

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

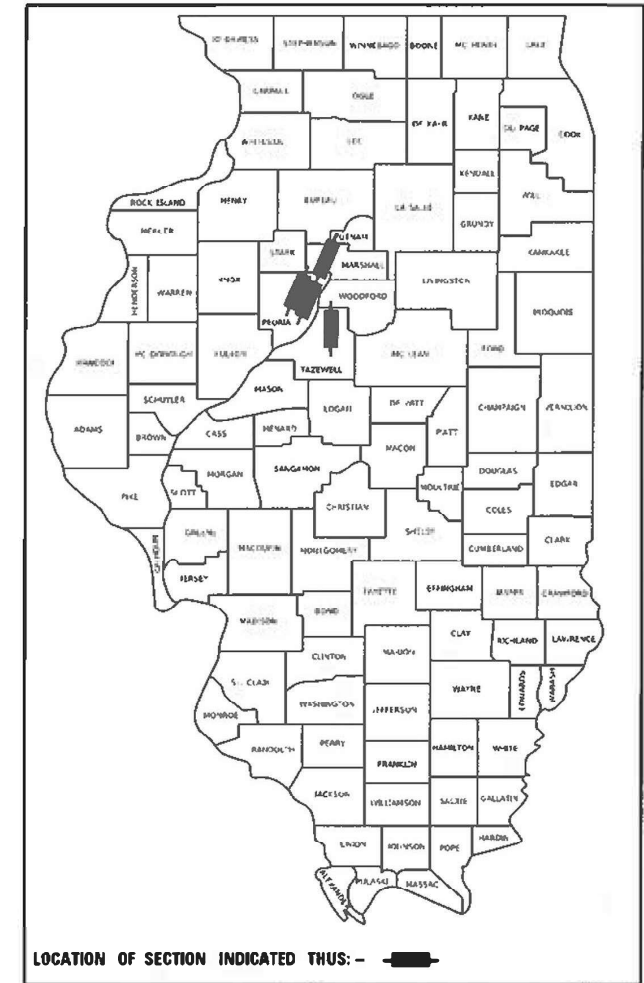
**PROPOSED
HIGHWAY PLANS**

(VAR) ROUTE VARIOUS
SECTION D4 BRIDGE PAINTING 2025-1
FED. PROJECT NO.: NHPP-1AKL(229)
VARIOUS COUNTIES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D4 BRIDGE PAINTING 2025-1	*	43	1

ILLINOIS CONTRACT NO. 68J49
* MARSHALL, PEORIA, TAZEWELL

D-94-073-24



INDEX OF SHEETS

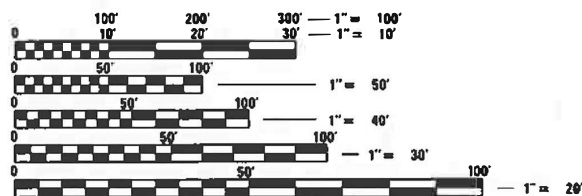
- 1 COVER SHEET
- 2 GENERAL NOTES AND COMMITMENTS
- 3-4 SUMMARY OF QUANTITIES
- 5 LOCATION MAP
- 6-16 TRAFFIC CONTROL SHEETS
- 17-22 LOCATION 1 - STRUCTURE INFORMATION
- 23-28 LOCATION 2 - STRUCTURE INFORMATION
- 29-33 LOCATION 3 - STRUCTURE INFORMATION
- 34-39 LOCATION 4 - STRUCTURE INFORMATION
- 40-43 LOCATION 5 & 6 - STRUCTURE INFORMATION

HIGHWAY STANDARDS

- 000601-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 701101-05 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701321-18 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701400-12 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-12 LANE CLOSURE FREEWAY/EXPRESSWAY WITH BARRIER
- 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
- 701423-10 LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS ≥ 45 MPH TO 55 MPH
- 701426-09 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
- 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-09 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 781001-04 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
- 782006-01 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

TRAFFIC DATA - ADT

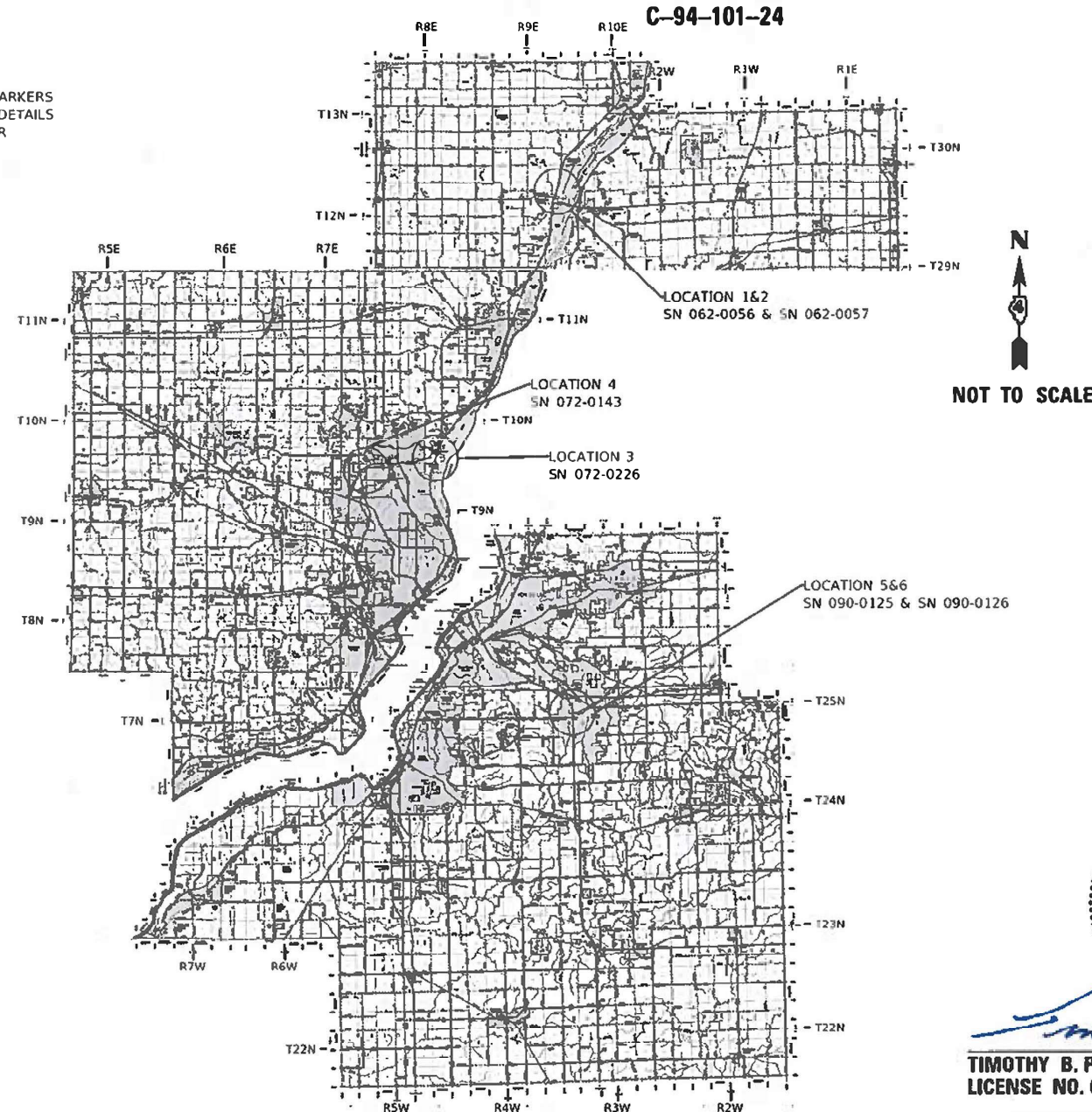
- LOCATION 1 - 3250 (2021)
- LOCATION 2 - 5550 (2023)
- LOCATION 3 - 11400 (2023)
- LOCATION 4 - 21100 (2023)
- LOCATION 5 - 22800 (2023)
- LOCATION 6 - 22800 (2023)



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

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

PROJECT ENGINEER: BEN TELLEFSON
PROJECT MANAGER: MARK ECKHOFF
CONTRACT NO. 68J49
CATALOG NO. 036554-00D



N
NOT TO SCALE



TIMOTHY B. PADGETT, P.E. EXPIRATION DATE
LICENSE NO. 062-049162 11-30-2025

PLANS PREPARED BY:



4940 Old Collinsville Road
Swansea, Illinois 62226
Tel: 618.624.4488
www.twm-inc.com
Illinois Professional Design Firm
No. 184-001220
License Expires: 4/30/2025
ILLINOIS - MISSOURI - TENNESSEE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 16, 2024
Kensil A. Swanson
REGIONAL ENGINEER

October 4, 2024
S. E. A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT

October 4, 2024
Gemma J. [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

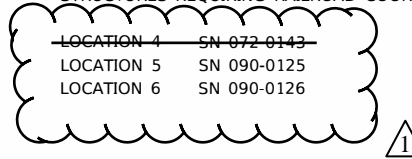
AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING OPERATIONS AT THE FOLLOWING LOCATIONS: SEE SPECIAL REVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES."

MIN REQUIRED
LOCATION 4 SN 072-0143 1

ADDITIONAL SUPPLEMENTAL TRAFFIC CONTROL

THE DEPARTMENT RESERVES THE RIGHT AT ANY TIME TO ADD ADDITIONAL TRAFFIC CONTROL SYSTEMS OR DEVICES WITHIN THE ACTIVE CONTRACT LIMITS, BY MEANS OF AN ADDITIONAL CONTRACT. ALL TERMS OF ARTICLE 105.08 OF THE STANDARD SPECIFICATIONS SHALL BE FOLLOWED BY EACH CONTRACTOR.

STRUCTURES REQUIRING RAILROAD COORDINATION (SEE SPECIAL PROVISIONS):



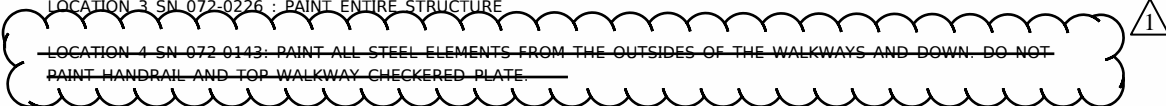
PROJECT SPECIFIC NOTES

DO NOT SCALE PLANS FOR CONSTRUCTION MEASUREMENTS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE.

LOCATION 1 SN 062-0056: BEAM ENDS PREVIOUSLY METALIZED. PAINT ENTIRE STRUCTURE.

LOCATION 2 SN 062-0057: PAINT ENTIRE STRUCTURE.

LOCATION 3 SN 072-0226 : PAINT ENTIRE STRUCTURE



LOCATION 5 & 6 SN 090-0125 & SN 090-0126: BEAM ENDS PREVIOUSLY METALIZED. PAINT ENTIRE STRUCTURE.

THE EXISTING STRUCTURAL STEEL COATING ON LOCATION 4 CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO ADDRESS THE PRESENCE OF LEAD ON THIS STRUCTURE.

THE EXISTING STRUCTURAL STEEL COATING ON LOCATIONS 1, 2, 3, 5 & 6 DO NOT CONTAIN LEAD.

FOR EXISTING SURFACES THAT HAVE BEEN PREVIOUSLY METALIZED WITH THERMAL METALLIC SPRAY, THE INTENT IS TO PREPARE THESE AREAS FOR OVERCOATING WITH THE PROPOSED NEW PAINT SYSTEM BY BRUSH-OFF BLAST CLEANING IN ACCORDANCE WITH SSPC-SP 16. ALL OTHER ASPECTS IN THE SPECIAL PROVISION "CLEANING AND PAINTING EXISTING STEEL STRUCTURES" STILL APPLY.

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL, EXCEPT FOR THE METALIZED BEAM ENDS SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U.

FOR LOCATIONS 1, 2, 3, 5 & 6, THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR AND EXTERIOR STEEL SURFACES SHALL BE LIGHT GREY (MUNSELL NO. 5B 7/1).

FOR LOCATIONS 4, THE COLOR OF THE FINAL FINISH COAT FOR INTERIOR SURFACES SHALL BE LIGHT GREY (MUNSELL NO. 5B 7/1). THE COLOR OF THE FINAL FINISH COAT FOR EXTERIOR SURFACES SHALL BE INTERSTATE GREEN (MUNSELL NO. 7.5G 4/8).

ONLY STRUCTURAL STEEL AND OTHER DESIGNATED SURFACES SHALL BE PAINTED. ALL OTHER SURFACES SHALL BE PROTECTED FROM CONTRACTOR'S BLASTING AND PAINTING OPERATIONS. ANY AREAS THAT ARE DAMAGED BY BLASTING OR OVERSPRAY WILL BE REMOVED OR REPAIRED AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CARE SHALL BE TAKEN NOT TO DAMAGE THE ELASTOMERIC BEARINGS OR JOINT COMPONENTS DURING BLASTING AND CLEANING OPERATIONS. ANY DAMAGE TO THESE COMPONENTS WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THE SSPC-QP1 AND QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION. SEE SPECIAL PROVISION FOR CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES.

THE CONTRACTOR SHALL SUBMIT CALCULATIONS AND DETAILS DEMONSTRATING THE STRUCTURAL INTEGRITY OF THE BRIDGE IS MAINTAINED UNDER THE ADDITIONAL IMPOSED LOADS OF THE CONTAINMENT SYSTEM. SEE SPECIAL PROVISIONS.

CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. SEE SPECIAL PROVISIONS.

MODEL: Default
FILE NAME: P:\2023\11\20231109\410 - Bridge Painting - DWG\413_Tran\Sheet\146B\146B-11-21-23\gennotes.dwg

TWM
ENGINEERING
GEOSPATIAL SERVICES

TWM, INC.
www.twm-inc.com
IL DESIGN FIRM
LICENSE NO: 184-001220

USER NAME = dlee	DESIGNED - JCL	REVISED -
	DRAWN - JCL	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - TBP	REVISED -
PLOT DATE = 8/15/2024	DATE - JULY 2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES & COMMITMENTS

SCALE: N/A SHEET 1 OF 1 SHEETS STA. TO STA.

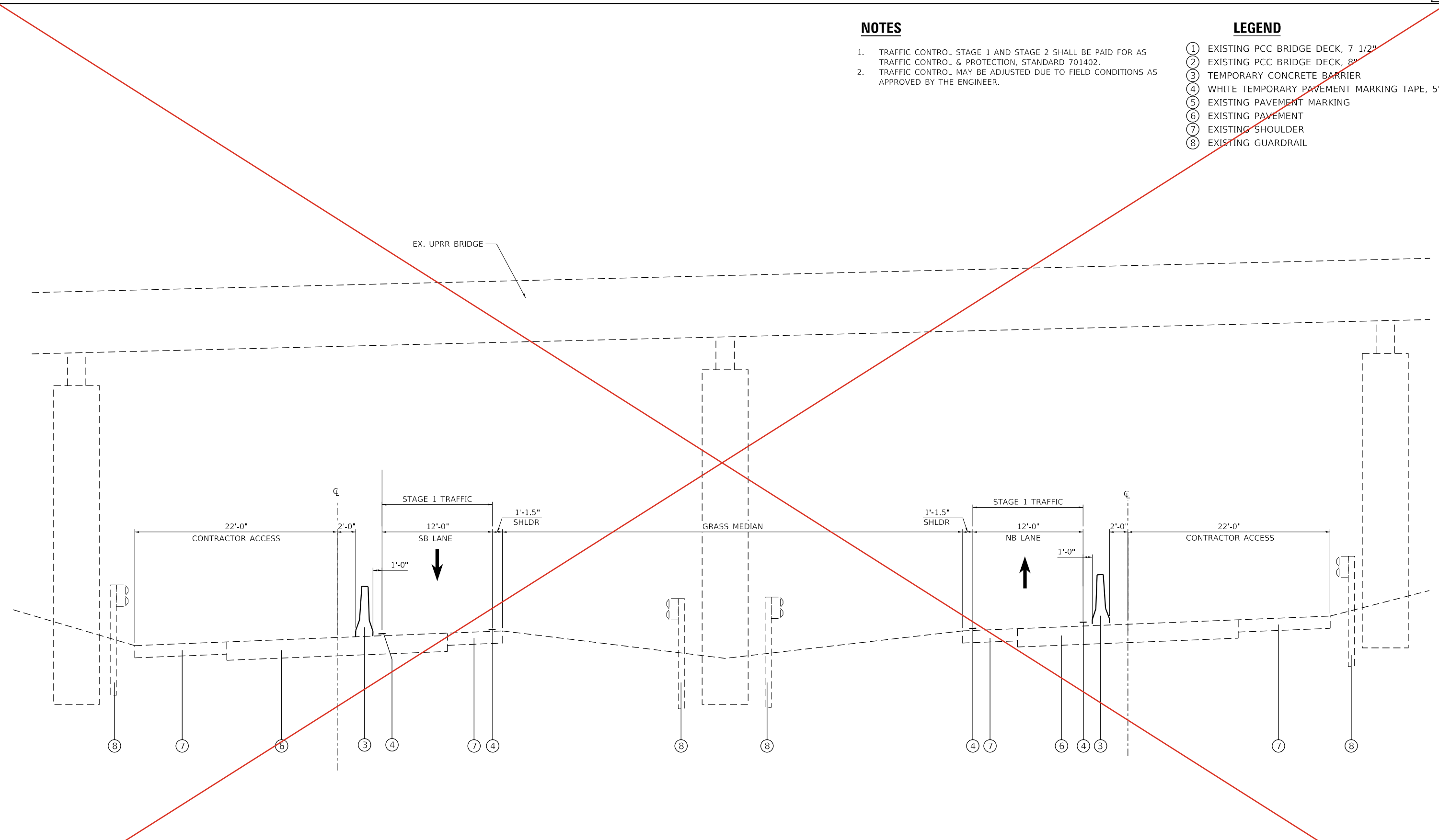
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D4 BRIDGE PAINTING 2025-1	*	43	2
* MARSHALL, PEORIA, TAZEWELL			CONTRACT NO. 68J49	
ILLINOIS FED. AID PROJECT				

NOTES

1. TRAFFIC CONTROL STAGE 1 AND STAGE 2 SHALL BE PAID FOR AS TRAFFIC CONTROL & PROTECTION, STANDARD 701402.
2. TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

LEGEND

- ① EXISTING PCC BRIDGE DECK, 7 1/2"
- ② EXISTING PCC BRIDGE DECK, 8"
- ③ TEMPORARY CONCRETE BARRIER
- ④ WHITE TEMPORARY PAVEMENT MARKING TAPE, 5"
- ⑤ EXISTING PAVEMENT MARKING
- ⑥ EXISTING PAVEMENT
- ⑦ EXISTING SHOULDER
- ⑧ EXISTING GUARDRAIL



**SOUTHBOUND
(LOOKING NORTH)**

**STAGE 1 TYPICAL SECTION
LOCATION 4 - UPRR/IL 6**

**NORTHBOUND
(LOOKING NORTH)**

REVISED 10-28-2024



USER NAME = dllee	DESIGNED - JCL	REVISOR - JCL
PLOT SCALE = 10.0000 ' / in.	DRAWN - JCL	REVISOR - JCL
PLOT DATE = 8/15/2024	CHECKED - TBP	REVISOR - TBP
	DATE - JULY 2024	REVISOR - TBP

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 1 - STAGING TYPICAL SECTIONS	
STRUCTURE LOCATION 4	
SCALE: 1"=5'	SHEET 8 OF 11 SHEETS STA. TO STA.

F.A. DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D4 BRIDGE PAINTING 2025-1	*	43	13
* MARSHALL, PEORIA, TAZEWELL			CONTRACT NO. 68J49	
ILLINOIS FED. AID PROJECT				

REV. 10/28/24

NOTES

1. TRAFFIC CONTROL STAGE 1 AND STAGE 2 SHALL BE PAID FOR AS TRAFFIC CONTROL & PROTECTION, STANDARD 701402.
2. TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

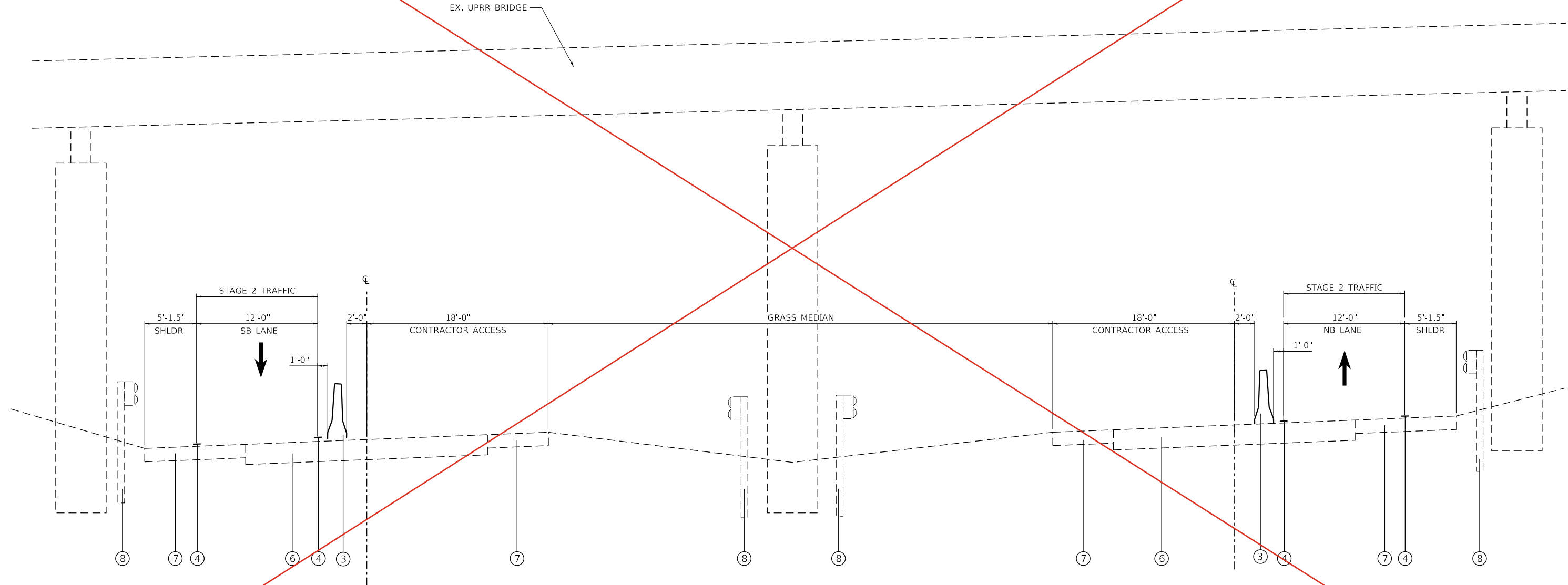
LEGEND

- 1 EXISTING PCC BRIDGE DECK, 7 1/2"
- 2 EXISTING PCC BRIDGE DECK, 8"
- 3 TEMPORARY CONCRETE BARRIER
- 4 WHITE TEMPORARY PAVEMENT MARKING TAPE, 5"
- 5 EXISTING PAVEMENT MARKING
- 6 EXISTING PAVEMENT
- 7 EXISTING SHOULDER
- 8 EXISTING GUARDRAIL

1

1

EX. UPRR BRIDGE



**SOUTHBOUND
(LOOKING NORTH)**

**STAGE 2 TYPICAL SECTION
LOCATION 4 - UPRR/IL 6**

**NORTHBOUND
(LOOKING NORTH)**

REVISED 10-28-2024



USER NAME = dls	DESIGNED - JCL	REVISIONS
WWW.TWM-INC.COM	DRAWN - JCL	REVISIONS
IL DESIGN FIRM LICENSE NO: 184-001220	CHECKED - TBP	REVISIONS
PLOT SCALE = 10.0000 "/in.	DATE - JULY 2024	REVISIONS
PLOT DATE = 8/15/2024		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

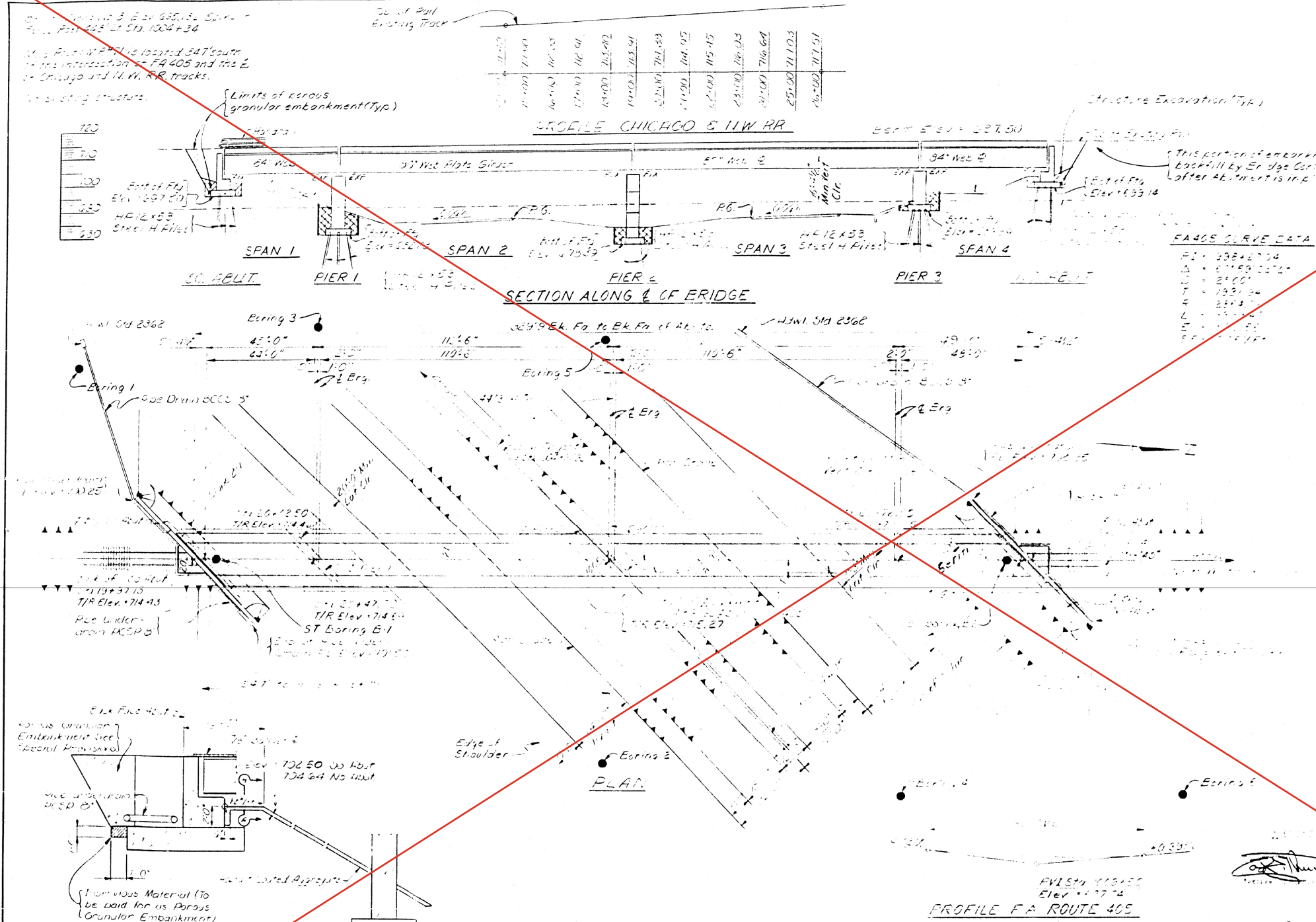
STAGE 2 - STAGING TYPICAL SECTIONS STRUCTURE LOCATION 4			
SCALE: 1"=5'	SHEET 9	OF 11 SHEETS	STA. TO STA.

F.A. B.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D4 BRIDGE PAINTING 2025-1	*	43	14
* MARSHALL, PEORIA, TAZEWELL			CONTRACT NO. 68J49	
ILLINOIS FED. AID PROJECT				

REV. 10/28/24

FOR INFORMATION ONLY
 LOCATION 4 (IL 6 OVER UPRR)
 SN 072-0143

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 405	72-75B	PEORIA	43	1
FED. ROAD DIST NO 4	ILL. NO. 6	FED. AID PROJ		



GENERAL NOTES:
 Specifications for workmanship and material: "Standard Specifications for Road and Bridge Construction of the State of Illinois" adopted Oct. 1, 1979 and the "Supplemental Specifications."
 See Proposal for Boring Data
 Fasteners shall be high strength bolts Bolts 7/8", open holes
 Calculated weight of Structural Steel = 590900 Lbs
 The basic lead zinc 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 girders Field welding in other areas will be permitted only when approved by the Engineer
 Anchor bolts shall be set before bolting diaphragms over supports
 The contractor shall drive one steel test pile in a permanent location at the South Abutment, Pier 2, and the North Abutment as directed by the Engineer before ordering the remainder of the piles
 Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53, Grade 60.
 The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2 These components are the tension flanges and webs of the steel girders

FA405 CURVE DATA

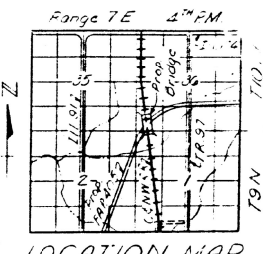
PI	338+27.04
Δ	27°50'22.71"
L	2560'
T	1931.34'
E	284.37'
M	1170.50'
PC	338+27.04
PT	604+27.04

TOTAL BILL OF MATERIAL

ITEM	UNIT	Superstr	Substr	TOTAL
Dipn Handrail	Lin Ft	652		652
Structure Excavation	Cu Yd		507	509
Class "A" Concrete	Cu Yd		493.8	493.8
Structural Steel	Lump Sum	1		1
Reinforcement Bars	Lb		50870	50870
Steel Piles (HP12x53)	Lin Ft		2985	2985
Test Pile Steel (HP12x53)	Each		3	3
Name Plate	Each		1	1
Pipe Drain Bitum Coated Corr Steel 8"	Lin Ft		192	192
Underdrain Perf Corr Steel 8"	Lin Ft		148	148
Slope wall (G)	Sq Yd		387	387
Membrane Waterproofing	Sq Ft	5170		5170
Porous Granular Embankment	Cu Yd		322	322
Deck Drain	Lin Ft		664	664
Removing & Reinstalling Track Work	Lin Ft		440	440
Ballast	Cu Yd		161	161
Sand Backfill	Cu Yd		18.4	18.4

C.B.N.W. RR
 BUILT 198 BY
 STATE OF ILLINOIS
 FA RT. 405 SEC. 72-75B
 FA PROJ. FFD-4C5-1(22)
 STA. IOL. +97.92 LOADING E-80
 STR. NO. 072-0143

NAME PLATE
 (See Std. 2113)



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 GENERAL PLAN & ELEVATION
 PROJECT: FA 405
 C.B.N.W. RR. OVER FA ROUTE 405
 FA 405 SECTION 72-75B
 PEORIA COUNTY
 STA. 1004+37.92

DESIGN LOADING
 Cooper's E-60 with Diesel Impact

DESIGN STRESSES
 $f_c = 4000$ psi Substructure
 $n = 10$
 $f_s = 20,000$ psi Struct. Steel (A36, AASHTO M163)
 $f_s = 24,000$ psi Reinforcement
 $\phi = 0.75$

DESIGN SPECIFICATIONS
 975 AASHTO Specifications with modifications for C.B.N.W. RR & 1977 HR5.111 with 1978 & 1979 Interims as applicable.

Designed	ABQ
Checked	Q.H.
Drawn	Rotter
Checked	K.L.H.

SECTION THRU ABUTMENT AND SLOPEWALL
 Section thru abutment

SECTION A-A



TWM, INC.
 www.twm-inc.com
 IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME	= jre	DESIGNED	- JJA	REVISED	-
DESIGNER	- JJA	DRAWN	- JCL	REVISED	-
CHECKED	- TBP	REVISIONS	-	REVISED	-
DATE	- JULY 2024	REVISED	-	REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

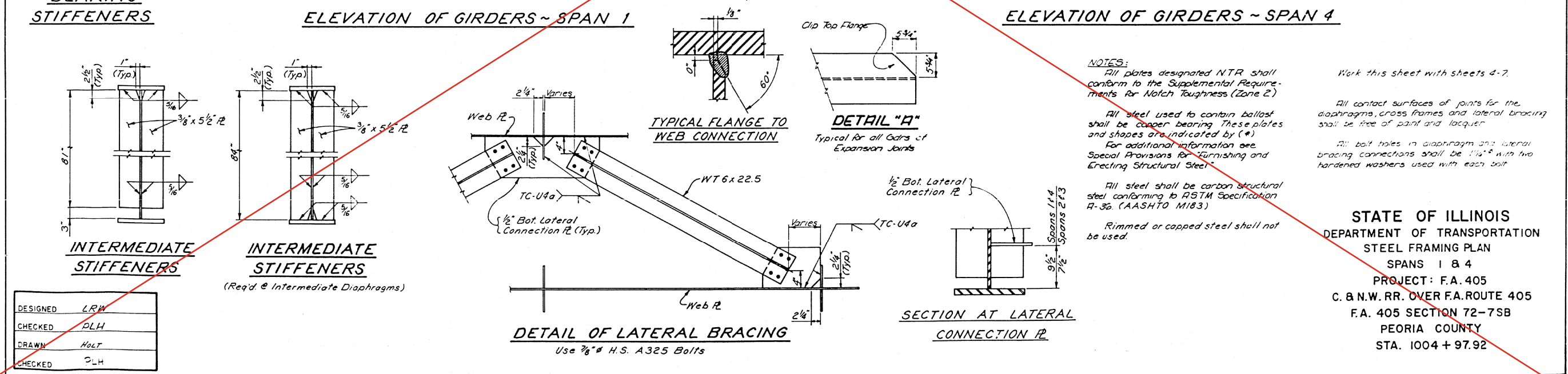
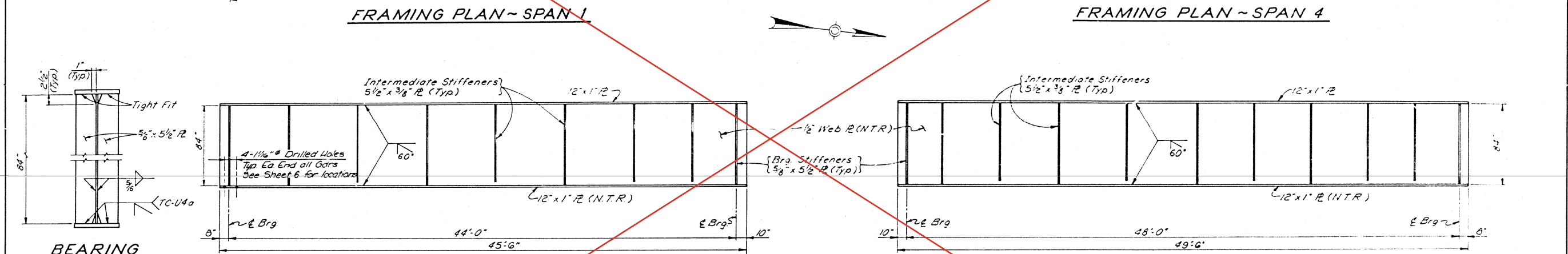
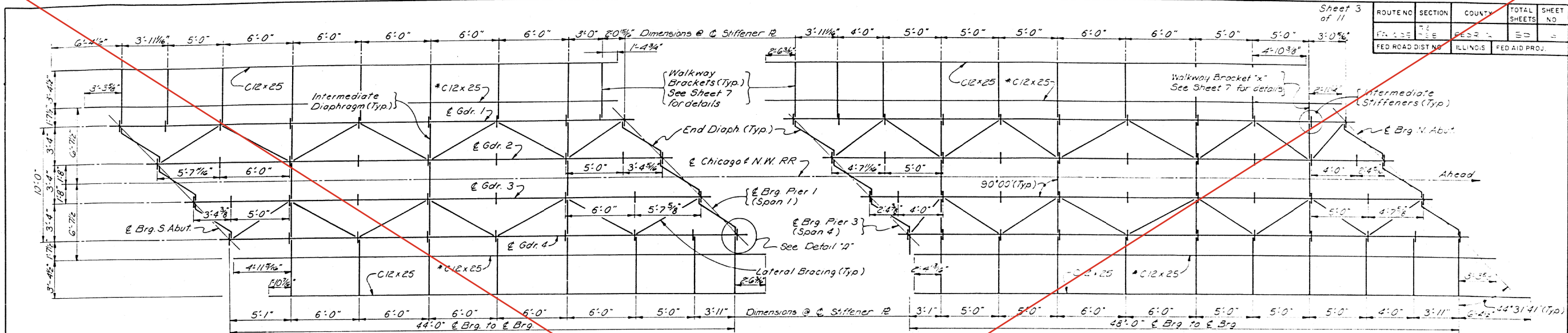
LOCATION 4 - STRUCTURE INFORMATION
 SN 072-0143

SCALE: N/A SHEET 1 OF 6 SHEETS STA. TO STA.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR D4 BRIDGE PAINTING 2025-1	*		43	34
* MARSHALL, PEORIA, TAZEWELL			CONTRACT NO. 68J49	
ILLINOIS	FED. AID PROJECT			

FOR INFORMATION ONLY
LOCATION 4 (IL 6 OVER UPRR)
SN 072-0143

Sheet 3 of 11	ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	405	72-7B	PEORIA	43	35
	FED ROAD DIST NO	ILLINOIS	FED AID PROJ.		



NOTES:
 All plates designated NTR shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).
 All steel used to contain ballast shall be copper bearing. These plates and shapes are indicated by (*).
 For additional information see Special Provisions for Furnishing and Erecting Structural Steel.
 All steel shall be carbon structural steel conforming to ASTM Specification A-36 (AASHTO M183).
 Rimmed or capped steel shall not be used.

Work this sheet with sheets 4-7.

All contact surfaces of joints for the diaphragms, cross frames and lateral bracing shall be free of paint and lacquer.

All bolt holes in diaphragm and lateral bracing connections shall be 1/16" with two hardened washers used with each bolt.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 STEEL FRAMING PLAN
 SPANS 1 & 4
 PROJECT : F.A. 405
 C. & N.W. RR. OVER F.A. ROUTE 405
 F.A. 405 SECTION 72-7SB
 PEORIA COUNTY
 STA. 1004 + 97.92

DESIGNED	LRW
CHECKED	DLH
DRAWN	HOLT
CHECKED	DLH

USER NAME	= dlh	DESIGNED	JCL	REVISED	
DESIGNER	JCL	DRAWN	JCL	REVISED	
CHECKED	TBP	REVISED		REVISED	
DATE	JULY 2024	REVISED		REVISED	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

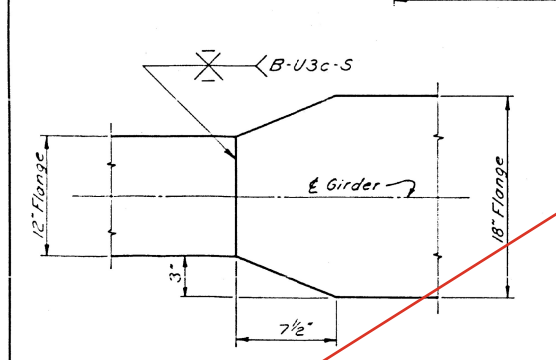
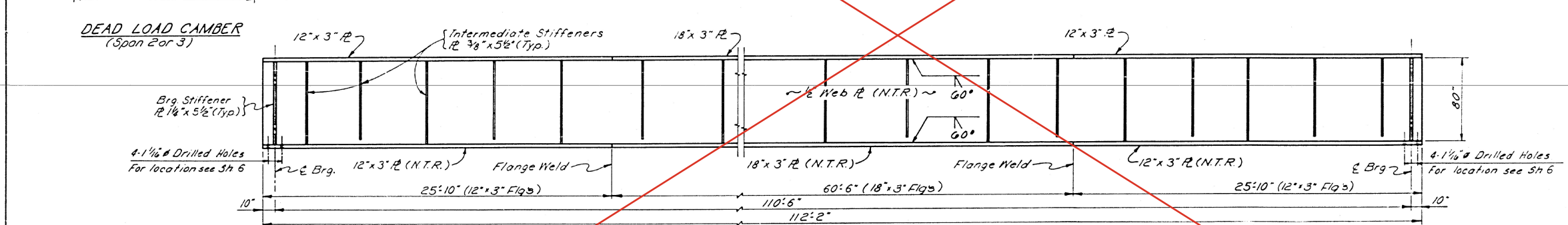
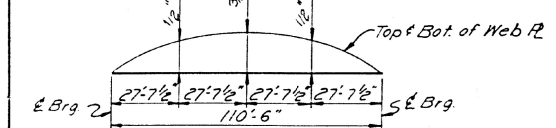
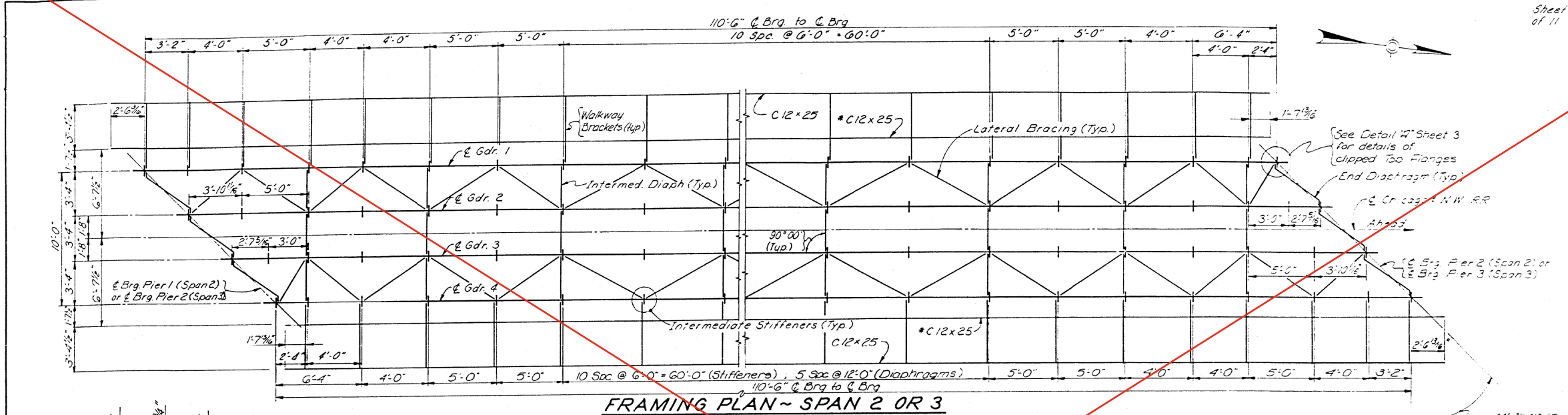
SCALE	N/A	SHEET	2	OF	6	SHEETS	STA.	TO	STA.
-------	-----	-------	---	----	---	--------	------	----	------

VAR	D4 BRIDGE PAINTING 2025-1	COUNTY	*	TOTAL SHEETS	43	SHEET NO	35
* MARSHALL, PEORIA, TAZEWELL		CONTRACT NO.		68J49			
ILLINOIS		FED. AID PROJECT					

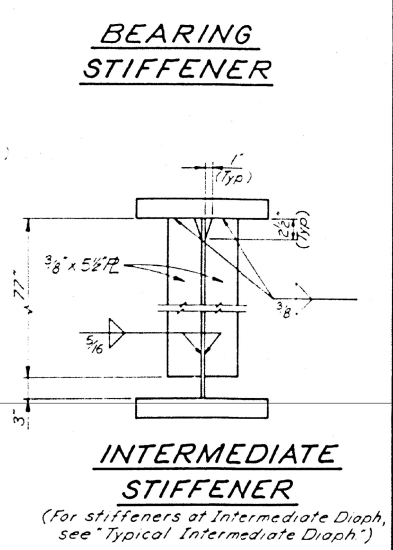
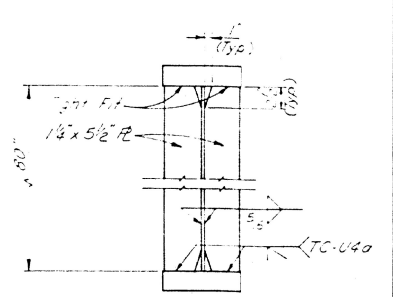
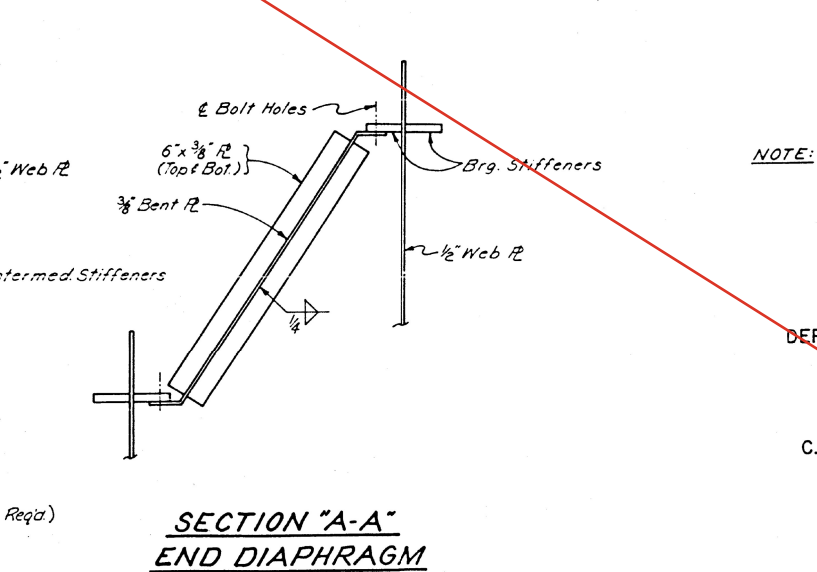
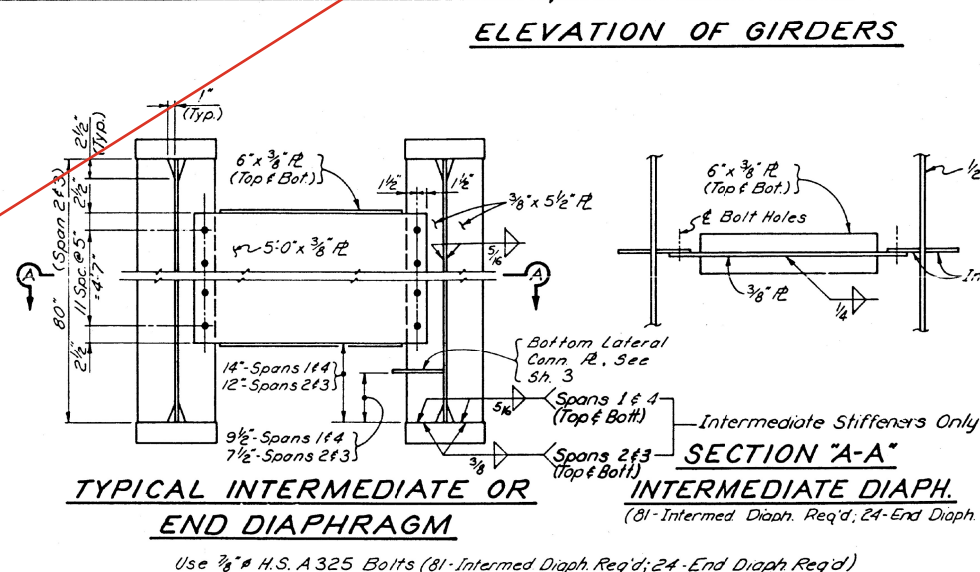
FOR INFORMATION ONLY
LOCATION 4 (IL 6 OVER UPRR)
SN 072-0143

Sheet 4
of 11

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 405	72-7SB	PEORIA	43	36
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJ.		



DESIGNED	LRW
CHECKED	PLH
DRAWN	HocT
CHECKED	PLH



NOTE: Work this sheet with sheets 3-7.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
STEEL FRAMING PLAN
SPANS 2 & 3
PROJECT: F.A. 405
C. & N.W. RR. OVER F.A. ROUTE 405
F.A. 405 SECTION 72-7SB
PEORIA COUNTY
STA. 1004 + 97.92

MODEL DATE: 02/23/2024; FILE NAME: PL 02232024; BRIDGE PAINTING (FY 2025) ILL. CAD - DWG04.7; TRANS SHEETS: D:\68149-STRUCT\structural_detail_4.dgn



DESIGNED	JCL	REVISOR	
DRAWN	JCL	REVISOR	
CHECKED	TBP	REVISOR	
DATE	JULY 2024	REVISOR	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION 4 - STRUCTURE INFORMATION
SN 072-0143

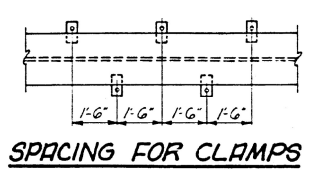
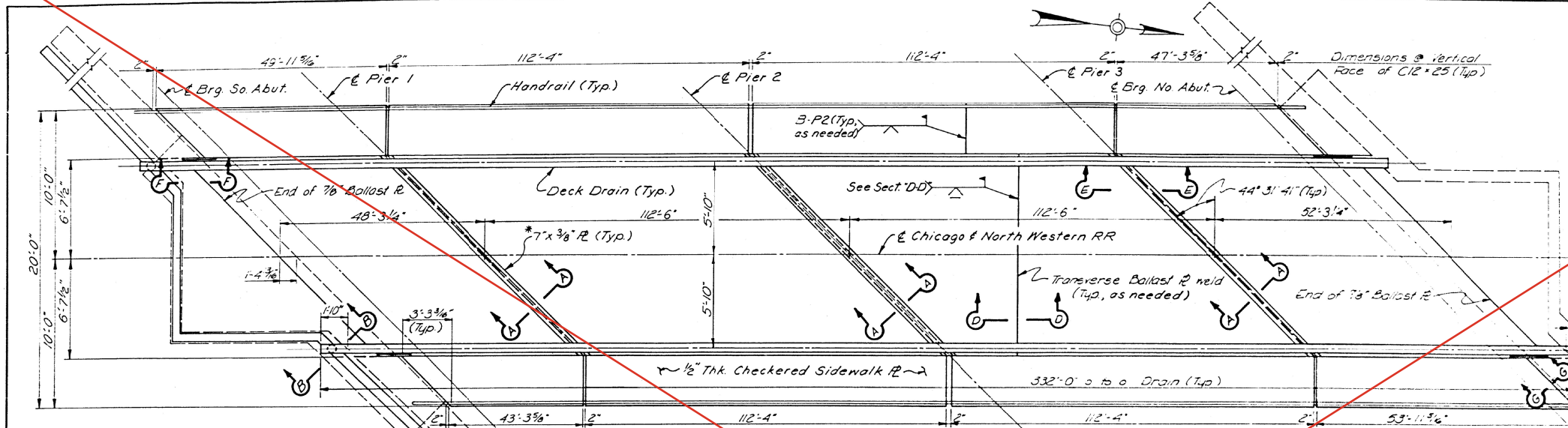
F.A. 405	SECTION 72-7SB	COUNTY PEORIA	TOTAL SHEETS 43	SHEET NO. 36
VAR	D4 BRIDGE PAINTING 2025-1			
* MARSHALL, PEORIA, TAZEWELL		CONTRACT NO. 68149		
ILLINOIS		FED. AID PROJECT		

1 REVISED 10-28-2024

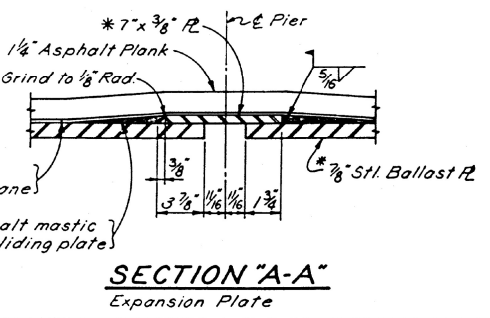
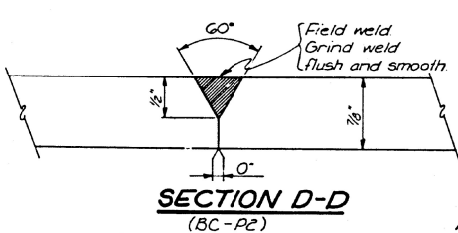
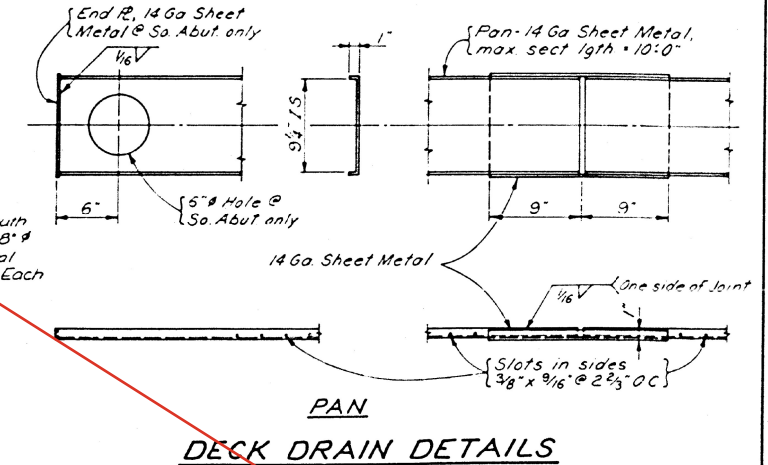
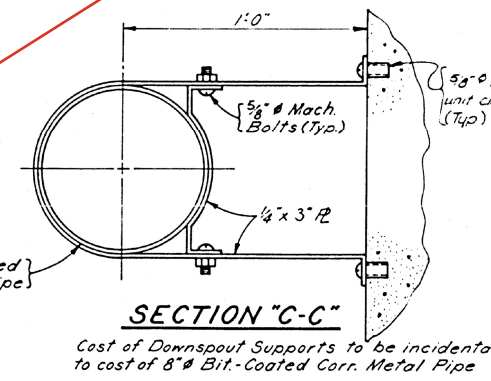
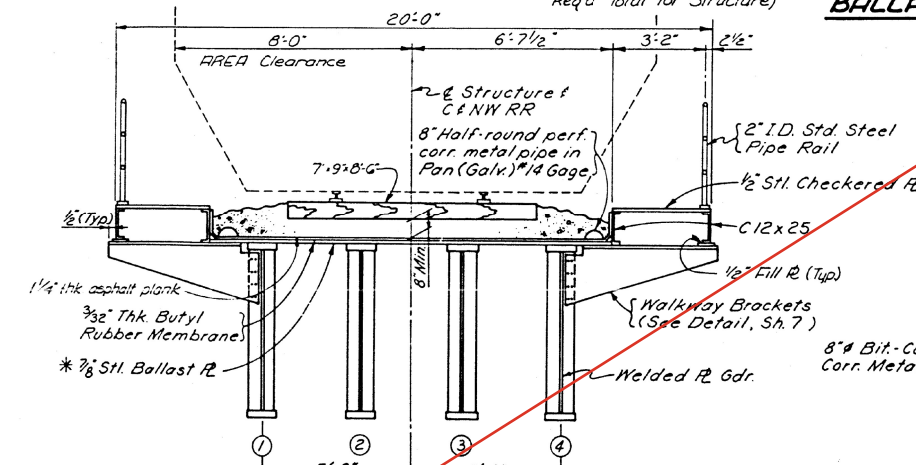
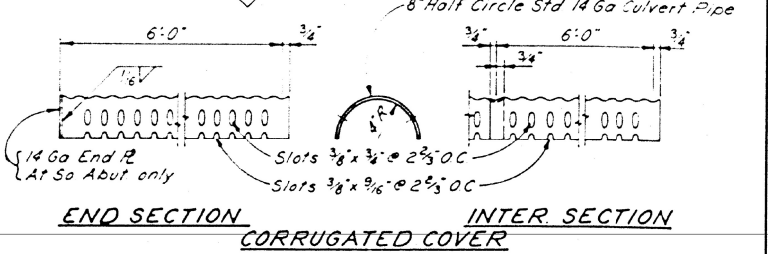
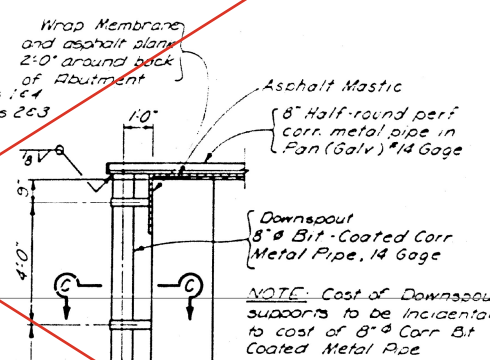
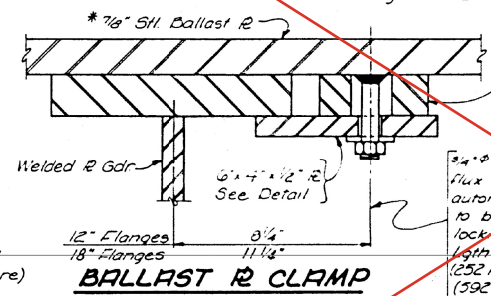
FOR INFORMATION ONLY
 LOCATION 4 (IL 6 OVER UPRR)
 SN 072-0143

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A. 405	72-7SB	PEORIA	43	37
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJ.		

MOMENT (FT. KIPS) & REACTION (KIPS)					
SPAN	MAX BENDING MOM	MAX END SHEARS			
ORD	1	2	3	4	5
W.D. (K/1)	197	123	123	0.97	1.23
D.L. (K/1)	235	193	193	21	68
L.L. (K)	772	392	392	61	165
IMB-1 (K)	467	182	182	43	79
IMB-2 (K)	427	171	171	40	74
IMB-3 (K)	427	171	171	40	74
IMB-4 (K)	427	171	171	40	74
IMB-5 (K)	427	171	171	40	74
IMB-6 (K)	427	171	171	40	74
IMB-7 (K)	427	171	171	40	74
IMB-8 (K)	427	171	171	40	74
IMB-9 (K)	427	171	171	40	74
IMB-10 (K)	427	171	171	40	74
IMB-11 (K)	427	171	171	40	74
IMB-12 (K)	427	171	171	40	74
IMB-13 (K)	427	171	171	40	74
IMB-14 (K)	427	171	171	40	74
IMB-15 (K)	427	171	171	40	74
IMB-16 (K)	427	171	171	40	74
IMB-17 (K)	427	171	171	40	74
IMB-18 (K)	427	171	171	40	74
IMB-19 (K)	427	171	171	40	74
IMB-20 (K)	427	171	171	40	74



NOTE: Ballast Plate Clamps to be spaced @ 1'-6" alternate spacing @ 8'-4" Req'd Total for Structure



NOTES:
 Cement butyl membrane along edges of ballast plate, but do not cement to ballast plate, except when spliced Cement membrane to C12x25

Furnishing and placing butyl membrane and asphalt planks shall be incidental to the item "Membrane Waterproofing."

See Sheet 7 for Sections "F-F" & "G-G"

Work this sheet with Sheets 3-7.

DESIGNED	LRW
CHECKED	PLW
DRAWN	HOLT
CHECKED	

C12x25 SPLICE
 (Typ. as needed)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 STEEL DETAILS
 PROJECT: F.A. 405
 C. & N.W. RR. OVER F.A. ROUTE 405
 F.A. 405 SECTION 72-7SB
 PEORIA COUNTY
 STA. 1004 + 97.92

REVISED 10-28-2024



USER NAME	Wlee	DESIGNED	JCL	REVISION	
PLOT SCALE	= 10.0000 "/in.	DRAWN	JCL	REVISION	
PLOT DATE	= 8/7/2024	CHECKED	TBP	REVISION	
		DATE	JULY 2024	REVISION	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LOCATION 4 - STRUCTURE INFORMATION
 SN 072-0143

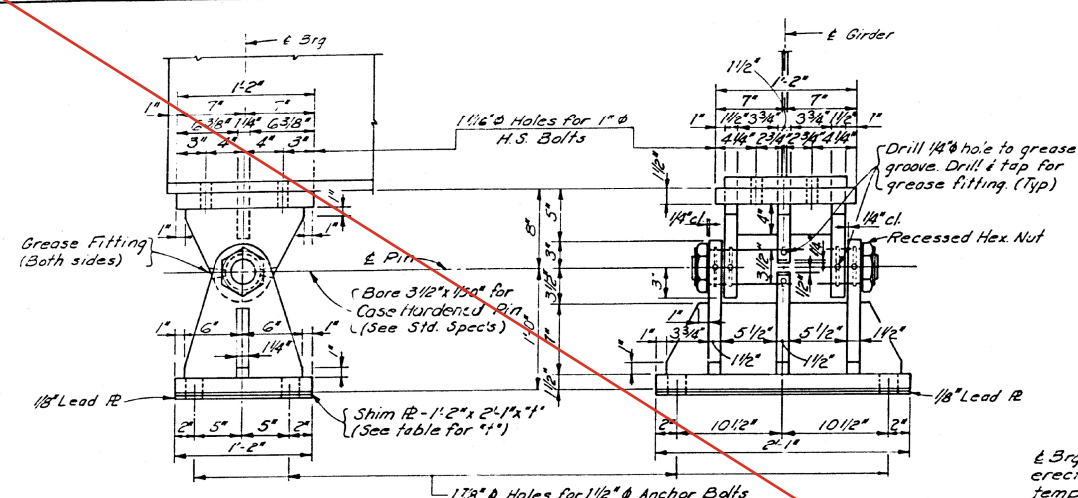
SCALE:	N/A	SHEET	4	OF	6	SHEETS	STA.	TO	STA.
--------	-----	-------	---	----	---	--------	------	----	------

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D4 BRIDGE PAINTING 2025-1	*	43	37
* MARSHALL, PEORIA, TAZEWELL			CONTRACT NO. 68J49	
ILLINOIS			FED. AID PROJECT	

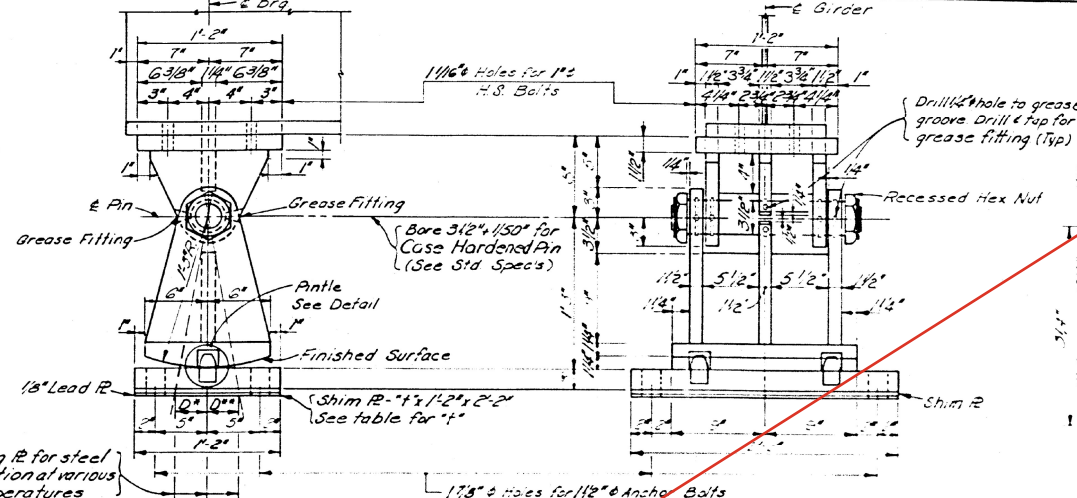
REV. 10/28/24

FOR INFORMATION ONLY
 LOCATION 4 (IL 6 OVER UPRR)
 SN 072-0143

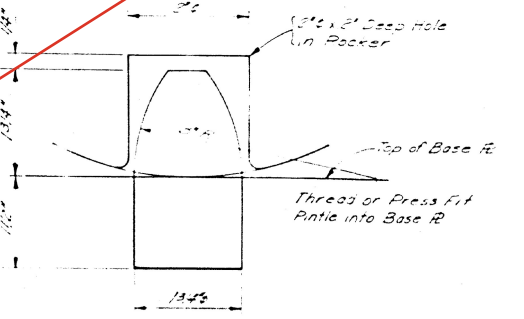
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A. 405	72-7S	PEORIA	43	38
FED. ROAD DIST NO	ILLINOIS	FED. AID PROJ.		



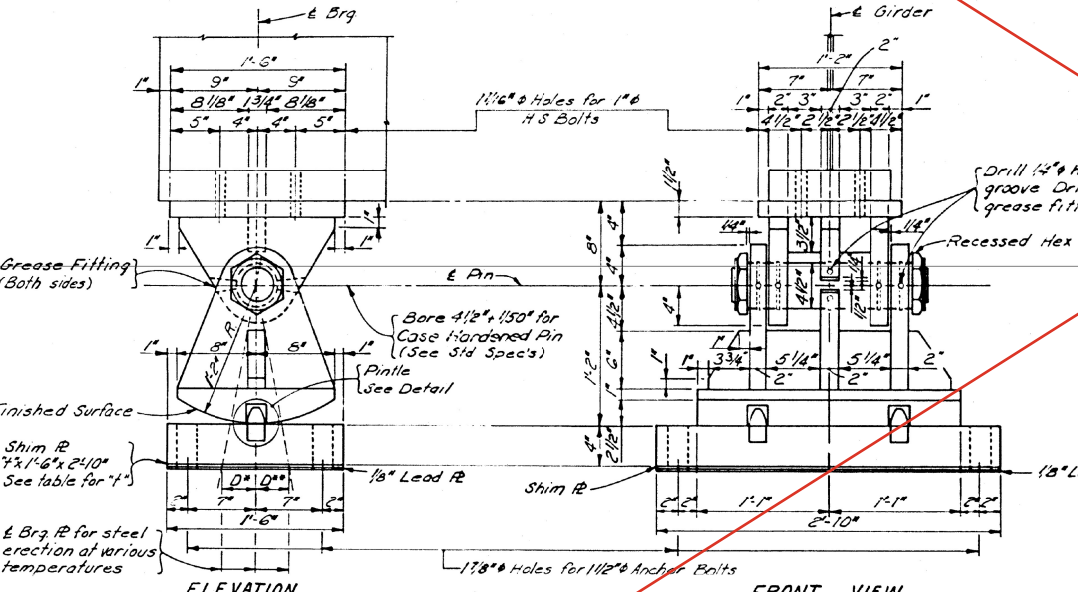
ELEVATION
FIXED BEARINGS AT N & S ABUTMENTS
 TYPE A (8-REQ'D)



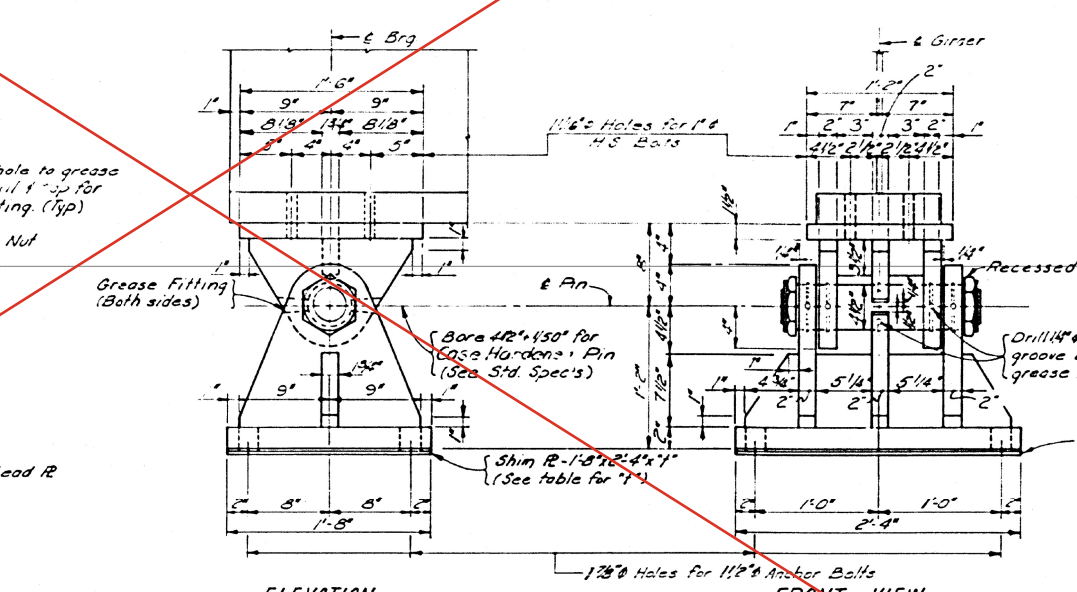
ELEVATION
EXPANSION BEARINGS AT PIER 1 (SPAN 1) & PIER 3 (SPAN 4)
 TYPE B (8-REQ'D)



PINTLE DETAIL



ELEVATION
EXPANSION BEARINGS AT PIER 1 (SPAN 2) & PIER 3 (SPAN 3)
 TYPE C (8-REQ'D)



ELEVATION
FIXED BEARING AT PIER 2
 TYPE D (8-REQ'D)

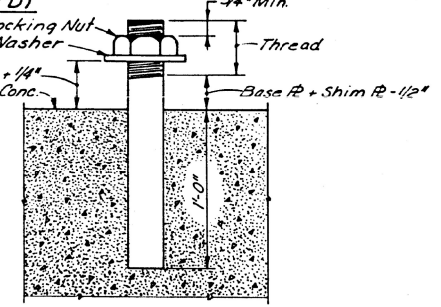
GREASE GROOVE ON SADDLE
 Note Grease bearing assembly with molybdenum grease before installation

NOTE: Steel Castings of equal sections may be substituted for steel weldments shown. Use AASHTO M192 Grade 70 for this substitution.

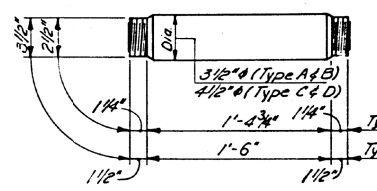
NOTE: 1/2" Continuous fillet welds for all Bearings
 Work this sheet with Sheets 3-7.

SHIM R'S - DIMENSION "I"

GIRDER	SPAN 1	SPAN 2	SPAN 3	SPAN 4
	Abut. Pier 1	Pier 2	Pier 3	Pier 3 N Abut.
1	—	1/8"	1/8"	1/8"
2	3/16"	3/16"	3/16"	3/16"
3	3/8"	3/8"	1/2"	1/2"
4	5/8"	5/8"	3/4"	5/8"



ANCHOR BOLT DETAIL



PIN DETAIL

NOTES ON SETTING OF ANCHOR BOLTS AT EXP BRGS.

- 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.
- After girders 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.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 BEARING DETAILS
 PROJECT: F.A. 405
 C. & N.W. RR. OVER F.A. ROUTE 405
 F.A. 405 SECTION 72-7S
 PEORIA COUNTY
 STA. 1004 + 97.92

DESIGNED	L2W
CHECKED	JLH
DRAWN	JRJ
CHECKED	LRW

MODEL DATE: 02/23/2024
 FILE NAME: 2023022309B40 - Bridge Painting (FY 2025) IL CAD - DWG04.7 TransSheets\0468\0468-Str-Structural\detail_4.dgn



TWM, INC.
 www.twm-inc.com
 IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = djp
 DESIGNED - JCL
 DRAWN - JCL
 CHECKED - TBP
 DATE - JULY 2024

REVISOR
 REVISIONS
 REVISIONS
 REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LOCATION 4 - STRUCTURE INFORMATION
 SN 072-0143

SCALE: N/A SHEET 5 OF 6 SHEETS STA. TO STA.

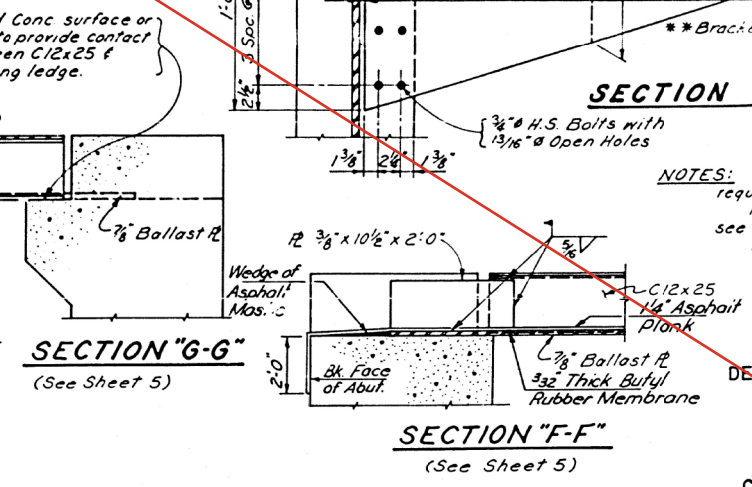
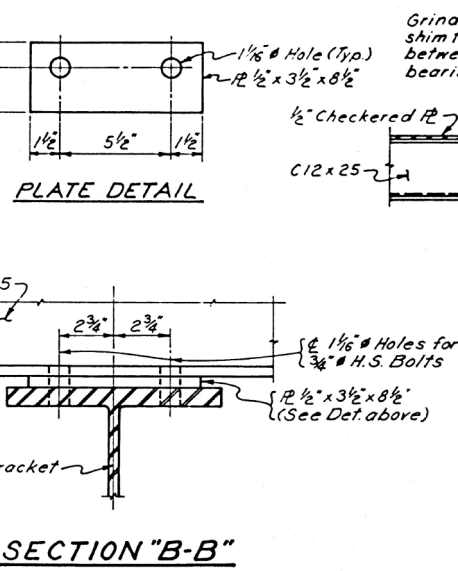
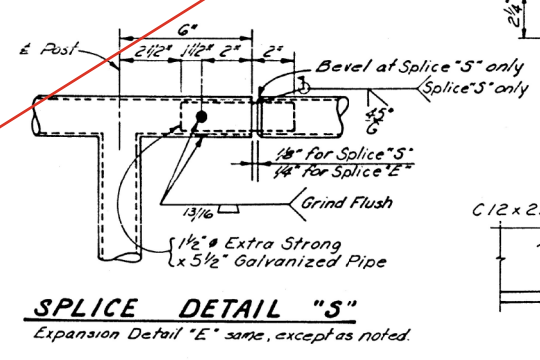
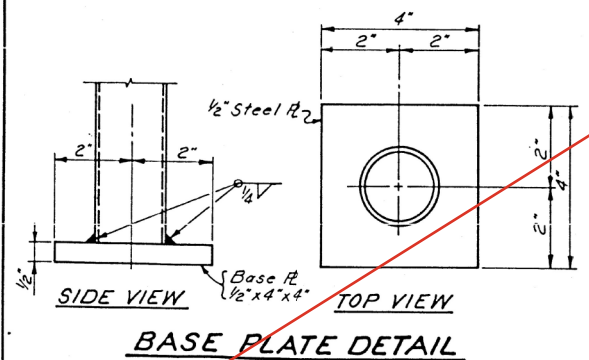
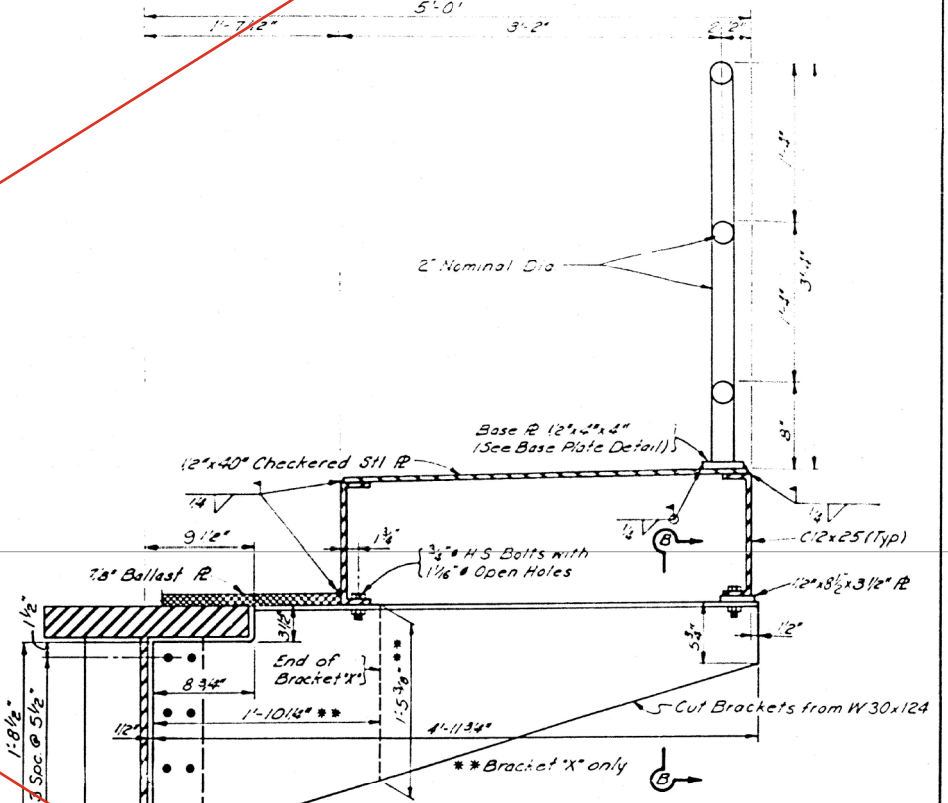
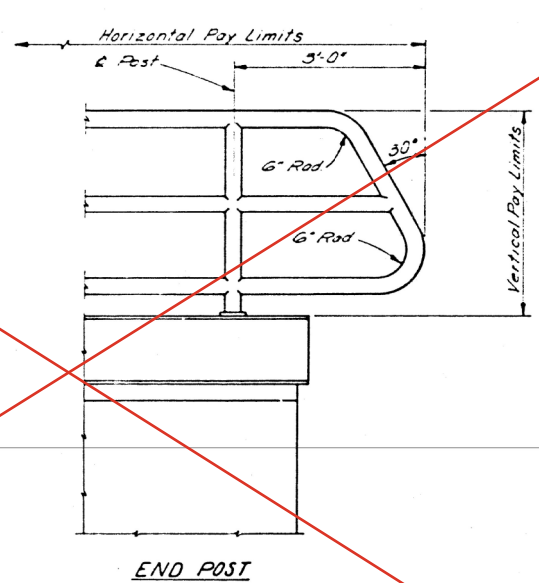
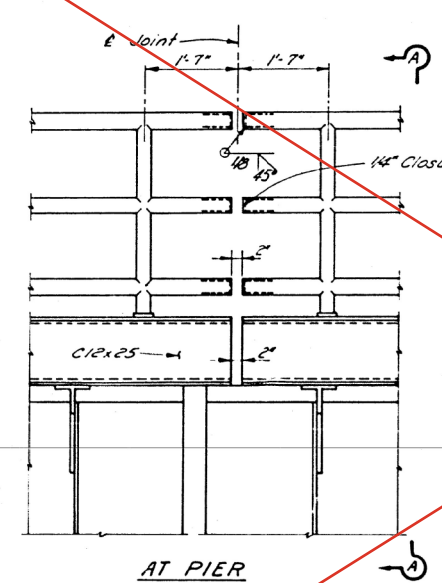
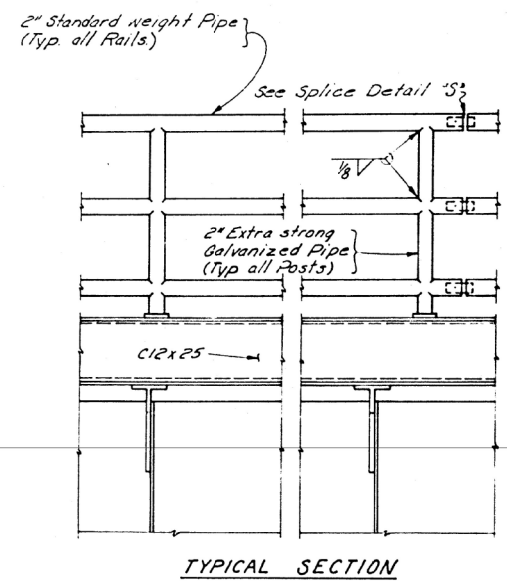
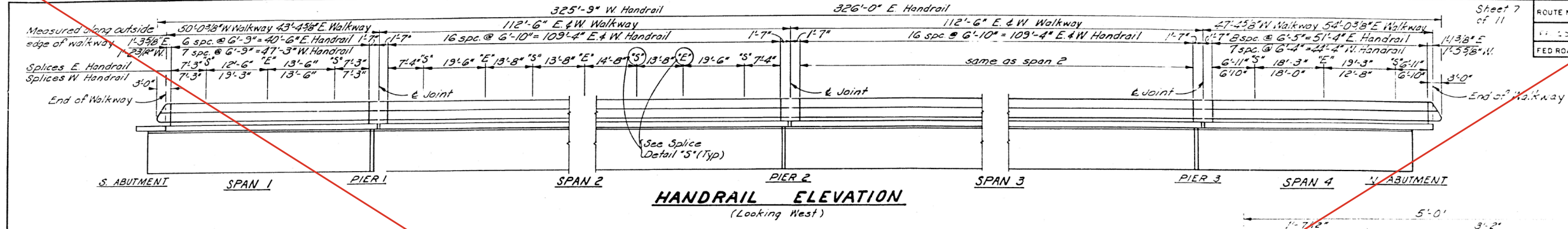
VAR	D4 BRIDGE PAINTING 2025-1	*	43	38
* MARSHALL, PEORIA, TAZEWELL		CONTRACT NO. 68J49		
ILLINOIS		FED. AID PROJECT		

REVISED 10-28-2024

REV. 10/28/24

FOR INFORMATION ONLY
 LOCATION 4 (IL 6 OVER UPRR)
 SN 072-0143

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
44	75B	PEORIA	43	39
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJ.		



NOTES: Total Length of Handrail required = 652 Lin. Ft.
 For location of Bracket "X", see Sheet 3.
 Work this sheet with Sheets 3-6.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 STEEL DETAILS
 PROJECT: F.A. 405
 C. & N.W. RR. OVER F.A. ROUTE 405
 F.A. 405 SECTION 72-75B
 PEORIA COUNTY
 STA. 1004 + 97.92

DESIGNED	ELW
CHECKED	PLH
DRAWN	JRJ
CHECKED	LRW

DESIGNED	JCL	REVISED	
DRAWN	JCL	REVISED	
CHECKED	TBP	REVISED	
DATE	JULY 2024	REVISED	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LOCATION 4 - STRUCTURE INFORMATION
 SN 072-0143

SCALE: N/A SHEET 6 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
44	D4 BRIDGE PAINTING 2025-1		43	39
* MARSHALL, PEORIA, TAZEWELL			CONTRACT NO. 68J49	
ILLINOIS			FED. AID PROJECT	