F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36 ✱	1
	ILLINOIS	CONTRACT NO. 64G12		

✱ 36+1 = 37

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAI ROUTE 39 (I–39)
SECTION (4VBY, 4VBY–1, 5HB)M
BRIDGE MAINTENANCE
JOINT REPLACEMENT
WINNEBAGO COUNTY

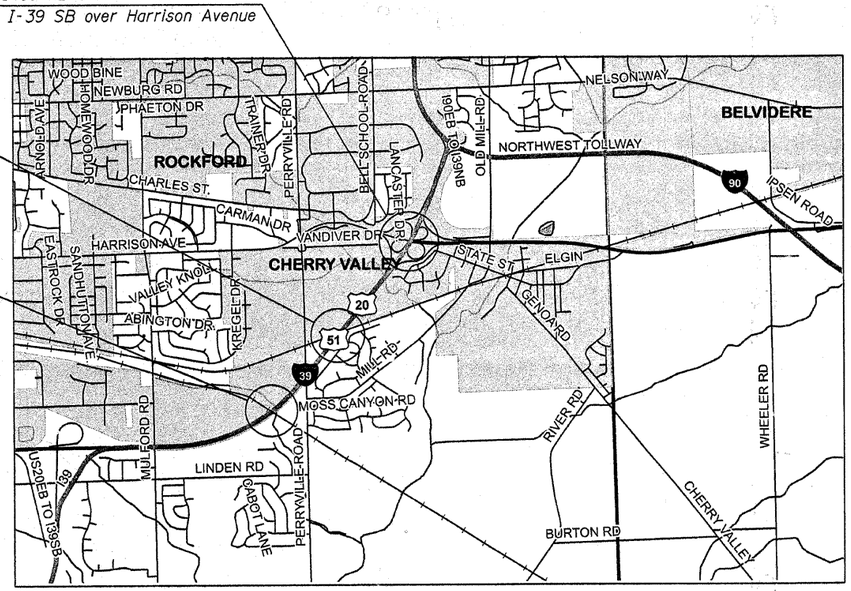
C–92–120–10

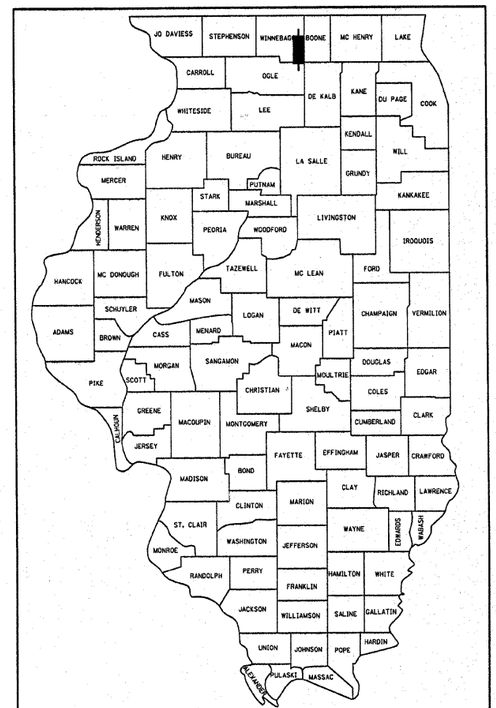
FOR INDEX OF SHEETS, SEE SHEET NO. 3

Structure 101-0071 I-39 NB over Harrison Avenue
Structure 101-0072 I-39 SB over Harrison Avenue

Structure 101-0069 I-39 SB over UP Railroad
Structure 101-0070 I-39 NB over UP Railroad

Structure 101-0067 I-39 NB over CC&P Railroad
Structure 101-0068 I-39 SB over CC&P Railroad





LOCATION OF SECTION INDICATED THUS: –

100′ 200′ 300′ — 1″ = 100′
10′ 20′ 30′ — 1″ = 10′
50′ 100′ — 1″ = 50′
50′ 100′ — 1″ = 40′
50′ 100′ — 1″ = 30′
50′ 100′ — 1″ = 20′

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

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

PROJECT ENGINEER: MAHMOUD ETEMADI 815/284–5393

GROSS LENGTH = 678 FT. = 0.128 MILE
NET LENGTH = 678 FT. = 0.128 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Feb. 8th 20 10
George F. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 19, 20 10
Scott E. Stitt, P.E. /SD
acting ENGINEER OF DESIGN AND ENVIRONMENT
March 19, 20 10
Christine M. Reed /SD
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 64G12

SUMMARY OF QUANTITIES

100% STATE
SFTY-2A
URBAN

PAY ITEM #	DESCRIPTION	UNIT	QUANTITY
40603570	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N90	TON	140
42001300	PROTECTIVE COAT	SQ YD	261
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	1608
50102400	CONCRETE REMOVAL	CU YD	116.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	117.4
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	13,080
50800515	BAR SPLICERS	EACH	168
52000110	PREFORMED JOINT STRIP SEAL	FOOT	714
67100100	MOBILIZATION	L SUM	1
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	3
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	30,200
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	10,110
70400100	TEMPORARY CONCRETE BARRIER	FOOT	2,500
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2,200
* 78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	14,236
78300100	PAVEMENT MARKING REMOVAL	SQ FT	2,500
X0325702	NIGHTTIME WORK ZONE LIGHTING	L SUM	1
X7030020	TEMPORARY PAVEMENT MARKING TAPE, 8 INCH (BLACK)	FOOT	300
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	6
Z0030280	IMPACT ATTENUATORS, TEMPORARY (SEVERE USE,NARROW), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4

* SPECIALTY ITEM

FILE NAME = O:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED - ---	REVISED - ---
	US 20 joints\PLANeng.dgn	DRAWN - ---	REVISED - ---
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - ---	REVISED - ---
	PLOT DATE = Mon Feb 08 13:15:21 2010	DATE - ---	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Summary of Quantities

SCALE: --- | SHEET NO. -- OF --- SHEETS | STA. --- | TC STA. ---

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	2
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

The final top four inches of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches. This work will be included in the contract unit price per Cubic Yard for Concrete Superstructure.

Fertilizer shall be applied to all disturbed areas and incorporated into the seedbed prior to seeding or placement of sod at the rate specified in Sections 250 and 252 of the Standard Specifications. This work shall be included in the cost of Concrete Superstructure.

Mulch Method II shall be applied over all seeded areas. This shall be included in the cost of the Concrete Superstructure.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):
PG:
Design Air Voids
Mixture Composition
(Gradation Mixture)
Friction Aggregate
20 Year ESAL

Bituminous and Aggregate prime coat shall be placed in accordance with Section 406 of the Standard Specifications. The cost of the prime coats shall be included in the contract unit price per ton for Polymerized Hot-Mix Asphalt Surface Course, Mix "E", N90.

At bridge expansion joints, if temporary expansion joint bulkheads are attached to adjacent deck slabs or abutments for support, the Contractor shall cut the attachments as soon as the concrete has set to prevent joint damage due to horizontal contraction or expansion.

Pavement Marking shall be done according to Standard 780001, except as follows:

1. All words, such as ONLY, shall be 2.4 m (8 feet) high.
2. All non-freeway arrows shall be the large size.
3. The distance between yellow no-passing lines shall be 200 mm (8"), not 180 mm (7") as shown in the detail of Typical Lane and Edge Lines.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123.

INDEX OF SHEETS

STANDARDS

701101-02 Off-Road Operations, Multilane, 4.5 m (15') to 600 mm (24") From Pavement Edge
701400-04 Approach to Lane Closure, Freeway/Expressway
701401-05 Lane Closure, Freeway/Expressway
701402-07 Lane Closure, Freeway/Expressway, with Barrier
701411-06 Lane Closure, Multilane, at Entrance or Exit Ramp, for Speeds > 45 MPH
701426-03 Lane Closure, Multilane, Intermittent or Moving Operation, for Speeds > 45 MPH
701901-01 Traffic Control Devices
720001-01 Sign Panel Mounting Details
720011-01 Metal Posts for Signs, Markers and Delineators
728001-01 Telescoping Steel Sign Support
729001-01 Applications of Types A and B Metal Posts (For Signs & Markers)

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	US 20 joints\PLANeng.dgn	DRAWN - ___	REVISED - ___ _____
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	PLOT DATE = Mon Feb 08 13:15:16 2010	DATE - _____	REVISED - ___ _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

General Notes
Index of Sheets, Standards

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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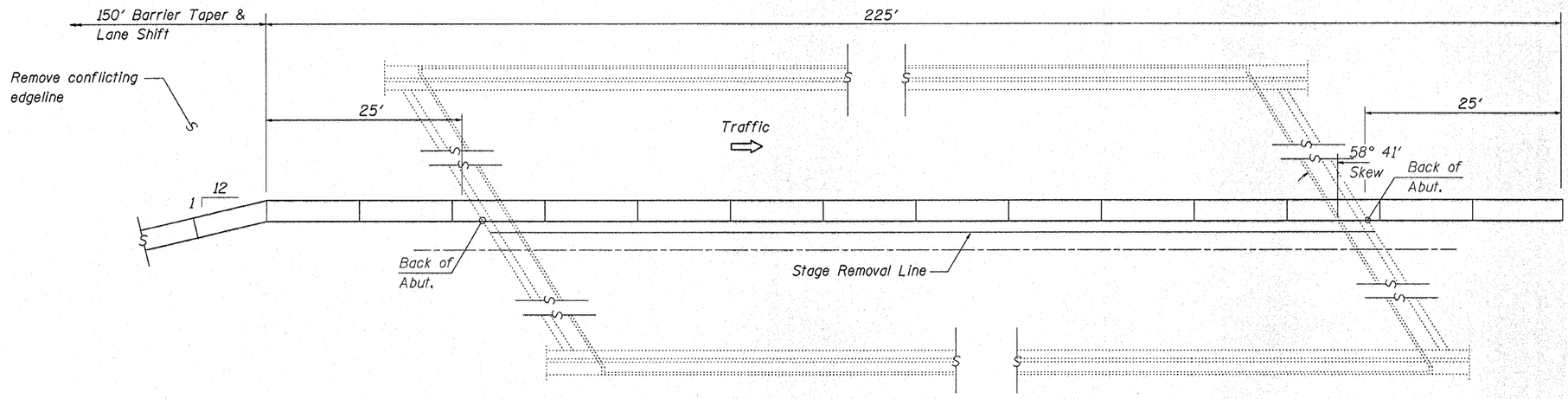
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			



PLAN
Eastbound Shown

Temporary Concrete Barrier

	Feet
Stage I Eastbound	375
Stage I Westbound	375
Total	750 Feet

Relocate Temporary Concrete Barrier

	Feet
Stage II Eastbound	375
Stage II Westbound	375
Total	750 Feet

Impact Attenuators, Temporary

	Each
Stage I Eastbound	1
Stage I Westbound	1
	2 Each

Impact Attenuators, Relocate

	Each
Stage I Eastbound	1
Stage I Westbound	1
	2 Each

Temporary Pavement Marking Line 4"

	Foot
Stage I	
Northbound (701402)	2700
Southbound Approach	500
Shift	150
	325
	150
	150
	325
Stage II	150
Northbound (701402)	2700
Southbound Approach	500
Shift	150
	325
	150
	150
	325
	150
Total	8900 Foot

Pavement Marking Removal

	Sq Ft
Stage I Edgeline	200
Stage II Edgeline	200
	400 Sq Ft

Workzone Pavement Marking Removal

	Sq Ft
Stage I	1485
Stage II	1485
Total	2970 Sq Ft

Traffic Control
I-39 over the CC&P Railroad
Structures 101-0067 (NB) & 101-0068 (SB)
Winnebago County

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	PLOT DATE = Mon Feb 08 13:15:11 2010	DATE - ---	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Traffic Control Plan
Structures 101-0067 & 0068
SCALE: --- | SHEET NO. -- OF --- SHEETS | STA. --- TO STA. ---

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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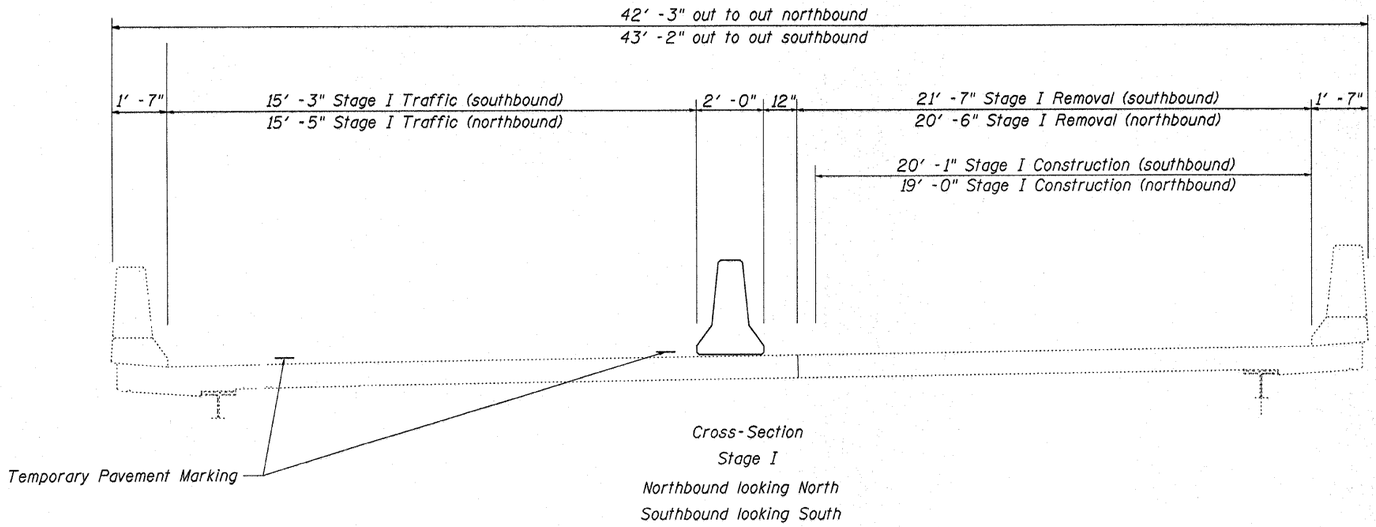
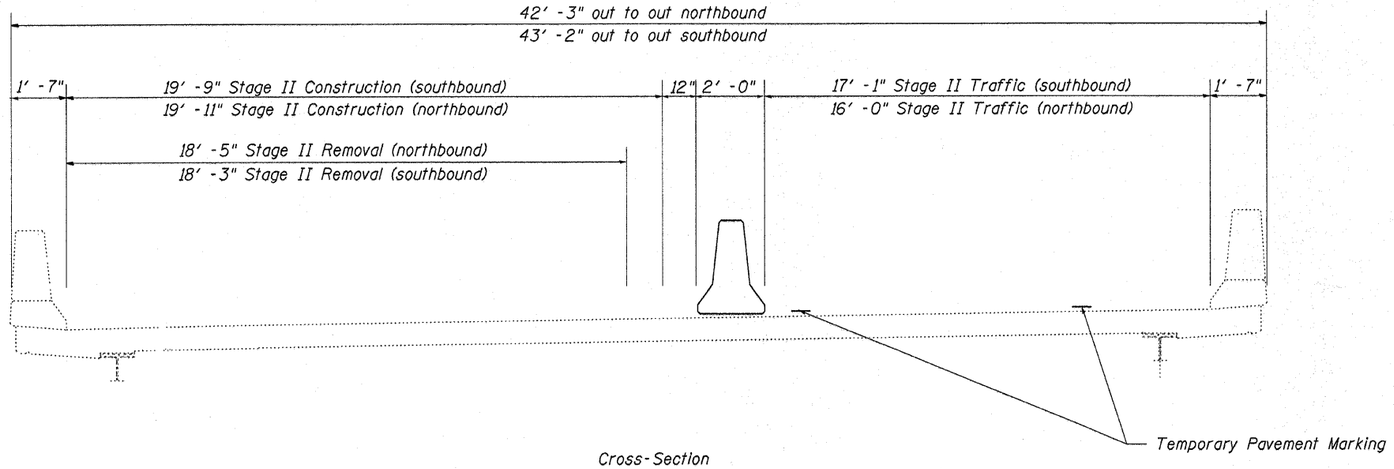
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			



Cross-Section
Stage I
Northbound looking North
Southbound looking South



Cross-Section
Stage II
Northbound looking North
Southbound looking South

Traffic Control
I-39 over the CC&P Railroad
Structures 101-0067 (NB) & 101-0068 (SB)
Winnebago County

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Staging Cross Sections
Structures 101-0067 & 0068

SCALE: --- | SHEET NO. __ OF ___ SHEETS | STA. --- TO STA. ---

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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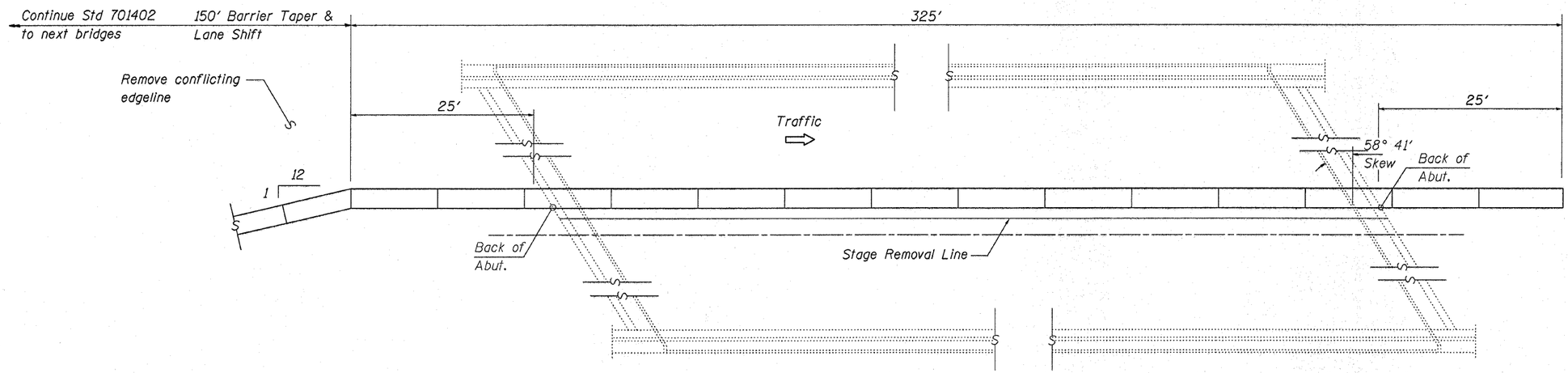
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			



PLAN
Eastbound Shown

Temporary Pavement Marking Line 4"

		Foot
Stage I		
Northbound	Approach	500
	Shift	150
		325
		150
		150
		325
		150
Southbound	Approach	500
	Shift	150
		325
		150
		150
		325
		150
Stage II (same as stage I)		3500
	Total	7000 Foot

Workzone Pavement Marking Removal

	Sq Ft
Stage I	1170
Stage II	1170
Total	2340 Sq Ft

Pavement Marking Removal

	Sq Ft
Stage I Edgeline	200
Stage II Edgeline	200
	400 Sq Ft

Temporary Concrete Barrier

Stage I Eastbound	475 Feet
Stage I Westbound	475 Feet
Total	950 Feet

Relocate Temporary Concrete Barrier

Stage II	475	
Stage III	475	
Total	950	Feet

Impact Attenuators, Temporary

	Each
Stage I Eastbound	1
Stage I Westbound	1
	2

Impact Attenuators, Relocate

	Each
Stage II Eastbound	1
Stage II Westbound	1
	2

Traffic Control
I-39 over the UP Railroad
Structures 101-0069 (SB) & 101-0070 (NB)
Winnebago County

FILE NAME = O:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Traffic Control Plan Structures 101–0069 & 0070	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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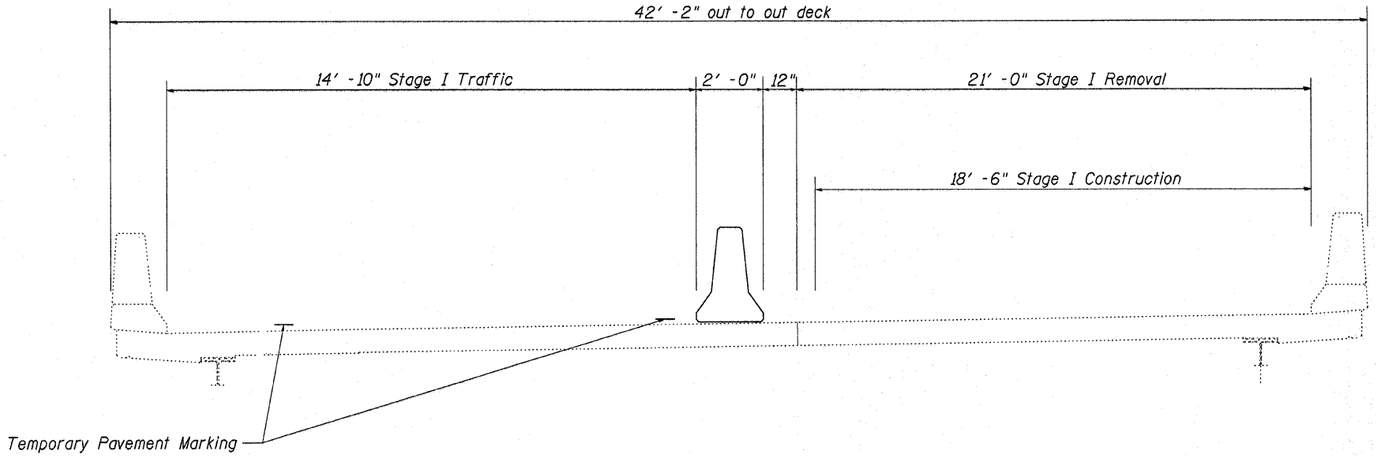
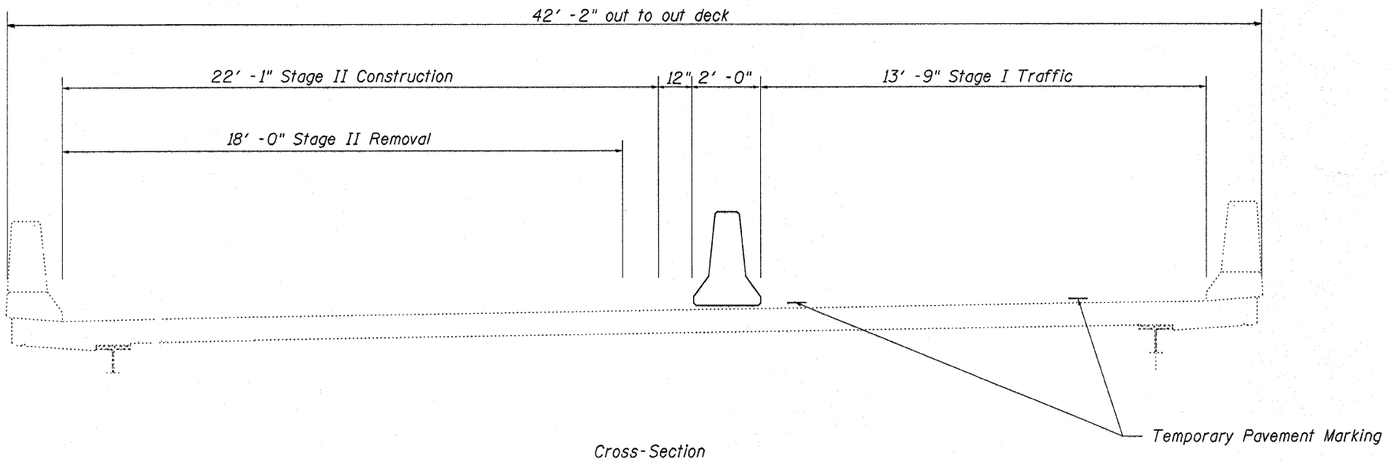


Cross-Section
Stage I
Northbound looking North
Southbound looking South



Cross-Section
Stage II
Northbound looking North
Southbound looking South

Traffic Control
I-39 over the UP Railroad
Structures 101-0069 (SB) & 101-0070 (NB)
Winnebago County

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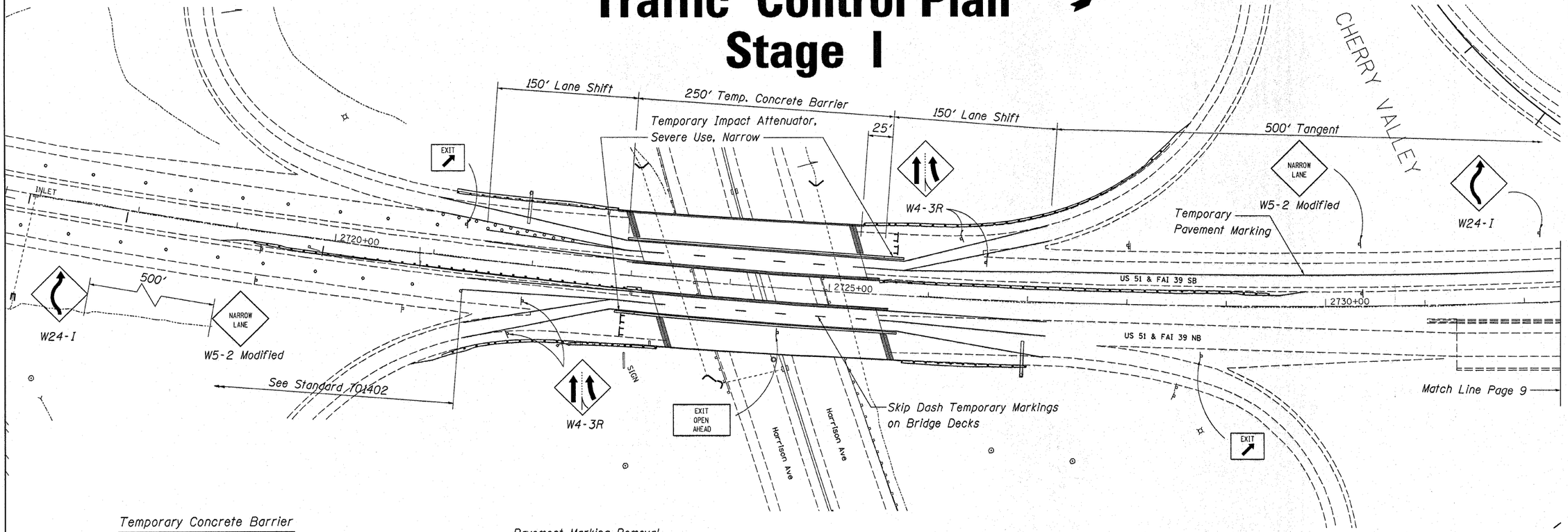
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Staging Cross Sections
Structures 101–0069 & 0070

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	7
		CONTRACT NO. 64G12		
	ILLINOIS	FED. AID PROJECT		

Traffic Control Plan
Stage I



Temporary Concrete Barrier

Stage I Northbound		250 Feet
Stage I Southbound		250 Feet
	Total	500 Feet

Impact Attenuator Temporary Severe Use Narrow

	Each
Stage I Northbound	1
Stage I Southbound	1
	2 Each

Pavement Marking Removal

	Sq Ft
Southbound shift Edgelines	300
Northbound shift Edgelines	300
SB bridge deck	125
NB bridge deck	125
	850 Sq Ft

Temporary Pavement Marking - Line 4"

		Foot			
I-39 NB Edgelines			I-39 SB Edgelines		
	Approach	1500			
Mainline		150	Ramp merge (sht 10)		300
	shift	250	Mainline	Approach	1050
		150			550
		150			150
	shift	250		shift	250
		150			150
		150			150
				shift	250
Ramp	shift	250			150
		150			150
			Ramp	shift	250
	shift	150			150
		150			
				shift	150
					150
			Total NB & SB		7300

Workzone Pavement Marking Removal

	Sq Ft
Stage I	2450
Total	2450 Sq Ft

FILE NAME = O:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED -	---	REVISED -	---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Traffic Control Plan Stage I –Structures 101–0071 & 0072	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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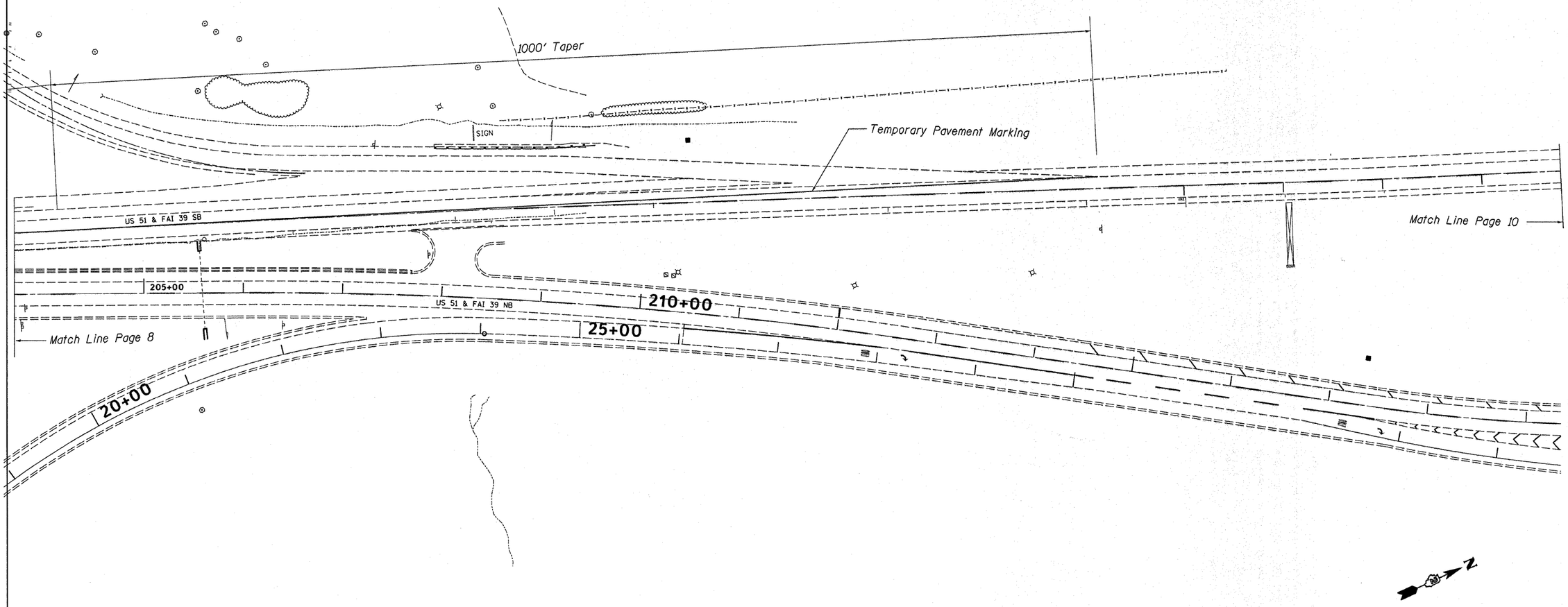
Traffic Control Plan
Stage I



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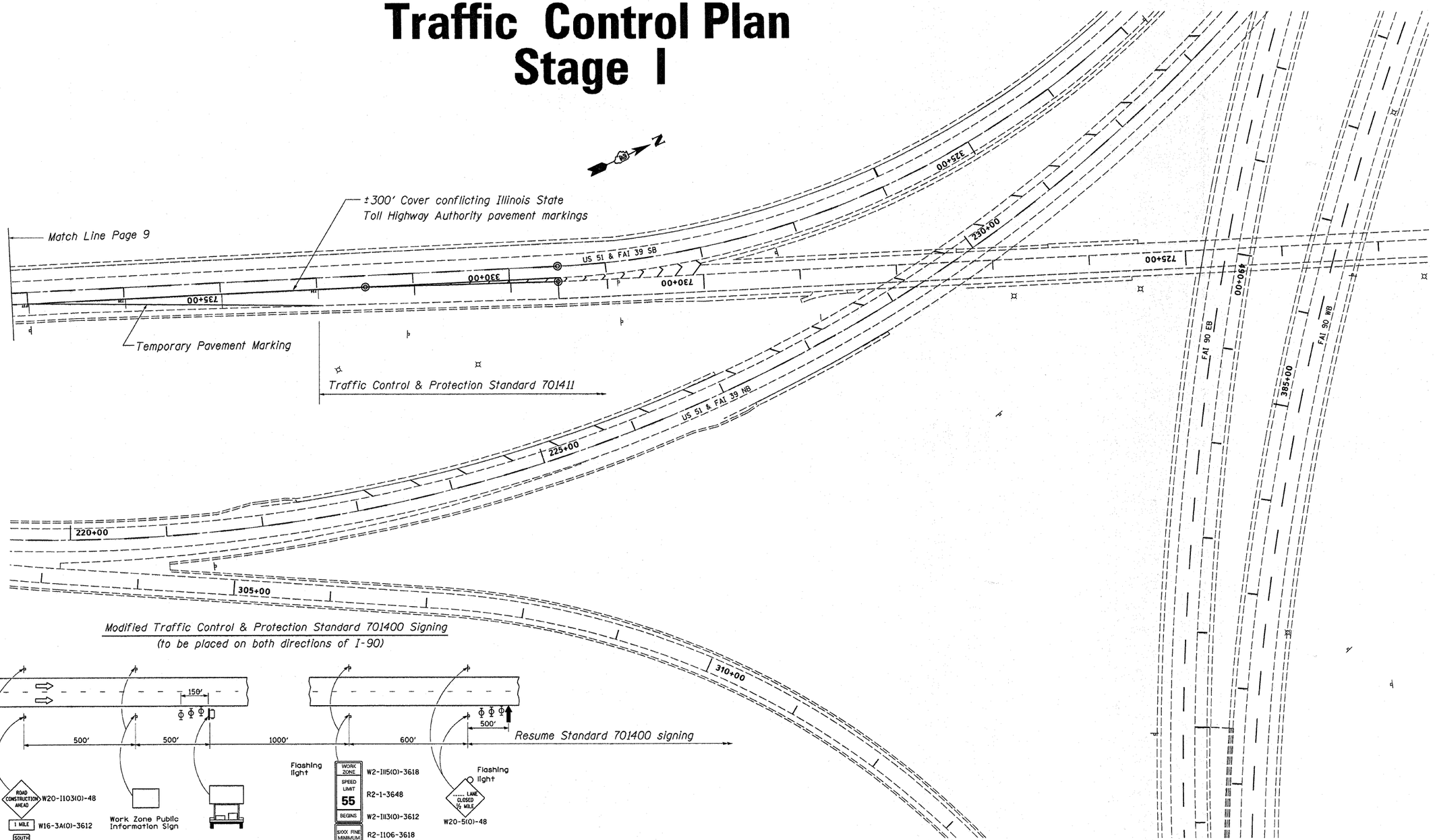
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Traffic Control Plan
Stage I –Structures 101–0071 & 0072

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	9
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			

Traffic Control Plan
Stage I



Modified Traffic Control & Protection Standard 701400 Signing
(to be placed on both directions of I-90)

Add 3rd Message
"I-39 Southbound
Expect Delays"

FILE NAME = G:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED - ---	REVISED - ---	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**Traffic Control Plan Stage I –Structures 101–0071 & 0072**			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	US 20 joints\PLANeng.dgn	DRAWN - ---	REVISED - ---					39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	10
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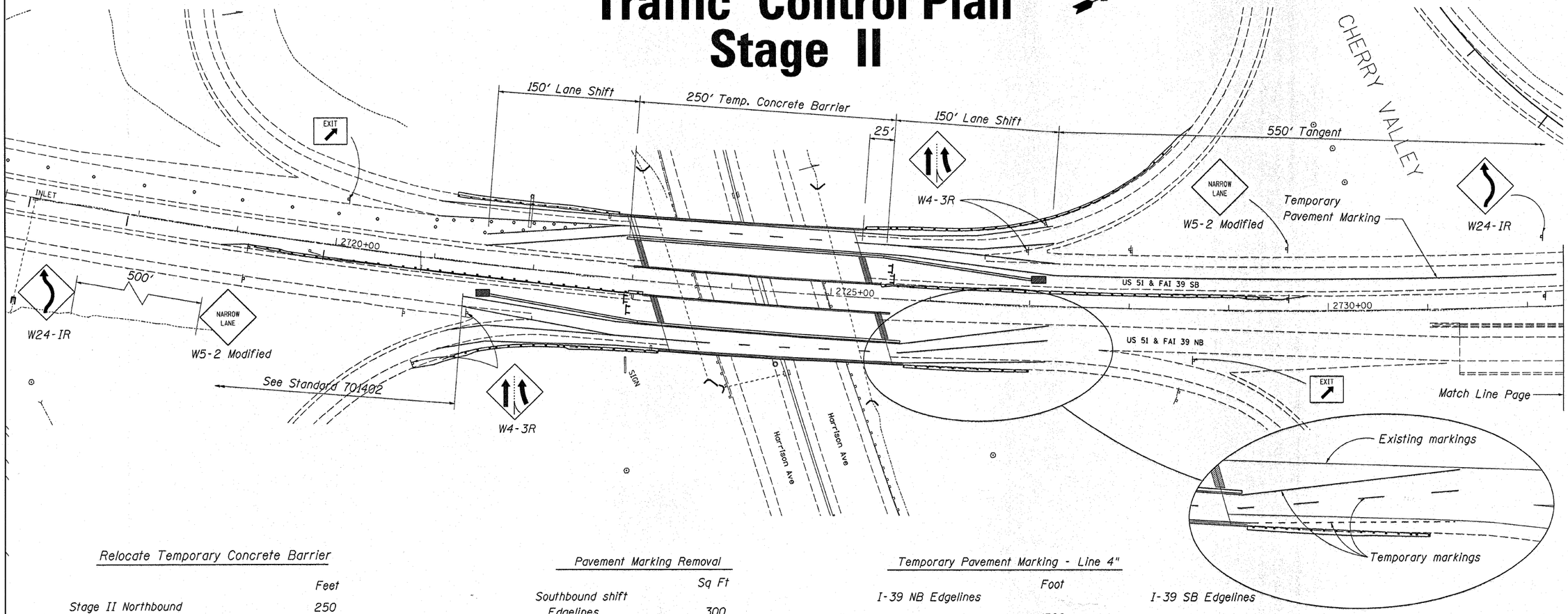
	PLOT DATE = Mon Feb 08 13:07:37 2010	DATE - ---	REVISED - ---		SCALE: ---	SHEET NO. -- OF --- SHEETS	STA. --- TO STA. ---		ILLINOIS	FED. AID PROJECT		

Traffic Control Plan
Stage II



Relocate Temporary Concrete Barrier

	Feet
Stage II Northbound	250
Stage II Southbound	250
Total	500 Feet

Temporary Concrete Barrier
(additional quantity needed for tapers)

	Feet
Stage II Northbound	150
Stage II Southbound	150
Total	300 Feet

Pavement Marking Removal

	Sq Ft
Southbound shift	
Edgelines	300
Northbound shift	
Edgelines	300
SB bridge deck	125
NB bridge deck	125
	850 Sq Ft

Impact Attenuators, Temporary

	Each
Stage II Northbound	1
Stage II Southbound	1
	2 Each

Temporary Pavement Marking - Line 4"

		Foot
I-39 NB Edgelines		
	Approach	1500
Mainline		150
	shift	250
		150
		150
	shift	250
		150
		150
Ramp	shift	250
		150
	shift	150
		150

		Foot
I-39 SB Edgelines		
Mainline	Approach	1050
		550
		150
	shift	250
		150
		150
	shift	250
		150
		150
Ramp	shift	250
		150
	shift	150
		150
Total NB & SB		7000

Workzone Pavement Marking Removal

	Sq Ft
Stage II	2350
Total	2350 Sq Ft

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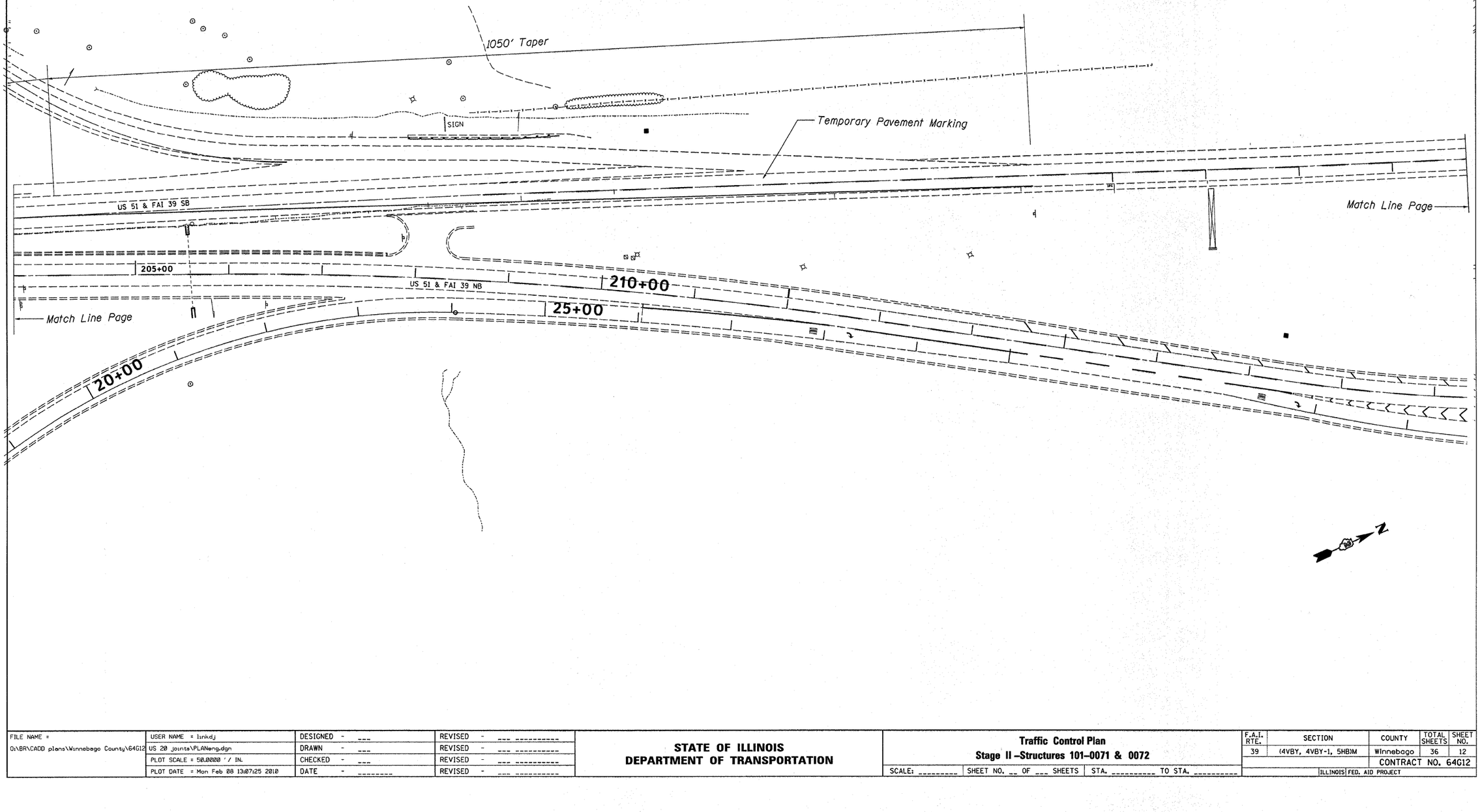
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Traffic Control Plan
Stage II –Structures 101–0071 & 0072

SCALE: --- | SHEET NO. -- OF --- SHEETS | STA. --- | TO STA. ---

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	11
		CONTRACT NO. 64G12		
	ILLINOIS	FED. AID PROJECT		

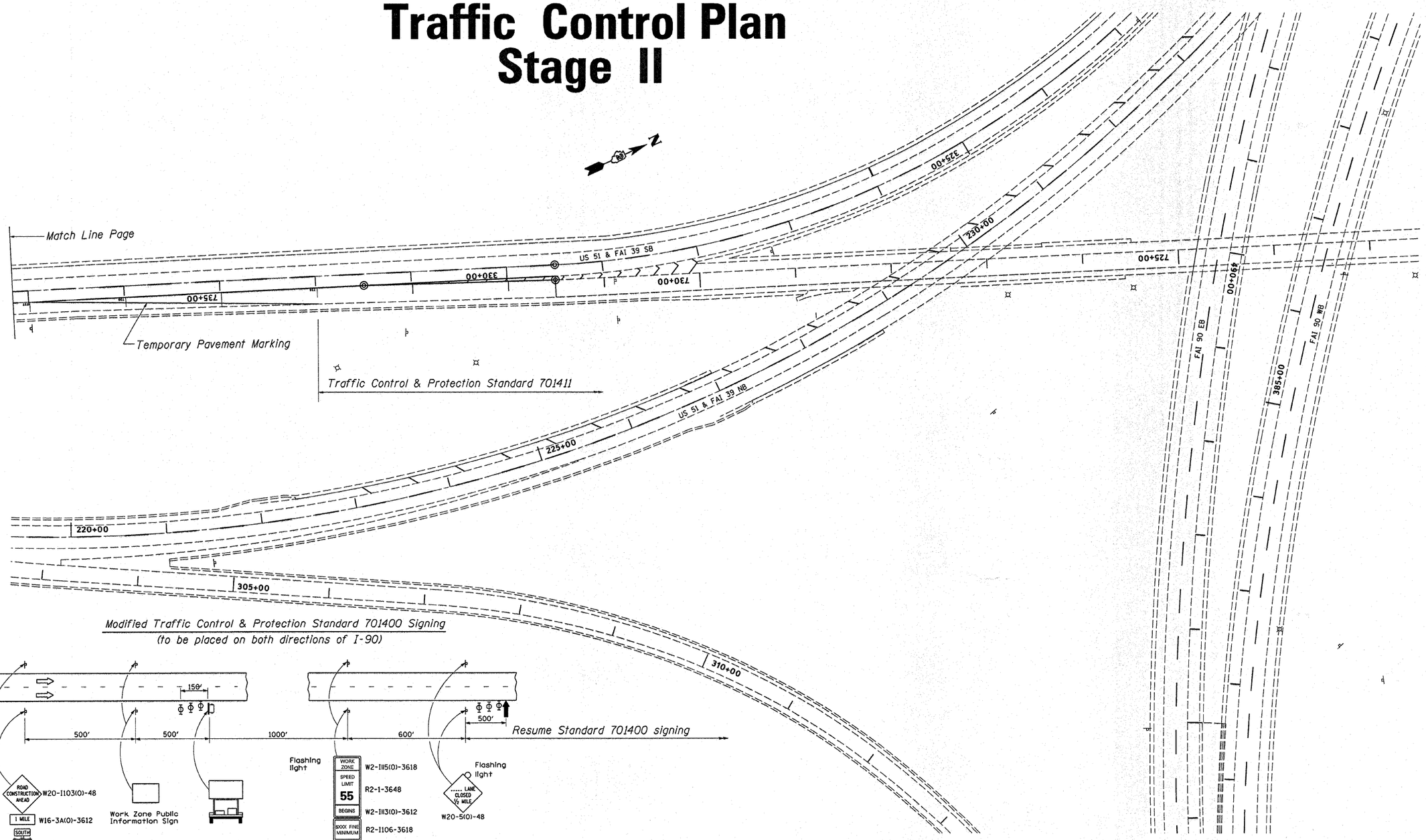
Traffic Control Plan
Stage II



FILE NAME = O:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**Traffic Control Plan**
	US 20 joints\PLANeng.dgn	DRAWN -	REVISED -		**Stage II –Structures 101–0071 & 0072**
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -		SCALE: _____ SHEET NO. __ OF ___ SHEETS STA. _____ TO STA. _____
	PLOT DATE = Mon Feb 08 13:07:25 2010	DATE -	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	12
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			

Traffic Control Plan
Stage II



Modified Traffic Control & Protection Standard 701400 Signing
(to be placed on both directions of I-90)

Add 3rd Message
"I-39 Southbound
Expect Delays"

FILE NAME = D:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**Traffic Control Plan Stage II –Structures 101–0071 & 0072**
	US 20 joints\PLANeng.dgn	DRAWN -	REVISED -		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -		SCALE: _____ SHEET NO. __ OF ___ SHEETS STA. _____ TO STA. _____
	PLOT DATE = Mon Feb 08 13:07:17 2010	DATE -	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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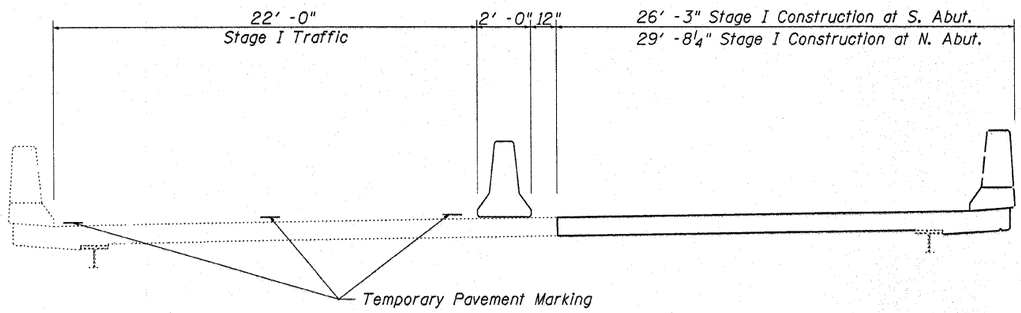
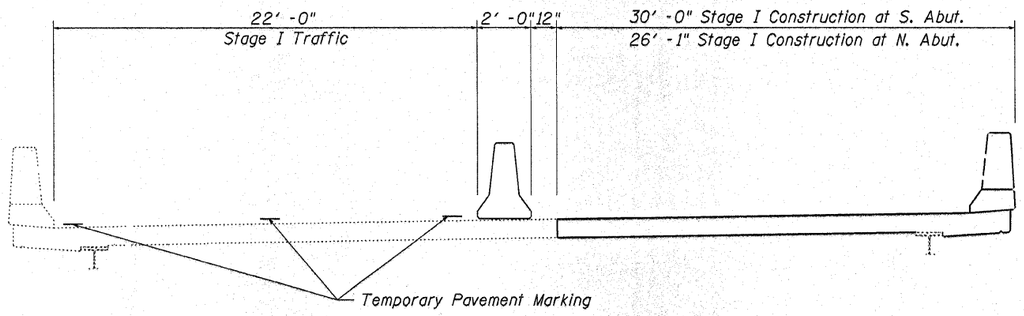
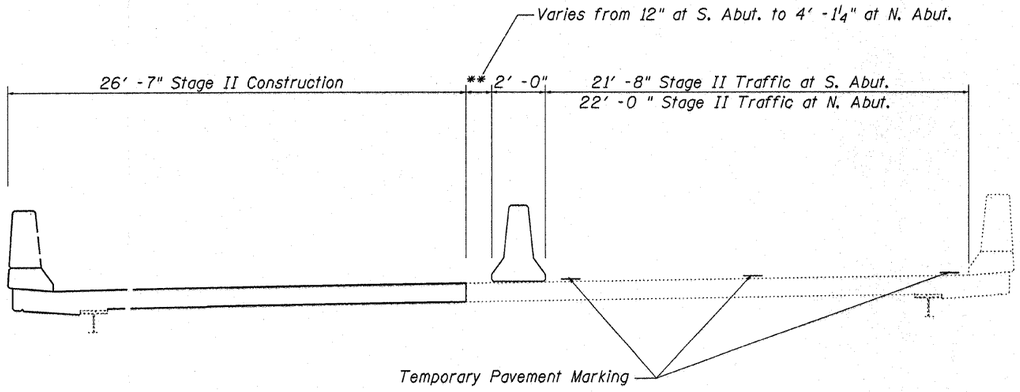
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			



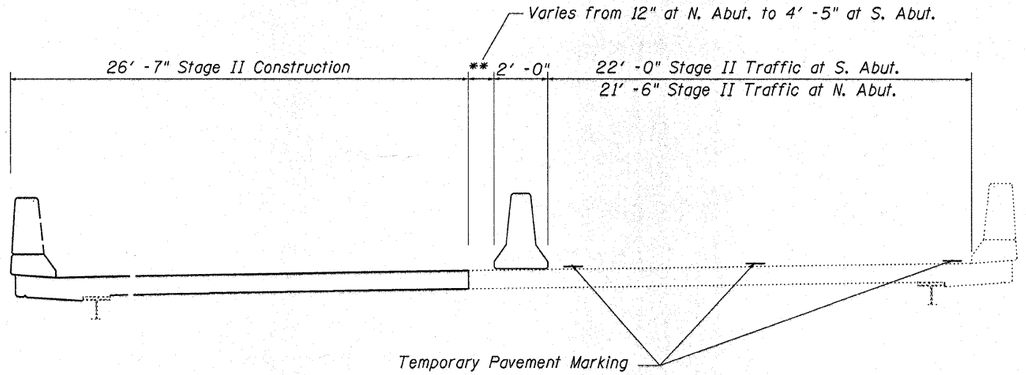
I-39 Southbound Lanes
Structure No. 101-0072
Looking South
Stage I



I-39 Northbound Lanes
Structure No. 101-0071
Looking North
Stage I



I-39 Southbound Lanes
Structure No. 101-0072
Looking South
Stage II



I-39 Northbound Lanes
Structure No. 101-0071
Looking North
Stage II

FILE NAME = O:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED -	REVISED -
	US 20 joints\PLANeng.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Mon Feb 08 13:07:11 2010	DATE -	REVISED -

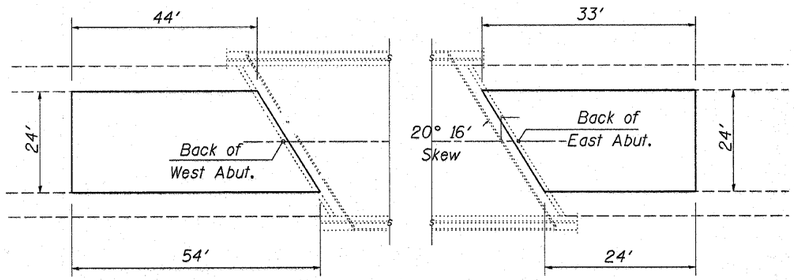
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Staging Cross Sections
Structures 101–0071 & 0072

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

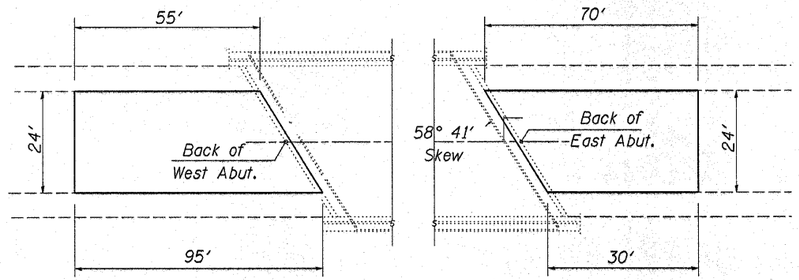
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	14
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			

Bridge Approach Resurfacing



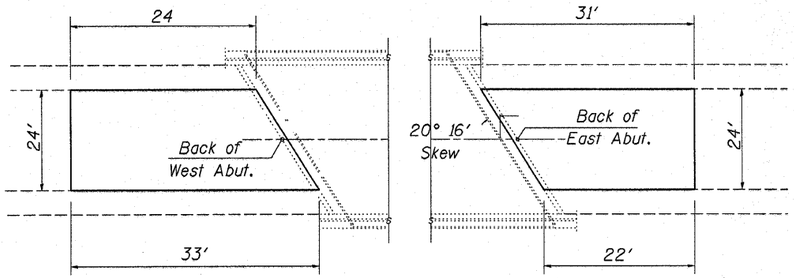
PLAN

Structure No. 101-0067
Eastbound Structure



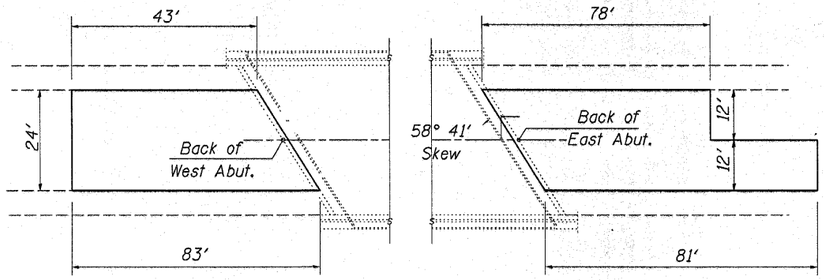
PLAN

Structure No. 101-0069
Westbound Structure



PLAN

Structure No. 101-0068
Westbound Structure



PLAN

Structure No. 101-0070
Eastbound Structure

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	US 20 joints\PLANeng.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Mon Feb 08 13:07:06 2010	DATE -	REVISED -

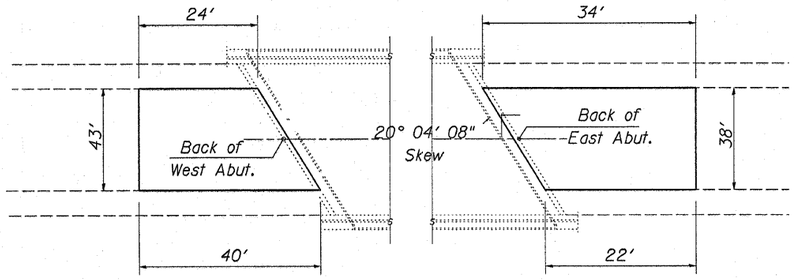
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Bridge Approach Resurfacing
Structures 101–0067, 0068, 0069 & 0070

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

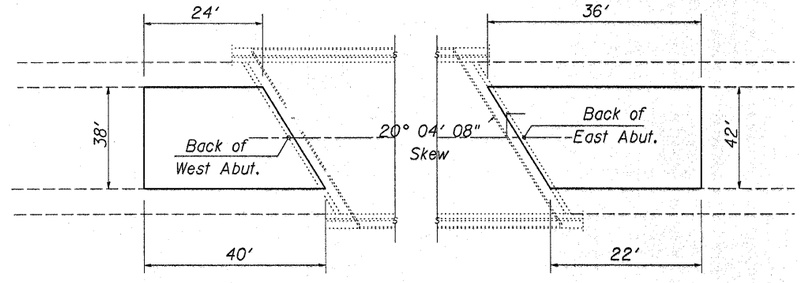
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	15
		CONTRACT NO. 64G12		
		ILLINOIS FED. AID PROJECT		

Bridge Approach Resurfacing



CLAR

Structure No. 101-0071
Eastbound Structure



CLAR

Structure No. 101-0072
Westbound Structure

HOT-MIX ASPHALT SURFACE REMOVAL 1½"

	Square Yard
101-0067	
East Approach	76
West Approach	131
101-0068	
East Approach	71
West Approach	76
101-0069	
East Approach	134
West Approach	200
101-0070	
East Approach	208
West Approach	168
101-0071	
East Approach	119
West Approach	153
101-0072	
East Approach	136
West Approach	136
Total	1608

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N90

	Ton
101-0067	
East Approach	7
West Approach	11
101-0068	
East Approach	6
West Approach	7
101-0069	
East Approach	12
West Approach	17
101-0070	
East Approach	18
West Approach	15
101-0071	
East Approach	10
West Approach	13
101-0072	
East Approach	12
West Approach	12
Total	140

Striping quantities include restriping pavement 150' each side of each bridge plus bridges with 2 coats of paint

Paint Pavement Marking - Line 6"

	Foot		
	Right Edge	Centerline	Left Edge
101-0067	170	43	170
East Approach	150	38	150
West Approach	150	38	150
101-0068	170	43	170
East Approach	150	38	150
West Approach	150	38	150
101-0069	280	70	280
East Approach	150	38	150
West Approach	150	38	150
101-0070	280	70	280
East Approach	150	38	150
West Approach	150	38	150
101-0071	230	58	230
East Approach	150	38	150
West Approach	150	38	150
101-0072	230	58	230
East Approach	150	38	150
West Approach	150	38	150
Total	3160	798	3160

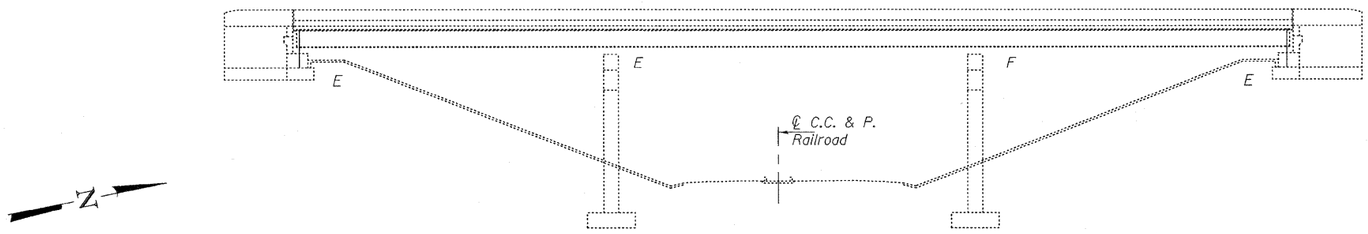
3160
798
3160

7118 Feet x 2 coats = 14,236 Feet Total Quantity

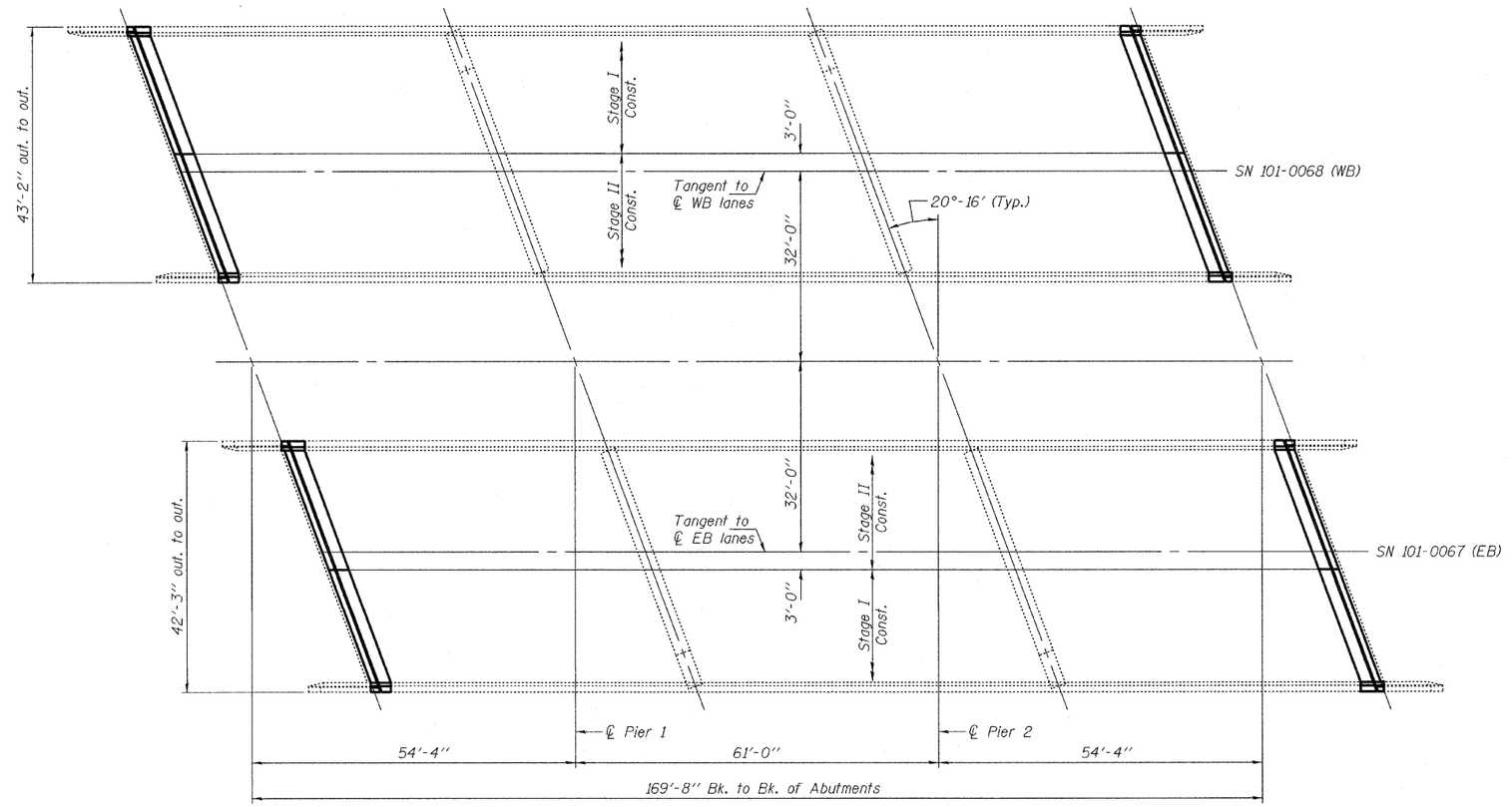
FILE NAME = O:\BR\CADD plans\Winnebago County\64G12	USER NAME = linkdj	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Bridge Approach Resurfacing Structures 101-0071 & 0072
	US 20 joints\PLANeng.dgn	DRAWN - ---	REVISED - ---		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - ---	REVISED - ---		SCALE: ---------- SHEET NO. -- OF --- SHEETS STA. ---------- TO STA. ----------
	PLOT DATE = Mon Feb 08 13:07:01 2010	DATE - --------	REVISED - ---		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	16
		CONTRACT NO. 64G12		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

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

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

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

Contractor must exercise extreme care as not to damage the Fiber Optic Conduit attached to the structure. Any damage is to be repaired at the Contractor's expense to the satisfaction of the utility company.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
	Concrete Removal	Cu. Yd.	27.4
	Concrete Superstructure	Cu. Yd.	27.4
	Preformed Joint Strip Seal	Foot	178
	Reinforcement Bars, Epoxy Coated	Pound	3300
	Bar Splicers	Each	56
*	Protective Coat	Sq. Yd.	66

* Apply to new concrete only.

DESIGNED	Eric D. Fox
CHECKED	Adrian T. Halloway
DRAWN	Kyle M. Steffen
CHECKED	IJL ATH

MARCH 9, 2010

EXAMINED _____ ENGINEER OF STRUCTURAL SERVICES

PASSED _____ ENGINEER OF BRIDGES AND STRUCTURES

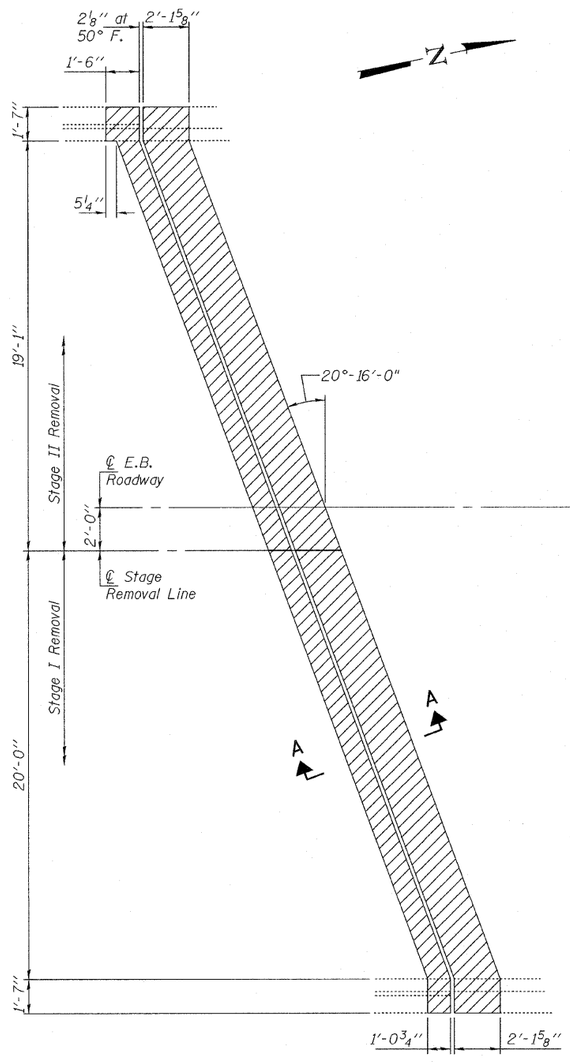
STATE OF ILLINOIS · ALLYN E. ANDERSON · 081-004625 · SPRINGFIELD · LICENSED STRUCTURAL ENGINEER

Expires: November 30, 2010

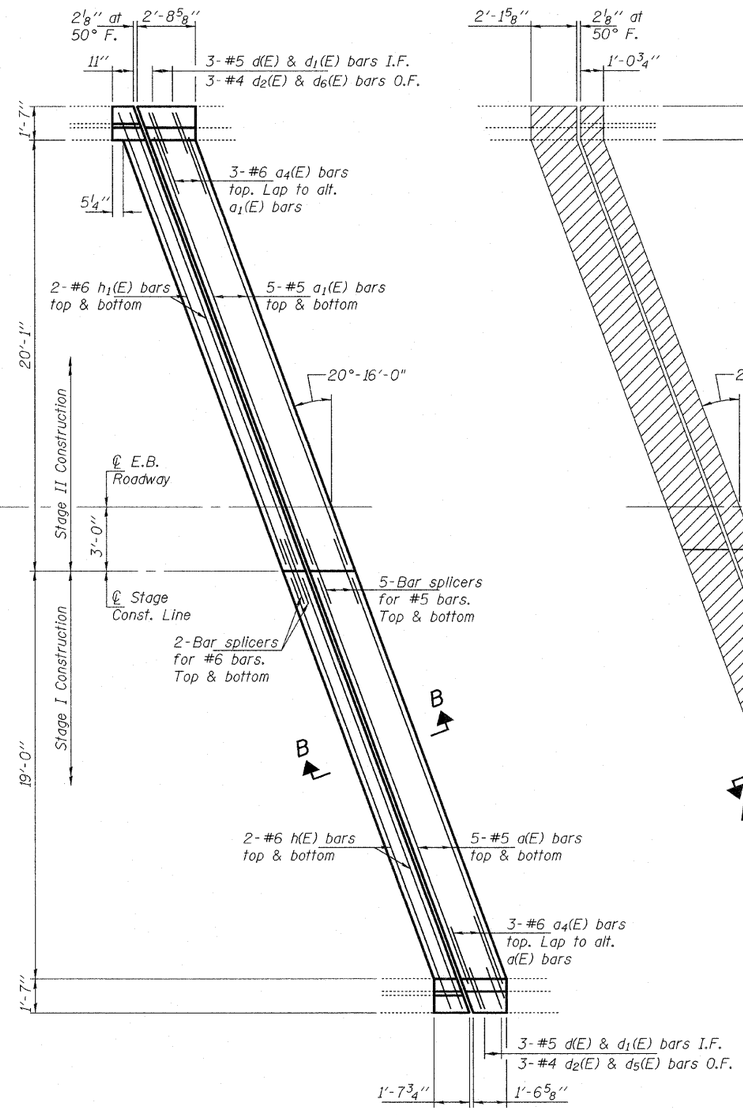
PLAN & ELEVATION
SN 101-0067 & 0068

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	WINNEBAGO	36	17
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

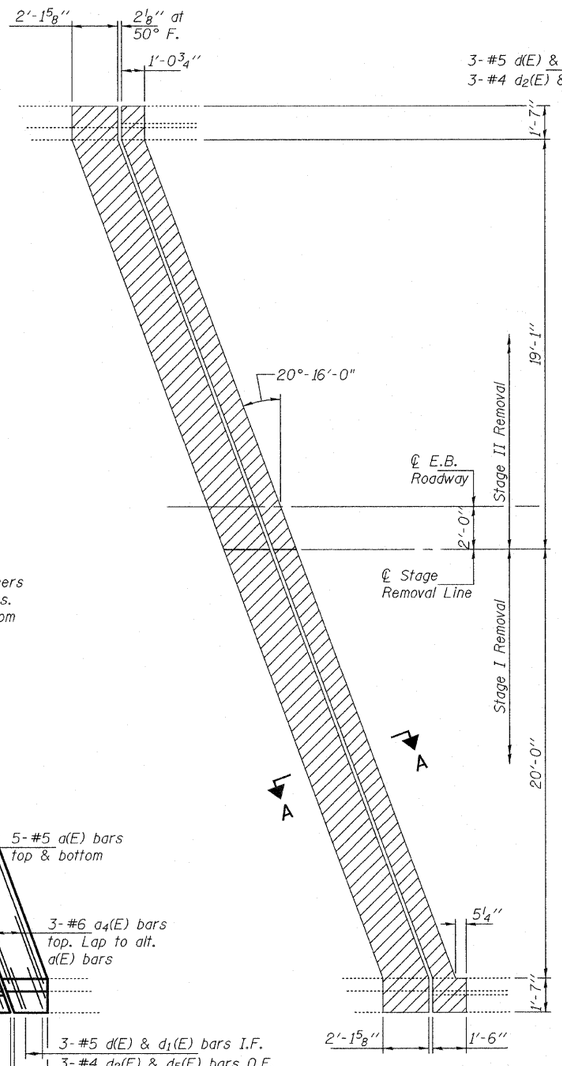
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



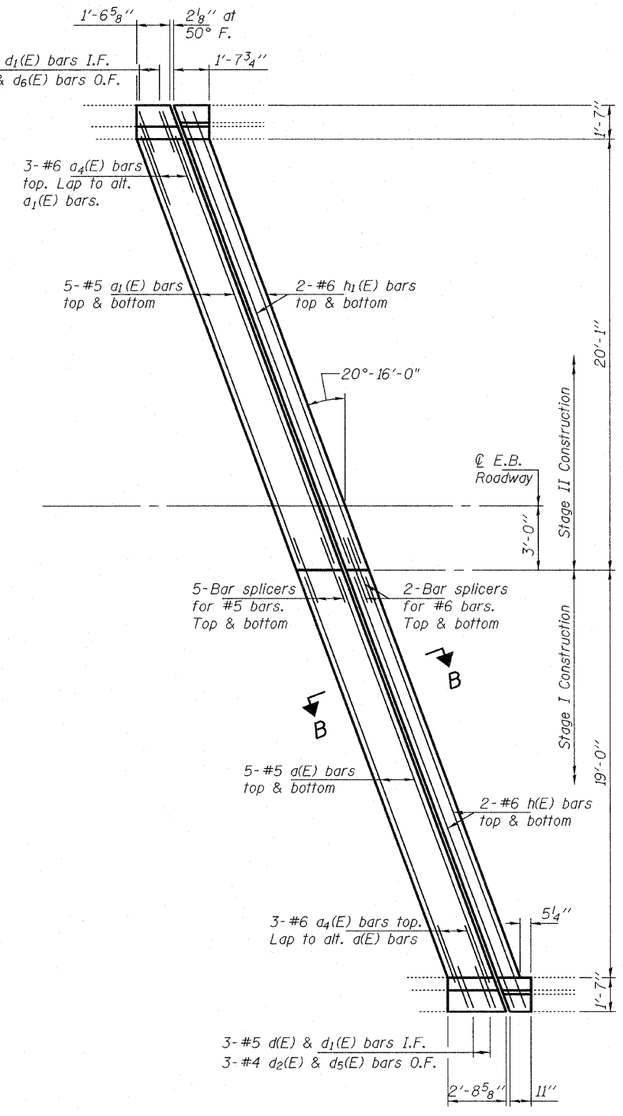
REMOVAL PLAN
South Abutment



REPLACEMENT PLAN
South Abutment



REMOVAL PLAN
North Abutment



REPLACEMENT PLAN
North Abutment

DESIGNED	IJL
CHECKED	ATH
DRAWN	Kyle M. Steffen
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED A. Carl Peyer
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Notes:
Hatched areas indicate removal.
For Sections A-A & B-B, bar details and Bill of Material, see sheet 4 of 7.

JOINT REPLACEMENT DETAILS
SN 101-0067 (E.B.)

SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	WINNEBAGO	36	18
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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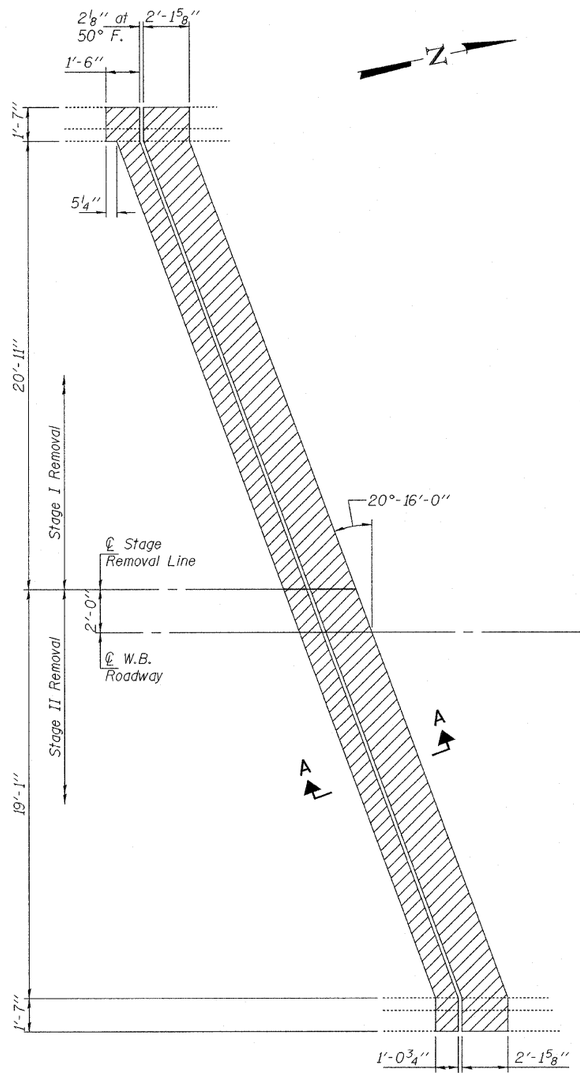
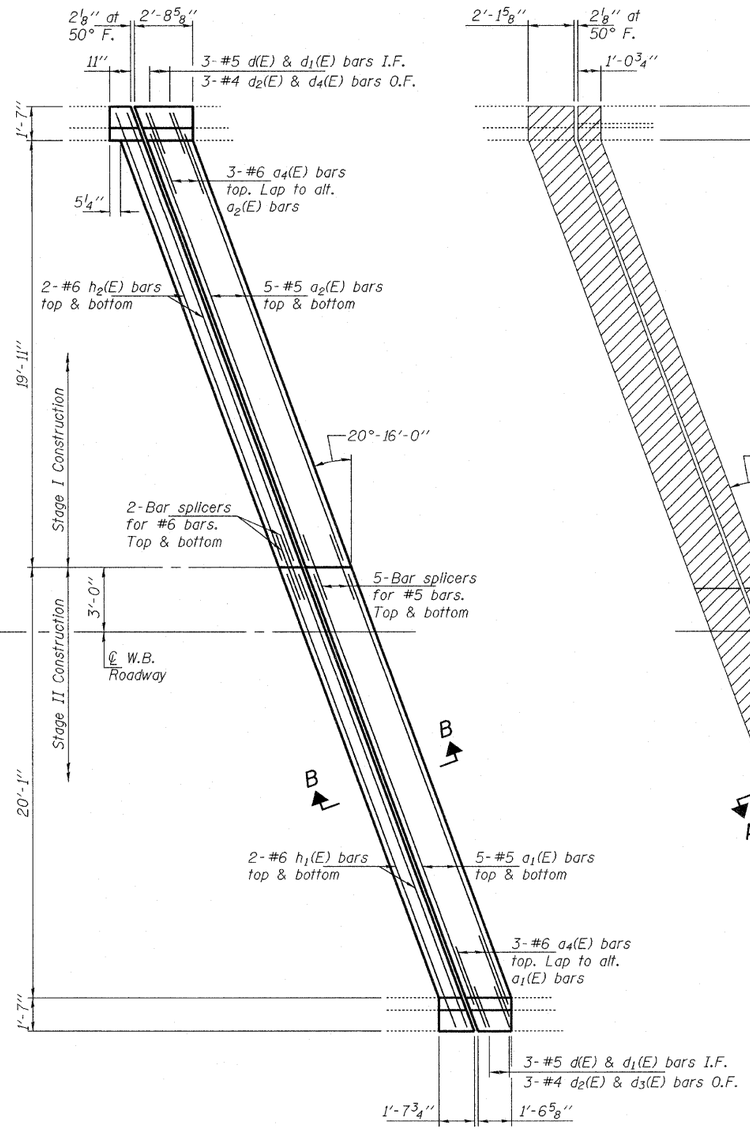
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

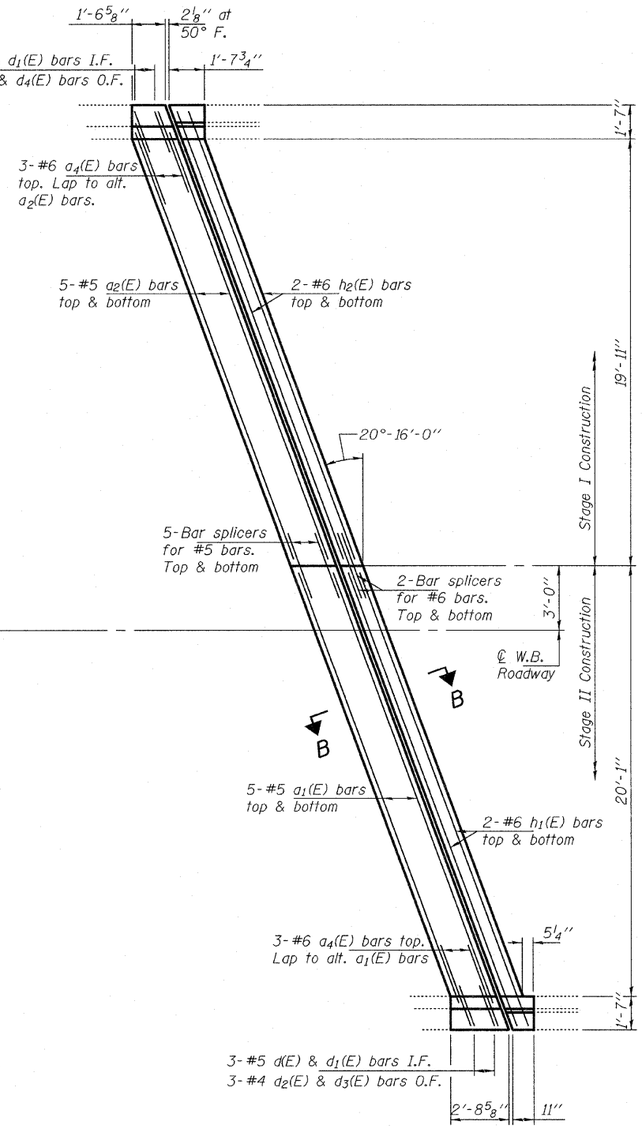


REMOVAL PLAN
South Abutment



REPLACEMENT PLAN
South Abutment

REMOVAL PLAN
North Abutment



REPLACEMENT PLAN
North Abutment

DESIGNED	IJL
CHECKED	ATH
DRAWN	Kyle M. Steffen
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED A Carl Purvy
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Notes:
Hatched areas indicate removal.
For Sections A-A & B-B, bar details and Bill of Material, see sheet 4 of 7.

JOINT REPLACEMENT DETAILS
SN 101-0068 (W.B.)

SHEET NO. 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	WINNEBAGO	36	19
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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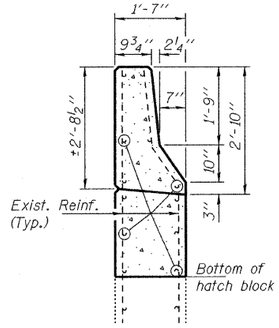
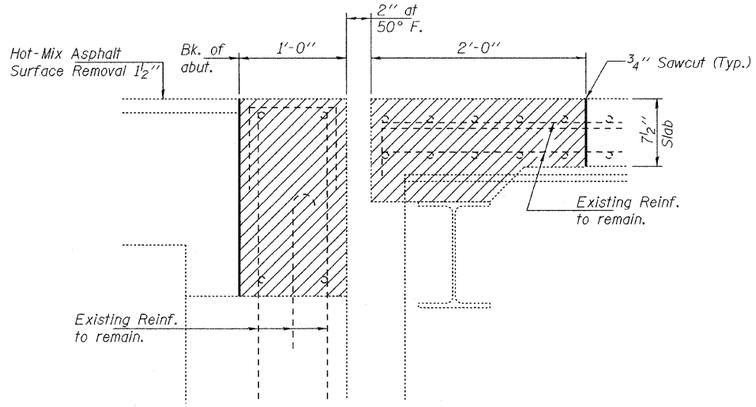
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



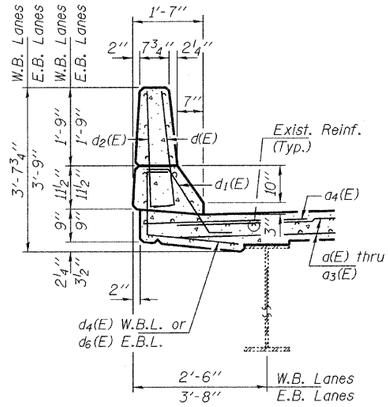
TYPICAL SECTION AT APPROACH PARAPET

Remove portion of wingwall as required at corners to allow clearance for new deck overhang. Cut reinf. flush and seal surface with epoxy. Cost included with Concrete Removal.

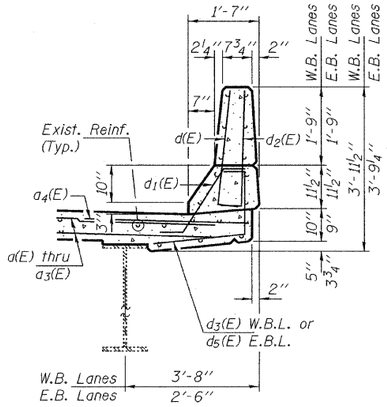


SECTION A-A

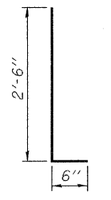
(Near ℄ Roadway)
(Dimensions are at RT L's to end of deck)



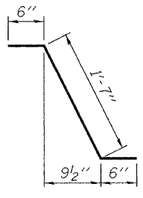
TYPICAL SECTION THRU WEST PARAPET



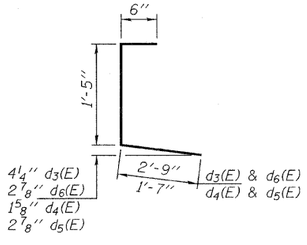
TYPICAL SECTION THRU EAST PARAPET



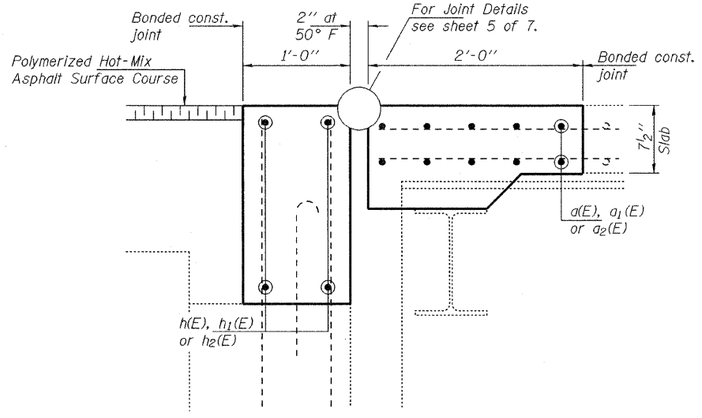
BARS d(E) & d2(E)



BARS d1(E)



BARS d3(E) THRU d6(E)



SECTION B-B

(Near ℄ Roadway)
(Dimensions are at RT L's to end of deck)

BILL OF MATERIAL SN 101-0067 (E.B.)

Bar	No.	Size	Length	Shape
d(E)	20	#5	20'-9"	——
a1(E)	20	#5	21'-10"	——
a4(E)	12	#6	4'-10"	——
d(E)	12	#5	3'-0"	⌊
d1(E)	12	#5	2'-7"	⌊
d2(E)	12	#4	3'-0"	⌊
d5(E)	6	#4	3'-6"	⌊
d6(E)	6	#4	4'-8"	⌊
h(E)	8	#6	21'-7"	——
h1(E)	8	#6	22'-9"	——
Concrete Removal			Cu. Yd.	13.5
Concrete Superstructure			Cu. Yd.	13.5
Reinforcement Bars, Epoxy Coated			Lbs.	1630

BILL OF MATERIAL SN 101-0068 (W.B.)

Bar	No.	Size	Length	Shape
a1(E)	20	#5	21'-10"	——
a2(E)	20	#5	21'-8"	——
a4(E)	12	#6	4'-10"	——
d(E)	12	#5	3'-0"	⌊
d1(E)	12	#5	2'-7"	⌊
d2(E)	12	#4	3'-0"	⌊
d3(E)	6	#4	4'-8"	⌊
d4(E)	6	#4	3'-6"	⌊
h1(E)	8	#6	22'-9"	——
h2(E)	8	#6	22'-7"	——
Concrete Removal			Cu. Yd.	13.9
Concrete Superstructure			Cu. Yd.	13.9
Reinforcement Bars, Epoxy Coated			Lbs.	1670

DESIGNED	IJL
CHECKED	ATH
DRAWN	Kyle M. Steffen
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

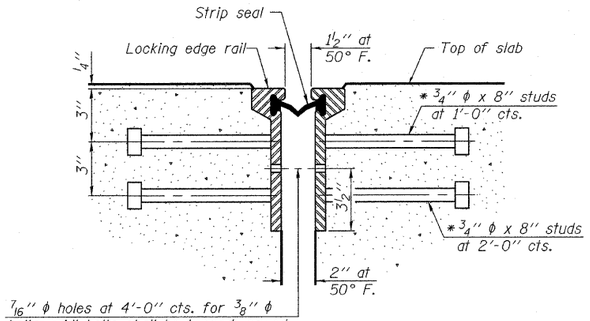
JOINT REPLACEMENT DETAILS SN 101-0067 (EB) & 0068 (WB)

SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	WINNEBAGO	36	20
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

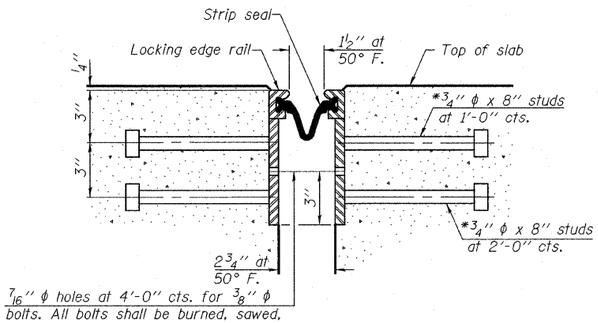
T:\10067.dgn 09-Mar-10 13:15:47

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

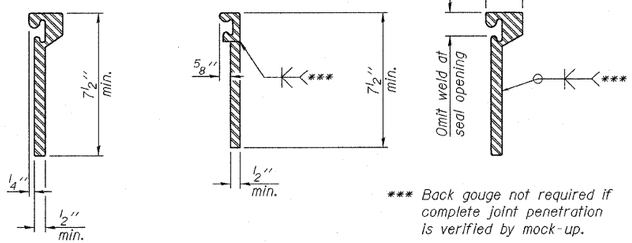


7/16" ϕ holes at 4'-0" cts. for ⅜" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



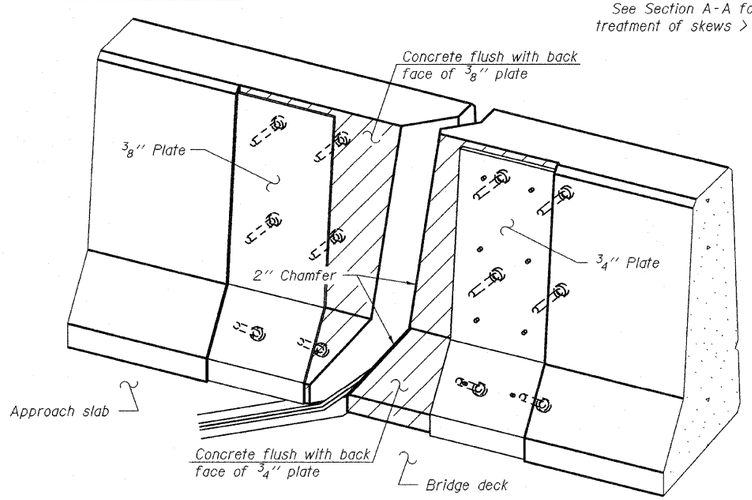
7/16" ϕ holes at 4'-0" cts. for ⅜" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU ROLLED RAIL JOINT



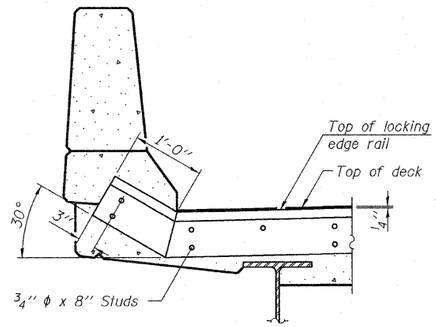
*** Back gouge not required if complete joint penetration is verified by mock-up.

SECTION THRU WELDED RAIL JOINT



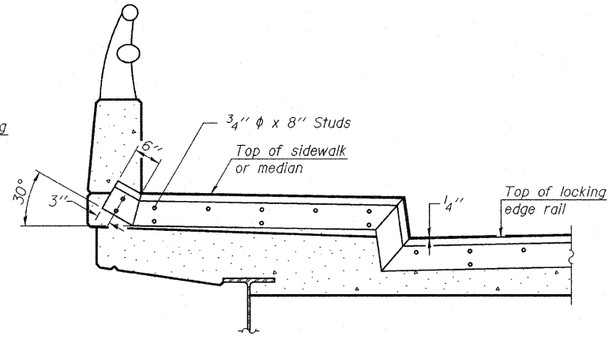
AT PARAPET

See Section A-A for end treatment of skews > 30°.



AT SIDEWALK OR MEDIAN

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



TYPICAL END TREATMENTS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

ROLLED EXTRUDED RAIL

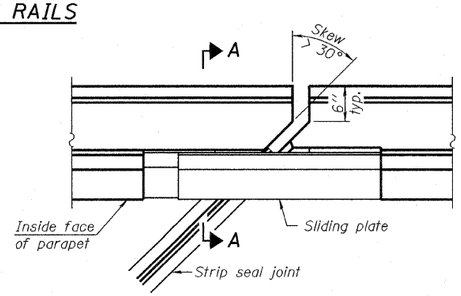
WELDED RAIL

LOCKING EDGE RAIL SPLICE

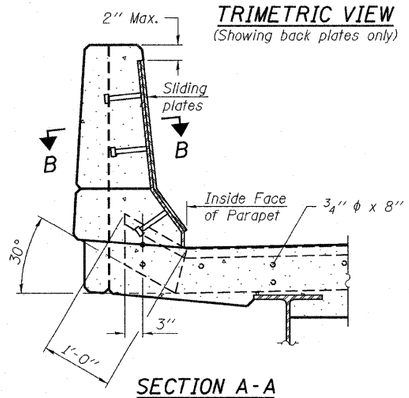
The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS



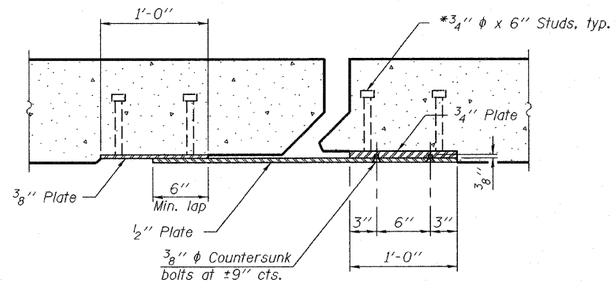
PLAN



SECTION A-A

TRIMETRIC VIEW

(Showing back plates only)



SECTION B-B

POINT BLOCK DETAILS

(for skews > 30°)

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	178

DESIGNED	IJL
CHECKED	ATH
DRAWN	Kyle M. Steffen
CHECKED	IJL ATH

EXAMINED MARCH 9, 2010 — ENGINEER OF STRUCTURAL SERVICES

PASSED — ENGINEER OF BRIDGES AND STRUCTURES

EJ-SSJ 11-1-09

PREFORMED JOINT STRIP SEAL DETAILS
SN 101-0067 (E.B.) & 0068 (W.B.)

SHEET NO. 5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	WINNEBAGO	36	21
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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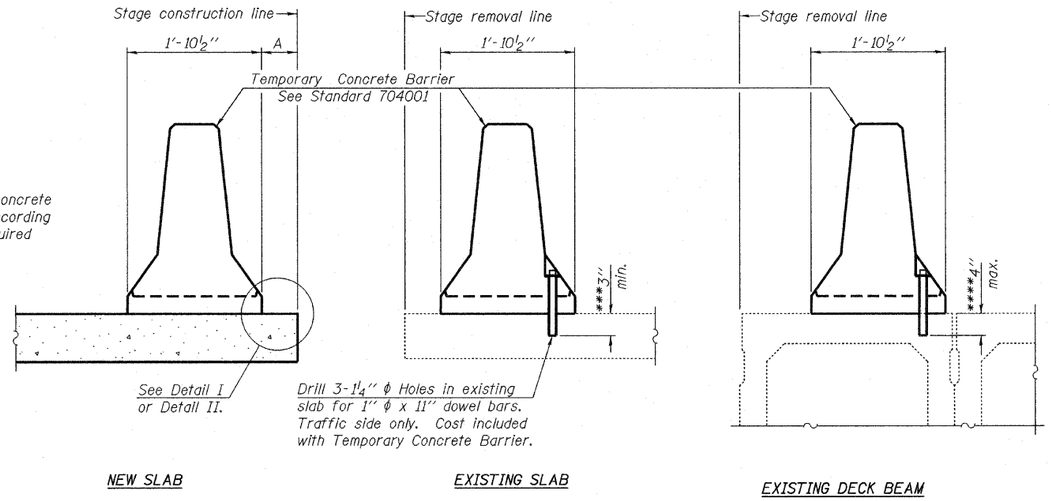
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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 ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℄ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

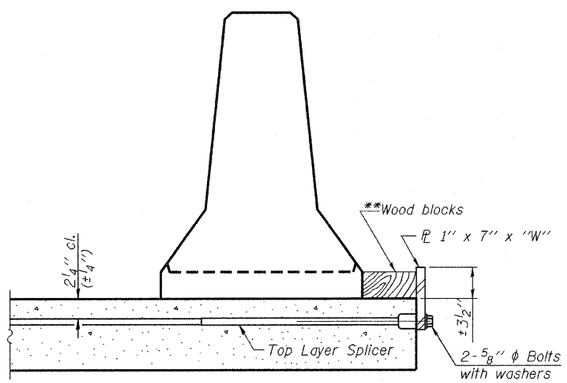
Cost of anchorage is included with Temporary Concrete Barrier.

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.

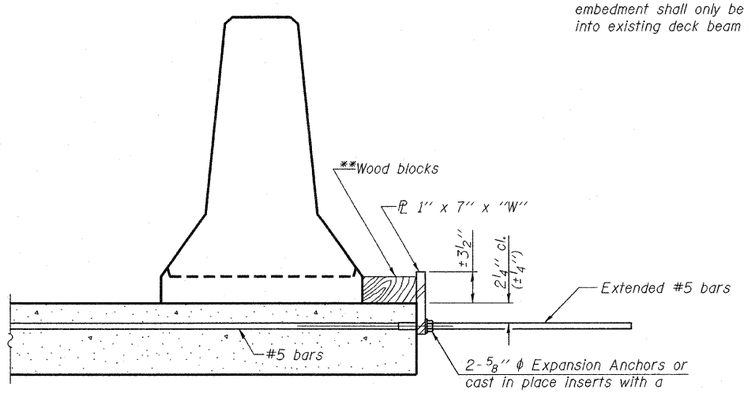
SECTIONS THRU SLAB OR DECK BEAM

*** 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.



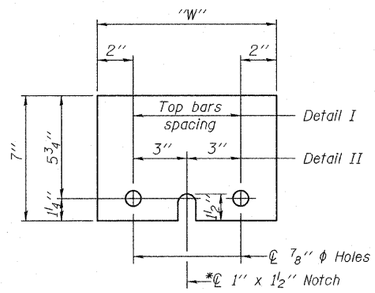
DETAIL I



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.

"W" = Top bars spacing + 4"



STEEL RETAINER ℄ 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
SN 101-0067 (E.B.) & 0068 (W.B.)

DESIGNED	IJL
CHECKED	ATH
DRAWN	Kyle M. Steffen
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED A. Carl Tunzy ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

R-27 11-1-09

SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	WINNEBAGO	36	22
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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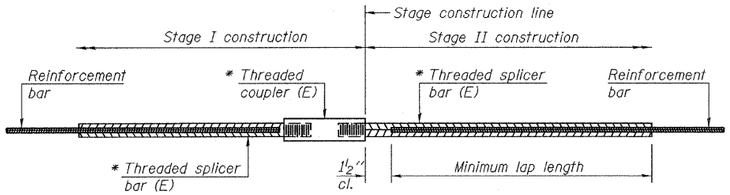
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

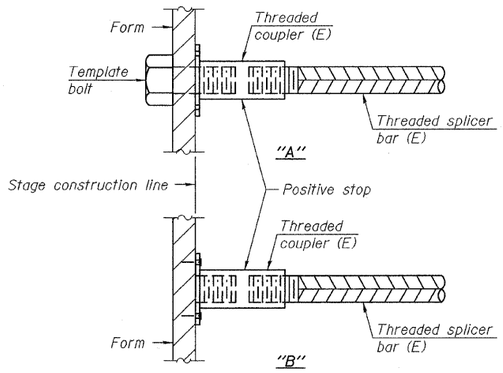
Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

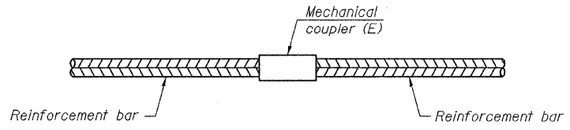
** Location	** Bar size	** No. assemblies required	** Table for minimum lap length
North Abutment	#5	10	3
North Abutment	#6	4	3
South Abutment	#5	10	3
South Abutment	#6	4	3

** Typical each structure



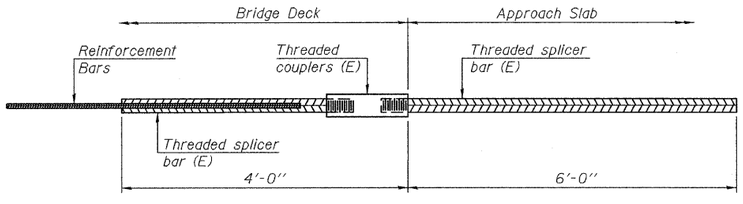
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



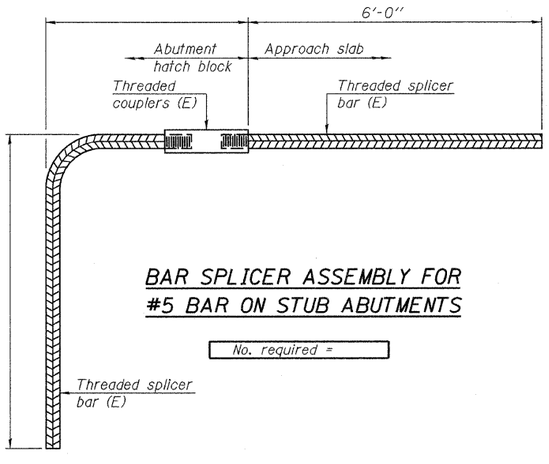
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED		IJL
CHECKED		ATH
DRAWN	Kyle M. Steffen	
CHECKED	IJL	ATH

MARCH 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-09

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS SN 101-0067 (E.B.) & 0068 (W.B.)

SHEET NO. 7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	WINNEBAGO	36	23
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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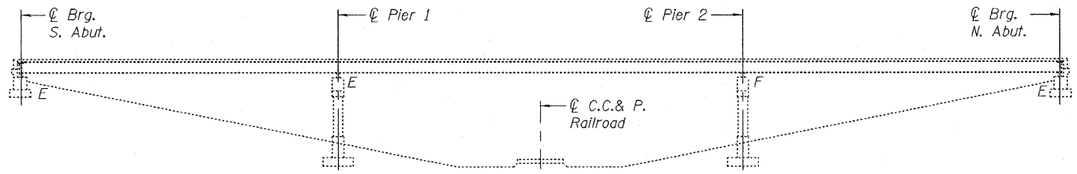
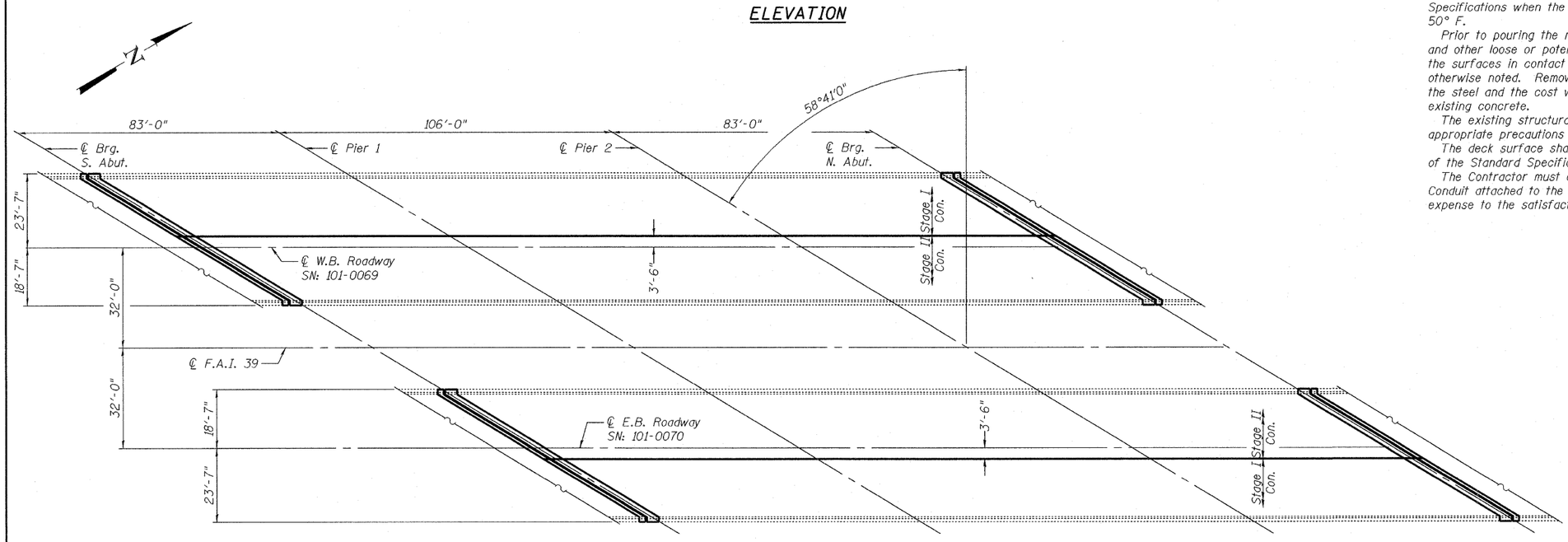
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

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

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

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.

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

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

The Contractor must exercise extreme care as not to damage the Fiber Optic Conduit attached to the structure. Any damage is to be repaired at the Contractor's expense to the satisfaction of the Utility Company.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
	Concrete Removal	Cu. Yd.	52.9
	Concrete Superstructure	Cu. Yd.	53
	Reinforcement Bars, Epoxy Coated	Pound	5620
	Preformed Joint Strip Seal	Foot	308
	Bar Splicers	Each	56
*	Protective Coat	Sq. Yd.	110

*Apply to new concrete only.

DESIGNED	Ivin J. Pitts
CHECKED	Adrian T. Holloway
DRAWN	
CHECKED	IJL ATH

March 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS · RALPH E. ANDERSON · 081-004625 · SPRINGFIELD · LICENSED STRUCTURAL ENGINEER

Expires: November 30, 2010

PLAN AND ELEVATION
SN 101-0069 & 0070

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1	39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	24
6 SHEETS			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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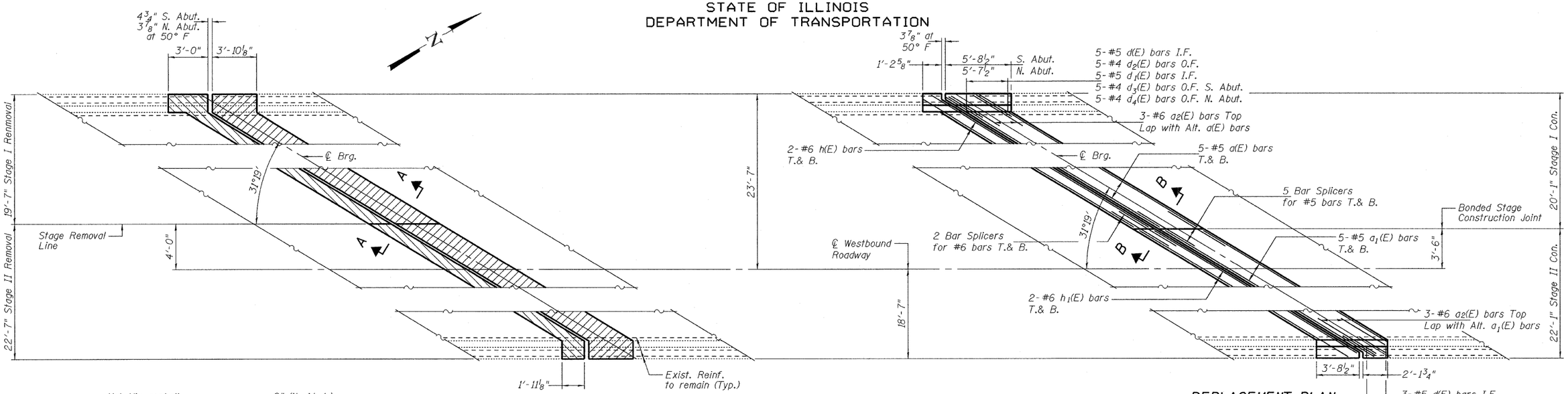
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



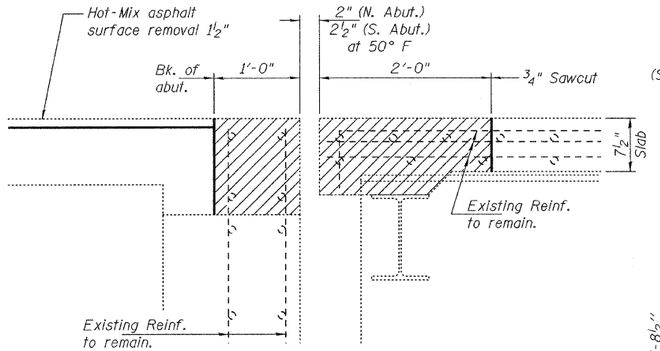
REMOVAL PLAN

(S. Abut. shown. N Abut. similar by rotation)

REPLACEMENT PLAN

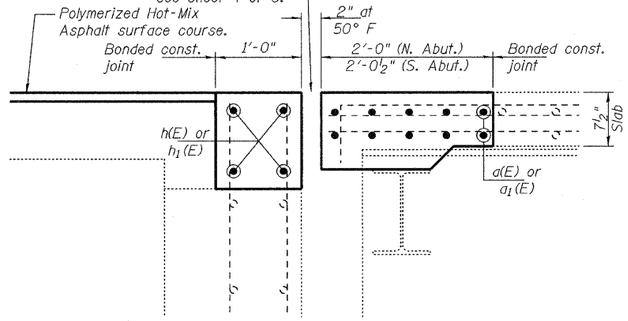
(S. Abut. shown. N Abut. similar by rotation)

3-#5 d(E) bars I.F.
3-#4 d2(E) bars O.F.
3-#5 d1(E) bars I.F.
3-#4 d3(E) bars O.F. S. Abut.
3-#4 d4(E) bars O.F. N. Abut.



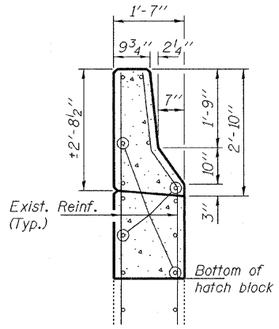
SECTION A-A

(Near ℄ Roadway)
(Dims at RT L's to end of deck)



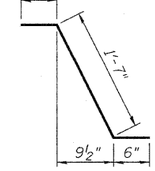
SECTION B-B

(Near ℄ Roadway)
(Dims at RT L's to end of deck)

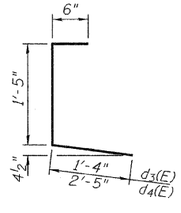


TYPICAL SECTION AT APPROACH PARAPET

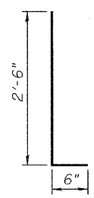
Remove portion of wingwall as required at corners to allow clearance for new deck overhang. Cut reinf. flush and seal surface with epoxy. Cost included with Concrete Removal.



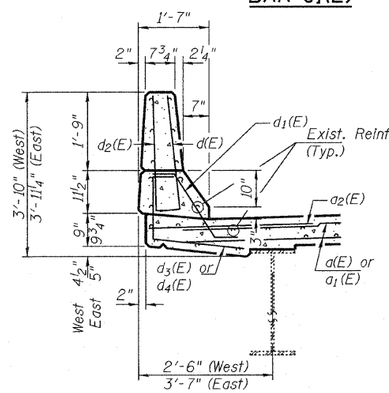
BAR d1(E)



BAR d3(E) & d4(E)



BARS d(E) & d2(E)



TYPICAL PARAPET SECTION

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	20	#5	36'-7"	——
a1(E)	20	#5	40'-5"	——
a2(E)	12	#6	4'-6"	——
d(E)	16	#5	3'-0"	L
d1(E)	16	#5	2'-7"	L
d2(E)	16	#4	3'-0"	L
d3(E)	8	#4	3'-3"	L
d4(E)	8	#4	4'-4"	L
h(E)	8	#6	38'-0"	——
h1(E)	8	#6	41'-10"	——
Concrete Removal			Cu. Yd.	26.3
Concrete Superstructure			Cu. Yd.	26.4
Reinforcement Bars, Epoxy Coated			Lbs.	2810

WESTBOUND JOINT DETAILS SN 101-0069 & 0070

Notes:
Hatched areas indicate removal.

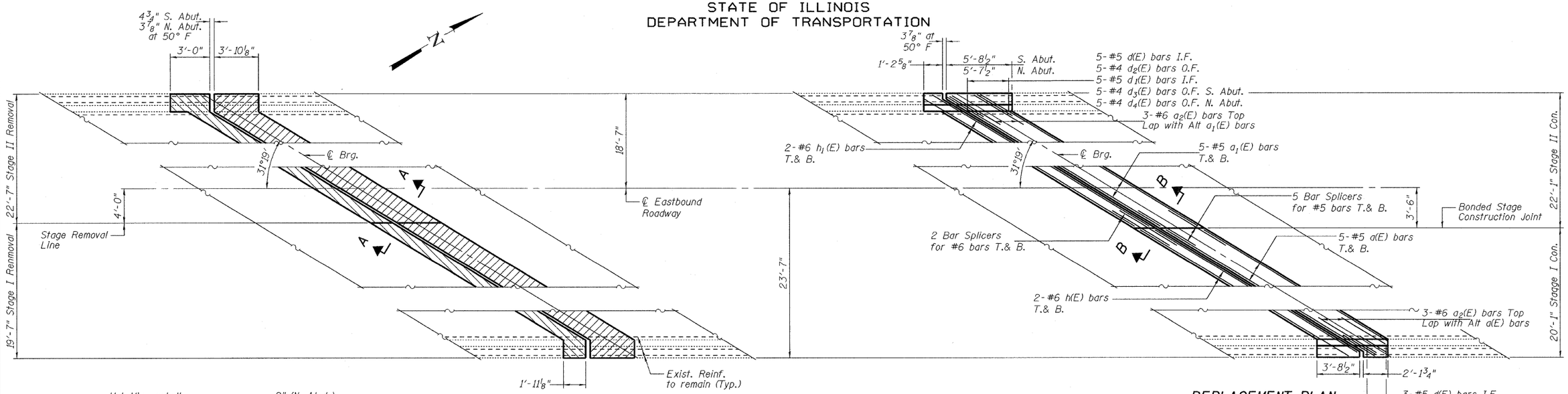
DESIGNED	I.J.L.
CHECKED	ATH
DRAWN	
CHECKED	I.J.L. ATH

March 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	25
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SLT-92-001-10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



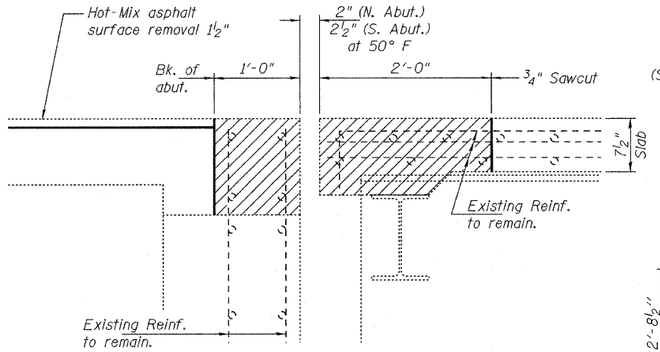
REMOVAL PLAN

(S. Abut. shown, N Abut. similar by rotation)

REPLACEMENT PLAN

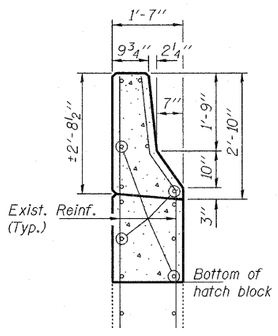
(S. Abut. shown, N Abut. similar by rotation)

3-#5 d(E) bars I.F.
3-#4 d2(E) bars O.F.
3-#5 d1(E) bars I.F.
3-#4 d3(E) bars O.F. S. Abut.
3-#4 d4(E) bars O.F. N. Abut.



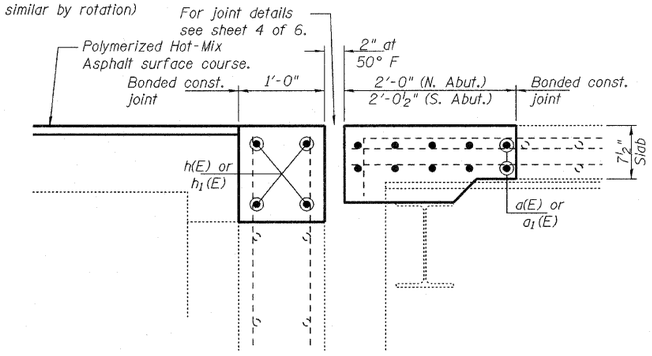
SECTION A-A

(Near ℄ Roadway)
(Dims at RT L's to end of deck)



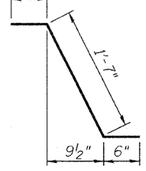
TYPICAL SECTION AT APPROACH PARAPET

Remove portion of wingwall as required at corners to allow clearance for new deck overhang. Cut reinf. flush and seal surface with epoxy. Cost included with Concrete Removal.

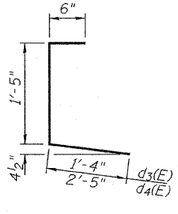


SECTION B-B

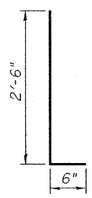
(Near ℄ Roadway)
(Dims at RT L's to end of deck)



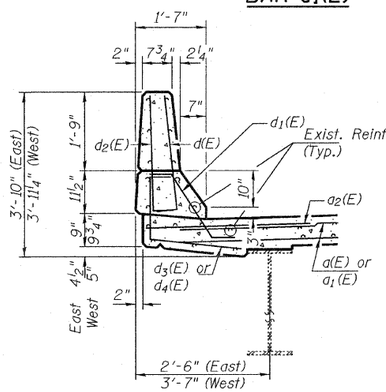
BAR d1(E)



BAR d3(E) & d4(E)



BARS d(E) & d2(E)



TYPICAL PARAPET SECTION

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	20	#5	36'-7"	——
a1(E)	20	#5	40'-5"	——
a2(E)	12	#6	4'-6"	——
d(E)	16	#5	3'-0"	L
d1(E)	16	#5	2'-7"	⌐
d2(E)	16	#4	3'-0"	L
d3(E)	8	#4	3'-3"	⌐
d4(E)	8	#4	4'-4"	⌐
h(E)	8	#6	38'-0"	——
h1(E)	8	#6	41'-10"	——
Concrete Removal			Cu. Yd.	26.6
Concrete Superstructure			Cu. Yd.	26.6
Reinforcement Bars, Epoxy Coated			Lbs.	2810

EASTBOUND JOINT DETAILS SN 101-0069 & 0070

Notes:
Hatched areas indicate removal.

DESIGNED	I.J.L.
CHECKED	ATH
DRAWN	
CHECKED	I.J.L. ATH

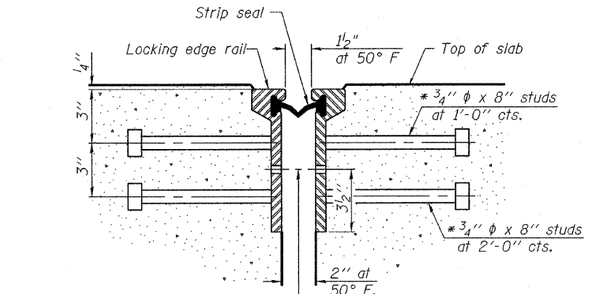
March 9, 2010
EXAMINED A. Carl Peugeot
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	26
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SLT-92-001-10

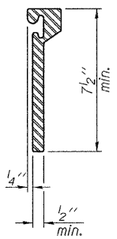
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

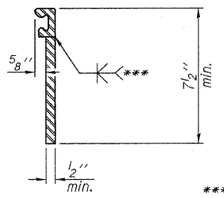


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

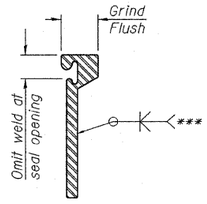
SECTION THRU ROLLED RAIL JOINT



ROLLED EXTRUDED RAIL



WELDED RAIL

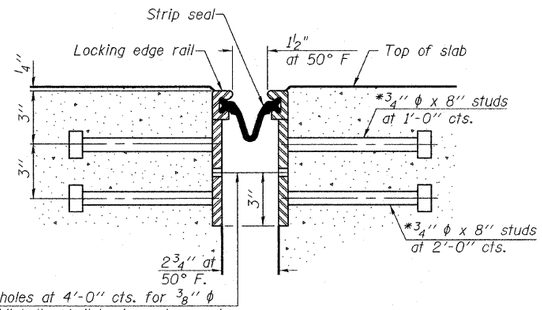


*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

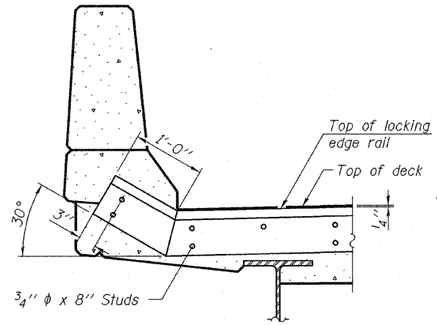
The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.



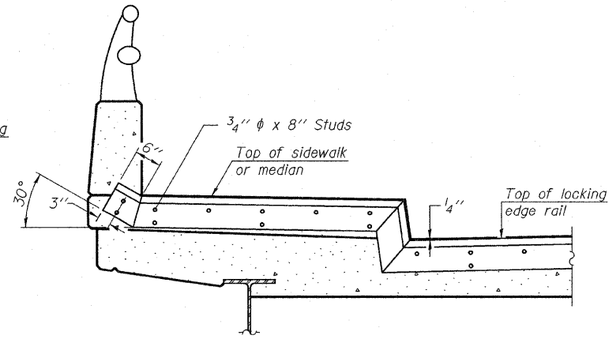
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT



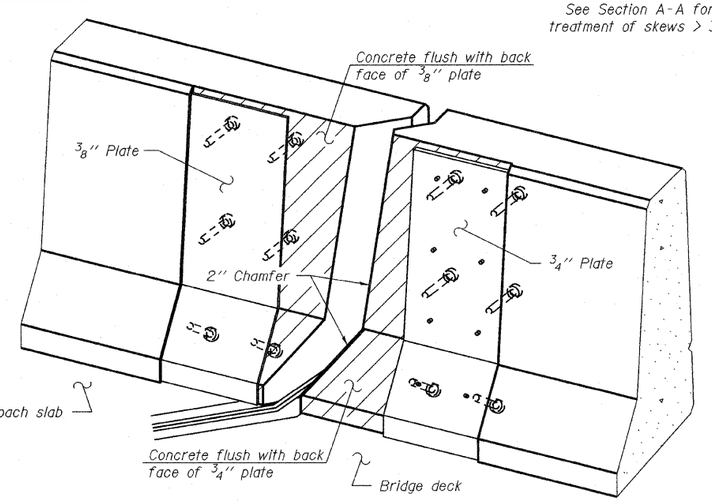
AT PARAPET

See Section A-A for end treatment of skews > 30°.



AT SIDEWALK OR MEDIAN

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



TRIMETRIC VIEW

(Showing back plates only)

TYPICAL END TREATMENTS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

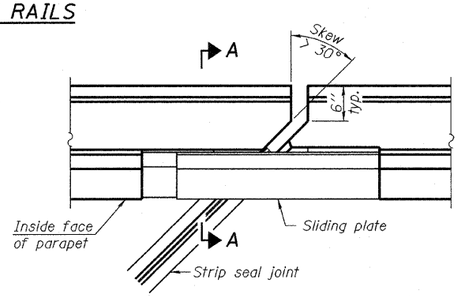
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

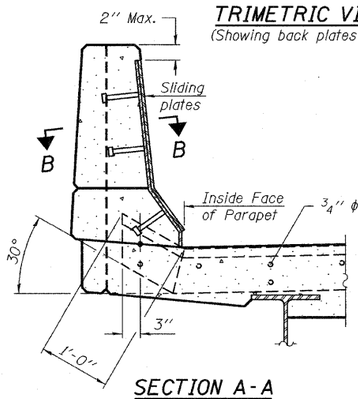
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

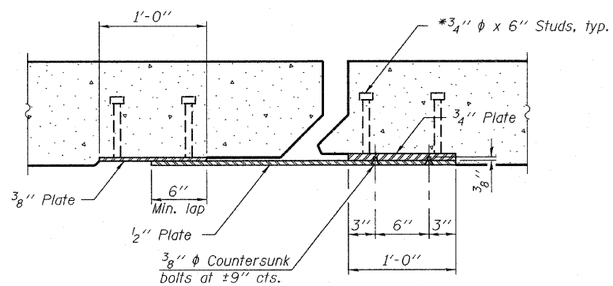
LOCKING EDGE RAILS



PLAN



SECTION A-A



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	308

POINT BLOCK DETAILS

(for skews > 30°)

STRIP SEAL DETAILS SN 101-0069 & 0070

DESIGNED	I.J.L.				
CHECKED	ATH				
DRAWN	Drew Christopher				
CHECKED	I.J.L. ATH				

March 9, 2010

EXAMINED — ENGINEER OF STRUCTURAL SERVICES

PASSED — ENGINEER OF BRIDGES AND STRUCTURES

EJ-SSJ 11-1-09

SLT-92-001-10

SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	27
			CONTRACT NO.	64G12	
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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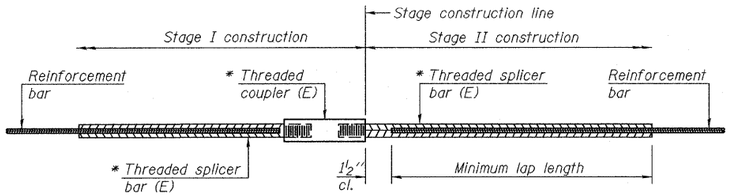
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

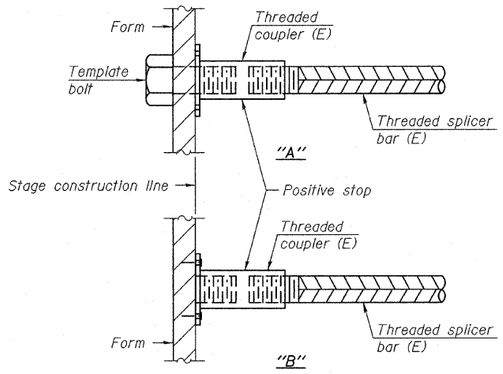
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

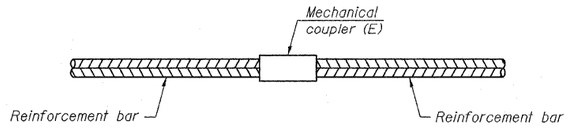
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
0069 N. Abutment	#5	10	3
0069 N. Abutment	#6	4	3
0069 S. Abutment	#5	10	3
0069 S. Abutment	#6	4	3
0070 N. Abutment	#5	10	3
0070 N. Abutment	#6	4	3
0070 S. Abutment	#5	10	3
0070 S. Abutment	#6	4	3



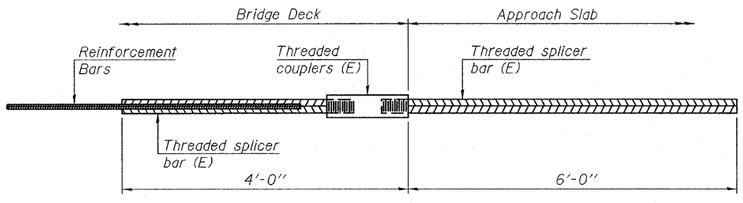
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



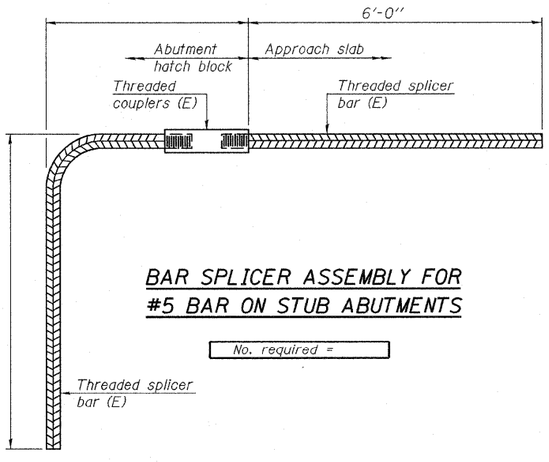
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED	I.J.L.
CHECKED	ATH
DRAWN	Drew Christopher
CHECKED	I.J.L. ATH

March 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-09

SLT-92-001-10

BAR SPLICER DETAILS SN 101-0069 & 0070

SHEET NO. 5 6 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	28
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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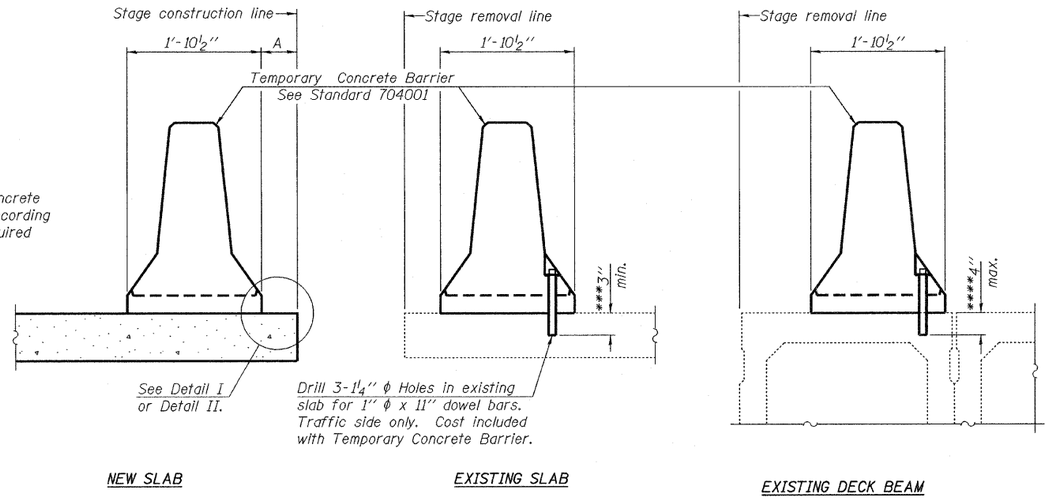
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

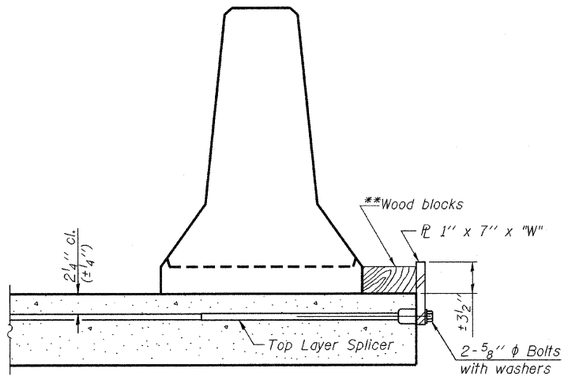
Cost of anchorage is included with Temporary Concrete Barrier.

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.

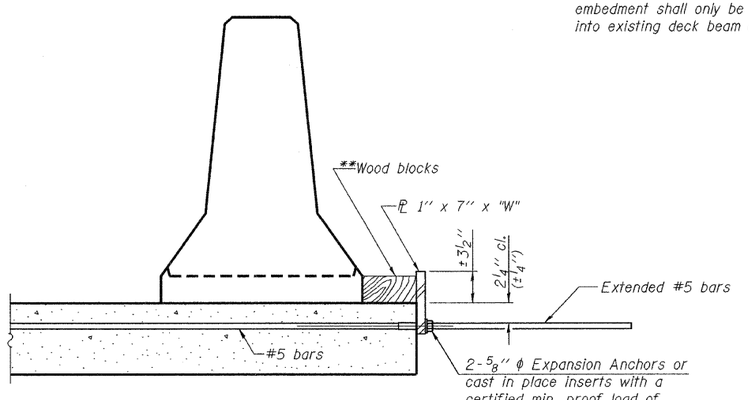
SECTIONS THRU SLAB OR DECK BEAM

*** 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.



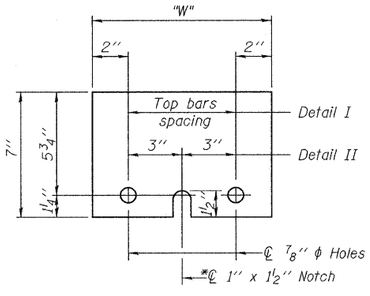
DETAIL I



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.

"W" = Top bars spacing + 4"



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
SN 101-0069 & 0070

SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6 SHEETS	39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	29
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DESIGNED	I.J.L.
CHECKED	ATH
DRAWN	Drew Christopher
CHECKED	I.J.L. ATH

March 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

R-27 11-1-09

SLT-92-001-10

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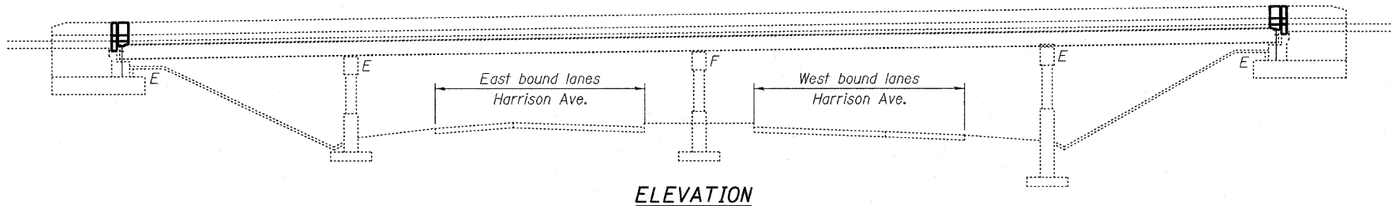
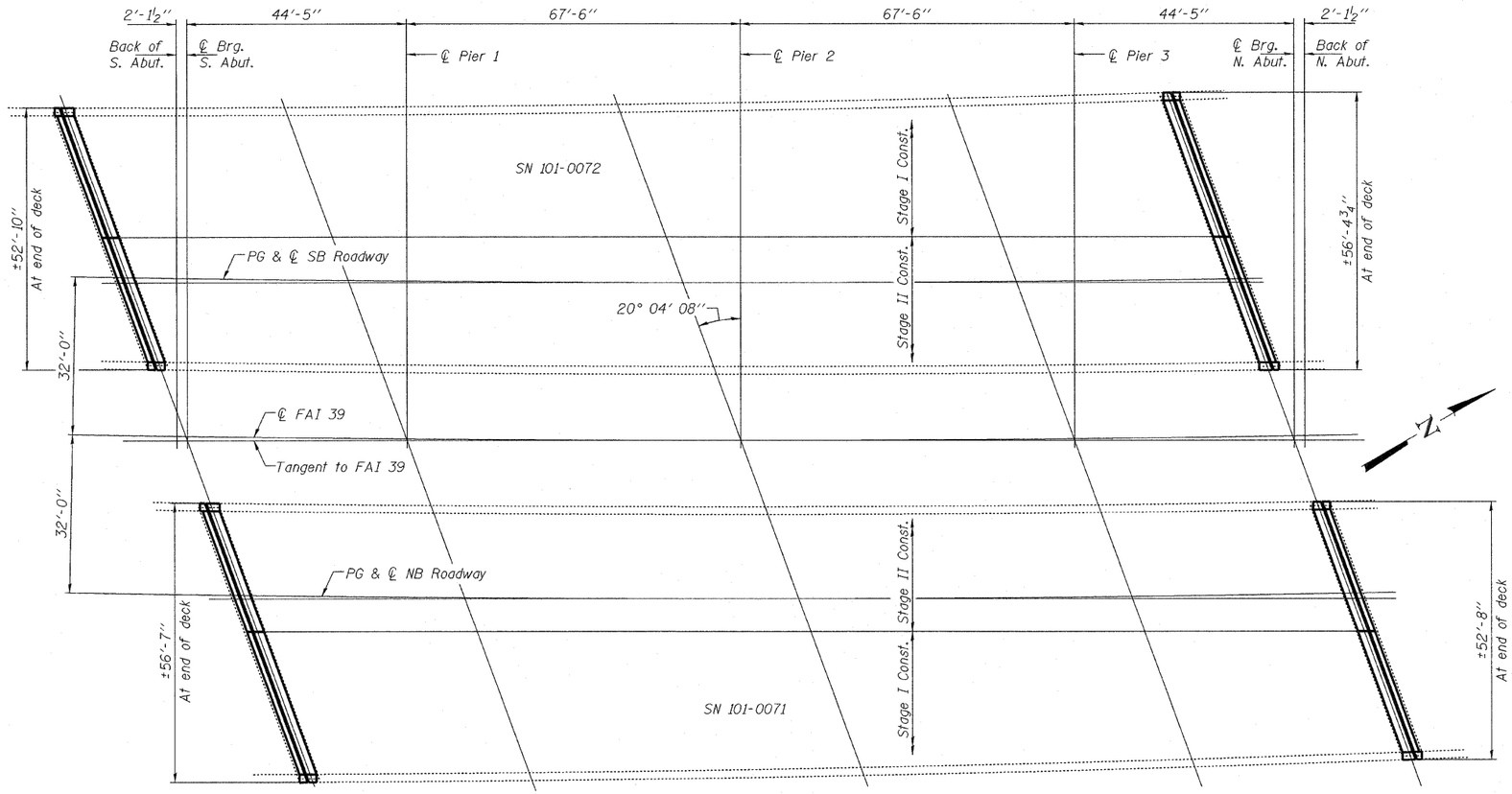
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN

Horizontal dimensions are along local tangent

GENERAL NOTES

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

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.

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

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

Reinforcement bars designated (E) shall be epoxy coated.

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

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
	Concrete Removal	Cu. Yd.	36.5
	Concrete Superstructure	Cu. Yd.	37.0
	Preformed Joint Strip Seal	Foot	228
	Reinforcement Bars, Epoxy Coated	Pound	4160
	Bar Splicers	Each	56
*	Protective Coat	Sq. Yd.	85

* On new concrete only

DESIGNED	[illegible]
CHECKED	Adrian T. Halloway
DRAWN	baliva
CHECKED	JSL ATH

MARCH 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS · ROBERT E. ANDERSON · 081-004625 · SPRINGFIELD · LICENSED STRUCTURAL ENGINEER

EXPIRES 11-30-2010

PLAN AND ELEVATION
FAI 39 OVER HARRISON AVE.
SN 101-0071 & 0072

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY,4VBY-1,5HB)M	WINNEBAGO	36	30
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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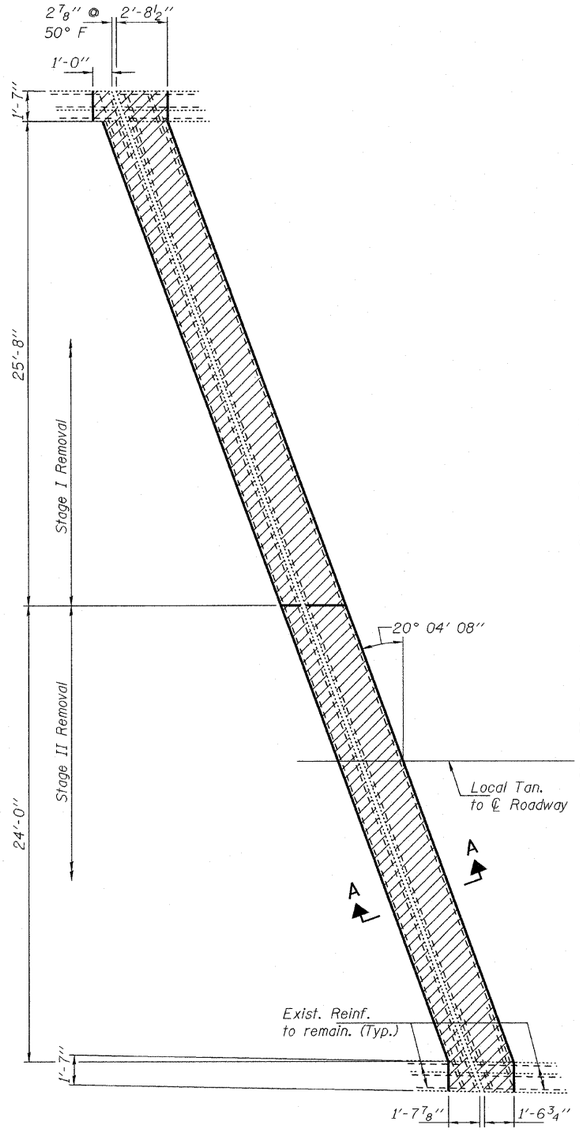
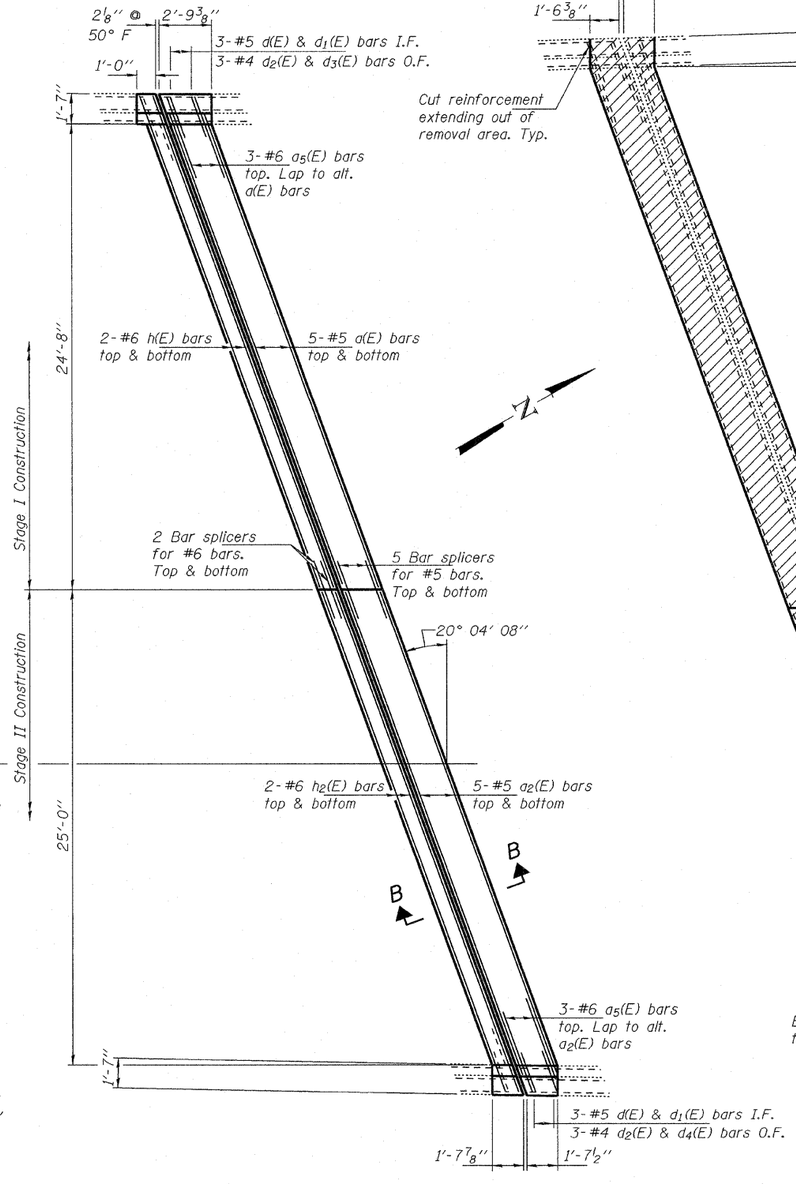
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

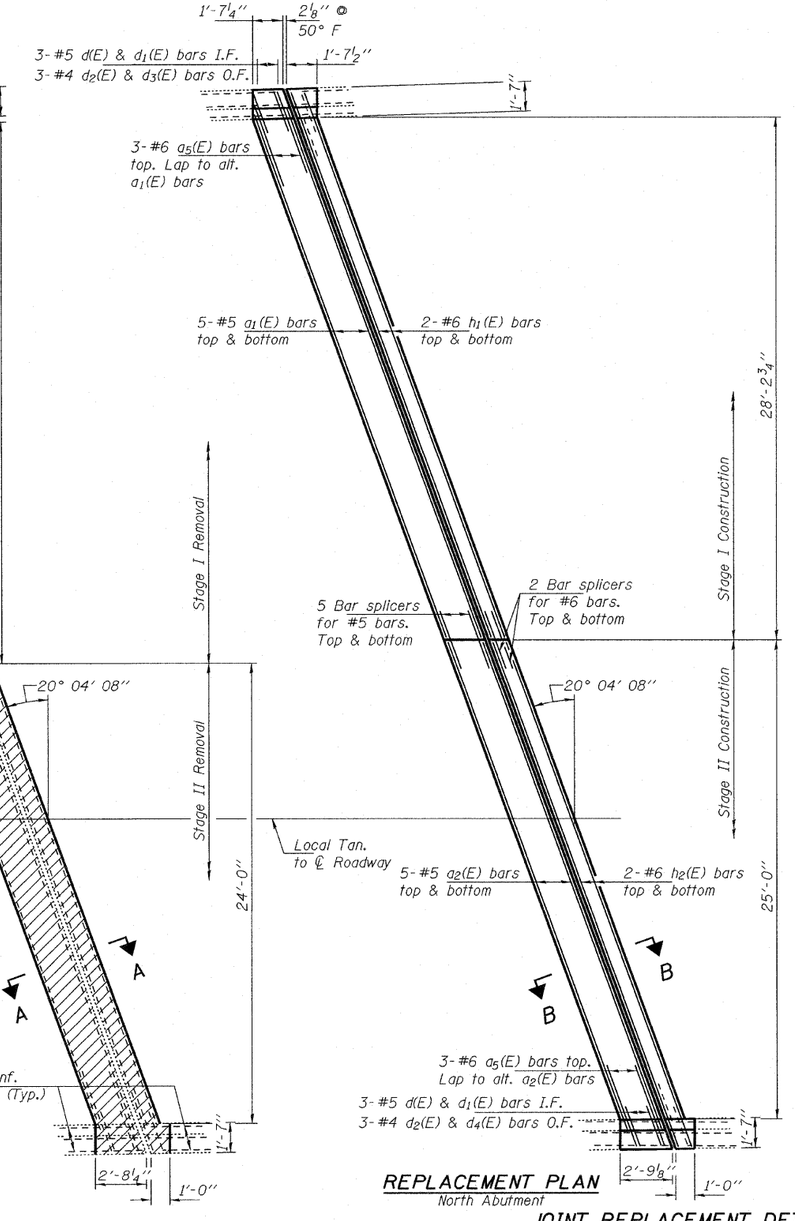


REMOVAL PLAN
South Abutment



REPLACEMENT PLAN
South Abutment

REMOVAL PLAN
North Abutment



REPLACEMENT PLAN
North Abutment

JOINT REPLACEMENT DETAILS FAI 39 OVER HARRISON AVE. SN 101-0072

DESIGNED	IJL
CHECKED	ATH
DRAWN	balliva
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

Notes:
Hatched areas indicate removal.
Cut a(E) thru a_2(E) & h(E) thru h_2(E) bars as required.
For Sections A-A & B-B, bar details and Bill of Material, see sheet 4 of 7.

SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY,4VBY-1,5HB)M	WINNEBAGO	36	31
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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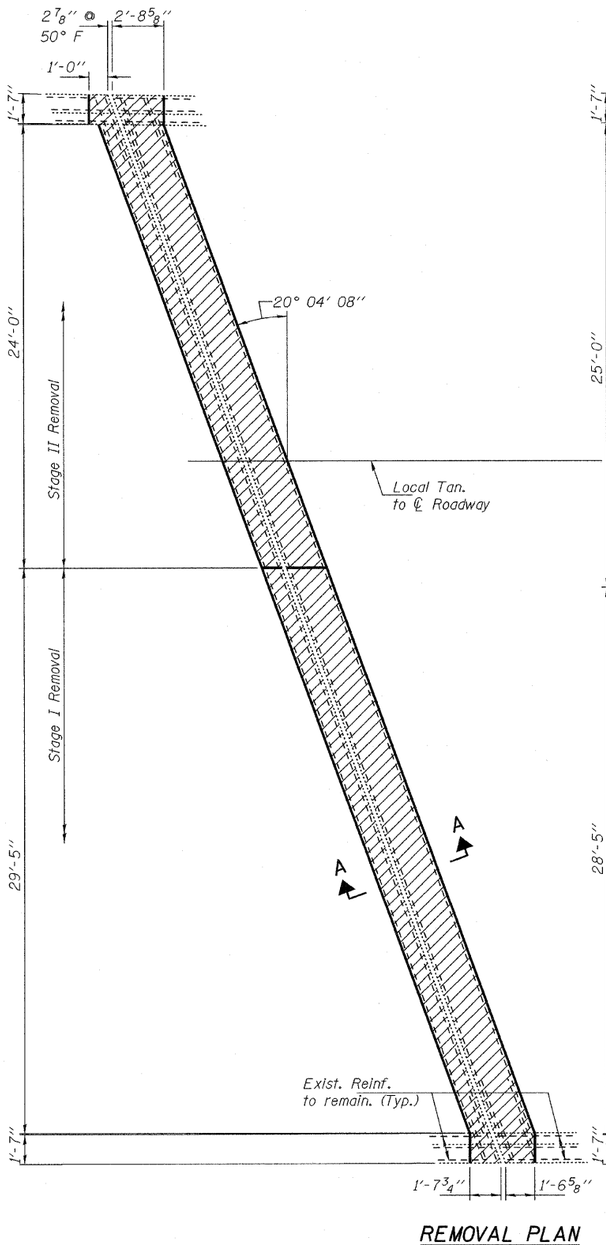
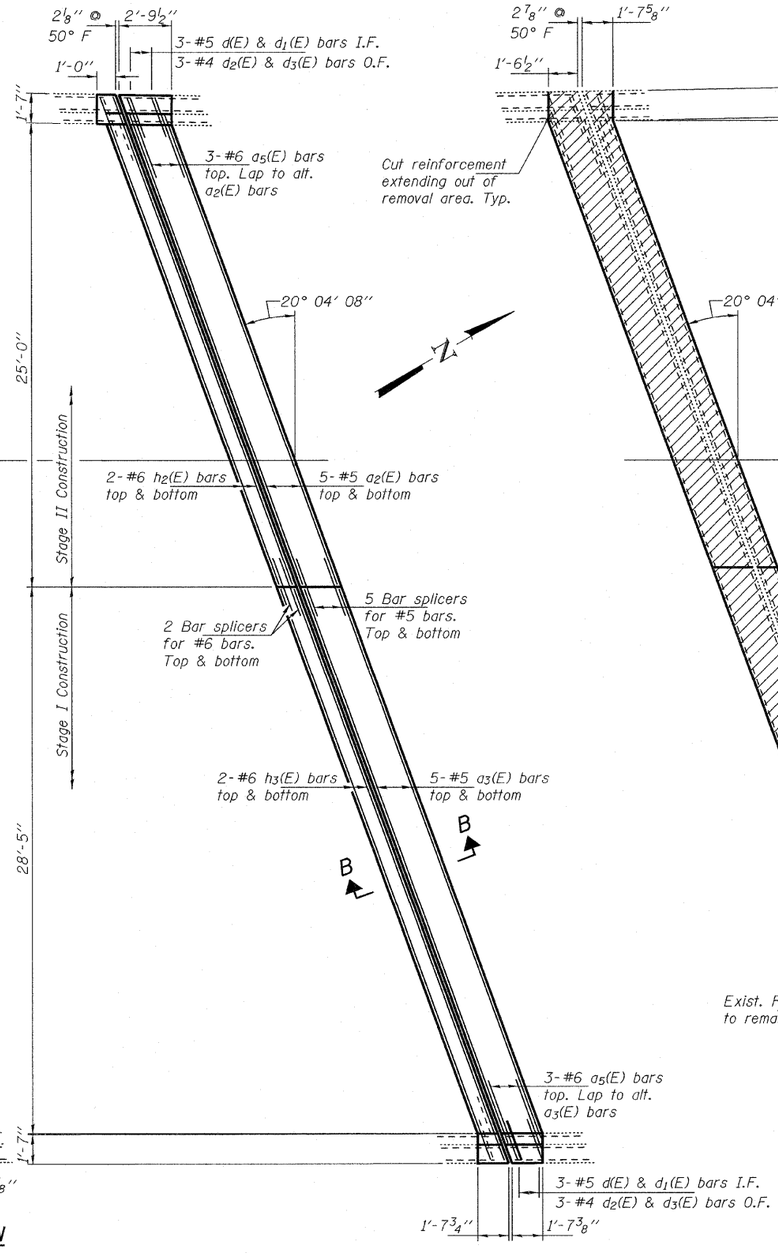
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

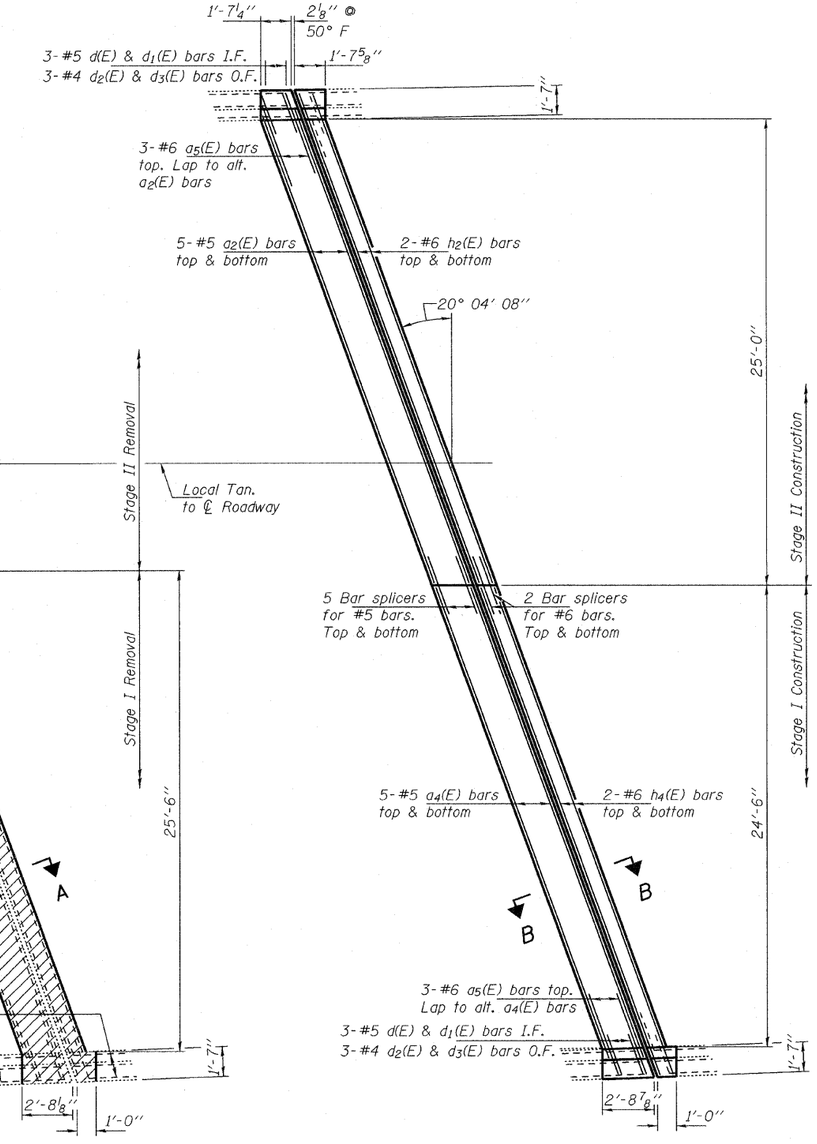


REMOVAL PLAN
South Abutment



REPLACEMENT PLAN
South Abutment

REMOVAL PLAN
North Abutment



REPLACEMENT PLAN
North Abutment

Notes:
Hatched areas indicate removal.
Cut $a_2(E)$ thru $a_4(E)$ & $h_2(E)$ thru $h_4(E)$ bars as required.
For Sections A-A & B-B, bar details and Bill of Material, see sheet 4 of 7.

JOINT REPLACEMENT DETAILS
FAI 39 OVER HARRISON AVE.
SN 101-0071

DESIGNED	IJL
CHECKED	ATH
DRAWN	baliva
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED A Carl Purvis
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY,4VBY-1,5HB)M	WINNEBAGO	36	32
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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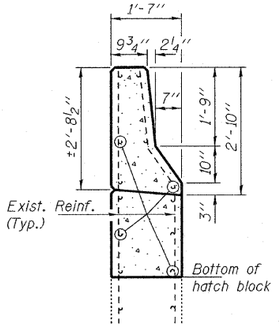
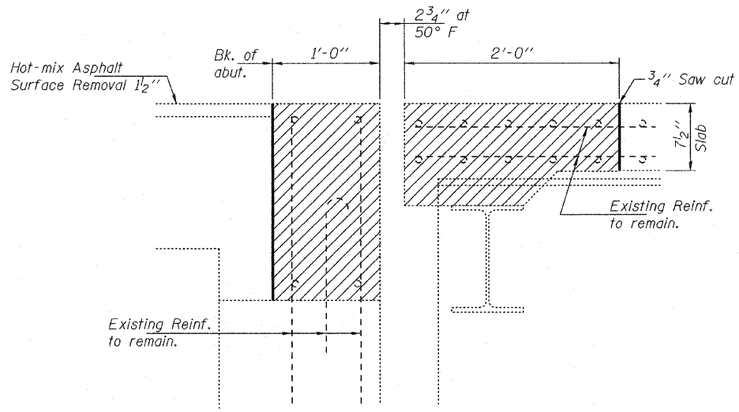
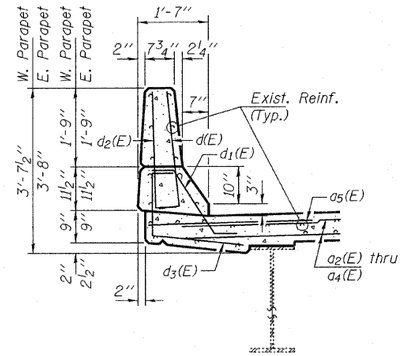
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



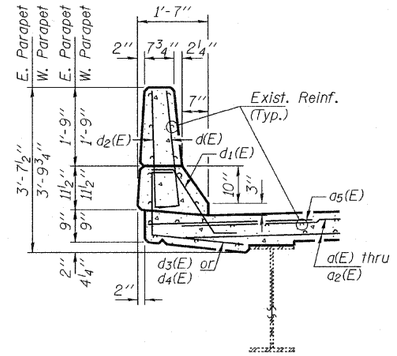
TYPICAL SECTION AT APPROACH PARAPET



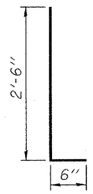
SECTION A-A
(Near ℄ Roadway)
(Dimensions are at RT L's to end of deck)



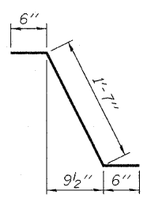
TYPICAL PARAPET SECTION
SN 101-0071



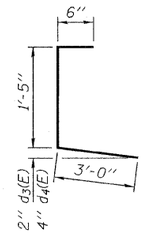
TYPICAL PARAPET SECTION
SN 101-0072



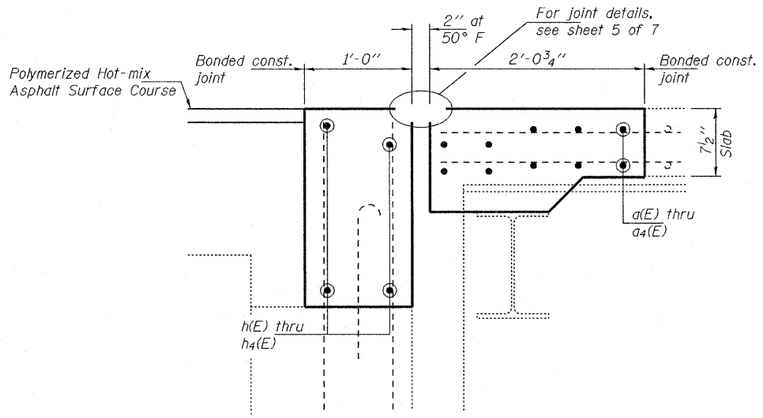
BARS d(E) & d2(E)



BAR d1(E)



BARS d3(E) & d4(E)



SECTION B-B
(Near ℄ Roadway)
(Dimensions are at RT L's to end of deck)

BILL OF MATERIAL
SN 101-0071

Bar	No.	Size	Length	Shape
a2(E)	20	#5	27'-3"	——
a3(E)	10	#5	30'-9"	——
a4(E)	10	#5	26'-6"	——
a5(E)	12	#6	4'-10"	——
d(E)	12	#5	3'-0"	L
d1(E)	12	#5	2'-7"	⌝
d2(E)	12	#4	3'-0"	L
d3(E)	12	#4	4'-11"	⌐
h2(E)	8	#6	27'-11"	——
h3(E)	4	#6	31'-8"	——
h4(E)	4	#6	27'-6"	——
Concrete Removal			Cu. Yd.	18.0
Concrete Superstructure			Cu. Yd.	18.2
Reinforcement Bars, Epoxy Coated			Lbs.	2080

BILL OF MATERIAL
SN 101-0072

Bar	No.	Size	Length	Shape
a(E)	10	#5	26'-9"	——
a1(E)	10	#5	30'-7"	——
a2(E)	20	#5	27'-3"	——
a5(E)	12	#6	4'-10"	——
d(E)	12	#5	3'-0"	L
d1(E)	12	#5	2'-7"	⌝
d2(E)	12	#4	3'-0"	L
d3(E)	6	#4	4'-11"	⌐
d4(E)	6	#4	4'-11"	⌐
h(E)	4	#6	27'-7"	——
h1(E)	4	#6	31'-6"	——
h2(E)	8	#6	27'-11"	——
Concrete Removal			Cu. Yd.	18.5
Concrete Superstructure			Cu. Yd.	18.8
Reinforcement Bars, Epoxy Coated			Lbs.	2080

JOINT REPLACEMENT DETAILS
FAI 39 OVER HARRISON AVE.
SN 101-0071 & 0072

DESIGNED	IJL
CHECKED	ATH
DRAWN	baliva
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY,4VBY-1,5HB)M	WINNEBAGO	36	33
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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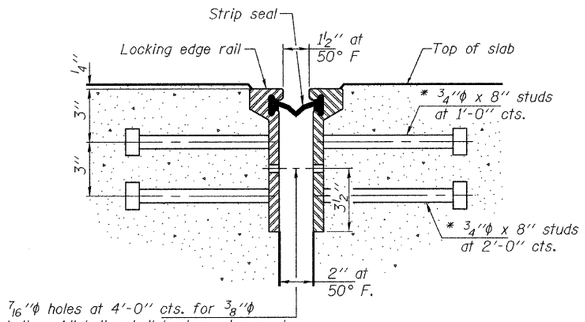
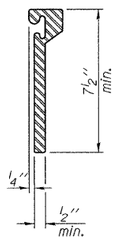
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

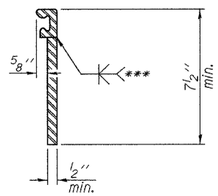


7/16"ϕ holes at 4'-0" cts. for ⅜"ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

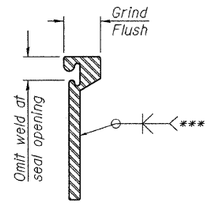
SECTION THRU ROLLED RAIL JOINT



ROLLED EXTRUDED RAIL



WELDED RAIL

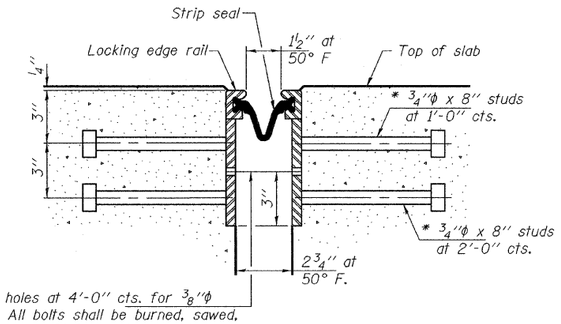


*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

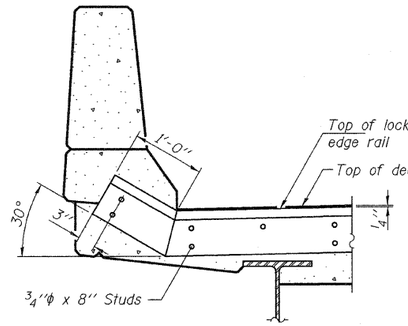
The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.



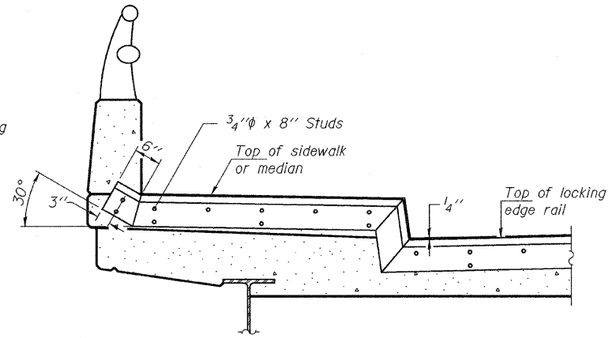
7/16"ϕ holes at 4'-0" cts. for ⅜"ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT



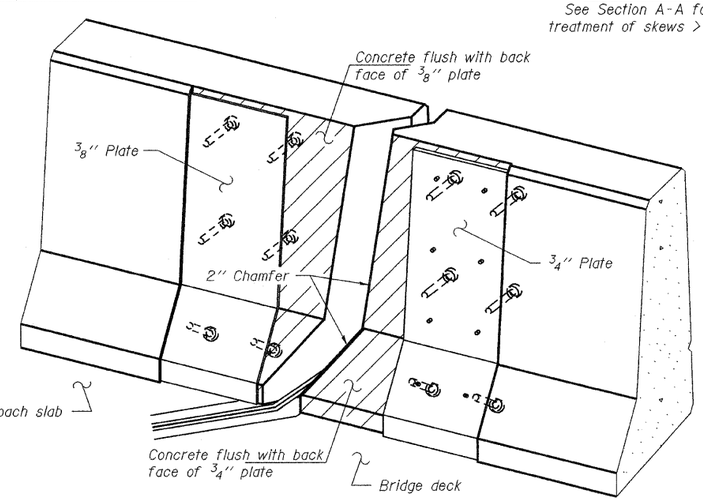
AT PARAPET

See Section A-A for end treatment of skews > 30°.



AT SIDEWALK OR MEDIAN

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



TYPICAL END TREATMENTS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

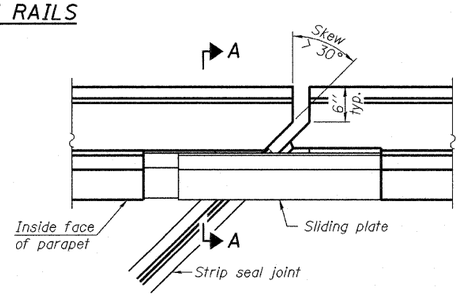
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

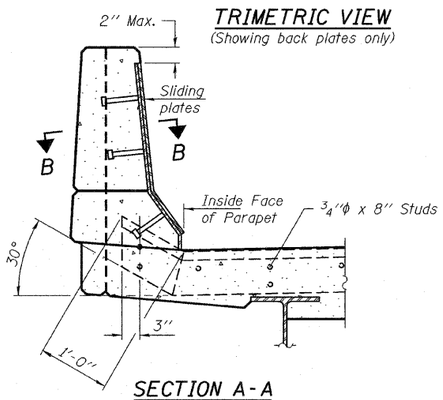
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

LOCKING EDGE RAILS



PLAN



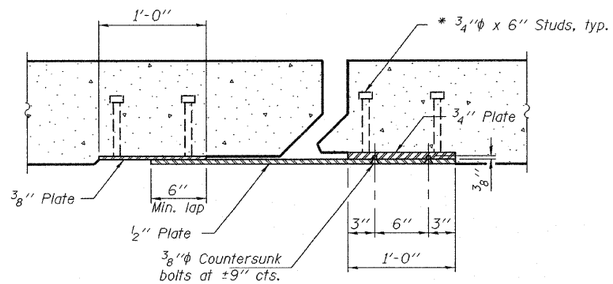
TRIMETRIC VIEW

(Showing back plates only)

SECTION A-A

POINT BLOCK DETAILS

(for skews > 30°)



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	228

PREFORMED JOINT STRIP SEAL FAI 39 OVER HARRISON AVE. SN 101-0071 & 0072

DESIGNED	IJL
CHECKED	ATH
DRAWN	balliva
CHECKED	IJL ATH

EXAMINED — MARCH 9, 2010 — ENGINEER OF STRUCTURAL SERVICES

PASSED — ENGINEER OF BRIDGES AND STRUCTURES

EJ-SSJ 11-1-09

SHEET NO. 5 7 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	39	(4VBY,4VBY-1,5HB)M	WINNEBAGO	36	34
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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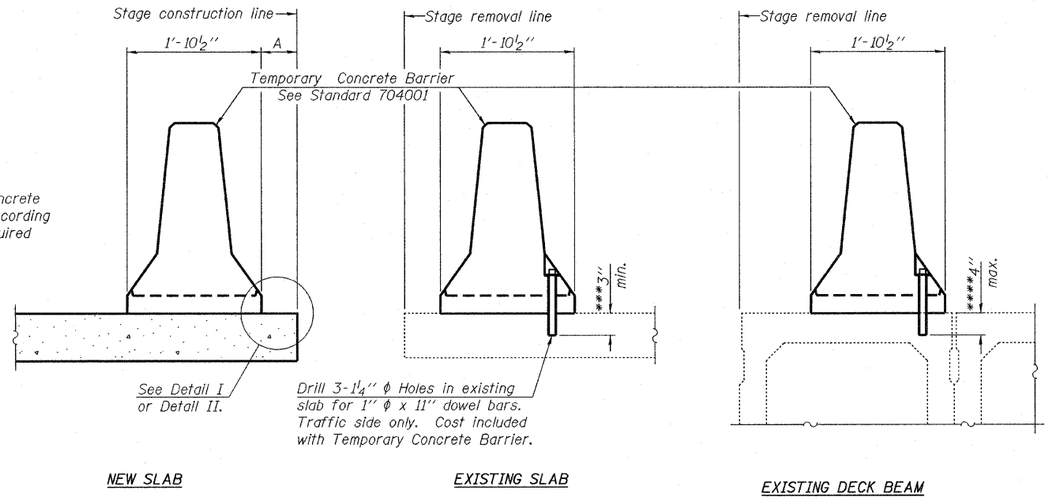
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

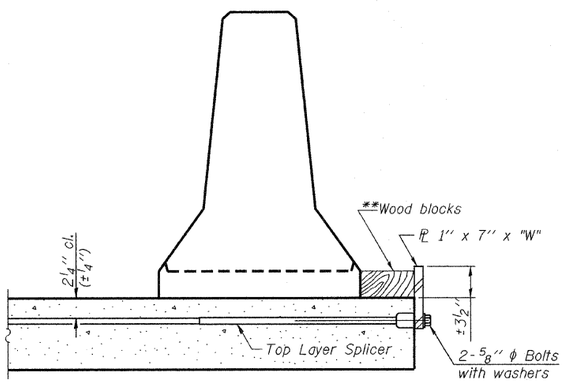
Cost of anchorage is included with Temporary Concrete Barrier.

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.

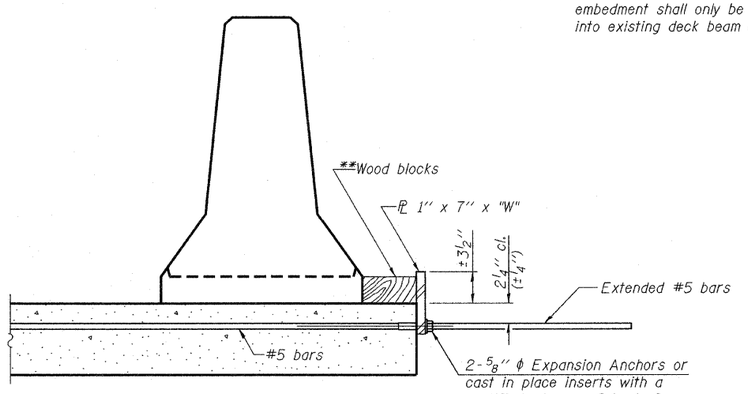
SECTIONS THRU SLAB OR DECK BEAM

*** 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.



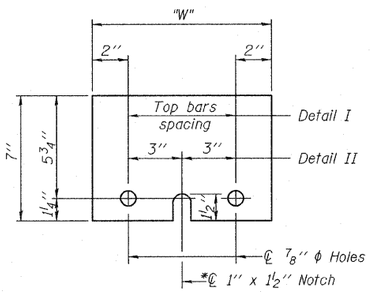
DETAIL I



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.

"W" = Top bars spacing + 4"



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FAI 39 OVER HARRISON AVE.
SN 101-0071 & 0072

DESIGNED	IJL
CHECKED	ATH
DRAWN	baliva
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED A. Carl Kruger ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

R-27 11-1-09

SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY,4VBY-1,5HB)M	WINNEBAGO	36	35
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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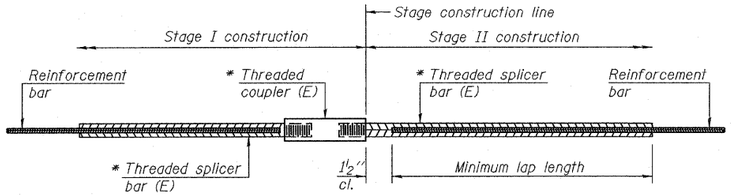
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

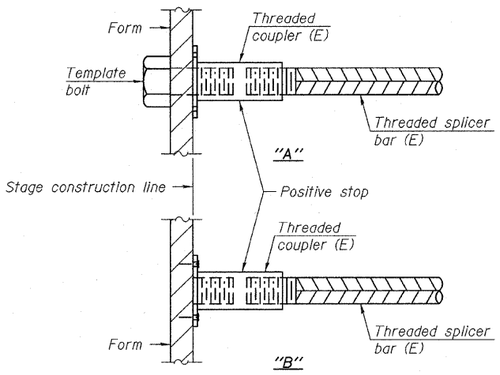
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

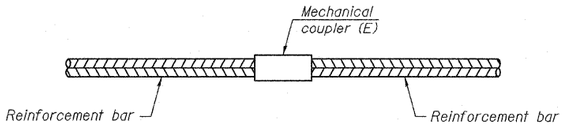
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
SN 101-0071 South Abutment	#5	10	3
SN 101-0071 South Abutment	#6	4	3
SN 101-0071 North Abutment	#5	10	3
SN 101-0071 North Abutment	#6	4	3
SN 101-0072 South Abutment	#5	10	3
SN 101-0072 South Abutment	#6	4	3
SN 101-0072 North Abutment	#5	10	3
SN 101-0072 North Abutment	#6	4	3



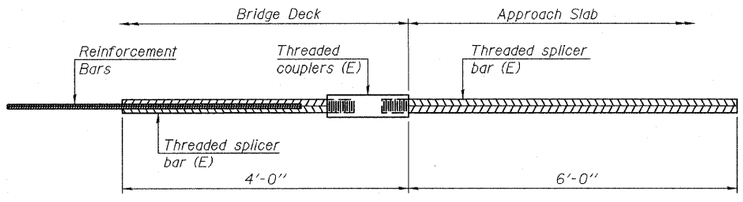
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



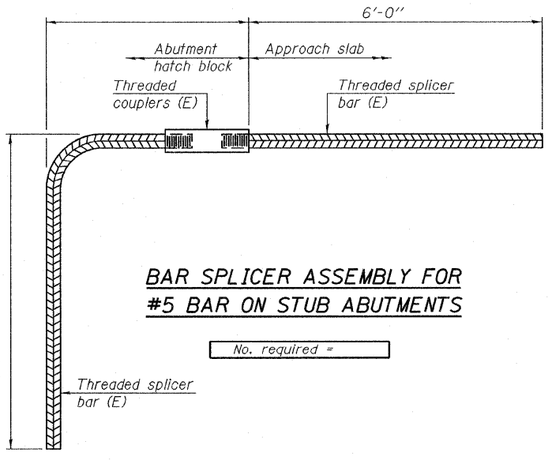
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED	IJL
CHECKED	ATH
DRAWN	baliva
CHECKED	IJL ATH

MARCH 9, 2010
EXAMINED A Carl Purvy
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

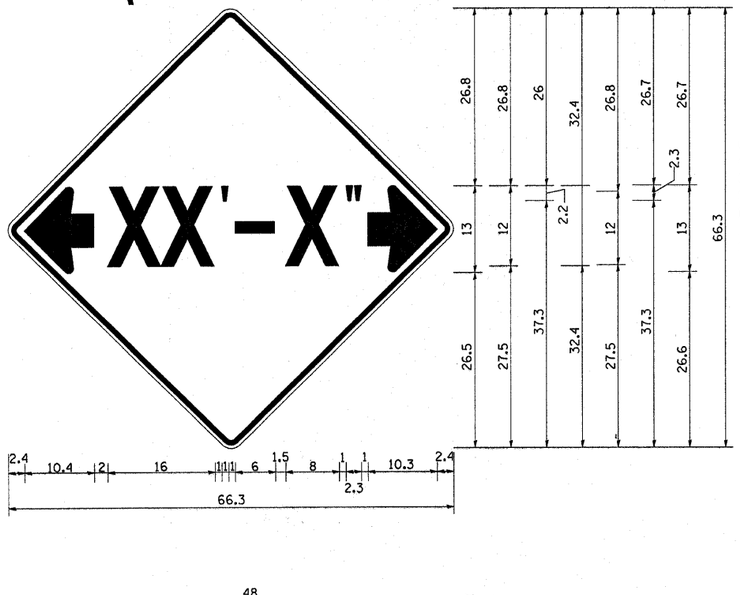
BSD-1 11-1-09

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS FAI 39 OVER HARRISON AVE. SN 101-0071 & 0072

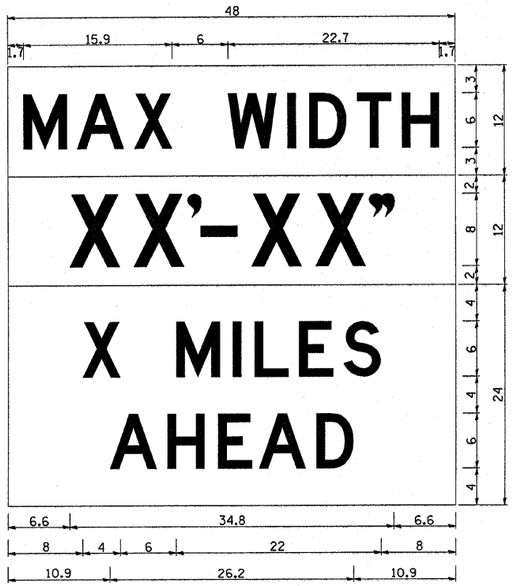
SHEET NO. 7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	39	(4VBY,4VBY-1,5HB)M	WINNEBAGO	36	35A
			CONTRACT NO. 64G12		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

1010071.dgn 3/9/2010 11:25:51 AM

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
W12-2 - Horizontal Clearance Sign
48.0" across sides, 1.9" Radius,
0.8" Border, 0.5" Indent, Black on
Orange; Standard Arrow Custom
10.4" X 8.1" 180° Black 11 Inch
D Series Lettering; Standard Arrow
Custom 10.4" X 8.1" 0°



W12-I103 (Width is 8D);
No border, Black on White;
[MAX WIDTH] D;

No border, Black on Orange;
[XX'-XX"] D;

No border, Black on White;
[X MILES] D; [AHEAD] D;

All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) 39.2

~~REVISED~~ = 5-15-09	USER NAME = linkdj	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD
O:\BR\CADD plans\Winnebago County\64G12	US 20 joints\PLANeng.dgn	DRAWN - ---	REVISED - ---		SCALE: _____ SHEET NO. __ OF ___ SHEETS STA. _____ TO STA. _____
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - ---	REVISED - ---		
	PLOT DATE = Mon Feb 08 13:06:55 2010	DATE - _____	REVISED - ---		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(4VBY, 4VBY-1, 5HB)M	Winnebago	36	36
		CONTRACT NO. 64G12		
	ILLINOIS FED. AID PROJECT			