

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 01/08/2017 to 01/14/2017

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.

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 erection of the scaffolding system at the south side of North abutment and also at pier 4 for the non-suspended (ground bearing) portion.
4. Completed PCO-01 package. Package has been reviewed by DDOT and been sent to Technopref for signature. Technopref requested language adjustment. Waiting for language adjustment approval from DDOT
5. Continued to update the project website.
6. Contractor continued loading scaffold on the barges and continued navigating the barges to pier 4
7. Contractor continued scaffold installation at pier 4
8. Performed a walkthrough on the scaffold deficiencies to ensure the progress of fixing all the deficiencies.
9. Contractor continued installing the water/air piping system inside the gallery from North abutment towards VA for construction purposes
10. Contractor started installing electrical cable inside the gallery from North abutment moving towards VA for construction purposes
11. Coordinated the site inspection visit by M&M upon receiving concerns from Technopref regarding the alleged falling concrete and unsafe bridge for Technopref's workers
12. Received the M&M report advising with the locations of the imminent concrete spalls.
13. Coordinated with NPS for emergency work over GW Parkway to remove the imminent concrete spalls.

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:

- Joyce corresponded with Jessica Baxter and Eric Balliet from Arlington County Government to address a media inquiry from Vernon Miles with the Connection Newspapers on 1/13 and 1/14. Joyce and Joe Chuckwueke provided Eric at Arlington County with detailed responses to the reporter's questions
- Joyce corresponded with Victor Carcamo from the Rosslyn BID on 1/10 and answered follow up questions from the property managers meeting.
- Sean corresponded with Crystal Sullivan from Georgetown Suites on 1/11 regarding access to the fenced in area adjacent to the hotel to park a van that is doing carpet installation one day next week. Request postponed
- Sean corresponded with Chris Gerber from WASA on 1/9 regarding research on barge usage in advance of future WASA projects where barges may be needed
- Sean visited Gypsy Sally's and Malmaison on Thursday 1/12 to provide project updates, but key contacts were unavailable
- Sean visited Greg King at Thompson Boat center on Thursday 1/12 to update him on project activity

Notes:

- The team is continuing planning for the upcoming CAG presentation on 1/24 including the development of new presentation boards and other project collateral

Key Takeaways:

- 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.
- 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; Pepco confirmed the ownership of top overhead wire overhanging East Ramp piers as being theirs several weeks prior. DDOT continues to work with Pepco to determine the appropriate solutions to safely accommodate proposed work at the bent columns.
- The presence of oil residue/sheen observed on surface on river between the floating dock and the river bank. Technopref had been informed and they indicated that it is not related or leaking from any equipment of theirs. They explained further that all is coming from upstream and may have been trapped at this project area with existing and old fallen trees and debris at the river bank of NPS land. This is said to be due to the current situation at the area between the floating dock and the river bank water tends to stagnate and there is no current in this narrow section at the river bank of NPS land. Technopref has been advised to further investigate this to be sure of the source of the oil sheen.
- concerns raised by contractor regarding safety of personnel and public from concrete falling from overhead at pier 4 and elsewhere at a 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 has been acknowledged by DDOT and a reply been sent back to Technopref from DDOT. 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 documented in the contract documents was observed by the team during the group visit.
- **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.
- **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.
- Conference call between CM, NPS and Technopref regarding the emergency work coordination over GW Parkway

5. DAILY WORK PERFORMED**Monday 01/09/16**

1. Technopref was on-site and continued working on their site staging area; continued installation of air pipes from North Abutment moving towards Virginia. Continued cleaning at the staging area.
2. Handon services navigated scaffolding materials to Pier 4 with stockpile on barge at the Pier 4. However, there were unable to dock tugboat with barge at Pier 4 and with several trials failed due to turbulent of the river. Handon cancelled work for the day.

3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at East Ramp. Bent 16A and North abutment East elevation. Continued sounding and marking areas of deteriorated concrete.

Tuesday 01/10/16

1. Technopref was on-site and continued working on their site staging area; continued installation of air/water pipe from North Abutment moving towards Virginia. Continued cleaning at the staging area. Performed weekly hands on safety meeting.
2. Handon services continued erecting scaffolding system at Pier 4. Continued loading scaffold to the sectional barges and relocated sectional barge next to pier 4.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at East Ramp. Bent 16A and North abutment East elevation. Continued sounding and marking areas of deteriorated concrete.

Wednesday 01/11/16

1. Technopref was on-site and continued working on their site staging area. Continued cleaning at the staging area. Electrician was on site installing electric panel at North abutment for construction purposes. Performed crew safety meeting, at 7:00am
2. Handon services continued erecting scaffolding system at Pier 4. Continued loading scaffold to the sectional barges and relocated sectional barge next to pier 4. Performed crew safety meeting, at 7:00am
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at East Ramp. Bent 16A and North abutment East elevation. Continued sounding and marking areas of deteriorated concrete. Performed crew safety meeting, at 7:00am

Thursday 01/12/16

1. Technopref was on-site and continued working on their site staging area. Electrician was on site installing electric panel at North abutment for construction purposes. Performed crew safety meeting, at 7:00am
2. Handon services continued erecting scaffolding system at Pier 4. Continued loading scaffold to the sectional barges and relocated sectional barge next to pier 4. Performed crew safety meeting, at 7:00am
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at East Ramp. Bent 16A and North abutment East elevation. Continued sounding and marking areas of deteriorated concrete. Performed crew safety meeting, at 7:00am

Friday 01/13/16

1. Technopref was on-site and continued working on their site staging area. Electrician was on site installing electric panel at North abutment for construction purposes. Removed the imminent concrete spall on the west arch/East and West arch/west face above C&O canal. Performed crew safety meeting, at 7:00am

2. Handon services continued erecting scaffolding system at Pier 4. Continued loading scaffold to the sectional barges and relocated sectional barge next to pier 4. Performed crew safety meeting, at 7:00am
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at East Ramp. Bent 16A and North abutment East elevation. Continued sounding and marking areas of deteriorated concrete. Performed crew safety meeting, at 7:00am

6. INSPECTION & MATERIAL TESTS PERFORMED

- Pay items worked this week are:
 - 000 003 Employee Training. We were on site to observe Employee Training.
 - 716 006 Repair-Replace PCC Structure Repair Type 2 Concrete Repair. We were on site to observe Repair-Replace PCC Structure Repair Type 2 Concrete Repair
- 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. 066 – MOT Whitehurst Freeway
 - Forwarded to DDOT/MOT
 - o Submittal No. 070 – MOT - George Washington Parkway
 - Forwarded to DDOT/MOT

8. CHANGE ORDERS/TASK ORDERS

- Negotiations were completed on November 02, 2016 with contractor for CO #1 items. Completed PCO-01 package. Package has been reviewed by DDOT and been sent to Technopref for signature. Technopref requested language adjustment. Waiting for language adjustment approval from DDOT

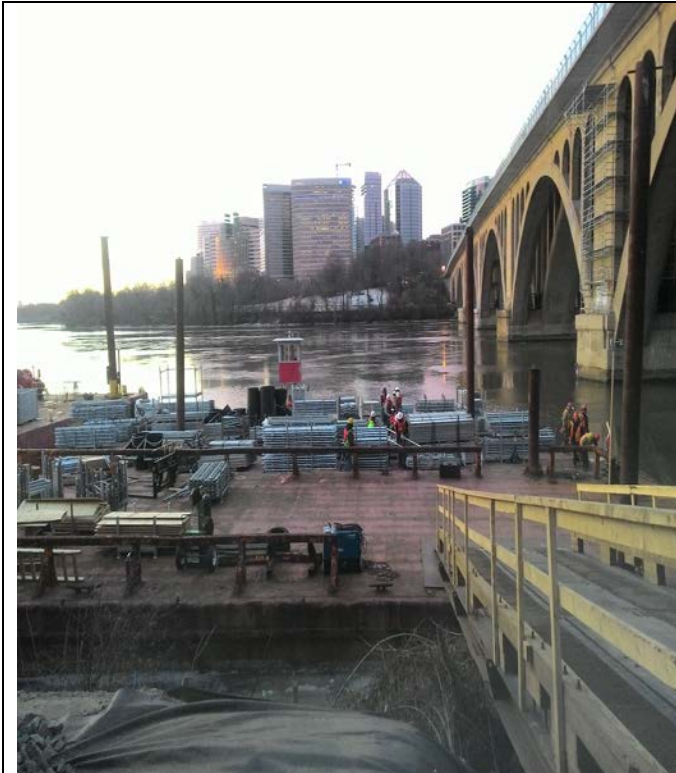
9. DBE or CBE PARTICIPATION SUMMARIES

- 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

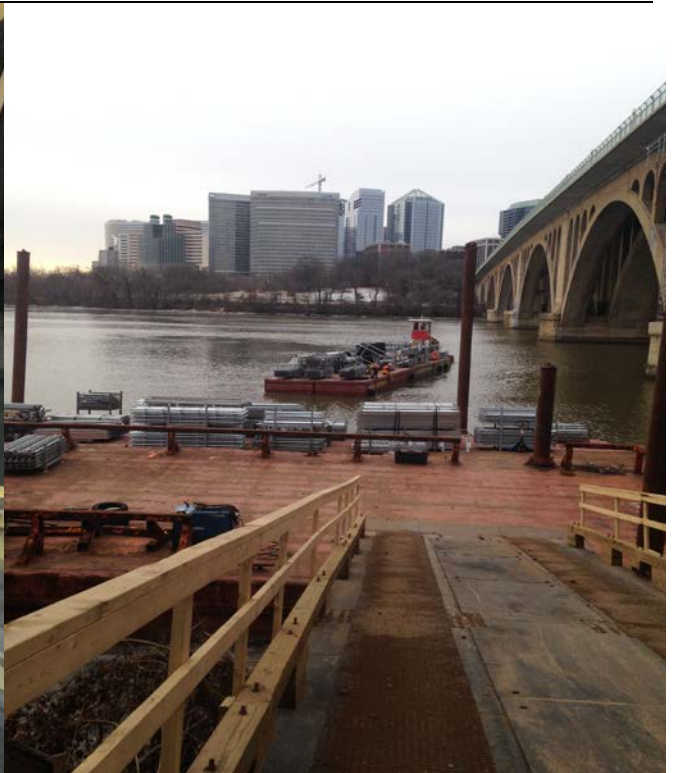
10. ACCIDENTS / INCIDENTS

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



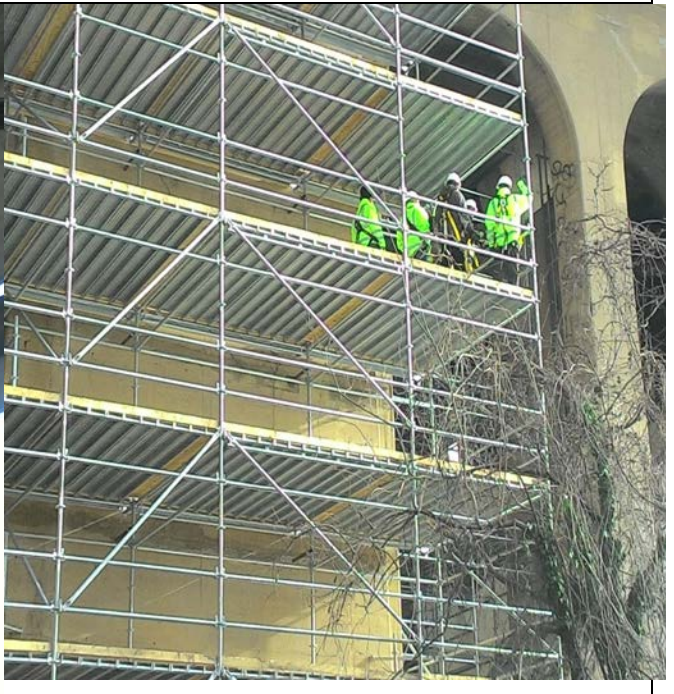
Handon navigating crew and stockpile of scaffolding to Pier 4



Handon navigating crew and stockpile of scaffolding to Pier 4



Technopref at North abutment to install air pipes



DDOT/ CM team site inspection



Demolishing and sounding on North abutment, East elevation



Demolishing and sounding on North abutment, East elevation



demolishing at level 7 Bent 16a East elevation North abutment

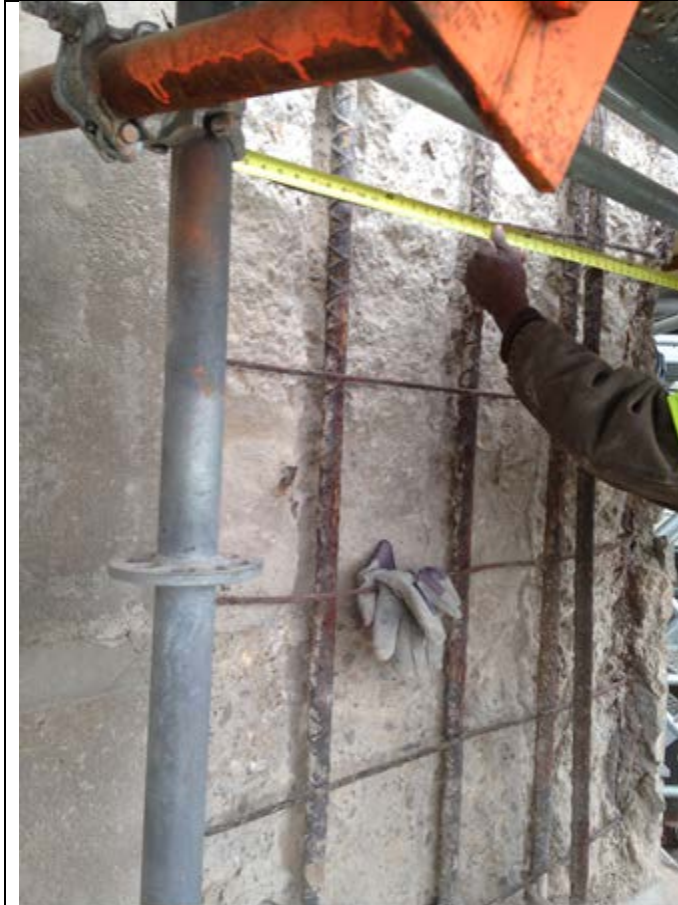


demolishing at level 7 Bent 16a East elevation North abutment



Measuring for quantity area demo at level 7 bent 16A

Resounding to ensure no weak concrete remains

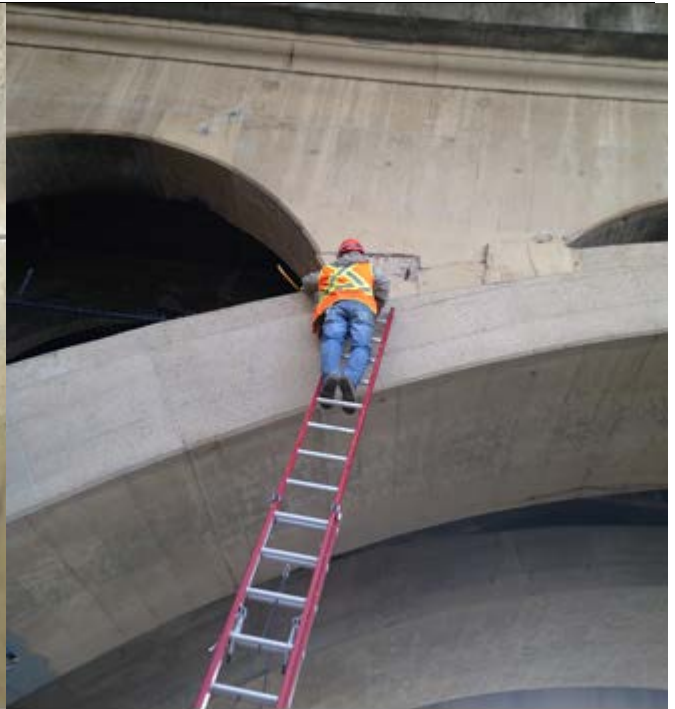


Measuring for quantity area demo at level 7 bent 16A

Concrete demolition on East ramp Bent 16A level 4 d



Concrete demolition at N abutment and Spandrel Arch level 2 below deck



Removing an imminent concrete spall on the West arch/West span A