

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

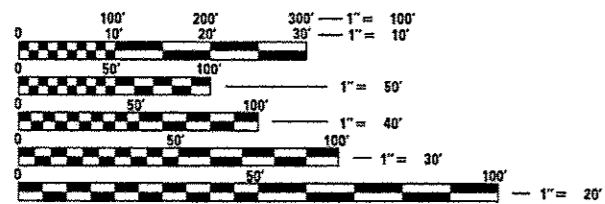
FAP ROUTE 861(IL 4 /150)
SECTION 110-BR

BRIDGE REHABILITATION
RANDOLPH COUNTY

C-98-046-12

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
861	110-BR	RANDOLPH	20	1
		ILLINOIS	CONTRACT NO. 76F53	

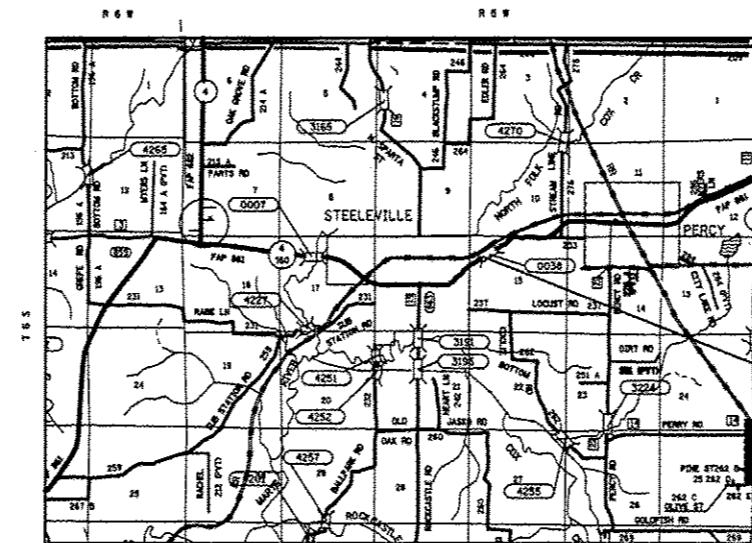
FOR INDEX OF SHEETS, SEE SHEET NO. 2



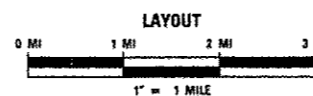
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DESIGN DESIGNATION
NA



PROJECT LOCATION
SN 079-0038
STA. 824 + 78.5
LAT: 38.0113
LONG: -89.6461



PROJECT ENGINEER: PATTI LeBEAU (618)346-3179
PROJECT MANAGER: REBECCA THARP (618)346-3323
CONTRACT NO. 76F53

ADT
2011 = 5350 (ACTUAL)
2013 = 5500 (ESTIMATED)
2033 = 6700 (ESTIMATED)
SU = 3.6% MU = 14.0%

GROSS LENGTH = 193 FT. = 0.0366 MILE
NET LENGTH = 193 FT. = 0.0366 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 12, 2012
Chris Osmon
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

August 17, 2012
John D. Baranowski P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

August 17, 2012
William R. Freiler
acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

GENERAL NOTES

1 ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

- AMEREN ILLINOIS
- EGYPTIAN TELEPHONE COOP. ASSN.
- FRONTIER NORTH, INC.
- NEW WAVE COMMUNICATIONS
- VILLAGE OF STEELEVILLE

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY •. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

- 2 THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING AND TOPOGRAPHY SHOWN IN THE PLANS WAS CREATED USING MICROFILM AND FIELD MEASUREMENTS. BOTH SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 3 A QUANTITY OF 1025 FEET OF "TEMPORARY PAVEMENT MARKING - LINE 6" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.
- 4 THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.
- 5 ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES UNLESS OTHERWISE NOTED IN THE PLANS.
- 6 ALL TURF AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 7 THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

MIXTURE USE	SURFACE	BINDER/WIDENING	SHOULDERS ≥ 2.25"	SHOULDERS < 2.25"
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPEC.	SEE SPEC.	SEE CONTRACT RAP SPECIAL PROVISION	SEE CONTRACT RAP SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=90	4.0% @ Ndes=90	**2.0% @ Ndes=30	**2.0% @ Ndes=30
MIX COMPOSITION (GRADATION MIXTURE)	IL 12.5/9.5	IL 19.0	NMAS 3/4"	NMAS 1/2"
FRICTION AGG	MIXTURE "D"	MIXTURE "B"		

**TOP LIFT SHOULDERS - DESIGN THIS MIX AT 2.0% VOIDS AND ADD ASPHALT TO REDUCE VOIDS TO 1.5%.

PLAN QUANTITIES FOR BITUMINOUS CONCRETE SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 lb/sq yd/ln (59.8kg/sq m/25mm THICKNESS)

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES, INDEX OF SHEETS, STANDARDS AND COMMITMENTS
- 3-5 SUMMARY OF QUANTITIES
- 6 SCHEDULES
- 7 TYPICAL SECTIONS
- 8-9 STAGE 1 TRAFFIC CONTROL
- 10-11 STAGE 2 TRAFFIC CONTROL
- 12-20 BRIDGE PLANS

COMMITMENTS

NONE

STANDARDS

- 000001-06
- 001001-02
- 001006
- 635011-02
- 701311-03
- 701321-12
- 701326-04
- 701901-02
- 704001-07
- 780001-03
- 781001-03

FILE NAME *	USER NAME * chollandeske	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS, STANDARDS AND COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE * 1/8"=1'-0" / in.	CHECKED -	REVISED -			CONTRACT NO. 76F53					
	PLOT DATE * 7/12/2012	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE: NONE	SHEET 1 OF 1 SHEETS		STA.	TO STA.		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014 100% STATE		
35501319	HOT-MIX ASPHALT BASE COURSE, 8 3/4"	SQ YD	163	163		
40603345	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	74.4	74.4		
44004250	PAVED SHOULDER REMOVAL	SQ YD	163	163		
50102400	CONCRETE REMOVAL	CU YD	13.6	13.6		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	13.2	13.2		
50300300	PROTECTIVE COAT	SQ YD	32	32		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1760	1760		
50800515	BAR SPLICERS	EACH	24	24		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	92	92		
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	892	892		
67100100	MOBILIZATION	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION STANDARD 70132.6	L SUM	1	1		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6		

FILE NAME *	USER NAME * ohallandeske	DESIGNED -	REVISED -
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	PLOT SCALE * 1/8"=1'-0"	CHECKED -	REVISED -
	PLOT DATE * 7/12/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE	SHEET 1	OF 3	SHEETS	STA.	TO STA.	F.A.P RTE. 861	SECTION 110-BR	COUNTY RANDOLPH	TOTAL SHEETS 20	SHEET NO. 3
						CONTRACT NO. 76F53				
ILLINOIS FED. AID PROJECT										

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014 100% STATE		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1740	1740		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1025	1025		
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	25	25		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	630	630		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	437.5	437.5		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	412.5	412.5		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1740	1740		
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	568	568		
X5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1		
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1		
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	877	877		

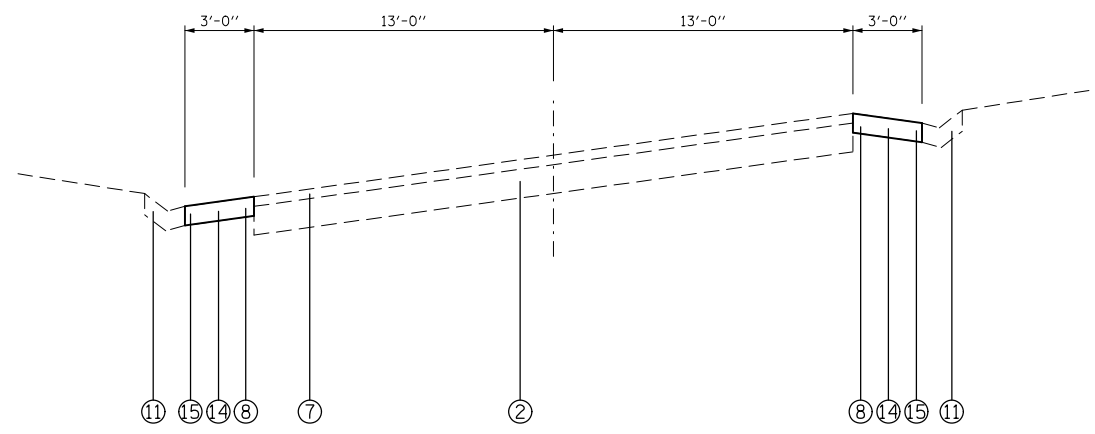
*** SPECIALTY ITEM**

FILE NAME =	USER NAME = cholland@skh	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = 7/12/2012		DATE -	REVISED -			ILLINOIS FED. AID PROJECT CONTRACT NO. 76F53					

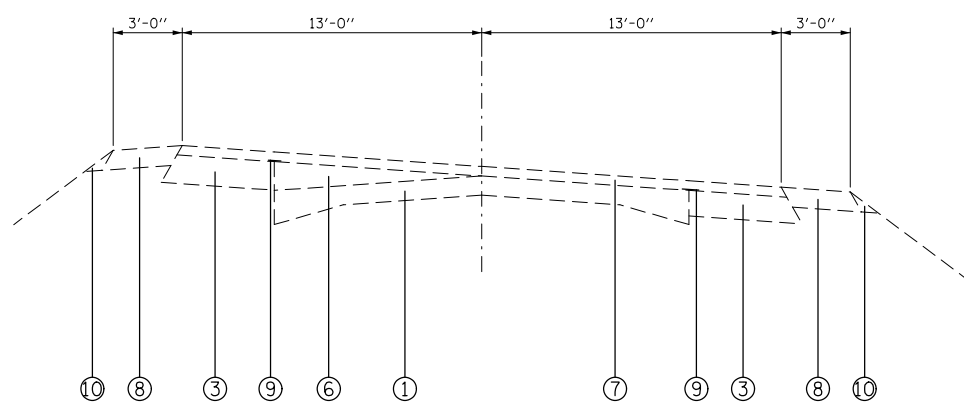
PAVEMENT MARKING SCHEDULE												
				THERMOPLASTIC PAVEMENT MARKING			TEMPORARY PAVEMENT MARKING			WORK ZONE	RAISED	
				EDGE LINE	CENTERLINE	CENTERLINE	EDGE LINE	CENTERLINE	CENTERLINE	STOP BAR	PAVEMENT	REFLECTIVE
				SOLID	SKIP-DASH	SOLID	SOLID	SKIP-DASH	SOLID	SOLID	MARKING	PAVEMENT
				4" WHITE	4" YELLOW	4" YELLOW	4" WHITE	4" YELLOW	4" YELLOW	24" WHITE	REMOVAL	MARKER (BRIDGE)
				FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	EACH
STA.	821+50.40	TO	STA 827+13.75	1126.7	140.8		1126.70	140.84			422.5	
STA.	822+41.00	TO	STA 827+13.75			472.8			472.75		157.6	
STA.	823+82.00	TO	STA 825+75.00									3
			STA 820+62						12	24		
			STA 828+47						13	26		
SUB-TOTAL				1126.7	140.8	472.8	1126.7	140.8	472.8	25	630.1	3
GRAND TOTAL				1,740			1,740			25	630	3

PAVING SCHEDULE					
			HOT-MIX	PAVED	
			ASPHALT	SHOULDER	
STATION			BASE COURSE 8 3/4"	REMOVAL	
STAGE 1			SQ YD	SQ YD	
WB	822+70.00	TO 823+67.00	43.11	43.11	
EB	825+90.00	TO 827+13.75	41.25	41.25	
STAGE 2					
WB	822+82.50	TO 823+67.00	37.56	37.56	
EB	825+90.00	TO 827+13.75	41.25	41.25	
TOTAL			163	163	

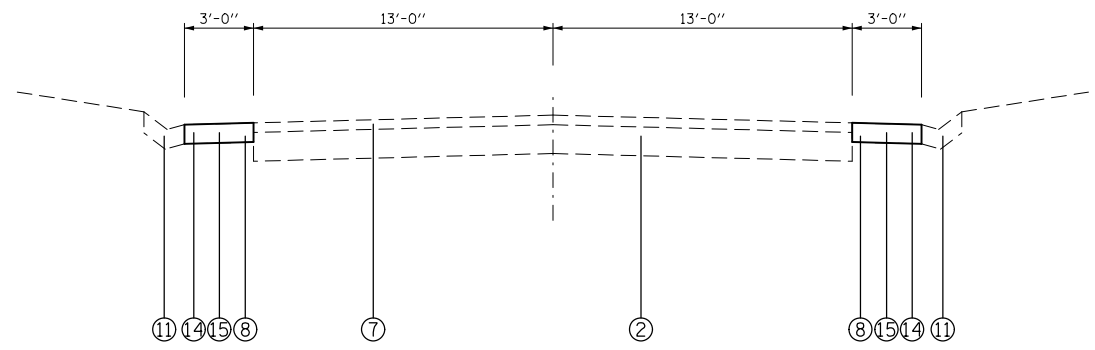
STAGING SCHEDULE							
	TEMPORARY	RELOCATE	IMPACT ATTENUATORS	IMPACT ATTENUATORS	IMPACT ATTENUATORS	IMPACT ATTENUATORS	
	CONCRETE	CONCRETE	TEMPORARY	RELOCATE	TEMPORARY	RELOCATE	TEMPORARY
	BARRIER	BARRIER	(NON-REDIRECTIVE, NARROW),	(NON-REDIRECTIVE, NARROW),	(NON-REDIRECTIVE),	(NON-REDIRECTIVE),	RUMBLE
STAGE	TEST LEVEL 3	TEST LEVEL 3	TEST LEVEL 3	TEST LEVEL 3	TEST LEVEL 3	TEST LEVEL 3	STRIP
	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH
STAGE I	437.5		1		1		
STAGE II		412.5		1		1	
STAGE I & II							6
							1
TOTAL	437.5	412.5	1	1	1	1	6



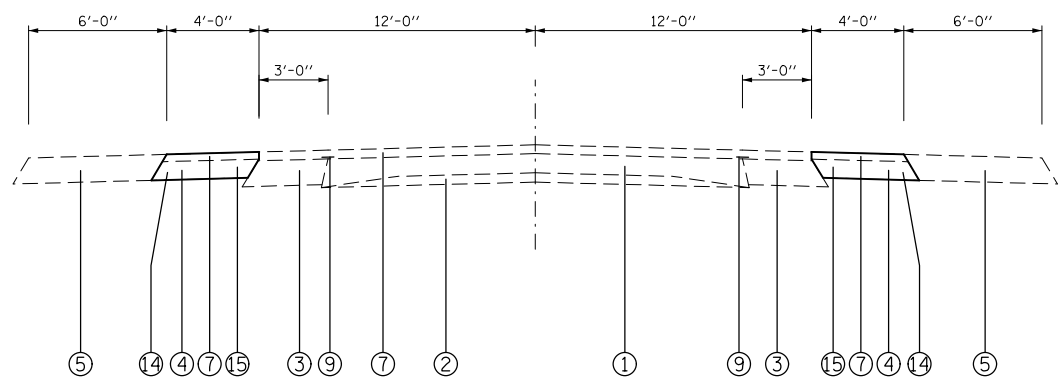
STA. ±826+82 TO STA. ±828+18
(SHOULDER WORK STA. ±826+82 TO STA. ±827+13.75)



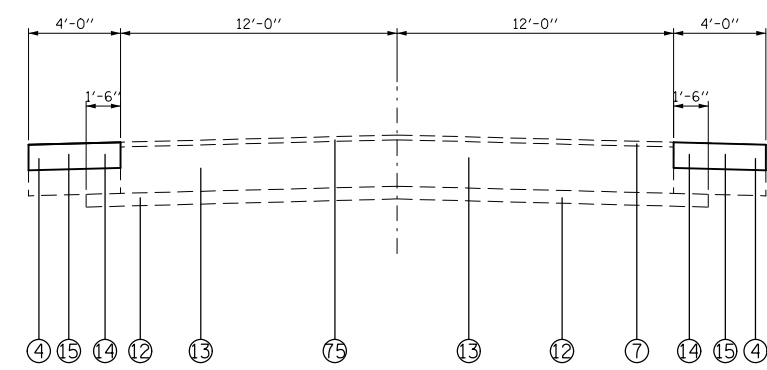
STA. ±828+18 TO STA. ±837+33



STA. ±826+25 TO STA. ±826+82



STA. ±808+61 TO STA. ±823+32
LT STA. ±822+70 TO STA. ±823+32
RT STA. ±822+82.5 TO STA. ±823+32



STA. ±823+32 TO STA. ±823+82
STA. ±825+75 TO STA. ±826+25*
LT STA. ±823+32 TO STA. ±823+67
LT STA. ±825+90 TO STA. ±826+25
RT STA. ±823+32 TO STA. ±823+67
RT STA. 825+90 TO STA. ±826+25

*STA. ±825+75 TO STA. ±826+25
HAS 3' SHOULDERS

- 1 EXISTING 18" (9'-6'-9') PAVEMENT WITH 1/2" * DEFORMED BARS & 3/4" * SMOOTH BARS
- 2 EXISTING BITUMINOUS BASE COURSE 9"
- 3 EXISTING BASE COURSE WIDENING
- 4 EXISTING BITUMINOUS SHOULDERS 8"
- 5 EXISTING AGGREGATE SHOULDERS 8"
- 6 EXISTING LEVELING BINDER (MM) MIX C, TYPE 2 (3/4" AND VARIES)
- 7 EXISTING BITUMINOUS CONCRETE SURFACE COURSE, MIX D, CLASS I TYPE 2 - 1 1/2"
- 8 EXISTING BITUMINOUS SHOULDERS - 6"
- 9 EXISTING STRIP REFLECTIVE CRACK CONTROL TREATMENT
- 10 EXISTING AGGREGATE SHOULDERS, TYPE B
- 11 EXISTING TYPE B GUTTER
- 12 EXISTING SUB-BASE 4"
- 13 EXISTING CONCRETE PAVEMENT - 14 1/2"
- 14 PROPOSED PAVED SHOULDER REMOVAL
- 15 PROPOSED HOT-MIX ASPHALT BASE COURSE, 8 3/4"

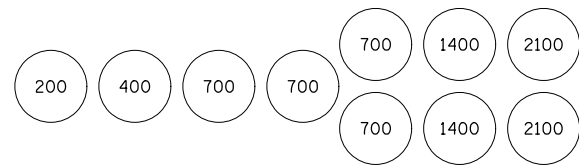
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

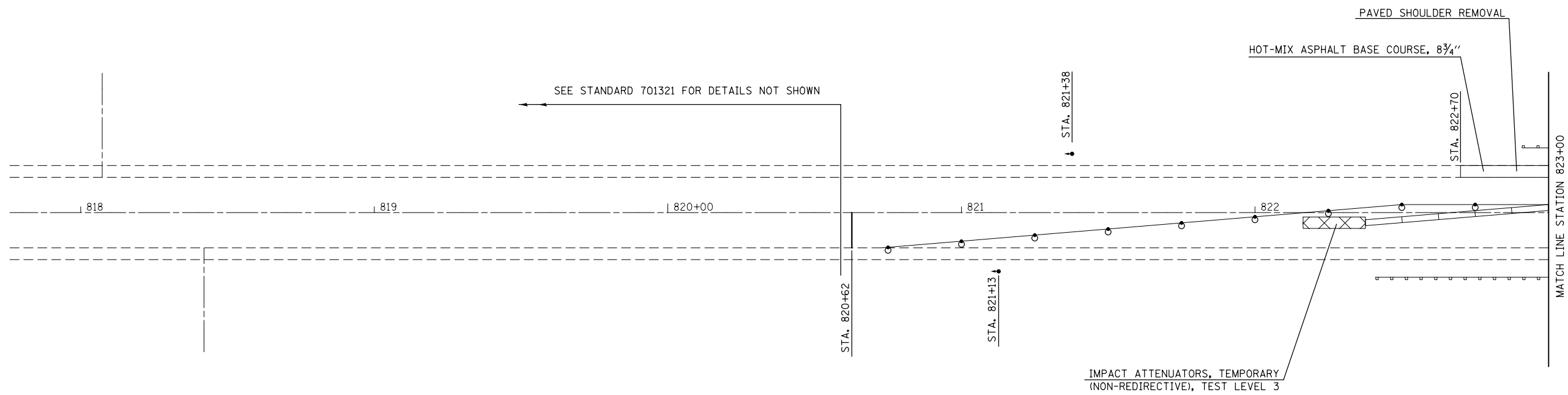
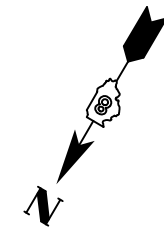
TYPICAL SECTIONS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

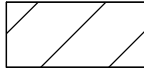





F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
861	110-BR	RANDOLPH	20	7
CONTRACT NO. 76F53			ILLINOIS FED. AID PROJECT	

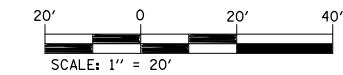


SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)
EAST END ONLY



LEGEND

-  WORK AREA
-  IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER
-  TEMPORARY BRIDGE TRAFFIC SIGNALS
-  BARRELS WITH STEADY BURNING BI-DIRECTIONAL LIGHTS
-  TYPE III BARRICADE



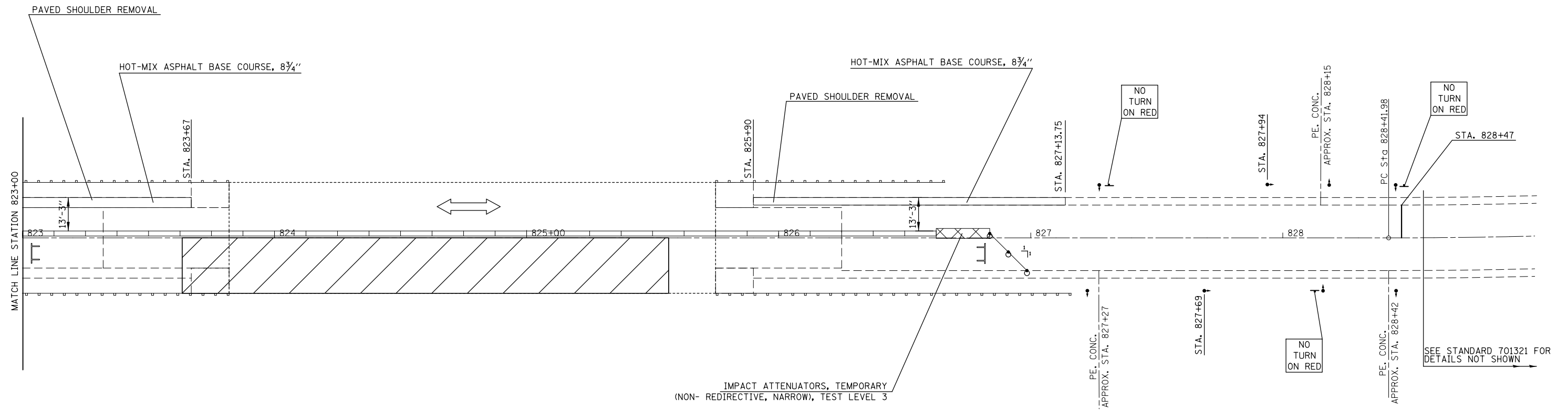
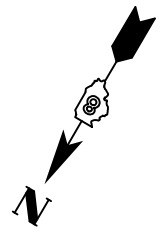
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

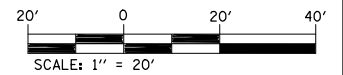
STAGE 1 TRAFFIC CONTROL

SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. 818+00 TO STA. 823+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
861	110-BR	RANDOLPH	20	8
CONTRACT NO. 76F53				
ILLINOIS FED. AID PROJECT				



SEQUENCE OF CONSTRUCTION - STAGE 1
 REMOVE SHOULDERS AS SHOWN ON PLANS FOR PAVED SHOULDER REMOVAL.
 PLACE HOT-MIX ASPHALT BASE COURSE, 8 3/4" AS SPECIFIED IN THE PLANS.
 PLACE STOP BARS AS SHOWN ON PLANS.
 REMOVE SKIP-DASH PAVEMENT MARKING BETWEEN STOP BARS
 PLACE 437.5 FEET TEMPORARY CONCRETE BARRIER AND PLACE IMPACT ATTENUATORS, TEMPORARY.
 PREFORM ALL WORK NECESSARY FOR STAGE I CONSTRUCTION.



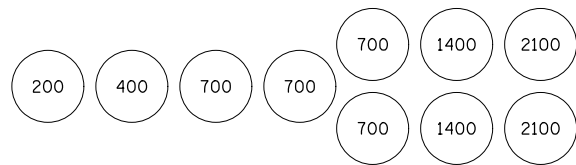
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

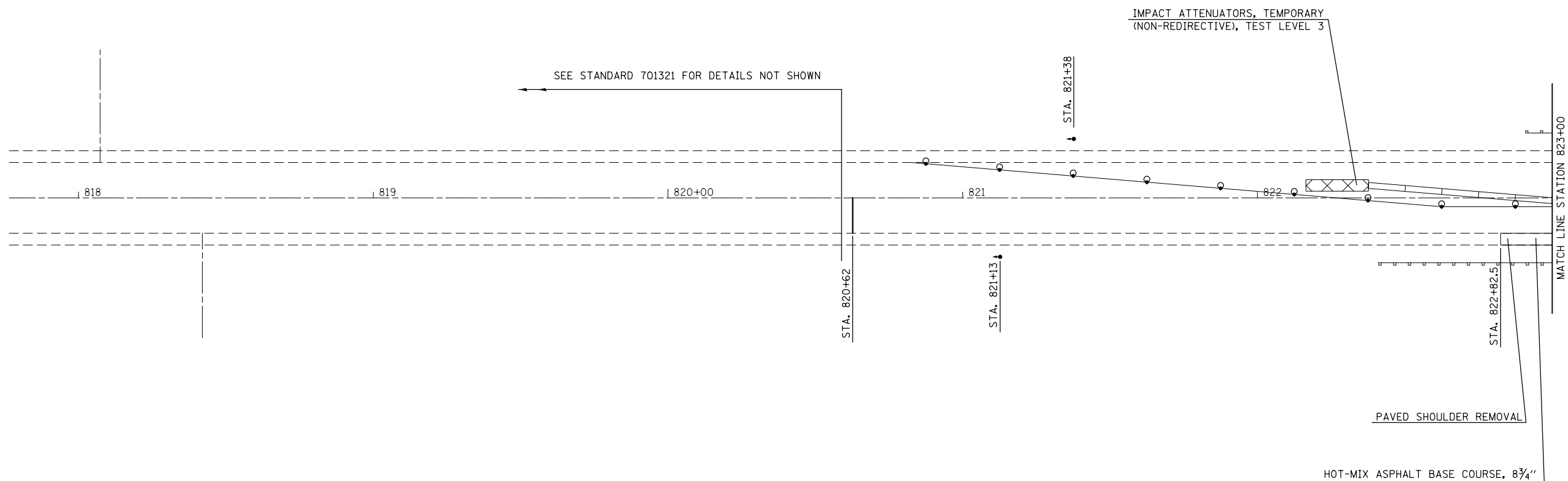
STAGE 1 TRAFFIC CONTROL

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. 823+00 TO STA. 829+00

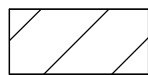





F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
861	110-BR	RANDOLPH	20	9
CONTRACT NO. 76F53				
ILLINOIS FED. AID PROJECT				

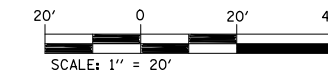


SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)
EAST END ONLY



LEGEND

-  WORK AREA
-  IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER
-  TEMPORARY BRIDGE TRAFFIC SIGNALS
-  BARRELS WITH STEADY BURNING BI-DIRECTIONAL LIGHTS
-  TYPE III BARRICADE



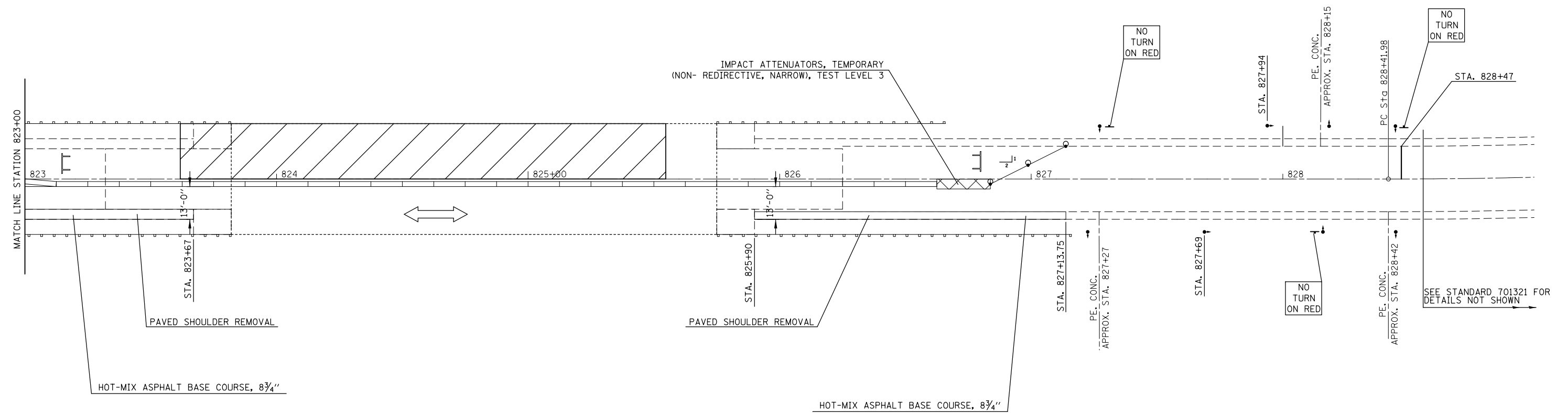
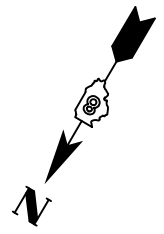
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	PLOT DATE = 7/12/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

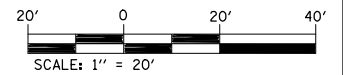
STAGE 2 TRAFFIC CONTROL

SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. 818+00 TO STA. 823+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
861	110-BR	RANDOLPH	20	10
CONTRACT NO. 76F53				
ILLINOIS FED. AID PROJECT				



SEQUENCE OF CONSTRUCTION STAGE II
 REMOVE SHOULDERS AS SHOWN ON PLANS FOR PAVED SHOULDER REMOVAL.
 PLACE HOT-MIX ASPHALT BASE COURSE, 8 3/4" AS SPECIFIED IN THE PLANS.
 RELOCATE 412.5 FEET OF TEMPORARY CONCRETE BARRIER AND PLACE IMPACT ATTENUATORS, TEMPORARY.
 PERFORM ALL WORK NECESSARY FOR STAGE II CONSTRUCTION.



FILE NAME =	USER NAME = challandeske	DESIGNED -	REVISED -
et:\pw\work\p\midot\challandeske\d0292381\0876F53-staging.dgn		DRAWN -	REVISED -
Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/12/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STAGE 2 TRAFFIC CONTROL

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. 823+00 TO STA. 829+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
861	110-BR	RANDOLPH	20	11
CONTRACT NO. 76F53				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

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 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 surface tined according to Article 420.09(e)1 of the Standard Specifications. Cost included with "Concrete Superstructure".

Cleaning and Painting of the existing structural steel and bearings shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Surfaces". All beams, bearings, deck drains and other structural steel within 5 feet (measured along the beam) of either side of the deck joints shall be cleaned per Near White Blast Cleaning-SSPC-SP10.

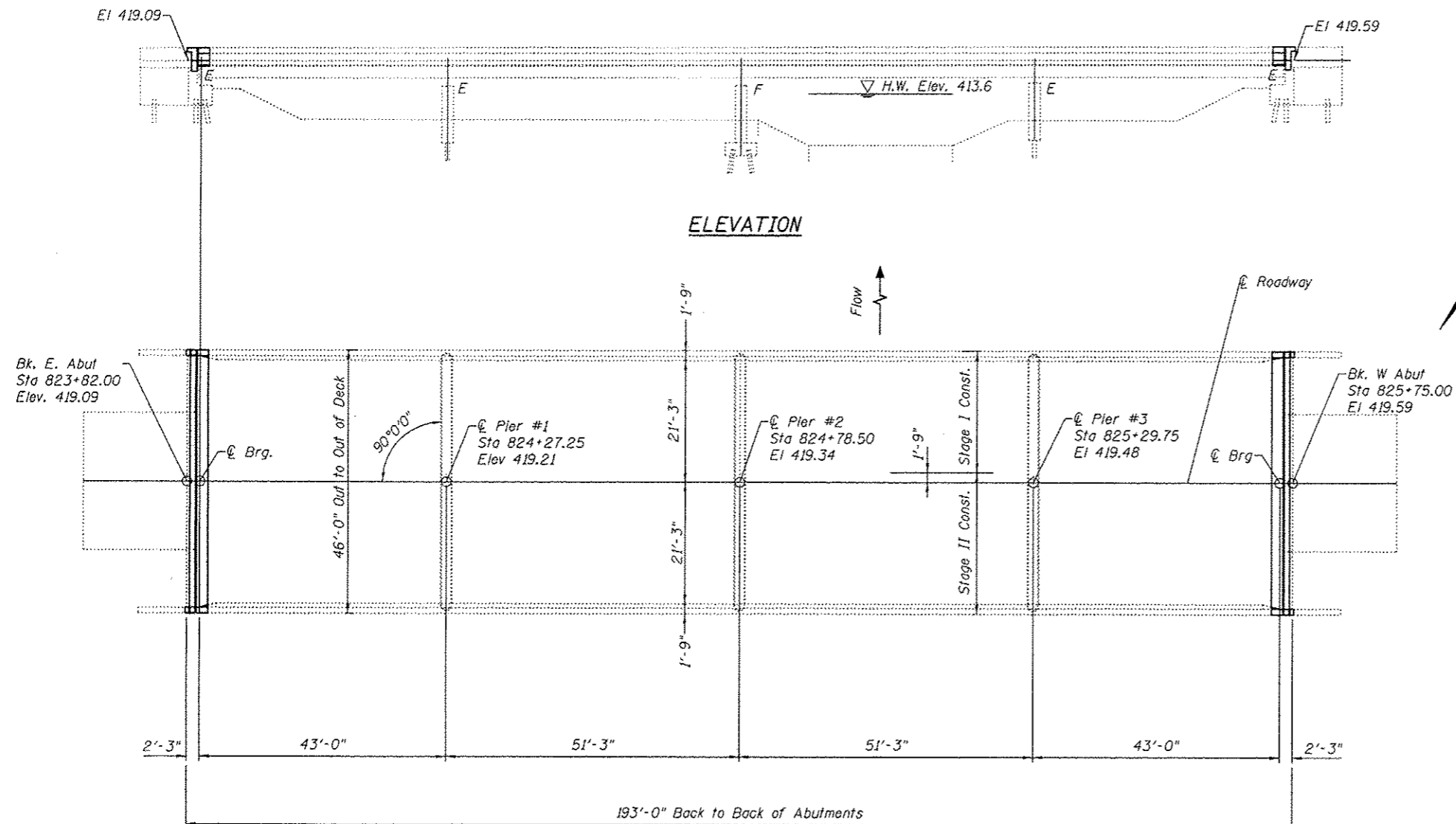
The designated areas cleaned per near white blast cleaning SSPC-SP10 shall be painted according to the requirements of paint system 1- OZ/E/U. The color of the final finish coat for all cleaned surfaces shall match the existing steel.

Containment of cleaning residue is required to control nuisance dust. See special provisions.

The existing coating does not contain lead. By specification, a Class 2A containment is required to contain nuisance dust from escaping into the environment.

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.

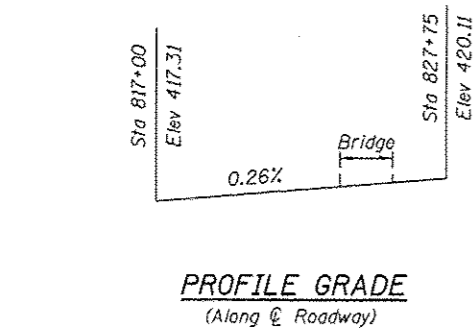
Protective coat shall be placed on top/inside faces of parapets/wingwalls and on top of new concrete at joints.



ELEVATION

PLAN

Remove Preformed Joint Sealer and Install Preformed Joint Strip Seal



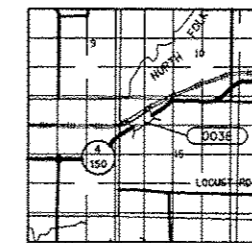
PROFILE GRADE
(Along ϕ Roadway)



Expires 11/30/12

INDEX OF SHEETS

1. General Plan & Elevation
2. Deck Cross Section
3. Joint Details
4. Wingwall & Railpost Details
5. Strip Seal Details
6. Bar Splicer Base Sheet
7. For Information Only (F.I.O.) - Existing Steel Details
8. F.I.O. - Existing Framing Plans



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	13.6
Concrete Superstructure	Cu. Yd.	13.2
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	877
Reinforcement Bars, Epoxy Coated	Pound	1760
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	92
Waterproofing Membrane System	Sq. Yd.	892
HMA Surface Course, Mix "D" N90	Ton	74.4
Protective Coat	Sq. Yd.	32
Containment and Disposal of Non-Lead Paint Cleaning Residues No. 1	L. Sum	1
Cleaning and Painting Steel Bridge No. 1	L. Sum	1

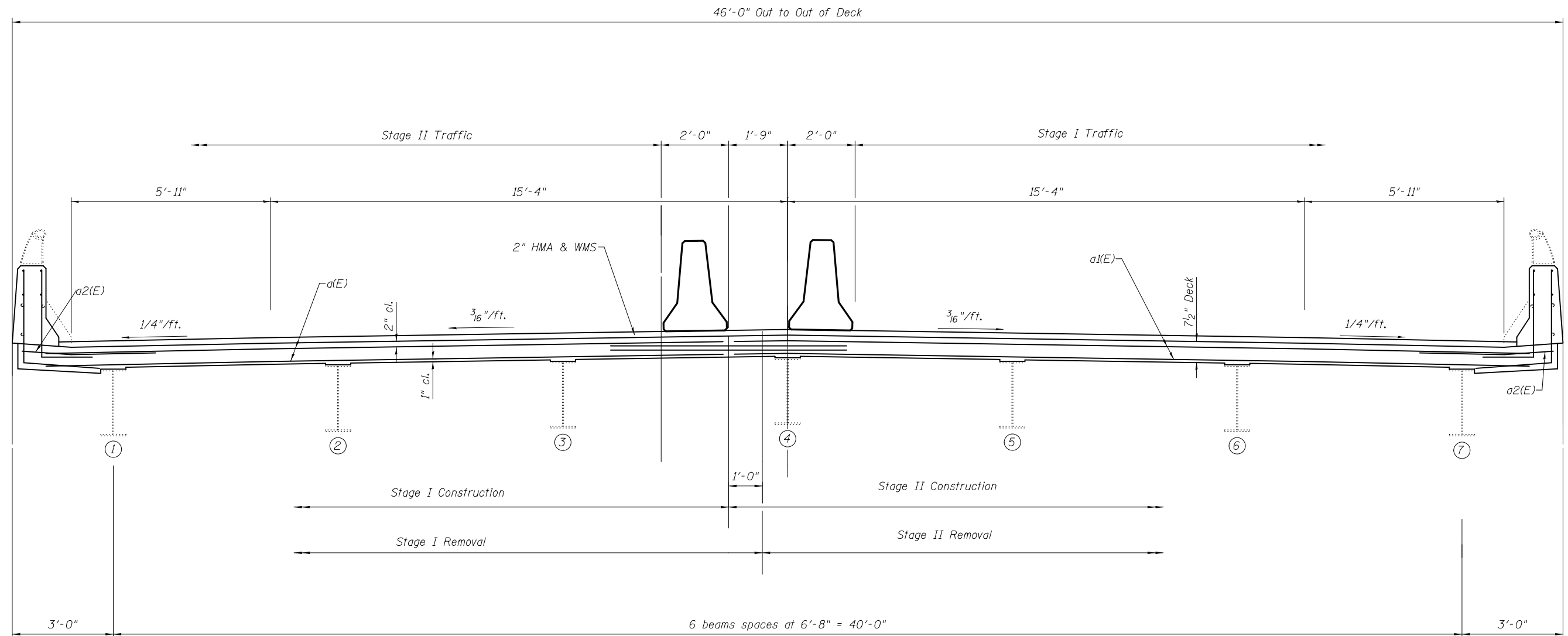
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CHECKED - PSK	PASSED - <i>[Signature]</i>
DRAWN - AYY	
CHECKED - PSK	

DATE - 7/31/12	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
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GENERAL PLAN & ELEVATION 079-0038	ILL. RTE. 4/150	SECTION 110-BR	COUNTY Randolph	TOTAL SHEETS 20	SHEET NO. 12
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SHEET NO. 1 OF 9 SHEETS	CONTRACT NO. 76F53
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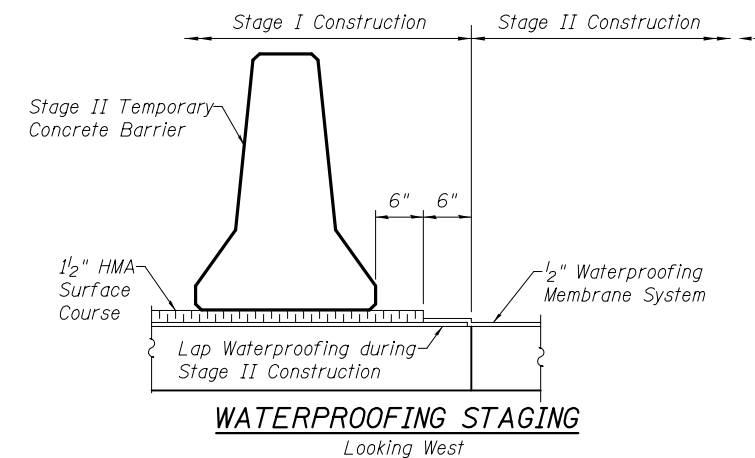
ILLINOIS FED. AID PROJECT	
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CROSS SECTION
(Looking West)

NOTES

The existing 2" HMA & WMS shall be removed and replaced in-kind.



DESIGNED - AYV	EXAMINED _____	DATE - _____
CHECKED - PSK	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED _____	
CHECKED - PSK	ENGINEER OF BRIDGES AND STRUCTURES	

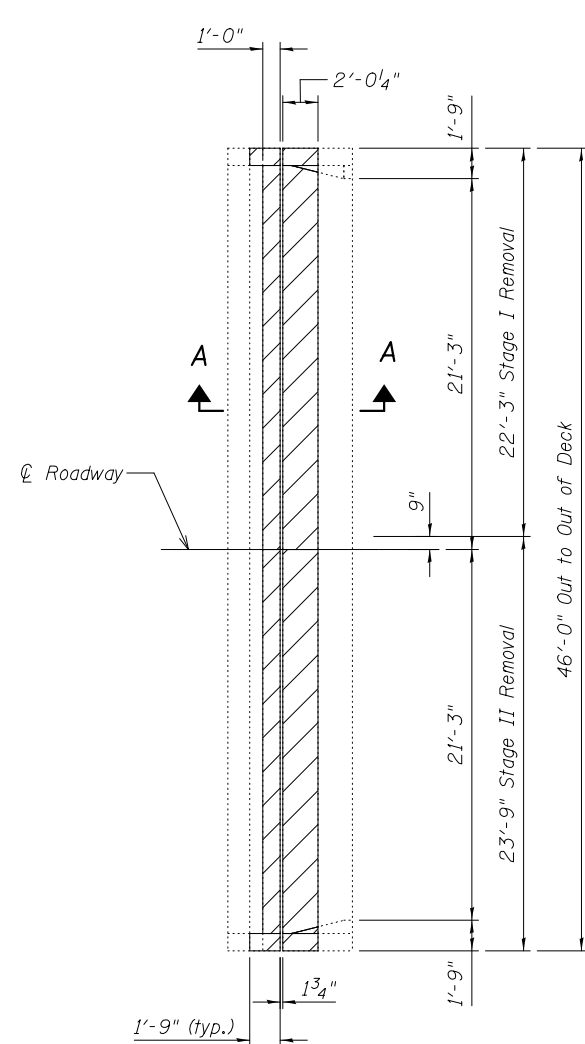
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTION
SN 079-0038

SHEET NO. 2 OF 9 SHEETS

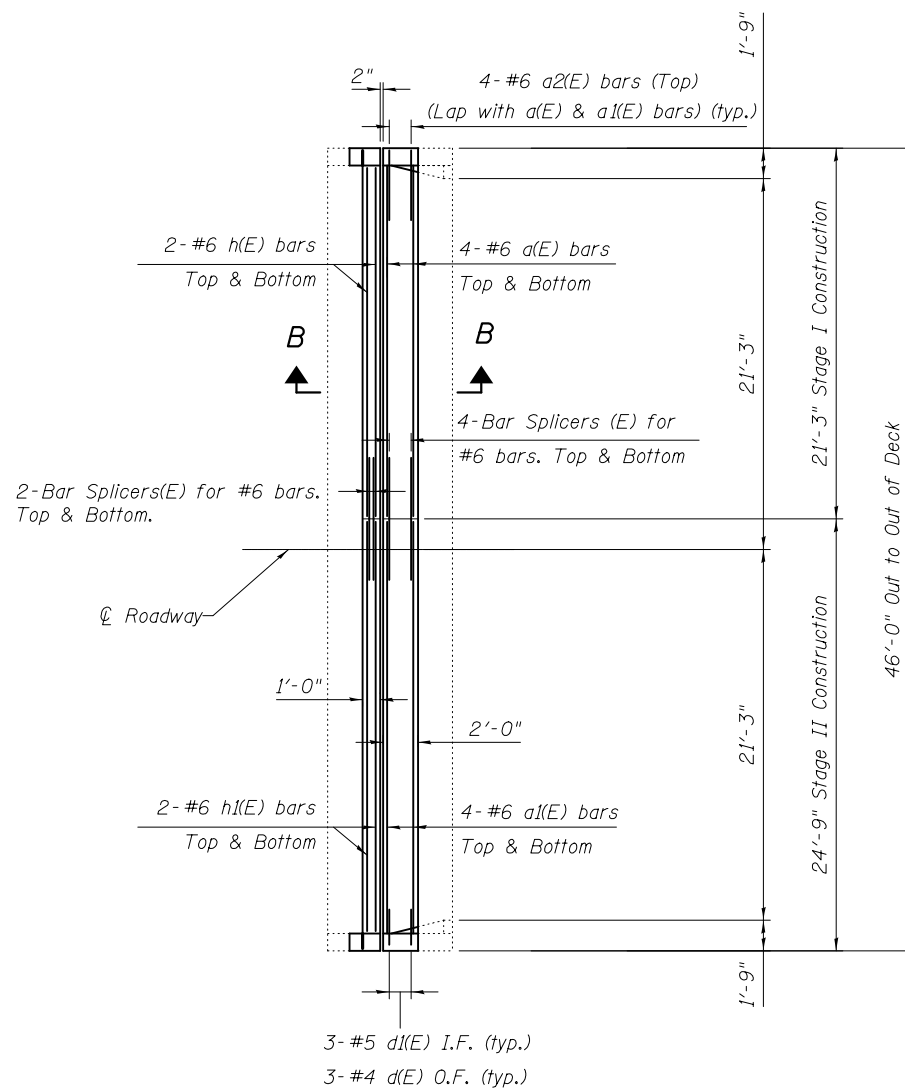
IL RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4/150	110-BR	RANDOLPH	20	13
			76F53	

ILLINOIS FED. AID PROJECT



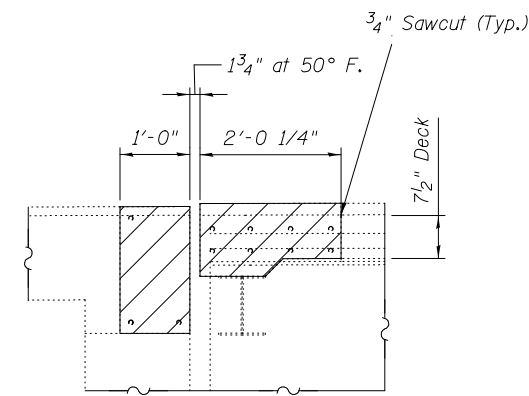
CONCRETE REMOVAL

(E. Abut shown, W Abut similar by 180° rotation)

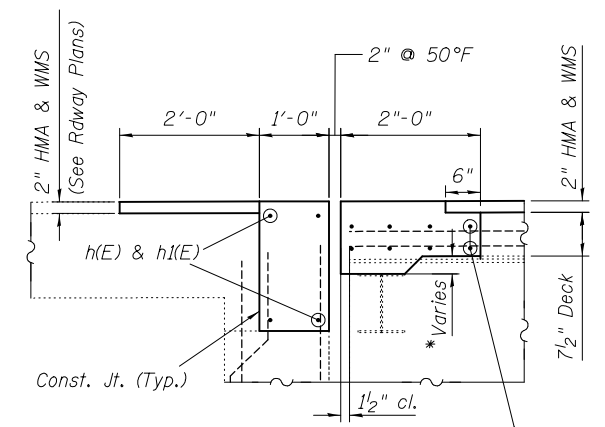


CONCRETE REPLACEMENT

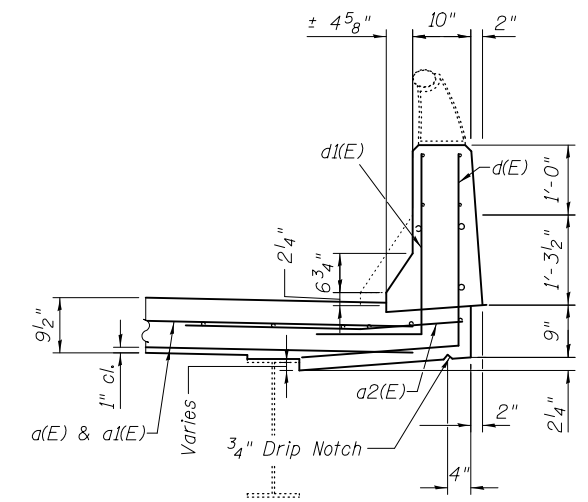
(E. Abut shown, W Abut similar by 180° rotation)



SECTION A-A



SECTION B-B

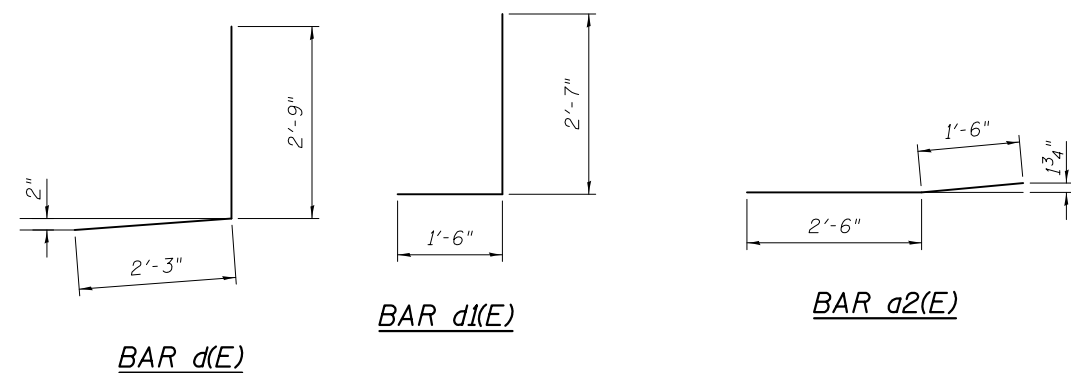


PARAPET SECTION

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	16	#6	20'-1"	—
a1(E)	16	#6	23'-7"	—
a2(E)	16	#6	4'-0"	—
d(E)	12	#4	5'-0"	┌
d1(E)	12	#5	4'-1"	┌
h(E)	8	#6	19'-11"	—
h1(E)	8	#6	23'-5"	—
Concrete Removal			Cu. Yd.	13.6
Concrete Superstructure			Cu. Yd.	13.2
Reinforcement Bars, Epoxy Coated			Lbs.	1760

Reinforcement bars designated (E) shall be epoxy coated.



DESIGNED - AYV
 CHECKED - PSK
 DRAWN - AYV
 CHECKED - PSK

EXAMINED _____ DATE - _____
 ENGINEER OF STRUCTURAL SERVICES
 PASSED _____
 ENGINEER OF BRIDGES AND STRUCTURES

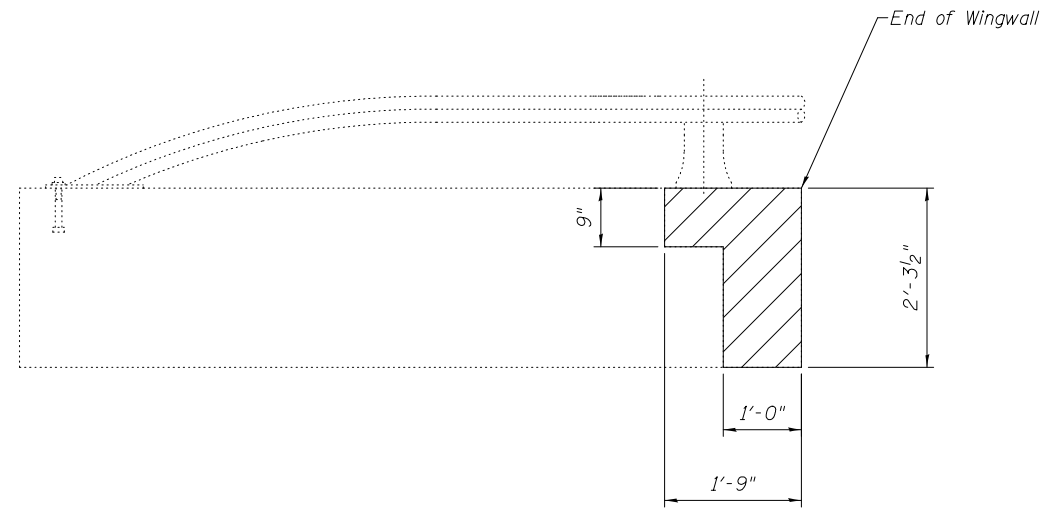
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**JOINT DETAILS
 SN 079-0038**

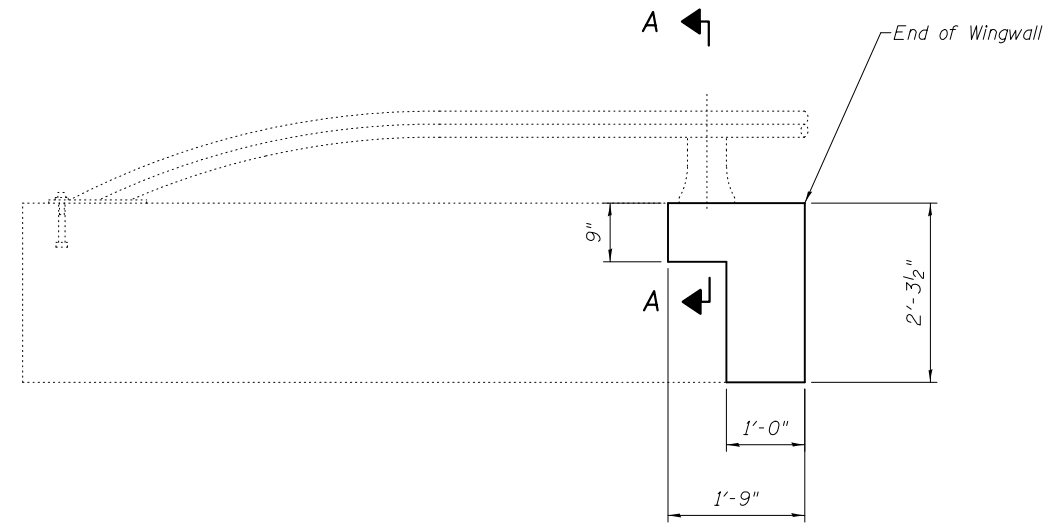
SHEET NO. 3 OF 9 SHEETS

IL RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4/150	110-BR	RANDOLPH	20	14
CONTRACT NO.			76F53	

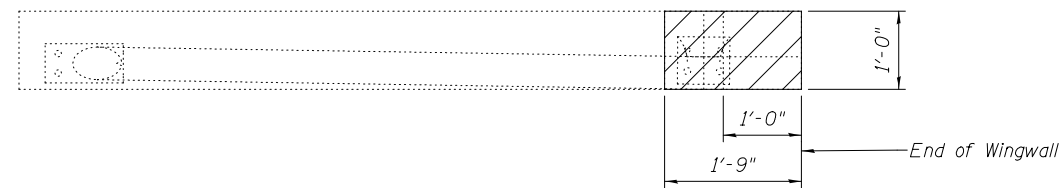
ILLINOIS FED. AID PROJECT



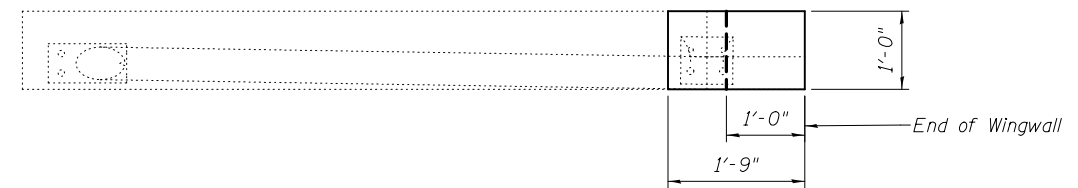
WINGWALL ELEVATION (CONCRETE REMOVAL)



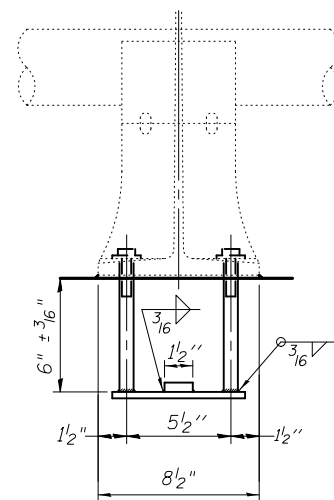
WINGWALL ELEVATION (CONCRETE SUPERSTRUCTURE)



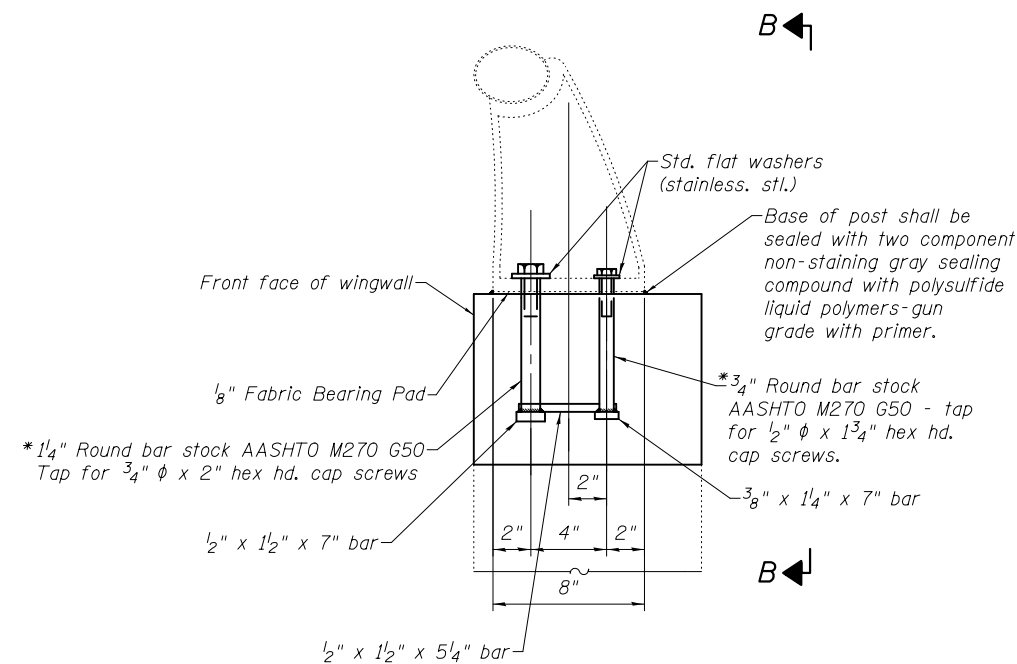
WINGWALL PLAN (CONCRETE REMOVAL)



WINGWALL PLAN (CONCRETE SUPERSTRUCTURE)



VIEW B-B



SECTION A-A

*In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications. Cost of providing anchorages is included with Concrete Superstructure.

RAIL POST DETAILS

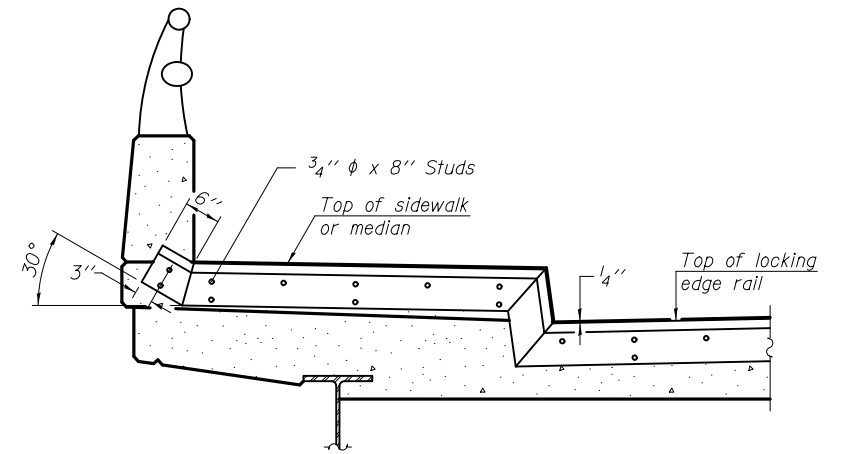
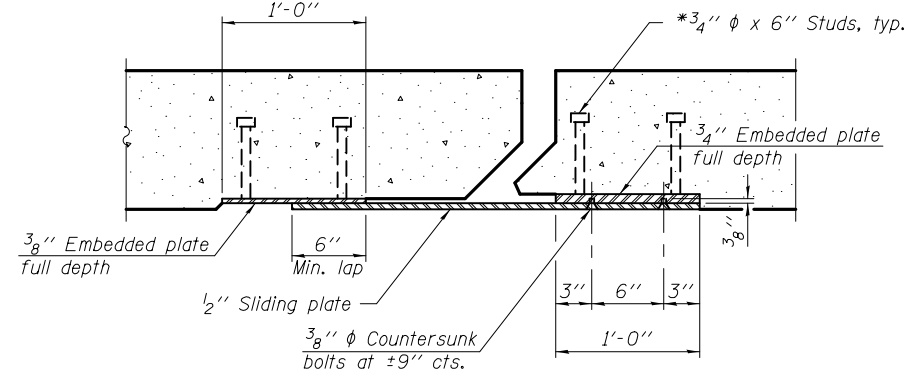
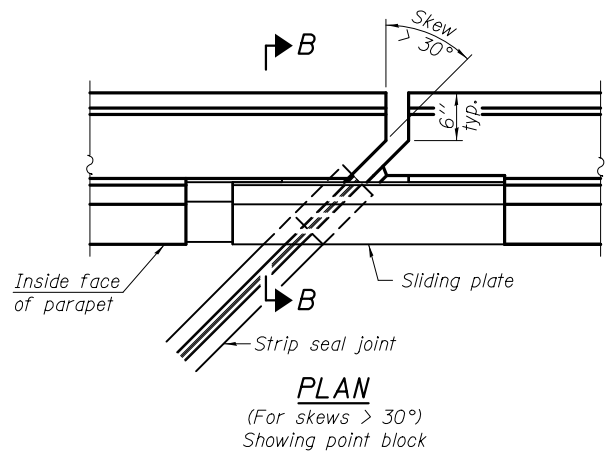
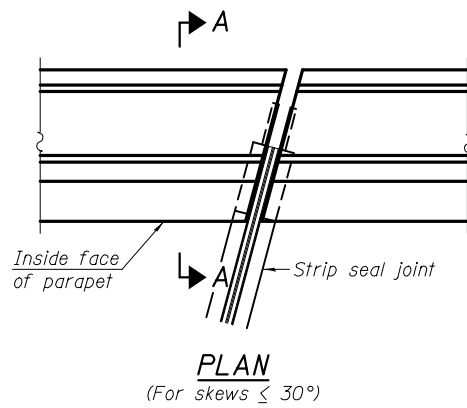
DESIGNED - AYV	EXAMINED	DATE -
CHECKED - ---	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED	
CHECKED - ---	ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WINGWALL & RAILPOST DETAILS
SN 079-0038

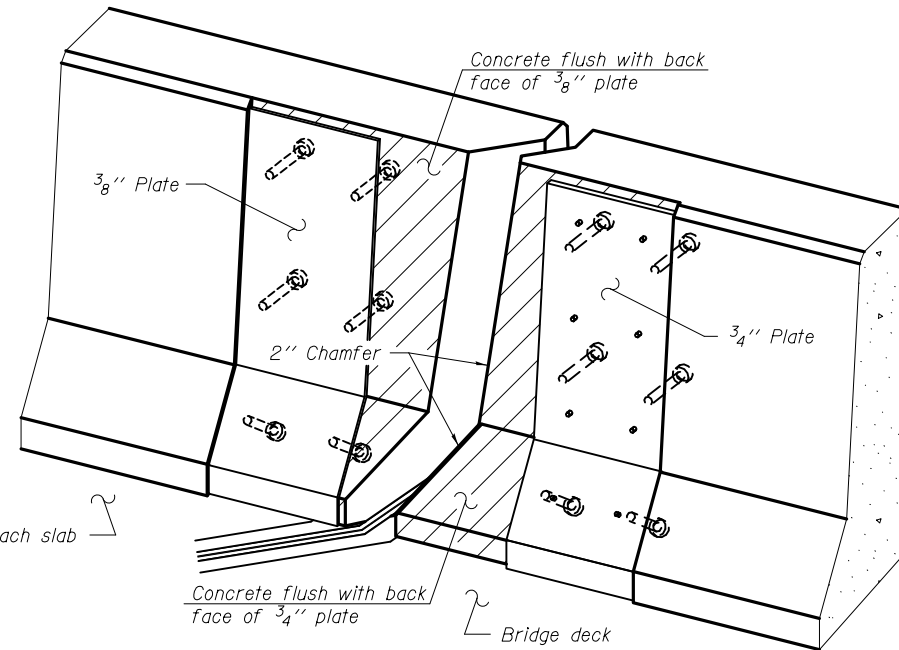
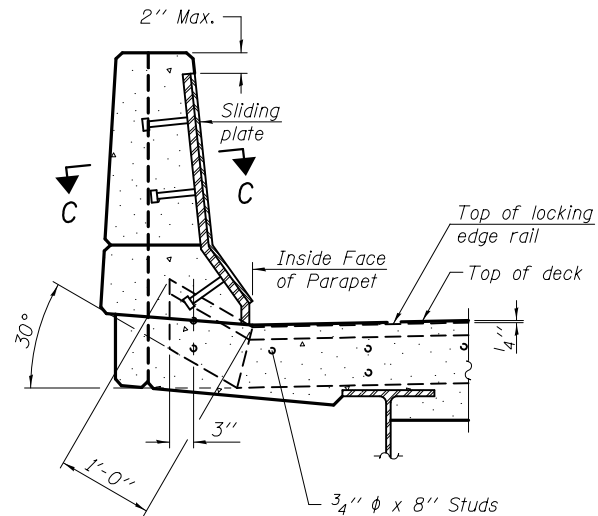
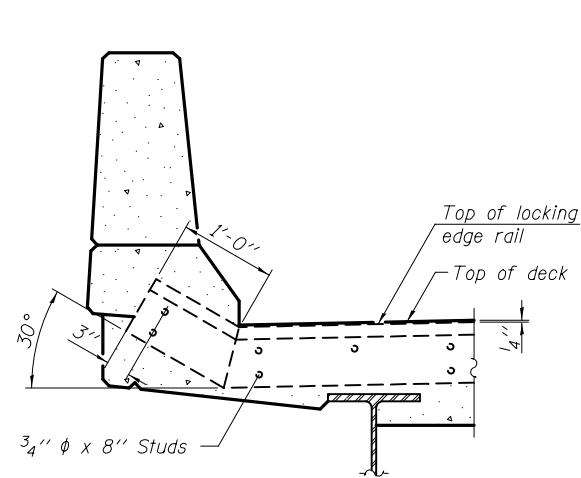
SHEET NO. 4 OF 9 SHEETS

IL RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4/150	110-BR	RANDOLPH	20	15
CONTRACT NO.			76F53	
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.



Notes:

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

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

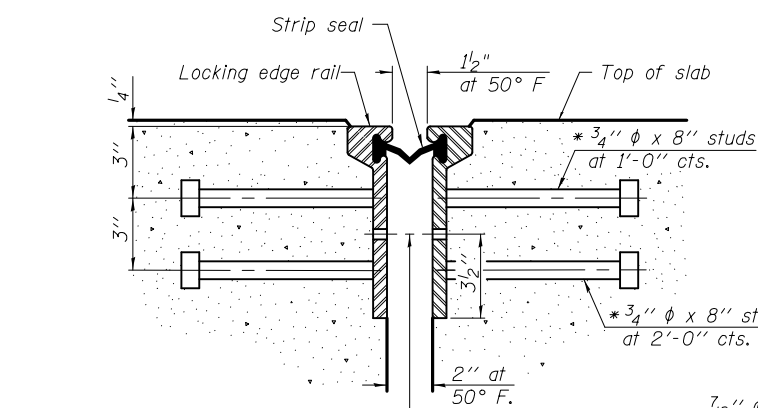
The manufacturer's recommended installation methods shall be followed.

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

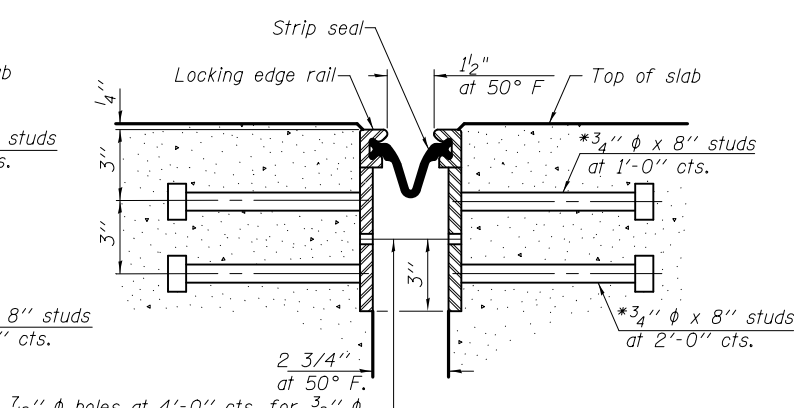
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

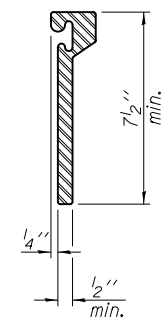


7/16" phi holes at 4'-0" cts. for 3/8" phi bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

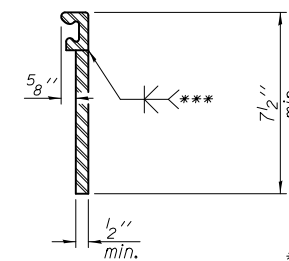


2 3/4" at 50° F.
7/16" phi holes at 4'-0" cts. for 3/8" phi bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

ROLLED EXTRUDED RAIL



WELDED RAIL



LOCKING EDGE RAIL SPLICE

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

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

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	92

EJ-SSJ

7-1-10

DESIGNED - AYV	EXAMINED	DATE
CHECKED - PSK	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED	
CHECKED - PSK	ENGINEER OF BRIDGES AND STRUCTURES	

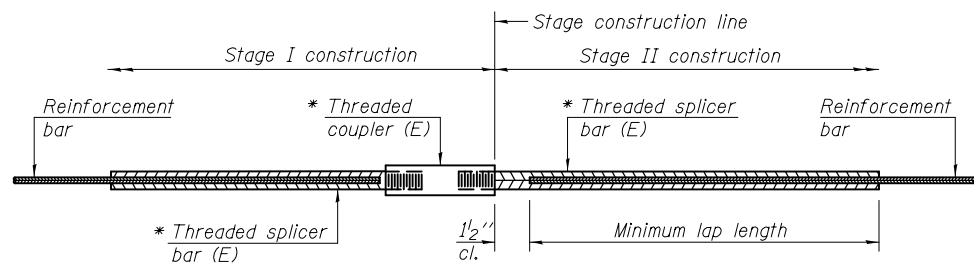
DATE	
ENGINEER OF STRUCTURAL SERVICES	
ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
SN 079-0038**

SHEET NO. 5 OF 9 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	110-BR	RANDOLPH	20	16
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

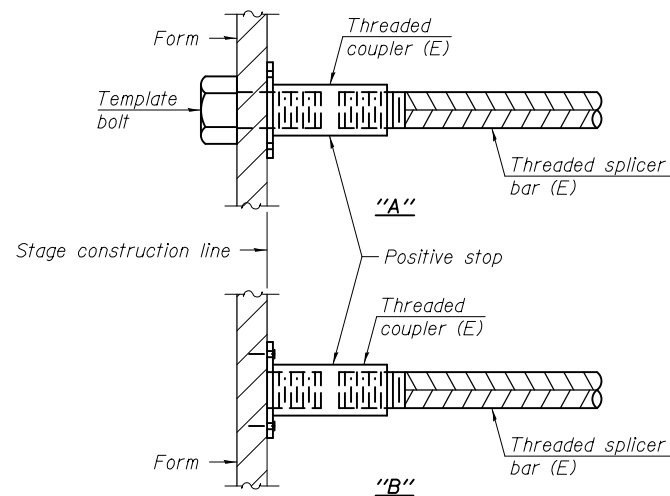
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

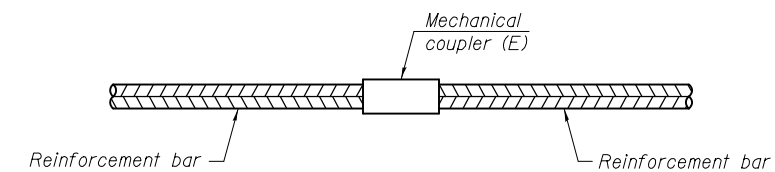
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
End of Deck	#6	16	3
Hatch Block	#6	8	4



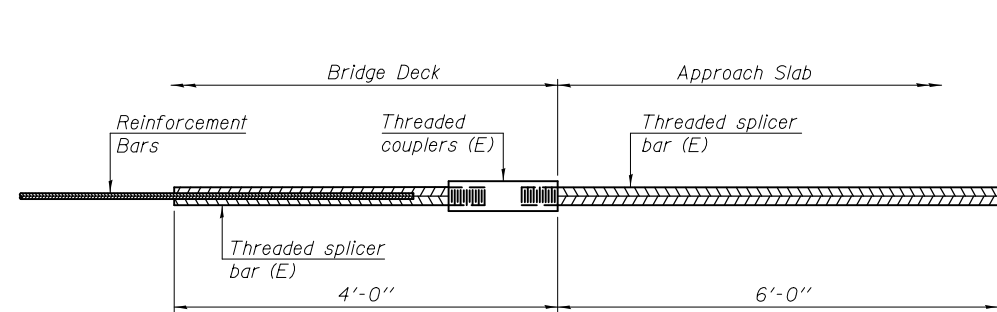
INSTALLATION AND SETTING METHODS

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



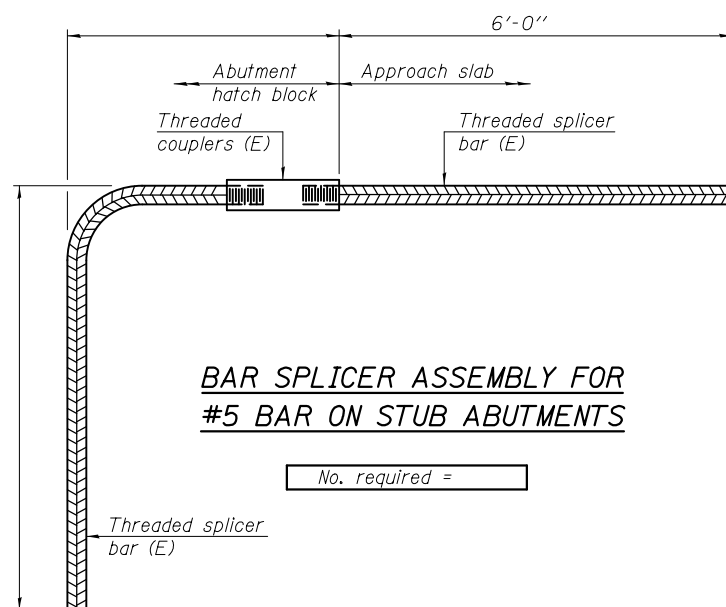
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

BSD-1

7-1-10

DESIGNED - AYV	EXAMINED	DATE -
CHECKED - PSK	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED	
CHECKED - PSK	ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

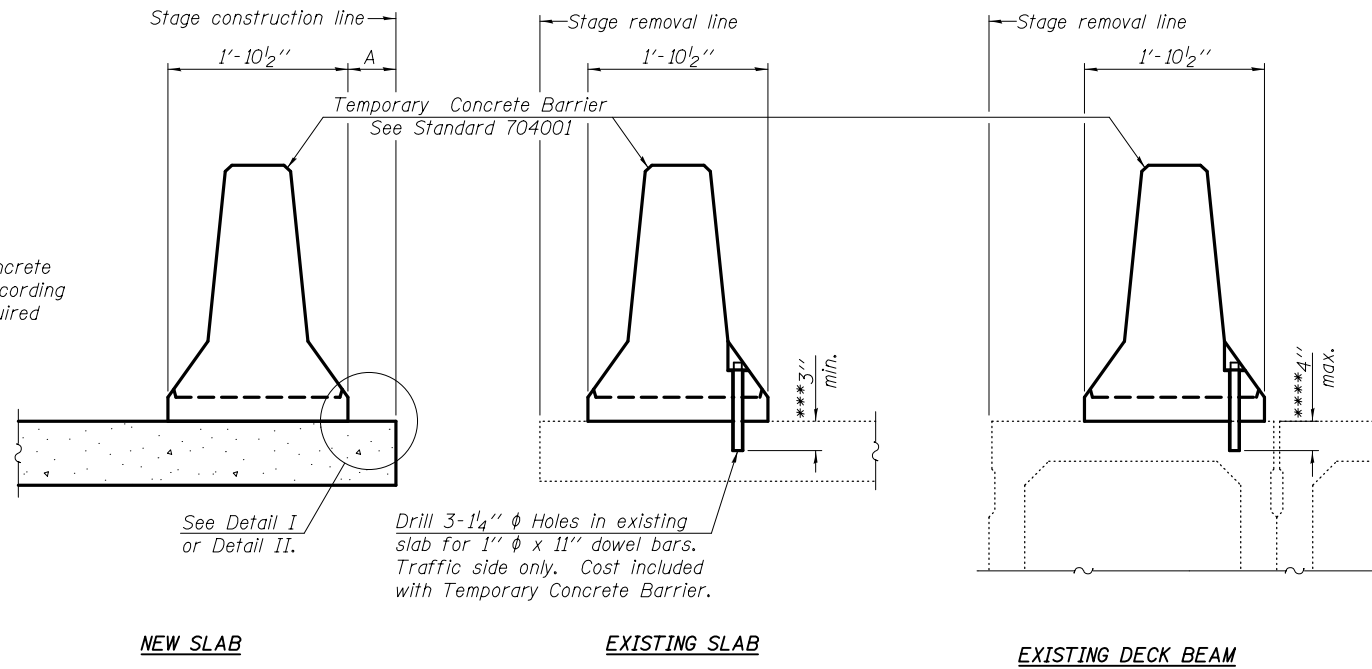
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO.

IL RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4/150	110-BR	RANDOLPH	20	17
			CONTRACT NO. 76F53	

SHEET NO. 6 OF 9 SHEETS

ILLINOIS FED. AID PROJECT

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

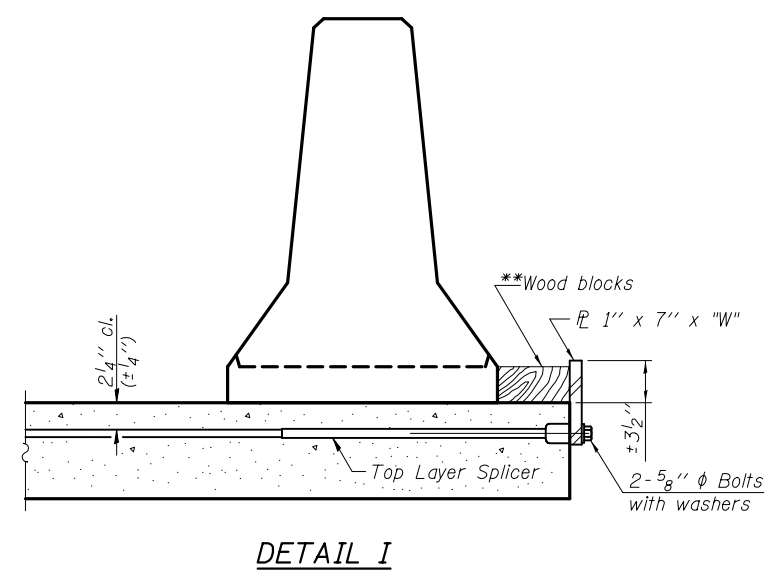
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

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

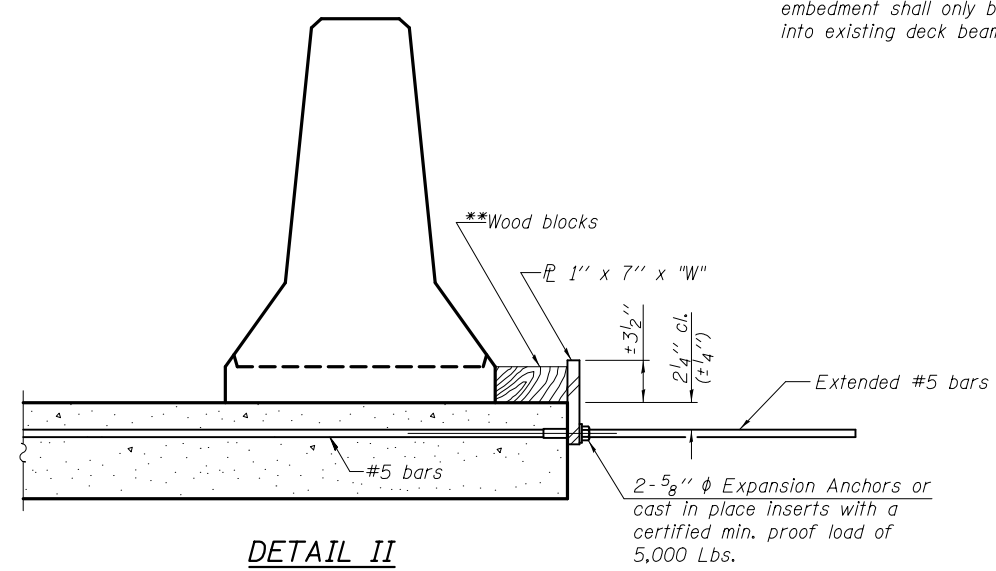
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

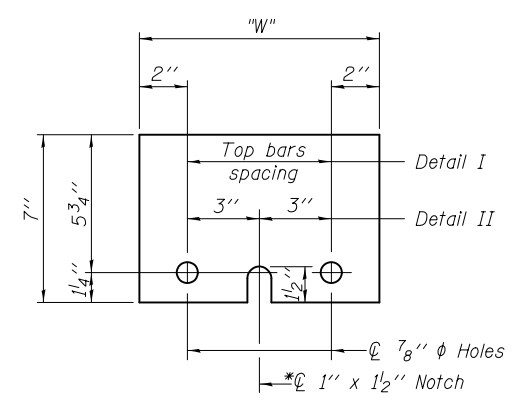
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 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

DESIGNED - AYV	EXAMINED	DATE -
CHECKED - PSK	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED	
CHECKED - PSK	ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 079-0038**

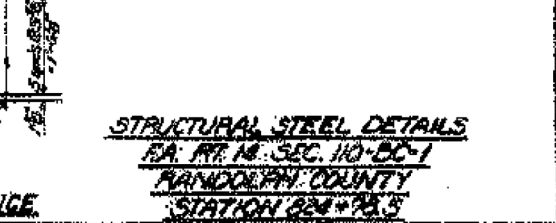
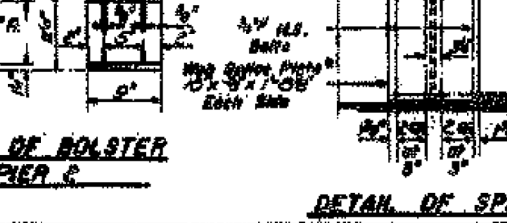
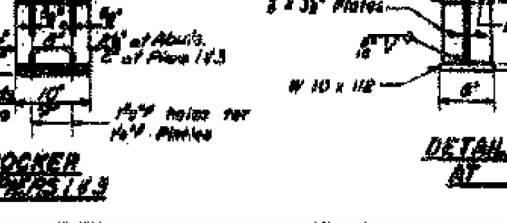
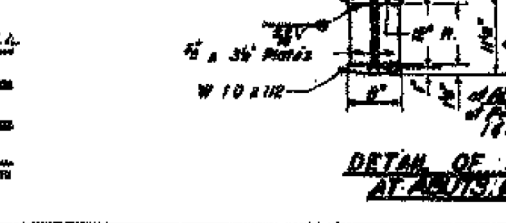
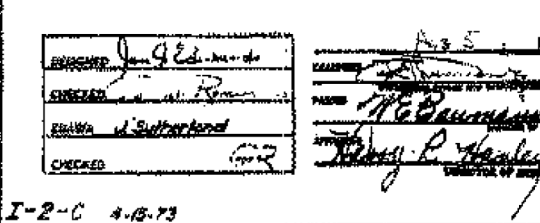
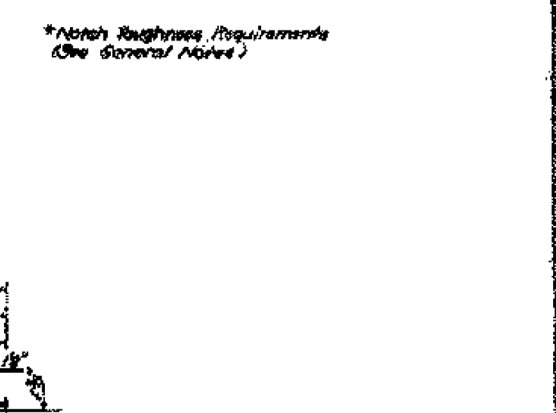
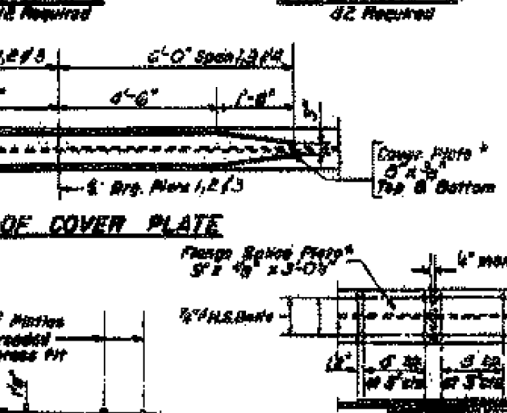
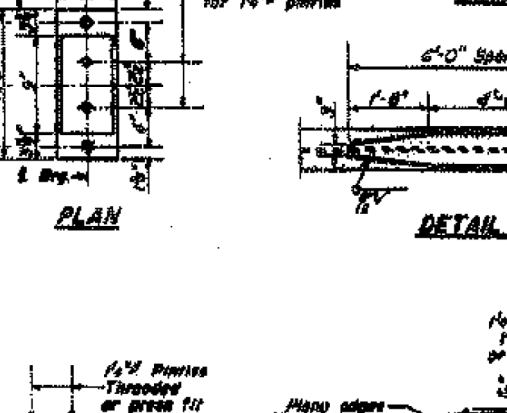
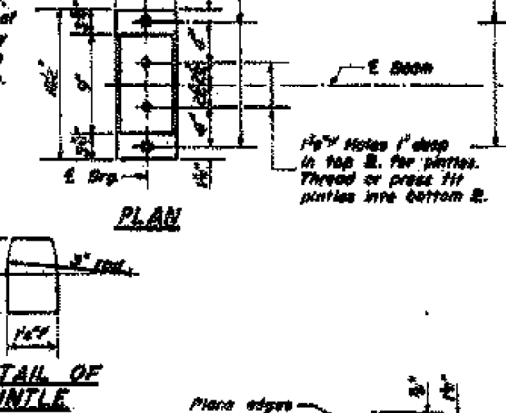
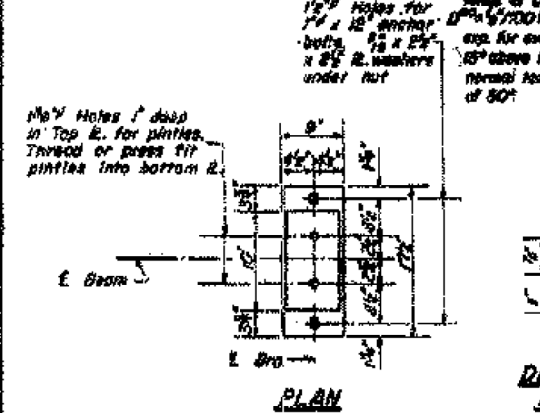
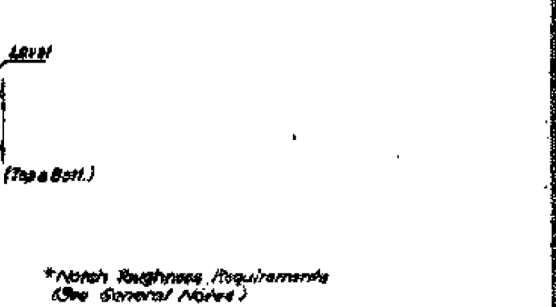
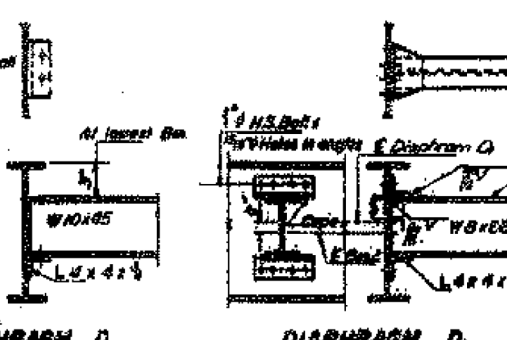
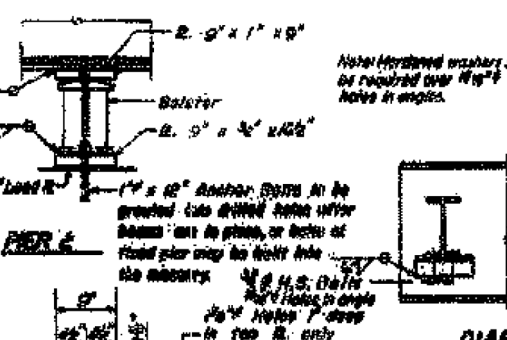
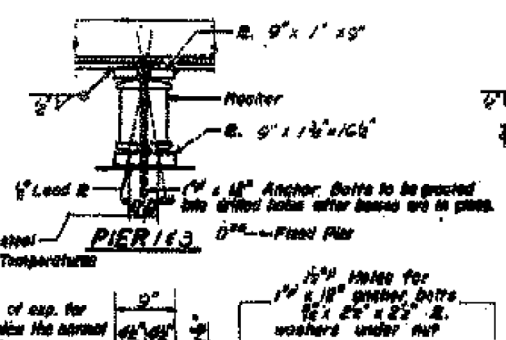
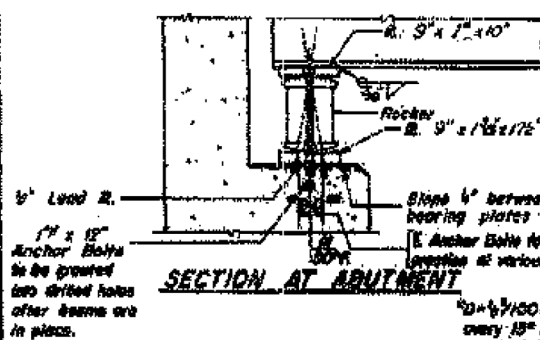
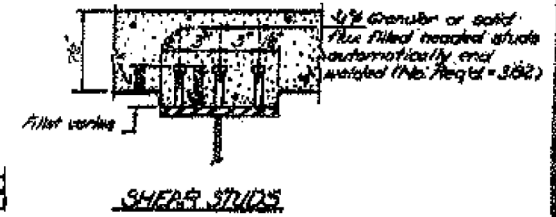
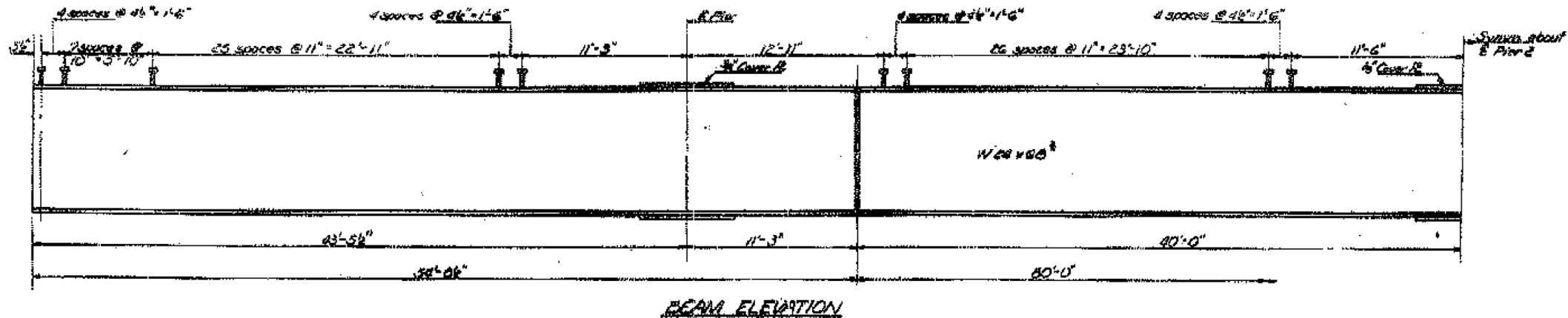
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4/150	110-BR	RANDOLPH	20	18
			CONTRACT NO. 76F53	
ILLINOIS FED. AID PROJECT				

SHEET NO. 7 OF 9 SHEETS

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO.	SECTION	SHEET NO.	TOTAL SHEETS
0020-1	Randolph	20	19
PROJECT NAME: STATION 224+78.5			



DESIGNED: J. G. Edwards
CHECKED: J. M. Brown
DRAWN: J. S. Burkhard
CHECKED: G. R.

ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

DATE: _____
REVISED: _____
REVISED: _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - EXISTING STEEL DETAILS
SN 079-0038
SHEET NO. 8 OF 9 SHEETS

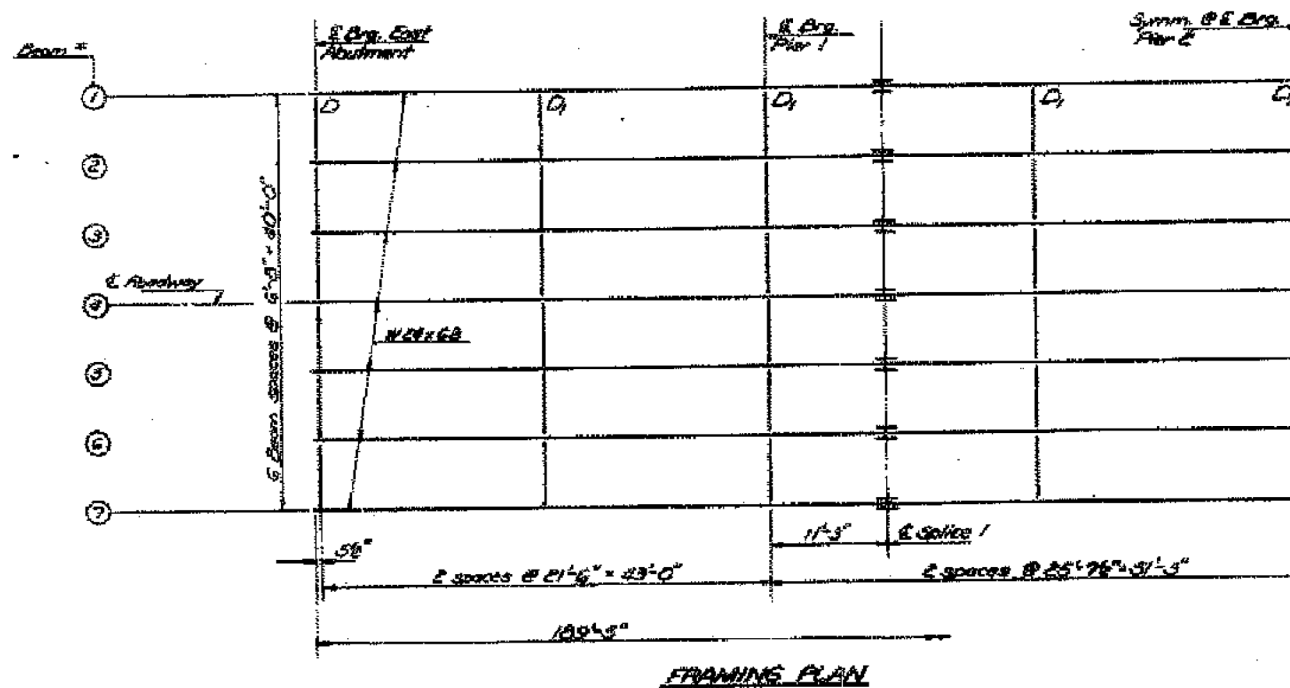
STRUCTURAL STEEL DETAILS
EA. RT. 14, SEC. 110-00-1
RANDOLPH COUNTY
STATION 224+78.5

DESIGNED - AYV	EXAMINED	DATE	STATE OF ILLINOIS	FOR INFORMATION ONLY - EXISTING STEEL DETAILS	IL RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - PSK	ENGINEER OF STRUCTURAL SERVICES		DEPARTMENT OF TRANSPORTATION	SN 079-0038	4/150	110-BR	RANDOLPH	20	19
DRAWN - AYV	PASSED	REVISED						CONTRACT NO.	76F53
CHECKED - PSK	ENGINEER OF BRIDGES AND STRUCTURES	REVISED							

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
079-038-1	110-BR	RANDOLPH	20	20
CONTRACT NO. 76F53				

FOR INFORMATION ONLY



TOP OF BEAM ELEVATIONS*

Beam No.	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7
E. Dry. Exit	47.83	48.03	48.23	48.43	48.63	48.83	49.03
E. Pier 1	48.02	48.16	48.30	48.44	48.58	48.72	48.86
E. Splice 1	48.04	48.18	48.32	48.46	48.60	48.74	48.88
E. Pier 2	48.14	48.28	48.42	48.56	48.70	48.84	48.98
E. Splice 2	48.24	48.38	48.52	48.66	48.80	48.94	49.08
E. Pier 3	48.34	48.48	48.62	48.76	48.90	49.04	49.18
E. Dry. W. Abut.	48.44	48.58	48.72	48.86	49.00	49.14	49.28

*Elevation of top of beam flange before any deflection.

INTERIOR BEAM MOMENTS

Beam No.	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7
1	0.00	100.0	200.0	300.0	400.0	500.0	600.0
2	0.00	100.0	200.0	300.0	400.0	500.0	600.0
3	0.00	100.0	200.0	300.0	400.0	500.0	600.0
4	0.00	100.0	200.0	300.0	400.0	500.0	600.0
5	0.00	100.0	200.0	300.0	400.0	500.0	600.0
6	0.00	100.0	200.0	300.0	400.0	500.0	600.0
7	0.00	100.0	200.0	300.0	400.0	500.0	600.0

Note:
For details of girders and diaphragms
See Sheet # 7

INTERIOR BEAM REACTIONS

Beam No.	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7
1	0.00	100.0	200.0	300.0	400.0	500.0	600.0
2	0.00	100.0	200.0	300.0	400.0	500.0	600.0
3	0.00	100.0	200.0	300.0	400.0	500.0	600.0
4	0.00	100.0	200.0	300.0	400.0	500.0	600.0
5	0.00	100.0	200.0	300.0	400.0	500.0	600.0
6	0.00	100.0	200.0	300.0	400.0	500.0	600.0
7	0.00	100.0	200.0	300.0	400.0	500.0	600.0

DESIGNED: J. J. Edwards
 CHECKED: P. S. K.
 DRAWN: A. Y. V.
 EXAMINED: [Signature]
 PASSED: [Signature]
 DATE: Aug. 5, 1974
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

FRAMING PLAN
 RA 110 BR SEC 110 BR-1
 RANDOLPH COUNTY
 STATION 608+28.5