DIOA Bridge Replacement Advisory Committee

Status Report

March 11, 2024

1. JMT Biennial Inspection

- JMT completed its biennial inspection on January 16, 2024, and submitted its report on February 19.
- The inspection report is contained in Attachment 1 of this report.

2. BMA Final Report

- This report will include all tasks completed by BMA, includingthe initial and supplementary scope of services.
- The report is expected to be received the week of March 10.

3. Davis & Floyd Second Opinion Study

- A brief status call with Rob Stevenson was held on March 5.
- The analysis of alternatives is almost complete and they are in the process of writing their report.
- They expect to have their draft report submitted to Dataw by the end of March.
- After the Committee has reviewed the draft report, we will schedule a Teams call to review it and discuss the findings.

4. Fripp Island Public Service District Meeting

- A meeting was held at Dataw on February 22 with Ed Wetzel and Jeremy Sponseller from the Fripp Island Public Service District.
- The purpose of the meeting was to share information and experiences relative to bridge planning, financing, Beaufort County and SCDOT involvement, etc.
- The groups will continue to share information and provide resources to each other.

5. Bridge Financing Committee

- Clay Fails will serve as the liaison between the Bridge Replacement Committee and Bridge Financing Committee.
- Once the engineering studies have been completed and the Bridge Financing Committee has met with Beaufort County regarding the possibility of a

Special Taxing District and low interest bond financing, the two groups will schedule a joint coordination meeting.

6. <u>Additional Committee Member</u>

- Dan Kell has joined the Committee.

7. <u>Bridge Contractor Discussions</u>

- The Committee is scheduled to meet with representatives of Clearwater Construction Co. on March 14 to discuss o bridge project.
- Clearwater is a heavy civil/bridge contractor headquartered in northwestern Pennsylvania. They have significant bridge construction eperience, including in coastal states. They also offer design-build services.

Respectfully submitted,

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Clay Fails, Chair

Attachment 1

JMT January 16, 2024 Inspection Report

Inspection Date: January 16, 2024

DATAW DRIVE ENTRY ROAD

BRIDGE INSPECTION

Project # 13-0492-010
Submitted to:
Dataw Island Owner's Association

February 16, 2024

Ted Bartlett
Dataw Island Owner's Association
100 Dataw Club Road
Saint Helena Island, SC 29920
(843) 838-8203

RE: Dataw Drive Entry Road Bridge Inspection-2024
JMT Job No. 13-0492-010

Mr. Bartlett:

JMT performed the routine (bi-ennial) safety inspection of the Dataw Entry Bridge on January 16, 2024, according to Dataw's general maintenance and inspection program. The inspection was led by Paul Rosenbeck, PE with the assistance of Lee Bryant, EIT and generally followed the National Bridge Inspection Standards (NBIS) guidelines. The major scope of work included documenting the current condition of the bridge, monitoring the progression of deterioration of major elements, and monitoring the construction defect items under warranty and identified as part of the spall repair project conducted by Ngineering in the Fall/Winter of 2022.

The Dataw Drive entry bridge is a 175 ft long by 26 ft wide bridge, consisting of driven pre-cast, pre-stressed concrete piles, cast in place concrete caps and pre-stressed slab beams. The bridge has an asphalt overlay for a riding surface and has architectural timber trusses on both sides. A collection of utilities including water, sewer and power lines are suspended on brackets mounted to the West end of the pile caps.

The substructure was found to be in satisfactory condition (see NBIS grading scale pg14) with minimal progression of damage from the previous bi-ennial inspection conducted in 2020.

- The piles were covered with marine growth. Only the upper most region of the pile was visible for inspection due to the low bridge profile and high tidal zone during the inspection. The exposed portions of the piles were covered in marine growth. The visible portion of the piles exhibited no visible spalls or cracking.

- The faces of caps exhibit horizontal cracks in isolated locations varying between hairline and 1/16" in width with rust staining. The cap ends exhibited hairline to 1/16" wide cracks in isolated locations. The inspection report dated December 4, 2020 did not report horizontal cracks along the faces of the caps, and the end cap cracking was limited to hairline widths. This indicates minor progression of cracking on these elements. The deterioration of the pile caps should be closely monitored during future inspections; however, these cracks do not warrant repair at this time.

The superstructure was found to be in fair to poor condition with more advanced deterioration exhibited from the 2020 biennial inspection. While previous major spalling has been repaired in the 2022 rehabilitation project, the underlying corrosion and section loss of prestressing strands at these locations is still present.

- Additional defects including spalls, impending spalls and cracking were documented on the underside of the beams. These areas were identified and marked for monitoring during future inspections, however they are currently not significant enough to warrant immediate repair. Refer to the Defect Location Plan and Observed Defects Table for quantities and locations of defects.

- The special inspection conducted on September 19, 2023 (summary email dated September 25, 2023) identified seven repairs that exhibited transverse flexural cracking that are currently under warranty from Ngineering. These seven repair locations (Item No. 24, 26, 34, 35, 37, 40, 46, 62) and descriptions of the defects were included in the Defect Location Plan and Observed Defects Table for monitoring during future inspections. These defects were observed to be stable and have not deteriorated from the last special inspection.

JMT recommends monitoring the noted defects during the regular biennial (2 year) inspection cycle and conducting a final special inspection on the relevant warrantied defects prior to the end of the 2-year warranty period of Ngineering's project (~December 2024).

As a general note, several locations on the bridge had discontinuous utility conduits that should be properly reconnected/reattached and open electrical junctions boxes that should be covered. See Defect Location Plan and Table for locations and description.

This bridge has had multiple rounds of repairs and given its current condition and the proximity to saltwater, Dataw should expect the deterioration of the bridge to continue. JMT has advised Dataw to begin planning for a future repair and/or replacement project. JMT's latest advice to Dataw in this regard can be found in the email Subj: Follow Up Email, Dataw Entrance Bridge dated 12/22/2023 11:58a.

If you have any questions or need further information, please do not hesitate to contact me at 843-779-3707 or prosenbeck@jmt.com.

Very truly yours

Johnson, Mirmiran & Thompson, Inc.

Paul Rosenbeck, P.E.
Project Manager

PDR/lmb