02-28-14 LETTING ITEM 092

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	1
	ILLINOIS	CONTRACT NO. 76G44		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

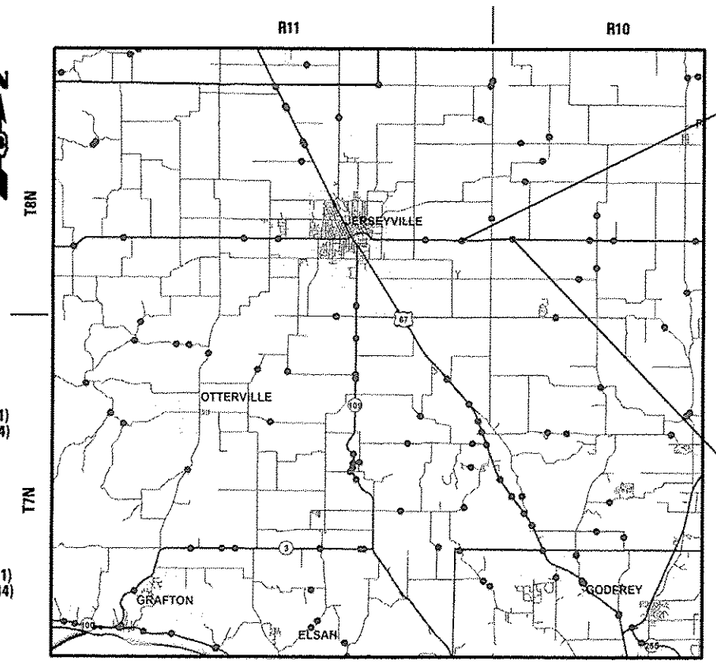
FAP ROUTE 325 (IL 16)
SECTION 113BR, 113BR-1
BRIDGE REPAIRS
JERSEY COUNTY

C-98-046-13

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-98-043-13

LOCATION OF SECTION INDICATED THUS: –



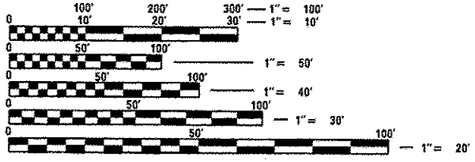
MAP NOT TO SCALE

SN 042-0018
2 SPAN PPC I-BEAM BRIDGE
OVER PHIL'S CREEK
BEGIN STATION 1185+32.16
END STATION 1186+85.13
LAT: 39.1157
LONG: -90.2722

SN 042-0019
2 SPAN PPC I-BEAM BRIDGE
OVER PHIL'S CREEK EAST BRANCH
BEGIN STATION 1256+57.75
END STATION 1257+70.25
LAT: 39.1163
LONG: -90.2473

042-0018
ADT = 3250 (2011)
ADT = 4100 (2034)
SU = 3.7%
MU = 2.8%

SN 042-0019
ADT = 2700 (2011)
ADT = 3400 (2034)
SU = 3.7%
MU = 3.0%



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 16 20 13
Jeffrey T. Kern
DEPUTY DIRECTOR OF HIGHWAYS, REGION FIVE ENGINEER
Jan 24 20 14
John D. Baranzelli, P.E. by
ENGINEER OF DESIGN AND ENVIRONMENT
Jan 24 20 14
Omer Osman, P.E. by
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: PATTI LeBEAU (618) 346-3179
PROJECT MANAGER: BILLIE OWEN (618) 346-3209

CONTRACT NO. 76G44

DESIGN DESIGNATION
N/A

SN 042-0018
GROSS LENGTH = 153.67 FT. = 0.029 MILE
NET LENGTH = 153.67 FT. = 0.029 MILE

SN 042-0019
GROSS LENGTH = 112.5 FT. = 0.021 MILE
NET LENGTH = 112.5 FT. = 0.021 MILE

PRINTED BY THE AUTHORITY
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
   - FRONTIER NORTH, INC
   - GRAFTON TELEPHONE COMPANY
   - GREENE COUNTY PARTNERS, INC.
   - JERSEY COUNTY RURAL WATER COMPANY
   - M.J.M. ELECTRIC COOPERATIVE, INC.

   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. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.

4. ALL EXISTING AND PROPOSED RIGHT-OF-WAY LINES AND PROPERTY LINES SHOWN ON THE PLAN SHEETS ARE GRAPHICAL REPRESENTATIONS AND SHALL NOT BE USED AS A MEANS TO ESTABLISH OWNERSHIP. IN ALL MATTERS RELATING TO RIGHT-OF-WAY, THE PLAT OF HIGHWAYS SHALL BE THE CONTROLLING DOCUMENT.

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. A QUANTITY OF 5 TONS OF AGGREGATE SURFACE COURSE, TYPE B HAS BEEN INCLUDED IN THE PLANS FOR PLACEMENT AS NEEDED AT THE ENTRANCE STA. 1187+97 RT.

8. ALL EARTH FROM EARTH EXCAVATION SHALL REMAIN ON SITE. ANY NECESSARY EROSION CONTROL MEASURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

9. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	SURFACE	BINDER/WIDENING			
AC/PG	PG 64-22	PG 64-22			
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70			
MIX COMPOSITION					
(GRADATION MIXTURE)	IL 9.5	IL 19.0 FG			
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 HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS)

INDEX OF SHEETS

STANDARDS

000001-06
001001-02
001006
635011-02
643001-02
701006-05
701306-03
701311-03
701321-13
701326-04
701901-03
704001-07
780001-04
781001-03

COMMITMENTS

NONE

FILE NAME =	USER NAME = ahallandeske	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw_work\pwidot\ahallandeske\d0348922\D076G44-sht-gennote.dgn		DRAWN -	REVISED -			325	113BR, 113BR-1	JERSEY	33	2
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76G44		
$MODELNAME$	PLOT DATE = 12/20/2013	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100 % STATE BRIDGE 0014 042-0018	CONSTRUCTION CODE 100 % STATE BRIDGE 0014 042-0019
20200100	EARTH EXCAVATION	CU YD	230	115	115
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	5	5	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.1	0.05	0.05
40600300	AGGREGATE (PRIME COAT)	TON	1	0.5	0.5
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	189	94.5	94.5
40600990	TEMPORARY RAMP	SQ YD	40	20	20
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	145	82.5	62.5
40603087	HOT-MIX ASPHALT BINDER COURSE, IL-19.0 FG, N70	TON	415	205.5	209.5
50102400	CONCRETE REMOVAL	CU YD	73	43.1	29.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	74.5	43.9	30.6
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	10370	5470	4900
50800515	BAR SPLICERS	EACH	72	30	42
52000110	PREFORMED JOINT STRIP SEAL	FOOT	218	128	90
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	1120	648	472

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	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	3
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100 % STATE BRIDGE 0014 042-0018	CONSTRUCTION CODE 100 % STATE BRIDGE 0014 042-0019
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	4	4
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1		1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	0.5	0.5
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	12	6	6
70300100	SHORT TERM PAVEMENT MARKING	FOOT	152	76	76
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3840	1870	1970
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1427	697	730
70400100	TEMPORARY CONCRETE BARRIER	FOOT	775	400	375
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	700	350	350
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	3	1	2
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1	

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	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	4
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE BRIDGE 0014 042-0018	CONSTRUCTION CODE 100% STATE BRIDGE 0014 042-0019
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1	
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	3	1	2
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3840	1870	1970
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	20	10	10
*	78200520	BARRIER WALL MARKERS, TYPE B	EACH	8	4	4
*	78200530	BARRIER WALL MARKERS, TYPE C	EACH	8	4	4
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	20	10	10
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1280	623	657
	X5030530	FLOOR DRAIN EXTENSION	EACH	32	20	12
	X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	1986	1801	185
	X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1	
	Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	1120	648	472
	Z0015802	PLUG EXISTING DECK DRAINS	EACH	68	48	20
	Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	20	10	10

* SPECIALTY ITEM

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	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	5
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE BRIDGE 0014 042-0018	CONSTRUCTION CODE 100% STATE BRIDGE 0014 042-0019
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	20	10	10
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	80	40	40

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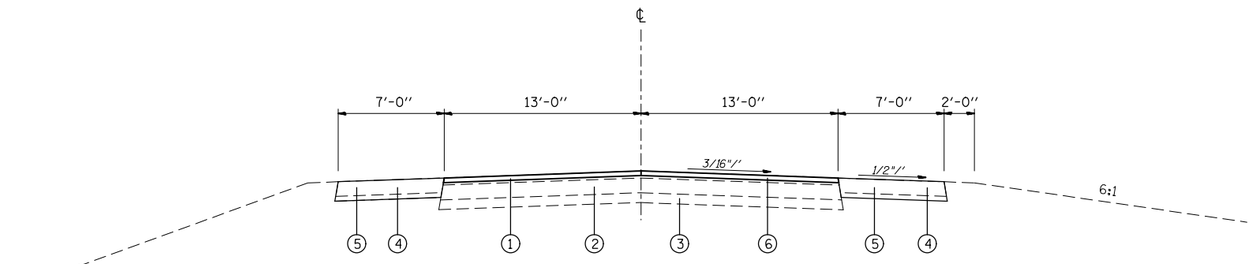
	PLOT DATE = 12/20/2013	DATE -	REVISED -					ILLINOIS FED. AID PROJECT		



TYPICAL SECTION

STA. 1182+00.00 TO STA. 1185+32.16
STA. 1186+85.83 TO STA. 1190+00.00
STA. 1253+00.00 TO STA. 1256+57.75
STA. 1257+70.25 TO STA. 1261+00.00

LEGEND

1. EXISTING HOT-MIX ASPHALT OVERLAY - 3″
2. EXISTING HOT-MIX ASPHALT BASE COURSE - 6″
3. EXISTING SUB-BASE GRANULAR MATERIAL, TYPE A - 4″
4. EXISTING AGGREGATE SHOULDER, TYPE A - 6″
5. PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0 FG, N70 - 8″ •
6. PROPOSED HOT-MIX ASPHALT SURFACE COURSE - 2″ ••

• HOT-MIX ASPHALT BINDER COURSE, IL-19.0 FG, N70 - AT SN 042-0018
WB STA. 1183+75 TO STA. 1185+50 AND STA. 1186+96 TO STA. 1188+29
EB STA. 1183+92 TO STA. 1185+17 AND STA. 1186+64 TO STA. 1188+36

• HOT-MIX ASPHALT BINDER COURSE, IL-19.0 FG, N70 - AT SN 042-0019
WB STA. 1254+58 TO STA. 1256+58 AND STA. 1257+71 TO STA. 1259+45
EB STA. 1255+32 TO STA. 1256+57 AND STA. 1257+70 TO STA. 1258+70

••HOT-MIX ASPHALT SURFACE COURSE AT SN 042-0018
STA. 1185+22 TO STA. 1185+32.16
STA. 1186+85.83 TO STA. 1185+93

••HOT-MIX ASPHALT SURFACE COURSE AT SN 042-0019
STA. 1256+47 TO STA. 1257+75
STA. 1257+70.25 TO STA. 1257+80

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	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	7
		CONTRACT NO. 76G44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING SCHEDULE

					THERMOPLASTIC PAVEMENT MARKING			TEMPORARY PAVEMENT MARKING			WORK ZONE PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	BARRIER WALL MARKERS TYPE B	BARRIER WALL MARKERS TYPE C	SHORT TERM PAVEMENT MARKING	PAVEMENT MARKING REMOVAL
					EDGE LINE SOLID 4" WHITE	CENTERLINE SKIP-DASH 4" YELLOW	CENTERLINE SOLID 4" YELLOW	EDGE LINE SOLID 4" WHITE	CENTERLINE SKIP-DASH 4" YELLOW	CENTERLINE SOLID 4" YELLOW							
					FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	EACH	EACH	EACH	EACH	FOOT	SQ FT
SN 042-0018																	
STA	1182+00	TO	STA	1190+00	1600.0	200.0	70	1600.00	200.00	70.00	697.0	10	10	4	4	76	623
SN 042-0019																	
STA	1253+00	TO	STA	1261+00	1600.0	200.0	170.0	1600.00	200.00	170.00	730.0	10	10	4	4	76	657
				SUB-TOTAL	3200	400	240	3200	400	240	1427	20	20	8	8	152	1280
				GRAND TOTAL	3,840			3,840			1,427	20	20	8	8	152	1280

EARTH EXCAVATION

STATION	EARTH EXCAVATION
	CU YD
042-0018	
STAGE 1	
WEST QUADRANT	24.0
EAST QUADRANT	31.2
STAGE 2	
WEST QUADRANT	33.1
EAST QUADRANT	23.6
042-0019	
STAGE 1	
WEST QUADRANT	23.6
EAST QUADRANT	18.9
STAGE 2	
WEST QUADRANT	37.8
EAST QUADRANT	33.1
TOTAL =	225.3
ROUNDED TOTAL =	230

PAVING SCHEDULE

STATION					BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE MATERIALS (PRIME COAT)	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70
					TON	TON	TON
042-0018							
STA.	1185+22	TO	STA.	1185+32	0.02	0.08	4.6
STA.	1186+86	TO	STA.	1186+96	0.02	0.08	4.6
042-0019							
STA.	1256+48	TO	STA.	1256+58	0.02	0.08	4.6
STA.	1257+70	TO	STA.	1257+80	0.02	0.08	4.6
				TOTAL =	0.08	0.32	18.4
				ROUNDED =	0.1	1	19 *

* SEE STRUCTURE PLANS FOR ADDITIONAL QUANTITY.

TEMPORARY RAMP SCHEDULE

LOCATION		WIDTH	LENGTH	TEMPORARY RAMP
		FOOT	FOOT	SQ YD
042-0018				
STAGE 1				
STA	1185+32	21.25	2	5
STA	1186+87	21.25	2	5
STAGE 2				
STA	1185+32	21.25	2	5
STA	1186+87	21.25	2	5
042-0019				
STAGE 1				
STA	1256+58	21.25	2	5
STA	1257+70	21.25	2	5
STAGE 2				
STA	1256+58	21.25	2	5
STA	1257+70	21.25	2	5
			TOTAL =	40

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

	STATION TO STATION			SQ YD
042-0018				
	1185+22	TO	1185+32	47.2
	1186+86	TO	1186+96	47.2
042-0019				
	1256+48	TO	1256+58	47.2
	1257+70	TO	1257+80	47.2
			SUB-TOTAL -	188.8
			TOTAL -	189

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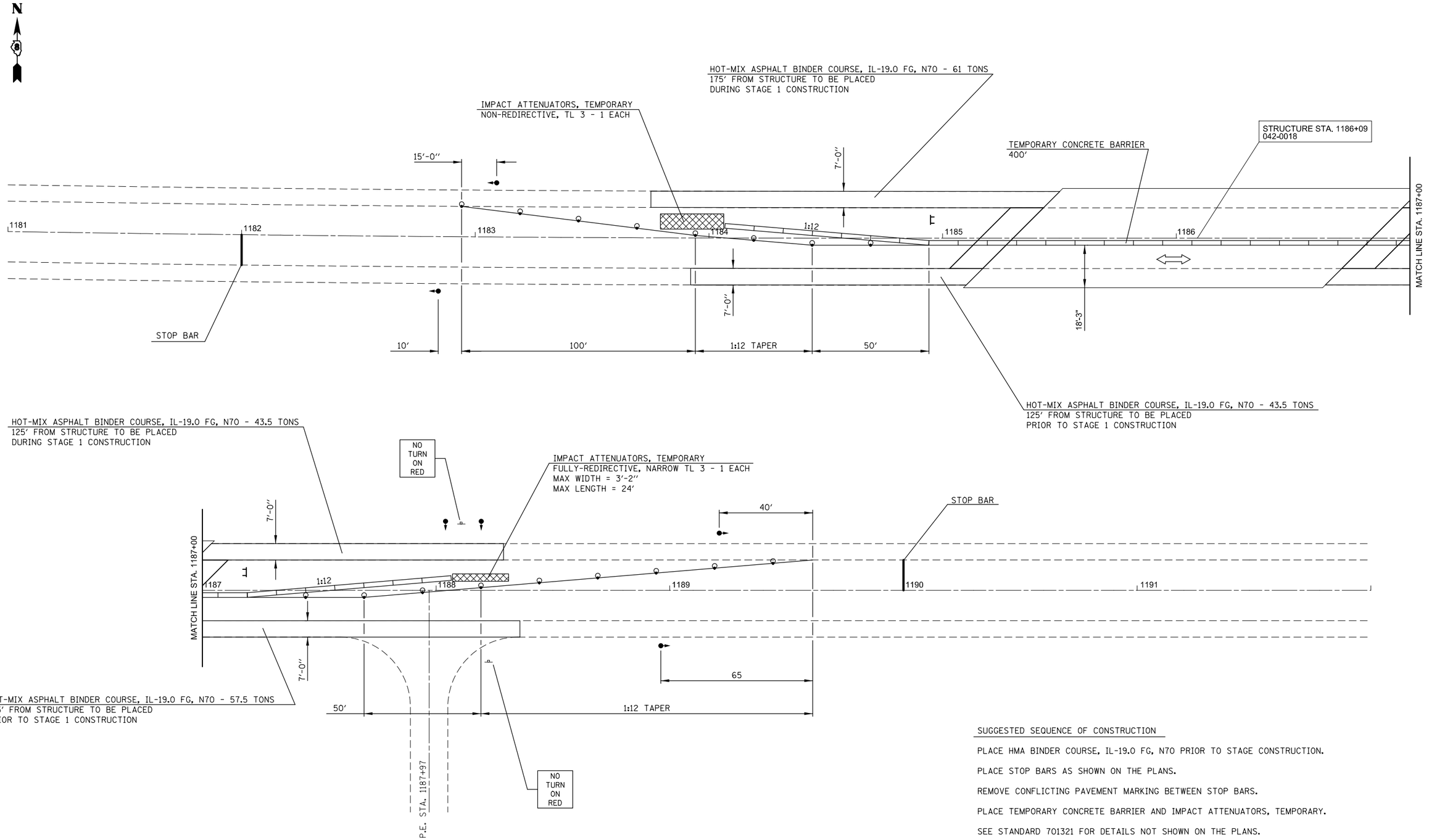
$MODELNAME$	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	8
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			



SUGGESTED SEQUENCE OF CONSTRUCTION

PLACE HMA BINDER COURSE, IL-19.0 FG, N70 PRIOR TO STAGE CONSTRUCTION.

PLACE STOP BARS AS SHOWN ON THE PLANS.

REMOVE CONFLICTING PAVEMENT MARKING BETWEEN STOP BARS.

PLACE TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON THE PLANS.

COMPLETE STRUCTURE REPAIRS FOR STAGE I CONSTRUCTION.

PLACE WATERPROOFING MEMBRANE SYSTEM AND HMA SURFACE COURSE OVER STRUCTURE FOR STAGE I.

CONSTRUCT TEMPORARY RAMPS ON BOTH ENDS OF THE STRUCTURE FOR STAGE I.

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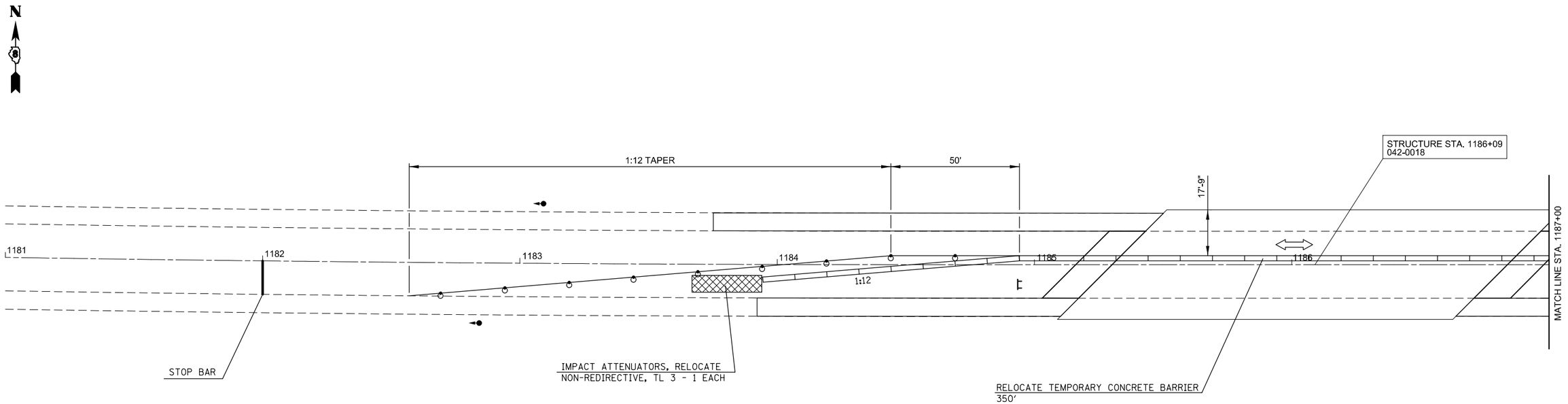
	PLOT DATE = 12/20/2013	DATE -	REVISED -

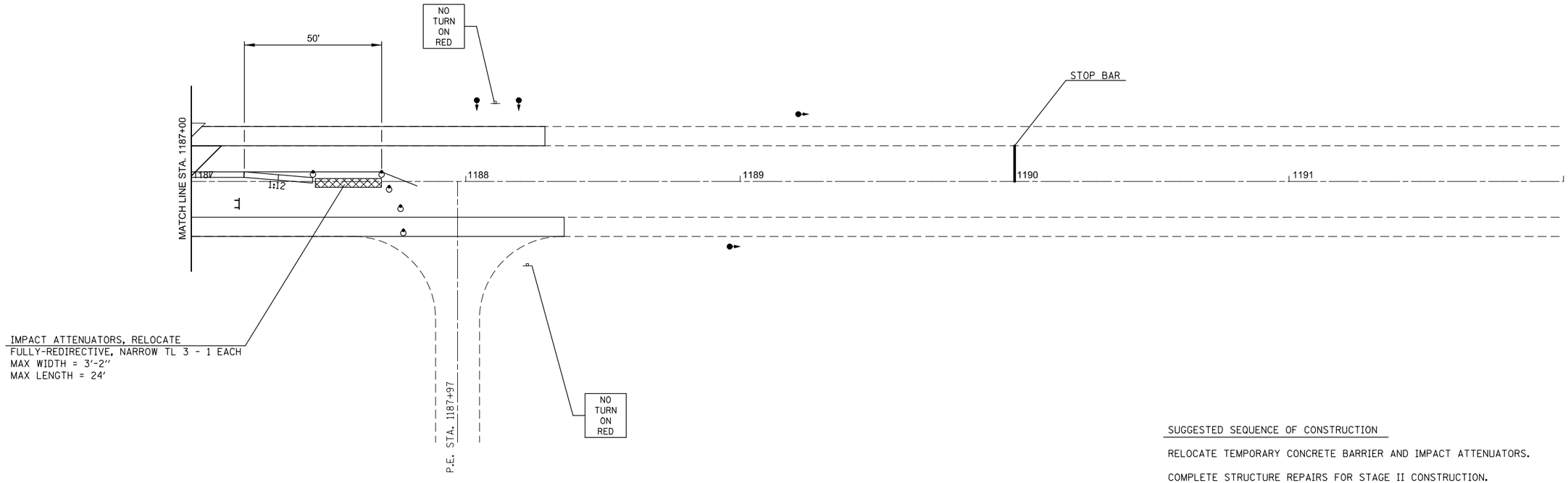
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1 CONSTRUCTION 042-0018

SCALE: 20 | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	9
		CONTRACT NO. 76G44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





SUGGESTED SEQUENCE OF CONSTRUCTION

RELOCATE TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS.

COMPLETE STRUCTURE REPAIRS FOR STAGE II CONSTRUCTION.

PLACE WATERPROOFING MEMBRANE SYSTEM AND HMA SURFACE COURSE FOR STAGE II.

CONSTRUCT TEMPORARY RAMPS ON BOTH ENDS OF THE STRUCTURE FOR STAGE II.

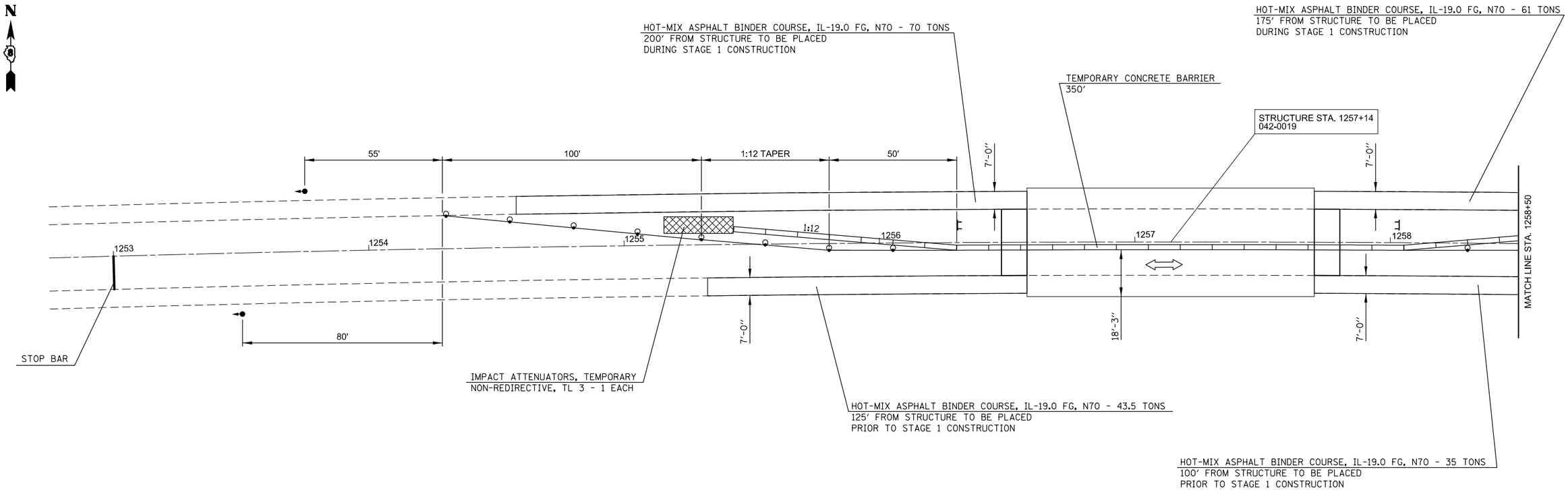
FILE NAME = c:\pw_work\pwidot\challandeske\d0340922\D876G44-sht-staging.dgn	USER NAME = challandeske	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2013	DATE -	REVISED -

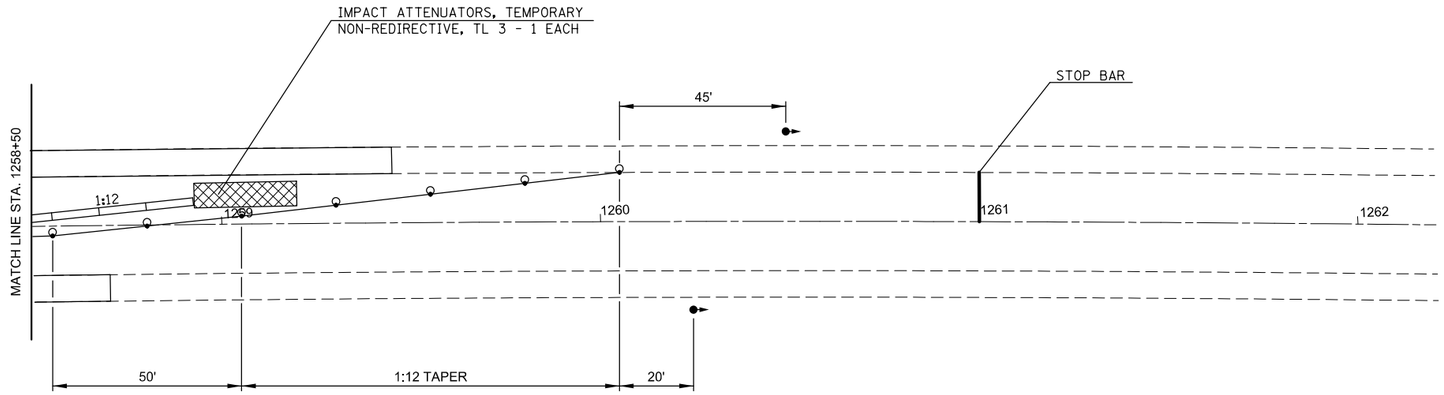
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 2 CONSTRUCTION 042-0018

SCALE: 20 | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	10
		CONTRACT NO. 76G44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





SUGGESTED SEQUENCE OF CONSTRUCTION

PLACE HMA BINDER COURSE, IL-19.0 FG, N70 PRIOR TO STAGE CONSTRUCTION.

PLACE STOP BARS AS SHOWN ON THE PLANS.

REMOVE CONFLICTING PAVEMENT MARKING BETWEEN STOP BARS.

PLACE TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON THE PLANS.

COMPLETE STRUCTURE REPAIRS FOR STAGE I CONSTRUCTION.

PLACE WATERPROOFING MEMBRANE SYSTEM AND HMA SURFACE COURSE OVER STRUCTURE FOR STAGE I.

CONSTRUCT TEMPORARY RAMPS ON BOTH ENDS OF THE STRUCTURE FOR STAGE I.

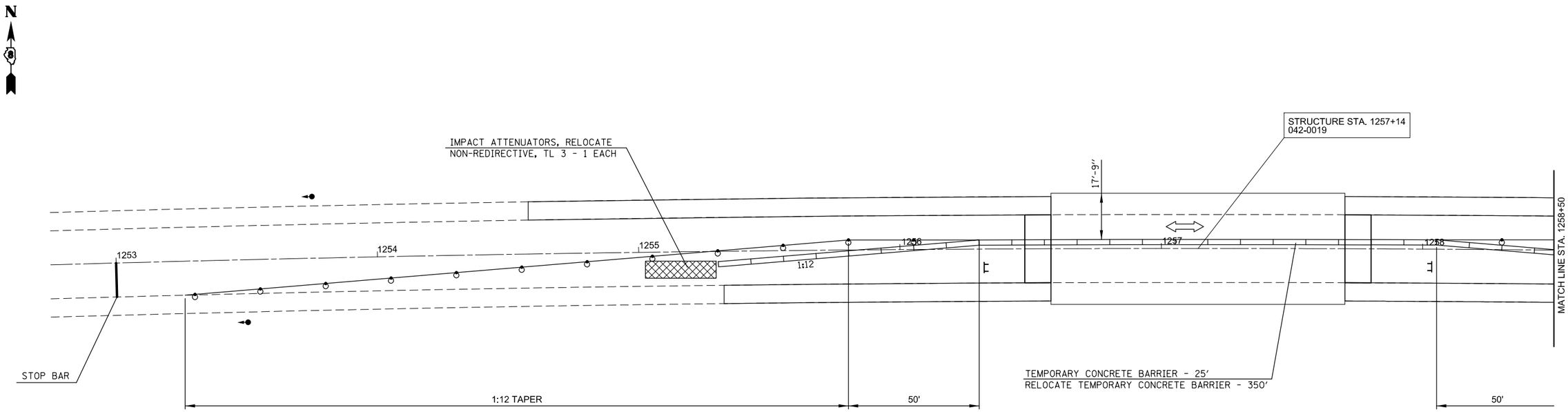
FILE NAME = c:\pw_work\pwidot\challandeske\d0340922\D876G44-sht-staging.dgn	USER NAME = challandeske	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2013	DATE -	REVISED -

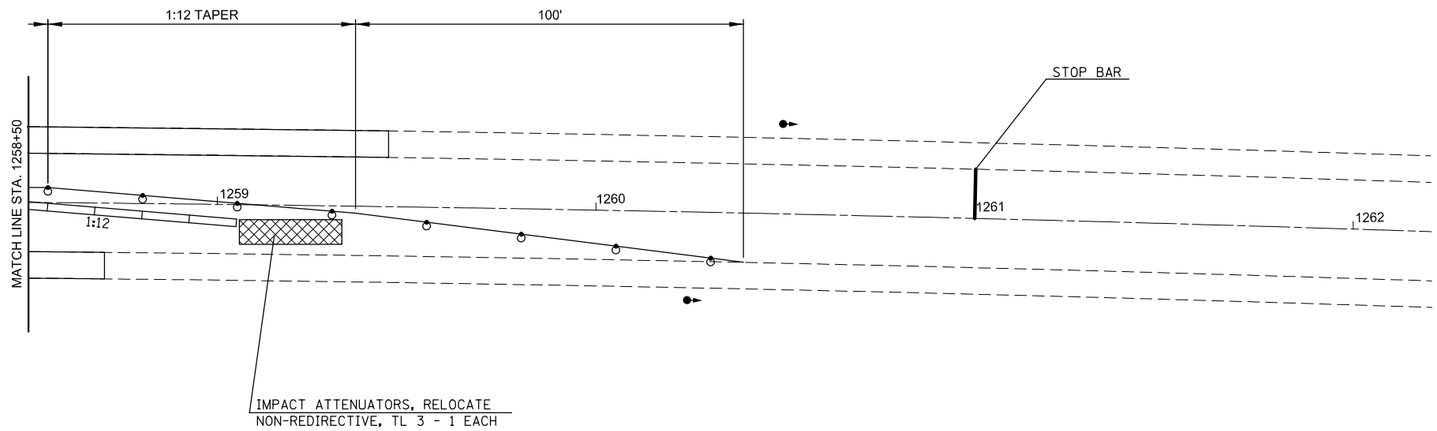
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1 CONSTRUCTION 042-0019

SCALE: 20 | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	11
		CONTRACT NO. 76G44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





SUGGESTED SEQUENCE OF CONSTRUCTION

RELOCATE TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS.

COMPLETE STRUCTURE REPAIRS FOR STAGE II CONSTRUCTION.

PLACE WATERPROOFING MEMBRANE SYSTEM AND HMA SURFACE COURSE FOR STAGE II.

CONSTRUCT TEMPORARY RAMPS ON BOTH ENDS OF THE STRUCTURE FOR STAGE II.

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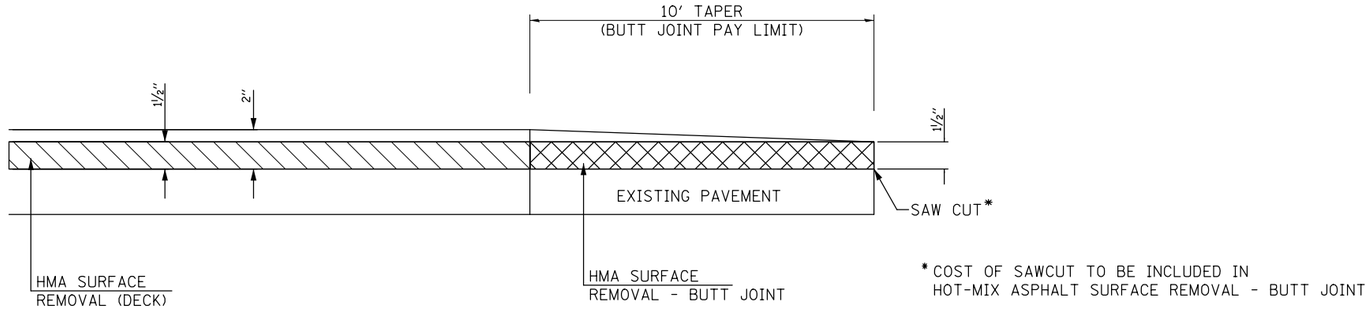
	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 2 CONSTRUCTION 042-0019

SCALE: 20 | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	12
		CONTRACT NO. 76G44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



*COST OF SAWCUT TO BE INCLUDED IN HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

BUTT JOINT
ELEVATION VIEW

SEE SCHEDULE FOR LOCATIONS

FILE NAME = c:\pw_work\pwidot\challandeske\d0340922\D876G44-sht-details.dgn	USER NAME = challandeske	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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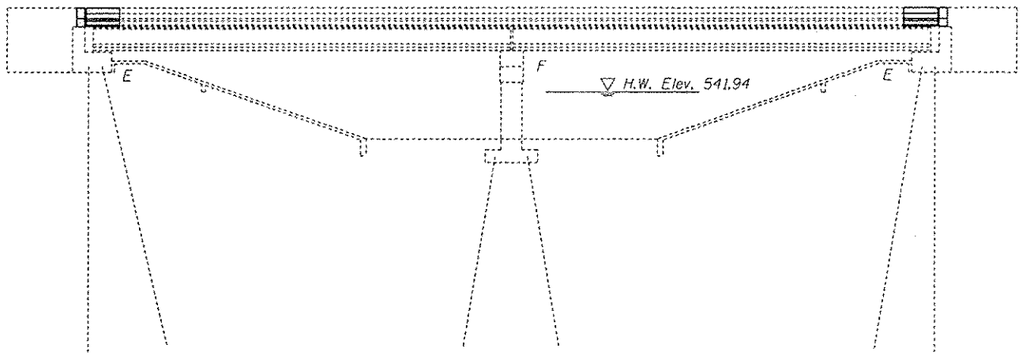
$MODELNAME$	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

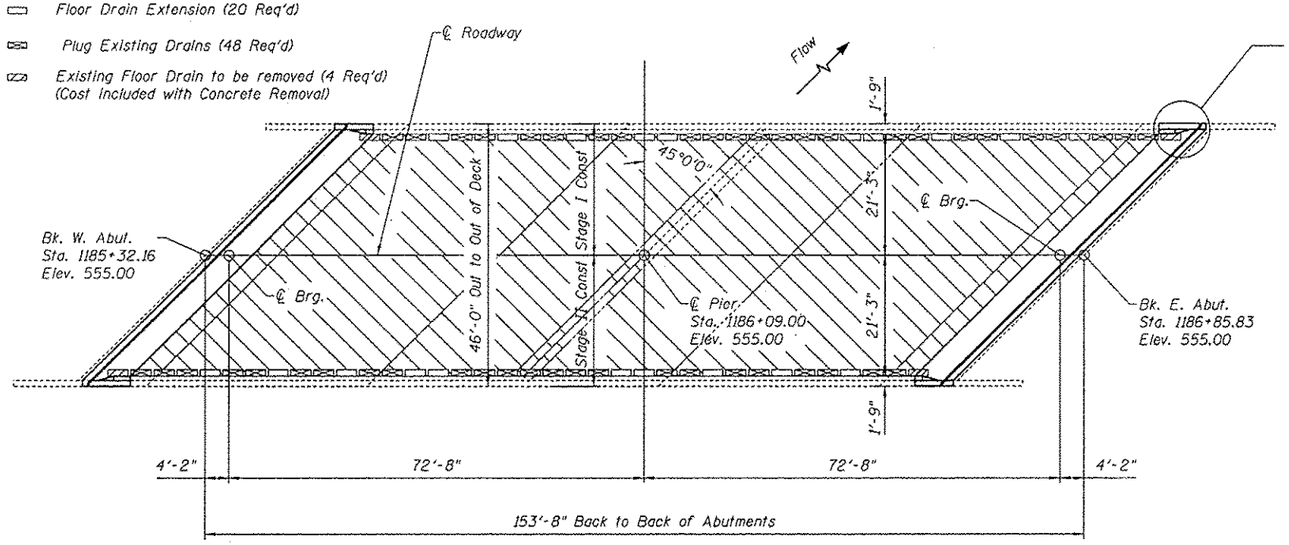
DETAIL

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	13
		CONTRACT NO. 76G44		
	ILLINOIS	FED. AID PROJECT		



ELEVATION



PLAN

Replace deck ends, hatchblock and install Preformed Joint Strip Seals.

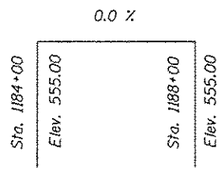
Floor Drain Extensions & Plug Existing Drains.

HMA overlay with WMS

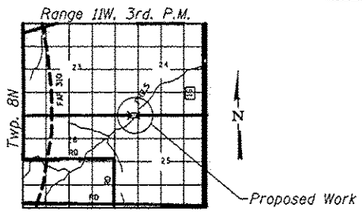
Hot-Mix Asphalt Surface Removal (Deck)

Waterproofing Membrane System

HMA Surface Course, Mix "D" N70



PROFILE GRADE



LOCATION SKETCH

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 of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.

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

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

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.

Bridge deck concrete sealer shall be placed on top/inside faces of parapets (full length)/wingwalls and on top of new concrete at joints.

INDEX OF SHEETS

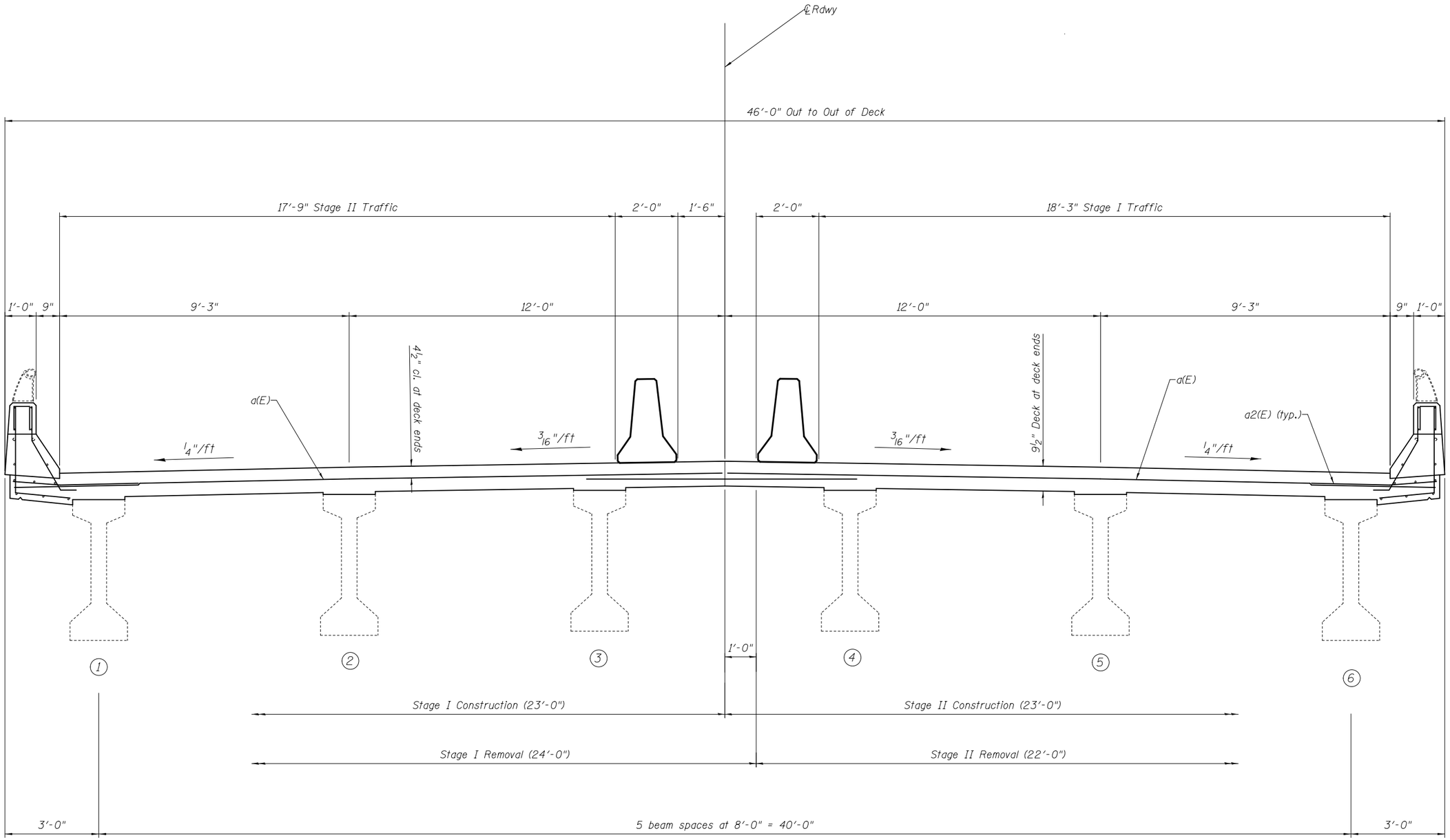
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	43.1
Concrete Superstructure	Cu. Yd.	43.9
Preformed Joint Strip Seal	Foot	128
Waterproofing Membrane System	Sq. Yd.	648
Reinforcement Bars, Epoxy Coated	Pound	5470
Floor Drain Extensions	Each	20
Plug Existing Deck Drains	Each	48
Bar Splicers	Each	30
HMA Surface Course, Mix "D" N70	Ton	73
Bridge Deck Concrete Sealer	Sq. Ft	1801
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	648
Deck Slab Repair (Partial)	Sq. Yd.	40
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	10

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD
ILLINOIS
STATE OF ILLINOIS

Expires 11/30/14

DESIGNED - A.Y.V.	EXAMINED		DATE - 1/21/14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION 042-0018	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - TLC	PASSED	ENGINEER OF STRUCTURAL SERVICES	REVISED			325	113BR, 113BR-1	Jersey	33	14
DRAWN - A.Y.V.		ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 1 OF 11 SHEETS			CONTRACT NO. 76G44		
CHECKED - TLC								ILLINOIS FED. AID PROJECT		

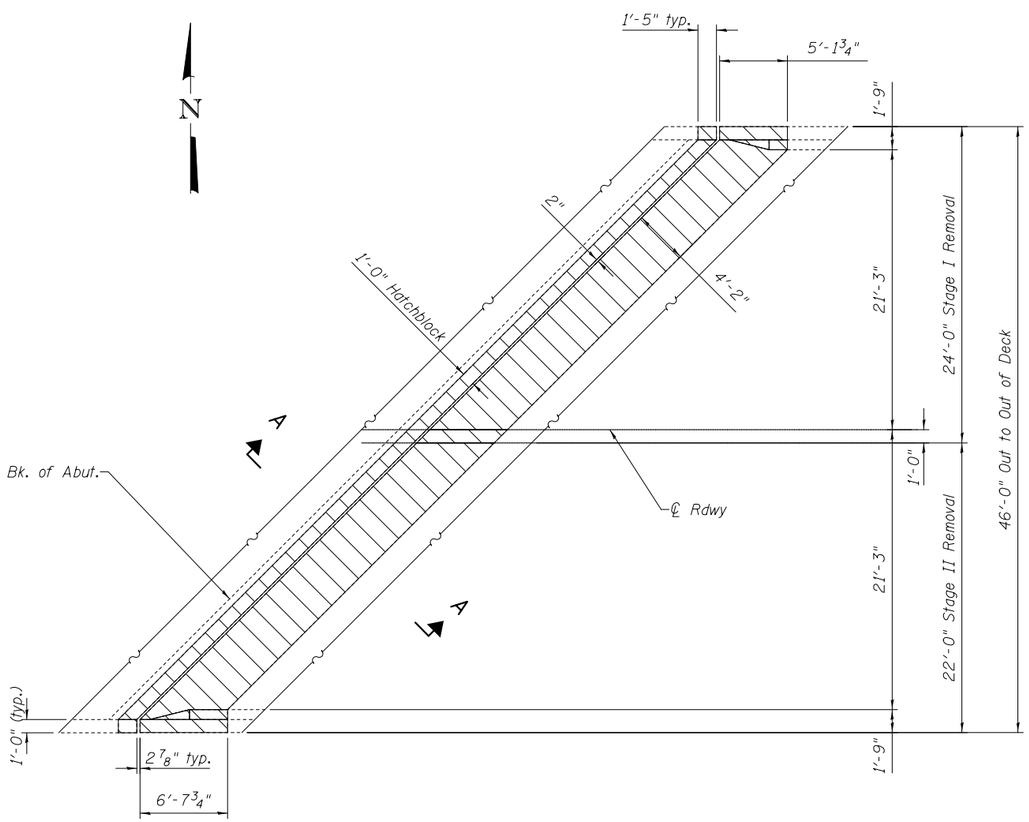


DECK CROSS SECTION

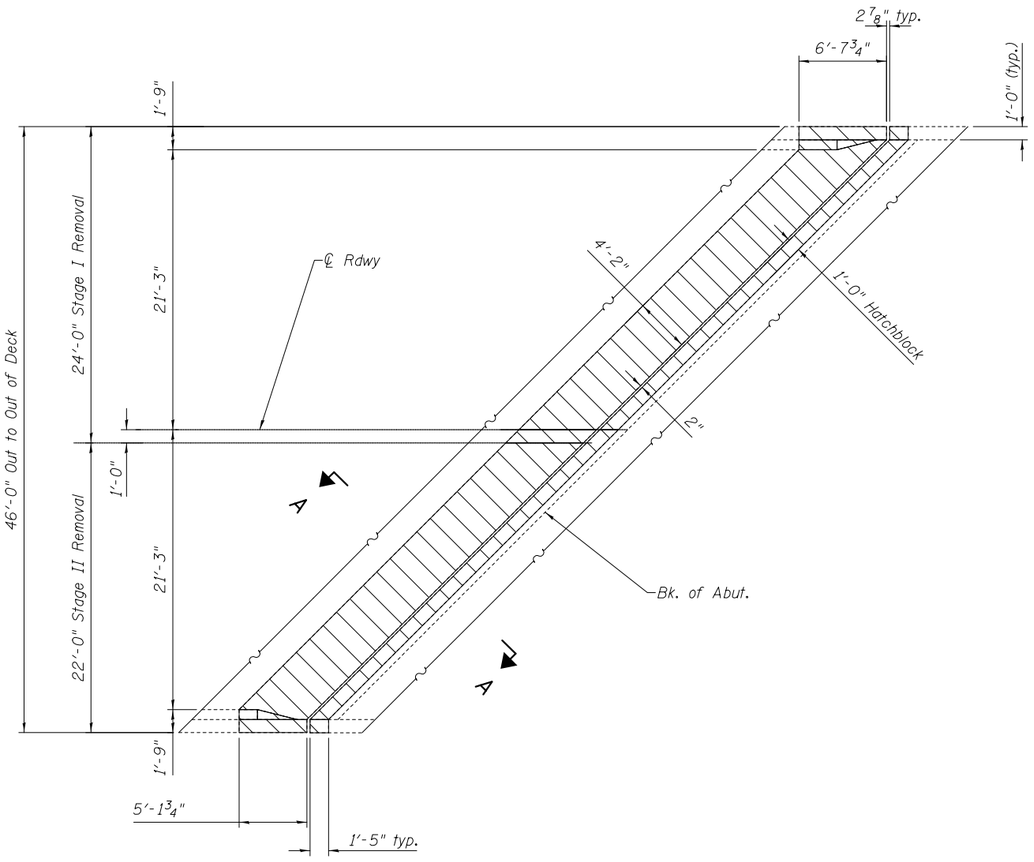
Looking East

℄ *Joint Locations*

DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK CROSS SECTION SN 042-0018	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	Jersey	33	15
DRAWN - AYV	PASSED	REVISED		SHEET NO. 2 OF 11 SHEETS			CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		



W. ABUTMENT

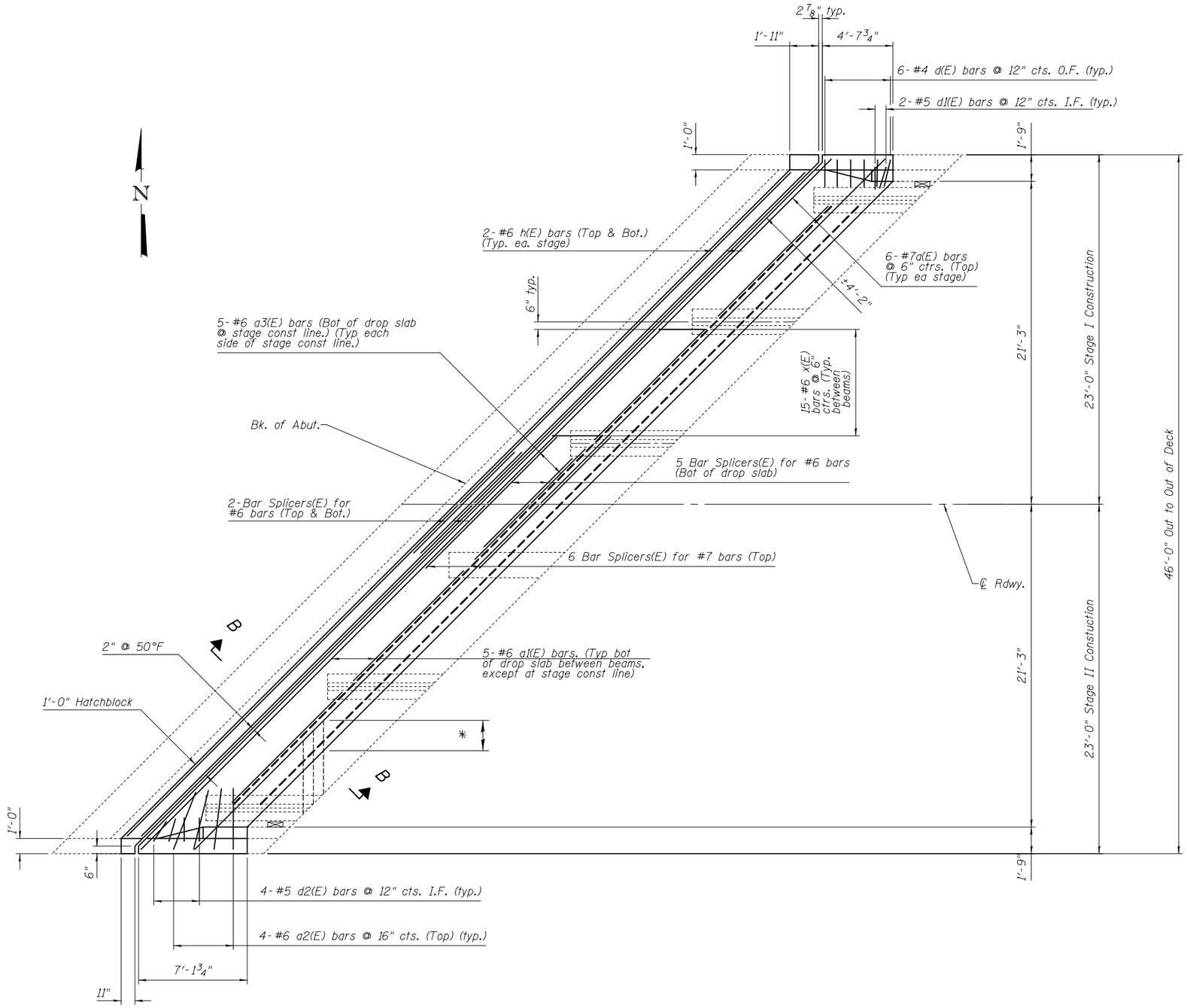


E. ABUTMENT

Note:

See sheet 6 of 11 for Section A-A

DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINT REMOVAL 042–0018	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	Jersey	33	16
DRAWN - A.Y.V.	PASSED	REVISED					CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 3 OF 11 SHEETS			ILLINOIS FED. AID PROJECT		



CONCRETE REPLACEMENT

Note:

* Existing transverse bars extending from deck into removed area shall be cut allowing 2'-0" to extend into the removed area. In addition. these cut bars shall be cleaned, straighten, and incorporated into the new construction.

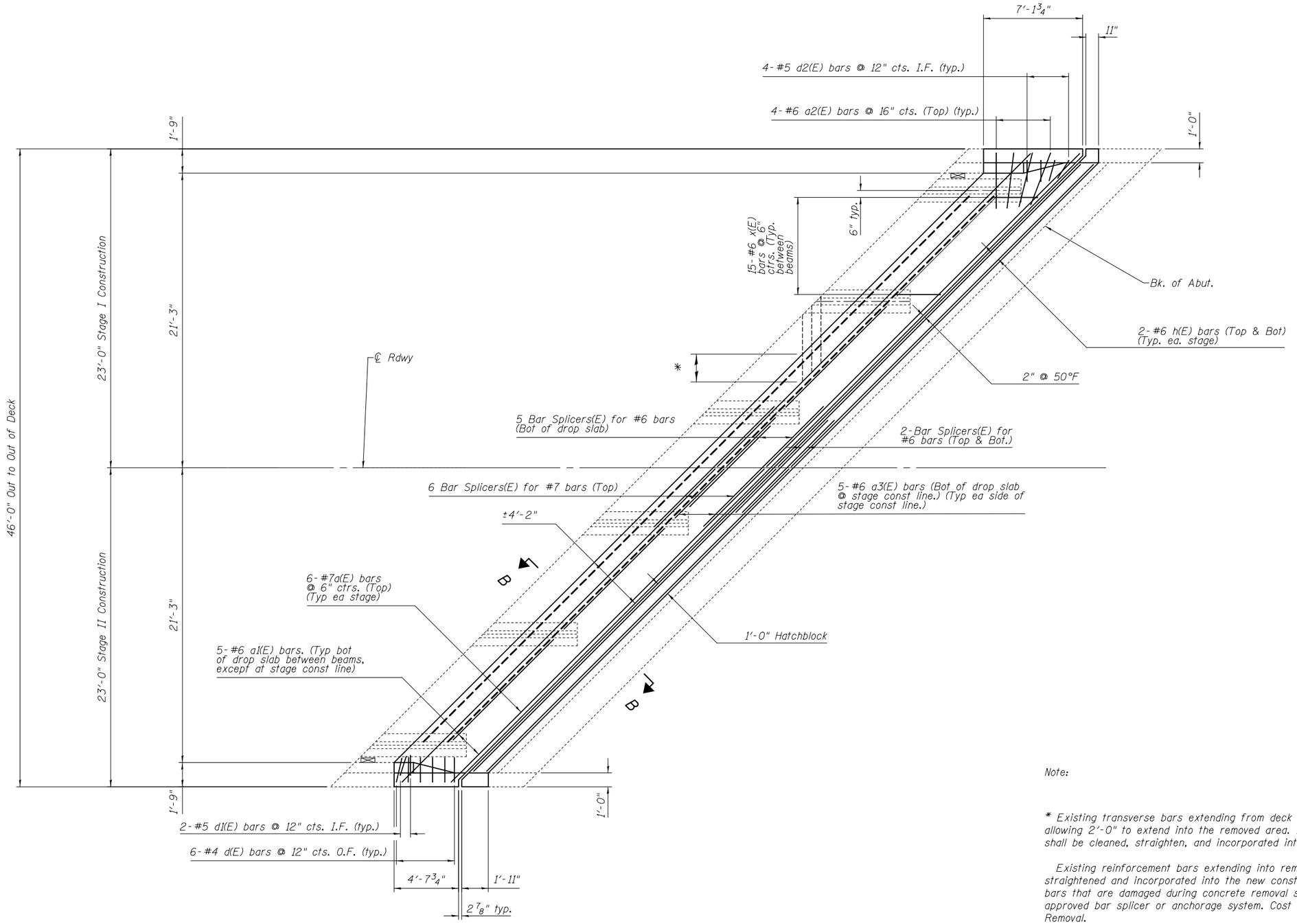
Existing reinforcement bars extending into removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

See sheet 6 of 11 for Section B-B.

DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - A.Y.V.	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

JOINT REPLACEMENT (W. ABUT.)
042-0018
SHEET NO. 4 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	Jersey	33	17
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			



CONCRETE REPLACEMENT

Note:

* Existing transverse bars extending from deck into removed area shall be cut allowing 2'-0" to extend into the removed area. In addition. these cut bars shall be cleaned, straighten, and incorporated into the new construction.

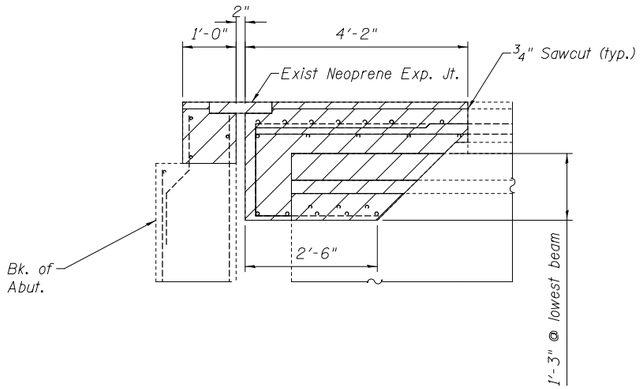
Existing reinforcement bars extending into removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

See sheet 6 of 11 for Section B-B.

DESIGNED - A.Y.V.	EXAMINED	DATE -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - A.Y.V.	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

JOINT REPLACEMENT (E. ABUT.)
042-0018
SHEET NO. 5 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	Jersey	33	18
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			



SECTION A-A

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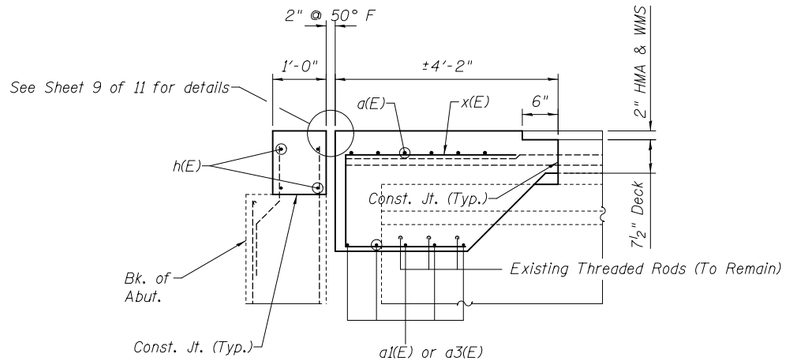
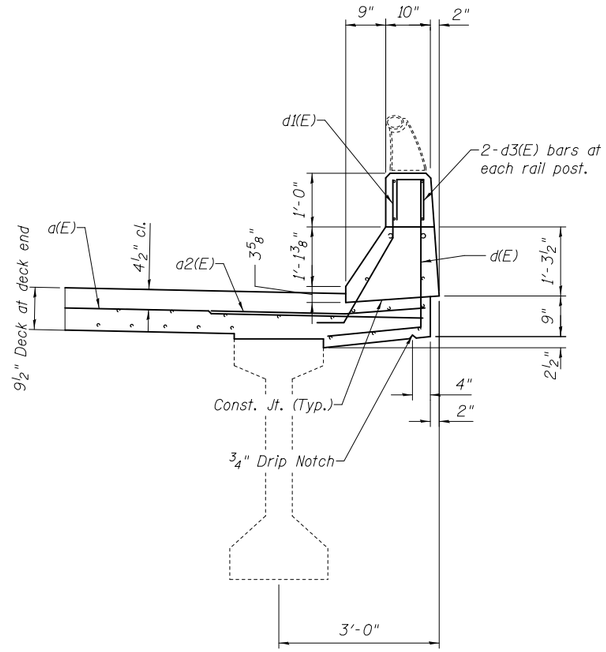


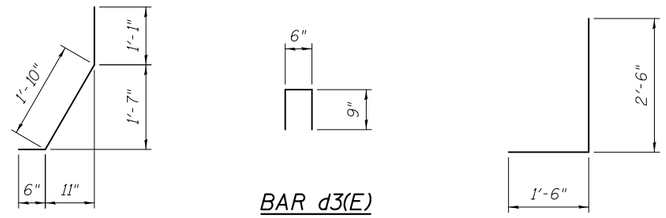
SECTION B-B

All dimensions are at right angles to jt.

Bar x(E) to be placed parallel to ℄ of Beam



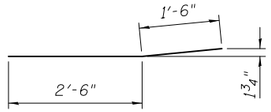
PARAPET SECTION



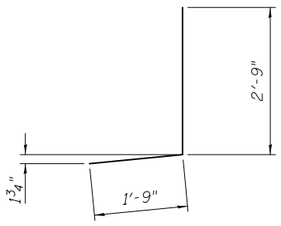
BAR d1(E)

BAR d3(E)

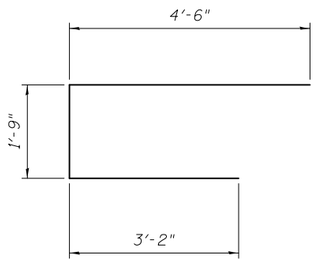
BAR d2(E)



BAR a2(E)



BAR d(E)



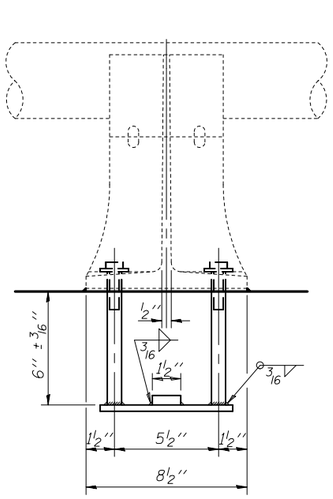
BAR x(E)

BILL OF MATERIAL

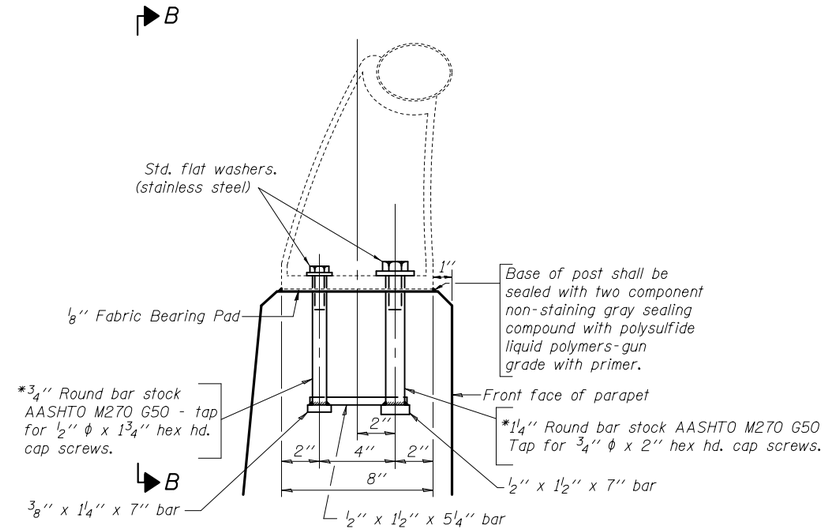
Bar	No.	Size	Length	Shape
a(E)	24	#7	32'-0"	
a1(E)	40	#6	10'-3"	
a2(E)	16	#6	4'-0"	
a3(E)	20	#6	5'-0"	
d(E)	24	#4	4'-6"	
d1(E)	8	#5	3'-5"	
d2(E)	16	#5	4'-0"	
d3(E)	8	#4	2'-0"	
h(E)	16	#6	30'-9"	
x(E)	150	#6	9'-5"	
Concrete Removal			Cu. Yd.	43.1
Concrete Superstructure			Cu. Yd.	43.9
Reinforcement Bars, Epoxy Coated			Lbs.	5470

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINT DETAILS SN 042-0018	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	Jersey	33	19
DRAWN - A.Y.V.	PASSED	REVISED					CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 6 OF 11 SHEETS			ILLINOIS FED. AID PROJECT		



VIEW B-B



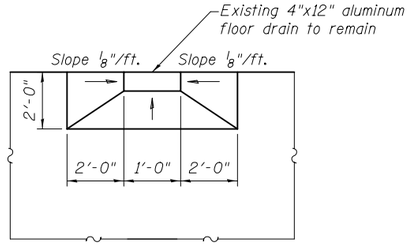
SECTION

RAIL POST DETAILS

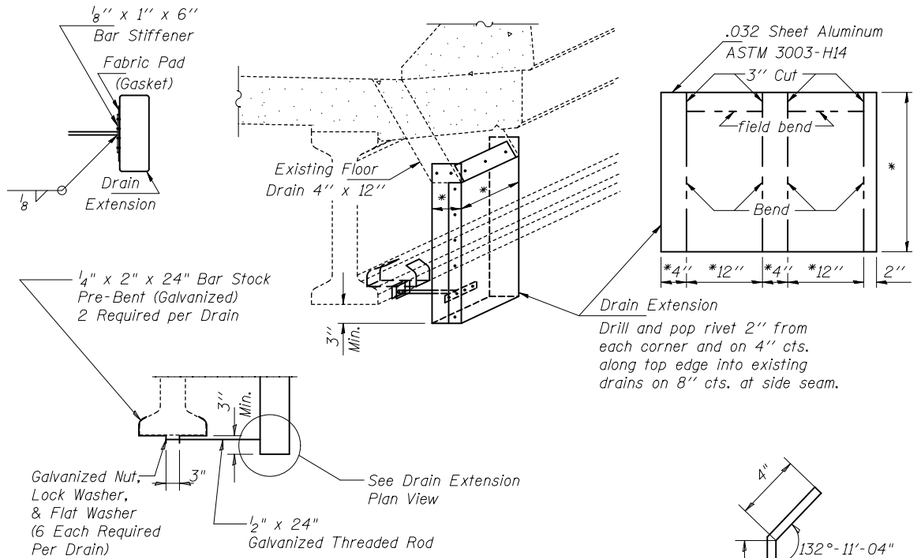
* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's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

DESIGNED - A.Y.V.	EXAMINED	DATE -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**RAIL ANCHORAGE DETAILS SN 042-0018**
CHECKED -	ENGINEER OF STRUCTURAL SERVICES			SHEET NO. 7 OF 11 SHEETS
DRAWN - A.Y.V.	PASSED	REVISED		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		

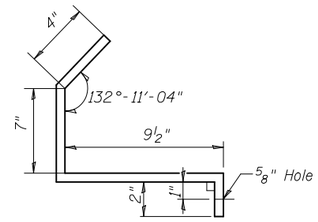
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	20
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			



DRAIN DETAIL



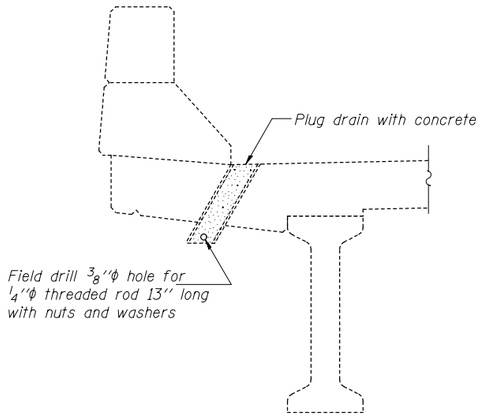
Notes: Pop rivet the 1/8" x 1" bar to Drain Extension. Weld or securely attach rod to both the bracket and bar stiffener. Use 3/16" stainless steel pop rivets of sufficient length.
* Field measure cut to fit existing drain.
An aluminum extrusion drain extension of similar dimensions may be substituted.



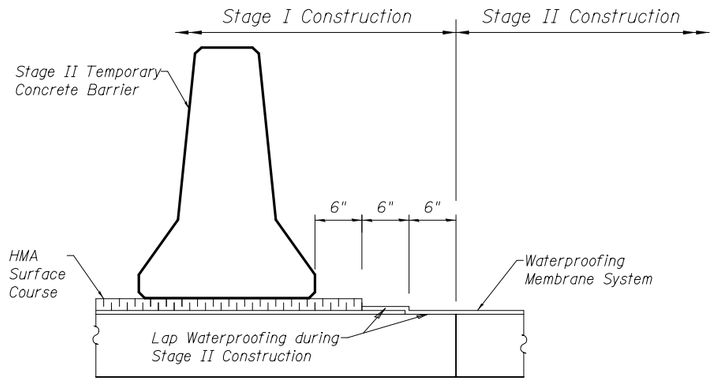
BRACKET DETAIL

FLOOR DRAIN EXTENSION DETAIL

See sheet 1 of 11 for locations



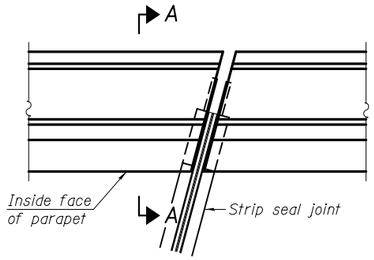
PLUG DRAIN DETAIL



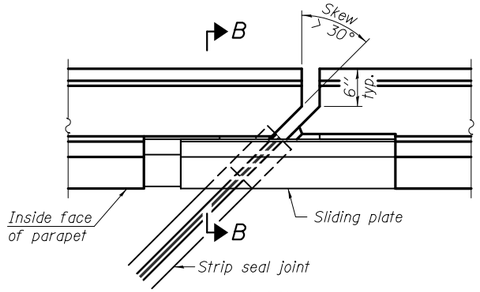
WATERPROOFING STAGING

Looking East

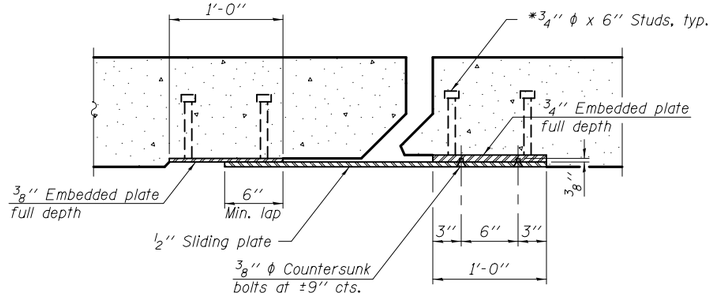
DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAIN DETAILS & WATERPROOFING STAGING SN 042-0018	F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	JERSEY	33	21
DRAWN - A.Y.V.	PASSED	REVISED		SHEET NO. 8 OF 11 SHEETS			CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		



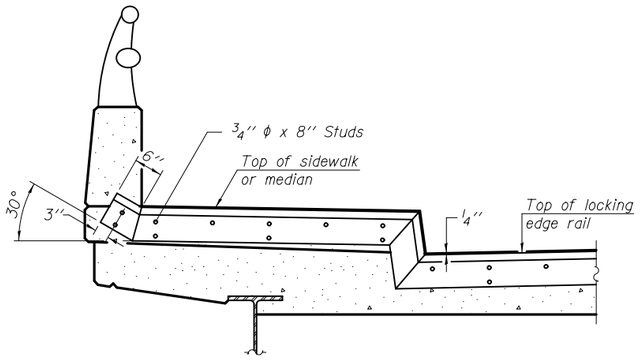
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

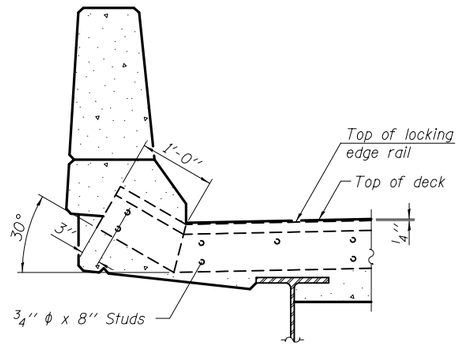


SECTION C-C

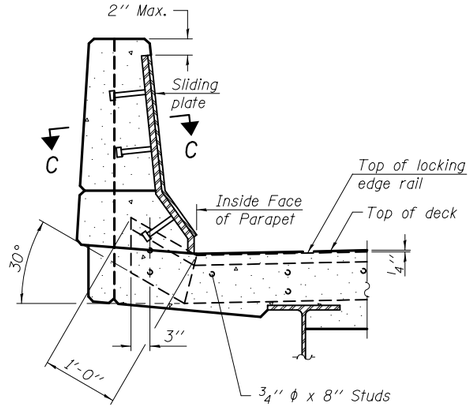


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

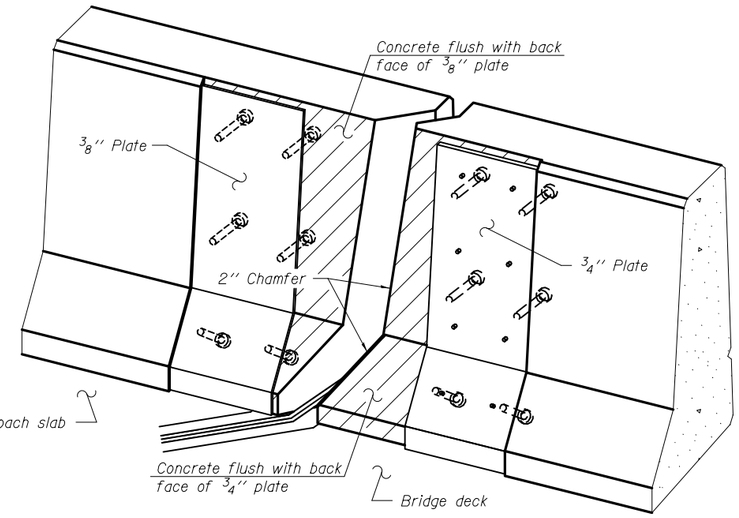
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



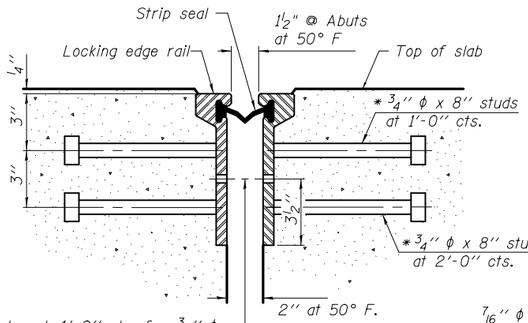
SECTION A-A



SECTION B-B

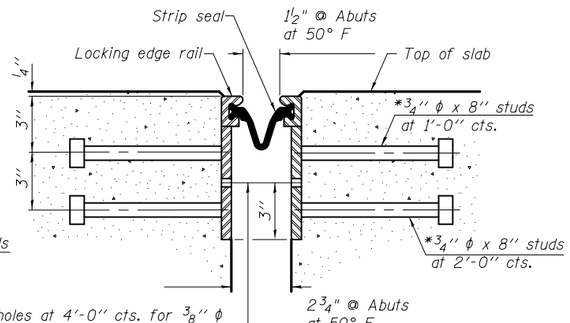


TRIMETRIC VIEW
(Showing back plates only)



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.

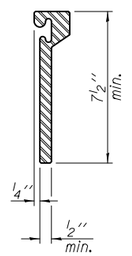
SECTION THRU ROLLED RAIL JOINT



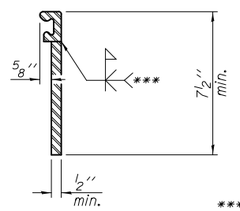
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

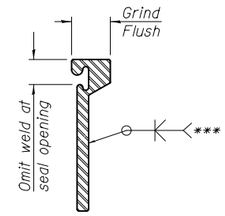
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



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

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

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 shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	128

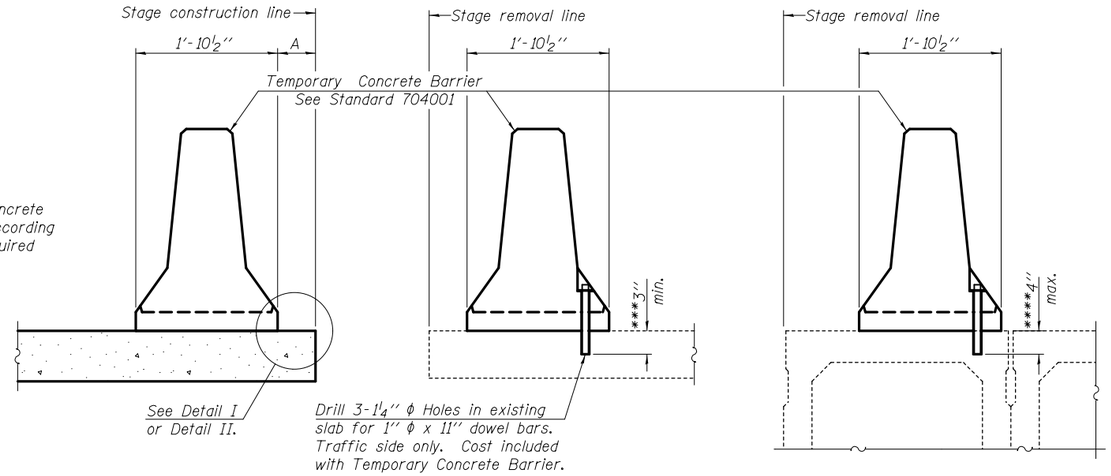
EJ-SSJ 1-27-12

DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYV	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 042-0018
SHEET NO. 9 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	22
		CONTRACT NO. 76G44		
	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".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7'' x "W" steel ℙ to the top layer of couplers with 2-⅝'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x "W" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

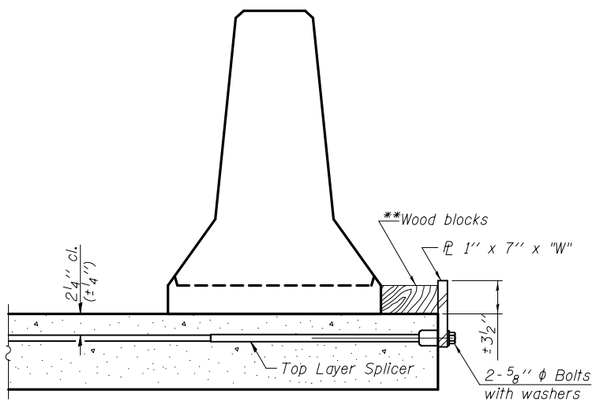
Cost of anchorage is included with Temporary Concrete Barrier.

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.

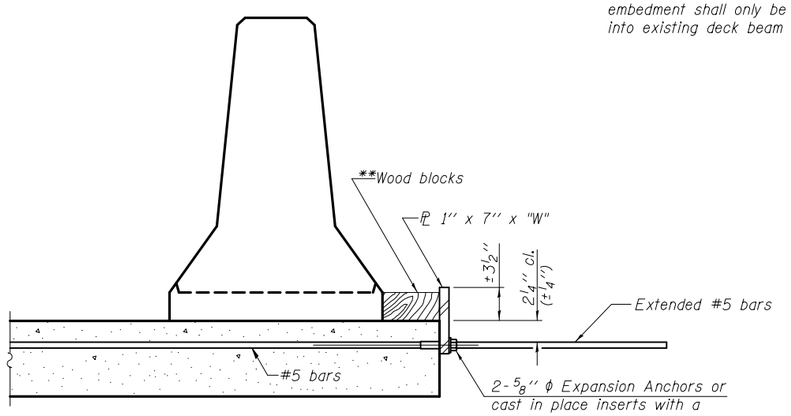
SECTIONS THRU SLAB OR DECK BEAM

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

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



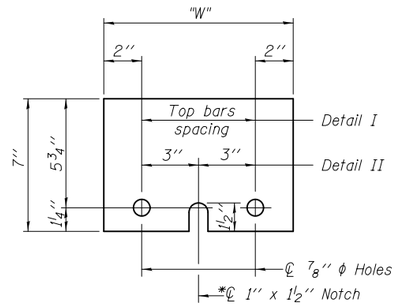
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4''

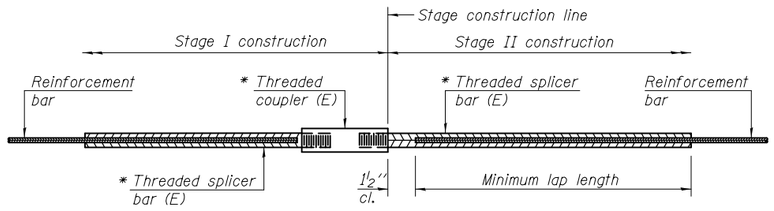


STEEL RETAINER ℙ 1'' x 7'' x ''W''

* Required only with Detail II

R-27 7-1-10

DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 042-0018	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	Jersey	33	23
DRAWN - A.Y.V.	PASSED	REVISED					CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 10 OF 11 SHEETS			ILLINOIS FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

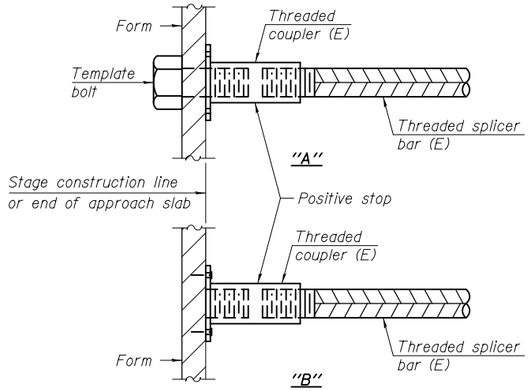
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

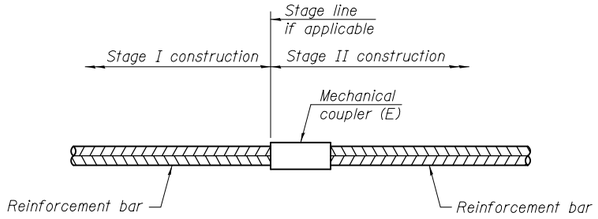
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
W Abut Hatchblock	#6	4	3
W Abut Deck (Top)	#7	6	3
W Abut Deck (Bot)	#6	5	3
E Abut Hatchblock	#6	4	3
E Abut Deck (Top)	#7	6	3
E Abut Deck (Bot)	#6	5	3



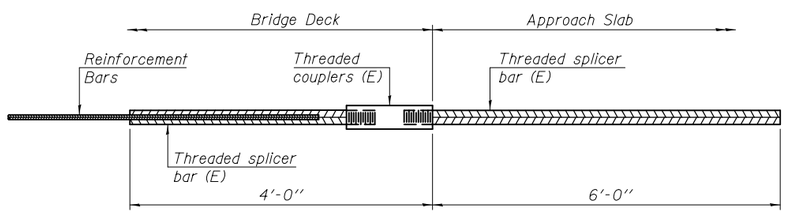
INSTALLATION AND SETTING METHODS

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



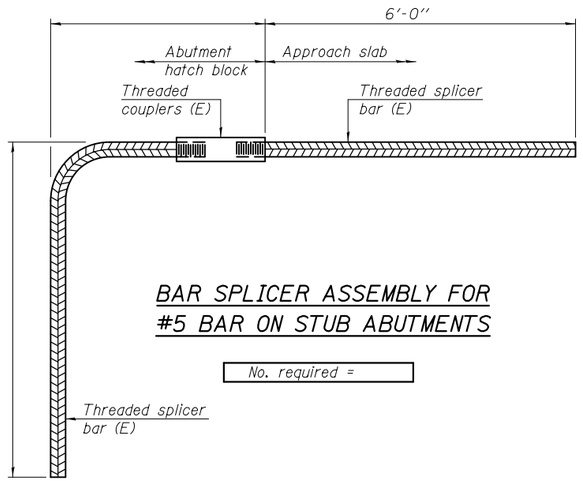
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

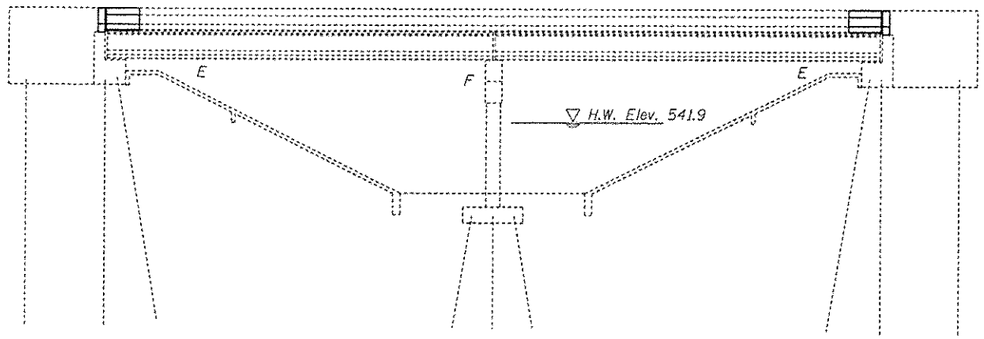
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-27-12

DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - A.Y.V.	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 042-0018
SHEET NO. 11 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	24
		CONTRACT NO. 76G44		
	ILLINOIS	FED. AID PROJECT		

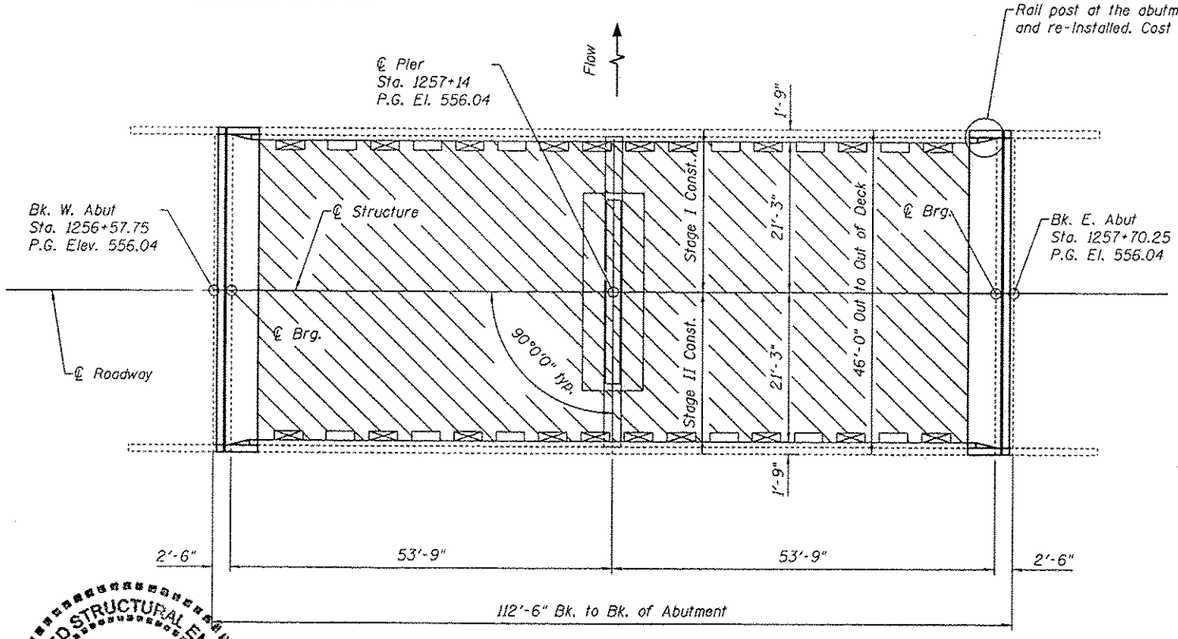


ELEVATION

Floor Drain Extension (12 Req'd)

Plug Existing Drains (20 Req'd)

Hot-Mix Asphalt Surface Removal (Deck)
Waterproofing Membrane System
HMA Surface Course, Mix "D" N70

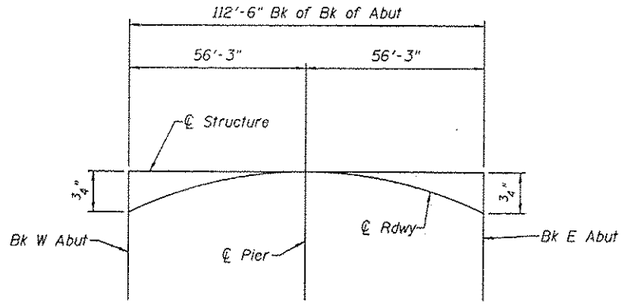


PLAN

Replace deck ends, hatchblock and install Preformed Joint Strip Seals.

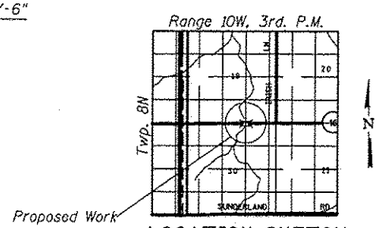
Floor Drain Extensions & Plug Existing Drains.

HMA overlay with WMS

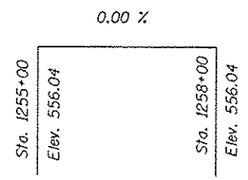


OFFSET SKETCH

℄ Structure is tangent to ℄ rdwy at ℄ pier (Sta 1257+14)



LOCATION SKETCH



PROFILE GRADE

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 of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.

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

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

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.

Bridge deck concrete sealer shall be placed on top/inside faces of parapets (full length)/wingwalls and on top of new concrete at joints.

INDEX OF SHEETS

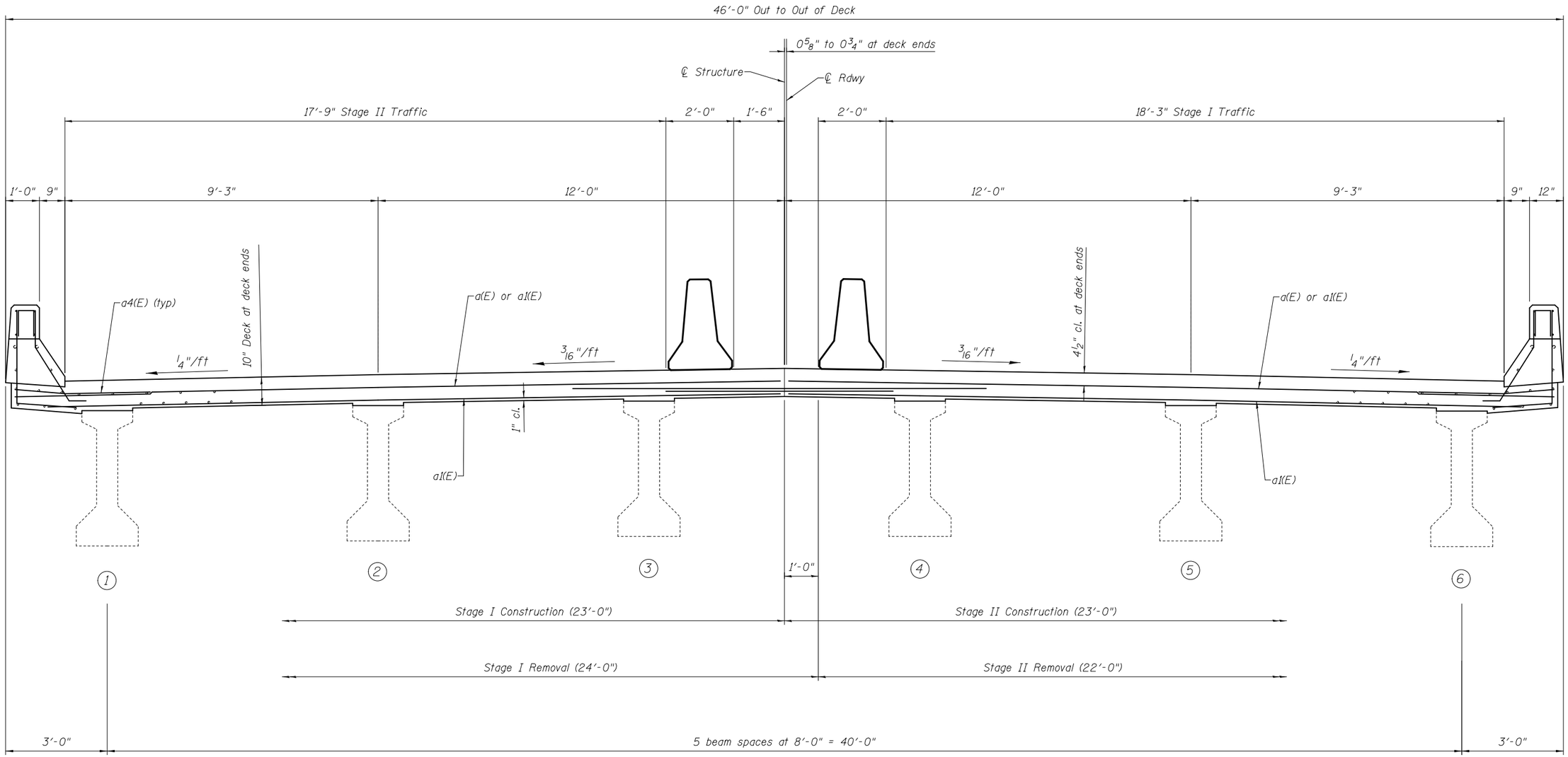
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	29.9
Concrete Superstructure	Cu. Yd.	30.6
Preformed Joint Strip Seal	Foot	90
Waterproofing Membrane System	Sq. Yd.	472
Reinforcement Bars, Epoxy Coated	Pound	4900
Floor Drain Extensions	Each	12
Plug Existing Deck Drains	Each	20
Bar Splicers	Each	42
HMA Surface Course, Mix "D" N70	Ton	53
Bridge Deck Concrete Sealer	Sq. Ft.	185
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	472
Deck Slab Repair (Partial)	Sq. Yd.	40
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	10

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD ILLINOIS
STATE OF ILLINOIS

Expires 11/30/14

DESIGNED - A.Y.V.	EXAMINED		DATE - 1/21/14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION 042-0019	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - T.L.C.	PASSED	ENGINEER OF STRUCTURAL SERVICES	REVISED			325	113BR, 113BR-1	Jersey	33	25
DRAWN - A.Y.V.		ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 1 OF 9 SHEETS			CONTRACT NO. 76G44		
CHECKED - T.L.C.							ILLINOIS FED. AID PROJECT			

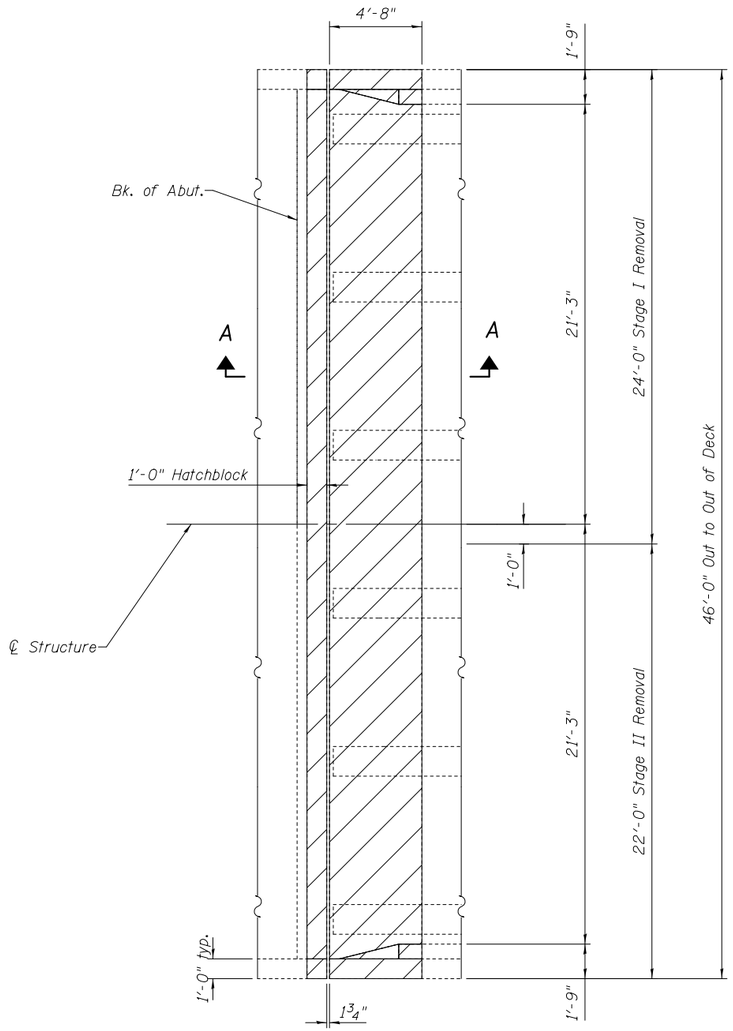


CROSS SECTION

Looking East

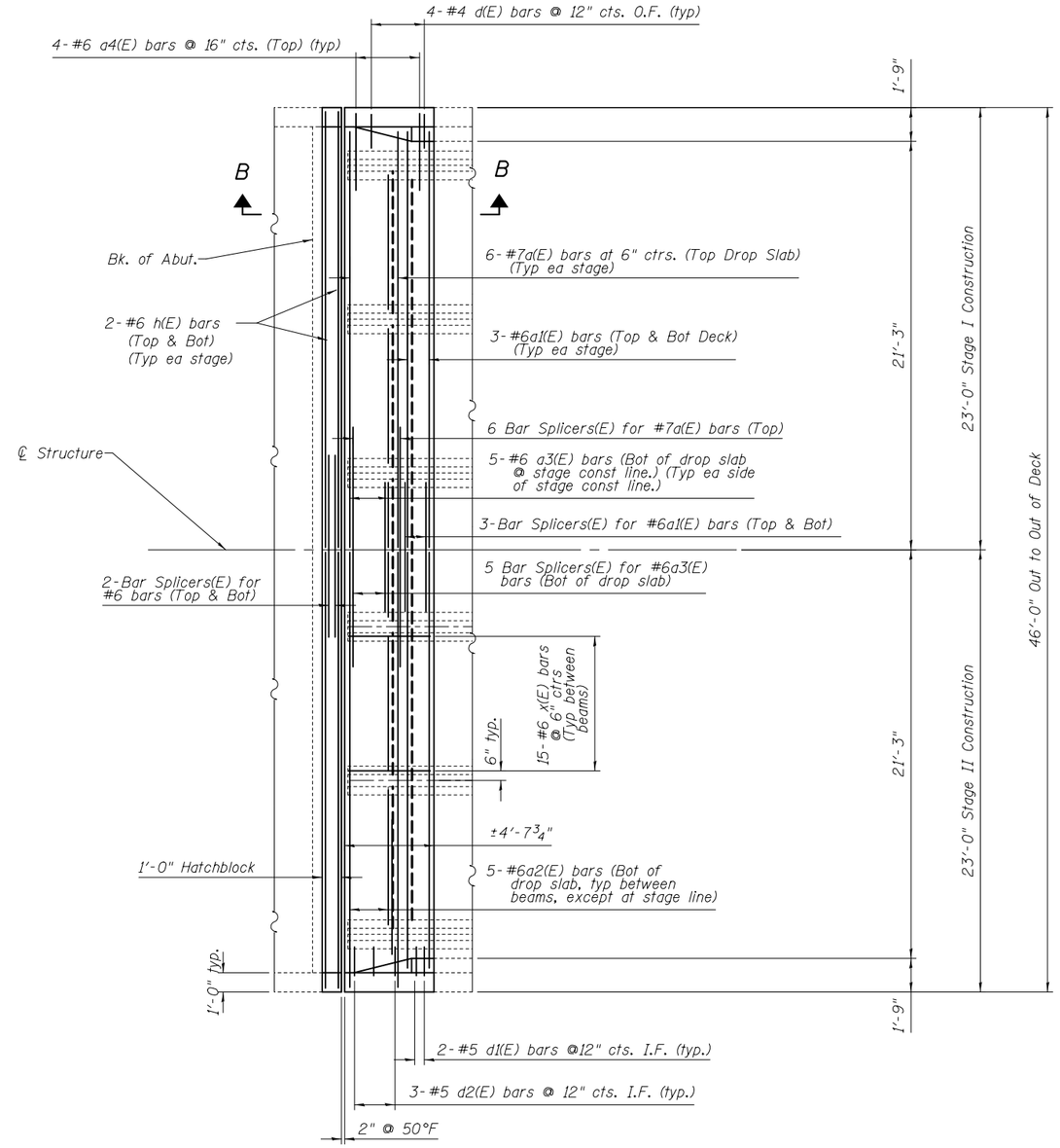
℄ Jt. Locations

DESIGNED - AYV	EXAMINED	DATE -	**STATE OF ILLINOIS**	**CROSS SECTION**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		**DEPARTMENT OF TRANSPORTATION**	**042–0019**	325	113BR, 113BR-1	Jersey	33	26
DRAWN - AYV	PASSED	REVISED						CONTRACT NO. 76G44	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 2 OF 9 SHEETS			ILLINOIS	FED. AID PROJECT	



CONCRETE REMOVAL

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



CONCRETE REPLACEMENT

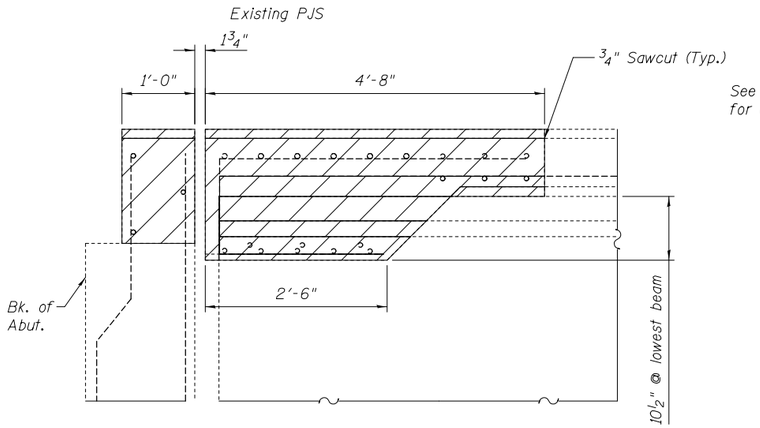
(W. Abut shown, E. Abut similar by 180° rotation)

Note:

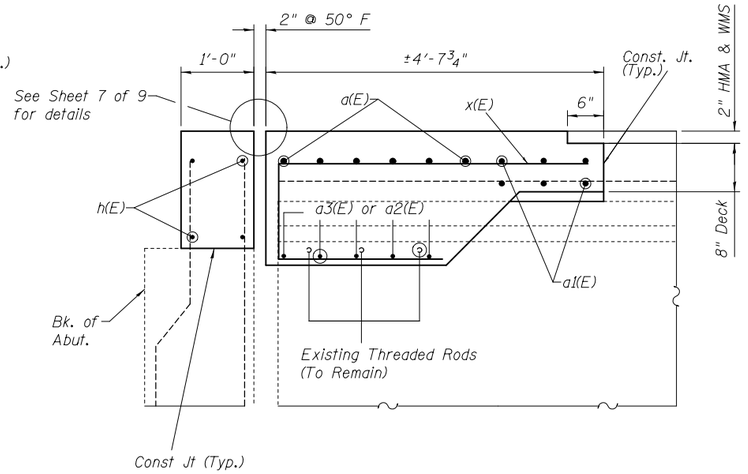
Existing reinforcement bars extending into removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

See sheet 4 of 9 for Section A-A & B-B

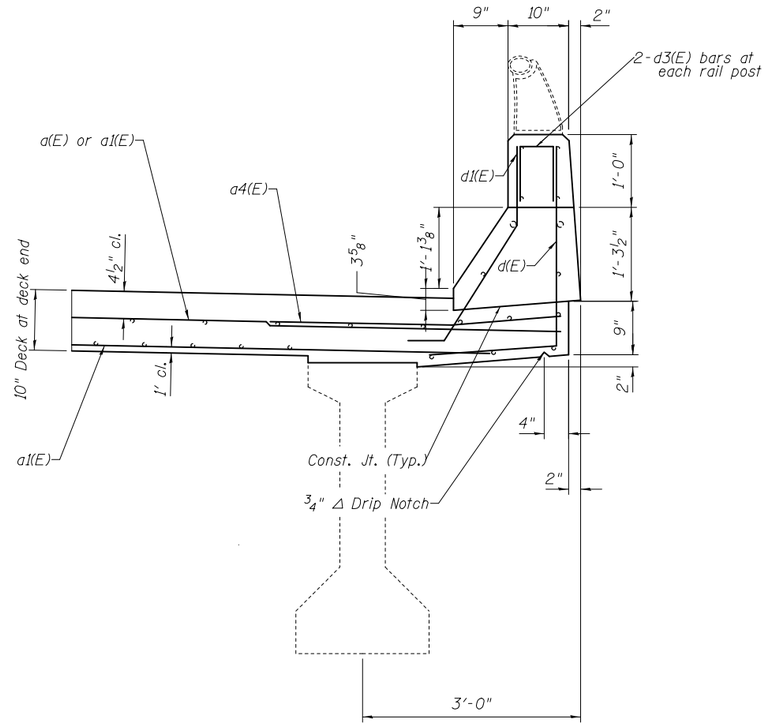
DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINT REMOVAL & REPLACEMENT SN 042-0019	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	JERSEY	33	27
DRAWN - AYV	PASSED	REVISED					CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 3 OF 9 SHEETS			ILLINOIS FED. AID PROJECT		



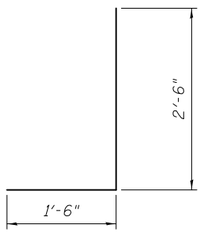
SECTION A-A



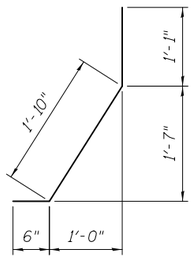
SECTION B-B



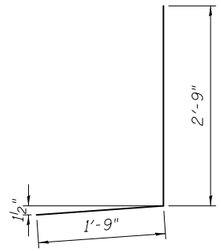
PARAPET SECTION



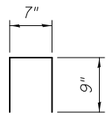
BAR d2(E)



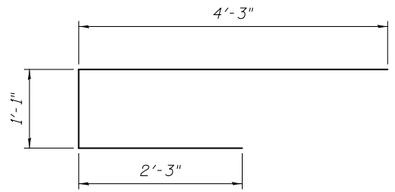
BAR d1(E)



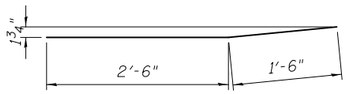
BAR d(E)



BAR d3(E)



BAR x(E)



BAR a4(E)

BILL OF MATERIAL

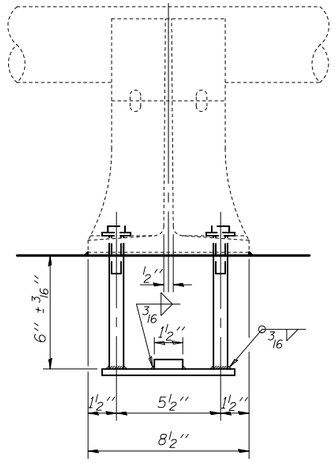
Bar	No.	Size	Length	Shape
a(E)	24	#7	22'-8"	
a1(E)	24	#6	21'-8"	
a2(E)	40	#6	7'-0"	
a3(E)	20	#6	3'-4"	
a4(E)	16	#6	4'-0"	
d(E)	16	#4	4'-6"	
d1(E)	8	#5	3'-5"	
d2(E)	12	#5	4'-0"	
d3(E)	8	#4	2'-1"	
h(E)	16	#6	22'-8"	
x(E)	150	#6	7'-7"	
Concrete Removal			Cu. Yd.	29.9
Concrete Superstructure			Cu. Yd.	30.6
Reinforcement Bars, Epoxy Coated			Lbs.	4900

Reinforcement bars designated (E) shall be epoxy coated.

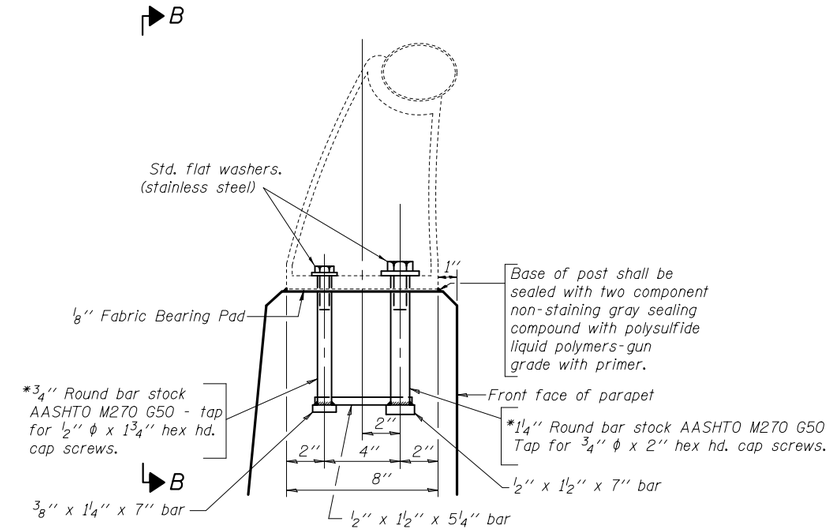
DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYV	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

JOINT DETAILS
SN 042-0019
SHEET NO. 4 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	28
		CONTRACT NO. 76G44		
	ILLINOIS FED. AID PROJECT			



VIEW B-B

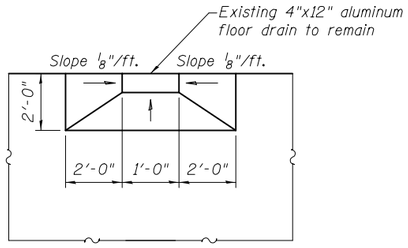


SECTION

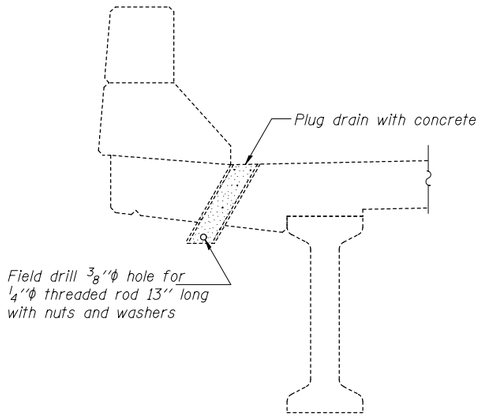
RAIL POST DETAILS

* *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.*

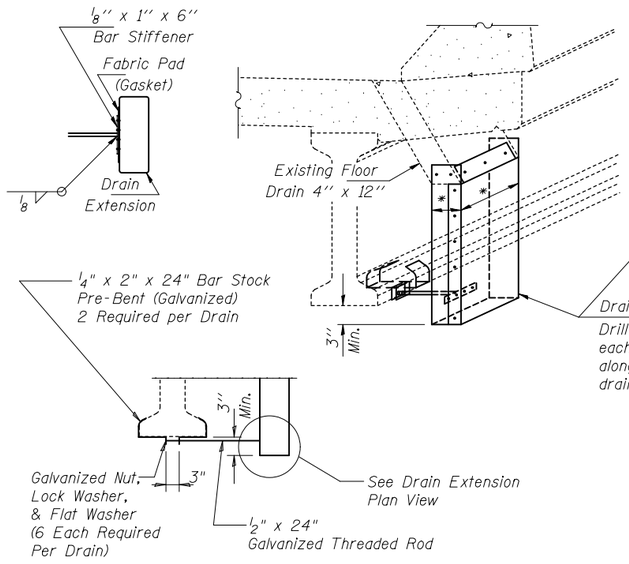
DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RAIL ANCHORAGE DETAILS SN 042-0019	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	JERSEY	33	29
DRAWN - A.Y.V.	PASSED	REVISED					CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 5 OF 9 SHEETS		ILLINOIS	FED. AID PROJECT		

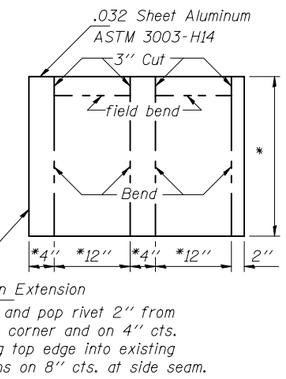


DRAIN DETAIL



PLUG DRAIN DETAIL

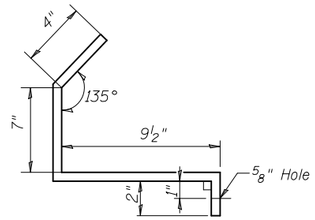




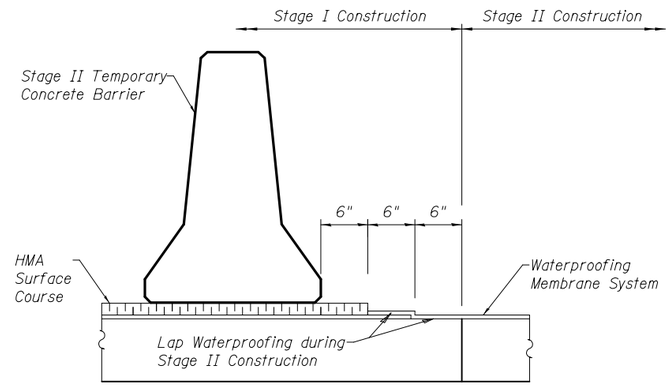
Notes: Pop rivet the 1/8" x 1" bar to Drain Extension. Weld or securely attach rod to both the bracket and bar stiffener. Use 3/16" stainless steel pop rivets of sufficient length.
* Field measure cut to fit existing drain.
An aluminum extrusion drain extension of similar dimensions may be substituted.

FLOOR DRAIN EXTENSION DETAIL

See Sheet 1 of 9 for locations



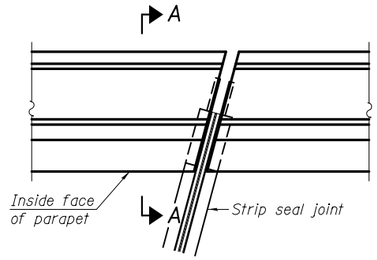
BRACKET DETAIL



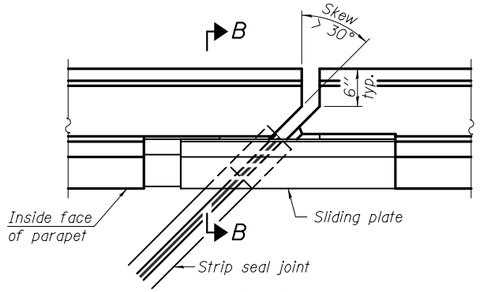
WATERPROOFING STAGING

Looking East

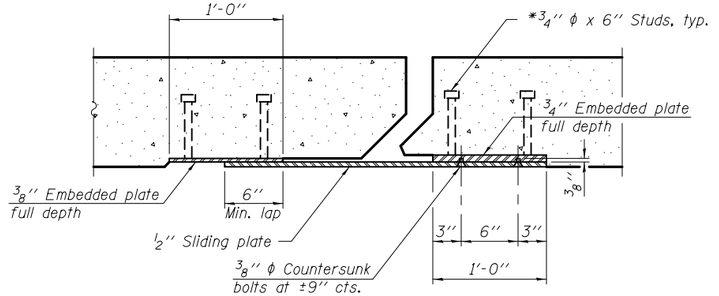
DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAIN DETAILS & WATERPROOFING STAGING SN 042-0019	F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	JERSEY	33	30
DRAWN - A.Y.V.	PASSED	REVISED						CONTRACT NO. 76G44	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 6 OF 9 SHEETS		ILLINOIS	FED. AID PROJECT		



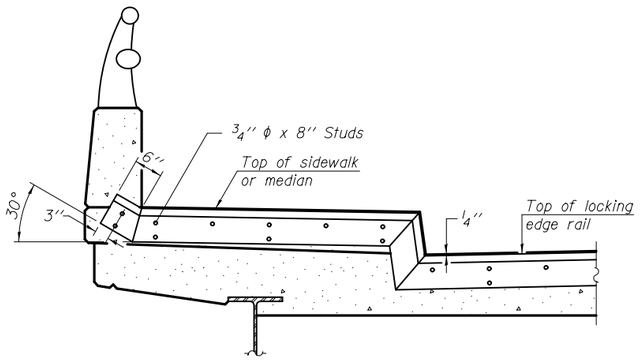
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

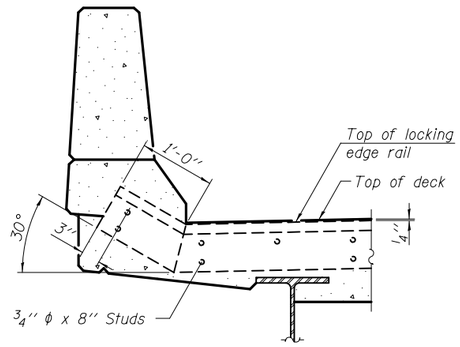


SECTION C-C

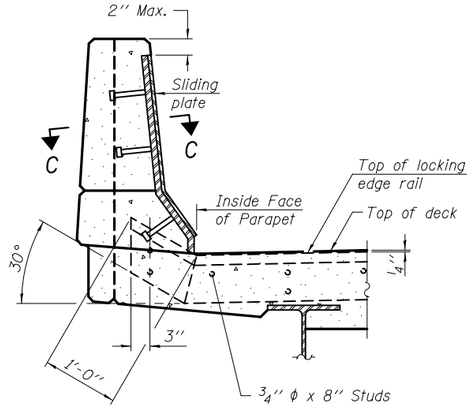


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

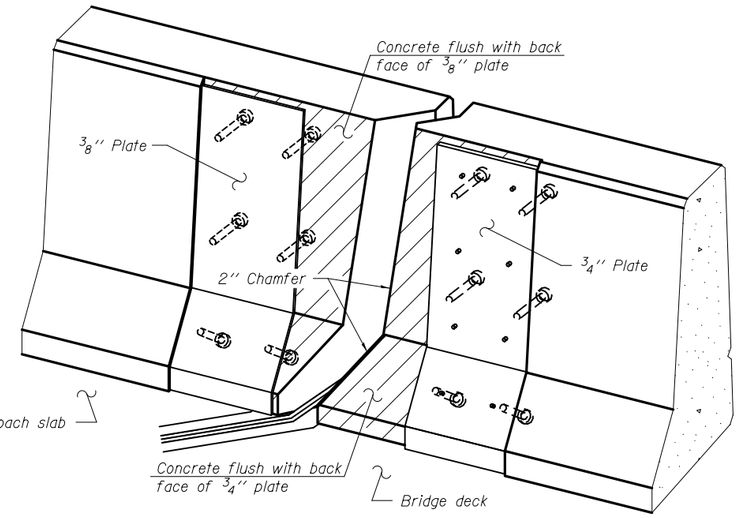
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

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

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

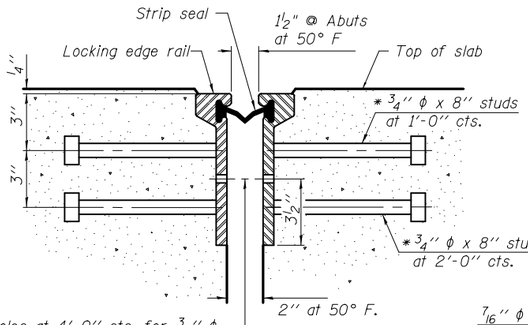
The manufacturer's recommended installation methods shall be followed.

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

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

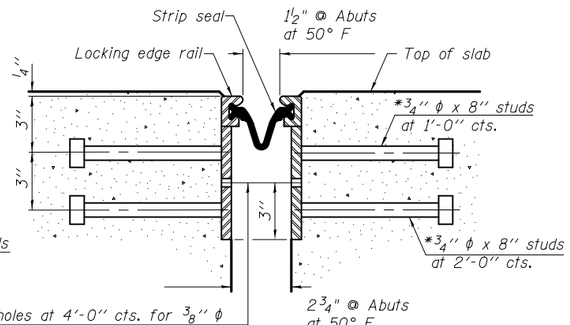
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

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



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.

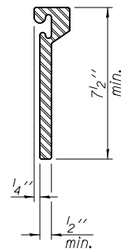
SECTION THRU ROLLED RAIL JOINT



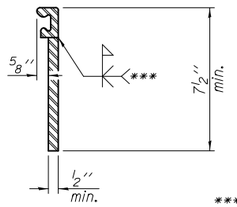
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

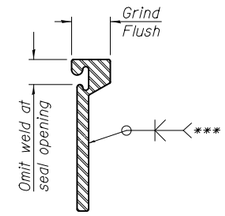
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



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

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	90

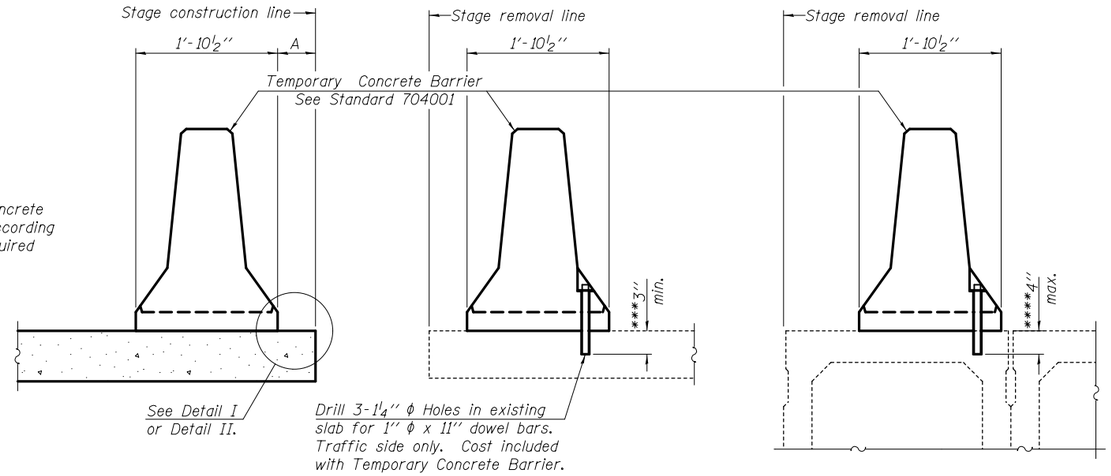
EJ-SSJ 1-27-12

DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYV	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 042-0019
SHEET NO. 7 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	JERSEY	33	31
		CONTRACT NO. 76G44		
	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".



NEW SLAB

EXISTING SLAB

EXISTING 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 2-⅝'' ϕ bolts screwed to coupler at approximate ℄ 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 2-⅝'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

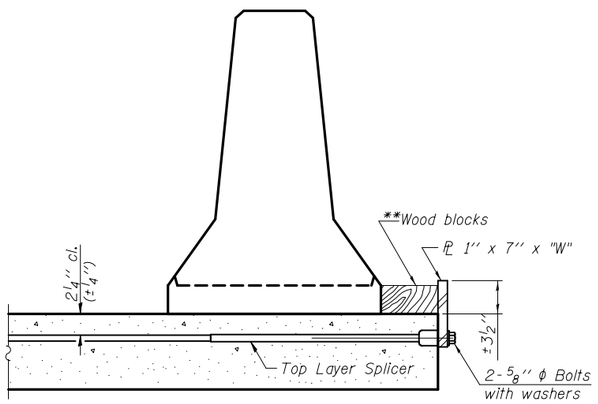
Cost of anchorage is included with Temporary Concrete Barrier.

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.

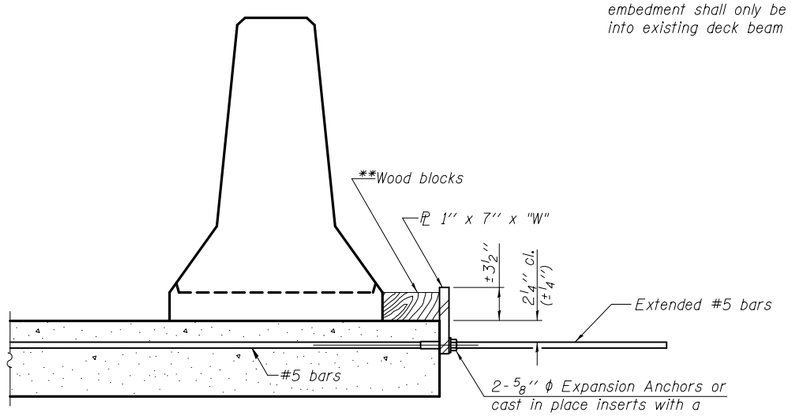
SECTIONS THRU SLAB OR DECK BEAM

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

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



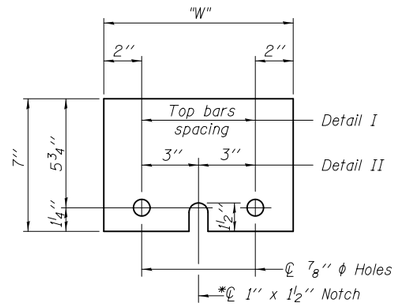
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4''

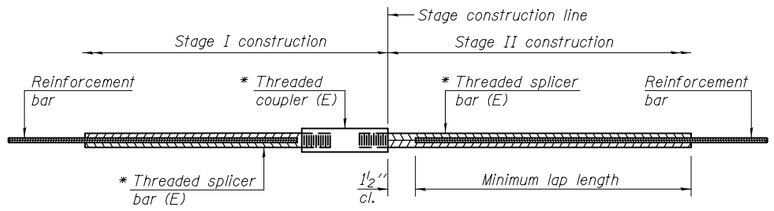


STEEL RETAINER Pℓ 1'' x 7'' x "W"

* Required only with Detail II

R-27 7-1-10

DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 042-0019	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				325	113BR, 113BR-1	Jersey	33	32
DRAWN - A.Y.V.	PASSED	REVISED		SHEET NO. 8 OF 9 SHEETS			CONTRACT NO. 76G44		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

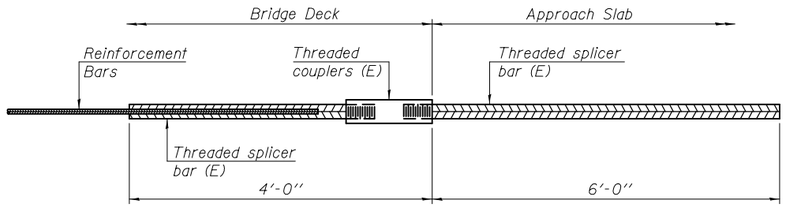
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

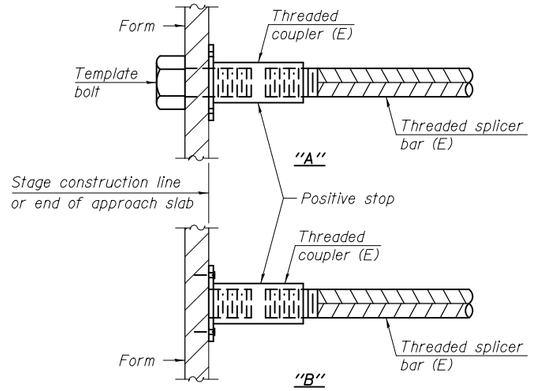
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
W Abut Hatchblock	#6	4	3
W Abut End of Deck (Top)	#7	6	3
W Abut, End of deck (Except in drop slab)	#6	6	3
W Abut, End of deck (Bot of drop slab)	#6	5	3
E Abut Hatchblock	#6	4	3
E Abut End of Deck (Top)	#7	6	3
E Abut, End of deck (Except in drop slab)	#6	6	3
E Abut, End of deck (Bot of drop slab)	#6	5	3



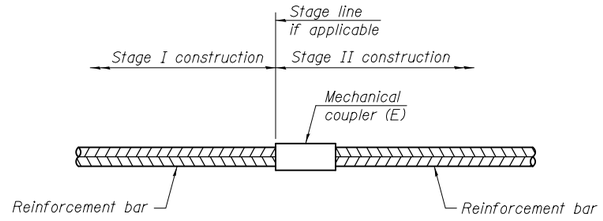
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



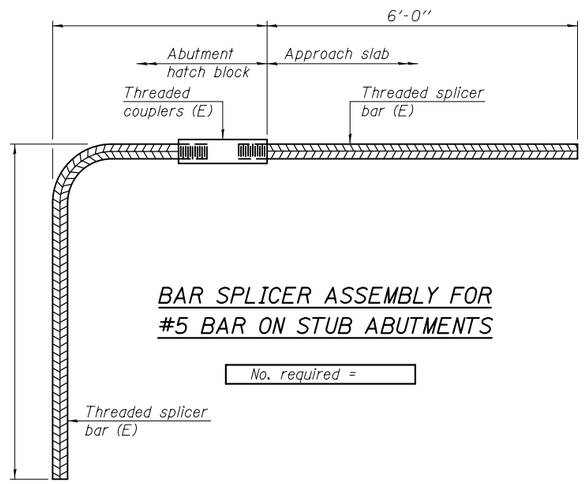
INSTALLATION AND SETTING METHODS

"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



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

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

BSD-1 1-27-12

DESIGNED - A.Y.V.	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - A.Y.V.	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 042-0019
SHEET NO. 9 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	113BR, 113BR-1	Jersey	33	33
		CONTRACT NO. 76G44		
	ILLINOIS	FED. AID PROJECT		