

# OTIC Bridge Report 2021

## Castalia

7042	Culvert	Location	South headwall is located to south at Harris Road.
7043		Wingwalls	Northeast and northwest wingwalls have cracks with efflorescence.
7044		Wingwalls	Northeast wingwall is delaminated and spalling on the top behind the joint.
7045	General	Location	North headwall at 111.15.

**Milepost:** 111.2

### Description:

**SFN:** 2229080

State Route 99 - Skadden Rd

**Inspection Date:** 7/12/2021 6:29:0

**Paint Type/ Year:**

IZEU-1996

**Latitude** 41.338768306

**Longitude** -82.747661389

<b>Deck Summary:</b> <div>6</div> <b>Operational Status:</b> <div>A</div>				<b>Beam to Backwall</b>											
<b>Substructure Summary:</b> <div>6</div> <b>Channel Summary:</b> <div>N</div>				<b>Beam No.</b>		<b>Dir: E</b>		<b>Dist: 3"</b>		<b>Beam No.</b>		<b>Dir: E</b>		<b>Dist: 3"</b>	
<b>Superstructure Summary:</b> <div>7</div> <b>Culverts Summary:</b> <div>N</div>				<b>E</b>		<b>Dir: W</b>		<b>Dist: 3.5"</b>		<b>W</b>		<b>Dir: W</b>		<b>Dist: 3.5"</b>	

Line ID	General Area	Specific Area	Dir	Deficiency	Date Corrected
7046	Approach	Slab(s)	E	Rear (west) approach slab has longitudinal cracks (minor).	
7047		Slab(s)	E	Forward (east) approach slab has longitudinal cracks (minor).	
7048	Deck	Edge of Floor / Slab	E	Overhang is spalled at the right (south) fascia beam.	
7049		Expansion Joint(s)	E	Rear (west) and forward (east) abutment joint leaks. (Ponding on abutments).	
7050		Floor / Slab	E	Floor has minor map and transverse cracks some with efflorescence throughout.	
7051		Floor / Slab	E	Haunch spalls along beams 15-18.	
7052		Floor / Slab	W	Floor has transverse cracks, some with efflorescence.	
7053		Median	E	Right (south) face of median barrier has moderate scaling throughout.	
7054		Median	E	Right (south) face of median is vertically cracked at the rear (west) approach/abutment joint.	
7055		Median	W	Left (north) face of median barrier has surface scaling.	
7056		Railing	W	Exterior face of left (north) parapet has vertical cracks, some with light efflorescence.	

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7057	Deck	Railing	W	Interior face of left (north) parapet has horizontal cracks and light scaling.
7061		Slab(s)		Deck has ponding on the approach slab in left (north) shoulder. rear (west) and forward (east) side.
7062		Wearing Surface	E	Wearing surface has full depth cracks in right (south) shoulder near beam impact damage.
7063		Wearing Surface	E	Wearing surface has isolated transverse and longitudinal cracks.
7064	Substructure	Abutment Caps	E	Forward (east) abutment pedestals 13-17 are cracked.
7065		Abutment Caps	E	Rear (west) abutment pedestal 17 is cracked and 18 is spalled, and the caps are cracked and scaled below.
7066		Abutment Caps	W	Forward (east) abutment pedestal 06 has advanced deterioration and soft concrete throughout (possibly 100%).
7067		Abutment Caps	W	Forward (east) abutment pedestals 03-05 are cracked and pedestal 05 has spalls along the corners.
7068		Abutment Caps	W	Rear (west) abutment pedestals 02-06 are cracked with isolated small corner spalls on pedestals 02 and 04.
7069		Abutment Caps	W	Ponding throughout forward (east) abutment. Indicates leaking joint.
7070		Abutment Walls	W	Forward (east) abutment stem has vertical cracks at bearing locations.
7071		Abutment Walls	W	Forward (east) abutment has vertical cracks throughout with a spall in bay 01 and rust stain in bay 03 (12LF CS2, 1LF CS3).
7072		Backwalls	E	Forward (east) abutment backwall and stem have isolated vertical cracks.
7073		Backwalls	E	Forward (east) abutment backwall is rust stained from joint armor.
7074		Backwalls	E	Rear (west) abutment backwall and stem have isolated vertical cracks.
7075		Backwalls	W	Forward (east) abutment backwall is delaminated in isolated locations (Bay 01 and 03) and has minor vertical cracks (10LF CS2).
7076		Pier Barrier / Crashwall	E	Pier 02; Barrier is spalled and cracked at center pier unit.
7077		Pier Barrier / Crashwall	W	Pier 02; Barrier is spalled near column 04 and cracked vertically near column 03.
7078		Pier Caps	E	Pier 01, underside and forward (east) face of cap is delaminated with saturation between columns 10 and 11. (Marked for repair).

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7079	Substructure	Pier Caps	E	Pier 01, pedestal 16 is spalled.
7080		Pier Caps	E	Pier 01; right (south) pier cap is spalled to rebar on left (north) face.
7081		Pier Caps	W	Pier 01; Pedestal 03 and 05 seats have corner cracks. Pedestal 02 is cracked and 05 is spalled.
7082		Pier Caps	W	Pier 02; left (north) unit, Cap is delaminated and spalled with exposed rebar on the right (south) side. And delaminated on the forward (east) side.
7083		Pier Caps	W	Pier 1; Cap has saturation on rear (west) face and minor cracks near Columns 01.
7084		Pier Caps	E	Pier 01, right (south) unit has 2 SF spall with exposed rebar on left (north) face. (Marked for repair).
7085		Pier Columns / Bents	E	Pier 02: columns 05, 06, and 07 have minor cracking.
7086		Pier Columns / Bents	E	Pier 01 column 11 and cap are map cracked and vertically cracked.
7087		Pier Columns / Bents	E	Pier 01, column 06 is vertically cracked on forward (east) face.
7088		Pier Columns / Bents	E	Pier 02; column 11 and cap is map and vertically cracked.
7089	Superstructure	Pier Columns / Bents	E	Pier 02; column 09 has ½" deep gouges.
7090		Pier Columns / Bents	W	Pier 01; Columns 01, 05 and 06 have vertical and horizontal cracks (3 CS2).
7091		Slope Protection	E	Rear (west) abutment slope has a minor loss of rock slope protection.
7092		Wingwalls	E	Forward right (southeast) cheekwall is cracked with minor spalls.
7093		Wingwalls	E	Rear right (southwest) cheekwall is cracked with minor spalls.
7094		Wingwalls	W	Forward left (northeast) wingwall is cracked/spalled with efflorescence.
7095		Wingwalls	W	Rear left (northwest) wingwall is map cracked with light efflorescence, rust stains and a small spall.
7096		Beams / Girders	E	Beam 18, drilled hole at center span.
7097		Beams / Girders	E	Beam 18, heat straightened.
7098		Beams / Girders	E	Beam 18; Has (old, minor) impact damage.
7099		Beams / Girders	E	Beams 16-18; Are scraped on the bottom flanges.

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7100	Superstructure	Beams / Girders	W	Beams 02 and 06 have welded cover plates in Span 02.
7101		Beams / Girders	W	Beams 05, 06 have minor impact damage/scrapes.
7102		Beams / Girders	W	Beams are pumping abrasion dust at top flange/deck interface throughout.
7103		Beams / Girders	W	Rear (west) abutment bearing 4 floating 2,1/8" live load deflecting visible.
7104		Bearing Devices	E	Forward (east) abutment bearings 13-18 have pack rust between bearing and masonry plate.
7105		Bearing Devices	E	Forward (east) abutment bearing 17 is lifted 1/2" on right (south) side.
7106		Bearing Devices	E	Rear (west) abutment bearings have rust flakes. Bearings 13-18 have pack rust.
7107		Bearing Devices	W	Forward (east) abutment bearings 01-08 have pack rust between bearing and masonry plates. Bearings are heavily rusted.
7108		Bearing Devices	W	Forward (east) abutment bearings 02-06 float with visible live load deflection. Bearings are not centered.
7110		Bearing Devices	W	Rear (west) abutment bearings 01-05 have pack rust between bearing and masonry plates (1/4" typ.) Bearing 02 has 1/2" of pack rust below the right (south) end of the sole plate. Bearings 05, 06 have ...æ" of pack rust. (repaired 2014).
7111	Substructure	Abutment Caps	W	Forward (east) abutment pedestal 3 has 13 square foot spall.
7112	Superstructure	Bearing Devices	E	Forward (east) abutment bearing 13 is lifted 1/8" at right (south) end.
7113		Bearing Devices	E	Forward (east) abutment bearing 16 is lifted 1/4".
7114		PCS	E	Beams 15-18 are showing surface rust.
7115		PCS	W	Failures generally localized to beam ends and bearings.
18387	Deck	Slab(s)	W	Rear and forward abutment slab has longitudinal cracks.
18389		Expansion Joint(s)	W	Rear abutment joint is misaligned (1/2-Θ). Abutment slab is lower.
18391		Wearing Surface	W	Left shoulder has transverse cracks throughout. Some extended into the north lane.
18393	Superstructure	Bearing Devices	W	Pier 02; Bearings 07 is slightly contracted and bearing 08 is slightly expanded.
18395		Bearing Devices	W	Pier 02; Column 01 has horizontal and vertical cracks (CS2).

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18397	Substructure	Abutment Caps	W	Rear abutment pedestal 02 is spalled to rebar.
18399		Abutment Caps	W	Rear abutment stem and backwall have vertical cracks (Abutment: 8LF CS2, Backwall: 5LF CS2).

Milepost: 111.6

### Description:

SFN: 2229110

Inspection Date: 7/9/2021 2:04:25

Smith Ditch - Two Cell 12'W X 6'H  
Box Culvert

Paint Type/ Year:

Latitude 41.337805694 Longitude -82.73989

<b>Deck Summary:</b> <input type="text" value="N"/> <b>Operational Status:</b> <input type="text" value="A"/>				<b>Beam to Backwall</b>					
<b>Substructure Summary:</b> <input type="text" value="N"/> <b>Channel Summary:</b> <input type="text" value="4"/>				<b>Beam No.</b>	<b>Dir:</b>	<b>Dist:</b>	<b>Beam No.</b>	<b>Dir:</b>	<b>Dist:</b>
<b>Superstructure Summary:</b> <input type="text" value="N"/> <b>Culverts Summary:</b> <input type="text" value="6"/>					<b>Dir:</b>	<b>Dist:</b>		<b>Dir:</b>	<b>Dist:</b>

Line ID	General Area	Specific Area	Dir	Deficiency	Date Corrected
7116	Approach	Embankment		North embankment is eroding along the northeast wingwall.	
7117	Channel	Hydraulic Opening		South channel has ponding caused by minor scour.	
7118		Hydraulic Opening		Up to 4' drop on north side of apron.	
7119				North channel misalignment causing erosion.	
7120	Culvert	General		Box joints leak.	
7121		Headwall / Endwall		North headwall patch is cracked with efflorescence.	
7122		Headwall / Endwall		Southeast wingwall patch is delaminated near the spall with exposed rebar.	
7123		Headwall / Endwall		South headwall patch is delaminated and spalling with rust stains and efflorescence.	
7124		Wingwalls		Northeast wingwall is delaminated.	
7125		Wingwalls		Northwest wingwall is spalled.	