



Environmental Assessment Released

The National Park Service, in cooperation with the Federal Highway Administration, the U.S. Coast Guard, and the National Capital Planning Commission, is proposing to rehabilitate the Arlington Memorial Bridge. The historic bridge is an important element of the George Washington Memorial Parkway and the transportation network of the Washington, D.C. area. In accordance with the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and other laws, regulations and policies, the National Park Service has developed alternatives for the repair and rehabilitation and prepared an Environmental Assessment which evaluates potential impacts of these alternatives to the natural, cultural, and human environment.* You may download a copy of the Environmental Assessment at <http://parkplanning.nps.gov/memorialbridgeea>. Please see the back page of the newsletter for information on providing comments on the Environmental Assessment.

Preferred Alternative – Alternative 1B Replace the Bascule Span with a New Span Comprised of Variable Depth Steel Girders

Under Alternative 1B, the original bascule span would be removed and replaced with a new fixed span comprised of variable depth steel girders. The replacement span would preserve the character defining features on the top of the existing bascule span by repairing and / or refurbishing these original bridge components to the greatest extent feasible. The existing steel façade on the exterior face of the span would be removed, refurbished off-site, and reinstalled on the face of the new span.

Alternative 1B also includes the following elements that are common to all alternatives:

- repair of the concrete arch approach spans and bridge piers;
- replacement of the existing bridge deck;
- replacement of the existing sidewalks;
- resetting of light poles and improving its wiring system;
- improvements to the existing drainage system;
- resetting or replacement of the granite curbs; and
- repairs to the existing bridge railings and stone work as needed.

Statuary on the bridge would be protected in place or removed and stored until completion of the bridge repairs. The existing bridge railing would be removed, repaired, and reinstalled, along with the existing light poles and granite curbs. Exposed aggregate high performance concrete (HPC) sidewalks would be constructed on the replacement span that would match the existing sidewalks in appearance. A concrete/concrete polymer overlay will replace the existing asphalt road surface. The original machinery and control rooms would be retained. Demolition shields would be used during construction of all alternatives. Rehabilitation of original features, where retained, would be done in accordance with Secretary of the Interior's Standards for Rehabilitation (codified as 36 CFR 67), to the extent feasible.

The underside of the replacement structure would be arched to mimic the current bascule span arch; however, the bridge would no longer have the appearance of the truss construction. The guard's cabin, the overseer's cabin, and the machinery rooms would remain in place, and the bascule span abutments would remain as part of the new design. After reinstalling the restored facade and railing, the elevation view of the bridge, from upstream and downstream, would be identical to its current appearance.

* More details on the NEPA and NHPA processes can be found on the project website at: <http://parkplanning.nps.gov/memorialbridgeea>.



Preferred Alternative Justification

After careful consideration, the National Park Service has identified Alternative 1B as the preferred alternative for the following reasons:

- The initial construction costs investment of Alternative 1B is \$30-35 million less than the rehabilitation of the existing bascule span (Alternative 3).
- Operation and maintenance costs over the life span of the bridge is \$40 million less than if the existing bascule span is retained (Alternative 3).
- Alternative 1B would require painting every 25 years; however, painting the variable depth steel girders would require significantly less effort than painting the existing bridge's truss system.
- There is also substantial risk that if the existing bascule span is retained under Alternative 3, deferred or inadequate maintenance of the existing bascule span in the future could lead to further deterioration of the bridge components and the need for additional replacement of portions or the entire bascule span in the future.
- Alternative 1B provides for some opportunities for cultural resource preservation. The guard's cabin, the overseer's cabin, and the machinery rooms would remain in place, and the bascule span abutments would remain as part of the new design.
- Historic views, significant visitor experience and continued ceremonial uses would be maintained under Alternative 1B. Only the limited views and visitor experience from beneath the bridge would be diminished.
- Opportunities exist to provide an alternative interpretive experience for the structure and engineering of the original bridge.
- Because there have been no requests to open the bridge since the 1960s and construction of bridges immediately upstream and downstream have restricted vertical clearances, replacing the bascule span with a fixed span that provides the same vertical clearance may not result in any long-term impacts to navigation.

Other Action Alternatives

In addition to Alternative 1B, three other action alternatives are studied in detail in the Environmental Assessment. In addition to these alternatives, the Environmental Assessment analyzes impacts associated with interim repairs to the trunnion posts that will be required regardless of which alternative is selected.

Alternative 1A: Replace the Bascule Span with Precast Concrete Girders (Beams)

Under Alternative 1A, the existing bascule span would be replaced with a new fixed span of precast concrete box girders (beams). The existing steel façade would be reused on the new span to replicate the outward appearance of the bascule span.

Alternative 2: Replace the Bascule Span with a Fixed Span of Welded Steel Truss Construction

Under Alternative 2, the existing bascule span would be replaced with a welded steel truss structure that visually replicates the construction of the existing span. The existing steel façade would be reused on the new span to replicate the outward appearance of the bascule span.



Alternative 1B: Side View*



Alternative 1B: Underside View*



Alternative 1B: Underside View*

* All design visuals contained in this newsletter are courtesy of the Federal Highway Administration, Eastern Federal Lands Highway Division

Alternative 3: Rehabilitate the Existing Bascule Span

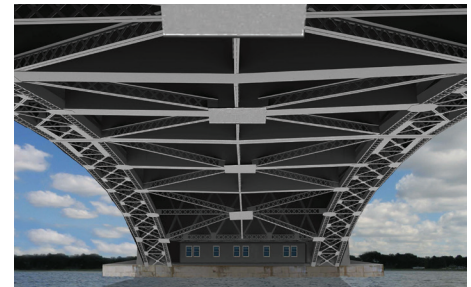
Alternative 3 consists of repairing and repainting the existing steel trusses and support posts of the bascule span. Under this alternative, portions of the bascule span that have significant deterioration, including the support posts, may be replaced using materials to visually replicate the existing structure.



Alternative 1A: Concrete Box Girder Design Visual (Underside View)*



Alternative 1B: Variable Depth Girder Design Visual (Underside View)*



Alternatives 2 and 3: Existing Bascule Span to be Replicated (Alternative 2) or Rehabilitated (Alternative 3)*

Summary of Alternatives

	Alternative	1A		1B (Preferred Alternative)		2	3
		Construction Method A	Construction Method B	Construction Method A	Construction Method B		
Cost Estimate (Millions)	Initial Construction Cost	\$220	\$225	\$225	\$230	\$280	\$260
	Future Maintenance/Rehabilitation Cost	\$16	\$16	\$20	\$20	\$51	\$60
	Total Lifecycle Cost	\$236	\$241	\$245	\$250	\$331	\$320
Lane Closure Duration (calendar days)	Total Construction Duration (Days)	700	700	700	700	700	640
	Full Closure	70	0	70	0	80	30
	Three Lane Closure	490	560	490	560	480	570
	Total Traffic Impact Duration	560	560	560	560	560	600
	Pedestrian/Bicycle Width Available During Construction	One 13-foot sidewalk for 490 days	One 13-foot sidewalk for 560 days	One 13-foot sidewalk for 490 days	One 13-foot sidewalk for 560 days	One 13-foot sidewalk for 480 days	One 13-foot sidewalk for 570 days
	New Design Life (Years)	75	75	75	75	75	75
	Maintenance Life Cycle (Years)	20 years-Replace expansion joints and bearings; 40 years-Replace concrete/polymer overlay	20 years-Replace expansion joints and bearings; 40 years-Replace concrete/polymer overlay	20 years-Replace expansion joints and bearings; 40 years-Replace concrete/polymer overlay 25 years – Repaint structural steel	20 years-Replace expansion joints and bearings; 40 years-Replace concrete/polymer overlay 25 years – Repaint structural steel	20 years-Replace expansion joints and bearings; 40 years-Replace concrete/polymer overlay 20 years-Repaint structural steel;	20 years-Replace expansion joints and bearings; 40 years-Replace concrete/polymer overlay 20 years-Repaint structural steel;

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Rehabilitation of the Arlington Memorial Bridge

George Washington Memorial Parkway
Washington, D.C. and Virginia

National Park Service
U.S. Department of the Interior



Public Comment Period

The Superintendent of the George Washington Memorial Parkway has announced a 30-day public comment period on the Environmental Assessment. During this comment period, the public is invited to review and provide comments on the Environmental Assessment. The Environmental Assessment can be found on the National Park Service's Planning, Environment and Public Comment (PEPC) website at: <http://parkplanning.nps.gov/memorialbridgeea>.

You may submit comments on the Environmental Assessment electronically at <http://parkplanning.nps.gov/memorialbridgeea>.

Written comments may be mailed to: **Superintendent, George Washington Memorial Parkway**
c/o Turkey Run Park
McLean, VA 22101.

Mailed comments must be postmarked by **May 16, 2016**, to receive consideration.

Please be aware that your comment including personal identifying information, such as an address, phone number and email, may be made publicly available at any time and as required by the Freedom of Information Act. Although you can request in your comment to withhold your personal identifying information from public review, the National Park Service cannot guarantee that it will be able to do so.