

04-24-2015 LETTING ITEM 098

FOR INDEX OF SHEETS, SEE SHEET NO. 3

78416

STATE OF ILLINOIS

JEFFERSON

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-1-1)RS-1	JEFFERSON	53	1
		ILLINOIS	CONTRACT NO. 78416	

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAI ROUTE 57 (I-57)
SECTION (41-1-1)RS-1
JEFFERSON COUNTY
PROJ. NO. ACNHPP-0057(316)
RESURFACING

C-99-042-14

TRAFFIC DATA

I-57 TRAFFIC DATA
JEFFERSON COUNTY
ADT 29,070 (2014)
PV = 17,340
MU = 10,405
SU = 1,325
TRUCK % = 40%

100%
7-15-2017

EQUATION STATION:

EQ. STA. 557+48.74 (BK) = STA. 582B+06.07 (AH) NBL
EQ. STA. 624B+10.01 (BK) = STA. 624B+10.00 (AH) NBL

OMISSIONS STATIONS:

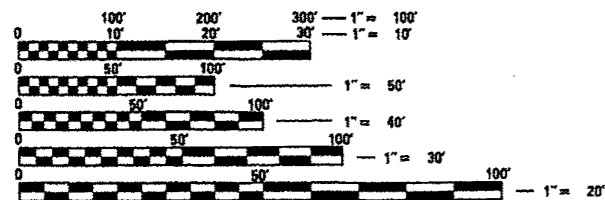
STA. 490+97.19 TO STA. 494+62.81 (OMISSION) NBL
STA. 607B+78.01 TO STA. 610B+15.41 (OMISSION) NBL

PROP. PROJECT ENDS
FAI 57 STA. 634B+10 (NB LANES)
FAI 57 STA. 636+72 (SB LANES)

PROP. PROJECT ENDS
FAI 64 STA. 2670+65
(EB & WB LANES)

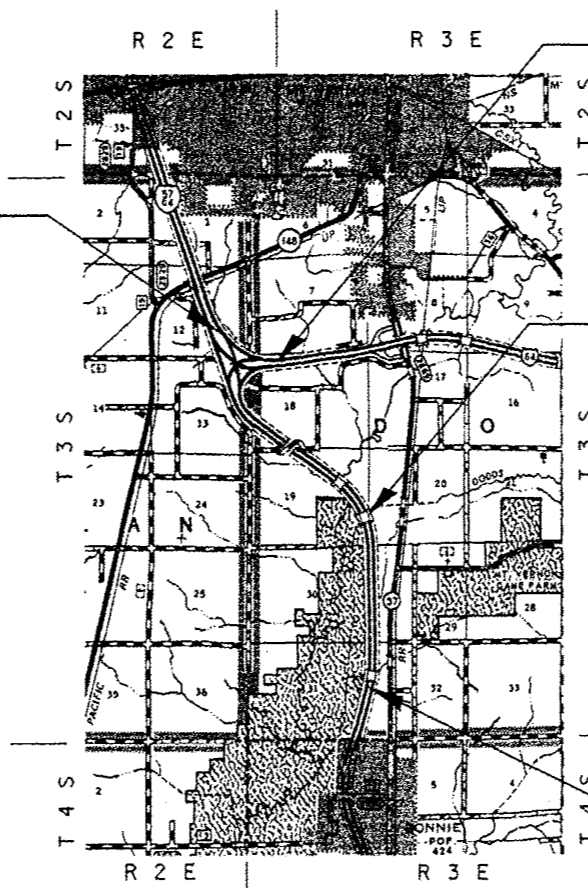
SN 041-0003 (NB)
SN 041-0004 (SB)
STA. 463+57

TOWNSHIPS: DODDS
MC CLELLAN



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

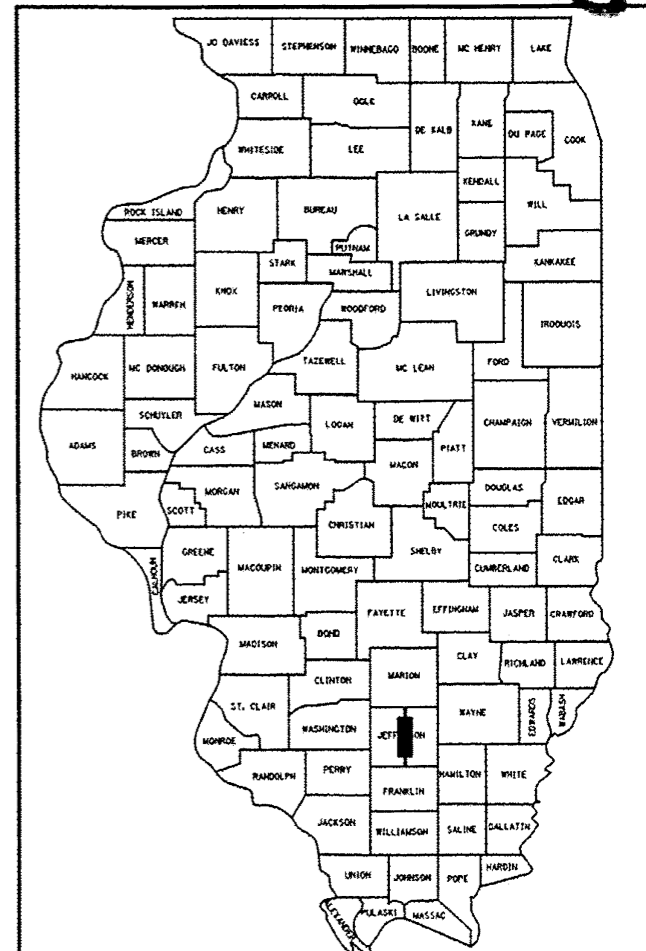


PROP. PROJECT BEGINS
FAI 57 STA. 374+00
(NB & SB LANES)

GROSS LENGTH = 23,552.68 FT = 4.46 MILES (NBL)
OMISSIONS = 603.02 FT = 0.11 MILES (NBL)
NET LENGTH = 22,949.66 FT = 4.35 MILES (NBL)

PROJECT ENGINEER CHARLES STEIN - (618)351-5210
PROJECT DESIGNER JOHN A. BRANDON (RDWY) - (618)351-5291
PROJECT DESIGNER WAYNE HALSTEAD (STRUCTURES) - (618)351-5228

CONTRACT NO. 78416 041-0003(NB)-&0004(SB).

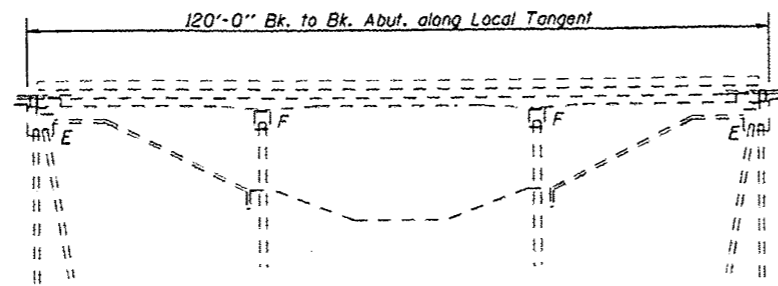
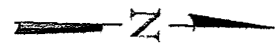


LOCATION OF SECTION INDICATED THIS: - [black rectangle]

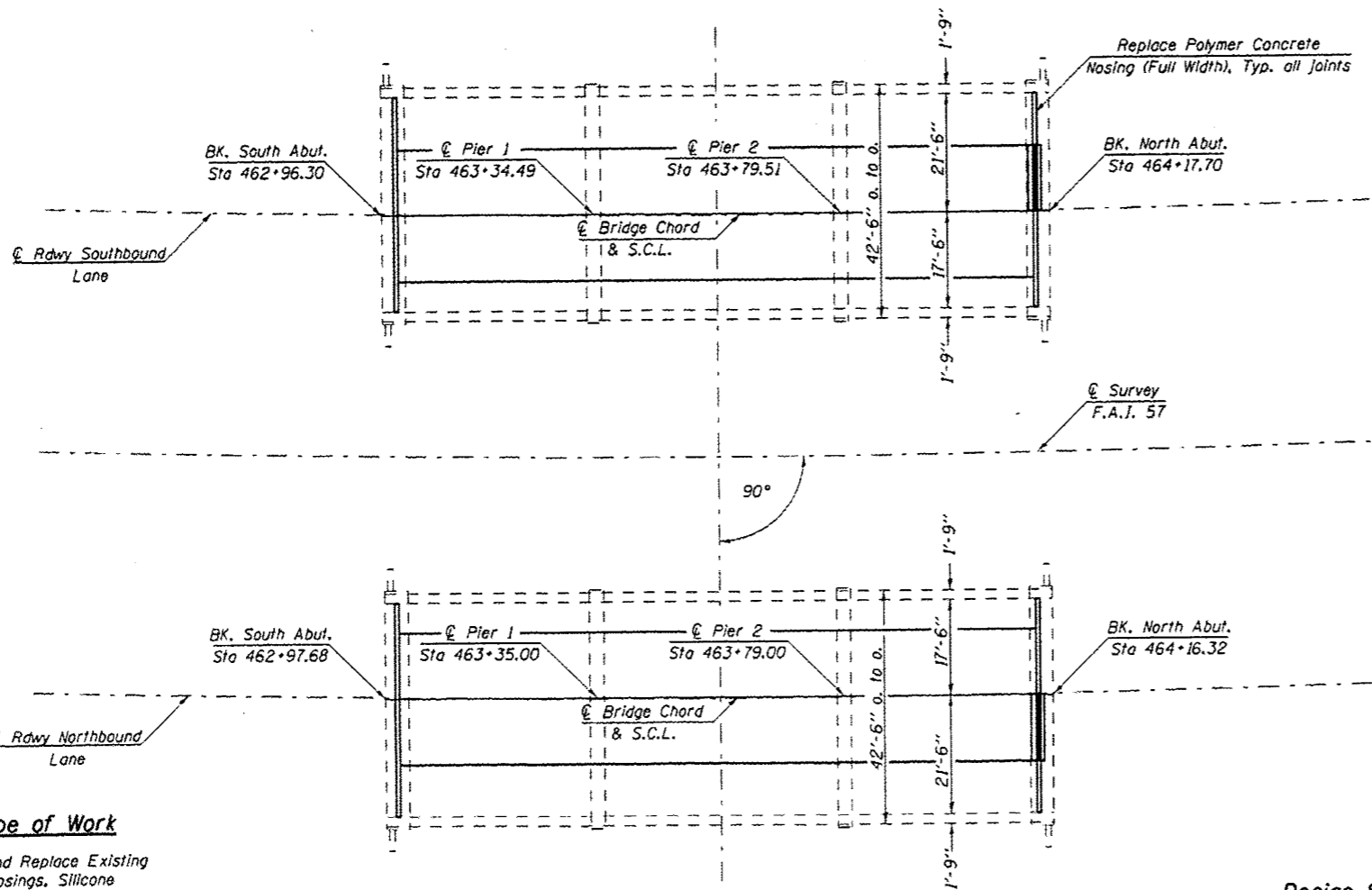
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Jan 30 2015
Deputy Director of Highways, Region Engineer
Mardo 2015
John D. Baranzolo, P.E.
Engineer of Design and Environment
March 20 2015
Omer Osman, P.E., C.E.
Director of Highways, Chief Engineer

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OF THE STATE OF ILLINOIS



ELEVATION



Scope of Work

- Remove and Replace Existing Polymer Nosings, Silicone Joint Seal, and damaged concrete.
- Mill and Resurface (24'-0", driving and passing lanes.)

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Staging should match that of the adjacent resurfacing.
Reinforcement bars designated (E) shall be epoxy coated.

* 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 Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

The class of the portland cement concrete, curing, and mix design criteria for Concrete Superstructure shall follow Article 1020.04 of the Standard Specifications for Class PP (Bridge Deck Patching).



David Carl Puzey 3/9/15
Expires 11/30/16

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Polymerized HMA Surface Course, Mix "E", N90	Ton	43
Concrete Removal	Cu. Yd.	1.3
Concrete Superstructure	Cu. Yd.	0.9
HMA Surface Removal (Deck)	Sq. Yd.	-614
Silicone Joint Sealer, 1 3/4"	Foot	164
Polymer Concrete	Cu. Ft.	11.4
Reinforcement Bars, Epoxy Coated	Pound	100

Design Stresses

FIELD UNITS (Existing Construction)

- $f_c = 1,400$ psi (super & sub.)
- $f_s = 20,000$ psi Struct.(A-36)
- $f_s = 20,000$ psi (reinforcement)
- $V_c = 75$ psi (Figs.)
- $n = 10$

**BRIDGE REPAIR
FAI RT 57 OVER
DODDS CREEK
JEFFERSON COUNTY
SECTION (41-1-1)RS-1
STA. 463+57
SN 041-0003 (NB) SN 041-0004 (SB)**

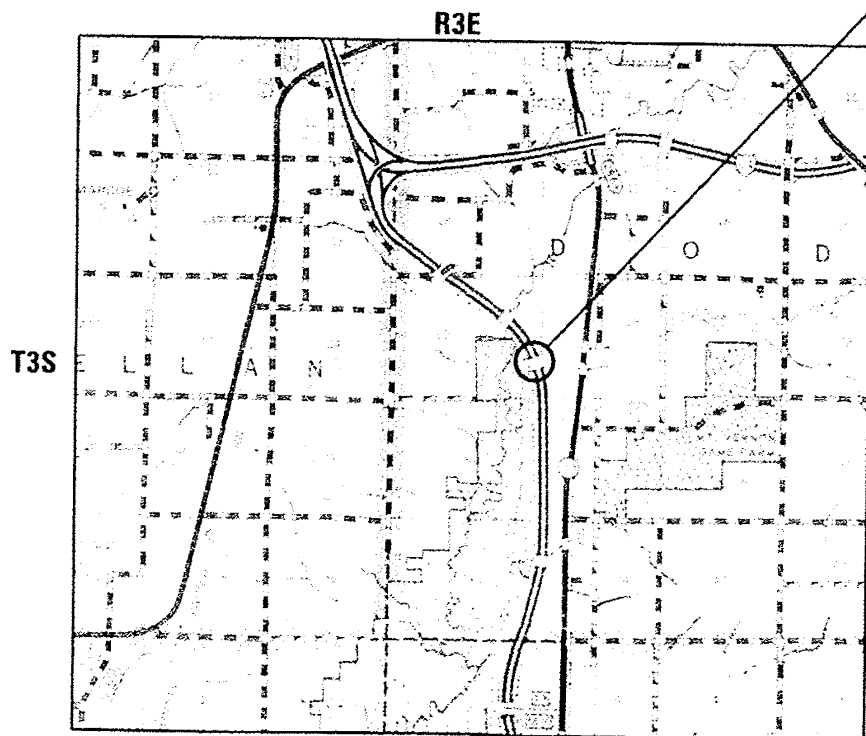
FILE NAME -	USER NAME - #USER#	DESIGNED - <i>PWH</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6:\pwork\pawdos\brandon\j\403205018	-6023.0001-sheet.dgn	DRAWN -	REVISED -					57	(41-1-1)RS-1	JEFFERSON	53	43
	PLOT SCALE = 3/8"=1'-0"	CHECKED - <i>MAS</i>	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 78416				
	PLOT DATE = 2/2/2015	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

DEPARTMENT OF TRANSPORTATION
OFFICE OF HIGHWAYS PROJECT IMPLEMENTATION

PROPOSED HIGHWAY PLANS

FAI ROUTE 57 (I-57)
OVER DOODS CREEK
SECTION: 41-2(BR-2)
PROJECT: ACNHPP-0057(401)
STRUCTURAL REPAIRS
JEFFERSON COUNTY

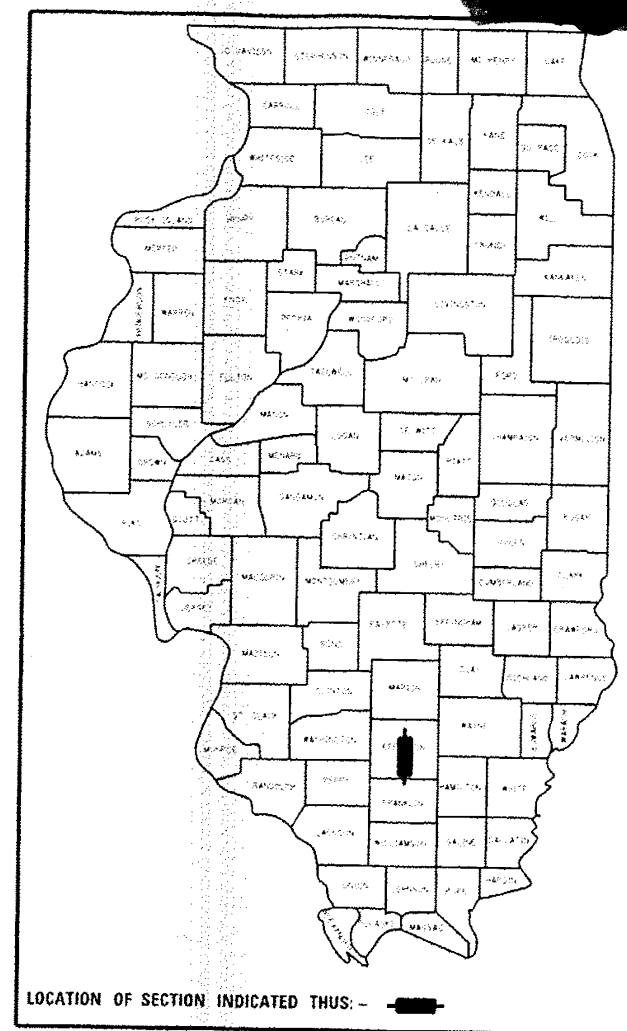
C-99-044-16



PROJECT LOCATION
SN 041-0003 (NB) AND
041-0004 (SB)

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-2(BR-2)	JEFFERSON	17	1

D-99-044-16



78542

99.5%
11-4-2017

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-5

FOR STRUCTURAL PAVEMENT DESIGN
INFORMATION, SEE SHEET NO.: NA

TRAFFIC DATA

IL 57 TRAFFIC DATA

2015 ADT = 33,700
33 % TRUCKS

TOWNSHIP:

DODDS

DESIGN DESIGNATION : NA

COORDINATE SYSTEM : NA

POSTED SPEED : 65 MPH

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

PROJECT ENGINEER: DAVID PICHE
PROJECT DESIGNER: T. WAYNE HALSTEAD

CONTRACT NO. 78542

GROSS LENGTH = 120.0 FT. = 0.023 MILES
NET LENGTH = 120.0 FT. = 0.023 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
OFFICE OF HIGHWAYS PROJECT IMPLEMENTATION

SUBMITTED August 12 2016

Jeffrey A. Keim
REGION FIVE ENGINEER

Sept 30 2016
Maureen M. Addis, PE
acting ENGINEER OF DESIGN AND ENVIRONMENT

Sept 30 2016
David Allen 2
DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

GENERAL NOTES

1) IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16 THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.16 REGARDLESS IF TRACK MOUNTED OR WHEELED.

2) COMMITMENTS: NONE AS OF AUGUST 12, 2016.

STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 701101-05 OFF-ROAD, MULTILANE 15' TO PAVEMENT EDGE
- 701400-08 APPROACH TO LANE CLOSURE FREEWAY/EXPRESSWAY
- 701402-11 LANE CLOSURE FREEWAY/EXPRESSWAY, WITH BARRIER
- 701426-08 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS \geq 45 MPH
- 701428-01 TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
- 701901-05 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 781001-04 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS; GENERAL NOTES; STANDARDS
- 3-5 SUMMARY OF QUANTITIES
- 6 WIDE LOAD SIGNING DETAILS
- 7-17 STRUCTURAL REPAIR DETAILS

Prepared By: *[Signature]*
 DISTRICT STUDIES & PLANS ENGINEER

Examined By: *[Signature]*
 DISTRICT LAND ACQUISITION ENGINEER

Examined By: *[Signature]*
 DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: *[Signature]*
 DISTRICT OPERATIONS ENGINEER

Examined By: *[Signature]*
 DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: *[Signature]*
 DISTRICT CONSTRUCTION ENGINEER

Examined By: *[Signature]*
 DISTRICT MATERIALS ENGINEER

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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SIGNATURES, GENERAL NOTES, STANDARDS, & INDEX OF SHEETS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-218R-2)	JEFFERSON	17	2
				CONTRACT NO. 78542
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

INDEX OF SHEETS

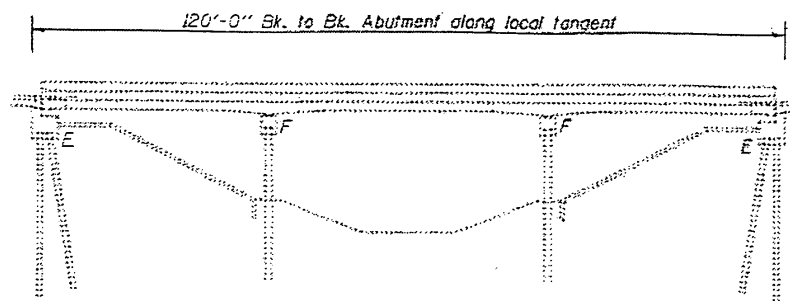
SHEET NO.	DESCRIPTION
1	General Plan and Elevation
2	Staging Details
3	Temporary Concrete Barrier For Stage Construction
4-5	Deck Slab Repair Plan
6	Abutment Details
7	Joints and Overlay Details
8-10	Concrete Overlay Reinforcement Details
11	Bar Splicer Assembly and Mechanical Splicer Details

Design Stresses

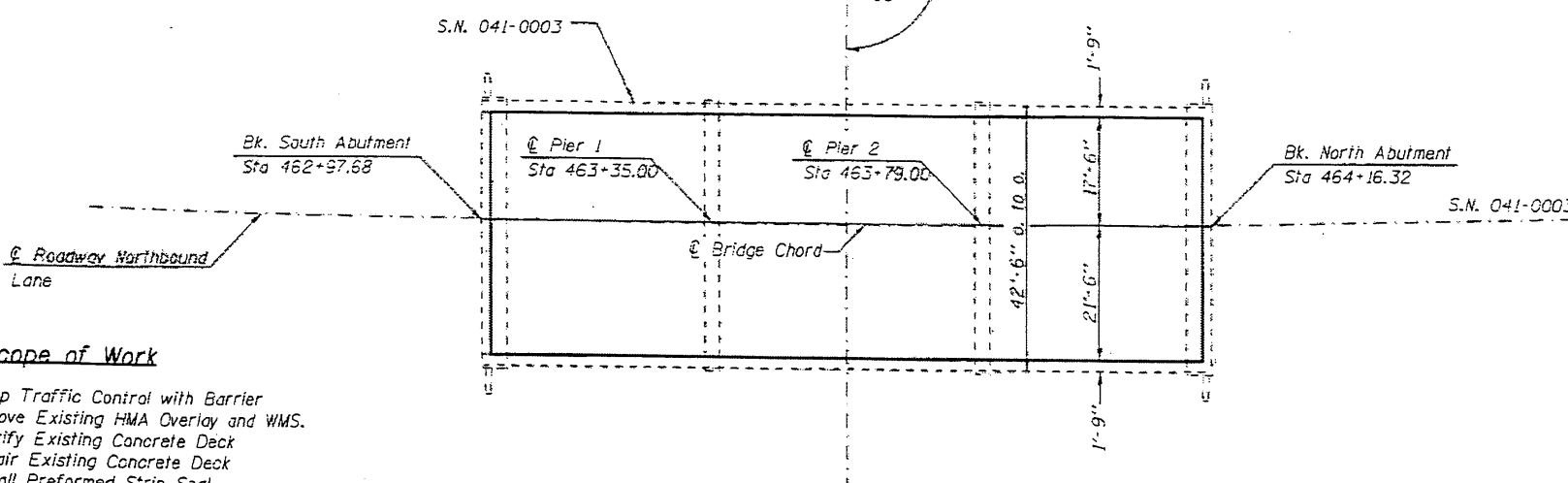
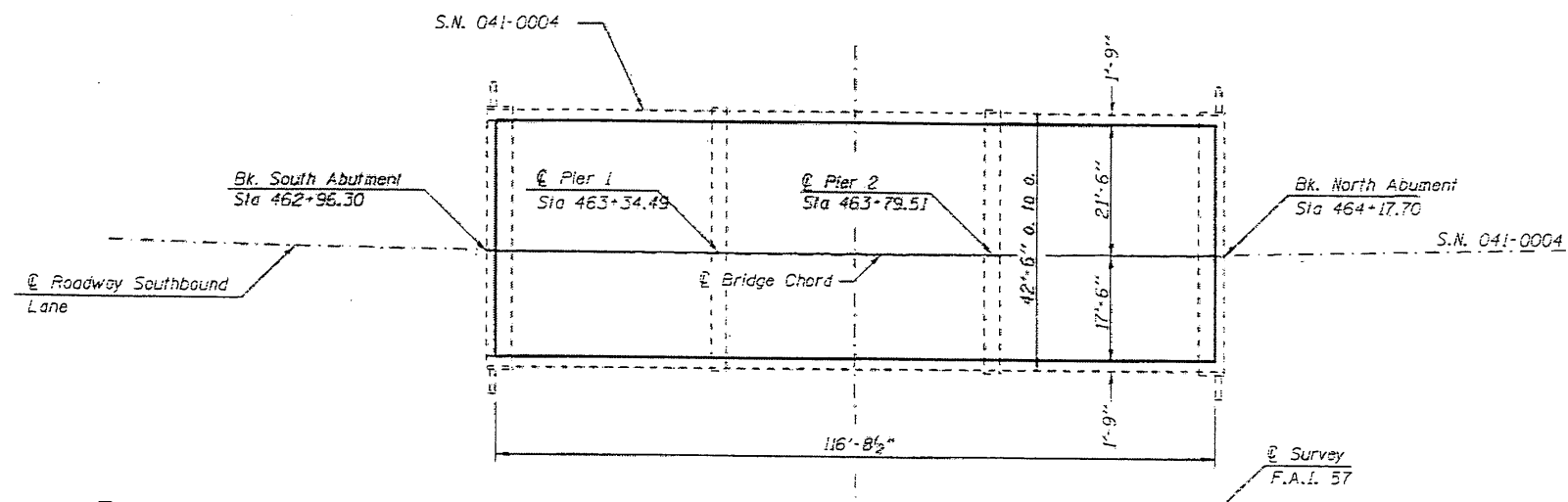
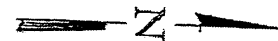
FIELD UNITS (Existing Construction)
 $f_c = 1,400$ psi (super & sub.)
 $f_s = 20,000$ psi Struct.(A-3E)
 $f_s = 20,000$ psi (reinforcement)
 $V_c = 75$ psi (Figs.)
 $n = 10$

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	10.5
Concrete Superstructure	Cu. Yd.	10.5
Bridge Deck Grooving	Sq. Yd.	1031
Protective Coat	Sq. Yd.	1056
Reinforcement Bars, Epoxy Coated	Pound	34,690
Bar Splicers	Each	242
Preformed Joint Strip Seal	Foot	168
Temporary Concrete Barrier	Foot	240
Concrete Wearing Surface (Variable Depth)	Sq. Yd.	990.2
HMA Surface Removal, (Deck)	Sq. Yd.	990.2
Bridge Deck Scarification 1"	Sq. Yd.	990.2
Deck Slab Repair (Partial)	Sq. Yd.	21
Cleaning and Painting Exposed Rebar	Sq. Ft.	292

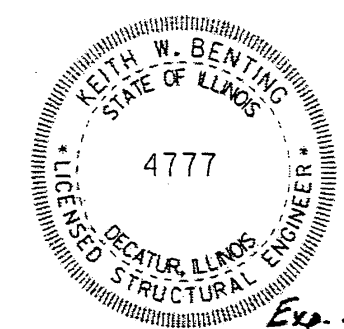


ELEVATION



Scope of Work

- Setup Traffic Control with Barrier
- Remove Existing HMA Overlay and WMS.
- Scarify Existing Concrete Deck
- Repair Existing Concrete Deck
- Install Preformed Strip Seal
- Place Concrete Overlay
- Switch stages and repeat



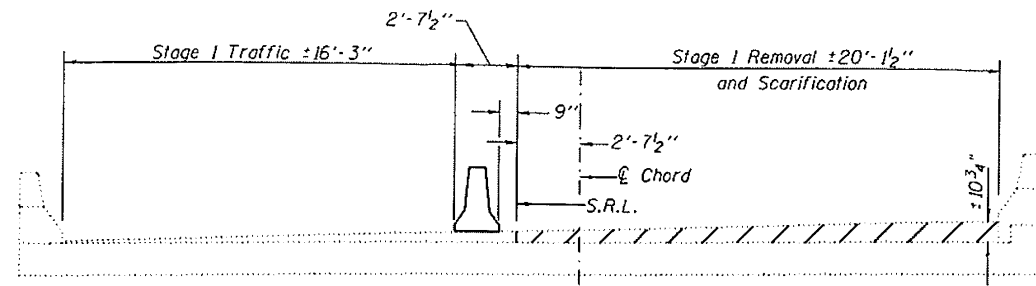
Exp. 11/30/2016

DATE: May 3, 2016
Keith W. Bunting
 ILL. STRUCTURAL NO. 4777

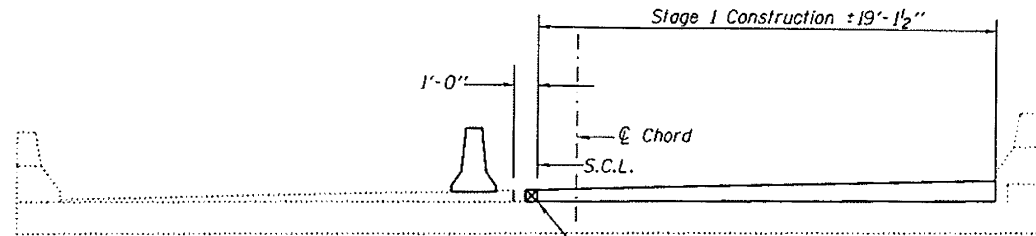
BRIDGE REPAIR
 FAI RT 57 OVER
 DODDS CREEK
 JEFFERSON COUNTY
 SECTION 41-2(BR-1)
 STA. 463+57
 SN 041-0003 (NB) SN 041-0004 (SB)

SECTIONS THRU BRIDGES

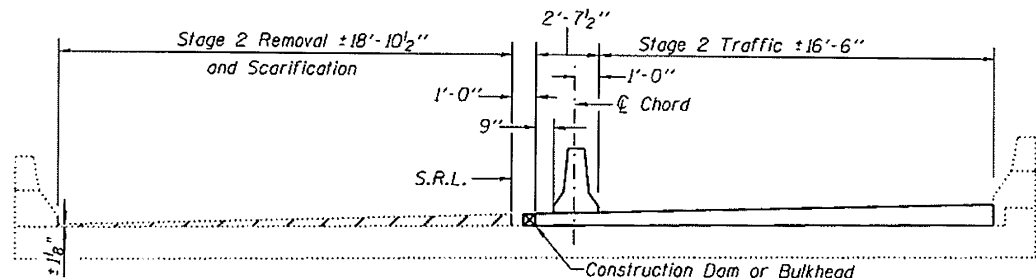
All Sections Looking North



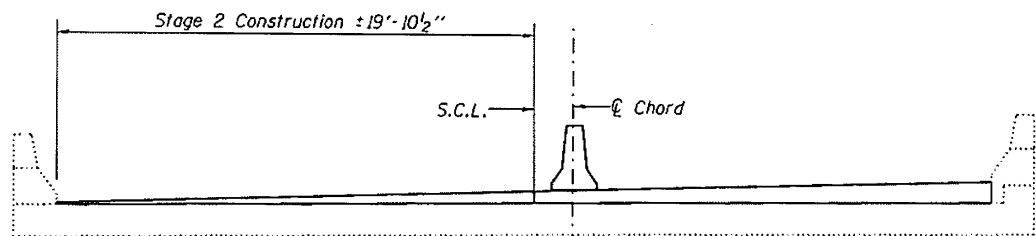
STAGE I REMOVAL
Southbound Lane



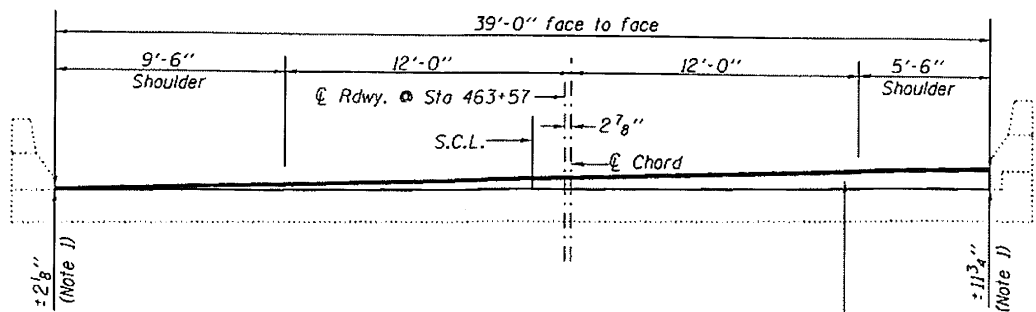
STAGE I CONSTRUCTION
Southbound Lane



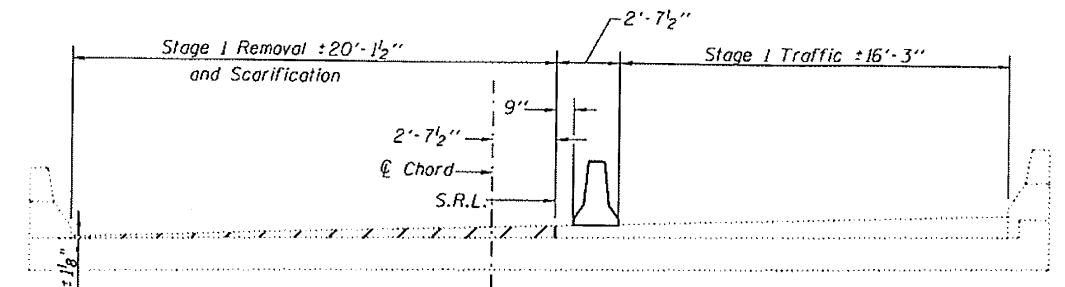
STAGE II REMOVAL
Southbound Lane



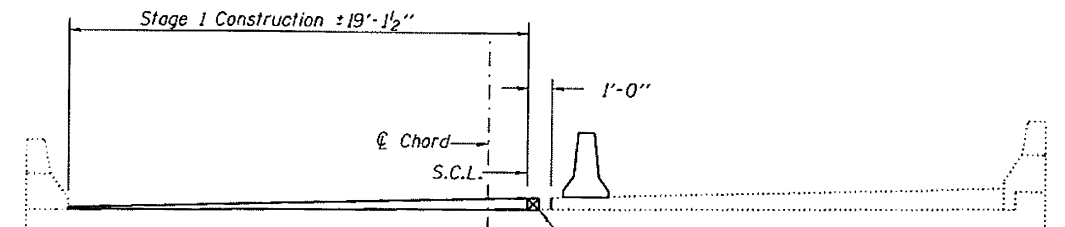
STAGE II CONSTRUCTION
Southbound Lane



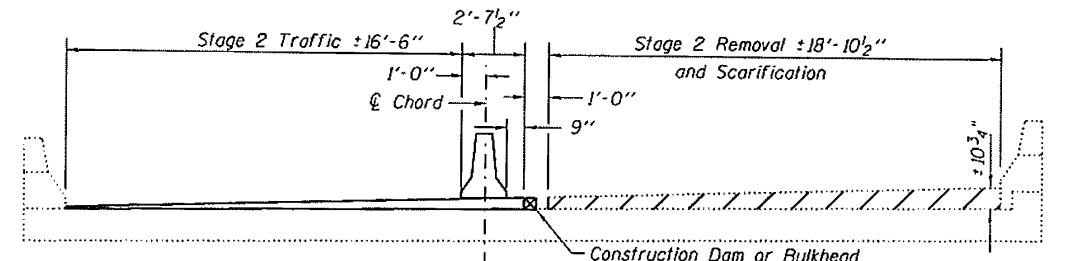
SECTION THRU OVERLAY
Southbound Lane



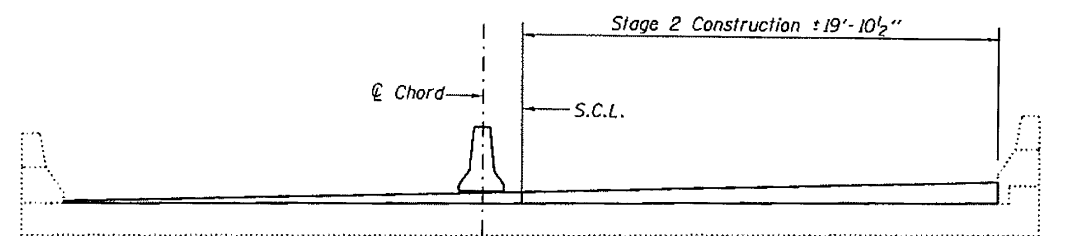
STAGE I REMOVAL
Northbound Lane



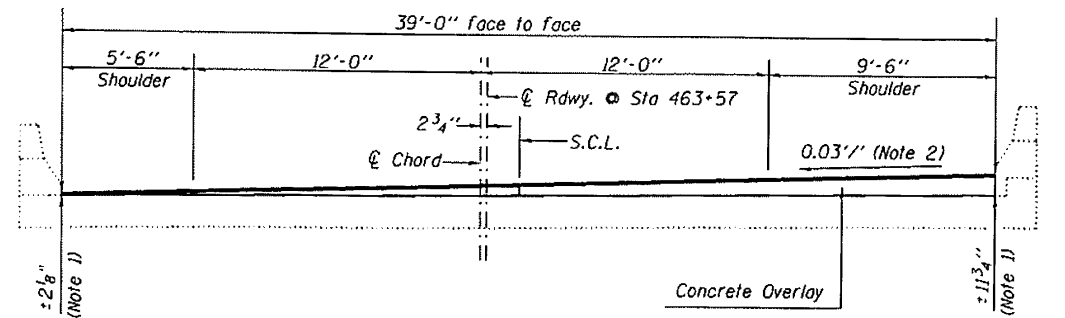
STAGE I CONSTRUCTION
Northbound Lane



STAGE II REMOVAL
Northbound Lane



STAGE II CONSTRUCTION
Northbound Lane



SECTION THRU OVERLAY
Northbound Lane



NOTES:

1. The proposed overlay thickness shown matches the existing overlay thickness plus a 1" scarification depth.
2. The original bridge deck portion was constructed on a slope of 0.01'/''. The original overlay section was constructed on a slope of 0.03'/''.
3. The Contractor may elect to change the sequence of staging, i.e. perform stage 2 first then stage 1, with approval of the Engineer.



USER NAME *	DESIGNED - KWB	REVISED -
PLOT SCALE *	CHECKED - NPP	REVISED -
PLOT DATE *	DRAWN - DCS	REVISED -
	CHECKED - KWB	REVISED -

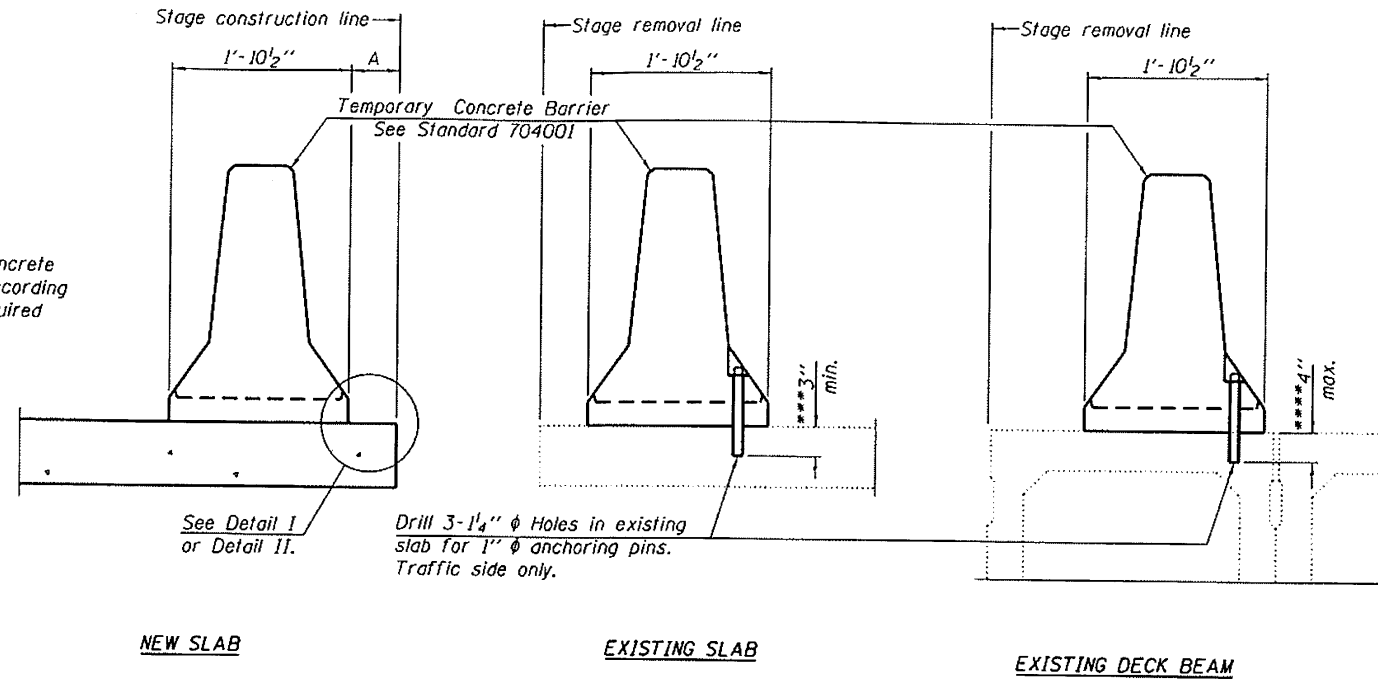
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING DETAILS
STRUCTURE NO. 041-0003 & 041-0004

SHEET 2 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-21BR-1)	JEFFERSON		
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

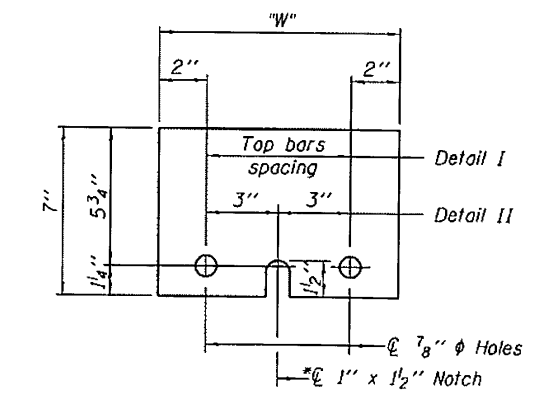
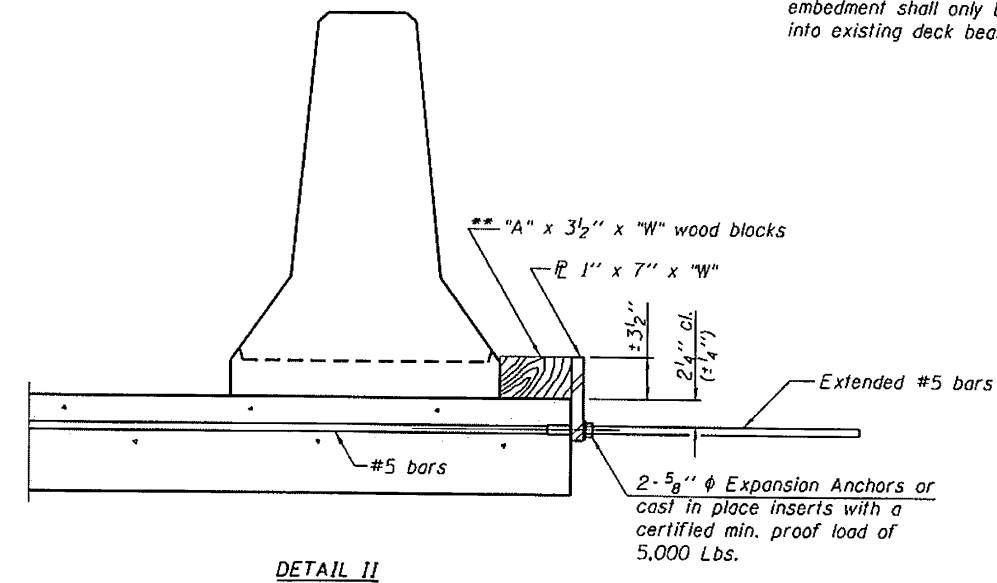
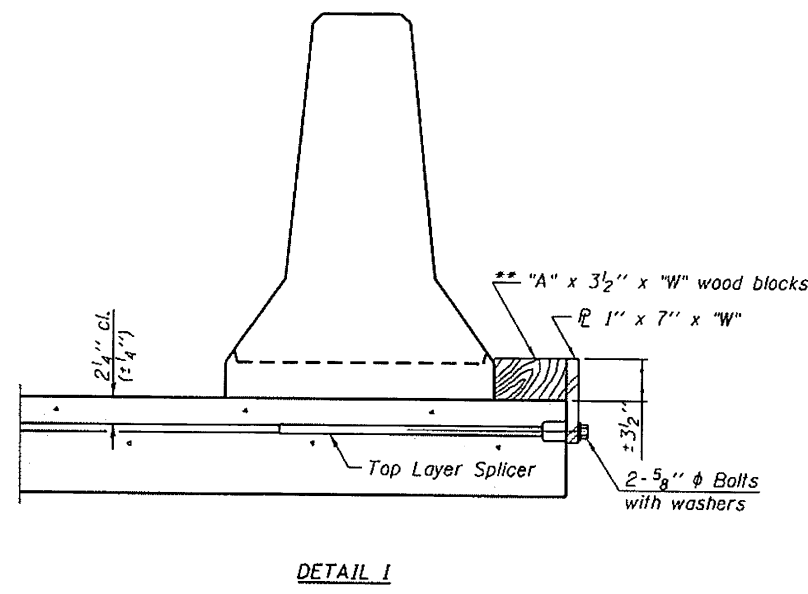
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{r} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{c} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{r} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{c} of each barrier panel.

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

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

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



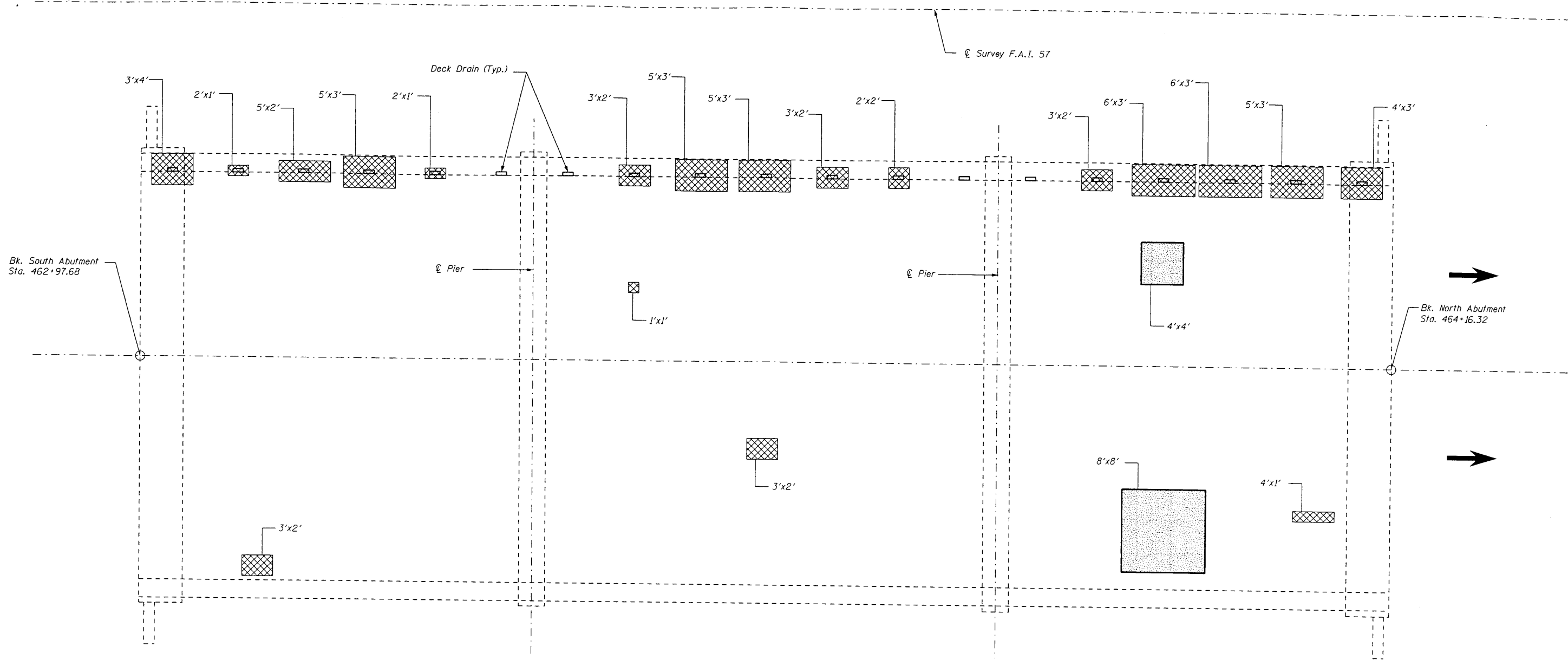
RETAINER ASSEMBLY

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

STEEL RETAINER 1" x 7" x "W"
* Required only with Detail II

R-27 1-12-15

AECOM	USER NAME :	DESIGNED - KWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 041-0003 & 041-0004	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE :	CHECKED - NPP	REVISED -			51	41-2(BR-1)	JEFFERSON			
	PLOT DATE :	DRAWN - DCS	REVISED -			CONTRACT NO.					
		CHECKED - KWB	REVISED -	SHEET 3 OF 11 SHEETS		ILLINOIS FED. AID PROJECT					

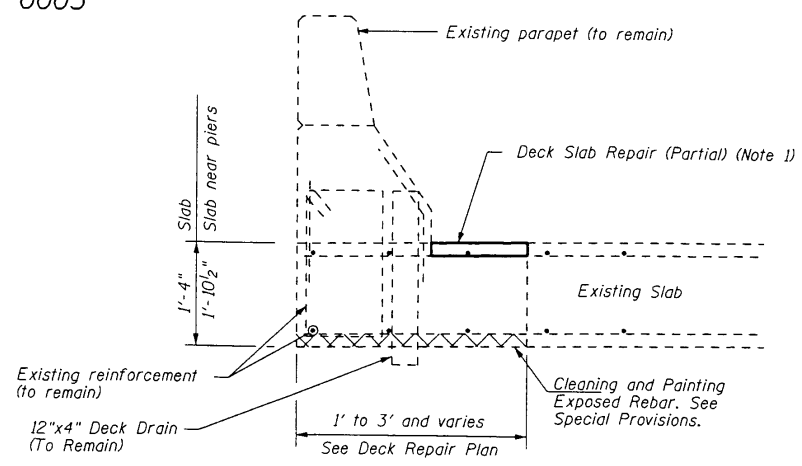


DECK REPAIR PLAN
SN 041-0003

LEGEND

- Area of Cleaning and Painting Exposed Rebar
- Area of Deck Slab Repair (Partial)

NOTES:
1. All Deck Slab Repair to be performed per Deck Slab Repair Special Provision and Sections 501, 503 & 1020 of the Standard Specifications.



TYPICAL SECTION SHOWING DECK SLAB REPAIR AT WEST PARAPET

ITEM	UNIT	QUANTITY
Cleaning and Painting Exposed Rebar	Sq. Ft.	173
Deck Slab Repair (Partial)	Sq. Yd.	16

Entire sheet revised 2/28/2017 VHV

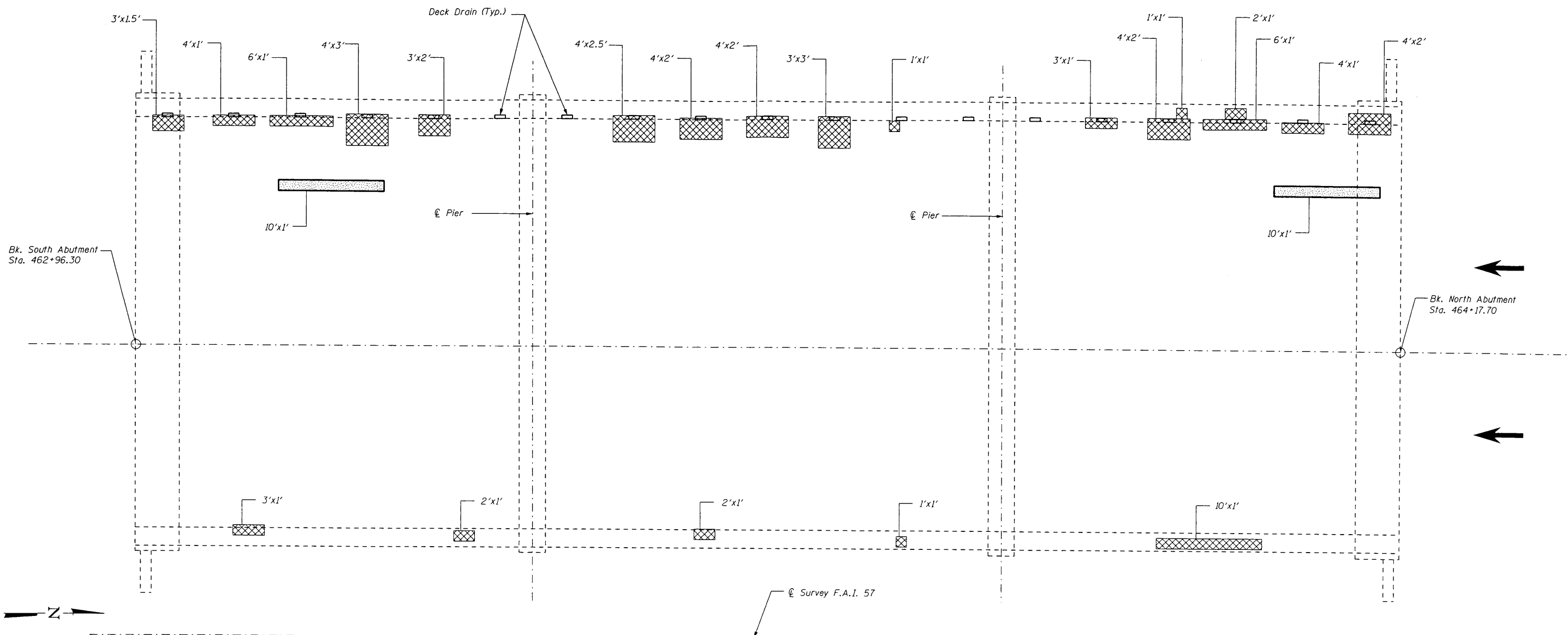
USER NAME =	DESIGNED - KWB	REVISED - VHV
	CHECKED - NPP	REVISED - DAB
PLOT SCALE =	DRAWN - DCS	REVISED - ballva
PLOT DATE =	CHECKED - KWB	REVISED - VHV

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK SLAB REPAIR PLAN
STRUCTURE NO. 041-0003**

SHEET 4 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-2(BR-2)	JEFFERSON	17	10
				CONTRACT NO. 78542
ILLINOIS FED. AID PROJECT				

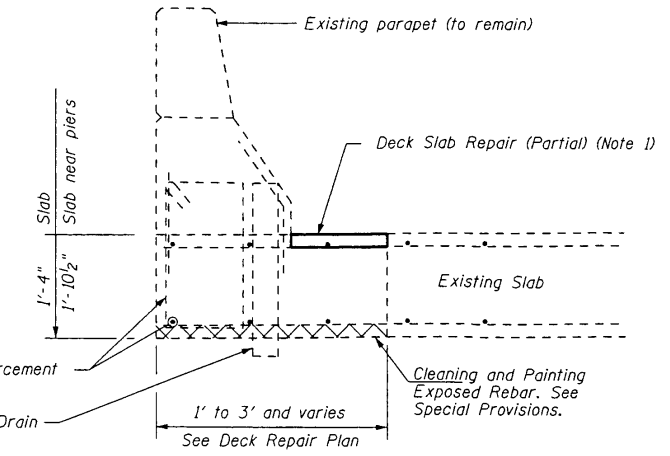


DECK REPAIR PLAN
SN 041-0004

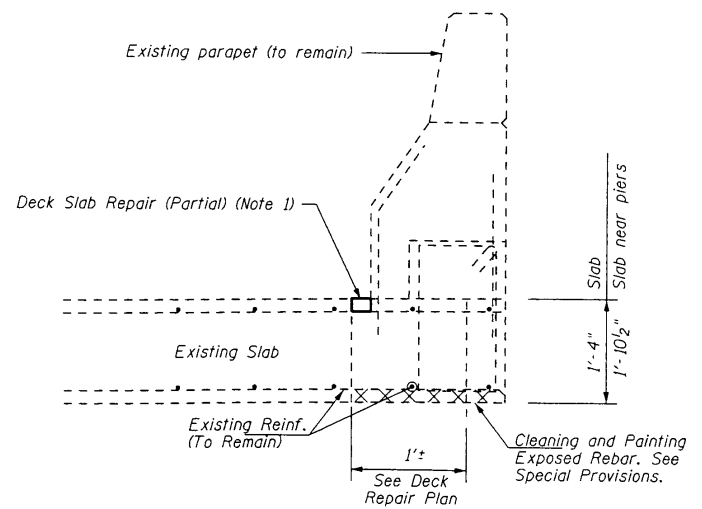
LEGEND

- Area of Cleaning and Painting Exposed Rebar
- Area of Deck Slab Repair (Partial)

NOTES:
1. All Deck Slab Repair to be performed per Deck Slab Repair Special Provision and Sections 501, 503 & 1020 of the Standard Specifications.



TYPICAL SECTION SHOWING DECK SLAB REPAIR AT WEST PARAPET



TYPICAL SECTION SHOWING DECK SLAB REPAIR AT EAST PARAPET

ITEM	UNIT	QUANTITY
Cleaning and Painting Exposed Rebar	Sq. Ft.	119
Deck Slab Repair (Partial)	Sq. Yd.	5

Entire sheet revised 2/28/2017 VHV

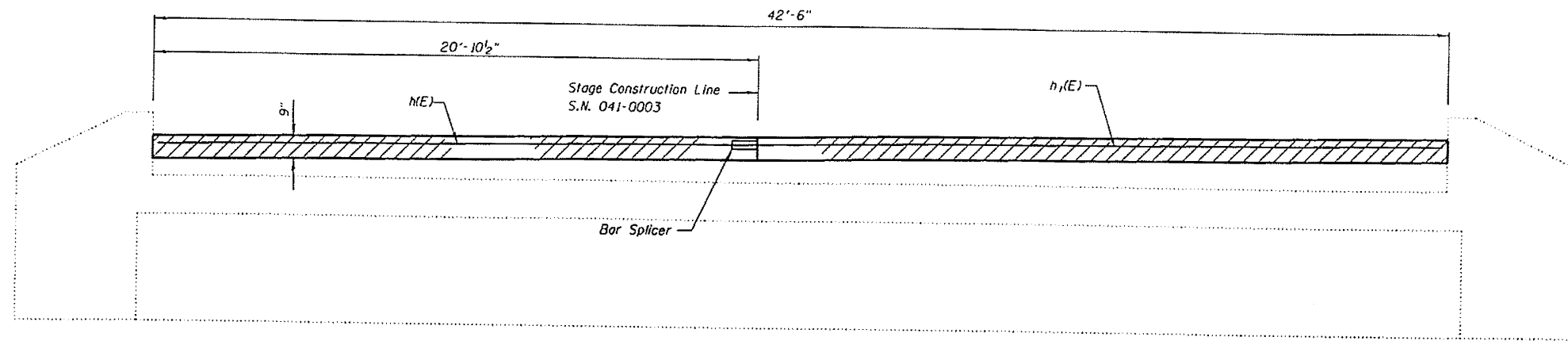
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SLAB REPAIR PLAN
STRUCTURE NO. 041-0004

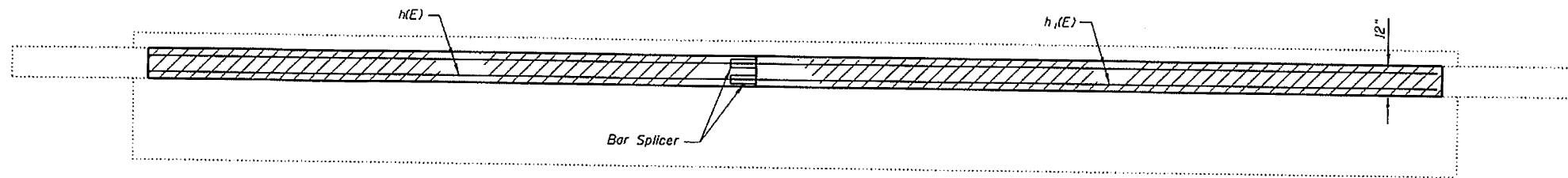
SHEET 5 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-2(BR-2)	JEFFERSON	17	11
CONTRACT NO. 78542				

ILLINOIS FED. AID PROJECT

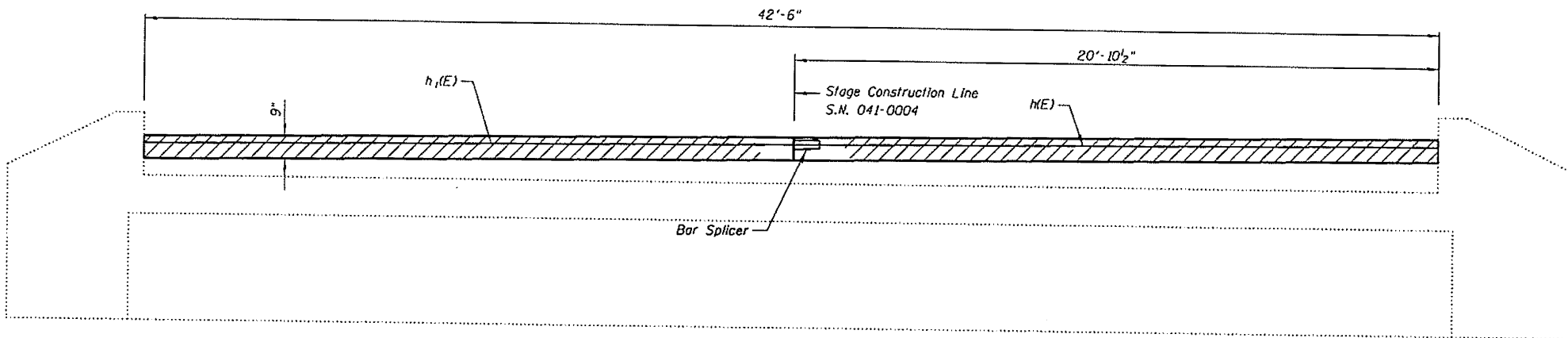


ELEVATION

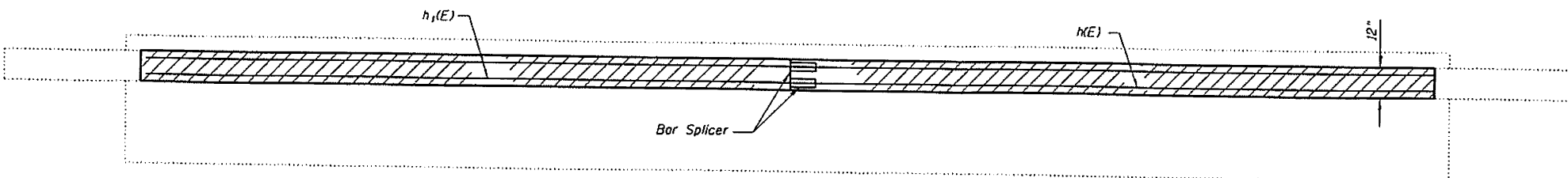


PLAN - SOUTH ABUTMENT
PLAN - NORTH ABUTMENT SIMILAR

ABUTMENT BACKWALL
S.N. 041-0003 LOOKING NORTH



ELEVATION



PLAN - SOUTH ABUTMENT
PLAN - NORTH ABUTMENT SIMILAR

ABUTMENT BACKWALL
S.N. 041-0004 LOOKING NORTH

Concrete Removal

S.N. 041-0003 & S.N. 041-0004
ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n(E)	8	#6	20'-7"	—
h ₁ (E)	8	#6	21'-4"	—
Concrete Removal			Cu. Yd.	4.7
Concrete Superstructure			Cu. Yd.	4.7
Reinforcement Bars, Epoxy Coated			Pound	510
Bar Splicers			Each	8



USER NAME *	DESIGNED - KWB	REVISED -
PLOT SCALE *	CHECKED - NPP	REVISED -
PLOT DATE *	DRAWN - DCS	REVISED -
	CHECKED - KWB	REVISED -

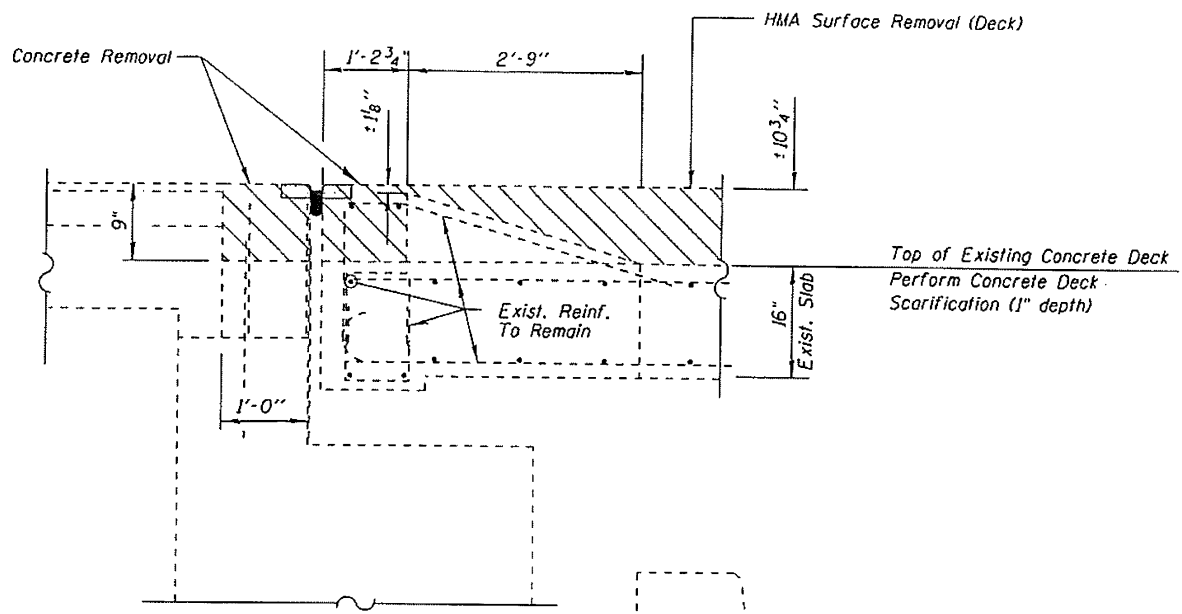
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 041-0003 & 041-0004

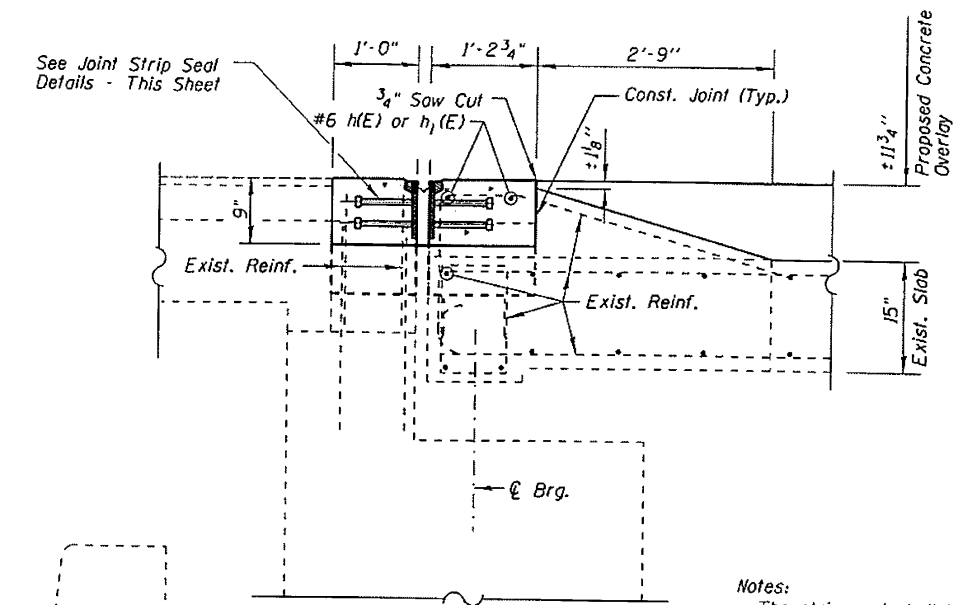
SHEET 6 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-2(BR-1)	JEFFERSON		
				CONTRACT NO.

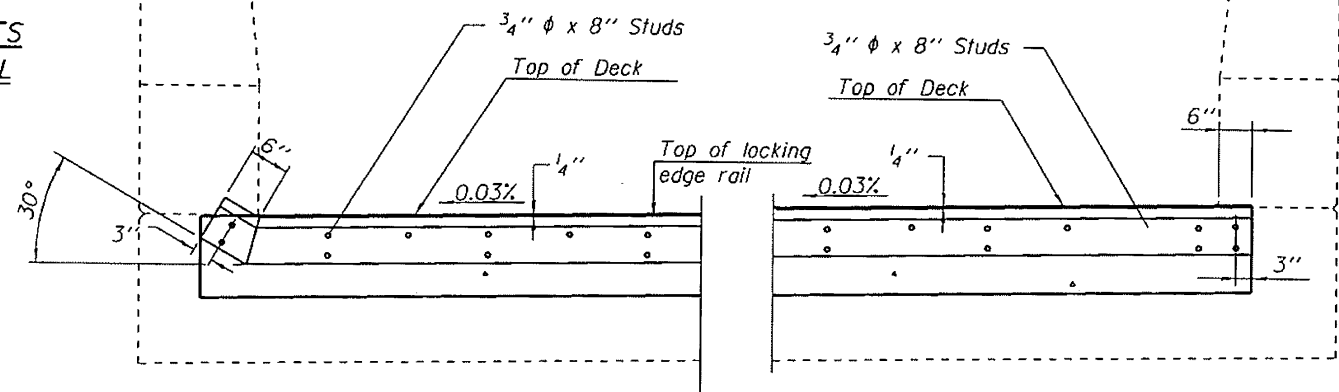
ILLINOIS FED. AID PROJECT



**SECTION AT JOINTS
SHOWING REMOVAL**



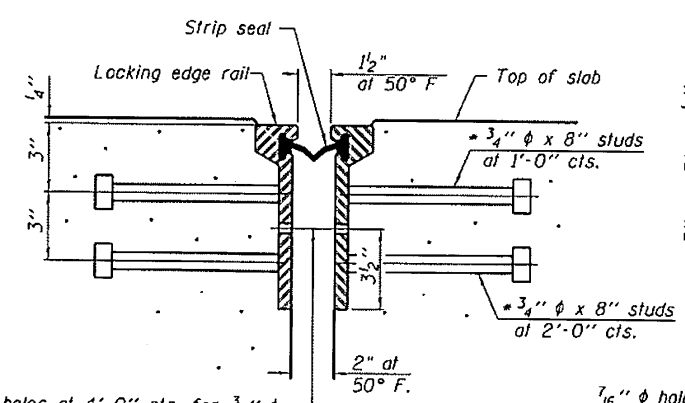
**PROPOSED SECTION AT JOINTS
SHOWING HIGH SIDE OF DECK**



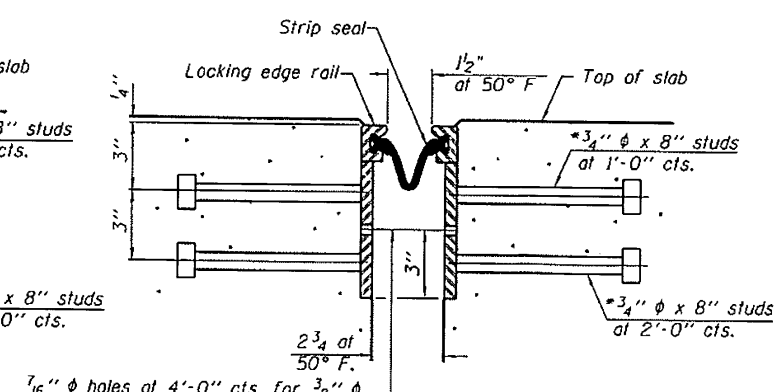
**END TREATMENT AT
LOW SIDE OF DECK**

**END TREATMENT AT
HIGH SIDE OF DECK**

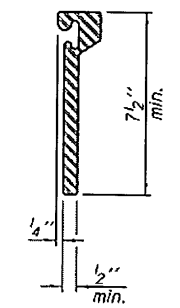
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
 The manufacturer's recommended installation methods shall be followed.
 The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
 Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



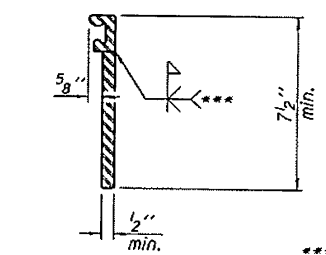
**SECTION THRU
ROLLED RAIL JOINT**



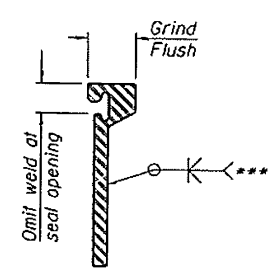
**SECTION THRU
WELDED RAIL JOINT**



**ROLLED
EXTRUDED RAIL**



WELDED RAIL



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

**LOCKING EDGE
RAIL SPLICE**

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

LOCKING EDGE RAILS

**S.N. 041-0003 & S.N. 041-0004
DECK EXPANSION JOINT
BILL OF MATERIAL**

Item	Unit	Quantity
Preformed Joint Strip Seal	Foot	168
Concrete Removal	Cu. Yd.	5.8
Concrete Superstructure	Cu. Yd.	5.8

• Granular or solid flux filled headed studs conforming to Article 1005.32 of the Std. Specs., automatically end welded.

PREFORMED JOINT STRIP SEAL DETAILS



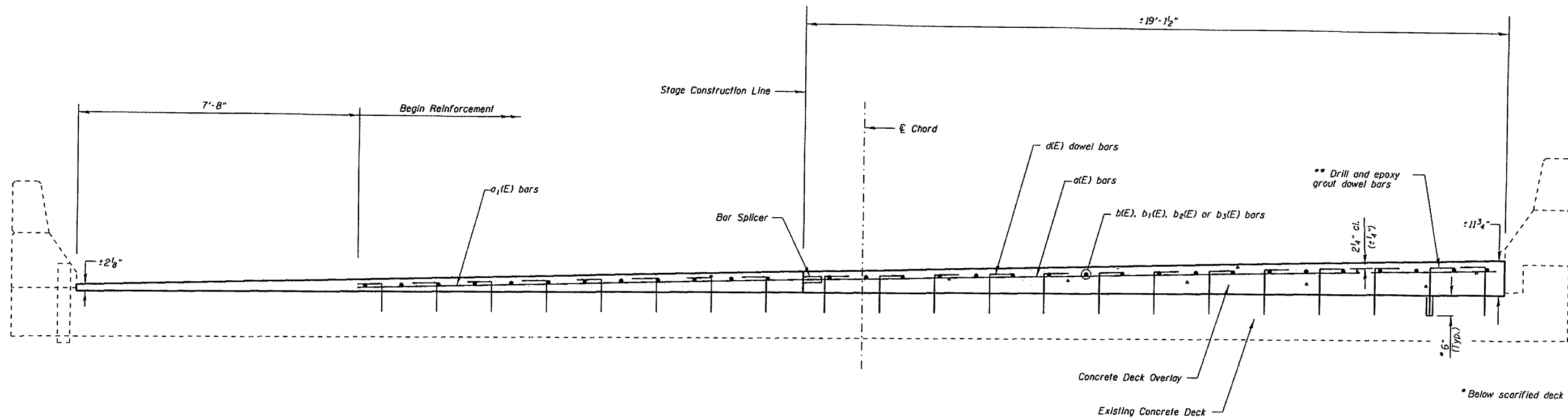
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PLOT SCALE *	CHECKED - NPP	REVISED -
PLOT DATE *	DRAWN - DCS	REVISED -
	CHECKED - KWB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**JOINTS AND OVERLAY DETAILS
STRUCTURE NO. 041-0003 & 041-0004**

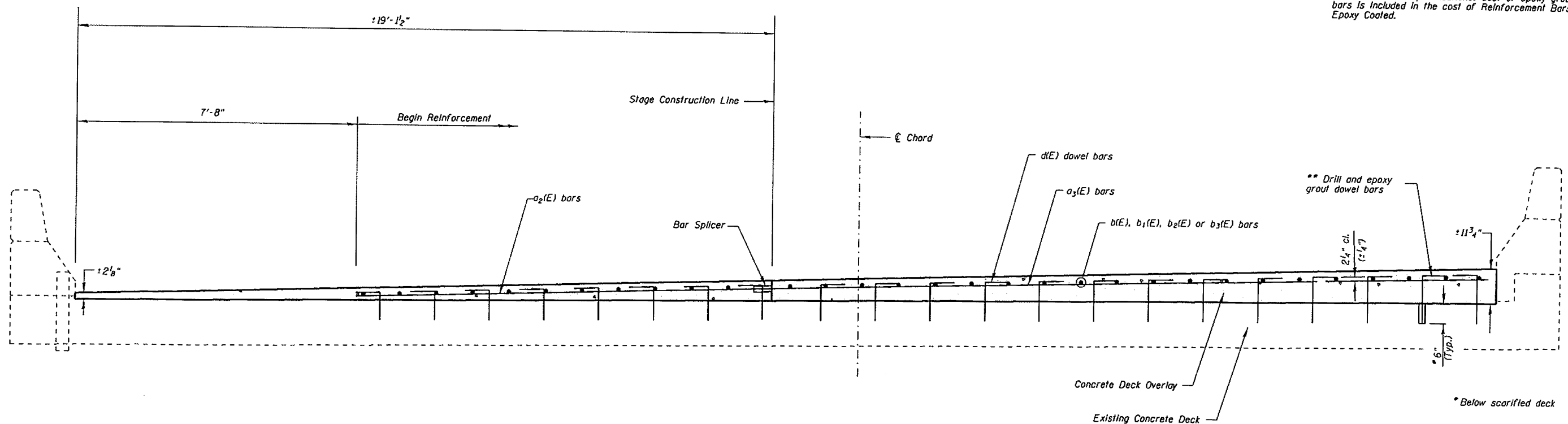
SHEET 7 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-21BR-11	JEFFERSON		
				CONTRACT NO.
ILLINOIS FED. AID PROJECT				



DECK OVERLAY CROSS SECTION
S.N. 041-0004 LOOKING NORTH

** Epoxy grouted bars in accordance with Article 584 of the Standard Specifications. Cost of epoxy grouting bars is included in the cost of Reinforcement Bars, Epoxy Coated.



DECK OVERLAY CROSS SECTION
S.N. 041-0003 LOOKING NORTH



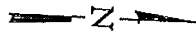
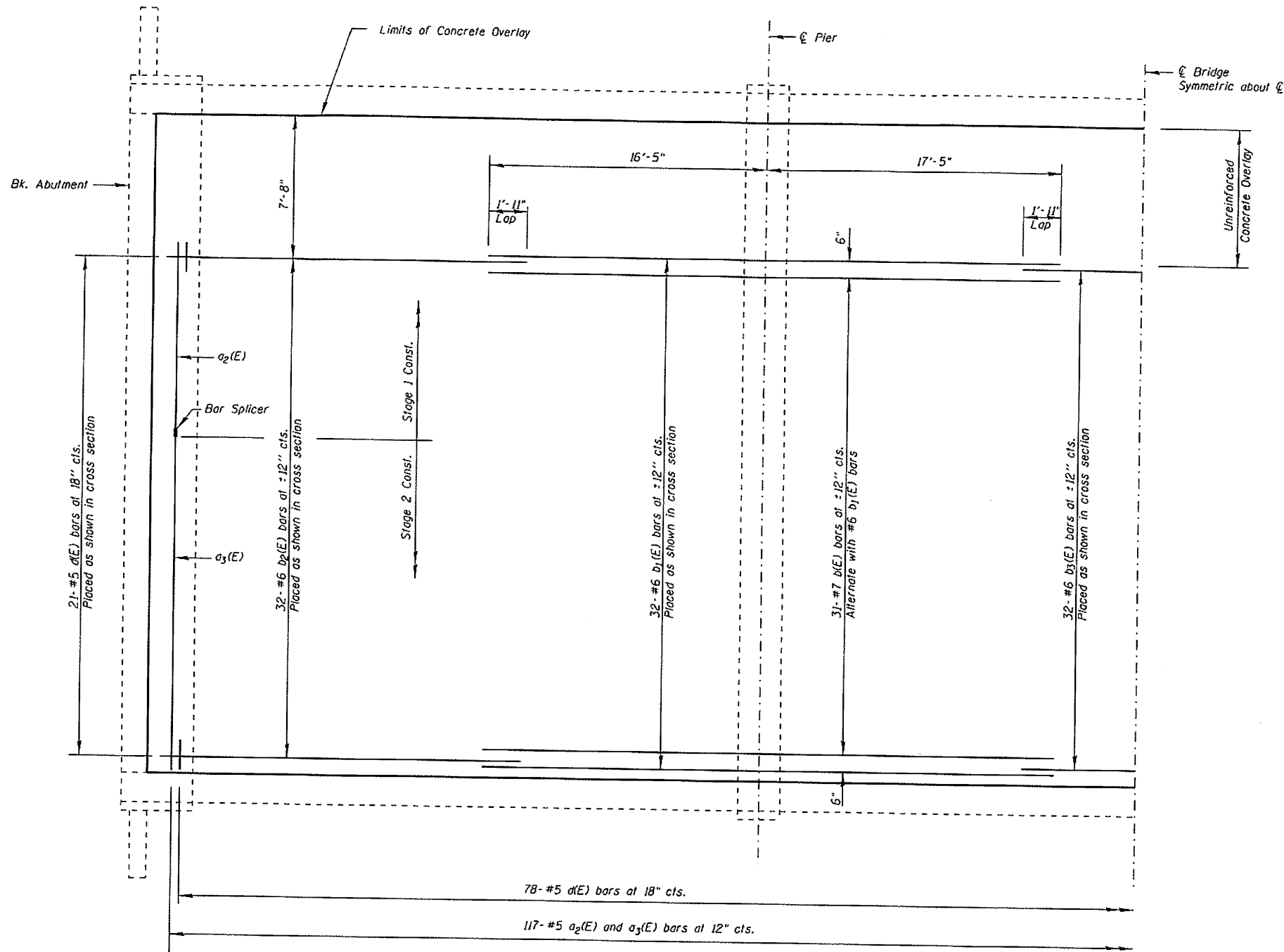
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PLOT SCALE *	CHECKED - NPP	REVISED -
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	CHECKED - KWB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

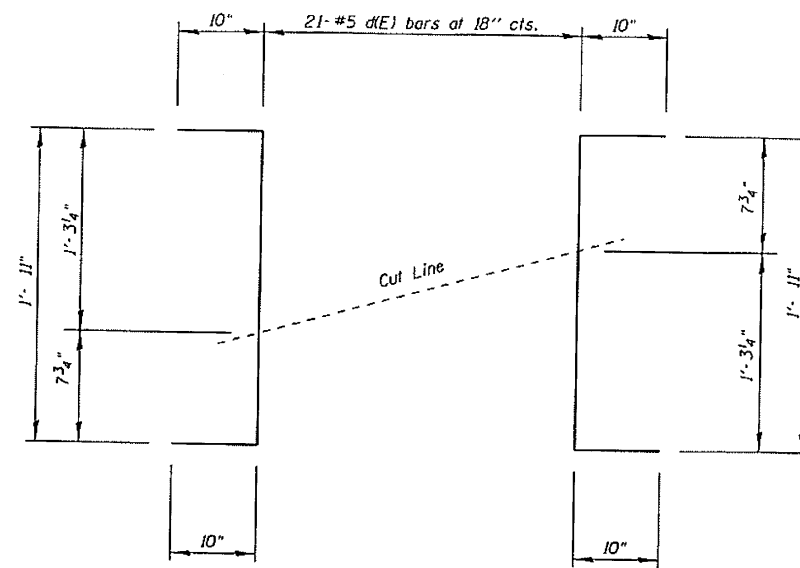
CONCRETE OVERLAY REINFORCEMENT DETAILS
 STRUCTURE NO. 041-0003 & 041-1004

SHEET 8 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-2(BR-1)	JEFFERSON		
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



PARTIAL PLAN
S.N. 041-0003



BAR d(E) FIELD CUTTING DIAGRAM

Order d(E) bars full length. Cut as shown and use remainder of bars in adjacent row

S.N. 041-0003
SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_2(E)$	117	#5	11'-4"	—
$a_3(E)$	117	#5	19'-7"	—
b(E)	62	#7	33'-10"	—
b ₁ (E)	64	#6	33'-10"	—
b ₂ (E)	64	#6	21'-5"	—
b ₃ (E)	32	#6	13'-6"	—
d(E)	819	#5	3'-7"	┌┐
Reinforcement Bars, Epoxy Coated			Pound	17,090
Bar Splicers			Each	117

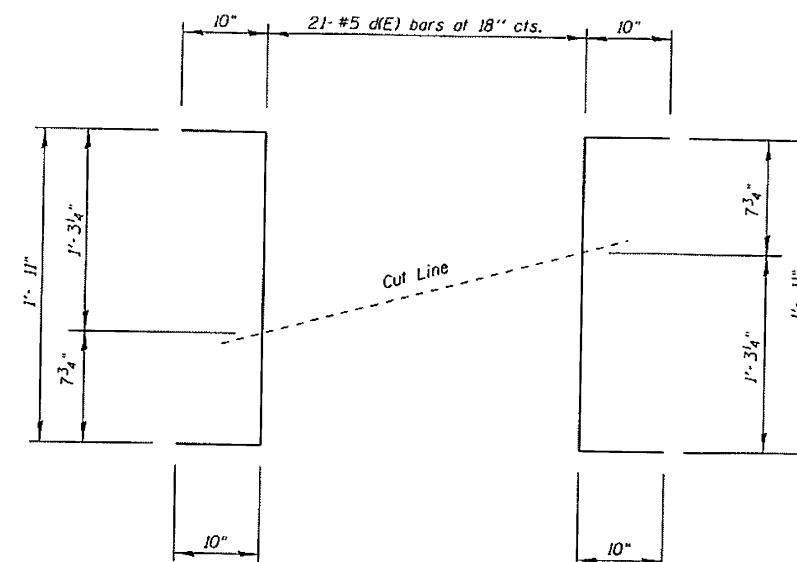
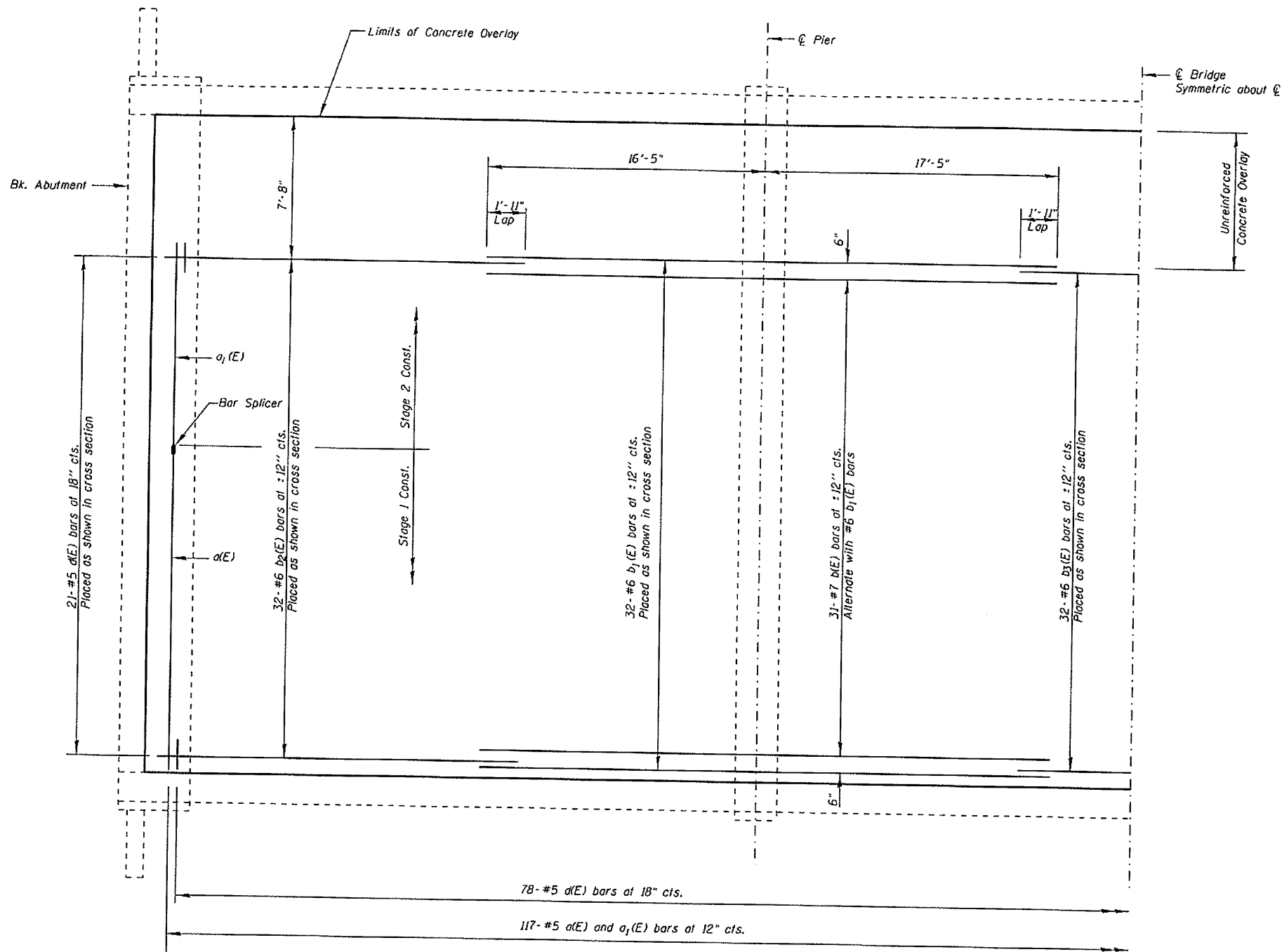


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PLOT SCALE *	CHECKED - NPP	REVISED -
PLOT DATE *	DRAWN - DCS	REVISED -
	CHECKED - KWB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE OVERLAY REINFORCEMENT DETAILS
STRUCTURE NO. 041-0003

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-2(BR-1)	JEFFERSON		
CONTRACT NO.				

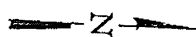


BAR d(E) FIELD CUTTING DIAGRAM

Order d(E) bars full length. Cut as shown and use remainder of bars in adjacent row

**S.N. 041-0004
SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	117	#5	18'-10"	—
a ₁ (E)	117	#5	12'-1"	—
b ₁ (E)	62	#7	33'-10"	—
b ₂ (E)	64	#6	33'-10"	—
b ₃ (E)	32	#6	13'-6"	—
d(E)	819	#5	3'-7"	┌┐
Reinforcement Bars, Epoxy Coated			Pound	17,090
Bar Splicers			Each	117



**PARTIAL PLAN
S.N. 041-0004**



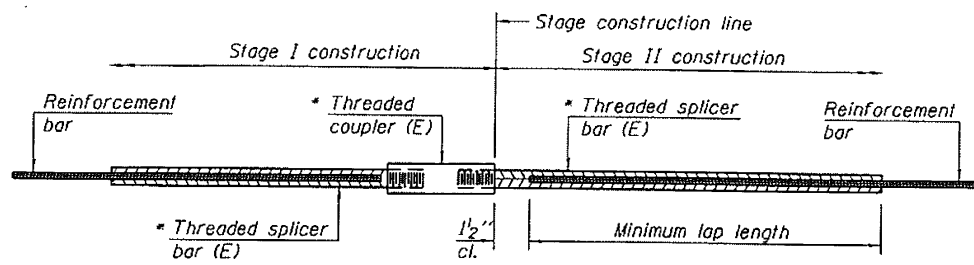
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PLDT SCALE =	CHECKED - NPP	REVISED -
PLDT DATE =	DRAWN - DCS	REVISED -
	CHECKED - KWB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE OVERLAY REINFORCEMENT DETAILS
STRUCTURE NO. 041-0004**

SHEET 10 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	41-21BR-1)	JEFFERSON		
				CONTRACT NO.
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

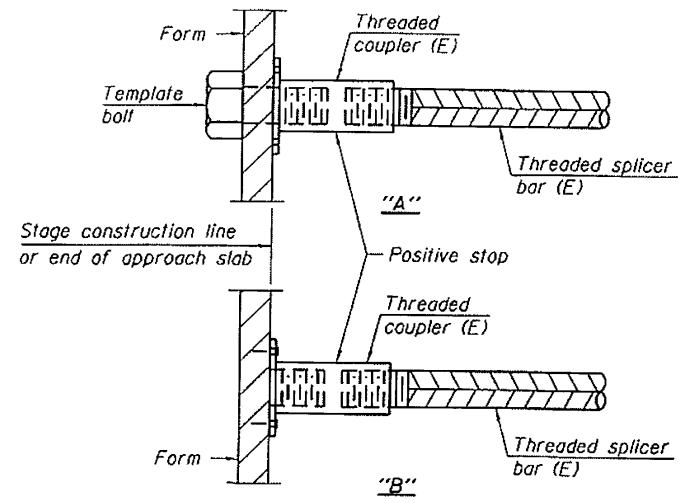
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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

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

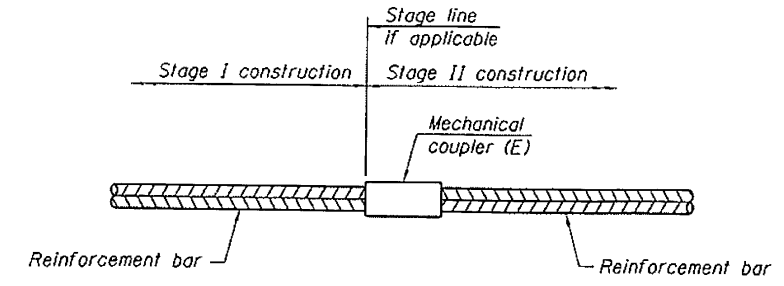
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	234	3
Abutment Backwall	#6	8	3



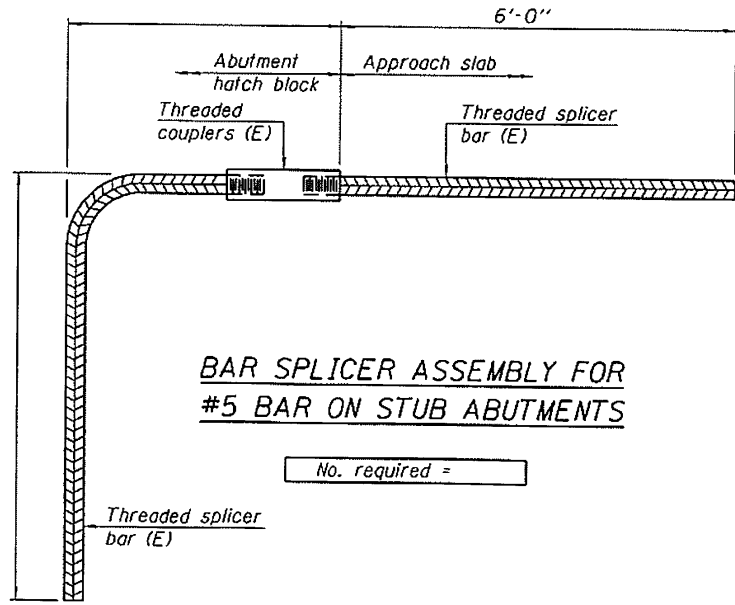
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

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 6-8-15

06-17-11 LETTING ITEM 119

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

**FAI ROUTE 57 (I-57)
OVER DODDS CREEK
SECTION 41-2(BR-1)
BRIDGE REPAIR
JEFFERSON COUNTY**

C-99-032-11
PROJECT IM-051-2(156)088

F.A.I. REEL	SECTION	COUNTY	TOTAL SHEET SHEETS, NO.
57	41-2(BR-1)	JEFFERSON	8
ILLINOIS CONTRACT NO. 78245			1

FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

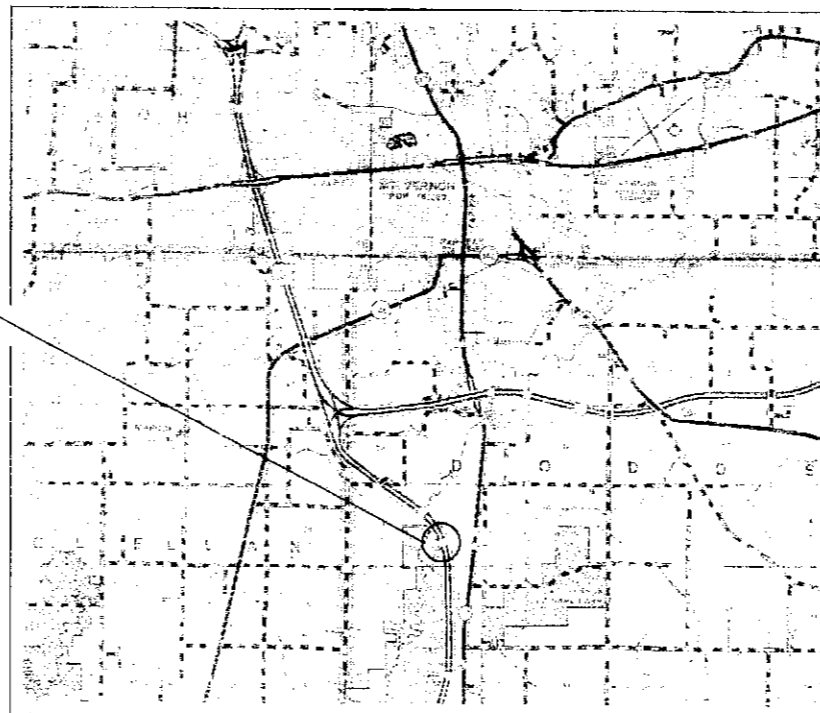
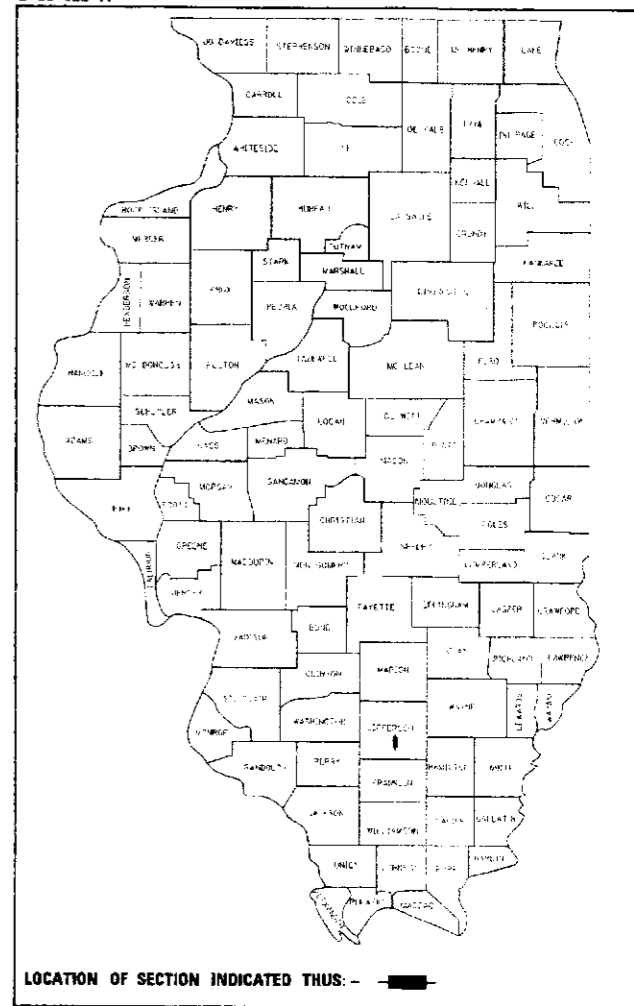
I-57 TRAFFIC DATA

2009 ADT = 29,000
32.7 % TRUCKS

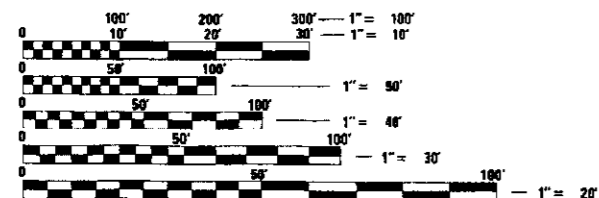
TOWNSHIP:

DODDS

D-99-022-11



PROJECT LOCATION
SN 041-0003 (NB) AND
041-0004 (SB)



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 T. WAYNE HALSTEAD
PROJECT MANAGER DAVID PICHE

CONTRACT NO. 78245

GROSS LENGTH = 160 FT.
NET LENGTH = 160 FT.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 17 20 11
M. C. Hami
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 13 20 11
Scott E. Stett P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

May 13 20 11
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

GENERAL NOTES

- 1) THE THICKNESS OF HOT-MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT MIXTURE IS PLACED.
- 2) FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT MIX ASPHALT	2.016 TONS/CU YD
BITUMINOUS MATERIALS: ON PAVEMENT	0.09 GAL /SQ YD
- 3) PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHOULD CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.
- 4) IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16 THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.16 REGARDLESS IF TRACK MOUNTED OR WHEELED.
- 5) THE TRAFFIC BARRIER TERMINAL, TYPE 6 & TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT LOCATED AT THE SOUTHEAST APPROACH OF SN 041-0003 (N3) ARE TO BE REPLACED.
- 6) COMMITMENTS: NONE AS OF MARCH 25, 2011.

STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
630001-09	STEEL PLATE BEAM GUARDRAIL
631031-09	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701101-02	OFF-ROAD, MULTILANE 15' TO PAVEMENT EDGE
701400-05	APPROACH TO LANE CLOSURE FREEWAY/EXPRESSWAY
701401-06	LANE CLOSURE FREEWAY/EXPRESSWAY
701402-08	LANE CLOSURE FREEWAY/EXPRESSWAY, WITH BARRIER
701426-04	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≥ 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
750001-02	TYPICAL PAVEMENT MARKINGS

INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS; GENERAL NOTES; STANDARDS
3	SUMMARY OF QUANTITIES
4	WIDE LOAD SIGNING DETAILS
5	GENERAL PLAN AND ELEVATION
6	STAGING TYPICAL SECTION
7	JOINT DETAILS
8	TEMPORARY CONCRETE BARRIER

MIXTURE REQUIREMENTS

LOCATION(S):	HOT-MIX ASPHALT SURFACE COURSE
MIXTURE USE(S):	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX E, N105
AC/PG:	SBS PG76-22
RAP% (MAX):	0
DESIGN AIR VOIDS:	4%, 105 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5 MM OR 12.5 MM
FRICTION AGGREGATE:	E SURFACE

LOCATION(S):	POLYMERIZED LEVELING BINDER (MACHINE METHOD), N105
MIXTURE USE(S):	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX C, N105
AC/PG:	SBS PG76-22
RAP% (MAX):	0
DESIGN AIR VOIDS:	4%, 105 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5 MM OR 12.5 MM
FRICTION AGGREGATE:	NONE

LOCATION(S):	HOT-MIX ASPHALT BINDER COURSE
MIXTURE USE(S):	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, N105, IL-19.0
AC/PG:	SBS PG76-22
RAP% (MAX):	0
DESIGN AIR VOIDS:	4%, 105 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-19.0
FRICTION AGGREGATE:	NONE

Prepared By:	<i>Joe Blumhagen</i> DISTRICT ENGINEER & PLANNING ENGINEER
Examined By:	<i>James Lewis Emery</i> DISTRICT LAND ACQUISITION ENGINEER
Examined By:	<i>Conrad Wilson</i> DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By:	<i>Karl Wiley</i> DISTRICT OPERATIONS ENGINEER
Examined By:	<i>K. R. [Signature]</i> DISTRICT CONSTRUCTION ENGINEER
Examined By:	<i>Barbara [Signature]</i> DISTRICT MATERIALS ENGINEER
Approved By:	<i>My [Signature]</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER
	March 17 2011 DATE

SUMMARY OF QUANTITIES

IM FUNDING
90% FEDERAL 10% STATE
CONSTRUCTION TYPE CODE
0005
JEFFERSON
SN 041-0003 & 041-0004

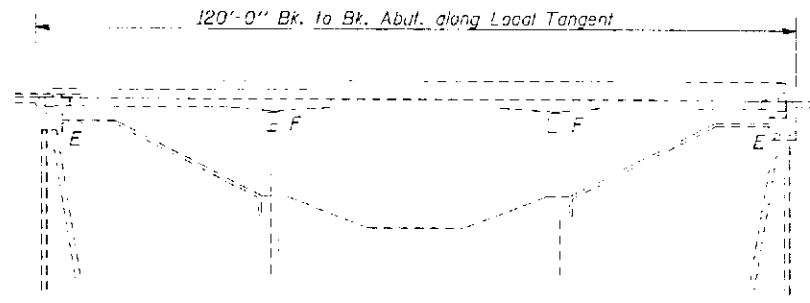
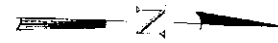
CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
40800215	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	TON	327
40600255	POLYMERIZED LEVELING BINDER (MACHINE METHOD), N105	TON	32
40603245	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-15, N105	TON	232
40803575	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX 15, N105	TON	79
44003554	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	214
56100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	997
63100085	TRAFFIC BARRIER TERMINAL, TYPE B	EACH	1
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 - SPECIAL TANGENT	EACH	1
63200310	GUARDRAIL REMOVAL	FOOT	94
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL MO	2
67000500	MOBILIZATION	L.S.M	1
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	2
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1
70200100	SHORT TERM PAVEMENT MARKING	FOOT	32
70200220	TEMPORARY PAVEMENT MARKING - LINE 4	FOOT	1150
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	404
70400100	TEMPORARY CONCRETE BARRIER	FOOT	750
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	650
78004210	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 4	FOOT	1150
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4
78200410	GUARDRAIL MARKERS, TYPE A	EACH	3
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	1
78300100	PAVEMENT MARKING REMOVAL	SQ FT	284
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4
20004555	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	997
20021922	SILICONE JOINT SEALER	FOOT	164
20030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
20030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
20041895	POLYMER CONCRETE	CU FT	3.5

GENERAL NOTES

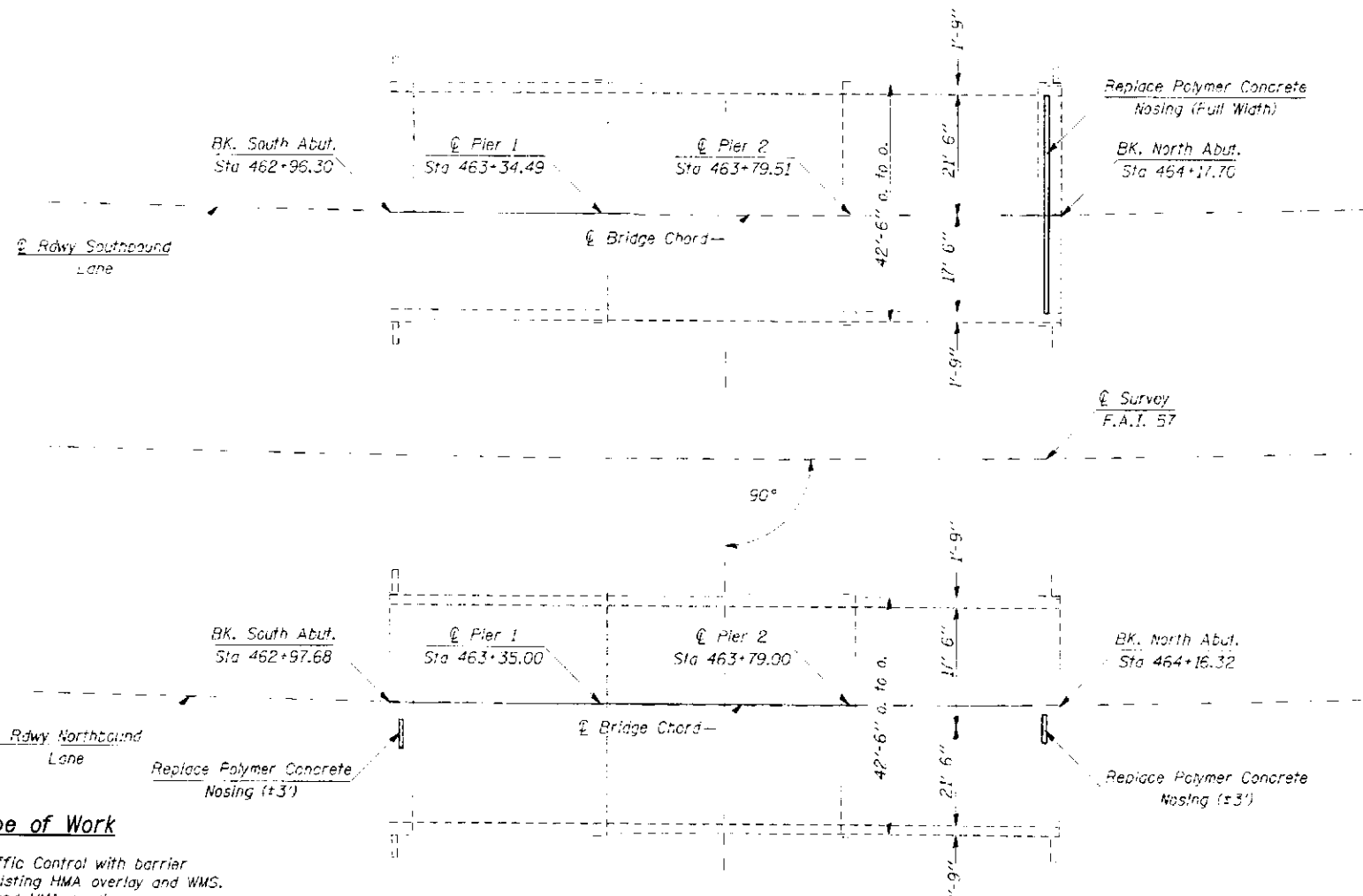
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Contractor will need to remove any spalling concrete around the existing drain locations. Cost to be included with HMA Surface Removal (Deck).

Partial Depth Patching of the existing bridge deck shall be done per article 109.04 of the Standard Specifications.



ELEVATION



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Polymerized HMA Surface Course, Mix 'E', N105	Ton	79
Polymerized HMA Binder Course, IL-19, N105	Ton	232
Waterproofing Membrane System	Sq. Yd.	997
HMA Surface Removal (Deck)	Sq. Yd.	997
HMA Surface Removal, 1/4"	Sq. Yd.	214
Silicone Joint Sealer	Foot	164
Polymer Concrete	Cu. Ft.	3.6
Polymerized Leveling Binder (Machine Method), N105	Ton	32

Scope of Work

- Setup Traffic Control with barrier
- Remove existing HMA overlay and WMS.
- Lay WMS and HMA overlay
- Perform work at joints
- Switch stages and repeat

Design Stresses

FIELD UNITS (Existing Construction)
 $f_c = 1,400$ psi (super & sub.)
 $f_s = 20,000$ psi Struct./A-36
 $f_s = 20,000$ psi (reinforcement)
 $V_o = 75$ psi (Figs.)
 $n = 10$



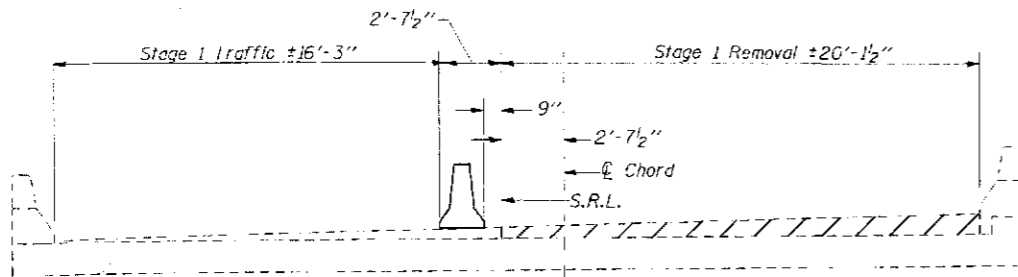
David Carl Puzey 5/4/11
 Expires 11/30/2012

**BRIDGE REPAIR
 FAI RT 57 OVER
 DODDS CREEK
 JEFFERSON COUNTY
 SECTION 41-2(BR-1)
 STA. 463+57
 SN 041-0003 (NB) SN 041-0004 (SB)**

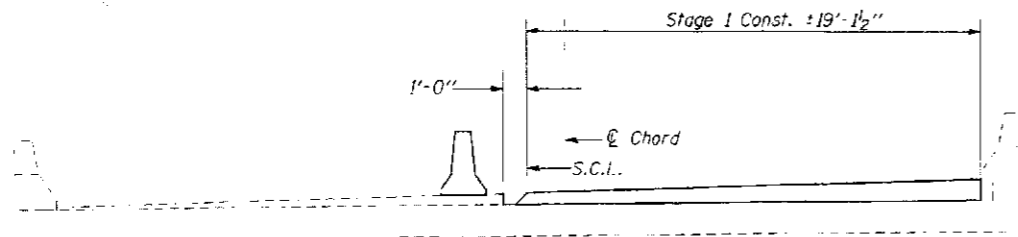
FILE NAME	DESIGNED	DRAWN	CHECKED	DATE	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
041-0003-0004-01-01-001	TWH	TWH	MAS	10/15/09				57	41-2(BR-1)	JEFFERSON	8	8
							SCALE:	SHEET NO. OF 4 SHEETS	STA.	TO STA.	CONTRACT NO. 78245 ILLINOIS FED. AID PROJECT	

SECTIONS THRU BRIDGES

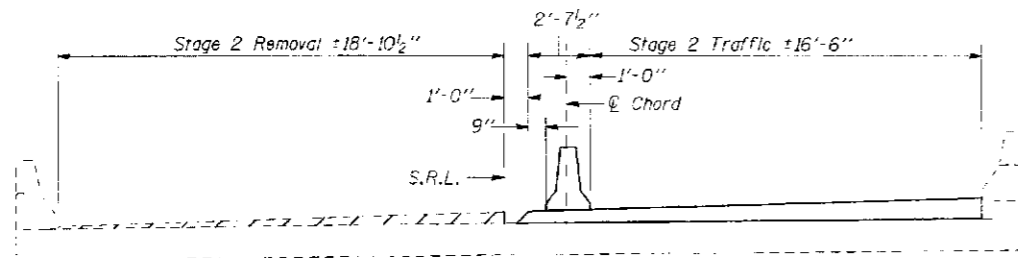
All Sections Looking North



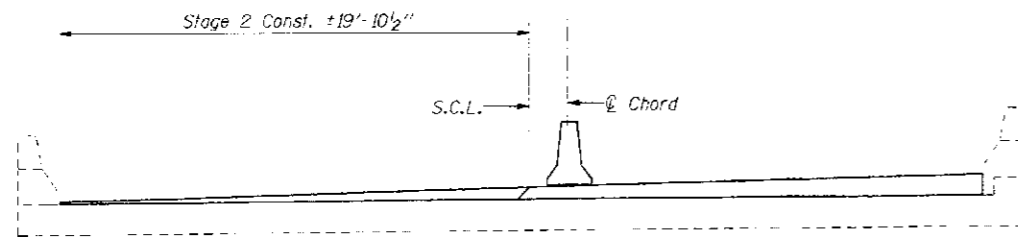
STAGE I REMOVAL
Southbound Lane



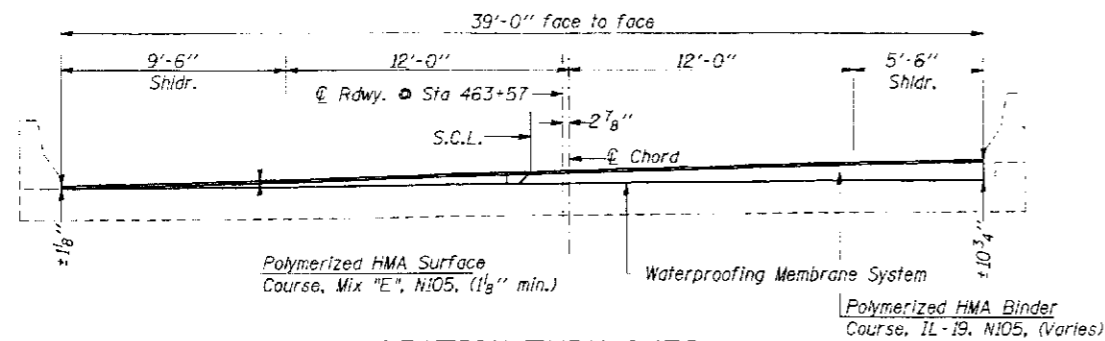
STAGE I CONSTRUCTION
Southbound Lane



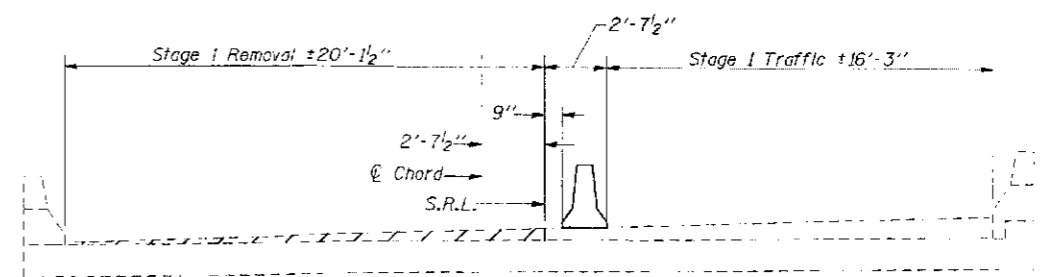
STAGE II REMOVAL
Southbound Lane



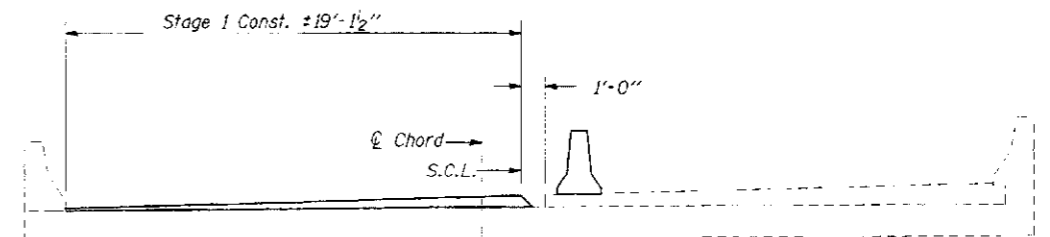
STAGE II CONSTRUCTION
Southbound Lane



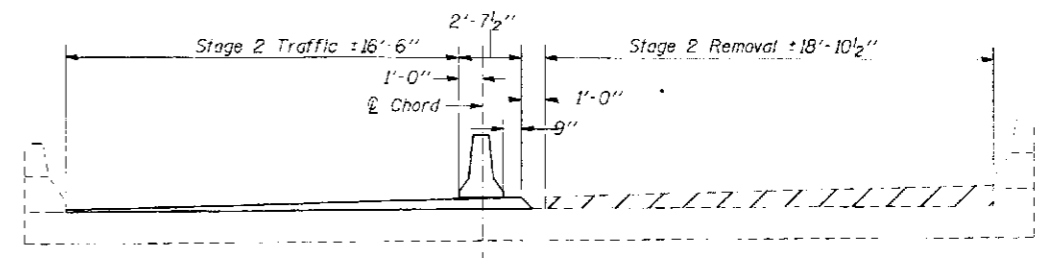
SECTION THRU OVERLAY
Southbound Lane



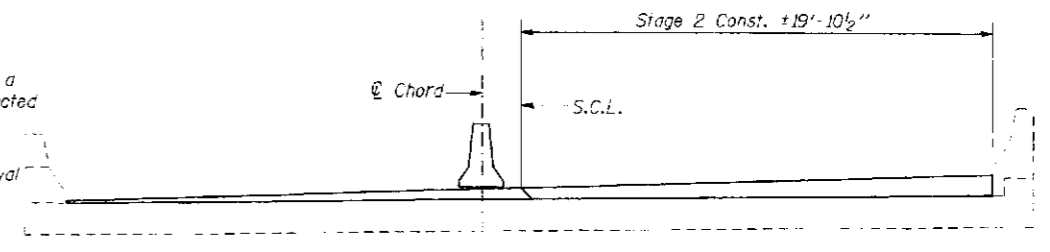
STAGE I REMOVAL
Northbound Lane



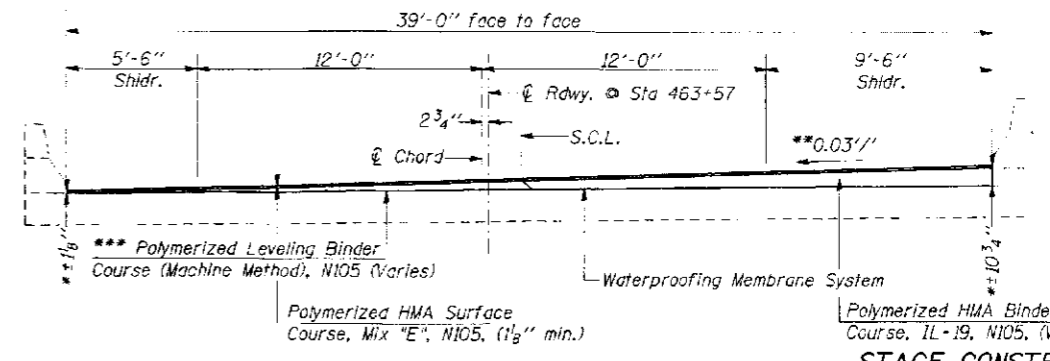
STAGE I CONSTRUCTION
Northbound Lane



STAGE II REMOVAL
Northbound Lane



STAGE II CONSTRUCTION
Northbound Lane



SECTION THRU OVERLAY
Northbound Lane

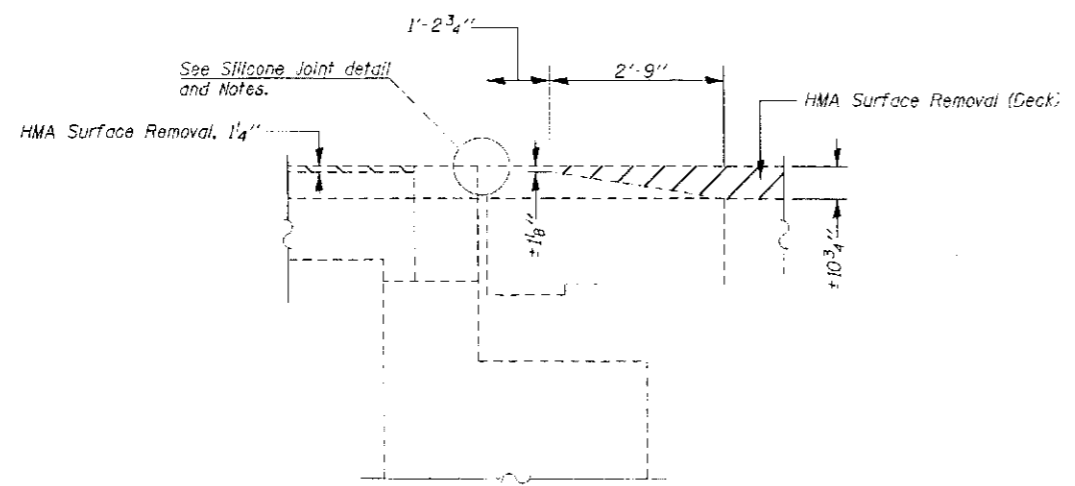
HMA Surface Removal (Deck)

NOTES:

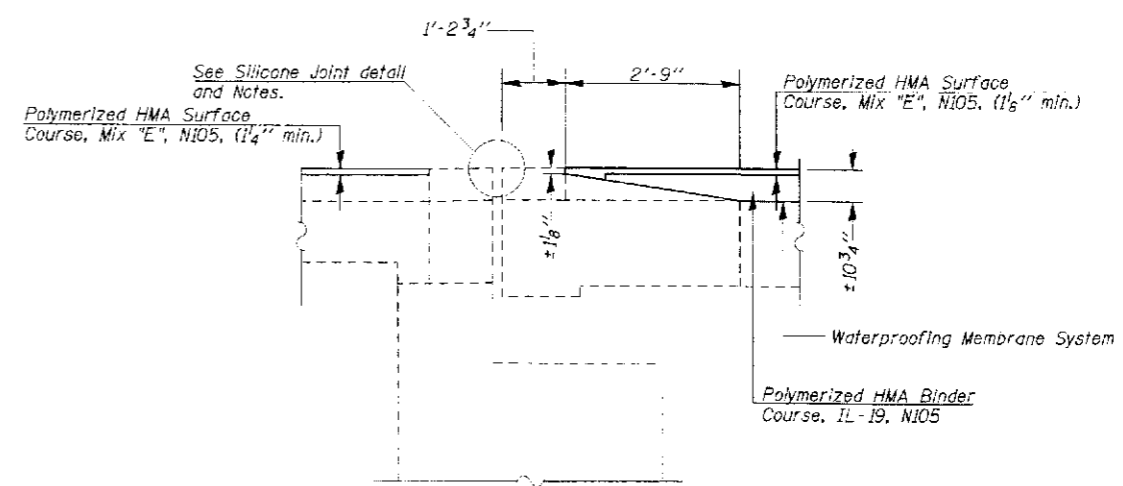
- * The proposed overlay thickness matches the existing overlay thickness.
- ** The original bridge deck portion was constructed on a slope of 0.01%. The original overlay section was constructed on a slope of 0.03%.
- The Contractor may elect to change the sequence of staging, i.e. perform stage 2 first then stage 1, with approval of the Engineer.
- *** Leveling Binder to only be used on Stage I Construction of SN 041-0003 (NB).

STAGE CONSTRUCTION
JEFFERSON COUNTY
S.N. 041-0003 & 041-0004

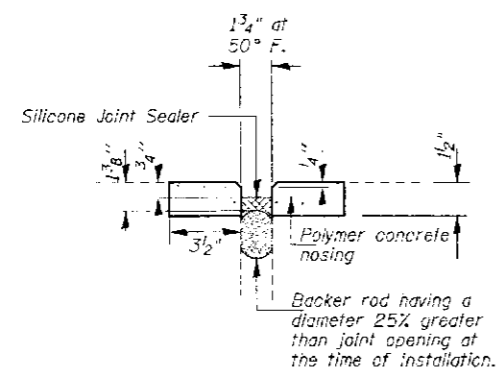
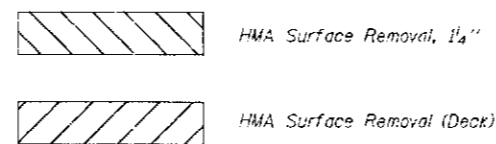
FILE NAME - c:\pwworkspace\halsstead\104264481\104264481.dwg	USER NAME - halsstead	DESIGNED - TWH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGING DETAILS	F.A.T. RTE. 57	SECTION 41-2(BR-1)	COUNTY JEFFERSON	TOTAL SHEETS 8	SHEET NO. 6
	PLOT SCALE - 1/8" = 1'-0"	CHECKED MAS	REVISED -			SCALE:	SHEET NO. 2 OF 4 SHEETS	STA.	TO STA.	CONTRACT NO. 78245
	PLOT DATE - 3/12/2011	DATE - 10/15/09	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



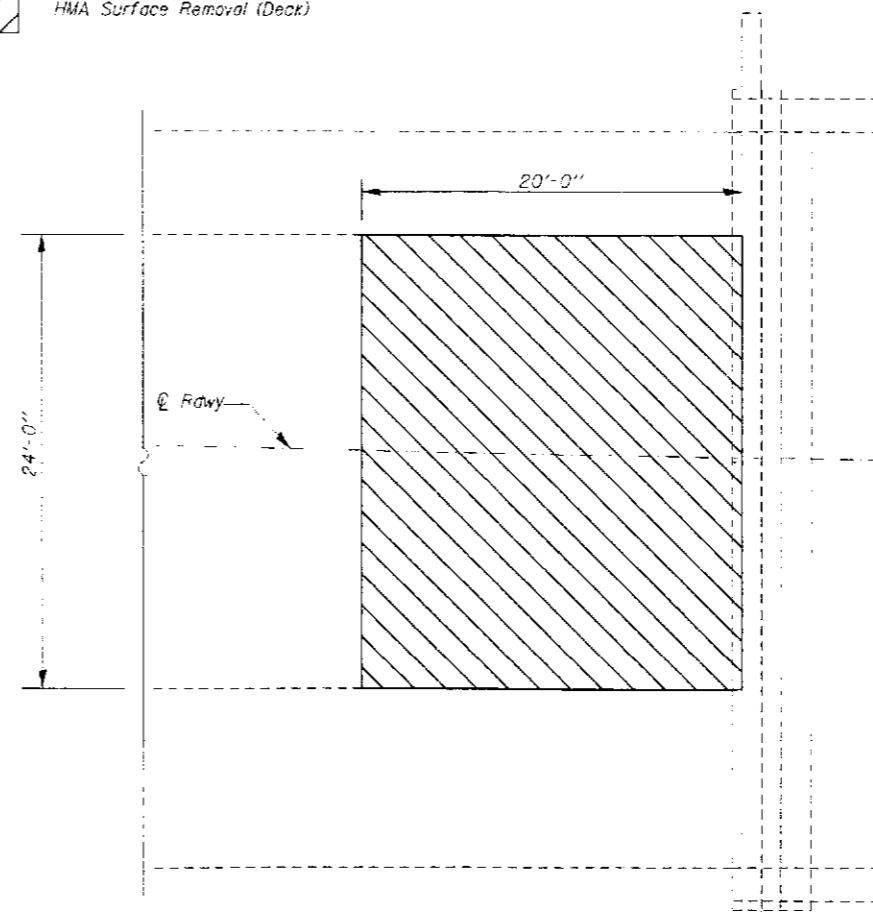
SECTION JOINTS
HMA Removal



SECTION JOINTS
New HMA



SILICONE JOINT SEALER DETAIL



PLAN VIEW JOINT APPROACHES
Typical all approaches

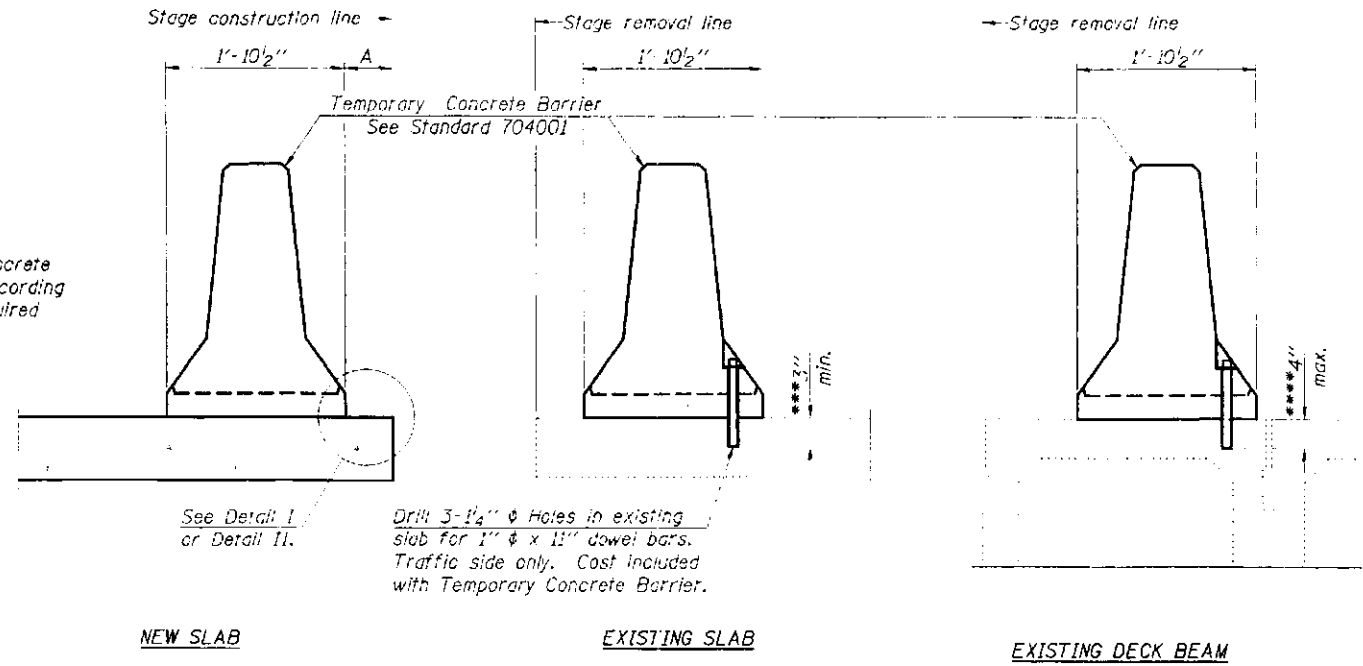
Notes:

Polymer Concrete Nosing to be replaced in-kind at the entire North Abutment joint of SN 041-0004 (SB), and at two 3' locations at the North and South Abutments of SN 041-0003 (NB).
Backer rod and silicone joint sealer to be replaced at all four joint locations.

JOINT DETAILS
JEFFERSON COUNTY
SN 041-0003 & 041-0004

FILE NAME: c:\pwworkspace\holstee\dwg\0254496-3	USER NAME: holstee	DESIGNED: TWH	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINTS AND OVERLAY DETAILS	F.A.I. RTE.:	SECTION:	COUNTY:	TOTAL SHEET NO.:	
	1-0003-0004-sheet.dwg	DRAWN: TWH	REVISED: -			57	41-2(BR-1)	JEFFERSON	8	7
	PLOT DATE: 1/25/2011	CHECKED: MAS	REVISED: -			CONTRACT NO. 78245				
	PLOT DATE: 1/25/2011	DATE: 10/15/09	REVISED: -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

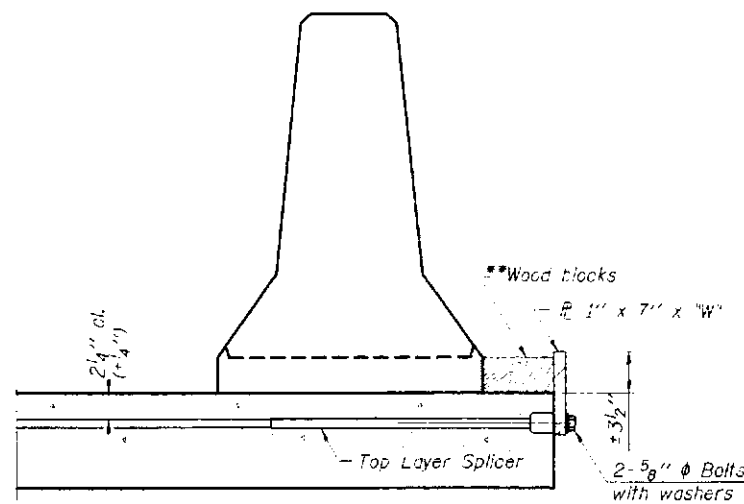
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

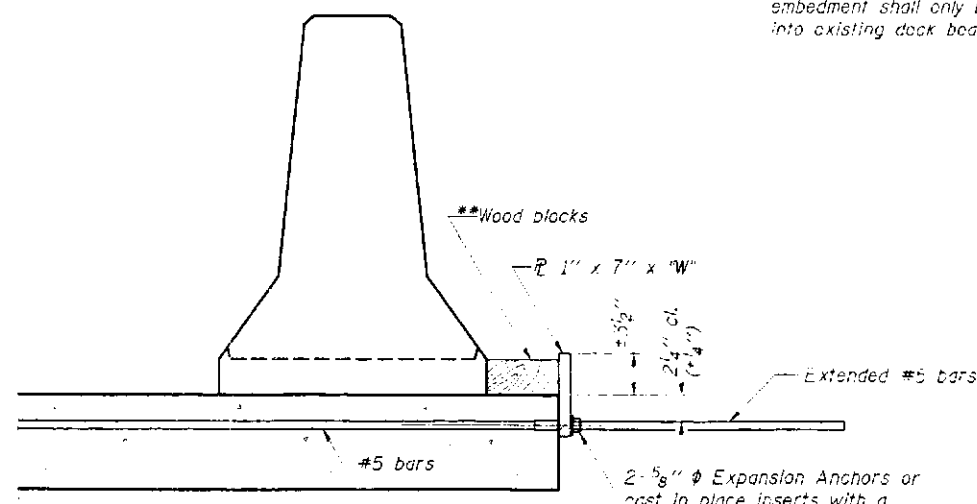
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If not-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

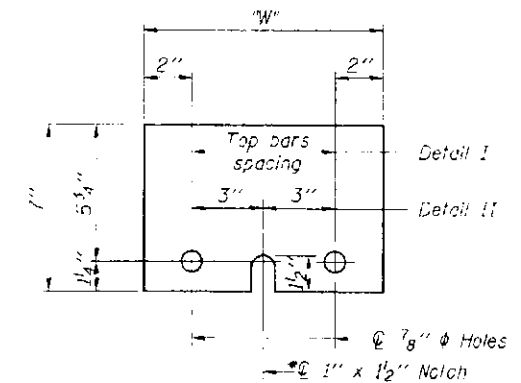
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 1" x 7" x "W"

* Required only with Detail II

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

"W" = Top bars spacing + 4"

R-27 7-1-10

FILE NAME	DESIGNED	TWH	REVISED		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS, NO.	
	CHECKED	MAS	REVISED				57	41-2(BR-11)	JEFFERSON	8 9	
	DRAWN	TWH	REVISED				CONTRACT NO. 78245				
	CHECKED	MAS	REVISED				ILLINOIS FED. AID PROJECT				

19 100%
7-17-2000

MMO 12/22/99
94439d\03495pa.dgn
MMO REV: CS
1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16 17 18
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27 28 29 30 31 32 33 34
35 36 37 38 39 40 41 42 43 44 45
46 47 48 49 50 51 52 53 54
55 56 57 58 59 60 61 62 63

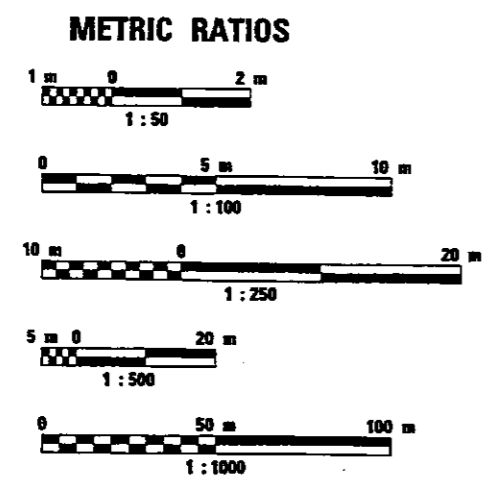
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FOR INDEX OF SHEETS, SEE SHEET NO. 3

FAI ROUTE 57 (I-57)
PROJECT ACIM-57-2(142)88
SECTION (41-1-1, 41-2)RS
JEFFERSON COUNTY
C-97-037-95

PLAN
PROFILE HORIZ.
PROFILE VERT.
CROSS SECTIONS

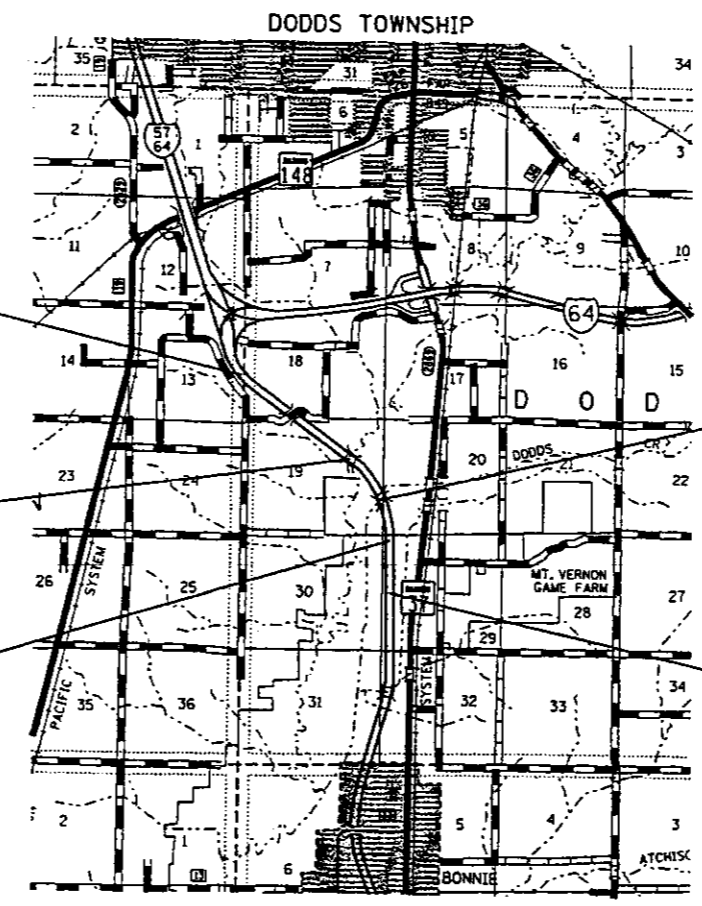


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.L.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-832-0123

CONTRACT NO. 94439

TOWNSHIP: 041-0003(NB) 0004(SB)



FAI ROUTE 57
SECTION 41-2
JEFFERSON COUNTY
ENDS STA 146+255

BRIDGE OMISSION
SECTION 41-2BR-2
STA 144+440.33 TO
STA 144+527.41

SECTION 41-1-1 ENDS
SECTION 41-2 BEGINS
STA 142+417.65

BRIDGE SECTION
41-2BR-1
STA 143+575.12 TO
STA 143+610.76

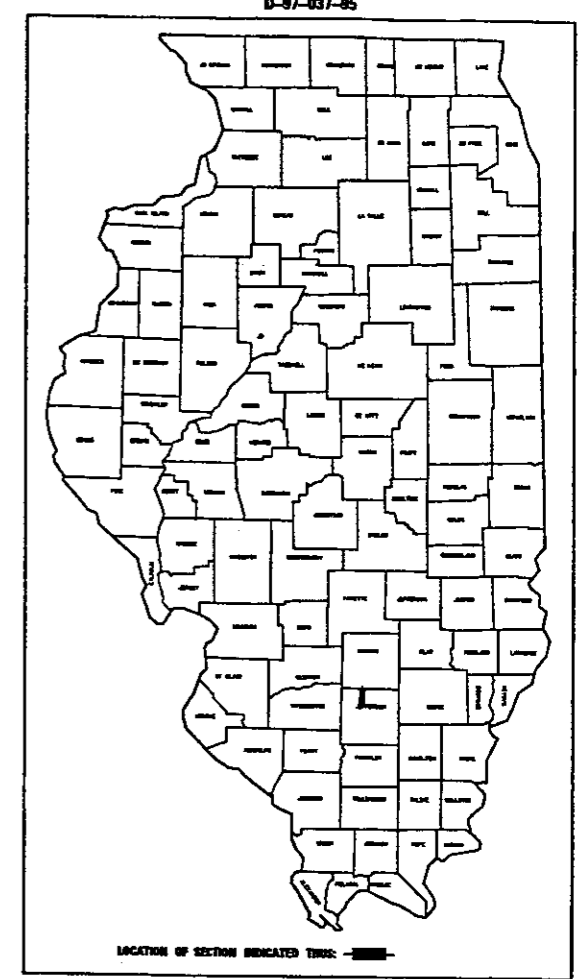
FAI ROUTE 57
SECTION 41-1-1
JEFFERSON COUNTY
BEGINS STA 140+832.369

TRAFFIC DATA:
CURRENT ADT 28,800

GROSS LENGTH = 5,422.64 METERS = 5.423 KM
NET LENGTH = 5,355.56 METERS = 5.336 KM

FAI NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57		JEFFERSON	52	1

(41-1-1, 41-2)RS ACIM-57-2(142)88
D-97-037-95



LOCATION OF SECTION INDICATED TRAC

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 23 19 97
Ray C. Shaw
DISTRICT ENGINEER

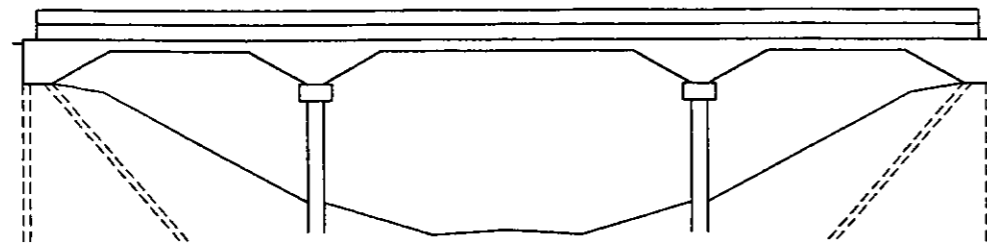
ENGINEER OF PROJECT DEVELOPMENT AND IMPLEMENTATION
February 4, 2000
Bill Hunkley
ENGINEER OF DESIGN AND ENVIRONMENT

February 4, 2000
James B. Stiles
DIRECTOR, DIVISION OF HIGHWAYS

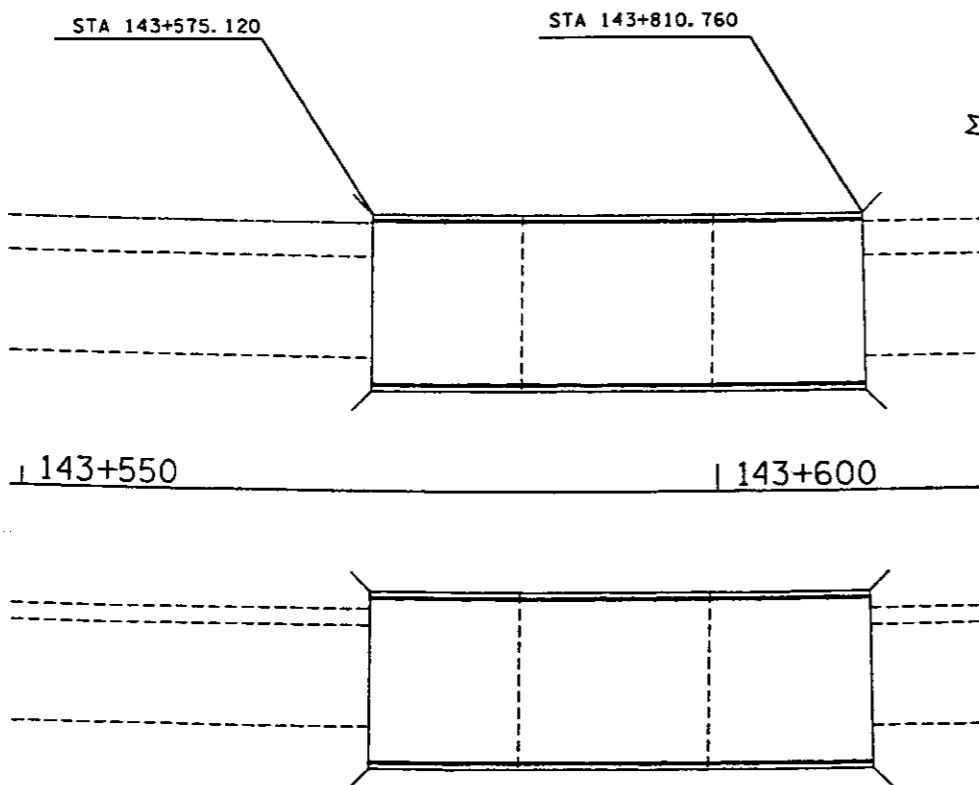
PRINTED BY THE AUTHORITY OF
THE STATE OF ILLINOIS

7-128

MMO 12/22/99
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 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36
 37 38 39 40 41 42 43 44 45
 46 47 48 49 50 51 52 53 54
 55 56 57 58 59 60 61 62 63



ELEVATION



MMO 12/22/99

TOTAL BILL OF MATERIAL (BOTH BRIDGES)		
ITEM	UNIT	TOTAL
BAR SPLICERS	EACH	16
ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	36
JACK AND REMOVE EXISTING BEARINGS	EACH	36
• DECK SLAB REPAIR (FULL DEPTH, TYPE 1)	SO M	0.5
• DECK SLAB REPAIR (FULL DEPTH, TYPE 2)	SO M	2.5
• DECK SLAB REPAIR (PARTIAL)	SO M	19.3
LEVELING BINDER (MACHINE METHOD), MIX B, TYPE 1	M TON	245
BIT. CONC. SURF. CSE., MIX E, CLASS I, TYPE 1, SP	M TON	58
CONCRETE REMOVAL	SO M	3.4
CONCRETE SUPERSTRUCTURE	CU M	3.4
FURNISHING AND ERECTING STRUCTURAL STEEL	KG	1600
REINFORCEMENT BARS (EPOXY COATED)	KG	300
POLYMER CONCRETE	CU M	0.34
** PLUG EXISTING DECK DRAINS	EACH	12
WATERPROOFING MEMBRANE SYSTEM	SO M	846
BITUMINOUS CONCRETE SURFACE REMOVAL (ASBESTOS)	SO M	846
SILICONE JOINT SEALER	M	50

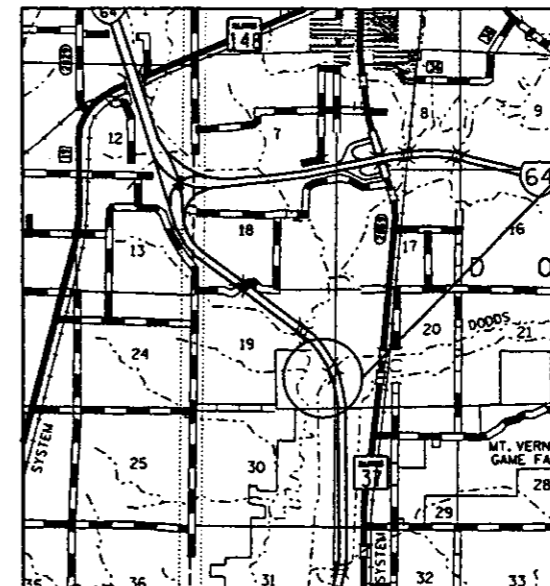
• ESTIMATED QUANTITIES ONLY, ACTUAL QUANTITIES TO BE DETERMINED BY THE ENGINEER.

** FOR DETAILS SEE SHEET 42 OF 53

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM THE EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND DETAILS IN THE FIELD 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 THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT BID PRICE FOR THE WORK.

EXISTING STRUCTURAL STEEL SHALL ONLY BE CLEANED AND PAINTED AS REQUIRED BY THE SPECIAL PROVISION "CLEANING AND PAINTING OF ADJACENT AREAS OF EXISTING STEEL STRUCTURES."



LOCATION MAP

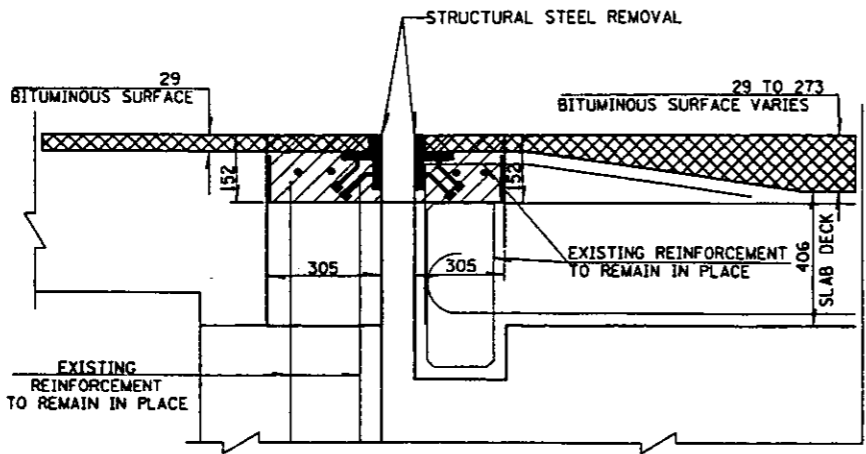
LOCATION OF STRUCTURE

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p>GENERAL PLAN & ELEVATION</p> <p>DATE _____</p> <p>DRAWN BY _____</p> <p>CHECKED BY _____</p>

FBI	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
57		JEFFERSON	52	42

*(41-1-1,41-2)RS

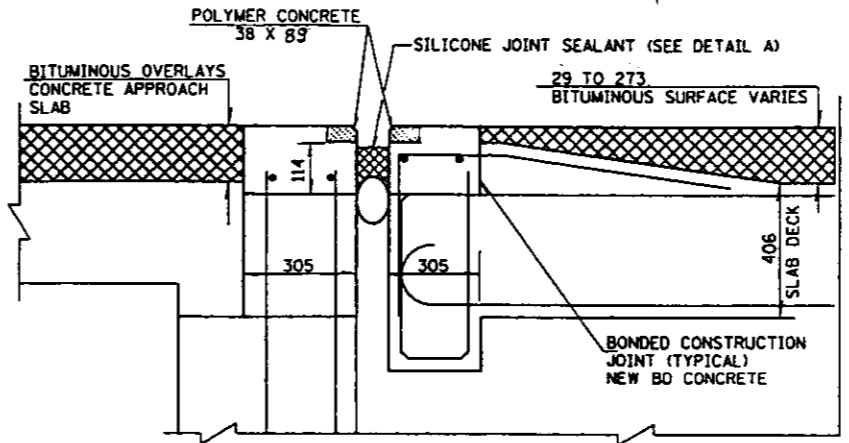
MMO 12/22/99
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 \94439d\03495da.dgn
 RLT REV: 10/06/97
 1 2 3 4 5 6 7 8 9
 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
 ABOUT



REMOVAL DETAILS OF EXISTING ABUTMENTS

16 SPLICER BARS REQUIRED
 (TOTAL, 2 BRIDGES)

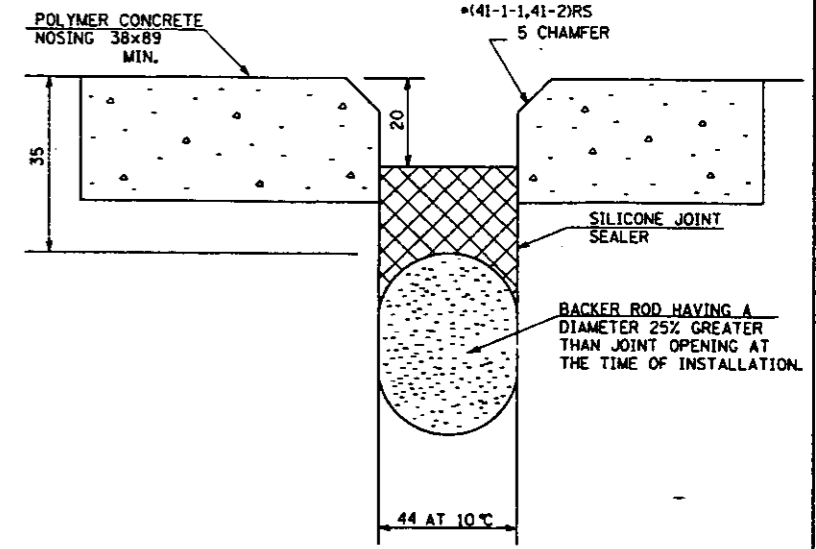
BAR LIST						
BAR	STAGE I	STAGE II	TOTAL	SIZE	LENGTH	SHAPE
A(E)	16	16	32	#16	5.944'	—



PROPOSED ABUTMENTS

TYPICAL CONCRETE REMOVAL AT EACH ABUTMENT

NOTE: EXISTING LONGITUDINAL AND VERTICAL BARS SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED INTO THE NEW CONCRETE



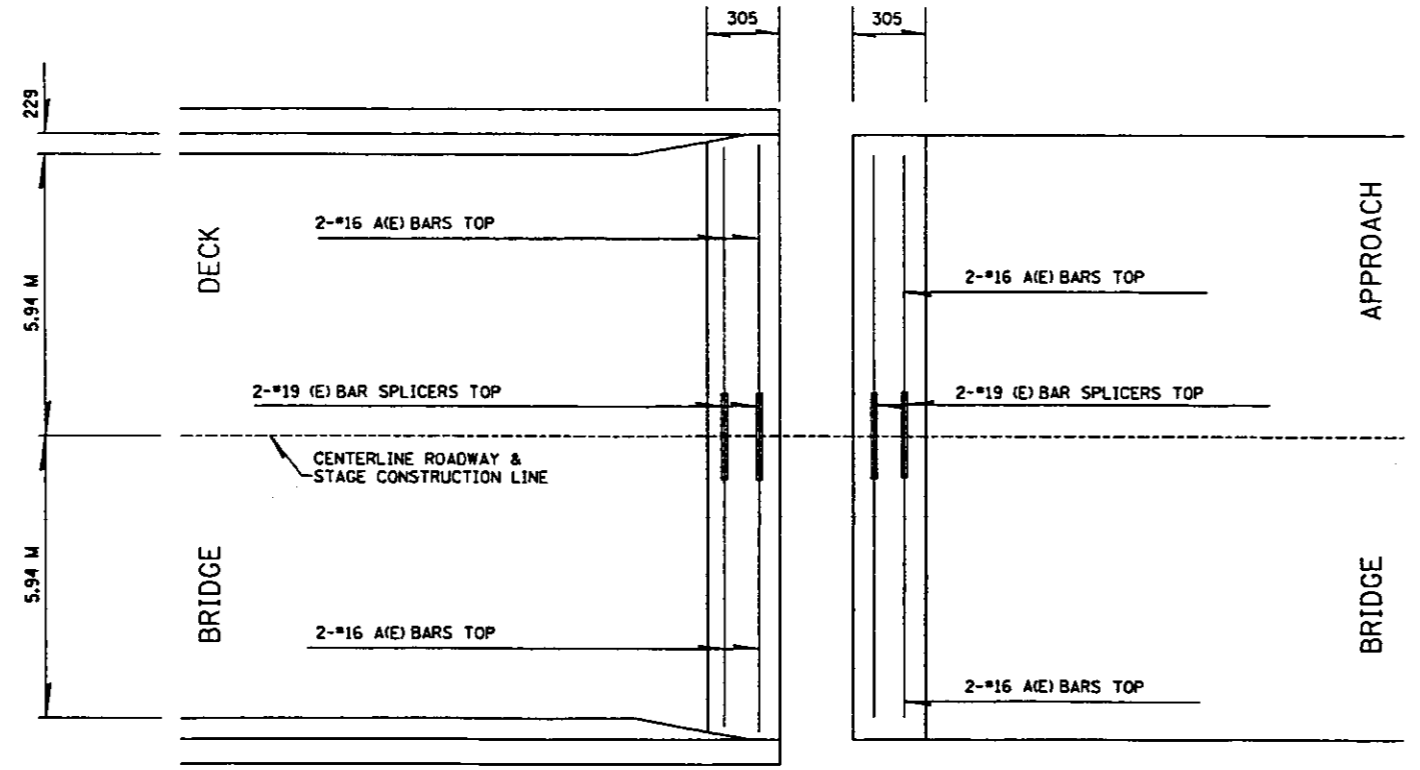
SILICONE JOINT SEAL (CONCRETE DETAILS)

NOTES

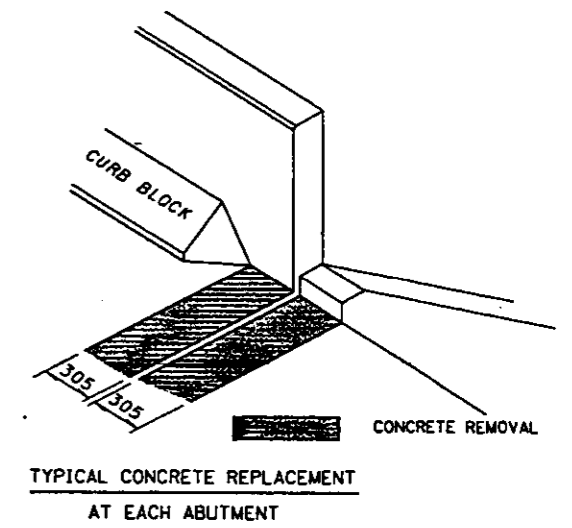
EXISTING REINFORCEMENT BARS SHALL BE CLEANED AND USED FOR NEW CONSTRUCTION. NEW REINFORCEMENT BARS SHALL BE EPOXY COATED WITH BAR SPLICERS FOR STAGE CONSTRUCTION.

ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL OPERATIONS SHALL BE REPAIRED OR REPLACED USING AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM (COST INCIDENTAL TO CONCRETE REMOVAL).

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31M, M-42M OR M-53M, GRADE 400.



REINFORCEMENT DETAIL (TYPICAL)



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DODDS CREEK FAI ROUTE 57
 SECTION 41-28-1
 JEFFERSON COUNTY
 PARTIAL DEPTH JOINT
 REPAIR & ABUTMENT DETAILS
 DRAWN BY
 CHECKED BY
 DATE

SEE PLAN SHEETS FOR TRAFFIC CONTROL AND STAGE CONSTRUCTION DETAILS

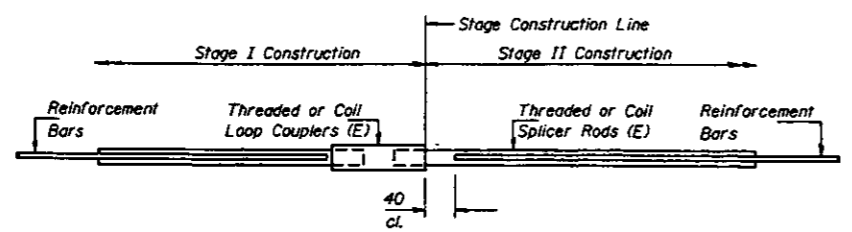
FAI	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
57		JEFFERSON	52	44

MMO 12/22/99
 \94439d\03495pa.dgn
 MMO REV: 03-17-99
 BSD 1

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 28 29 30 31 32 33 34 35 36
 37 38 39 40 41 42 43 44
 45 46 47 48 49 50 51 52 53 54
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FBI	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
57		JEFFERSON	52	48

=(41-1-1,41-2)RS



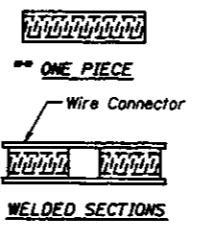
BAR SPLICER ASSEMBLY DETAIL

Bar Size	No. Assemblies Required	Location
#16	#16	ABUTMENTS

The diameter of this part is the same as the diameter of the bar spliced.

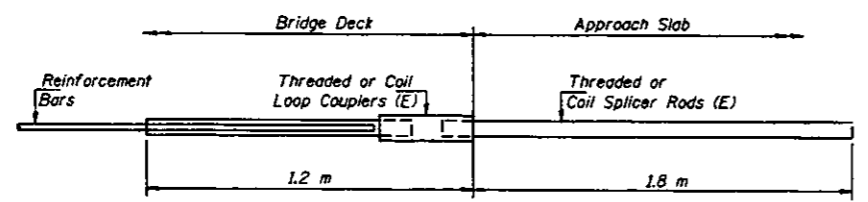
The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



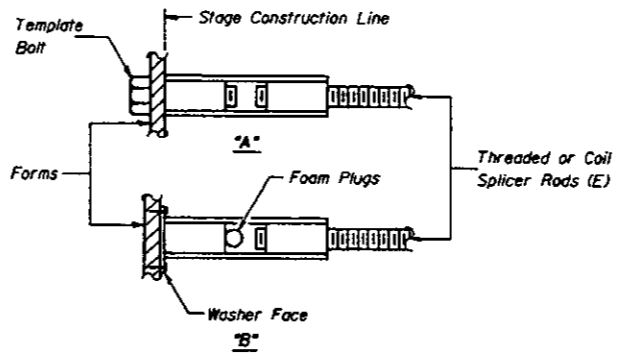
BAR SPLICER ASSEMBLY ALTERNATIVES

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



**INTEGRAL ABUTMENT
 BAR SPLICER ASSEMBLY DETAIL
 FOR #15 BAR**

Min. Capacity = 100 kN - tension
Min. Pull-out Strength = 40 kN - tension
No. Required =



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_l$
- Minimum Pull-out Strength (Tension in kips) = $1.25 \times f_{allow} \times A_l$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 f_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_l = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	

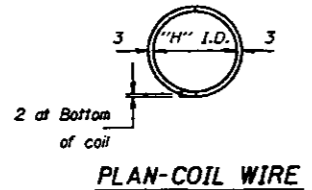
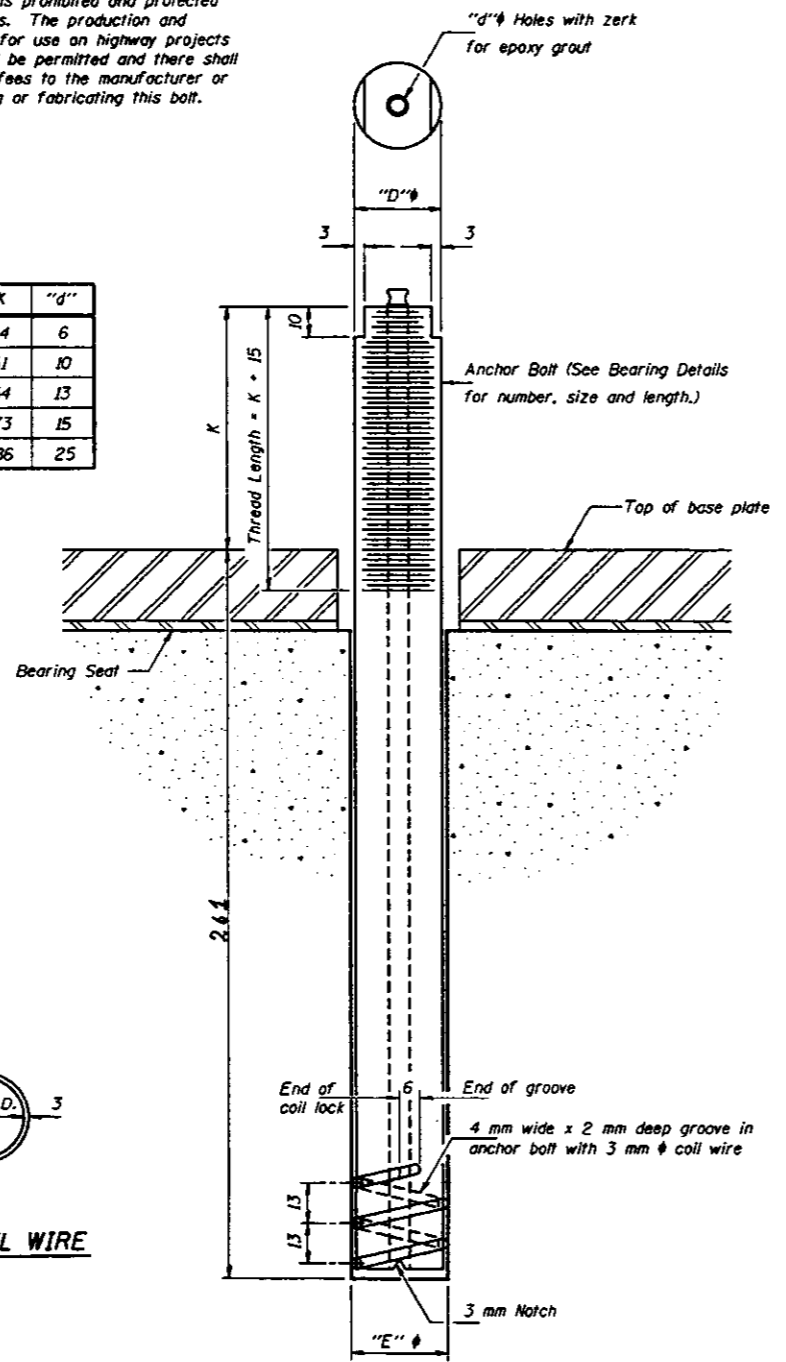
DATE _____ DRAWN BY _____ CHECKED BY _____

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 AAB

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The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25



ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
 The coil wire shall be made of any suitable soft steel wire.
 The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
 The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.
 The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
 1. A threaded rod stud with nut and washer of the type specified.
 2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
ABUTMENT	A 307

ASTM F 1554 (Fy = 724 MPa), ASTM A 449 and AASHTO M 314 (Fy = 724 MPa) anchor bolts may be substituted for the anchor bolts shown above.

FBI	SECTION	COUNTY	TRA	REV
57		JEFFERSON	52	49

(41-1-1,41-2)RS

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
 Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
 The anchor bolts, furnished and installed including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".
 All dimensions are in millimeters (mm) except as noted.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		ANCHOR BOLT DETAILS FOR BEARINGS
		DRAWN BY _____ CHECKED BY _____ DATE _____

SHEET NO.	TITLE
1	TITLE SHEET
2	SUMMARY OF QUANTITIES
3	SIGNATURES, GENERAL NOTES, & BRIDGE DIMENSIONS
4	TYPICAL SECTIONS & CONSTRUCTION LIMITS
5	DRAIN HOLE DETAILS & WATERPROOFING SYSTEMS
6	DETAILS A, B, C, & D
7	DETAILS E & F
7A	NEOPRENE EXPANSION DAMS
8	WATSON INTERCHANGE CLOSING LAYOUT
	STANDARD 2298-4
	STANDARD 2299-6
	STANDARD 2300-1
	STANDARD 2304-3
	STANDARD 2309-3
	STANDARD 2316-3

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID INTERSTATE HIGHWAY F.A.I. ROUTE 57

41-(1HB-1,1B-1,2B-1,2B-2,2HVB,2VB,3HB-1,3VB,4HB-2,4VB)I
 61-(1HB-3,2B-1,3VB-1,3VB-2,3HB-1,3VB-3,5HB-1,6VB-1,6B-1)I
 26-(1HB-1,2B-1)I; 25-(6HVB-1,6HB-2,6B-1,6HB-6,6B)I

I-57-4(96)152
EFFINGHAM COUNTY

I-57-3(104)94

I-57-2(107)88

EFFINGHAM COUNTY

FAYETTE COUNTY

MARION COUNTY

JEFFERSON COUNTY

JEFFERSON COUNTY

SECTION (25-8B)I
 PC-97-832-73

SECTION (25-6HB-6)I
 SECTION (25-6B-1)I
 SECTION (25-6HB-2)I
 SECTION (25-6HVB-1)I

SECTION (26-2B-1)I
 SECTION (26-1HB-1)I

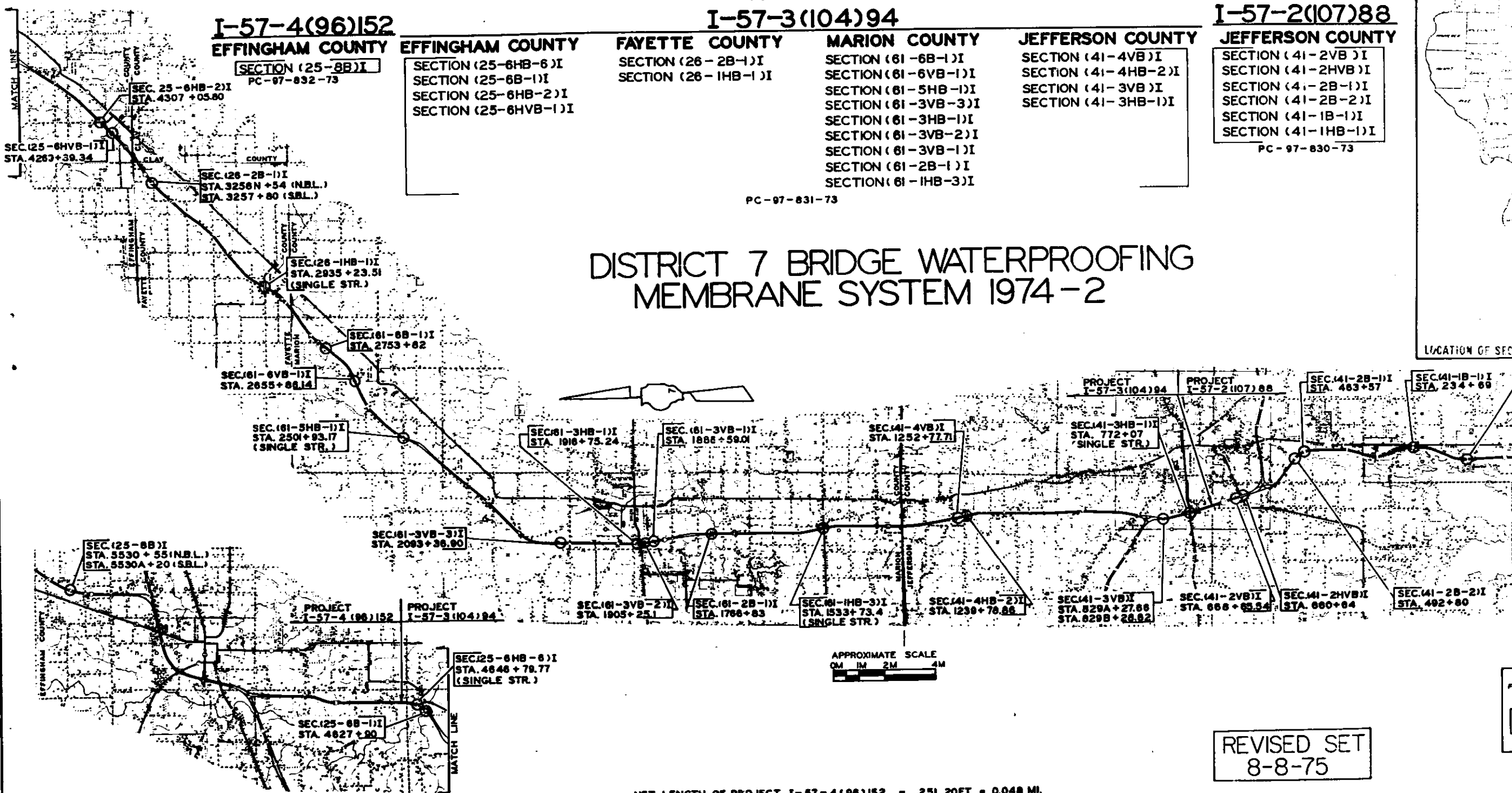
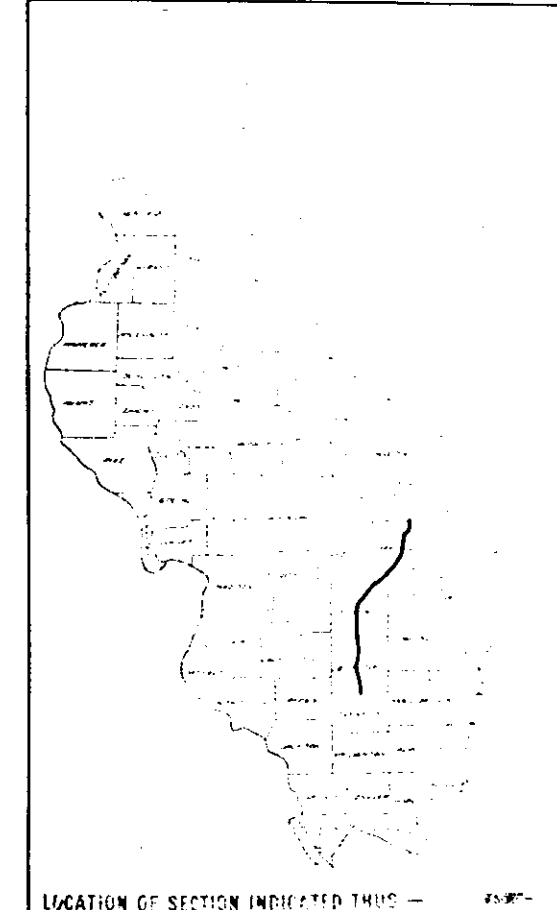
SECTION (61-6B-1)I
 SECTION (61-6VB-1)I
 SECTION (61-5HB-1)I
 SECTION (61-3VB-3)I
 SECTION (61-3HB-1)I
 SECTION (61-3VB-2)I
 SECTION (61-3VB-1)I
 SECTION (61-2B-1)I
 SECTION (61-1HB-3)I

SECTION (41-4VB)I
 SECTION (41-4HB-2)I
 SECTION (41-3VB)I
 SECTION (41-3HB-1)I

SECTION (41-2VB)I
 SECTION (41-2HVB)I
 SECTION (41-2B-1)I
 SECTION (41-2B-2)I
 SECTION (41-1B-1)I
 SECTION (41-1HB-1)I
 PC-97-830-73

PC-97-831-73

DISTRICT 7 BRIDGE WATERPROOFING MEMBRANE SYSTEM 1974-2



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 SUBMITTED June 6, 1975
H. S. Wilson DISTRICT ENGINEER
 EXAMINED [Signature]
 ENGINEER OF PLANS & CONTRACTS
 PASSED [Signature]
 ENGINEER OF DESIGN
 APPROVED [Signature]
 DIRECTOR OF HIGHWAYS

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

REVISED SET
 8-8-75

NET LENGTH OF PROJECT I-57-4(96)152 = 251.20FT. = 0.048 MI.
 NET LENGTH OF PROJECT I-57-3(104)94 = 5924.78FT. = 1.122 MI.
 NET LENGTH OF PROJECT I-57-2(107)88 = 1765.91 FT. = 0.334 MI.
 TOTAL = 7941.89 FT. = 1.504 MI.

CONTRACT NO. 1181

VARIES Varies A.I. WHITE 57

DIST 7 BRIDGE WATERPROOFING 1974-2

7-80

SECTION	COUNTY	TOTAL	NO.
F.A.I. 57	*	8	2

* 41-1HB-1, 2B-2, 2HVB, 2VB, 3HB-1, 3VB, 4HB-2, 4VB 11
 61-1HB-3, 2B-1, 3VB-1, 3VB-2, 3HB-1, 3VB-3, 5HB-1, 6VB-1, 6B-1 11
 26-1HB-1, 2B-1 11 ; 25-(6HVB-1, 6HB-2, 6B-1, 6B-6, 8B 11
 JEFFERSON, MARION, FAYETTE, & EFFINGHAM COUNTIES

LOCATION OF WORK				PROJECT I-57-2(107)88										PROJECT I-57-3(104)94										PROJECT I-57-4(96)152											
				COUNTY JEFFERSON										COUNTY MARION										COUNTY FAYETTE		COUNTY EFFINGHAM									
SUMMARY OF QUANTITIES				SEC. (41-1HB-1)1 STA. 117+08.53	SEC. (41-1B-1)1 STA. 234+09.00	SEC. (41-2B-1)1 STA. 463+37	SEC. (41-2B-2)1 STA. 492+80	SEC. (41-2HVB)1 STA. 860+94.90	SEC. (41-2VB)1 STA. 888+65.54	SEC. (41-3HB-1)1 STA. 772+07	SEC. (41-3VB)1 STA. 829A+27.88 S.B. STA. 829B+28.02 N.B.	SEC. (41-4HB-2)1 STA. 1239+78.88	SEC. (41-4VB)1 STA. 1252+77.71	SEC. (61-1HB-3)1 STA. 1533+77.40	SEC. (61-2B-1)1 STA. 1786+83	SEC. (61-3VB-1)1 STA. 1888+58.01	SEC. (61-3VB-2)1 STA. 1905+25.10	SEC. (61-3HB-1)1 STA. 1918+75.24	SEC. (61-3VB-3)1 STA. 2093+38.90	SEC. (61-5HB-1)1 STA. 2501+93.17	SEC. (61-6VB-1)1 STA. 2855+88.14	SEC. (61-6B-1)1 STA. 2753+82	SEC. (26-1HB-1)1 STA. 2935+23.51	SEC. (26-2B-1)1 STA. 3258+54 N.B. STA. 3257+80 N.B.	SEC. (25-6HVB-1)1 STA. 4289+39.34	SEC. (25-6HB-2)1 STA. 4307+05.80	SEC. (25-6B-1)1 STA. 4627+90	SEC. (25-6HB-6)1 STA. 4848+78.77	SEC. (25-8B)1 STA. 5504+20 S.B. STA. 5503+55 N.B.						
CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE Y007																															
406001	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	2151	24	84	84	84	98	98	76	128	112	84	53	84	84	84	106	89	54	89	89	58	89	89	89	89	49	84						
408008	BITUMINOUS CONCRETE SURFACE COURSE, CLASS I	TON	5143	81	170	149	234	278	186	282	237	214	229	124	226	192	167	212	243	138	166	204	150	174	242	185	341	121	178						
501022	CONCRETE REMOVAL	CU. YD.	21.3*	-	-	-	-	10.8	10.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
507020	FURNISHING & ERECTING STRUCTURAL STEEL, SPECIAL	POUND	27763	0	805	0	811	1718	1404	0	2257	1933	2119	0	0	1382	1209	1803	1742	928	1818	1714	0	1667	402	1859	1222	353	817						
504003	CLASS X CONCRETE	CU. YD.	19.9*	-	-	-	-	10.0	9.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
646002	ENGINEER'S FIELD OFFICE, TYPE B	EACH	1	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1						
X04941	WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	40160	689	1247	1038	1904	2273	1344	2449	1688	1540	1855	959	1820	1472	1224	1556	1970	1097	1394	1569	1198	1264	1965	1376	2987	958	1344						
XZ1014	TRAFFIC CONTROL AND PROTECTION STANDARD 2309	EACH	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
X64701	PAVEMENT MARKING TAPE	LIN. FT.	484	12	16	16	28	16	16	16	16	20	24	12	24	20	16	20	24	14	20	20	14	16	24	20	40	0	20						
XZ1069	TRAFFIC CONTROL AND PROTECTION STANDARD 2316	L. SUM	1	0	.05	.05	.05	.05	.05	0	.05	.05	.05	0	.05	.05	.05	0	.05	.05	.05	.05	0	.05	.05	.05	.05	.05	0						
XZ1182	NEOPRENE EXPANSION DAM	LIN. FT.	1423	56	79	160	60	0	46	150	0	0	0	76	160	45	40	0	57	0	0	0	99	0	119	0	120	74	82						
XZ1186	PREFORMED JOINT SEALER 2 1/2"	LIN. FT.	3231	12	89	17	82	177	147	45	234	205	221	45	11	147	129	185	185	138	190	179	46	172	50	193	164	75	93						
Z10205	DECK SLAB REPAIR (PARTIAL)	SQ. YD.	842.5*	10	0	0	45 SBL 90 NBL	10 SBL 10 NBL	0	15	52.5 SBL 30 NBL	0	10 SBL 0	22.5	5 SBL 5 NBL	0	10 SBL 15 NBL	22.5 SBL 0	0	5 SBL 5 NBL	0	5 SBL 30 NBL	50 SBL 55 NBL	0	10 SBL 10 NBL	35 SBL 60 NBL	5 SBL 0	100 SBL 40 NBL	7.5	45 SBL 25 NBL					

*NON-PARTICIPATING

ROUTE NO.	SECTION	COUNTY	TOTAL LINES	SHEET NO.
FA. I 57	*	*	8	3

* 41-(1HB-1, 1B-1, 2B-1, 2B-2, 2HVB, 2VB, 3HB-1, 3VB, 4HB-2, 4VB) 1
 61-(1HB-3, 2B-1, 3VB-1, 3VB-2, 3HB-1, 3VB-3, 5HB-1, 6VB-1, 6B-1) 1
 25-(1HB-1, 2B-1) 1; 25-(6HVB-1, 6HB-2, 6B-1, 6HB-6, 8B) 1
 JEFFERSON, MARION, FAYETTE, & EFFINGHAM COUNTIES

SIGNATURES

PLANS PREPARED BY DISTRICT 7 DESIGN OFFICE

EXAMINED May 28, 1974 W. O. Cox
 DISTRICT ENGINEER OF DESIGN

EXAMINED June 6, 1974 R. A. Wente
 DISTRICT ENGINEER OF CONSTRUCTION

EXAMINED June 5, 1974 Jack E. Frank
 DISTRICT ENGINEER OF MAINTENANCE

EXAMINED May 28, 1974 John D. Lilla
 DISTRICT ENGINEER OF LAND ACQUISITION

EXAMINED MAY 28, 1974 Clinton L. Stork
 DISTRICT ENGINEER OF PLANNING

EXAMINED May 29, 1974 E. R. Britton
 DISTRICT ENGINEER OF TRAFFIC

EXAMINED June 6, 1974 H. L. Wear
 DISTRICT ENGINEER

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JULY 2, 1973; THE "MIMEOGRAPHED SPECIFICATIONS", AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THESE SECTIONS CONSIST OF FURNISHING AND PLACING A WATERPROOFING MEMBRANE SYSTEM ON 46 BRIDGE DECKS AT 26 LOCATIONS, THE CONSTRUCTION OF A 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE CLASS I, AS A WEARING SURFACE OVER THE WATERPROOFING MEMBRANE SYSTEM, THE ADJUSTMENT AND SEALING OF BRIDGE EXPANSION JOINTS, AND OTHER INCIDENTAL WORK NECESSARY TO COMPLETE THE WORK.

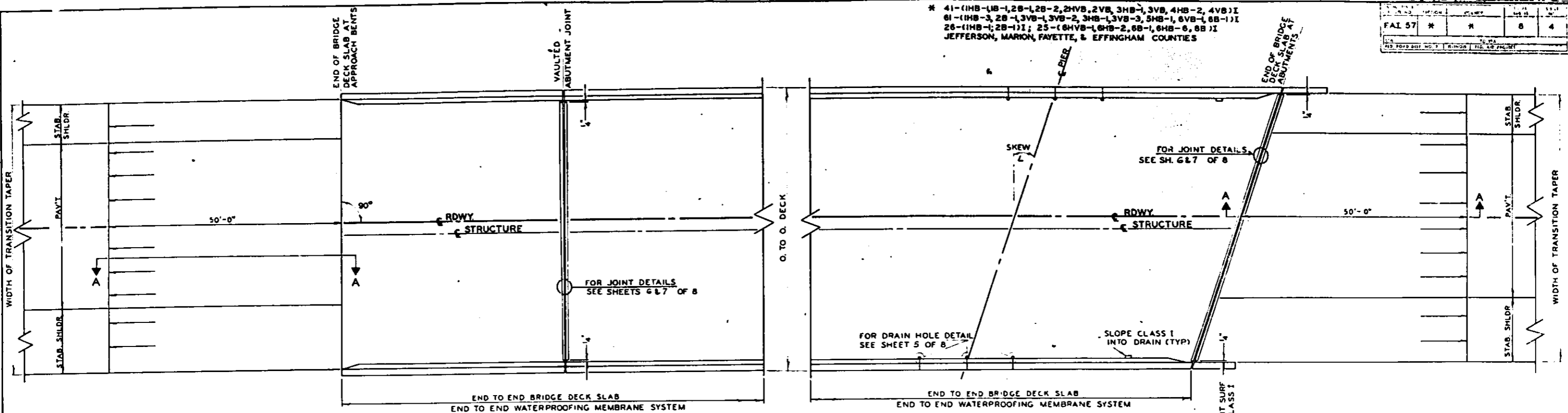
ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

I SECTION	STATION	NO. OF STR.	DECK SLAB LENGTH	O TO O ROADWAY WIDTH	SKEW	NO. JTS. PER STR.	DECK JOINT MODIFICATION DETAILS			
							USE DETAILS - (SEE SHEETS 6 & 7)	PREFORMED JOINT SEALER	1/2" X 1" STEEL BARS	NEOPRENE EXPANSION DAM
41-1HB-1	117+09.55	1	221'-5"	34'-0" 28'-0"	4°-30'-00"	2	E. ABUT. - E & D 2 1/2" W. ABUT. - E & D 2 1/2"	5'-6 1/2" 'D'	-	28'-0 3/4"
41-1B-1	234+69	2	140'-3"	42'-0" 40'-0"	0°	2	S.B.L. S. ABUT. - E & D 2 1/2" N. ABUT. - A & C	42'-0" 2'-6 1/2" 'D'	39'-5 1/2"	39'-5 1/2"
41-2B-1	463+57	2	116'-9"	42'-8" 40'-0"	0°	2	S.B.L. S. ABUT. - E & D 2 1/2" N. ABUT. - E & D 2 1/2"	4'-0 1/2" 'D'	-	39'-11 1/2"
41-2B-2	492+80	2	285'-7"	38'-0" 30'-0"	0°	2	S.B.L. S. ABUT. - A & C N. ABUT. - E & D 2 1/2"	35'-6" 5'-6 1/2" 'D'	29'-11 1/2"	29'-11 1/2"
41-2HVB	660+94.90	2	252'-5 1/2"	44'-0" 40'-6"	4°-20'-11"	2	S.B.L. S. ABUT. - A & C N. ABUT. - B & C	44'-1 1/2" 2'-0 3/8" 'D'	42'-1 1/2"	-
41-2VB	668+65.54	2	149'-4 1/2"	44'-0" 40'-6"	23°-54'-45"	2	S.B.L. S. ABUT. - E & D 2 1/2" N. ABUT. - B & C	48'-1 1/2" 2'-0 3/8" 'D'	45'-10 3/8"	45'-10 3/8"
41-3HB-1	772+07	1	328'-6"	88'-0" 2 @ 33'-9"	22°-40'-00"	2	E. ABUT. - E & D 2 1/2" W. ABUT. - E & D 2 1/2"	22'-4 1/2" 'D'	-	2 @ 37'-3 3/8"
41-3VB	829A+27.66 829B+28.82	1 1	138'-3" 138'-8 1/2"	58'-0" 54'-8" 58'-8" 55'-2"	0° 11°-06'-00"	2 2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	57'-6" 59'-3 1/2"	54'-5 1/2" 56'-2"	- -
41-4HB-2	1239+78.86	1 1	150'-6 3/4"	49'-4 1/2" TO 41'-6 1/2" 45'-10 1/2" TO 38'-0 1/2" 55'-0 3/4" TO 52'-0 1/2" 51'-6 1/2" TO 48'-6 1/2"	14°-00'-30"	2 2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	51'-0 1/2" 42'-10 1/8" 56'-10 1/8" 53'-9"	47'-3" 39'-2" 53'-1 1/2" 49'-11 1/8"	- - - -
41-4VB	1252+77.71	2	208'-8 3/4"	42'-0" 40'-0"	40°-34'-13"	2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	55'-3 1/2"	51'-11 3/8"	-
61-1HB-3	1533+77.40	1	230'-2 3/8"	58'-0" 2 @ 18'-9"	10°-21'-47"	2	E. ABUT. - E & D 2 1/2" W. ABUT. - E & D 2 1/2"	22'-5" 'D'	-	2 @ 19'-0 1/8"
61-2B-1	1766+83.	2	204'-8 1/2"	42'-0" 40'-0"	10°-00'-00"	2	S.B.L. S. ABUT. - E & D 2 1/2" N. ABUT. - E & D 2 1/2"	2'-7" 'D'	-	40'-0 1/2"
61-3VB-1	1886+59.01	2	165'-7 1/2"	42'-0" 40'-0"	29°-07'-13"	2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	48'-1" 'D'	45'-2"	45'-2"
61-3VB-2	1905+25.10	2	137'-9"	42'-0" 40'-0"	0°	2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	2'-6" 'D'	39'-6"	39'-6"
61-3HB-1	1916+75.24	1 1	164'-2 1/8"	42'-0" TO 48'-1 1/2" 38'-8" TO 44'-7 1/2" 45'-6 1/2" TO 48'-10 1/2" 42'-0 1/2" TO 45'-4 1/2"	4°-04'-21"	2 2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	42'-1 1/2" 48'-2 3/8" 45'-7 3/8" 49'-0"	46'-2 1/8" 40'-0 3/8" 46'-11 3/8" 43'-7 3/8"	- - - -
61-3VB-3	2093+36.90	2	221'-8"	42'-0" 40'-0"	46°-03'-10"	2	S.B.L. S. ABUT. - E & D 2 1/2" N. ABUT. - A & C	3'-7 1/2" 'D'	56'-11"	56'-11"
61-5HB-1	2501+93.17	1	263'-2 1/2"	58'-0" 2 @ 18'-9"	31°-02'-29"	2	E. ABUT. - A & C W. ABUT. - A & C	68'-8 1/2" 'D'	2 @ 22'-8 3/4"	-
61-6VB-1	2655+86.14	2	156'-9 3/4"	42'-0" 40'-0"	27°-38'-20"	2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	47'-4 3/8"	44'-6 3/8"	-
61-6B-1	2753+82	2	176'-8 1/2"	42'-0" 40'-0"	20°-00'-00"	2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	44'-8 3/8"	42'-0"	-
26-1HB-1	2935+23.51	1	259'-9"	62'-0" 2 @ 20'-9"	30°-02'-55"	2	E. ABUT. - E & D 2 1/2" W. ABUT. - E & D 2 1/2"	23'-0 1/2" 'D'	-	2 @ 24'-9 1/2"
26-2B-1	3258+54 NBL 3257+82 SBL	2	145'-8 3/4"	42'-6" 39'-0"	8°-00'-00"	2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	42'-11"	40'-10 1/2"	-
25-6HVB-1	4269+39.34	2	221'-1"	42'-0" 40'-0"	0°-33'-50"	2	S.B.L. S. ABUT. - E & D 2 1/2" N. ABUT. - A & C	42'-0" 2'-6 1/2" 'D'	39'-5 1/2"	39'-5 1/2"
25-6HB-2	4307+05.80	2	154'-9"	42'-0" 40'-0"	30°-00'-00"	2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	48'-2 3/8"	45'-6 7/8"	-
25-6B-1	4627+90	2	445'-0 3/4"	38'-0" 30'-0"	0°	4	S.B.L. S. ABUT. - E & D 2 1/2" PIER 3 - A & C PIER 4 - A & C N. ABUT. - E & D 2 1/2"	35'-6" 5'-6 1/2" 'D'	29'-11 1/2"	29'-11 1/2"
25-6HB-6	4646+79.77	1	253'-5 3/4"	45'-8" 2 @ 17'-0"	28°-52'-30" 18°-24'-45" 11°-06'-41"	3	W. ABUT. - E & D 2 1/2" PIER 2 - F TYPE 1 E. ABUT. - A & C	14'-8 1/8" 'D' 11'-6" 'F' 47'-9 3/8"	- 2 @ 17'-3 3/8"	19'-5 5/8" & 18'-3 1/8" 2 @ 17'-3 3/8"
25-6B	5530A+20 SBL 5530B+65 NBL	1 1	151'-2 3/4"	42'-0" 40'-0"	10°-00'-00" 15°-00'-00"	2 2	S.B.L. S. ABUT. - A & C N. ABUT. - A & C	42'-8 1/2" 'D'	40'-0 7/8"	- 40'-10 1/4"

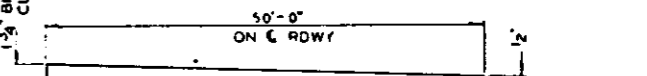
PROJECT	NO.	DATE	REV.	BY
FAI 57	*	*	8	4

* 41-(1HB-1B-1, 2B-1, 2B-2, 2HVB, 2VB, 3HB-1, 3VB, 4HB-2, 4VB) I
 61-(1HB-3, 2B-1, 3VB-1, 3VB-2, 3HB-1, 3VB-3, 5HB-1, 6VB-1, 6B-1) I I
 26-(1HB-1, 2B-1) I; 25-(6HVB-1, 6HB-2, 6B-1, 6HB-6, 6B) I I
 JEFFERSON, MARION, FAYETTE, & EFFINGHAM COUNTIES

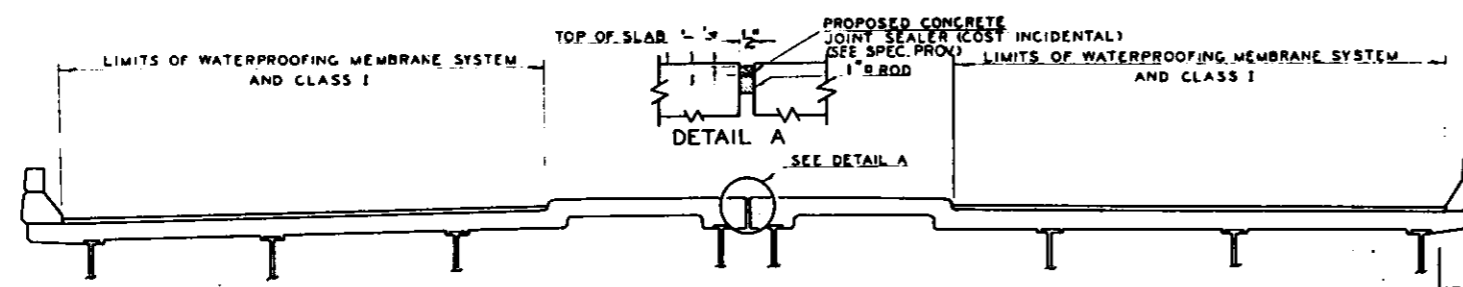


TYPICAL HALF PLAN AT RT. 4'S
VAULTED ABUTMENT TYPE

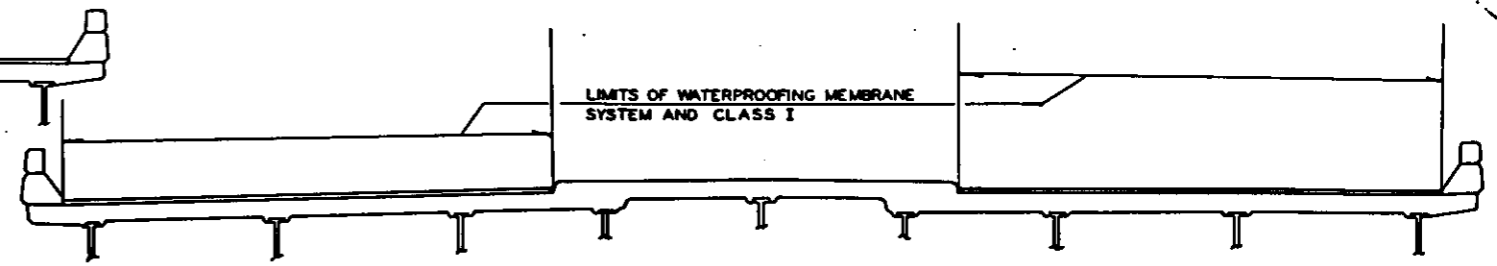
TYPICAL HALF PLAN ON SKEW
OPEN (SPILL-THRU) ABUTMENT TYPE



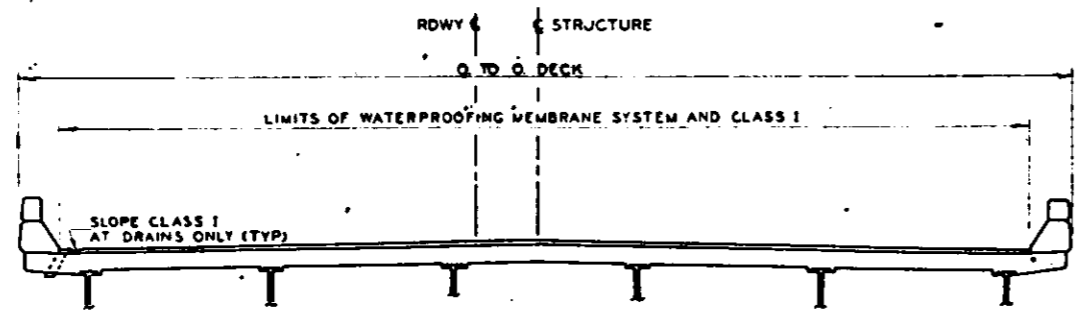
TYPICAL TRANSITION TAPER
SECTION A-A



TYPICAL DECK CROSS SECTION WITH
OPEN JOINT MEDIAN
SECTION (41-3HB-1) I



TYPICAL DECK CROSS SECTION WITH MEDIAN
SECTION (26-1HB-1) I
SECTION (61-5HB-1) I
SECTION (61-1HB-3) I
SECTION (25-6HB-6) I



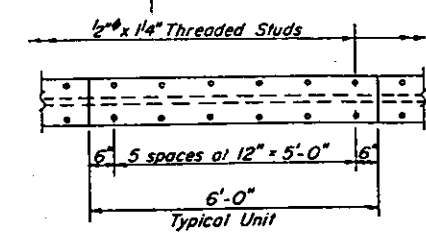
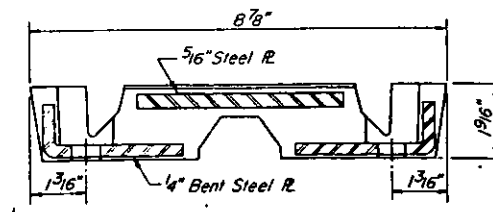
TYPICAL DECK CROSS SECTION
FOR OPPOSITE DUAL STRUCTURE
ROTATE 180°

KEY

STRUCTURES WITH OPEN JOINT MEDIAN	STRUCTURES WITH MEDIAN
SEC. (41-3HB-1) I	SEC. (26-1HB-1) I SEC. (61-5HB-1) I SEC. (61-1HB-3) I SEC. (25-6HB-6) I

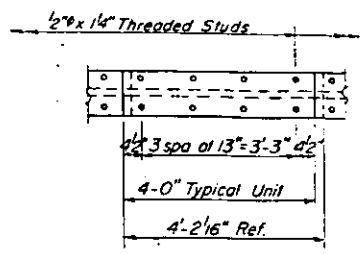
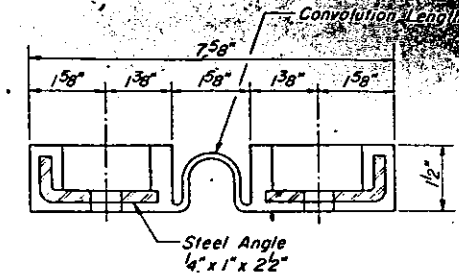
CLASS X SCHEDULE

SECTION	CONCRETE REMOVAL	CLASS 'X' CONCRETE	LOCATION
41-2HVB	10.8	10.0	N. & S. ABUT. N.B.L. N. & S. ABUT. S.B.L.
41-2VB	10.5	9.9	N. & S. ABUT. N.B.L. N. ABUT. S.B.L.



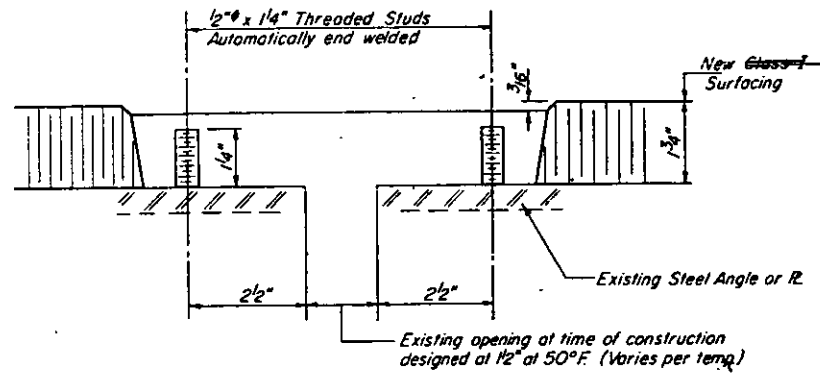
PLAN

Note: Threaded studs require a clipped washer, lockwasher & hex nut.



PLAN

Note: Threaded studs require a flat washer & locknut.

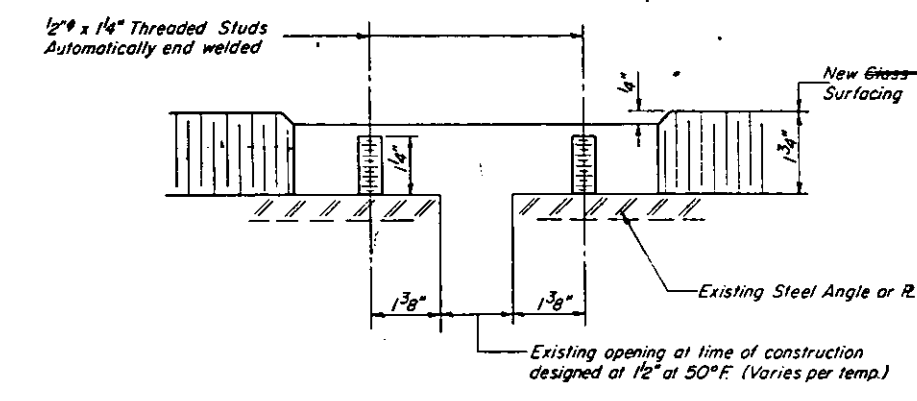


CROSS SECTION

Dimensions are at right angles

FOR EXPANSION LENGTH OF DECK = 0 to 160 FT.

**TRANSFLEX MODEL 200A
NARROW GAGE**
(Structural Rubber Products Co.)

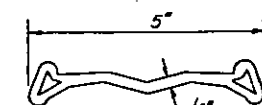


CROSS SECTION

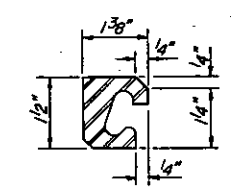
Dimensions are at right angles

FOR EXPANSION LENGTH OF DECK = 0 to 200 FT.

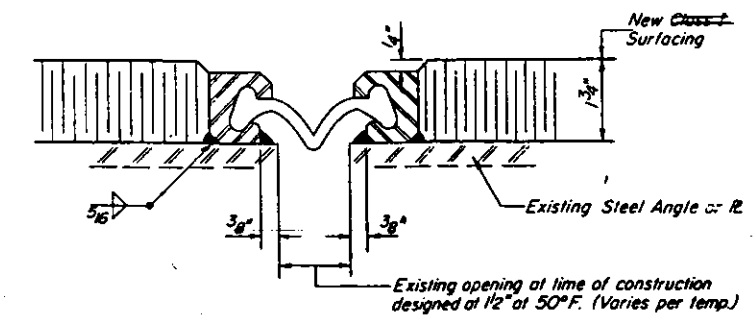
FEL-SPAN MODEL T-30-1/2-S
(Fel-Pro Building Products Inc.)



NEOPRENE EXTRUSION S-300
ASTM D-2628 Modified



STEEL EXTRUSION-TYPE E
ASTM A-242



CROSS SECTION

Dimensions are at right angles

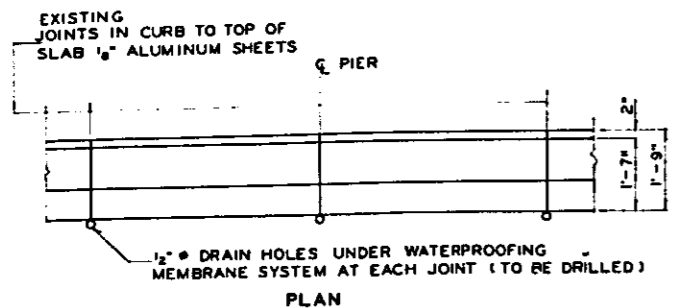
FOR EXPANSION LENGTH OF DECK = 0 to 200 FT.
2" MAX. OPENING AT 50°F.

WABQ-MAURER MODEL S-300E
(Watson Bowman Associates Inc.)

NEOPRENE EXPANSION DAMS

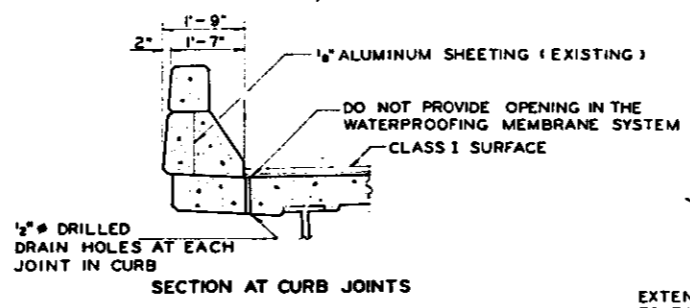
EXAMINED	18
PASSED	
APPROVED	

Handwritten signature or initials.



DRAIN HOLES SHALL BE PROVIDED IN THE DECK AT THE BASE OF ALL ALUMINUM SHEETED JOINTS IN THE CURB OR PARAPET WHEN THE WATERPROOFING MEMBRANE SYSTEM IS SPECIFIED IN THE PLANS.

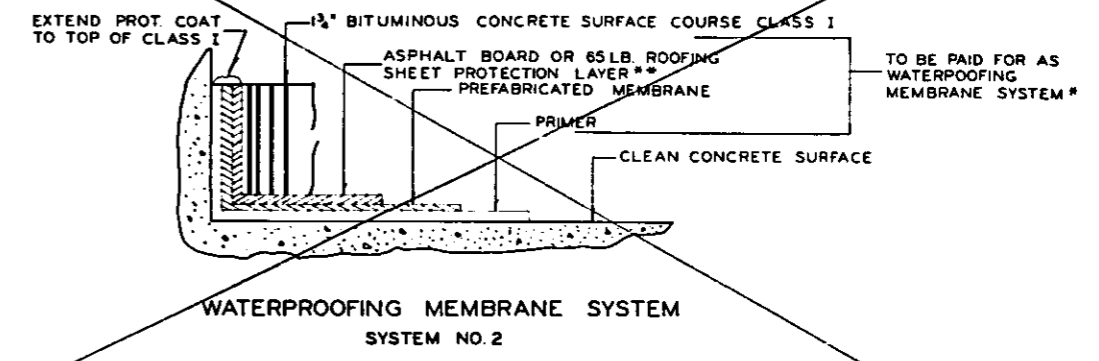
SIMILAR DRAIN HOLES SHALL ALSO BE PROVIDED AT ANY UNAVOIDABLE LOW POINT OF THE DECK THAT WOULD TEND TO POCKET WATER PENETRATING THE WATERPROOFING MEMBRANE SYSTEM.



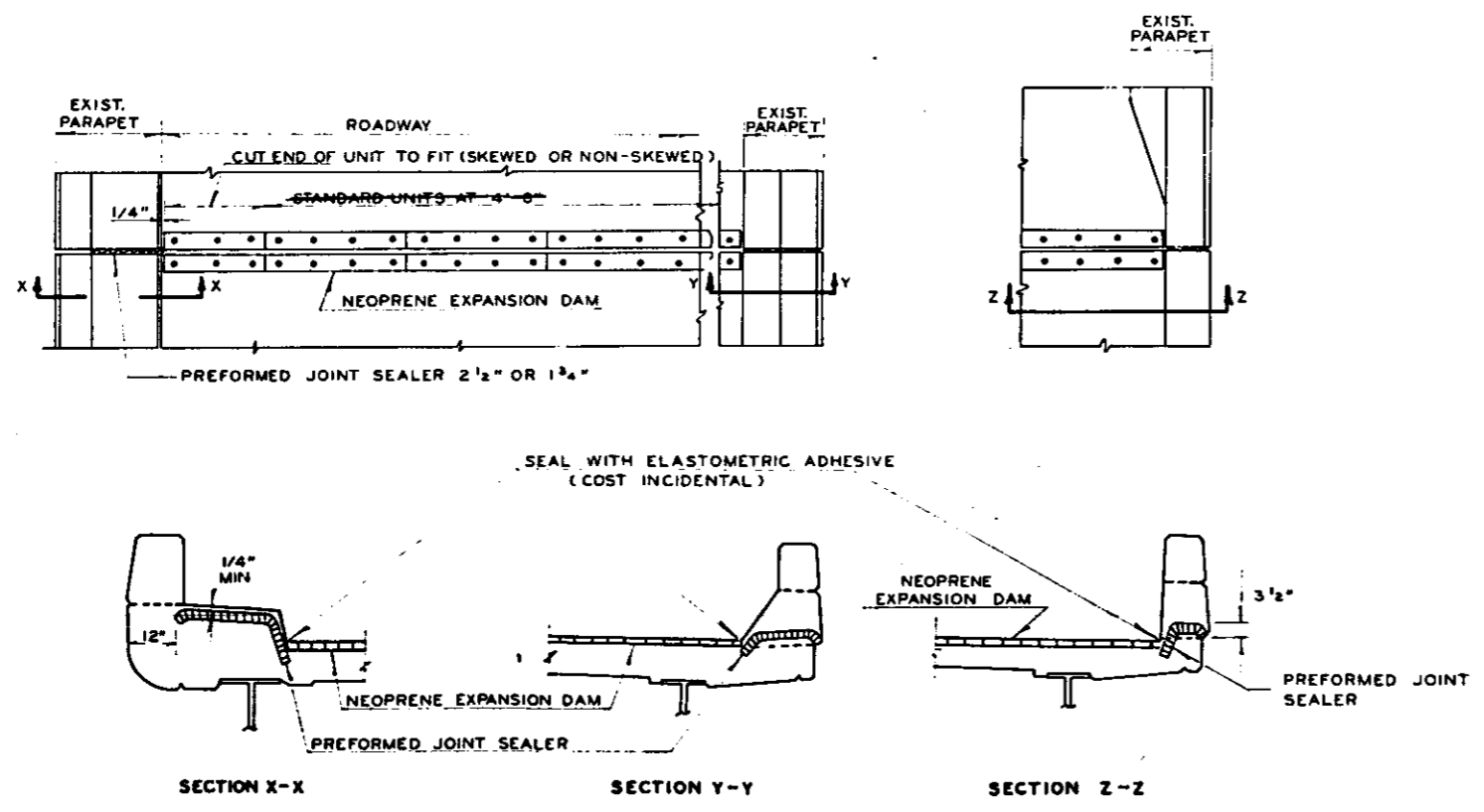
TYPICAL DRAIN HOLE DETAILS

* 41-(1HB-1, 1B-1, 2B-1, 2B-2, 2HVB, 2VB, 3HB-1, 3VB, 4HB-2, 4VB) I
 61-(1HB-3, 2B-1, 3VB-1, 3VB-2, 3HB-1, 3VB-3, 5HB-1, 6VB-1, 6B-1) I
 28-(1HB-1, 2B-1) I; 25-(6HVB-1, 6HB-2, 6B-1, 6HB-6, 8B) I
 JEFFERSON, MARION, FAYETTE, & EFFINGHAM COUNTIES

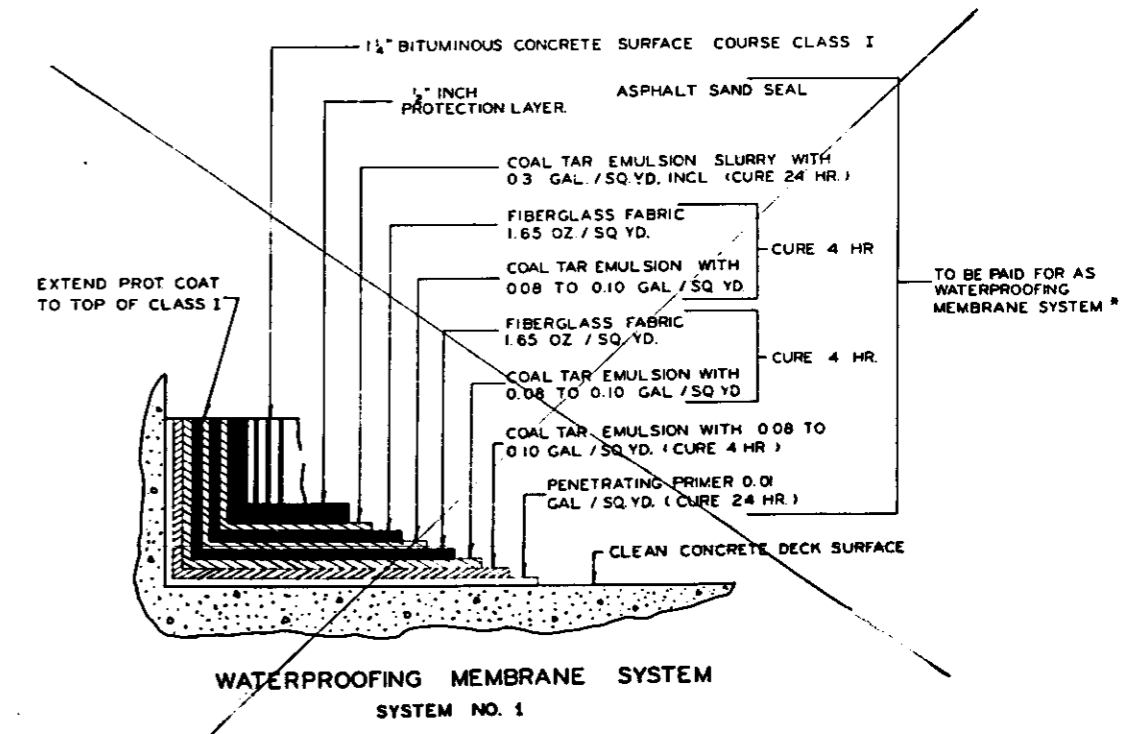
** DO NOT USE PRIMER OVER PREFABRICATED MEMBRANE; SPOT TACK PROTECTION LAYER WITH SPECIFIED MASTIC ONLY.



* SEE SPECIAL PROVISIONS



TYPICAL END SEALER TREATMENTS FOR USE WITH NEOPRENE EXPANSION DAM

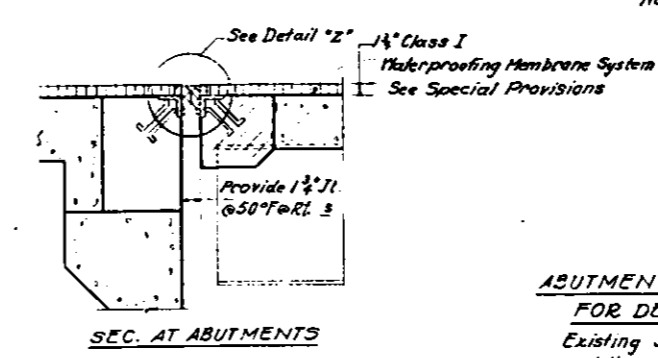
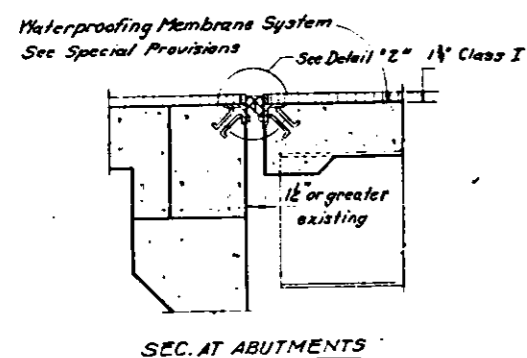
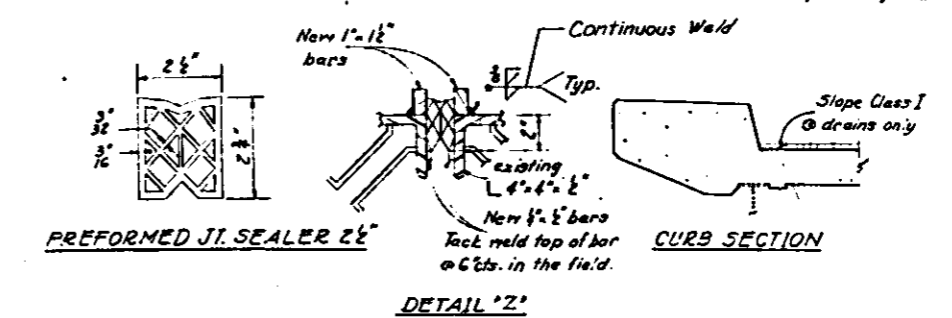
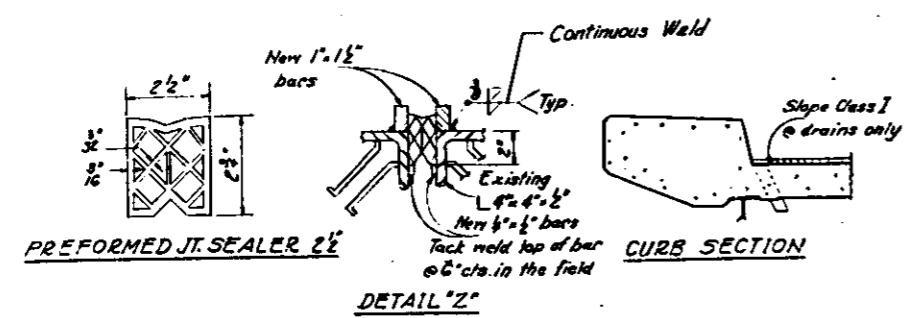


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
57	*	*	8	6

SHEET NO.
SHEETS

* 41-11HB-1, 1B-1, 2B-2, 2HB, 2VB, 3HB-1, 3VB, 4H-2, 4VB 11
61-11HB-3, 2B-1, 3VB-1, 3VB-2, 3HB-1, 3VB-3, 5HB-1, 6VB-1, 6B-11
26-11HB-1, 2B-1 11; 25-16HB-1, 6B-1, 6HB-2, 6HB-3, 6B 11
JEFFERSON, MARION, FAYETTE, & EFFINGHAM COUNTIES



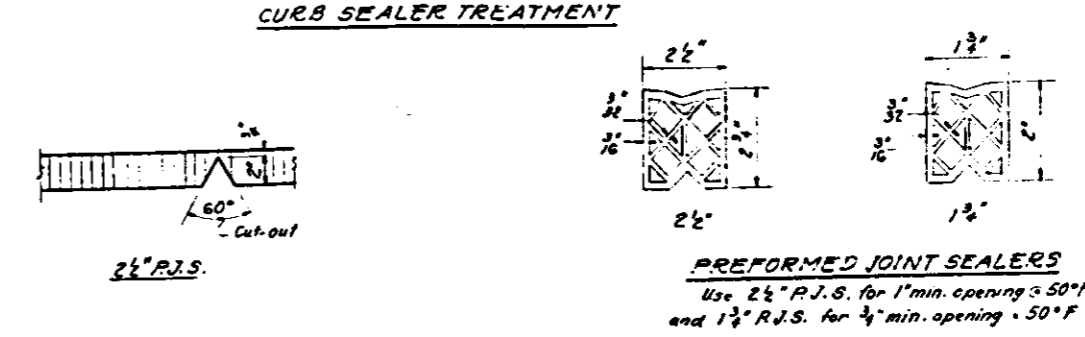
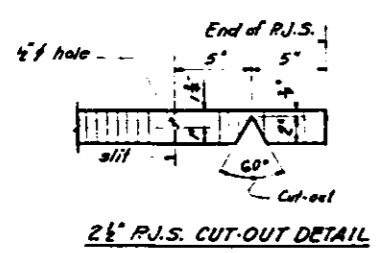
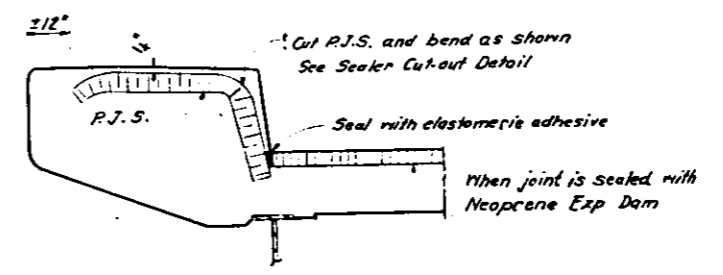
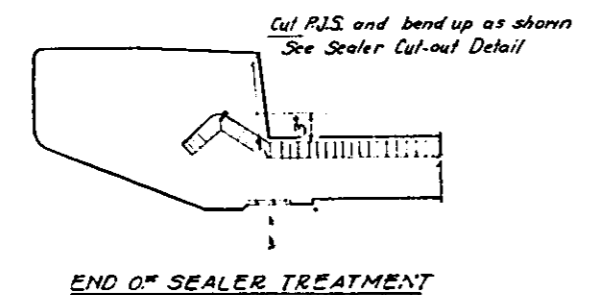
Notes:
Hatched area shall be removed and replaced to provide 1/4" right angle joint @ 50°F.
Existing reinforcement shall be cleaned & incorporated into the new concrete. The existing 4" x 4" x 1/2" #5 studs shall be cleaned & reused. Removal shall be from out to out of superstructure.

ABUTMENT JOINT MODIFICATIONS FOR DECK WATERPROOFING
Existing opening is between 1 1/2" and 2" @ 50°F and the expansion length and skew falls into the 2 1/2" P.J.S. range.

ABUTMENT JOINT MODIFICATIONS FOR DECK WATERPROOFING
Existing Joint is less than 1 1/2" at 50°F and the expansion length and skew falls into the 2 1/2" P.J.S. range, but there is not adequate expansion capacity.

DETAIL - A

DETAIL - B



PREFORMED JOINT SEALERS
Use 2 1/2" P.J.S. for 1" min. opening @ 50°F and 1 1/2" P.J.S. for 3/4" min. opening @ 50°F

DESIGNED	19
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	APPROVED

DIRECTOR OF HIGHWAYS

DETAIL - C

DETAIL - D

JOINT MODIFICATIONS DETAILS A, B, C, & D

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-57	*	JEFFERSON	11	1
PROJECT I-57-2(110)89				
* 41-2-1-1, 41-2B-1-1-1, & 41-2B-2-1-1				
P-97-004-75				

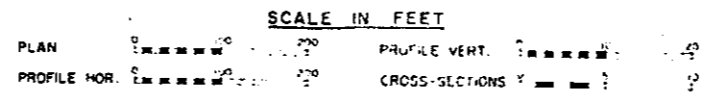
**PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY**

~ INDEX OF SHEETS ~

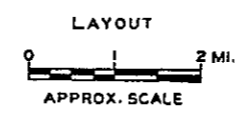
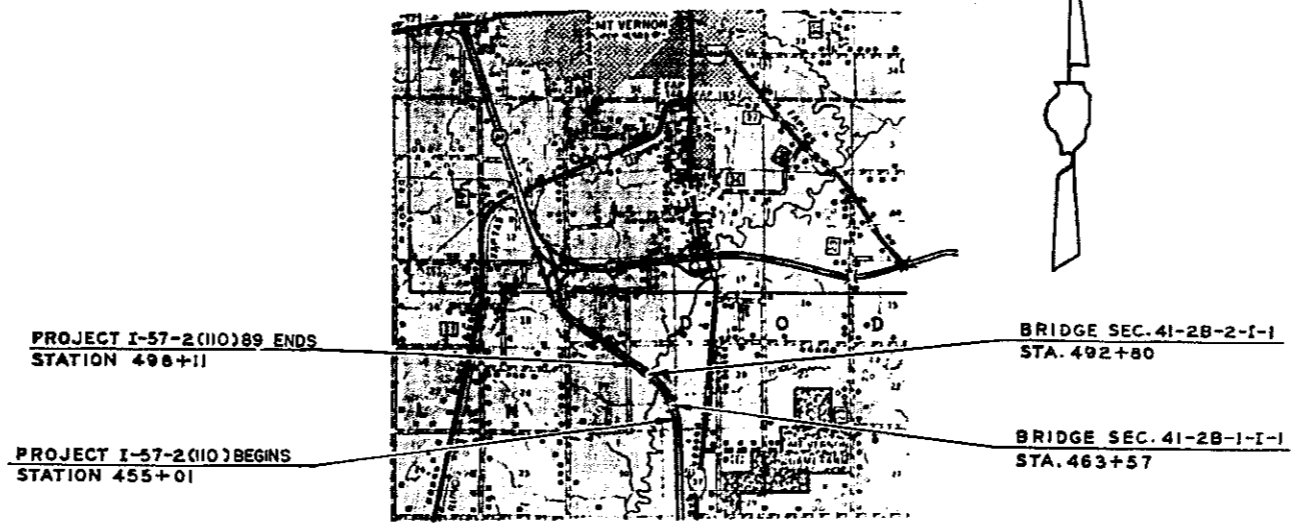
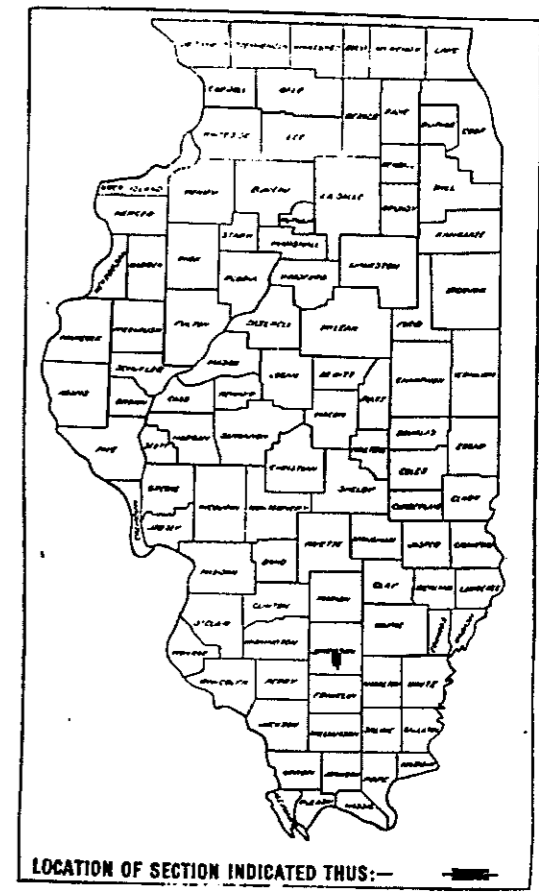
SHEET NO.	TITLE
1	TITLE SHEET, INDEX OF SHEETS
2	GENERAL NOTES, TYPICAL SECTIONS, SUMMARY OF QUANTITIES
3	PLAN, SCHEDULE OF QUANTITIES
4-II	BRIDGE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE ATTACHED AFTER SHEET NO. II :

STD. 2149-9	DELINEATORS
STD. 2298-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STD. 2307-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STD. 2314-3	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STD. 2315-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STD. 2316-3	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STD. 2299-6	DESIGN OF TRAFFIC CONTROL DEVICES
STD. 2300-1	FLAGMAN TRAFFIC CONTROL SIGN
STD. 2230-9	STEEL PLATE BEAM GUARD RAIL



F.A.I. ROUTE 57
SECTIONS 41-2-I-1, 41-2B-I-1-1, & 41-2B-2-I-1
PROJECT I-57-2(110)89
JEFFERSON COUNTY
C-97-066-75



NET LENGTH OF PROJECT := 4,310 FT. = 0.816 MI.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED: *Sept 25 1975*
A. L. Wilson

APPROVED: *Oct 21 1975*
Thomas H. Wright

APPROVED: *Oct 21 1975*
John J. ...

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____ DATE: _____

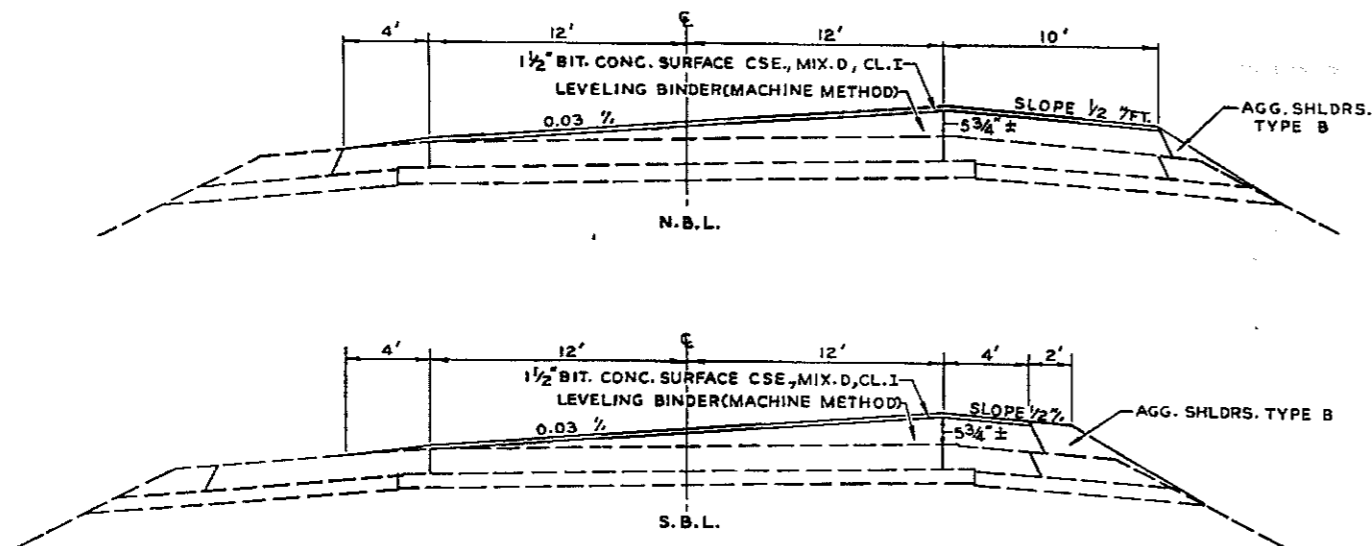
DIVISION ADMINISTRATOR DATE

CONTRACT NO. 309⁰¹

JEFFERSON COUNTY SECTION 41-2-I-1, F.A.I. ROUTE 57
41-2B-1-1-1, & 41-2B-2-1-1

THE THICKNESS OF THE BITUMINOUS MATERIAL SHOWN ON THE PLANS IS THE NOMINAL THICKNESS, DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE ON WHICH THE BITUMINOUS MATERIAL IS PLACED.

~ TYPICAL SECTIONS ~



~ GENERAL NOTES ~

THESE SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JULY 2, 1973; THE MIMEOGRAPHED SPECIFICATIONS, AND THE SPECIAL PROVISIONS.

SECTION 41-2-I-1 CONSISTS OF CONSTRUCTING LEVELING BINDER (MACHINE METHOD), BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I, REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL AND OTHER INCIDENTAL WORK.

SECTIONS 41-2B-1-I-1 AND 41-2B-2-I-1 CONSIST OF WATERPROOFING AND RESURFACING THE EXISTING BRIDGE DECKS, REMOVING THE EXISTING BRIDGE RAILING AND CONSTRUCTING NEW RAILING.

THE CONTRACTOR SHALL TEMPORARILY STRIPE THE CENTER LINE IN ACCORDANCE WITH THE SPECIAL PROVISIONS, AND AS DIRECTED BY THE ENGINEER. A PORTION OF THE QUANTITY FOR PAVEMENT MARKING TAPE HAS BEEN ALLOWED FOR PLACEMENT ON THE PRIME COAT.

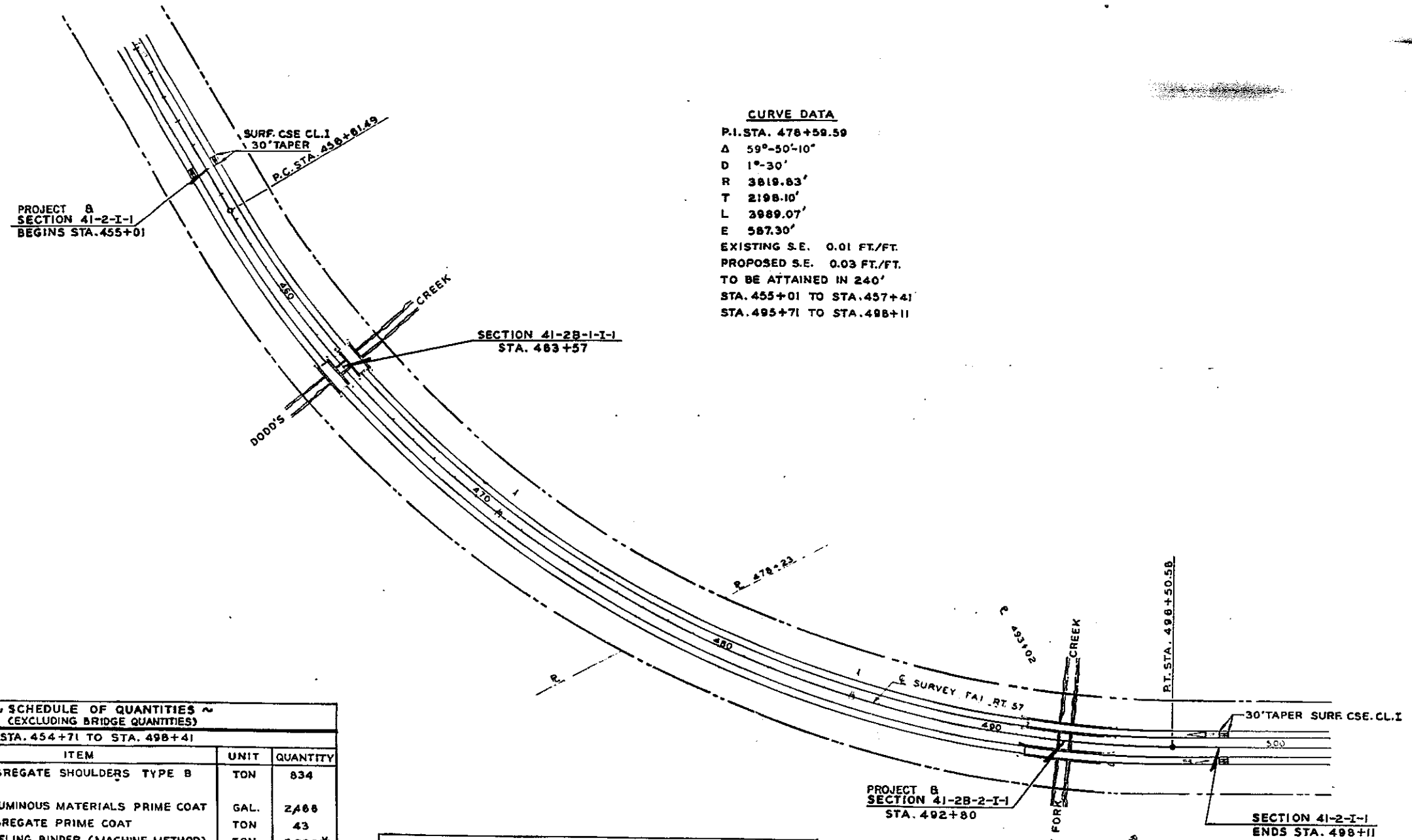
ANY REFERENCE TO A STANDARD IN THE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS.

SECTION	NO.	TOTAL	DATE
FA-57	* JEFFERSON	11	2
* 41-2-I-1, 41-2B-1-I-1, & 41-2B-2-I-1			

~ SUMMARY OF QUANTITIES ~

		PROJECT I-57-2(110)89				
		SECTION 41-2-I-1 (ROAD) STA. 455+01 TO STA. 488+11		SECTION 41-2B-1-I-1 (BRIDGE) STA. 483+57	SECTION 41-2B-2-I-1 (BRIDGE) STA. 492+80	
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE		
				6706	Y007	Y007
X04941	WATERPROOFING MEMBRANE SYSTEM	SQ. YD EACH	3,078		1,038	2,040
X82801	TERMINAL SECTION SINGLE RAIL		1			
X84701	PAVEMENT MARKING TAPE	LIN. FT.	1,048	1,048		
X21088	TRAFFIC CONTROL & PROTECTION, STD. 2315	L. SUM	1		0.5	0.5
X21089	TRAFFIC CONTROL & PROTECTION, STD. 2316	L. SUM	1			
X21090	NEOPRENE EXPANSION JOINT 2"	LIN. FT.	70			70
X21091	NEOPRENE EXPANSION JOINT 2 1/2"	LIN. FT.	70			70
X21186	PREFORMED JOINT SEAL 2 1/2"	LIN. FT.	170		170	
215004	AGGREGATE SHOULDERS TYPE B	TON	834	834		
406001	BITUMINOUS MATERIALS PRIME COAT	GAL.	2,466	2,466		
406003	AGGREGATE PRIME COAT	TON	43	43		
408005	LEVELING BINDER (MACHINE METHOD)	TON	5,842	5,236	245	361
X40615	BITUMINOUS CONC. SURF. CSE. MIX. D. CL. I	TON	2,683	2,421	61	201
501022	CONCRETE REMOVAL	CU. YD.	185		51	134
Z10205	DECK SLAB REPAIR (PARTIAL)	SQ. YD.	58		20	38
501035	BRIDGE HANDRAIL REMOVAL	LIN. FT.	1,150			1,150
501040	HANDRAIL CONCRETE REMOVAL	LIN. FT.	476		476	
503004	PROTECTIVE COAT	SQ. YD.	757		198	559
504003	CLASS X CONCRETE	CU. YD.	276.5		114.4	162.1
507001	FURNISH AND ERECT STRUCTURAL STEEL	POUND	5,900		5,900	
512001	REINFORCEMENT BARS	POUND	34,230		11,460	22,770
833005	REMOVE AND RE-ERECT STL. PL. BM. GD. RL.	LIN. FT.	4,452	4,452		
832002	REMOVE AND REPLACE DELINEATORS	EACH	27	27		
846001	ENGINEERS FIELD OFFICE TYPE A	EACH	1	1		6

* NON-PARTICIPATING



CURVE DATA
 P.I. STA. 478+59.59
 Δ 59°-50'-10"
 D 1°-30'
 R 3819.83'
 T 2198.10'
 L 3989.07'
 E 587.30'
 EXISTING S.E. 0.01 FT./FT.
 PROPOSED S.E. 0.03 FT./FT.
 TO BE ATTAINED IN 240'
 STA. 455+01 TO STA. 457+41
 STA. 495+71 TO STA. 498+11

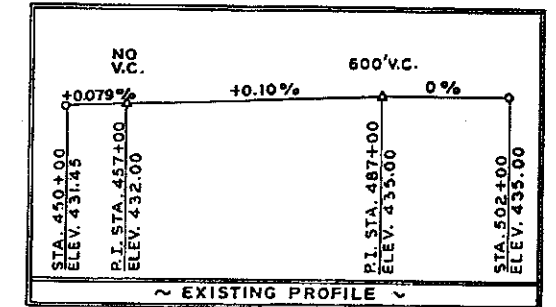
~ SCHEDULE OF QUANTITIES ~
 (EXCLUDING BRIDGE QUANTITIES)
 STA. 454+71 TO STA. 498+41

CODE NO.	ITEM	UNIT	QUANTITY
215004	AGGREGATE SHOULDERS TYPE B	TON	834
406001	BITUMINOUS MATERIALS PRIME COAT	GAL.	2,468
406003	AGGREGATE PRIME COAT	TON	43
406005	LEVELING BINDER (MACHINE METHOD)	TON	5,230*
X62801	REMOVE AND RE-ERECT DELINEATORS	EACH	21
X64701	TERMINAL SECTION SINGLE RAIL PAVEMENT MARKING TAPE	EACH	1**
		LIN. FT.	1,048

*=LIMITS: STA. 455+01 TO STA. 498+11
 ** RIGHT S.B.L. STA. 464+92± TO STA. 465+17±

~ REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL ~

LOCATION	LIN. FT.
RIGHT N.B.L. STA. 455+01 TO STA. 498+11	3,977
LEFT N.B.L. STA. 462+47± TO STA. 462+87±	50
LEFT S.B.L. STA. 462+46± TO STA. 462+98±	50
LEFT S.B.L. STA. 464+17± TO STA. 464+87±	50
RIGHT S.B.L. STA. 464+17± TO STA. 464+92±	75
LEFT N.B.L. STA. 490+87± TO STA. 491+37±	50
LEFT S.B.L. STA. 490+83± TO STA. 491+33±	50
LEFT S.B.L. STA. 494+26± TO STA. 494+76±	50
RIGHT S.B.L. STA. 494+26± TO STA. 495+26±	100*
* INCLUDES ONE TERMINAL SECTION	
TOTAL	4,452

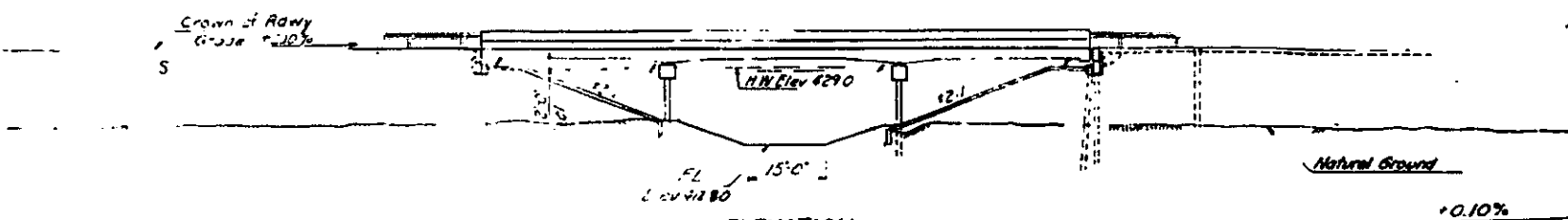


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	BY	REVISION	NO.
11-27-89	JL		1

SHEET NO. 1
5

B.M. 5.46 is a washer in top of 42" maple
2.5 feet E of Sta 463+78

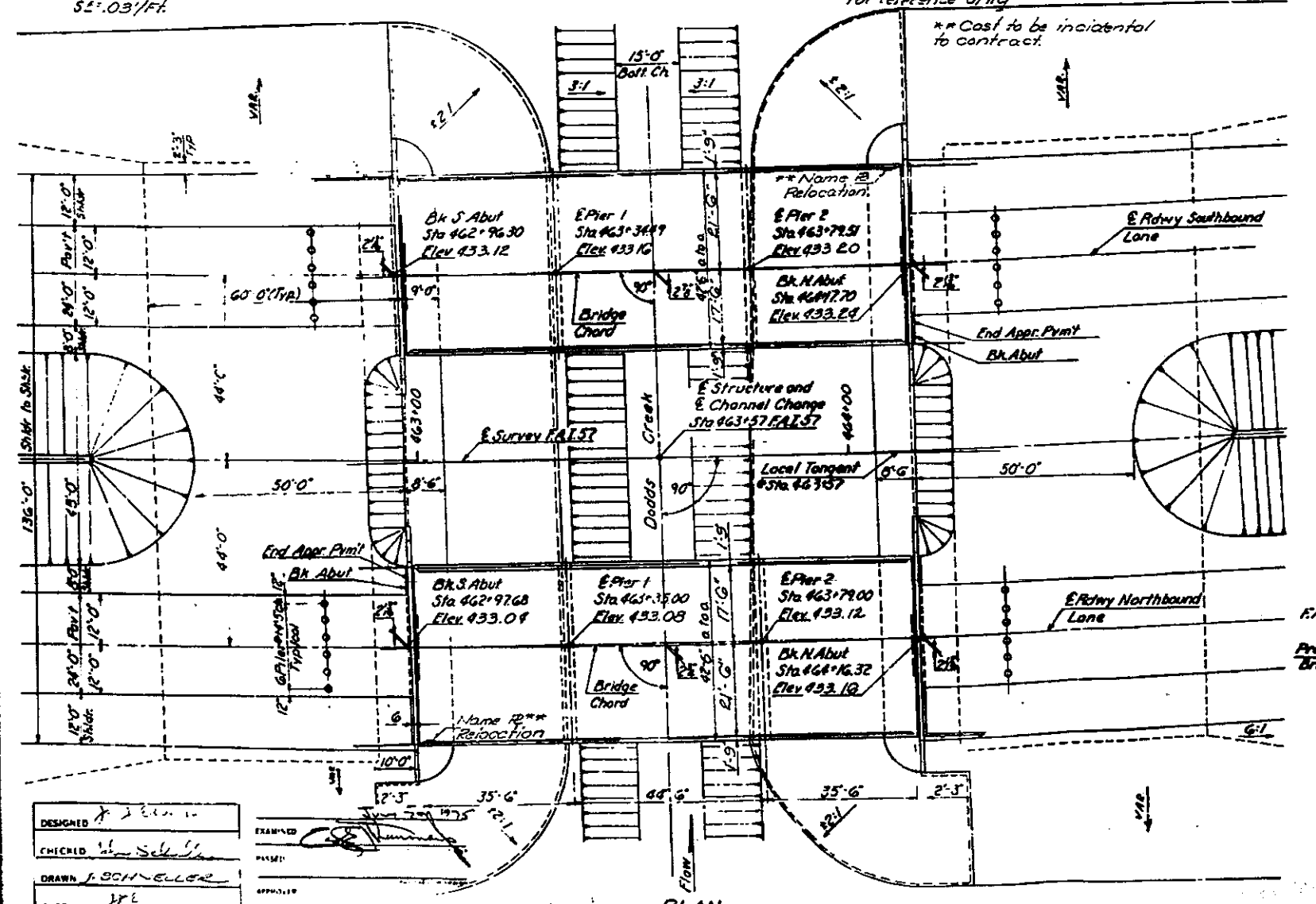
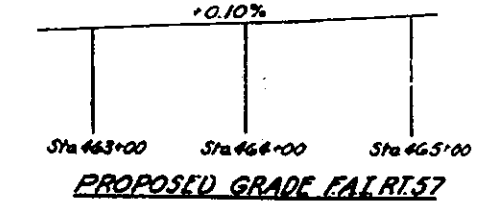


CURVE DATA
 PI Sta 478+59.59
 PC Sta 456+61.49
 PT Sta 490+50.5
 Δ = 59° 30' 10"
 D = 1° 35'
 R = 3,819.83
 T = 2,198.10
 L = 3,928.07
 SE = 0.31/Ft

WATERWAY INFORMATION
 Drainage Area ----- 7280 Acres
 Character ----- hilly, clay cultivated
 Required Opening ----- 709 Sq Ft (50 Yr)
 Present Opening -----
 Proposed Opening ----- 880 Sq Ft
 Ordinary Water Elev. 413.6
 Low Water Elev. 413.6

ELEVATION

STATION 463+57
 BUILT 196 BY
 STATE OF ILLINOIS
 FAIRTS7 SEC 41-28-1
 FA PROJ I-57-2(71)
 LOADING H20-S16 RAIL
NAME PLATE
 See Std 213-1
 For reference only



DESIGNED: J. Scheller
 CHECKED: J. Scheller
 DRAWN: J. SCHELLER
 CHECKED: J. Scheller

FRAMED: J. Scheller
 NAME: J. Scheller
 APPROVED: J. Scheller
 DIRECTOR OF HIGHWAYS

PLAN

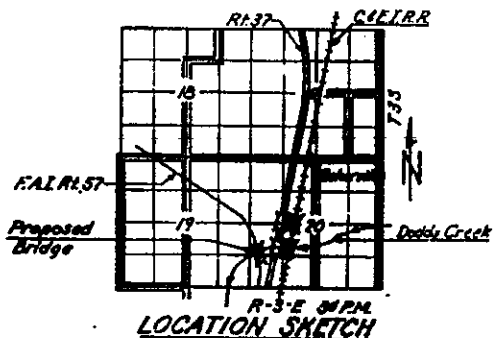
Elevations are based on
 elevations given on original
 plans, plus thickness of
 2.25 ft

GENERAL NOTES
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
 Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
 Stage Construction shall be employed to maintain one lane traffic on each bridge at all times (See Specs 2-3.2.1).

TOTAL BILL OF MATERIALS

Items	Unit	Super	Sub	Total
Bk Conc Surf Coat	Sq Yds	67		67
Protective Coat	Sq Yds	198		198
Concrete Removal	Cu Yds	41.4	5.6	51
Structural Steel	Lbs	5370		5370
Reinforcement Bars	Lbs	10,020	1440	11,460
Waterproofing Mem Sys	Sq Yds	10.35		10.35
Preformed J Sealer	Unit	170		170
Class X Concrete	Cu Yds	102.4	16.0	114.4
Handrail Conc Removal	Lm Ft	474		474
Existing Struct Reinforce	Tons	245		245
Deck S Co Repair (Partial)	Sq Yds	20		20

* See Specs 2-3.2.1 Provisions

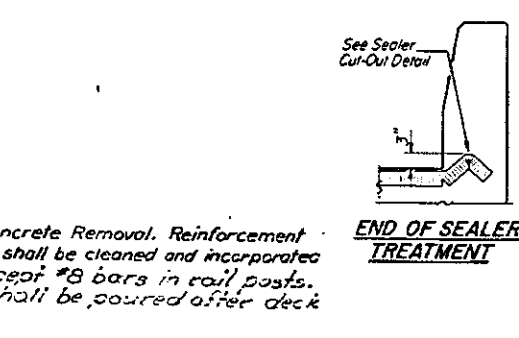
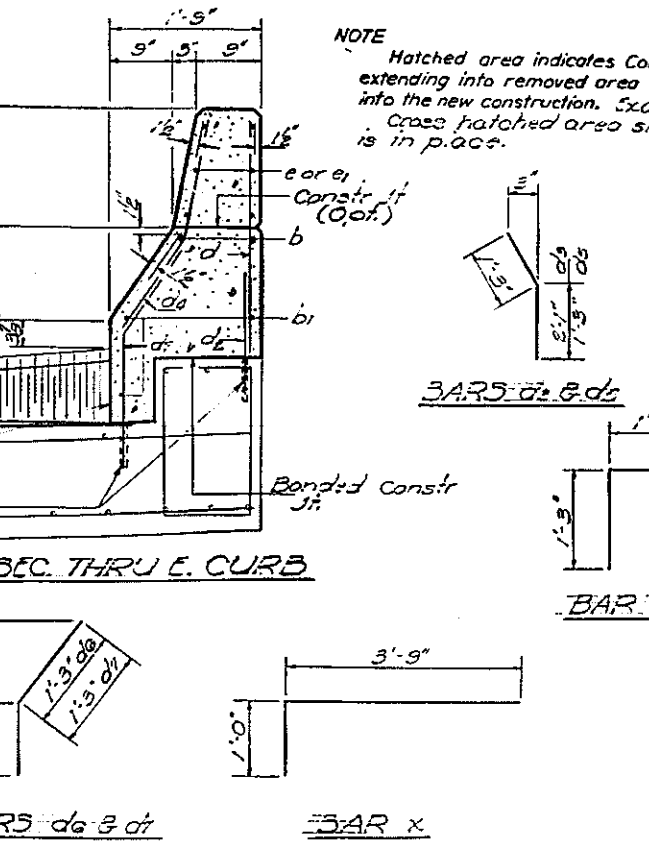
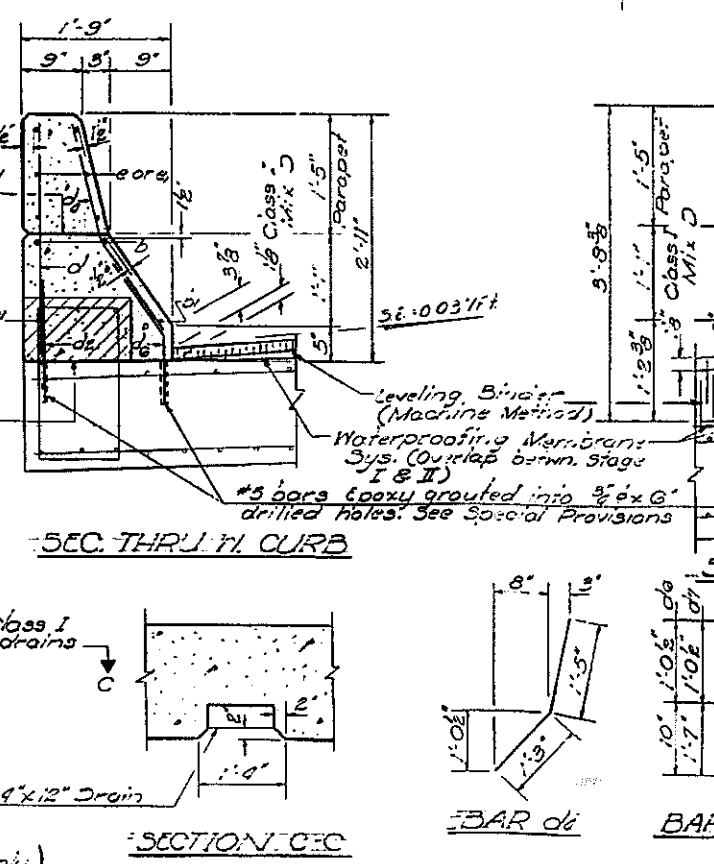
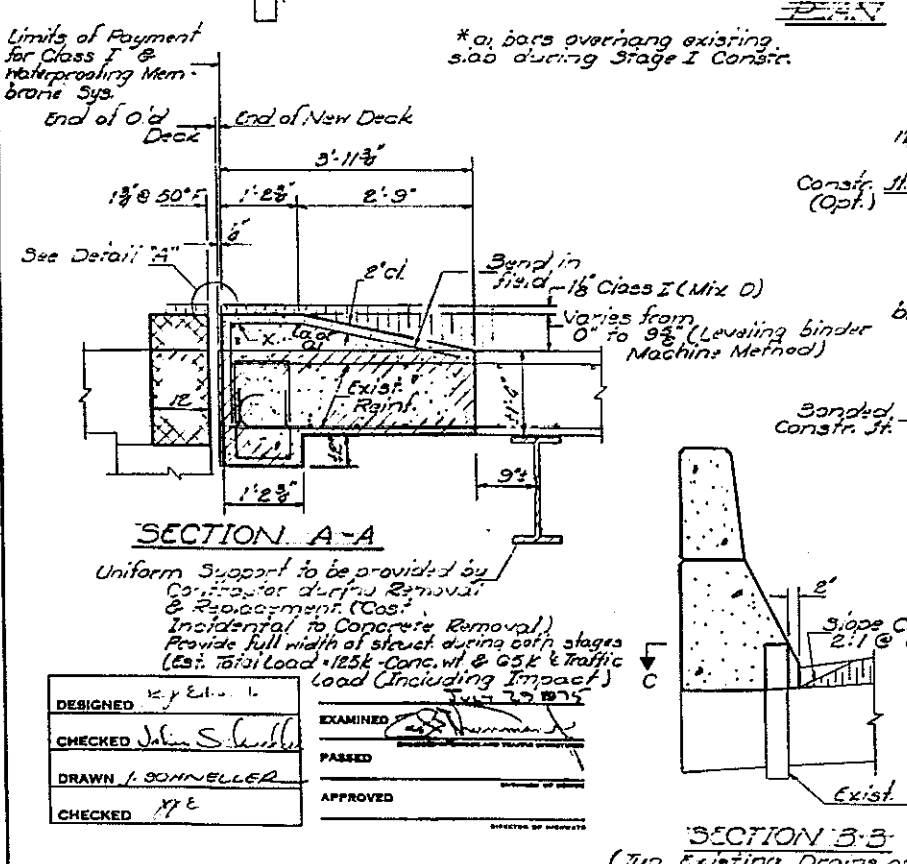
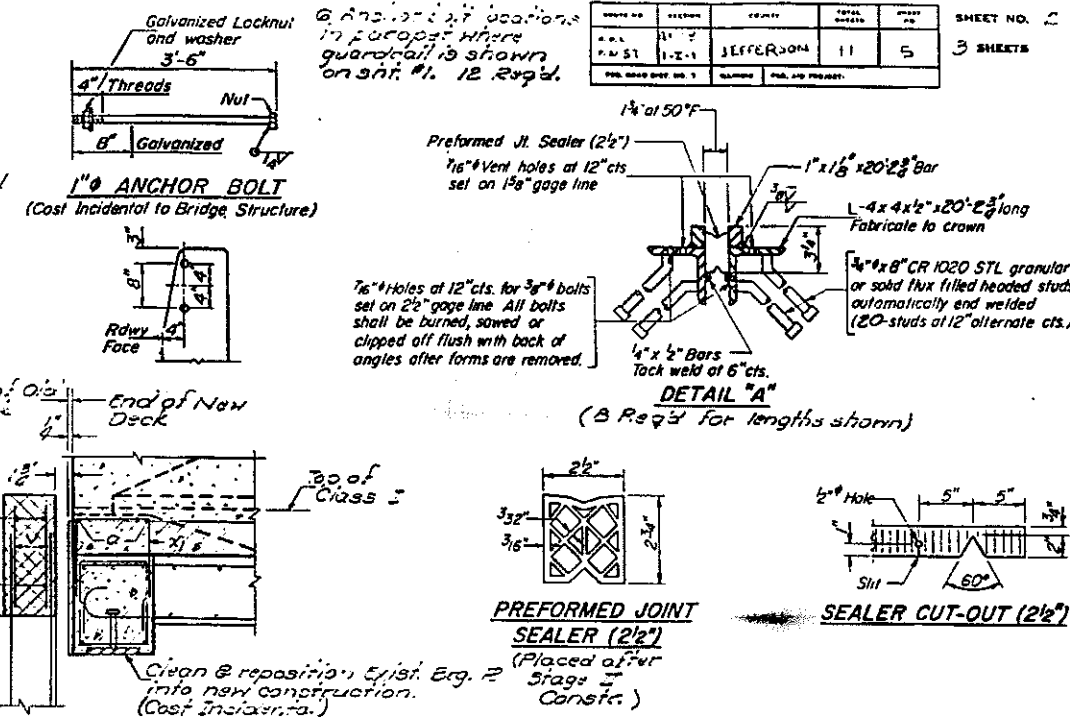
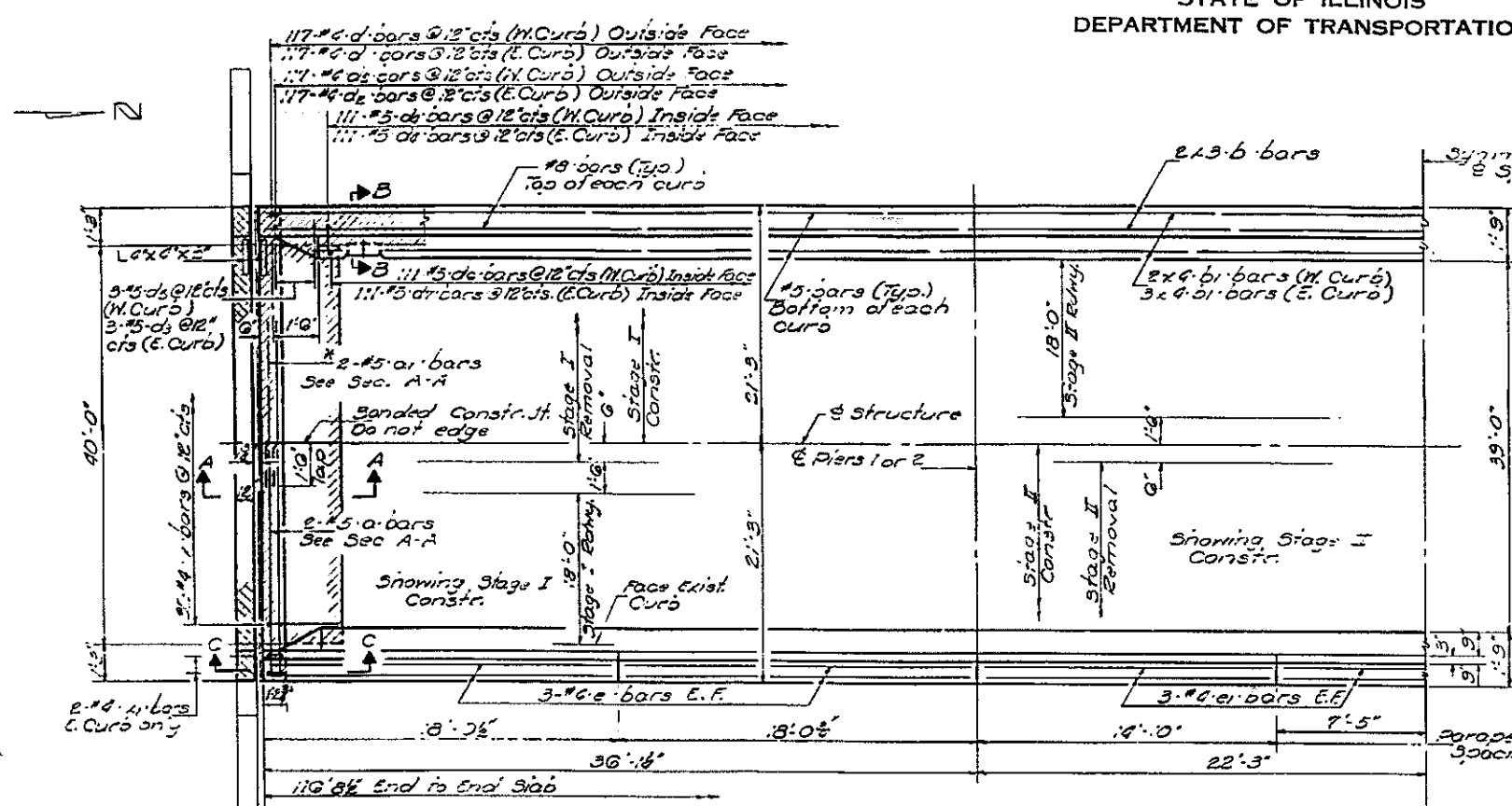


DESIGN STRESSES
 Fc = 4000 psi Super & Sub
 Ft = 75 ksi Footing
 Fs = 28,000 psi Reinf.
 Fc = 22,000 psi Struct (A-36)
 n = 10
LOADING H20-S16 RAIL

PROJ I-57-2(11)89
GENERAL PLAN & ELEVATION
DODD'S CREEK
FAIRTS7 SEC 41-28-1-1
JEFFERSON COUNTY
STA. 463+57

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	11-2-1	SECTION	JEFFERSON	TOTAL SHEETS	11	SHEET NO.	5
DATE	11-2-1	DESIGNED BY	J.E.	CHECKED BY	J.S.	DRAWN BY	J.S.



NOTE
Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction. Except #8 bars in rail posts. Cross hatched area shall be poured after deck is in place.

TWO BRIDGES
BILL OF MATERIAL

Bar	No	Size	Length	Stage
a	8	#5	2'-0"	
a1	8	#5	18'-0"	
b	24	#8	20'-3"	
b1	40	#5	30'-3"	
d	408	#4	2'-6"	
d1	408	#4	1'-3"	
d2	12	#5	3'-6"	
d3	444	#5	2'-8"	1
d4	12	#5	2'-6"	
d5	222	#5	2'-1"	1
d6	222	#5	2'-0"	1
e	90	#6	17'-9"	
e1	72	#6	16'-7"	
x	128	#6	4'-9"	
x1	8	#6	3'-0"	1

Class X Concrete Cu. Yds. 102.0
Concrete Removal Cu. Yds. 41.0
Reinforcement Bars Lbs. 10,020

SUPERSTRUCTURE
S.A. 405+57 SEC. 4-23+57
JEFFERSON COUNTY
S.A. 405+57

DESIGNED: J.E.
CHECKED: John S. Smith
DRAWN: J. SCHNELLER
CHECKED: J.P.

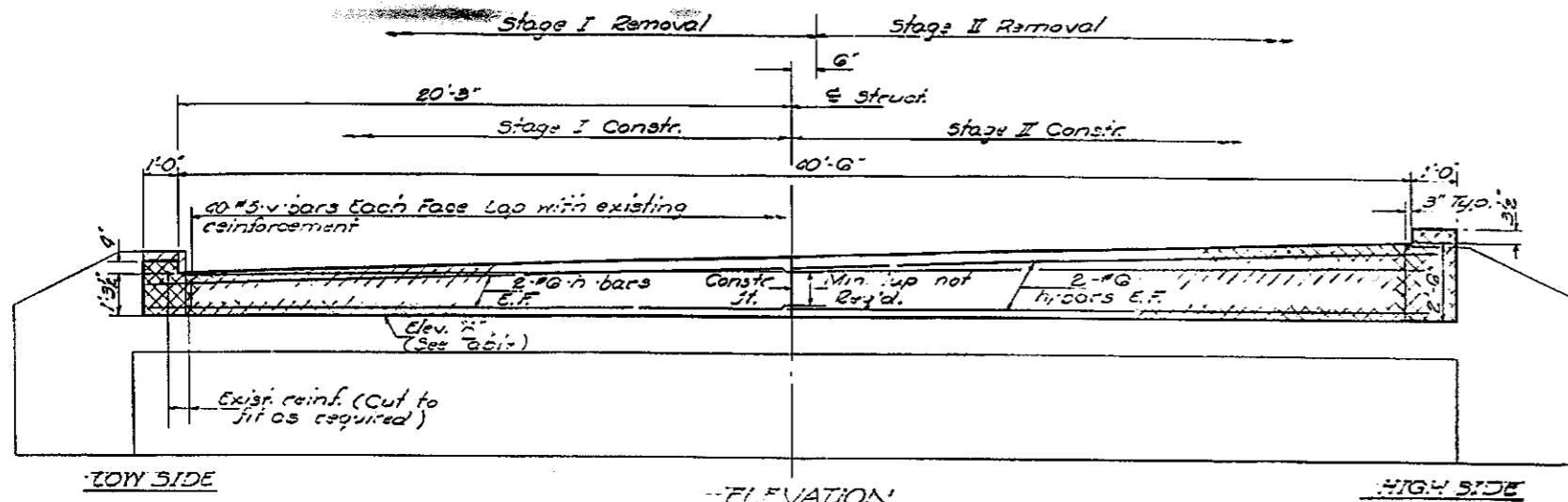
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

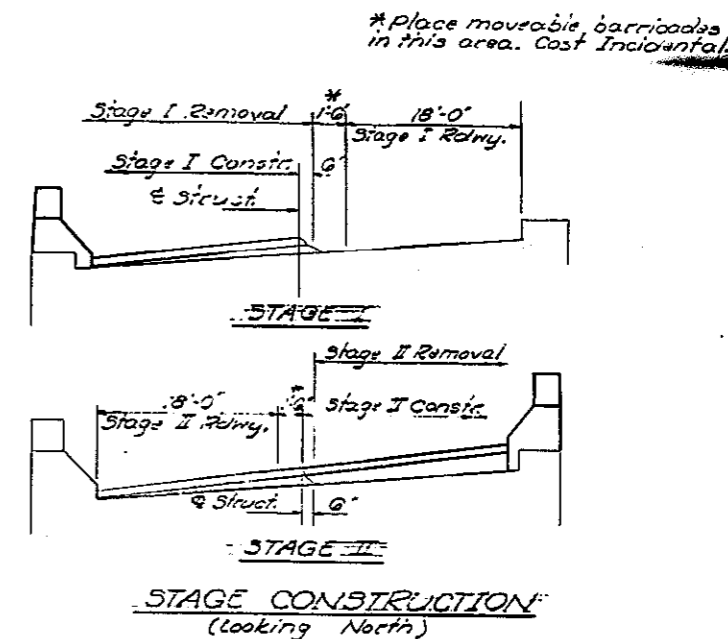
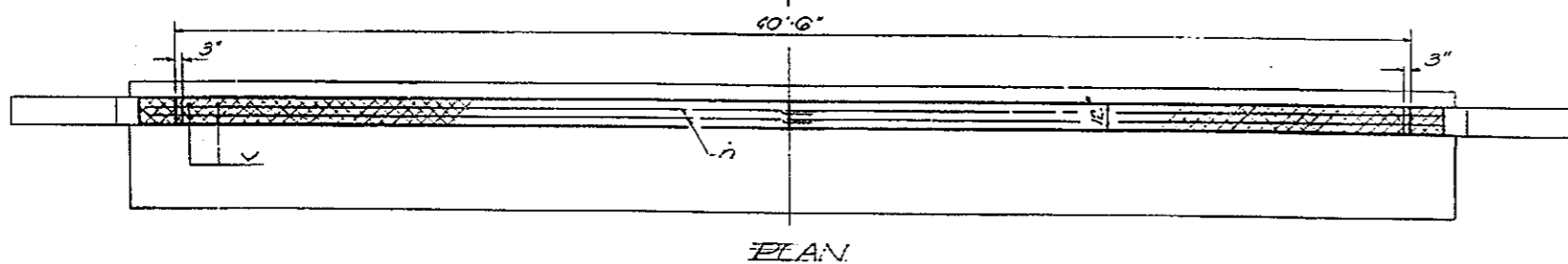
DATE	SECTION	QUANTITY	TOTAL	SHEET NO.	SHEET NO. 3
NO. 1	1-1	JEFFERSON	11	6	3 SHEETS
<small>ILL. ROAD DIST. DIV. 7</small>					

NOTES:

Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.
Cross hatched area shall be poured after deck is in place.



Location	Elev. 20'
So. Abut. W. Br.	43.08
So. Abut. E. Br.	43.12
No. Abut. W. Br.	43.20
No. Abut. E. Br.	43.24



FOUR ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	10	#6	21'-6"	---
h	16	#6	21'-0"	---
v	320	#5	7'-3"	---
Class A Concrete			Cu. Yds.	12.0
Concrete Removal			Cu. Yds.	9.0
Reinforcement Bars			Lbs.	1440

DESIGNED <i>K. J. Edman, Jr.</i>	EXAMINED <i>[Signature]</i>
CHECKED <i>John Scheller</i>	PASSED <i>[Signature]</i>
DRAWN <i>J. SCHNELLER</i>	APPROVED <i>[Signature]</i>
CHECKED <i>J. E.</i>	

ABUTMENT DETAILS
I.A.E. RT. 57 --- SEC. 41-23-1-1-1
JEFFERSON COUNTY
STA. 463+37

SEC. 41-23-1-1-1 Div 1
 11-28-11
 11-28-11

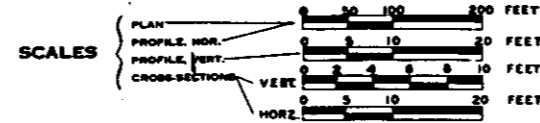
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 57 41-2B-1		JEFFERSON	13	1
P. D. & PER. NO. 4 ILLINOIS PROJECT 1-57-2(71)89				

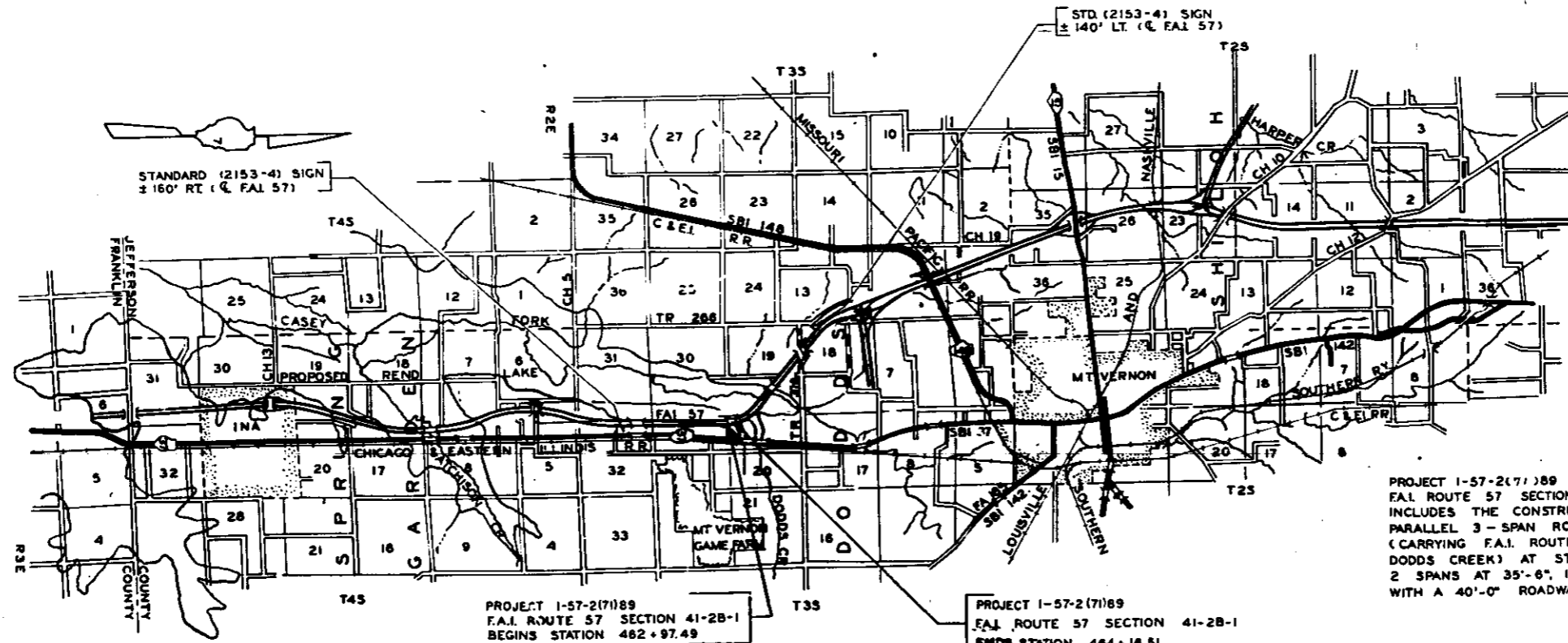
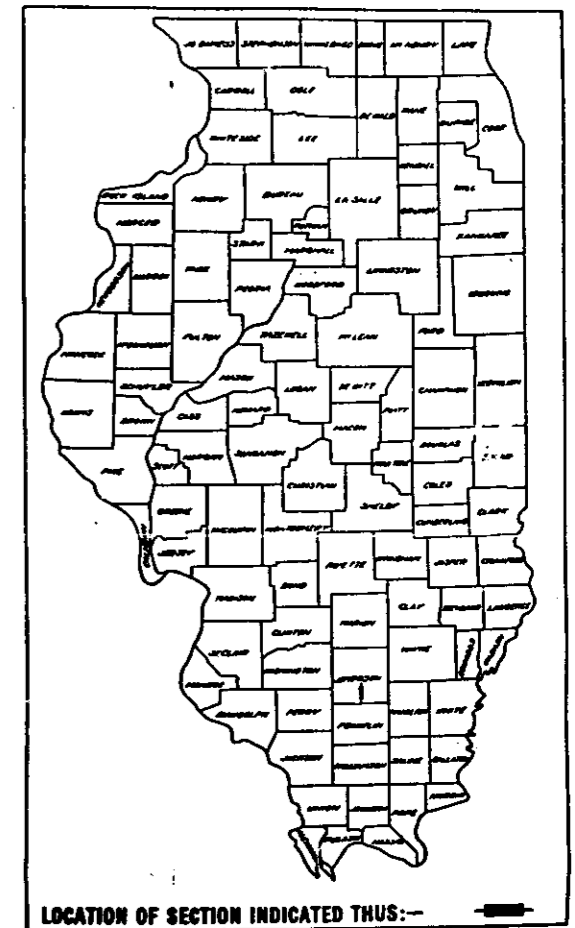
P-97-113-00

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET & INDEX OF SHEETS
2	TYPICAL SECTION
3	SIGNATURES, GENERAL NOTES, SUMMARY OF QUANTITIES, CLASS 'X' CONCRETE SCHEDULE
4	PLAN & PROFILE STA. 448+00 TO STA. 480+00
5-10	BRIDGE PLANS STA. 483+57
11	CROSS SECTIONS STA. 462+00 TO STA. 465+00
12, A	STANDARD 1688-2 AND 2113-1
13, A, B	STANDARD 2114, 1971-3, AND 2153-4
13 C	STANDARD 2070 RC



F.A.I. ROUTE 57
SECTION 41-2B-1
PROJECT I-57-2(71)89
JEFFERSON COUNTY
C-97-218-64



PROJECT I-57-2(71)89
F.A.I. ROUTE 57 SECTION 41-2B-1
INCLUDES THE CONSTRUCTION OF TWO
PARALLEL 3-SPAN RC SLAB BRIDGES
(CARRYING F.A.I. ROUTE 57 OVER
DODDS CREEK) AT STA. 483+57
2 SPANS AT 35'-6", 1 SPAN AT 44'-6"
WITH A 40'-0" ROADWAY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

APPROVED: *[Signature]*
DATE: December 21, 1964

APPROVED: *[Signature]*
DATE: December 21, 1964

APPROVED: *[Signature]*
DATE: December 21, 1964

APPROVED: *[Signature]*
DATE: December 21, 1964

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: *[Signature]*
DATE: 7-31

HIGHWAY CLASSIFICATION
F.A.I. 57 = 2265 T 70

CONTRACT NO. 23981

LAYOUT
APPROXIMATE SCALE

NET LENGTH TO BE IMPROVED 119.02 FEET 0.025 MILES
LENGTH OF PROJECT I-57-2(71)89 119.02 FEET 0.025 MILES

SIGNATURES
 F.A.I. ROUTE 57
 SECTION 41-2B-1
 JEFFERSON COUNTY

PLANS PREPARED BY DISTRICT 7 DESIGN OFFICE

* SIGNATURES, GENERAL NOTES,
 SUMMARY OF QUANTITIES &
 CLASS X SCHEDULE

EXAMINED Dec 11 1964 J. O. Cox
 DISTRICT ENGINEER OF DESIGN
 EXAMINED Dec 14 1964 Robert N. Kramble
 DISTRICT ENGINEER OF CONSTRUCTION
 EXAMINED Dec 14 1964 W. A. Blood
 DISTRICT ENGINEER OF MAINTENANCE
 EXAMINED Dec 14 1964 W. H. Hoeller
 DISTRICT ENGINEER OF RESEARCH AND PLANNING
 EXAMINED Dec 14 1964 Hugh Dobson
 DISTRICT ENGINEER OF TRAFFIC
 EXAMINED Dec 14 1964 John D. Silla
 DISTRICT ENGINEER OF RIGHT-OF-WAY
 EXAMINED Dec 15 1964 V. D. Bliss
 DISTRICT ENGINEER

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 2, 1958; THE "SUPPLEMENTAL SPECIFICATIONS", EFFECTIVE MARCH 2, 1964; AND THE SPECIAL PROVISIONS.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF THE COMPLETE CONSTRUCTION OF TWO (2) PARALLEL, THREE (3) SPAN, R. C. SLAB BRIDGES (CARRYING F.A.I. ROUTE 57 OVER DODDS CREEK), TWO (2) SPANS AT 35'-6" AND ONE (1) SPAN AT 44'-8" WITH A 40'-0" ROADWAY AT STATION 463+57; BORROW EXCAVATION AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THIS SECTION.

THE BORROW EXCAVATION TO CONSTRUCT THE EMBANKMENT AS SHOWN ON THE PLANS SHALL BE OBTAINED FROM BORROW PITS FURNISHED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL FURNISH AND ERECT TWO (2) STANDARD 2153-4 SIGNS AT LOCATIONS SHOWN ON THE TITLE SHEET (SEE SPECIAL PROVISIONS).

NO PAYMENT WILL BE MADE FOR OVERHAUL ON ANY MATERIAL MOVED FROM ANY SOURCE FOR THIS SECTION.

SUMMARY OF QUANTITIES			TOTAL PROJECT	
CODE NO.	ITEM	UNIT	QUANTITY	BRIDGE
LOCATION OF WORK				STATION 463+57
		CONSTRUCTION TYPE CODE		X020
010005	TREE REMOVAL ACRES	ACRE	4.4	4.4
012001	CHANNEL EXCAVATION	CU. YD.	1,898	1,898
013001	BORROW EXCAVATION	CU. YD.	25,710	25,710
050001	CLASS A EXCAVATION FOR STRUCTURES	CU. YD.	105	108
052001	HANDRAIL CONCRETE	CU. YD.	13.5	13.5
052003	CLASS X CONCRETE	CU. YD.	704.6	704.6
052021	PROTECTIVE COAT	SQ. YD.	1,200	1,200
051002	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	16,420	16,420
059001	REINFORCEMENT BARS	POUND	163,080	163,080
060005	FURNISHING CREOSOTED PILES (20.1'-30')	LIN. FT.	600	600
060006	DRIVING TIMBER PILES	LIN. FT.	600	600
060010	FURNISHING PRECAST CONCRETE PILES 14"	LIN. FT.	1,870	1,870
060012	TEST PILES, PRECAST CONCRETE	EACH	2	2
060013	DRIVING PRECAST CONCRETE PILES	LIN. FT.	1,870	1,870
060043	DRIVING CONCRETE PILES	LIN. FT.	1,430	1,430
060044	FURNISHING CONCRETE PILES	LIN. FT.	1,430	1,430
060047	TEST PILE CONCRETE	EACH	2	2
061001	NAME PLATE	EACH	2	2
083003	SLOPE WALL 6 INCH	SQ. YD.	1,630	1,630
Z01023	BRIDGE SEAT SEALANT	L. SUM	1	1

CLASS "X" CONCRETE SCHEDULE

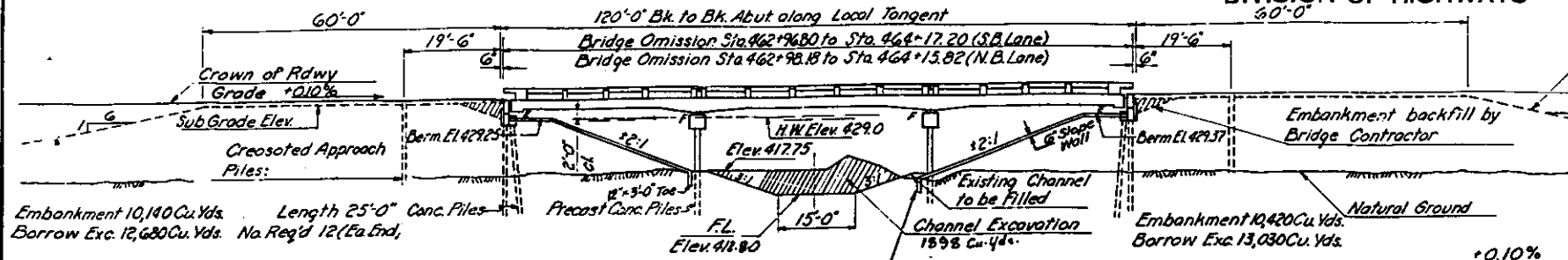
LOCATION	CLASS X CONCRETE CU. YDS.	REINFORCEMENT BARS POUNDS	STRUCTURAL STEEL POUNDS
STRUCTURE STA. 463+57	704.6	163,080	16,420
TOTAL SEC. 41-2B-1	704.6	163,080	16,420

CLASS X SCHEDULE

B.M. spike and washer in root of 42' maple
265 feet Lt. of Station 466+78

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET
FAI RT. 57	41-2B-1	JEFFERSON	13	5	5

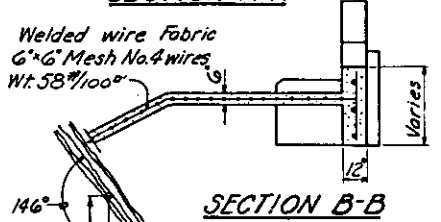
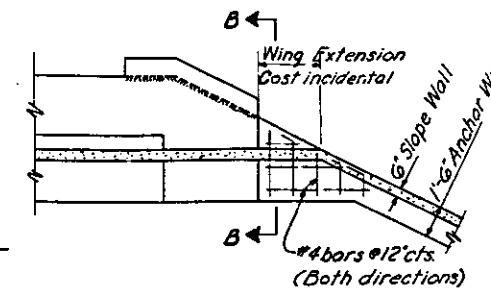


CURVE DATA
P.I. Sta 478+59.59
P.C. Sta 456+61.49
P.T. Sta 490+50.56
Δ=59°50'10"
D=1°30'
R=3,819.83
T=2,198.10
L=3,989.07
SE=0 1/2 Ft.

WATERWAY INFORMATION
Drainage Area-----7280 Acres
Character-----hilly, clay, cultivated
Required Opening-----709 Sq. Ft. (50 Yr.)
Present Opening-----
Proposed Opening-----880 Sq. Ft.
Ordinary Water Elev. 413.6
Low Water Elev. 413.6

**STATION 463+57
BUILT 196 BY
STATE OF ILLINOIS
FAI RT. 57 SEC. 41-2B-1
FA. PROJ. I-57-2(71)
LOADING H2O-SIG 6 A.I.T.
NAME PLATE
See Std 2113-1**

PROPOSED GRADE FAI RT. 57



GENERAL NOTES

Class X Concrete shall be used throughout except in handrails. Handrail Concrete shall be used in handrails. The handrail concrete in the rail posts and railings shall be poured in separate operations.

The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications, & the Special Provisions. Slope Wall shall be reinforced with welded wire fabric 6" x 6" mesh, weighing 58# per 100 sq. ft.

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

All bearings anchor bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications. Expansion guards shall be fabricated and erected in accordance with Article 51.13(d) of the Standard Specifications and are included in quantity of Structural Steel, Est. Wt. 4450 lbs.

The exposed surfaces of the expansion guards shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 56.1 to 56.5 inclusive of the Standard Specifications.

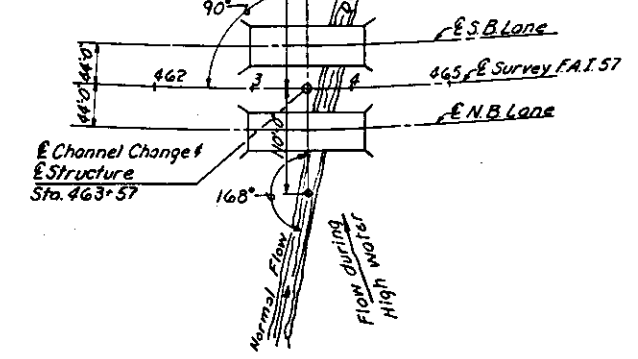
The Contractor shall drive one concrete test pile of the South Abutment of East Bridge and North Abutment of West Bridge, and one precast concrete test pile at Pier 1 of West Bridge and Pier 2 of East Bridge, all in permanent locations, as directed by the Engineer before ordering the remaining piles.

Abutment piles through embankment shall be driven in precored holes in accordance with Article 60.9(c) of the Standard Specifications.

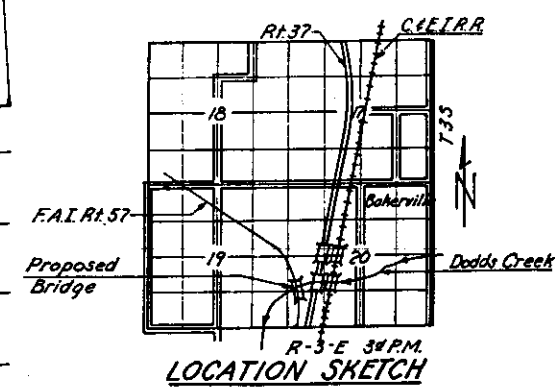
TOTAL BILL OF MATERIALS

Items	Unit	Super	Sub	Total
Borrow Excavation	Cu. Yds.			25,710
Class A Excav. for Structure	Cu. Yds.			106
Handrail Concrete	Cu. Yds.	13.5		13.5
Class X Concrete	Cu. Yds.	548.4	156.2	704.6
Structural Steel	Lbs.	16,420		16,420
Reinforcement Bars	Lbs.	150,190	12,890	163,080
Creosoted Piles (201-38)	Lin. Ft.			600
Precast Concrete Piles (11)	Lin. Ft.		1870	1870
Test Piles (Precast Conc.)	Ea.		2	2
Concrete Piles	Lin. Ft.		1430	1430
Test Piles (Concrete)	Ea.		2	2
Name Plates	Ea.		2	2
Slope Wall (6")	Sq. Yds.			1630
Protective Coat	Sq. Yds.			1200
Bridge Seat Sealant	Lump Sum		1	1

** At Abut. Seat only
* Class A Excav. for structures includes excavation for slope wall



SKETCH OF CHANNEL CHANGE

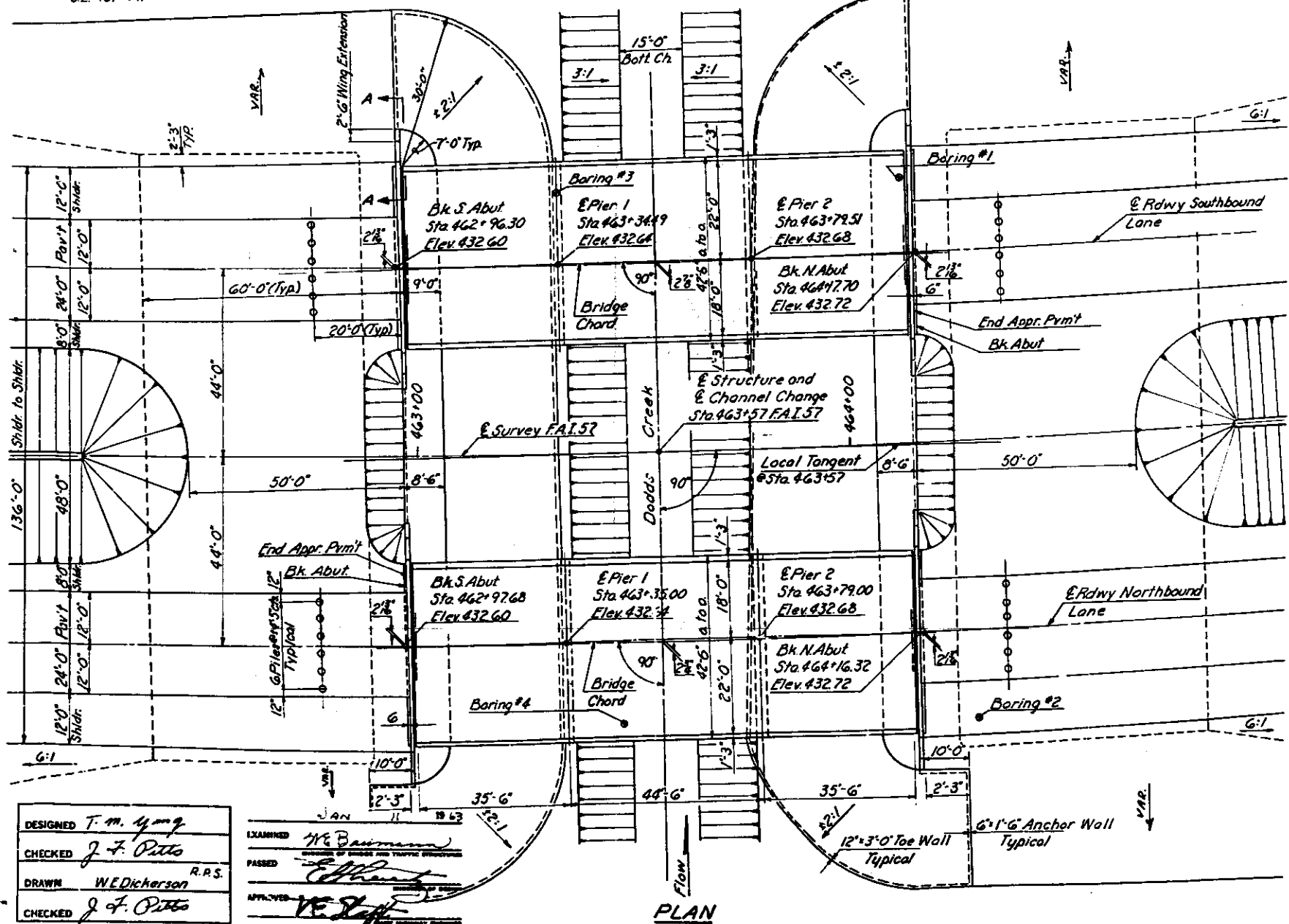


LOCATION SKETCH

DESIGN STRESSES
F_c = 1400 psi Super & Sub
F_c = 75 psi Footing
F_s = 20,000 psi Reinf.
F_s = 20,000 psi Struct. (A-36)
n = 10

LOADING H2O-SIG 6 A.I.T.

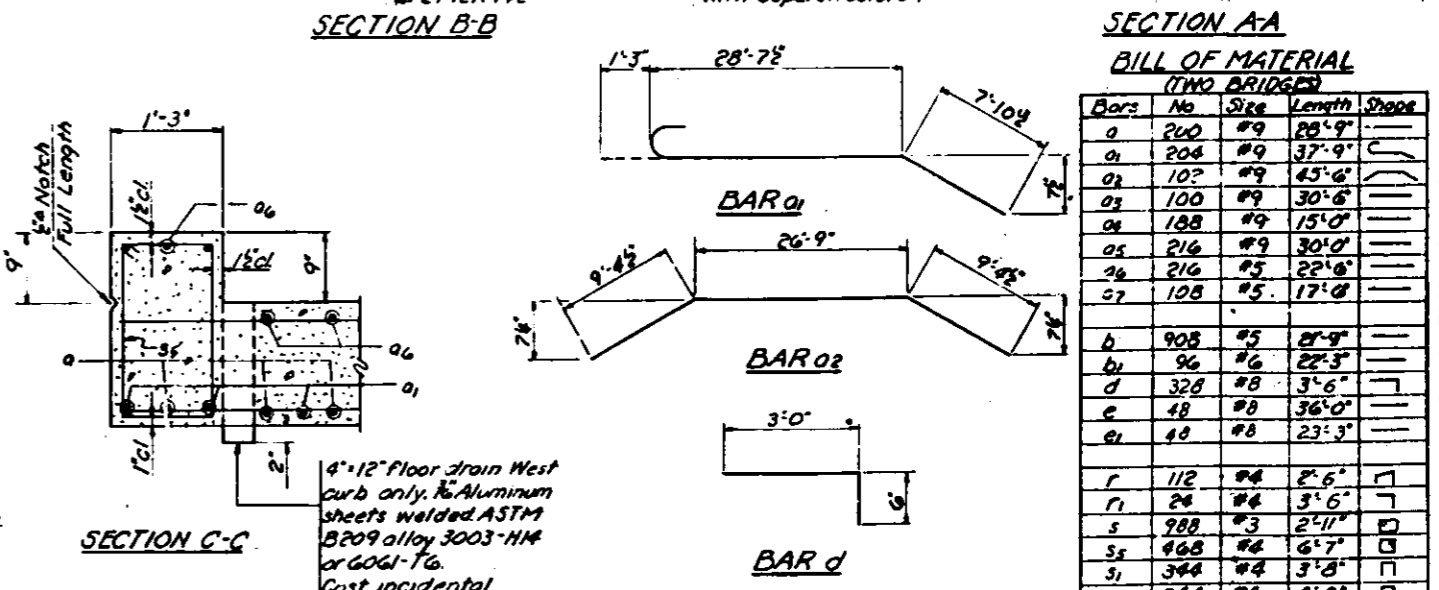
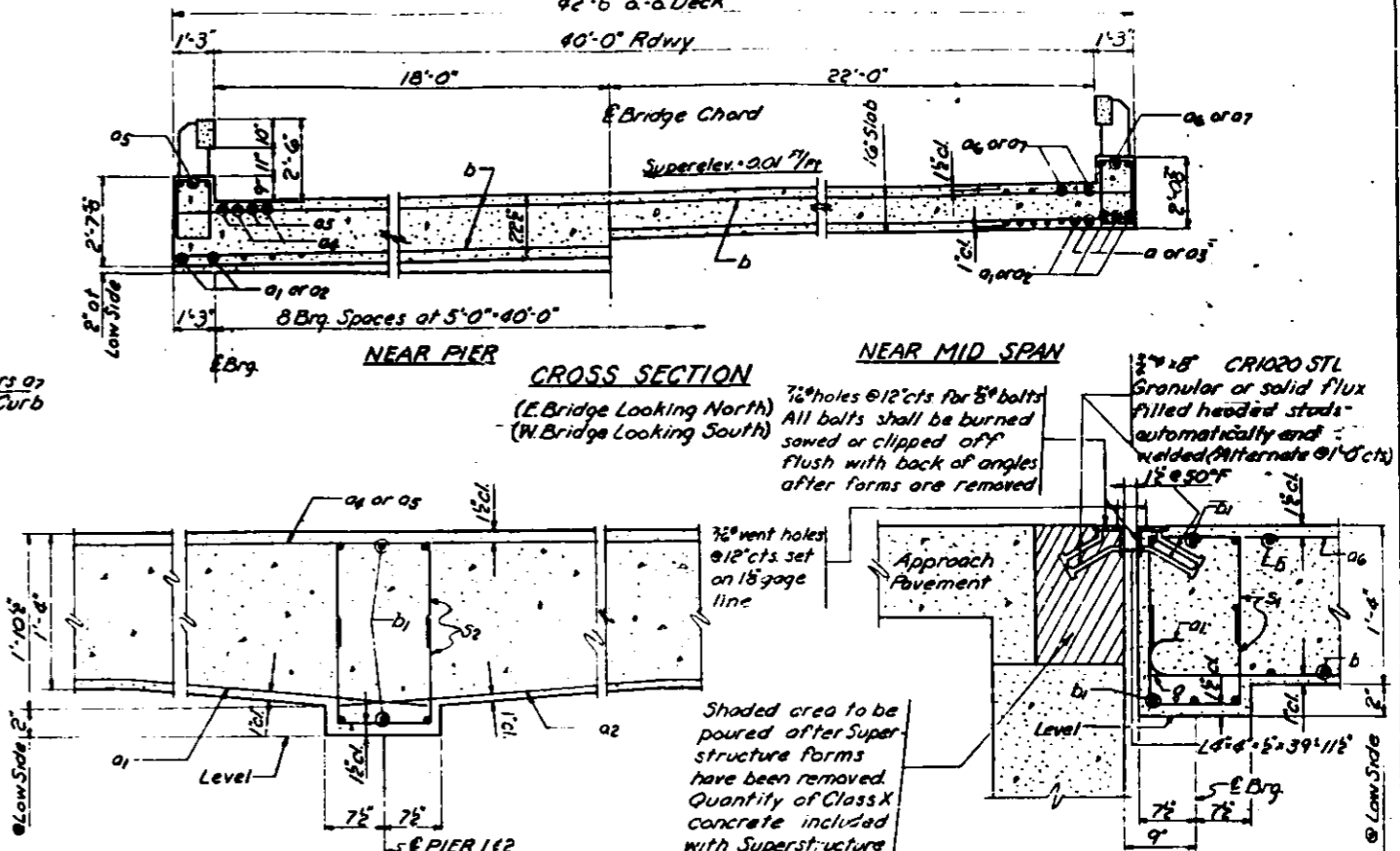
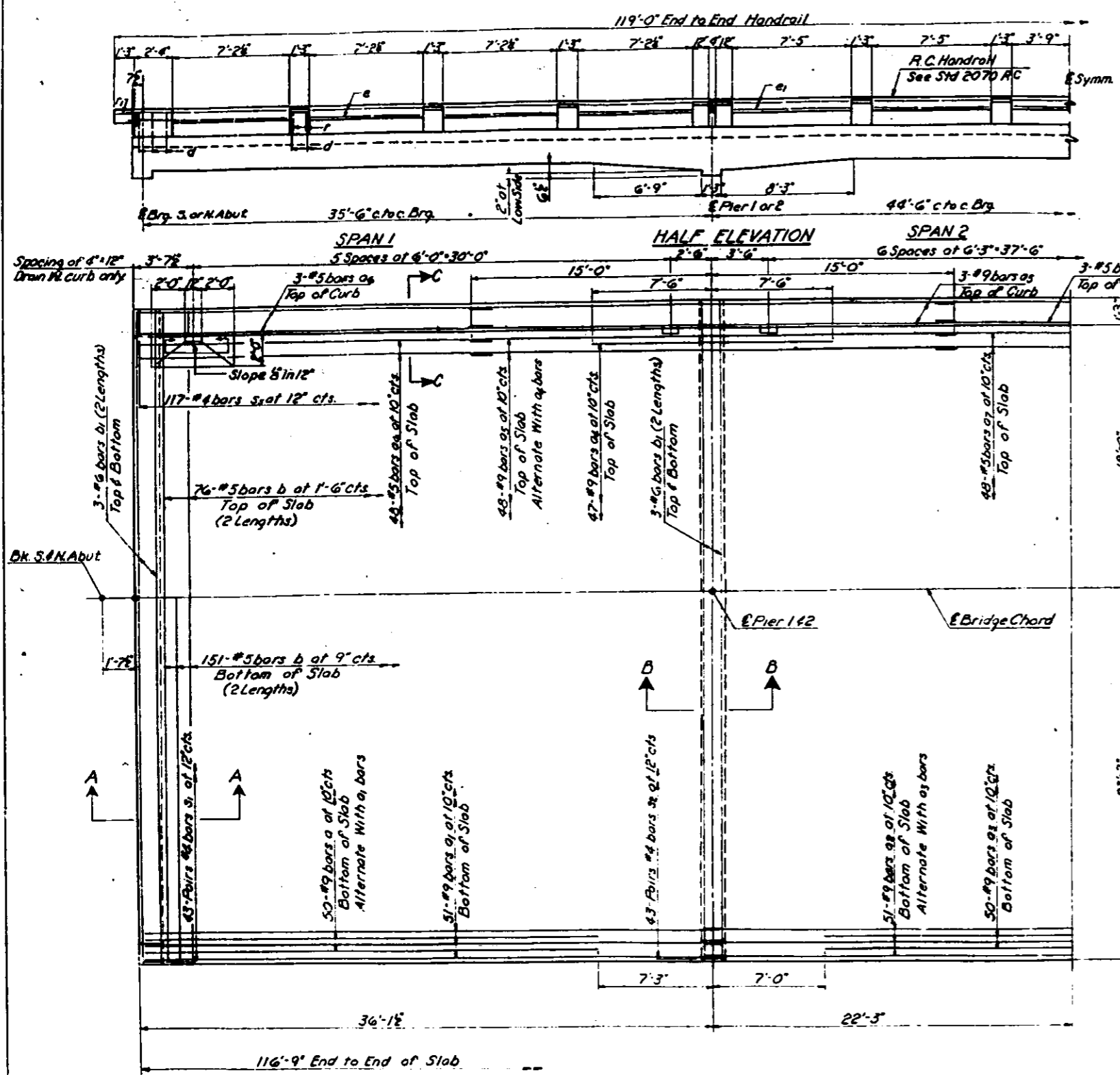
**PROJ. I-57-2(71)89
GENERAL PLAN & ELEVATION
DODDS CREEK
FAI RT. 57 SEC. 41-2B-1
JEFFERSON COUNTY
STA. 463+57**



DESIGNED T. M. Young
CHECKED J. F. Potts
DRAWN W. E. Dickerson
CHECKED J. F. Potts

EXAMINED W. E. Dickerson
PASSED
APPROVED W. E. Dickerson

Revised 10-15-64 T.M.Y. In plan, changed width of structure from 42'-6" to 42'-6". In total bill of materials, changed quantity of handrail concrete from 14.0 cu. yds. to 13.5 cu. yds. & concrete from 704.5 cu. yds. to 704.6 cu. yds., reinforcement bars from 154,000 lbs. to 163,080 lbs., and Bridge Seat Sealant added.



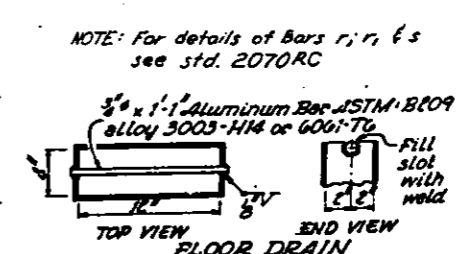
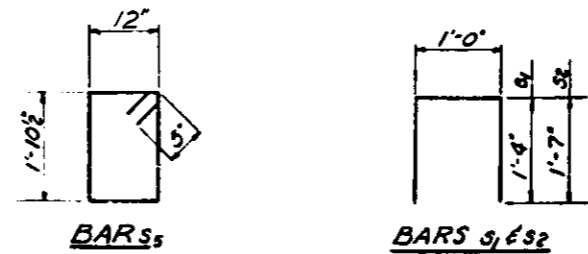
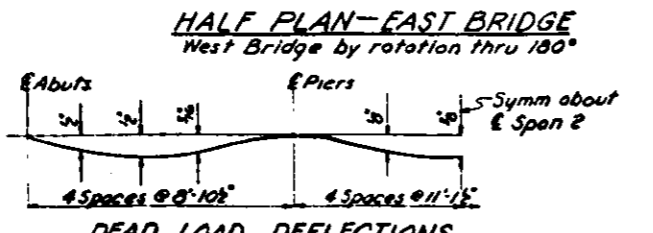
SECTION A-A
BILL OF MATERIAL
(TWO BRIDGES)

Bars	No	Size	Length	Shape
a	200	#9	28'-9"	—
a1	204	#9	37'-9"	—
a2	102	#9	45'-6"	—
a3	100	#9	30'-6"	—
a4	188	#9	15'-0"	—
a5	216	#9	30'-0"	—
a6	216	#5	22'-6"	—
a7	108	#5	17'-8"	—
b	908	#5	21'-9"	—
b1	96	#6	22'-3"	—
d	328	#8	3'-6"	—
e	48	#8	36'-0"	—
e1	40	#8	23'-3"	—
f	112	#4	2'-6"	—
f1	24	#4	3'-6"	—
s	288	#3	2'-11"	—
s1	468	#6	6'-7"	—
s1	344	#4	3'-8"	—
s2	344	#4	4'-2"	—
Class X Concrete		Cu. Yds.	548.4	
Reinforcement Bars		Lbs.	150,170	
Structural Steel		Lbs.	16,620	
Handrail Concrete		Cu. Yds.	13.5	

* Include 11,970 lbs. for bearings & 4450 lbs for Expansion Guards.

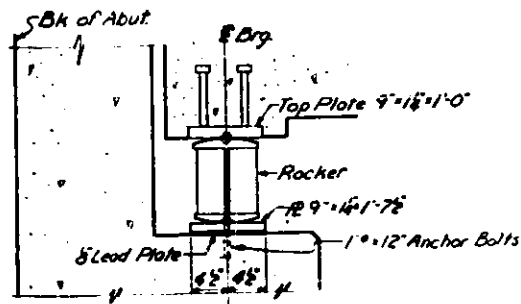
T.M. Army
J.F. Bates
W.E. Dickerson
G.F. Pitts

W.E. Bannerman
E. H. ...
H. ...

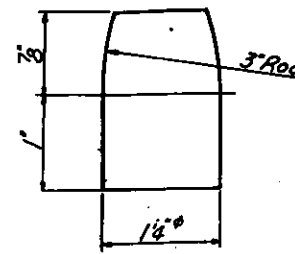


SUPERSTRUCTURE
F.A.I.R.T. 57 SEC. 41-2B-1
JEFFERSON COUNTY
STA. 463+57

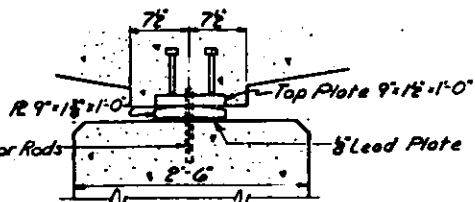
Revised 10-16-64 T.M.X. Changed R.C. Handrail from std. 2070RA-1 to std. 2070RC. and all other changes in relation to the revised handrail.



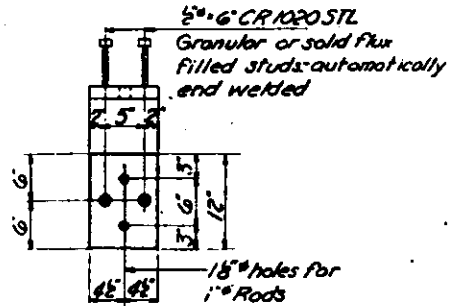
SECTION AT ABUTMENTS



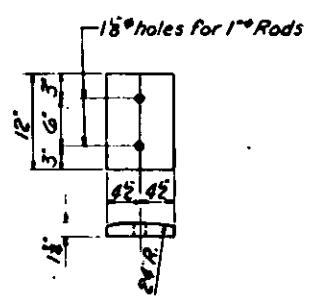
PINTLE DETAIL



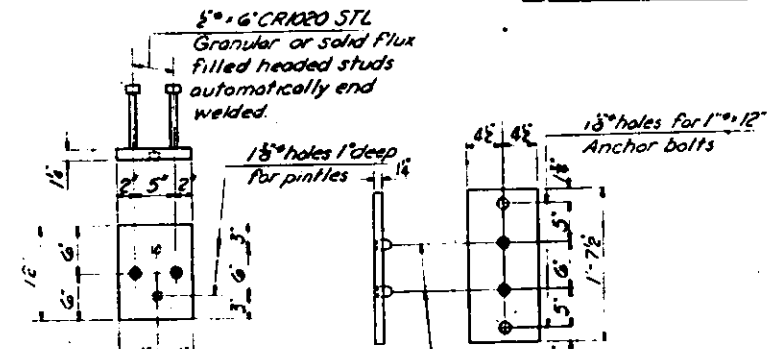
PIERS 1 & 2



TOP PLATE

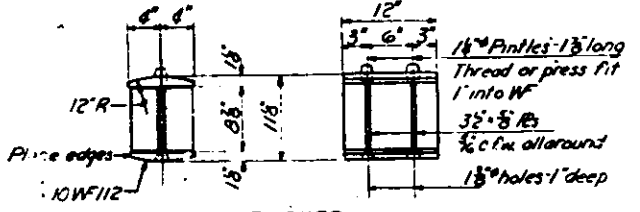


BOTTOM PLATE



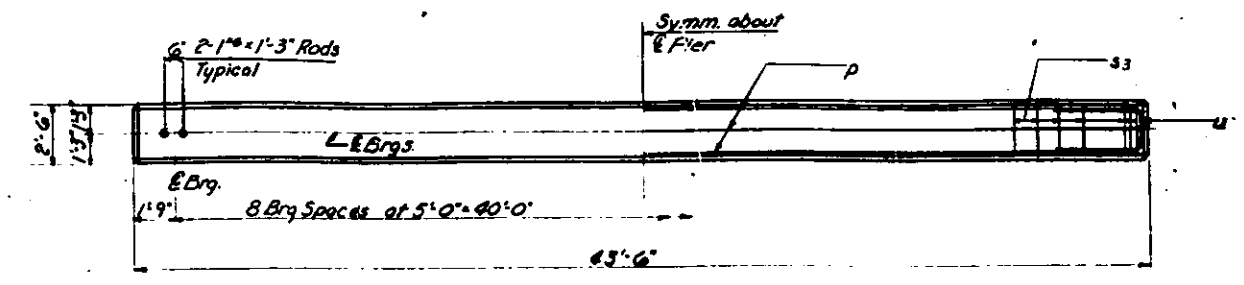
TOP PLATE

BOTTOM PLATE

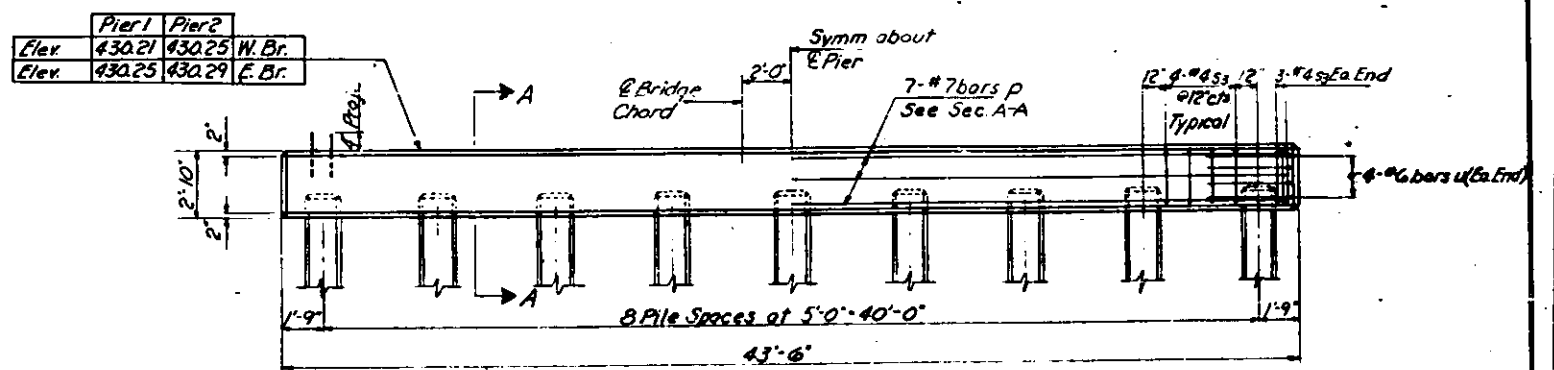


ROCKER

Est. Wt. of Structural Steel = 11,970 lbs.



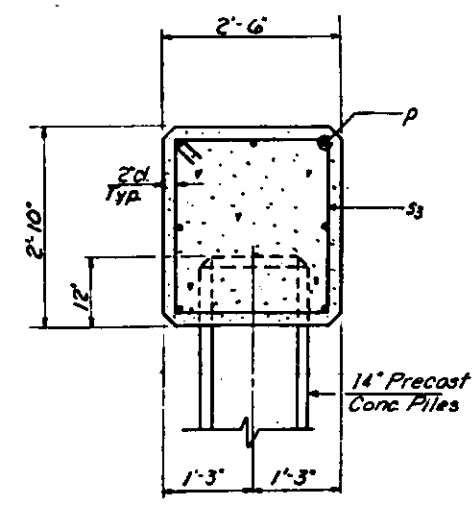
PLAN



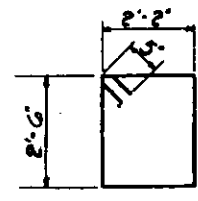
DIMENSIONS

REINFORCEMENT

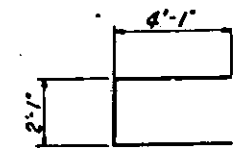
ELEVATION
W. Bridge Looking South
E. Bridge Looking North



SECTION AA



BAR S3



BAR U

4-PIERS
BILL OF MATERIAL

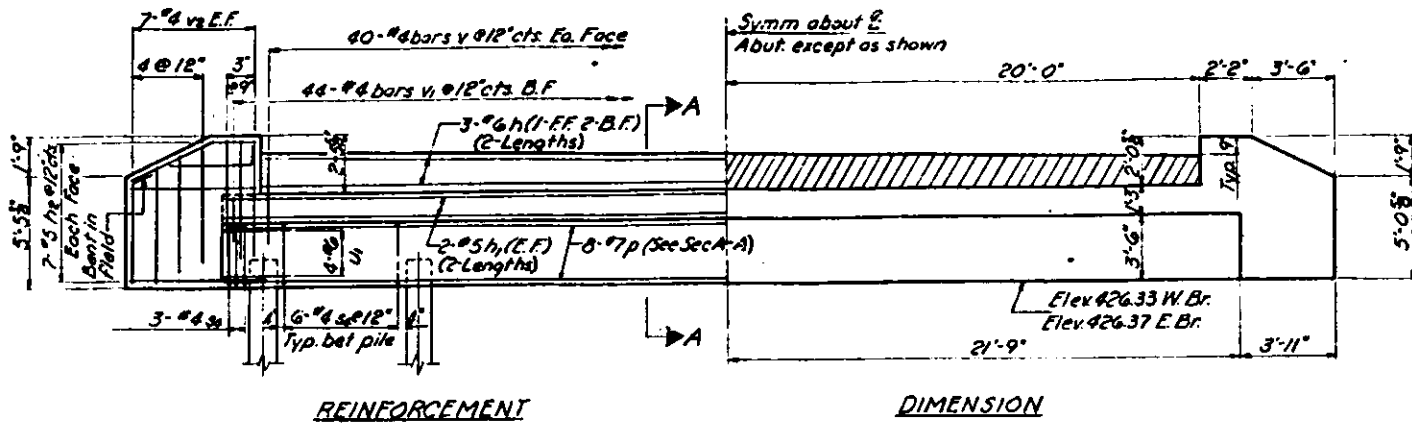
Bar No	Size	Length	Shape
P	28	27	43'-2"
S3	152	#6	10'-2" □
U	32	#6	10'-3" □
Class X Concrete - Cu. Yd. 43.1			
Reinforcement Bars - Lbs. 4000			
Precast Concrete Piers - Lbs. 1870			
Test Piles (Pre. Conc.) - Ea. 2			

PILE DATA
Type Precast Concrete
Capacity 35 Tons
Est. Length 55 Feet
No. Req'd 34
Test Piles 2

BEARINGS & PIERS
FAIRT. 57 SEC. 41-2B-1
JEFFERSON COUNTY
STA. 463+57

DESIGNED T. M. Young
CHECKED J. F. Potts
DRAWN W. E. Dickerson
CHECKED J. F. Potts

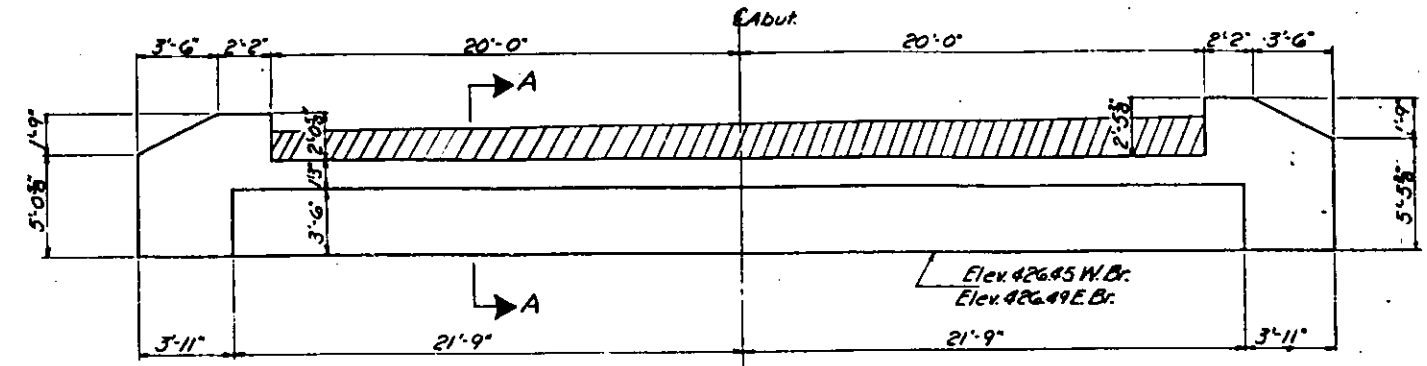
JAN 11 1963
DRAWN W. E. Dickerson
APPROVED J. F. Potts



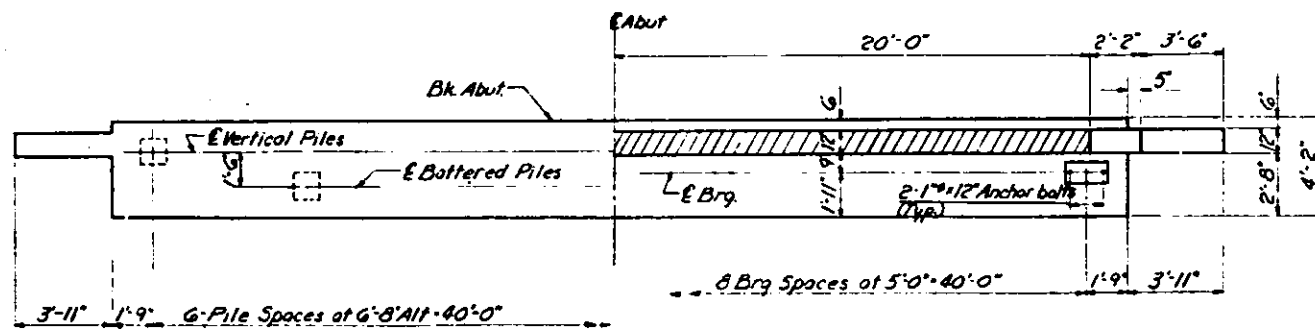
REINFORCEMENT

DIMENSION

ELEVATION
South Abut - Looking South

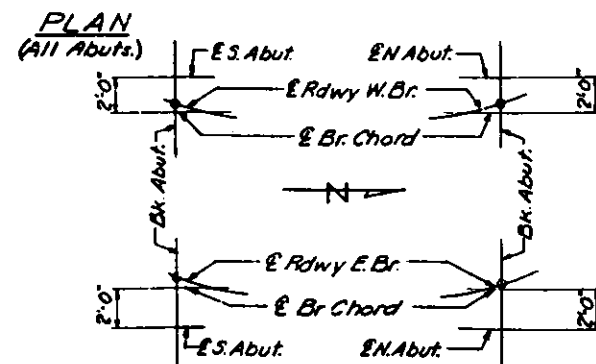


ELEVATION
North Abut - Looking North
(For pile spacing & reinforcement, see South Abut.)



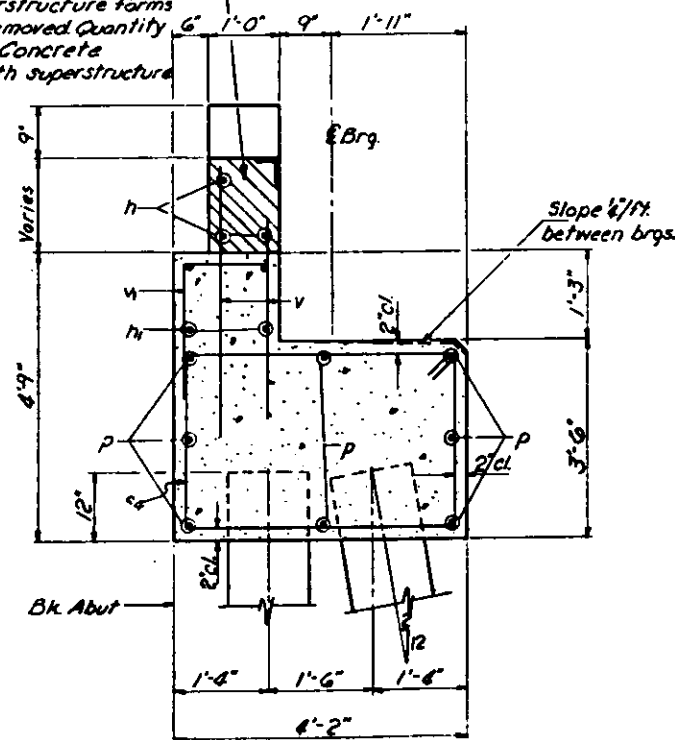
PILES

DIMENSION



ABUTMENTS KEY PLAN

Hatched area to be poured after superstructure forms have been removed. Quantity of Class X Concrete included with superstructure.



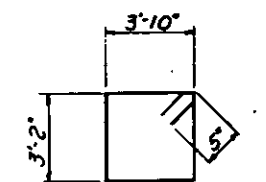
SECTION A-A

FILE DATA

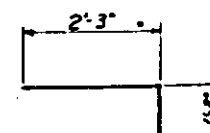
Type - Concrete
Capacity - 30 Tons
Est. Length - 55 Feet
No. Req'd - 26
Test Pile - 2

4-ABUTMENTS
BILL OF MATERIAL

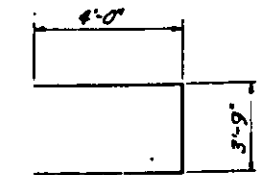
Bar	No.	Size	Length	Shape
h	24	#6	20'-6"	—
h1	32	#5	22'-3"	—
h2	112	#5	3'-6"	—
p	32	#7	43'-2"	—
sq	168	#4	16'-10"	□
u1	32	#6	11'-9"	□
v	320	#4	6'-0"	—
v1	176	#4	3'-6"	—
v2	112	#4	6'-0"	—
Class X Concrete		Cu. Yds.	13.0	
Reinforcement Bars		Lbs.	8890	
Concrete Piles		Lin. Ft.	1430	
Test Piles (Co. Co.)		Eq.	2	



BAR S4



BAR V1



BAR U1

ABUTMENTS
F.A.I. RT. 57 SEC. 41-2B-1
JEFFERSON COUNTY
STA. 463+57

DESIGNED BY T. M. Yang
CHECKED BY J. F. Potts
SUPERVISOR H. C. Dickerson
DATE JAN 11 1963

ENGINEER H. E. B...
PAID TO...
V. E. K...
DATE JAN 11 1963

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT I-57-2(1) BRIDGE Dodds Creek Date May 22, 1962
ROUTE FAI 57 Bored By F. H. Beck
SEC 41-2B-1 Checked By J. J. Kley

PROJECT I-57-2(2) BRIDGE Dodds Creek Date May 24, 1962
ROUTE FAI 57 Bored By F. H. Beck
SEC 41-2B-1 Checked By J. J. Kley

PROJECT I-57-2(1) BRIDGE Dodds Creek Date June 4, 1962
ROUTE FAI 57 Bored By F. H. Beck
SEC 41-2B-1 Checked By M. N. Broom

Elevation	z	Q _u /s.f.	s (%)	Surface Water El.		Elevation	z	Q _u /s.f.	s (%)
				Groundwater El. at Completion	After Hours				
417.70				411.4		376.2	8		
415.7	5	0.8	28				32	18	
	6	0.6	23				52	15	
	6	0.6	23						
411.7	10	1.3	24				51	13	
	7	1.1	23				52	10	
407.7-40							50	9	
	6	0.3	25						
	7	0.6	23				58	9	
402.2									
	6	0.3	26						
397.7-20									
	7	0.4	23						
392.2									
	5	0.8	27						
391.2									
	6	1.0	26						
	5	0.5	23						
389.7									
	6	0.5	23						
	16								
387.7-15									
	32								
	32								
377.2									
	32								
376.2									
	32								

Note: Shelby Tubes taken at Station 464-00 for stability analysis. For information contact Bureau of Materials.

DESIGNED T.M. Young
CHECKED J.F. Pitts
DRAWN W.E. Dickerson
CHECKED J.F. Pitts

NOTE:
N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
Q_u - Unconfined Compressive Strength - 1/d
w - Water Content - percentage of oven dry weight - %

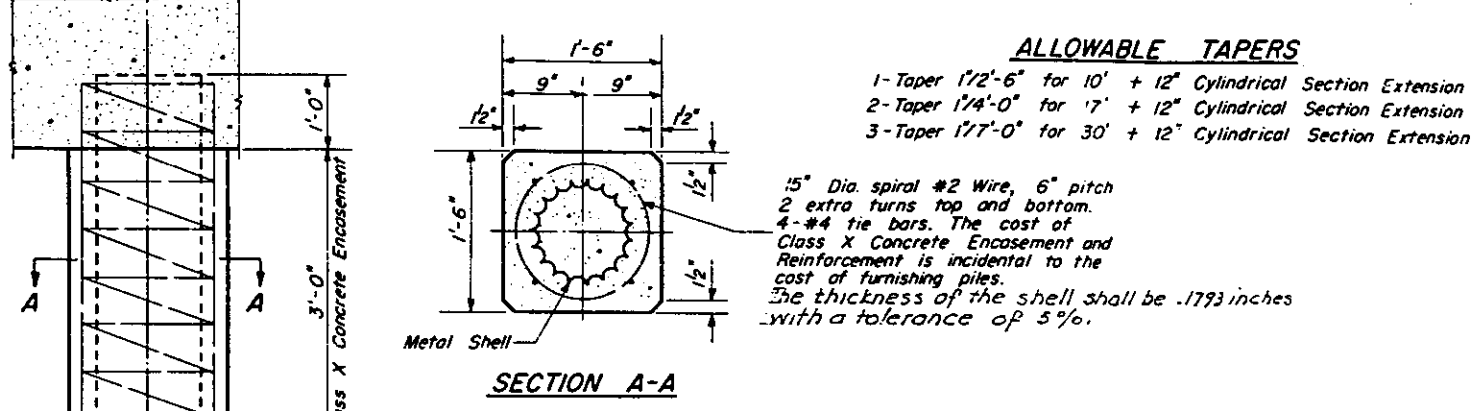
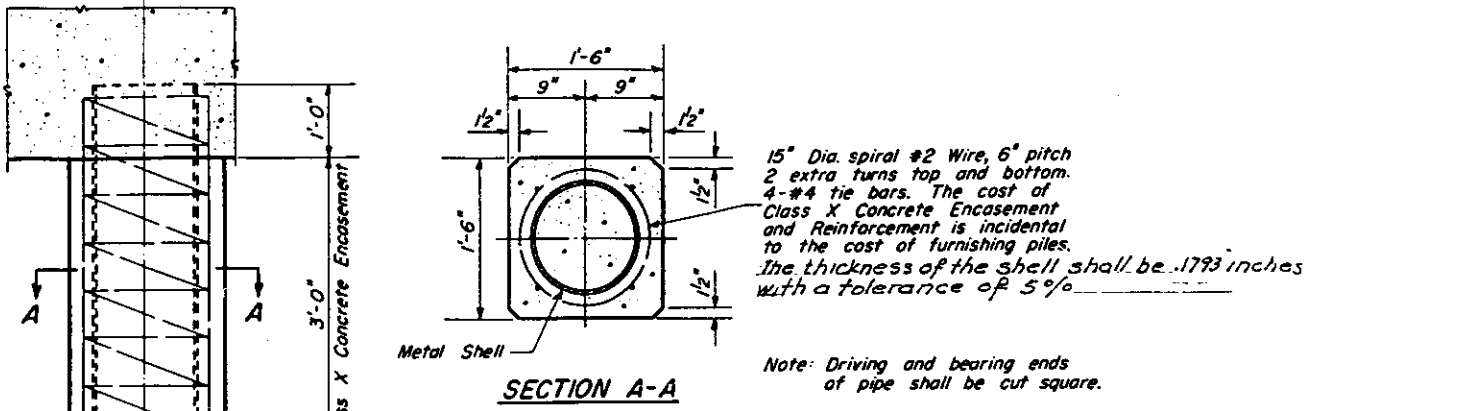
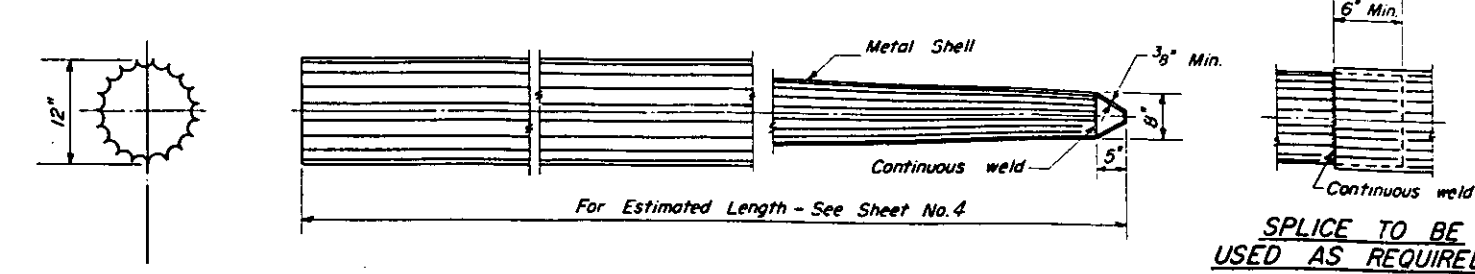
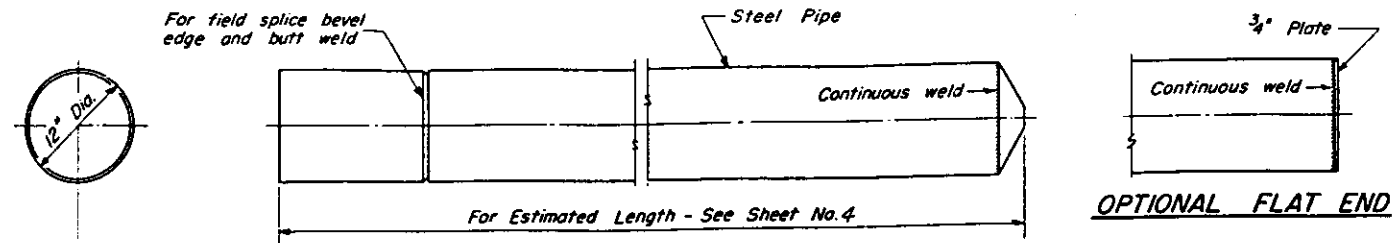
Elevation	z	Q _u /s.f.	s (%)	Surface Water El.		Elevation	z	Q _u /s.f.	s (%)
				Groundwater El. at Completion	After Hours				
417.3 0				409.0		372.3 8			
415.3	4	0.4	26				27	37	
	4	0.6	23						
	4	0.6	23						
411.3	6	0.7	24				28	11	
	6	0.7	24						
409.3	10	1.3	23				28	11	
	10	1.3	23						
405.3									
	6	0.5	25						
402.3-15									
	6	0.3	28						
399.3									
	3	0.2	25						
397.3-20									
	16								
395.3									
	7	0.5	21						
	4	0.3	26						
391.3									
	6	0.5	25						
388.3									
	8	0.4	21						
385.3									
	12								
383.3									
	8	0.5	21						
381.3									
	10	0.5	21						
379.3									
	14	1.3	23						
377.3-20									
	13	1.3	23						
407.0									
	13	1.3	23						
	9	0.3	26						
	4	0.2	26						
402.0									
	4	0.2	27						
400.5									
	9	1.4	23						
397.5-20									
	4	0.6	28						

Type Failure:
B - Budge Failure
S - Shear Failure
E - Estimated Value

PROJECT I-57-2(1) BRIDGE Dodds Creek Date June 5, 1962
ROUTE FAI 57 Bored By F. H. Beck
SEC 41-2B-1 Checked By G. M. Broom

Elevation	z	Q _u /s.f.	s (%)	Surface Water El.		Elevation	z	Q _u /s.f.	s (%)
				Groundwater El. at Completion	After Hours				
417.50				409.0		372.5 8			
	5	0.5	29				46	12	
	5	0.5	28						
	5	0.5	28						
413.0									
	10	1.5	23						
	14	1.3	23						
407.0									
	13	1.3	23						
	9	0.3	26						
	4	0.2	26						
402.0									
	4	0.2	27						
400.5									
	9	1.4	23						
397.5-20									
	4	0.6	28						

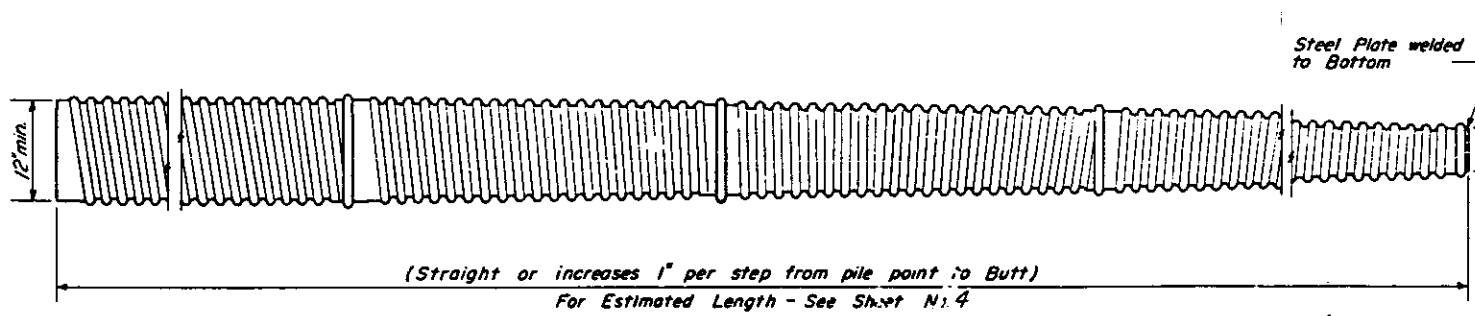
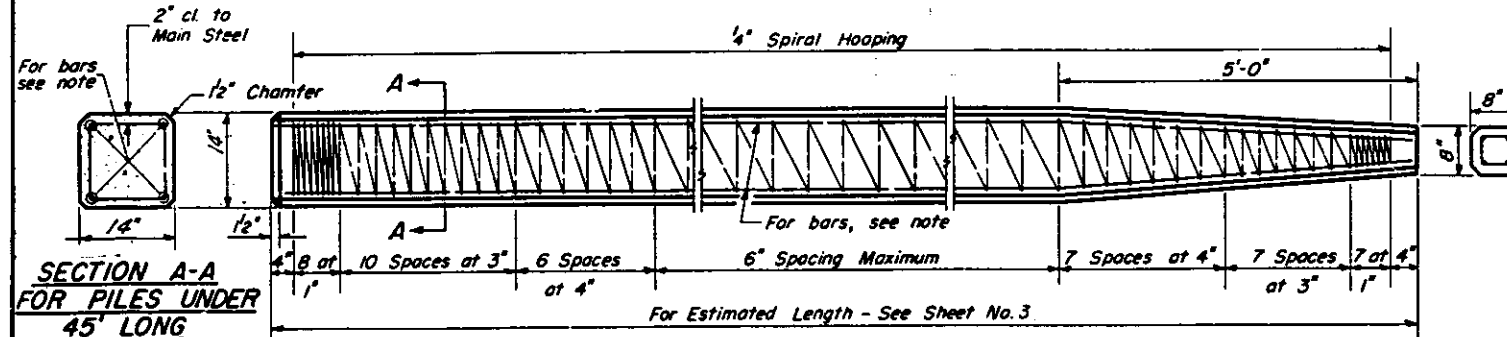
BORING DATA
FAI RI 57 SEC 41-2B-1
JEFFERSON COUNTY
STA. 463+57



- ALLOWABLE TAPERS**
- 1-Taper 1/2'-6" for 10' + 12" Cylindrical Section Extension
 - 2-Taper 1/4'-0" for 17' + 12" Cylindrical Section Extension
 - 3-Taper 1/7'-0" for 30' + 12" Cylindrical Section Extension

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES

DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



SECTION A-A FOR PILES UNDER 45' LONG

Note: For all Piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of bevel. For all Piles under 45' long use 4-#9 bars the full length.

Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L* from each end. For Piles longer than 45', use three slings placed at a distance of 0.12 L* from each end and at mid-point of pile.

*L = Over all length of pile to be handled.

At least 1/4 of the length of pile shall have a Butt diameter equal to or greater than 12". Gages are furnished to suit soil conditions (14 Gage Min.)

Reinforcement is incidental to the cost of furnishing piles.

6-#6 bars (For Details, See below)

1/4" Spiral Hooping at 6" spacing or #4 Ties at 12" cts.

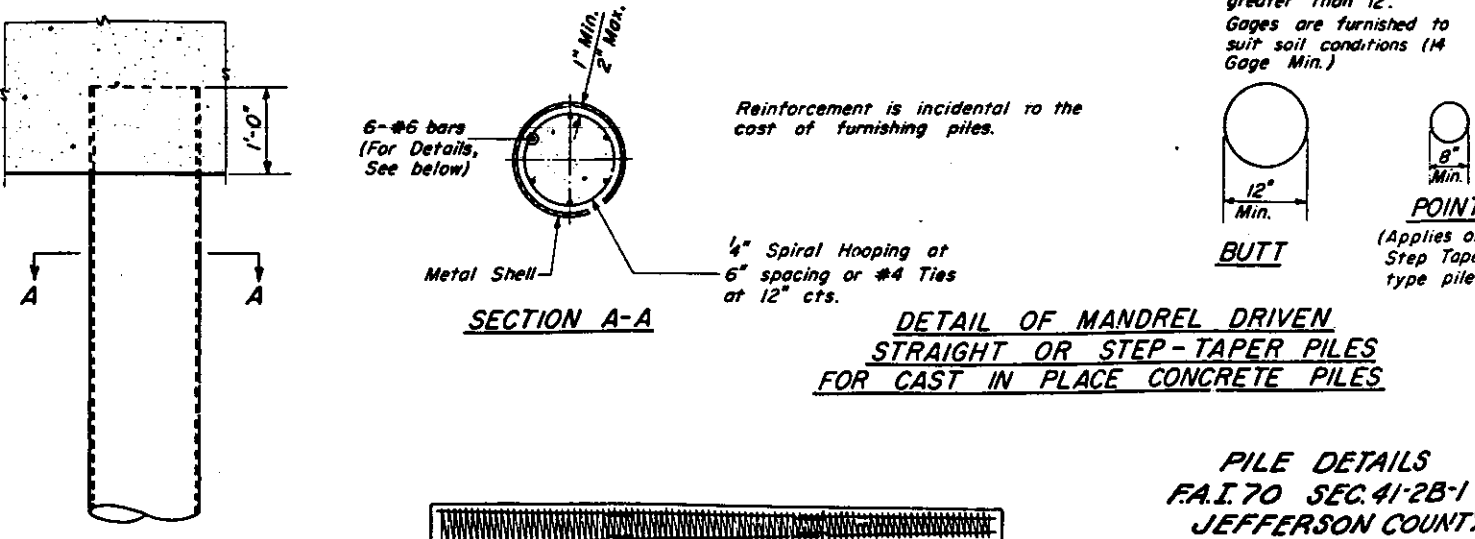
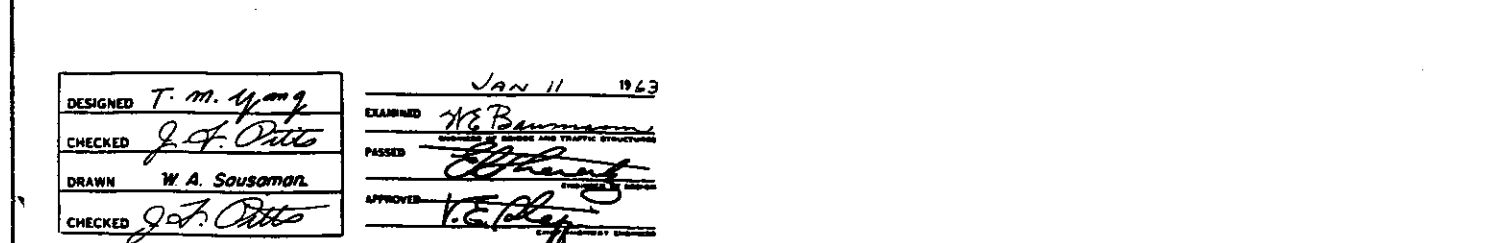
1" Min. 2" Max.

12" Min.

8" Min.

BUTT

POINT (Applies only to Step Taper type pile)



DETAIL OF MANDREL DRIVEN STRAIGHT OR STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES

PILE DETAILS
F.A.I. 70 SEC. 41-2B-1
JEFFERSON COUNTY
STA. 463+57

DESIGNED T. M. Young
CHECKED J. F. Otto
DRAWN W. A. Sousamon
CHECKED J. F. Otto

JAN 11 1963

EXAMINED H. E. Baumann
PASSED [Signature]
APPROVED V. E. [Signature]