

REHABILITATION OF FRANCIS SCOTT KEY BRIDGE
FROM ROSSLYN, ARLINGTON, VIRGINIA TO GEORGETOWN WASHINGTON, DC
DC Contract No.: DCKA-2014-C-0074

FAP No.: BH-1104 (013)

CONSTRUCTION MANAGER'S
WEEKLY PROGRESS REPORT
From 05/07/2017 to 05/13/2017

Project Website: www.keybridgeproject.com



1. EXECUTIVE SUMMARY

Project Description:

The AECOM Construction Management and Inspection team is providing construction and inspection services for the Rehabilitation of the Francis Scott Key Bridge over the Potomac River (Bridge No. 0007). This Francis Scott Key Bridge, built in 1929 is a historic 1,781-foot long reinforced concrete, open-spandrel arch bridge consisting of eight spans over the George Washington Parkway, Potomac River, Whitehurst Freeway and C&O Canal. The bridge not only served as a major commuter route into Washington, DC, but it also was listed on the National Register of Historic Place, which required coordination with the National Park Service since it spanned the C&O Canal and George Washington Parkway. This rehabilitation project is to restore the deteriorated portions of the structure, improving its structural integrity for another 30 years while maintaining those architectural features which contribute to its historical significance. The repair plans include conventional concrete patching repairs as well as strengthening with carbon fiber reinforced polymer reinforcing bars and sheeting materials. The construction cost is estimated to be approximately \$14.5 million.

The scope of the construction work includes the following:

1. Installing pedestrian/bicycle detection loops and warning flashers on the Bridge at the ramp to eastbound Whitehurst Freeway.
2. Cleaning and painting the existing steel pedestrian railing on the bridge.
3. Removing the concrete bollards from the east sidewalk at the east ramp exit.
4. Removing and installing new street light poles on the bridge.
5. Removing and resetting portion of the precast concrete traffic barrier on the Bridge.
6. Repairing the precast concrete traffic barrier and grout pads and the northwest concrete traffic barrier end post.
7. Strengthening the deck overhangs with carbon fiber reinforced polymer bars.
8. Repairing the concrete wearing surface on the bridge.
9. Repairing grout pockets at the post-tensioned deck hold down bolts.
10. Replacing the non-armored expansion joint seal (B-0007 and East Ramp).
11. Replacing the armored expansion joint seals (B-0007 and East Ramp)
12. Overlaying the right lanes (inbound and outbound directions) on the bridge with a high molecular weight methacrylate resin (HMWM) overlay; Milling and overlaying the Rosslyn approach structure with a very high early strength latex-modified concrete (LMC-VE).
13. Cleaning debris from all bridge deck drainage scuppers and pier chambers and Removing and replacing the Bridge deck drainage downspout.
14. Rehabilitating the support for a 30-inch Washington Aqueduct water main on the bridge.
15. Repairing portions of the concrete encased and the reinforced concrete floor beams; Cleaning and painting the exposed end of the steel floor beams.
16. Replacing failed concrete deck pedestals and Replacing portions of the utility gallery floor slabs full depth.
17. Repairing portions of the concrete superstructure, including but not limited to: deck soffit, deck pedestals, spandrel arches, spandrel columns, main arches, diaphragm walls, deck slab, and arch struts.
18. Repairing portions of the concrete substructure, including the piers, abutments, abutment chambers, and wing walls and encapsulating the pier footings with fiber reinforced polymer jackets at the waterline.
19. Removing and replacing the fixed steel access ladder at North abutment and installing a new fixed steel access ladder at the South abutment.
20. Removing and replacing portion of chain link fencing (bridge access deterrent) on the main arches.
21. Cleaning the Bridge fascia with pressurized water and Applying an anti-graffiti treatment to portions of the piers.
22. Removing and applying new pavement markings (B-0007 and East Ramp).
23. Maintenance of pedestrian and vehicular traffic during construction of the project, including temporary lane and sidewalk closures necessary to perform the work.

3. STATUS OF CONSTRUCTION / PROGRESS SUMMARY

Progress Summary:

1. Installation still in progress for the suspended scaffold system at span D.
2. Completed PCO-01 package for change order #1. Processing of the resulting CO #1 has been completed at the field level and awaits execution by the Contracting Officer.
3. Continued to update the project website.
4. Demolition work still in progress for the concrete repairs at North abutment and from North abutment to mid span C.
5. Sandblasting of existing reinforcing steel, installation of anchors and wire mesh for concrete repairs still in progress in previously (winter) demolished sections.
6. Continue to review and follow up on the concrete color matching efforts with the contractor. Color choice made by the DDOT team on dry-mix shotcrete sample contractor provided; Contractor also performed additional mockups to match color for the hand patch method. Contractor performed mockups for requested wet shotcrete mixes on Wednesday April 25, 2017 for review.
7. Coordination continues with the contractor regarding their means and methods proposal for the repair/replacement of existing traffic barriers.
8. Continued coordination with Pepco regarding their work schedule.
9. Ongoing coordination with Greg King, Thompson's Boat Center

10. CM Community Outreach Activities

The team communicated with the key stakeholders during the week to give them project status updates and identify any concerns that they might have about the project.

Stakeholder Contact:

- Spoke and corresponded with Crystal Sullivan at the Georgetown Suites on May 2 and 3 to discuss the fence adjacent to the hotel that had fallen down. Forwarded request to Technopref and had the issue corrected on May 3
- Visited Key Bridge Boathouse on May 4 and spoke with the manager. Requested that he remind his staff to steer customers away from the construction areas and also remind them of the closure of Span C to all navigation
- Ongoing coordination with Greg King, Thompson's Boat Center, regarding God Cup Regatta and upcoming WMIRA Champs regatta

Key Takeaways:

- Communications team will continue to develop relationships with key businesses near the bridge that can help us distribute project information to their customers

4. ISSUES / ACTION ITEMS

- **Ongoing Issues / Items:**
- Pepco Cable on the East Ramp Concrete Bent Columns still unresolved. Issue of ownership of cable has long been resolved. DDOT continues to work with Pepco to determine the appropriate solutions to safely accommodate proposed work at the bent columns. Meeting with Pepco for the possibility of starting the work on Water St by the end of May.
- Technopref reminded of its obligations under the Contract and requested by DDOT to summarize and submit supposed claimed "additional" costs, in an amount not to exceed \$35,000 as stipulated in the January 24, 2017 letter. Technopref has since submitted the requested costs and is currently being reviewed for merit. No current action on this item.

- **Action Items:** NPS issued Limited Special Use permit, and verbally provided access to the river. Contractor has since had access and to continue working on barges on the river unimpeded. Hardcopy permit still awaited although does not impact progress of contractor's operations on site.
- **New Issues / Items:** None, except as noted elsewhere in this report.

5. MEETINGS / PROJECT COORDINATION

- Conference call continued to be utilized to communicate with the contractor and engineer of record when a physical meeting is not possible.
- Coordination meetings continue with the DDOT team; and Bi-Weekly project progress meetings continue to be held with DDOT and the contractor.
- Coordination continues with Pepco regarding their upcoming work on Water St.

6. DAILY WORK PERFORMED

Monday 05/08/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Continued loading scaffold materials on barge. Continued to sound with DDOT inspectors at North abutment.
2. Handon services continued erecting scaffolding system and protection shield at Span D.
3. Fibrwrap was on-site and continued the demolition process and sandblasting rebars at Span C for the concrete repairs at North abutment Span C. replaced deteriorated rebars

Tuesday 05/09/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Continued loading scaffold materials on barge. Continued to sound with DDOT inspectors at North abutment.
2. Handon services continued erecting scaffolding system and protection shield at Span D.
3. Fibrwrap was on-site and continued the demolition process and sandblasting rebars at Span C for the concrete repairs at North abutment Span C. replaced deteriorated rebars

Wednesday 05/10/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Continued loading scaffold materials on barge. Continued to sound with DDOT inspectors at North abutment.
2. Handon services continued erecting scaffolding system and protection shield at Span D. continued
3. Fibrwrap was on-site and continued the demolition process and sandblasting rebars at Span C for the concrete repairs at North abutment Span C. replaced deteriorated rebars

Thursday 05/11/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Continued loading scaffold materials on barge. Continued to sound with DDOT inspectors at North abutment.
2. Handon services continued erecting scaffolding system and protection shield at Span D. continued
3. Fibrwrap was on-site and continued the demolition process and sandblasting rebars at Span C for the concrete repairs at North abutment Span C. replaced deteriorated rebars

Friday 05/12/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Continued loading scaffold materials on barge. Continued to sound with DDOT inspectors at North abutment.
2. Handon services continued erecting scaffolding system and protection shield at Span D. continued

7. INSPECTION & MATERIAL TESTS PERFORMED

- No testing for this period.

8. RFI's / SUBMITTALS

- **Requests For Information:**
Except as noted below, there are no current unresolved/uncompleted RFI's or Submittals:
- **Submittals:**
N/A

9. CHANGE ORDERS/TASK ORDERS

- Change Order #1 only processed to date. Package completed on the field level and currently awaits final execution by the Contracting Office.
- Review in progress by DDOT for possible processing of a change order relating 'eminent spalls' cost.

10. DBE or CBE PARTICIPATION SUMMARIES

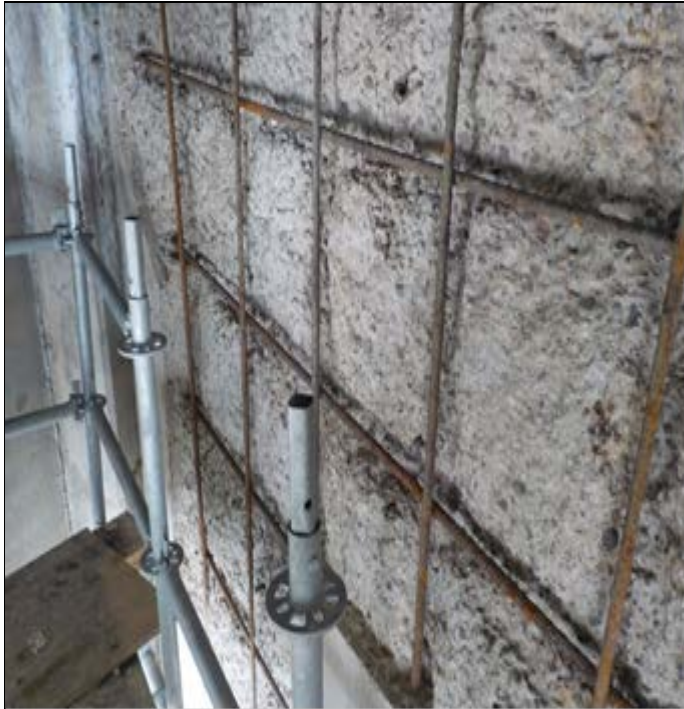
- AECOM DBE Activity:
 - o CSMI
 - Project Public Out Reach.
 - o CKI
 - Aid to Construction Management and Inspection Services
- Technopref

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- Handon Diving Services Inc.

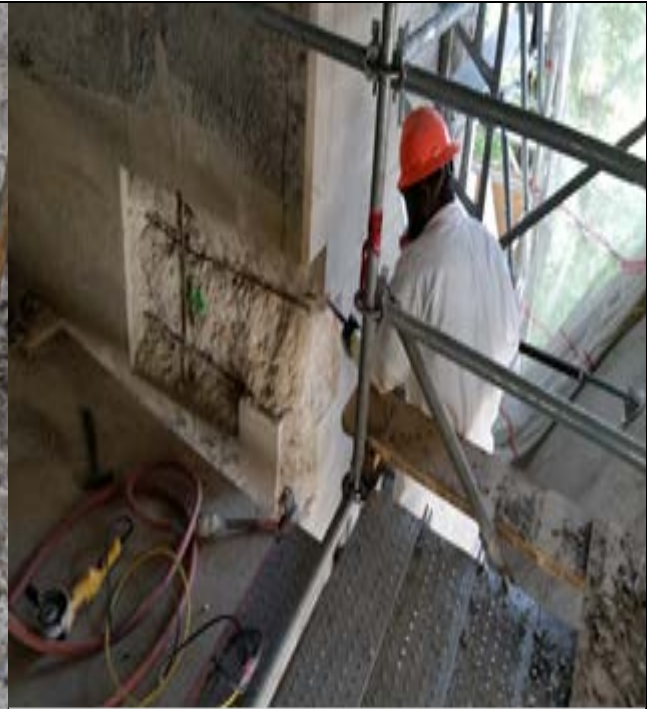
11. ACCIDENTS / INCIDENTS

There were no reported personnel or safety accidents within the limits of the project during this reporting period.

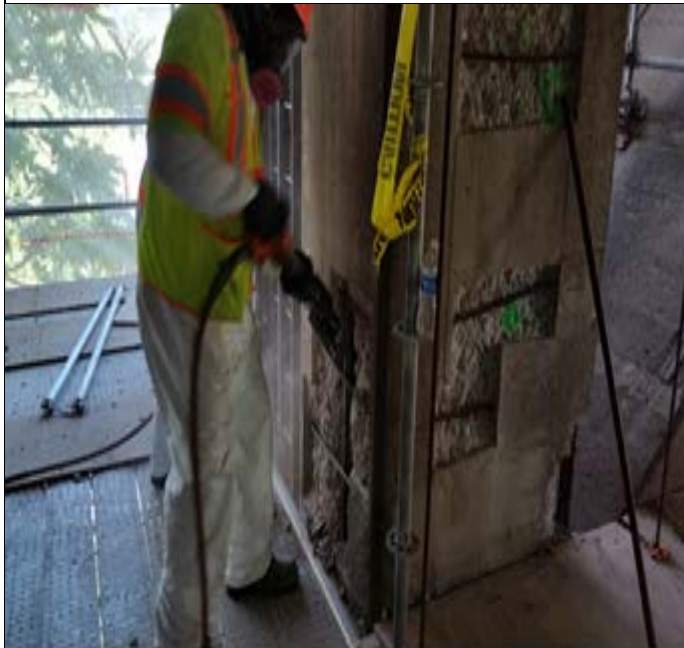
12. PHOTOS OF WORK PERFORMED THIS PERIOD



Concrete demolition at North abutment



Concrete demolition and saw-cutting at North abutment



Concrete demolition at North abutment



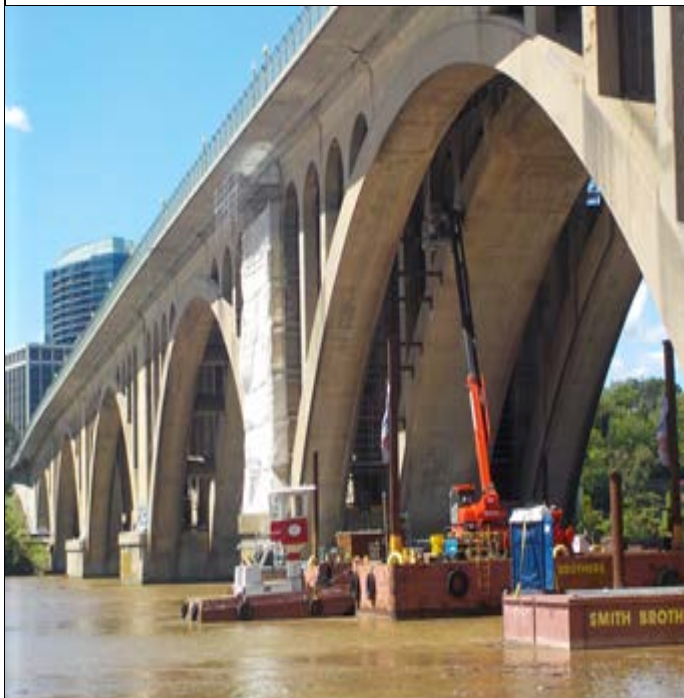
Rebar after sandblasting at Span C



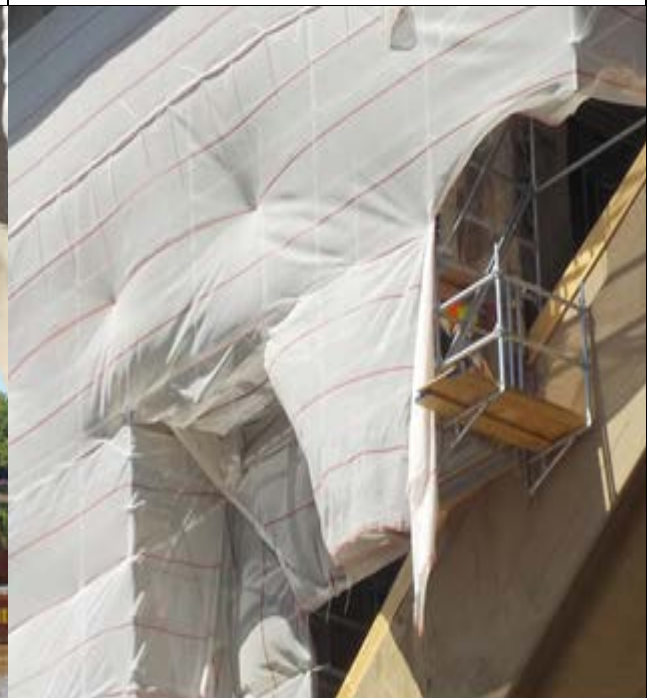
Installation of scaffold at span D



Installation of scaffold at span D



Installation of scaffold at Span D



Installation of scaffold at span D



Contamination setup for the sandblasting process



Contamination setup for the sandblasting process



Navigating barges loaded with scaffold Material.



Installing protective net