F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	1
	ILLINOIS	CONTRACT NO. 66K70		

03-07-2025 LETTING ITEM 047

INDEX OF SHEETS

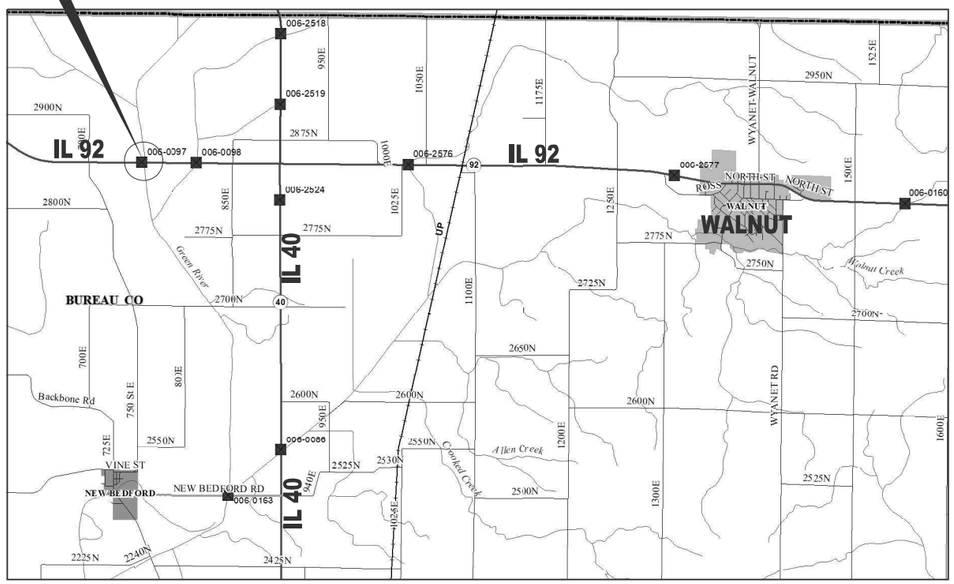
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAP ROUTE 587 (IL 92)
SECTION (135B-2)BRR
PROJECT
BRIDGE REPAIR PLANS SN 006-0097
BUREAU COUNTY

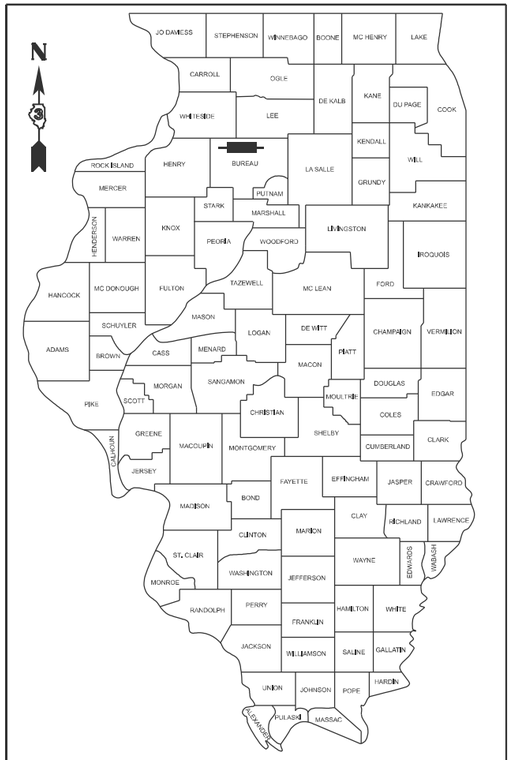
C93-098-24

PROJECT LOCATION
SPOT IMPROVEMENT
BRIDGE REPAIR SN 006-0097



LOCATION MAP
NOT TO
SCALE

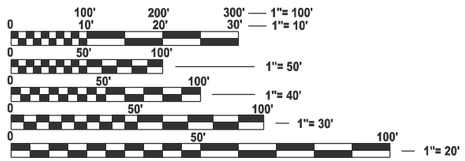
D93-060-24



LOCATION OF SECTION INDICATED THUS: -

FUNCTIONAL CLASSIFICATION
MAJOR COLLECTOR

ADT 2024 = 600 VEH
P.V. = 83% S.U. = 7% M.U. = 10%



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: DAVID ALEXANDER P.E.
UNIT CHIEF: DARCY MITCHELL

CONTRACT NO. 66K70

GROSS LENGTH = 349 FT. = 0.066 MILE
NET LENGTH = 349 FT. = 0.066 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 12, 2024
Trisha Thompson mrs
REGIONAL ENGINEER
January 31 20 25
ENGINEER OF DESIGN AND ENVIRONMENT
January 31 20 25
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
BINDER (HAND METHOD)	0.0005	TONS / SQ YD

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND AT NO EXPENSE TO THE DEPARTMENT. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE WILL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
643001-03	SAND MODULE IMPACT ATTENUATORS
701006-05	OFF-ROAD OPERATIONS 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE FOR SPEEDS ≥ 45 MPH
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
701321-19	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-10	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
780001-05	TYPICAL PAVEMENT MARKINGS
878001-11	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS

COMMITMENTS

TEMPORARY FENCE WILL BE INSTALLED AS DETAILED IN THE PLANS TO PROTECT WETLAND AREAS WITHIN THE PLAN LIMITS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

START & END DATES OF CONSTRUCTION:

INSPECTORS:

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USER NAME = scott.ferguson	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 12/11/2024	DATE -	REVISED -	

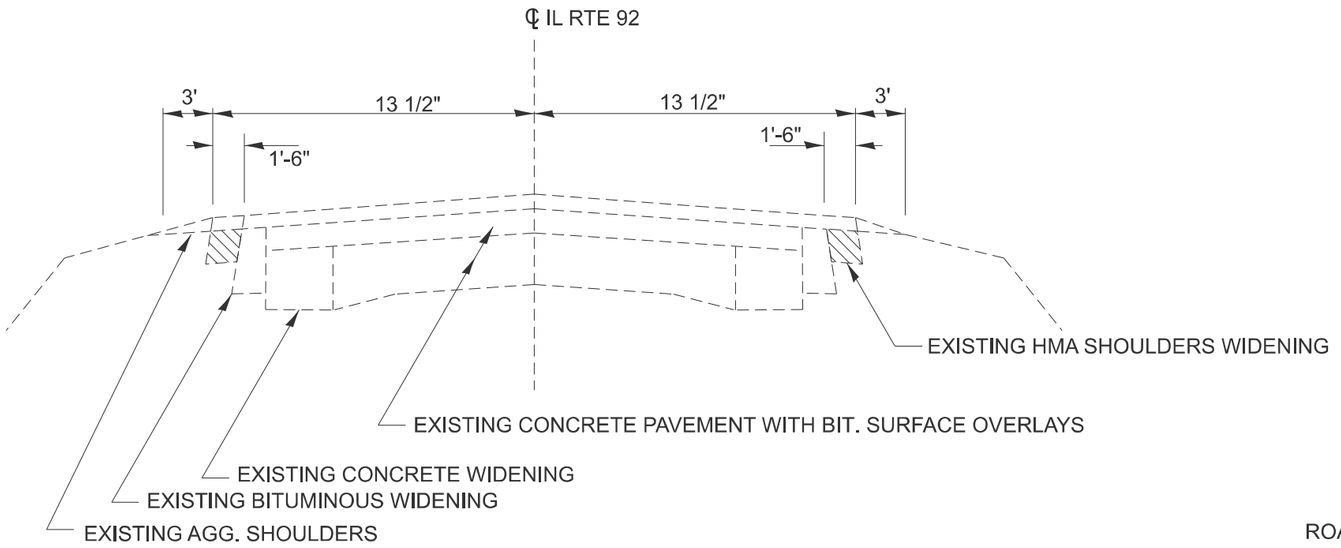
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, STANDARDS AND SIGNATURES

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

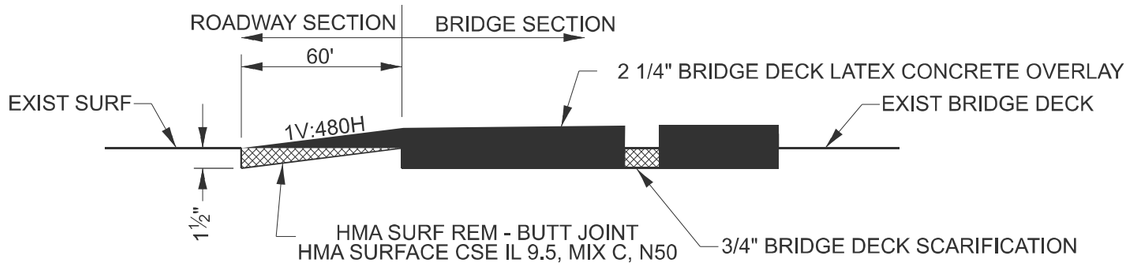
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	2
		CONTRACT NO. 66K70		
	ILLINOIS FED. AID PROJECT			

REV. 1/21/25

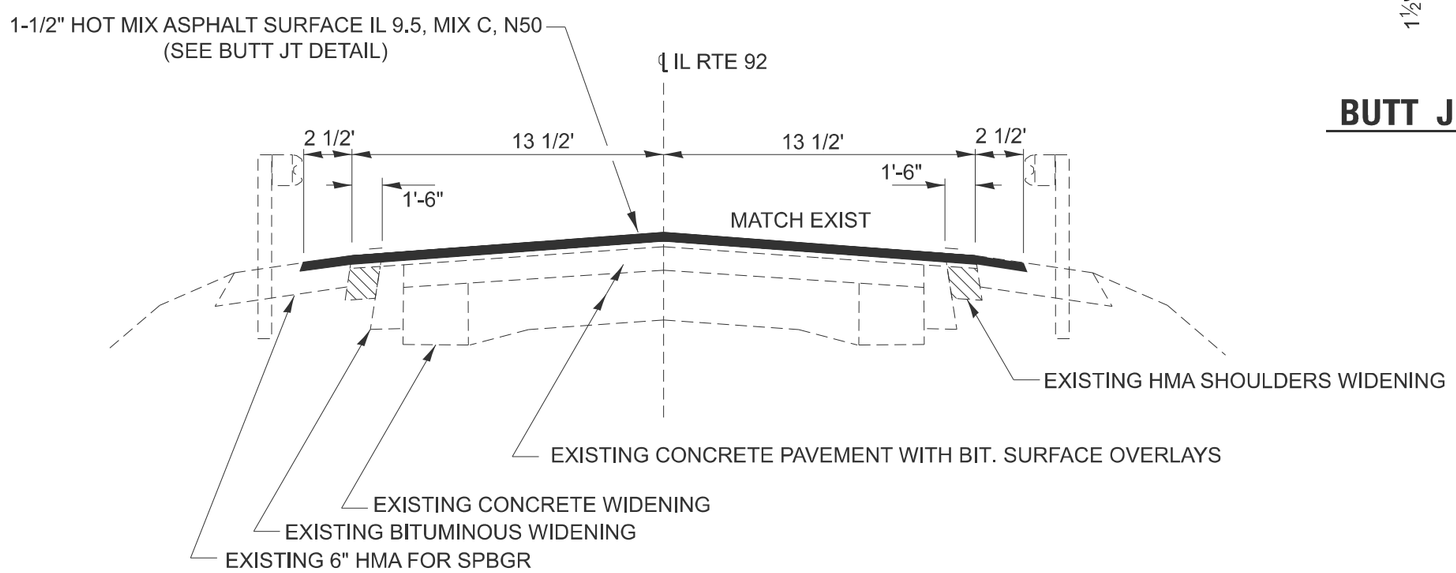


EXISTING TYPICAL SECTION IL 92

FOR INFORMATION ONLY



BUTT JOINT – NON INTERSTATE BRIDGE DECK OVERLAY



EXISTING TYPICAL SECTION THRU GUARDRAIL SECTION

STA. 384+21.14 TO STA 384+81.14
STA 387+10.34 TO STA 387+70.34

HMA MIXTURE REQUIREMENT TABLE	
LOCATONS:	ENTIRE PROJECT
MIXTURE USE(S):	HMA
	SURFACE
BINDER GRADE (PG):	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N50
MIXTURE COMPOSITION:	IL 9.5
(MIXTURE GRADATION)	
FRICTION AGGREGATE:	MIXTURE C
MIXTURE WEIGHT:	112.0 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QCQA
SUBLOT SIZE:	N/A
DENSITY TEST METHOD:	CORES/NUCLEAR
MATERIAL TRANSFER DEVICE (REQUIRED)	NO

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	CHECKED -	REVISED -	
PLOT DATE = 12/11/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	3
		CONTRACT NO. 66K70		
	ILLINOIS	FED. AID PROJECT		

CONSTR. CODE
100% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 S.N. 006-0097
20101000	TEMPORARY FENCE	FOOT	690	690
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	96	96
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	427	427
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	36	36
50102400	CONCRETE REMOVAL	CU YD	10.6	10.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	11.4	11.4
50300260	BRIDGE DECK GROOVING	SQ YD	760	760
50300300	PROTECTIVE COAT	SQ YD	833	833
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	300	300
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1550	1550
50800515	BAR SPLICERS	EACH	24	24
52000110	PREFORMED JOINT STRIP SEAL	FOOT	69	69
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12	12
52100520	ANCHOR BOLTS, 1"	EACH	28	28

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	CHECKED -	REVISED -
PLOT DATE = 12/13/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	4
		CONTRACT NO. 66K70		
	ILLINOIS	FED. AID PROJECT		

REV. 1/3/24

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 S.N. 006-0097
58700300	CONCRETE SEALER	SQ FT	1963	1963
59000200	EPOXY CRACK INJECTION	FOOT	120	120
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6
70400100	TEMPORARY CONCRETE BARRIER	FOOT	350	350
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	350	350
70600270	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	2	2
70600327	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	2	2
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1390	1390
* 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	180	180
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8	8

*= SPECIALTY ITEM

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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 12/11/2024	DATE -	REVISED -	

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	5
		CONTRACT NO. 66K70		
	ILLINOIS FED. AID PROJECT			

REV. 1/21/25 REV. 1/3/24

	CONSTR. CODE
	100% STATE

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 S.N. 006-0097
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	14	14
	X0325747	BRIDGE DECK CONCRETE CRACK SEALER	FOOT	56	56
	X5030530	FLOOR DRAIN EXTENSION	EACH	20	20
	X5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1
	X5060700	CLEANING AND PAINTING BEARINGS	EACH	12	12
	X6350204	LINEAR DELINEATOR PANELS, 4 INCH	EACH	6	6
	Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	5	5
	Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	12	12
	Z0001905	STRUCTURAL STEEL REPAIR	POUND	950	950
	Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	787	787
	Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	787	787
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	30	30
	Z0015500	DEBRIS REMOVAL	L SUM	1	1
	Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	5	5

*= SPECIALTY ITEM

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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 12/11/2024	DATE -	REVISED -	

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	6
		CONTRACT NO. 66K70		
	ILLINOIS	FED. AID PROJECT		

REV. 1/21/25 REV. 1/3/24

CONSTR. CODE
100% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 S.N. 006-0097
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	42	42
Z0065700	SLOPE WALL REPAIR	SQ YD	11	11
Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	14.2	14.2

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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 12/11/2024	DATE -	REVISED -	

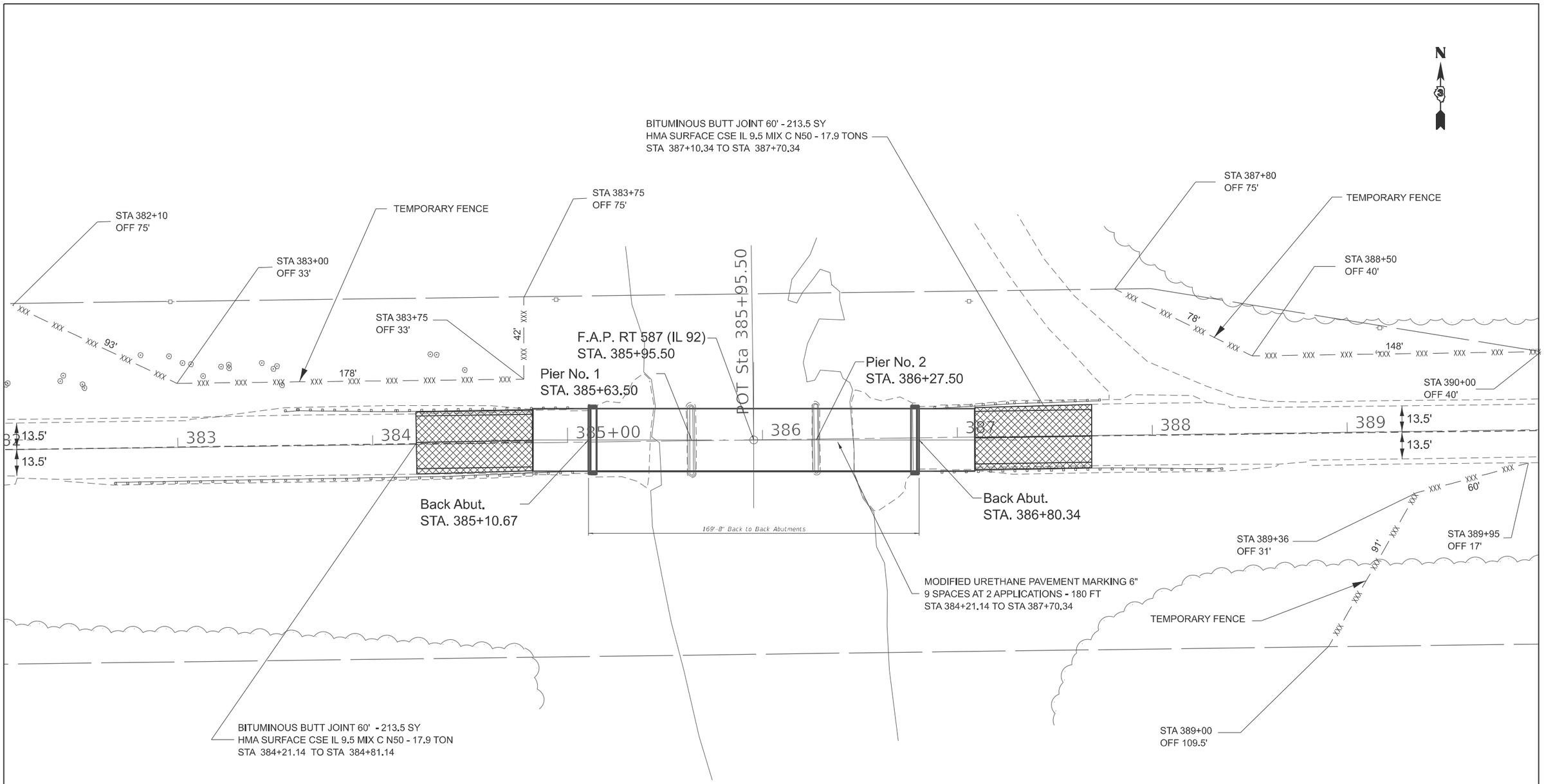
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	7
		CONTRACT NO. 66K70		
	ILLINOIS FED. AID PROJECT			

REV. 1/21/25REV. 1/3/24



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	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 12/11/2024	DATE -	REVISED -	

ROADWAY PLAN SHEET

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	8
		CONTRACT NO. 66K70		
	ILLINOIS	FED. AID PROJECT		

SEE STD 701321 FOR
REMAINING SIGNING
AND RUMBLE STRIP
LOCATIONS

N

60'

180' (12:1 TAPER OVER 15')

50'

15'

381

382

383

384

385+00

386+00

13.5'

13.5'

10'

12.75'

14.8'

16' 7/8"

13' - 2 3/8"

2'-10 1/2"

MATCHLINE 386+00

90'

40'

386

387

388

389

390+00

13.5'

13.5'

25'

65'

50'

180' (12:1 TAPER OVER 15')

MATCHLINE 386+00

SEE STD 701321 FOR
REMAINING SIGNING
AND RUMBLE STRIP
LOCATIONS

DOUBLE VERTICAL PANEL

TYPE III BARICADE W' FLASHING LIGHTS

TRAFFIC SIGNAL

SIGN

CRYSTAL BIDIRECTIONAL
GUARDRAIL/BARRIER WALL REFLECTOR

TEMPORARY CONCRETE BARRIER

DRUM W' STEADY BURNING
BI-DIRECTIONAL LIGHT

IMPACT ATTENUATOR

DETECTOR LOOP

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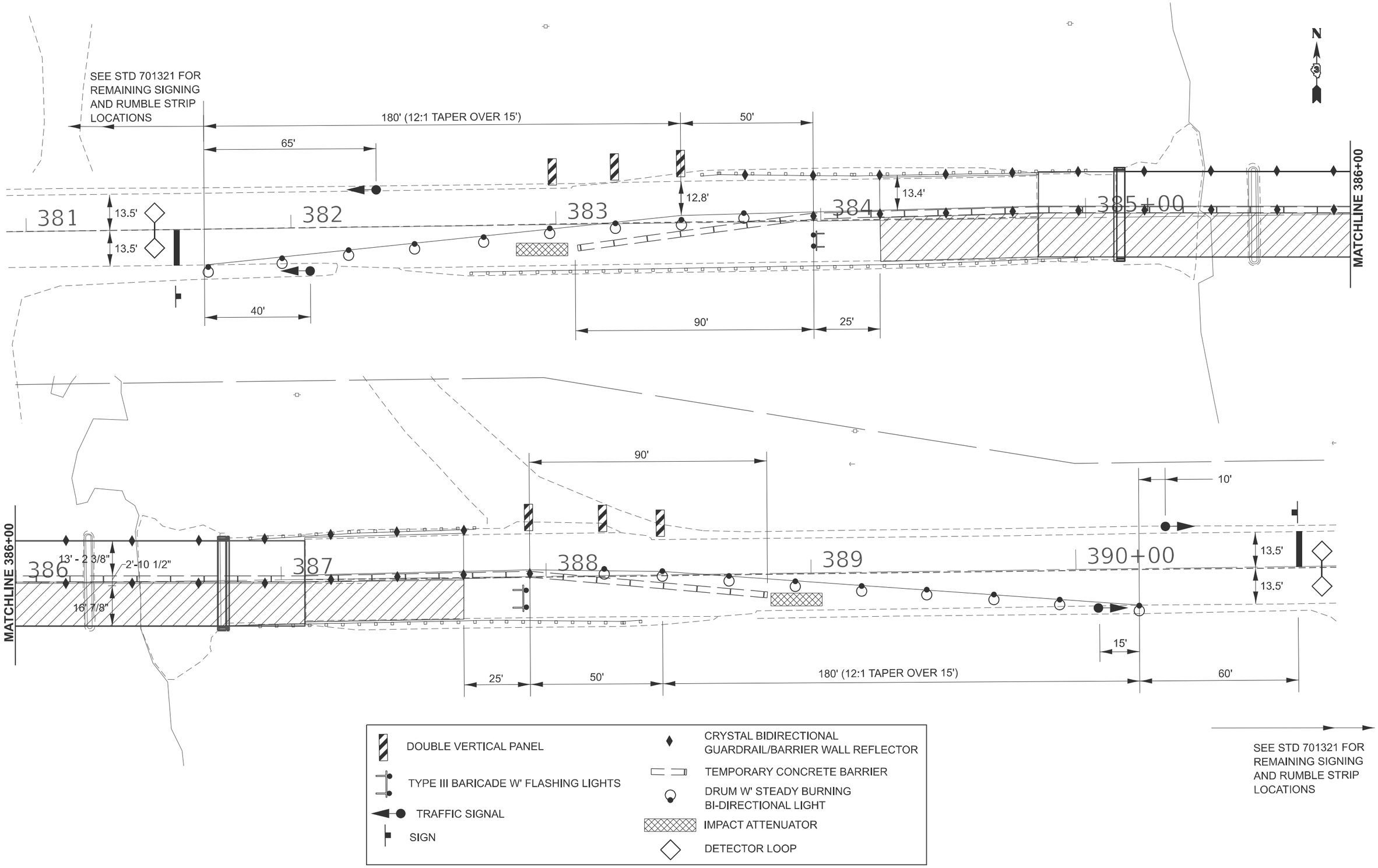
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/11/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1 CONSTRUCTION PLAN

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	9
		CONTRACT NO. 66K70		
	ILLINOIS	FED. AID PROJECT		



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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/11/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION PLAN

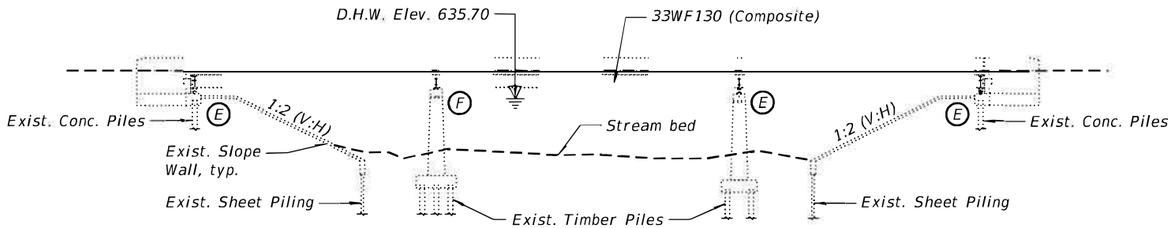
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	10
		CONTRACT NO. 66K70		
	ILLINOIS FED. AID PROJECT			

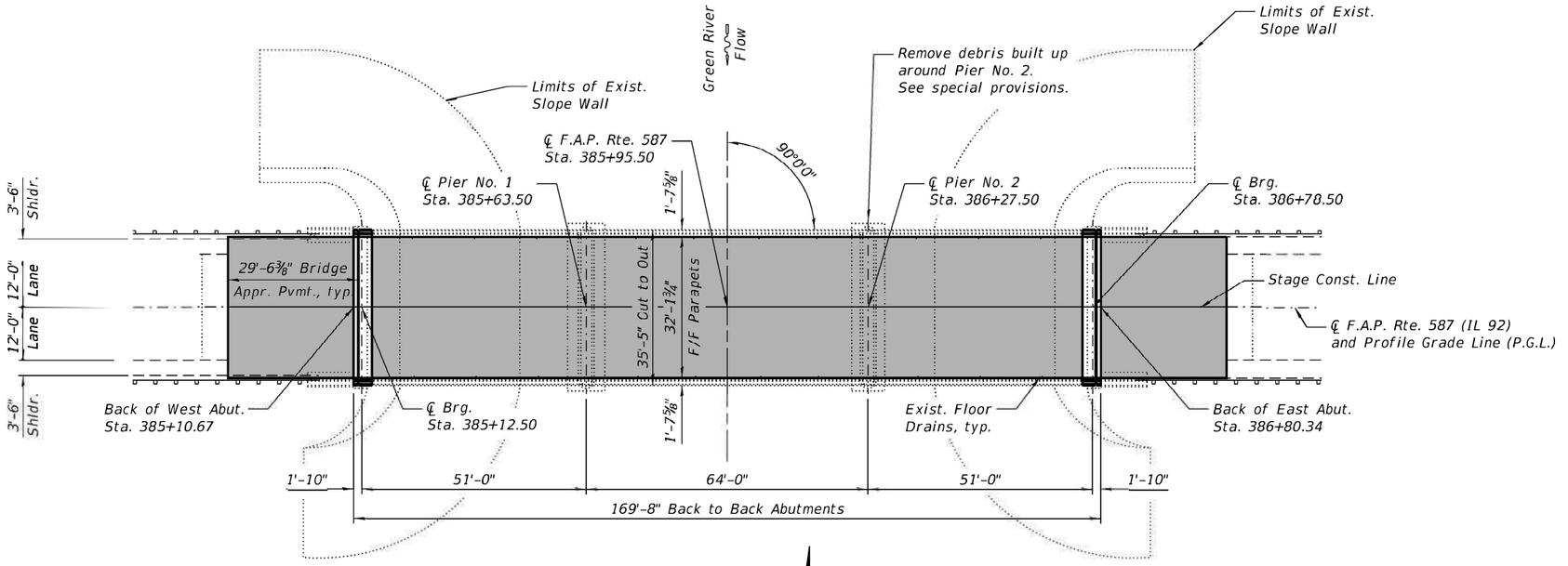
Existing Structure: S.N. 006-0097 was originally constructed in 1958 as Section 135-BR. In 1999, the existing deck was replaced, and the abutments and wingwalls were modified. The structure is a three span continuous R.C. deck slab that is composite with the wide-flange, steel I-beam stringers, supported by spill-thru abutments on concrete piles, and solid wall piers on spread footings supported by untreated timber piles. The back-to-back abutment length measures 169'-8" and the out-to-out deck measures 35'-5". The span lengths are 51'-0", 64'-0", and 51'-0". No skew.

One lane of bi-directional traffic shall be maintained utilizing stage construction.

No Salvage.



ELEVATION
(Looking North)



PLAN

N

LEGEND

Limits of Bridge Deck Scarification ¾", Bridge Deck Latex Concrete Overlay, 2¼"

SCOPE OF WORK

1.) *Maintain one lane of bi-directional traffic utilizing stage construction.*
2.) *Scarification of approach slabs and bridge deck for latex concrete overlay.*
3.) *Repair of bridge deck and approach slabs.*
4.) *Repair existing parapets.*
5.) *Replace existing expansion joints with Preformed Joint Strip Seals.*
6.) *Replace existing elastomeric bearings at abutments.*
7.) *Extend floor drains below bottom flange of beams.*
8.) *Repair South fascia beam, near Pier 1, in Span 2.*
9.) *Repair of East abutment.*
10.) *Repair West face of Pier 1.*
11.) *Repair existing slope walls.*
12.) *Debris removal from river at Pier 2.*

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

EXISTING DESIGN STRESSES

FIELD UNITS (1958):

f'c	=	3,500 psi (Superstructure)
f'c	=	2,000 psi (Substructure)
fy	=	40,000 psi (Reinforcement)
fy	=	33,000 psi (Structural Steel)

FIELD UNITS (1999):

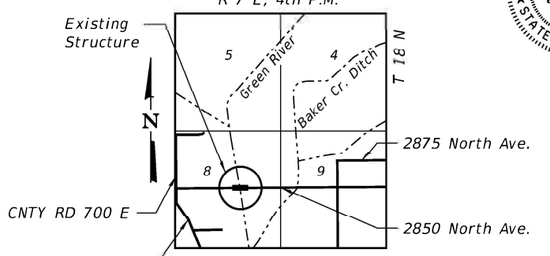
f'c	=	3,500 psi
fy	=	60,000 psi (Reinforcement)
fy	=	36,000 psi (Structural Steel)

PROPOSED DESIGN STRESSES

FIELD UNITS:

f'c	=	3,500 psi
f'c	=	4,000 psi (Superstructure)
fy	=	60,000 psi (Reinforcement)

LOADING HS20-44



LOCATION SKETCH

LICENSED STRUCTURAL ENGINEER
VINCENT P. TABOR
081-007047
STATE OF ILLINOIS

Vincent P. Tabor 11/20/2024

Vincent P. Tabor Date
Licensed Structural Engineer
State of Illinois No. 081-007047
Expires 11/30/2026

F.A.P. RTE. 587 (IL 92) OVER GREEN RIVER - SEC. (135B-2)ES BUREAU COUNTY STATION 385+95.50 STRUCTURE NO. 006-0097

Farnsworth GROUP
2709 McGRAW DRIVE
BLOOMINGTON, ILLINOIS 61704
(309) 663-8435 / info@f-w.com

	DESIGNED - EMW	REVISED
	CHECKED - VPT	REVISED
	DRAWN - EMW	REVISED
DATE - 11/20/2024	CHECKED - VPT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

SHEET NO. 1 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	11
		CONTRACT NO. 66K70		
	ILLINOIS			

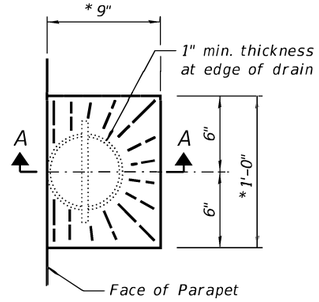
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	10.6
Concrete Superstructure	Cu. Yd.	11.4
Bridge Deck Grooving	Sq. Yd.	760
Protective Coat	Sq. Yd.	833
Furnishing and Erecting Structural Steel	Pound	300
Reinforcement Bars, Epoxy Coated	Pound	1,550
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	69.0
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1"	Each	28
Concrete Sealer	Sq. Ft.	1,963
Epoxy Crack Injection	Foot	120
Bridge Deck Concrete Crack Sealer	Foot	56
Floor Drain Extension	Each	20
Cleaning and Painting Bearings	Each	12
Approach Slab Repair (Partial Depth)	Sq. Yd.	5
Jack and Remove Existing Bearings	Each	12
Structural Steel Repair	Pound	950
Bridge Deck Latex Concrete Overlay, 2 1/4 Inches	Sq. Yd.	787
Bridge Deck Scarification 3/4"	Sq. Yd.	787
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	30
Debris Removal	L. Sum	1
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	5
Slope Wall Repair	Sq. Yd.	11
Slope Wall Slurry Pumping	Cu. Yd.	14.2

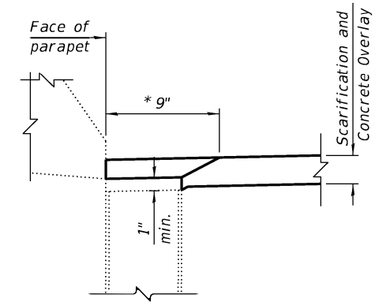
GENERAL NOTES:

1.) All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
2.) Fasteners shall be ASTM F3125 Grade A325 Type 1. Fasteners shall be hot-dip galvanized. See Special Provisions for Hot-Dip Galvanizing for Structural Steel. Bolts ¾" ∅, holes $^{13}/_{16}$" ∅, unless otherwise noted.
3.) Reinforcement bars designated (E) shall be epoxy coated.
4.) Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or detrimental foreign material shall be removed from the surfaces in contact with concrete (SSPC-SP3 standards). 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 paid for according to Article 109.04 of the Standard Specifications. This work will not be paid for separately, but shall be included in the cost of the work for which it is required.
5.) Plan dimensions and details relative to the existing structure have been taken from existing plans and 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 variation shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
6.) Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel or Structural Steel Repair.
7.) Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision Cleaning and Painting Contact Surface Areas of Existing Steel Structures and the Standard Specifications.
8.) No field welding is permitted except as specified in the contract documents.
9.) All new steel shall be hot-dip galvanized. See Special Provisions for Hot-Dip Galvanizing for Structural Steel.
10.) 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 at the contractor's expense.
11.) Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
12.) The Engineer shall show actual locations and size of deck repairs on As-built Plans.
13.) If the analysis submitted by the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.
14.) Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.
15.) Protective Coat shall only be applied to new concrete areas, including the deck and parapet at the joint replacement, and the top surface of the Latex Concrete Overlay. Protective Coat shall also be applied to the finished surfaces of all concrete repairs to the parapets.
16.) Concrete Sealer shall be applied according to Section 587 of the Standard Specifications to the existing top and inside vertical faces of the parapets, end posts, and wings; all exposed faces of the abutments and wingwalls; and pier repairs.
17.) The Contractor may request copies of existing construction plans that are currently on file with the Department. The request shall be in writing with the understanding that any reproduction cost will be at the Contractor's expense at no additional cost to the Department.
18.) Existing plans detailing the 1999 rehabilitation and repairs had been drawn using Metric Units. Dimensions in these plans have been converted to U.S. Survey Feet, and have typically been rounded to the ⅛".

* Slope to Drain. Cost included in Bridge Deck Latex Concrete Overlay, 2¼".

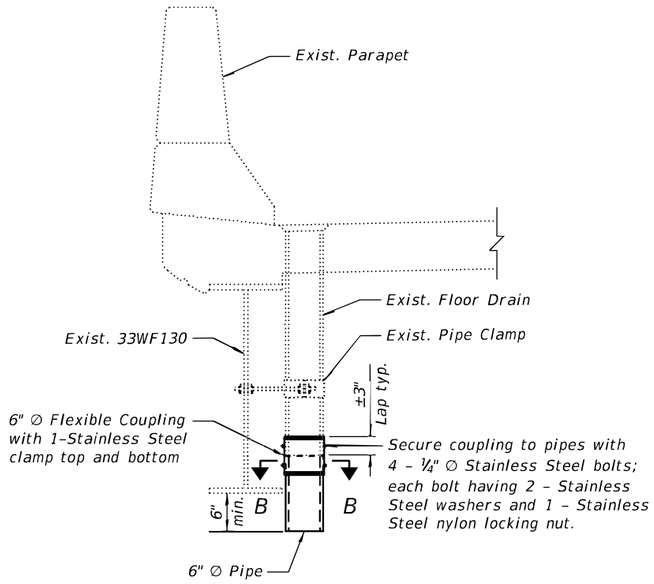


PLAN

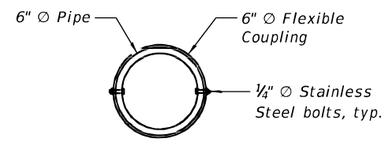


SECTION A-A

FLOOR DRAIN DETAILS



FLOOR DRAIN EXTENSION



SECTION B-B

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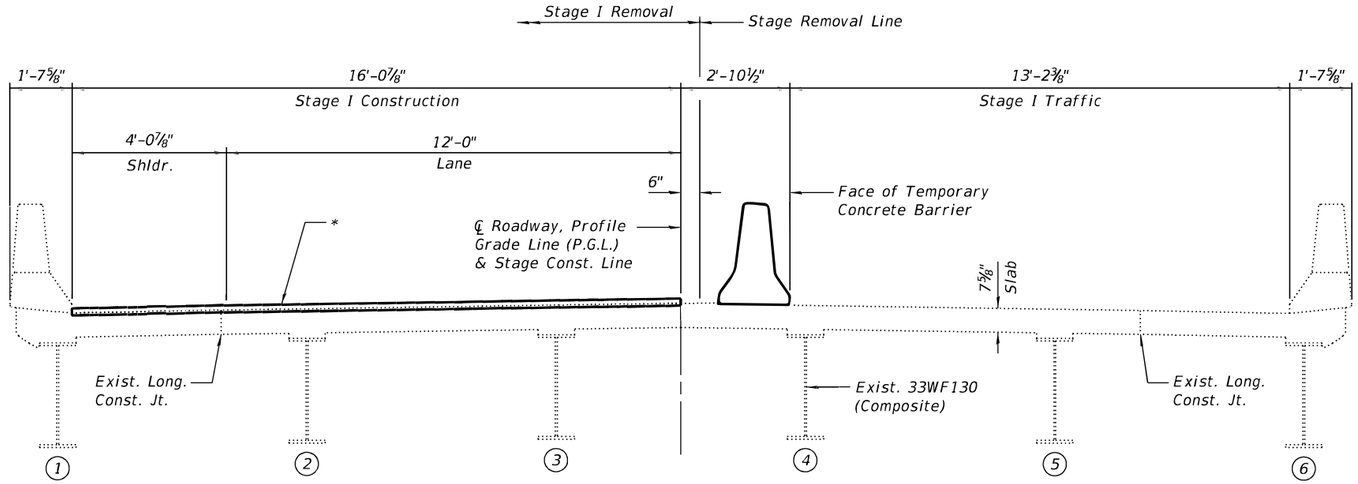
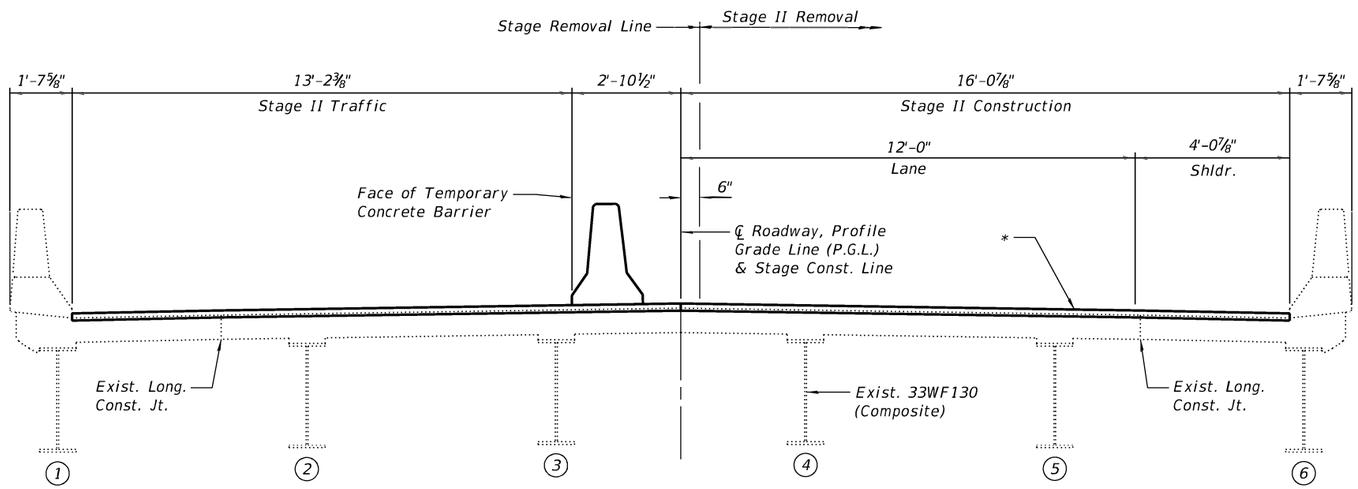
GENERAL DATA & MISCELLANEOUS DETAILS
STRUCTURE NO. 006-0097
SHEET NO. 2 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	12
		CONTRACT NO. 66K70		
	ILLINOIS			



STAGE I CONSTRUCTION

(Looking East)



STAGE II CONSTRUCTION

(Looking East)

NOTES:

1.) *Bridge Deck Scarification ¾" and Bridge Deck Latex Concrete Overlay, 2¼".

2.) See Sheet 4 of 17 for Temporary Concrete Barrier.

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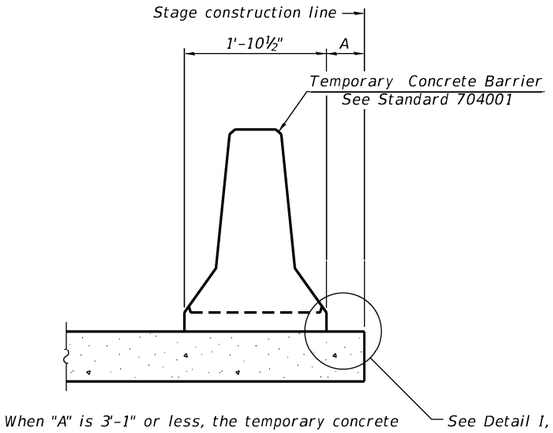
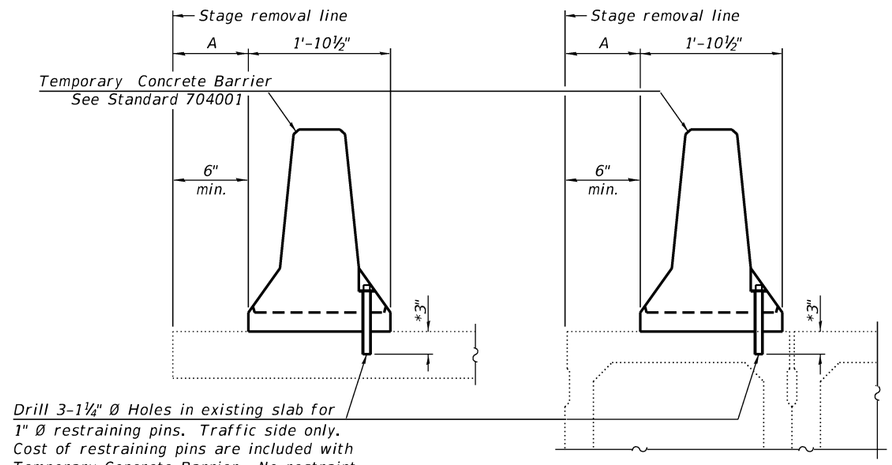
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 006-0097
SHEET NO. 3 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	13
		CONTRACT NO. 66K70		
	ILLINOIS			



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

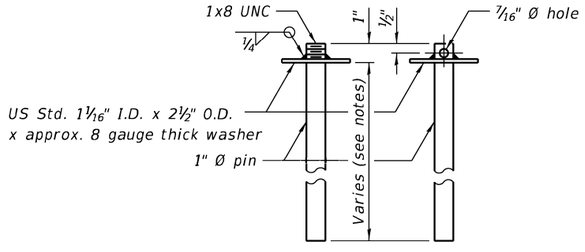


Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

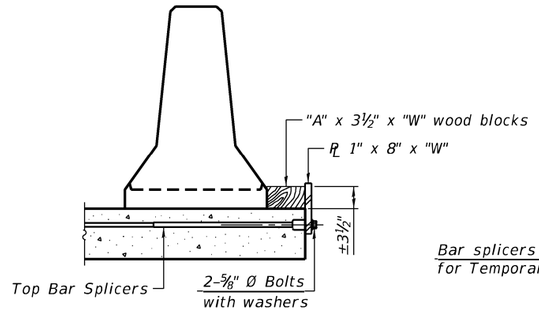
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

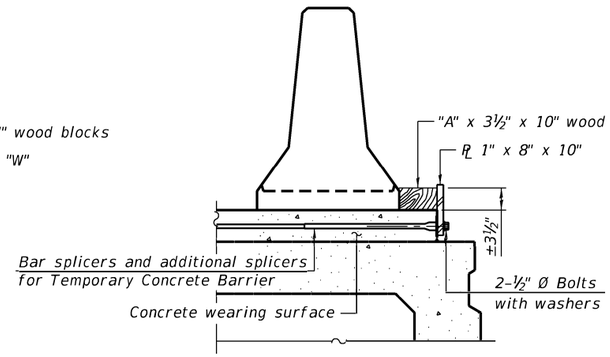


RESTRAINING PIN

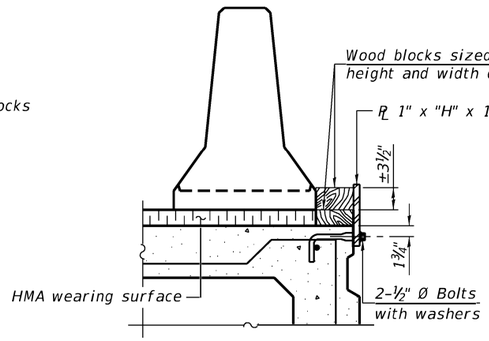
SECTIONS THRU SLAB OR DECK BEAM



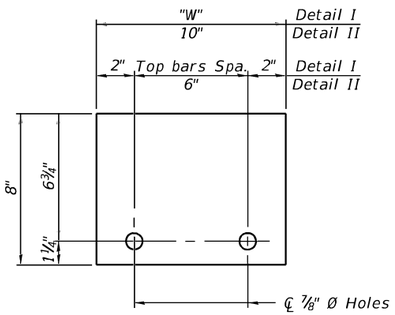
DETAIL I



DETAIL II

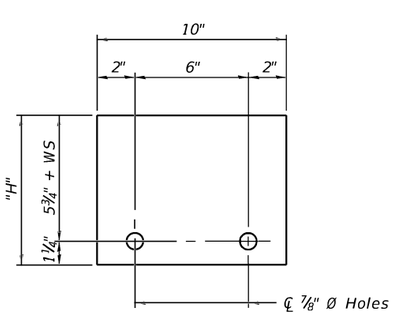


DETAIL III



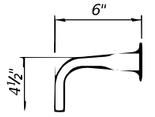
STEEL RETAINER PL 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER PL 1" x "H" x 10"

(Detail III)



BAR SPLICER FOR #4 BAR - DETAIL III

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 5-15-23

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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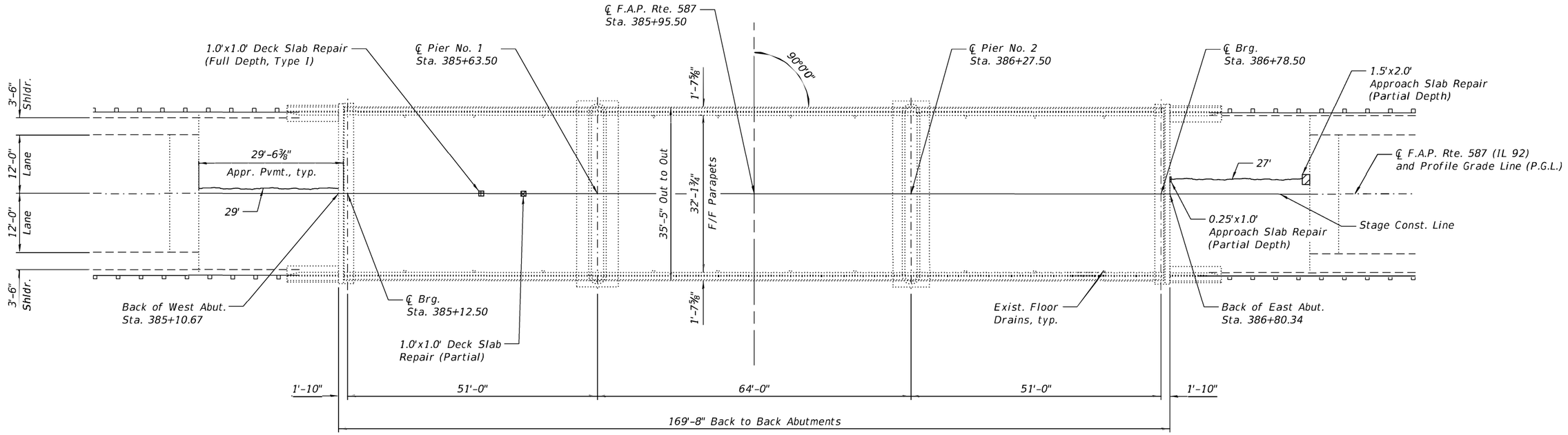
TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 006-0097
SHEET NO. 4 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	14
		CONTRACT NO. 66K70		
	ILLINOIS			



PLAN

N

LEGEND

L.F.	Bridge Deck Concrete Crack Sealer
	Approach Slab Repair (Partial Depth)
	*Deck Slab Repair (Partial)
	Deck Slab Repair (Full Depth, Type I)

BILL OF MATERIAL

Item	Unit	Total
Bridge Deck Concrete Crack Sealer	Foot	56
Approach Slab Repair (Partial Depth)	Sq. Yd.	5
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	5

NOTES:

1.) The repair areas shown are estimated based on a field inspection conducted in February 2024. The actual repair areas required shall be verified according to the special provisions, and documented by the Engineer on the As Built plan sheet.

2.) *Areas of Deck Slab Repair (Partial) are for information only. Cost included with Bridge Deck Latex Concrete Overlay, 2¼".

3.) Quantities displayed in the Bill of Material with units of Sq. Yd. have been increased beyond the areas indicated in the Plan view shown on this sheet in order to provide a minimum of 5 Sq. Yd. for the purpose of establishing a unit price.

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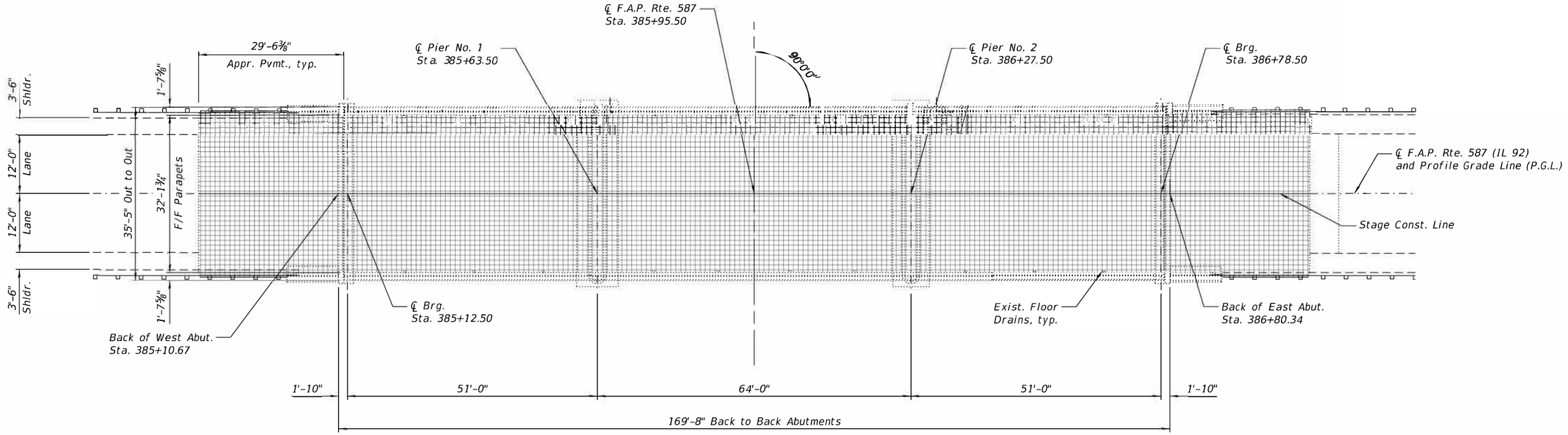
DECK AND APPROACH SLAB REPAIRS
STRUCTURE NO. 006-0097
SHEET NO. 5 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	15
		CONTRACT NO. 66K70		
	ILLINOIS			



PLAN

N

NOTES:

1.) The Engineer shall record the actual locations and size of deck slab and approach slab repair areas on this sheet.
2.) The reference grid was drawn in 1' transverse and longitudinal increments.

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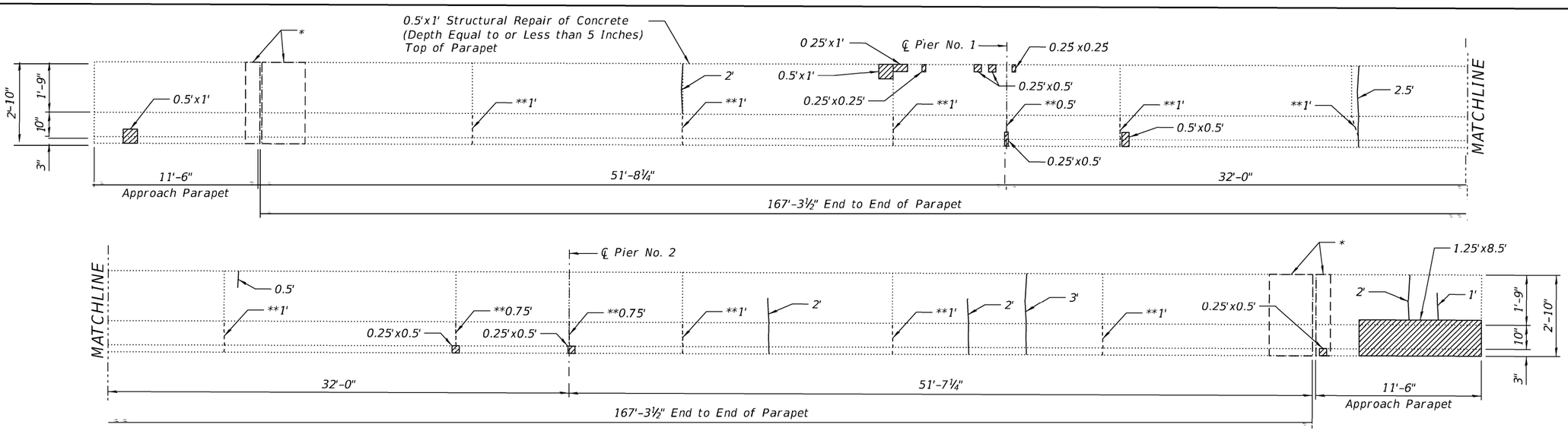
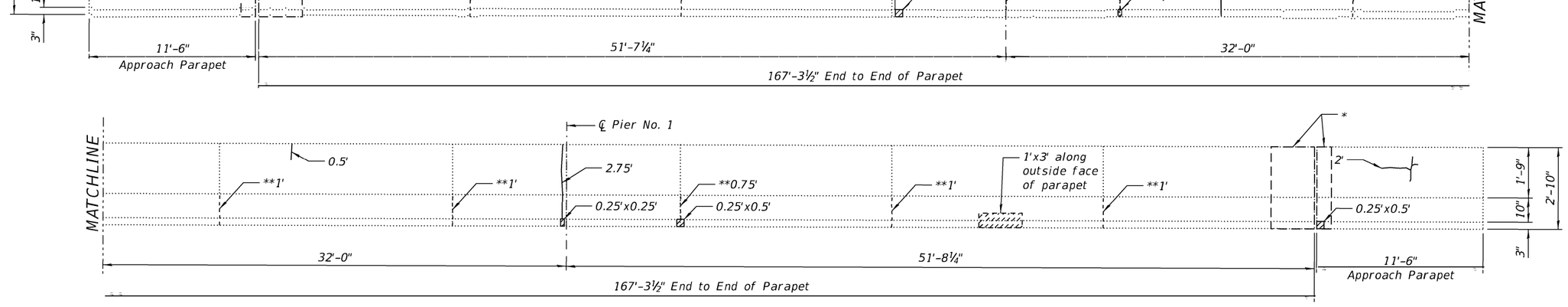
DECK AND APPROACH SLAB REPAIRS – AS BUILT
STRUCTURE NO. 006-0097
SHEET NO. 6 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	16
		CONTRACT NO. 66K70		
	ILLINOIS			



ELEVATION – INSIDE FACE OF NORTH PARAPET

(Looking North)



ELEVATION – INSIDE FACE OF SOUTH PARAPET

(Looking South)

LEGEND

L.F. **Rout and Seal Crack

L.F. Epoxy Crack Injection

Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)

BILL OF MATERIAL

Item	Unit	Total
Epoxy Crack Injection	Foot	29
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	16

NOTES:

1.) The repair areas shown are estimated based on field inspections conducted in February 2024. The actual repair areas required shall be verified according to the special provisions.

2.) *Existing joint opening is 1¾" at 50° F at the West Abutment and 2¾" at 50° F at the East Abutment. See Joint Removal Details on Sheet 8 of 17.

3.) **Rout and clean existing cracks in accordance with the applicable portions of Section 452 of the Standard Specifications. Fill with gray Polyurethane Joint Sealant meeting the requirements of Section 1050.04. Lengths are for information only. Cost included with Concrete Removal.

4.) Concrete Sealer shall be applied according to Section 587 of the Standard Specifications to the existing top and inside vertical faces of the parapets, end posts, and wings.

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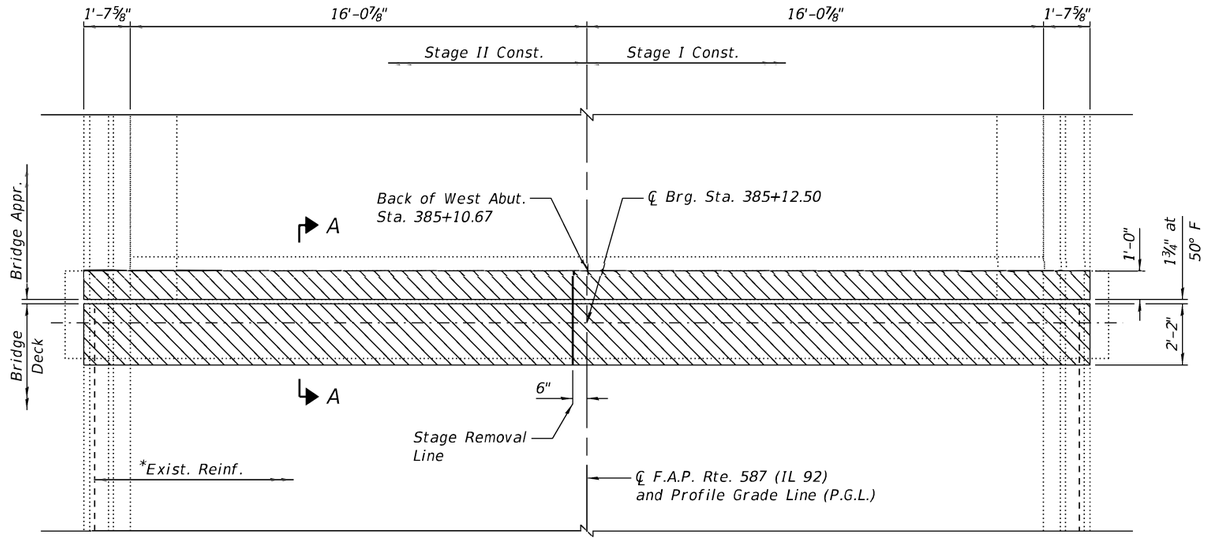
DEPARTMENT OF TRANSPORTATION

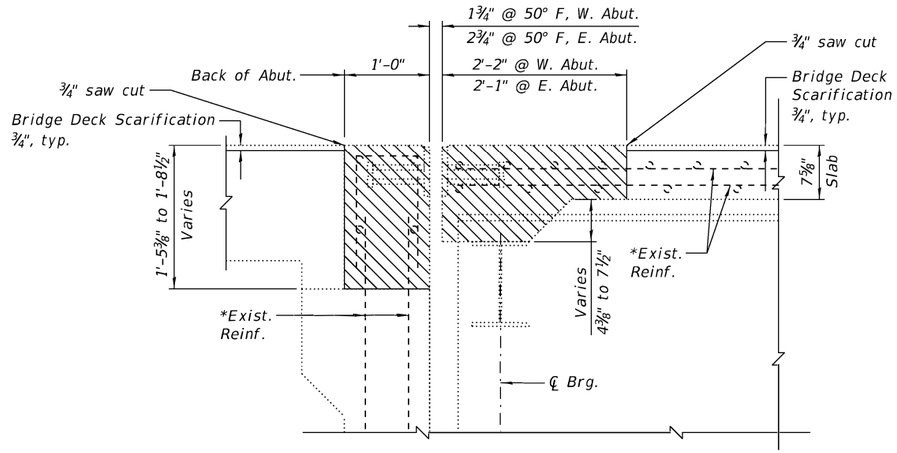
PARAPET REPAIR DETAILS
STRUCTURE NO. 006-0097

SHEET NO. 7 OF 17 SHEETS

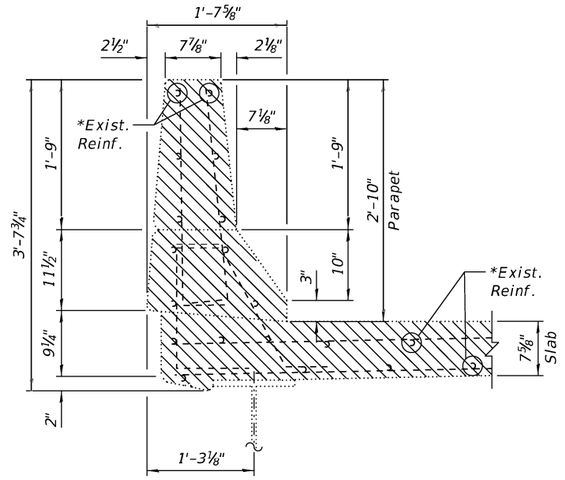
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	17
		CONTRACT NO. 66K70		
	ILLINOIS			



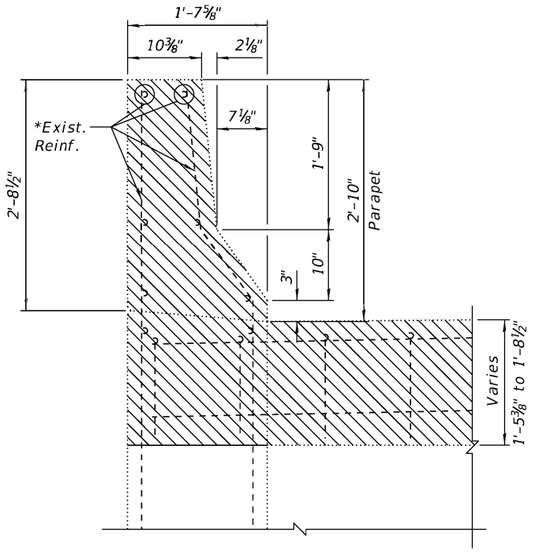
PLAN AT WEST ABUTMENT



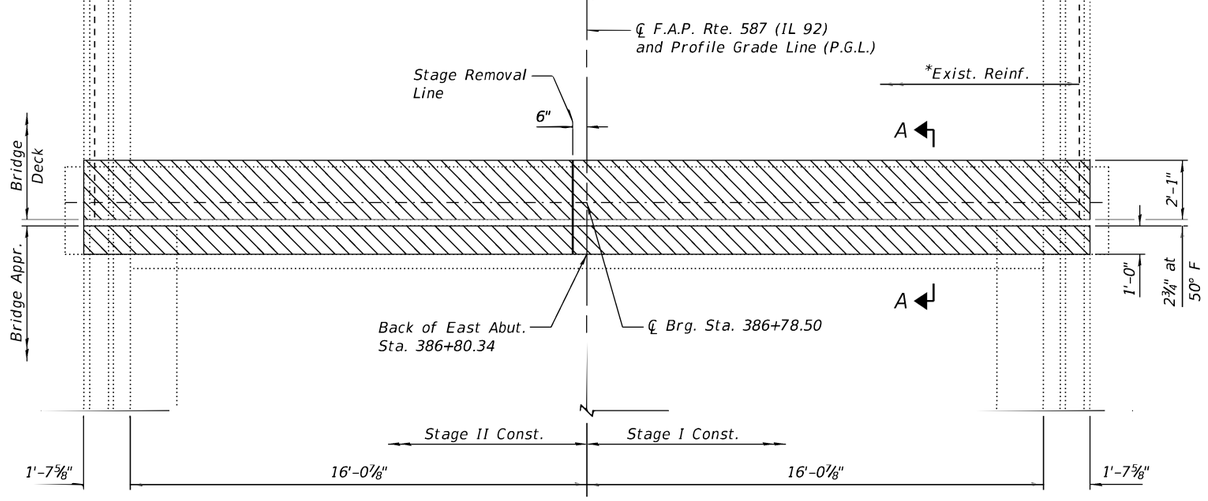
SECTION A-A



SECTION THRU PARAPET



SECTION THRU APPR. SPAN PARAPET



PLAN AT EAST ABUTMENT

PARTIAL PLAN SHOWING CONCRETE REMOVAL

Exist. Reinf. in parapet not shown for clarity.

Z

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	10.6

LEGEND

Concrete Removal

NOTES:

1.) *Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Cost shall be included with Concrete Removal.

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

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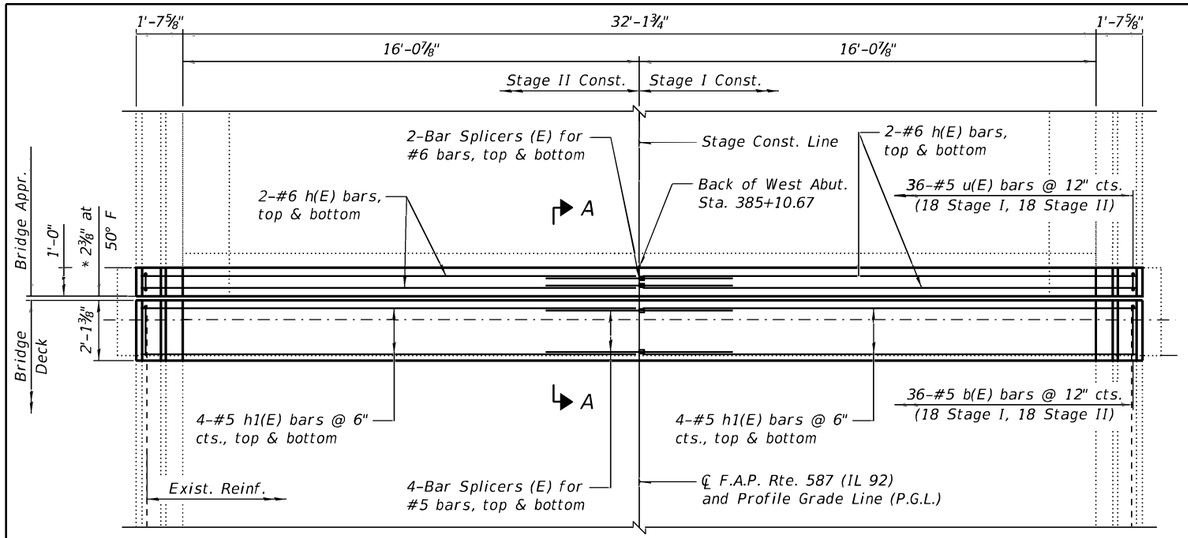
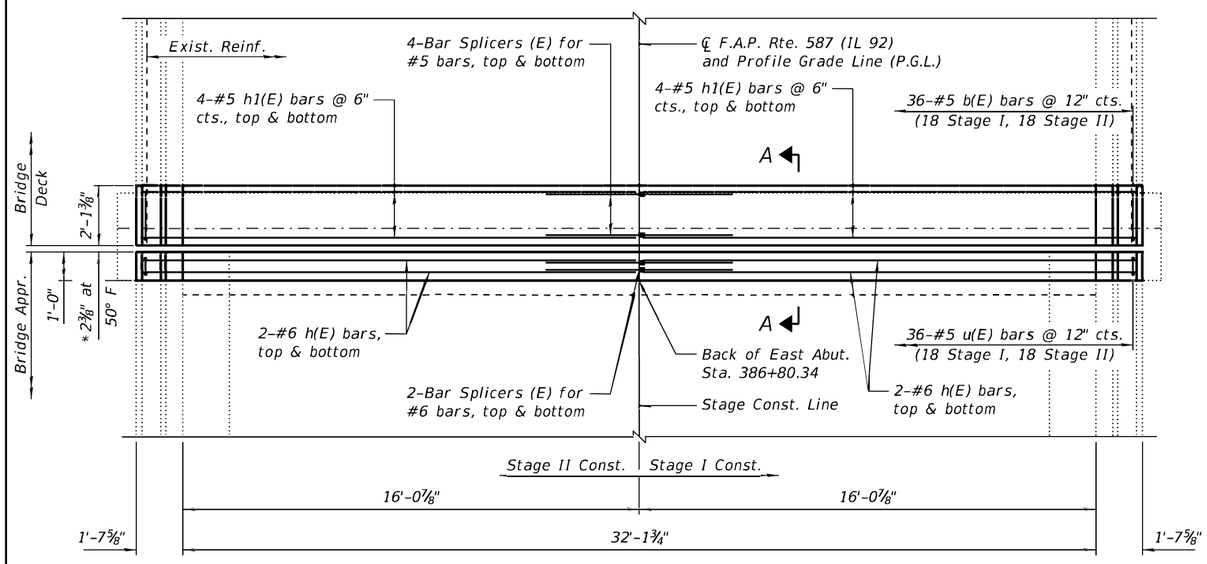
JOINT REMOVAL DETAILS
STRUCTURE NO. 006-0097
SHEET NO. 8 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	18
		CONTRACT NO. 66K70		
	ILLINOIS			



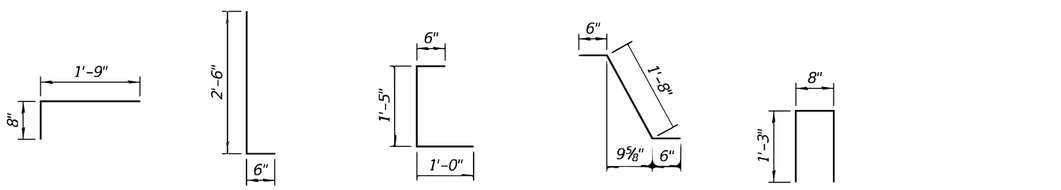
PLAN AT WEST ABUTMENT



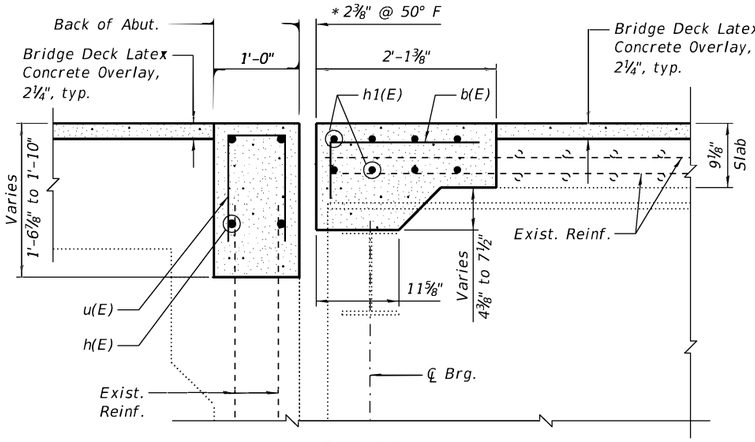
PLAN AT EAST ABUTMENT

PARTIAL PLAN SHOWING CONCRETE REPLACEMENT — Z

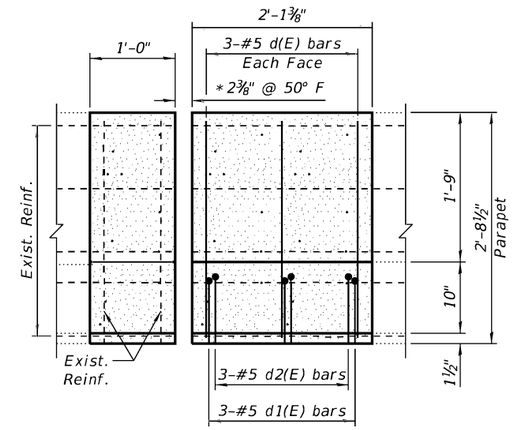
Prop. Reinf. in parapet not shown for clarity.



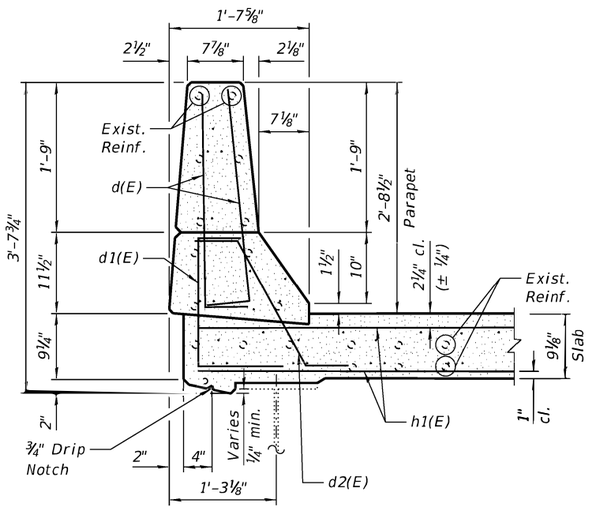
BAR b(E) BAR d(E) BAR d1(E) BAR d2(E) BAR u(E)



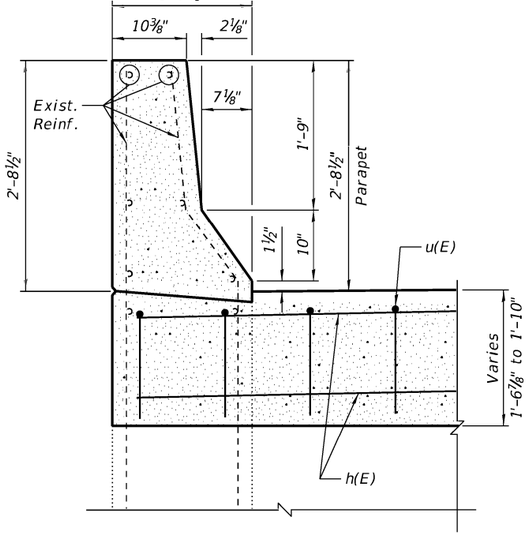
SECTION A-A



ELEVATION - INSIDE FACE OF PARAPET



SECTION THRU PARAPET



SECTION THRU APPR. SPAN PARAPET

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b(E)	72	#5	2'-5"	⌐
d(E)	24	#5	3'-0"	⌊
d1(E)	12	#5	2'-11"	⌊
d2(E)	12	#5	2'-8"	⌝
h(E)	16	#6	17'-3"	—
h1(E)	32	#5	17'-3"	—
u(E)	72	#5	3'-2"	⊓

Item	Unit	Quantity
Concrete Superstructure	Cu. Yd.	11.4
Reinforcement Bars, Epoxy Coated	Pound	1,550
Bar Splicers	Each	24

NOTE:

*Dimension showing concrete opening. For joint opening, see Sheet 10 of 17.

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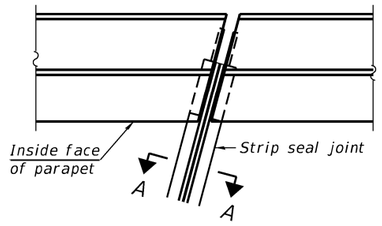
DATE - 11/20/2024	CHECKED - VPT	REVISED

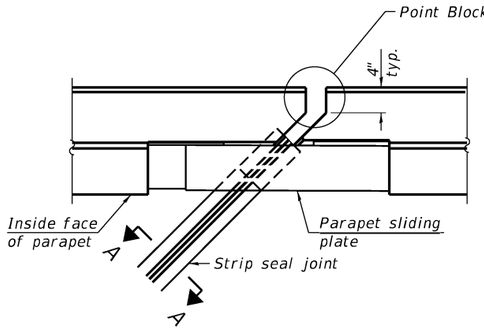
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REPLACEMENT DETAILS
STRUCTURE NO. 006-0097
SHEET NO. 9 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	19
		CONTRACT NO. 66K70		
	ILLINOIS			

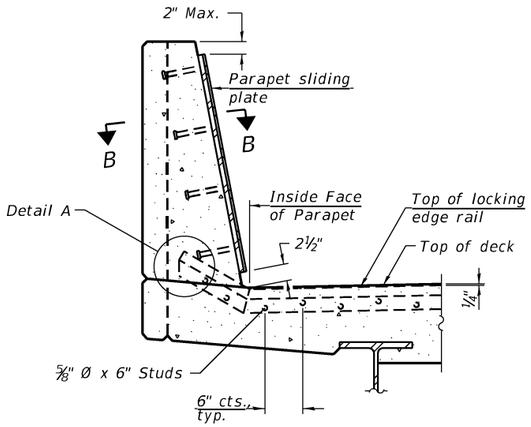


FOR SKEWS ≤ 30°



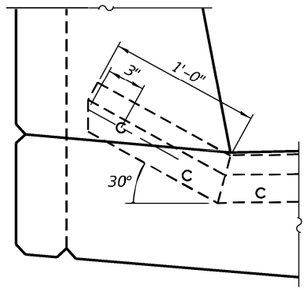
FOR SKEWS > 30°

PLAN AT PARAPET

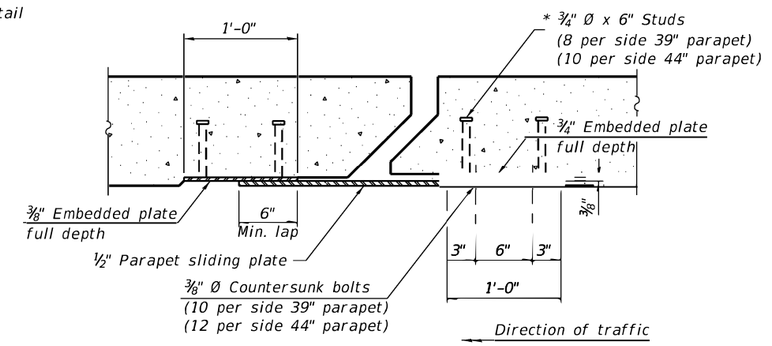


SECTION AT PARAPET

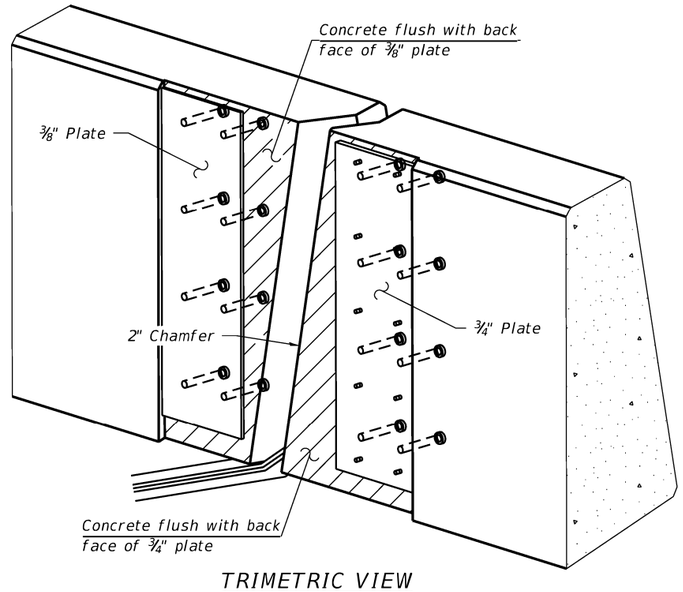
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A



SECTION B–B



TRIMETRIC VIEW

(Showing embedded plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". 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. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

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.

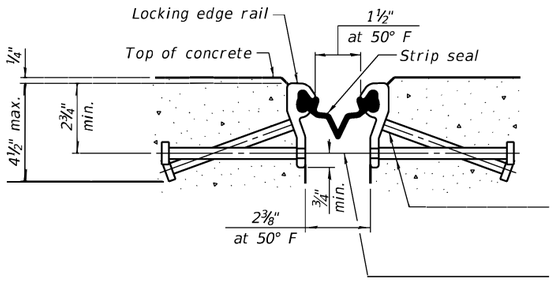
The Maximum space between locking edge rail segments shall be 3⁄16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

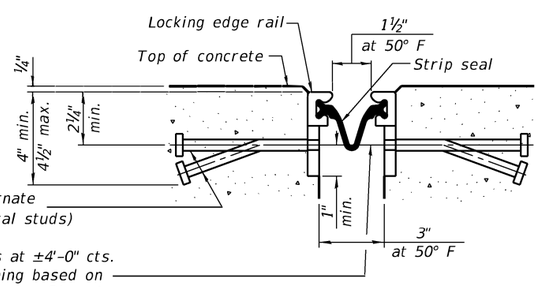
39" constant slope barrier shown, 44" constant slope barrier similar as noted.

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.

Existing parapet shape differs from the constant slope shape illustrated on this sheet. Steel components shall be fabricated and installed to accommodate the parapet shape as shown on the Joint Replacement Details sheet. Cost included with Preformed Joint Strip Seal.



SHOWING ROLLED RAIL JOINT



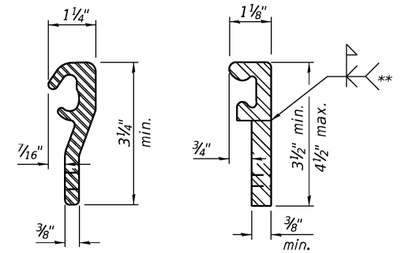
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7⁄16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A–A

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

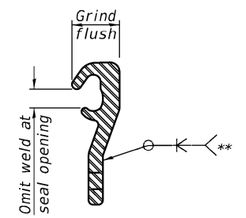


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	69.0

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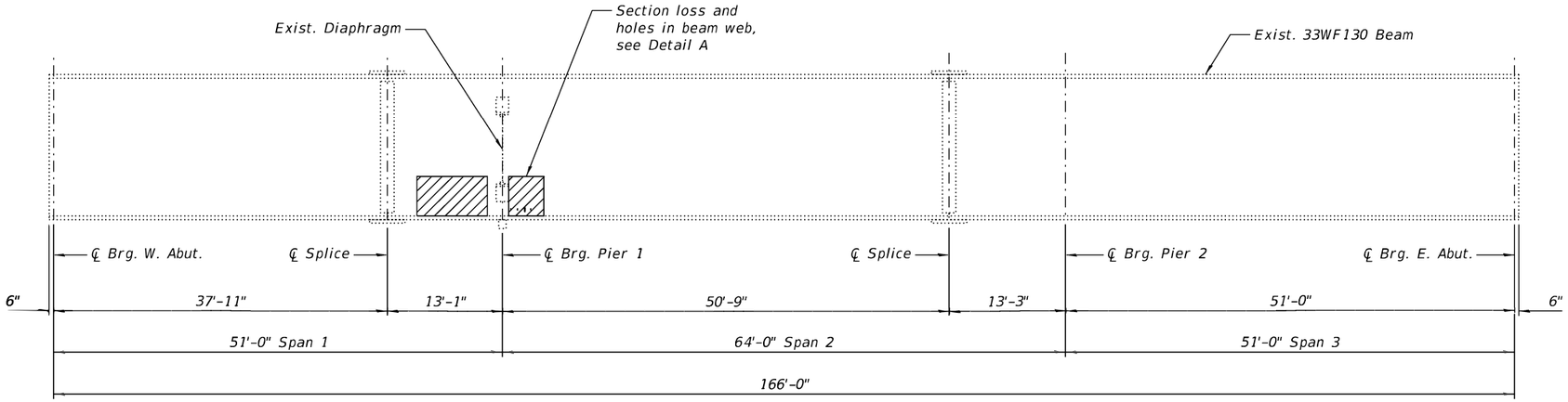
DEPARTMENT OF TRANSPORTATION

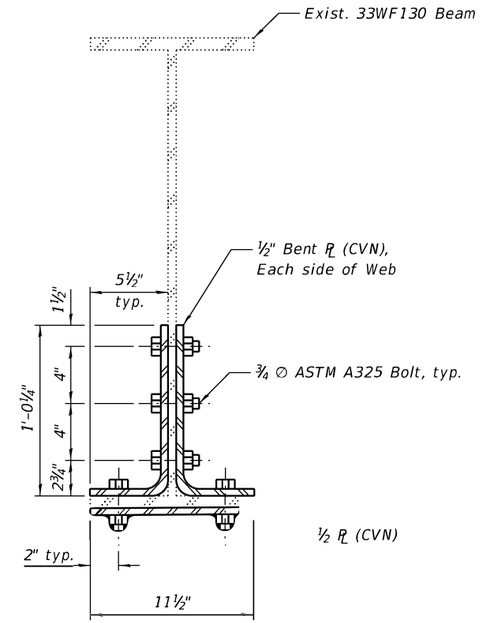
PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 006–0097
SHEET NO. 10 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	20
		CONTRACT NO. 66K70		
	ILLINOIS			

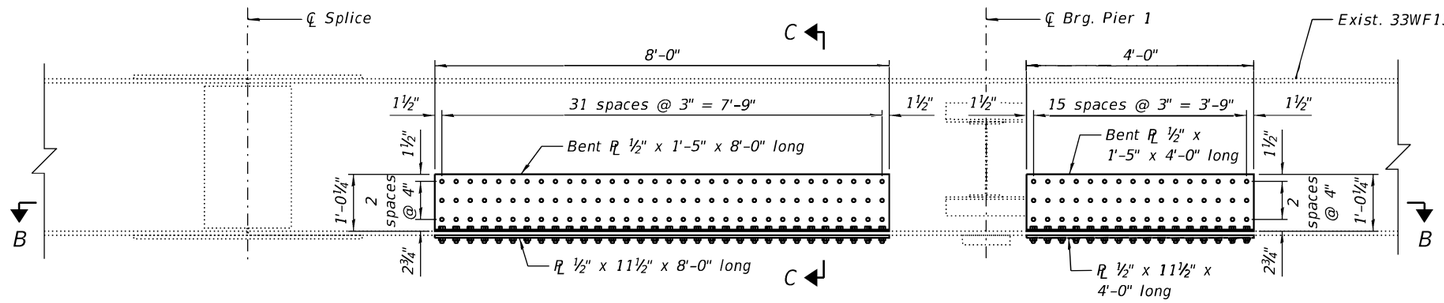


SOUTH FASCIA BEAM

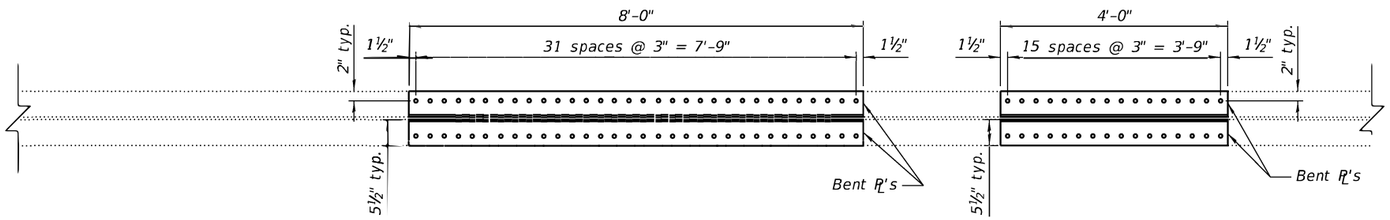
(Looking North)



SECTION C-C



DETAIL A



SECTION B-B

LEGEND

Steel Section Loss

Hole

BILL OF MATERIAL

Item	Unit	Total
Structural Steel Repair	Pound	950

NOTES:

1.) Cleaning and painting of contact surfaces shall meet the requirements for Primary Connections as specified in the special provisions for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". All contact surfaces areas of repairs identified on this sheet shall be treated as Primary Connections.

2.) When encountering irregularities and voids in the existing steel surfaces which will be in contact with the proposed steel repairs, and which cannot otherwise be removed or repaired in accordance with the Standard Specifications and Special Provisions, a structural sealer shall be applied to fill the irregularities and voids in accordance with the manufacturer's recommendations. The structural sealer shall be a steel-filled epoxy putty, such as Devcon Plastic Steel Putty (A), or an approved equal. Cost included with Structural Steel Repair.

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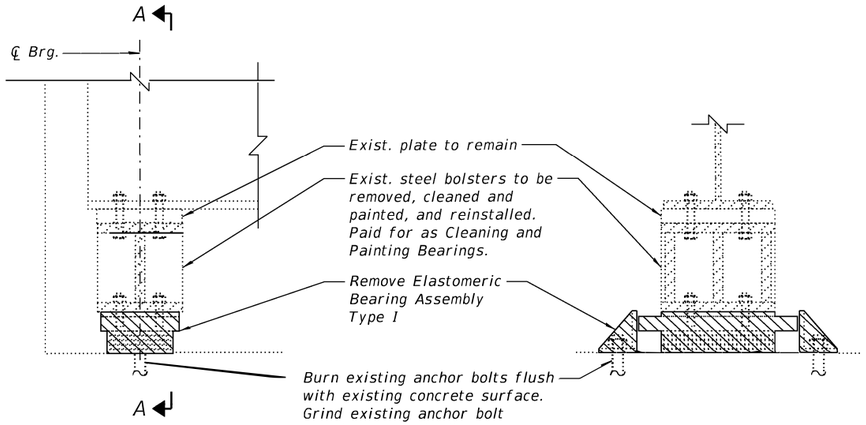
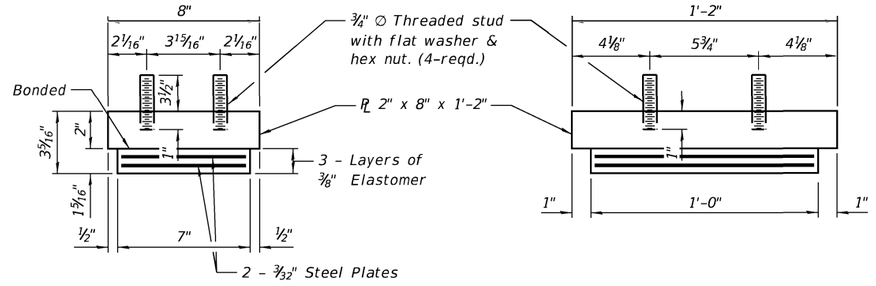
DEPARTMENT OF TRANSPORTATION

STEEL BEAM REPAIRS
STRUCTURE NO. 006-0097
SHEET NO. 11 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	21
		CONTRACT NO. 66K70		
		ILLINOIS		

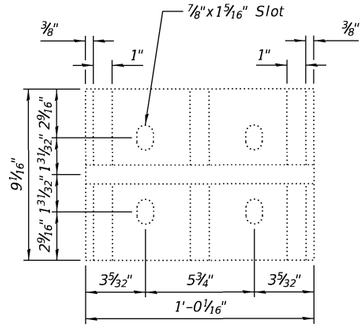


EXISTING ELEVATION AT WEST ABUTMENT



BEARING ASSEMBLY

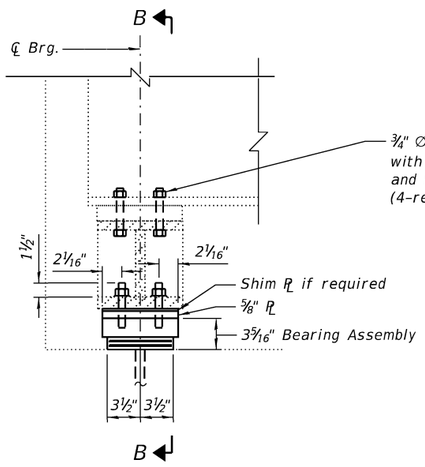
Shim plates shall not be placed under bearing assembly.



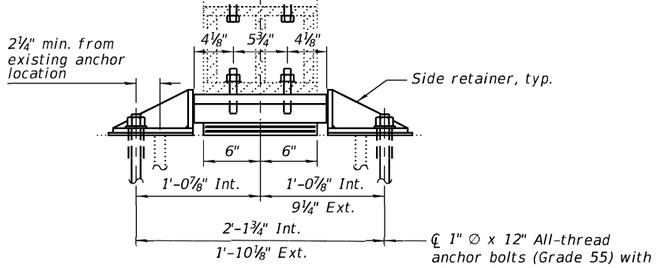
EXISTING BOLSTER PLAN

Proposed threaded studs are to line up with existing locations shown.

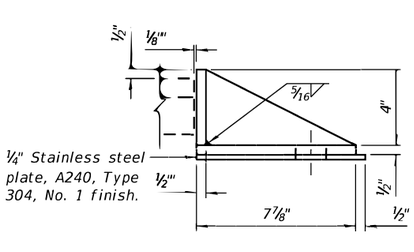
SECTION A-A



PROPOSED ELEVATION AT WEST ABUTMENT

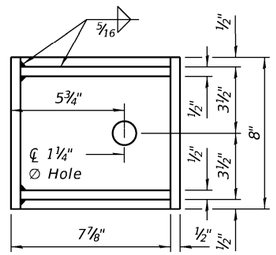


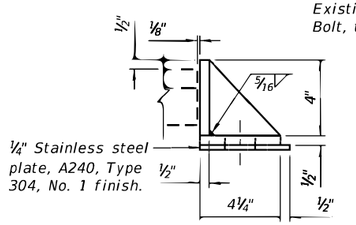
SECTION B-B

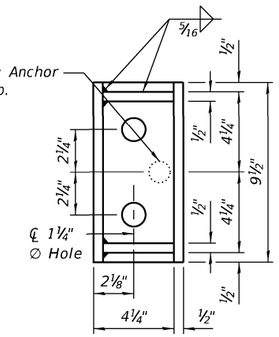


INTERIOR SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (10-reqd.)







EXTERIOR SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (2-reqd.)

TYPE I ELASTOMERIC EXP. BRG.

GIRDER REACTION TABLE

		Abut.
R_{DL}	(K)	21
R_{LL}	(K)	42
R_{IMP}	(K)	16
R_{TOTAL}	(K)	79

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Anchor Bolts, 1"	Each	14
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	120

NOTES:

New shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity per beam = 40 tons when traffic is adjacent to the work area, 60 tons when traffic is directly above the work area.

Diaphragms shall not be used as load-carrying members in the jacking and cribbing system, without written approval from the Engineer.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material of the grade(s) and diameter(s) specified). Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

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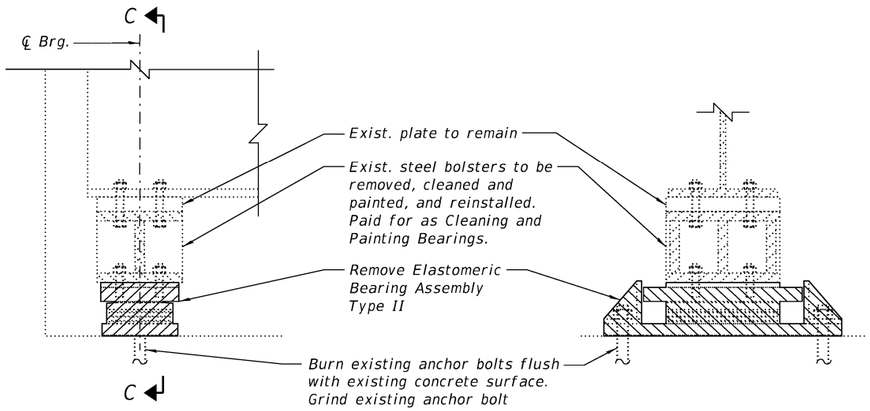
DEPARTMENT OF TRANSPORTATION

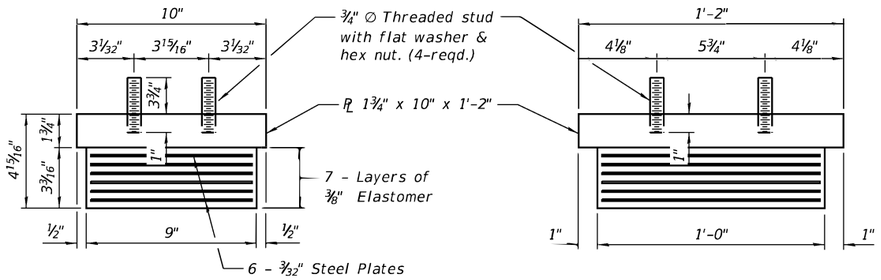
BEARING DETAILS – WEST ABUTMENT
STRUCTURE NO. 006-0097
SHEET NO. 12 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	22
		CONTRACT NO. 66K70		
	ILLINOIS			



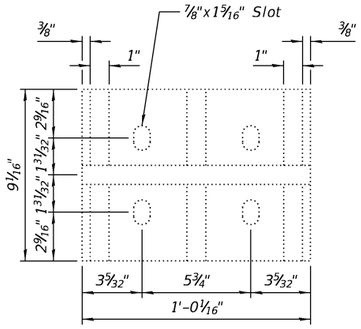
EXISTING ELEVATION AT EAST ABUTMENT

SECTION C-C



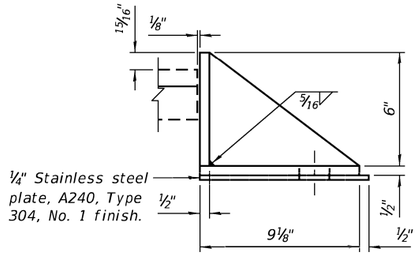
BEARING ASSEMBLY

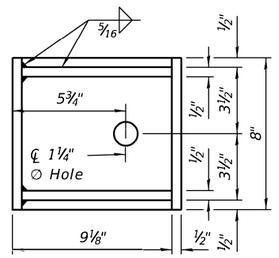
Shim plates shall not be placed under bearing assembly.



EXISTING BOLSTER PLAN

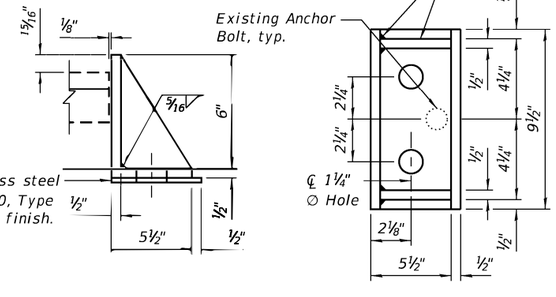
Proposed threaded studs are to line up with existing locations shown.





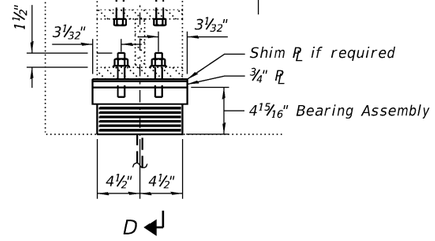
INTERIOR SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (10-reqd.)

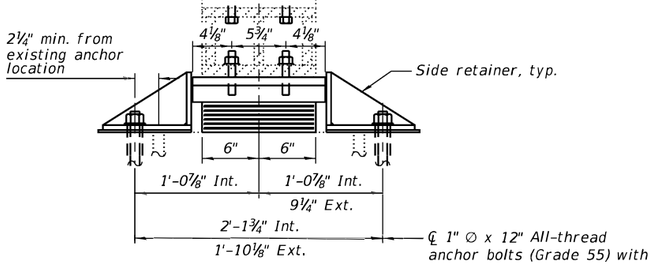


EXTERIOR SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (2-reqd.)



PROPOSED ELEVATION AT EAST ABUTMENT



SECTION D-D

TYPE I ELASTOMERIC EXP. BRG.

GIRDER REACTION TABLE

		Abut.
R_{DL}	(K)	21
R_{LL}	(K)	42
R_{IMP}	(K)	16
R_{TOTAL}	(K)	79

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Anchor Bolts, 1"	Each	14
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	180

NOTES:

New shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity per beam = 40 tons when traffic is adjacent to the work area, 60 tons when traffic is directly above the work area.

Diaphragms shall not be used as load-carrying members in the jacking and cribbing system, without written approval from the Engineer.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material of the grade(s) and diameter(s) specified). Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

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DATE - 11/20/2024	CHECKED - VPT	REVISED

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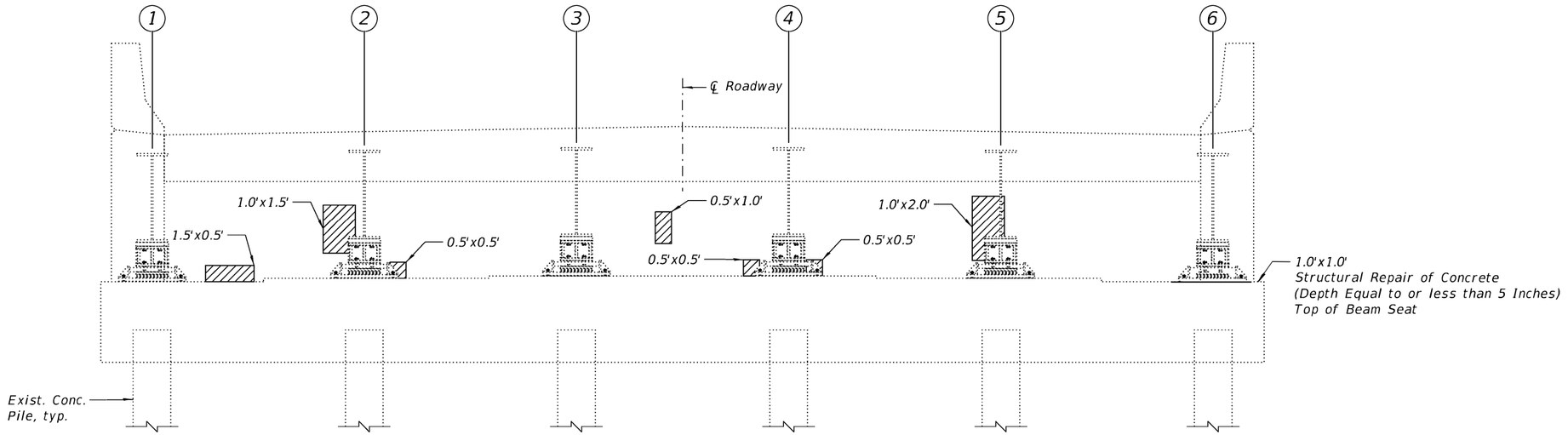
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS – EAST ABUTMENT
STRUCTURE NO. 006-0097
SHEET NO. 13 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	23
		CONTRACT NO. 66K70		
		ILLINOIS		



EAST ABUTMENT ELEVATION

(Looking East)

LEGEND

Structural Repair of Concrete (Depth Equal to or less than 5 Inches)

NOTES:

1.) *The repair areas shown are estimated based on field inspections conducted in February 2024. The actual repair areas required shall be verified according to the special provisions.*
2.) *Concrete Sealer shall be applied according to Section 587 of the Standard Specifications to all exposed faces of the abutments and wingwalls.*

BILL OF MATERIAL

Item	Unit	Total
Concrete Sealer	Sq. Ft.	399
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	7

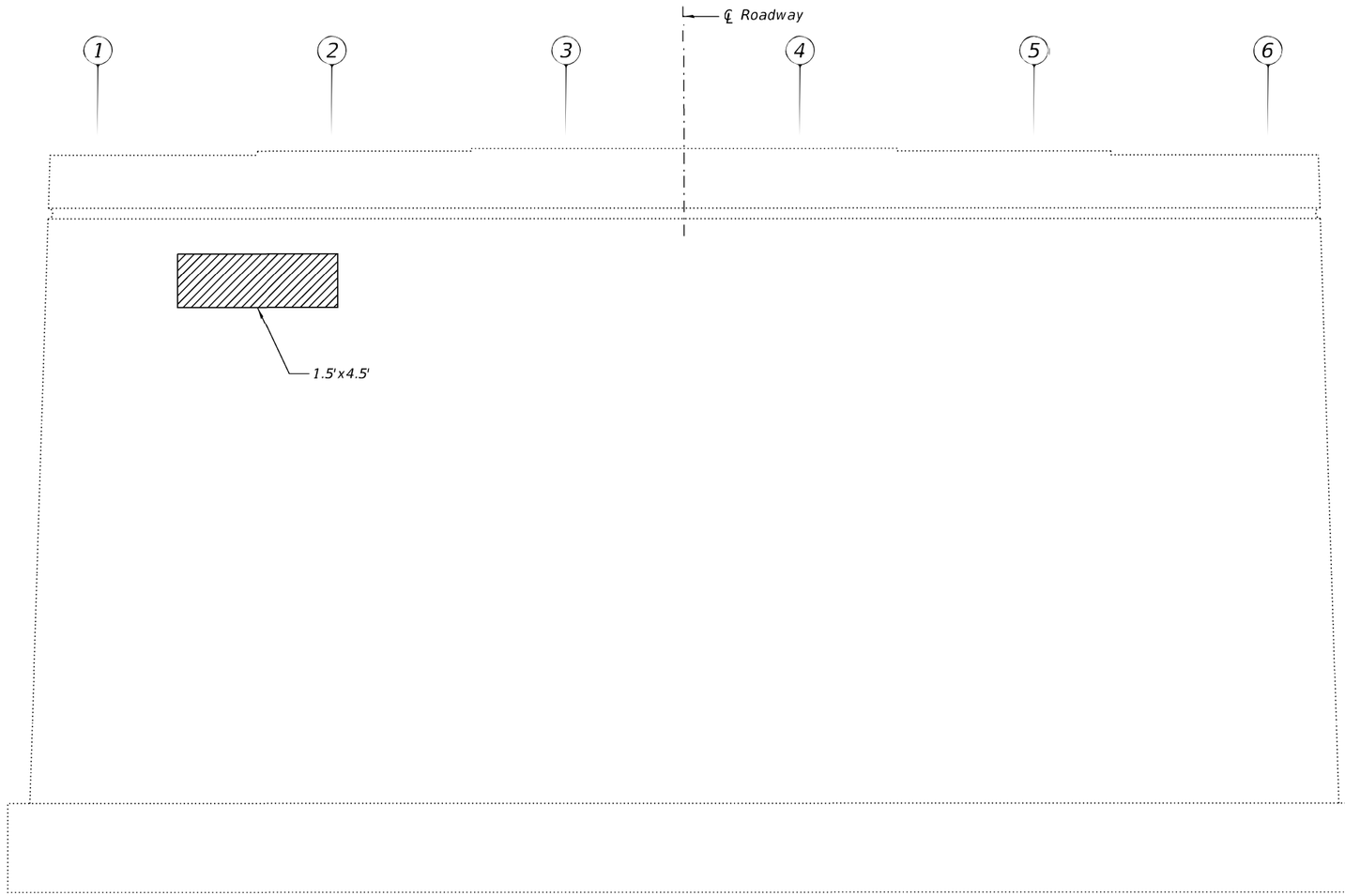
Farnsworth GROUP
2709 McGRAW DRIVE
BLOOMINGTON, ILLINOIS 61704
(309) 663-8435 / info@f-w.com

	DESIGNED - EMW	REVISED
	CHECKED - VPT	REVISED
	DRAWN - EMW	REVISED
DATE - 11/20/2024	CHECKED - VPT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAILS
STRUCTURE NO. 006-0097
SHEET NO. 14 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	24
		CONTRACT NO. 66K70		
	ILLINOIS			



PIER NO. 1 ELEVATION
(Looking East)

LEGEND

Structural Repair of Concrete
(Depth Equal to or less than 5 Inches)

NOTES:

1.) The repair areas shown are estimated based on field inspections conducted in February 2024. The actual repair areas required shall be verified according to the special provisions.
2.) Concrete Sealer shall be applied according to Section 587 of the Standard Specifications to all pier repairs.

BILL OF MATERIAL

Item	Unit	Total
Concrete Sealer	Sq. Ft.	7
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	7

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	DATE - 11/20/2024	CHECKED - VPT	REVISED

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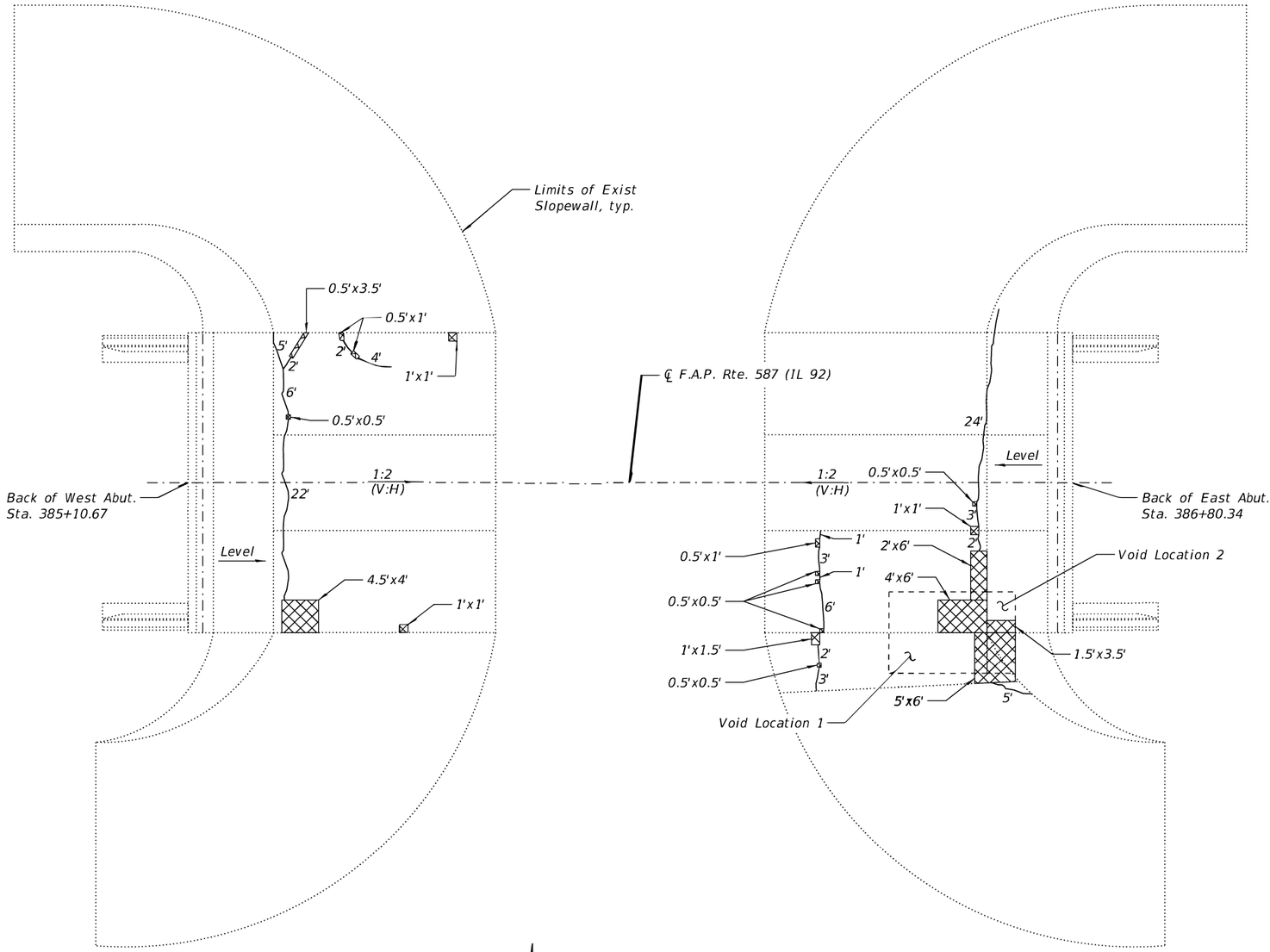
DEPARTMENT OF TRANSPORTATION

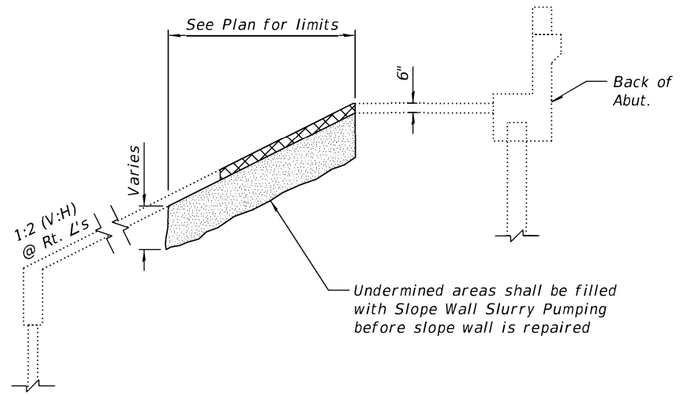
PIER REPAIR DETAILS
STRUCTURE NO. 006-0097
SHEET NO. 15 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	25
		CONTRACT NO. 66K70		
	ILLINOIS			



N

PLAN



TYPICAL SECTION

ESTIMATED VOID VOLUMES FOR SLOPE WALL SLURRY PUMPING

Void Location 1 – 12' x 10' x 2.75'
Void Location 2 – 3.5' x 10' x 1.5'

LEGEND

L.F. — Epoxy Crack Injection

Slope Wall Repair

NOTES:

1.) Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. – W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
2.) The repair areas shown are estimated based on field inspections conducted in February 2024. The actual repair areas required shall be verified according to the special provisions.

BILL OF MATERIAL

Item	Unit	Total
Epoxy Crack Injection	Foot	91
Slope Wall Repair	Sq. Yd.	11
Slope Wall Slurry Pumping	Cu. Yd.	14.2

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	DRAWN - EMW	REVISED
DATE - 11/20/2024	CHECKED - VPT	REVISED

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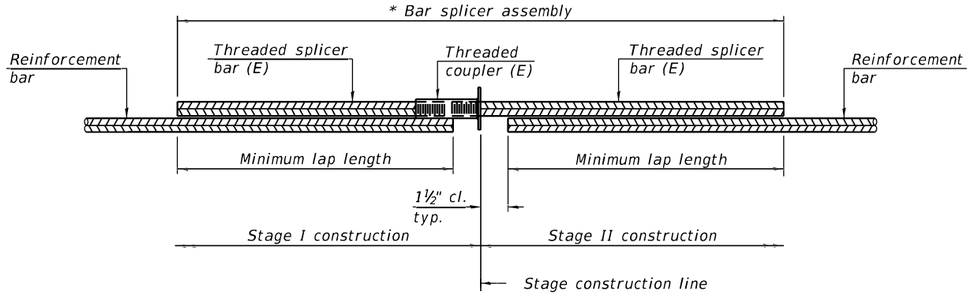
SLOPE WALL REPAIR PLAN AND DETAILS
STRUCTURE NO. 006–0097
SHEET NO. 16 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	26
		CONTRACT NO. 66K70		
	ILLINOIS			



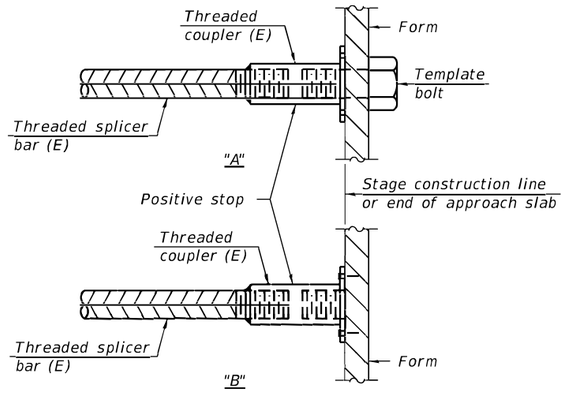
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

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

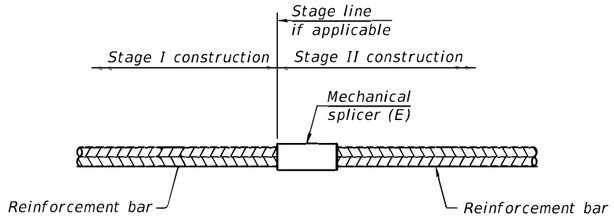
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck at Joint	#5	16	3'-0"
Deck at Joint	#6	8	4'-0"



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 5-15-2023

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BLOOMINGTON, ILLINOIS 61704
(309) 663-8435 / info@f-w.com

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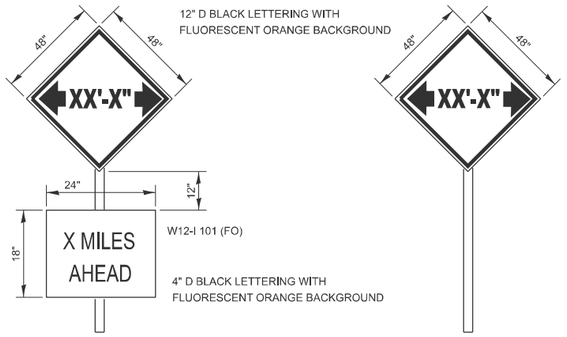
	DRAWN - EMW	REVISED
DATE - 11/20/2024	CHECKED - VPT	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 006-0097
SHEET NO. 17 OF 17 SHEETS

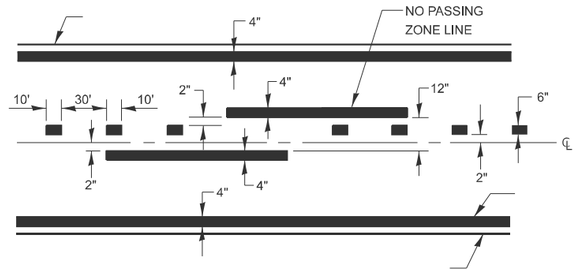
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	27
		CONTRACT NO. 66K70		
	ILLINOIS			



TO BE POST MOUNTED AS SHOWN ELSEWHERE IN THE PLANS.

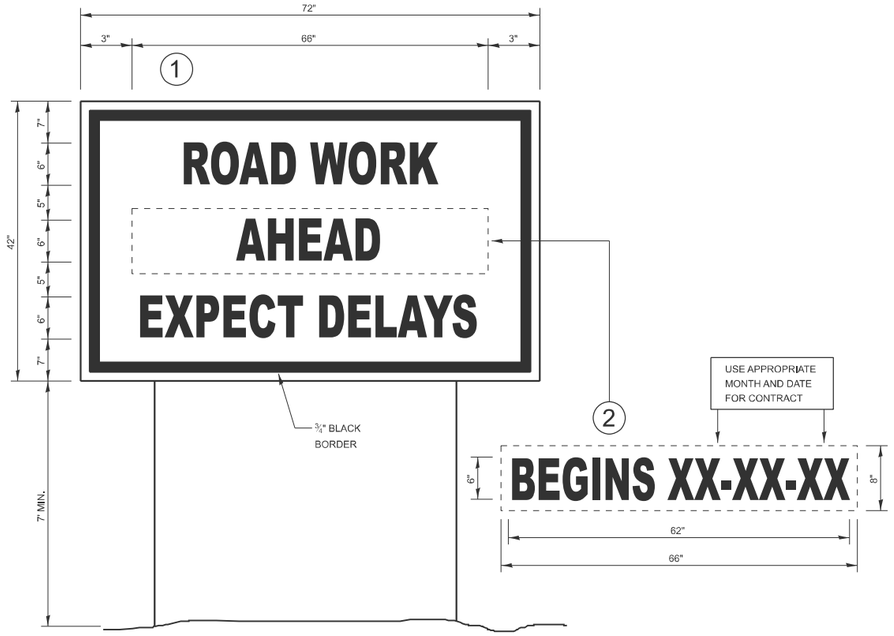
COST OF SUPPLYING, INSTALLING, MAINTAINING AND REMOVING WIDTH RESTRICTION SIGNS SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION PAY ITEMS.

WIDTH RESTRICTION SIGNING DETAILS



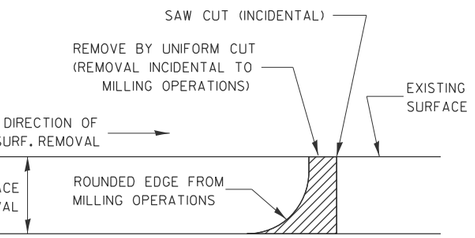
CENTERLINE & NO PASSING
ZONE LINES - YELLOW

PAVEMENT MARKING



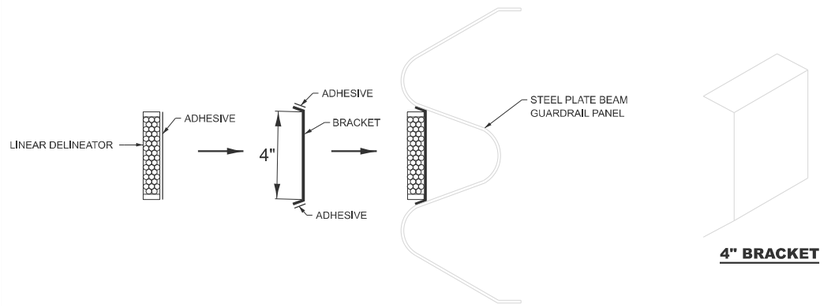
NOTES: **TEMPORARY INFORMATION SIGNING**

1. USE 6" D BLACK LETTERING ON FLUORESCENT ORANGE BACKGROUND.
2. ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN①WITH INSTALLED PANEL②A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE LANE CLOSURE.
4. REMOVE PANEL②ON THAT DATE.
5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. WILL BE PAID FOR PER SQ FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT AND THE DATE PANEL②WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.



NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

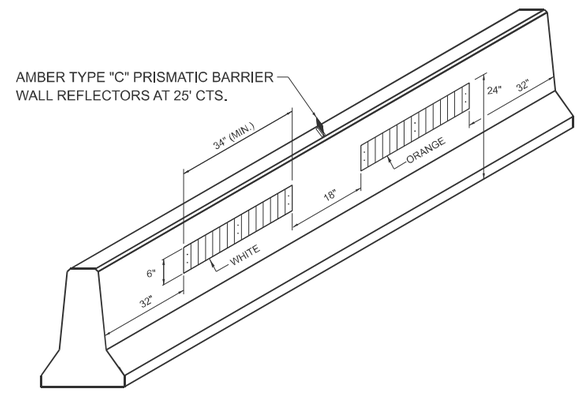
HMA DETAIL AT BUTT JOINTS



4" BRACKET

LINEAR DELINEATOR APPLICATION TO STANDARD GALVANIZED GUARDRAIL

LINEATOR DELINEATOR SHALL BE APLLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS



LINEAR DELINEATOR PANELS FOR TEMPORARY CONCRETE BARRIER

MODEL: Default
FILE NAME: c:\pw_work\pwidot\fergusonsa\d1016930\D366K70-Cover.dgn

USER NAME = scott.ferguson	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/11/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-2)BRR	BUREAU	28	28
		CONTRACT NO. 66K70		
	ILLINOIS	FED. AID PROJECT		