



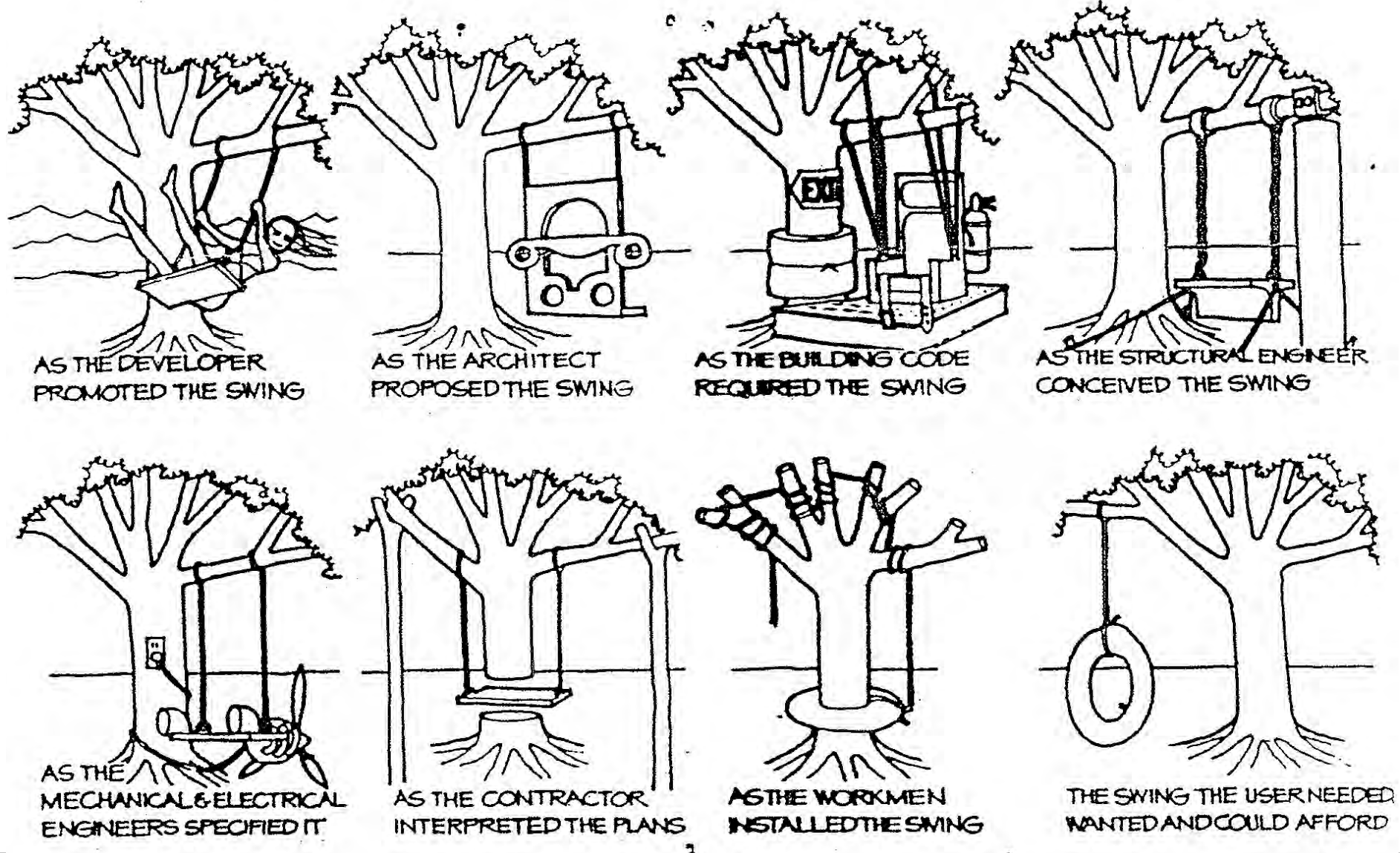
Land Use and Environmental Planning Committee

UPDATE ON TRANSPORTATION IMPROVEMENT PROJECTS

 Culpeper District

February 17, 2023

Update on Transportation Improvement Projects



Update on Transportation Improvement Projects

- **Hydraulic Road and US 29 Intersection Project**
- **Albemarle County Roundabout Bundle Project**
- **Fontaine Interchange Project**
- **Current & Proposed Studies**

TRANSPORTATION IMPROVEMENTS AT HYDRAULIC ROAD AND US 29

UPC 118880

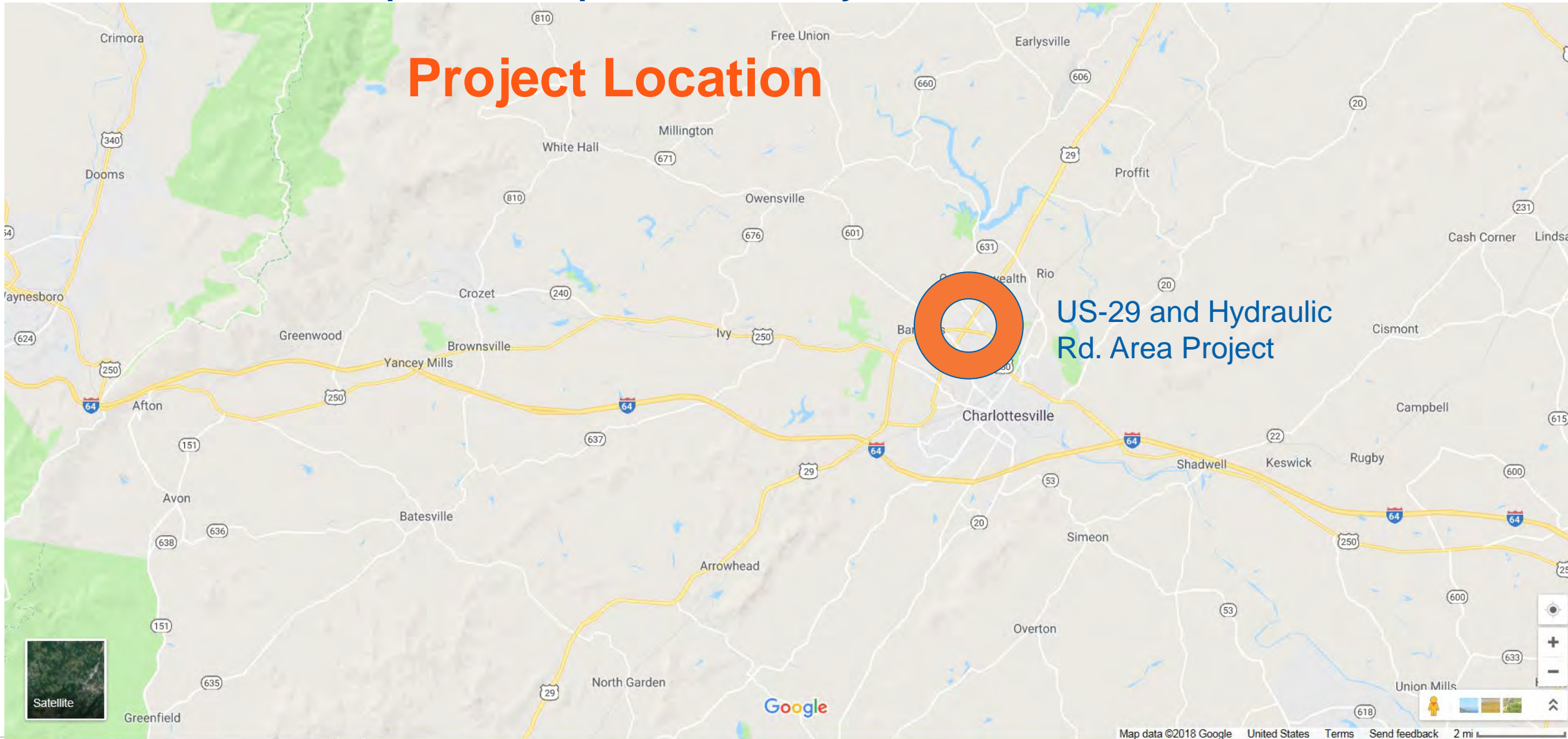
 Culpeper District

February 17, 2023

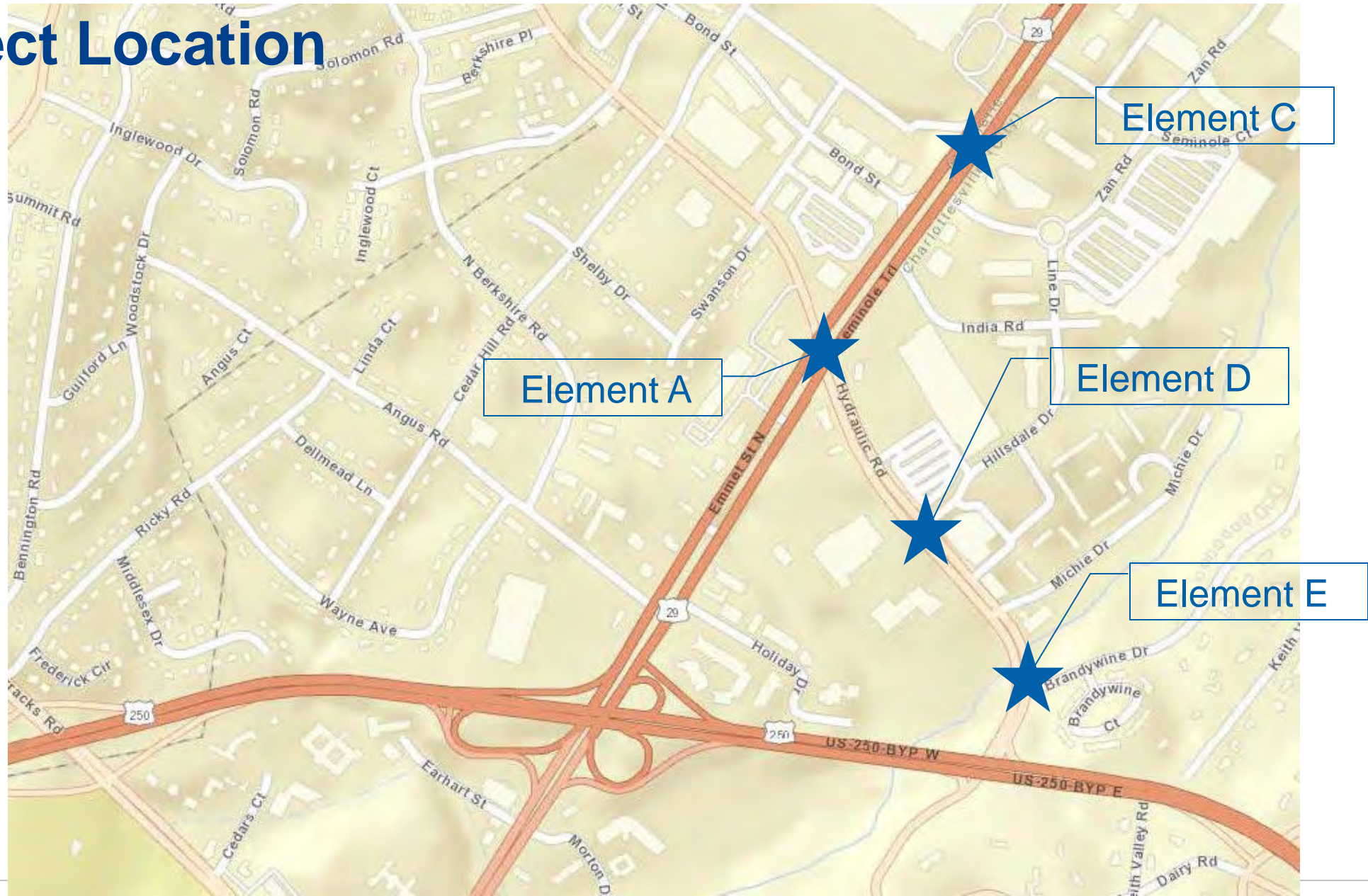
Transportation Improvements to Hydraulic Rd. and US-29 Area

Project Location

US-29 and Hydraulic
Rd. Area Project



Project Location



Transportation Improvements to Hydraulic Rd. and US-29 Area

Project Purpose & Need

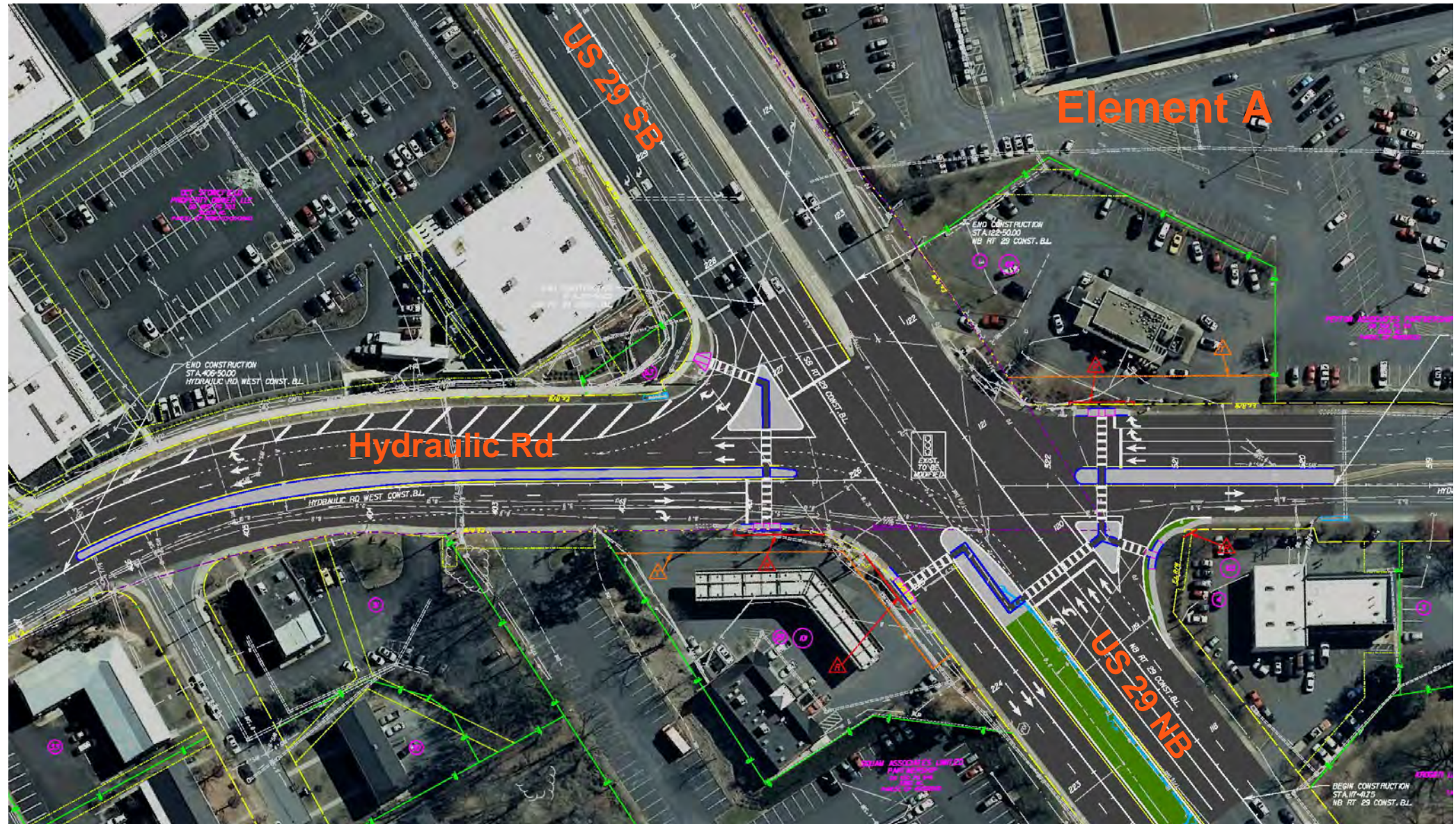
- **Improve safety and mobility at the US 29 and Hydraulic Road intersection and nearby intersections**
- **Congestion and poor traffic operations exist in this area, particularly during peak hour conditions**
- **Few places currently exist for pedestrians to safely cross US 29**

Transportation Improvements to Hydraulic Rd. and US-29 Area

Project Overview

- Project is located in Charlottesville and Albemarle County
- US Route 29 is a Corridor of Statewide Significance & part of the National Highway System (NHS)
- Last remnant of the 29 Solutions Program
- Existing substandard features in the project area (buffer strip & sidewalk width, sidewalk cross slope, etc.)
- Restrictions on allowable work hours & Damage Recovery (primarily night work only)
- Requirements for Sequence of Construction of elements
- Permitting a 46-day closure of Hillsdale/Hydraulic with Incentive/Liquidated Damages

Transportation Improvements to Hydraulic Rd. and US-29

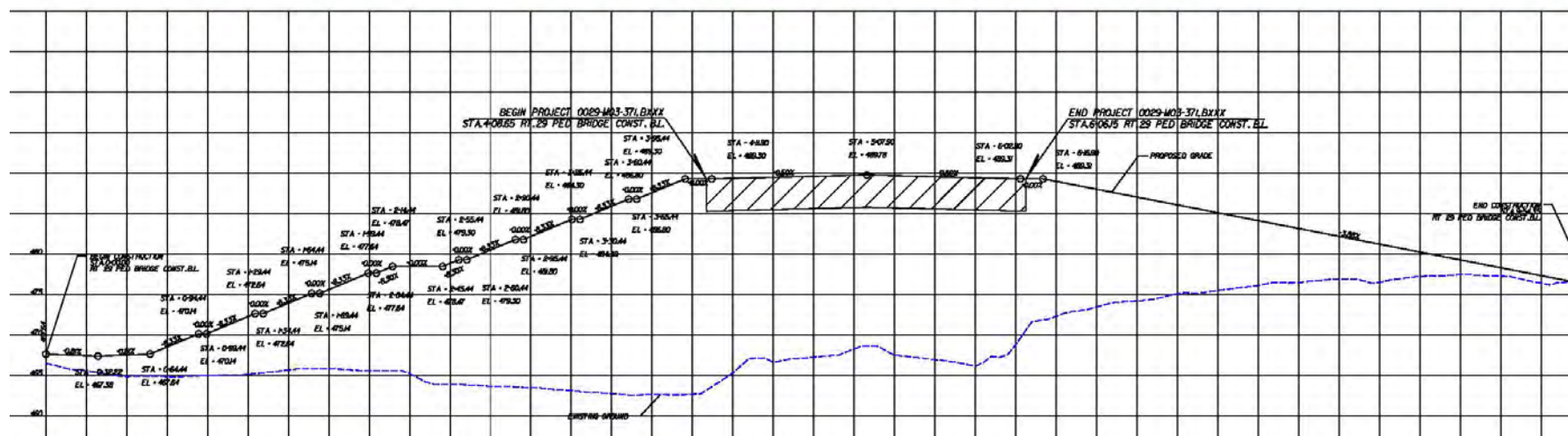


Hydraulic Road and US-29 Intersection

Key Features

- **Remove left turning movements from Hydraulic Road onto US 29 to improve US 29 through movement (more green time)**
 - **WB Hydraulic Rd LT traffic can turn right & perform U-turn movements to access Route 29 SB (or use alternative routes)**
 - **EB Hydraulic Rd LT traffic can proceed across US 29, utilize proposed roundabout at Hydraulic/Hillsdale to perform U-turn movement to access Route 29 NB (or use alternative routes)**
- **Addition of a two-phased signalized at grade pedestrian crossing on south leg of US 29/Hydraulic Rd intersection**
- **Align WB Hydraulic Rd lanes across US 29 (eliminate shift)**
- **Selected ADA improvements (sidewalk, curb ramps)**

Transportation Improvements to Hydraulic Rd. and US-29

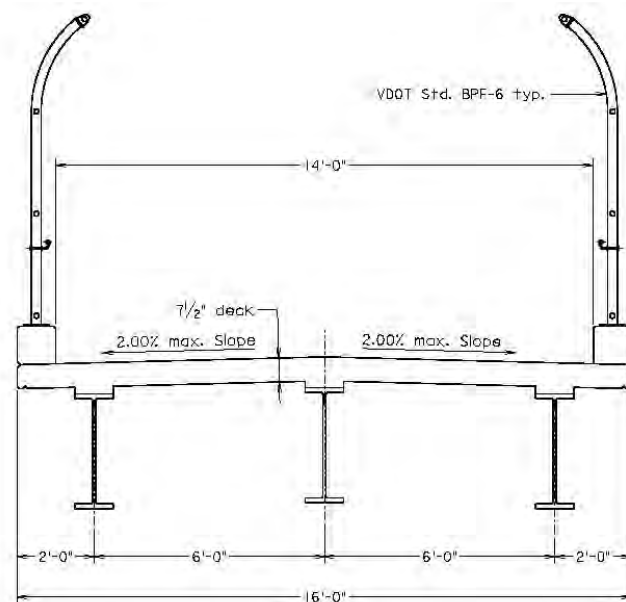


Transportation Improvements to Hydraulic Rd. and US-29

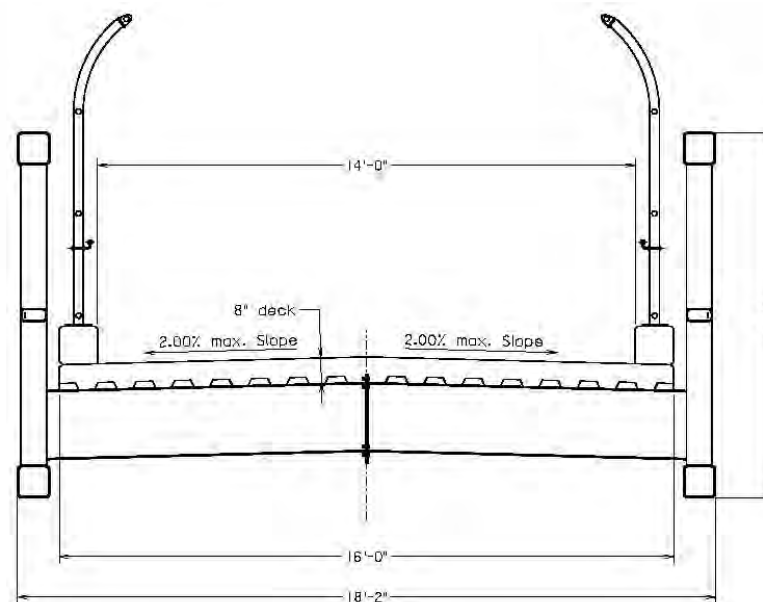
Element C

Notes:

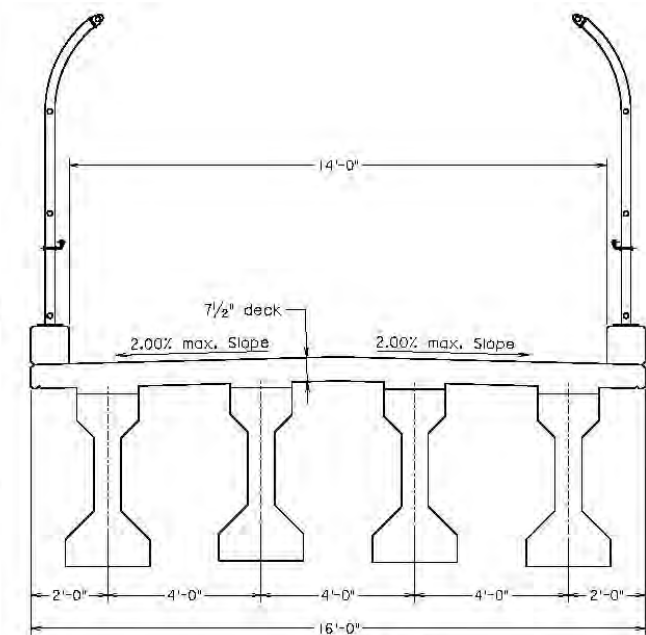
Deck elevations for PCB-3 option will be higher to maintain 17'-6" minimum vertical clearance.



ALTERNATE 1
35" Steel Beams



ALTERNATE 2
Steel Truss



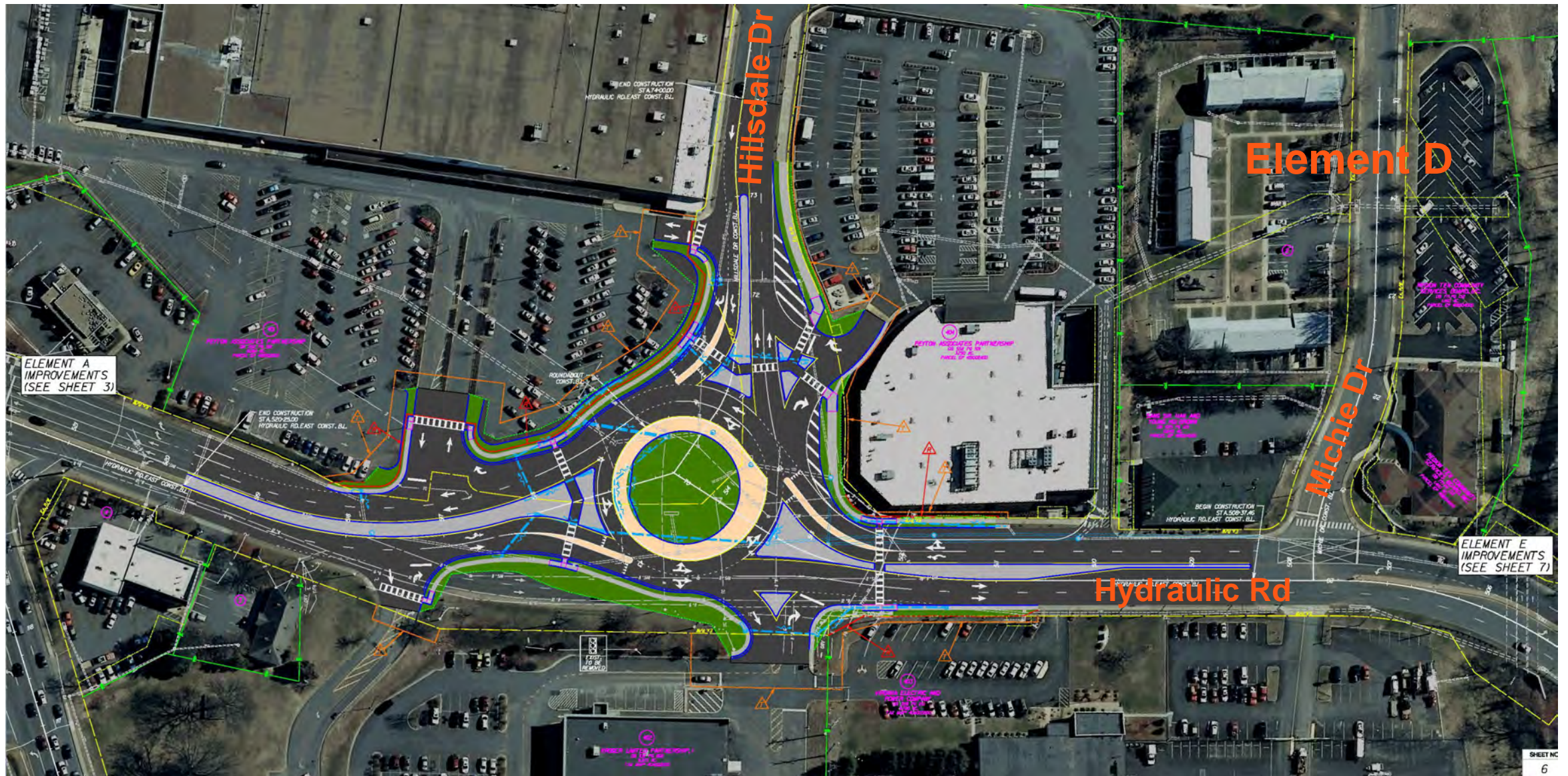
ALTERNATE 3
PCB-3 Concrete Beams

Pedestrian Bridge over US-29

Key Features

- **New grade-separated bike and pedestrian facility to safely move bikers & pedestrians across US 29**
- **Provides a new location for bus pull-offs & bus shelters serving a high-density commercial area**
- **Albemarle County's Places 29 MasterPlan included grade separated pedestrian facilities across US 29**
- **Ramp design for ease of use by bike & pedestrian travelers across US 29**

Transportation Improvements to Hydraulic Rd. and US-29



Hydraulic Road and Hillsdale Drive Roundabout

Key Features

- Significant reduction of conflict points at intersection
- Contract requires roundabout to be operational prior to removal of left turns at Hydraulic Rd, Michie Drive and Brandywine Drive (construction sequence requirement)
 - Facilitates U-turns for EB Hydraulic Rd traffic to access US 29 NB
 - Facilitates U-turns for traffic exiting Michie Drive and Brandywine Drive to get to US 250 (replaces the effective left turns out)
- Geometric challenges with existing buildings and properties
- Footprint has been reduced after working with stakeholders
- Allowing 46 day closure to safely & quickly establish new configuration

Element E



Hydraulic Road Access Management

Key Features

- Extends existing shared use path from US 250 to Brandywine Drive
- Provides improved ingress/egress at Michie Drive and Brandywine Drive
- Reduces existing weaving movements along WB Hydraulic Road
- Eliminates conflicting left turns out of Michie Drive and Brandywine Drive
 - U-turns at proposed roundabout for access to US 250
- Improves crosswalks at Michie Drive and Brandywine Drive for pedestrians

Transportation Improvements to Hydraulic Rd. and US-29 Area

Project Delivery & Funding:

- **Delivery method will be Two Phase, Best Value Design-Build**
- **Total Project Budget is \$28,254,264**
 - **PE – \$1,280,000**
 - **RW – \$4,940,000**
 - **CN - \$22,034,264**
- **Funding:**
 - **Fully funded PE, RW, CN (SMART SCALE)**
 - **Federally participating**

Transportation Improvements to Hydraulic Rd. and US-29 Area

Status of Project:

- **Public Hearing held May 25, 2022**
- **In Procurement**
 - Request for Qualifications (RFQ) April 19, 2022
 - Shortlisted Teams selected (Curtis Contracting, Inc., Kokosing Construction Company, Inc., Shirley Contracting Company, LLC)
 - Technical Proposals submitted January 24TH
 - Price Proposals due March 1ST, to be opened March 7TH
 - Anticipated Award by Commonwealth Transportation Board (CTB) April 19TH
 - Notice to Proceed (NTP) May 23RD & Anticipated Completion is December 2025

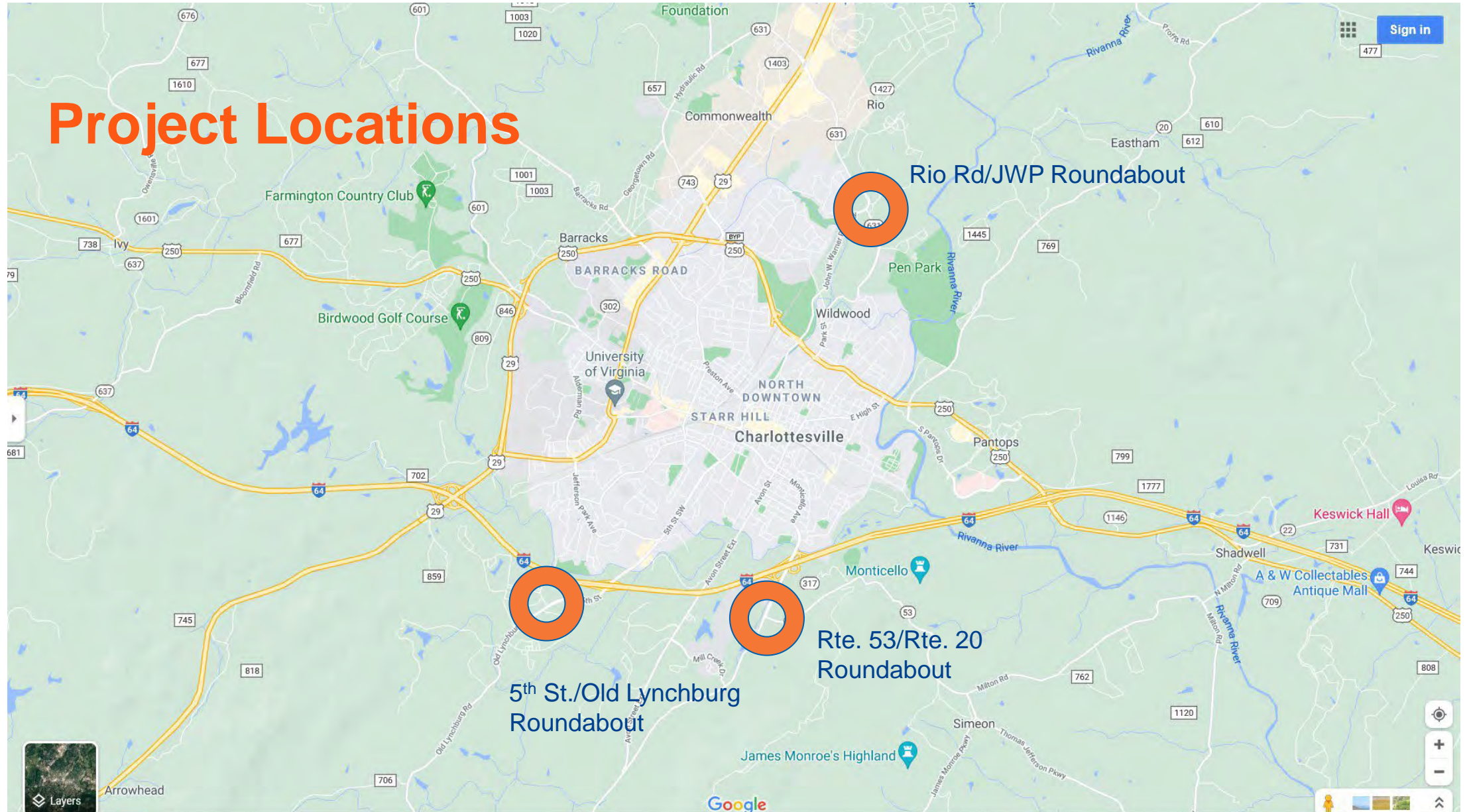
ALBEMARLE ROUNDABOUT BUNDLE DESIGN-BUILD PROJECT

UPCs 118875, 118876, & 118878

 Culpeper District

February 17, 2023

Albemarle County Roundabout Design Build Bundle



Albemarle Roundabout Bundle – Rte. 20 & Rte.53 Roundabout

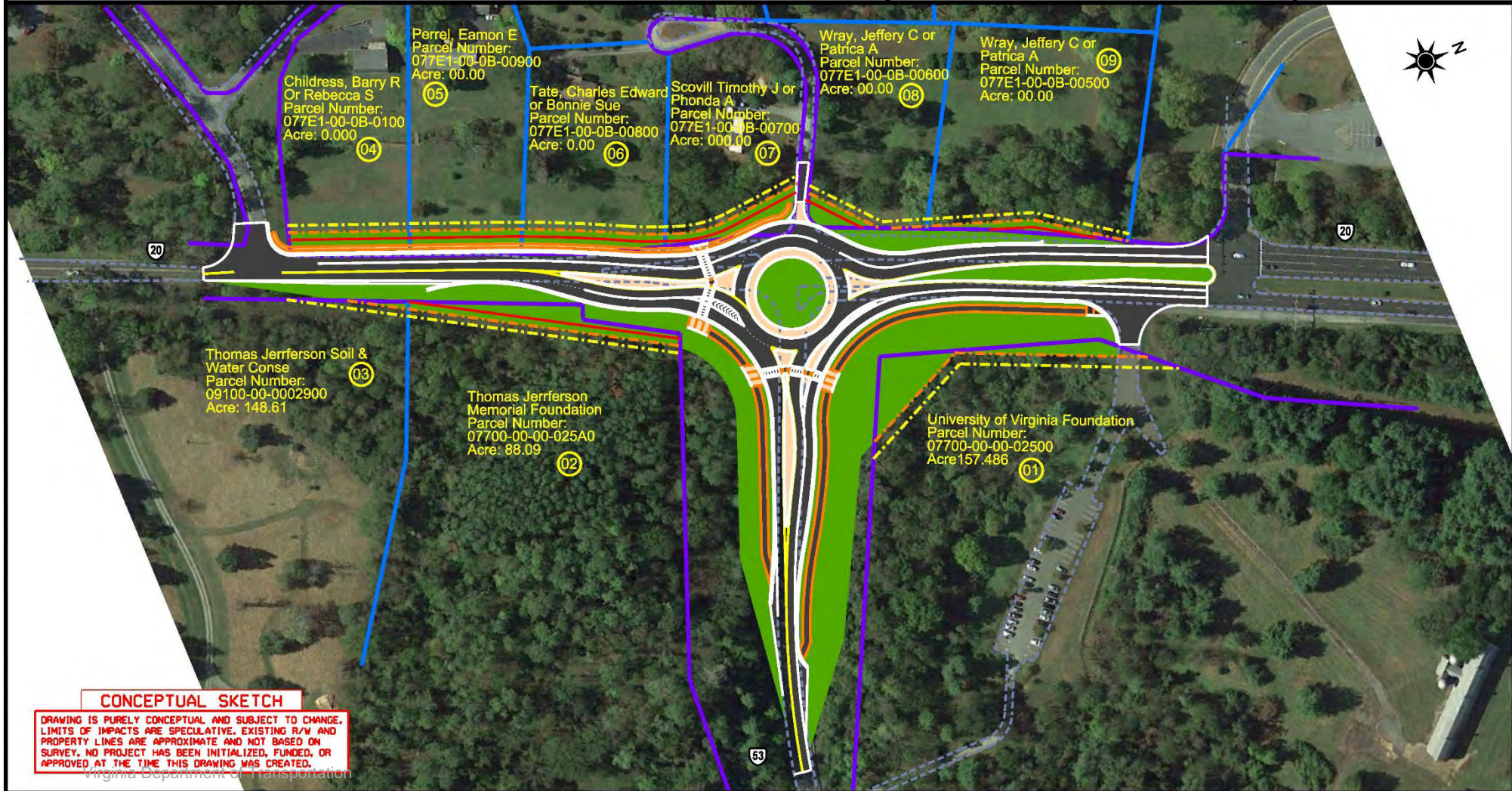
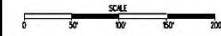


Route 20/53
Roundabout Concept
August 2020

Legend

- Concrete Sidewalk
- Concrete Median/Curb/Truck Apron
- Proposed ROW
- Existing ROW (from GIS)
- Proposed Utility Easement

Location: Albemarle County

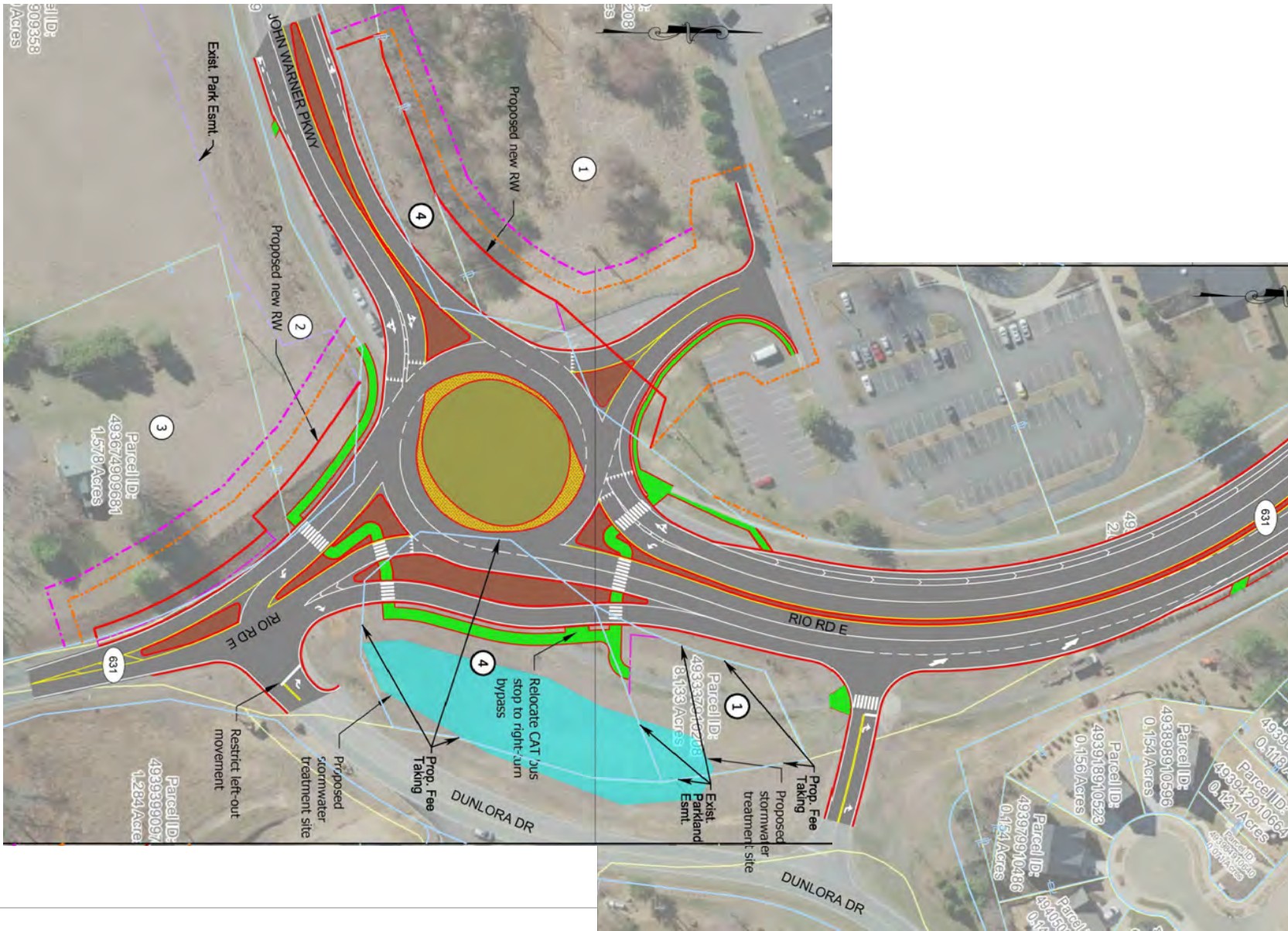


Albemarle Roundabout Bundle - Rte. 20 & Rte.53 Roundabout

Key Features

- Retain continuous right turn from Rte. 53 to Rte. 20 N with slip lane
- Additional through lane will be added along Route 20 from the 20/53 intersection down to Willow Lake Dr.
- Sidewalk on the west side between Willow Lake Dr. and the Roundabout
- Shared use path on the east side from the Roundabout to the Monticello Trailhead entrance, and on both sides of Rte. 53 up to the Bike Ramps
- Crosswalks are included on the south and east approaches
- Improve bike access along Bike Route 76

Albemarle Roundabout Bundle – Rio Road & John Warner Parkway Roundabout

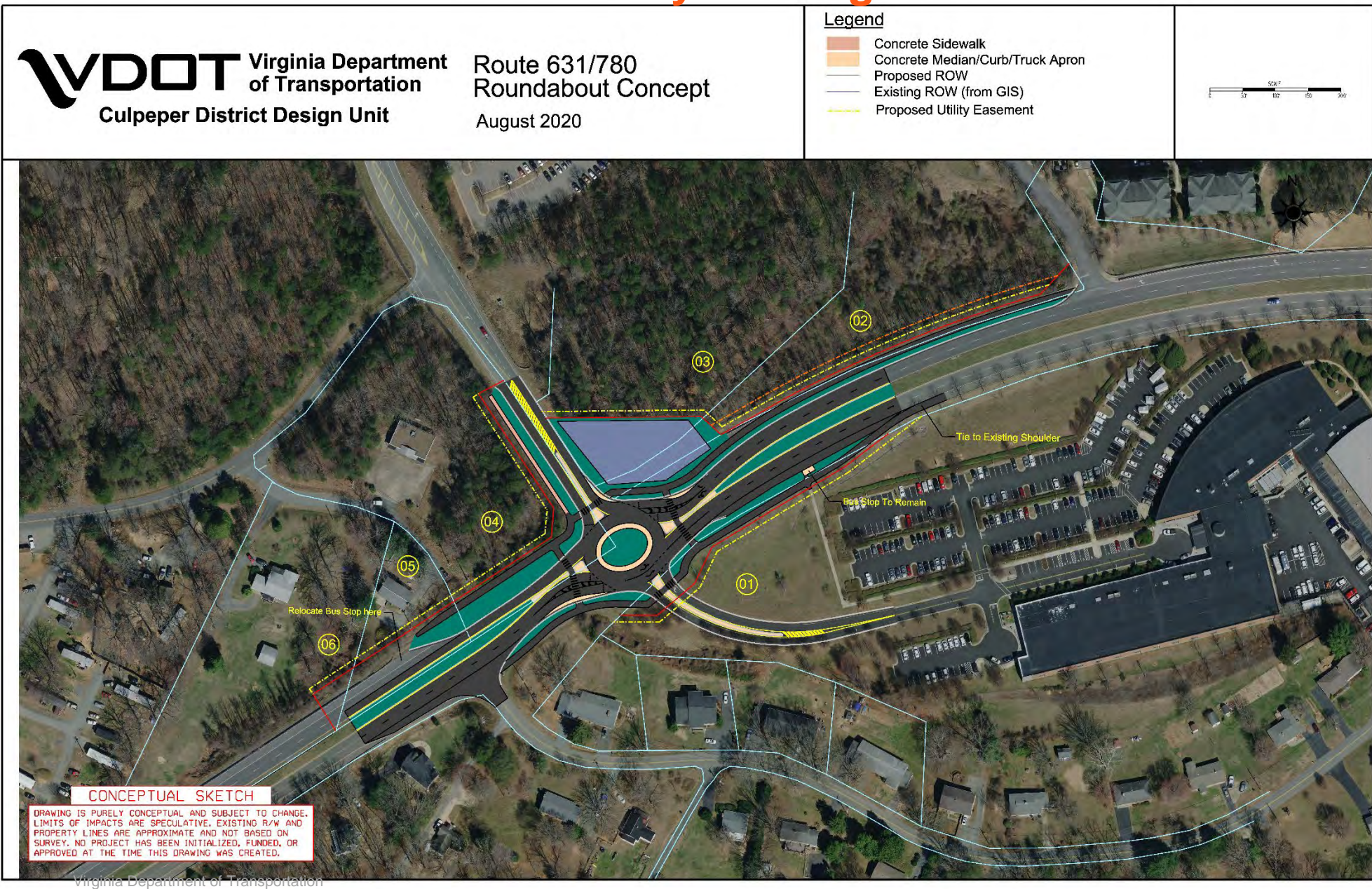


Albemarle Roundabout Bundle - Rio Road & John Warner Parkway Roundabout

Key Features

- Improve the existing shared use path along east side
- Includes sidewalk connection into CATEC
- Relocate/upgraded bus stop to include shelter
- Create new improved and safer crosswalks across all quadrants of the intersection
- Ramps from the bike lane will allow cyclists to bypass the roundabout
- Coordination with City/County on the trail

Albemarle Roundabout Bundle – Old Lynchburg Rd / 5th St Ext. Roundabout



CONCEPTUAL SKETCH

DRAWING IS PURELY CONCEPTUAL AND SUBJECT TO CHANGE. LIMITS OF IMPACTS ARE SPECULATIVE. EXISTING R/W AND PROPERTY LINES ARE APPROXIMATE AND NOT BASED ON SURVEY. NO PROJECT HAS BEEN INITIALIZED, FUNDED, OR APPROVED AT THE TIME THIS DRAWING WAS CREATED.

Albemarle Roundabout Bundle - Old Lynchburg Rd / 5th St Ext. Roundabout

Key Features

- **Project constructs segments of sidewalk and Shared-Use Path linking to adjacent facilities**
- **Provides new pedestrian crossings at the intersection with protected refuges**
- **Improves a transit stop by connecting existing stops with pedestrian facilities and adding a bench and shelter**
- **Existing bus stop for the WB lane of Route 631 moved west of the intersection to the shoulder area to provide a bus pull off area**
- **Southbound Route 631 will be reduced to a single lane at the roundabout exit**

Albemarle County Roundabout Design Build Bundle

Status of Project:

- Survey is complete
- PE underway

Tentative Schedule:

- | | |
|---------------------------------------|-------------|
| • Public Hearing | Summer 2023 |
| • Advertise RFQ | Summer 2023 |
| • Statements of Qualification | Fall 2023 |
| • Request for Proposals (RFP) Release | Fall 2023 |
| • Anticipated CTB Award Date | Spring 2024 |

Albemarle County Roundabout Design Build Bundle

Project Delivery & Funding:

- **Delivery method will be Two Phase Best Value Design-Build**
- **Initial Project Budget is \$26.9 million**
 - **Current Estimate is \$30.4 million due to inflation**
- **Funding:**
 - **Anticipated to be fully funded PE, RW, CN (SMART SCALE)**
 - **Federally participating**

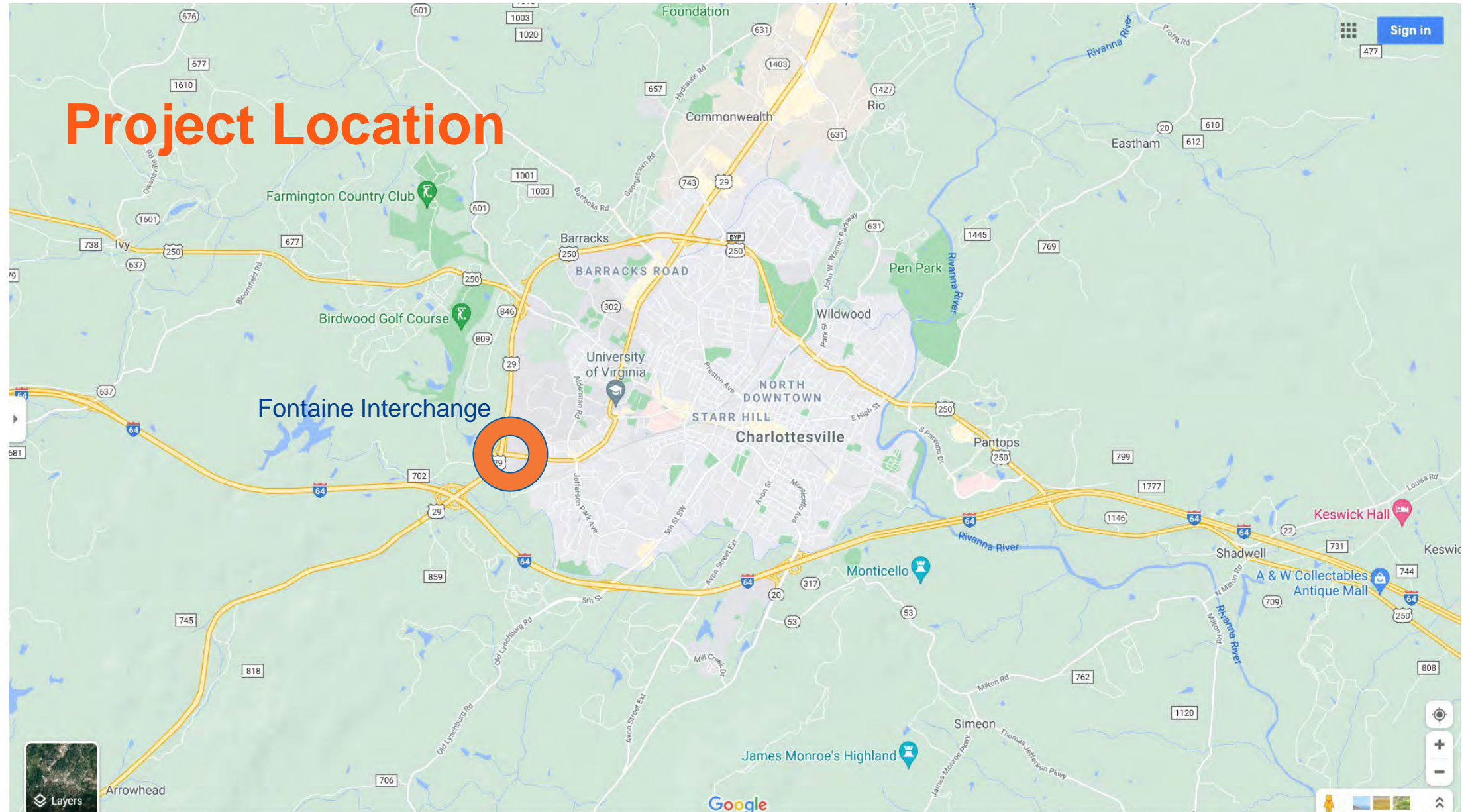
US 29 AND FONTAINE AVE. INTERCHANGE IMPROVEMENTS

UPC 118868

 Culpeper District

February 17, 2023

US 29 & Fontaine Ave. Interchange Improvements



US 29 & Fontaine Ave. Interchange Improvements

VDOT Virginia Department
of Transportation
Culpeper District Design Unit

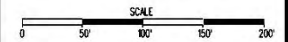
Route 29 and 29 Business
(Fontaine Ave) Interchange
Improvement Concept

July 2020

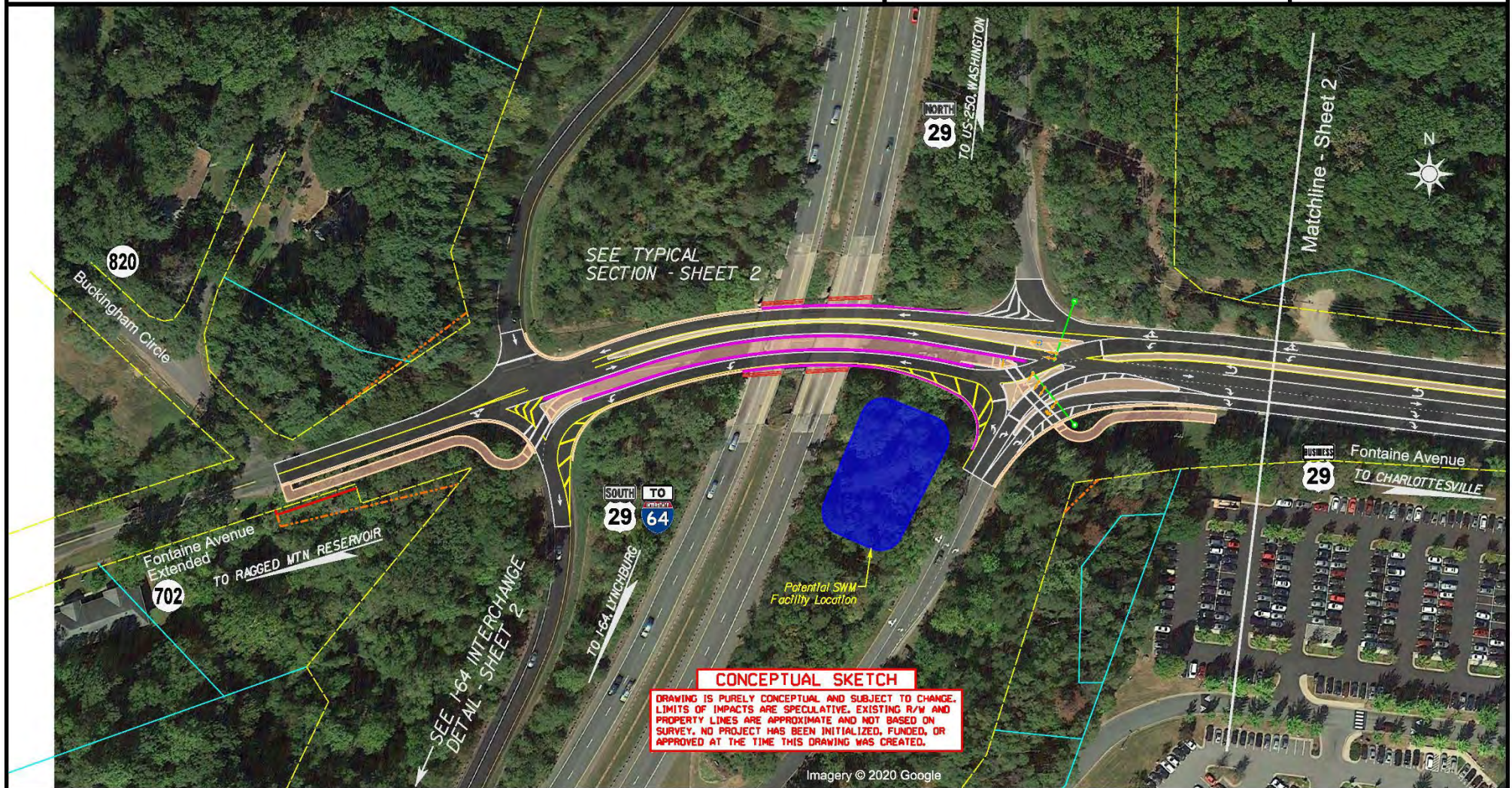
Legend

- Shared Use Path
- Concrete Median & Curbing
- Proposed ROW
- Existing ROW (from GIS)
- Approx. Temp. Easement (grading limits T.B.D.)
- Pavement/Lane Markings
- Proposed Barrier & Guardrail

Location: Albemarle County



Sheet 1/2



US 29 & Fontaine Ave. Interchange Improvements



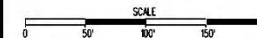
Route 29 and 29 Business (Fontaine Ave) Interchange Improvement Concept

July 2020

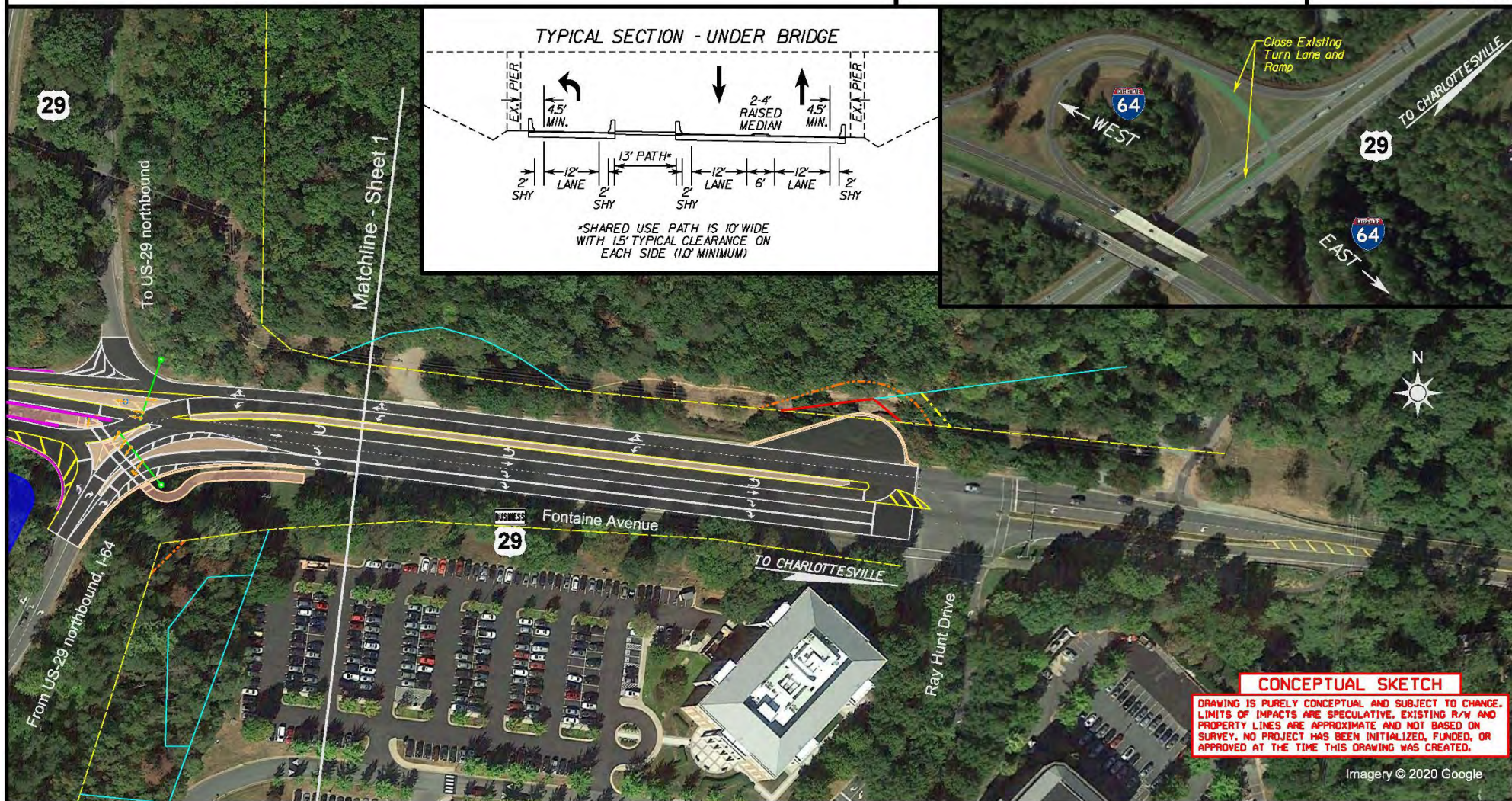
Legend

- Shared Use Path
- Concrete Median & Curbing
- Proposed ROW
- Existing ROW (from GIS)
- Approx. Temp. Easement (grading limits T.B.D.)
- Pavement/Lane Markings
- Proposed Barrier & Guardrail

Location: Albemarle County



Sheet 2/2



US 29 & Fontaine Ave. Interchange Improvements

Key Features

- **Closure of the NB US 29 to WB I-64 Crossover (I-64 Exit 118) and reroutes the movement through the Fontaine/29 Interchange as a U-turn**
 - Provides an alternative to the existing (at grade) direct left turn on 29 which currently is over-capacity
- **Signalized partial WB Crossover intersection at the NB Ramp terminal intersection with relocated left turning movements**
- **Extension of the Shared Use Path through the Interchange**
- **Provision of U-Turn movement (bulb-out) for EB Fontaine traffic**
 - Trail impacts from bulb-out to be mitigated
- **Coordination with RWSA on waterline project**

US 29 & Fontaine Ave. Interchange Improvements

Status of Project:

- Survey just beginning
- PE plan development anticipated to begin early 2024

Tentative Schedule:

- | | |
|-------------------------------|-------------|
| • Public Hearing | Summer 2024 |
| • Advertise RFQ | Summer 2024 |
| • Statements of Qualification | Fall 2024 |
| • RFP Release | Fall 2024 |
| • Anticipated CTB Award Date | Spring 2025 |

US 29 & Fontaine Ave. Interchange Improvements

Project Delivery & Funding:

- **Two Phase Best Value Design-Build**
- **Alternative Technical Concepts will likely be considered**
- **Initial Project Budget is \$12.4 million**
 - **Current estimate is \$13.6 million due to inflation**
- **Funding:**
 - **Anticipated to be fully funded PE, RW, CN (SMART SCALE)**
 - **Federally participating**

CURRENT AND PROPOSED STUDIES

 Culpeper District

February 17, 2023

Current and Proposed Studies

Route 654 (Barracks Road) from Georgetown Rd to Emmet St, Albemarle & Charlottesville

- Priority 2 need location in the district with Bicycle, Pedestrian and Transit Access needs on Barracks and Capacity Preservation and Transit Access needs on US 29/250
- Recommended for the next round of Proposed Pipeline Studies
- Identify needs on the corridor and at the interchange, develop recommendations, detailed sketches and cost estimates for the recommended improvements for future funding applications

U.S. 29/U.S. 250 Ivy Road Interchange, Albemarle County

- Priority 2 need location in the district with Congestion, Travel Demand management and Transit needs on US 250 and Capacity Preservation and Transit Access needs on US 29
- Recommended for the next round of Proposed Pipeline Studies
- Identify needs on the US 29 Corridor south of the interchange and the interchange, develop recommendations, detailed sketches and cost estimates for the recommended improvements for future funding applications

U.S. 29 (North), Albemarle & Greene

- Reviewing 19 intersections between Route 649 (Airport Road) in Albemarle and Deerfield Drive in Greene
- Purpose of the study is to identify and vet potential operational and safety improvements along U.S.29
- Goals - Improve safety, Manage congestion, Increase multimodal usability and accessibility, Support future growth & economic development

Update on Transportation Improvement Projects

Questions?



In August 1972, motorists approaching construction on Interstate 64 south of Bryan Park in Richmond were greeted by a robot signalman waving a bright red flag. "Silent Sam," as the decoy was nicknamed, was used by the state Department of Highways to slow drivers as they neared workmen building an I-195 interchange and bridge near the Acca rail yards.

times-dispatch