

REHABILITATION OF FRANCIS SCOTT KEY BRIDGE

FROM ROSSLYN, ARLINGTON, VIRGINIA TO GEORGETOWN, WASHINGTON, DC.

DC Contract No.: DCKA-2014-C-0074

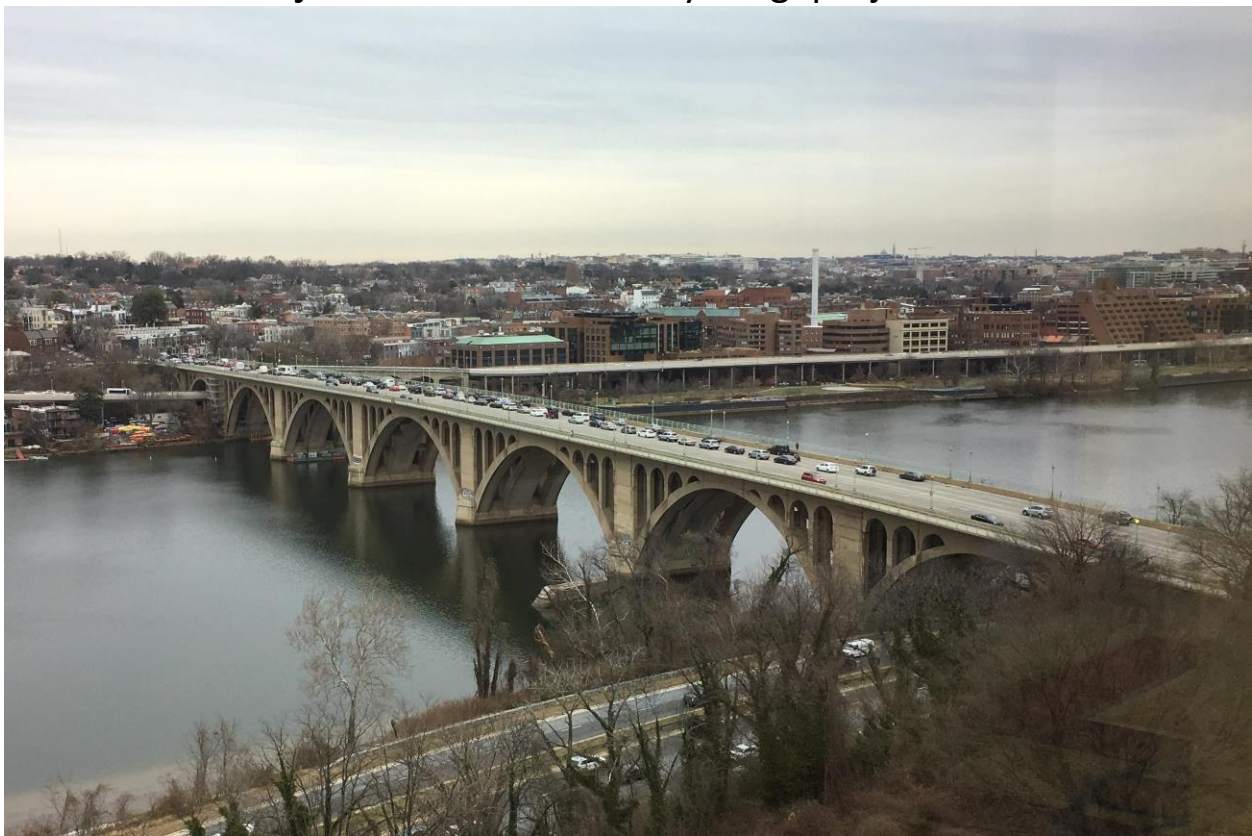
FAP No.: BH-1104 (013)

CONSTRUCTION MANAGER'S

WEEKLY PROGRESS REPORT

From 08/05/2018 to 08/11/2018

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). 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 Places, 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 a 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 encasement 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 the following: 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 a 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. Demolition work is still in progress for the concrete repairs at Pier 1, Span F and Mid Span B
2. Contractor continued sandblasting rebar, and setting up forms at Pier 1, Span F
3. Contractor continued installing the scaffolding system at Mid Span G.
4. Contractor continued working on deck pedestals, floor beams, and deck soffit in Span F and Span E.
5. Contractor continued installing containment around Water Main support beams and continued blasting and painting operation for the support system.
6. Contractor continued overnight deck work for Armored, Non-Armored joints.

7. CM Community Outreach Activities

- Communications team will continue to develop relationships with key businesses near the bridge that can help us distribute project information to their customers
- Stakeholders are aware of the relocation and addition of Technopref's trailer by Water Street met with Malmasion restaurant owner and facilitating his request to install screening over the staging area fence in front of the restaurant.

3. ISSUES / ACTION ITEMS

- **Ongoing Issues / Items:**

- Pepco Cable on the East Ramp concrete bent columns has not been resolved, Pepco is to bury the overhead cable underground. Excavation and trench work have been completed. Pepco has started running the new underground cable. Work is underway.
- Technopref continues to be reminded of its obligations under the Contract. DDOT processed Change Order No. 05 for Technopref's claimed "additional" costs submitted based on DDOT's January 24, 2017 letter. DDOT issued unilateral Change Order No. 05 to Technopref.

- **Action Items:** Resolution to lump sum payment items.

- o The Painting Existing pedestrian railing approval for 0.02 is contingent upon Technopref submission of schedule of item remediation work and begin the remediation work. however, I see that you proceed further to charge this item.
- o Reminded Technopref indicating support to the progress payment process, as in SP 13.E. Construction Scheduling, the submission and approval of the schedule update are "conditions precedent" to payment of the monthly invoices. The spec requires that the schedule be acceptably updated, and not been acceptable for many months on this project.

- **New Issues / Items:** None.

4. MEETINGS / PROJECT COORDINATION

- Meeting with Technopref regarding lumps items payment.
- Meeting with Technopref regarding use of black beauty blasting materials.

5. DAILY WORK PERFORMED

Sunday 08/05/18

1. No work.

Monday 08/06/18

1. Technopref (General Contractor) was on-site. Miscellaneous work supporting subcontractors. Continued concrete demolition and surface preparation on deck pedestals and floor beams in Span E and F. Continued scaffolding installation on Span G from Pier 1 to mid-Span G and Span B.
2. Ribeiro (Sub) was on-site and continued concrete demolition, saw-cutting and surface preparation from Pier 1 to mid-Span F and from North abutment to Mid Span B.
3. Blastech (Sub) was on-site and continued blasting and painting operation for the Water Main support beams.

Tuesday 08/07/18

1. Technopref (General Contractor) was on-site. Miscellaneous work supporting subcontractors. Continued concrete demolition and surface preparation on deck pedestals and floor beams in Span E and F. Continued scaffolding installation on Span G from Pier 1 to mid-Span G and Span B.
2. Ribeiro (Sub) was on-site and continued concrete demolition, saw-cutting and surface preparation from Pier 1 to mid-Span F and from North abutment to Mid Span B.
3. Blastech (Sub) was on-site and continued blasting and painting operation for the Water Main support beams.

Wednesday 08/08/18

1. Technopref (General Contractor) was on-site. Miscellaneous work supporting subcontractors. Continued concrete demolition and surface preparation on deck pedestals and floor beams in Span E and F. Continued scaffolding installation on Span G from Pier 1 to mid-Span G and Span B.
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3. Blastech (Sub) was on-site and continued blasting and painting operation for the Water Main support beams.

Thursday 08/09/18

1. Technopref (General Contractor) was on-site. Miscellaneous work supporting subcontractors. Continued concrete demolition and surface preparation on deck pedestals and floor beams in Span E and F. Continued scaffolding installation on Span G from Pier 1 to mid-Span G and Span B.
2. Ribeiro (Sub) was on-site and continued concrete demolition, saw-cutting and surface preparation from Pier 1 to mid-Span F and from North abutment to Mid Span B.
3. Blastech (Sub) was on-site and continued blasting and painting operation for the Water Main support beams.

Friday 08/10/18

1. Technopref (General Contractor) was on-site. Miscellaneous work supporting subcontractors. Continued concrete demolition and surface preparation on deck pedestals and floor beams in Span E and F. Continued scaffolding installation on Span G from Pier 1 to mid-Span G and Span B.
2. Ribeiro (Sub) was on-site and continued concrete demolition, saw-cutting and surface preparation from Pier 1 to mid-Span F and from North abutment to Mid Span B.
3. Blastech (Sub) was on-site and continued blasting and painting operation for the Water Main support beams.

Saturday 08/11/18

1. No Work.

6. INSPECTION & MATERIAL TESTS PERFORMED

- Performed sounding for concrete demo.
- Tested bag-mixed concrete and obtained the following results:

Date	Location	Material	Ambient Temp °F	Concrete Temp °F	Slump (Inches)	Air Content %	Concrete Specimens
08/08/2018	Span E - Span F Phase 2 Deck Pedestals	USCP Deck Mix AE SCC	90	83	N/A	N/A	6 (4"x8") cylinders
08/08/2018	Span F	Sika Grout 328	91	83	N/A	N/A	6 (2"x2") Cubes
08/09/2018	Span F Deck Pedestals	USCP Deck Mix AE SCC	87	84	N/A	N/A	6 (4"x8") cylinders

7. RFIs / SUBMITTALS

- **Requests for Information:**
Except as noted below, there are no current unresolved/uncompleted RFIs or Submittals.
- **Submittals:**
 - Submittal No.196 - Additional Staging Area for the South Abutment Work
 - Forwarded to NPS
 - Submittal No.218B - C&O Canal - Pedestrian Covered Walkway
 - Forwarded to NPS
 - Submittal No.250 - Fort Myer Construction for Installation of Pedestrian Cameras and Flashers
 - Forwarded to DDOT – Streetlights
 - Submittal No.251 - Materials for FB 16, Bay 3, Span E stated in RFI #82
 - Forwarded to JMT and QAQC
- **RFIs:**
 - RFI No.089 - Request to Close Public Access Under Northside Span B
 - Forwarded to NPS
 - RFI No.131 - NA Bearing, Stainless Steel Plate Specifications
 - Forwarded to NPS
 - RFI No.132 - Broken Bracing
 - Forwarded to JMT

8. CHANGE ORDERS/TASK ORDERS

- Change Order # 1 was executed on June 12, 2017.
- Change Order # 2 was executed on November 13, 2017.

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- Change Order # 3 was executed on August 17, 2017.
 - Change Order # 4 was executed on February 22, 2018.
 - Change Order # 5 was executed on May 07, 2018.
 - Change Order # 6 was executed on June 15, 2018.

9. DBE or CBE PARTICIPATION SUMMARIES

- AECOM DBE Activity:
 - o CSMI (subcontractor for AECOM) activity on the project is to project public outreach.
 - o CKI (subcontractor for AECOM) activity on the project is aide to construction management and inspection services.
- Technopref DBE Activity:
 - o No DBE activity for this period.

10. ACCIDENTS / INCIDENTS

- No accidents.

11. PHOTOS OF WORK PERFORMED THIS PERIOD



Blasting rebar at Spandrel column 5/6 row E by Pier 1



Blasted rebar at row E level 1-3 Pier 1



Wire mesh installation observed at Level 3, Pier 1, Row E, West Face



Repair work for Non-armored joints



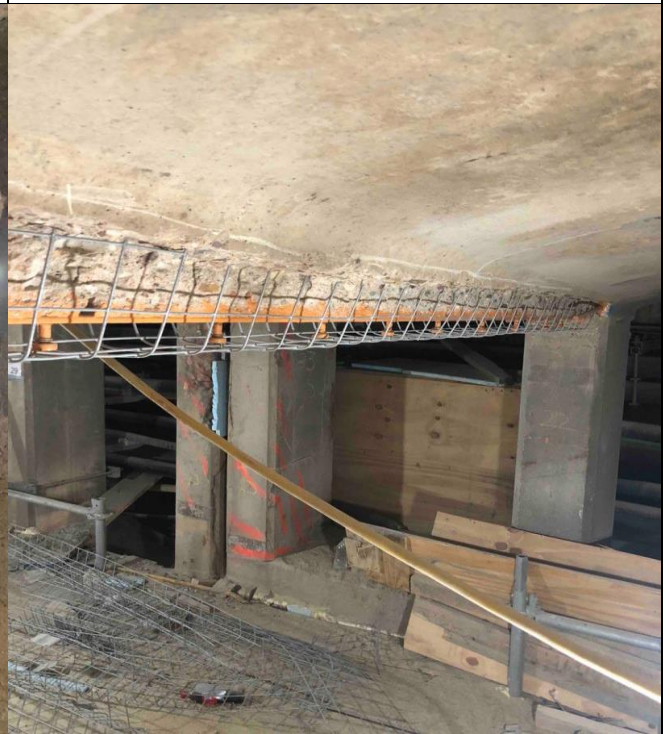
Water Main steel supporting beam after sandblasting



applying intermediate paint for Water Main support beams in span E



Concrete demolition of span F DP D49 p2



Span F FB 22 bay 5 demo approved