

FRIPP ISLAND PUBLIC SERVICE DISTRICT

Wednesday, July 27, 2022
Electronic Meeting Via Zoom
2:00 p.m.

Zoom Info:

Join from PC, Mac, Linux, iOS or Android:

<https://us02web.zoom.us/j/87926952378>

Or iPhone one-tap (US Toll): +16469313860,,87926952378#
+19292056099,,87926952378#

Or Telephone:

Dial: +1 312 626 6799 (US Toll) or +1 929 205 6099 (US Toll)
Meeting ID: 879 2695 2378

AGENDA

1. Call to Order
 - Confirmation of the presence of a quorum
 - Confirmation of public meeting notice, as required by the SC Code of Laws 30-4-80(A).
2. Pledge of Allegiance
3. Johnson, Mirmiran & Thompson, Inc. Proposal for Fripp Inlet Bridge Rehabilitation & Construction Administration
4. Johnson, Mirmiran & Thompson, Inc. Proposal for South Carolina Infrastructure Investment Program Grant Application
5. Adjourn

FRIPP ISLAND PUBLIC SERVICE DISTRICT

Minutes: Special Commission Meeting on July 27, 2022 – electronically via ZOOM

Present: Michael J. Wilt, Rick E. Keup, John F. King, Edward D. Wetzel, Dennis Perrone

Absent: Dan H. McCormick

Staff: Angie Hughes, District Manager; Joshua Horton, Fire Chief; Yvonne Fireall, Office Manager

Guests: Tony O'Rourke (FIPOA), John Derrick, Ponda Wood, Lou Wood

1. Chairman Wilt called the meeting to order at 2:01 p.m., confirmed the presence of a quorum and confirmed that all requirements of the SC Code of Laws, Section 30-4-80, pertaining to the notice of meetings of public bodies, have been met for this meeting.
2. Chairman Wilt led the Commission in the Pledge of Allegiance.
3. The Commission approved Sections VI (B) and VI (D), if warranted by the results of the bent analysis, of a proposal dated July 25, 2022 from Johnson, Mirmiran & Thompson, Inc. in the amount of \$74,087 for the Fripp Inlet Bridge Rehabilitation & Construction Administration, upon a motion by Mr. Wetzel (Vote: unanimous). (*Att A*)
4. The Commission approved a proposal dated July 19, 2022 from Johnson, Mirmiran & Thompson, Inc. in the amount of \$13,628 for completion of a grant application to the South Carolina Infrastructure Investment Program, and authorized payment for the services from contingency funds held in the water and sewer fund, upon a motion by Mr. Keup, as amended by Mr. Wetzel. (Vote: unanimous). (*Att B*)
5. The Commission authorized the District Manager to approve, sign and submit the grant application upon its completion by the deadline date of September 12, 2022, upon a motion by Mr. Wetzel (Vote: unanimous).
5. There being no further business, the meeting adjourned at 2:29 p.m., upon a motion by Mr. King (Vote: Unanimous).



Michael J. Wilt
Chairman



Angel L. Hughes
Secretary



July 25, 2022

Ms. Angie Hughes
District Manager
Fripp Island Public Service District
291 Tarpon Boulevard
Fripp Island, SC 29920

RE: Fripp Inlet Bridge Rehabilitation & Construction Administration
JMT Job No. 13-1394-017

Dear Ms. Hughes:

Johnson, Mirmiran, and Thompson (JMT) is pleased to provide engineering services to conduct the Fripp Inlet Bridge substructure analysis, develop the rehabilitation plans and provide Construction Administration services for Fripp Island Public Service District (FIPSD).

Project Understanding

JMT has previously provided above water and underwater bridge inspection of the Fripp Inlet Bridge. Based on the findings from the hydrographic survey conducted between Feb. 4-6, 2022, and the latest full condition inspection report dated (6-6-2022) JMT has recommended further investigation and remedial repairs in order to ensure the bridge remains serviceable. The report Recommendations and Significant Findings summary have suggested the following:

- A concerning amount of channel bottom scour (ranging from 5' to 10') has been observed in and around bents 12 and 13 as documented in the inspection report dated 6-06-2022. Previous geotechnical investigations and substructure analysis report dated December 6, 2017) of the Fripp Inlet bridge have indicated that the amount of scour had reduced the geotechnical resistance around the piles in numerous bents supporting this bridge. These bents (4, 18 & 32-44) have previously been retrofitted (repair plans dated 3-28-2019) to remediate this condition. The scour history of this bridge and additional scour observed at bents 12 and 13 suggest a structural analysis of the bents is warranted to confirm span integrity.
- Pile deterioration (corrosion/cracking/spalls) has advanced throughout the bridge length, mostly at the cap/pile interface. Given that the bridge piles are a main load carrying member, JMT has recommended jacketing these piles to maintain serviceability and load capacity of the bridge.
- Spalling on the bottom flange beams 2 and 3 (Span 7) is occurring near the bearings. In order to mitigate spall/crack propagation to higher stress regions (and thus reducing structural capacity) JMT has recommended spall repairs at these locations as preventative maintenance.

In addition to the report repair recommendations, JMT has documented numerous other defects of

lesser (but non-negligible) severity. These additional defects include reinforced concrete spalls, prestressed girder spalls and horizontal cracking throughout numerous components in the structure. While these defects do not necessarily warrant immediate attention, it is JMT's opinion that these defects have a high potential to advance in severity in the next 2-5 years, potentially affecting the serviceability of the bridge. JMT believes it is prudent and a cost-effective measure to repair/remediate these items concurrently with the other recommended items.

Proposed Scope

JMT proposes the following scope of engineering services to Fripp Island Public Service District to remediate the documented issues on the bridge.

I. SERVICES

- A. Bents 12 and 13 Analysis – JMT will investigate the structural capacity/stability of the bents based on both the measured and future anticipated scour. As mentioned, a previous geotechnical investigation/scour analysis has been completed by JMT as part of a previous project with FIPSD. JMT will use this investigation as the basis for re-evaluation based on updated scour observed. A structural model of the bents 12 and 13 will be developed based on the data collected and available plans. The structural model will account for exposed portions of the steel H-Pile due to scour. The substructures will be analyzed to verify the capacity to support the superstructure loads in its current condition and to determine how much potential scour could be tolerated. The analysis will be in general conformance to the SCDOT Bridge Design Manual and the AASHTO LRFD Bridge Design Specifications.

JMT will provide a summary of the design assumptions, overall analysis method and results. JMT will make appropriate recommendations (i.e., repair/retrofit/strengthening, or recommended future inspection schedule) based on the results of the analysis and collaborate with FIPSD in determining the most cost-effective plan that provides safe operation of the structure going forward.

Based on the analysis results, if it is determined that a full bent strengthening or retrofit is necessary going forward, further scope of work will be developed in the "II. Alternate Rehabilitation Services" scope of services below to include design, plan development and construction testing/administration of the bent retrofit/rehabilitation.

- B. Bridge Rehabilitation Plans & Specifications – JMT will develop the construction plans and specifications for the bridge remediation. These plans and specifications will address the items noted in the latest report (dated June 6, 2022) recommendations as well as the additional defects determined to be of high potential of concern in the near to mid future (as discussed in the project understanding). It is anticipated the repair items will include:
- 14 - pile jacketing items/locations located on various exposed prestressed piles (defect item numbers 136-150 in the latest inspection report).

- 9 - prestressed girder spall items/locations. This will encompass:
 - the more substantial spalls located at beams 2 and 3 in span 7 (defect numbers 88-89)
 - 7 areas (defect numbers 84-87,90-95) as having a high probability of future concern.
- 19 - reinforced concrete spall items/locations. JMT has identified these defects as having a high likelihood of being a concern within the next 2-5 years:
 - 12 items located on the underside of the bridge deck (defect numbers 50-64).
 - 5 items located on the various pile caps throughout the structure (defect numbers 118,121-124,126).
 - 2 items located on the bridge barrier/safety railing (defect numbers 8,10).
- 7 - horizontal crack items/locations that require sealing and/or spall repair to prevent future propagation and/or maintenance concerns (defect numbers 110-112,116-117,119,125).

All repair details will be developed to arrest further defect propagation and maintain the existing capacity of the structural elements. The bridge rehabilitation plans and specifications will include locations of each defect to be repaired, estimated quantity, type of repair required, associated details, repair directions, and existing bridge plan details. JMT will utilize the SCDOT 2007 Standard Specifications for Highway Construction. If needed, technical specifications will also be provided for specific repair items.

- C. Develop preliminary construction cost estimates – JMT will prepare a preliminary engineer's estimate based on SCDOT bid tabs and similar construction costs of each repair type/item. Additionally, JMT will solicit two local contractors to provide preliminary construction costs for the bridge repairs. JMT will provide the contractor with information regarding the proposed scope of the rehabilitation and anticipated quantities for each of the repair items. These preliminary costs will be provided to FIPSD for planning and scheduling of the proposed bridge remedial repairs.
- D. Bid Letting – JMT will prepare the bid documents, plans, specifications, and contract information to advertise and receive bids from perspective contractors. The project will be advertised in the Beaufort Gazette, Charleston Post and Courier, and through an online vendor. JMT will also hold an on-site Pre-Bid meeting to discuss the project and answer questions before the receipt of the bids. JMT will receive questions and respond with Addendums as needed.

JMT will host the Bid Opening to evaluate, rank, and provide FIPSD with the recommended contractor for award of the construction project. Once FIPSD executes a contract with the Contractor, JMT will provide a Notice-to-Proceed letter to move forward with the bridge rehabilitation.

Bid letting will include a pre-bid Meeting and the bid opening (2 total). Meetings will be conducted at the JMT office.

- E. Construction Administration (JMT) – JMT will administer the construction project. This will consist of reviewing/answering contractor Request For Information (RFI's), approving product submittals and shop drawings, approving and processing payment applications, conducting site visits to document that construction has been completed according to plans/specifications, and holding punch-list visits to close out the project.

During construction activities, JMT will conduct regular site visits to verify that the contractor has repaired the bridge in accordance to the repair plans/specifications and to confirm quantities for payment. A site-visit log will document activities observed during each visit and submitted to FIPSD. JMT will include the following on-site visits:

- A Pre-Construction Meeting to ensure that the contractor, FIPSD, and JMT understand all expected processes and how the construction will proceed. (1 site visit)
- Each spall, jacket and crack repair item will have demo'd quantities, site surface preparation and/or reinforcing steel/corrosion mitigation installation measured, verified, and documented prior to final repair site installation. JMT will then confirm correct final installation after the repair has been completed. Assuming 57 total defect items and combining approximately 3 repair item inspections per site visit, JMT will assume 20 site visits for planning purposes. (20 site visits).
- Punch-List Meeting and 1 day Follow-up verifications. (2 site visits).

ASSUMPTIONS: Based on the assumed scope of rehabilitation and nature of the recommended structural repairs, JMT anticipates a Maintenance and Repair Permit will be sufficient for the reviewing agencies to issue a work permit. JMT will obtain this permit prior to NTP notice is given to the selected contractor.

II. ALTERNATE REHABILITATION SERVICES

As mentioned in I. **SERVICES – Task A** above, based on the outcome of the structural analysis of bents 12 and 13, accounting for the stated scour conditions, a complete bent retrofit and/or strengthening may be required to maintain structural integrity/stability of the span. If in the event a retrofit or significant repair is necessary, JMT will notify FIPSD in advance to discuss the nature and cost of the work and will seek FIPSD's approval prior to developing this work. If the structural analysis indicates a rehabilitation is necessary, JMT proposes the following scope of work.

- A. Bent Rehabilitation Design/Analysis – JMT will develop the calculations for the pile bent rehabilitation (Bents 12 and 13) and will provide a complete design and concept analysis of the proposed repair/retrofit. The pile bent analysis will be performed in general conformance to the SCDOT Bridge Design Manual and AASHTO LRFD Bridge Design Specifications.

Previous retrofits at this bridge have consisted of new prestressed concrete piles driven outboard of the existing pile bent. A new bent cap has encapsulated the existing piles to transfer the superstructure loads to the new concrete piles. JMT will evaluate this concept along with any other (if applicable) viable alternatives to rehabilitate the bents and make recommendations accordingly.

Note that the future anticipated scour depth will be used in the design of the retrofit bent piles.

- B. Bent Rehabilitation Plans and Specifications – JMT will develop construction plans and specifications for the bents 12 and 13 recommended repair/retrofit. It is anticipated that this will be included and bid as part of the construction plan set detailed in **Services - Task B**.
- C. Develop preliminary construction cost estimates – JMT will develop preliminary cost estimates for bents 12 and 13 rehabilitation and will be included with **SERVICES – Task C listed above**.
- D. Permitting – Due to the extent of the anticipated reconstruction work, a Maintenance & Repair Permit will not be sufficient with the reviewing agencies. JMT anticipates that the Department of Health and Environmental Control – Office of Ocean and Coastal Resource Management (DHEC-OCRM) will require a Critical Area Permit. United States Army Corps of Engineers (USACE) will not require a permit due to maintenance and repair work limited to the existing superstructure. Since the rehabilitation will not affect the span lengths or change the vertical clearances to the existing bridge, JMT does not anticipate a need for a US Coast Guard (USCG) Bridge Permit. JMT will obtain any required critical area delineation survey, prepare plans, and necessary documentation to obtain the Critical Area Permit. If the agencies require a more stringent level of permitting or if USCG requires a Bridge Permit, there will be completed as part of Additional Services and negotiate with FIPSD prior to starting work.

SCDHEC OCM Critical Area Permit

For the purposes of this scope and fee, it is assumed that the project area is under the ownership of the Fripp Island Public Service District. If required by OCRM, JMT will establish a Critical Area for permitting purposes. JMT will conduct a jurisdictional wetland delineation within the project area in accordance with the standards currently employed by the USACE (a.k.a. Atlantic and Gulf Coastal Plain Regional Supplement to the USACE Wetland Delineation Manual) and SCDHEC-OCRM. Jurisdictional aquatic feature boundaries will be sequentially flagged and located by a South Carolina Professional Land Surveyor if required. The approximate boundaries and appropriate documentation will be developed for the USACE and SCDHEC-OCRM to verify the extent of jurisdictional features as part of their permit approvals.

JMT will prepare A Critical Area Permit Application for impacts to tidal waters of the State of South Carolina under DHEC's Office of Ocean & Coastal Resource Management. This application will include (but is not limited to) applicant details, additional contacts, project details, site details, adjoining property owners, notarized Affidavit of Ownership or Control, certified copy of deed/lease/easement, Drawings depicting proposed activities, and Affidavit of Publication. JMT will prepare the permit application for activities in the South Carolina Critical Areas for a Major Activity and provide to the SCDHEC-OCRM. JMT will run the SCDHEC-OCRM required newspaper notice and pay the fee. It is not anticipated that mitigation will be required for this project and therefore is not a component of this Scope.

ASSUMPTIONS:

1. It is anticipated that the SCDHEC Major Activity Critical Area Permit fee will be \$250.00. We have included this anticipated fee in our budget. No other fees are anticipated from SCDHEC. No mitigation is anticipated. If there are charges in excess of \$250, FIPSD will be responsible for them.
 2. It is not anticipated that mitigation will be required for this project and is therefore excluded and not a component of this scope.
 3. All aquatic features will be presumed jurisdictional.
 4. It is assumed that there will be one owner, and that information for populating owner information into permit applications (as well as adjacent ownership information, if necessary) will be readily available (available online) and accurate.
 5. FIPSD will provide a notarized Affidavit of Ownership or Control and a certified copy of a deed, lease, or easement.
 6. Any potential jurisdictional boundary surveying fees that may be required in obtaining the Critical Area Permit have not been included.
- E. Construction Administration – JMT will conduct additional inspection site visits in documenting and verifying the repairs for the Bent 12 and 13 repair/retrofit bents as part of **SERVICES – Task D** noted above. For planning purposes, JMT will assume 4 visits (2 for each bent). (4 site visits)
- F. Geotechnical Subconsultant – If necessary, as part of the proposed structural rehabilitation or retrofit, JMT will retain a geotechnical subconsultant to provide geotechnical design and construction services. To include:
- Pre-Construction Support,
 - WEAP analysis, Lateral pile analysis
 - Dynamic Pile Testing (PDA) & Report, Pile Installation monitoring
 - Concrete Testing Services

III. PROJECT SCHEDULE

Once the notice to proceed is given, JMT anticipates a minimum of ten (10) working days to start the project.

IV. CLIENT RESPONSIBILITIES

Provide a conference room on Fripp Island to hold the Pre-Bid and Pre-Construction Meeting with the Contractors.

V. ADDITIONAL SERVICES

All services not listed under "Services" are considered Additional Services. The compensation for these services will be in addition to that for "Services." "Additional Services" include, but are not limited to the following:

- A. Engineering services incident to project scope changes beyond JMT's control.

- B. Acquiring Environmental permits beyond the Critical Area & Wetland Permit
- C. Acquiring a USCG Bridge Permit (anticipated that it will not be required for this project).
- D. Performing site-visits not specifically listed in the "Construction Administration" section of the scope of service above.
- E. Attending on-site meetings not included in the scope of service above.

VI. COMPENSATION

A. "SERVICES" and "ALTERNATE REHABILITATION SERVICES" upon which compensation is based, were determined from discussion and email correspondence with FIPSD and Ms. Angie Hughes, as outlined in the scope of services listed above.

B. "SERVICES" including Sections A through D will be provided for a proposed lump sum fee:

Task 1: Project Management	\$7,112
Task 2: Bent 12 &13 Analysis w/scour	\$12,500
Task 3: Bridge Rehabilitation Construction Plans & Specifications	\$20,375
Task 4: Develop Preliminary Construction Cost Estimates	\$5,152
Task 5: Bid Letting	\$6,160
Task 6: Maintenance and Repair Permit	\$950

Lump Sum fee of \$52,249

C. "SERVICES" for Section E (Construction Administration) will be provided separately under a Time & Material cost with a not to Exceed fee:

Task 9: JMT Construction Administration:	\$40,650
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Time & Material cost with a not to Exceed Fee of \$40,650

D. "ALTERNATE REHABILITATION SERVICES" including Sections A through D will be provided for a proposed lump sum fee. These services will be in addition to fees listed in "SERVICES"

Task 1: Bent 12 & 13 Repair Design	\$7,875
Task 2: Bent Repair Construction Plans and Specifications	\$7,963
Task 3: Permitting/Wetland Delineation Survey	\$6,000

Lump Sum fee of \$21,838

E. "ALTERNATE REHABILITATION SERVICES" for Section E & F (Construction Administration) will be provided separately under a Time & Material cost with a not to Exceed fee:

Task 9: JMT Construction Administration:	\$14,300
Task 10: Sub Consultant Construction Administration:	\$32,500

Time & Material cost with a not to Exceed Fee of \$46,800

F. "Additional Services" will be negotiated as such time as deemed necessary. It is anticipated that this project will be accomplished under a new Task Order under original Contract Agreement executed on February 11, 2014.

This scope may be amended as needed according to your project requirements and JMT will happily modify any effort or fees at your request to better suit your needs. I thank you for your time and consideration in this matter and again, I look forward to a successful project completion. Should you have any questions regarding these items, please do not hesitate to call me at 843-556-2624 or joconnor@jmt.com.

Very truly yours,
JOHNSON, MIRMIRAN & THOMPSON, INC.

A handwritten signature in black ink, appearing to read "Jim O'Connor". The signature is fluid and cursive, with a large initial "J" and "O".

Jim O'Connor, PE Vice President
South Carolina Office

JKO/pdr



July 19, 2022

Ms. Angie Hughes
District Manager
Fripp Island Public Service District
291 Tarpon Boulevard
Fripp Island, SC 29920

RE: South Carolina Infrastructure Investment Program Grant Application

Dear Ms. Hughes,

Johnson, Mirmiran, and Thompson (JMT) is pleased to submit this cost proposal to Fripp Island Public Service District (FIPSD) to complete the application for the South Carolina Infrastructure Investment Program (SCIIP) Grant Application, to be submitted by FIPSD no later than September 12, 2022.

Project Understanding / Scope of Services

JMT understands that the FIPSD would like to submit to obtain grant monies through the SCIIP grant program for this one-time application period closing on September 12, 2022. The grant application will include repairs to the Fripp Island Bridge as it pertains to being the means and method of providing water to the island. The total improvements and detailed cost estimates will be completed under a separate task order and will be provided for the completion of this grant application. Grant application services are outlined below:

- **Develop Grant Schedule:** JMT will develop a schedule for completion of the grant application citing areas of responsibility. This schedule will be critical for the successful completion of this grant based on an expedited timeframe and ensuring ample review time prior to submission. The deadline for applying for this grant is Monday, September 12, 2022. Based on this timing, JMT will prepare a final application prepared for FIPSD final signatures and submission no later than Wednesday, September 7, 2022. The overall schedule will be reviewed during the weekly progress meetings.
- **Application Form:** JMT will coordinate with FIPSD to fill out the application form associated with this grant submission. FIPSD will provide detailed information pertaining to identification of the project benefit, funding, schedule, and identify the individuals and contact information to be included. In addition, FIPSD will be responsible for final signatures and approvals for the grant application prior to submission.
- **Attachment 1 Application Narrative:** JMT will complete the Application Narrative providing the understanding of the project need, benefits, and impacts. FIPSD will provide all pertinent information that will aid JMT in developing the narrative associated with this attachment.

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- **Attachment 2 Preliminary Engineering Cost Estimate:** Through a separate Task Proposal, FIPSD will coordinate the necessary information with JMT for the necessary improvements and detailed cost estimates for this grant application. Included in the information to be provided for the purpose of this grant application will be a description of the improvements, pertinent photos and maps, and the cost estimates. A 25% construction contingency is to be included as a separate line item in the detailed cost estimate.
 - **Attachment 3 Project Location and Service Area Maps:** JMT will prepare a project location map and will coordinate with FIPSD for the preparation of Service Area Maps. This will include FIPSD providing base map information to JMT regarding the service areas and JMT applying various graphic layers for the purpose of the grant application.
 - **Attachment 4 Funding and other Commitments:** JMT will coordinate with FIPSD for the development of all funding and other commitments to develop the necessary information for this attachment.
 - **Attachment 5 Viability Self-Assessment for RIA State Grant Requests:** Not Applicable for this Grant Application
 - **Additional Attachments:** JMT will coordinate with FIPSD to obtain any additional materials that will aid in developing a stronger grant application. This includes, but is not limited to, inspection reports of the utility, inspection reports of the bridge, and identification of other projects completed with utilities on the island. In addition, JMT will develop up to three additional displays for the support of this grant application including reference to climate change and further need for resiliency in the program.
 - **Draft Application:** JMT will prepare the draft application for FIPSD review and comment. All comments must be received within one week of the draft submission.
 - **Final Application:** JMT will revise and resubmit the final application based on the comments received.
 - **Submission:** FIPSD will be responsible for final signatures and submission of the grant application to be received no later than 5:00 PM on September 12, 2022.
 - **Progress Meetings:** Based on the schedule for the grant application and the coordination of materials, JMT will meet with the necessary representatives from FIPSD on a weekly basis for an estimated 30-minute virtual progress meeting. During this meeting, the project schedule and critical path items will be reviewed for an overall status check as well as serve as a time to discuss any outstanding questions. For the purpose of this scope, it is assumed that there will be seven (7) progress meetings, including the kick-off meeting.
 - **Application Review Meetings:** JMT anticipates two additional meetings beyond the weekly Progress Meetings for the specific purpose to review comments and to come to consensus on revisions to be made in the application.

Project Schedule

Once the notice to proceed is given, JMT anticipates completing the task within 40 calendar days.

Client Responsibilities

Provide information as noted throughout the scope of services. Provide comments on the draft application within one week. Obtain final signatures and ensure submission of the grant application to be received no later than 5:00 PM on September 12, 2022.

Compensation

"Scope of Services" defined above and on the Activity Description Sheet (attached) will be provided for a proposed Lump Sum fee of \$13,628.

"Additional Services" will be negotiated as such time as deemed necessary.

It is anticipated that this project will be accomplished under a new Task Order under original Contract Agreement executed on February 11, 2014.

This scope of services may be amended as needed according to your project requirements and JMT will happily modify any effort or fees at your request to better suit your needs. I thank you for your time and consideration in this matter and again, I look forward to a successful project completion. Should you have any questions regarding these items, please do not hesitate to call me at 843-556-2624 or jconner@jmt.com, or task leader Jennifer Ray at 410-316-2231 or jray@jmt.com.

Very truly yours,

JOHNSON, MIRMIRAN & THOMPSON, INC.



Jim O'Connor, PE
Vice President

Cc: Jennifer J. Ray
Thai Trinh