



Staff Report
City of Richmond, Virginia
Urban Design Committee



UDC 2022-06	Conceptual Review	Meeting Date: 7/7/2022
Applicant/Petitioner	Thomas Westbrook, City of Richmond Department of Public Works	
Project Description	Conceptual 17.05 review of the replacement of a bridge on E. Broad Street.	
Project Location		
Address: 1554 E. Broad Street		
Property Owner: City of Richmond		
City of Richmond department of Public Works is proposing to replace and existing bridge on E. Broad Street due to structural deficiencies. The scope of work is “bridge only” as there will be no increase to roadway capacity.		
Staff Recommendation	Approval, with Conditions	
Staff Contact	Alyson Oliver, alyson.oliver@rva.gov , (804) 646-3709	
Previous Reviews	This application was reviewed at the May 5, 2022 UDC meeting, where the committee voted to defer the request. At the meeting, concerns were raised about the narrow design of the pedestrian tunnel and the need for public engagement. The UDC appointed a two person sub-committee to work with the applicant on updating the design to address the concerns raised by the UDC.	
Staff Recommendations	Staff recommends that: - The bridge be designed to include a rectangular pedestrian tunnel, as generally shown in the exhibits provided with the application. - Existing granite curbing and cobblestone underneath of the bridge be retained and protected during construction. - Applicant coordinate final design of the bridge with the Department of Environmental Quality to analyses the project’s impact on the existing floodplain and floodway. - Any existing historic resources be protected during construction, including existing masonry abutting the existing wingwalls on the southern side of the bridge. - Lighting be provided within the pedestrian culvert. Additional details on lighting to be submitted to UDC with final review package. - An anti-graffiti sealant be applied within the tunnel to protect against damage from vandalism.	

Findings of Fact

Site Description	The bridge is located within the City of Richmond limits on Broad Street over abandoned CSXT Right-of-Way, approximately 1,000 feet west of the intersection of Broad Street and 18th Street. The bridge is adjacent to the Lumpkin's Slave Jail and Richmond African Burial Ground. The project location map is provided in Attachment 1 of this report. The proposed tunnel will be constructed in the same location as the existing bridge.
Scope of Review	The proposed bridge replacement is subject to design review under Section 17.05 of the Richmond City Charter as a "public structure".
Project Description	The purpose for this project is to replace the existing structurally deficient bridge carrying Broad Street over CSXT Right-of-Way with a new structure to eliminate a structurally deficient bridge from the City's inventory. The existing bridge and approach roadway consists of a four-lane facility located in an urban area. The roadway is classified as a Primary Arterial with a posted speed limit of 25 mph. The existing 34-foot, single span structure was constructed in 1909 and consists of a concrete encased multisteel beam superstructure set on reinforced concrete substructure with slight skew. The framing system consists of 53 steel I-beams (16" deep) spaced at approximately 2'-0" on center. The bridge carries four travel lanes of Broad Street. The travel width of the existing bridge is approximately 42'-0" measured face-to-face of curb with an out-to-out width of approximately 66'-0". The land in the immediate vicinity of the project is generally urban with some historical areas nearby. Below the bridge, there is a proposed 20 foot wide culvert which will be used for pedestrian access below the bridge. The preliminary structural plans have terminal walls that are perpendicular to the culvert. These walls afford the opportunity for signage, artwork, or information regarding the surrounding area. Update since May 5, 2022 Since the May 2022 UDC meeting, the applicant has met with the subcommittee, comprised of Todd Woodson and Jessie Gemmer, to work on updating the plans to address concerns raised by the committee. From that meeting, three design options were proposed for the pedestrian tunnel under the bridge: arched, semi-arched, and rectangular. These options were then sent to email distribution list for the Shockoe Alliance. The Shockoe Alliance is composed of 23 citizen members representing business and interest groups appointed by the Mayor to guide the creation of the Shockoe Small Area Plan. As part of the process, the Alliance also reviews major infrastructure projects within the study area. The email distribution list is comprised of 64 contacts, representing the Shockoe Alliance membership and other interested parties. Staff notes that a version of the bridge replacement plans was shared with the Alliance back in March 2021. There were 54 persons in attendance at the meeting, and the minute do not reflect any major comments or concerns with the proposal. Comments regarding the updated design were received from twelve citizens and two Department of Public Utilities (DPU) employees). A summary of the comments is listed below: • Consider adding stairs to connect bridge to the ground on either side; • Design to accommodate events, which are often held within the tunnel; • Maximize the size of the tunnel; • Include interior tunnel lighting in the design; • Consider how the timing of construction may impact events in the area; • Consider the impact on Floodway (DPU and citizen comment) • Design for conditional vehicle access, with bollards; • Accommodate existing utility easements within bridge structure (DPU); • Consider incorporating art on the retaining walls;

	Additionally, citizen comments also expressed a concern that the new tunnel may be tagged with graffiti, and there was no clear preference for the shape of the tunnel (arched, semi-arched, or rectangular). To address these comments, staff recommends adding conditions that require an anti-graffiti sealant be applied within the tunnel to protect against damage from vandalism. Staff also recommends that the applicant pursue the rectangular design option, which is the option preferred by DPW. These conditions have been incorporated into the staff recommendations listed in this report.
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Urban Design Guidelines and Master Plan

	Text	Staff Analysis
Richmond 300 Master Plan	Objective 4.1.e <i>e. Encourage development that respects and preserves the natural features of the site through sensitive site design, avoids substantial changes to the topography, and minimizes property damage and environmental degradation resulting from disturbance of natural systems.</i> Goal 9: Streets, Bridges & Connections <i>Building and improving Richmond's street network and bridges is critical to connect our neighborhoods to one another and provide multiple routes for pedestrians, cyclists, and transit moving around the city. (pg. 122)</i> Objective 9.2: Improve and Create Bridges <i>a. Develop and implement a plan to rehabilitate and repair city bridges so that less than 10% of bridges are rated as structurally deficient and all bridges have been substantially renovated and maintained.</i>	This proposal helps meet the Goal 9 outlined in the Richmond 300 Master Plan by replacing an existing structurally deficient bridge that has been rated “poor” by VDOT. Staff notes that the proposed bridge and culvert are located within a 100-year Floodplain and Floodway. In order to minimize any future environmental degradation as a result of this project, staff recommends that the applicant coordinate the final design of the bridge with the Department of Environmental Quality to analyses the project's impact on the existing floodplain and floodway.
Urban Design Guidelines		
Environment, Public Parks, Design Considerations, pg. 9	<i>Certain design considerations should be addressed in any project, regardless of the type of park. Historic elements should be surveyed and preservation should be considered for both facilities and landscapes. Impacts to the natural landscape should be assessed and should generally be minimized when constructing man-made elements.</i> <i>Lighting and landscaping should allow for surveillance and policing activities, but should be designed primarily to accommodate the intended use of the park.</i>	There are several historical elements on site that should be preserved as part of this reconstruction project. These items include: (i) any existing granite curbing and cobblestone below the bridge, (ii) the existing masonry abutments flanking either side of the wing walls on the south side of the tunnel, and (iii) the larger pieces of masonry located in the fill on the north side of the bridge. Staff recommends that these elements retained and protected during construction.
Transportation, Provision of New Sidewalk, pg. 4	<i>Existing granite curbing and stormwater inlets should be retained. Any new</i>	Staff recommends that any existing cobblestone and granite curbing below the

	<i>granite curbing should match existing curbs.</i>	<u>bridge be retained and protected during construction.</u> Staff also notes that there are existing brick-paved sidewalks with granite curbs on the bridge. The plans provided with this application note that these features will be reconstructed as part of this project.
Community Character, Illumination, pg. 22	<i>Consistent levels of illumination should be maintained in public areas. Safe and comfortable circulation depends more on the consistency of illumination than on the level or brightness of the lighting. All light sources should be shielded to reduce glare, spill light, and wasted light.</i>	Staff notes that the preliminary structures report submitted with the application recommends the inclusion of pedestrian lighting within the resulting culvert. However, no information on any proposed lighting has been provided with this application. <u>Staff recommends that lighting be installed within the culver and that additional details be provided to UDC for review.</u>