

**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)**

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**CONSTRUCTION MANAGER'S**  
**WEEKLY PROGRESS REPORT**  
**From 04/02/2017 to 04/08/2017**

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**Project Website:** [www.keybridgeproject.com](http://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.

## 2. STATUS OF CONSTRUCTION / PROGRESS SUMMARY

### Progress Summary:

1. Contractor continued installation of the suspended scaffold system from North abutment to pier 4. And proceeded with installation of scaffold system at pier 2.
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. Contractor continued the demolition work for the concrete repairs at pier 4 and at North abutment.
5. Contractor continued setting up forms for concrete repairs at locations at North abutment
6. Contractor continued sandblasting, power washing, installing anchors and wire mesh for concrete repairs.
7. Contractor started concrete placement at north abutment for concrete repairs type 1 and type 2.
8. Contractor continued deck pedestals replacement work in bay 5 of Span C; They completed installing the first temporary support and placed concrete for pedestal 52D.
9. Contractor started cleaning and painting floor beam ends from Span A to C
10. Continue to follow up on the concrete color matching efforts with the contractor. Color choice made by the DDOT team provided with the dry-mix shotcrete; Contractor expected to match color in hand patch and wet shotcrete mixes to complete.
11. Continue to coordinate with the contractor regarding their means and methods proposal for traffic barriers repairs/replacement. Field test trial on April 05, 2017.
12. Continued coordination with Pepco regarding their work schedule; meeting was held on April 7, 2017

### 13. 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:

- Called Sampson-Knapp, Boating In on 4/7 about the floating dock and to let them know that we are still waiting for a response from the contractor.
- Ongoing coordination with Greg King, Thompson's Boat Center, regarding GW Invitational and updates on other upcoming spring racing and regattas
- Ongoing coordination with Tim Staples, Marine Evolutions, regarding GW Invitational

### Notes:

- Project collateral submitted to DDOT on 2/24 is awaiting review by DDOT. Items including e-blast text and FAQs document, provided content and project rack card

### 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

## 3. ISSUES / ACTION ITEMS

- **Ongoing Issues / Items:**
- Pepco Cable on the East Ramp Concrete Bent Columns still unresolved. Issue of ownership of cable also resolved. DDOT continues to work with Pepco to determine the appropriate solutions to safely accommodate proposed work at the bent columns. DDOT is awaiting Pepco's finding after April 7, 2017 on-site meeting.
- 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 Jan-

uary 24, 2017 letter. Technopref has since submitted the requested costs and is currently being reviewed for merit.

- **Action Items:** NPS issued Limited Special Use permit, and verbally provided access to the river. Contractor has since had access and been 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.

#### 4. MEETINGS / PROJECT COORDINATION

- Conference call continued to be utilized to communicate with the contractor when a physical meeting is not possible.
- Weekly coordination meetings continue with DDOT team, project progress meetings with DDOT and the contractor.
- Meeting with Pepco regarding the overhanging cables over the east ramp

#### 5. DAILY WORK PERFORMED

##### Monday 04/03/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Started installing life line at pier for scaffold work. Continued installing lights in east gallery
2. Handon services continued erecting scaffolding system at Span C, North abutment and pier 2. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work

##### Tuesday 04/04/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area.
2. Handon services continued erecting scaffolding system at Span C, North abutment and pier 2. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work. Started placing concrete for type 1 and type 2 repairs at North abutment.

##### Wednesday 04/05/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Performed a trial test for remove and reset permanent precast concrete traffic barrier
2. Handon services continued erecting scaffolding system at Span C, North abutment and pier 2. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work. Continued placing concrete for type 1 and type 2 repairs at North abutment.

4. Ionion Paint was on site and started working on the floor beam end at the West gallery from Span A to C.

**Thursday 04/06/17**

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area. Continued installing lights in east gallery
2. Handon services was not on site due to weather conditions
3. Fibrwrap was not on site due to weather conditions
4. Ionion Paint was not on site due to weather conditions

**Friday 04/07/17**

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area.
2. Handon services continued erecting scaffolding system at Span C. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work. Started placing concrete for type 1 and type 2 repairs at North abutment.
4. Ionion Paint was on site and continued cleaning the floor beam end at the West gallery from Span A to C. Contractor also applied zinc primer to beam end from span A to B.

**6. INSPECTION & MATERIAL TESTS PERFORMED**

- Pay items worked this week are:
  - 000 003 Employee Training. We were on site to observe Employee Training.

**7. RFI's / SUBMITTALS****Requests For Information:**

Except as noted below, there are no current unresolved/uncompleted RFI's or Submittals:

- RFI No. 038B – Seeking Repair type for areas beyond 6 Inches - Clarification and Repair Detail in Reference to JMT's response to RFI 38A
  - Forwarded to JMT
- RFI No. 039A – Exterior chamber wall
  - Forwarded to JMT
- RFI No. 041 – Pier 2 Encapsulation
  - Forwarded to JMT
- RFI No. 044 – Pier Encapsulation
  - Forwarded to JMT
- RFI No. 045 – Deck Pedestal Forming and rebar coverage
  - Forwarded to JMT
- RFI No. 046 – Deck Pedestal Repairs
  - Forwarded to JMT

**- Submittals:**

- Submittal No. 094 – Supplement Submittal for Glass Fiber Wrap Material (Sub 64)
  - Forwarded to DDOT/QAQC
- Submittal No. 096 – Pier Encapsulation
  - Forwarded to DDOT/QAQC
- Submittal No. 097 – MOT Key Bridge – Detour of pedestrian (railing and/or concrete barriers)
  - Forwarded to DDOT/MOT
- Submittal No. 099 – Supplement Submittal for SikaGrout 328
  - Forwarded to DDOT/QAQC
- Submittal No. 100 – RB1600 system green rebar epoxy
  - Forwarded to DDOT/QAQC
- Submittal No. 101 – Keligrout 101-P
  - Forwarded to DDOT/QAQC
- Submittal No. 102 – Sika Grout 212
  - Forwarded to DDOT/QAQC
- Submittal No. 103 – Sika repair 223
  - Forwarded to DDOT/QAQC
- Submittal No. 104 – Anchor bolts for concrete barriers
  - Forwarded to DDOT/QAQC

## 8. 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.

## 9. DBE or CBE PARTICIPATION SUMMARIES

- AECOM DBE Activity:
  - CSMI
    - Project Public out Reach.
  - CKI
    - Aid to Construction Management and Inspection Services
- Technopref
  - Handon Diving Services Inc.

## 10. ACCIDENTS / INCIDENTS

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



11. PHOTOS OF WORK PERFORMED THIS PERIOD



Miscellaneous work around staging area

Loading scaffold on barges



Concrete demolition at pier North abutment

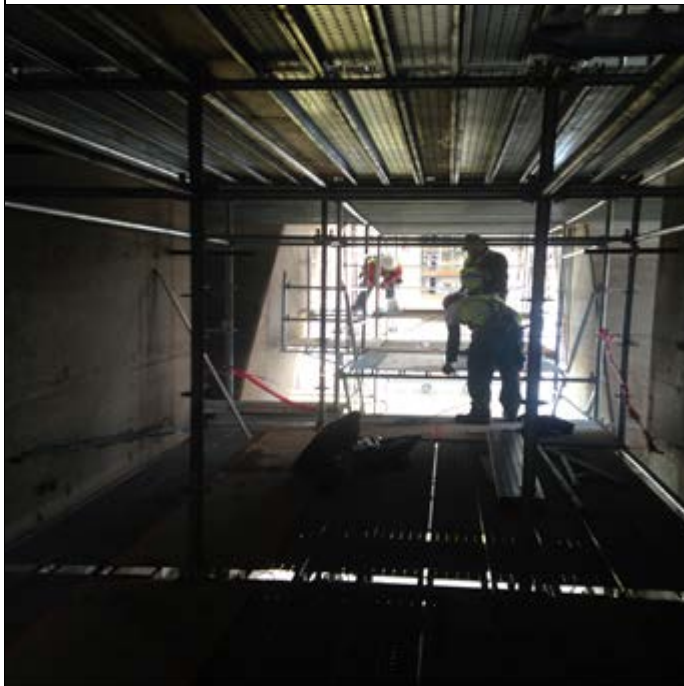
Setting up forms for concrete repair at North abutment



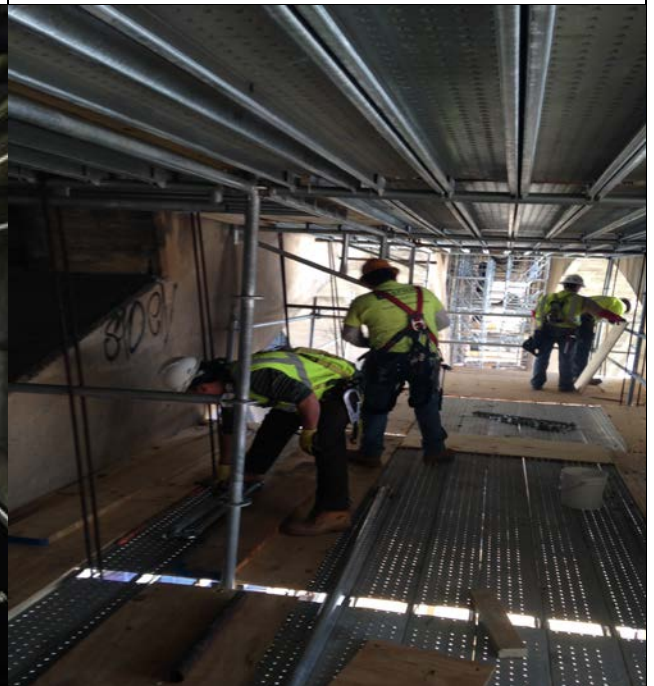
Setting up forms for concrete repair at North abutment



Placing concrete for concrete repairs at North abutment



Installation of scaffold at span C

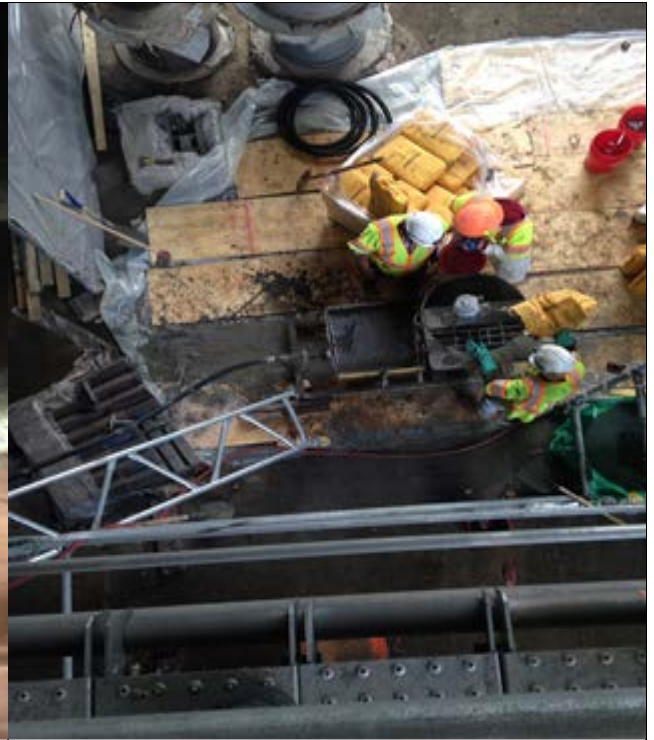


Installation of scaffold at span C





Floor beam end condition.



Mixing concrete for placement at North abutment



Concrete demolition at pier 4



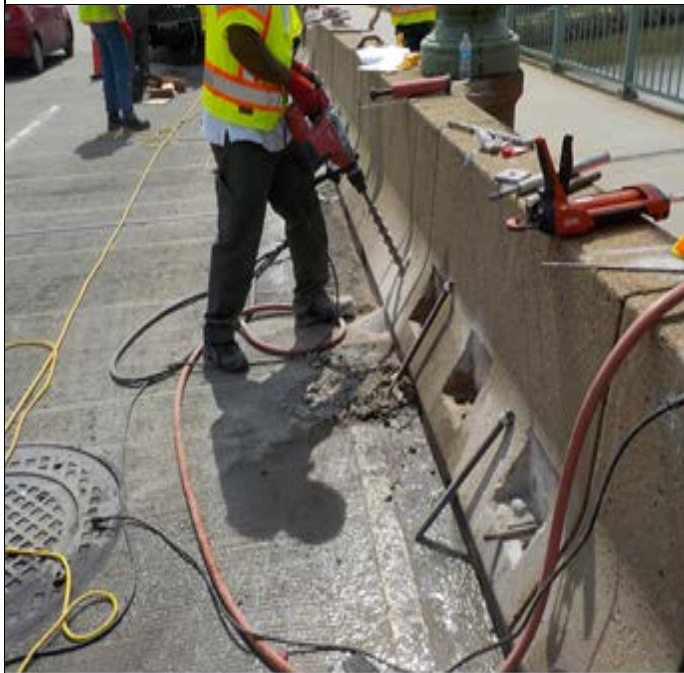
Concrete demolition at pier 4





Test trial to remove and reset permanent precast concrete traffic barrier

Test trial to remove and reset permanent precast concrete traffic barrier



Test trial to remove and reset permanent precast concrete traffic barrier

Detecting post tension cable to remove and reset permanent precast concrete traffic barrier