

To: Public Services Committee of Dublin City Council

From: Dana L. McDaniel, City Manager

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Initiated By: Megan D. O'Callaghan, P.E., Deputy City Manager/Chief Finance and Development Officer
Paul A. Hammersmith, P.E., Director of Engineering/City Engineer
Jean-Ellen Willis, P.E., Deputy Director of Transportation & Mobility
Shawn Krawetzki, PLA, ASLA, Landscape Architect Manager

Re: US 33 – SR 161 – Post Road Interchange Landscaping and Aesthetics

Background

The City of Dublin is working cooperatively with project partners at the Ohio Department of Transportation (ODOT) and Union County to improve the interchange at US 33 – SR 161 – Post Road. The project was developed in the early 2000's with the original interchange modification study approved in 2001. Detailed design was developed from 2005 through 2008, and then the design project was put on hold. Meanwhile, phases of the design surrounding the central interchange were constructed, including the Liggett Road relocation in 2008; widening SR 161, realigning and improving the intersection of Industrial Parkway in 2010; and constructing the Eiterman Road roundabout in 2015. The central interchange project was recently revived in 2019 through cooperation of the project partners to complete a full funding package.

The current project schedule requires the final plan package to be submitted to ODOT in early October 2021. The detailed design, environmental updates, and right-of-way acquisition are on schedule to be completed in 2021. The project is anticipated to bid in February 2022 with an award in mid-March 2022 and construction to start in May 2022.

Approximately 65,000 vehicles use the US 33 – SR 161 – Post Road interchange to access the Industrial Parkway area and Dublin's West Innovation and Perimeter Commerce Business Districts each day. About 7,600 trucks per day travel the US 33 corridor with freight from major Ohio companies, including Scotts, Honda, and FedEx using Industrial Parkway and SR 161 to access US 33. This is a critical rural freight corridor on ODOT's Statewide Freight System.

Two new loop ramps will eliminate existing left turn conflicts to enter the US 33 ramps. A multi-lane roundabout and an expanded traffic signal at the ramp terminals, at the west and east terminals, respectively, will keep vehicles moving efficiently. The design also includes landscaping and a shared-use path on the south side of SR 161. Fiber connectivity will support the testing of connected and autonomous vehicle operations, and other technology initiatives in the corridor.

Summary

Bridge Aesthetic

Through the design process, the project partners evaluated the previous bridge aesthetic and developed updated aesthetic options for the project that remained consistent with the initial design

concept. While the focus of the aesthetic review is on the landscaping element of the package, a brief overview of the design intent of the bridges follows.

The design represents the rural character of Union County connected with the medical and technology fields in Dublin, and also reflects the traditional Dublin bridge aesthetics. The mix of traditional and modern elements marry these themes in the surrounding area, including the 33 Smart Mobility Corridor, 33 Innovation Park, West Innovation District, agriculture, neighborhoods, universities, and the transition between Dublin and Union County. Consistent with the previous bridge design, the following concept best represents these themes through design, colors, and textures and is what is included in the construction plan set.



Figure 1. US 33 over SR 161 Bridge Rendering – Elevation View

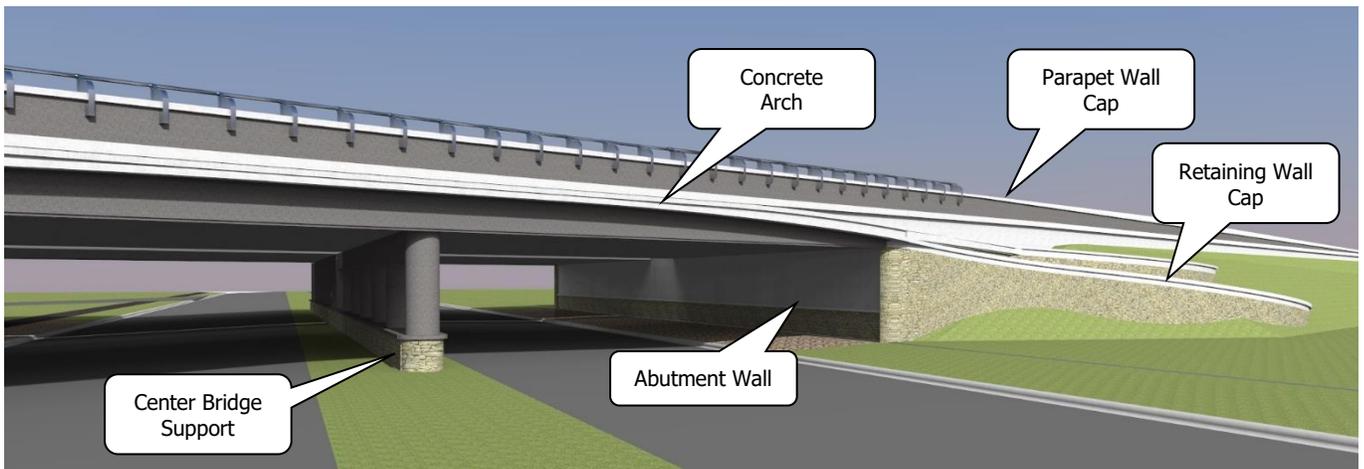


Figure 2. US 33 over SR 161 Bridge Rendering – Oblique View

A decorative rail is included on the bridge, along with concrete bands to highlight a long arch. The white bands visually extend to the caps of the retaining walls on both sides of the bridge, creating levels to step down to the surrounding elevation. The parapet wall cap and upper abutment wall are also white to match the concrete arch and retaining wall caps, as shown in Figure 2. The retaining walls will support planting beds between the levels, and will be clad in natural stone. Stone accents will also be applied to the base of the center bridge supports and abutment walls located beneath the bridge deck. The remaining concrete for the center supports and between the railing and highlighted bands will be dark gray to match the painted steel beam, further accentuating the arch. The stone elements and arch complement other key bridges in Dublin, including the Avery-Muirfield Drive and Emerald Parkway bridges over US 33.

Landscape Aesthetic

The proposed overall landscape plan for the interchange creates a low maintenance / semi-annual mowed grassland aesthetic similar to the Muirfield Drive medians just south of the roundabout at Brand Road. Additionally, some accent landscape beds were placed nearer to the travel lanes to provide seasonal interest for travelers. Moving upward, trees are arranged in a hierarchy of arcs and rows that ties the landscape to the Ohio University Campus' very distinct architectural rows of trees, celebrating the West Innovation District. These are illustrated in Figure 3, as coordinated by the City's Landscape Architect. The design provides a diversity of plant materials and create a balance between trees, evergreens, woody shrubs, various large grasses, and ground covers that provide color variety and balance in landscape textures throughout the seasons. Hardscape elements are also included in the landscape plan, with curved bands of cobblestone pavers. These bands will also function as drainage swales for the project within the loop ramps on the northwest and southeast quadrants.



Figure 3. US 33 – SR 161 – Post Road Interchange

Cobblestone paver color examples and a sampling of the plant materials and trees selected for the perennial beds and infields, and are shown in Figures 4, 5, and 6 respectively. Paver color will be



Figure 4. Example Cobblestone Paver Colors

selected to match the stone on the retaining walls when the natural stone arrives on site for installation. Further, not all plants or tree species are represented in the palette boards, but each one provides an overview and sense for the type of materials chosen.



Figure 5. Shrubs, Grasses and Perennials Sample



Figure 6. Deciduous and Evergreen Trees Sample

Figure 7 below highlights the location of the perennial planting beds and tree species used and the placement throughout the landscape plan, as well as the location of the shared-use path on the south side of SR 161.

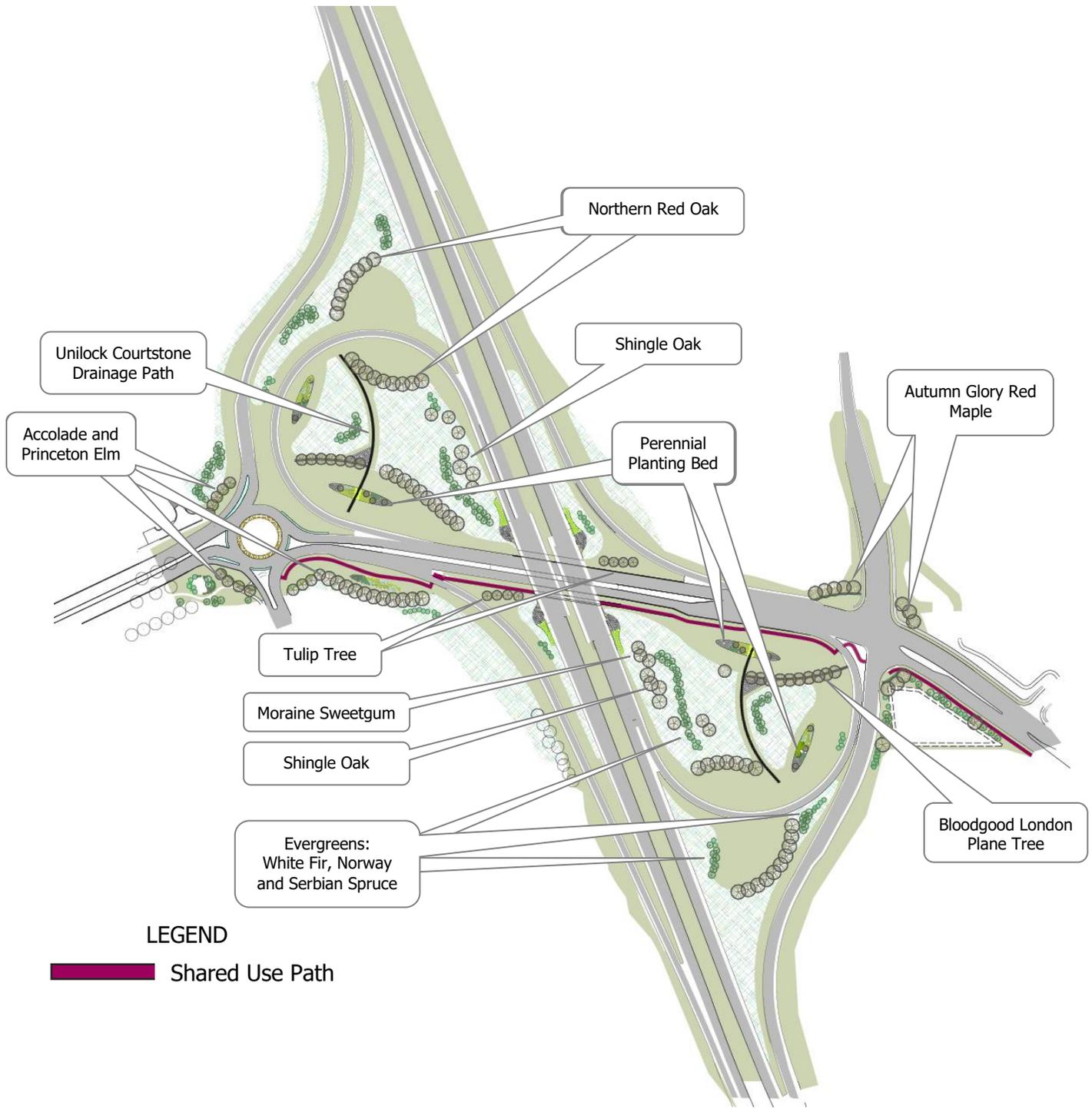


Figure 7. Landscape Overview

Figure 8 provides additional details regarding the arrangement of the perennial planting beds and the material intended to be planted in these locations, highlighting the northwest quadrant of the intersection. Figures 8 and 9 provide more detailed illustrations highlighting the placement of this plant material.

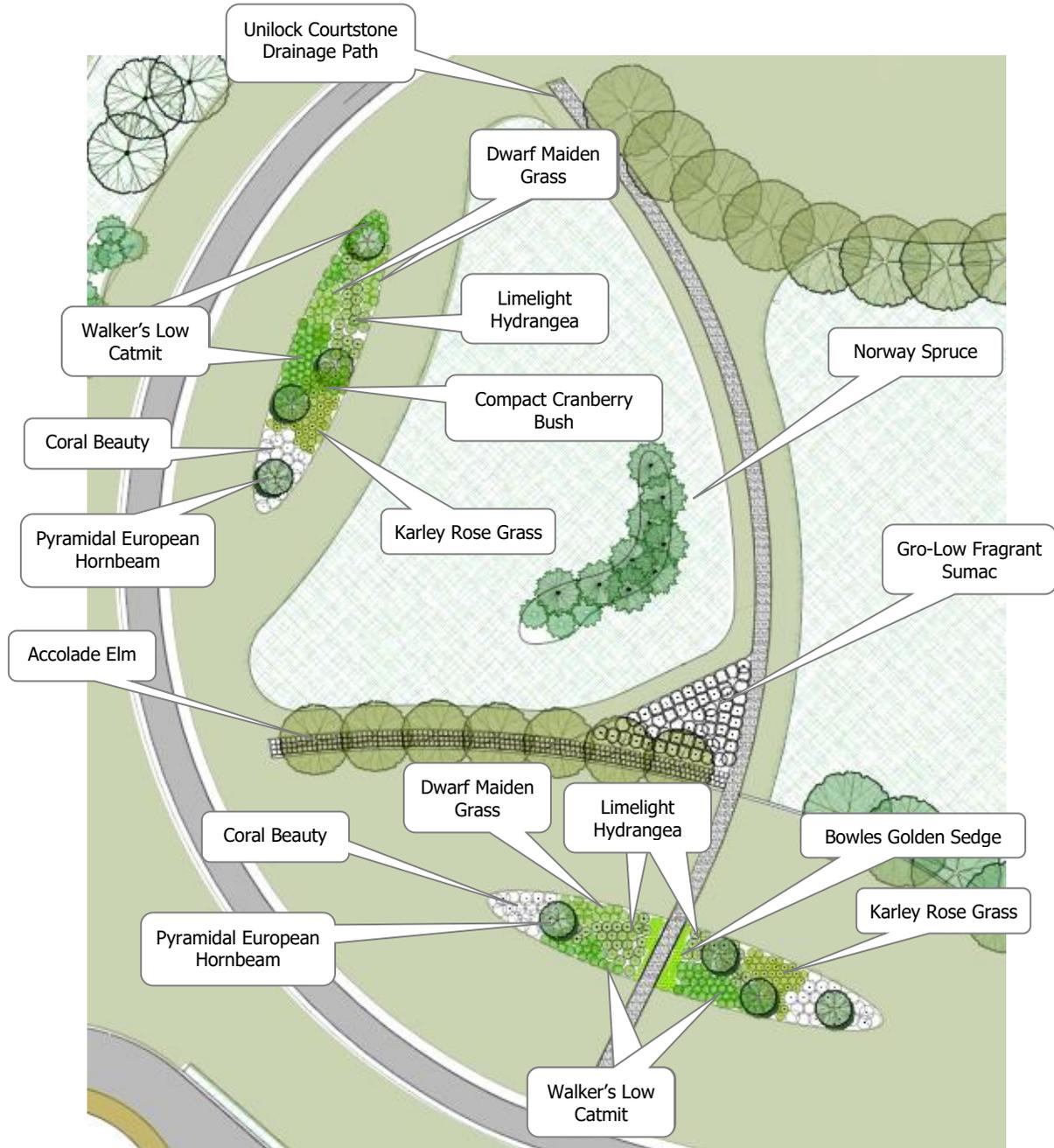


Figure 8. Perennial Bed Area Detail

In this final illustration, Figure 9 features the tiered planting beds around the four quadrants of the US 33 bridges over SR 161.

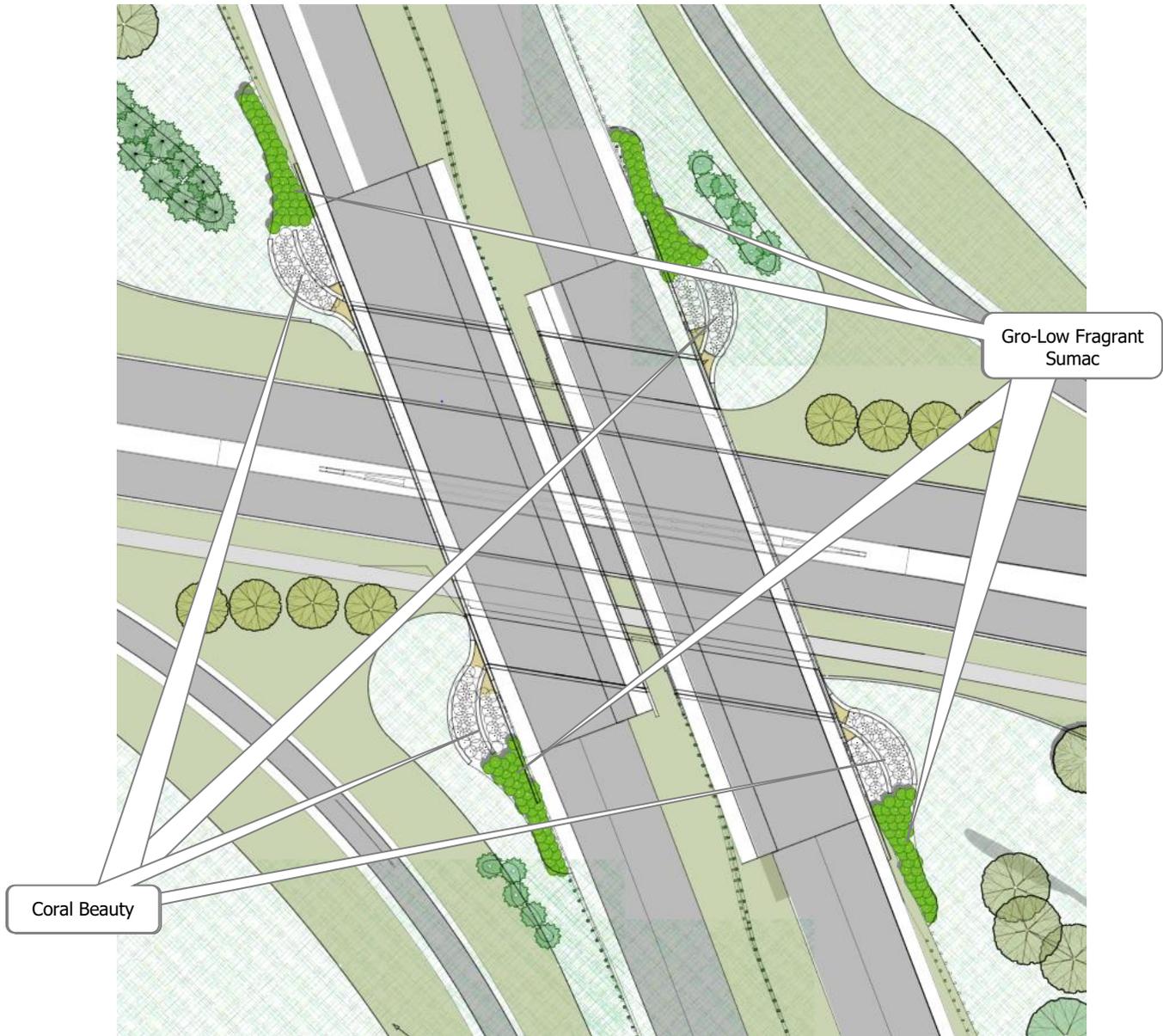


Figure 9. Tiered Planting Bed Detail

Discussion Items

Regarding the following items, does the Public Services Committee support:

1. Selected plants materials in the landscape plan
2. Selected materials in the hardscape plan
3. Selected colors chosen for use on the bridges
4. Forwarding the Public Services Committee responses to the items above to Council at the June 28, 2021 regular Council meeting

Recommendation

Staff recommends the Public Services Committee forward their recommendations regarding the discussion items to City Council at their June 28, 2021 regular Council meeting. The accelerated and condensed timeframe of this project does not allow for significant modifications of the aesthetic package.