

**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 12/18/2016 to 12/24/2016**

---

**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 submitted the suspended portion of the scaffold system and was approved with notes by JMT
4. Contractor continued erection of the scaffolding system at the North abutment and pier 4 for the non-suspended (ground bearing) portion.
5. Contractor worked on color matching samples
6. Completed PCO-01 package. Package has been under review by Neil at DDOT.
7. Continued to update the project website.
8. Contractor continued working on setting up the barges and floating devices near pier 4.
9. Subcontractor fibwrap continued the concrete removal work.
10. CM with Technopref and sub-contractor fibwrap continued sounding and marking the locations for the concrete repair work.
11. Started sounding on span C and soffit of the arch (underside of arch) by the use of a man-lift to help Technopref decide on their suspended scaffold design.
12. Performed a walkthrough on the scaffold deficiencies to ensure the progress of fixing all the deficiencies.
13. Pepco was on site and connected Technopref grid to the Pepco electrical line.
14. Checked samples for Color and texture matching.
15. Contractor mobilized two more sea container with heavy construction compressors inside to site.
16. Contractor furnished and placed 42 Ton of gravel for site stability.

### CM Community Outreach Activities

The team visited and 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 visited and spoke with Zubair Popal at Malmaison on 12/22. Zubair is happy with DDOT's efforts to be a good neighbor, but is upset with PEPCO and their lack of communication regarding their project and the negative impact of that work on his business
- Sean visited Go Puff on 12/22 and spoke with manager on duty regarding their drivers parked cars getting in the way of traffic flow and site deliveries. He assured me that they would make sure cars are not parked in a way that impedes traffic

### 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
- PEPCO and DDOT coordination is still important as problems created by PEPCO's work may have negative repercussions for DDOT as opposed to PEPCO even though they may be at fault.

### 3. ISSUES / ACTION ITEMS

- **Ongoing Issues / Items:**
- Pepco Cable on the East Ramp Concrete Bent Columns still unresolved; Pepco confirmed the ownership of top overhead wire overhanging East Ramp piers as being theirs. DDOT is working with Pepco to determine the appropriate solutions to safely accommodate proposed work at the bent columns.
- **Action Items:** NPS issued Limited Special Use permit, and verbally provided access to the river. Contractor have since had access and been working on barges on the river.
- **New Issues / Items:** None, except as noted elsewhere in this report.

### 4. MEETINGS / PROJECT COORDINATION

- Weekly coordination meeting continues with DDOT team, utility (Pepco) meetings and updates, project progress meeting with DDOT and the contractor.
- Conference call continued to be utilized to communicate with the contractor when a physical meeting is not possible.

### 5. DAILY WORK PERFORMED

#### Monday 12/19/16

1. Technopref was on-site and continued working on their site staging area, fixed, relocated and spud-ded barges that were dislocated from Access Bridge / ramp due to tide condition over the weekend. Also installed Hillman Rollers (sliders) to the bridge/access ramp. Also Technopref's electrician was on site working on connection to Pepco line
2. Handon services continued erecting scaffolding system at North abutment. Also worked on correcting some deficiencies, such as vertical steps, overlapping plywood on platform & unsecured rails. RE with Inspectors performed inspection of N. Abutment Scaffolding.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment

#### Tuesday 12/20/16

1. Technopref was on-site and continued working on their site staging area; electrician and Pepco's technicians were on site working on the connection to Pepco line. Received 2-Containers with Air Compressor for Air Supply through the Bridge Rehab. Technopref with CM RE started sounding concrete under Span C.
2. Handon services started erecting scaffolding system at Pier 4.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment

#### Wednesday 12/21/16

1. Technopref was on-site and continued working on their site staging area, continued working on water access ramp and performed welding on barge and staging area for access ramp entrance, graded existing ground, placed geotextile and graded rip-rap. Also Technopref's electrician and Pepco's technicians were on site working on the connection to Pepco line

2. Handon services continued erecting scaffolding system at Pier 4 including inside chambers of pier 4.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment

**Thursday 12/22/16**

1. Technopref was on-site and continued working on their site staging area; electrician finished and connected the staging area to Pepco main line. Also Technopref installed Air Pipeline from staging area Air Compressor Containers through North Abutment and Span C to Pier 4.
2. Handon services continued erecting scaffolding system at Pier 4 including inside chambers of pier 4.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment

**Friday 12/23/16**

1. No work due to holidays

**6. INSPECTION & MATERIAL TESTS PERFORMED**

- Pay items worked this week are:
  - 000 003 Employee Training. We were on site to observe Employee Training.
- Contractor has been working on full schedule.

**7. RFI's / SUBMITTALS**

- **Requests For Information:**
  - None
- **Submittals:**
  - o Submittal No.059 – MasterKure CC 200 WB.
    - Forwarded to QA/QC DDOT.
  - o Submittal No. 062 – Primavera Schedule Update No.01 (November 2016)
    - Forwarded to OC&L
  - o Submittal No. 063 – Site Specific Safety Plan Addendum 2: Fall Rescue Plan
    - Forwarded to AECOM

**8. CHANGE ORDERS/TASK ORDERS**

- Negotiations were completed on November 02, 2016 with contractor for CO #1 items. Completed PCO-01 package. Under review by Neil from DDOT.

## 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



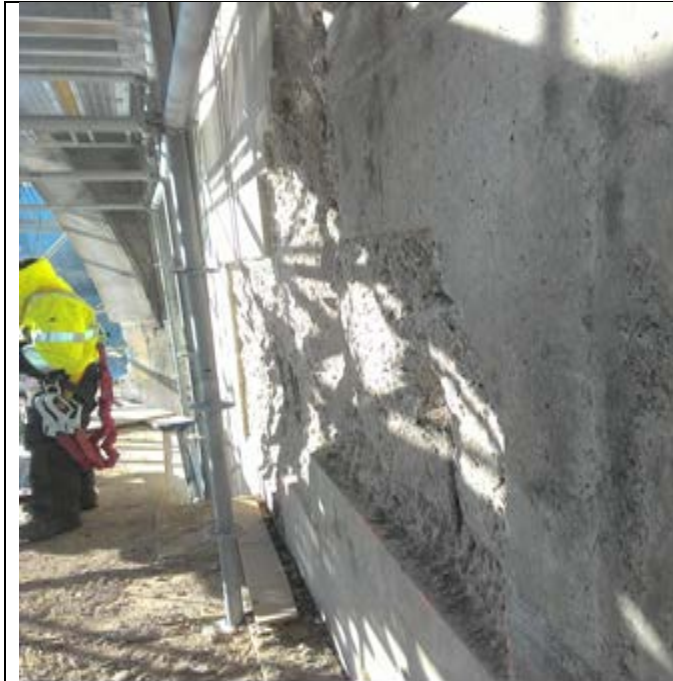
Demo of concrete on N Abut eastside levels

Demo of concrete on N Abut eastside levels

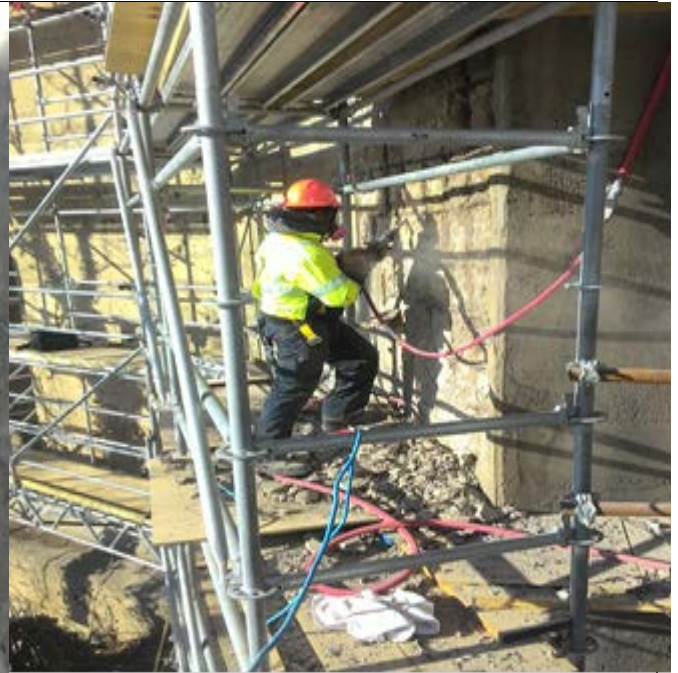


Adjusting dislocated barges and access ramp

Adjusting dislocated barges and access ramp



Demo of concrete on N Abut eastside levels



Demo of concrete on N Abut eastside levels

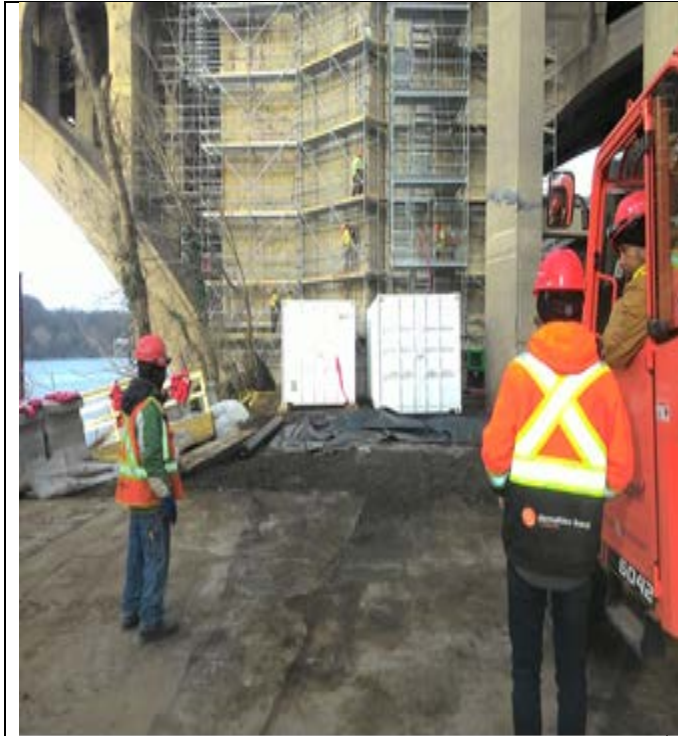


Sounding for span C arch



Sounding for Span C arch





Grading, installing fabric and rip-rap @ the entrance to water access ramp



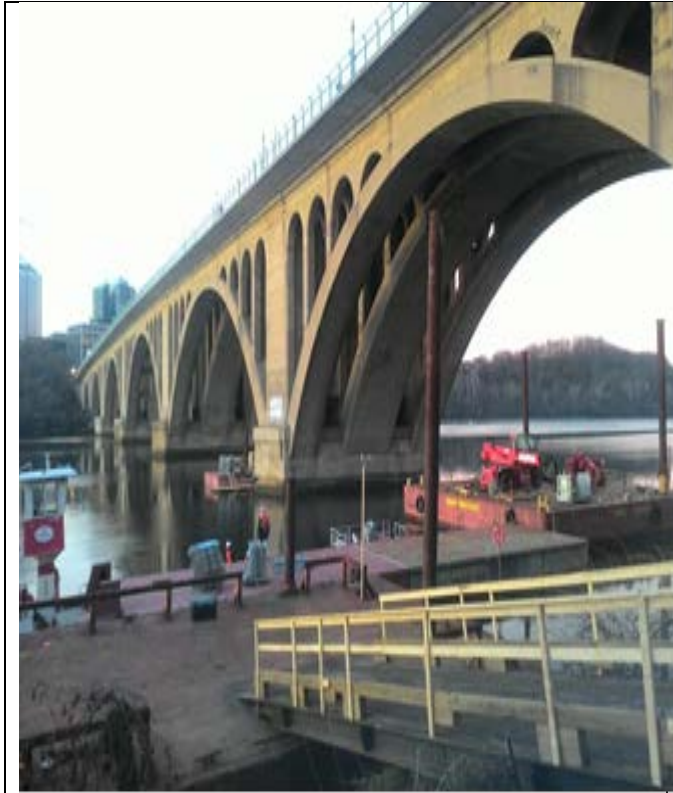
Grading, installing fabric and rip-rap @ the entrance to water access ramp



Inspecting samples for matching existing bridge's texture and color



Inspecting samples for matching existing bridge's texture and color



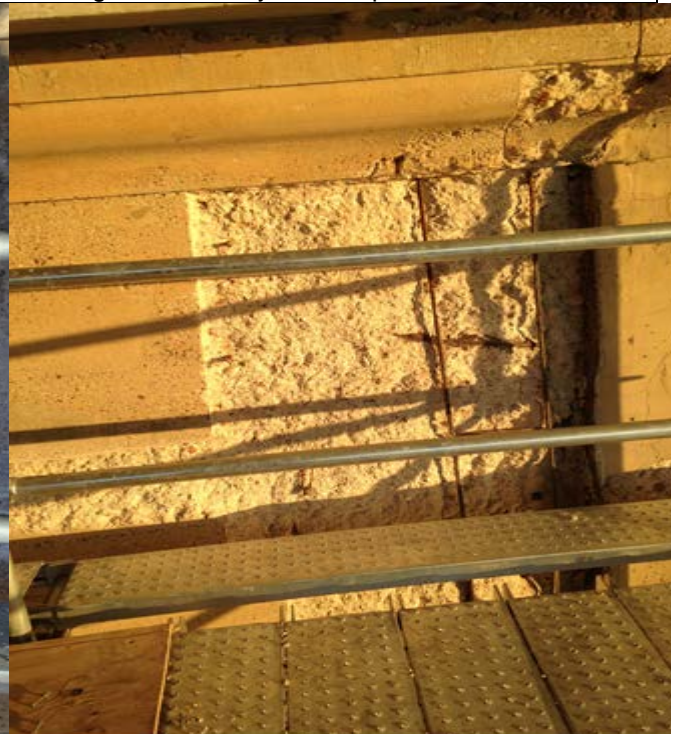
Transporting scaffold system to pier 4



Erecting of scaffold system on pier 4



Concrete demo on North abutment westside (unfinished work)



Concrete demo on North abutment Westside (unfinished work)