

06-15-12 LETTING ITEM 026

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

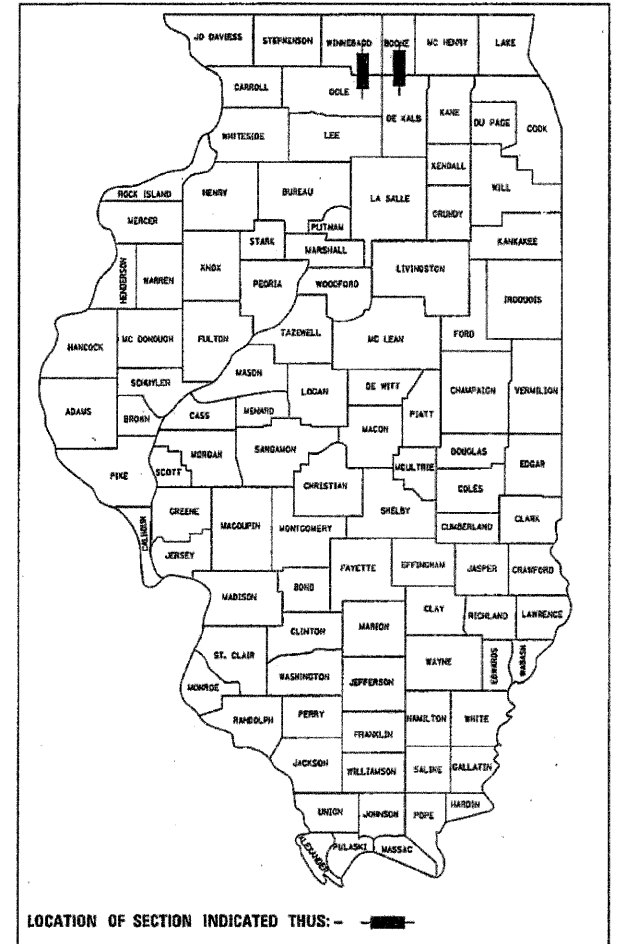
FAP 517 (US 20 BUS) & FAS 1042 (IL 251)
SECTION (1B, 1BR, 1B-2R)M
REMOVAL AND REPLACEMENT OF EXPANSION JOINTS
WINNEBAGO & BOONE COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(1B, 1BR, 1B-2R)M	**	31	1
ILLINOIS			CONTRACT NO. 64H75	

* FAP 517 (US 20 BUS) & FAS 1042 (IL 251)
** WINNEBAGO & BOONE

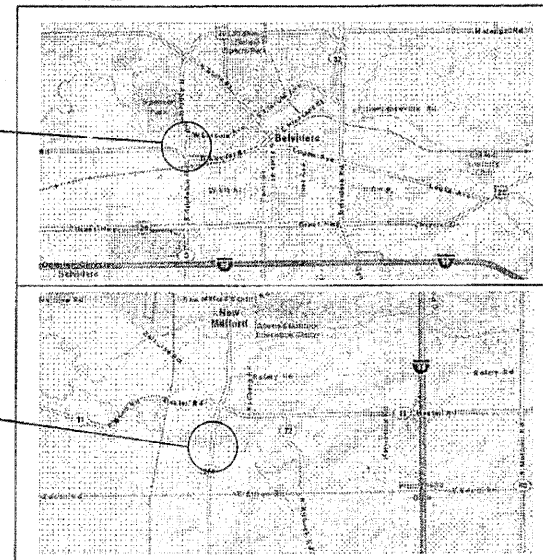
D-92-050-12



C-92-053-12

BOONE COUNTY

R 3 E R 4 E



T 44 N



T 43 N

R 1 E

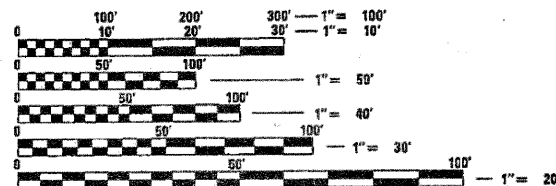
WINNEBAGO COUNTY

IL 251

Gross Length = 752 FT = .142 Mile
Net Length = 752 ft = .142 Mile

US BUS 20

Gross Length = 363 FT = .069 Mile
Net Length = 363 ft = .069 Mile



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 815284-5393

CONTRACT NO. 64H75

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 9 2012
Eric S. Theilacker
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11 2012
John D. Bramicelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

May 11 2012
William R. Frey
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

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- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

FILE NAME *	USER NAME = soars	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS - HIGHWAY STANDARDS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CAJoint Repar..64H75N64H75.PLAN.dgn		DRAWN -	REVISED -		SCALE: _____	SHEET NO. ___ OF ___ SHEETS	STA. _____ TO STA. _____	VAR.	(1B, 1BR, 1BR-2R)M	VARIOUS	31	2
	PLOT SCALE = 1/4" = 1' / in.	CHECKED -	REVISED -								CONTRACT NO. 64H75	
	PLOT DATE = Thu Apr 05 09:55:14 2012	DATE -	REVISED -								FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT	

GENERAL NOTES

Earth excavation necessary to construct the temporary pavement will not be paid for separately, but shall be included in the cost of TEMPORARY PAVEMENT.

The final top four inches of soil in any right-of-way are disturbed by the contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to two feet 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 Square Yard for TEMPORARY PAVEMENT.

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 TEMPORARY PAVEMENT.

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

Sub-base granular material, type A, necessary to construct the temporary pavement will not be paid for separately, but shall be included in the cost of TEMPORARY PAVEMENT.

Previously pugmilled stockpiles of "Type A" older than 1 month will not be approved for use until a moisture check is run to verify moisture content. Material shipped to projects without being tested will not be accepted.

Except for the top 3", all aggregate bases and subbases 12" in thickness shall be constructed of aggregate gradation CA-2. If the specified thickness exceeds 12", the bases or subbases shall be constructed of topsize 6" breaker-run crushed stone with 70% to 90% by weight, passing the 4" sieve and 15% to 40% by weight, passing the 2" size sieve, except for the top 3". The breaker-run crushed stone shall be reasonably uniformly graded from coarse to fine and be taken from a quarry ledge capable of producing Class "D" quality aggregate. The top 3" shall be gradation CA-6 or CA-10 regardless of thickness. The water necessary to achieve compaction in all but the top 3" layer may be added after the subbase or base course is placed on the grade.

Temporary raised reflective pavement markers shall follow Section 781 of the Standard Specifications. The work for placement and removal shall be included in the contract unit price of TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS and paid for as EACH.

The following Mixture Requirements for the temporary pavement are applicable for this project:

Mixture Uses(s):	Surface	Level Binder	Binder
PG:	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N50	4.0 @ N50	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 9.5FG* or IL 9.5	IL 19.0
Friction Aggregate	1.4	1.4	1.4
20 Year ESAL	112 lbs/sy/in		

Temporary pavement shall remain in-place.

This structure will retain the same number 101-0154, 101-0158, & 004-0013.

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.

IDOT is not a member of JULIE. If you are near any overhead lighting, intersection lighting or traffic signals, contact the IDOT Traffic Office at 815/284-5469 at least 48 hours prior to work.

Temporary Impact Attenuators will be measured as each for each attenuator supplied on the job as specified in the plans, and shall include the cost of renting/owning the attenuator for the time required on the job plus hauling to and from the project site, as well as one placement and removal from the roadway. This shall be paid for at the contract unit price per Each for IMPACT ATTENUATORS, TEMPORARY of the type specified.

Relocate Temporary Impact Attenuators will be paid for as Each and will be paid for each time the attenuator is required by staging to be picked up and moved to a different location on the project, whether it is to another location on the roadway or to a storage/staging location for the project. This shall be paid for at the contract unit price per Each for IMPACT ATTENUATORS, RELOCATE of the type specified.

This work shall be done in accordance with Section 704 of the Standard Specifications. Temporary Concrete Barrier will be measured in feet along the centerline of the barrier and shall include the cost of renting/owning the barrier for the time required on the job plus hauling to and from the project site, as well as one placement and removal from the roadway in accordance with Section 704 of the Standard Specification. This shall be paid for at the contract unit price per Foot for TEMPORARY CONCRETE BARRIER.

Relocate Temporary Concrete Barrier will be paid for in Feet along the centerline of the barrier, and will be paid for each time the barrier is required by staging to be picked up and moved to a different location on the project, whether it is to another location on the roadway or to a storage/staging location for the project. This shall be paid for at the contract unit price per Foot for RELOCATE TEMPORARY CONCRETE BARRIER.

FILE NAME = C:\Joint Repair_64H75\64H75.PLAN.dgn	USER NAME = icora	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES		F.A. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -				VAR.	(1B, 1BR, 1BR-2R)M	VARIOUS	31	3	
PLOT SCALE = 1/2" = 1' / 1"		CHECKED -	REVISED -			SCALE: _____	SHEET NO. _____ OF _____ SHEETS		STA. _____ TO STA. _____		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	
PLOT DATE = Thu Apr 05 09:30:27 2012		DATE -	REVISED -			CONTRACT NO. 64H75						

PAY ITEM #	DESCRIPTION	UNITS	TOTAL QUANTITY	100% STATE	
				WINNEBAGO CO.	BODNE CO.
				101-0154/0158 0014	004-0013 0014
42001300	PROTECTIVE COAT	SQ YD	76.7	38	38.7
44004250	PAVED SHOULDER REMOVAL	SQ YD	242.1		242.1
50102400	CONCRETE REMOVAL	CU YD	21.7	6.8	14.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	21.6	6.6	15
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2810	1150	1660
50800515	BAR SPLICERS	EACH	40	16	24
52000110	PREFORMED JOINT STRIP SEAL	FOOT	269	167	102
67100100	MOBILIZATION	LSUM	1	0.5	0.5
70100320	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	LSUM	1	1	
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	2	2	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1		1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1		1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	EACH	1		1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	8	4	4
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	516	240	276
70300220	TEMPORARY PAVEMENT MARKING-LINE 4"	FOOT	22733	14511	8222
70300280	TEMPORARY PAVEMENT MARKING-LINE 24"	FOOT	48		48
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	6255.5	4837.1	1418.4
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1748.3	1076.9	671.4
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1748.3	1076.9	671.4
* 78001110	PAINT PAVEMENT MARKING-LINE 4"	FOOT	12709	4000	8709
* 78001130	PAINT PAVEMENT MARKING-LINE 6"	FOOT	450	450	
* 78001150	PAINT PAVEMENT MARKING-LINE 12"	FOOT	562		562
78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	EACH	374	374	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	2744.5	1012	1732.5
X0322194	POLYMER MODIFIED PORTLAND CEMENT MORTAR	SQ FT	21	21	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2
Z0012754	STRUCTURAL REPAIR OF CONCRETE LESS THAN OR EQUAL TO 5 INCHES	SQ FT	0.5	0.5	
Z0062456	TEMPORARY PAVEMENT	SQ YD	1629	907	722

* SPECIALTY ITEM

FILE NAME =
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	DRAWN -	REVISED -
PLOT SCALE * 1/4" = 1' / in.	CHECKED -	REVISED -
PLOT DATE * Thu Apr 05 09:38:39 2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	(1B, 1BR, 1BR-2R)M	VARIOUS	31	4
CONTRACT NO. 64H75			Rev.	

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

44004250 PAVED SHOULDER REMOVAL

BR 20	SQ YD	REMARKS
STA 266+99.3 TO STA 268+67.1	56.6	PRESTAGE
STA 272+59 TO STA 274+52.5	64.5	PRESTAGE
STA 267+12.5 TO STA 269+01	62.8	STAGE 1
STA 272+93 TO STA 274+67.6	58.2	STAGE 1

TOTAL 242.1

70300100 SHORT TERM PAVEMENT MARKING

IL-251	FOOT	REMARKS
NORTH BOUND	120	TO BE USED AS DIRECTED BY RE
SOUTH BOUND	120	TO BE USED AS DIRECTED BY RE
BR 20		
STAGE 1	138	TO BE USED AS DIRECTED BY RE
STAGE 2	138	TO BE USED AS DIRECTED BY RE

TOTAL 516

70300220 TEMPORARY PAVEMENT MARKING - LINE 4"

IL-251	FOOT	REMARKS
PRESTAGE		
STA 215+13.9 TO STA 233+86.4	1873	TO BE USED AS DIRECTED BY RE
STA 203+84.9 TO STA 223+57.4	1973	TO BE USED AS DIRECTED BY RE

STAGE 1	FOOT	REMARKS
STA 215+13.9 TO STA 233+86.4	1872.5	NB (YELLOW)
STA 215+40.6 TO STA 222+99.8	759.2	NB (WHITE)
STA 203+84.4 TO STA 223+57.4	1973	SB (YELLOW)
STA 215+71.6 TO STA 223+30.7	759.1	SB (WHITE)
	5363.8	

STAGE 2	FOOT	REMARKS
STA 215+56.3 TO STA 223+12.8	756.5	NB (YELLOW)
STA 215+49.3 TO STA 233+86.3	1837	NB (WHITE)
STA 215+44.9 TO STA 223+15.1	770.2	SB (YELLOW)
STA 203+84.4 TO STA 223+22.0	1937.6	SB (WHITE)
	5301.3	

BR 20	FOOT	REMARKS
STAGE 1		
STA 266+34.6 TO STA 275+71.6	1874	(WHITE)
STA 267+22.5 TO STA 274+39.6	1434.2	(WHITE)
	3308.2	

STAGE 2	FOOT	REMARKS
STA 261+82.5 TO STA 265+74.6	1568.4	SB LANE SHIFT
STA 265+74.6 TO STA 275+42.6	1936	(WHITE)
STA 267+37.5 TO STA 274+42.6	1410.2	(WHITE)
	4914.6	

TOTAL 22733.9

70300280 TEMPORARY PAVEMENT MARKING-LINE 24"

BR 20	FOOT	REMARKS
STA 265+74.6	24	SB STOP BAR
STA 276+02.6	24	NB STOP BAR

TOTAL 48

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

IL-251	SQ FOOT	REMARKS
PLACED IN PRESTAGE		
STA 215+13.9 TO STA 233+86.4	624.3	TO BE USED AS DIRECTED BY RE
STA 204+84.9 TO STA 223+57.4	657.7	TO BE USED AS DIRECTED BY RE
	1282.0	

PLACED IN STAGE 1	SQ FOOT	REMARKS
STA 215+13.9 TO STA 233+86.4	624.2	NB
STA 215+40.6 TO STA 222+99.8	253.1	NB
STA 203+84.4 TO STA 223+57.4	657.7	SB
STA 215+71.6 TO STA 223+30.7	253.0	SB
	1788.0	

PLACED IN STAGE 2	SQ FOOT	REMARKS
STA 215+56.3 TO STA 223+12.8	252.2	NB
STA 215+49.3 TO STA 233+86.3	612.3	NB
STA 215+44.9 TO STA 223+15.1	255.7	SB
STA 203+84.4 TO STA 223+22.0	645.9	SB
	1767.1	

BR 20	SQ FOOT	REMARKS
PLACED IN STAGE 1		
STA 261+82.5 TO STA 265+74.6	261.4	SB LANE SHIFT
STA 266+34.6 TO STA 275+71.6	312.3	
STA 267+22.5 TO STA 274+39.6	239	
STA 265+74.6	24	SB STOP BAR
STA 276+02.6	24	NB STOP BAR
	860.7	

PLACED IN STAGE 2	SQ FOOT	REMARKS
STA 265+74.6 TO STA 275+42.6	322.7	
STA 267+37.5 TO STA 274+42.6	235	
	557.7	

TOTAL 6255.5

70400100 TEMPORARY CONCRETE BARRIER

IL-251	FOOT	REMARKS
STA 217+18.2 TO STA 222+63.0	544.8	NB STAGE 1
STA 216+08.3 TO STA 221+40.4	532.1	SB STAGE 1
BR 20		
STA 267+43.7 TO STA 274+15.1	671.4	

TOTAL 1748.3

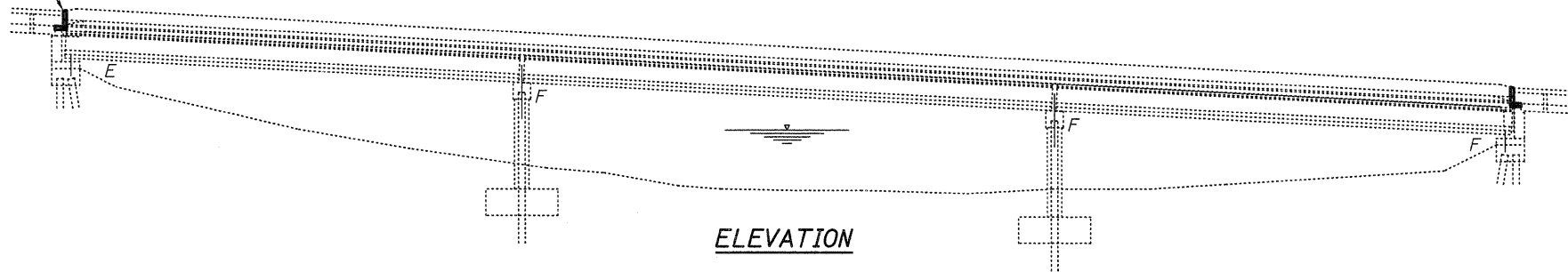
70400200 RELOCATE TEMPORARY CONCRETE BARRIER

IL-251	FOOT	REMARKS
STA 217+18.2 TO STA 222+63.0	544.8	NB STAGE 2
STA 216+08.3 TO STA 221+40.4	532.1	SB STAGE 2
BR 20		
STA 267+43.7 TO STA 274+15.1	671.4	

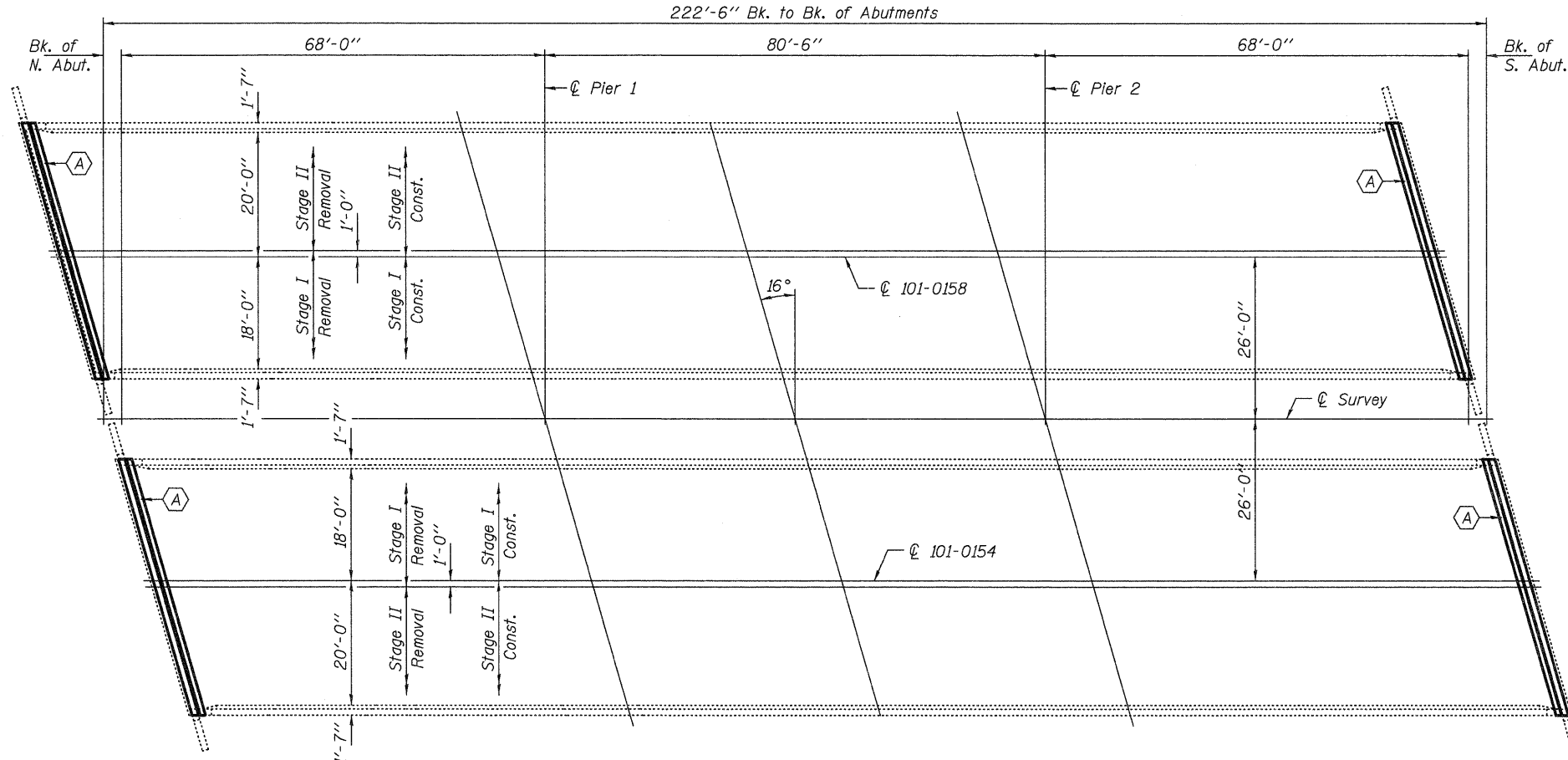
TOTAL 1748.3

FILE NAME = Cr:Joint Repair_84H75\64H75.PLAN.dgn	USER NAME = igora	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES	F.A. RTE. _____	SECTION (1B, 1BR, 1BR-2R)M _____	COUNTY _____	TOTAL SHEETS _____	SHEET NO. _____
PLOT SCALE = 1/2" = 1' / 1"	PLOT DATE = Thu Apr 05 08:32:16 2012	DRAWN - _____	REVISED - _____	SCALE: _____	SHEET NO. _____ OF _____ SHEETS	VAR. _____	VARIOUS	CONTRACT NO. 64H75	31	5
		CHECKED - _____	REVISED - _____	STA. _____ TO STA. _____		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				
		DATE - _____	REVISED - _____							

Traffic barrier to be removed, stored and reattached, typ.
Cost included with Concrete Removal.



ELEVATION



PLAN

(A) - Joint replacement

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

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 shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	6.8
Concrete Superstructure	Cu. Yd.	6.6
Preformed Joint Strip Seal	Foot	167
Reinforcement Bars, Epoxy Coated	Pound	1150
Bar Splicers	Each	16
* Protective Coat	Sq. Yd.	37.9
Polymer Modified Portland Cement Mortar	Sq. Ft.	21.1
Structural Repair of Concrete ≤ 5 inches	Sq. Ft.	0.5

* New Concrete Only



EXPIRES 11-30-2012

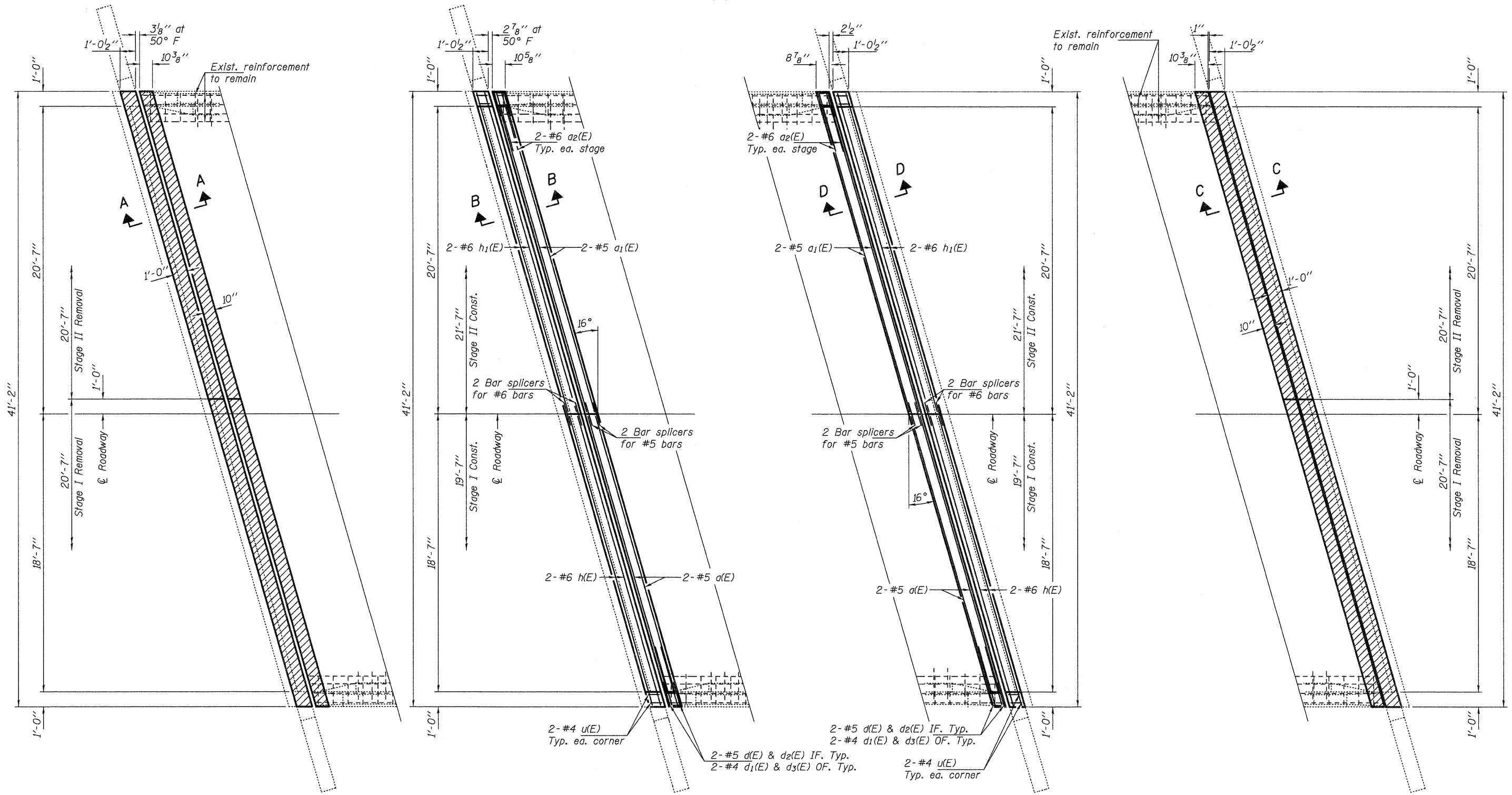
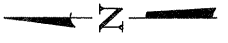
DESIGNED <i>Jim J. Hayes</i>	EXAMINED <i>Jim F. Jolly</i>	DATE <u>MAY 1, 2012</u>
CHECKED <i>Ally Spacy</i>	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED
DRAWN <i>baliva</i>	PASSED <i>David Carl Puze</i>	REVISED
CHECKED <i>ISL ADY</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
IL RTE 251 OVER KILBUCK CREEK
SN 101-0154 (SB) & 101-0158 (NB)**

SHEET NO. 1 OF 7 SHEETS

F.A.S. RTE. 1042	SECTION 1B, 1BR, 1BR-2RM	COUNTY WINNEBAGO	TOTAL SHEETS 31	SHEET NO. 7
CONTRACT NO. 64H75				
ILLINOIS FED. AID PROJECT				



PARTIAL REMOVAL PLAN
NORTH ABUTMENT NB
 (SB Similar by rotation)

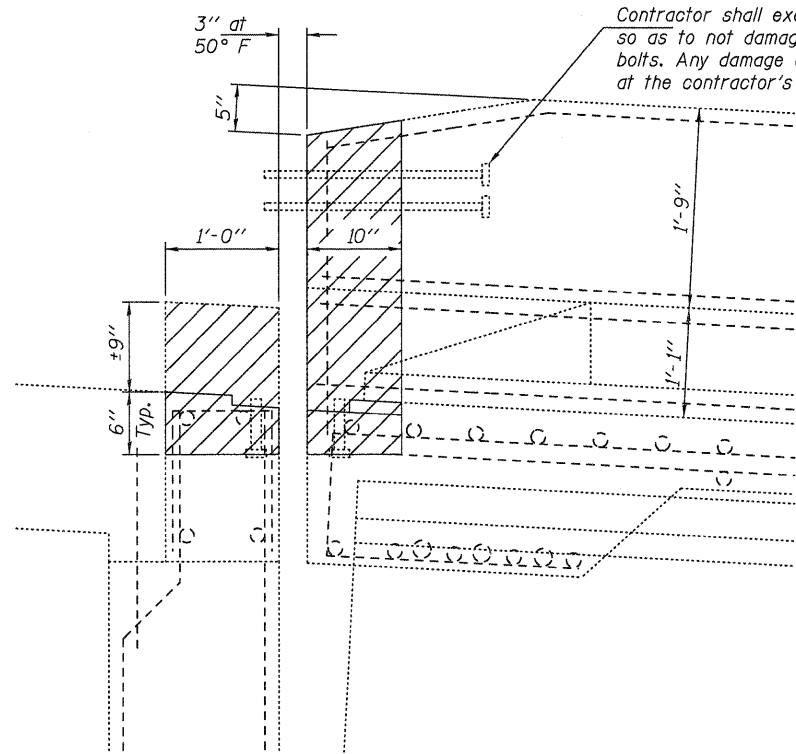
PARTIAL REPLACEMENT PLAN
NORTH ABUTMENT NB
 (SB Similar by rotation)

PARTIAL REPLACEMENT PLAN
SOUTH ABUTMENT NB
 (SB Similar by rotation)

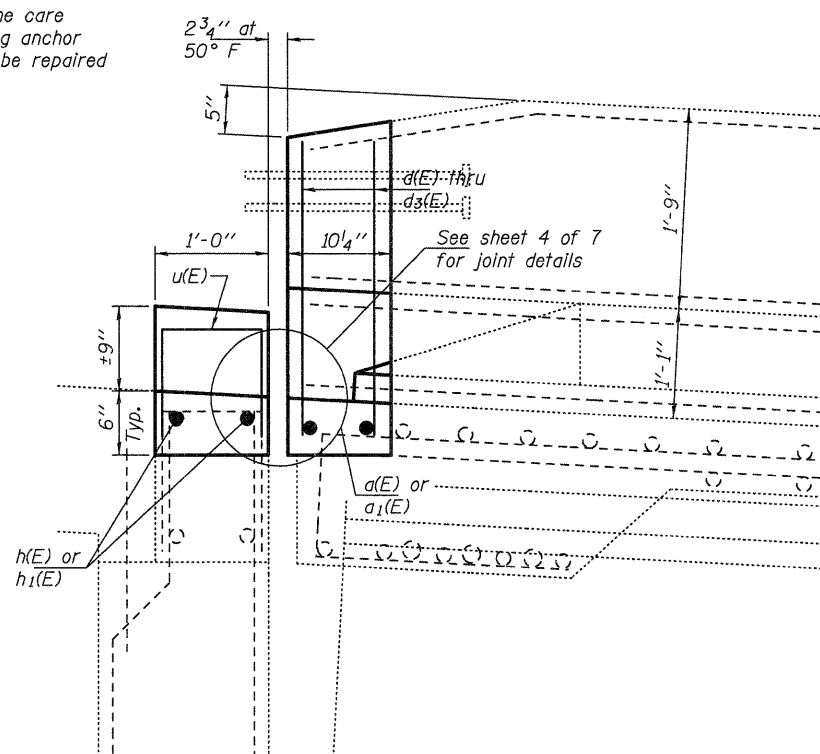
PARTIAL REMOVAL PLAN
SOUTH ABUTMENT NB
 (SB Similar by rotation)

Hatched areas indicate removal.

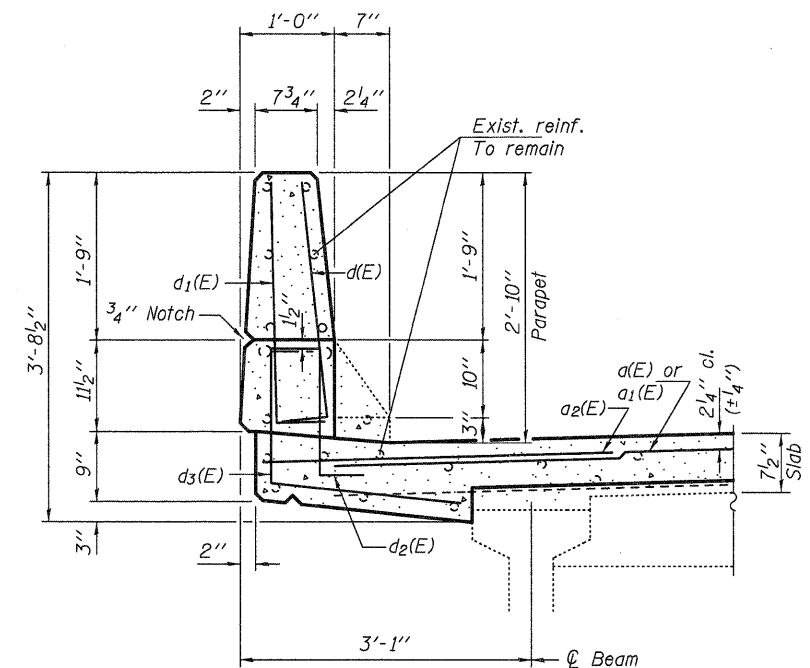
DESIGNED <i>IJL</i>	EXAMINED <i>Jayne F. [Signature]</i>	DATE <u>MAY 1, 2012</u>	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR DETAILS SN 101-0154 (SB) & 101-0158 (NB)	F.A.S. RTE. 1042	SECTION (1B, 1BR, 1BR-2RIM)	COUNTY WINNEBAGO	TOTAL SHEETS 31	SHEET NO. 8	
CHECKED <i>ADY</i>	PASSED <i>[Signature]</i>	REVISED			CONTRACT NO. 64H75					
DRAWN <i>baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			ILLINOIS FED. AID PROJECT					
CHECKED <i>IJL ADY</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			SHEET NO. 2 OF 7 SHEETS					



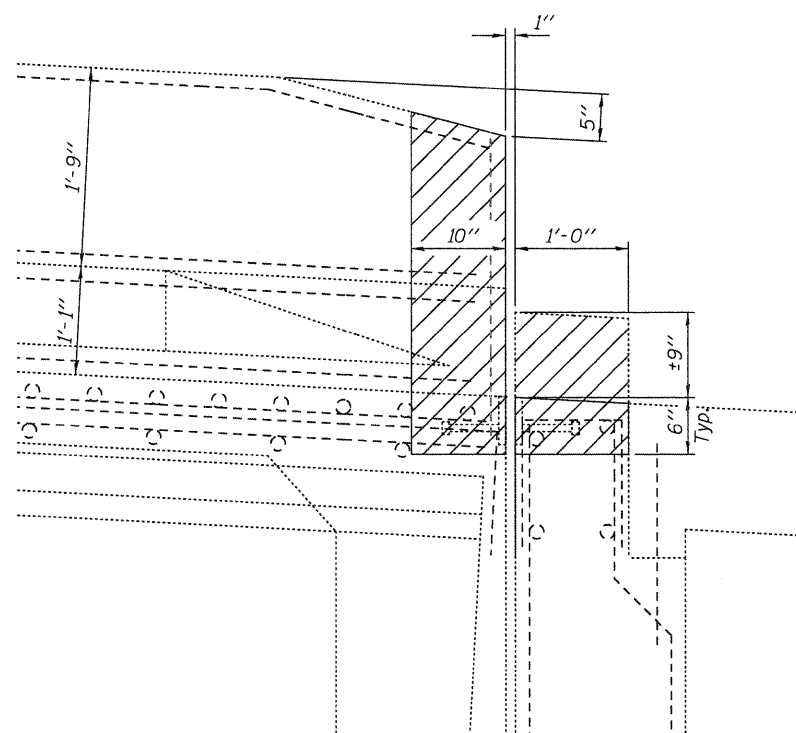
SECTION A-A



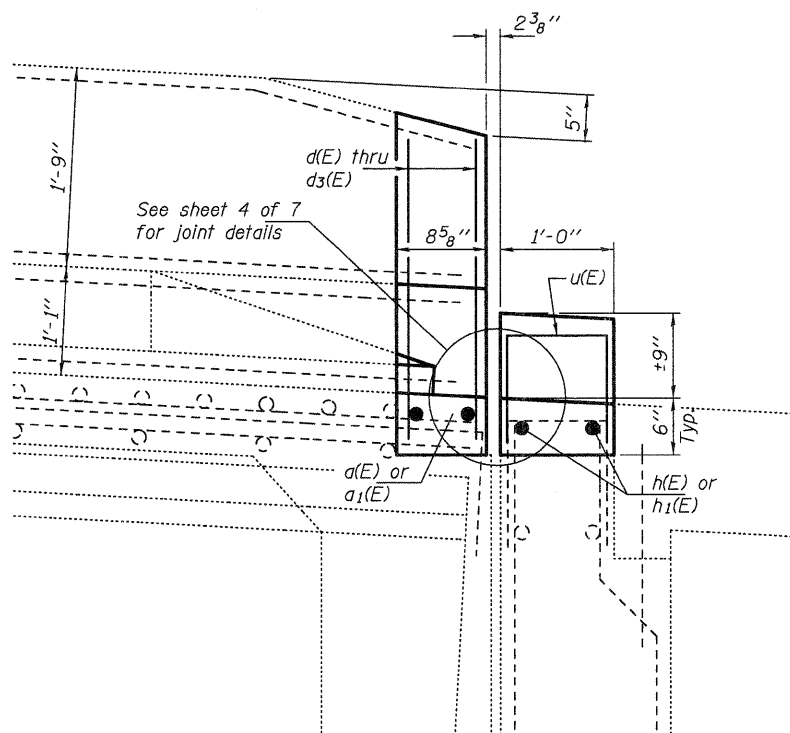
SECTION B-B



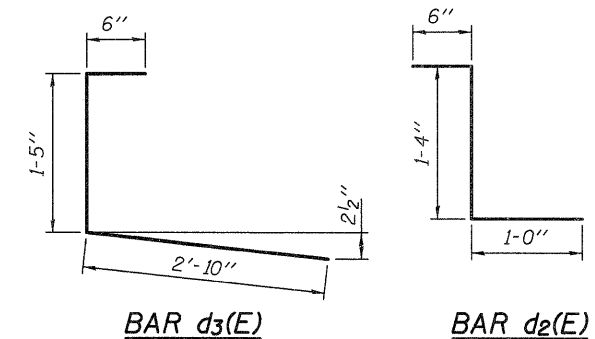
SECTION THRU PARAPET



SECTION C-C



SECTION D-D

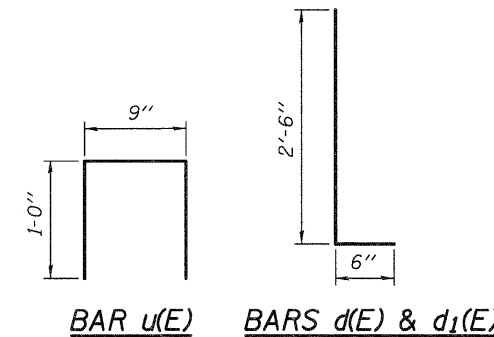


BAR d3(E)

BAR d2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	8	#5	19'-6"	—
a1(E)	8	#5	21'-6"	—
a2(E)	16	#6	4'-0"	—
d(E)	16	#5	3'-0"	L
d1(E)	16	#4	3'-0"	L
d2(E)	16	#5	2'-10"	L
d3(E)	16	#4	4'-9"	L
h(E)	8	#6	20'-0"	—
h1(E)	8	#6	22'-1"	—
u(E)	16	#4	2'-9"	□
Concrete Removal			Cu. Yd.	6.8
Concrete Superstructure			Cu. Yd.	6.6
Reinforcement Bars, Epoxy Coated			Pounds	1150



BAR u(E)

BARS d(E) & d1(E)

DESIGNED IJL
 CHECKED ADY
 DRAWN baliva
 CHECKED IJL ADY

EXAMINED *Jayne F. J...*
 ACTING ENGINEER OF STRUCTURAL SERVICES
 PASSED *Carl...*
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE MAY 1, 2012
 REVISED
 REVISED

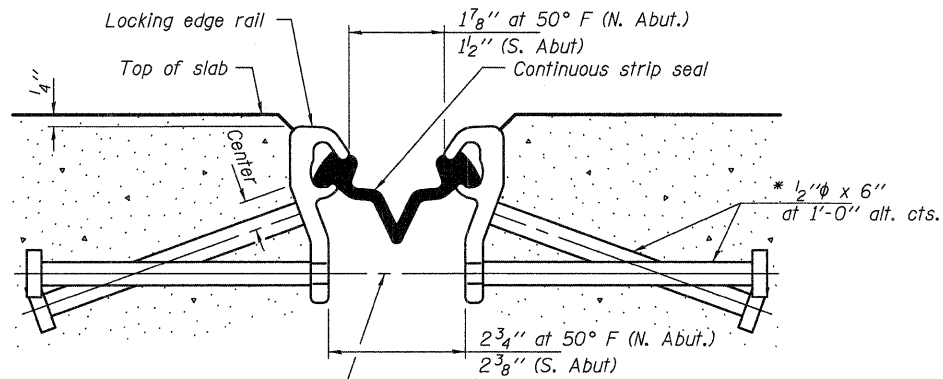
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**REPAIR DETAILS
 SN 101-0154 (SB) & 101-0158 (NB)**

SHEET NO. 3 OF 7 SHEETS

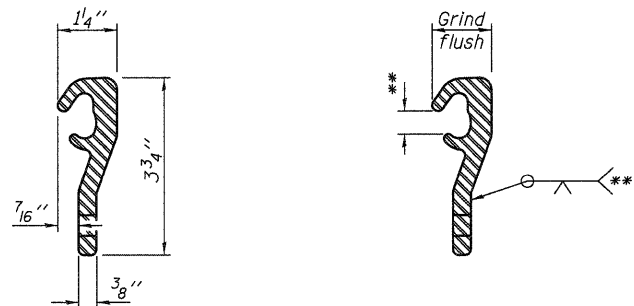
F.A.S. RTE. 1042	SECTION 11B, 1BR, 1BR-2RM	COUNTY WINNEBAGO	TOTAL SHEETS 31	SHEET NO. 9
				CONTRACT NO. 64H75
ILLINOIS FED. AID PROJECT				

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



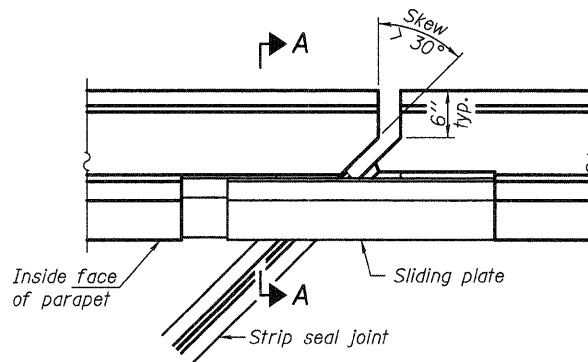
7/16" holes at 4'-0" cts. for 3/8" bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU SHALLOW STRIP SEAL JOINT AT ABUTMENTS

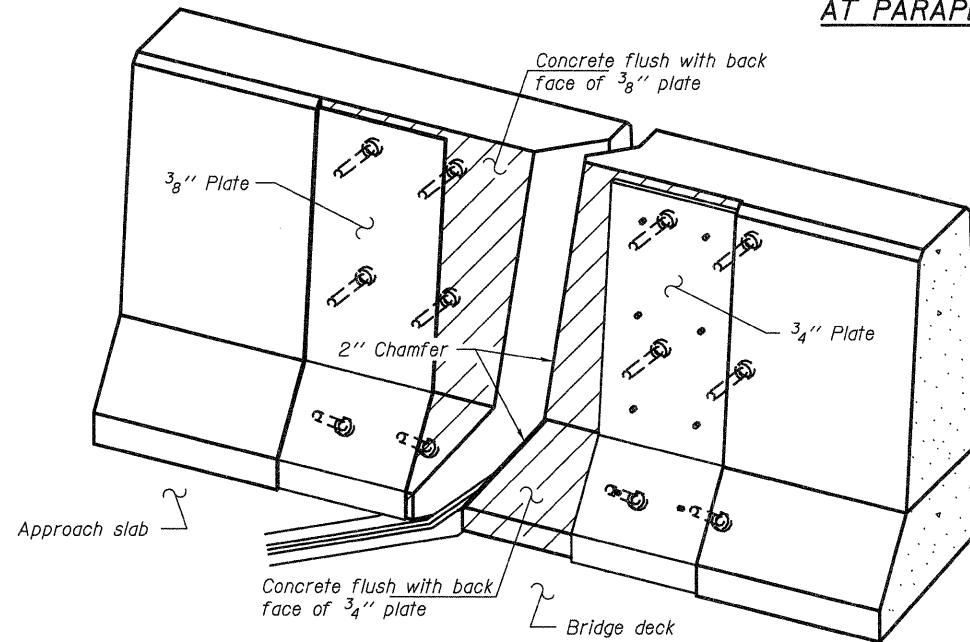


LOCKING EDGE RAIL LOCKING EDGE RAIL SPLICE

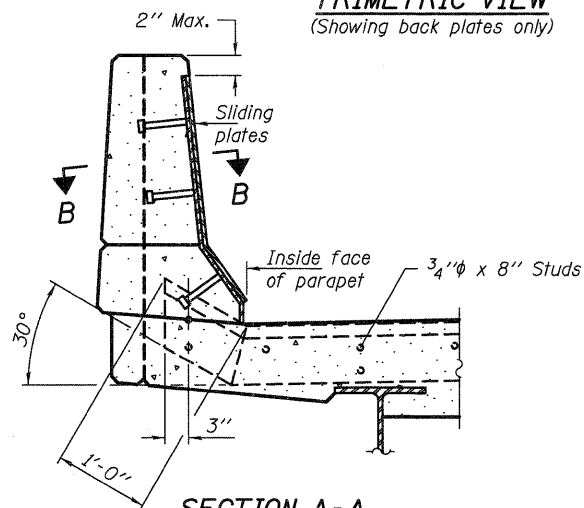
** Omit weld at seal opening.



PLAN

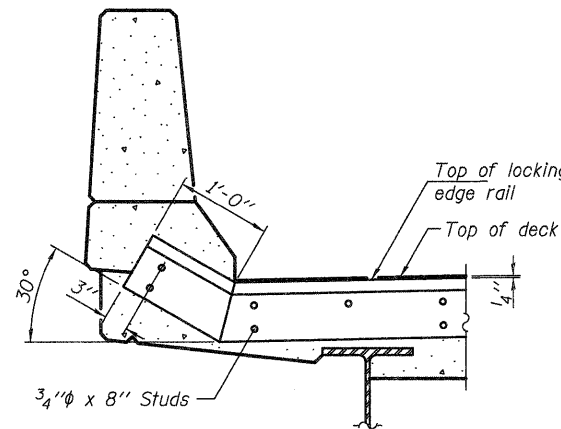


**TRIMETRIC VIEW
(Showing back plates only)**

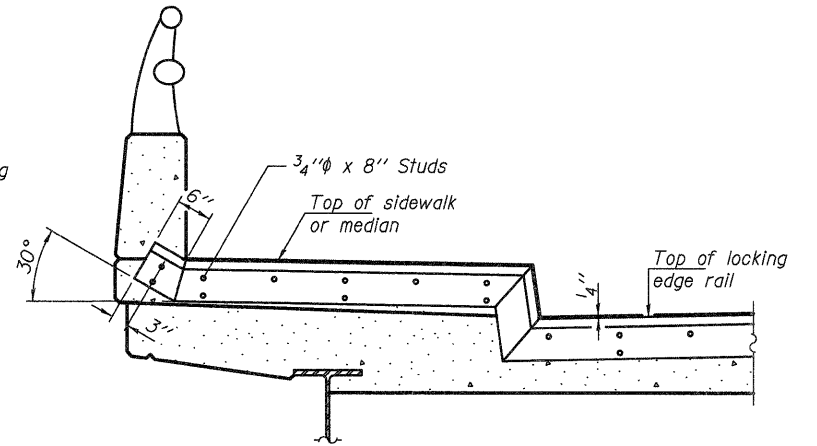


SECTION A-A

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



AT PARAPET



AT SIDEWALK OR MEDIAN

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

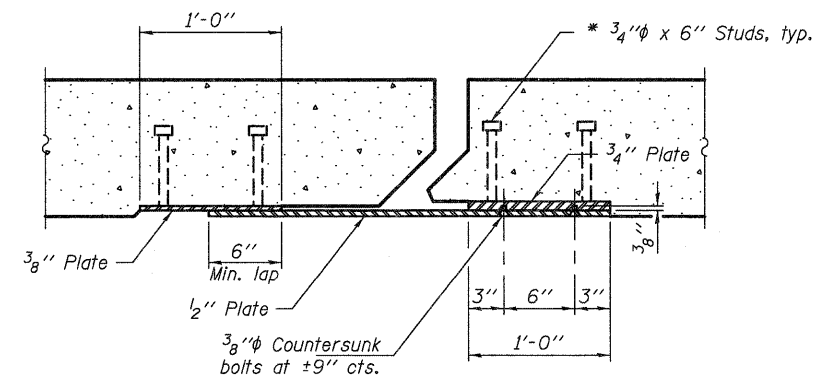
TYPICAL END TREATMENTS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches. The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

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

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	167

DESIGNED IJL
CHECKED ADY
DRAWN balva
CHECKED IJL ADY

EXAMINED *James F. [Signature]*
ACTING ENGINEER OF STRUCTURAL SERVICES
PASSED *Carl [Signature]*
ACTING ENGINEER OF BRIDGES AND STRUCTURES

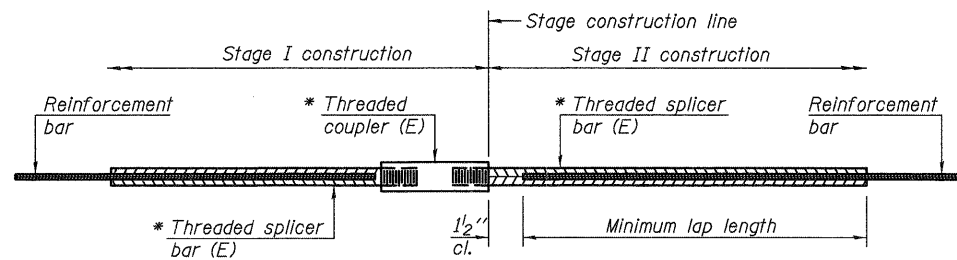
DATE MAY 1, 2012
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
SN 101-0154 & 101-0158

SHEET NO. 4 OF 7 SHEETS

F.A.S. RTE. 1042	SECTION 1B, 1BR, 1BR-2RIM	COUNTY WINNEBAGO	TOTAL SHEETS 31	SHEET NO. 10
CONTRACT NO. 64H75				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

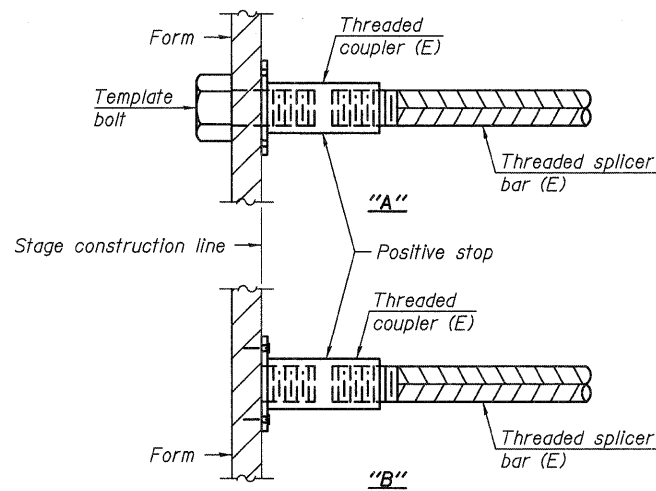
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

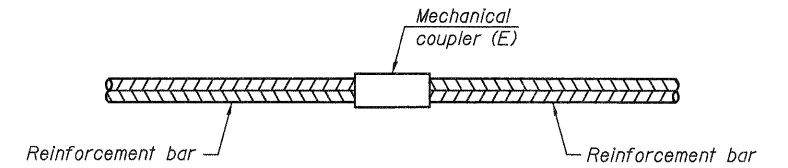
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
S. Abut. SN 101-0154	#6	2	3
S. Abut. SN 101-0154	#5	2	3
N. Abut. SN 101-0154	#6	2	3
N. Abut. SN 101-0154	#5	2	3
S. Abut. SN 101-0158	#6	2	3
S. Abut. SN 101-0158	#5	2	3
N. Abut. SN 101-0158	#6	2	3
N. Abut. SN 101-0158	#5	2	3



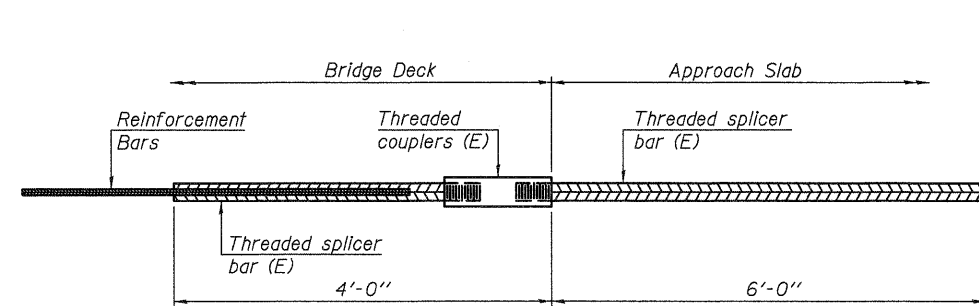
INSTALLATION AND SETTING METHODS

"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.



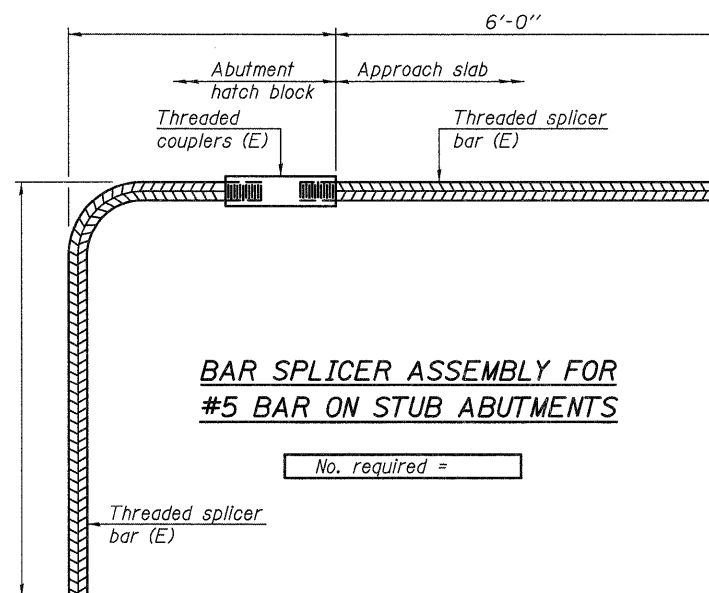
STANDARD MECHANICAL SPLICER

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.

BSD-1

7-1-10

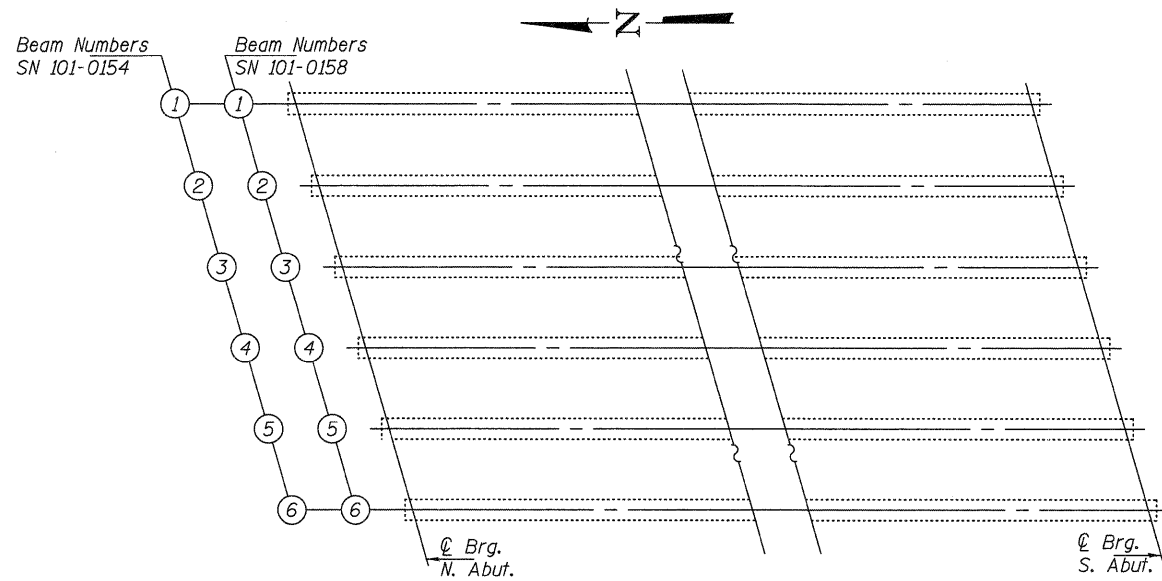
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CHECKED ADY	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN ballva	PASSED	REVISED
CHECKED IJL ADY	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

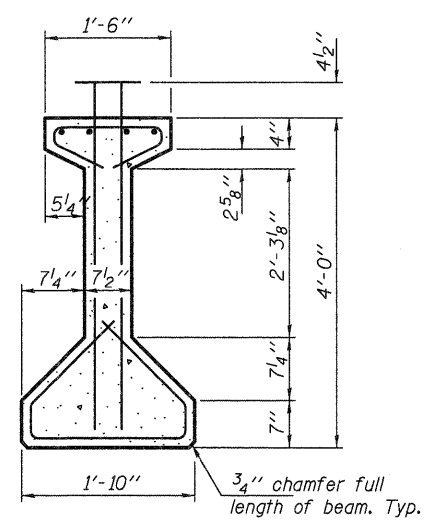
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 101-0154 (SB) & 101-0158 (NB)

SHEET NO. 5 OF 7 SHEETS

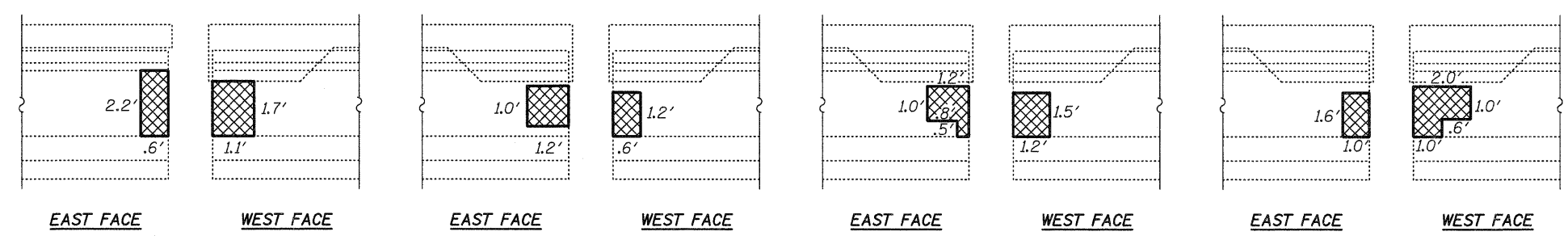
F.A.S. RTE. 1042	SECTION 1B, 1BR, 1BR-2RM	COUNTY WINNEBAGO	TOTAL SHEETS 31	SHEET NO. 11
CONTRACT NO. 64H75				
ILLINOIS FED. AID PROJECT				



PARTIAL FRAMING PLAN



BEAM DIMENSIONS

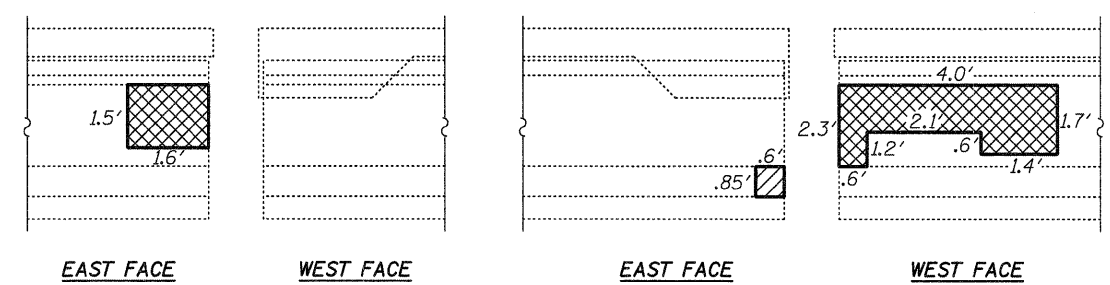


BEAM 1 - N. ABUT.
SN 101-0154

BEAM 2 - N. ABUT.
SN 101-0154

BEAM 3 - N. ABUT.
SN 101-0154

BEAM 4 - N. ABUT.
SN 101-0154



BEAM 1 - N. ABUT.
SN 101-0158

BEAM 6 - N. ABUT.
SN 101-0158

- Polymer Modified Portland Cement Mortar
 - Structural Repair of Concrete ≤ 5 Inches

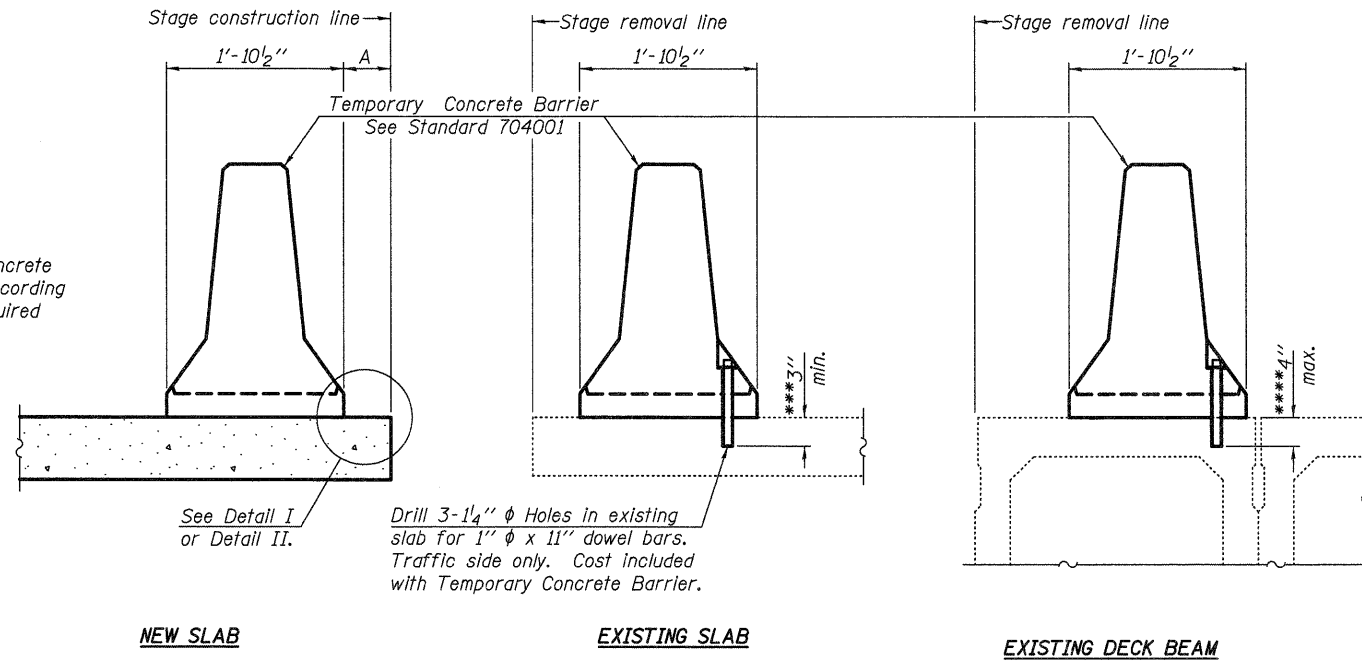
BILL OF MATERIAL SN 101-0154

ITEM	UNIT	QUANTITY
Polymer Modified Portland Cement Mortar	Sq. Ft.	12.5

BILL OF MATERIAL SN 101-0158

ITEM	UNIT	QUANTITY
Polymer Modified Portland Cement Mortar	Sq. Ft.	8.6
Structural Repair of Concrete ≤ 5 Inches	Sq. Ft.	0.5

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

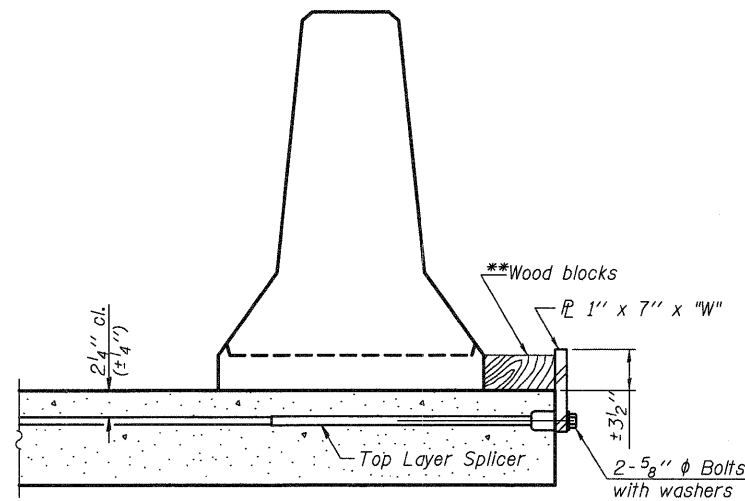
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place Inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

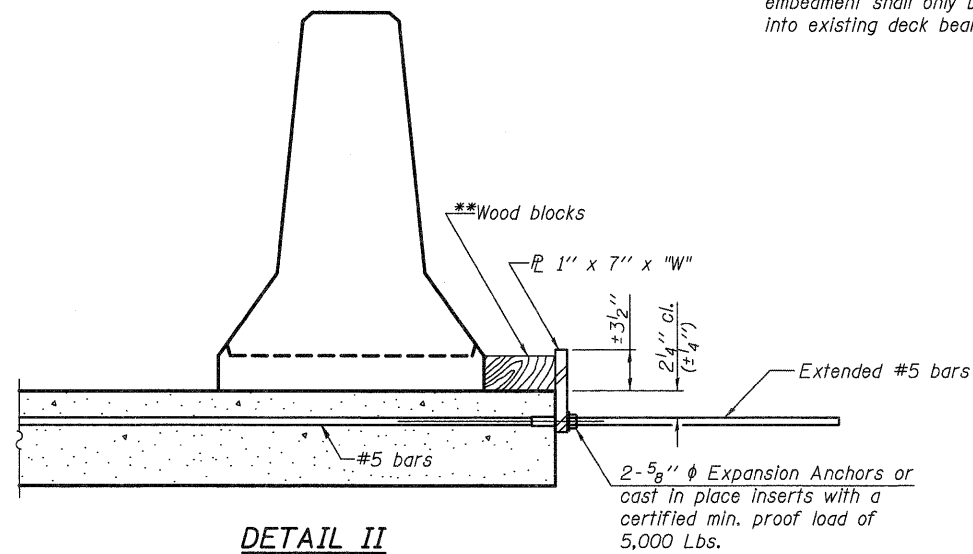
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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



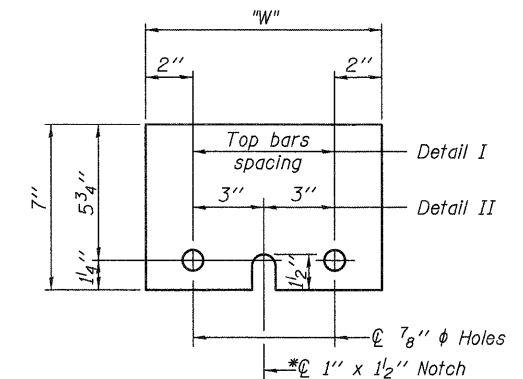
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4"



STEEL RETAINER PL 1" x 7" x "W"

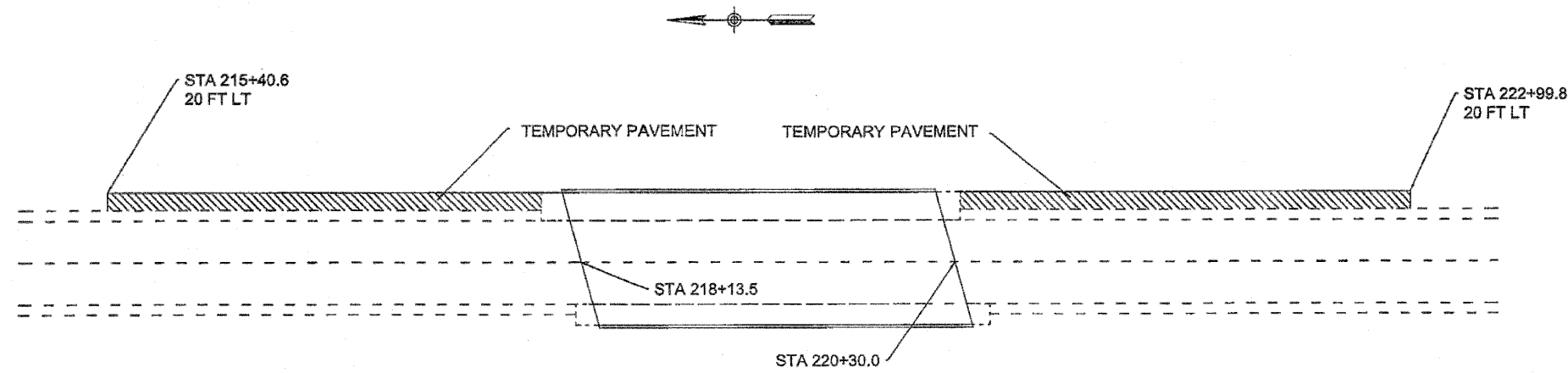
* Required only with Detail II

R-27

7-1-10

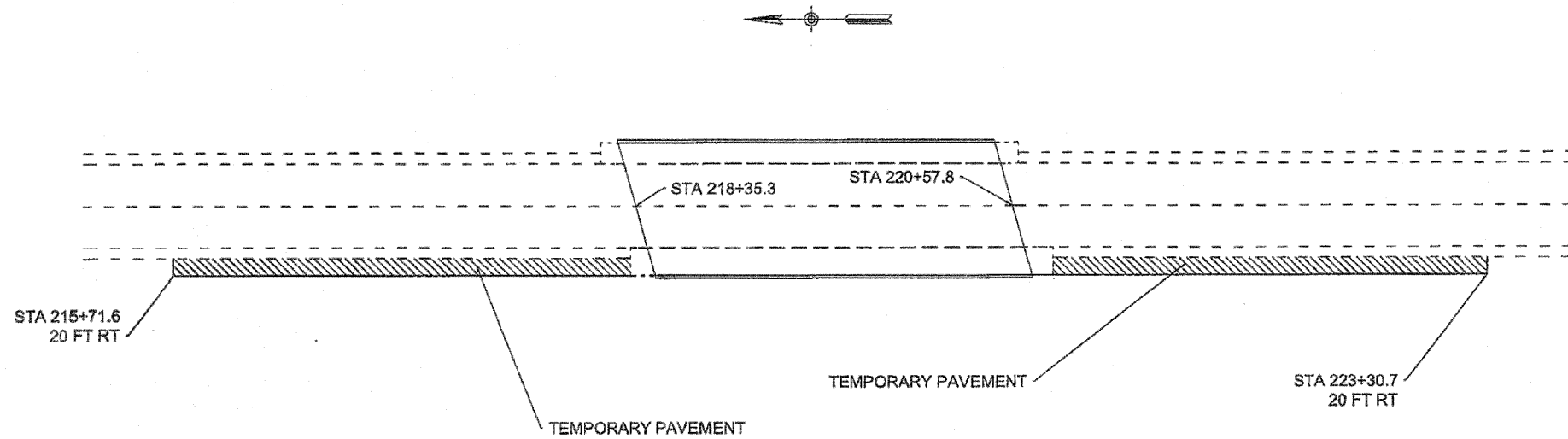
DESIGNED IJL	EXAMINED	DATE MAY 1, 2012	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION SN 101-0154 (SB) & 101-0158 (NB)	F.A.S. RTE. 1042	SECTION (1B, 1BR, 1BR-2RIM)	COUNTY WINNEBAGO	TOTAL SHEETS 31	SHEET NO. 13
CHECKED ADY	ACTING ENGINEER OF STRUCTURAL SERVICES		REVISOR		SHEET NO. 7 OF 7 SHEETS		CONTRACT NO. 64H75		ILLINOIS FED. AID PROJECT	
DRAWN balva	ACTING ENGINEER OF BRIDGES AND STRUCTURES		REVISOR							
CHECKED IJL ADY										

IL-251 NORTH BOUND PRESTAGE TRAFFIC CONTROL



NOTES
 Temporary pavement to remain in-place.
 See Standard 701422 for all signing, devices, spacing, and other information.

IL-251 SOUTH BOUND PRESTAGE TRAFFIC CONTROL

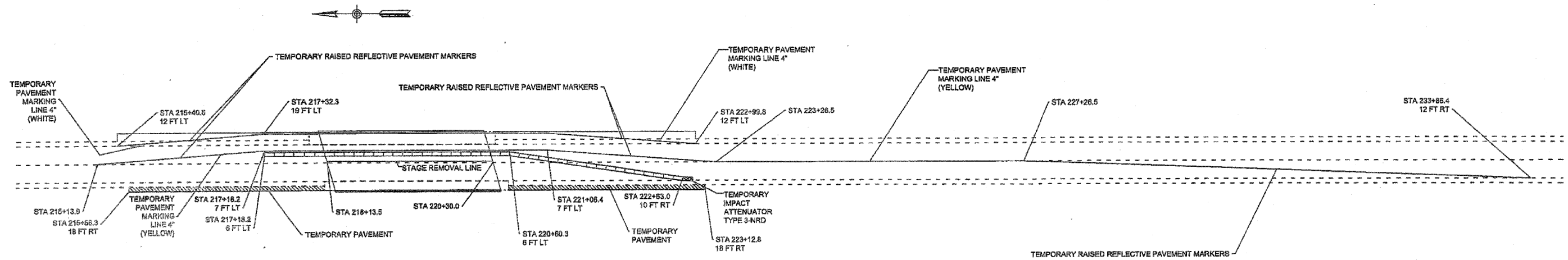


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		DRAWN -	REVISED -		1042	(1B, 1BR, 1BR-2RJM)	WINNEBAGO	31	14			
	PLOT SCALE = 1/4" = 1' / in.	CHECKED -	REVISED -		SCALE: _____ SHEET NO. _____ OF _____ SHEETS STA. _____ TO STA. _____			CONTRACT NO. 84H75				
	PLOT DATE = Thu Apr 05 08:42:49 2012	DATE -	REVISED -		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT							

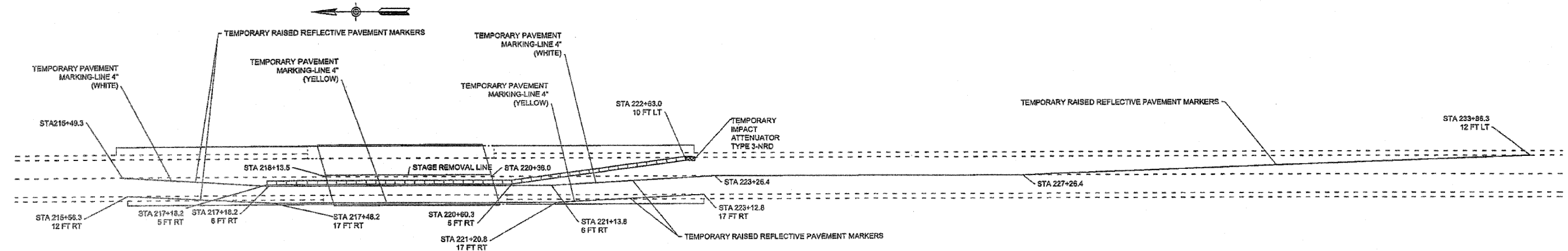
NOTES

Temporary concrete barrier wall offsets are to the traffic side.
 12.67 feet was used as length of temporary concrete barrier wall section.
 Temporary pavement to remain in-place.
 Temporary raised reflective pavement markers shall be installed at 25 foot centers along all tapers and match adjacent marking line color.
 Removal of temporary raised reflective pavement markers included in cost of temporary raised reflective pavement markers.
 See Standard 701423 for all signing devices, spacing, and other information.

IL-281 NORTH BOUND STAGE 1 TRAFFIC CONTROL

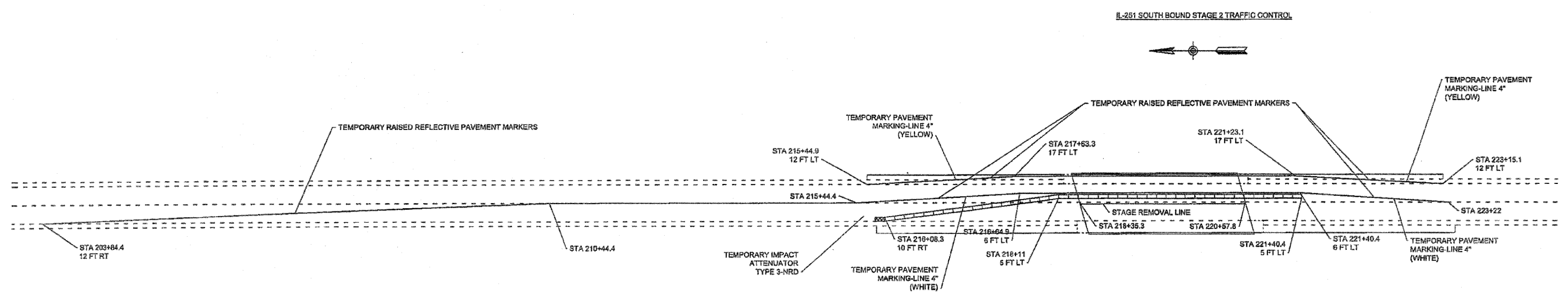
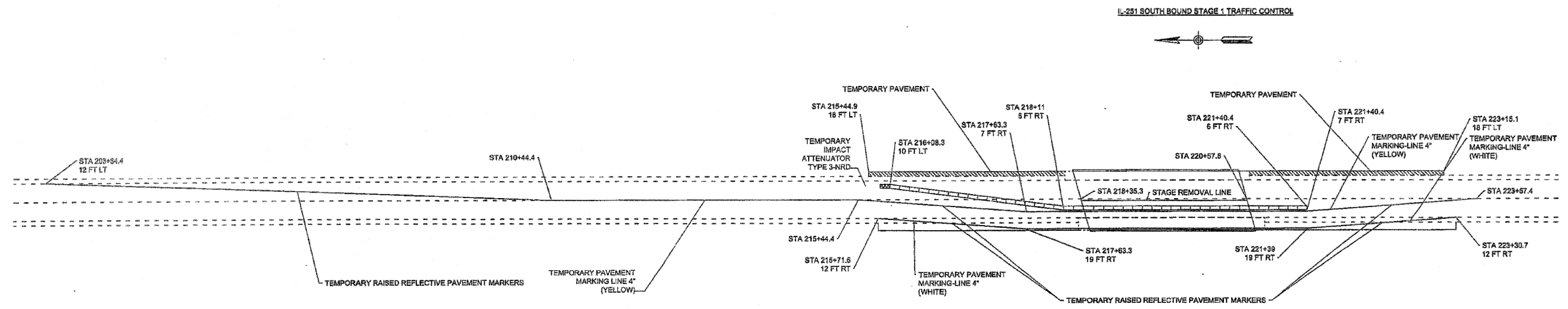


IL-281 NORTH BOUND STAGE 2 TRAFFIC CONTROL

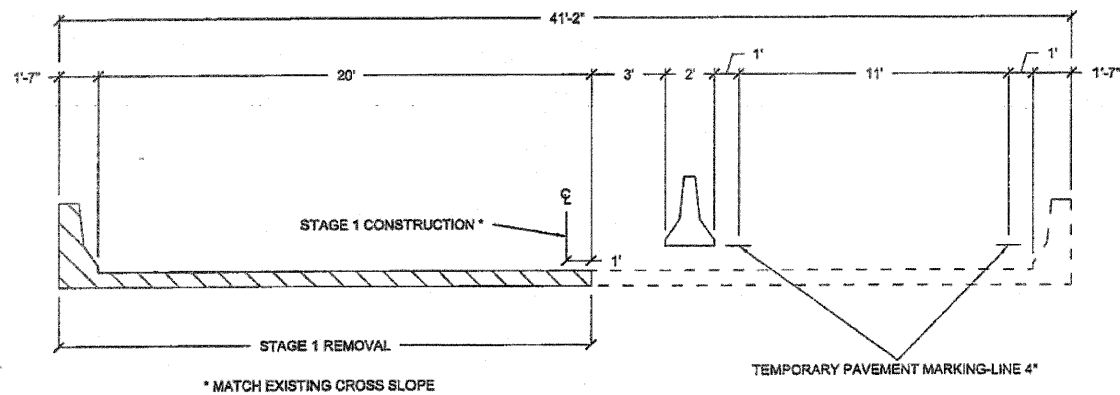


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PLOT SCALE = 1/4" = 10'	DATE = Thu Apr 09 09:43:00 2012	DRAWN -	REVISED -		SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				
		CHECKED -	REVISED -									
		DATE -	REVISED -									

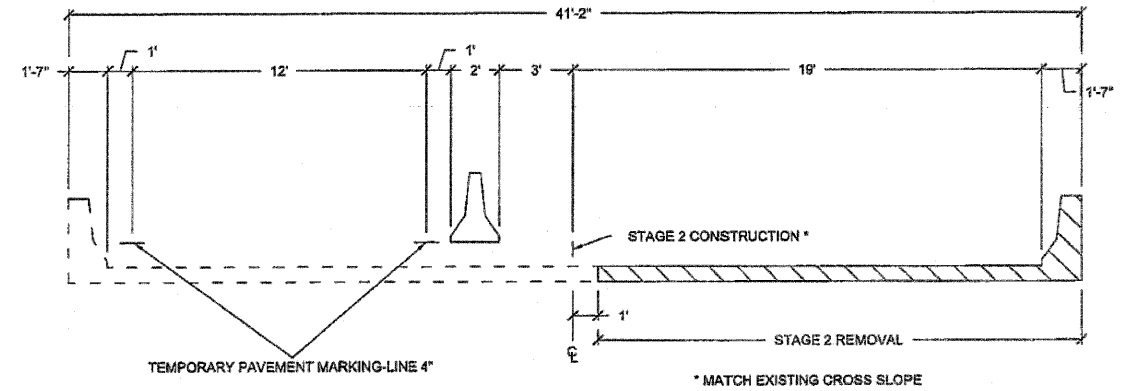
NOTES
 Temporary concrete barrier wall offsets are to the traffic side.
 12.67 feet was used as length of temporary concrete barrier wall section.
 Temporary pavement to remain in-place.
 Temporary raised reflective pavement markers shall be installed at 25 foot centers along all tapers and match adjacent marking line color.
 Removal of temporary raised reflective pavement markers included in cost of temporary raised reflective pavement markers.
 See Standard 701423 for all signing devices, spacing, and other information.



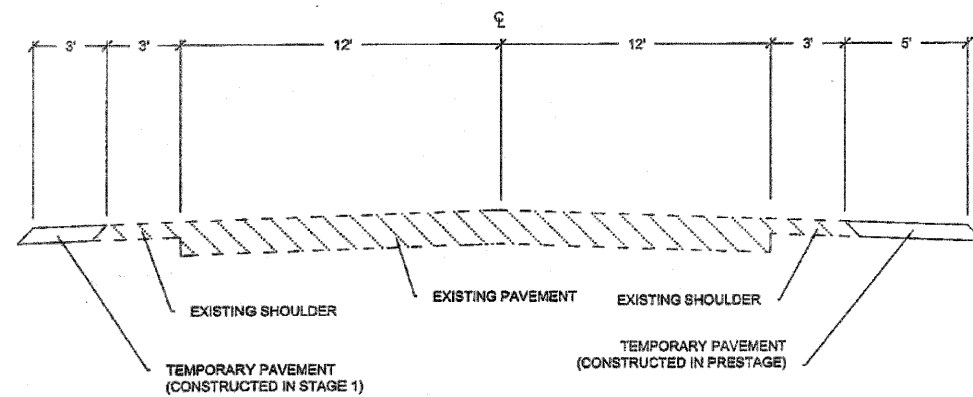
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		DATE -	REVISED -								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



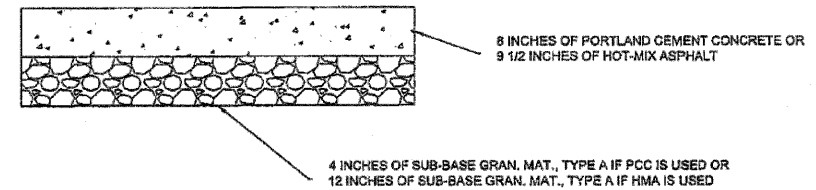
STAGE 1 NORTHBOUND (LOOKING NORTH)
SOUTHBOUND SIMILAR BY ROTATION



STAGE 2 NORTHBOUND (LOOKING NORTH)
SOUTHBOUND SIMILAR BY ROTATION



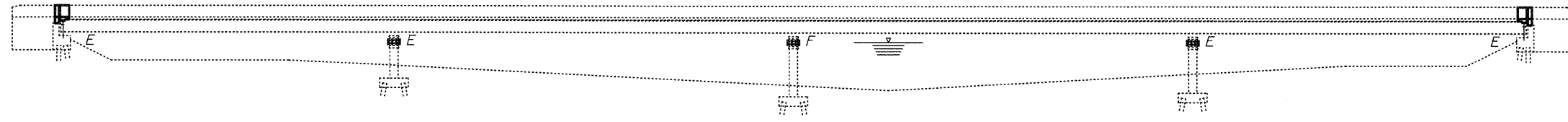
ROADWAY (LOOKING NORTH)
SOUTHBOUND SIMILAR BY ROTATION



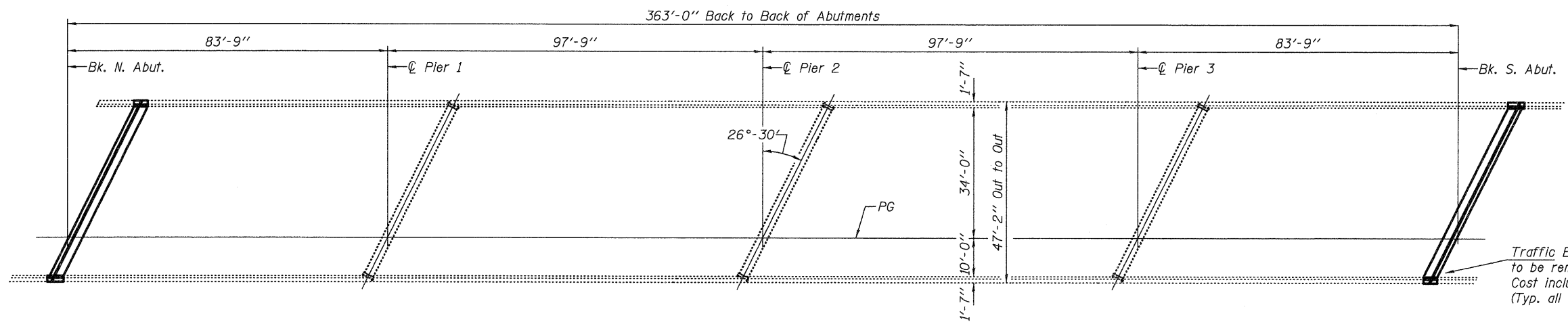
TEMPORARY PAVEMENT DETAIL

NOTES
See Special Provisions for temporary pavement option.

FILE NAME * C:\Joint Repair_64H75\64H75.PLAN.dgn	USER NAME * 100rs	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS		F.A. RTE. 1042	SECTION (1B, 1BR, 1BR-2R)M	COUNTY WINNEBAGO	TOTAL SHEETS 31	SHEET NO. 17
	PLOT SCALE = 1/2" = 1' / in.	DRAWN -	REVISED -		SN 101-0156 (SB) & 101-1054 (SB)				CONTRACT NO. 64H75		
	PLOT DATE = Thu Apr 05 09:43:20 2012	CHECKED -	REVISED -		SCALE: _____ SHEET NO. _____ OF _____ SHEETS STA. _____ TO STA. _____				FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		
		DATE -	REVISED -								



ELEVATION



PLAN

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

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.

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

TOTAL BILL OF MATERIAL

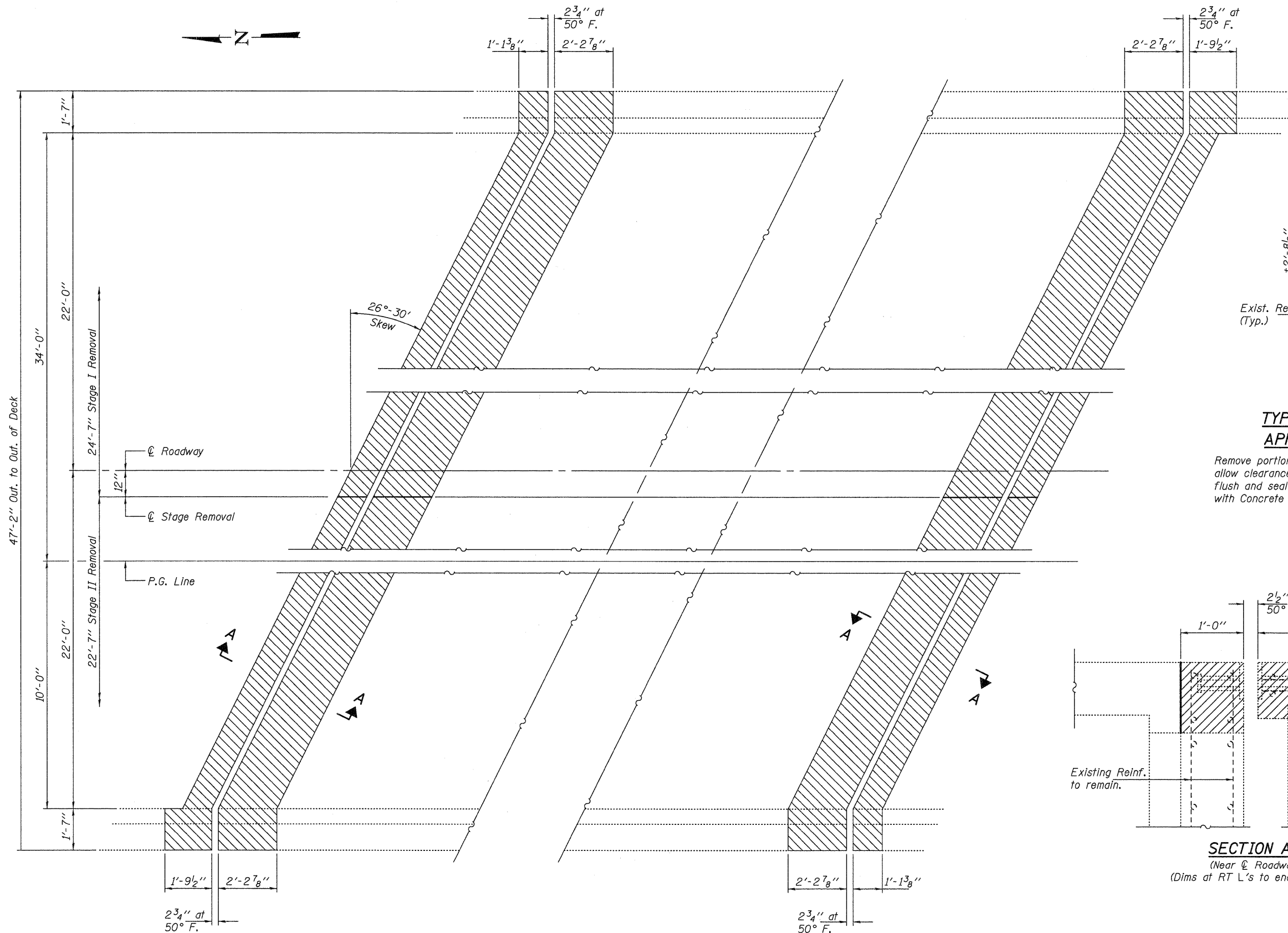
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	14.9
Concrete Superstructure	Cu. Yd.	15.0
Preformed Joint Strip Seal	Foot	102
Reinforcement Bars, Epoxy Coated	Pound	1660
Bar Splicers	Each	24
* Protective Coat	Sq. Yd.	38.7

* New Concrete Areas Only.

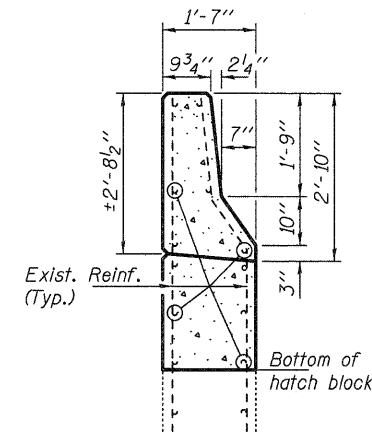


Expires: November 30, 2012

DESIGNED - <i>Adrian T. Holloway</i>	EXAMINED - <i>Jan F. [Signature]</i>	DATE - MAY 1, 2012	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION S.B.I. ROUTE 76 OVER KISHWAUKEE RIVER SN 004-0013	F.A.P. RTE. 517	SECTION (1B, 1BR, 1BR-2RM)	COUNTY BOONE	TOTAL SHEETS 31	SHEET NO. 18	
CHECKED - <i>Kyle M. Steffen</i>	PASSED - <i>[Signature]</i>				SHEET NO. 1 OF 5 SHEETS			CONTRACT NO. 64H75		
DRAWN - <i>ATH</i>					ILLINOIS FED. AID PROJECT					
CHECKED - <i>ATH</i>										

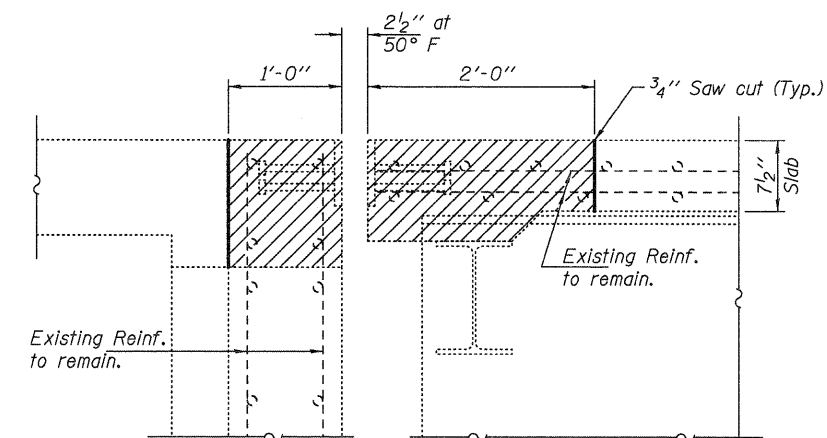


CONCRETE REMOVAL PLAN



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

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

EXAMINED *Joanne F. Jaffe*
 ACTING ENGINEER OF STRUCTURAL SERVICES
 PASSED *Carl R. ...*
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

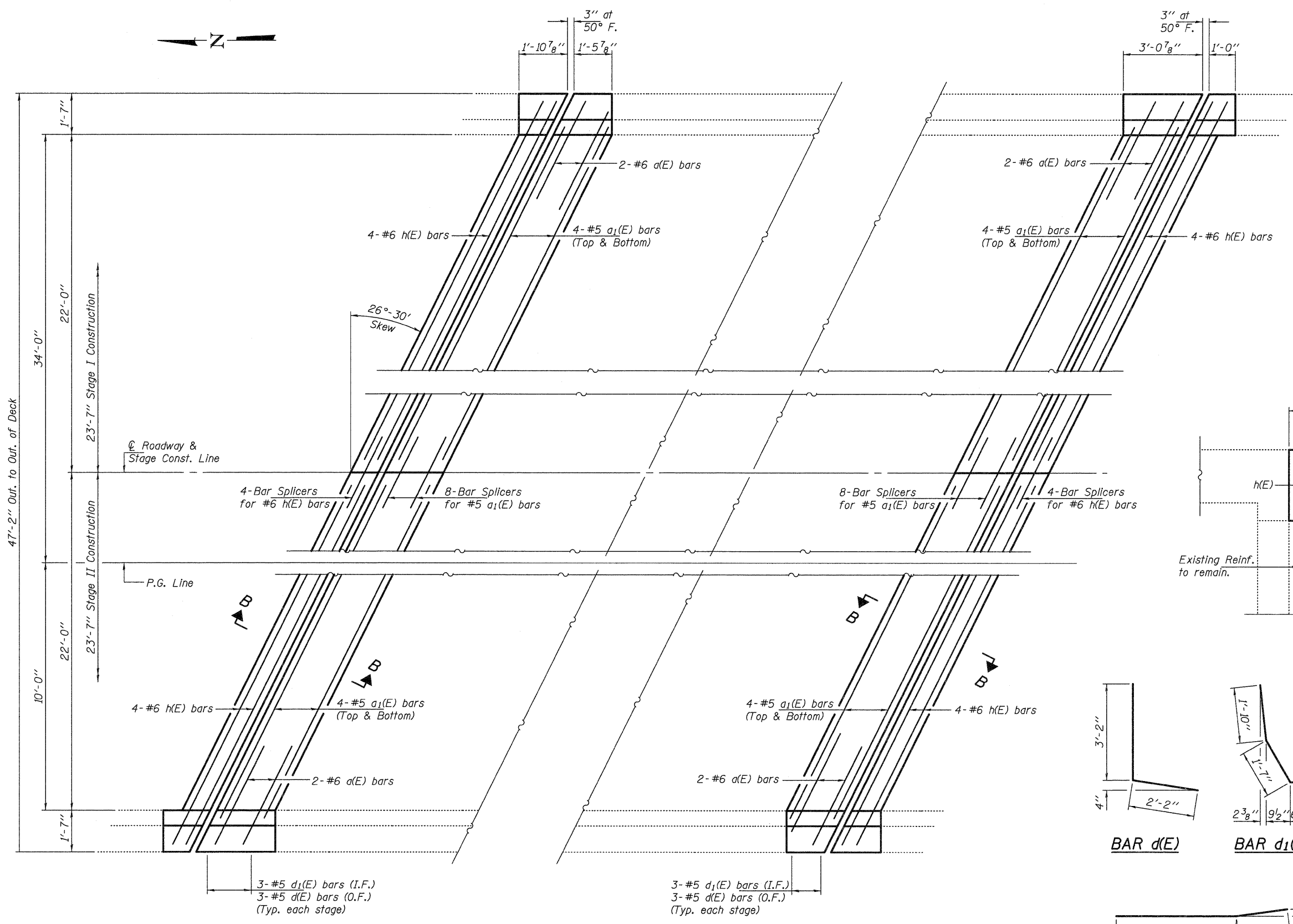
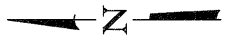
DATE - MAY 1, 2012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

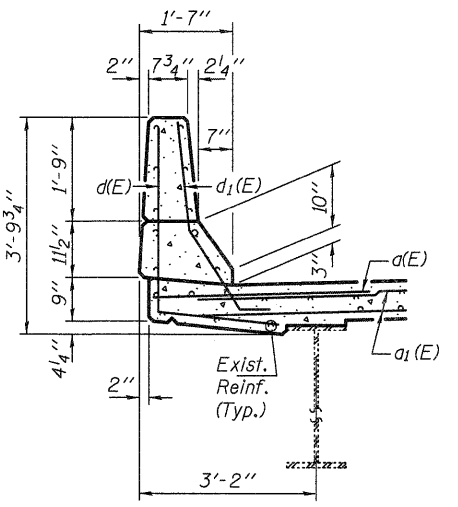
CONCRETE REMOVAL DETAILS
SN 004-0013

SHEET NO. 2 OF 5 SHEETS

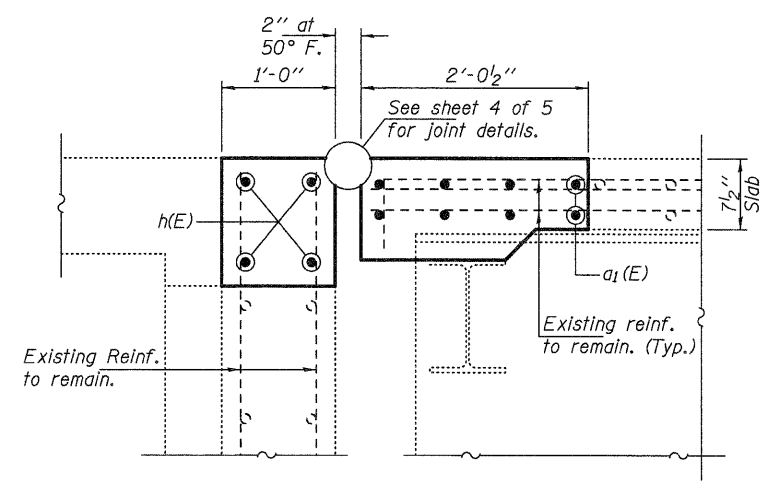
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
517	(1B, 1BR, 1BR-2RM)	BOONE	31	19
CONTRACT NO. 64H75				
ILLINOIS FED. AID PROJECT				



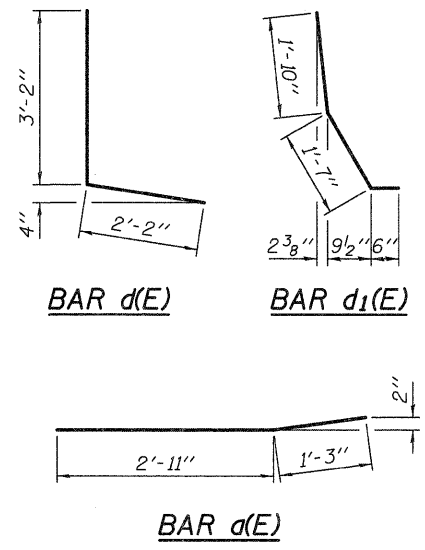
CONCRETE REPLACEMENT PLAN



TYPICAL PARAPET SECTION



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



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	8	#6	4'-2"	—
a1(E)	32	#5	25'-1"	—
d(E)	12	#5	5'-4"	L
d1(E)	12	#5	3'-11"	L
h(E)	16	#6	26'-0"	—
Concrete Removal		Cu. Yd.	14.9	
Concrete Superstructure		Cu. Yd.	15.0	
Reinforcement Bars, Epoxy Coated		Pound	1660	

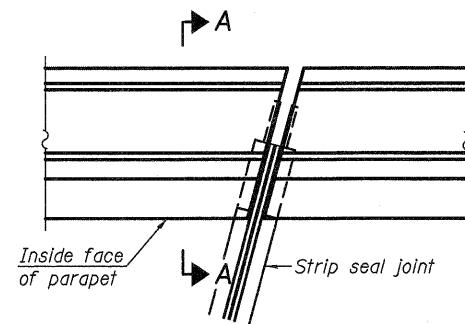
DESIGNED - ATH
 CHECKED - IJL
 DRAWN - Kyle M. Steffen
 CHECKED - ATH IJL

EXAMINED
 PASSED
 DATE - MAY 1, 2012
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

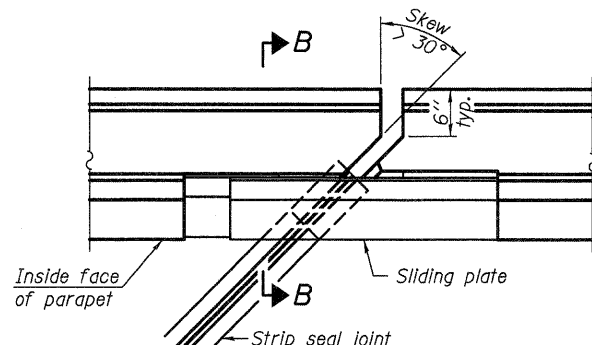
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REPLACEMENT DETAILS
 SN 004-0013
 SHEET NO. 3 OF 5 SHEETS

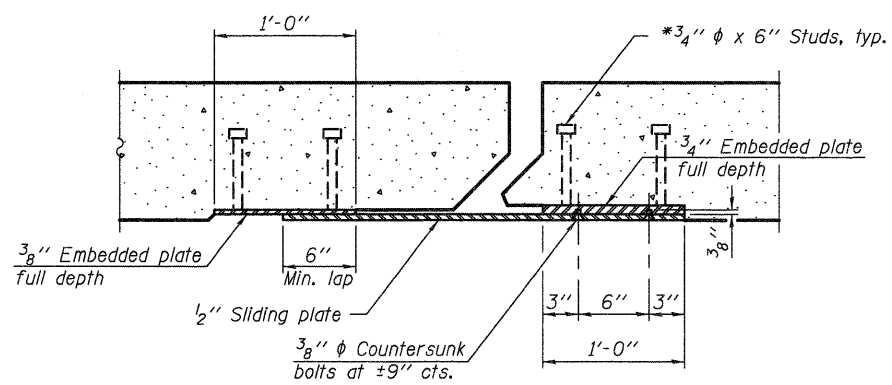
F.A.P. RTE. 517
 SECTION (1B, 1BR, 1BR-2RM)
 COUNTY BOONE
 TOTAL SHEETS 31
 SHEET NO. 20
 CONTRACT NO. 64H75
 ILLINOIS FED. AID PROJECT



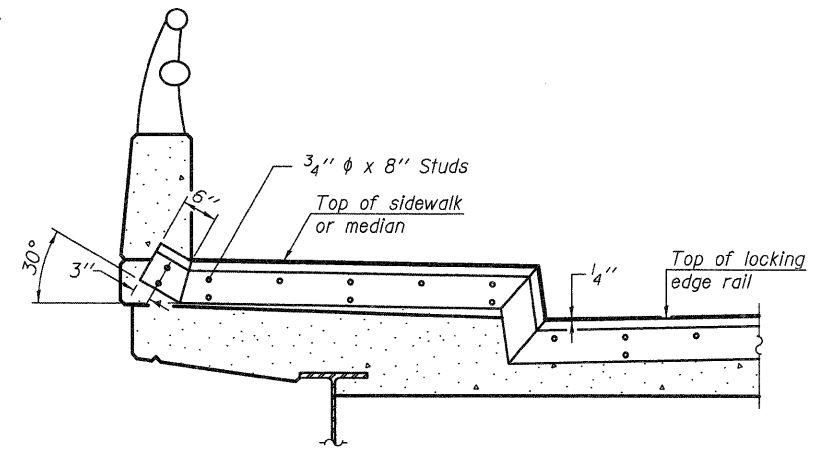
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

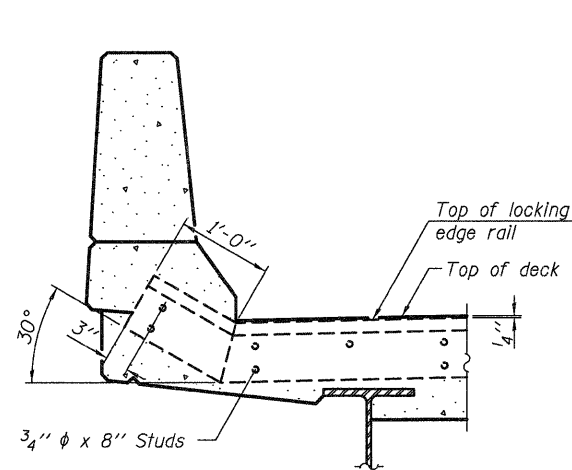


SECTION C-C

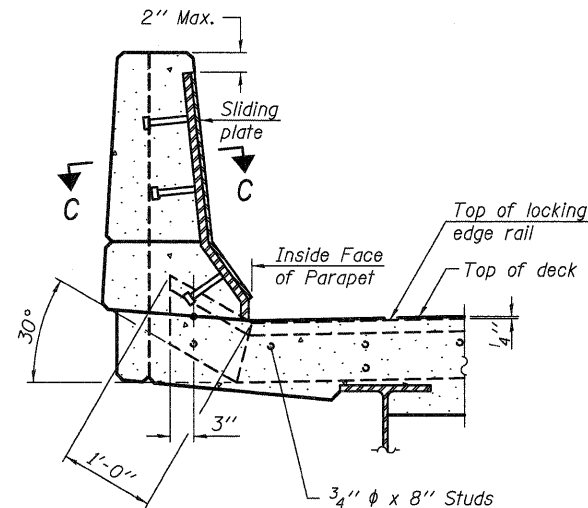


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

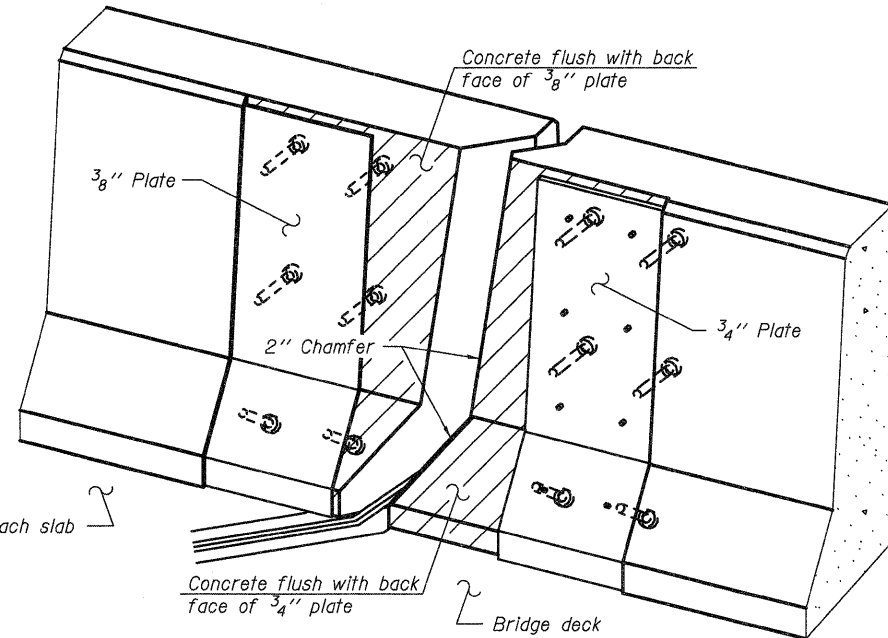
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

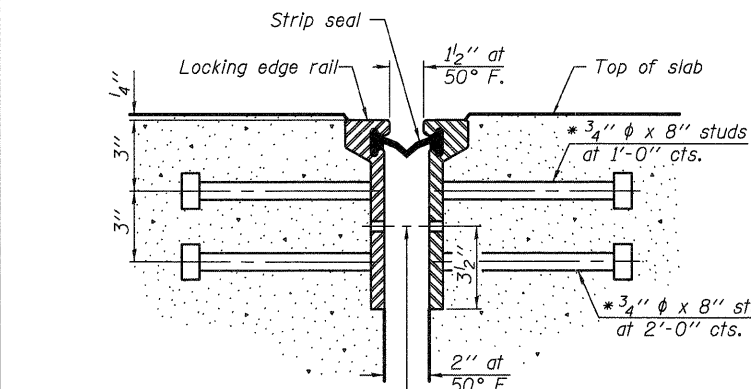
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

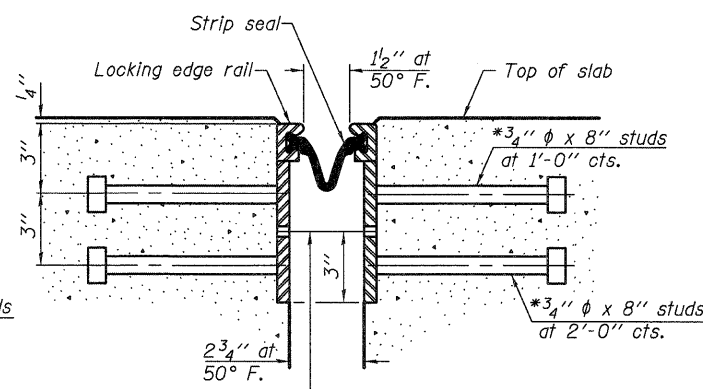
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications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

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



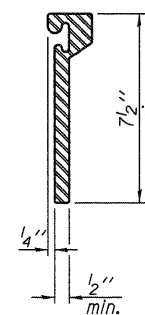
SECTION THRU ROLLED RAIL JOINT



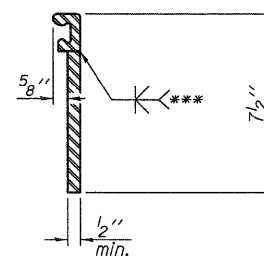
SECTION THRU WELDED RAIL JOINT

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

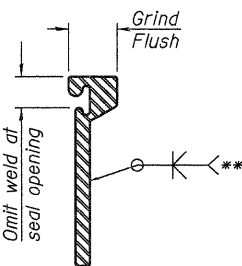
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



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.

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

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	102

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

EJ-SSJ

7-1-10

DESIGNED - ATH	EXAMINED
CHECKED - IJL	PASSED
DRAWN - Kyle M. Steffen	
CHECKED - ATH IJL	

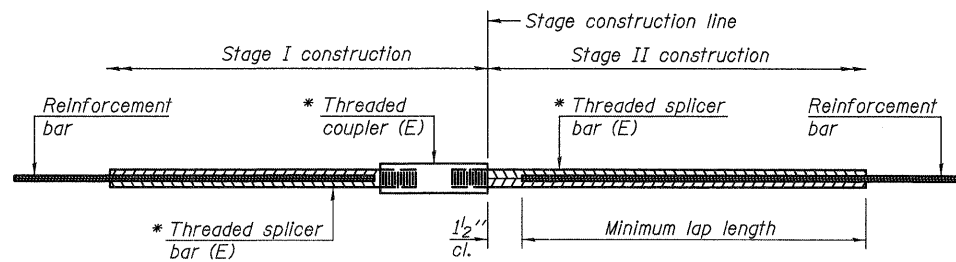
DATE - MAY 1, 2012
ACTING ENGINEER OF STRUCTURAL SERVICES
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS
SN 004-0013

SHEET NO. 4 OF 5 SHEETS

F.A.P. RTE. 517	SECTION (1B, 1BR, 1BR-2RIM)	COUNTY BOONE	TOTAL SHEETS 31	SHEET NO. 21
				CONTRACT NO. 64H75
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

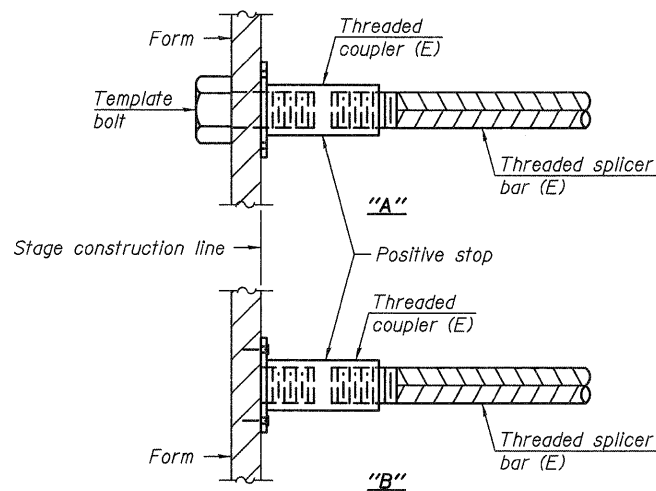
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

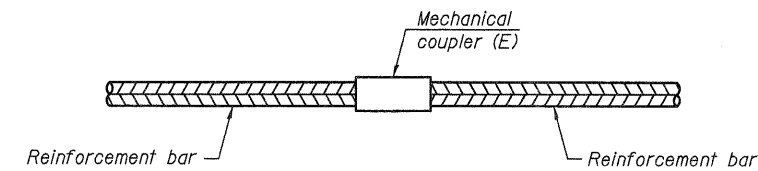
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	16	3
Abutments	#6	8	3



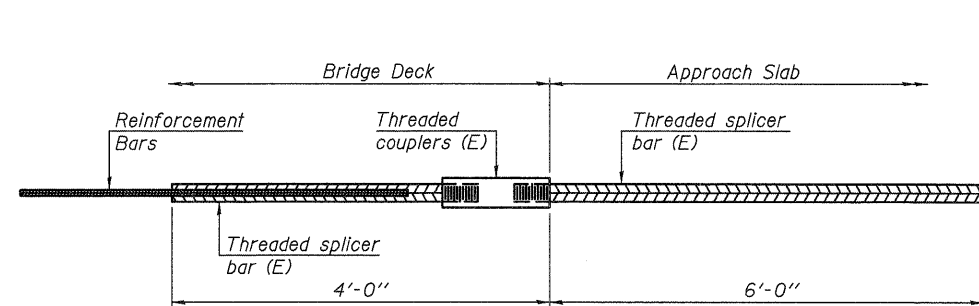
INSTALLATION AND SETTING METHODS

"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.



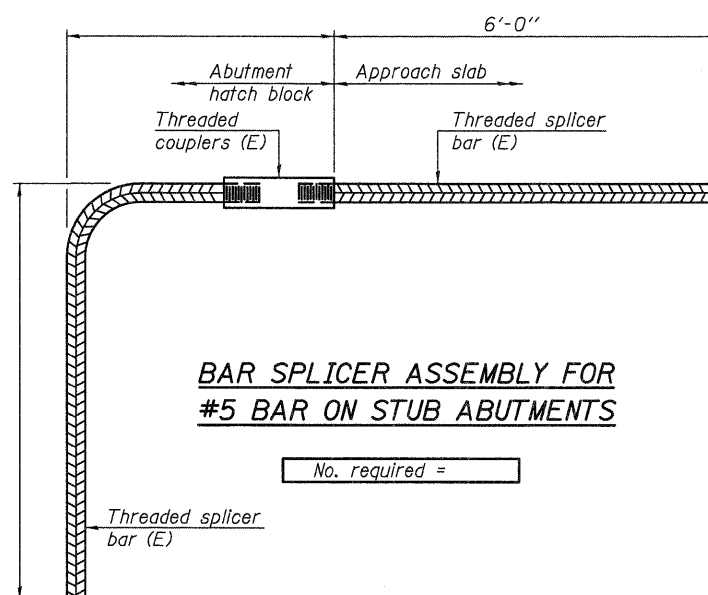
STANDARD MECHANICAL SPLICER

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.

BSD-1

7-1-10

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

EXAMINED
 PASSED
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 1, 2012

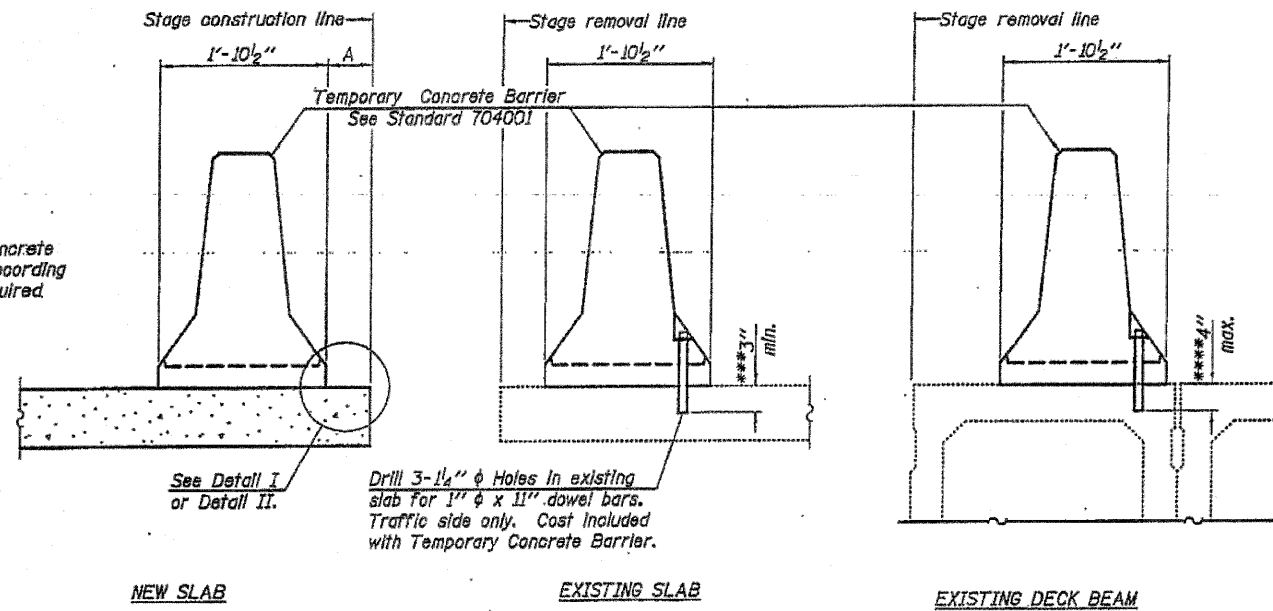
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 004-0013

SHEET NO. 5 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
517	(1B, 1BR, 1BR-2RM)	BOONE	31	22
CONTRACT NO. 64H75				
ILLINOIS FED. AID PROJECT				

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

Detail I - With Bar Splice or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{P} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place Inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

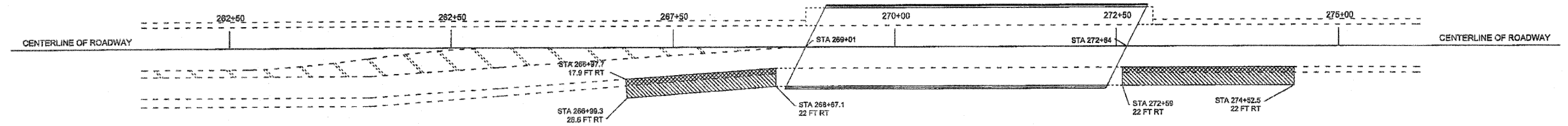
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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

FILE NAME = C:\Joint Repair_64H75\64H75_Plan.dgn	USER NAME = 100rs	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION SN 004-0013	F.A. RTE. 1042	SECTION (1B, 1BR, 1BR-2R)M	COUNTY BOONE	TOTAL SHEET 31	SHEET NO. 23	
PLOT SCALE = 1/8" = 1' / 1"	CHECKED -	REVISED -	SCALE: _____			SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO. _____	(ILLINOIS) FED. AID PROJECT	CONTRACT NO. 64H75	
PLOT DATE = Thu Apr 05 08:49:18 2012	DATE -	REVISED -									

BUSINESS ROUTE 20 PRESTAGE TRAFFIC CONTROL



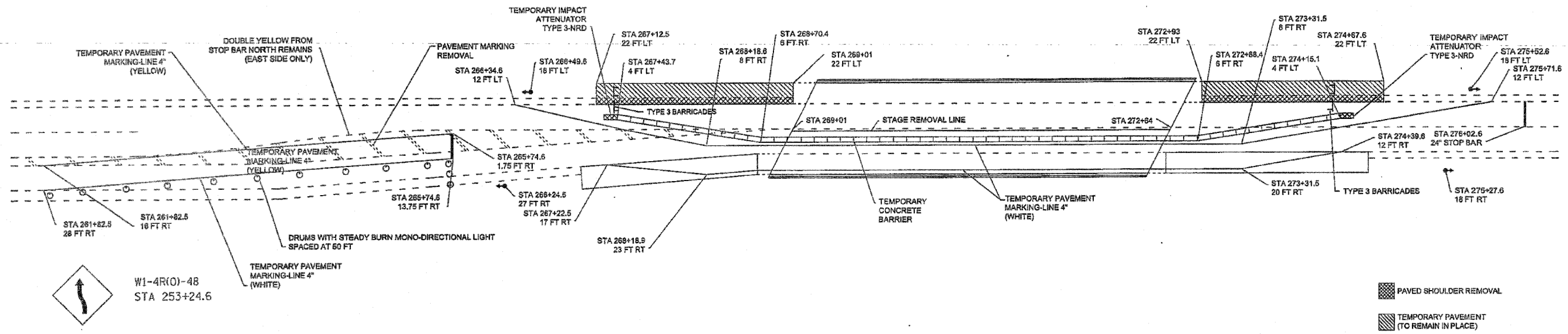
PAVED SHOULDER REMOVAL
 TEMPORARY PAVEMENT (TO REMAIN IN PLACE)

NOTES

See Standard 701326 for signing devices, vertical panels, spacing, and additional information for pavement widening.
 See Standard 701201 for signing devices, vertical panels, spacing, and additional information for setting up stage 1.

FILE NAME = C:\Joint Repair_54H75\54H75.PLAN.dgn	USER NAME = saars	DESIGNED =	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PRESTAGE CONSTRUCTION DETAILS FOR SN 004-0013		F.A. RTE. 517	SECTION. (1B, 1BR, 1BR-2RJM)	COUNTY BOONE	TOTAL SHEETS 31	SHEET NO. 24	
	PLOT SCALE = 1/4" = 10' / 1"	CHECKED =	REVISED =		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				
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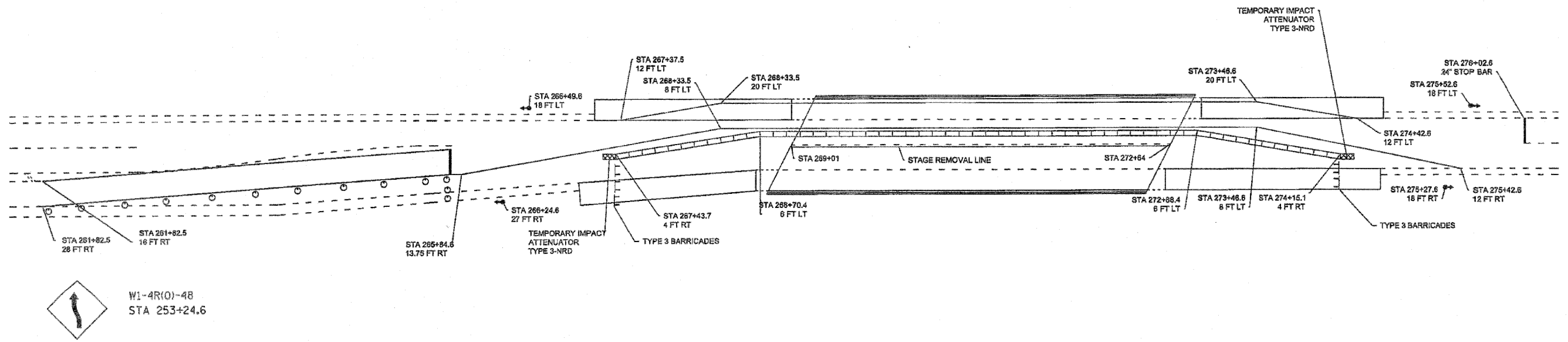
BUISNESS ROUTE 20 STAGE 1 TRAFFIC CONTROL



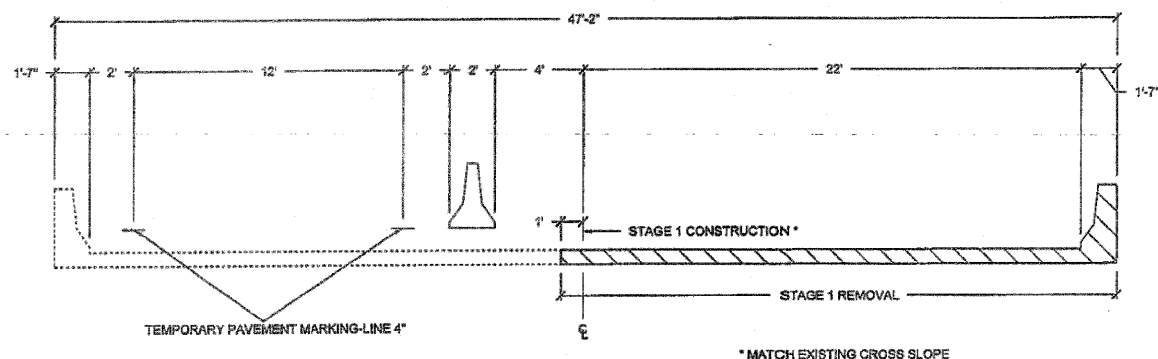
NOTES

Temporary concrete barrier wall offsets are to the traffic side.
 12.87 feet was used as length of temporary concrete barrier wall section.
 See Standard 701321 for signing devices, vertical panels, spacing, and additional information.
 Type 3 barricades are included with cost of Standard 701321.
 See prestage construction details for center line of road.
 Temporary pavement to remain in-place.

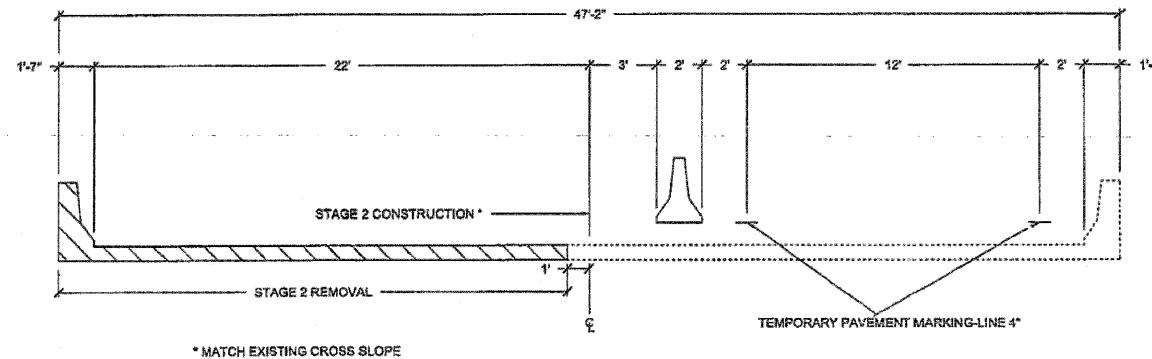
BUISNESS ROUTE 20 STAGE 2 TRAFFIC CONTROL



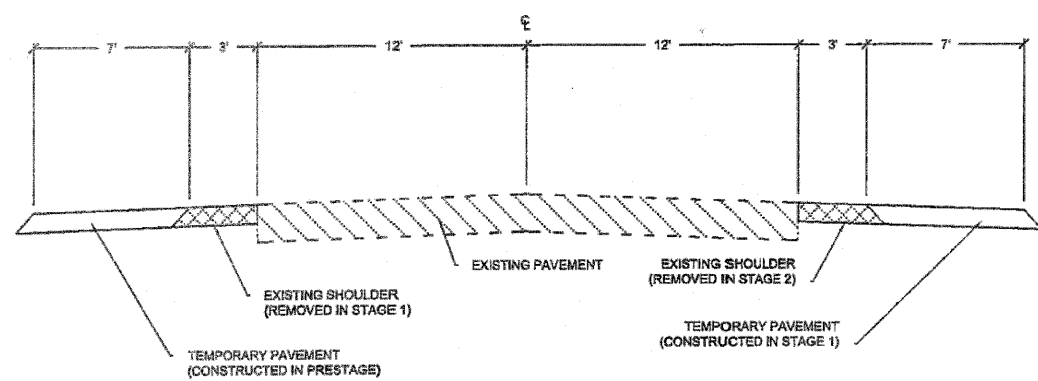
FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS FOR SN 004-0013		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C:\Joint Repair\84H75\84H75.PLAN.dgn	10000	DRAWN -	REVISED -		517	(1B, 1BR, 1BR-2R)M	BOONE	31	25	CONTRACT NO. 64H75	
PLOT SCALE = 1/4" = 1' / 1"	CHECKED -	REVISED -	SCALE: _____		SHEET NO. _____	OF _____	SHEETS	STA. _____	TO STA. _____	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	
PLOT DATE = Thu Apr 05 09:58:21 2012	DATE -	REVISED -									



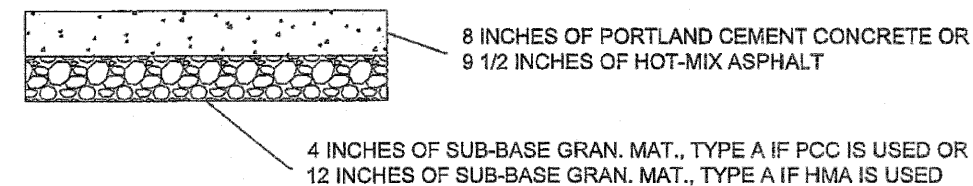
STAGE 1 (LOOKING NORTH)



STAGE 2 (LOOKING NORTH)



ROADWAY (LOOKING NORTH)



TEMPORARY PAVEMENT DETAIL

NOTES
See Special Provisions for temporary pavement option.

FILE NAME = C:\Joint Repair_64H75\64H75_PLAN.dgn	USER NAME = loars	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1/4" = 1' - 0"	CHECKED -	REVISED -
	PLOT DATE = Thu Apr 05 09:56:38 2012	DATE -	REVISED -

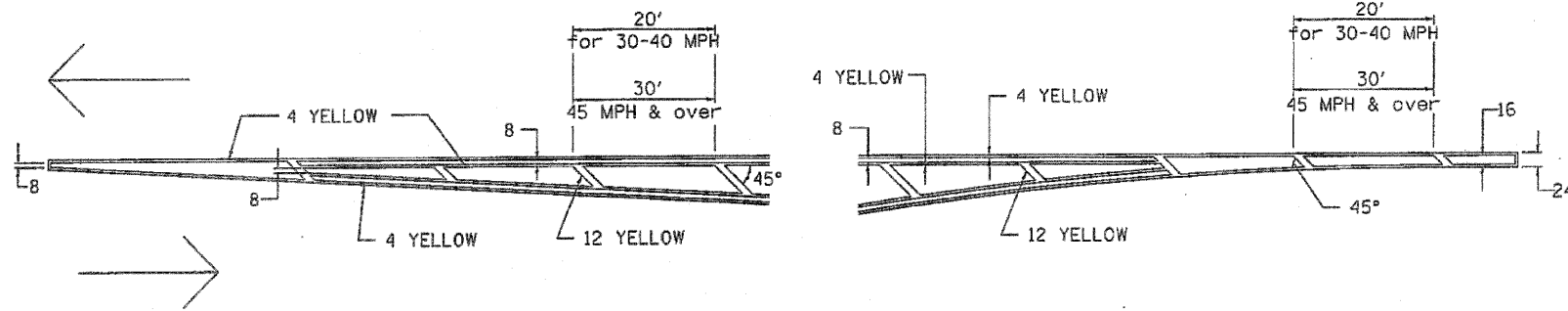
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS FOR SN 004-0013	
SCALE: _____	SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____

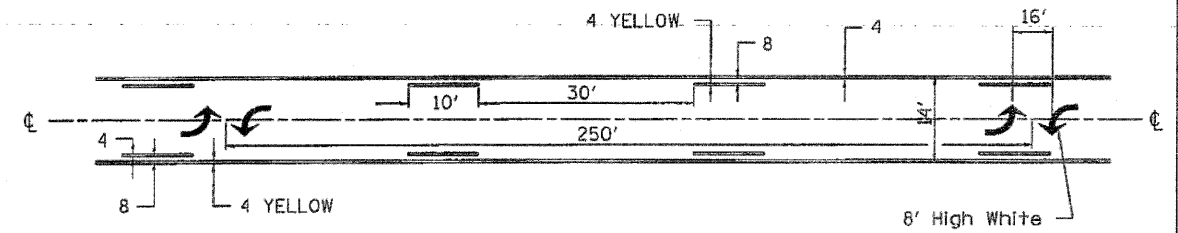
F.A. RTE. 517	SECTION (1B, 1BR, 1BR-2R)M	COUNTY BOONE	TOTAL SHEETS 31	SHEET NO. 26
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 64H75	
FED. AID PROJECT				

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN
AT LEFT TURN LANE

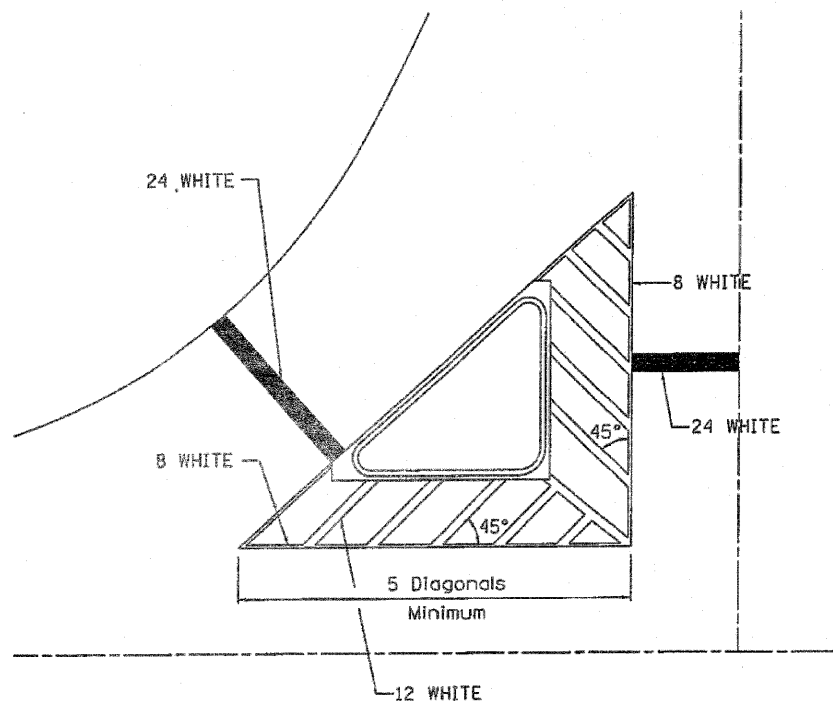


MEDIAN PAVEMENT MARKING

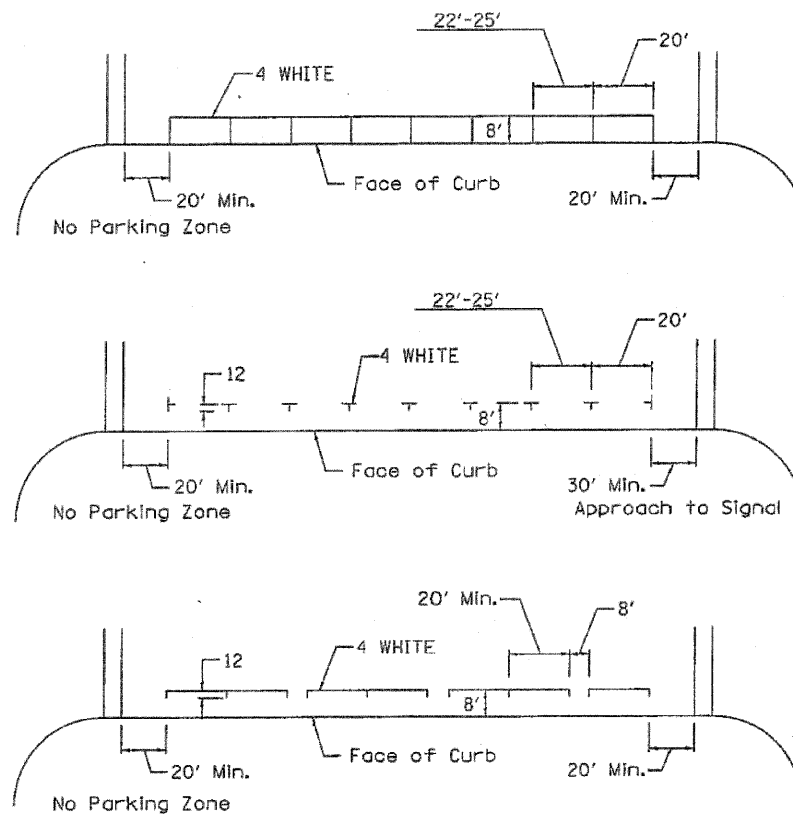


•• ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

TYPICAL ISLAND
OFFSET SHOULDER WIDTH

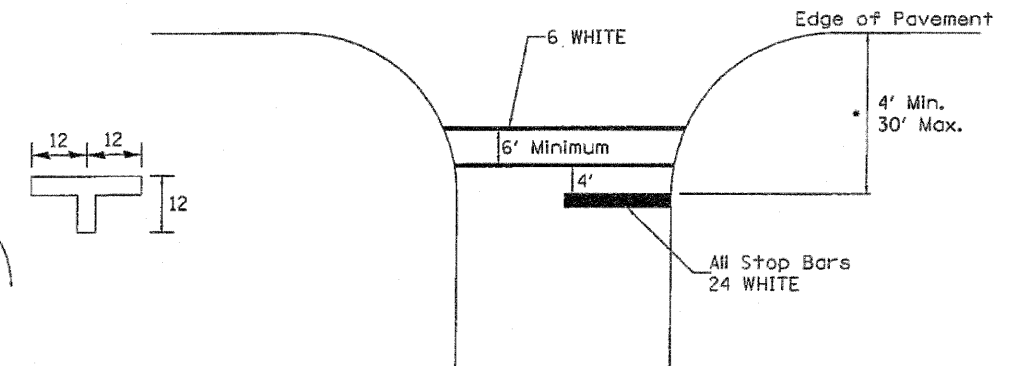


TYPICAL PARKING SPACING



STANDARD CROSSWALK MARKING

See Schedules for Locations

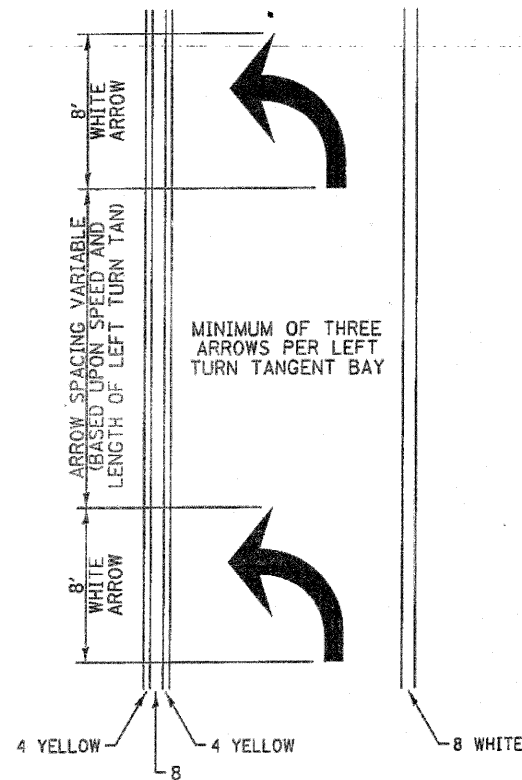


* Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

FILE NAME = C:\Joint Repairs_64H75\64H75_Plan.dgn	USER NAME = scors	DESIGNED -	REVISED - 10-18-11	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -		SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____			VARIOUS	31	27
		CHECKED -	REVISED -							CONTRACT NO. 64H75		
		DATE -	REVISED -							ILLINOIS FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

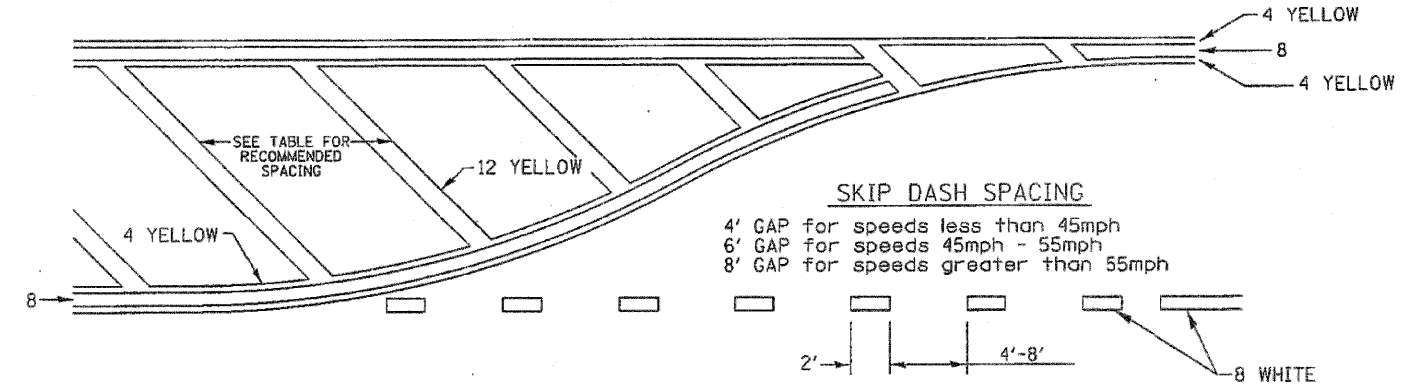
ARROW LAYOUT



- ▲ ONE-WAY AMBER MARKER
- △ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

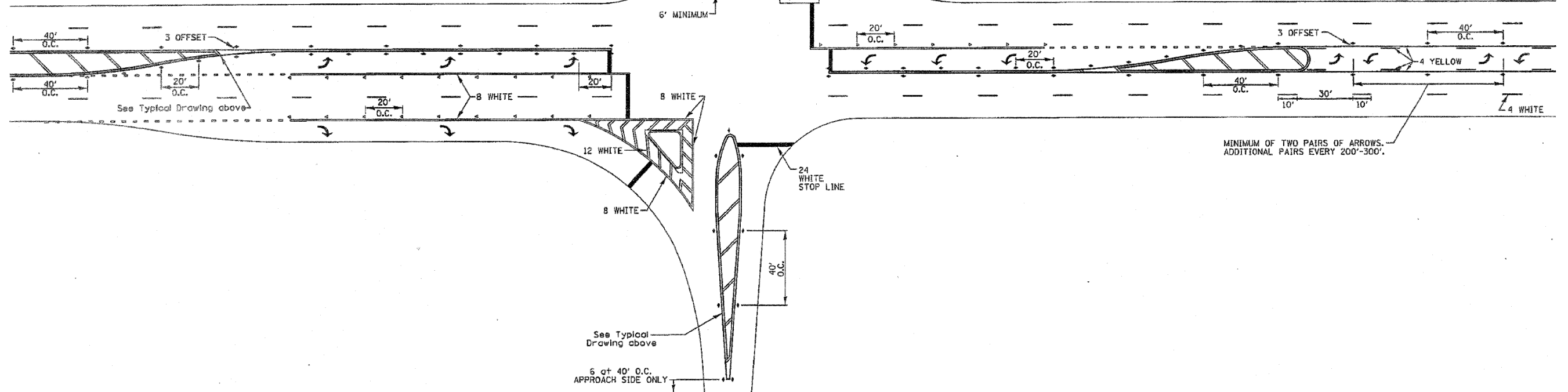
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 30MPH	50'	15'	10'
30-40MPH	75'	20'	15'
45MPH & over	75'	30'	20'

NOTE: If the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



FILE NAME = C:\Joint Repair_64H75\64H75.PLAN.dgn	USER NAME = scors	DESIGNED -	REVISED - 10-18-11
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

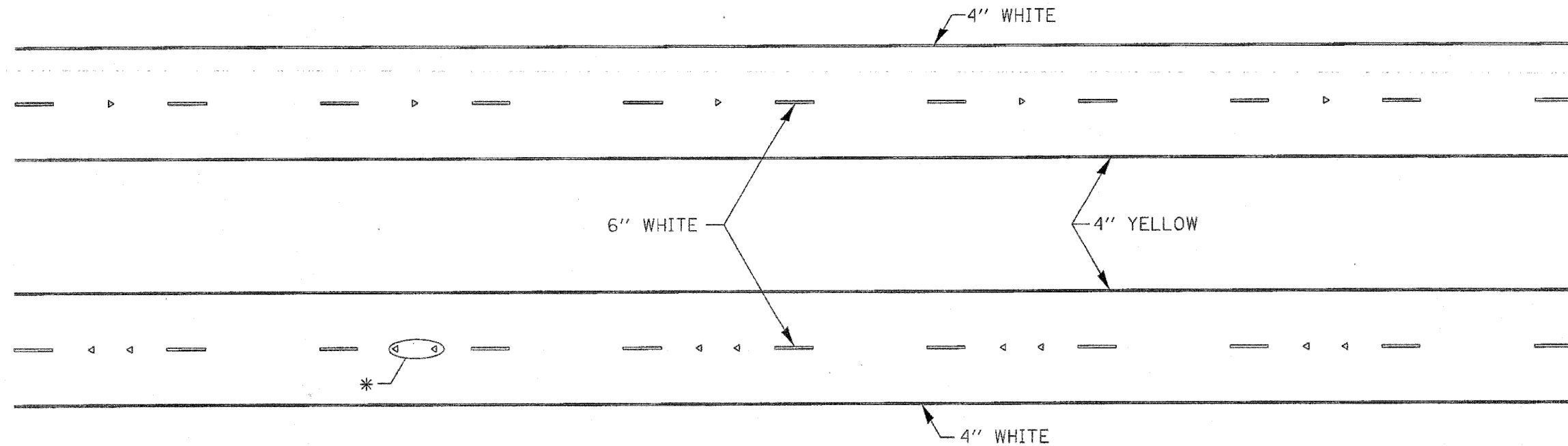
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

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

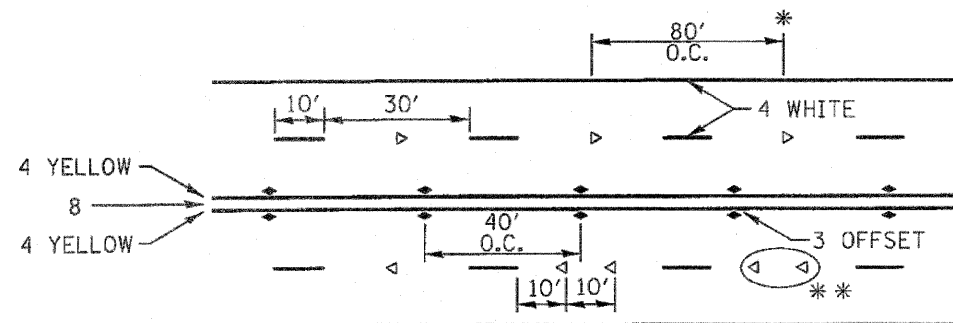
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		VARIOUS	31	28
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 64H75	

TYPICAL PAVEMENT MARKINGS



* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
USE DOUBLE MARKERS WHEN ADT \geq 25,000.

MULTI-LANE / DIVIDED



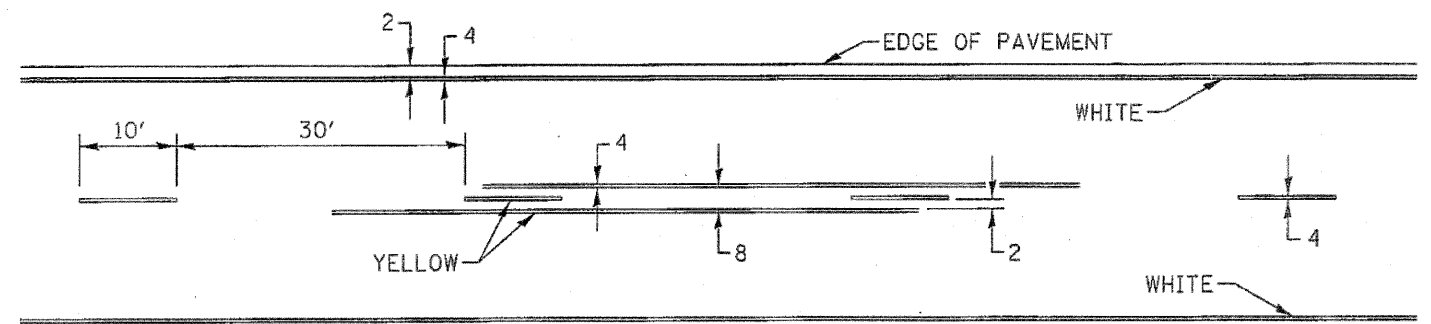
* REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.

** USE DOUBLE MARKERS WHEN ADT \geq 25,000

MULTI-LANE / UNDIVIDED

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS
DETAIL NOT HIGHWAY STANDARD 781001)

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES



SYMBOLS

FILE NAME =	USER NAME = scors	DESIGNED -	REVISED - 10-18-11	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
C:\Joint Repair\64H75\64H75_PLAN.dgn		DRAWN -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	VARIOUS	31	29
		CHECKED -	REVISED -			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					
		DATE -	REVISED -			CONTRACT NO. 64H75					

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 24 x 24

4 CAPITAL LETTERS - BLACK

1/2 BORDER - BLACK

WHITE REFLECTIVE - TYPE AP
HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE
STOP LINE AS DIRECTED BY ENGINEER.

ALL DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE NOTED.

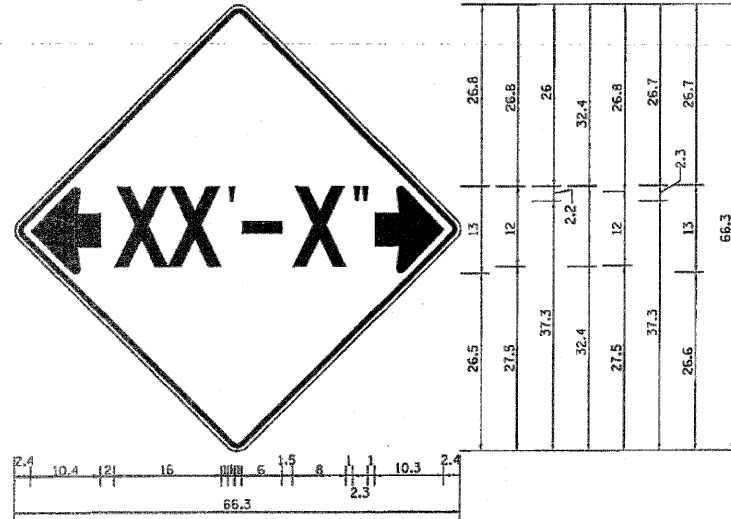
REVISED - 10-11-11

STOP LINE SIGN FOR TEMPORARY SIGNALS

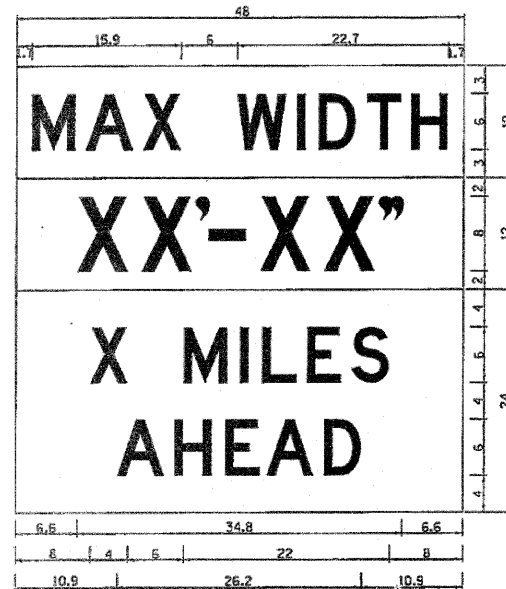
99.4

FILE NAME = CrJoint Repair_64H75N64H75.PLA\dgn	USER NAME = scors	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STOP LINE SIGN FOR TEMPORARY SIGNALS	F.A. RTE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -						VARIOUS	31	30
		CHECKED -	REVISED -						CONTRACT NO. 64H75		
		DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
PLOT SCALE = 1/2" = 1' / 31.25'		PLOT DATE = Thu Apr 05 08:51:17 2012									

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°



W12-1103 (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.

REVISED - 5-15-09

INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) 39.2

FILE NAME = C:\Joint Repair_64H75\64H75_PLAN.dgn	USER NAME = loora	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAX WIDTH SIGN DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -		SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	VARIOUS			31	31
		CHECKED -	REVISED -					CONTRACT NO. 64H75				
		DATE -	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				