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FY2025 Annual Inspection and Underwater Inspection

FY2025 Facility Annual Inspection Report

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December 30, 2024

Chesapeake Bay Bridge Tunnel (CBBT) District

Task Orders 5 & 6

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FY2025 Annual Inspection and Underwater Inspection

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1. Executive Summary

Enclosed is a combination of the GASB 34 with the Maintenance Rating Program (MRP) Condition Scale and ratings for the trestles along with repair recommendations, and recommended insurance coverages for the facilities that make up the Chesapeake Bay Bridge Tunnel District (the District) for Fiscal Year 2025 (FY2025, July 1, 2024 – June 30, 2025). The ratings of the GASB 34 Cluster Item Ratings are summarized below in Table 1, and can be observed in detail in Section 2: Ratings for GASB 34 of the report.

It should be noted that items identified as “**bold**” and in “**blue**” font have changed from the previous report.

Table 1: GASB 34 Cluster Item Ratings

Cluster Item	Rating
A. Approach Roads	7
B. Fisherman Island Causeway	7
C. Tunnels	7
D. Portal Islands	7
E. Toll Plaza Infrastructure	8
F. Site-Wide Utilities	8

No critical findings were reported during the inspection. A few specific facility components were rated less than Good Condition (numeric rating of 7 or above) at the time of the inspection, with some of these items being typical components that are regularly monitored and repaired or replaced as needed. The components rated less than 7 make up a minority percentage of the overall cluster items, such that the overall ratings were all 7 or greater as shown in Table 1.

The trestle components were found to be in Good Condition or better (numeric rating of 7 or above). A detailed breakdown of the components can be observed in Section 4: Virginia Department of Transportation (VDOT) Structure Inventory and Appraisal (SI&A) Records (B-6 and B-7 Forms) of the report. Based on the historical structural analysis and review of the 2023 Hydrographic Survey for Acceptable Scour Depth (ASD), approximately 35% of piles along Trestle CNB are coded as Condition State 3 (Poor) due to bat bottom elevations and scour remediation in place. There are approximately 64 piles total coded as Condition State 4 (Severe) due to bay bottom elevations found to be below the Allowable Scour Depth along Trestle ANB, BNB and CSB. Otherwise, most of the piles would be coded as based on their Condition State 2 (Fair) based on the physical condition of the pile.

A list of supplemental information used to develop the ratings provided in the report has been submitted to the District electronically. A list of these supplemental items is displayed in Section 15: Electronic Submittals.

Repair recommendations are separated into two categories: Priority Repairs and Routine Repairs and have been provided in Section 3: Repair Recommendations. It is understood by Moffatt & Nichol that the District is in the process of performing or developing contract documents for the repair or engineering analysis of several of these components such as:

- Repairs to spalled concrete areas on concrete columns, walls, roof beams, and ceiling of the supply fan room of all ventilation buildings.



- Little Creek Pier Fender System will be replaced as part of the lease agreement that the District has with Chesapeake Tunnel Joint Venture (CTJV) prior to the expiration of necessary permits on July 31, 2025.
- Demonstration / Research of facility wide repairs to concrete pile substructure units to extend service life.
- **Facility wide steel bridge paint project for all existing structural steel as required to extend the services life. Project is to begin in 2025.**

Inspection Personnel:

The inspection team consisted of the following personnel:

Bridge (Visual & Hands-on):

Shannon Turner, PE - NHI Team Leader (Visual & Hands-on) – Moffatt & Nichol

Jonathan Chapman, PE - NHI Team Leader (Hands-on) – Moffatt & Nichol

Ethan Stivers - NHI Inspector – Moffatt & Nichol

Jon Krites - NHI Inspector - Moffatt & Nichol

Tunnel:

William (Billy) Bolt, PE - NTIS Structural Team Leader – Modjeski and Masters, Inc.

Alexander (Lex) Waardenburg, PE - NTIS Mechanical Team Leader – Modjeski and Masters, Inc.

Kyle Gable, PE - NTIS Electrical Team Leader – Modjeski and Masters, Inc.

Bridge (Underwater):

Callan – NHI UW Inspector – Crofton Diving

Daniels – NHI UW Inspector – Crofton Diving

Crutchfield – NHI UW Inspector – Crofton Diving

Minozzi – NHI UW Inspector – Crofton Diving

Bolyard – NHI UW Inspector – Crofton Diving

Support Facilities:

Jousha Hill, PE - Structural & Civil – Moffatt & Nichol

Zach Adams, PE – Electrical – Moffatt & Nichol

Drone Survey:

Stephen Sirotko, EIT - NHI Inspector – Moffatt & Nichol



2. Inspection Schedule

Portions of the CBBT facility covered during the FY2025, FY2024, FY2023, FY2022, FY2021 were inspected and are noted in Table 2. An underwater inspection was performed on Trestle BNB, DSB, ENB, FNB, FIB-NB, NCB-SB and Finger Pier at Little Creek during the FY2025 inspection.

Table 2: CBBT Facility Component Inspection Schedule

Facility Component		Portion Inspected
1	Trestle A - Northbound (ANB)	Completed in FY2025: Hands-on: Spans ANB177 to Span ANB226
		Completed in FY2024: Hands-on: Spans ANB132 to Span ANB178 Underwater Inspection of Trestle ANB (including ANB') Visual: Spans A'NB1 to Abutment ANB226
		Completed in FY2023: Hands-on: Spans ANB83 to Span ANB132
		Completed in FY2022: Hands-on: Spans ANB33 to Span ANB81 Visual: Spans A'NB1 to Span ANB33 and ANB82 to Abutment ANB226
		Completed in FY2021: Hands-on: Abutment A'NB1 to Span ANB32
		Completed in FY2020: Hands-on: Spans ANB177 to Abutment ANB226 Visual: Spans A'NB1 to ANB176
		Completed in FY2019: Hands-on: Spans ANB129 to ANB176 Underwater Inspection of Trestle ANB (including ANB')
2	Trestle A - Southbound (ASB)	Completed in FY2025: Hands-on: Spans ASB39 to Span ASB80 Visual: Spans All – ASB spans
		Completed in FY2024: Hands-on: Spans ASB81 to ASB 120 Underwater Inspection of Trestle ASB
		Completed in FY2023: Hands-on: Spans ASB121 to ASB164
		Completed in FY2022: Hands-on: Spans ASB167 to ASB186 and ASB194 to Abutment ASB205
		Completed in FY2021: Hands-on: Spans ASB1 to ASB38 Visual: Spans ASB39 to Abutment ASB205



		<p>Completed in FY2020: Hands-on: Spans ASB39 to ASB80 Visual: Spans ASB1 to ASB18 from Chic's Beach and ASB204 and Abutment ASB205</p>
		<p>Completed in FY2019: Hands-on: Spans ASB81 to ASB122 Visual: Spans ASB18 to ASB204 Underwater Inspection of Trestle ASB</p>
3	Trestle B - Northbound (BNB)	<p>Completed in FY2025: Hands-on: Spans BNB159 to BNB212 Underwater Inspection of Trestle BNB</p>
		<p>Completed in FY2024: Hands-on: Spans BNB105 to BNB158 Visual: Spans BNB1 to BNB264</p>
		<p>Completed in FY2023: Hands-on: Spans BNB55 to Abutment BNB104</p>
		<p>Completed in FY2022: Hands-on: Spans Abutment BNB1 to BNB44 Visual: Spans BNB45 to BNB264</p>
		<p>Completed in FY2021: Hands-on: Spans BNB213 to Abutment BNB266 Visual: Spans BNB1 to Abutment BNB212</p>
		<p>Completed in FY2020: Hands-on: Spans BNB159 to BNB212 Visual: Spans BNB1 to 158 and 213 to 265 Underwater Inspection of Trestle BNB</p>
		<p>Completed in FY2019: Hands-on: Spans BNB105 to BNB158</p>
4	Trestle B - Southbound (BSB)	<p>Completed in FY2025: Hands-on: Spans BSB57 to BSB100 Visual: Spans All – BSB spans</p>
		<p>Completed in FY2024: Hands-on: Spans BSB101 to BSB142</p>
		<p>Completed in FY2023: Hands-on: Spans BSB143 to BSB178</p>
		<p>Completed in FY2022: Hands-on: Spans BSB1 to BSB16, BSB179-BSB202 Underwater Inspection of Trestle BSB</p>
		<p>Completed in FY2021: Hands-on: Spans BSB17 to BSB56 Visual: Spans Abutment BSB1 to Span BSB16 and BSB57 to Abutment BSB203</p>
		<p>Completed in FY2020: Hands-on: Spans BSB57 to BSB100 Visual: Spans BSB1 and BSB202</p>
		<p>Completed in FY2019: Hands-on: Spans BSB101 to BSB142</p>



		Visual: Spans BSB1 to BSB202
5	Trestle C - Northbound (CNB)	Completed in FY2025: Hands-on: Spans CNB197 to CNB263
		Completed in FY2024: Hands-on: Spans CNB132 to Span CNB196 Visual: Spans CNB1 to CNB322
		Completed in FY2023: Hands-on: Spans CNB67 to Span CNB131
		Completed in FY2022: Hands-on: Spans CNB1 to Span CNB45 Visual: Spans CNB46 to CNB322
		Completed in FY2021: Hands-on: Spans CNB264 to Span CNB322 and Pier NCB-NB1 Visual: Spans CNB1 to 263 and 264 to 322 Underwater Inspection of Trestle CNB
		Completed in FY2020: Hands-on: Spans CNB198 to CNB263 Visual: Spans CNB1 to 197 and 264 to 322
		Completed in FY2019: Hands-on: Spans CNB132 to CNB197
		6
Completed in FY2024: Hands-on: Spans CSB97 to CSB154		
Completed in FY2023: Hands-on: Abutment CSB149 to Spans CSB200		
Completed in FY2022: Hands-on: Abutment CSB200 to Spans CSB246		
Completed in FY2021: Hands-on: Abutment CSB1 to Spans CSB52 Visual: Spans CSB53 to CSB246		
Completed in FY2020: Hands-on: Spans CSB53 to CSB104 Visual: CSB1		
Completed in FY2019: Hands-on: Spans CSB105 to CSB154 Visual: Spans CSB1 to CSB246		
7	North Channel Bridge - Northbound (NCB-NB)	
8	North Channel Bridge - Southbound (NCB-SB)	Hands-on: All spans. Completed in FY2025
		Underwater Inspection of NCB-SB completed in FY2025
9	Trestle D - Northbound (DNB)	Hands-on: All spans. Completed in FY2025
		Underwater Inspection of DNB completed in FY2022



10	Trestle D - Southbound (DSB)	Hands-on: Entire component completed in FY2025
		Underwater Inspection of DSB completed in FY2025
11	Trestle E - Northbound, Fisherman Inlet Bridge - Northbound, Trestle F - Northbound (ENB, FIB-NB, FNB)	Hands-on: All spans. Completed in FY2025
		Underwater Inspection of ENB, FIB-NB, FNB completed in FY2025
12	Trestle E - Southbound, Fisherman Inlet Bridge - Southbound, Trestle F - Southbound (ESB, FIB-SB, FSB)	Hands-on: All spans. Completed in FY2025
		Underwater Inspection of ESB, FIB-SB, FSB completed in FY2022
13	Thimble Shoals Channel Tunnel (TSCT)	Routine inspection of the entire Tunnel, including Open Approaches on Islands 1 and 2 (completed in FY2024)
14	Chesapeake Channel Tunnel (CCT)	Routine inspection of the entire Tunnel, including Open Approaches on Islands 3 and 4 (completed in FY2025)
15	Approach Roads	Main components and spot check minor components (support GASB 34)
16	Fisherman Island Causeway	Main components and spot check minor components (support GASB 34)
17	Portal Islands No. 1, 2, 3, and 4	Main components, spot check minor components (support GASB 34). Portal Islands No. 3 & 4 (completed in FY2025) and Portal Islands No. 1 & 2 (completed in FY2024).
18	South Toll Plaza	Main components and spot check minor components
		Overhead Sign Structures (S-1, S-2, and S-3) Inspection completed in FY2023
19	North Toll Plaza	Main components and spot check minor components
		Overhead Sign Structures (N-2 & N-3) and Butterfly Sign Structure (N-1) Inspections completed in FY2023
20	Toll Plaza Infrastructure	Main components and spot check minor components
21	Site-Wide Utilities	Main components and spot check minor components

The projected hands-on inspection schedule for all trestles is noted in Table 3. Southbound portions of the facility are approximated as the crew aims to hit the quota (approximately 1/5 of trestle) while looking to stop at or beyond the quota at light poles that will require the bridge inspection platform to be stowed and redeployed. Visual inspections will be performed on Trestles ANB, BNB, and CNB during even FYs (FY2024, FY2026, etc.) and Trestles ASB, BSB, and CSB during odd FYs (FY2025, FY2027, etc.). The rest of the structures on the facility receive hands-on inspections at intervals not to exceed 24-months.



Table 3: CBBT Trestles & North Channel Bridge Projected Hands-on Inspection Schedule

Facility Component		Project Spans to be Inspected				
		FY2025	FY2026	FY2027	FY2028	FY2028
1	Trestle ANB (48 spans/year)	177 - Abutment 236	1' - 32	33 - 81	83-132	133-176
2	Trestle ASB (41 spans/year)	39 - 80	1 - 38	165 - Abutment 205	121-164	81-120
3	Trestle BNB (54 spans/year)	159 - 212	213 - Abutment 266	Abutment 1 - 55	56-104	105-158
4	Trestle BSB (41 spans/year)	57 - 100	17 - 56	Abutment 1- 16 & 179-202	143-178	101-142
5	Trestle CNB (65 spans/year)	198 - 263	264 - 322	Abutment 1 - 45	67-131	132-197
6	Trestle CSB (41 spans/year)	53 - 104	1 - 52	200-246	149-199	97-154
7	North Channel Bridge - NB	-	All	-	All	-
8	North Channel Bridge - SB	All	-	All	-	All
9	Trestle DNB	All	-	All	-	All
10	Trestle DSB	All	-	All	-	All
11	ENB, FIB-NB, FNB	All	-	All	-	All
12	ESB, FIB-SB, FSB	All	-	All	-	All
13	TSCT	-	All	-	All	-
14	CCT	All	-	All	-	All



3. Ratings for GASB 34

The following tables represent condition ratings to support the requirements of Statement No. 34 of the Governmental Accounting Standards Board: Basic Financial Statements - and Management’s Discussion and Analysis - for State and Local Governments (GASB 34). The overall Cluster Item Ratings were found to be in Good Condition or better (numeric rating of 7 or above). Table 4 identifies specific components with a condition rating below 7.

Table 4: GASB 34 Components with Condition Rating Below 7

Item	Component	Rating	Explanation of Rating
1	Tunnel Ventilation Buildings - Structural Framing	6	Spalls on columns and roof beams. Some repaired. However, new and existing patches are deteriorating. Programmed for repair.
2	Tunnel Ventilation Building - Elevator	6	Elevator will not level out in Ventilation Building Nos. 1 or 2 when the doors open. Programmed for replacement.
3	Portal Island No. 1 - Splash Walls	6	Based on tipping panels at southeast corner, appears to have stabilized in recent years although continue to monitor. To be replaced as part of the Parallel Thimble Shoal Tunnel (PTST) Project.
4	Portal Islands – Approach Walls	6	Several locations of spalled/delaminated concrete, some with exposed reinforcement.
5	Portal Island – Other Islands – Splash Walls	6	Based on sinkholes and rotation of splash wall panels on Portal Island No. 4.



Table 5: GASB 34 Condition Ratings

Overall Ratings Summary	FY2025
A. Approach Roads	7
B. Fisherman Island Causeway	7
C. Tunnels	7
D. Portal Islands	7
E. Toll Plaza Infrastructure	8
F. Site-Wide Utilities	8

Numeric Code	Narrative Code	Definition
9	Excellent	Component/Element has been recently put in service or remains in new condition
8	Very Good	No problems noted, potential exists for minor preventative maintenance
7	Good	Potential exists for minor maintenance
6	Satisfactory	Potential exists for major maintenance
5	Fair	Potential exists for minor repair or rehabilitation
4	Poor	Potential exists for major repair or rehabilitation
3	Serious	Major repair or rehabilitation is required
2	Critical	The need for repair or rehabilitation is urgent, Component/Element should be taken out of service until indicated repair is complete
1	Imminent Failure	Component/Element is out of service; study feasibility for repair or rehabilitation
0	Failed	Component/Element is out of service and beyond repair, replacement required

Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
	Importance	Breakdown	Further Breakdown	Further Breakdown	Further Breakdown						
A. Approach Roads										7	
1. Eastern Shore (North)	70%								7		
a. Roadway Surface Including Shoulders - WP to NTP		35%				7		7			
b. Roadway Surface Including Shoulders - NTP to Rte 600		15%				7		7			
c. Overhead Sign Structures		15%				7		7			
d. Guardrails		5%				8		8			
e. Drainage/Erosion		10%				7		7			
f. Protective Rock Dike (West Side)		5%				8		8			
g. Scenic Overlook		5%				7		7			
h. Wise Point		5%				8		8			
i. Fencing		5%				8		8			
2. Chesapeake Beach (South)	30%								7		
a. Roadway Surface Including Shoulders		65%				7		7			
b. Overhead Sign Structures		15%				8		8			
c. Guardrails		5%				7		7			
d. Drainage/Erosion		10%				7		7			
e. Fencing		5%				7		7			



Table 5: GASB 34 Condition Ratings (continued)

Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
		Importance	Further Breakdown	Further Breakdown	Further Breakdown						
B. Fisherman Island Causeway										7	
1. Roadway Surface Including Shoulders		80%				7			7		
2. Guardrails		5%				7			7		
3. Drainage/Erosion		10%				8			8		
4. Protective Rock Dike (East Side)		5%				7			7		
C. Tunnels										7	
1. Ventilation Buildings		40%							7		
a. Structural Framing			25%			6			6		
b. Building Exterior			5%			7			7		
c. Garage			5%			7			7		
d. Roof			5%			8			8		
e. Doors and Windows			5%			8			8		
f. Electrical Equipment			20%						8		
i. 15 kV Distribution Equipment				30%					8		
1) Switchgear				50%		8	8				
2) Transformers				50%		7	7				
ii. 600v Distribution Equipment				30%					8		
1) Switchgear				50%		7	7				
2) Motor Starters				50%		9	9				
iii. Standby Power Generation Equipment				30%					7		
1) Engine Generator				25%		7	7				
2) Fuel System (Piping and Day Tank)				15%		7	7				
3) Exhaust System (Piping and Muffler)				15%		8	8				
4) Cooling and Combustion Air Dampers and Ducts				15%		7	7				
5) Generator Switchboard				15%		8	8				
6) Transfer Switches				15%		8	8				
iv. Building Service and Lighting Systems				10%					8		
1) Panelboards				40%		7	7				
2) Low Voltage Transformers				40%		8	8				
3) Lighting Fixtures				20%		8	8				
g. Ventilation Equipment			25%						7		
i. Supply Air Fans (Including Motors)				20%		7			7		
ii. Supply Air Fan Housings				20%		7			7		
iii. Exhaust Air Fans (Including Motors)				20%		7			7		
iv. Exhaust Air Fan Housings and Dampers				20%		7			7		
v. Evase Stacks				20%		7			7		
h. Elevator/Stairs			5%			6			6		
i. Boiler			5%			7			7		



Table 5: GASB 34 Condition Ratings (continued)

Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
		Importance	Breakdown	Further Breakdown	Further Breakdown						
C. Tunnels (continued)											
2. Tunnel Structure		60%								7	
a. Tunnel Roadway Slab		20%				7			7		
b. Tunnel Walls		15%				7			7		
c. Tunnel Ceiling		10%				7			7		
d. Lighting		10%							8		
i. Fixtures				20%		8	8				
ii. Panelboards				20%		8	8				
iii. Transformers				20%		8	8				
iv. Uninterruptible Power Supply (UPS)				20%		8	8				
v. Controls Panel				20%		7	7				
e. Supply Air Duct		10%				7			7		
f. Exhaust Air Duct		10%				7			7		
g. Emergency Crew Walkway (Sidewalk)		5%				7			7		
h. Portal Drains and Gutters		5%				7			7		
i. Mid-Channel Pump Room Equipment		5%							8		
i. Lighting Fixtures				20%		8	8				
ii. Motor Control Equipment				40%		8	8				
iii. Pumps and Valves				20%		8	8				
iv. Piping				20%		8	8				
j. Fire Emergency Equipment		5%				7			7		
k. Portal Pump Rooms		5%				7			8		
i. Lighting Fixtures				20%		8	8				
ii. Motor Control Equipment				40%		8	8				
iii. Pumps and Valves				20%		7	7				
iv. Piping				20%		8	8				



Table 5: GASB 34 Condition Ratings (continued)

Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
	Importance	Breakdown	Further Breakdown	Further Breakdown							
D. Portal Islands										7	
1. Island No. 1	25%									7	
a. Splash Walls		20%			6			6			
b. Open Approach Walls		25%			6			6			
c. Open Approach Roadway		10%			8			8			
d. Portal Island Surface		10%			7			7			
e. Guardrails		5%			7			7			
f. Armor Stone		20%			8			8			
g. Perimeter Fencing		0%			6			6			
h. Fishing Pier		5%						7			
i. Deck/Railing			20%		7		7				
ii. Superstructure			40%		7		7				
iii. Substructure			40%		7		7				
<div style="border: 1px solid red; padding: 5px; color: red;"> To be Replaced Post PTST Fishing Pier Not Inspected. Ratings carried forward from last inspection until completion of Rehabilitation. </div>											
2. Other Islands	75%									7	
a. Splash Walls		25%			6			6			
b. Open Approach Walls		25%			7			7			
c. Open Approach Roadway		15%			8			8			
d. Portal Island Surface		5%			6			6			
e. Guardrails		5%			6			6			
f. Armor Stone		25%			8			8			

Table 5: GASB 34 Condition Ratings (continued)

Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
	Importance	Breakdown	Further Breakdown	Further Breakdown	Further Breakdown						
E. Toll Plaza Infrastructure										8	
1. South Toll Plaza	35%								7		
a. Toll Office Building		25%						8			
i. Building Interior			15%			7		7			
ii. Building Exterior			15%			8		8			
iii. Roof			25%			9		9			
iv. Doors and Windows			5%			8		8			
v. Electrical Equipment			20%					8			
1) Panelboards				25%		7	7				
2) Transformers				25%		8	8				
3) Engine Generator				25%		7	7				
4) Lighting				25%		8	8				
vi. Mechanical Equipment			20%					8			
1) Heating & AC Equipment				25%		8	8				
2) Engine Generator Fuel Piping system				25%		8	8				
3) Engine Generator Exhaust Piping system				25%		8	8				
4) Cooling and Combustion Air Duct and Dampers				25%		8	8				
b. Toll Booth and Canopy		10%				7		7			
c. Pavement/Treadles		10%				7		7			
d. Garage Building		5%						8			
i. Building Interior			20%			7		7			
ii. Building Exterior			25%			8		8			
iii. Roof			30%			7		7			
iv. Doors and Windows			10%			8		8			
v. Electrical Equipment			15%			8		8			
e. Parking Area		5%				7		7			
f. Drainage		5%				7		7			
g. Perimeter Fence		5%				7		7			
h. Overheight Detectors/Misc. Signage		5%				8		8			
i. Electrical Substation		30%						7			
i. Transformers			35%			7		7			
ii. Tap Changers			20%			7		7			
iii. Outdoor switchgear			20%			7		7			
iv. Switch and dead end structure			20%			7		7			
v. Lighting			5%			7		7			

Table 5: GASB 34 Condition Ratings (continued)



Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
Importance	Breakdown	Further Breakdown	Further Breakdown	Further Breakdown	Further Breakdown						
E.	Toll Plaza Infrastructure (continued)										
	2. North Toll Plaza	65%								8	
	a. Toll Office Building		15%						8		
	i. Building Interior			15%		8		8			
	ii. Building Exterior			15%		7		7			
	iii. Roof			20%		8		8			
	iv. Doors and Windows			10%		8		8			
	v. Electrical Equipment			20%		8		8			
	1) Panelboards				50%	8	8				
	2) Transformers				25%	8	8				
	3) Lighting				25%	8	8				
	vi. Mechanical Equipment			20%				7			
	1) Heating and AC Equipment				100%	7	7				
	b. Toll Booth and Canopy		10%			7		7			
	c. Pavement/Treadles		10%			7		7			
	d. Administration Building		10%					8			
	i. Building Interior			15%		8		8			
	ii. Building Exterior			20%		7		7			
	iii. Roof			25%		7		7			
	iv. Doors and Windows			5%		8		8			
	v. Electrical Equipment			20%		8		8			
	vi. Mechanical Equipment			15%		8		8			
	e. Maintenance Building		10%					8			
	i. Building Interior			15%		7		7			
	ii. Building Exterior			20%		7		7			
	iii. Roof			25%		8		8			
	iv. Doors and Windows			5%		8		8			
	v. Electrical Equipment			20%		8		8			
	vi. Mechanical Equipment			15%		8		8			
	f. Garage and Generator Building		10%					7			
	i. Building Interior			10%		7		7			
	ii. Building Exterior			20%		7		7			
	iii. Roof			25%		7		7			
	iv. Doors and Windows			10%		7		7			
	v. Electrical Equipment			35%				8			
	1) 15kV Switchgear				15%	7	7				
	2) Low voltage switchboards				10%	8	8				
	3) Panelboards				10%	8	8				
	4) Engine Generator				15%	7	7				
	5) Fuel System (Piping & Day Tank)				10%	8	8				
	6) Exhaust System (Piping and Muffler)				10%	7	7				
	7) Cooling and Combustion Air Dampers				10%	8	8				
	8) Transfer Switches				10%	8	8				
	9) Lighting				10%	7	7				

Table 5: GASB 34 Condition Ratings (continued)

Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
Importance	Breakdown	Further Breakdown	Further Breakdown	Further Breakdown							
E. Toll Plaza Infrastructure (continued)											
2. North Toll Plaza (continued)											
g. Salt Storage Building 4%											
	i. Building Interior	20%			8	8			8		
	ii. Building Exterior	25%			7	7					
	iii. Roof	30%			8	8					
	iv. Doors	15%			7	7					
	v. Electrical Equipment	10%			8	8					
h. Miscellaneous Small Buildings and Related 4%											
i. Fire Pump and Booster Building 40%											
	1) Building	20%			8	8					
	2) Electrical/Mechanical Equipment	80%			8	8					
ii. Water Tank and Water Valve/Chlorinator Building 30%											
	1) Building	20%			8	8					
	2) Water Tank	80%			8	8					
iii. Fire Pump Emergency Generator Building 30%											
	1) Building	20%			8	8					
	2) Electrical/Mechanical Equipment	80%			7	7					
i. Storage Yard and Parking Area 4%											
j. Electrical Storage Building 4%											
	i. Building Interior	20%			9	9			9		
	ii. Building Exterior	25%			9	9					
	iii. Roof	30%			9	9					
	iv. Doors	15%			9	9					
	v. Electrical Equipment	10%			9	9					
k. Rest Area Building and Parking Area 4%											
	i. Building Interior	15%			8	8					
	ii. Building Exterior	20%			8	8					
	iii. Roof	20%			8	8					
	iv. Doors and Windows	5%			8	8					
	v. Electrical Equipment	10%			8	8					
	vi. Mechanical Equipment	15%			8	8					
	vii. Parking Area	5%			7	7					
	viii. Area Lighting System	5%			7	7					
	ix. Drainage	5%			8	8					
l. Equipment Storage Building 3%											
	i. Building Interior	20%			9	9			8		
	ii. Building Exterior	25%			8	8					
	iii. Roof	30%			9	9					
	iv. Doors	15%			9	9					
	v. Electrical Equipment	10%			9	9					
m. Drainage 4%											
n. Perimeter Fence 4%											
o. Overheight Detectors/Misc. Signage 4%											



Table 5: GASB 34 Condition Ratings (continued)

Condition Input & Ratings						FY2025					
(Do not leave any inputs blank)						INPUT	Component Rating	Component Rating	Component Rating	Component Rating	Overall Cluster
						Importance	Breakdown	Further Breakdown	Further Breakdown		
F. Site-Wide Utilities											8
1.	Water supply from South Shore to Island #1					5%	7			7	
2.	Sewer From South Shore to Island #1					5%	7			7	
3.	Roadway Lighting System					15%				8	
	a.	Fixtures					8	20%		8	
	b.	Poles					7	20%		7	
	c.	Substations					9	20%		9	
	d.	Panelboards					9	20%		9	
	e.	Cable and Cable Tray System					8	20%		8	
4.	Emergency Telephone system					15%				9	
	a.	Telephones					9	50%		9	
	b.	Cabling/wiring					9	50%		9	
5.	SCADA System					20%				9	
	a.	CNC Cabinets and Equipment					9	25%		9	
	b.	Standby Engine-Generators					8	25%		8	
	c.	Panelboards					9	25%		9	
	d.	Traffic Control signals					9	25%		9	
6.	15K Distribution System					30%				8	
	a.	15Kv Cable					8	70%		8	
	b.	Cable Tray System					7	30%		7	
7.	Toll Collection Systems					10%	8			8	



4. Repair Recommendations

Repair recommendations are separated into two categories, **Priority Repairs** and **Routine Repairs**, and are subject to change at each annual report based on progression of degradation observed during each inspection cycle. For this facility, **Priority Repairs** are for defects that likely will become problematic, or repair costs could escalate significantly if not addressed within the next 24 months. **Routine Repairs** are for defects that will likely not become problematic or see a significant increase in repair costs if not addressed within 60 months and should be completed as the opportunities present themselves during other maintenance and capital improvement operations. All Critical Findings require “immediate” action, and each Critical Finding is listed with the date it was reported to the District, and the recommended action or follow-up.



4.1 Trestles, North Channel Bridges, and Fisherman Inlet Bridges

4.1.1 Trestle A – Northbound (ANB)

Table 6: ANB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 7: ANB Priority Repairs

Element	Item Description	Quantity	Unit
Prestressed Concrete Piles	Determine effectiveness of Lifejacket system at ANB57 Pile A where anode does not have a cable connecting it to the junction box at the top of the pile and repair accordingly	1	EA
Prestressed Concrete Piles	Install Scour Countermeasures at 10 pile locations where scour exceeds the Allowable Scour Depth (ASD).	10	EA

Table 8: ANB Routine Repairs

Element	Item Description	Quantity	Unit
Metal Bridge Railing	Repair spalled concrete curb with exposed reinforcement.	15	LF
Metal Bridge Railing	Repair delaminated failed concrete curb repair.	3	LF
Metal Bridge Railing	Repair bent or damaged railing.	18	LF
Metal Bridge Railing / Light Pole	Reinstall/Repair ground wire that are broken at railing connections or light pole connections.	7	EA
Reinforced Concrete Slab (Underside)	Repair area of delaminated concrete within Spans.	6	SF
Concrete Top Flange (Underside)	Repair spalling with exposed longitudinal and/or transverse reinforcement or where previous repairs have failed.	12	SF
Prestressed Concrete Girder	Repair spalling with exposed prestressing strands or exposed reinforcement.	52	LF
Prestressed Concrete Piles	Provide a repair to piles and pile caps with failed protective concrete coatings at locations where cracks, delamination, or spalling is present.	1,859	SF
Prestressed Concrete Piles	Monitor damaged Lifejacket system and repair as needed.	14	EA



Prestressed Concrete Piles	Replace anodes on piles with Life Jacket Systems where anode section loss was reported to be greater than 50%.	10	EA
Light Pole	Replace light poles that exhibit cracking at baseplate.	5	EA

4.1.2 Trestle A – Southbound (ASB)

Table 9: ASB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 10: ASB Priority Repairs

Element	Item Description	Quantity	Unit
Metal Bridge Railing	Repair spalled concrete near railing post.	3	LF

Table 11: ASB Routine Repairs

Element	Item Description	Quantity	Unit
Concrete Top Flange (Underside)	Repair spalling with exposed longitudinal and/or transverse reinforcement or where previous repairs have failed.	3	SF
Prestressed Concrete Girder	Repair failed repairs of delamination with rust staining or spalling with exposed prestressing strands / reinforcement.	7	LF
Prestressed Concrete Piles	Repair top portion of pile exhibiting minor spall with exposed reinforcement at Bent-Pile.	3	EA
Prestressed Concrete Piles	Repair failed repairs or areas of delamination with rust staining or spalling with exposed prestressing strands or reinforcement.	4	EA
Light Poles	Monitor light poles that exhibit cracking or delamination/spalling near the baseplate and replace if vertically oriented steel reinforcement becomes exposed and degraded.	16	EA

4.1.3 Trestle B – Northbound (BNB)

Table 12: BNB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 13: BNB Priority Repairs

Element	Item Description	Quantity	Unit
Prestressed Concrete Piles	Install Scour Countermeasures at 18 pile locations where scour exceeds the Allowable Scour Depth (ASD).	18	EA

Table 14: BNB Routine Repairs

Element	Item Description	Quantity	Unit
Metal Bridge Railing	Repair/replace dented railing.	82	LF
Metal Bridge Railing	Replace corroded anchor bolt connections with section loss at 51 locations.	51	EA
Metal Bridge Railing / Light Pole	Reinstall/Repair ground wire that are broken at railing connections or light pole connections.	4	EA
Reinforced Concrete Slab (Underside)	Repair areas of delaminated and spalled concrete on deck underside.	6	SF
Concrete Top Flange (Underside)	Repair spalling with exposed longitudinal and/or transverse reinforcement or where previous repairs have failed.	45	SF
Prestressed Concrete Girder	Repair spalling with exposed prestressing strands or exposed reinforcement.	1	LF
Prestressed Concrete Piles	Repair piles with wide cracks, exposed prestressing strand on top portion, or exhibit rust staining.	100	EA
Prestressed Concrete Piles	Repair top portion of piles exhibiting minor spalls with exposed reinforcement.	51	EA
Prestressed Concrete Piles	Perform a repair to the steel built-up pile at BNB78 Pile B to prevent additional degradation or corrosion.	1	EA
Light Pole	Replace light poles that exhibit cracking at baseplate.	10	EA



4.1.4 Trestle B – Southbound (BSB)

Table 15: BSB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 16: BSB Priority Repairs

Element	Item Description	Quantity	Unit
None	N/A	N/A	N/A

Table 17: BSB Routine Repairs

Element	Item Description	Quantity	Unit
Metal Bridge Railing	Repair/replace dented railing.	26	LF
Steel Girders	Repair paint system at scattered locations where overcoat is peeling.	1	LS
Prestressed Concrete Girder	Repair minor spalling with exposed strands.	1	LF
Prestressed Concrete Piles	Repair portion of piles exhibiting minor spalls with exposed reinforcement.	8	EA
Light Poles	Monitor light poles that exhibit cracking or delamination/spalling near the baseplate and replace if vertically oriented steel reinforcement becomes exposed.	10	EA



4.1.5 Trestle C – Northbound (CNB)

Table 18: CNB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 19: CNB Priority Repairs

Element	Item Description	Quantity	Unit
Prestressed Concrete Piles	Fill void in spalled pile joint on CNB267 Pile C with Epoxy	1	EA

Table 20: CNB Routine Repairs

Element	Item Description	Quantity	Unit
Metal Bridge Railing	Repair/replace dented railing.	38	EA
Metal Bridge Railing	Repair spalled concrete curb with exposed reinforcement.	6	LF
Metal Bridge Railing	Repair failed concrete curb repairs.	13	LF
Metal Bridge Railing / Light Pole	Reinstall/Repair ground wire that are broken at railing connections or light pole connections.	2	EA
Concrete Top Flange (Underside)	Repair spalling with exposed longitudinal and transverse reinforcement.	20	SF
Prestressed Concrete Girder	Repair spalling with exposed prestressing strands or exposed reinforcement.	280	LF
Prestressed Concrete Piles	Repair top portion of piles exhibiting minor spalls with exposed reinforcement.	55	EA
Prestressed Concrete Piles	Replace junction box cover on Lifejacket System at Bent-Pile: CNB183-B and CNB191-C	2	EA
Light Pole	Replace light pole as required.	15	EA
Light Pole	Tighten loose anchor nut at light pole.	1	EA



4.1.6 Trestle C – Southbound (CSB)

Table 21: CSB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 22: CSB Priority Repairs

Element	Item Description	Quantity	Unit
Prestressed Concrete Piles	Install Scour Countermeasures at 39 pile locations where scour exceeds the Allowable Scour Depth (ASD).	39	EA

Table 23: CSB Routine Repairs

Element	Item Description	Quantity	Unit
Metal Bridge Railing	Repair bent or damaged railing.	10	EA
Metal Bridge Railing (Curb)	Repair spalling with exposed reinforcement or failed repairs.	64	SF
Concrete Top Flange (Underside)	Repair failed repairs of delamination with rust staining or spalling with exposed reinforcement.	7	SF
Prestressed Concrete Girders	Patch spalls on prestressed concrete girders, giving priority to girders exhibiting two or more exposed strands per location.	30	LF
Steel Diaphragms and Bracing	Replace top protective coating on steel girders at locations where coating has bubbled and exhibits freckled rust.	1	LS
Concrete Pier Caps	Repair detached conduit at CSB25 north face and replace broken conduit near light pole at CSB57	2	EA
Light Poles	Monitor light poles at that exhibit cracking or delamination/spalling near the baseplate and replace if vertically oriented steel reinforcement becomes exposed and degraded.	10	EA

4.1.7 North Channel Bridge – Northbound (NCB-NB)

This section was last inspected in FY2024 and will be inspected again in FY2026.

Table 24: NCB-NB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 25: NCB-NB Priority Repairs

Element	Item Description	Quantity	Unit
None	N/A	N/A	N/A

Table 26: NCB-NB Routine Repairs

Element	Item Description	Quantity	Unit
Steel Floorbeams	Repair/retrofit floor beam webs with isolated moderate to severe section loss below stringer connections throughout the structure.	3	EA
Steel Floorbeams	Repair/retrofit areas of bottom flanges with isolated areas of minor section loss throughout the structure.	4	LF
Steel Floorbeams	Repair/retrofit floor beam stiffeners over the longitudinal girders with minor to moderate section loss throughout the structure.	15	EA
Steel Superstructure	Retrofit or replace areas with greater than 25% section loss throughout the facility.	1	LS
Steel Superstructure	Clean and repaint areas exhibiting coating system failure.	1	LS
Reinforced Concrete Columns	Seal cracks in splash zone at Piers.	9	EA
Steel Truss	Repair/retrofit truss members with moderate section loss throughout the structure.	1	LS
Light Pole	Repair cracks in light poles as required.	4	EA



4.1.8 North Channel Bridge – Southbound (NCB-SB)

This section was last inspected in FY2025 and will be inspected again in FY2027.

Table 27: NCB-SB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 28: NCB-SB Priority Repairs

Element	Item Description	Quantity	Unit
None	N/A	N/A	N/A

Table 29: NCB-SB Routine Repairs

Element	Item Description	Quantity	Unit
Steel Superstructure	Clean and recoat steel girders, cross frames, and diaphragms at locations of pack rust, where zinc primer is exposed, or coating is starting to fail.	1	LS
Steel Superstructure	Reseat bearing pins that are not fully seated.	7	EA
Steel – Accessway	Replace anchor bolts throughout catwalk and ladder system as required where hardware is exhibiting over 50% section loss. Clean and recoat ladder and catwalk.	1	LS
Prestressed Concrete Piles	Update the 2023 Hydrographic Survey to indicate scour remediation (scour blanket) has been installed at below ASD Pier NCB-SB13 and verify if same remediation has been installed around near ASD piers.	1	LS

4.1.9 Trestle D – Northbound (DNB)

This section last received a hands-on inspection in FY2025 and will be inspected again in FY2027. An underwater inspection was performed in FY2022.

Table 30: Trestle DNB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 31: Trestle DNB Priority Repairs

Element	Item Description	Quantity	Unit
None	N/A	N/A	N/A

Table 32: Trestle DNB Routine Repairs

Element	Item Description	Quantity	Unit
Prestressed Concrete Piles	Repair piles exhibiting minor spalls with exposed reinforcement at and wide cracks or rust staining.	13	EA
Prestress Concrete Girders	Patch spalls on prestressed concrete girders, giving priority to girders exhibiting two or more exposed strands per location.	15	LF
Wingwall	Fill in undermining of west wingwall.	1	LS
Steel Superstructure & Substructure	Clean and paint steel superstructure/substructure adjacent to NCB-N.	1	Bent

4.1.10 Trestle D – Southbound (DSB)

This section last received a hands-on inspection in FY2025 and will be inspected again in FY2027.

Table 33: Trestle DSB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 34: Trestle DSB Priority Repairs

Element	Item Description	Quantity	Unit
None	N/A	N/A	N/A

Table 35: Trestle DSB Routine Repairs

Element	Item Description	Quantity	Unit
Prestressed Concrete Piles	Verify scour remediation was completed in 2002 on DSB1 and update the Hydrographic Survey – Acceptable Scour Depth to include those limits.	1	EA



4.1.11 Trestle E, Fisherman Inlet Bridge, Trestle F – Northbound (ENB, FIB-NB, and FNB)

A hands-on inspection was performed in FY2025, and an underwater inspection was performed in FY2022, and element level data is presented in this section.

Table 36: ENB, FIB-NB, and FNB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 37: ENB, FIB-NB, and FNB Priority Repairs

Element	Item Description	Quantity	Unit
N/A	N/A	N/A	N/A

Table 38: ENB, FIB-NB, and FNB Routine Repairs

Element	Item Description	Quantity	Unit
Steel Superstructure	Clean and recoat steel girders, cross frames, and diaphragms at locations of pack rust, where zinc primer is exposed, or coating is starting to fail.	1	LS
Fender System	Repair/reinstall top wale and portions of lower wale in fender system in FIBSB / FIBNB navigation channel.	1	LS

4.1.12 Trestle E, Fisherman Inlet Bridge, Trestle F – Southbound (ESB, FIB-SB, and FSB)

This section last received a hands-on inspection in FY2025 and will be inspected again in FY2027. An underwater inspection was performed in FY2022.

Table 39: ESB, FIB-SB, and FSB Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 40: ESB, FIB-SB, and FSB Priority Repairs

Element	Item Description	Quantity	Unit
None	N/A	N/A	N/A

Table 41: ESB, FIB-SB, and FSB Routine Repairs

Element	Item Description	Quantity	Unit
Prestressed Concrete Piles	Repair piles exhibiting minor spalls with exposed reinforcement.	2	EA
Prestressed Concrete Piles	Monitor damaged Lifejacket system and repair as needed.	3	EA
Prestressed Concrete Girder	Repair spalls with exposed prestressing strands or exposed reinforcement at beams.	30	LF
Drainage Swale – Roadway Approach	Repair drainage swale in slope protection on west end of FSB.	1	LS
Fender System	Repair/reinstall top wale and portions of lower wale in fender system in FIBSB / FIBNB navigation channel.	1	LS

4.2 Tunnels

4.2.1 Thimble Shoal Channel Tunnel (TSCT)

A hands-on inspection was performed in FY2024. Maintenance records were reviewed as part of the NTIS inspection.

Table 42: TSCT Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 43: TSCT Priority Repairs

Element	Item Description	Quantity	Unit
Fan System	Repair fan system as needed to ensure 100% operation in emergency mode.	1	LS

Table 44: TSCT Routine Repairs

Element	Item Description	Quantity	Unit
Concrete Invert Slab	Repair spalled concrete along roadway edge of Sidewalk Side at several locations	50	SF
Steel Pedestrian Railing	Clean and repaints steel railing along the Roadway.	15,840	SF
Concrete Tunnel Liner	Repair spalls with exposed reinforcement and conduits in exhaust duct at several locations	741	SF
Concrete Tunnel Liner	Repair spalls with exposed reinforcement in supply duct at several locations	40	SF
Invert Slab	Repair spalls with exposed reinforcement in supply duct at several locations	275	SF



4.2.2 Chesapeake Channel Tunnel (CCT)

A hands-on inspection was performed in FY2025 and will be inspected again in FY2027. Maintenance records were reviewed as part of the NTIS inspection.

Table 45: CCT Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 46: CCT Priority Repairs

Element	Item Description	Quantity	Unit
None	N/A	N/A	N/A

Table 47: CCT Routine Repairs

Element	Item Description	Quantity	Unit
Concrete Tunnel Liner	Repair spalls with exposed reinforcement and conduits in exhaust duct at several locations.	675	SF
Concrete Tunnel Liner	Repair spalls with exposed reinforcement in supply duct at several locations.	236	SF
Concrete Portal	Repair minor large spalls throughout Island 3 portal.	20	SF
Concrete Ceiling Slab	Repair areas of corrosion staining and or spalls in the ceiling slab.	222	SF
Concrete Invert Slab	Repair delaminations with corrosion staining and spalls with exposed reinforcement in supply duct at several locations.	610	SF
Steel Pedestrian Railing	Clean and repaint steel pedestrian railing along the roadway.	6,070	LF
Fire Protection System	Replace the non-functional height transducer for ground water storage tank #2. (There are two total)	N/A	N/A
Ventilation System	Replace opaque oil level sight glasses on all twelve fan damper reducers.	1	EA
Pumps	Rehabilitate the packing seal at the rear of pump BND-1.	1	EA
Pumps	Replace pumps BSD-1 and BND-1 with appropriately sized main sump pumps.	1	EA
Tunnel Operations and Security System	Repair phones at 490+47 Chesapeake Tunnel (7324) and 519+47 Chesapeake Tunnel (7312).	1	EA

4.3 General Facility

Table 48: General Facility Critical Findings

Element	Item Description	Date Reported	Recommended Action/Follow-Up
None	N/A	N/A	N/A

Table 49: General Facility Priority Repairs

Element	Item Description	Quantity	Unit
Portal Island #4 – Light Poles	Replace light poles exhibiting cracking and significant concrete spalling with exposed & corroded reinforcement	8	EA

Table 50: General Facility Routine Repairs

Element	Item Description	Quantity	Unit
Portal Island #3 & #4 – Approach Walls	Repair spalled and delaminated concrete along top and face of wall.	60	LF
Portal Island #3 – Light Pole	Repair/replace light poles exhibiting cracking with random rust staining	7	EA
Portal Island #3 & #4 – Grading	Continue to monitor and fill washouts and sinkholes near splash walls as required to prevent erosion.	1	LS
Portal Island #3 & #4 – Splash Wall	Repair spalled and delaminated concrete along the splash walls.	1	LS
Roadway Approach – North	Repair pothole/concrete pavement settlement along rigid pavement approach. Located approx. 675' south of toll plaza.	40	LF
Item (f) – Generator / Generator Building	Update tags on batteries to current expiration dates / maintenance needs.	1	LS
Item (i) – Storage Yard & Parking	Seal pavement cracks greater than 1/8" wide.	1	LS
Item (n) – Fence	Repair/Reinstall areas of damaged fence and broken barb arms/wire	1	LS



5. VDOT Structure Inventory and Appraisal (SI&A) Records (B-6 and B-7 Forms)



5.1 Trestle ANB SI&A Forms

B-6 ANB VDOT – BRIDGE INSPECTION REPORT Page: 1 of 2

Structure-ID:	1002	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/9/2024 & 9/10/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	46.62	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance

CONDITION OF STRUCTURE: Fair to Generally Good

- Bent or damaged railing on spans ANB10, ANB12, ANB23, ANB27, ANB31, ANB192, ANB195 and ANB217.
- Scattered minor transverse cracking and spalling or failed repairs in curbs, with exposed reinforcement at Span ANB182.
- Ground wire broken at railing connections or light pole connections at the following locations: ANB191 over Bent ANB192 at light pole, ANB189, ANB198, ANB207, ANB210, ANB213.
- Some spalls on bottom flanges of some prestressed girders. Locations with exposed rebar at bearings.
- Girder spall with exposed prestressing strand/exposed reinforcement or signs of deterioration (rust staining / delam) at the following locations in FY2025: ANB177 G1 (web) ANB177 G3, ANB178 G1, ANB187 G4 (rust staining), ANB188 G3, ANB189 G5, ANB190 G8, ANB191 G5, ANB193 G4, ANB193 G7 (delam), ANB194 G7, ANB195 G7, ANB196 G1, ANB201 G5, ANB204 G3, ANB204 G6, ANB204 G7, ANB204 G8, ANB204.5 G5, ANB204.5 G8, ANB208.5 G2, ANB208.5 G3, ANB208.5 G5 (web), ANB213 G8 (web), ANB214 G1, ANB215 G1, ANB215 G1, ANB215 G2 ANB215G7, ANB219 G1, ANB219 G4. The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded. In 2024, the District has completed 55 beam repairs from ANB18 through ANB169 and ANB222 and ANB225.
- Some existing spall repairs on concrete girders are failing or have failed, with some exposing two strands near mid-span or exposing rebar at bearings. Hairline diagonal web cracks on approx. 50% of concrete girder ends inspected.
- Minor to moderate defects on approximately 5% of elastomeric bearings.
- One location requiring repair of expansion joint strap in the cable tray at ANB117.
- Scattered minor damage to fiberglass jackets on some piles. Nine piles exhibit damage of fiberglass jacket exposing sacrificial zinc mesh (ANB33-A, ANB81-C, ANB89-A, ANB133-A, ANB133-B, ANB135-C, ANB142-C, ANB152-C, ANB173-A, ANB181-B, ANB197-A, ANB199-A, ANB202-A, ANB202-B, ANB210-C). Anode is disconnected at bent 57 pile A.
- Minor reflective cracking through coating at some piles and bent caps, with isolated rust staining and efflorescence at a few locations. Other areas of spalling coating noted. Piles exhibiting rust staining were sounded and concrete was intact.
- Minor to moderate cracking and map cracking on many of the bent caps inspected, primarily at the ends of the bent caps. Isolated spall noted at ANB184 between Piles B & C with exposed reinforcement with up to 20% section loss.
- Existing repairs to piles with impact damage are typically sound with exception at the following locations: ANB189-A, ANB199-B.
- Spalls recommended for repair noted in the underside of the deck (top flanges) at 57 locations. FY2025 inspection indicated the following locations with exposed reinforcement with section loss includes: ANB180 B2, ANB182 B4, ANB183 B4, ANB195 B6, ANB203 B4, ANB204.5 B6, ANB205.5 B6, ANB206.5 B2, ANB209 B6, ANB214 B4 and ANB215 B7.



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14. 2023 Hydrographic Survey indicates bay bottom was below Allowable Scour Depth (ASD) at Bent ANB218 – ANB222 and ANB225; however, scour remediation is identified in place. Survey also indicates that bay bottom is near ASD at Bent ANB214.
15. Scour ratings govern over the condition ratings at only a small percentage of the bents (piles considered to be Scour Condition State 3 (due to scour remediation) are Bent-Pile: ANB218 through ANB222 and ANB225) for all piles located within those bents. In addition to those piles, all piles at Bent ANB214 have been identified as Scour Condition State 3 since it is near bay bottom, but no remediation has been completed.

REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during past inspections).
3. No posting of the structure is required.

RECOMMENDATIONS:

1. Continue periodic hydrographic surveys in interim between underwater inspections scheduled every 5 years
2. Continue to patch spalls on prestressed concrete girders, giving priority to girders exhibiting two or more exposed strands per location.
3. Repair bent or damaged railing on spans ANB10, ANB12, ANB23, ANB27, ANB31, **ANB192, ANB195** and ANB217.
4. Continue to patch any new spalls and failed repairs on prestressed concrete girders.
5. Retrofit any deteriorated cable tray expansion joint straps as required.
6. Repair spalls in underside of deck with priority to those exposing multiple layers of steel.
7. Repair spalls in curbs with exposed reinforcement.
8. **Repair/reattach broken ground wire at railing or light pole connections at the following locations: ANB191 over Bent ANB192 at light pole, ANB189, ANB198, ANB207, ANB210, ANB213.**
9. **Monitor damaged lifejacket system and repair as needed.**
10. **Replace light poles that exhibit cracking at baseplates.**

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



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VDOT – BRIDGE INSPECTION REPORT

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Structure-ID:	1002	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/9/2024 & 9/10/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	46.62	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	X	6. Pin & Hanger	-
3. Scour Critical	X	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>1</u>	4. Approach Guardrail	<u>1</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [7]

1. Wearing Surface	<u>G</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Replacement of Asphalt Wearing Surface and Open Expansion Joint Header Material was completed in Spring 2020.
- b. Scattered minor cracking with some locations having efflorescence and spalling **and along joints** on underside of deck **and top flange**.
- c. Spalls recommended for repair noted in the underside of the deck (top flanges) at 57 locations. **FY2025 inspection indicated the following locations with exposed reinforcement with section loss includes: ANB180 B2, ANB182 B4, ANB183 B4, ANB195 B6, ANB203 B4, ANB204.5 B6, ANB205.5 B6, ANB206.5 B2, ANB209 B6, ANB214 B4 and ANB215 B7.**
- d. **Isolated delaminations/spalls noted on overhang fascia between scuppers.**
- e. **Bridge railing has surface rust noted on hardware, typical.**
- f. Bent or damaged railing on spans ANB10, ANB12, ANB23, ANB27, ANB31, **ANB192, ANB195 and ANB217.**
- g. **Scattered minor transverse cracking and spalling or failed repairs in curbs typical. Spall with exposed reinforcement noted in Span 182.**
- h. **Ground wire broken at railing connections or light pole connections at the following locations: ANB191 over Bent ANB192 at light pole, ANB189, ANB198, ANB207, ANB210, ANB213.**



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59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Bearing Devices	<u>F</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>F</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>N</u>
C. Bracing	<u>N</u>	Year Painted	<u>N</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Minor to moderate splitting of isolated bearings pads on 5% of bearings.
- b. Hairline diagonal web cracks noted on girder ends; with approx. 50% of concrete girders inspected.
- c. Isolated spalls on bottom face of random prestressed girder flanges, and some existing spall repairs on girders are failing or have failed with exposing two strands near mid-span or exposing rebar at bearings. The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded.
- d. **Girder spall with exposed prestressing strand/exposed reinforcement or signs of deterioration (rust staining / delam) at the following locations in FY2025: ANB177 G1 (web) ANB177 G3, ANB178 G1, ANB187 G4 (rust staining), ANB188 G3, ANB189 G5, ANB190 G8, ANB191 G5, ANB193 G4, ANB193 G7 (delam), ANB194 G7, ANB195 G7, ANB196 G1, ANB201 G5, ANB204 G3, ANB204 G6, ANB204 G7, ANB204 G8, ANB204.5 G5, ANB204.5 G8, ANB208.5 G2, ANB208.5 G3, ANB208.5 G5 (web), ANB213 G8 (web), ANB214 G1, ANB215 G1, ANB215 G1, ANB215 G2 ANB215G7, ANB219 G1, ANB219 G4.** The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded. **In 2024, the District has completed 55 beam repairs from ANB18 through ANB169 and ANB222 and ANB225.**
- e. **Isolated spalls noted on diaphragms.**
- f. Expansion joint strap in cable tray broken at ANB117.

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Abutments		2. Pier/Bent	
A. Wings	<u>G</u>	A. Caps	–
B. Backwall	<u>G</u>	B. Piles	–
C. Bearing Seats	<u>G</u>	C. Column, Stem, Wall	–
D. Breastwall	<u>N</u>	D. Piles	–
E. Weepholes	<u>N</u>	E. Bracing	–
F. Footing	<u>G</u>	F. Erosion/Scour	–
G. Piles	*	G. Settlement	–
H. Erosion/Scour	<u>G</u>	3. Pile Bent	
I. Settlement	<u>G</u>	A. Caps	<u>F</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>G</u>
		D. Bracing	<u>N</u>

REMARKS:



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VDOT – BRIDGE INSPECTION REPORT

- a. Underwater Inspection performed 5/2023 – 10/2023. See FY2023 Underwater Inspection Forms for location of underwater defects and Element Level Inspection Forms for condition ratings of substructure units.
- b. Minor to moderate map cracking at ends of some of the bent caps inspected. **Isolated spall noted at ANB184 between Piles B & C with exposed reinforcement with up to 20% section loss.**
- c. Most all repairs completed as part of Substructure Repair Project generally appear in good condition. Scattered minor damage to fiberglass jackets on some piles. Fourteen piles exhibit damage of fiberglass jacket exposing sacrificial zinc mesh (ANB33-A, ANB81-C, ANB89-A, ANB133-A, ANB133-B, ANB135-C, ANB142-C, ANB152-C, ANB173-A, **ANB181-B, ANB197-A, ANB199-A, ANB202-A, ANB202-B, ANB210-C**). Anode is disconnected at bent 57 pile .
- d. Minor reflective cracking through coating at some pile caps and piles, with isolated rust staining and efflorescence at a few locations. Other areas of spalling coating noted. Piles exhibiting rust staining were sounded and concrete was intact.
- e. Most of the underwater portions of the piles are rated CS1 or CS2 (86%) with a majority of the CS2 ratings attributed to good repairs.

61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[8]

1. Channel Scour	<u>G</u>	5. Fender System	-
2. Embankment Erosion	-	6. Spur Dikes/Jetties	-
3. Drift	-	7. Rip Rap/Slope Protection	<u>G</u>
4. Vegetation	-	8. Adequacy of Opening	<u>F</u>

REMARKS:

- 16. **2023 Hydrographic Survey indicates bay bottom was below Allowable Scour Depth (ASD) at Bent ANB218 – ANB222 and ANB225; however, scour remediation is identified in place. Survey also indicates that bay bottom is near ASD at Bent ANB214.**
- 17. **Scour ratings govern over the condition ratings at only a small percentage of the bents (piles considered to be Scour Condition State 3 (due to scour remediation) are Bent-Pile: ANB218 through ANB222 and ANB225) for all piles located within those bents. In addition to those piles, all piles at Bent ANB214 have been identified as Scour Condition State 3 since it is near bay bottom, but no remediation has been completed.**

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) – Single	<u>N</u>		
(R12 - 5) – Semi	<u>N</u>		

REMARKS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.



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- b. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during past inspections, not present this year).
- c. No posting of the structure is required.



5.2 Trestle ASB SI&A Forms

B-6 ASB

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Structure-ID:	1010	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/26/2024 & 9/27/2024
Structure:	_____ (Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	46.72	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance.**CONDITION OF STRUCTURE:** Good

1. Light poles at ASB42, ASB45, ASB57, ASB69, ASB81, ASB86, ASB99, ASB105, ASB107, ASB109, ASB115, ASB119, ASB121, ASB129, ASB131, and ASB133 exhibited cracking at the baseplate.
2. Minor hairline cracking and minor spalls on some of the piles above waterline.
3. **Exposed reinforcement chairs located on cap faces, underside of girder (typically near ends) and underside of deck throughout spans.**
4. **Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x ½" deep with rust stain.**
5. **Beam ends – delamination/spalls on end corners of beams (some repaired during construction). Typical spalls measure up to 3" L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4).**
6. **Closure pours at beam ends on continuous spans have isolated spalls up to full height x full length x full depth with exposed reinforcement.**
7. Bent bridge railing on Spans ASB125 and 126 and loose shim plate or anchor plate at Span ASB151 and 167. Misaligned anchor plates along ASB56 (5 total). Two posts with impact damage/alignment, ASB3 and ASB56.
8. Deck spall with exposed reinforcement at Span **ASB47**, ASB109 and ASB164, and minor cracking and efflorescence at scattered locations in underside of deck. Spalls in concrete wearing surface of span ASB2 with no exposed reinforcement.
9. Spalled and cracked concrete at lower post tension duct at ASB82 and ASB93.
10. Girder spall with exposed prestressing strand at Span 54 Girder 3 and Span 56 Girder 2, and reinforcement at Span ASB132, and **ASB48 G5.**
11. Scattered minor spalls along bottom flanges and webs where insufficient cover is provided to shear reinforcement or prestressing strands.
12. Large spalling or locations with exposed reinforcement or exposed strands at girder ends or in the lower portion of the continuity closure pours at 75 locations.
13. Roadway striping replaced in 2018 remains in good condition.
14. Bay bottom is typically at or above the Allowable Scour Depth (ASD), with some previous scour remediation in place. **Bent ANB202 through ANB204** have bay bottom below ASD but has scour remediation in place.
15. Most of the underwater portions of the piles are in very good condition. Minor spalling, a few hairline cracks and one narrow crack at a few bents at or below the waterline. **Based on FY2025 inspection - piles with exposed reinforcement/prestressing strands includes: ASB43-B.**
16. Erosion on east side of the South Abutment ASB1 around water and sewer lines and under slope protection and on the west side of the abutment.

REVISED STRESS ANALYSIS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by the simple span steel structure at Span ASB204.
- c. No posting of the structure is required.



B-6 ASB

VDOT – BRIDGE INSPECTION REPORT

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RECOMMENDATIONS:

1. Monitor light poles that exhibit cracking or delamination/spalling near the baseplate and replace if vertically oriented steel reinforcement becomes exposed and degraded.
2. Continue periodic hydrographic surveys in interim between underwater inspections scheduled every 5 years.
3. **Install scour remediation at Bents ASB202 through ASB204 due to hydrographic survey identifies these locations as below the Allowable Scour Depth.**
4. Clean exposed reinforcement and repair spalling in girder bottom flanges noted this year and in previous reports.
5. Clean exposed reinforcement and patch spalls/voids previously noted in piles above water.
6. Place fill at locations of erosion on east side of the South Abutment ASB1 around water and sewer lines and under slope protection.
7. Retrofit any deteriorated cable tray expansion joint straps as required.
8. Clean and fill voids at joint header and asphalt wearing surface interface with joint sealant material.

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



B-7 ASB

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Structure-ID:	1010	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/26/2024 & 9/27/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	46.72	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	X	6. Pin & Hanger	-
3. Scour Critical	X	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>1</u>	4. Approach Guardrail	<u>1</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [8]

1. Wearing Surface	<u>G</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Light poles at ASB42, ASB45, ASB57, ASB69, ASB81, ASB86, ASB99, ASB105, ASB107, ASB109, ASB115, ASB119, ASB121, ASB129, ASB131, and ASB133 exhibited cracking at the baseplate.
- b. Deck spall with exposed reinforcement at Span ASB109 and ASB164, and minor cracking and efflorescence at scattered locations in underside of deck.
- c. **Exposed reinforcement chairs located on underside of deck throughout spans.**
- d. Bent bridge railing on Spans ASB125 and 126 and loose shim plate or anchor plate at Span ASB151 and 167. Misaligned anchor plates along ASB56 (5 total). Two posts with impact damage, ASB2 and ASB56.
- e. Deck spall with exposed reinforcement at Span ASB109 and 164, and minor cracking and efflorescence at scattered locations in underside of deck. Spalls in concrete wearing surface of span ASB3 with no exposed reinforcement.
- f. Roadway striping replaced in 2018 remains in good condition



B-7 ASB

VDOT – BRIDGE INSPECTION REPORT

59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[8]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>G</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>G</u>
C. Bracing	<u>N</u>	Year Painted	<u>2013</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Exposed reinforcement chairs located underside of girder (typically near ends).
- b. Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x 1/2" deep with rust stain.
- c. Beam ends – delamination/spalls on end corners of beams (some repaired during construction). Typical spalls measure up to 3" L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4). Spalls noted at 165 beam ends in FY2025 inspection.
- d. Closure pours at beam ends on continuous spans have isolated spalls up to full height x full length x full depth with exposed reinforcement
- e. Large spalling or locations with exposed reinforcement or exposed strands at girder ends or in the lower portion of the continuity closure pours at 75 locations.
- f. Scattered minor spalls along bottom flanges and webs where insufficient cover is provided to shear reinforcement or prestressing strands.
- g. Girder spall with exposed prestressing strand at Span 54 Girder 3 and Span 56 Girder 2, and reinforcement at Span ASB132, and **ASB48 G5**.
- h. Spalled and cracked concrete at lower post tension duct at ASB82 and ASB93.
- i. Damaged expansion joint plates in the cable trays at Bents ASB 125 and ASB128, and disconnected ground wires at ASB123, ASB127, and ASB151.

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[8]

1. Abutments		2. Pier/Bent	
A. Wings	<u>N</u>	A. Caps	–
B. Backwall	<u>N</u>	B. Piles	–
C. Bearing Seats	<u>N</u>	C. Column, Stem, Wall	–
D. Breastwall	<u>N</u>	D. Piles	–
E. Weepholes	<u>N</u>	E. Bracing	–
F. Footing	<u>N</u>	F. Erosion/Scour	–
G. Piles	<u>N</u>	G. Settlement	–
H. Erosion/Scour	<u>N</u>	3. Pile Bent	
I. Settlement	<u>N</u>	A. Caps	<u>G</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>G</u>
		D. Bracing	<u>N</u>

REMARKS:



- a. Underwater Inspection performed 6/2023 – 10/2023. See FY2023 Underwater Inspection Forms for location of underwater defects and Element Level Inspection Forms for condition ratings of substructure units.
- b. Most of the underwater portions of the piles are in very good condition. Minor spalling, a few hairline cracks and one narrow crack at a few bents at or below the waterline. **Piles with exposed reinforcement/prestressing strands includes: ASB43-B.**
- c. Minor spalling, a few hairline cracks and one narrow crack at a few bents at or below the waterline
- d. Minor hairline cracking and minor spalling on some of the piles
- e. Minor hairline cracking or map cracking on scattered bent caps
- f. Erosion on east side of the South Abutment ASB1 around water and sewer lines and under slope protection

61 CHANNEL: CHANNEL/SLOPE PROTECTION		GENERAL CONDITION RATING		[8]
1. Channel Scour	<u>G</u>	5. Fender System	-	
2. Embankment	-	6. Spur Dikes/Jetties	-	
Erosion	-	7. Rip Rap/Slope	<u>G</u>	
3. Drift	-	Protection		
4. Vegetation	-	8. Adequacy of	<u>E</u>	
		Opening		

REMARKS:

- a. **Per the 2023 Hydrographic survey, bay bottom is typically at or above the Allowable Scour Depth (ASD) except between Bent ANB202 through ANB204 where it is below the ASD. These locations will be identified as Condition State 4 for element level data until remediation is installed.**

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) – Single	<u>N</u>		
(R12 - 5) – Semi	<u>N</u>		

REMARKS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by the simple span steel structure at Span ASB204. No posting of the structure is required.



5.3 Trestle BNB SI&A Forms

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Structure-ID:	1004	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/11/2024 – 9/13/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	41.31	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance. The wearing surface was replaced in Fall 2020.

CONDITION OF STRUCTURE: Generally Fair to Good

- Light poles at BNB108, BNB111, BNB120, BNB129, BNB132, BNB141, BNB144, BNB156, BNB180, and BNB189 exhibited cracking at the baseplate. **Light pole with delamination along face of pole at BNB178.**
- Ground wire broken at railing connections or light pole connections at the following locations: BNB160, BNB174, BNB181, BNB192.**
- Bent or damaged railing on spans **BNB161, BNB163, BNB177, BNB187 (48 LF), BNB193, BNB197 (16 LF), BNB200 (5 LF), BNB201, BNB206, BNB208, BNB210.**
- Scattered minor transverse cracking and spalling or failed repairs in curbs typical. Exposed reinforcement noted on curb at BNB169, BNB190, BNB193.**
- Exposed sacrificial mesh or wide cracking in grouted annulus of LifeJacket System on Bent BNB23 Pile B, BNB74-C, BNB102-A, BNB117-A, BNB127-A, BNB161-A, and BNB214-A.
- New spall repairs on bottom flange of girders in good condition with minor shrinkage cracks noted.
- Isolated spalls with exposed reinforcement on underside of deck and/or top flange in the following locations in FY2025: BNB162 (3 locations) (w. overhang/sidewalk), BNB163, BNB179 (w. overhang/sidewalk), BNB181 G2 and w. overhang/sidewalk, BNB184 (w. overhang/sidewalk), BNB185 G4, BNB186 (w. overhang/sidewalk), BNB192 G1, BNB199 (w. overhang/sidewalk), BNB201 B6, BNB202 (w. overhang/sidewalk), BNB208 (w. overhang/sidewalk), BNB210 (w. overhang/sidewalk).**
- Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025 (** notes location is currently being repaired by the District): BNB159 G5**, BNB159 G8, BNB159 G8**, BNB160 G1**, BNB160 G8, BNB162 G8**, BNB163 G1 (2), BNB163 G4 (2), BNB163 G8, BNB165 G5 (rust staining), BNB166 G6 (rust staining), BNB167 G6** (rust staining), BNB167 G2**, BNB169 G2, BNB170 G1**, BNB170 G5**, BNB171 G4, BNB172 G1, BNB172 G2, BNB172 G4, BNB173 G7**, BNB174 G2, BNB176 G1, BNB177 G2, , BNB177 G5 (web), BNB180 G7, BNB182 G2**, BNB184 G3 (rust staining), BNB185 G6 (rust staining), BNB185 G5, BNB185 G7**, BNB187 G3, BNB187 G4, BNB188 G1, BNB190 G1, BNB191 G6 (2), BNB192 G5 (2), BNB192 G8, BNB193 G1 (2), BNB193 G2, BNB193 G4, BNB193 G5, BNB194 G1, BNB194 G6, BNB195 G1, BNB196 G1, BNB198 G2, BNB198 G3, BNB198 G4, BNB198 G6, BNB199 G1(2), BNB200 G2, BNB200 G3 (rust staining), BNB201 G4, BNB201 G6, BNB201 G8, BNB202 G1, BNB202 G6, BNB203 G1, BNB204 G8, BNB205 G1, BNB205 G4, BNB206 G4, BNB208 G1, BNB209 G1 (2), BNB210 G2, BNB210 G8, BNB211 G1, BNB212 G1. The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded. **In 2024, the District has completed 56 beam repairs from ANB19 through BNB121.****
- Scattered cracks and spalls on bottom flanges of prestressed girders. A few failed patches at older repair locations, including exposed strands near mid-span and exposed rebar at some bearings.
- Minor cracking on many of the piles and some spalling also noted on a few piles and a few longitudinal wide cracks noted with exposed prestressing strands in the top portion of the pile. **Spalls with exposed reinforcement/strands noted on the following piles in FY2025: BNB160-B, BNB161-B, BNB168-A, BNB168-C, BNB173-B, BNB176-B, BNB178-C, BNB184-B, BNB190-B, BNB193-B, BNB196-A, BNB196-B, BNB199-A, BNB199-B, BNB202-B, BNB203-B, BNB209-A, BNB209-B, BNB213-A.**



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11. Hairline diagonal web cracking on approximately 50% of concrete girder ends inspected.
12. Minor to moderate splitting on approximately 9% of elastomeric bearings.
13. Minor map cracking on a few of the bent cap ends inspected.
14. Several locations where main cable tray grounding straps are disconnected.
15. **Scour ratings govern over the condition ratings for piles considered to be Scour Condition State 3 or Condition State 4 (due to no scour remediation) for the following bents: Bent-Pile: BNB212 – BNB214 (below the Allowable Scour), BNB220-BNB239 (nearing the Allowable Scour), BNB40 – BNB43 (below the Allowable Scour) and BNB244 and BNB245 (nearing the Allowable Scour). A total of 51 piles are considered under Condition State 3 and 18 are considered under Condition State 4.**
16. For complete details on condition of the underwater portion of piles, see the FY2025 Underwater Inspection Forms. Level II and III Inspection of the Pile Repair at BNB78 Pile B was performed and the steel built-up pile used for the repair appears to exhibit moderate corrosion (approximately 25% section loss). **ANB262 Pile C UW report indicates a sheared pile with a Steel "H" Pile Driven (note was noted in 2019 UW Inspection Report and verified in 2023 UW report). Note is for informational purposes only as an As-Built Condition.**

REVISED STRESS ANALYSIS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during past inspections).
- c. No posting of the structure is required.

RECOMMENDATIONS:

1. Repair all cracks narrow or greater and repair spalls with exposed reinforcement in the piles.
2. Determine effectiveness of damaged LifeJacket System on Bent BNB23 Pile B, BNB74-C, BNB102-A, BNB117-A, BNB127-A, BNB161-A, and BNB214-A, repair accordingly. CBBT is exploring an alternative repair method that will utilize carbon fiber shells to address the deterioration.
3. Continue periodic hydrographic surveys in interim between underwater inspections scheduled every 5 years.
4. Continue to monitor paint condition of steel beam span (BNB1/BNB2).
5. Repair bent cable tray retainer plate at BNB71.
6. Perform a repair to the steel built-up pile at BNB78 Pile B to prevent additional degradation or corrosion.
7. Continue to patch spalls on prestressed concrete girders, giving priority to girders exhibiting two or more exposed strands per location.
8. Repair bent or damaged railing.
9. Continue to patch any new spalls and failed repairs on prestressed concrete girders.
10. Repair spalls in underside of deck with priority to those exposing multiple layers of steel.
11. Repair spalls in curbs with exposed reinforcement.
12. **Repair/reattach broken ground wire at railing or light pole connections.**
13. **Replace light poles that exhibit cracking at baseplates.**
14. **Install scour remediation as necessary and verify limits of remediation in accordance with the hydrographic survey.**

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



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VDOT – BRIDGE INSPECTION REPORT

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Structure-ID:	1004	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/11/2024 – 9/13/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	41.31	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	<u>X</u>	6. Pin & Hanger	-
3. Scour Critical	<u>X</u>	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>N</u>
2. Transition	<u>N</u>	4. Approach Guardrail	<u>1</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [7]

1. Wearing Surface	<u>G</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Replacement of the asphalt wearing surface and open expansion joint header material is underway as part of the Mill and Repave Trestles, Replace End Dams Project (RMF 2053.2025) that began on September 8, 2020 (immediately following the inspection of this structure). Work on this structure was completed by the end of Fall 2020.
- b. Scattered minor cracking and spalling on underside of deck and sidewalk.
- c. Scattered minor transverse cracking and **scale up to 1/16”** in curbs.
- d. **Asphalt cracked full width along expansion joints throughout.**
- e. **Exterior fascia has longitudinal crack up to 1/16” wide at isolated locations between scuppers.**
- f. Light poles at BNB108, BNB111, BNB120, BNB129, BNB132, BNB141, BNB144, BNB156, BNB180, and BNB189 exhibited cracking at the baseplate. **Light pole with delamination along face of pole at BNB178.**
- g. **Ground wire broken at railing connections or light pole connections at the following locations: BNB160, BNB174, BNB181, BNB192.**
- h. Bent or damaged railing on spans **BNB161, BNB163, BNB177, BNB187 (48 LF), BNB193, BNB197 (16 LF), BNB200 (5 LF), BNB201, BNB206, BNB208, BNB210,** BNB219, BNB234, BNB238, BNB249, BNB261.



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VDOT – BRIDGE INSPECTION REPORT

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- i. Scattered minor transverse cracking and spalling or failed repairs in curbs typical. Exposed reinforcement noted on curb at BNB169, BNB190, BNB193
- j. Isolated spalls with exposed reinforcement on underside of deck in the following locations in FY2025: BNB162 (3), BNB163, BNB179, BNB181, BNB184, BNB185, BNB186, BNB192, BNB199, BNB201, BNB202, BNB208, BNB210.
- k. Isolated pack rust and surface rust on rail hardware throughout.

59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Bearing Devices	<u>F</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>F</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>F</u>
C. Bracing	<u>N</u>	Year Painted	<u>2013</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Some spalls on bottom flanges of some prestressed girders, and some existing spall repairs on girders are failing or have failed.
- b. Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025 (** notes location is currently being repaired by the District): BNB159 G5**, BNB159 G8, BNB159 G8**, BNB160 G1**, BNB160 G8, BNB162 G8**, BNB163 G1 (2), BNB163 G4 (2), BNB163 G8, BNB165 G5 (rust staining), BNB166 G6 (rust staining), BNB167 G6** (rust staining), BNB167 G2**, BNB169 G2, BNB170 G1**, BNB170 G5**, BNB171 G4, BNB172 G1, BNB172 G2, BNB172 G4, BNB173 G7**, BNB174 G2, BNB176 G1, BNB177 G2, , BNB177 G5 (web), BNB180 G7, BNB182 G2**, BNB184 G3 (rust staining), BNB185 G6 (rust staining), BNB185 G5, BNB185 G7**, BNB187 G3, BNB187 G4, BNB188 G1, BNB190 G1, BNB191 G6 (2), BNB192 G5 (2), BNB192 G8, BNB193 G1 (2), BNB193 G2, BNB193 G4, BNB193 G5, BNB194 G1, BNB194 G6, BNB195 G1, BNB196 G1, BNB198 G2, BNB198 G3, BNB198 G4, BNB198 G6, BNB199 G1(2), BNB200 G2, BNB200 G3 (rust staining), BNB201 G4, BNB201 G6, BNB201 G8, BNB202 G1, BNB202 G6, BNB203 G1, BNB204 G8, BNB205 G1, BNB205 G4, BNB206 G4, BNB208 G1, BNB209 G1 (2), BNB210 G2, BNB210 G8, BNB211 G1, BNB212 G1. The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded. In 2024, the District has completed 56 beam repairs from ANB19 through BNB121.
- c. Scattered cracks and spalls on bottom flanges of prestressed girders. A few failed patches at older repair locations, including exposed strands near mid-span and exposed rebar at some bearings.
- d. Hairline diagonal web cracking on approximately 50% of concrete girder ends inspected.
- e. Minor to moderate splitting on approximately 9% of elastomeric bearings.
- f. Hairline diagonal web cracking on 25% of girders inspected.

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[4]

1. Abutments		2. Pier/Bent	
A. Wings	<u>G</u>	A. Caps	-



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VDOT – BRIDGE INSPECTION REPORT

B. Backwall	<u>G</u>
C. Bearing Seats	<u>G</u>
D. Breastwall	<u>N</u>
E. Weepholes	<u>N</u>
F. Footing	<u>G</u>
G. Piles	*
H. Erosion/Scour	<u>G</u>
I. Settlement	<u>G</u>

B. Piles	-
C. Column, Stem, Wall	-
D. Piles	-
E. Bracing	-
F. Erosion/Scour	<u>P</u>

G. Settlement	-
3. Pile Bent	
A. Caps	<u>F</u>
B. Bearing Seats	<u>G</u>
C. Piles	<u>F</u>
D. Bracing	<u>N</u>

*Not Visible

REMARKS:

- a. Erosion/Scour Condition rating for the Pier/Bent is controlled by scour, see Item a) under Remarks under 61 Channel: Channel Slope/Protection.
- b. Spalls with exposed reinforcement on pile cap at BNB100 and abutment at BNB266, and delamination on BNB85, BNB243, & BNB265,
- c. Minor cracking on many of the piles. A few longitudinal wide cracks noted with exposed prestressing strands in the top portion of the pile or rust staining. Some spalling with exposed reinforcement steel noted near top.
- d. Spall of LifeJacket fiberglass jacket with exposed sacrificial mesh on Bent BNB23 Pile B, BNB74-C, BNB102-A, BNB117-A, BNB127-A, BNB161-A, and BNB214-A are recommended for evaluation to determine effectiveness of the cathodic protection system and to be repaired accordingly.
- e. Minor cracking on many of the piles and some spalling also noted on a few piles and a few longitudinal wide cracks noted with exposed prestressing strands in the top portion of the pile. **Spalls with exposed reinforcement/strands noted on the following piles in FY2025: BNB160-B, BNB161-B, BNB168-A, BNB168-C, BNB173-B, BNB176-B, BNB178-C, BNB184-B, BNB190-B, BNB193-B, BNB196-A, BNB196-B, BNB199-A, BNB199-B, BNB202-B, BNB203-B, BNB209-A, BNB209-B, BNB213-A.**
- f. For complete details on condition of the underwater portion of piles, see the FY2025 Underwater Inspection Forms. Level II and III Inspection of the Pile Repair at BNB78 Pile B was performed and the steel built-up pile used for the repair appears to exhibit moderate corrosion (approximately 25% section loss). **ANB262 Pile C UW report indicates a sheared pile with a Steel "H" Pile Driven (note was noted in 2019 UW Inspection Report and verified in 2023 UW report). Note is for informational purposes only as an As-Built Condition**



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61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[4]

1. Channel Scour	<u>P</u>	5. Fender System	-
2. Embankment	-	6. Spur Dikes/Jetties	-
Erosion	-	7. Rip Rap/Slope	<u>G</u>
3. Drift	-	Protection	
4. Vegetation	-	8. Adequacy of	<u>F</u>
		Opening	

REMARKS:

- g. Scour ratings govern over the condition ratings for piles considered to be Scour Condition State 3 or Condition State 4 (due to no scour remediation) for the following bents: Bent-Pile: BNB212 – BNB214 (below the Allowable Scour), BNB220-BNB239 (nearing the Allowable Scour), BNB40 – BNB43 (below the Allowable Scour) and BNB244 and BNB245 (nearing the Allowable Scour). A total of 51 piles are considered under Condition State 3 and 18 are considered under Condition State 4.

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) – Single	<u>N</u>		
(R12 - 5) – Semi	<u>N</u>		

REMARKS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during past inspections, not present this year).
- c. No posting of the structure is required.



5.4 Trestle BSB SI&A Forms

B-6 BSB	VDOT – BRIDGE INSPECTION REPORT		Page: 1 of 2
Structure-ID:	1012	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/25/2024
Structure:	_____ (Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	41.38	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance. Underwater Inspection performed 6/27 - 9/28/21.

CONDITION OF STRUCTURE: Good

- a. Light poles at BSB59, BSB61, BSB63, BSB67, BSB73, BSB91, BSB93 exhibit cracking or delamination/spalling at the base plate, light pole at BSB175 has a spall at the base plate with exposed reinforcement, and light poles at BSB151 and BSB161 exhibit minor spalling.
- b. Dented railing on Span BSB20, BSB21, BSB67, **BSB70, BSB79, BSB80, BSB86, BSB89, BSB90, BSB95.**
- c. **Isolated hairline transverse cracking and spalling on curb. Exposed reinforcement noted on curb at BSB80.**
Bent caps – hairline vertical, longitudinal and map cracks located at isolated locations throughout spans.
- d. **Exposed reinforcement chairs located on cap faces, underside of girder (typically near ends) and underside of deck throughout spans.**
- e. **Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x ½" deep with rust stain.**
- f. **Beam ends – delamination/spalls on end corners of beams (some repaired during construction). Typical spalls measure up to 3"L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4).**
- g. **Closure pours at beam ends on continuous spans have isolated spalls up to full height x full length x full depth with exposed reinforcement.**
- h. Steel beam span BSB1 and BSB202 repainted in 2013, structurally in good condition with scattered minor rusting of girders, diaphragms, and bearing connections in areas over armor stones.
- i. Large spalling or locations with exposed reinforcement or exposed strands at girder ends or in the lower portion of the continuity closure pours at 99 locations.
- j. Minor horizontal cracking, some with efflorescence, in intermediate concrete girder diaphragms.
- k. **2023 Hydrographic Survey indicates bay bottom was near ASD at seventeen (17) bents which includes BSB8 – BSB10, BSB182 – BSB190, BSB194, BSB195, BSB198 and BSB199. Based on these findings, 48 piles are identified as Condition State 3 for Scour.**
- l. The underwater portion of the piles are in generally good condition as noted during the 2021 Underwater Inspection. Large repairs previously completed at Bent BSB90 Pile C and at Bent BSB199 Pile C remain in good condition. Minor cracks and spalls were noted on some underwater portions of piles, with 21% of bents rated 6 or lower.
- m. Roadway striping replaced in 2018 remains in good condition.

REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. Structure load rating controlled by the simple span steel structures at Span BSB1 and BSB202.
3. No posting of the structure is required.



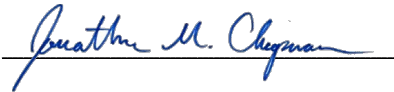
B-6 BSB

VDOT – BRIDGE INSPECTION REPORT

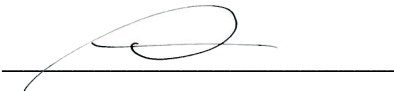
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RECOMMENDATIONS:

1. Monitor light poles that exhibit cracking or delamination/spalling near the baseplate and replace if vertically oriented steel reinforcement becomes exposed and degraded.
2. Repair/replace dented railing.
3. Repair paint system at scattered locations where overcoat is peeling.
4. Continue periodic hydrographic surveys in interim between underwater inspections.
5. Repair spalls noted this year along with those previously noted on girder bottom flanges.
6. **Monitor Allowable Scour Depth at locations that are near bay bottom requirement. Implement scour remediation if bay bottom exceeds Allowable Scour Depth.**
7. **Repair portions of piles exhibiting minor spalls with exposed reinforcement.**



SIGNATURE OF INSPECTOR



SIGNATURE OF REVIEWER



B-7 BSB

VDOT – BRIDGE INSPECTION REPORT

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Structure-ID:	1012	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/25/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	41.38	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	<u>X</u>	6. Pin & Hanger	-
3. Scour Critical	<u>X</u>	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>N</u>	4. Approach Guardrail	<u>N</u>

REMARKS: REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [7]

1. Wearing Surface	<u>G</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Light poles at BSB59, BSB61, BSB63, BSB67, BSB73, BSB91, and BSB93 exhibit cracking or delamination/spalling at the base plate, light pole at BSB175 has a spall at the base plate with exposed reinforcement, and light poles at BSB151 and BSB161 exhibit minor spalling.
- b. Dented railing on Span BSB20, BSB21, BSB67, **BSB70, BSB79, BSB80, BSB86, BSB89, BSB90, BSB95.**
- c. **Isolated hairline transverse cracking and spalling on curb. Exposed reinforcement noted on curb at BSB80.**
- d. **Exposed reinforcement chairs located on underside of deck throughout spans.**
- e. Minor hairline and map cracking scattered on the underside of the deck.
- f. Longitudinal reflective cracks in the overlay sealed, but a few scattered unsealed cracks were noted.
- g. Transverse cracks in bare concrete deck need sealing.
- h. Roadway striping replaced in 2018 remains in good condition.



59 SUPERSTRUCTURE

GENERAL CONDITION RATING [8]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>G</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>F</u>
C. Bracing	<u>N</u>	Year Painted	<u>2013</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Steel beam span BSB1 and BSB202 repainted in 2013, structurally in good condition with scattered minor rusting of girders, diaphragms, and bearing connections in areas over armor stones.
- b. Large spalling or locations with exposed reinforcement or exposed strands at girder ends or in the lower portion of the continuity closure pours at 99 locations.
- c. Minor cracking and spalls with exposed reinforcement at isolated locations on a few girders.
- d. **Exposed reinforcement chairs located on underside of girder (typically near ends) throughout spans.**
- e. **Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x 1/2" deep with rust stain.**
- f. **Beam ends – delamination/spalls on end corners of beams (some repaired during construction). Typical spalls measure up to 3" L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4).**
- g. **Closure pours at beam ends on continuous spans have isolated spalls up to full height x full length x full depth with exposed reinforcement.**

60 SUBSTRUCTURE

GENERAL CONDITION RATING [8]

1. Abutments		2. Pier/Bent	
A. Wings	<u>G</u>	A. Caps	-
B. Backwall	<u>G</u>	B. Piles	-
C. Bearing Seats	<u>G</u>	C. Column, Stem, Wall	-
D. Breastwall	<u>N</u>	D. Piles	-
E. Weepholes	<u>N</u>	E. Bracing	-
F. Footing	<u>G</u>	F. Erosion/Scour	-
G. Piles	*	G. Settlement	-
H. Erosion/Scour	<u>G</u>	3. Pile Bent	
I. Settlement	<u>G</u>	A. Caps	<u>G</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>G</u>
		D. Bracing	<u>N</u>

REMARKS:

- a. Repairs to large spalls with exposed spiral reinforcement on underwater portions of BSB90 Pile C and BSB199 Pile C remain in good condition (2021 UWI Report).
- b. Minor vertical hairline cracks, map cracks and spalls in scattered bent caps.
- c. Minor hairline cracking and minor spalling on some of the above water portions of the piles.



- d. Bent caps - hairline vertical, longitudinal and map cracks located at isolated locations throughout spans.
- e. Exposed reinforcement chairs located on cap faces throughout spans.
- f. The underwater portion of the piles are in generally good condition as noted during the 2021 Underwater Inspection. Large repairs previously completed at Bent BSB90 Pile C and at Bent BSB199 Pile C remain in good condition. Minor cracks and spalls were noted on some underwater portions of piles, with 21% of bents rated 6 or lower

61 CHANNEL: CHANNEL/SLOPE PROTECTION		GENERAL CONDITION RATING		[8]
1. Channel Scour	<u>G</u>	5. Fender System	-	
2. Embankment Erosion	-	6. Spur Dikes/Jetties	-	
3. Drift	-	7. Rip Rap/Slope Protection	<u>G</u>	
4. Vegetation	-	8. Adequacy of Opening	<u>G</u>	

REMARKS:

- a. 2023 Hydrographic Survey indicates bay bottom was near ASD at seventeen (17) bents which includes BSB8 – BSB10, BSB182 – BSB190, BSB194, BSB195, BSB198 and BSB199. Based on these findings, 48 piles are identified as Condition State 3 for Scour.

66 POSTED LOADING

1. Posted Loading - (R12 -1)	<u>N</u>	2. Legibility	<u>N</u>
(R12 – 5) – Single	<u>N</u>	3. Visibility	<u>N</u>
(R12 – 5) – Semi	<u>N</u>		

REMARKS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by the simple span steel structures at Span BSB1 and BSB202.
- c. No posting of the structure is required.



5.5 Trestle CNB SI&A Forms

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Structure-ID:	1009	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/16 9/18 & 9/19/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	35.23	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance. Replacement of Asphalt Wearing Surface and Open Expansion Joint Header Material was completed in Spring 2020. Open Expansion Joint Steel Angle Headers were repaired or replaced as required as part of this effort.

CONDITION OF STRUCTURE: Generally Fair to Good

- Damaged railing in spans CNB149, CNB181, CNB185, CNB193, [CNB201](#), [CNB204](#), [CNB207](#), [CNB216](#), [CNB224](#), [CNB231](#), [CNB233](#), [CNB243 \(25\)](#), [CNB244](#), [CNB245](#).
- Light poles at CNB108, CNB111, CNB120, CNB129, CNB153, CNB159, CNB162, CNB165, CNB186, CNB192, CNB195, CNB198, CNB222, [CNB234](#), [CNB237](#), [CNB243](#), CNB246, and [CNB257](#), CNB258 exhibited cracking or spalling at the baseplate, and the light pole at CNB131 has a loose anchor nut.
- [Scattered minor transverse cracking and spalling or failed repairs in curbs typical. Exposed reinforcement noted on curb at CNB227, CNB228.](#)
- [Ground wire broken at railing connections or light pole connections at the following locations: CNB220 and CNB246.](#)
- Damaged expansion joint plates in cable tray and misaligned cable tray plate at Bent CNB124.
- [Isolated spalls with exposed reinforcement on underside of deck / top flange in the following locations in FY2025: CNB199 \(w. overhang/sidewalk\), CNB199 G4, CNB200, CNB203 \(w. overhang/sidewalk\), CNB245 G7, CNB249 G4, CNB253 G1 \(3\), CNB260 G3, CNB262 G2, CNB263.](#)
- [Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: CNB197 G4 \(2\), CNB198 G4 \(2\), CNB198 G1, CNB198 G4, CNB198 G5 \(2\), CNB198 B6, CNB199 G2 \(2\), CNB199 G4 \(3\), CNB199 G6 \(2\), CNB200 G4 \(2\), CNB201 G5 \(2\), CNB203 G2, CNB203 G3, CNB206 G1 \(2\), CNB206 G4, CNB206 G5 \(2\), CNB206 G6, CNB206 G8 \(2\), CNB207 G1, CNB207 G2 \(2\), CNB211 G2, CNB211 G1, CNB211 G4, CNB211 G5, CNB211 G8, CNB212 G4 \(2\), CNB213 G2, CNB213 G6, CNB214 G4, CNB214 G5, CNB215 G7, CNB216 G5, CNB216 G4, CNB216 G6, CNB216 G8, CNB217 G4, CNB217 G5, CNB219 G2, CNB221 G2, CNB222 G3, CNB223 G4, CNB223 G5, CNB224 G1, CNB224 G5, CNB224 G8, CNB227 G4, CNB227 G5, CNB227 G2 \(4\), CNB227 G2, CNB227 G4, CNB228 G2, CNB228 G4, CNB228 G8, CNB230 G4, CNB230 G5, CNB231 G1, CNB231 G4, CNB232 G8, CNB233 G4, CNB233 G5 \(2\), CNB234 G4, CNB234 G7, CNB234 G3, CNB235 G4, CNB236 G5, CNB237 G4, CNB237 G5, CNB237 G6, CNB238 G3, CNB239 G1 \(2\), CNB239 G2, CNB239 G4, CNB241 G8, CNB242 G4 \(2\), CNB243 G2, CNB243 G1, CNB244 G1, CNB245 G6, CNB247 G6, CNB247 G8, CNB248 G1, CNB249 G2, CNB249 G4, CNB250 G1, CNB250 G3, CNB251 G1, CNB251 G4, CNB254 G1, CNB255 G2, CNB255 G4, CNB256 G1, CNB256 G2, CNB256 G3, CNB256 G5, CNB258 G1, CNB258 G4, CNB258 G6, CNB259 B1 \(2\), CNB259 G2, CNB259 G3 \(2\), CNB259 G4, CNB260 G1, CNB260 G3, CNB261 G1, CNB261 G2, CNB262 G4, CNB261 G5, CNB262 G2, CNB262 G7.](#) The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded.
- Scattered cracks and spalls on bottom flanges of prestressed girders. A few failed patches at older repair locations, including exposed strands near mid-span and exposed rebar at some bearings. Minor cracking on many of the piles and some spalling also noted on a few piles and a few longitudinal wide cracks noted with exposed prestressing strands in the top portion of the pile. [Spalls with exposed reinforcement/strands noted on the following piles in FY2025: CNB197-B, CNB199-B, CNB201-A, CNB201-B, CNB203-B, CNB204-C, CNB208-B, CNB209-A, CNB210-A, CNB210-B, CNB210-C, CNB212-A,](#)



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CNB217-A, CNB218-C, CNB219-A, CNB219-B, CNB222-C, CNB224-B, CNB229-B, CNB230-A, CNB231-B, CNB231-C, CNB232-C, CNB234-B, CNB235-B, CNB249-A, CNB251-A, CNB255-C, CNB259-C, CNB261-A, CNB261-B.

9. New spall repairs on bottom flange of girders in good condition with minor shrinkage cracks noted.
10. A few failed patches at older repair locations, including exposed strands near mid-span and exposed rebar at some bearings.
11. Minor to moderate splitting on appr. 13% of the elastomeric bearings.
12. Hairline diagonal web cracking on approximately 26% of concrete girder ends inspected.
13. Map cracking at the ends of many of the bent caps.
14. Scattered minor to moderate cracking and spalling on a few of the piles, some of which are recommended for repair. Spall in grout at pile joint with rust staining and minor cracking with rust staining on CNB267 Pile C.
15. **Per the 2023 Hydrographic survey bay bottom was below ASD at Bent CNB4 through CNB20, CNB61 through CNB94, and CNB278 thru CNB294 and CNB306 through CNB309 and near ASD at Bents CNB21 through CNB34, CNB60, CNB95 through CNB97 and CNB271 through CNB277; however, scour remediation was noted at all near or below ASD locations.**
16. **Condition State 3 (Poor) will be coded for all below and near ASD piles where a scour remediation has been completed and based on review of hydrographic survey includes 348 piles (roughly 35% of piles).**
17. Underwater pile repairs previously completed at large spalls exposing spirals and post tensioning strands were at Pile C of Bent CNB59 and Pile A of Bent CNB154 remain in good condition.

REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during past inspections).
3. No posting of the structure is required.

RECOMMENDATIONS:

1. Patch spalled grout at pile joint on CNB267 Pile C with epoxy.
2. Repair/replace dented railing on Span CNB149, CNB181, CNB185, CNB193, **CNB201, CNB204, CNB207, CNB216, CNB224, CNB233, CNB243 (25), CNB244, CNB245.**
3. Replace light pole at CNB108, CNB111, CNB120, CNB129, CNB153, CNB159, CNB162, CNB165, CNB186, CNB192, CNB195, CNB198, CNB222, **CNB234, CNB237, CNB243, CNB246, and CNB257, CNB258**
4. Repair piles that exhibit significant cracking or spalling.
5. **Continue periodic hydrographic surveys in interim between underwater inspections scheduled every 5 years**
6. **Continue to patch spalls on prestressed concrete girders, giving priority to girders exhibiting two or more exposed strands per location.**
7. **Repair spalls in underside of deck with priority to those exposing multiple layers of steel.**
8. **Repair spalls in curbs with exposed reinforcement.**
9. **Reinstall/Repair ground wire that are broken at railing connections or light pole connections at the following locations: CNB220 and CNB246.**

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



B-7 CNB

VDOT – BRIDGE INSPECTION REPORT

Page: 1 of 4

Structure-ID:	1009	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/16 9/18 & 9/19/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	35.23	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	X	6. Pin & Hanger	-
3. Scour Critical	X	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>1</u>	4. Approach Guardrail	<u>1</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [7]

1. Wearing Surface	<u>G</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Replacement of Asphalt Wearing Surface and Open Expansion Joint Header Material was completed in Spring 2020.
- b. Light poles at CNB108, CNB111, CNB120, CNB129, CNB153, CNB159, CNB162, CNB165, CNB186, CNB192, CNB195, CNB198, CNB222, **CNB234, CNB237, CNB243**, CNB246, and **CNB257, CNB258** exhibited cracking or spalling at the baseplate, and the light pole at CNB131 has a loose anchor nut.
- c. Damaged railing in Spans CNB149, CNB181, CNB185, CNB193, **CNB201, CNB204, CNB207, CNB216, CNB224, CNB231, CNB233, CNB243 (25), CNB244, CNB245.**
- d. **Scattered minor transverse cracking and spalling or failed repairs in curbs typical. Exposed reinforcement noted on curb at CNB227, CNB228.**
- e. **Ground wire broken at railing connections or light pole connections at the following locations: CNB220 and CNB246.**
- f. Damaged expansion joint plates in cable tray and misaligned cable tray plate at Bent CNB124.
- g. **Isolated spalls with exposed reinforcement on underside of deck / top flange in the following locations in FY2025: CNB199 (w. overhang/sidewalk), CNB199 G4, CNB200, CNB203 (w. overhang/sidewalk), CNB245 G7, CNB249 G4, CNB253 G1 (3), CNB260 G3, CNB262 G2, CNB263.**
- h. Minor cracking, some exhibiting efflorescence on the underside of the deck in scattered spans.



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59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Bearing Devices	<u>F</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>F</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>F</u>
C. Bracing	<u>N</u>	Year Painted	<u>N</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Minor to moderate splitting of 13% of bearings pads inspected
- b. Some cracks and spalls on bottom flanges of some prestressed girders
- c. Deterioration or failure of some existing patches on concrete girders
- d. **Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: CNB197 G4 (2), CNB198 G4 (2), CNB198 G1, CNB198 G4, CNB198 G5 (2), CNB198 B6, CNB199 G2 (2), CNB199 G4 (3), CNB199 G6 (2), CNB200 G4 (2), CNB201 G5 (2), CNB203 G2, CNB203 G3, CNB206 G1 (2), CNB206 G4, CNB206 G5 (2), CNB206 G6, CNB206 G8 (2), CNB207 G1, CNB207 G2 (2), CNB211 G2, CNB211 G1, CNB211 G4, CNB211 G5, CNB211 G8, CNB212 G4 (2), CNB213 G2, CNB213 G6, CNB214 G4, CNB214 G5, CNB215 G7, CNB216 G5, CNB216 G4, CNB216 G6, CNB216 G8, CNB217 G4, CNB217 G5, CNB219 G2, CNB221 G2, CNB222 G3, CNB223 G4, CNB223 G5, CNB224 G1, CNB224 G5, CNB224 G8, CNB227 G4, CNB227 G5, CNB227 G2 (4), CNB227 G2, CNB227 G4, CNB228 G2, CNB228 G4, CNB228 G8, CNB230 G4, CNB230 G5, CNB231 G1, CNB231 G4, CNB232 G8, CNB233 G4, CNB233 G5 (2), CNB234 G4, CNB234 G7, CNB234 G3, CNB235 G4, CNB236 G5, CNB237 G4, CNB237 G5, CNB237 G6, CNB238 G3, CNB239 G1 (2), CNB239 G2, CNB239 G4, CNB241 G8, CNB242 G4 (2), CNB243 G2, CNB243 G1, CNB244 G1, CNB245 G6, CNB247 G6, CNB247 G8, CNB248 G1, CNB249 G2, CNB249 G4, CNB250 G1, CNB250 G3, CNB251 G1, CNB251 G4, CNB254 G1, CNB255 G2, CNB255 G4, CNB256 G1, CNB256 G2, CNB256 G3, CNB256 G5, CNB258 G1, CNB258 G4, CNB258 G6, CNB259 B1 (2), CNB259 G2, CNB259 G3 (2), CNB259 G4, CNB260 G1, CNB260 G3, CNB261 G1, CNB261 G2, CNB262 G4, CNB261 G5, CNB262 G2, CNB262 G7.** The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded.
- e. Some spalls on bottom flanges of some prestressed girders, and some existing spall repairs on girders are failing or have failed. The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and degraded.
- f. New spall repairs on bottom flange of girders in good condition with minor shrinkage cracks noted.
- g. A few failed patches at older repair locations, including exposed strands near mid-span and exposed rebar at some bearings.
- h. Minor to moderate splitting on appr. 13% of the elastomeric bearings.
- i. Hairline diagonal web cracking on approximately 26% of concrete girder ends inspected.

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Abutments		2. Pier/Bent	
A. Wings	<u>N</u>	A. Caps	—
B. Backwall	<u>G</u>	B. Piles	—
C. Bearing Seats	<u>G</u>	C. Column, Stem, Wall	—
D. Breastwall	<u>N</u>	D. Piles	—
E. Weepholes	<u>N</u>	E. Bracing	—



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F. Footing	<u>G</u>	F. Erosion/Scour	–
G. Piles	*	G. Settlement	–
H. Erosion/Scour	<u>G</u>	3. Pile Bent	
I. Settlement	<u>G</u>	A. Caps	<u>E</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>E</u>
		D. Bracing	<u>N</u>

REMARKS:

- a. Condition rating controlled by scour, see 61 Channel: Channel Slope/Protection.
- b. Minor cracking on many of the piles and some spalling also noted on a few piles and a few longitudinal wide cracks noted with exposed prestressing strands in the top portion of the pile. **Spalls with exposed reinforcement/strands noted on the following piles in FY2025: CNB197-B, CNB199-B, CNB201-A, CNB201-B, CNB203-B, CNB204-C, CNB208-B, CNB209-A, CNB210-A, CNB210-B, CNB210-C, CNB212-A, CNB217-A, CNB218-C, CNB219-A, CNB219-B, CNB222-C, CNB224-B, CNB229-B, CNB230-A, CNB231-B, CNB231-C, CNB232-C, CNB234-B, CNB235-B, CNB249-A, CNB251-A, CNB255-C, CNB259-C, CNB261-A, CNB261-B.**
- c. Minor to moderate map cracking at ends of some bent cap beams.
- d. Scattered minor to moderate cracking and spalling on a few of the piles, some of which are recommended for repair. Spall in grout at pile joint with rust staining and minor cracking with rust staining on CNB267 Pile C.
- e. Large underwater spalls exposing spirals and post tensioning strands at Pile C of Bent CNB59 and Pile A of Bent CNB154, repaired in 2012 remain in Good condition.
- f. Bent CNB20 Pile B and Bent CNB46 Pile C retrofitted with Cathodic Protection jackets and remain in good condition.
- g. Defects noted during the Underwater Inspection include wide, narrow and hairline cracks, large spalls and moderate scaling. See Underwater Inspection Forms for additional details.

61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[7]

1. Channel Scour	<u>E</u>	5. Fender System	–
2. Embankment Erosion	–	6. Spur Dikes/Jetties	–
3. Drift	–	7. Rip Rap/Slope Protection	<u>G</u>
4. Vegetation	–	8. Adequacy of Opening	<u>E</u>

REMARKS:

- a. **Per the 2023 Hydrographic survey bay bottom was below ASD at Bent CNB4 through CNB20, CNB61 through CNB94, and CNB278 thru CNB294 and CNB306 through CNB309 and near ASD at Bents CNB21 through CNB34, CNB60, CNB95 through CNB97 and CNB271 through CNB277; however, scour remediation was noted at all near or below ASD locations.**
- b. **Condition State 3 (Poor) will be coded for all below and near ASD piles where a scour remediation has been completed and based on review of hydrographic survey includes 348 piles (roughly 35% of piles).**
- c. Scour remediation is present at approximately 50% of the pile bents.



B-7 CNB

VDOT – BRIDGE INSPECTION REPORT

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66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) – Single	<u>N</u>		
(R12 - 5) – Semi	<u>N</u>		

REMARKS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during past inspections, not present this year).
- c. No posting of the structure is required.



5.6 Trestle CSB SI&A Forms

B-6 CSB	VDOT – BRIDGE INSPECTION REPORT		Page: 1 of 2
Structure-ID:	1014	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/25/2024
Structure:	_____ (Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	35.28	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance.

REVISED DIMENSIONS: None

MISCELLANEOUS: No Encroachment Violations

CONDITION OF STRUCTURE: Good

1. Light poles at CSB55, 67, 73, 85, 99, & 101 exhibited cracking or spalling at the baseplate. Light poles at CSB85, 91, 93, & 103 have one anchor bolt that does not extend past the nut when the nut is fully engaged. The light pole at CSB93 has one bolt (same anchor bolt that does not extend past the nut) that is near the outer edge of the baseplate.
2. Portions of guardrail on Spans CSB26, **CSB64**, CSB75, **CSB79**, CSB82, **CSB87**, **CSB89**, **CSB90**, **CSB93**, **CSB96**, **CSB97** has minor impact damage on one section of railing.
3. **Scattered minor transverse cracking and spalling or failed repairs in curbs typical. Exposed reinforcement noted on curb at CSB47, CSB67, CSB71, CSB90, CSB92, CSB94, CSB97**
4. **Exposed reinforcement chairs located on cap faces, underside of girder (typically near ends) and underside of deck throughout spans.**
5. **Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x 1/2" deep with rust stain.**
6. **Beam ends – delamination/spalls on end corners of beams (some repaired during construction). Typical spalls measure up to 3" L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4).**
7. **Closure pours at beam ends on continuous spans have isolated spalls up to full height x full length x full depth with exposed reinforcement.**
8. **Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: CSB94 G5, CSB94 G3, CSB94 G4, CSB91 G4, CSB90 G1, CSB84 G3, CSB84 G4, CSB82 G5, CSB81 G3, CSB79 G6, CSB77 G3, CSB76 G1, CSB48 G1, CSB46 G4.** The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and deteriorated.
9. Minor hairline cracking and minor map cracking on some of the above-water portions of piles and bent caps. Some minor spalls on a few piles.
10. Minor spalling with no exposed reinforcement (except at span 187), and minor cracking and efflorescence at scattered locations in underside of deck.
11. Large spalling or locations with exposed reinforcement or exposed strands at girder ends or in the lower portion of the continuity closure pours at 126 locations.
12. Minor horizontal cracking, some with efflorescence, in intermediate concrete girder diaphragms.
13. **Per the 2023 Hydrographic survey bay bottom was below ASD at Bent CSB2, CSB6, CSB7, CBS63 through CSB71 and near ASD at Bents CSB5, CSB8 through CSB12, and CSB228 through CSB235. No scour remediation is noted on this trestle.**
14. **Condition State 4 (Severe) will be coded for all below ASD piles which includes approx. 36 piles and Condition State 3 (Poor) will be coded for all near ASD piles which includes approx. 39 piles.**



B-6 CSB

VDOT – BRIDGE INSPECTION REPORT


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REVISED STRESS ANALYSIS:

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by the simple span steel structures at Span CSB1.
- c. No posting of the structure is required.

RECOMMENDATIONS:

1. Continue periodic hydrographic surveys in interim between underwater inspections.
2. **Install scour remediation at Bents CSB2, CSB6, CSB7, CBS63 through CSB71 due to hydrographic survey identifying these locations as below the Allowable Scour Depth.**
3. Replace top protective coating on steel girders at locations where coating has bubbled and exhibits freckled rust.
4. Monitor light poles exhibit cracking or delamination/spalling near the baseplate and replace if vertically oriented steel reinforcement becomes exposed and degraded.
5. Replace corroded and missing conduit brackets on bent cap faces with stainless steel.
6. Repair bent or damaged railing as required.
7. Repair curb with exposed reinforcement or failed repairs.
8. Repair detached conduit at CSB25 north face and replace broken conduit near light pole at CSB57.
9. **Continue to patch spalls on prestressed concrete girders, giving priority to girders exhibiting two or more exposed strands per location.**



SIGNATURE OF INSPECTOR



SIGNATURE OF REVIEWER



B-7 CSB

VDOT – BRIDGE INSPECTION REPORT

Structure-ID:	1014	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/25/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	35.28	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	X	6. Pin & Hanger	-
3. Scour Critical	X	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>1</u>	4. Approach Guardrail	<u>1</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [8]

1. Wearing Surface	<u>G</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>F</u>

REMARKS:

- a. Replacement of Asphalt Wearing Surface, Open Expansion Joint Header Material was completed in Fall 2019
- b. Light poles at CSB55, 67, 73, 85, 99, & 101 exhibited cracking or spalling at the baseplate. Light poles at CSB85, 91, 93, & 103 have one anchor bolt that does not extend past the nut when the nut is fully engaged. The light pole at CSB93 has one bolt (same anchor bolt that does not extend past the nut) that is near the outer edge of the baseplate.
- c. Portions of guardrail on Spans CSB26, CSB64, CSB75, CSB79, CSB82, CSB87, CSB89, CSB90, CSB93, CSB96, CSB97 has minor impact damage on one section of railing.
- d. Scattered minor transverse cracking and spalling or failed repairs in curbs typical. Exposed reinforcement noted on curb at CSB47, CSB67, CSB71, CSB90, CSB92, CSB94, CSB97.
- e. Exposed reinforcement chairs located on underside of deck throughout spans.



- f. Adjust bridge railing baseplate on underside of deck on Spans CSB 98 near midspan on the East side and 170 near midspan on the West side such that both bolts are connected instead of only one as is the current condition.

59 SUPERSTRUCTURE

GENERAL CONDITION RATING [7]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>G</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>N</u>
C. Bracing	<u>N</u>	Year Painted	<u>N</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Minor girder spalling with exposed reinforcement at 81 locations, 75 locations are at girder ends or in the lower portion of the continuity closure pours.
- b. Minor spalling with no exposed reinforcement (except at span 187), and minor cracking and efflorescence at scattered locations in underside of deck.
- c. Exposed reinforcement chairs located on underside of girder (typically near ends) throughout spans.
- d. Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x 1/2" deep with rust stain.
- e. Beam ends – delamination/spalls on end corners of beams (some repaired during construction). Typical spalls measure up to 3" L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4).
- f. Closure pours at beam ends on continuous spans have isolated spalls up to full height x full length x full depth with exposed reinforcement.
- g. Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: CSB94 G5, CSB94 G3, CSB94 G4, CSB91 G4, CSB90 G1, CSB84 G3, CSB84 G4, CSB82 G5, CSB81 G3, CSB79 G6, CSB77 G3, CSB76 G1, CSB48 G1, CSB46 G4. The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and deteriorated.
- h. Minor cracking and spalling in concrete girder diaphragms.
- i. Freckled rust and coating failure typical at the flanges and connections from near mid-span to Portal Island #4 due to being in the splash zone of breaking waves.

60 SUBSTRUCTURE

GENERAL CONDITION RATING [7]

1. Abutments		2. Pier/Bent	
A. Wings	<u>G</u>	A. Caps	-
B. Backwall	<u>G</u>	B. Piles	-
C. Bearing Seats	<u>G</u>	C. Column, Stem, Wall	-
D. Breastwall	<u>N</u>	D. Piles	-
E. Weepholes	<u>N</u>	E. Bracing	-
F. Footing	<u>G</u>	F. Erosion/Scour	-
G. Piles	*	G. Settlement	-
H. Erosion/Scour	<u>G</u>	3. Pile Bent	
I. Settlement	<u>G</u>	A. Caps	<u>G</u>



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VDOT – BRIDGE INSPECTION REPORT

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***Not Visible**

C. Piles

G

B. Bearing Seats

G

D. Bracing

N

REMARKS:

- a. Underwater Inspection performed 6/2022 – 8/2022. See FY2023 Underwater Inspection Forms for location of underwater defects and Element Level Inspection Forms for condition ratings of substructure units
- b. Minor hairline cracking and minor map cracking on some of the above-water portions of piles and bent caps, a few piles with minor efflorescence
- c. Minor shallow spalls noted on a few piles, some with exposed reinforcement.

61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[7]

1. Channel Scour

F

5. Fender System

-

2. Embankment

-

6. Spur Dikes/Jetties

-

Erosion

7. Rip Rap/Slope

G

3. Drift

-

Protection

4. Vegetation

-

8. Adequacy of

F

Opening

REMARKS:

- 1. Per the 2023 Hydrographic survey bay bottom was below ASD at Bent CSB2, CSB6, CSB7, CBS63 through CSB71 and near ASD at Bents CSB5, CSB8 through CSB12, and CSB228 through CSB235. No scour remediation is noted on this trestle.
- 2. Condition State 4 (Severe) will be coded for all below ASD piles which includes approx. 36 piles and Condition State 3 (Poor) will be coded for all near ASD piles which includes approx. 39 piles.

66 POSTED LOADING

1. Posted Loading -

(R12 - 1)

N

2. Legibility

N

(R12 - 5) – Single

N

3. Visibility

N

(R12 - 5) – Semi

N

REMARKS

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by the simple span steel structures at Span CSB1.
- c. No posting of the structure is required.



B-6 NCB-NB

VDOT - BRIDGE INSPECTION REPORT

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10. Monitor minor rust inside scattered upper and lower chord truss joints.
11. Seal minor cracks in all pier tops extending from bearing grout pads.
12. Monitor stringer-to-floor beam connection for pack rust development and corrosion of connection hardware.
13. Seal cracks in splash zone at Piers 1, 2, 3, 7, 8, 11, 12, 13 and 14.
14. Repair paint system at scattered location where overcoat is peeling.
15. Repair areas of section loss on truss diagonals and verticals.

N/A

SIGNATURE OF INSPECTOR

***Inspection was not performed in 2024 – notes provided within the B-6 and B-7 forms were provided by previous consultant and placed in this document for informational purposes only.**

SIGNATURE OF REVIEWER



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VDOT - BRIDGE INSPECTION REPORT

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Structure-ID:	1006	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/18-9/22/23, 9/25/23
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	34.51	Location:	Over Chesapeake Bay
Lead Inspector:	Todd Eckhart	Additional Inspector(s):	Amit Thakkar

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	<u>X</u>	5. Segmental	-
2. Underwater	-	6. Pin & Hanger	-
3. Scour Critical	<u>X</u>	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>N</u>	4. Approach Guardrail	<u>N</u>

REMARKS:

58 DECK

GENERAL CONDITION RATING

[8]

1. Wearing Surface	<u>N</u>	6. Railing	<u>G</u>
2. Deck - Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Deck replaced in 1998 as part of the Parallel Crossing Project
- b. Scattered transverse hairline cracks, which require sealing
- c. 2005 repair adjacent to joint at Panel Point 3 in Span 9 remains sound
- d. Replace loose guardrail nut at Span 3 Floor beam 10 east side



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VDOT - BRIDGE INSPECTION REPORT

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59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	<u>G</u>	A. General	<u>F</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>G</u>
A. General	<u>F</u>	C. Bracing	<u>G</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>G</u>
C. Bracing	<u>F</u>	Year Painted	<u>2013</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Steel bridge components received overcoat painting in 2012/2013
- b. Newer repaired lateral bracing hanger connections in good condition, a few others with scattered rust
- c. Pack rust and crevice corrosion mostly sealed between multiple cover plates at isolated areas along top and bottom girder flanges and at corners of lower chord in Span 9, but some bleed-thru emerging
- d. Deteriorated bolts and rivets replaced, some scattered rust on those not replaced
- e. Existing web cracks in floor beams over girders
- f. Minor isolated rust in scattered upper and lower truss joints
- g. Isolated areas of scattered minor rust on various members
- h. Section loss at some floor beam stiffeners over the longitudinal girders. Ongoing repairs to floor beam stiffeners as of FY2024 inspection.
- i. Scattered section loss on floor beam, stringer seats and associated details at L3 and L3' in truss span. Previous repairs are in good condition.
- j. Isolated section loss on truss diagonals and verticals.

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Abutments		2. Pier/Bent	
A. Wings	<u>N</u>	A. Caps	<u>G</u>
B. Backwall	<u>N</u>	B. Piles	<u>-</u>
C. Bearing Seats	<u>N</u>	C. Column, Stem, Wall	<u>G</u>
D. Breastwall	<u>N</u>	D. Piles	<u>*</u>
E. Weepholes	<u>N</u>	E. Bracing	<u>G</u>
F. Footing	<u>N</u>	F. Erosion/Scour	<u>F</u>
G. Piles	<u>N</u>	G. Settlement	<u>G</u>
H. Erosion/Scour	<u>N</u>	3. Pile Bent	
I. Settlement	<u>N</u>	A. Caps	<u>N</u>

*Not Visible

B. Bearing Seats	<u>N</u>
C. Piles	<u>N</u>
D. Bracing	<u>N</u>

REMARKS:

- a. Miscellaneous minor spalls and cracks in the piers
- b. Seal cracks in splash zones at Piers 1, 2, 3, 7, 8, 11, 12, 13 and 14. with carbon fiber sheets
- c. Repair cracks in tops of pier columns
- d. For the underwater portions of the piers, see the 2021 Underwater Inspection Report



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VDOT - BRIDGE INSPECTION REPORT

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61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[8]

1. Channel Scour	<u>G</u>	5. Fender System	<u>F</u>
2. Embankment	-	6. Spur Dikes/Jetties	-
Erosion	-	7. Rip Rap/Slope	<u>G</u>
3. Drift	-	Protection	
4. Vegetation	-	8. Adequacy of	<u>F</u>
		Opening	

REMARKS:

- a. Scouring of the bay bottom appears stable based on the latest hydrographic survey information provided by the District (Fall 2022) and 2021 Underwater Inspection
- b. Bay bottom at each pier is typically protected by a riprap blanket
- c. Fender systems at Piers 9 and 10 replaced in 2013 and in good condition

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) - Single	<u>N</u>		
(R12 - 5) - Semi	<u>N</u>		

REMARKS

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by Unit NCBA1 - 4-Span Steel Approach Girders, NCBA2 - Steel Floorbeams (on Approach), and NCBT4 - Truss Gusset Plates.
- c. No posting of the structure is required.



5.8 NCB-SB SI&A Forms

B-6 NCB-SB	VDOT – BRIDGE INSPECTION REPORT		Page: 1 of 2
Structure-ID:	1015	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/20/2024 & 9/21/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	34.69	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance. Replacement of Steel Sliding Plate Expansion Joints with Steel Tooth Expansion Joints completed in Fall 2020. Damaged Pier 9 Fender System repairs completed in July 2021.

REVISED DIMENSIONS: None

MISCELLANEOUS: No Encroachment Violations

CONDITION OF STRUCTURE: Generally Good

1. Steel Tooth Expansion Joint at Pier 1 opening was off by about 1/4" from the east side (2 1/2") to the west side (2 1/4"). The weather was cloudy at the time of measurement with an ambient air temperature around 70°F. The opening dimension for these conditions should have been 2 1/16" according to construction documents.
2. Steel Tooth Expansion Joint at Pier 15 opening was off by about 1/4" from the east side (2 13/16") to the west side (1 7/8"). The weather was cloudy at the time of measurement (9/14/2020 at 1:12pm) with an ambient air temperature around 77°F with the steel girders and concrete girders measuring at 79°F and 80°F, respectively. The opening dimension for these conditions should have been 2 1/16" according to construction documents.
3. **Bearing pins not fully seated at the following locations: NCB-SB1 G1 & G2, NCB-SB4 G1, NCB-SB G4, NCB-SB G1-G3.**
4. Rust around perimeter of some bearing base plates.
5. Isolated minor rust spots on cross frames, diaphragms, and lower lateral bracing members.
6. Minor **to moderate** rust on scattered nuts and bolts of longitudinal girder splices and of cross frame, diaphragm and lower lateral bracing connections **with pack rust located between connections. Isolated nuts have heavy rust with up to 1/8" section loss and/or flowering.**
7. Scattered minor rust on ladder systems at Piers NCB-SB9 and NCB-SB10. **Surface rust and rust scale with up to 1/16" section loss to anchor bolts at isolated locations throughout catwalk in Pier 10 and up to 90% section loss to anchor bolt at level 4 ladder.**
8. Minor cracking on some of the pier caps. Repairs to pile cap (footing) completed in fall of 2015 to NCB-SB9 appear satisfactory with minor cracking of the repair material.
9. Minor transverse cracks scattered in concrete deck, mostly hairline, but some noted **up to 1/16" wide.**
10. Failing patch in bridge deck surface in Span NCB-SB8.
11. **Minor scale noted on top of deck and curb throughout.**
12. **Minor rust on steel fender with section loss noted of up to 1/16" loss on panel chairs and anchorage.**
13. 2023 Hydrographic Survey and the 2019 Underwater Inspection indicates bay bottom was below ASD at Pier NCB-SB13. Bay bottom is stable due to scour blanket in place as indicated in the 2009, 2014, and 2019 Underwater Inspections.
14. No significant defects noted on the underwater portions of the piles in the FY2020 Underwater Inspection Forms.



B-6 NCB-SB

VDOT – BRIDGE INSPECTION REPORT

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REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. No posting of the structure is required.

RECOMMENDATIONS:

1. Monitor Steel Tooth Expansion Joints on extremely cold days when temperatures are expected to remain near or below 25°F for several hours to observe if decreased tooth (finger) overlap has created an unsafe condition for the travelling public or snowplow equipment. At 25°F the tooth overlap is anticipated to be below the 1.5" requirement specified in the AASHTO LRFD Bridge Design Specifications.
2. **Clean and recoat steel girders, cross frames and diaphragms** at locations of **pack rust**, where zinc primer is exposed, or coating has bubbled and exhibits freckled rust.
3. **Replace anchor bolts throughout catwalk and ladder system as required with hardware exhibiting over 50% section loss. Clean and recoat ladder and catwalk.**
4. **Update the 2023 Hydrographic Survey to indicate scour remediation (scour blanket) has been installed at below ASD Pier NCB-SB13 and verify if same remediation has been installed around near ASD piers.**

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



B-7 NCB-SB

VDOT – BRIDGE INSPECTION REPORT

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Structure-ID:	1015	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	9/20/24 & 9/21/24
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	34.69	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	<u>X</u>	6. Pin & Hanger	-
3. Scour Critical	<u>X</u>	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>N</u>	4. Approach Guardrail	<u>N</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [7]

1. Wearing Surface	<u>N</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Monitor Steel Tooth Expansion Joints on extremely cold days (temperatures approaching 25°F) to observe if decreased tooth (finger) overlap has created an unsafe condition for the travelling public or snowplow equipment. At 25°F the tooth overlap is anticipated to be below the 1.5” requirement specified in the AASHTO LRFD Bridge Design Specifications.
- b. Minor transverse hairline cracks in deck surface, with a few cracks up to 1/8”.
- c. **Minor scale noted on top of deck and curb throughout.**
- d. Curb and railing are generally in good condition
- e. Minor failing patch in deck surface of NCB-SB8



B-7 NCB-SB

VDOT – BRIDGE INSPECTION REPORT

59 SUPERSTRUCTURE

GENERAL CONDITION RATING [7]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	-	A. General	-
3. Girders, Beams, or Slab Spans		B. Portals	-
A. General	<u>F</u>	C. Bracing	-
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>G</u>
C. Bracing	<u>G</u>	Year Painted	<u>2014</u>
		6. Machinery (Moveable Span)	-

REMARKS:

- a. **Bearing pins not fully seated at the following locations: NCB-SB1 G1 & G2, NCB-SB4 G1, NCB-SB G4, NCB-SB G1-G3.**
- b. Rust around perimeter of some bearing base plates.
- c. Isolated minor rust spots on cross frames, diaphragms, and lower lateral bracing members **with pack rust located with members up to 1/4" thick.**
- d. Minor **to moderate** rust on scattered nuts and bolts of longitudinal girder splices and of cross frame, diaphragm and lower lateral bracing connections **with pack rust located between connections. Isolated nuts have heavy rust with up to 1/4" section loss and/or flowering.**
- e. **NCB-SB1 G1, Bay 1: left bracket at G1, exterior side, 2" tear distorted 1" high.**
- f. **NCB-SB9 G2, Beam end distorted 1/2" along centerline to cross brace.**
- g. Lubricate bearings as required
- h. Replace top protective coating on steel girders at locations where zinc primer is exposed, or coating has bubbled and exhibits freckled rust
- i. Span 4 Bay 2 Cross Frame 4 Intermediate Cross frame Lower Member Distorted with surface rust, no action required

60 SUBSTRUCTURE

GENERAL CONDITION RATING [7]

1. Abutments		2. Pier/Bent	
A. Wings	<u>N</u>	A. Caps	<u>G</u>
B. Backwall	<u>N</u>	B. Piles	-
C. Bearing Seats	<u>N</u>	C. Column, Stem, Wall	<u>G</u>
D. Breastwall	<u>N</u>	D. Piles	-
E. Weepholes	<u>N</u>	E. Bracing	-
F. Footing	<u>N</u>	F. Erosion/Scour	<u>F</u>
G. Piles	<u>N</u>	G. Settlement	-
H. Erosion/Scour	<u>N</u>	3. Pile Bent	
I. Settlement	<u>N</u>	A. Caps	-
*Not Visible		B. Bearing Seats	-
		C. Piles	-
		D. Bracing	-

REMARKS:

- a. Minor cracks in some columns and pier caps.
- b. **Minor spalls on pier cap / bearing seats at isolated locations.**
- c. Minor cracks in the backwall of pier caps at NCB-SB8 and NCB-SB11



- d. The 2019 Underwater Inspection revealed minor structural defects.
- e. Scattered minor rust on ladder systems at Piers NCB-SB9 and NCB-SB10. **Surface rust and rust scale with up to 1/16" section loss to anchor bolts at isolated locations throughout catwalk in Pier 10 and up to 90% section loss to anchor bolt at level 4 ladder.**

61 CHANNEL: CHANNEL/SLOPE PROTECTION		GENERAL CONDITION RATING		[7]
1. Channel Scour	<u>F</u>	5. Fender System	<u>G</u>	
2. Embankment Erosion	-	6. Spur Dikes/Jetties	-	
3. Drift	-	7. Rip Rap/Slope Protection	-	
4. Vegetation	-	8. Adequacy of Opening	<u>F</u>	

REMARKS:

- a. 2023 Hydrographic Survey indicates bay bottom was below **ASD at Pier NCB-SB13 and near ASD at Pier NCB-SB10 and NCB-SB11**. Bay bottom is stable due to scour blanket in place as indicated in the 2009, 2014, and 2019 Underwater Inspections, and based on current Hydro Survey data provided.
- b. **Condition State 3 (Poor) will be coded for all below ASD piles where a scour remediation has been completed and for all near ASD piles.**
- c. **Fender System - Minor rust on steel fender with section loss noted of up to 1/16" loss on panel chairs and anchorage. Southwest panel chains broken/not connected at 3 locations.**

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) - Single	<u>N</u>		
(R12 - 5) - Semi	<u>N</u>		

REMARKS

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. No posting of the structure is required.



5.9 Trestle DNB SI&A Forms

B-6 DNB	VDOT – BRIDGE INSPECTION REPORT		Page: 1 of 2
Structure-ID:	1008	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	11/26/2024
Structure:	_____ (Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	34.25	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance. Underwater Inspection performed 8/3/21.

REVISED DIMENSIONS: None

MISCELLANEOUS: No Encroachment Violations

CONDITION OF STRUCTURE: Generally Good

1. The 2021 Underwater Inspection Report revealed only light to moderate scaling and no other apparent defects.
2. Bridge rail has impact damage in the following spans: DNB5 (1LF), DNB7 (6LF) with torn guide hole for rail, DNB14 (1LF).
3. Isolated spalls on curb facing up to 2' long x full height x up to 1" deep. Isolated vertical cracks on curb face up to 1/16" wide.
4. Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: DNB2 G5, DNB4 G2, DNB5 G3, DNB7 G5, DNB7 G4, DNB8 G1 and DNB12 G3. The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and deteriorated
5. Some spalls on bottom flanges of some prestressed girders and some deteriorating patches.
6. Girder spall repairs with new method are in good condition.
7. Hairline diagonal web cracking on the concrete girders noted at scattered locations.
8. Minor to moderate defects on several of the elastomeric bearings.
9. Minor cracking on many of the piles and some spalling also noted on a few piles and a few longitudinal wide cracks noted with exposed prestressing strands in the top portion of the pile. Spalls with exposed reinforcement/strands noted on the following piles in FY2025: DNB4-C, DNB6-B, DNB7-C and DNB8-C.
10. Rocker bearings in different degree of expansion/contraction (typical), bearings have corrosion on up to 30% of the surface area and up to 5% section loss
11. West wingwall undermined up to 1' wide x 6" high x up to 4' under wingwall.
12. Roadway striping replaced in 2018.
13. Bay bottom depths noted in the 2021 Underwater Inspection Report are well above the acceptable scour depth.

REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during inspection).
3. No posting of the structure is required.

RECOMMENDATIONS:

1. Continue to patch spalls on prestressed concrete girders, giving priority to girders exhibiting two or more exposed strands per location.
2. Patch spalls on cylinder piles.



B-6 DNB

VDOT – BRIDGE INSPECTION REPORT

Page: 2 of 2

3. Fill in undermining of west wingwall.
4. Future inspections and hydrographic surveys should be monitored for active scouring.
5. Clean and paint steel superstructure adjacent to NCB-N.

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



B-7 DNB

VDOT – BRIDGE INSPECTION REPORT

Page: 1 of 3

Structure-ID:	1008	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	11/26/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	34.25	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	X	6. Pin & Hanger	-
3. Scour Critical	X	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>1</u>	4. Approach Guardrail	<u>1</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [7]

1. Wearing Surface	<u>G</u>	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	<u>G</u>
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- a. Hairline cracks with efflorescence in the deck overhangs of several spans inspected.
- b. Isolated spalls on underside of deck, exposed chairs also noted throughout on underside of deck.
- c. Widespread map cracking (hairline to narrow) of concrete deck surface in variety of spans.
- d. Bridge rail has impact damage in the following spans: DNB5 (1LF), DNB7 (6LF) with torn guide hole for rail, DNB14 (1LF).
- e. Isolated spalls on curb facing up to 2’ long x full height x up to 1” deep. Isolated vertical cracks on curb face up to 1/16” wide.
- f. Portions of railing in Spans 9, 10 and 17 have been replaced in the past.



B-7 DNB

VDOT – BRIDGE INSPECTION REPORT

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59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Bearing Devices	<u>F</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>F</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>N</u>
C. Bracing	<u>N</u>	Year Painted	<u>N</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Minor splitting of isolated bearing pads and bulging of bearing pad at DNB1 G1 greater than 15% of the bearing thickness.
- b. Some cracks and spalls on bottom flanges of some prestressed girders and some deteriorating patches.
- c. Hairline diagonal web cracking on the concrete girders noted at scattered locations.
- d. **Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: DNB2 G5, DNB4 G2, DNB5 G3, DNB7 G5, DNB7 G4, DNB8 G1 and DNB12 G3.** The District is continuously performing girder repairs as weather conditions allow. Worse conditions observed do not exhibit more than one prestressing strand being exposed and deteriorated.
- e. **Rocker bearings in different degree of expansion/contraction (typical), bearings have corrosion on up to 30% of the surface area and up to 5% section loss.**

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Abutments		2. Pier/Bent	
A. Wings	<u>G</u>	A. Caps	-
B. Backwall	<u>G</u>	B. Piles	-
C. Bearing Seats	<u>G</u>	C. Column, Stem, Wall	-
D. Breastwall	<u>N</u>	D. Piles	-
E. Weepholes	<u>N</u>	E. Bracing	-
F. Footing	<u>G</u>	F. Erosion/Scour	-
G. Piles	*	G. Settlement	-
H. Erosion/Scour	<u>G</u>	3. Pile Bent	
I. Settlement	<u>G</u>	A. Caps	<u>G</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>F</u>
		D. Bracing	<u>N</u>

REMARKS:

- a. The 2021 Underwater Inspection revealed only some light to moderate scaling and a shallow failed repair and spall
- b. Minor cracking on many of the piles and some spalling also noted on a few piles and a few longitudinal wide cracks noted with exposed prestressing strands in the top portion of the pile. **Spalls with exposed reinforcement/strands noted on the following piles in FY2025: DNB4-C, DNB6-B, DNB7-C and DNB8-C.**
- c. **West wingwall undermined up to 1' wide x 6" high x up to 4' under wingwall.**
- d. **Cracking noted over 1/8" wide on piles includes: DNB3-A, DNB6-B.**



B-7 DNB

VDOT – BRIDGE INSPECTION REPORT

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61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[8]

1. Channel Scour	<u>G</u>	5. Fender System	-
2. Embankment	-	6. Spur Dikes/Jetties	-
Erosion	-	7. Rip Rap/Slope	<u>G</u>
3. Drift	-	Protection	
4. Vegetation	-	8. Adequacy of	<u>E</u>
		Opening	

REMARKS:

- a. Bay bottom depths noted in the 2021 Underwater Inspection Report are well above the acceptable scour depth.

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) – Single	<u>N</u>		
(R12 - 5) – Semi	<u>N</u>		

REMARKS

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. Structure load rating controlled by modular superstructure units with reduced capacity from having two-prestressing strands removed due to corrosion (worst-case observed during past inspections, not present this year).
- c. No posting of the structure is required.



5.10 Trestle DSB SI&A Forms

B-6 DSB	VDOT – BRIDGE INSPECTION REPORT		Page: 1 of 1
Structure-ID:	1016	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	12/3/2024
Structure:	_____ (Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	34.29	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers

WORK DONE: Routine Maintenance and Roadway Striping Replaced in Spring 2020.

REVISED DIMENSIONS: None

MISCELLANEOUS: No Encroachment Violations

CONDITION OF STRUCTURE: Generally Good

1. Scour remediation was performed at Bent DSB1 in 2002.
2. Minor hairline cracks in many piles above water/land and some bent caps.
3. **Isolated spalls on underside of deck, exposed chairs also noted throughout on underside of deck.**
4. Widespread map cracking (hairline to narrow) of concrete deck surface in Spans DSB2, DSB3, DSB,5, DSB13, DSB14, DSB17, and DSB18.
5. **Asphalt breaking up in top of backwall in L1.**
6. **Bridge rail has impact damage in the following spans: DSB6 (12LF), DSB21 (1LF).**
7. **Isolated spalls on curb facing up to 6" long x full height x up to 2" deep**
8. **East railing in Span 20 and 21 have been replaced in the past.**
9. The 2024 Underwater Inspection revealed only a few hairline cracks and a few minor shallow spalls on some of the piles. **No major changes since the previous underwater inspection.**

REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. No posting of the structure is required.

RECOMMENDATIONS:

1. Continue periodic hydrographic surveys in interim between underwater inspections scheduled every 5 years.
2. **Update the 2023 Hydrographic to indicate Bent DSB1 scour remediation completed in 2002.**

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



B-7 DSB

VDOT – BRIDGE INSPECTION REPORT

Page: 1 of 3

Structure-ID:	1016	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	12/3/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	34.29	Location:	Over Chesapeake Bay
Lead Inspector:	Shannon Turner, PE	Additional Inspector(s):	Ethan Stivers

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	<u>X</u>	6. Pin & Hanger	-
3. Scour Critical	<u>X</u>	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	<u>1</u>	3. Approach	<u>1</u>
2. Transition	<u>1</u>	4. Approach Guardrail	<u>1</u>

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [7]

1. Wearing Surface	-	6. Railing	<u>G</u>
2. Deck – Structural	<u>G</u>	7. Drains	<u>N</u>
3. Curbs	<u>G</u>	8. Lighting	-
4. Median	<u>N</u>	9. Utilities	<u>G</u>
5. Sidewalks	<u>N</u>	10. Expansion Joints or Devices	<u>G</u>

REMARKS:

- g. Hairline cracks with efflorescence in the deck overhangs of several spans inspected.
- h. Isolated spalls on underside of deck, exposed chairs also noted throughout on underside of deck.
- i. Widespread map cracking (hairline to narrow) of concrete deck surface in Spans DSB2, DSB3, DSB5, DSB13, DSB14, DSB17, and DSB18.
- j. Asphalt breaking up in top of backwall in left lane near asphalt approach.
- k. Bridge rail has impact damage in the following spans: DSB6 (12LF), DSB21 (1LF).
- l. Isolated spalls on curb facing up to 6” long x full height x up to 2” deep.
- m. East railing in Span 20 and 21 have been replaced in the past.



B-7 DSB

VDOT – BRIDGE INSPECTION REPORT

Page: 2 of 3

59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[8]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>G</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>N</u>
C. Bracing	<u>N</u>	Year Painted	–
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Minor cracking and spalling at scattered closure pour diaphragms with exposed reinforcement/prestressing with little to no relevant section loss.
- b. **Isolated spalls with exposed reinforcement on beam ends. Spalls up to 6" high x 6" long x up to 4" deep.**
- c. Spans 1 thru 19 inspected from Snooper vehicle

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Abutments		2. Pier/Bent	
A. Wings	–	A. Caps	–
B. Backwall	–	B. Piles	–
C. Bearing Seats	–	C. Column, Stem, Wall	–
D. Breastwall	<u>N</u>	D. Piles	–
E. Weepholes	<u>N</u>	E. Bracing	–
F. Footing	–	F. Erosion/Scour	<u>F</u>
G. Piles	*	G. Settlement	–
H. Erosion/Scour	–	3. Pile Bent	
I. Settlement	–	A. Caps	<u>G</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>G</u>
		D. Bracing	<u>N</u>

REMARKS:

- a. The 2024 Underwater Inspection revealed only a few hairline cracks and a few minor shallow spalls on some of the piles. **No major changes since the previous underwater inspection.**
- b. Minor hairline cracks in most piles above water or above ground line adjacent to pile section joints. Crack with rust staining observed above water on Bent 7 Pile B.
- c. Minor hairline cracks on a few bent caps.



B-7 DSB

VDOT – BRIDGE INSPECTION REPORT

Page: 3 of 3

61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[7]

1. Channel Scour	<u>E</u>	5. Fender System	-
2. Embankment	-	6. Spur Dikes/Jetties	-
Erosion	-	7. Rip Rap/Slope	<u>G</u>
3. Drift	-	Protection	
4. Vegetation	-	8. Adequacy of	<u>E</u>
		Opening	

REMARKS:

- a. Scour remediation was performed at Bent DSB1 in 2002.
- b. 2023 Hydrographic Survey indicates bay bottom was below ASD at DSB1 and near ASD at DSB-2 and DSB-3. It is noted above that Bent DSB1 has scour remediation completed in 2002; however, the remediation is not noted on the ASD survey limits.
- c. Bay bottom is relatively stable as indicated in the 2004, 2009, 2014, and the 2019 Underwater Inspections.

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) – Single	<u>N</u>		
(R12 - 5) – Semi	<u>N</u>		

REMARKS

- a. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- b. No posting of the structure is required.



5.11 Trestle ENB, FIB-NB, & FNB SI&A Forms

B-6 ENB, FIB-NB, & FNB **VDOT – BRIDGE INSPECTION REPORT** **Page: 1 of 2**

Structure-ID:	1017	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	11/25/2024 & 11/26/2024
Structure:	_____ (Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	32.32	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

WORK DONE: Routine Maintenance.

REVISED DIMENSIONS: None

MISCELLANEOUS: No Encroachment Violations

CONDITION OF STRUCTURE: Good

1. Minor hairline cracking on many of the piles above water or land.
2. Steel Tooth Expansion Joint at FIB-NB Pier 4 opening was off by about 1/2" from the east side (1 3/4") to the west side (1 1/4"). The weather was cloudy at the time of measurement (9/10/2020 at 2:11pm) with an ambient air temperature around 80°F with both the steel girders and concrete girders measuring at 80°F. The opening dimension for these conditions should have been 1 15/16" according to construction documents.
3. **Exposed reinforcement chairs located on underside of girder (typically near ends) throughout spans.**
4. **Isolated spalls some with exposed reinforcement on underside of deck up to 2" deep.**
5. **Beam ends – delamination/spalls on end corners / back face of beams (some repaired during construction). Typical spalls measure up to 3" L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4).**
6. **Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x 1" deep with rust stain.**
7. No apparent change in spiral cracking on piles at Bents ENB7 and ENB9 (caused during construction).
8. Rip rap encompassing Bent FNB4 remains well placed and stable.
9. Minor spalls noted in the girders and at the diaphragm closure pours at scattered locations in the trestle spans **some with exposed reinforcement and some with section loss to exposed reinforcement.**
10. Isolated surface spalls in Span ENB1.
11. Scattered minor transverse cracks in concrete portions of FIB bridge deck.
12. Isolated minor rust spots and peeled off topcoat with exposed zinc primer on FIB girders, cross frames and bracing.
13. Minor rust continues to develop on nuts and bolts of FIB girder splices and at cross frames and lower lateral bracing connections.
14. Moderate rust around perimeter of FIB rocker bearing base plates and isolated rust spots on some pins and anchor bolts.
15. The 2024 Underwater Inspection revealed only a few hairline cracks and a few minor shallow spalls on some of the piles.
16. North Fender system was repaired in Fall 2018 after damage that was caused around May 27, 2018.
17. **Portions of the top wale and lower wale are missing in fender system in FIBSB / FIBNB navigation channel.**

REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. Structure load rating controlled by the interior girders of FIB-NB.
3. No posting of the structure is required.



RECOMMENDATIONS:

1. Monitor the Steel Tooth Expansion Joint opening on extremely hot days (temperatures approaching 120°F) to observe if opening closes and if any distress occurs on the superstructure.
2. Clean exposed reinforcement and patch girder spalls on trestle spans.
3. Replace top protective coating on steel girders at locations where zinc primer is exposed, or coating has bubbled and exhibits freckled rust (girder splices, cross frames, and rocker bearings).
4. Monitor piles exhibiting spiral cracking for further degradation.
5. **Repair/reinstall top wale and portions of lower wale in fender system in FIBSB / FIBNB navigation channel.**

SIGNATURE OF INSPECTOR

SIGNATURE OF REVIEWER



B-7 ENB, FIB-NB, & FNB

VDOT – BRIDGE INSPECTION REPORT

Page: 1 of 3

Structure-ID:	1017	Type:	Regular Inspection
County/City:	Northampton	Date of Inspection:	11/25/2024 & 11/26/2024
Structure:	_____(Co./Str.No)	Feature/Intersection:	Chesapeake Bay
Main Route:	13	Facility/Carried:	
Milepost:	32.32	Location:	Over Chesapeake Bay
Lead Inspector:	Jon Chapman, PE	Additional Inspector(s):	Ethan Stivers, Jon Krites

SPECIAL CONDITIONS OR REQUIREMENTS

1. Fracture Critical	-	5. Segmental	-
2. Underwater	X	6. Pin & Hanger	-
3. Scour Critical	X	7. Fatigue Prone	-
4. Moveable	-		

36 TRAFFIC SAFETY FEATURES

1. Bridge Railing	1	3. Approach	1
2. Transition	1	4. Approach Guardrail	1

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK

GENERAL CONDITION RATING [8]

1. Wearing Surface	G	6. Railing	G
2. Deck – Structural	G	7. Drains	N
3. Curbs	G	8. Lighting	G
4. Median	N	9. Utilities	G
5. Sidewalks	N	10. Expansion Joints or Devices	G

REMARKS:

- a. Minor transverse hairline cracks scattered in concrete FIB-NB deck surface.
- b. Steel Tooth Expansion Joint at FIB-NB Pier 4 opening was off by about 1/2" from the east side (1 3/4") to the west side (1 1/4"). The weather was cloudy at the time of measurement (9/10/2020 at 2:11pm) with an ambient air temperature around 80°F with both the steel girders and concrete girders measuring at 80°F. The opening dimension for these conditions should have been 1 15/16" according to construction documents.
- c. Isolated surface spalls on ENB1 east side.
- d. Exposed reinforcement chairs located on underside of girder (typically near ends) throughout spans.
- e. Isolated spalls some with exposed reinforcement on underside of deck up to 2" deep.



B-7 ENB, FIB-NB, & FNB

VDOT – BRIDGE INSPECTION REPORT

59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[8]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>G</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>G</u>
C. Bracing	<u>N</u>	Year Painted	<u>2013</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Minor spalls noted in the girders and at the diaphragm closure pours at scattered locations in the trestle spans **some with exposed reinforcement and some with section loss to exposed reinforcement.**
- b. Isolated minor rust spots and peeled off topcoat with exposed zinc primer on FIB girders, cross frames and bracing.
- c. Minor rust continues to develop on nuts and bolts of FIB girder splices and at cross frame and lower lateral bracing connections.
- d. Rust around perimeter of FIB rocker bearing base plates and isolated rust spots on some pins and anchor bolts.
- e. **Beam ends – delamination/spalls on end corners / back face of beams (some repaired during construction). Typical spalls measure up to 3" L x up to 12" h x 1" d x full width of back exposing prestressing strands (L1-L4).**
- f. **Delamination/spalls noted at lifting eyes on girder. Delaminations/spalls up to 6" diameter x 1" deep with rust stain.**

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[8]

1. Abutments		2. Pier/Bent	
A. Wings	<u>G</u>	A. Caps	-
B. Backwall	<u>G</u>	B. Piles	-
C. Bearing Seats	<u>G</u>	C. Column, Stem, Wall	-
D. Breastwall	<u>N</u>	D. Piles	-
E. Weepholes	<u>N</u>	E. Bracing	-
F. Footing	<u>G</u>	F. Erosion/Scour	-
G. Piles	*	G. Settlement	-
H. Erosion/Scour	<u>G</u>	3. Pile Bent	
I. Settlement	<u>G</u>	A. Caps	<u>G</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>G</u>
		D. Bracing	<u>N</u>

REMARKS:

- a. Minor hairline cracking on many of the piles above water or land
- b. Some spalls with exposed reinforcement noted at pile joints of a few piles.
- c. No apparent change in spiral cracking on piles at Bents ENB7 and ENB9 (caused during construction)
- d. The 2025 Underwater Inspection revealed **isolated cracks up to 1/16" wide** and a few minor shallow spalls on some of the piles.



B-7 ENB, FIB-NB, & FNB

VDOT - BRIDGE INSPECTION REPORT

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61 CHANNEL: CHANNEL/SLOPE PROTECTION**GENERAL CONDITION RATING****[7]**

1. Channel Scour	<u>G</u>	5. Fender System	<u>F</u>
2. Embankment	-	6. Spur Dikes/Jetties	-
Erosion	-	7. Rip Rap/Slope	<u>G</u>
3. Drift	-	Protection	
4. Vegetation	-	8. Adequacy of	<u>F</u>
		Opening	

REMARKS:

- Rip rap encompassing Bent FNB4 remains well placed and stable.
- Portions of the top wale and lower wale are missing in fender system in FIBSB / FIBNB navigation channel.

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 -1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) - Single	<u>N</u>		
(R12 - 5) - Semi	<u>N</u>		

REMARKS

- Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- Structure load rating controlled by the interior girders of FIB-NB.
- No posting of the structure is required.



5.12 Trestle ESB, FIB-SB, & FSB SI&A Forms

B-6 ESB, FIB-SB, & FSB	VDOT – BRIDGE INSPECTION REPORT	Page: 1 of 2
Structure-ID: 1007	Type: Regular Inspection	
County/City: Northampton	Date of Inspection: 11/25/2024	
Structure: _____(Co./Str.No)	Feature/Intersection: Chesapeake Bay	
Main Route: 13	Facility/Carried:	
Milepost: 32.32	Location: Over Chesapeake Bay	
Lead Inspector: Shannon Turner, PE	Additional Inspector(s): Ethan Stivers, Jon Krites	

WORK DONE: Routine Maintenance.

REVISED DIMENSIONS: None

MISCELLANEOUS: No Encroachment Violations

CONDITION OF STRUCTURE: Generally Fair to Good

1. **Underside of deck, exposed chairs throughout (all spans).**
2. **Underside of deck isolated spalls up to 4" deep. Spall with exposed reinforcement up to 60% loss of section to reinforcement located in Span 10 Bay 2.**
3. **Top of flange, edge spalls up to 2-1/2" wide x 1/2" deep (all spans).**
4. **Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: FSB7 G8, FSB8 G1, ESB13 G1, ESB10 G3, ESB10 G4, ESB10 G3, ESB9 G1, ESB7 G1, ESB7G4, ESB1 G7.**
5. **Minor cracking and/or spalling with isolated exposed reinforcement at diaphragms.**
6. **Minor longitudinal cracks up to 1/32" wide at joints typically 1' to 2' on center.**
7. **FIB Span 3 railing 10th post from Pier 4 has a 3" diameter perforation in web of post.**
8. **E Trestle – surface rust/corrosion on bolts on railing, typical.**
9. **E Trestle – 7th rail section from Bent 12 (west side) has impact damage to top rail for 1 LF and 8th post from Bent 1 east side has impact damage with a 2" long tear in bottom of post; impact damage continues into Span 3 for 30LF.**
10. **E Trestle - end cap at Bent 9 bottom rail cracked on west side.**
11. **E Trestle – curb with map cracking with efflorescence and isolated spalls up to 1" deep.**
12. **F Trestle – asphalt in Lane 2 missing on top of backwall and asphalt breaking up on north approach.**
13. **F Trestle – curb with map cracking with efflorescence and isolated spalls up to 2" deep. Exposed reinforcement noted in Span 3 on west side.**
14. **Minor horizontal cracking, some with efflorescence, in intermediate concrete girder diaphragms. Isolated diaphragms have spalls with exposed reinforcement with up to 10% loss of section.**
15. **Random spalls on bottom flanges of prestressed girders, with some previous patches failed or failing.**
16. **Isolated minor rust spots on FIB girders, cross frames & bracing members.**
17. **Distortion on one FIB girder bottom flange for approximately 3 feet that does not require mitigation; and buckling of one lower lateral bracing diagonal.**
18. **Minor rust on isolated nuts and bolts of FIB girder splices and other field connections.**
19. **Cracks in the asphalt wearing surface sealed, but a few scattered unsealed cracks were noted and recommended for sealing.**
20. **Minor transverse cracks scattered in the FIB concrete deck surface.**
21. **Roadway striping replaced in 2020.**
22. **Hairline cracking on many of the piles above water or land.**
23. **Isolated spalling on some of the piles. Spalls noted on the following pile locations with exposed reinforcement. Some reinforcement has up to 100% loss of section to rebar: ESB-B2-A, FIB-SB-B4-B, FIB-SB-B4-B, FIB-SB-B3-AN, FIB-SB-B3-CN, FIB-SB-B3-CS, FIB-SB-B3-DN, FIB-SB-B2-AN, FIB-SB-B2-CN, FIB-SB-B2-CS, FIB-SB-B1-A, FIB-SB-B1-B, FIB-SB-B1-D, FIB-SB-B1-E.**



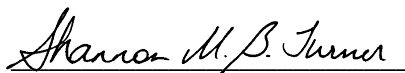
24. Repairs involving installation of cathodic protection jackets on FIB-SB2 and FIB-SB3 were completed in 2014. Several piles at Pier FIB-SB2 and FIB-SB3 exhibited damage to the fiberglass jackets.
25. Previously noted cracks above the jackets on FIB-SB2 and FIB-SB3 were noted to be routed and packed with minor periphery cracking.
26. Fender System at Bent FIB-SB3 was replaced in 2006. Bottom whaler exhibiting 70% section loss at the waterline, but the rest exhibit minimal deterioration. North Fender system was repaired in Fall 2018 after damage that was caused around May 27, 2018.
27. Three pile cluster dolphins and portions of each whaler replaced at west end of fender system in front of Pier FIB-SB2 in 2016 and in good condition.
28. Isolated minor cracks and spalls on a few piles underwater. For a detailed condition of piles underwater and bay bottom scour conditions, see the 2021 Underwater Inspection Report.
29. **Portions of the top wale and lower wale are missing in fender system in FIBSB / FIBNB navigation channel.**

REVISED STRESS ANALYSIS:

1. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
2. No posting of the structure is required.

RECOMMENDATIONS:

1. Patch spalls on prestressed concrete girders and piles.
2. Perform periodic hydrographic surveys in interim between underwater inspections.
3. Monitor and repair any exposed zinc mesh under the spalled fiberglass jackets on Pier FIB-SB2 and FIB-SB3. CBBT is exploring an alternative repair method that will utilize carbon fiber shells to address the deterioration.
4. Clean out and seal transverse cracks in concrete deck spans of FIB-SB.
5. Clean and lubricate rocker bearings on FIB-SB.
6. Replace buckled lower lateral bracing diagonal.
7. **Replace top protective coating on steel girders at locations where zinc primer is exposed, or coating has bubbled and exhibits freckled rust (girder splices, cross frames, and rocker bearings).**
8. **Repair drainage swale in slope protection on west end of FSB.**
9. **Repair / reinstall top wale and portions of bottom wale in fender system in FIBSB / FIBNB navigation channel.**



SIGNATURE OF INSPECTOR



SIGNATURE OF REVIEWER



B-7 ESB, FIB-SB, & FSB VDOT – BRIDGE INSPECTION REPORT Page: 1 of 3

Table with 4 columns: Field Name, Value, Field Name, Value. Includes Structure-ID, County/City, Structure, Main Route, Milepost, Lead Inspector, Type, Date of Inspection, Feature/Intersection, Facility/Carried, Location, and Additional Inspector(s).

SPECIAL CONDITIONS OR REQUIREMENTS

Table with 4 columns: Item Number, Description, Status, Item Number. Lists items 1 through 7 regarding fracture, underwater, scour, moveable, segmental, pin & hanger, and fatigue prone conditions.

36 TRAFFIC SAFETY FEATURES

Table with 4 columns: Item Number, Description, Value, Item Number. Lists items 1 through 4 regarding bridge railing, transition, approach, and approach guardrail.

REMARKS: Traffic Safety Features have been identified as “1” and is based on memo provided by the District that indicates the due diligence has been completed to determine that bridge railings are acceptable.

58 DECK GENERAL CONDITION RATING [8]

Table with 4 columns: Item Number, Description, Rating, Item Number. Lists items 1 through 10 regarding wearing surface, deck, curbs, median, sidewalks, railing, drains, lighting, utilities, and expansion joints.

REMARKS:

- a. The typical simple span fixed and expansion open deck joints of the trestle spans were paved over during the 1999 overlay
b. Minor transverse cracks scattered in the FIB concrete deck surface recommended for sealing.
c. Minor longitudinal cracks up to 1/32” wide at joints typically 1’ to 2’ on center.
d. FIB Span 3 railing 10th post from Pier 4 has a 3” diameter perforation in web of post.
e. E Trestle – surface rust/corrosion on bolts on railing, typical.
f. E Trestle – 7th rail section from Bent 12 (west side) has impact damage to top rail for 1 LF and 8th post from Bent 1 east side has impact damage with a 2” long tear in bottom of post; impact damage continues into Span 3 for 30LF.
g. E Trestle - end cap at Bent 9 bottom rail cracked on west side.
h. E Trestle – curb with map cracking with efflorescence and isolated spalls up to 1” deep.
i. F Trestle – asphalt in Lane 2 missing on top of backwall and asphalt breaking up on north approach.
j. F Trestle – curb with map cracking with efflorescence and isolated spalls up to 2” deep. Exposed reinforcement noted in Span 3 on west side.



B-7 ESB, FIB-SB, & FSB

VDOT – BRIDGE INSPECTION REPORT

59 SUPERSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Bearing Devices	<u>G</u>	4. Trusses	
2. Stringers	<u>N</u>	A. General	<u>N</u>
3. Girders, Beams, or Slab Spans		B. Portals	<u>N</u>
A. General	<u>F</u>	C. Bracing	<u>N</u>
B. Diaphragms or Cross Frames	<u>G</u>	5. Paint	<u>G</u>
C. Bracing	<u>N</u>	Year Painted	<u>2013</u>
		6. Machinery (Moveable Span)	<u>N</u>

REMARKS:

- a. Some spalls on bottom flanges of some prestressed girders of trestle spans, with some previous patches failed or failing
- b. Minor rust spots on FIB girders, cross frames & bracing members
- c. Minor rust on some nuts and bolts of FIB girder splices and other field connections
- d. Distortion on one FIB girder bottom flange for approximately 3 feet that does not require mitigation and buckling of one lower lateral bracing diagonal.
- e. **Minor horizontal cracking, some with efflorescence, in intermediate concrete girder diaphragms. Isolated diaphragms have spalls with exposed reinforcement with up to 10% loss of section.**
- f. **Girder spall with exposed prestressing strand/exposed reinforcement with section loss at the following locations in FY2025: FSB7 B8, FSB8 B1, ESB13 B1, ESB10 B3, ESB10 B4, ESB10 B3, ESB9 B1, ESB7 B1, ESB7B4, ESB1 B7.**

60 SUBSTRUCTURE

GENERAL CONDITION RATING

[7]

1. Abutments		2. Pier/Bent	
A. Wings	<u>G</u>	A. Caps	–
B. Backwall	<u>G</u>	B. Piles	–
C. Bearing Seats	<u>G</u>	C. Column, Stem, Wall	–
D. Breastwall	<u>N</u>	D. Piles	–
E. Weepholes	<u>N</u>	E. Bracing	–
F. Footing	<u>G</u>	F. Erosion/Scour	–
G. Piles	*	G. Settlement	–
H. Erosion/Scour	<u>G</u>	3. Pile Bent	
I. Settlement	<u>G</u>	A. Caps	<u>G</u>
*Not Visible		B. Bearing Seats	<u>G</u>
		C. Piles	<u>F</u>
		D. Bracing	<u>N</u>

REMARKS:

- a. Repairs involving installation of cathodic protection jackets on Piers FIB-SB2 and FIB-SB3 were completed in 2014. Several piles noted to have large sections of spalled fiberglass jackets at Pier FIB-SB3
- b. Previously noted cracks above the jackets on FIB-SB2 and FIB-SB3 were noted to be routed and packed with minor periphery cracking
- c. Minor hairline cracking **with efflorescence and/or rust staining** on many of the piles above water or land.
- d. **Spalls noted on the following pile locations with exposed reinforcement. Some reinforcement has up to 100% loss of section to rebar: ESB-B2-A, FIB-SB-B4-B, FIB-SB-B4-B, FIB-SB-B3-AN, FIB-SB-B3-CN, FIB-SB-**



B3-CS, FIB-SB-B3-DN, FIB-SB-B2-AN, FIB-SB-B2-CN, FIB-SB-B2-CS, FIB-SB-B1-A, FIB-SB-B1-B, FIB-SB-B1-D, FIB-SB-B1-E.

- e. FIB-SB Bent 2, and 3 piles have jackets. Jackets broken with grout missing typically 10' above waterline.
- f. No apparent change in spiral cracking on piles at Bents ENB7 and ENB9 (caused during construction)
- g. The 2025 Underwater Inspection revealed **isolated cracks up to 1/16" wide** and a few minor shallow spalls on some of the piles.
- h. 2023 Hydrographic Survey indicates bay bottom was above ASD.

61 CHANNEL: CHANNEL/SLOPE PROTECTION

GENERAL CONDITION RATING

[8]

1. Channel Scour	<u>G</u>	5. Fender System	<u>G</u>
2. Embankment	-	6. Spur Dikes/Jetties	-
Erosion	-	7. Rip Rap/Slope	<u>G</u>
3. Drift	-	Protection	
4. Vegetation	-	8. Adequacy of	<u>F</u>
		Opening	

REMARKS:

- a. Fender system at Pier FIB-SB3 was replaced in 2006. Bottom whaler exhibits 70% section loss at the waterline, but the rest exhibit minimal deterioration. North Fender system was repaired in Fall 2018 after damage that was caused around May 27, 2018.
- b. Three pile cluster dolphins and portions of each whaler replaced at west end of fender system in front of Pier FIB-SB2 in 2016 and in good condition
- c. **Portions of the top wale and lower wale are missing in fender system in FIBSB / FIBNB navigation channel.**
- d. **FSB at south end on west side, drainage swale/flume settled and disconnected for 10LF.**

66 POSTED LOADING

1. Posted Loading -		2. Legibility	<u>N</u>
(R12 - 1)	<u>N</u>	3. Visibility	<u>N</u>
(R12 - 5) – Single	<u>N</u>		
(R12 - 5) – Semi	<u>N</u>		

REMARKS

- c. Load rating completed in 12/2018 in accordance with VDOT Instructional and Informational Memorandum 86.2: Load Rating and Posting of Structures (Bridges and Culverts) dated 11/16/2018.
- d. No posting of the structure is required.

6. Bridge Element Level Data

The tables provided in this section display the element level bridge condition data and condition states coded per the AASHTO Manual for Bridge Element Inspection, First Edition and the VDOT Supplement to the AASHTO Manual for Bridge Element Inspection (2016) at the time of this inspection.

For Defect 6000 Scour, the Condition State (CS) for each element was determined utilizing the following system:

Condition State	Description	
1 Good	No Scour	The bay bottom profile at the substructure unit is greater than 10-feet above the Allowable Scour Depth (ASD)
2 Fair	Within Tolerable Limits	The bay bottom at the substructure unit is greater than 5-feet above the ASD, or scour remediation has been placed at the substructure unit, but not below ASD
3 Poor	Within Critical Limits	The bay bottom at the substructure unit is above the ASD, or scour remediation has been placed at the substructure unit at or above the ASD
4 Severe	Warrants a Structural Review	The bay bottom at the pile is below its ASD and scour remediation has not been placed at the substructure unit

6.1 Trestle ANB Element Level Data

Trestle ANB consists of Spans A'NB1-10 and Spans ANB 1-226. Spans ANB 177 - 236 received a hands-on inspection this year. Element level data is presented in this section for all portions of the trestle that have a received hands-on inspection since FY2018. An underwater inspection was performed on the entire trestle in FY2024, and element level data has been provided for all piles that were inspected along the trestle.

Table 51: ANB Element Level Data

ANB (1002) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
16	Reinforced Concrete Top Flange	SF	527,577	575	122	0	528,262
1080	Delamination/Spall/Patched Area	SF		41	63		104
1090	Exposed Rebar	SF		38	59		97
1120	Efflorescence/Rust Staining	SF		341			341
1130	Cracking (RC and Other)	SF		143			143
38	Reinforced Concrete Slab	SF	1,188	6			1,194
1080	Delamination/Spall/Patched Area	SF		6			6
RAILINGS							
330	Metal Bridge Railing	LF	33,093	492	15	0	33,600
1020	Connection	LF		3			3
1080	Delamination/Spall/Patched Area	LF		75	13		88
1090	Exposed Rebar	LF		13	2		15
1130	Cracking (RC and Other)	LF		383			383
7000	Damage	LF		18			18



ANB (1002) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
SUPERSTRUCTURE							
109	Prestressed Concrete Open Girder/Beam	LF	141,232	4,632	247	0	146,111
1080	Delamination/Spall/Patched Area	LF		726	83		809
1090	Exposed Rebar	LF		67	91		158
1100	Exposed Prestressing	LF		15	19		34
1110	Cracking (PSC)	LF		3,817	3		3,820
1120	Efflorescence/Rust Staining	LF		7	51		58
811	Beam/Girder End	EA	2,035	1,758	115	0	3,908
1080	Delamination/Spall/Patched Area	EA		55	30		85
1090	Exposed Rebar	EA		13	52		65
1100	Exposed Prestressing	EA			8		8
1110	Cracking (PSC)	EA		1,679	1		1,680
1120	Efflorescence/Rust Staining	EA		11	24		35
BEARINGS							
310	Elastomeric Bearing	EA	3,717	131	68	0	3,916
1000	Corrosion	EA		8			8
2230	Bulging, Splitting, or Tearing	EA		123	68		191



ANB (1002) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
SUBSTRUCTURE							
215	Reinforced Concrete Abutment	LF	66	0	0	0	66
226	Prestressed Concrete Pile	EA	170	450	100	0	720
1080	<i>Delamination/Spall/Patched Area</i>	EA		175	25		200
1090	<i>Exposed Rebar</i>	EA		1	4		5
1110	<i>Cracking (PSC)</i>	EA		190	6		196
1120	<i>Efflorescence/Rust Staining</i>	EA		78	44		122
1190	<i>Abrasion/Wear (PSC/RC)</i>	EA		6			6
6000	<i>Scour</i>	EA			21		21
234	Reinforced Concrete Pier Cap	LF	7,546	562	17	0	8,125
1080	<i>Delamination/Spall/Patched Area</i>	LF		45	14		59
1090	<i>Exposed Rebar</i>	LF			2		2
1120	<i>Efflorescence/Rust Staining</i>	LF		196	1		197
1130	<i>Cracking (RC and Other)</i>	LF		321			321
824	Reinforced Concrete Wingwall	EA	2	0	0	0	2
JOINTS							
304	Open Expansion Joint	LF	8,541	0	0	0	8,541
845	Joint Effectiveness	EA	246	0	0	0	246
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	502,235	5,186	196	0	507,617
3210	<i>Delamination/Spall/Patched Area/Pothole (Wearing Surface)</i>	SF		2			2
3220	<i>Crack</i>	SF		5,184	196		5,380



ANB (1002) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
520	Concrete Reinforcement Steel Protective System	SF	59,941	2,568	1,490	587	64,586
3600	<i>Effectiveness - Protective System (e.g. cathodic)</i>	SF		2,568	1,484	407	4,459
7000	<i>Damage</i>	SF			6	180	186
521	Concrete Protective Coating	SF	138,800	257	170	2,092	141,319
3540	<i>Effectiveness (Concrete Protective Coatings)</i>	SF		257	170	2,092	2,519
SLOPE AND CHANNEL ELEMENTS							
852	Protected Slope – Paved	EA	1	0	0	0	1
6506	<i>Paved Slope Effectiveness</i>	EA	1				1
853	Protected Slope - Riprap	EA	1	0	0	0	1
6507	<i>Loss of Riprap</i>	EA	1				1
854	Channel	EA	0	1	0	0	1
6000	<i>Scour</i>	EA		1			1

6.2 Trestle ASB Element Level Data

Trestle ASB consists of Spans ASB 1-205. Spans 39 - 80 received a hands-on inspection this year (approximately 20% of the entire trestle). Element level data is presented in this section for all portions of the trestle that have a received hands-on inspection since FY2018. An underwater inspection was performed on the entire trestle in FY2024, and element level data has been provided for all piles that were inspected along the trestle.

Table 52: ASB Element Level Data

ASB (1010) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	35,961	666	3	0	36,630
1080	Delamination/Spall/Patched Area	SF			3		3
1120	Efflorescence/Rust Staining	SF		178			178
1130	Cracking (RC and Other)	SF		488			488
16	Reinforced Concrete Top Flange	SF	619,723	1,164	75	0	620,962
1080	Delamination/Spall/Patched Area	SF		22	46		68
1090	Exposed Rebar	SF		2	27		29
1120	Efflorescence/Rust Staining	SF		8			8
1130	Cracking (RC and Other)	SF		1,132	2		1,134
RAILINGS							
330	Metal Bridge Railing	LF	35,012	119	35	0	35,166
1020	Connection	LF		3			3
1080	Delamination/Spall/Patched Area	LF		32	6		38
1090	Exposed Rebar	LF			6		6
1120	Efflorescence/Rust Staining	LF			21		21
1130	Cracking (RC and Other)	LF		72			72
1900	Distortion	LF		12	2		14
SUPERSTRUCTURE							



ASB (1010) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
107	Steel Open Girder/Beam	LF	1,340	20	0	0	1,360
1000	<i>Corrosion</i>	LF		20			20
109	Prestressed Concrete Open Girder/Beam	LF	104,605	219	58	0	104,882
1080	<i>Delamination/Spall/Patched Area</i>	LF		112	12		124
1090	<i>Exposed Rebar</i>	LF		60	46		106
1100	<i>Exposed Prestressing</i>	LF		14			14
1110	<i>Cracking (PSC)</i>	LF		27			27
1120	<i>Efflorescence/Rust Staining</i>	LF		6			6
811	Beam/Girder End	EA	3,611	214	43	0	3,868
1080	<i>Delamination/Spall/Patched Area</i>	EA		165	7		172
1090	<i>Exposed Rebar</i>	EA		41	35		76
1100	<i>Exposed Prestressing</i>	EA		3			3
1110	<i>Cracking (PSC)</i>	EA		4	1		5
1120	<i>Efflorescence/Rust Staining</i>	EA		1			1
BEARINGS							
310	Elastomeric Bearing	EA	2,448	0	0	0	2,448
SUBSTRUCTURE							
215	Reinforced Concrete Abutment	LF	89	0	0	0	89



ASB (1010) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
226	Prestressed Concrete Pile	EA	281	314	30	10	635
1080	<i>Delamination/Spall/Patched Area</i>	EA		76	20		96
1090	<i>Exposed Rebar</i>	EA		8	2		10
1110	<i>Cracking (PSC)</i>	EA		132	3		135
1120	<i>Efflorescence/Rust Staining</i>	EA		54	4		58
1190	<i>Abrasion/Wear (PSC/RC)</i>	EA		44	1		45
6000	<i>Scour</i>	EA				10	10
234	Reinforced Concrete Pier Cap	LF	7,056	466	15	0	7,537
1080	<i>Delamination/Spall/Patched Area</i>	LF		17	14		31
1090	<i>Exposed Rebar</i>	LF			1		1
1120	<i>Efflorescence/Rust Staining</i>	LF		1			1
1130	<i>Cracking (RC and Other)</i>	LF		448			448
824	Reinforced Concrete Wingwall	EA	2	0	0	0	2
JOINTS							
304	Open Expansion Joint	LF	3,888	44	0	0	3,932
2360	<i>Adjacent Deck or Header</i>	LF		44			44
845	Joint Effectiveness	EA	67	0	0	0	67
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	574,565	1,210	0	0	575,775
3210	<i>Delamination/Spall/Patched Area/Pothole (Wearing Surface)</i>	SF		1			1
3220	<i>Crack (Wearing Surface)</i>	SF		1,209			1,209
SLOPE AND CHANNEL ELEMENTS							
853	Protected Slope - Riprap	EA	1	0	0	0	1



ASB (1010) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
854	Channel	EA	0	1	0	0	1
6000	Scour	EA		1			1

6.3 Trestle BNB Element Level Data

Trestle BNB consists of Spans BNB 1/2-265. Spans 159 - 212 received a hands-on inspection this year (approximately 20% of the entire trestle). Element level data is presented in this section for all portions of the trestle that have a received hands-on inspection since FY2018. An underwater inspection was performed on the entire trestle in FY2025, and element level data has been provided for all piles that were inspected along the trestle.

Table 53: BNB Element Level Data

BNB (1004) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	3,500	0	0	0	3,500
16	Reinforced Concrete Top Flange	SF	596,263	1,315	22	0	597,600
1080	<i>Delamination/Spall/Patched Area</i>	SF		22	6		28
1090	<i>Exposed Rebar</i>	SF		6	16		22
1120	<i>Efflorescence/Rust Staining</i>	SF		489			489
1130	<i>Cracking (RC and Other)</i>	SF		798			798
38	Reinforced Concrete Slab	SF	1,174	15	5	0	1,194
1080	<i>Delamination/Spall/Patched Area</i>	SF		11			11
1090	<i>Exposed Rebar</i>	SF			4		4
1120	<i>Efflorescence/Rust Staining</i>	SF		4	1		5
RAILINGS							
330	Metal Bridge Railing	LF	35,810	608	12	0	36,430
1000	<i>Corrosion</i>	LF		60			60
1020	<i>Connection</i>	LF		18	2		20
1080	<i>Delamination/Spall/Patched Area</i>	LF		24	10		34
1130	<i>Cracking (RC and Other)</i>	LF		473			473
7000	<i>Damage</i>	LF		33			33



BNB (1004) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
SUPERSTRUCTURE							
109	Prestressed Concrete Open Girder/Beam	LF	139,833	5,180	787		145,800
1080	Delamination/Spall/Patched Area	LF		1,820	130		1,950
1090	Exposed Rebar	LF		32	79		111
1100	Exposed Prestressing	LF		10	380		390
1110	Cracking (PSC)	LF		3,315	105		3,420
1120	Efflorescence/Rust Staining	LF		3	93		96
811	Beam/Girder End	EA	2,233	1,543	112	0	3,888
1080	Delamination/Spall/Patched Area	EA		44	28		72
1090	Exposed Rebar	EA		18	47		65
1110	Cracking (PSC)	EA		1,480	3		1,483
1120	Efflorescence/Rust Staining	EA		1	34		35
BEARINGS							
310	Elastomeric Bearing	EA	3,562	38	288	0	3,888
1000	Corrosion	EA		18			18
2230	Bulging, Splitting, or Tearing	EA		20	288		308
SUBSTRUCTURE							
215	Reinforced Concrete Abutment	EA	62	3	5	0	70
1080	Delamination/Spall/Patched Area	LF		2			2
1090	Exposed Rebar	LF			4		4
1120	Efflorescence/Rust Staining	LF			1		1
1130	Cracking (RC and Other)	LF		1			1

BNB (1004) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
226	Prestressed Concrete Pile	EA	395	265	136	18	814
1080	<i>Delamination/Spall/Patched Area</i>	EA		17	14		31
1090	<i>Exposed Rebar</i>	EA		4	21		25
1110	<i>Cracking (PSC)</i>	EA		144	20		164
1120	<i>Efflorescence/Rust Staining</i>	EA		62	30		92
1190	<i>Abrasion/Wear (PSC/RC)</i>	EA		38			38
6000	<i>Scour</i>	EA			51	18	69
234	Reinforced Concrete Pier Cap	LF	6,458	1,536	38		8,032
1080	<i>Delamination/Spall/Patched Area</i>	LF		32	1		33
1090	<i>Exposed Rebar</i>	LF			1		1
1120	<i>Efflorescence/Rust Staining</i>	LF		3			3
1130	<i>Cracking (RC and Other)</i>	LF		1,501	36		1,537
JOINTS							
304	Open Expansion Joint	LF	8,572	0	0	0	8,572
845	Joint Effectiveness	EA	252	0	0	0	252
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	509,432	4,920	0	0	514,352
3220	<i>Crack (Wearing Surface)</i>	SF		4,920			4,920
520	Concrete Reinforcement Steel Protective System	SF	2,533	745	12	45	3,335
3600	<i>Effectiveness - Protective System (e.g. cathodic)</i>	SF		745	12	45	802



BNB (1004) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
SLOPE AND CHANNEL ELEMENTS							
853	Protected Slope - Riprap	EA	1	0	0	0	1
6507	<i>Loss of Riprap</i>	EA	1				1
854	Channel	EA	0	0	0	1	1
6000	<i>Scour</i>	EA				1	1

6.4 Trestle BSB Element Level Data

Trestle BSB consists of Spans BSB 1-203. Spans 57-100 received a hands-on inspection this year (approximately 20% of the entire trestle). Element level data is presented in this section for all portions of the trestle that have a received hands-on inspection since FY2018. An underwater inspection was performed on the entire trestle in FY2022, and element level data has been provided for all piles that were inspected along the trestle.

Table 54: BSB Element Level Data

BSB (1012) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	8,907	0	0	0	8,907
16	Reinforced Concrete Top Flange	SF	781,944	998	59	0	783,001
1080	<i>Delamination/Spall/Patched Area</i>	SF		44	34		78
1090	<i>Exposed Rebar</i>	SF		5	7		12
1120	<i>Efflorescence/Rust Staining</i>	SF		256	18		274
1130	<i>Cracking (RC and Other)</i>	SF		693			693
RAILINGS							
330	Metal Bridge Railing	LF	39,293	126	8	0	39,427
1080	<i>Delamination/Spall/Patched Area</i>	LF		8	5		13
1090	<i>Exposed Rebar</i>	LF		1	3		4
1130	<i>Cracking (RC and Other)</i>	LF		60			60
7000	<i>Damage</i>	LF		57			57
SUPERSTRUCTURE							
107	Steel Beam/Girder	LF	1,320	462			1,782
1000	<i>Corrosion</i>	LF		462			462
109	Prestressed Concrete Open Girder/Beam	LF	119,824	424	89	0	120,337
1080	<i>Delamination/Spall/Patched Area</i>	LF		210	23		233
1090	<i>Exposed Rebar</i>	LF		80	65		145
1100	<i>Exposed Prestressing</i>	LF		27			27



BSB (1012) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
1110	Cracking (PSC)	LF		103	1		104
1120	Efflorescence/Rust Staining	LF		4			4
811	Beam/Girder End	EA	2,099	313	62	0	2,474
1080	Delamination/Spall/ Patched Area	EA		221	17		238
1090	Exposed Rebar	EA		37	38		75
1100	Exposed Prestressing	EA		1	6		7
1110	Cracking (PSC)	EA		53	1		54
1120	Efflorescence/Rust Staining	EA		1			1
BEARINGS							
310	Elastomeric Bearing	EA	2,473	0	1	0	2,474
2230	Bulging, Splitting, or Tearing	EA			1		1
SUBSTRUCTURE							
226	Prestressed Concrete Pile	EA	232	329	72	0	633
1080	Delamination/Spall/ Patched Area	EA		3			3
1090	Exposed Rebar	EA		9	6		15
1110	Cracking (PSC)	EA		268	6		274
1120	Efflorescence/Rust Staining	EA		48	12		60
1190	Abrasion/Wear (PSC/RC)	EA		1			1
6000	Scour*	EA			48		48
234	Reinforced Concrete Pier Cap	LF	7,594	542	7	0	8,143
1080	Delamination/Spall/ Patched Area	LF		13	1		14
1090	Exposed Rebar	LF		4	6		10
1120	Efflorescence/Rust Staining	LF		2			2



BSB (1012) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
1130	<i>Cracking (RC and Other)</i>	LF		523			523
JOINTS							
304	Open Expansion Joint	LF	2,720	0	0	0	2,720
845	Joint Effectiveness	EA	68	0	0	0	68
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	673,379	0	686	0	674,065
3220	<i>Crack (Wearing Surface)</i>	SF			686		686
515	Steel Protective Coating	SF	13,870	4,624	0	0	18,494
3440	<i>Effectiveness (Steel Protective Coating)</i>	SF		4,624			4,624
SLOPE AND CHANNEL ELEMENTS							
854	Channel	EA	0	1	0	0	1
6000	<i>Scour</i>	EA		1			1

6.5 Trestle CNB Element Level Data

Trestle CNB consists of Spans CNB 1-322. Spans 198-263 received a hands-on inspection this year (approximately 20% of the entire trestle). Element level data is presented in this section for all portions of the trestle that have a received hands-on inspection since FY2018. An underwater inspection was performed on the entire trestle in FY2021, and element level data has been provided for all piles that were inspected along the trestle.

Table 55: CNB Element Level Data

CNB (1009) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
16	Reinforced Concrete Top Flange	SF	734,626	3,222	502	0	738,350
1080	Delamination/Spall/Patched Area	SF		28	75		103
1090	Exposed Rebar	SF		21	3		24
1120	Efflorescence/Rust Staining	SF		396	400		796
1130	Cracking (RC and Other)	SF		2,777	24		2,801
38	Reinforced Concrete Slab	SF	1,194	0	0	0	1,194
RAILINGS							
330	Metal Bridge Railing	LF	42,922	544	32	0	43,498
1020	Connection	LF		19			19
1080	Delamination/Spall/Patched Area	LF		31	14		45
1090	Exposed Rebar	LF		9	9		18
1130	Cracking (RC and Other)	LF		415			415
7000	Damage	LF		70	9		79



CNB (1009) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
SUPERSTRUCTURE							
109	Prestressed Concrete Open Girder/Beam	LF	167,321	6,892	981	0	175,194
1080	Delamination/Spall/Patched Area	LF		4,625	584		5,209
1090	Exposed Rebar	LF		25	88		113
1100	Exposed Prestressing	LF		121	198		319
1110	Cracking (PSC)	LF		1,981	11		1,992
1120	Efflorescence/Rust Staining	LF		140	100		240
811	Beam/Girder End	EA	3,166	1,227	263	0	4,656
1080	Delamination/Spall/Patched Area	EA		89	148		237
1090	Exposed Rebar	EA		103	51		154
1100	Exposed Prestressing	EA		2	3		5
1110	Cracking (PSC)	EA		1012	4		1016
1120	Efflorescence/Rust Staining	EA		21	57		78
BEARINGS							
310	Elastomeric Bearing	EA	4,119	32	505	0	4,656
1000	Corrosion	EA		16			16
2220	Alignment	EA		5			5
2230	Bulging, Splitting, or Tearing	EA		11	505		516
311	Movable Bearing	EA	0	8	0	0	8
1000	Corrosion	EA		8			8



CNB (1009) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
SUBSTRUCTURE							
226	Prestressed Concrete Pile	EA	0	432	552	0	984
1080	<i>Delamination/Spall/Patched Area</i>	EA		37	73		110
1090	<i>Exposed Rebar</i>	EA		26	15		41
1100	<i>Exposed Prestressing</i>	EA		7	3		10
1110	<i>Cracking (PSC)</i>	EA		258	15		273
1120	<i>Efflorescence/Rust Staining</i>	EA		104	98		202
6000	<i>Scour</i>	EA			348		348
234	Reinforced Concrete Pier Cap	LF	8,023	2,616	22	0	10,661
1080	<i>Delamination/Spall/Patched Area</i>	LF		1	14		15
1120	<i>Efflorescence/Rust Staining</i>	LF		34	3		37
1130	<i>Cracking (RC and Other)</i>	LF		2,581	5		2,586
JOINTS							
304	Open Expansion Joint	LF	10,168	0	0	0	10,168
845	Joint Effectiveness	EA	302	0	0	0	302
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL							
PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	606,260	7,738	3	0	614,001
3220	<i>Crack (Wearing Surface)</i>	SF		7,728			7,728
3230	<i>Effectiveness (Wearing Surface)</i>	SF		10	3		13
520	Concrete Reinforcement Steel Protective System	SF	1,979	0	0	0	1,979
SLOPE AND CHANNEL ELEMENTS							
854	Channel	EA	0	1	0	0	1
6000	<i>Scour</i>	EA		1			1

6.6 Trestle CSB Element Level Data

Trestle CSB consists of Spans CSB 1-246. Spans 53-104 received a hands-on inspection this year (approximately 17% of the entire facility). Element level data is presented in this section for all portions of the trestle that have received hands-on inspection since FY2018. An underwater inspection was performed on the entire trestle in FY2023, and element level data has been provided for all piles that were inspected along the trestle.

Table 56: CSB Element Level Data

CSB (1014) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	41,123	435	0	0	41,558
1120	<i>Efflorescence/Rust Staining</i>	SF		435			435
16	Reinforced Concrete Top Flange	SF	898,615	273	18	0	898,906
1080	<i>Delamination/Spall/Patched Area</i>	SF		45	12		57
1090	<i>Exposed Rebar</i>	SF		3			3
1120	<i>Efflorescence/Rust Staining</i>	SF		6	6		12
1130	<i>Cracking (RC and Other)</i>	SF		219			219
RAILINGS							
330	Metal Bridge Railing	LF	46,620	203	50	0	46,873
1020	<i>Connection</i>	LF		62	1		63
1080	<i>Delamination/Spall/Patched Area</i>	LF		33	19		52
1090	<i>Exposed Rebar</i>	LF		1	30		31
1130	<i>Cracking (RC and Other)</i>	LF		79			79
7000	<i>Damage</i>	LF		28			28
SUPERSTRUCTURE							
107	Steel Open Girder/Beam	LF	493	419	0	0	912
1000	<i>Corrosion</i>	LF		419			419



CSB (1014) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
109	Prestressed Concrete Open Girder/Beam	LF	141,604	824	181	0	142,609
1080	<i>Delamination/Spall/Patched Area</i>	LF		376	71		447
1090	<i>Exposed Rebar</i>	LF		116	95		211
1100	<i>Exposed Prestressing</i>	LF		72	2		74
1110	<i>Cracking (PSC)</i>	LF		158			158
1120	<i>Efflorescence/Rust Staining</i>	LF		102	13		115
811	Beam/Girder End	EA	2,277	516	69	0	2,862
1000	<i>Corrosion</i>	LF		16			16
1080	<i>Delamination/Spall/Patched Area</i>	EA		412	20		432
1090	<i>Exposed Rebar</i>	EA		55	41		96
1100	<i>Exposed Prestressing</i>	EA		9	1		10
1110	<i>Cracking (PSC)</i>	EA		21			21
1120	<i>Efflorescence/Rust Staining</i>	EA		3	7		10
BEARINGS							
310	Elastomeric Bearing	EA	2,847	14	1	0	2,862
1000	<i>Corrosion</i>	EA		14			14
2230	<i>Bulging, Splitting, or Tearing</i>	EA			1		1
SUBSTRUCTURE							
215	Reinforced Concrete Abutment	LF	40	0	0	0	40
226	Prestressed Concrete Pile	EA	367	278	71	36	752
1080	<i>Delamination/Spall/Patched Area</i>	EA		41	18		59
1090	<i>Exposed Rebar</i>	EA			2		2
1110	<i>Cracking (PSC)</i>	EA		179			179
1120	<i>Efflorescence/Rust Staining</i>	EA		32	12		44
1190	<i>Abrasion/Wear (PSC/RC)</i>	EA		26			26
6000	<i>Scour</i>	EA			39	36	75

CSB (1014) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
234	Reinforced Concrete Pier Cap	LF	8,634	687	7	0	9,328
1080	<i>Delamination/Spall/Patched Area</i>	LF		12	4		16
1090	<i>Exposed Rebar</i>	LF			1		1
1120	<i>Efflorescence/Rust Staining</i>	LF		28	2		30
1130	<i>Cracking (RC and Other)</i>	LF		647			647
824	Reinforced Concrete Wingwall	EA	2	0	0	0	2
JOINTS							
304	Open Expansion Joint	LF	2,680	0	0	0	2,680
845	Joint Effectiveness	EA	67	0	0	0	67
APPROACH SLABS							
321	Reinforced Concrete Approach Slab	SF	771	0	0	0	771
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	643,528	0	0	0	643,528
515	Steel Protective Coating	SF	8,994	419	0	10	9,423
3420	<i>Peeling/Bubbling/ Cracking (Steel Protective Coatings)</i>	SF		419			419
SLOPE AND CHANNEL ELEMENTS							
853	Protected Slope - Riprap	EA	1	0	0	0	1
6507	<i>Loss of Riprap</i>	EA	1				1
854	Channel	EA	0	1	0	0	1
6000	<i>Scour</i>	EA		1			1

6.7 NCB-NB Element Level Data

NCB-NB consists of Spans 1-17. The entire structure received a routine and fracture critical inspection in FY2024. Element level data is presented in this section. An underwater inspection was performed on the entire trestle in FY2022, and element level data has been provided for all piles that were inspected in this section.

Table 57: NCB-NB Element Level Data

NCB-NB (1006) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	109,562	6,749	16	0	116,327
1080	<i>Delamination/Spall/Patched Area</i>	SF			2		2
1130	<i>Cracking (RC and Other)</i>	SF		6,747	14		6,761
1190	<i>Abrasion/Wear (PSC/RC)</i>	SF		2			2
RAILINGS							
330	Metal Bridge Railing	LF	7,582	2	3	0	7,587
1080	<i>Delamination/Spall/Patched Area</i>	LF		2			2
7000	<i>Damage</i>	LF			3		3
SUPERSTRUCTURE							
107	Steel Open Girder/Beam	LF	1,411	5,362	158	0	6,931
1000	<i>Corrosion</i>	LF		5,360	157		5,517
1020	<i>Connection</i>	LF		2	1		3
113	Steel Stringer	LF	13,944	4,461	494	0	18,899
1000	<i>Corrosion</i>	LF		4,467	494		4,961
120	Steel Truss	LF	123	527	5	0	655
1000	<i>Corrosion</i>	LF		527	5		532
152	Steel Floor Beam	LF	2,780	1,626	510	0	4,916
1000	<i>Corrosion</i>	LF		1,245	503		1,748
1010	<i>Cracking</i>	LF		353	1		354
1020	<i>Connection</i>	LF		28	6		34
162	Gusset Plate	EA	30	10	0	0	40
1000	<i>Corrosion</i>	EA		10			10

NCB-NB (1006) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
811	Beam/Girder End	EA	7	48	11	0	66
1000	<i>Corrosion</i>	EA		48	11		59
BEARINGS							
311	Movable Bearing	EA	0	34	0	0	34
1000	<i>Corrosion</i>	EA		34			34
313	Fixed Bearing	EA	0	10	0	0	10
1000	<i>Corrosion</i>	EA		10			10
SUBSTRUCTURE							
205	Reinforced Concrete Column	EA	16	19	1	0	36
1080	<i>Delamination/Spall/Patched Area</i>	EA			1		1
1120	<i>Efflorescence/Rust Staining</i>	EA		6			6
1130	<i>Cracking (RC and Other)</i>	EA		13			13
226	Prestressed Concrete Pile	EA	2	4	30		36
1080	<i>Delamination/Spall/Patched Area</i>	EA		3	6		9
1120	<i>Efflorescence/Rust Staining</i>	EA		1	7		8
1130	<i>Cracking (RC and Other)</i>	EA			17		17
234	Reinforced Concrete Pier Cap	LF	48	8	0	0	56
1130	<i>Cracking (RC and Other)</i>	LF		8			8
JOINTS							
305	Assembly Joint without Seal	LF	144	24	0	0	168
2370	<i>Metal Deterioration or Damage</i>	LF		24			24
845	Joint Effectiveness	EA	6	0	0	0	6

NCB-NB (1006) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL							
PROTECTIVE SYSTEMS							
515	Steel Protective Coating	SF	369,229	292	0	27,813	397,334
3420	<i>Peeling/Bubbling/ Cracking (Steel Protective Coatings)</i>	SF		292			292
3440	<i>Effectiveness (Steel Protective Coatings)</i>	SF				27,813	27,813
886	Beam/Girder End Protective Coating - Steel	EA	7	48	11	0	66
3440	<i>Effectiveness (Steel Protective Coatings)</i>	EA		48	11		59
SLOPE AND CHANNEL ELEMENTS							
854	Channel	EA	0	1	0	0	1
6000	Scour	EA		1			1

6.8 NCB-SB Element Level Data

A hands-on inspection was performed this year and element level data is presented in this section. An underwater inspection was performed on the entire trestle in FY2025 (this year), and element level data has been provided for all piles that were inspected along the trestle.

Table 58: NCB-SB Element Level Data

NCB-SB (1015) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	90,864	33,136	0	0	124,000
1080	Delamination/Spall/Patched Area	SF		17			17
1090	Exposed Rebar	SF		3			3
1130	Cracking (RC and Other)	SF		33,116			33,116
RAILINGS							
330	Metal Bridge Railing	LF	6,176	7	17	0	6,200
1080	Delamination/Spall/Patched Area	LF		2			2
1130	Cracking (RC and Other)	LF		5			5
7000	Damage	LF			17		17
SUPERSTRUCTURE							
107	Steel Open Girder/Beam	LF	11,151	1,247	2	0	12,400
1000	Corrosion	EA		1,247	2		1,249
811	Steel Open Beam/Girder End	EA	0	32	0	0	32
1000	Corrosion	EA		32			32
BEARINGS							
311	Movable Bearing	EA	0	32	0	0	32
1000	Corrosion	EA		32			32
313	Fixed Bearing	EA	0	40	0	0	40
1000	Corrosion	EA		40			40



NCB-SB (1015) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
SUBSTRUCTURE							
205	Reinforced Concrete Column	EA	4	24	2	0	30
1080	<i>Delamination/Spall/Patched Area</i>	EA		4	1		5
1120	<i>Efflorescence/Rust Staining</i>	EA			1		1
1130	<i>Cracking (RC and Other)</i>	EA		20			20
220	Reinforced Concrete Pile Cap/Footing	LF	433	5	446	0	884
1080	<i>Delamination/Spall/Patched Area</i>	LF		2	430		432
1120	<i>Efflorescence/Rust Staining</i>	LF			16		16
1130	<i>Cracking (RC and Other)</i>	LF		3			3
226	Prestressed Concrete Pile	EA	152	54	13	0	219
6000	<i>Scour</i>	EA		54	13	0	67
234	Reinforced Concrete Pier Cap	LF	411	129	0	0	540
1080	<i>Delamination/Spall/Patched Area</i>	LF		2			2
1120	<i>Efflorescence/Rust Staining</i>	LF		23			23
1130	<i>Cracking (RC and Other)</i>	LF		104			104
JOINTS							
305	Assembly Joint without Seal	LF	200	0	0	0	200
845	Joint Effectiveness	EA	5	0	0	0	5



NCB-SB (1015) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL							
PROTECTIVE SYSTEMS							
515	Steel Protective Coating	SF	295,198	4,462	0	10	299,670
3420	<i>Peeling/Bubbling/ Cracking (Steel Protective Coatings)</i>	SF		4,461			4,461
3440	<i>Effectiveness (Steel Protective Coatings)</i>	SF		1		10	11
886	Beam/Girder End Protective Coating - Steel	EA	0	32	0	0	32
SLOPE AND CHANNEL ELEMENTS							
854	Channel	EA	0	1	0	0	1
6000	<i>Scour</i>	EA		1			1

6.9 Trestle DNB Element Level Data

A hands-on inspection was performed in this inspection, and element level data is presented in this section. . An underwater inspection was performed on the entire trestle in FY2024, and element level data has been provided for all piles that were inspected along the trestle.

Table 59: DNB Element Level Data

DNB (1008) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
16	Reinforced Concrete Top Flange	SF	41,551	116	5	0	41,672
1080	<i>Delamination/Spall/Patched Area</i>	SF		3	2		5
1090	<i>Exposed Rebar</i>	SF			1		1
1120	<i>Efflorescence/Rust Staining</i>	SF		107	2		109
1130	<i>Cracking (RC and Other)</i>	SF		6			6
RAILINGS							
330	Metal Bridge Railing	LF	2,506	45	0	0	2,551
1130	<i>Cracking (RC and Other)</i>	LF		37			37
7000	<i>Damage</i>	LF		8			8
SUPERSTRUCTURE							
109	Prestressed Concrete Open Girder/Beam	LF	9,896	218	90	0	10,204
1080	<i>Delamination/Spall/Patched Area</i>	LF		32	5		37
1090	<i>Exposed Rebar</i>	LF		6	15		21
1100	<i>Exposed Prestressing</i>	LF		4	60		64
1110	<i>Cracking (PSC)</i>	LF		173			173
1120	<i>Efflorescence/Rust Staining</i>	LF		3	10		13
811	Beam/Girder End	EA	195	87	6	0	288
1080	<i>Delamination/Spall/Patched Area</i>	EA		2			2
1090	<i>Exposed Rebar</i>	EA		2	1		3
1110	<i>Cracking (PSC)</i>	EA		81			81



DNB (1008) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
1120	<i>Efflorescence/Rust Staining</i>	EA		2	5		7
BEARINGS							
310	Elastomeric Bearing	EA	272	3	5		280
2230	<i>Bulging, Splitting, or Tearing</i>	EA		3	5		8
311	Movable Bearing	EA		8			8
1000	<i>Corrosion</i>	EA		8			8
SUBSTRUCTURE							
215	Reinforced Concrete Abutment	LF	31	2	0	0	33
1130	<i>Cracking (RC and Other)</i>	LF		2			2
226	Prestressed Concrete Pile	EA	0	37	14	0	51
1080	<i>Delamination/Spall/ Patched Area</i>	EA			4		4
1090	<i>Exposed Rebar</i>	EA			7		7
1110	<i>Cracking (PSC)</i>	EA		34	1		35
1120	<i>Efflorescence/Rust Staining</i>	EA		2	2		4
1190	<i>Abrasion/Wear (PSC/RC)</i>	EA		1			1
234	Reinforced Concrete Pier Cap	LF	560	37	0	0	597
1130	<i>Cracking (RC and Other)</i>	LF		37			37
824	Reinforced Concrete Wingwall	EA	2	0	0	0	2
JOINTS							
304	Open Expansion Joint	LF	588	0	0	0	588
2360	<i>Adjacent Deck or Header</i>	LF	588				588
845	Joint Effectiveness	EA	18				18



DNB (1008) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
APPROACH SLABS							
321	Reinforced Concrete Approach Slab	SF	672	0	0	0	672
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	35,715	0	0	0	35,715
SLOPE AND CHANNEL ELEMENTS							
853	Protected Slope Riprap	EA	1				1
854	Channel	EA		1			1
6000	Scour	EA		1			1

6.10 Trestle DSB Element Level Data

A hands-on inspection was performed this inspection, and element level data is presented in this section. An underwater inspection was performed on the entire trestle in FY2025, and element level data has been provided for all piles that were inspected along the trestle.

Table 60: DSB Element Level Data

DSB (1016) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	71,687	11,844	0	0	83,531
1120	<i>Efflorescence/Rust Staining</i>	SF		84			84
1130	<i>Cracking (RC and Other)</i>	SF		11,760			11,760
RAILINGS							
330	Metal Bridge Railing	LF	4,128	49	0	0	4,177
1080	<i>Delamination/Spall/Patched Area</i>	LF		32			32
1130	<i>Cracking (RC and Other)</i>	LF		4			4
7000	<i>Damage</i>	LF		13			13
SUPERSTRUCTURE							
109	Prestressed Concrete Open Girder/Beam	LF	10,345	70	26	0	10,441
1080	<i>Delamination/Spall/Patched Area</i>	LF		33	26		59
1090	<i>Exposed Rebar</i>	LF		19			19
1110	<i>Cracking (PSC)</i>	LF		18			18
811	Beam/Girder End	EA	119	65	26	0	210
1080	<i>Delamination/Spall/Patched Area</i>	EA		29	26		55
1090	<i>Exposed Rebar</i>	EA		18			18
1110	<i>Cracking (PSC)</i>	EA		18			18
BEARINGS							
310	Elastomeric Bearing	EA	210	0	0	0	210
SUBSTRUCTURE							



DSB (1016) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
215	Reinforced Concrete Abutment	LF	40	0	0	0	40
226	Prestressed Concrete Pile	EA	5	34	17	4	60
1080	<i>Delamination/Spall/Patched Area</i>	EA		4	3		7
1090	<i>Exposed Rebar</i>	EA		7	1		8
1110	<i>Cracking (PSC)</i>	EA		23			23
1120	<i>Efflorescence/Rust Staining</i>	EA			1		1
6000	<i>Scour</i>	EA			12		12
234	Reinforced Concrete Pier Cap	LF	640	135	0	0	775
1080	<i>Delamination/Spall/Patched Area</i>	LF		1			1
1120	<i>Efflorescence/Rust Staining</i>	LF		1			1
1130	<i>Cracking (RC and Other)</i>	LF		133			133
824	Reinforced Concrete Wingwall	EA	1	0	1	0	2
6000	<i>Scour</i>	EA			1		1
JOINTS							
304	Open Expansion Joint	LF	280	0	0	0	280
845	Joint Effectiveness	EA	7	0	0	0	7
SLOPE AND CHANNEL ELEMENTS							
854	Channel	EA	0	1	0	0	1
6000	<i>Scour</i>	EA		1			1

6.11 Trestle ENB, FIB-NB, & FNB Element Level Data

A hands-on inspection was performed in FY2023, and element level data is presented in this section. An underwater inspection was performed on the entire trestle in FY2020, and element level data has been provided for all piles that were inspected along the trestle.

Table 6.1: ENB, FIB-NB, & FNB Element Level Data

ENB, FIB-NB, and FNB (1017) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	17,479	921	0	0	18,400
1130	Cracking (RC and Other)	SF		921			921
16	Reinforced Concrete Top Flange	SF	65,593	96	4	0	65,693
1080	Delamination/Spall/Patched Area	SF		37	4		41
1090	Exposed Rebar	LF		2			2
1130	Cracking (RC and Other)	SF		57			57
RAILINGS							
330	Metal Bridge Railing	LF	4,185	15	5	0	4,205
1080	Delamination/Spall/Patched Area	LF		2	1		3
1090	Exposed Rebar	LF			4		4
1130	Cracking (RC and Other)	LF		7			7
7000	Damage	LF		6			6
SUPERSTRUCTURE							
107	Steel Open Girder/Beam	LF	1,516	320	0	0	1,836
1000	Corrosion	LF		320			320
811	Steel Open Beam/Girder End	EA	0	8	0	0	8
1000	Corrosion	EA		8			8

ENB, FIB-NB, and FNB (1017) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
109	Prestressed Concrete Open Girder/Beam	LF	9,729	122	3	0	9,854
1080	<i>Delamination/Spall/Patched Area</i>	LF		108	2		110
1090	<i>Exposed Rebar</i>	LF		12	1		13
1100	<i>Exposed Prestressing</i>	LF		1			1
1110	<i>Cracking (PSC)</i>	LF		1			1
811	Beam/Girder End	EA	25	45	2	0	72
1080	<i>Delamination/Spall/Patched Area</i>	EA		39	2		41
1090	<i>Exposed Rebar</i>	EA		5			5
1110	<i>Cracking (PSC)</i>	EA		1			1
BEARINGS							
310	Elastomeric Bearing	EA	204	0	0	0	204
311	Movable Bearing	EA	0	8	0	0	8
1000	<i>Corrosion</i>	EA		8			8
313	Fixed Bearing	EA	0	8	0	0	8
1000	<i>Corrosion</i>	EA		8			8
SUBSTRUCTURE							
215	Reinforced Concrete Abutment	LF	80	0	0	0	80
226	Prestressed Concrete Pile	EA	0	60	5	0	65
1080	<i>Delamination/Spall/Patched Area</i>	EA		1	2		3
1090	<i>Exposed Rebar</i>	EA		2			2
1110	<i>Cracking (PSC)</i>	EA		52			52
1120	<i>Efflorescence</i>	EA		4	3		7
1190	<i>Abrasion/Wear`</i>	EA		1			1
234	Reinforced Concrete Pier Cap	LF	686	45	1	0	732
1080	<i>Delamination/Spall/Patched Area</i>	LF			1		1
1130	<i>Cracking (RC and Other)</i>	LF		45			45



ENB, FIB-NB, and FNB (1017) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
824	Reinforced Concrete Wingwall	EA	4	0	0	0	4
JOINTS							
304	Open Expansion Joint	LF	320	0	0	0	320
305	Assembly Joint without Seal	LF	80	0	0	0	80
845	Joint Effectiveness	EA	10	0	0	0	10
APPROACH SLABS							
321	Reinforced Concrete Approach Slab	SF	1,440	0	0	0	1,440
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	59,124	0	0	0	59,124
515	Steel Protective Coating	SF	30,699	101	0	0	30,800
3440	<i>Effectiveness (Steel Protective Coatings)</i>	<i>SF</i>		<i>101</i>			<i>101</i>
886	Beam/Girder End Protective Coating - Steel	EA	0	8	0	0	8
3440	<i>Effectiveness (Steel Protective Coatings)</i>	<i>EA</i>		<i>8</i>			<i>8</i>
SLOPE AND CHANNEL ELEMENTS							
853	Protected Slope Riprap	EA	2	0	0	0	2
854	Channel	EA	0	1	0	0	1

6.12 Trestle ESB, FIB-SB, & FSB Element Level Data

A hands-on inspection was performed in FY2023, and an underwater inspection was performed in FY2022, and element level data is presented in this section.

Table 62: ESB, FIB-SB, & FSB Element Level Data

ESB, FIB-SB, and FSB (1007) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
DECKS AND SLABS							
12	Reinforced Concrete Deck	SF	13,803	1,060	0	0	14,863
1130	Cracking (RC and Other)	SF		1,060			1,060
16	Reinforced Concrete Top Flange	SF	53,809	122	17	0	53,948
1080	Delamination/Spall/Patched Area	SF		26			26
1090	Exposed Rebar	SF			2		2
1120	Efflorescence/Rust Staining	SF		82	15		97
1130	Cracking (RC and Other)	SF		14			14
RAILINGS							
330	Metal Bridge Railing	LF	4,139	73	1	0	4,213
1080	Delamination/Spall/Patched Area	LF		8	1		9
1130	Cracking (RC and Other)	LF		62			62
7000	Damage	LF		3			3
SUPERSTRUCTURE							
107	Steel Open Girder/Beam	LF	0	1,817	3	0	1,820
1000	Corrosion	LF		1,813	3		1,816
1900	Distortion	LF		4			4
811	Steel Open Beam/Girder End	EA	0	8	0	0	8
1000	Corrosion	EA		8			8



ESB, FIB-SB, and FSB (1007) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
109	Prestressed Concrete Open Girder/Beam	LF	12,595	546	71	0	13,212
1080	<i>Delamination/Spall/Patched Area</i>	LF		269	28		297
1090	<i>Exposed Rebar</i>	LF		2	6		8
1100	<i>Exposed Prestressing</i>	LF		2	32		34
1110	<i>Cracking (PSC)</i>	LF		271	4		275
1120	<i>Efflorescence/Rust Staining</i>	LF		2	1		3
811	Prestressed Concrete Beam/Girder End	EA	203	145	4	0	352
1080	<i>Delamination/Spall/Patched Area</i>	EA		2			2
1090	<i>Exposed Rebar</i>	EA		1	1		2
1100	<i>Exposed Prestressing</i>	EA			1		1
1110	<i>Cracking (PSC)</i>	EA		140	2		142
1120	<i>Efflorescence/Rust Staining</i>	EA		2			2
BEARINGS							
310	Elastomeric Bearing	EA	320	32	0	0	352
2230	<i>Bulging, Splitting, or Tearing</i>	EA		32			32
311	Movable Bearing	EA	0	12	0	0	12
1000	<i>Corrosion</i>	EA		12			12
313	Fixed Bearing	EA	0	4	0	0	4
1000	<i>Corrosion</i>	EA		4			4
SUBSTRUCTURE							
215	Reinforced Concrete Abutment	LF	62	3	0	0	65
1130	<i>Cracking (RC and Other)</i>	LF		3			3



ESB, FIB-SB, and FSB (1007) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
226	Prestressed Concrete Pile	EA		73	13	0	86
1080	<i>Delamination/Spall/Patched Area</i>	EA		2	1		3
1090	<i>Exposed Rebar</i>	EA		11	4		15
1110	<i>Cracking (PSC)</i>	EA		59	2		61
1120	<i>Efflorescence/Rust Staining</i>	EA		1	6		7
234	Reinforced Concrete Pier Cap	LF	556	239	1	0	796
1080	<i>Delamination/Spall/Patched Area</i>	LF		1			1
1120	<i>Efflorescence/Rust Staining</i>	LF		7	1		8
1130	<i>Cracking (RC and Other)</i>	LF		231			231
824	Reinforced Concrete Wingwall	EA	4	0	0	0	4
JOINTS							
304	Open Expansion Joint	LF	689	30	0	0	719
2360	<i>Adjacent Deck or Header</i>	LF		30			30
305	Assembly Joint without Seal	LF	57	8	0	0	65
2370	<i>Metal Deterioration or Damage</i>	LF		8			8
845	Joint Effectiveness	EA	24	0	0	0	24
APPROACH SLABS							
321	Reinforced Concrete Approach Slab	SF	1,344	0	0	0	1,344
WEARING SURFACES, PROTECTIVE COATINGS, AND CONCRETE REINFORCEMENT STEEL PROTECTIVE SYSTEMS							
510	Wearing Surfaces	SF	45,691	550	0	0	46,241
3220	<i>Crack (Wearing Surface)</i>	SF		259			259
3230	<i>Effectiveness (Wearing Surface)</i>	SF		291			291



ESB, FIB-SB, and FSB (1007) Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
515	Steel Protective Coating	SF	26,344	6,193	0	0	32,537
3440	<i>Effectiveness (Steel Protective Coatings)</i>	SF		6,193			6,193
520	Concrete Reinforcement Steel Protective System	SF	5,524	0	0	63	5,587
3540	<i>Effectiveness (Concrete Protective Coatings)</i>	SF				63	63
521	Concrete Protective Coating	SF	112	63	0	0	175
886	Beam/Girder End Protective Coating - Steel	EA	0	8	0	0	8
3440	<i>Effectiveness (Steel Protective Coatings)</i>	EA		8			8
SLOPE AND CHANNEL ELEMENTS							
853	Protected Slope Riprap	EA	2	0	0	0	2
854	Channel	EA	1	0	0	0	1



7. Tunnel Inspection

For general information regarding the District’s Tunnels, please see the document entitled, Tunnel Description and Inspection Procedures for Chesapeake Channel Tunnels, a Reference Document for NTIS Inspection. The information presented here will provide an overview of who performed the work and what was accomplished.

7.1 Tunnel Baseline Data

		Inspection Frequency:	24 Months
Tunnel Number	CBBT0000000002	Tunnel Name	Chesapeake Channel Tunnel
County/City:	131-Northampton	Facility Carried:	US 13
Route Number:	00013	Location:	9.8 miles North of US Route 60
Lead Inspector:		Latitude:	37.03640000
Reviewer:		Longitude:	76.07680000

		Inspection Frequency:	24 Months
Tunnel Number:	CBBT0000000001R	Tunnel Name:	Thimble Shoal Channel Tunnel
County/City:	131-Northampton	Facility Carried:	US 13
Route Number:	00013	Location:	4.5 miles North of US Route 60
Lead Inspector:		Latitude:	36.96619400
Reviewer:		Longitude:	76.11261100

Signature of NTIS

Team Leader:

William Bolt, P.E.*

* I have read and followed the CBBT District Inspection Procedures. I have received and reviewed the spreadsheets of major preventative maintenance processes performed and viewed as necessary the Island Operator's log sheets.

Signature of

Reviewer:

Jousha Hill, P.E.

7.2 NTIS Inspection Team

Tunnel Inspection Team*	
Name	Position
William Bolt, P.E.	NTIS Team Leader
Thomas Burns, P.E.	NTIS Structural Inspector
Jaden Brajkovich, E.I.T.	NTIS Structural Inspector
Kyle Gable, P.E.	NTIS Electrical/ Mechanical Inspector
Alexander Waardenburg, P.E.	NTIS Electrical/ Mechanical Inspector
Lee Lentz, P.E.	Independent Reviewer

*Inspection credentials can be provided if requested.

7.3 Summary of Findings

The Chesapeake Channel Tunnel elements were generally in good to very good condition. There was one area of concern observed during the structural inspection. The structural inspection found a delamination in the ceiling slab at Station 504+80 in the Southbound lane, near the centerline of the roadway. This area was previously noted; however, it appeared to have deteriorated further since the previous inspection, separating more from ceiling slab. The affected/unsound area was approximately 3-0" long x 2-0" wide. The immediately loose tiles and grout were removed by the inspectors. The larger portion of the grout bed/ceiling slab that was separated was unable to be removed with inspection tools, demonstrating that it was still well attached to the ceiling. The Maintenance Director was informed within 24 hours, and the unsound material was removed within a week. See Section 3.2.2 for routine repair recommendations.

The electrical tunnel elements were generally in good to very good condition and there were no major findings. The electrical distribution system has been well maintained and has reached an age at which finding experts and parts to repair the aged components may become a challenge. It is notable that the maintenance personnel have been able to perform many repairs in house. The tunnel lighting had been replaced with LEDs and the new fixtures and mounting hardware is in very good condition. The control system is being replaced with an upgraded system that would allow greater monitoring and control. The replacement of the control systems at the portals were almost complete and the systems at the low point pumps were planned to be replaced. The new motor starters were in excellent condition. See Section 4.2.2 for routine repair recommendations.

The Chesapeake Channel Tunnel mechanical tunnel elements were generally in good to very good condition and there were no major findings. Painting was being performed regularly to protect the elements from the corrosive environment, lubrication was being performed regularly, and maintenance was being performed regularly. The portal building elevators are in the process of being replaced. See Section 4.2.2 for routine repair recommendations.



8. Tunnel Inventory Items

The tables provided in this section reflect the current tunnel inventory data coded per the Specifications for the National Tunnel Inventory (SNTI) at the time of this inspection.

8.1 TSCT Inventory Items

Table 63: TSCT Identification Items

TSCT Identification Items			
I.1	Tunnel Number	CBBT0000000001R	AN15
I.2	Tunnel Name	Thimble Shoal Tunnel	AN100
I.3	State Code	51	N (2,0)
I.4	County Code	131	N (3,0)
I.5	Place Code	12808	N (5,0)
I.6	Highway Agency District	HR	AN2
I.7	Route Number	00013	AN5
I.8	Route Direction	0	N (1,0)
I.9	Route Type	2	N (1,0)
I.10	Facility Carried	US13	AN100
I.11	LRS Route ID	000000001300	AN120
I.12	LRS Mile Point	43.059	N (8,3)
I.13	Tunnel Portal's Latitude	00000000036.96619400	N (11,8)
I.14	Tunnel Portal's Longitude	00000000076.11261100	N (11,8)
I.15	Border Tunnel State or Country Code		AN2
I.16	Border Tunnel Financial Responsibility		N (3,0)
I.17	Border Tunnel Number		AN15
I.18	Border Tunnel Inspection Responsibility		N (1,0)

Table 64: TSCT Age and Service Items

TSCT Age and Service Items			
A.1	Year Built	1964	N (4,0)
A.2	Year Rehabilitated	2014	N (4,0)
A.3	Total Number of Lanes	02	N (2,0)
A.4	Annual Average Daily Traffic	011650	N (6,0)
A.5	Annual Average Daily Truck Traffic	001065	N (6,0)
A.6	Year of Average Daily Traffic	2021	N (4,0)
A.7	Detour Length	425	N (3,0)



TSCT Age and Service Items			
A.8	Service in Tunnel	1	N (1,0)

Table 65: TSCT Classification Items

TSCT Classification Items			
C.1	Owner	32	N (2,0)
C.2	Operator	32	N (2,0)
C.3	Direction of Traffic	2	N (1,0)
C.4	Toll	2	N (1,0)
C.5	NHS Designation	1	N (1,0)
C.6	STRAHNET Designation	1	N (1,0)
C.7	Functional Classification	2	N (1,0)
C.8	Urban Code	90892	N (5,0)

Table 66: TSCT Geometric Data Items

TSCT Geometric Data Items			
G.1	Tunnel Length	005738	N (6,0)
G.2	Minimum Vertical Clearance over Tunnel Roadway	00013.5	N (5,1)
G.3	Roadway Width, Curb-to-Curb	0024.0	N (4,1)
G.4	Left Sidewalk Width	002.5	N (3,1)
G.5	Right Sidewalk Width	000.0	N (3,1)

Table 67: TSCT Inspection Items

TSCT Inspection Items			
D.1	Routine Inspection Target Date	10012021	D
D.2	Actual Routine Inspection Date	09162021	D
D.3	Routine Inspection Interval	24	N (2,0)
D.4	In-Depth Inspection	0	N (1,0)
D.5	Damage Inspection	0	N (1,0)
D.6	Special Inspection	0	N (1,0)

Table 68: TSCT Load Rating and Posting Items

TSCT Load Rating and Posting Items			
L.1	Load Rating Method	1	AN1
L.2	Inventory Load Rating Factor	0.63	N (4,2)
L.3	Operating Load Rating Factor	1.05	N (4,2)
L.4	Tunnel Load Posting Status	A	AN1
L.5	Posting Load - Gross		N (2,0)
L.6	Posting Load - Axle		N (2,0)
L.7	Posting Load - Type 3		N (2,0)
L.8	Posting Load - Type 3S2		N (2,0)
L.9	Posting Load - Type 3-3		N (2,0)
L.10	Height Restriction	1	N (1,0)
L.11	Hazardous Material Restriction	1	N (1,0)
L.12	Other Restrictions	1	N (1,0)

Table 69: TSCT Navigation Items

TSCT Navigation Items			
N.1	Under Navigable Waterway	1	N (1,0)
N.2	Navigable Waterway Clearance	055.0	N (3,1)
N.3	Tunnel or Portal Island Protection from Navigation	1	N (1,0)

Table 70: TSCT Structure Type and Materials Items

TSCT Structure Type and Material Items			
S.1	Number of Bores	1	N (1,0)
S.2	Tunnel Shape	4	N (1,0)
S.3	Portal Shapes	3	N (1,0)
S.4	Ground Conditions	1	N (1,0)
S.5	Complex	1	N (1,0)



8.2 CCT Inventory Items

Table 71: CCT Identification Items

CCT Identification Items			
I.1	Tunnel Number	CBBT000000000002	AN15
I.2	Tunnel Name	Chesapeake Channel Tunnel	AN100
I.3	State Code	51	N (2,0)
I.4	County Code	131	N (3,0)
I.5	Place Code	12808	N (5,0)
I.6	Highway Agency District	HR	AN2
I.7	Route Number	00013	AN5
I.8	Route Direction	0	N (1,0)
I.9	Route Type	2	N (1,0)
I.10	Facility Carried	US13	AN100
I.11	LRS Route ID	000000001300	AN120
I.12	LRS Mile Point	37.319	N (8,3)
I.13	Tunnel Portal's Latitude	0000000037.03638900	N (11,8)
I.14	Tunnel Portal's Longitude	0000000076.07680600	N (11,8)
I.15	Border Tunnel State or Country Code		AN2
I.16	Border Tunnel Financial Responsibility		N (3,0)
I.17	Border Tunnel Number		AN15
I.18	Border Tunnel Inspection Responsibility		N (1,0)

Table 72: CCT Age and Service Items

CCT Age and Service Items			
A.1	Year Built	1964	N (4,0)
A.2	Year Rehabilitated	2019	N (4,0)
A.3	Total Number of Lanes	02	N (2,0)
A.4	Annual Average Daily Traffic	011650	N (6,0)
A.5	Annual Average Daily Truck Traffic	001065	N (6,0)
A.6	Year of Average Daily Traffic	2021	N (4,0)
A.7	Detour Length	425	N (3,0)
A.8	Service in Tunnel	1	N (1,0)

Table 73: CCT Classification Items

CCT Classification Items			
C.1	Owner	32	N (2,0)
C.2	Operator	32	N (2,0)
C.3	Direction of Traffic	2	N (1,0)
C.4	Toll	2	N (1,0)
C.5	NHS Designation	1	N (1,0)
C.6	STRAHNET Designation	1	N (1,0)
C.7	Functional Classification	2	N (1,0)
C.8	Urban Code	90892	N (5,0)

Table 74: CCT Geometric Data Items

CCT Geometric Data Items			
G.1	Tunnel Length	005424	N (6,0)
G.2	Minimum Vertical Clearance over Tunnel Roadway	00013.5	N (5,1)
G.3	Roadway Width, Curb-to-Curb	0024.0	N (4,1)
G.4	Left Sidewalk Width	002.5	N (3,1)
G.5	Right Sidewalk Width	000.0	N (3,1)

Table 75: CCT Inspection Items

CCT Inspection Items			
D.1	Routine Inspection Target Date	10012024	D
D.2	Actual Routine Inspection Date	09192024	D
D.3	Routine Inspection Interval	24	N (2,0)
D.4	In-Depth Inspection	0	N (1,0)
D.5	Damage Inspection	0	N (1,0)
D.6	Special Inspection	0	N (1,0)

Table 76: CCT Load Rating and Posting Items

CCT Load Rating and Posting Items			
L.1	Load Rating Method	1	AN1
L.2	Inventory Load Rating Factor	0.63	N (4,2)
L.3	Operating Load Rating Factor	1.05	N (4,2)
L.4	Tunnel Load Posting Status	A	AN1
L.5	Posting Load - Gross		N (2,0)
L.6	Posting Load - Axle		N (2,0)
L.7	Posting Load - Type 3		N (2,0)
L.8	Posting Load - Type 3S2		N (2,0)
L.9	Posting Load - Type 3-3		N (2,0)
L.10	Height Restriction	1	N (1,0)
L.11	Hazardous Material Restriction	1	N (1,0)
L.12	Other Restrictions	1	N (1,0)

Table 77: CCT Navigation Items

CCT Navigation Items			
N.1	Under Navigable Waterway	1	N (1,0)
N.2	Navigable Waterway Clearance	055.0	N (3,1)
N.3	Tunnel or Portal Island Protection from Navigation	1	N (1,0)

Table 78: CCT Structure Type and Material Items

CCT Structure Type and Material Items			
S.1	Number of Bores	1	N (1,0)
S.2	Tunnel Shape	4	N (1,0)
S.3	Portal Shapes	3	N (1,0)
S.4	Ground Conditions	1	N (1,0)
S.5	Complex	1	N (1,0)



9. Tunnel Element Level Data

The tables provided in this section display the tunnel elements and condition states coded per the Specifications for the National Tunnel Inventory (SNTI) at the time of this inspection.

9.1 Thimble Shoal Channel Tunnel - Element Level Data

A hands-on inspection was performed in FY2024, and element level data is presented in this section.

Table 79: TSCT Element Level Data

TSCT Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
STRUCTURAL SECTION							
10002	Precast Concrete Tunnel Liner	SF	610,787	1,040	1,073	0	612,900
10051	Concrete Portal	SF	3,256	20	10		3,286
10061	Concrete Ceiling Slab	SF	149,988	178	19		150,185
10080	Steel Hangers and Anchorages	EA	469				469
10101	Concrete Invert Slab	SF	118,056	17,010	2,646		137,712
10132	Compression Joint Seal	LF	184				184
CIVIL SECTION							
10158	Asphalt Wearing Surface	SF	128,627				128,627
10161	Concrete Traffic Barrier	LF	11,475	1			11,476
10170	Steel Pedestrian Railing	LF	0	5,710	28		5,738
10950	Steel Corrosion Protective Coating	SF		6,422		714	7,136
MECHANICAL SYSTEMS SECTION							
10200	Ventilation System	EA	0	2			2
10201	Fans	EA	0	11	1		12
10300	Drainage and Pumping System	EA	3				3
10301	Pumps	EA	13				13
10400	Emergency Generator System	EA	2				2



TSCT Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
ELECTRICAL AND LIGHTING SYSTEMS SECTION							
10500	Electrical Distribution System	EA	0	1			1
10550	Emergency Distribution System	EA	2				2
10600	Tunnel Lighting Systems	EA	2				2
10601	Tunnel Lighting Fixture	EA	1,452	1			1,453
10620	Emergency Lighting System	EA	2				2
FIRE/LIFE SAFETY/SECURITY SYSTEMS SECTION							
10650	Fire Detection System	EA	1				1
10700	Fire Protection System	EA	1				1
10750	Emergency Communication System	EA	1				1
10800	Tunnel Operations and Security System	EA	1				1
SIGNS SECTION							
10850	Traffic Sign	EA	19				19
10910	Lane Signal	EA	2				2



9.2 Chesapeake Channel Tunnel - Element Level Data

A hands-on inspection was performed in FY2025, and element level data is presented in this section.

Table 80: CCT Element Level Data

CCT Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
STRUCTURAL SECTION							
10002	Precast Concrete Tunnel Liner	SF	574,936	2,254	1,348	769	579,307
10051	Concrete Portal	SF	3,246	20	20		3,286
10061	Concrete Ceiling Slab	SF	140,338	451	222		141,011
10080	Steel Hangers and Anchorages	EA	440		6		446
10101	Concrete Invert Slab	SF	95,481	33,932	696	55	130,164
10132	Compression Joint Seal	LF	184				184
CIVIL SECTION							
10158	Asphalt Wearing Surface	SF	120,669	908			121,577
10161	Concrete Traffic Barrier	LF	10,742	6	99		10,847
10170	Steel Pedestrian Railing	LF	4,881	543			5,424
10950	Steel Corrosion Protective Coating	SF		6070		674	6,744
MECHANICAL SYSTEMS SECTION							
10200	Ventilation System	EA	2				2
10201	Fans	EA	12				12
10300	Drainage and Pumping System	EA	3				3
10301	Pumps	EA	11	1	1		13
10400	Emergency Generator System	EA	2				2



CCT Element Level Data							
Element Number	Element Name	Unit	Condition State 1	Condition State 2	Condition State 3	Condition State 4	Total
ELECTRICAL AND LIGHTING SYSTEMS SECTION							
10500	Electrical Distribution System	EA	1				1
10550	Emergency Distribution System	EA	2				2
10600	Tunnel Lighting Systems	EA	2				2
10601	Tunnel Lighting Fixture	EA	1,380	2			1,382
10620	Emergency Lighting System	EA	2				2
FIRE/LIFE SAFETY/SECURITY SYSTEMS SECTION							
10650	Fire Detection System	EA	1				1
10700	Fire Protection System	EA	2				2
10750	Emergency Communication System	EA	1				1
10800	Tunnel Operations and Security System	EA	1				1
SIGNS SECTION							
10850	Traffic Sign	EA	3				3
10870	Egress Sign	EA	67				67

10. Photographs

10.1 Trestle ANB Photographs



Photo 1: ASB188 Asphalt Wearing Surface – Typical good condition of wearing surface.



Photo 2: ANB181 Metal Bridge Railing – Typical good condition of bridge railing and curb.



Photo 3: ANB183 Open Expansion Joint – spall 2' L x 1" w over expansion joint with $\frac{1}{4}$ " transverse crack full width (typical).



Photo 4: ANB177 – Typical Superstructure & Substructure in good condition.



Photo 5: ANB181 – Pile B – Jacket missing full circumference bottom 8' with missing grout.



Photo 6: ANB182 – Beam 2 at Bent 183: 2' long 1/8" wide crack on underside of beam.



Photo 7: ANB191 – Bent 192 at Bent 5, Bay 5 spall/delam 25" L x 2" H x 8" under x 1" deep with exposed reinforcement with up to 20% section loss.



Photo 8: ANB204.5 – Beam 8, Bay 7 at 1/3 span spall 30" L x 8" H x 1" D with 2 exposed prestressing strands (L1 and L2) with up to 20% section loss.



Photo 9: ANB202 – Substructure with fiberglass jackets . Jackets typically in good condition with isolated areas of jacket failure at waterline.

10.2 Trestle ASB Photographs



Photo 10: ASB50 Asphalt Wearing Surface – Typical Good Condition of Wearing Surface



Photo 11: ASB71 Bent 71 north face typical good condition. Bent 71 has detached conduit for navigation light at bent cap.



Photo 12: ASB67 typical substructure elevation. Substructure elements typically in good condition.

10.3 Trestle BNB Photographs



Photo 13: BNB160 – Asphalt wearing surface in good condition with pavement marking peeled and cracked.



Photo 14: BNB167 – up to 1/8" wide transverse crack at expansion joint full width of roadway.



Photo 15: BNB165 – west curb with vertical cracks up to 1/8" wide.



Photo 16: BNB178 – superstructure and substructure in good condition.



Photo 17: BNB199 – Pile A; 12" H x 6" W x 1" Deep spall with exposed reinforcement with up to 10% section loss.



Photo 18: BNB192 Beam 5, Bay 5 at 1/3 span – spall 28" L x 4" H x 5" Under x 1-1/2" D with 1 exposed prestressed strand with 90% section loss and Bay 4 – spall 24" L x 4" H x 3-1/2" Under x 1-1/2" D with 1 exposed prestressed strand with 50% section loss.



Photo 19: BNB177 under side of deck with previous beam repair noted on Beam 4.



Photo 20: BNB200 at Beam 2 on Bay 2 side, beam end delamination/spall 18" L x 1' H x 6" back x 2" deep with exposed reinforcement with up to 50% loss of section at beam end and partial bearing loss.

10.4 Trestle BSB Photographs



Photo 21: BSB100 Deck Wearing Surface in good condition and inspection equipment mobilized.



Photo 22: Superstructure in good condition.



Photo 23: BSB96 Substructure in good condition.

10.5 Trestle CNB Photographs



Photo 24: CNB199 Asphalt Wearing Surface – Typical Good Condition of Wearing Surface.



Photo 25: CNB201 Railing typically in good condition with minor impact damage at isolated locations.



Photo 26: CNB203 Curb typically in good condition with minor cracking noted on face of curb at isolated locations.



Photo 27: CNB198 Superstructure & Substructure in good condition.



Photo 28: CNB197 Bay 7 typical underside of deck with exposed chairs at isolated areas.



Photo 29: CNB213 Superstructure & Substructure in good condition.



Photo 30: CNB206 Bent 207 Beam 5, Bay 4 – spall 30" L x 6" H x 5" under x 1" deep with exposed reinforcement with up to 100% section loss.



Photo 31: CNB197 Beam 4, Bay 3 1/3 span – spall 30" L x 5" H x 5" under x 1-1/2" deep with exposed prestressing strands with L1 having 10% loss of section.

10.6 Trestle CSB Photographs



Photo 32: CSB97 Top of deck in good condition.



Photo 33: CSB90 Metal Bridge Railing— Typical Good Condition of Bridge Railing.



Photo 34: CSB91 Superstructure and Substructure in good condition.



Photo 35: CSB90 Prestressed Girder 1 spall with exposed prestressing (L1) and reinforcement. Spall measures 2' L x 7" H x 2" under x 1-1/2" deep with 20% section loss to prestressing strand and reinforcement.



10.7 NCB-NB Photographs

Not inspected this year, will be inspected in FY2026

10.8 NCB-SB Photographs



Photo 36: NCB-SB Deck and Wearing Surface – General Good Condition (Looking South)



Photo 37: Modular Joint Seal – Typical Good Condition of Joint and Adjacent Deck Header, Pier 10 Shown (Looking West)



Photo 38: Superstructure – General Condition of Steel Superstructure



Photo 39: Superstructure – General Condition of Steel Superstructure in fair condition.



Photo 40: Substructure – General Condition of Pier Substructure



Photo 41: Fender System – Typical Condition of Pier Footing and Fender System.



Photo 42: Superstructure – Blistering paint and corrosion on bolted connections.



Photo 43: NCB-SB5 Bearings – Typical Peeling Paint with Surface Corrosion at Bearings (Looking Southeast)



Photo 44 : NCB-SB – Typical Peeling Paint with Surface Corrosion and mushrooming of nuts on flange bolts.



Photo 45: Fender System – Typical Minor Corrosion of Chain between Pier 9 Footing and Fender System (Looking South)

10.9 Trestle DNB Photographs



Photo 46: DNB Wearing Surface - General Good Condition of Deck and Wearing Surface (Looking South)



Photo 47: DNB2 Metal Bridge Railing & Expansion Joint - General Good Condition of Railing (Looking Northwest) and transverse crack over expansion joint.



Photo 48: Superstructure – Typical condition of Superstructure with steel corrosion noted on up to 30% of surface area. Bearings in different degrees of expansion/contraction. Span 1 looking South.



Photo 49: Superstructure and Substructure – Typical condition of Superstructure in Span 1 looking North.



Photo 50: DNB-4 G2, Beam 2 Bay midspan 3' long x 6" high x 4" under with 1 exposed prestressing strand (L1) up to 50% section loss.



Photo 51: Superstructure & Substructure – Typical Good Condition of Beam and Piles (Span 5), Looking North.



Photo 52: Typical Good Repair Patch on bottom of girder in Span 6 in 2 locations. Looking North.



Photo 53: Prestressed Concrete Girders, DNB-7 G5, Beam 5 midspan 3' long x 5" high x 5" under x 2" deep with 1 exposed prestressing strand up to 100% section loss.



Photo 54: West wingwall undermining up to 1' wide x 6" high x 4' under.

10.10 Trestle DSB Photographs



Photo 55 – DSB2 Deck in good condition with up to 1/16" wide cracking at isolated locations.



Photo 56 – DSB20 Superstructure in good condition. (Typical)



Photo 57 – DSB9 Bent in good condition (typical)



Photo 58: DSB20 Bent 20 Beam 5 Bay 4 with beam end spall; spall up to 6" H x 6" L x 4" Deep with exposed reinforcement. Spalls noted at isolated locations.

10.11 Trestle ENB, FIB-NB, & FNB Photographs



Photo 59: FNB2 - Wearing surface in good condition.



Photo 60: Elevation view of FIBNB and FIBSB.



Photo 61: ENB4 Substructure in good condition.



Photo 62: ENB5 Superstructure in good condition.



Photo 63: FIBNB1 Superstructure in good condition with isolated coating loss and surface corrosion.



Photo 64: FIBNB4 G4 beam end spall 5" L x 8" H with up to 5% section loss on bearing area.



Photo 65: FINB1 Steel Superstructure at splice plate with blistering paint with surface corrosion.



Photo 66: FNB6 Substructure in good condition.



Photo 67: FINB2 Substructure and fender system in small boat channel.

10.12 Trestle ESB, FIB-SB, & FSB Photographs



Photo 68: FSB4 Wearing surface in good condition.

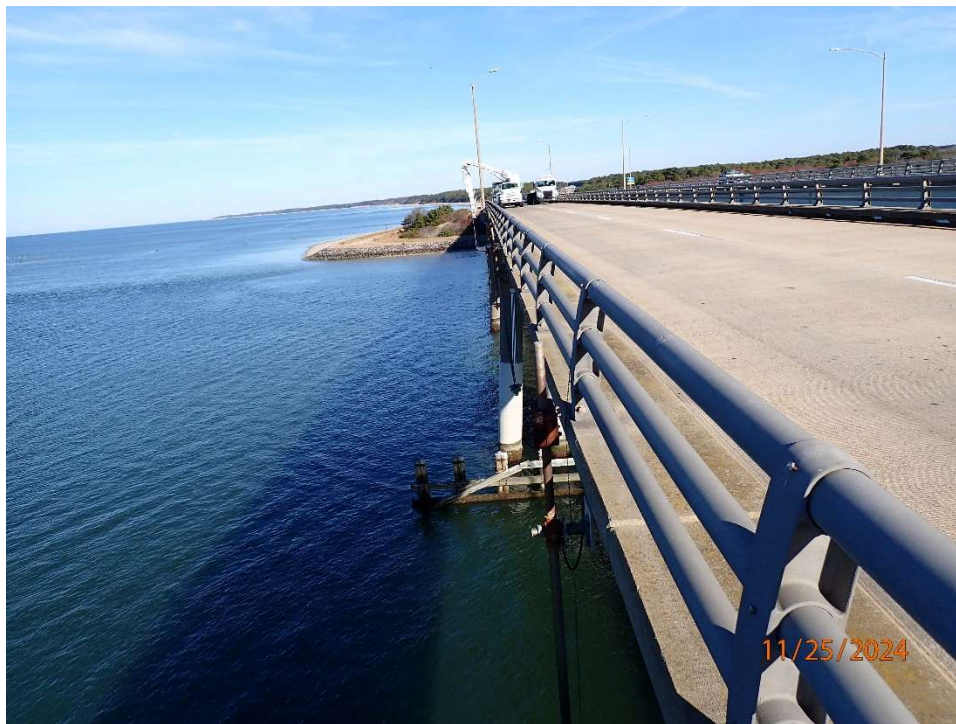


Photo 69: FIBSB2 Railing in good condition and navigation lights with light surface rust.



Photo 70: Abutment – drainage swale on west end settled and disconnected.



Photo 71: FSB4 Superstructure and substructure in good condition.

Photo 72: 531:



Photo 73: FIBSB Superstructure in good condition with isolated corrosion noted on bottom flange.



Photo 74: FSB8 Beam 1, Bay 1 spall 18" L x 5" H x 2" under x 2" deep with 1 exposed prestressing strand with up to 10% section loss.



Photo 75: FIBSB3 Bearings have pack rust up to ¼" thick typical for bearings.

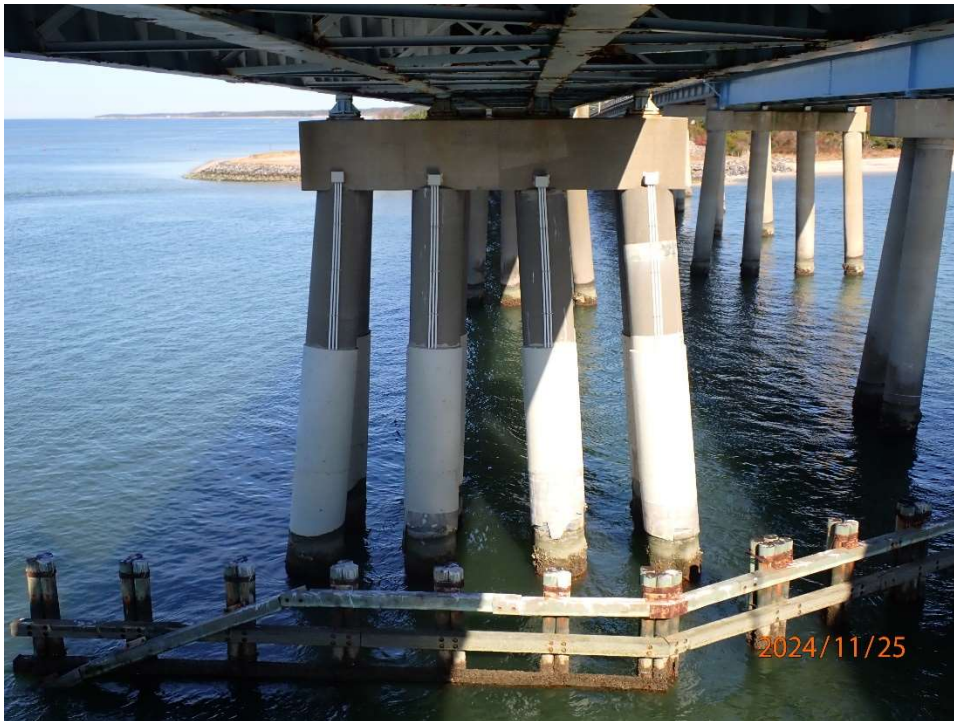


Photo 76: FIBSB Substructure with pile jacket and fender system with broken top wale and portions of lower wale within small navigation channel.



10.13 TSCT Photographs

Not inspected this year, will be inspected in FY2024

10.14 CCT Photographs



Photo 77 – Island 3 Open Approach Roadway (Looking North)



Photo 78 – Island 4 Open Approach Roadway (Looking North)



Photo 79: Tunnel Portal – General View of Island 3 Portal (Looking North)



Photo 80: Tunnel Portal – General View of the Island 3 Portal Spalling (Looking West)



Photo 81: Tunnel Portal – General View of Island 4 Portal (Looking South)



Photo 82: Tunnel Roadway – General View along Tunnel Roadway (Looking South)



Photo 83: Tunnel Roadway – General View of the Concrete Barrier (Lined with Tile), Curb, Sidewalk, Pedestrian Railing, and Tunnel Liner Wall (Looking North)



Photo 84: Tunnel Ceiling Slab – General View of Random Cracked Tiles in Tunnel Roadway Ceiling (Looking West)



Photo 85: Tunnel Ceiling Slab – Isolated Area with More Significant Delaminated Concrete and Tile; and Missing Tiles in Tunnel Roadway Ceiling (Sta. 504+80 Looking South)



Photo 86: Fresh Air Duct – General View along Tunnel Liner and Invert (Looking North)



Photo 87: Fresh Air Duct – General View of Delamination and Spalling in the Tunnel Liner (Looking East)



Photo 88: Fresh Air Duct – General View of Cracking with Efflorescence in the Invert Slab (Looking East)



Photo 89: Exhaust Air Duct – General View along Tunnel Liner and Ceiling Slab (Looking North)



Photo 90: Exhaust Air Duct – General View of Random Transverse Cracking with Significant Efflorescence and Leakage in the Tunnel Liner (Looking West)



Photo 91: Exhaust Air Duct – General View of Random Spalling with Exposed and Corroded Reinforcement Steel in the Tunnel Liner (Looking West)



Photo 92: Fire Protection System – Typical Fire Extinguisher in Tunnel Roadway (Looking West)



Photo 93: Tunnel Lighting Fixture – Loose anchorage/mounting hardware at East Station 469+60 (Blue Arrow)
(similar at East Station 469+30)

10.15 General Facility



Photo 94: Approach Roadway (North); Asphalt with alligator cracking up to ¼" wide throughout.



Photo 95: Approach Roadway (North) near FIB Bridge; Asphalt with alligator cracking up to ¼" wide throughout.



Photo 96: Approach Roadway (South) near Trestle ASB; Asphalt with alligator cracking up to ¼" wide throughout.



Photo 97: Approach Roadway (South) headed north approx. 675' south of gate; pothole and concrete pavement settled up to 1" with up to ¼" wide transverse crack.



Photo 98: Approach Roadway (South); impact damage to guardrail pushed back up to 1' back (non CBBT property)



Photo 99: FIB Causeway looking south; Asphalt with up to 1/8" alligator cracking with majority sealed.



Photo 100: FIB Causeway headed south; Pothole/sinkhole at shoulder/guardrail with riprap. Sinkhole measures 42" wide x 24" long x 3" deep.



Photo 101: FIB Causeway headed north (looking south); Typical shoreline stabilization.

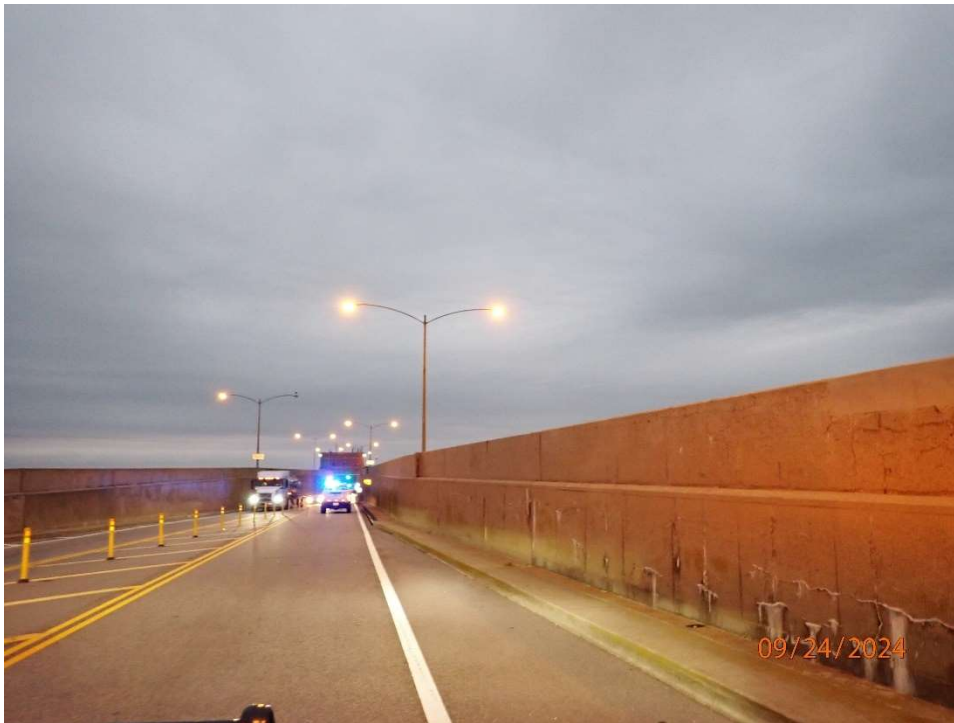


Photo 102: Portal Island 3 Approach Roadway and Approach Wall; vertical and transverse cracks in approach wall with efflorescence.



Photo 103: Portal Island 3 Approach Roadway; corrosion to rub rail throughout with isolated delaminations to sidewalk/curb.



Photo 104: Portal Island 3 Open Approach Wall (east face); spall with exposed reinforcement with up to 100% section loss. Spalls noted at isolated locations and typically in the top 8' of wall.



Photo 105: Portal Island 3 Open Approach Wall (west face); typical condition of approach wall.



Photo 106: Portal Island 3; Surface; Typical pavement condition on east side of island.



Photo 107: Portal Island 3; Surface; Typical pavement condition on west side of island.



Photo 108: Portal Island 3; concrete light poles typically exhibit vertical cracking and spalls with exposed reinforcement.



Photo 109: Portal Island 4; Open Approach Roadway



Photo 110: Portal Island 4; Open Approach Walls; hairline crack with rust staining and minor efflorescence.



Photo 111: Portal Island 4: Open Approach Roadway and Walls; typical condition .



Photo 112: Portal Island 4 Splash Wall; Repair to previous sinkhole with urethane material out of joints.



Photo 113: Portal Island 4 Splash Wall; Repair to previous sinkhole with urethane material. Sinkhole is still present in roadway with void under asphalt at time of inspection. The District noted in December 2024 that repair was made to this location.



Photo 114: Portal Island 4 Splash Wall; Minor rotation to splash wall just south of sinkhole repair.

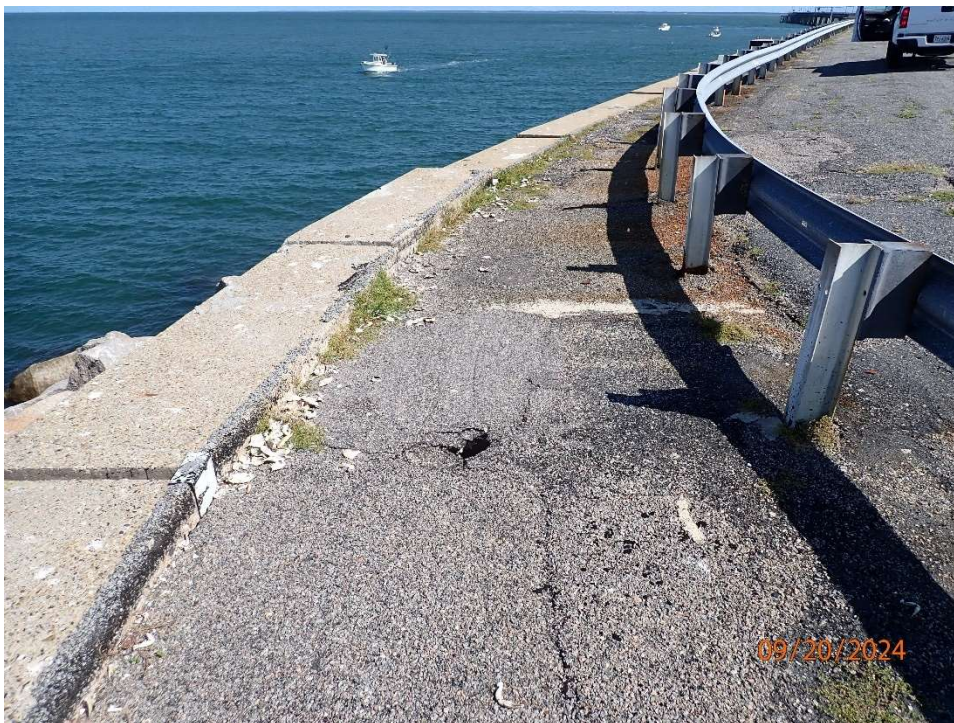


Photo 115: Portal Island 4 Splash Wall; newly forming sinkhole behind guardrail on west side of island. Depth of sinkhole could not be verified.



Photo 116: Portal Island 4 Surface; typical asphalt condition on portal island.



Photo 117: Portal Island 4 Concrete Light Pole; typical condition of poles with areas of spalls with exposed reinforcement up to 20% section loss of reinforcement.



Photo 118: South Toll Plaza; Toll Office Building



Photo 119: South Toll Plaza; Toll Office Building Roof in good condition with no notable defects.



Photo 120: South Toll Plaza; Toll Booth Plaza in good condition.



Photo 121: South Toll Plaza; Toll Booth Plaza in good condition.



Photo 122: South Toll Plaza; Garage in good condition.



Photo 123: South Toll Plaza Parking Lot; Pavement has isolated alligator cracking up to 1/8" wide; however, overall, in good condition.



Photo 124: North Toll Plaza, Toll Office Building



Photo 125: North Toll Plaza, Toll Office Building roof in good condition.



Photo 126 North Toll Plaza, Toll Office Building with water heater with minor leak.



Photo 127: North Toll Plaza, Toll Booth and Canopy with roadway approach in good condition.



Photo 128: North Toll Plaza, Toll Booth and Canopy with roof in good condition.



Photo 129: North Toll Plaza, Toll Booth and Canopy, isolated pothole 18" diameter x 2" deep.



Photo 130: North Toll Plaza, Administration Building in good condition.



Photo 131: North Toll Plaza, Administration Building brick with minor deterioration at isolated locations. Overall, in good condition.



Photo 132: North Toll Plaza, Administration Building roof in good condition.



Photo 133: North Toll Plaza, Maintenance Building in overall in good condition.



Photo 134: North Toll Plaza, Garage & Generator Building in overall in good condition.



Photo 135: North Toll Plaza, Garage & Generator Building with interior in good condition with signs of minor leakage on backwall.



Photo 136: North Toll Plaza, Fence is in good condition with several post top for 3-wire barb off at isolated locations.



Photo 137: North Toll Plaza, Equipment Storage Building in very good condition. Minor damage noted to Bay 2 trim on north storage structure.



Photo 138: North Toll Plaza, Storage Yard and Parking in good condition with alligator cracking throughout up to ¼" wide. Isolated low areas with ponding water.



Photo 139: North Toll Plaza, Rest Room Facility in good condition with alligator cracking noted throughout the parking lot.



11. Bay Bottom Profiles

Original copies of Hydrographic Survey data are on file with CBBT.



12. Tunnel Inspection Back Up Data

10200 Ventilation System	Damper BSE1	Damper Drive	Condition	Good paint. Thin oil film on motor front and rear. Reducer oil level sight glass is opaque. Reducer is leaking oil from shaft seal plates.			1		Replace reducer oil level sight glass		9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BSE1	Damper Drive Rod and Bearings	Condition	Well lubricated.			1				9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BSE2	Damper Door	Condition	Good			1				9/17/2024
			Operation	Good							9/17/2024
10200 Ventilation System	Damper BSE2	Damper Chains	Condition	Well lubricated.			1				9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BSE2	Damper Drive	Condition	Good paint. Thin oil film on motor front and rear. Reducer oil level sight glass is opaque. Reducer is leaking oil from shaft seal plates and input and output shaft seals.			2		Replace reducer oil level sight glass		9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BSE2	Damper Drive Rod and Bearings	Condition	Well lubricated.			1				9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BSE3	Damper Door	Condition	Good			1				9/17/2024
			Operation	Good							9/17/2024
10200 Ventilation System	Damper BSE3	Damper Chains	Condition	Well lubricated.			1				9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BSE3	Damper Drive	Condition	Reducer oil level sight glass is opaque.			1		Replace reducer oil level sight glass		9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BSE3	Damper Drive Rod and Bearings	Condition	Well lubricated.			1				9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BNB1	Damper Door	Condition	Very isolated paint failure and Very minor surface rust.			1				9/17/2024
			Operation	Good							9/17/2024
10200 Ventilation System	Damper BNB1	Damper Chains	Condition	Well lubricated.			1				9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BNB1	Damper Drive Motor	Condition	Good paint. Reducer oil level sight glass is opaque.			1		Replace reducer oil level sight glass		9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BNB1	Damper Drive Rod and Bearings	Condition	Well lubricated. Support has isolated paint failure and minor surface rust.			1				9/17/2024
			Operation	Good. Smooth.							9/17/2024
10200 Ventilation System	Damper BNB2	Damper Door	Condition	Very isolated paint failure and Very minor surface rust.			1				9/17/2024
			Operation	Good							9/17/2024

10200 Ventilation System	Damper BNB2	Damper Chains	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNB2	Damper Drive Motor	Condition	Good paint. Reducer oil level sight glass is opaque.			1		Replace reducer oil level sight glass	9/17/2024
			Operation	Good. Smooth.			1			9/17/2024
10200 Ventilation System	Damper BNB2	Damper Drive Rod and Bearings	Condition	Well lubricated. Support has isolated paint failure and minor surface rust.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNB3	Damper Door	Condition	Very isolated paint failure and Very minor surface rust.			1			9/17/2024
			Operation	Good			1			9/17/2024
10200 Ventilation System	Damper BNB3	Damper Chains	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNB3	Damper Drive Motor	Condition	Good paint. Reducer oil level sight glass is opaque. Reducer is leaking oil from manual drive shaft seal plate and output shaft seal.			2		Replace reducer oil level sight glass	9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNB3	Damper Drive Rod and Bearings	Condition	Well lubricated. Support has isolated paint failure and minor surface rust.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE1	Damper Door	Condition	Very isolated paint failure and Very minor surface rust.			1			9/17/2024
			Operation	Good						9/17/2024
10200 Ventilation System	Damper BNE1	Damper Chains	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE1	Damper Drive Motor	Condition	Good paint. Reducer oil level sight glass is opaque. Reducer is leaking oil from input shaft seal			1		Replace reducer oil level sight glass	9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE1	Damper Drive Rod and Bearings	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE2	Damper Door	Condition	Very isolated paint failure and Very minor surface rust.			1			9/17/2024
			Operation	Good						9/17/2024
10200 Ventilation System	Damper BNE2	Damper Chains	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE2	Damper Drive Motor	Condition	Good paint. Reducer oil level sight glass is opaque.			1		Replace reducer oil level sight glass	9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE2	Damper Drive Rod and Bearings	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE3	Damper Door	Condition	Very isolated paint failure and Very minor surface rust.			1			9/17/2024

			Operation	Good						9/17/2024
10200 Ventilation System	Damper BNE3	Damper Chains	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE3	Damper Drive Motor	Condition	Good paint. Reducer oil level sight glass is opaque. Reducer is leaking oil from input shaft seal			1		Replace reducer oil level sight glass	9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	Damper BNE3	Damper Drive Rod and Bearings	Condition	Well lubricated.			1			9/17/2024
			Operation	Good. Smooth.						9/17/2024
10200 Ventilation System	CO Monitor	North Exhaust Duct	Condition	Device looked to be turned off.			3		Have the monitoring equipment checked out.	9/17/2024
			Operation	Device looked to be turned off.			3			9/17/2024
10200 Ventilation System	CO Monitor	South Exhaust Duct	Condition	Good			1			9/17/2024
			Operation	Good, reading of 14 ppm was taken						9/17/2024
10200 Ventilation System	Exhaust Air Port	North Exhaust Duct	Condition	Inspected By Structural - Insert More Lines as needed for each port with a Defect						
10200 Ventilation System	Exhaust Air Port	South Exhaust Duct	Condition	Inspected By Structural - Insert More Lines as needed for each port with a Defect						
10200 Ventilation System	Fresh Air Flue	North Exhaust Duct	Condition	Inspected By Structural - Insert More Lines as Needed for each flue with a Defect						
10200 Ventilation System	Fresh Air Flue	South Exhaust Duct	Condition	Inspected By Structural - Insert More Lines as Needed for each flue with a Defect						
10201 Fans	Fan BSB1	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 2	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 3	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 4	Good, per maintenance staff			1			9/17/2024
		Fan Motor Controller	Operation	Good			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level. Minor surface rust on bearing split bolt.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good. Typical concrete surface cracks.			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good. Typical concrete surface cracks.			1			9/17/2024

		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Minor paint failure and surface corrosion.			1			9/17/2024
		Fan Housing	Condition	Minor paint failure and surface corrosion.			1			9/17/2024
		Conduits	Condition	Good			1			9/17/2024
10201 Fans	Fan BSB2	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 2	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 3	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 4	Good, per maintenance staff			1			9/17/2024
		Fan Motor Controller	Operation	Good			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Minor paint failure and surface rust at sprocket			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good			1			9/17/2024
		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Minor paint failure and surface corrosion.			1			9/17/2024
		Fan Housing	Condition	Minor paint failure and surface corrosion.			1			9/17/2024
		Conduits	Condition	good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BSB3	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good. 44A			1			9/17/2024
		Fan Motor	Operation Speed 2	Good. 107A			1			9/17/2024
		Fan Motor	Operation Speed 3	Good. 75A			1			9/17/2024
		Fan Motor	Operation Speed 4	Good. 175A			1			9/17/2024

		Fan Motor Controller	Operation	Good. Voltage ok and balanced			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Minor paint failure and surface rust at sprocket			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level. Moderate bearing seal leak.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good. Typical concrete surface cracks.			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good. Typical concrete surface cracks.			1			9/17/2024
		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Mior paint failure and surface corrosion.			1			9/17/2024
		Fan Housing	Condition	Mior paint failure and surface corrosion.			1			9/17/2024
		Conduits	Condition	Good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BSE1	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good. 44A			1			9/17/2024
		Fan Motor	Operation Speed 2	Good. 103A			1			9/17/2024
		Fan Motor	Operation Speed 3	Good. 100A			1			9/17/2024
		Fan Motor	Operation Speed 4	Good. 244A			1			9/17/2024
		Fan Motor Controller	Operation	Good. Voltage ok and balanced			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good			1			9/17/2024
		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024

		Fan Wheel	Condition	Good			1			9/17/2024
		Fan Housing	Condition	Good			1			9/17/2024
		Conduits	Condition	Good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BSE2	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good. 45A			1			9/17/2024
		Fan Motor	Operation Speed 2	Good. 110A			1			9/17/2024
		Fan Motor	Operation Speed 3	Good. 96A			1			9/17/2024
		Fan Motor	Operation Speed 4	Good. 220A			1			9/17/2024
		Fan Motor Controller	Operation	Good. Voltage ok and balanced			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good			1			9/17/2024
		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Good			1			9/17/2024
		Fan Housing	Condition	Good			1			9/17/2024
		Conduits	Condition	Good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BSE3	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good, per maintenance staff						9/17/2024
		Fan Motor	Operation Speed 2	Good, per maintenance staff						9/17/2024
		Fan Motor	Operation Speed 3	Good, per maintenance staff						9/17/2024
		Fan Motor	Operation Speed 4	Good, per maintenance staff						9/17/2024
		Fan Motor Controller	Operation	Good			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024

		Fan Shaft	Condition	Minor paint failure.			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good			1			9/17/2024
		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Good			1			9/17/2024
		Fan Housing	Condition	Good			1			9/17/2024
		Conduits	Condition	Good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BNB1	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 2	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 3	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 4	Good, per maintenance staff			1			9/17/2024
		Fan Motor Controller	Operation	Good			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good Paint. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good Paint. Good oil level.			2			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good Paint			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good Paint			1			9/17/2024
		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Good			1			9/17/2024
		Fan Housing	Condition	Isolated paint failure and minor corrosion.			1			9/17/2024

		Conduits	Condition	Good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BNB2	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good, per maintenance staff			1			9/17/2024
		Fan Motor	Operation Speed 2	Good, per maintenance staff						9/17/2024
		Fan Motor	Operation Speed 3	Good, per maintenance staff						9/17/2024
		Fan Motor	Operation Speed 4	Good, per maintenance staff						9/17/2024
		Fan Motor Controller	Operation	Good			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good Paint. Good oil level. Minor oil leak.			2			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good Paint. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good Paint			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good Paint			1			9/17/2024
		Fan Drive System	Condition	Good			2			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Good			1			9/17/2024
		Fan Housing	Condition	Isolated paint failure and minor corrosion.			1			9/17/2024
		Conduits	Condition	Good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BNB3	Fan Motor	Condition	Good			2			9/17/2024
		Fan Motor	Operation Speed 1	Good. 46A			1			9/17/2024
		Fan Motor	Operation Speed 2	Good. 105A			1			9/17/2024
		Fan Motor	Operation Speed 3	Good. 75A			1			9/17/2024
		Fan Motor	Operation Speed 4	Good. 180A			1			9/17/2024
		Fan Motor Controller	Operation	Good. Voltage ok and balanced			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Minor paint failure and surface corrosion.			1			9/17/2024

10201 Fans	Fan BNE2	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good. 44A			1			9/17/2024
		Fan Motor	Operation Speed 2	Good. 103A						9/17/2024
		Fan Motor	Operation Speed 3	Good. 102A						9/17/2024
		Fan Motor	Operation Speed 4	Good. 233A						9/17/2024
		Fan Motor Controller	Operation	Good. Voltage ok and balanced			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level. Minor paint failure.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Bearing Pedestal - Drive Side	Condition	Good			1			9/17/2024
		Bearing Pedestal - Non-Drive Side	Condition	Good			1			9/17/2024
		Fan Drive System	Condition	Good			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Wheel	Condition	Good			1			9/17/2024
		Fan Housing	Condition	Good. Water on room floor.			1			9/17/2024
		Conduits	Condition	Good			1			9/17/2024
										9/17/2024
10201 Fans	Fan BNE3	Fan Motor	Condition	Good			1			9/17/2024
		Fan Motor	Operation Speed 1	Good. 47A			1			9/17/2024
		Fan Motor	Operation Speed 2	Good. 109A			1			9/17/2024
		Fan Motor	Operation Speed 3	Good. 94A			1			9/17/2024
		Fan Motor	Operation Speed 4	Good. 230A			2			9/17/2024
		Fan Motor Controller	Operation	Good. Voltage ok and balanced			1			9/17/2024
		Fan Motor Controller E Stop	Operation	Good			1			9/17/2024
		Fan Shaft	Condition	Good			1			9/17/2024
		Fan Shaft Bearing Drive Side	Condition	Good. Good oil level.			1			9/17/2024
			Operation	Good			1			9/17/2024
		Fan Shaft Bearing Non-Drive Side	Condition	Good. Good oil level.			1			9/17/2024

Chesapeake Tunnel - Ceiling Slab

Ceiling Slab														Ceiling Tile			
Date	Inspector	Weather	Photo	Location	Defect Location	Condition	Comments	Length	Width	Area	Condition State	1	2	3	4	Cracked	Delaminated
Exhaust Duct																	
9/17/2024	WRB, JBB, TMB	Rain and Wind	JBB5299	Tunnel - Chesapeake - Exhaust Duct at Sta. 473+97	Floor	Transverse Crack 9 linear ft. and Width = HL		9	1	9	2	0	9	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind	JBB5310	Tunnel - Chesapeake - Exhaust Duct at Sta. 474+98	Haunch Beam	Delamination of Length 1ft. by 1ft.	at hanger rod	1	1	1	2	0	1	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 475+20	Haunch Beam	Delamination of Length 2ft. by 1ft.		2	1	2	2	0	2	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 475+35	Haunch Beam	Delamination of Length 1ft. by 1ft.	at hanger rod	1	1	1	2	0	1	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 475+60	Floor	Longitudinal Crack 7 linear ft. and Width = HL		7	1	7	2	0	7	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 475+60	Floor	Transverse Crack 4 linear ft. and Width = HL		4	1	4	2	0	4	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind	JBB5313	Tunnel - Chesapeake - Exhaust Duct at Sta. 483+75	Exhaust Air Port	Spall length 1ft. by width 2ft.		1	2	2	3	0	0	2	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 484+45	Floor	Longitudinal Crack 8 linear ft. and Width = HL with Efflorescence and Drips per min		8	1	8	2	0	8	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 484+45	Floor	Transverse Crack 20 linear ft. and Width = HL with Corrosion and Efflorescence and Drips per min	Corrosion for 3 LF	22	1	22	2/3	0	19	3	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 484+60	Light	Non-Functional		0	0	0	-	0	0	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 484+60	Floor	Delamination of Length 1ft. by 3ft.	at hanger rod	1	3	3	2	0	3	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 486+75	Floor	Delamination of Length 1ft. by 4ft.		1	4	4	2	0	4	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 486+90	Floor	Delamination of Length 2ft. by 3ft.		2	3	6	2	0	6	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 486+90	Floor	Transverse Crack 20 linear ft. and Width = HL with Efflorescence and Drips per min		22	1	22	2	0	22	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 487+60	Floor	Transverse Crack 20 linear ft. and Width = HL with Efflorescence and Drips per min	Corrosion for 6 LF	22	1	22	2/3	16	6				
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 487+85	Floor	Transverse Crack 20 linear ft. and Width = HL		22	1	22	2	0	22	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 488+20	Floor	Delamination of Length 2ft. by 2ft.		2	2	4	2	0	4	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 489+10	Haunch Beam	Delamination of Length 5ft. by 1ft.	3 Areas equaling Total	5	1	5	2	0	5	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 489+80	Floor	Delamination of Length 3ft. by 2ft.		3	2	6	2	0	6	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 498+75	Haunch Beam	Delamination of Length 4ft. by 1ft.	at hanger rod	4	1	4	2	0	4	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 499+25	Light	Non-Functional		0	0	0	-	0	0	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind	JBB5321	Tunnel - Chesapeake - Exhaust Duct at Sta. 499+52	Haunch Beam	Spall length 8ft. by width 1 ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars		8	1	8	2	0	8	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 499+95	Floor	Delamination of Length 2ft. by 2ft.		2	2	4	2	0	4	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 500+40	Haunch Beam	Delamination of Length 5ft. by 2ft.		5	2	10	2	0	10	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind	JBB5322	Tunnel - Chesapeake - Exhaust Duct at Sta. 500+50	Floor	Delamination of Length 6ft. by 5ft.		6	5	30	2	0	30	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 502+60	Floor	Delamination of Length 4ft. by 4ft.		4	4	16	2	0	16	0	0		
9/19/2024	WRB, JBB	Clear	JBB5383	Tunnel - Chesapeake - Exhaust Duct at Sta. 503+10	Exhaust Air Port	Spall length 1ft. by width 1 ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars		1	1	1	3	0	0	1	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 506+50	Exhaust Air Port	Delamination of Length 1ft. by 3ft.		1	3	3	2	0	3	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 506+50	Exhaust Air Port	Delamination of Length 1ft. by 2ft.		1	2	2	2	0	2	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 506+50	Exhaust Air Port	Delamination of Length 1ft. by 2ft.		1	2	2	2	0	2	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind	JBB5324	Tunnel - Chesapeake - Exhaust Duct at Sta. 512+65	Exhaust Air Port	Spall length 1ft. by width 3ft.		1	3	3	3	0	0	3	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 514+30	Floor	Spall length 1ft. by width 2ft.	at hanger rod	1	2	2	3	0	0	2	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind	JBB5125	Tunnel - Chesapeake - Exhaust Duct at Sta. 514+30	Exhaust Air Port	Spall length 1ft. by width 3ft.		1	3	3	3	0	0	3	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 514+60	Exhaust Air Port	Delamination of Length 1ft. by 4ft.	at hanger rod	4	2	8	2	0	8	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 521+90	Haunch Beam	Spall length 1ft. by width 2ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars	at hanger rod	1	2	2	3	0	0	2	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 522+50	Floor	Delamination of Length 2ft. by 4ft.		2	4	8	2	0	8	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 522+50	Floor	Longitudinal Crack 10 linear ft. and Width = HL with Efflorescence and 1 Drips per min		10	1	10	3	0	0	10	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 522+50	Floor	Hairline cracking Over 5% of area from 522+50 to 523+50		0	0	130	2	0	130	0	0		
9/17/2024	WRB, JBB, TMB	Rain and Wind		Tunnel - Chesapeake - Exhaust Duct at Sta. 523+00	Floor	Transverse Crack 6 linear ft. and Width = HL		6	1	6	2	0	6	0	0		
												0	370	32	0		
														# Tiles			
Roadway																	
9/19/2024	WRB, JBB	Clear	JBB5347	Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 469+00	Ceiling	(Cracked Tiles Square=4)--(Delaminated Tiles Square = 8)--		0	0	8	2	0	8	0	0	4	8
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 470+00	Ceiling	(Delaminated Tiles Square = 6)--		0	0	6	2	0	6	0	0		6
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 470+05	Ceiling	(Cracked Tiles Square=12)--(Delaminated Tiles Square = 16)--		0	0	16	2	0	16	0	0	12	16
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 470+50	Ceiling	(Delaminated Tiles Square = 10)--		0	0	10	2	0	10	0	0		10
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 469+00	Ceiling	(Cracked Tiles Square=6)--	Loose pieces were removed	0	0	6	1	6	0	0	0	6	4
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 471+75	Ceiling	(Cracked Tiles Square=4)--(Delaminated Tiles Square = 4)--		0	0	4	1	4	0	0	0		4
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 472+50	Ceiling	(Cracked Tiles Square=12)--(Delaminated Tiles Square = 50)--		0	0	50	2	0	50	0	0	12	50
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 473+75	Ceiling	(Cracked Tiles Square=4)--(Delaminated Tiles Square = 12)--		0	0	12	2	0	12	0	0		12
9/19/2024	WRB, JBB	Clear	JBB5352	Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 474+50	Ceiling	(Cracked Tiles Square=1)--	Corrosion Staining and Efflorescence	0	0	1	1	1	0	0	0		1
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 474+50	Ceiling	(Delaminated Tiles Square = 12)--		0	0	12	2	0	12	0	0		12
9/19/2024	WRB, JBB	Clear	JBB5353	Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 474+70	Ceiling	(Stained Tiles Square=2)--	Corrosion Staining and Efflorescence	0	0	2	3	0	0	2	0		2
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 474+70	Ceiling	(Cracked Tiles Square=20)--	Over 15' long area with Corrosion Staining and Efflorescence	0	0	20	3	0	0	20	0	20	4
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 474+75	Ceiling	(Cracked Tiles Square=4)--(Delaminated Tiles Square = 4)--		0	0	4	2	0	4	0	0		4
9/19/2024	WRB, JBB	Clear	JBB5354	Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+10	Ceiling	(Stained Tiles Square=3)--	Corrosion Staining and Efflorescence	0	0	3	3	0	0	3	0		3
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+10	Ceiling	(Cracked Tiles Square=30)--	4x4 area	0	0	0	2	0	0	0	0		30
9/19/2024	WRB, JBB	Clear	JBB5355	Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+50	Ceiling	(Cracked Tiles Square=15)--	Corrosion Staining and Efflorescence	0	0	15	3	0	0	15	0	15	15
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+55	Ceiling	(Delaminated Tiles Square = 8)--		0	0	8	2	0	8	0	0		8
9/19/2024	WRB, JBB	Clear	JBB5356	Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+60	Ceiling	(Cracked Tiles Square=30)--	Over 15' x 15' area with Corrosion Staining and Efflorescence	0	0	30	3	0	0	30	0	30	30
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+65	Ceiling	(Cracked Tiles Square=10)--		0	0	10	2	0	10	0	0		10
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+75	Ceiling	(Cracked Tiles Square=9)--		0	0	9	3	0	0	9	0	9	9
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 475+75	Ceiling	(Cracked Tiles Square=6)--		0	0	6	2	0	6	0	0		6
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 478+20	Ceiling	(Cracked Tiles Square=20)--(Delaminated Tiles Square = 36)--	Over 12' Long area	0	0	36	2	0	36	0	0	20	36
9/19/2024	WRB, JBB	Clear	JBB5357	Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 478+25	Ceiling	(Cracked Tiles Square=32)--	Over 15' Long x 12' Wide area with Corrosion Staining and Isolated Delaminated Tiles	0	0	32	3	0	0	32	0	32	32
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 478+30	Ceiling	(Delaminated Tiles Square = 6)--		0	0	6	1	6	0	0	0		6
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 478+40	Ceiling	(Delaminated Tiles Square = 48)--	Over 2' Long x 4' Wide Delaminated area with Corrosion Staining	0	0	48	3	0	0	48	0	48	48
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 479+50	Ceiling	(Delaminated Tiles Square = 9)--		0	0	9	2	0	9	0	0		9
9/19/2024	WRB, JBB	Clear		Tunnel - Chesapeake - Roadway Level - Ceiling Tiles at Sta. 481+80	Ceiling	(Delaminated Tiles Square = 108)--	At Vent / Over 2' Long x 6' Wide Delaminated area with Corrosion Staining	2	6	108	3	0	0	108	0	108	108
9																	

Chesapeake Tunnel - Liner and Roadway Elements

Date	Element	Notes	Material	Description	Length	Width	Depth	Area	Volume	Weight	Count	Notes
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5256	Tunnel - Chesapeake - Supply Duct at Sta. 469+50	Floor	Spall length 4ft. by width 4ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	4	4	16	3	0	16	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5264	Tunnel - Chesapeake - Supply Duct at Sta. 471+40	Floor	Spall length 2ft. by width 2ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	2	2	4	3	0	4	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5264	Tunnel - Chesapeake - Supply Duct at Sta. 478+00	Floor	Spall length 4ft. by width 2ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	4	2	8	3	0	8	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5264	Tunnel - Chesapeake - Supply Duct at Sta. 478+20	Floor	Spall length 4ft. by width 2ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	4	2	8	3	0	8	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5264	Tunnel - Chesapeake - Supply Duct at Sta. 478+40	Floor	Spall length 4ft. by width 2ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	4	2	8	3	0	8	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5256	Tunnel - Chesapeake - Supply Duct at Sta. 478+78	Floor	Spall length 1ft. by width 4ft. // Max Depth in. with Exp. Long. Bars and 1 Exp. Trans. Bars.	1	4	4	3	0	4	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5256	Tunnel - Chesapeake - Supply Duct at Sta. 480+21	Floor	Spall length 3ft. by width 1ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	3	1	3	3	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5264	Tunnel - Chesapeake - Supply Duct at Sta. 480+21	Floor	Spall length 3ft. by width 1ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	4	2	8	3	0	8	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5265	Tunnel - Chesapeake - Supply Duct at Sta. 480+65	Floor	Spall length 4ft. by width 3ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	4	3	12	3	0	12	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5266	Tunnel - Chesapeake - Supply Duct at Sta. 482+90	Floor	Delamination of Length 4ft. by 2ft.	4	2	8	2	0	8	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5267	Tunnel - Chesapeake - Supply Duct at Sta. 483+50	Floor	Spall length 3ft. by width 3ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	3	3	9	3	0	9	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5268	Tunnel - Chesapeake - Supply Duct at Sta. 484+50	Floor	Spall length 2ft. by width 4ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	2	4	8	3	0	8	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5269	Tunnel - Chesapeake - Supply Duct at Sta. 486+50	Floor	Spall length 1ft. by width 3ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	1	3	3	3	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5270	Tunnel - Chesapeake - Supply Duct at Sta. 488+75	Floor	Spall length 1ft. by width 3ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	1	3	3	3	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5272	Tunnel - Chesapeake - Supply Duct at Sta. 489+15	Floor	1ft. by width 3ft. Area with Corrosion Staining and Active Leak	1	3	3	4	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5271	Tunnel - Chesapeake - Supply Duct at Sta. 489+30	Floor	Spall length 1ft. by width 2ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	1	2	2	3	0	2	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5273	Tunnel - Chesapeake - Supply Duct at Sta. 489+80	Floor	Spall length 1ft. by width 3ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	1	3	3	3	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5273	Tunnel - Chesapeake - Supply Duct at Sta. 489+80	Floor	Non-function Light	-	-	-	-	0	0	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5290	Tunnel - Chesapeake - Supply Duct at Sta. 499+756	Floor	1ft. by width 4ft. Area with Corrosion Staining and Active Leak	1	4	4	4	0	4	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5289	Tunnel - Chesapeake - Supply Duct at Sta. 503+55	Floor	Spall length 1ft. by width 1ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	2	3	6	3	0	6	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5289	Tunnel - Chesapeake - Supply Duct at Sta. 504+60	Floor	Spall length 1ft. by width 1ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	1	3	3	3	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5288	Tunnel - Chesapeake - Supply Duct at Sta. 508+20	Floor	Non-function Light	-	-	-	-	0	0	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5287	Tunnel - Chesapeake - Supply Duct at Sta. 511+15	Floor	1ft. by width 3ft. Area with Corrosion Staining and Active Leak	1	3	3	4	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5286	Tunnel - Chesapeake - Supply Duct at Sta. 511+70	Floor	Spall length 5ft. by width 4ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	5	4	20	3	0	20	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5285	Tunnel - Chesapeake - Supply Duct at Sta. 513+00	Floor	Spall length 3ft. by width 3ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	3	3	9	3	0	9	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5285	Tunnel - Chesapeake - Supply Duct at Sta. 515+65	Floor	1ft. by width 3ft. Area with Corrosion Staining and Active Leak	1	3	3	4	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5284	Tunnel - Chesapeake - Supply Duct at Sta. 516+85	Floor	Spall length 1ft. by width 1ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	5	1	5	3	0	5	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5284	Tunnel - Chesapeake - Supply Duct at Sta. 517+70	Floor	Spall length 1ft. by width 3ft.	1	3	3	3	0	3	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5283	Tunnel - Chesapeake - Supply Duct at Sta. 519+50	Floor	Spall length 1ft. by width 1ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars. // 10%< Section Loss	1	1	1	3	0	1	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5282	Tunnel - Chesapeake - Supply Duct at Sta. 519+90	Floor	Spall length 3ft. by width 4ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	3	4	12	3	0	12	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5279	Tunnel - Chesapeake - Supply Duct at Sta. 520+48	Floor	Spall length 1ft. by width 4ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	1	4	4	3	0	4	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5281	Tunnel - Chesapeake - Supply Duct at Sta. 521+00	Floor	Spall length 5ft. by width 4ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	5	4	20	3	0	20	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5280	Tunnel - Chesapeake - Supply Duct at Sta. 522+00	Floor	Spall length 1ft. by width 1ft. // Max Depth in. with Exp. Long. Bars and Exp. Trans. Bars.	1	1	1	3	0	1	0

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Date	Element	Notes	Material	Description	Length	Width	Depth	Area	Volume	Weight	Count	Notes
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 469+00	Floor	Longitudinal Crack 10 linear ft. and Width = N	10	1	10	2	0	10	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 469+00	Floor	Transverse Crack 6 linear ft. and Width = N with Efflorescence and No Active Leak	3	3	9	2	0	9	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 469+00	Floor	Longitudinal Crack 0 linear ft. and Width = N	6	1	6	2	0	6	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 469+05	Floor	Delamination of Length 3ft. by 3ft.	4	1	4	2	0	4	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 469+10	Floor	Map Cracking Area with Corrosion and Efflorescence Totaling 25sf	5	5	25	2	0	25	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 469+65	Floor	Transverse Crack 30 linear ft. and Width = HL with Efflorescence and No Active Leak	30	1	30	2	0	30	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 469+65	Floor	Transverse Crack 10 linear ft. and Width = HL with Efflorescence and No Active Leak	10	1	10	2	0	10	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 471+25	Floor	Transverse Crack 4 linear ft. and Width = HL with Efflorescence and No Active Leak	4	1	4	2	0	4	0
9/16/2024	WRB, JBB, TMB Rain and Wind	JBB5261	Tunnel - Chesapeake - Supply Duct at Sta. 471+30	Floor	Transverse Crack 2 linear ft. and Width = HL with Efflorescence and No Active Leak	2	1	2	2	0	2	0

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Date	Element	Notes	Material	Description	Length	Width	Depth	Area	Volume	Weight	Count	Notes
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	9	delam tiles	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	8	delam tiles	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	delam, 3690' sign	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	delam 10 tiles	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SS-Sidewalk to Roadway	2 delam tiles sta 514+80	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SS-Sidewalk to Roadway	2 delam tiles sta 506+60	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SS-Sidewalk to Roadway	10 delam sta 505+15	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	delam two flues from FE	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	4 delam tile-5290' from poral	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	1 delam tile	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	6 delam tiles, 8 tiles sta492+80	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	crack with eff @ 4010' sign	0	0	22	2	0	22	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 471+00	SOS: Roadway up to 6-ft	delam at flue - 9 tiles 4490' sign	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 485+75	SS-Sidewalk to Roadway	(Cracked Tiles Bull nose=4)--(Delaminated Tiles Square = 3)--(Delaminated Tiles Bull nose = 7)--	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 489+25	SOS: Roadway up to 6-ft	(Cracked Tiles Square=6)--(Delaminated Tiles Square = 20)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 490+82	SOS: Roadway up to 6-ft	Efflorescence @ 2170' sign	0	0	2	2	0	2	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 493+35	SS-Sidewalk to Roadway	(Cracked Tiles Bull nose=1)--(Delaminated Tiles Bull nose = 4)--	0	0	5	3	0	5	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 494+20	SS-Sidewalk to Roadway	(Cracked Tiles Bull nose=3)--(Delaminated Tiles Bull nose = 3)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 496+20	SS-Sidewalk to Roadway	(Cracked Tiles Bull nose=1)--(Delaminated Tiles Square = 2)--(Delaminated Tiles Bull nose = 3)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 496+80	SS-Sidewalk to Roadway	(Cracked Tiles Bull nose=1)--(Delaminated Tiles Bull nose = 1)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 500+60	SS-Sidewalk to Roadway	Corrosion Staining	0	0	13	3	0	13	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 502+15	SS-Sidewalk to Roadway	(Cracked Tiles Square=9)--(Delaminated Tiles Square = 4)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 505+30	SS-Sidewalk to Roadway	(Cracked Tiles Square=5)--(Delaminated Tiles Square = 4)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 511+75	SOS: Roadway up to 6-ft	5 delam tiles at rail connection sta 505+30	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 513+70	SOS: Roadway up to 6-ft	(Delaminated Tiles Square = 9)--	0	0	9	2	0	9	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 513+96	SOS: Roadway up to 6-ft	Efflorescence 4 tiles	0	0	4	2	0	4	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 514+50	SS-Sidewalk to Roadway	2 Corrosion stained tiles sta 513+96	0	0	2	3	0	2	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 514+60	SOS: Roadway up to 6-ft	1sf Efflorescence	0	0	9	2	0	9	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 516+25	SOS: Roadway up to 6-ft	1sf Efflorescence	0	0	9	2	0	9	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 521+25	SOS: Roadway up to 6-ft	(Cracked Tiles Square=18)--	0	0	0	0	1	0	0
9/19/2024	JBB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 521+95	SOS: Roadway up to 6-ft	(Cracked Tiles Square=5)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 521+95	SOS: Roadway up to 6-ft	(Cracked Tiles Square=9)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 523+60	SS-Sidewalk to Roadway	Efflorescence 1sf	0	0	9	2	0	9	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Main Wall at Sta. 471+70	SS-Sidewalk to Ceiling	(Cracked Tiles Square=6)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear		Tunnel - Chesapeake - Roadway Level - Main Wall at Sta. 473+80	SS-Sidewalk to Ceiling	(Delaminated Tiles Half Bull-nose = 6)--	0	0	0	0	1	0	0
9/19/2024	TMB Clear											

Chesapeake Tunnel - Liner and Roadway Elements

9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Fire Extinguisher at Sta. 493+42	SS-Sidewalk to Ceiling	-	14 sf Efflorescence Corrosion p140	0	0	14	2	0	14	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Fire Extinguisher at Sta. 496+34	SS-Sidewalk to Ceiling	-	10 sf	0	0	10	2	0	10	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 471+54	SOS: Roadway up to 6-ft	-	Evidence of past Efflorescence	0	0	2	2	0	2	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 473+00	SOS: Roadway up to 6-ft	-	Evidence of past Efflorescence	0	0	2	2	0	2	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 475+93	SOS: Roadway up to 6-ft	-	Evidence of past Efflorescence, Corrosion on valve stem	0	0	2	2	0	2	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 477+39	SOS: Roadway up to 6-ft	-	Evidence of past Efflorescence	0	0	2	2	0	2	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 478+85	SOS: Roadway up to 6-ft	-	Evidence of past Efflorescence	0	0	2	2	0	2	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 480+31	SOS: Roadway up to 6-ft	-	Evidence of past Efflorescence	0	0	2	2	0	2	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 483+24	SOS: Roadway up to 6-ft	-	Corrosion Staining and Cracks	0	0	4	3	0	0	4	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 496+40	SOS: Roadway up to 6-ft	-	Corrosion Staining at TC box Efflorescence and cracks at hv	0	0	0	2/3	0	6	1	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 499+32	SOS: Roadway up to 6-ft	-	Corrosion stains under box next to FE	0	0	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 502+25	SOS: Roadway up to 6-ft	-	Corrosion Staining and Efflorescence	0	0	0	2/3	0	2	3	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 508+10	SOS: Roadway up to 6-ft	-	Corrosion on valve stem	0	0	0	2	0	0	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Hose Valve at Sta. 512+23	SOS: Roadway up to 6-ft	-	Corrosion on valve stem	0	0	0	2	0	0	0	0
							0				0	56	10	0

Barrier

9/17/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 473+20	SS: Roadway	Gutter Curb Armor Fair 3 linear ft. of concrete cracked		3	1	3	3	0	0	3	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 473+30	SS: Roadway	Spall length 3ft. by width 1ft.		3	1	3	3	0	0	3	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 473+60	SOS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 475+82	SOS: Roadway	Spall length 3ft. by width 1ft.		3	1	3	3	0	0	3	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 475+96	SS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 475+97	SOS: Roadway	Spall length 1ft. by width 1ft.		1	1	1	2	0	1	0	0
9/17/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 475+98	SS: Roadway	Spall length 2ft. by width 1ft.	With Exposed Rebar	2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 480+34	SS: Roadway	Spall length 7ft. by width 1ft.		7	1	7	3	0	0	7	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 481+45	SOS: Roadway	Spall length 4ft. by width 1ft.		4	1	4	3	0	0	4	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 486+48	SS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 487+70	SOS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 488+00	SOS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 488+85	SOS: Roadway	Spall length 8ft. by width 1ft.		8	1	8	3	0	0	8	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 490+74	SOS: Roadway	Spall length 1ft. by width 1ft.		1	1	1	2	0	1	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 493+83	SOS: Roadway	Spall length 1ft. by width 1ft.		1	1	1	2	0	1	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 494+45	SOS: Roadway	Spall length 1ft. by width 1ft.		1	1	1	2	0	1	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 494+55	SOS: Roadway	Spall length 1ft. by width 1ft.		1	1	1	2	0	1	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 496+22	SS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/17/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 496+30	SS: Roadway	Spall length 2ft. by width 1ft.	At low point drain	2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 498+50	SS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 503+00	SOS: Roadway	Spall length 7ft. by width 1ft.		7	1	7	3	0	0	7	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 504+54	SS: Roadway	Spall length 3ft. by width 1ft.		3	1	3	3	0	0	3	0
9/17/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 504+60	SS: Roadway	Spall length 2ft. by width 1ft.	With Exposed Rebar	2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 505+07	SS: Roadway	Spall length 4ft. by width 1ft.		4	1	4	3	0	0	4	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 505+47	SS: Roadway	Spall length 2ft. by width 1ft.		2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 506+40	SOS: Roadway	Spall length 5ft. by width 1ft.		5	1	5	3	0	0	5	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 511+85	SOS: Roadway	Spall length 3ft. by width 1ft.		3	1	3	3	0	0	3	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 511+93	SS: Roadway	Spall length 5ft. by width 1ft.		5	1	5	3	0	0	5	0
9/17/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 511+97	SS: Roadway	Spall length 2ft. by width 1ft.	With Exposed Rebar	2	1	2	3	0	0	2	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 512+42	SOS: Roadway	Spall length 1ft. by width 1ft.		1	1	1	2	0	1	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 514+00	SOS: Roadway	Spall length 4ft. by width 1ft.		4	1	4	3	0	0	4	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 519+50	SOS: Roadway	Edging Curb Armor with Section Loss		0	0	0	-	0	0	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 519+57	SOS: Roadway	Steel Curb is misaligned up to 1-1/2"		1	1	1	3	0	0	1	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Curb at Sta. 523+36	SS: Roadway	Stairs with Cracking and Corrosion staining		5	1	5	3	0	0	5	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Lower Wall at at Sta. 511+30	SS: Roadway	Spall length 10ft. by width 1ft.		10	1	10	3	0	0	10	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. +	SOS: Roadway	-	Efflorescence above flue near 2170' sign	2	0	0	2	0	0	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. +	SOS: Roadway	-	Corrosion staining in crackm@ flue by 2170' sign	2	0	0	3	0	0	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. +	SOS: Roadway	-	Corrosion and Efflorescence one flue from 2170' sign	2	0	0	3	0	0	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 482+25	SOS: Roadway	-	Cracked grout at flue	2	0	0	2	0	0	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Lower Wall at Sta. 502+25	SS: Roadway	-	Loss grout in flue	3	0	0	2	0	0	0	0
							0				0	6	99	0

Asphalt Wearing Surface

9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 468+90	SOS: Roadway	Minor Pot Hole		2	2	4	2	0	4	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 469+19	SOS: Roadway	Area of Scaling		45	3	135	2	0	135	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 469+65	SOS: Roadway	Asphalt Patch		3	2	6	2	0	6	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 470+67	SS: Roadway	Asphalt Patch		4	2	8	2	0	8	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 472+62	SS: Roadway	Cracking		3	3	9	2	0	9	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 475+14	SS: Roadway	Minor Pot Hole		3	2	6	2	0	6	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 475+29	SS: Roadway	Minor Pot Hole		2	2	4	2	0	4	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 477+72	SOS: Roadway	Milled Asphalt		50	8	400	2	0	400	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 478+00	SS: Roadway	Asphalt Patch		8	4	32	2	0	32	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 479+42	SS: Roadway	Asphalt Patch		6	3	18	2	0	18	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 480+10	SS: Roadway	Area of Scaling		4	2	8	2	0	8	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 485+13	SS: Roadway	Asphalt Patch		4	3	12	2	0	12	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 485+50	SS: Roadway	Asphalt Patch		4	3	12	2	0	12	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 489+96	SS: Roadway	Asphalt Patch		2	2	4	2	0	4	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 490+16	SOS: Roadway	Asphalt Patch		5	4	20	2	0	20	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 494+66	SS: Roadway	Asphalt Patch		2	2	4	2	0	4	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 496+04	SOS: Roadway	Asphalt Patch		6	4	24	2	0	24	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 496+59	SOS: Roadway	Asphalt Patch		4	4	16	2	0	16	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 496+88	SOS: Roadway	Asphalt Patch		6	3	18	2	0	18	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 497+12	SOS: Roadway	Minor Pot Hole		2	2	4	2	0	4	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 499+79	SOS: Roadway	Asphalt Patch		9	3	27	2	0	27	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 499+88	SOS: Roadway	Minor Pot Hole		3	3	9	2	0	9	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 502+07	SOS: Roadway	Minor Pot Hole		4	4	16	2	0	16	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 505+64	SS: Roadway	Minor Pot Hole		3	3	9	2	0	9	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 511+63	SOS: Roadway	Asphalt Patch		4	3	12	2	0	12	0	0
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 512+35	SOS: Roadway										

Chesapeake Tunnel - Liner and Roadway Elements

9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Asphalt Wearing at Sta. 521+55	SS: Roadway	Minor Pot Hole	3	3	9	2	0	9	0	0
										0	908	0	0
Steel Pedestrian Railing													
9/19/2024	TMB	Clear	Tunnel - Chesapeake - Roadway Level - Railing at Sta.	SS-Sidewalk to Roadway	No notes other than paint system failure	0	0	0	1	0	0	0	0
										0	0	0	0
Lighting Fixtures													
9/26/2018 21:32 JEG	Clear Warm Ligh1 - 1		Tunnel - Chesapeake - Roadway Level - Tunnel Lighting System at Sta. 469+€Ceiling		Lights out were identified and addressed				1	0	0	0	0
										0	0	0	0

SNTI Element	Component	Item Name, Description or Location	Condition / Operation	Inspection Findings	Detail	Thermal Reading °F	Condition State (1-4)	Photo	Maintenance or Repair Recommendation	Repair Priority	Date Inspected MM/DD/YY
10300 Drainage and Pumping System	3 Island Portal Pump Room	Main Sump Pump BSD-1 - Pump	Condition	Good			1				9/18/2024
			Operation	Not Operated			1				9/18/2024
		Main Sump Pump BSD-1 - Motor	Condition	Good			1				9/18/2024
			Operation	Not Operated			1				9/18/2024
		Main Sump Pump BSD-1 - US Valve	Condition	Good. All valves appear to be recently painted.			1				9/18/2024
			Operation	Good			1				9/18/2024
		Main Sump Pump BSD-1 - DS Valve	Condition	Check Vavle Leaks. All valves appear to be recently painted.			2				9/18/2024
			Operation	Good			2				9/18/2024
10300 Drainage and Pumping System	3 Island Portal Pump Room	Drainage Pump BSD-2 - Pump	Condition	Good			1				9/18/2024
			Operation	Good			1				9/18/2024
		Drainage Pump BSD-2 - Motor	Condition	Good			1				9/18/2024
			Operation	Good			1				9/18/2024
		Drainage Pump BSD-2 - US Valve	Condition	Good. All valves appear to be recently painted.			1				9/18/2024
			Operation	Good			1				9/18/2024
		Drainage Pump BSD-2 - DS Valve	Condition	Good. All valves appear to be recently painted.			1				9/18/2024
			Operation	Good			1				9/18/2024
10300 Drainage and Pumping System	3 Island Portal Pump Room	Drainage Pump BSD-3 - Pump	Condition	Good			1				9/18/2024
			Operation	Good.			1				9/18/2024
		Drainage Pump BSD-3 - Motor	Condition	Good			1				9/18/2024
			Operation	Good			1				9/18/2024
		Drainage Pump BSD-3 - US Valve	Condition	Good. All valves appear to be recently painted.			1				9/18/2024
			Operation	Good			1				9/18/2024
		Drainage Pump BSD-3 - DS Valve	Condition	Good. All valves appear to be recently painted.			1				9/18/2024
			Operation	Good			1				9/18/2024
10300 Drainage and Pumping System	3 Island Portal Pump Room	Booster Pump BSW-1 - Pump	Condition	Good			1				9/18/2024
			Operation	Good			1				9/18/2024
		Booster Pump BSW-1 - Motor	Condition	Good			1				9/18/2024
			Operation	Good			1				9/18/2024
		Booster Pump BSW-1 - US Valve	Condition	Good. All valves appear to be recently painted.			1				9/18/2024
			Operation	Good			1				9/18/2024
		Booster Pump BSW-1 - DS Valve	Condition	Good. All valves appear to be recently painted.			1				9/18/2024
			Operation	Good			1				9/18/2024

			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	3 Island Portal Pump Room	Booster Pump BSW-2 - Pump	Condition				1			9/18/2024
			Operation				1			9/18/2024
		Booster Pump BSW-2 - Motor	Condition				1			9/18/2024
			Operation				1			9/18/2024
		Booster Pump BSW-2 - US Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Booster Pump BSW-2 - DS Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	3 Island Portal Pump Room	Domestic W Pump BSW-3 - Pump	Condition				1			9/18/2024
			Operation				1			9/18/2024
		Domestic W Pump BSW-3 - Motor	Condition				1			9/18/2024
			Operation				1			9/18/2024
		Domestic W Pump BSW-3 - US Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Domestic W Pump BSW-3 - DS Valves	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	3 Island Portal Pump Room	Hydropneumatic Tank	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	3 Island Portal Pump Room	Room Sump Pump	Condition	Good. Sump is dry.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	Ches. Mid-Channel	Sump Room	Condition	Good. Regular problem with hay preventing check valve seal, losing prime on pump. Minor surface corrosion on pipe supports.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	Ches. Mid-Channel	Drainage Pump BMD-1 - Pump	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BMD-1 - Motor	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BMD-1 - US Valve	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BMD-1 - DS Valve	Condition	Good. All valves appear to be recently painted. Minor corrosion at seal.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	Ches. Mid-Channel	Drainage Pump BMD-2 - Pump	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024

		Drainage Pump BMD-2 - Motor	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BMD-2 - US Valve	Condition	Good. All valves appear to be recently painted. Minor corrosion at seal.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BMD-2 - DS Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	4 Island Portal Pump Room	Main Sump Pump BND-1 - Pump	Condition	Good. Cracks on concrete pedestal.			1			9/18/2024
			Operation	Rear packing seal reached 180F after 5 minutes of operation.			3			9/18/2024
		Main Sump Pump BND-1 - Motor	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
		Main Sump Pump BND-1 - US Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Main Sump Pump BND-1 - DS Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	4 Island Portal Pump Room	Drainage Pump BND-2 - Pump	Condition	Good. Cracks on concrete pedestal.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BND-2 - Motor	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BND-2 - US Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BND-2 - DS Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	4 Island Portal Pump Room	Drainage Pump BND-3 - Pump	Condition	Good. Cracks on concrete pedestal.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BND-3 - Motor	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BND-3 - US Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
		Drainage Pump BND-3 - DS Valve	Condition	Good. All valves appear to be recently painted.			1			9/18/2024
			Operation	Good			1			9/18/2024
10300 Drainage and Pumping System	4 Island Portal Pump Room	Room Sump Pump	Condition	Good			1			9/18/2024
			Operation	Good			1			9/18/2024

SNTI Element	Component	Item Name, Description or Location	Condition / Operation	Inspection Findings	Output Voltage Acceptable (Y/N)	Thermal Reading °F	Condition State (1-4)	Photo	Maintenance or Repair Recommendation	Repair Priority	Date Inspected MM/DD/YY	
10400 Emergency Generator System	3 Island Emerg. Generator	Island 3 Generator	Condition	Good. Still looks brand new. Runtime: 179.8 (from 169.4 hrs. in 2020 and 156 in 2018), Battery Voltage- 27.4 V, fuel filter date: 1/27/21, Fuel & water sperator date: 1/27/2024, Oil filter date- 7-23-2024	600V-(Y)	157	1				9/17/2024	
			Operation	Good. The generator was ran, under load, for about 15 minutes.			1				9/17/2024	
		Fuel Pump	Condition	Good			1				9/17/2024	
			Operation	Good.								9/17/2024
		Supply Air Louvers	Condition	Fair. Not a water tight seal.			2		Recommended to put an NEC acceptable drip pan under the louvers.		9/17/2024	
			Operation	Good, open and close as needed. Although not weather tight							9/17/2024	
		Day Fuel Tank	Condition	Good			1				9/17/2024	
	Exhaust System	Condition	Good			1				9/17/2024		
10400 Emergency Generator System	4 Island Emerg. Generator	Island 4 Generator	Condition	Good. Still looks brand new. Runtime: 133.8 hrs (from 124.2 hrs. in 2020), Battery Voltage- 26.3 V, fuel filter date: 7/28/22, Fuel & water sperator date: 7/26/2021, Oil filter date- 7-22-2024	600V-(Y)	126	1				9/17/2024	
			Operation	Good. The generator was ran, under load, for about 15 minutes.							9/17/2024	
		Fuel Pump	Condition	Good			1				9/17/2024	
			Operation	Good.							9/17/2024	
		Supply Air Louvers	Condition	Fair. Not a water tight seal.			2		Recommended to put an NEC acceptable drip pan under the louvers.		9/17/2024	
			Operation	Good, open and close as needed. Although not weather tight							9/17/2024	
		Day Fuel Tank	Condition	Good			1				9/17/2024	
	Exhaust System	Condition	Good			1				9/17/2024		
										9/17/2024		
										9/17/2024		
10550 Emergency Distribution System	3 Island Emerg. System	ATS	Condition	Good			1				9/17/2024	
			Operation	Good. Power transfer was completed in less than 10 seconds			1				9/17/2024	
		UPS	Condition	Good			1				9/17/2024	
			Operation	Good			1				9/17/2024	
		UPS Batteries	Condition	Good			1				9/17/2024	
			Operation	Good			1				9/17/2024	
		Wiring / Conduit	Condition	Good			1				9/17/2024	
										9/17/2024		
10550 Emergency Distribution System	4 Island Emerg. System	ATS	Condition	Good			1				9/17/2024	

SNTI Element	Component/Label	Item Name, Description or Location	Last Serviced DD/MM/YY	Serv/Co Due DD/MM/YY	Thermal Reading °C	Operational (Y/N)	Volts	Current	Oil Level (XFMR)	PSIG	Noise (dB)	Condition State (1-4)	Comments
SOUTH SHORE SUBSTATION													
10500 Electrical Distribution System	FDR NB20	Medium Voltage Switchgear				Y		11				2	Fair--This is determined by the age vs life expectancy of the equipment.
	Secondary Main ACB No. 1	Medium Voltage Switchgear				Y	13,440	23				2	Fair--This is determined by the age vs life expectancy of the equipment.
	Secondary Main ACB No. 2	Medium Voltage Switchgear				Y	13,929	24				2	Fair--This is determined by the age vs life expectancy of the equipment.
	Bus Tie ACB No. 3	Medium Voltage Switchgear				Y		0				2	Fair--This is determined by the age vs life expectancy of the equipment. Open at time of inspection.
	FDR NB10	Medium Voltage Switchgear				Y		9				2	Fair--This is determined by the age vs life expectancy of the equipment.
	Feeder Breaker 1200 Amp	Medium Voltage Switchgear	5/29/2018	5/29/2019		Y	13,440	6				1	Good
	XFMR #1 (West)	2000KVA Transformer #1			40	Y	34.5 kV-13.8 kV		30	2 left		2	Tap changer (2 Left)
	XFMR #2 (East)	2000KVA Transformer #2			40	Y	34.5 kV-13.8 kV		30	4 left		2	Tap changer (4 Left)
NORTH VENTILATION BUILDING #4 - CHESAPEAKE TUNNEL													
10500 Electrical Distribution System	MB FDR NB23	Medium Voltage Switchgear				Y	13,320	8				1	Good
	FB SB14	Medium Voltage Switchgear				Y	N/A	8				1	Good
	FB XFMR #2	Medium Voltage Switchgear				Y	N/A	2				1	Good
	TIE BREAKER	Medium Voltage Switchgear				Y	N/A	0				1	Good, switched off during inspection
	MB FDR NB13	Medium Voltage Switchgear				Y	13,440	7				1	Good
	FB NB14	Medium Voltage Switchgear				Y	N/A	7				1	Good
	FB XFMR #1	Medium Voltage Switchgear				Y	N/A	5				1	Good
	TIE BREAKER	Medium Voltage Switchgear				Y	N/A	0				1	Good, switched off during inspection
	LVSJ Enclosure	Low Voltage Switchgear	4/20/2021			Y	600V					1	Good
	Trans #1	1000KVA Transformer #1			52	Y	13.8KV-600/347V		26	1.3		1	Good
	Trans #2	1000KVA Transformer #2			48	Y	13.8KV-600/347V		25	1.8		1	Good
	House Bus PB 1	Distribution Panel				Y	208/120					1	Good
	House Bus PB 2	Distribution Panel				Y	208/120					1	Good
	Essential Service PB	Distribution Panel				Y	208/120					1	Good
	Emergency Systems	Diesel Generator Switchboard				Y	600V					1	Good
	HT1	House Transformer #1 - 150KVA 3PH 60HZ			43	Y	600V-208/120V		25	1.6		1	Good
	HT2	House Transformer #2 - 150KVA 3PH 60HZ			47	Y	600V-208/120V		25	1		1	Good
	Outlets/Receptacles	Control Room/Bathroom No. 1/Locker Room No. 1											Good
	Outlets/Receptacles	Kitchen/Bathroom No. 2/Locker Room No. 2											Good
	Raceways/Overhead Wiring	General Overhead Raceways and Wiring Chases within Electrical Floor											Good, some general conduit corrosion in some locations, mostly on Levels 2 and 3, but not widespread
	Disconnect Switches	Main Power Transformer											Good
SOUTH VENTILATION BUILDING #3 - CHESAPEAKE TUNNEL													
10500 Electrical Distribution System	MB FDR SB12	Medium Voltage Switchgear				Y	13,440	-				1	Good
	FB NB23	Medium Voltage Switchgear				Y	N/A	10				1	Good
	FB XFMR #2	Medium Voltage Switchgear				Y	N/A	5				1	Good
	MB M1 FDR NB22	Medium Voltage Switchgear				Y	13800	7				1	Good
	MB M1 FDR NB12	Medium Voltage Switchgear				Y	13440	7				1	Good
	FB NB13	Medium Voltage Switchgear				Y	N/A	6				1	Good
	FB XFMR #1	Medium Voltage Switchgear				Y	N/A	0				1	Good
	MB M2 FDR SB12	Medium Voltage Switchgear				Y	13440	-				1	Good
	LVSJ Enclosure	600 V Switchboard				Y	600V					1	Good
	Main Trans #1	1000KVA Transformer #1			51	Y	13.8KV-600/347V		24	2		1	Good
	Main Trans #2	1000KVA Transformer #2			58	Y	13.8KV-600/347V		25	2		1	Good
	House Bus PB 1	Distribution Panel				Y	208/120					1	Good
	House Bus PB 2	Distribution Panel				Y	208/120					1	Good
	Essential Service PB	Distribution Panel				Y	208/120					1	Good
	Emergency Systems	Diesel Generator Switchboard				Y	600V					1	Good
	HT1	House Transformer #1 - 150KVA 3PH 60HZ			47	Y	600V-208/120		26	1.6		1	Good
	HT2	House Transformer #2 - 150KVA 3PH 60HZ			48	Y	600V-208/120		25	1.5		1	Good
	Outlets/Receptacles	Control Room/Bathroom No. 1/Locker Room No. 1											Good
	Outlets/Receptacles	Kitchen/Bathroom No. 2/Locker Room No. 2											Good
	Raceways/Overhead Wiring	General Overhead Raceways and Wiring Chases within Electrical Floor											Good, Minor Corrosion above panel LP2, moderate corrosion above central vacumm, mainly large conduits on right
	Disconnect Switches	Main Power Transformer											Good
	Other												LP2 panel breaker 1 is bad (not used)

Chesapeake Tunnel - Tunnel Lighting

SNTI Element	Component	Item Name, Description or Location	Condition / Operation	Inspection Findings	Detail	Thermal Reading °F	Condition State (1-4)	Photo	Maintenance or Repair Recommendation	Repair Priority	Date Inspected MM/DD/YY
10600 Tunnel Lighting System	Lights	Physical Light Bulbs	Condition	Lighting has been replaced with LED lighting			1				9/19/2024
			Operation	Good			1				9/19/2024
10600 Tunnel Lighting System	Lenses	Light Fixture Cover/Lenses	Condition	Good			1				9/19/2024
10600 Tunnel Lighting System	Conduit	Conduits connecting Fixtures	Condition	Good			1				9/19/2024
10600 Tunnel Lighting System	Wireways	Lighting wireways powering fixtures	Condition	Good			1				9/19/2024
10600 Tunnel Lighting System	PLC	Programmable Logic Controllers for Tunnel Lighting Sensors	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
10600 Tunnel Lighting System	Luminance Meter	Lumianiance Meter Located near the top of the open approach directed at the portal opening	Operation	West wall, 3 units not lit/not functioning at station 476+00			N/A				9/19/2024
				Station 469+00: SB Lane 35.24 FC, Centerline 32.51 FC, NB Lane 31.46 FC			1				9/19/2024
				Station 478+45: SB Lane 35.54 FC, Centerline 33.69 FC, NB Lane 32.9 FC			1				9/19/2024
				Station 484+22: SB Lane 32.59 FC, Centerline 34.04 FC, NB Lane 35.14 FC			1				9/19/2024
				Station 495+60: SB Lane 31.62 FC, Centerline 37.67 FC, NB Lane 38.53 FC			1				9/19/2024
				Station 501+90: SB Lane 38.74 FC, Centerline 35.25 FC, NB Lane 36.4 FC			1				9/19/2024
				Station 513+31: SB Lane 32.15 FC, Centerline 33.56 FC, NB Lane 33.57 FC			1				9/19/2024
				Station 522+54: SB Lane 33.24 FC, Centerline 31.03 FC, NB Lane 27.97 FC							9/19/2024
10600 Tunnel Lighting System	LDP3-1	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
	LDP3-2	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
	LDP3-3	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
	LDP3-4	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
10600 Tunnel Lighting System	LDP4-1	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
	LDP4-2	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
	LDP4-3	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
	LDP4-4	Lighting Distribution Panel - Substation 3 (Chesapeake)	Condition	Good			1				9/19/2024
			Operation	Good			1				9/19/2024
10600 Tunnel Lighting System	CBW-1	112.5KVA Dry Type Transformer for LDP1 (Chesapeake Tunnel) - Substation 3	Condition	Good		<150	1				9/19/2024
			Operation	Good			1				9/19/2024
	CBW-2	112.5KVA Dry Type Transformer for LDP2 (Chesapeake Tunnel) - Substation 3	Condition	Good		<150	1				9/19/2024
			Operation	Good			1				9/19/2024
	CBE-3	112.5KVA Dry Type Transformer for LDP3 (Chesapeake Tunnel) - Substation 3	Condition	Good		<150	1				9/19/2024
			Operation	Good			1				9/19/2024

SNTI Element	Component	Item Name, Description or Location	Condition / Operation	Inspection Findings	Condition State (1-4)	Photo	Maintenance or Repair Recommendation	Repair Priority	Date Inspected MM/DD/YY
10650 Fire Detection System	Ches. Tunnel CCTV	P-C01	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		F-C17	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		P-C02	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		F-C03	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		P-C04	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		F-C05	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		P-C06	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		F-C07	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		P-C08	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		F-C09	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		P-C10	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		F-C11	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		P-C12	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		F-C16	Condition	Good					9/18/2024
			Operation	Good.					9/18/2024
		P-C13 Portal Pump Room 3 Isl	Condition	Good					9/18/2024

			Operation	Good.				9/18/2024
		P-C14 Mid-Chanl Pump Room	Condition	Good				9/18/2024
			Operation	Good.				9/18/2024
		P-C15 Portal Pump Room 4 Isl	Condition	Good				9/18/2024
			Operation	Good.				9/18/2024
10650 Fire Detection System	Ches. Tunnel Emerg. Tele.	470+02	Condition	Good	1			9/18/2024
			Operation	Good. 331	1			9/18/2024
		472+95	Condition	Good	1			9/18/2024
			Operation	Good. 330	1			9/18/2024
		475+85	Condition	Good	1			9/18/2024
			Operation	Good. 329	1			9/18/2024
		478+80	Condition	Good	1			9/18/2024
			Operation	Good. 328	1			9/18/2024
		481+72	Condition	Good	1			9/18/2024
			Operation	Good. 327	1			9/18/2024
		484+65	Condition	Good	1			9/18/2024
			Operation	Good. 326	1			9/18/2024
		487+57	Condition	Good	1			9/18/2024
			Operation	Good. 325	1			9/18/2024
		490+47	Condition	Good	1			9/18/2024
			Operation	Did Not Function. 324	3		Restore functionality	9/18/2024
		493+45	Condition	Good	1			9/18/2024
			Operation	Good. 323	1			9/18/2024
		496+37	Condition	Good	1			9/18/2024
			Operation	Good. 322	1			9/18/2024
		499+30	Condition	Good	1			9/18/2024
			Operation	Good. 319	1			9/18/2024
		502+22	Condition	Good	1			9/18/2024
			Operation	Good. 318	1			9/18/2024
		505+15	Condition	Good	1			9/18/2024
			Operation	Good. 317	1			9/18/2024

		508+07	Condition	Good	1			9/18/2024
			Operation	Good. 316	1			9/18/2024
		510+67	Condition	Good	1			9/18/2024
			Operation	Good. 315	1			9/18/2024
		513+60	Condition	Good	1			9/18/2024
			Operation	Good. 314	1			9/18/2024
		516+55	Condition	Good	1			9/18/2024
			Operation	Good. 313	1			9/18/2024
		519+47	Condition	Good	1			9/18/2024
			Operation	Did Not Function. 312	3		Restore functionality	9/18/2024
		522+47	Condition	Good	1			9/18/2024
			Operation	Good. 311	1			9/18/2024
		Portal Pump Room 3 Island	Condition	Good	1			9/18/2024
			Operation	Good.	1			9/18/2024
		Mid-Channel Pump Room	Condition	Good	1			9/18/2024
			Operation	Good.	1			9/18/2024
		Portal Pump Room 4 Isl	Condition	Good	1			9/18/2024
			Operation	Good.	1			9/18/2024
10700 Fire Protection System	Hose Valve	470+05	Condition / Operation	Fair	2			9/19/2024
		471+54	Condition / Operation	Fair	2			9/19/2024
		473+00	Condition / Operation	Fair	2			9/19/2024
		474+50	Condition / Operation	Fair	2			9/19/2024
		475+93	Condition / Operation	Fair	2			9/19/2024
		477+39	Condition / Operation	Fair	2			9/19/2024
		478+85	Condition / Operation	Fair	2			9/19/2024
		480+31	Condition / Operation	Fair	2			9/19/2024
		481+77	Condition / Operation	Fair	2			9/19/2024
		483+24	Condition / Operation	Fair	2			9/19/2024
		484+70	Condition / Operation	Fair	2			9/19/2024
		486+16	Condition / Operation	Fair	2			9/19/2024
		487+62	Condition / Operation	Fair	2			9/19/2024

		489+08	Condition / Operation	Fair	2			9/19/2024
		490+55	Condition / Operation	Fair	2			9/19/2024
		492+01	Condition / Operation	Fair	2			9/19/2024
		493+47	Condition / Operation	Fair	2			9/19/2024
		494+94	Condition / Operation	Fair	2			9/19/2024
		496+40	Condition / Operation	Fair	2			9/19/2024
		497+86	Condition / Operation	Fair	2			9/19/2024
		499+32	Condition / Operation	Fair	2			9/19/2024
		500+79	Condition / Operation	Fair	2			9/19/2024
		502+25	Condition / Operation	Fair	2			9/19/2024
		503+72	Condition / Operation	Fair	2			9/19/2024
		505+18	Condition / Operation	Fair	2			9/19/2024
		506+63	Condition / Operation	Fair	2			9/19/2024
		508+10	Condition / Operation	Fair	2			9/19/2024
		509+43	Condition / Operation	Fair	2			9/19/2024
		510+76	Condition / Operation	Fair	2			9/19/2024
		512+23	Condition / Operation	Fair	2			9/19/2024
		513+68	Condition / Operation	Fair	2			9/19/2024
		515+15	Condition / Operation	Fair	2			9/19/2024
		516+61	Condition / Operation	Fair	2			9/19/2024
		518+07	Condition / Operation	Fair	2			9/19/2024
		519+53	Condition / Operation	Fair	2			9/19/2024
		521+00	Condition / Operation	Fair	2			9/19/2024
		522+41	Condition / Operation	Fair	2			9/19/2024
10700 Fire Protection System	Fire Extinguisher	469+99 SS	Condition / Operation	Satisfactory	1			7/30/2024
		469+99 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		471+48 SS	Condition / Operation	Satisfactory	1			6/25/2024
		471+48 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		472+95 SS	Condition / Operation	Satisfactory	1			7/30/2024

		472+95 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		474+44 SS	Condition / Operation	Satisfactory	1			6/25/2024
		474+44 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		475+87 SS	Condition / Operation	Satisfactory	1			7/30/2024
		475+87 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		477+33 SS	Condition / Operation	Satisfactory	1			6/25/2024
		477+33 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		478+79 SS	Condition / Operation	Satisfactory	1			6/25/2024
		478+79 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		480+26 SS	Condition / Operation	Satisfactory	1			6/25/2024
		480+26 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		481+72 SS	Condition / Operation	Satisfactory	1			6/25/2024
		481+72 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		483+18 SS	Condition / Operation	Satisfactory	1			6/25/2024
		483+18 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		484+64 SS	Condition / Operation	Satisfactory	1			6/25/2024
		484+64 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		486+10 SS	Condition / Operation	Satisfactory	1			6/25/2024
		486+10 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		487+56 SS	Condition / Operation	Satisfactory	1			6/25/2024
		487+56 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		489+03 SS	Condition / Operation	Satisfactory	1			6/25/2024
		489+03 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		490+49 SS	Condition / Operation	Satisfactory	1			6/25/2024
		490+49 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		491+95 SS	Condition / Operation	Satisfactory	1			6/25/2024
		491+95 SOS	Condition / Operation	Satisfactory	1			7/30/2024
		493+42 SS	Condition / Operation	Satisfactory	1			6/25/2024
		493+42 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		494+88 SS	Condition / Operation	Satisfactory	1			6/25/2024
		494+88 SOS	Condition / Operation	Satisfactory	1			6/25/2024

		496+34 SS	Condition / Operation	Satisfactory	1			6/25/2024
		496+34 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		497+81 SS	Condition / Operation	Satisfactory	1			6/25/2024
		497+81 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		499+27 SS	Condition / Operation	Satisfactory	1			6/25/2024
		499+27 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		500+73 SS	Condition / Operation	Satisfactory	1			6/25/2024
		500+73 SOS	Condition / Operation	Satisfactory	1			7/30/2024
		502+19 SS	Condition / Operation	Satisfactory	1			6/25/2024
		502+19 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		503+66 SS	Condition / Operation	Satisfactory	1			6/25/2024
		503+66 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		505+12 SS	Condition / Operation	Satisfactory	1			6/25/2024
		505+12 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		506+67 SS	Condition / Operation	Satisfactory	1			6/25/2024
		506+67 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		508+04 SS	Condition / Operation	Satisfactory	1			6/25/2024
		508+04 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		509+37 SS	Condition / Operation	Satisfactory	1			6/25/2024
		509+37 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		510+70 SS	Condition / Operation	Satisfactory	1			6/25/2024
		510+70 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		512+17 SS	Condition / Operation	Satisfactory	1			6/25/2024
		512+17 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		513+63 SS	Condition / Operation	Satisfactory	1			6/25/2024
		513+63 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		515+09 SS	Condition / Operation	Satisfactory	1			6/25/2024
		515+09 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		516+55 SS	Condition / Operation	Satisfactory	1			6/25/2024
		516+55 SOS	Condition / Operation	Satisfactory	1			6/25/2024
		518+01 SS	Condition / Operation	Satisfactory	1			6/25/2024



13. Tunnel Major Preventative Maintenance Records

Ventilation Systems - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date of Maintenance MM/DD/YYYY
1	10200 Ventilation System	Damper BSB1, BSB2 and BSB3, BSE1, BSE 2, BSE3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	Checked daily by equipment maintainers. Inspected weekly by tunnel mechanics, repairs made as required.	
		Damper BSB1, BSB2 and BSB3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	all blower chains drive components inspected and greased.	8/6/2024
		Damper BSE1, BSE2, BSE3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	all exhaust chains drive components inspected and greased.	8/8/2024
2	10200 Ventilation System	Damper BNB1, BNB2, BNB3, BNE1, BNE 2, BNE 3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	Checked daily by equipment maintainers. Inspected weekly by tunnel mechanics, repairs made as required.	
		Damper BNB1, BNB2, BNB3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	all chains drive components inspected and greased.	8/13/2024
		Damper BNE1, BNE 2, BNE 3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	all chains drive components inspected and greased.	8/15/2024

Ventilation Systems - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date of Maintenance MM/DD/YYYY
3	10200 Ventilation System	CO Monitor	North Exhaust Duct, South Exhaust Duct		
4	10201 Fans	Fan BSB 1, BSB2, BSB3, BSE 1, BSE 2, BSE 3	Fan Motor, Motor Controller, MC E-Stop	Fans operated for a 48 hr rotation. Checked by maintainer daily. Any issues inspected and addressed by appropriate E/M personnel.	
		Fan BSB 1, BSB2, BSB3, BSE 1, BSE 2, BSE 3	Fan Motor, Motor Controller, MC E-Stop	MC E-stop exercised yearly	8/12/2024
5	10201 Fans	Fan BSB 1, BSB2, BSB3, BSE 1, BSE 2, BSE 3	Fan Shaft, Bearing Pedestals Bearings, Drive Chains, Fan Housing, Fan Wheel	Checked daily by equipment maintainers. inspected weekly by tunnel mechanics, repairs made as required.	
		Fan BSB 1, BSB2, BSB3	Three island blower bearing pedestals	Scraped and painted	7/15-19/24

Ventilation Systems - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date of Maintenance MM/DD/YYYY

Drainage and Pumps - Chesapeake Tunnel

Line Item	SNTI Element	Locaion	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
SOUTH VENTILATION BUILDING #3 - CHESAPEAKE TUNNEL					
1	10301 Drainage and Pumping System	3 Island Portal Pump Room	Main Sump Pump BSD-1, BSD 2, BSD 3 Pumps, Motors, Valves	Checked daily by Maintainer for packing leaks. Inspected weekly by tunnel mechanic for operability, greased, and adjustments made to packing as needed.	
				Exercised and greased all valves in pump room / Greased all pumps	1/23/2024
2	10301 Drainage and Pumping System	Chesapeake Tunnel Low Point Pump Station (LPPS)	Drainage Pump BMD1 and BMD 2 - Pumps, Motors, Valaves	Monitored by tunnel equipment operator daily via camera system for leaks. Inspected weekly by tunnel mechanic for operability, greased, and adjustments made to packing as needed.	
				Exercised and greased all valves in pump room / Greased all pumps	1/22/2024

Power Distribution - Chesapeake Tunnel

Line Item	SNTI Element	Component/ Label	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
NORTH VENTILATION BUILDING #4 - CHESAPEAKE TUNNEL					
		#4 island Power Distribution System	#4 Island 5th Floor	All components are checked daily by the equipment maintainers for operation, noise and temperature. Any issues are addressed by the Electrician	
1	10500 Electrical Distribution System	MB FDR NB23	Medium Voltage Switchgear		
2		FB SB14	Medium Voltage Switchgear		
3		FB XFMR #2	Medium Voltage Switchgear		
4	10500 Electrical Distribution System	TIE BREAKER	Medium Voltage Switchgear		
5		MB FDR NB13	Medium Voltage Switchgear		
6		FB NB14	Medium Voltage Switchgear		
7		FB XFMR #1	Medium Voltage Switchgear		
8		TIE BREAKER	Medium Voltage Switchgear		
9	10500 Electrical Distribution System	LVSG Enclosure	600 V Switchboard		
10	10500 Electrical Distribution System	Trans #1	1000KVA Transformer #1		
11		Trans #2	1000KVA Transformer #2		
12	10500 Electrical Distribution System	House Bus PB 1	Distribution Panel		

Power Distribution - Chesapeake Tunnel

Line Item	SNTI Element	Component/ Label	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
13		House Bus PB 2	Distribution Panel		
14		Essential Service PB	Distribution Panel		
15		Emergency Systems	Diesel Generator Switchboard		
16		HT1	House Transformer #1 - 150KVA 3PH 60HZ		
17		HT2	House Transformer #2 - 150KVA 3PH 60HZ		
18		Outlets/ Receptacles	Control Room/Bathroom No. 1/Locker Room No. 1		
19	10500 Electrical Distribution System	Outlets/ Receptacles	Kitchen/Bathroom No. 2/Locker Room No. 2		
20		Raceways/ Overhead Wiring	General Overhead Raceways and Wiring Chases within Electrical Floor		
21	10500 Electrical Distribution System	Disconnect Switches	Main Power Transformer		
SOUTH VENTILATION BUILDING #3 - CHESAPEAKE TUNNEL					
		#3 Island Power Distribution System	#3 Island 5th Floor	All components are checked daily by the equipment maintainers for operation, noise and temperature. Any issues are addressed by the Electrician	
22	10500 Electrical Distribution System	MB FDR NB12	Medium Voltage Switchgear		
23		FB NB23	Medium Voltage Switchgear		
24		FB XFMR #2	Medium Voltage Switchgear		

Power Distribution - Chesapeake Tunnel

Line Item	SNTI Element	Component/ Label	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
25	10500 Electrical Distribution System	MB M1 FDR NB22	Medium Voltage Switchgear		
26		MB M1 FDR NB12	Medium Voltage Switchgear		
27		FB NB13	Medium Voltage Switchgear		
28		FB XFMR #1	Medium Voltage Switchgear		
29		MB M2 FDR SB12	Medium Voltage Switchgear		
30	10500 Electrical Distribution System	LVSG Enclosure	600 V Switchboard		
31	10500 Electrical Distribution System	Trans #1	1000KVA Transformer #1		
32		Trans #2	1000KVA Transformer #2		
33	10500 Electrical Distribution System	House Bus PB 1	Distribution Panel		
34		House Bus PB 2	Distribution Panel		
35		Essential Service PB	Distribution Panel		
36		Emergency Systems	Diesel Generator Switchboard		
37		HT1	House Transformer #1 - 150KVA 3PH 60HZ		
38		HT2	House Transformer #2 - 150KVA 3PH 60HZ		

Power Distribution - Chesapeake Tunnel

Line Item	SNTI Element	Component/ Label	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
39	10500 Electrical Distribution System	Outlets/ Receptacles	Control Room/Bathroom No. 1/Locker Room No. 1		
40		Outlets/ Receptacles	Kitchen/Bathroom No. 2/Locker Room No. 2		
41	10500 Electrical Distribution System	Damper BSE3	General Overhead Raceways and Wiring Chases within Electrical Floor		

Tunnel Lighting - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
1	10600 Tunnel Lighting System	Lights	LED	Inspection and repair of all anchors and repair of lighting North and Southbound lanes	08/5-6/24
2					
3	10600 Tunnel Lighting System	Lenses	Light Fixture Cover/Lenses	Inspection and repair North and Southbound lanes	08/5-6/24
4	10600 Tunnel Lighting System	Conduit	Conduits connecting Fixtures	Inspection and repair North and Southbound lanes	08/5-6/24
5	10600 Tunnel Lighting System	Wireways	Lighting wireways powering fixtures	Inspection and repair North and Southbound lanes	08/5-6/24
6	10600 Tunnel Lighting System	PLC	Programmable Logic Controllers for Tunnel Lighting Sensors	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
7					
8	10600 Tunnel Lighting System	Luminance Meter	Lumiance Meter Located near the top of the open approach directed at the portal opening	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
9	10600 Tunnel Lighting System	LDP3-1	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
10					

Tunnel Lighting - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
11		LDP3-2	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
12					
13		LDP3-3	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
14					
15		LDP3-4	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
16					
17	10600 Tunnel Lighting System	LDP4-1	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
18					
19		LDP4-2	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
20					
21		LDP4-3	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
22					

Tunnel Lighting - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
23		LDP4-4	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
24					
25	10600 Tunnel Lighting System	CBW-1	112.5KVA Dry Type Transformer for LDP1 (Thimble Shoals Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
26					
27		CBW-2	112.5KVA Dry Type Transformer for LDP2 (Chesapeake Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
28					
29		CBE-3	112.5KVA Dry Type Transformer for LDP3 (Thimble Shoals Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
30					
31		CBE-4	150KVA Dry Type Transformer for LDP4 (Chesapeake Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
32					
33	10600 Tunnel Lighting System	CBW-1	112.5KVA Dry Type Transformer for LDP1 (Chesapeake Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
34					

Tunnel Lighting - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
35		CBW-2	112.5KVA Dry Type Transformer for LDP2 (Chesapeake Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
36					
37		CBE-3	112.5KVA Dry Type Transformer for LDP3 (Chesapeake Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
38					
39		CBE-4	150KVA Dry Type Transformer for LDP4 (Chesapeake Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
40					
41	10601 Tunnel Lighting Fixture	Housing	Lighting Fixture Housing	Inspection of all fixture housings in chesapeake tunnel/ replacing as required.	08/5-6/24
42	10601 Tunnel Lighting Fixture	Connections	Connection to the Tunnel Lining	Inspection of all lighting connections in chesapeake tunnel/ replacing as required.	08/5-6/24

Fire and Life Safety - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
1	10700 Fire Protection System	Hose Valve	470+05		
2			471+54		
3			473+00		
4			474+50		
5			475+93		
6			477+39		
7			478+85		
8			480+31		
9	10700 Fire Protection System	Hose Valve	481+77		
10			483+24		
11			484+70		
12			486+16		
13			487+62		
14			489+08		
15			490+55		
16			492+01		
17			493+47		

Fire and Life Safety - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
18			494+94		
19			496+40		
20	10700 Fire Protection System	Hose Valve	497+86		
21			499+32		
22			500+79		
23			502+25		
24			503+72		
25			505+18		
26			506+63		
27			508+10		
28			509+43		
29			510+76		
30			512+23		
31	10700 Fire Protection System	Hose Valve	513+68		
32			515+15		
33			516+61		
34			518+07		

Fire and Life Safety - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
35			519+53		
36			521+00		
37			522+41		
38					
39					
40	10700 Fire Protection System	Tunnel Niche Fire Extiguisher	See Operations Inspection Sheets		
79	10800 Tunnel Operations and Security System	Door Access Security	VB 3 Exterior Doors		
80			3 Island Portal - Sidewalk Side		
81			3 Island Portal - Side Opp. Sidewalk		
82			VB 4 Exterior Doors		
83			4 Island Portal - Sidewalk Side		
84			4 Island Portal - Side Opp. Sidewalk		
85		SCADA - ???????????? ?Telephones	Emergency Window Information		

Ventilation Systems - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date of Maintenance MM/DD/YYYY
1	10200 Ventilation System	Damper TSB1, TSB2 and TSB3, TSE1, TSE 2, TSE3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	Checked daily by equipment maintainers. Inspected weekly by tunnel mechanics, repairs made as required.	
			Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	all blower chains drive components inspected and greased.	7/16/2024
			Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	all exhaust chains drive components inspected and greased.	7/17/2024
		Fan TNB 1, TNB2, TNB3, TNE 1, TNE 2, TNE 3	Fan Motor, Motor Controller, MC E-Stop	MC E-stop exercised yearly	8/12/2024
2	10200 Ventilation System	Damper TNB1, TNB2, TNB3, TNE1, TNE 2, TNE 3	Service Damper Door, Chains, Motors, Drive Rods and Bearings, by Mechanics	Checked daily by equipment maintainers. Inspected weekly by tunnel mechanics, repairs made as required.	
3	10200 Ventilation System	CO Monitor	North Exhaust Duct, South Exhaust Duct	Monitored by operator, issues reported to electrician and repaired promptly	

Ventilation Systems - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date of Maintenance MM/DD/YYYY
4	10201 Fans	Fan TSB 1, TSB2, TSB3, TSE 1, TSE 2, TSE 3	Fan Motor, Motor Controller, MC E-Stop	MC E-stop exercised yearly	8/12/2024
5	10201 Fans	Fan TSB 1, TSB2, TSB3, TSE 1, TSE 2, TSE 3	Fan Shaft, Bearing Pedestals Bearings, Drive Chains, Fan Housing, Fan Wheel	Checked daily by equipment maintainers. Inspected weekly by tunnel mechanics, repairs made as required.	

Drainage and Pumps - Chesapeake Tunnel

Line Item	SNTI Element	Locaion	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
54					
55	10301 Drainage and Pumping System	Thimble Tunnel Low Point Pump Station (LPPS)	Drainage Pump TMD1 and TMD 2 - Pumps, Motors, Valaves	Inspected weekly by tunnel mechanic for operability, greased, and adjustments made to packing as needed.	
			TMD-1	Rebuilt pump with new bearings and shaft. Reinstalled in Thimble LPPS.	12/12-14/2023
			TMD-1	Replaced drive motor	12/19/2023
				Exercised and greased all valves in pump room / Greased all pumps	1/22/2024
1					

Drainage and Pumps - Chesapeake Tunnel

Line Item	SNTI Element	Locaion	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY

Emergency Generators - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Output Voltage Acceptable (Y/N)	Thermal Reading °F	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
NORTH VENTILATION BUILDING #4 - CHESAPEAKE TUNNEL							
19	10400 Emergency Generator System	2 Island Emerg. Generator	Generator, Fuel Pump, Supply Air Louvers, Day Fuel Tank, Exhaust Manifold, ATS, UPS	Y	110 before start up / 174 running temp	System start up and run test	9/6/2023
				Y	114 / 175	System start up and run test	10/12/2023
				Y	109 / 174	System start up and run test	11/6/2023
				Y	106 / 174	System start up and run test	1/2/2024
				Y	102 / 175	System start up and run test	2/15/2024
				Y	104 / 177	System start up and run test	3/12/2024
				Y	101 / 178	System start up and run test	4/9/2024
				Y	112 / 174	System start up and run test	6/4/2024
				Y	108 / 177	Oil and filter change / start up and run test System	7/22/2024

Power Distribution - Chesapeake Tunnel

Line Item	SNTI Element	Component/ Label	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
NORTH VENTILATION BUILDING #2 - THIMBLE TUNNEL					
		#2 island Power Distribution System	#2 Island 5th Floor	All components are checked daily by the equipment maintainers for operation, noise and temperature. Any issues are addressed by the Electrician	
1	10500 Electrical Distribution System	MB FDR NB21	Medium Voltage Switchgear	Replaced in service following reconditioning service	12/11/2023
2		FB SB12	Medium Voltage Switchgear		
3		FB XFMR #2	Medium Voltage Switchgear	Failed on 1/25/24	1/25/2024
4	10500 Electrical Distribution System	TIE BREAKER SB12	Medium Voltage Switchgear		
5		MB FDR NB13	Medium Voltage Switchgear		
6		FB NB14	Medium Voltage Switchgear		
7		FB XFMR #1	Medium Voltage Switchgear		
8		TIE BREAKER NB11	Medium Voltage Switchgear		
9	10500 Electrical Distribution System	LVSG Enclosure	600 V Switchboard		
10	10500 Electrical Distribution System	Trans #1	1000KVA Transformer #1		
11		Trans #2	1000KVA Transformer #2		
12	10500 Electrical Distribution System	House Bus PB 1	Distribution Panel		
13		House Bus PB 2	Distribution Panel		
14		Essential Service PB	Distribution Panel		
15		Emergency Systems	Diesel Generator Switchboard		

Power Distribution - Chesapeake Tunnel

Line Item	SNTI Element	Component/ Label	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
16		HT1	House Transformer #1 - 150KVA 3PH 60HZ		
17		HT2	House Transformer #2 - 150KVA 3PH 60HZ		
18		Outlets/ Receptacles	Control Room/Bathroom No. 1/Locker Room No. 1		
19	10500 Electrical Distribution System	Outlets/ Receptacles	Kitchen/Bathroom No. 2/Locker Room No. 2		
20		Raceways/ Overhead Wiring	General Overhead Raceways and Wiring Chases within Electrical Floor		
21	10500 Electrical Distribution System	Disconnect Switches	Main Power Transformer		
SOUTH VENTILATION BUILDING #1 - THIMBLE TUNNEL					
		#1 island Power Distribution System	#1 Island 5th Floor	All components are checked daily by the equipment maintainers for operation, noise and temperature. Any issues are addressed by the Electrician	
22	10500 Electrical Distribution System	MB FDR NB10	Medium Voltage Switchgear		
23		FB NB21	Medium Voltage Switchgear	Replaced in service following reconditioning service	12/11/2024
24		FB XFMR #2	Medium Voltage Switchgear		
25	10500 Electrical Distribution System	MB M1 FDR NB22	Medium Voltage Switchgear		
26		MB M1 FDR NB12	Medium Voltage Switchgear		
27		FB NB13	Medium Voltage Switchgear		
28		FB XFMR #1	Medium Voltage Switchgear		
29		MB M2 FDR SB12	Medium Voltage Switchgear		
30	10500 Electrical Distribution System	LVSG Enclosure	600 V Switchboard		

Power Distribution - Chesapeake Tunnel

Line Item	SNTI Element	Component/ Label	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
31	10500 Electrical Distribution System	Trans #1	1000KVA Transformer #1		
32		Trans #2	1000KVA Transformer #2		
33	10500 Electrical Distribution System	House Bus PB 1	Distribution Panel		
34		House Bus PB 2	Distribution Panel		
35		Essential Service PB	Distribution Panel		
36		Emergency Systems	Diesel Generator Switchboard		
37		HT1	House Transformer #1 - 150KVA 3PH 60HZ		
38		HT2	House Transformer #2 - 150KVA 3PH 60HZ		
39	10500 Electrical Distribution System	Outlets/ Receptacles	Control Room/Bathroom No. 1/Locker Room No. 1		
40		Outlets/ Receptacles	Kitchen/Bathroom No. 2/Locker Room No. 2		
41	10500 Electrical Distribution System	Damper BSE3	General Overhead Raceways and Wiring Chases within Electrical Floor		
42	10500 Electrical Distribution System	Disconnect Switches	Main Power Transformer		

Tunnel Lighting - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
1	10600 Tunnel Lighting System	Lights	LED	Inspection and repair of all anchors and repair of lighting North and Southbound lanes	08/6-7/24
2					
3	10600 Tunnel Lighting System	Lenses	Light Fixture Cover/Lenses	Inspection and repair North and Southbound lanes	08/6-7/24
4	10600 Tunnel Lighting System	Conduit	Conduits connecting Fixtures	Inspection and repair North and Southbound lanes	08/6-7/24
5	10600 Tunnel Lighting System	Wireways	Lighting wireways powering fixtures	Inspection and repair North and Southbound lanes	08/6-7/24
6	10600 Tunnel Lighting System	PLC	Programmable Logic Controllers for Tunnel Lighting Sensors	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
7					
8	10600 Tunnel Lighting System	Luminance Meter	Lumiance Meter Located near the top of the open approach directed at the portal opening	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
9	10600 Tunnel Lighting System	LDP3-1	Lighting Distribution Panel - Substation 3 (Thimble Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
10					
11		LDP3-2	Lighting Distribution Panel - Substation 3 (Thimble Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
12					
13		LDP3-3	Lighting Distribution Panel - Substation 3 (Thimble Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
14					
15		LDP3-4	Lighting Distribution Panel - Substation 3 (Thimble Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
16					

Tunnel Lighting - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
17	10600 Tunnel Lighting System	LDP4-1	Lighting Distribution Panel - Substation 3 (Thimble Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
18					
19		LDP4-2	Lighting Distribution Panel - Substation 3 (Thimble Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
20					
21		LDP4-3	Lighting Distribution Panel - Substation 3 (Chesapeake Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
22					
23		LDP4-4	Lighting Distribution Panel - Substation 3 (Thimble Tunnel)	Checked daily by equipment maintainers for operation. Issues repaired by appropriate E/M personnel	
24					
25	10600 Tunnel Lighting System	CBW-1	112.5KVA Dry Type Transformer for LDP1 (Thimble Shoals Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
26					
27		CBW-2	112.5KVA Dry Type Transformer for LDP2 (Chesapeake Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
28					
29		CBE-3	112.5KVA Dry Type Transformer for LDP3 (Thimble Shoals Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
30					
31		CBE-4	150KVA Dry Type Transformer for LDP4 (Thimble Tunnel) - Substation 3	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
32					

Tunnel Lighting - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
33	10600 Tunnel Lighting System	CBW-1	112.5KVA Dry Type Transformer for LDP1 (Thimble Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
34					
35		CBW-2	112.5KVA Dry Type Transformer for LDP2 (Thimble Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
36					
37		CBE-3	112.5KVA Dry Type Transformer for LDP3 (Thimble Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
38					
39		CBE-4	150KVA Dry Type Transformer for LDP4 (Thimble Tunnel) - Substation 4	Checked daily by equipment maintainers for noise and temperature. Issues repaired by appropriate E/M personnel	
40	10601 Tunnel Lighting Fixture	Connections	Connection to the Tunnel Lining	Inspection of all lighting connections in chesapeake tunnel/ replacing as required.	08/6-7/24
41	10601 Tunnel Lighting Fixture	Housing	Lighting Fixture Housing	Inspection of all fixture housings in chesapeake tunnel/ replacing as required.	08/6-7/24

Fire and Life Safety - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
1	10700 Fire Protection System	Hose Valve	470+05		
2			471+54		
3			473+00		
4			474+50		
5			475+93		
6			477+39		
7			478+85		
8			480+31		
9	10700 Fire Protection System	Hose Valve	481+77		
10			483+24		
11			484+70		
12			486+16		
13			487+62		
14			489+08		
15			490+55		
16			492+01		
17			493+47		

Fire and Life Safety - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
18			494+94		
19			496+40		
20	10700 Fire Protection System	Hose Valve	497+86		
21			499+32		
22			500+79		
23			502+25		
24			503+72		
25			505+18		
26			506+63		
27			508+10		
28			509+43		
29			510+76		
30			512+23		
31	10700 Fire Protection System	Hose Valve	513+68		
32			515+15		
33			516+61		
34			518+07		

Fire and Life Safety - Chesapeake Tunnel

Line Item	SNTI Element	Component	Item Name, Description or Location	Preventative Maintenance and/or Repair Performed	Date Inspected MM/DD/YY
35			519+53		
36			521+00		
37			522+41		
38					
39					
40	10700 Fire Protection System	Tunnel Niche Fire Extiguisher	See Operations Inspection Sheets		
79	10800 Tunnel Operations and Security System	Door Access Security	VB 3 Exterior Doors		
80			3 Island Portal - Sidewalk Side		
81			3 Island Portal - Side Opp. Sidewalk		
82			VB 4 Exterior Doors		
83			4 Island Portal - Sidewalk Side		
84			4 Island Portal - Side Opp. Sidewalk		
85		SCADA - ???????????? ?Telephones	Emergency Window Information		

CBBTD FROM #120
 OPERATIONS DIV
 (Revised 9/2022)

Date: July 30, 2024

TO: CHIEF OF POLICE

RE: INSPECTION OF FIRE EXTINGUISHERS

NORTH PLAZA CONTROL BUILDING						
LOCATION	TYPE	TATION NO	SATISFACTORY	UNSATISFACTORY	DATE INSPECTED	DATE CHANGED
LOBBY			√		6/11/2024	
LOBBY			√		6/11/2024	
KITCHEN			√		6/11/2024	
BOILER ROOM			√		6/11/2024	
CONTROL ROOM			√		6/11/2024	
SOUTH PLAZA CONTROL & SOUTH MAINTENANCE BUILDING						
LOBBY			√		6/10/2024	
CONTROL ROOM			√		6/10/2024	
KITCHEN			√		6/10/2024	
BOILER ROOM				√	6/10/2024	6/11/2024
MAINTENANCE GARAGE			√		6/10/2024	
MAINTENANCE GARAGE			√		6/10/2024	
MAINTENANCE GARAGE			√		6/10/2024	
ADMINISTRATION BUILDING						
Lobby/ Receptionist Closet			√		6/11/2024	
Executive Wing Hallway			√		6/11/2024	
Main Hallway-next to Marketing Office			√		6/11/2024	
Finance Wing - next to Directors Office			√		6/11/2024	
Finance Wing - Cathy Bell's Office			√		6/11/2024	
Finance Wing - end of hall way			√		6/11/2024	
Boiler Room			√		6/11/2024	
Maintenance Wing- next to entry door			√		6/11/2024	

This report is to be submitted quarterly (90) days. Any unsatisfactory conditions are explained on reverse side.

Maurice Giddens/


 Operations Employee Name

CBBTD FROM #120
 OPERATIONS DIV
 (Revised 9/2022)

Date: JULY 30, 2024

TO: CHIEF OF POLICE

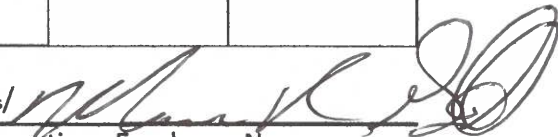
RE: INSPECTION OF FIRE EXTINGUISHERS

NUMBER 1 ISLAND						
LOCATION	TYPE	STATION NO.	SATISFACTORY	UNSATISFACTORY	DATE INSPECTED	DATE CHANGED
4TH FLOOR GARAGE			√		6/12/2024	
5TH FLOOR			√		6/12/2024	
5TH FLOOR			√		6/12/2024	
5TH FLOOR			√		6/12/2024	
5TH FLOOR			√		6/12/2024	
3RD FLOOR			√		6/12/2024	
3RD FLOOR			√		6/12/2024	
3RD FLOOR			√		6/12/2024	
2ND FLOOR			√		6/12/2024	
2ND FLOOR			√		6/12/2024	
1ST FLOOR			√		6/12/2024	
NUMBER 2 ISLAND						
5TH FLOOR			√		6/12/2024	
5TH FLOOR			√		6/12/2024	
5TH FLOOR			√		6/12/2024	
5TH FLOOR			√		6/12/2024	
3RD FLOOR			√		6/12/2024	
3RD FLOOR			√		6/12/2024	
2ND FLOOR			√		6/12/2024	
2ND FLOOR			√		6/12/2024	
2ND FLOOR			√		6/12/2024	
1ST FLOOR			√		6/12/2024	

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 reverse side.

Maurice Giddens/

Operations Employee Name



CBBTD FROM #120
 OPERATIONS DIV
 (Revised 9/2022)

Date: JULY 30, 2024

TO: CHIEF OF POLICE

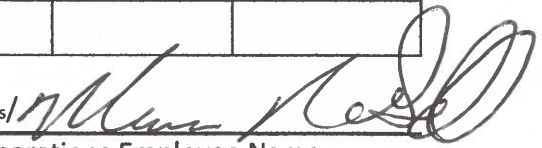
RE: INSPECTION OF FIRE EXTINGUISHERS

NUMBER 3 ISLAND						
LOCATION	TYPE	STATION NO.	SATISFACTORY	UNSATISFACTORY	DATE INSPECTED	DATE CHANGED
3 Island Garage			√		6/11/2024	
Fifth Floor			√		6/11/2024	
Fifth Floor			√		6/11/2024	
Fifth Floor			√		6/11/2024	
Fifth Floor			√		6/11/2024	
Third Floor			√		6/11/2024	
Third Floor			√		6/11/2024	
Second Floor			√		6/11/2024	
Second Floor			√		6/11/2024	
Second Floor			√		6/11/2024	
First Floor			√		6/11/2024	
NUMBER 4 ISLAND						
4 Island Garage			√		6/12/2024	
Fifth Floor			√		6/12/2024	
Fifth Floor			√		6/12/2024	
Fifth Floor			√		6/12/2024	
Fifth Floor			√		6/12/2024	
Third Floor			√		6/12/2024	
Third Floor			√		6/12/2024	
Third Floor			√		6/12/2024	
Second Floor			√		6/12/2024	
Second Floor			√		6/12/2024	
Second Floor			√		6/12/2024	
First Floor			√		6/12/2024	

This report is to be submitted quarterly (90) days.
 Any unsatisfactory conditions are explained on
 reverse side.

Maurice Giddens

Operations Employee Name



CBBTD FROM #120
 OPERATIONS DIV
 (Revised 9/2022)

Date: July 30, 2024

TO: CHIEF OF POLICE

RE: INSPECTION OF FIRE EXTINGUISHERS/THIMBLE TUNNEL SHEET

LOCATION	Northbound/Southbound	TYPE	STATION NO.	SATISFACTORY	UNSATISFACTORY	DATE INSPECTED	DATE CHANGED
Thimble Tunnel	Northbound		189+92	√		6/27/2024	
Thimble Tunnel	Northbound		191+43	√		6/27/2024	
Thimble Tunnel	Northbound		192+89	√		6/27/2024	
Thimble Tunnel	Northbound		194+37	√		6/27/2024	
Thimble Tunnel	Northbound		195+83	√		6/27/2024	
Thimble Tunnel	Northbound		197+30	√		6/27/2024	
Thimble Tunnel	Northbound		198+76	√		6/27/2024	
Thimble Tunnel	Northbound		200+24	√		6/27/2024	
Thimble Tunnel	Northbound		201+70	√		6/27/2024	
Thimble Tunnel	Northbound		203+17	√		6/27/2024	
Thimble Tunnel	Northbound		204+64	√		6/27/2024	
Thimble Tunnel	Northbound		206+11	√		6/27/2024	
Thimble Tunnel	Northbound		207+58	√		6/27/2024	
Thimble Tunnel	Northbound		209+05	√		6/27/2024	
Thimble Tunnel	Northbound		210+52	√		6/27/2024	
Thimble Tunnel	Northbound		211+96	√		6/27/2024	
Thimble Tunnel	Northbound		213+40	√		6/27/2024	
Thimble Tunnel	Northbound		214+84	√		6/27/2024	
Thimble Tunnel	Northbound		216+28	√		6/27/2024	
Thimble Tunnel	Northbound		217+76	√		6/27/2024	
Thimble Tunnel	Northbound		219+16	√		6/27/2024	
Thimble Tunnel	Northbound		220+60	√		6/27/2024	
Thimble Tunnel	Northbound		222+04	√		6/27/2024	
Thimble Tunnel	Northbound		223+48	√		6/27/2024	
Thimble Tunnel	Northbound		224+92	√		6/27/2024	
Thimble Tunnel	Northbound		226+39	√		6/27/2024	
Thimble Tunnel	Northbound		227+85	√		6/27/2024	
Thimble Tunnel	Northbound		229+32	√		6/27/2024	
Thimble Tunnel	Northbound		230+79	√		6/27/2024	
Thimble Tunnel	Northbound		232+26	√		6/27/2024	
Thimble Tunnel	Northbound		233+73	√		6/27/2024	
Thimble Tunnel	Northbound		235+20	√		6/27/2024	
Thimble Tunnel	Northbound		236+66	√		6/27/2024	
Thimble Tunnel	Northbound		238+14	√		6/27/2024	
Thimble Tunnel	Northbound		239+60	√		6/27/2024	
Thimble Tunnel	Northbound		241+07	√		6/27/2024	
Thimble Tunnel	Northbound		242+54	√		6/27/2024	
Thimble Tunnel	Northbound		244+00	√		6/27/2024	
Thimble Tunnel	Northbound		245+58	√		6/27/2024	

This report is to be submitted quarterly (90) days. Any unsatisfactory conditions are explained on reverse side.

Betty Stevens / Betty Stevens
 Operations Employee Name

CBBTD FROM #120
 OPERATIONS DIV
 (Revised 9/2022)

Date: July 30, 2024

TO: CHIEF OF POLICE

RE: INSPECTION OF FIRE EXTINGUISHERS/THIMBLE TUNNEL SHEET

LOCATION	Northbound/Southbound	TYPE	STATION NO.	SATISFACTORY	UNSATISFACTORY	DATE INSPECTED	DATE REPLACED
Thimble Tunnel	Southbound		189+92	✓		6/11/2024	
Thimble Tunnel	Southbound		191+43	✓		6/11/2024	
Thimble Tunnel	Southbound		192+89	✓		6/11/2024	
Thimble Tunnel	Southbound		194+37	✓		6/11/2024	
Thimble Tunnel	Southbound		195+83	✓		6/11/2024	
Thimble Tunnel	Southbound		197+30	✓		6/11/2024	
Thimble Tunnel	Southbound		198+76	✓		6/11/2024	
Thimble Tunnel	Southbound		200+24		✓	6/11/2024	7/25/2024
Thimble Tunnel	Southbound		201+70	✓		6/11/2024	
Thimble Tunnel	Southbound		203+17	✓		6/11/2024	
Thimble Tunnel	Southbound		204+64	✓		6/11/2024	
Thimble Tunnel	Southbound		206+11	✓		6/11/2024	
Thimble Tunnel	Southbound		207+58	✓		6/11/2024	
Thimble Tunnel	Southbound		209+05	✓		6/11/2024	
Thimble Tunnel	Southbound		210+52	✓		6/11/2024	
Thimble Tunnel	Southbound		211+96	✓		6/11/2024	
Thimble Tunnel	Southbound		213+40	✓		6/11/2024	
Thimble Tunnel	Southbound		214+84	✓		6/11/2024	
Thimble Tunnel	Southbound		216+28			6/11/2024	
Thimble Tunnel	Southbound		217+76	✓		6/11/2024	
Thimble Tunnel	Southbound		219+16	✓		6/11/2024	
Thimble Tunnel	Southbound		220+60	✓		6/11/2024	
Thimble Tunnel	Southbound		222+04	✓		6/11/2024	
Thimble Tunnel	Southbound		223+48	✓		6/11/2024	
Thimble Tunnel	Southbound		224+92	✓		6/11/2024	
Thimble Tunnel	Southbound		226+39	✓		6/11/2024	
Thimble Tunnel	Southbound		227+85	✓		6/11/2024	
Thimble Tunnel	Southbound		229+32	✓		6/11/2024	
Thimble Tunnel	Southbound		230+79	✓		6/11/2024	
Thimble Tunnel	Southbound		232+26	✓		6/11/2024	
Thimble Tunnel	Southbound		233+73	✓		6/11/2024	
Thimble Tunnel	Southbound		235+20		✓	6/11/2024	7/25/2024
Thimble Tunnel	Southbound		236+66	✓		6/11/2024	
Thimble Tunnel	Southbound		238+14	✓		6/11/2024	
Thimble Tunnel	Southbound		239+60	✓		6/11/2024	
Thimble Tunnel	Southbound		241+07	✓		6/11/2024	
Thimble Tunnel	Southbound		242+54	✓		6/11/2024	
Thimble Tunnel	Southbound		244+00	✓		6/11/2024	
Thimble Tunnel	Southbound		245+58	✓		6/11/2024	

This report is to be submitted quarterly (90) days. Any unsatisfactory conditions are explained on reverse side.

Betty Stevens / *Betty Stevens*
 Operations Employee Name

CBBTD FROM #120
 OPERATIONS DIV
 (Revised 9/2022)

Date: JULY 30, 2024

TO: CHIEF OF POLICE

RE: INSPECTION OF FIRE EXTINGUISHERS/CHESAPEAKE TUNNEL SHEET

LOCATION	Northbound/Southbound	TYPE	STATION NO.	SATISFACTORY	UNSATISFACTORY	DATE INSPECTED	DATE REPLACED
Chesapeake Tunnel	Northbound		469+99		√	6/25/2024	7/30/2024
Chesapeake Tunnel	Northbound		471+48	√		6/25/2024	
Chesapeake Tunnel	Northbound		472+95		√	6/25/2024	7/30/2024
Chesapeake Tunnel	Northbound		474+44	√		6/25/2024	
Chesapeake Tunnel	Northbound		475+87		√	6/25/2024	7/30/2024
Chesapeake Tunnel	Northbound		477+33	√		6/25/2024	
Chesapeake Tunnel	Northbound		478+79	√		6/25/2024	
Chesapeake Tunnel	Northbound		480+26	√		6/25/2024	
Chesapeake Tunnel	Northbound		481+72	√		6/25/2024	
Chesapeake Tunnel	Northbound		483+18	√		6/25/2024	
Chesapeake Tunnel	Northbound		484+64	√		6/25/2024	
Chesapeake Tunnel	Northbound		486+10	√		6/25/2024	
Chesapeake Tunnel	Northbound		487+56	√		6/25/2024	
Chesapeake Tunnel	Northbound		489+03	√		6/25/2024	
Chesapeake Tunnel	Northbound		490+49	√		6/25/2024	
Chesapeake Tunnel	Northbound		491+95	√		6/25/2024	
Chesapeake Tunnel	Northbound		493+42	√		6/25/2024	
Chesapeake Tunnel	Northbound		494+88	√		6/25/2024	
Chesapeake Tunnel	Northbound		496+34	√		6/25/2024	
Chesapeake Tunnel	Northbound		497+81	√		6/25/2024	
Chesapeake Tunnel	Northbound		499+27	√		6/25/2024	
Chesapeake Tunnel	Northbound		500+73	√		6/25/2024	
Chesapeake Tunnel	Northbound		502+19	√		6/25/2024	
Chesapeake Tunnel	Northbound		503+66	√		6/25/2024	
Chesapeake Tunnel	Northbound		505+12	√		6/25/2024	
Chesapeake Tunnel	Northbound		506+57	√		6/25/2024	
Chesapeake Tunnel	Northbound		508+04	√		6/25/2024	
Chesapeake Tunnel	Northbound		509+37	√		6/25/2024	
Chesapeake Tunnel	Northbound		510+70	√		6/25/2024	
Chesapeake Tunnel	Northbound		512+17	√		6/25/2024	
Chesapeake Tunnel	Northbound		513+63	√		6/25/2024	
Chesapeake Tunnel	Northbound		515+09	√		6/25/2024	
Chesapeake Tunnel	Northbound		516+55	√		6/25/2024	
Chesapeake Tunnel	Northbound		518+01	√		6/25/2024	
Chesapeake Tunnel	Northbound		519+47	√		6/25/2024	
Chesapeake Tunnel	Northbound		520+94	√		6/25/2024	
Chesapeake Tunnel	Northbound		522+50	√		6/25/2024	

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Betty Stevens/ 
 Operations Employee Name

CBBTD FROM #120
 OPERATIONS DIV
 (Revised 9/2022)

Date: JULY 30, 2024

TO: CHIEF OF POLICE

RE: INSPECTION OF FIRE EXTINGUISHERS/CHESAPEAKE TUNNEL SHEET

LOCATION	Northbound/Southbound	TYPE	STATION NO.	SATISFACTORY	UNSATISFACTORY	DATE INSPECTED	DATE REPLACED
Chesapeake Tunnel	Southbound		469+99	√		6/11/2024	
Chesapeake Tunnel	Southbound		471+48	√		6/11/2024	
Chesapeake Tunnel	Southbound		472+95	√		6/11/2024	
Chesapeake Tunnel	Southbound		474+44	√		6/11/2024	
Chesapeake Tunnel	Southbound		475+87	√		6/11/2024	
Chesapeake Tunnel	Southbound		477+33	√		6/11/2024	
Chesapeake Tunnel	Southbound		478+79	√		6/11/2024	
Chesapeake Tunnel	Southbound		480+26	√		6/11/2024	
Chesapeake Tunnel	Southbound		481+72	√		6/11/2024	
Chesapeake Tunnel	Southbound		483+18	√		6/11/2024	
Chesapeake Tunnel	Southbound		484+64	√		6/11/2024	
Chesapeake Tunnel	Southbound		486+10	√		6/11/2024	
Chesapeake Tunnel	Southbound		487+56	√		6/11/2024	
Chesapeake Tunnel	Southbound		489+03	√		6/11/2024	
Chesapeake Tunnel	Southbound		490+49	√		6/11/2024	
Chesapeake Tunnel	Southbound		491+95		√	6/11/2024	7/30/2024
Chesapeake Tunnel	Southbound		493+42	√		6/11/2024	
Chesapeake Tunnel	Southbound		494+88	√		6/11/2024	
Chesapeake Tunnel	Southbound		496+34	√		6/11/2024	
Chesapeake Tunnel	Southbound		497+81	√		6/11/2024	
Chesapeake Tunnel	Southbound		499+27	√		6/11/2024	
Chesapeake Tunnel	Southbound		500+73		√	6/11/2024	7/30/2024
Chesapeake Tunnel	Southbound		502+19	√		6/11/2024	
Chesapeake Tunnel	Southbound		503+66	√		6/11/2024	
Chesapeake Tunnel	Southbound		505+12	√		6/11/2024	
Chesapeake Tunnel	Southbound		506+57	√		6/11/2024	
Chesapeake Tunnel	Southbound		508+04	√		6/11/2024	
Chesapeake Tunnel	Southbound		509+37	√		6/11/2024	
Chesapeake Tunnel	Southbound		510+70	√		6/11/2024	
Chesapeake Tunnel	Southbound		512+17	√		6/11/2024	
Chesapeake Tunnel	Southbound		513+63	√		6/11/2024	
Chesapeake Tunnel	Southbound		515+09	√		6/11/2024	
Chesapeake Tunnel	Southbound		516+55	√		6/11/2024	
Chesapeake Tunnel	Southbound		518+01	√		6/11/2024	
Chesapeake Tunnel	Southbound		519+47	√		6/11/2024	
Chesapeake Tunnel	Southbound		520+94	√		6/11/2024	
Chesapeake Tunnel	Southbound		522+50	√		6/11/2024	

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Betty Stevens / 
 Operations Employee Name



14. Special Testing Documents



Colorado | Florida | Illinois | Louisiana | Michigan | Missouri | New Jersey | New York | North Carolina | Pennsylvania | Texas | Washington, DC | West Virginia

Test Report

DATE: 12/27/2024
 TO: Chesapeake Bay Bridge and Tunnel
 FROM: Alexander Waardenburg, P.E. (M&M)
 RE: Ventilation Fan Bearing Vibration and Temperature Test Results

Chesapeake Channel Tunnel Ventilation Fan Bearing Vibration and Temperature Test Results								
Location Fan ID	Motor				Fan Shaft Bearings			
	Front Motor Side (DE)		Rear Motor Side (NDE)		Fixed Bearing		Floating Bearing	
	Vibration	Temperature	Vibration	Temperature	Vibration	Temperature	Vibration	Temperature
BSB1	NM	NM	NM	NM	NM	NM	NM	NM
BSB2	NM	NM	NM	NM	NM	NM	NM	NM
BSB3	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
BSE1	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
BSE2	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
BSE3	NM	NM	NM	NM	NM	NM	NM	NM
BNB1	NM	NM	NM	NM	NM	NM	NM	NM
BNB2	NM	NM	NM	NM	NM	NM	NM	NM
BNB3	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
BNE1	NM	NM	NM	NM	NM	NM	NM	NM
BNE2	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
BNE3	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal

Key:
 Normal - Continue to monitor.
 Alarming - Determine the cause of vibration and make correction.
 Hammering - Machinery is undergoing damage. Continued operation will produce early failure.

Notes:
 DE - Driving End
 NDE - Nondriving End
 NM - Not Measured
 Bearing Vibration Measurements were performed at Operating Speeds 1, 2, 3, and 4





Colorado | Florida | Illinois | Louisiana | Michigan | Missouri | New Jersey | New York | North Carolina | Pennsylvania | Texas | Washington, DC | West Virginia

Test Report

DATE: 12/27/2024
TO: Chesapeake Bay Bridge and Tunnel
FROM: Kyle Gable, P.E. (M&M)
RE: Tunnel Lighting Measurement Results

Chesapeake Channel Tunnel Lighting Measurement Results			
Location	Center of Southbound Lane	Centerline	Center of Northbound Lane
Station 469+00	35.24	32.51	31.46
Station 478+45	35.54	33.69	32.9
Station 484+22	32.59	34.04	35.14
Station 495+60	31.62	37.67	38.53
Station 501+90	38.74	35.25	36.4
Station 513+31	32.15	33.56	33.57
Station 522+54	33.24	31.03	27.97
Notes: Measurements are in foot-candles Measurements acquired using an LM-50 illumination testing device			



NATIONAL ELEVATOR INSPECTION SERVICE
A Bureauveritas Company



Elevator No. 1
In the building located at Tunnel Island #1
Has been granted a

CERTIFICATE OF OPERATION

Maximum Capacity 2000 Pounds Expiration Date
Maximum Speed 100 Ft. per Min. 3-31-2025
Inspector's Signature [Signature] Lic. No. EC001040

This permit shall be conspicuously posted on, near
or visible from each entry to the elevator.

NEIS-C/O (4/13)

NATIONAL ELEVATOR INSPECTION SERVICE
A Bureauveritas Company



Elevator No. 2
In the building located at Tunnel Island #2
Has been granted a

CERTIFICATE OF OPERATION

Maximum Capacity 2000 Pounds Expiration Date
Maximum Speed 100 Ft. per Min. 3-31-2025
Inspector's Signature [Signature] Lic. No. EC001040

This permit shall be conspicuously posted on, near
or visible from each entry to the elevator.

NEIS-C/O (4/13)

NATIONAL ELEVATOR INSPECTION SERVICE
A Bureauveritas Company



Elevator No. 23
In the building located at Tunnel Island #3
Has been granted a

CERTIFICATE OF OPERATION

Maximum Capacity 2000 Pounds Expiration Date
Maximum Speed 100 Ft. per Min. 3-31-2025
Inspector's Signature [Signature] Lic. No. FG01040

This permit shall be conspicuously posted on, near
or visible from each entry to the elevator.

NEIS-C/O (4/13)

NATIONAL ELEVATOR INSPECTION SERVICE
A Bureauveritas Company



Elevator No. 4
In the building located at tunnel Island #4
Has been granted a

CERTIFICATE OF OPERATION

Maximum Capacity 2000 Pounds Expiration Date
Maximum Speed 100 Ft. per Min. 3-31-2025
Inspector's Signature [Signature] Lic. No. FG01040

This permit shall be conspicuously posted on, near
or visible from each entry to the elevator.

NEIS-C/O (4/13)



15. Electronic Submittals

The following supplemental items will be submitted electronically to the District with the Final Report:

- Inspection Database: Includes majority of field notes from the annual inspection and the routine inspections performed on the trestles
- Underwater Inspection Forms (Level I & II) of Trestle CSB