



CITY OF PHILADELPHIA

DEPARTMENT OF STREETS
SURVEYS, DESIGN, & CONSTRUCTION DIVISION
830 Municipal Services Building
1401 John F. Kennedy Blvd.
Philadelphia, PA 19102-1676

CARLTON WILLIAMS
Streets Commissioner

February 23, 2021

C. Beige Berryman, AICP
Director
The Philadelphia Art Commission (PAC)
1515 Arch Street, 13th Floor
Philadelphia, PA 19102

**RE: MLK, Jr. Drive Bridge Project
Request for Approval**

Dear Ms. Berryman:

We kindly request an opportunity to present this project to the PAC at the upcoming meeting on March 10, 2021. A copy of the Submission Package will be provided at least a week before the scheduled Meeting.

The MLK Jr. Drive Bridge, originally built in 1965, is a 690-foot four span structure which is comprised of one 608 foot three-span continuous steel box-beam girder-floorbeam section and an additional 82-foot 2-inch steel box-beam girder-floorbeam western approach span. The bridge crosses over the Schuylkill River, below Spring Garden Street, and is located on the Martin Luther King Jr. Drive, which is within the Fairmount Park system. The overall width of the existing bridge is 45'-10", which accommodates two 10'-0" eastbound travel lanes, a 12'-0" westbound travel lane, a 4'-0" shoulder, a 1'-6" safetywalk on the downstream side, a 5'-0" sidewalk on the upstream side, and two 1'-8" concrete barriers (one along each fascia line). Photographs of the existing conditions and site are attached.

The purpose of the proposed project is to rehabilitate the structure and the scope of work primarily consists of a deck replacement. The existing deck will be removed along the entire length of the bridge and replaced with a reinforced concrete deck. The proposed deck, at 49'-8¼", will be approximately four feet wider than the existing and will accommodate two 10'-0" travel lanes in the eastbound direction, one 10'-0" travel lane in the westbound direction, two 2'-0" shoulders (one on either side of the travel lanes), a 10'-6" shared-use path on the upstream side, a 1'-6" curb/pedestrian railing between the westbound travel lane and shared-use path, a 1'-6" barrier along the upstream fascia line, and a 2'-2¼" barrier along the downstream fascia line. The existing steel will remain and be repaired as needed, cleaned and repainted. The scope also includes, but is not limited to: reconstructing the top portions of the wingwalls to accommodate

reinforced concrete barriers and the wider approach slabs; minor approach roadway and sidewalk reconstruction; ADA ramp installation; bearing rehabilitation; minor substructure rehabilitation; and lighting improvements.

Due to the award-winning nature of the bridge, and the desire for the proposed structure to resemble its "sister", the Spring Garden Street Bridge, the intent is to maintain the existing aesthetics to the extent possible. This entails the following measures:

- Tapering the outer faces of the proposed barriers to mimic the existing bridge, and Spring Garden Street Bridge, fascia lines;
- The inside and outside faces of the reconstructed portions of the wingwalls will be faced with salvaged stone. New stone of a similar material, color, size, and shape will be used as needed;
- The proposed steel paint color will closely match the color used on the Spring Garden Street Bridge during its recent rehabilitation project (Federal Color Standard 24585 - Green);
- The proposed concrete barrier paint color will closely match the color used on the Spring Garden Street Bridge during its recent rehabilitation project (Federal Color Standard 37778 - Beige); and
- All masonry pointing and repointing will closely match the color and texture of existing mortar.

Pedestrian scale lighting will be installed, however, instead of roadway lighting as in the existing condition, to enhance visibility along the shared-use path. The pedestrian style light poles will be painted green, known as Cityscape Green, which is standard for such poles throughout the City.

The project is anticipated to cost approximately \$12 million and use a combination of 80% Federal, 15% State, and 5% City funds. The Public Art Director stated that, due to the small portion of City funding incorporated into the budget, the project is not eligible for the Percent for Art Program. Construction is anticipated to begin in the summer of 2022.

If you have any questions or require additional information regarding this submission, please contact Timothy Dragan, at timothy.dragan@phila.gov or (484) 576-3539.

Sincerely,



Ryan Sen, P.E.
Engineering Supervisor 2

CC: File; RSS/tzd/mjs/bac
Enclosures: Photographs; 1% for Art Program Correspondence



Photo 1 - Existing Girder and Underside of Sidewalk Overhang



Photo 2 - Existing Girder, Outside Barrier, and Wingwall. Areas of abutment and wingwall to be removed will be replaced with concrete barrier. The inside and outside faces of concrete barrier will be faced with salvaged stone. New stone that is similar material, color, size, and shape will be used as needed.



Photo 3 – Existing Safetywalk on Downstream Side and Inside Face of Barrier

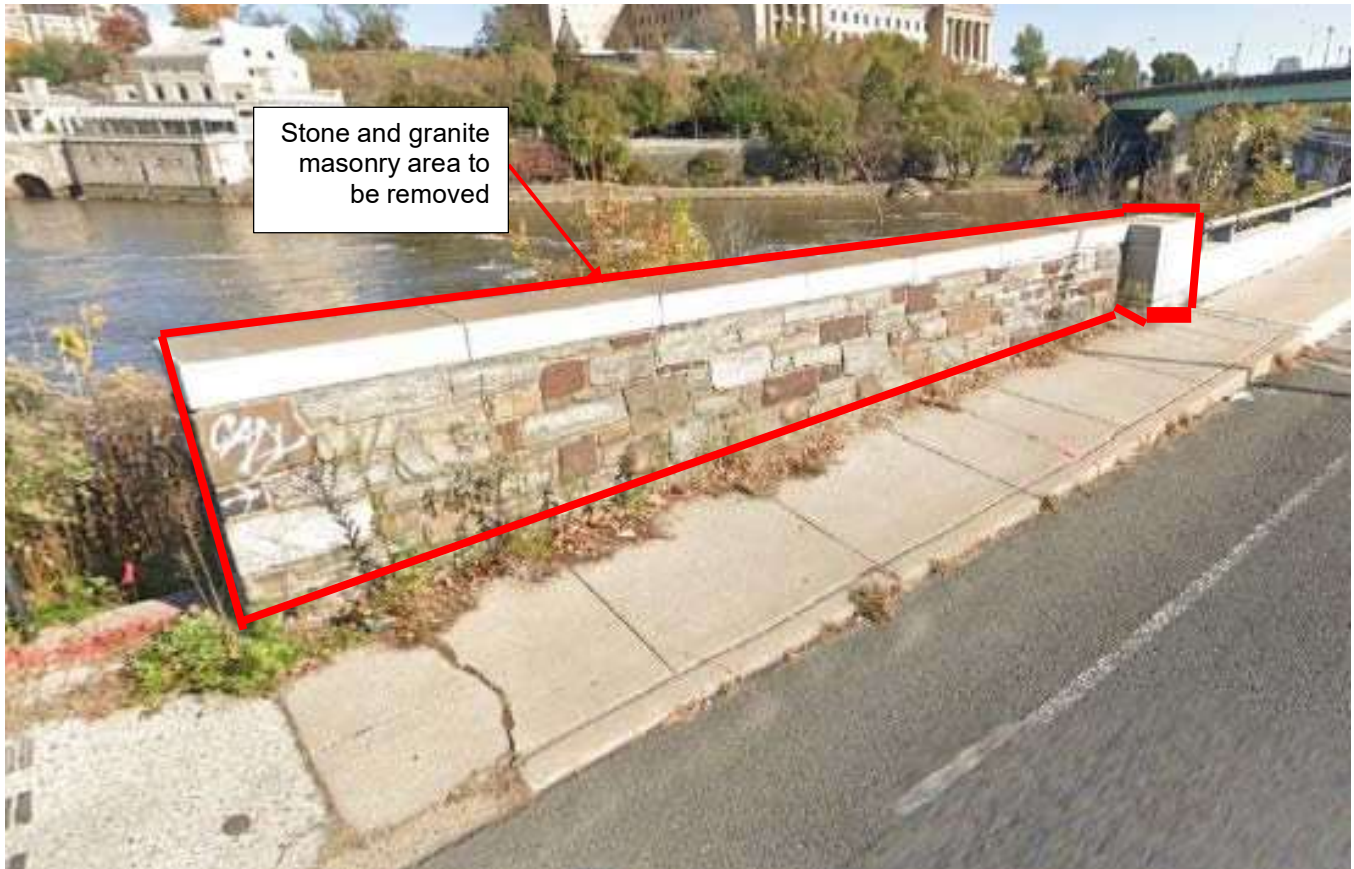


Photo 4 - Existing Wingwall – top portion to be removed and replaced with concrete barrier. The inside and outside faces of concrete barrier will be faced with salvaged stone. New stone that is similar material, color, size, and shape will be used as needed.



Photo 5 - Existing Sidewalk on Upstream Side and Inside Face of Barrier



Photo 6 – Western Approach



Photo 7 – Eastern Approach



Photo 8 – Upstream Elevation



Photo 9 – Downstream Elevation

MLK Jr. Drive Bridge Rehabilitation Project



City of
Philadelphia



**VISION
ZERO**
CITY OF PHILADELPHIA

Bridge Location over the Schuylkill River



Project Background

- ❖ The Martin Luther King, Jr. Drive Bridge and its sister bridge, the Spring Garden Street Bridge, opened in 1966 to great acclaim.
- ❖ The pair of steel box-girder bridges were presented with an award of merit by AISC for their design the following year.



- ❖ The Spring Garden Street Bridge was last rehabilitated by PennDOT in 2016.

View of Bridge from Western Bank of the River



Network Connectivity

- ❖ The structure spans the Schuylkill River and provides a connection for recreational users and vehicles.
- ❖ It is at the convergence of three (3) major bicycle networks
- ❖ Provides a parallel route to I-76 and Kelly Drive.





Current Conditions



Deteriorated Deck



Clogged Drains



Exposed Rebar



Extensive Surface Rust



Narrow Sidewalk





Project Goals

- ❖ The primary purpose of this bridge rehabilitation project is to:
 - Maximize the remaining service life
 - Improve user safety
 - Create a more functional crossing for all users

These improvements are consistent with the citywide Vision Zero Program.





Project Outcomes

- ❖ The City plans to rehabilitate the bridge by:
 - **Maintaining existing aesthetic** features of the sister bridges
 - **Replacing and widening the bridge deck** to ensure structural integrity and to meet design standards
 - Performing necessary **structural steel repairs**
 - **Cleaning and painting** the entire structure
 - Providing a **new 10'-6" shared-use path** with **pedestrian scale lighting**



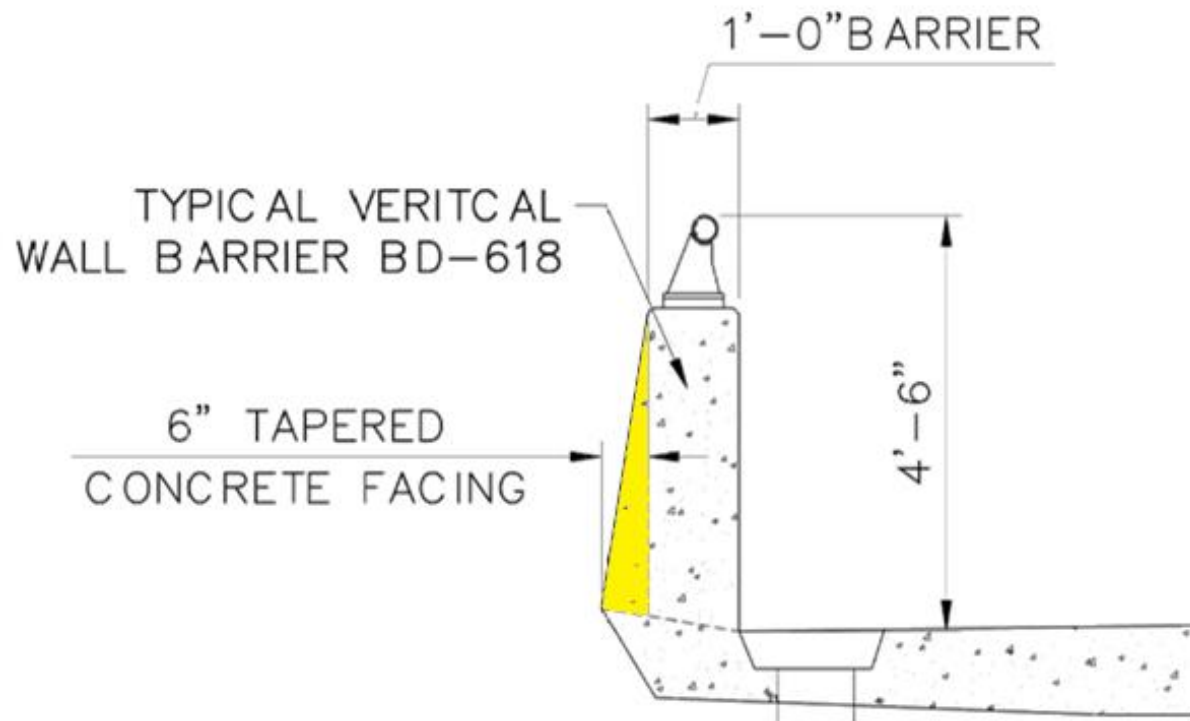
Current Aesthetic Elements to Remain

- ❖ Profile of Steel Box-beams



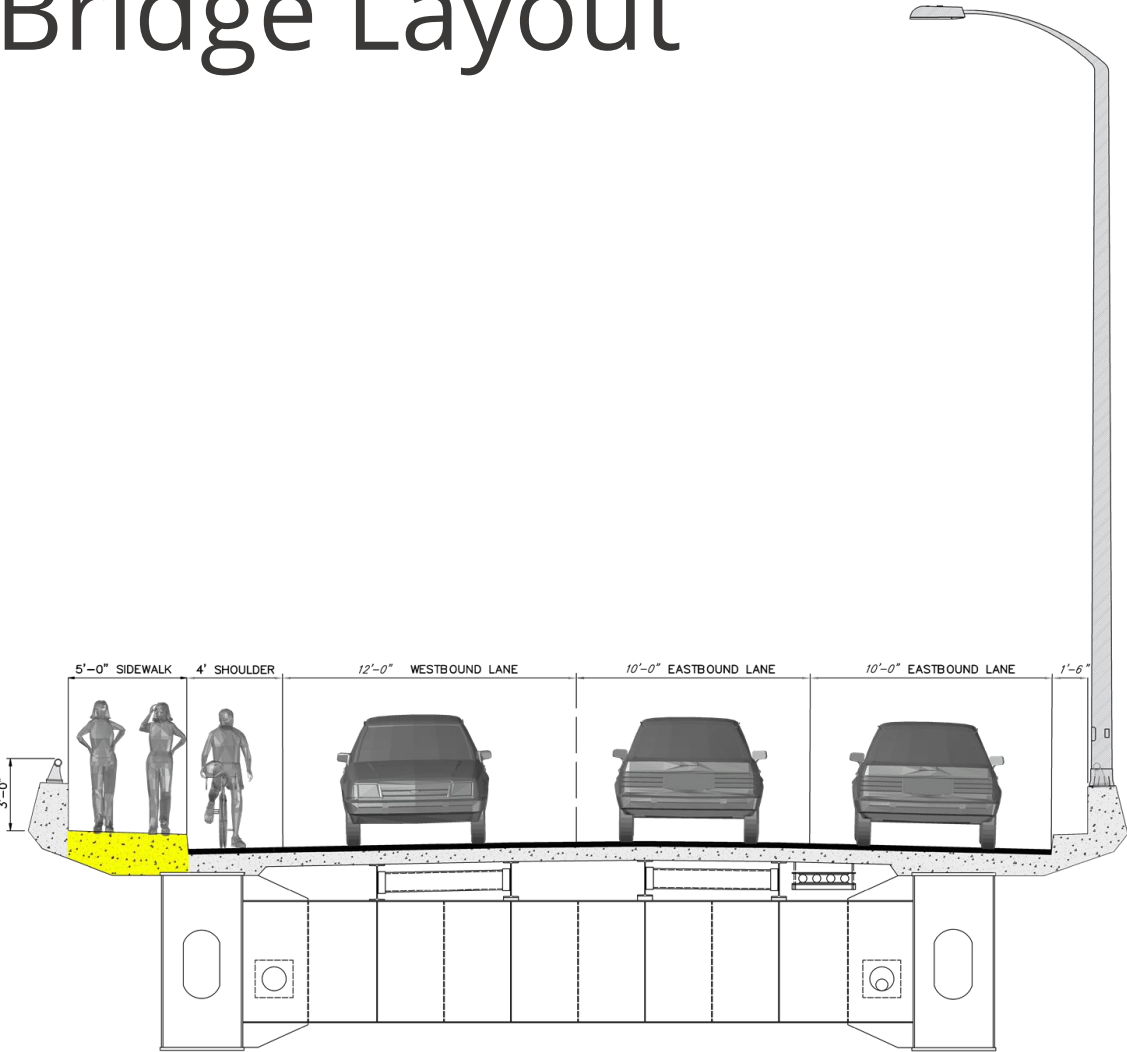
Current Aesthetic Elements to Remain

- ❖ Tapered Articular Concrete Facing of Facia Barriers

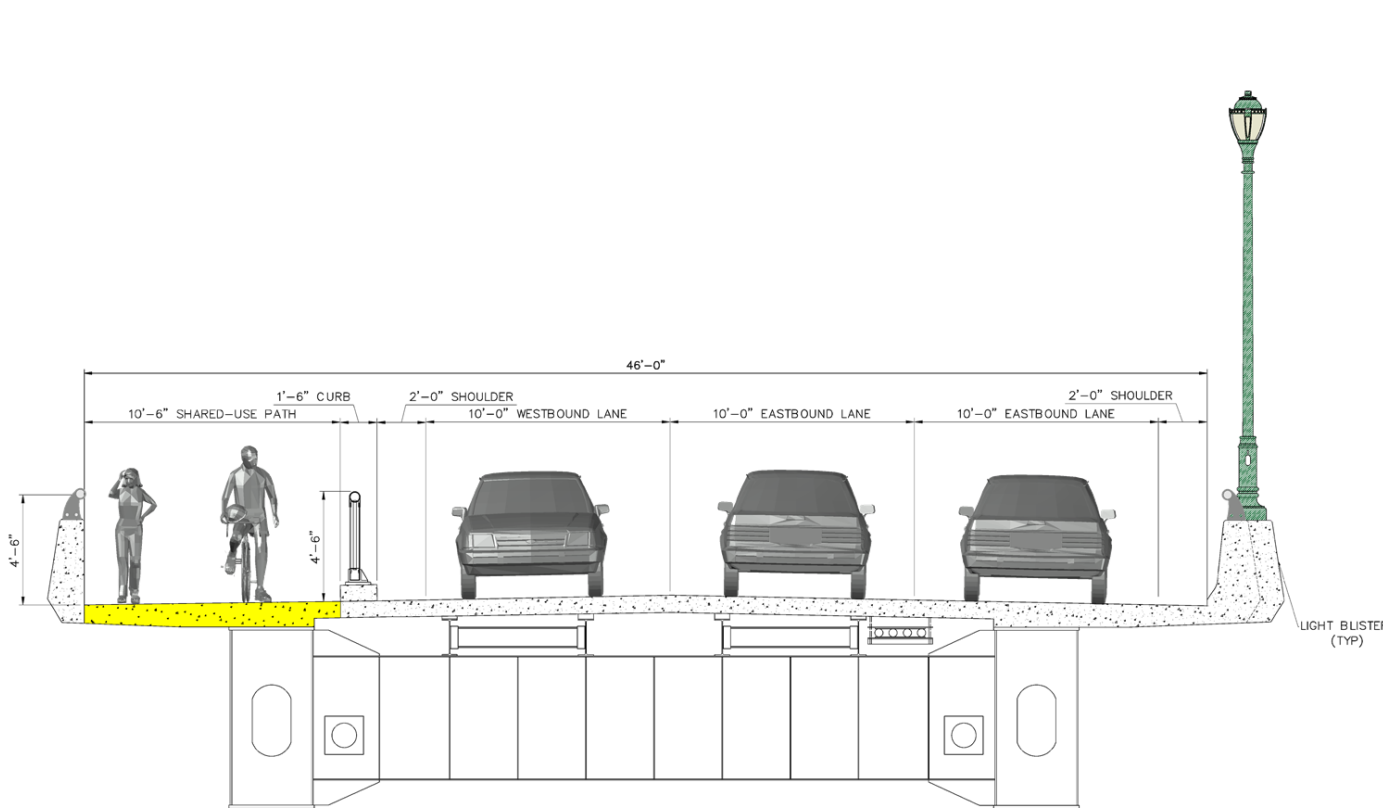




Bridge Layout



Current



Proposed



Proposed Aesthetic Elements

- ❖ Pedestrian and Cyclist 10.5' Shared-Use Path



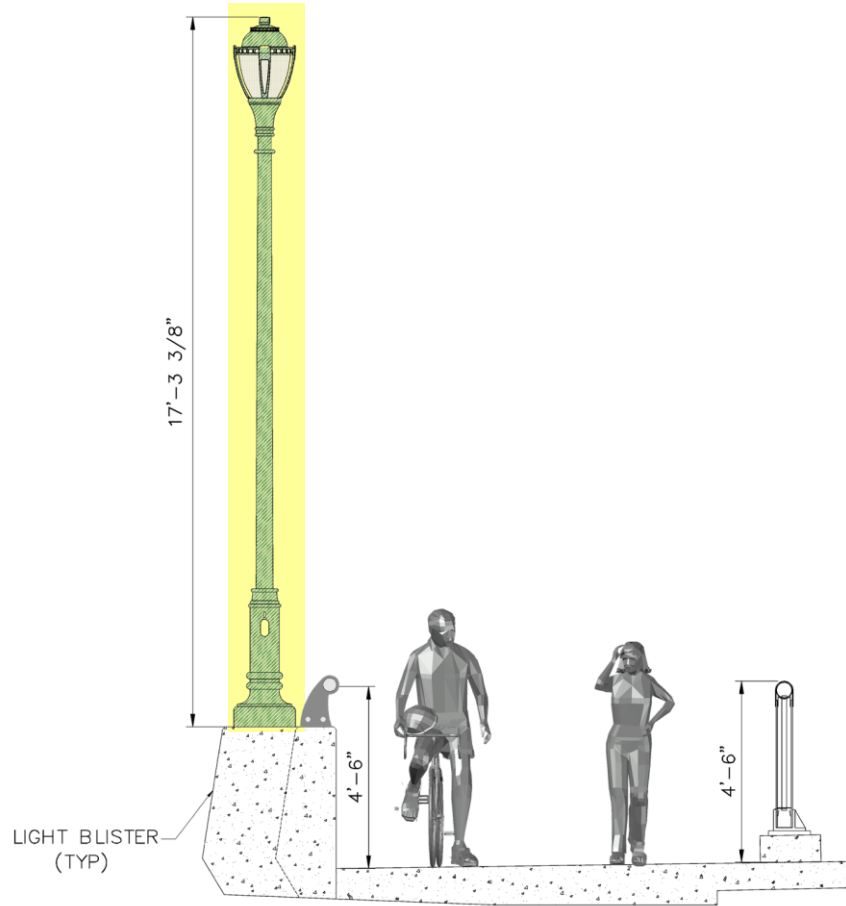
Proposed Aesthetic Elements

- ❖ Wingwall Modification Needed to Accommodate the Wider Roadway



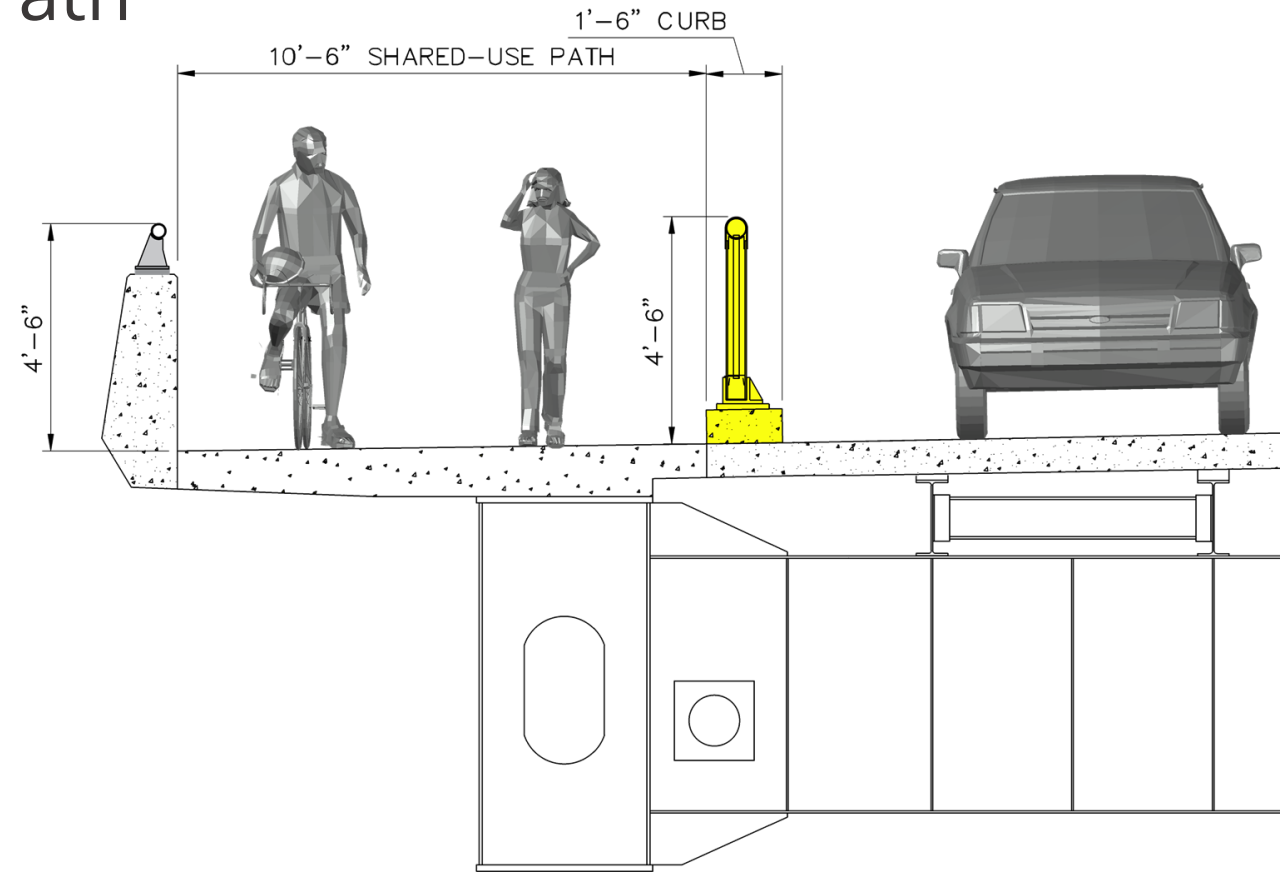
Proposed Aesthetic Elements

❖ Pedestrian Scale Light



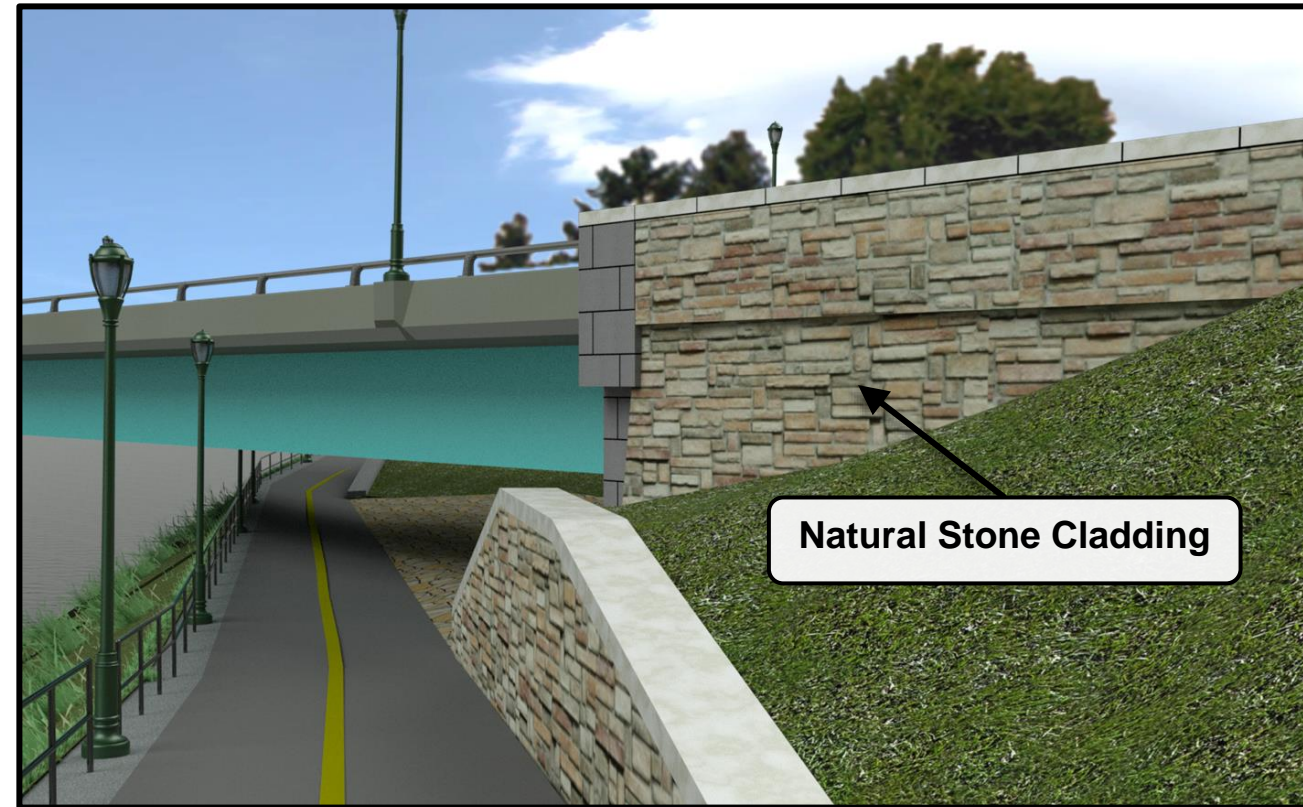
Proposed Aesthetic Elements

- ❖ Pedestrian/Cyclist Railing Separating the Roadway and Shared-Use Path





Current vs. Proposed

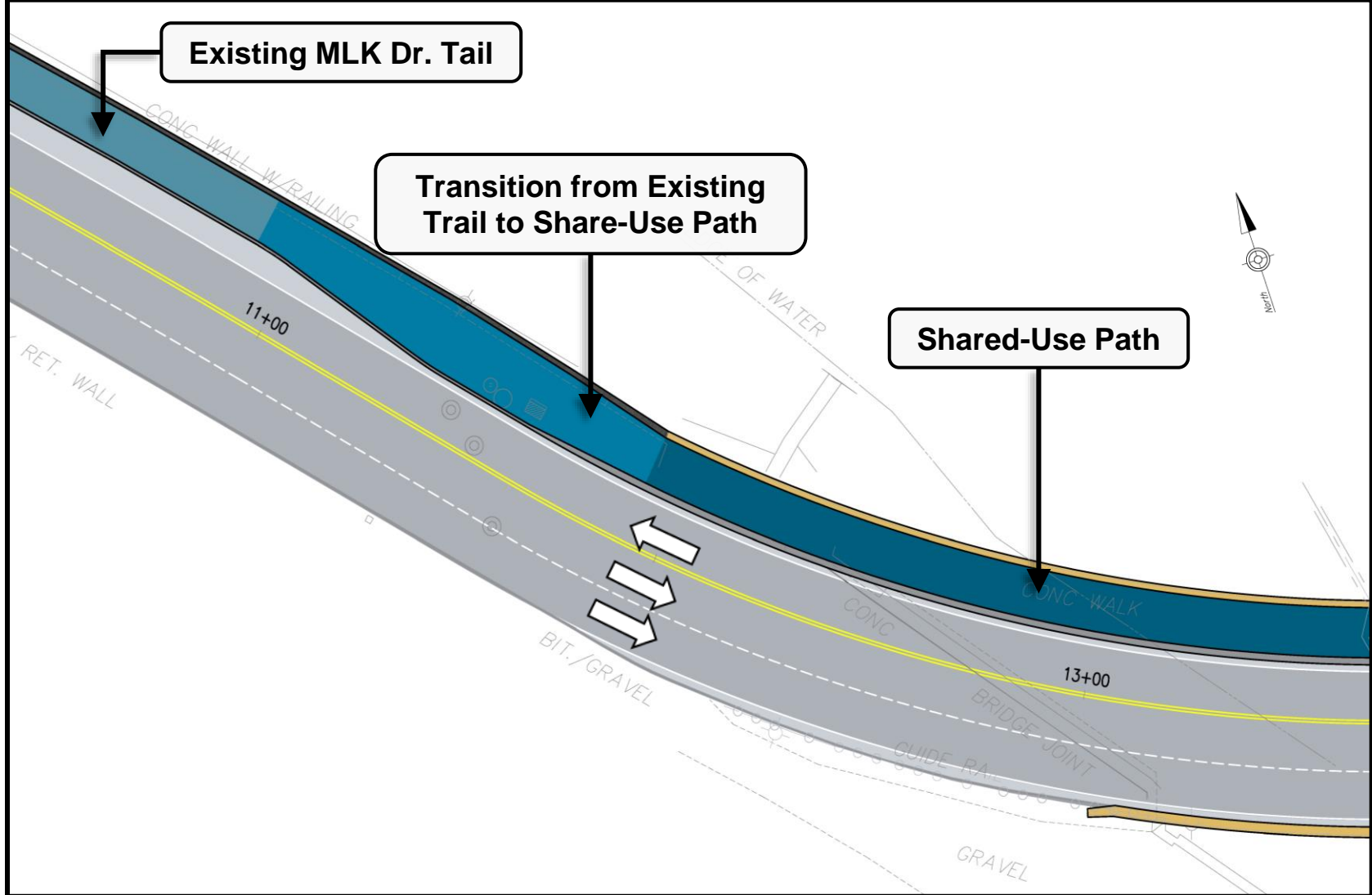


Current vs. Proposed



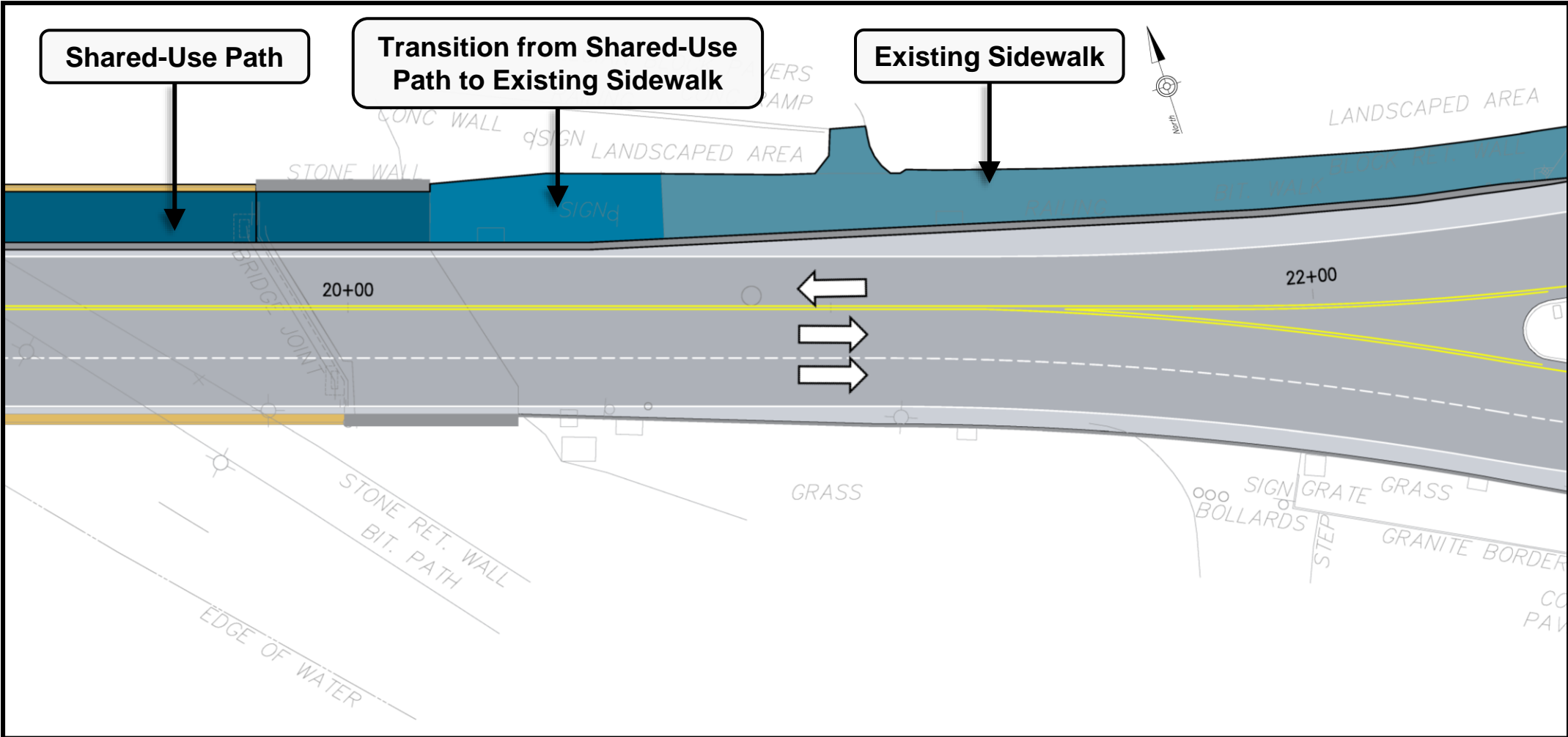


Plan View of Western Transition to MLK Jr Dr.

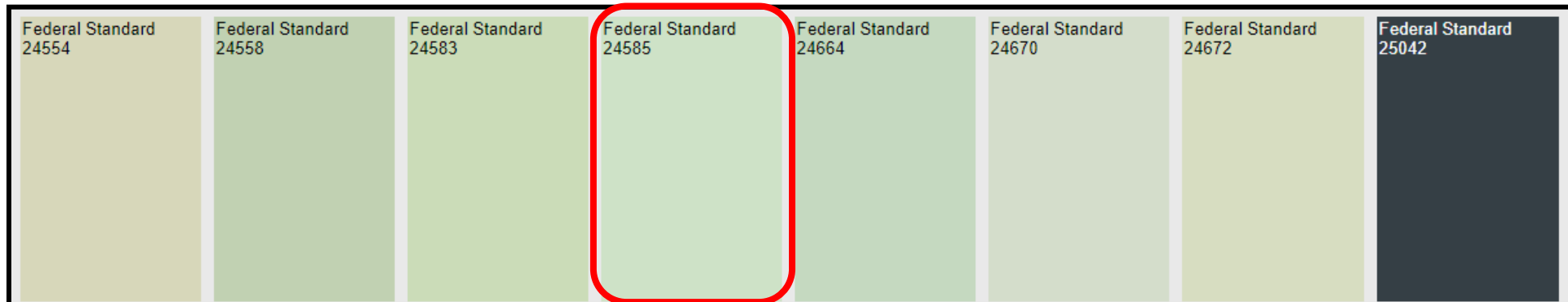
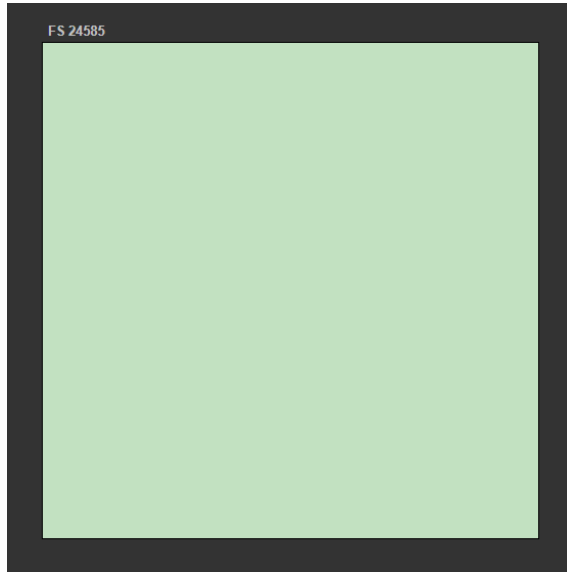




Plan View of Eastern Transition to Eakin's Oval

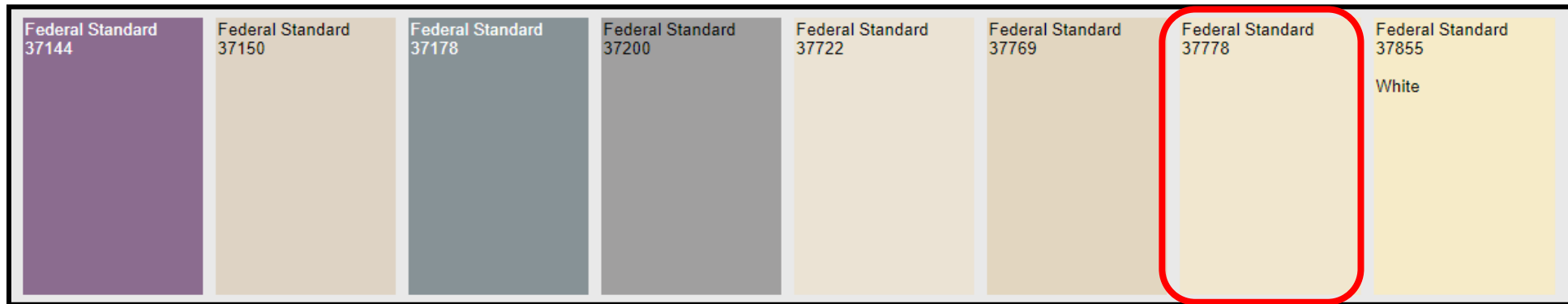


Proposed Girder Paint Color to Match Current Spring Garden Bridge





Proposed Barrier Paint Color to Match Current Spring Garden Bridge





Budget and Timeline

- ❖ Cost
 - Construction Estimate: \$12 Million
 - ❖ Funding
 - 80% Federally Funded
 - 15% State Funded
 - 5% City Funded
 - ❖ Design Timeline
 - Second Community Meeting – Summer 2021
 - Complete Final Design – Fall 2021
 - ❖ Construction Timeline
 - Begin Construction – Summer 2022
 - Complete Construction & Bridge Opening – Fall 2024
- 



1% for Art

- ❖ The City's investment for the project is less than \$1 million.
- ❖ Through coordination with the Public Art Director, we were informed that our project does not trigger the 1% for Art requirement.





City of
Philadelphia

**VISION
ZERØ**
CITY OF PHILADELPHIA