



To: Urban Design Committee
From: Planning and Preservation Division
Date: November 5, 2015
RE: **Conceptual Location, Character and Extent Review of modifications to Hull Street, from Chippenham Parkway to Arizona Drive; UDC No. 2015-29**

I. APPLICANTS

Adel Edward, Department of Public Works

II. LOCATION

Along Hull Street from Chippenham Parkway to Arizona Drive

Property Owner:

City of Richmond and affected private property owners

III. PURPOSE

The application is for conceptual location, character, and extent review of modifications to Hull Street, from Chippenham parkway to Arizona Drive.

IV. SUMMARY & RECOMMENDATION

This project involves modifications to Hull Street from Chippenham Parkway to Arizona Drive, including provision of a 5' wide green space and 5' wide sidewalk along the eastbound side and an 8' wide green space and 10' wide shared-use-path along the westbound side to provide pedestrian and bicycle safety and route continuity along the entire corridor. The plans also separate the vehicular through lanes from turning lanes, reducing the number of conflict points along the corridor. The improvements will also include curb and gutter and a drainage system to handle stormwater runoff.

Staff is very supportive of the provision of bicycle and pedestrian accommodations along this section of Hull Street along with modifications to the vehicular roadway. Staff finds that this corridor will be aesthetically enhanced by the proposed improvements, which will help to provide a much more formalized appearance, consistent with the recommendations of the Master Plan designation of Hull Street as an image corridor.

Staff finds the proposal to be consistent with the recommendations contained in the 2013 Hull Street Corridor Revitalization Plan. Staff also finds the proposal consistent with the recommendations of the Master Plan regarding enhancement of Image Corridors and provision of multi-modal transportation. Lastly, Staff finds that the improvements are generally consistent with the recommendations of the Urban Design Guidelines. Therefore, it is Staff's position that the Urban Design Committee should recommend that the Planning Commission grant conceptual approval with the following conditions:

- That the final plans include a landscape plan and schedule showing plant species, location, quantity, and size at the time of installation.
- That the final plans include a lighting plan, showing make, model and finish for any light pole and fixture, as well as fixture light source and color temperature. It

is recommended that light fixtures be full shutoff, with a color temperature of 3000k.

- That all signalized intersections contain accommodations for pedestrian crossing, including striped or ladder-style crosswalks and countdown signals, where appropriate.
- That pedestrian crossings of Hull Street contain refuge islands, where feasible.
- That the final plans include details on the proposed retaining walls.
- That the applicant considers providing a City gateway sign at the western end of the corridor, or setting aside space for such a sign for the future.

Staff Contact:

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V. FINDINGS OF FACT

a. Site Description and Surrounding Context

The subject right-of-way is along Hull Street from Chippenham Parkway to Arizona Drive, a distance of 2.3 miles. Land use along the corridor varies widely, with a shopping center at the intersection with Chippenham Parkway and other standalone commercial buildings throughout, a City school, a church, and single and multi-family residential dwellings. Likewise, zoning designations along the corridor vary, with the B-3 (General Business), B-2 (Neighborhood Business), OS (Office/Service), RO-2 and RO-1 (Residential/Office), R-48 (Multi-family residential) R-3 and R-2 (Single-family residential) districts represented.

With the exception of the three-lanes in each direction portion from Chippenham Parkway to Elkhardt Road, the subject section of Hull Street contains two lanes in each direction, separated by a concrete median and with wider areas for turn movements, at a posted speed limit of 35mph. The existing traffic counts indicate approximately 25,000 vehicles per day use the Hull Street corridor within the project limits. The road edge along the corridor varies between curb and gutter with sidewalk and roadside ditch with a hard-packed earthen path. There are extensive curb cuts in front of the commercial uses. In many cases, entrances to adjacent properties are simply open gravel shoulders with no defined vehicular entrances.

In Chesterfield County, Hull Street primarily carries three lanes of traffic in each direction, separated by a landscape median.

b. Scope of Review

The project is subject to location, character, and extent review under Section 17.07 of the Richmond City Charter as a “widening of streets”.

c. Project Description

This project involves modifications to Hull Street from Chippenham Parkway to Arizona Drive, including provision of a 5' wide green space and 5' wide sidewalk along the eastbound side and an 8' wide green space and 10' wide shared-use-path along the westbound side to provide pedestrian and bicycle safety and route continuity along the entire corridor. The plans also separate the vehicular through lanes from turning lanes, reducing the number of conflict points along the corridor. Curb and gutter and a drainage system will also be provided to handle stormwater runoff.

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There is one primary typical section proposed for Hull Street, which contains a central, landscaped median varying from 15' to 28' in width, flanked by a 12' inner travel lane and an 11' outer travel lane. On the westbound side, there would be an 8' landscaped (though the plans don't indicate this) planting strip between the roadway and the 10' asphalt shared-use path. On the eastbound side, there would be a 5' landscaped (though the plans don't indicate this) planting strip between the roadway and the 5' concrete sidewalk. This typical section is modified in areas where there are dedicated turn lanes, with the median narrowing down to a 4' concrete strip, but with the planting strips, shared-use path and sidewalk remaining at a constant.

The western project limit is just east of Chippenham Parkway. The parkway and its on- and off-ramps is a limited access interchange operated by the Virginia Department of Transportation, which has no plans to accommodate bicycle or pedestrian traffic at this time. In addition, Chesterfield County has no present plans for the redevelopment of their adjoining portion of Hull Street, although the Hull Street Corridor Revitalization Plan was developed in partnership with the County.

This project begins near the intersection with Brookhaven Road, which currently extends to Hull Street but which is proposed to be terminated in a cul-de-sac as it intersects with the Chippenham Parkway off-ramp and transition into eastbound traffic. The proposed 5' sidewalk along the eastbound portion of the roadway extends from the cul-de-sac and is separated from traffic by a 5' planting strip. The proposed 10' shared-use path also begins at this point, separated by the westbound traffic by an 8' planting strip. At this point Hull Street still carries three lanes of through traffic in each direction; the road narrows to two through lanes in each direction east of Elkhardt Road in front of the middle school, and it is here that the landscaped median begins.

Currently, the subject section of Hull Street contains concrete medians with frequent breaks to allow vehicles to access the adjacent properties. The plans do propose the closure of most of the median breaks, but the consultants have reviewed traffic patterns and usage, allowing some to remain and permitting U-turns at signalized intersections to continue to provide access.

The shared-use path and sidewalk both continue for the length of the project area, though they are often interrupted by the curb cuts providing access to the adjacent properties. When that occurs, the path and sidewalk will remain at their constant level, with the curb cut rising up to bisect it. As part of the improvements, all private properties will get a formalized, curbed entrance to the

driveway. The project includes an access study to evaluate and consolidate access points where possible. Thus far in the process, the applicants have identified 46 access points that can be eliminated, three that should be relocated, and two new access points to be provided. The applicants expect those numbers to fluctuate when they begin discussions with affected property owners. GRTC bus stop locations will also be studied to address current and anticipated bus routes. Bus Stop locations may be adjusted as agreed with GRTC to best serve ridership and to improve bus access and safety.

The plans also include modifications to existing intersections along Hull Street designed to improve the angle of intersection and to provide sufficient storage lane capacity for through and turning traffic. The intersection of Hull Street with Hey Road/Derwent Road is proposed to be modified to better align Hey and Derwent Roads. The intersection with Orcutt Lane is proposed to be modified to align Orcutt Lane with the entrance to Ramsey Memorial United Methodist Church and to orient the intersection at more of a right angle. The intersection with Bryce Lane is proposed to be modified to align Bryce Lane with the median break. The plans also call for the modification to the portions of Warwick Road adjacent to the intersection with Hull Street. One left turn lane will be removed from each leg of Warwick Road, with the space given to provide a 16' wide curbed and landscaped median.

Near the eastern project limit, Old Hull Street runs parallel to Hull Street, separated by a depressed, grassy median. When it reaches this point, the shared-use path will traverse the median, still separated from the roadway by an 8' planting strip. As it nears the CSX train track overpass, Hull Street begins to elevate, creating a grade separation with Old Hull Street. Three access points will be made from the adjacent residential neighborhood to the shared-use path: at Circlewood Drive, at Shelby Drive and at Dixon Drive. There is an existing stairwell at the terminus of Arizona Drive that provides access to a sidewalk along Hull Street that goes over the CSX tracks. This is the eastern project limit, and here the shared-use path connects to the existing sidewalk.

Due to the grade differential between Hull Street and Old Hull Street as the path rises over the CSX tracks, a retaining wall will need to be provided. An additional retaining wall is anticipated near the intersection of Hull Street and Orcutt Lane to avoid roadway and shoulder slope encroachment into the Chippenham Place Apartments.

The entire length of roadway in the project corridor will be resurfaced. No new traffic signals are proposed, and no existing signals will be removed as part of the plans. All signalized intersections will contain pedestrian crossings, delineated by a set of parallel lines. Two pedestrian crosswalks will be provided across Hull Street, one on the eastern side of the intersection with Silverwood Drive and the second east of Worsham Way, connecting the Meadow Creek Apartments to a GRTC bus stop. These crosswalks will each have a HAWK (High-Intensity Activated crosswalk) beacon, which allows pedestrians to press a button and have vehicular traffic on Hull Street halted so they can cross. The crosswalks will be composed of brick, in an Autumn Red color to contrast with the road paving, with concrete banding on the edges. All crosswalks will contain ADA compliant handicap ramps with yellow truncated domes.

The conceptual plans contain a list of potential plant species to be used in the landscaping of the median and planting strips. A more detailed plan will be submitted for final review showing plant species, quantity, location and size at the time of installation. Though no details are provided at this time, it is anticipated that the project will include light poles that will hold fixtures to illuminate the roadway and also fixtures to illuminate the sidewalk and shared-use path.

With the provision of curb and gutter along the project corridor arises the need to manage stormwater runoff. Three stormwater detention ponds are proposed – the first to the west of Pocosham Creek on property owned by First Baptist Church, the second on the property of Ramsey Memorial United Methodist Church west of Orcutt Lane, and the third on land in front of the Food Lion, just west of Swanson Road, on property owned by J&J Southern Properties.

In total, the plans as presented would require the acquisition of 3.045 acres of land for right-of-way from 60 adjacent parcels. In addition, drainage, utility and construction easements will need to be acquired. Discussions with those affected property owners will begin after plans receive approval.

The project cost estimate is approximately \$36,000,000, including \$3,000,000 for design, \$7,500,000 for right-of-way acquisition, relocation assistance and utility relocation, and \$25,000,000 for construction. Funding is anticipated to be provided from a combination of City of Richmond funds, Federal and State Transportation Funds. The project timeline indicates a desire to return for final approval in October 2016, with construction beginning in fall of 2018, pending acquisition of the necessary funding.

d. UDC Review History

In 2010, the UDC reviewed and the Planning Commission approved improvements to the intersection of Hull Street and Hey Road/Derwent Road. Those improvements have been constructed. Staff was unable to identify any other UDC-reviewed projects along the subject corridor.

e. Master Plan

The subject right-of-way straddles the line between two planning districts in the Master Plan, with the north side of the road in the Midlothian District and the south side of the road in the Broad Rock District. West of Warwick Road, the Plan primarily recommends Community Commercial uses for the area, with a pocket of General Commercial at Chippenham Parkway, and areas designated for Public and Open Space and Single-family (low density) Residential on the north side of the road. East of Warwick Road, the Plan primarily recommends Single-family (low density) Residential, with a large area recommended for Multi-family (medium density) Residential at the southeastern project limit.

The transportation subsection of the Plan for both districts states that “Hull Street should be widened from 4 to 6 lanes between Elkhardt and Dixon Roads” (page 154, repeated on page 217), an area that covers almost the entirety of the project limits.

In general, the Plan offers up the following summary of the corridor: “The existing land use pattern on Hull Street, particularly between Warwick Road and the City limits, is one of strip commercial development of varying depths, backing up to

stable residential neighborhoods. Continuation of this pattern of uses, with some transition to office uses, has historically been the land use policy for Hull Street. A similar approach is reflected on the current land use map. However, it is recognized that, like several other major transportation corridors in the City, further study of conditions along Hull Street is warranted, to more effectively develop land use and/or redevelopment strategies for both sides of the corridor. Until such time as a more detailed plan can be developed, office and commercial uses should be allowed as shown on the land use map, provided that they can be adequately buffered from adjacent neighborhoods. All traffic and access should be focused on Hull Street. Significant consideration should be given to any development proposals that provide enhanced design and an improved image for the corridor” (page 152, repeated on page 215).

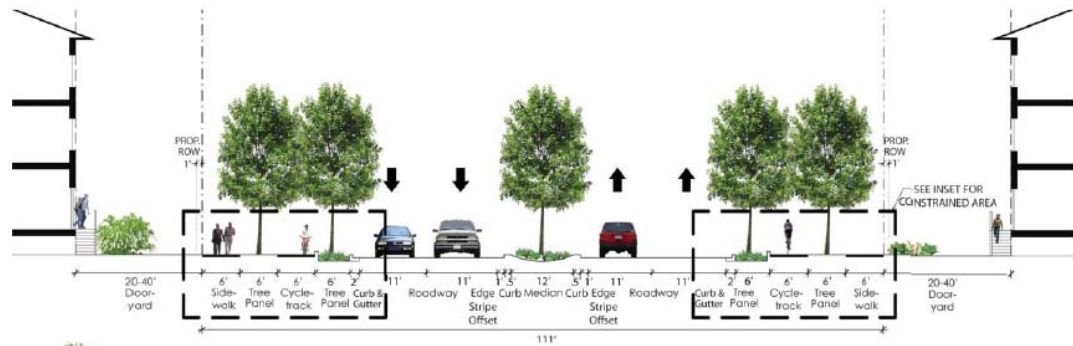
The Transportation chapter of the Plan designates Hull Street as a Principal Arterial Roadway, defined as a “major route for carrying high traffic volumes originating in areas not conveniently served by interstates or freeways; generally with four to six moving lanes, sometimes with a median but not limited access” (page 40). The Transportation and Roadway Improvements map also designates the corridor as a bike route, and the accompanying text notes that those roads so identified on the map have been chosen “as the most efficient, safe and appropriate locations for shared motor vehicle/bicycle traffic. These routes are appropriate for designation either through signage or delineated bike lanes” (page 38). The Plan further states that “routing systems for both cycling and walking should be just as important to the City’s transportation network as are the roadways that support motorized travel” (page 38). To that end, the Plan advocates a policy to “construct new roadway segments that include bikeways and sidewalks” (page 38).

The Community Character section of the Plan designates Hull Street as a Principal Arterial Image Corridor, and states that “image corridors are key transportation corridors that have the ability to form an impression on travelers passing through the City” (page 110). The Plan goes on to say that “enhancement of the City’s image corridors conveys a positive impression of the City to encourage visitation and investment” (page 110).

In 2013 the City followed the Master Plan’s recommendation that more detailed plans be developed for the corridor, and along with Chesterfield County produced a plan for the revitalization of Hull Street, focused on the area between Walmsey Boulevard/Hicks Road in Chesterfield County and the CSX rail line west of Belt Boulevard in the City. The Hull Street Corridor Revitalization Plan was adopted as part of the City Master Plan by City Council in February 2014, and the ordinance adopting the plan states that the revitalization plan supersedes all other parts of the Master Plan with which it conflicts.

The portion of Hull Street in the plan coincides with the section of Hull Street that is the subject of this proposal. After studying the corridor, the plan set forth the dual objectives of expanding non-auto travel options and changing the physical image and character of the street. Considering several options, the plan recommends an alternative that “best addressed the safety, mobility and revitalization objectives of the effort was a “typical section” that provided separate facilities for all modes – pedestrians, cyclists and vehicles – as well as medians

and planting strips that made dramatic changes in the visual impression of the corridor” (page 97).



Typical section proposed in the Hull Street Corridor Revitalization Plan (page 97)

The proposed typical section includes: a continuous pedestrian sidewalk network and crossings; a separated cycle track/bicycle way on each side of the corridor; a landscaped buffer between pedestrians and bicycle way and travel way that provides sufficient space for comfortable and furnished transit stops and amenities; a landscaped median that provides accommodation of left turn lanes at intersections to reduce rear end and rear-angle crashes; and provide safe pedestrian crossings with a minimum 6' pedestrian refuge even when the median is reduced to provide a left turn pocket; two travel lanes in each direction to maintain vehicular capacity and operation; and a gutter pan that can channelize water into low impact development (LID) features in the planting buffer (page 97).

The plan notes that this preferred alternative “offers a significant opportunity for increased open space. Shade trees and benches add to the quality of open space along Hull Street, while sidewalks, cycle tracks, and multi-use trails link areas of higher-density development, join open spaces, and connect create connections between neighborhoods. The proposed streetscape serves as a critical piece of green infrastructure by functioning as a transportation route and supporting community activity while improving the aesthetic quality of the corridor as a whole” (page 88).

Nonetheless, the plan concedes that there are constrained segments of the corridor (those incapable of accommodating the full preferred typical section), especially in the City, and provides alternatives to the typical section, including removing the landscape buffer between bicycle and pedestrian facilities and combining facilities into a multiuse path (differentiate between the facilities with different paving materials) and combining the facilities into a multiuse path and reducing the overall width to a minimum of 10' total (page 100).

The Plan also recognizes that “The current and future potential to walk and cycle on the corridor is constrained by the barrier of the interchange onto Chippenham Parkway. Hull Street Road goes under the parkway, and room for future non-motorized facilities is limited. Pedestrians today must cross numerous high-speed on and off ramps to get through this area” (page 20).

The City’s Bicycle Master Plan, completed in May 2015, categorizes roadway quality in the City in terms of bicycle safety, comfort and ease of movement, and

assigns them a score based on the level of stress a bicyclist is likely to experience when traveling along the roadway. The plan places the subject section of Hull Street in the “least comfortable” category (page 2-11).

The plan then proposes a shared-use path along Hull Street from Chippenham Parkway to Belt Boulevard (page 3-9) and identifies the path as a mid-term (4-7 year) project on the prioritization table (Page 3-11). The plan notes that shared use paths are facilities separated from roadways for shared use by bicyclists and pedestrians. In general, an 8’ width is the minimum allowed for a two-way shared-use path and is only recommended for low traffic situations, 10’ is recommended in most situations and will be adequate for moderate to heavy use, and 12’ is recommended for heavy use situations with high concentrations of multiple users. The plan also notes that a 3’ or greater shoulder should be provided on both sides of the path to allow for the installation of signage or other furnishings (page A-22).

f. Urban Design Guidelines

The Transportation section of the Urban Design Guidelines note that “new development should provide sidewalks along streets where there are currently no sidewalks or sidewalks in disrepair” and that the “number, size and location of curb cuts should be examined for potential conflicts with pedestrian and vehicular circulation (page 4). In a section on Multimodal Transportation, the Guidelines state that “where feasible, all new roadway segments should be constructed to include bikeways” and that “roadways with bike routes should be enhanced with street trees or appropriate landscaping” (page 5). Similarly, the Guidelines note that “all transportation projects should have adequate provisions to address the needs of the pedestrian in a safe and efficient manner” and that “street trees and lighting should be used to encourage pedestrian activity”. The Guidelines go on to say that “striped crosswalks, pedestrian crosswalk signals and other improvements that enhance safety should be installed as a standard amenity at all signalized intersections” (page 5).

In a section on Street Design, the guidelines state that “the width of a street should respond to the volume of traffic it carries. An 11 foot travel lane should only be utilized along corridors designed for speeds in excess of 40mph” (page 6). In this section the Guidelines also note that “medians can provide both aesthetic benefits and operational utility within the street network”. The Guidelines go on to say that “pedestrian crossings should be clearly marked and refuge islands should be provided where the crossing distance is 60’ or greater” (page 7).

In regards to landscaping/street trees, the guidelines offer that “plant materials should be adaptable to existing soils, climatic and lighting conditions, and be disease resistant. Native plant species are encouraged, but not required” (page 10). Further, the Guidelines note that “landscaping should provide a sense of scale and seasonal interest” and that “shade trees for pedestrian comfort should be the predominant plant material in an urban setting” (page 10).

VII. ATTACHMENTS

- a. Vicinity Map**
- b. Application**
- c. Plans**