

SUMMARY OF QUANTITIES

Pay code	Description	Units	0014
			State Funds Total Quantity
20200600	EXCAVATING AND GRADING EXISTING SHOULDER	UNIT	11
42001300	PROTECTIVE COAT	SQ YD	26.20
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	88
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	365.1
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	908
50102400	CONCRETE REMOVAL	CU YD	17.60
50300255	CONCRETE SUPERSTRUCTURE	CU YD	19.20
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,380
50800515	BAR SPLICERS	EACH	40
52000110	PREFORMED JOINT STRIP SEAL	FOOT	164
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	865
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5,100
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	48
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,748
70400100	TEMPORARY CONCRETE BARRIER	FOOT	835
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	835
X78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	5,100
78300100	PAVEMENT MARKING REMOVAL	SQ FT	2,550
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	EACH	2
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	40.00
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4

GENERAL NOTES

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.

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

The cost of the removal of existing expansion joints is included in the pay item Prefomed Joint Strip Seal.

The following Mixture Requirements are applicable

Mixture Uses(s):	Deck Overlay	Shoulder	Approach Pavement	Protection Layer
PG:	PG 64-22	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N50	4.0 @ N50	4.0 @ N50	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5	IL 9.5	IL 9.5	IL 4.75
Friction Aggregate	C	C	C	N/A
20 Year ESAL	2.1	2.1	2.1	
Mix Unit Weight	112 lbs/sy/in	112 lbs/sy/in	112 lbs/sy/in	

Protection Layer shall be done accordingly with Art. 581.07 from Standard Specifications for Road and Bridge Construction, Adopted January 1, 2012

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

The cost is included in Concrete Removal.

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 LEVELING BINDER (MACHINE METHOD) of the type specified.

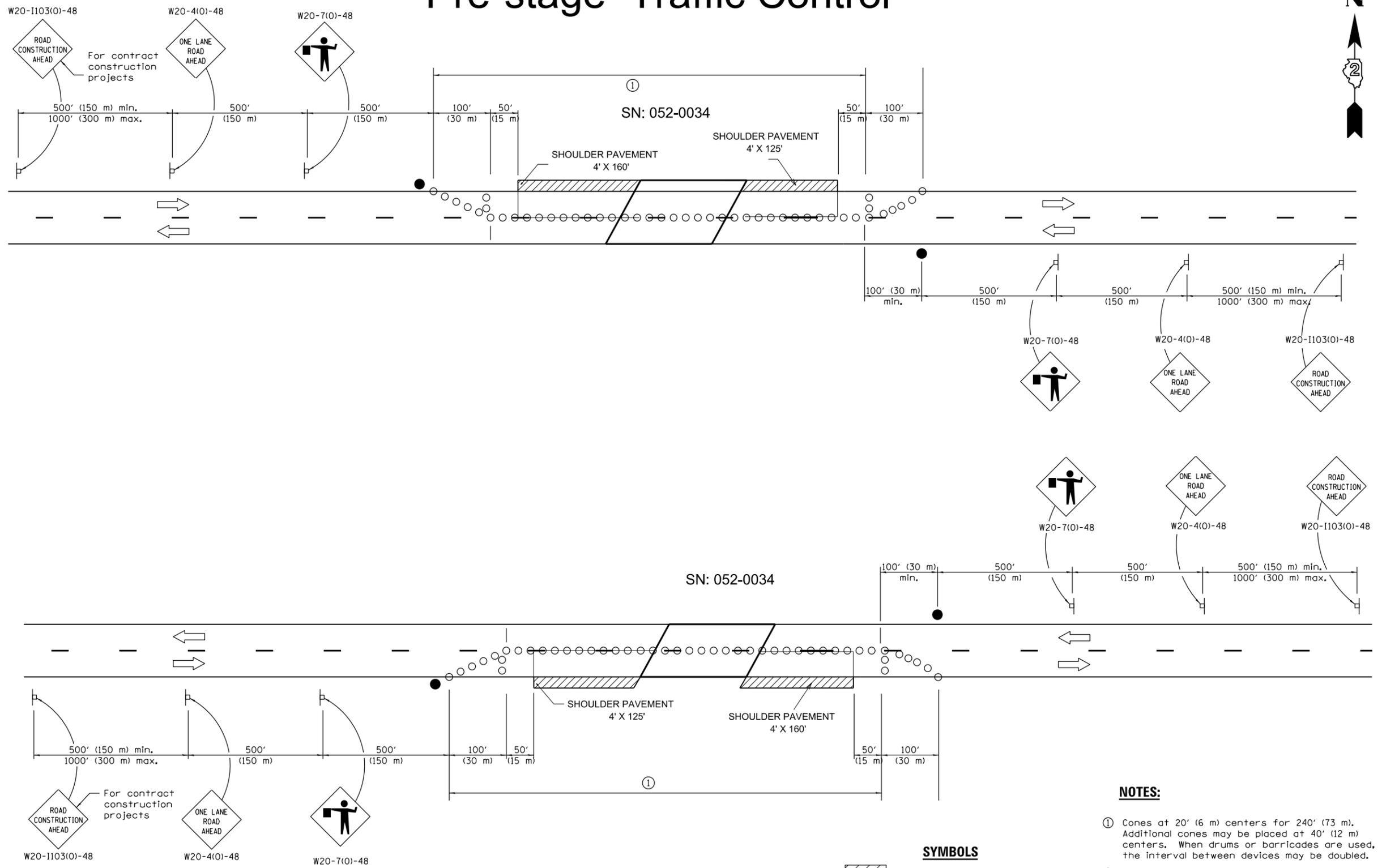
The Shoulder shall be done following the District Standard 2.3.4 a

* Specialty Items

Rev.

USER NAME: 1 800-1480	DESIGNED -	REVISIONS -	STATE OF ILLINOIS	P.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLT SCALE: 6051/073 PL 2 1/2"	DRAWN -	REVISIONS -	DEPARTMENT OF TRANSPORTATION	573	B2 DECK REPAIR 2013-2	LEE	22	2
PLT DATE: 11/01/2013	CHECKED -	REVISIONS -						CONTRACT NO. 64N74
	DATE -	REVISIONS -						

Pre-stage Traffic Control



SN: 052-0034

SYMBOLS

- Work area
- Sign
- Barricade or drum
- Cone, drum or barricade
- Flagger with traffic control sign

NOTES:

- ① Cones at 20' (6 m) centers for 240' (73 m). Additional cones may be placed at 40' (12 m) centers. When drums or barricades are used, the interval between devices may be doubled.
- ② All dimensions are in inches (millimeters) unless otherwise shown.
- ③ Traffic control for temporary pavement on North side of the road along the bridges shall be a mirror set up

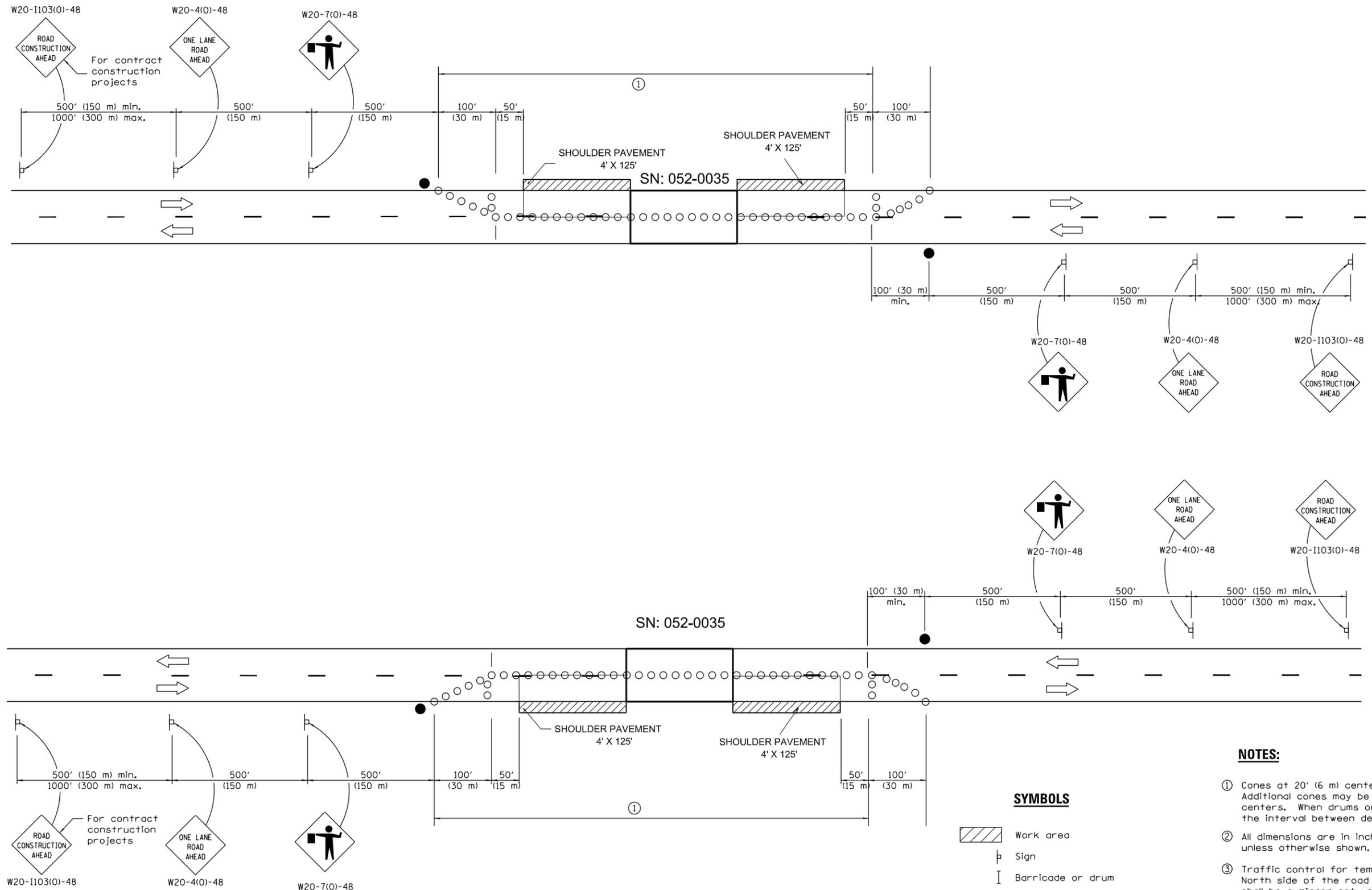
USER NAME = bortesc	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20000.000 ft / in.	CHECKED -	REVISED -
PLOT DATE = Mon Dec 03 11:14:04 2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	3	22
CONTRACT NO. 64H74				

ILLINOIS

Pre-stage Traffic Control



SYMBOLS

- Work area
- Sign
- Barricade or drum
- Cone, drum or barricade
- Flagger with traffic control sign

NOTES:

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USER NAME = bortesc	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = Mon Dec 03 11:14:58 2012	DATE -	REVISED -

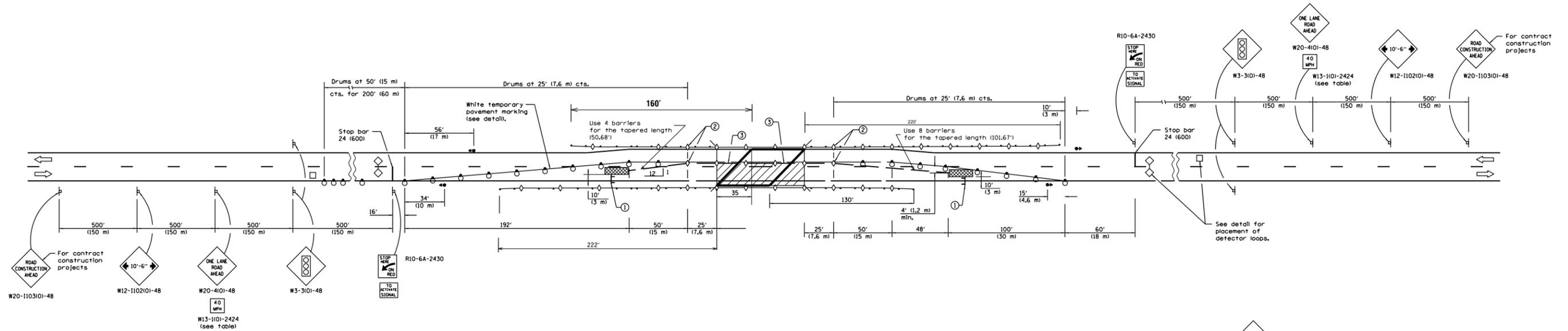
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	4	22
CONTRACT NO. 64H74				

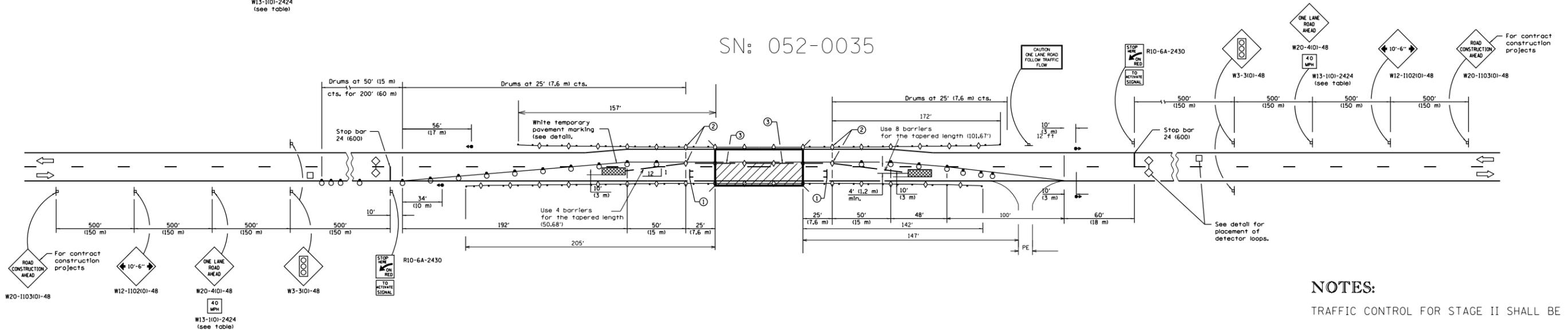
ILLINOIS

Traffic Control Stage I

SN: 052-0034



SN: 052-0035

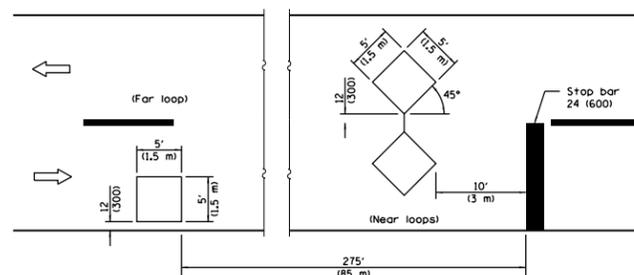


NOTES:

TRAFFIC CONTROL FOR STAGE II SHALL BE MIRRORED

SYMBOLS

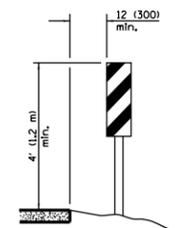
- Work area
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Type III barricade
- Double vertical panel (see detail)
- Traffic signal
- Crystal, bidirectional barrier wall/guardrail marker
- Detector loops
- Impact attenuator



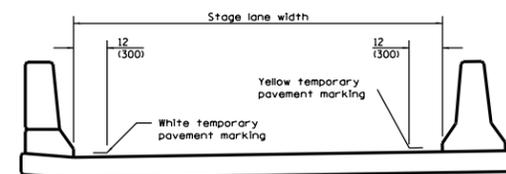
DETECTOR LOOPS DETAIL

TRAFFIC SIGNAL SEQUENCE					
PHASE	A	B			
INTERVAL	1	2	3	4	5
NORTHBOUND OR EASTBOUND	G	Y	R	R	R
SOUTHBOUND OR WESTBOUND	R	R	G	Y	R

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph



VERTICAL PANELS
(Post mounted, one each side)



TEMPORARY PAVEMENT MARKING DETAIL

- ① Type III barricade to be placed when no work is being performed.
- ② Barrier wall/guardrail markers at 25' (7.6 m) cts. See Standards 704001 & 635011.
- ③ When temp. bridge rail is specified, it shall be connected to the temp. conc. barrier using a traffic barrier terminal Type II.

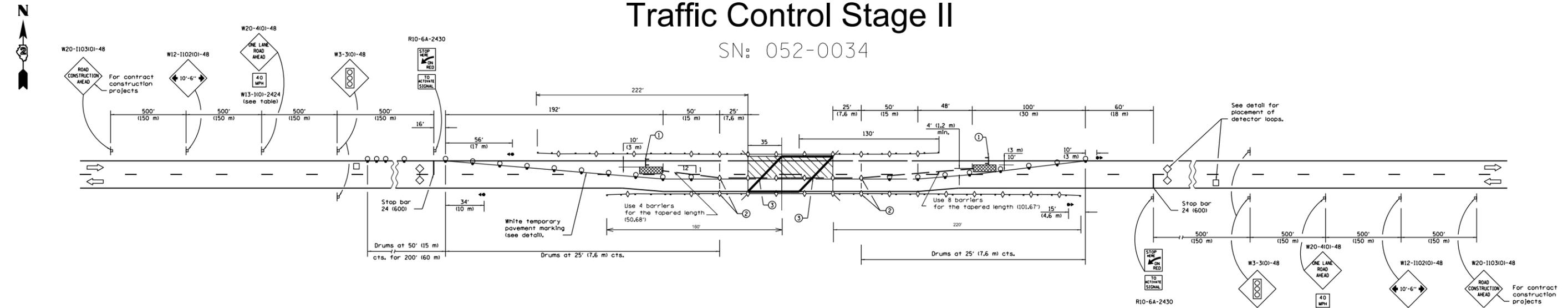
Traffic signals shall be operational only when all traffic controls are in place. When traffic signals are not in operation, flaggers shall be used and traffic control shall conform to Standard 701201 or 701206.

Temporary concrete barrier shall be according to Standard 704001.

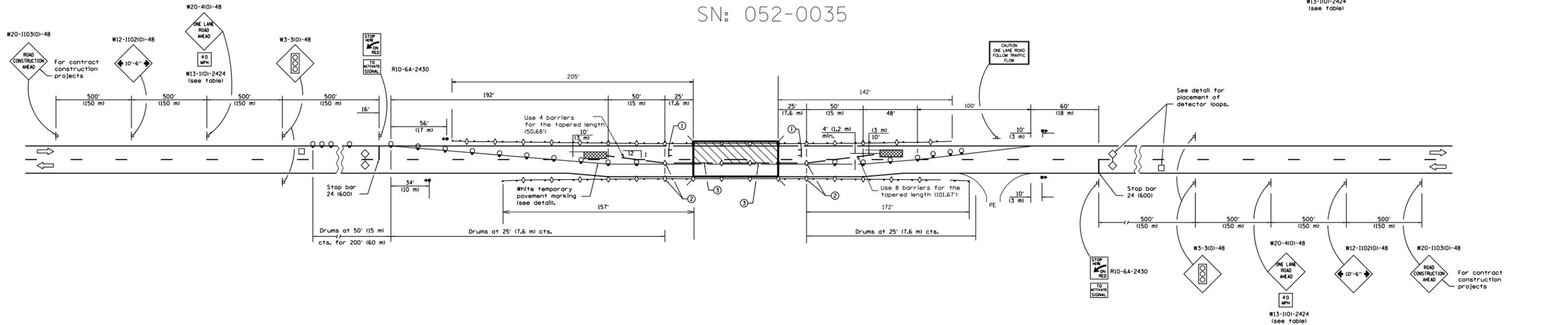
Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.

Traffic Control Stage II

SN: 052-0034



SN: 052-0035



NOTES:

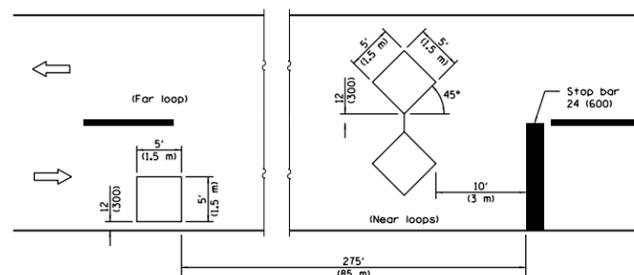
- SYMBOLS**
- Work area
 - Drum with steady burning bi-directional light
 - Temporary concrete barrier
 - Sign
 - Temporary rumble strip (when specified)
 - Type III barricade
 - Double vertical panel (see detail)
 - Traffic signal
 - Crystal, bi-directional barrier wall/guardrail marker
 - Detector loops
 - Impact attenuator

- ① Type III barricade to be placed when no work is being performed.
- ② Barrier wall/guardrail markers at 25' (7.6 m) cts. See Standards 704001 & 635011.
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Traffic signals shall be operational only when all traffic controls are in place. When traffic signals are not in operation, flaggers shall be used and traffic control shall conform to Standard 701201 or 701206.

Temporary concrete barrier shall be according to Standard 704001.

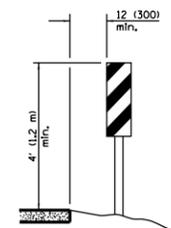
Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.



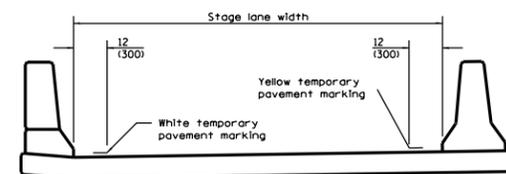
DETECTOR LOOPS DETAIL

TRAFFIC SIGNAL SEQUENCE						
PHASE	A	B				
INTERVAL	1	2	3	4	5	6
NORTHBOUND OR EASTBOUND	G	Y	R	R	R	R
SOUTHBOUND OR WESTBOUND	R	R	R	G	Y	R

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph



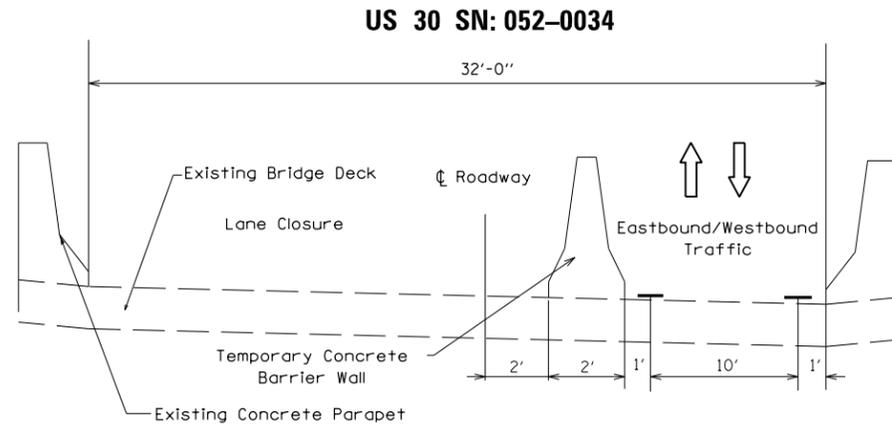
VERTICAL PANELS
(Post mounted, one each side)



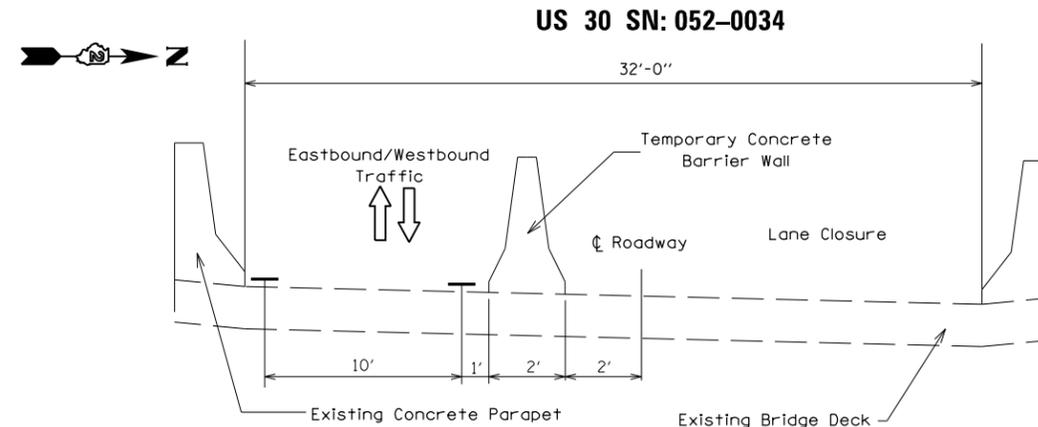
TEMPORARY PAVEMENT MARKING DETAIL

Traffic Control Plan

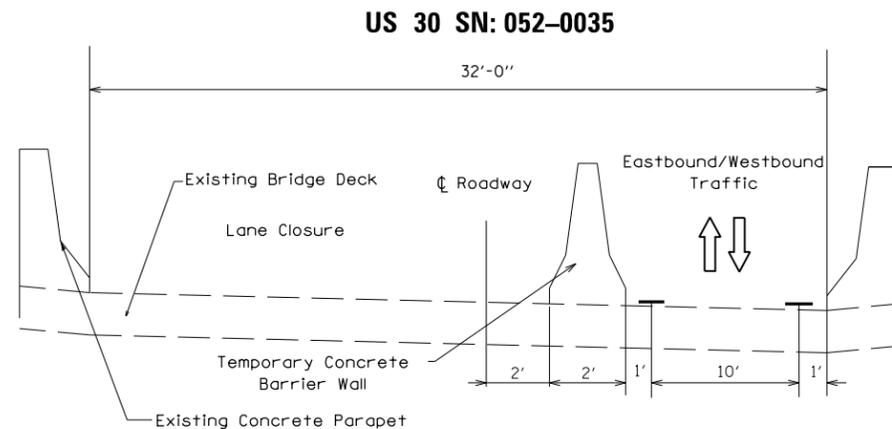
CROSS-SECTIONS



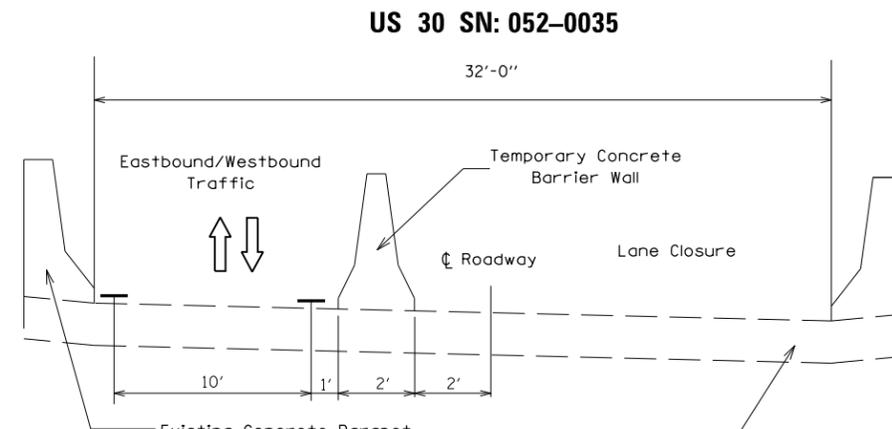
STAGE I



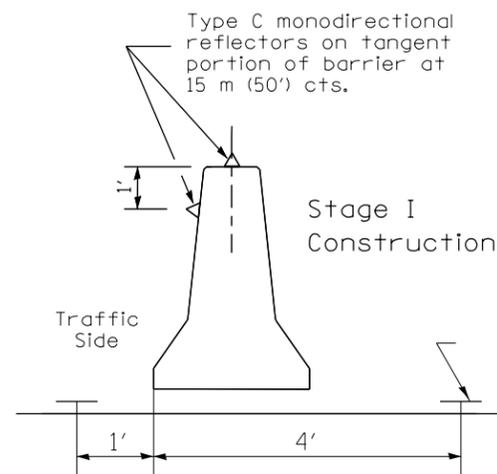
STAGE II



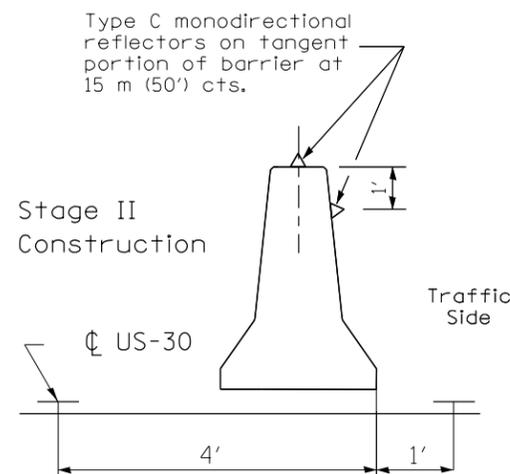
STAGE I



STAGE II



DETAIL
(BARRIER WALL REFLECTORS)



NOTES:

- ① Temporary pavement marking-Line 4" shall be placed throughout the tapers and along of the lines closures. Line should be white on the right side and yellow on the left side of the moving traffic.
- ② See Traffic Control Standards 701400-05 and 701402-09 for additional signs, devices and other items

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

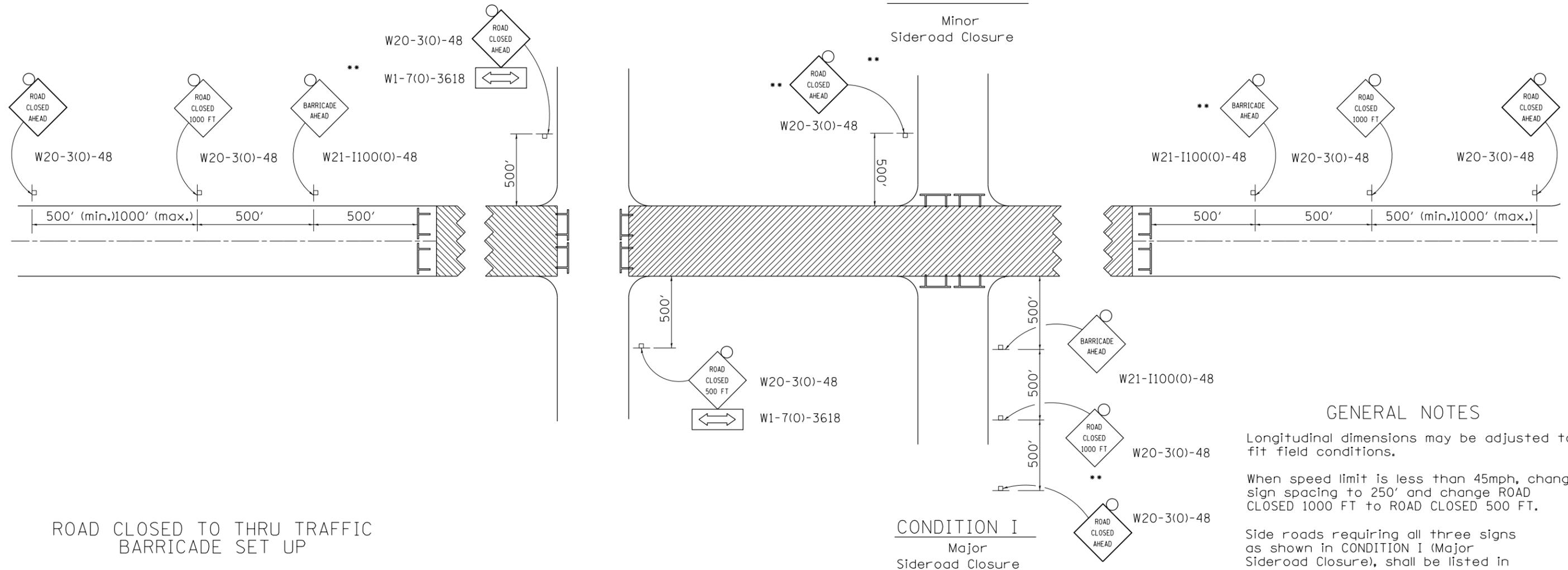
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	22	7
				CONTRACT NO. 64H74
ILLINOIS				

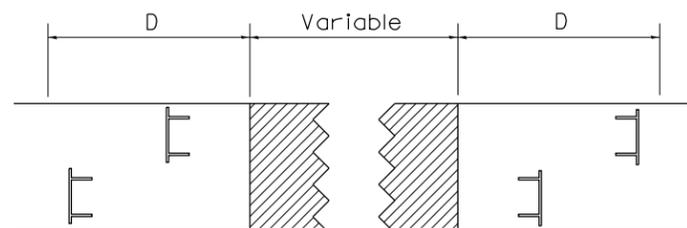
TRAFFIC CONTROL FOR ROAD CLOSURE

CONDITION II

Minor Sideroad Closure

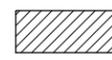


ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

SYMBOLS

-  Work area
-  Type III Barricade with Flashers
-  Sign with flashing light

GENERAL NOTES

Longitudinal dimensions may be adjusted to fit field conditions.

When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

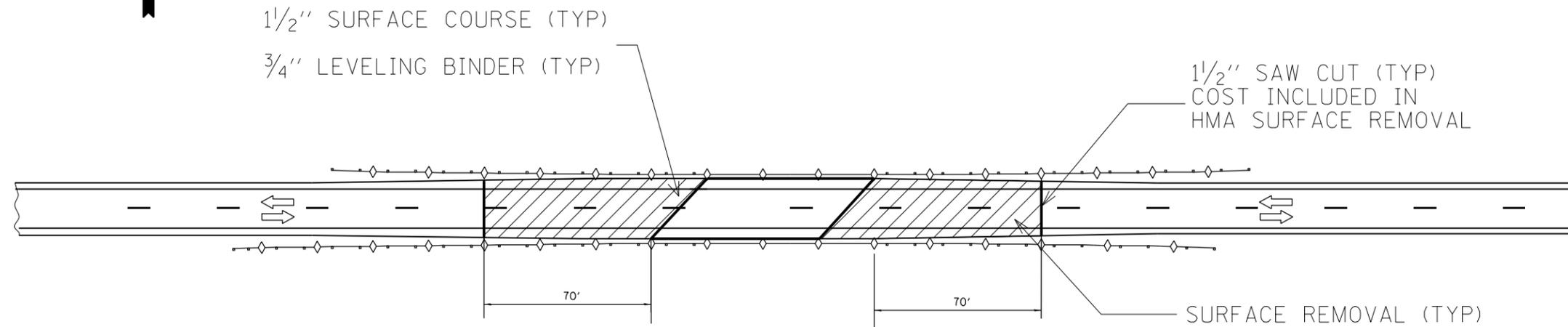
** Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic. Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

All dimensions are in inches unless otherwise shown.

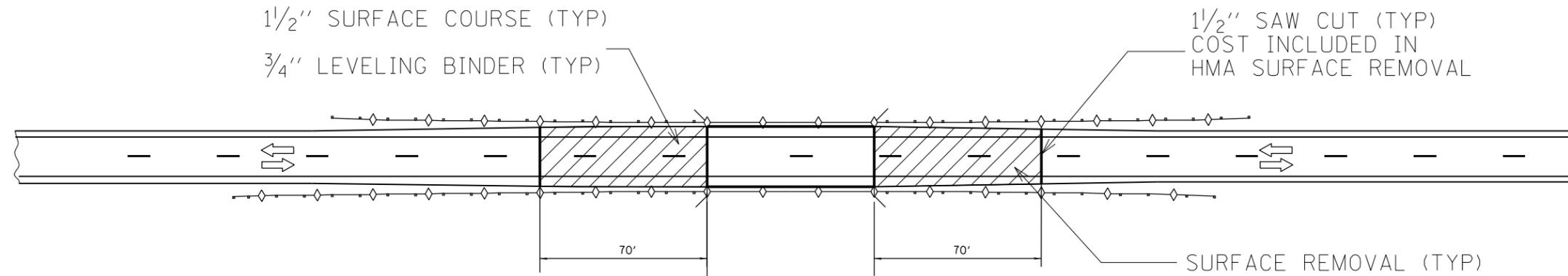
TYPICAL APPLICATION FOR ROAD CLOSURE

	DESIGNED -	REVISED - 10-17-11	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -			573	D2 BRIDGE REPAIR 2013-2	LEE	22	8
	CHECKED -	REVISED -			CONTRACT NO. 64H74				
	DATE -	REVISED -							

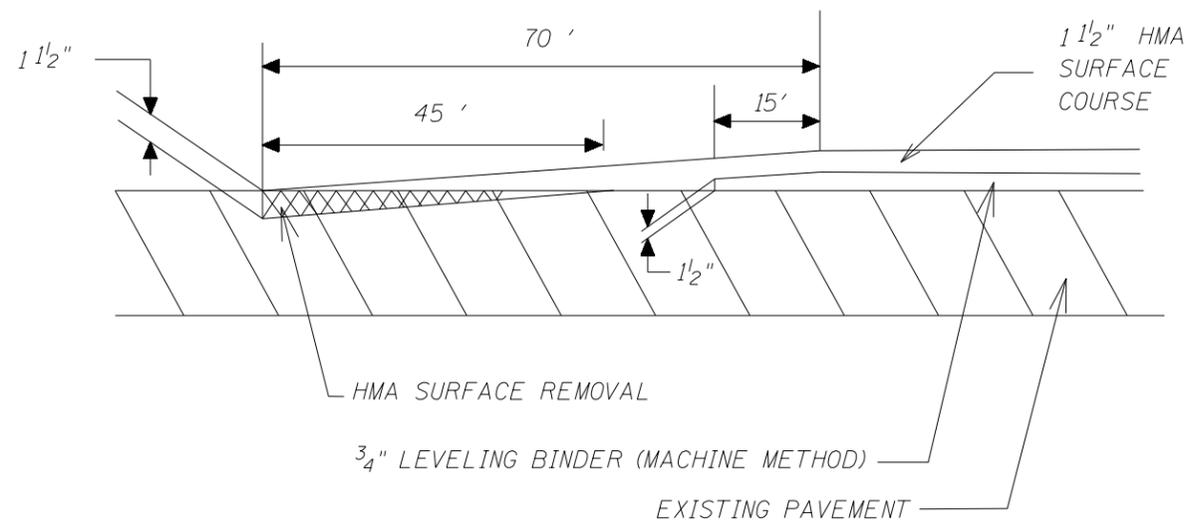
APPROACH PAVEMENT SURFACE REMOVAL AND REPLACEMENT PLAN



SN: 052-0034



SN: 052-0035



← TAPER DETAIL

NOTES:

- (1) HMA SURFACE REMOVAL (TYP)
HMA SURFACE COURSE, MIX "C" N50 (TYP)
- (2) BRIDGE OVERLAY SHALL CONSIST OF
 $\frac{1}{2}$ " WATER PROOFING SYSTEM AND
 $1\frac{3}{4}$ " SURFACE COURSE, MIX "C" N50 (TYP)

USER NAME = bortesc	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 10180.000 ft / in.	CHECKED -	REVISED -	
PLOT DATE = Mon Dec 03 11:18:19 2012	DATE -	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	22	10
CONTRACT NO. 64H74				

GENERAL NOTES

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

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.

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.

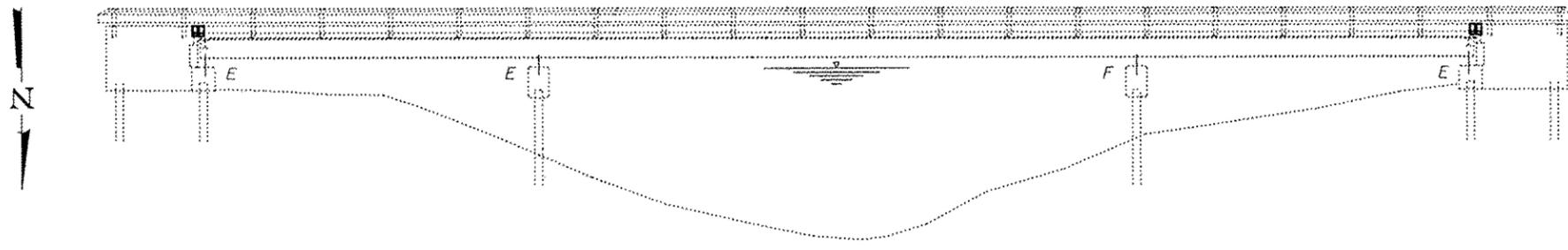
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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.

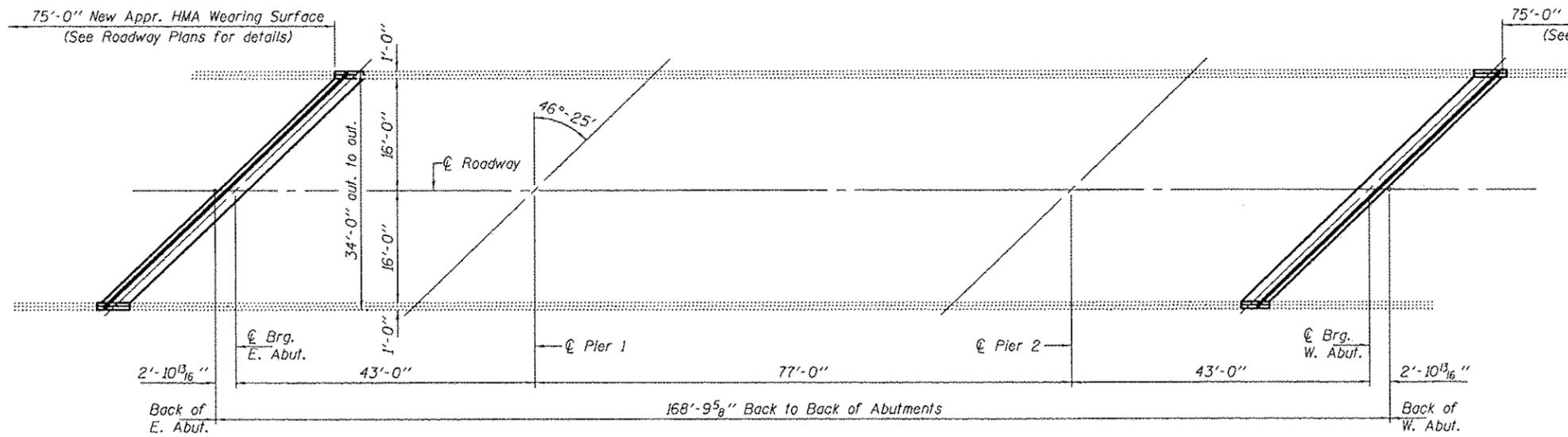
Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

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

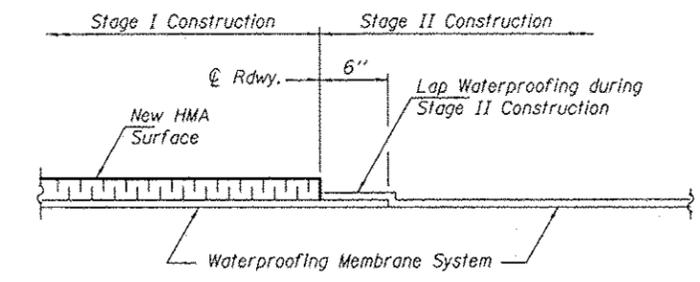
Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.



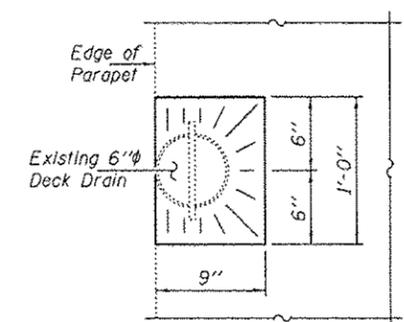
ELEVATION



PLAN



WATERPROOFING TREATMENT AT STAGE CONSTRUCTION



H.M.A. TREATMENT AT DRAINS

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	7.9
Concrete Superstructure	Cu. Yd.	8.6
Reinforcement Bars, Epoxy Coated	Pound	1170
Bar Splicers	Each	16
Preformed Joint Strip Seal	Foot	96
Deck Slab Repair (Partial)	Sq. Yd.	7.2
Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	56.3
Waterproofing Membrane System	Sq. Yd.	572

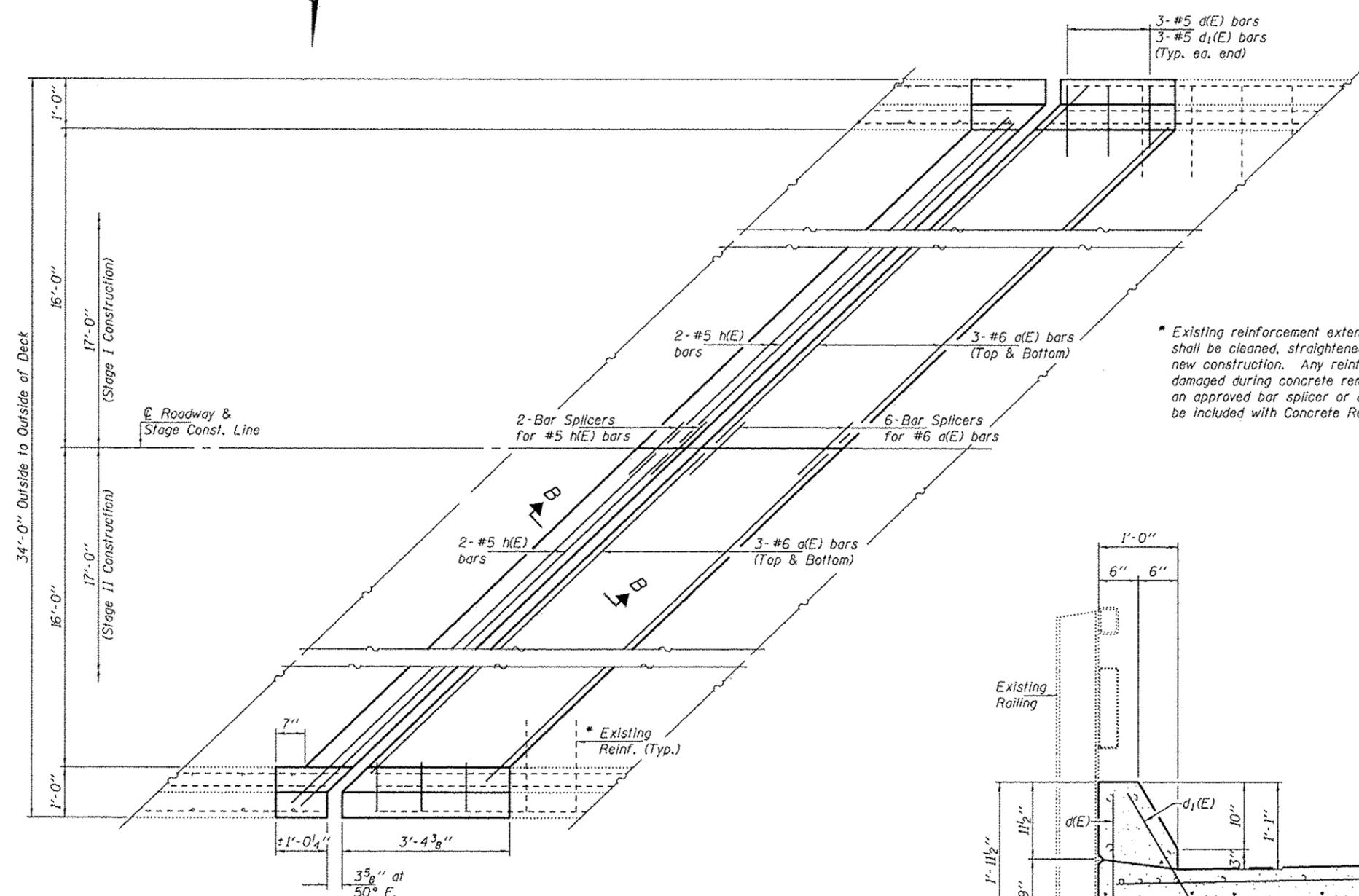
* This quantity is for the bridge only and does not include any HMA needed beyond the abutments.



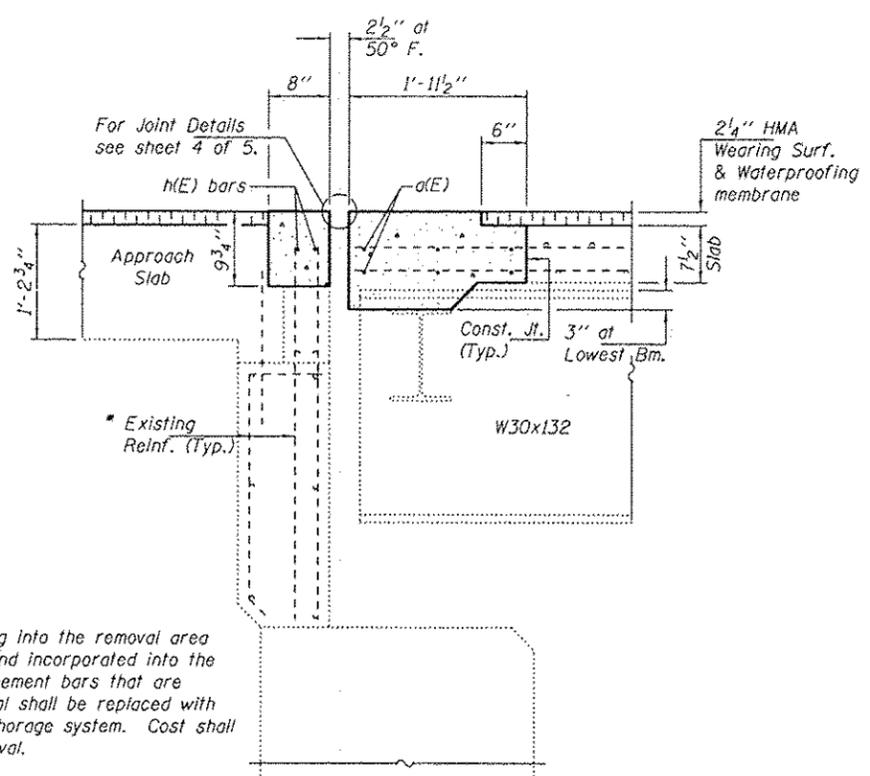
Expires: November 30, 2014

DESIGNED - <i>David Puzey</i>	EXAMINED - <i>Timothy A. Kumbrecht</i>	DATE - JANUARY 28, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION U.S. ROUTE 30 OVER GREEN RIVER SN 052-0034	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED - <i>Kyle M. Steffen</i>	PASSED - <i>David Puzey</i>				573	02 DECK REPAIR 2013-2	LEE	22	11	
DRAWN - <i>ADY</i>					CONTRACT NO. 64H74					
CHECKED - <i>ADY</i>					SHEET NO. 1 OF 6 SHEETS					

ILLINOIS FED. AID PROJECT

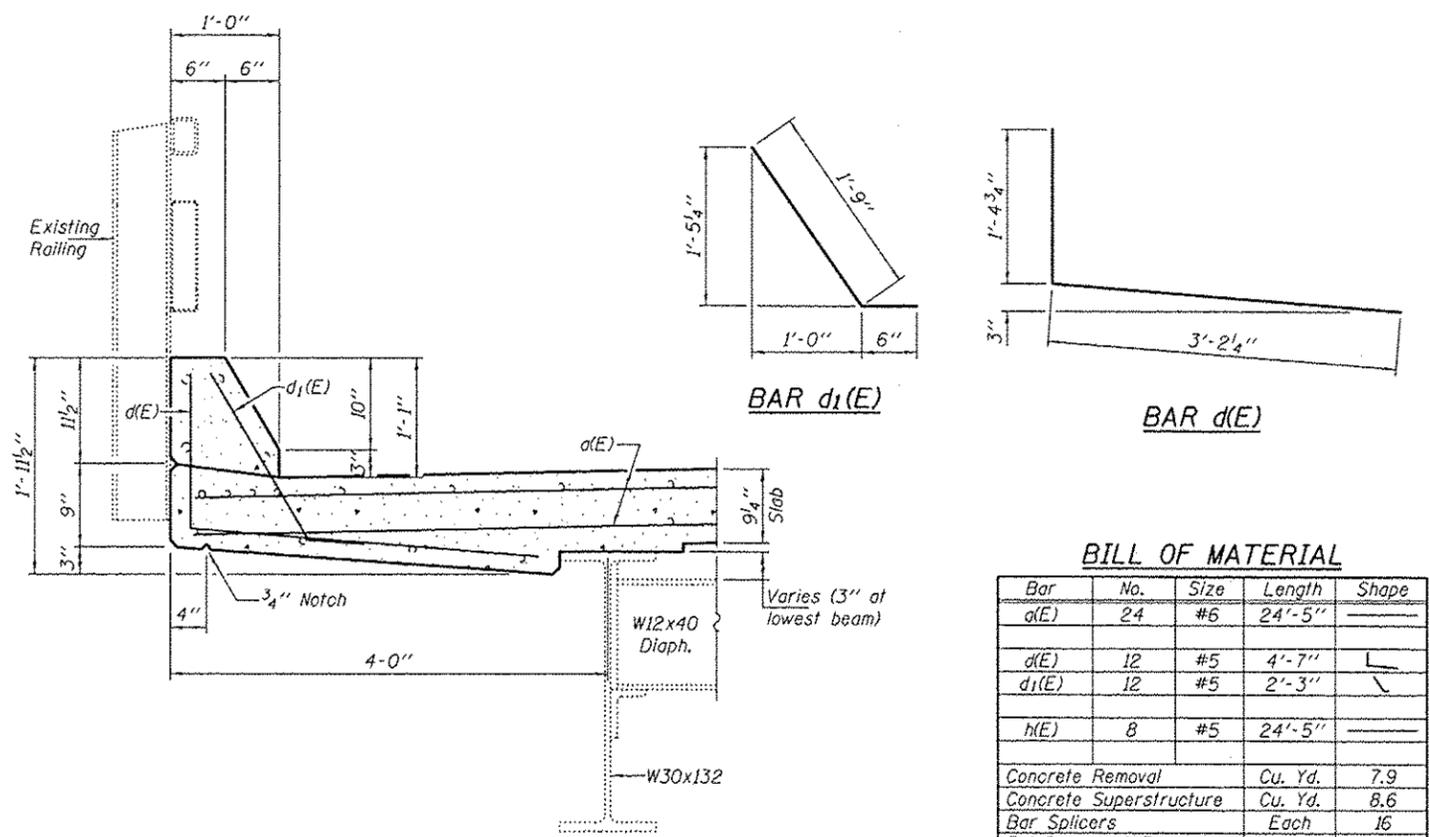


CONCRETE REMOVAL PLAN
 East Abutment shown, West Abutment similar by 180° rotation



SECTION B-B
 Dimensions at Rt. L's

* Existing reinforcement 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 shall be included with Concrete Removal.



TYPICAL SECTION THRU PARAPET

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	24	#6	24'-5"	—
d(E)	12	#5	4'-7"	L
d1(E)	12	#5	2'-3"	∟
h(E)	8	#5	24'-5"	—
Concrete Removal			Cu. Yd.	7.9
Concrete Superstructure			Cu. Yd.	8.6
Bar Splicers			Each	16
Reinforcement Bars, Epoxy Coated			Pound	1170

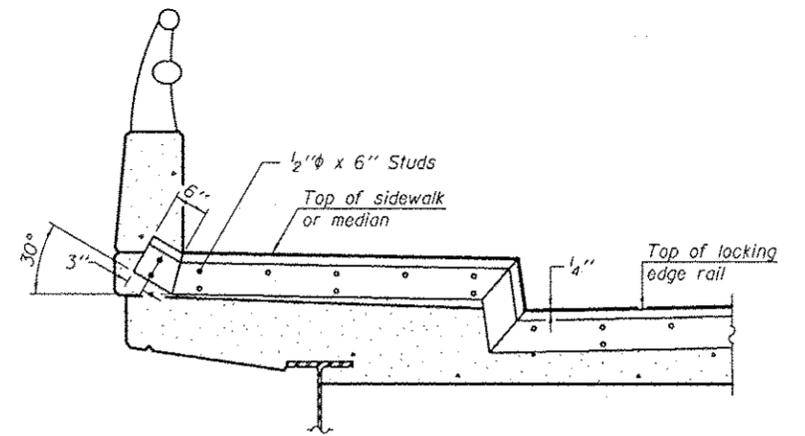
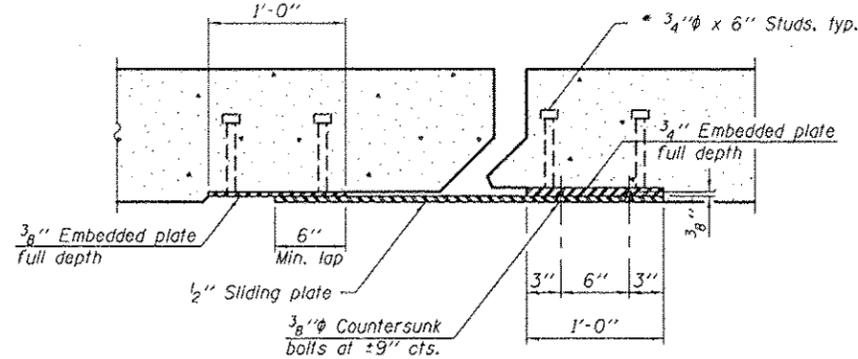
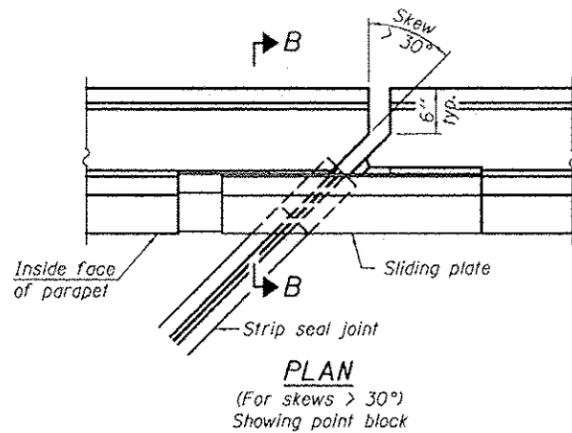
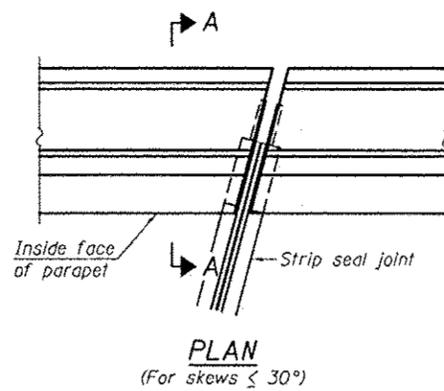
DESIGNED - ADY	EXAMINED - <i>Timothy A. D. Goff</i>	DATE - JANUARY 28, 2013
CHECKED - ARS	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Long</i>	
CHECKED - ADY ARS	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CONCRETE REPLACEMENT DETAILS
 SN 052-0034

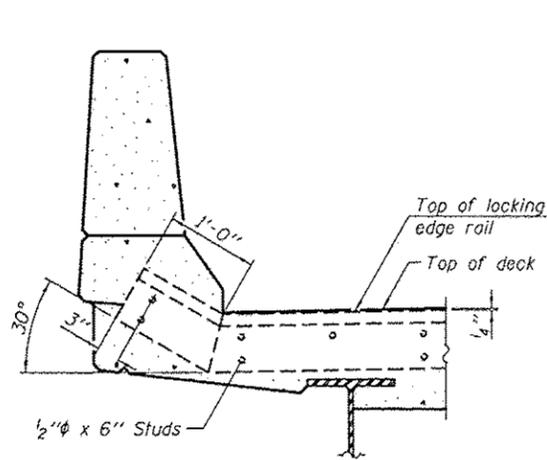
SHEET NO. 3 OF 6 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	22	13
CONTRACT NO. 64H74			ILLINOIS FED. AID PROJECT	

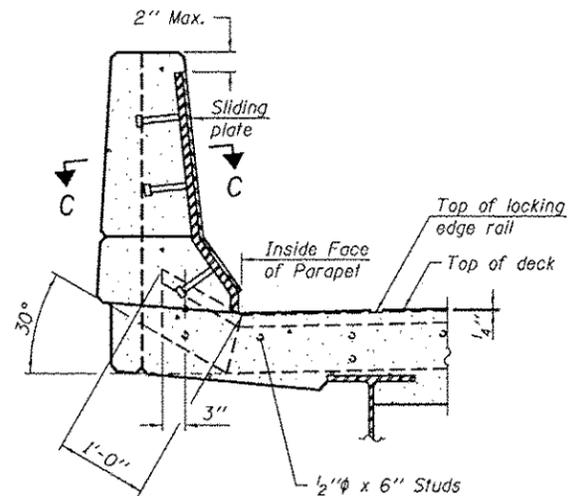


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

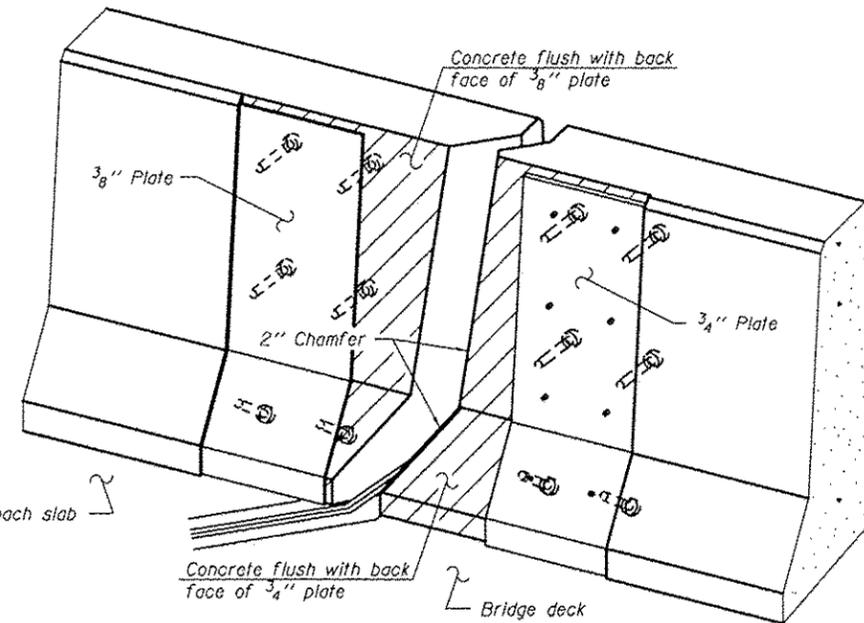
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A

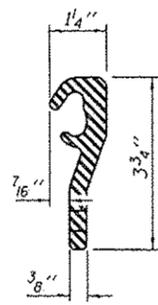


SECTION B-B

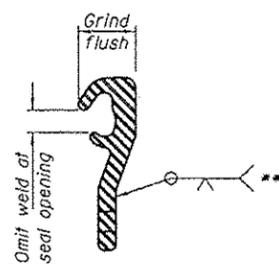


TRIMETRIC VIEW (Showing back plates only)

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 and stage construction joints. The manufacturer's recommended installation methods shall be followed.
 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° included in the cost of Preformed Joint Strip Seal.
 The inside of the Locking Edge Rail groove shall be free of weld residue.

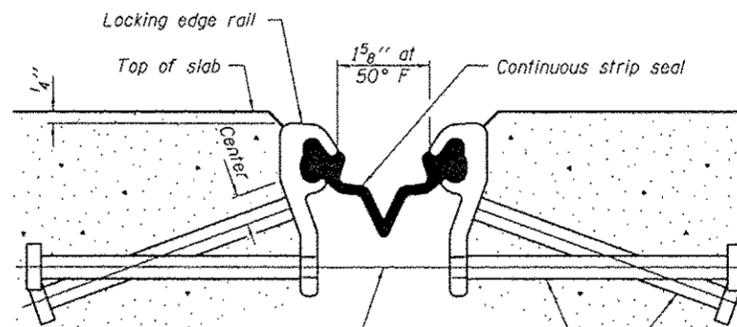


LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

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



SECTION THRU SHALLOW STRIP SEAL JOINT

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.

Place 1/2" x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	96

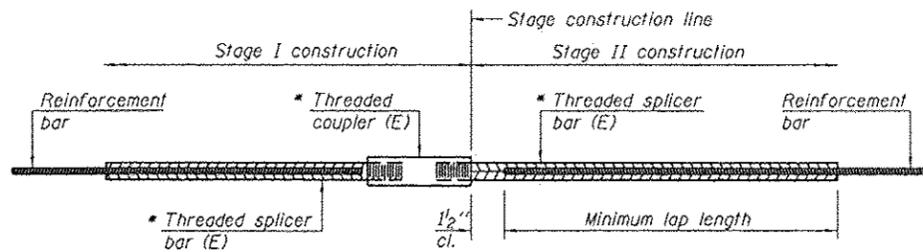
DESIGNED - ADY	EXAMINED - <i>Timothy A. Smith</i>	DATE - JANUARY 28, 2013
CHECKED - ARS	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - KYLE M. STEFFON	PASSED - <i>Carl Perry</i>	
CHECKED - ADY ARS	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS
SN 052-0034

SHEET NO. 4 OF 6 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	02 DECK REPAIR 2013-2	LEE	22	14
			CONTRACT NO. 64H74	
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

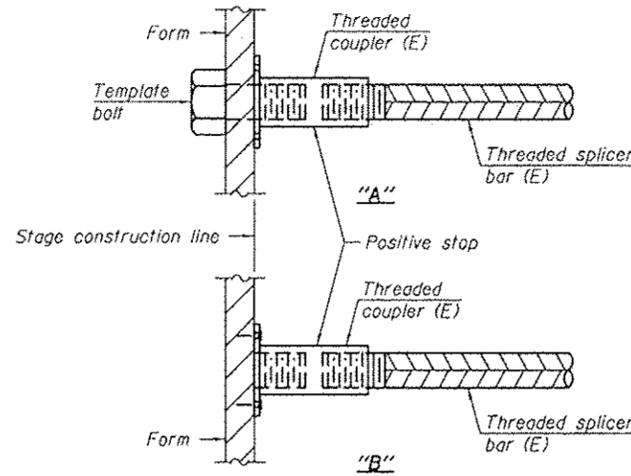
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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

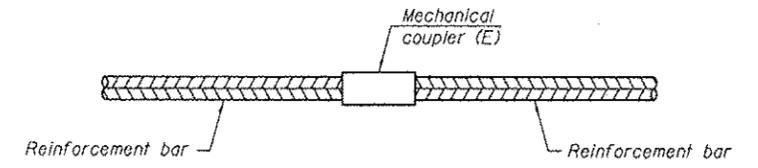
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Hatchblock (E. Abut.)	#5	2	3
Deck (E. Abut.)	#6	6	3
Hatchblock (W. Abut.)	#5	2	3
Deck (W. Abut.)	#6	6	3



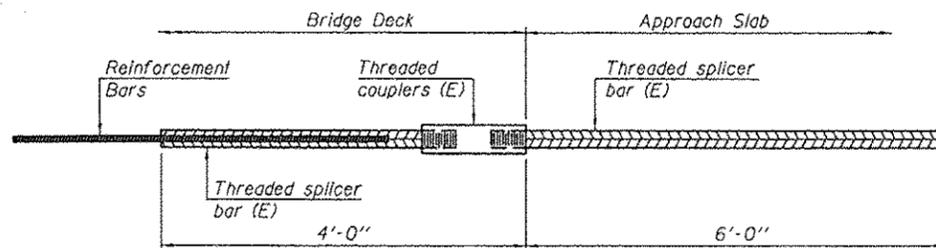
INSTALLATION AND SETTING METHODS

"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.



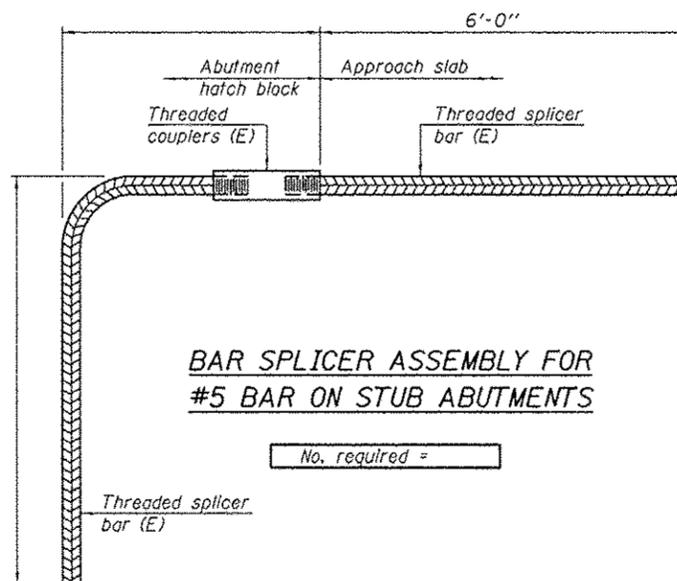
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



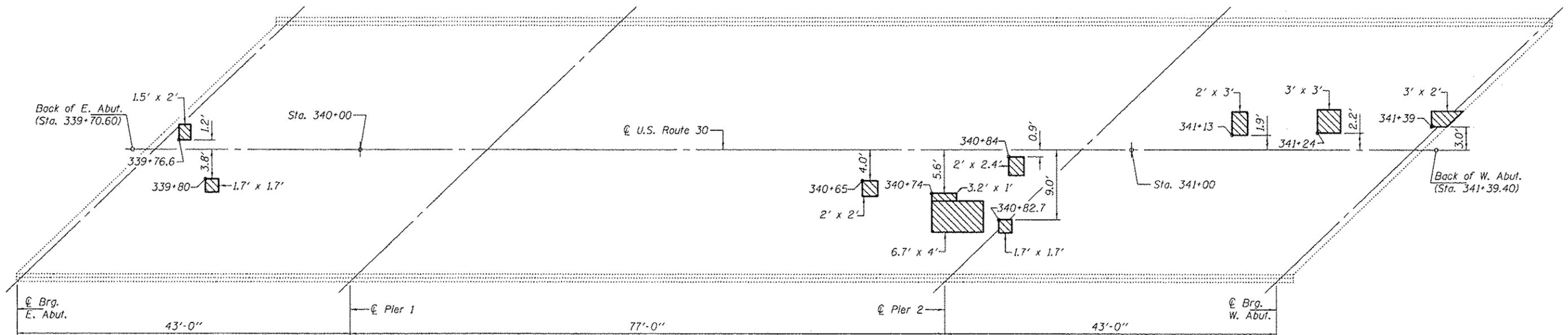
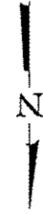
BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

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 50B 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



DECK SLAB REPAIR PLAN

- Deck Slab Repair (Partial)

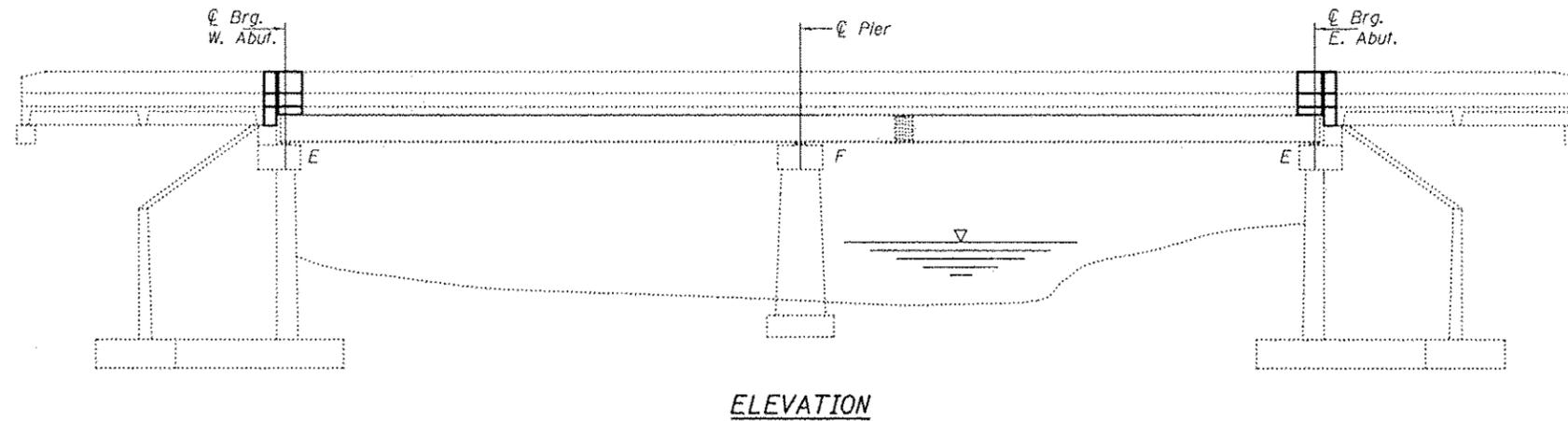
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Deck Slab Repair (Partial)	Sq. Yd.	7.2

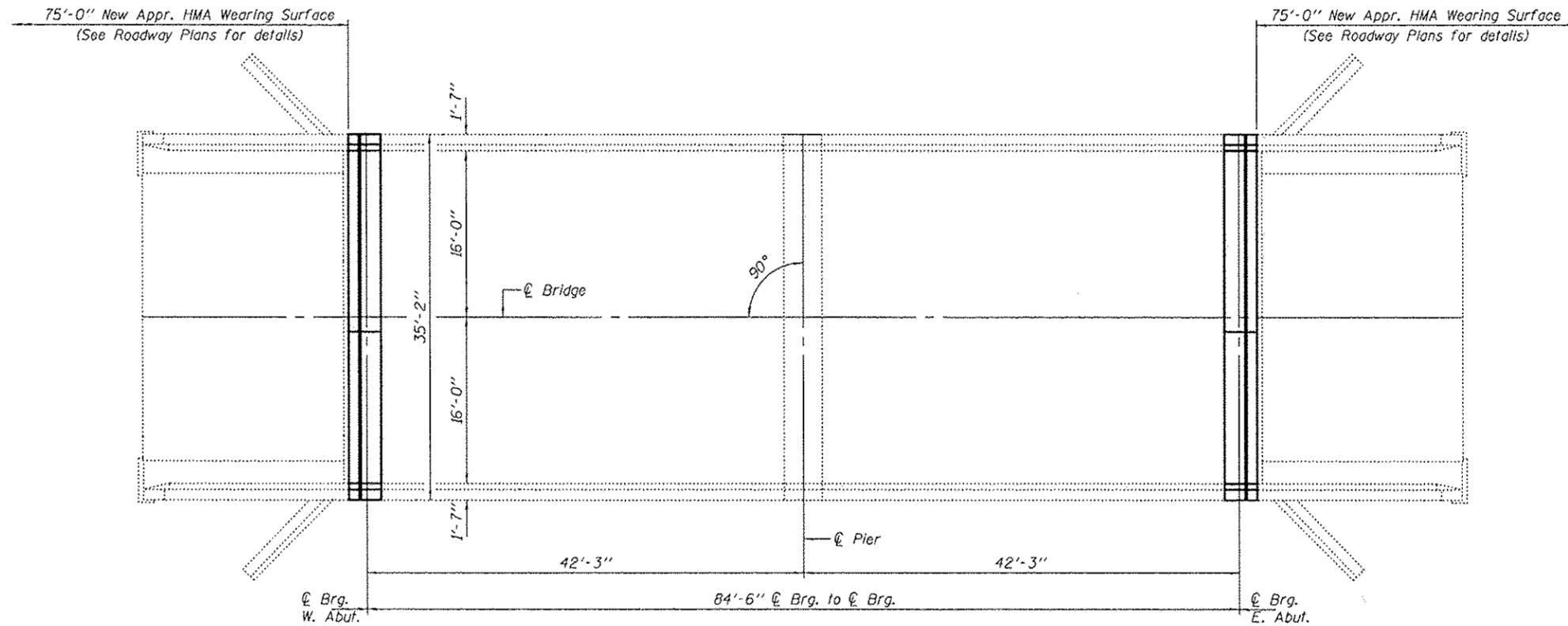
DESIGNED - ADY	EXAMINED - <i>Timothy A. Daulton</i> ACTING ENGINEER OF STRUCTURAL SERVICES	DATE - JANUARY 28, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK SLAB REPAIR (PARTIAL) SN 052-0034	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - ARS	PASSED - <i>Carl Hogg</i> ACTING ENGINEER OF BRIDGES AND STRUCTURES				573	D2 DECK REPAIR 2013-2	LEE	22	16
DRAWN - Kyle M. Stoffon					CONTRACT NO. 64H74				
CHECKED - ADY ARS					ILLINOIS FED. AID PROJECT				
SHEET NO. 6 OF 6 SHEETS									

GENERAL NOTES

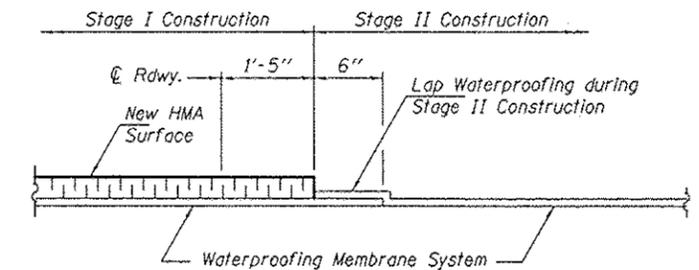
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall 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 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.
 Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.



ELEVATION



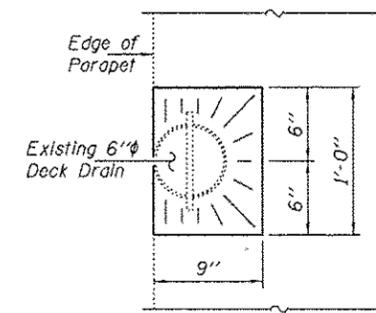
PLAN



WATERPROOFING TREATMENT AT STAGE CONSTRUCTION

SCOPE OF WORK

1. Remove & Replace Expansion Joints at Abutments, and shown adjacent concrete.
2. Deck Slab Repair (Partial). See sheet 6 of 6.
3. New HMA Wearing Surface.



H.M.A. TREATMENT AT DRAINS

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	9.7
Concrete Superstructure	Cu. Yd.	10.6
Preformed Joint Strip Seal	Foot	68
Reinforcement Bars, Epoxy Coated	Pound	1210
Bar Splicers	Each	24
Deck Slab Repair (Partial)	Sq. Yd.	12.1
Waterproofing Membrane System	Sq. Yd.	293
* Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	28.8

* This quantity is for the bridge only and does not include any HMA needed beyond the abutments.



Expires: November 30, 2014

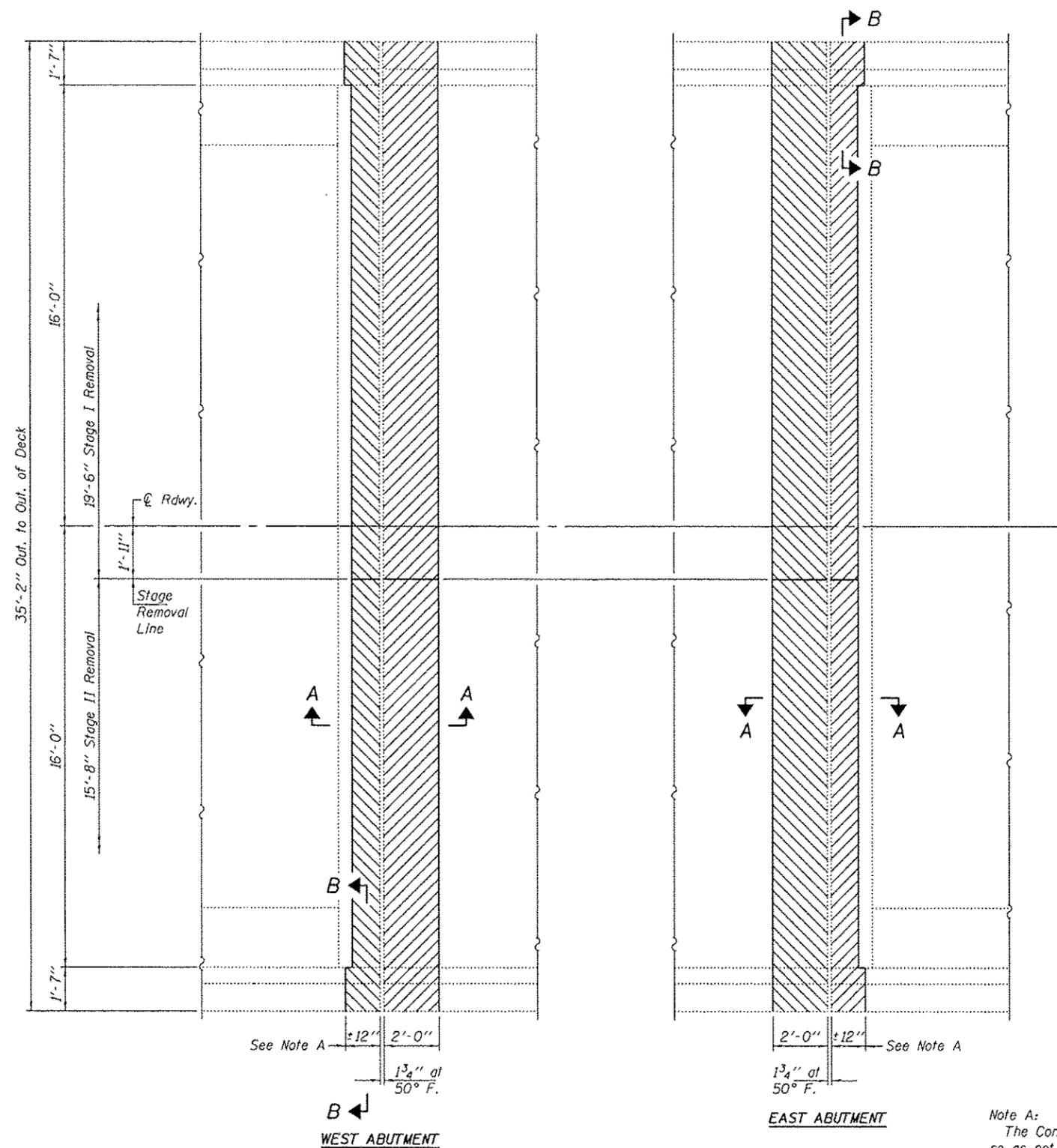
DESIGNED - <i>[Signature]</i>	EXAMINED - <i>[Signature]</i>	DATE - JANUARY 28, 2013
CHECKED - <i>[Signature]</i>	PASSED - <i>[Signature]</i>	
DRAWN - Kyle M. Stoffen		
CHECKED - <i>[Signature]</i>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

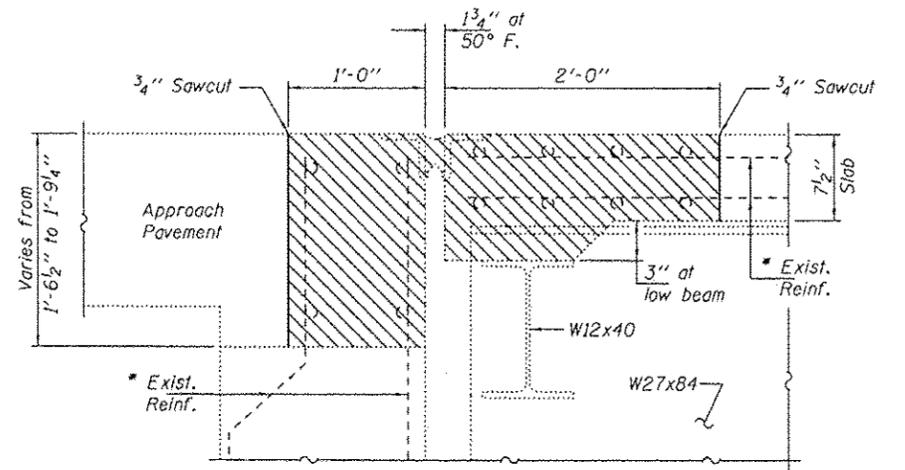
GENERAL PLAN & ELEVATION
U.S. ROUTE 30 OVER WILLOW CREEK
SN 052-0035

SHEET NO. 1 OF 6 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	22	17
CONTRACT NO. 64H74			ILLINOIS FED. AID PROJECT	



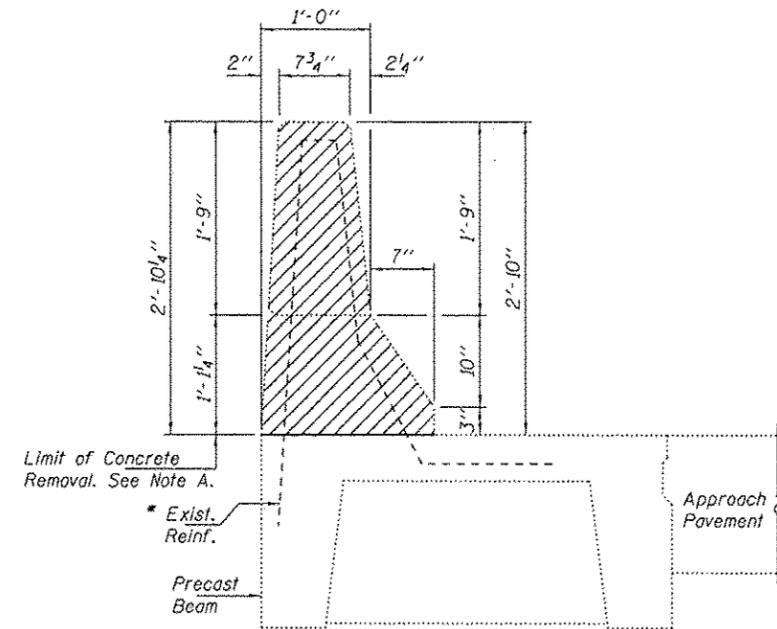
REMOVAL PLAN



SECTION A-A

Note:
Hatched areas indicate concrete removal.
Removal of existing preformed joint seal included in Concrete Removal.

* 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.



SECTION B-B

Note A:
The Contractor shall use extreme care during concrete removal so as not to damage the existing approach P.C. Beam.
Remove Approach Parapet to existing Parapet Joint. Removal of existing parapet joint included in Concrete Removal.

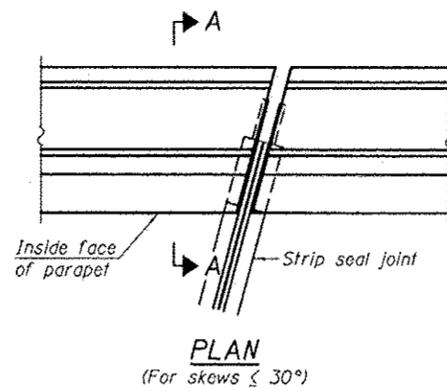
DESIGNED - ARS	EXAMINED
CHECKED - VP	<i>Timothy A. Anhalt</i> ACTING ENGINEER OF STRUCTURAL SERVICES
DRAWN - Kyle M. Steffon	PASSED
CHECKED - ARS VP	<i>Carl [Signature]</i> ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - JANUARY 28, 2013

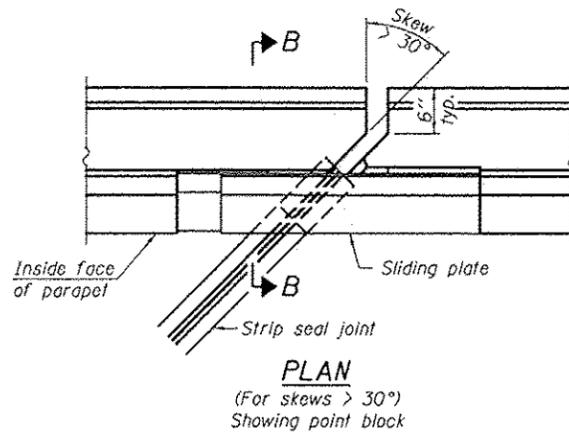
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL DETAILS
SN 052-0035
SHEET NO. 2 OF 6 SHEETS

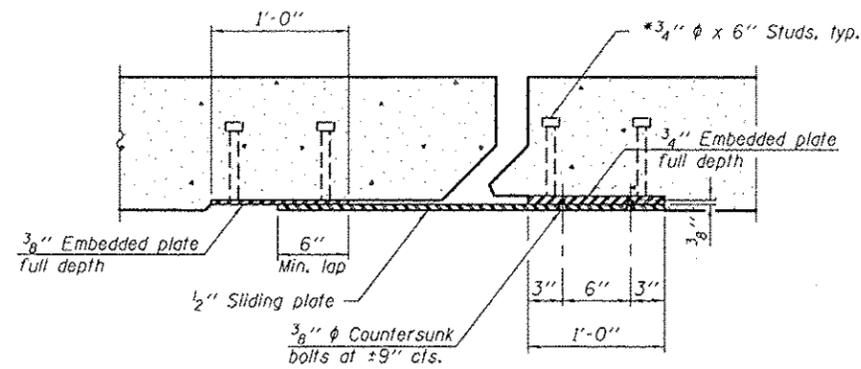
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	22	18
CONTRACT NO. 64H74				
ILLINOIS FED. AID PROJECT				



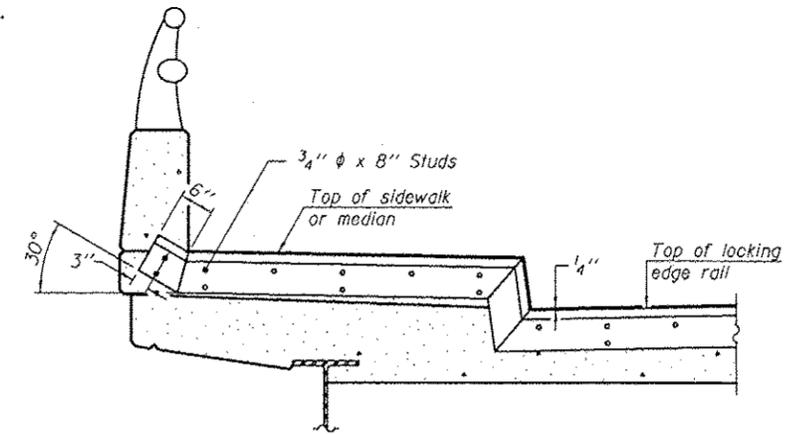
PLAN
(For skews $\le 30^\circ$)



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

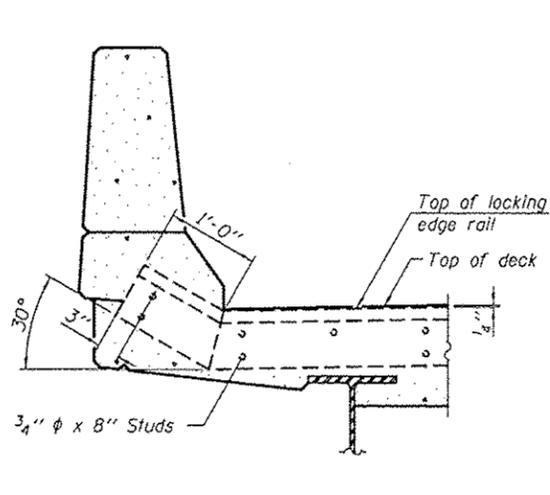


SECTION C-C

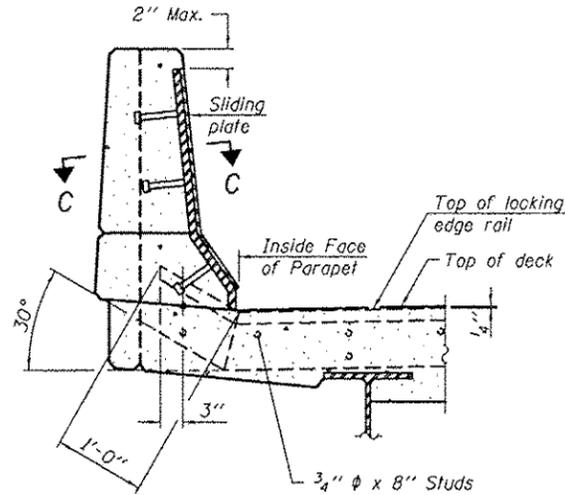


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

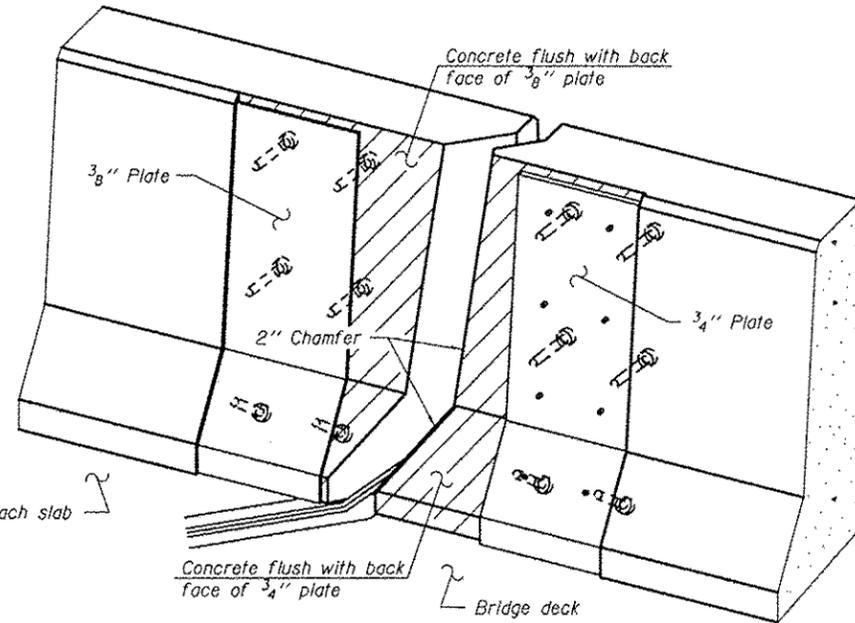
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



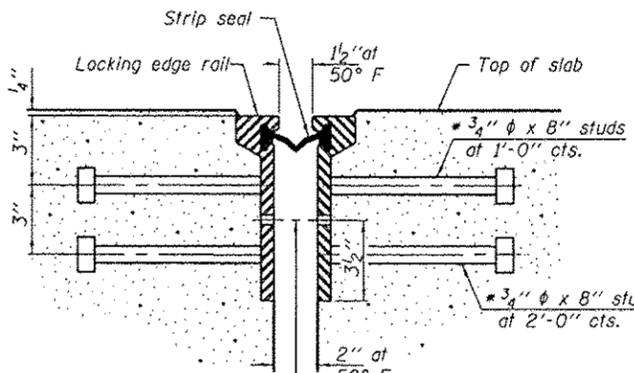
SECTION A-A



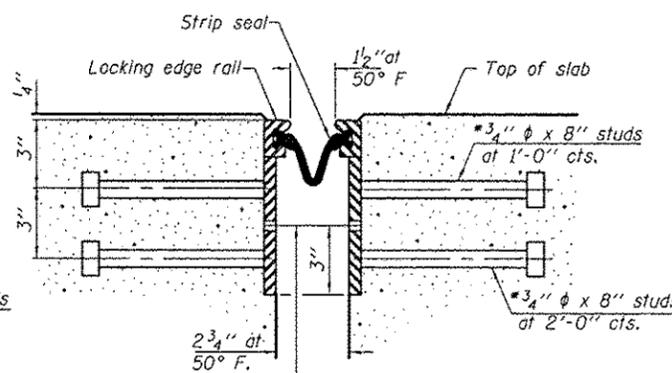
SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)



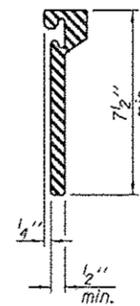
SECTION THRU ROLLED RAIL JOINT



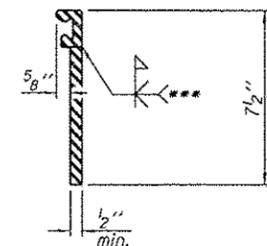
SECTION THRU WELDED RAIL JOINT

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.

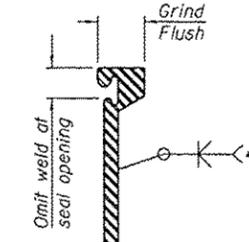
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



ROLLED EXTRUDED RAIL



WELDED RAIL



LOCKING EDGE RAIL SPLICE

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

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	68

EJ-SSJ

I-27-12

DESIGNED - ARS	EXAMINED - [Signature]
CHECKED - VP	ACTING ENGINEER OF STRUCTURAL SERVICES
DRAWN - Kyle M. Stoffen	PASSED - [Signature]
CHECKED - ARS VP	ACTING ENGINEER OF BRIDGES AND STRUCTURES

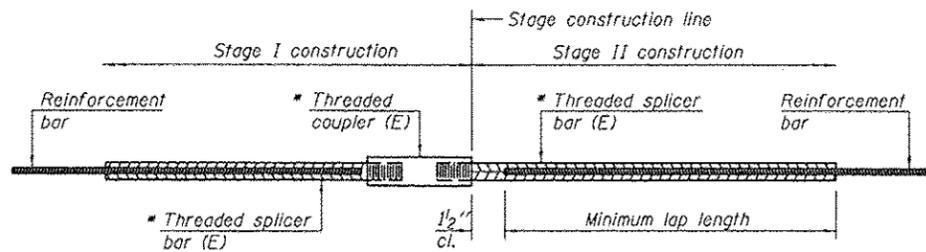
DATE - JANUARY 28, 2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS
SN 052-0035

SHEET NO. 4 OF 6 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S73	D2 DECK REPAIR 2013-2	LEE	22	20
CONTRACT NO. 64H74			ILLINOIS FED. AID PROJECT	



STANDARD BAR SPLICER ASSEMBLY

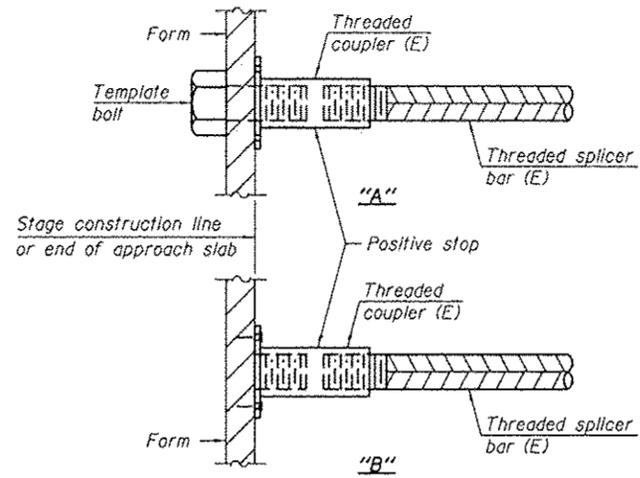
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- 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, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

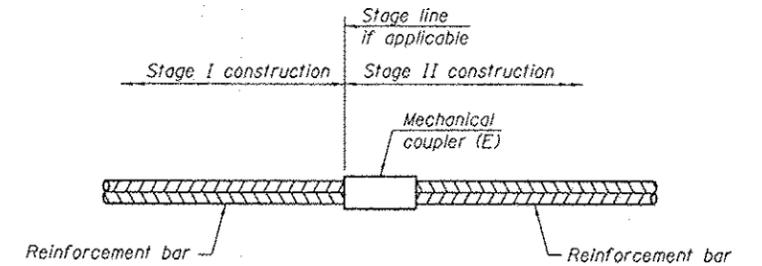
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Bridge Deck	#5	16	3
West Hatchblock	#6	4	3
East Hatchblock	#6	4	3



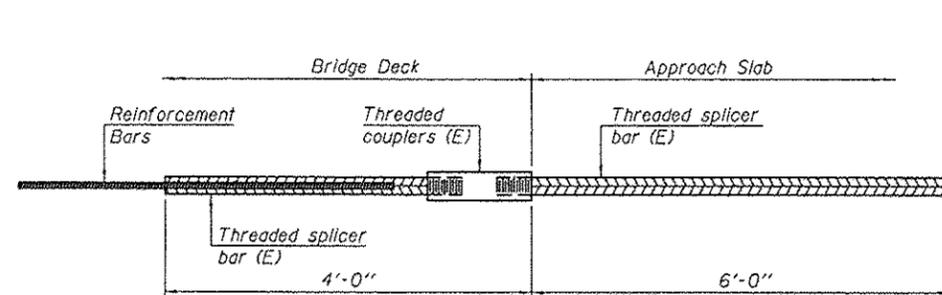
INSTALLATION AND SETTING METHODS

"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.



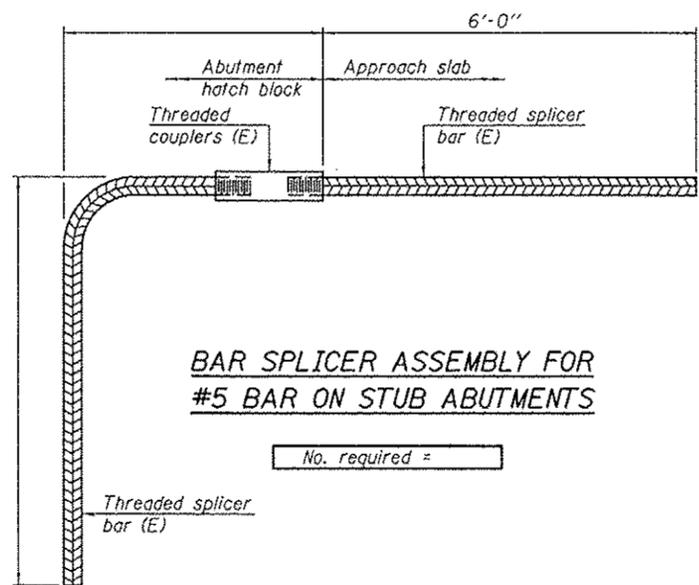
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



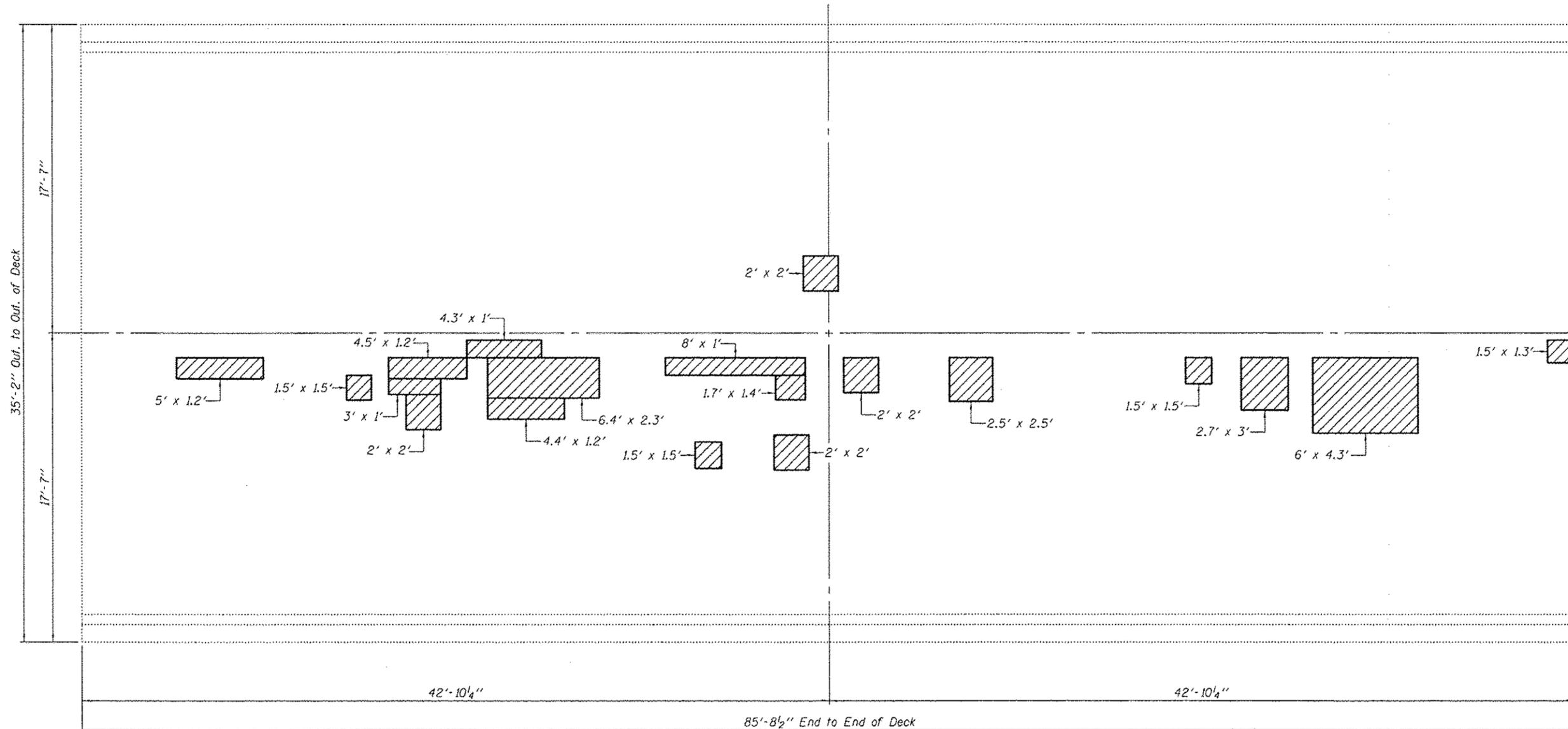
BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

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

BSD-1 1-27-12



DECK SLAB REPAIR PLAN

 Deck Slab Repair (Partial)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Deck Slab Repair (Partial)	Sq. Yd.	12.1

DESIGNED - ARS	EXAMINED - <i>Timothy A. Daulton</i>	DATE - JANUARY 28, 2013
CHECKED - VP	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Perry</i>	
CHECKED - ARS VP	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SLAB REPAIR DETAILS
SN 052-0035

SHEET NO. 6 OF 6 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	D2 DECK REPAIR 2013-2	LEE	22	22
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64H74	