



CATHERINE E. PUGH  
MAYOR



## HANOVER STREET CORRIDOR STUDY

*includes the Vietnam Veterans Memorial Bridge*

**Interagency Advisory Group (IAG) Meeting**

**Wednesday, March 28, 2018**

### MEETING NOTES



#### MEETING ATTENDEES

<b>Name</b>	<b>Organization</b>
Linda Taylor-Newton	Baltimore City Department of Transportation
Gregory Bauer	Baltimore City Department of Transportation
Muhammed Khalid	Baltimore City Department of Transportation
Patrick Terranova	Baltimore Development Corporation (BDC)
Stacy Montgomery	Baltimore City Commission for Historical & Architectural Preservation (CHAP)
Ethan Cohen	Mayor's Office of Sustainable Solutions
Kate Sylvester	Maryland Transit Administration (MTA)
Tyson Byrne	Maryland Department of Transportation (MDOT)
Daniel Janousek	Maryland Department of Transportation
James Harkness	Maryland Transportation Authority (MDTA)
Jill Lemke	Maryland Port Administration (MPA)
Dennis Simpson	AECOM
Josh Crunkleton	AECOM
Odessa Phillip	Assedo Consulting
Tyler Thomas	Assedo Consulting

The purpose of the meeting was to review the guiding principles of the study, potential bridge typical sections, and urban design concepts, and present short-term bridge maintenance work, corridor recommendations, and corridor cost estimates to the Interagency Advisory Group (IAG) and gather knowledgeable feedback for the presentation to be used at the next public meeting on April 10, 2018.

Odessa Phillip, Community Outreach Manager for the Study Team, welcomed attendees and thanked them for coming. After brief introductions from the project team, the study overview/background and work completed to date was reviewed. The following information was then presented:

#### **Guiding Principles**

Dennis Simpson, Consultant Project Manager for the Study Team, reviewed the following guiding principles that were developed to inform the selection of corridor concepts, serve to guide design-related elements along the Hanover Street corridor, and establish a framework for the City to take a proactive approach for future phases of design and construction. These principles include:

- Considering the historic and cultural context of the Vietnam Veterans Memorial Bridge (aesthetics, architectural importance, cultural preservation, and bringing back the original purpose of the bridge to connect neighborhoods);
- Community revitalization to enhance current and future development and promote



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- social and economic growth;
- Safety through increased space in the corridor for pedestrians, bicycles, and traffic calming;
- Enhanced multimodal connectivity; and
- Providing safe and reliable access to retail, employment, and recreation.

#### **Short-Term Bridge Maintenance Work**

Gregory Bauer, Baltimore City Department of Transportation Bridge Engineer, presented the planned short-term bridge maintenance work to address the bridge deck riding surface:

- Deck investigation to guide additional interim repairs will take place in May/June 2018 and will include core samples, Ground Penetrating Radar (GPR), and testing
- Deck analysis and a report of recommendations will be due by the end of July 2018
- Spot bridge deck repairs and asphalt overlay work to improve the riding surface is anticipated to start in early summer 2018, after the deck investigation
- Due to traffic concerns, the asphalt overlay work will take place at night and on weekends.

#### **Bridge Options Evaluated**

Josh Crunkleton, Consultant Project Engineer, reviewed the bridge rehabilitation and replacement options that were previously evaluated:

- **Option 3:** *Four-lane section* – replacement of bridge deck, including precast planks, replacement of movable span steel grid deck, and pedestrian paths, barriers between vehicular and bicyclists, and the installation of new lighting. The options include no rehabilitation of the movable span, fixing the movable span in the closed position, and full rehabilitation of the movable span. Any option that permanently fixes the movable span would require United States Coast Guard approval. (Total cost \$30.0 to \$70.0 million in 2018 \$)
- **Option 4:** *Separate pedestrian/bicycle bridge and general rehabilitation of the existing bridge to accommodate six travel lanes* – construction of new parallel pedestrian/bicycle bridge connecting Middle Branch Park to West Covington Park; structural modifications to permanently fix the existing movable span, concrete filled steel grating of existing movable span, replacing outside barriers, installing new barriers between vehicular traffic, and the installation of new lighting. Any option that permanently fixes the movable span would require United States Coast Guard approval. (Total cost \$70.0 million in 2018 \$)
- **Option 5:** *New six-lane bridge and demolition of existing bridge* – demolition of existing



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bridge and construction of a new “signature” crossing (assuming a movable channel span), with dedicated pedestrian/bicycle paths. (Total cost \$245.0 million in 2018 \$)

- **Option 6:** *New four-lane bridge and demolition of existing bridge* – demolition of existing bridge and construction of a new “signature” crossing (assuming a movable channel span), with dedicated pedestrian/bicycle paths. (Total cost \$195.0 million in 2018 \$)

### Urban Design Concepts

The potential urban design concepts that were previously presented by the Study Team were reviewed. The conceptual renderings of potential urban design elements include:

- Dedicated bicycle facilities;
- Enhanced bus shelters and benches for pedestrians;
- Enhanced landscaping;
- Enhanced public recreation space and art displays under the bridge in previously unused space;
- Pedestrian lighting for enhanced safety;
- Pedestrian stair connection to/from bridge and ground level;
- Cleared vegetation on Gwynns Falls Trail to enhance safety;
- Physical barrier separation between pedestrians and vehicular traffic on the bridge to enhance safety;
- Enhanced pedestrian crosswalks; and
- Removed channelized right-turn movements to improve pedestrian safety.

### Corridor Recommendations

The following information was presented regarding preliminary corridor recommendations:

#### Traffic Background

- 2040 traffic analysis showed that the bridge cross section will not have a significant impact on corridor travel time or queuing
- The proposed signalized intersections north of the bridge are the constraints in the corridor
- A six-lane typical section (three lanes in each direction) north of the bridge will be in place for the future based on the Port Covington Master Plan approved by the City of Baltimore



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#### Roadway

- Concrete pavement reconstruction north of the bridge to Cromwell Street and south of the bridge to Waterview Avenue
- Clean all existing inlets, pipes, and bridge scuppers and inspect the existing storm drain system
- Upgrade traffic / pedestrian signals as needed
- Remove channelized / free-right turn movements

#### Pedestrian and Bicycle

- Upgrade / supplement pedestrian lighting
- Enhance crosswalks
- Clear debris from all sidewalks and stairwell connecting Hanover Street to the Gwynns Falls Trail
- Upgrade sidewalk bump-outs to provide Americans with Disabilities Act (ADA) clearance around utility poles and signs
- Bike facility enhancements

#### Transit

- Enhanced bus stops could include sidewalk access, benches, trash receptacles, and a shelter

#### Urban Design

- Bridge architecture and previously unused space creates the opportunity for a unique urban space
- Outdoor art gallery with recreation amenities
- Provide access to the bridge deck with a sculptural staircase
- Enhanced living shoreline to complement West Covington Park
- Enhanced public recreation space under the bridge

#### Bridge Structures

- After City's planned short-term maintenance work, recommend the long-term major rehabilitation option "Option 3 – Four Lane Section with Fixed Span in the Closed Position"
- Total cost (2018 \$): \$50.0 million
- Specialized engineering work required to verify additional service life
- Permanently fixing the movable span in the closed position would save the City annual maintenance costs



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- Approval from the United States Coast Guard will be required to permanently fix the movable span in the closed position
- Enhanced pedestrian and bicycle space in each direction (8 feet and 10 feet) using the existing bridge width.

#### **Corridor Cost Estimates**

The previously presented cost estimates were related to the bridge improvements and did not include additional corridor improvements. Two cost estimates for corridor non-bridge improvements were developed, recognizing that the City of Baltimore may not have necessary funding available for all improvements at once. The High Option is \$26.0 million and the Low Option is \$8.0 million.

Both estimates include:

- Concrete pavement to the first intersection north and south of bridge
- Stamped brick asphalt crosswalks
- Detectable warning surface for curb ramps
- Traffic signal upgrades
- Bus shelters, benches, bike racks, trash receptacles where needed
- Stairway replacement on southern side of bridge (leading to Gwynns Falls Trail).

The High estimate includes:

- Mill and overlay of asphalt
- Sidewalk replacement (low option replaces less)
- Additional street trees (low option includes less)
- Pedestrian lighting
- Two stair towers on northern side of bridge
- Urban design improvements – street furniture, recreational elements underneath bridge, Middle Branch Park sitework and amphitheater
- Vietnam Veterans Memorial Bridge monumental markers at north and south ends of bridge
- Decorative bridge uplighting.

#### **Next Steps**

The next steps for the project include:



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- Public Meetings on April 10, 2018 and May 30, 2018
- Draft Project Report to be posted on BCDOT website by May 30, 2018
- Public comment period: May 30, 2018 – June 30, 2018
- Final Project Report to be sent to the Federal Highway Administration (FHWA) on July 13, 2018
- Structural studies / testing to determine feasibility of rehabilitation
  - Estimated six months from approval to start
- Perform National Environmental Policy Act (NEPA) Study
  - Estimated 18-24 months from approval to start
  - The current study is deliberative and no formal decisions have been made
- United States Coast Guard approval to permanently fix movable bridge span in the closed position
  - Approval to be sought concurrent with the NEPA Study
- Funding opportunities, grants, etc.
  - Transportation Investment Generating Economic Recovery (TIGER) grants
  - Infrastructure For Rebuilding America (INFRA) grants
  - Seek funding assistance from the State

### Questions / Discussions

The following questions and additional items were discussed:

- What are the project start and end dates?
  - February 2016 – July 2018
- Where is the economic analysis in the presentation?
  - Each of the stakeholder and public meetings has focused on a specific project task and corresponding chapter of the Project Report. The Economic Study was covered in-depth at the January 31, 2017 Public Meeting.
- Will the interim deck work be completed before the end of this study?
  - The asphalt overlay portion of the short-term maintenance work is scheduled to start in early summer 2018. Any additional interim deck work would take place after this study concludes.
- Suggestion to label the three sub-options of Option 3 as 3A, 3B, and 3C to clarify the discussion on that slide.
- Could the zoning code be changed to prohibit tall ships in the existing marina?
  - The Planning Department is the agency responsible for the zoning code. BCDOT will forward this question to the appropriate zoning staff for a response. Approval from



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the US Coast Guard would be necessary to permanently fix the movable span in the closed position.

- Is there enough height for ships to still pass under the bridge if you permanently fix the movable span in the closed position?
  - The US Coast Guard approval process will involve examining all vessels that will be able to travel under the bridge in the closed position.
- Did the study determine where trucks are coming from in the corridor?
  - Hanover Street is a designated truck route for trucks accessing the Port of Baltimore and industrial areas in Curtis Bay.
- Are the existing stairs on the south side of the bridge addressed in this study?
  - Yes, the existing stairway leading to the Gwynns Falls Trail was identified as a deficiency and replacement is included in the corridor recommendations.
- Would it be possible to have four lanes of traffic on Potee Street or Hanover Street south of the bridge and remove the one-way pair layout?
  - This study is not proposing to remove the one-way pair, but does not preclude this in the future. The study is recommending traffic calming and separating pedestrian and bicycle traffic so that the corridor is safer for all users.
- Why was 10 feet selected for the bicycle/pedestrian path width for the bridge rehabilitation option?
  - Within the existing 70-foot bridge width, the team worked to maximize the bicycle and pedestrian space. Using eight feet as a minimum path width, the maximum width available on the opposite side was 10 feet. All dimensions shown are preliminary to show the feasibility of fitting elements within the existing bridge width and are subject to change in later stages of design.
- Were the traffic projections coordinated with the other adjacent projects?
  - Yes, to ensure that the current study was coordinated with the MDTA I-95 Access Improvements Study, the City of Baltimore and MDTA agreed to adopt a single set of peak hour traffic volumes to use for existing conditions and future conditions of both projects.
- Who is responsible for the existing storm drain system maintenance?
  - As the owner of the bridge, the City of Baltimore is responsible for maintenance.
- Do the replacement bridge options include a movable span?
  - Yes, the replacement bridge cost estimates currently include a movable span. If a movable span is deemed not necessary in a later phase of the project, the cost estimates would decrease.
- Why are 11-foot lanes shown on the four-lane rehabilitation option?
  - Within the existing 70-foot bridge width, the team worked to maximize the usable space for vehicles, pedestrians, and bicycles and also add barrier separation. Two



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11-foot inside travel lanes were necessary to fit within the existing bridge width and it is assumed that the 12-foot outside lanes would accommodate the buses and trucks on the bridge. All dimensions shown are preliminary to show the feasibility of fitting elements within the existing bridge width and are subject to change in later stages of design.

- What is the annual maintenance cost of the bridge?
  - The current annual bridge maintenance cost is approximately \$500,000.
- Suggestion to make the Draft Project Report available before the Public Meeting in May
  - The team will aim to post the Draft Project Report on the project website in advance of the May 30, 2018 Public Meeting.
- Will hard copies of the Draft Project Report be made available to the public for people without Internet access?
  - For past projects, hard copies have been made available, upon request, at BCDOT.
- Will roadway plans be created for the public meeting in addition to the renderings?
  - No, roadway plans are not included in the scope of this planning-level study and would be developed as the project advances to later stages of design.
- What is the speed limit along the corridor?
  - The posted speed limit is 35 mph from Wells Street to Cherry Hill Road and 40 mph from Cherry Hill Road to Reedbird Avenue.
- When adding stairways on the north side of the bridge, do you have to add ADA accessibility?
  - There are currently ADA-compliant alternate routes to reach the water level from the bridge, but this would be the topic of discussion in later stages of design.
- Concern regarding the missing left turn movement from Frankfurst Avenue to Potee Street
  - Although this intersection is south of the Study Area, the team recognizes the issue and the Project Report discusses how trucks are impacted by the constrained geometry at the intersection of Hanover Street at Frankfurst Avenue and the lack of a direct connection from Frankfurst Avenue to Potee Street.
- Suggestion to include the project website address in the presentation and on the Public Meeting postcard so people know where to access the previous project materials
  - The project website link will be added to the presentation and the Public Meeting postcard.