



Duke Street Project Updates

**City Council
May 14, 2024**

Council Updates on Remaining Areas of Interest

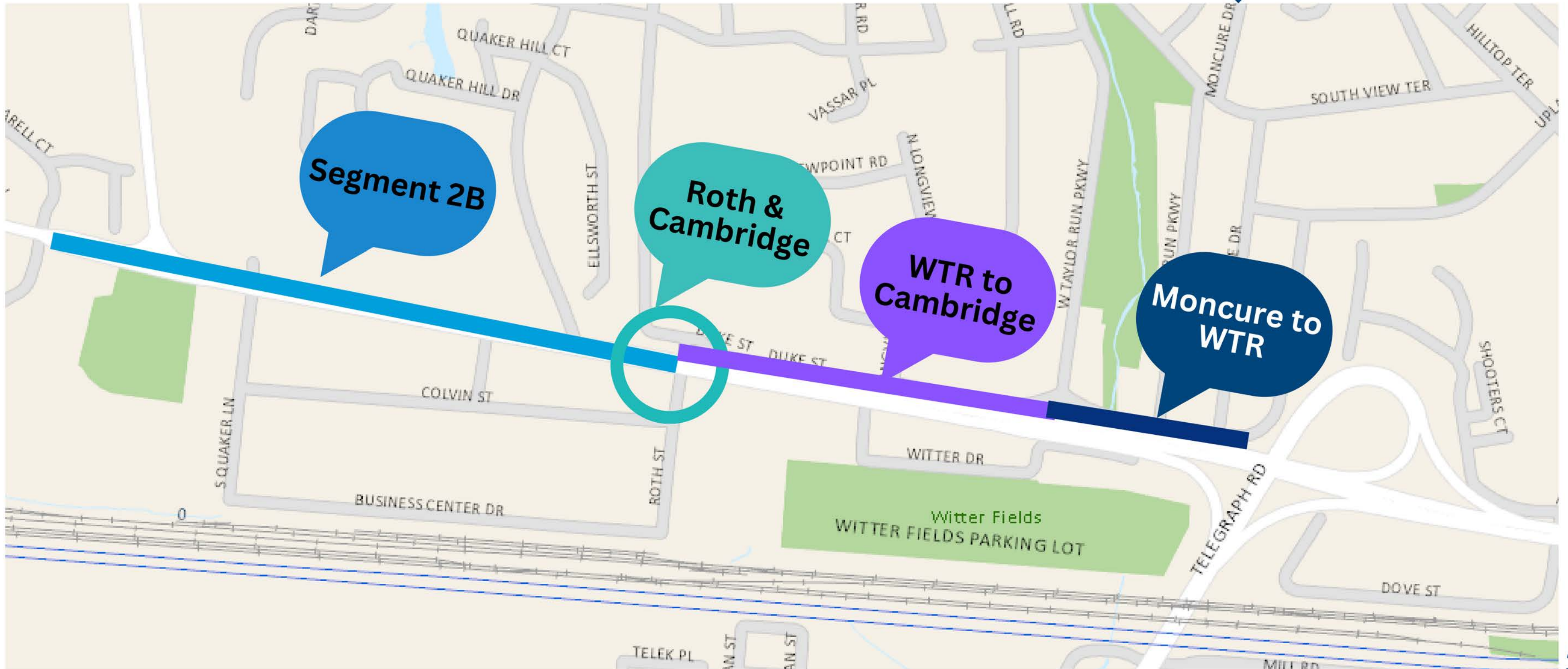
**Moncure
to WTR
Service
Road**

**WTR to
Cambridge
Service
Road**

**Cambridge
& Roth
Intersection**

**2B or Not
2B**

Project Locations

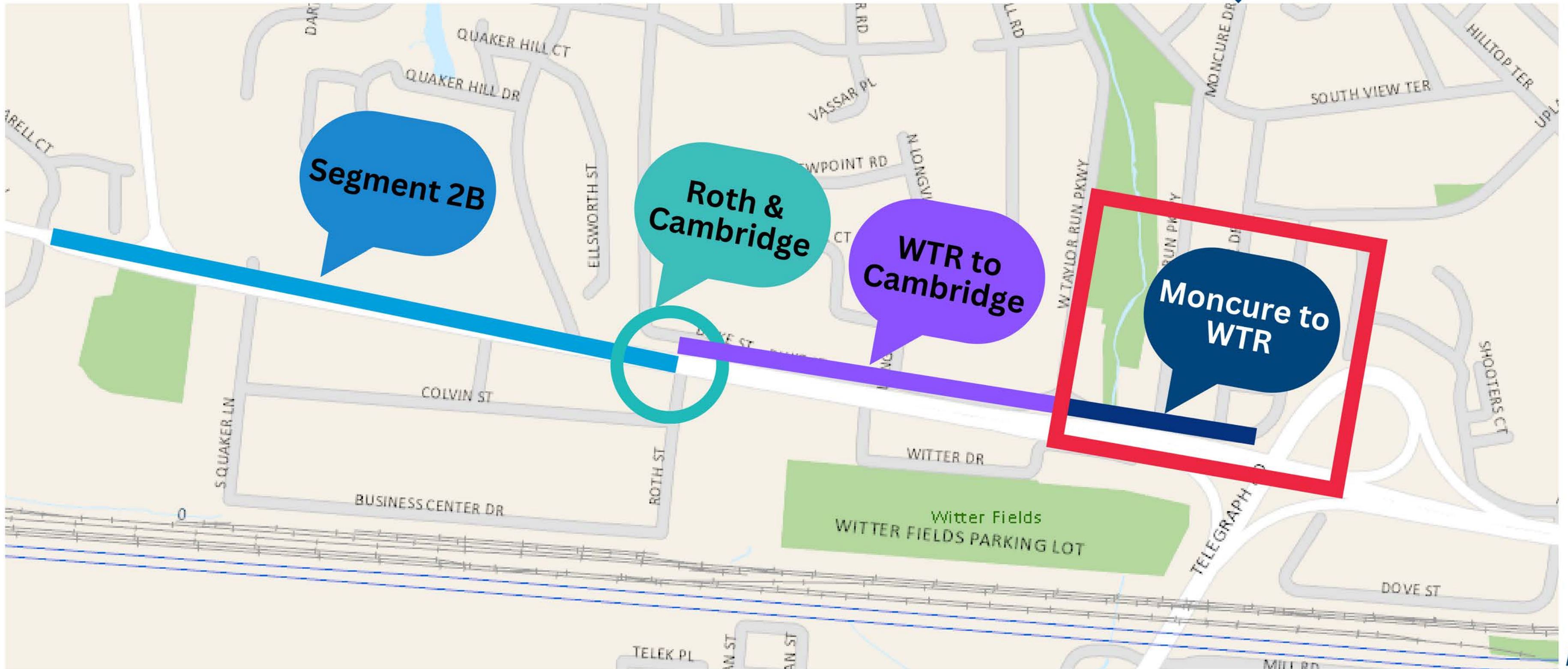


Community Engagement Summary

September 2023- Present

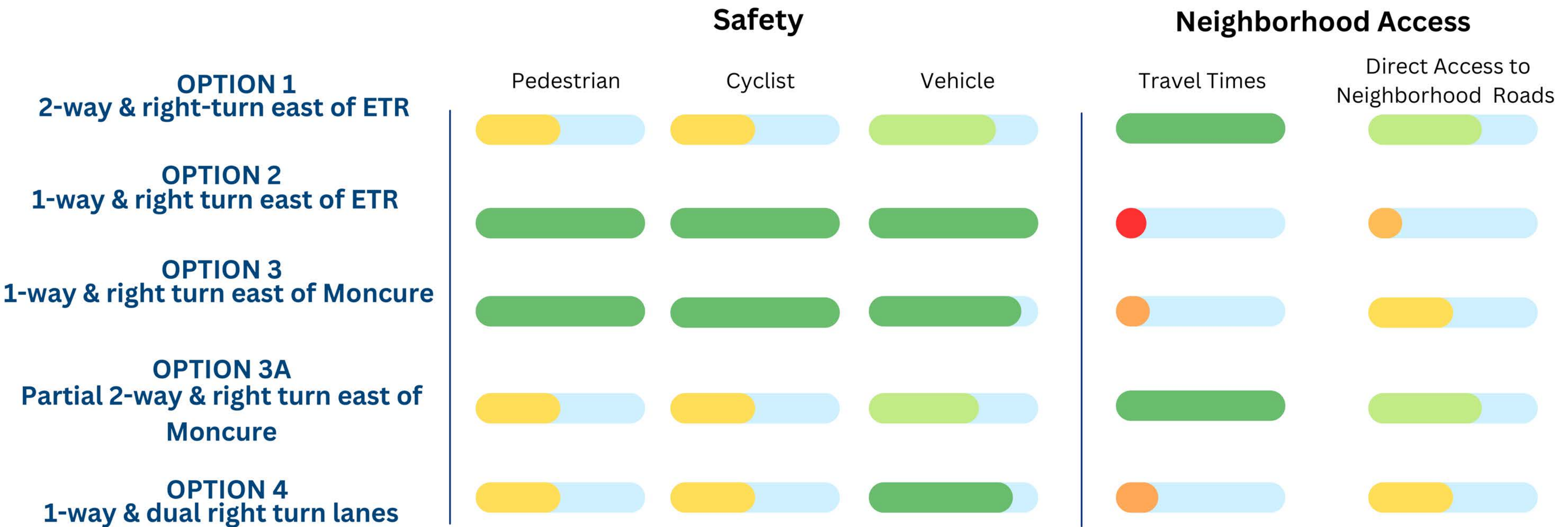
- 3 Civic Association/HOA Meetings
- 1 in-person Community Meeting with 75 attendees
- 400+ responses to online feedback form
- 4 Meetings with Community Leaders
- 3 Written Updates (City Council & Community Newsletters)
- 6 Board & Commission Staff Updates
- 2 City Council Oral Updates
- Numerous phone & email conversations with residents

Project Locations



Moncure to West Taylor Run

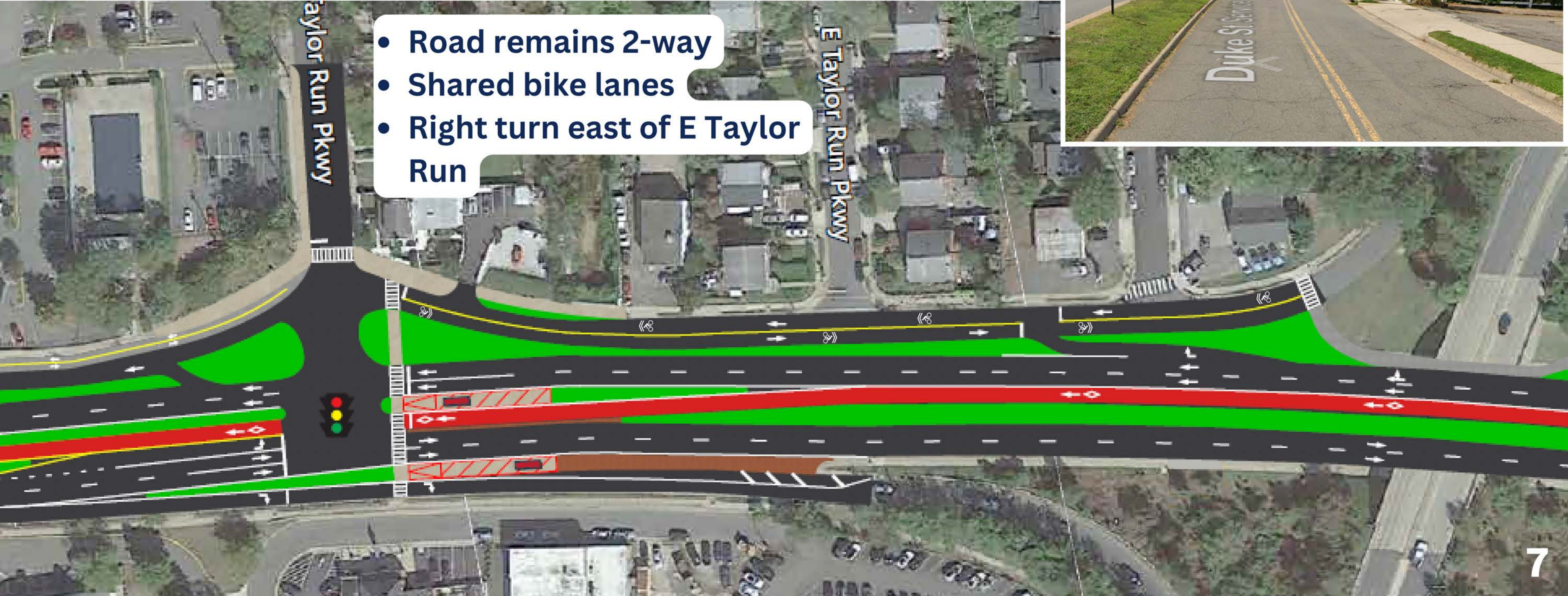
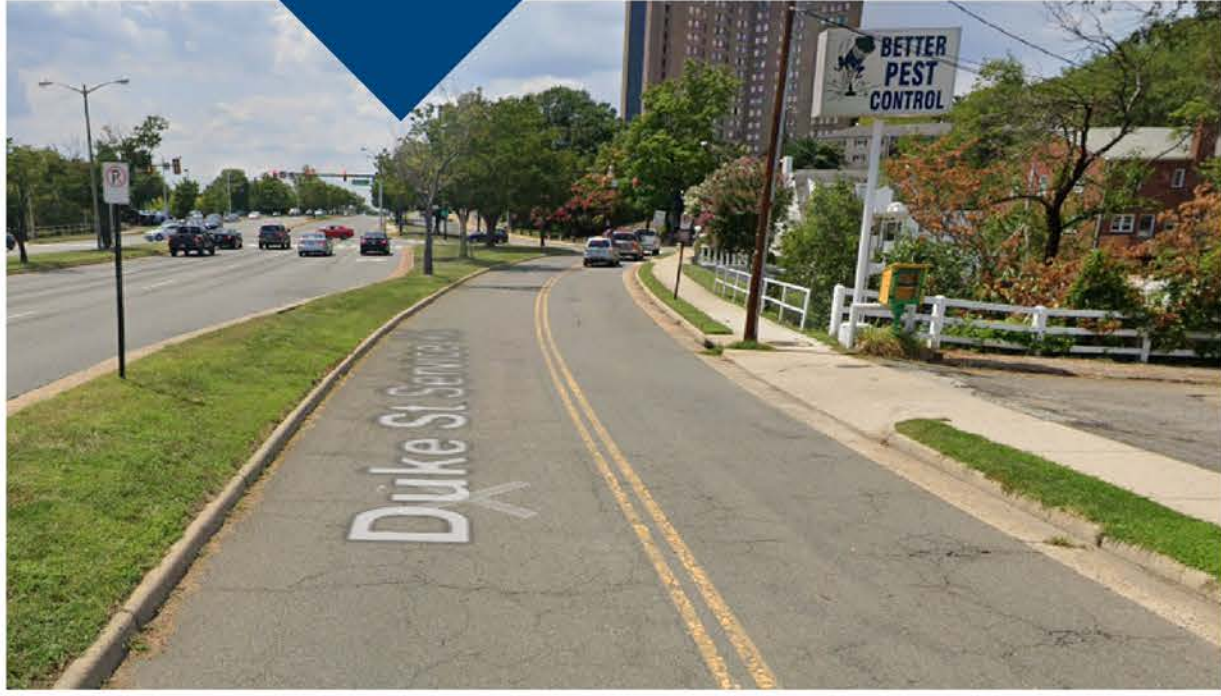
Service Road and Right-turn Lane Comparision



Moncure to West Taylor Run

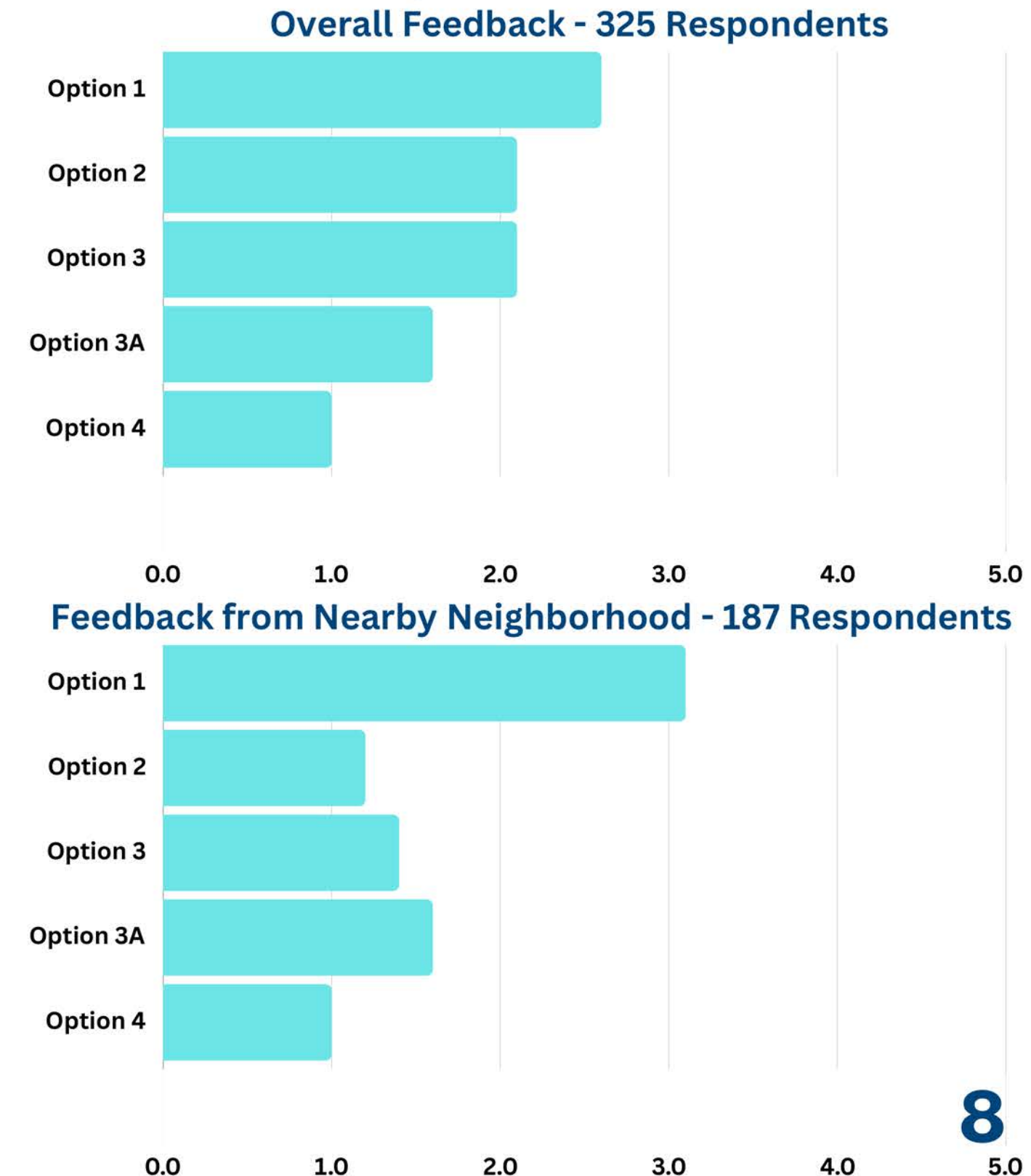
Recommendation: Option #1

- Road remains 2-way
- Shared bike lanes
- Right turn east of E Taylor Run

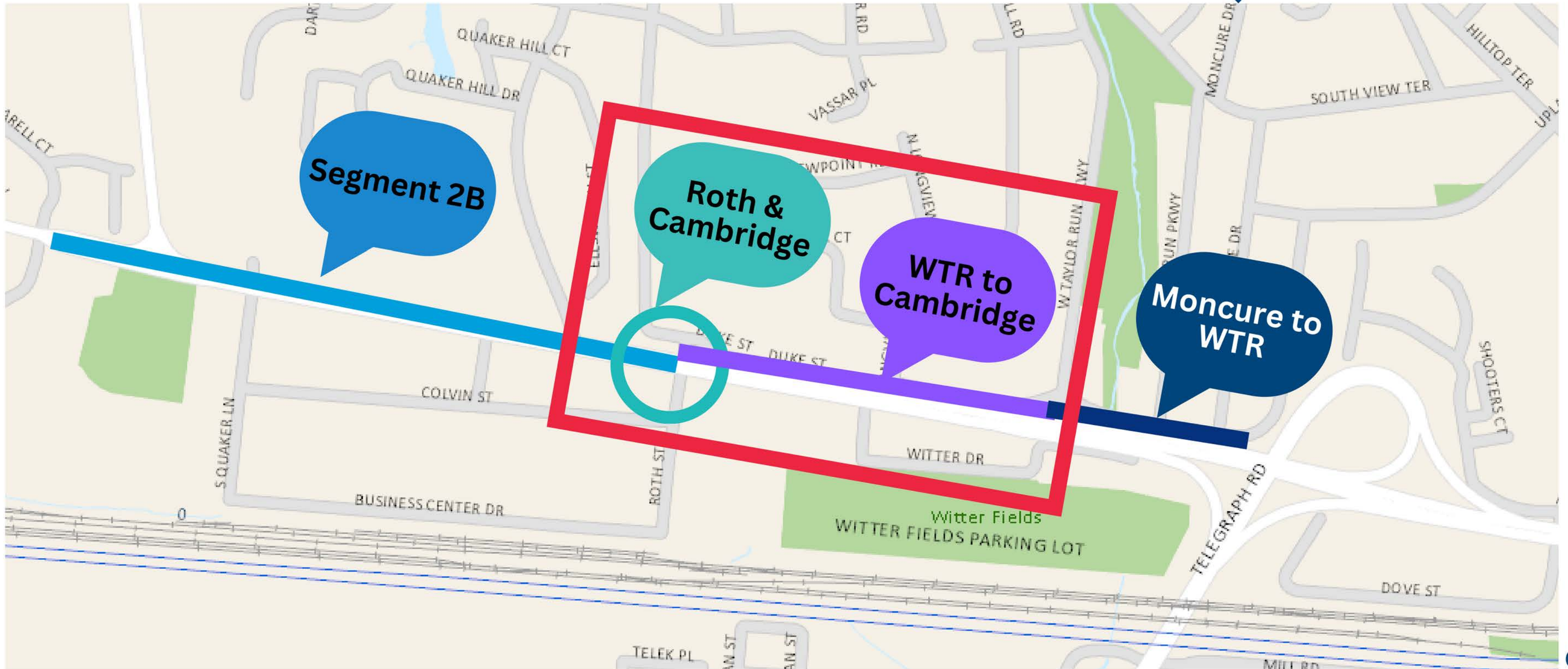


Moncure to West Taylor Run Service Road

- **Recommendation: Option 1**
 - **General neighborhood support**
 - **Street remains two way**
 - **Low speed street for shared bicycle facilities**
 - **Allows u-turns to get to businesses**
 - **Works well with intersection improvements to decrease delay on Duke Street**



Project Locations



Cambridge & Roth Intersection

Developed & Received input on 3 options that considered:



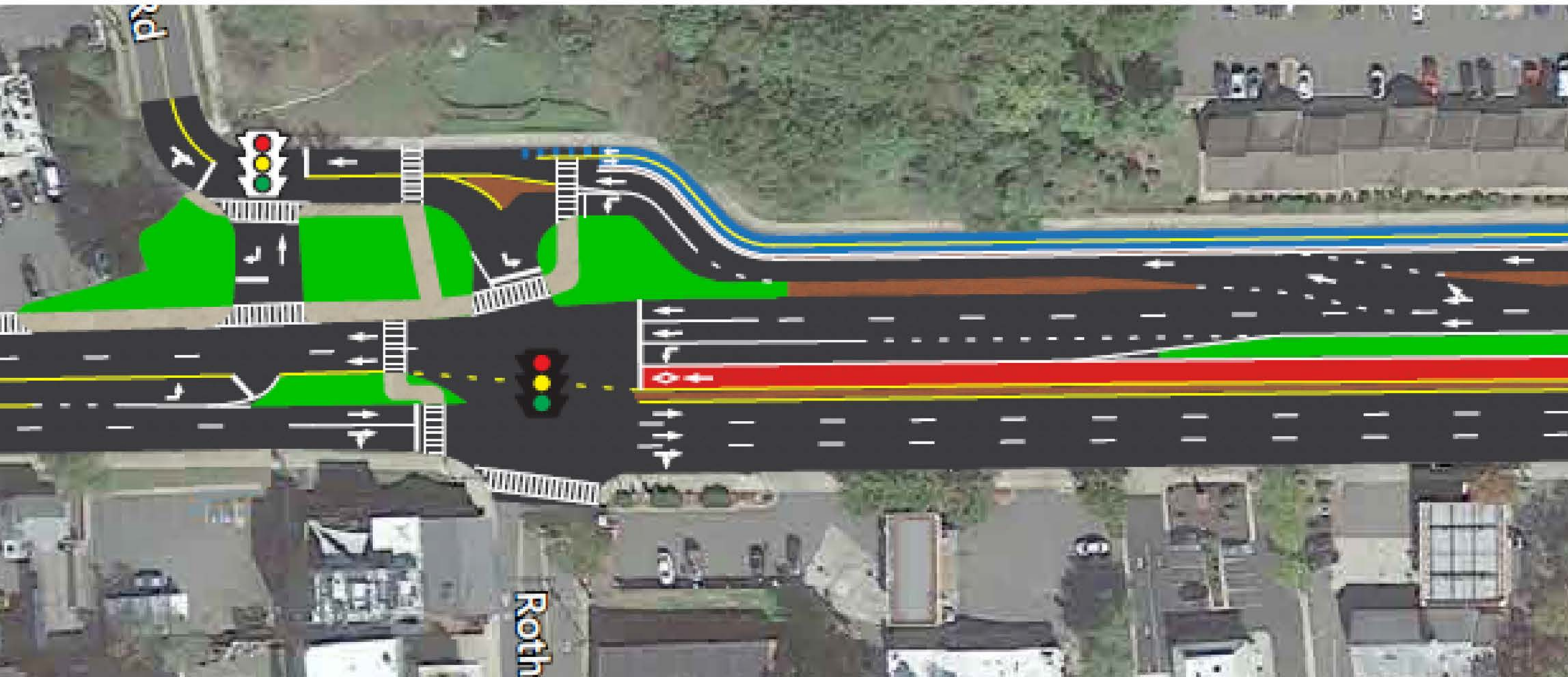
Over 250 responses to feedback form (85% from neighborhood)

- Safety was #1 priority
- “The benefit of reducing delay for all approaches at the Cambridge/Roth intersection and keeping Duke Street traffic flowing is worth the tradeoff of having a one-way service road”
 - 0 disagree to 2 strongly agree (Score 1.85)

Recommendation: Option #3 (The Through-cut)

Safety

- Conflict Points reduce from 41 to 27
- Pedestrian refuge with less conflicting movement
- Minimal conflicts with all modes at service road
- Faster travel on Duke Street reduces cut-through traffic
- Potential for conflict free crossing of Duke Street



A **Level of Service (LOS)** F
Increasing travel delays →

Traffic Operations

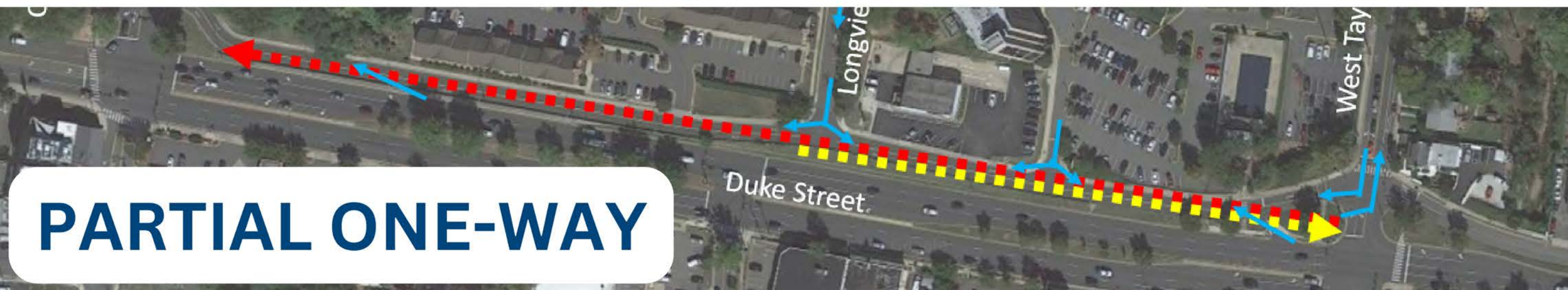
Intersection LOS **C**

- Delay: 31s from 181s

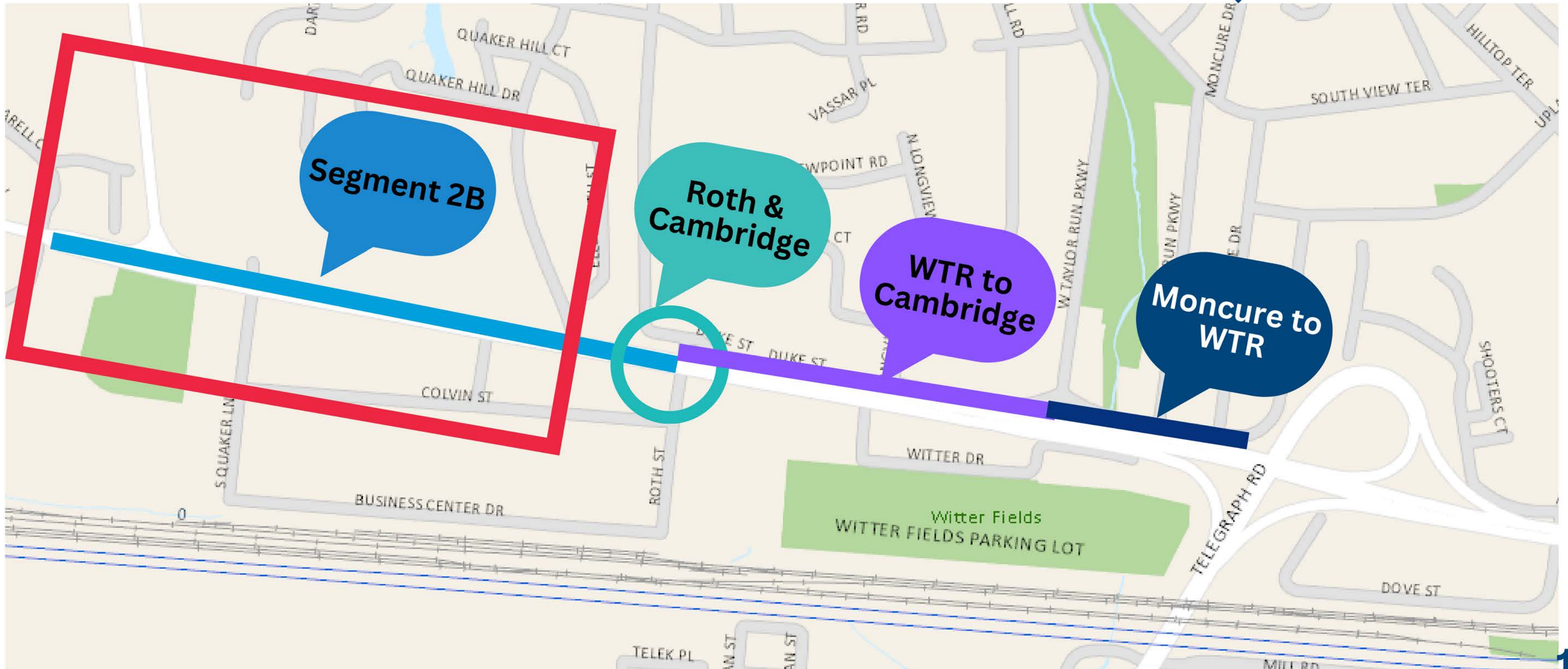
Cambridge LOS **F**

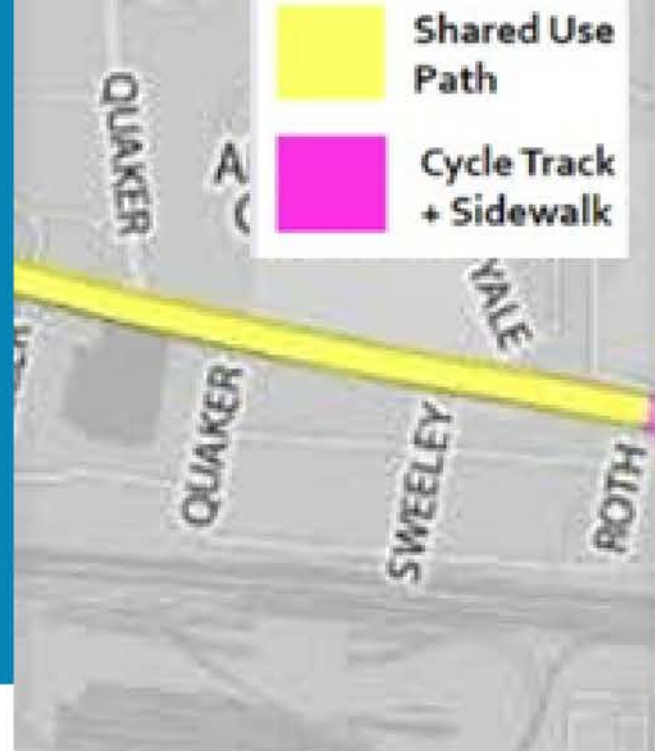
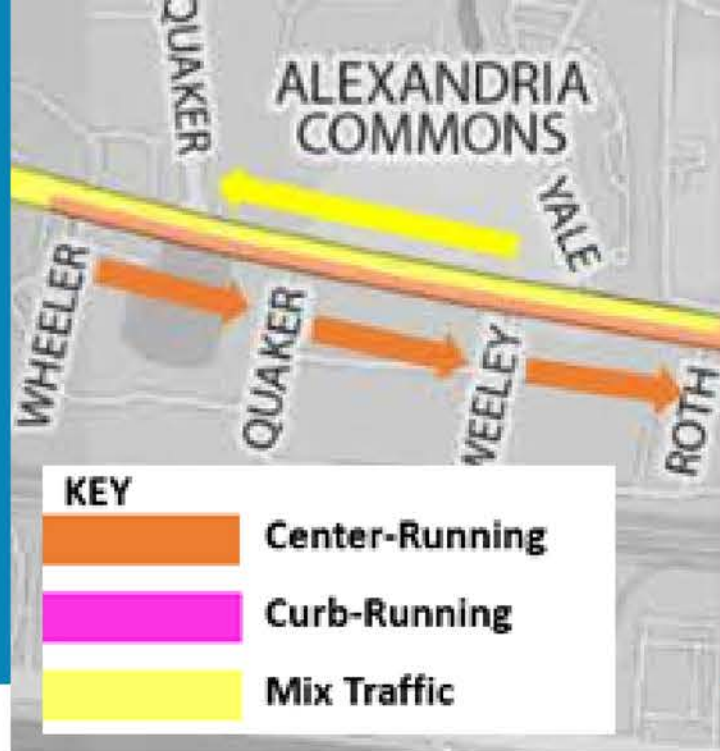
- Delay: 72s from 195s

Service Road: WTR Pkwy to Cambridge Road



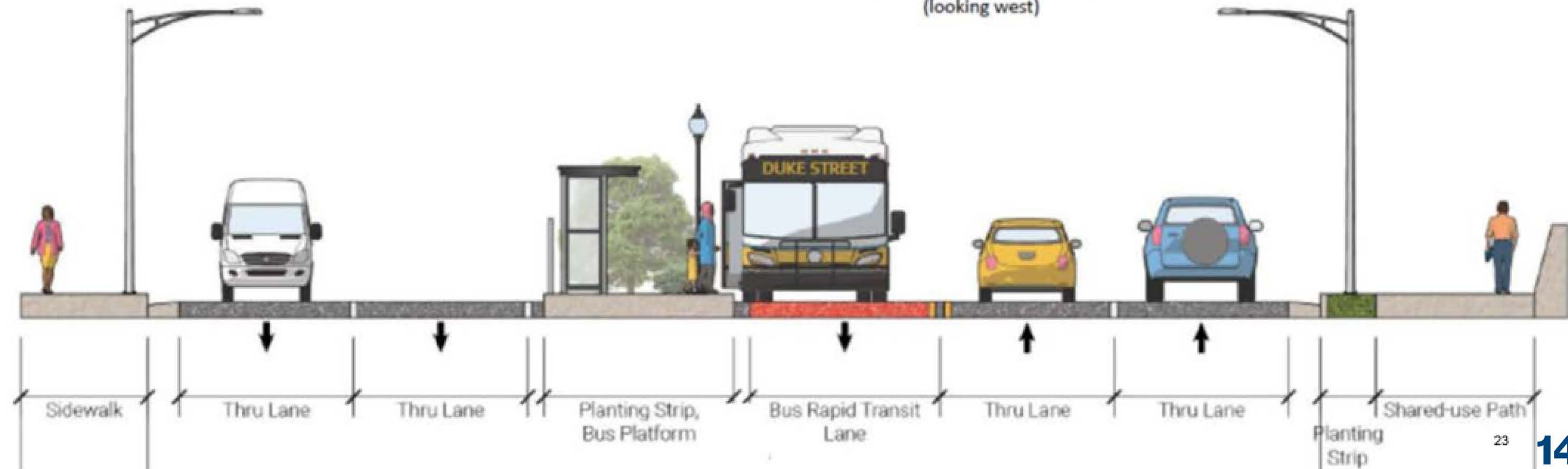
Project Locations





Segment 2B - Wheeler to Roth

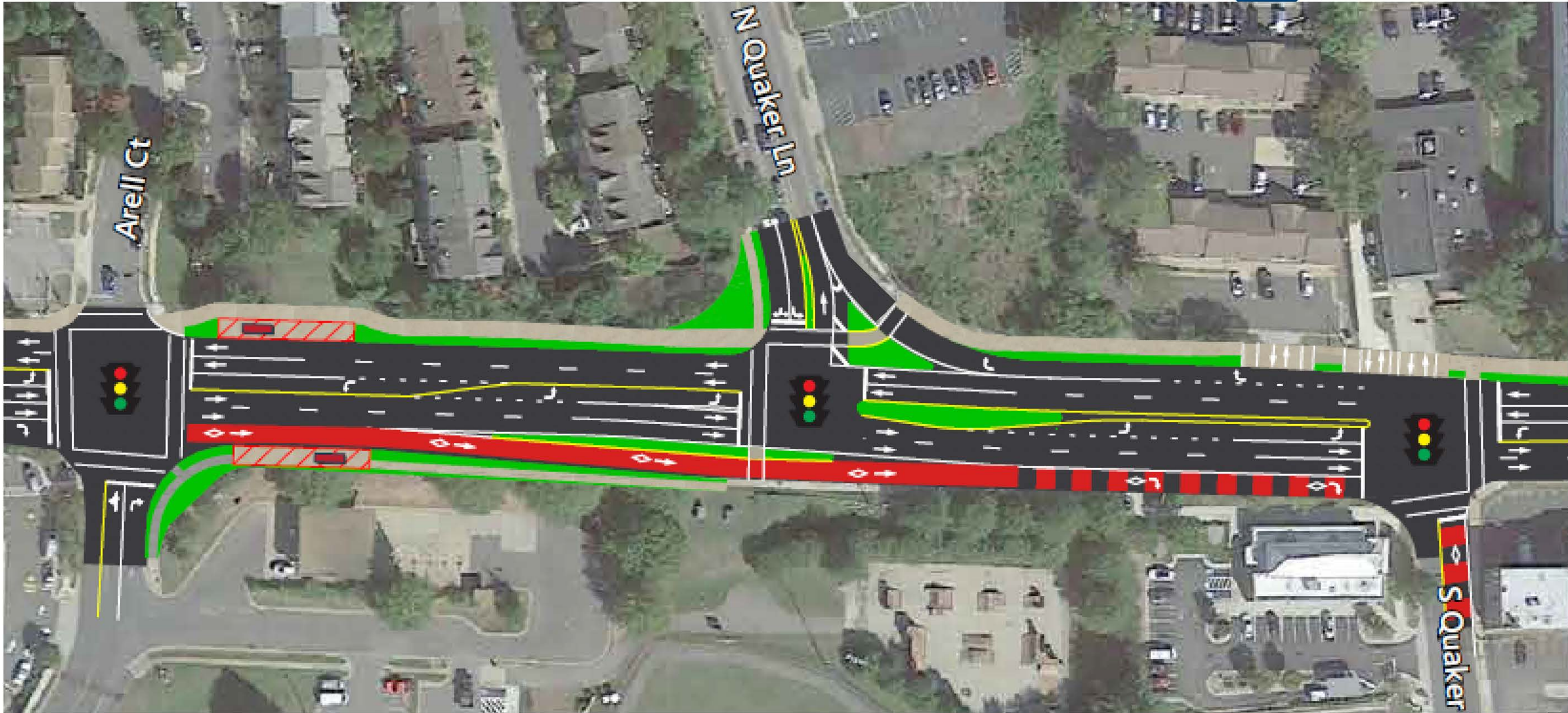
Yale Drive to Sweeley Street
(looking west)



Segment 2B



Quaker Lane & Duke Street



Summary of Preliminary Suggestions

- **Maintain two-way service road from *Moncure Drive to West Taylor Run Parkway*.**
- **Convert service road from *West Taylor Run Parkway to Cambridge Road* to one-way westbound with separate space for roadway users.**
- **Redesign *Cambridge Road* intersection to decrease travel delay and improve safety.**
- **Construct *Segment 2B* with redevelopment and instead provide transit queue jumps and traffic improvements at Quaker Lane and improve edge features.**

Next Steps

- **Moncure to West Taylor Run Service Road**
 - **Consideration at May 20, 2024, Traffic & Parking Board Public Hearing**
- **Cambridge Road intersection redesign**
- **Service road from West Taylor Run Parkway to Cambridge Road**
- **Duke Street from Wheeler to Quaker Lane**
 - **Consideration at June/July Traffic & Parking Board Public Hearing**
- **Service road from West Taylor Run Parkway to Cambridge Road**
 - **City Council consideration in Fall 2024**