SN 064-0035
I-24 BRIDGE
Over Ohio River
Metropolis, IL

2023 Bridge Inspection Report

Bridge Inspection By: Collins Engineers, Inc. and WHKS & Co.

Bridge Inspection Report By: WHKS & Co.

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Bridge Executive Summary

Bridge Description

This bridge, 5576.3' long, consists of 2- Main Spans 4 & 13(Steel Tied-Arches) and 17-Approach Spans (Steel Girder & Floorbeam). Both abutments are concrete vaulted, with RC tee-beams. The 18 piers are concrete with pile supported footings.

Construction History

Date	Contract No.	Description
2016	78448	Bearing Replacement
2013	78273	Navigational Lighting Repairs
2013	78293	Misc. Bridge Repair and HMA Overlay
2005	98794	Structural Steel Repair
2002	98619	Joint Trough Installation and Bearing Repair
2000	98624	Clearance Gauge Painting
1997	98344	HMA Overlay and Joint Replacement
1996	98023	Stiffening Truss, Arch Tie Post Tensioning, Floorbeam and Tie Retrofits
1980	34626	Structural Steel Repair and Weld Investigation
1974	19081	Bridge Deck Membrane and Overlay
1968	17471	Original Plans: Superstructure
1968	17247	Original Plans: Substructure

The 2023 Bridge Inspection was performed by WHKS & Co. and Collins Engineers, Inc. under contract with the Illinois Department of Transportation. The inspection was started on March 6, 2023 and concluded on March 15, 2023.

SN 064-0035 is generally in fair condition, with isolated locations of poor condition. Most of the bridge deck, superstructure, paint system, and substructure are in fair condition. The deck overlay is in fair condition. The HMA overlay contains multiple patches, raveling, depressions, cracking, and spalls throughout. Cracking and spalling observed in the parapets/curbs. Several parapet railing brackets are twisted/broken from impact damage. The deck soffit has transverse cracking throughout and large spalls developing in the deck soffit directly below the base of parapet. Water intrusion has been documented at several locations inside the arch ribs and ties, also held within the arch rib bracing due to clogged drain holes. The arch hangers and sockets are in fair condition. The hanger paint system is experiencing widespread failure and the socket connection at the arch rib has slipped up to 1/2". Possible vortex shedding excitation observed in the east arch hanger cable at T8 in Span 13. Poor initial weld quality and design has led to several investigations and retrofits over the structure's life. Multiple weld deficiencies and small cracks exist in the arch ribs, ties, floorbeams, and stringer diaphragms. Section loss from corrosion is isolated and typically limited to areas around deck joints. Loose/broken/missing bolts are common at the stringer to floorbeam connections at expansion joints and relief joints. Loose/broken/missing bolts are also common at finger joint supports and stringer diaphragms. Finger joint closed drainage has been cleaned since previous inspection. Finger joint troughs are breaking away from connections and no longer effective. Bearings are generally in good condition throughout the structure. The top of footing is exposed at piers 4 through 9.

A Special Inspection with a twelve (12) month interval was initiated in 2021 for a fatigue crack in the web near the top flange of floorbeam 32 at stringer 4. This crack has since been arrested and Special Inspection terminated.

Illinois Department of Transportation

Routine Inspection Report

SN: 064-0035	District: 9	Spans: 2	Appr. Spans: 19	Skew: 0	ADT: 28800	Truck Pct: 23
ADT Un: 0	Maint. Co: 64 - Massac		Twsp: 01 - Co Unit Road Dist		Status: 1-Open, no restrictions	
Facility Carried: INTERSTATE 24			Feature Crossed: OHIO RIVER			
Location: 1.5 MI S US 45	Municipality: Metropolis		Team/Sub Section: 923/862		Insp/Rte: 888	
Bridge Name:			Material & Type: Steel / Arch - Thru			
Insp. Intervals Routine: 24	Fracture Critical: 24		Underwater: 60	Special: 12M	Element Level: 24	
90 - Inspection Date: 3/15/2023			90C - Temp (°F): 70		90B1 - In Depth: ☒	
Is Delinquent: ☐	Reason:					
90A - Agency Program Manager: Beisner, William A						
90A1 - Team Leader: Chelbian, Slade B			90A2 - Inspector: Spencer, Michael			

90B - Previous Inspection Remarks

2021 inspection: Modjeski and Masters, Inc. Overall team leader: Mike Parr Team leader: Chris Buckel Team members: Akash Jain Hong Z. Tan (Lin Engineering)

Resources

Time to Inspect (H:M): 80:0 Traffic Control: 6 - ADT > 5000/Lane

A03-Under bridge inspection vehicle, A02-Bucket lift vehicle

Inspector's Appraisals

	Prev	New	Comments
58 - Deck Condition:	6	5	10% transverse cracks/delaminations/spalls & 1% delaminations/spalls/map cracking in soffit. Transverse cracks with light efflorescence spaced at average intervals of 8' throughout. Isolated map cracking near joints. Large spalls with exposed reinforcement along edges of deck soffit throughout.
59 - Superstructure Condition:	5	5	Isolated locations with up to 49% section loss in stringers. Up to 22% section loss in floorbeams. Up to 13% web bearing loss in girders. Stringer to floorbeam connections with loose/missing/broken bolts. Widespread broken bolts at diaphragms and expansion joint supports. Isolated cracks at diaphragm connections.
60 - Substructure Condition:	5	5	Spalls and exposed reinforcement due to vessel impact at Pier 12. Top of pile cap exposed at Piers 4 - 9.
62 - Culvert Condition:	N	N	
61 - Channel Condition:	8	8	
71 - Waterway Adequacy:	9	9	
72 - Approach Rdwy Align:	8	8	
111 - Pier Navig Protection:	1	1	

	Prev	New
36A - Bridge Railing Adequacy:	2	2

	Prev	New		Prev	New		Prev	New
Approach Guardrail Adequacy: 36B - Transitions:	3	3	36C - Guardrail:	3	3	36D - Ends:	3	3

Additional Inventory Data - To Be Verified During Routine Inspection

108A - Wearing Surface Type:	G	108B - Type of Membrane:	A	108C - Deck Protection:	J

108D - Total Deck Thickness (In.):	10.8

59A - Paint Date (Mo/Yr):	10/2008	59B - Paint Type:	B	L	-	-

59C - Utilities Attached:	9	N	N

113A - Scour Critical Analysis Date:	04/11/1994	113 - Scour Critical Rating:	8	113B - Evaluation Method:	B

Weight Limit Posting:		
	70A2 - Single Unit Vehicles:	-
	70B2 - Combination Type 3S-1 (3 or 4 axles):	-
	70C2 - Combination Type 3S-2 (5 or more axles):	-
	70D2 - One Truck at a Time:	0

90B - Inspection Remarks

2023 Inspection - Collins Engineering Inc. and WHKS & Co.
Overall Team Leader: Slade Chelbian (WHKS & Co. - Spans 1-19 deck/super/sub)
Team Leader: Michael Spencer (Collins Engineering Inc. - Spans 1-4, 13 deck/super/sub)
Team Leader: Jacob Green (Collins Engineering Inc. - Spans 1-4, 13 deck/super/sub)
Team Leader: David Heberling (WHKS & Co. - Spans 1-19 deck/super/sub)
Team Member: Kara Ruble (WHKS & Co. Spans 4-19 deck/super/sub)
Team Member: Calvin Martin (WHKS & Co. Spans 4-19 deck/super/sub)

	Signature	Date
Inspection Team Leader:		7/17/2023
Agency Program Manager:	William A. Beisner	7/25/2023

Use Additional Forms as Needed

Illinois Department of Transportation

Fracture Critical Inspection Report

SN: 064-0035	District: 9	Spans: 2	Appr. Spans: 19	Skew: 0	ADT: 28800	Truck Pct: 23
ADT Un: 0	Maint. Co: 64 - Massac		Twsp: 01 - Co Unit Road Dist		Status: 1-Open, no restrictions	
Facility Carried: INTERSTATE 24			Feature Crossed: OHIO RIVER			
Location: 1.5 MI S US 45	Municipality: Metropolis		Team/Sub Section: 923/862		Insp/Rte: 888	
Bridge Name:			Material & Type: Steel / Arch - Thru			
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 60	Special: 12M	Element Level: 24		
93A - Inspection Date: 3/15/2023		93A4 - Temp (°F): 70				
Is Delinquent: ☐	Reason:					
90A - Agency Program Manager: Beisner, William A						
93A3 - Team Leader: Chelbian, Slade B		93A5 - Inspector: Spencer, Michael				

Resources

Time to Inspect (H:M): 88:0 Traffic Control: 6 -

A03-Under bridge inspection vehicle, A02-Bucket lift vehicle

Inspector's Appraisals

92A1-Type: A6 If "X4-Other" Description:
93A1-Rating: Prev. 5 New 5 FC Method: Prev. _ V New: MP ☐ DP ☐ UT ☒ V ☒
93A2-Remarks: Hoan repairs were finished in 2004. 13% Section Loss (Web Bearing - Item 125) IRF = 1.43.

92A1-Type: D1 If "X4-Other" Description:
93A1-Rating: Prev. 6 New 6 FC Method: Prev. _ _ _ V New: MP ☐ DP ☐ UT ☒ V ☒
93A2-Remarks: Post-Tension Cables have been wrapped. Isolated paint failure, rusted bolts, missing lower cover plates at splices, and section loss < 2% at water intrusion locations (hatches).

Notes: Diaphragm plates have been added to the inside of each tie. The end panels of each tie not accessible for inspection. Access hatches are sealed with caulk. Will need breaker bar to remove hatches and scraper/caulk/gun to reseal after inspection.

92A1-Type: X2 If "X4-Other" Description:
93A1-Rating: Prev. 5 New 5 FC Method: Prev. V New: MP ☐ DP ☐ UT ☒ V ☒
93A2-Remarks: Isolated areas with 26% section loss top flange, 22% section loss bottom flange at midspan (Item 208). 1" crack in Floorbeam 32 web near top flange at Stringer 4 (Item 179) has been arrested with 12-month Special Inspection implemented in 2021.

92A1-Type: X4 If "X4-Other" Description: Arch Hangers
93A1-Rating: Prev. 7 New 7 FC Method: Prev. _ _ _ V New: MP ☐ DP ☐ UT ☐ V ☒
93A2-Remarks: Widespread paint failure but galvanizing still appears to be effective. Only minor surface corrosion observed. Possible vortex shedding excitation observed in the east arch hanger cable at T8 in Span 13.

92A1-Type: If "X4-Other" Description:
93A1-Rating: Prev. __ New FC Method: Prev. _ _ _ _ New: MP ☐ DP ☐ UT ☐ V ☐
93A2-Remarks:

Illinois Department of Transportation

Fracture Critical Inspection Report
Structure Number: 064-0035

92A1-Type: If "X4-Other" Description:
93A1-Rating: Prev. _ New FC Method: Prev. _ _ _ _ New: MP ☐ DP ☐ UT ☐ V ☐
93A2-Remarks:

92A1-Type: If "X4-Other" Description:
93A1-Rating: Prev. _ New FC Method: Prev. _ _ _ _ New: MP ☐ DP ☐ UT ☐ V ☐
93A2-Remarks:

92A1-Type: If "X4-Other" Description:
93A1-Rating: Prev. _ New FC Method: Prev. _ _ _ _ New: MP ☐ DP ☐ UT ☐ V ☐
93A2-Remarks:

92A1-Type: If "X4-Other" Description:
93A1-Rating: Prev. _ New FC Method: Prev. _ _ _ _ New: MP ☐ DP ☐ UT ☐ V ☐
93A2-Remarks:

92A1-Type: If "X4-Other" Description:
93A1-Rating: Prev. _ New FC Method: Prev. _ _ _ _ New: MP ☐ DP ☐ UT ☐ V ☐
93A2-Remarks:

	Signature	Date
Inspection Team Leader:	[signature]	7/17/2023
Agency Program Manager:	William A. Beisner	7/25/2023

Two Girder
A1- Suspension Pin & Link
A2- Suspension Single Pin
A3- Tension Flanges Riveted / Botled Plate Girders
A4- Bearing Seat of Suspended Spans
A5- Tension Flange of Rolled Beam
A6- Tension Flange of Welded Plate Girders
A7- Tension Flanges of Lattice Truss Web Girders

Truss System
B1- Eyebar & Pin Tension Members
B2- Simple Span Welded Truss Tension Members
B3- Hanger Link & Pin of Suspended Trusses
B4- Single Element Tension Members
B5- Simple Span Riveted/Bolted Tension Members
B6- Continuous Truss System- Welded, Riveted or Bolted Tension Members

Cable Stayed & Suspension
C1- Suspension Bridge- Cables
C2- Cable Stayed- Cables

Tied Arches
D1- Welded Box Ties
D2- Riveted/Bolted Box Ties
D3- Stiffened Girders

Framed Steel Substructure
E1- Welded or Rolled Pier Cap
E2- Riveted or Bolted Pier Cap
E3- Welded or Rolled Pier Column
E4- Riveted or Bolted Pier Column

Box Beams
F1- Single Welded Box
F2- Single Riveted/Bolted Box
F3- Double Box Beam- Welded Riveted or Bolted

Other Types
X1- Bascule
X2- Floorbeams supporting other steel members or spacing >15ft.
X3- Cross Frames or Transfer Beams
X4- Other

Illinois Department of Transportation

Element Level Inspection Report

SN: 064-0035	District: 9	Spans: 2	Appr. Spans: 19	Skew: 0	ADT: 28800	Truck Pct: 23
ADT Un: 0	Maint. Co: 64 - Massac	Twsp: 01 - Co Unit Road Dist	Status: 1-Open, no restrictions			
Facility Carried: INTERSTATE 24		Feature Crossed: OHIO RIVER				
Location: 1.5 MI S US 45	Municipality: Metropolis	Team/Sub Section: 923/862	Insp/Rte: 888			
Bridge Name:		Material & Type: Steel / Arch - Thru				
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 60	Special: 12M	Element Level: 24		
93C - Inspection Date: 3/15/2023		93C6 - Temp (°F): 70				
Is Delinquent: ☐	Reason:					
90E - Agency Program Manager: Beisner, William A						
90E1 - Team Leader: Chelbian, Slade B		90E2 - Inspector: Spencer, Michael				

Resources

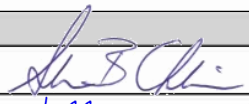
Time to Inspect (H:M):

Traffic Control:

Inspector's Appraisals

EN	EPN	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
12		Reinforced Concrete Deck	4	363926	SF	323176	35900	0	4850
		Remarks: Leaching transverse cracks at 8' centers and delaminations/spalling in deck soffit throughout.							
8510	12	Flexible Wearing Surface	4	363926	SF	328431	35300	195	0
		Remarks: Multiple failing patches, raveling, depressions, cracking, and spalling throughout.							
520	12	Concrete Reinforcing Steel Protective System	4	363926	SF	363926	0	0	0
		Remarks:							
107		Steel Open Girder/Beam	4	8400	LF	8400	0	0	0
		Remarks:							
8102	107	Steel Beam/Girder/Stringer End Under Joint	4	16	EA	15	1	0	0
		Remarks: Paint failure and isolated SL below joints							
515	107	Steel Protective Coating	4	344282	SF	296482	0	0	47800
		Remarks: 14% of paint coating failed.							
110		Reinforced Concrete Open Girder/Beam	4	240	LF	240	0	0	0
		Remarks:							
113		Steel Stringer	4	30520	LF	30512	2	6	0
		Remarks: Isolated paint failure and section loss below joints.							
8102	113	Steel Beam/Girder/Stringer End Under Joint	4	152	EA	99	3	50	0
		Remarks: Paint failure and isolated SL below joints							
515	113	Steel Protective Coating	4	222243	SF	214443	0	0	7800
		Remarks: 4% of paint coating failed.							
141		Steel Arch	4	2720	LF	2720	0	0	0
		Remarks:							
515	141	Steel Protective Coating	4	344731	SF	343731	0	0	1000
		Remarks: <1% of paint coating failed.							
148		Secondary Steel Cables	4	6778	LF	6778	0	0	0
		Remarks:							
152		Steel Floor Beam	4	13754	LF	13747	0	6	1
		Remarks: Isolated paint failure and section loss below joints.							
515	152	Steel Protective Coating	4	235996	SF	212156	0	0	23840
		Remarks: 10% of paint coating failed.							
161		Steel Pin and Pin & Hanger Assembly or both	4	144	EA	144	0	0	0
		Remarks:							
162		Steel Gusset Plate Assembly	4	72	EA	36	36	0	0
		Remarks: All lower gusset plates with paint failure & up to 25% section loss							
205		Reinforced Concrete Column	1	34	EA	33	1	0	0

		Remarks:	Isolated spalls from vessel impact damage on upstream face of Pier 12.						
210		Reinforced Concrete Pier Wall	1	768	LF	768	0	0	0
		Remarks:							
215		Reinforced Concrete Abutment	1	256	LF	256	0	0	0
		Remarks:							
234		Reinforced Concrete Pier Cap	1	428	LF	428	0	0	0
		Remarks:							
300		Strip Seal Expansion Joint	4	378	LF	0	378	0	0
		Remarks:	Debris build up, typical.						
303		Assembly Joint with Seal	4	132	LF	0	66	66	0
		Remarks:	Debris build up, typical. Leakage observed at abutments						
305		Assembly Joint without Seal	4	330	LF	170	0	160	0
		Remarks:	1/2" to 1" vertical misalignment (Piers 4 & 12)						
311		Movable Bearing	4	20	EA	20	0	0	0
		Remarks:							
313		Fixed Bearing	4	20	EA	20	0	0	0
		Remarks:							
314		Pot Bearing	4	4	EA	4	0	0	0
		Remarks:							
331		Reinforced Concrete Bridge Railing	4	16862	LF	12551	3250	1061	0
		Remarks:	Cracking and spalling with exposed reinforcement.						

	Signature	Date
Inspection Team Leader:		7/17/2023
Agency Program Manager:	William A. Beisner	7/25/2023

Use Additional Forms as Needed

Illinois Department of Transportation

Special Inspection Report

SN: 064-0035	District: 9	Spans: 2	Appr. Spans: 19	Skew: 0	ADT: 28800	Truck Pct: 23
ADT Un: 0	Maint. Co: 64 - Massac	Twsp: 01 - Co Unit Road Dist	Status: 1-Open, no restrictions			
Facility Carried: INTERSTATE 24		Feature Crossed: OHIO RIVER				
Location: 1.5 MI S US 45	Municipality: Metropolis	Team/Sub Section: 923/862	Insp/Rte: 888			
Bridge Name:		Material & Type: Steel / Arch - Thru				
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 60	Special: 12M	Element Level: 24		
93C - Inspection Date: 3/15/2023		93C3 - Temp (°F): 70				
Is Delinquent: ☐	Reason:					
90A - Agency Program Manager: Beisner, William A						
93C2A - Team Leader: Chelbian, Slade B	93C2B - Inspector: Spencer, Michael					

93C4 - Previous Special Inspection Remarks

2- 1" Crack Arrestor holes drilled in web.

Resources

Time to Inspect (H:M): 88:0 Traffic Control: 6 -

A03-Under bridge inspection vehicle, A03-Under bridge inspection vehicle

Special Inspection Inventory

92C - Inspection Interval: 12 92C4 - Initiated By: 1 If "4-Other Agency" Describe:

92C2 - Start Date: 03/01/2021 92C6 - Determination Date: 09/15/2021 92C7 - Inspect By Date: 09/15/2022

92C1 - Type Code:

- ☒ A - Structural Damage/Steel Superstructure
- ☐ B - Structural Damage/Concrete Superstructure
- ☐ C - Structural Damage/Timber Superstructure
- ☐ D - Structural Damage/Steel Substructure
- ☐ E - Structural Damage/Concrete Substructure
- ☐ F - Structural Damage/Timber Substructure
- ☐ G - Underwater/Debris and/or Erodible Soil
- ☐ H - Underwater/Flow Restrictions or Velocity
- ☐ I - Underwater/Spread footings not adequately keyed into rock or protected from the effects of streambed scour
- ☐ J - Reserved
- ☐ K - Underwater/Scour Critical Evaluation Monitoring
- ☐ L - Existing Streambed Scour/Spread Footing
- ☐ M - Existing Streambed Scour/Pile Supported Footing
- ☐ N - Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P - Embankment Movement or Settlement
- ☐ Q - Substructure Movement or Settlement
- ☐ R - Pin & Link in Multi-Girder (Redundant) Bridge (If checked must add BBS Form(s) 2760 and 2780 if needed)
- ☐ S - Specifically Identified Problematic Structural Details
- ☐ T - Deck
- ☐ U - Dapped Girders/Beams
- ☐ X - Critical Finding
- ☐ Z - Other (Describe):

92C5 - Special Inspection Type Remarks:

Item 179: web crack in FB 32 at top of stiffener near Stringer 4. S. Koehler (9/15/2021).

SPECIAL INSPECTION

93C1 - Special Inspection Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicating Imminent Structural Failure - Immediate closure required, then contact BBS
☐ 1	☐ 1	- Progression of Deterioration or Worsening Condition - Contact BBS, Program Manager, and SI Initiator
☒ 2	☒ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted - Special inspections no longer required after verification by BBS personnel
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition - Primarily for monitoring problematic structural details

Illinois Department of Transportation

Special Inspection Report
Structure Number: 064-0035

	Signature	Date
Inspection Team Leader:		7/17/2023
Agency Program Manager:	William A. Beisner	7/25/2023
[redacted]		
[redacted]		
[redacted]		
[redacted]		

Use Additional Forms as Needed

93C4 - Special Inspection Remarks

2 - 1" Crack arrestor holes drilled in web. No further crack propagation observed.

Illinois Department of Transportation

Underwater Inspection Report

SN: 064-0035	District: 9	Spans: 2	Appr. Spans: 19	Skew: 0	ADT: 28800	Truck Pct: 23
ADT Un: 0	Maint. Co: 64 - Massac	Twsp: 01 - Co Unit Road Dist	Status: 1-Open, no restrictions			
Facility Carried: INTERSTATE 24		Feature Crossed: OHIO RIVER				
Location: 1.5 MI S US 45	Municipality: Metropolis	Team/Sub Section: 923/862	Insp/Rte: 888			
Bridge Name:		Material & Type: Steel / Arch - Thru				
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 60	Special: 12M	Element Level: 24		
93B - Inspection Date: 3/21/2023		93B6 - Temp (°F): 53				
Is Delinquent: ☐	Reason:					
90A - Agency Program Manager: Beisner, William A						
93B3 - Team Leader: Summer, Shane M		93B7 - Inspector: Deckard, Joseph				

93B2 - Previous Underwater Inspection Remarks

Footing exposure at pile supported Piers 4 and 6. Seal exposure at pile supported Pier 4. Scour Depressions located at Piers 4, 5, & 10. Impact damage with exposed reinforcing steel at Pier 12. Impact damage at Pier 11. Scaling with 1/8 to 1/4 inch penetration at all piers.

Orion Engineers, PLLC Inspection Team:

Resources

Time to Inspect (H:M): 3:0 Traffic Control: 0 -

A06-Boat, I14-Depth finder/fathometer

Inspector's Appraisals

93B8 - Substructure Units Inspected

PIERS 3-13

93B1 - Rating

Prev	New
5	5

	Prev	New
93B4 - Method:	V D _ P S	P S

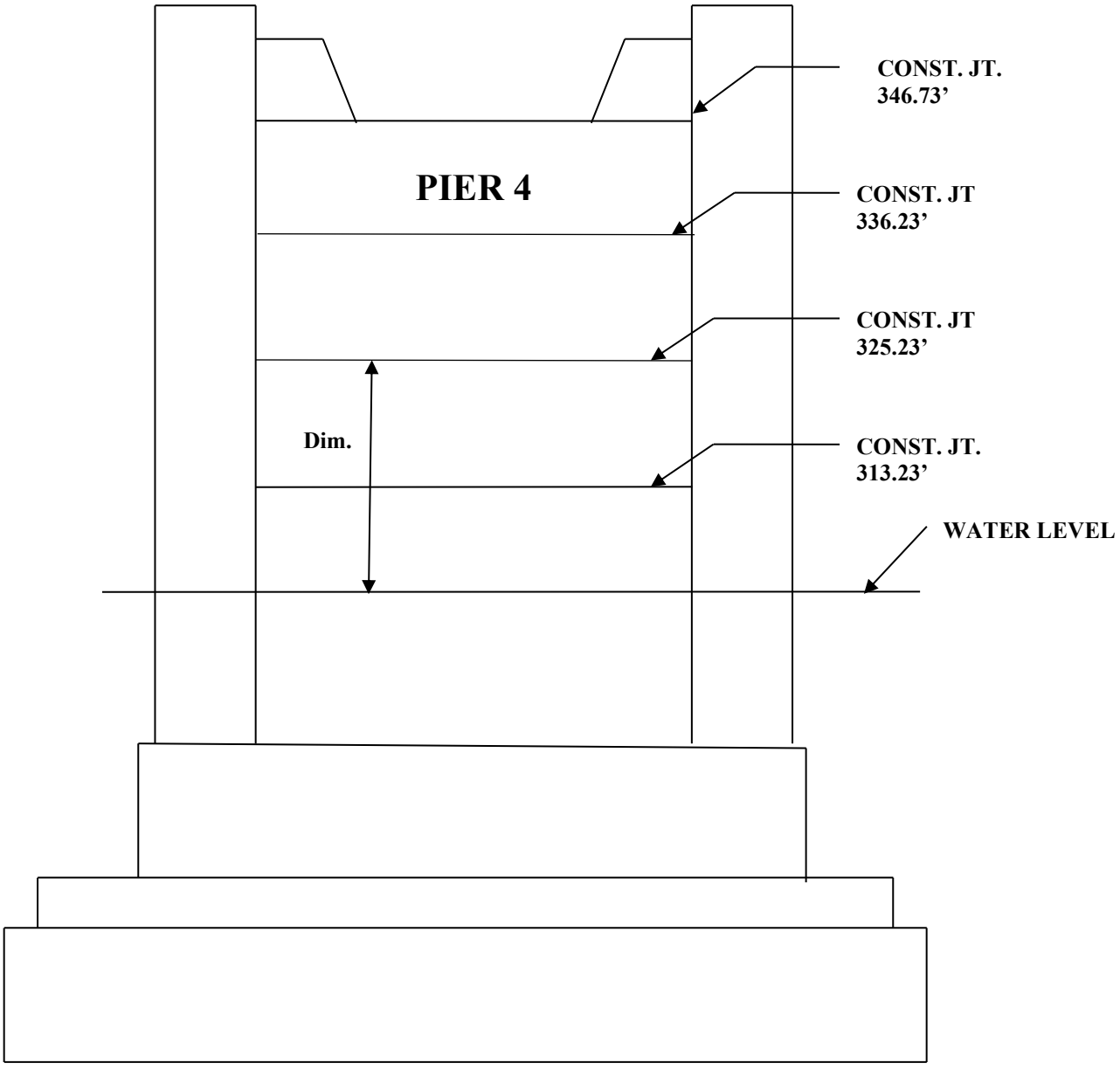
If "O-Other" Describe:

93B2 - Underwater Inspection Remarks

Top of pile cap exposed at Pier 4 -Pier 9. Seal Coat exposed at upstream end of Pier 4. 100 square feet of spalls with isolated exposed reinforcement on upstream face of Pier 12 due to vessel impact.

	Signature	Date
Inspection Team Leader:		7/17/2023
Agency Program Manager:	William A. Beisner	7/25/2023

Use Additional Forms as Needed


PIER 4
CONST. JT.
346.73'
CONST. JT
336.23'
CONST. JT
325.23'
Dim.
CONST. JT.
313.23'
WATER LEVEL

DETAIL A

Underwater Investigation **Sheet 1 of 11**

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	283	283	281	279	280	279	276
25’ (+/-)	282	282	279	279	280	280	276
Edge	282	276	276	274	276	279	276
C.L.	282	277	277		275	273	275
Edge	281	280	277	274	273	274	274
25’ (+/-)	280	279	280	278	275	276	274
50’ (+/-)	283	282	280	277	276	275	273

Pier 3

Flow Dir.: ↓

Top Pile Cap
Elevation: 263.34’

Bottom Pile Cap
Elevation: 255.34’

Bottom Sealcoat
Elevation: 244.34’

Design S.B.
Elevation: 278.0’

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	272	273	272	271	270	272	273
25’ (+/-)	271	271	265	261	261	268	273
Edge	267	261	254	254	265	261	272
C.L.	268	267	265	Pier 4 Flow Dir.: ↓ Top Pile Cap Elevation: 265.23’ Bottom Pile Cap Elevation: 257.23’ Bottom Sealcoat Elevation: 246.23’ Design S.B. Elevation: 274.0’	265	261	269
Edge	271	275	269	265	265	264	266
25’ (+/-)	274	272	270	265	263	266	267
50’ (+/-)	276	278	269	268	267	268	268

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	273	273	272	272	273	273	273
25’ (+/-)	273	273	273	272	272	273	272
Edge	274	272	271	269	270	272	273
C.L.	274	274	275		268	271	272
Edge	279	277	274	268	268	269	270
25’ (+/-)	278	277	275	271	269	269	270
50’ (+/-)	278	277	275	271	269	270	270

Pier 5

Flow Dir.:

Top Pile Cap Elevation: 267.55’

Bottom Pile Cap Elevation: 259.55’

Bottom Sealcoat Elevation: 247.55’

Design S.B. Elevation: 276.1’

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	275	275	276	273	275	275	275
25’ (+/-)	274	274	269	269	274	276	276
Edge	275	271	268	267	269	274	274
C.L.	277	274	271	Pier 6 Flow Dir.: ↓ Top Pile Cap Elevation: 268.5’ Bottom Pile Cap Elevation: 260.5’ Bottom Sealcoat Elevation: 248.5’ Design S.B. Elevation: 278.9’	269	272	272
Edge	274	277	276	274	272	272	273
25’ (+/-)	274	279	277	275	274	274	274
50’ (+/-)	279	279	279	276	276	274	274

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	276	276	277	277	277	277	278
25’ (+/-)	276	277	277	277	277	277	278
Edge	276	276	274	269	269	274	277
C.L.	275	274	277		271	273	277
Edge	276	278	278	273	273	274	275
25’ (+/-)	280	280	280	280	273	276	275
50’ (+/-)	281	281	280	280	276	277	276

Pier 7

Flow Dir.: ↓

Top Pile Cap
Elevation: 269.16’

Bottom Pile Cap
Elevation: 261.16’

Bottom Sealcoat
Elevation: 253.16’

Design S.B.
Elevation: 281.2’

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	280	280	280	280	280	281	281
25’ (+/-)	280	280	280	280	276	281	281
Edge	280	280	277	270	269	279	281
C.L.	279	279	279	Pier 8 Flow Dir.: ↓ Top Pile Cap Elevation: 270.35’ Bottom Pile Cap Elevation: 262.35’ Bottom Sealcoat Elevation: 254.35’ Design S.B. Elevation: 280.1’	274	277	280
Edge	279	281	282	275	276	276	279
25’ (+/-)	283	283	283	279	278	277	279
50’ (+/-)	283	281	284	280	280	280	279

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	283	282	283	283	284	283	284
25’ (+/-)	282	282	283	281	281	283	284
Edge	281	279	276	272	271	279	283
C.L.	280	281	282	Pier 9 Flow Dir.: ↓ Top Pile Cap Elevation: 272.32’ Bottom Pile Cap Elevation: 264.32’ Bottom Sealcoat Elevation: 256.32’ Design S.B. Elevation: 279.4’	275	278	282
Edge	282	283	283	278	278	278	279
25’ (+/-)	283	285	284	281	281	278	279
50’ (+/-)	284	285	286	284	283	280	280

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	284	285	284	284	285	285	286
25’ (+/-)	284	284	284	284	285	286	286
Edge	284	284	281	279	277	282	286
C.L.	284	282	285		279	282	285
Edge	285	285	287	284	280	283	283
25’ (+/-)	286	286	287	282	285	284	283
50’ (+/-)	286	288	287	285	285	284	283

Pier 10

Flow Dir.: ↓

Top Pile Cap Elevation: 273.32’

Bottom Pile Cap Elevation: 265.32’

Bottom Sealcoat Elevation: 255.32’

Design S.B. Elevation: 280.4’

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	286	287	286	286	287	286	287
25’ (+/-)	285	286	285	286	286	286	287
Edge	284	285	282	277	277	282	286
C.L.	584	283	282	Pier 11 Flow Dir.: ↓ Top Pile Cap Elevation: 273.47’ Bottom Pile Cap Elevation: 265.47’ Bottom Sealcoat Elevation: 255.47’ Design S.B. Elevation: 279.1’	279	281	285
Edge	286	286	286	284	280	281	283
25’ (+/-)	288	288	288	285	283	283	282
50’ (+/-)	289	288	288	285	285	284	282

Structure Number: 064-0035 **Water Elevation:** 300.53’

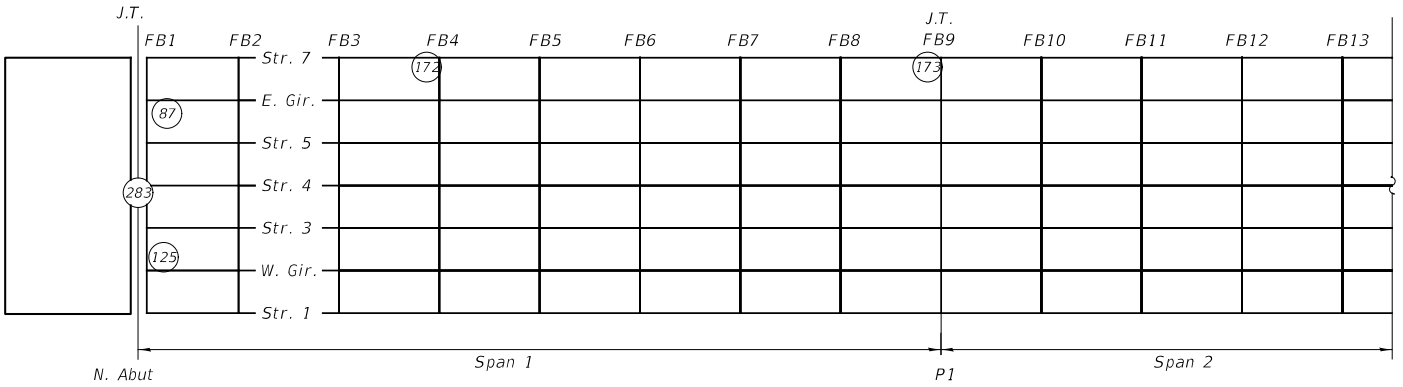
Inspection Date: 03-21-2023

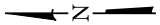
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

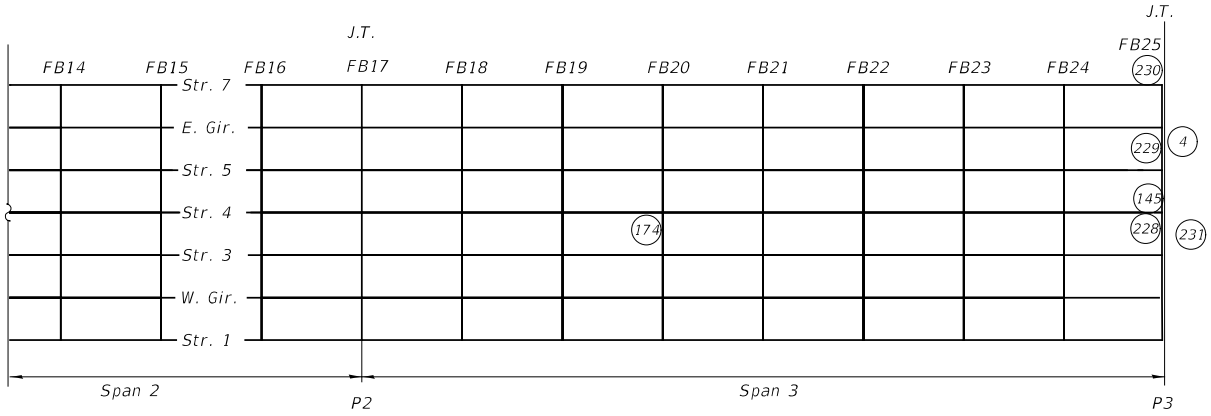
	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	286	285	285	285	286	286	286
25’ (+/-)	285	285	285	285	285	286	286
Edge	284	285	281	277	277	285	286
C.L.	284	285	286	Pier 12 Flow Dir.: ↓ Top Pile Cap Elevation: 274.11’ Bottom Pile Cap Elevation: 265.11’ Bottom Sealcoat Elevation: 255.11’ Design S.B. Elevation: 279.7’	280	282	286
Edge	287	288	287	277	276	280	284
25’ (+/-)	288	288	284	279	278	280	283
50’ (+/-)	289	288	283	280	279	280	281

Structure Number: 064-0035 **Water Elevation:** 300.53’
Inspection Date: 03-21-2023
Inspected By: S. Summer, J. Deckard, M. Rives **Detail / Dim. / Elev.:** A / 11.7’/ 312.23’

	50’	25’	Edge	Center Line	Edge	25’	50’
50’ (+/-)	283	284	288	289	290	293	Bank
25’ (+/-)	283	285	290	291	291	293	Bank
Edge	282	286	289	292	294	295	Bank
C.L.	282	283	294	Pier 13 Flow Dir.: ↓ Top Pile Cap Elevation: 274.11’ Bottom Pile Cap Elevation: 265.11’ Bottom Sealcoat Elevation: 255.11’ Design S.B. Elevation: 290.0’	294	Bank	Bank
Edge	284	281	289	291	293	298	Bank
25’ (+/-)	283	282	290	292	294	297	Bank
50’ (+/-)	282	283	287	290	293	296	298







(N) = Item # In Def. Table
(1) Paint Gen. Cond.
(2) Deck Gen. Cond.
(3) Overlay Gen. Cond.
(65) Parapet
(123) Girders
(143) Arch Spans Sway Bracing
(210) Stringers 1 & 7
(211) Gusset Plates
(226) Alum. Railing
(227) Arch Hangers
RJT. = Relief Jt.

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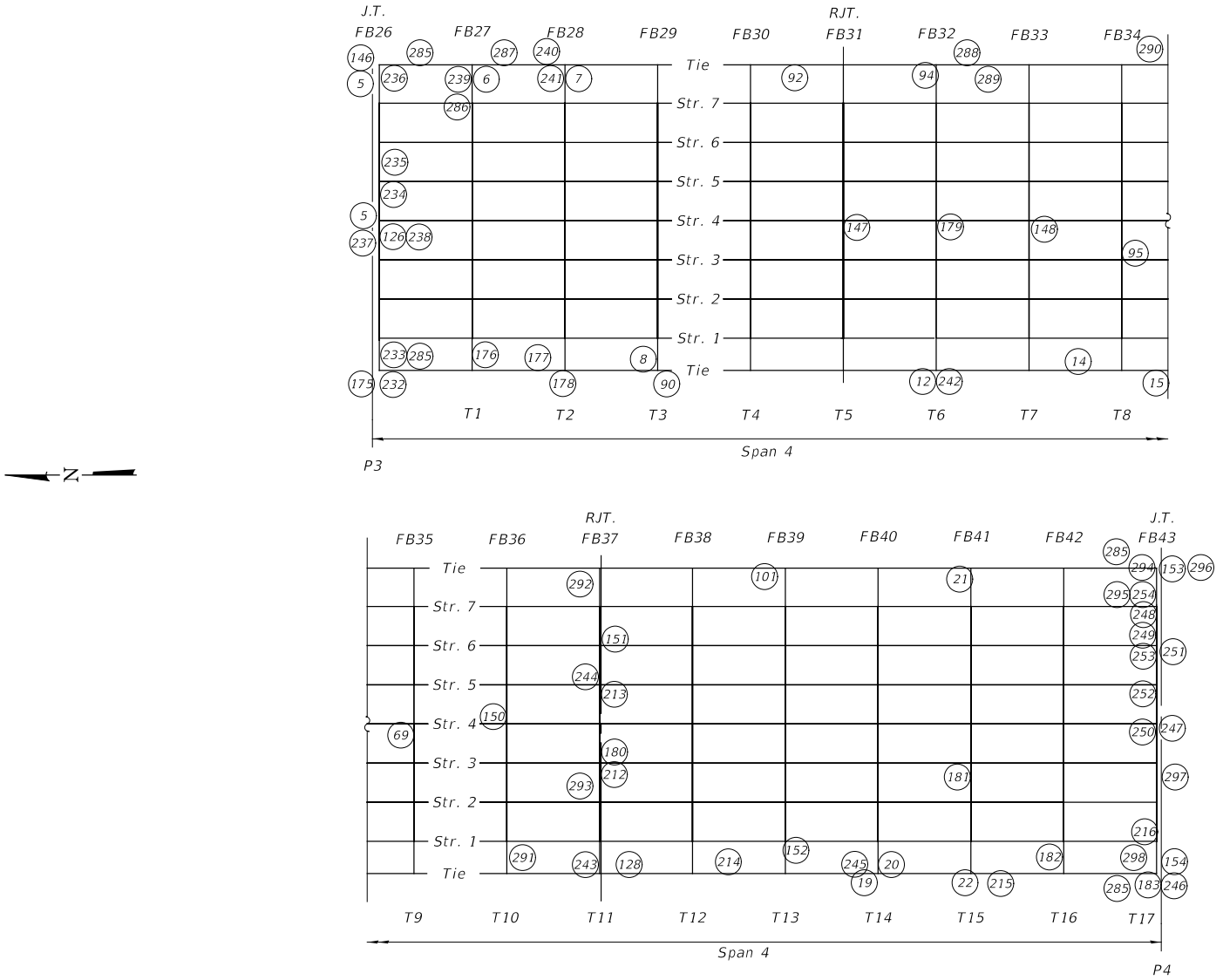
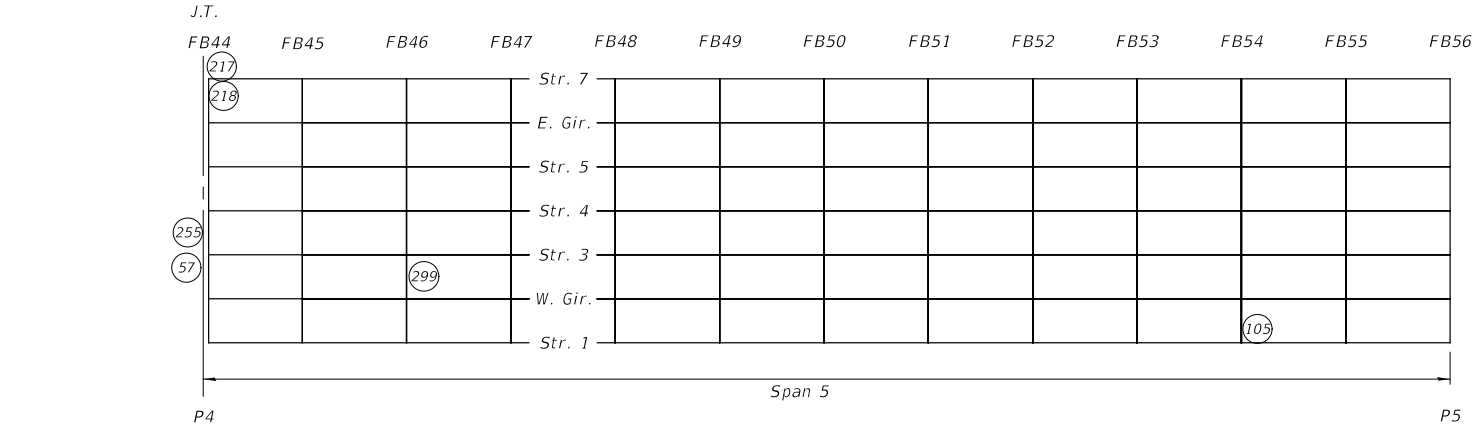
064-0035
Pg. 1



I-24 Metropolis
064-0035
Pg. 2



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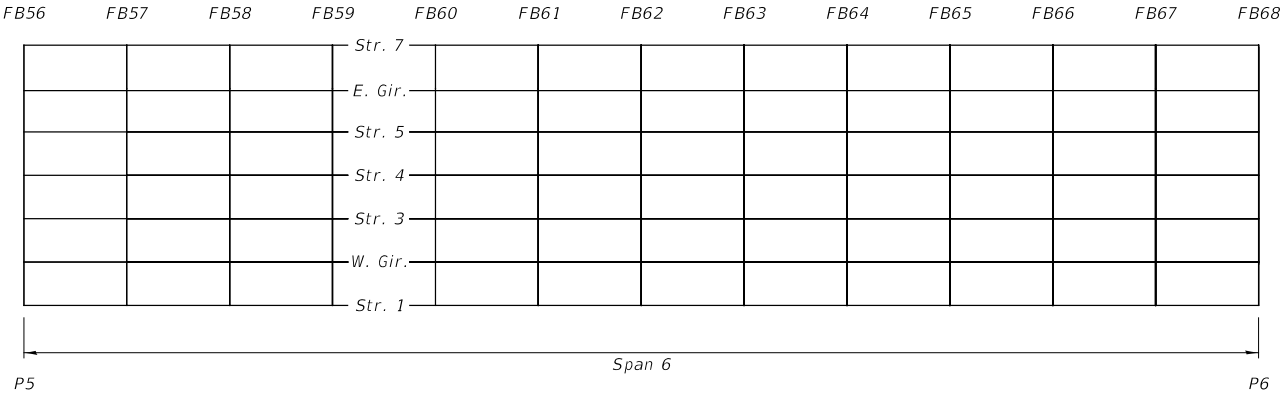

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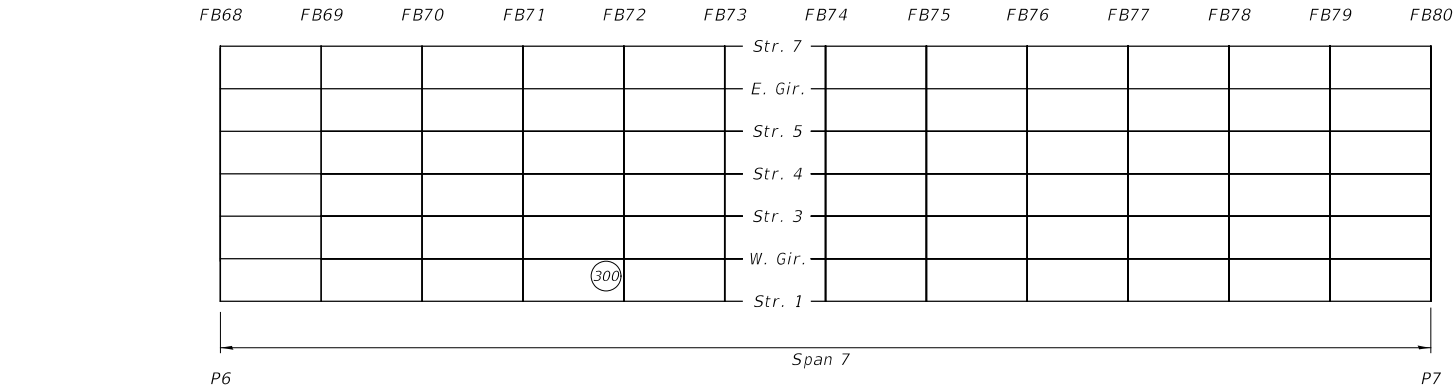
064-0035
Pg. 3



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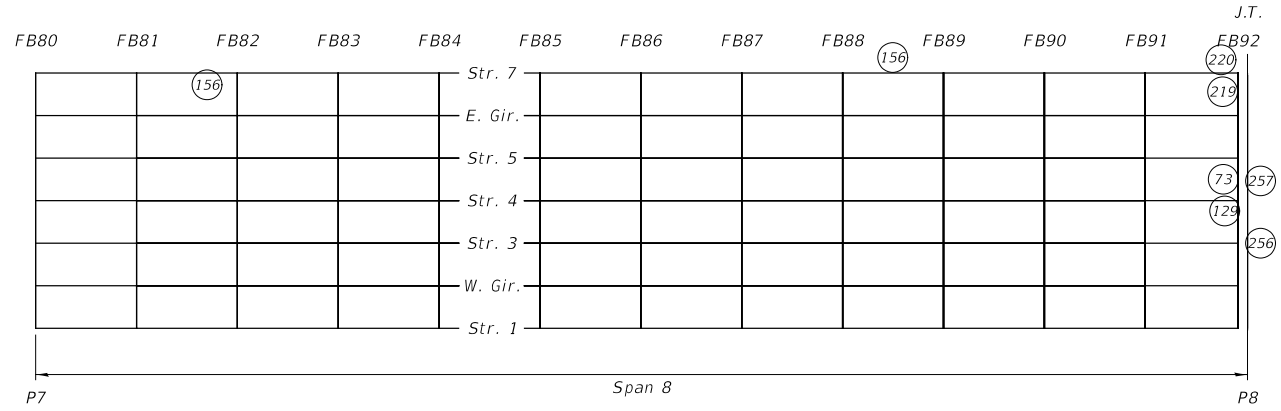
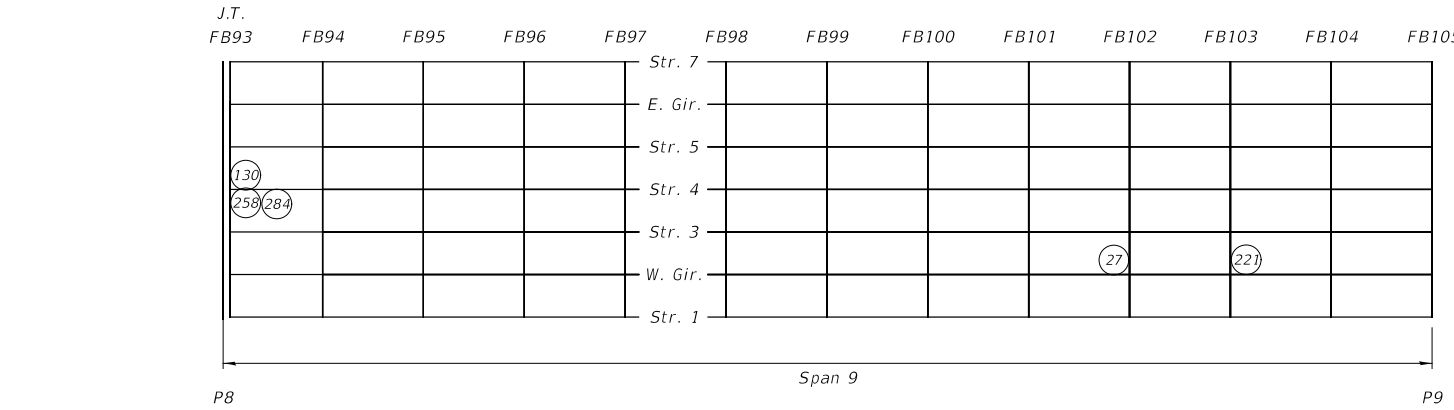
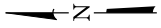
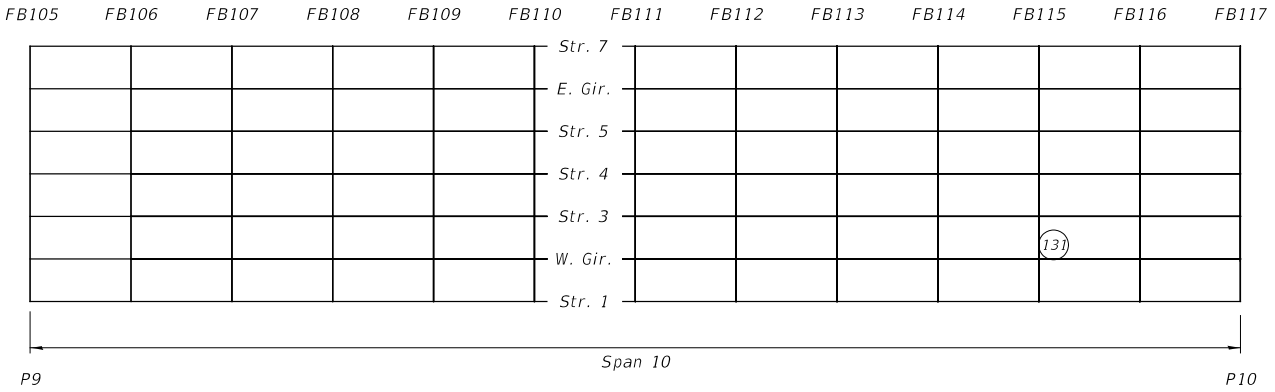


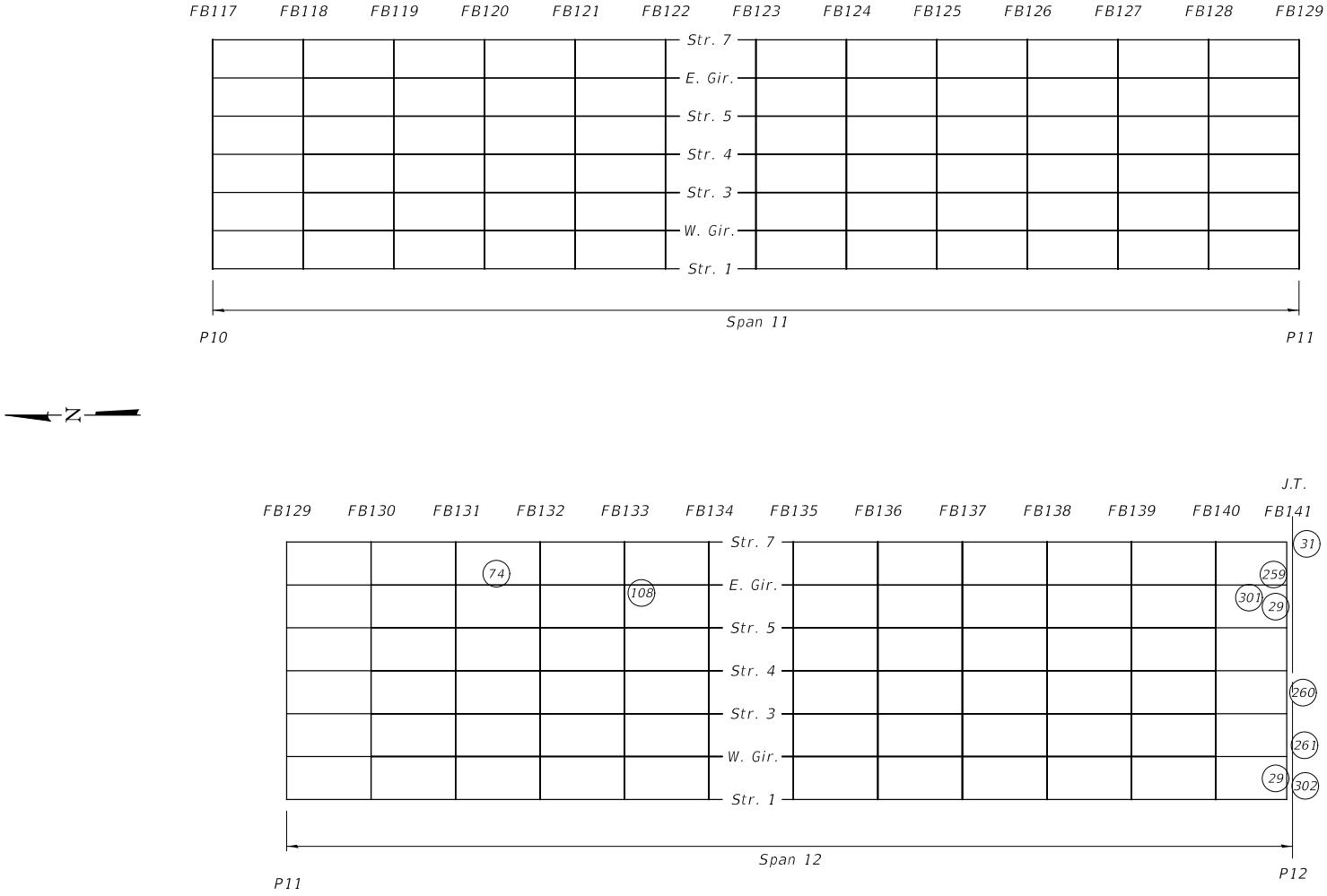
I-24 Metropolis
064-0035
Pg. 4







I-24 Metropolis
064-0035
Pg. 5



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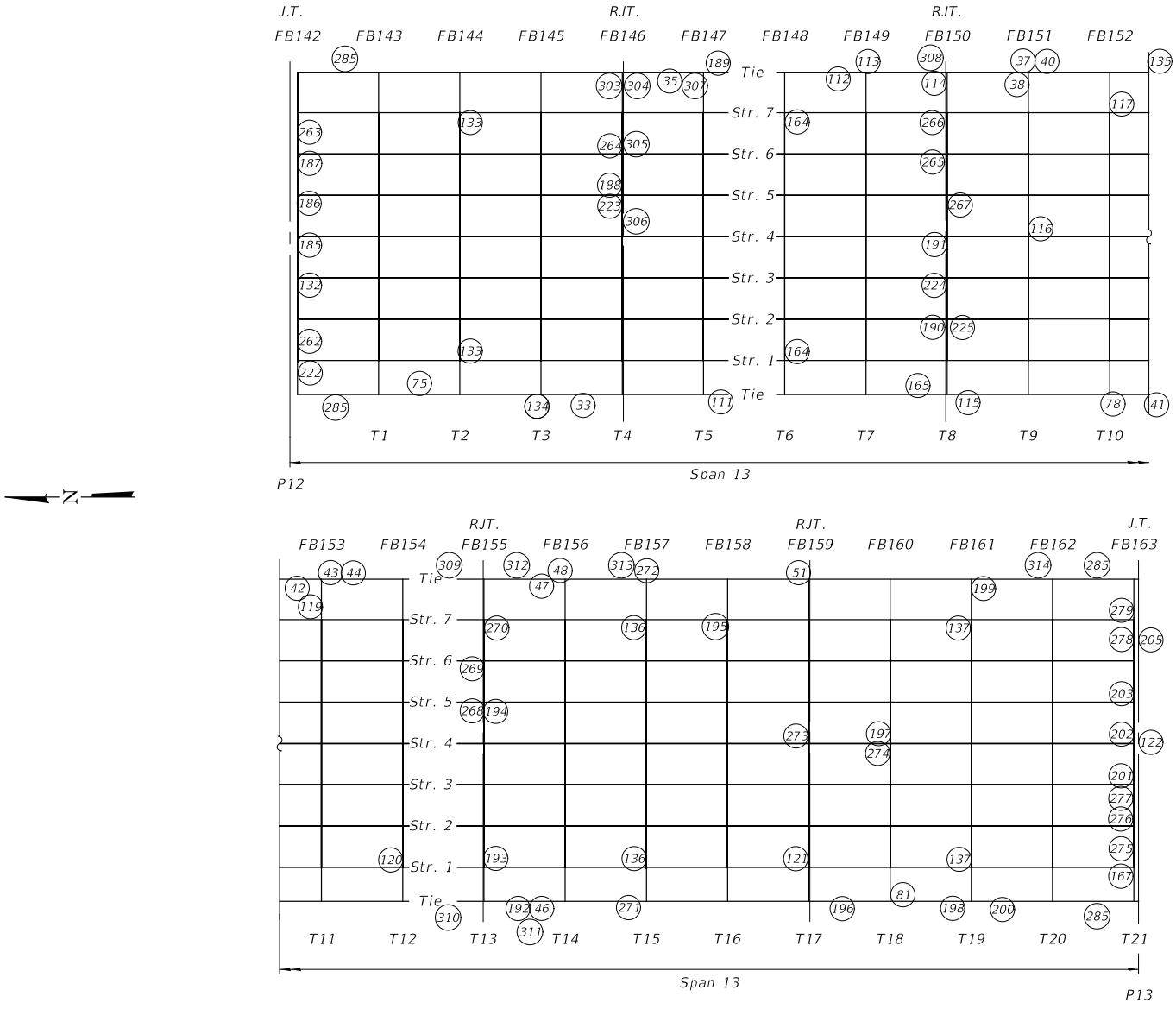
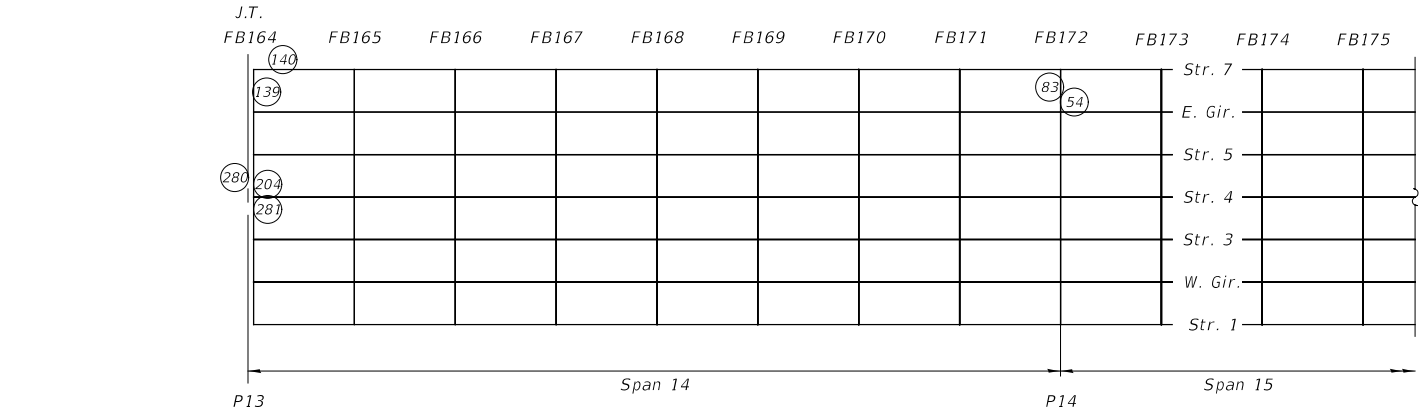
Pg. 6


J.T.
RJT.
RJT.
FB142
FB143
FB144
FB145
FB146
FB147
FB148
FB149
FB150
FB151
FB152
Tie
Str. 7
Str. 6
Str. 5
Str. 4
Str. 3
Str. 2
Str. 1
Tie
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
Span 13
P12
N
RJT.
RJT.
J.T.
FB153
FB154
FB155
FB156
FB157
FB158
FB159
FB160
FB161
FB162
FB163
Tie
Str. 7
Str. 6
Str. 5
Str. 4
Str. 3
Str. 2
Str. 1
Tie
T11
T12
T13
T14
T15
T16
T17
T18
T19
T20
T21
Span 13
P13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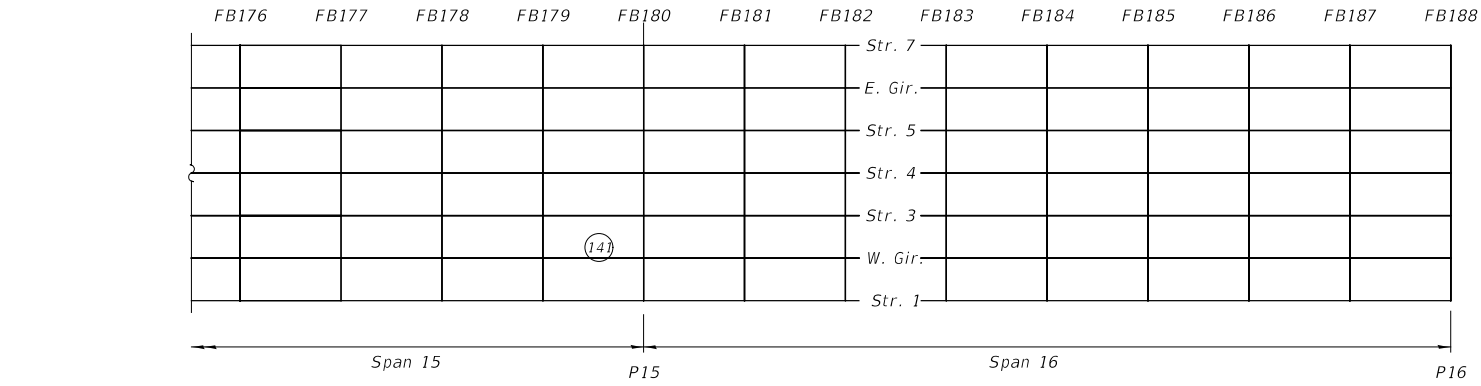
FB165
FB166
FB167
FB168
FB169
FB170
FB171
FB172
FB173
FB174
FB175
140
139
280
204
281
83
54
Str. 7
E. Gir.
Str. 5
Str. 4
Str. 3
W. Gir.
Str. 1
Span 14
Span 15
P13
P14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FB187
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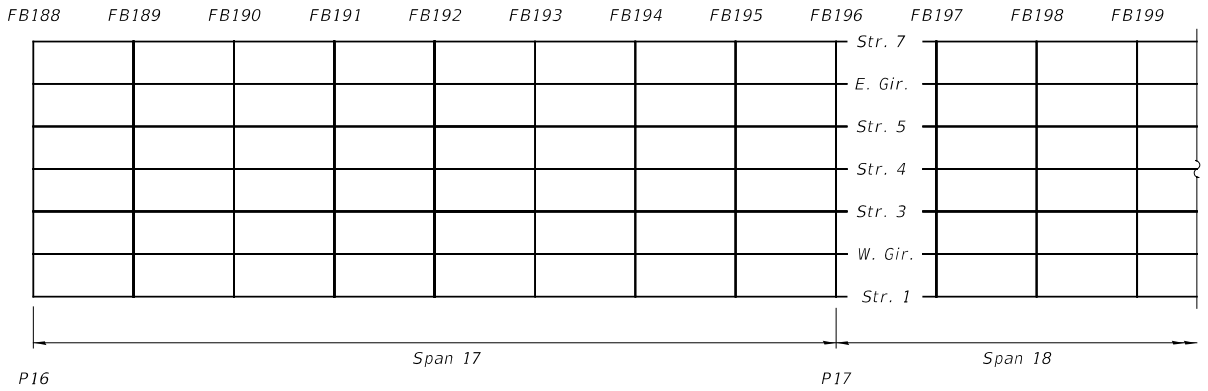
Str. 5
Str. 4
Str. 3
W. Gir.
Str. 1
141
Span 15
Span 16
P15
P16



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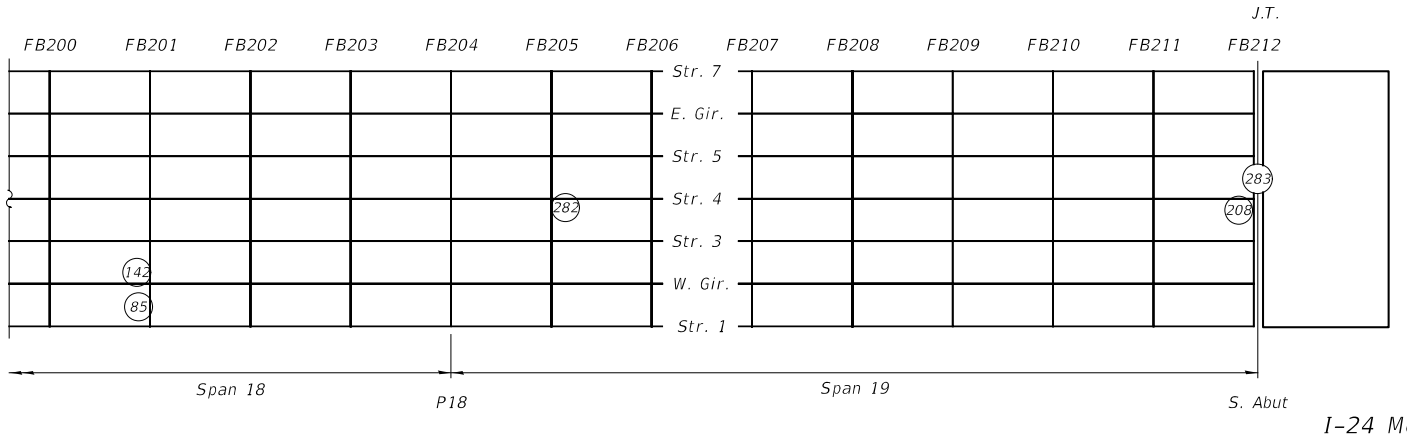

I-24 Metropolis
064-0035
Pg. 9

Items Removed from Table of Deficiencies

These items have been removed from the Table of Deficiencies

9, 10, 11, 13, 16- 18, 23- 26, 28, 30, 32, 34, 36, 39, 45, 49, 50, 52, 53, 55, 56, 58- 61-63, 64, 66, 67, 70-72, 76, 77, 79, 80, 82, 84, 86, 88, 89, 91, 93, 97-100, 102-104, 106, 107, 109, 110, 118, 124, 127, 138, 144, 149, 155, 157-160-163, 166, 168-171, 184, 206 & 207

TABLE OF DEFICIENCIES (TOD)

SN: 064-0035

Date: March 6, 2023

Photo Direction denoted as LN = Looking North

In reference to stiffener, diaphragm, and crossframe: The first shall be on the Pier or Abut.

IRF=Inventory Rating Factor

% SL shown is estimated

"?" Indicates new photo needed

Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
1	**All**	**Paint**	**Typ.**	**1, 2, 3, 4, 5**	**See ELI Forms**	**Zone paint @ joints N/A**	**2001**	
2	All	Deck	Typ.	6, 7, 8, 9, 10	See ELI Forms	N/A	2001	
3	All	Overlay	Typ.	11, 12, 13	See ELI Forms	N/A	2001	
65	All	Parapet	Typ.	14, 15	See ELI Forms Parapet cracking and spalling throughout.	N/A	2009	
226	All	Aluminum Railing	Typ.	16, 17, 18	See ELI Forms Impact damage, broken supports, missing fasteners (See Table 10)	N/A	2021	
227	4&13	Arch Hangers	All rib connection sockets	19 LW	Socket slip up to 1/2", zinc cone seal broken, cotter pin corrosion	N/A	2021	
211	4&13	Gusset Plates	All lower Gus. Plate	20 LNW	Up to 25% SL along Lower Chord	N/A	2019	
143	**4&13**	**Sway Brace**	**Throughout**	**21 LNW**	**Drain holes plugged, retaining water, active corrosion**	**Repair**	**2015**	
285	4 and 13	Ties	Each End Panel	220 LN	Diaphragm plates added, each end of each tie not accessible for inspection	N/A	2023	
210	1-3, 5-12, 14-19	Stringer 1 & 7	@ all Floorbeams & midpanel	22 LSE	3% SL, multiple 3/4" abandoned holes at top of Web, 1 in section	N/A	2017	
123	1-3, 5-12, 14-19	Girders	@ all Floorbeams & midpanel	23 LSW	< 1% SL, multiple 3/4" abandoned holes at top of Web, 1 in section	N/A	2011	
283	**1 and 19**	**Modular Expansion Joints**	**Abutments**	**218 LE**	**Joint leaking at North abutment (West half) & South abutment (middle half)**	**Repair**	**2023**	
125	1	West Girder	@ North Abutment	24 LNW	13% SL, Web bearing (See Detail 1)	N/A 13% SL, Web bearing IRF=1.43	2013	
87	1	Lateral Brace	@ Floorbeam 1, East Girder	25 LE	10% SL, 2" hole @ end of Lateral Brace	N/A	2011	
172	**1**	**Stringer 7**	**@ Floorbeam 4**	**26 LNW**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2017**	

TABLE OF DEFICIENCIES (TOD)

SN: 064-0035

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% SL shown is estimated

"?" Indicates new photo needed

Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
173	**1,2**	**Stringer 7**	**@ Floorbeam 9**	**27 LSW**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2017**	
174	3	Floorbeam 20	Between Stringer 3 & Stringer 4	28 LS	15" x 3/8" offset, Top Flange	N/A	2017	
228	**3**	**Catwalk**	**@ Floorbeam 25**	**29 LSE**	**50% SL, 6" hole in catwalk plate, loose plate placed on top of old plate (not secured)**	**Repair**	**2021**	
145	**3**	**Diaphragm**	**@ Floorbeam 25, between Stringer 4 & 5, @ Stringer 4**	**30 LS**	**100% SL, full height crack in connection angle & 1" x 4"l hole in bottom of Web**	**Repair**	**2015**	
229	**3**	**Diaphragm**	**@ Floorbeam 25, between Stringer 5 & East Girder, @ Stringer 5**	**31 LSW**	**33% SL, 2" crack in Connection Angle**	**Repair**	**2021**	
4	**3**	**Finger Joint Support**	**@ Floorbeam 25**	**32 LSE**	**Broken bolts in Top Flange 4 broken between Stringer 5 & East Girder 4 broken between East Girder & Stringer 7**	**Repair**	**2001**	
230	**3**	**Stringer 7**	**@ Floorbeam 25, Panel 25**	**33 LS**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2021**	
231	**3,4**	**Drainage**	**@Pier 3, between Stringer 3 and Stringer 4**	**34 LW**	**Closed drainage full of debris and clogged**	**Repair (Clean 2023)**	**2021**	
146	**4**	**East Arch**	**@ end of Arch 4' North of Floorbeam 26**	**35 LNE 36 LNW**	**2 - 1'' x 42''L holes in inside and outside Web plates**	**Repair**	**2015**	
5	4	Floorbeam 26	Near center of Floorbeam, @ East end	37 LSW 38 LSE	5% SL, 6" x 27"L area of SL in Bottom Flange, 1.17 avg. remaining, nominal 1 3/8" x 18", 1 nut w/ 100% SL @ East end Bottom Flange	N/A	2005	
232	**4**	**Stringer 1**	**@ Floorbeam 26, Panel 26**	**39 LN**	**2 loose bolts in Stringer to Floorbeam connection, 1 missing bolt**	**Repair**	**2021**	
233	**4**	**Diaphragm**	**@ Floorbeam 26, between Stringer 1 and Stringer 2**	**40 LE**	**2 broken bolts in Top Flange**	**Repair**	**2021**	

TABLE OF DEFICIENCIES (TOD)

SN: 064-0035

Date: March 6, 2023

Photo Direction denoted as LN = Looking North

In reference to stiffener, diaphragm, and crossframe: The first shall be on the Pier or Abut.

IRF=Inventory Rating Factor

% SL shown is estimated

"?" Indicates new photo needed

Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
126	**4**	**Stringer 4**	**@ Floorbeam 26, Panel 26**	**41 LNE 42 LNE**	**1 broken bolt in Stringer to Floorbeam connection, broken bolts in east & west Top Flange at Joint support**	**Repair**	**2013**	
234	**4**	**Stringer 5**	**@ Floorbeam 26, Panel 26**	**43 LNW**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2021**	
235	**4**	**Diaphragm**	**@ Floorbeam 26, between Stringer 5 and Stringer 6**	**44 LSE**	**6 broken bolts in Top Flange**	**Repair**	**2021**	
236	**4**	**Stringer 7**	**@ Floorbeam 26, Panel 26**	**45 LW**	**1 broken bolt and 1 loose bolt on east side, 1 broken bolt west side**	**Repair**	**2021**	
237	**4**	**Finger Joint Support**	**@ Floorbeam 26, between Stringer 3 and Stringer 4**	**42 LN**	**2 broken bolts in Top Flange**	**Repair**	**2021**	
238	**4**	**Diaphragm**	**@ Floorbeam 26, between Stringer 3 and Stringer 4**	**46 LW**	**2 broken bolts in diaphragm Top Flange**	**Repair**	**2021**	
175	**4**	**West Arch**	**@ end arch, @ P3**	**47 LW**	**1" x 55"L hole in inside Web plate**	**Repair**	**2017**	
176	**4**	**Top Lateral Brace**	**3' from West Arch, @ T1**	**48 LSW**	**4" x 7"L hole in bottom horizontal stiffener, 32% SL in Bottom Flange, .34" rem., nom. .50"**	**Repair (drill drain holes) (corners retaining water - typ.)**	**2017**	
6	4	East Arch	@ R1, lower chamber, inside Web	49 LSW	2" crack in weld to hanger plate	N/A	2005	
239	**4**	**Lateral Brace**	**@ Floorbeam 27, East end**	**50 LE**	**25% SL, 2" x 8"L hole in South Web & 2" x 4"L hole in North Web**	**Repair**	**2021**	
286	**4**	**Top Lateral Bracing**	**3' from East Arch at R1**	**221 LSE**	**10% SL, 2" x 3" hole in bottom horizontal stiffener**	**Repair**	**2023**	
240	**4**	**East Truss**	**5' North of Floorbeam 28**	**51 LW**	**Loose bird screen @ bottom of top chord**	**Repair**	**2021**	
287	**4**	**East Tie**	**Between T1 and T2, directly south of T1**	**222 LN**	**Water intrusion. Source of intrusion could not be determined.**	**Repair - Remove water/debris and seal location of intrusion**	**2023**	

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Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
177	4	West Arch	5' North of R2, upper chamber, inside Web	52 LS	3" x 1/2" offset in longitudinal stiffener	N/A	2017	
241	**4**	**Lateral Brace**	**@ Floorbeam 28, East end**	**53 LE**	**50% SL, 12" x 1"L hole in bottom plate**	**Repair**	**2021**	
178	4	West Arch	@ R2, upper chamber, outside Web, North side of horz. stiffener & South diaphragm connection	54 LS	2" crack weld of longitudinal stiffener to diaphragm	N/A	2017	
7	4	East Arch	@ R2, lower chamber, inside Web @ bottom	55 LSW	1" crack in weld @ hanger plate to Web	N/A	2003	
8	**4**	**Floorbeam 29**	**@ West Tie**	**56 LW**	**1 missing bolt**	**Repair (must be inside & out to replace) (6½" bolt required)**	**2005**	
90	4	West Arch	@ R3, lower chamber, outside Web, South side of hanger @ bottom	57 LN	1 1/4" crack in Web to hanger plate	N/A	2011	
92	4	East Arch	Midpoint between R4 & R5, upper chamber, inside Web @ top plate	58 LSW	1" crack in Web to diaphragm	N/A	2011	
147	4	Floorbeam 31	@ midspan	59 LNW	1% SL, 2-5/8'' misdrilled holes in Web, 1 in section	N/A	2015	
179	4	Floorbeam 32	@ midspan, East & West sides of catwalk & top. Flange	60 LS 61 LS	2 – 1" holes in web near top flange – crack arrestor holes, 3 – 1/2" holes (West side) & 2 – 1" holes (East side) in Web – all misdrilled holes	Monitor (2 Crack Arrestor Holes – 2023)	2017	
288	**4**	**East Tie**	**3' south of T6 at splice**	**223 LNW**	**Missing lower cover plate**	**Repair**	**2023**	
289	**4**	**East Arch**	**4' North of R6, Lower Chamber, Inside Web**	**224 LNW**	**1 loose bolt/nut in horizontal splice plate**	**Repair**	**2023**	
12	4	West Arch	@ R6, lower chamber, outside Web @ bottom plate	62 LS	1 1/2" crack in Web to hanger plate	N/A	1995	

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94	4	East Arch	@ R6, lower chamber, inside Web	63 LSW	Hanger not welded to horizontal stiffener @ South Side	N/A	2011	
242	**4**	**West Tie**	**@ T6, outside upper post tension cables**	**64 LSW**	**Post tensioning hardware is loose, protective sleeves are wearing from vibration**	**Repair**	**2021**	
14	4	West Arch	Diaphragm between R7 & R8, upper chamber @ top plate	65 LS	Improper fit between diaphragm & top plate, 1/2" gap	N/A	1995	
148	4	Floorbeam 33	@ midspan	66 LS	1% SL, 2-1/2'' & 4-5/8'' misdrilled holes in Web, 1 in section	N/A	2015	
95	4	Floorbeam 34	@ Stringer 3, top	67 LNW	1 % SL, 1" crack w/ arrester hole (See Detail 5)	N/A	2011	
290	**4**	**East Arch**	**Between R8 and R9, Upper Chamber**	**225 LS**	**Bird house and debris**	**Remove/Clean**	**2023**	
15	**4**	**West Arch**	**Between R8 & R9 @ Peak, upper chamber**	**68 LS 69 LW**	**Standing water 1" deep, 3/4" open hole in inside Web plate @ bottom**	**Repair (Damp 2023)**	**1995**	
69	**4**	**Catwalk**	**Connection plate of catwalk & Lateral Brace, North of Floorbeam 35**	**70 LS**	**1 loose bolt**	**Repair**	**2009**	
96	4	Floorbeam 35	@ Catwalk, North face	71 LSW	1 % SL, 2-5/8" misdrilled holes in Web	N/A	2011	
150	4	Floorbeam 36	@ midspan	72 LS	1 % SL, 2" crack w/ arrester holes (See Detail 6)	N/A	2015	
291	**4**	**Lateral Bracing**	**@ Floorbeam 36, West End**	**226 LW**	**9 bolts with 50% SL in bolt heads**	**Repair**	**2023**	
243	**4**	**Diaphragm**	**@ Floorbeam 37, between Stringer 1 & Stringer 2. @ Stringer 1, Panel 36**	**73 LSW**	**2¾" crack in diaphragm connection to bearing stiffener**	**Repair (Crack Growth – 2023)**	**2021**	**X**
244	**4**	**Stringer 5**	**@ Floorbeam 37, Panel 37**	**74 LS**	**2 broken bolts in Stringer to Floorbeam connection**	**Repair**	**2021**	

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292	**4**	**East Tie**	**5' north of T11 at center opening**	**227 LN**	**Water intrusion. Source of intrusion appears to be from the access hatch.**	**Repair - remove water/corrosion and reseal access hatch**	**2023**	
293	**4**	**Stringer 2**	**@ Floorbeam 37, Panel 36**	**228 LS**	**1 missing bolt, 1 loose bolt**	**Repair**	**2023**	
212	4	Floorbeam 37	@ Stringer 3, under bearing plate	75 LNE	4% SL in Top Flange, 1.08" avg. rem., 1 1/8" nom.	N/A	2019	
180	**4**	**Stringer 3**	**@ Floorbeam 37, Panel 38**	**75 LN**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2017**	
213	**4**	**Stringer 5**	**@ Floorbeam 37, Panel 38**	**76 LN**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2019**	
151	**4**	**Stringer 6**	**@ Floorbeam 37, Panel 38**	**77 LN**	**2 broken bolts in Stringer to Floorbeam connection**	**Repair**	**2015**	
128	4	West Arch	Between R11 & R12, upper chamber, inside Web	78 LS	2-1/2" cracked welds at top 1st & 2nd stiffener South of T11	N/A	2013	
214	**4**	**West Truss**	**@ West Tie, Panel 39**	**79 LW**	**4 misdrilled holes in gusset plate, 2 ea. inside and outside plate**	**N/A**	**2019**	
101	**4**	**East Arch**	**2' North of R13 top, upper chamber, inside Web**	**80 LSW**	**4" crack in weld between top plate & Web**	**Repair**	**2011**	
152	4	Top Lateral Brace	@ R13, West side	81 LS	14"L x 2" hole in top long. stiffener	N/A	2015	
245	**4**	**West Tie**	**5' North of T14, @ access hatch**	**82 LS**	**1" of standing water inside tie w/ rusting**	**Repair (Dry 2023)**	**2021**	
19	**4**	**West Arch**	**R14, upper chamber, outside Web**	**83 LS**	**2" of standing water atop long. stiffener w / rusting**	**Repair (Water 2023)**	**1995**	
20	**4**	**West Tie**	**@ T14, West connection plate to Floorbeam 40**	**84 LW**	**1 missing bolt**	**Repair (must be inside & out to replace) (6½" bolt required)**	**2005**	
21	4	East Arch	@ R15, lower chamber, inside Web	85 LNW	1" crack in weld between Web & hanger plate	N/A	2003	
22	4	West Arch	R15, lower chamber, outside Web	86 LN	1/2" crack in weld between Web & hanger	N/A	1995	

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181	4	Top Lateral Brace	15' from R15W, near ctr. of roadway	?	16" x 3/4" offset in lower stiffener	N/A	2017	
215	**4**	**West Arch**	**1st diaphragm South of R15, upper chamber, outside Web**	**87 LS**	**1/4" crack in weld between diaphragm & stiffener**	**Repair**	**2019**	
182	**4**	**Top Lateral Brace**	**3' from R16W**	**88 LS 89 LN**	**12% SL, Bottom Flange, .44" avg. remaining, nominal .50", 2" x 5"L hole in bottom longitudinal stiffener, 2" hole in horizontal stiffener**	**Repair**	**2017**	
183	**4**	**West Arch**	**@ R17, South end of arch**	**90 LS**	**1" of water**	**Repair Dry in 2019 & 2021, 2023**	**2017**	
246	**4**	**West Arch**	**@ South end access hatch**	**91 LN**	**3 bolts sheared in access hatch**	**Repair**	**2021**	
247	**4**	**Floorbeam 43**	**@ midspan**	**92 LS**	**1 1/4" crack @ bottom of Web stiffener**	**Repair**	**2021**	
248	**4**	**Stringer 1**	**@ Floorbeam 43, Panel 43**	**93 LSW 94 LS**	**1 broken bolt in Stringer to Floorbeam connection & 1 broken bolt in Top Flange**	**Repair**	**2021**	
249	**4**	**Diaphragm**	**@ Floorbeam 43, between Stringer 1 and Stringer 2**	**95 LNE**	**3 broken bolts in Top Flange**	**Repair**	**2021**	
250	**4**	**Stringer 4**	**@ Floorbeam 43, Panel 43**	**96 LSW**	**1 broken bolt in Top Flange**	**Repair**	**2021**	
251	**4**	**Finger Joint Support**	**@ Floorbeam 43**	**96 LSE**	**Broken bolts in Top Flange, 1 broken between Stringer 4 and Stringer 5 1 broken between Stringer 6 and Stringer 7**	**Repair**	**2021**	
252	**4**	**Stringer 5**	**@ Floorbeam 43, Panel 43**	**97 LSW 98 LS**	**1 broken bolt in Stringer to Floorbeam connection & 2 broken bolt in Top Flange**	**Repair**	**2021**	
253	**4**	**Stringer 6**	**@ Floorbeam 43, Panel 43**	**99 LSW**	**1 broken bolt in Top Flange**	**Repair**	**2021**	

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254	**4**	**Stringer 7**	**@ Floorbeam 43, Panel 43**	**100 LSW**	**2 broken bolts in top flange**	**Repair**	**2021**	
294	**4**	**Top Lateral Bracing**	**East Arch at R17.**	**229 LE**	**40% SL, 4" area of loss on the lower portion of vertical stiffener**	**Repair**	**2023**	
295	**4**	**Diaphragm**	**Floorbeam 43 at Stringer 7**	**230 LS**	**4" crack in web under connection angle**	**Repair**	**2023**	
296	**4**	**East Arch**	**South end, near access hatch**	**231 LE**	**Corroded/broken east railing for access hatch**	**Repair**	**2023**	
297	4	Finger Joint	Pier 4	232 LE	Missing 15 ft Steel Armor Angle. Temporarily repaired with concrete.	N/A	2023	
298	**4**	**West Tie**	**5' north of the Southwest bearing**	**233 LSE**	**1 loose bolt**	**Repair**	**2023**	
216	4	Diaphragm	@ Floorbeam 43, @ Stringer 1	101 LSW	10% SL, 1" x 3"L hole in Web	N/A	2019	
153	**4**	**East Arch**	**4' South of Floorbeam 43 @ end of arch**	**102 LSE**	**2 - 1'' x 55''L holes in Web inside and outside plates**	**Repair**	**2015**	
154	**4**	**West Arch**	**4' South of Floorbeam 43, @ end arch**	**103 LSE**	**1'' x 53''L hole in outside Web plate & 1" x 22"L hole in end plate**	**Repair**	**2015**	
255	**4,5**	**Drainage**	**@ Pier 4, between Stringer 3 & Stringer 4**	**104 LW**	**Closed drainage full of debris and clogged**	**Repair (Clean 2023)**	**2021**	
57	4,5	Finger Joint	@ Pier 4, Westbound lanes, full length	105 LE	Fingers are offset vertically 1/2", arch span high	N/A	2007	
217	5	Floorbeam 44	@ Stringer 7	106 LNE	9% SL in Top Flange .46" avg. rem. for 6", 1/2" nom.	N/A	2019	
218	5	Diaphragm	@ Floorbeam 44, between Stringer 7 & East Girder @ Stringer 7	106 LNE	20% SL, 1" x 9"L hole in Web	N/A	2019	
299	5	Floorbeam 46	South Face, 6' from West Girder	234 LNW	Vertical stiffener bent/twisted full-length.	N/A	2023	
105	**5**	**Lateral Brace**	**@ Floorbeam 54, West Girder**	**107 LW**	**25% SL, 1 missing bolt, 3 loose bolts @ top plate, & 4 loose bolts @ bottom plate**	**Repair**	**2011**	
300	**7**	**Cantilever Floorbeam 72**	**West Side, Bottom Flange**	**235 LS**	**4 loose bolts**	**Repair**	**2023**	

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156	8	East Girder	10' North of Floorbeam 82 & 4' North of Floorbeam 89	108 LSE 109 LNW	6% SL, 2 1/8" misdrilled hole in Top Flange (Floorbeam 82) 2 1/8" misdrilled hole in Bottom Flange (Floorbeam 89)	N/A	2015	
219	8	Diaphragm	2' from Floorbeam 92, between Stringer 7 & East Girder @ Stringer 7	110 LS	20% SL, 1" x 14"L hole in Web	N/A	2019	
220	**8**	**Stringer 7**	**@ Floorbeam 92**	**111 LW**	**100% SL @ end of Top Flange (See Detail 9)**	**Repair**	**2019**	
129	8	Floorbeam 92	Midspan	112 LNE	12% SL, Bottom Flange (See Detail 2) 2" hole in Southwest bracket, 1"L x 3" hole in stiffener	N/A 12% SL, Bottom Flange IRF=1.15	2013	
73	**8**	**Finger Joint Support**	**@ P8, between Stringer 3 & Stringer 4, North Side**	**113 LS**	**5 bolts broken in channel Top Flange**	**Repair**	**2009**	
256	**8,9**	**Finger Joint Support**	**@ P8, west half of Joint**	**114 LW**	**Joint trough disconnected from North plate**	**Repair**	**2021**	
257	**8,9**	**Drainage**	**@ P8, between Stringer 3 & Stringer 4**	**115 LE**	**Closed drainage full of debris and clogged**	**Repair (Clean 2023)**	**2021**	
130	9	Floorbeam 93	Midspan	116 LS	13% SL, Bottom Flange (See Detail 3), 2'' hole bottom of stiffener, 2'' x 6''L hole in both catwalk support brackets	N/A 13% SL, Bottom Flange IRF=1.12	2013	
258	**9**	**Stringer 4**	**@ Floorbeam 93, between Floorbeam 92 & Floorbeam 93, Panel 93**	**117 LS**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2021**	
284	**9**	**Expansion Joint Support**	**@ Floorbeam 93, Panel 93, near Stringer 4**	**219 LN**	**3 broken bolts**	**Repair**	**2023**	
27	9	East & West Girder	Throughout span	118 LW	Intermittent welds	N/A	2001	
221	**9**	**Lateral Brace**	**@ West Girder, Floorbeam 103**	**119 LNW**	**1 broken bolt in bottom connection plate**	**Repair**	**2019**	
131	**10**	**Lateral Brace**	**@ West Girder under Floorbeam 115**	**120 LW**	**4 loose bolts**	**Repair/Tighten**	**2013**	

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74	**12**	**East Girder**	**Bottom Flange splice plate between Floorbeam 131 & Floorbeam 132**	**121 LS**	**3 loose bolts**	**Repair**	**2009**	
108	12	East Girder	4' South of Floorbeam 133	122 LW	6% SL, 2" drilled hole in Bottom Flange	N/A	2011	
29	**12**	**Finger Joint Support**	**@ Floorbeam 141**	**123 LE**	**Broken bolts in top flange 4 broken between Stringer 1 & West ST 1 broken between Stringer 5 & East Girder**	**Repair**	**2003**	
259	**12**	**Diaphragm**	**Between East Girder & Stringer 7, @ East Girder, Floorbeam 141**	**124 LW**	**7½" crack in North connection angle**	**Repair (Crack Growth – 2023)**	**2021**	**X**
301	**12**	**Stringer 5**	**@ Floorbeam 141, Panel 140**	**236 LS**	**1 broken bolt in Stringer to floorbeam connection**	**Repair**	**2023**	
260	**12**	**Drainage**	**@P12, between Stringer 3 & Stringer 4**	**125 LE**	**Closed drainage full of debris and clogged**	**Repair (Clean 2023)**	**2021**	
261	12, 13	Finger Joint	Westbound, right lane	126 LE	Fingers are offset vertically 1/2", arch span high	N/A	2021	
302	**12**	**Finger Joint Support**	**@ Stringer 1**	**237 LNE**	**< 2% section loss top/bottom flanges, 1½" crack in web.**	**Repair**	**2023**	
31	13	Pier 12	@ Pier 12	127 LS 128 LN	200 SF spall/delamination columns 300 SF spall/delamination wall	N/A	2003	
222	**13**	**Stringer 1**	**@ Pier 12**	**129 LNE**	**Broken guide bolt on west side**	**Repair**	**2019**	
262	**13**	**Finger Joint Support**	**@ Floorbeam 142, between Stringer 1 & Stringer 2**	**130 LW**	**10 broken bolts in Top Flange**	**Repair**	**2021**	
132	**13**	**Stringer 3**	**@ Floorbeam 142, Panel 142**	**131 LN**	**3 broken bolts in Stringer to Floorbeam connection**	**Repair**	**2013**	
185	**13**	**Stringer 4**	**@ Floorbeam 142, Panel 142**	**132 LN**	**2 broken bolts in Stringer to Floorbeam connection extra 3/4" hole**	**Repair**	**2013**	

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186	**13**	**Stringer 5**	**@ Floorbeam 142, Panel 142**	**133 LN**	**2 broken bolts in Stringer to Floorbeam connection extra 3/4" hole**	**Repair**	**2013**	
187	**13**	**Stringer 6**	**@ Floorbeam 142, Panel 142**	**134 LN**	**2 broken bolts in Stringer to Floorbeam connection extra 3/4" hole**	**Repair**	**2013**	
263	**13**	**Diaphragm**	**@ Floorbeam 142, between Stringer 6 and Stringer 7**	**135 LSE**	**3 broken bolts in Top Flange**	**Repair**	**2021**	
75	13	West Tie	Midpoint between T1 & T2	136 LE	2% SL, 2'' drilled hole in bottom flange	N/A	2009	
133	13	Floorbeam 144	Stiffener under Stringer 1 & 7 South Face	137 LS	4 - 7/8" abandoned holes	N/A	2013	
134	**13**	**West Tie**	**@ T3 bottom bracket, West tie to Floorbeam connection**	**138 LS**	**4% SL, 1-missing bolt**	**Repair**	**2013**	
33	13	West Arch	Midpoint Between R3 & R4, upper chamber, outside Web	139 LSW	1" crack top plate to outside Web plate	N/A	2003	
223	**13**	**Floorbeam 146**	**East of Stringer 5, under bearing plate**	**140 LSW**	**17% SL in Top Flange, (See Detail 11)**	**Repair 17% SL, Top Flange IRF=0.50**	**2019**	
188	13	Stringer 5	@ Floorbeam 146, Panel 146	140 LSW	Bearing plate offset 3/4" due to pack rust	N/A	2017	
264	**13**	**Stringer 6**	**@ Floorbeam 146, Panel 146**	**141 LSW**	**1 bolt w/ missing nut in Stringer to Floorbeam connection**	**Repair**	**2021**	
303	13	East Arch	@ R4, Lower Chamber	238 LSW?	Full-length crack in weld between longitudinal stiffener and diaphragm plate.	N/A	2023	
304	13	East Arch	First stiffener from R4, Lower Chamber	239 LNE	Full-length crack in weld between longitudinal stiffener and vertical stiffener.	N/A	2023	
305	**13**	**Stringer 6**	**@ Floorbeam 146, Panel 146**	**240 LN**	**1 broken bolt in Stringer to floorbeam connection**	**Repair**	**2023**	
306	**13**	**Stringer 4**	**@ Floorbeam 146, Panel 146**	**241 LNW**	**1 broken bolt in Stringer to floorbeam connection**	**Repair**	**2023**	

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35	13	East Arch	Between R4 & R5, upper chamber, inside Web	142 LN 143 LN	2" weld crack, on Web & full Flange, upper long. stiffener to diaphragm	N/A	1987	
307	**13**	**East Tie**	**1' north of T5**	**242 LSE**	**2" gap in weld between east web & top plate with standing water below**	**Repair - Remove water**	**2023**	
111	13	West Arch	5' South of R5, upper chamber	144 LNW	1" gap in weld between top plate & outside Web plate	N/A	2011	
189	13	East Tie	2' South of T5	145 LSE	1" gap in weld between E. Web & top plate	N/A	2017	
164	13	Floorbeam 148	Under Stringer 1 & 7, South Face	146 LNW	4 - 7/8" abandoned holes in stiffener	N/A	2013	
112	13	East Tie	12' North of T6, inside Web (inside tie)	147 LSW	2 gouges @ top of Web	N/A	2011	
113	13	East Tie	@ T7	148 LSE	2" gap in weld between bottom & outside Web	N/A (sealed 2015)	2011	
165	13	West Arch	Between R7 & R8 Upper chamber, 10' North of R8	149 LS	2 1/2" crack in weld @ stiffener to top plate, @ inside Web plate	N/A	2015	
114	**13**	**East Tie**	**@ T8**	**150 LSW**	**2" gap in weld between top plate & inside Web plate**	**Repair Sealed 2013 Water in 2019, 2021, 2023**	**2011**	
308	13	East Arch Hanger	@ R-T8	243 LE	Movement/Vibration in Hanger	N/A	2023	
115	13	West Arch	5' South of R8, upper chamber, outside Web	151 LSW	1" gap in weld, top plate to outside Web plate	N/A	2011	
190	**13**	**Stringer 2**	**@ Floorbeam 150, Panel 150**	**152 LS**	**2 broken bolts in Stringer seat to Floorbeam connection**	**Repair**	**2017**	
224	**13**	**Stringer 3**	**@ Floorbeam 150, Panel 150**	**153 LS**	**1 broken bolt in Stringer seat to Floorbeam connection**	**Repair**	**2019**	
191	**13**	**Stringer 4**	**@ Floorbeam 150, Panel 150**	**154 LS**	**2 broken bolts in Stringer seat to Floorbeam connection**	**Repair**	**2017**	
265	**13**	**Stringer 5**	**@ Floorbeam 150, Panel 150**	**155 LS**	**1 broken bolt in Stringer seat to Floorbeam connection**	**Repair**	**2021**	
266	**13**	**Stringer 7**	**@ Floorbeam 150, Panel 150**	**156 LNE**	**3" crack in weld @ diaphragm connection to bearing stiffener**	**Repair**	**2021**	

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225	13	Floorbeam 150	2' long. ctr. over Stringer 2, under bearing plate	152 LS	10% SL in Top Flange .90" avg. rem., 1" nom.	N/A	2019	
267	**13**	**Stringer 4**	**@ Floorbeam 150, Panel 151**	**157 LN**	**1 broken bolt in Stringer seat to Floorbeam connection**	**Repair**	**2021**	
37	13	East Tie	@ T9	158 LSE	2" gap between top plate & outside Web plate	N/A Sealed 2013	2003	
38	13	East Tie	@ T9	159 LSW	2" & 3" gap between top plate & inside Web plate	N/A Sealed 2013	2003	
116	13	Floorbeam 151	Midspan over portal	160 LSW	3 cracks w/ arrester holes (1 1/2", 3 1/4", 1 3/4")	N/A	2011	
40	13	East Tie	1' South of T9	161 LSE	2" gap between top plate & outside Web plate	N/A Sealed 2013	2003	
78	**13**	**West Tie**	**Tie reinforcement plate @ T10**	**162 LE**	**1-missing bolt**	**Repair**	**2009**	
117	13	Floorbeam 152	4' from East End & Stiffener Under Stringer 7, South face	163 LNE	4% SL, 4" drilled hole in bottom of Web, 4-1'' abandoned holes in stiffener	N/A	2011	
135	**13**	**East Tie**	**Between T10 & T11 @ center opening**	**164 LS**	**1/2'' – 1'' of water, bolts rusted, 1/2" of debris on bottom plate**	**Remove water and reseal (dry in 2019, 2021, damp in 2023)**	**2013**	
41	**13**	**West Tie**	**Between T10 & T11 @ center opening**	**165 LS**	**1/2'' – 1'' of water, bolts rusted**	**Repair (Dry 2023)**	**2003**	
42	13	East Tie	3' North of T11	166 LSW	4" gap between top plate & inside Web plate	N/A Sealed 2013	2003	
119	13	Floorbeam 153	4' from East end	167 LSE	4% SL, 4" drilled hole in top of Web	N/A	2011	
43	13	East Tie	3' South of T11	168 LSE	3" gap between top plate & outside Web plate	N/A Sealed 2013	2003	
44	13	East Tie	3' South of T11	169 LSE	3" gap between bot plate & outside Web plate	N/A Sealed 2013	2003	
309	13	East Arch	10' from R12, Upper Chamber	244 LW	2 1/2" gap in weld between west web and top plate	N/A	2023	
310	13	West Arch	10' south of R12, Upper Chamber	245 LSE	1/2" gap in weld between east web and top plate	N/A	2023	

TABLE OF DEFICIENCIES (TOD)

SN: 064-0035

Date: March 6, 2023

Photo Direction denoted as LN = Looking North

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IRF=Inventory Rating Factor

% SL shown is estimated

"?" Indicates new photo needed

Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
120	13	Floorbeam 154	@ Stringer 1, below top plate weld	170 LS	<1% SL, 1" crack w/ 1/2" arrester holes	N/A	2011	
193	13	Floorbeam 155	@ Stringer 1, below Top Flange plate weld	171 LNW	<1% SL, 1/2" crack w/ 1/2" arrester hole	N/A	2017	
268	**13**	**Stringer 5**	**@ Floorbeam 155, Panel 155**	**172 LS**	**1 broken bolt in Stringer seat to Floorbeam connection**	**Repair**	**2021**	
269	**13**	**Stringer 6**	**@ Floorbeam 155, Panel 155**	**173 LS**	**1 broken bolt in Stringer seat to Floorbeam connection**	**Repair**	**2021**	
194	**13**	**Stringer 5**	**@ Floorbeam 155, Panel 156**	**174 LNW**	**Bearing plate offset 1" due to pack rust & 2 broken bolts in Stringer seat to Floorbeam connection**	**Repair**	**2017**	
270	**13**	**Stringer 7**	**@ Floorbeam 155, Panel 156**	**175 LNE**	**3" crack in weld @ diaphragm connection stiffener to bearing stiffener**	**Repair**	**2021**	
46	13	West Arch	Between R13 & R14, lower chamber, 1' South of midpoint	176 LW	1 1/2" gap in weld between bottom plate & outside Web plate	N/A	2003	
192	13	West Arch	Between R13 & R14 @ midpoint, upper chamber	177 LE	1" gap w/ 1/2" crack in weld between top plate & outside Web	N/A	2017	
311	13	West Arch	Between R13 and R14, Upper Chamber	246 LW	1 1/2" gap in weld between top plate and outside plate	N/A	2023	
312	13	East Arch	South of R13, past first vertical stiffener, Upper Chamber	247 LW	2" gap in weld between west web and top plate	N/A	2023	
47	13	East Arch	Between R13 & R14, 8' from R14, upper chamber	178 LNW	Broken weld between transverse stiffener & long. stiffener @ inside plate	N/A	1987	
48	13	East Arch	North Side of R14, upper chamber	179 LS	4" crack in weld between long. stiffener & diaphragm plate @ outside Web plate	N/A	1987	
271	**13**	**West Tie**	**5' North of T15**	**180 LS**	**1/2'' – 1'' of water, bolts rusted**	**Repair (Water in 2023)**	**2021**	
272	**13**	**East Tie**	**@ T15**	**181 LSE**	**1" gap in weld between top plate & outside Web plate**	**Repair**	**2021**	
313	13	East Tie	1' north of T15	248 LSE	4" gap in weld between east web & top plate	N/A	2023	
136	13	Floorbeam 157	Under Stringer 1 & 7, North face	182 LSW	4-7/8" abandoned holes stiffener	N/A	2013	

TABLE OF DEFICIENCIES (TOD)

SN: 064-0035

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Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
195	13	Stringer 7	@ Floorbeam 158, Panel 158	183 LSW	4" area of loss, w/ 1" slotted hole in Bottom Flange	N/A	2017	
51	13	East Tie	1' North of T17, outside Web top	184 LSE	1" gap, top & outside Web plate	N/A Sealed 2013	2003	
273	**13**	**Floorbeam 159**	**@ midpoint**	**185 LN**	**3/4" crack @ bottom of Web stiffener**	**Repair**	**2021**	
121	13	Bearing	@ Stringer 1, Floorbeam 159	186 LS	3/4" P.R. between sole plate & Top Flange	N/A	2011	
196	13	West Arch	Between R17 & R18, 2' North of midpoint, lower chamber	187 LNW	1" gap in weld from bottom plate to outside Web	N/A	2017	
274	**13**	**Floorbeam 160**	**@ midpoint**	**188 LS**	**1/2" crack @ bottom of Web stiffener**	**Repair**	**2021**	
197	**13**	**Catwalk**	**Center of Floorbeam 160 to T17E, @ Floorbeam 160**	**189 LSE**	**2 loose bolts to catwalk**	**Repair**	**2017**	
81	**13**	**West Tie**	**@ T18, bracket connection, Floorbeam to west tie**	**190 LN**	**1-bolt missing**	**Repair**	**2009**	
198	13	West Arch	Between R18 & R19, 3' North of R19, lower chamber	191 LNW	1" gap in weld from bottom plate to outside Web	N/A	2017	
137	13	Floorbeam 161	Under Stringer 1 & 7, North face	192 LSW	4-7/8" abandoned holes in stiffener	N/A	2013	
199	**13**	**Lateral Brace**	**Panel 162 @ Floorbeam 161, East end**	**193 LNE**	**30% SL, 2"L x 8" hole, Bottom Flange**	**Repair**	**2017**	
200	13	West Arch	Between R19 & R20, 6' North of midpoint, lower chamber	194 LNW	1" gap in weld from bottom plate to outside Web	N/A	2017	
314	13	East Arch	4' north of R20, Upper Chamber	249 LW	3" gap in weld between west web and top plate	N/A	2023	
167	**13**	**Stringer 1**	**@ Floorbeam 163, Panel 163**	**195 LSW**	**1 loose bolt, 1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2015**	
275	**13**	**Diaphragm**	**@ Floorbeam 163, between Stringer 1 & Stringer 2**	**196 LNE**	**1 broken bolt in Top Flange**	**Repair**	**2021**	

TABLE OF DEFICIENCIES (TOD)

SN: 064-0035

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Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
276	**13**	**Stringer 2**	**@ Floorbeam 163, Panel 163**	**197 LS**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2021**	
277	**13**	**Diaphragm**	**@ Floorbeam 163, between Stringer 2 & Stringer 3**	**198 LE**	**1 broken bolt in Top Flange**	**Repair**	**2021**	
201	**13**	**Stringer 3**	**@ Floorbeam 163, Panel 163**	**199 LS**	**4 broken bolts in Stringer to Floorbeam connection**	**Repair**	**2015**	
202	**13**	**Stringer 4**	**@ Floorbeam 163, Panel 163**	**200 LS**	**1 broken bolt in Stringer to Floorbeam connection, 1 broken bolt in Top Flange**	**Repair**	**2015**	
203	**13**	**Stringer 5**	**@ Floorbeam 163, Panel 163**	**201 LS**	**2 broken bolts in Stringer to Floorbeam connection**	**Repair**	**2015**	
278	**13**	**Diaphragm**	**@ Floorbeam 163, between Stringer 6 & Stringer 7**	**202 LSE**	**1 broken bolt in Top Flange**	**Repair**	**2021**	
279	13	Stringer 7	@ Floorbeam 163, Panel 163	203 LSE	Stringer pumping 1/16" @ bearing	N/A	2021	
122	13	Floorbeam 163	Midspan, Bottom Flange	204 LN	8% SL, 40"L x 9" area of loss, 0.85" avg. rem, nom. 1" x 18"	N/A	2011	
205	**13**	**Finger Joint Support**	**@ Floorbeam 163, between Stringer 6 & Stringer 7**	**205 LSE**	**1 missing bolt in Top Flange (Not shown in picture)**	**Repair**	**2017**	
280	**14**	**Finger Joint Support**	**@ Floorbeam 164, between Stringer 4 & Stringer 5**	**206 LN**	**4 missing bolts in Top Flange**	**Repair**	**2021**	
281	**14**	**Stringer 4**	**@ Floorbeam 164, Panel 164**	**207 LN**	**1 broken bolt in Stringer to Floorbeam connection**	**Repair**	**2021**	
139	**14**	**Diaphragm**	**@ Floorbeam 164, Between East Girder & Stringer 7**	**208 LNE**	**100% SL Bottom Flange @ Stringer 7, 9% SL Web, 1"x15"L hole, & 2 missing bolts in diaphragm connection to expansion joint**	**Repair**	**2013**	
204	14	Catwalk	Connection to support channel, West side, @ Floorbeam164	209 LNW	11% SL in Web, 100% SL Top Flange, connection plate bent out due to pack rust (See Detail 7)	N/A	2017	

TABLE OF DEFICIENCIES (TOD)

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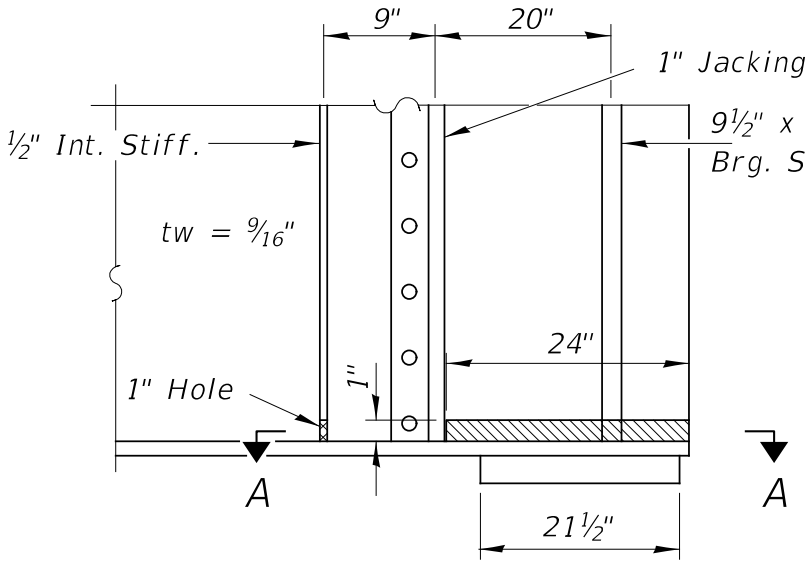
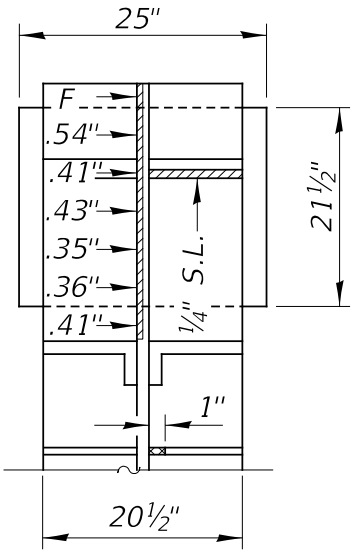
Item #	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
140	**14**	**Stringer 7**	**8' from Floorbeam 164**	**210 LE**	**49% SL, Top Flange, 26% SL, Bottom Flange, 35% SL Web (See Detail 4)** (Verify length of deterioration in Detail 4)	**Repair 50% SL, Top Flange, 26% SL, Bottom Flange, 35% SL Web IRF=0.94**	**2013**	
54	14 & 15	Cantilever Floorbeam 172	@ P14, East cantilever bracket	211 LN	1" crack in Web @ Bottom Flange, no propagation from 1997	N/A	1997	
83	14, 15	Cantilever Floorbeam 172	@ P14, East cantilever bracket	212 LN	18" x 1/4" offset in bottom flange	N/A	2009	
141	15	West Girder	10'- 6" North of P15	213 LW	6% SL, 2" drilled hole in Top Flange	N/A	2013	
85	18	Cantilever Floorbeam 201	West side	214 LN	30" x 3/4" offset, Bottom flange	N/A	2009	
142	**18**	**Lateral Brace**	**@ West Girder under Floorbeam 201**	**215 LW**	**1 loose bolt**	**Repair**	**2013**	
282	**19**	**Lateral Brace**	**Panel 206, Floorbeam 205 @ catwalk, West Lateral Brace**	**216 LN**	**4 loose bolts in bottom plate**	**Repair**	**2021**	
208	**19**	**Floorbeam 212**	**Full length**	**217 LW**	**26% SL in Top Flange, 22% SL in Bottom Flange (See Detail 8) (Give more information on Detail. Verify loss is at midspan)**	**Repair 27% SL in Top Flange, 22% SL in Bottom Flange IRF=0.89**	**2017**	

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #125
Detail 1
Span 1, W Girder



ELEVATION
Looking West

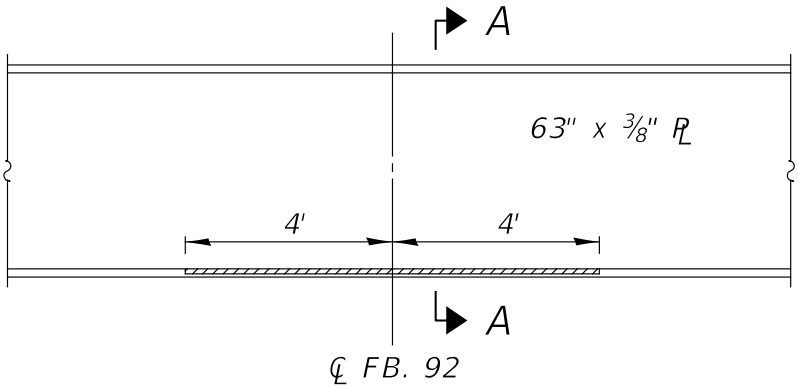


SECTION A-A

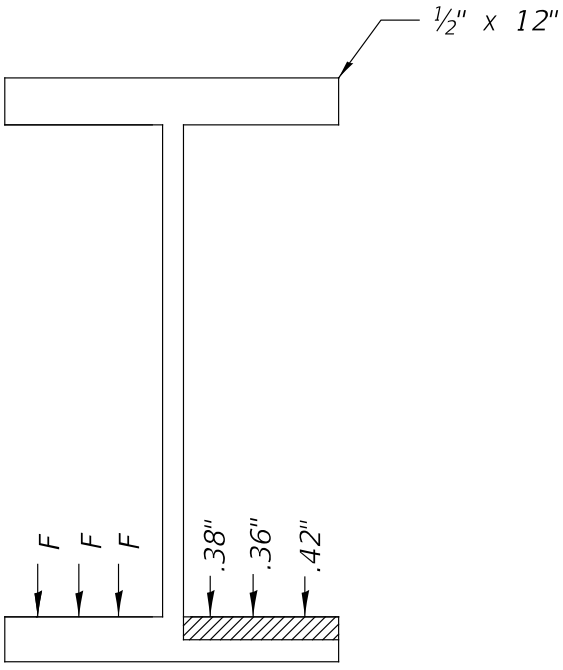
Section Loss

Hole
Readings Equally Spaced

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #129
Detail 2
Span 8, Floorbeam 92



ELEVATION
Looking North



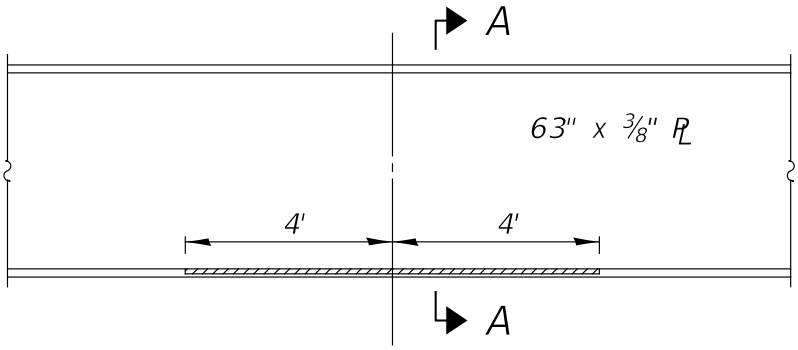
SECTION A-A

Section Loss

Hole

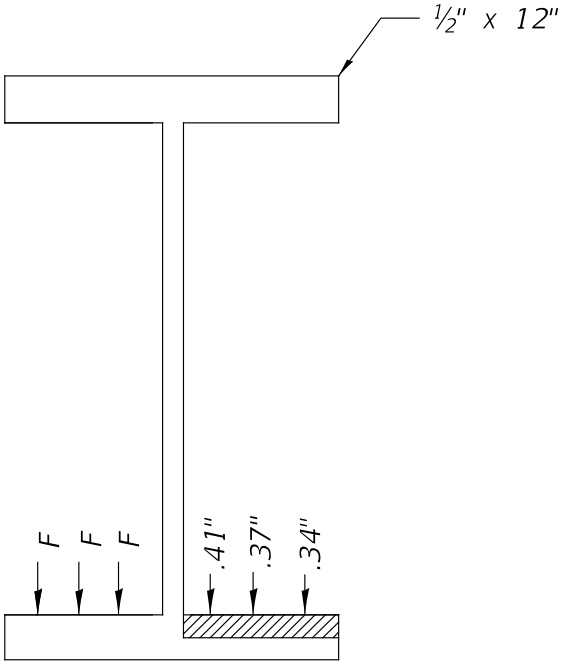
Readings Equally Spaced

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #130
Detail 3
Span 9, Floorbeam 93



℄ FB. 93

ELEVATION
(Looking South)



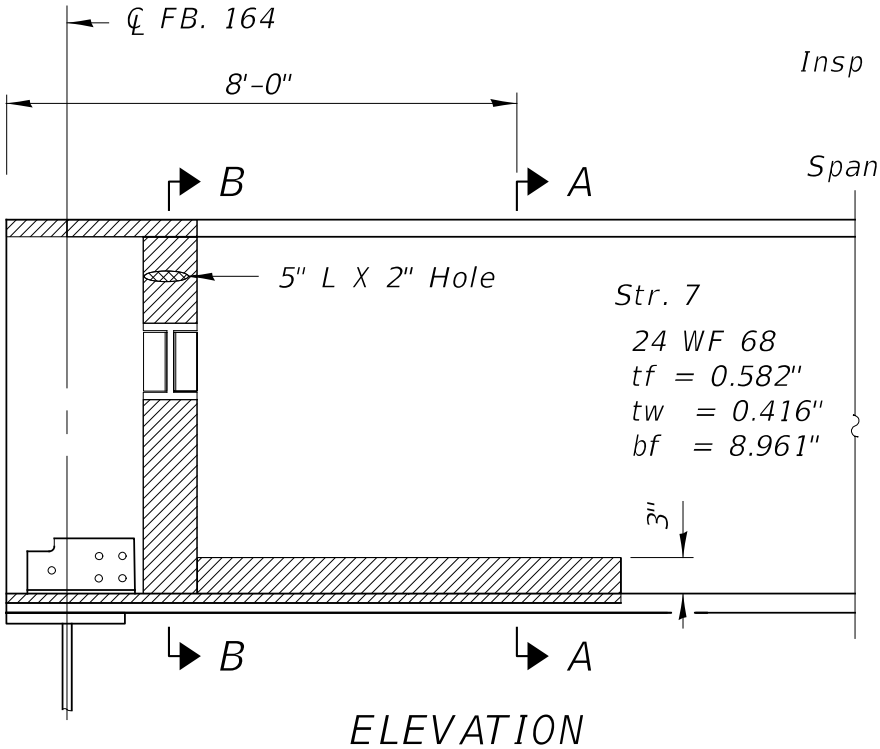
SECTION A-A

Section Loss

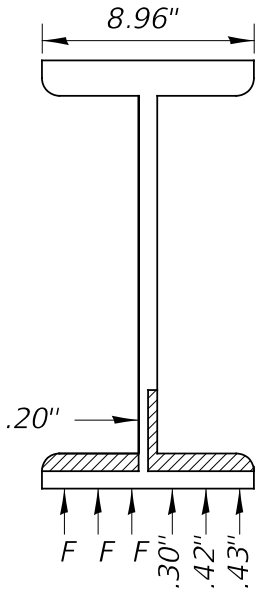
Hole

Readings Equally Spaced

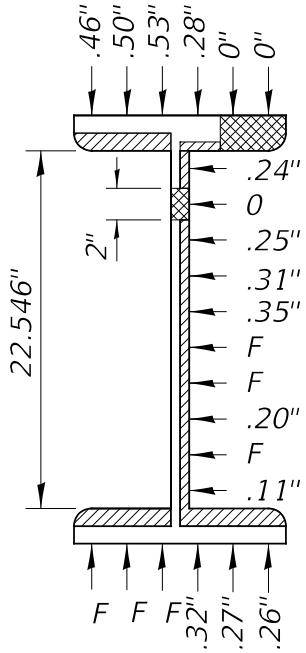
SN 064-0035
District 9
Insp Date: 3/6/2023
Item #140
Detail 4
Span 14, Stringer 7



ELEVATION
(Looking East)



SECTION A-A

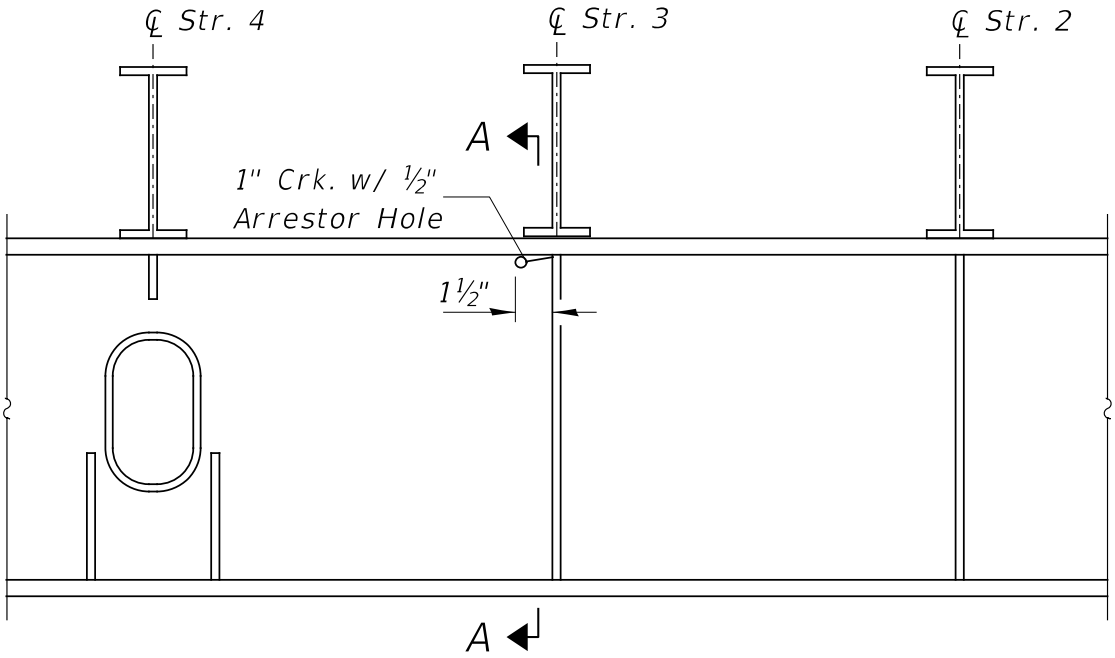


SECTION B-B

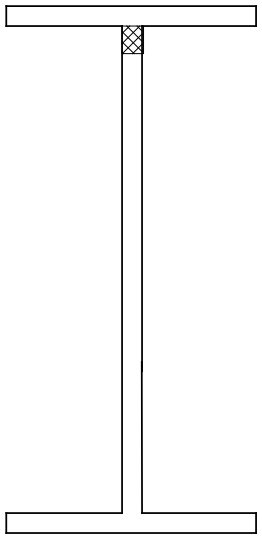
Section Loss

Hole
Readings Equally Spaced

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #95
Detail 5
Span 4, Floorbeam 34
at Stringer 3



ELEVATION
(Looking South)



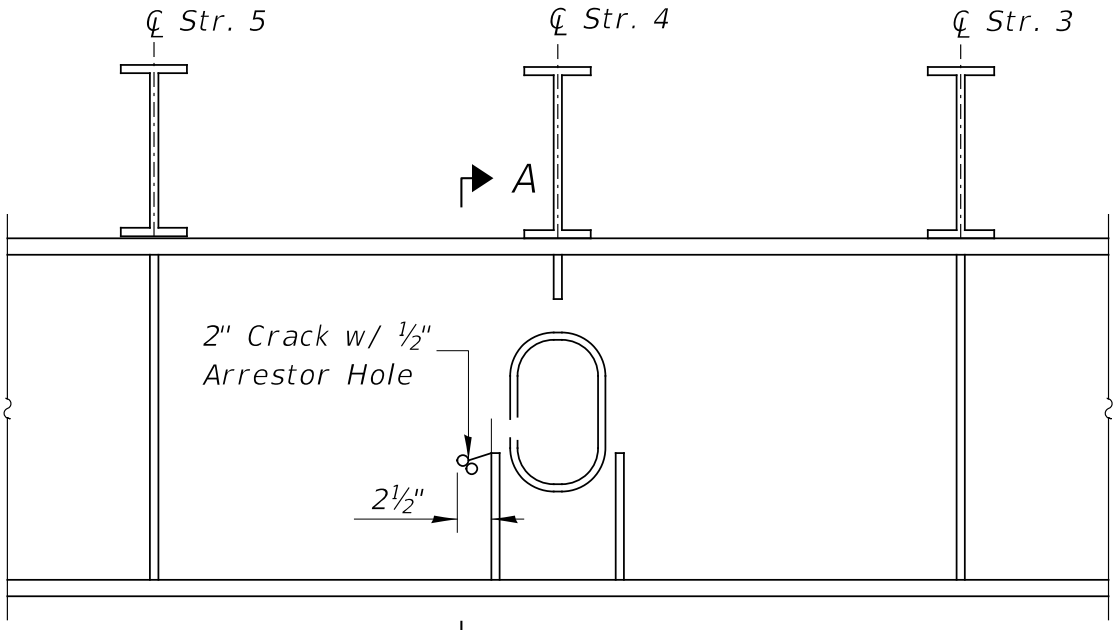
SECTION A-A

Section Loss

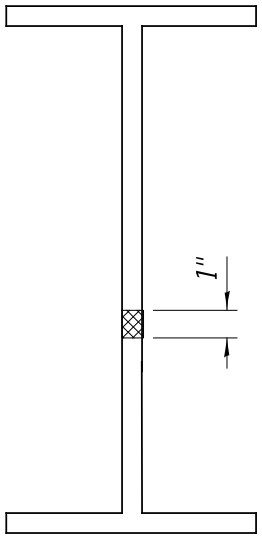
Hole

Readings Equally Spaced

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #96
Detail 6
Span 4, Floorbeam 36
at Midpoint



ELEVATION
(Looking South)



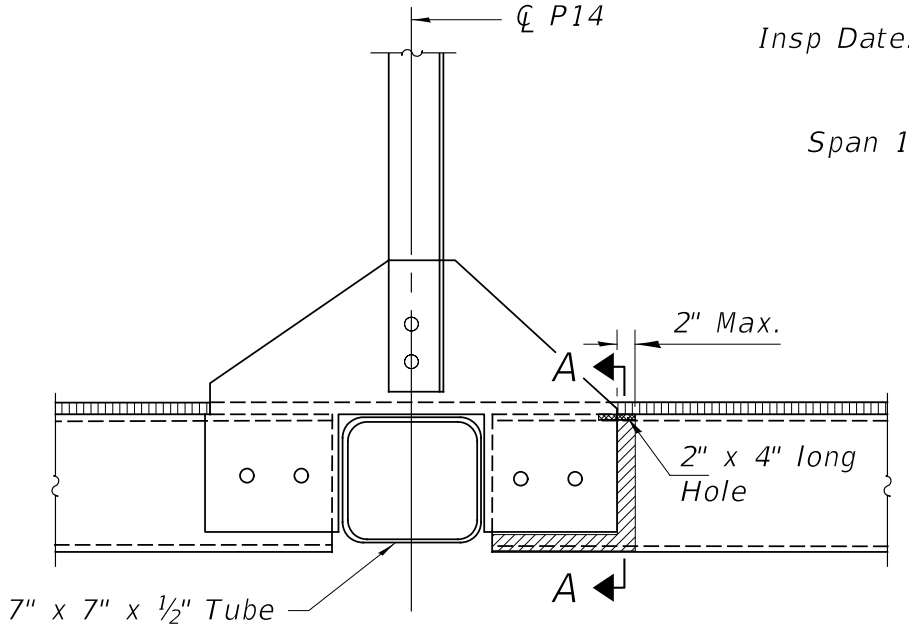
SECTION A-A

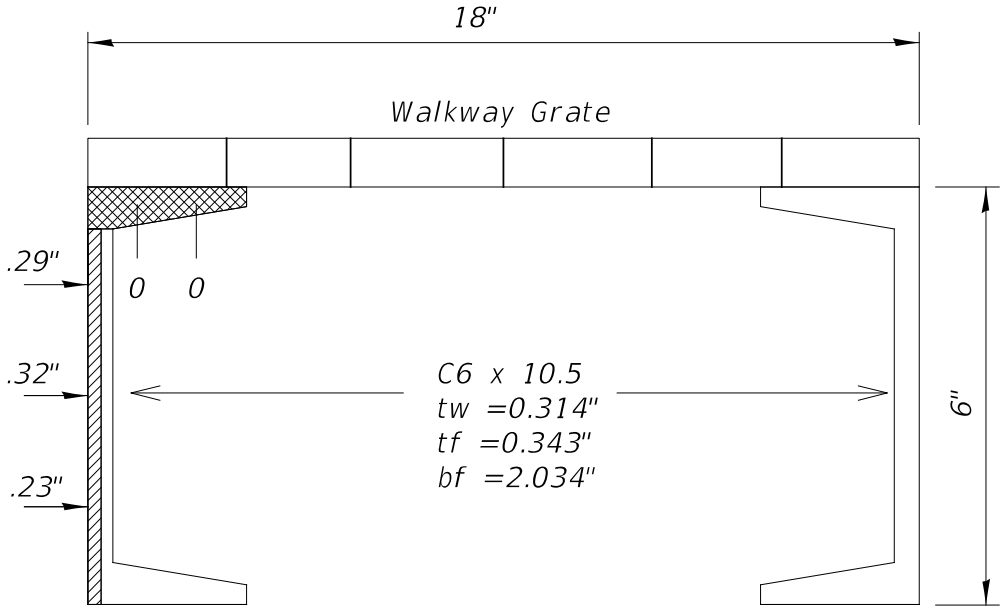
Section Loss

Hole

Readings Equally Spaced

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #204
Detail 7
Span 14, Catwalk
at Pier 14



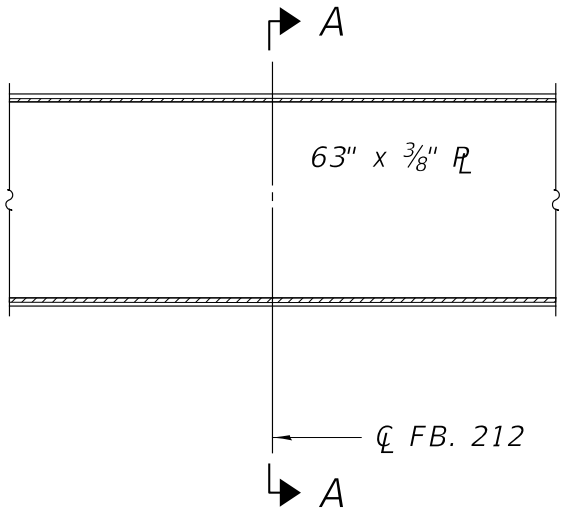


SECTION A-A

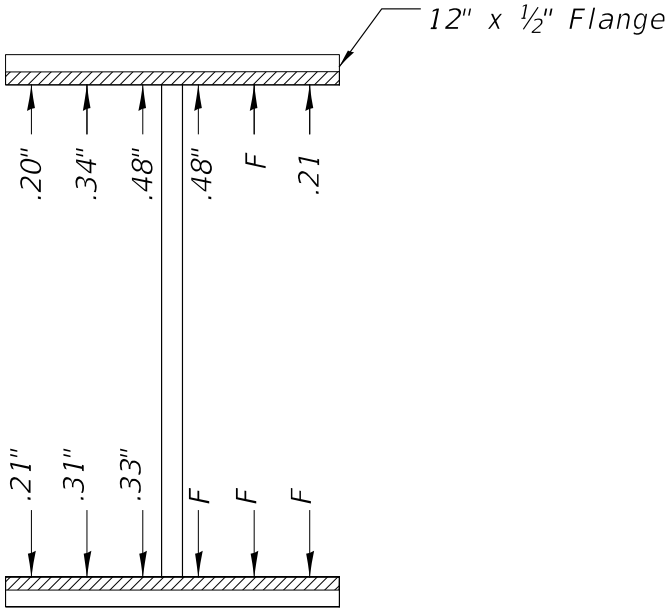
Section Loss

Hole
Readings Equally Spaced

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #208
Detail 8
Span 19



ELEVATION
(Looking South)



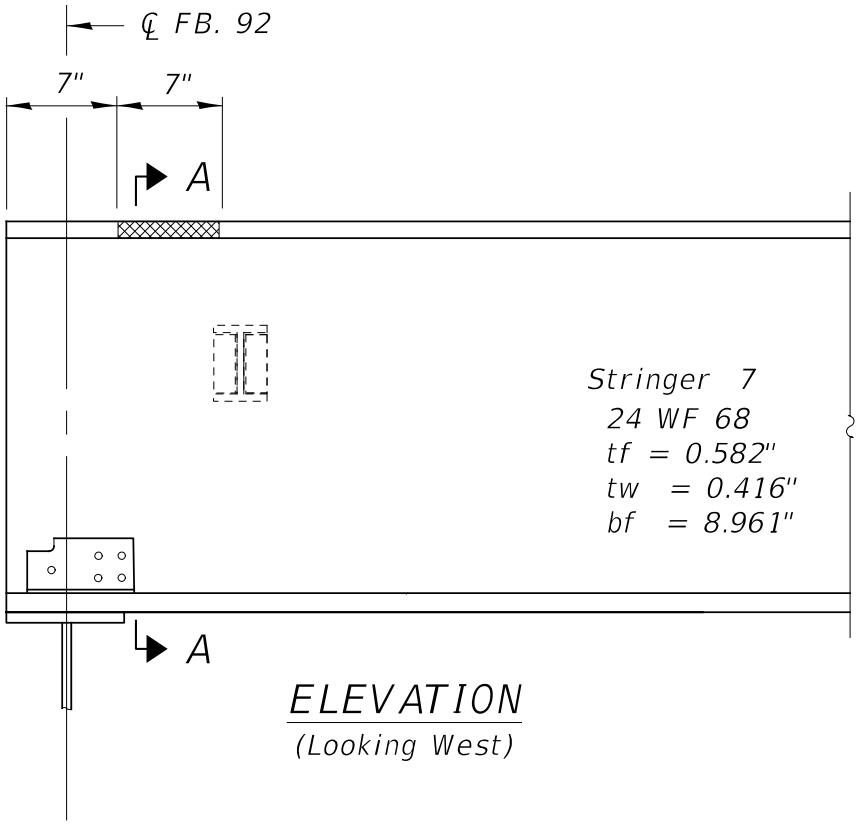
SECTION A-A

Section Loss

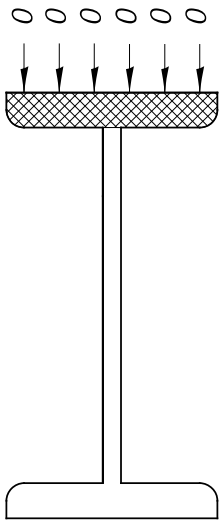
Hole

Readings Equally Spaced

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #220
Detail 9
Span 8, Stringer 7



ELEVATION
(Looking West)



SECTION A-A

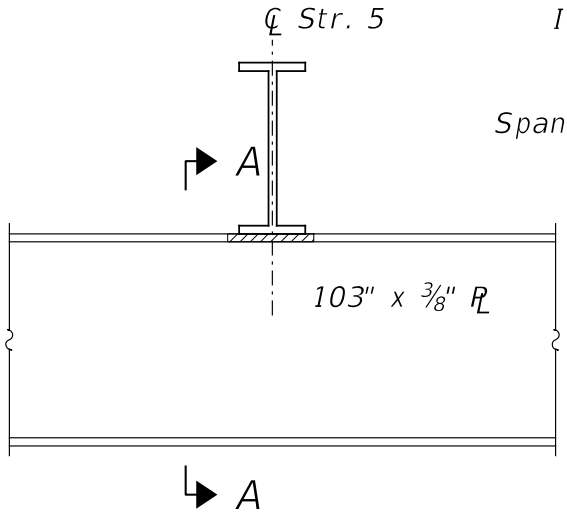
Section Loss

Hole

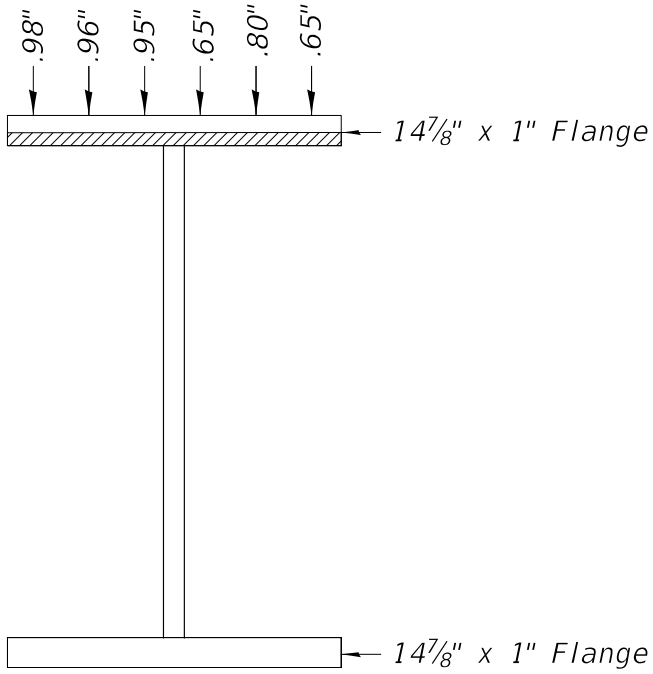
Readings Equally Spaced

Table 10 – Aluminum Railing Defects			
Span	**Guardrail**	**Deficiency**	**Photo**
3 & 4	Eastbound @ finger joint	3 twisted brackets	
4	Eastbound, Between T4 & T5	1 twisted bracket	
4	Eastbound, Between T11 & T12	1 twisted bracket	
5,6	Eastbound, @ Pier 5	1 cracked bracket	
6	Westbound, 80 ft north of Pier 6	1 bracket twisted and cracked	
6	Westbound, 88 ft north of Pier 6	1 bracket gouged	
6,7	Westbound, @ Pier 6	1 bracket twisted and cracked	16 (LE)
7	Eastbound, @ Pier 6	1 twisted bracket	
7	Eastbound, 9th & 10th brackets north Pier 7	2 twisted brackets	
10	Westbound, 19th bracket south Pier 9	1 twisted bracket	
11	Westbound, 12th & 22nd brackets from P11	2 brackets twisted and cracked	
12	Westbound, 2nd, 3rd, & 4th brackets from P11	3 cracked brackets	
13	Eastbound, 8th, 9th, 10th, 17th, 42nd, and 43rd brackets from P12	6 twisted, cracked, and broken brackets	
13	Westbound, 4th bracket south T4	1 twisted and gouged bracket	17 (LNE)
15	Eastbound, 15 ft south Pier 14	1 twisted and cracked bracket	
15	Westbound, 11th bracket from P15	1 bracket gouged	
18	Eastbound, 1st, 2nd, & 3rd south Pier 18	3 twisted brackets	
19	Eastbound, 1st, 2nd, & 3rd brackets from South Abut.	3 brackets twisted and railing weld broken at termination	
19	Westbound, S. Abut.	Weld broken at termination	18 (LE)

SN 064-0035
District 9
Insp Date: 3/6/2023
Item #223
Detail 11
Span 13, Floorbeam 146
at Stringer 5



ELEVATION
(Looking South)



SECTION A-A

Section Loss

Hole

Readings Equally Spaced

PHOTO 1 Span 1, Looking North

PHOTO 2 Span 13, Looking North

PHOTO 3 Span 13, Looking West

PHOTO 4 Span 13, West Arch, Upper Chamber, Looking South

PHOTO 5	Span 4, Looking South

PHOTO 6	Span 1, Looking North

PHOTO 7 Span 3, Looking West

PHOTO 8 Span 19, Looking North

PHOTO 9 Span 19, Looking Southwest

PHOTO 10 Span 13, Looking East

PHOTO 11	Span 13, Looking Northwest

PHOTO 12	Span 11, Looking Northwest

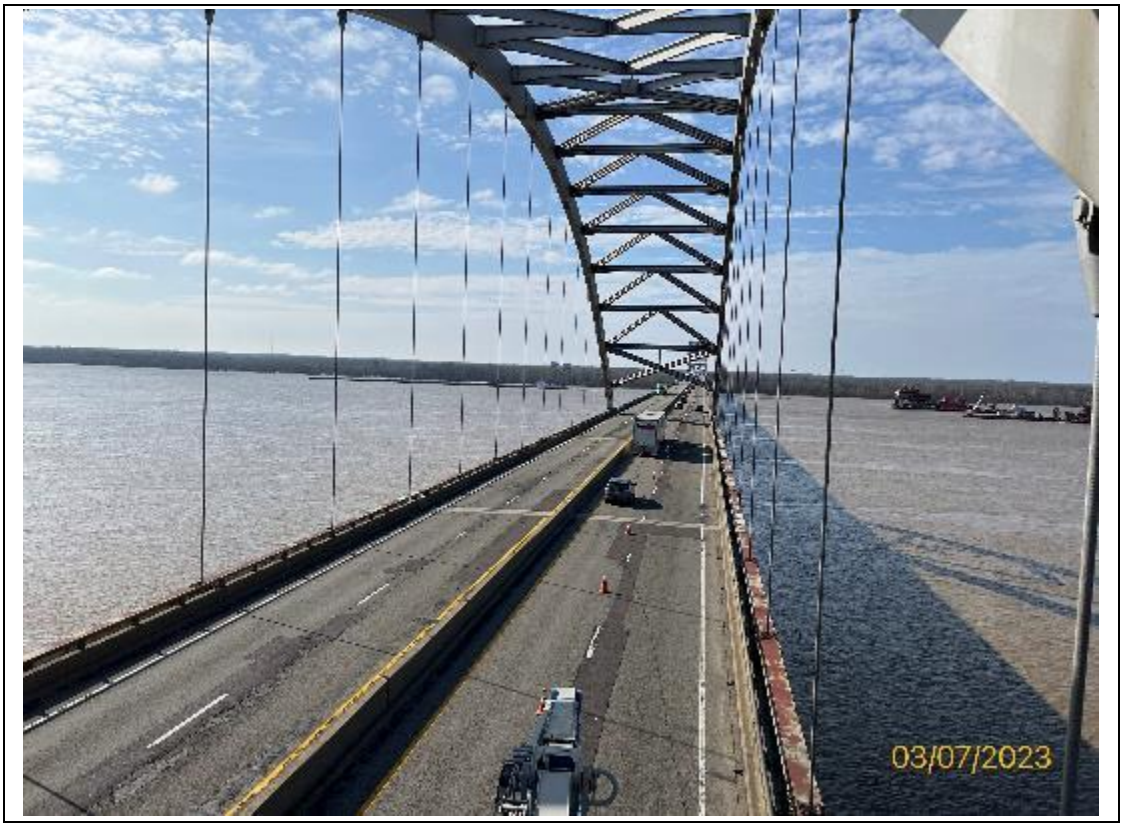


PHOTO 13 Span 4, Looking South

PHOTO 14 Span 16, Looking Northwest

PHOTO 15	Span 16, Looking West

PHOTO 16	Spans 6 & 7, Looking East

PHOTO 17 Span 13, Looking Northeast

PHOTO 18 Span 19, Looking East

PHOTO 19 Span 4, Looking West

PHOTO 20 Span 4, Looking Northwest

PHOTO 21	Span 4, Looking Northwest

PHOTO 22	Span 2, Looking Southeast

PHOTO 23 Span 2, Looking East

PHOTO 24

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PHOTO 39

PHOTO 40 (2021 Photo)

PHOTO 41

PHOTO 42

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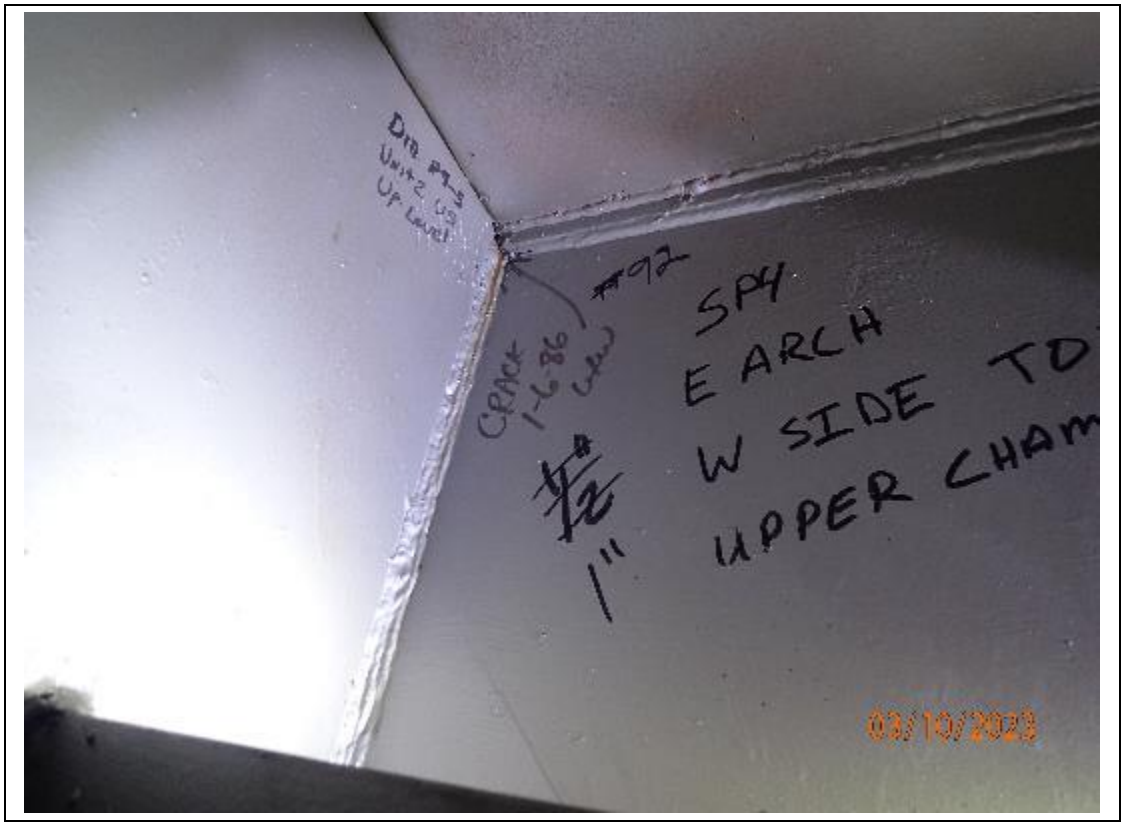

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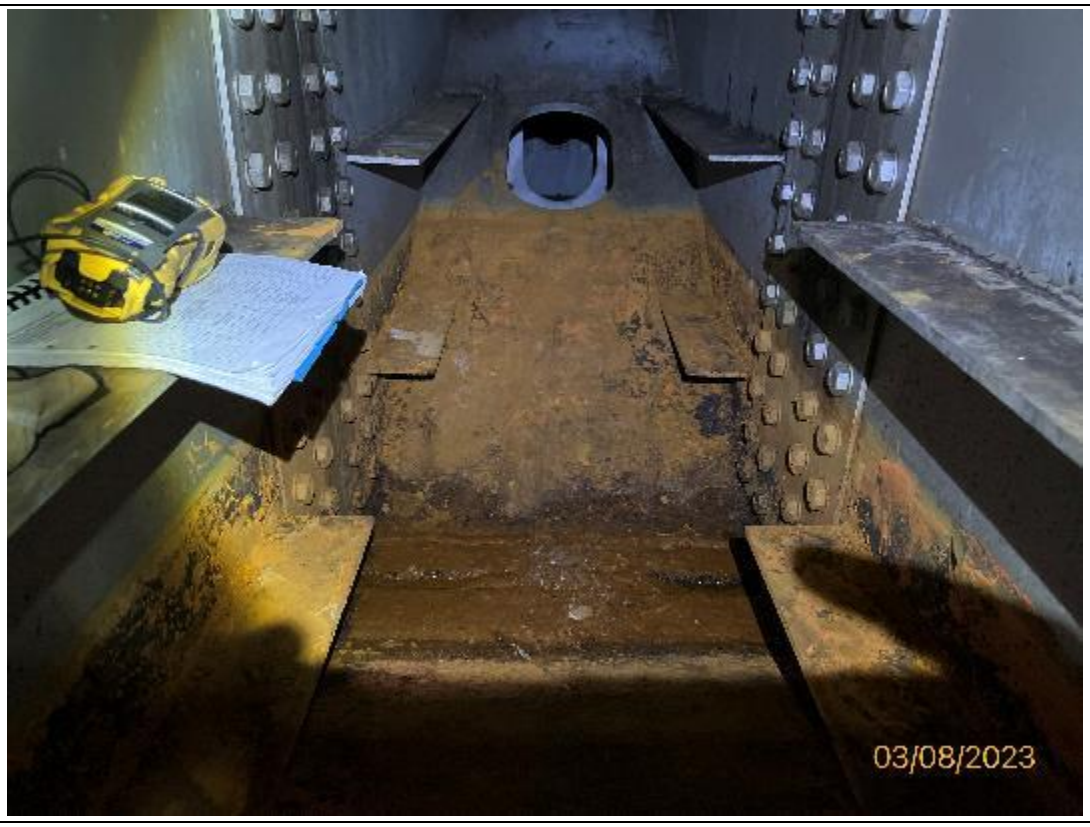

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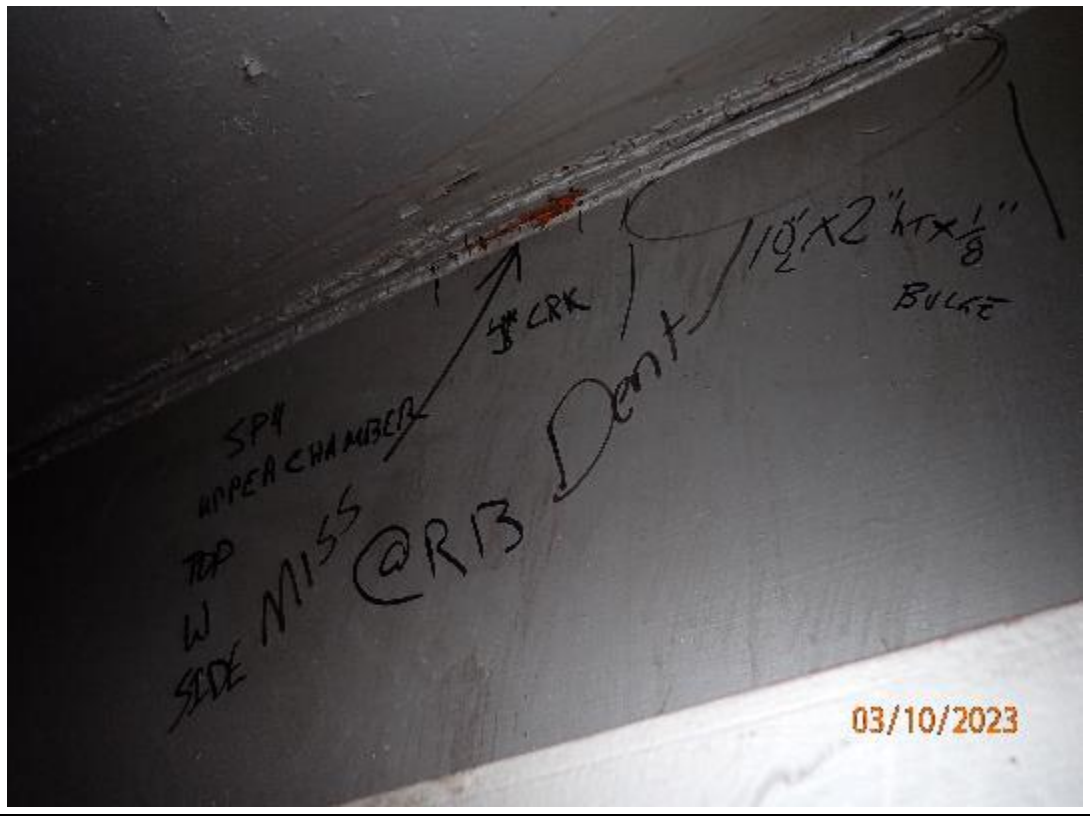


PHOTO 80

PHOTO 81

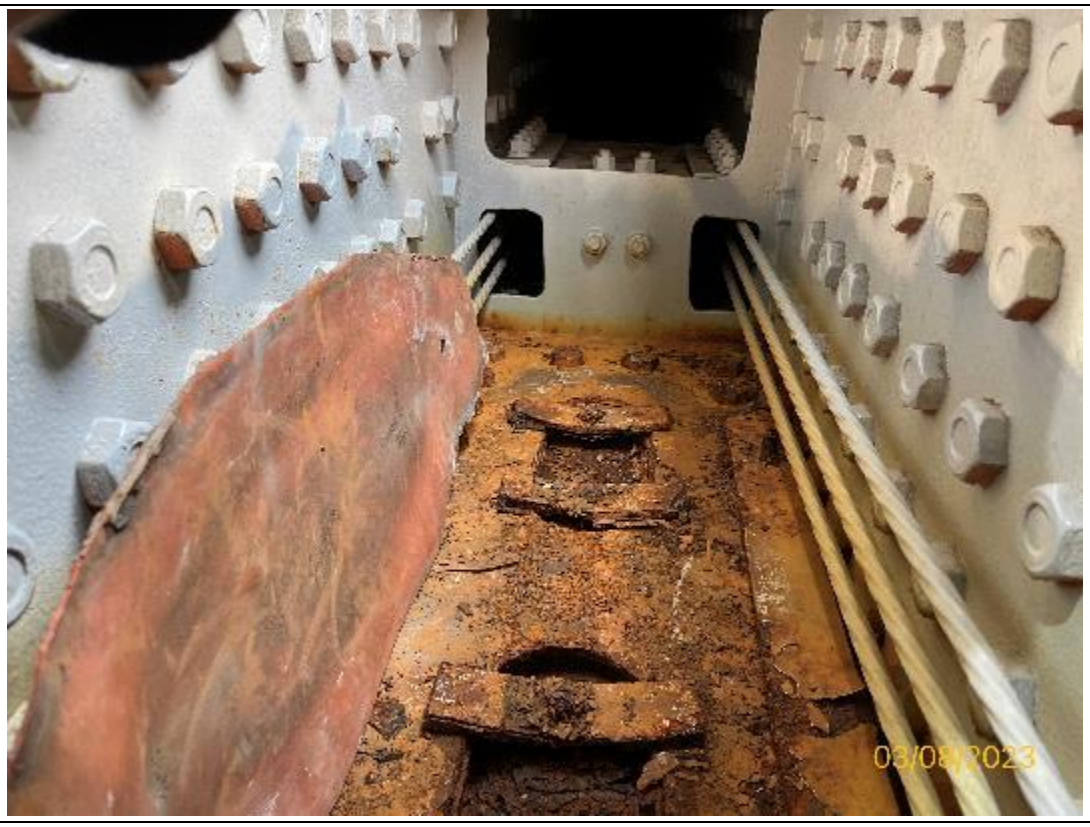


PHOTO 82

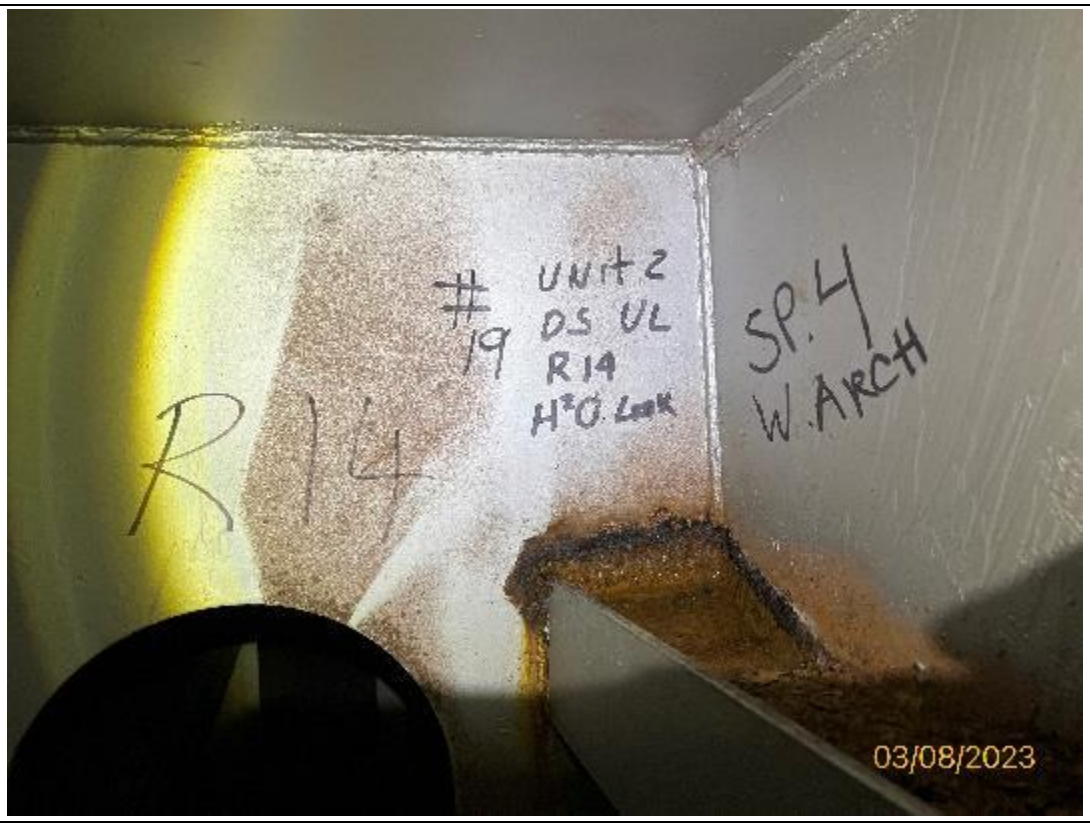
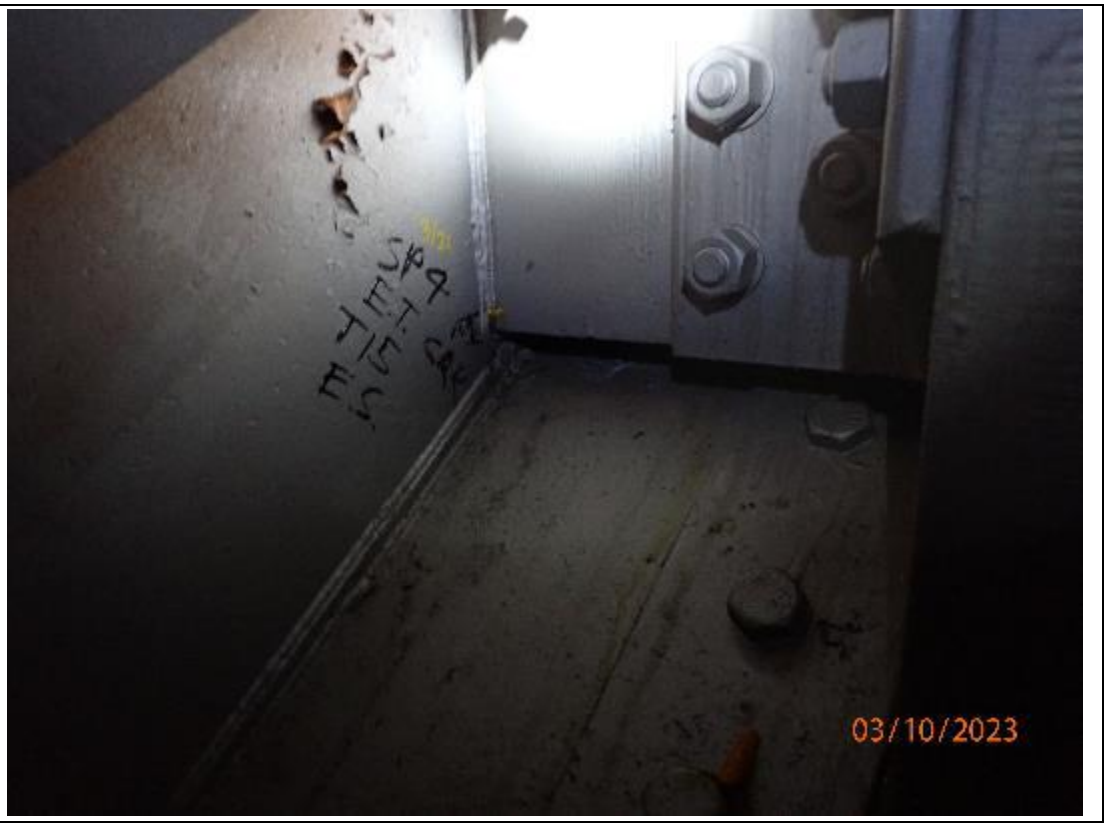


PHOTO 83

PHOTO 84



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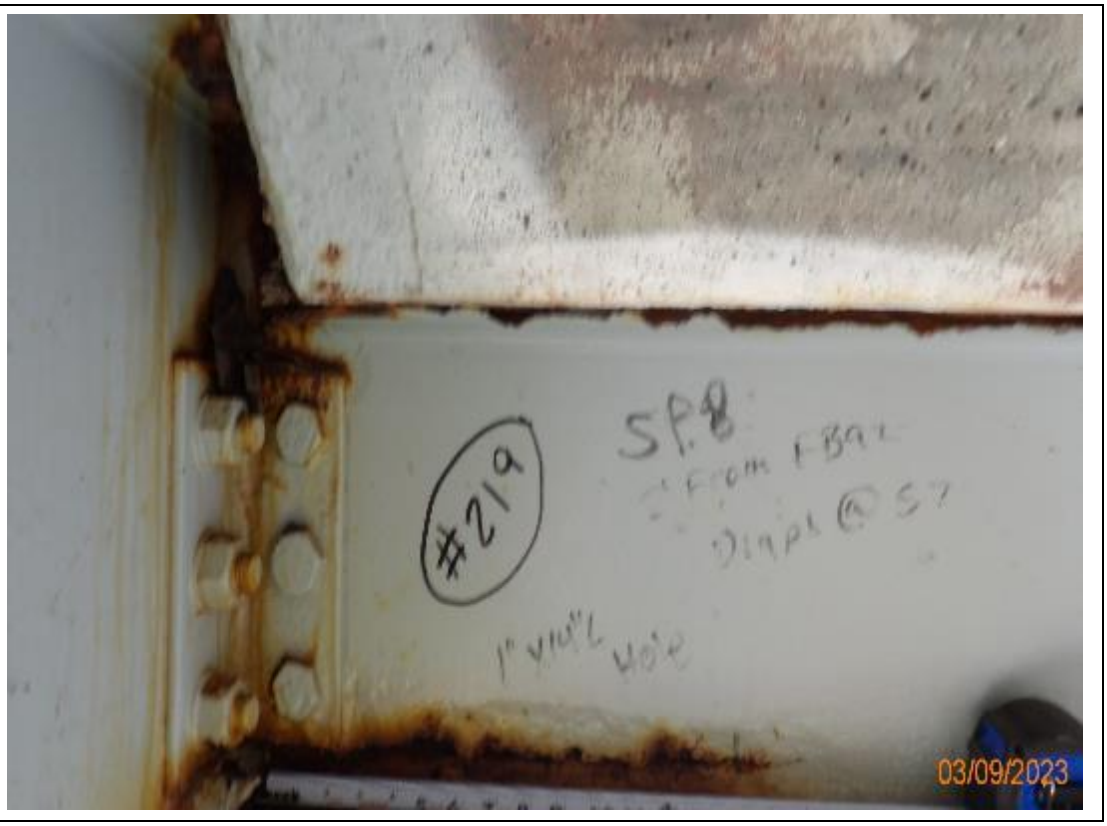
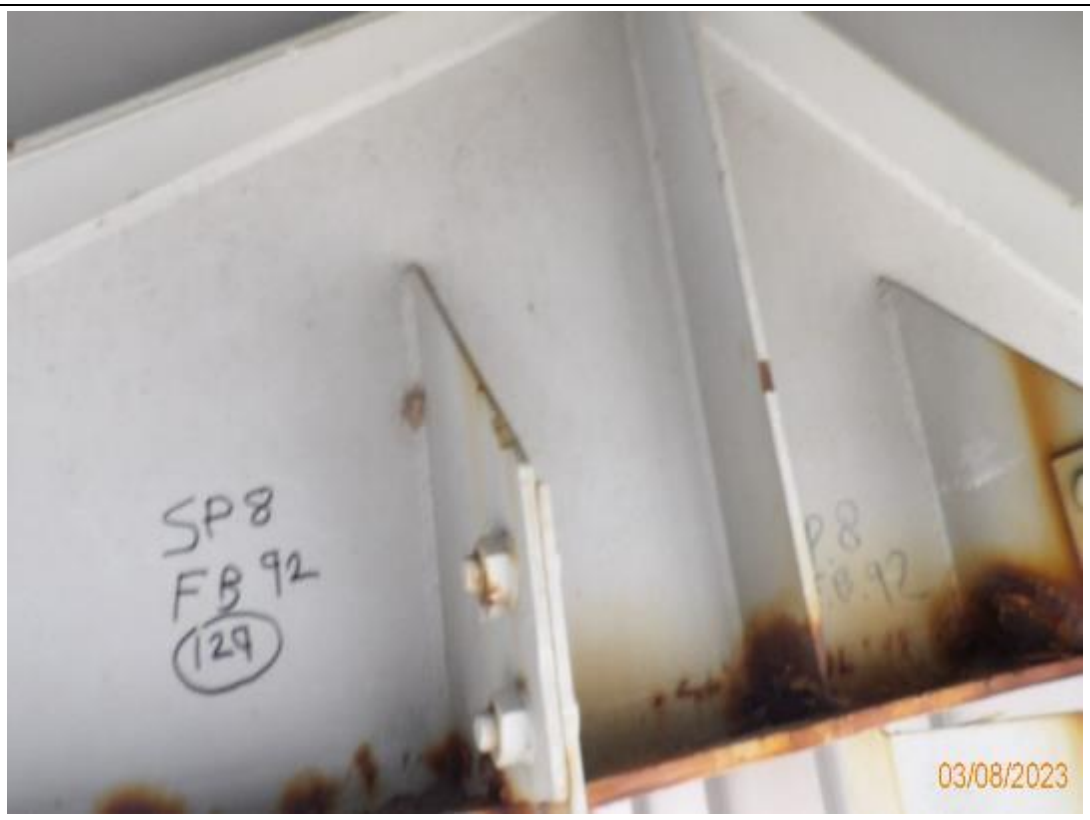


PHOTO 110

PHOTO 111



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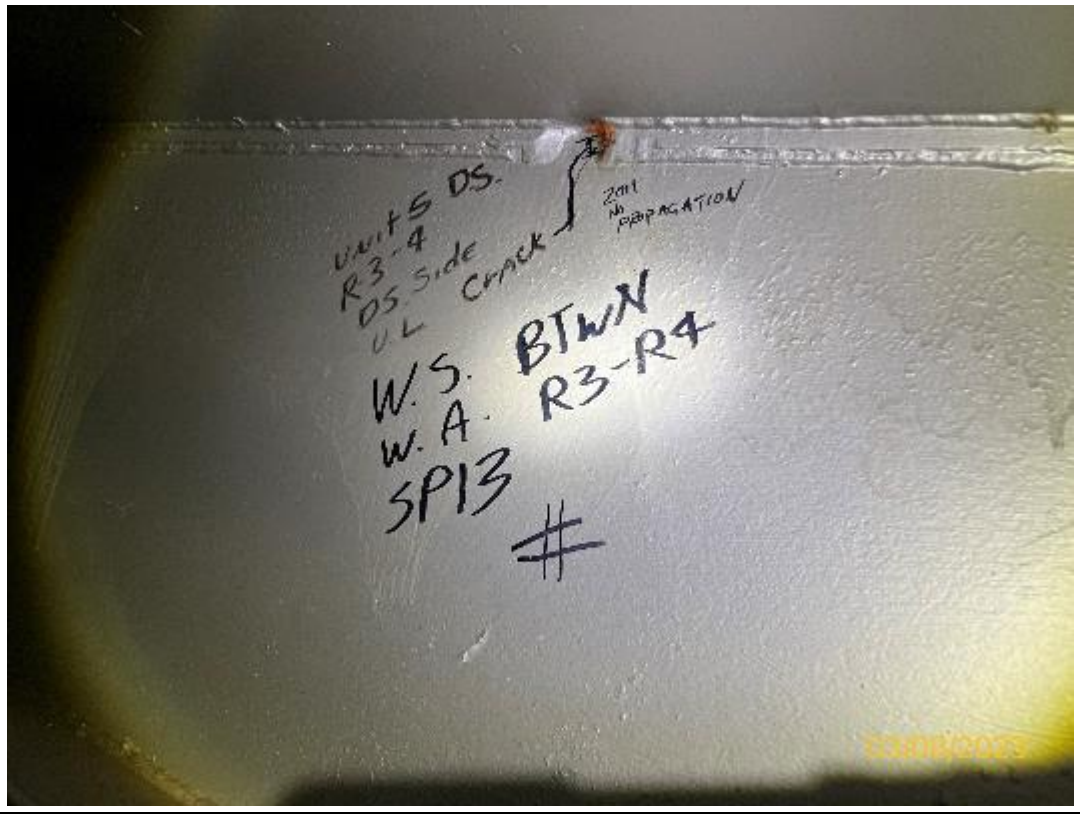

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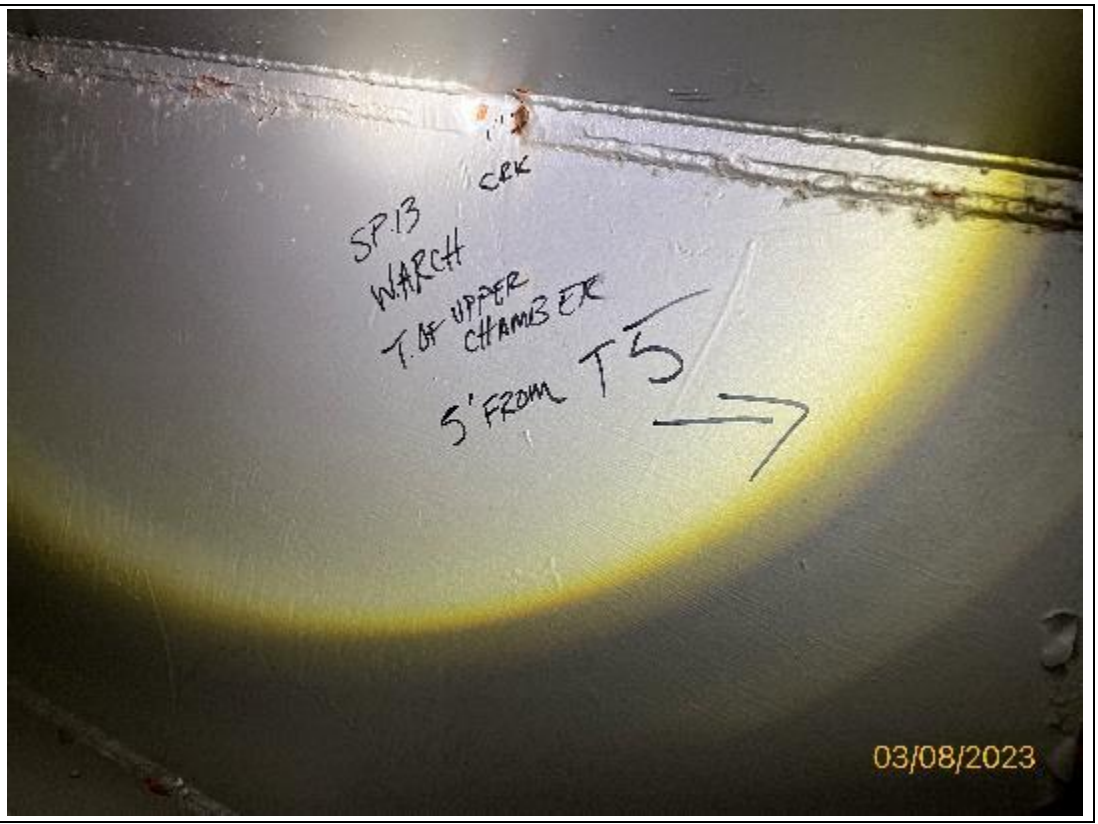

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PHOTO 176 (Photo mislabeled, weld is not repaired.)

PHOTO 177

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PHOTO 236 (Note: Photo mislabeled, this is Stringer 5.)

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PHOTO 249

STRUCTURE NUMBER:064-0035									
DATE: 3/6/2023					**DATE:**				
BY: S. Chelbian, KM					**BY:**				
LOC.	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**	**LOC.**	**READING**	**TEMP. (°F)**	**JOINT TYPE**	**LOC. MEAS.**
N. ABUT.	4 3/16”	72	MJ	W	N. ABUT.			MJ	W
P-3	5 5/16”	72	FP	W	P-3			FP	W
P-4	4 5/16”	74	FP	W	P-4			FP	W
P-8	7 5/16”	75	FP	W	P-8			FP	W
P-12	6”	75	FP	W	P-12			FP	W
P-13	2 ¾”	74	FP	W	P-13			FP	W
S. ABUT.	8”	73	MJ	W	S. ABUT.			MJ	W
ALL READINGS TAKEN 1’ FROM PARAPET, CURB OR GUARD RAIL									

STRUCTURE NUMBER:064-0035									
DATE: 3/11/2019					**DATE: 03/01/2021**				
BY: TDB					**BY: MJP, AJ**				
LOC.	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**	**LOC.**	**READING**	**TEMP. (°F)**	**JOINT TYPE**	**LOC. MEAS.**
N. ABUT.	4 ¾”	51	MJ	W	N. ABUT.	4 1/2”	48	MJ	W
P-3	6 ¾”	51	FP	W	P-3	6 3/4”	48	FP	W
P-4	5”	51	FP	W	P-4	5 1/8”	48	FP	W
P-8	9”	51	FP	W	P-8	9 3/8”	48	FP	W
P-12	7 3/8”	51	FP	W	P-12	7 3/4”	48	FP	W
P-13	3 7/8”	51	FP	W	P-13	4 1/8”	48	FP	W
S. ABUT.	8 5/8”	51	MJ	W	S. ABUT.	8 7/8”	48	MJ	W
ALL READINGS TAKEN 1’ FROM PARAPET, CURB OR GUARD RAIL									

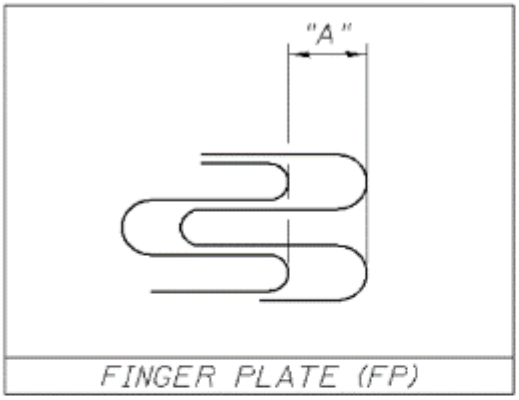
STRUCTURE NUMBER:064-0035									
DATE: 3/18/2015					**DATE: 3/13/2017**				
BY: EMR					**BY: SPN**				
LOC.	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**	**LOC.**	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**
N. ABUT.	5/8”	41	MJ	W	N. ABUT.	5”	32	MJ	W
P-3	7 ½ ”	41	FP	W	P-3	7 7/8”	32	FP	W
P-4	5 ½ ”	41	FP	W	P-4	6 ¾”	34	FP	W
P-8	10 ¼ ”	41	FP	W	P-8	10 ½”	35	FP	W
P-12	8 ½ ”	41	FP	W	P-12	9”	34	FP	W
P-13	4 5/8”	41	FP	W	P-13	4 7/8”	32	FP	W
S. ABUT.	4 1/4”	41	MJ	W	S. ABUT.	9 ½”	35	MJ	W
ALL READINGS TAKEN 1’ FROM PARAPET, CURB OR GUARD RAIL									

STRUCTURE NUMBER:064-0035									
DATE: 03-16-2011					**DATE: 3/11/2013**				
BY: MDH,EMR					BY: CJI				
LOC.	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**	**LOC.**	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**
N. ABUT.	½"	67	FP	W	N. ABUT.	½''	45	FP	W
P-3	6 ¾"	67	FP	W	P-3	7 ½''	45	FP	W
P-4	5 ¼"	67	FP	W	P-4	5 ½''	45	FP	W
P-8	9 ½"	67	FP	W	P-8	10 1/8''	45	FP	W
P-12	7 5/8"	67	FP	W	P-12	8 ¾''	45	FP	W
P-13	4 ¼"	67	FP	W	P-13	4 ½''	45	FP	W
S. ABUT.	2 ½"	67	FP	W	S. ABUT.	3 1/8''	45	FP	W
ALL READINGS TAKEN 1' FROM PARAPET, CURB OR GUARD RAIL									

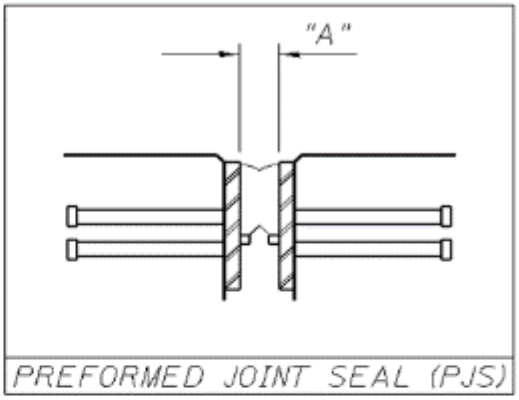
STRUCTURE NUMBER: 064-0035									
DATE: 03/19/2007					**DATE: 03/23/2009**				
BY: CJI					**BY: MDH**				
LOC.	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**	**LOC.**	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**
N. ABUT.	½”	60º	FP	W	N. ABUT	9/16”	65°	FP	W
P-3	7 ¼”	60º	FP	W	P-3	6 5/8”	65°	FP	W
P-4	5 ½”	60º	FP	W	P-4	5 ¼”	65°	FP	W
P-8	9 ½”	60º	FP	W	P-8	8 7/8”	65°	FP	W
P-12	7 ¾”	60º	FP	W	P-12	7 7/8”	65°	FP	W
P-13	4 ½”	60º	FP	W	P-13	4 ½”	65°	FP	W
S.ABUT.	2 ¾”	60º	FP	W	S. ABUT	2 3/8”	65°	FP	W
ALL READINGS TAKEN 1’ FROM PARAPET, CURB OR GUARD RAIL									

STRUCTURE NUMBER: 064-0035									
DATE: 03/20/2003					DATE: 04/06/05				
BY: MJM					BY: SKP				
LOC.	READING	TEMP.	JOINT TYPE	LOC. MEAS.	LOC.	READING	TEMP.	JOINT TYPE	LOC. MEAS.
N. ABUT.	5/8”	55	FP	W	N. ABUT.	1”	66	FP	W
P-3	7 ¾”	55	FP	W	P-3	8 ½”	66	FP	W
P-4	5 ½”	55	FP	W	P-4	6”	66	FP	W
P-8	9 3/8”	55	FP	W	P-8	10 ¼”	66	FP	W
P-12	8 1/8”	55	FP	W	P-12	8 ½”	66	FP	W
P-13	4 ¼”	55	FP	W	P-13	4 ¾”	66	FP	W
S.ABUT.	3”	55	FP	W	S.ABUT.	3”	66	FP	W
ALL READINGS TAKEN 1’ FROM PARAPET, CURB OR GUARD RAIL									

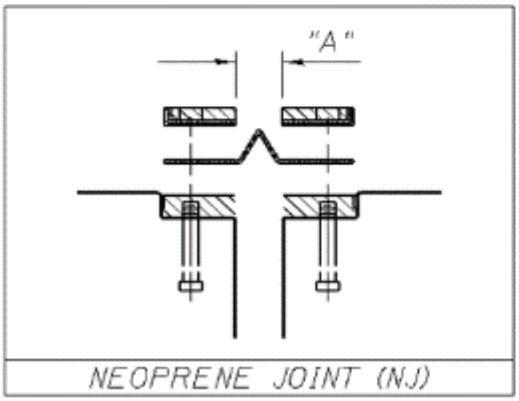
STRUCTURE NUMBER: 064-0035									
DATE: 03/05/1999					**DATE: 03/19/2001**				
BY: JIM ALLEN					**BY: JCW**				
LOC.	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**	**LOC.**	**READING**	**TEMP.**	**JOINT TYPE**	**LOC. MEAS.**
N. ABUT.	¾”	62			N. ABUT.	1”	48		
P-3	7 7/8”	56			P-3	8 ½”	48		
P-4	5 ¾”	56			P-4	6”	48		
P-8	10”	56			P-8	10 ¼”	45		
P-12	8 ¼”	50			P-12	8 ½”	45		
P-13	4 ¼”	50			P-13	4 ¾”	45		
S.ABUT.	2 ½”	50			S.ABUT.	3”	45		
ALL READINGS TAKEN 1’ FROM PARAPET, CURB OR GUARD RAIL									



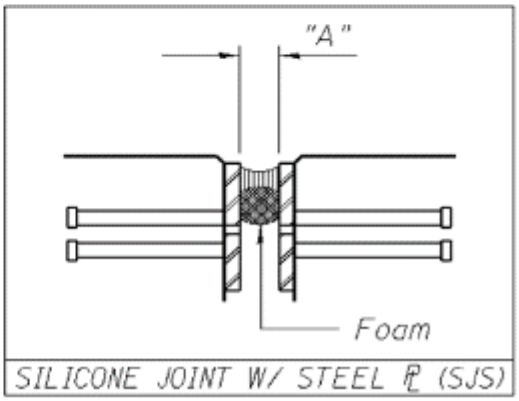
FINGER PLATE (FP)



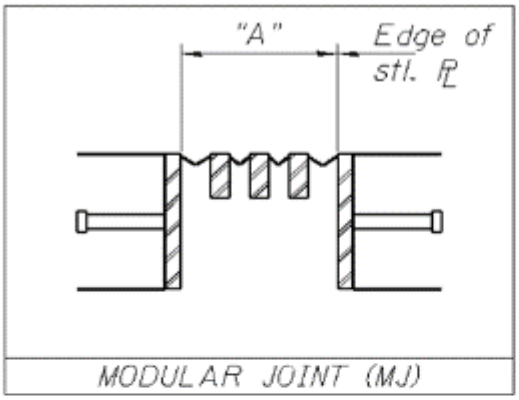
PREFORMED JOINT SEAL (PJS)



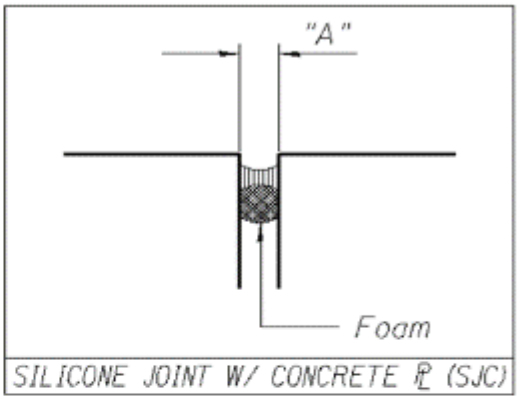
NEOPRENE JOINT (NJ)



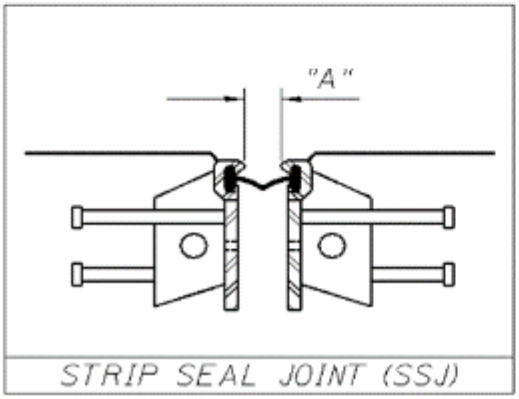
SILICONE JOINT W/ STEEL ℄ (SJS)



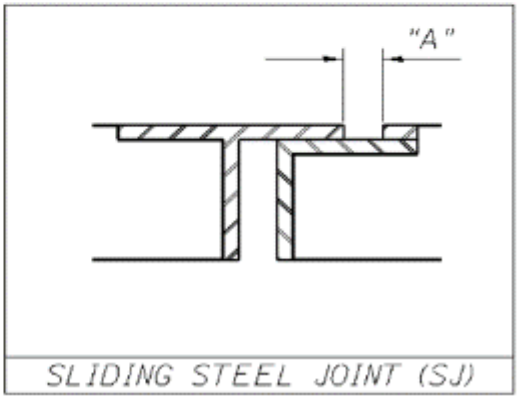
MODULAR JOINT (MJ)



SILICONE JOINT W/ CONCRETE ℄ (SJC)



STRIP SEAL JOINT (SSJ)



SLIDING STEEL JOINT (SJ)

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/9/23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. **Concord** Fire Department shall be called at **270-444-8520** before the first entry of the day and after the last entry of the day. District **9** and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be **confined space trained** within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading: Comb. LEL: — Oxygen: 20.9 Hydrogen Sulfide: — Carbon Monoxide: —
Entry Reading: Comb. LEL: — Oxygen: 20.9 Hydrogen Sulfide: — Carbon Monoxide: —

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
W. IL Arch	693'	3'	9'	18720	4500	30 MIN.	10:30AM	11:30AM	11:45AM	1:15PM
IL Tie	630'	2.1'	2.67'	3540	4500	15 MIN.				
W. KY Arch	803	3'	10'	24090	4500	30 MIN.	2:00PM	3:00PM	3:30PM	5:00PM
KY Tie	730'	2.1'	2.67'	4100	4500	15 MIN.				
Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.				

Was a hazardous condition encountered? Yes: ____ No: X
If Yes, explain: ____

Employees entering the confined space: 1) SLADE CHELBIAN
2) ____

Stand-by: (Observer) DAVID HEBERLING

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/8/23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. **Concord** Fire Department shall be called at **270-444-8520** before the first entry of the day and after the last entry of the day. District **9** and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be **confined space trained** within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading: **Comb. LEL:** — **Oxygen:** 20.9 **Hydrogen Sulfide:** — **Carbon Monoxide:** —
Entry Reading: **Comb. LEL:** — **Oxygen:** 20.9 **Hydrogen Sulfide:** — **Carbon Monoxide:** —

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
IL Arch	693'	3'	9'	18720	4500	30 MIN.				
W. IL Tie	630'	2.1'	2.67'	3540	4500	15 MIN.	12:30pm	1:30pm	1:45pm	2:00pm
KY Arch	803	3'	10'	24090	4500	30 MIN.				
KY Tie	730'	2.1'	2.67'	4100	4500	15 MIN.				
Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.				

Was a hazardous condition encountered? Yes: ____ No: X
If Yes, explain:

Employees entering the confined space: 1) DAVID HEBERLING
2)

Stand-by: (Observer) SLADE CHELBIAN

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/13/23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. **Concord** Fire Department shall be called at **270-444-8520** before the first entry of the day and after the last entry of the day. District **9** and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be **confined space trained** within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading: **Comb. LEL:** — **Oxygen:** 20.9 **Hydrogen Sulfide:** — **Carbon Monoxide:** —
Entry Reading: **Comb. LEL:** — **Oxygen:** 20.9 **Hydrogen Sulfide:** — **Carbon Monoxide:** —

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
IL Arch	693'	3'	9'	18720	4500	30 MIN.				
IL Tie	630'	2.1'	2.67'	3540	4500	15 MIN.				
KY Arch	803	3'	10'	24090	4500	30 MIN.				
W. KY Tie	730'	2.1'	2.67'	4100	4500	15 MIN.	1:30 pm	2:30 pm	3:00 pm	4:35 pm
Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.				

Was a hazardous condition encountered? Yes: _____ No: X
If Yes, explain: _____

Employees entering the confined space: 1) DAVID HEBERLING
2) _____

Stand-by: (Observer) SLADE CHELBIAN

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/14/23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. **Concord** Fire Department shall be called at **270-444-8520** before the first entry of the day and after the last entry of the day. District **9** and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be **confined space trained** within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading:	**Comb. LEL:**	—	**Oxygen:**	20.9	**Hydrogen Sulfide:**	—	**Carbon Monoxide:**	—		
Entry Reading:	**Comb. LEL:**	—	**Oxygen:**	20.9	**Hydrogen Sulfide:**	—	**Carbon Monoxide:**	—		

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
IL Arch	693'	3'	9'	18720	4500	30 MIN.				
IL Tie	630'	2.1'	2.67'	3540	4500	15 MIN.				
KY Arch	803	3'	10'	24090	4500	30 MIN.				
KY Tie	730'	2.1'	2.67'	4100	4500	15 MIN.				
5. Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.	8:00AM	5:30AM	5:30AM	9:00AM

Was a hazardous condition encountered? Yes: ____ No: X
If Yes, explain:

Employees entering the confined space: 1) SLADE (HELBIAN)
2)

Stand-by: (Observer) DAVID HEBERLING

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/14/23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. **Concord** Fire Department shall be called at **270-444-8520** before the first entry of the day and after the last entry of the day. District **9** and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be **confined space trained** within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading:	**Comb. LEL:** –	**Oxygen:** 20.9	**Hydrogen Sulfide:** –	**Carbon Monoxide:** –
Entry Reading:	**Comb. LEL:** –	**Oxygen:** 20.9	**Hydrogen Sulfide:** –	**Carbon Monoxide:** –

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
IL Arch	693'	3'	9'	18720	4500	30 MIN.				
IL Tie	630'	2.1'	2.67'	3540	4500	15 MIN.				
E. KY Arch	803	3'	10'	24090	4500	30 MIN.	10:00 AM	11:00 AM	11:00 AM	12:15 PM
KY Tie	730'	2.1'	2.67'	4100	4500	15 MIN.				
Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.				

Was a hazardous condition encountered? Yes: _____ No: X
If Yes, explain: _____

Employees entering the confined space: 1) SLADE CHELBIAN
2)

Stand-by: (Observer) DAVID HEBERLING

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/14/23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. **Concord** Fire Department shall be called at **270-444-8520** before the first entry of the day and after the last entry of the day. District **9** and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be **confined space trained** within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading: **Comb. LEL:** — **Oxygen:** 20.9 **Hydrogen Sulfide:** — **Carbon Monoxide:** —
Entry Reading: **Comb. LEL:** — **Oxygen:** 20.9 **Hydrogen Sulfide:** — **Carbon Monoxide:** —

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
IL Arch	693'	3'	9'	18720	4500	30 MIN.				
IL Tie	630'	2.1'	2.67'	3540	4500	15 MIN.				
KY Arch	803	3'	10'	24090	4500	30 MIN.				
KY Tie	730'	2.1'	2.67'	4100	4500	15 MIN.	11:30 AM	12:30 pm	12:45 pm	2:30 pm
Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.				

E.

Was a hazardous condition encountered? Yes: ____ No: X
If Yes, explain:

Employees entering the confined space: 1) DAVID HEBERLING
2)

Stand-by: (Observer) SLADE CHELBIM

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/15/23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. **Concord** Fire Department shall be called at **270-444-8520** before the first entry of the day and after the last entry of the day. District **9** and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be **confined space trained** within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading: Comb. LEL: — Oxygen: 20.8 Hydrogen Sulfide: — Carbon Monoxide: —
Entry Reading: Comb. LEL: — Oxygen: 20.8 Hydrogen Sulfide: — Carbon Monoxide: —

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
IL Arch	693'	3'	9'	18720	4500	30 MIN.				
E. IL Tie	630'	2.1'	2.67'	3540	4500	15 MIN.	8:30 AM	9:00 AM	9:00 AM	10:15 AM
KY Arch	803	3'	10'	24090	4500	30 MIN.				
KY Tie	730'	2.1'	2.67'	4100	4500	15 MIN.				
Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.				

Was a hazardous condition encountered? Yes: ____ No: X
If Yes, explain:

Employees entering the confined space: 1) DAVID HEBERLING
2)

Stand-by: (Observer) SLADE CHELBIAN

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3/10/2023 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: NB ILLINOIS ARCH INSPECTION

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. Concord Fire Department shall be called at 270-444-8520 before the first entry of the day and after the last entry of the day. District 9 and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be confined space trained within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading:	**Comb. LEL:** 0	**Oxygen:** 20.9	**Hydrogen Sulfide:** 0	**Carbon Monoxide:** 0
Entry Reading:	**Comb. LEL:** 0	**Oxygen:** 20.9	**Hydrogen Sulfide:** 0	**Carbon Monoxide:** 0

	Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)		Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
★	IL Arch	693'	3'	9'	18720	4500	★	30 MIN.	9:10	9:55	10:05	12:38
	~~IL Tie~~	630'	2.1'	2.67'	3540	4500		15 MIN.				
	~~KY Arch~~	803	3'	10'	24090	4500		30 MIN.				
	~~KY Tie~~	730'	2.1'	2.67'	4100	4500		15 MIN.				
	~~Abt VII~~	23.5'	62.3'	10.5'	15380	4500		30 MIN.				

Was a hazardous condition encountered? Yes: _____ No: X
If Yes, explain: —

Employees entering the confined space:
1) MICHAEL SPENCER
2) JACOB GREEN

Stand-by: (Observer) SLADE CHELBIAN

Emergence Numbers: 270-444-8520 or 991

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Inspection Unit
Confined Space Pre-entry Certification Report and Procedure

Date: 3-13-23 **Structure Number:** 064-0035 **Bridge Location:** I-24 over the Ohio River
Element Entering: Ties, Arches, Abutment Vault
Purpose: INSPECTION OF THE NORTH (IL) VAULTED ABUTMENT

Equipment Required: 1) Air monitor, 2) air monitor calibration kit with calibration gas tank, 3) air horn (4500cfm) and wood closure, 4) 5 minute air pack, 5) hard hat, 6) life line, 7) harness 8) district to provide an air compressor. Tripod and hoist will not be used for this inspection since they are impractical.. Harness and lifeline will not be used once in a arch or tie confined spaces, they are impractical and restrict movement for this type of entry, however,they will be used in the vault.

A competent stand-by observer shall be responsible for this form being filled out correctly, completely and all procedures followed. His or her signature shall go under the heading (stand-by observer), located at the bottom of this sheet.

Procedures for Entering a Confined Space:

1. Run fresh air through the air monitor away from traffic. Proceed by calibrating the air monitor as specified by the manufacturer.
2. If the confined spaces can not be tested prior to removing the doors, test the air with the monitor after doors are removed. Record the readings below under (Initial Readings). The confined space at this time should be ventilated using the air horn or blower for the minimum time shown below. These calculation have taken in to consideration the volume of air in the confined space to be exchanged at a minimum of five times before entry of the structure. After said time set below inspectors may enter the structure if they deem it safe to enter. All readings at entry must be recorded at this time by the stand-by person on the lower portion of this page. During entry of the confined space ventilation of the structure shall continue until exiting of the structure. All vehicles should be parked in a location where the exhaust can not enter the confined space.
3. The air shall be tested and recorded below and monitored continuously inside the structure during the entry. If the air does not test within acceptable limits the space shall be purged again until the test is acceptable. If at any time the monitor goes off inside the space after entering the confined space you should notify the stand-by and exit ASAP.
4. Radio communication shall be set up between those entering and the stand-by observer and maintained at 1 minute intervals during the inspection of the structure.
5. Concord Fire Department shall be called at 270-444-8520 before the first entry of the day and after the last entry of the day. District 9 and station 1 shall be notified in the same manor. In an emergency the Fire Department shall be notified first and then district or station 1. The Fire Department has confirmed the ability to dispatch a confined space rescue team.
6. Those entering and the stand-by observer shall be confined space trained within the last year and sign below that this procedure is being followed and they believe the entry is safe.
7. Those entering may enter only after signing this form.

Initial Reading:	**Comb. LEL:** 0	**Oxygen:** 20.9	**Hydrogen Sulfide:** 0	**Carbon Monoxide:** 0
Entry Reading:	**Comb. LEL:** 0	**Oxygen:** 20.9	**Hydrogen Sulfide:** 0	**Carbon Monoxide:** 0

Member Entered	Length	Width	Height	Volume	Air Horn or blower (cfm)	Minimum Time	Start Vent. Time	Finish Vent. Time	Entry Time	Exit Time
~~IL Arch~~	693'	3'	9'	18720	4500	30 MIN.				
~~IL Tie~~	630'	2.1'	2.67'	3540	4500	15 MIN.				
~~KY Arch~~	803	3'	10'	24090	4500	30 MIN.				
~~KY Tie~~	730'	2.1'	2.67'	4100	4500	15 MIN.				
NORTH IL Abt Vlt	23.5'	62.3'	10.5'	15380	4500	30 MIN.	843	743	10:05	10:35

Was a hazardous condition encountered? Yes: _____ No: X
If Yes, explain: —

Employees entering the confined space: 1) MICHAEL SPENCER
2)

Stand-by: (Observer) JACOB GREEN

Emergence Numbers: 270-444-8520 or 991