FONTAINE AVENUE STUDY

Final Report

March 28, 2005

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City of Charlottesville

March 28, 2005

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CONTENTS

Executive Summary 1

Recommendation: Context Sensitive Design for Fontaine Avenue 2

- Street Sections and Corridor Plan 3
- Extended Sections through Residential 4
- Extended Sections through Commerical 5

Alternatives Considered 7

- Alternative Matrix 8
- 3 Lane with Median 9
- 3 Lane with Turning Lane (VDOT) 10
- Existing Condition or “Do Nothing” 11
- 4 Lane 12
- 5 Lane 12

Appendix 13

- Intersection Options
- Community Meeting 1 Comments
- Commnuity Meeting 2 Comments
- Southern Urban Area B Study Summary
- Fontaine History
- Previous Studies and Plans

Executive Summary

On September 27, 2004, the City of Charlottesville elected to postpone improvements to Fontaine Avenue pending the results of the Three-Party "Area B" Study for the Southern Urban Areas. Renaissance Planning Group (RPG) was asked to examine alternatives for Fontaine Avenue using the full regional transportation analysis developed for the Area B Study. For Fontaine Avenue, RPG conducted two public workshops to solicit input in the development of alternatives and to measure the relative value of several alternatives that emerged from this public process.

A **"Context Sensitive"** approach emerged as clearly the best of all options available for the future of Fontaine Avenue. While an earlier citizens committee, chaired by Meredith Richards, developed an approach in 1997, this so-called "VDOT plan" proposed a continuous three-lane "improvement" that has been deemed to be unsafe and less than optimal in its lack of accommodation of sidewalks, bike lanes and street trees. This former scheme has been supplanted by a safer and more effective alternative that combines aspects of a "boulevard" approach with turn lanes, bike lanes, green space between the street and sidewalks, and a bus turn out at the Fry's Spring Corner.

Recommendation: Context Sensitive Design for Fontaine Avenue

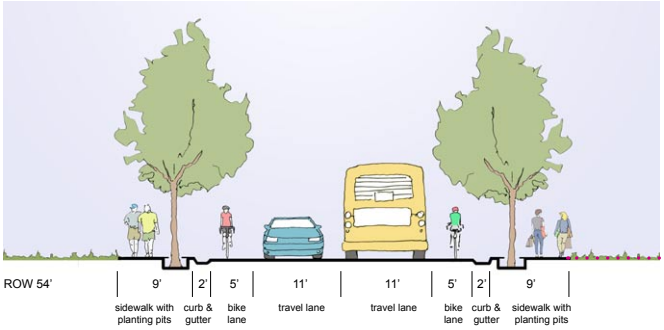
The recommended alternative recognizes the importance of improving traffic flow on Fontaine Avenue to accommodate the growth in traffic now and into the future. This is accomplished while improving the "quality of life" and multi-modal opportunities, specifically for pedestrian, bicycle, and transit use. A tree-lined, landscape median is introduced wherever possible, inspired by the current street section of Jefferson Park Avenue. Left turn lanes are positioned at key intersections with primary side streets. This option reduces the need for unnecessary widening and helps to preserve Fontaine as a neighborhood street. Narrower lanes and traffic calming measures ensure slower, safer traffic along Fontaine with a recommended design and posted speed limit of 35 miles per hour. A key aspect of this proposal involves the elimination of numerous driveways and parking lot entrances onto Fontaine through the introduction of two alleys between Piedmont Road and Lewis Street (one to the north and one to the south side of Fontaine). These alleys provide access to residences and businesses, with parking and garages to the rear of buildings. This transition allows a continuous sidewalk and tree line to be created on both sides of the street. Having an uninterrupted sidewalk and selective access points is important for many reasons. First it increases traffic flow by supporting selective turning off Fontaine. It also is safer, because residents are no longer backing out of their driveways, and they no longer block traffic while trying to make a left turn into individual driveways and parking lots.

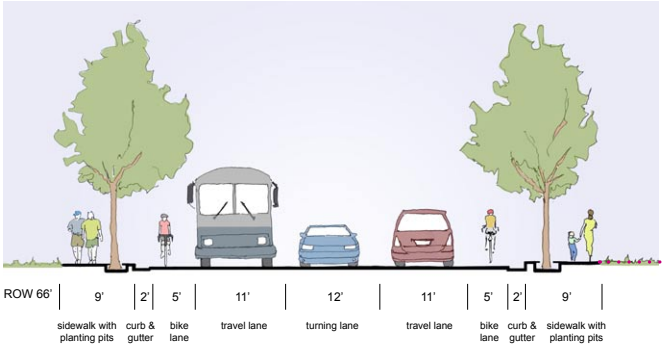
This alternative balances the potentially conflicting demands of traffic flow through the area with the role of Fontaine Avenue as a mixed-use City street, supporting a vibrant center of activity for this part of Charlottesville and its surrounding residential neighborhood. It proposes a careful mix of turn lanes where they are necessary, with a two-lane street configuration where turns are not needed. Although detailed traffic modeling was not part of this brief study, our transportation planners indicate that the recommended alternative will substantially improve flow and should be able to accommodate the traffic increases that are associated with the projected growth in this area of the community. Additional study will be required as part of "design and engineering" with VDOT to examine traffic light locations and timing and the specific traffic accommodation that would be associated with these improvements.

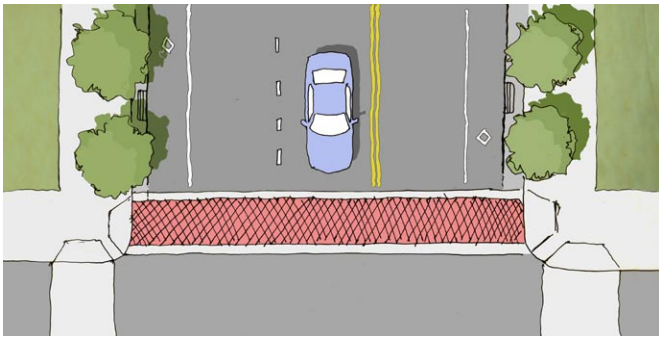
Transit, Pedestrian-Friendly, Neighborhood Orientation

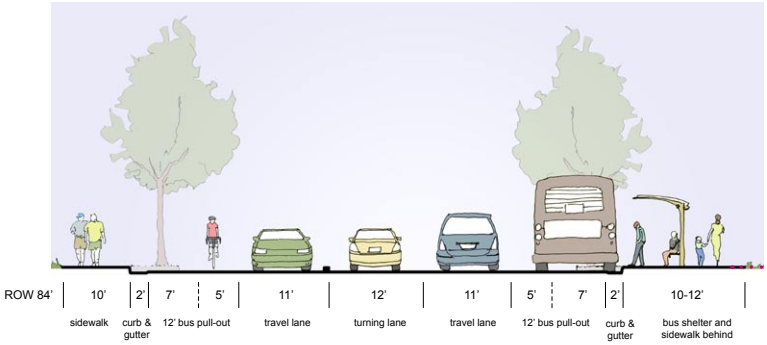
A continuous tree-lined stretch of sidewalk creates a safe, pleasant, and accessible route to the Fry's Spring Corner with access to a new transit route that could extend out to the Fontaine Research Park and potentially beyond (as proposed in the Area B Study). Currently there are two transit stops to the east of the Corner, but transit does not extend to the west along Fontaine. Although the bus pull-outs will require some additional ROW to be acquired in that particular location, they will enliven this corner, allow businesses to grow, and support a transformation into a neighborhood center thriving with activity and consistent with the City's Corridor Study for this area. By moving parking to the rear, businesses can focus on engaging the street and pedestrians. For example, restaurants can incorporate outdoor dining patios on the street side. The typical width of this option is 54' along the two-lane portion with 66' at the left turning lanes. The right of way (ROW) required for this section ranges from approximately 10' - 26'. The street width at the bus pullouts is 84', requiring approximately 41' of additional ROW. Street trees add to the visual presence of Fontaine Avenue as an important neighborhood street and entrance corridor into the city. Details of the alley can be seen in the larger cross sections accompanying the plan.

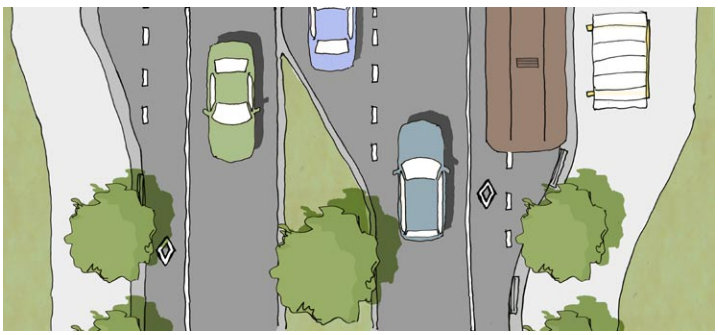
Context Sensitive Street Sections and Corridor Plan

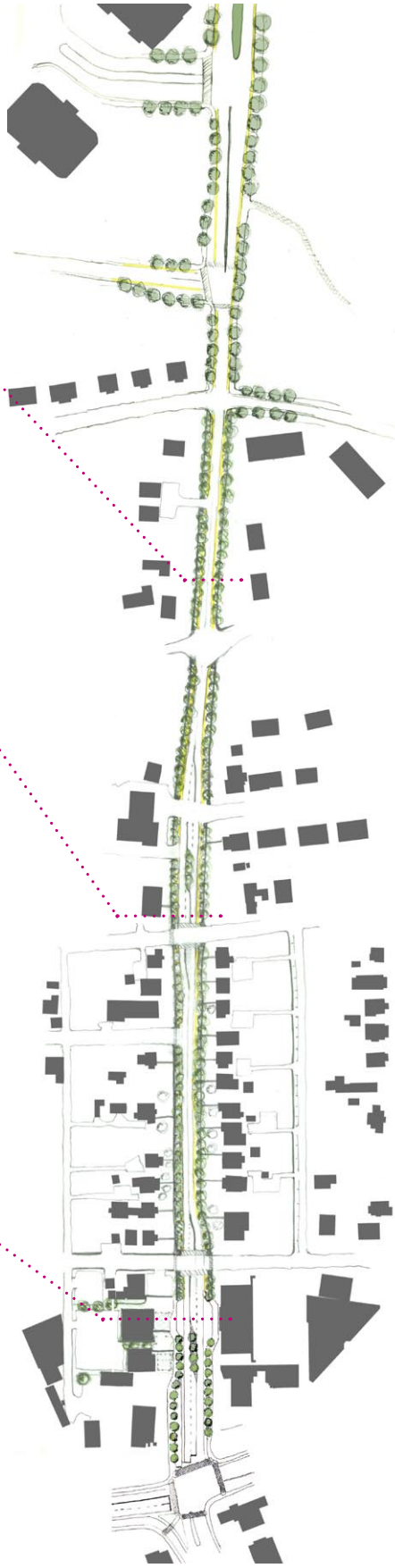






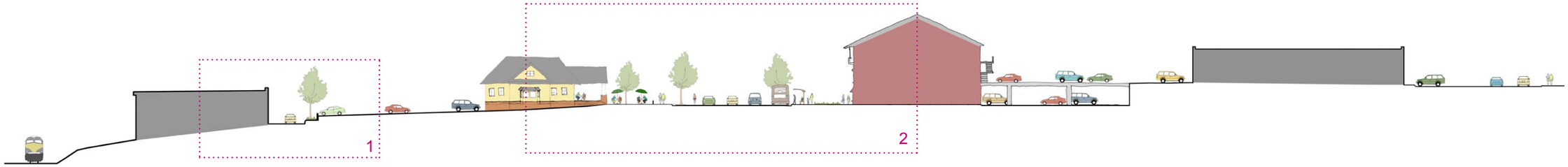




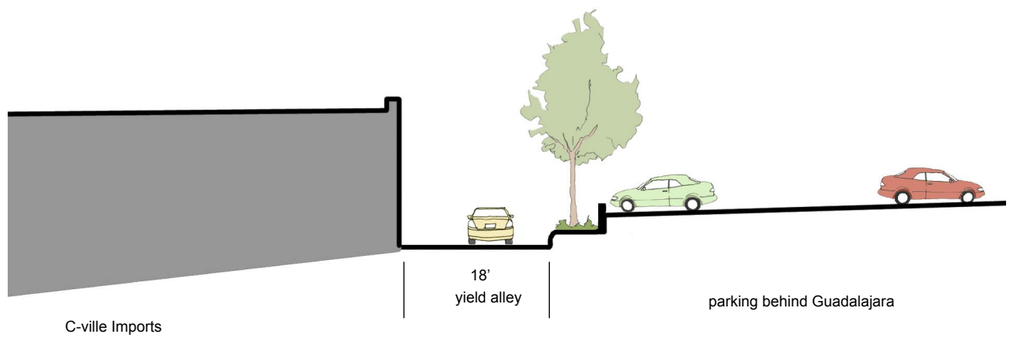


Commercial Street Section looking East (near the corner of Fontaine Avenue and Lewis Road)

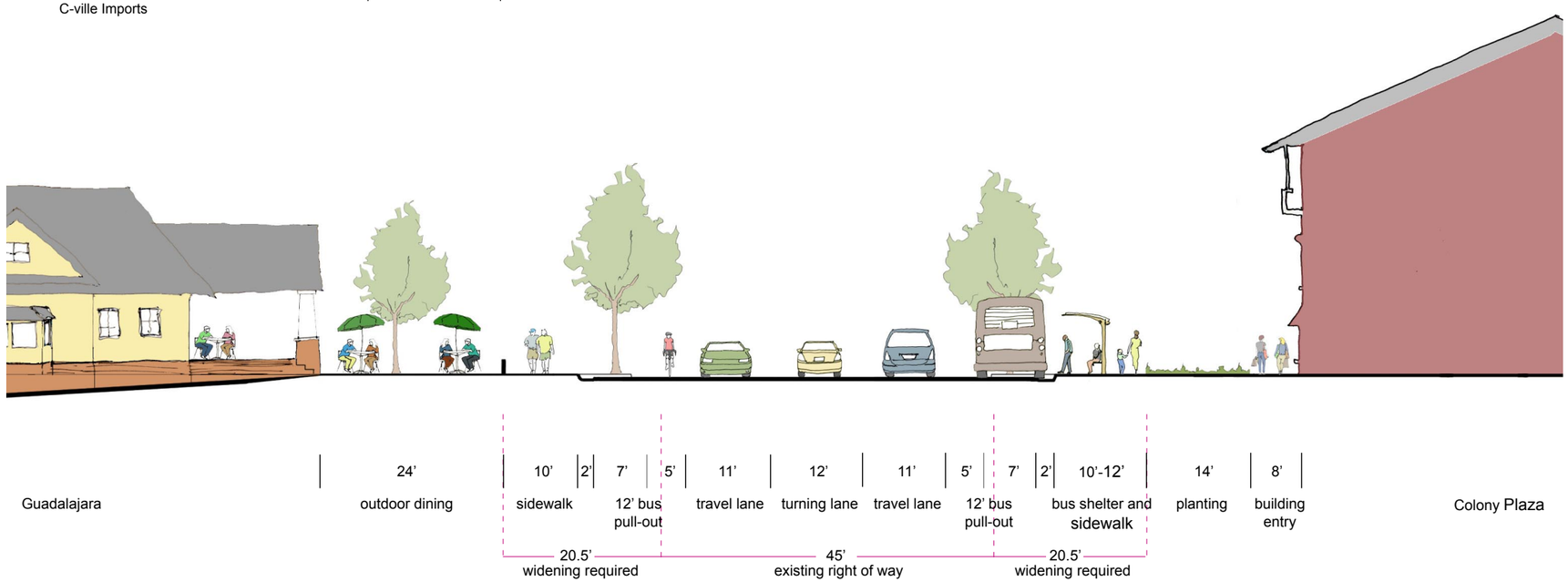
context



1. alley section

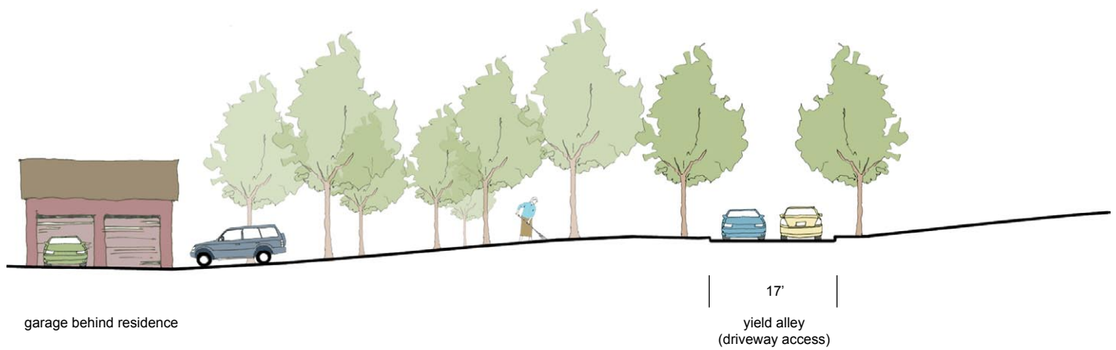


2. extended street section

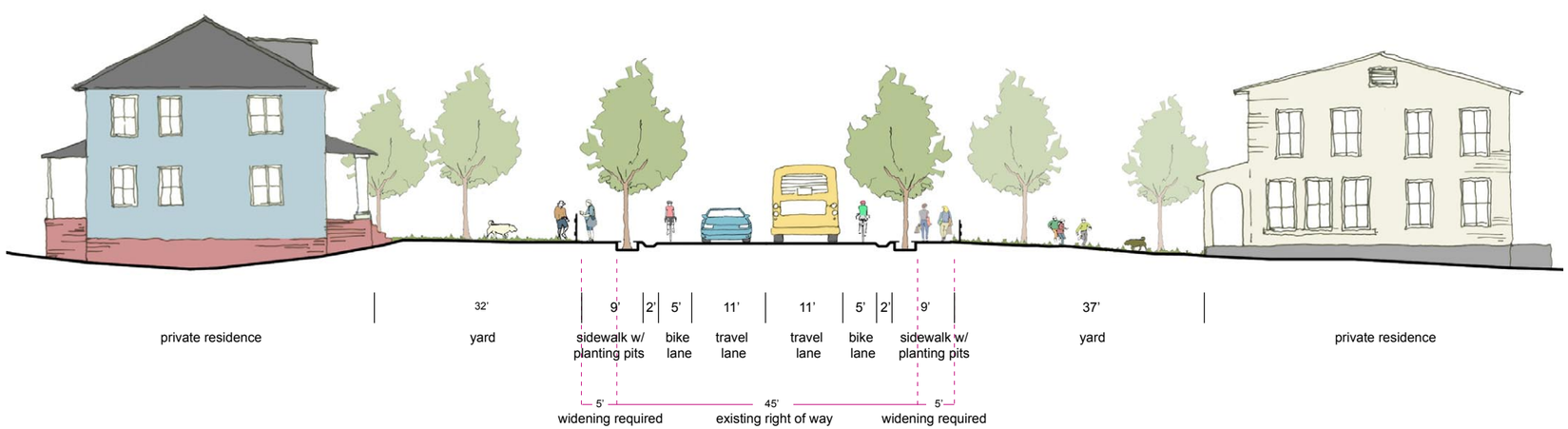


Residential Section looking East (near the corner of Fontaine Avenue and Montpelier Street)

1. alley section



2. extended street section



Context Sensitive Matrix

	2-3 Lane Context Sensitive 54-66' Right of Way
Description	
	In all cases, widening occurs to allow for the introduction of sidewalk and street trees. To preserve the character of the neighborhood, turning lanes are only introduced at specific points along Fontaine. Introduction of back alleys in certain locations on both sides of Fontaine eliminates need for driveways and curb cuts.
Roadway Characteristics	
Typical Section Width	54'
ROW Dimensions	Typical: 54'-66'; Widest: 86' (@ bus pull-outs)
ROW Acquired	varies 10'- 26'; 41' (@ bus pull-outs)
Sidewalks	yes
Bicycle Lanes	yes
Street Trees	yes
Benefits & Impacts	
Traffic	Narrower lanes and traffic calming measures ensure slower, safer traffic. Elimination of driveways along Fontaine from Piedmont to Lewis improves traffic flow. Transit, bike lanes, and sidewalks provide for additional modes of transportation and ease congestion.
Pedestrians	The continuation of sidewalks along both sides of Fontaine is integral to connecting this neighborhood and allowing better access to businesses, transit, and the university. Ample sidewalks with street trees provide a safe and comfortable space for pedestrians.
Transit	Two bus stops extend UTS and CTS service along Fontaine and connect with future service routes through Fontaine Research Park and beyond. Transit stops are strategically placed near the JPA intersection to serve future development.

Most of the qualities evident in the recommended approach evolved out of the community's input during **Community Meeting 1**, for which abbreviated notes are included below. Comments received included:

- Grow the city in a way that respects residents quality of life
- Ensure existing roads are reinforced and improved as build-out continues
- Provide sidewalks, bicycle lanes, and trees between sidewalks and roadways on both sides of Fontaine Avenue
- Do not widen road; limit impacts to front lawns
- Look ahead to accommodate new commercial development along Fontaine
- Traffic calming: engineer roads to ensure reasonable traffic speeds (Park Street is a recent example)
- Underground utilities to accommodate sidewalks
- Pedestrian scale lighting on sidewalks

Alternatives Considered

Each of the various alternatives are included for reference. A matrix was prepared to show the comparative features of each alternative, including an assessment of the Existing Conditions of Fontaine Avenue.

EVALUATION CRITERIA

Criteria were developed from community comments received during Community Meeting 1.

In redesigning Fontaine Avenue our primary goal is to:

- Create a multi-modal entrance corridor into the city that preserves the character of the neighborhood, improves the quality of life for the residents, and allows businesses to grow and develop over time into an active community center.

In looking at each alternative, certain elements were considered.

Impact to Residents and Property owners:

1. How much ROW is acquired?
2. How does this compare to what is gained through the new street design?
3. Does this redevelopment improve the quality of life, preserve this neighborhood's identity, and enliven businesses?

Traffic Impacts:

1. Is there improved, safer traffic flow?
2. Are there other modes of transportation that relieve the roadway?
3. Turning movements and access questions

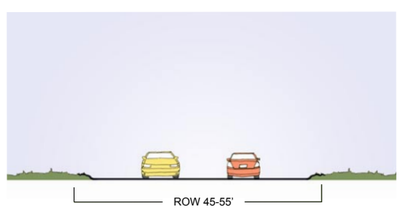
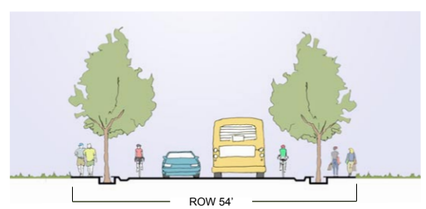
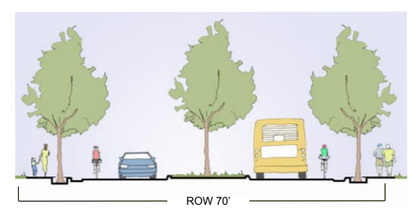
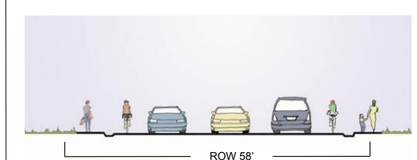
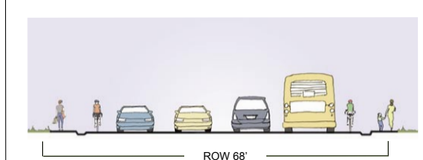
Pedestrians:

1. Is this a safe, comfortable, and well-connected pedestrian system?
2. Street trees not only aesthetically add to the appearance of the street, they provide shade and act as a buffer to pedestrians. Are street trees included?

Transit:

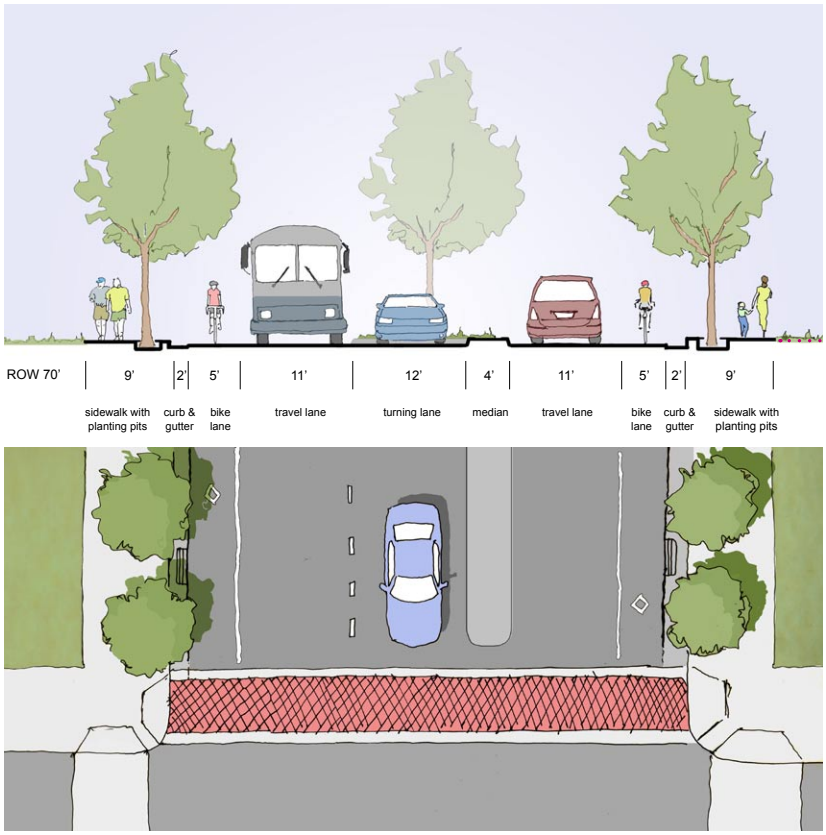
Does this roadway section establish transit service and allow Fontaine Avenue to connect with the larger transit network?

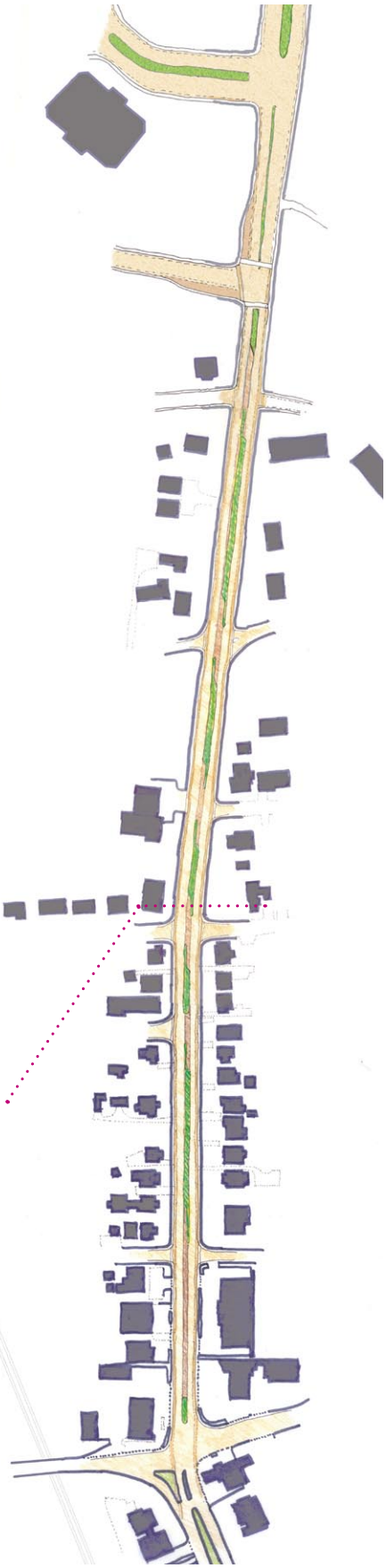
Alternative Matrix

	Existing 28'-55' ROW	**2-3 Lane Context Sensitive** 54-66' ROW	**3 Lane w/ Planted Median** 70' ROW	**3 Lane w/ Turning Lane (VDOT)** 58' ROW	**4 Lane** 68' ROW (for comparison only)
Description					
	Wide two lane street with on-street parking in some instances and small segments of disconnected sidewalk. Narrowest street width (19') occurs between Westerly Ave. and Summit St.	In all cases, widening occurs to allow for the introduction of sidewalk and street trees. To preserve the character of the neighborhood, turning lanes are only introduced at specific points along Fontaine. Introduction of back alleys in certain locations on both sides of Fontaine eliminates need for driveways and curb cuts.	2 travel lanes with planted median and selective turn lanes. Relates to the context of JPA and creates an attractive entrance corridor for the city. The greatest amount of widening occurs in this scenario.	2 lane with continuous turning lane running the whole length of Fontaine.	Continuous 4 lanes without turning lanes.
Roadway Characteristics					
Typical Section Width	40'	54'	70'	58'	68'
ROW Dimensions	varies 28'-55'; 45' at typical section	Typical: 54'-66'; Widest: 86' (@ bus pull-outs)	70'	58'	68'
ROW Acquired	N/A	varies 9'- 26'; 21' @ turn lanes; 41' @ bus pull-outs	varies 25'-42'	varies 13'-30'	varies 23'-40'
Sidewalks	broken segments/ very incomplete	yes	yes	yes	yes
Bicycle Lanes	no	yes	yes	yes	yes
Street Trees	no	yes	yes	no	no
Benefits & Impacts					
Traffic	Wider travel lanes allow for high speed traffic. The absence of bike lanes, transit and adequate sidewalks puts an increased strain on the roadway and impacts safety. Unrestrained turning along with the absence of turn lanes increases the potential for crashes and congestion.	Narrower lanes and traffic calming measures ensure slower, safer traffic. Elimination of driveways along Fontaine from Piedmont to Lewis improves traffic flow. Transit, bike lanes, and sidewalks provide for additional modes of transportation and ease congestion.	Controlled turning lanes. Median improves safety of street by eliminating left turns in and out of driveways. U-turns may be difficult within the constraint of road width. Bike lanes and sidewalks provide additional modes of transportation.	Continuous turning lane produces a confusing middle zone. Designated turning lane is unnecessary in some locations and results in wide expanse of pavement and higher speeds. Bike lanes and sidewalks create additional modes of transportation.	Higher capacity and higher speed road. No turning lanes create difficult situation for turning vehicles.
Pedestrians	Lack of maintained and connected sidewalks on both sides of Fontaine make it difficult for pedestrians to travel safely and discourages walking to nearby destinations. On-street parking in some places helps to slow traffic speed and protect pedestrians.	The continuation of sidewalks along both sides of Fontaine is integral to connecting this neighborhood and allowing better access to businesses, transit, and the university. Ample sidewalks with street trees provide a safe and comfortable space for pedestrians.	Continuous sidewalks along both sides of Fontaine create a more interconnected community. Street trees are variable but are recommended to buffer pedestrians from vehicular traffic. It may be difficult to introduce continuous street trees with the numerous curb cuts along Fontaine.	Continuous sidewalks along both sides of Fontaine create a more interconnected community. However absence of street trees makes a less attractive and less comfortable pedestrian experience.	Continuous sidewalks along both sides of Fontaine create a more interconnected community. Absence of street trees creates an unwelcoming environment for pedestrians.
Transit	No city or university transit service to alleviate congestion on Fontaine.	Two bus stops extend UTS and CTS service along Fontaine and connect with future service routes through Fontaine Research Park and beyond. Transit stops are strategically placed near the JPA intersection to serve future development.	No transit stops planned. Stopping on street would create congestion. However, bus pullouts could be added as in the Context Sensitive option.	No transit stops planned. Stopping on street would create congestion. Turning lane could inappropriately be used to bypass stopped buses.	Transit stops can occur anywhere along the street without a designated pull-off, with traffic passing in the inside lane.
Typical Section					

3 Lane with Planted Median

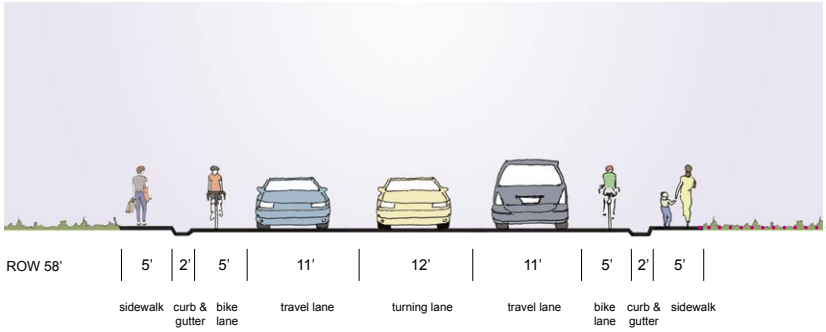
This option consists of 2 travel lanes and a planted median with selective left turn lanes. The planted median relates to the context of Jefferson Park Avenue and creates an attractive entrance corridor into the city. The median would begin at the current median in front of the Fontaine Research Park and continue to the corner of Lewis St. The median also improves the safety of the street by eliminating left turns out of driveways. Bike lanes and sidewalks create additional modes of travel and relieve strains on the roadway while creating a more interconnected community. Street trees help to buffer the pedestrians. However due to the numerous curb cuts, it would be nearly impossible to introduce a continuous line of trees. No transit is currently integrated into this option, but can be introduced at the corner of Lewis and Fontaine as in the Context Sensitive option. Without bus pullouts, buses stopping along the street would create congestion. The ROW used for this option is 70 feet. Therefore the city would need to acquire 25' along the typical section and 42' along the narrowest portion.

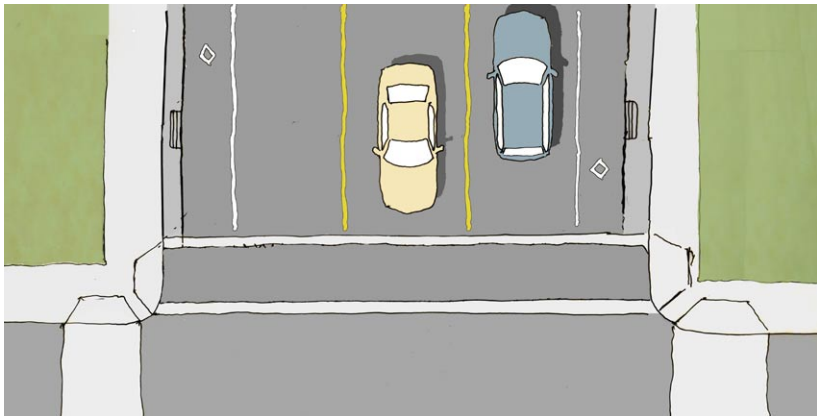


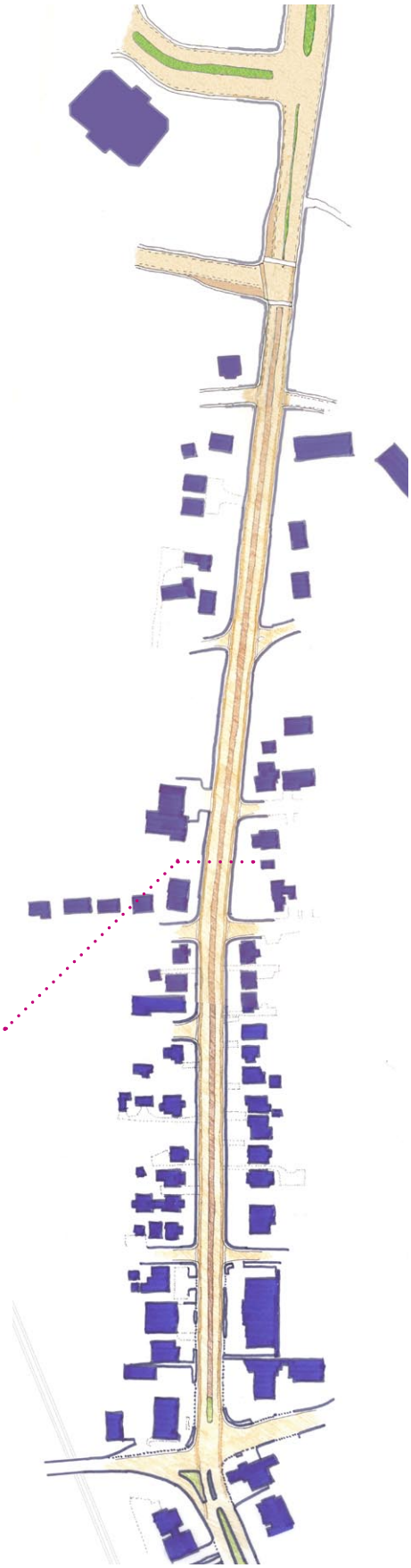


3 Lane with Turning Lane (VDOT)

This option looks at the latest plan VDOT proposed that was postponed by the city. It is 3 lanes with a continuous turn lane running the entire length. The continuous turning lane is problematic in that it creates a confusing middle zone and a free-for-all for motorists. Some state DOT's in other parts of the country refer to this approach as a "suicide lane" reflecting the potential confusion and danger associated with a continuous three-lane strategy. Turning lanes are unnecessary in some locations and only create additional pavement and higher speeds. Bike lane and continuous sidewalks are included in this option and will help ease congestion by providing alternative modes of transportation, but the sidewalks are directly against the curb in a less than optimal configuration. The absence of street trees places the sidewalk directly adjacent to the roadway creates an uncomfortable environment for pedestrians and an unattractive streetscape. No transit stops are planned for this option and buses stopping along the street would add to congestion. In terms of land acquired, this option requires approximately 13' of ROW along the typical section and 30' along the narrowest portion between Summit and Westerly.

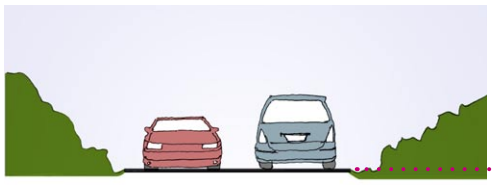




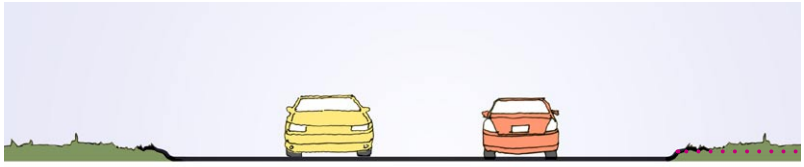


Existing Condition or “Do Nothing” Alternative

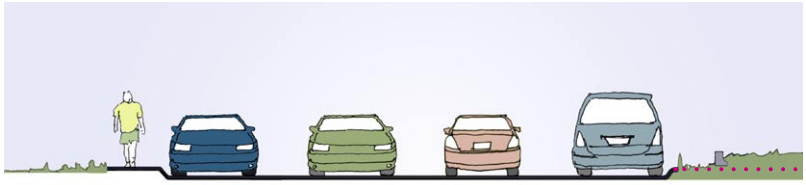
The typical condition is a wide 2-lane street with on-street parking in some areas and very small incomplete and broken sidewalks segments. The most typical section width is 40’ (with 19’ being the smallest width between westerly and summit street). Currently there are no bike lanes or street trees on Fontaine Avenue. The absence of bike lanes, adequate well-connected sidewalks, and transit service discourages walking and biking and puts an added strain on the roadway. Unrestrained turning along the length of Fontaine adds to congestion problems and increases the potential for crashes.



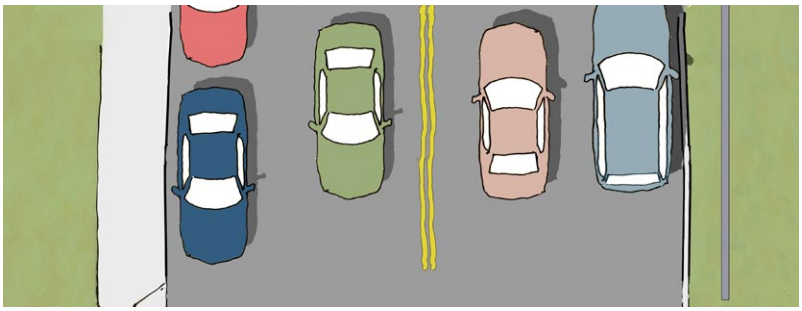
Street Width 19-20’ | 10’ travel lane | 10’ travel lane



Street Width 40-45’ | 20-22’ travel lane | 20-22’ travel lane

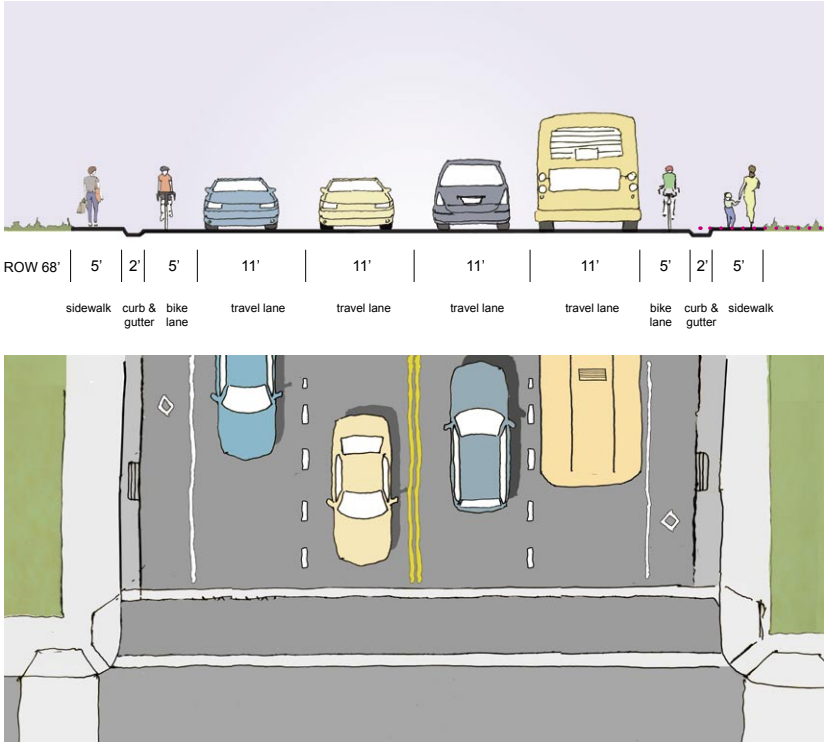


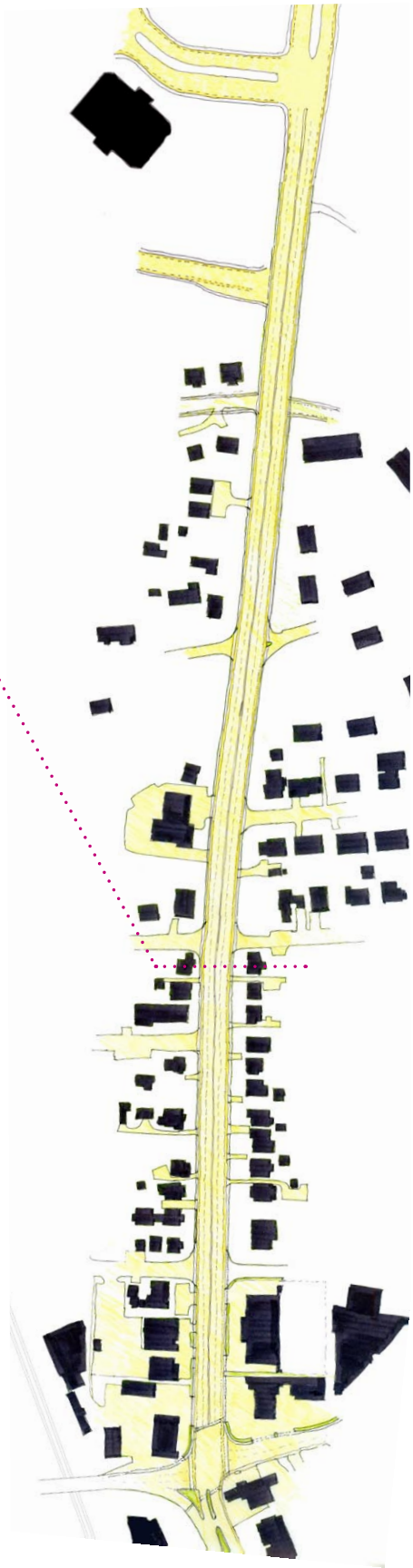
Street WIdth 40-45’ | 5’ sidewalk | 9’ parking | 11’ travel lane | 11’ travel lane | 9’ parking



4 Lane (for comparison only)

This four lane option was considered strictly for comparison purposes only. Four travel lanes create a higher speed, higher capacity roadway. Bike lanes and sidewalk create alternative modes of transportation, yet the absence of street trees contributes to the overall unwelcoming environment for pedestrians. Transit stops on street can occur anywhere along the corridor with transit passing in the inside travel lane. This option obviously requires the greatest amount of widening and ROW acquired. The ROW needed ranges from 23'-40'. This is not an option for consideration.





5 Lane (no illustrations included)

It is important to note that the original strategy proposed by VDOT several years ago involved four travel lanes and a continuous turn lane. This would require an inordinate amount of ROW purchases, with damaging impacts on businesses and residences along Fontaine Avenue. Concerns about this approach led to the City/VDOT 3-lane plan of 1997.

Appendix

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