

STARS

STRATEGICALLY TARGETED AND
AFFORDABLE ROADWAY SOLUTIONS

MPO Policy Board Meeting

1. US 29 Corridor: Hydraulic Rd to Woodbrook Rd
2. US 29/250 Bypass Interchange with Emmet St

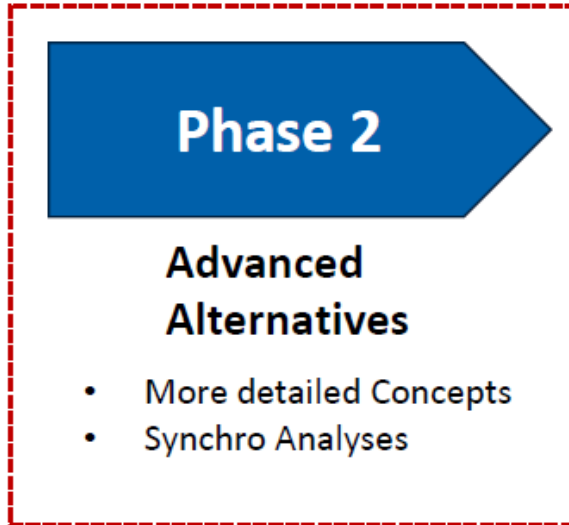
June 22, 2026

STARS ALTERNATIVE DEVELOPMENT OVERVIEW



Preliminary Alternatives

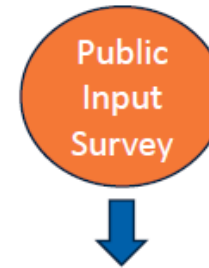
- High Level Concepts
- Vjust Screening



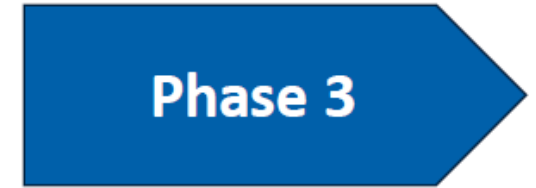
Advanced Alternatives

- More detailed Concepts
- Synchro Analyses

We are here



SWG Finalize Preferred Alternatives



Preferred Alternatives

- SMART SCALE level Concepts
- VISSIM Analyses

STUDY #1

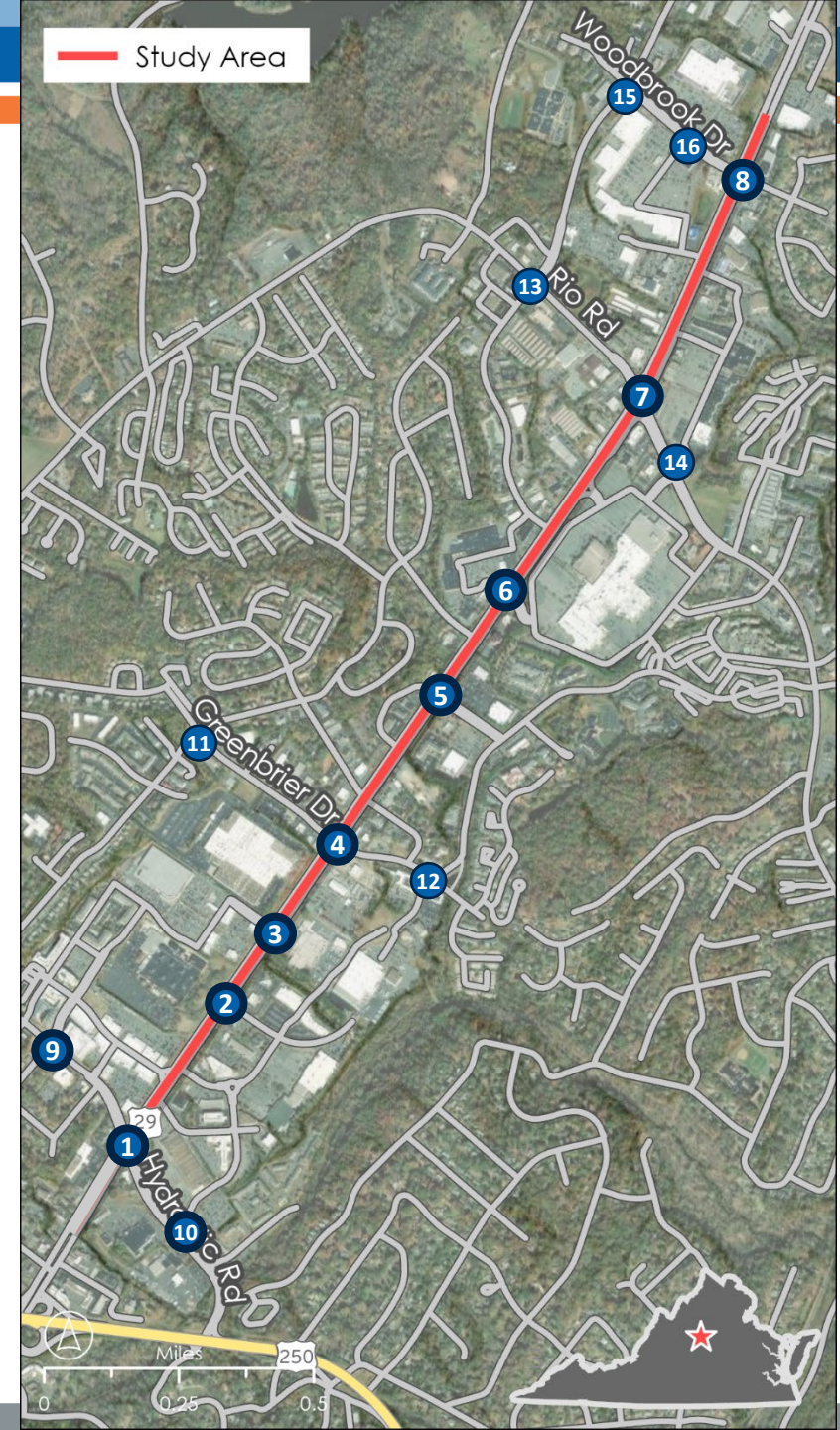
US 29 CORRIDOR: HYDRAULIC RD TO WOODBROOK RD

1 Data Collection (TMCs) on US 29:

1. Hydraulic Road
2. Seminole Court
3. Lenox Avenue
4. Greenbrier Drive
5. Branchlands Boulevard
6. Fashion Square Drive
7. Rio Road
8. Woodbrook Drive
9. Hydraulic Rd and District Ave/Cedar Hill Rd
10. Hydraulic Rd and Hillsdale Dr

11 Supporting Data Collection (TMCs) :

11. Greenbrier Dr and Commonwealth Dr
12. Greenbrier Dr and Hillsdale Dr
13. Rio Rd and Berkmar Dr
14. Rio Rd and Fashion Sqare Dr
15. Woodbrook Rd and Berkmar Dr
16. Woodbrook Rd and Rio Hill Center



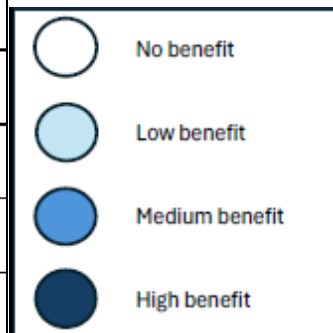
STUDY GOALS – US 29 CORRIDOR

- Incorporate County goals to create placemaking corridor with safe efficient crossings on US 29
- Incorporate VDOT goals to improve safety, reduce congestion, and maintain throughput
- Connect activity centers along US 29
- Alternatives will not preclude or depend on a future Hillsdale Drive relocation
- Alternatives will not preclude future development
- Enhance existing transit within study area

Increase level of
comfort for pedestrian
access across US 29

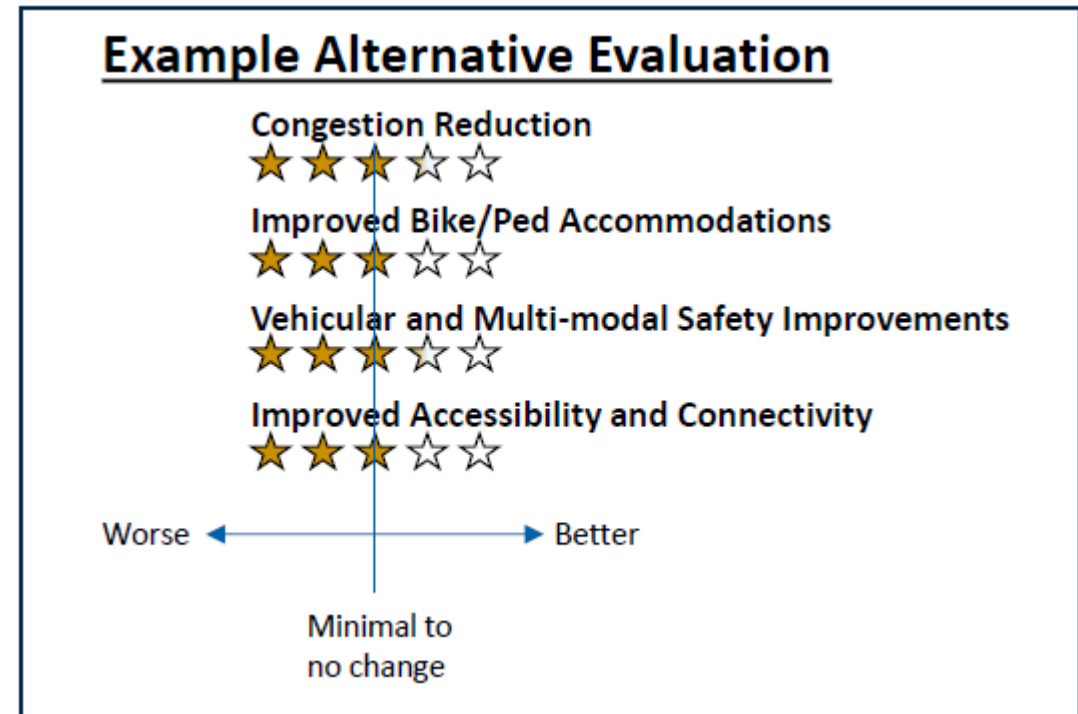
PRELIMINARY ALTERNATIVES

Alternative	Bike/Ped Needs		Transit Needs			Vehicular Needs	
	Bike/Ped Safety Improvement	Bike/Ped Connectivity	Increased Transit Access	Transit Travel Time on Existing Routes	Potential for Existing Transit Stop Improvements	Capacity Preservation / Congestion Mitigation	Vehicular Safety Improvement
Hillsdale Drive Shared-Use Path	High benefit	High benefit	Low benefit	No benefit	High benefit	No benefit	No benefit
Hillsdale Drive Parallel Route	No benefit	No benefit	No benefit	No benefit	Low benefit	Medium benefit	Low benefit
Seminole Ct Movement Restrictions	Low benefit	No benefit	Low benefit	Low benefit	No benefit	Low benefit	Low benefit
Lenox Avenue SB Right-Turn Lane	No benefit	No benefit	No benefit	Low benefit	No benefit	Low benefit	Low benefit
Greenbrier Drive Single Loop (Relocate NB lefts)	Low benefit	No benefit	No benefit	Low benefit	Low benefit	Medium benefit	Low benefit
Greenbrier Drive Single Loop (Relocate EB lefts)	Low benefit	No benefit	No benefit	Low benefit	Low benefit	Medium benefit	Low benefit
Greenbrier Drive Single Loop (Relocate SB lefts)	Low benefit	No benefit	No benefit	Low benefit	Low benefit	Medium benefit	Low benefit
Greenbrier Combination	Medium benefit	No benefit	No benefit	Medium benefit	Low benefit	Medium benefit	Medium benefit
Branchlands Blvd RIRO	Low benefit	High benefit	High benefit	Low benefit	Medium benefit	Low benefit	Low benefit
Branchlands Blvd Close Median	Low benefit	No benefit	No benefit	Low benefit	No benefit	Medium benefit	Medium benefit
Greenbrier/Branchlands Combo	Medium benefit	Low benefit	Low benefit	Medium benefit	Low benefit	High benefit	High benefit
Branchlands Blvd RCUT	Medium benefit	High benefit	High benefit	Low benefit	Medium benefit	Low benefit	Medium benefit
Series of RCUTS: Seminole Ct to Branchlands Blvd	Medium benefit	High benefit	High benefit	No benefit	Medium benefit	Medium benefit	Medium benefit
Woodbrook Drive Bowtie	Low benefit	Low benefit	No benefit	No benefit	No benefit	Low benefit	Medium benefit
Woodbrook Drive Northbound Improvements	No benefit	No benefit	No benefit	No benefit	No benefit	Low benefit	Medium benefit ¹



ADVANCED ALTERNATIVES FOR PUBLIC REVIEW

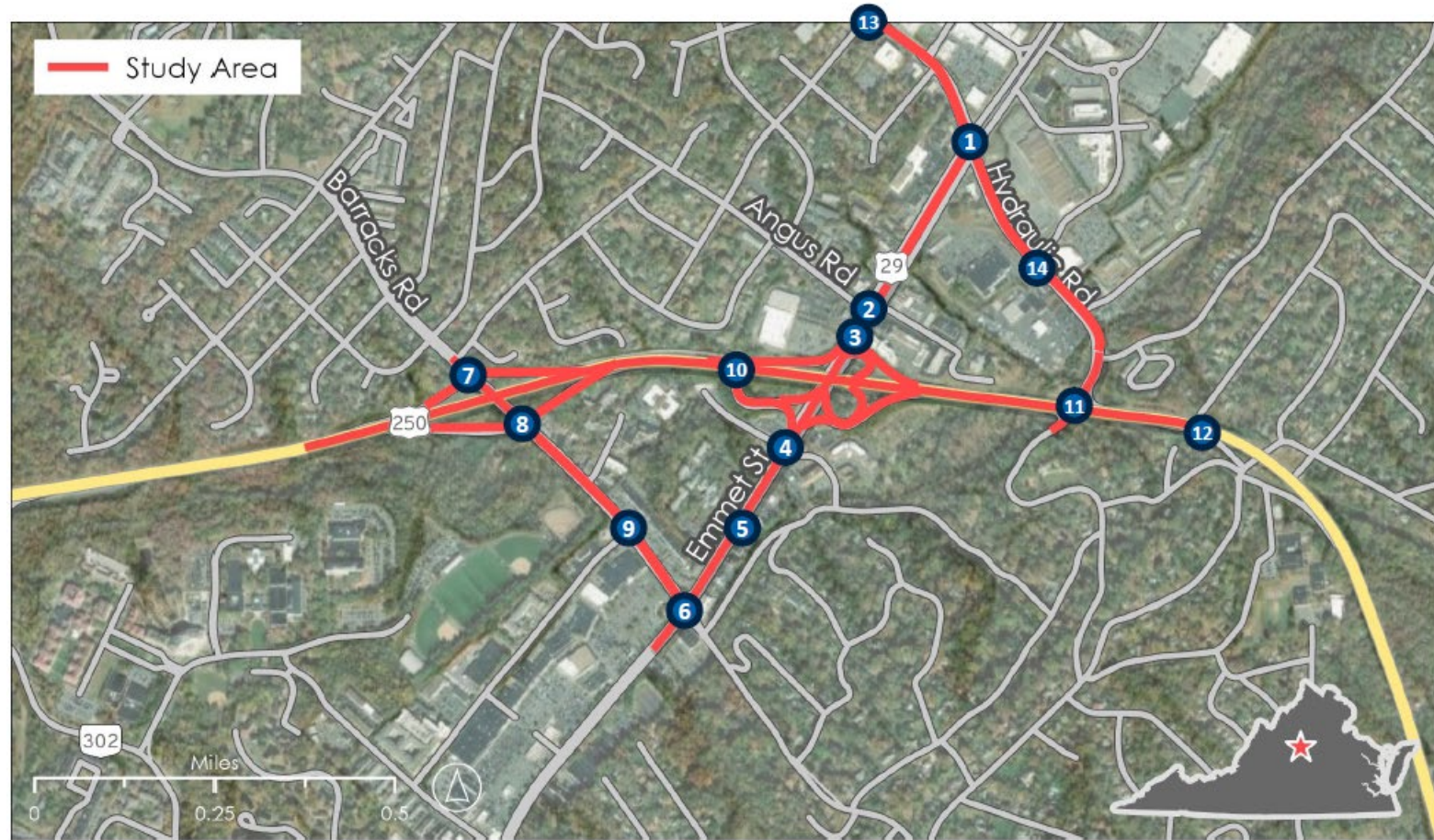
- **US 29/Fashion Square Drive Intersection**
 - Pedestrian Crossing Improvements (Thru-cut)
 - Pedestrian Crossing Improvements (RCUT)
- **US 29/Branchlands Boulevard Intersection**
 - Pedestrian Crossing Improvements (RCUT)
 - Construct Sidewalk from US 29 to Hillsdale Drive
- **US 29/Greenbrier Drive Intersection**
 - Pedestrian Crossing Improvements (Relocate NB left-turns)
- **US 29/Seminole Court Intersection**
 - Convert Northrup Grumman Approach to Ingress Only and Restripe Seminole Court Approach to include two left-turn lanes
- **Woodbrook Drive NB Improvements**
 - Install barrier to eliminate weave from Rio Road overpass to Woodbrook left turn
 - Added per feedback at the 5/26 SWG meeting



US 29/250 BYPASS INTERCHANGE WITH EMMETT STREET

■ Study Intersections:

1. US 29 and Hydraulic Road
2. US 29 and Angus Road
3. US 29 and US29/250 Bypass WB ramps
4. Emmet St and Earhart St/Morton Dr
5. Emmet St and Entrance to Fed Exec Institute
6. Emmet St and Barracks Rd
7. Barracks Rd and US29/250 Bypass WB ramps
8. Barracks Rd and US29/250 Bypass EB ramps
9. Barracks Rd and Millmont St
10. US29/250 Bypass and Ramp to SB Emmet St
11. Hydraulic Road and US29/250 Bypass
12. US29/250 Bypass and Ramp to Dairy Rd
13. Hydraulic Road and District Ave
14. Hydraulic Road and Hillsdale Dr



STUDY GOALS — BYPASS/INTERCHANGE

- **Reduce Congestion**
- **Increase safety**
- **Improve Bike/Ped Accommodations**
- **Improved Accessibility and Connectivity**
- **Do not preclude future Enhanced Transit on US 29**

ADVANCED ALTERNATIVES REVIEWED

- **Angus Road Intersection**
 - Right-out only
- **US 250 Interchange with Emmet Street**
 - Eliminate/Relocate low volume ramps
 - DDI
 - Hillsdale Drive Extension
- **Hydraulic Road/US 250 Intersection**
 - Rugby RI/RO
 - Triple Lefts
 - Jughandle
 - Westbound Overpass
 - Partial DLT

ADVANCED ALTERNATIVES FOR PUBLIC REVIEW

- **Angus Road Right-out**
 - Convert side streets to right-out only
 - Maintain two-stage ped crossing
- **Eliminate low-volume ramps at US 250 interchange with Emmet Street**
 - Eliminate the NB to WB loop ramp and the WB to SB left turn
 - Redirect those vehicle movements to the Barracks Road interchange
- **Hillsdale Drive Extension**
 - Extend Hillsdale Drive south from the intersection with Hydraulic to connect directly to the bypass
 - Eliminate the WB on- and off-ramps
 - Provide multi-modal improvements along the Hillsdale extension
- **Rugby Road Right-in/Right-out**
- **Hydraulic Rd SB Triple Lefts and EB left-turn lane extension**
- **Hydraulic Rd Jughandle**

NEXT STEPS

- **Conduct additional analysis on advanced alternatives**
- **Advanced alternatives survey later this summer**
 - Separate surveys for two study areas will run concurrently
- **SWG will review public feedback and identify preferred improvements**