

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	90-106X(VB,HB)BRR	TAZEWELL	29	1
		ILLINOIS	CONTRACT NO. 68H15	
2022/12/01				

INDEX OF SHEETS

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- 2 GENERAL NOTES
- 3-4 SUMMARY OF QUANTITIES
- 5 SCHEDULE OF QUANTITIES
- 6 EXISTING TYPICAL SECTION
- 7 LINE DIAGRAM
- 8 ROADWAY APPROACH DETAIL
- 9-29 BRIDGE REPAIR PLANS

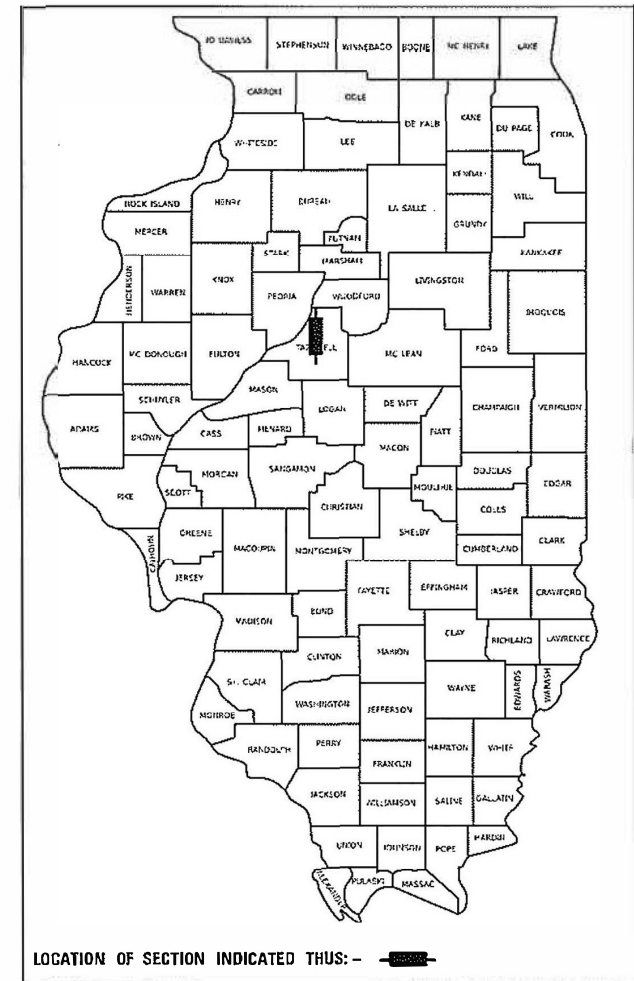
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED
HIGHWAY PLANS**

**FAI ROUTE 155 (I-155)
SECTION 90-106X(VB,HB)BRR
PROJECT
BRIDGE JOINT REPLACEMENT/REPAIR
TAZEWELL COUNTY**

C-94-053-22

D-94-036-22



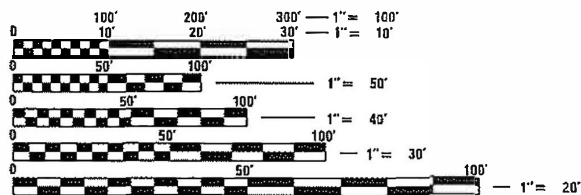
HIGHWAY STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15 FT TO 24 IN FROM PAVEMENT EDGE
- 701400-11 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-12 LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
- 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
- 701428-01 TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701901-08 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 782006-01 GUARDRAIL AND REFLECTOR MOUNTING DETAILS

DISTRICT STANDARDS

- 780001-D4 TYPICAL PAVEMENT MARKINGS

FUNCTIONAL CLASSIFICATION
INTERSTATE
2019 ADT: 21,600
PV: 85.4% SU: 4.6% MU: 10.0%

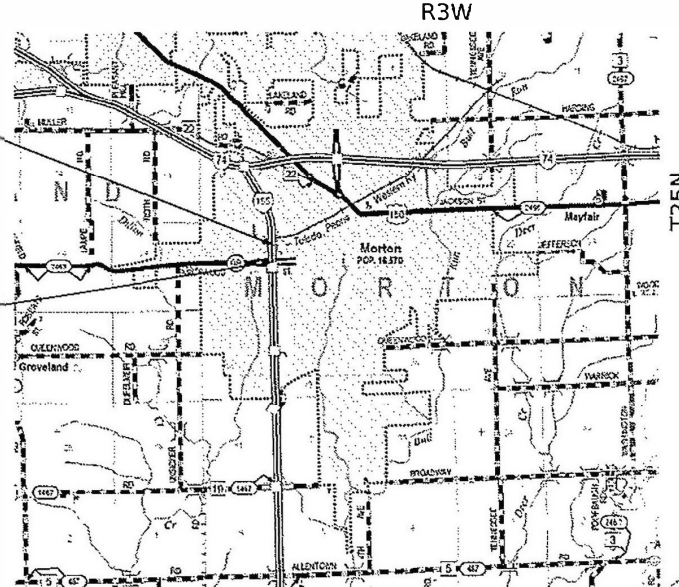


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

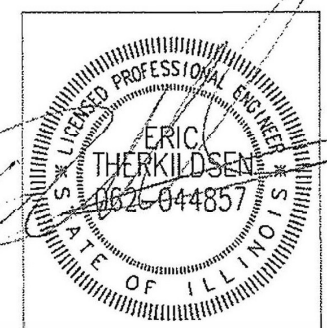
PROJECT ENGINEER: BEN TELLEFSON (309) 671-4477
PROJECT MANAGER: MARK ECKHOFF (309) 671-4463

CONTRACT NO. 68H15
CATALOG NO. 036330-00D



SN 090-0125 & SN 090-0126
I-155 OVER BNSF RR
STA. 46+41.42 TO
STA. 48+09.25

SN 090-0128 & SN 090-0129
I-155 OVER IL 98
STA. 60+63.51 TO
STA. 62+69.51



DATE SIGNED: 11/30/2022
LIC. EXP. DATE: 11/30/2023

DESCRIPTION OF PROJECT:

THIS PROJECT CONSISTS OF BRIDGE JOINT AND HAUNCH REPLACEMENT, DECK PATCHING, STRUCTURAL REPAIR OF ABUTMENTS AND PIERS, SLOPEWALL GROUTING, AND APPROACH PAVEMENT REPAIR.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 10 2023
Kenneth L. Darroch Inc
REGIONAL ENGINEER

May 12, 2023 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 12, 2023 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS**

GROSS LENGTH = 3,232.2 FT. = 0.612 MILE
NET LENGTH = 651.7 FT. = 0.123 MILE

GENERAL NOTES

1. THE CONSTRUCTION SHALL BE GOVERNED BY THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" 2022 EDITION AND "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", CURRENT EDITION.
2. ALL ELEVATIONS, STATIONS AND OFFSETS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
3. ALL ELEVATIONS SHOWN ON THE PLANS ARE ESTABLISHED FROM U.S.G.S. MEAN SEA LEVEL DATUM.
4. TEN FEET (10 FT.) TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.
5. POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) RATES

SURFACE TYPE	RESIDUAL RATE
MILLED (HMA OR PCC)	0.08 LB/SF
EXISTING PAVEMENT	0.08 LB/SF
FOG COAT (BETWEEN LIFTS)	0.08 LB/SF

6. HOT-MIX ASPHALT MIXTURE REQUIREMENTS

LOCATIONS:	NB/SB ROADWAYS
MIXTURE USES:	HMA SURFACE COURSE 1.5"
PG:	PG 64-22 OR PG 70-22
DESIGN AIR VOIDS:	4% @ N70
MIXTURE COMPOSITION:	IL-9.5
FRICITION AGGREGATE:	MIX "D"
QUALITY MANAGEMENT:	QC/QA

NOTES:

- 1) INDIVIDIAL LIFT THICKNESSES OF EACH MIX WILL BE NO LESS THAN (3) TIMES NOMINAL MAXIMUM AGGREGATE SIZE AND NO MORE THAN FIVE (5) TIMES NOMINAL AGGREGATE MAXIMUM SIZE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 2) FOR DESIGN PURPOSES, MIXTURE WEIGHT FOR ALL MIXES IS DETERMINED TO BE 112.0 lb./s.y./in., UNLESS OTHERWISE NOTED.
- 3) SUBLOT SIZES FOR PFP AND QCP MIXES WILL BE 1,000 TONS, UNLET OTHERWISE AGREED TO BY THE ENGINEER AND THE PAVING CONTRACTOR.

7. ENVIRONMENTAL REVIEWS

PRIOR TO THE USE OF ANY PROPOSED BORROW AREAS, USE AREAS (TEMPORARY ACCESS ROADS, DETOURS, RUN-AROUNDS, ETC.) AND/OR WASTE AREAS, THE CONTRACTOR SHALL FILE THE REQUIRED ENVIRONMENTAL RESOURCE REQUEST SURVEYS ACCORDING TO SECTION 107.22 OF THE STANDARD SPECIFICATIONS. THESE SURVEYS ARE REQUIRED IN ORDER FOR THE DEPARTMENT TO CONDUCT CULTURAL AND BIOLOGICAL RESOURCE SURVEYS FOR THE PROPOSED SITE.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

BDE FORM 2289 (BORROW SITE REVIEW)
 BDE FORM 2290 (WASTE/USE AREA REVIEW)
 A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
 COLOR PHOTOGRAPHS DEPICTING THE USE AREA
 BORROW AREA ENTRY AGREEMENT FORM D4 PI0101

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS SHALL BE OBTAINED AND FILED BY THE CONTRACTOR. EXCESS WASTE PRODUCTS REMOVED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF AS REQUIRED IN SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

PLEASE NOTE THAT A MINIMUM OF FOUR WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED WASTE SITE ENVIRONMENTAL CLEARANCES AND SIX WEEKS FOR THE REQUIRED BORROW SITE ENVIRONMENTAL CLEARANCES.

COMMITMENTS

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

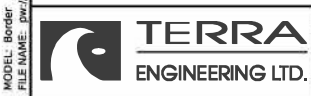
GENERAL NOTES

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	2
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				

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SPECIAL PROVISION (S.P.)	ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE	CONSTR. CODE	CONSTR. CODE
					100% STATE	100% STATE	100% STATE	100% STATE
					BRIDGE	BRIDGE	BRIDGE	BRIDGE
					0047	0047	0047	0047
					090-0125	090-0126	090-128	090-0129
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	52	26	26	0.0	0.0
	40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	6	3	3	0	0
	50102400	CONCRETE REMOVAL	CU YD	47.8	12.2	12.0	11.9	11.7
	50300225	CONCRETE STRUCTURES	CU YD	10.7	0.0	0.0	3.2	7.5
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	47.8	12.3	12.1	11.8	11.6
	50300300	PROTECTIVE COAT	SQ YD	142	33	33	38	38
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	9,550	1,680	1,680	2,670	3,520
	50800515	BAR SPLICERS	EACH	96	24	24	24	24
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	376	86	86	102	102
	67100100	MOBILIZATION	L SUM	1	0.25	0.25	0.25	0.25
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,475	350	350	388	388
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,475	350	350	388	388
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4	1	1	1	1
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4	1	1	1	1



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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE:	SHEET 1 OF 2 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	3
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				

SPECIAL PROVISION (S.P.)	ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE	CONSTR. CODE	CONSTR. CODE
					100% STATE	100% STATE	100% STATE	100% STATE
					BRIDGE	BRIDGE	BRIDGE	BRIDGE
					0047	0047	0047	0047
					090-0125	090-0126	090-128	090-0129
*	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	72	36	36	0	0
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.25	0.25	0.25	0.25
*	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	605	21	0	175	409
*	Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	224	50	38	68	68
*	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	0.5	0.5	0.0	0.0
*	Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	23	20	3	0	0

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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS
	2	2	

F.A.I. RTE. 155	SECTION 106X	COUNTY TAZEWELL	TOTAL SHEETS 29	SHEET NO. 4
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				

PAVEMENT SCHEDULE				
STRUCTURE NO.	40600290	40604062	X4401198	
	BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ. YD.
STATION TO STATION	POUND	TON		
S.N. 090-0125 (NB)				
46+48.42 TO 48+02.25	25.6	2.93	35.6	
S.N. 090-0126 (SB)				
46+57.98 TO 48+11.81	25.6	2.93	35.6	
S.N. 090-0128 (SB)				
60+87.18 TO 62+45.84				
S.N. 090-0129 (NB)				
60+88.62 TO 62+47.28				
SUBTOTAL	51.2	5.85	71.1	
TOTAL	52	6	72	

TRAFFIC CONTROL SCHEDULE							
STRUCTURE NO.	67100100	70400100	70400200	70600250	70600350	Z0048665	X7010216
	MOBILIZATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	RAILROAD PROTECTIVE LIABILITY INSURANCE	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)
STATION TO STATION	L SUM	FOOT	FOOT	EACH	EACH	L SUM	L SUM
S.N. 090-0125 (NB)							
46+48.42 TO 48+02.25	0.25	350	350	1	1	0.50	0.25
S.N. 090-0126 (SB)							
46+57.98 TO 48+11.81	0.25	350	350	1	1	0.50	0.25
S.N. 090-0128 (SB)							
60+87.18 TO 62+45.84	0.25	387.5	387.5	1	1		0.25
S.N. 090-0129 (NB)							
60+88.62 TO 62+47.28	0.25	387.5	387.5	1	1		0.25
SUBTOTAL	1.0	1475.0	1475.0	4	4	1.0	1.0
TOTAL	1	1475	1475	4	4	1	1

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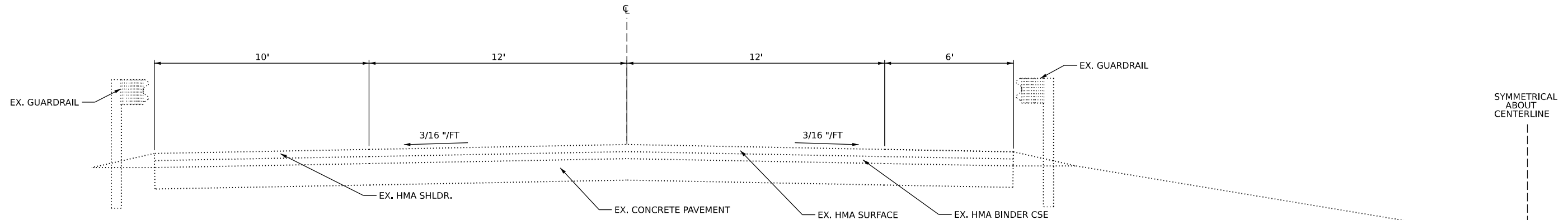
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

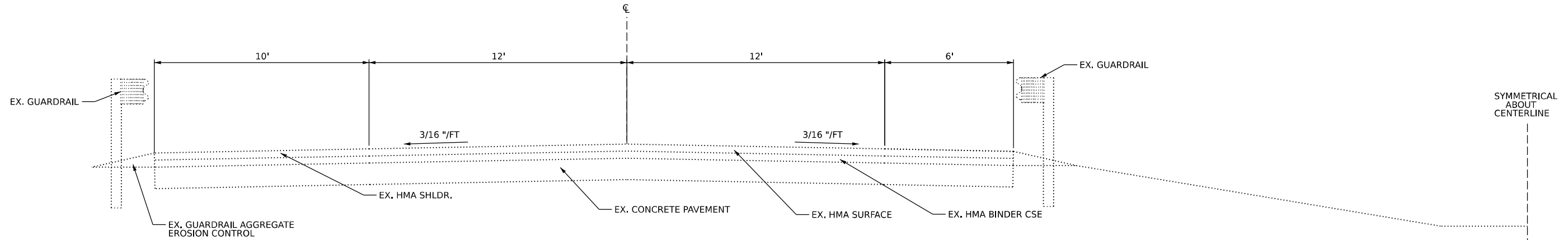
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	5
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				

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EXISTING TYPICAL SECTION
 (SB SHOWN (SN 090-0126) - NB (SN 090-0125) SYMMETRICAL ABOUT CENTERLINE OF MEDIAN)
 SN 090-0125 (NB) STA. 45+53.42 TO STA. 46+53.42
 STA. 47+97.25 TO STA. 48+97.25
 SN 090-0126 (SB) STA. 45+62.98 TO STA. 46+62.98
 STA. 48+06.81 TO STA. 49+06.81



EXISTING TYPICAL SECTION
 (SB SHOWN (SN 090-0128) - NB (SN 090-0129) SYMMETRICAL ABOUT CENTERLINE OF MEDIAN)
 SN 090-0129 (NB) STA. 59+92.18 TO STA. 60+92.18
 STA. 62+40.84 TO STA. 63+40.84
 SN 090-0128 (SB) STA. 59+93.62 TO STA. 60+93.62
 STA. 62+42.28 TO STA. 63+42.28



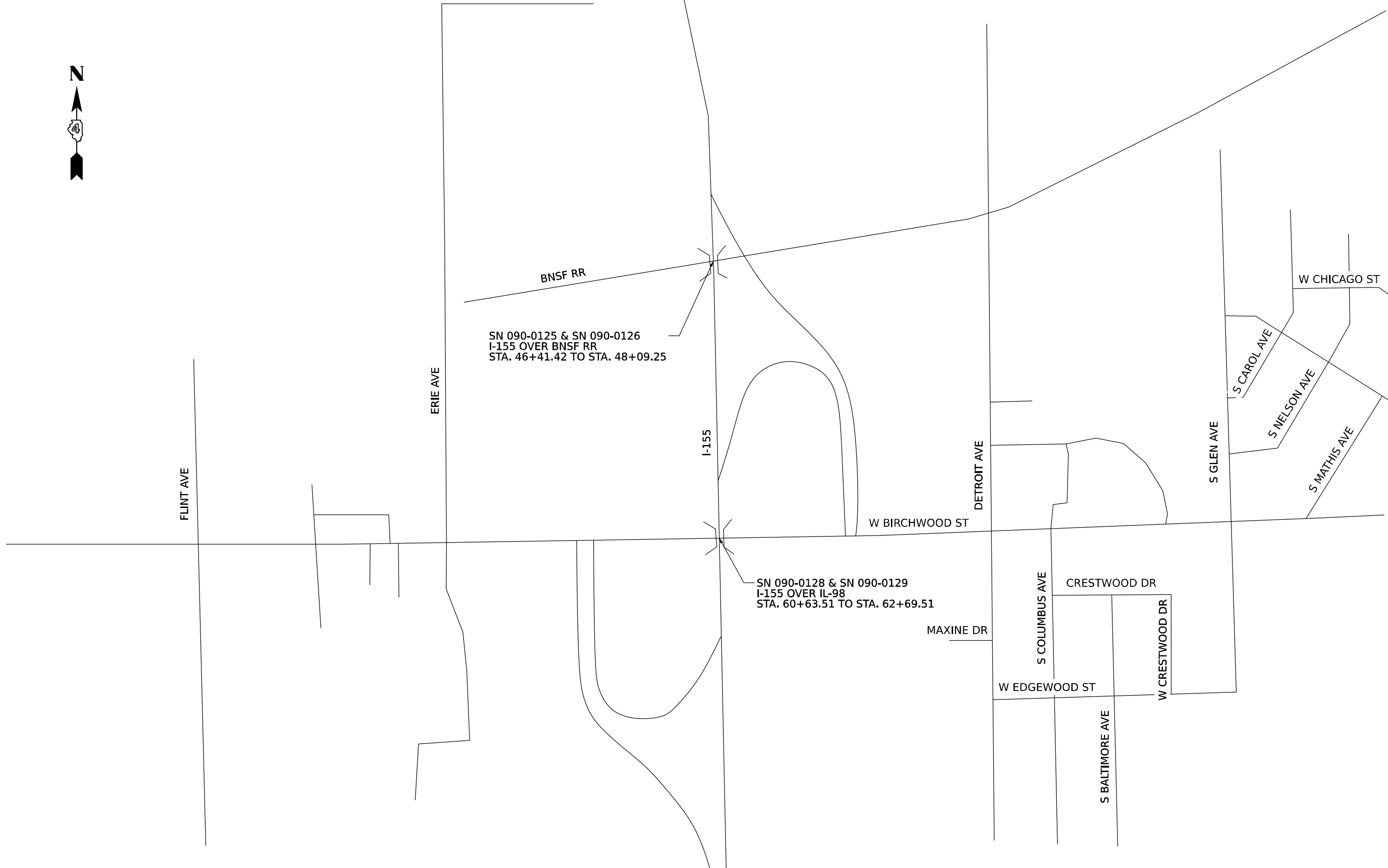
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	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	6
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				



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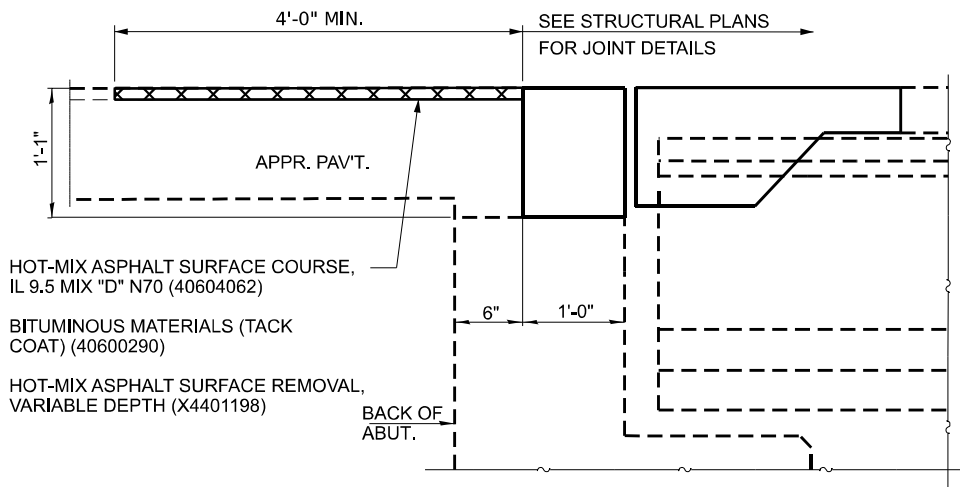
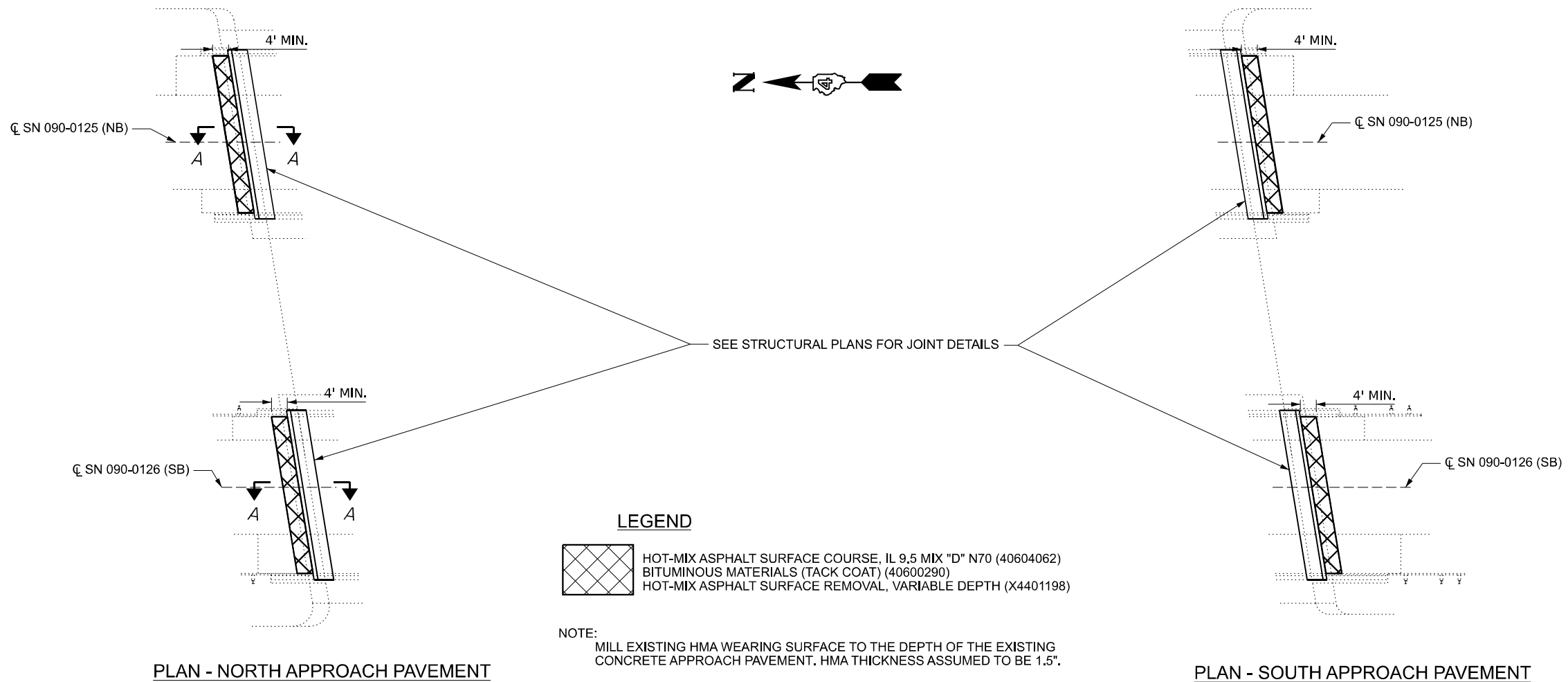
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DATE	-

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REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LINE DIAGRAM			
SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	7
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				



APPROACH PAVEMENT ELEVATION - SECTION A-A
(N. APPROACHES SHOWN - S. APPROACHES ARE SIMILAR)

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USER NAME	= brennar
PLOT SCALE	= 6.4750" / in.
PLOT DATE	= 11/29/2022

DESIGNED	-
DRAWN	- CM
CHECKED	- BKR
DATE	-

REVISED	-
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REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH PAVEMENT DETAILS SN 090-0125 & SN 090-0126			
SCALE:	SHEET 1 OF 4 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	8
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				

Existing Structure: S.N. 090-0125 and 090-0126 were built as FAP 406, Section 90-106X-VB at Station 47+29.20 in 1989. The existing dual structures each consist of 3 spans. The beams are W24x84 steel beams with a 7½" R.C. deck, along a skew. The back to back abutment measures 143'-10" and 43'-2" out to out of deck. The structure is to have the expansion joints removed and replaced, approach pavement and deck repaired, piers repaired and slope walls grouted. Traffic is to remain open with stage construction.

Salvage: None

INDEX OF SHEETS

1. General Plan and Elevation
2. Joint Replacement Plan
3. Joint Sections and Details
4. Preformed Joint Strip Seal
5. Bar Splicer Assembly & Mechanical Splicer Details

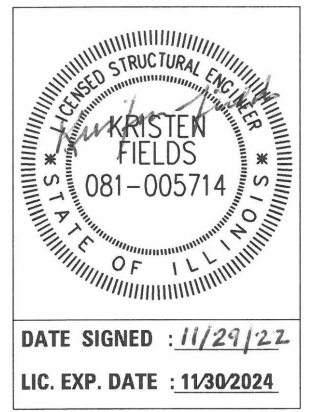
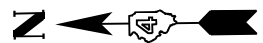
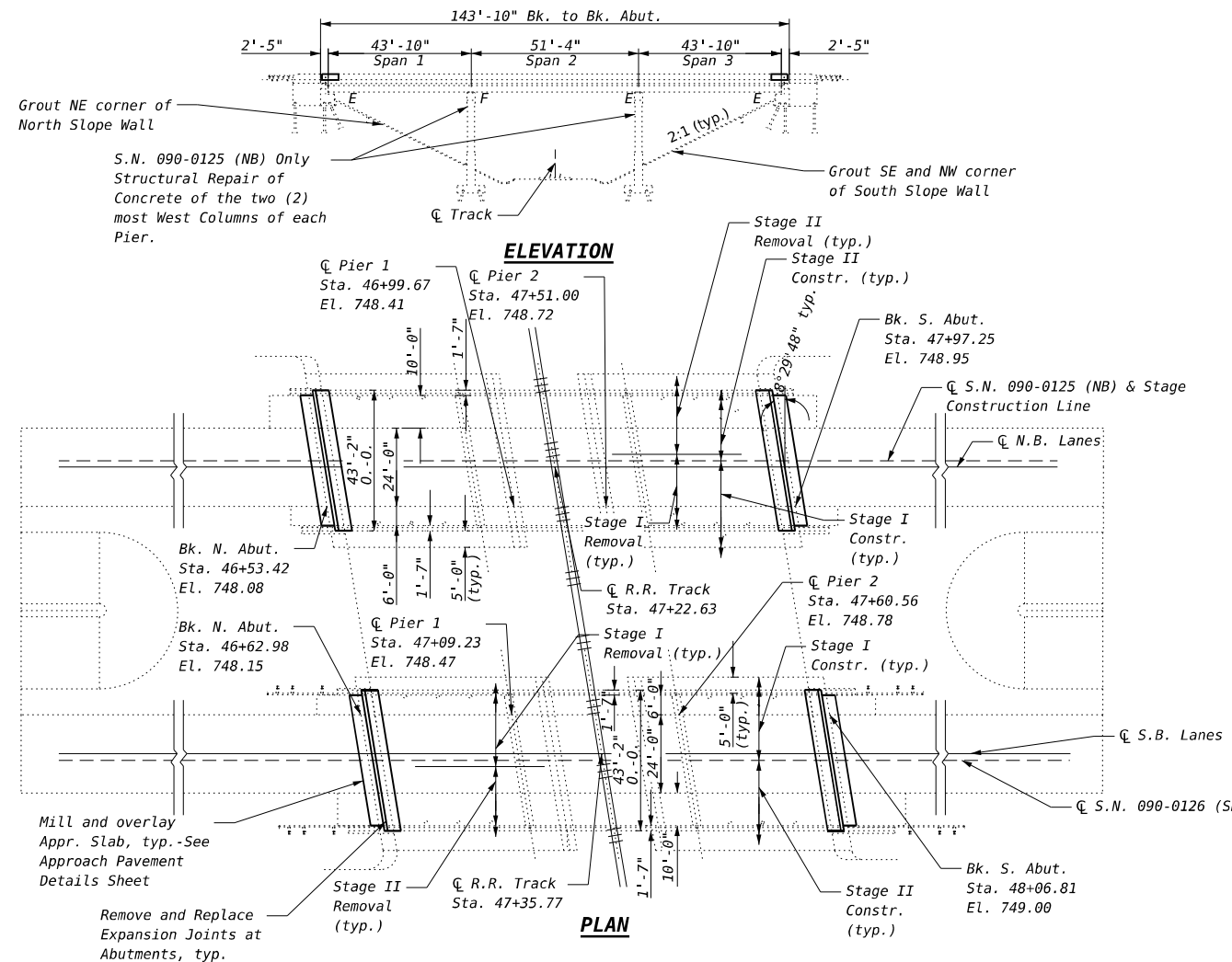
SCOPE OF WORK

1. Setup Traffic Control with Drums.
2. Remove and replace expansion joints at abutments.
3. Bridge deck, pier and slopewall repair.
4. Switch stages and repeat.

TOTAL BILL OF MATERIAL

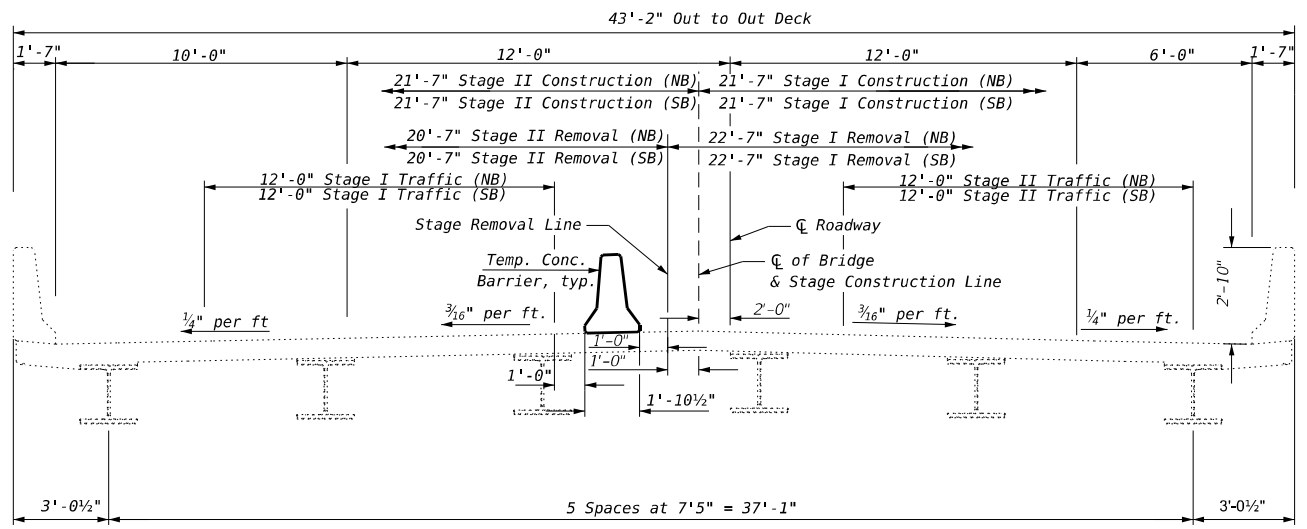
ITEM	UNIT	090-0125 (NB)	090-0126 (SB)	TOTAL
Protective Coat	Sq. Yd.	33	33	66
Concrete Removal	Cu. Yd.	12.2	12.0	24.2
Concrete Superstructure	Cu. Yd.	12.3	12.1	24.4
Reinforcement Bars, Epoxy Coated	Pounds	1,680	1,680	3,360
Bar Splicers	Each	24	24	48
Preformed Joint Strip Seal	Foot	86	86	172
Deck Slab Repair (Partial)	Sq. Yd.	50	38	88
Slope Wall Slurry Pumping	Cu. Yd.	20	3	23
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	21	-	21

*Apply to new concrete only.

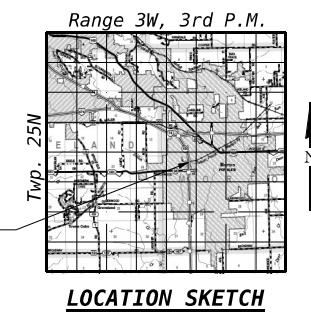


GENERAL NOTES

- All structural steel shall be AASHTO M 270 Grade 36 unless otherwise noted.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Existing reinforcement bars extending into 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.
- 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° Fahrenheit.
- Deck slab, pier and slope wall total repair area is an estimated quantity made at the time of plan preparation. Actual areas to be repaired shall be determined by the Engineer in the field at the time of construction and shown on the As-Built plans.



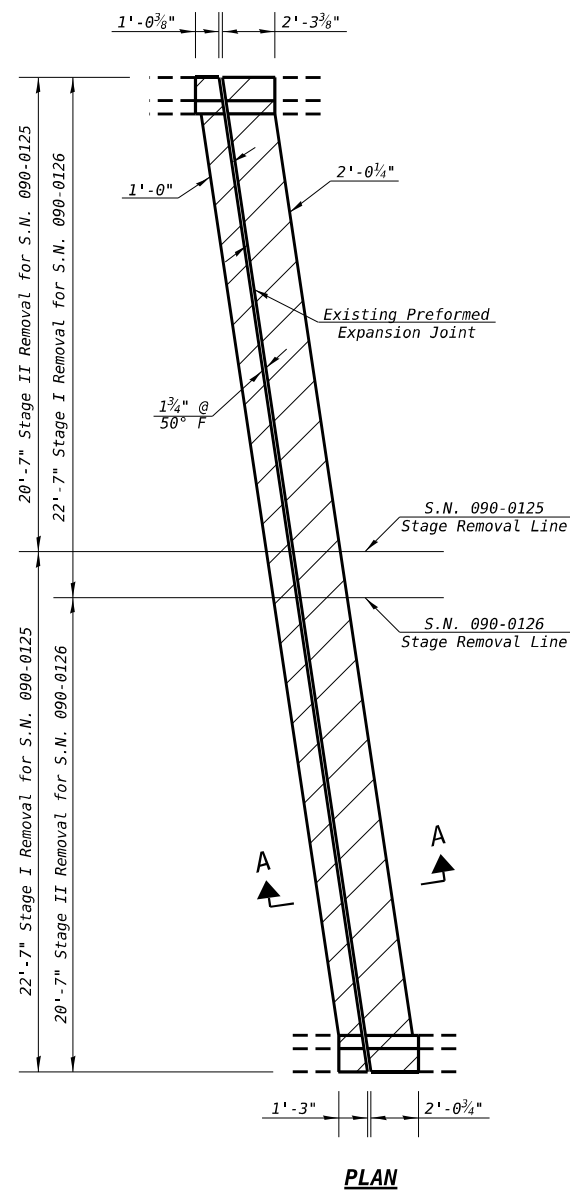
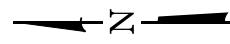
CROSS SECTION
(S.N. 090-0125 (NB) - Looking South)
(S.N. 090-0126 (SB) - Looking North)



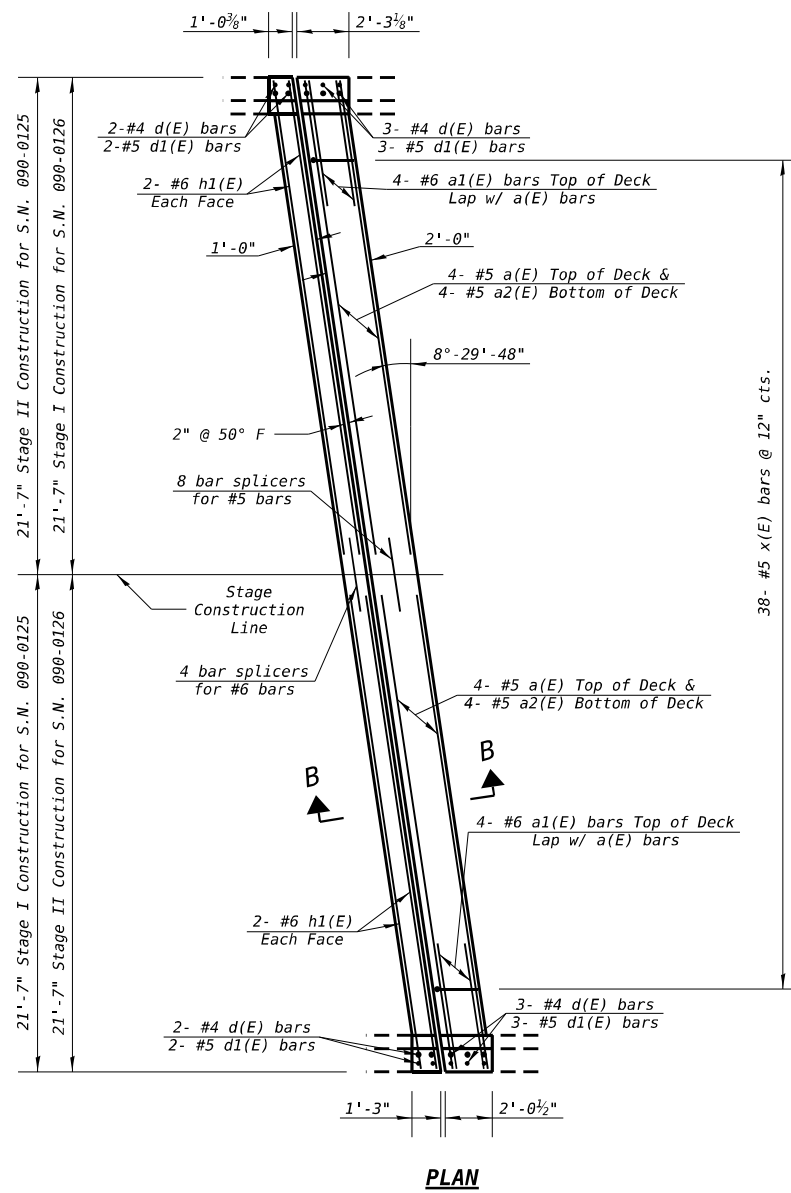
GENERAL PLAN & ELEVATION
I-155 OVER BNSF RR
I-155 (FAI-155) - SECTION 106X
TAZEWELL COUNTY
STATION 47+29.20
STRUCTURE NO. 090-0125 & 090-0126

MODEL: Border
FILE NAME: p:\terraeng-pw\benley.com\terraeng-pw\01\Documents\Projects\2022\22-129 IDOT D4 Work Orders\22-129-010 IDOT Bridge Rehab\Design\100 - Drawings\CAD_Sheets\22129010-SHT-0900125-GPE-001.dgn
11/29/2022 7:40:47 AM

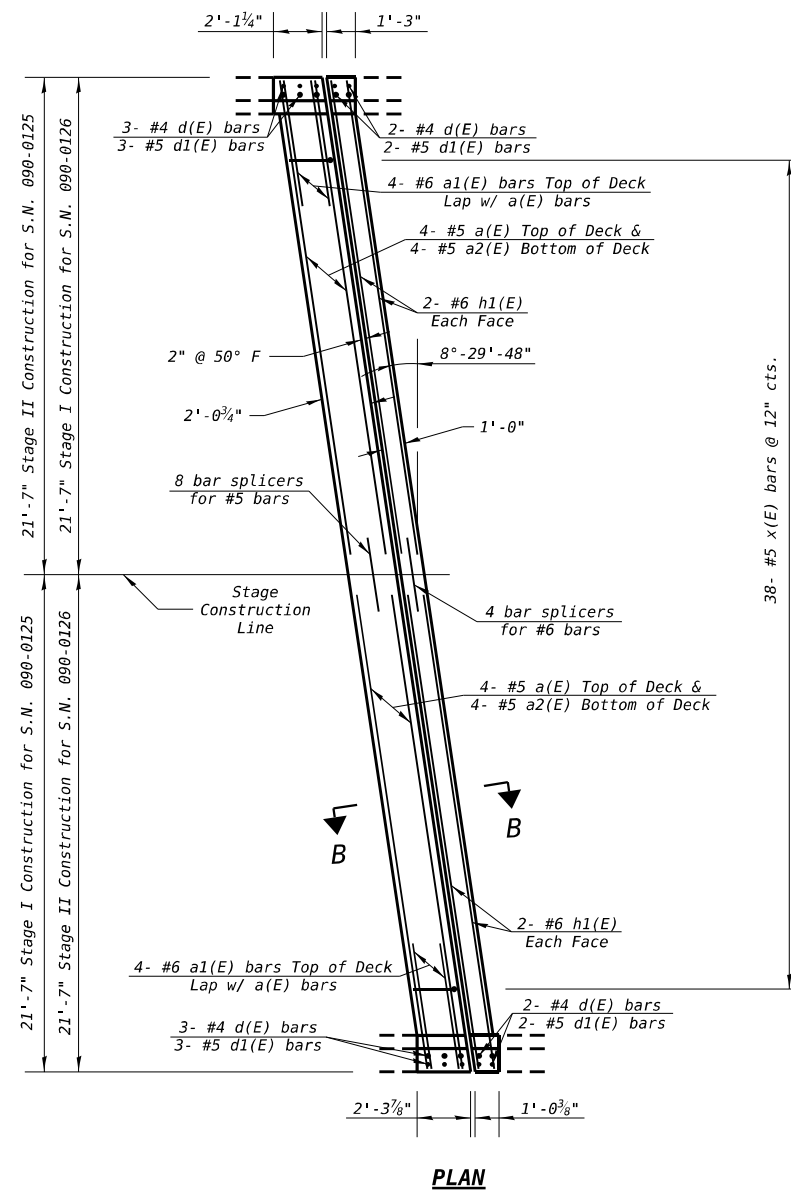
	USER NAME = brennar	DESIGNED BKR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION S.N. 090-0125 & 090-0126	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 54.167' / in.	CHECKED KF	REVISED -			155	106X	TAZEWELL	29	9
	PLOT DATE = 11/29/2022	DRAWN BKR	REVISED -			CONTRACT		68H15		
		CHECKED	REVISED -			ILLINOIS FED. AID PROJECT		2022/12/01		



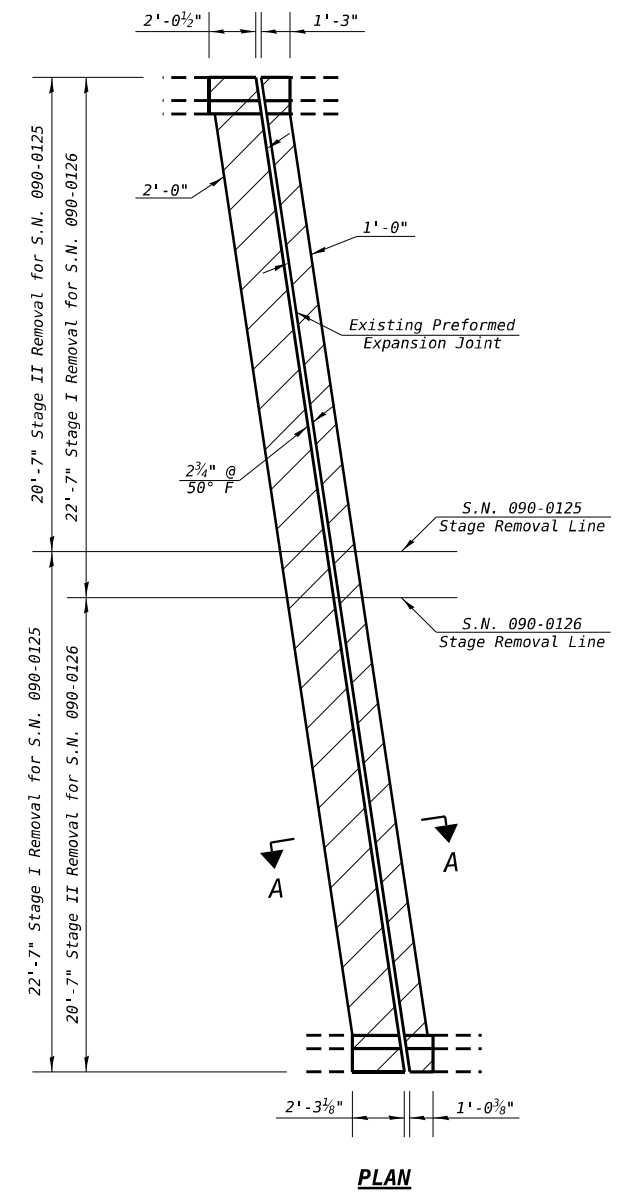
CONCRETE REMOVAL AT N. ABUT.



CONCRETE REPLACEMENT AT N. ABUT.



CONCRETE REPLACEMENT AT S. ABUT.



CONCRETE REMOVAL AT S. ABUT.

Notes:
 Hatched areas indicate Concrete Removal.
 For Section views, see Sheet 11 of 29.
 Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 12 of 29.

MODEL: Default
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USER NAME = brennar	DESIGNED AF	REVISED -
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PLOT DATE = 11/29/2022	DRAWN AF	REVISED -
	CHECKED KF	REVISED -

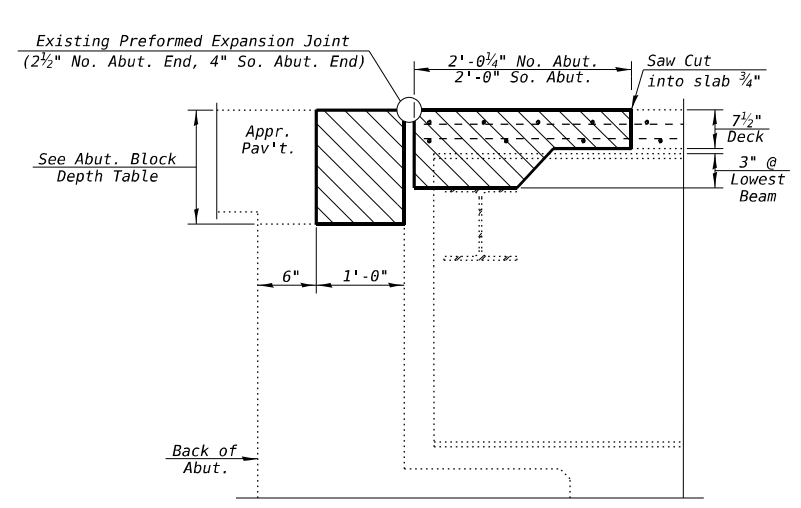
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

JOINT REPLACEMENT PLAN
 S.N. 090-0125 & 090-0126

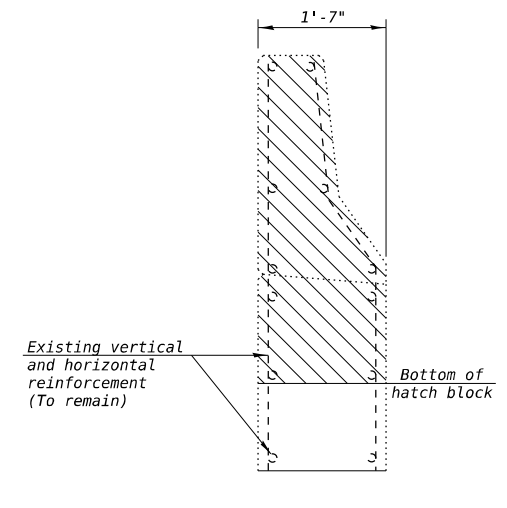
SHEET 2 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	10
CONTRACT			68H15	
ILLINOIS FED. AID PROJECT				

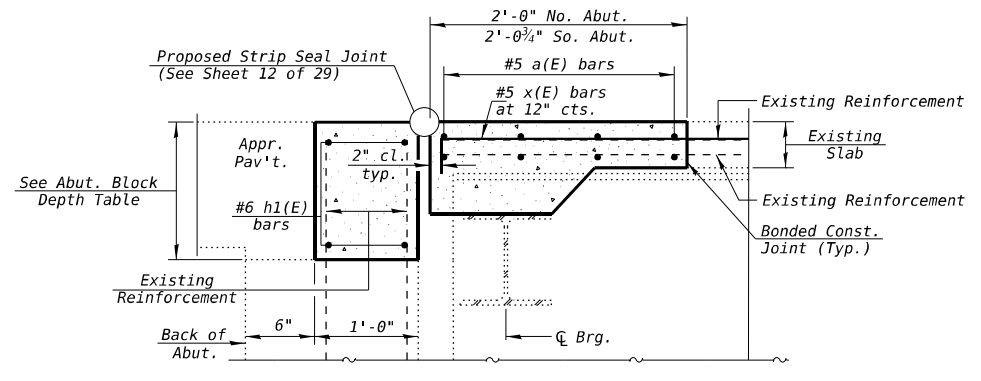
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JOINT REMOVAL SECTION A-A
 (Dims. at Rt. L's to End of Deck)



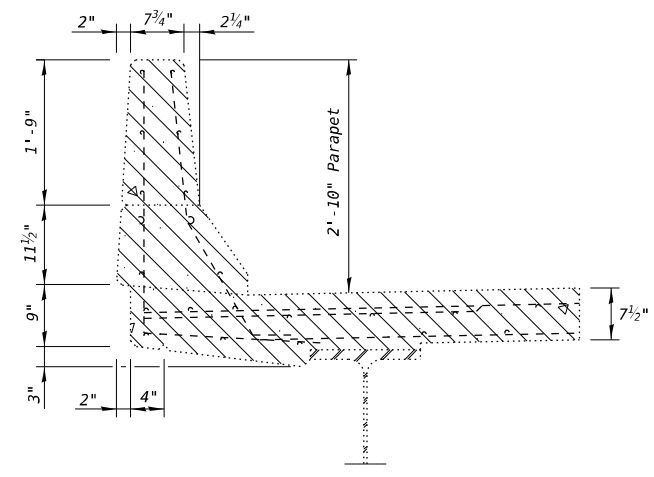
SECTION THRU WINGWALL
 (Showing Removal)



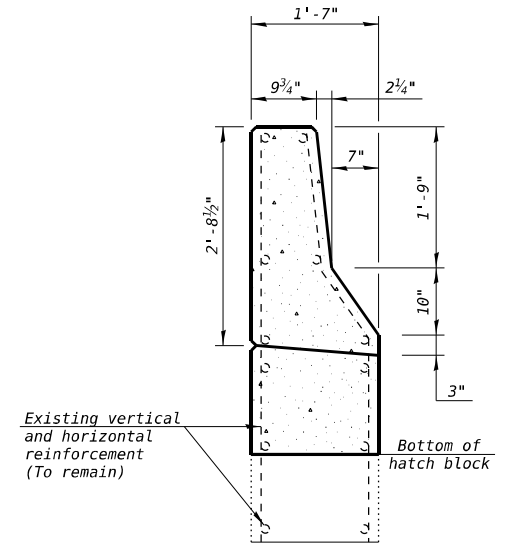
JOINT SECTION B-B
 (Dims. at Rt. L's to End of Deck)

**FOUR ABUTMENTS
 BILL OF MATERIAL**

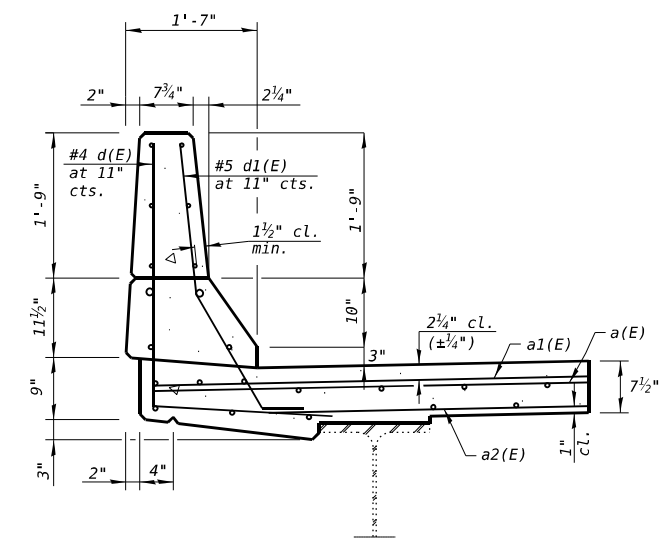
Bar	No.	Size	Length	Shape
a(E)	32	#5	21'-5"	—
a1(E)	32	#6	6'-6"	—
a2(E)	32	#5	20'-11"	—
d(E)	40	#4	5'-4"	L
d1(E)	40	#5	3'-11"	L
h1(E)	32	#6	19'-11"	—
x(E)	152	#5	2'-4"	└
Reinforcement Bars, Epoxy Coated		Lbs.	3,360	
Concrete Superstructure		Cu. Yd.	24.4	
Concrete Removal		Cu. Yd.	24.2	



PARAPET REMOVAL CROSS SECTION



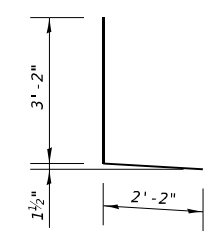
SECTION THRU WINGWALL
 (Proposed)



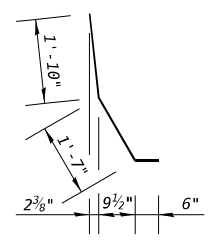
PARAPET REPLACEMENT CROSS SECTION

**ABUTMENT BLOCK
 DEPTH TABLE**

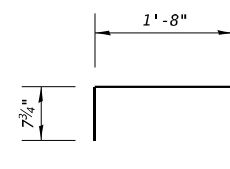
Abutment	Block Depth
No. Abut. NB Lanes	1'-1 3/4" Min. & Varies
So. Abut. NB Lanes	1'-1 3/4" Min. & Varies
No. Abut. SB Lanes	1'-2 3/8" Min. & Varies
So. Abut. SB Lanes	1'-2 1/8" Min. & Varies



BAR d(E)



BAR d1(E)



BAR x(E)

Notes:
 Hatched areas indicate Concrete Removal.
 Removal of existing expansion joint shall be included in the cost of Concrete Removal.
 In parapet / joint removal areas, existing reinforcement bars shown are to be cleaned and incorporated into new construction.
 Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 12 of 29.



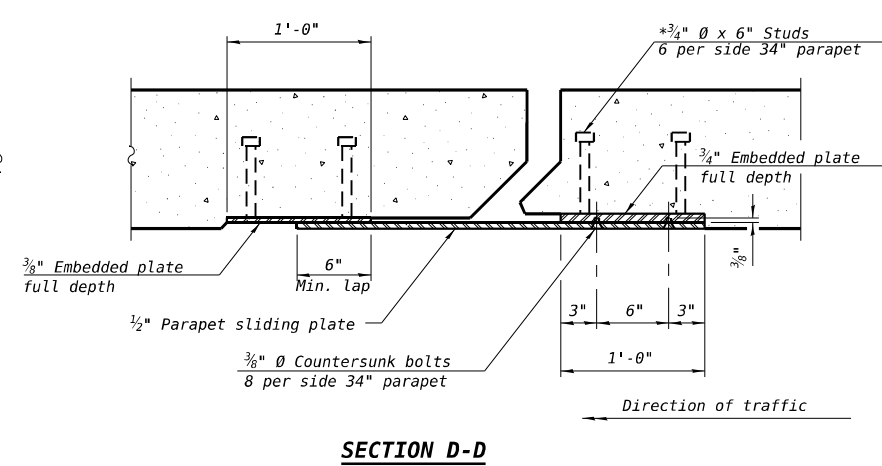
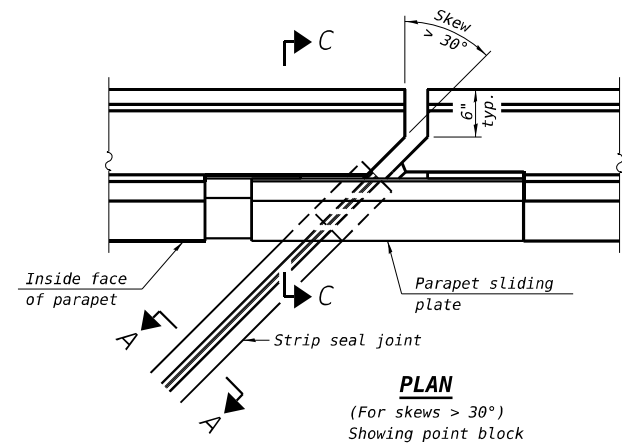
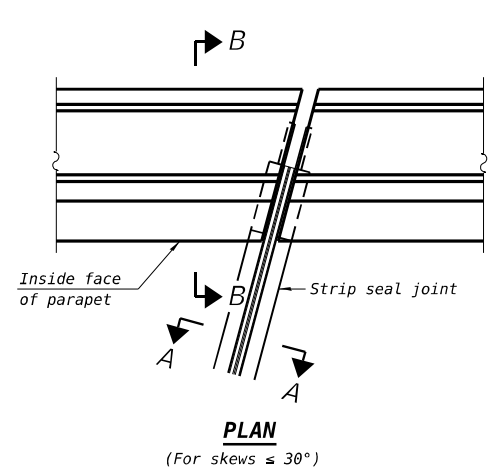
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PLOT SCALE = 8.333' / in.	CHECKED KF	REVISED -
PLOT DATE = 11/29/2022	DRAWN AF	REVISED -
	CHECKED KF	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

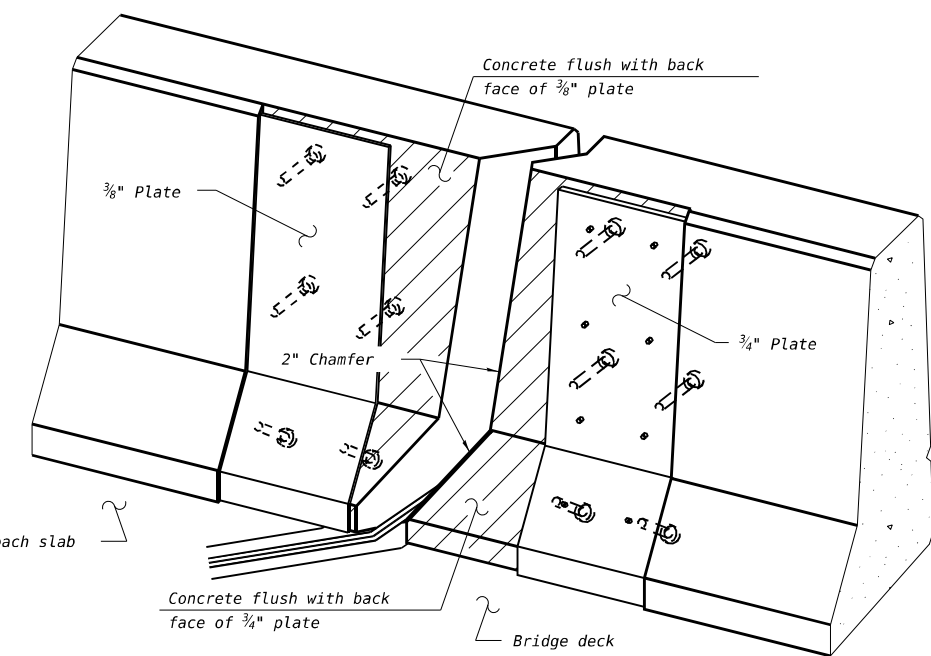
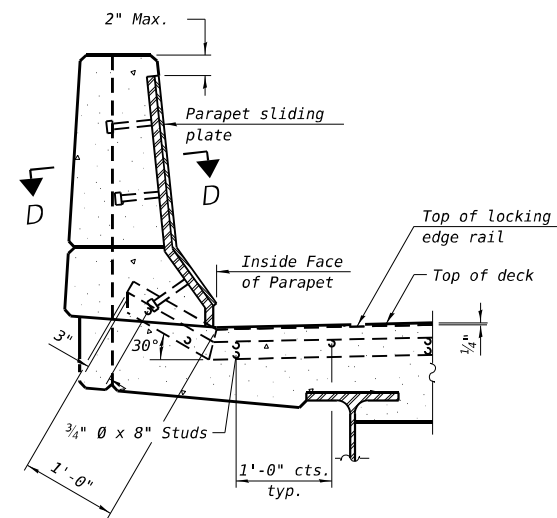
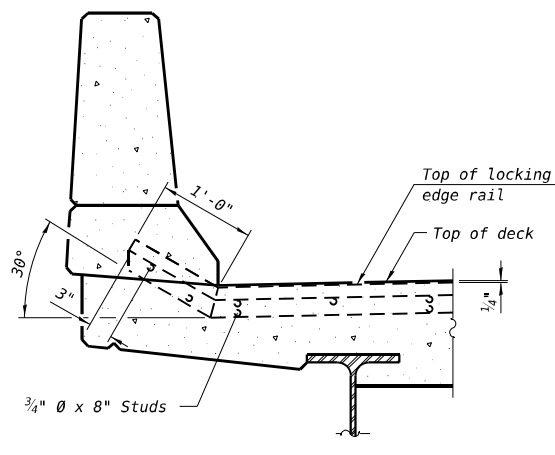
JOINT SECTIONS AND DETAILS
 S.N. 090-0125 & 090-0126

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	11
ILLINOIS FED. AID PROJECT			CONTRACT 68H15	

MODEL: Default
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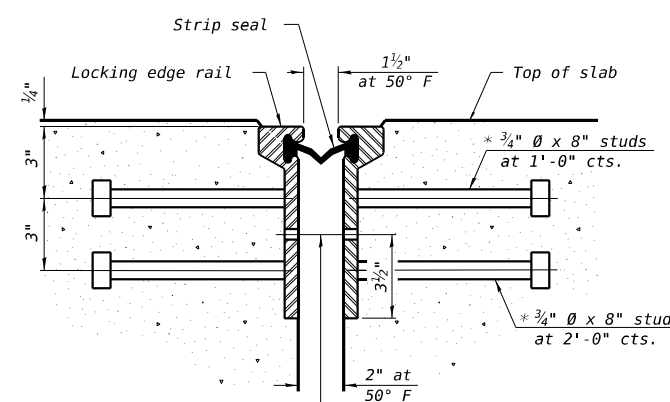


Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed.
 The manufacturer's recommended installation methods shall be followed.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
 34" F-shape barrier shown, 42" F-shape similar as noted.
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

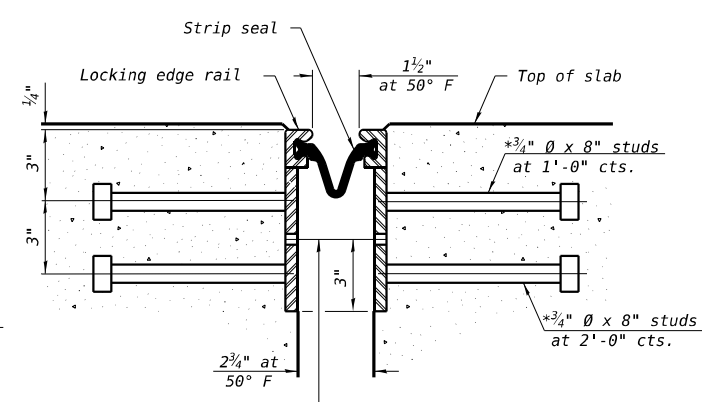


BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	172

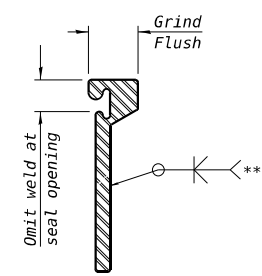
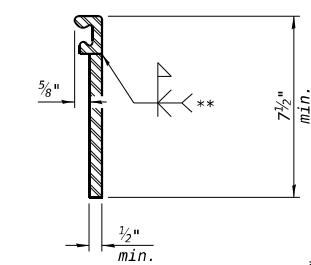
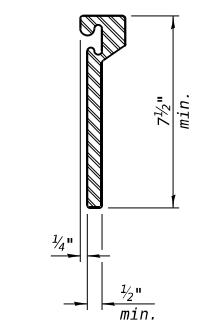


$\frac{7}{16}$ " \emptyset holes at 4'-0" cts. for $\frac{3}{8}$ " \emptyset bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



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

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



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

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

LOCKING EDGE RAILS



USER NAME = brennar	DESIGNED AF	REVISED -
PLOT SCALE = 0.167' / in.	CHECKED KF	REVISED -
PLOT DATE = 11/29/2022	DRAWN AF	REVISED -
	CHECKED KF	REVISED -

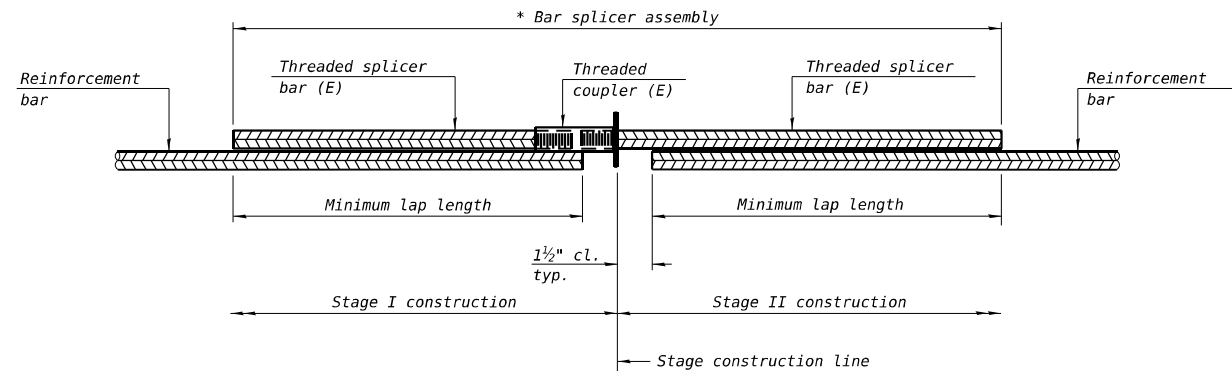
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
 S.N. 090-0125 & 090-0126

SHEET 1 OF 5 SHEETS

F.A.I. RTE. 155	SECTION 106X	COUNTY TAZEWELL	TOTAL SHEETS 29	SHEET NO. 12
ILLINOIS FED. AID PROJECT			CONTRACT 68H15	

MODEL: Default
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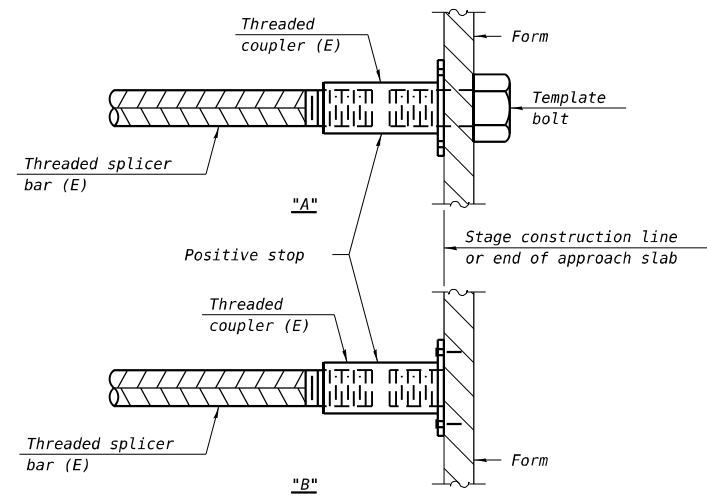
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

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

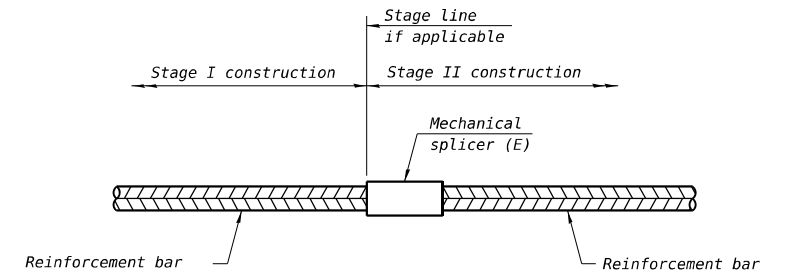
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
No. Abut. (-0125)	#5	8	4'-11"
No. Abut. (-0125)	#6	4	5'-11"
So. Abut. (-0125)	#5	8	4'-11"
So. Abut. (-0125)	#6	4	5'-11"
No. Abut. (-0126)	#5	8	4'-11"
No. Abut. (-0126)	#6	4	5'-11"
So. Abut. (-0126)	#5	8	4'-11"
So. Abut. (-0126)	#6	4	5'-11"



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

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 1-1-2020



USER NAME = brennar	DESIGNED AF	REVISED -
PLOT SCALE = 0.167' / in.	CHECKED KF	REVISED -
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	CHECKED KF	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
 S.N. 090-0125 & 090-0126

SHEET 5 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	13
CONTRACT			68H15	
ILLINOIS		FED. AID PROJECT		

FOR INFORMATION ONLY

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
406	090-0125	TAZEWELL	189	74
ILLINOIS PROJECT				

SHEET 1 OF 20

GENERAL NOTES

- SEE PROPOSAL FOR BORING DATA.
- FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4", OPEN HOLES 3/8", UNLESS OTHERWISE NOTED.
- CALCULATED WEIGHT OF STRUCTURAL STEEL = 152,370 LBS. (M223) 36,140 LBS. (M53)
- THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.
- FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER-SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
- ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.
- THE MAIN LOAD-CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENTS ARE THE TENSION FLANGES, WEBS AND SPLICE PLATE MATERIAL OF THE WIDE FLANGE BEAMS.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.
- SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC, 6"x6" - W4.0 x W4.0, WEIGHING 58 LBS. PER 100 SQ. FT.
- THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.
- BEARING SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENTS SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS. FOR TYPE I ELASTOMERIC BEARINGS, SHIMS OF DIMENSIONS OF THE TOP PLATE SHALL BE PROVIDED AND DETAILED.

GENERAL NOTES CONTINUED ON SHEET NO. 21

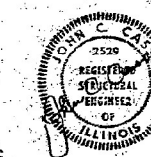
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
STRUCTURE EXCAVATION	CU.YD.		431	431
FLOOR DRAINS	EACH	24		24
* PROTECTIVE COAT	SO.YD.	1425		1425
PREFORMED JOINT SEAL 2 1/2"	LN.FT.	87		87
PREFORMED JOINT SEAL 4"	LN.FT.	87		87
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	24		24
CLASS X CONCRETE	CU.YD.	473.4		473.4
CLASS X CONCRETE SUPERSTRUCTURE	CU.YD.	356.4		356.4
STRUCTURAL STEEL	L. SUM	3		3
STUD SHEAR CONNECTORS	EACH	5544		5544
REINFORCEMENT BARS	LB		50,700	50,700
REINFORCEMENT BARS (EPOXY COATED)	LB	90,440		90,440
TEST PILE CONCRETE	EACH	4		4
CONCRETE PILES	LN.FT.	5622		5622
NAME PLATES	EACH	2		2
SLOPE WALL 4 INCH	SO.YD.	1546		1546
ELASTOMERIC BEARING ASSEMBLY TYPE II	EACH	12		12

* QUANTITY INCLUDES BRIDGE DECK SURFACE. SEE SPECIAL PROVISIONS FOR CURING AND TEXTURING.

APPROVED FOR STRUCTURAL ADEQUACY ONLY

James J. Layburn
Engineer at Large, Professional Structures



A.T. & S.F. R.R.
BUILT 19 BY
STATE OF ILLINOIS
F.A. RTE. 406 SEC. 90-106X-VB
PROJ. BCT. DE-67 (B01)
STA. 47+29.20 LOADING HS-20
STR. NO. 090-0125(N.B.)
STR. NO. 090-0126(S.B.)

LETTERING FOR NAME PLATE
(SEE STD. 2113)

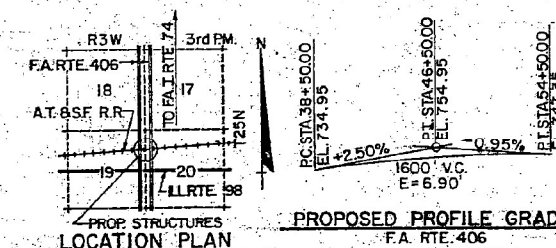
DESIGN STRESSES

$f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (REINF.)
 $n = 9$
 $f_y = 50,000$ p.s.i. (STR. STEEL-M223 GRADE 50)
 $f_y = 36,000$ p.s.i. (STR. STEEL-M183)
LOADING HS 20-44 (+25 PSP FOR FUTURE WEARING SURFACE)
DESIGN SPECIFICATIONS AASHTO 1983 & 1994 THRU 1986 INTERIMS.

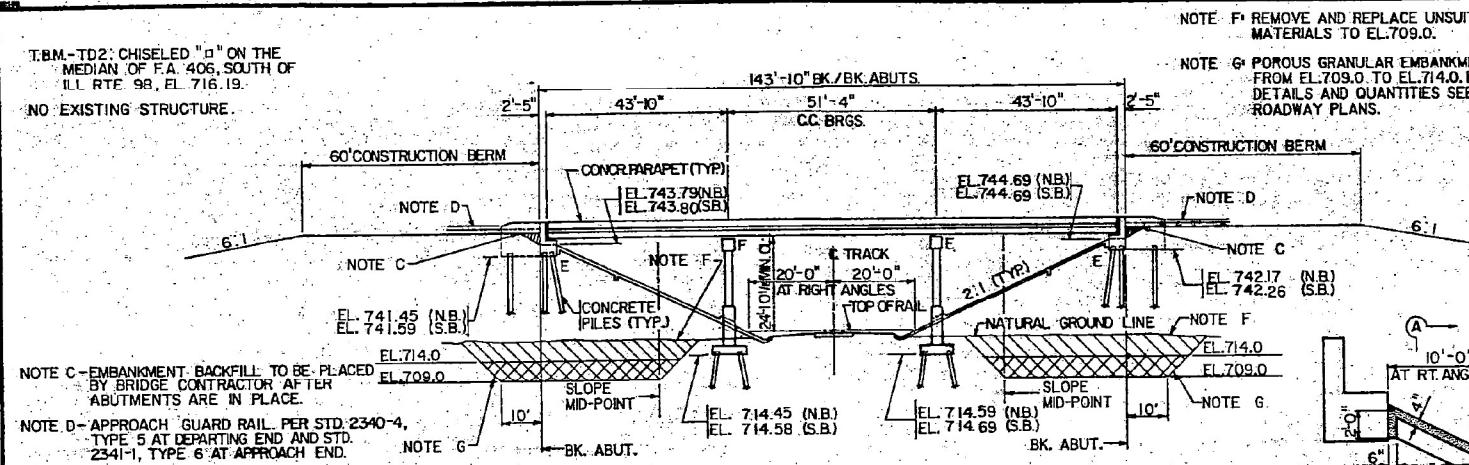
STATION	TOP OF RAIL ELEVATIONS	
	NO. RAIL	SO. RAIL
9+00	720.67	720.66
9+50	720.77	720.81
10+00	720.78	720.78
10+50	720.76	720.77
11+00	720.55	720.57

EXISTING PROFILE GRADE
A.T. & S.F. R.R.

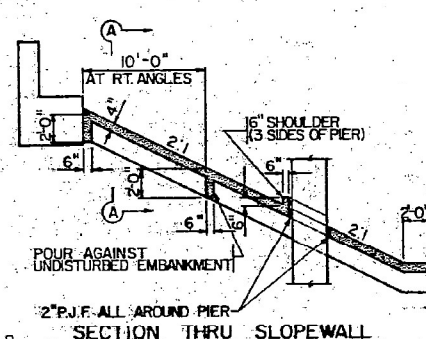
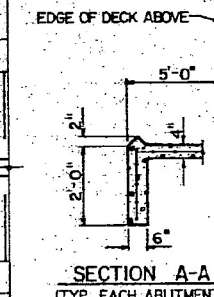
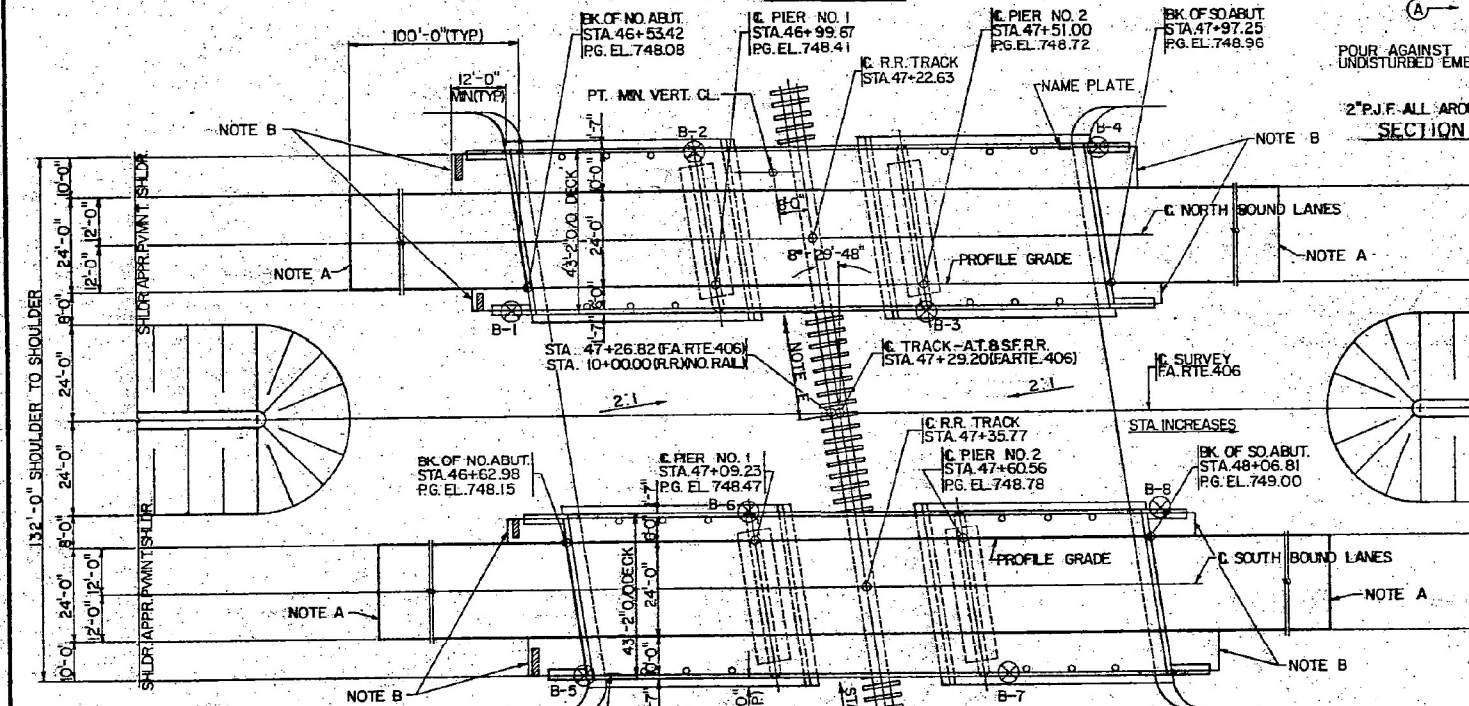
PLAN



PROPOSED PROFILE GRADE
F.A. RTE. 406



ELEVATION



- NOTE A: 24'-0" WIDE APPROACH PAVEMENT PER STANDARD 2353-5.
- NOTE B: APPROACH SHOULDER PAVEMENT PER STANDARD 2324-6. AT NORTH END USE TYPE C INLET BOX ON 6' SHOULDER AND TYPE D INLET BOX ON 10' SHOULDER.

T.B.M.-TD2: CHISELED "d" ON THE MEDIAN OF F.A. 406, SOUTH OF ILL. RTE. 98, EL. 716.19.

NO EXISTING STRUCTURE.

- NOTE F: REMOVE AND REPLACE UNSUITABLE MATERIALS TO EL. 709.0.
- NOTE G: POROUS GRANULAR EMBANKMENT FROM EL. 709.0 TO EL. 714.0. FOR DETAILS AND QUANTITIES SEE ROADWAY PLANS.

NOTE C - EMBANKMENT BACKFILL TO BE PLACED BY BRIDGE CONTRACTOR AFTER ABUTMENTS ARE IN PLACE.

NOTE D - APPROACH GUARD RAIL PER STD. 2340-4, TYPE 5 AT DEPARTING END AND STD. 2341-1, TYPE 6 AT APPROACH END.

NOTE E - 140.84' TO MP 46.42.

132'-0" SHOULDER TO SHOULDER
12'-0" 24'-0" 10'-0"
12'-0" 24'-0" 8'-0" 24'-0" 12'-0"
10'-0" 24'-0" 12'-0"

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DRAWN - CM
PLOT SCALE = 6.4750' / in.
PLOT DATE = 11/29/2022

CHECKED - BKR
DATE -

REVISIONS
REVISOR
DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SLOPE WALL PLAN
S.N. 090-0125 & S.N. 090-0126

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	14
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				

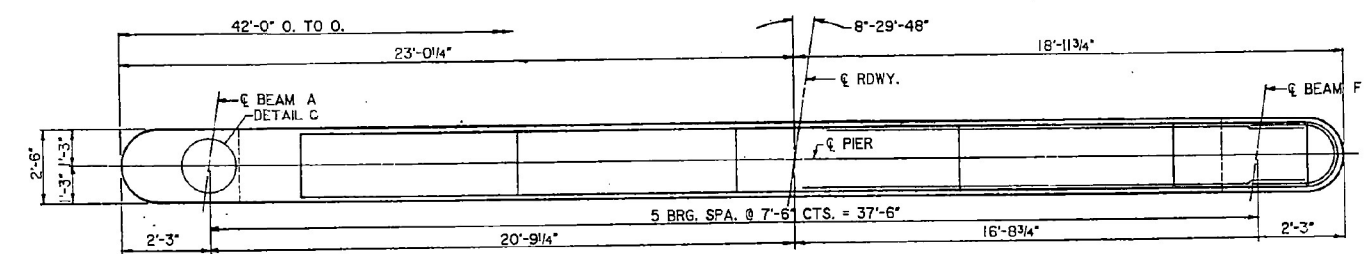
FOR INFORMATION ONLY

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS PROJECT				

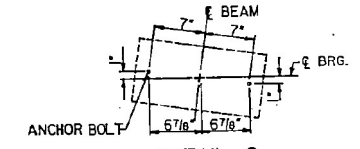
SHEET 15 OF 20

NOTES

SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS. ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFER EXCEPT AS NOTED. POUR STEPS MONOLITHICALLY WITH CAP. MIN. SPIRAL LAP = 1 1/2 TURNS.

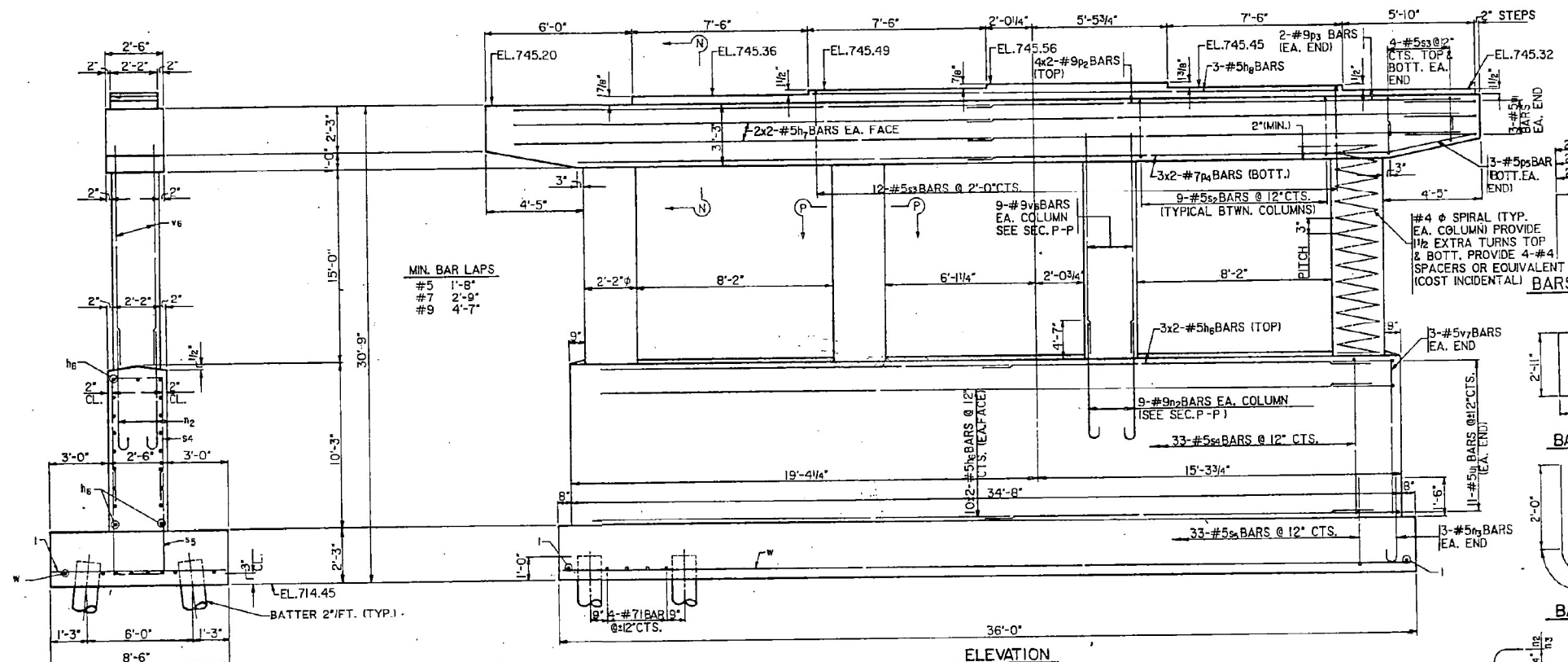


TOP PLAN



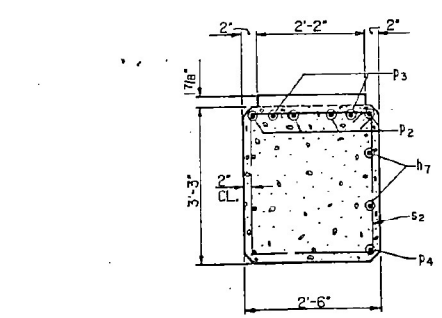
DETAIL Q

SEE SH. 20 OF 20 FOR ANCHOR BOLT INSTALLATION DETAILS.

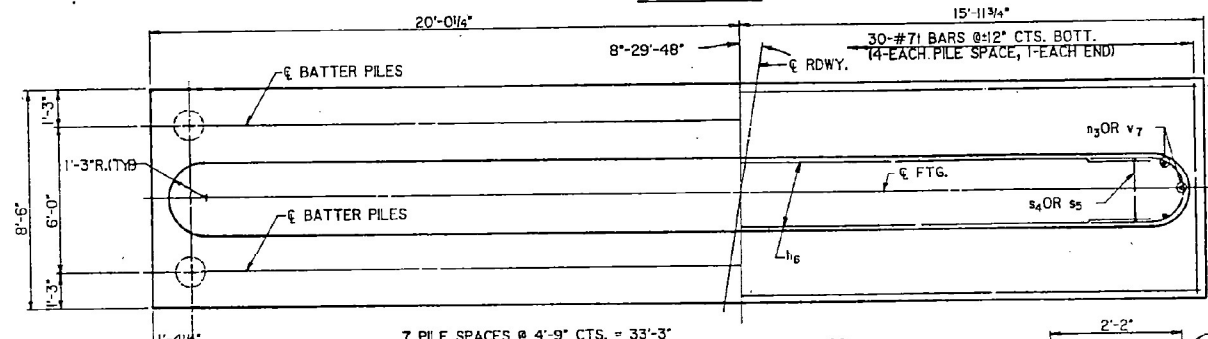


ELEVATION

END VIEW



SECTION N-N



FOOTING PLAN

PILE DATA

TYPE	CONCRETE
CAPACITY	40T
EST. LENGTH	40'
NO. REQ'D.	16

BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
h6	#5	18'-0"	U
h7	#5	20'-7"	U
h8	#5	22'-3"	U
h9	#9	10'-10"	U
n3	#5	3'-10"	U
p2	#9	22'-0"	U
p3	#9	8'-0"	U
p4	#7	18'-3"	U
p5	#5	6'-3"	U
s2	#5	11'-1"	U
s3	#5	6'-8"	U
s4	#5	22'-2"	U
s5	#5	9'-2"	U
sp	#4	15'-3"	W
v6	#9	16'-6"	U
v7	#5	10'-0"	U
w	#5	18'-8"	U

CLASS X CONCRETE	CUYD	78.9
REINFORCEMENT BARS	LB	9120
CONCRETE PILES	LIN.FT.	640

BAR DETAILS

BARS n2 & n3

BARS s2

BARS u1

BARS v6 & v7

BARS w

REV. NO.	DESCRIPTION	DATE
1	BRIDGE OFFICE REVIEW	JCC10-5-B7
PIER NO. 1 - NORTH BOUND LANES		
Design	FA RTE. 406 OVER AT&SF RR	SCALE NONE
Drawn	FA RTE. 406 SEC.90-106XIVB	PROJECT NO. 034-9501-01
Checked	TAZEWELL COUNTY	CLIENT PROJECT NO. P-94-144-85
Approved	STA. 47+29.20 (FA RTE. 406)	DRAWING NO.
Drawn	STR. NO. 090-0125 (N.B.)	
Checked		
Approved		
Drawn	BIG BLANK, WESSELINK, COOK & ASSOCIATES, INC.	
Checked	ENGINEERS & CONSULTANTS	
Approved		

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DRAWN	- CM
CHECKED	- BKR
DATE	-
REVISIONS	-

DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PIER 1 PLAN
S.N. 090-0125 & S.N. 090-0126

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	15
CONTRACT NO. 68H15				
ILLINOIS FED. AID PROJECT				

Existing Structure: S.N. 090-0128 and 090-0129 were built as FAP 406, Section 90-(106X)HB at Station 61+67.23 in 1989. The existing dual structures each consist of 2 spans. The beams are W36x150 steel beams with a 7½" R.C. deck. The back to back abutment measures 148'-8" and the deck varies 55'-6½" to 47'-8½" out to out of deck. The structure is to have both abutment expansion joints removed and replaced, approach pavement, abutments and deck repaired. Traffic is to remain open with stage construction.

Salvage: None

INDEX OF SHEETS

1. General Plan and Elevation
- 2-3. Joint Replacement Plan
4. Joint Sections and Details
5. Preformed Joint Strip Seal
6. Repair Details N. Abutment S.N. 090-0128
7. Repair Details N. Abutment S.N. 090-0129
8. Repair Details S. Abutment S.N. 090-0129
9. Bar Splicer Assembly & Mechanical Splicer Details

SCOPE OF WORK

1. Setup Traffic Control with Drums.
2. Remove and replace expansion joints at abutments.
3. Bridge deck and abutment repair.
4. Switch stages and repeat.

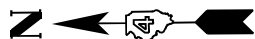
TOTAL BILL OF MATERIAL

ITEM	UNIT	090-0128(SB)	090-0129(NB)	TOTAL
Protective Coat	Sq. Yd.	38	38	76
Concrete Removal	Cu. Yd.	11.9	11.7	23.6
Concrete Structures	Cu. Yd.	3.2	7.5	10.7
Concrete Superstructure	Cu. Yd.	11.8	11.6	23.4
Reinforcement Bars, Epoxy Coated	Pounds	2,670	3,520	6,190
Bar Splicers	Each	24	24	48
Preformed Joint Strip Seal	Foot	102	102	204
Deck Slab Repair (Partial)	Sq. Yd.	68	68	136
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	175	409	584

*Apply to new concrete only.

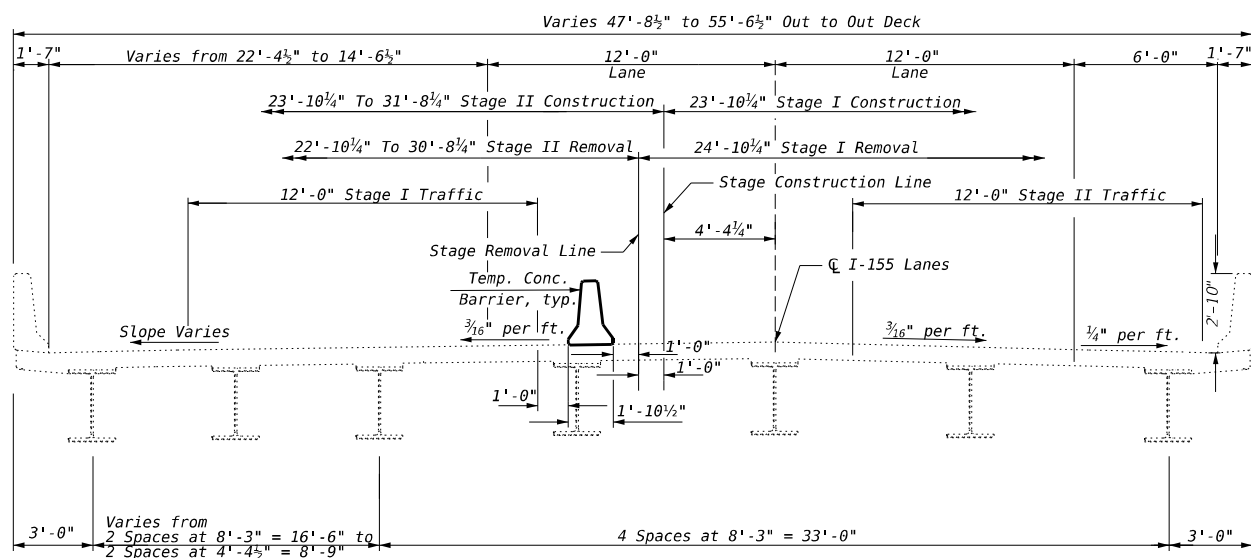
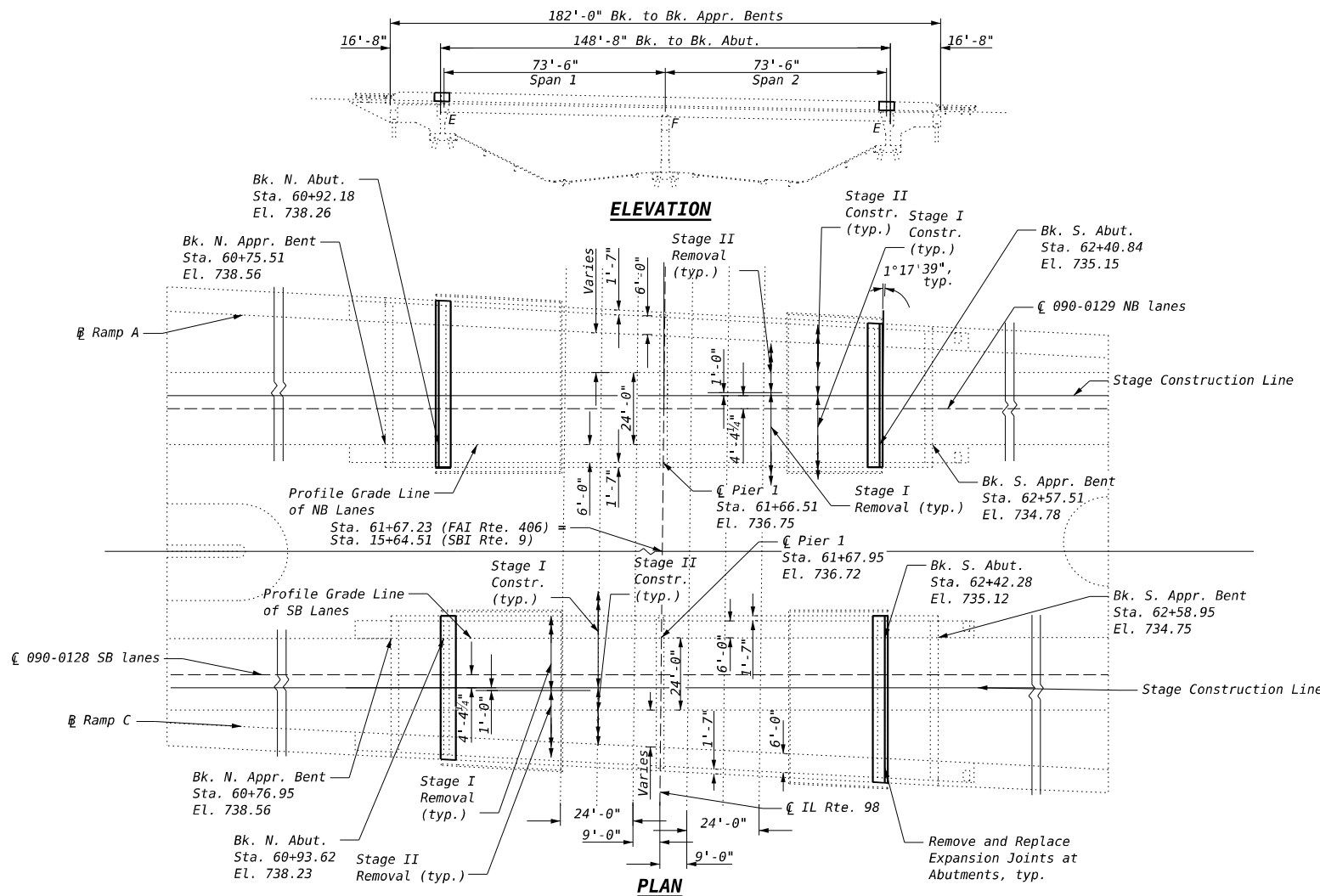
EX. CURVE DATA

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 Δ = 1° 44' 00"
 D = 1° 30' 00"
 R = 3,819.72'
 T = 57.78'
 L = 115.56'
 E = 0.44'



EX. CURVE DATA

P.I. Sta. = 8+34.93
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 D = 7° 30' 00"
 R = 763.94'
 T = 70.20'
 L = 140.00'
 E = 3.22'

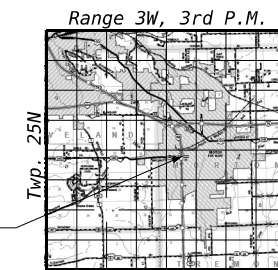
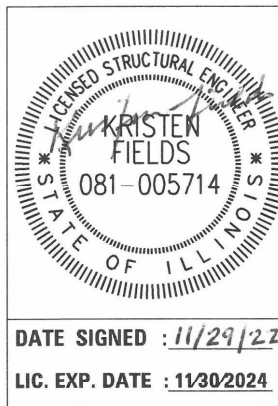


CROSS SECTION

(S.N. 090-0129 (NB) - Looking South)
 (S.N. 090-0128 (SB) - Looking North)

GENERAL NOTES

- All structural steel shall be AASHTO M 270 Grade 36 unless otherwise noted.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Existing reinforcement bars extending into 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.
- 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° Fahrenheit.
- Deck slab and abutment repair area are an estimated quantity made at the time of plan preparation. Actual areas to be repaired shall be determined by the Engineer in the field at the time of construction and shown on the As-Built plans.



S.N. 090-0128
 S.N. 090-0129

LOCATION SKETCH

GENERAL PLAN & ELEVATION
I-155 OVER IL 98
I-155 (FAI-155) - SECTION 106X
TAZEWELL COUNTY
STATION 61+67.23
STRUCTURE NO. 090-0128 & 090-0129

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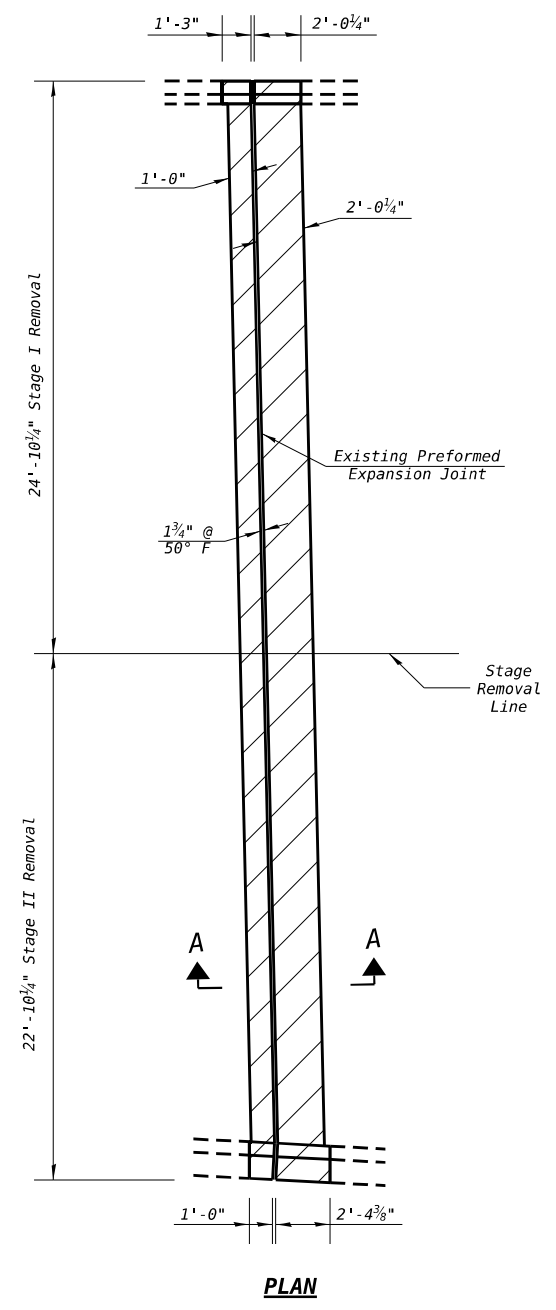
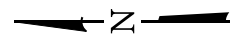
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

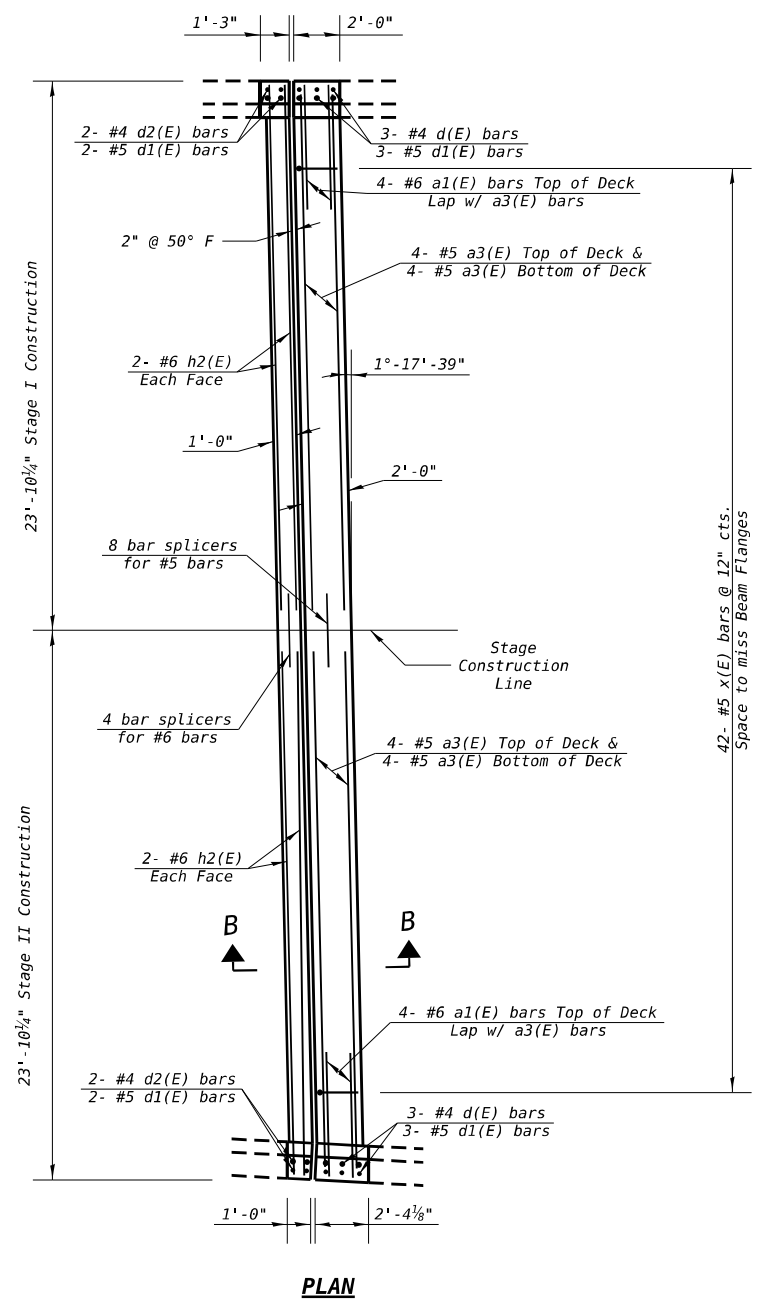
GENERAL PLAN AND ELEVATION
S.N. 090-0128 & 090-0129

SHEET 1 OF 9 SHEETS

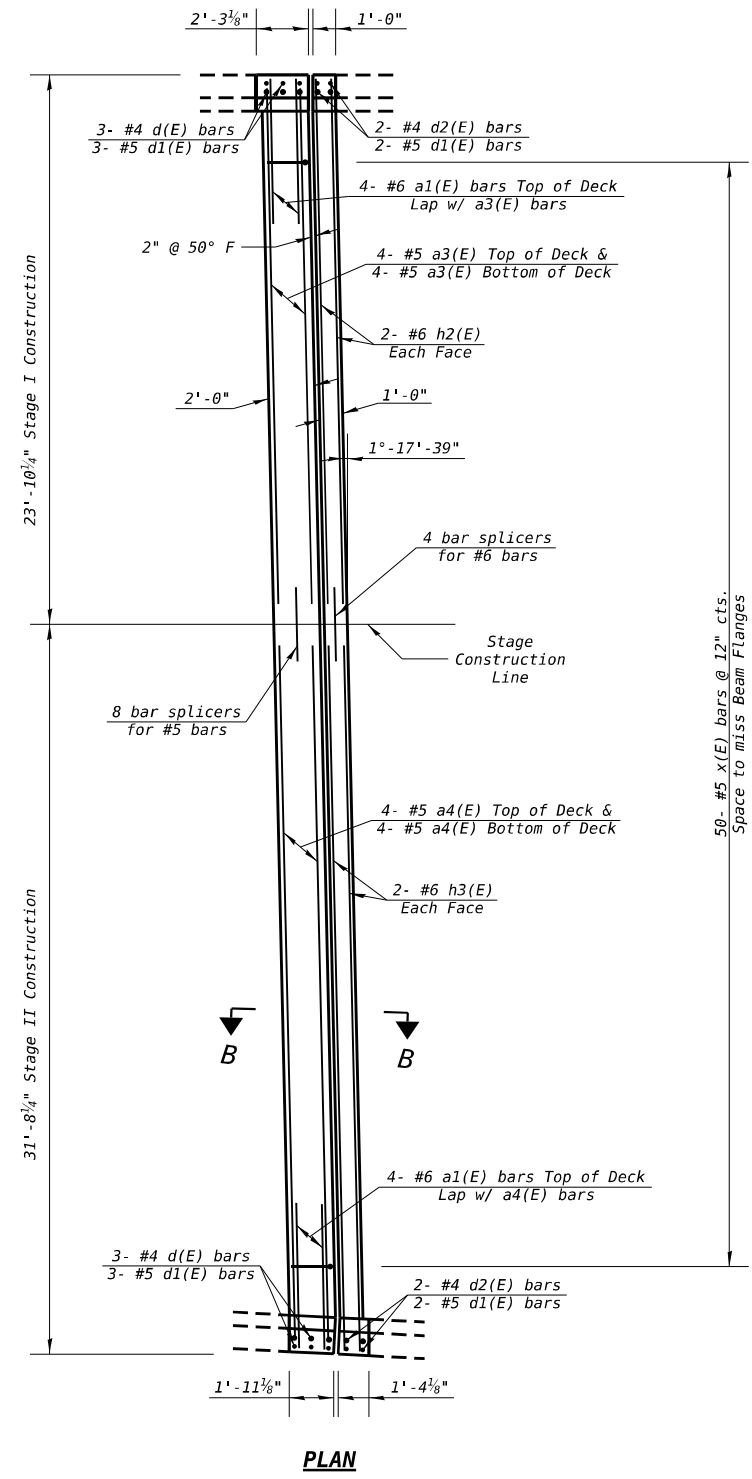
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155	106X	TAZEWELL	29	17
ILLINOIS FED. AID PROJECT			CONTRACT 68H15	



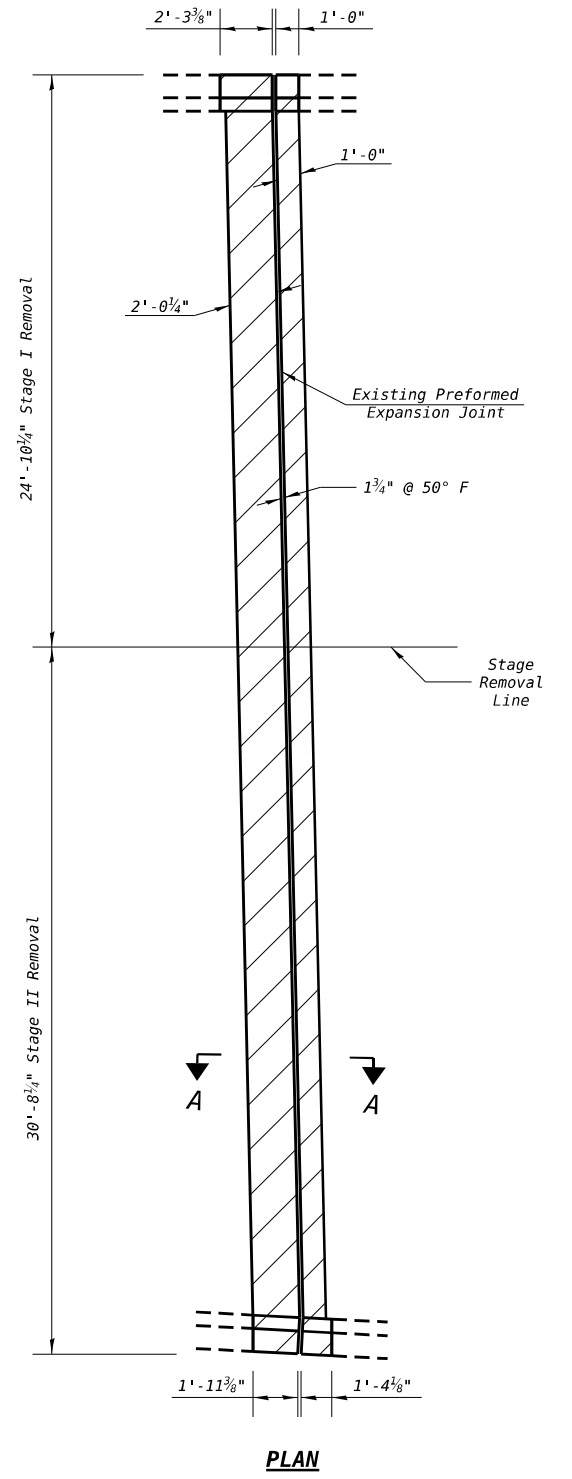
CONCRETE REMOVAL AT N. ABUT.



CONCRETE REPLACEMENT AT N. ABUT.



CONCRETE REPLACEMENT AT S. ABUT.



CONCRETE REMOVAL AT S. ABUT.

Notes:
 Hatched areas indicate Concrete Removal.
 For Section views, see Sheet 20 of 29.
 Dimensions are based on Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 21 of 29.

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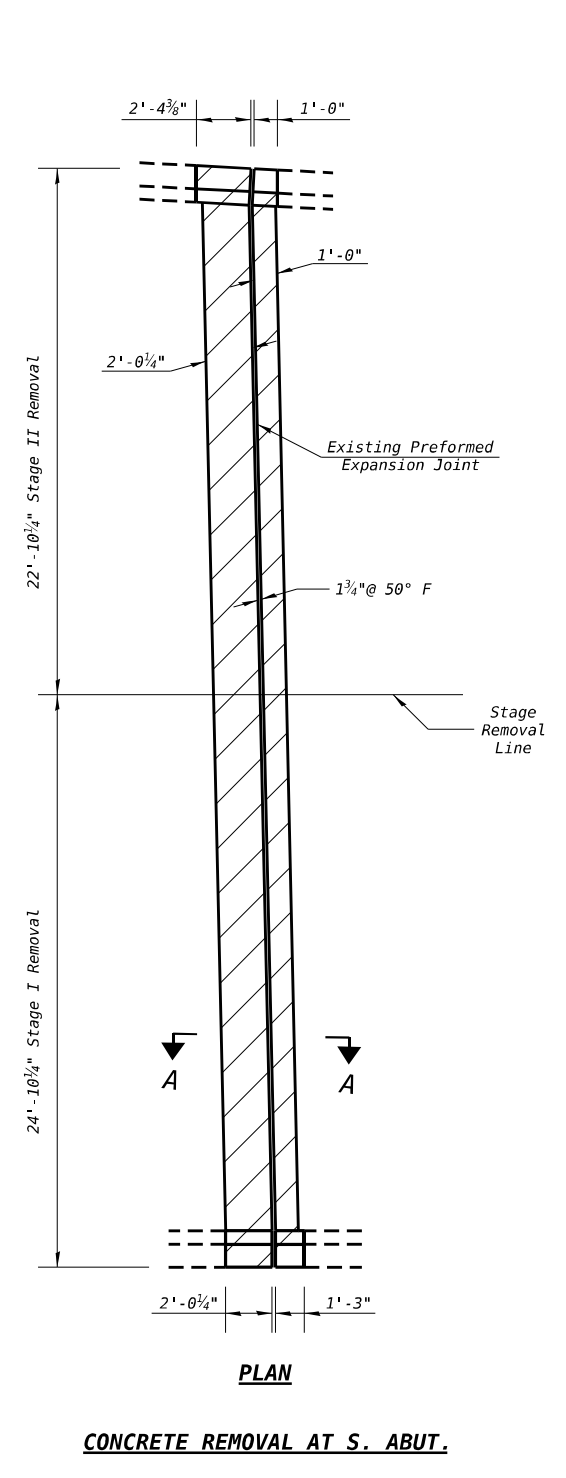
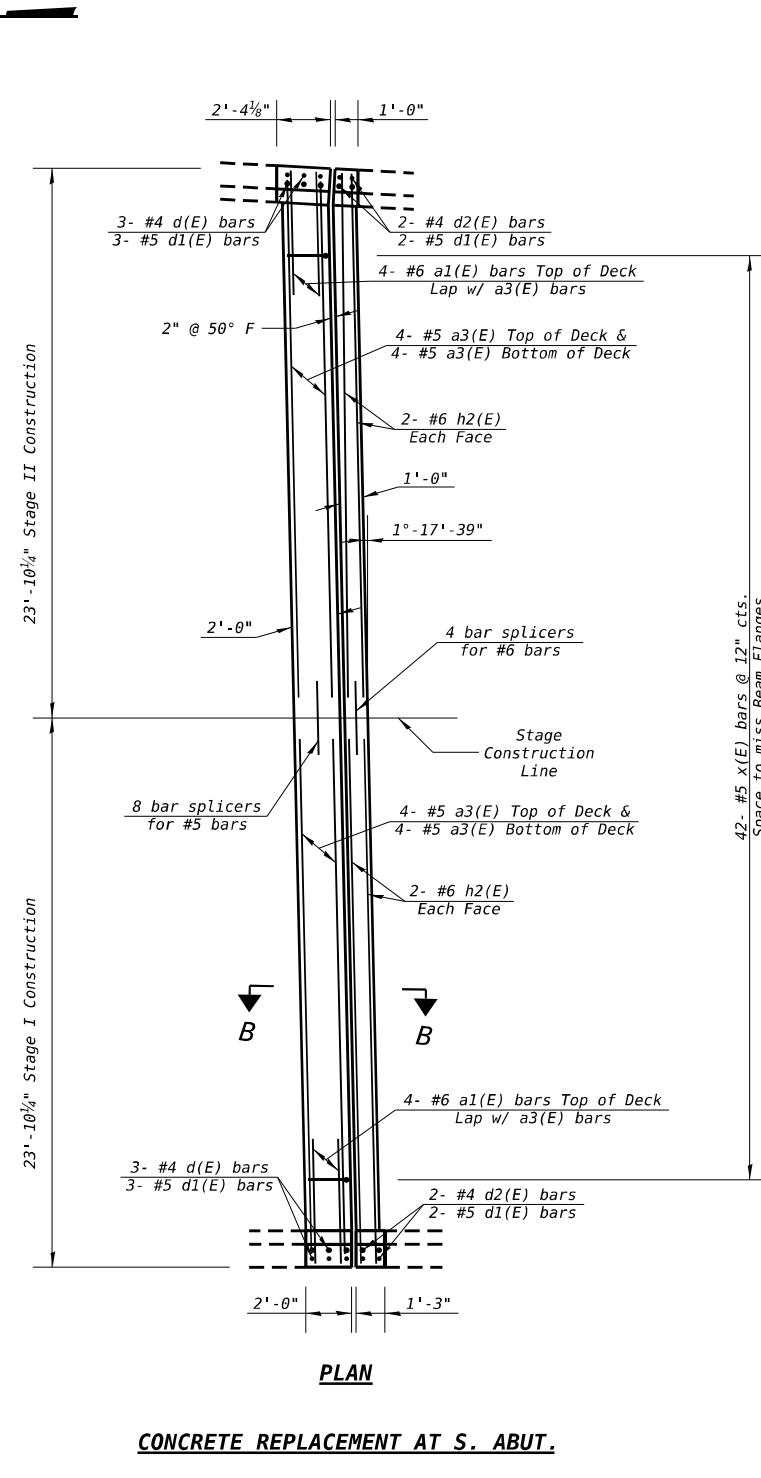
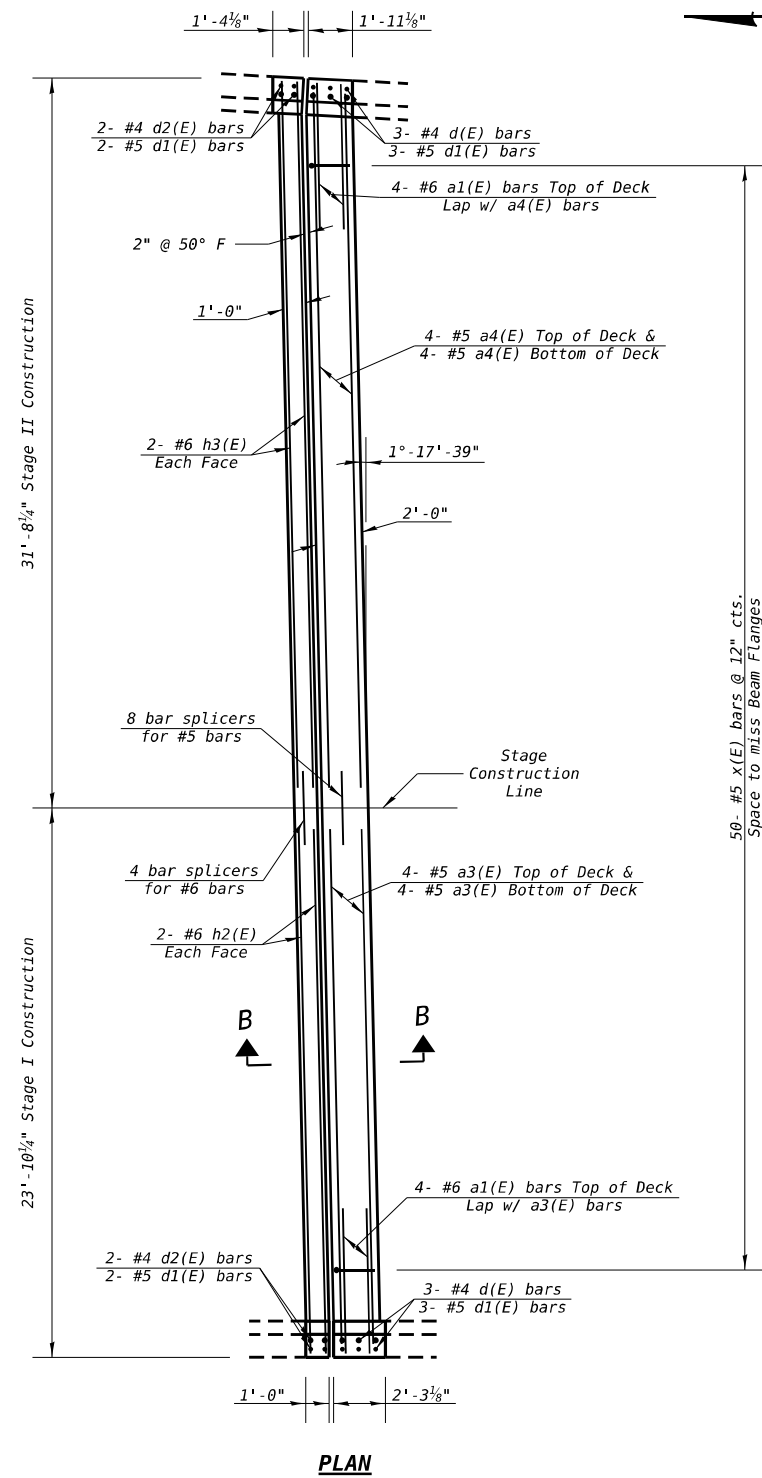
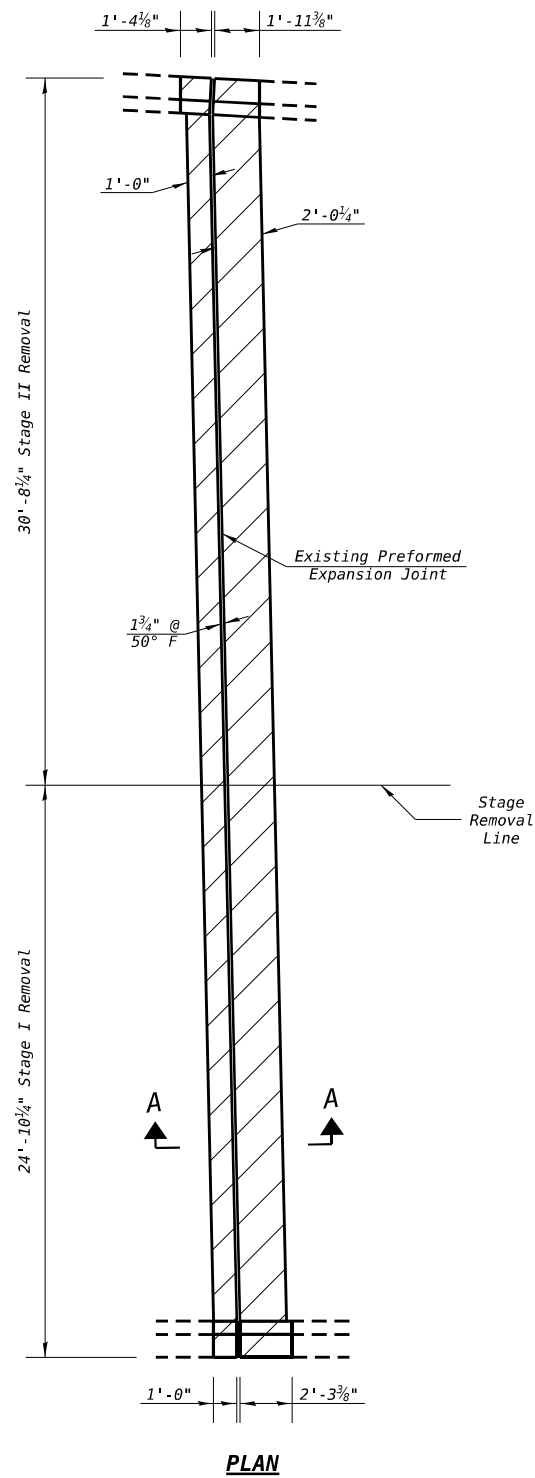
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

JOINT REPLACEMENT PLAN
 S.N. 090-0128

SHEET 2 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	18
CONTRACT			68H15	
ILLINOIS FED. AID PROJECT				

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Notes:
 Hatched areas indicate Concrete Removal.
 For Section views, see Sheet 20 of 29.
 Dimensions are based on Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 21 of 29.



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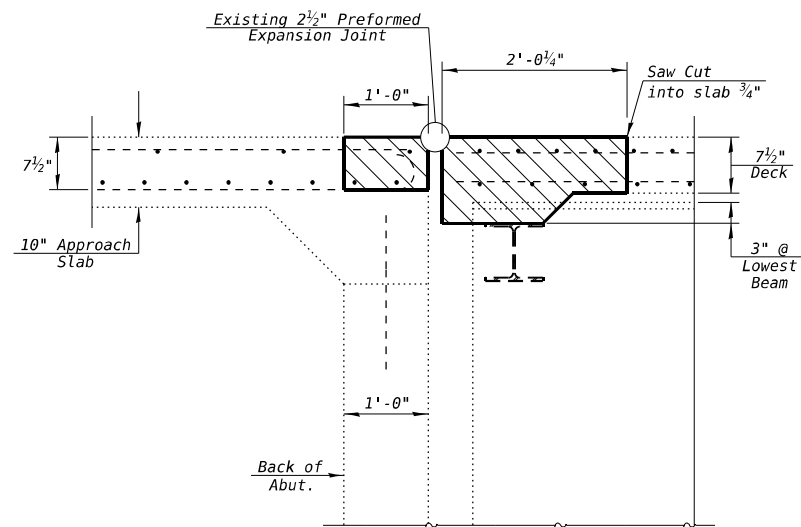
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

JOINT REPLACEMENT PLAN
 S.N. 090-0129

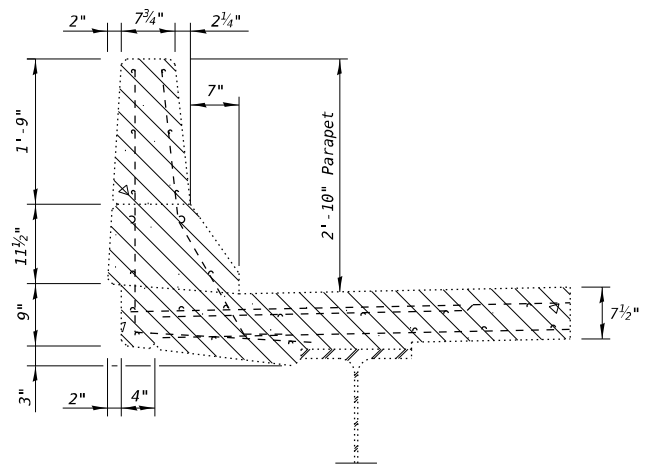
SHEET 2 OF 9 SHEETS

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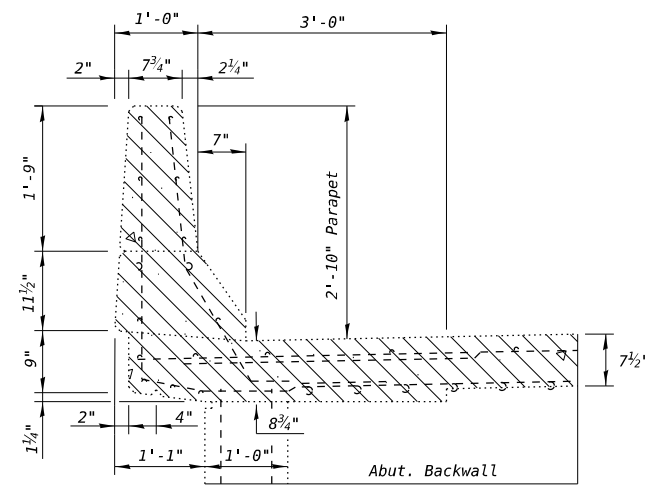
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JOINT REMOVAL SECTION A-A
(Dims. at Rt. L's to End of Deck)



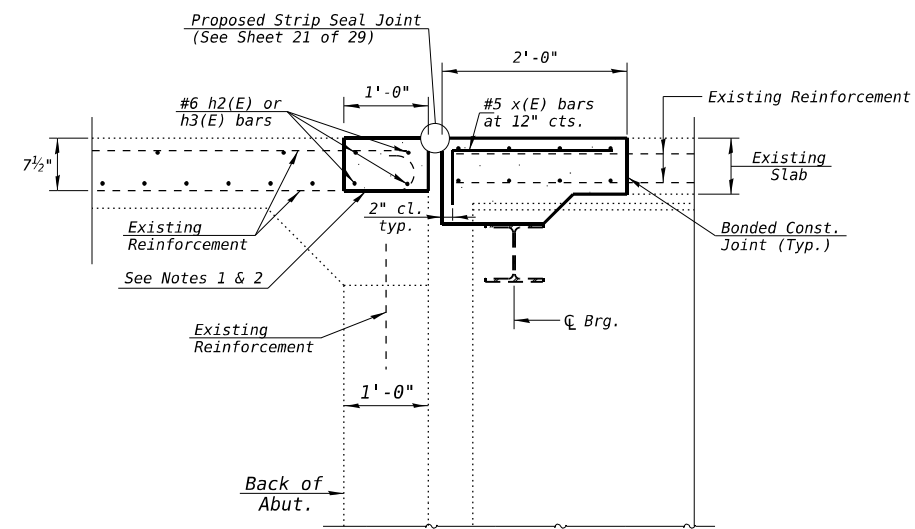
SECTION THRU PARAPET AT EDGE OF DECK



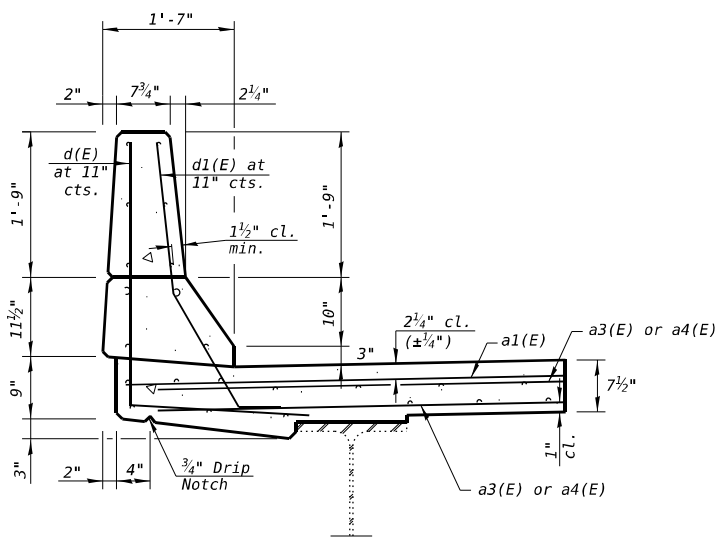
SECTION THRU PARAPET AT ABUTMENT

**FOUR ABUTMENTS
BILL OF MATERIAL**

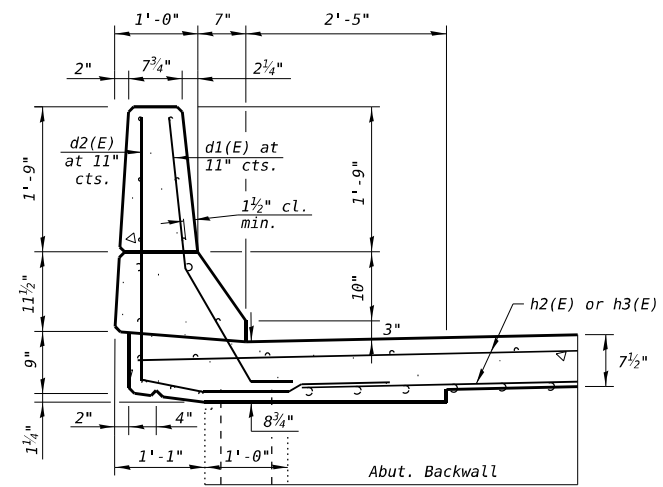
Bar	No.	Size	Length	Shape
a1(E)	32	#6	6'-6"	—
a3(E)	48	#5	23'-2"	—
a4(E)	16	#5	31'-0"	—
d(E)	24	#4	5'-4"	L
d1(E)	40	#5	3'-11"	L
d2(E)	16	#4	6'-2"	L
h2(E)	24	#6	23'-4"	—
h3(E)	8	#6	31'-2"	—
x(E)	184	#5	2'-4"	L
Reinforcement Bars, Epoxy Coated		Lbs.	3,960	
Concrete Superstructure		Cu. Yd.	23.4	
Concrete Removal		Cu. Yd.	23.6	



JOINT SECTION B-B
(Dims. at Rt. L's to End of Deck)

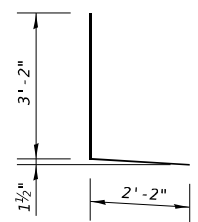


SECTION THRU PARAPET AT EDGE OF DECK

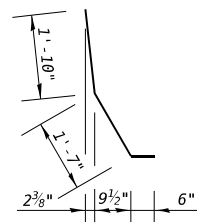


SECTION THRU PARAPET AT ABUTMENT

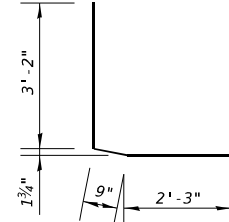
- Contractor shall exercise care when removing existing concrete to not damage existing reinforcement bars. Bottom of Concrete Removal in approach slab is within the thickness of #9 longitudinal hooked bars to remain, be cleaned, and incorporated into new concrete.
- Contractor shall not allow any vehicular live load on approach slabs for the entire stage construction width during removal of concrete and until new concrete has been poured and the curing period has ended.



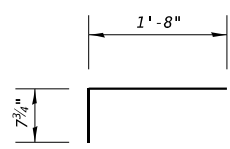
BAR d(E)



BAR d1(E)



BAR d2(E)



BAR x(E)

Notes:
 Hatched areas indicate Concrete Removal. Removal of existing expansion joint shall be included in the cost of Concrete Removal.
 In parapet / joint removal areas, existing reinforcement bars shown are to be cleaned and incorporated into new construction.
 Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 21 of 29.



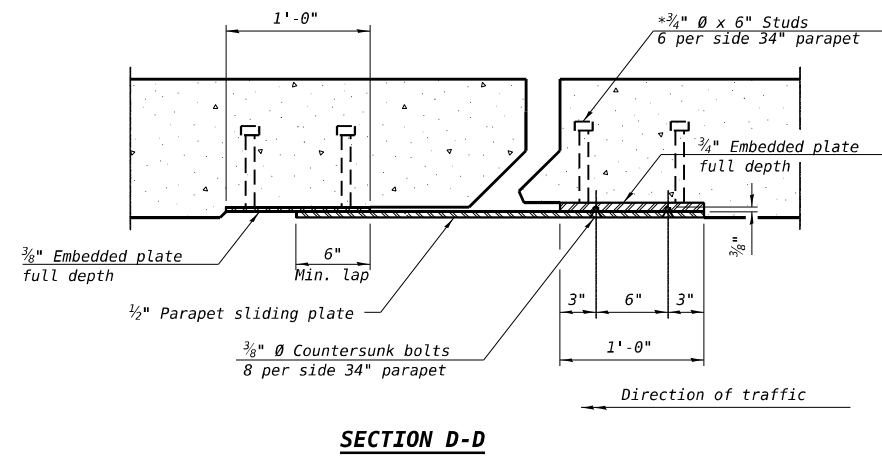
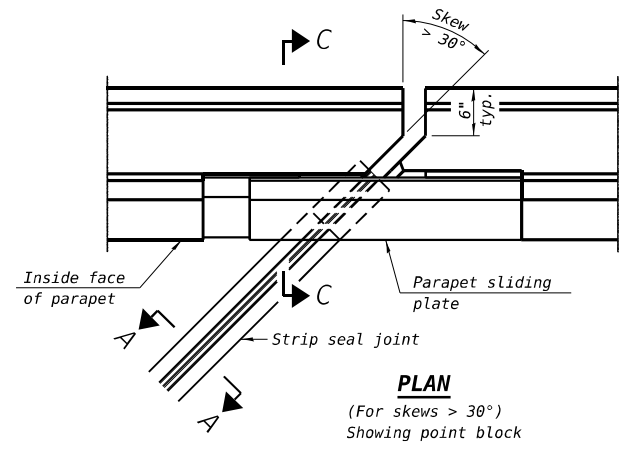
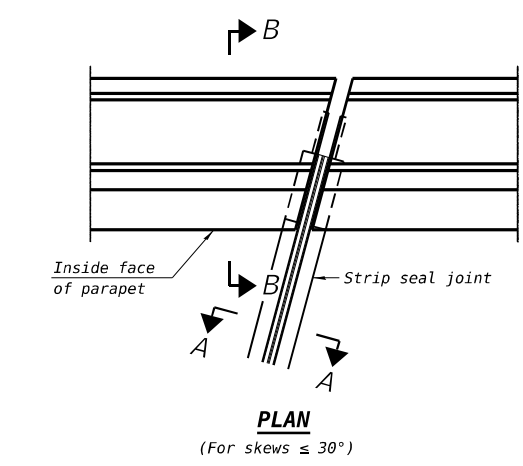
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

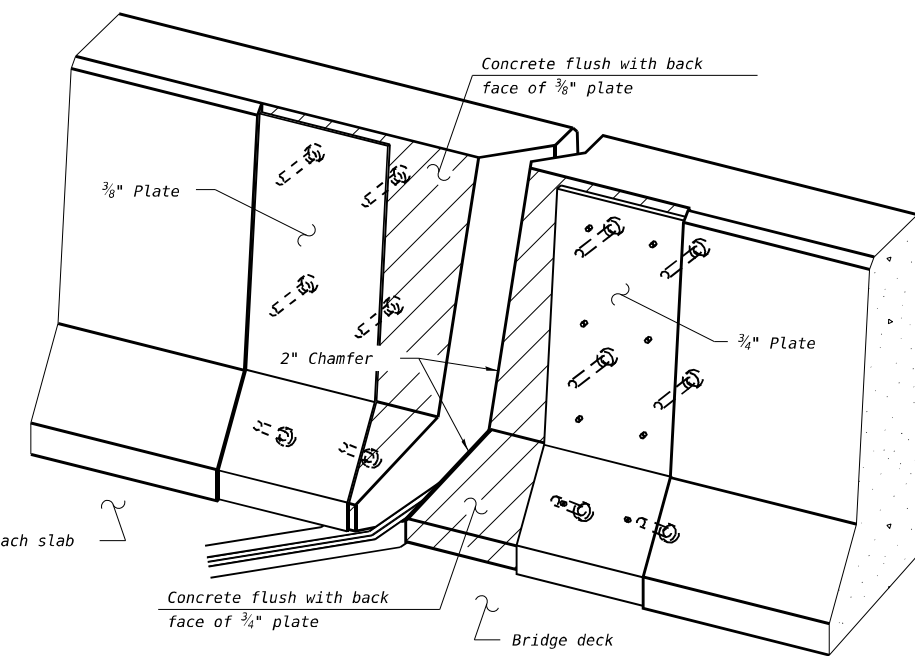
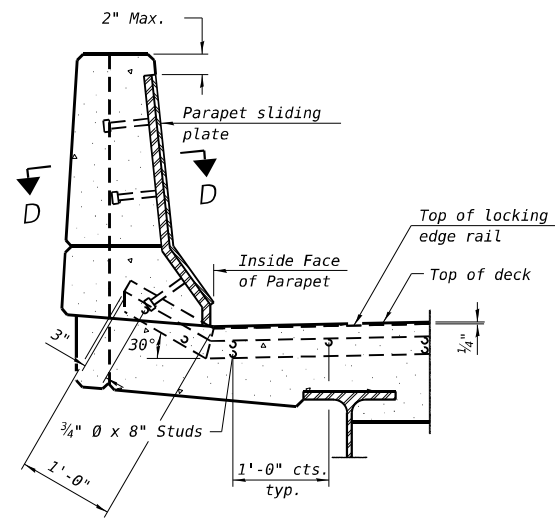
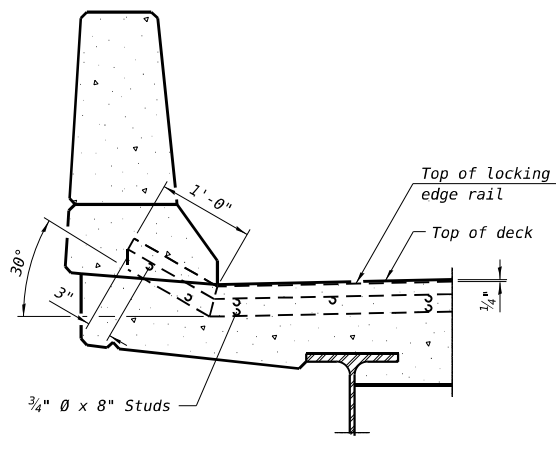
**JOINT SECTIONS AND DETAILS
S.N. 090-0128 & 090-0129**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	20
ILLINOIS FED. AID PROJECT			CONTRACT 68H15	

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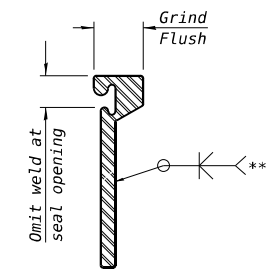
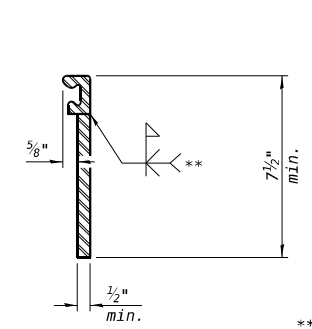
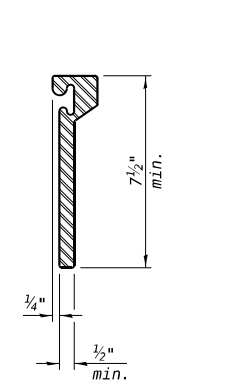
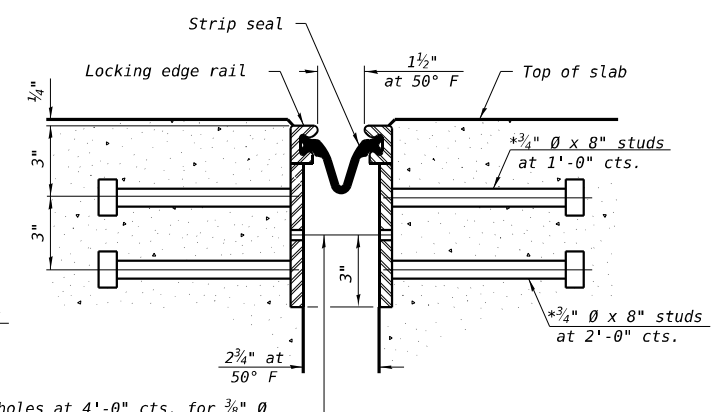
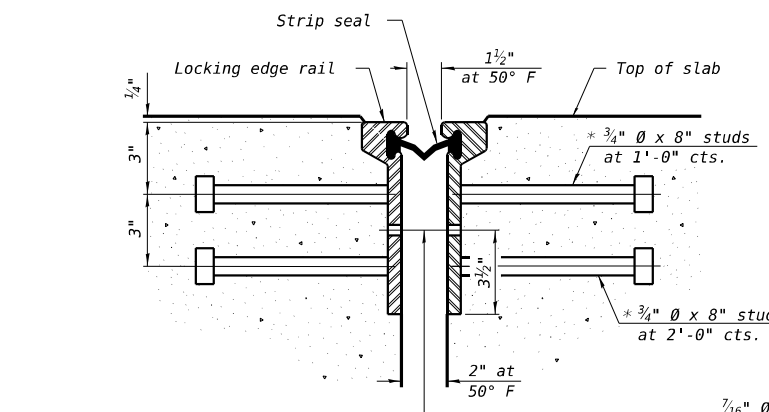
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed.
 The manufacturer's recommended installation methods shall be followed.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.



Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
 34" F-shape barrier shown, 42" F-shape similar as noted.
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	204



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

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

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

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

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

LOCKING EDGE RAILS



USER NAME = brennar	DESIGNED AF	REVISED -
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PLOT DATE = 11/29/2022	DRAWN AF	REVISED -
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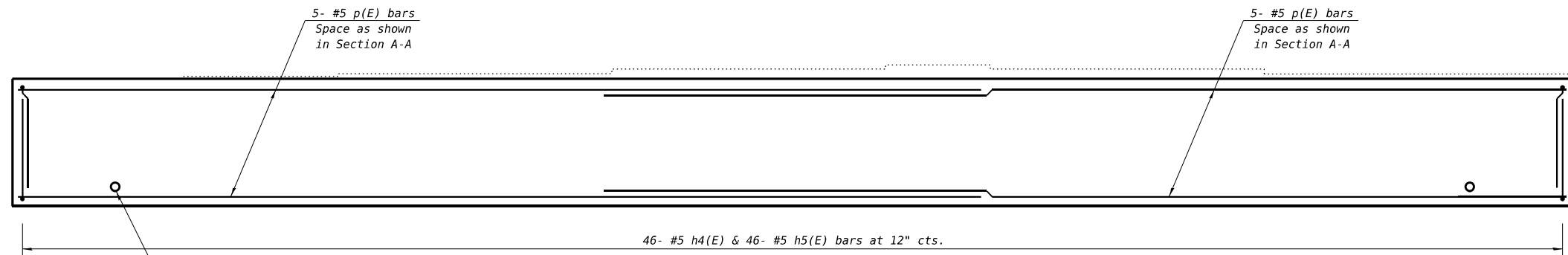
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
 S.N. 090-0128 & 090-0129

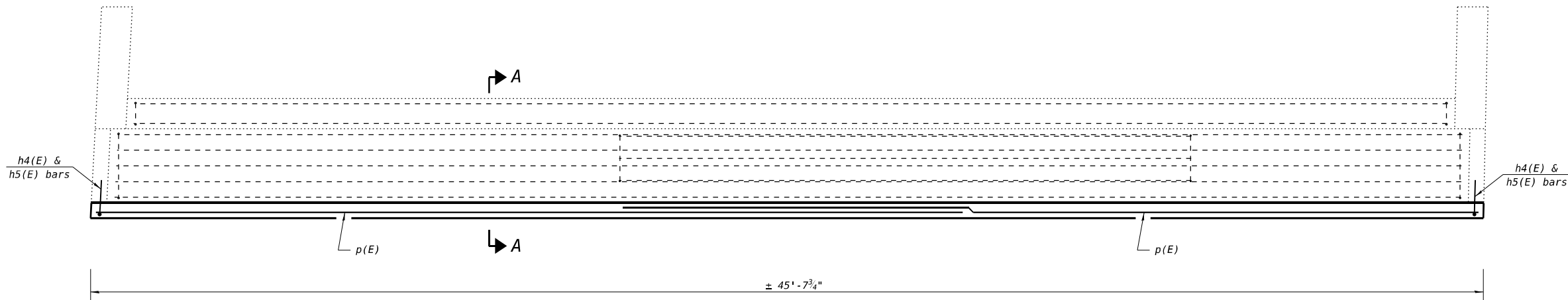
SHEET 5 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	21
ILLINOIS FED. AID PROJECT			CONTRACT 68H15	

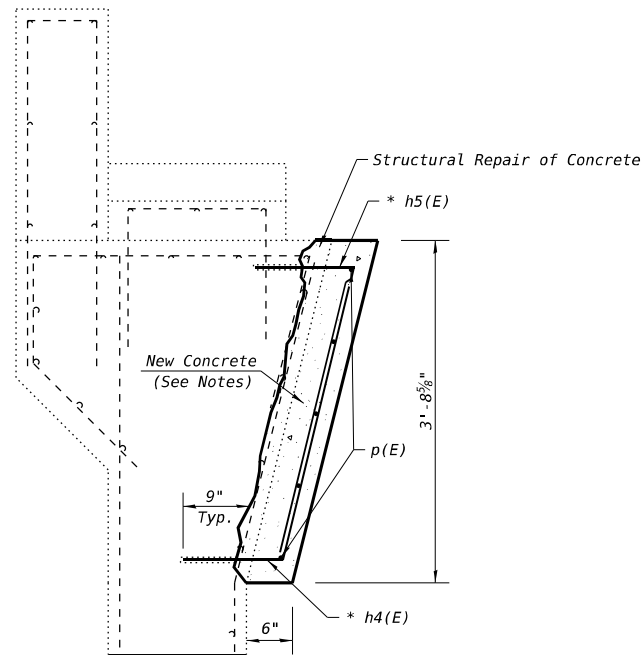
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ELEVATION
 (Looking North)



PLAN

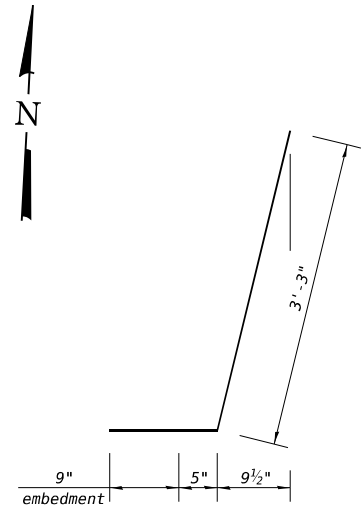


SECTION A-A

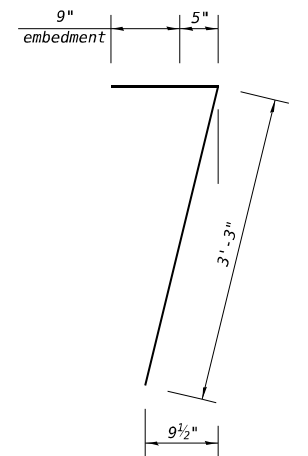
* Epoxy grout h4(E) & h5(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h4(E)	46	#5	4'-5"	J
h5(E)	46	#5	4'-5"	J
p(E)	10	#5	25'-2"	—
Reinforcement Bars, Epoxy Coated			Lbs.	690
Structural Repair of Concrete (Depth Equal to or Less Than 5 in.)			Sq. Ft.	175
Concrete Structures			Cu. Yd.	3.2



BAR h4(E)



BAR h5(E)

Notes:

All loose and deteriorated concrete shall be removed. The entire face and exposed rebar shall be blast cleaned. All exposed reinforcement bars shall be cleaned, straightened, and incorporated into the new construction. This work will be done, measured, and paid for as Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) except that it will not be necessary to replace existing reinforcement bars that have been cut or have lost 25 percent or more of their original cross sectional areas. The deteriorated areas of concrete shall be poured back monolithically with the Concrete Structures facade. The cost of drilling and grouting reinforcement bars is included with the cost of Structural Repair of Concrete (Depth Equal to or Less Than 5 in.).



USER NAME = brennar	DESIGNED AF	REVISED -
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	CHECKED KF	REVISED -

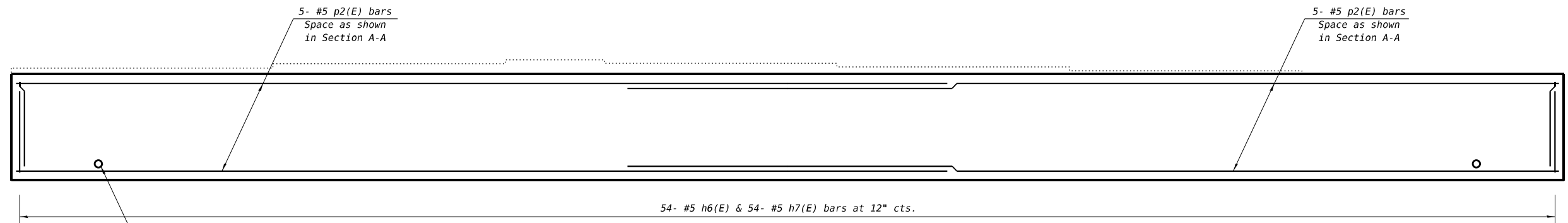
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS - NO. ABUTMENT
 S.N. 090-0128

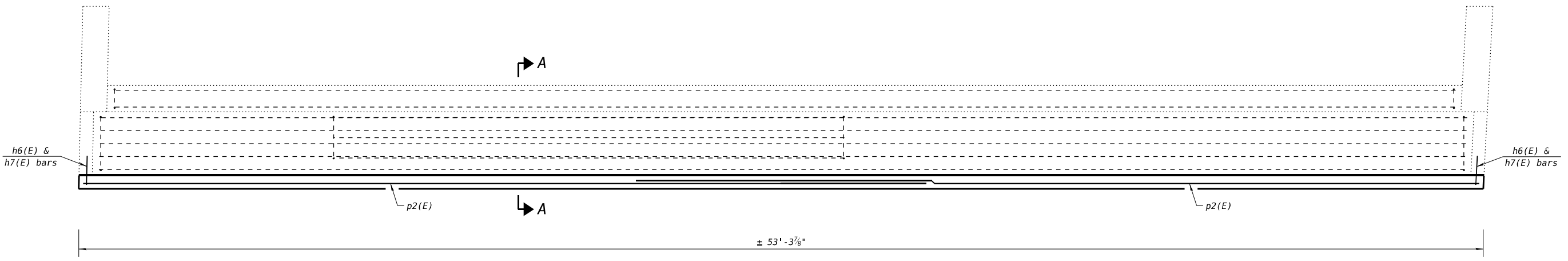
SHEET 6 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	22
CONTRACT			68H15	
ILLINOIS FED. AID PROJECT				

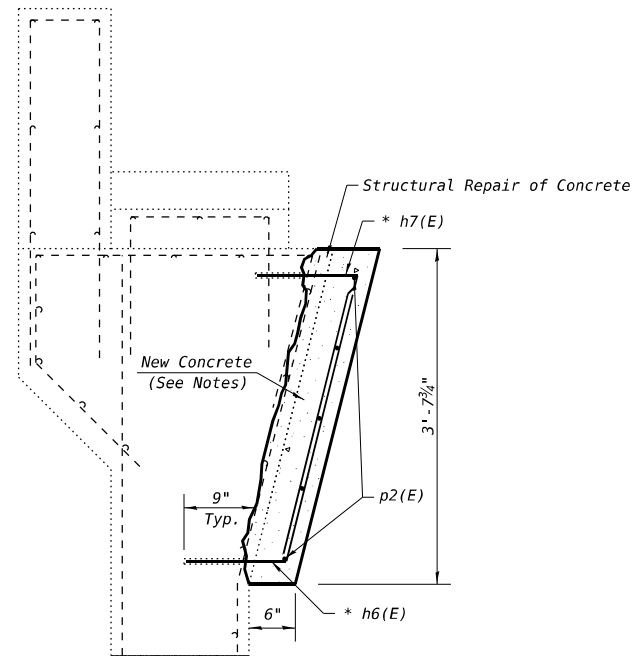
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ELEVATION
 (Looking North)

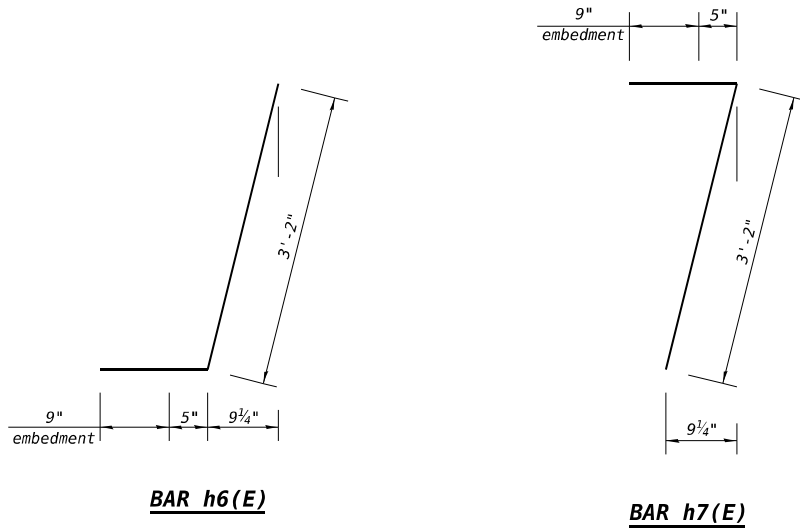


PLAN



SECTION A-A

* Epoxy grout h6(E) & h7(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.



BAR h6(E)

BAR h7(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h6(E)	54	#5	4' - 4"	J
h7(E)	54	#5	4' - 4"	7
p2(E)	10	#5	29' - 0"	—
Reinforcement Bars, Epoxy Coated			Lbs.	790
Structural Repair of Concrete (Depth Equal to or Less Than 5 in.)			Sq. Ft.	201
Concrete Structures			Cu. Yd.	3.7

Notes:
 All loose and deteriorated concrete shall be removed. The entire face and exposed rebar shall be blast cleaned. All exposed reinforcement bars shall be cleaned, straightened, and incorporated into the new construction. This work will be done, measured, and paid for as Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) except that it will not be necessary to replace existing reinforcement bars that have been cut or have lost 25 percent or more of their original cross sectional areas.
 The deteriorated areas of concrete shall be poured back monolithically with the Concrete Structures facade.
 The cost of drilling and grouting reinforcement bars is included with the cost of Structural Repair of Concrete (Depth Equal to or Less Than 5 in.).



USER NAME = brennar	DESIGNED AF	REVISED -
PLOT SCALE = 4.167' / in.	CHECKED KF	REVISED -
PLOT DATE = 11/29/2022	DRAWN AF	REVISED -
	CHECKED KF	REVISED -

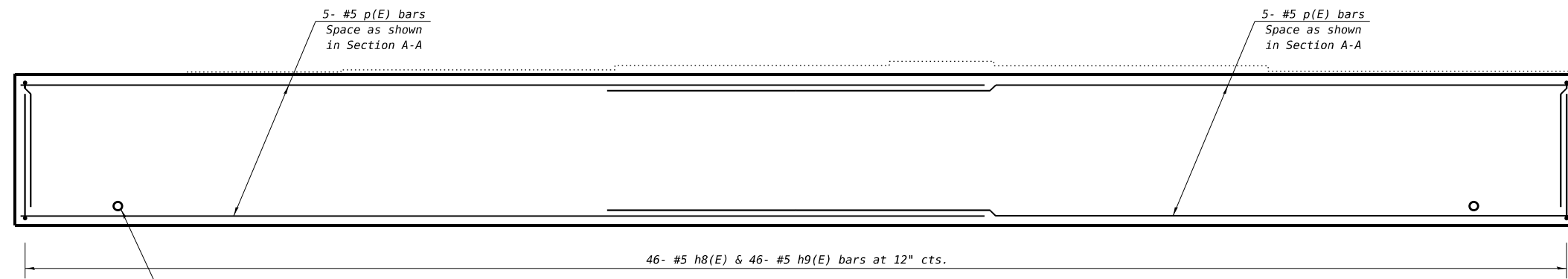
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS – NO. ABUTMENT
S.N. 090-0129

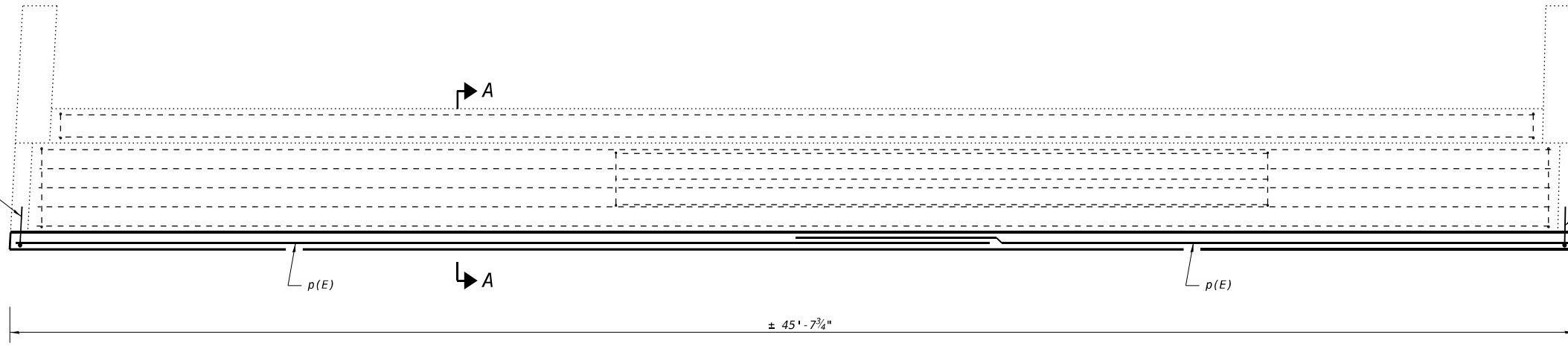
SHEET 7 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	23
CONTRACT			68H15	
ILLINOIS		FED. AID PROJECT		

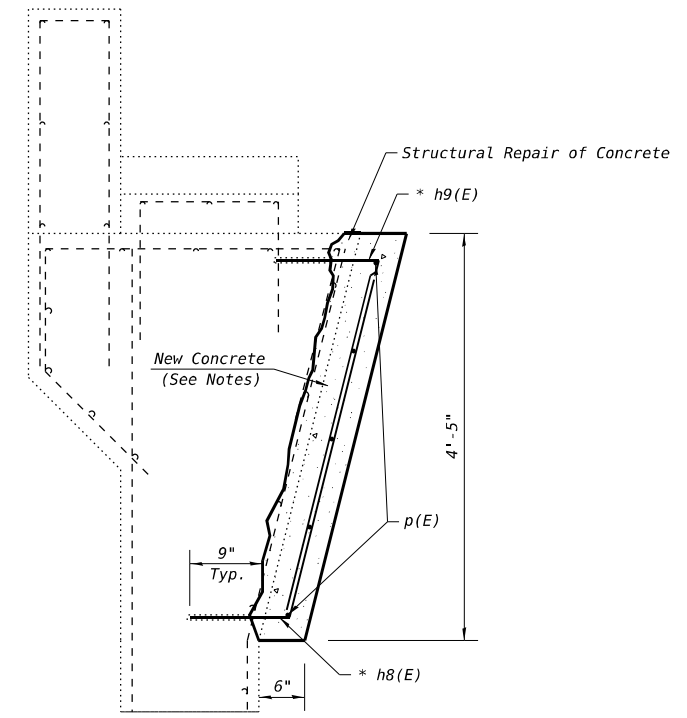
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ELEVATION
 (Looking South)



PLAN

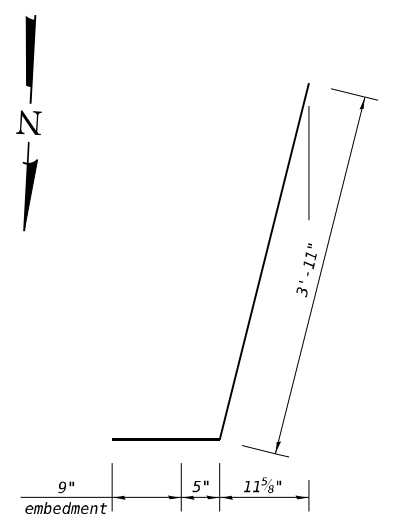


SECTION A-A

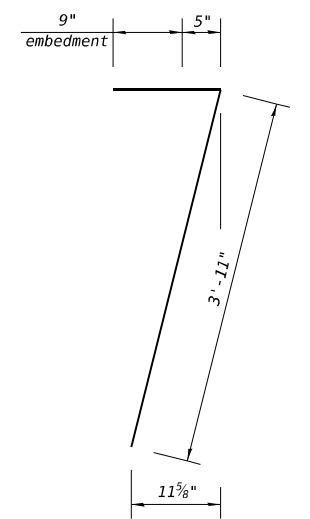
* Epoxy grout h8(E) & h9(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h8(E)	46	#5	5'-1"	J
h9(E)	46	#5	5'-1"	7
p(E)	10	#5	25'-2"	—
Reinforcement Bars, Epoxy Coated			Lbs.	750
Structural Repair of Concrete (Depth Equal to or Less Than 5 in.)			Sq. Ft.	208
Concrete Structures			Cu. Yd.	3.8



BAR h8(E)



BAR h9(E)

Notes:
 All loose and deteriorated concrete shall be removed. The entire face and exposed rebar shall be blast cleaned. All exposed reinforcement bars shall be cleaned, straightened, and incorporated into the new construction. This work will be done, measured, and paid for as Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) except that it will not be necessary to replace existing reinforcement bars that have been cut or have lost 25 percent or more of their original cross sectional areas.
 The deteriorated areas of concrete shall be poured back monolithically with the Concrete Structures facade.
 The cost of drilling and grouting reinforcement bars is included with the cost of Structural Repair of Concrete (Depth Equal to or Less Than 5 in.).



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PLOT DATE = 11/29/2022	DRAWN AF	REVISED -
	CHECKED KF	REVISED -

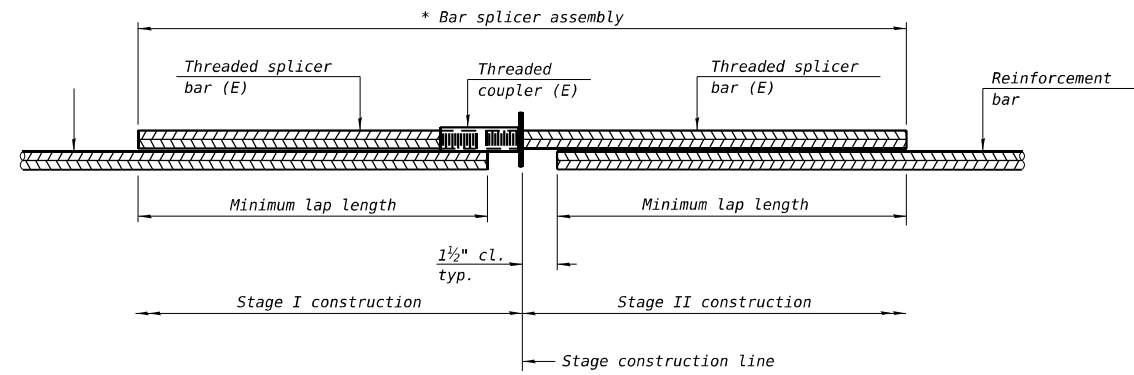
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS – SO. ABUTMENT
S.N. 090-0129

SHEET 8 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	24
CONTRACT			68H15	
ILLINOIS FED. AID PROJECT				

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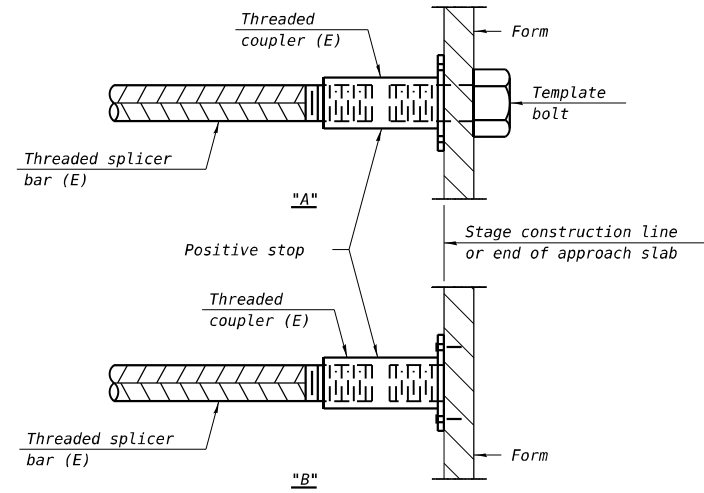


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

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

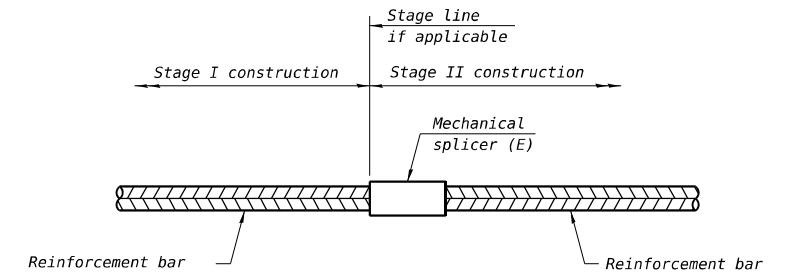
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
No. Abut. (-0128)	#5	8	4'-11"
No. Abut. (-0128)	#6	4	5'-11"
So. Abut. (-0128)	#5	8	4'-11"
So. Abut. (-0128)	#6	4	5'-11"
No. Abut. (-0129)	#5	8	4'-11"
No. Abut. (-0129)	#6	4	5'-11"
So. Abut. (-0129)	#5	8	4'-11"
So. Abut. (-0129)	#6	4	5'-11"



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

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 1-1-2020



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PLOT SCALE = 0.167' / in.	CHECKED KF	REVISED -
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	CHECKED KF	REVISED -

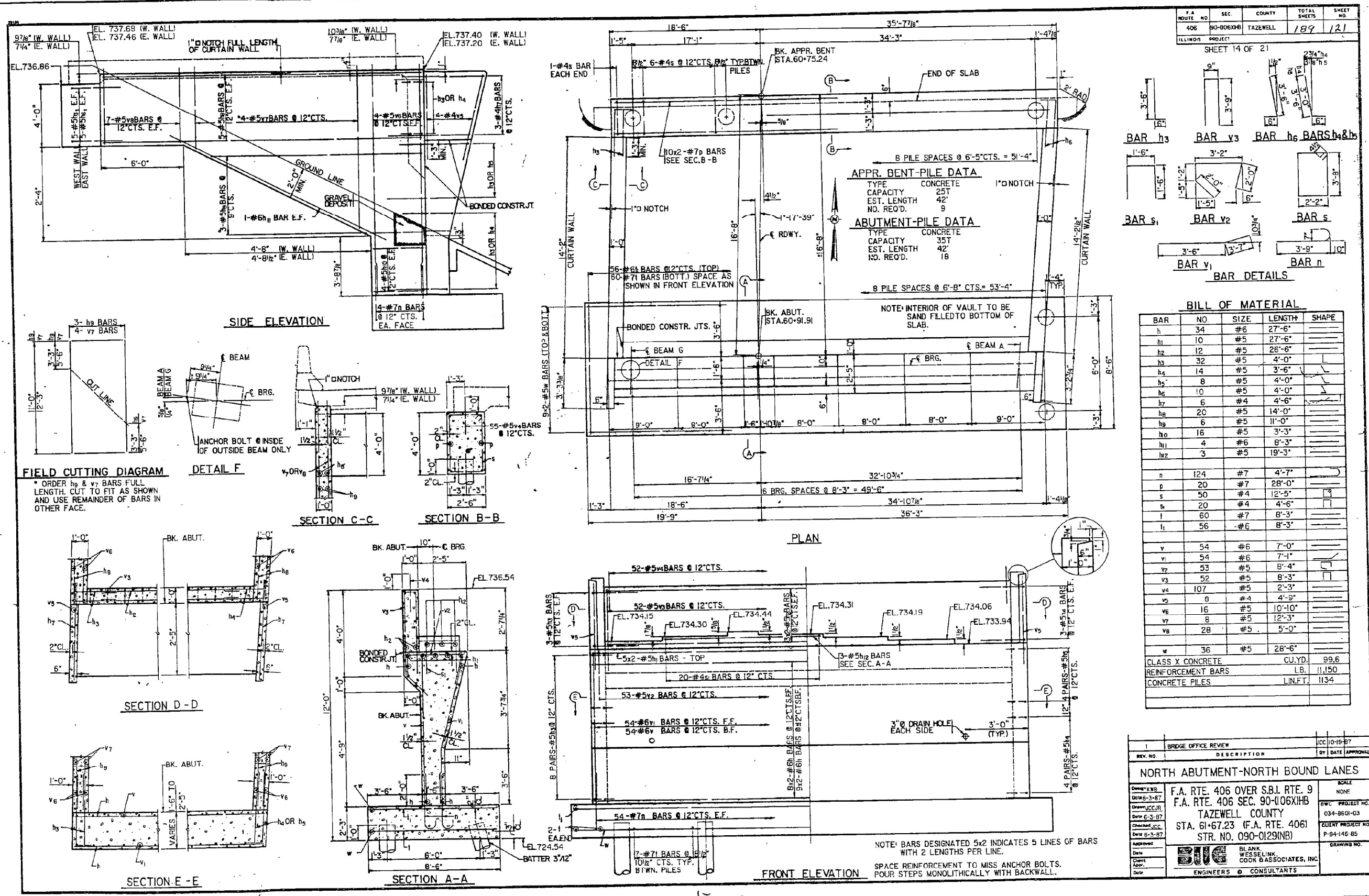
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
 S.N. 090-0128 & 090-0129

SHEET 9 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	25
CONTRACT			68H15	
ILLINOIS		FED. AID PROJECT		

FOR INFORMATION ONLY



REV. NO.	DESCRIPTION	DATE	APPROVAL
1	BRIDGE OFFICE REVIEW	10-15-87	

NORTH ABUTMENT-NORTH BOUND LANES

DRAWN BY: [Signature]
 DATE: 6-3-87
 CHECKED BY: [Signature]
 DATE: 6-3-87

APPROVED BY: [Signature]
 DATE: []

SCALE: NONE
 PROJECT NO.: 034-8501-03
 CLIENT PROJECT NO.: P-94-146-85
 DRAWING NO.: []

BLANK WESSELINK COOK & ASSOCIATES, INC.
 ENGINEERS & CONSULTANTS

MODEL: D:\default\...
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 PROJECT: ...
 SHEET: 21 OF 21
 DATE: 11/29/2022



USER NAME = brennar
 DESIGNED -
 DRAWN - CM
 CHECKED - BR
 DATE - 11/29/2022

DESIGNED -
 DRAWN - CM
 CHECKED - BR
 DATE -

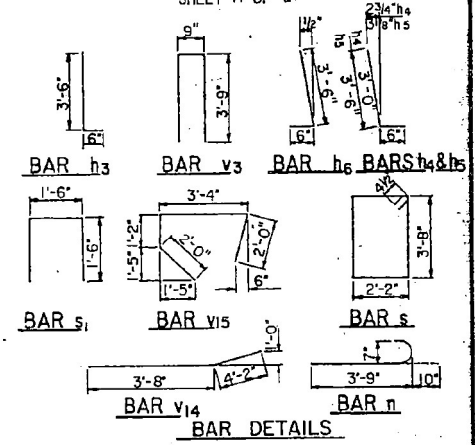
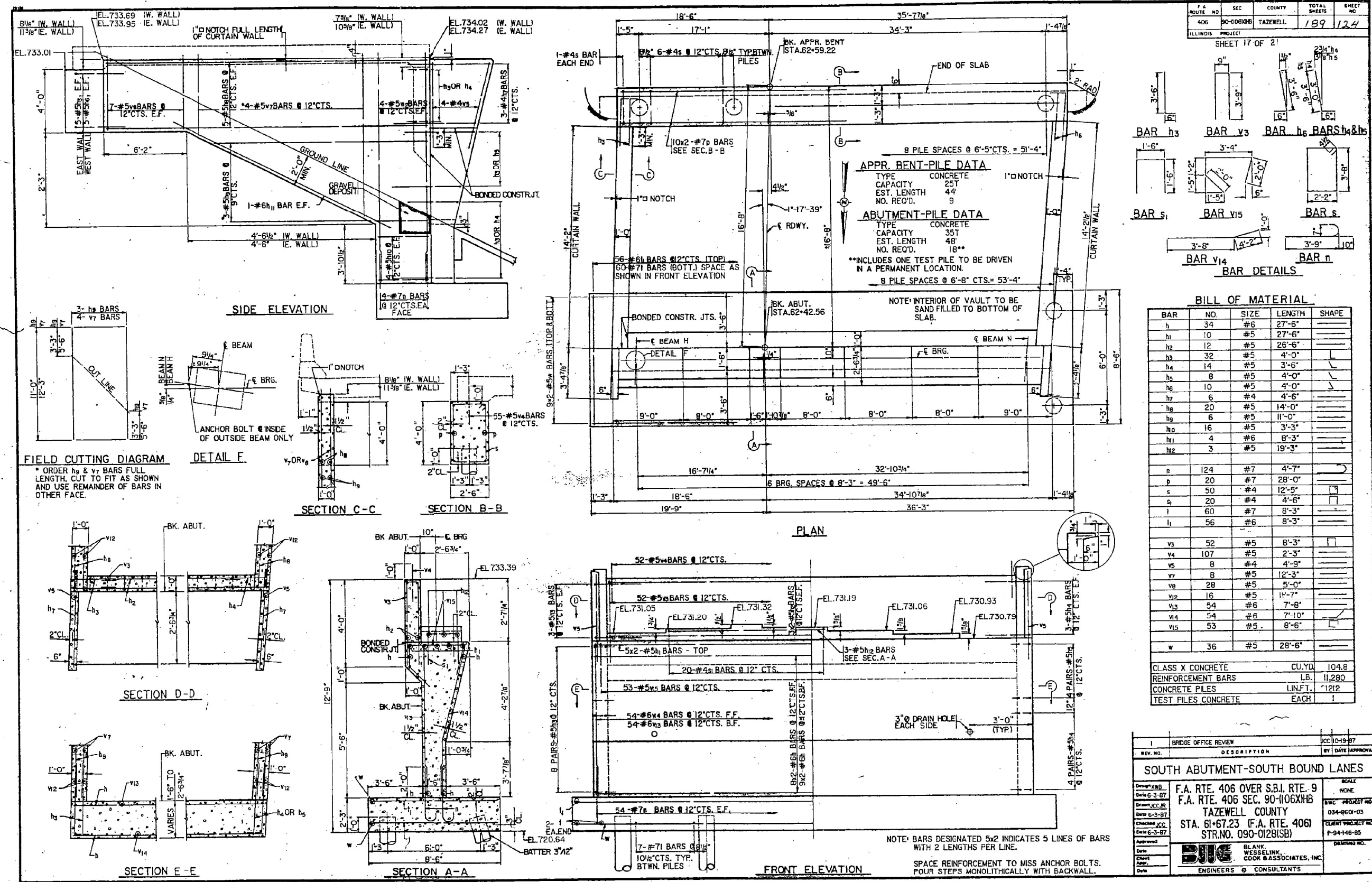
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EX NORTH ABUT PLAN - NB LANES
 S.N. 090-0128 & 090-0129
 SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

F.A. RTE. 155 SECTION 106X COUNTY TAZEWELL TOTAL SHEETS 29 SHEET NO. 26
 ILLINOIS FED. AID PROJECT CONTRACT NO. 68H15

FOR INFORMATION ONLY

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
406	90-106XHB	TAZEWELL	189	124
ILLINOIS PROJECT				



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h	34	#6	27'-6"	
h1	10	#5	27'-6"	
h2	12	#5	26'-6"	
h3	32	#5	4'-0"	
h4	14	#5	3'-6"	
h5	8	#5	4'-0"	
h6	10	#5	4'-0"	
h7	6	#4	4'-6"	
h8	20	#5	14'-0"	
h9	6	#5	11'-0"	
h10	16	#5	8'-3"	
h11	4	#6	8'-3"	
h12	3	#5	19'-3"	
n	124	#7	4'-7"	
p	20	#7	28'-0"	
s	50	#4	12'-5"	
s1	20	#4	4'-6"	
i	60	#7	8'-3"	
l1	56	#6	8'-3"	
v3	52	#5	8'-3"	
v4	107	#5	2'-3"	
v5	8	#4	4'-9"	
v7	8	#5	12'-3"	
v8	28	#5	5'-0"	
v12	16	#5	14'-7"	
v13	54	#6	7'-8"	
v14	54	#6	7'-10"	
v15	53	#5	8'-6"	
w	36	#5	28'-6"	

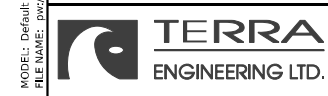
CLASS X CONCRETE	CU. YD.	104.8
REINFORCEMENT BARS	LB.	11,280
CONCRETE PILES	LIN. FT.	1212
TEST PILES CONCRETE	EACH	1

REV. NO.	DESCRIPTION	DATE	BY	DATE APPROVAL
1	BRIDGE OFFICE REVIEW	JCC 10-19-87		

SOUTH ABUTMENT-SOUTH BOUND LANES

Drawn: KBB	Date: 6-3-87	Scale: NONE
Drawn: C.C.R.	Date: 6-3-87	Proj. No: 034-8601-03
Checked: JCC	Date: 6-3-87	Client Project No: P-94-146-85
Appr: [Signature]	Date: [Date]	Drawn: [Name]

BLANK, WESSELINK, COOK & ASSOCIATES, INC.
ENGINEERS & CONSULTANTS



USER NAME	= brennar	DESIGNED	-	REVISED	-
DRAWN	- CM	DRAWN	- CM	REVISED	-
CHECKED	- BR	CHECKED	- BR	REVISED	-
DATE	-	DATE	-	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EX SOUTH ABUT PLAN - SB LANES
S.N. 090-0128 & 090-0129**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	106X	TAZEWELL	29	29
CONTRACT NO. 68H15				

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 DATE: 11/29/2022