171465 4181

IECT ENGINEER: KENSIL GARNETT

COLIAN LEADED. CORV CHEEHY

ER: KARY DAWSON

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

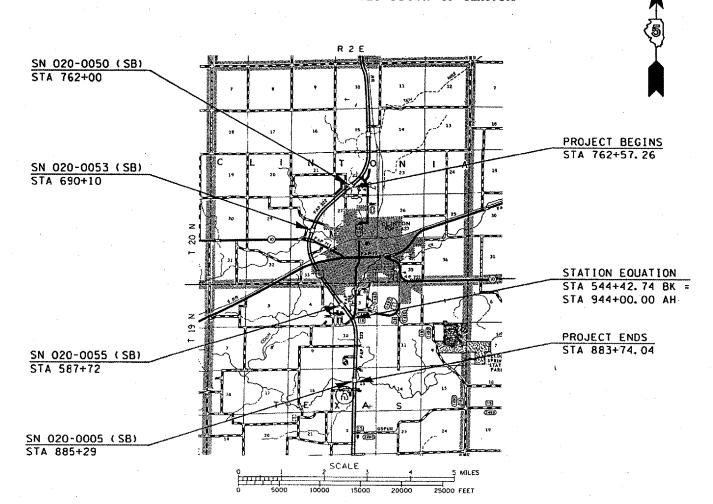
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 322 (US 51) SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY

C-95-103-06

BRIDGE JOINT REPAIR FROM 0.4 MILES SOUTH OF US-51 BUS TO 2.0 MILES SOUTH OF CLINTON



TOTAL LENGTH OF SECTION & PROJECT = 27,840.48 FEET = 5.273 MILES

NET LENGTH OF SECTION & PROJECT = 842 FEET = 0.159 MILES

| CONTRACT NO. 70593 | F.A.P. | SECTION | COUNTY | TOTAL SHEET | 322 | * DEWITT | STEETS NO. 1

* (528R-1 & 53R-B)BJI

D-95-103-06



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CURRENT ADT

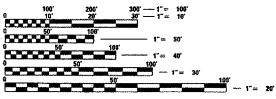
FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

F. A. P. 322 (U. S. 51) CURRENT ADT 5, 150 (2006) DESIGN ADT 5, 700 (2026)

DESIGN DESIGNATION

FUNCTIONAL CLASSIFICATION OTHER PRINCIPAL ARTERIAL



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

CONTRACT NO. 70593

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY

CONTRACT NO. 70593

		CONTINACT	140. 10	رددر
 F.A.P.	SECTION	COUNTY	TOTAL	SHEET NO.
322	*	DEWITT	35	2

(528R-1 & 53R-8)B

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS/HIGHWAY STANDARDS
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5-12	BRIDGE JOINT REPAIR PLANS SN 020-0050
13-19	BRIDGE JOINT REPAIR PLANS SN 020-0053
20-26	BRIDGE JOINT REPAIR PLANS SN 020-0055
27-34	BRIDGE JOINT REPAIR PLANS SN 020-0005
35	BAR SPLICER ASSEMBLY DETAILS

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701422-01	TRAFFIC CONTROL AND PROTECTION
702001-06	TRAFFIC CONTROL DEVICES

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

HIGHWAY STANDARDS

F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
LE: NA DRAWN BY: KD/JRP

SCALE: NA DATE: 12/06/06

CHECKED BY:

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 BASED UPON THE UNIT PRICE BID FOR THE WORK.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

G. N. -100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G. N. -609

PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS AS SHOWN IN THE STAGING PLANS. THE CONTRACTOR SHALL SECURE THE GRATINGS ON SHOULDER INLETS AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

NO COMMITMENTS

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY

SCALE: NA

DRAWN BY: KD/JRP

CONTRACT NO. 70593

COUNTY TOTAL SHEETS NO.

DEWITT 35 4 F.A.P. SECTION 322 * *(52BR-1 & 53R-B)BJR

SUMMARY OF QUANTITIES

LOCATION OF WORK:

FAP 322 (US 51)

			DEWITT COUNTY 100% STATE	DEWITT COUNTY 100% STATE	DEWITT COUNTY 100% STATE	DEWITT COUNTY 100% STATE	DEWITT COUNTY
	CONSTRUCTION TYPE CODE:		SFTY-2A	SFTY-2A	SFTY-2A	SFTY-2A	100% STATE SFTY-2A
CODE NO	ITEM	UNIT	TOTAL QUANTITY	SN 020-0050 QUANTITY	SN 020-0053 QUANTITY	SN 020-0055 OUANTITY	SN 020-0005 QUANTITY
50102400	CONCRETE REMOVAL	CU YD	12.0	4.5	5. 2	2. 3	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	12.0	4.5	5. 2	2. 3	
50800205	REINFORCEMENT BARS. EPOXY COATED	POUND	990.0	400.0	380.0	210.0	·
50800515	BAR SPLICERS	EACH	15.0	6.0	6, 0	3. 0	
67100100	MOBILIZATION	L SUM	1.0	0.25	0. 25	0.25	0. 25
70100320	TRAFFIC CONTROL & PROTECTION STANDARD 701422	L SUM	1.0	0. 25	0.25	0. 25	0.25
X0320887	POLYMER CONCRETE	CU FT	27.0	7. 3	5. 2	7. 6	6. 9
X0321744	SILICONE JOINT SEALER 2"	FOOT	284.0	96.6		96. 6	90.8
X0322932	SILICONE JOINT SEALER 1 1/2"	FOOT	43.0	•	43.0		
X0322933	SILICONE JOINT SEALER 2 1/2"	F00T	45.0		45.0		
X7015005	CHANGEABLE MESSAGE SIGN	CAL. DA	7.0	1. 75	1. 75	1.75	1.75
Z0001700	APPROACH SLAB REPAIR (FULL DEPTH)	SQ YD	6.0	6.0			

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY

SCALE: NA DATE: 12/06/06

DRAWN BY: KD/JRP

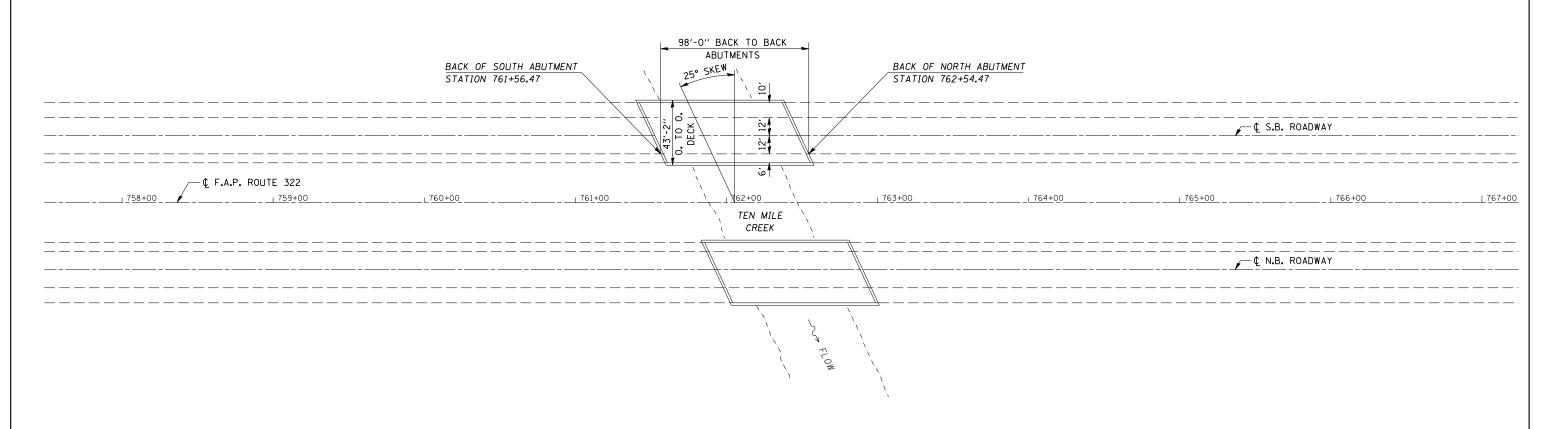
GENERAL PLAN



CONTRACT NO. 70593 322 TO STA. 767+00 STA. 758+00 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

SHEET 1 OF 8



PLAN VIEW S.N. 020-0051 N.B. S.N. 020-0050 S.B.

TOTAL BILL OF MATERIALS				
ITEM	UNITS	S.N. 020-0050 TOTAL		
CONCRETE REMOVAL	CU YD	4.5		
CONCRETE SUPERSTRUCTURE	CU YD	4.5		
REINFORCEMENT BARS, EPOXY COATED	POUND	400		
BAR SPLICERS	EACH	6		
POLYMER CONCRETE	CU FT	7. 3		
SILICONE JOINT SEALER, 2"	FOOT	96.6		
APPROACH SLAB REPAIR (FULL DEPTH)	SQ YD	6		

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 BASED UPON THE UNIT PRICE BID FOR THE WORK.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED. STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

NOTE: ORIGINALLY BUILT AS SECTION 53R-B-2

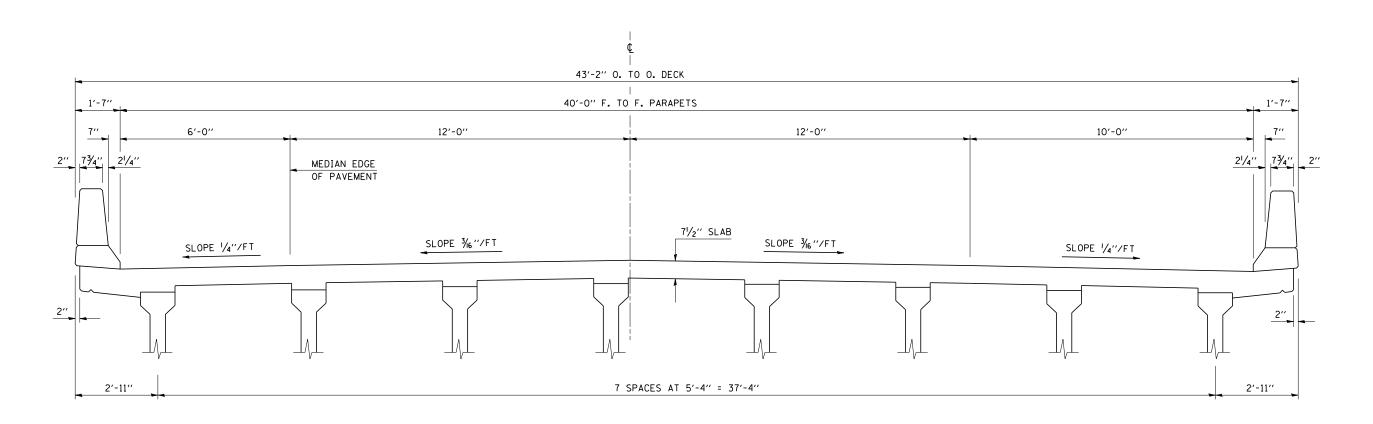
ILLINOIS DEPARTMENT OF TRANSPORTATION GENERAL PLAN F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0050

SCALE: 1"=30" DATE: 11/03/06

SUPERSTRUCTURE

*(52BR-1 & 53R-B)BJR

SHEET 2 OF 8



EXISTING & PROPOSED TYPICAL CROSS SECTION S.N. 020-0050 (SB LOOKING SOUTH)

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR

CTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0050
DRAWN BY: JRP

SCALE: NA DATE: 11/03/06

PLOT DATE : 12/21/2006 FILE NAME : c:\projects\d510306 PLOT SCALE : 42.3529 '/ IN.

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT *(52BR-1 & 53R-B)BJR SHEET 3 OF 8 STAGE I REMOVAL 19'-0" STAGE I TRAFFIC 19'-6" STAGE I CONSTRUCTION 18'-0" 43'-2" **STAGE I CONSTRUCTION** S.N. 020-0050 (LOOKING SOUTH) 40'-0" STAGE II TRAFFIC 15'-6" 1'-6" | 1'-0" STAGE II CONSTRUCTION 22'-0" STAGE II REMOVAL 21'-0" ILLINOIS DEPARTMENT OF TRANSPORTATION **STAGE II CONSTRUCTION** STAGE CONSTRUCTION DETAILS S.N. 020-0050 (LOOKING SOUTH) F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0050 SCALE: NA DRAWN BY: JRP

JOINT REPAIR AT NORTH ABUTMENT S.N. 020-0050

STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

SHEET 4 OF 8

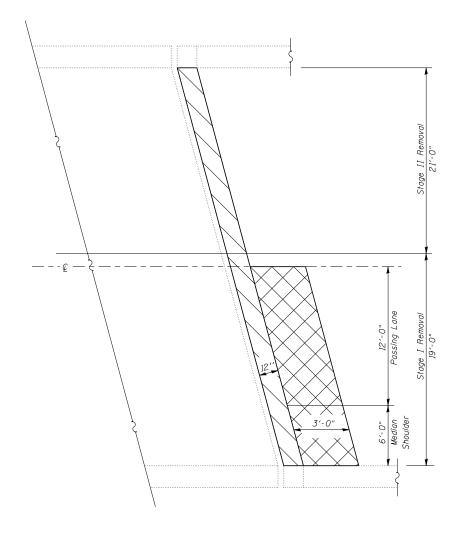
BAR LIST Bar No. Size Length Shape

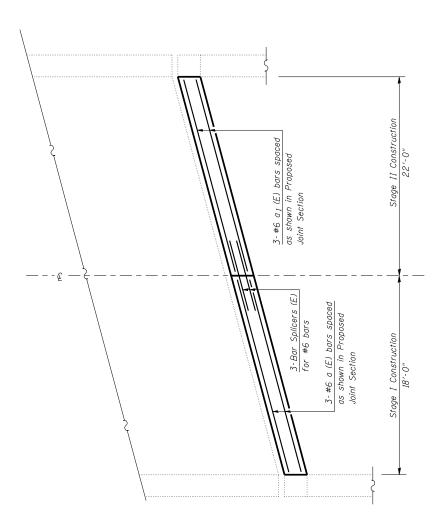
Reinforcement bars designated (E) shall

Hatched areas indicates Concrete Removal. See Sheet 5 of 8 for Proposed Joint Section. See Sheet 8 of 8 for Section Thru Parapet.

be epoxy coated.

#6 24'-0"





EXISTING PARTIAL PLAN Joint at North Abutment

PROPOSED PARTIAL PLAN Joint at North Abutment

Concrete Removal

Approach Slab

As built standards show the existing thicknesses of the approach pavement to be 15" for the passing lane and 10" for the median shoulder.

ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT NORTH ABUTMENT

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0050 DRAWN BY: JRP

SCALE: NA DATE: 11/06/06

JOINT REPAIR AT NORTH ABUTMENT S.N. 020-0050

2" at 50° F

EXISTING SECTION AT NORTH ABUTMENT

PROPOSED SECTION

AT NORTH ABUTMENT

Brg. —

2'-6"

2" at 50° F

See Detail A

See Silicone Joint Sealer

Approach Pavement

Bk. Abutment

Concrete

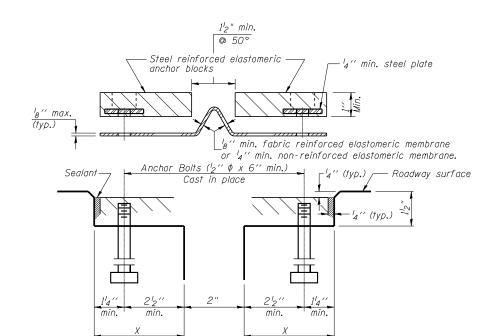
#6 a (E) bars (Stage I)

#6 a₁ (E) bars (Stage II)

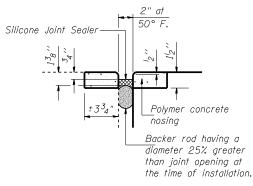
Δ.

Concrete

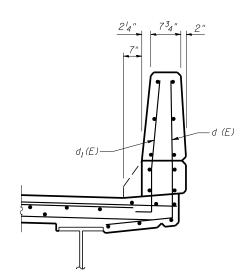
Existing Reinforcement



CROSS SECTION DETAIL A **EXISTING JOINT**



SILICONE JOINT SEALER DETAIL



SHEET 5 OF 8

TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

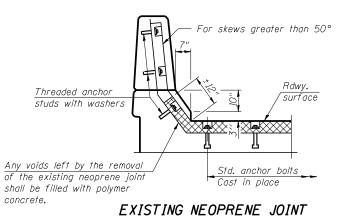
SECTION

322

STA.

CONTRACT NO. 70593





AT PARAPET

Note:

For proposed end of seal treatment at abutment, see sheet 8 of 8.

BILL OF MATERIALS

Item	Unit	Total
Concrete Removal	Cu. Yd.	2.1
Concrete Superstructure	Cu. Yd.	2.1
Reinforcement Bars, Epoxy Coated	Pound	200
Bar Splicers	Each	3
Polymer Concrete	Cu. Ft.	<i>3.7</i> 5
Silicone Joint Sealer, 2"	Foot	48.3
Approach Slab Repair (Full Depth)	Sq. Yd.	6

Notes:

Remove existing neoprene expansion joint leaving existing anchor bolts on the bridge deck portion, replace with Silicone Joint Sealer and Polymer Concrete.

included in the cost of Polymer Concrete.

Removal of the existing anchor blocks and neoprene membrane is

ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT NORTH ABUTMENT

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0050

SCALE: NA DRAWN BY: JRP DATE: 11/06/06

JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0050

TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

SHEET 6 OF 8

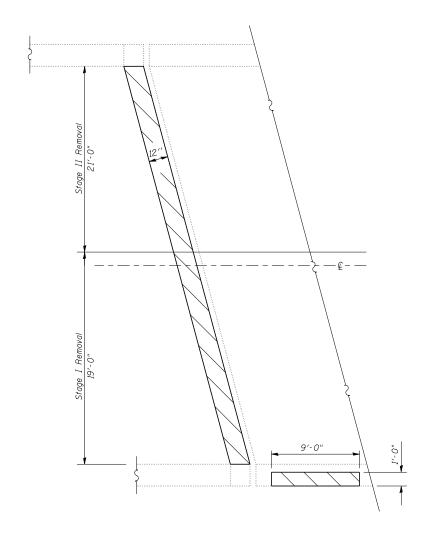
BAR LIST No. Size Length

Reinforcement bars designated (E) shall

Hatched areas indicates Concrete Removal. See Sheet 7 of 8 for Proposed Joint Section. See Sheet 8 of 8 for Section Thru Parapet.

be epoxy coated.

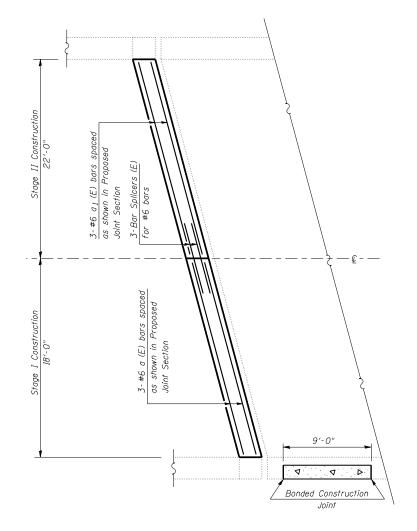
#6 24'-0"



EXISTING PARTIAL PLAN

Joint at South Abutment

Concrete Removal



PROPOSED PARTIAL PLAN Joint at South Abutment

New Concrete

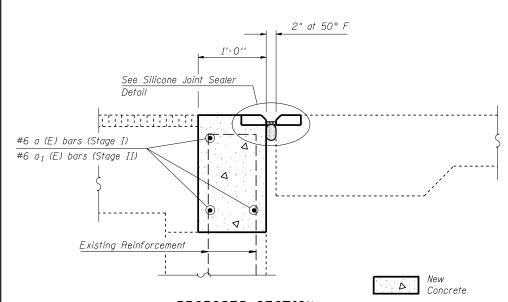
ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT REPAIR AT SOUTH ABUTMENT

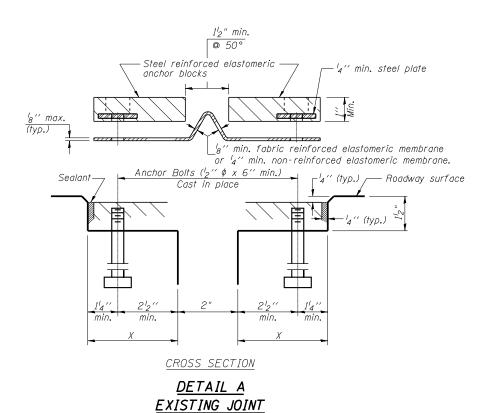
F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0050

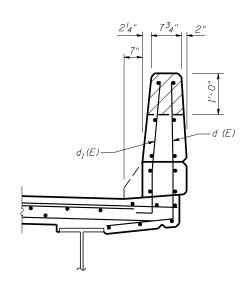
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EXISTING SECTION AT SOUTH ABUTMENT



JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0050

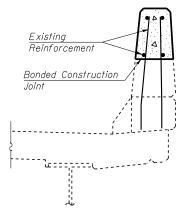




CONTRACT NO. 70593

SHEET 7 OF 8

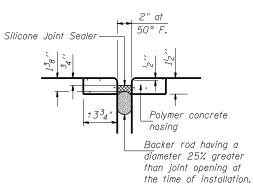
<u>EXISTING SECTION</u> THRU DAMAGED PARAPET



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

<u>PROPOSED SECTION</u> THRU DAMAGED PARAPET

<u>PROPOSED SECTION</u> AT SOUTH ABUTMENT



SILICONE JOINT SEALER DETAIL

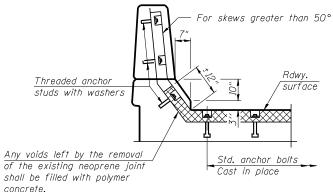
BILL OF MATERIALS

Item	Unit	Total
Concrete Removal	Cu. Yd.	2.4
Concrete Superstructure	Cu. Yd.	2.4
Reinforcement Bars, Epoxy Coated	Pound	200
Bar Splicers	Each	3
Polymer Concrete	Cu. Ft.	3.6
Silicone Joint Sealer, 2"	Foot	48.3

Notes:

Remove existing neoprene expansion joint leaving existing anchor bolts on the bridge deck portion, replace with Silicone Joint Sealer and Polymer Concrete.

Removal of the existing anchor blocks and neoprene membrane is included in the cost of Polymer Concrete.



EXISTING NEOPRENE JOINT
AT PARAPET

|| //

For proposed end of seal treatment at abutment, see sheet 8 of 8.

ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT SOUTH ABUTMENT

F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0050

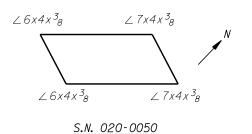
SCALE: NA DATE: 11/06/06 DRAWN BY: JRP CHECKED BY:

*(52BR-1 & 53R-B)BJR

SHEET 8 OF 8

ANGLE IRON SIZES FOR JOINT EXTENSION

- Angle Iron sizes shown in diagram is for attachment to Bridge Deck.
- Angle Iron sizes for attachment to the Abutment Wing will be $\angle 4x4x^3_R$ in all cases.



TOP VIEW TOP OF PARAPETS AT JOINT

Parapet on Bridge Deck

End of Deck

Back of Parapet

 $\angle 6x4x^{3}_{8}$ or $\angle 7x4x^{3}_{8}$

See diagram "Angle Iron Sizes For Joint Extension"

Varies ³4" - 2"

Parapet on Abutment Wing

¹₂" Dia. Anchor Bolts

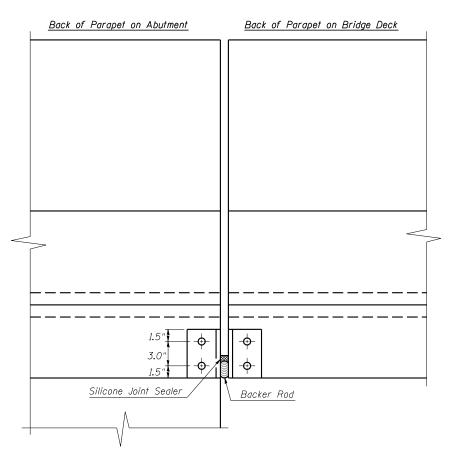
 $\angle 4x4x^{3}8$

Silicone Joint Sealer

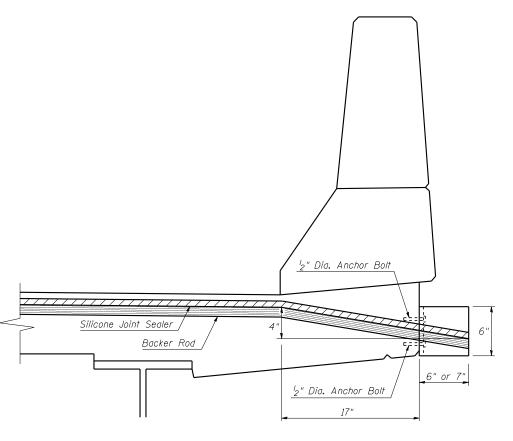
24

934

Back of Parapet



SIDE VIEW BACK OF PARAPET AT JOINT



SECTION A-A THRU PARAPET

LIST OF MATERIALS

 \angle 4 x 4 x $\frac{3}{8}$ - Stainless Steel Angle Iron - 4 ea @ 6" = 2.0 Feet $\angle 6 \times 4 \times \frac{3}{8}$ - Stainless Steel Angle Iron - 2 ea @ 6" = 1.0 Feet \angle 7 x 4 x $\frac{3}{8}$ - Stainless Steel Angle Iron - 2 ea @ 6" = 1.0 Feet 1/2 Inch Anchor Bolts - Stainless Steel = 16 Each

The Stainless Steel Angle Iron and Anchor Bolts, furnished and installed shall not be paid for separately but shall be included in the unit bid price for Silicone Joint Sealer, 2".

GENERAL NOTES

- 1. Anchor Bolts shall be Stainless Steel Grade 5 or higher.
- 2. All sections of Angle Iron shall be Stainless Steel.
- 3. Stainless Steel Angle Iron shall be attached to the back side of the Abutment Wing and Bridge Deck as shown in the detail and to the satisfaction of the engineer PRIOR to the placement of Backer Rod and Silicone Joint Sealer.
- 4. The concrete at locations which the Stainless Steel Angle Iron is to be attached shall be generally flat and free of rough or high spots. Light grinding with a concrete grinding wheel may be required at a few locations to ensure a smooth/flat surface.
- 5. Drainage by others.

ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT EXTENSION DETAILS

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0050 DRAWN BY: JRP

SCALE: NA DATE: 11/09/06

GENERAL PLAN

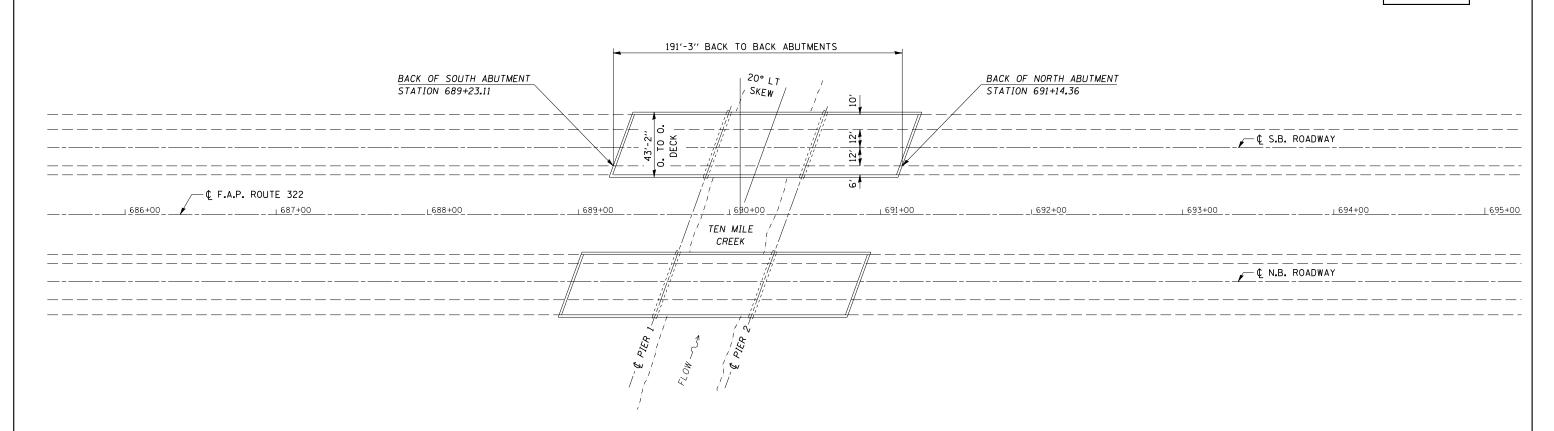
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| F.A.P. | SECTION | COUNTY | STAL SHE | SHEETS | NO | STAL 686+00 | TO STAL 695+00 | SED | ROBERT | STAL 680 | TO STAL 695+00 | SED | ROBERT | SED | ROBERT | STAL 695+00 | SED | ROBERT | SED | ROBERT

*(52BR-1 & 53R-B)BJR

CONTRACT NO. 70593

SHEET 1 OF 7



PLAN VIEW
S.N. 020–0052 N.B.
S.N. 020–0053 S.B.

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 OUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

NOTE: ORIGINALLY BUILT AS SECTION 53R-B-1

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

F.A.P. ROUTE 322

SECTION (52BR-1 & 53R-B)BJR

DEWITT COUNTY

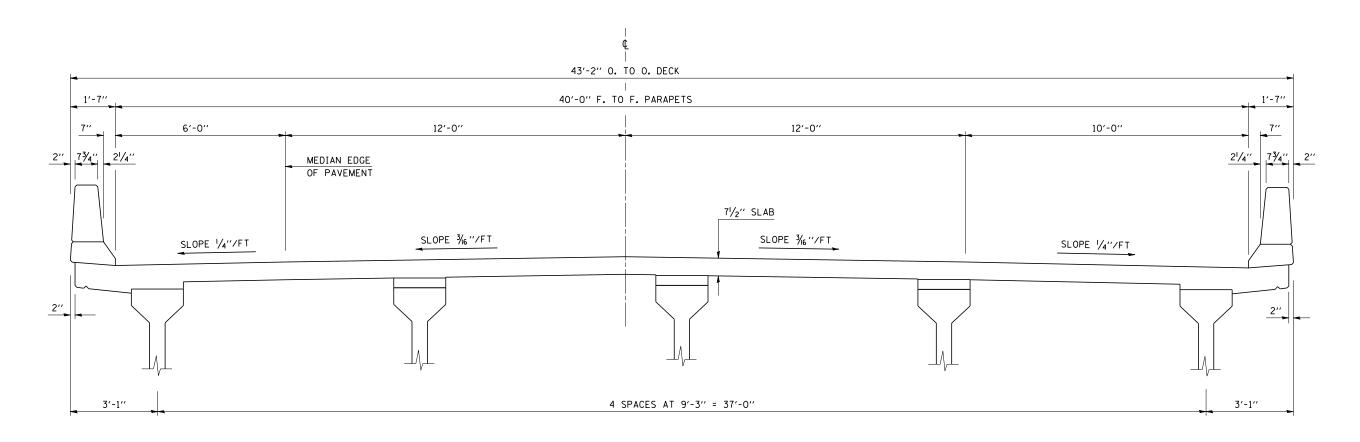
S.N. 020-0053

SCALE: 1"=30" DATE: 11/03/06 DRAWN BY: JRP CHECKED BY:

TOTAL BILL OF MATI	ERIAL	S
ITEM	UNITS	S.N. 020-0053 TOTAL
CONCRETE REMOVAL	CU YD	5. 2
CONCRETE SUPERSTRUCTURE	CU YD	5. 2
REINFORCEMENT BARS, EPOXY COATED	POUND	380
BAR SPLICERS	EACH	6
SILICONE JOINT SEALER, 1 1/2"	F00T	43
POLYMER CONCRETE	CU FT	5. 2
SILICONE JOINT SEALER, 2 1/2"	F00T	45

SUPERSTRUCTURE

SHEET 2 OF 7



ILLINOIS DEPARTMENT OF TRANSPORTATION

<u>SUPERSTRUCTURE</u>

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR

CTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0053 DRAWN BY: JRP

SCALE: NA DATE: 11/03/06

PLOT DATE = 12/21/2006 FILE NAME = ci\projects PLOT SCALE = 42,3529 '/

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT 40'-0" SHEET 3 OF 7 STAGE I REMOVAL 19'-0" STAGE I TRAFFIC 19'-6" STAGE I CONSTRUCTION 18'-0" **STAGE I CONSTRUCTION** S.N. 020-0053 (LOOKING SOUTH) STAGE II TRAFFIC 15'-6" 1'-6'' 1'-0'' STAGE II CONSTRUCTION 22'-0" STAGE II REMOVAL 21'-0" ILLINOIS DEPARTMENT OF TRANSPORTATION **STAGE I CONSTRUCTION** STAGE CONSTRUCTION DETAILS F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY <u>S.N. 020–0053</u> (LOOKING SOUTH) S.N. 020-0053 SCALE: NA DRAWN BY: JRP

JOINT REPAIR AT NORTH ABUTMENT S.N. 020-0053

TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

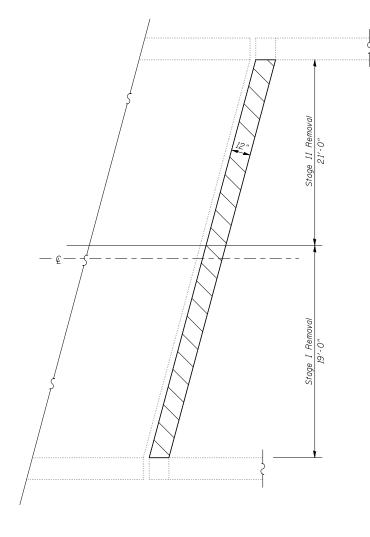
SHEET 4 OF 7

BAR LIST Bar No. Size Length Shape

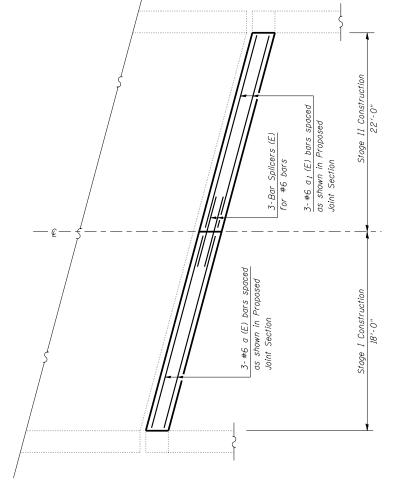
Reinforcement bars designated (E) shall

Hatched areas indicates Concrete Removal. See Sheet 5 of 7 for Proposed Joint Section.

be epoxy coated.







PROPOSED PARTIAL PLAN Joint at North Abutment

Concrete Removal

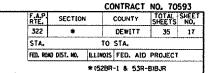
ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT REPAIR AT NORTH ABUTMENT

F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0053

SCALE: NA DRAWN BY: JRP DATE: 11/06/06

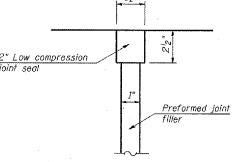
JOINT REPAIR AT NORTH ABUTMENT S.N. 020-0053



SHEET 5 OF 7

2" Low compression joint seal Preformed joint

DETAIL A EXISTING JOINT



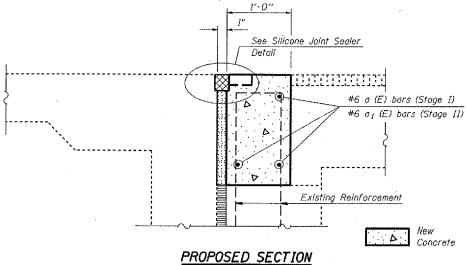
Concrete Removal

Approach Pavement

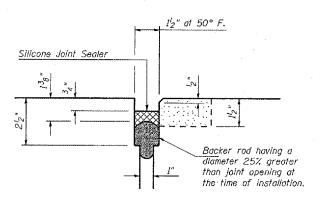
Bk. Abutment

EXISTING SECTION AT NORTH ABUTMENT

1'-0"



AT NORTH ABUTMENT



SILICONE JOINT SEALER DETAIL

BILL OF MATERIALS

Item	Ųnit	Total
Concrete Removal	Cu. Yd.	2.6
Concrete Superstructure	Cu. Yd.	2.6
Reinforcement Bars, Epoxy Coated	Pound	190
Bar Splicers	Each	3
Polymer Concrete	Cu. Ft.	1.6
Silicone Joint Sealer, 1 ¹ 2"	Foot	43

Notes:

Remove existing low compression joint seal and preformed joint filler to the depth of concrete removal, replace with Silicone Joint Sealer.

Removal of the low compression joint seal and preformed joint filler is included in the cost of Silicone Joint Sealer.

> ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT NORTH ABUTMENT

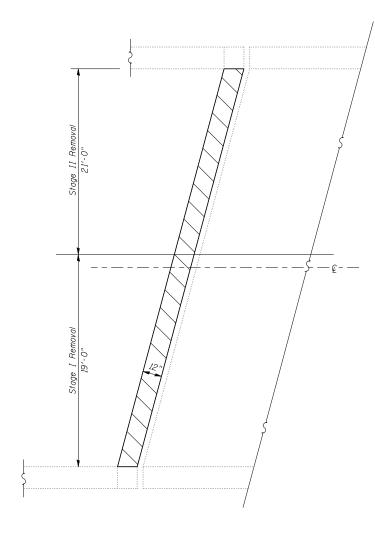
F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY

S.N. 020-0053 SCALE: NA DATE: 11/06/06

JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0053

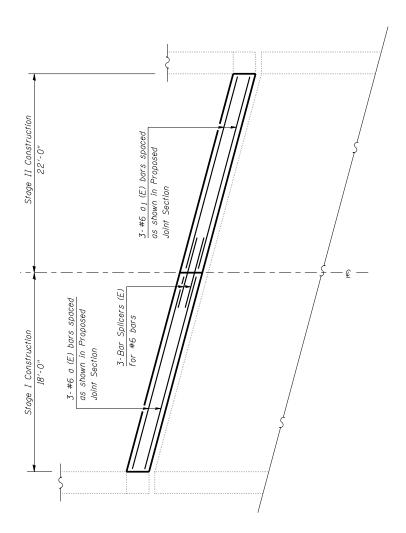
TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT *(52BR-1 & 53R-B)BJR

SHEET 6 OF 7



EXISTING PARTIAL PLAN
Joint at South Abutment





PROPOSED PARTIAL PLAN
Joint at South Abutment

BAR LIST

Bar	No.	Size	Length	Shape
a(E)	3	#6	18′-10"	
a1(E)	3	#6	23'-2"	

Reinforcement bars designated (E) shall be epoxy coated.

Hatched areas indicates Concrete Removal.

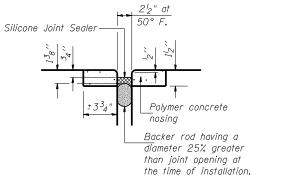
See Sheet 7 of 7 for Section Thru Parapet and Proposed Joint Section.

ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT REPAIR AT SOUTH ABUTMENT

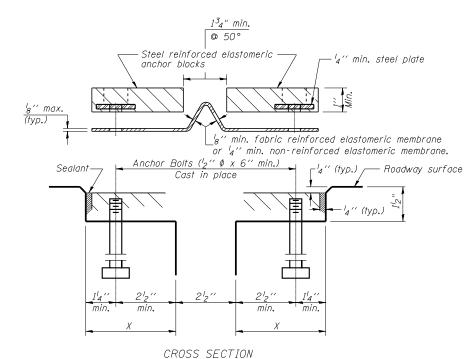
F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0053

SCALE: NA DATE: 11/08/06

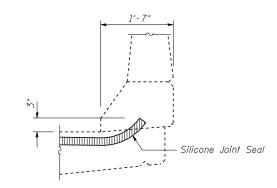


SILICONE JOINT SEALER DETAIL

JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0053



DETAIL A **EXISTING JOINT**



PROPOSED TYPICAL END OF SEAL TREATMENT AT ABUTMENT

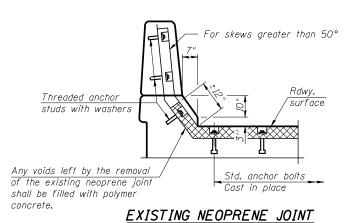
SECTION 322 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT *(52BR-1 & 53R-B)BJR

CONTRACT NO. 70593

SHEET 7 OF 7

EXISTING SECTION

THRU PARAPET



AT PARAPET

BILL OF MATERIALS

Item	Unit	Total
Concrete Removal	Cu. Yd.	2.6
Concrete Superstructure	Cu. Yd.	2.6
Reinforcement Bars, Epoxy Coated	Pound	190
Bar Splicers	Each	3
Polymer Concrete	Cu. Ft.	3.6
Silicone Joint Sealer, 2 ^l 2"	Foot	45

Remove existing neoprene expansion joint leaving existing anchor bolts on the bridge deck portion, replace with Silicone Joint Sealer and Polymer Concrete.

Removal of the existing anchor blocks and neoprene membrane is included in the cost of Polymer Concrete.

ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT SOUTH ABUTMENT

> F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0053

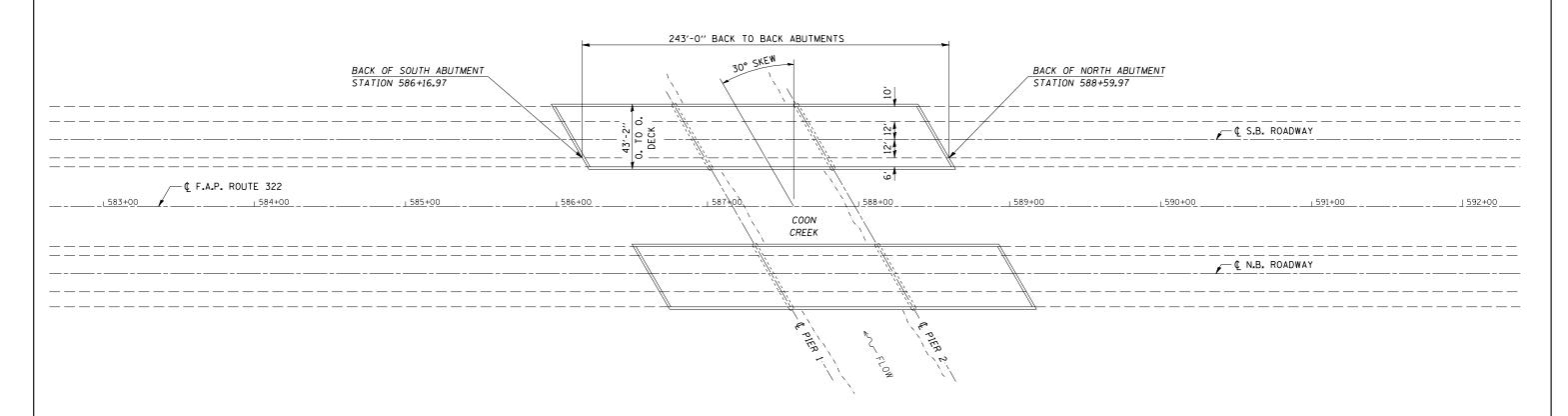
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GENERAL PLAN



*(52BR-1 & 53R-B)BJR

SHEET 1 OF 7



PLAN VIEW
S.N. 020-0056 N.B.
S.N. 020-0055 S.B.

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 BASED UPON THE UNIT PRICE BID FOR THE WORK.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

NOTE: ORIGINALLY BUILT AS SECTION 53R-B

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

F.A.P. ROUTE 322

SECTION (52BR-1 & 53R-B)BJR

DEWITT COUNTY

S.N. 020-0055

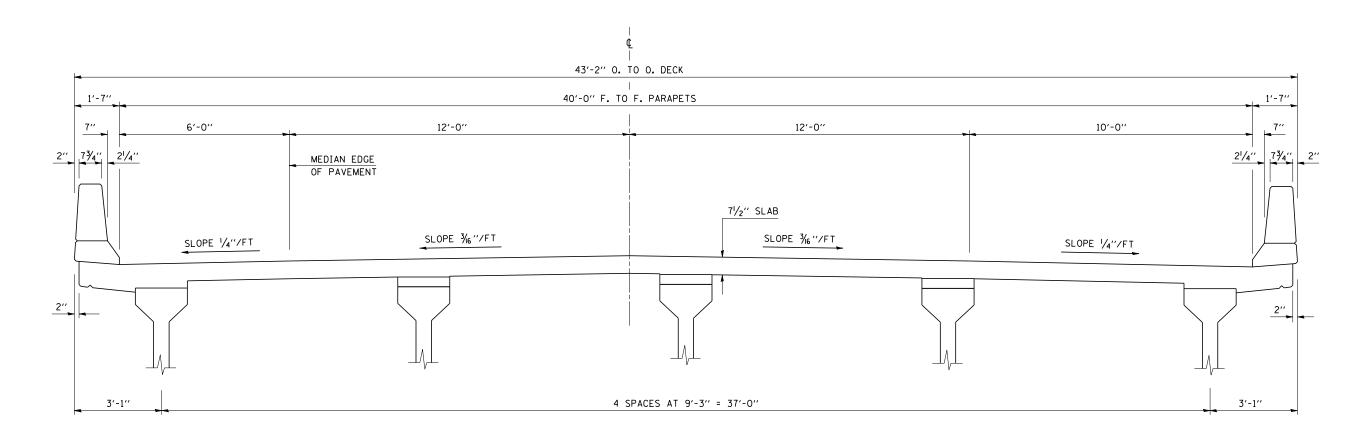
SCALE: 1"=30' DATE: 11/08/06 DRAWN BY: JRP CHECKED BY:

TOTAL BILL OF MAT	ERIAL	S
ITEM	UNITS	S.N. 020-0055 TOTAL
CONCRETE REMOVAL	CU YD	2. 3
CONCRETE SUPERSTRUCTURE	CU YD	2. 3
REINFORCEMENT BARS, EPOXY COATED	POUND	210
BAR SPLICERS	EACH	3
POLYMER CONCRETE	CU FT	7.6
SILICONE JOINT SEALER, 2"	F00T	96.6

SUPERSTRUCTURE

*(52BR-1 & 53R-B)BJR

SHEET 2 OF 7



EXISTING & PROPOSED TYPICAL CROSS SECTION S.N. 020-0055 (SB LOOKING SOUTH)

ILLINOIS DEPARTMENT OF TRANSPORTATION

<u>SUPERSTRUCTURE</u>

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR

CTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0055
DRAWN BY: JRP

SCALE: NA DATE: 11/03/06

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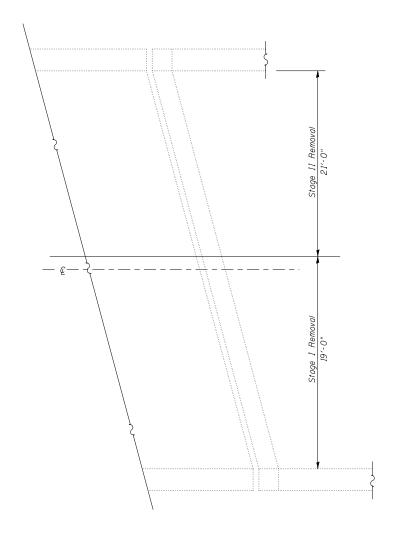
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT 40'-0" SHEET 3 OF 7 STAGE I REMOVAL 19'-0" STAGE I TRAFFIC 19'-6" STAGE I CONSTRUCTION 18'-0" **STAGE I CONSTRUCTION** S.N. 020-0055 (LOOKING SOUTH) STAGE II TRAFFIC 15'-6" 1'-6" | 1'-0" STAGE II CONSTRUCTION 22'-0" STAGE II REMOVAL 21'-0" ILLINOIS DEPARTMENT OF TRANSPORTATION **STAGE I CONSTRUCTION** STAGE CONSTRUCTION DETAILS F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0055 <u>S.N. 020–0055</u> (LOOKING SOUTH) SCALE: NA DRAWN BY: JRP

JOINT REPAIR AT NORTH ABUTMENT S.N. 020-0055

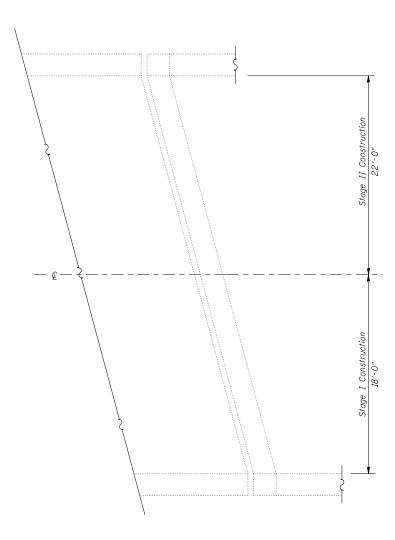
STA. TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

SHEET 4 OF 7







PROPOSED PARTIAL PLAN Joint at North Abutment

See Sheet 5 of 7 for Section Thru Parapet and Proposed Joint Section.

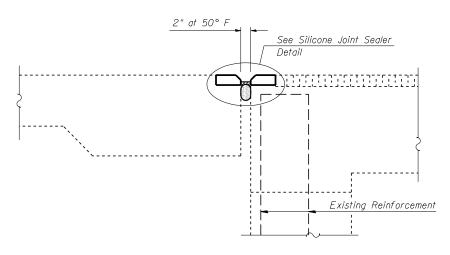
ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT REPAIR AT NORTH ABUTMENT

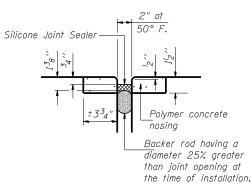
F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0055

SCALE: NA DATE: 11/08/06

EXISTING SECTION AT NORTH ABUTMENT

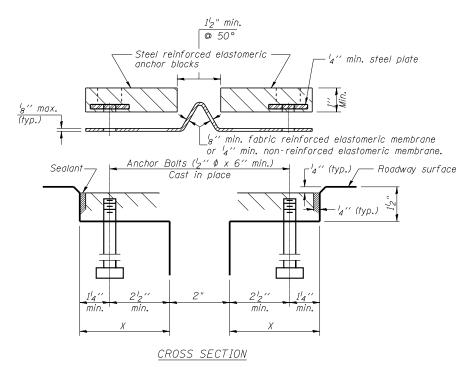


<u>PROPOSED SECTION</u> <u>AT NORTH ABUTMENT</u>

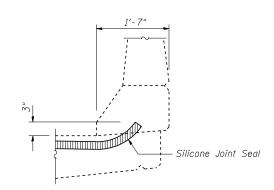


SILICONE JOINT SEALER DETAIL

JOINT REPAIR AT NORTH ABUTMENT S.N. 020–0055



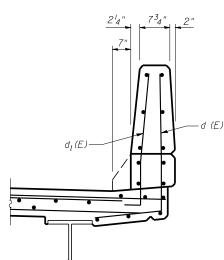
<u>DETAIL A</u> <u>EXISTING JOINT</u>



PROPOSED

TYPICAL END OF SEAL TREATMENT

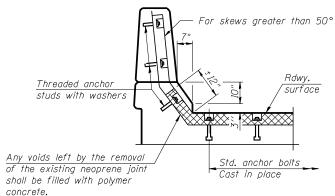
AT ABUTMENT



CONTRACT NO. 70593

SHEET 5 OF 7

EXISTING SECTION
THRU PARAPET



EXISTING NEOPRENE JOINT
AT PARAPET

BILL OF MATERIALS

Item	Unit	Total
Polymer Concrete	Cu. Ft.	3.8
Silicone Joint Sealer	Foot	48.3

Notes:

Remove existing neoprene expansion joint leaving existing anchor bolts, replace with Silicone Joint Sealer and Polymer Concrete.

Removal of the existing anchor blocks and neoprene membrane is included in the cost of Polymer Concrete.

ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT REPAIR AT NORTH ABUTMENT

F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0055

SCALE: NA DATE: 11/08/06 DRAWN BY: JRP CHECKED BY:

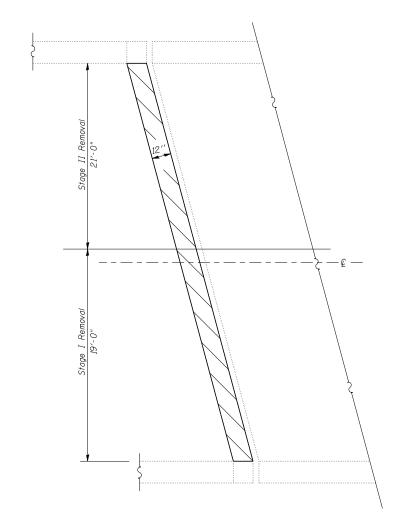
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JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0055

STA. TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

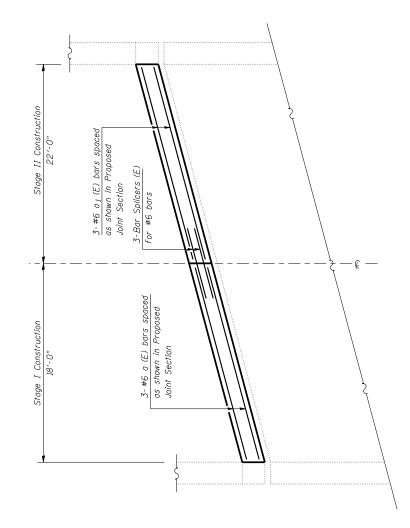
*(52BR-1 & 53R-B)BJR

SHEET 6 OF 7



EXISTING PARTIAL PLAN

Joint at South Abutment



PROPOSED PARTIAL PLAN Joint at South Abutment

BAR LIST

Bar	No.	Size	Length	Shape
a(E)	3	#6	20'-6"	
a1(E)	3	#6	25'-2"	

Reinforcement bars designated (E) shall be epoxy coated.

Hatched areas indicates Concrete Removal.

See Sheet 7 of 7 for Section Thru Parapet and Proposed Joint Section.

Concrete Removal

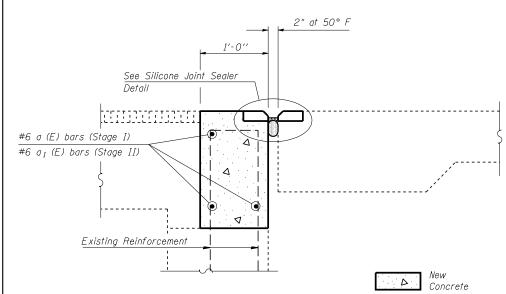
ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT REPAIR AT SOUTH ABUTMENT

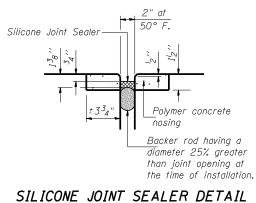
F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0055 DRAWN BY: JRP

SCALE: NA DATE: 11/08/06

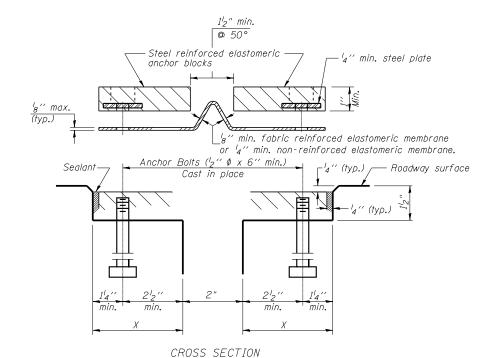
EXISTING SECTION AT SOUTH ABUTMENT



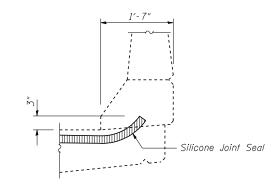
PROPOSED SECTION AT SOUTH ABUTMENT



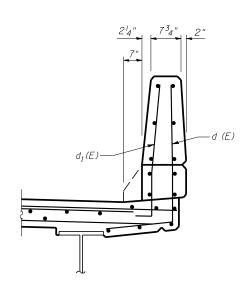
JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0055



DETAIL A EXISTING JOINT



PROPOSED TYPICAL END OF SEAL TREATMENT AT ABUTMENT



SECTION

322

STA.

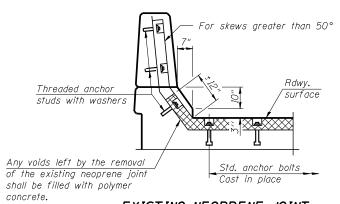
CONTRACT NO. 70593

TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SHEET 7 OF 7

*(52BR-1 & 53R-B)BJR

EXISTING SECTION THRU PARAPET



EXISTING NEOPRENE JOINT AT PARAPET

BILL OF MATERIALS

Item	Unit	Total
Concrete Removal	Cu. Yd.	2.3
Concrete Superstructure	Cu. Yd.	2.3
Reinforcement Bars, Epoxy Coated	Pound	210
Bar Splicers	Each	3
Polymer Concrete	Cu. Ft.	3.8
Silicone Joint Sealer, 2"	Foot	48.3

Notes:

Remove existing neoprene expansion joint leaving existing anchor bolts on the bridge deck portion, replace with Silicone Joint Sealer and Polymer Concrete.

Removal of the existing anchor blocks and neoprene membrane is included in the cost of Polymer Concrete.

ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT SOUTH ABUTMENT

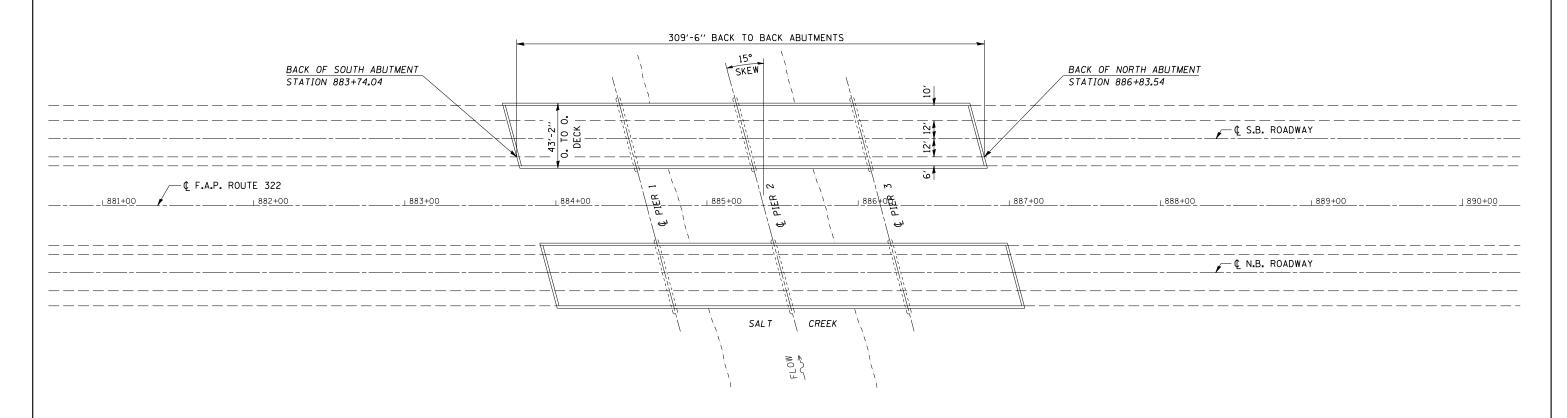
F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0055

SCALE: NA DATE: 11/08/06

GENERAL PLAN



SHEET 1 OF 8



PLAN VIEW
S.N. 020–0057 N.B.
S.N. 020–0005 S.B.

TOTAL BILL OF MATERIALS ITEM UNITS S.N. 020-0005 TOTAL POLYMER CONCRETE CU FT 6.9 SILICONE JOINT SEALER, 2" FOOT 90.8

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 BASED UPON THE UNIT PRICE BID FOR THE WORK.

NOTE: ORIGINALLY BUILT AS SECTION 52BR-1

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

F.A.P. ROUTE 322

SECTION (52BR-1 & 53R-B)BJR

DEWITT COUNTY

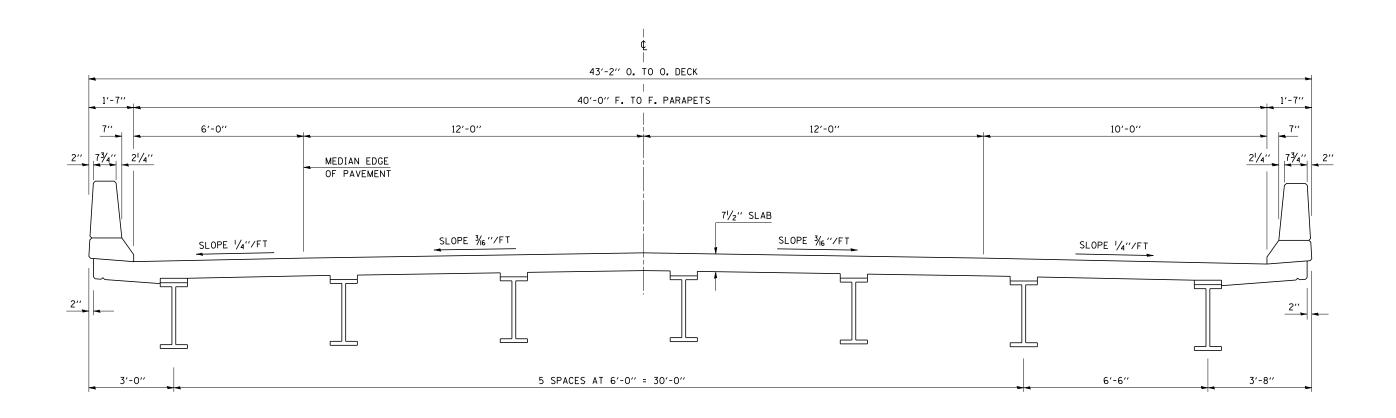
S.N. 020-0005

SCALE: 1"=30' DATE: 11/08/06 DRAWN BY: JRP
CHECKED BY:

SUPERSTRUCTURE

*(52BR-1 & 53R-B)BJR

SHEET 2 OF 8



EXISTING & PROPOSED TYPICAL CROSS SECTION S.N. 020-0005 (SB LOOKING SOUTH)

ILLINOIS DEPARTMENT OF TRANSPORTATION

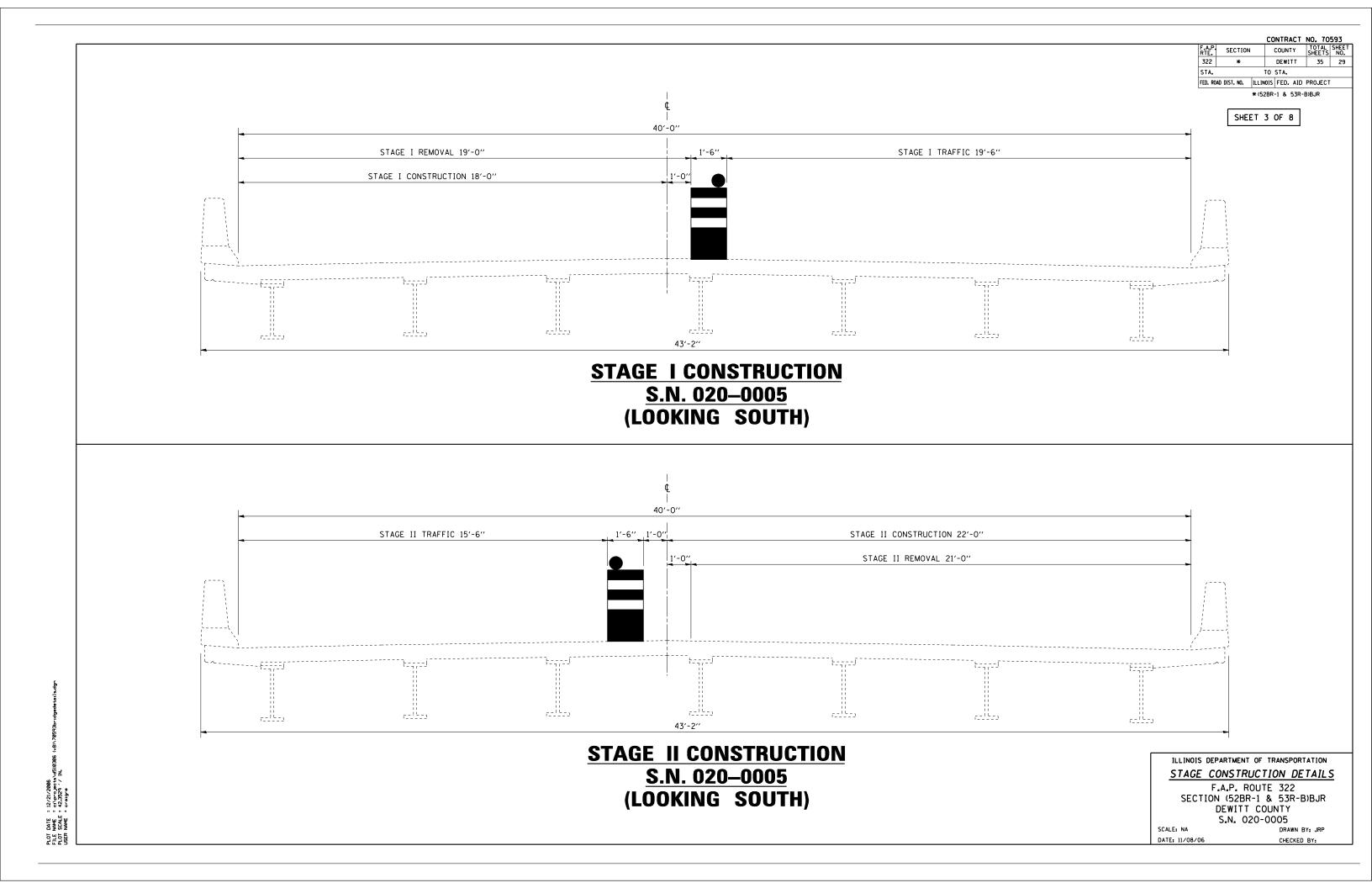
SUPERSTRUCTURE

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR

SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY
S.N. 020-0005
DRAWN BY; JRP

SCALE: NA DATE: 11/03/06

CHECKED BY:

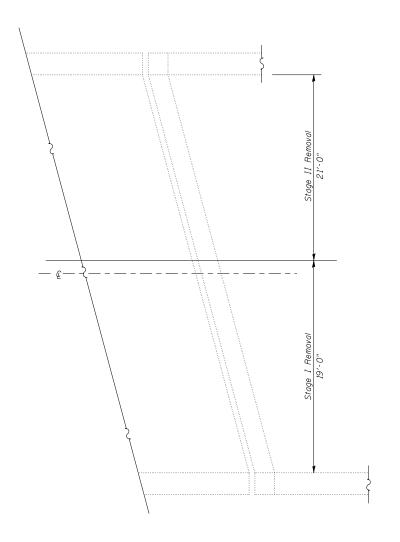


JOINT REPAIR AT NORTH ABUTMENT S.N. 020-0005

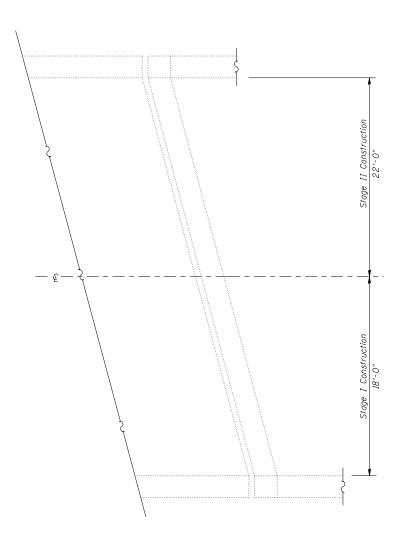
TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

SHEET 4 OF 8







PROPOSED PARTIAL PLAN Joint at North Abutment

See Sheet 5 of 8 for Proposed Joint Section.

See Sheet 8 of 8 for Section Thru Parapet.

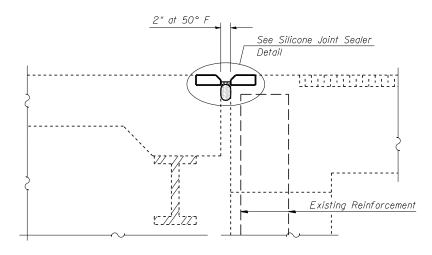
ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT NORTH ABUTMENT

F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY

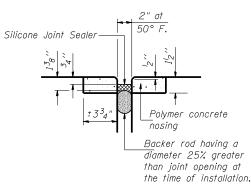
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SCALE: NA DATE: 11/08/06

EXISTING SECTION AT NORTH ABUTMENT

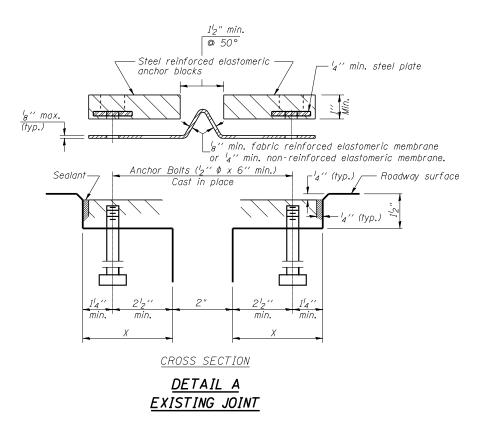


PROPOSED SECTION AT NORTH ABUTMENT



SILICONE JOINT SEALER DETAIL

JOINT REPAIR AT NORTH ABUTMENT S.N. 020-0005



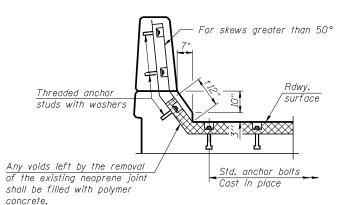
d,(E)-

SECTION 322 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT *(52BR-1 & 53R-B)BJR

CONTRACT NO. 70593

SHEET 5 OF 8

EXISTING SECTION THRU PARAPET



EXISTING NEOPRENE JOINT AT PARAPET

BILL OF MATERIALS

Item	Unit	Total
Polymer Concrete	Cu. Ft.	3.5
Silicone Joint Sealer, 2"	Foot	45.4

Remove existing neoprene expansion joint leaving existing anchor bolts, replace with Silicone Joint Sealer and Polymer Concrete.

Removal of the existing anchor blocks and neoprene membrane is included in the cost of Polymer Concrete.

For proposed end of seal treatment at abutment, see sheet 8 of 8.

ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT REPAIR AT NORTH ABUTMENT

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0005

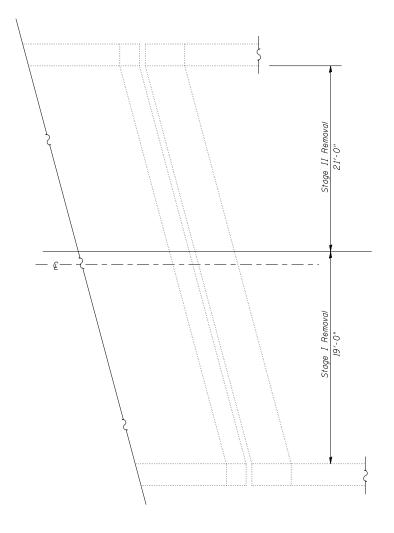
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JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0005

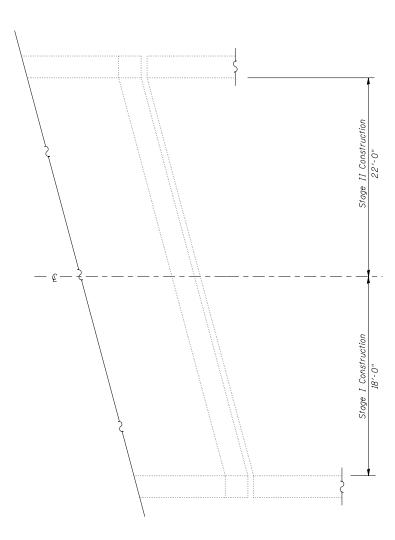
TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

*(52BR-1 & 53R-B)BJR

SHEET 6 OF 8







PROPOSED PARTIAL PLAN Joint at South Abutment

See Sheet 7 of 8 for Proposed Joint Section.

See Sheet 8 of 8 for Section Thru Parapet.

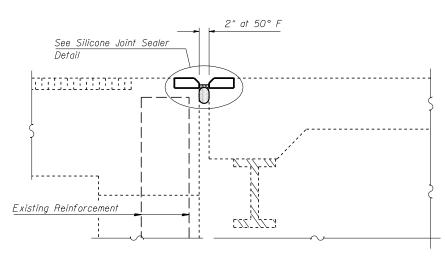
ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT SOUTH ABUTMENT

F.A.P. ROUTE 322
SECTION (52BR-1 & 53R-B)BJR
DEWITT COUNTY

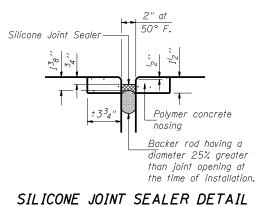
S.N. 020-0005

SCALE: NA DATE: 11/08/06

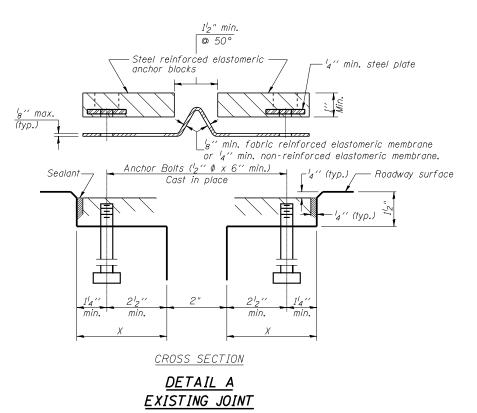
EXISTING SECTION AT SOUTH ABUTMENT

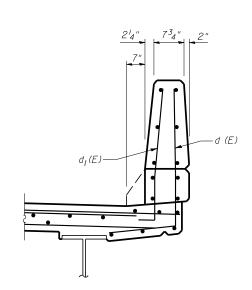


PROPOSED SECTION AT SOUTH ABUTMENT



JOINT REPAIR AT SOUTH ABUTMENT S.N. 020-0005





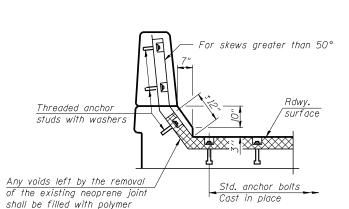
TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT *(52BR-1 & 53R-B)BJR SHEET 7 OF 8

SECTION

322

STA.

CONTRACT NO. 70593 COUNTY TOTAL SHEET NO.



EXISTING SECTION THRU PARAPET

> EXISTING NEOPRENE JOINT AT PARAPET

BILL OF MATERIALS

concrete.

Item	Unit	Total
Polymer Concrete	Cu. Ft.	3.4
Silicone Joint Sealer, 2"	Foot	45.4

Notes:

Remove existing neoprene expansion joint leaving existing anchor bolts, replace with Silicone Joint Sealer and Polymer Concrete.

Removal of the existing anchor blocks and neoprene membrane is included in the cost of Polymer Concrete.

For proposed end of seal treatment at abutment, see sheet 8 of 8.

ILLINOIS DEPARTMENT OF TRANSPORTATION JOINT REPAIR AT SOUTH ABUTMENT

F.A.P. ROUTE 322

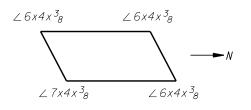
SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0005 DRAWN BY: JRP

SCALE: NA DATE: 11/08/06

*(52BR-1 & 53R-B)BJR

SHEET 8 OF 8

ANGLE IRON SIZES FOR JOINT EXTENSION • Angle Iron sizes shown in diagram is for attachment to Bridge Deck. • Angle Iron sizes for attachment to the Abutment Wing will be $\angle 4x4x \ 3/8$ in all cases.



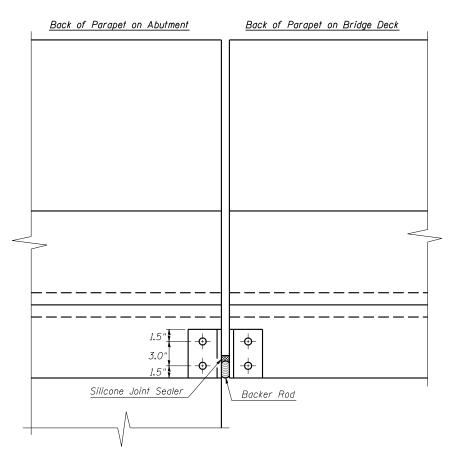
S.N. 020-0005

Varies ³4" - 2" 24 ¹₂" Dia. Anchor Bolts End of Deck 934 Back of Parapet Back of Parapet ∠ 4x4x ³8 $\angle 6x4x^{3}_{8}$ or $\angle 7x4x^{3}_{8}$ See diagram "Angle Iron Sizes For Joint Extension" Silicone Joint Sealer

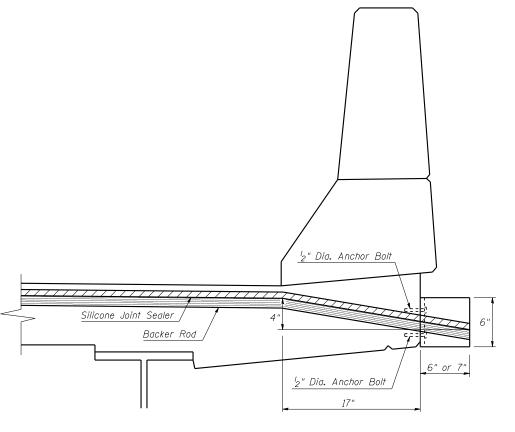
Parapet on Bridge Deck

TOP VIEW TOP OF PARAPETS AT JOINT

Parapet on Abutment Wing



SIDE VIEW BACK OF PARAPET AT JOINT



SECTION A-A THRU PARAPET

LIST OF MATERIALS

Z 4	. x	4	Χ	38	-	Stainless	Steel	Angle	Iron	-	4	еа	0	6"	=	2.0	Feet
∠6	X	4	Χ	38	-	Stainless	Steel	Angle	Iron	-	3	ea	@	6"	=	<i>1.</i> 5	Feet
∠ 7	, _X	4	Χ	3 ₈	-	Stainless	Steel	Angle	Iron	-	1	ea	@	6"	=	0.5	Feet
1/2	In	ch	A	nchi	or	Bolts - S	Stainle.	ss Ste	e/ = .	16	E	ich					

The Stainless Steel Angle Iron and Anchor Bolts, furnished and installed shall not be paid for separately but shall be included in the unit bid price for Silicone Joint Sealer, 2".

GENERAL NOTES

- 1. Anchor Bolts shall be Stainless Steel Grade 5 or higher.
- 2. All sections of Angle Iron shall be Stainless Steel.
- 3. Stainless Steel Angle Iron shall be attached to the back side of the Abutment Wing and Bridge Deck as shown in the detail and to the satisfaction of the engineer PRIOR to the placement of Backer Rod and Silicone Joint Sealer.
- 4. The concrete at locations which the Stainless Steel Angle Iron is to be attached shall be generally flat and free of rough or high spots. Light grinding with a concrete grinding wheel may be required at a few locations to ensure a smooth/flat surface.
- 5. Drainage by others.

ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT EXTENSION DETAILS F.A.P. ROUTE 322

SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY S.N. 020-0005 DRAWN BY: JRP

SCALE: NA DATE: 11/09/06

| SHELIS NO. | SHELIS NO. | STA. | TO STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID | PROJECT |

*(52BR-1 & 53R-B)BJR

<u>NOTES</u>

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars. Bar splicer assemblies shall be epoxy coated according to the requirements for

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

Minimum Capacity = 1.25 x fy x A, (Tension in kips)

Where fy = Yield strength of lapped reinforcement bars in ksi.

 A_t = Tensile stress area of lapped reinforcement bars. * = 28 day concrete

BAR SPLICER ASSEMBLIES								
		Strength Requirements						
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension					
#4	1'-8''	14.7	7.9					
#5	2'-0''	23.0	12.3					
#6	2'-7''	33.1	17.4					
#7	3′-5″	45.1	23.8					
#8	4'-6''	58.9	31.3					
#9	5′-9′′	75.0	39.6					
#10 7'-3''		95.0	50.3					
#11	9'-0"	117 4	61.8					



ROLLED THREAD DOWEL BAR

11111

The diameter of this part

of the bar spliced.

is the same as the diameter

The diameter of this part is equal or larger than the

diameter of bar spliced.

** ONE PIECE

-Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.

INSTALLATION AND SETTING METHODS

<u>"B"</u>

Washer Face

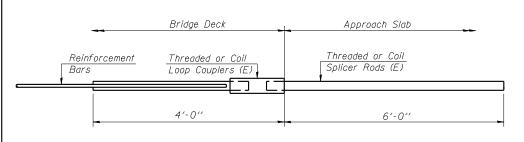
Template

Bolt

Forms-

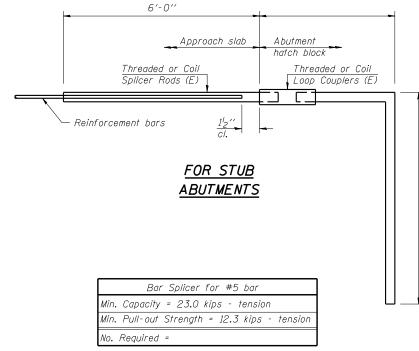
"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

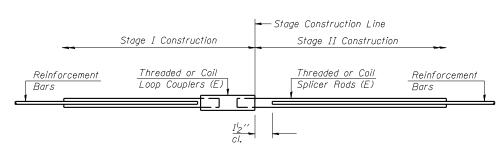
(E): Indicates epoxy coating.



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =





<u>STANDARD</u>

Bar Size	No. Assemblies Required	Location
#6	15	DECK ENDS

ILLINOIS DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS

F.A.P. ROUTE 322 SECTION (52BR-1 & 53R-B)BJR DEWITT COUNTY

SCALE: NA DATE: 12/04/06 DRAWN BY: BRIDGE CHECKED BY: