

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.I. ROUTE 64 (I-64)
SECTION D7 BRIDGE REPAIRS 2012-2

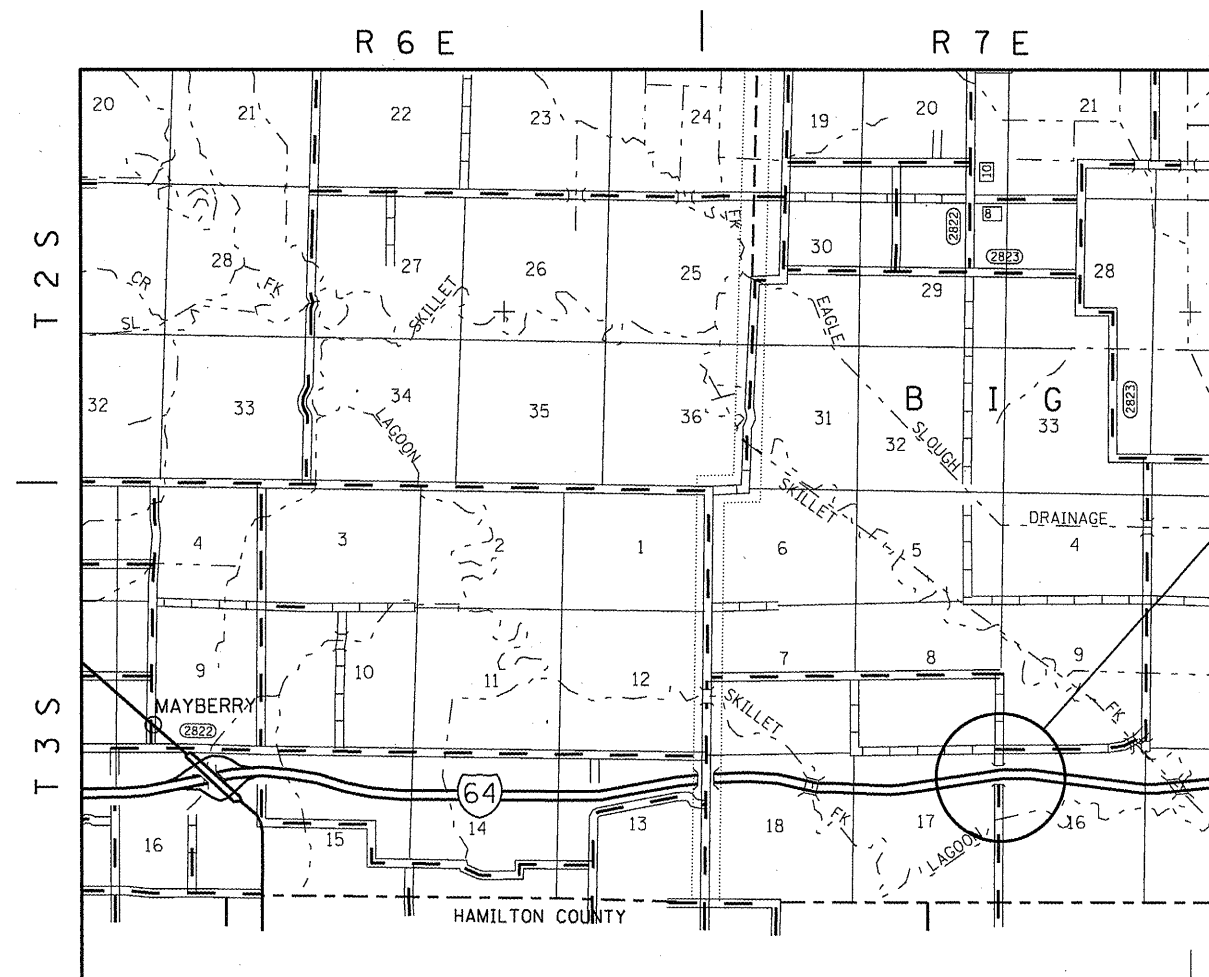
CONTRACT MAINTENANCE BRIDGE REPAIRS
WAYNE COUNTY

C-97-085-11

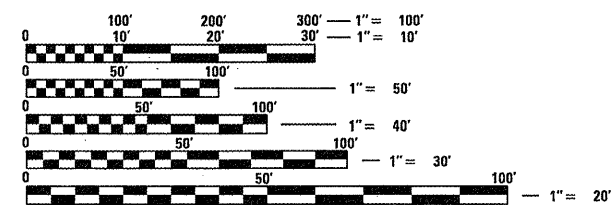
FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT = 9700 (2007)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	D7 BRIDGE REPAIRS 2012-2	WAYNE	22	1
		ILLINOIS	CONTRACT NO. 74536	



PROJECT LOCATION
SECTION D7 BRIDGE REPAIRS 2012-2
S.N. 096-0039



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: TOM RONAN
PROJECT MANAGER: JENNIFER WENTHE
PHONE 217-342-8361
CONTRACT NO. 74536

GROSS LENGTH = 540 FT. = 0.10 MILES
NET LENGTH = 540 FT. = 0.10 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Jan 26 20 12
Boyd D. Mitchell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 23 20 12
John D. Barancelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

March 23 20 12
William R. Frey, Jr.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		100% STATE		
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	66	66		
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SO YD	580	580		
42001200	PAVEMENT FABRIC	SO YD	580	580		
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SO YD	434	434		
44004250	PAVED SHOULDER REMOVAL	SO YD	580	580		
50102400	CONCRETE REMOVAL	CU YD	9	9		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	17.6	17.6		
50300260	BRIDGE DECK GROOVING	SO YD	441	441		
50300300	PROTECTIVE COAT	SO YD	14	14		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	880	880		
50800515	BAR SPLICERS	EACH	8	8		
50800530	MECHANICAL SPLICERS	EACH	80	80		
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	3	3		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		100% STATE		
67100100	MOBILIZATION	L SUM	1	1		
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	1	1		
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	97	97		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	32	32		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	313	313		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	313	313		
78300100	PAVEMENT MARKING REMOVAL	SO FT	325	325		
*78009004	URETHANE PAVEMENT MARKING - LINE 4" L MODIFIED	FOOT	1080	1080		
*78009006	URETHANE PAVEMENT MARKING - LINE 6" L MODIFIED	FOOT	135	135		
Z0012113	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 3	SO YD	441	441		

* SPECIALTY ITEM

FILE NAME =	USER NAME = staffenmk	DESIGNED -	REVISED -
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	PLOT DATE = 1/25/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

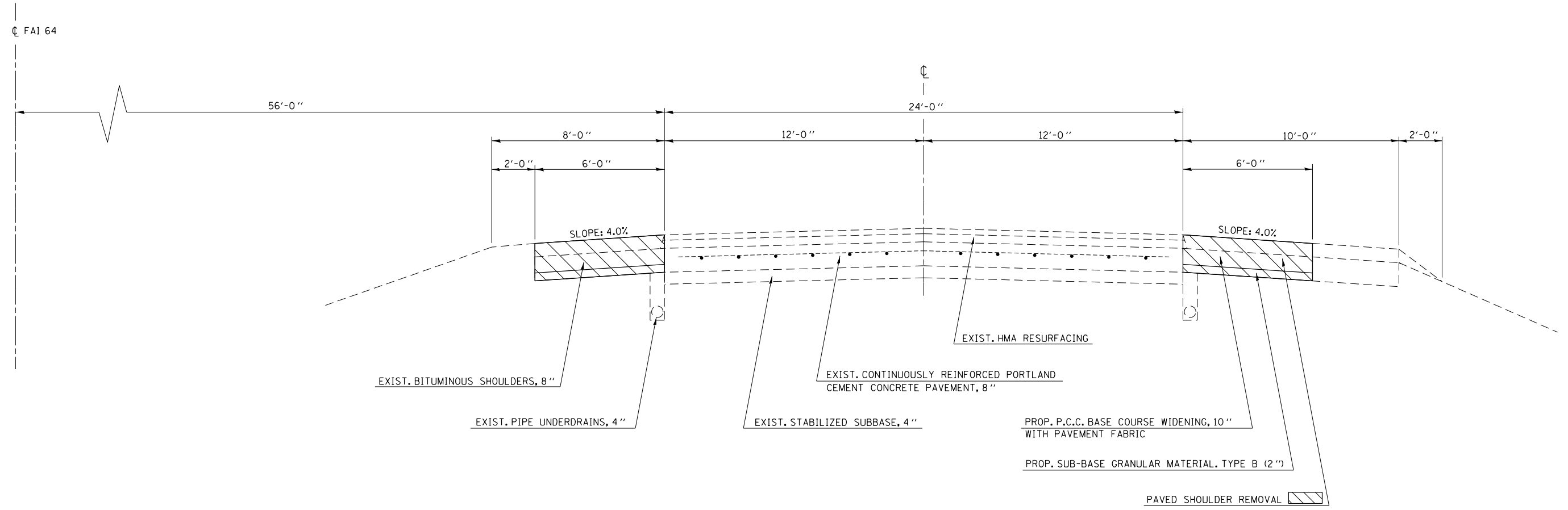
SUMMARY OF QUANTITIES

SCALE: NA SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	D7 BRIDGE REPAIRS 2012-2	WAYNE	22	3
CONTRACT NO. 74536			ILLINOIS FED. AID PROJECT	

TYPICAL CROSS SECTION

STA. 4054+05 TO STA. 4056+60
STA. 4057+65 TO STA. 4059+45



NOTE: NOT DRAWN TO SCALE

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	et:\pw\work\p\dot\steffenmk\d0270599\074536-sht-typcros.dgn	DRAWN -	REVISED -		SCALE: NA	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	64	07 BRIDGE REPAIRS 2012-2	WAYNE	22	5
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -					CONTRACT NO. 74536			ILLINOIS FED. AID PROJECT		
	PLOT DATE = 1/25/2012	DATE -	REVISED -										

WIDENING SCHEDULE

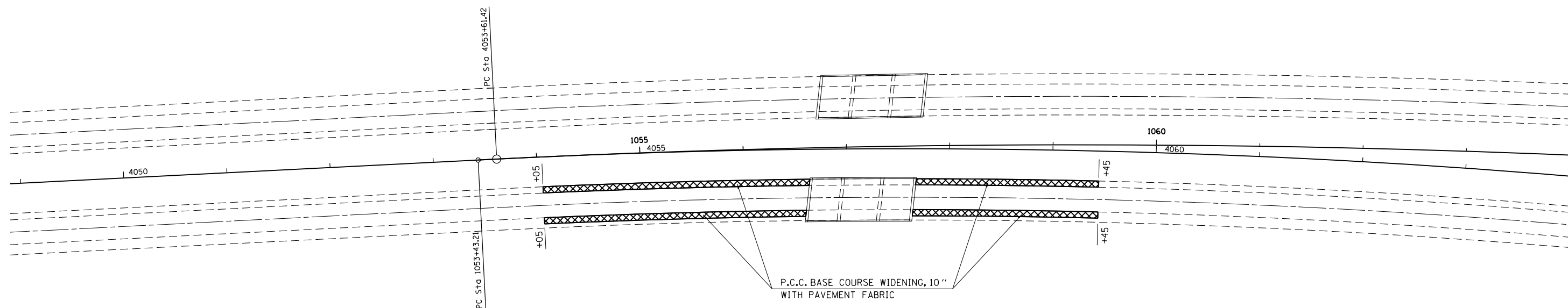
STATION TO STATION		SUBBASE GRANULAR MATERIAL, TYPE B	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 10"	PAVEMENT FABRIC	PAVED SHOULDER REMOVAL
		TON	SQ YD	SO YD	SO YD
EB					
RT	4054+05.00 TO 4056+60.00	19.4	170.0	170.0	170.0
LT	4054+05.00 TO 4056+60.00	19.4	170.0	170.0	170.0
RT	4057+65.00 TO 4059+45.00	13.7	120.0	120.0	120.0
LT	4057+65.00 TO 4059+45.00	13.7	120.0	120.0	120.0
TOTALS		66.0	580.0	580.0	580.0

PAVEMENT MARKING SCHEDULE

STATION TO STATION		URETHANE PAVEMENT MARKING - LINE 4"	URETHANE PAVEMENT MARKING - LINE 6"	PAVEMENT MARKING REMOVAL	SHORT TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL
		FOOT	FOOT	SO FT	FOOT	SO FT
EB						
	4054+05.00 TO 4056+60.00	510.0	63.8	170.0	45.9	15.3
	4056+60.00 TO 4057+65.00	210.0	26.3	35.0	18.9	6.3
	4057+65.00 TO 4059+45.00	360.0	45.0	120.0	32.4	10.8
TOTALS		1080.0	135.0	325.0	97.0	32.0

TRAFFIC CONTROL DEVICES

STATION TO STATION		TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
		FOOT	FOOT	SO FT	FOOT
STAGE I					
	EB 1054+61.00 TO 1056+25.00	162.5	0.0	1.0	0.0
	EB 1056+25.00 TO 1057+75.00	150.0	0.0	0.0	0.0
STAGE II					
	EB 1054+61.00 TO 1056+25.00	0.0	162.5	0.0	1.0
	EB 1056+25.00 TO 1057+75.00	0.0	150.0	0.0	0.0
TOTALS		313.0	313.0	1.0	1.0



▨ PAVED SHOULDER REMOVAL

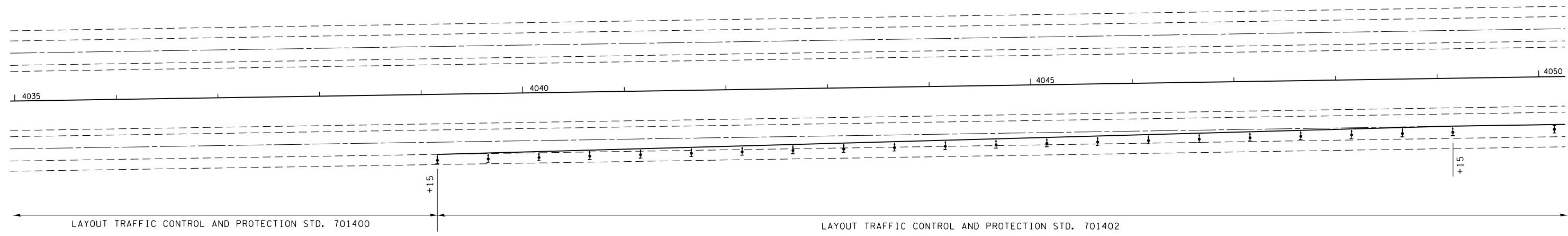
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	PLOT DATE = 1/25/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**





PLAN

SCALE: 50 SHEET 1 OF 1 SHEETS STA. 4049+00 TO STA. 4064+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	D7 BRIDGE REPAIRS 2012-2	WAYNE	22	7
				CONTRACT NO. 74536
ILLINOIS FED. AID PROJECT				



LEGEND

-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER

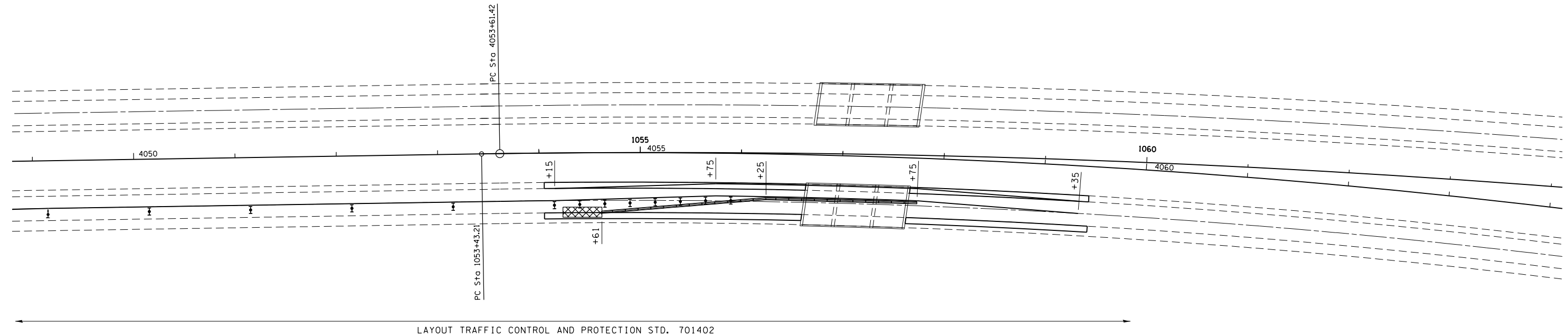
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	PLOT DATE = 1/25/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE I TRAFFIC CONTROL




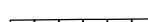
SCALE: 50 SHEET 1 OF 2 SHEETS STA. 4035+00 TO STA. 4050+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	D7 BRIDGE REPAIRS 2012-2	WAYNE	22	8
CONTRACT NO. 74536				
ILLINOIS FED. AID PROJECT				



LAYOUT TRAFFIC CONTROL AND PROTECTION STD. 701402

LEGEND

-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER

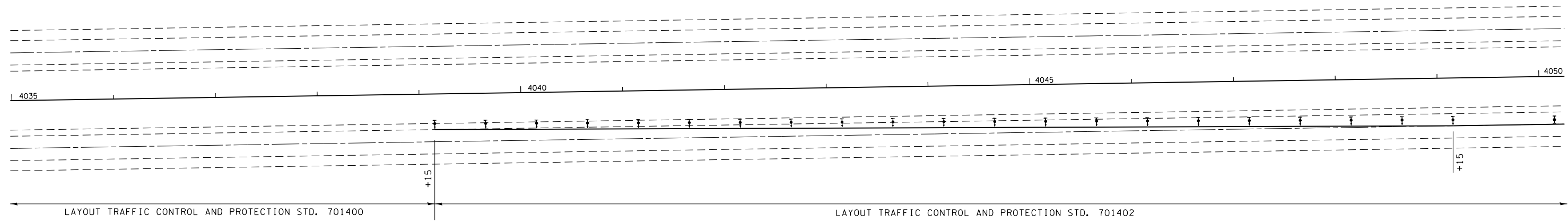
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	PLOT DATE = 1/25/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




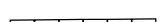
STAGE I TRAFFIC CONTROL

SCALE: 50 SHEET 2 OF 2 SHEETS STA. 4049+00 TO STA. 4064+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	DT BRIDGE REPAIRS 2012-2	WAYNE	22	9
CONTRACT NO. 74536				
ILLINOIS FED. AID PROJECT				



LEGEND

- 
 DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
- 
 TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
- 
 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
- 
 TEMPORARY CONCRETE BARRIER

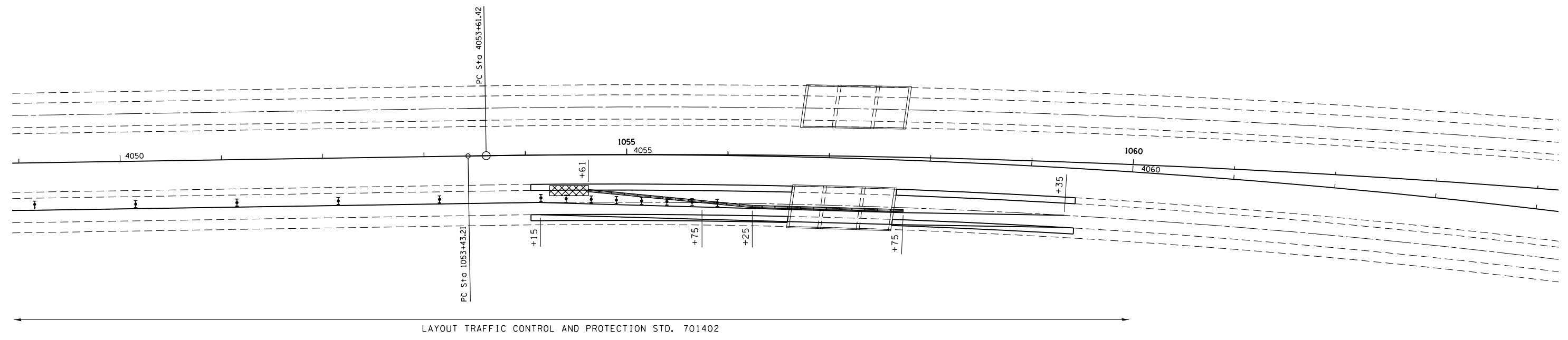
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	PLOT DATE = 1/25/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE II TRAFFIC CONTROL

SCALE: 50 SHEET 1 OF 2 SHEETS STA. 4035+00 TO STA. 4050+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	07 BRIDGE REPAIRS 2012-2	WAYNE	22	10
CONTRACT NO. 74536				
ILLINOIS FED. AID PROJECT				



LEGEND

- DIRECTIONAL INDICATOR BARRICADE
W/STEADY BURN MONODIRECTIONAL
LIGHT
- TYPE II BARRICADE DRUM OR
VERTICAL BARRICADE W/STEADY
BURN MONODIRECTIONAL LIGHT
- IMPACT ATTENUATORS, TEMPORARY
(NON-REDIRECTIVE) TEST LEVEL 3
- TEMPORARY CONCRETE BARRIER

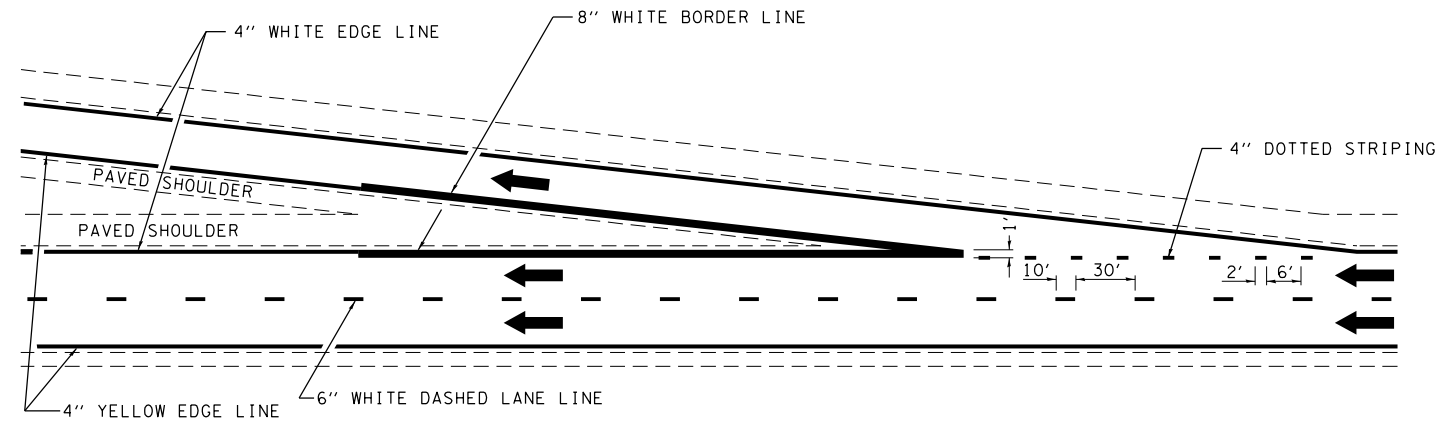
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

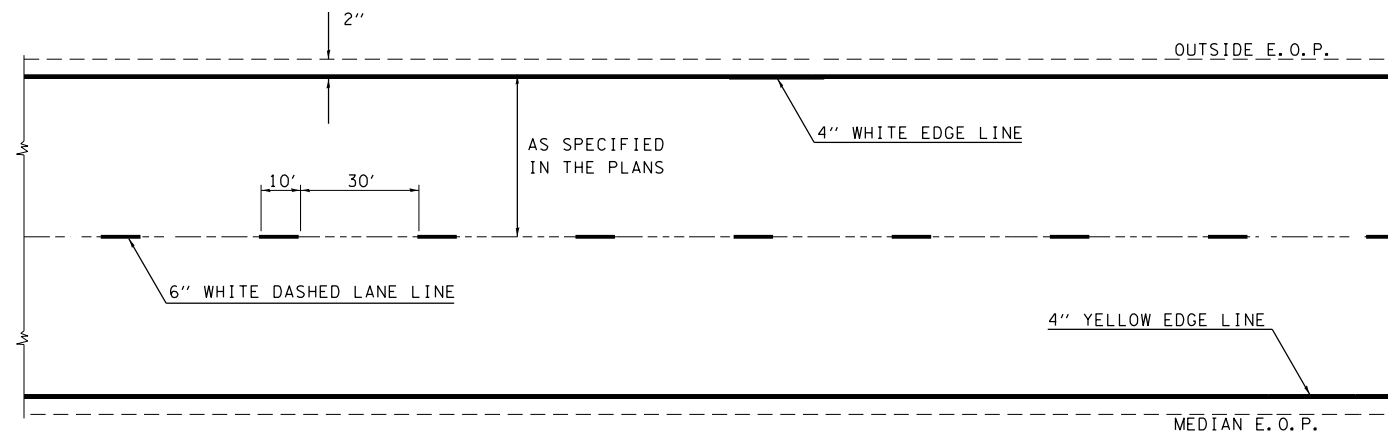
STAGE II TRAFFIC CONTROL

SCALE: 50 SHEET 2 OF 2 SHEETS STA. 4049+00 TO STA. 4064+00

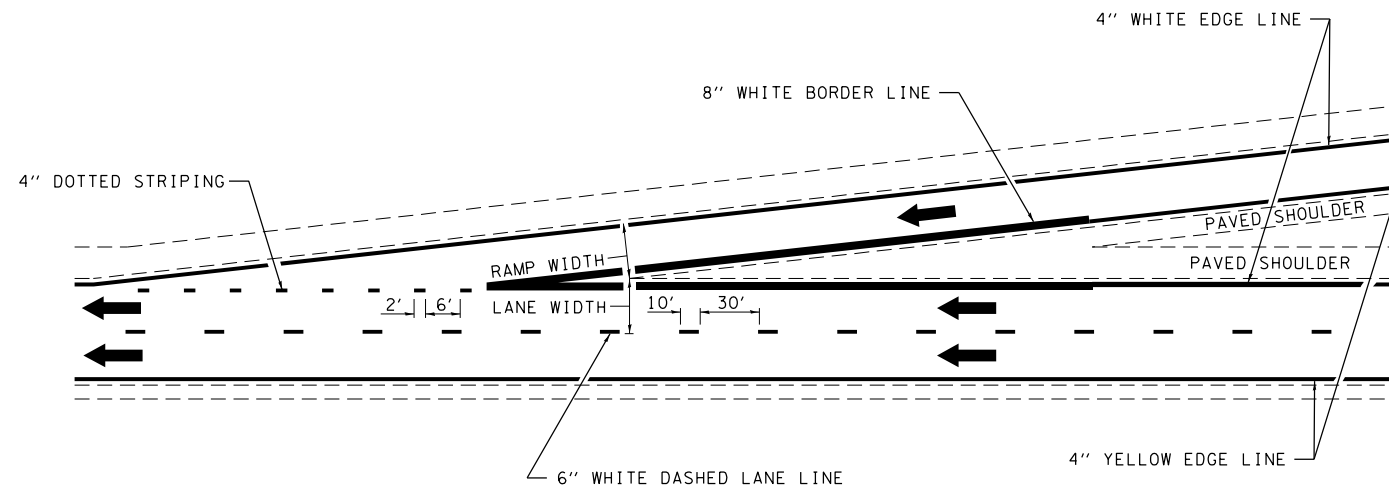
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64	07 BRIDGE REPAIRS 2012-2	WAYNE	22	11
CONTRACT NO. 74536				
ILLINOIS FED. AID PROJECT				



TYPICAL EXIT RAMP MARKING



TYPICAL CENTERLINE & EDGELINE MARKINGS



TYPICAL ENTRANCE RAMP MARKING

NOT TO SCALE

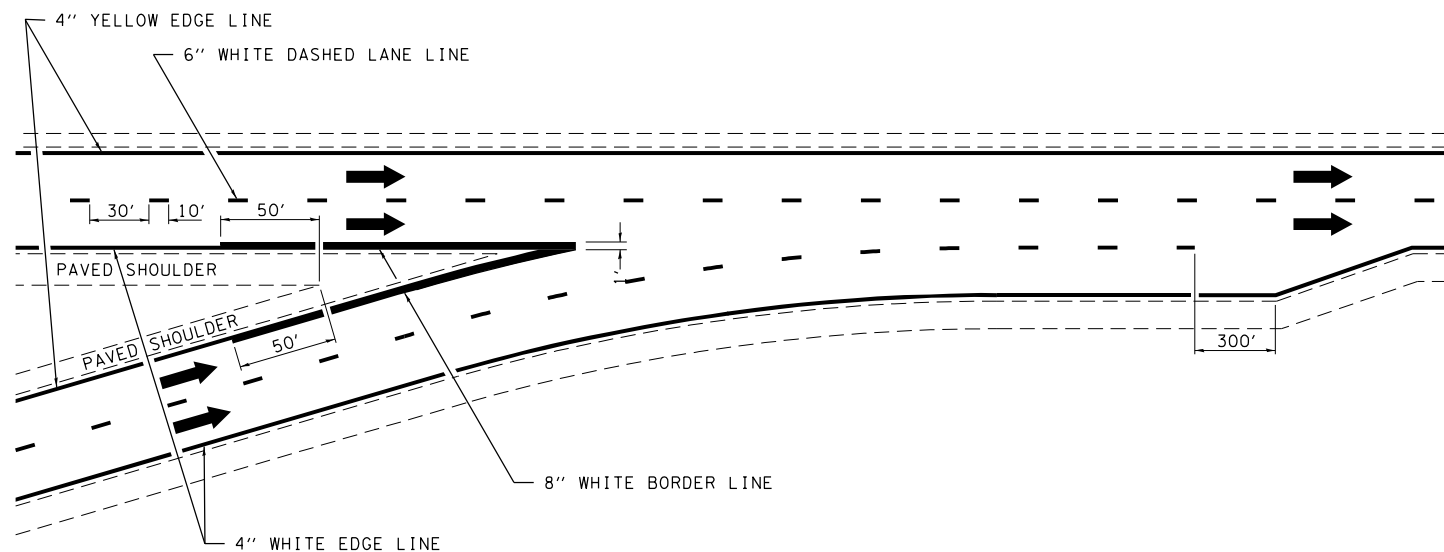
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

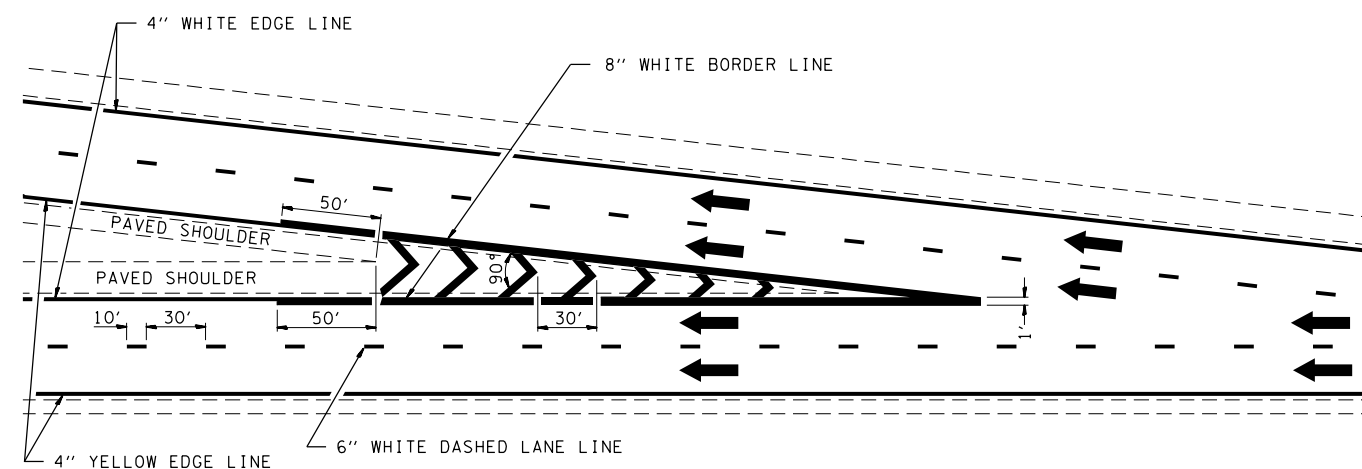
TYPICAL APPLICATIONS OF INTERSTATE PAVEMENT MARKING

SCALE: NA SHEET NO. 1 OF 2 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 7800002				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	07 BRIDGE REPAIRS 2012-2	WAYNE	22	12
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 74536	

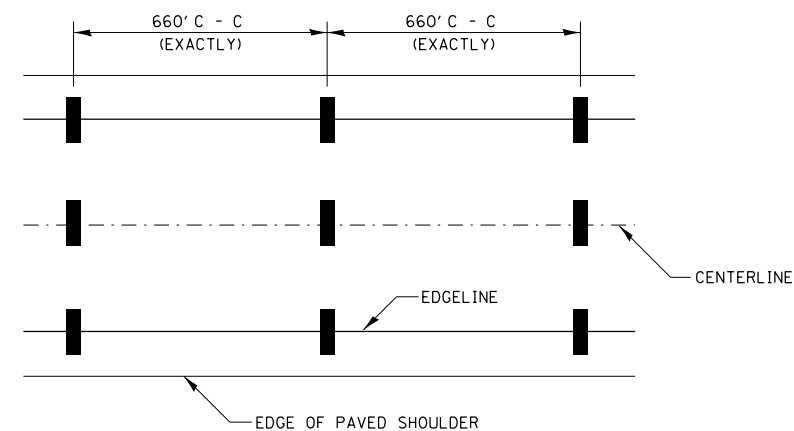


TYPICAL CONVERGENCE MARKING

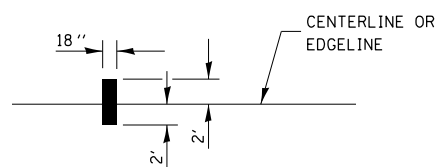


TYPICAL DIVERGENCE MARKING

AERIAL SPEED CHECK ZONES



IT WILL BE NECESSARY TO HAVE A REPRESENTATIVE OF THE STATE POLICE PRESENT SO THAT THE ACCURACY OF MEASUREMENT CAN BE ATTESTED TO IN COURT.



NOT TO SCALE

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	PLOT DATE = 1/25/2012	DATE -	REVISED - DRM 01-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

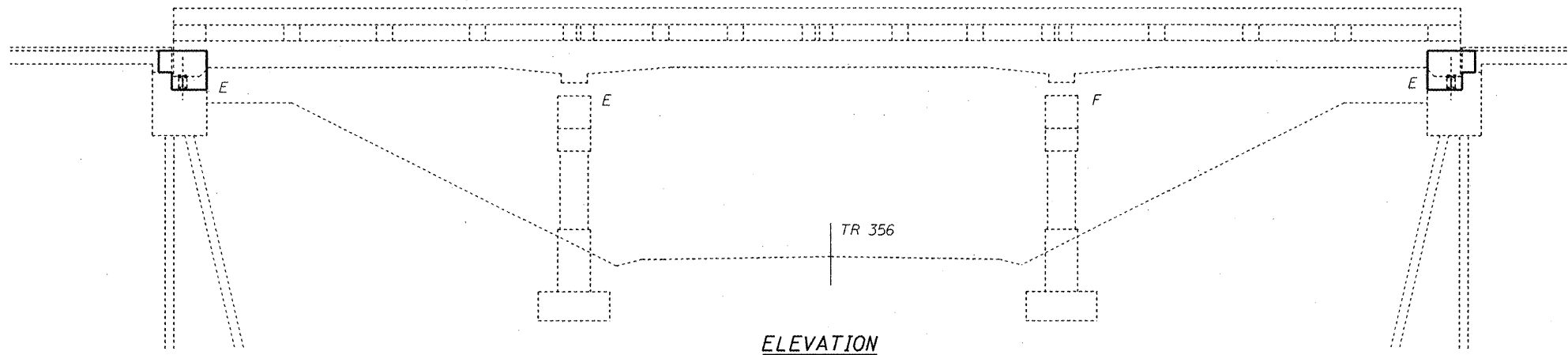
TYPICAL APPLICATIONS OF INTERSTATE PAVEMENT MARKING

SCALE: NA SHEET NO. 2 OF 2 SHEETS STA. TO STA.

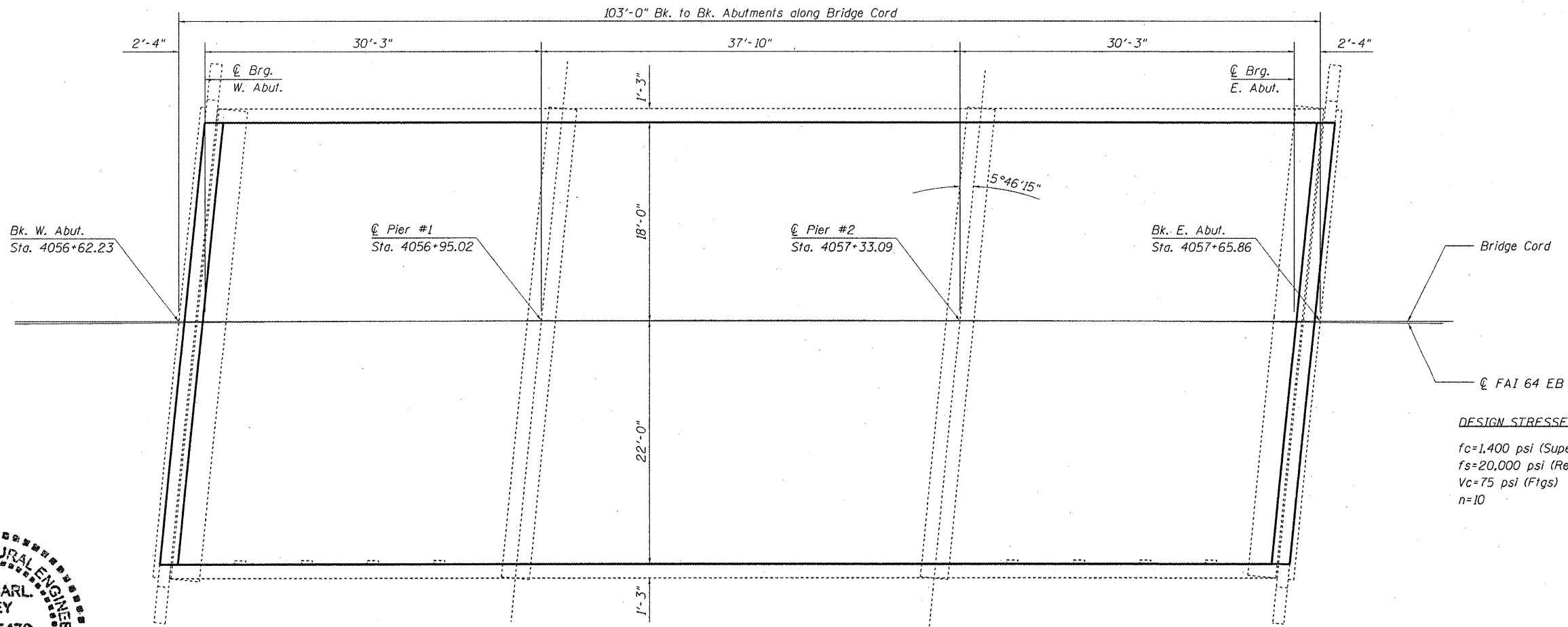
DISTRICT 7 DETAIL NO. 7800002

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	D7 BRIDGE REPAIRS 2012-2	WAYNE	22	13
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 74536				

The existing three span continuous reinforced concrete slab structure was constructed in 1974 as FAI 64 section 96-3HB-1 at Sta. 4057+18.84. SN. 096-0039 carries FAI 64 EB (Interstate 64 Eastbound) over TR 356. The proposed project consists of eliminating the expansion joints, partial depth deck repair, and a new concrete overlay.



ELEVATION



PLAN

DESIGN STRESSES (Existing)
 $f_c = 1,400$ psi (Super. & Sub.)
 $f_s = 20,000$ psi (Reinf. & Str.)
 $V_c = 75$ psi (Figs)
 $n = 10$



David Carl Puzey 3/1/12
 Expires 11/30/12

FILE NAME : c:\p\work\pvidot\steffenk\d0270599\d0270599.dgn	USER NAME : steffenk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION SN. 096-0039			F.A.I. RTE. 64	SECTION *	COUNTY Wayne	TOTAL SHEETS 22	SHEET NO. 14
PL0 SCALE : 40.0000 1/4" = 1'	PL0 DATE : 1/25/2012	DRAWN - KLB	REVISED -		SCALE: NA	SHEET NO. 1 OF 9 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			
		CHECKED - MEA	REVISED -						CONTRACT NO. 74536			
		DATE - 10/31/11	REVISED -						* D7 BRIDGE REPAIRS 2012-2			

GENERAL NOTES

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 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.

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

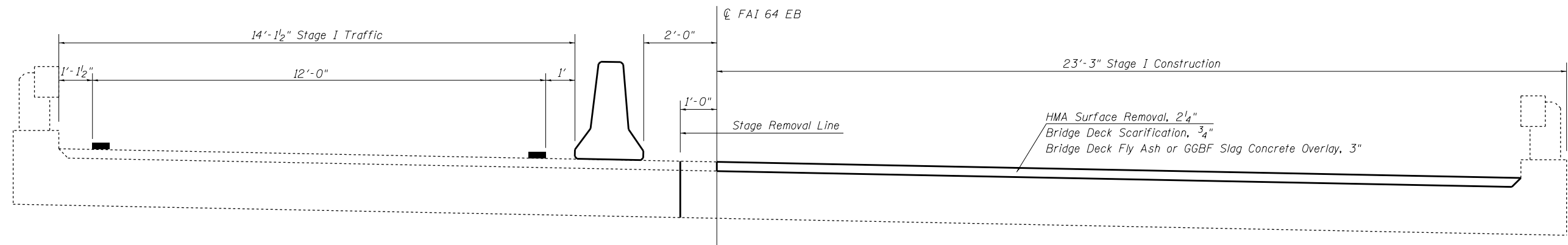
Reinforcement Bars designated (E) shall be epoxy coated.

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 operations shall be replaced using an approved bar splicer or anchorage system. Cost included in CONCRETE REMOVAL.

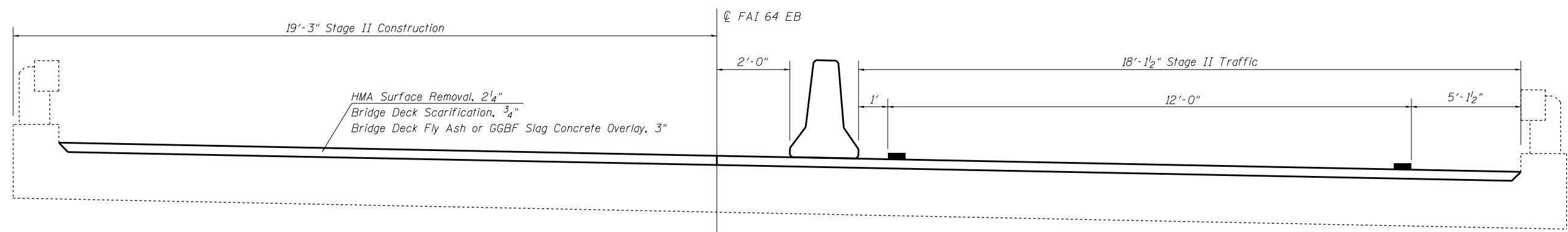
Prior to pouring the new concrete, all heavy and loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete, including the existing rocker bearings. Tightly adhered paint may remain unless otherwise noted. Removal 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.

TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	9.0
Concrete Superstructure	Cu. Yd.	17.6
Reinforcement Bars, Epoxy Coated	Pound	880
Bar Splicers	Each	8
Mechanical Splicers	Each	80
Protective Coat	Sq Yd	14
HMA Surface Removal, 2 1/4"	Sq Yd	434
Bridge Deck Scarification, 3/4"	Sq Yd	434
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 3"	Sq Yd	441
Bridge Deck Grooving	Sq Yd	441



STAGE I LOOKING EAST

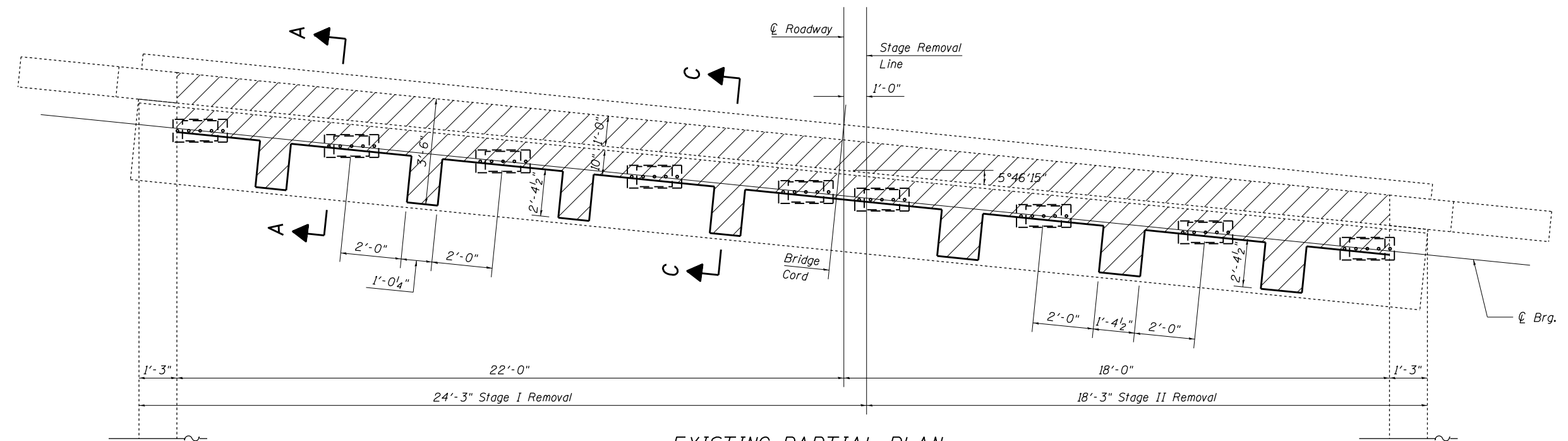


STAGE II LOOKING EAST

NOTE: NOT TO SCALE

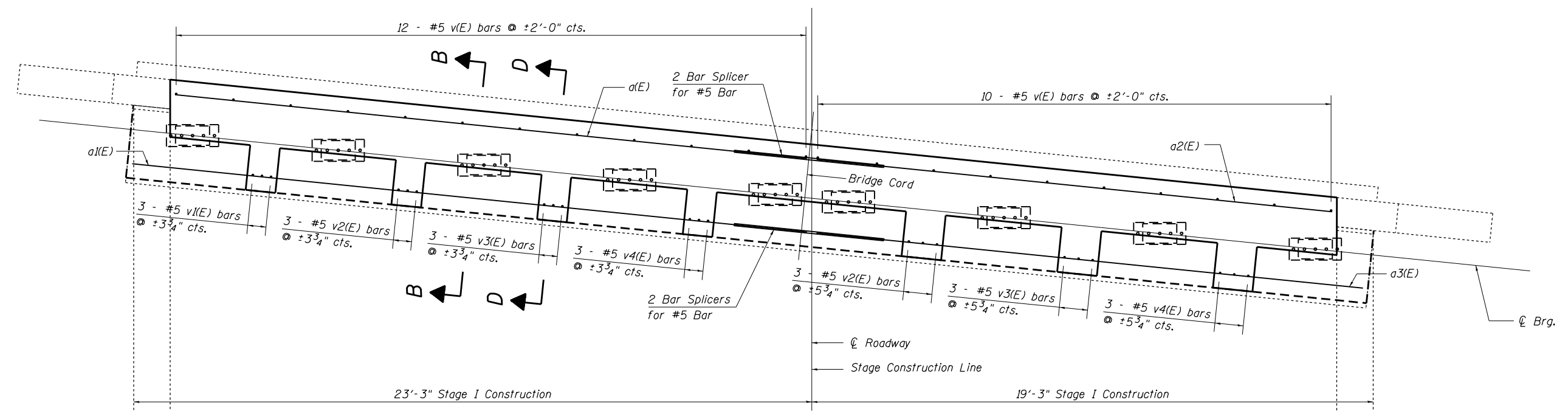
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ct:\pw\work\p\dot\stefmk\d0270599\074536-sht-brgennote-0960039.dgn	DRAWN - KLB	REVISED -	64					.	Wayne	22	15	
PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -	CONTRACT NO. 74536									
PLOT DATE = 1/25/2012	DATE - 10/31/11	REVISED -	ILLINOIS FED. AID PROJECT									

Hatching indicates removal.



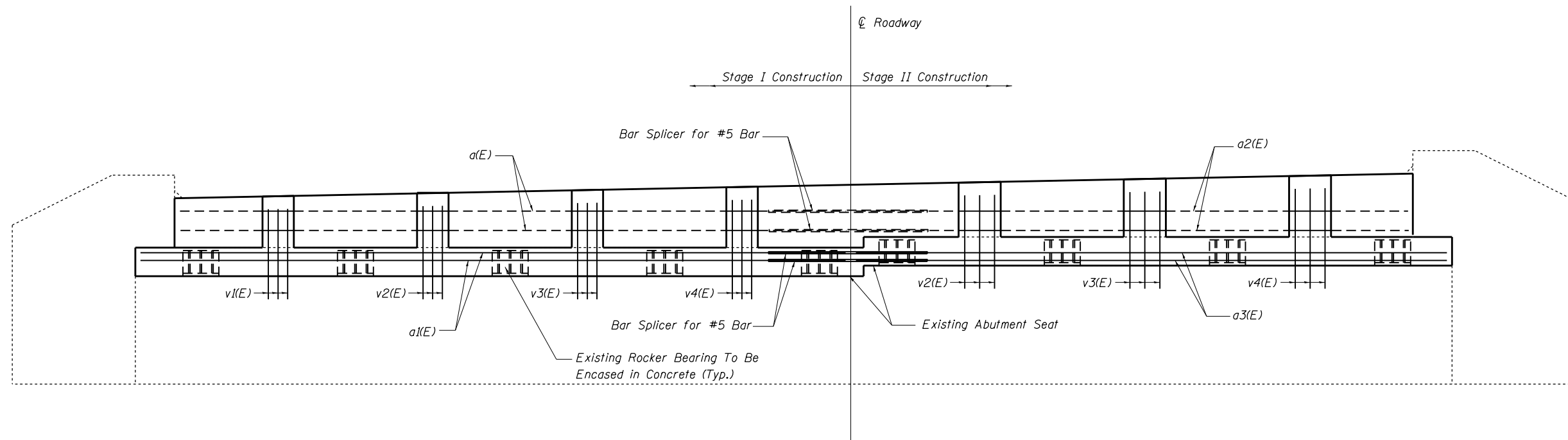
EXISTING PARTIAL PLAN
(West Abutment shown; East Abutment similar)

For Section A-A, B-B, C-C and D-D, see Sheet 5 of 9.



PROPOSED PARTIAL PLAN
(West Abutment shown; East Abutment similar)

FILE NAME = c:\pw\work\p\dot\steffenmk\d0270599\074536-sht-brdetails-0960039.dgn	USER NAME = steffenmk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXPANSION JOINT ELIMINATION DETAILS SN. 096-0039			F.A.I. RTE. = 64	SECTION =	COUNTY = Wayne	TOTAL SHEETS = 22	SHEET NO. = 16
	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -					CONTRACT NO. 74536	ILLINOIS FED. AID PROJECT			
PLOT DATE = 1/25/2012	DATE = 10/31/11	REVISED -	REVISED -	SCALE:	SHEET NO. 3 OF 9 SHEETS	STA. TO STA.	• D7 BRIDGE REPAIRS 2012-2					

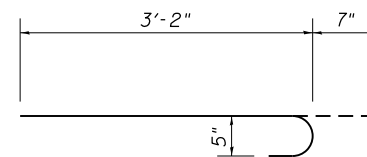


SECTION THRU END OF SLAB
(West Abutment shown; East Abutment similar)

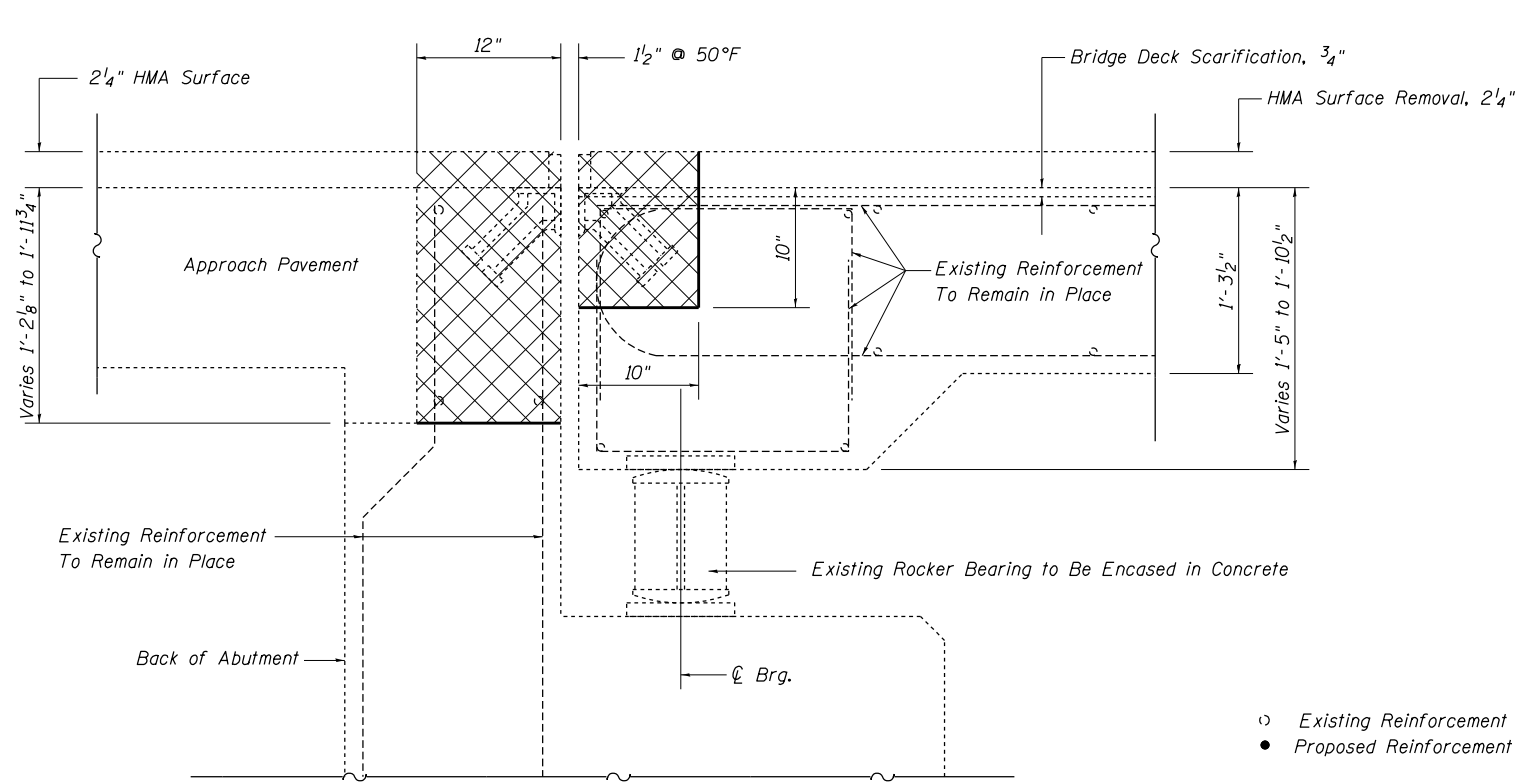
BILL OF MATERIAL

PER ABUTMENT

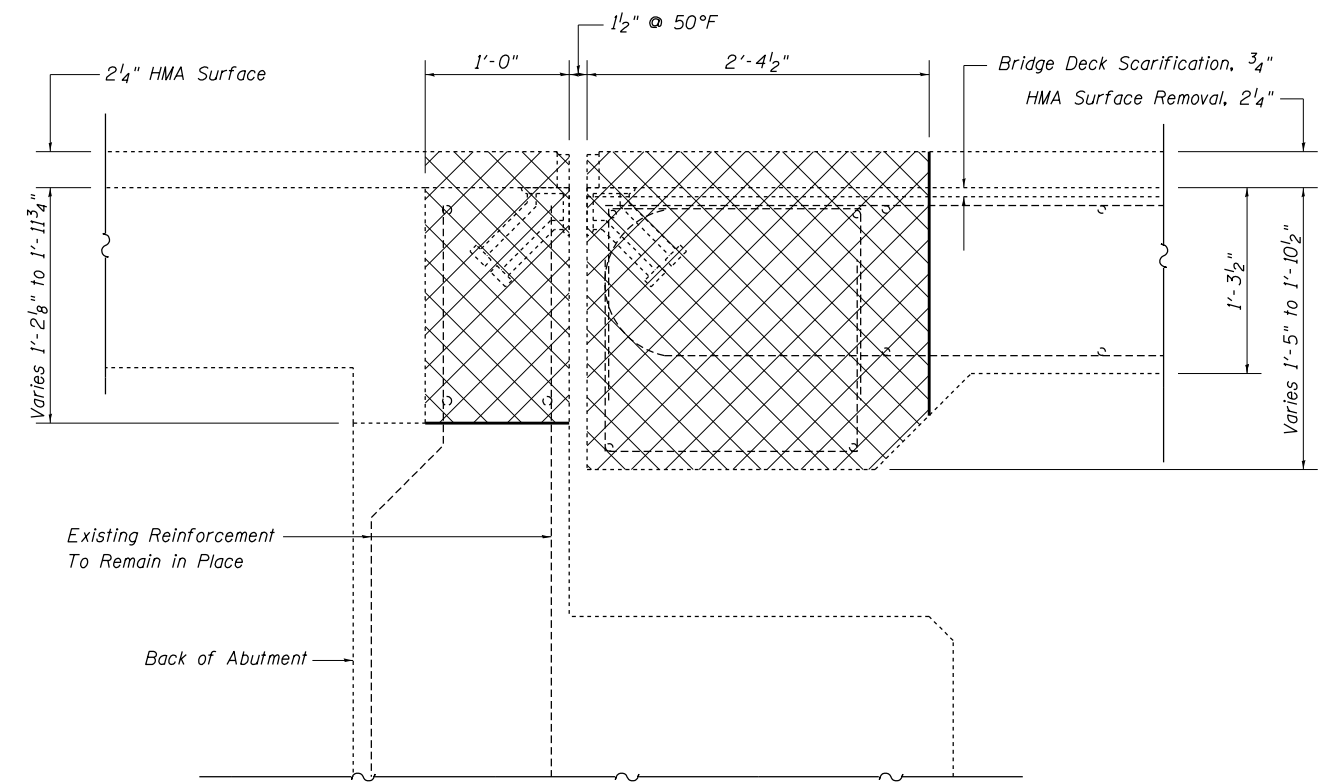
BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	2		2	#5	21'-9"	—
a1(E)	2		2	#5	22'-10½"	—
a2(E)		2	2	#5	17'-9"	—
a3(E)		2	2	#5	18'-10"	—
a4(E)	22	18	40	#5	3'-9"	⌋
v (E)	12	10	22	#5	1'-9½"	—
v1(E)	3		3	#5	2'-11"	—
v2(E)	3	3	6	#5	3'-0½"	—
v3(E)	3	3	6	#5	3'-1½"	—
v4(E)	3	3	6	#5	3'-3"	—
REINFORCEMENT BARS (EPOXY COATED)					POUND	440
CONCRETE REMOVAL					CU YD	4.5
CONCRETE SUPERSTRUCTURE					CU YD	8.8



Bar a4(E)



SECTION A-A
(Dimensions at Rt. L's to end of deck)

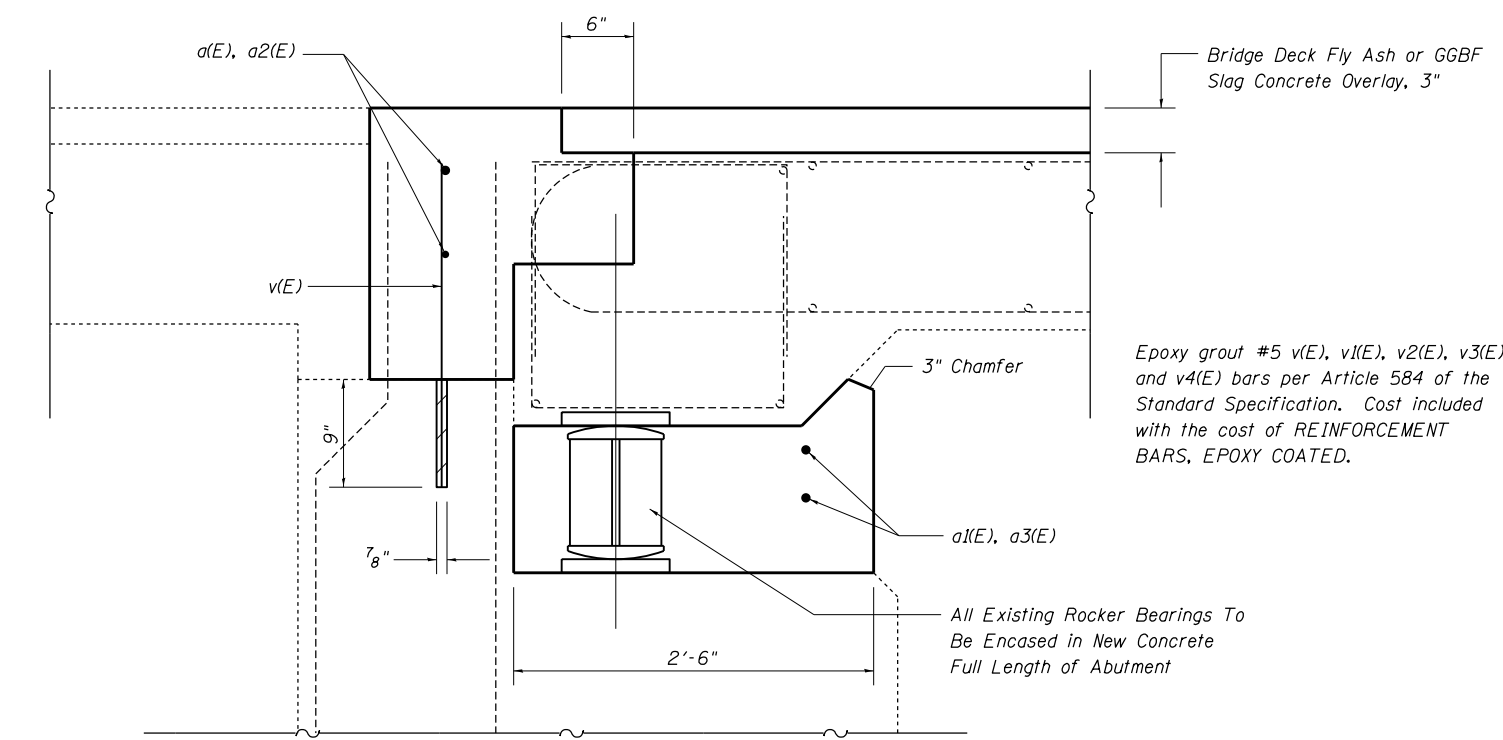


SECTION C-C
(Dimensions at Rt. L's to end of deck)

○ Existing Reinforcement
● Proposed Reinforcement

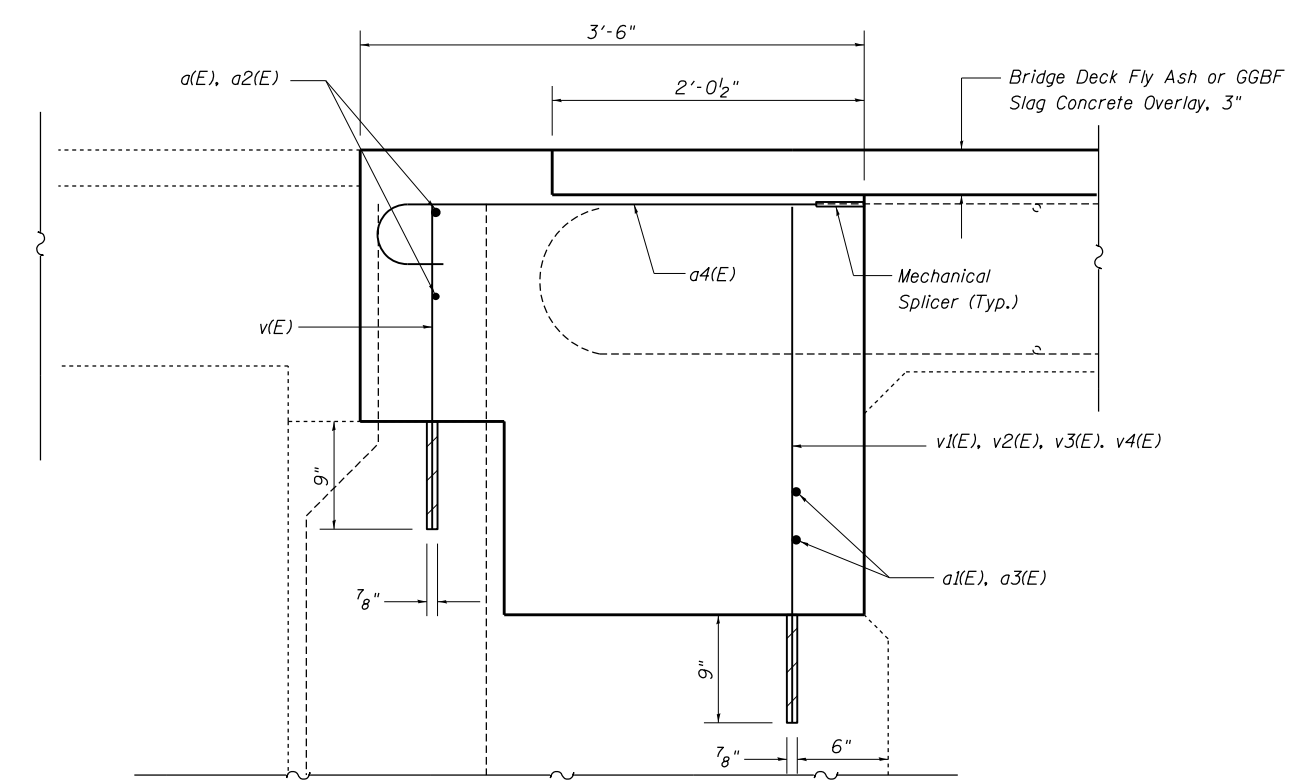
▨ Epoxy Grout

▩ Concrete Removal



SECTION B-B
(Dimensions at Rt. L's to end of deck)

Epoxy grout #5 v(E), v1(E), v2(E), v3(E) and v4(E) bars per Article 584 of the Standard Specification. Cost included with the cost of REINFORCEMENT BARS, EPOXY COATED.



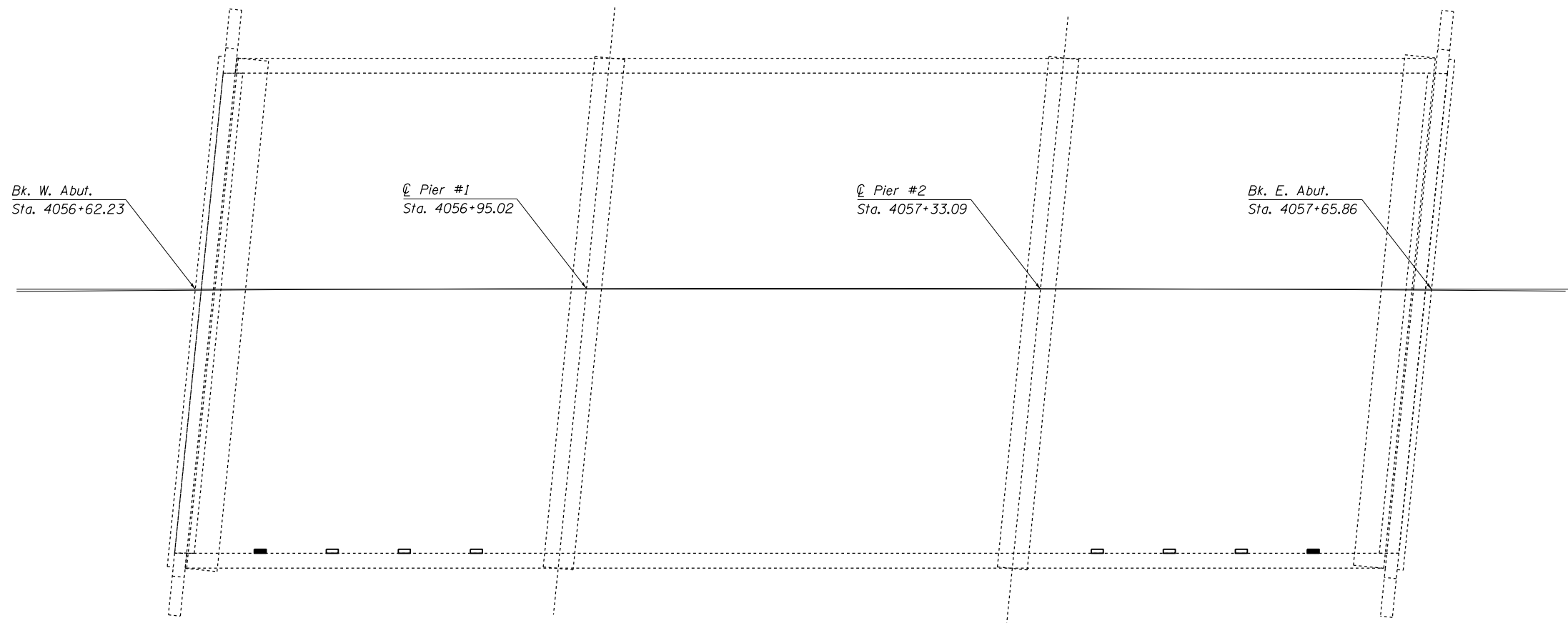
SECTION D-D
(Dimensions at Rt. L's to end of deck)

FILE NAME =	USER NAME = steffenmk	DESIGNED - KLB	REVISED -
ct:\pw\work\p\dot\steffenmk\d0270599\074536-sht-brdetails-0960039.dgn		DRAWN - KLB	REVISED -
		CHECKED - MEA	REVISED -
		DATE - 10/31/11	REVISED -

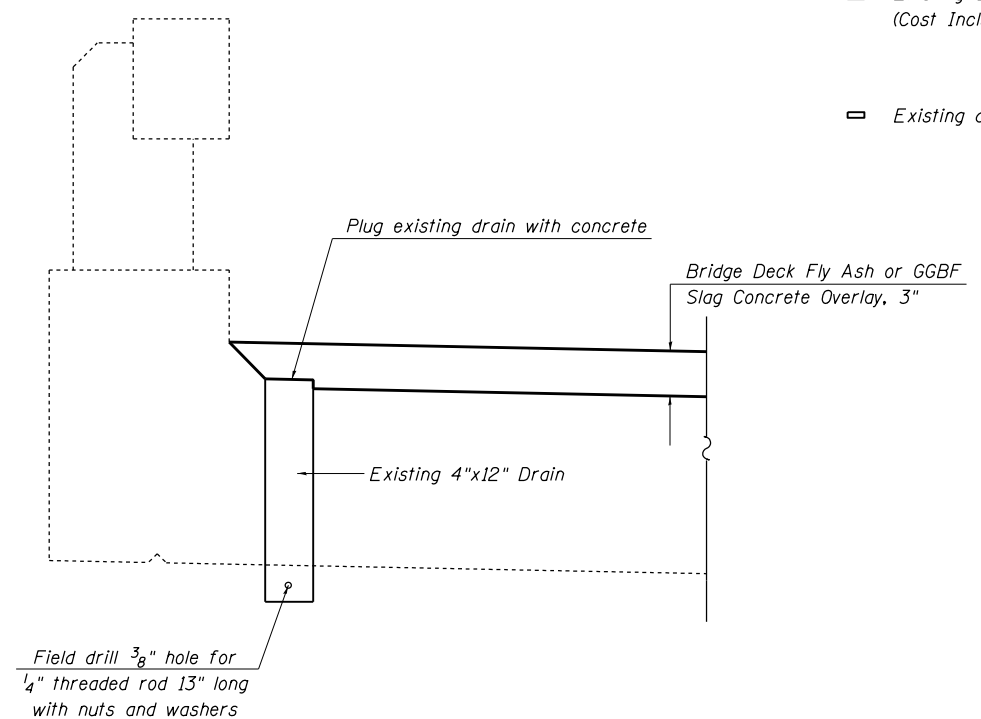
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT ELIMINATION DETAILS		
SN. 096-0039		
SCALE:	SHEET NO. 5 OF 9 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	•	Wayne	22	18
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74536	

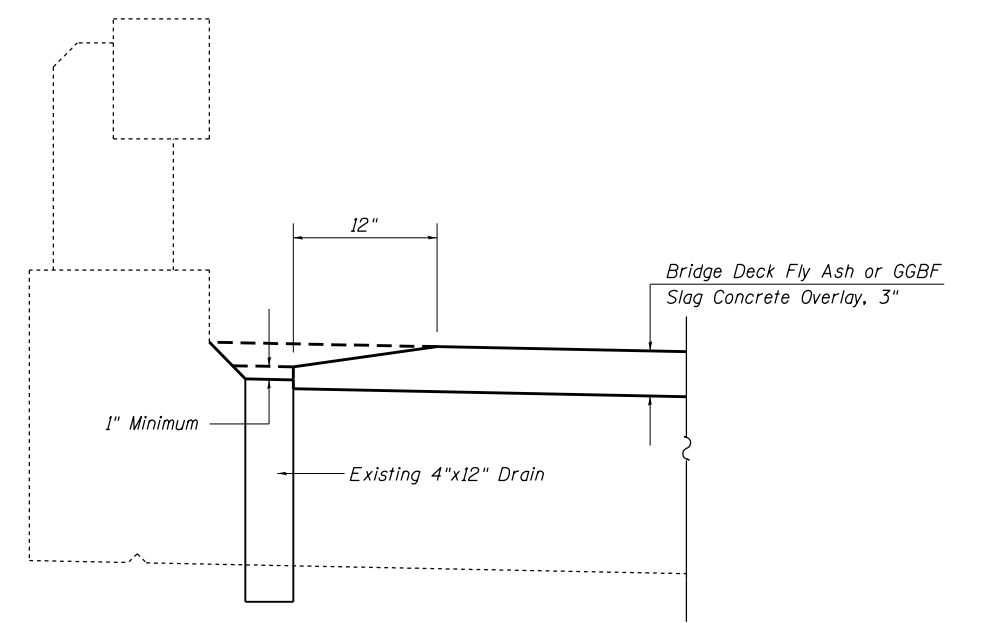


- Existing deck drain to be plugged = 2.0 Each
(Cost Included with Concrete Removal)
- Existing deck drain to remain open = 6.0 Each



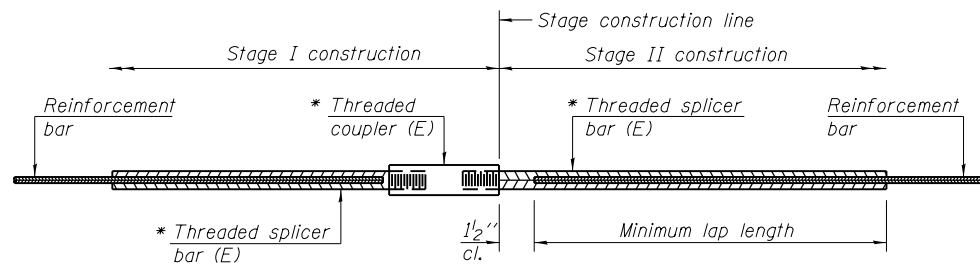
Field drill $\frac{3}{8}$ " hole for $\frac{1}{4}$ " threaded rod 13" long with nuts and washers

DRAINS TO BE PLUGGED DETAIL



DRAINS TO REMAIN OPEN

FILE NAME = c:\pwork\pwork\stef\enmk\d0270599\074536-sht-brdetails-0960039.dgn	USER NAME = stefenmk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FLOOR DRAIN DETAILS SN. 096-0039			F.A.I. RTE. = 64	SECTION =	COUNTY = Wayne	TOTAL SHEETS = 22	SHEET NO. = 19
	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -		SCALE:	SHEET NO. 6 OF 9 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 74536				
PLOT DATE = 1/25/2012	DATE -	REVISED -			• D7 BRIDGE REPAIRS 2012-2							



STANDARD BAR SPLICER ASSEMBLY

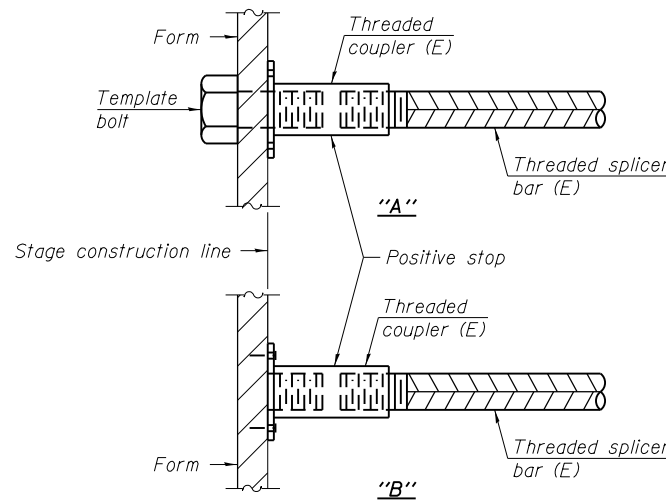
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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 1/2" + thread length

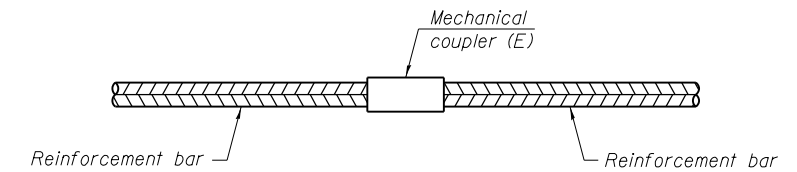
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
096-0039	#5	8	Table 3



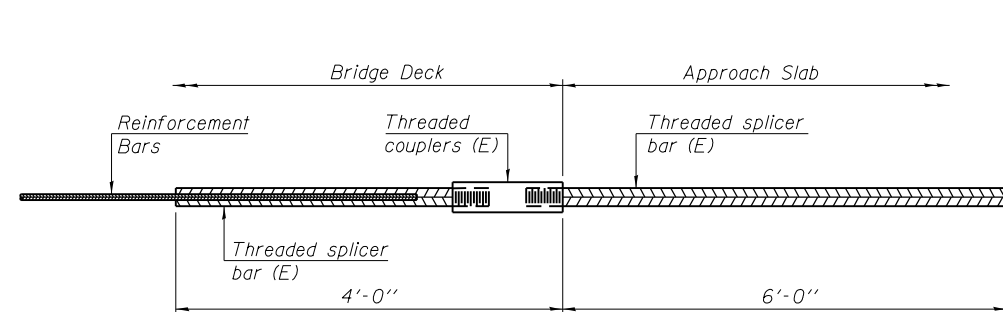
INSTALLATION AND SETTING METHODS

"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.



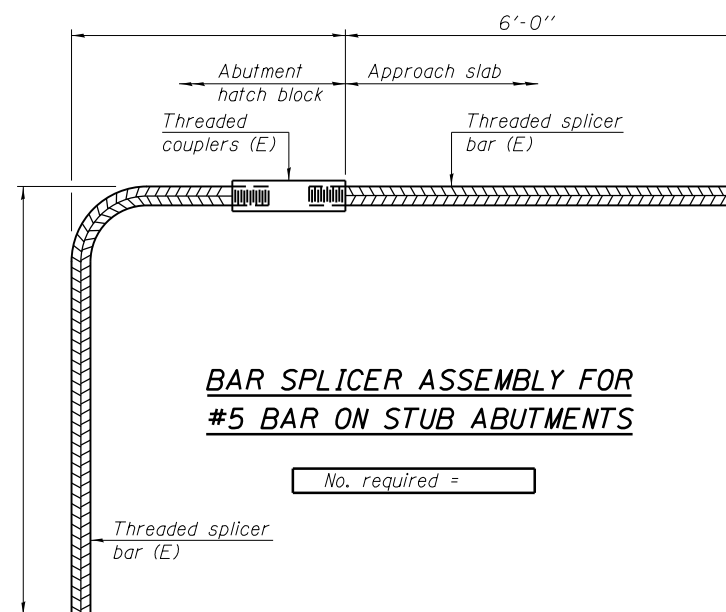
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
096-0039	#5	80



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

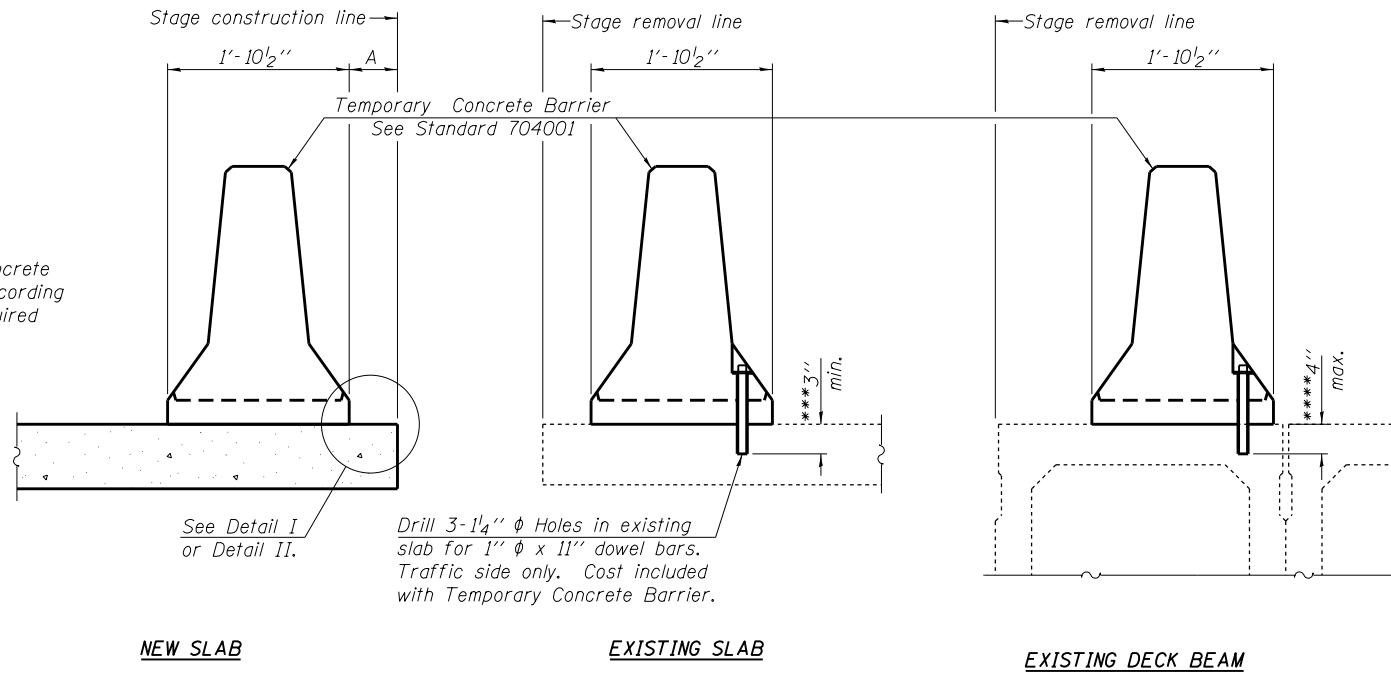
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.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

BSD-1

7-1-10

FILE NAME =	USER NAME = steffenmk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 096-0039	F.A.I. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pw\work\p\dot\steffenmk\d0270599\074536-sht-br-details-0960039.dgn	DRAWN - KLB	REVISED -	64			.	Wayne	22	21	
PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -	CONTRACT NO. 74536							
PLOT DATE = 1/25/2012	DATE - 10/31/11	REVISED -	ILLINOIS FED. AID PROJECT							
SCALE:		SHEET NO. 8 OF 9 SHEETS		STA. TO STA.		• D7 BRIDGE REPAIRS 2012-2				

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

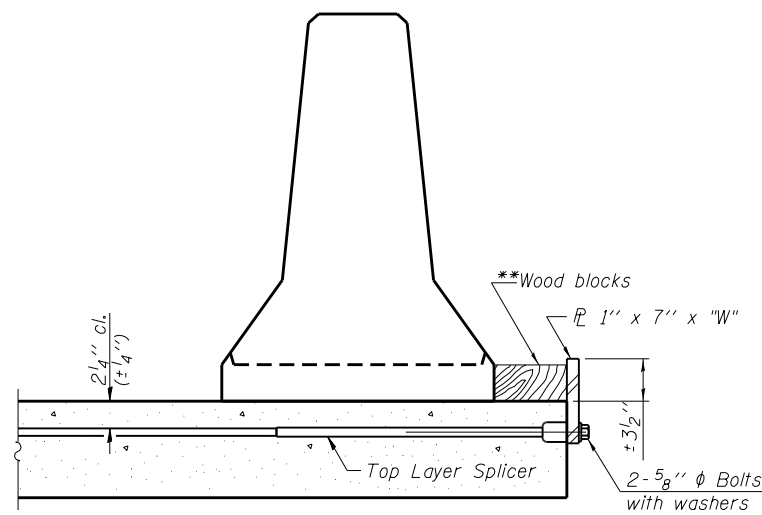
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" phi bolts screwed to coupler at approximate C of each barrier panel.

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" phi Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

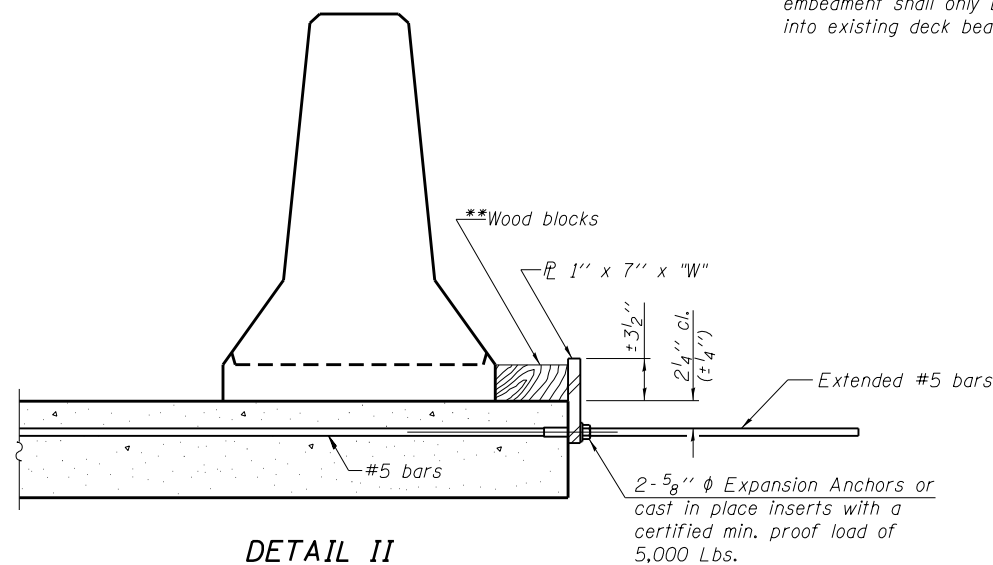
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

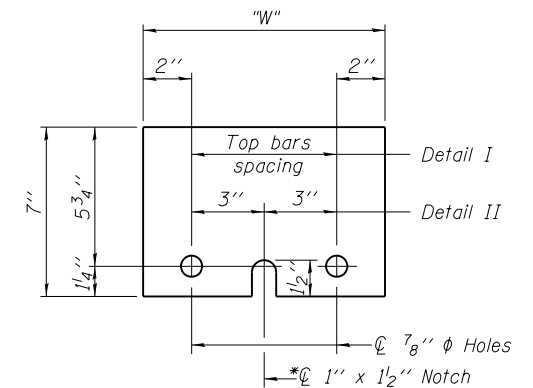
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



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

* Required only with 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"

R-27 7-1-10

FILE NAME =	USER NAME = steffemk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 096-0039	F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw\work\p\dot\stefemk\d0270599\074536-sht-brdetails-0960039.dgn	DRAWN - KLB	REVISED -	64			.	Wayne	22	22	
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 74536							
PLOT DATE = 1/25/2012	DATE - 10/31/11	REVISED -	ILLINOIS FED. AID PROJECT							
				SCALE:	SHEET NO. 9 OF 9 SHEETS	STA.	TO STA.		* D7 BRIDGE REPAIRS 2012-2	