

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

FAP ROUTE 17 (IL 64) & FAP 742 (IL 2)
 SECTION (102BR)M & (39BR)M
 BRIDGE REPAIR
 OGLE COUNTY

C-92-121-10

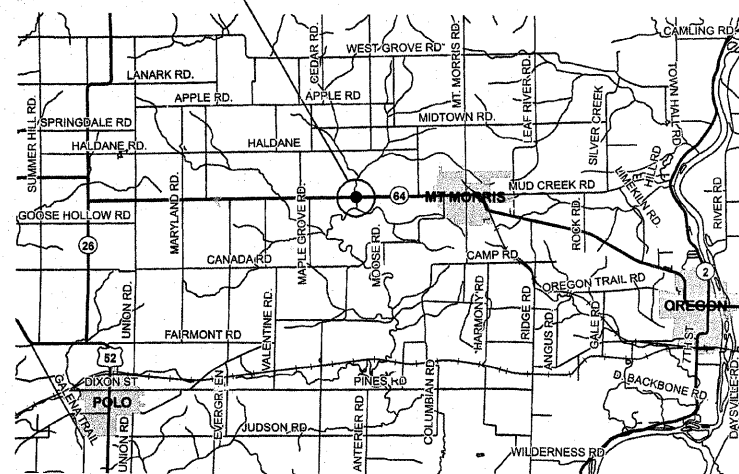
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(102BR)M & (39BR)M	OGLE	19	1
		ILLINOIS	CONTRACT NO. 64G13	

* FAP 17 (IL 64) & FAP 742 (IL 2)

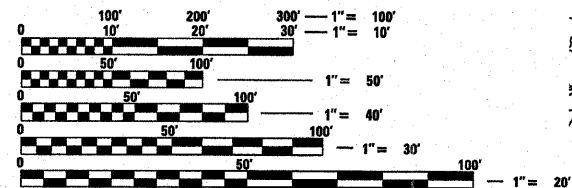
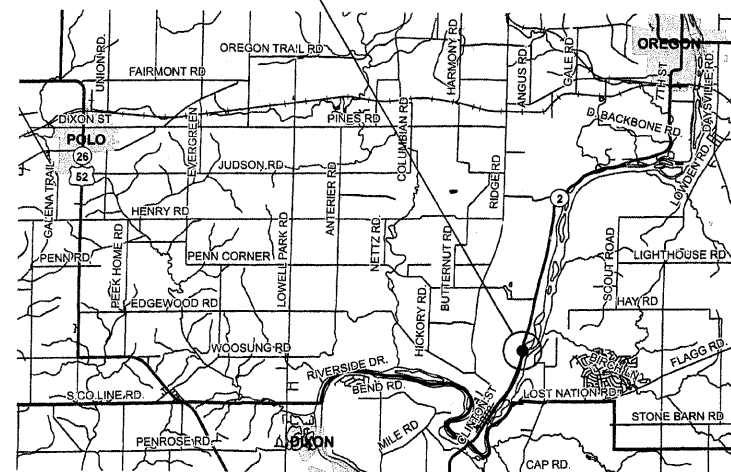
FOR INDEX OF SHEETS, SEE SHEET NO. 3



Structure No. 071-0015



Structure No. 071-0071



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. 64G13

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED March 16 2010
George F. Ryan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 7 2010
Scott E. Stitt P.E.
 Acting ENGINEER OF DESIGN AND ENVIRONMENT

May 7 2010
Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

PAY ITEM #	DESCRIPTION	UNIT	100% STATE SFTY-2A QUANTITY
40603540	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	8
42001500	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ YD	18
42001300	PROTECTIVE COAT	SQ YD	109
44000161	HOT-MIX ASPHALT SURFACE REMOVAL, 3"	SQ YD	44
44000700	APPROACH SLAB REMOVAL	SQ YD	74
50102400	CONCRETE REMOVAL	CU YD	67
50300225	CONCRETE STRUCTURES	CU YD	0.7
50300255	CONCRETE SUPERSTRUCTURE	CU YD	33
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7,300
50800515	BAR SPLICERS	EACH	56
52000110	PREFORMED JOINT STRIP SEAL	FOOT	82
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2
70106700	TEMPORARY RUMBLE STRIP	EACH	12
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3,736
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	48
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,452
70400100	TEMPORARY CONCRETE BARRIER	FOOT	650
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	650
* 78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	2800
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1580
X0300130	BRIDGE APPROACH SHOULDER REMOVAL	SQ YD	18
X5080600	MECHANICAL SPLICERS	EACH	149
20030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4
20030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4

* SPECIALTY ITEM

FILE NAME = G:\BR\CADD plans\Various Counties\64G13	USER NAME = linkdj approach pavements\PLAEng.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	* (102BRM & 139BRM)			OGLE	19	2		
PLOT DATE = Tue Mar 16 08:27:22 2010	DATE -	REVISED -	CONTRACT NO. 64G13							
SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____						ILLINOIS FED. AID PROJECT				

* FAP 17 (IL 64) & FAP 742 (IL 2)

GENERAL NOTES

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

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

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

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

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

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

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

INDEX OF SHEETS

1. Cover Sheet
2. Summary of Quantities
3. General Notes, Index of Sheets, Standards
4. - 7. Traffic Control Plan
8. - 10. Bridge Repairs Structure No. 071-0015
11. - 15. Bridge Repairs Structure No. 071-0072
16. To Activate Signal Sign Detail

STANDARDS

- 701006-03 Off-Road Operations, 2L, 2W, 4.5 m (15') to 600 mm (24") From Pavement Edge
- 701201-03 Lane Closure, 2L, 2W, Day Only, for Speeds > 45 MPH
- 701301-03 Lane Closure, 2L, 2W, Short Time Operations
- 701321-10 Lane Closure, 2L, 2W, Bridge Repair with Barrier
- 701901-01 Traffic Control Devices
- 704001-06 Temporary Concrete Barrier
- 720001-01 Sign Panel Mounting Details
- 720006-02 Sign Panel Erection Details
- 720011-01 Metal Posts for Signs, Markers and Delineators
- 728001-01 Telescoping Steel Sign Support
- 729001-01 Applications of Types A and B Metal Posts (For Signs & Markers)

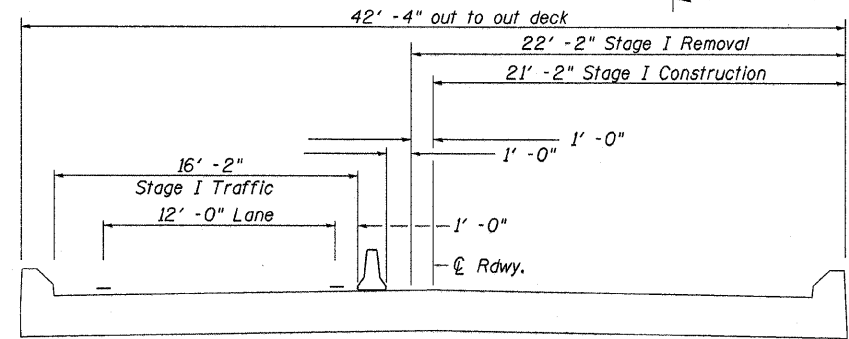
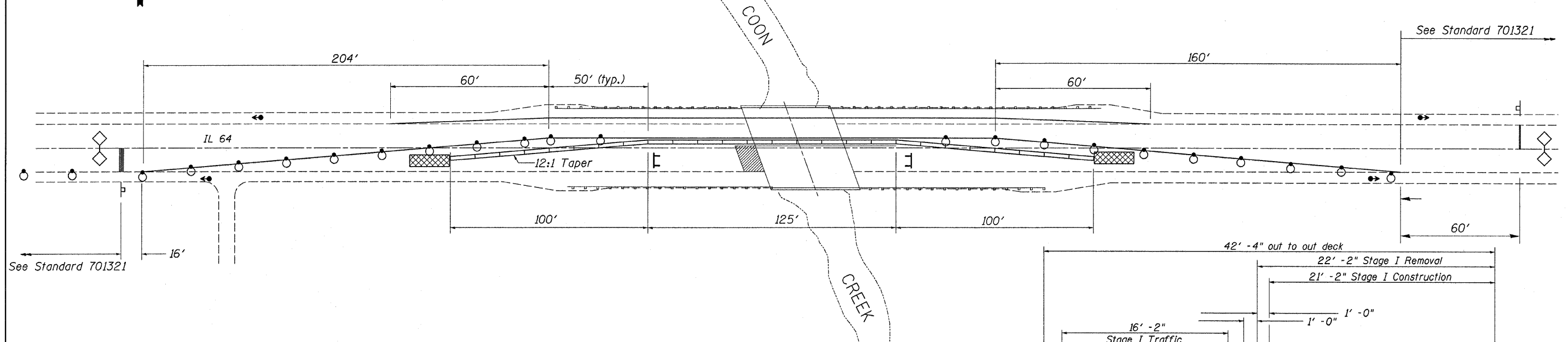
* FAP 17 (IL 64) & FAP 742 (IL 2)

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G:\BR\CADD plans\Various Counties\64G13	approach pavements\PLANeng.dgn	DRAWN -	REVISD -			*	(102BRIM & (39BRIM	OGLE	19	3	
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	PLDT DATE = Tue Mar 16 08:27:17 2010	DATE -	REVISD -			ILLINOIS FED. AID PROJECT					
				SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____							

TRAFFIC CONTROL PLAN

Structure 071-0015 STAGE I

Refer to Standard 701321 for additional signs, details & devices



CROSS SECTION
Looking East

Temporary Pavement Marking Line 4"

Stage I	Feet
South edgeline	
West Taper	204
Bridge Tangent	225
East Taper	160
North edgeline	
West Taper	60
Bridge Tangent	225
East Taper	60
Stage II	
South edgeline	
West Taper	60
Bridge Tangent	225
East Taper	60
North edgeline	
West Taper	160
Bridge Tangent	225
East Taper	204
Total	1868 Feet

Temporary Pavement Marking Line 24"

Stop Bars	Feet
IL 64 EB	12
IL 64 WB	12
Total	24 Feet

Temporary Concrete Barrier

Stage I	Feet
West Taper	100
Bridge Tangent	125
East Taper	100
Total	325 Feet

Pavement Marking Removal

	Feet
Stage I	345
Stage II	345
∅	100
Total	790 Feet

Temporary Impact Attenuator

Stage I	Each
West	1
East	1
Total	2 Each

Temporary Bridge Traffic Signals

Stage I & II	Each
	1
Total	1 Each

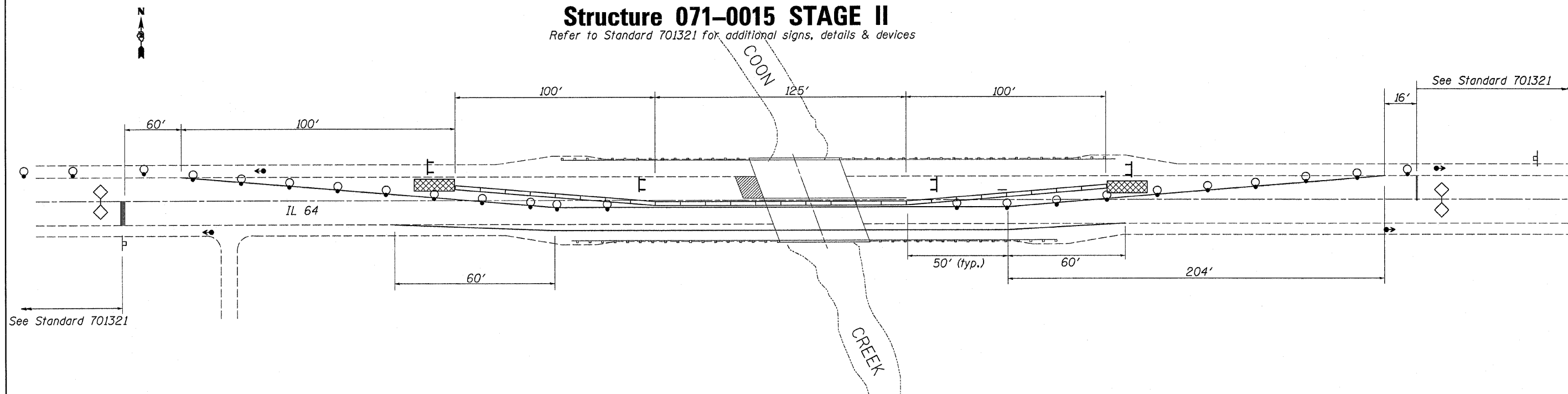
Temporary Rumble Strips

Stage I & II	Each
East	3
West	3
Total	6 Each

TRAFFIC CONTROL PLAN

Structure 071-0015 STAGE II

Refer to Standard 701321 for additional signs, details & devices



Workzone Pavement Marking Removal

	Sq Ft
Stage I	315
Stage II	315
Stop Bars	96
Total	726

Relocate Temporary Impact Attenuator

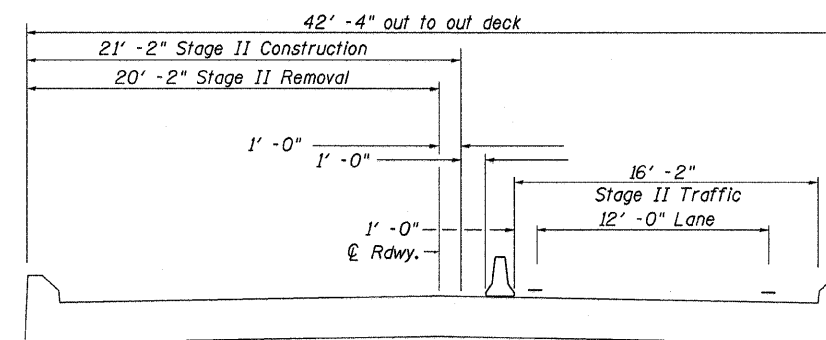
Stage II	Each
West	1
East	1
Total	2 Each

Relocate Temporary Concrete Barrier

Stage II	Feet
West Taper	100
Bridge Tangent	125
East Taper	100
Total	325 Feet

Paint Pavement Marking Line 6"

	Feet
After 701321 removal	
edgeline	600
edgeline	600
℄	200
Total	1400 Feet



CROSS SECTION
Looking East

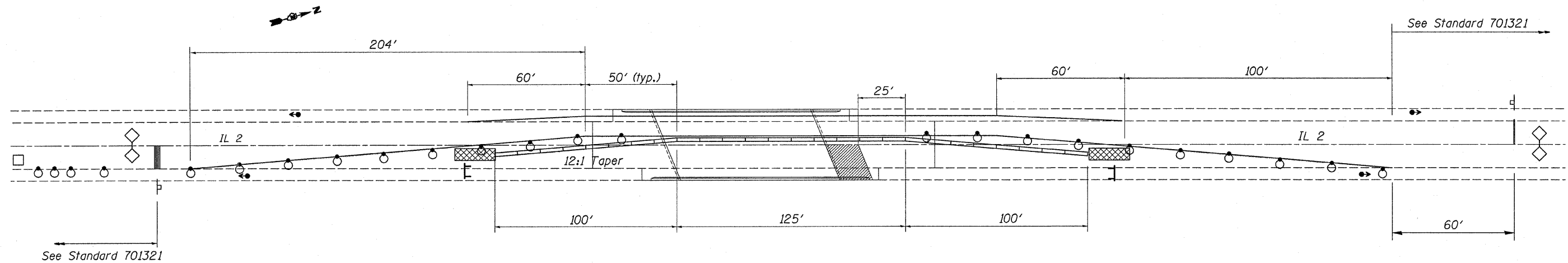
* FAP 17 (IL 64) & FAP 742 (IL 2)

FILE NAME = D:\BR\CADD plans\Various Counties\64G13	USER NAME = linkdj	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN STRUCTURE 071-0015 STAGE II	F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	approach pavements\PLANeng.dgn	DRAWN - ---	REVISED - ---			102BRIM & (39BRIM	OGLE	49	5	
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	PLOT DATE = Tue Mar 16 08:27:05 2010	DATE - ---	REVISED - ---			ILLINOIS FED. AID PROJECT				
SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____										

TRAFFIC CONTROL PLAN

Structure 071-0072 STAGE I

Refer to Standard 701321 for additional signs, details & devices



Temporary Pavement Marking Line 4"

Stage I	Feet
East edgeline	
South Taper	204
Bridge Tangent	225
North Taper	160
West edgeline	
North Taper	60
Bridge Tangent	225
South Taper	60
Stage II	
East edgeline	
North Taper	60
Bridge Tangent	225
South Taper	60
West edgeline	
North Taper	160
Bridge Tangent	225
South Taper	204
Total	1868 Feet

Temporary Pavement Marking Line 24"

Stop Bars	Feet
IL 2 NB	12
IL 2 SB	12
Total	24 Feet

Temporary Concrete Barrier

Stage I	Feet
North Taper	100
Bridge Tangent	125
South Taper	100
Total	325 Feet

Pavement Marking Removal

	Feet
Stage I	345
Stage II	345
∅	100
Total	790 Feet

Temporary Impact Attenuator

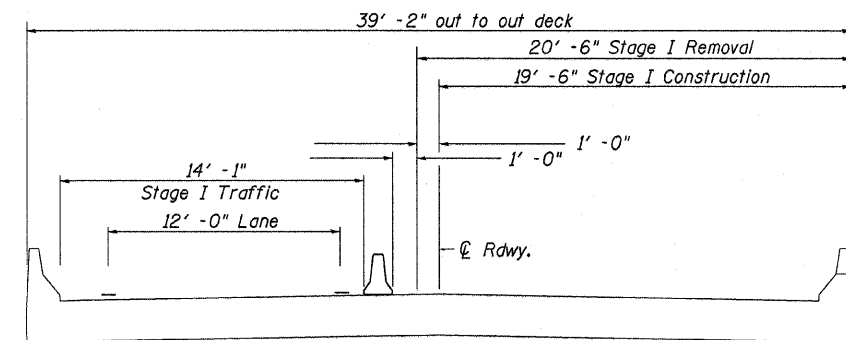
Stage I	Each
North	1
South	1
Total	2 Each

Temporary Bridge Traffic Signals

	Each
Stage I & II	1
Total	1 Each

Temporary Rumble Strips

Stage I & II	Each
North	3
South	3
Total	6 Each



CROSS SECTION
Looking North

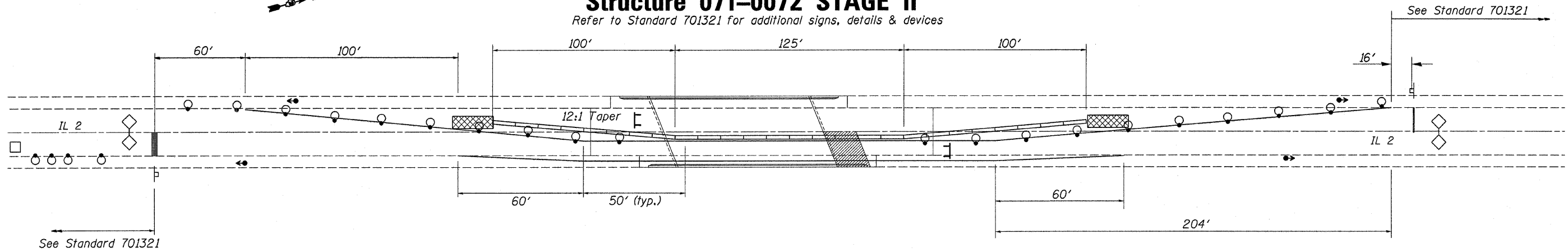
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FILE NAME =	USER NAME = jrnkdj	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN STRUCTURE 071-0072 STAGE I	F.A. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D:\BRY\CADD plans\Various Counties\64G13	approach_pavements\PLANeng.dgn	DRAWN -	REVISD -			102BRM & 139BRM	OGLE	49	6	
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PLDT DATE = Tue Mar 16 08:27:00 2010	DATE -	REVISD -				ILLINOIS FED. AID PROJECT				
SCALE: _____ SHEET NO. _____ OF _____ SHEETS STA. _____ TO STA. _____										

TRAFFIC CONTROL PLAN

Structure 071-0072 STAGE II

Refer to Standard 701321 for additional signs, details & devices

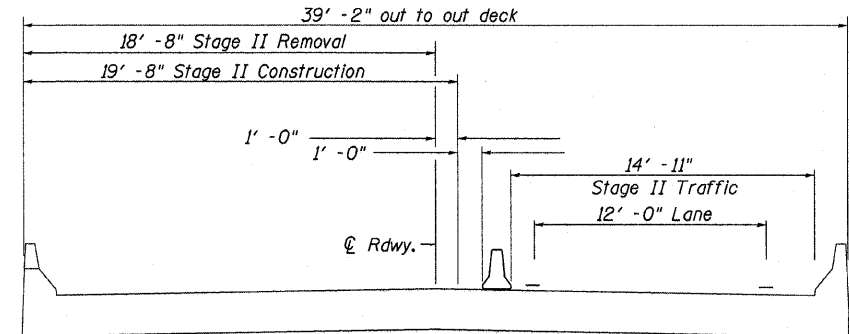


Workzone Pavement Marking Removal

	Sq Ft
Stage I	315
Stage II	315
Stop Bars	96
Total	726

Relocate Temporary Impact Attenuator

Stage II	Each
West	1
East	1
Total	2 Each



Relocate Temporary Concrete Barrier

Stage II	Feet
West Taper	100
Bridge Tangent	125
East Taper	100
Total	325 Feet

Paint Pavement Marking Line 6"

After 701321 removal	Feet
edgeline	600
edgeline	600
☉	200
Total	1400 Feet

CROSS SECTION
Looking North

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
STRUCTURE 071-0072 STAGE II

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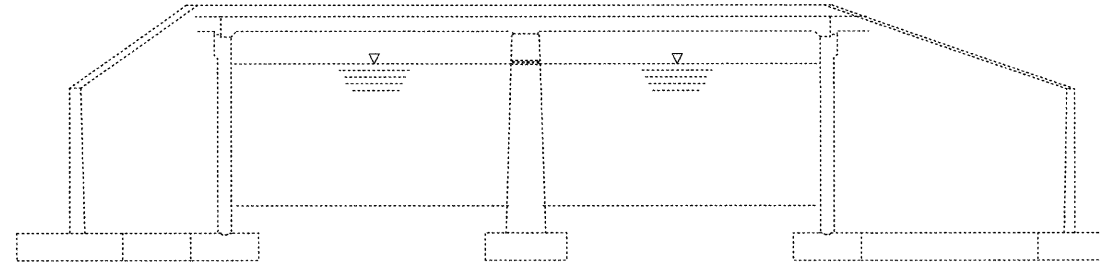
* FAP 17 (IL 64) & FAP 742 (IL 2)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 64C13
ILLINOIS FED. AID PROJECT				

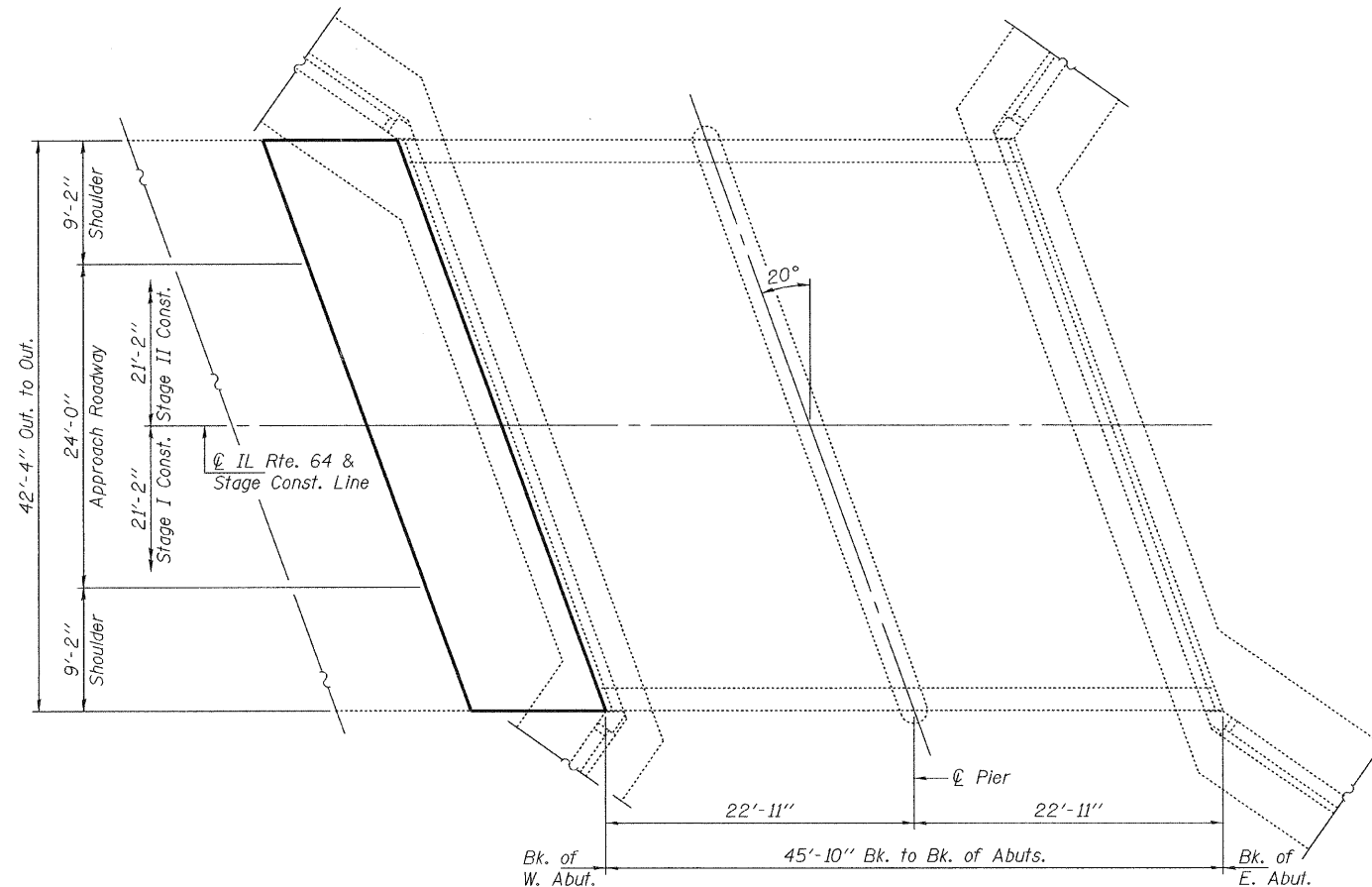
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Approach Slab Removal.



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Approach Slab Removal	Sq. Yd.	47
Concrete Superstructure	Cu. Yd.	14.8
Reinforcement Bars, Epoxy Coated	Pound	3720
Mechanical Splicers	Each	49
Bar Splicers	Each	22
Concrete Structures	Cu. Yd.	0.7
Protective Coat	Sq. Yd.	47
Polymerized Hot-Mix Asphalt Surface Course Mix "D" N70	Tons	8.0

DESIGNED	<i>John D. Abri</i>
CHECKED	<i>[Signature]</i>
DRAWN	Kyle M. Steffen
CHECKED	IJL <i>[Signature]</i>

APRIL 30, 2010
EXAMINED *[Signature]*
ENGINEER OF STRUCTURAL SERVICES
PASSED *[Signature]*
ENGINEER OF BRIDGES AND STRUCTURES

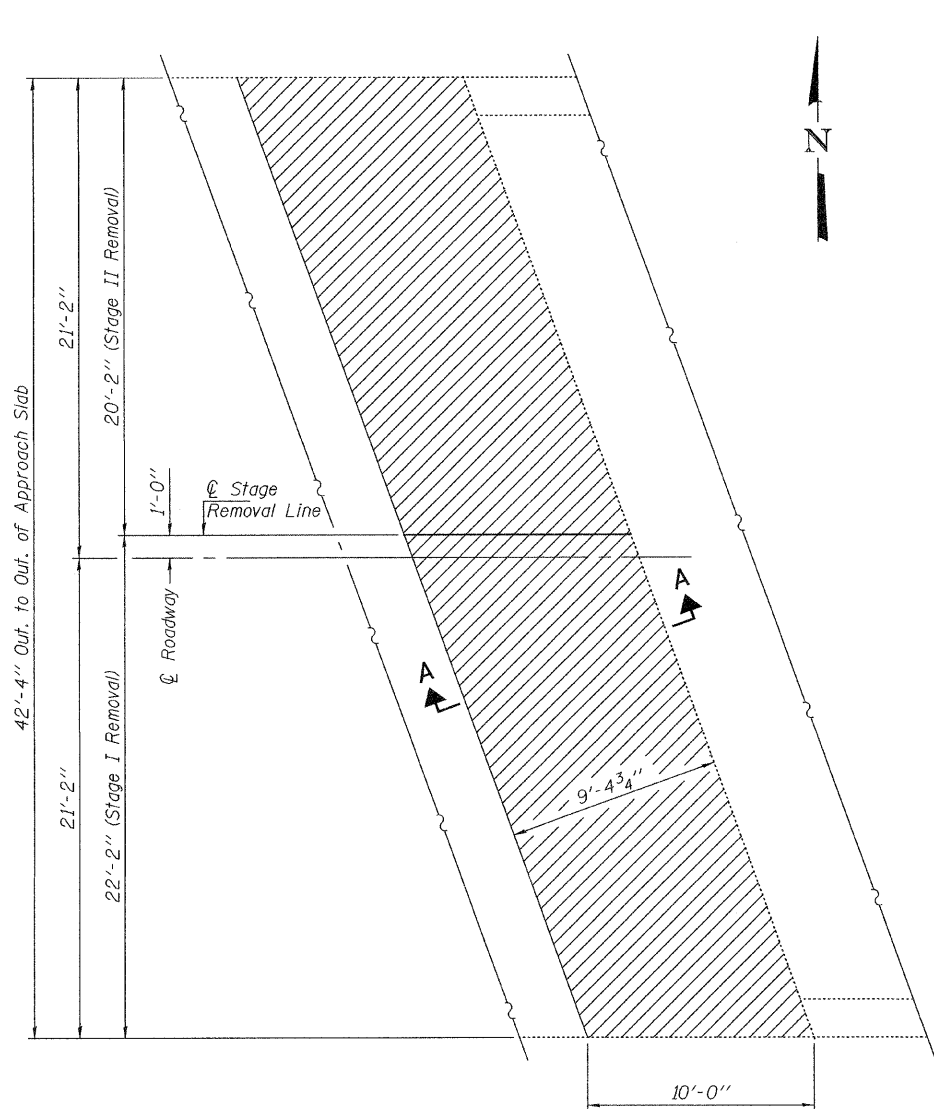


Expires: November 30, 2010

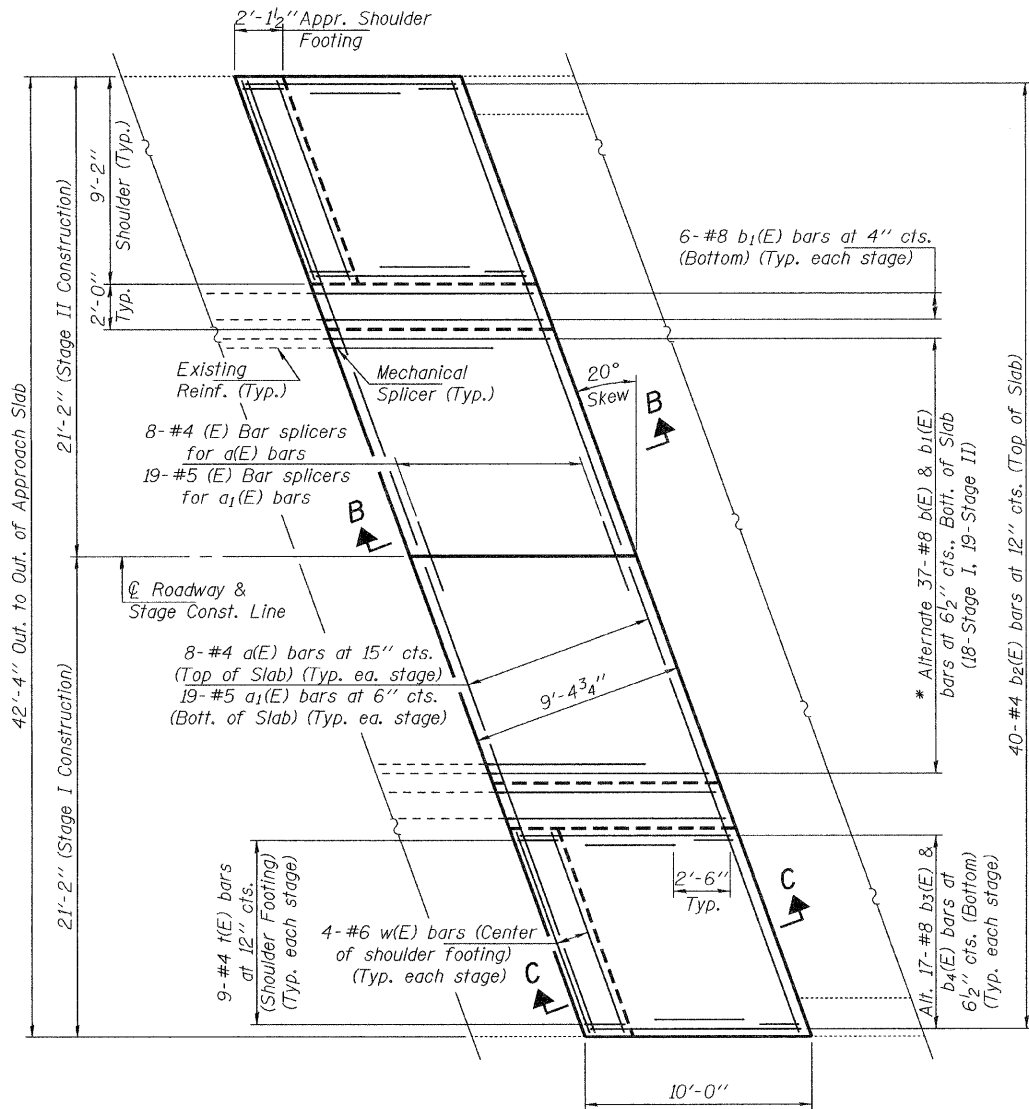
**PLAN & ELEVATION
SN 071-0015**

SHEET NO. 1 4 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	17	(102BR)M & (39BR)M	OGLE	19	8
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64G13					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

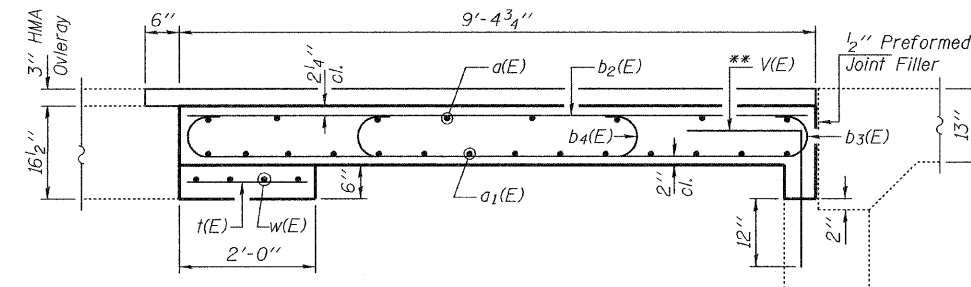


CONCRETE REMOVAL PLAN

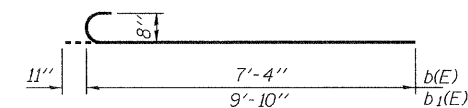


CONCRETE PLAN

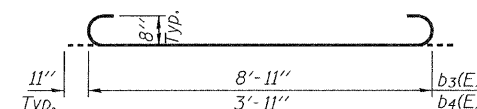
Spacing provided for b(E) & b1(E) bars to be used as a guideline. Existing spacing shall govern.



SECTION C-C
Dims. at Rt. L



BARS b(E) & b1(E)



BARS b3(E) & b4(E)

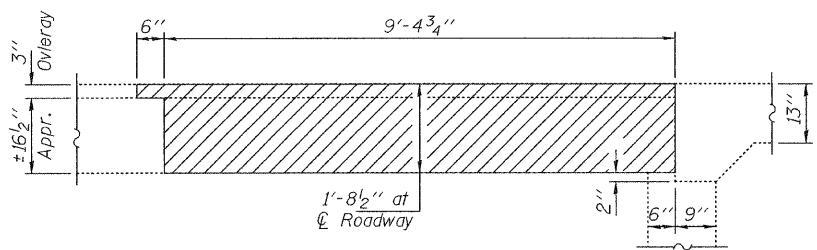
BAR v(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	16	#4	22'-1"	—
a1(E)	38	#5	22'-1"	—
b(E)	18	#8	8'-7"	┌
b1(E)	31	#8	11'-1"	┌
b2(E)	40	#4	9'-8"	—
b3(E)	16	#8	10'-9"	┌
b4(E)	18	#8	5'-9"	┌
t(E)	18	#4	1'-9"	—
v(E)	40	#5	3'-8"	L
w(E)	8	#6	9'-4"	—
Approach Slab Removal			Sq. Yd.	47.0
Concrete Superstructure			Cu. Yd.	14.8
Reinforcement Bars, Epoxy Coated			Pound	3720

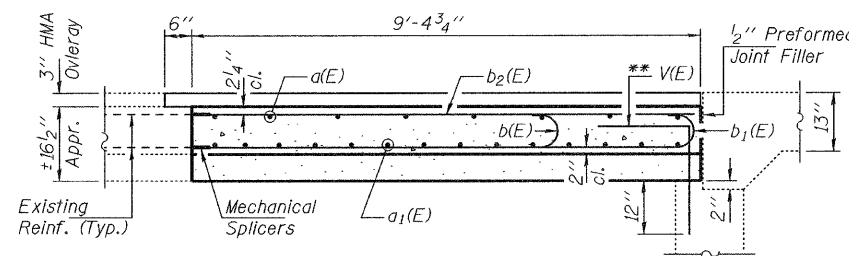
* Tilt #8 b(E) & b1(E) bars as required to maintain clearance.

** v(E) bars to be drilled and epoxy grouted to the abutment spaced at 12" centers. Epoxy grouting shall conform to Article 584 of the Standard Specifications.



SECTION A-A
Dims. at Rt. L

Note:
Hatched areas indicate Approach Slab Removal



SECTION B-B
Dims. at Rt. L

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

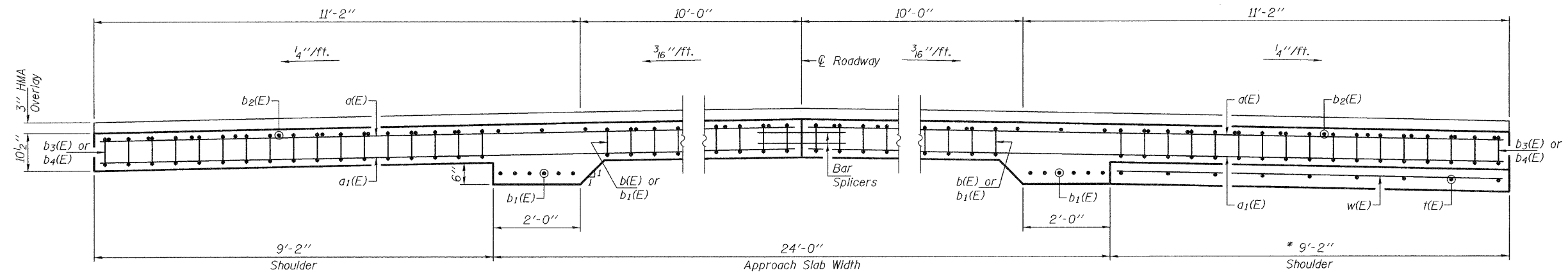
APRIL 30, 2010
EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

**WEST APPROACH SLAB
REPAIR DETAILS
SN 071-0015**

SHEET NO. 2 4 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	17	(102BR)M & (39BR)M	OGLE	19	9
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64G13					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Note:
Approach Shoulder Footing shall be paid as Concrete Structures. Cost of excavation for Approach Shoulder Footing included with Concrete Structures.



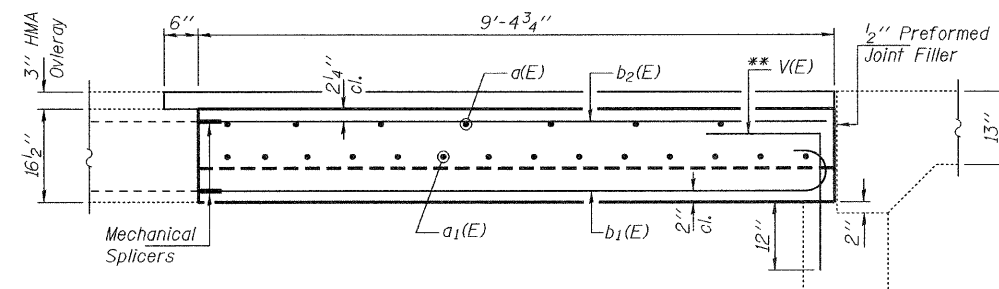
NEAR ABUTMENT

CROSS SECTION THRU APPROACH
(See Plan for dimensions not shown)

AT SHOULDER FOOTING
(10'-0" away from abut.)

* Approach Shoulder Footing

** V(E) bars to be drilled and epoxy grouted to the abutment spaced at 12" centers. Epoxy grouting shall conform to Article 584 of the Standard Specifications.



SECTION THRU THICKENED EDGE OF SLAB
Dims. at Rt. L

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

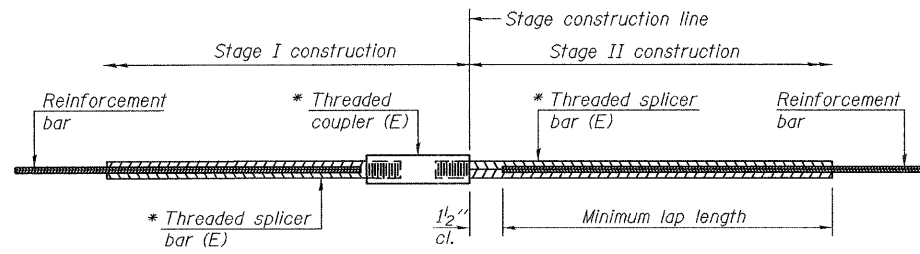
APRIL 30, 2010
EXAMINED *Carl P. ...*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-09

REPAIR DETAILS
SN 071-0015

SHEET NO. 3 4 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	17	(102BR)M & (39BR)M	OGLE	19	10
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64G13					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

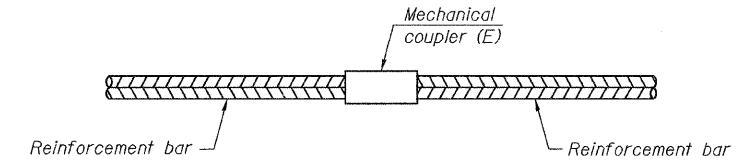
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

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

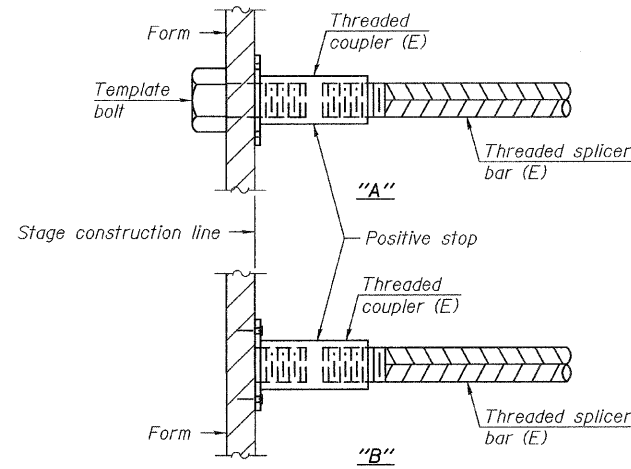
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
W. Appr. (Top)	#4	8	4
W. Appr. (Bott.)	#5	14	3



STANDARD MECHANICAL SPLICER

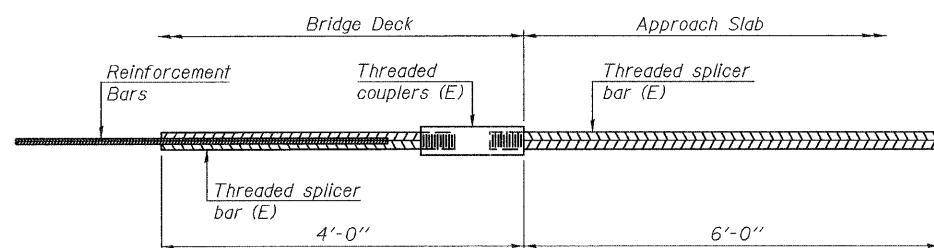
Location	Bar size	No. assemblies required
W. Appr. (Bott.)	#8	49



INSTALLATION AND SETTING METHODS

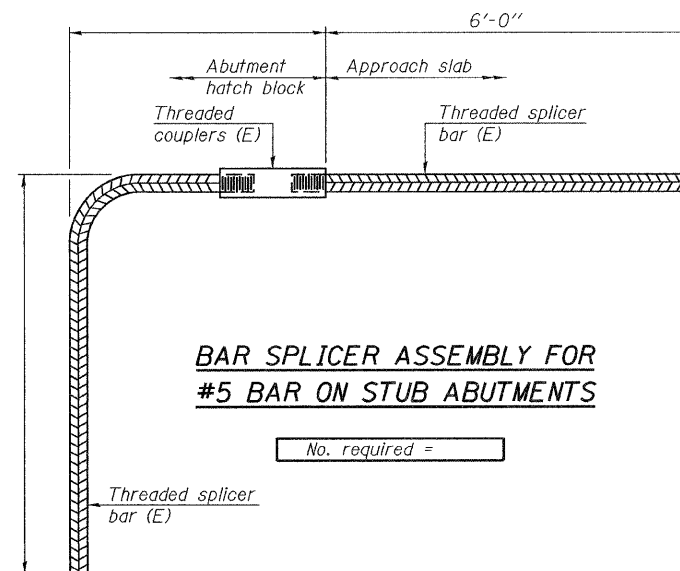
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO.



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.

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 071-0015

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

APRIL 30, 2010
EXAMINED *Carl P. ...*
PASSED *Ralph E. Anderson*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-09

SHEET NO. 4 4 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	17	(102BR)M & (39BR)M	OGLE	19	11
			CONTRACT NO. 64G13		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

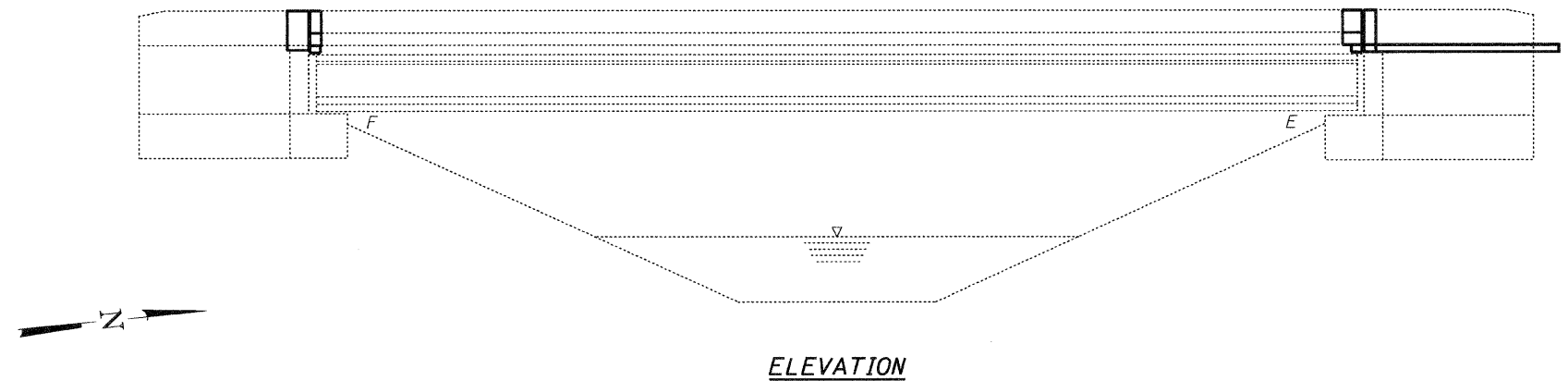
Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

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

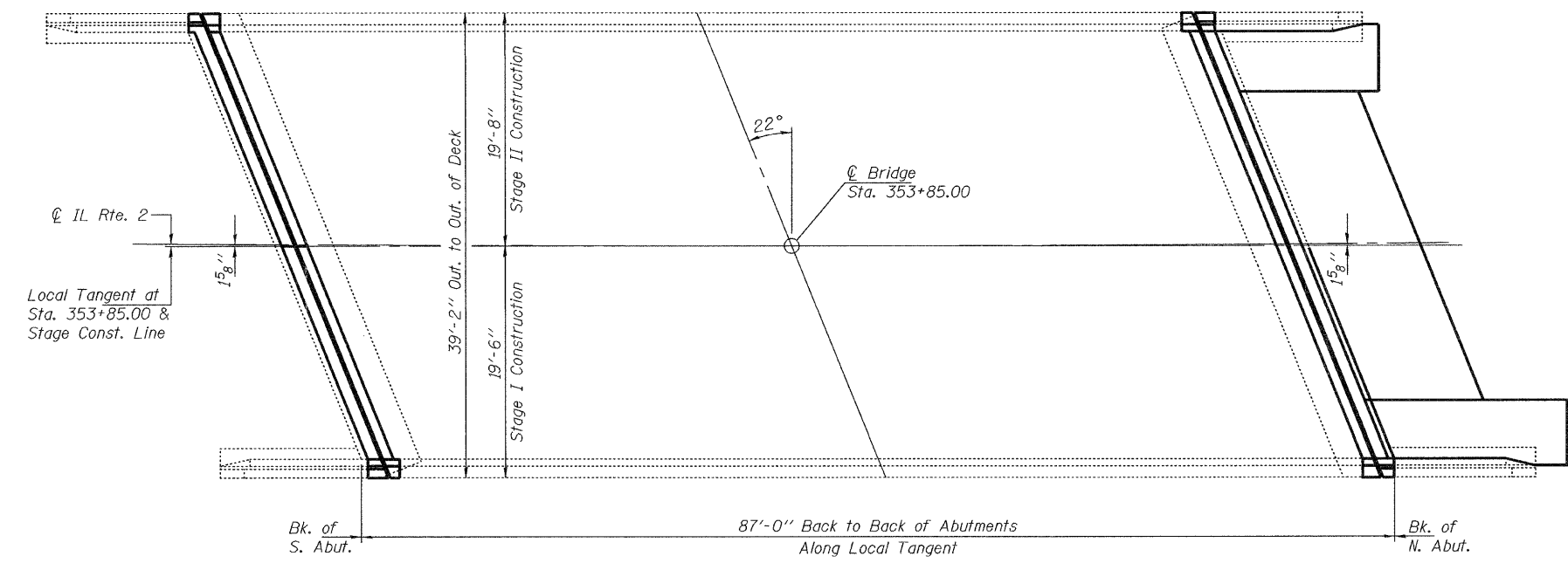
Reinforcement bars designated (E) shall be epoxy coated.

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

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



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	6.7
Concrete Superstructure	Cu. Yd.	18.2
Preformed Joint Strip Seal	Foot	82
Reinforcement Bars, Epoxy Coated	Pound	3580
Bar Splicers	Each	34
Mechanical Splicer	Each	100
* Protective Coat	Sq. Yd.	62.0
Approach Slab Removal	Sq. Yd.	27.0
Bridge Approach Shoulder Removal	Sq. Yd.	18.0
P.C. Concrete Bridge Approach Shoulder Pavement	Sq. Yd.	18.0

* New concrete only

DESIGNED *Jim J. Aoy*
CHECKED *M. Ecker*
DRAWN Kyle M. Steffen
CHECKED IJL *gac*

APRIL 30, 2010
EXAMINED *A. Carl...*
PASSED *Robert E. Arden*

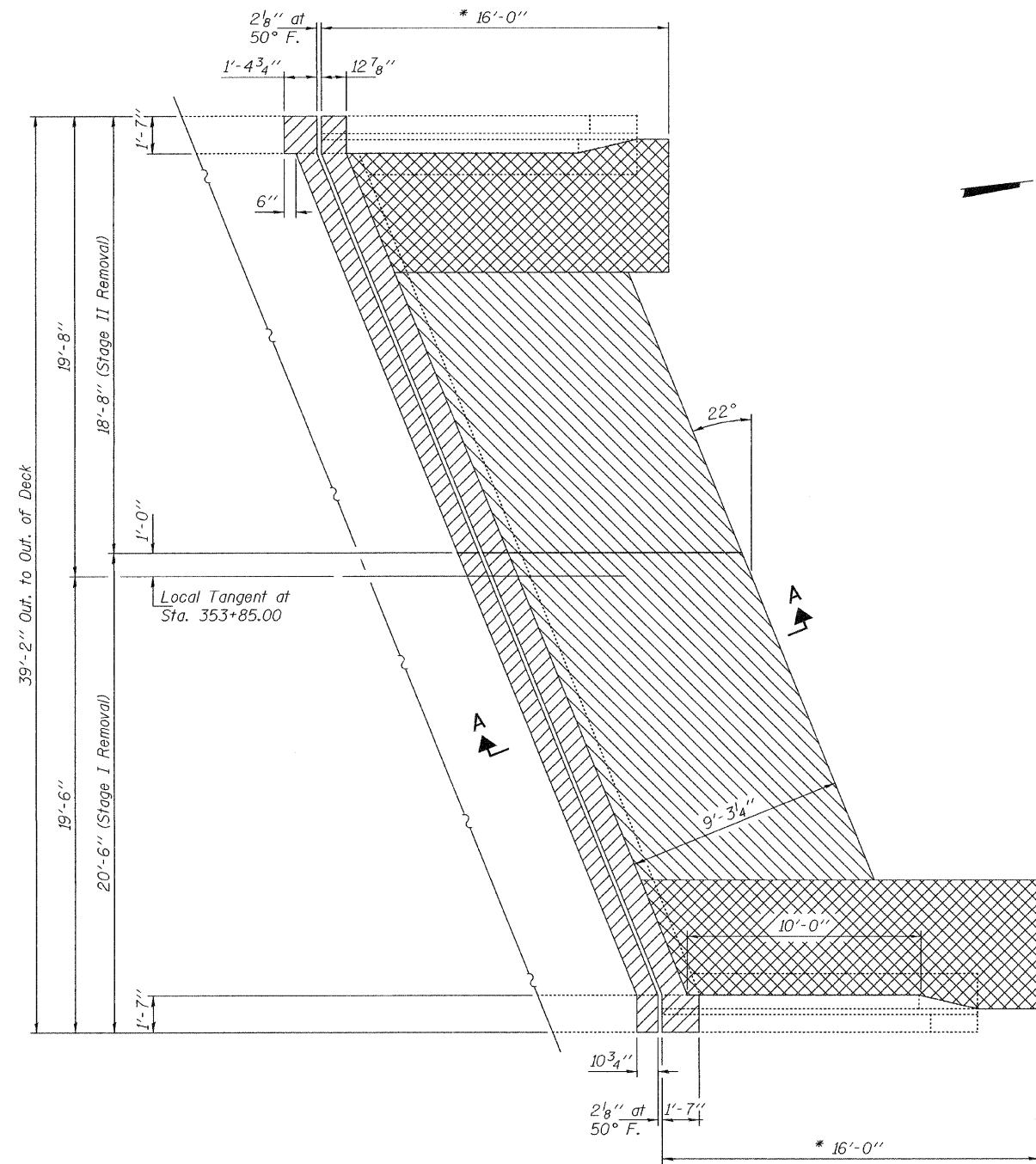


Expires: November 30, 2010

**PLAN & ELEVATION
SN 071-0072**

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	742	(102BR)M & (39BR)M	OGLE	19	12
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64G13					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CONCRETE REMOVAL PLAN

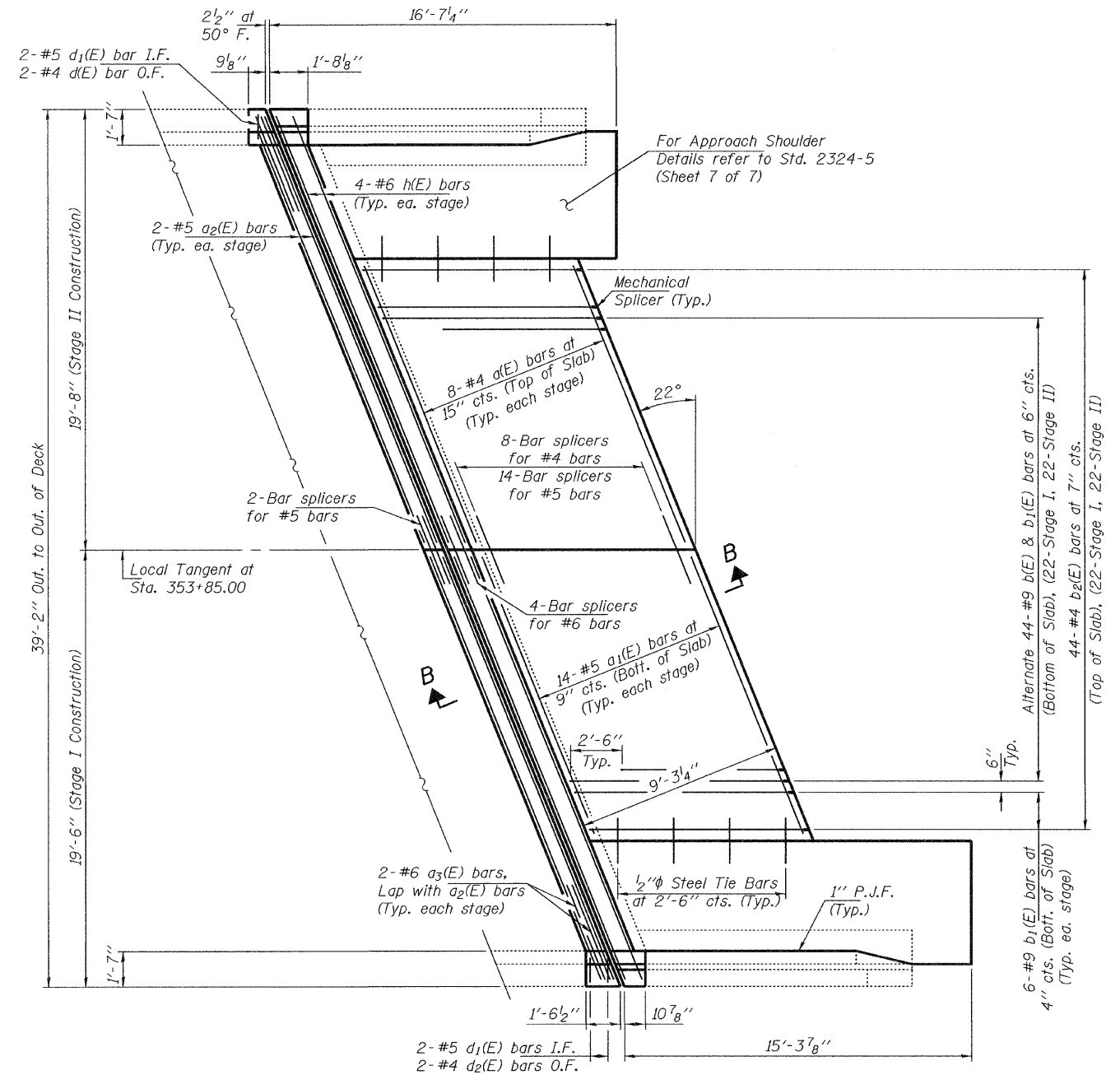
* Dimension to be used as a guideline. Existing Approach Shoulder length shall govern

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

APRIL 30, 2010
 EXAMINED *A. Carl Paves*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

LEGEND

- Bridge Approach Shoulder Removal
- Approach Slab Removal
- Concrete Removal

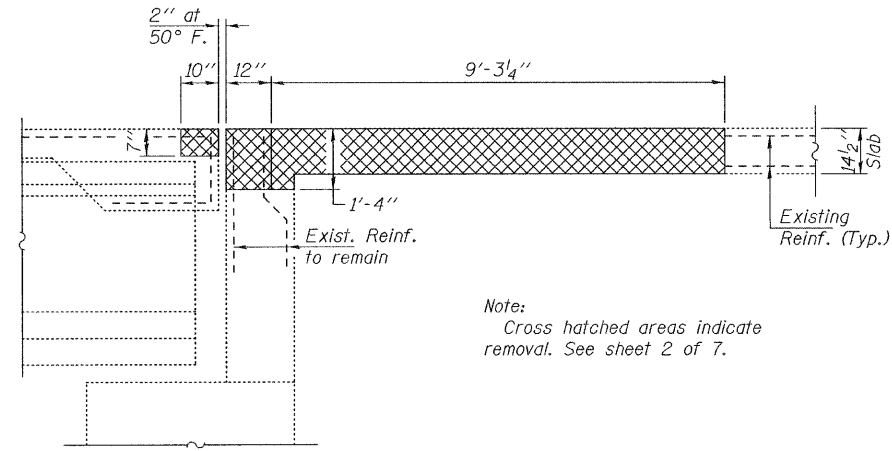


CONCRETE REPLACEMENT PLAN

**NORTH ABUTMENT
REPAIR DETAILS
SN 071-0072**

SHEET NO. 2 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	742	(102BR)M & (39BR)M	OGLE	19	13
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64G13					

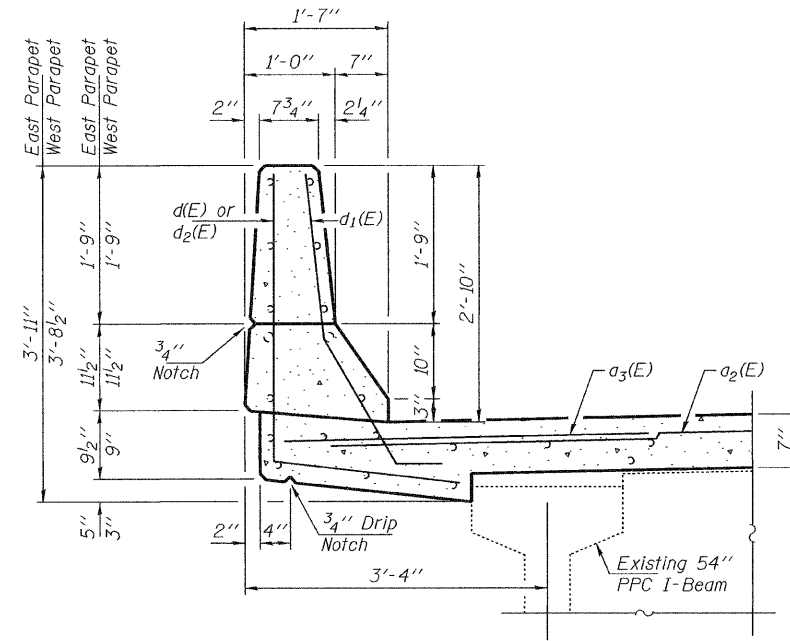
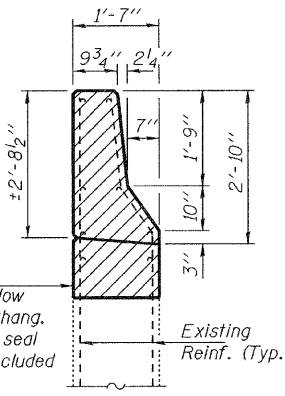
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



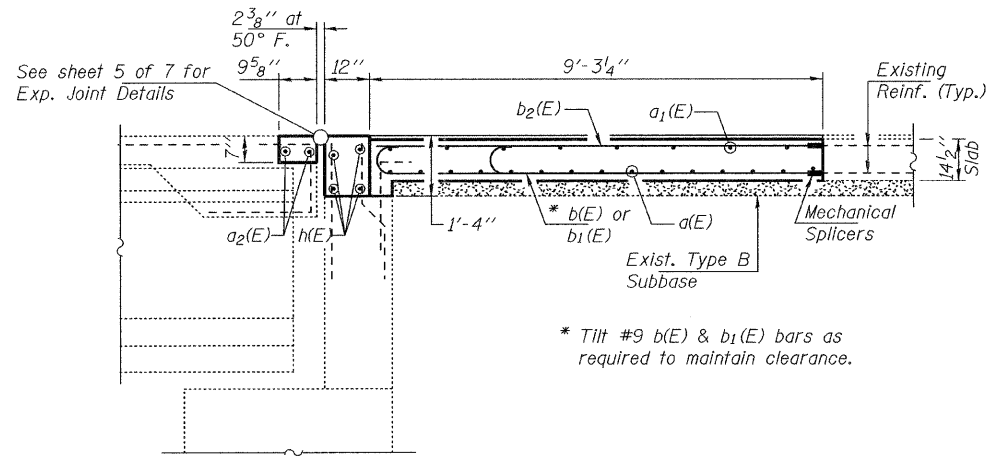
SECTION A-A
Dims. at Rt. L

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

SECTION THRU PARAPET (APPROACH)

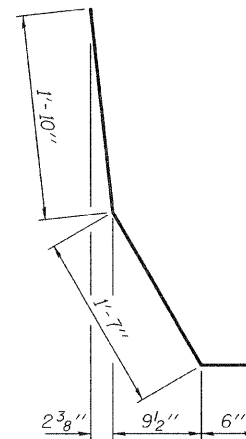


SECTION THRU PARAPET (DECK)

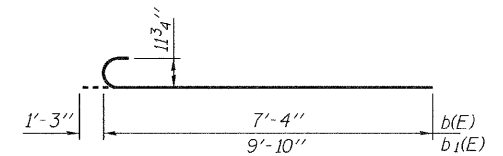


SECTION B-B
Dims. at Rt. L

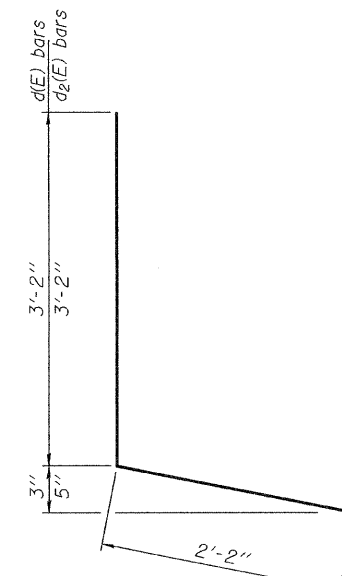
* Tilt #9 b(E) & b1(E) bars as required to maintain clearance.



BAR d1(E)



BARS b(E) & b1(E)

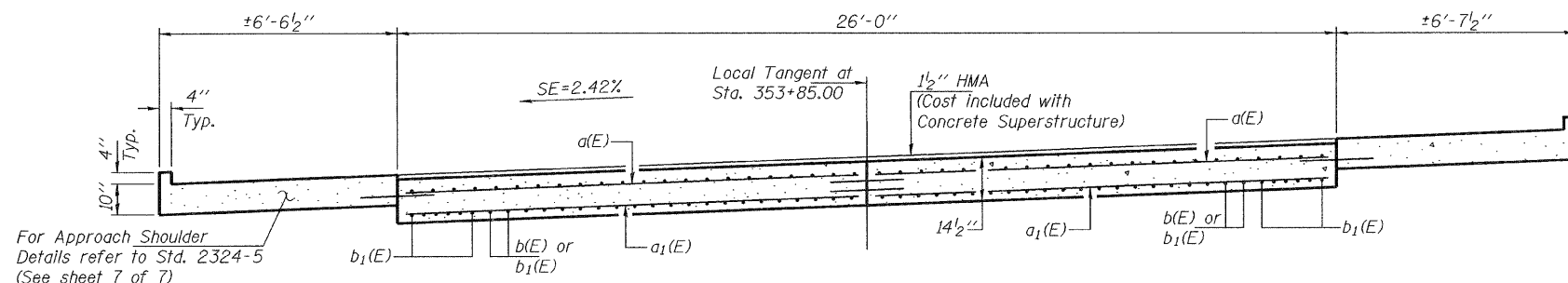


BARS d(E) & d2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	16	#4	13'-7"	—
a1(E)	28	#5	13'-7"	—
a2(E)	8	#5	20'-9"	—
a3(E)	8	#6	4'-6"	—
b(E)	22	#9	8'-7"	C
b1(E)	34	#9	11'-1"	C
b2(E)	44	#4	9'-8"	—
d(E)	4	#4	5'-4"	L
d1(E)	8	#5	3'-11"	L
d2(E)	4	#4	5'-4"	L
h(E)	16	#6	22'-6"	—
Concrete Removal			Cu. Yd.	6.7
Concrete Superstructure			Cu. Yd.	18.2
** Reinforcement Bars, Epoxy Coated			Pound	3580

** Includes quantities for new approach slab



CROSS-SECTION THRU APPROACH
(Looking North)

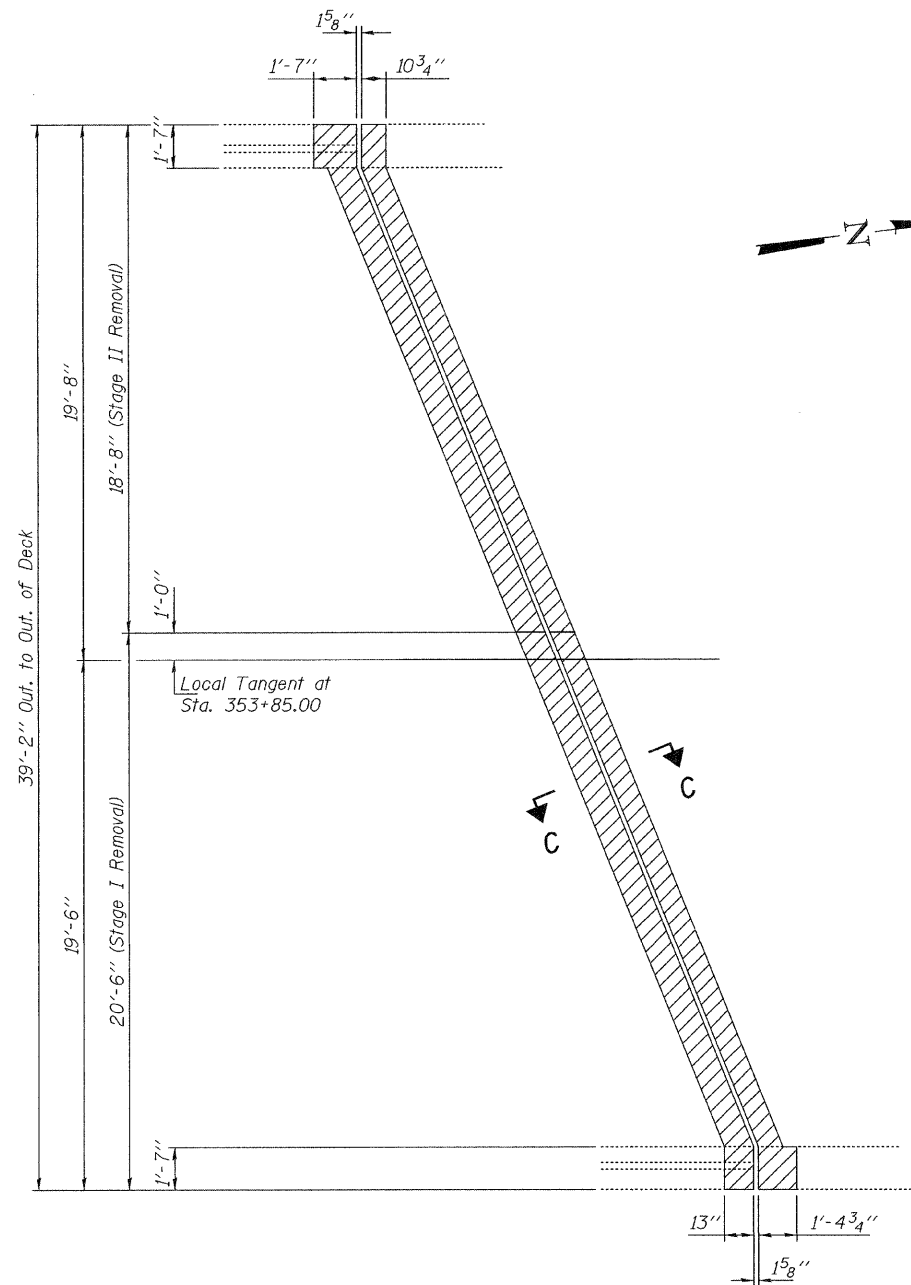
DESIGNED	IJL
CHECKED	GGE
DRAWN	Kyle M. Steffen
CHECKED	IJL GGE

APRIL 30, 2010
EXAMINED *Carl P. ...*
PASSED *Ralph E. Anderson*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

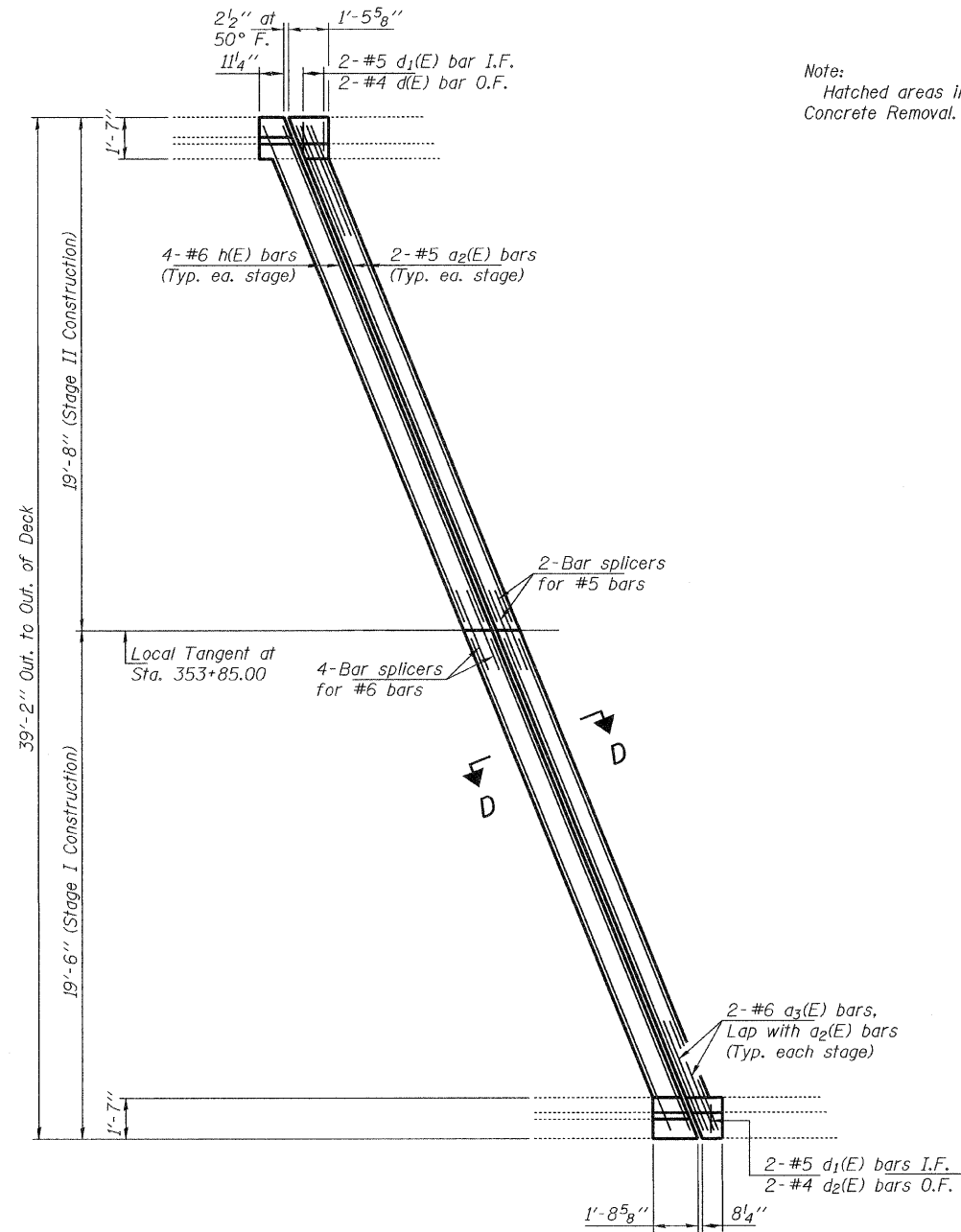
REPAIR DETAILS
SN 071-0072

SHEET NO. 3 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	742	(102BR)M & (39BR)M	OGLE	19	14
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 64G13					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

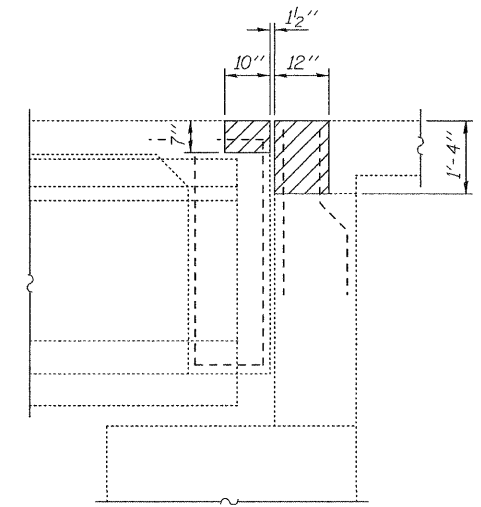


CONCRETE REMOVAL PLAN

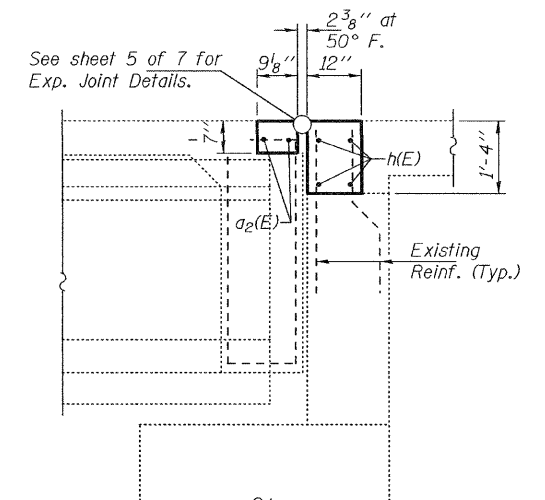


CONCRETE REPLACEMENT PLAN

Note:
Hatched areas indicate
Concrete Removal.



SECTION C-C
Dims. at Rt. L



SECTION D-D
Dims. at Rt. L

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

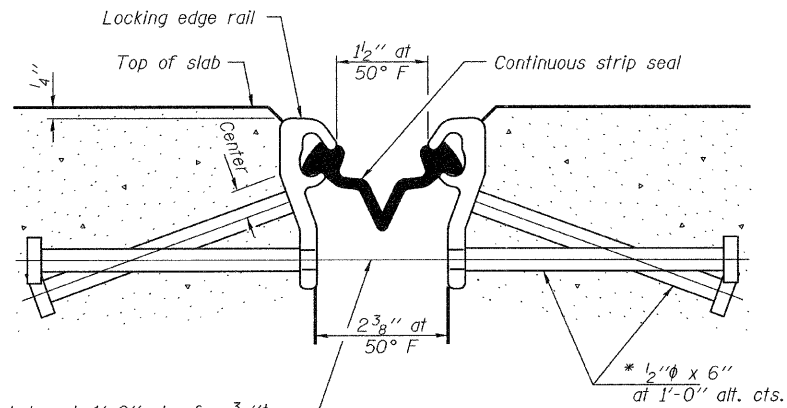
APRIL 30, 2010
EXAMINED *Carl P. ...*
PASSED *Ralph E. Anderson*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

SOUTH ABUTMENT
REPAIR DETAILS
SN 071-0072

SHEET NO. 4 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	742	(102BR)M & (39BR)M	OGLE	19	15
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64G13					

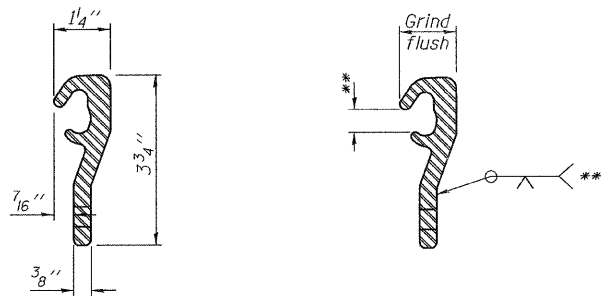
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



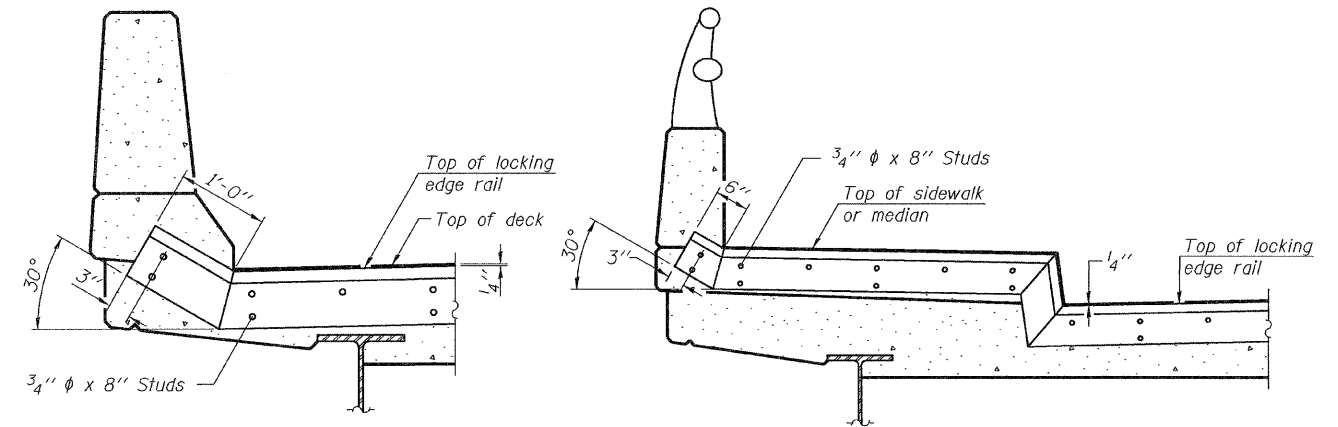
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU STRIP SEAL JOINT



LOCKING EDGE RAIL LOCKING EDGE RAIL SPLICE

** Omit weld at seal opening.

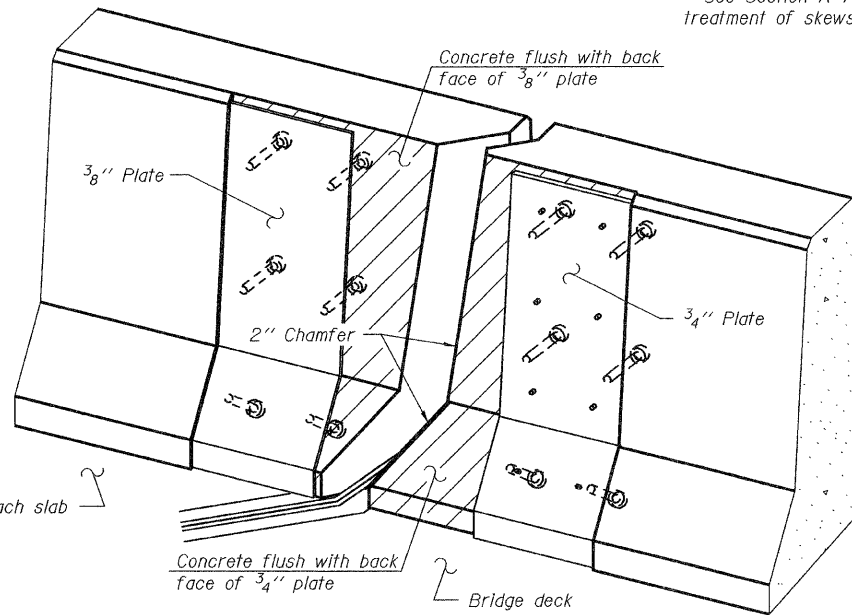


AT PARAPET

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

AT SIDEWALK OR MEDIAN

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



TYPICAL END TREATMENTS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 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.

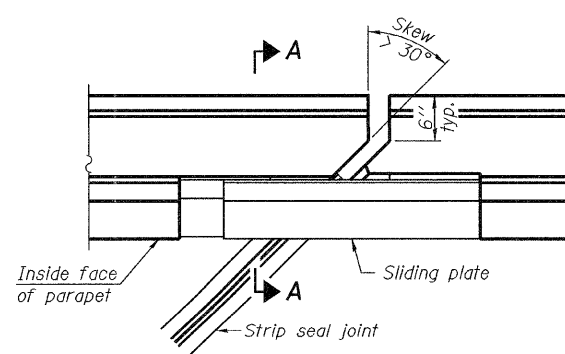
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

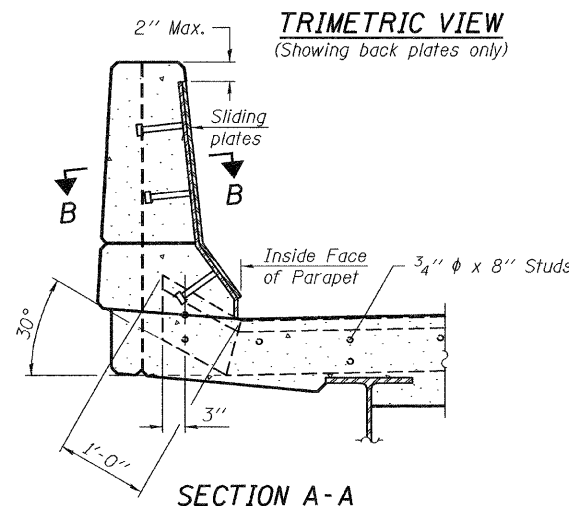
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications 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.

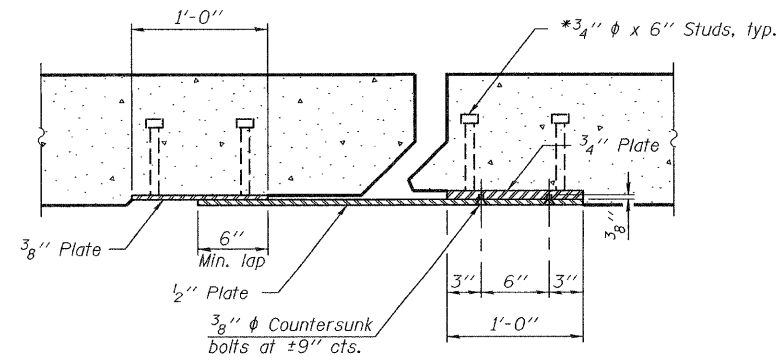
Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.



PLAN



SECTION A-A



SECTION B-B

POINT BLOCK DETAILS
(for skews > 30°)

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	82

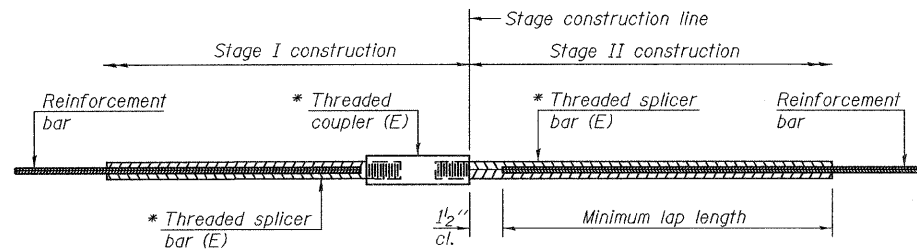
PREFORMED JOINT
STRIP SEAL DETAILS
SN 071-0072

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

APRIL 30, 2010
EXAMINED *Carl P. ...*
PASSED *Ralph E. Anderson*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	742	(102BR)M & (39BR)M	OGLE	19	16
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64G13					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

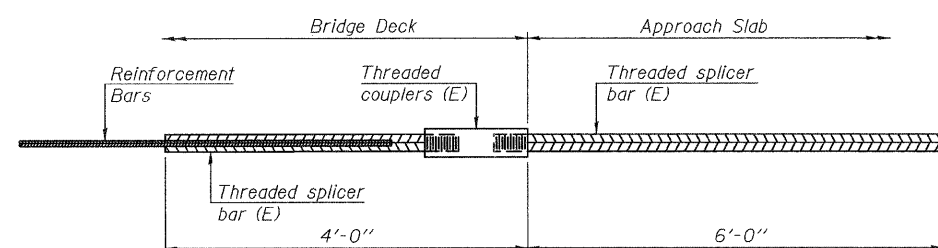
Bar size to be spliced	Minimum Lap Lengths			
	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

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

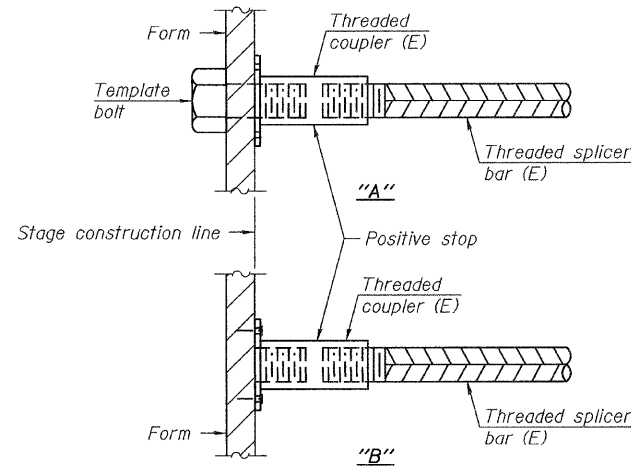
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
N. Abut. (Deck)	#5	2	4
N. Abut. (Hatch)	#6	4	3
N. Appr. (Top)	#4	8	4
N. Appr. (Bott.)	#5	14	3
S. Abut. (Deck)	#5	2	4
S. Abut. (Hatch)	#6	4	3



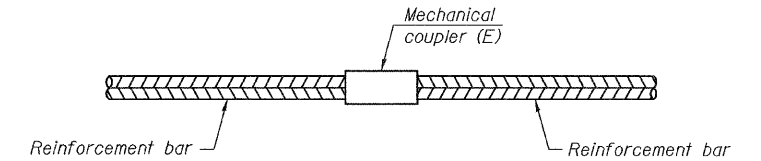
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



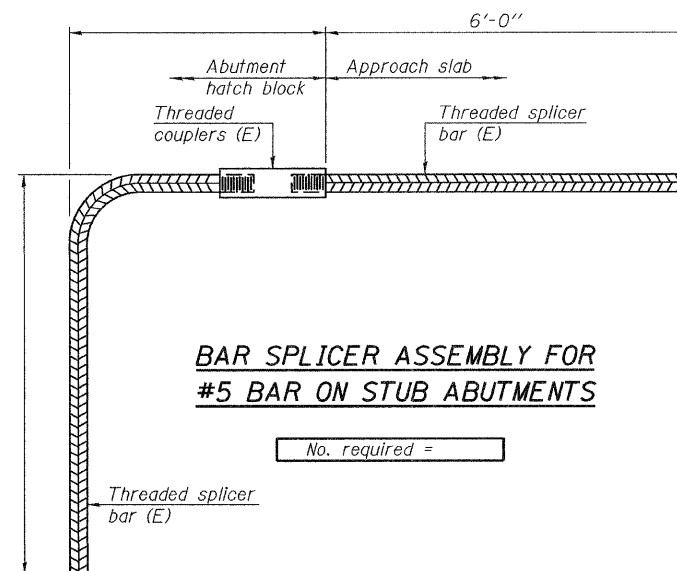
INSTALLATION AND SETTING METHODS

"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
N. Appr. (Top)	#4	44
N. Appr. (Bott.)	#9	56



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.

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 071-0072**

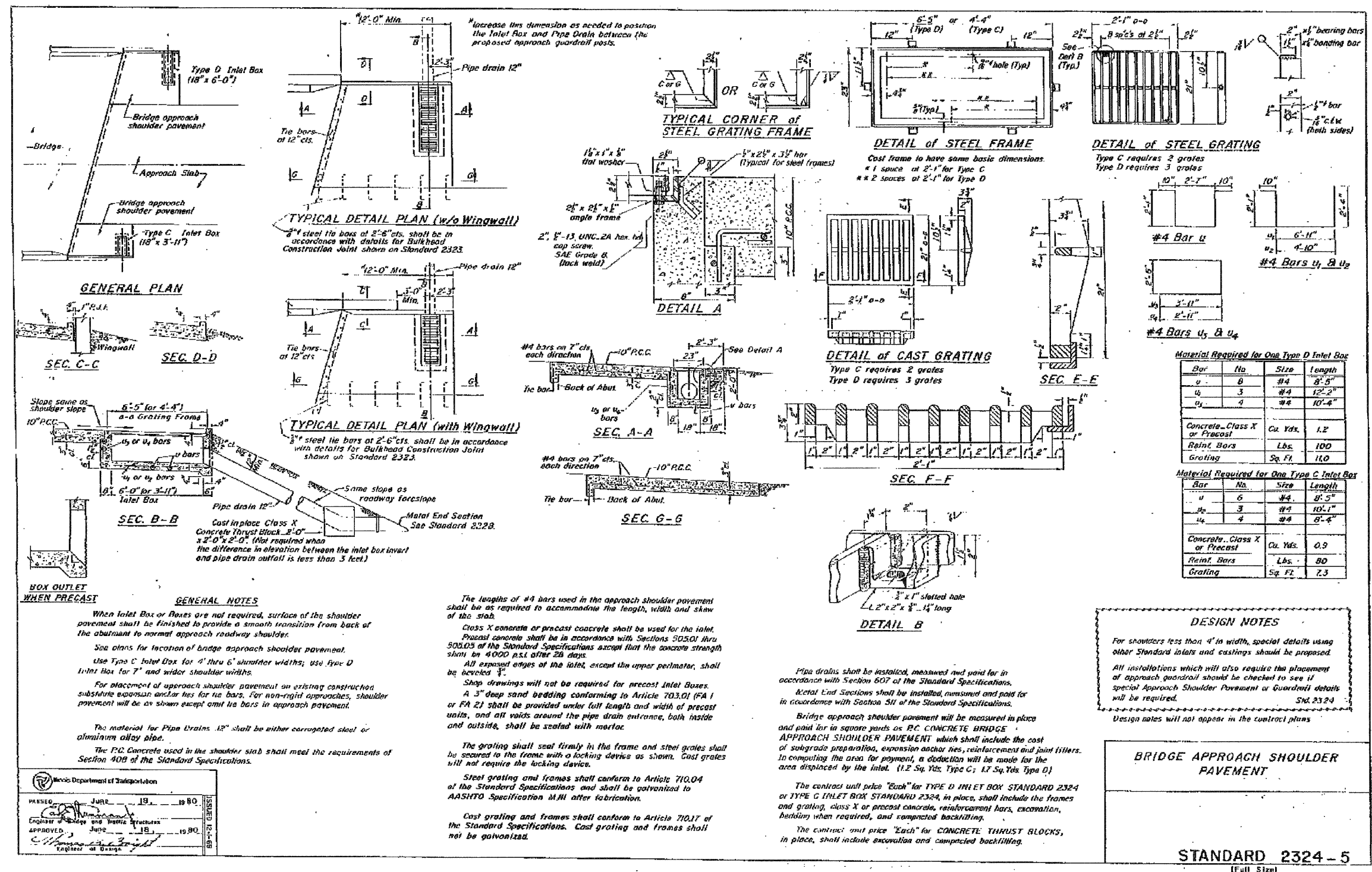
DESIGNED	IJL
CHECKED	GGE
DRAWN	Kyle M. Steffen
CHECKED	IJL GGE

APRIL 30, 2010
EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-09

SHEET NO. 6 7 SHEETS	F.A.P. RTE. 742	SECTION (102BR)M & (39BR)M	COUNTY OGLE	TOTAL SHEETS 19	SHEET NO. 17
	CONTRACT NO. 64G13				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Material Required for One Type D Inlet Box

Bar	No.	Size	Length
u	8	#4	8'-5"
v	3	#4	12'-2"
w	2	#4	10'-4"

Concrete - Class X or Precast Cu. Yds. 1.2
Reinf. Bars Lbs. 100
Grating Sq. Ft. 110

Material Required for One Type C Inlet Box

Bar	No.	Size	Length
u	6	#4	8'-5"
v	3	#4	10'-1"
w	4	#4	8'-4"

Concrete - Class X or Precast Cu. Yds. 0.9
Reinf. Bars Lbs. 80
Grating Sq. Ft. 7.3

DESIGN NOTES

For shoulders less than 4' in width, special details using other Standard inlets and castings should be proposed.

All installations which will also require the placement of approach guardrail should be checked to see if special Approach Shoulder Pavement or Guardrail details will be required. Std. 2324

Design notes will not appear in the contract plans.

BRIDGE APPROACH SHOULDER PAVEMENT

STANDARD 2324-5
(Full Size)

BRIDGE APPROACH SHOULDER PAVEMENT DETAILS
STANDARD 2324-5
SN 071-0072

DESIGNED	I.J.L.
CHECKED	G.G.E.
DRAWN	Kyle M. Steffen
CHECKED	I.J.L. G.G.E.

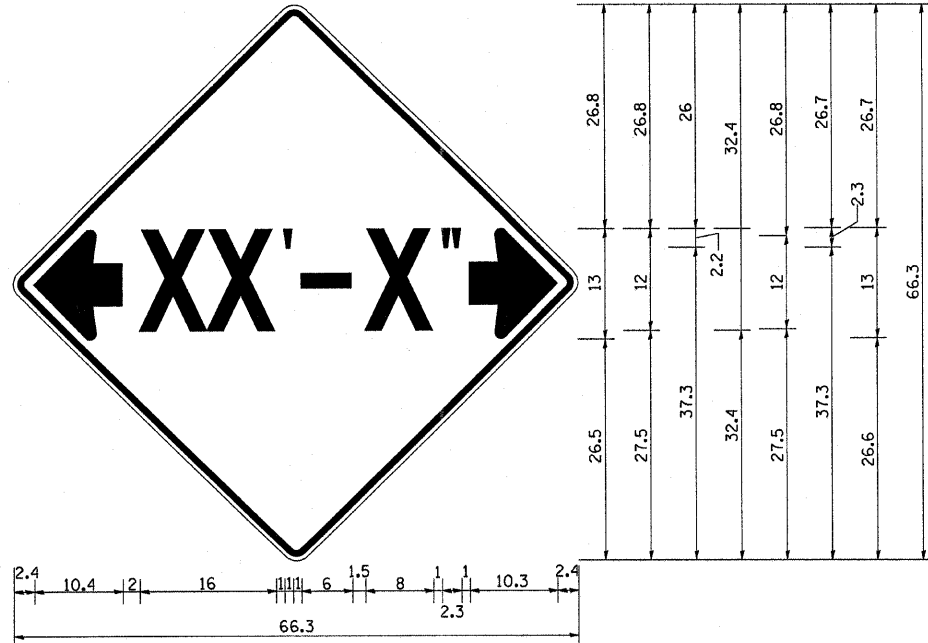
APRIL 30, 2010

EXAMINED *A. Carl Paves*
ENGINEER OF STRUCTURAL SERVICES

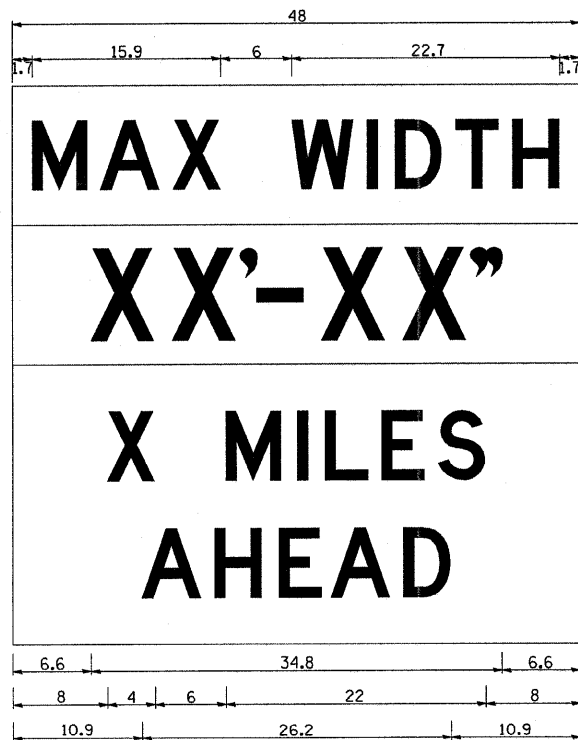
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	742	(102BR)M & (39BR)M	OGLE	19	18
7 SHEETS			CONTRACT NO. 64G13		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES



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.

INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) 39.2

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 600(24)
100(4) CAPITAL LETTERS - BLACK
13 (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 MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 1-22-07

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

REVISION: 5-15-09 D:\BR\CADD\plans\Various Counties\64013	USER NAME = linkd approach_pavements\PLANeng.dgn	DESIGNED - --- DRAWN - ---	REVISED - --- REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A.U. RTE. 5671 (102.6R)M & (39.6R)M	COUNTY OGLE	TOTAL SHEETS 19	SHEET NO. 19
PLOT SCALE = 50.0000' / IN.	CHECKED - ---	REVISED - ---	CONTRACT NO. 64613						
PLOT DATE = Tue Mar 16 08:26:43 2010	DATE - ---	REVISED - ---	ILLINOIS FED. AID PROJECT						
SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____									