

### Memorandum

**To:** MPO Committees  
**From:** Sandy Shackelford, Director of Planning and Transportation  
**Date:** February 22, 2024  
**Reference:** Fontaine Interchange Improvement – SMART SCALE Round 4

#### **Purpose:**

In Round 4 of SMART SCALE, the Charlottesville-Albemarle MPO submitted an application for a displaced left turn at Fontaine Avenue that was awarded for funding. The original concept for this interchange was a Diverging Diamond Interchange (DDI). However, the DDI had been submitted in previous rounds of SMART SCALE and had not scored well enough to be funded. Therefore, VDOT worked with consultants to develop the displaced left turn as a less expensive alternative in an effort to secure funding for the project. While the MPO Policy Board and Albemarle County Board of Supervisors agreed to move forward with the application, the City, the County, and the Policy Board had reservations in the design as evidenced by documented comments from the Policy Board of preferences for the DDI and concerns for the displaced left turn concept expressed by both the University of Virginia (UVA) and the City of Charlottesville.

In an effort to assess some of the concerns and prior to beginning construction on the project, VDOT worked with a consultant team to explore other options that could potentially be implemented within the award amount funded.

#### **Discussion:**

##### Background

The primary objective of the project as documented in MPO meeting minutes was to address the westbound turning movement from 29 North to I-64. The overall concept of the funded project was to close the left turn movement from 29 North to I-64 westbound and redirect the traffic making that movement through the Fontaine Interchange. Vehicles wishing to access I-64 west bound from 29 North would take the Fontaine exit and have a protected left-turn movement to make a U-turn back onto 29 South in order to access I-64 west (see Figure 1).

All other vehicles would turn right onto Fontaine Avenue. For those vehicles wishing to travel west onto Fontaine Avenue or stay straight to get back onto 29 North, they would turn right off of the exit and make a U-turn at Ray C. Hunt Drive (see Figure 2). Any vehicle traveling along Fontaine Avenue from the west of the interchange wishing to access 29 northbound would also need to go through the interchange to make the U-turn at Ray C. Hunt Drive. To accommodate commercial vehicles, a bulb out was planned to ensure that large vehicles could facilitate that turn.

The proposed project included a shared use path to facilitate bicycle and pedestrian access across the interchange.

Both the City of Charlottesville and UVA expressed concerns related to this alternative design when it was proposed.

Primary concerns included:

- The City of Charlottesville was working to make Fontaine Avenue more pedestrian-friendly. The proposed changes would direct interstate traffic onto a local road, including high volumes of truck traffic.
- The Rivanna Trail has connections on both sides of Fontaine Avenue. Additional interstate traffic will make it less safe for trail users to cross Fontaine. Additional pedestrian accommodations such as pedestrian lighting, curb extensions/pedestrian refuges, green space/landscaping/buffering were requested to provide a more cohesive connection to the Fontaine Streetscape project that was initiated by the City.
- The growth scenarios used to evaluate the alternatives were not reflective of planned development by the University, and the proposed project therefore may not provide the benefits that were estimated during the alternatives analysis.

- Local traffic along Fontaine Avenue is expected to increase along with planned development and additional growth at the Fontaine Research Park, which would enter the research park at the Ray C. Hunt intersection leading to additional concerns with the additional traffic navigating through the Ray C. Hunt intersection.

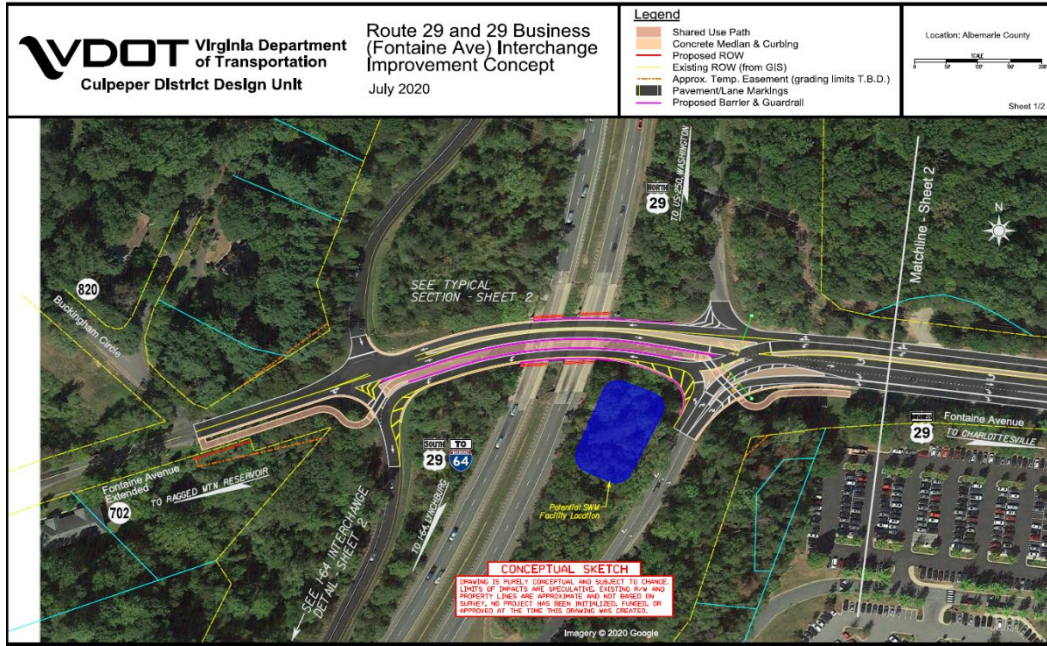


Figure 1

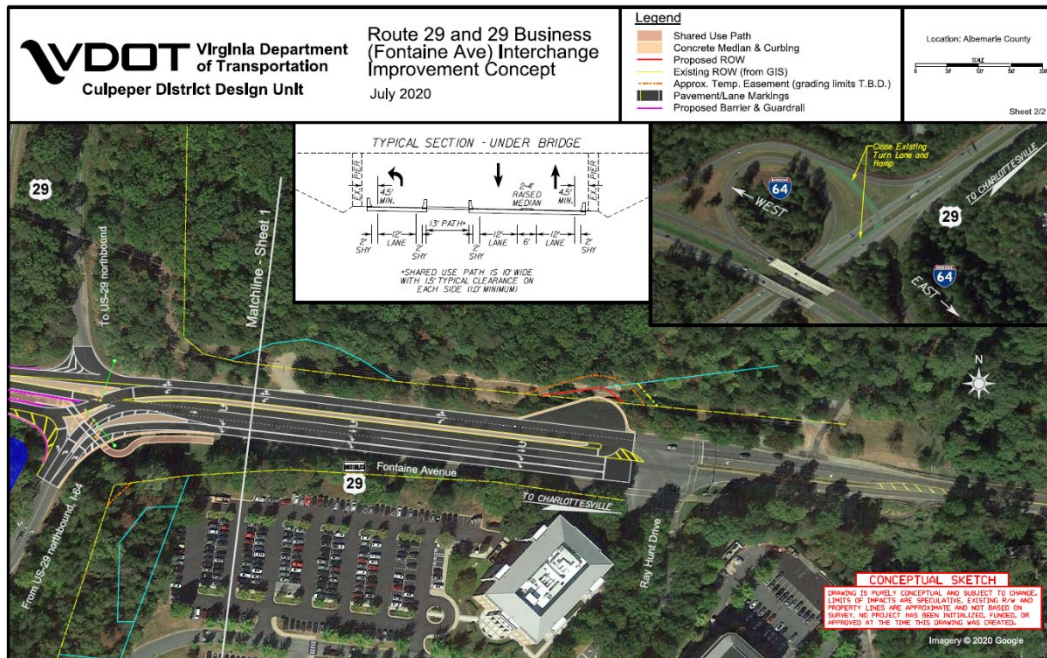


Figure 2

Prior to moving forward with the project as scoped, VDOT worked with a consultant team to evaluate some additional alternatives based on the following factors:

- The cost of any of the alternatives was to remain within the funding amount awarded through SMART SCALE Round 4.
- If the scope of a project awarded through SMART SCALE changes, the project must be re-scored based on the criteria it was originally scored with to ensure that it meets the benefit requirements to receive funding through its awarded round. The Fontaine Avenue project received most of its score from the land use benefits which is primarily due to the inclusion of the shared use path component. As long as the shared use path is included, the benefit score of the rescored project would be high enough for scope adjustments to be made.

Round 4 SMART SCALE Score:

	Congestion Mitigation	Safety	Accessibility	Economic Development	Environment	Land Use
Factor Value	5.6	5.9	0.1	1.1	0	86.1
Weighted Factor Value	0.9	1.2	0.0	0.2	0.0	8.6
Project Benefit	10.9					
SMART SCALE COST	\$12,374,620					
SMART SCALE Score	8.8					

Alternatives

The following alternatives to the displaced left turn were reviewed, but ultimately ruled out from further consideration:

- Roundabouts – cost and operations
- Diverging Diamond Interchange – cost
- Continuous Green-T Intersection – cost and operations

The remaining alternatives for the interchange include:

- Displaced Left Turn (existing concept)
- Conventional Intersections

There are three conventional intersection designs that are currently under consideration by VDOT. Each of those include signaling the ramps between 29 and Fontaine Avenue with some additional lane reconfigurations. Those concepts are included as Attachment A and will be reviewed in more detail during the meetings. The primary benefits of these alternatives is to improve traffic operations along Fontaine Avenue itself. However, it is important to note that none of the new alternatives address the left turn movement from 29 northbound to I-64 westbound, which was a stated primary objective for pursuing this project.



### Options

Several options remain for how to move the project forward, to include:

1. Move forward with the existing project as scoped.
2. Pull the project (and therefore decline awarded funding) and reapply for the full diverging diamond interchange improvement or another preferred alternative for the project.
3. Pursue one of the conventional intersection configurations proposed by VDOT and their consultant team. Preliminary results of the analysis of operations determining if the 29NB to 64 WB movements can be accommodated with any the conventional intersection configurations indicate that the interchange would function at an acceptable level of service at least through 2045. Additional information may be provided during the discussion at the MPO Policy Board meeting.

### Factors for consideration

- There is no alternative to address the left turn movement from 29 northbound to I-64 westbound that do not involve redirecting those movements through the Fontaine Avenue interchange currently developed. VDOT is considering undertaking a STARS study to identify longer term solutions, but any information regarding potential designs or costs are unknown at this time.
- It is difficult to assess whether any solutions to address the left turn movement by itself would be competitive for funding through SMART SCALE. Based on the existing information available, it would not appear to garnish sufficient SMART SCALE benefit points.
- The primary SMART SCALE benefit for the project came from the land use scoring factor, which resulted from the shared use path along Fontaine Avenue. The Commonwealth Transportation Board's decision to eliminate the land use scoring factor from the SMART SCALE scoring criteria could have significant impacts for the competitiveness of this project if submitted in future funding rounds. It is possible that recently adopted changes to the Economic Development measurements could provide some additional project benefits through SMART SCALE, but it is difficult to assess whether this is likely until there is data on this scoring process through the first round using the new methodology. Pulling the project and reapplying runs the risk that the project will not receive any funding in future rounds.

**Actions:** Staff is seeking a recommendation on the preferred alternative for consideration by the MPO Policy Board. Action on the desired direction will be requested at the MPO Policy Board meeting in February.