Inspector: Shelman,Erin
Inspection Date: 09/23/2025

Structure Number: 1833421
Facility Carried: WEST 140TH ST

Ohio Bridge Inspection Summary Report

CUY-C0232-01.82 (1833421)

B.L.04: District	District 1216000 - CLEVELAND (CUY county)	
B.CL.02: Major Maint	02 - County Highway Agency	/
225 Routine Main A/B	02 - County Highway Agency	/
221 Inspection A/B	02 - County Highway Agency	/

Condition

B.C.01: Deck	**7**
58.01: Wearing Surface	7
B.C.08: Joint	6
B.C.02: Superstructure	**8**
59.01: Paint & PCS	7
B.C.03: Substructure	**6**
B.C.09: Channel	**N**
B.C.11: Scour	**N**
B.C.10: Channel Prot.	**N**
B.C.05: Bridge Railing	
B.C.06: Transitions	
B.C.07: Bearings	
B.C.04: Culverts	**N**
Ohio GA	**6**

Appraisal

B.AP.03: Scour Vul.	Not over Waterway

Geometric

48: Max Span Length (ft)	97.0
49: Structure Length (ft)	1278.5
52: Deck Width, Out-To-Out (ft)	64.3
424: Deck Area (sf)	82207.55
32: Appr Roadway Width (ft)	52.0
51: Road Width, Curb-Curb (ft)	52.0
50A: Curb/SW Width: Left (ft)	5
50A: Curb/SW Width: Right (ft)	5
34: Skew (deg)	59
33: Bridge Median	0 - No median
54B: Min Vert Underclearance (ft)	16.92
336A: Min Vert Clrnce IR Cardinal (ft)	99
336B: Min V Clr IR Non-Cardinal (ft)	0
578: Culvert Length (ft)	0

Load Posting

41: Op/Post/Closed	A - Open
70: Posting	5 - Equal to or above legal loads
70.01: Date	
70.02: Sign Type	
734: Percent Legal (%)	139
704: Analysis Date	12/10/2020
63: Analysis Method	6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.

5A: Inventory Route	1 C0232
7: Facility On	WEST 140TH ST
6: Feature Ints	N&S RR, RTA & SERVICE RD
9: Location	1800' N OF LORAIN RD
Lat, Lon	41.458989 ,-81.790111

Structure Type

43: Bridge Type	4 - Steel continuous 02 - Stringer/Multi-beam or Girder N- Not Applicable
45: Spans Main / Approach	12 / 28
107: Deck Type	1 - Concrete Cast-in-Place
408: Composite Deck	Y - Composite Construction
414A Joint Type 1	A - Modular
414B: Joint Type 2	N - None
108A: Wearing Surface	3 - Latex Concrete or similar additive N - Not Applicable
422: WS Date	07/01/1998
423: WS Thick (in)	1.25
482: Protective Coating	9 - Paint System IZEU
483: PCS Date	01/01/1990
453: Bearing Type 1	5 - Pot
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	4 - Spread Footing (on soil)
533: Foundn: Abut Rear	4 - Spread Footing (on Soil)
536: Foundn: Pier 1	4 - Spread Footing (on soil)
539: Foundn: Pier 2	3 - Drilled Shafts

Age and Service

27: Year Built/ 106 Rehab	1959 / 1998
42A: Service On	1 - Highway
42B: Service Under	2 - Railroad
28A: Lanes on	04
28B: Lanes Under	00
19: Bypass Length	2
29: ADT	15035
109: % Trucks (%)	4

Inspections

		Months	
B.IE.03 Routine Insp.		12	09/23/2025
B.IE.03: NSTM Insp.	N		
B.IE.03: UW Insp.		0	
B.IE.03: Special Insp.			
UBIT Insp.	N	0	
Drone Insp.	N	0	

Inspector Shelman,Erin

Executive Summary

REAR = SOUTH

CAUTION: Floor of REAR cellular ABUT between bents 12-14 has 3 holes/collapsed areas (+1 SF) at CBs/MHs

10 Beams, 12 Spans.

CELL ABUT NOTE:

C0 = LEFT wall column. C5 = RIGHT wall column, except for REAR CELL bent 3 and FWD CELL bent 7 where C6 is the RIGHT wall column.

Begin and end walls are CELL ABUT bents as per plan. REAR CELL bent 0 (Begin wall), FWD CELL Bent 12 (End wall).

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	54592	sq. ft.	51571	3021	0	0
510-Wearing Surfaces		44356	sq. ft.	42488	1868	0	0
38-Reinforced Concrete Slab	1 - Ben.	23969	sq. ft.	23549	420	0	0
510-Wearing Surfaces		21866	sq. ft.	21530	336	0	0
107-Steel Open Girder/Beam	3 - Mod.	8550	ft.	8548	2	0	0
515-Steel Protective Coating		84022	sq. ft.	74735	9271	16	0
205-Reinforced Concrete Column	3 - Mod.	158	each	123	25	10	0
210-Reinforced Concrete Pier Wall	3 - Mod.	445	ft.	393	48	4	0
215-Reinforced Concrete Abutment	3 - Mod.	128	ft.	76	40	12	0
234-Reinforced Concrete Pier Cap	3 - Mod.	2534	ft.	1818	501	215	0
303-Assembly Joint with Seal	3 - Mod.	310	ft.	45	262	3	0
314-Pot Bearing	3 - Mod.	130	each	26	97	7	0
321-Reinforced Concrete Approach Slab	3 - Mod.	2810	sq. ft.	2742	68	0	0
330-Metal Bridge Railing	3 - Mod.	2642	ft.	2618	0	24	0
331-Reinforced Concrete Bridge Railing	3 - Mod.	2642	ft.	61	2525	56	0
815-Drainage	3 - Mod.	4	each	1	0	3	0
830-Abutment Backwall	3 - Mod.	128	ft.	117	11	0	0

Inspector Comments - Deck and Approach

Deck, Wearing Surface, Joints, Railing

12 - Floor/Slab (SF)

The underside of the concrete deck (Main spans) has scattered hairline, leach-stained transverse cracks that extend between the BM flanges (Worst in Spans 5 and 6). Underside of overhang has transverse leach stained cracks. Deck fascia and light pilasters have scattered DELAM/spalls and LONGL cracking. **LEFT: Above GCRTA catenary line:** Parapet coping has a DELAM area.

The REINF concrete deck (Main spans) has a quantity of 51,571 SF in CS1 and 3,021 SF in CS2 (From the cracking).

510 (12) - Bridge Wearing Surface (SF)

Minor spalls along the gutter lines and some scattered hairline cracks throughout.

- **LEFT: Span 7:** Series of LONGL cracks.
- **FWD-RIGHT:** Efflorescence pumping onto RIGHT lanes ~7' long. Heavy scaling near ABUT 7' wide across both lanes. One (1) diagonal crack at curb.

The bridge deck WS has a quantity of 42,488 SF in CS1 and 1,868 SF in CS2.

38 - Reinforced Concrete Slab (Approach Spans) (SF)

APPR span (CELL) floor/slab: The underside of the REINF concrete slabs (APPR spans) has scattered sound leaching cracks and a crack near the CL where the slab concrete exhibits an overpour.

- **REAR:** Leach stained at the interface with bent 0 (Begin wall).
- **FWD:** Leach stained at the interface with bent 12 (End wall).

The REINF concrete slab (APPR spans) has a quantity of 23,549 SF in CS1 and 420 SF in CS2.

510 (38) - Approach Wearing Surface (Approach Spans) (SF)

REAR APPR WS: The WS has been previously repaired near the REAR ABUT. The repaired areas have scattered areas of hollow sounding concrete. In all spans, there are scattered LONGL, transverse and diagonal cracks open up to ~1/8". Curb lanes have DELAMs totaling 20 SF. Center lanes have DELAMs totaling 44 SF (64 SF - CS2). CL has

a full-length open crack (240' long x 1' wide = 240 SF - CS2). Note that some of the DELAM area in the center lane are contained within the CL crack quantities.

- **Intermediate EXP JTs:** Small chips/spalls along the entire intermediate EXP JT armor up to 3" wide. **EXP JT 2:** RIGHT lanes have two (2) spalls along armor 1/2 SF each up to 8" long (1' - CS2).

FWD APPR WS: The WS has been repaired near the end wall. The repaired areas have portions of hollow-sounding concrete in the curb lanes. In all spans, there are scattered LONGL, transverse and diagonal cracks open up to ~1/16". Curb lanes have DELAMs totaling 21 SF (North end). Center lanes have scattered DELAMs totaling 10 SF (31 SF - CS2).

The APPR span WS has a quantity of 21,530 SF of CS1 and 336 SF of CS2.

Curbs/Sidewalk

Bridge Deck Curbs/Sidewalks: The steel curb PLs are scraped and corroded. Vegetation is growing along the joint between the curb PL and sidewalk (Mostly at FWD end).

- **LEFT:** Spalled along edge with curb plate for majority of its length up to 6" wide x 3-1/2" deep. Some areas heaved up to 1-1/2" above curb plate.
- **RIGHT:** Numerous panels LONGL cracked.

Approach Span Curbs/Sidewalks: The steel curb PLs are scraped and corroded. The seal at the top of the curb PL is pushed out, DET and/or failed in multiple areas.

- **REAR-RIGHT:** Spalled/DELAM ~2 SF along curb plate.
- **FWD-RIGHT:** Chipped at EXP JTs.

331 - Reinforced Concrete Bridge Railing (LF)

Bridge Deck Railings: Scattered areas of vertical/map cracking throughout, mostly sound (majority CS2). Coating is flaking off the top faces in scattered areas (Worst area is on the LEFT railing under the overhanging trees).

- **LEFT:** Scattered spalls totaling 24' x >1" deep (24' - CS3). Worst area is over P5 (LTV: 4' x 4" x 3") undermining a fence post up to 1-1/2".
- **REAR-RIGHT:** Exterior has scattered spalls >1" deep totaling 24' (24' - CS3).
- **FWD-RIGHT:** Scattered spalls >1" deep totaling 4' (4' - CS3).

Approach Span Railings: Scattered areas of vertical/map cracking throughout, mostly sound (majority CS2).

- **REAR-LEFT:** Spalled/DELAM near EXP JTs totaling 4' (4' - CS3).
- **FWD-LEFT:** Two (2) cracks behind catch basin that extend from sidewalk through railing. Multiple leach-stained cracks in repaired area.
- **FWD-RIGHT:** Top of railing is spalled/DELAM <1" deep for 3' (3' - CS2).

The concrete bridge railing item has a quantity of 61' CS1, 2,525' in condition state 2 (CS2), and 56' in condition state 3 (CS3).

330 - Metal Bridge Railing - Vandal Protection Fence (LF)

Caulk is failing around many fence post base PLs and in scattered locations the shims are becoming loose and/or falling out. A few base PLs are missing bolts or have corroded bolt heads. There are some missing light pole access covers throughout.

- **REAR-LEFT: ABUT EXP JT:** The bottom and mid rail is bent.
- **REAR-RIGHT: ABUT EXP JT:** The bottom rail has failed.

The vandal protection fence has a quantity of 2,618' in condition state 1 (CS1) and 24' in condition state 3 (CS3).

815 - Deck Drainage (EA)

- **REAR ABUT: LEFT:** The neoprene boot/strap has fallen off. Drain is plugged (1 EA - CS3).
- **FWD ABUT:** Both drains are plugged (2 EA - CS3) with water actively running out of it.

CELL:

- **REAR:** Both downspouts inside ABUT are plugged. RIGHT inlet basin is filled to top with dirt.

The drainage item has a quantity of 1 EA in condition state 1 (CS1), and 3 EA in condition state 3 (CS3).

303 - Assembly Joint with Seal - Expansion Joint (LF)

The elastomeric strip seals are filled with dirt and debris and the joint opening varies across the lengths. Dirt appears to have gotten behind the seals. Evidence of leakage onto the BWs at both ABUTs. Predominant condition is condition state 2 (CS2). Joints in most sidewalks are in condition state 1 (CS1).

- **JT 3: RIGHT:** North edge of sidewalk cover PL is lifted 1”. One (1) cover PL anchor bolt is broken loose, one (1) is missing.
- **JT 4: RIGHT lane:** 3' of the joint seal is failed (3' - CS3).

The EXP JT has a quantity of 45' in condition state 1 (CS1), 262' in condition state 2 (CS2) and 3' in condition state 3 (CS3).

Approach

Approach Wearing Surface

- **REAR:** Asphalt has scattered LONGL and transverse cracks, most of them have been sealed (CS1).
- **FWD:** Asphalt is worn, slightly rutted and has numerous LONGL and transverse cracks (Mostly sealed). Potholes patched with some breaking up along the APPR Slab. The FWD APPR WS is in condition state 2 (CS2).

321 - Reinforced Concrete Approach Slab (SF)

- **REAR: LEFT:** FWD corner at CB diagonally cracked 2' (2 SF - CS2).
  RIGHT: REAR corner diagonally cracked 12' long (12 SF - CS2). Center lane LONGL cracked full length (25 SF - CS2).
- **FWD:** Diagonal cracks emanating from both REAR CB's 2' long (4 SF - CS2).
  RIGHT: Center lane LONGL cracked full length (25 SF CS2).

The REAR APPR slab has a quantity of 1,433 SF in condition state 1 (CS1) and 39 SF in condition state 2 (CS2). The FWD APPR slab has a quantity of 1,309 SF in condition state 1 (CS1) and 29 SF in condition state 2 (CS2).

Approach Relief Joint

Both joints have cracks and some spalls (Mostly sealed).

- **REAR-RIGHT:** Cracked/spalled and filled with concrete.
- **FWD-LEFT:** Heaved at curb ~1-1/2".

Signs

Type 3 object markers in place.

Inspector Comments - General Appraisal

Superstructure, Bearings

107 - Steel Open Beams/Girders (LF)

Span 4: BM 8: Bottom flange of field splice PL is bent/torqued (Appears to be from fit up).

The beams/girder item has a quantity of 8,548' in condition state 1 (CS1), and 2' in condition state 2 (CS2).

Diaphragm/X-Frames

- **Span 1: REAR:** All nine (9) end diaphragms have light corrosion.
- **Span 12: FWD:** All nine (9) end diaphragms have light corrosion.

314 - Pot Bearings (EA)

All BRGs are starting to show signs of scattered corrosion or freckled rust.

- **REAR ABUT:** Many anchor bolts are crooked or bent and some nuts are not tightened down. Some nuts/bolts are severely corroded. Rust has initiated mostly along the sliding PLs on all BRGs. **BRG 6:** Three (3) out of four (4) of the nuts/bolts are tilted and do not fully bear onto the PL. **BRG 8:** Advanced corrosion on members (CS3)**. BRG 10:** One (1) nut is not tightened down. (9 - CS2, 1 - CS3).
- **FWD ABUT:** All BRGs are corroded, and the nuts on BRGs 1, 7 and 10 are severely corroded. (BRGs 4 & 8 - CS1, remaining BRGs - CS2).

Pier BRGs: Freckled or scattered areas of rust beginning on all pier BRGs and anchors are tilted, bent, crooked, or broken on multiple BRG PLs.

- **P1:** At least one (1) nut on each of BRGs 1 - 5 is not tightened down all the way to the masonry PL (5 - CS2).
- **P2: BRG 1:** One (1) bent anchor bolt (1 - CS2). **BRGs 2-10:** Scattered corrosion (9 - CS2).
- **P3:** BRGs 2 & 3 have bent anchor bolts (2 - CS2). Remaining BRGs have scattered corrosion (8 - CS2).
- **P4:** Typical condition has corrosion beginning on all elements, tilted, bent or crooked anchors. Some nuts are not fully tightened down (10 - CS2).
- **P5: BRGs 1, 3, 4:** Loose or bent anchor bolts (3 - CS2). **BRGs 7 & 8:** Broken anchor bolts (2 - CS3).
- **P6: BRGs 1, 2, 4-10:** Loose nuts or bent anchor bolts (9 - CS2).
- **P7: BRGs 7 & 8:** Loose or missing anchor bolts (2 - CS3).
- **P8: BRGs 1-5:** Scattered corrosion (5- CS2). **BRGs 8-10:** Bent anchor bolts (3 - CS2).
- **P9:** BRG 2 is in good condition (1 - CS1). BRG 5 is missing an anchor bolt (1 - CS3). Remainder of BRGs are in condition state 2 (8 - CS2).
- **P10: BRGs 1-5 & 8:** Typical scattered corrosion and freckled rust (6 - CS2). **BRG 9:** One (1) nut is rubbing on the underside of the sole PL (1 - CS2). **BRG 10:** Two (2) nuts are tight against the PL restricting movement (1 - CS3).
- **P11:** All anchors are tilted, bent, or crooked and freckled rust is beginning (10 - CS2).

The BRG device item has a quantity of 26 EA in condition state 1 (CS1), 97 EA in condition state 2 (CS2), and 7 EA in condition state 3 (CS3).

515 - Steel Protective Coating (LF)

Minor pinpoint rusting throughout (<1%), with the exception of the BM ends at both ABUTs and the entire surface of the BMs in span 6 (Prime coat only). Paint scrapes in a few spans that are corroding.

- **Span 1: BM 1: Near ABUT:** PCS failure on bottom flange 1 SF.
- **Span 2: BM 2: Near ABUT:** PCS failure on bottom flange 1 SF.
- **Span 2: BM 10:** Bottom flange scraped 16' long. Scrape is down to bare metal (16 SF - CS3).

- **Span 3: BM 5: Mid-span:** Top flange corroded 3'.
- **Span 6: All BMs:** Covered in diesel blast from trains.
- **Span 10: BM 1: Near bolted splice:** 10' long area with multiple scrapes.
- **Span 12: BMs 6 - 8:** Scattered areas with chipped paint.
- **Span 12: BMs 8 - 10:** Scattered areas of scraped paint.

A rust grade = 7 (≤ 0.3% rusted) was assigned to all painted surfaces throughout the structure (ASTM D610).

The PCS item has a quantity of 74,735 SF in condition state 1 (CS1), 9,271 SF in condition state 2 (CS2), and 16 SF in condition state 3 (CS3).

Utilities

Five (5) light pole access panels in fence are missing/failed (Two (2) on LEFT and three (3) on RIGHT). An access cover on LEFT fence is missing three (3) bolts and is being held on by a piece of wire. Two (2) access covers on pole are missing and are covered with electrical tape (Located on LEFT side near the FWD end, and on RIGHT side, ~600' from REAR end).

Substructure

215 - Reinforced Concrete Abutment (LF)

Both ABUTs have dirt and debris accumulated across the seats. Evidence of vagrants utilizing FWD ABUT seat.

- **REAR: Below Bay 3:** Vertical crack and DELAM 17 SF (4' - CS2). **CL:** Full height crack (1' - CS2). **Below Bay 7:** DELAM 21 SF (4' - CS2). **Outside BM 10:** DELAM 2 SF (2' - CS2). **RIGHT end:** Heavy efflorescence for full height. **CELL Face (Backside):** Cracked, leaching and rust-stained with scattered small DELAMs.
- **FWD:** The end faces/seats have spalls up to 5" deep exposing corroded REINF (2' - CS3). Remainder of the breastwall is cracked, DELAM and leaching with rust stains and spalls up to 2" deep (10' - CS2, 3' - CS3). **Under BM 1:** Spalled 1 SF and DELAM 7 SF (1' - CS2). **Below Bay 2:** Spalled 2 SF and DELAM 10 SF (2' - CS2). **Under BM 4:** Spalled 1 SF exposing REINF (1' - CS3). **RIGHT end:**Scour hole (LTV: 3' x 3' x 3') exposing ABUT footing. Hole is caused by a water main break at time of inspection (Hole was filled with water). **CELL face (Backside):** Patched areas, leaching, staining and scattered spalls up to 4" deep, especially along the BW joint (CS3 - 1' at CL, 2' at BM 9, 3' at BM 10). **16' from RIGHT:** Rust stained crack/DELAM extending to the CL located along or below the JT with the BW (16' - CS2).

The ABUT item has a quantity of 76' in condition state 1 (CS1), 40' in condition state 2 (CS2), and 12' in condition state 3 (CS3).

210 - Reinforced Concrete Pier Wall (LF)

There are scattered hairline cracks, patches, DELAM, and spalls across all piers.

- **P1R: REAR:** Minor scaling and flaking of the coating.
- **P2L:** Scattered DELAMs totaling 11 SF on inside radius edge and both faces (2' - CS2).
- **P3L:** Spalled 2 SF from impact (1' - CS3). **RIGHT:** Edge DELAM 3 SF (1' - CS2).
- **P4L: REAR:** Scaled a total of 75 SF x ~1/2" deep (16' - CS2). **LEFT:** Spalled under cantilever 1 SF (1' - CS2).
- **P4R: REAR: LEFT:** Spalled 1 SF x <1" deep exposing corroded REINF (1' - CS3).
- **P5L: REAR: LEFT:** DELAMs totaling 8 SF and spalled 2 SF. **RIGHT:** Spalled/DELAM 2 SF. Inside radius edge DELAM 6 SF (5' - CS2).
- **P5R: REAR:** DELAM 2 SF. **LEFT end:** Spalled 1 SF, DELAM above spall 4 SF (3' - CS2).
- **P6L:** One (1) vertical crack on both faces at the CL (1' - CS2). **FWD-LEFT:** DELAM 2 SF at top of stem (2' - CS2).
- **P6R: REAR:** Two (2) vertical/diagonal cracks at the CL (2' - CS2). **LEFT:** Spalled/DELAM at base 1 SF (1' - CS2). **FWD: LEFT:** Spalled/DELAM a total of 14 SF (2' - CS3).
- **P7L: RIGHT: REAR:** DELAM 3 SF on radial stem near the cap (1' - CS2). **FWD:** Two (2) DELAMs (3 SF and 2 SF) near the ground line (5' - CS2).
- **P7R: REAR: LEFT:** Spalled at base 2 SF exposing corroded REINF (2' - CS3). **FWD:** Vertical crack at the CL (1' - CS2). **LEFT:** DELAM 1 SF (1' - CS2).
- **P8L: LEFT:** End face spalled/DELAM 1 SF at the top of the stem (1' - CS2). **RIGHT:** End face DELAM a total of 16 SF (2' - CS2).
- **P10R: FWD-RIGHT:** End face DELAM 1 SF at the top of the stem (1' - CS2).

The pier wall item has a quantity of 393' in condition state 1 (CS1), 48' in condition state 2 (CS2), and 4' in condition state 3 (CS3).

234 - Reinforced Concrete Pier Cap (LF)

MAIN SPANS: All pier caps have scattered DELAMs and cracks along the CJ for the pier seat addition.

- **P1L: REAR:** LONGL cracks along the seat under BM 1, bays 2 and 3 and BM 5 (9' - CS2). **FWD: LEFT cantilever:** HORZL crack and DELAM under BM 1 (4' - CS2, the crack is longer than the corresponding one on the REAR face and for quantity purposes governs).
- **P1R: REAR: LEFT cantilever:** Cracked/DELAM 3 SF (3' - CS2).
- **P2L: REAR: RIGHT cantilever:** 5' LONGL crack (5' - CS2). **FWD:** HORZL crack under BRGs 4 and 5.
- **P2R:** Each cantilever has an 8' LONGL open crack/DELAM (16' - CS2). **REAR: RIGHT cantilever:** Spalled 4 SF x 1-1/2" deep near BM 10 (2' - CS3).
- **P3L: FWD: LEFT cantilever:** 12' LONGL crack (12' - CS2).

- **P3R: REAR: LEFT cantilever:** Cracked/DELAM along bottom edge 2 SF (2' - CS2).
- **P4L: REAR: RIGHT cantilever:** DELAMs totaling 4 SF (3' - CS2). **FWD: LEFT cantilever:** DELAM 3 SF (3' - CS2). **RIGHT cantilever:** Spall on bottom face at junction with end of pier wall 2 SF (Qty counted on REAR face).
- **P4R: FWD: LEFT cantilever:** DELAM 4 SF under BM 6 (2' - CS2). **RIGHT cantilever:** Cracked/DELAM 2 SF under BM 9 (2' - CS2).
- **P5L: LEFT end:** Cantilever spalled 1 SF (1' - CS2). **FWD: LEFT cantilever:** Cracked/DELAM 5 SF under Bay 1 and 2 (5' - CS2).
- **P5R: LEFT end:** Bottom and end face of cantilever spalled/DELAM 14 SF exposing corroded REINF (1' - CS2, 1' - CS3). **REAR: Under BM 6:** Spalled 4 SF (2' - CS3). **Under BM 7:** DELAM 4 SF on bottom/corner (2' - CS2). **RIGHT cantilever: Under Bays 8 and 9:** DELAM 1 SF (2' - CS2).
- **P6L: REAR: LEFT cantilever:** Cracked/DELAM 9 SF under bay 1 (3' - CS2). **RIGHT cantilever: Under BM 5:** Cracked/DELAM 6 SF (3' - CS2). **FWD: LEFT cantilever: Under BM 1:** Cracked/DELAM 30 SF. **Under BM 2:** DELAM on bottom face 2 SF (5' - CS2, remaining portions match REAR face). **RIGHT cantilever:** End face cracked/DELAM 12 SF (Qty counted on REAR face). Bottom corner/edge cracked/DELAM 20 SF (7' - CS2, remaining portions match REAR face).
- **P6R: REAR: RIGHT cantilever:** Cracked/DELAM 3' under BM 9 (3’ - CS2). **FWD face: RIGHT cantilever:** Cracked/DELAM at bottom 2' (2' - CS2). **Bay 9:** DELAM 15 SF (5' - CS2). **Under BM 10:** DELAM 3 SF on the bottom extending to the end face (3' - CS2).
- **P7L: REAR: LEFT cantilever: Under BM 1:** Spalled/DELAM 19 SF (8' - CS2). **RIGHT cantilever:** DELAM at stem 2 SF (2' - CS2). **Bay 4:** Bottom face/corner cracked/DELAM totaling 5 SF (5' - CS2). **Under BM 5:** DELAM 6 SF (2' - CS2, 1' counted on area below). **FWD: RIGHT cantilever: Under BM 5:** DELAM at the top 12 SF. DELAM at the bottom edge/corner and bottom face 2 SF. **Bay 5:** Bottom edge/corner cracked/DELAM 5 SF. **Bay 4:** DELAM 25 SF (Matches REAR face except for 5' - CS2). **Bay 3:** Spalled/DELAM 10 SF (2' - CS2). **Bay 2:** Spalled/DELAM 20 SF exposing/corroded REINF (5' - CS3). **LEFT cantilever: Under BM 1:** DELAM 10 SF (Matches REAR face).
- **P7R:** Sealer is failing.
- **P8L: RIGHT cantilever: Bottom face near stem:** Cracked/DELAM near the stem 1 SF. **Under BM 4:** Cracked/DELAM 2 SF (3' - CS2). **REAR face: RIGHT cantilever: Under BM 4 at stem:** Cracked/DELAM extending onto bottom face 2 SF (1 SF area noted above). **Under BM 5:** Spalled/DELAM 12 SF extending to the end face (5' - CS2). **FWD: LEFT cantilever: Bay 1:** Cracked/DELAM 4 SF near the top, cracked/DELAM 2 SF under it at the bottom. **RIGHT cantilever:** Cracked/DELAM 4 SF under BM 5 extending to the end face (Matches REAR face).
- **P8R: LEFT cantilever:** DELAM 12 SF. Spalls totaling 4 SF exposing REINF (10' - CS2).
- **P9L: LEFT cantilever:** REAR and bottom faces spalled/DELAM 8 SF x 2" deep exposing corroded REINF (4' - CS3). **RIGHT cantilever: Under BM 5:** FWD and bottom faces cracked/DELAM 4 SF (2' - CS2).
- **P9R: FWD: Under BM 6:** Cracked/DELAM/spalled 4 SF x up to 5" deep exposing

corroded REINF (2' - CS3). Bottom of cantilever DELAM 1 SF.

- **P10L: RIGHT cantilever at stem:** DELAM on three (3) faces (REAR, bottom and FWD) 9 SF (2' - CS2). **REAR: Under BM 5:** DELAM 4 SF (2' - CS2).
- **P10R: REAR: LEFT cantilever: Under BM 6:** DELAM 1 SF (1' - CS2). **RIGHT cantilever: Under bay 9:** DELAM 2 SF (2' - CS2). **FWD: LEFT cantilever: Under BM 7:** Spalled extending to bottom face 5 SF x 3-1/2" deep exposing corroded REINF (5' - CS3). **RIGHT cantilever: Bay 9:** DELAM 4 SF (4' - CS2). **Under BM 10:** Bottom face spalled/DELAM 2 SF (1' - CS2).
- **P11R: LEFT cantilever: Bay 6:** REAR and bottom faces spalled/DELAM 6 SF (3' - CS2).

REAR CELL: Bent caps are cracked, DELAM, and spalled. Some of the patches on the bottom/face of the cap are failing and have exposed/corroded REINF.

- **Bent 15: REAR: COL 5:** DELAM 2 SF. **FWD: COL 2-3:** Top along slab spalled/DELAM 4' (6' - CS2).
- **Bent 14: REAR: COL 0-1:** Spalled/DELAM 8'. **COL 2-3:** Spalled/DELAM totaling 5'. **COL 4-5:** Spalled/DELAM 4'. (17' - CS2).
- **Bent 13: REAR: COL 2-3:** Shallow spalls 2' long (2' - CS2). **FWD: COL 2: (**2' - CS2).
- **Bent 12: REAR: LEFT Wall to COL 3:** Spalled/cracked/DELAM exposing corroded REINF (23' - CS2, remaining counted as CS3). **FWD face: COL 1-2: (**10' - CS3). **COL 3:** (5' - CS3). **COL 3-5:** (12' total - CS3). Minor spalls with cracks on the lower portion that extend into underside/cap (10' - CS2 not already counted).
- **Bent 11: Underside: COL 2-3:** Spalled/DELAM 10 SF exposing corroded REINF (3' - CS3).
- **Bent 10:** Entirety of both cap faces have spalls/DELAM, leaching cracks, efflorescence, and hanging stalactites (60' - CS2).
- **Bent 9: REAR: COL 1-2:** DELAM 1 SF (1' - CS2).
- **Bent 8: REAR: COL 0-1:** 5' - CS3. **COL 2-4:** Cracked/DELAM 16' long x 2' high (16' - CS2) **COL 4-5:** 9' - CS3. **FWD: COL 1-2:** Spalled/DELAM 7' long (7' - CS3).
- **Bent 7: REAR: COL 0-1:** DELAM 1 SF (1' - CS3). **COL 3-4:** (4' - CS3) located on the underside, extends up both faces/cap. (2' - CS2).
- **Bent 6: REAR: COL 0-1:** Spalled/DELAM and hollow sounding 6' (Matches FWD face). **COL 2-5:** Spalled/DELAM and hollow sounding 27' (27' - CS2). **FWD face: COL 0-1:** Spalled/DELAM 6' (6' - CS3). **COL 1:** Spalled 5' (5' - CS3). **COL 2-4:** (7' total - CS2).
- **Bent 5: REAR: COL 1:** 2' - CS2 and 1' - CS3 (Matches FWD face). **FWD face: COL 1:** Spalled 7' x up to 6" deep with exposed corroded REINF (7' - CS3). **COL 2-3:** Spalled 3' x up to 6" deep with exposed corroded REINF (3' - CS3).
- **Bent 4: REAR:** Entire face spalled up to 8" deep, DELAM, cracked with leaching, efflorescence, and stalactites (60' - CS3). **FWD:** Same as REAR with scattered patches (Entire face is CS2, CS3 from REAR face governs).
- **Bent 3: REAR: COL 3-4:** (3' - CS3). **COL 4-5:** (3' - CS2). **FWD: COL 2-3:** (5' total - CS2). **COL 4-5:** (1' - CS3). **COL 6:** (1' - CS3).
- **Bent 2: REAR: COL 0-1:** (6' - CS2). **COL 3-5:** (7' - CS2). **COL 4:** (3' - CS3). **FWD:**

COL 0-1: (3' - CS2). **COL 3:** (2' - CS2).

- **Bent 1: REAR: COL 2-3:** Cracked/DELAM/spalled up to 6" deep (5' - CS3). **FWD: COL 2:** DELAM 1 SF (1' - CS2).
- **Bent 0 (Begin Wall):** Deck/wall interface has leaching, rust staining and cracking with two (2) individual areas of 2' x 1' spalls (4' - CS2).

FWD CELL: Bent caps are cracked, DELAM, and spalled. Some of the patches on the bottom face of the cap are failing and exposing corroded REINF.

- **Bent 1: COL 1-2:** Hand-patch on underside DELAM (4' - CS2).
- **Bent 2:** Scattered patches. **LEFT:** Underside DELAM with wire mesh exposed (8' - CS2). **RIGHT:** Patch is DELAM (5' - CS2).
- **Bent 3: REAR: COL 2-3:** DELAM (3' - CS2). **RIGHT:** Top corner cracked/DELAM on both faces 3 SF (2' - CS2).
- **Bent 4: REAR: COL 2-3:** Spalled/DELAM 2 SF (1' - CS3 and 1' - CS2). **FWD: COL 0-1:** Patch is DELAM (6' - CS2). **COL 4-5:** Spall 2 SF (2' - CS3). **RIGHT:** Patch on underside DELAM with wire mesh exposed (5' - CS2).
- **Bent 5: Both faces:** Many patched areas across entire cap. **REAR: COL 0-1:** Saw-cut at lower edge ~3" deep for repair (1' - CS3).
- **Bent 6: Both faces:** Entire face is DELAM/spalled/cracked and leaching with efflorescence (46' - CS2, remaining counted as CS3). Underside has stalactites and spalled exposing corroded REINF. Some areas have wire mesh exposed for repairs (8' between COL 0-1, and 6' between COL 2-3, 14' total - CS3 areas govern).
- **Bent 7: REAR:** Blue tarp is bolted along cap (For maintenance crews) - NOT INSPECTED. **FWD: COL 2-3:** Patched/DELAM 15 SF (7' - CS2). **COL 4-5:** (3' - CS3). **COL 5:** (1' - CS3).
- **Bent 8: REAR: COL 0-1:** Three (3) 1' spalls (3' - CS3). **COL 2-3:** Spalled/DELAM (8' - CS2). **FWD: COL 2-3**: DELAM/patch 28 SF. Worst areas (Near CL on bottom and FWD face, 7' - CS3, and 3' - CS2).
- **Bent 9:** Both faces have scattered, open, saw-cut patched areas exposing REINF. Some up to 9" deep (7 SF open patches). **REAR: COL 2-3:** Scattered patches (1' - CS3). **COL 4-5:** Scattered patches (2' - CS3). **FWD face: COL 1-2:** (6' - CS3). **COL 4-5:** (2' - CS3).
- **Bent 10: REAR:** Open, small patches exposing REINF and scattered DELAM areas totaling 9 SF. **COL 1-2:** (2' - CS3). **COL 2-3:** (4' - CS2). **COL 4-5:** (1' - CS2). **FWD: COL 4-5:** One (1) DELAM patch 6' long x full height (6' - CS2).
- **Bent 11:** Both faces have hairline cracks. **FWD:** DELAM/patch 3 SF and some scattered open, saw-cut areas. **COL 0-1:** (1' - CS3). **COL 3-4:** (3' - CS3).
- **Bent 12 (End Wall):** Spalled, DELAM, leaching areas. Some exposing corroded REINF. Spalled/DELAM 12 SF (10' - CS2, and 2' - CS3). Deck/wall interface has leaching and efflorescence.

The pier cap item has a quantity of 1,818' of condition state 1 (CS1), 501' of condition state 2 (CS2), and 215' of condition state 3 (CS3).

205 - Reinforced Concrete Columns (EA)

REAR CELL (91 total Columns): Shallow small to large spalls/DELAMs less than 1" deep on several columns.

- **Bent 2: COL 1-3:** Large spalls with corroded REINF (3 - CS3).
- **Bent 4:** All columns have scattered spalls/DELAM (1 - CS3 (C2), 5 – CS2).
- **Bent 6: COL 1 & 2:** Each have 10 SF spalls/DELAM (2 – CS2).
- **Bent 7: COL 1:** Small spall at the base (1 – CS2).
- **Bent 8:** The top 2' of each column is spalled/DELAM with exposed, corroded REINF. C1, C3 and C4 are condition state 3 (3 - CS3). Remaining columns are condition state 2 (3 - CS2).
- **Bent 10:** All columns have scattered cracks/DELAMs, exposing REINF or too close to surface (6 - CS2).
- **Bent 11: COL 5:** DELAM 3 SF (1 - CS2).
- **Bent 14: COL 0:** Spalled 2' x 3' exposing three (3) REINF (1 - CS3). **COL 1:** Spalled 1 SF (1 - CS3). **COL 5:** DELAM 5 SF (1 - CS2).
- **Bent 15: COL 4:** Spalled 1 SF (1 - CS2). **COL 5:** Cracked/DELAM 2' tall x 6" wide (1 - CS2).

FWD CELL (67 total Columns): Many of interior round columns covered with Sono tube forms.

- **Bent 6: COL 0:** Spalled/DELAM 3-1/2 SF (1 - CS3). **COL 1, 4 & 5:** Scattered DELAMs and spalls less than 1" deep (3 - CS2). **COL 3:** DELAM at top 1 SF (1 - CS2).

The pier column item has a quantity of 123 EA in condition state 1 (CS1), 25 EA in condition state 2 (CS2), and 10 EA in condition state 3 (CS3).

830 - Abutment Backwall (LF)

- **REAR: Bay 1:** Full-height diagonal crack (3' - CS2). **Bays 2-3 & 7-8:** Full-height crack open 1/16" in each bay (6' - CS2).
- **FWD: Near CL:** DELAM 2 SF (2' - CS2).

The BW item has a quantity of 117' in condition state 1 (CS1) and 11' in condition state 2 (CS2).

Wingwalls

The turn-back walls immediately adjacent to the ABUTs, the walls providing the closure for the CELL ABUT, and the aesthetic "coping" on the outside face/walk (Below the parapet) were included in this item.

All walls show signs of cracking, leaching, rust-staining, scattered spalls and DELAM areas, mostly adjacent to previous patches. DELAMs and minor spalls/chips were typically noted around wall vents. Many walls had coatings and graffiti covered over. Moderate spalls with exposed REINF at the wall EXP JT.

REAR CELL:

- **Interior face: LEFT wall: Bent 9-10:** Spalled out gap/hole at the top, adjacent to bent 10. DET area is 6" wide by the full height of the wall.

Culvert

Inspector Comments - Waterway

Channel Protection

Channel

Scour