

**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 02/19/2017 to 02/25/2017**

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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. Continued efforts to setup coordination meetings with Pepco relating to ongoing utility issues with their existing facilities.
2. Continued to maintain and manage the Project SharePoint.
3. Contractor continued installation of suspended scaffold system from North abutment to pier 4.
4. Completed PCO-01 package. Package has been reviewed by DDOT and sent to Technopref for signature.
5. Continued to update the project website.
6. Contractor continued the demolition process for the concrete repairs at pier 4 and seldom visited North abutment.
7. Contractor continued removing delaminated cracked concrete and the CM team continues to monitor and work with the contractor in accordance with the CO letter to the contractor on this issue.
8. Continue to follow up on the concrete color matching.
9. Contractor casted panels for dry mix shotcrete samples.

### 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:

- Sean met with Joe Sternlieb, the Georgetown BID President on 2/23. Updated John on project status and inquired about any concerns with the project. Not aware of any issues from the project.
- Sean met with Will Handsfield at the Georgetown BID on 2/23 to discuss the outreach team attending the next Boat House Coalition meeting in March. Will is still working to confirm our attendance and will follow up with details.
- Sean spoke with Greg King at Thompson Boat Center on 2/24 to confirm plans for meeting with contractor and outreach team on 3/1 at 1:00 pm to discuss coordination between construction team and rowing community.
- Joyce spoke with Zubair Popal on 2/24 to see how things were going. He doesn't have any major concerns with DDOT.
- Sean left a message for Tim Staples on 2/24 to follow up on his discussion with Ali from Technopref. Tim sets up for rowing events on the river and had questions about the project's impact on regattas and other racing events

#### Notes:

- Project collateral was submitted to DDOT on 2/24 and is awaiting review by DDOT. Items including e-blast text and FAQs document, provided content and project rack card
- Reminded Technopref that any inquiries from the public need to be directed through Sean
- Jennifer Kellar from AECOM joined the communications team and will replace Joyce
- PEPCO wrapping up work on Water Street.

#### 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 although Pepco confirmed the ownership of overhead wires overhanging East Ramp piers as being theirs for some weeks now. DDOT continues to work with Pepco to determine the appropriate solutions to safely accommodate proposed work at the bent columns. On-site meeting on Monday February 06, 2017 and Pepco indicated that cables cannot be relocated until the new underground cables are in place.
- Concerns raised by contractor regarding safety of personnel and public from concrete falling freely from overhead at pier 4 and elsewhere during an impromptu meeting at the field office. At the advice of DDOT following that meeting, Technopref submitted a letter in follow up to their safety concerns, titled, "Serious Safety Issue and Differing Site Conditions". This letter was acknowledged by DDOT and has since been responded to by DDOT addressing any concerns raised that requires attention. It is noted that the CM team had prior to the letter visited the Pier 4 location at the request of the contractor for an assessment of the alleged safety condition. No new conditions other than what was documented in the contract documents was observed by the team during the group visit; imminent concrete spalls has been identified and removed over C&O canal and over GW pkwy, However contractor continued to perform his own investigation and removal. DDOT sent Technopref a letter and reminded Technopref of its obligations under the Contract and asked to summarize and submit its "additional" costs, in an amount not to exceed \$35,000 as stipulated in the January 24, 2017 letter. The CM team continues to monitor and work with the contractor consistent with the CO letter to the contractor.
- **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 meeting continues with DDOT team, project progress meeting with DDOT and the contractor.
- Coordinated a meeting between DDOT QAQC and Technopref regarding shotcrete samples.
- Meeting with Pepco and bike share regarding the relocation of the bike share station at 34 St. and water St. NW

### 5. DAILY WORK PERFORMED

#### Monday 02/20/17

1. Technopref was on-site and continued cleaning at the staging area. Continued sounding and scaling delaminated cracked concrete at pier E and F.
2. Handon services continued erecting scaffolding system from North abutment to pier 4. Continued installation of protective nets from North abutment to pier 4
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at pier 4.
4. Expert Fence was on-site and started the installation of the NPS fence.

**Tuesday 02/21/17**

1. Technopref was on-site and continued cleaning at the staging area. Continued installing beams for pedestal temporary support. Continued sounding and scaling delaminated cracked concrete at span F and G. Started tree trimming at South abutment.
2. Handon services continued erecting scaffolding system from North abutment to pier4.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at pier 4.
4. Expert Fence was on-site and finished the installation of the NPS fence.

**Wednesday 02/22/17**

1. Technopref was on-site and continued cleaning at the staging area. Continued installing beams for pedestal temporary support. Continued sounding and scaling delaminated cracked concrete at span F and G. Continued tree trimming at South abutment.
2. Handon services continued erecting scaffolding system from North abutment to pier4.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at pier 4.
4. Expert Fence was on-site and finished the installation of the NPS fence.

**Thursday 02/23/17**

1. Technopref was on-site and continued cleaning at the staging area. Continued installing beams for pedestal temporary support. Continued sounding and scaling delaminated cracked concrete at span F and G. Started tree trimming at South abutment. Installed water and air lines through the Gallery for construction purposes.
2. Handon services continued erecting scaffolding system from North abutment to pier4. Also shot dry Mix shotcrete into panels for concrete testing purposes.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at pier 4.

**Friday 02/24/17**

1. Technopref was on-site and continued cleaning at the staging area. Continued installing water and air lines through the Gallery for construction purposes.
2. Handon services continued erecting scaffolding system from North abutment to pier4.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at pier 4.

## 6. INSPECTION & MATERIAL TESTS PERFORMED

- Pay items worked this week are:
  - 000 003 Employee Training. We were on site to observe Employee Training.
  - 608 114 Tree Trimming. We were on site to observe Tree Trimming.

## 7. RFI's / SUBMITTALS

- **Requests For Information:**
  - o RFI No. 032 – Compressive Strength of Shotcrete
    - Forwarded to DDOT/QAQC
  - o RFI No. 034 – Area of Concern - East Ramp Bent 16A - Top of Wall deterioration
    - Forwarded to JMT
- **Submittals:**
  - o Submittal No. 070 – MOT - George Washington Parkway
    - Forwarded to NPS
  - o Submittal No. 087 – Alternative design for scaffolding
    - Forwarded to JMT

## 8. CHANGE ORDERS/TASK ORDERS

- Negotiations were completed as of November 02, 2016 with contractor for CO #1 items. Completed PCO-01 package. Package has been reviewed by DDOT and sent to Technopref for signature. Technopref objects to the standard language and requested language adjustment. DDOT responded and rejected the request for language change/revision from the standard. Contractor however, proceeded and submitted a signed document and included a hand-written non-standard language contrary to DDOT's directive which DDOT again rejected and asked the contractor to remove and submit. DDOT informed the contractor that it was willing to proceed with a unilateral change should they refuse to comply. Contractor signature is awaited.

## 9. DBE or CBE PARTICIPATION SUMMARIES

- AECOM DBE Activity:
  - o CSMI
    - Project Public out Reach.
  - o CKI
    - Aid to Construction Management and Inspection Services
- Technopref
  - o Intellect Corporation
    - Scaffolding erection
  - o Handon Diving Services Inc.
    - Capsulation of the piers

## 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



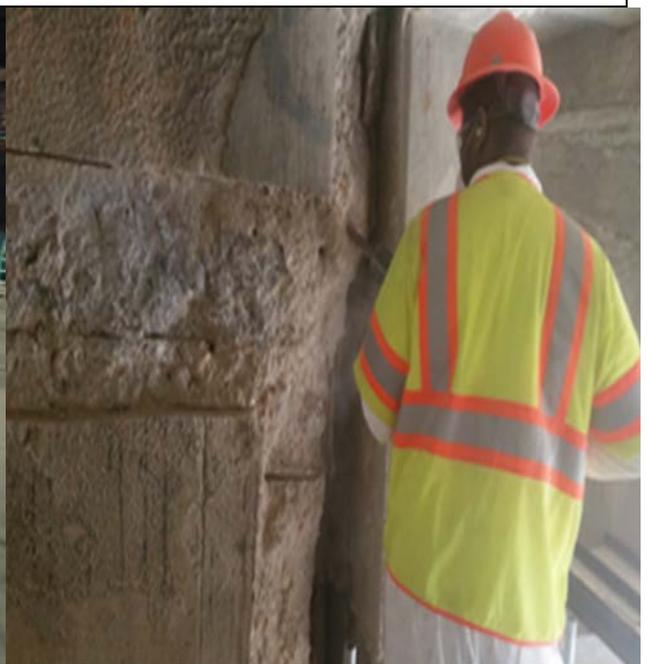
Installation of NPS fence



Installation of NPS fence



Installation of NPS fence



Concrete demolishing and saw-cutting at pier 4



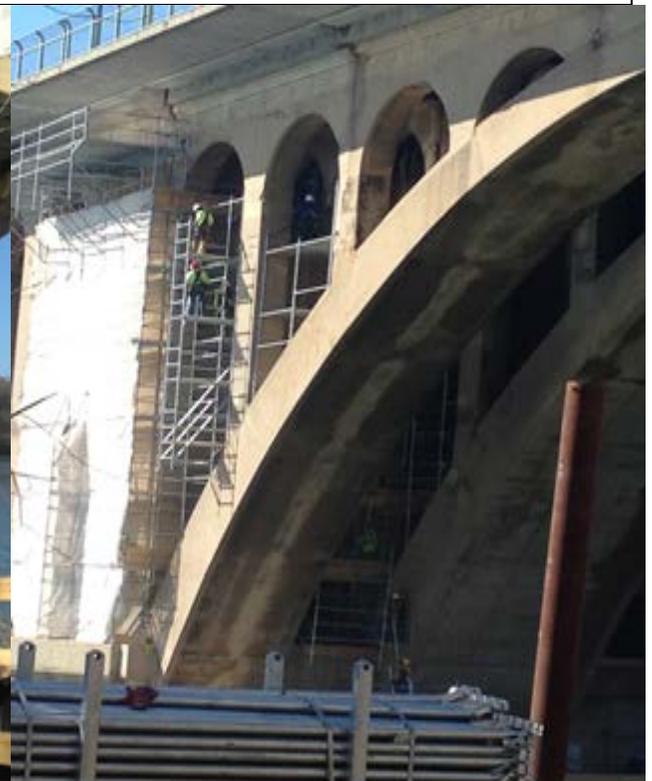
Concrete demolishing and saw-cutting at pier 4



Concrete demolishing and saw-cutting at pier 4



Installation of suspended scaffolding



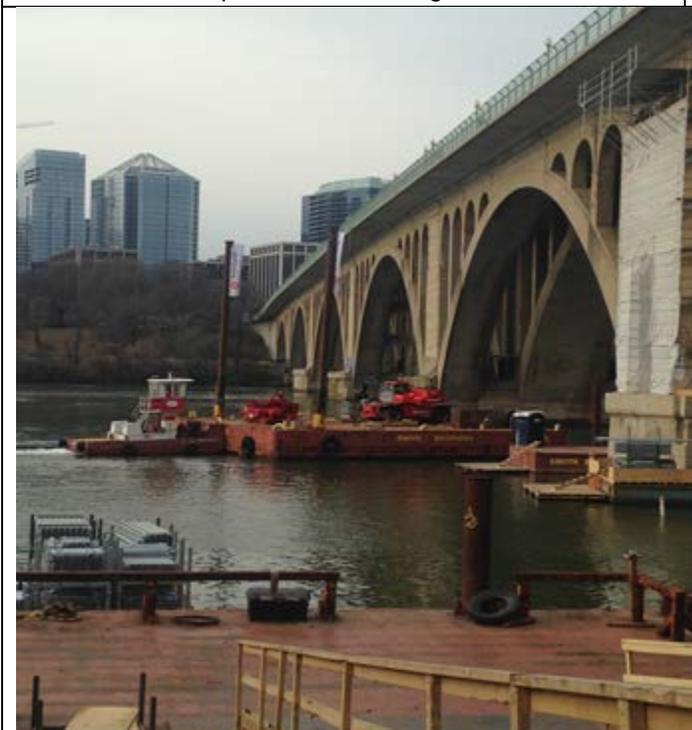
Installation of suspended scaffolding



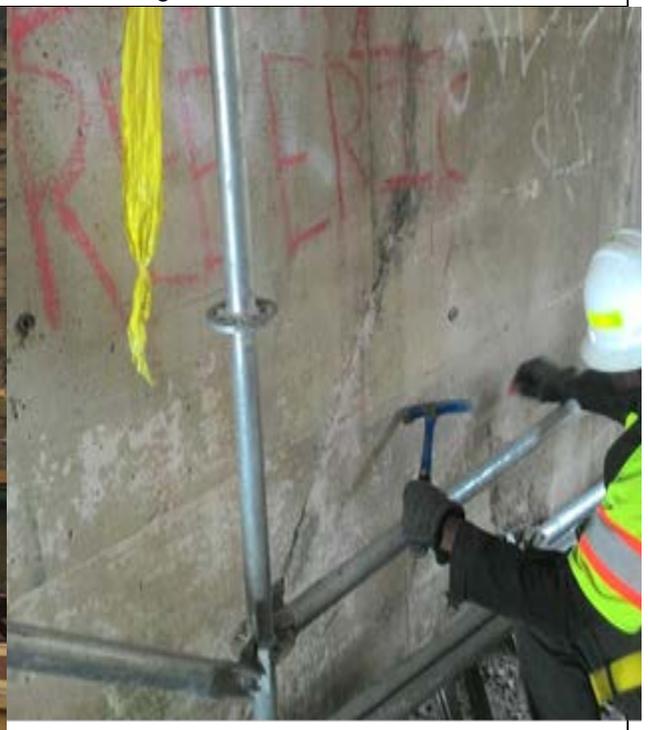
Installation of suspended scaffolding



Tree trimming at South abutment



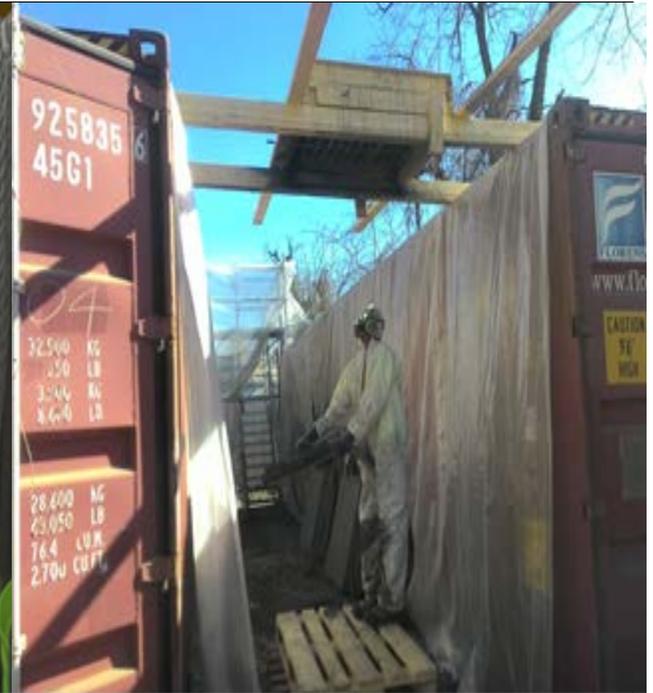
Navigating square barge for sounding and scalling operation



Sounding at pier 4



Casting 3 panels for shotcrete testing



Casting 3 panels for shotcrete testing



1 of 3 panels cast for shotcrete testing



Shotcrete material used for Casting test panels.