F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	*	39*	1
	ILLINOIS	CONTRACT NO. 78968		

* JOHNSON & MASSAC

* 39 + 2 = 41 TOTAL SHEETS

D-99-002-23

04-28-2023 LETTING ITEM 073

FOR INDEX OF SHEETS SEE SHEET NO. 3

FOR SUMMARY OF QUANTITIES SEE SHEET NOS. 4-6

DESIGN DESIGNATION: N/A

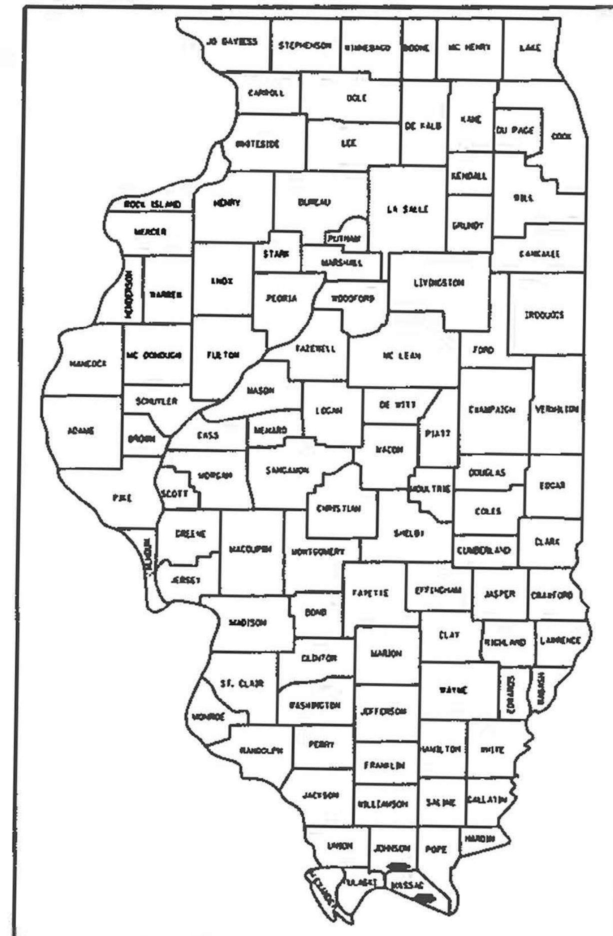
COORDINATE SYSTEM: ILLINOIS COORDINATE SYSTEM, EAST ZONE

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAI ROUTE 24 (I-24)
D9 BRIDGE REPAIR 2023-1
FAP 889 (US 45) OVER I-24
MASSAC COUNTY
T.R. 140 (CENTRAL HILL ROAD) OVER I-24
JOHNSON COUNTY
C-99-011-23



LOCATION OF SECTION INDICATED THUS: -

TRAFFIC DATA

US ROUTE 45
EXISTING ADT = 12,050 (2019)
%SU = 603 (5.0%)
%MU = 603 (5.0%)
FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL
POSTED SPEED: 45 MPH

TRAFFIC DATA

T.R. 140 (CENTRAL HILL ROAD)
EXISTING ADT = 75 (2021)
%SU = 5 (6.5%)
%MU = 5 (6.5%)
FUNCTIONAL CLASSIFICATION: LOCAL ROAD (RURAL)
POSTED SPEED: 55 MPH

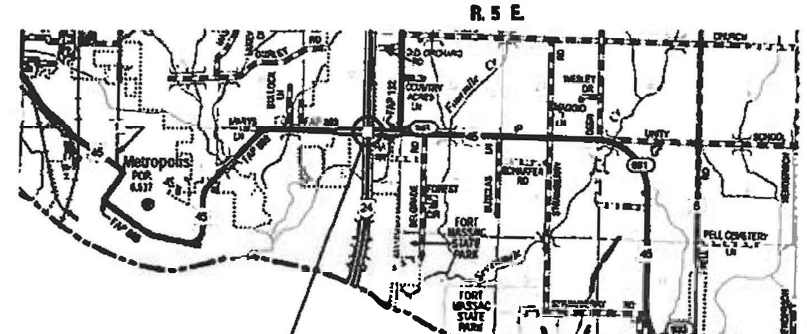
STRUCTURE NO. 044-0051
IMPROVEMENT LOCATION
T.R. 140 OVER I-24

R. 4 E.

T. 13 S.

N

R. 5 E.



T. 16 S.

STRUCTURE NO. 064-0029
IMPROVEMENT LOCATION
U.S. 45 OVER I-24

NET LENGTH (T.R. 140) = 251.66 FT. = 0.048 MILE
NET LENGTH (U.S. 45) = 265.91 FT. = 0.050 MILE

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

PROJECT ENGINEER: GRANT DETERDING (618) 351-5226

CONTRACT NO. 78968

Veenstra & Kimm, Inc.
Springfield, IL Phone: (217)544-8033
IL Design Firm No. 184-001939

CHRISTOPHER P. KOHLRUS
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

EXPIRATION: 11/30/2023

1/18/23

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Jan 27 20 23

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 24, 2023

ENGINEER OF DESIGN AND ENVIRONMENT

March 24, 2023

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. - MS

PREPARED BY: _____
DISTRICT STUDIES AND PLANS ENGINEER

EXAMINED BY: _____
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: _____
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: _____
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: _____
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: _____
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: _____
DISTRICT MATERIALS ENGINEER

MODEL: $MODELNAME$
FILE NAME: $FILE$

V&K
Veenstra & Kimm, Inc.
Springfield, IL Phone: (217)544-8033

USER NAME = $USER$	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	D9 BRIDGE REPAIR 2023-1	*	39	2
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

* JOHNSON & MASSAC

INDEX OF SHEETS

1	TITLE SHEET
2	SIGNATURE SHEET
3	GENERAL NOTES, COMMITMENTS & PROJECT SPECIFIC NOTES
4-6	SUMMARY OF QUANTITIES
	T.R. 140 OVER I-24
7-25	STRUCTURE PLANS (SN 044-0051)
25A-25B	ELECTRICAL PLANS
	U.S. 45 OVER I-24
26-27	STAGING PLAN
28-39	STRUCTURE PLANS (SN 064-0029)

GENERAL NOTES

1.) THE CENTERLINE PAVEMENT MARKING SHALL BE REMOVED FROM THE STOP BAR TO THE SAND ATENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHALL BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHALL BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.

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 TON/CU. YD.

COMMITMENTS

1.) NONE

LOCATIONS	HOT MIX ASPHALT SURFACE COURSE SN 064-0029
MIXTURE USES:	HOT MIX ASPHALT SURFACE COURSE, MIX D, N70
AB/PG	PG64-22
DESIGN AIR VOIDS	4.0%, 70 GYRATION DESIGN
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL-9.5mm
FRICTION AGGREGATE	MIX D
MIXTURE WEIGHT	112 LBS./SQ. YD./INCH
QUALITY MANAGEMENT PROGRAM	QC/QA
SUBLOT SIZE	3000
MATERIAL TRANSFER DEVICE	NO

STANDARDS

000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02 AREAS OF REINFORCEMENT
643001-02 SAND MODULE IMPACT ATTENUATORS
701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701006-05 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701423-10 LANE CLOSURE, MULTILANE, FOR SPEEDS > 45 MPH TO 55 MPH
701901-08 TRAFFIC CONTROL DEVICES
704001-08 TEMPORARY CONCRETE BARRIER
780001-05 TYPICAL PAVEMENT MARKINGS
BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

REV. - MS

MODEL: Default
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\5951-003-sht-gennote.dgn

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = $USER$	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = $SCALE$	CHECKED - _____	REVISED - _____
PLOT DATE = 3/13/2023	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, COMMITMENTS & PROJECT SPECIFIC NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	D9 BRIDGE REPAIR 2023-1	*	39	3
		CONTRACT NO. 78968		
	ILLINOIS	FED. AID PROJECT		

* JOHNSON & MASSAC

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	JOHNSON T.R. 140 100% STATE RURAL BRIDGE 0013 044-0051	MASSAC F.A.P. 889 (U.S. 45) 100% STATE RURAL BRIDGE 0013 064-0029
40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	6		6
45200300	JOINT OR CRACK FILLING	POUND	34		34
50102400	CONCRETE REMOVAL	CU YD	10.4	6.9	3.5
50300225	CONCRETE STRUCTURES	CU YD	9.3		9.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	6.8	6.8	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1650	1650	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3850	1130	2720
52000110	PREFORMED JOINT STRIP SEAL	FOOT	62	62	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	8	8	
52100520	ANCHOR BOLTS, 1"	EACH	16	16	
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	70		70
59000200	EPOXY CRACK INJECTION	FOOT	92		92
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	2	3

REV. - MS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = ___	DESIGNED - ___	REVISED - ___
	CHECKED - ___	REVISED - ___
PLOT SCALE = ___	DRAWN - ___	REVISED - ___
PLOT DATE = ___	CHECKED - ___	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE:_____ | SHEET NO. 1 OF 3 SHEETS | STA. _____ TO STA. _____

F.A.I. 24	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D9 BRIDGE REPAIR 2023-1	•	39	4
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

• JOHNSON & MASSAC

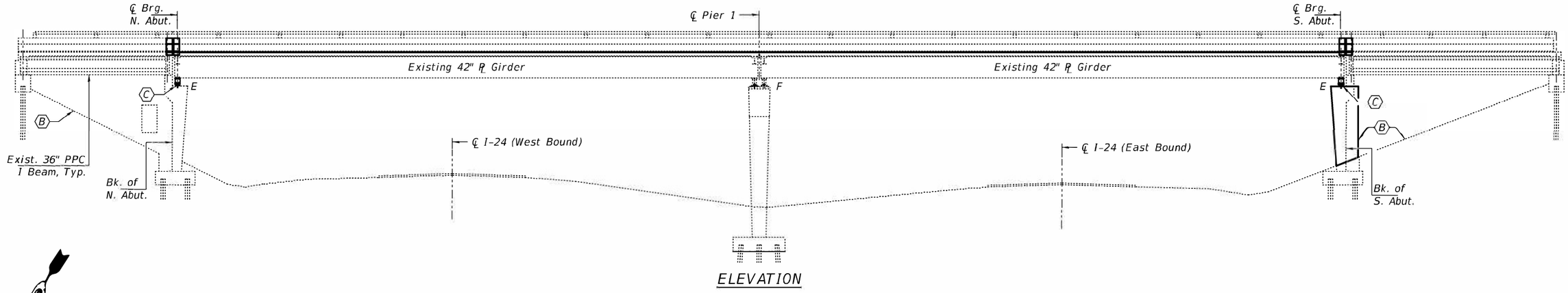
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	JOHNSON T.R. 140 100% STATE RURAL BRIDGE 0013 044-0051	MASSAC F.A.P. 889 (U.S. 45) 100% STATE RURAL BRIDGE 0013 064-0029
	67100100	MOBILIZATION	L SUM	1	0.5	0.5
	70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	1		1
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10		10
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	194	104	90
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	850		850
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	850		850
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2		2
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2		2
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	20		20
*	81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	420	420	
	X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1	
*	81400100	HANDHOLE	EACH	2	2	
	Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	8	8	
*	81603034	UNIT DUCT, 600V, 2-1C NO.6 GROUND, (XLP-TYPE USE), 314" DIA. POLYEHTYLENE	FOOT	420	420	
	Z0004560	BRIDGE WEARING SURFACE REMOVAL	SQ YD	70		70
	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	440	440	
	Z0012102	CONCRETE BRIDGE DECK SCARIFICATION 3/8 INCH	SQ YD	560	560	
	Z0012193	BRIDGE DECK THIN POLYMER OVERLAY 3/8"	SQ YD	625	625	

* SPECIALTY ITEM

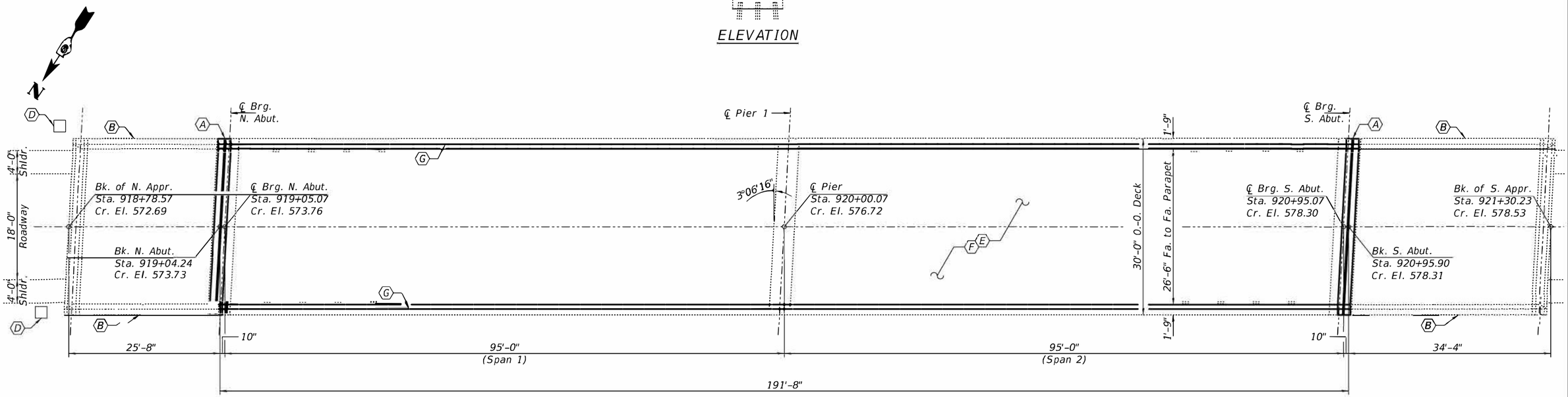
REV. - MS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	JOHNSON T.R. 140 100% STATE RURAL BRIDGE 0013 044-0051	MASSAC F.A.P. 889 (U.S. 45) 100% STATE RURAL BRIDGE 0013 064-0029
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	326	96	230
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	23		23
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	2	2	
Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	12	12	

Existing Structure: S.N. 044–0051. Station 920+00.07. Two span continuous steel I–beam bridge with concrete deck on open reinforced concrete pile supported vaulted abutments and reinforced concrete pier with pile supported spread footing. 251'–8" back to back approach bents, 30'–0" out to out of deck and 26'–6" face to face of parapets. 3°06'16" left forward skew.



ELEVATION



PLAN

INDEX OF SHEETS

1 – General Plan & Elevation
2 – General Data
3 – Deck Repair Details
4 – Cross Section Details
5 – Joint Removal & Replacement Details – Both Abutments
6 – Joint Details
7 – Abutment Repair Details
8 – Bearing Replacement Details
9 – Preformed Joint Strip Seal Details
10 to 19 – Existing Plan Sheets – For Information Only

Ⓐ – Joint replacement at both abutments, see sheet 5 of 19.

Ⓑ – Substructure Repairs, see sheet 7 of 19.

Ⓒ – Bearing Removal & Replacement, see sheet 8 of 19.

Ⓓ – Repairs on North Approach Pavement, see sheet 7 of 19.

Ⓔ – Deck Repair, see sheet 3 of 19.

Ⓕ – ⅜" Bridge Deck Scarification and ⅜" Thin Polymer Overlay, see sheet 4 of 19.

Ⓖ – Apply ⅜" Thin Polymer Overlay to the parapets. See sheet 4 of 19 & Special Provisions.

THOMAS R. CASSON
5207
LICENSED STRUCTURAL ENGINEER
OF
STATE OF ILLINOIS

3/13/2023

EXPIRES 11–30–2024

GENERAL PLAN & ELEVATION
T.R. ROUTE 140 (CENTRAL HILL ROAD)
OVER F.A.I ROUTE 24
SECTION D9 BRIDGE REPAIR 2023–1
JOHNSON COUNTY
STA. 920+00.07

REV. - MS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = ___	DESIGNED - VVR	REVISED - ___	
	CHECKED - TRC	REVISED - ___	
PLOT SCALE = ___	DRAWN - VVR	REVISED - ___	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED - ___	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 044-0051
SHEET NO. 1 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	7
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

Prior to pouring the new concrete at the Abutment joints, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

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 Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

Repairs are done under road closure.

The new concrete shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam on both approach's.

All new structural steel and bearing assembly shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing For Structural Steel"

The Engineer in field shall be responsible to show the actual locations of the deck repairs on As-built Plans. The contractor will be paid for the actual quantity of Deck Slab Repair (Partial) at the unit price bid.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	6.9
Concrete Superstructure	Cu. Yd.	6.8
Furnishing and Erecting Structural Steel	Pound	1650
Reinforcement Bars, Epoxy Coated	Pound	1130
Preformed Joint Strip Seal	Foot	62
Elastomeric Bearing Assembly, Type 1	Each	8
Anchor Bolts, 1"	Each	16
Jack and Remove Existing Bearings	Each	8
Concrete Bridge Deck Scarification 3/8"	Sq. Yd.	560
Bridge Deck Thin Polymer Overlay 3/8"	Sq. Yd.	625
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	96
Deck Slab Repair (Partial)	Sq. Yd.	2
Slope Wall Slurry Pumping	Cu. Yd.	12

REV. - MS

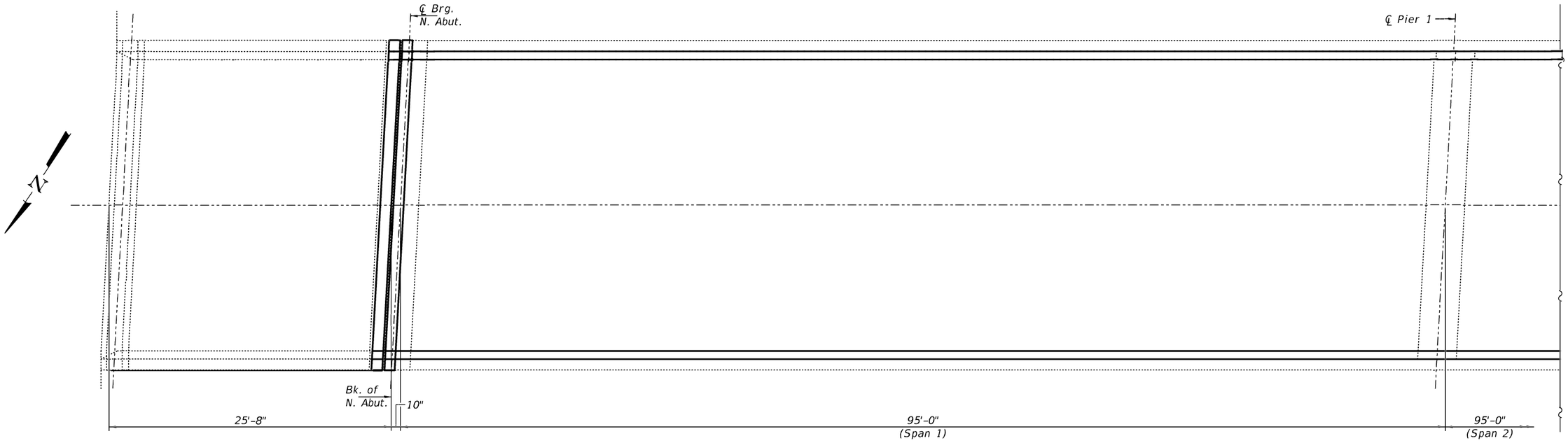
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = ___	DESIGNED - VVR	REVISED - ___	
	CHECKED - TRC	REVISED - ___	
PLOT SCALE = ___	DRAWN - VVR	REVISED - ___	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED - ___	

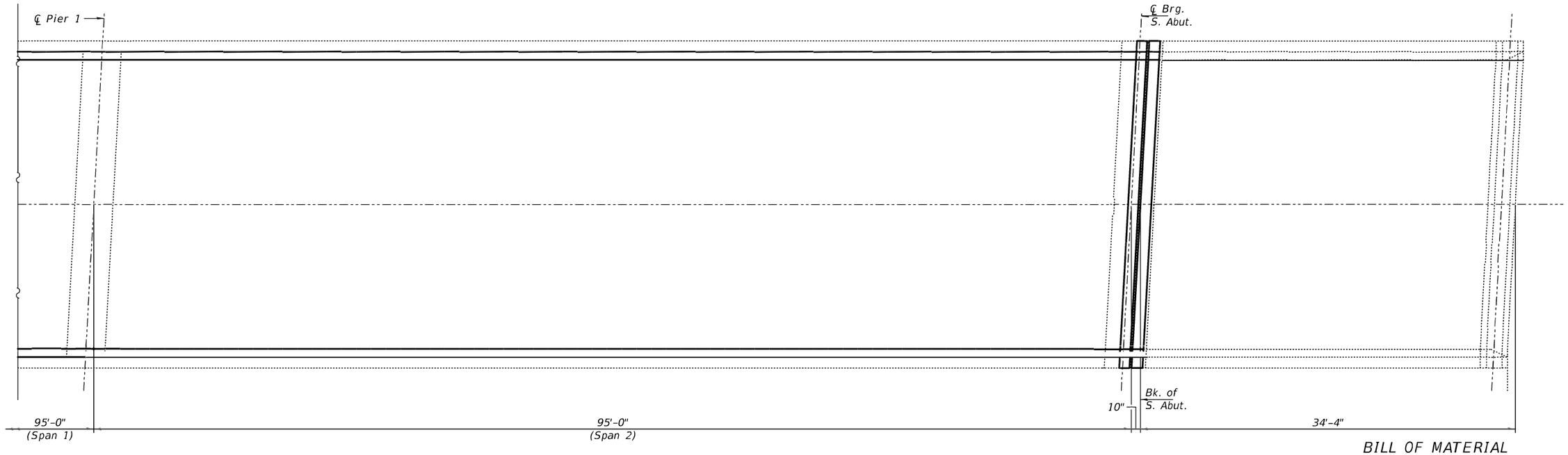
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
SN 044-0051
SHEET NO. 2 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	8
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			



PLAN



PLAN

Note:
The quantity of Deck Slab Repair (Partial Depth) in plans is estimated. Engineer in field shall be responsible to figure out the actual locations and show it on As-built Plans.

BILL OF MATERIAL

Item	Unit	Total
Deck Slab Repair (Partial)	Sq. Yd.	2

REV. - MS

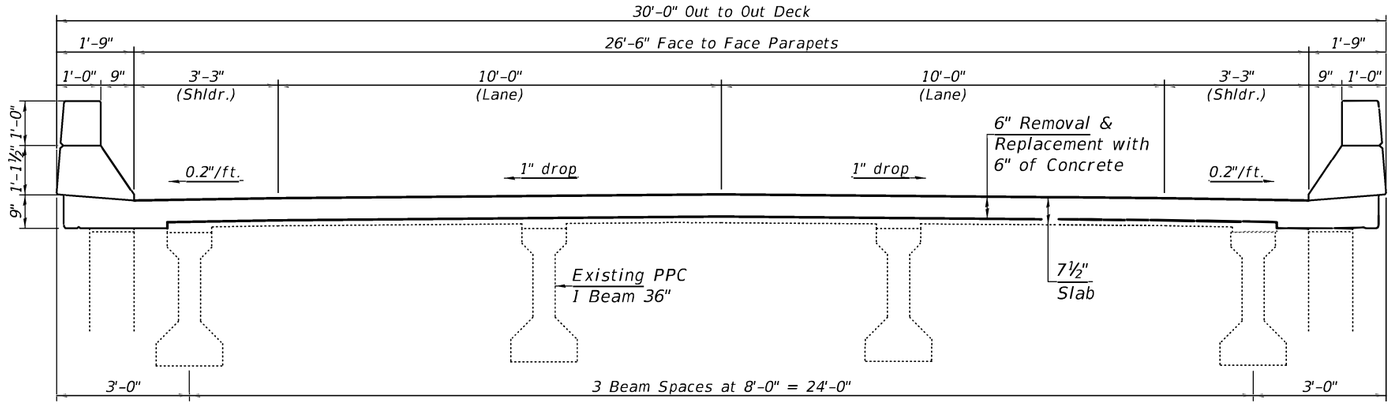
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -
	CHECKED - TRC	REVISED -
PLOT SCALE =	DRAWN - VVR	REVISED -
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

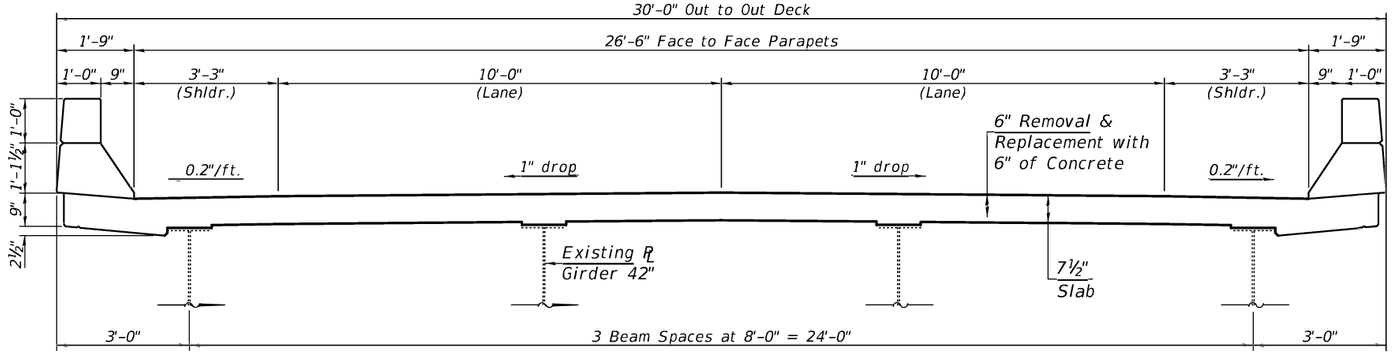
DECK REPAIR DETAILS
SN 044-0051
SHEET NO. 3 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	9
		CONTRACT NO. 78968		
	ILLINOIS	FED. AID PROJECT		



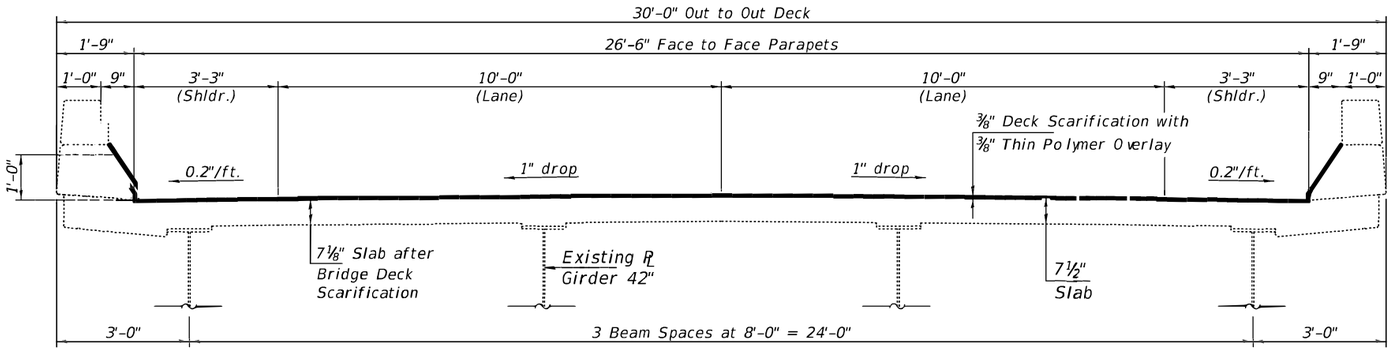
CROSS SECTION AT ABUTMENT-APPROACH SIDE

(Looking West)



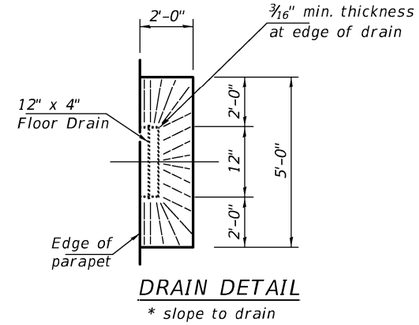
CROSS SECTION AT ABUTMENT-DECK SIDE

(Looking West)



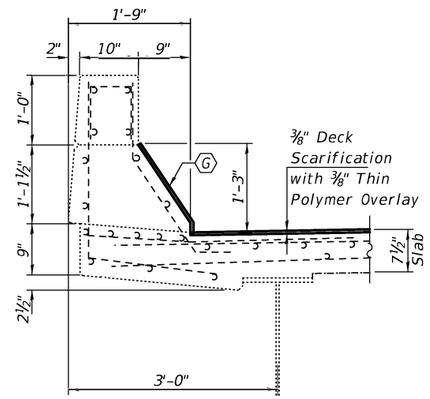
CROSS SECTION AT MID SPAN

(Looking West)



DRAIN DETAIL

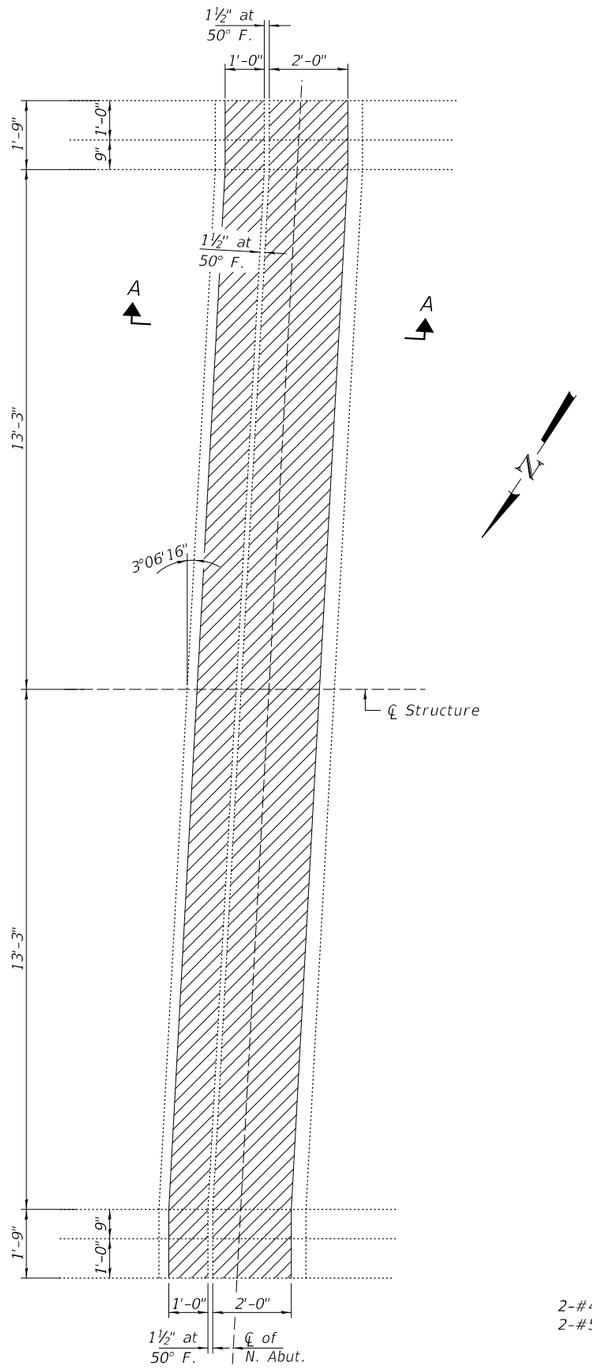
* slope to drain



SECTION THRU PARAPET AT MID SPAN

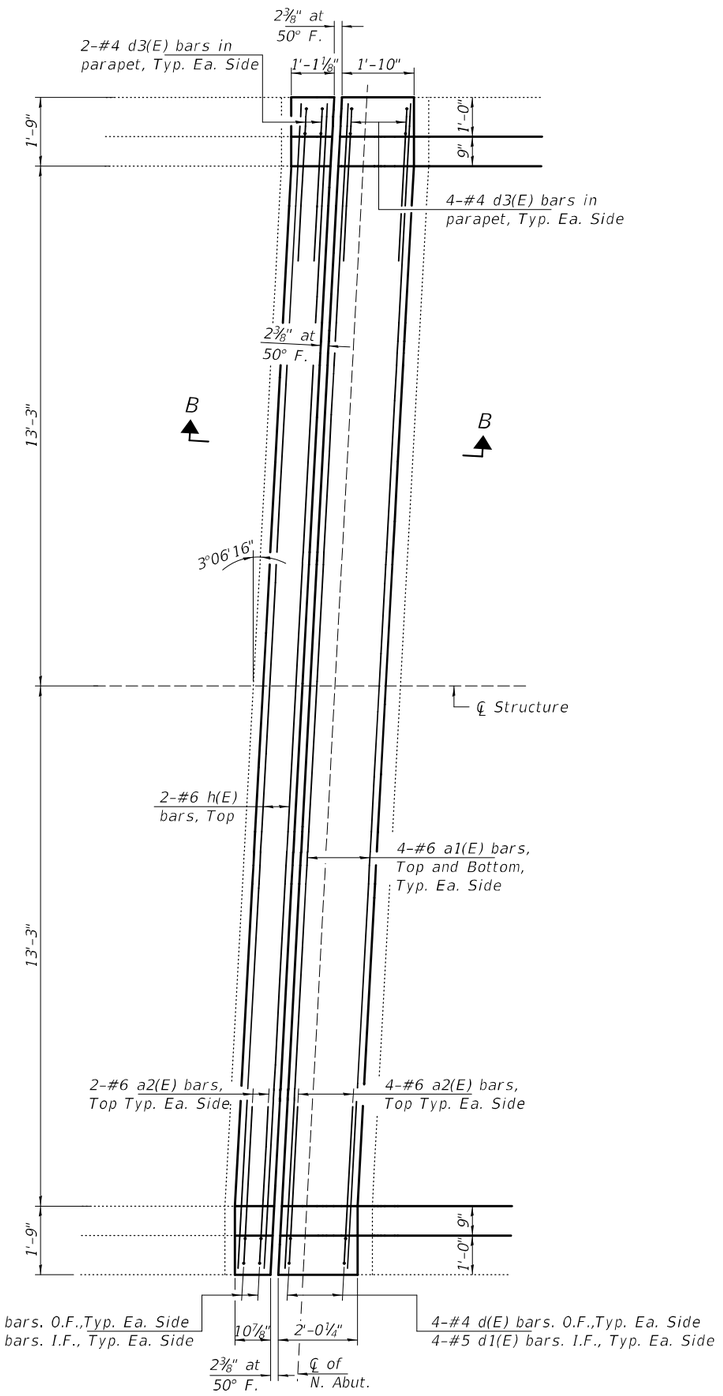
REV. - MS

VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS DETAILS SN 044 - 0051	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - TRC	REVISED -			140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	10
	PLOT SCALE =	DRAWN - VVR	REVISED -						CONTRACT NO. 78968	
	PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -		SHEET NO. 4 OF 19 SHEETS			ILLINOIS	FED. AID PROJECT	



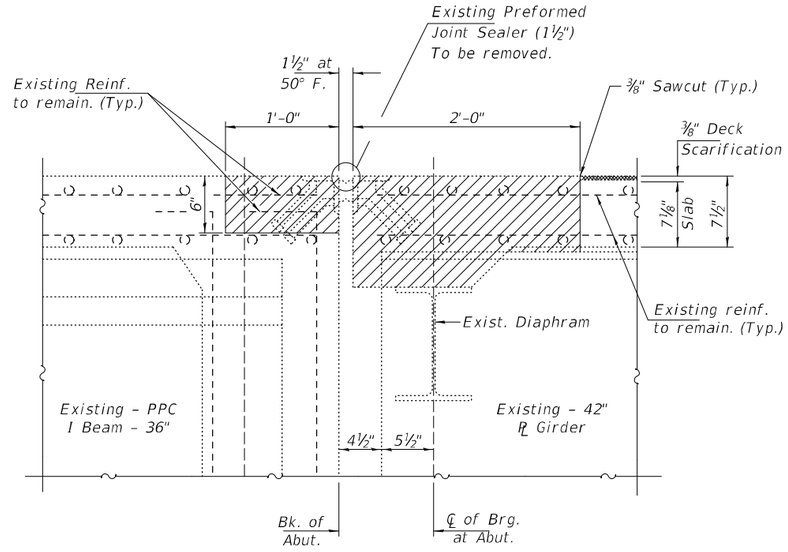
REMOVAL PLAN

North Abut. shown,
South Abut. is similar
by mirroring along ℄ Str.



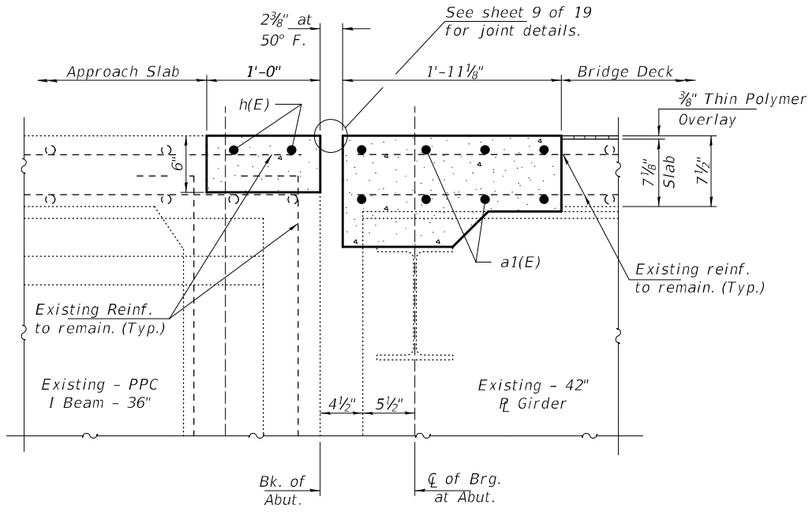
REPLACEMENT PLAN

North Abut. shown,
South Abut. is similar
by mirroring along ℄ Str.



SECTION A-A

(Dimensions at Rt. Angles)



SECTION B-B

(Dimensions at Rt. Angles)

Note:
See Sheet 6 of 19 for Reinforcement and Parapet Details.

REV. - MS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

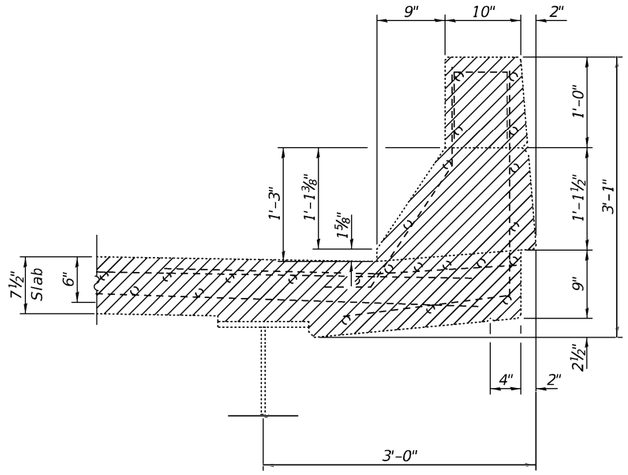
USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

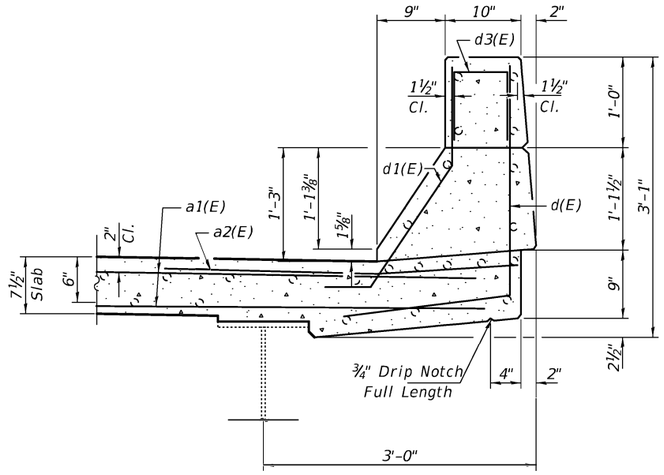
JOINT REMOVAL & REPLACEMENT DETAILS - BOTH ABUTMENTS
SN 044 - 0051

SHEET NO. 5 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	11
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

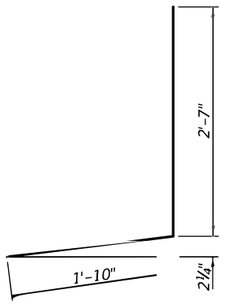


REMOVAL DETAILS

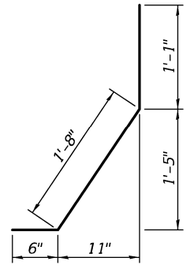


REPLACEMENT DETAILS

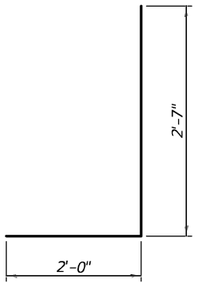
SECTION THRU PARAPET AT ABUTMENT – DECK SIDE



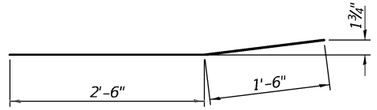
BAR d(E)



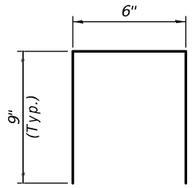
BAR d1(E)



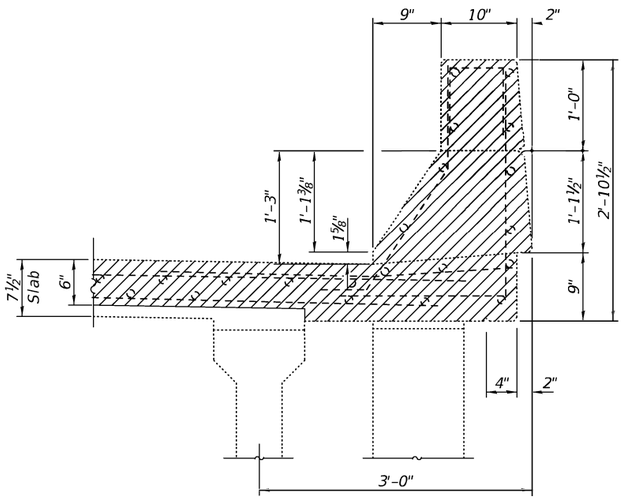
BAR d2(E)



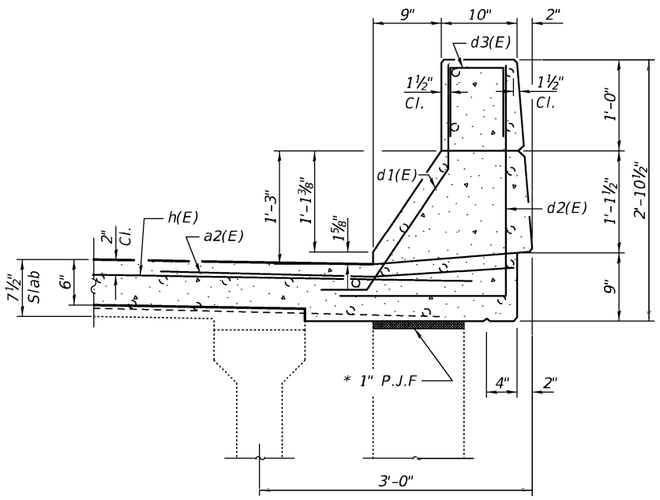
BAR a2(E)



BAR d3(E)



REMOVAL DETAILS



REPLACEMENT DETAILS

SECTION THRU PARAPET AT ABUTMENT – APPROACH SIDE

Concrete Removal

Concrete Replacement

* 1" x 13" Preformed Joint Filler (4 Required) shall be included in the cost of Concrete Superstructure.

BILL OF MATERIAL (TWO ABUTMENTS)

Bar	No.	Size	Length	Shape
a1(E)	16	#6	28'-0"	
a2(E)	16	#6	4'-0"	
d(E)	16	#4	4'-5"	
d1(E)	24	#5	3'-3"	
d2(E)	8	#4	4'-7"	
d3(E)	24	#4	2'-0"	
h(E)	4	#6	28'-0"	
Concrete Removal			Cu. Yd.	6.9
Concrete Superstructure			Cu. Yd.	6.8
Reinforcement Bars, Epoxy Coated			Pound	1130

REV. - MS

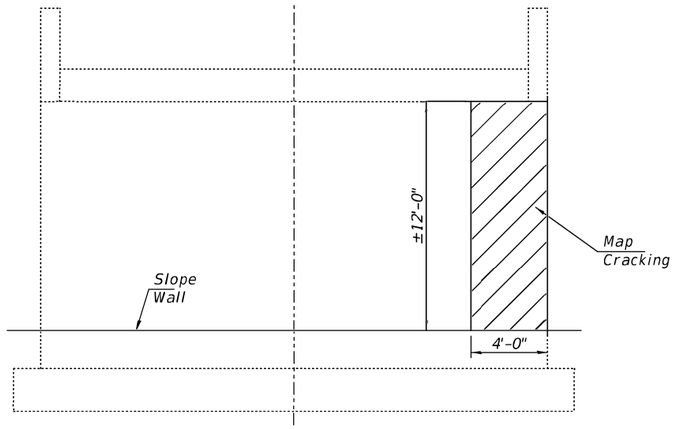
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -
	CHECKED - TRC	REVISED -
PLOT SCALE =	DRAWN - VVR	REVISED -
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT DETAILS
SN 044-0051
SHEET NO. 6 OF 19 SHEETS

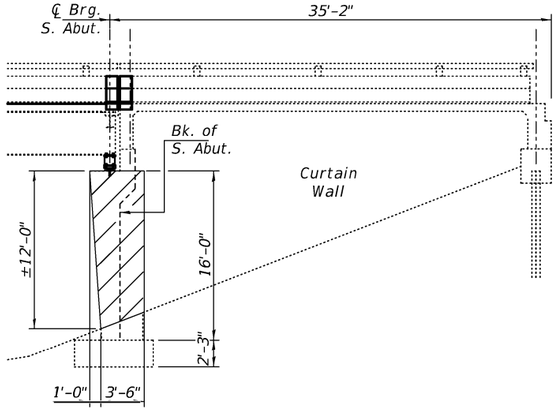
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	12
		CONTRACT NO. 78968		
	ILLINOIS	FED. AID PROJECT		



ELEVATION VIEW OF THE SOUTH ABUTMENT

(Looking Southwest)

Structural Repair of Concrete (Depth ≤ 5")



SOUTHWEST CURTAIN WALL

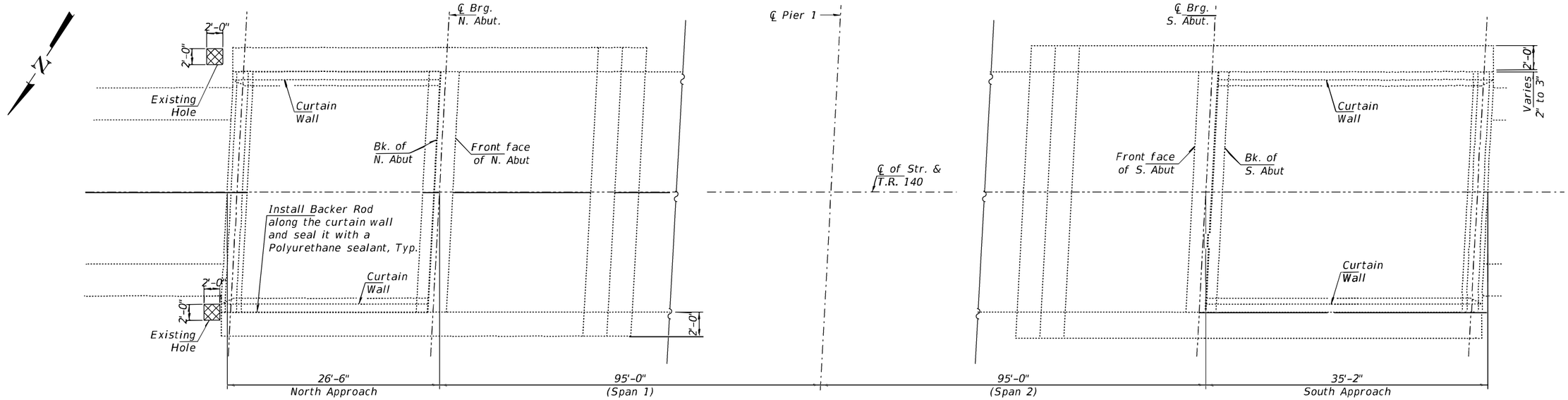
(Looking Southeast)

NOTES

Voids beneath the existing concrete slope wall and the gaps along the Curtain Wall shall be filled with Controlled Low Strength Material (CLSM) in accordance with the special provision "Slope Wall Slurry Pumping", and as directed by the Engineer. If required, removal of Slope Wall can be done with Sawed Openings to fill the CLSM and is included in the cost of Slope Wall Slurry Pumping.

The location and quantities of Slope wall Slurry Pumping and Slope Wall Repair are based on a field survey done at the time of plan preparation. The exact locations and actual quantities will be determined in the field by the Engineer. The Contractor will be paid for the actual quantity at the contract unit price bid for the item.

Fill the voids under slopewall with CLSM and install Backer Rod at the connection between curtain wall and slopewall and then seal it with Polyurethane Sealant. The cost of Backer Rod and Sealant is included in the cost of Slope Wall Slurry Pumping.



PARTIAL PLAN VIEW

Open existing pavement holes by cutting a 2'x2' block using Sawcut and fill voids with CLSM. The cost of any new opening is included in the cost of Slope Wall Slurry Pumping.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	96
Slope Wall Slurry Pumping	Cu. Yd.	12

REV. - MS

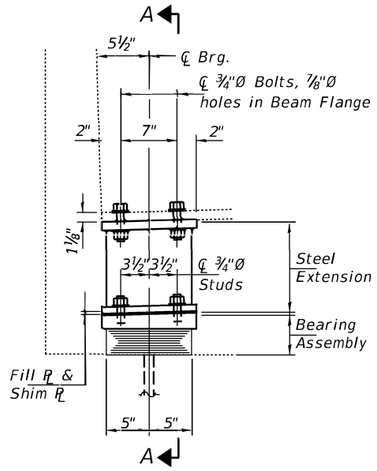
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -	

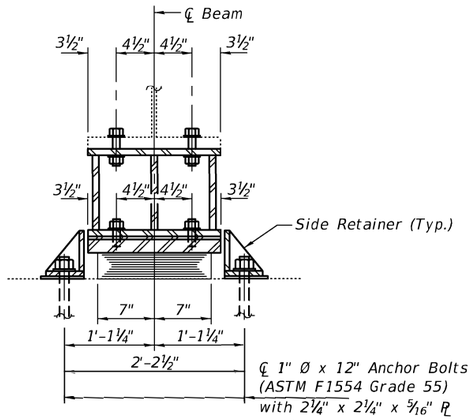
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAILS
SN 044 - 0051
SHEET NO. 7 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	13
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			



ELEVATION AT BOTH ABUTMENTS



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

INTERIOR BEAM REACTION TABLE

		Abut.
RP	(K)	42.9
RL	(K)	46.2
Imp.	(K)	10.5
R (Total)	(K)	99.6

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, fill plates, shim platess and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and fill thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

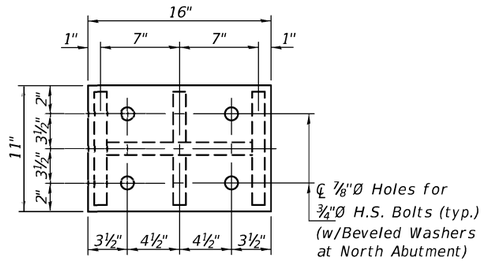
The structural steel bearing plates for the bearings shall conform to the requirements of AASHTO M270 Grade 36.

Min. jack capacity = 55 Tons.

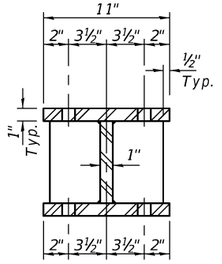
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

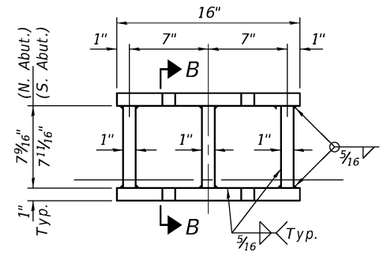
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



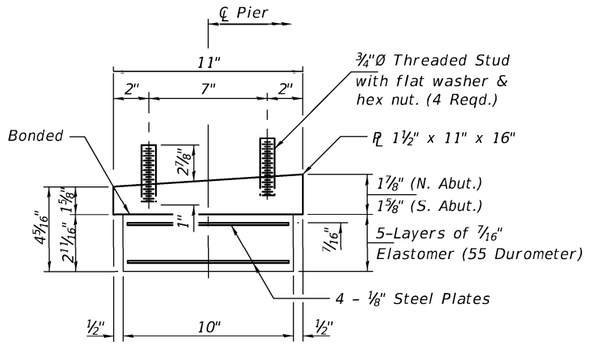
PLAN TOP AND BOTTOM PLATE



SECTION B-B



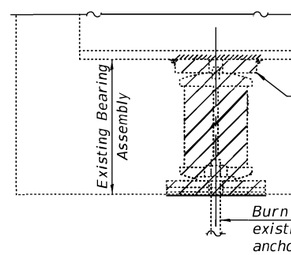
STEEL EXTENSION DETAIL



BEARING ASSEMBLY

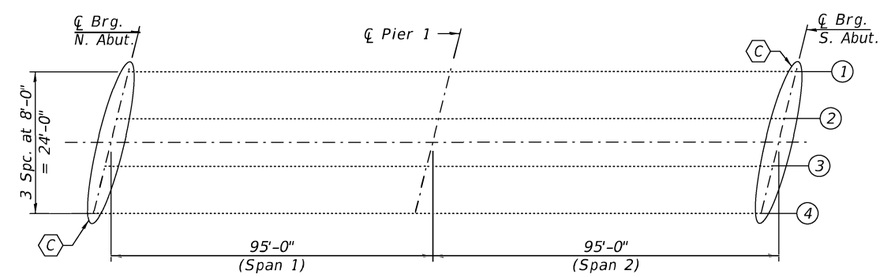
Note:

Shim plates shall not be placed under Bearing Assembly.



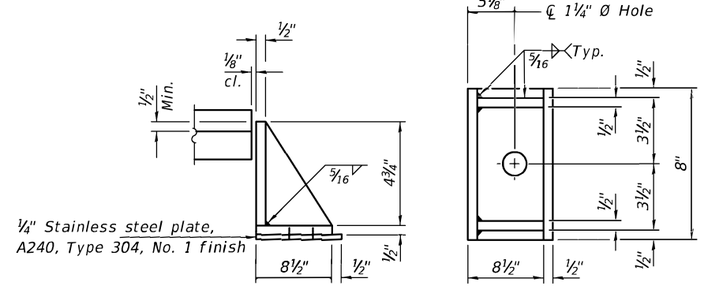
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



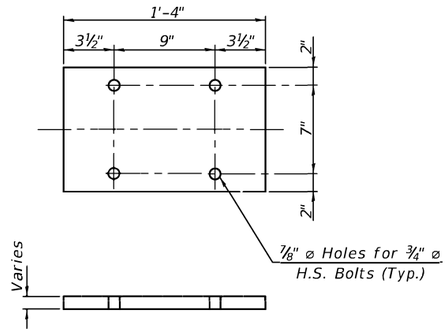
PARTIAL FRAMING PLAN

C - Bearing Removal and Replacement.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



FILL & SHIM PLATE DETAIL

*(Provide fill plate at beam as shown in table)

*FILL PLATE DIMENSIONS

Location	Beam 1	Beam 2	Beam 3	Beam 4
North Abut.	⅝"	¼"	None	None
South Abut.	⅛"	None	None	None

BILL OF MATERIAL BOTH ABUTMENTS

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	8
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1650
Anchor Bolts, 1"	Each	16

REV. - MS

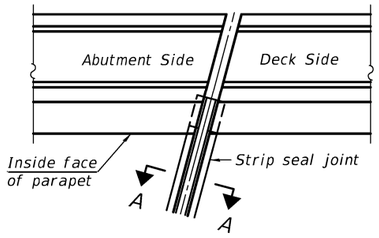
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -
	CHECKED - TRC	REVISED -
PLOT SCALE =	DRAWN - VVR	REVISED -
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

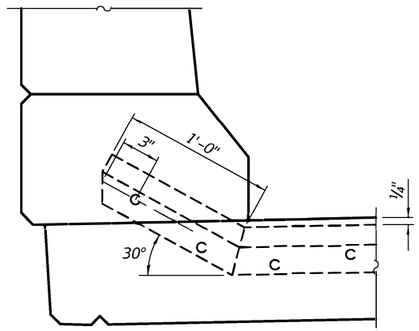
BEARING REPLACEMENT DETAILS
SN 044-0051
SHEET NO. 8 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	14
		CONTRACT NO. 78968		
	ILLINOIS	FED. AID PROJECT		



FOR SKEWS ≤ 30°

PLAN AT PARAPET



PARAPET ELEVATION AT ABUTMENTS

(Skews ≤ 30°)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

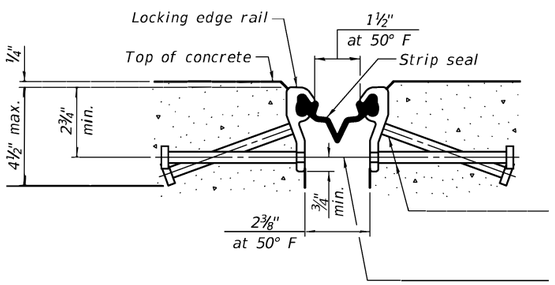
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

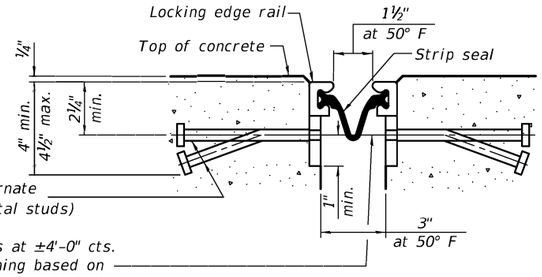
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT



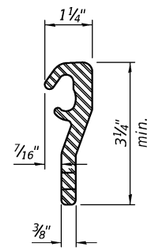
SHOWING WELDED RAIL JOINT

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

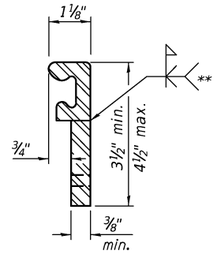
⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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



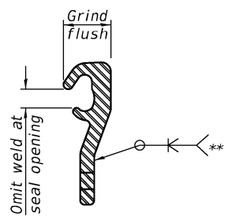
ROLLED (EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	62

REV. - MS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS
SN 044 - 0051
SHEET NO. 9 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	15
		CONTRACT NO. 78968		
	ILLINOIS	FED. AID PROJECT		

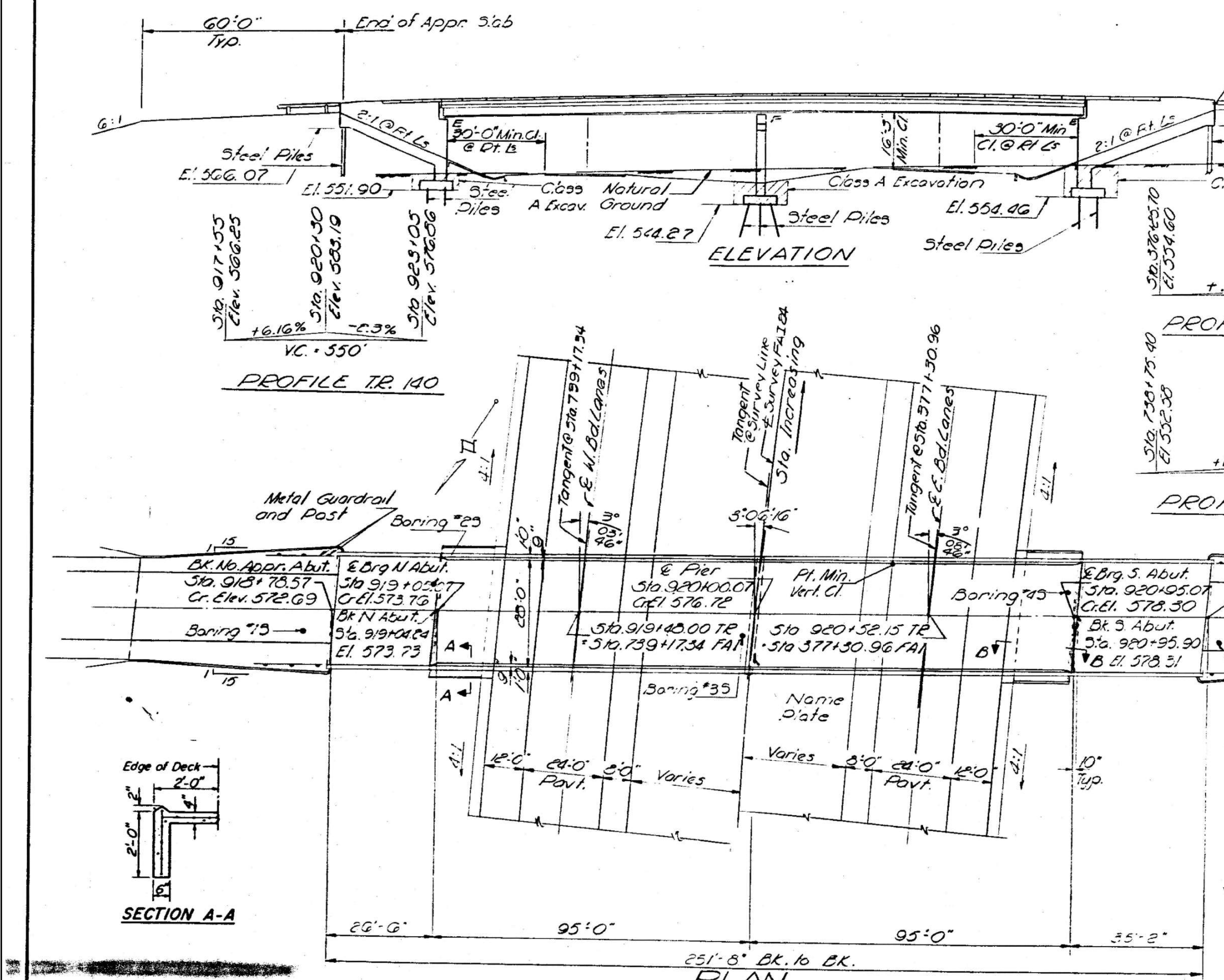
BM: #51 RR Spike in 20" Elm 252' Rt.
E. Bd. Lane Sta. 376+57, Elev. 559.07

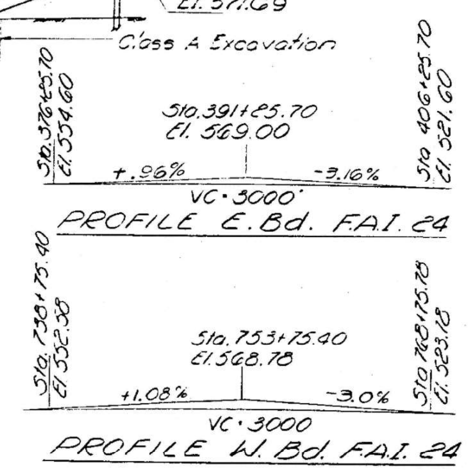
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

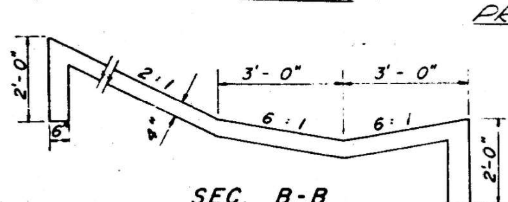
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 24	44-6HB	Johnson	63	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
18 SHEETS







GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Fasteners shall be high strength bolts. Bolts 7/8"⌀, open holes 15/16"⌀, unless noted.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

Slope wall shall be reinforced with welded wire fabric 6"x 6" mesh, weighing 58# per 100 sq. ft.

Class A Excavation for structures includes excavation for slope wall.

An alternate strand pattern using Extra High Strength Prestressing strand (270 k.s.i.) is permitted.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

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.

The contractor shall drive two steel (8 BP 36) test piles in a permanent location, one at North Abutment and one at Pier as directed by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Class A Excav. for Struct.	Cu. Yd's.		85	85
	Class X Concrete	Cu. Yd's	235.6	223.8	459.4
*	Protective Coat	Sq. Yd's.	930		930
**	Structural Steel	Lump Sum	1		1
	Aluminum Railing	Lin. Ft.	462		462
	Reinforcement Bars	Lbs	55000	21670	76670
	Steel Piles (8 BP 36)	Lin. Ft.		1135	1135
	Test Piles Steel (8 BP 36)	Ea.		2	2
	Name Plates	Ea.		1	1
	Slope Wall 4	Sq. Yd's		195	195
	Preformed Jt. Sealer	Lin. Ft.	60		60
	Stud Shear Connectors	Ea.	1416		1416
	Furnishing & Erecting Precast Prestressed Conc. I-Bms (36")	Lin. Ft.	231		231

* Includes use on inside vertical face, top and exposed ends of Abutment wings.
** Calculated weight of Structural Steel = 179,090 lbs.

CURVE DATA W. B. LANE

PI Sta. 753+22.71
Δ = 39°24'44"
D = 1°27.6144'
T = 1,405.37'
R = 3,923.72'
L = 2,699.01'
E = 244.09'
SE = 0.042'/'
S.E. Trans. Sta. 737+84 to Sta. 739+84 and 765+50 to Sta 404+86

CURVE DATA E. Bd. LANE

P.I. Sta. 389+77.66
Δ = 43°28'06"
D = 1°30'
T = 1,522.69'
R = 3,819.72'
L = 2,897.89'
E = 292.39'
SE = 0.042'/'
SE Trans. Sta. 373+22 to Sta. 375+22 and Sta 402+86 to 404+86

STATION 377+30.96
BUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 24 SEC. 44-6HB
F.A. PROJ. I-24-1(31)
LOADING HS 15

NAME PLATE
See Std. 2113-1

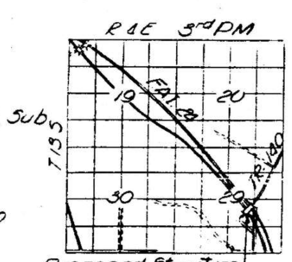
PRECAST PRESTRESSED UNITS

f'c = 5000 psi
f'ci = 4000 psi
fs = 248,000 psi (Strands 7/16"⌀)
fsi = 173,600 psi (Strands 7/16"⌀)

FIELD UNITS

fc = 1,200 psi Deck Slab
fc = 1,400 psi Curb, Parapet, Sub
fs = 20,000 psi Reinf.
fs = 20,000 psi Struct.
Vc = 75 psi Ftgs.
n = 10
Allowable ℄ Deflection = 1/1800

LOADING HS 15-44



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A. PROJ. I-24-1(31)21
T.R. 140 OVER F.A.I. RT. 24
F.A.I. RT. 24 SEC. 44-6HB
JOHNSON COUNTY
STATION 377+30.96 E. Bd.
STATION 739+17.34 W. Bd.

DESIGNED	George Al...
CHECKED	H.V. Stahl
DRAWN	D.N. Williams Sr.
CHECKED	R. ...

EXAMINED March 31 1963 — Carl ...
PASSED — W.E. Baumann
APPROVED — Richard J. ...

Revised 5-26-70, Wt. of Str. Steel

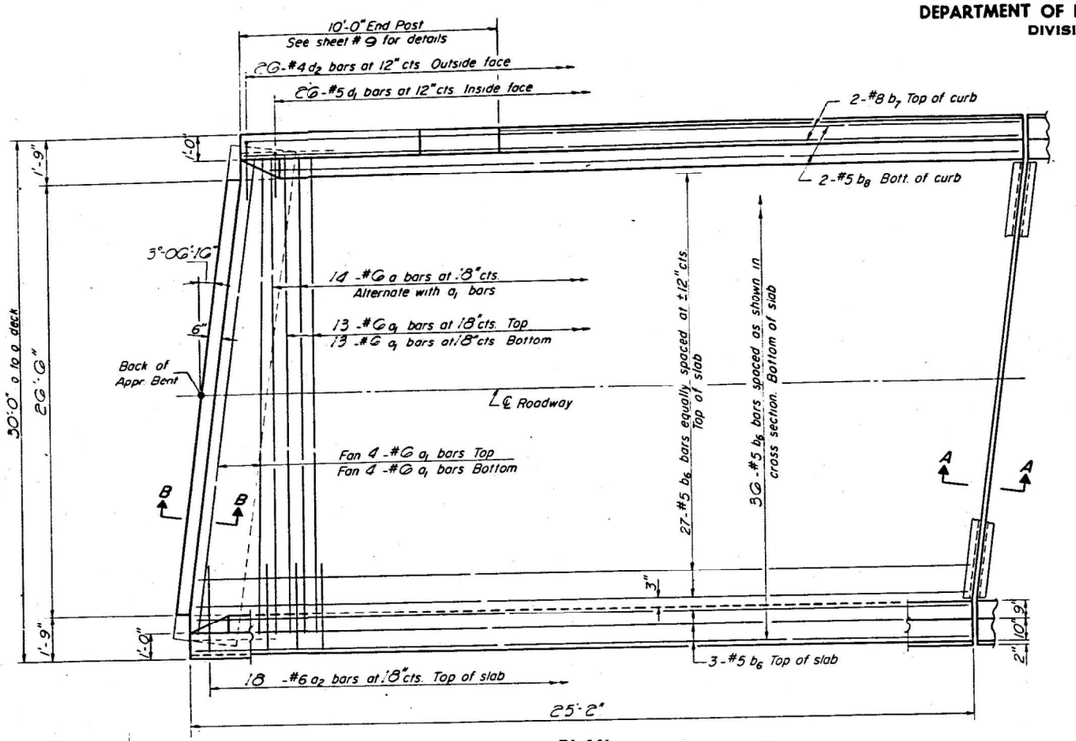
VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLAN SHEET - FOR INFORMATION ONLY SN 044-0051	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - TRC	REVISED -			140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	16
	PLOT DATE = JANUARY 19, 2023	DRAWN - VVR	REVISED -		SHEET 10 OF 19 SHEETS	CONTRACT NO. 78968				
		CHECKED - TRC	REVISED -			ILLINOIS	FED. AID PROJECT			

MODEL: 78968-016
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\044-0051 Structure Plans.dgn
1/19/2023 2:42:29 PM

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

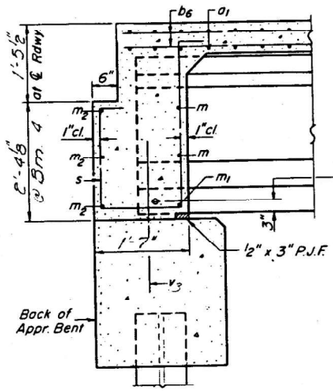
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1214	44-6HB	Johnson	63	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
18 SHEETS

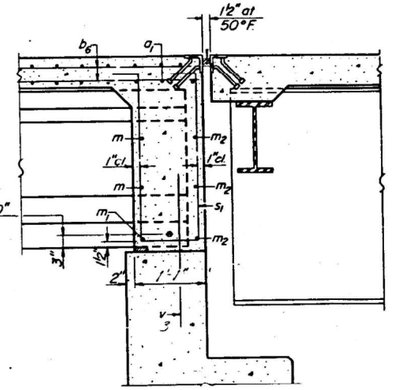


PLAN

NOTE: For details of expansion angles see Detail "A" sheet #4.



SECTION B-B

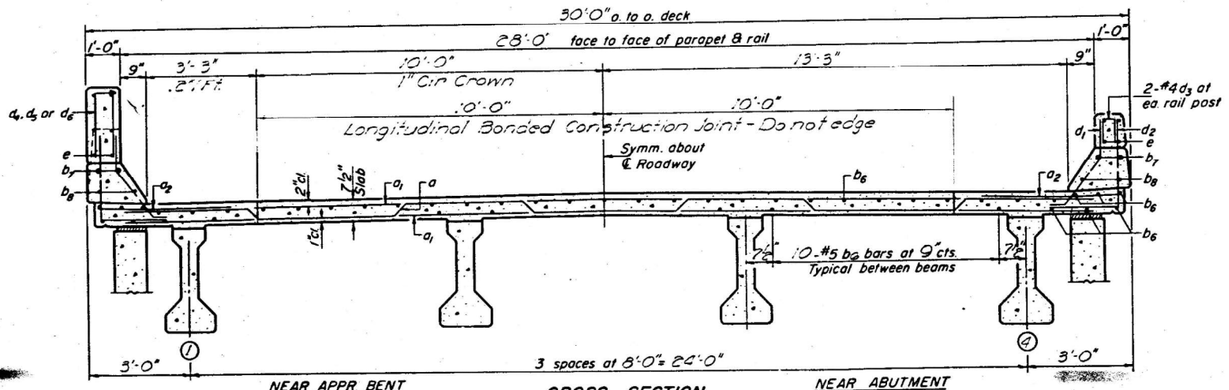


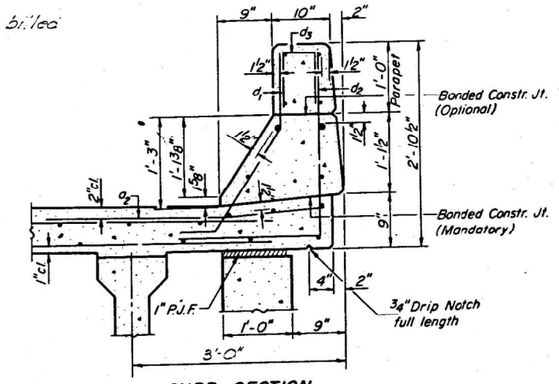
SECTION A-A

Preformed jt Sealer See Detail Sheet #4.

FOR INFORMATION ONLY

NOTE: For placement of bars d_3 thru d_6, see sheet #9.
Structural Steel is billed on Sheet #4.





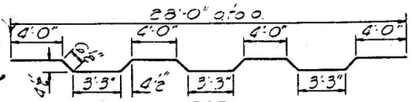
CURB SECTION

BILL OF MATERIAL

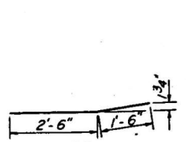
Bar	No.	Size	Length	Shape
a	14	#6	29'-0"	
a_1	42	#6	28'-0"	
a_2	36	#6	4'-0"	
b_6	69	#5	24'-11"	
b_7	4	#8	24'-11"	
b_8	4	#5	24'-11"	
d_1	52	#5	3'-3"	
d_2	52	#4	4'-7"	
m	12	#4	5'-8"	
m_1	6	#5	4'-9"	
m_2	6	#5	26'-3"	
m_3	6	#4	5'-6"	
m_6	6	#4	5'-0"	
s	18	#4	7'-6"	
s_1	18	#4	8'-5"	
s_2	15	#4	6'-10"	
Reinforcement Bars			Lbs.	5030
Class X Concrete			Cu. Yds.	20

Parapet Reinforcement and Class X Concrete are billed on sheet #9.

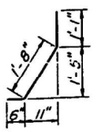
For placement and details of bars m thru m and s thru s_2 see sheet #6.



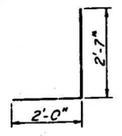
BAR a



BAR a_2



BAR d_1



BAR d_2

DESIGNED	Ganga Al-Bazi
CHECKED	K.P. Shukla
DRAWN	SCHNELLER
CHECKED	R. K. Mathur

EXAMINED March 31 1969
PASSED H E Baumann
APPROVED Finley Hastings

SA-4-L(S159) 4-22-68

NORTH APPROACH
F.A.S. RTE. 214 SEC. 44-6HB
JOHNSON COUNTY
STA. 377+30.96 (E. BD.)
STA. 739+77.34 (W. BD.)

VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - TRC	REVISED -	
	PLOT SCALE =	DRAWN - VVR	REVISED -	
	PLOT DATE = JANUARY 19, 2023	CHECKED - TRC	REVISED -	

EXISTING PLAN SHEET - FOR INFORMATION ONLY
SN 044-0051
SHEET 11 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	17
			CONTRACT NO. 78968	
		ILLINOIS	FED. AID PROJECT	

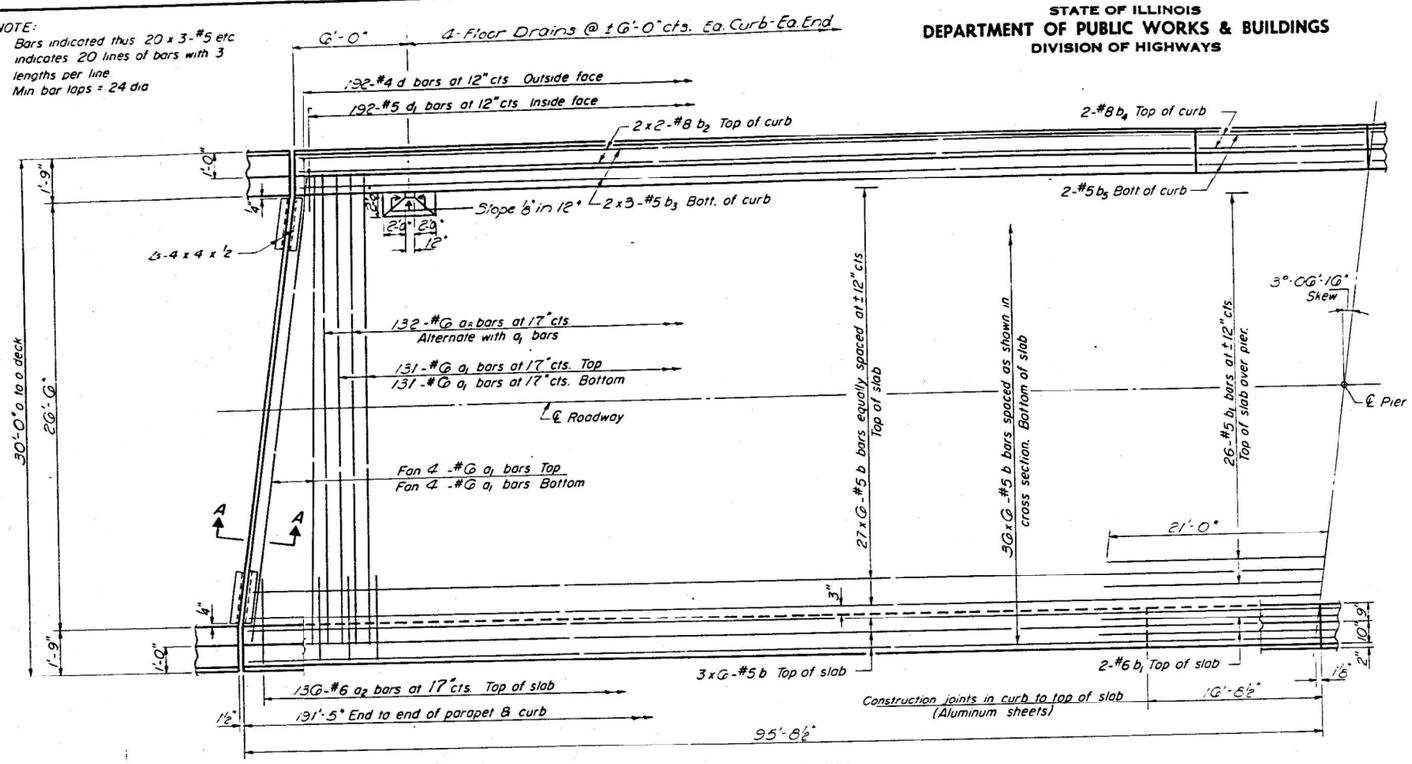
MODEL: 78968-017
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\0044-0051 Structure Plans.dgn
1/19/2023 2:42:34 PM

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

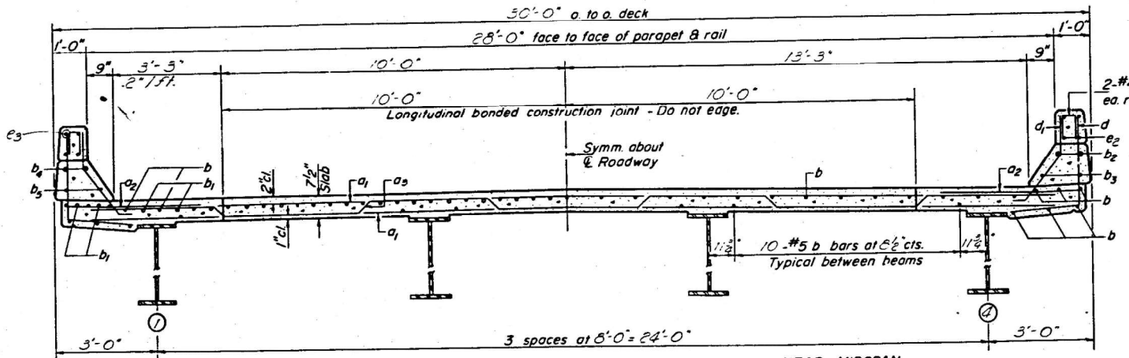
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• • • • • 1.24	44-4HB	Johnson	63	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
18 SHEETS

NOTE:
Bars indicated thus 20 x 3-#5 etc indicates 20 lines of bars with 3 lengths per line
Min bar laps = 24 dia



HALF PLAN

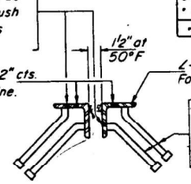


CROSS SECTION

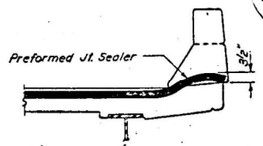
NOTE: For placement of bars a_3 and e_2 & e_3 see sheet # 9.

7/16"ø holes at 12" cts. for 3/8" bolts set on 2½" gage line. All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed.

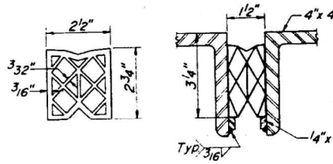
7/16"ø vent holes at 12" cts. set on 1⅜" gage line.



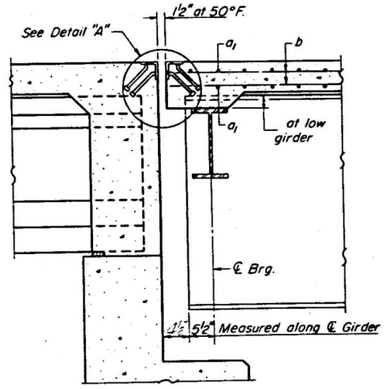
DETAIL "A"



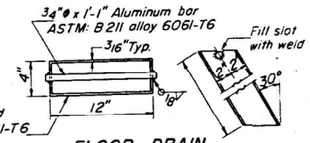
TYPICAL END OF SEALER TREATMENT



PREFORMED JOINT SEALER



SECTION A-A



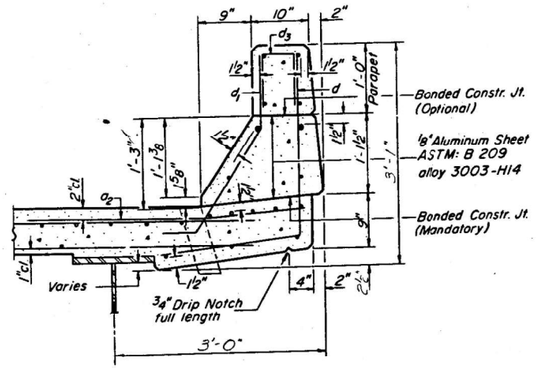
Aluminum Sheets Welded ASTM: B209 alloy 6061-T6 or Aluminum Extrusions ASTM: B221 alloy 6061-T6

FLOOR DRAIN
Cost incidental to Class X Concrete

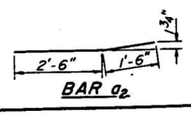
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_3	132	#6	29'-9"	
a_1	275	#6	26'-0"	
a_2	272	#6	4'-0"	
b	414	#5	32'-9"	
b_1	50	#6	42'-0"	
b_2	6	#8	40'-6"	
b_3	24	#5	27'-3"	
b_4	6	#8	16'-5"	
b_5	8	#5	16'-5"	
d	384	#4	4'-5"	J
d_1	384	#5	3'-3"	J
Reinforcement Bars			Lbs.	40590
Class X Concrete			Cu. Yds.	160
Stud Shear Conn.			Ea	1416

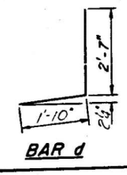
Parapet Reinforcement and Class X Concrete are billed on sheet # 9



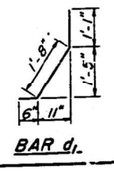
CURB SECTION
Cost of Drains and Aluminum Sheets shall be incidental to Class X Concrete.



BAR a_2



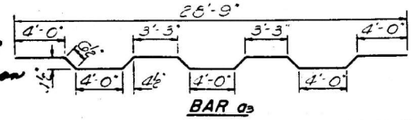
BAR d



BAR d_1

DESIGNED	George A. Bair
CHECKED	H. B. Hutt
DRAWN	jacobs
CHECKED	L. a mather

EXAMINED March 31 1969
PASSED H C Baumann
APPROVED Richard J. Gilman



BAR a_3

S-4-L (±15°) 4-22-68

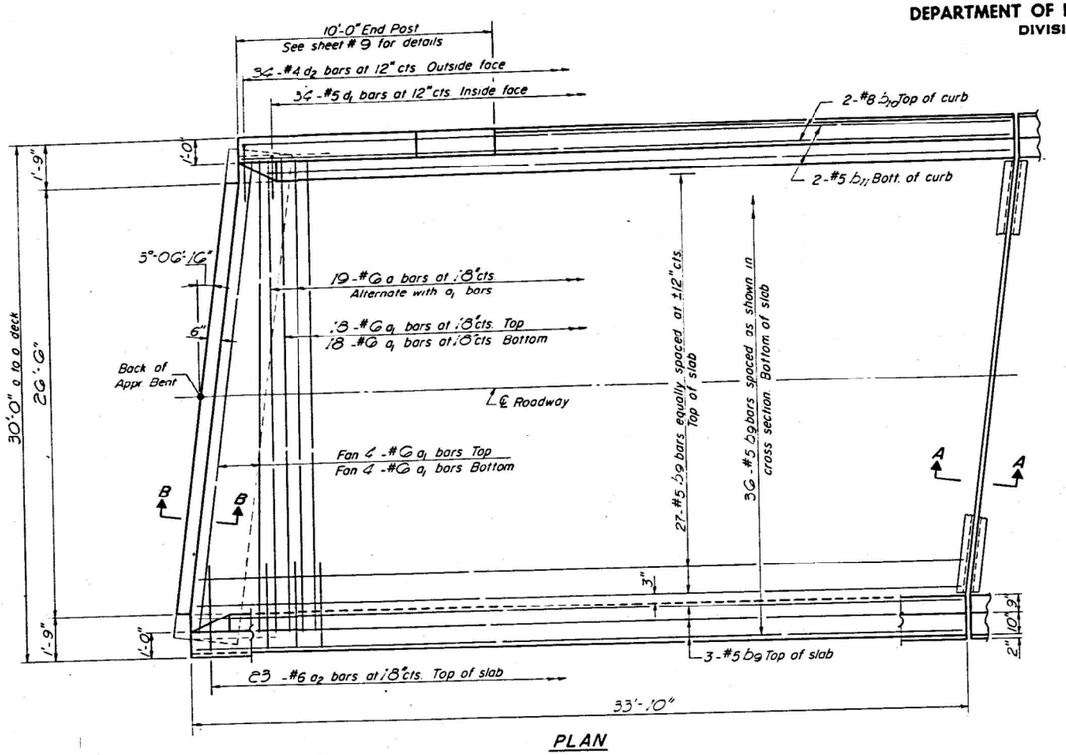
FOR INFORMATION ONLY

SUPERSTRUCTURE
F.A.I.R. 24 SEC. 44-6HB
JOHNSON COUNTY
STA. 377 + 30.96 (E. BD.)
STA. 739 + 17.34 (W. BD.)

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

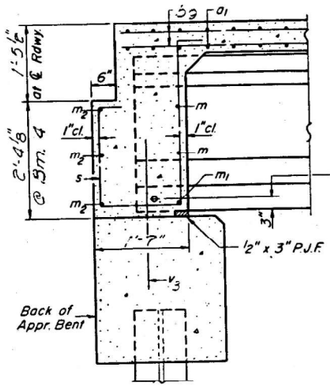
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. Rte. 24	44-6HB	Johnson	63	20
THIS ROAD SHT. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5
18 SHEETS

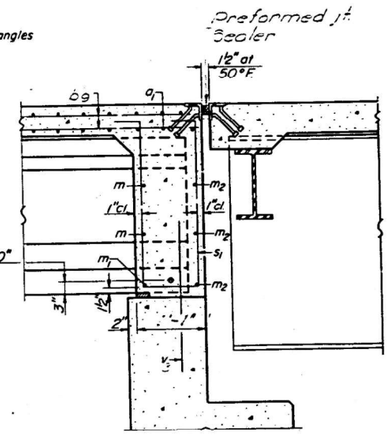


PLAN

NOTE: For details of expansion angles see Detail "A" sheet # 4.



SECTION B-B



SECTION A-A

FOR INFORMATION ONLY

BILL OF MATERIAL

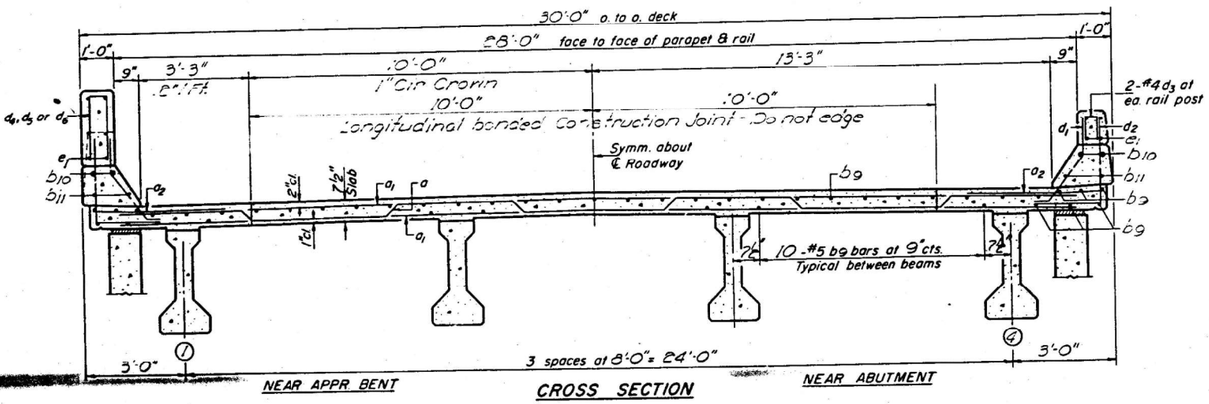
Bar	No.	Size	Length	Shape
a	19	#6	29'-0"	
a_1	58	#6	28'-0"	
a_2	66	#6	4'-0"	
b_9	69	#5	33'-6"	
b_{10}	4	#8	33'-6"	
b_{11}	4	#5	33'-6"	
d_1	68	#5	3'-3"	
d_2	68	#4	4'-7"	
m	12	#4	5'-8"	
m_1	6	#5	6'-9"	
m_2	6	#5	86'-3"	
m_3	6	#4	5'-6"	
m_4	6	#4	5'-0"	
s	18	#4	7'-6"	
s_1	18	#4	8'-5"	
s_2	10	#4	6'-10"	
Reinforcement Bars			Lbs.	7180
Class X Concrete			Cu. Yds.	38

Parapet Reinforcement and Class X Concrete are billed on sheet # 9

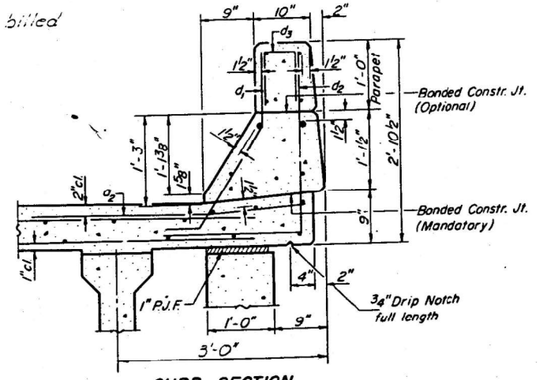
For placement and details of bars m thru m_4 and s thru s_2 see sheet # 6

For Preformed joint Sealer See Sheet # 4.

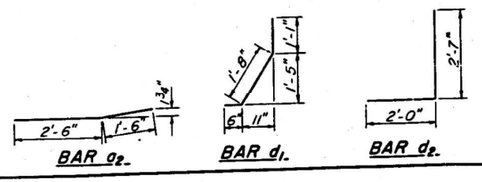
NOTE: For placement of bars d_3 thru d_6, and e_1 see sheet # 9
Structural Steel is billed on Sheet # 4.

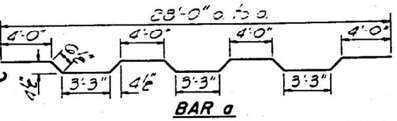


NEAR APPR BENT — CROSS SECTION — NEAR ABUTMENT



CURB SECTION





BAR a

DESIGNED	George A. Bazi
CHECKED	K. F. Stitt
DRAWN	SCHNELLER
CHECKED	R. L. Mettner

EXAMINED — May 31 1968
PASSED — W. C. Baumann
APPROVED

SA-4-L(3159) 4-22-68

SOUTH APPROACH
F.A.I. RT. 24 SEC. 44-6H.B
JOHNSON COUNTY
STA. 377+30.96 (E. BD.)
STA. 739+12.34 (W. BD.)

VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -
		CHECKED - TRC	REVISED -
	PLOT SCALE =	DRAWN - VVR	REVISED -
	PLOT DATE = JANUARY 19, 2023	CHECKED - TRC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLAN SHEET - FOR INFORMATION ONLY
SN 044 - 0051
SHEET 13 OF 19 SHEETS

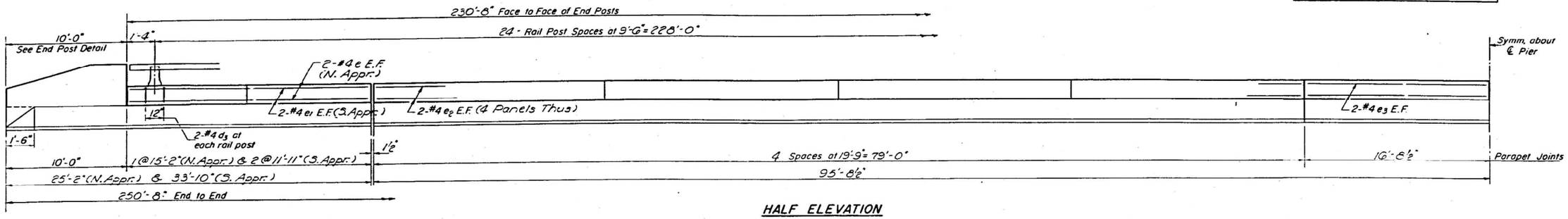
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	19
		CONTRACT NO. 78968		
	ILLINOIS	FED. AID PROJECT		

MODEL: 78968-019
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\044-0051 Structure Plans.dgn
1/19/2023 2:42:43 PM

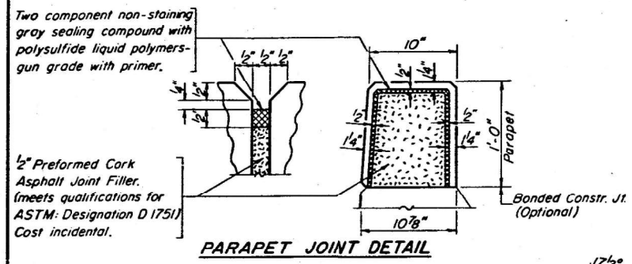
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-6HB	Johnson	63	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

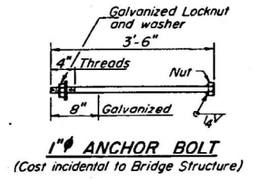
SHEET NO. 9
18 SHEETS



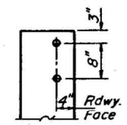
HALF ELEVATION



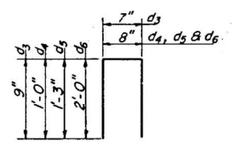
PARAPET JOINT DETAIL



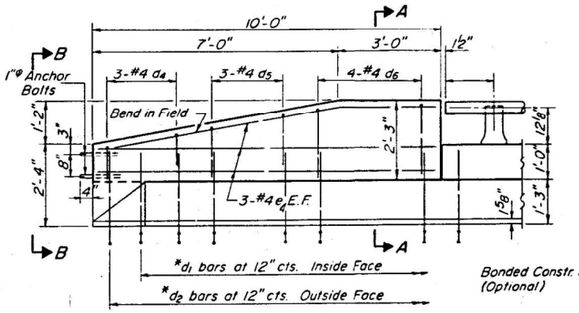
1"ϕ ANCHOR BOLT
(Cost incidental to Bridge Structure)



VIEW B-B

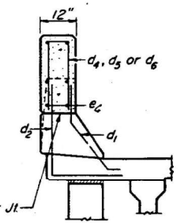


BARS d_3, d_4, d_5 & d_6

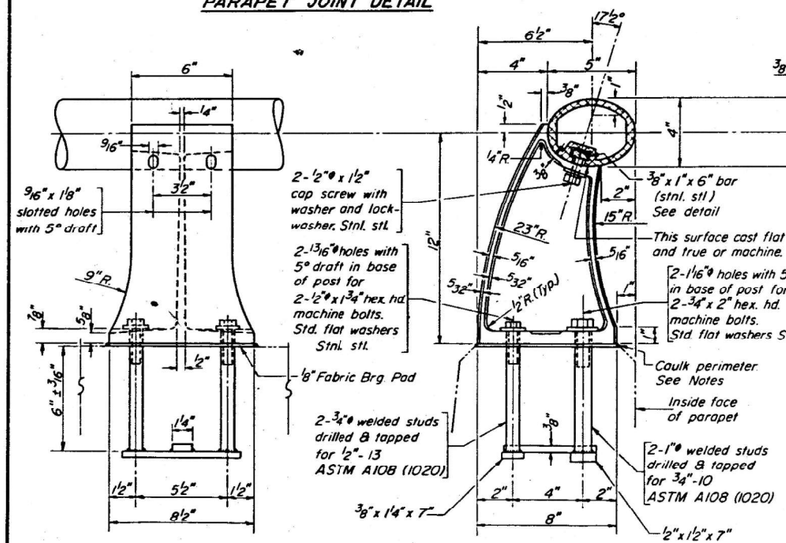


END POST DETAIL
(Inside View)

* d_1 & d_2 bars are billed with Approach.

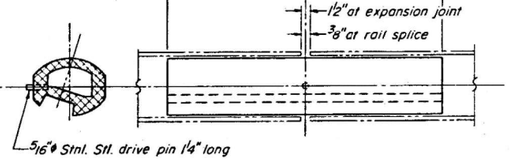


SECTION A-A

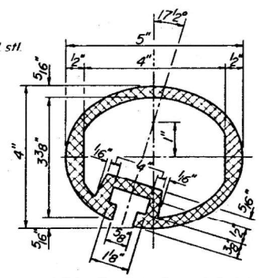


RAIL POST DETAILS

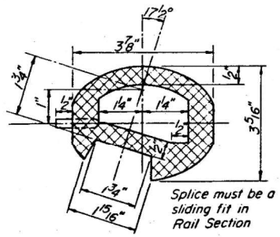
CAST END CAP
DRIVE FIT TYPE
4 Required



RAIL SPLICE

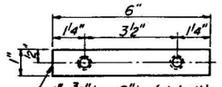


SEC. THRU ELLIPTICAL RAIL SECTION



Splice must be a sliding fit in Rail Section

SEC. THRU SPLICE



1" x ⅜" bar 6" lg. (stnl. stl.)
Drill & tap 2 holes ½"-13

CLAMP BAR

FOR INFORMATION ONLY

NOTES:

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.

Provide 1 - 1/8" and 2 - 1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.

Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.

Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% in 2 inches.

PARAPETS & RAILS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d_3	100	#4	2'-1"	⊓
d_4	12	#4	2'-8"	⊓
d_5	12	#4	3'-2"	⊓
d_6	16	#4	4'-8"	⊓
e	8	#4	14'-10"	—
e_1	16	#4	11'-7"	—
e_2	64	#4	19'-5"	—
e_3	16	#4	16'-5"	—
e_4	24	#4	9'-9"	—
Reinforcement Bars			Lbs.	1600
Class X Concrete			Cu. Yds.	17.6
Aluminum Railing			Lin. Ft.	468

ALUMINUM RAILING

F.A.I. RT. 24 SEC. 44-6HB
JOHNSON COUNTY
STA. 377 + 30.96 (E.B.L.)
STA. 739 + 17.34 (W.B.L.)

DESIGNED	George A. Bazi
CHECKED	K. P. Stutte
DRAWN	jacobs
CHECKED	R. K. mathur

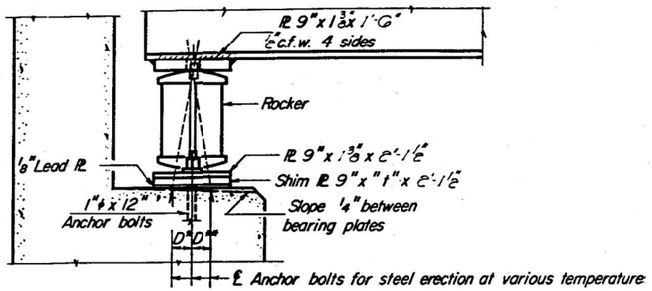
EXAMINED March 31 19 69
PASSED
APPROVED

R-17A 4-22-68

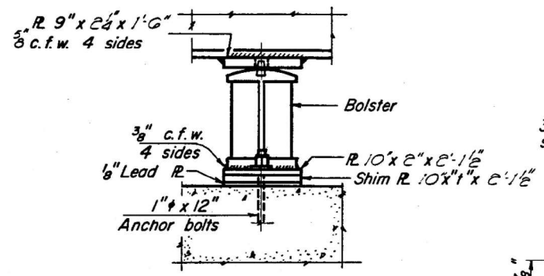
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I 24	44-6HB	Johnson	63	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

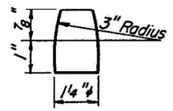
SHEET NO. 10
18 SHEETS



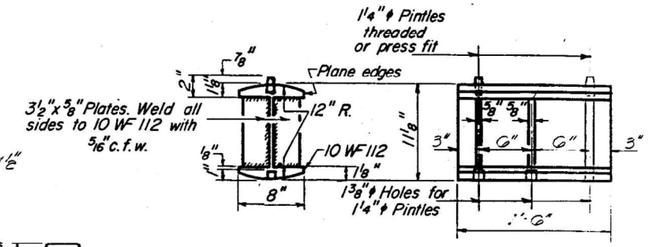
SECTION



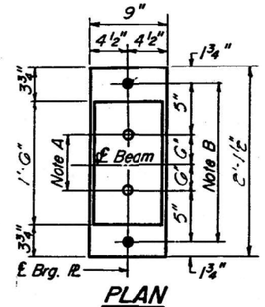
ELEVATION



PINTLE



ROCKER



PLAN

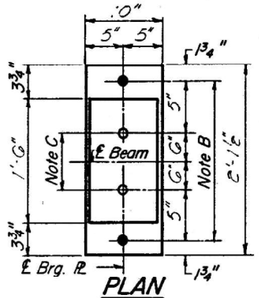
AT ABUTMENT

SHIM PLATES

Loc. / Brms	1	2	3	4
N. Abut	5/8	1/4	0	0
Pier	1/4	1/8	0	0
S. Abut	1/8	0	0	0

t-in inches

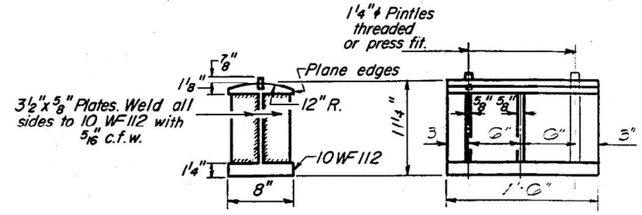
NOTE A
1 3/8" ϕ Holes – 1" deep in top PL for pintles. Thread or press fit pintles into bottom PL.



PLAN

AT PIER

NOTE C
1 3/8" ϕ Holes 1" deep in top PL only for 1 1/4" ϕ pintles.



BOLSTER

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

a) D* (Side of brg. away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
D** (Side of brg. toward fixed brg.)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.

b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS

NOTE B
1 1/2" ϕ holes for 1" ϕ anchor bolts
2 1/2" x 2 1/2" x 5/16" PL. Washers under nuts.

TABLE OF MOMENTS & REACTIONS IN. BMS.

	MOMENTS			REACTIONS	
	.4 Span Steel Sec.		Pier	Abut	Pier
D.L	560.6	D.L.	1335.8	34.0	124.2
S.D.L.	163.0		245.0	8.9	28.1
L.L.+Imp.	794.8	L.L.+Imp.	632.5	42.5	67.3
		Total	2213.3	85.4	219.6

Moments - in Ft. Kips Reactions - in Kips

PROPERTIES Steel Section		
@ .4 Span for DL		@ Pier
I_S	166809 in^4	31980 in^4
S_{TS}	6795 in^3	1398.0 in^3
S_{BS}	8524 in^3	1398.0 in^3
Composite Sec.		
I_C	39203.8 in^4	
S_{TC}	4698.7 in^3	
S_{BC}	11246 in^3	

SHEAR

	4 Pt.	6 Pt.	3/4 Pt.
S.D.L	3.C	C.6	8.9
L.L.+Imp	28.9	24.0	36.0
Total	32.1	26.6	44.3

Shears are in kips

FOR INFORMATION ONLY

DESIGNED	George Al-Bazi	EXAMINED	March 31 1969
CHECKED	K.P. Stutte	PASSED	
DRAWN	SCHNELLER	APPROVED	
CHECKED	R. Mather		

I-2-B 9-1-65

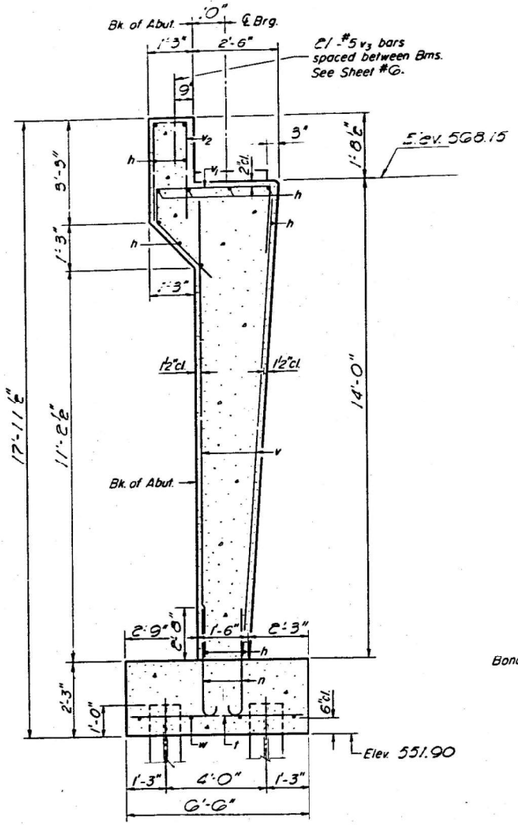
BEARING DETAILS
FAI RT. 24 SEC. 44-6HB
JOHNSON COUNTY
STA. 3777+36.9 G.E.B.
STA. 739+17.34 W.B.

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

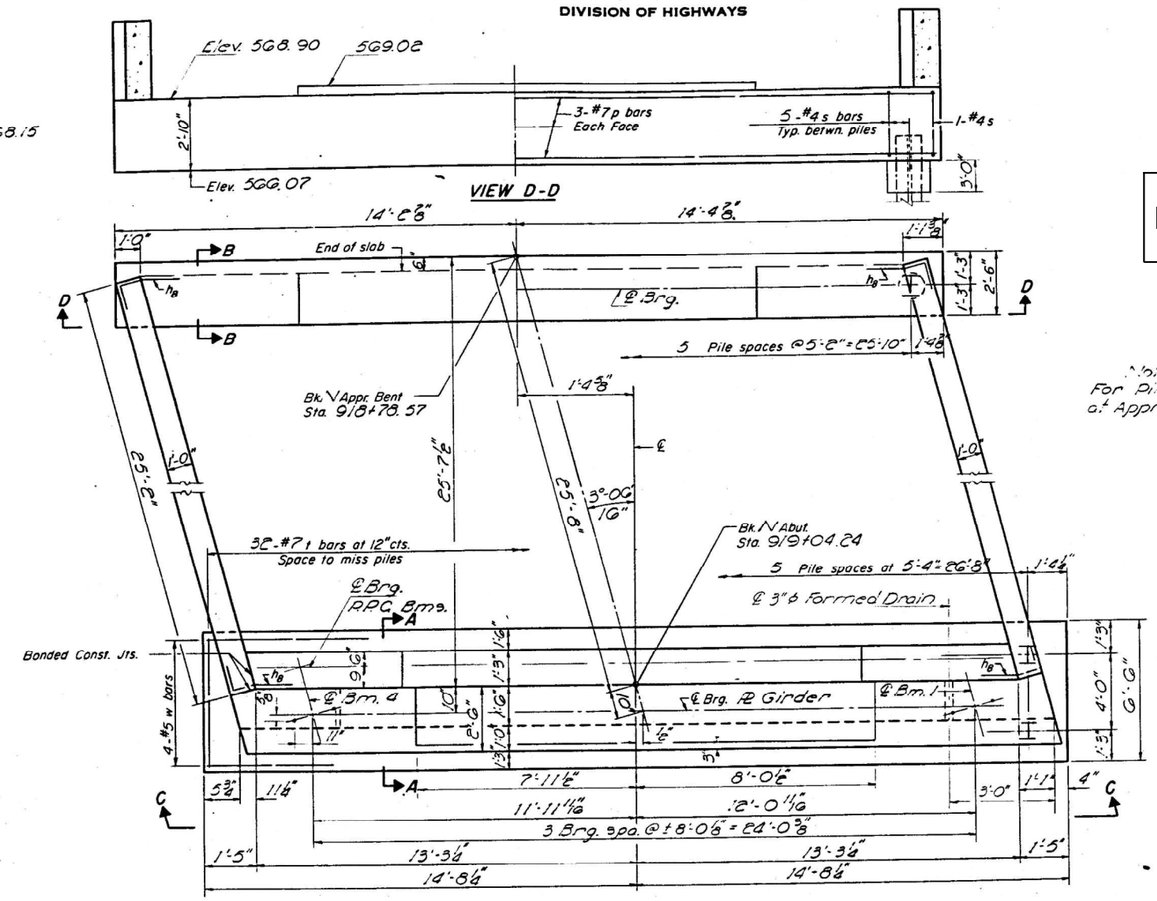
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I 24	44-4HB	Johnson	63	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

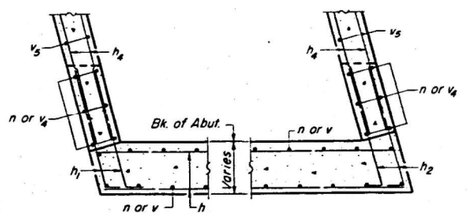
SHEET NO. 13
18 SHEETS

FOR INFORMATION ONLY

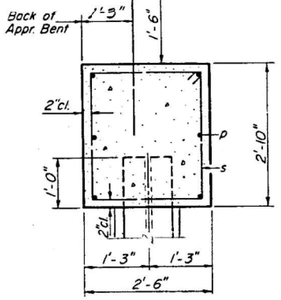


SECTION A-A



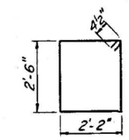


SECTION E-E

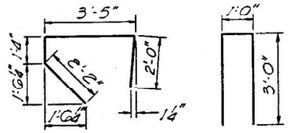


SECTION B-B

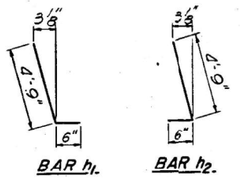
Note
For Pile Encasement Detail at Appr. Bent see sheet # 14.



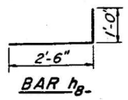
BAR s



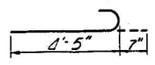
BAR v_1 BAR v_2



BAR h_1 BAR h_2



BAR h_8



BAR n

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	36	#5	29'-0"	
h_1	30	#5	5'-3"	
h_2	30	#5	5'-3"	
h_3	4	#6	57'-6"	
h_4	10	#4	20'-0"	
h_5	20	#4	20'-10"	
h_6	6	#4	8'-3"	
h_7	12	#4	3'-3"	
h_8	12	#4	3'-6"	
n	42	#5	5'-0"	
p	6	#7	28'-4"	
s	27	#4	10'-1"	
t	32	#7	6'-3"	
v	60	#5	13'-9"	
v_1	28	#5	7'-11"	
v_2	27	#4	7'-0"	
v_3	42	#5	3'-0"	
v_4	12	#4	18'-6"	
v_5	28	#4	18'-3"	
v_6	36	#4	5'-6"	
w	4	#5	29'-0"	
Reinforcement Bars			Lbs.	5480
Class X Concrete			Cu. Yds.	75.4
Steel Piles 83P36			Lin. Ft.	430
Test Pile Steel 83P36			Ea.	1

DESIGNED	George Aridas
CHECKED	K.P. Stutts
DRAWN	SCHNELLER
CHECKED	R. Mallur

EXAMINED March 31 1969
PASSED
APPROVED

VA-L 6-21-68

NORTH ABUTMENT
F.A.I. RTE. 24 SEC. 44-4HB
JOHNSON COUNTY
STA. 377+30.96 (E. BD.)
STA. 739+17.34 (W. BD.)

MODEL: 78968-022
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\044-0051 Structure Plans.dgn
1/19/2023 2:42:57 PM

VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -
		CHECKED - TRC	REVISED -
	PLOT SCALE =	DRAWN - VVR	REVISED -
	PLOT DATE = JANUARY 19, 2023	CHECKED - TRC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

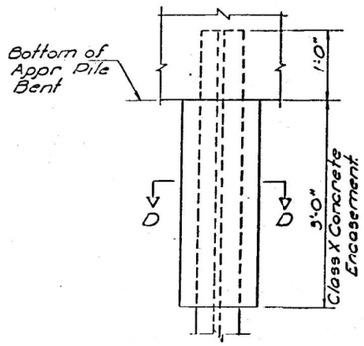
EXISTING PLAN SHEET - FOR INFORMATION ONLY
SN 044 - 0051
SHEET 16 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	22
			CONTRACT NO. 78968	
		ILLINOIS	FED. AID PROJECT	

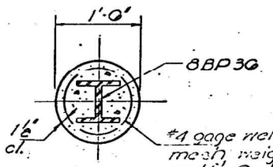
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-6HB	Johnson	23	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 17
18 SHEETS

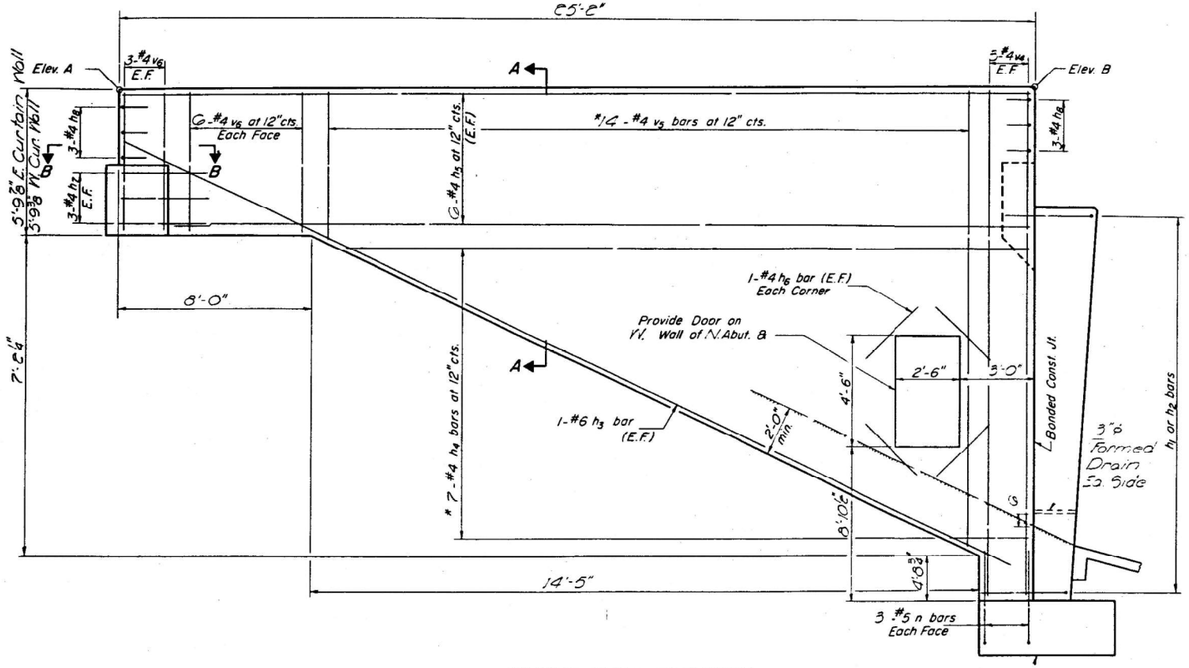


PILE ENCASEMENT



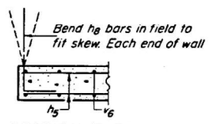
#4 gage welded wire fabric 6"x6" mesh weighing 58 lb/per 100 sq.ft. Cost of Class X Concrete encasement & reinforcement shall be included in cost of furnishing the piles. Forms for encasement may be omitted when soil conditions will permit.

SEC D-D



CURTAIN WALL ELEVATION

FOR INFORMATION ONLY



SECTION B-B

APPR. BENT - PILE DATA

Type	Steel 8 BP 32
Capacity	Drive to refusal
Est. Length	35
No. Req'd.	6

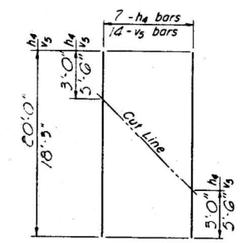
ABUT. - PILE DATA

Type	Steel 8 BP 36
Capacity	Drive to refusal
Est. Length	80
No. Req'd.	18 Including 1 test piles

DESIGNED	George A. Bai
CHECKED	K. P. Stutts
DRAWN	SCHNELLER
CHECKED	R. L. Mattmiller

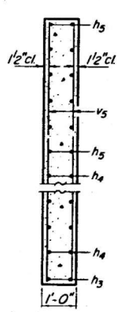
EXAMINED March 31 1969
PASSED M. E. Bowman
APPROVED Richard H. Gutmann

VA-W 6-21-68

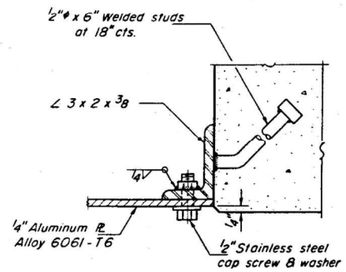


FIELD CUTTING DIAGRAM

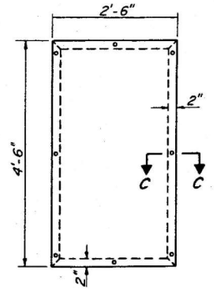
* Order h4 & v5 bars full length. Cut to fit as shown and use remainder of bars in other face.



SECTION A-A



SECTION C-C



DOOR ELEVATION
(Cost of door and frame are incidental)

TOP OF CURTAIN WALL ELEVATIONS

Location (Wall ... Abut.)	Elev. A	Elev. B
East Wall	571.89	572.91
West Wall	571.85	572.86

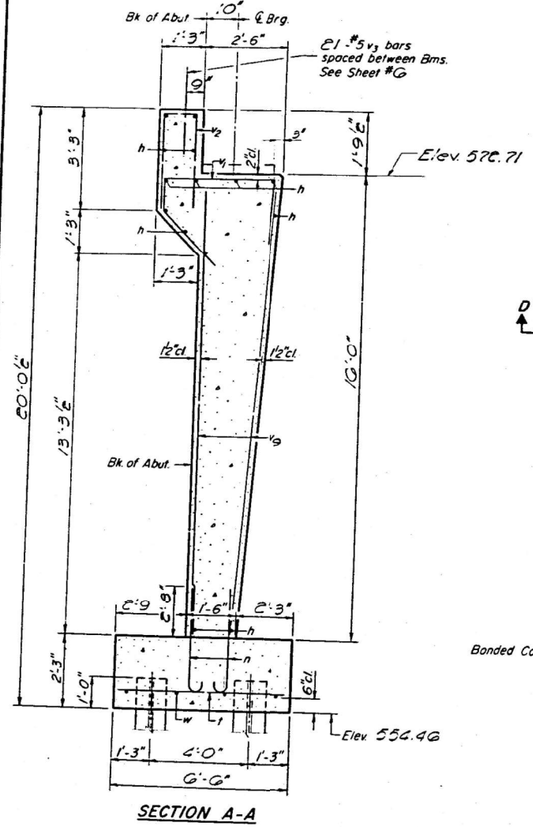
CURTAIN WALL
NORTH ABUTMENT
F.A.I. RT. 24 SEC 44-6HB
JOHNSON COUNTY
STA. 977+30.96 (E. Bd.)
STA. 739+17.34 (W. Bd.)

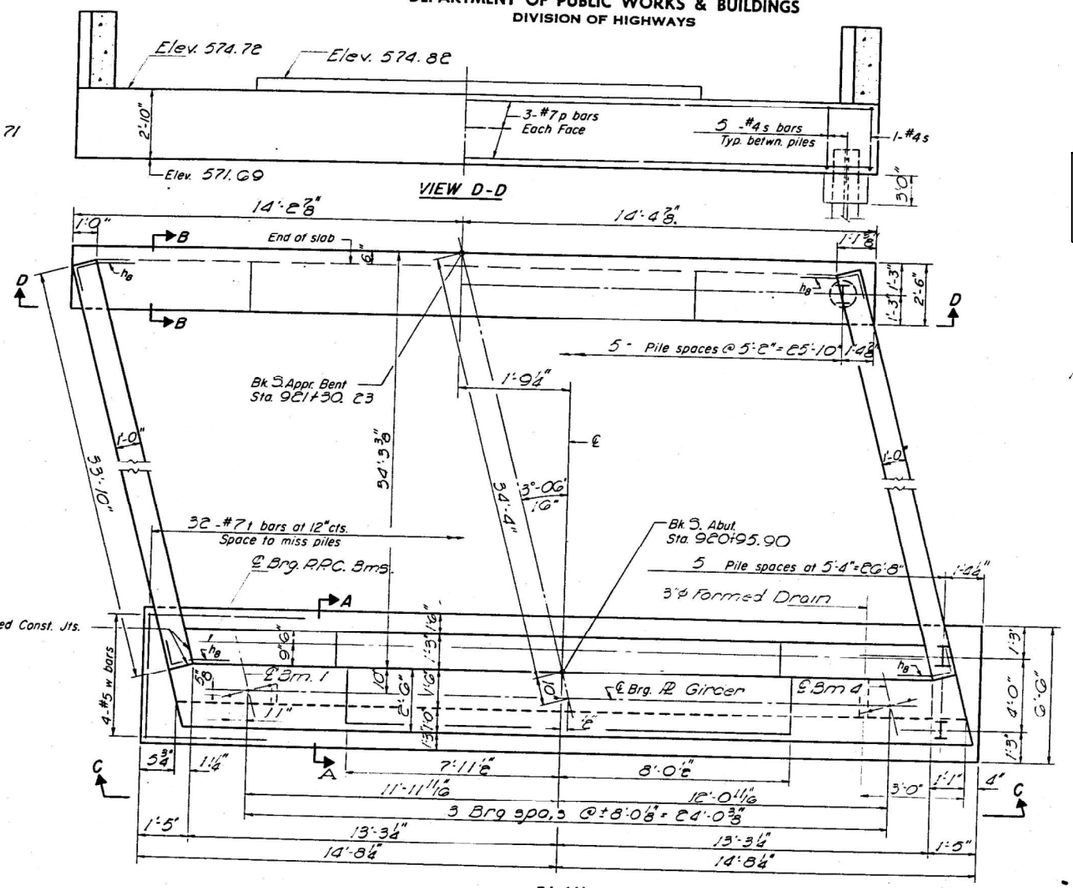
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

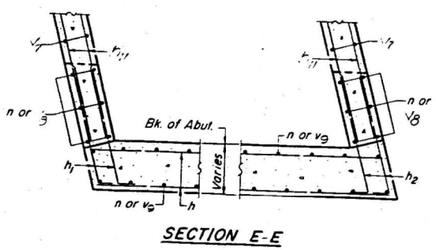
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-GHB	Johnson	63	30
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

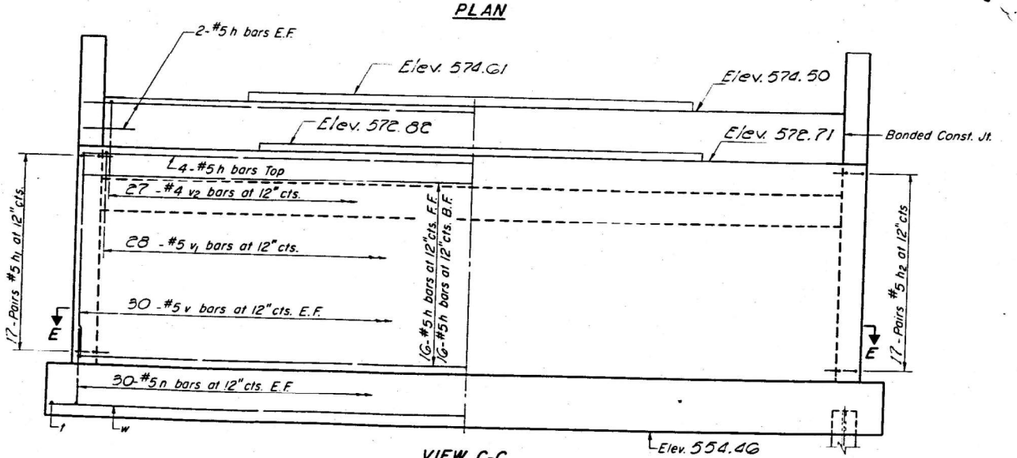
SHEET NO. 15
18 SHEETS

FOR INFORMATION ONLY

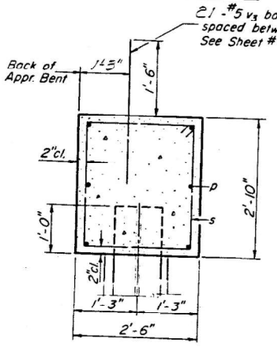


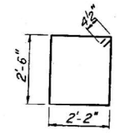


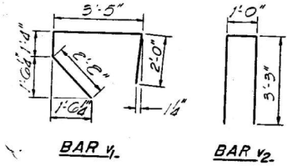


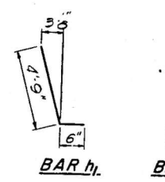


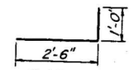
Note:
For Pile Encasement Detail of Appr Bent see sheet #14.











BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	40	#5	29'-0"	
h1	34	#5	5'-3"	
h2	34	#5	5'-3"	
h8	2	#4	2'-3"	
h7	12	#4	3'-3"	
h8	12	#4	3'-6"	
h9	4	#6	35'-3"	
h10	24	#4	33'-0"	
h11	22	#4	28'-0"	
n	42	#5	5'-0"	
p	6	#7	68'-4"	
s	27	#4	10'-1"	
t	32	#7	6'-3"	
v1	28	#5	7'-11"	
v2	27	#4	7'-0"	
v3	42	#5	3'-0"	
v8	36	#4	5'-2"	
v7	44	#4	22'-6"	
v8	12	#4	20'-6"	
v9	60	#5	15'-9"	
w	4	#5	89'-0"	
Reinforcement Bars			Lbs.	6310
Class X Concrete			Cu. Yds.	89.6
Steel Piles			Lin. Ft.	450

DESIGNED	George A. Bazi
CHECKED	K. D. Stults
DRAWN	SCHNELLER
CHECKED	R. E. Matthew

EXAMINED — March 31 19 69
PASSED — W. E. Baumann
APPROVED — Ralph H. Tollenaar

VA-L 6-21-68

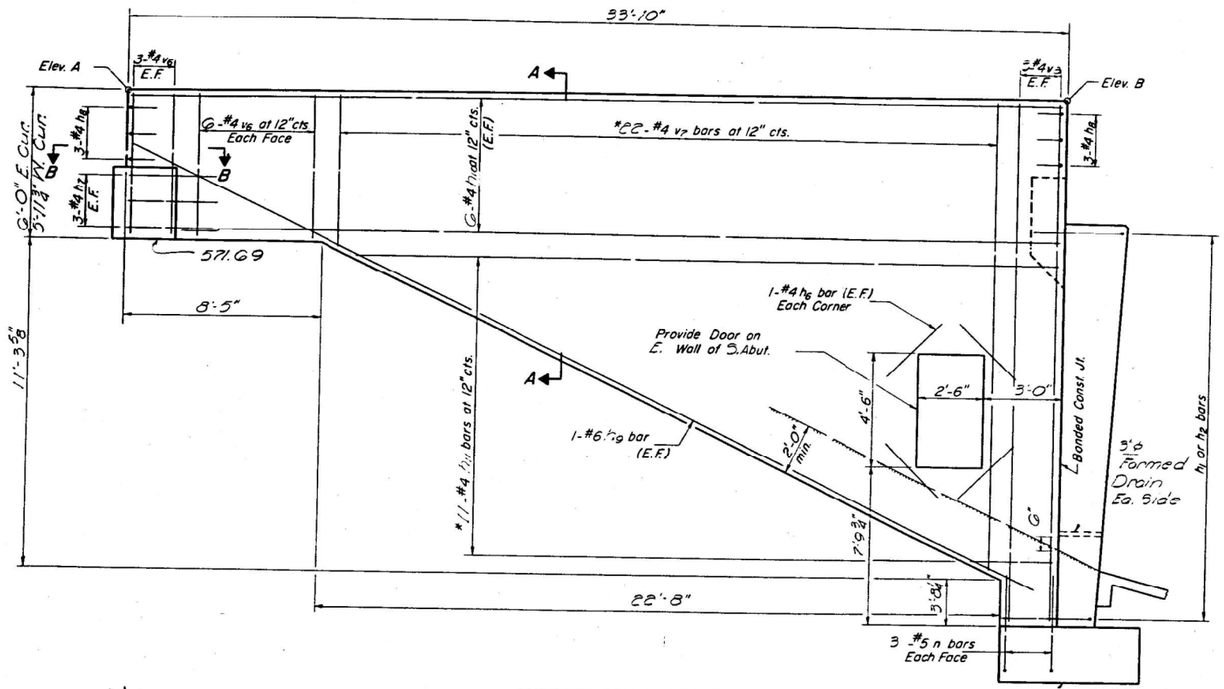
SOUTH ABUTMENT
FAI RT 24 SEC. 44-GHB
JOHNSON COUNTY
STA. 577+30.96 (E Bd.)
STA. 739+17.34 (W Bd.)

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

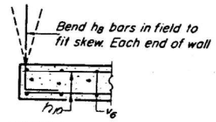
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-6HB	Johnson	63	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 16
18 SHEETS

FOR INFORMATION ONLY



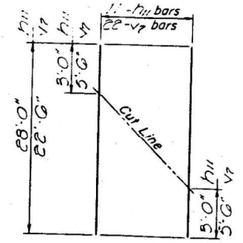
CURTAIN WALL ELEVATION



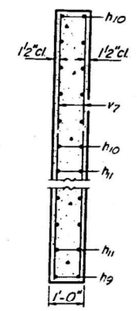
SECTION B-B

APPR. BENT - PILE DATA
Type Steel H.P. 36
Capacity Drive to refusal
Est. Length 35 Ft.
No. Req'd. 6

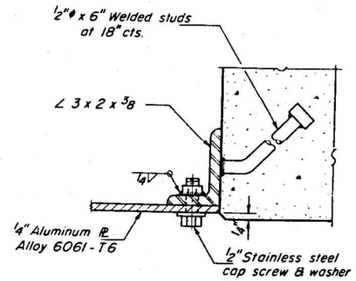
ABUT. - PILE DATA
Type Steel H.P. 36
Capacity Drive to Refusal
Est. Length 60 Ft.
No. Req'd. 12



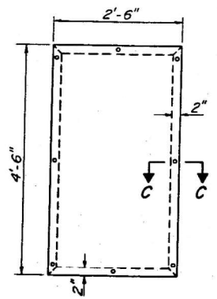
FIELD CUTTING DIAGRAM
* Order h11 & v2 bars full length. Cut to fit as shown and use remainder of bars in other face.



SECTION A-A



SECTION C-C



DOOR ELEVATION
(Cost of door and frame are incidental)

TOP OF CURTAIN WALL ELEVATIONS

Location	Elev. A	Elev. B
Wall S. Abut.		
East Wall	577.69	577.47
West Wall	577.68	577.46

CURTAIN WALL
SOUTH ABUTMENT
F.A.I. RT. 64 SEC. 44-6HB
JOHNSON COUNTY
STA. 377+30.96 (E.Bd.)
STA. 739+17.34 (W.Bd.)

DESIGNED	George Al-Rozi
CHECKED	K.P. Stults
DRAWN	SCHNELLER
CHECKED	[illegible]

EXAMINED March 31 19 69
PASSED [signature]
APPROVED [signature]

VA-W 6-21-68

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = JANUARY 19, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLAN SHEET - FOR INFORMATION ONLY
SN 044 - 0051
SHEET 19 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
140	D9 BRIDGE REPAIR 2023-1	JOHNSON	39	25
			CONTRACT NO. 78968	
	ILLINOIS	FED. AID PROJECT		

LEGEND

Proposed Electric Wiring, 600V.

Existing cable in conduit to be Removed

E Existing Lighting unit to be modified

TOTAL BILL OF MATERIALS

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
81028750	Underground Conduit, Coilable Nonmetallic Conduit, 2" Dia.	Foot	420
81400100	Handhole	Each	2
81603034	Unit Duct, 600v, 2-1C No.6, 1/C No.6 Ground, (XLP-Type Use), 3/4" dia. Polyethylene	Foot	420
89502300	Remove Electric Cable from Conduit	Foot	440

GENERAL NOTES

1) Electrical work shall confrom to National, State, and Local Codes.

2) All Proposed Electric Conduit are setback 5ft from edge of Footings.

3) Underground conduit routing is diagrammatic in nature and is not intended to dictate exact locations. Contractor shall field verify best routing based on field conditions.

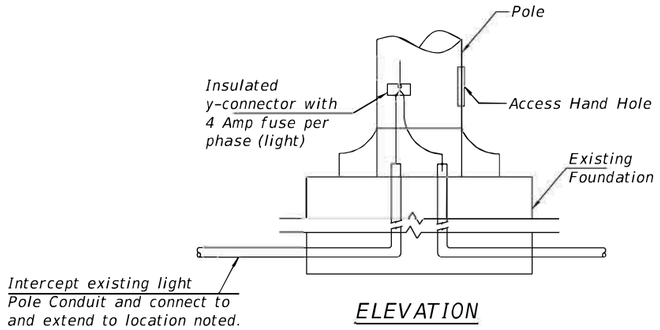
INDEX OF SHEETS

E1 - General Notes, Index of Sheets & Bill of Materials

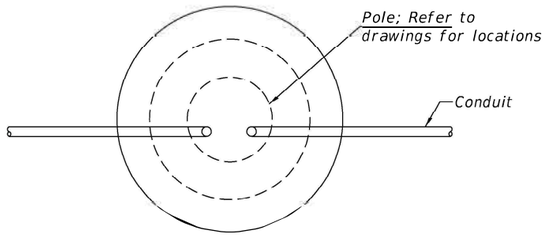
E2 - Proposed Electric Conduit Plan US Route 45. and I 24

HIGHWAY STANDARDS

821101-02 Luminaire Wiring in Pole



ELEVATION



PLAN

WIRING CONNECTIONS AT EXISTING LIGHT POLE DETAIL

JACOB DANIEL LUCAS
062.069216
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

EXPIRES 11-30-2023 3/14/23

REV. - MS

E1

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = ___	DESIGNED - VVR	REVISED - ___
	CHECKED - JDL	REVISED - ___
PLOT SCALE = ___	DRAWN - VVR	REVISED - ___
PLOT DATE = March 14, 2023	CHECKED - JDL	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

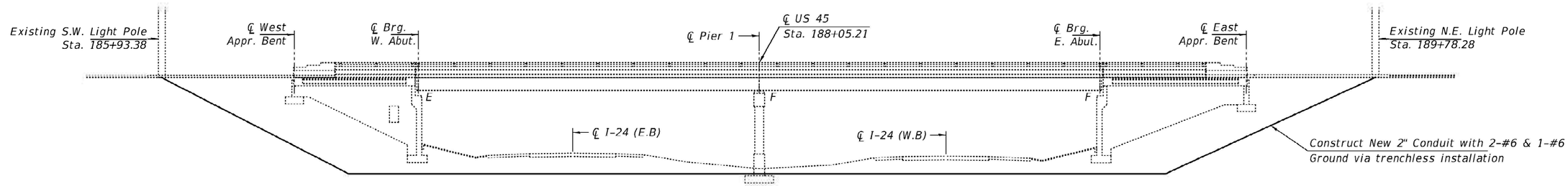
GENERAL NOTES, INDEX OF SHEETS AND SUMMARY OF QUANTITIES

SHEET NO. 1 OF 2 SHEETS

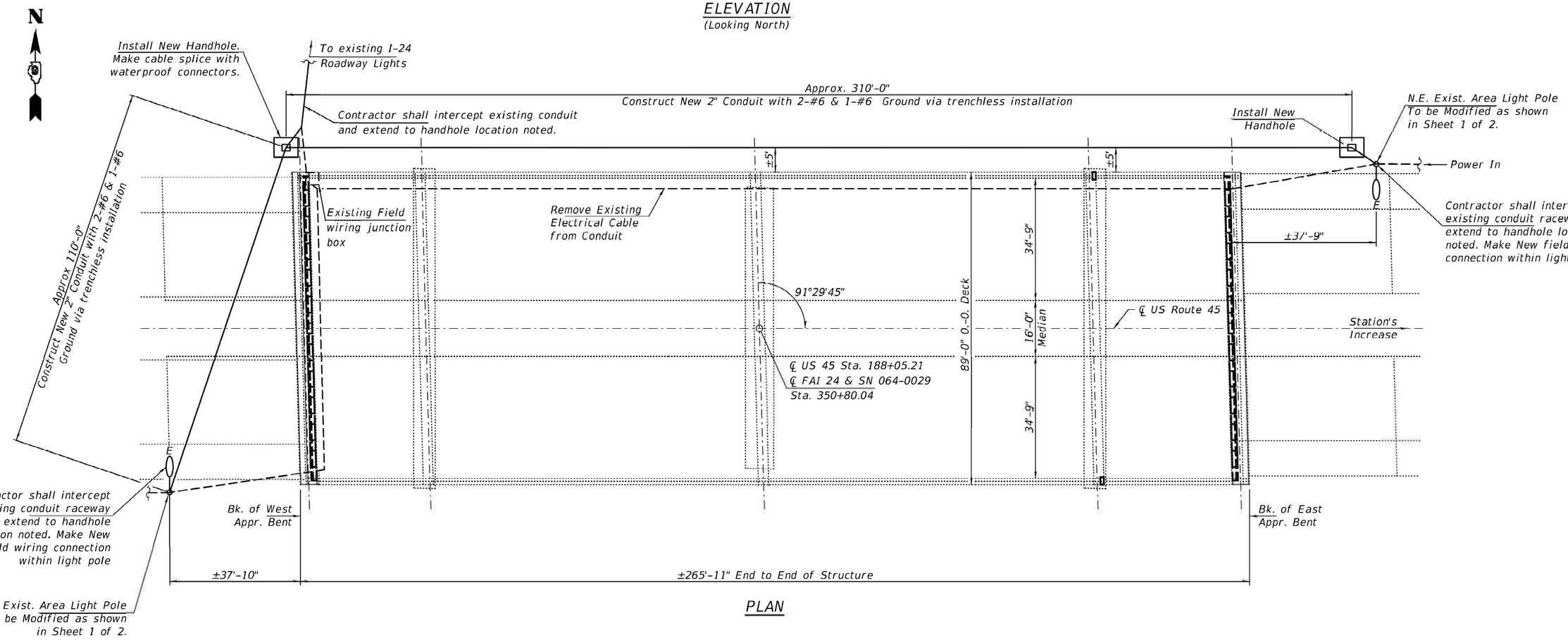
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	25A
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

MODEL: 78968-026
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\044-005\ Electric Plans.dgn
3/14/2023 10:06:40 AM

Existing Structure: S.N. 064-0029. Station 350+00.04. Two span continuous steel plate girder bridge with concrete deck on open reinforced concrete pile supported stub abutments and reinforced concrete pier with pile supported spread footing, 265'-5" ℄ to ℄ approach bents, 89'-0" out to out of deck and 85'-6" face to face of parapets. 1°29'45" right forward skew.



ELEVATION
(Looking North)



PLAN

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Underground Conduit, Coilable Nonmetallic Conduit, 2" Dia.	Foot	420
Handhole	Each	2
Unit Duct, 600v, 2-1C No.6, 1/C No.6 Ground, (XLP-Type Use), 3/4" dia. Polyethylene	Foot	420
Remove Electrical Cable from Conduit	Foot	440

REV. - MS E2

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = ___	DESIGNED - VVR	REVISED - ___
	CHECKED - JDL	REVISED - ___
PLOT SCALE = ___	DRAWN - VVR	REVISED - ___
PLOT DATE = March 14, 2023	CHECKED - JDL	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRIC PLAN
GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIALS
SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	25B
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

MODEL: 78968-027
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\044-005j Electric Plans.dgn
3/14/2023 10:06:41 AM

TEMPORARY PAVEMENT MARKING*	
LOCATION	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE
	FOOT
STA. 186+25 TO STA. 195+06 LT.	882
STA. 181+04 TO STA. 190+00 RT.	897
TOTAL	1779

* - FOR INFORMATION ONLY COST INCLUDED IN STANDARD 701423

GROUND DATA OMITTED

TEMP. PAVEMENT MARKING

TEMP. PAVEMENT MARKING REMOVAL
COST INCLUDED IN STD. 701423

* REMAINDER OF SIGNING PER STD. 701423

INLET

16'-0" STAGE 1 TRAFFIC LANE

PAVED DITCH

SCRUB

99.2'

181+04 182+04 184+04 185+50.80 186+50 186+25 189+75 190+00 190+74.2 189+75.0 193+75 195+06

TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS		
LOCATION	IMPACT ATTENUATORS, TEMPORARY (FULLY-REDERECTIVE, NARROW), TEST LEVEL 3	TEMPORARY CONCRETE BARRIER
	EACH	FOOT
STA. 185+25.2 TO STA. 185+50.8 RT.	1	
STA. 185+50.8 TO STA. 189+75 RT.		425
STA. 190+74.2 TO STA. 190+99.8 LT.	1	
STA. 186+50 TO STA. 190+74.2 LT.		425
TOTAL	2	850

US 45
MAX WIDTH XX' XX"
3 MILES AHEAD

WIDTH RESTRICTION SIGN

W12-1103 48" X 48" WITH XX' XX" LETTERS BLACK ON ORANGE
MAX WIDTH & 3 MILES AHEAD
BLACK ON WHITE WITH M3-1 30X15 AND M1-1100 30X24

LOCATED WEST OF THE INTERSECTION OF IL 1 AND US ROUTE 45

US 45
MAX WIDTH XX' XX"
2 MILES AHEAD

WIDTH RESTRICTION SIGN

W12-1103 48" X 48" WITH XX' XX" LETTERS BLACK ON ORANGE
MAX WIDTH & 2 MILES AHEAD
BLACK ON WHITE WITH M3-1 30X15 AND M1-1100 30X24

LOCATED EAST OF THE INTERSECTION OF STRAWBERRY ROAD AND US ROUTE 45

LEGEND

- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- ARROW BOARD
- IMPACT ATTENUATOR, TEST LEVEL 2
- TEMPORARY CONCRETE BARRIER

REV. - MS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = ___	DESIGNED - ___	REVISED - ___
	CHECKED - ___	REVISED - ___
PLOT SCALE = ___	DRAWN - ___	REVISED - ___
PLOT DATE = ___	CHECKED - ___	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	D9 BRIDGE REPAIR 2023-1	MASSAC	39	26
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

TEMPORARY PAVEMENT MARKING*	
LOCATION	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE
	FOOT
STA. 186+25 TO STA. 194+29 LT.	805
STA. 181+04 TO STA. 190+00 RT.	814
TOTAL	1619

PAINT PAVEMENT MARKING - LINE 4"			
LOCATION	EDGE (YELLOW)	CENTERLINE (WHITE)	EDGE (WHITE)
	FOOT	FOOT	FOOT
STA. 186+73 TO STA. 186+78	5		5
STA. 189+39 TO STA. 189+44	5		5
SUB-TOTAL	10		10
TOTAL	20		

* - FOR INFORMATION ONLY COST INCLUDED IN STANDARD 701423

GROUND DATA OMITTED

N

* REMAINDER OF SIGNING PER STD. 701423

185+86

10' HMA SHLDR (TYP)

186+25

186+50

INLET

14'-9" STAGE 2 TRAFFIC LANE

INLET

189+75

190+74.2

99.2'

TEMP. PAVEMENT MARKING REMOVAL
COST INCLUDED IN STD. 701423

185+50.80

99.2'

186+50

INLET

14'-9" STAGE 2 TRAFFIC LANE

INLET

SCRUB

189+75

190+00

194+29

TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS		
LOCATION	IMPACT ATTENUATORS, RELOCATE (FULLY-REDERECTIVE, NARROW), TEST LEVEL 3	RELOCATE TEMPORARY CONCRETE BARRIER
	EACH	FOOT
STA. 185+25.2 TO STA. 185+50.8 RT.	1	
STA. 185+50.8 TO STA. 189+75 RT.		425
STA. 190+74.2 TO STA. 190+99.8 LT.	1	
STA. 186+50 TO STA. 190+74.2 LT.		425
TOTAL	2	850

US 45
MAX WIDTH XX' XX"
3 MILES AHEAD

WIDTH RESTRICTION SIGN

W12-1103 48" X 48" WITH XX' XX". LETTERS BLACK ON ORANGE MAX WIDTH & 3 MILES AHEAD BLACK ON WHITE WITH M3-1 30X15 AND M1-1100 30X24

LOCATED WEST OF THE INTERSECTION OF IL 1 AND US ROUTE 45

US 45
MAX WIDTH XX' XX"
2 MILES AHEAD

WIDTH RESTRICTION SIGN

W12-1103 48" X 48" WITH XX' XX". LETTERS BLACK ON ORANGE MAX WIDTH & 2 MILES AHEAD BLACK ON WHITE WITH M3-1 30X15 AND M1-1100 30X24

LOCATED EAST OF THE INTERSECTION OF STRAWBERRY ROAD AND US ROUTE 45

LEGEND

- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- ARROW BOARD
- IMPACT ATTENUATOR, TEST LEVEL 2
- TEMPORARY CONCRETE BARRIER

REV. - MS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = | DESIGNED - | REVISED -
PLOT SCALE = | DRAWN - | REVISED -
PLOT DATE = | CHECKED - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

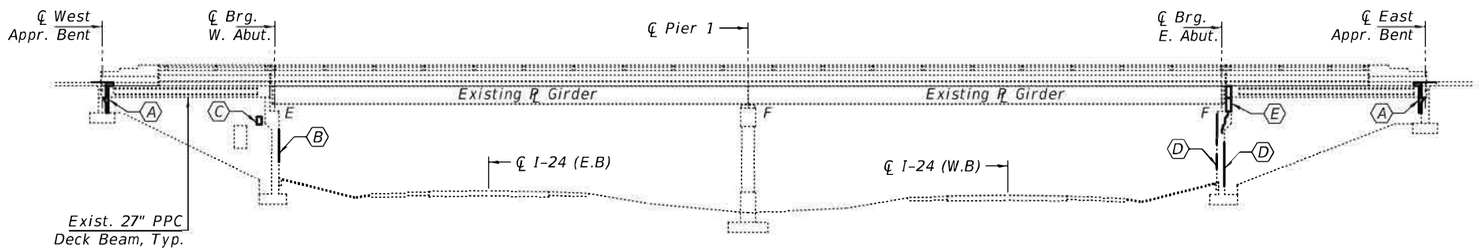
STAGE II CONSTRUCTION PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. ——— TO STA. ———

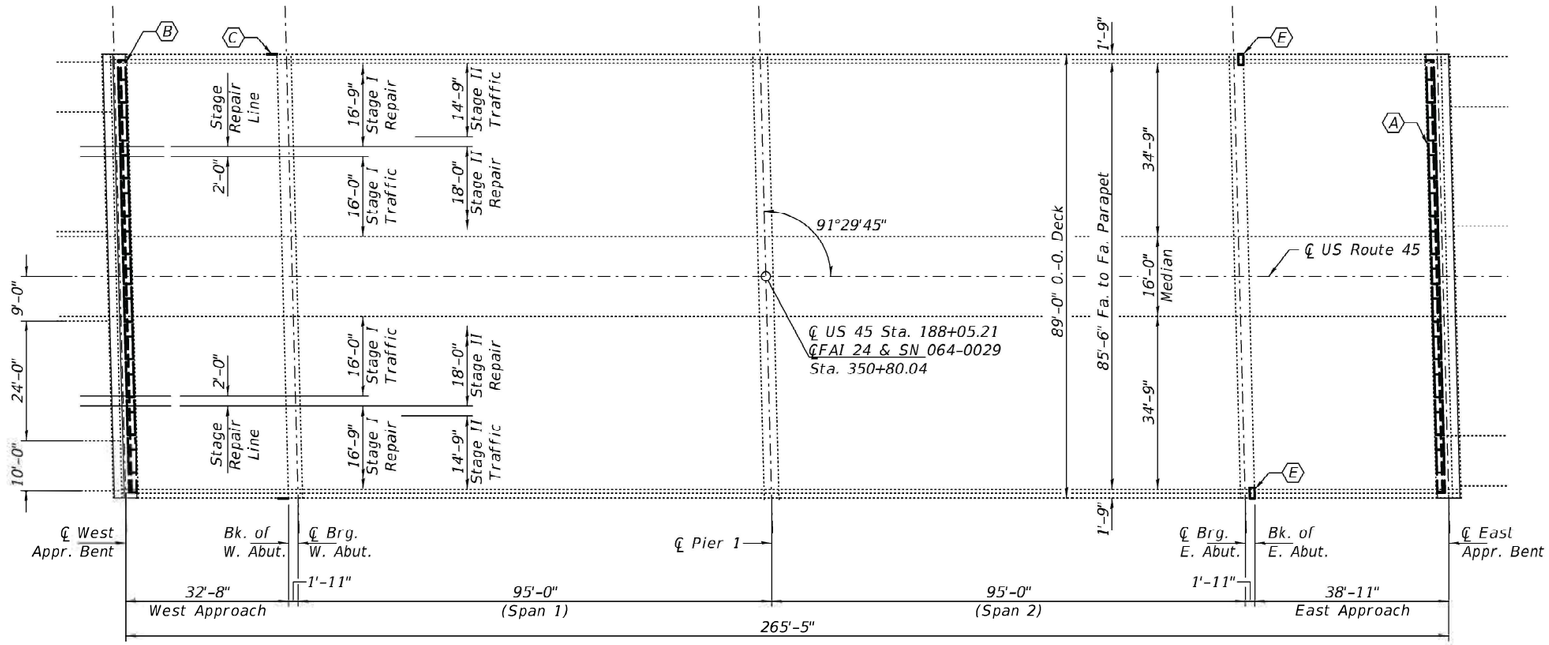
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	D9 BRIDGE REPAIR 2023-1	MASSAC	39	27
		CONTRACT NO. 78968		

ILLINOIS FED. AID PROJECT

Existing Structure: S.N. 064-0029. Station 350+00.04. Two span continuous steel plate girder bridge with concrete deck on open reinforced concrete pile supported stub abutments and reinforced concrete pier with pile supported spread footing. 265'-5" ℄ to ℄ approach bents, 89'-0" out to out of deck and 85'-6" face to face of parapets. 1°29'45" right forward skew.



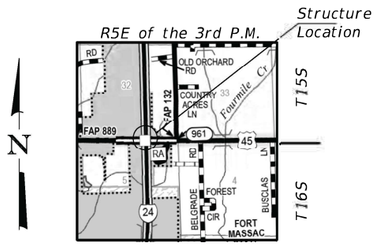
ELEVATION



PLAN

INDEX OF SHEETS

1 - General Plan & Elevation
2 - General Data
3 - Approach Bent Repair Details
4 - Approach Bent Encasement Details - Stage I
5 - Approach Bent Encasement Details - Stage II
6 - Repair Details
7 - West Abutment Repairs 'B' & 'C'
8 - East Abutment Repairs 'D' & 'E'
9 to 12 - Existing Plan Sheets - For Information Only



LOCATION SKETCH

Ⓐ - Approach Cap Beam Repairs on both sides, see sheets 3-4 of 12.

Ⓑ - Substructure Repairs on West Abutment, see sheet 7 of 12.

Ⓒ - Curtain Wall Repairs at West Abutment, see sheet 7 of 12.

Ⓓ - Substructure Repairs on East Abutment, see sheet 8 of 12.

Ⓔ - Curtain Wall Repairs at East Abutment, see sheet 8 of 12.

THOMAS R. CASSON
5207
LICENSED STRUCTURAL ENGINEER OF
STATE OF ILLINOIS

3/13/2023

EXPIRES 11-30-2024

REV. - MS

GENERAL PLAN & ELEVATION
U.S. RTE 45 OVER F.A.I RTE 24
SECTION - D9 BRIDGE REPAIR 2023-1
MASSAC COUNTY
STATION 350+00.04
STRUCTURE NO. 064-0029

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = ___	DESIGNED - VVR	REVISED - ___	
	CHECKED - TRC	REVISED - ___	
PLOT SCALE = ___	DRAWN - VVR	REVISED - ___	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED - ___	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 064-0029
SHEET NO. 1 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	28
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

DESIGN STRESSES

ORIGINAL CONSTRUCTION FIELD UNITS

CONCRETE (Cast-in-place)

f'_c = 3,500 psi
f_c = 1,200 psi (Deck)
f_c = 1,400 psi (Substructure)
f_c = 1,000 psi (with earth pressure)
v = 75 psi (footings)
n = 10

REINFORCING STEEL

f_s = 20,000 psi
f_y = 60,000 psi

PRECAST PRESTRESSED CONCRETE

f'_c = 5,000 psi
f'_{ci} = 4,000 psi
f_s = 248,000 psi (7/16" ∅ Strands)
f_{si} = 173,600 psi (7/16" ∅ Strands)

STRUCTURAL STEEL

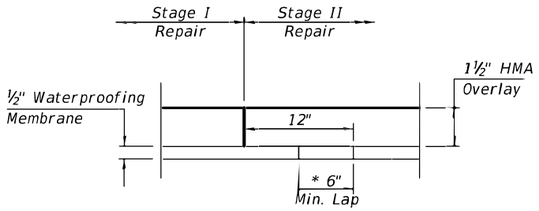
f_s = 20,000 psi (A36)

LIVE LOADING HS20-44

Dead Loading = 25 psf

NEW CONSTRUCTION FIELD UNITS

f_y = 60,000 psi (Reinforcement)
f'_c = 3,500 psi (Concrete)



HMA & WATERPROOFING
MEMBRANE LAP DETAIL

* Extend glass fabric 12" past HMA butt joint.
Lap glass fabric a minimum of 6" between stages.

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.

Prior to pouring the new concrete at cap beam under approachs, all heavy or loose rust, loose mill scale, spalled concrete, efflorescence and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Removal shall be accomplished by methods that will not damage the PPC Deck Beams and the cost will be included in the pay item covering removal of the existing concrete.

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.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC Deck Beams. The Contractor is responsible to pay the cost of any damage made to the PPC Deck beam.

Traffic will be maintained using stage construction.

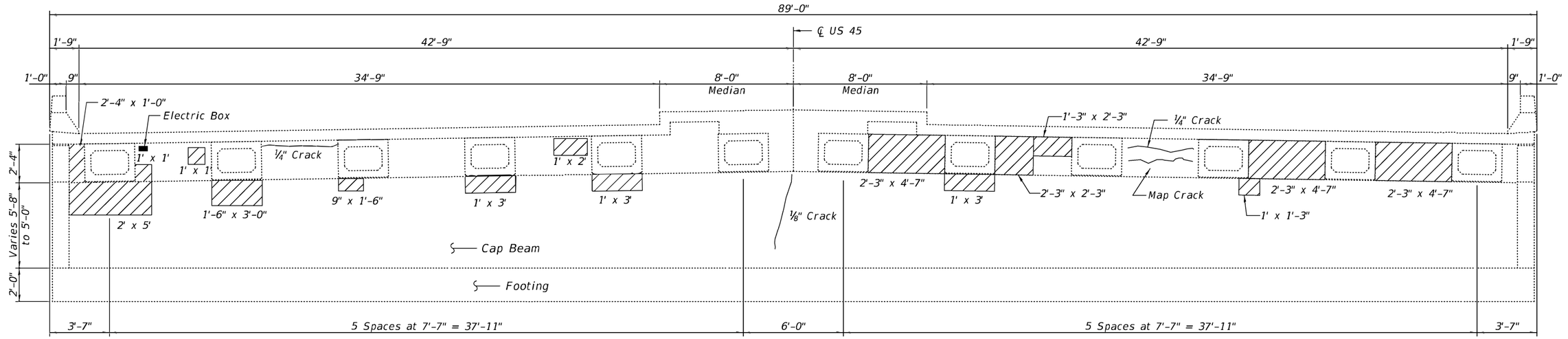
The cost to remove and replace the existing earth in front of the approach bents required to facilitate construction shall be included in the pay item covering Concrete Structures.

When TEMPORARY CONCRETE BARRIER is used for traffic control; in no case shall holes for anchor pins be placed in the approach spans due to the presence of Precast Prestressed Concrete Deck Beams.

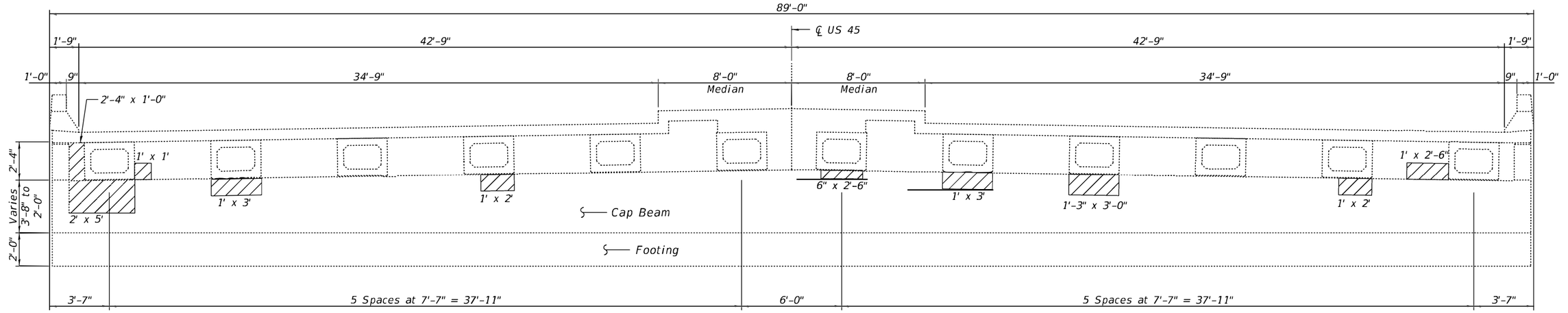
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N70	Ton	6
Joint or Crack Filling	Pound	34
Concrete Removal	Cu. Yd.	3.5
Concrete Structures	Cu. Yd.	9.3
Reinforcement Bars, Epoxy Coated	Pound	2720
Water Proofing Membrane System	Sq. Yd.	70
Epoxy Crack Injection	Foot	92
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	230
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	23
Bridge Wearing Surface Removal	Sq. Yd.	70

REV. - MS



EAST APPROACH BENT
(Looking East)



WEST APPROACH BENT
(Looking West)

Notes:
All concrete necessary for the repairs to the approach bents shall be poured monolithically with the approach bent encasement concrete detailed on sheet's 4-6 of 12.

LEGEND

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

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	102

REV. - MS

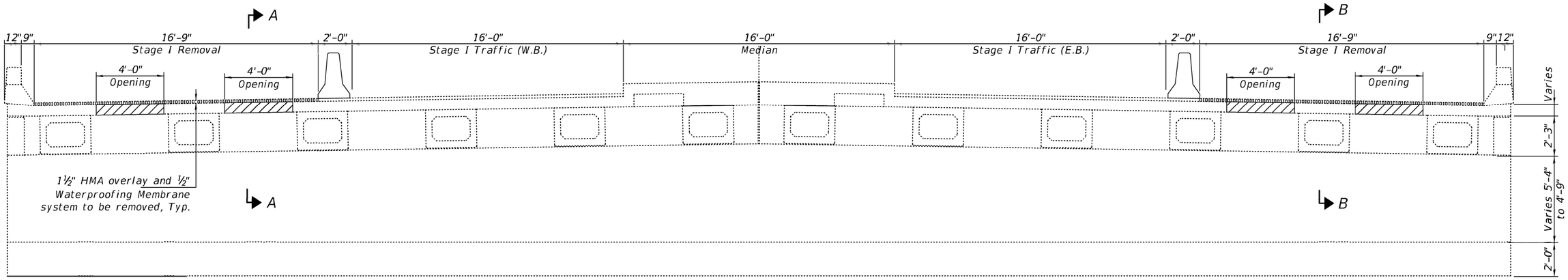
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -
	CHECKED - TRC	REVISED -
PLOT SCALE =	DRAWN - VVR	REVISED -
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

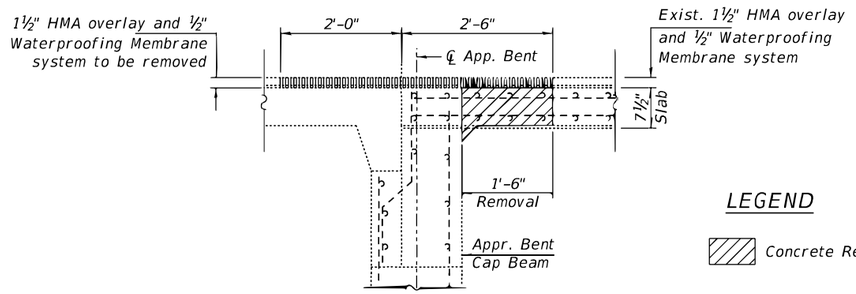
APPROACH BENT REPAIR DETAILS
SN 064-0029
SHEET NO. 3 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	30
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			



SECTION THRU VALUTED ABUTMENT-SHOWING REMOVAL

(Looking East, East Approach Bent Shown)
(West Approach Bent Similar)



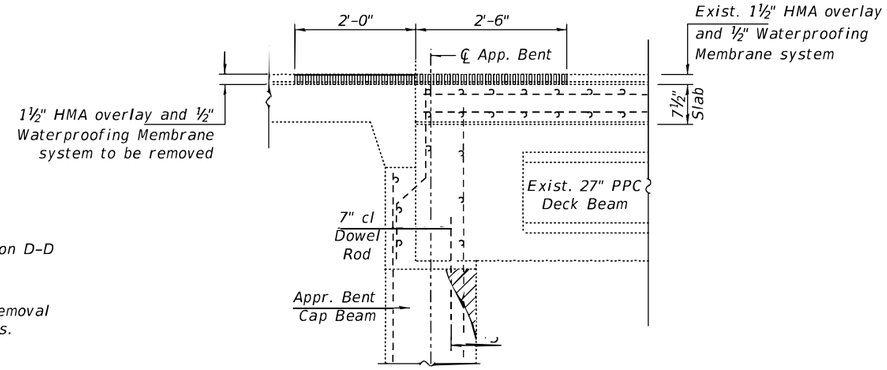
SECTION A-A

LEGEND

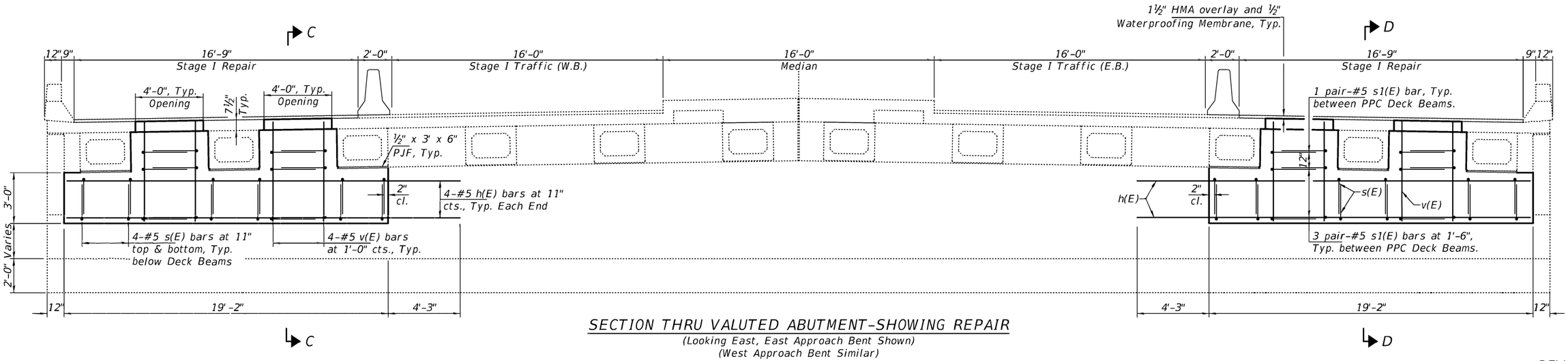
- Concrete Removal
- HMA Removal

Note:
1) See sheet 5 of 12 for the Detail 'A'
2) See sheet 6 of 12 for Section C-C and Section D-D

* To ensure stability of the existing beams the removal shall not go deeper that the existing dowel rods.



SECTION B-B

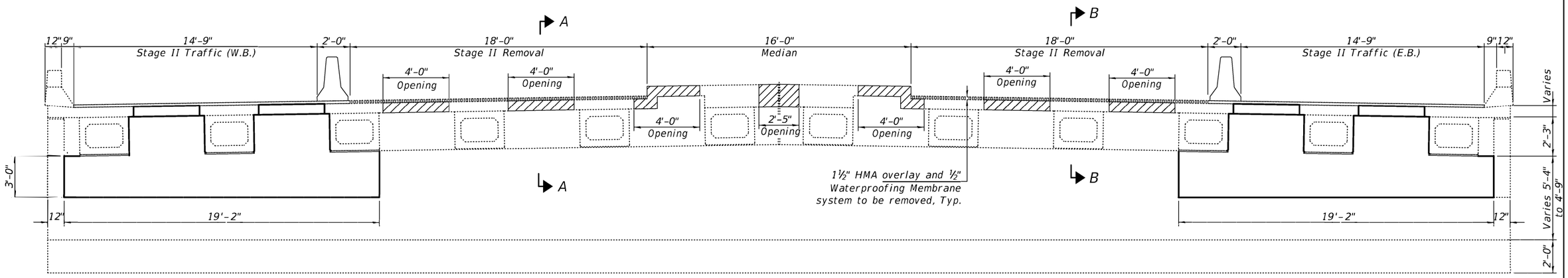


SECTION THRU VALUTED ABUTMENT-SHOWING REPAIR

(Looking East, East Approach Bent Shown)
(West Approach Bent Similar)

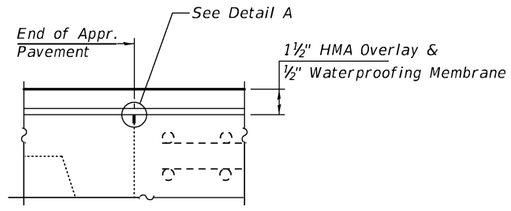
REV. - MS

VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	APPROACH BENT ENCASEMENT DETAILS - STAGE I SN 064-0029	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - TRC	REVISED -			24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	31
	PLOT SCALE =	DRAWN - VVR	REVISED -					CONTRACT NO. 78968		
	PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -		SHEET NO. 4 OF 12 SHEETS		ILLINOIS	FED. AID PROJECT		



SECTION THRU VALUTED ABUTMENT - SHOWING REMOVAL

(Looking East, East Approach Bent Shown)
(West Approach Bent Similar)

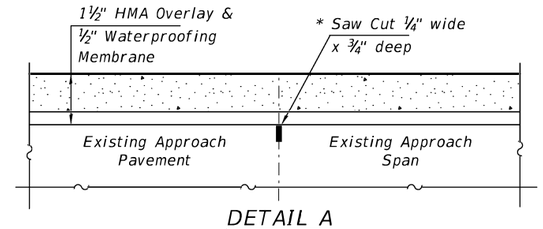


SECTION AT APPROACH BENT

LEGEND

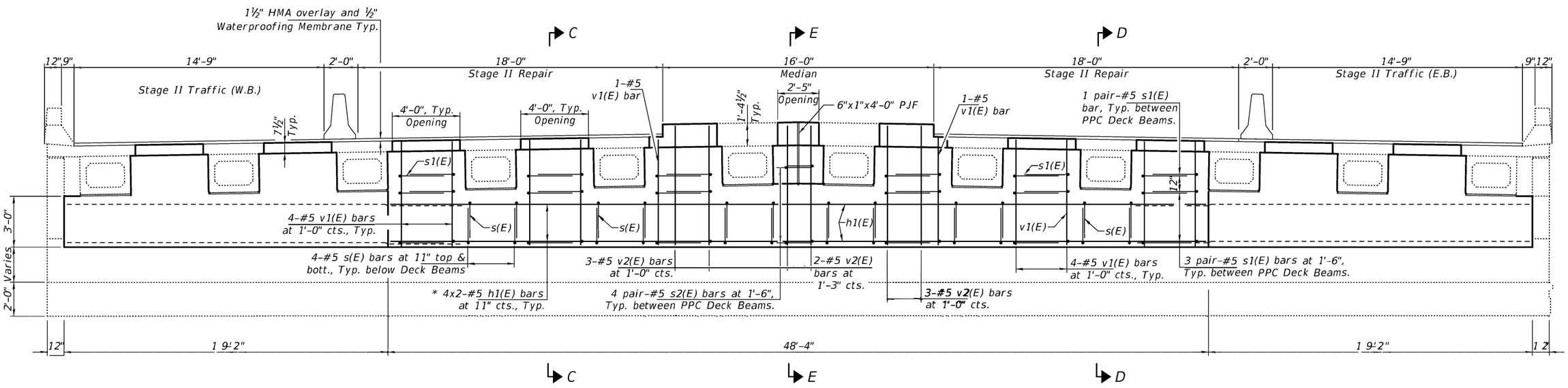
- Concrete Removal
- HMA Removal

Note:
1) See sheet 4 of 12 for Section A-A and Section B-B
2) See sheet 6 of 12 for Section C-C, Section D-D and Section E-E



DETAIL A

* Saw Cut ¼" wide x ¾" deep along joint between approach pavement and bridge deck (each end of bridge) from face to face of parapets including the median. Fill Saw Cuts with hot-poured joint sealer in accordance with Article 452 of the Standard Specifications. Cost of Saw Cuts is included in the cost of Concrete Removal.



SECTION THRU VALUTED ABUTMENT - SHOWING REPAIR

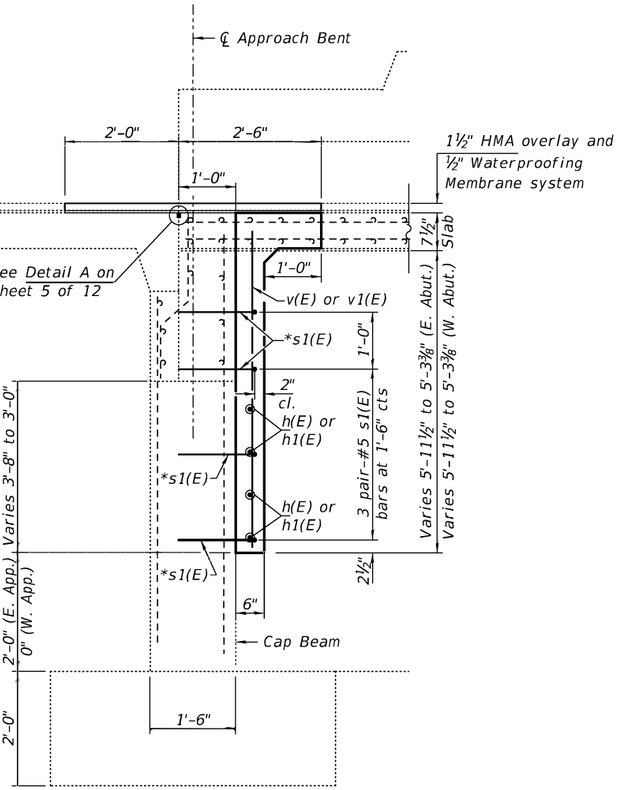
(Looking East, East Approach Bent Shown)
(West Approach Bent Similar)

* Bars indicated thus 4 x 2-#5 etc. indicates 4 line of bars with 2 lengths per line.

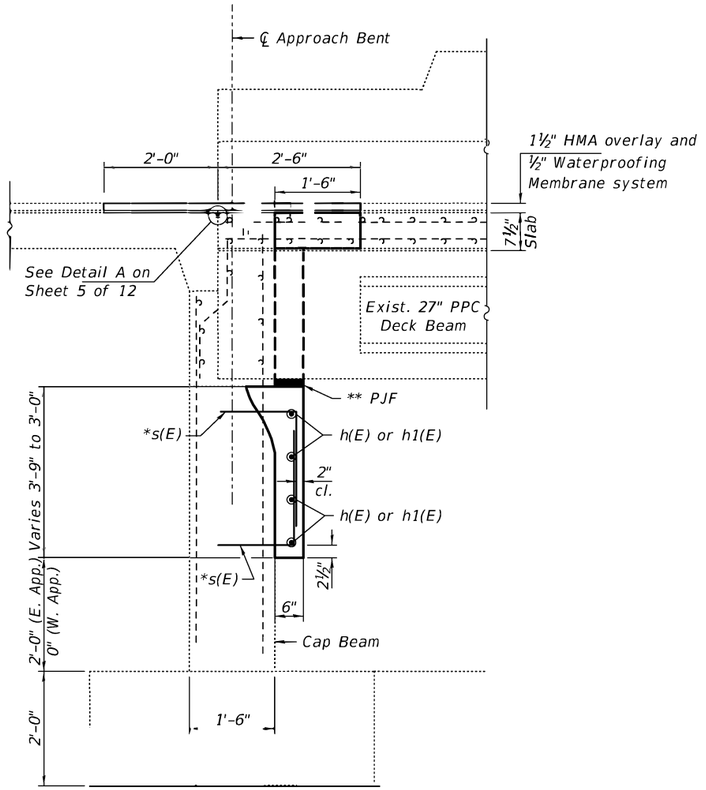
Bar Lap for #5 bar = 4'-3"

REV. - MS

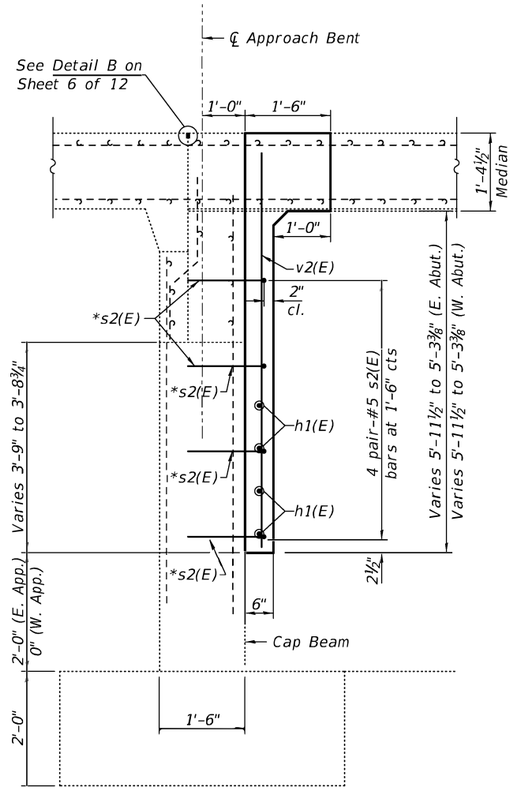
VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	APPROACH BENT ENCASEMENT DETAILS - STAGE II SN 064-0029	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - TRC	REVISED -			24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	32
	PLOT SCALE =	DRAWN - VVR	REVISED -					CONTRACT NO. 78968		
	PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -		SHEET NO. 5 OF 12 SHEETS		ILLINOIS	FED. AID PROJECT		



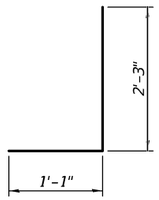
SECTION C-C



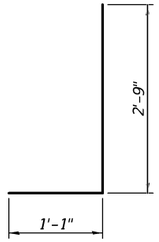
SECTION D-D



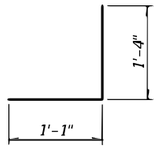
SECTION E-E



BAR s(E)



BAR s1(E)



BAR s2(E)

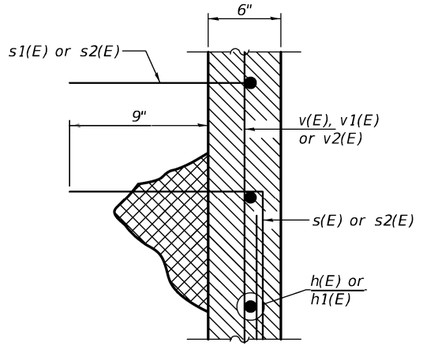
* Drill and epoxy grout 9" min. into existing cap beam according to Article 584 of the Standard Specifications Trim leg to maintain minimum clearance. Cost included with Reinforcement Bars, Epoxy Coated.

** Install 3" x 6" x ½" Preformed Joint Filler under the PPC Deck Beams. Use adhesive material to hold Preformed Joint Filler to Deck Beams prior to placing concrete. Contractor shall not drill any kind of holes or hammer nails in to the PPC Deck Beam to attach the PJF.

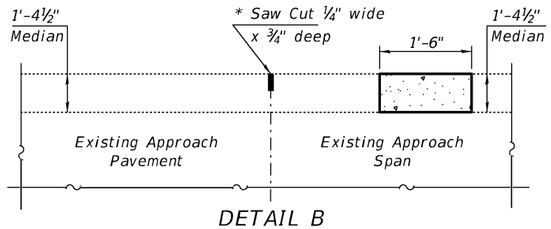
LEGEND

Concrete in this area is included with Structural Repair of Concrete (Depth Less Than or Equal to 5 Inches)

Concrete in this area to be paid as Concrete Structures



REPAIR DETAIL



DETAIL B

* Saw Cut ¼" wide x ¾" deep along joint between approach pavement and bridge deck (each end of bridge) from face to face of parapets including the median. Fill Saw Cuts with hot-poured joint sealer in accordance with Article 452 of the Standard Specifications. Cost of Saw Cuts is included in the cost of Concrete Removal.

BILL OF MATERIAL (TWO APPROACH BENTS)

Bar	No.	Size	Length	Shape
h(E)	16	#5	23'-3"	———
h1(E)	16	#5	26'-4"	———
s(E)	192	#5	3'-4"	⌟
s1(E)	160	#5	3'-10"	⌟
s2(E)	16	#5	2'-5"	⌟
v(E)	32	#5	5'-10"	———
v1(E)	36	#5	6'-2"	———
v2(E)	16	#5	6'-11"	———
Joint or Crack Filling			Pound	34
Concrete Removal			Cu. Yd.	3.5
Concrete Structures			Cu. Yd.	9.3
Reinforcement Bars, Epoxy Coated			Pound	2720

REV. - MS

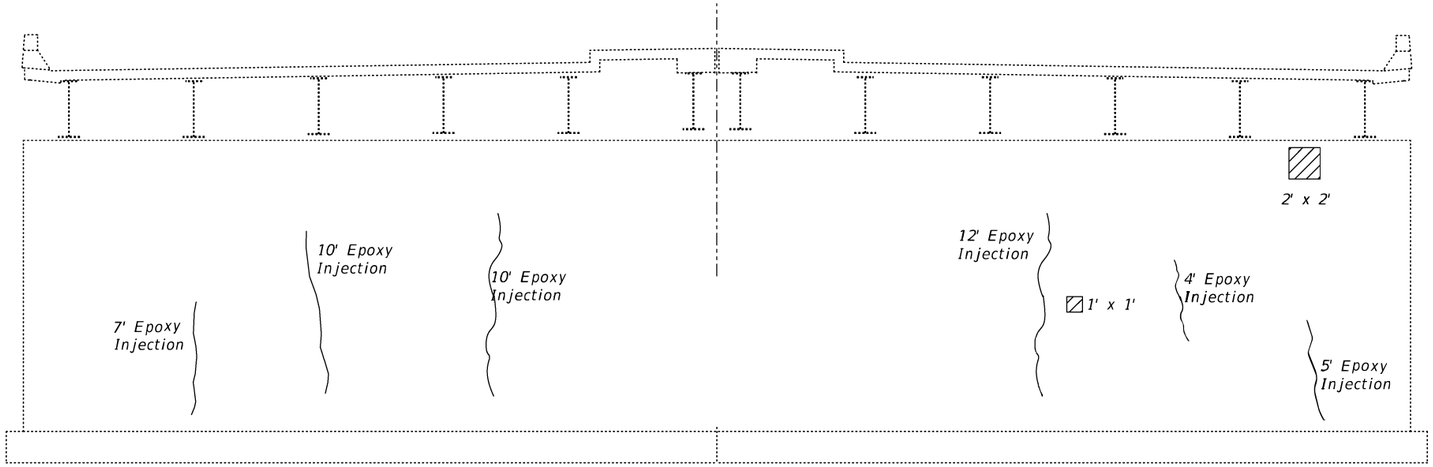
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

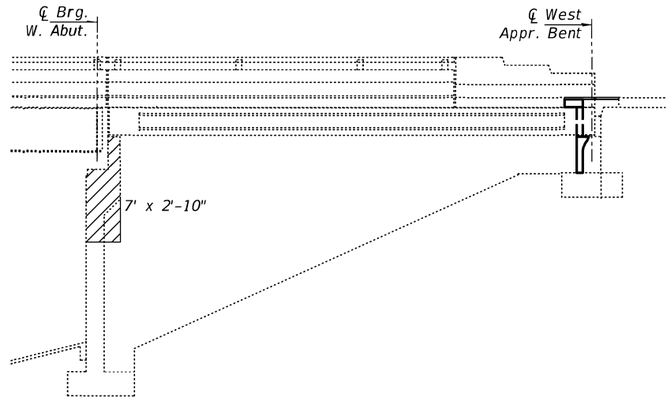
REPAIR DETAILS
SN 064-0029
SHEET NO. 6 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	33
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			



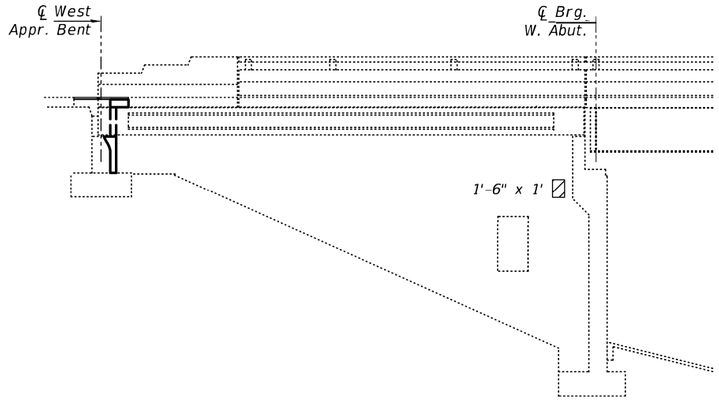
ELEVATION VIEW OF THE WEST ABUTMENT

(Looking West)



NORTH WEST CURTAIN WALL

(Looking South)



SOUTH EAST CURTAIN WALL

(Looking North)

LEGEND

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

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	27
Epoxy Crack Injection	Foot	48

REV. - MS

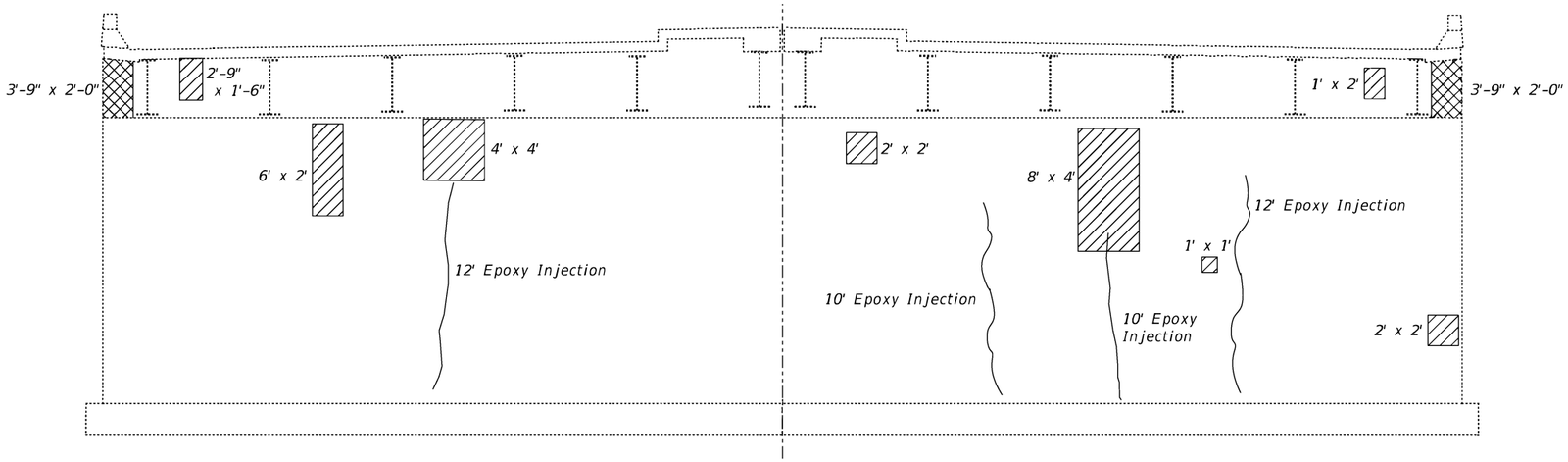
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

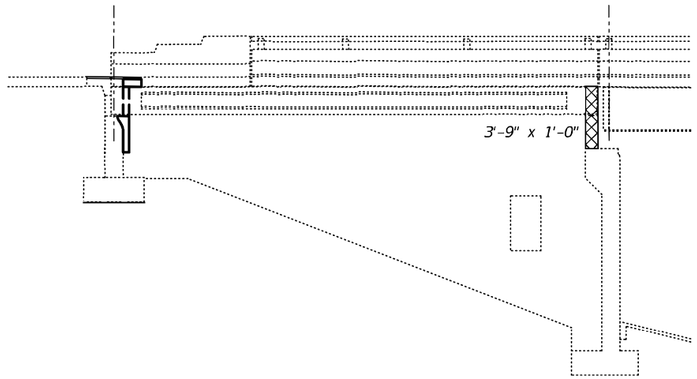
WEST ABUTMENT REPAIRS 'B' & 'C'
SN 064-0029
SHEET NO. 7 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	34
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			



ELEVATION VIEW OF THE EAST ABUTMENT

(Looking East)



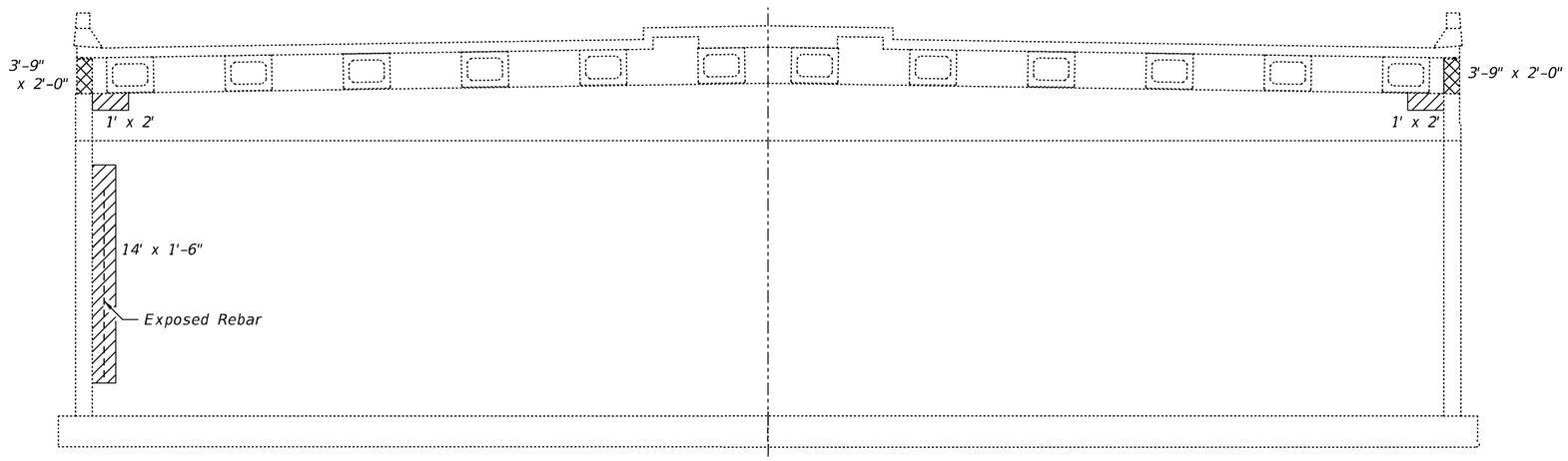
NORTH EAST CURTAIN WALL

(Looking South)

LEGEND

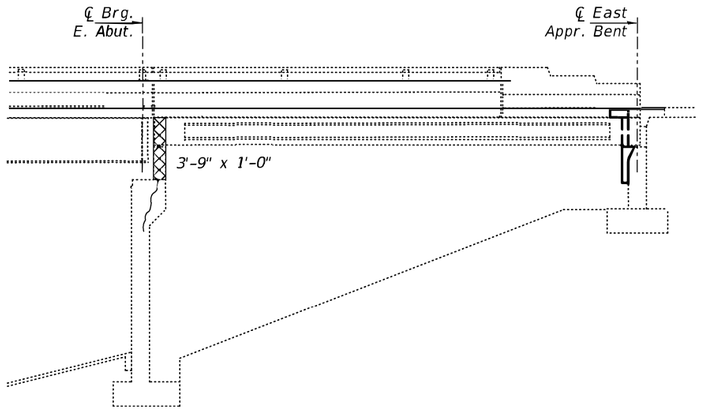
Full Depth Concrete Replacement

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



ELEVATION VIEW OF THE EAST ABUTMENT

(Looking West- nside Vault)



SOUTH EAST CURTAIN WALL

(Looking North)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	23
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	101
Epoxy Crack Injection	Foot	44

REV. - MS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

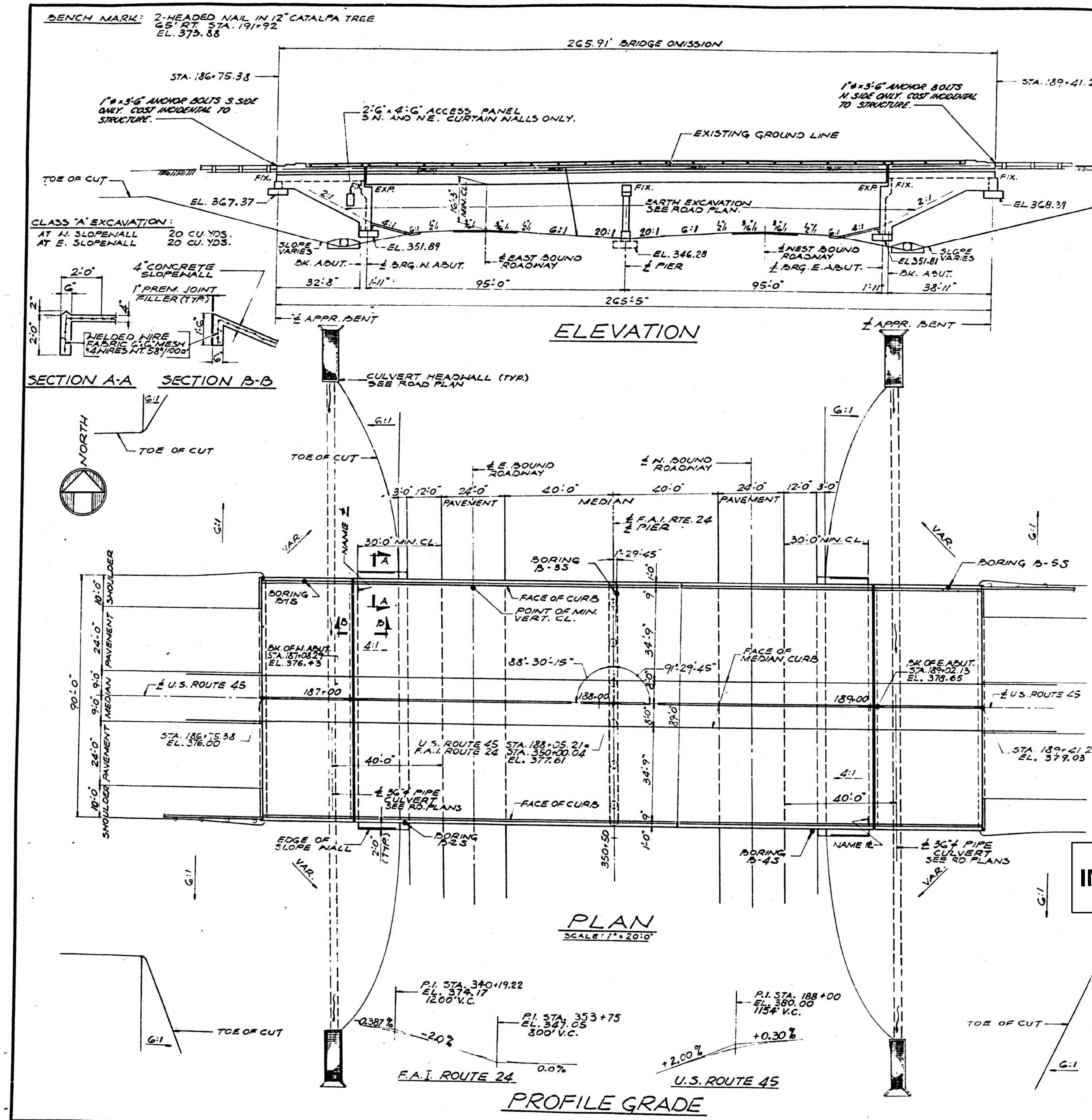
USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = MARCH 13, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT REPAIRS 'D' & 'E'
SN 064-0029

SHEET NO. 8 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	35
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.124	64-3	MASSAC	280	72

SHEET 1 OF 15

BRIDGE GENERAL NOTES

CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT AS OTHERWISE NOTED. CONCRETE FOR FLOOR SLABS SHALL BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN CONSTRUCTION JOINTS SHOWN AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 503.16 OF THE STANDARD SPECIFICATIONS.

COARSE AGGREGATE TO BE USED IN PARAPET HANDRAILS AND WINGWALLS OF ABUTMENTS MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.

ALL STRUCTURAL STEEL SHALL CONFORM TO A.S.T.M. A36 EXCEPT AS OTHERWISE NOTED.

THE SHOP CONNECTIONS FOR STRUCTURAL STEEL SHALL BE WELDED. WELDING SHALL BE IN ACCORDANCE WITH CURRENT SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES OF THE AMERICAN WELDING SOCIETY AND AS NOTED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

ALL FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS EXCEPT AS OTHERWISE NOTED. ALL BOLTS SHALL BE 3/4" DIAMETER IN 13/16" HOLES EXCEPT IN GIRDER FLANGE SPLICES WHICH SHALL BE 7/8" DIAMETER IN 15/16" HOLES. HOLES FOR SPLICES IN GIRDERS AND SPLICE PLATES SHALL BE PUNCHED 11/16" DIAMETER AND REAMED TO CORRECT SIZE WITH GIRDERS ASSEMBLED FULL LENGTH IN THE SHOP IN PROPER POSITION. ASSEMBLY OF GIRDERS SHALL BE WITH OR WITHOUT CROSSFRAMES. LEAVE ASSEMBLED FOR INSPECTION.

ALL ROCKERS, BOLSTERS, PINTLES, BEARING PLATES, LEAD PLATES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT 13,490 POUNDS.

ROADWAY EXPANSION ANGLES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT 5,310 POUNDS.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER THE PIER AND ABUTMENTS.

STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF PAINT EXCEPT AS OTHERWISE SPECIFIED. ALL PAINT SHALL BE FURNISHED AND APPLIED BY THE CONTRACTOR. SEE SECTION 509 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.

THE EXPOSED SURFACES OF THE EXPANSION ANGLES SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. ANCHOR STUDS SHALL NOT BE PAINTED.

SHOP INSPECTION OF STRUCTURAL STEEL AND RADIOGRAPHIC INSPECTION OF WELDS SHALL BE BY ILLINOIS DIVISION OF HIGHWAYS BEFORE PAINTING.

STUD SHEAR CONNECTORS ON THE BEAM FLANGES SHALL BE PLACED IN THE FIELD AFTER THE STEEL HAS BEEN ERECTED AND THE DECK FORMS ARE IN PLACE.

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF 1/4 OF THE SPAN EACH WAY FROM THE PIER ON THE TOP FLANGES OF GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED BY THE DEPARTMENT OF PUBLIC WORKS AND BUILDINGS, AUGUST 1, 1968 SHALL APPLY.

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.

Class "A" Excavation for Structures includes excavation for slope wall.

INDEX OF SHEETS

SHEET NO.	TITLE
1.	GENERAL PLAN AND ELEVATION
2.	BORINGS
3.	DECK PLAN
4.	APPROACH SPANS
5.	BOX BEAM DETAILS
6.	HANDRAIL DETAILS
7.	TOP OF SLAB ELEVATIONS
8.	TOP OF SLAB ELEVATIONS
9.	FRAMING PLAN
10.	STEEL DETAILS
11.	EAST ABUTMENT
12.	EAST ABUTMENT
13.	WEST ABUTMENT
14.	WEST ABUTMENT
15.	PIER

STATION 350+00.04
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 24 SECT. 64-3HB-1
F.A. PROJ. I-24-1(26)
LOADING HS20

(SEE STATE OF ILLINOIS STD. 2113-1)

LETTERING FOR NAME PLATE

BILL OF MATERIAL SECTION 64-3HB-1

TOTAL	SUPER	SUB	UNIT	PAY ITEM
1,135	- -	1,135	CU.YD.	CLASS A EXCAVATION FOR STRUCTURES
2,667	2,667	- -	SQ.FT.	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)
1,329.4	697.2	632.2	CU.YD.	CLASS X CONCRETE
2,770	2,770	- -	SQ.YD.	PROTECTIVE COAT
1	1	- -	L. SUM	FURNISHING & ERECTING STRUCTURAL STEEL
235,490	167,820	67,670	LB.	REINFORCEMENT BARS
2	- -	2	EACH	NAME PLATES
431	- -	431	SQ.YD.	SLOPEWALL 4 INCH
184	184	- -	LIN.FT.	PREFORMED JOINT SEALER
485	485	- -	LIN.FT.	ALUMINUM RAILING
7,200	7,200	- -	EACH	STUD SHEAR CONNECTORS

* CALCULATED WEIGHT OF STRUCTURAL STEEL = 575,230 Lbs.

DESIGN DATA

HIGHWAY CLASSIFICATION

	DHV	M.P.H.	DESIGNATION
F.A.I. RTE. 24	2230	70	B1 (1987)
U.S. RTE. 45	870	70	B2 (1987)

DESIGN LOAD
L.L. = HS20-44
FUTURE D.L. = 25 P.S.F.

DESIGN STRESSES

CONCRETE (CAST-IN-PLACE)
f'c = 3,500 P.S.I.
fc = 1,200 P.S.I. (DECK)
fc = 1,400 P.S.I. (SUBSTRUCTURE)
fc = 1,000 P.S.I. (WITH EARTH PRESSURE)
v = 75 P.S.I. (FOOTINGS)
n = 10

PRECAST PRESTRESSED UNITS
f'c = 5,000 P.S.I.
f'ci = 4,000 P.S.I.
f's = 248,000 P.S.I. (7/16" DIA. STRANDS)
fsi = 173,600 P.S.I. (7/16" DIA. STRANDS)

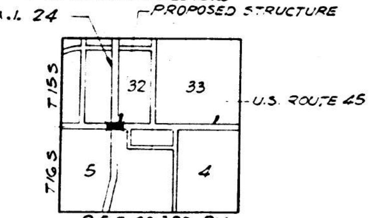
REINFORCING STEEL
fs = 20,000 P.S.I.

STRUCTURAL STEEL
fs = 20,000 P.S.I. (A36)

ALLOWABLE SOIL PRESSURE
ABUTMENTS = 4,000 P.S.F.
PIERS = 6,000 P.S.F.

MAX. L.L. DEFLECTION
L/1200 (COMPOSITE)

FOR INFORMATION ONLY



LOCATION SKETCH

GENERAL PLAN & ELEVATION
GRADE SEPARATION
U.S. ROUTE 45
OVER F.A.I. ROUTE 24
F.A. PROJECT
F.A.I. ROUTE 24 SECTION 64-3HB-1
MASSAC COUNTY
STATION 350+00.04

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

Rev. Shld. width 12-8-69
Str. Steel To L. Sum

VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	USER NAME =	DESIGNED - VVR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLAN SHEET - FOR INFORMATION ONLY SN 064-0029
		CHECKED - TRC	REVISED -		
	PLOT SCALE =	DRAWN - VVR	REVISED -		
	PLOT DATE = JANUARY 19, 2023	CHECKED - TRC	REVISED -		SHEET 9 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	36

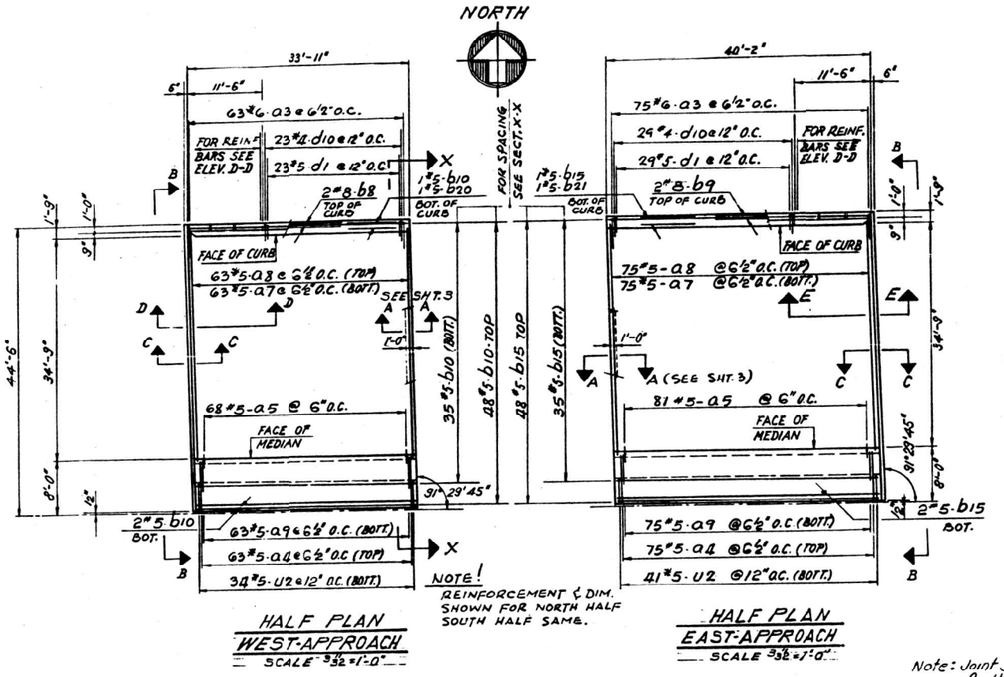
CONTRACT NO. 78968

ILLINOIS | FED. AID PROJECT

MODEL: 78968-036
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\064-0029 Structure Plans.dgn
1/19/2023 2:44:35 PM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.24	64-3	MASSAC	280	75
STA.		TO STA.		
B. P. & B. DIST. NO. 6	ILLINOIS	PROJECT		

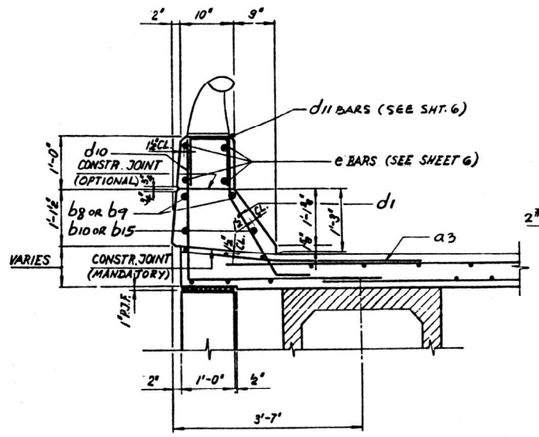
SHEET 4 OF 15



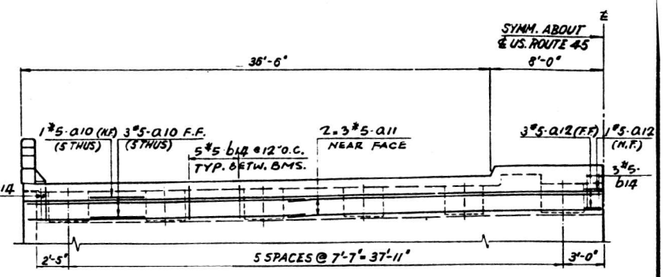
NOTE! REINFORCEMENT & DIM. SHOWN FOR NORTH HALF SOUTH HALF SAME.

HALF PLAN WEST-APPROACH
SCALE 3/32"=1'-0"

HALF PLAN EAST-APPROACH
SCALE 3/32"=1'-0"

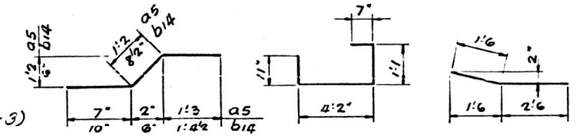


CURB SECTION
SCALE 3/4"=1'-0"

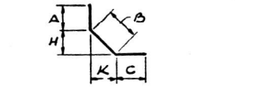


ELEVATION B-B
SCALE 3/16"=1'-0"

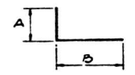
NOTE! ALL BAR DIMENSIONS ARE OUT TO OUT.



BARS a5 & b14 | BAR U2 | BAR a3

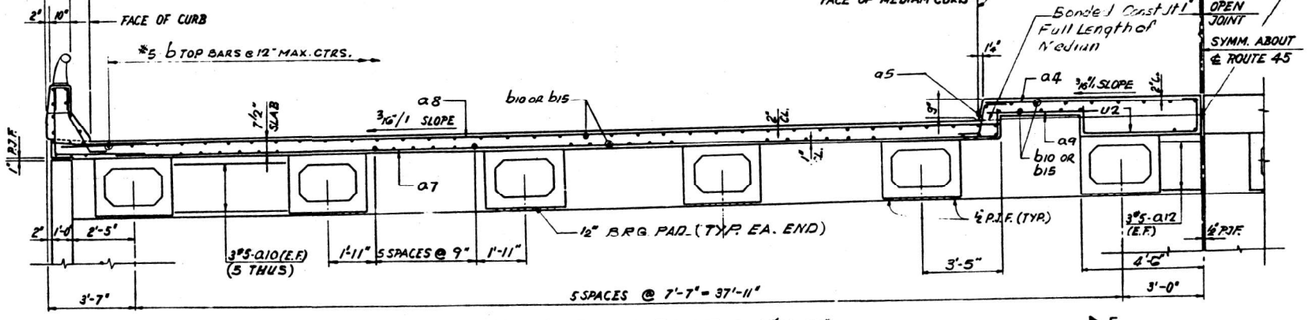


MARK	A	B	C	H	K
d1	1-1	1-10	7"	1-7	1-0
d2	1-0	1-10	8"	1-7	1-0
d5	1-8	1-10	6"	1-7	1-0
d6	2-4	1-10	7"	1-7	1-0

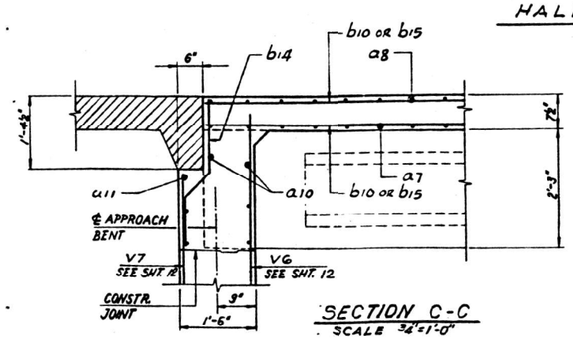


MARK	A	B
a7	1-0	34-3
d3	2-6	6"
d7	2-6	4-0
d8	3-2	4-1
d9	3-10	4-2
d10	2-7	3-11

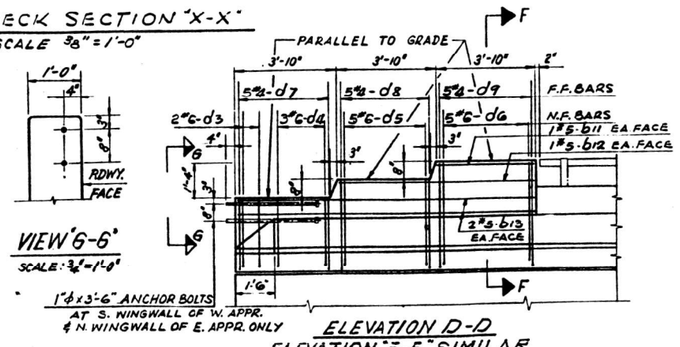
Note: Joint shall conform to Art. 504.13(b)(1,2 or 3) of the Standard Specifications



HALF DECK SECTION "X-X"
SCALE 3/8"=1'-0"

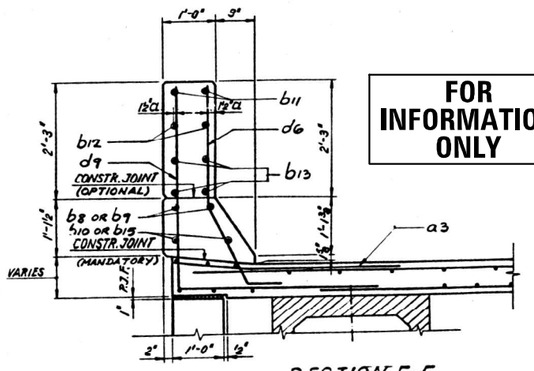


SECTION C-C
SCALE 3/4"=1'-0"



VIEW 6-6
SCALE 3/4"=1'-0"

ELEVATION D-D
ELEVATION E-E SIMILAR
SCALE 3/8"=1'-0"



SECTION F-F
SCALE 3/4"=1'-0"

FOR INFORMATION ONLY

BILL OF MATERIAL

MARK	NUMBER W.APPR.	NUMBER B.APPR.	SIZE	LENGTH	SHAPE
a3	126	150	#6	4-0	⌐
a4	126	150	#5	7-6	—
a5	136	162	#5	3-0	⌐
a7	126	150	#5	35-3	⌐
a8	126	150	#5	36-0	—
a9	126	150	#5	4-0	—
a10	100	100	#5	4-3	—
a11	12	12	#5	22-9	—
a12	20	20	#5	1-3	—
b8	4	–	#8	33-6	—
b9	–	4	#8	39-9	—
b10	172	–	#5	33-6	—
b11	4	4	#5	3-6	—
b12	4	4	#5	7-6	—
b13	8	8	#5	11-3	—
b14	60	60	#5	2-11	⌐
b15	–	172	#5	39-9	—
b20	2	–	#5	32-6	—
b21	–	2	#5	38-9	—
d1	46	58	#5	3-6	⌐
d3	4	4	#6	3-0	⌐
d4	6	6	#6	3-6	⌐
d5	10	10	#6	4-0	⌐
d6	10	10	#6	4-9	⌐
d7	10	10	#4	6-6	⌐
d8	10	10	#4	7-3	⌐
d9	10	10	#4	8-0	⌐
d10	46	58	#4	6-6	⌐
U2	68	82	#5	6-9	⌐
CLASS X CONCRETE			CU.YDS.	186.7	
REINFORCEMENT BARS			LBS.	45,220	
PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)			SQ.FT	2,667	

APPROACH SPANS
GRADE SEPARATION
U.S. ROUTE 45
OVER F.A.I. ROUTE 24
F.A. PROJECT
F.A.I. ROUTE 24 SECTION 64-3HB-1
MASSAC COUNTY
STATION 350+00.04

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

MODEL: 78968-037
FILE NAME: Z:\0 V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\0064-0029 Structure Plans.dgn
1/19/2023 2:44:42 PM

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = JANUARY 19, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

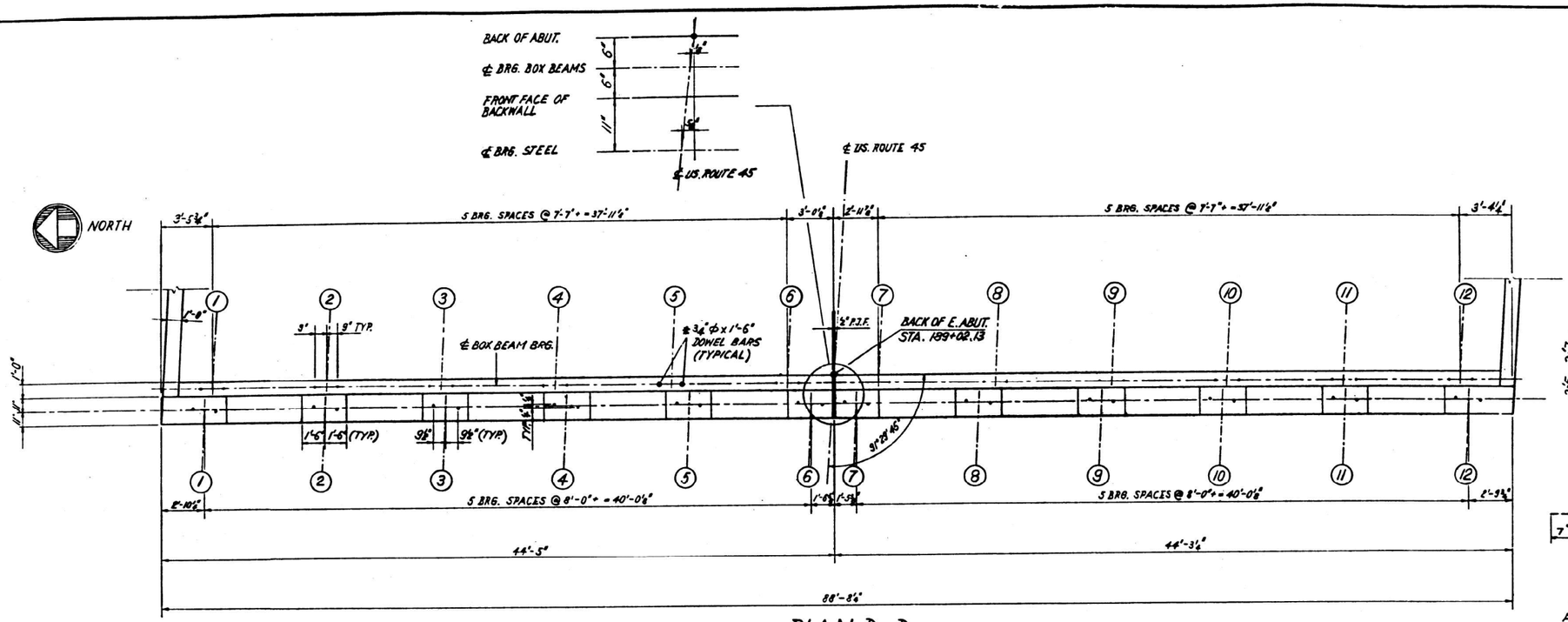
EXISTING PLAN SHEET - FOR INFORMATION ONLY
SN 064-0029
SHEET 10 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	37
		CONTRACT NO. 78968		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I 24	64-3	MASSAC	280	83
STA.	TO STA.			
S. P. R. REG. NO. &	ILLINOIS	PROJECT		

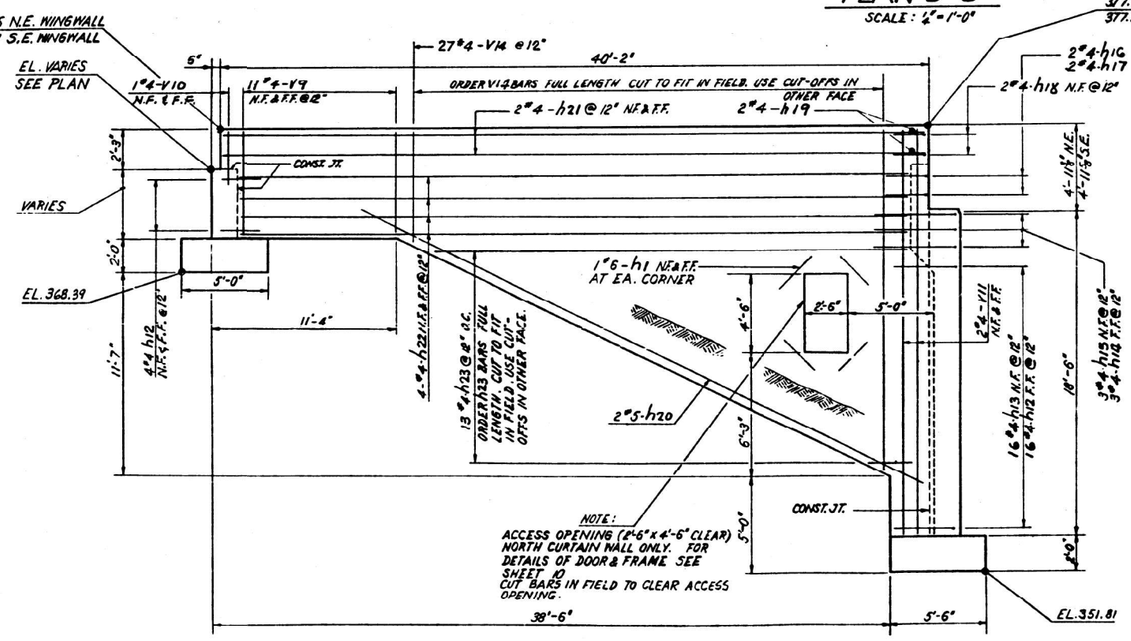
SHEET 12 OF 15

FOR INFORMATION ONLY



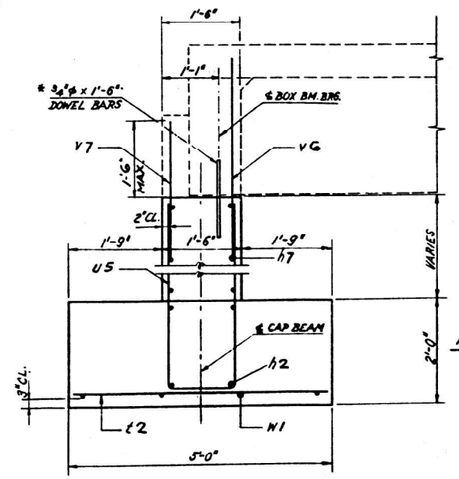
PLAN D-D

SCALE: 1/4"=1'-0"



ELEVATION C-C

SCALE: 1/4"=1'-0"

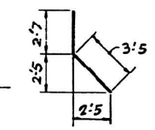


SECTION B-B

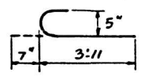
SCALE: 3/4"=1'-0"

* AFTER BEAMS ARE IN PLACE THE CONTRACTOR SHALL DRILL HOLES INTO CAP BEAM AND GROUT DOWELS INTO BEAM AND CAP.

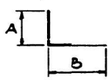
MAX. SOIL PRESSURE:
APPR. FTG. = 3.4 K/sq.FT.
MAIN. FTG. = 4.0 K/sq.FT.



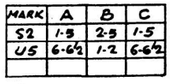
BAR V3



BAR W1



MARK	A	B
h6	1-6	2-3
h13	1-0	3-6
h15	1-0	4-9
h16	1-0	2-9
h18	1-0	1-6



MARK	A	B	C
S2	1-3	2-3	1-5
U5	6-6½	1-2	6-6½

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
h1	8	#6	3-0	—
h2	4	#5	46-0	—
h3	92	#5	44-0	—
h4	4	#5	10-6	—
h5	8	#5	9-3	—
h6	52	#5	3-9	L
h7	20	#5	45-0	—
h12	48	#4	3-3	—
h13	32	#4	4-6	L
h14	6	#4	4-3	—
h15	6	#4	5-9	L
h16	4	#4	3-9	—
h17	4	#4	2-3	—
h18	4	#4	2-6	L
h19	4	#4	1-6	—
h20	4	#5	34-0	—
h21	8	#4	39-9	—
h22	16	#4	37-9	—
h23	26	#4	30-6	—
W1	150	#5	4-6	C
S2	90	#5	5-3	L
℄1	92	#5	5-0	—
℄2	91	#5	4-6	—
U5	90	#5	14-3	L
V3	60	#5	6-0	L
V4	102	#5	7-0	—
V5	60	#5	5-0	—
V6	56	#5	4-9	—
V7	90	#5	3-6	—
V9	44	#4	7-0	—
V10	4	#4	3-6	—
V11	8	#4	23-3	—
V12	90	#5	18-3	—
V13	60	#5	16-6	—
V14	54	#4	27-6	—
W1	18	#5	46-0	—
CLASS X CONCRETE			CU.YDS.	256.8
REINFORCEMENT BARS			LBS.	17,680
CLASS A EXCAVATION			CU.YDS.	500
NAME PLATE			EACH	1

EAST ABUTMENT
GRADE SEPARATION
U.S. ROUTE 45
OVER F.A.I. ROUTE 24
F.A. PROJECT
F.A.I. ROUTE 24 SECTION 64-3HB-1
MASSAC COUNTY
STATION 350+00.04

ALFRED BENESCH & COMPANY CONSULTING ENGINEER
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =	DESIGNED - VVR	REVISED -	
	CHECKED - TRC	REVISED -	
PLOT SCALE =	DRAWN - VVR	REVISED -	
PLOT DATE = JANUARY 19, 2023	CHECKED - TRC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

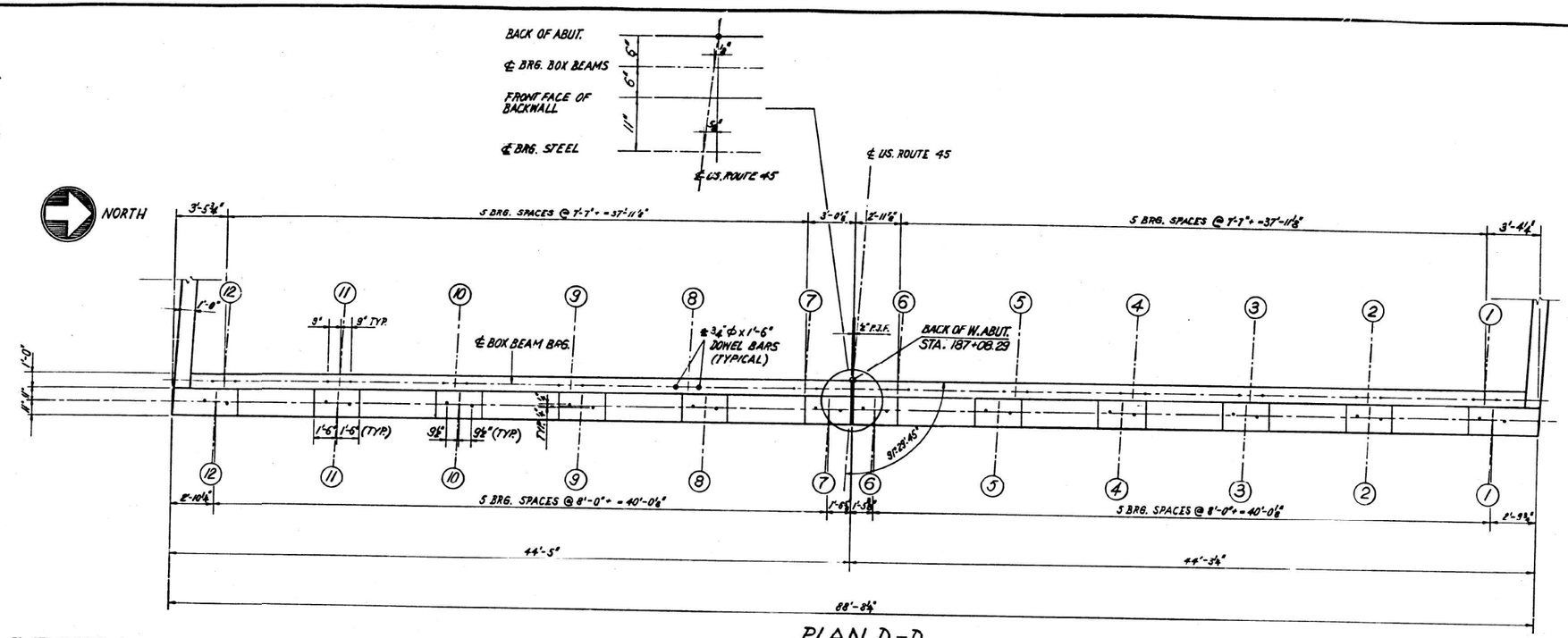
EXISTING PLAN SHEET - FOR INFORMATION ONLY
SN 064-0029
SHEET 11 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	38
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 24	64-3	MASSAC	280	85
STA.	TO STA.			
B. P. R. REG. NO. &	ILLINOIS	PROJECT		

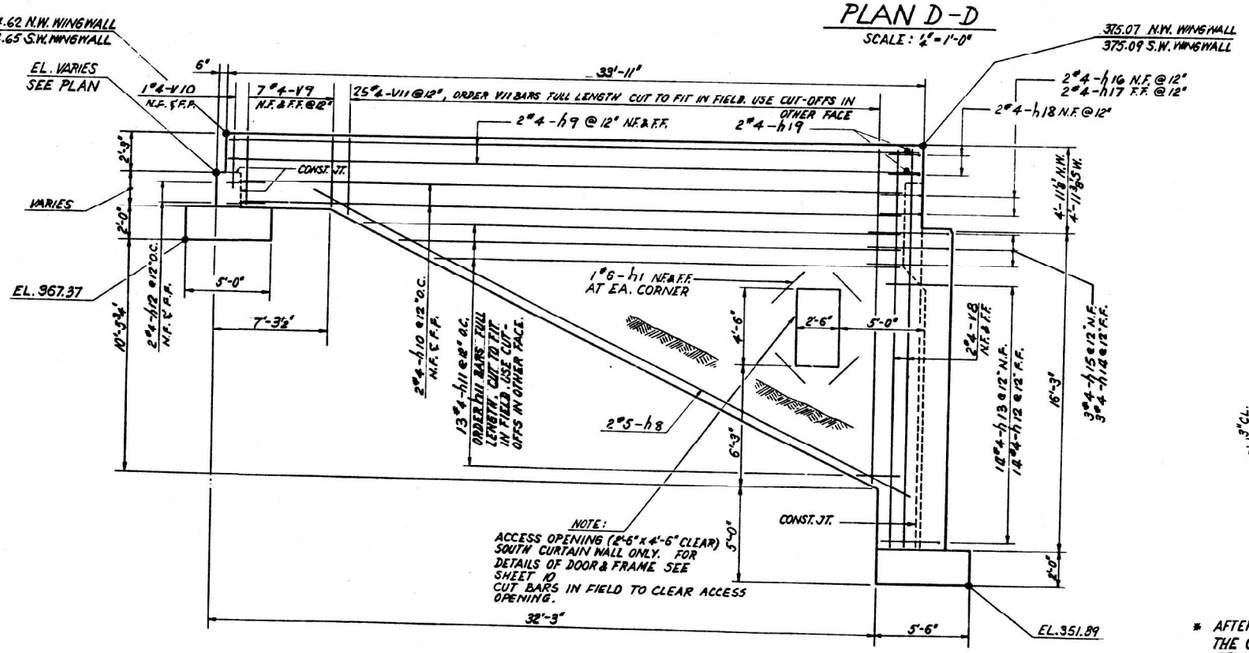
SHEET 14 OF 15

FOR INFORMATION ONLY



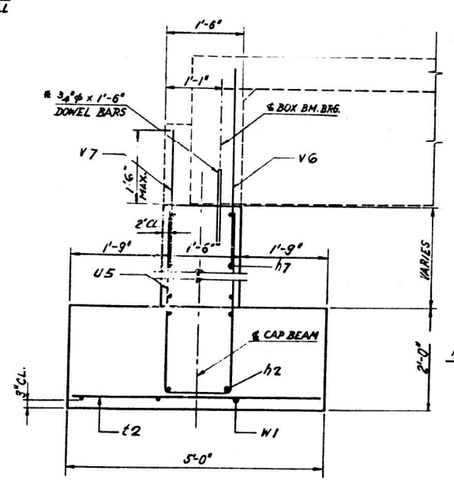
PLAN D-D

SCALE: ¼"=1'-0"



ELEVATION C-C

SCALE: ¼"=1'-0"

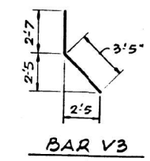


SECTION B-B

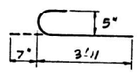
SCALE: ¾"=1'-0"

* AFTER BEAMS ARE IN PLACE THE CONTRACTOR SHALL DRILL HOLES INTO CAP BEAM AND GROUT DOWELS INTO BEAM AND CAP.

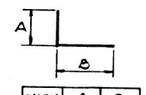
MAX. SOIL PRESSURE:
APPR. FTG. = 3.4 K/SQ.FT.
MAIN FTG. = 4.0 K/SQ.FT.



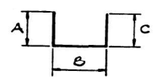
BAR V3



BAR h1



MARK	A	B
h6	1'-0	2'-3
h13	1'-0	3'-6
h15	1'-0	4'-9
h16	1'-0	2'-9
h18	1'-0	1'-6



MARK	A	B	C
S2	1'-5	2'-5	1'-5
U5	4'-6½	1'-2	4'-6½

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
h1	8	#6	3'-0	—
h2	4	#5	46'-0	—
h3	84	#5	44'-0	—
h4	4	#5	10'-6	—
h5	8	#5	9'-3	—
h6	52	#5	3'-9	L
h7	12	#5	45'-0	—
h8	4	#5	31'-0	—
h9	8	#4	33'-6	—
h10	8	#4	31'-6	—
h11	26	#4	28'-0	—
h12	36	#4	3'-3	—
h13	28	#4	4'-6	L
h14	6	#4	4'-3	—
h15	6	#4	5'-9	L
h16	4	#4	3'-9	L
h17	4	#4	2'-3	—
h18	4	#4	2'-6	L
h19	4	#4	1'-6	—
N1	150	#5	4'-6	C
S2	90	#5	5'-3	L
t1	92	#5	5'-0	—
t2	91	#5	4'-6	—
U5	90	#5	10'-3	L
V1	90	#5	16'-0	—
V2	60	#5	18'-6	—
V3	60	#5	6'-0	L
V4	102	#5	7'-0	—
V5	80	#5	5'-0	—
V6	56	#5	4'-9	—
V7	90	#5	3'-6	—
V8	8	#4	21'-0	—
V9	28	#4	5'-0	—
V10	4	#4	3'-6	—
V11	50	#4	23'-3	—
W1	18	#5	46'-0	—
CLASS X CONCRETE			CU.YDS.	226.8
REINFORCEMENT BARS			LBS	15,530
CLASS A EXCAVATION			CU.YDS	427
NAME PLATE			EACH	1

WEST ABUTMENT
GRADE SEPARATION
U.S. ROUTE 45
OVER F.A.I. ROUTE 24
F.A. PROJECT
F.A.I. ROUTE 24 SECTION 64-3HB-1
MASSAC COUNTY
STATION 350+00.04

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
16 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

MODEL: 78968-039
FILE NAME: Z:\D V and K Jobs\5951-003 US 45 and TR 140 over I-24\CADD Sheets\064-0029 Structure Plans.dgn
1/19/2023 2:44:55 PM

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME =		DESIGNED - VVR	REVISED -
		CHECKED - TRC	REVISED -
PLOT SCALE =		DRAWN - VVR	REVISED -
PLOT DATE =	JANUARY 19, 2023	CHECKED - TRC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLAN SHEET - FOR INFORMATION ONLY
SN 064-0029
SHEET 12 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE REPAIR 2023-1	MASSAC	39	39
		CONTRACT NO. 78968		
	ILLINOIS FED. AID PROJECT			