STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**DIVISION OF HIGHWAYS** 

# **PROPOSED** HIGHWAY PLANS

**FAP ROUTE 310 (US 67)** SECTION 57BR-1 **PROJECT** 

SUPERSTRUCTURE REPLACEMENT W/SCOUR MITIGATION

> **JERSEY COUNTY** C-98-098-07

TO CARROLL TON 4006 21 F SPRUCE

SUPERSTRUCTURE TO BE REPLACED IN KIND OVER DE'ARCY CREEK STATION 651 + 79.77 49'-2" & VARIES BK. TO BK. ABUTS. S.N. 042-0001

MAIN SPAN PPC DECK BEAM

LAT. 39.15156

LONG. 90.34847

57BR-1 310 JERSEY 25 1 CONTRACT NO. 76B20

D-98-095-07



DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS** 

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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FOR INDEX OF SHEETS, SEE SHEET NO. 2

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

PROJECT ENGINEER PATTI LeBEAU (618) 346-3179 PROJECT MANAGER ART MUEHLFELD (618) 346-3209

CONTRACT NO. 76B20

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**DESIGN DESIGNATION** 

ADT = 7,400 (2028) SU = 6.4%

ADT = 5.500 (2008)

GROSS LENGTH 0.009 MI

STATE OF ILLINOIS

#### INDEX OF SHEETS

- COVER SHEET
- INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
- SUMMARY OF QUANTITIES
- 4.-5. TYPICAL SECTIONS
- PLAN SHEET
- TRAFFIC CONTROL STAGE I TRAFFIC CONTROL
- TRAFFIC CONTROL STAGE II TRAFFIC CONTROL WIDE LOAD SIGNING
- 10.-23. STRUCTURE PLAN SHEETS
- 24. ENTRANCE DETAILS
- 25. PAVEMENT MARKING SHEET

#### HIGHWAY STANDARDS

000001-05

001001-01 001006

515001-02

635011-01 701311-02

701321-09

701326-02

701901 704001-04

780001-01 781001-02

### MIXTURE REQUIREMENTS

MIXTURE USE	BASE COURSE
AC/PG	PG 64-22
RAP % (MAX)	15%
DESIGN AIR VOIDS	4.0% @ Ndes = 70
MIX COMPOSITION	
(GRADATION MIXTURE)	IL 19.0
FRICTION AGG	MIXTURE "B"

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

#### FILE NAME = USER NAME = muenstermanngk DESIGNED -REVISED DRAWN REVISED -PLDT\_SCALE = 18.8889 ' / IN. CHECKED REVISED PLOT DATE = 12/19/2007 DATE REVISED

GENERAL NOTES

COMMITMENTS NO COMMITMENTS

- ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF THE FACILITIES MAY ALSO BE OBTAINED BY CALLING J.U.L.I.E. AND FOR NON-J.U.L.I.E. MEMBERS, THE UTILITIES COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
  - \* AMEREN CIPS
  - \* FRONTIER COMMUNICATION COMPANY
  - . JERSEY COUNTY RURAL WATER COMPANY

MEMBERS OF J.U.L.I.E. (800) 892-0123 OR 811 ARE INDICATED BY .. VON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

- ALL ELEVATIONS REFER TO THE USGS MEAN SEA LEVEL DATUM.
- THE THICKNESS OF THE HOT-MIX ASPHALT BASE COURSE WIDENING SHOWN ON THE PLANS IS NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS SHALL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT BASE COURSE WIDENING IS PLACED.
- IF THE CONTRACTOR REMOVES TREES WITHIN THE RIGHT-OF-WAY LIMITS FOR THIS CONSTRUCTION ACTIVITY, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE, IT SHALL BE HIS RESPONSIBILITY TO REPLACE THE TREES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. TREES ALONG THE EDGE OF THE RIGHT-OF-WAY SHALL BE SAVED IF IN, THE OPINION OF THE ENGINEER, THEY DO NOT INTERFERE WITH CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS. ANY TREE REMOVAL AND REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
- THE CONTRACTOR SHALL MAINTAIN ACCESS AT ALL TIMES TO THE FIELD ENTRANCES WITHIN THE LIMITS OF THE PROJECT.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE NUMBER LISTED ON THE COPY OF STANDARD INCLUDED IN THESE PLANS. THE STANDARDS AND REVISION NUMBERS LISTED SHALL APPLY TO THIS PROJECT.
- "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS AND WILL BE CONSIDERED TO BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE IN COLOR.
- GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, EXISTING SHRUBS AND TREES, OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILL OR CUTS ARE ADJACENT TO THE ITEMS. THE ITEMS TO REMAIN IN PLACE SHALL BE ACCORDING TO THE ENGINEER. THIS WORK SHALL BE CONSIDERED TO BE INCLUDED IN THE "EARTH EXCAVATION" PAY ITEM.
- THE COST FOR GRADING AND SHAPING ALONG THE PROPOSED WIDENING SHALL BE INCLUDED IN THE COST OF "EARTH EXCAVATION".
- THE TRAFFIC CONTROL MEASURES SHOWN ON PLANS FOR STAGE I AND II SHALL SUPPLEMENT AND BE IN ACCORDANCE WITH TRAFFIC CONTROL STANDARD 701321 (SPECIAL).
- 12. THE COST OF "BARRICADES, TYPE III" USED DURING STAGE CONSTRUCTION SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
- THE CONTRACTOR SHALL PROVIDE TWO SIGNAL HEADS (EACH) FOR THE ENTRANCES LICENSE WITHIN THE STAGE CONSTRUCTION AT STA. 653+28.86 AND STA. 653+53.64. THE SIGNALS. DETECTOR LOOPS, AND THE NUMBER OF TURNS OF WIRE IN THE LOOPS SHALL BE AS DETERMINED BY THE ENGINEER.
- NO TRENCHES OR OPEN PITS WILL BE PERMITTED ADJACENT TO A TRAFFIC LANE DURING NON-WORKING HOURS. ALL WIDENING TRENCHES SHALL BE BACKFILLED DURING THE SAME
- 15. A QUANTITY OF 550 FOOT OF "TEMPORARY PAVEMENT MARKING LINE 6 INCHES" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6 INCHES OF THE TEMPORARY CONCRETE BARRIER,
- THE BARRIER UNIT AT THE END OF THE TRAFFIC CONTROL INSTALLATION SHALL BE SECURED TO THE PAVEMENT OR SHOULDER USING SIX ANCHORING PINS FOR IFS BARRIER OR ALL SIX DOWEL BARS FOR NEW JERSEY SHAPE BARRIER.

#### PERTINENT INFORMATION

- 1. PROVIDE CHANGEABLE MESSAGE BOARDS ALONG US 67 ALERTING PUBLIC OF NARROW STAGE CONSTRUCTION FOR TWO WEEKS PRIOR TO STAGE I CLOSURE. PLACEMENT OF CHANGEABLE MESSAGE BOARDS SHALL BE APPROVED BY THE ENGINEER.
- 2. PRIOR TO ANY COMMENCEMENT OF WORK, THE RESIDENT ENGINEER SHALL CONTACT THE JERSEY COUNTY FARM BUREAU TO HAVE A NOTICE PLACED IN THE NEWSLETTER REGARDING. THE NARROW STAGE CONSTRUCTION. THE NEWSLETTER COMES OUT THE 25TH OF EACH MONTH THEREFORE, THEY SHOULD BE NOTIFIED BY THE FIRST OF THE MONTH IN THE MONTH PRIOR TO CONSTRUCTION. INFORMATION CAN BE SENT TO JERSEY COUNTY FARM BUREAU, P.O. BOX 425, JERSEYVILLE, IL, 62052, PHONE (618) 498-9576.

TE OF ILLINOIS T OF TRANSPORTATION		SHEETS, HIGHWAY COMMITMENTS	STANDARDS,	GENERAL
<u>보다.</u> 그리고 있을 때문을 이 보다 한 사람들이다.	SCALE:	SHEET NO. OF SHEET	S STA.	TO STA.

STAT **DEPARTMENT** 

## SUMMARY OF QUANTITIES

	SUMMARY OF QUANTITIES		100 1. STATE	CONST	FRUCTION TYPE CODE		SUMMARY OF QUANTITIE	S.	100% STATE	CONSTRU	JCTION TYPE CODE
ODE NO	ITEM	UNIT	TOTAL QUANTITIES	X081-2A		CODE NO	ITEM	UNIT	TOTAL QUANTITIES	X081-2A	
,DE 110						<del>*</del> 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE	FOOT	232	232	
0200100	EARTH EXCAVATION	CU YD SQ YD	36 569	36 569		<del>/</del> 78100105	4" RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
8100109	STONE RIPRAP, CLASS A5	SQ YD	569	569		<del>x</del> 78100300	REPLACEMENT REFLECTOR	EACH	8	8	
8200200	FILTER FABRIC  HOT-MIX ASPHALT BASE COURSE WIDENING,	SQ YD	294	294		× 78200520	BARRIER WALL MARKERS, TYPE B	EACH	6.00	6	
5600712	9"	Ja Ib	<b>454</b>	254		¥ 78200530	BARRIER WALL MARKERS, TYPE C	EACH	6	6	
0200900	AGGREGATE SURFACE COURSE, TYPE B	CU YD	8	8		78300100	PAVEMENT MARKING REMOVAL	SQ FT	468	468	
4004250	PAVED SHOULDER REMOVAL	SQ YD	293	293		78300200	RAISED REFLECTIVE PAVEMENT MARKER	EACH	9	9	
8102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	8	8		18300200	REMOVAL	LAUI			
0101700	REMOVAL OF EXISTING SUPERSTRUCTURES NO.1	EACH	1	1		X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	135	135	
50102400	CONCRETE REMOVAL	CU YD	2.8	2.8		X7200200	WIDE LOAD SIGNING	L SUM			
50300100	FLOOR DRAINS	EACH	6	6		Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-	EACH	2	2	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	11.3	11.3		2,000200	REDIRECTIVE), TEST LEVEL 3				
50300260	BRIDGE DECK GROOVING	SQ YD	173	173		Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
50300300	PROTECTIVE COAT	SQ YD	229	229							
0301200	CONCRETE WEARING SURFACE	sq YD	184	184							
0400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1725	1725							
0800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5000	5000							
50800515	BAR SPLICERS	EACH	54	54						그 사람은 얼마 작	
51500100	NAME PLATES	EACH	1	<b>1</b>							
2000110	PREFORMED JOINT STRIP SEAL	FOOT	35	35							
7000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4,							
7100100	MOBILIZATION	L SUM	1	1			1				
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM			(1)						
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	\(\frac{1}{2}\)								
0106600	TEMPORARY BRIDGE TRAFFIC SIGNALS (STATE FURNISHED CONTROLLER)	EACH	1	1							
0106700	TEMPORARY RUMBLE STRIP	EACH	6	6			기를 하면 하는 것이 되는 것이 되는 고향을 하는 것으로 되고 있다. 그리고 있는 것이 되는 것으로 하는 것을 보고 있는 것을 하는 것을 하는 것이다.				
0106800	CHANGEABLE MESSAGE SIGN	CAL MO		1							
0300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1547	1547			] 하는 그를 하려려면 한 경험에 가지 않는 말이 되었다고 하는 것이다.   15일 다시아 말이라는 역하는 이 기계를 들어 있는 것이다. 스트				
0300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	550	550							
0301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	516	516							
0400100	TEMPORARY CONCRETE BARRIER	F00T	300	300							
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	250	250							
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1315	1315	5 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)						
ME =	USER NAME = muenstermanngk DESIGNED -		REVISED -				*SPECIALTY	ITEMS		F.A.P SECTION	COUNTY TO

FILE NAME = PLOT SCALE = 18.8889 '/ IN.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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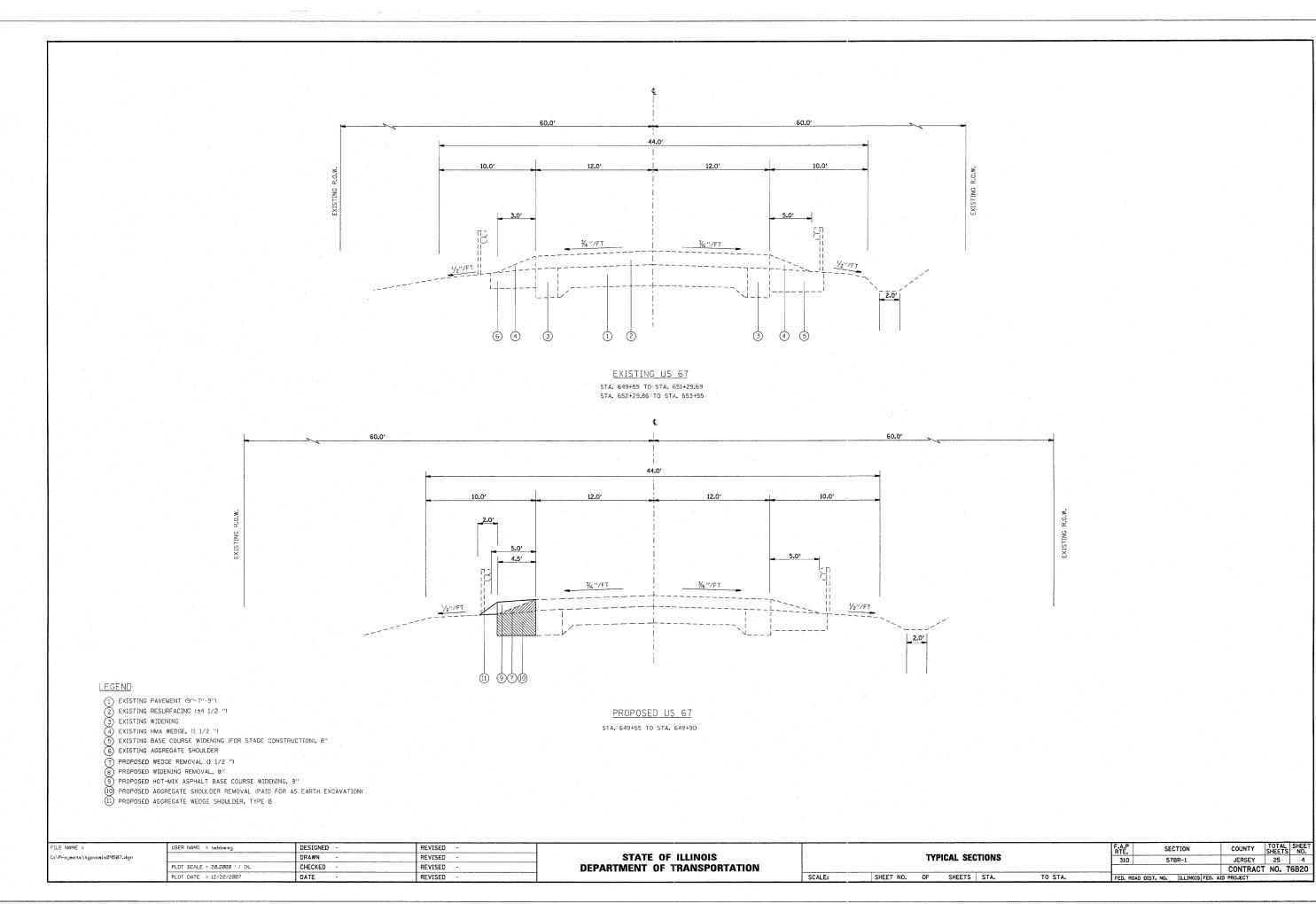
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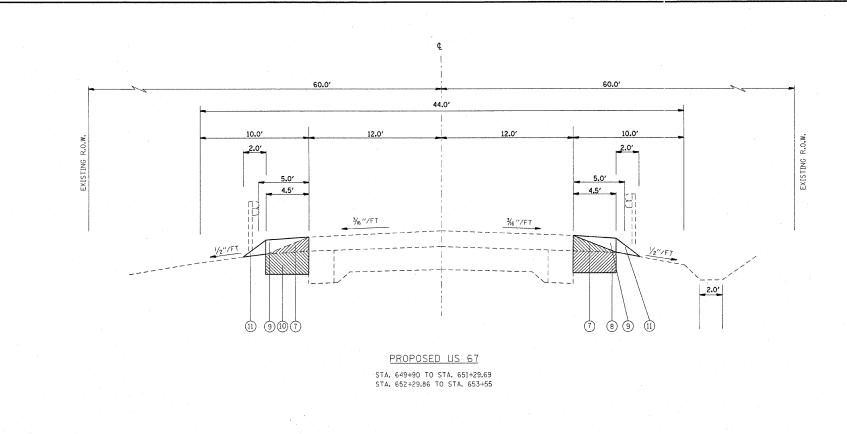
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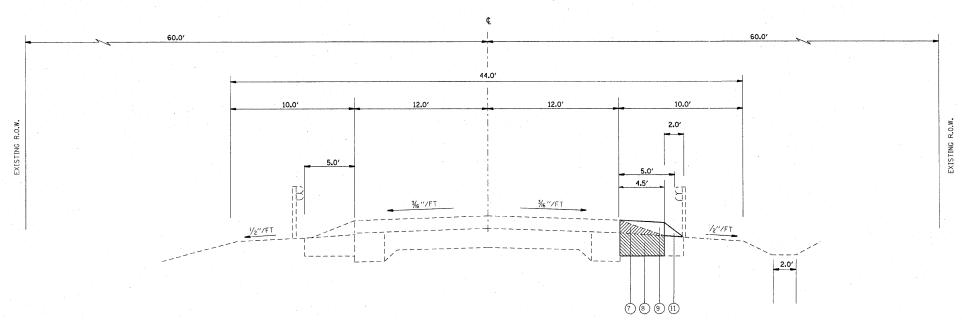
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DATE

SUMMARY OF QUANTITIES SHEET NO. OF SHEETS STA.







## LEGEND

- 1 EXISTING PAVEMENT (9"-7"-9")
  2 EXISTING RESURFACING (±4 1/2 ")
  3 EXISTING WIDENING
  4 EXISTING HMA WEDGE, (1 1/2 ")
  5 EXISTING BASE COURSE WIDENING (FOR STAGE CONSTRUCTION), 8"
  6 EXISTING AGGREGATE SHOULDER
- 7 PROPOSED WEDGE REMOVAL (1 1/2 ")

- B PROPOSED WIDENING REMOVAL, 8"

  3 PROPOSED WIDENING REMOVAL, 8"

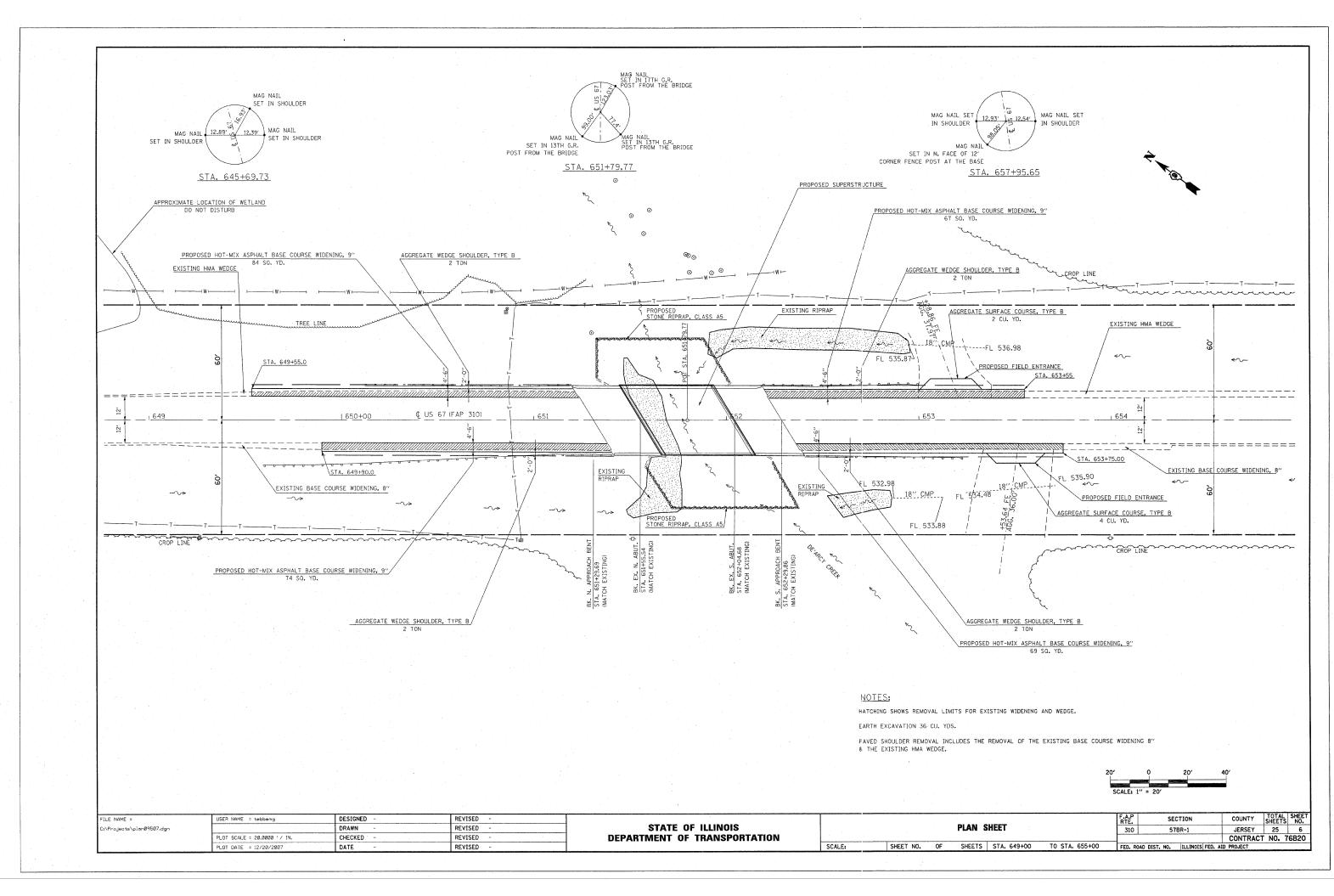
  9 PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9"

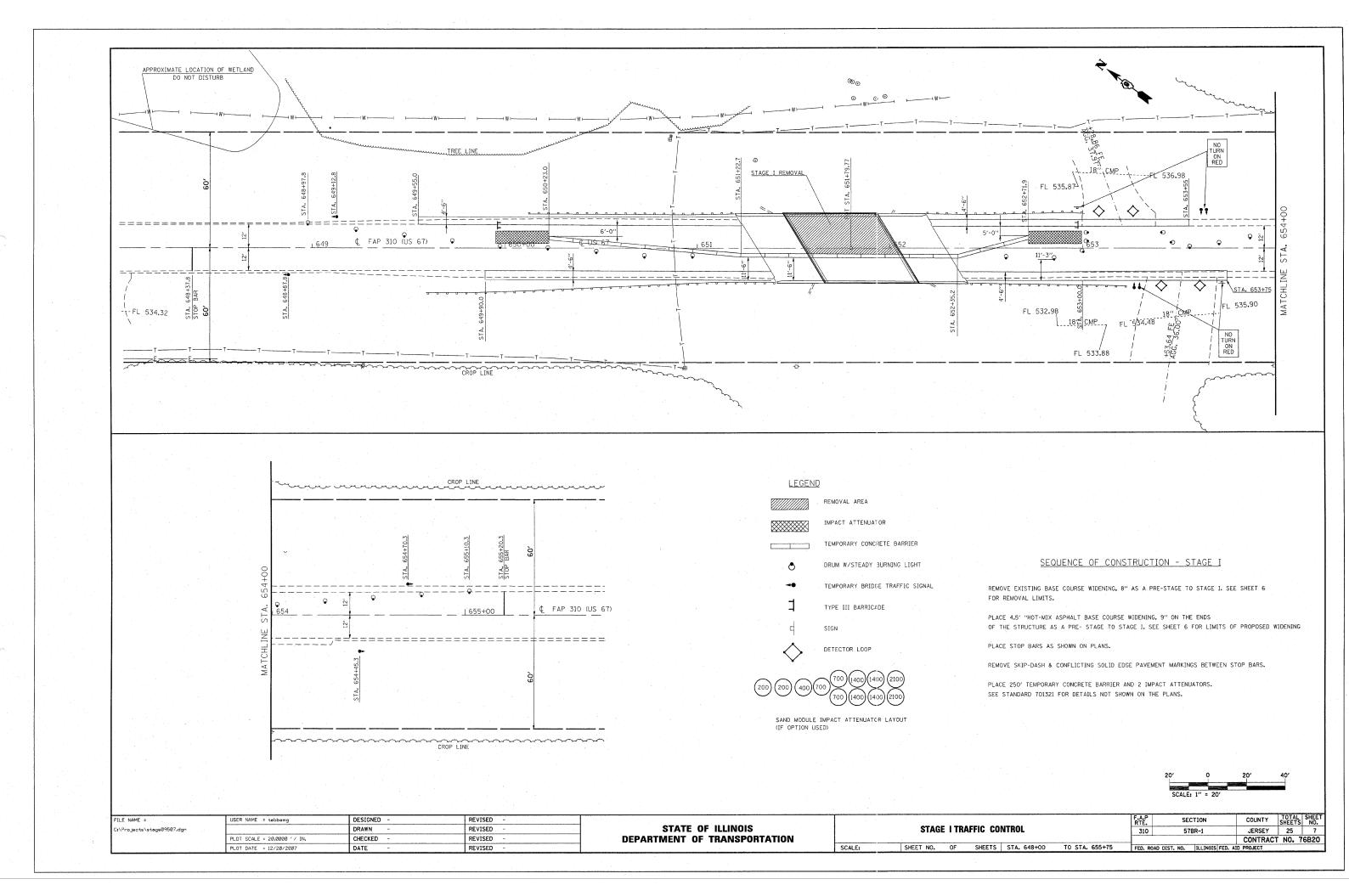
  10 PROPOSED AGGREGATE SHOULDER REMOVAL (PAID FOR AS EARTH EXCAVATION)

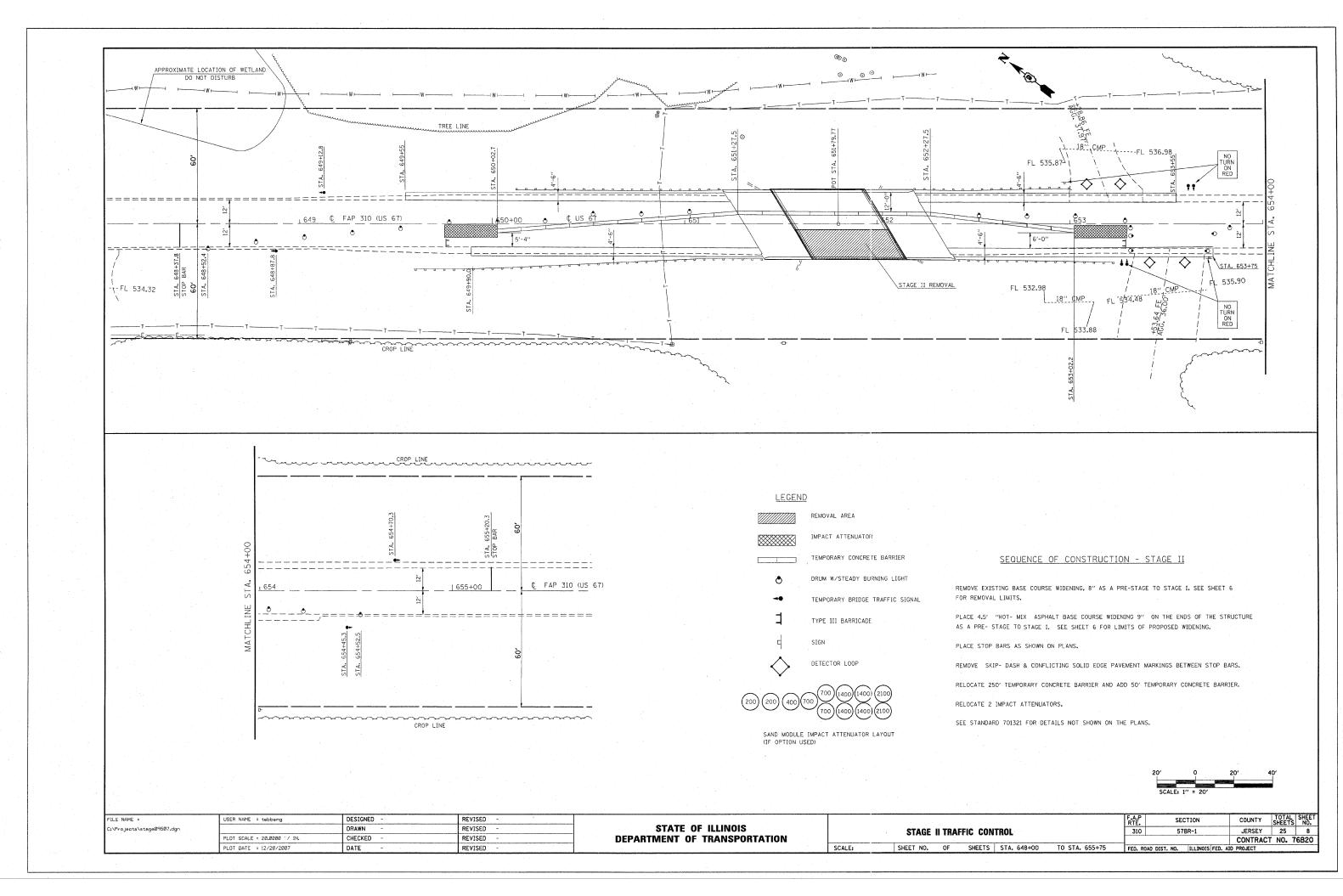
  11 PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

PROPOSED US 67 STA. 653+55.00 TO STA. 653+75.00

FILE NAME =	USER NAME = muenstermanngk	DESIGNED -	REVISED -								F.A.P RTF.	SECTION	COL	INTY SI	TOTAL SHE	žΤ
c:\projects\ed09507\plan\typicals09507.d	gn	DRAWN -	REVISED -	STATE OF ILLINOIS			TY!	PICAL SE	CTIONS		310	57BR-1	JEI	RSEY	25	,
	PLOT SCALE = 20.00000 '/ IN.	CHECKED	REVISED -	DEPARTMENT OF TRANSPORTATION									CON	TRACT I	NO. 76B2	ō
	PLOT DATE = 1/16/2008	DATE -	REVISED -		SCALE:	SHEET NO.	0F	SHEETS	STA.	TO STA.	FED. ROAD	DIST. NO. ILLINOIS	FED. AID PROJE	CT		

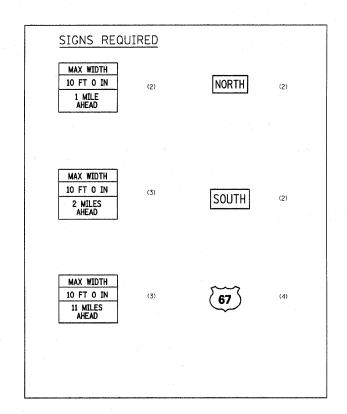


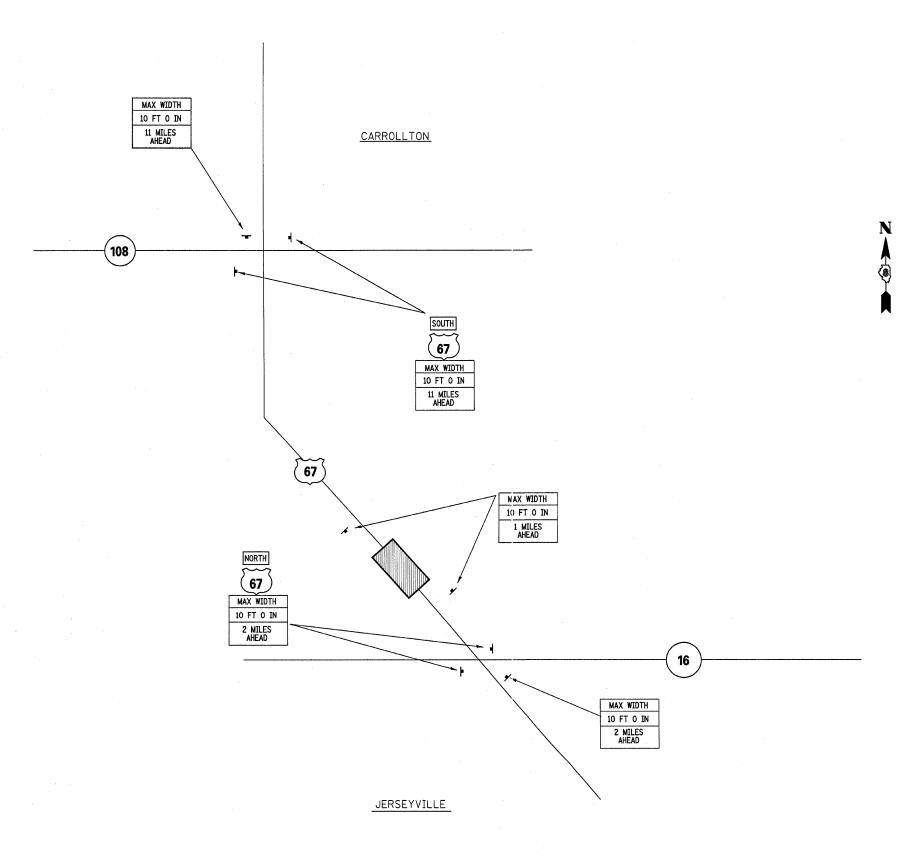




## NOTES:

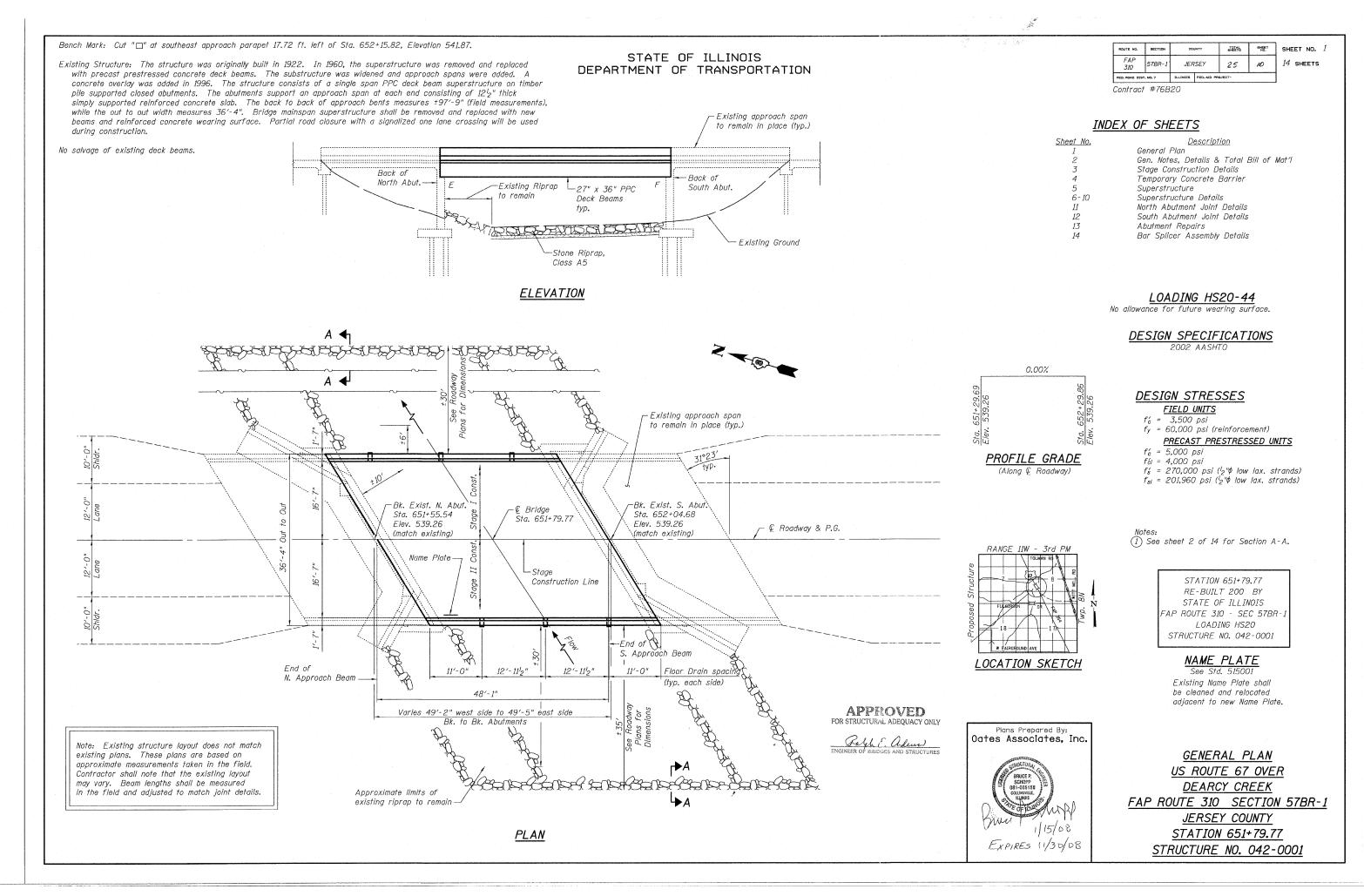
- 1. ALL SIGNS REQUIRED SHALL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
- 2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- 3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS, TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HGTS. AND RETURN THEM UPON COMPLETION OF THE CONTRACT.
- 4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
- 5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
- 6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.





DRAWING NOT TO SCALE

	FILE NAME =	USER NAME = muenstermanngk	DESIGNED -	REVISED -								F.A.P	SECTION	COUNTY	TOTAL	SHEET S NO.
·	c:\projects\ed09507\plan\pln09507temp.d	חנ	DRAWN -	REVISED -	STATE OF ILLINOIS			WIDI	LOAD S	SIGNING		310	57BR-1	JERSEY	25	9
		PLOT SCALE = 20.0000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO.	76B20
		PLOT DATE = 12/20/2007	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIS	T. NO.   ILLINOIS FED	AID PROJECT		



## GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to 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.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

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

Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal".

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures No. 1

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing Superstructures No. 1

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than  $50^{\circ}$  F.

The minimum thickness of concrete overlay shall be 4" and varies as required to adjust for the new profile grade and camber.

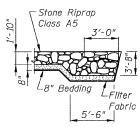
Slipforming parapet is not allowed.

#### WATERWAY INFORMATION

Drainage Are	Drainage Area = 6.57 Sq. Mi. Low Grade Elev. 538.55 © Sta. 1036+19											
Flood	Freq.	a	Opening	Sq. Ft.	Nat.	Head	- Ft.	Headwo	ater El.			
F1000	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.			
Design	50	3,228	388	388	537.20	1.05	1.05	538.25	538.25			
Base	100	3,747	388	388	537.60	1.61	1.61	539.21	539.21			
Overtopping	60	3,400	388	388	537.30	1.25	1.25	5 <b>38.</b> 55	538,55			
Max. Calc.												

### TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		569	569
Filter Fabric	Sq. Yd.		569	569
Removal of Existing Superstructures No. 1	Each	- 1		1
Concrete Removal	Cu. Yd.	2,8		2.8
Concrete Superstructure	Cu. Yd.	11.3		11.3
Protective Coat	Sq. Yd.	229		229
Bridge Deck Grooving	Sq. Yd.	173		173
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,725		1,725
Reinforcement Bars, Epoxy Coated	Pound	5,000		5,000
Bar Splicers	Each	54		54
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	<i>3</i> 5		35
Floor Drains	Each	6		6
Concrete Wearing Surface	Sq. Yd.	184		184
Structural Repair of Concrete (Depth equal to or less than 5 Inches)	Sq. Ft.		135	135



## SECTION A-A

(Typical along both Upstream and Downstream sides of Riprap Treatment)

Contract #76B20

GENERAL NOTES, DETAILS &
TOTAL BILL OF MATERIALS

US ROUTE 67 OVER

DEARCY CREEK

FAP ROUTE 310 SECTION 57BR-1

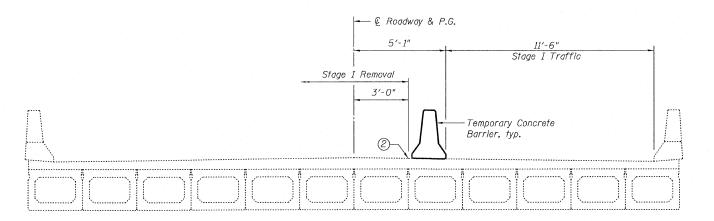
JERSEY COUNTY

STATION 651+79.77

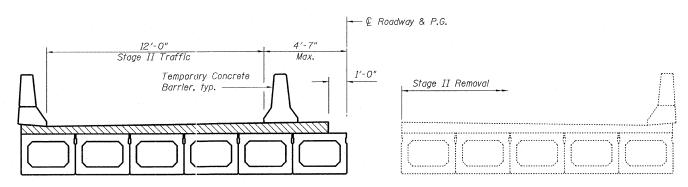
STRUCTURE NO. 042-0001

TOTAL SHEETS SHEET NO. SHEET NO. 3ROUTE NO. FAP 310 14 SHEETS JERSEY 25 12 57BR-3

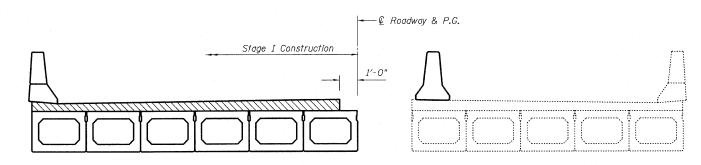
Contract #76B20



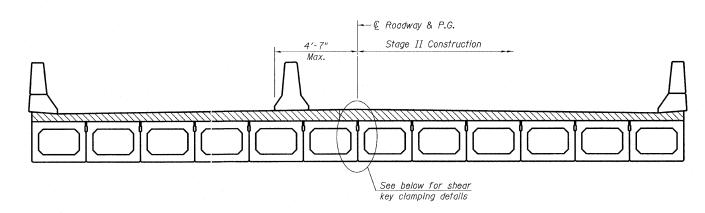
## STAGE I REMOVAL



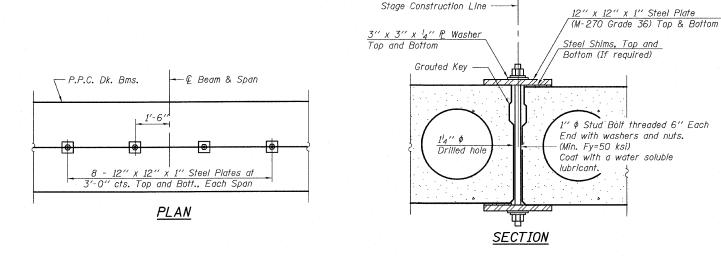
## STAGE II REMOVAL



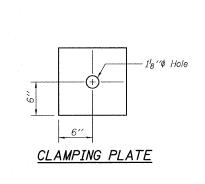
STAGE I CONSTRUCTION



## STAGE II CONSTRUCTION



SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.



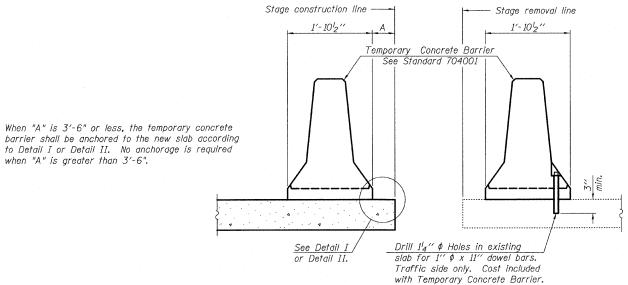
① All views Looking South.
② Existing concrete deck shall be saw cut at stage construction line prior to Stage I removal.
Cost included with Removal of Existing Superstructures.

For quantity of Temporary Concrete Barrier and related traffic control, see roadway plans.
 For details of Temporary Concrete Barrier, see sheet 4 of 14.

STAGE CONSTRUCTION DETAILS US ROUTE 67 OVER DEARCY CREEK FAP ROUTE 310 SECTION 57BR-1 JERSEY COUNTY STATION 651+79.77 STRUCTURE NO. 042-0001

ROUTE NO.	SECTION	co	JNTY	TOTAL SHEETS	SHEET NG.	SHEET NO. 4
FAP 310	57BR-1	JER	SEY	25	13	14 SHEETS
FED. ROAD DIST	. ND. 7	ILLINOIS	FED. AID PRI	DJECT-		

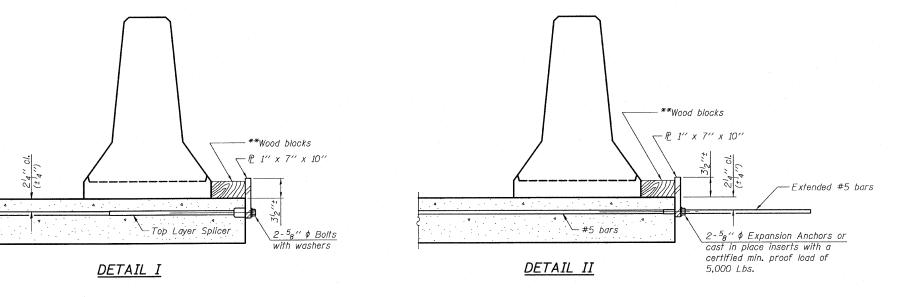
Contract #76B20



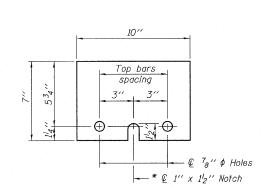
### NEW SLAB

EXISTING SLAB

## SECTIONS THRU SLAB



\*\* 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.



NOTES

Connect one (1) 1"x7"x10" steel P to the top layer of couplers with 2-58" \$\phi\$ bolts screwed to coupler at approximate € of

Connect one (1) 1"x7"x10" steel P to the concrete slab with  $2^{-5}B'' \neq Expansion$  Anchors

or cast in place inserts spaced between the top layer of reinforcement at approximate © of

Detail I - With Bar Splicer or Couplers:

to be placed.

each barrier panel. Detail II - With Extended Reinforcement Bars:

each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready

## STEEL RETAINER P 1" x 7" x 10"

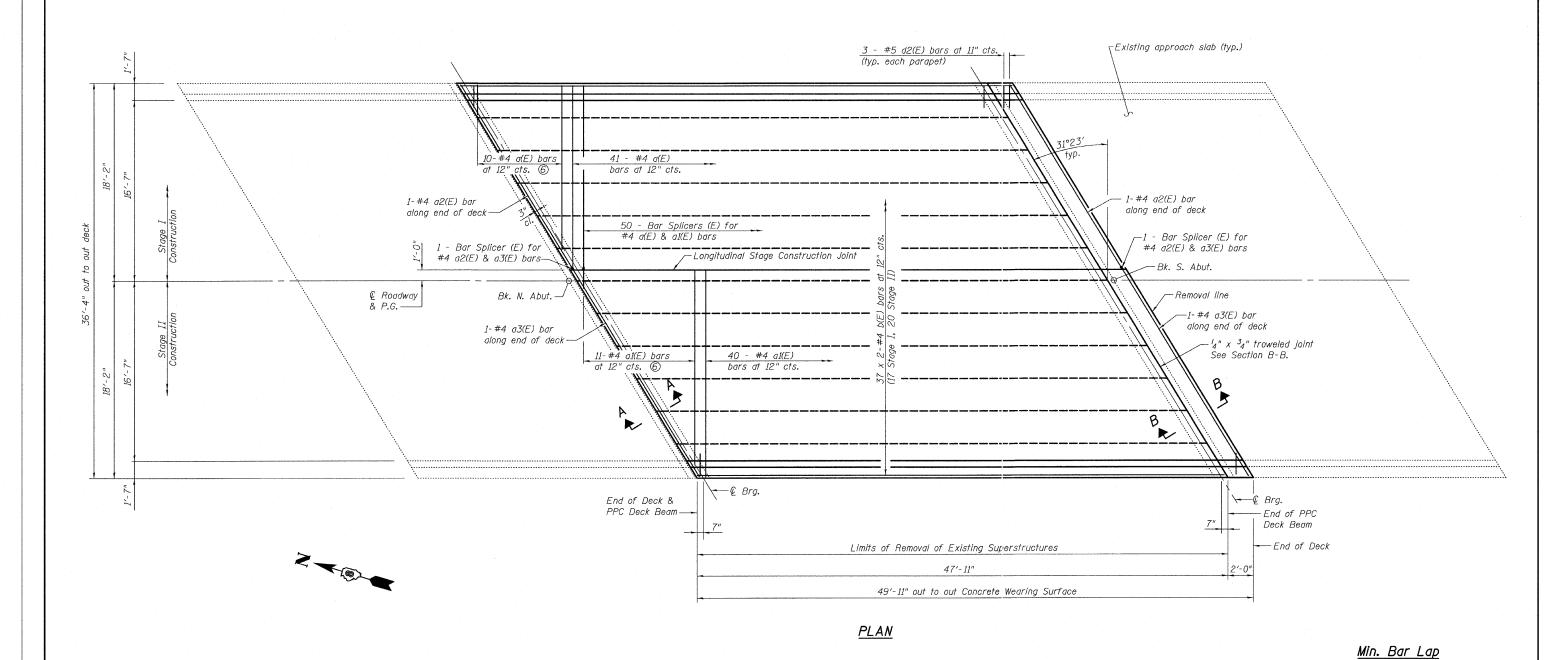
\* Required only with Detail II

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION US ROUTE 67 OVER DEARCY CREEK FAP ROUTE 310 SECTION 57BR-1 JERSEY COUNTY STATION 651+79.77 STRUCTURE NO. 042-0001

when "A" is greater than 3'-6".

ROUTE NO.	SECTION	col	JNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
FAP 310	57BR-1	JER	JERSEY		14	14 SHEETS
FED. ROAD DIST	. NO. 7	ILLINDIS	PEO. AID PR	DJECT-	***************************************	

Contract #76B20



① See sheet 7 of 14 for Bill of Materials.
② See sheet 14 of 14 for Bar Splicer details.
③ See sheet 3 of 14 for stage construction details.
④ See sheet 6 of 14 for Sections A-A and B-B. Work

with abutment joint details, sheets 11 and 12 of 14.

S Bar indicated thus 37 x 2 - #4 etc. indicates
37 lines of bars with 2 lengths per line.

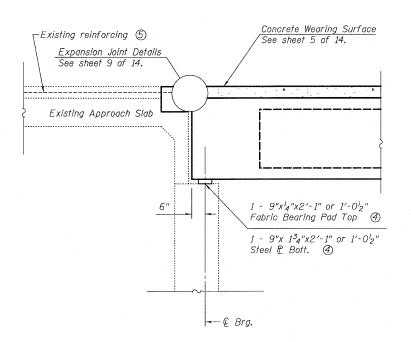
6 Order a(E) and a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

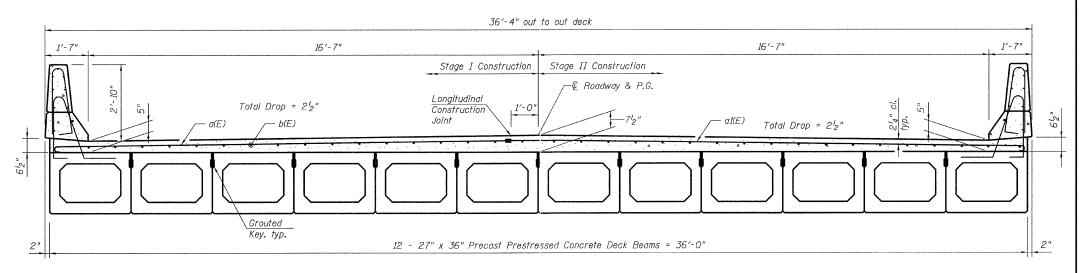
<u>SUPERSTRUCTURE</u> <u>US ROUTE 67 OVER</u> DEARCY CREEK FAP ROUTE 310 SECTION 57BR-1 JERSEY COUNTY STATION 651+79.77 STRUCTURE NO. 042-0001

#4 bar = 1'-8"

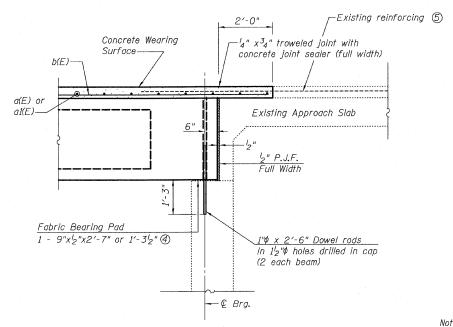
ROUTE NO.	SECTION	cou	JNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
FAP 310	57BR-1	JER	SEY	25	15	14 SHEETS
FED. ROAD DIS	F. NO. 7	ILLINDIS	INDIS FED. AID PROJECT-			1

Contract #76B20





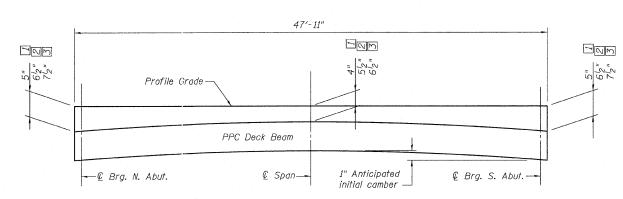
#### SECTION A-A (Section Thru N. Abut. (Expansion Joint))



SECTION B-B (Section Thru S. Abut. (Fixed Joint))

## CROSS SECTION NEAR ABUTMENTS

(Looking South)



- Located At Inside Face of Parapet
   Located At Outside Face of Fascia Beam
   Located At & Roadway & P.G.

## REINFORCED CONCRETE WEARING SURFACE PROFILE

① After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hours prior to grouting the shear keys.

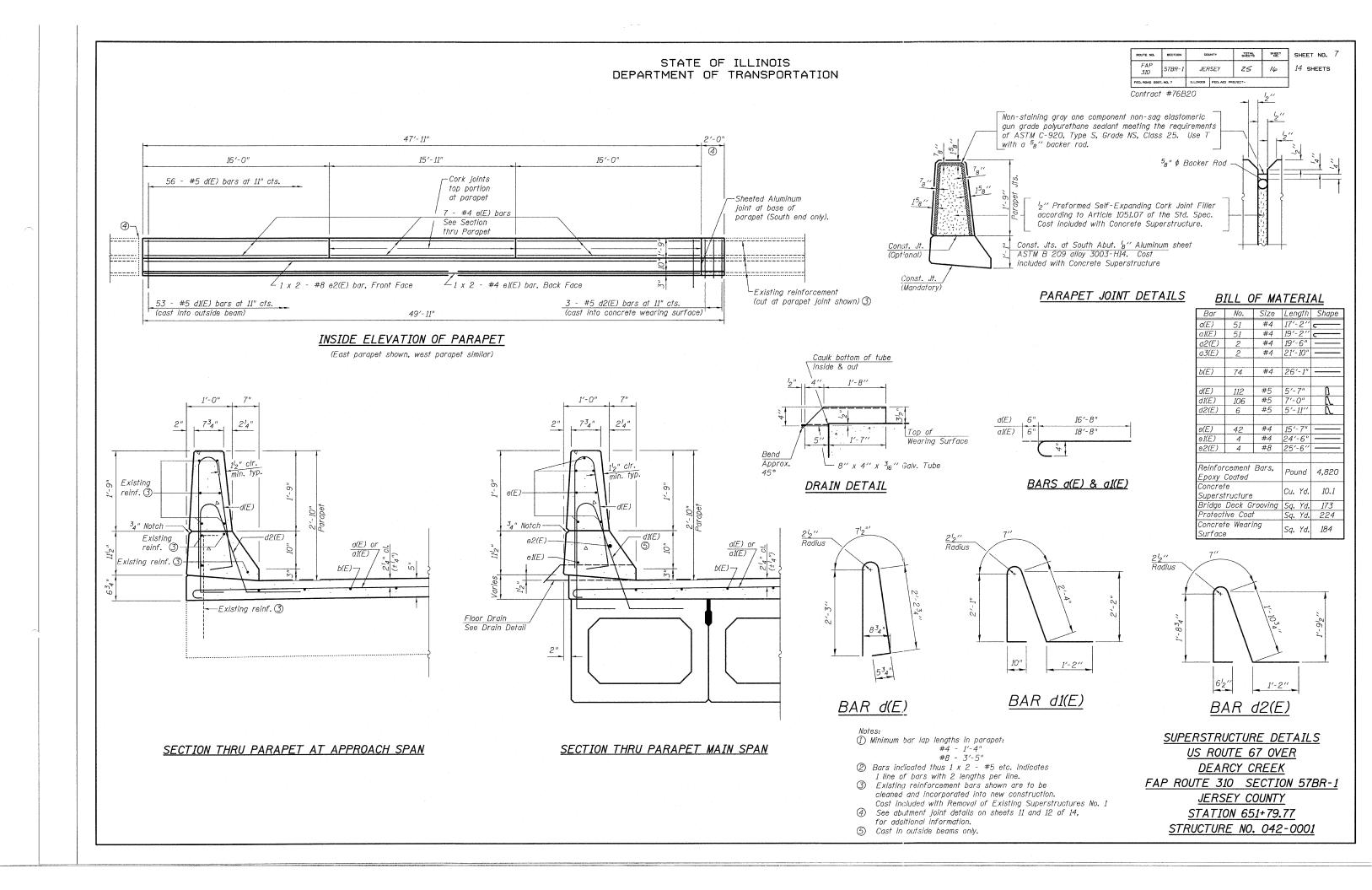
Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (27" depth).

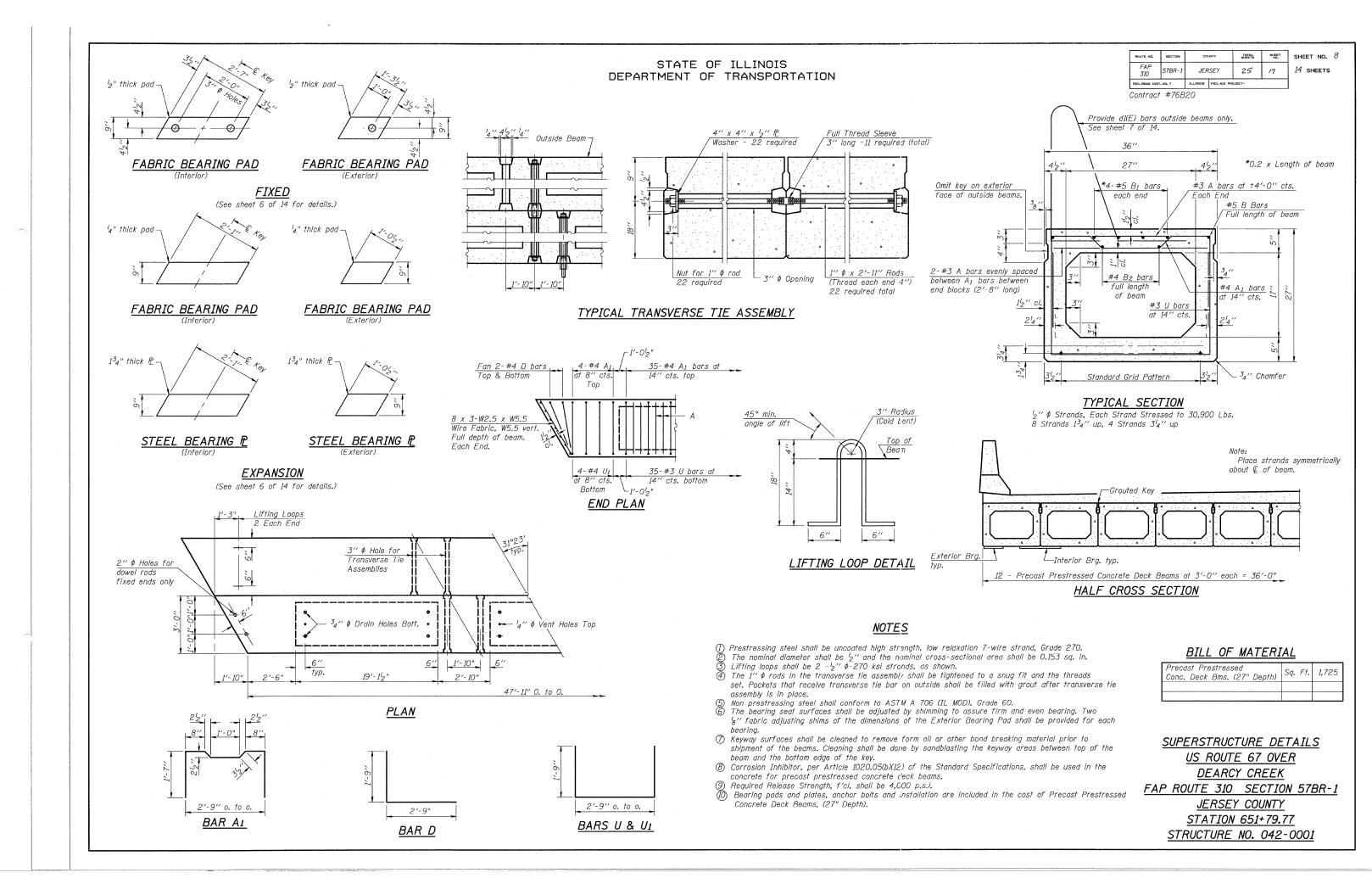
Concrete wearing surface to be poured after grouting the shear keys.

See sheet 8 of 14 for bearing details.

Existing reinforcement bars shown are to be cleaned and incorporated into new construction. Cost included with Removal of Existing Superstructures No. 1

SUPERSTRUCTURE DETAILS US ROUTE 67 OVER DEARCY CREEK FAP ROUTE 310 SECTION 57BR-1 JERSEY COUNTY STATION 651+79.77 STRUCTURE NO. 042-0001





plates

End of

parapet

Strip seal joint

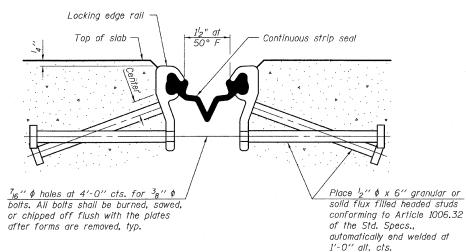
PLAN

Inside face/

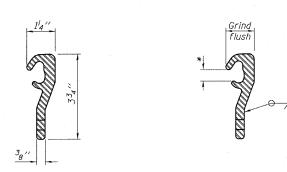
of parapet

Contract #76B20

- \* Omit weld at seal opening.
- \*\* When joint is fixed, dimension is set at  $1^l_2$ ".



## SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS



## LOCKING EDGE RAIL

## LOCKING EDGE RAIL SPLICE

#### Notes:

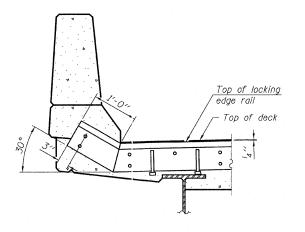
The strip seal shall be made continuous and shall have a minimum thickness of  ${}^{l}_{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. 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.

The inside of the Locking Edge Rail groove shall be free of weld residue.

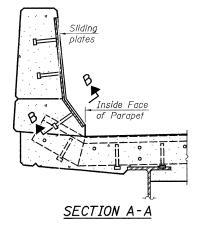
Locking Edge Rails may be spliced at slope discontinuities and stage

The manufacturer's recommended installation methods shall be followed.

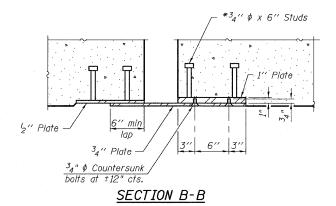


AT PARAPET

## TYPICAL END TREATMENTS







## BILL OF MATERIAL

L		Item			Unit	Total
Pref	ormed	Joint	Strip	Seal	Foot	35

SUPERSTRUCTUE DETAILS

US ROUTE 67 OVER

DEARCY CREEK

FAP ROUTE 310 SECTION 57BR-1

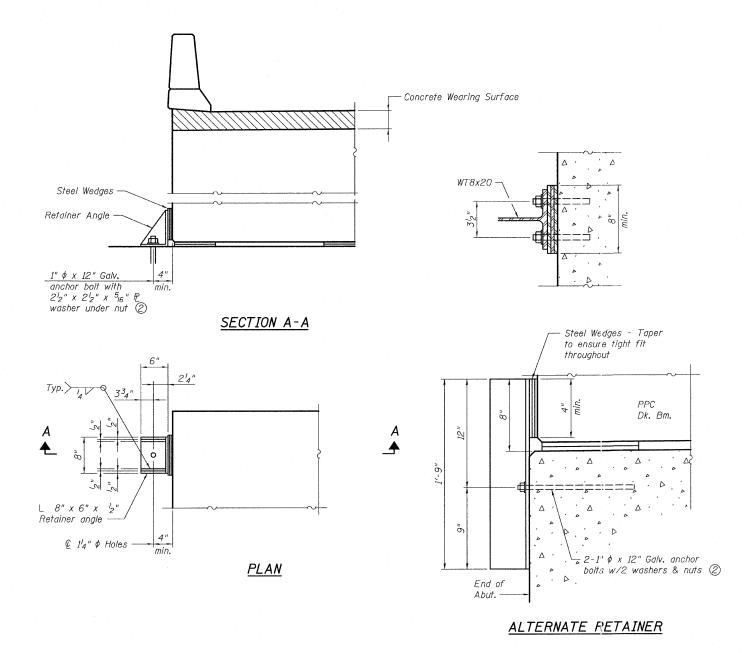
JERSEY COUNTY

STATION 651+79.77

STRUCTURE NO. 042-0001

ROUTE NO.	SECTION	DOI	INTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
FAP 310	57BR-1	JERSEY		25	19	14 SHEETS
FED. ROAD DIS	F. NO. 7	ILLINOIS	FED. AID PR	DJECT-		

Contract #76B20



## RETAINER ASSEMBLY AT EXPANSION JOINT

Notes:

(1) Retainer angles are to be used at the expansion ends of deck beams only.

Retainer angles shall be removed after the concrete wearing surface is poured and cured. Anchor bolts may be left in place.

(2) Approved threaded rod shall be placed in drilled holes and grouted in place.

Cost of retainer and accessriors are included with Precast Prestressed Concrete

Deck Beams (27" Depth).

SUPERSTRUCTURE DETAILS

US ROUTE 67 OVER

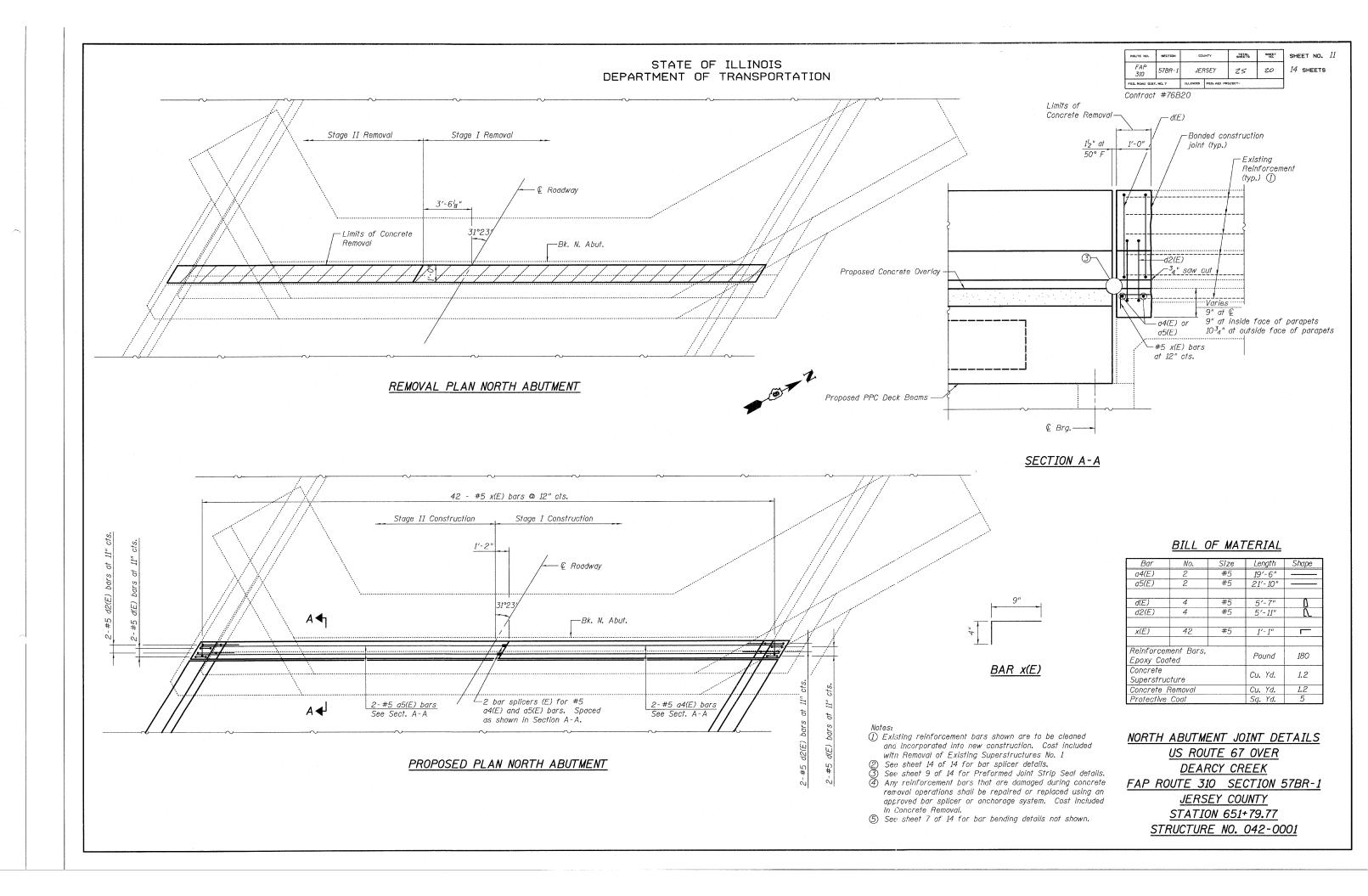
DEARCY CREEK

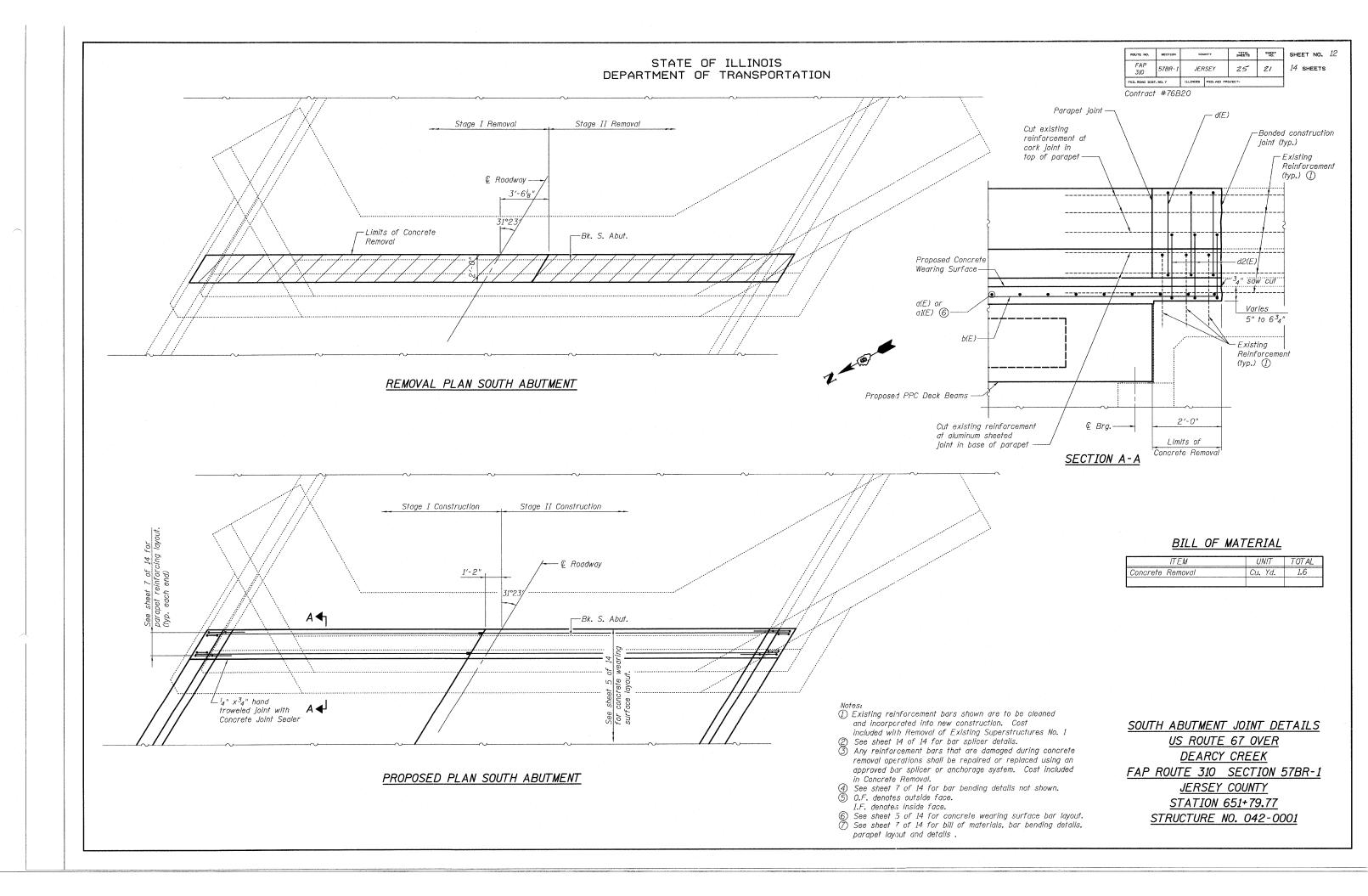
FAP ROUTE 310 SECTION 57BR-1

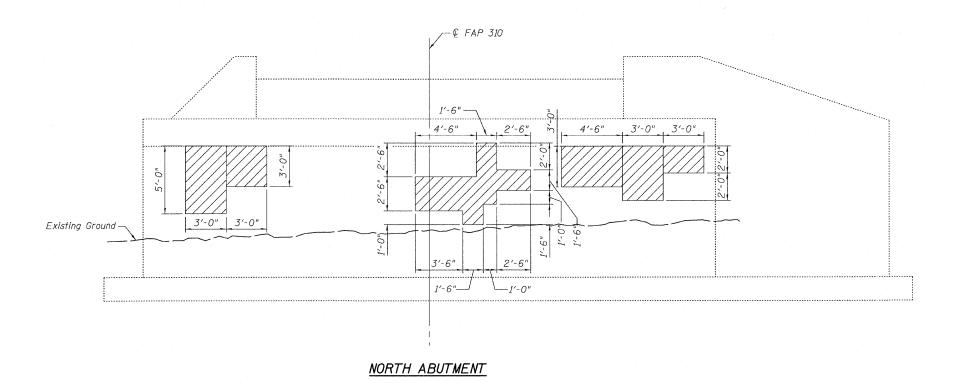
JERSEY COUNTY

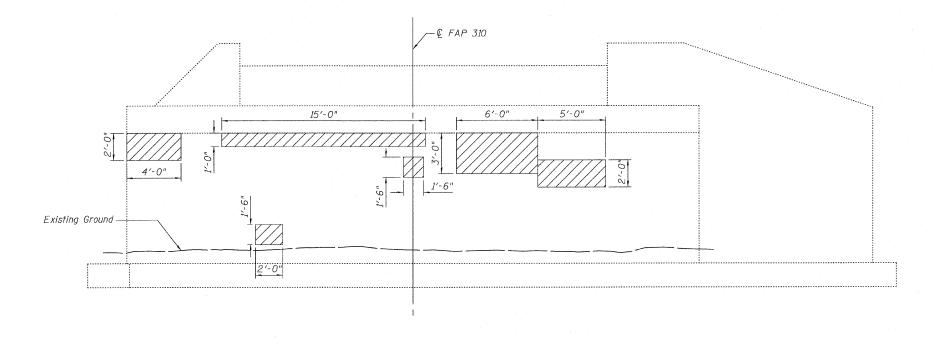
STATION 651+79.77

STRUCTURE NO. 042-0001









SOUTH ABUTMENT

ROUTE NO.	SECTION	cou	INTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
FAP 310	57BR-1	JER	SEY	25	22	14 SHEETS
EED BOAD DIST	. NO. 7	ILLINOIS	FED. AID PRI	JECT-		

Contract #76B20

Notes:

Robes:

(i) Estimated quantities are provided for Structural Repair of Concrete. Actual quantities will be determined by the Engineer in the field as work progresses.

## <u>LEGEND</u>



Structural Repair of Concrete (Depth Equal to or Less Than 5 in.)

## BILL OF MATERIAL

ITEM	UNIT	TOTAL		
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	135		

ABUTMENT REPAIRS

US ROUTE 67 OVER

DEARCY CREEK

FAP ROUTE 310 SECTION 57BR-1

JERSEY COUNTY

STATION 651+79.77

STRUCTURE NO. 042-0001



Contract #76B20

**NOTES** 

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 reinforcement bars.

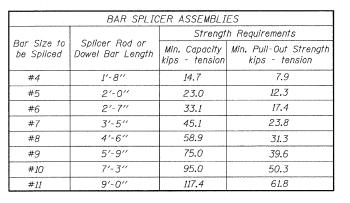
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

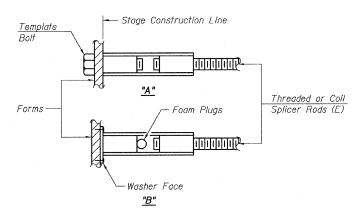
Minimum Capacity (Tension in kips) = 1.25 x fy x  $A_t$ 

Minimum \*Pull-out Strength =  $0.66 \times fy \times A_t$ 

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

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





## BAR SPLICER ASSEMBLY ALTERNATIVES

The diameter of this part is

equal or larger than the

diameter of bar spliced.

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

ROLLED THREAD DOWEL BAR

ijijijijijijijijijiji

\*\* ONE PIECE

WELDED SECTIONS

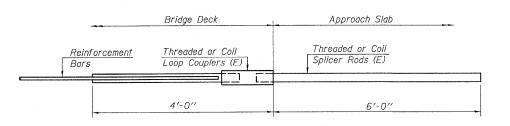
The diameter of this part

of the bar spliced.

is the same as the diameter

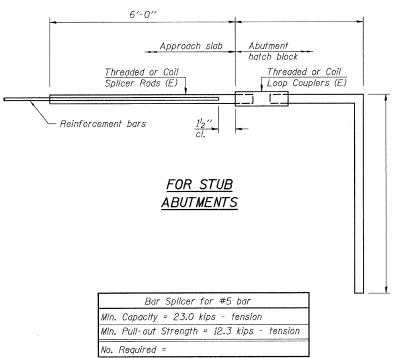
## INSTALLATION AND SETTING METHODS

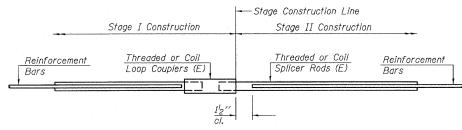
"A": Set bar splicer assembly by means of a template bolt. "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms. (E): Indicates epoxy coating.



## FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar										
Min.	Capacity	= 23.0	kips	- 1	ensio	n				
Min.	Pull-out	Strength	= 12	2.3	kips	~	tension			
No.	Required	=								

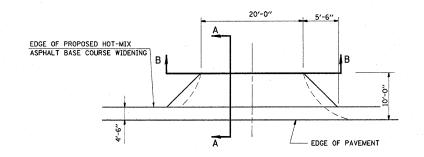




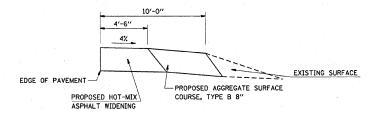
## STANDARD

Bar Size	No. Assemblies Required	Location
#4	52	Deck
#5	2	N. Abut.

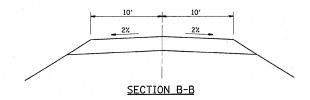
BAR SPLICER ASSEMBLY DETAILS US ROUTE 67 OVER DEARCY CREEK FAP ROUTE 310 SECTION 57BR-1 JERSEY COUNTY STATION 651+79.77 STRUCTURE NO. 042-0001



PLAN STA. 653+53.64 RT STA. 653+28.86 LT



SECTION A-A WITH NEGATIVE GRADE



DRAWING NOT TO SCALE

FILE NAME =	USER NAME = tebbemg	DESIGNED -	REVISED -		ENTRANCE DETAILS				F.A.P RTE.	SECTION	COUNTY	TOTAL SI	NO.		
C:\Projects\entdeta:109507.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS					310	57BR-1	JERSEY	25	24		
	PLOT SCALE = 20.0000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION						CONTRAC	CT NO. 76E	B20			
	PLOT DATE = 12/20/2007	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIS	T. NO. ILLINOIS FE	D. AID PROJECT		

