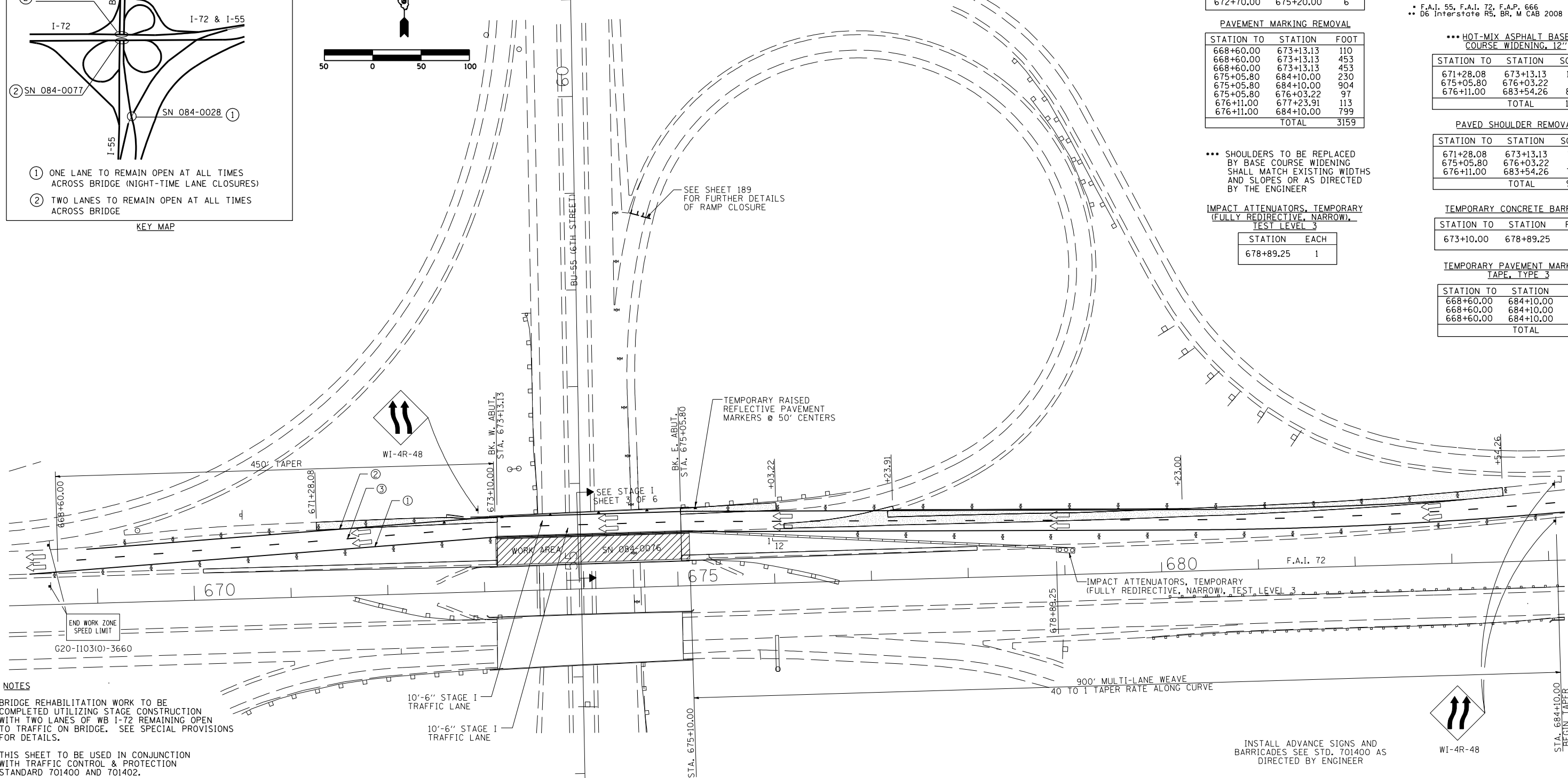
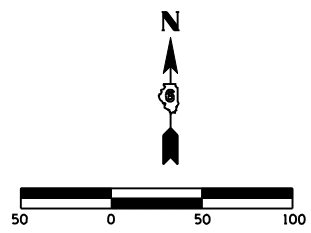
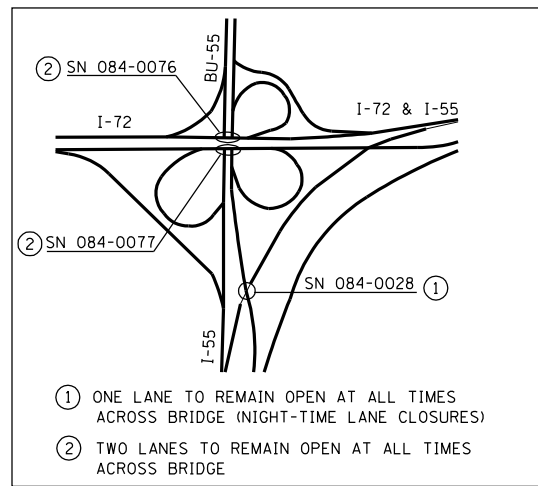
STATION TO	STATION	SQ YD
671+28.08	673+13.13	142
675+05.80	676+03.22	81
676+11.00	683+54.26	720
TOTAL		943

TEMPORARY CONCRETE BARRIER

STATION TO	STATION	FOOT
673+10.00	678+89.25	575

TEMPORARY PAVEMENT MARKING TAPE, TYPE 3

STATION TO	STATION	FOOT
668+60.00	684+10.00	390
668+60.00	684+10.00	1550
668+60.00	684+10.00	1550
TOTAL		3490



- NOTES**
- BRIDGE REHABILITATION WORK TO BE COMPLETED UTILIZING STAGE CONSTRUCTION WITH TWO LANES OF WB I-72 REMAINING OPEN TO TRAFFIC ON BRIDGE. SEE SPECIAL PROVISIONS FOR DETAILS.
  - THIS SHEET TO BE USED IN CONJUNCTION WITH TRAFFIC CONTROL & PROTECTION STANDARD 701400 AND 701402.
  - STAGING SEQUENCE:
    - PRE STAGE I: PLACE BASE COURSE WIDENING AS REQUIRED FOR STAGE I TRAFFIC, UTILIZING TRAFFIC CONTROL & PROTECTION STD. 701101.
    - STAGE I: PLACE TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS AND TRAFFIC CONTROL & PROTECTION STD. 701400 AND 701402. COMPLETE ALL BRIDGE WORK ON THE SOUTH HALF OF SN 084-0076.
    - PLACE BASE COURSE WIDENING AS REQUIRED FOR STAGE II TRAFFIC SHOWN ON SHEET 2.
  - THE USE OF METAL SIGNS ON TYPE III BARRICADES SHALL NOT BE ALLOWED, AS IT IS NOT COMPLIANT WITH NCHRP 350.

**LEGEND**

	WORK AREA	①	TEMP. PAVT. MARKING TAPE, TYPE 3, YELLOW
	DIRECTION OF TRAFFIC	②	TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE
	BASE COURSE WIDENING	③	TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE (10' DASH, 30' SKIP)
	TEMPORARY PAVEMENT MARKING TAPE, TYPE 3		
	TEMPORARY CONCRETE BARRIER WITH BARRIER WALL REFLECTORS AND VERTICAL PANELS PER STD. 701402		
	TYPE I BARRICADE DRUM W/ STEADY BURN MONO DIRECTIONAL LIGHT @ 50' CENTERS U.N.O.		

STANDARD 701402 (SPECIAL)

REVISIONS	
NAME	DATE
CLOSED RAMPS	11/15/07

S.N. 084-0076  
 SHEET 1 OF 3

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN 1 OF 6  
 STAGE I TRAFFIC

F.A.I. 55, F.A.I. 72, F.A.P. 666  
 SANGAMON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE 10/06

DRAWN BY PBB  
 CHECKED BY RJC

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(84-9)RS-6	SANGAMON	248	228

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

F.A.I. 55, F.A.I. 72, F.A.P. 666  
 D6 Interstate R5, BR, M CAB 2008  
 \*\*\* HOT-MIX ASPHALT BASE COURSE WIDENING, 12" \*\*\*

TEMPORARY RAISED REFLECTIVE MARKER

STATION TO	STATION	EACH
672+10.00	677+60.00	12

STATION TO	STATION	SQ YD
670+10.00	673+13.13	135
675+05.80	678+10.00	135
TOTAL		270

PAVED SHOULDER REMOVAL

STATION TO	STATION	SQ YD
670+10.00	673+13.13	135
675+05.80	678+10.00	135
TOTAL		270

RELOCATE TEMPORARY CONCRETE BARRIER

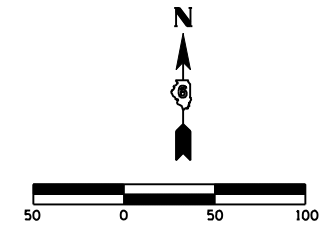
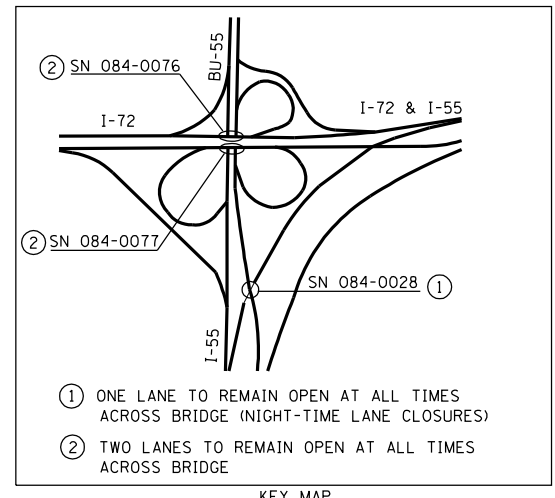
STATION TO	STATION	FOOT
673+10.00	676+96.71	387.5

IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3

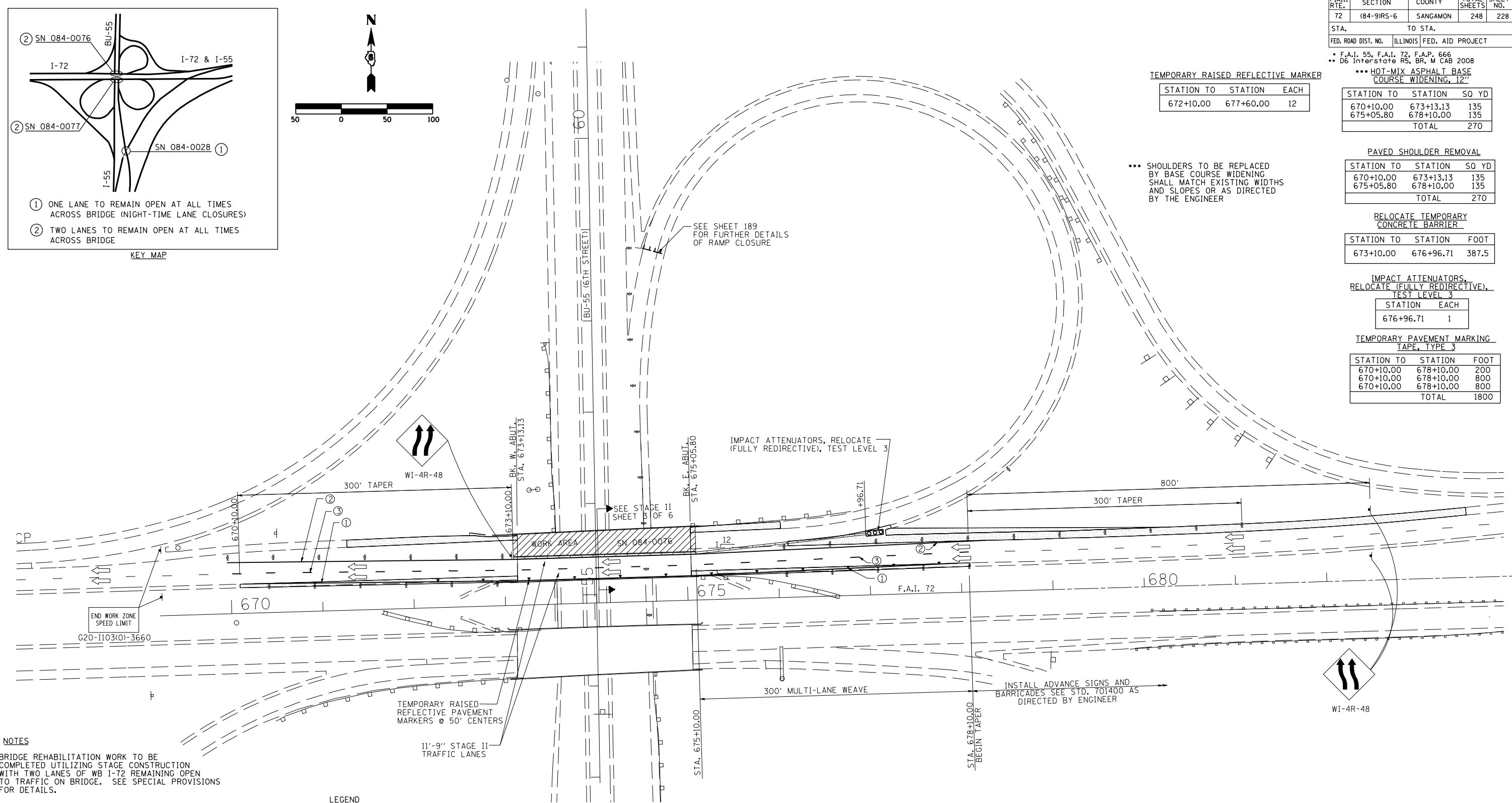
STATION	EACH
676+96.71	1

TEMPORARY PAVEMENT MARKING TAPE, TYPE 3

STATION TO	STATION	FOOT
670+10.00	678+10.00	200
670+10.00	678+10.00	800
670+10.00	678+10.00	800
TOTAL		1800



- KEY MAP
- ① ONE LANE TO REMAIN OPEN AT ALL TIMES ACROSS BRIDGE (NIGHT-TIME LANE CLOSURES)
  - ② TWO LANES TO REMAIN OPEN AT ALL TIMES ACROSS BRIDGE



- NOTES
- BRIDGE REHABILITATION WORK TO BE COMPLETED UTILIZING STAGE CONSTRUCTION WITH TWO LANES OF WB I-72 REMAINING OPEN TO TRAFFIC ON BRIDGE. SEE SPECIAL PROVISIONS FOR DETAILS.
  - THIS SHEET TO BE USED IN CONJUNCTION WITH TRAFFIC CONTROL & PROTECTION STANDARD 701400 AND 701402.
  - STAGING SEQUENCE:
    - STAGE II: PLACE TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS AND TRAFFIC CONTROL & PROTECTION STD. 701400 AND 701402. COMPLETE ALL BRIDGE WORK ON THE NORTH HALF OF SN 084-0076.
    - UPON COMPLETION, REMOVE ALL TRAFFIC CONTROL ITEMS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
  - THE USE OF METAL SIGNS ON TYPE III BARRICADES SHALL NOT BE ALLOWED, AS IT IS NOT COMPLIANT WITH NCHRP 350.

- LEGEND
- WORK AREA
  - DIRECTION OF TRAFFIC
  - BASE COURSE WIDENING
  - TEMPORARY PAVEMENT MARKING TAPE, TYPE 3
  - TEMPORARY CONCRETE BARRIER WITH BARRIER WALL REFLECTORS AND VERTICAL PANELS PER STD. 701402
  - TYPE I BARRICADE DRUM W/ STEADY BURN MONO DIRECTIONAL LIGHT @ 50' CENTERS U.N.O.

- ① TEMP. PAVT. MARKING TAPE, TYPE 3, YELLOW
- ② TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE
- ③ TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE (10' DASH, 30' SKIP)

STANDARD 701402 (SPECIAL)

REVISIONS	
NAME	DATE
CLOSED RAMPS	11/15/07

S.N. 084-0076  
 SHEET 2 OF 3

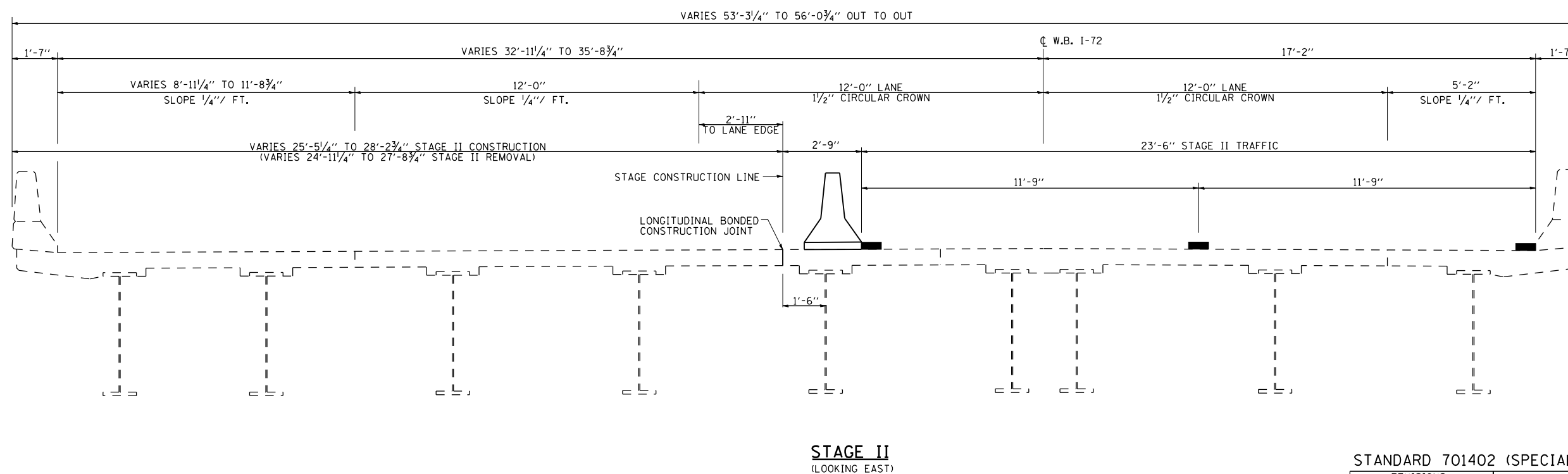
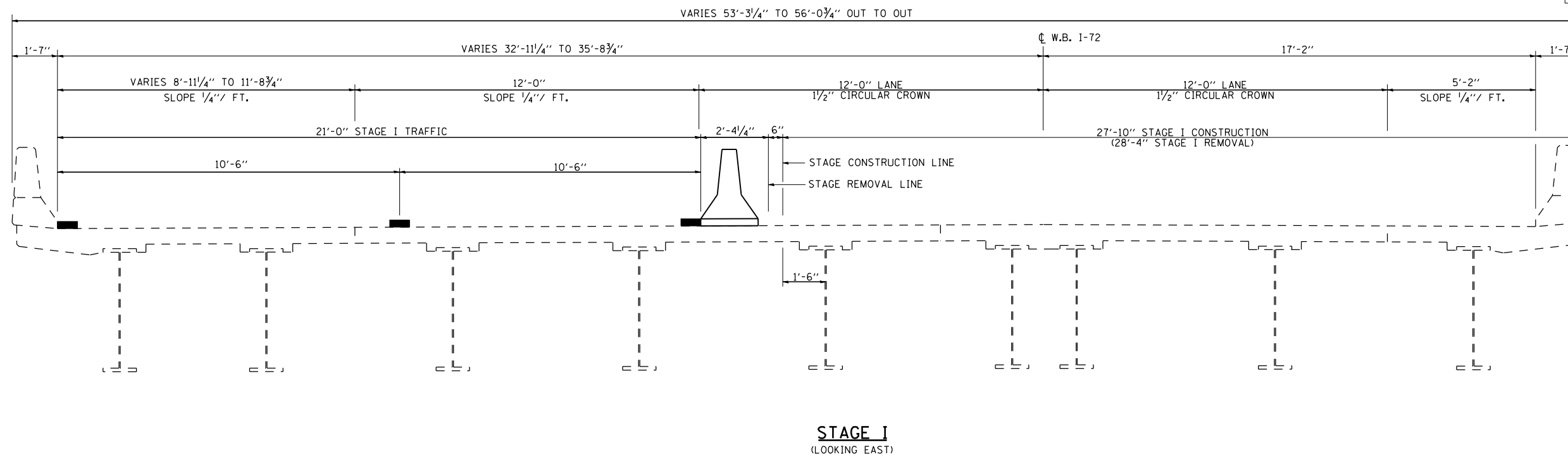
ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN 2 OF 6  
 STAGE II TRAFFIC  
 F.A.I. 55, F.A.I. 72, F.A.P. 666  
 SANGAMON COUNTY

SCALE: VERT. HORIZ. DATE 7/04

DRAWN BY MLO  
 CHECKED BY RJC

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	229
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* F.A.I. 55, F.A.I. 72, F.A.P. 666 ** D6 Interstate R5, BR, M CAB 2008				



STANDARD 701402 (SPECIAL) S.N. 084-0076 SHEET 3 OF 3

REVISIONS	
NAME	DATE
CLOSED RAMPS	11/15/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TRAFFIC CONTROL PLAN 3 OF 6  
STAGE CONSTRUCTION  
F.A.I. 55, F.A.I. 72, F.A.P. 666  
SANGAMON COUNTY

SCALE: VERT. HORIZ. DATE 7/04

DRAWN BY MLO  
CHECKED BY SJK

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	230

STA. TO STA. TO STA.

FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

\* F.A.I. 55, F.A.I. 72, F.A.P. 666  
 \*\* D6 Interstate R5, BR, M CAB 2008

HOT-MIX ASPHALT BASE COURSE WIDENING, 12"

STATION TO	STATION	SQ YD
663+34.69	673+12.11	1123
676+61.50	680+10.00	403
675+04.78	678+10.00	266
TOTAL		1792

PAVED SHOULDER REMOVAL

STATION TO	STATION	SQ YD
663+34.69	673+12.11	1029
676+61.50	680+10.00	403
675+04.78	678+10.00	266
TOTAL		1698

PAVEMENT MARKING REMOVAL

STATION TO	STATION	FOOT
663+10.00	673+13.13	250
663+10.00	673+13.13	1003
663+10.00	673+13.13	1003
670+95.79	673+13.13	217
675+04.78	680+10.00	505
675+04.78	680+10.00	130
675+04.78	680+10.00	505
675+04.78	678+10.00	307
676+61.50	678+43.73	182
TOTAL		4102

TEMPORARY PAVEMENT MARKING TAPE, TYPE 3

STATION TO	STATION	FOOT
663+10.00	680+10.00	430
663+10.00	680+10.00	1700
663+10.00	677+43.00	1433
675+05.00	677+57.00	64
677+57.00	680+10.00	253
677+57.00	678+44.00	87
TOTAL		3967

TEMPORARY CONCRETE BARRIER

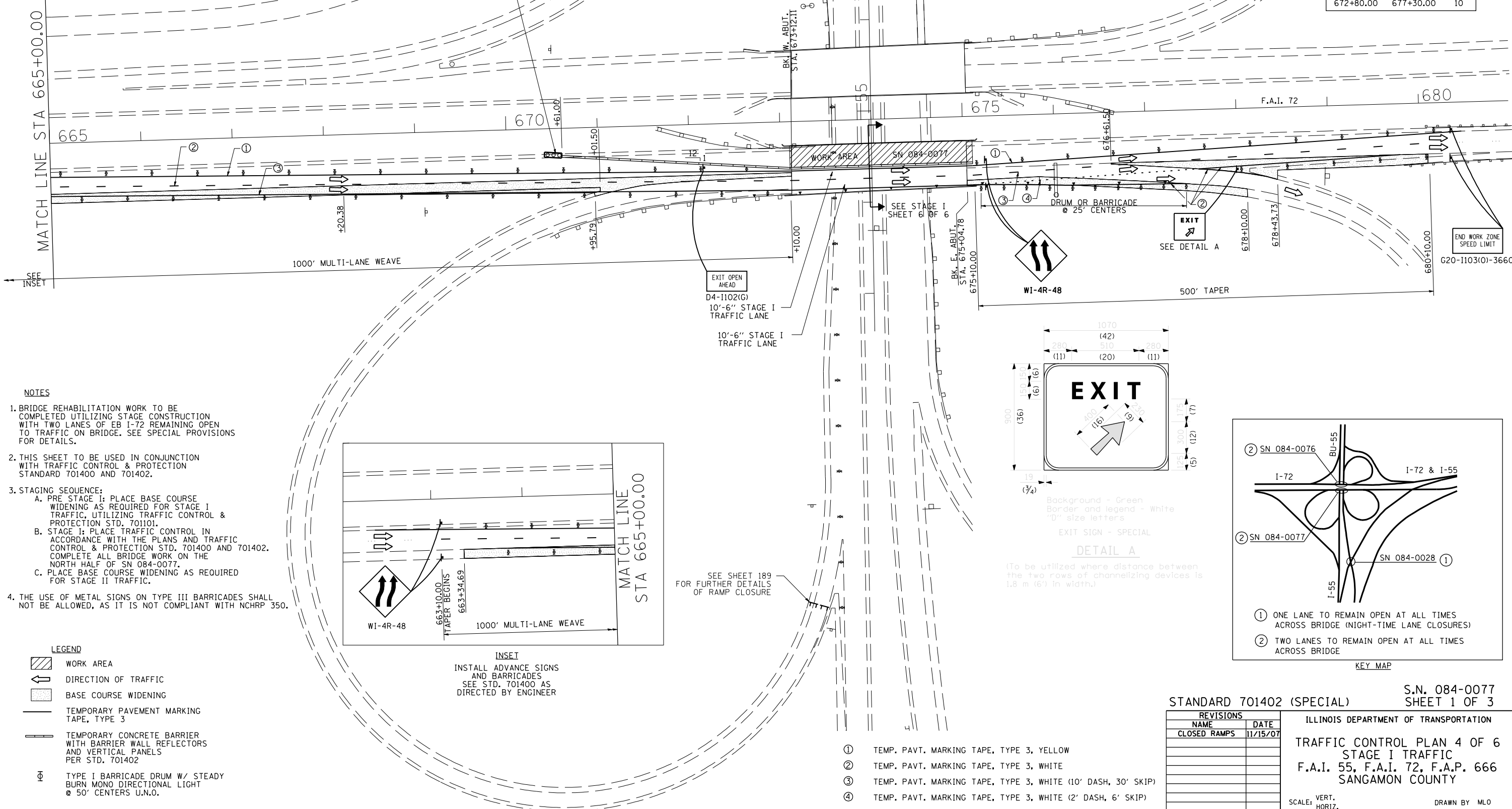
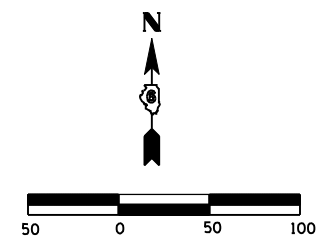
STATION TO	STATION	FOOT
670+61.00	675+10.00	450

IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

STATION	EACH
670+61.00	1

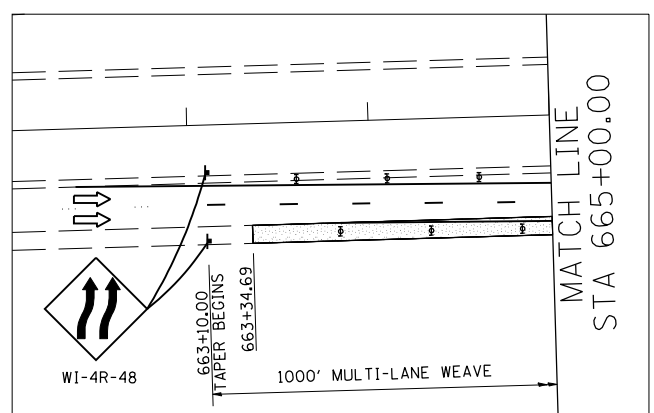
TEMPORARY RAISED REFLECTIVE MARKER

STATION TO	STATION	EACH
672+80.00	677+30.00	10

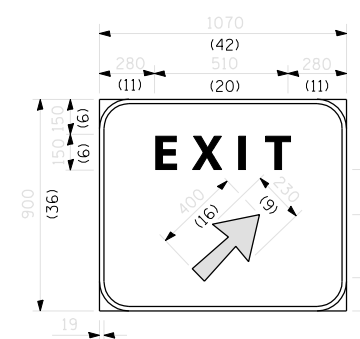


- NOTES**
- BRIDGE REHABILITATION WORK TO BE COMPLETED UTILIZING STAGE CONSTRUCTION WITH TWO LANES OF EB I-72 REMAINING OPEN TO TRAFFIC ON BRIDGE. SEE SPECIAL PROVISIONS FOR DETAILS.
  - THIS SHEET TO BE USED IN CONJUNCTION WITH TRAFFIC CONTROL & PROTECTION STANDARD 701400 AND 701402.
  - STAGING SEQUENCE:
    - PRE STAGE I: PLACE BASE COURSE WIDENING AS REQUIRED FOR STAGE I TRAFFIC, UTILIZING TRAFFIC CONTROL & PROTECTION STD. 701101.
    - STAGE I: PLACE TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS AND TRAFFIC CONTROL & PROTECTION STD. 701400 AND 701402. COMPLETE ALL BRIDGE WORK ON THE NORTH HALF OF SN 084-0077.
    - PLACE BASE COURSE WIDENING AS REQUIRED FOR STAGE II TRAFFIC.
  - THE USE OF METAL SIGNS ON TYPE III BARRICADES SHALL NOT BE ALLOWED, AS IT IS NOT COMPLIANT WITH NCHRP 350.

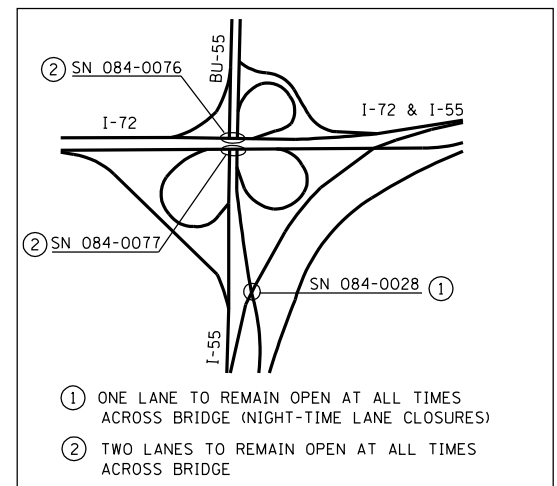
- LEGEND**
- WORK AREA
  - DIRECTION OF TRAFFIC
  - BASE COURSE WIDENING
  - TEMPORARY PAVEMENT MARKING TAPE, TYPE 3
  - TEMPORARY CONCRETE BARRIER WITH BARRIER WALL REFLECTORS AND VERTICAL PANELS PER STD. 701402
  - TYPE I BARRICADE DRUM W/ STEADY BURN MONO DIRECTIONAL LIGHT @ 50' CENTERS U.N.O.



**INSET**  
 INSTALL ADVANCE SIGNS AND BARRICADES SEE STD. 701400 AS DIRECTED BY ENGINEER



Background - Green  
 Border and legend - White  
 "D" size letters  
**EXIT SIGN - SPECIAL**  
**DETAIL A**  
 (To be utilized where distance between the two rows of channelizing devices is 1.8 m (6') in width.)



- KEY MAP**
- ONE LANE TO REMAIN OPEN AT ALL TIMES ACROSS BRIDGE (NIGHT-TIME LANE CLOSURES)
  - TWO LANES TO REMAIN OPEN AT ALL TIMES ACROSS BRIDGE

- TEMP. PAVT. MARKING TAPE, TYPE 3, YELLOW
- TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE
- TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE (10' DASH, 30' SKIP)
- TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE (2' DASH, 6' SKIP)

STANDARD 701402 (SPECIAL) S.N. 084-0077 SHEET 1 OF 3

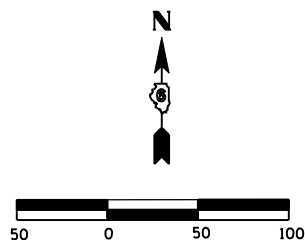
REVISIONS	
NAME	DATE
CLOSED RAMPS	11/15/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL PLAN 4 OF 6  
 STAGE I TRAFFIC  
 F.A.I. 55, F.A.I. 72, F.A.P. 666  
 SANGAMON COUNTY

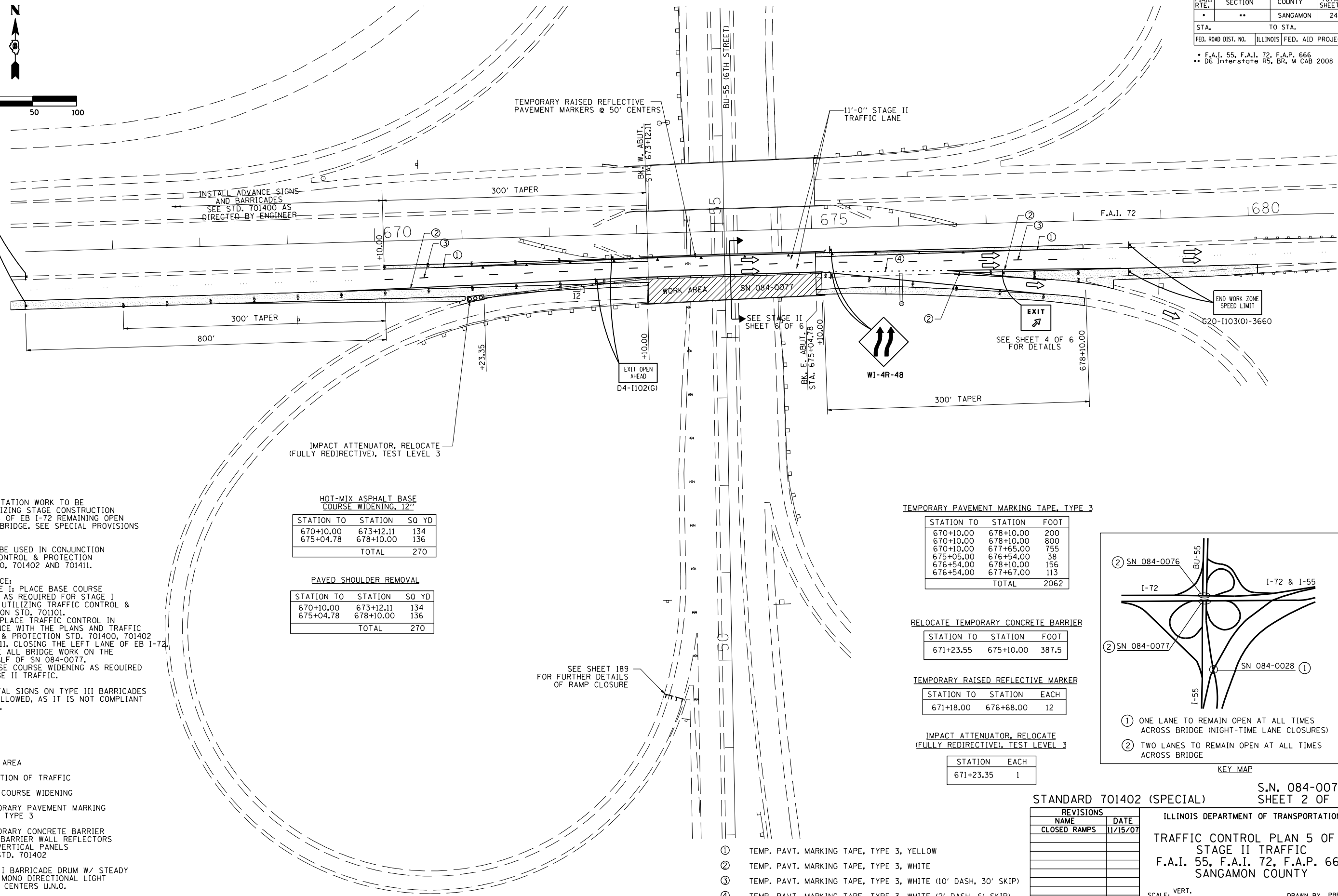
SCALE: VERT. HORIZ. DATE: 7/04  
 DRAWN BY: MLO  
 CHECKED BY: SJK

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	231
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\* F.A.I. 55, F.A.I. 72, F.A.P. 666  
 \*\* D6 Interstate R5, BR, M CAB 2008



WI-4R-48



**NOTES**

- BRIDGE REHABILITATION WORK TO BE COMPLETED UTILIZING STAGE CONSTRUCTION WITH TWO LANES OF EB I-72 REMAINING OPEN TO TRAFFIC ON BRIDGE. SEE SPECIAL PROVISIONS FOR DETAILS.
- THIS SHEET TO BE USED IN CONJUNCTION WITH TRAFFIC CONTROL & PROTECTION STANDARD 701400, 701402 AND 701411.
- STAGING SEQUENCE:
  - PRE STAGE I: PLACE BASE COURSE WIDENING AS REQUIRED FOR STAGE I TRAFFIC, UTILIZING TRAFFIC CONTROL & PROTECTION STD. 701101.
  - STAGE I: PLACE TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS AND TRAFFIC CONTROL & PROTECTION STD. 701400, 701402 AND 701411, CLOSING THE LEFT LANE OF EB I-72. COMPLETE ALL BRIDGE WORK ON THE NORTH HALF OF SN 084-0077.
  - PLACE BASE COURSE WIDENING AS REQUIRED FOR STAGE II TRAFFIC.
- THE USE OF METAL SIGNS ON TYPE III BARRICADES SHALL NOT BE ALLOWED, AS IT IS NOT COMPLIANT WITH NCHRP 350.

**HOT-MIX ASPHALT BASE COURSE WIDENING, 12"**

STATION TO	STATION	SQ YD
670+10.00	673+12.11	134
675+04.78	678+10.00	136
TOTAL		270

**PAVED SHOULDER REMOVAL**

STATION TO	STATION	SQ YD
670+10.00	673+12.11	134
675+04.78	678+10.00	136
TOTAL		270

**TEMPORARY PAVEMENT MARKING TAPE, TYPE 3**

STATION TO	STATION	FOOT
670+10.00	678+10.00	200
670+10.00	678+10.00	800
670+10.00	677+65.00	755
675+05.00	676+54.00	38
676+54.00	678+10.00	156
676+54.00	677+67.00	113
TOTAL		2062

**RELOCATE TEMPORARY CONCRETE BARRIER**

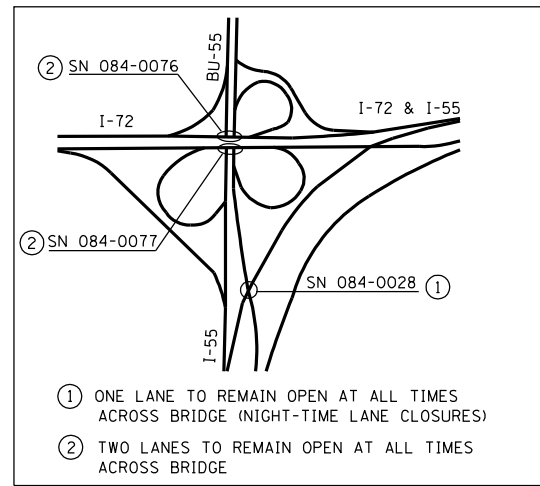
STATION TO	STATION	FOOT
671+23.55	675+10.00	387.5

**TEMPORARY RAISED REFLECTIVE MARKER**

STATION TO	STATION	EACH
671+18.00	676+68.00	12

**IMPACT ATTENUATOR, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3**

STATION	EACH
671+23.35	1



KEY MAP

**LEGEND**

- WORK AREA
- DIRECTION OF TRAFFIC
- BASE COURSE WIDENING
- TEMPORARY PAVEMENT MARKING TAPE, TYPE 3
- TEMPORARY CONCRETE BARRIER WITH BARRIER WALL REFLECTORS AND VERTICAL PANELS PER STD. 701402
- TYPE I BARRICADE DRUM W/ STEADY BURN MONO DIRECTIONAL LIGHT @ 50' CENTERS U.N.O.

SEE SHEET 189 FOR FURTHER DETAILS OF RAMP CLOSURE

- ① TEMP. PAVT. MARKING TAPE, TYPE 3, YELLOW
- ② TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE
- ③ TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE (10' DASH, 30' SKIP)
- ④ TEMP. PAVT. MARKING TAPE, TYPE 3, WHITE (2' DASH, 6' SKIP)

**STANDARD 701402 (SPECIAL)**

REVISIONS	
NAME	DATE
CLOSED RAMPS	11/15/07

S.N. 084-0077  
SHEET 2 OF 3

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL PLAN 5 OF 6  
 STAGE II TRAFFIC  
 F.A.I. 55, F.A.I. 72, F.A.P. 666  
 SANGAMON COUNTY

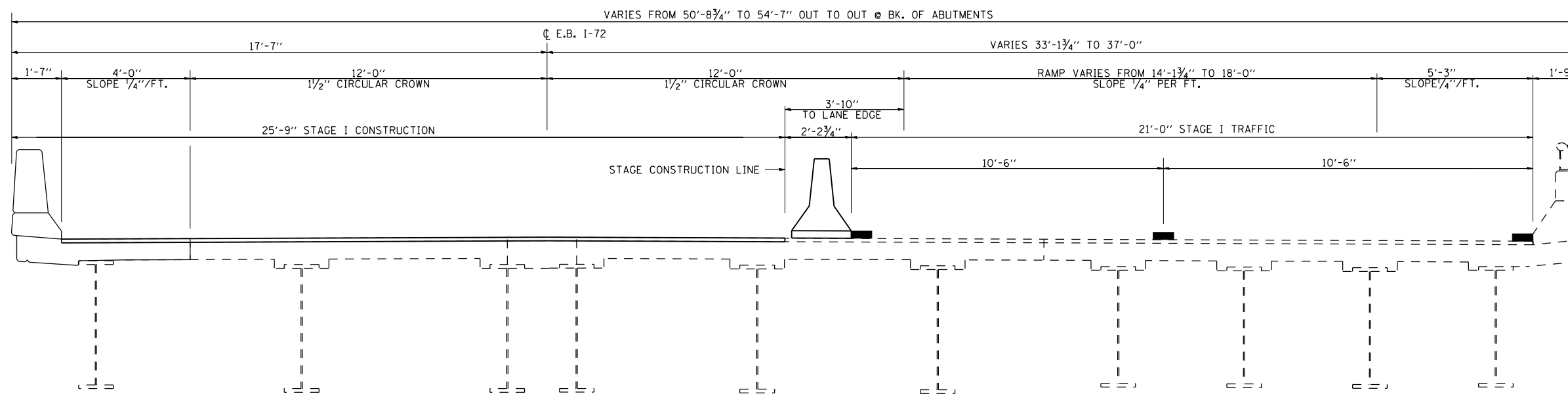
SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE 10/07

DRAWN BY PBB  
 CHECKED BY RJC

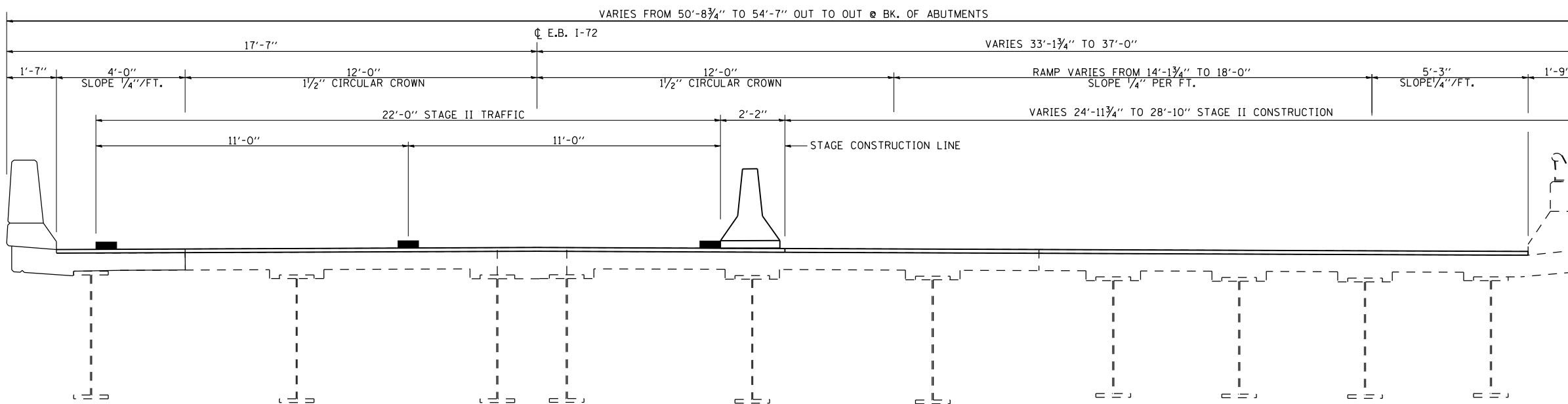
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	SANGAMON	248	232

FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

\* F.A.I. 55, F.A.I. 72, F.A.P. 666  
 \*\* D6 Interstate R5, BR, M CAB 2008



**STAGE I**  
(LOOKING EAST)



**STAGE II**  
(LOOKING EAST)

STANDARD 701402 (SPECIAL)

S.N. 084-0077  
SHEET 3 OF 3

REVISIONS	
NAME	DATE
CLOSED RAMPS	11/15/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL PLAN 6 OF 6  
 STAGE CONSTRUCTION  
 F.A.I. 55, F.A.I. 72, F.A.P. 666  
 SANGAMON COUNTY

SCALE: VERT.  
HORIZ.  
DATE 7/04

DRAWN BY MLO  
CHECKED BY SJK



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	Sangamon	248 233	9 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Existing Structure - Structure Number 084-0092. A two span continuous non-composite wide flange beam bridge with welded cover plates over the pier and 7" cast in place concrete deck constructed in 1963. Deck Patching and 1 1/2" bituminous overlay was done in 1983. Exp. Jt. replacement etc. was done in 1996.

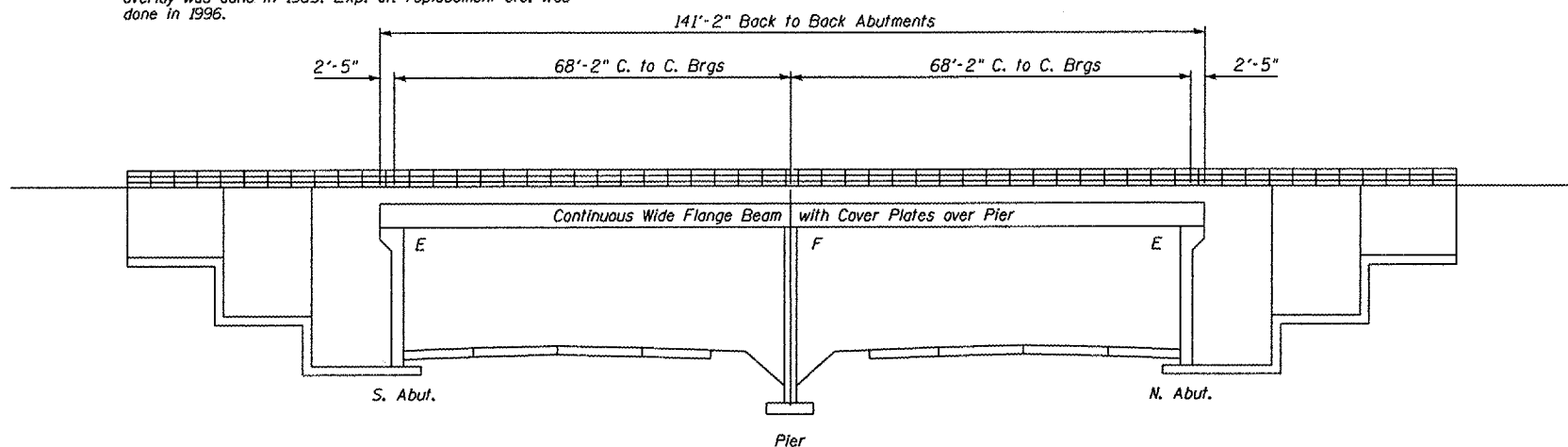
Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008

**PROPOSED IMPROVEMENTS**

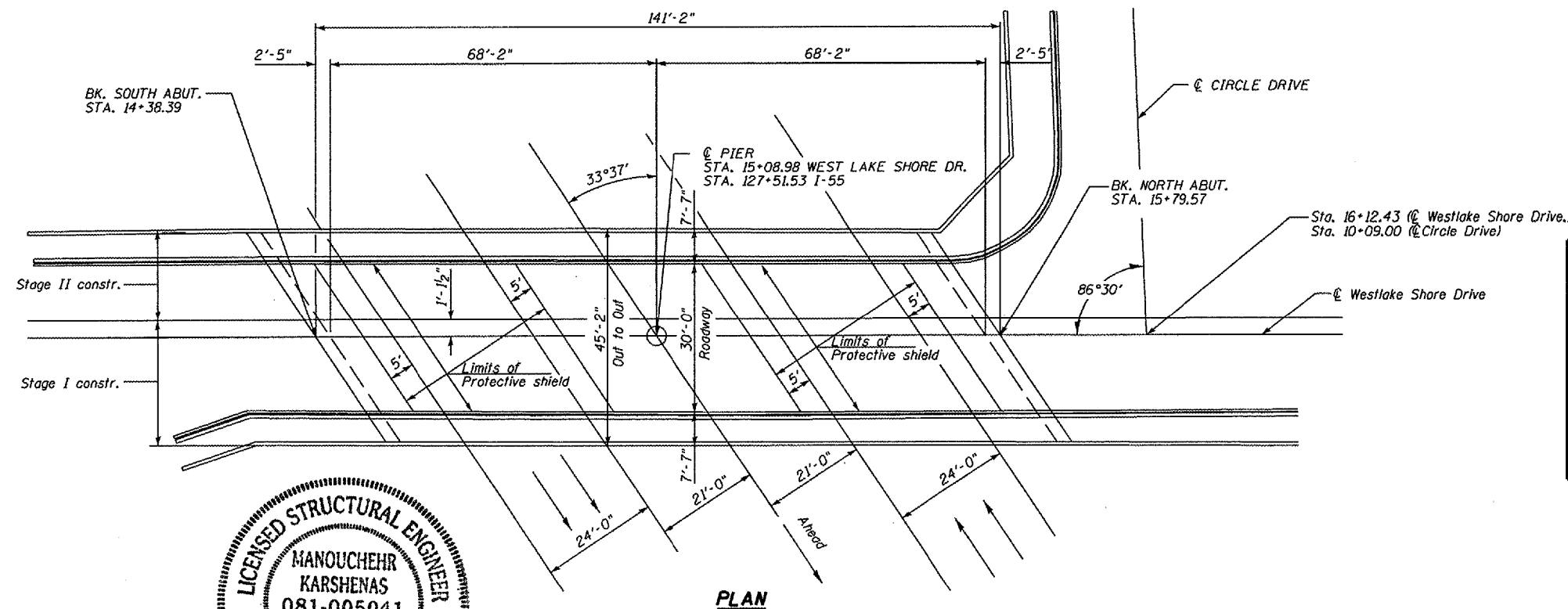
The scope of work consists of Removal and replacement HMA surface and water proofing membrane system; Deck slab repair; Removal of Expansion Joints and adding safety block to pedestrian barrier.

**GENERAL NOTES**

- Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Work shall be done utilizing stage construction with one lane open by traffic signals directing two way traffic. See Traffic control plans.
- 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.



**ELEVATION**



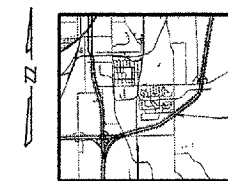
**PLAN**

**TOTAL BILL OF MATERIAL**

Item	Unit	Structure	Roadway	Total
Hot-mix Asphalt Surface Course, MIX D, N 50	Ton	42.0		42.0
Waterproofing Membrane System	Sq. Yd.	500		500
Reinforcement Bars (Epoxy coated)	Pound	2770	2060	4830
Concrete Superstructure	Cu. Yd.	13.8	10.0	23.8
Deck Slab Repair (Partial)	Sq. Yd.	56		56
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	25		25
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	459	8	467
Protective shield	Sq. Yd.	273		273
Protective coal	Sq. Yd.	74	55	129
Class D Patches Type II, 16"	Sq. Yd.	24		24

**DESIGN STRESSES (NEW CONSTRUCTION)**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
**WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)**  
**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**  
**SANGAMON COUNTY**  
**SN 084-0092**

**INDEX OF SHEETS**

- |  |  |
|--|--|
| <u>Structure</u>                                     | <u>Roadway</u>                         |
| 1. General Plan & Elevation                          | 7. Approach Roadway Parapet Details    |
| 2. Stage Construction Details                        | 8. Approach Roadway Parapet Details-I  |
| 3. Temporary Concrete Barrier for stage construction | 9. Approach Roadway Parapet Details-II |
| 4. Deck Patching Survey                              |  |
| 5. Expansion Joint Removal Details                   |  |
| 6. Safety Block Details                              |  |



*m. j. Karshenas*  
DATE 10-19-07  
EXP. 11-30-08

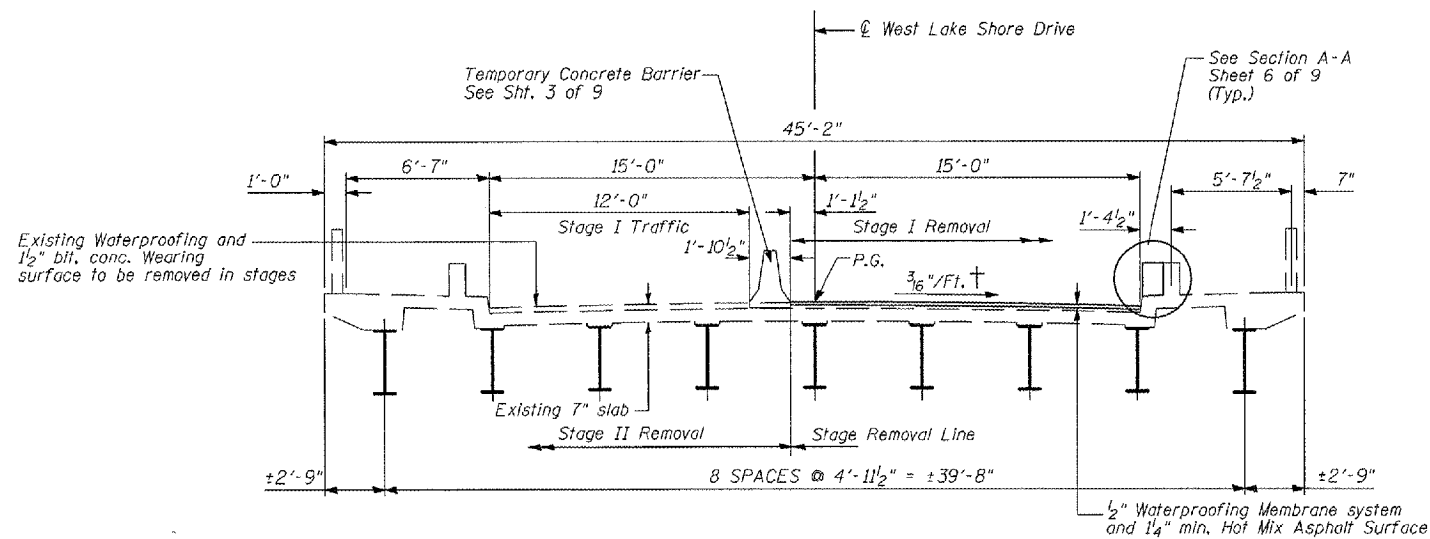
DESIGNED	- KRG
CHECKED	- MJK
DRAWN	- GSJ
CHECKED	- MJK

**MID-AMERICA ENGINEERING SERVICES**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 2
#	**	Sangamon	248	234	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

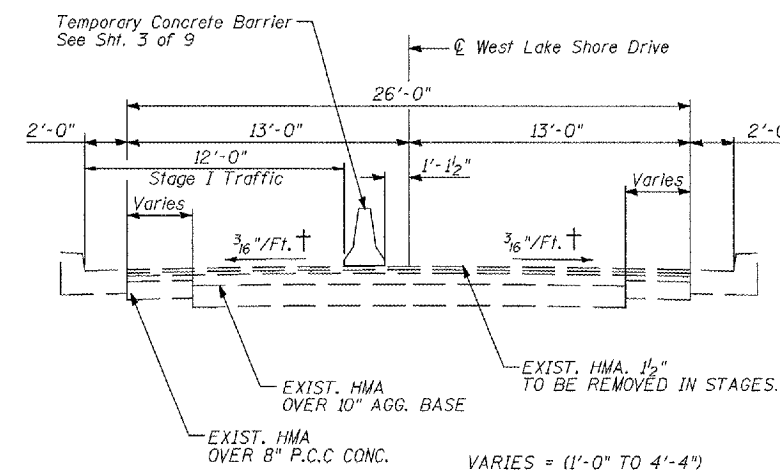
Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



**BRIDGE CROSS SECTION (STAGE I CONSTRUCTION)**

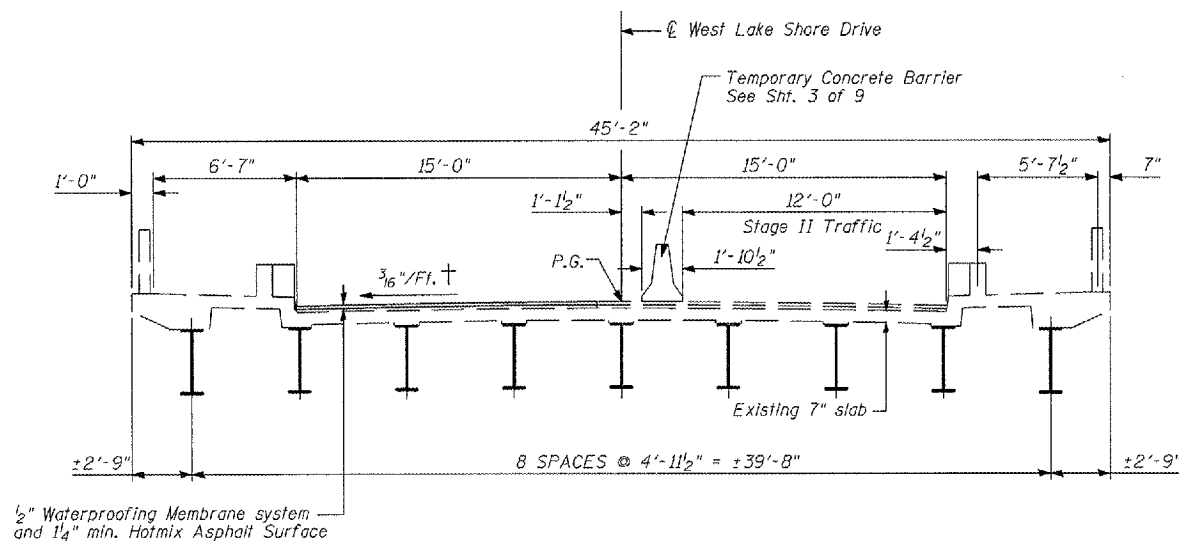
(Looking North)

† The existing concrete deck surface has a circular crown of 1" drop in 10 feet and 0.2"/foot slope for remainder of roadway



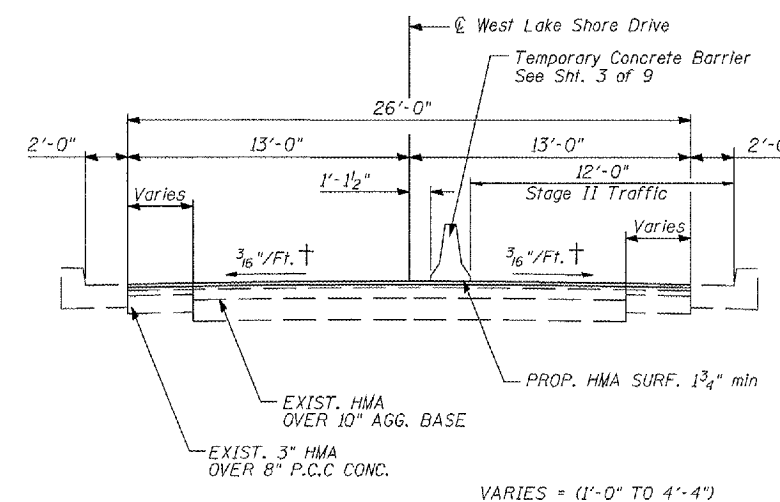
**APPROACH ROADWAY CROSS SECTION (STAGE I CONSTRUCTION)**

(Looking North)



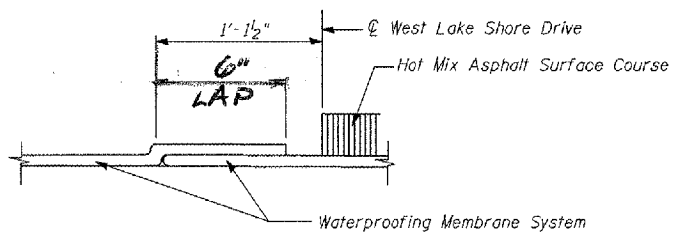
**BRIDGE CROSS SECTION (STAGE II CONSTRUCTION)**

(Looking North)



**APPROACH ROADWAY CROSS SECTION (STAGE II CONSTRUCTION)**

(Looking North)



**LAPPING OF WATERPROOFING MEMBRANE FOR STAGE CONSTRUCTION**

DESIGNED	- KRG
CHECKED	- MJK
DRAWN	- GSJ
CHECKED	- MJK

MID-AMERICA ENGINEERING SERVICES

**STAGE CONSTRUCTION DETAILS**  
**WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)**  
**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**  
**SANGAMON COUNTY**  
Sta. 15+08.98  
SN 084-0092

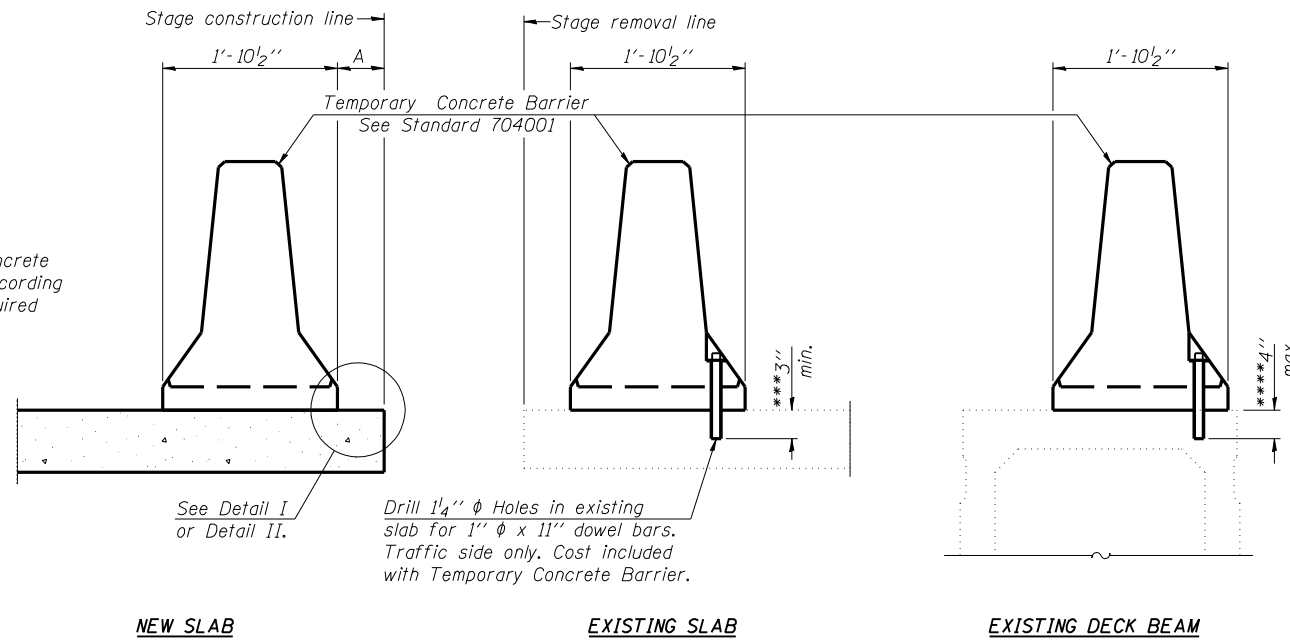
Rev.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
*	**	Sangamon	248	235	9 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT			

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008

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".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

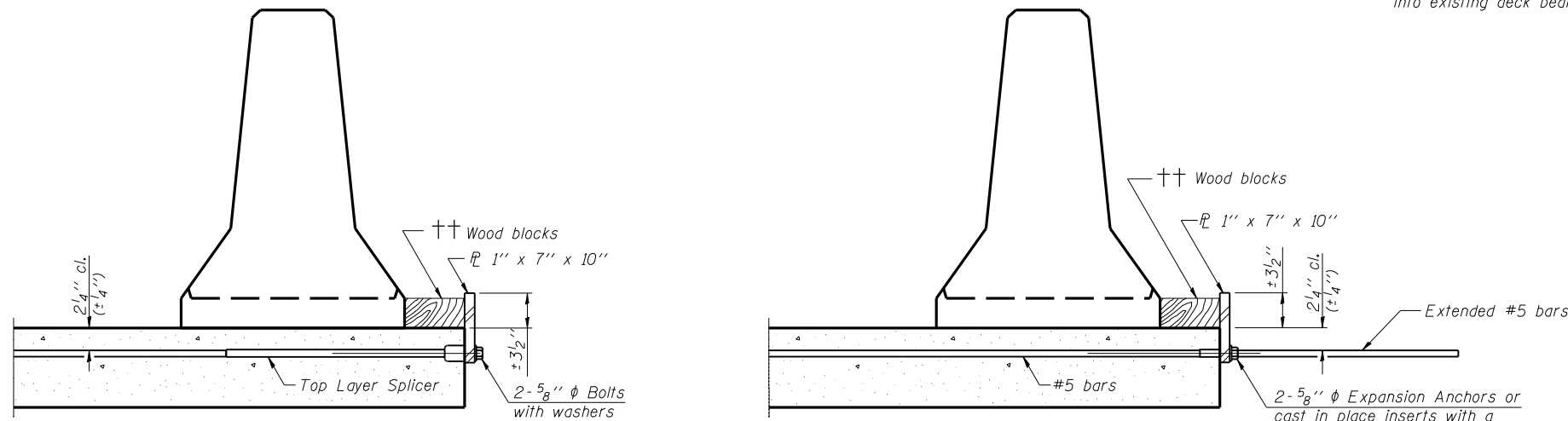
**NOTES**

Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{L}$  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  $\bar{L}$  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.

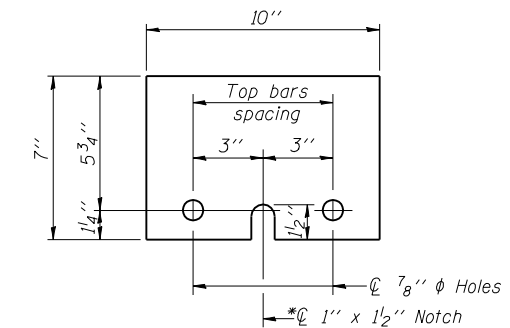
\*\*\*Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.  
\*\*\*\*If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface 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  $\bar{L}$  1" x 7" x 10"

\* Required only with Detail II

TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION

WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)  
SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
SANGAMON COUNTY  
Sta. 15+08.98  
SN 084-0092

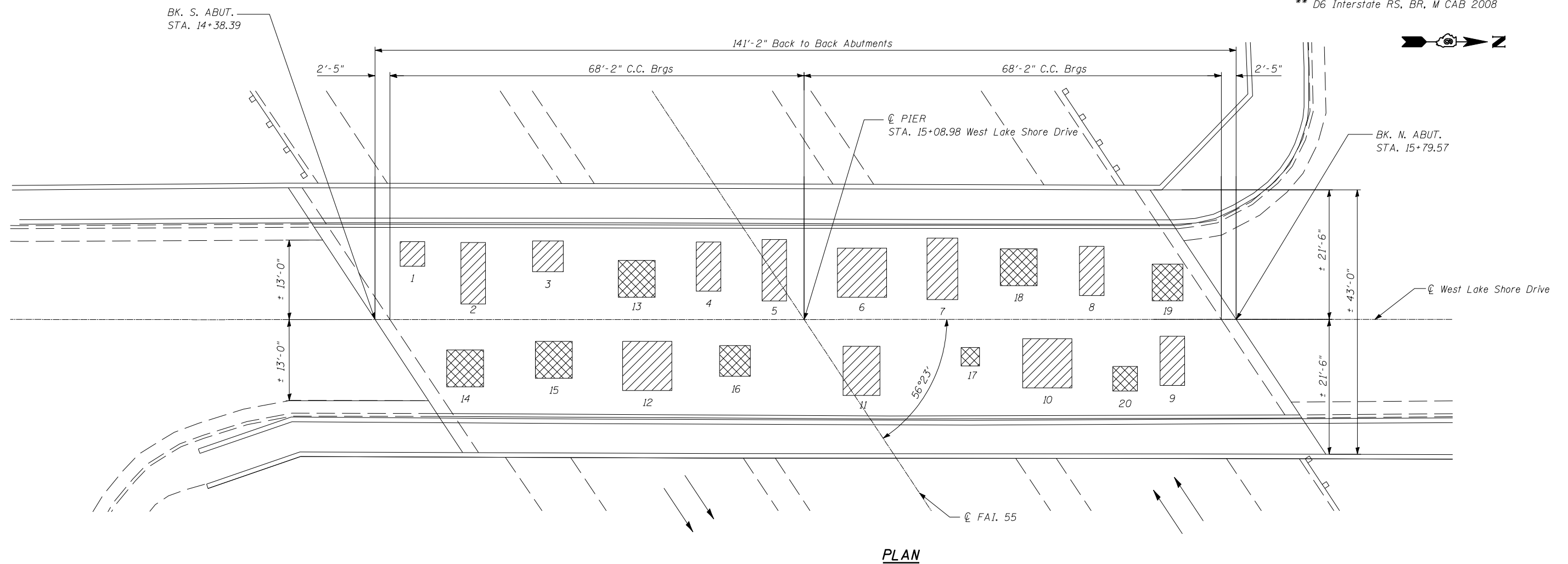
DESIGNED - KRG
CHECKED - MJK
DRAWN - GSJ
CHECKED - MJK

R-27  
9-3-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
#	**	Sangamon	248	236	9 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



PLAN

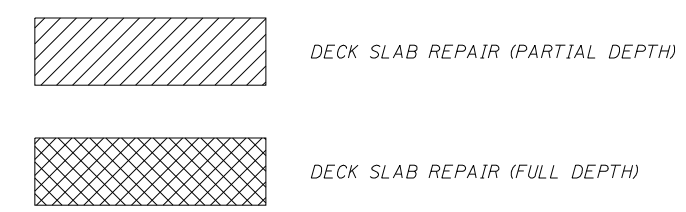
ANTICIPATED DECK SLAB REPAIR (PARTIAL DEPTH)

Patch	Length (FT.)	Width (FT.)	Area (SQ. YD.)
1	4	4	1.8
2	4	10	4.4
3	5	5	2.8
4	4	8	3.5
5	4	10	4.4
6	8	8	7.1
7	5	10	5.5
8	4	8	3.5
9	4	8	3.5
10	8	8	7.1
11	6	8	5.3
12	8	8	7.1
TOTAL			56

ANTICIPATED DECK SLAB REPAIR (FULL DEPTH)

Patch	Length (FT.)	Width (FT.)	Area (SQ. YD.)
13	6	6	4
14	6	6	4
15	6	6	4
16	5	5	2.7
17	3	3	1
18	6	6	4
19	5	6	3.3
20	4	4	1.7
TOTAL			25

LEGEND



Notes: Date of deck patching survey = March 14, 2007  
The Engineer shall record the actual areas of repair and location on this sheet in order to document as-built conditions for future reference.

DESIGNED	- KRG
CHECKED	- MJK
DRAWN	- GSJ
CHECKED	- MJK

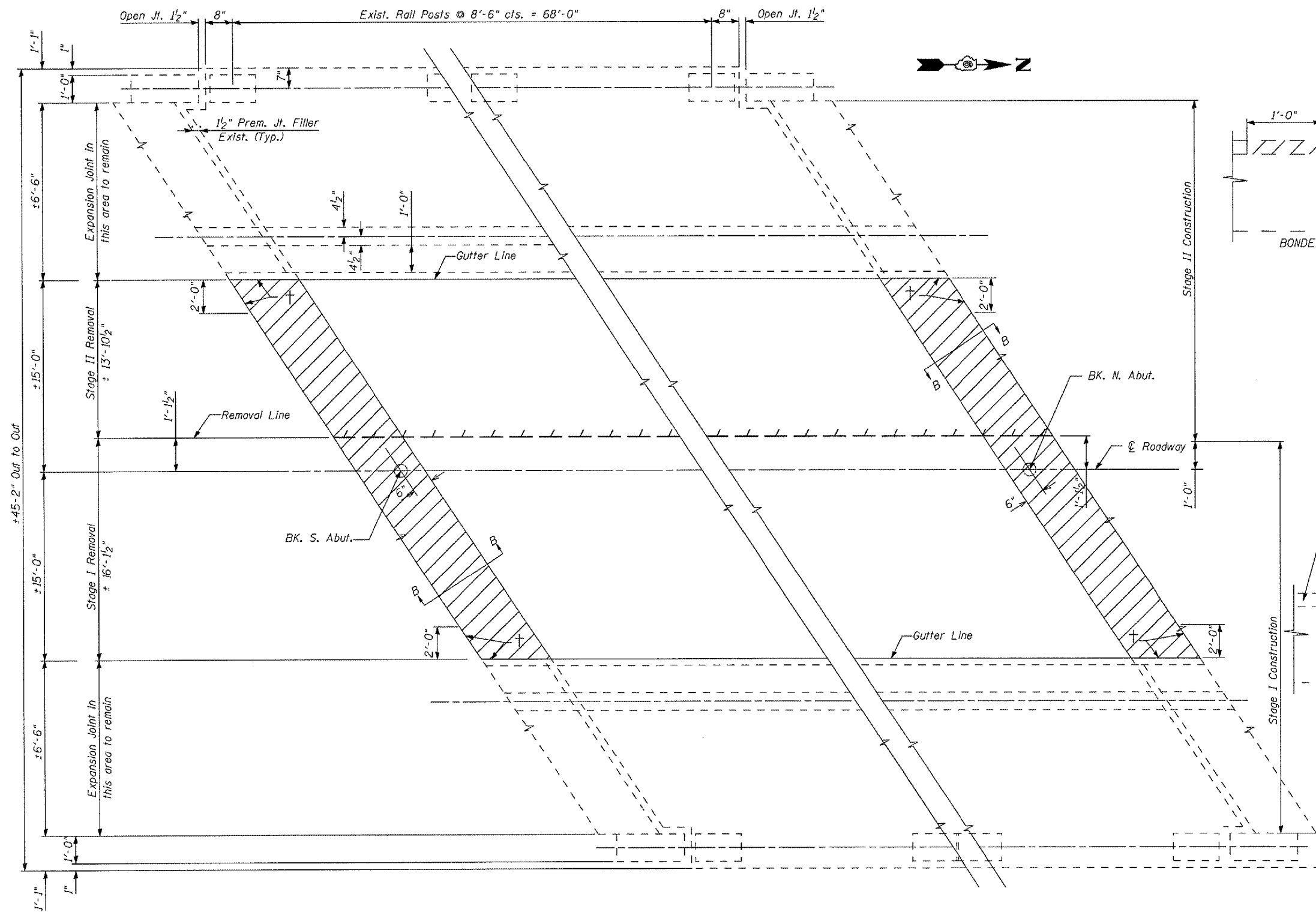
MID-AMERICA ENGINEERING SERVICES

**DECK PATCHING SURVEY**  
**WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)**  
**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**  
**SANGAMON COUNTY**  
**Sta. 15+08.98**  
**SN 084-0092**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
*	**	Sangamon	248	237	9 SHEETS
FED. ROAD DIST. NO. 7					
BALANCE					
FED. AID PROJECT					

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



PARTIAL PLAN

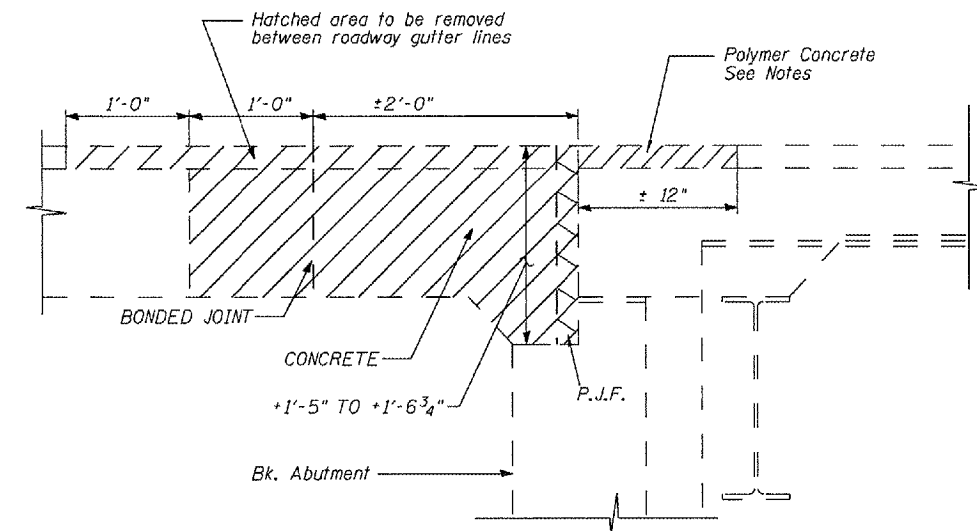
DESIGNED	- KRG
CHECKED	- MJK
DRAWN	- GSJ
CHECKED	- MJK

† Saw cut to remove the existing concrete shoulder pavement of gutter.  
Cost of saw cutting included in item "Class D Patches Type II, 16".

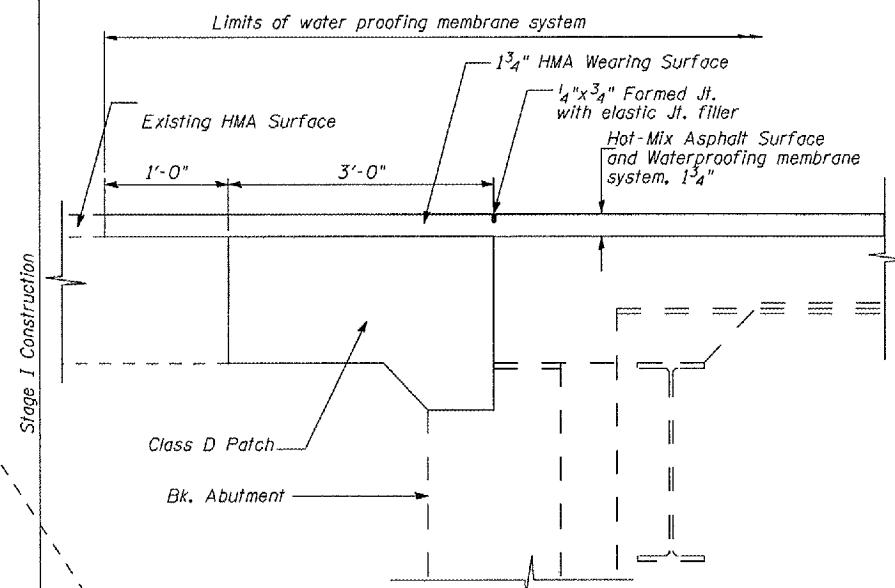
Notes:

Cost of Removal of polymer concrete is included in the item "Hot-Mix Asphalt Surface Removal (Deck)" cost of concrete Removal in P.C.C. pavement is included in "Class D Patches Type II, 16".

Hatched area indicates area of concrete removal. Cost included in "Class D Patches, Type II 16".



SECTION AT ABUTMENT  
SHOWING EXISTING JOINT  
(SECTION B-B)



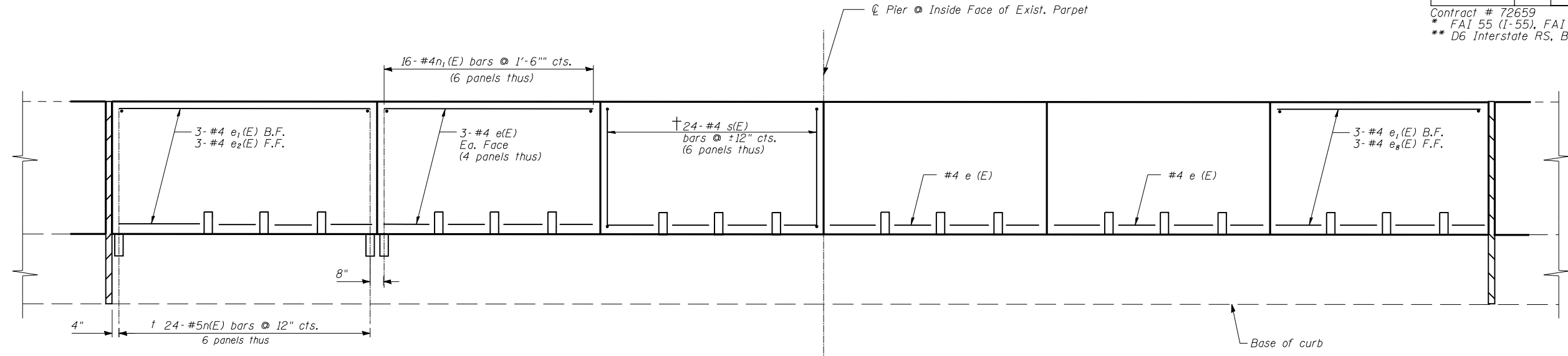
SECTION AT ABUTMENT  
SHOWING NEW JOINT  
(SECTION B-B)

EXPANSION JOINT REMOVAL DETAILS  
WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)  
SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
SANGAMON COUNTY  
Sta. 15+08.98  
SN 084-0092

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

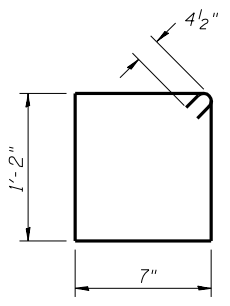
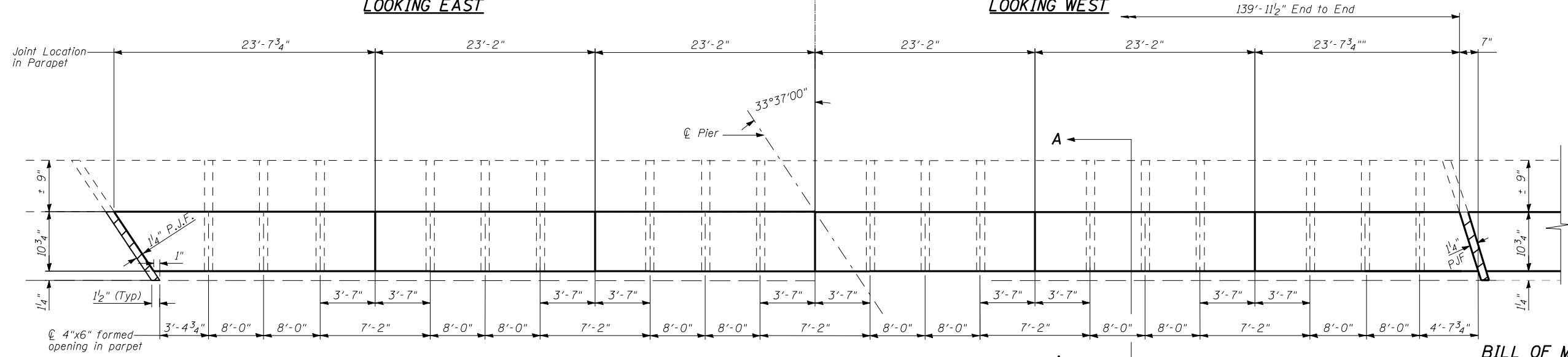
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 9 SHEETS
*	**	Sangamon	248	238	
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-			

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008

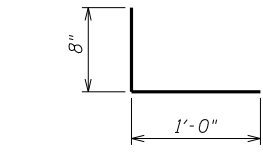


ELEVATION OF EAST PARAPET  
LOOKING EAST

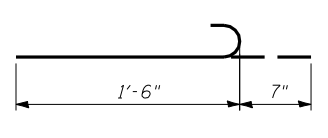
ELEVATION OF WEST PARAPET  
LOOKING WEST



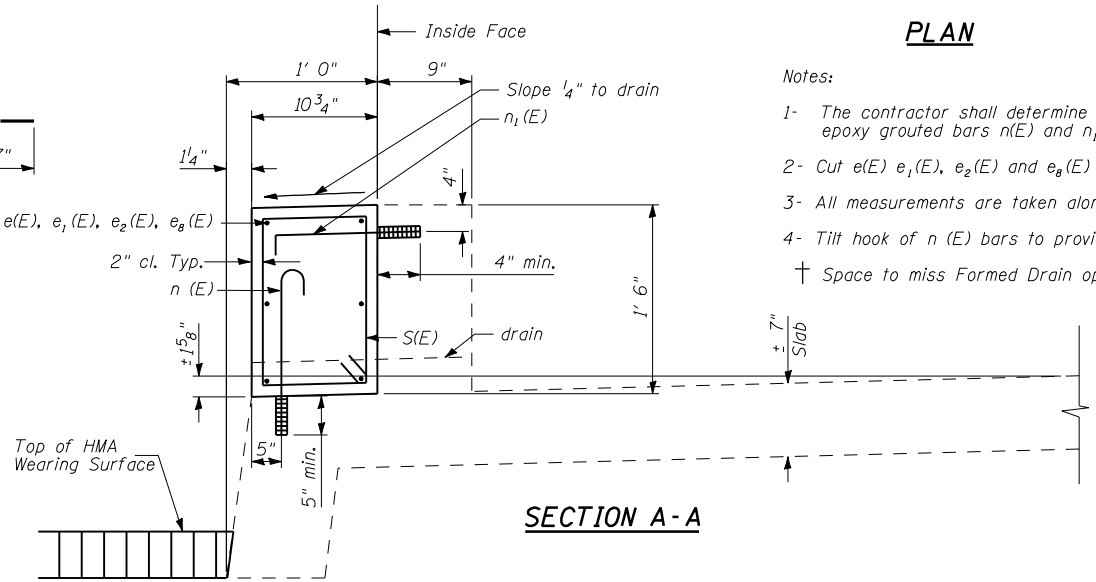
BAR s(E)



BAR n1(E)



BAR n(E)



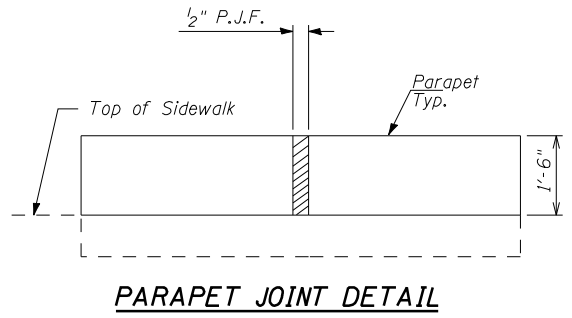
SECTION A-A

PLAN

- Notes:
- The contractor shall determine the location of existing reinforcement bars in the vicinity of epoxy grouted bars n(E) and n1(E). Drilled holes shall miss the existing reinforcing bars.
  - Cut e(E), e1(E), e2(E) and e8(E) in field to miss formed drain opening as necessary.
  - All measurements are taken along the inside face of existing parapet except as shown.
  - Tilt hook of n(E) bars to provide adequate clearance.
- † Space to miss Formed Drain openings.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e(E)	48	#4	22'-10"	—
e1(E)	12	#4	23'-4"	—
e2(E)	6	#4	22'-8"	—
e8(E)	6	#4	23'-8"	—
n(E)	288	#5	2'-1"	⌋
n1(E)	192	#4	1'-8"	└
s(E)	288	#4	4'-3"	□
Concrete Superstructure		Cu. Yd.	13.8	
Reinforcement Bars, Epoxy Coated		Pound	2770	



PARAPET JOINT DETAIL

DESIGNED	- KRG
CHECKED	- MJK
DRAWN	- GSJ
CHECKED	- MJK

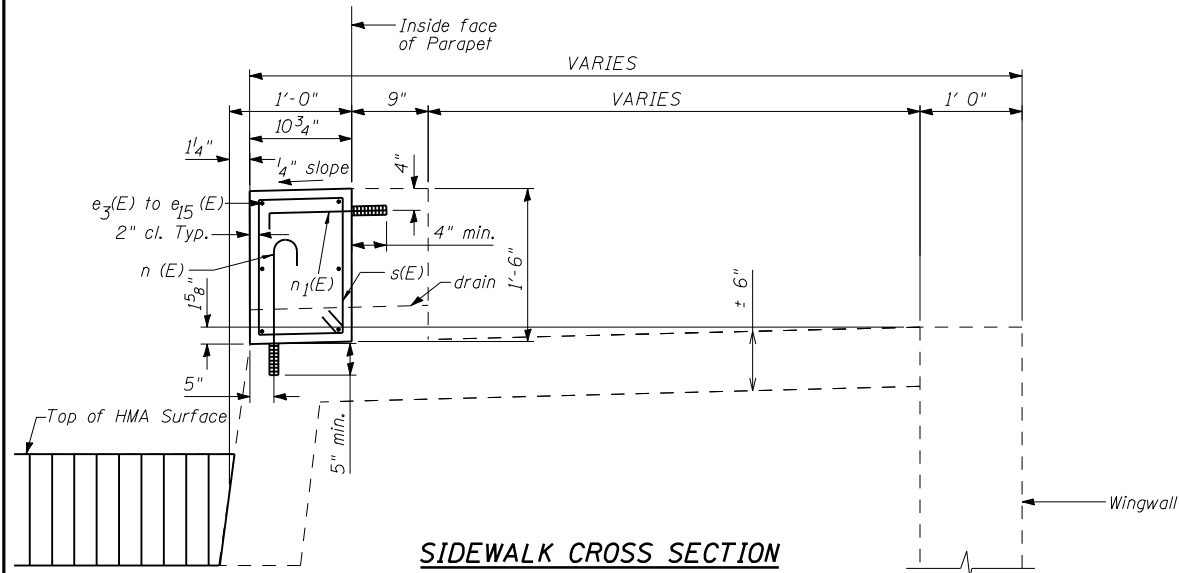
MID-AMERICA ENGINEERING SERVICES

**SAFETY BLOCK DETAILS**  
**WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)**  
**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**  
**SANGAMON COUNTY**  
**Sta. 15+08.98**  
**SN 084-0092**

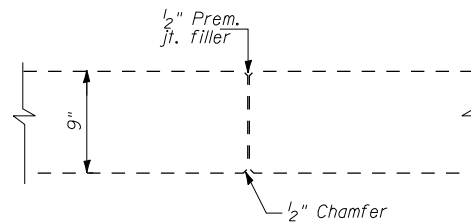
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7
*	**	Sangamon	248	239	9 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT			

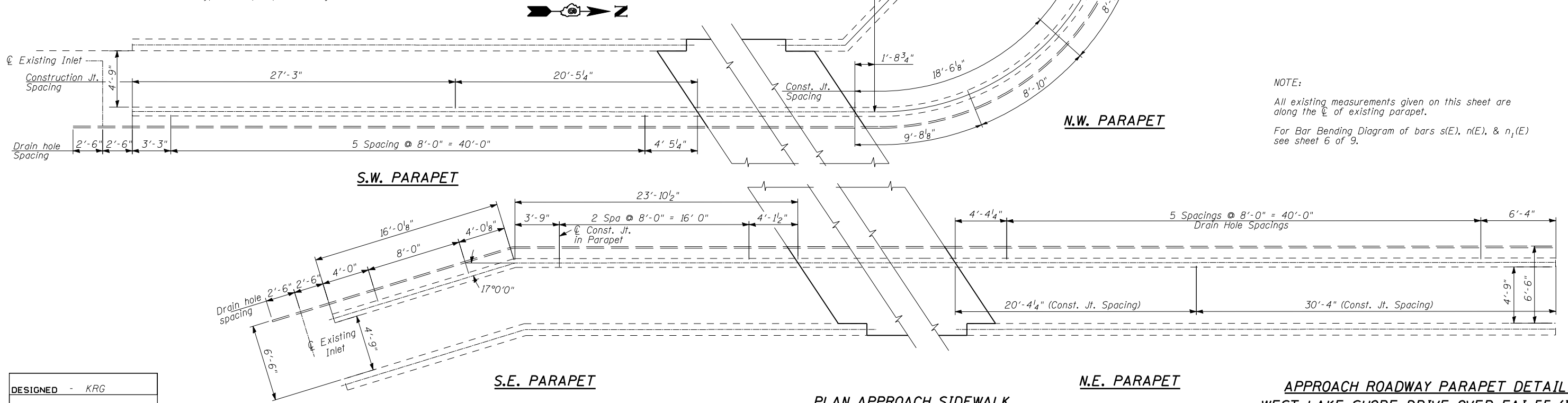
Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



**SIDEWALK CROSS SECTION**



**PLAN**  
(Typ. at all parapet const. jts)



NOTE:  
All existing measurements given on this sheet are along the  $\phi$  of existing parapet.  
For Bar Bending Diagram of bars s(E), n(E), & n<sub>1</sub>(E) see sheet 6 of 9.

DESIGNED	- KRG
CHECKED	- MJK
DRAWN	- GSJ
CHECKED	- MJK

MID-AMERICA ENGINEERING SERVICES

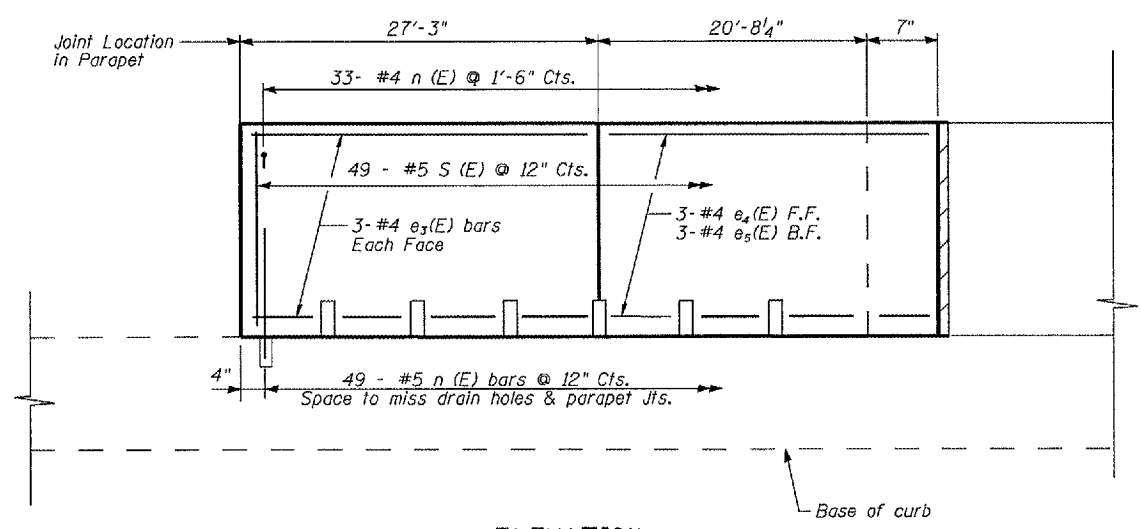
**PLAN APPROACH SIDEWALK  
(SHOWING EXISTING CONDITIONS)**

**APPROACH ROADWAY PARAPET DETAILS  
WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)  
SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
SANGAMON COUNTY  
Sta. 15+08.98  
SN 084-0092**

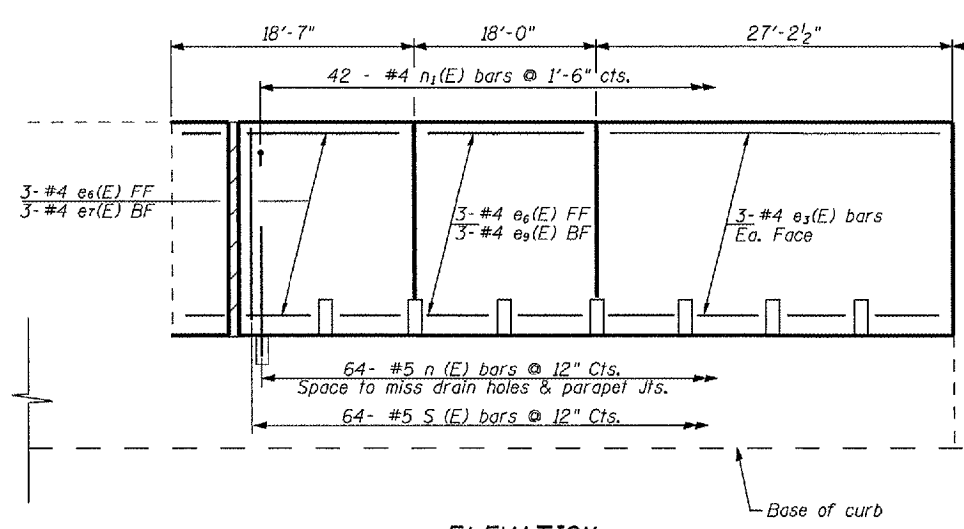
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
*	**	Sangamon	248	240	9
FED. ROAD DIST. NO. 7 ILLINOIS FEDERAL PROJECT					

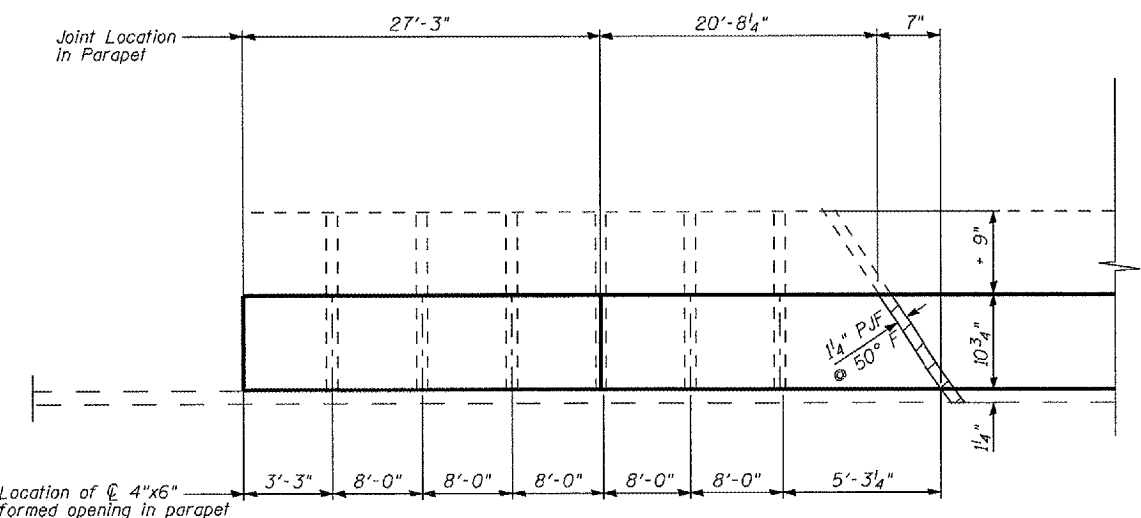
Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



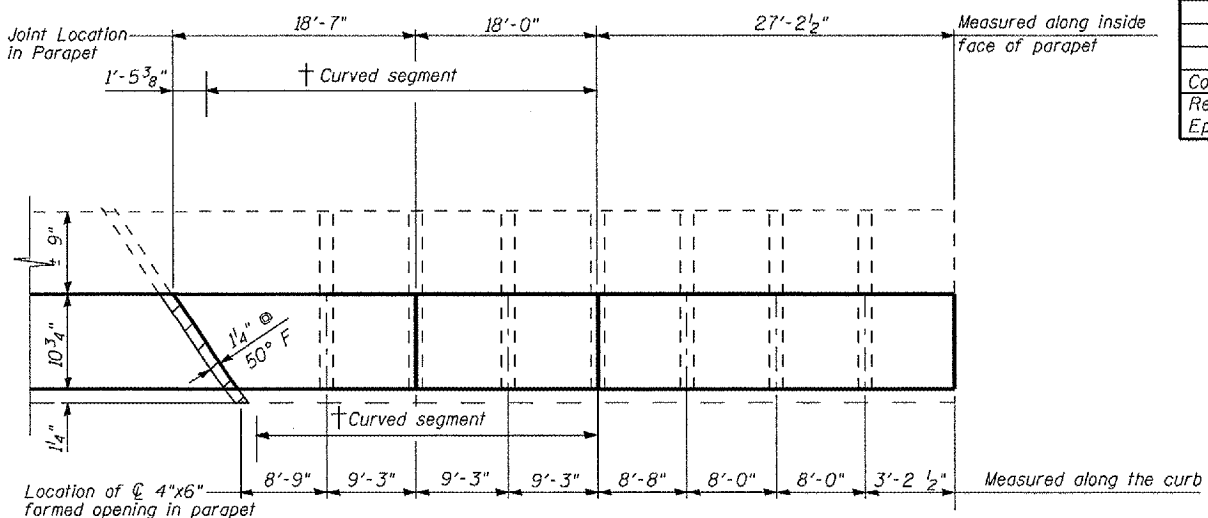
**ELEVATION  
LOOKING WEST  
(S.W. PARAPET)**



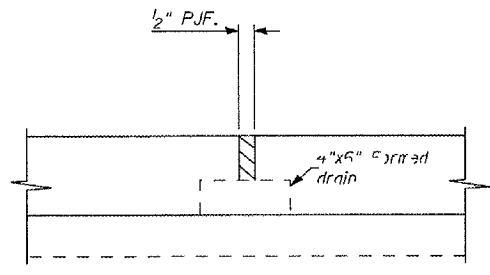
**ELEVATION  
LOOKING WEST  
(N.W. PARAPET)**



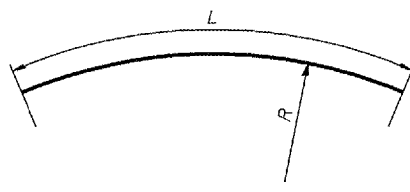
**PLAN  
S.W. PARAPET**



**PLAN  
N.W. PARAPET**



**PARAPET JOINT DETAIL**



**BARS e6(E) to e9(E)**

**BAR DIMENSIONS**

Bar	L	R
e6(E)	17'-8"	21'-9"
e7(E)	18'-3"	21'-2"
e9(E)	18'-2"	21'-2"

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
e3(E)	12	#4	26'-11"	—	
e4(E)	3	#4	20'-11"	—	
e5(E)	6	#4	20'-4"	—	
e6(E)	6	#4	17'-8"	—	
e7(E)	3	#4	17'-11"	—	
e9(E)	3	#4	18'-2"	—	
e10(E)	6	#4	30'-0"	—	
e11(E)	3	#4	20'-10"	—	
e12(E)	3	#4	19'-0"	—	
e13(E)	9	#4	19'-6"	—	
e14(E)	3	#4	19'-4"	—	
e15(E)	3	#4	19'-6"	—	
n(E)	204	#5	2'-1"	—	
n1(E)	136	#4	1'-8"	—	
s(E)	204	#4	4'-3"	—	
Concrete Superstructures				Cu. Yd.	10.0
Reinforcement Bars, Epoxy Coated				Pound	2060

† Curved portion of sidewalk and parapet is shown as straight for detailing convenience. For actual representation see sheet 7 of 9.

Note: Parapet lengths are measured along the inside face. See sidewalk cross section except as shown. Alignment of new formed drains to coincide with existing.

Cut e3(E) to e6(E) and e9(E) in field to miss formed drain opening as necessary.  
All concrete will be measured and paid for as "concrete Superstructures"  
BF = Back face  
FF = Front face

**APPROACH ROADWAY PARAPET DETAILS I  
WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)  
SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
SANGAMON COUNTY  
Sta. 15+08.98  
SN 084-0092**

DESIGNED - KRG
CHECKED - MJK
DRAWN - GSJ
CHECKED - MJK

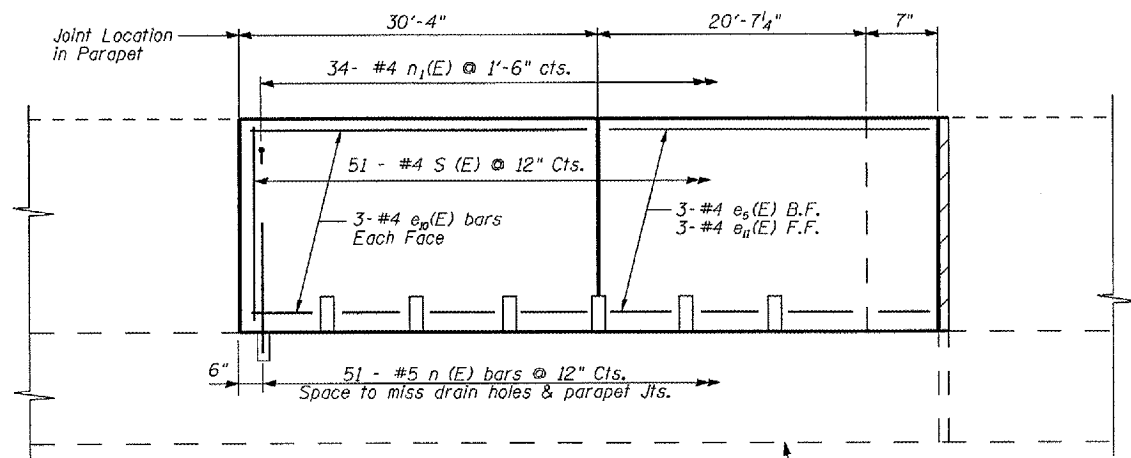
MID-AMERICA ENGINEERING SERVICES



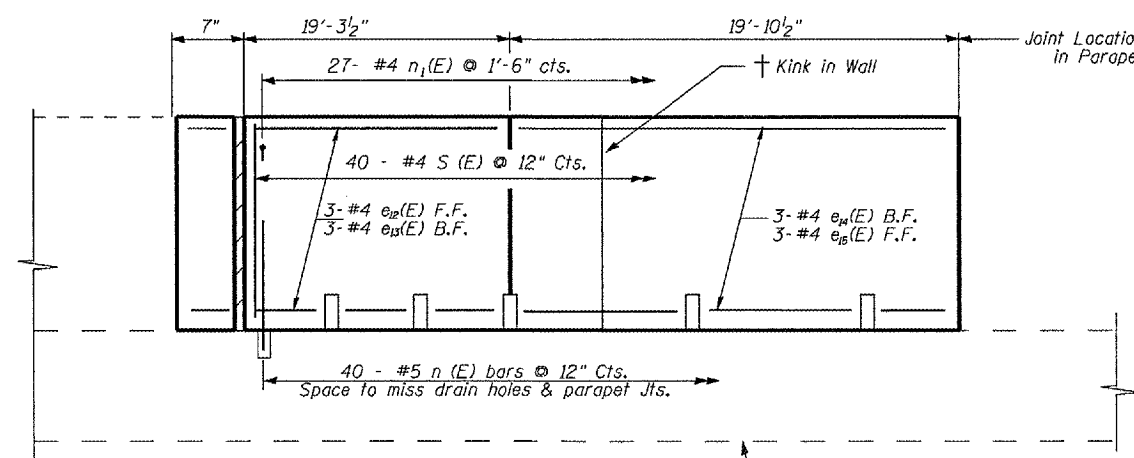
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
		Sangamon	240	241	9
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		9 SHEETS

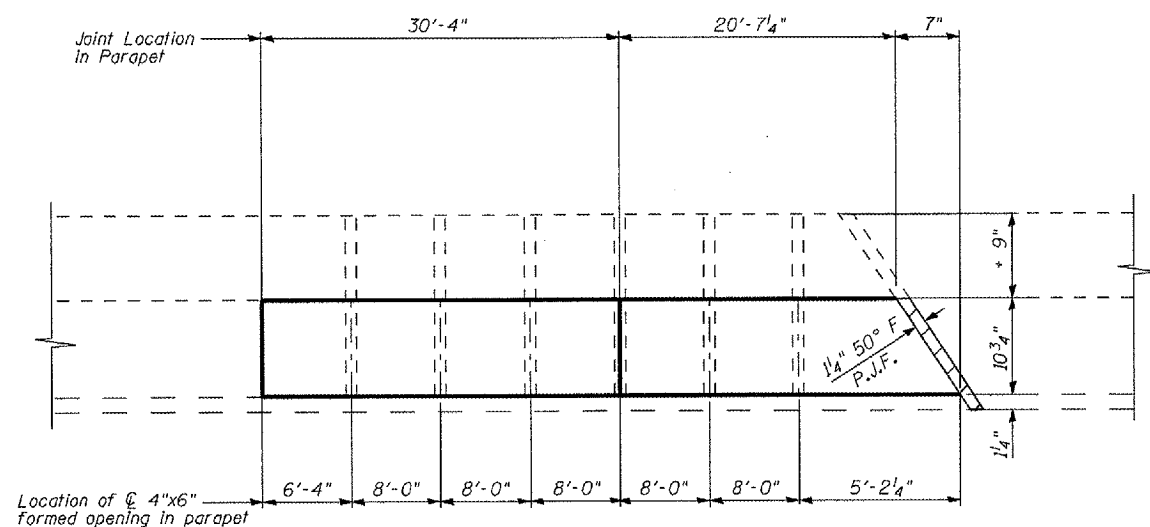
Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



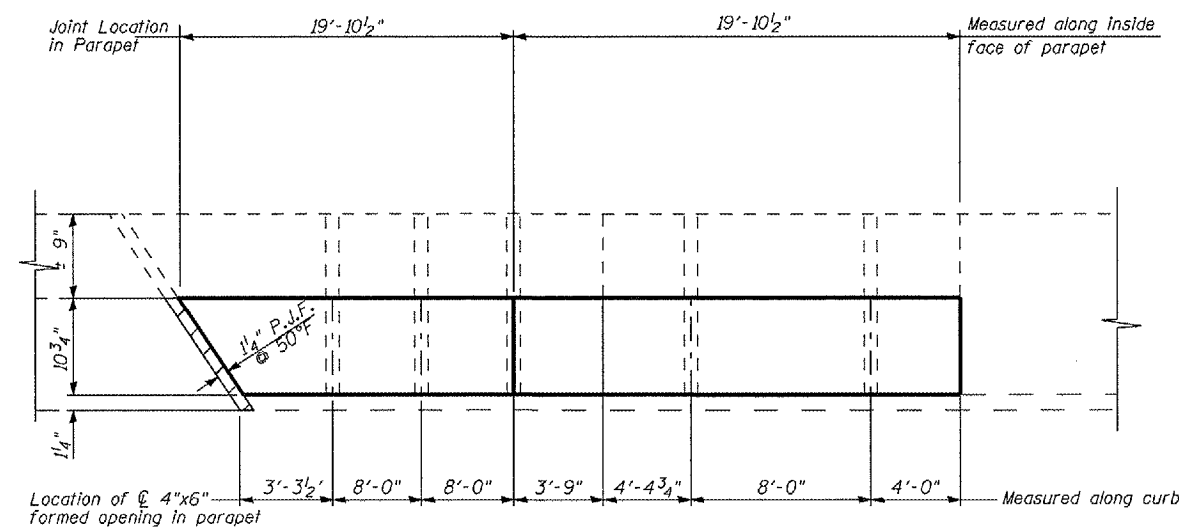
**ELEVATION  
LOOKING EAST  
(N.E. PARAPET)**



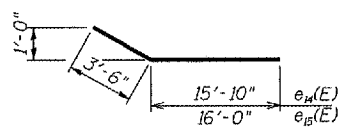
**ELEVATION  
LOOKING EAST  
(S.E. PARAPET)**



**PLAN  
N.E. PARAPET**



**PLAN  
S.E. PARAPET**



**BARS e14(E) & e15(E)**

† Kinked portion of sidewalk and parapet is shown as straight for detailing convenience. For actual representation see sheet 7 of 9.

Note: All parapet lengths are measured along the inside face of parapet except as shown

Cut bars e10(E) and e15(E) to e10(E) in field to miss formed drain opening as necessary.

All concrete will be measured and paid for as "concrete Superstructures"

B.F. = Back Face  
F.F. = Front Face

DESIGNED	- KRG
CHECKED	- MJK
DRAWN	- GSJ
CHECKED	- MJK

MID-AMERICA ENGINEERING SERVICES

**APPROACH ROADWAY PARAPET DETAILS II**  
**WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)**  
**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**  
**SANGAMON COUNTY**  
**Sta. 15+08.98**  
**SN 084-0092**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

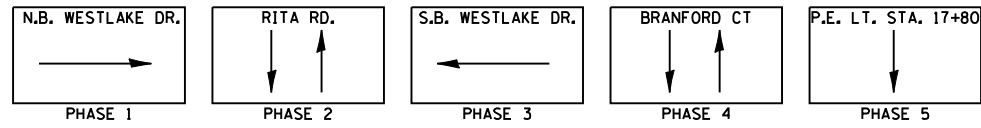
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	Sangamon	248	242

SHEET NO. 1  
2 SHEETS

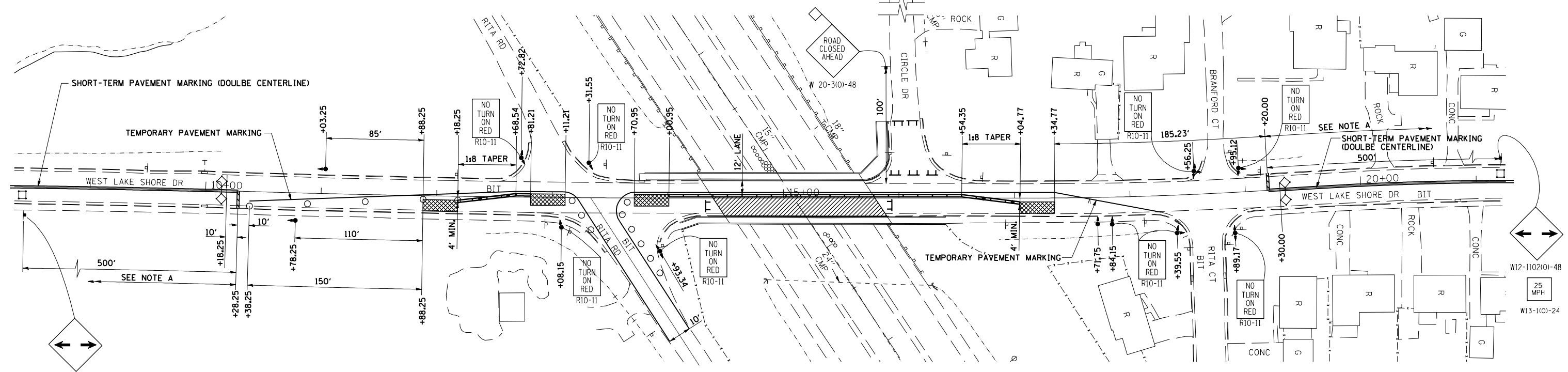
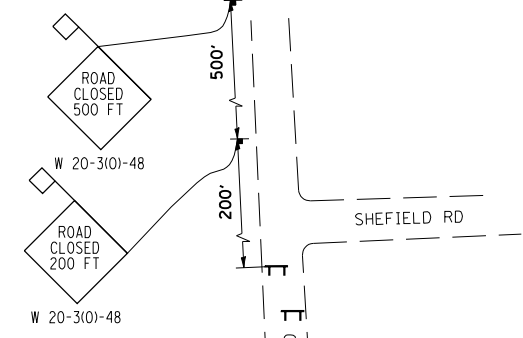
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008

TEMPORARY SIGNAL PHASE DIAGRAM



OVERLAP A = PHASE 1 + PHASE 2  
OVERLAP B = PHASE 3 + PHASE 4 + PHASE 5



STAGE 1 TRAFFIC CONTROL

**STAGE I SEQUENCE OF CONSTRUCTION**  
PLACE STAGE I TRAFFIC AS SHOWN AND ACCORDING TO STANDARD 701321.  
DIRECT TRAFFIC TO STAGE I ROADWAY AND COMPLETE STAGE I CONSTRUCTION OF PROPOSED BRIDGE REPAIRS.

TOTAL BILL OF MATERIAL

Item	Unit	Structure	Roadway	Quantity
Temporary Bridge Traffic Signals	Each		1	1
Temporary Concrete Barrier	L.F.		368	368
Impact Attenuators Temporary (Fully Redirective, Narrow), Test Level 3	Each		4	4
Traffic Control and Protection Standard 701321 (Special)	Lum. S.		1	1

DESIGNED - JLS  
CHECKED - SV  
DRAWN - GSJ  
CHECKED - KRG

MID-AMERICA ENGINEERING SERVICES

- LEGEND**
- WORK AREA
  - SIGN (SEE STD 701321)
  - DRUM WITH STEADY BURNING LIGHT
  - TRAFFIC SIGNAL
  - TEMPORARY CONCRETE BARRIER WALL
  - IMPACT ATTENUATOR, TEMP. (FULLY-REDIRECTIVE, NARROW), TL 3
  - TYPE III BARRICADE
  - DETECTOR LOOPS
  - STOP BAR
  - STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
  - TEMPORARY PAVEMENT MARKING
  - SHORT-TERM PAVEMENT MARKING (DOULBE CENTERLINE)

**NOTE A**  
REMAINDER OF SIGNING ACCORDING TO STANDARD 701321 AND AS DIRECTED BY THE ENGINEER.  
ALL SIGNING AND PAVEMENT MARKING SHOWN OR ACCORDING TO STANDARD 701321 IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL).

**STAGE 1 TRAFFIC CONTROL  
STANDARD 701321 (SPECIAL)**  
WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)  
SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
SANGAMON COUNTY  
Sta. 15+08.98  
SN 084-0092

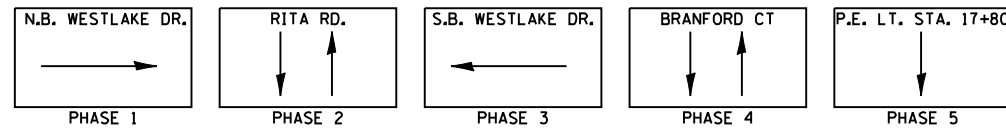
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	Sangamon	248	243
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

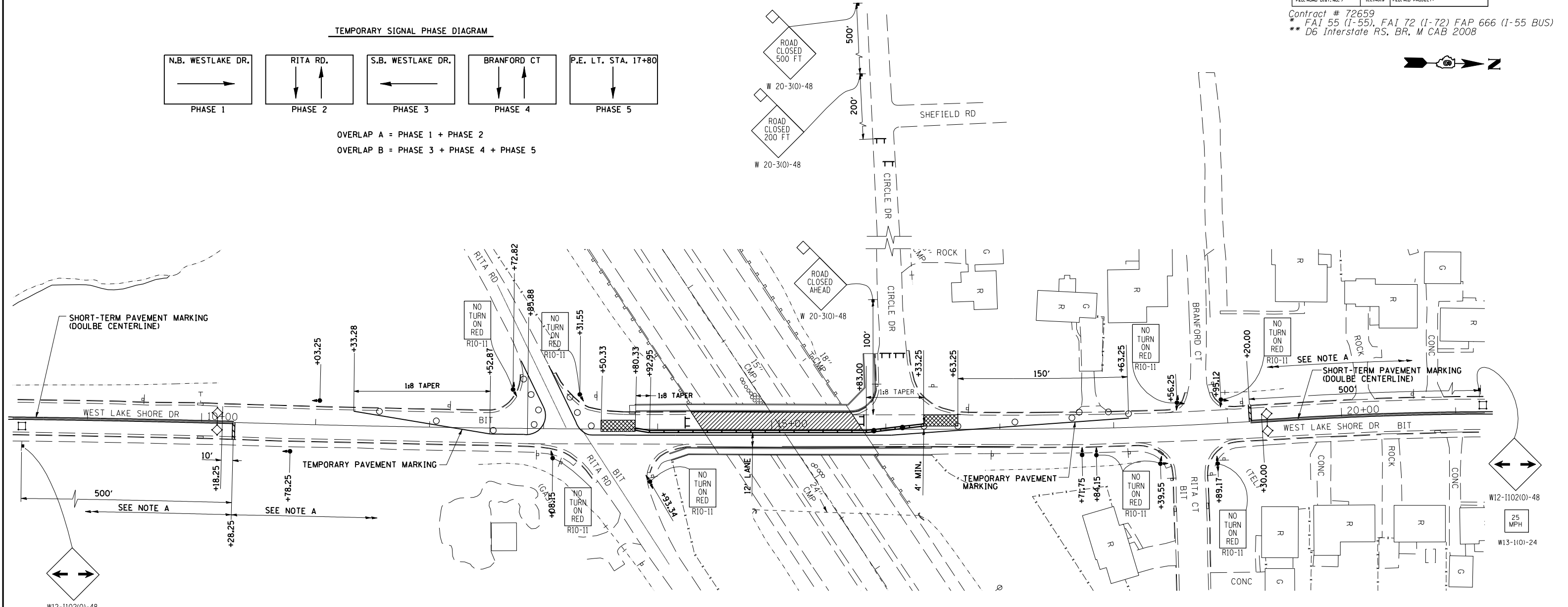
SHEET NO. 2  
2 SHEETS

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008

TEMPORARY SIGNAL PHASE DIAGRAM



OVERLAP A = PHASE 1 + PHASE 2  
OVERLAP B = PHASE 3 + PHASE 4 + PHASE 5



STAGE II SEQUENCE OF CONSTRUCTION

RELOCATE BARRIERS WALLS AND IMPACT ATTENUATORS AND PUT IN PLACE OTHER TRAFFIC CONTROL MEASURES AS SHOWN AND ACCORDING TO STANDARD 701321.  
DIRECT TRAFFIC TO STAGE II TRAFFIC LANES AND COMPLETE STAGE II REMOVAL AND CONSTRUCTION.

STAGE 2 TRAFFIC CONTROL

- LEGEND
- WORK AREA
  - SIGN (SEE STD 701321)
  - DRUM WITH STEADY BURNING LIGHT
  - TRAFFIC SIGNAL
  - TEMPORARY CONCRETE BARRIER WALL
  - IMPACT ATTENUATOR, RELOCATE ((FULLY-REDIRECTIVE, NARROW), TL 3)
  - TYPE III BARRICADE
  - DETECTOR LOOPS
  - STOP BAR
  - STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
  - TEMPORARY PAVEMENT MARKING
  - SHORT-TERM PAVEMENT MARKING (DOULBE CENTERLINE)

NOTE A  
REMAINDER OF SIGNING ACCORDING TO STANDARD 701321 AND AS DIRECTED BY THE ENGINEER.

ALL SIGNING AND PAVEMENT MARKING SHOWN OR ACCORDING TO STANDARD 701321 IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL).

TOTAL BILL OF MATERIAL

Item	Unit	Structure	Roadway	Quantity
Relocate Temp. Concrete Barrier	L.F.		253	253
Impact Attenuators Relocate (Fully Redirective) Test Level 3	Each		2	2

DESIGNED	- JLS
CHECKED	- SV
DRAWN	- GSJ
CHECKED	- KRG

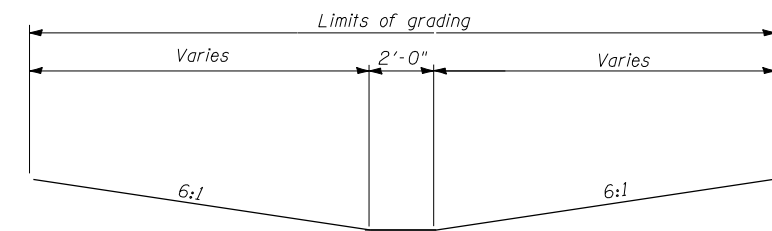
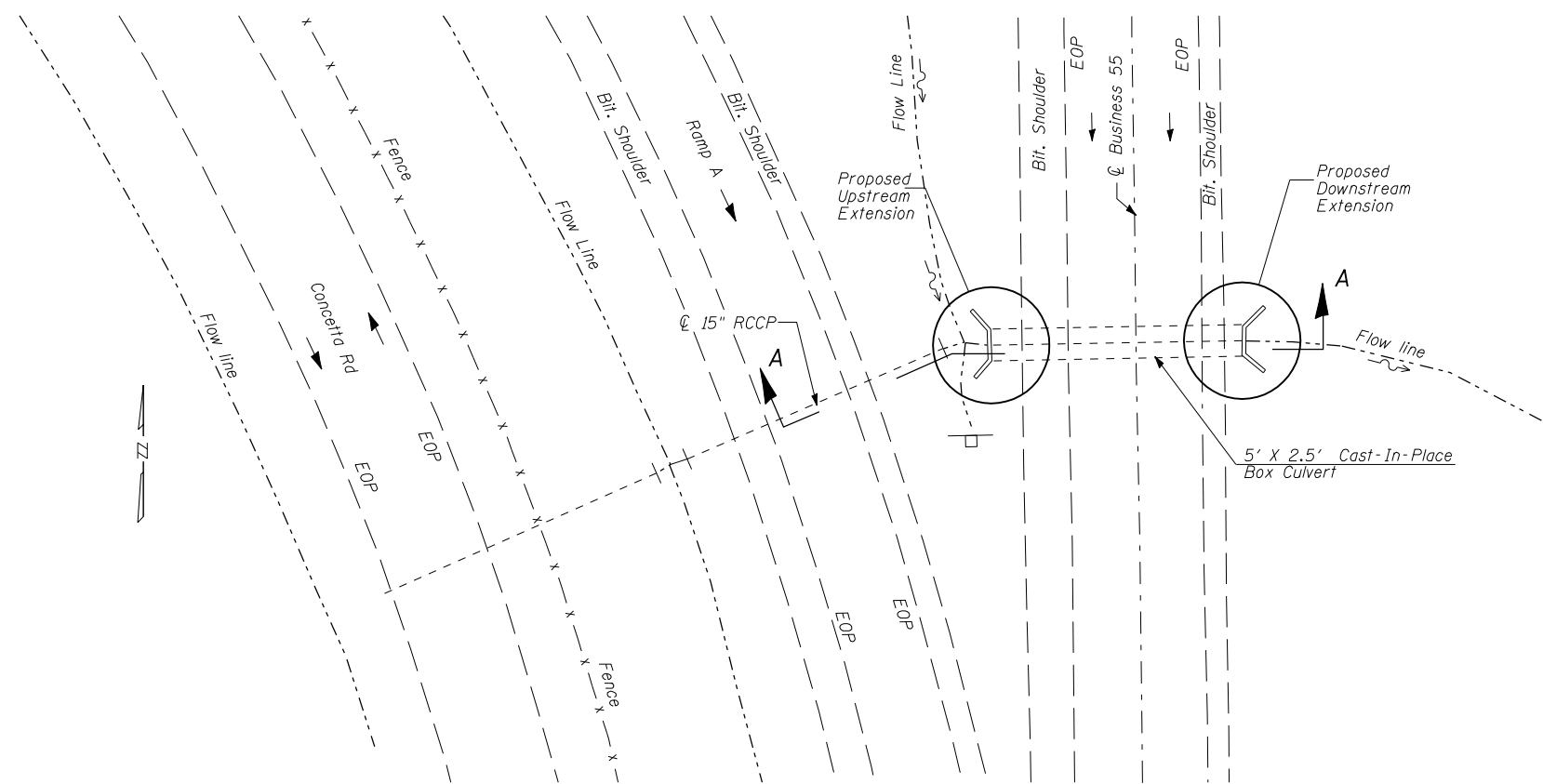
MID-AMERICA ENGINEERING SERVICES

STAGE 2 TRAFFIC CONTROL  
STANDARD 701321 (SPECIAL)  
WEST LAKE SHORE DRIVE OVER FAI 55 (I-55)  
SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
SANGAMON COUNTY  
Sta. 15+08.98  
SN 084-0092

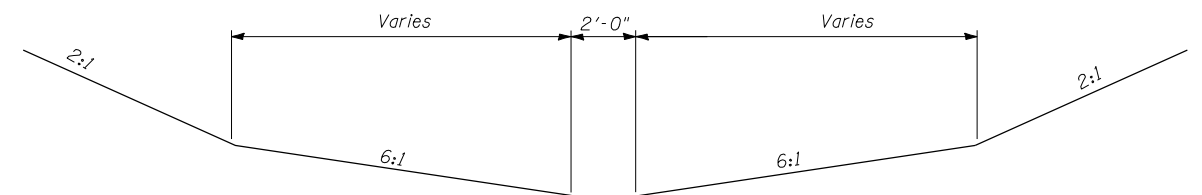
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
*	**	Sangamon	248	244	5 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-			

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



**Grading Details**



**Ditch Cross Section**  
Looking South

**Notes:**

The proposed work consist of extending the ends of the existing 5' x 2.5' box culvert under the SB lanes of Business I-55, re-aligning the ditches at the extensions and re-grade as shown to restore smooth flow.

The existing drainage facilities shall be preserved as specified in article 202.05 of the Standard Specifications.

The limits of grading shall extend 10' on each side of  $\mathcal{C}$  of box culvert

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions

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 a change in scope of the work, however, the contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

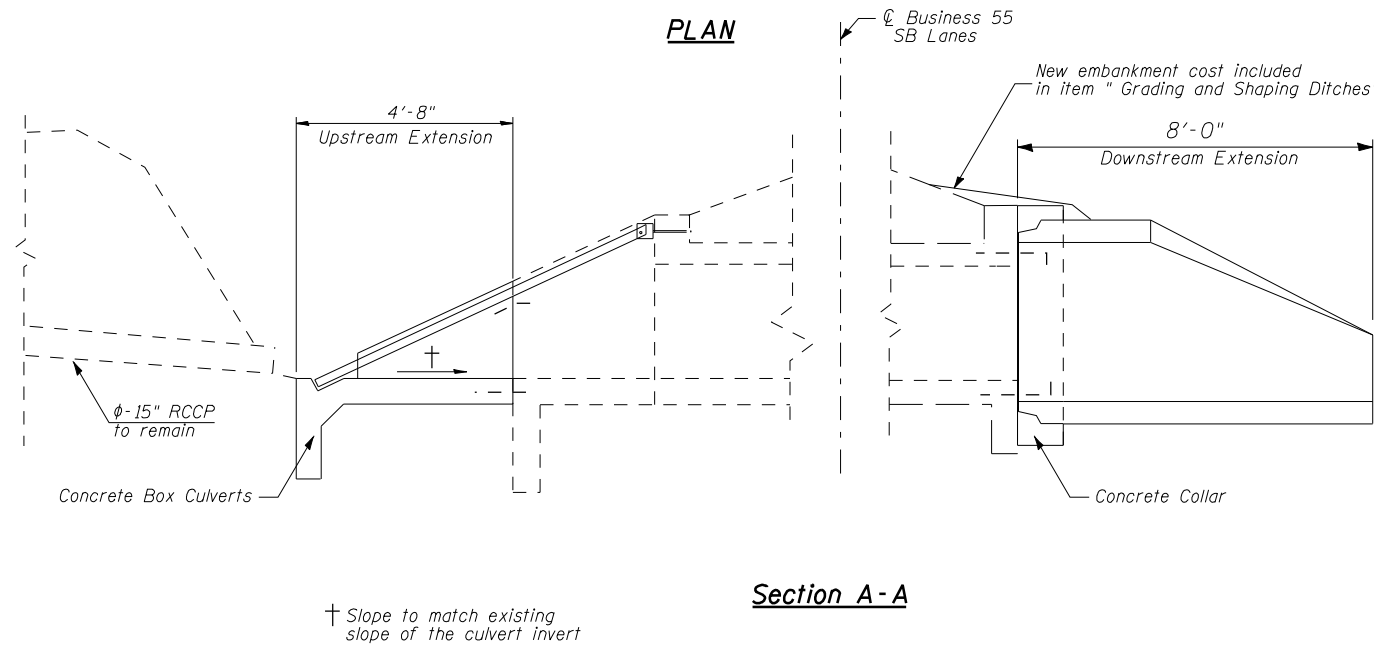
Traffic control and protection shall be provided for Ramp A & Business 55

New embankment over the concrete collar shall be placed such that there is 6" min. thickness of soil over concrete collar.

EOP = Edge of pavement

**TOTAL BILL OF MATERIAL**

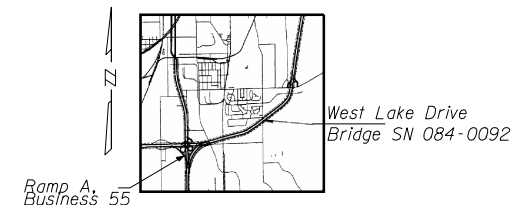
Item	Unit	Quantity
Concrete Box Culverts	Cu. Yd.	2.4
Reinforcement Bars	Pound	320
Concrete Collar	Cu. Yd.	2.3
Concrete Removal	Cu. Yd.	1.3
Grading and Shaping ditches	Foot	20
Precast Reinforced concrete Flared End Section Eq. Dia. 54"	Each	1
Grating (Special)	Each	1
Grating for Concrete End Section ERS 54"	Each	1



**Section A-A**

DESIGNED	KRG
CHECKED	MJK
DRAWN	GSJ
CHECKED	MJK

**MID-AMERICA ENGINEERING SERVICES**



**LOCATION SKETCH**

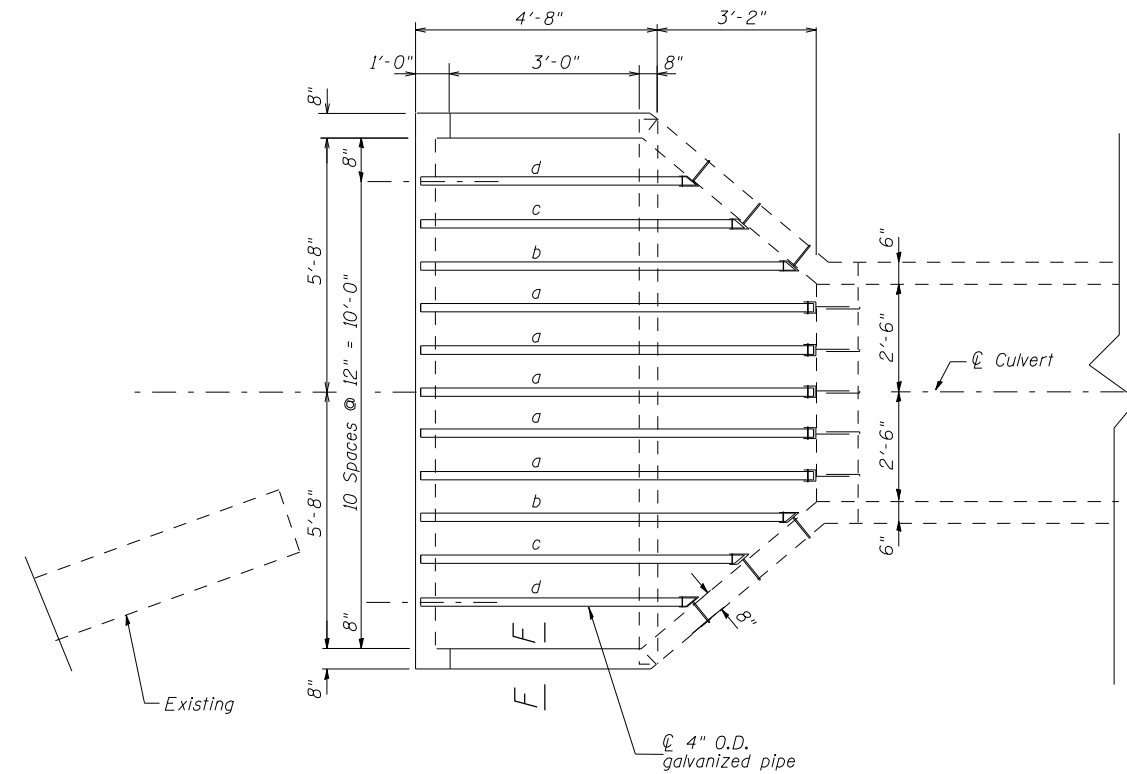
**CULVERT EXTENSION**  
**FAP 666 (I-55 BUS)**

**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**  
**SANGAMON COUNTY**

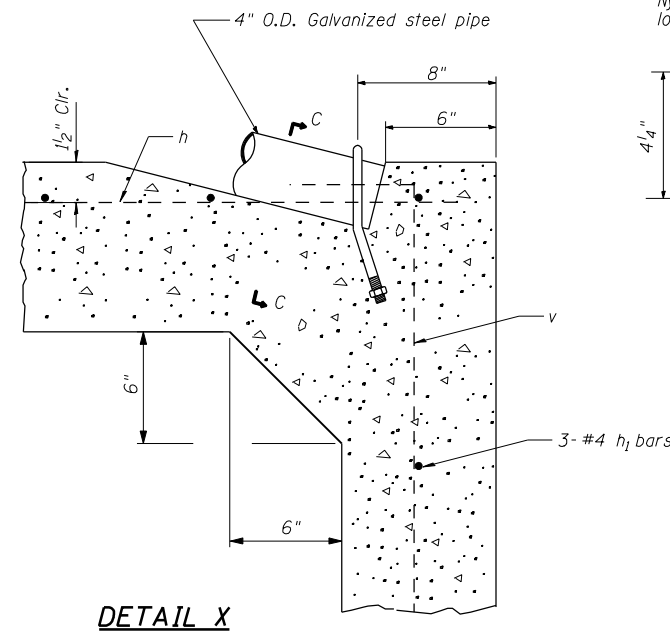
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 5 SHEETS
*	**	Sangamon	248	245	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

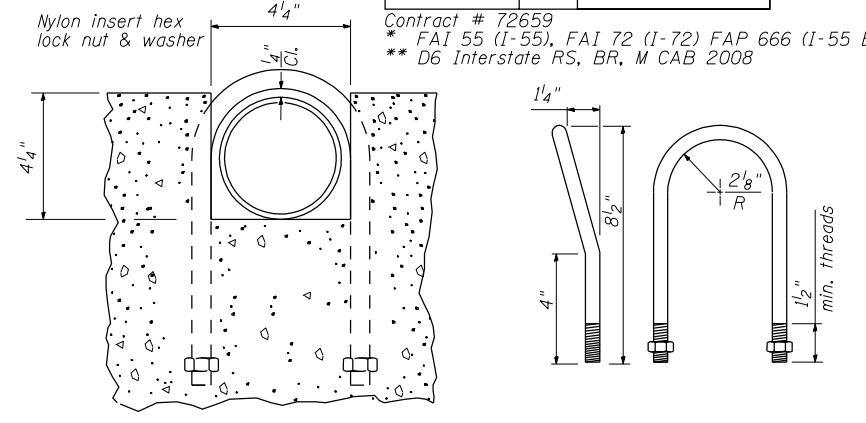
Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



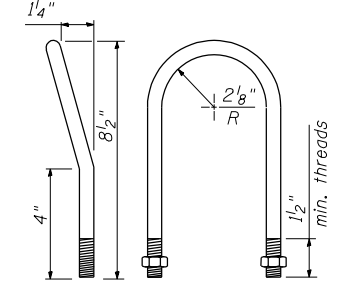
**INLET PLAN**



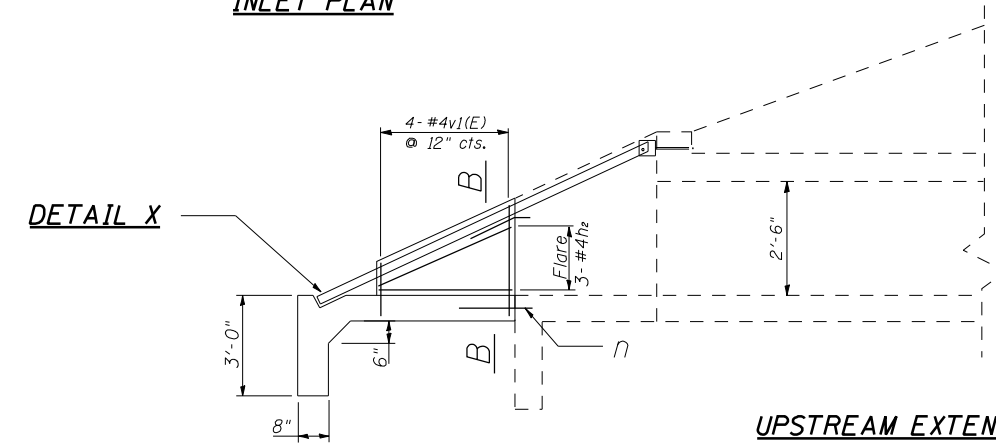
**DETAIL X**



**SECTION C-C**

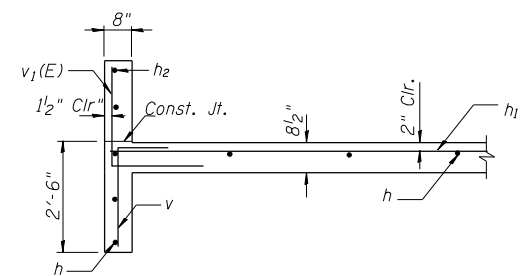


**1/2" - φ U BOLT**  
(11 - required)

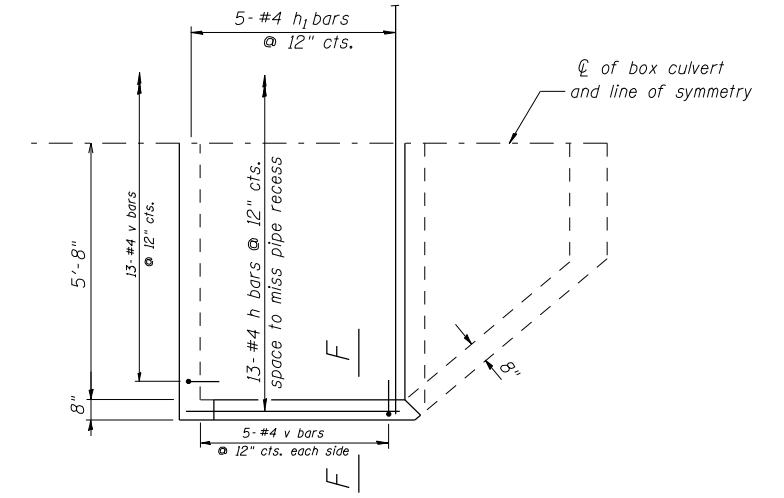


**DETAIL X**

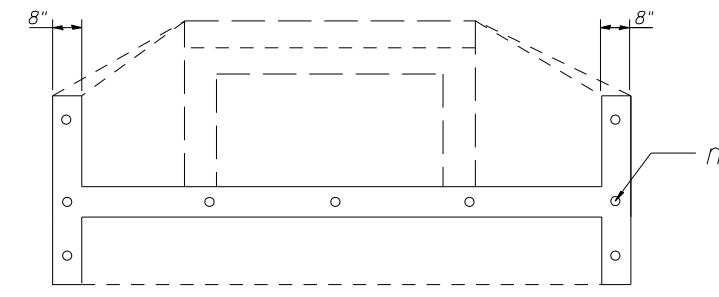
**UPSTREAM EXTENSION**



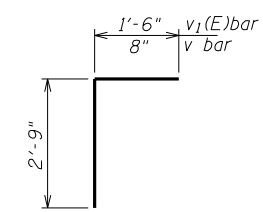
**SECTION F-F**



**UPSTREAM APRON PLAN**



**SECTION B-B**



**BAR v & v1**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	17	#4	3'-8"	—
h1	5	#4	12'-4"	—
h2	6	#4	2'-8"	—
n	9	#5	2'-1"	—
v	23	#4	4'-3"	┌
v1(E)	8	#4	3'-5"	┌
Concrete Box Culverts	Cu. Yd.		2.4	
Reinforcement Bars	Pound		200	
Grating (Special)	Each		1	

Notes:  
Epoxy coating of v (E) bars is included in "Reinforcement Bars".  
For grating connection details see Sheet 3 of 5 sheets

DESIGNED	KRG
CHECKED	MJK
DRAWN	GSJ
CHECKED	MJK

**MID-AMERICA ENGINEERING SERVICES**

**UPSTREAM EXTENSION**  
**FAP 666 (I-55 BUS)**  
**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**  
**SANGAMON COUNTY**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	Sangamon	248	246
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

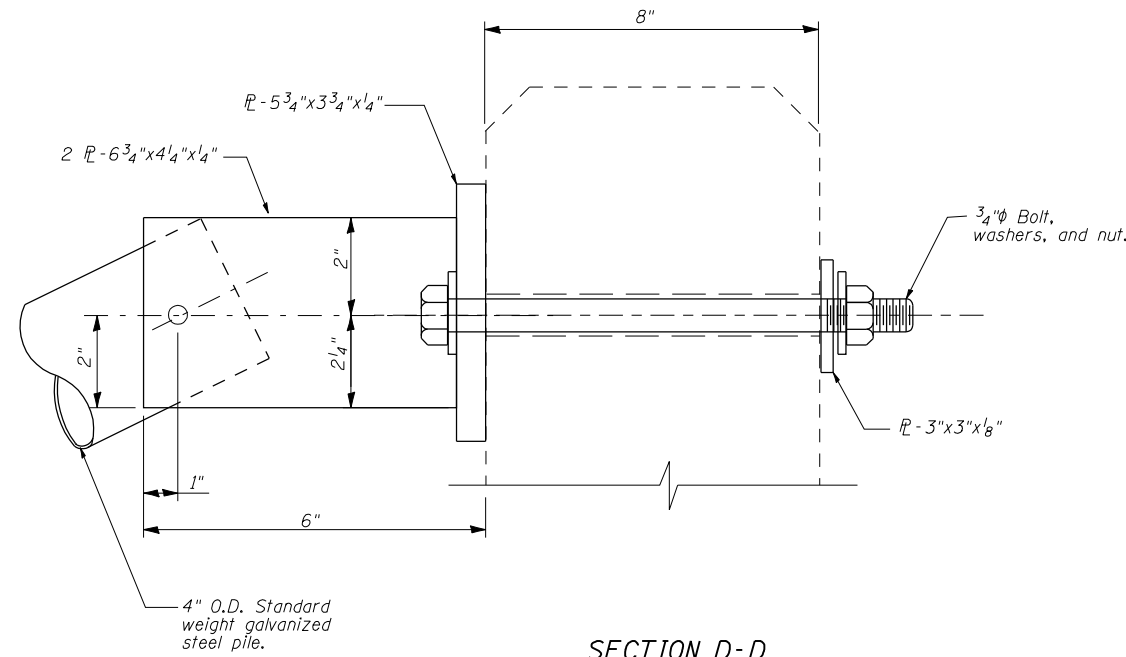
SHEET NO. 3

5 SHEETS

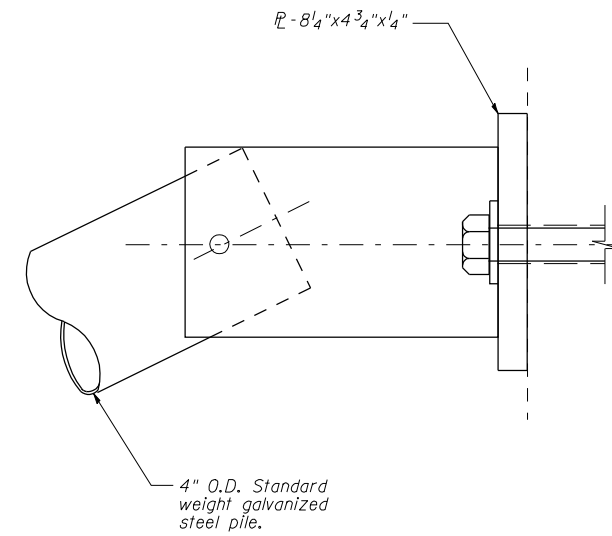
Contract # 72659  
 \* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
 \*\* D6 Interstate RS, BR, M CAB 2008

Notes:

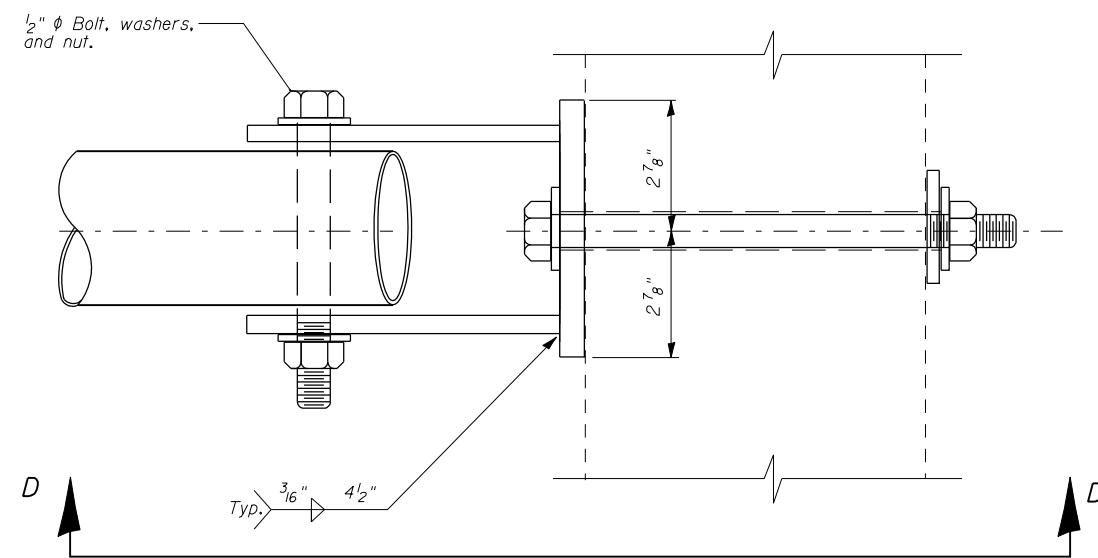
- 1- Bolts and nuts shall conform to ASTM A 307. All bolts shall have washers at each end. Holes shall be  $\frac{1}{16}$ " oversized, except in concrete holes shall be  $\frac{1}{8}$ " oversized.
- 2- Steel plates shall conform to AASHTO M270. Steel pipes shall conform to ASTM A 53 Grade B
- 3- Steel pipe, and plates shall be hot dipped galvanized conforming to the requirements of AASHTO M 111 & ASTM A 385 Galvanized pipes and plates shall not be painted
- 4- Bolts, nuts, and washers shall be hot dipped galvanized conforming to the requirements of AASHTO M 232.
- 5- The approximate weight of the steel plates is 75 pounds. The weight of the bolts, nuts and washers are not included
- 6- All dimension are to be verified in the field. Cutting of the standard weight galvanized pipes to the exact length and drilling holes is to be done in the field.
- 7- This work shall be paid for at the contract unit price per each for "Grating, Special" which price shall include all material and labor to complete the installation as shown
- 8- Drill  $\frac{1}{2}$ "  $\phi$  hole at bottom end of pipes to drain.



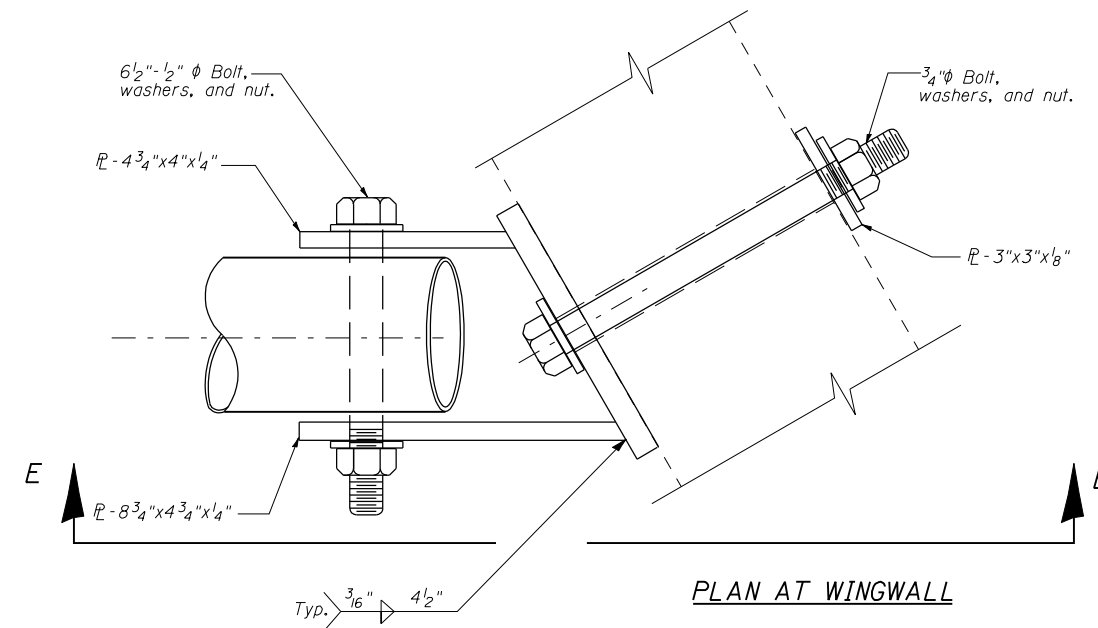
SECTION D-D



SECTION E-E



PLAN AT HEADWALL



PLAN AT WINGWALL

DESIGNED	KRG
CHECKED	MJK
DRAWN	GSI
CHECKED	MJK

MID-AMERICA ENGINEERING SERVICES

4" O.D. Standard Weight Steel Pipe.	a	b	c	d
Approximate Length.	7'-9"	7'-3"	6'-1"	4'-11"
No. Required	5	2	2	2

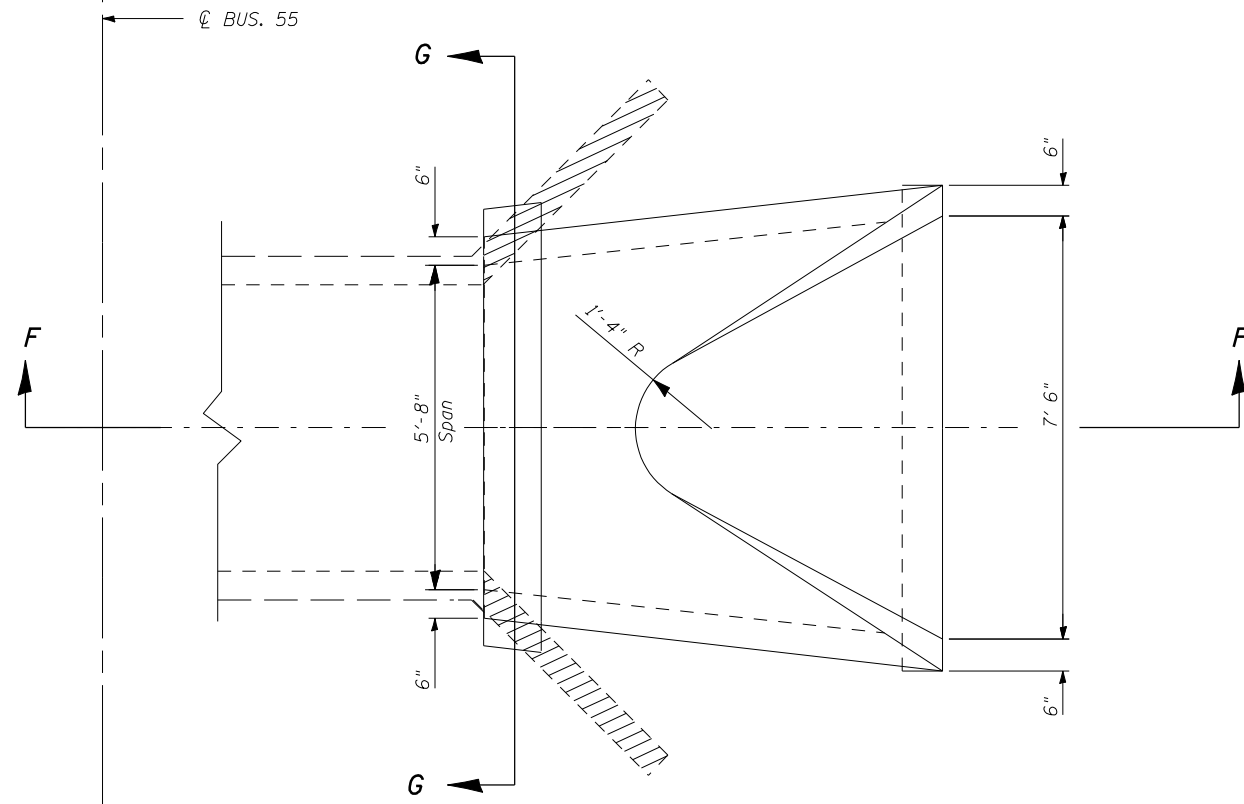
UPSTREAM EXTENSION CONNECTION DETAILS  
 FAP 666 (I-55 BUS)  
 SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
 SANGAMON COUNTY

04/27/2007 10:55:53 AM  
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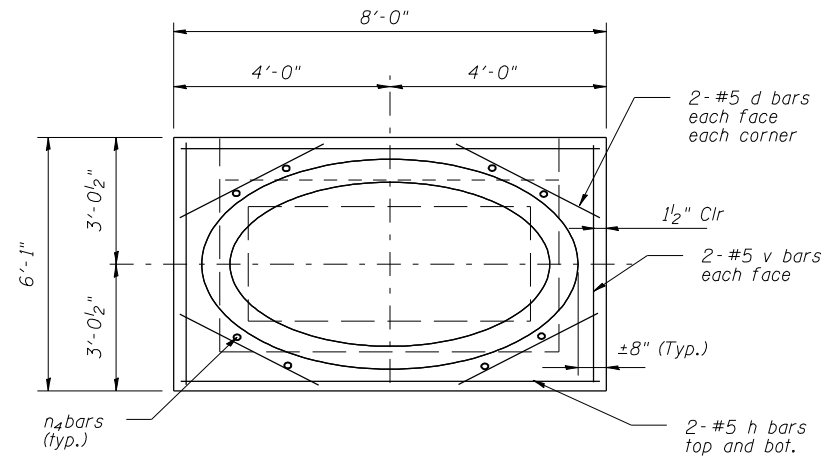
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	FED. SHEETS	SHEET NO.	SHEET NO. 4
#	**	Sangamon	248	247	5 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-			

Contract # 72659  
\* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
\*\* D6 Interstate RS, BR, M CAB 2008



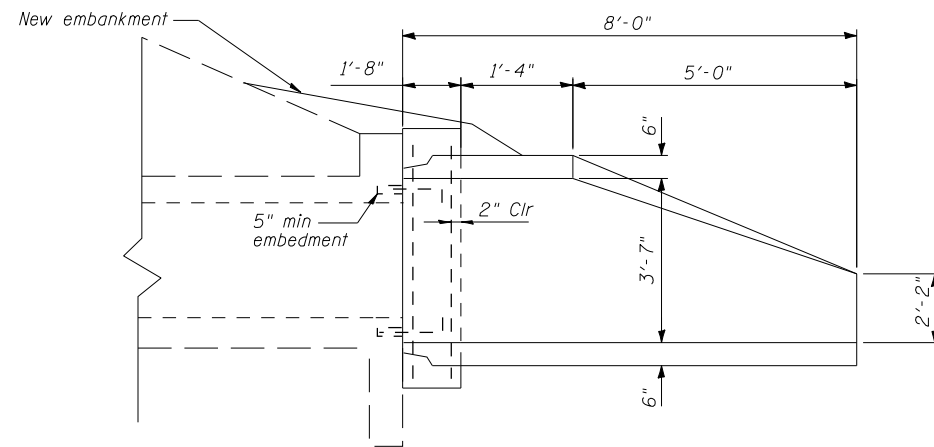
PLAN



Section G-G

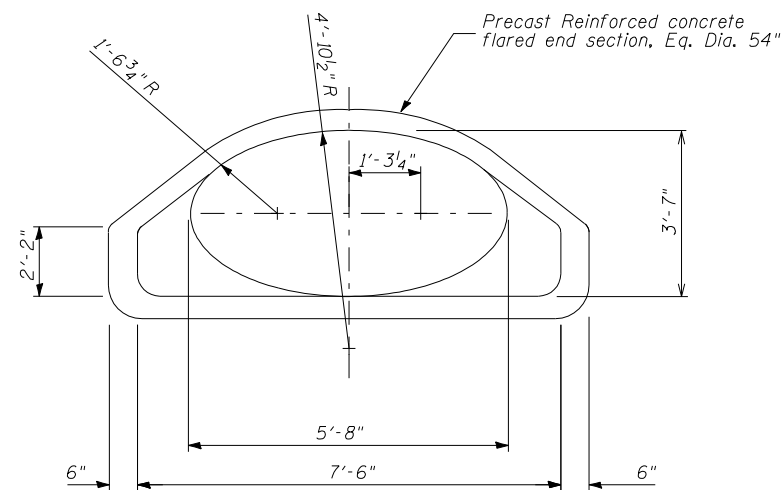
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d	8	#5	5'-0"	—
h	4	#5	7'-8"	—
n4	8	#5	2'-0"	—
v	4	#5	5'-9"	—
Concrete Collar			Cu. Yd.	2.3
Reinforcement Bars			Pound	120
Concrete Removal			Cu. Yd.	1.3
Precast Reinforced concrete Flared End Section Eq. Dia. 54"			Each	1
Grating for Concrete End Section ERS 54"			Each	1

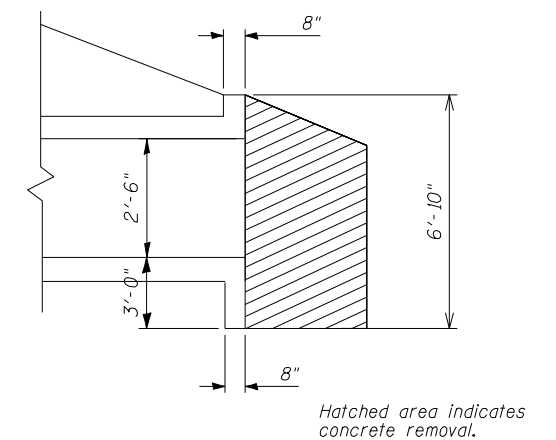


Section F-F

Ellipse inside dimensions:  
See Standard 542306  
Span = 68"  
Rise = 43"  
Walls = 6"



END VIEW



EXISTING OUTLET

DESIGNED	KRG
CHECKED	MJK
DRAWN	GSI
CHECKED	MJK

MID-AMERICA ENGINEERING SERVICES

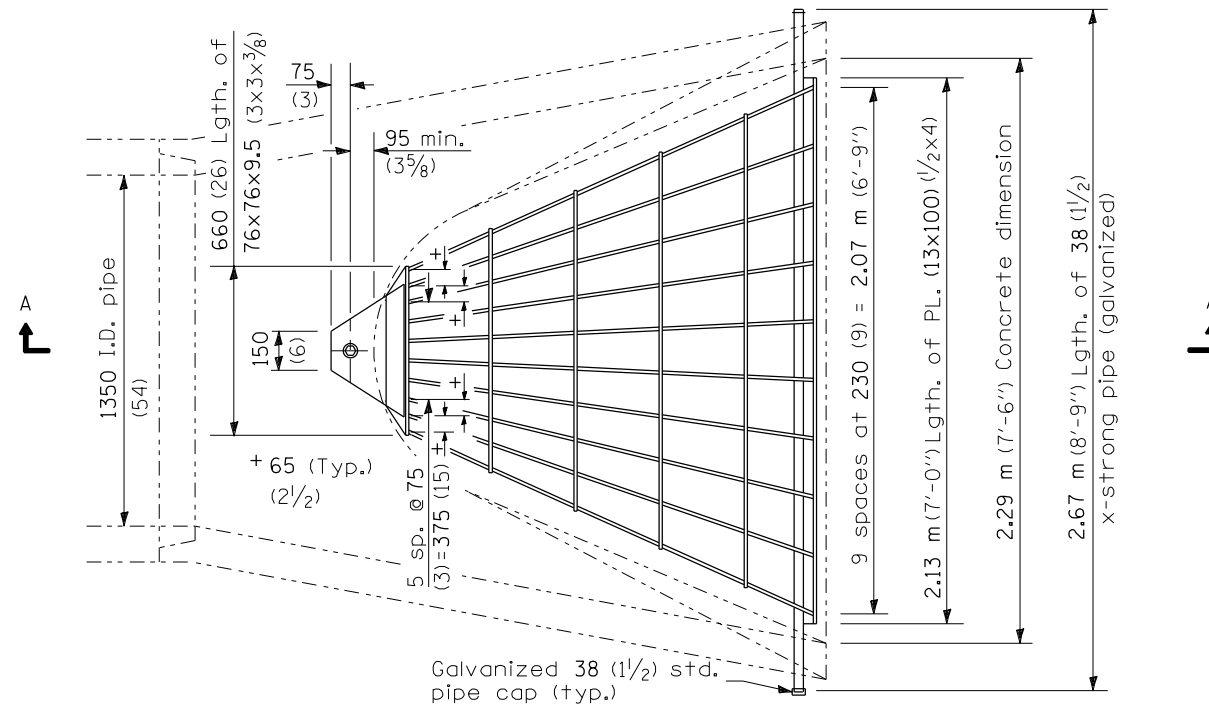
DOWNSTREAM EXTENSION  
FAP 666 (I-55 BUS)  
SECTION: D6 INTERSTATE RS, BR, M CAB 2008  
SANGAMON COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	Sangamon	248	248
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5

5 SHEETS

Contract # 72659  
 \* FAI 55 (I-55), FAI 72 (I-72) FAP 666 (I-55 BUS)  
 \*\* D6 Interstate RS, BR, M CAB 2008



**PLAN**

Quantity of steel = 193 kg (425 lbs.)

**GENERAL NOTES**

Grating details shown are intended for use with particular sizes of precast reinforced concrete flared end sections as shown on standards 542306.

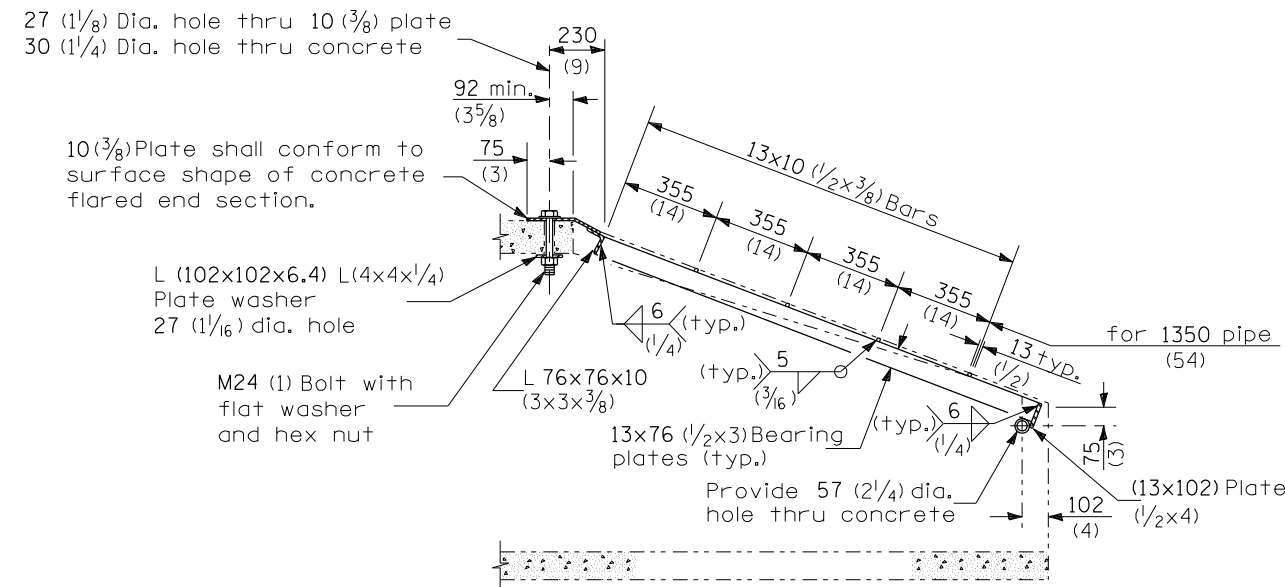
Approximate quantity of steel shown includes total quantity of grating, bolts, nuts, washers and steel pipe.

Holes in the precast concrete flared end sections shall be cored to the diameters noted. If cone-out on the other end of the hole occurs, the hole shall be filled with grout to correct the diameter of the hole.

All dimensions shown are in SI Units (US Units)

**BILL OF MATERIAL**

Item	Unit	Total
Grating for Reinforced Concrete Flared End Section, E.O. Dia. 54"	Each	1



**SECTION A-A**

DESIGNED	KRG
CHECKED	MJK
DRAWN	GSJ
CHECKED	MJK

**MID-AMERICA ENGINEERING SERVICES**

**GRATING FOR HORIZONTAL ELLIPTICAL CONCRETE FLARED END SECTION FOR EQUIVALENT DIAMETER 54" PIPE STANDARD 542311**

**FAP 666 (I-55 BUS)**

**SECTION: D6 INTERSTATE RS, BR, M CAB 2008**

**SANGAMON COUNTY**