



Virginia Department of Transportation

Land Use and Environmental Planning Committee

VDOT UPDATE ON TRANSPORTATION IMPROVEMENT PROJECTS

| Culpeper District

August 18, 2023

VDOT Update on Transportation Improvement Projects

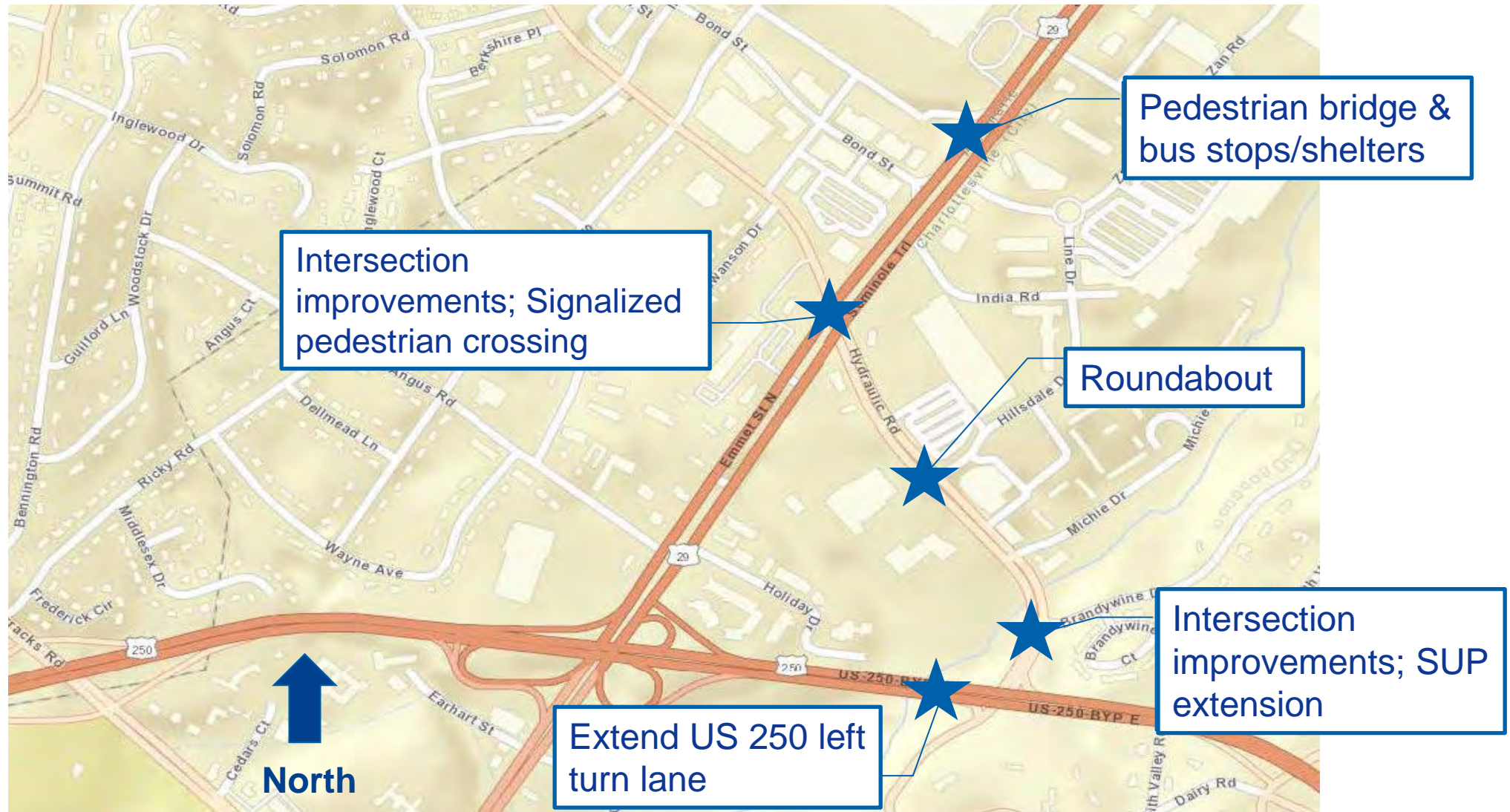
Agenda:

1. Design-Build Projects

- Hydraulic Road and US 29
- Albemarle County Intersection Bundle #2
- Fontaine Avenue Interchange

2. District Avenue Roundabout

Design-Build Projects – Hydraulic Rd & US 29



Design-Build Projects – Hydraulic Rd & US 29

Project Purpose & Need

- Improve safety & mobility at the US 29/Hydraulic Rd intersection
- Congestion & poor traffic operations exist in the area, esp. peak hours
- Few places currently for pedestrians to safely cross US 29

Project Overview

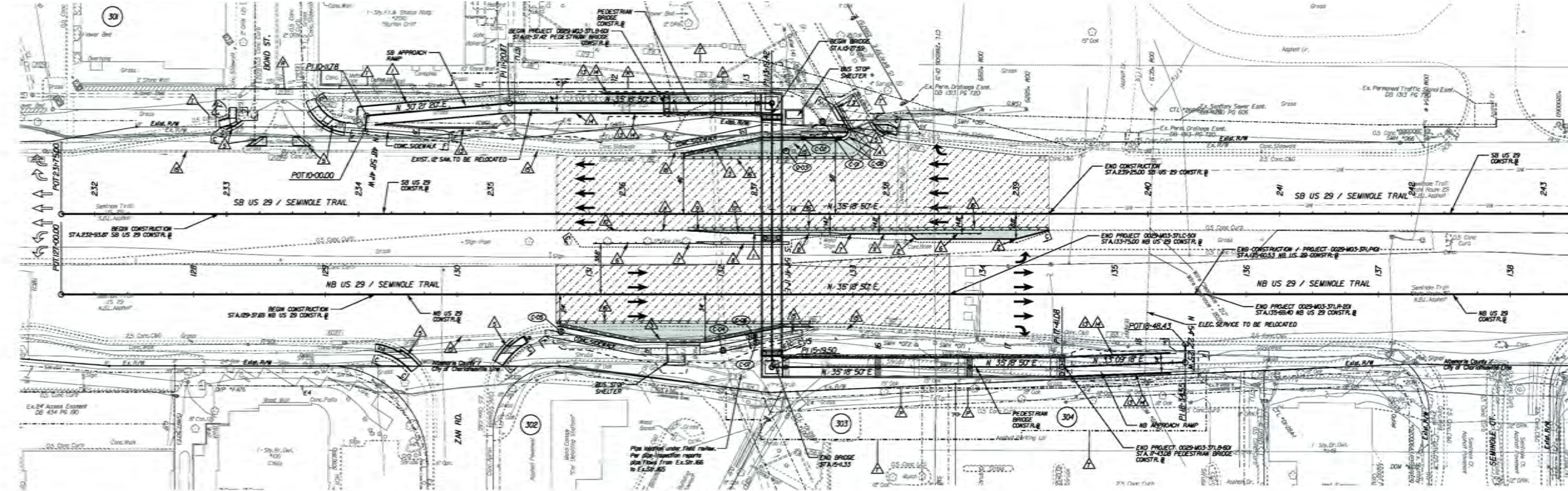
- Located both in Charlottesville and Albemarle County
- Remnant of the 29 Solutions Program
- Existing substandard features in the project area (buffer strip & sidewalk width, sidewalk cross slope, etc.)
- Restrictions on allowable work hours; Required construction sequence
- 46-day closure of Hillsdale/Hydraulic with Incentive/Liquidated Damages

Status of Hydraulic Rd and US 29 Project

- **Awarded to Curtis Contracting, Inc.**
 - **Contract price: \$20,788,119**
 - **NTP issued May 10th & Anticipated Completion is October 31, 2025**
- **Bridge and roadway plans currently under review**
- **Anticipate Utility work to begin this November and construction early spring**
 - **Goal is to get roundabout substantially completed this summer using detour**

Design-Build Projects – Hydraulic Rd & US 29

Pedestrian Bridge Preliminary Plan



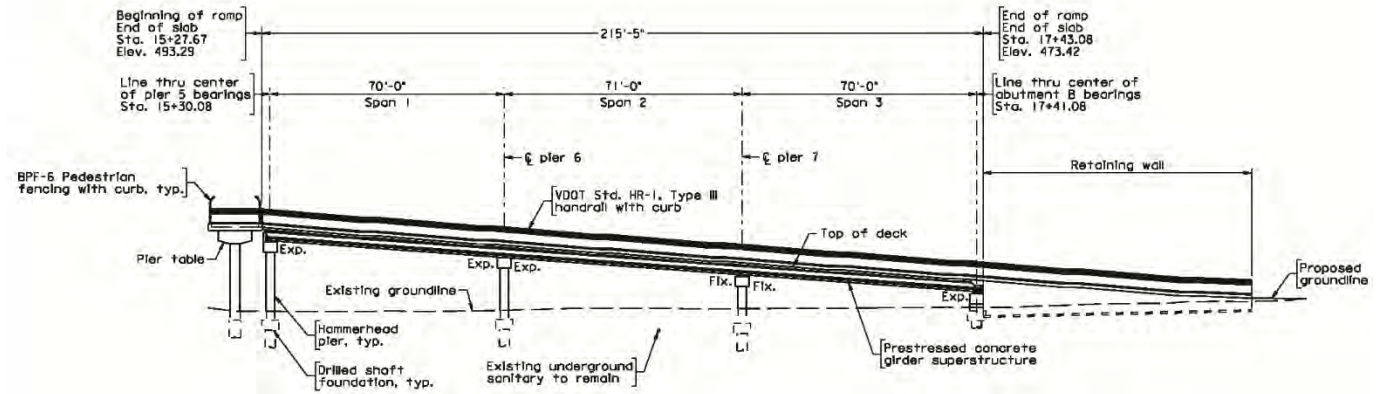
LEGEND		MODIFIED LEGEND	
	INDICATES PROPOSED RIGHT OF WAY		STD CD-2 RECD
	INDICATES PERMANENT MAINTENANCE/ACCESS EASEMENT		STD CD-3 RECD
	INDICATES TEMPORARY CONSTRUCTION EASEMENT		STD CD-6 RECD
	INDICATES CONSTRUCTION LIMITS IN CUT		RAL CD-8 RECD
	INDICATES CONSTRUCTION LIMITS IN FILLS		STD CD-4 TYPE B RECD
	INDICATES DEMOLITION OF PAVEMENT		STD CD-5 RECD
	INDICATES MILL & OVERLAY PAVEMENT		STD CD-MS4 RECD
	INDICATES NEW FULL DEPTH ASPHALT PAVEMENT		STD CD-MS3 RECD
	INDICATES DETECTABLE WARNING SURFACE		STD CD-MS5 RECD
	INDICATES EROSION CONTROL STONE		STD CD-MS6 RECD
	RETAINING WALL		STD CD-MS1 RECD
	STD HW-TYPE III		STD CD-MS2 RECD
	CLEAN EXIST. PIPE		STD CD-MS3 RECD
	SAW CUT (FULL DEPTH)		STD CD-MS4 RECD



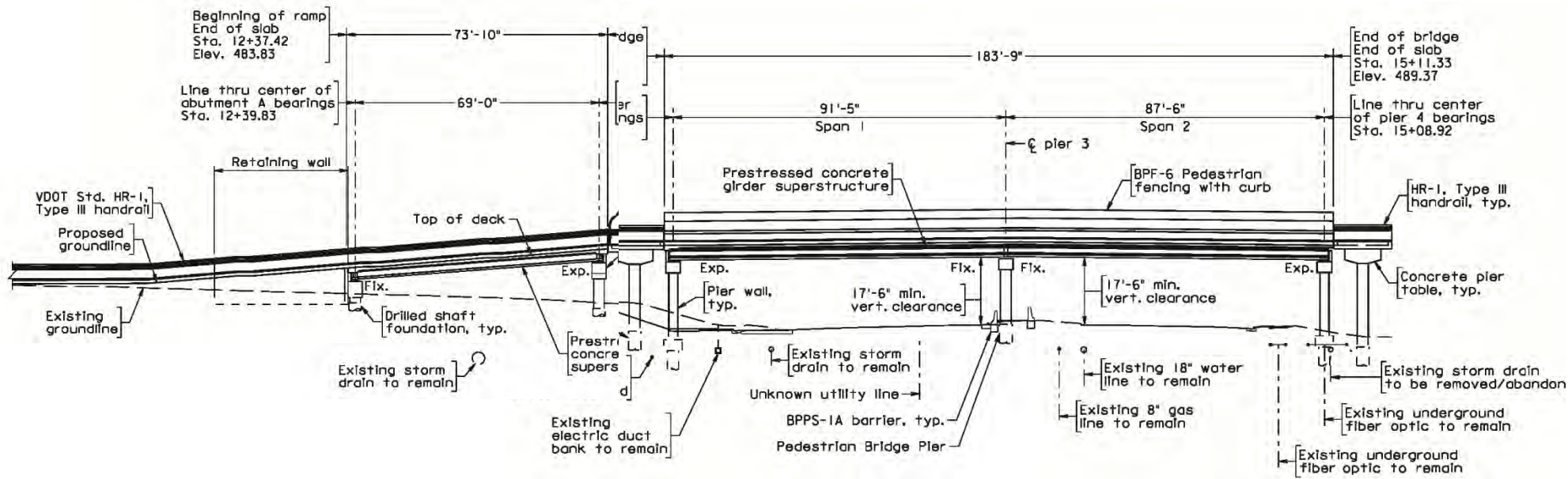
North

Design-Build Projects – Hydraulic Rd & US 29

Preliminary Pedestrian Bridge and Ramp Elevations



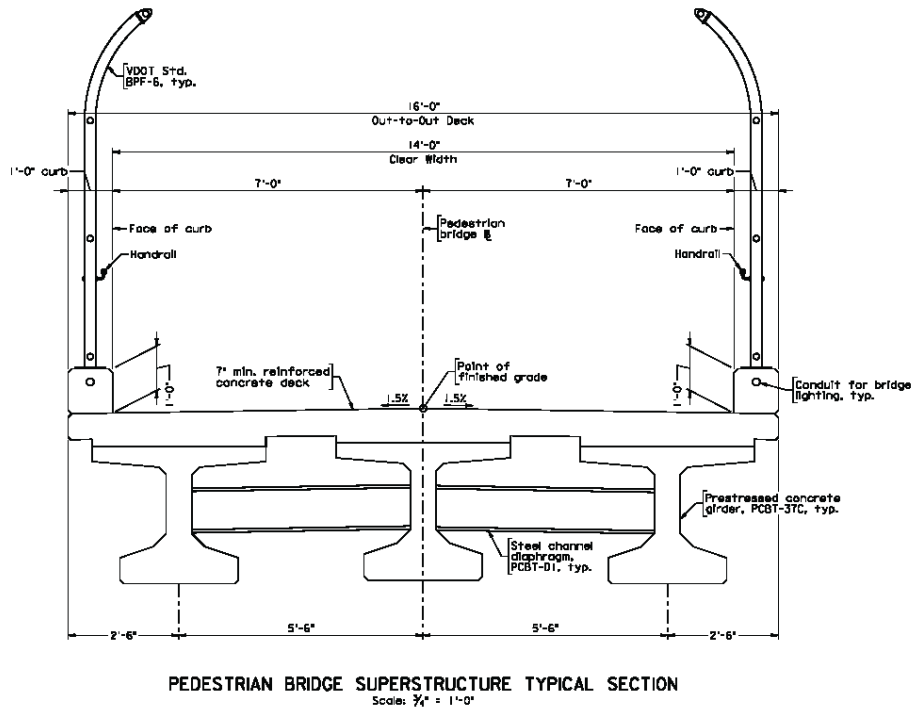
Northbound ramp



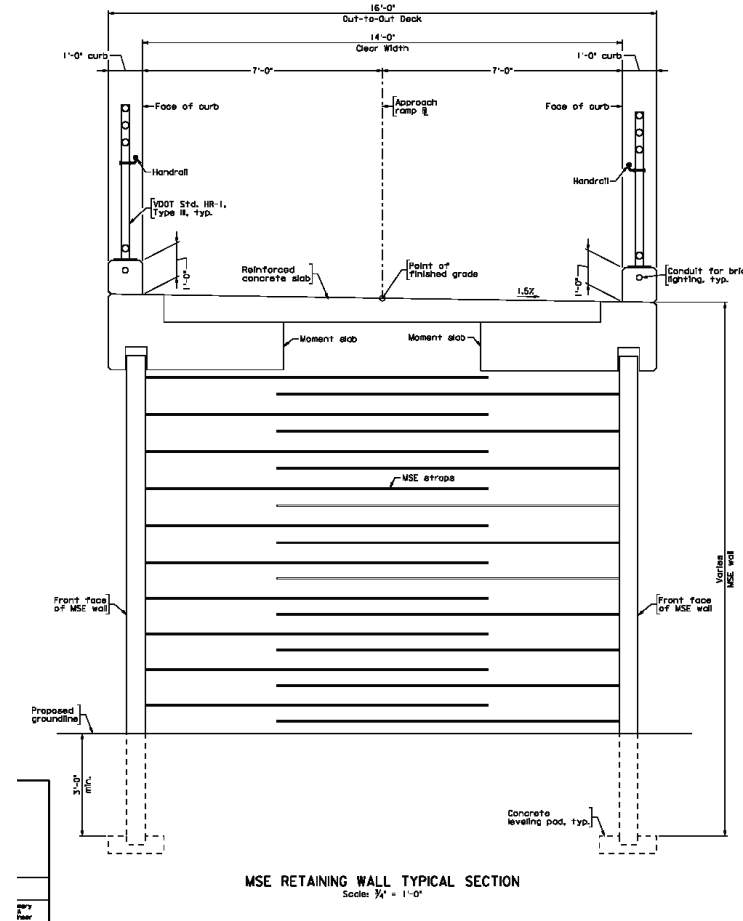
Southbound ramp and bridge

Design-Build Projects – Hydraulic Rd & US 29

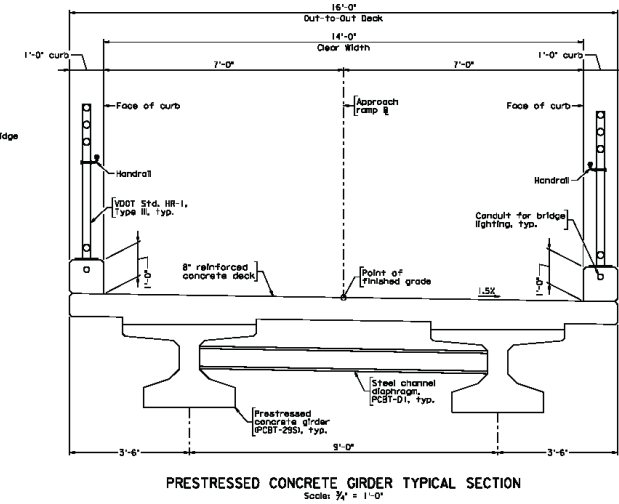
Preliminary Pedestrian Bridge and Ramp Sections



Bridge typical section



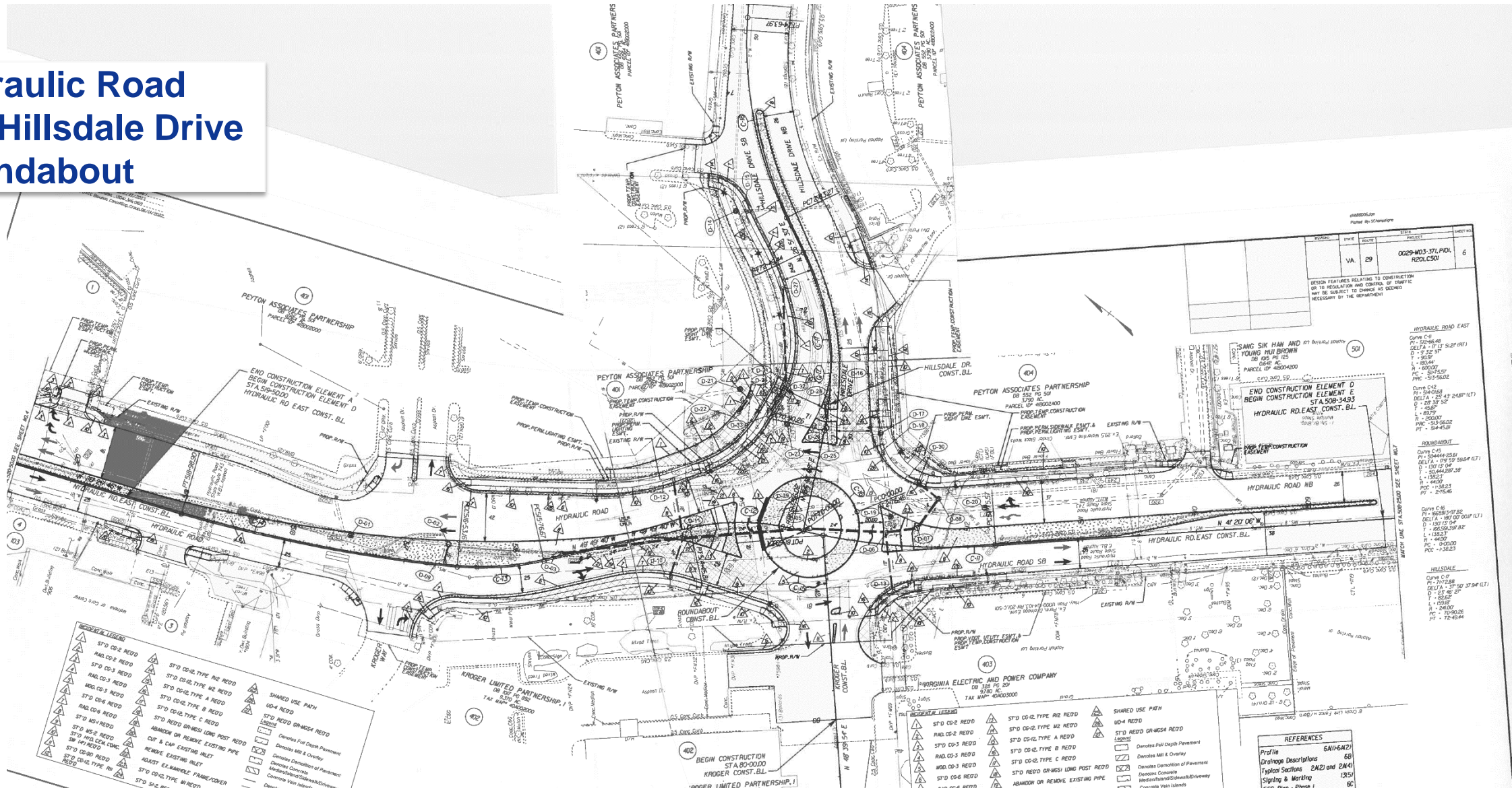
Ramp typical sections



COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION				
STRUCTURE AND BRIDGE DIVISION				
SB APPROACH RAMP TYPICAL SECTION				
No.	Description	Date	Designed: JTB	Drawn: JTB
	Revisions		Checked: JTB	June 2023
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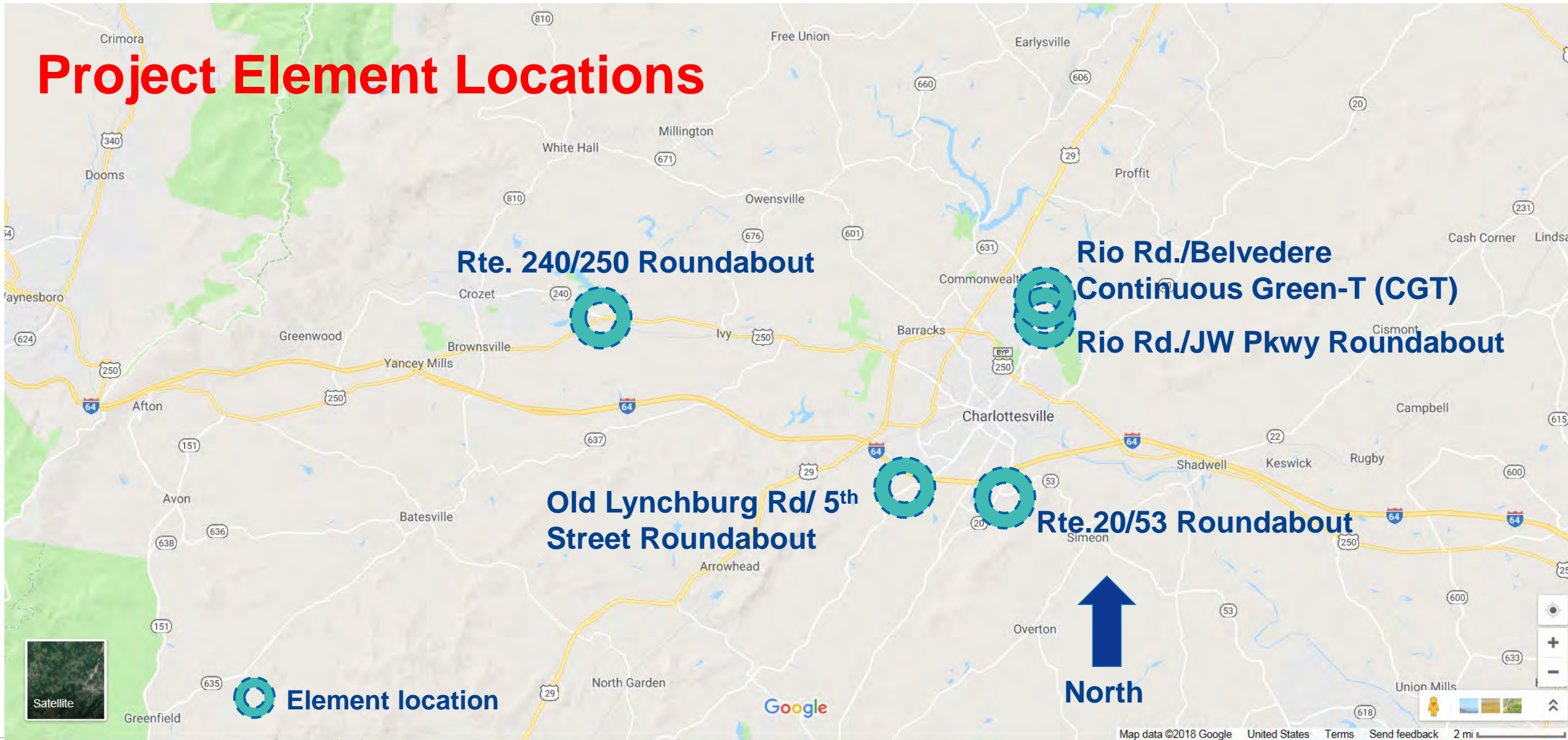
Design-Build Projects – Hydraulic Rd & US 29

Hydraulic Road and Hillsdale Drive Roundabout



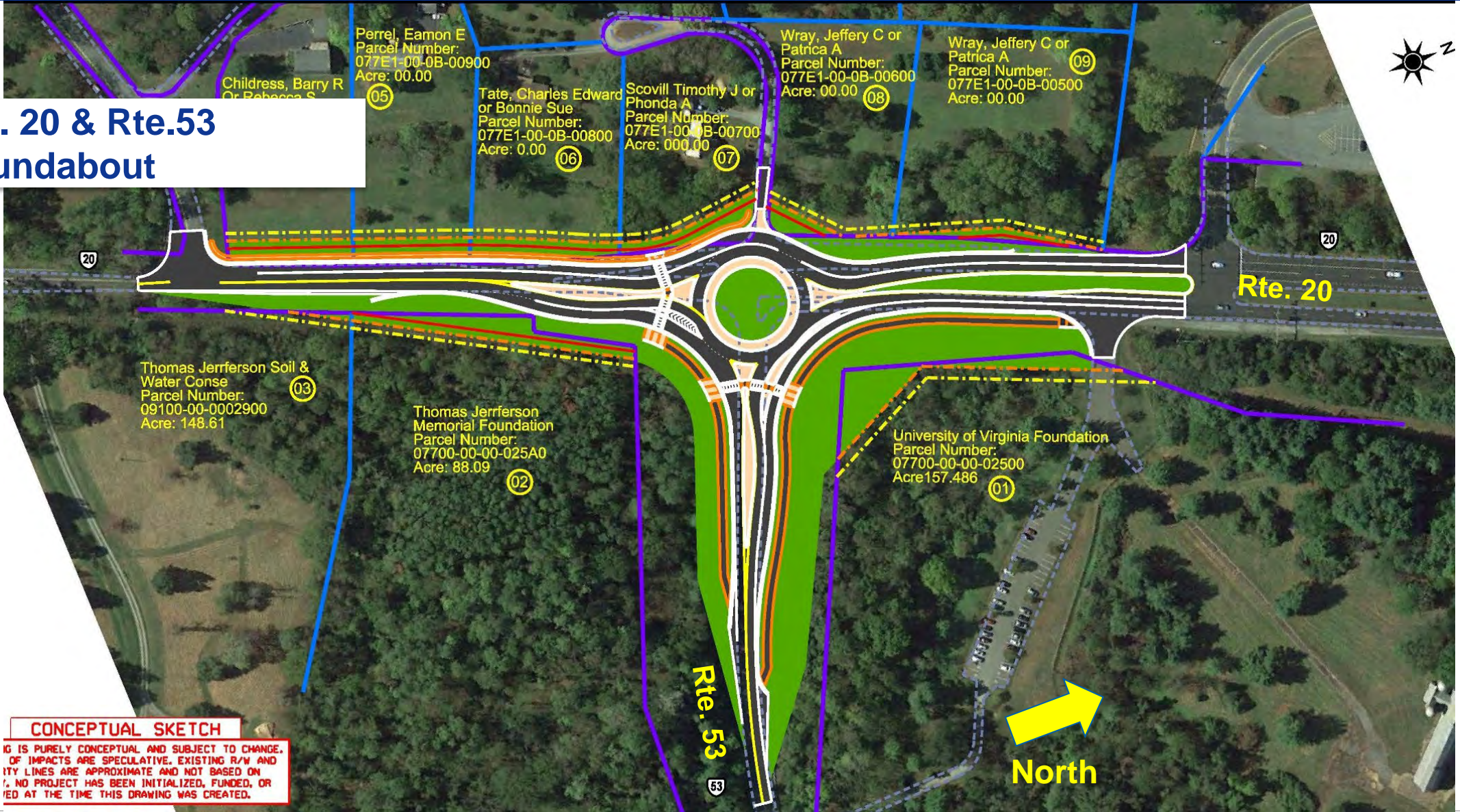
Design-Build Projects – Albemarle Intersection Bundle #2

Project Element Locations



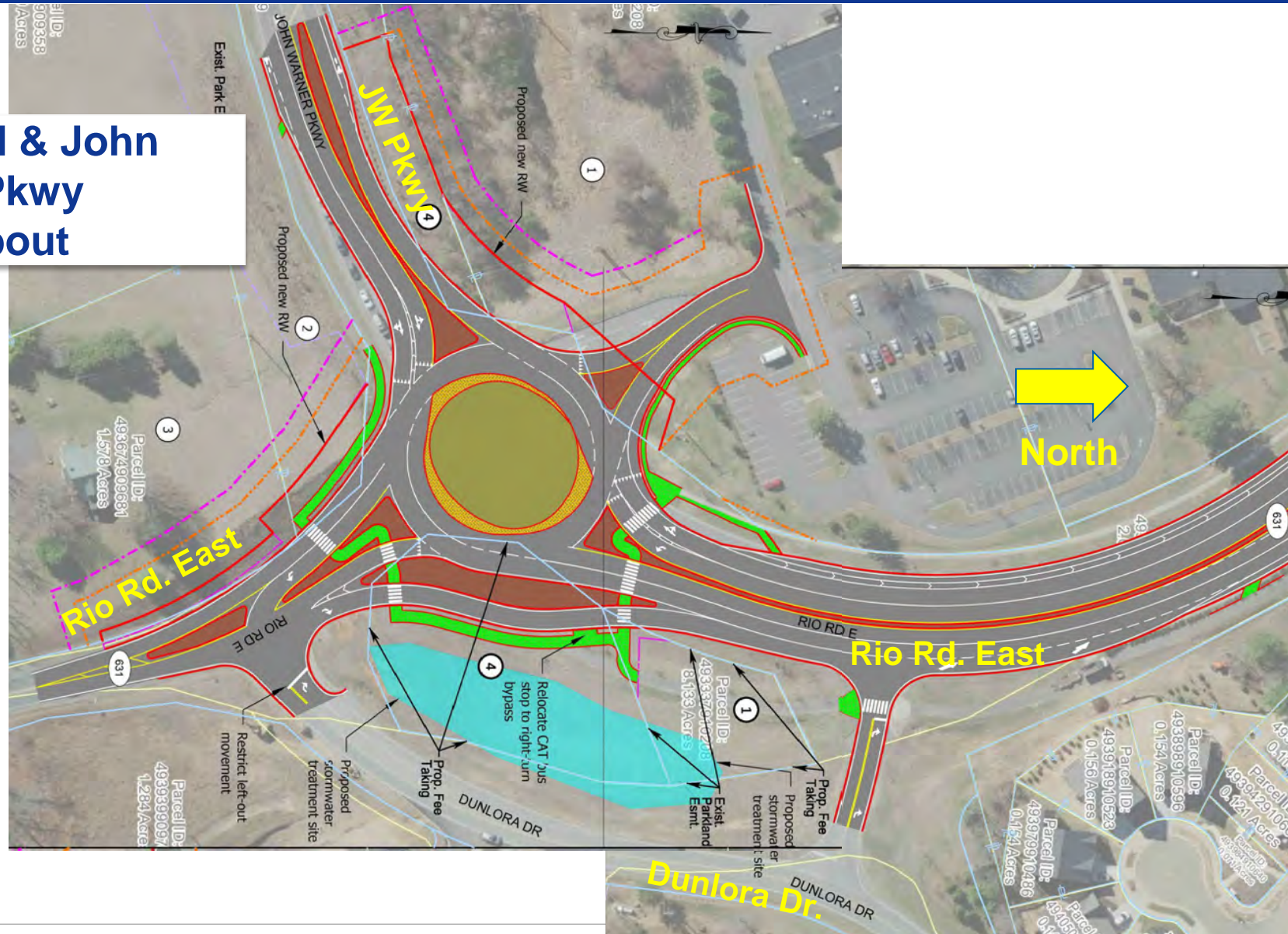
Design-Build Projects – Albemarle Intersection Bundle #2

Rte. 20 & Rte.53 Roundabout



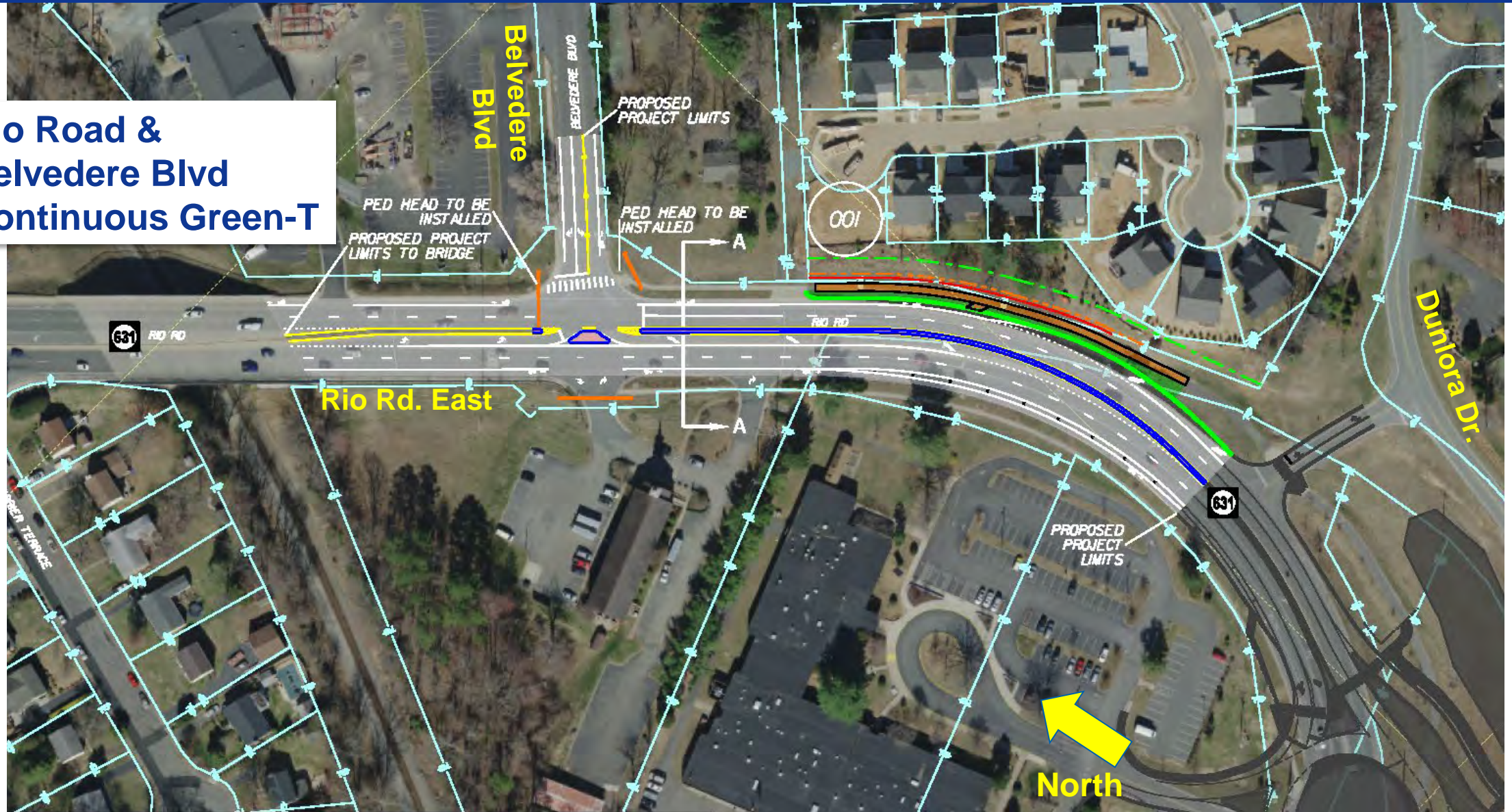
Design-Build Projects – Albemarle Intersection Bundle #2

Rio Road & John Warner Pkwy Roundabout



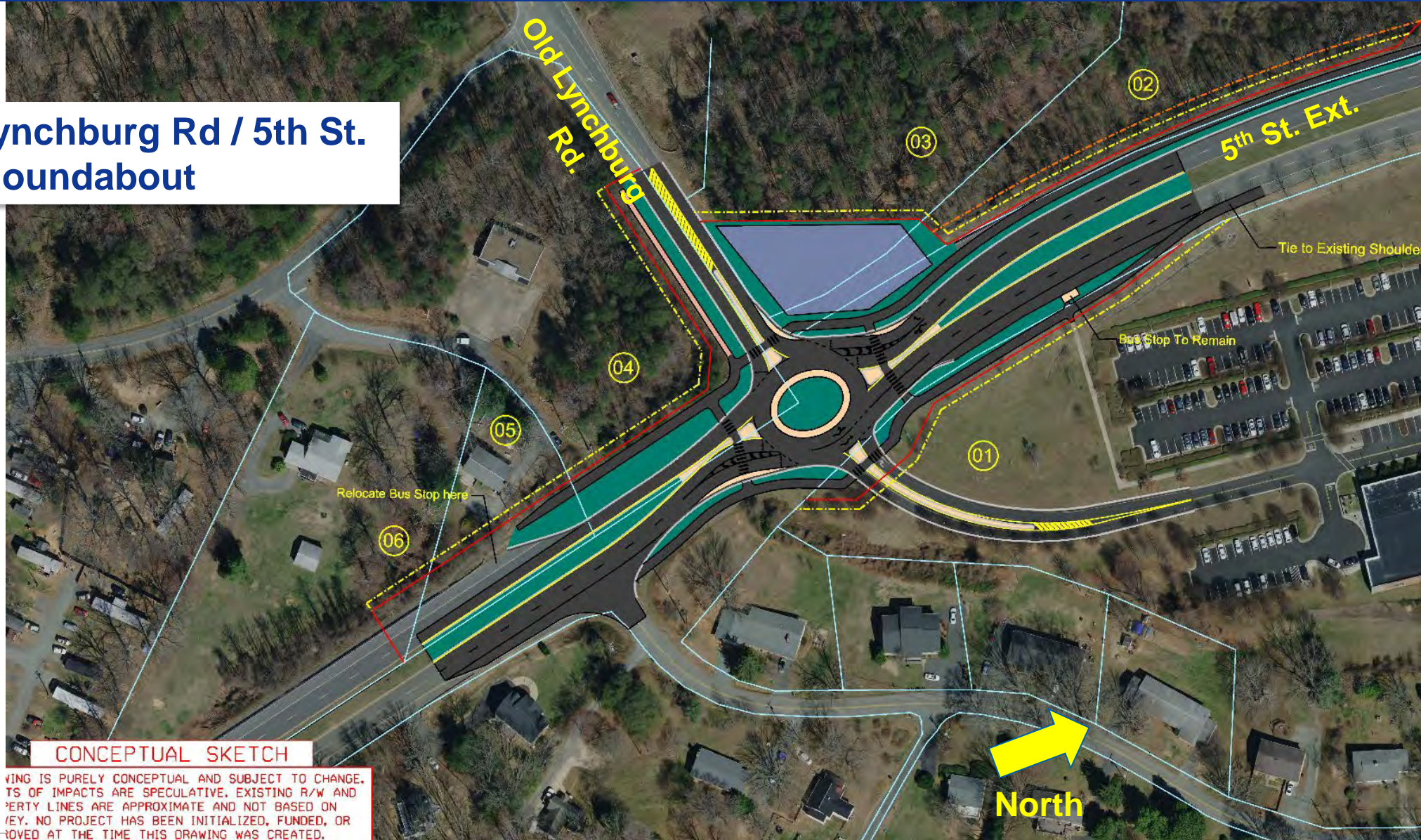
Design-Build Projects – Albemarle Intersection Bundle #2

Rio Road & Belvedere Blvd
Continuous Green-T



Design-Build Projects – Albemarle Intersection Bundle #2

Old Lynchburg Rd / 5th St. Ext. Roundabout



Design-Build Projects – Albemarle Intersection Bundle #2

US 250/Rte. 240/ Rte. 680 Roundabout

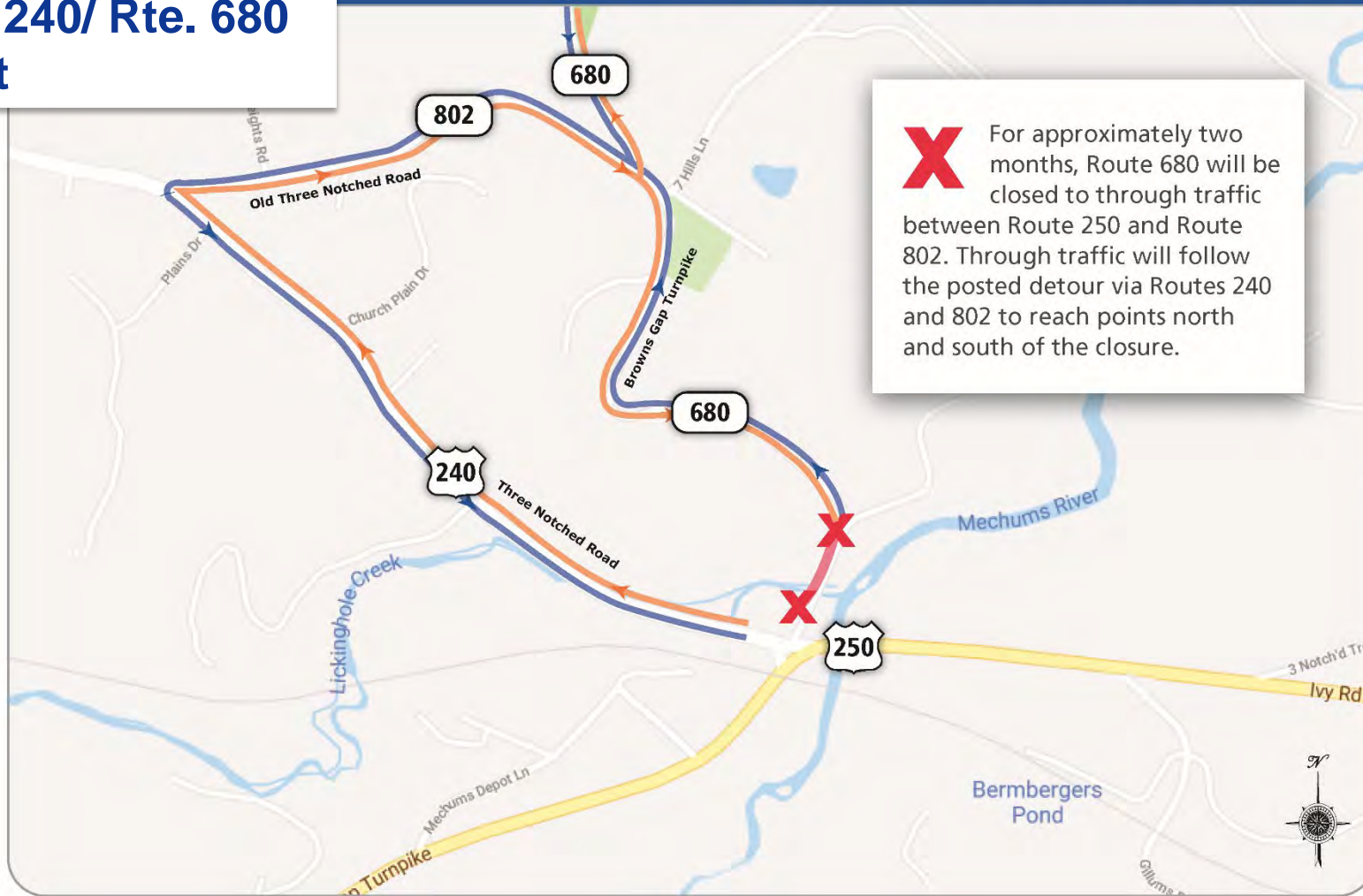


Design-Build Projects – Albemarle Intersection Bundle #2

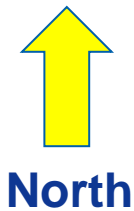


Potential Detour During Construction of Route 240/250/680 Roundabout in Crozet

US 250/Rte. 240/ Rte. 680 Roundabout



X For approximately two months, Route 680 will be closed to through traffic between Route 250 and Route 802. Through traffic will follow the posted detour via Routes 240 and 802 to reach points north and south of the closure.



Design-Build Projects – Albemarle Intersection Bundle #2

Status of Albemarle Intersection Bundling #2 Project:

- Survey is complete; Preliminary Engineering is underway

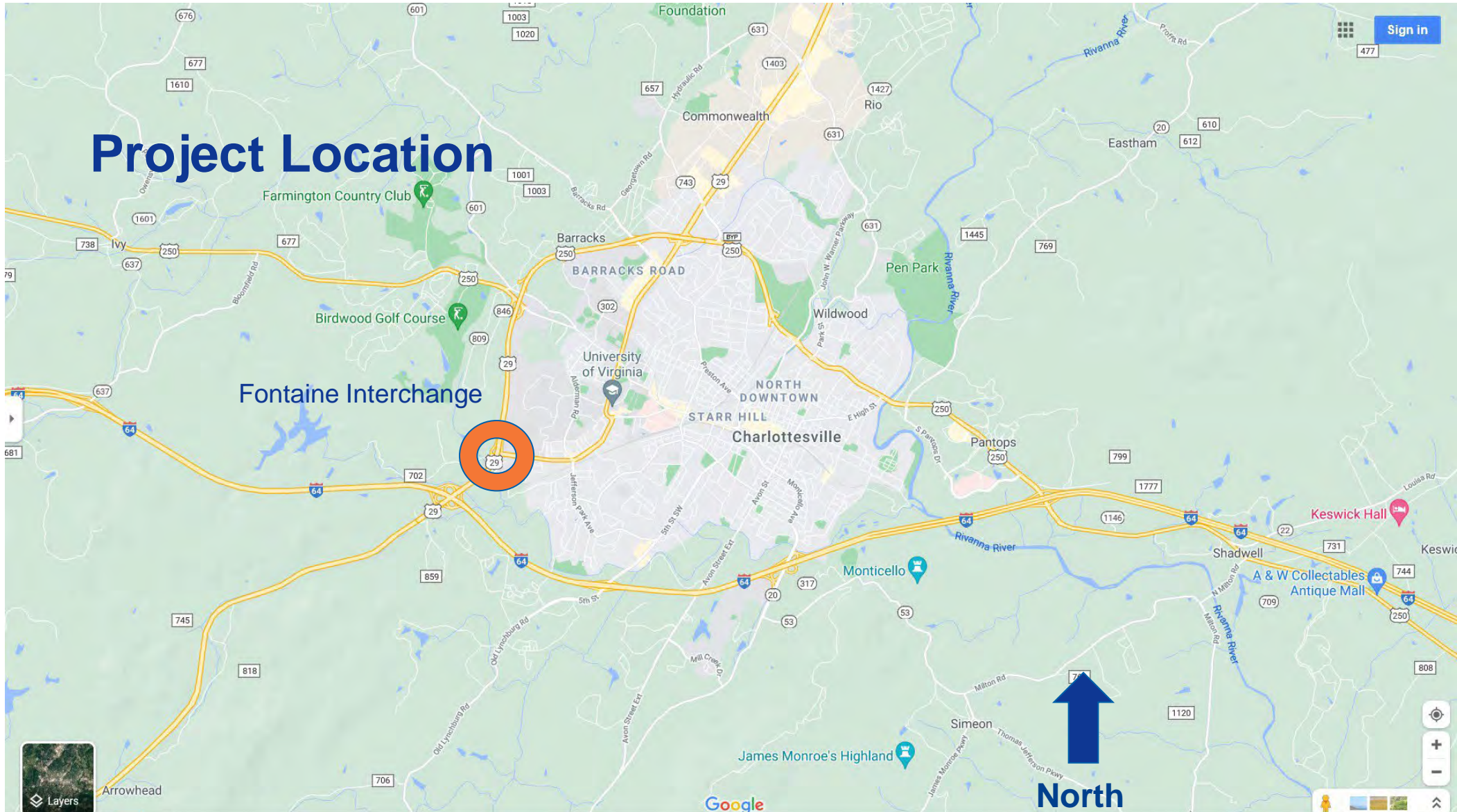
Schedule:

- | | |
|---------------------------------------|-------------------------|
| • Public Hearing | September 19 & 21, 2023 |
| • Advertise RFQ | Fall 2023 |
| • Statements of Qualification | Fall 2023 |
| • Request for Proposals (RFP) Release | Winter 2023 |
| • Anticipated CTB Award Date | Spring 2024 |

Project Delivery & Funding:

- Delivery method will be Two Phase Best Value Design-Build
- Project Budget is \$39.8 million (SMART SCALE & HSIP)

Design-Build Projects – Fontaine Avenue Interchange



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts - 2018

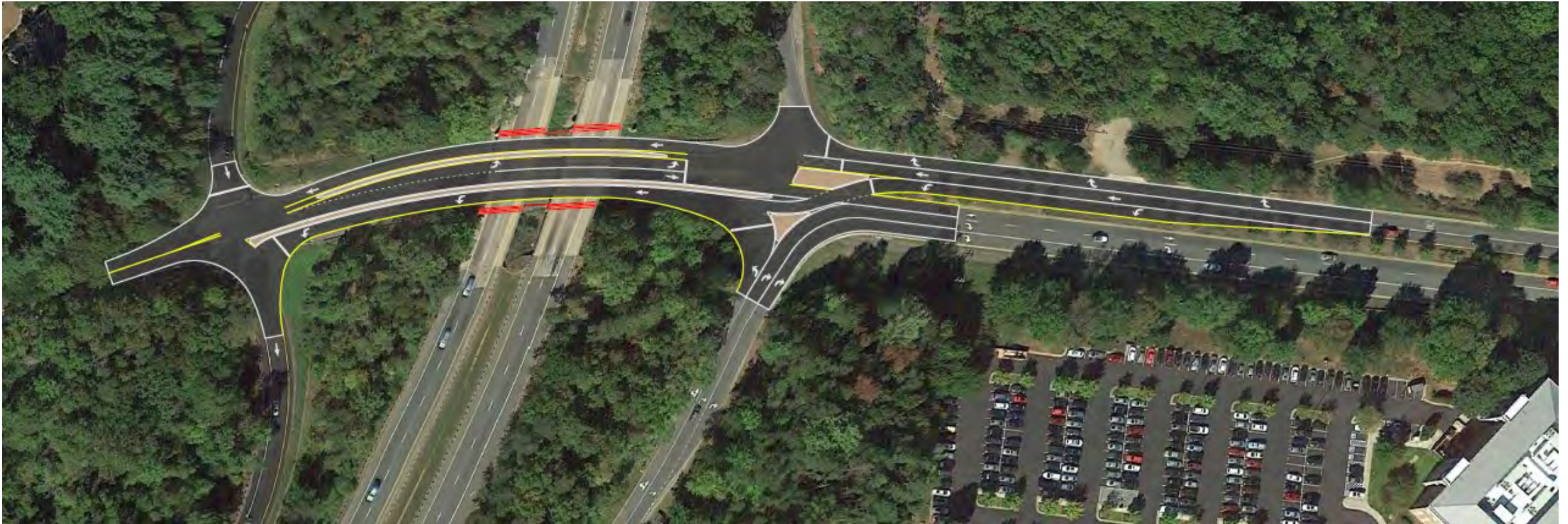
- Score = 2.33 (#21 in District)
- 2018 Estimate = \$21.9 million
- 2020 Ballpark = \$28 million



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts – 2020 alternative 1A

- Left turn from NB US-29 removed due to too many conflicts and poor delineation/ channelization at the crossover location
- Issue: No accommodation for NB 29 to Rte 702 movement



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts – 2020 alternative 1B

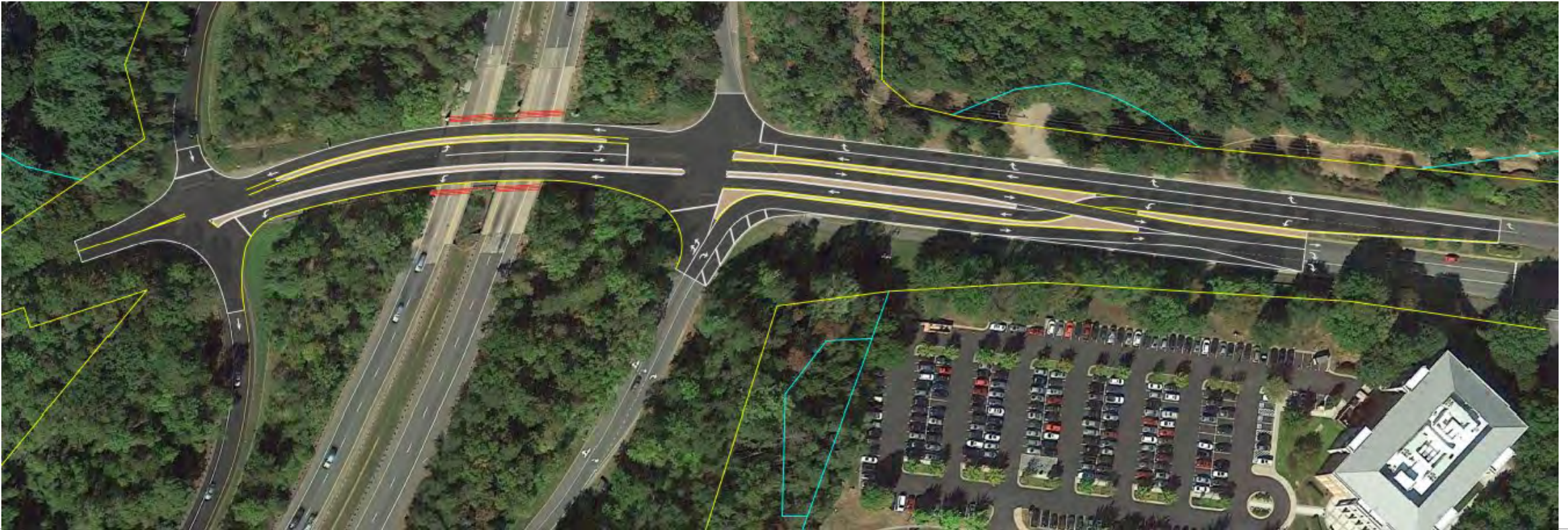
- Changes: Added dedicated U-turn



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts – 2020 alternative 2

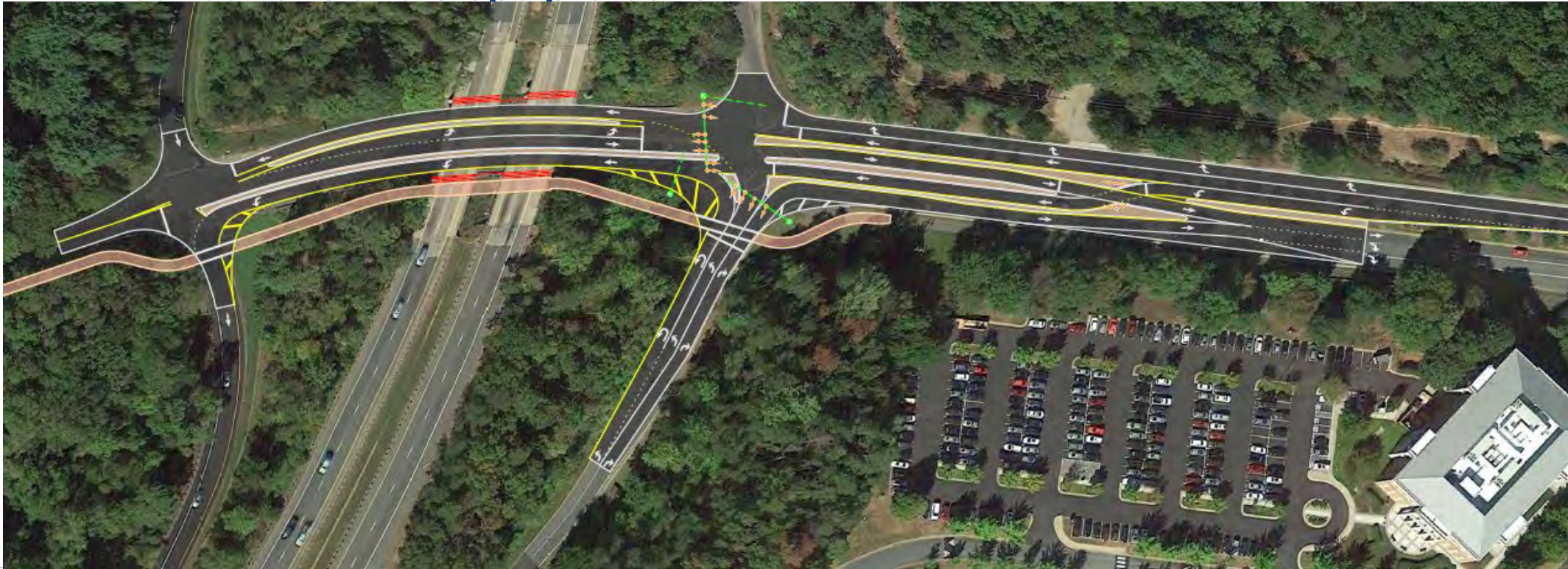
- **Changes:** Added direct left from NB 29 by moving the crossover east
- **Issues:** 1) queueing to left turn crossover backs through Ray Hunt
2) does not include dual rights from NB 29



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts – 2020 alternative 3

- Changes: Added a shared use path to Alternative 2 & separate U-turn and left turns from NB 29
- Issues: 1) same queueing issues; Alternatives 2/3 did not proceed
 - 2) path cannot be placed on bridge embankment due to retaining wall impacts to pier foundations and slope protection



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts – 2020 alternative 1C

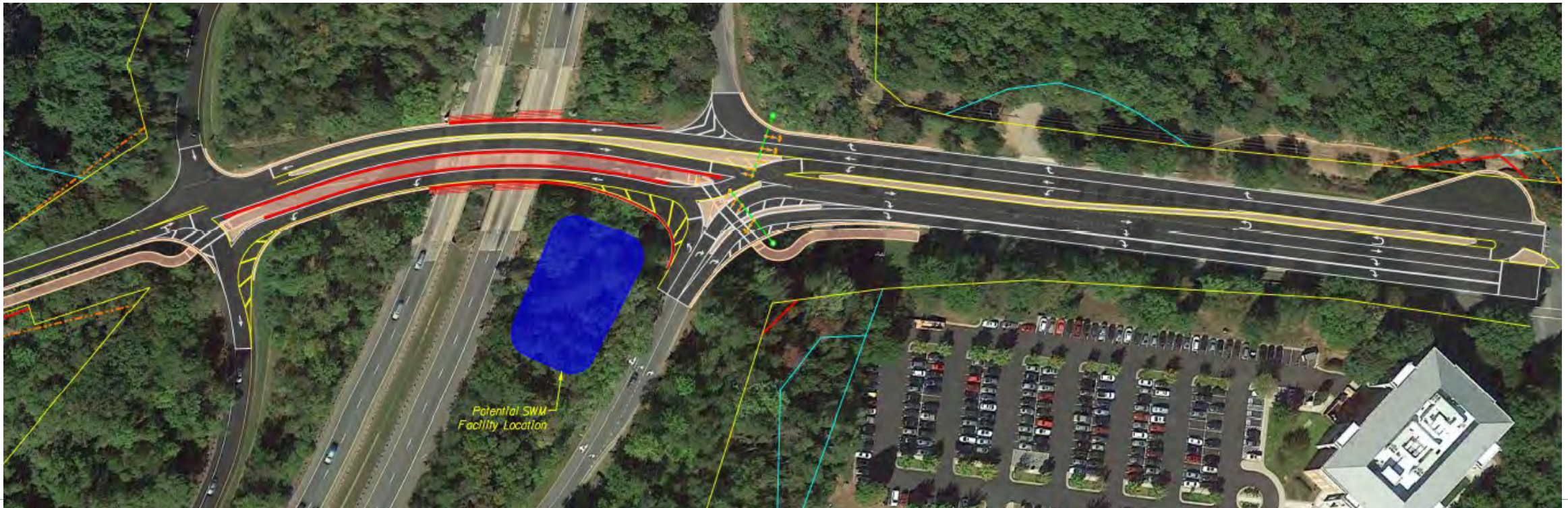
- **Changes:** Revised Alternate 1B; Alts 2 & 3 removed from consideration
Relocated path inside bridge piers- eliminated LTL from 702 to make room
- **Issues:** Difficulty in keeping crosswalks safe and efficient



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts – 2020 alternative 1D

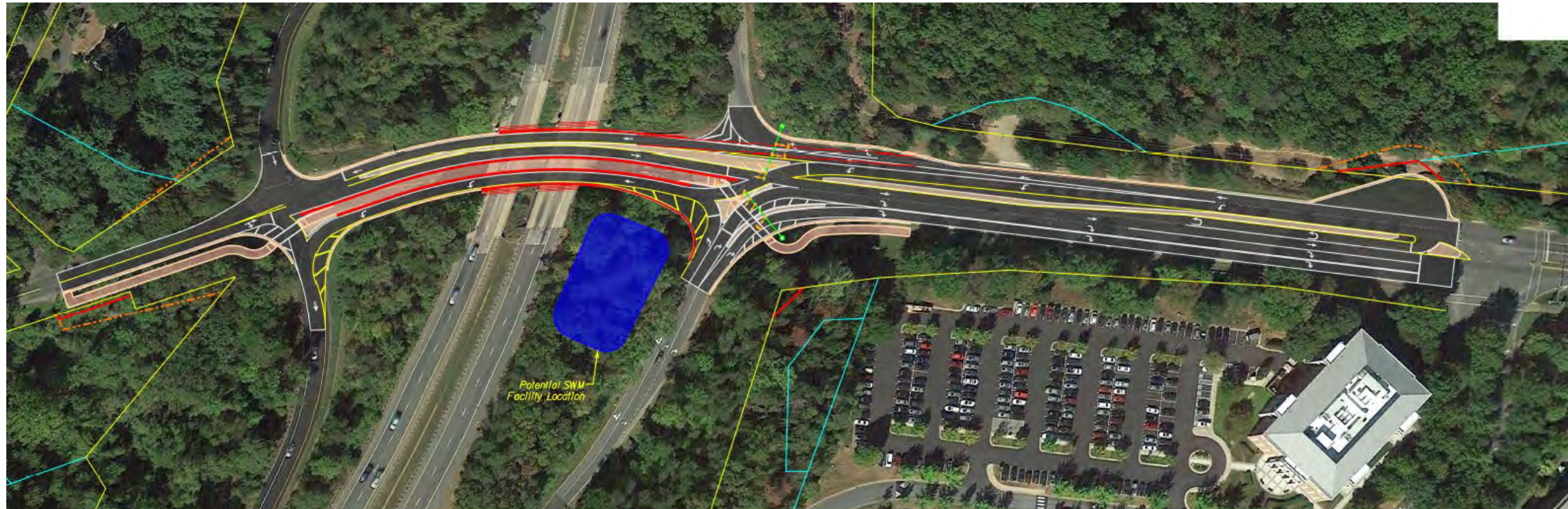
- **Changes:** Path relocated to median for increased safety/efficiency at crossings
Right turns from NB 29 separated to allow different phasing and for right lane to only serve Ray Hunt
- **Issues:** Left turn crossover storage still insufficient



Design-Build Projects – Fontaine Avenue Interchange

Prior Concepts – 2020 alternative 1E

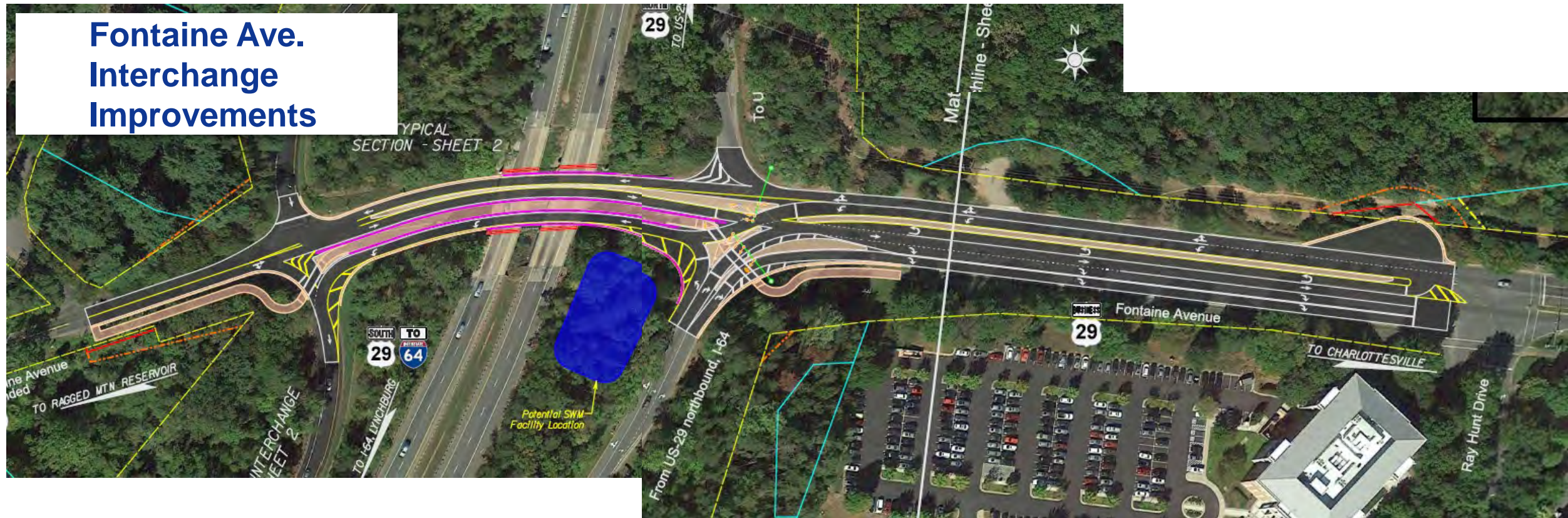
- Changes: Extended left turn lane to Ray Hunt; Widen to the north to add back right turn lane



Design-Build Projects – Fontaine Avenue Interchange

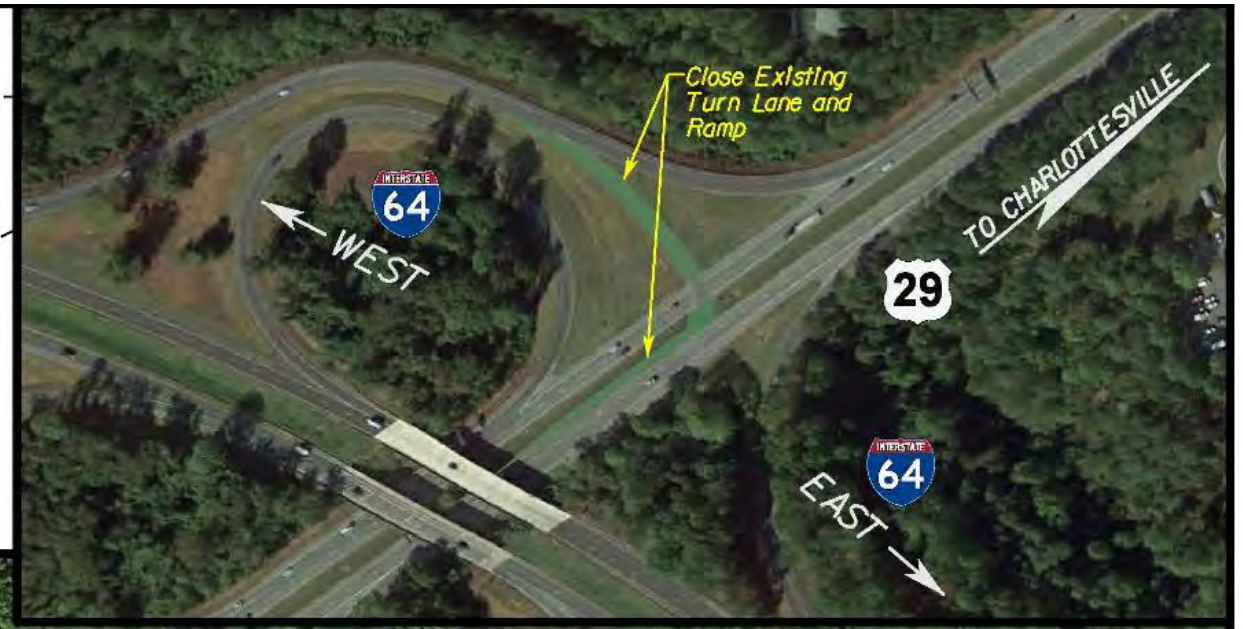
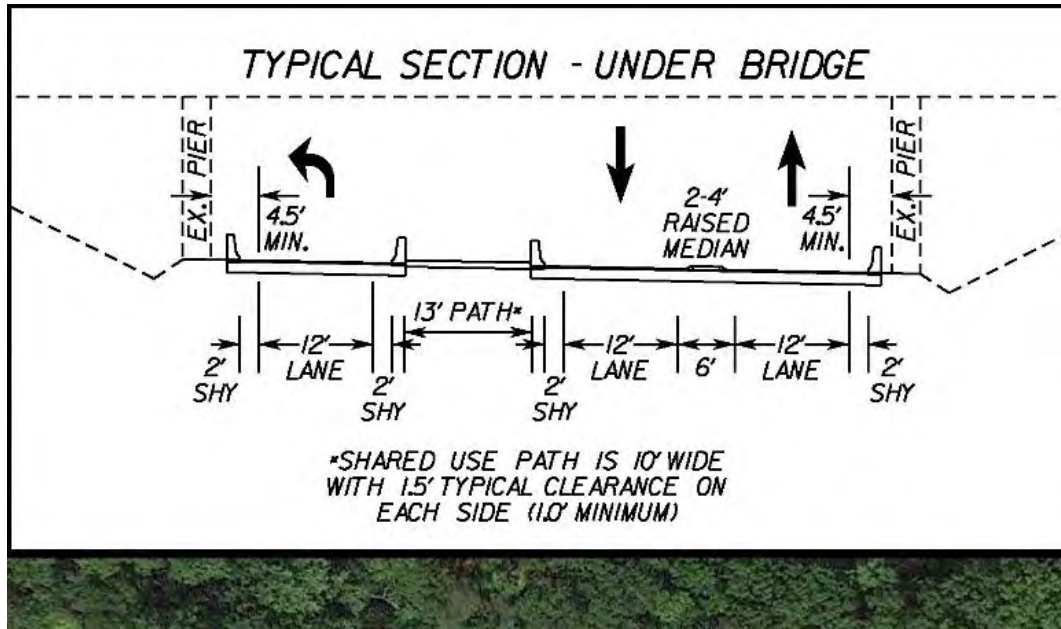
Final Application – 2020 revised alternative 1E

- Changes: Dedicated RTL to NB 29 not needed per Traffic Analysis
- Score = 8.77 (#14 in District)
- 2020 Estimate = \$12.4 million



Design-Build Projects – Fontaine Avenue Interchange

Fontaine Ave. Interchange Improvements - continued



Design-Build Projects – Fontaine Avenue Interchange

Status of US 29 & Fontaine Ave. Interchange Project:

- Survey is underway
- PE plan development anticipated to begin early ~~2024~~-TBD

New ATC Study

- Working with a consultant to explore up to 3 alternative concepts
- Scope includes review and validation of previous work, operational analyses, cost development, preparation of concept drawings
- Preliminary alternatives anticipated mid November
- Finalize potential ATCs in March/April 2024

Design-Build Projects – Fontaine Avenue Interchange

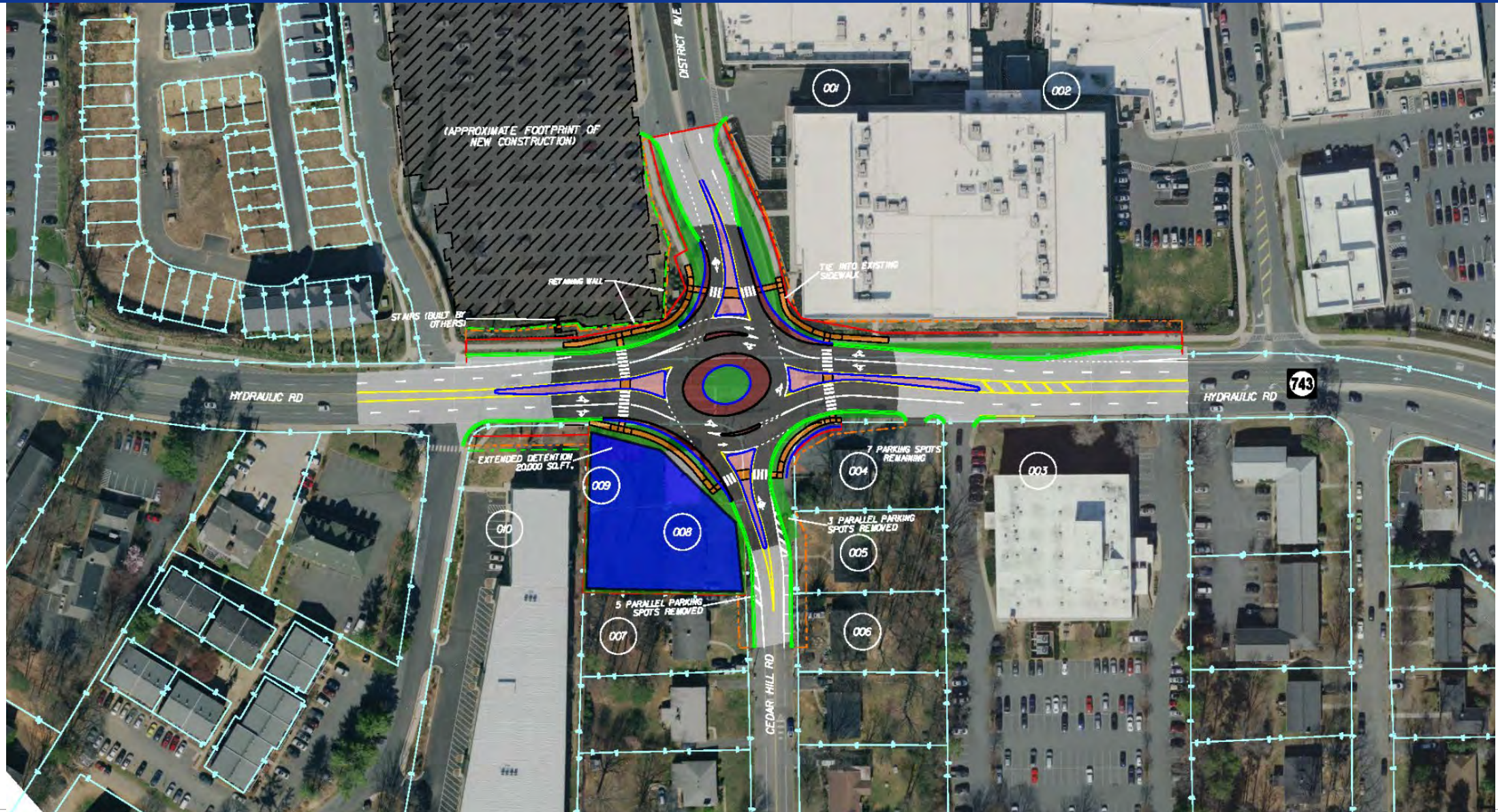
Tentative Project Schedule:

- Public Hearing ~~Fall 2024~~ TBD
- Advertise RFQ ~~Fall 2024~~ TBD
- Statements of Qualification ~~Fall 2024~~ TBD
- RFP Release ~~Winter 2024~~ TBD
- Anticipated CTB Award Date ~~Spring 2025~~ TBD

Project Delivery & Funding:

- Two-Phase, Best Value Design-Build
- Project Estimate is \$13.6 million

District Avenue Roundabout



District Avenue Roundabout

Key points:

- Improve operations & safety, and maintain pedestrian accommodations
- Accommodate additional traffic at the intersection resulting from removal of LTs at US-29 and Hydraulic Road
- Right of Way - 9 parcels being impacted and 2 total takes

Project Schedule:

- Preliminary Engineering **Begin Fall 2023**
- Public Hearing **Winter/Spring 2025**
- Advertisement **Spring 2028**

Project Delivery & Funding:

- Design-Bid-Build
- Project Budget is \$20.1 million (PE, RW & CN)

VDOT in the Charlottesville Area

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

