TRAFFIC & PARKING BOARD
PUBLIC HEARING

January 22, 2024

City Hall – Alexandria, VA

Hybrid meeting will start at 7:00 PM

Welcome!

Public Hearing:

Board will receive comments from the public in-person and via Zoom

Three Ways to Speak:

- Via e-mail: signed up in advance
- In-person: use sign-up form at back of the room
- Via Zoom: use ‘Raise Hand’ feature in Zoom
  - *9 with phone audio

Agenda: January 22, 2024

Welcome & Introductions

1. Deferrals and Withdrawals

2. Approval of Minutes

3. Written Staff Updates & Public Hearing Follow-up

4. Public Discussion Period

Consent Items:

5. No Turn on Red Restrictions – Four Intersections Along North Saint Asaph Street

6. All-way Stop Addition – Intersection of Commonwealth Avenue and Windsor Avenue

Public Hearing Items:

7. No Turn on Red Restrictions – Multiple Intersections Along Duke Street

Information Items:

8. Staff Updates

- Manual on Uniform Traffic Control Devices (MUTCD) Traffic Updates
- Duke Street Updates

9. Commissioner Updates

Approval of the Minutes

Written Updates & Public Hearing Follow-Up

Public Discussion Period

This period is restricted to items NOT listed on the docket

If you would like to speak, please:

- Submit a Public Speaker form (if in person)
- Raise your hand on Zoom (if virtual)

No Turn on Red Restrictions – Four Intersections Along North Saint Asaph Street

Agenda Item 5

Presenter: Silas Sullivan

Location

NO TURN ON RED

North Saint Asaph Street at the following intersections:

- Pendleton Street
- Wythe Street
- Madison Street
- Montgomery Street

Background

- Vision Zero
  - Eliminate fatal and severe crashes by 2028
- Alex311
  - Resident request for safety improvements
- Mixed-use corridor
  - Nearby grocery stores and hotel lead to heavy pedestrian and vehicle traffic
    - Increased potential for conflict points

VISION ZERO
SAFER STREETS FOR ALEXANDRIA

ALEX 311

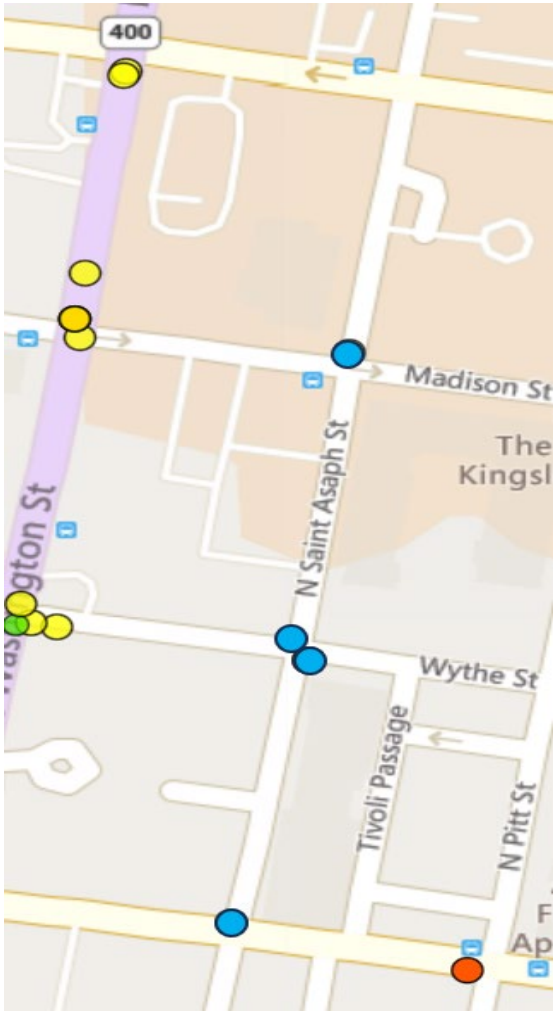
Crash History & Proposal

Crash History

- Four pedestrians injured since 2017

Proposal

- Leading pedestrian intervals (LPIs)
- No Turn on Red restrictions at North Saint Asaph Street and:
  - Montgomery Street
  - Madison Street
  - Wythe Street
  - Pendleton Street



Note: Corridor-specific pedestrian injuries in blue

Outreach

Information shared via:

- ✓Public notice signs posted along corridor
- ✓Staff emailed relevant stakeholder groups
- ✓Project webpage

Community Feedback:

- Support for safety improvements
- Suggestions regarding increased traffic enforcement, or converting signalized intersections to be stop-controlled

Recommendation

That the Traffic & Parking Board recommend that the Director of T&ES implement No Turn on Red restrictions at the noted intersections on North Saint Asaph Street to improve safety.

All-way Stop Addition – Intersection of Commonwealth Avenue and Windsor Avenue

Agenda Item 6

Presenter: Daniel Scolese

Location


Commonwealth Ave
Commonwealth Ave
Commonwealth Ave
Commonwealth Ave
E Windsor Ave
dsor Ave
2105
2103
2101
2005
7
5
1
8
5
1
4
2

Background

Traffic Volumes

- Volumes during the peak periods (AM & PM) are met

Safety

- Parking obscures sight distance
- 7 **correctable (angle)** crashes since 2018
  - 3 crashes occurred between Nov–Dec 2023
  - One cyclist crash in 2022

Staff recommended to the TE&S Director to install the all-way stop using their 90-day provision due to an apparent correlation between holiday traffic and immediate crash history.

Outreach

December Installed Dec 13th

- Notification to Del Ray Citizens Association (DRCA), North Ridge Citizens Association, & Applicant
- Message Boards on Commonwealth Avenue (Dec 11th)
- APD Notification

Support

- Jan 2024 DRCA Letter of Support
- Applicant & Windsor Support / Appreciative

Recommendation

That the Traffic & Parking Board recommend that the Director of T&ES approve an all-way stop at the intersection of Commonwealth Avenue and Windsor Avenue.

No Turn on Red Restrictions – Multiple Intersections Along Duke Street

Agenda Item 7

Presenter: Alex Carroll

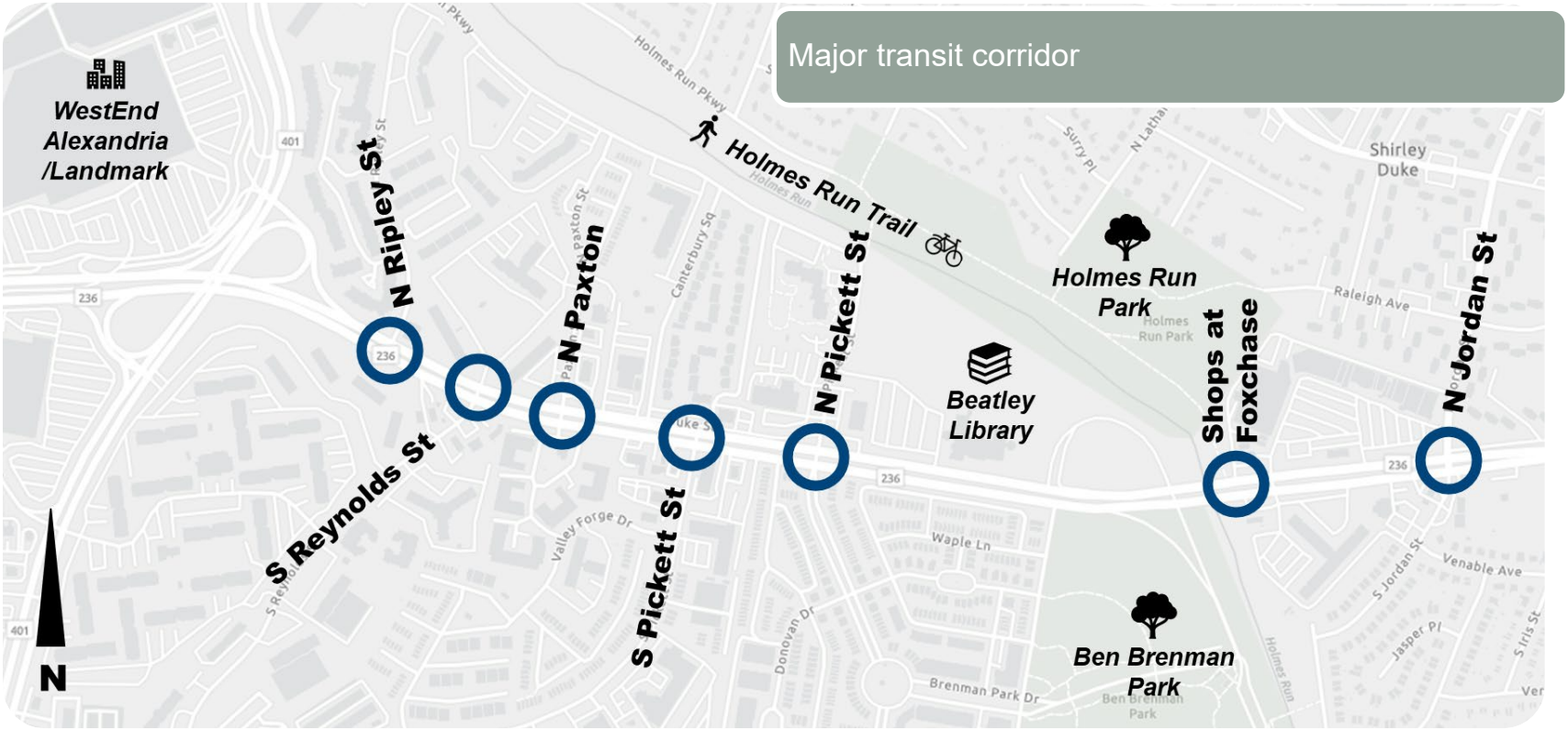
Location

Duke Street, from North Ripley Street to North Jordan Street

Principal Arterial

Equity Emphasis Area

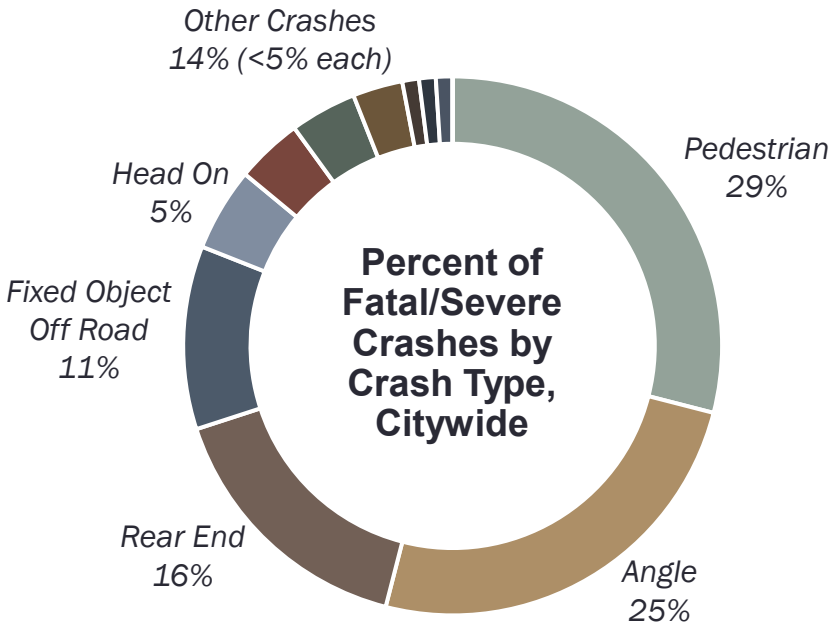
Major transit corridor



Background

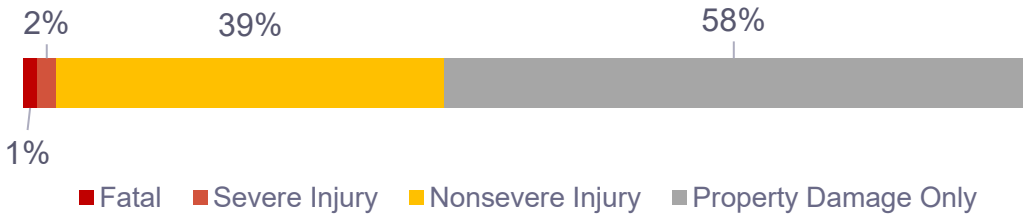
- Vision Zero
  - Eliminate fatal and severe crashes by 2028
  - Over ½ of fatal and severe crashes are pedestrian crashes or angle crashes
- Alexandria Mobility Plan
  - Commitment to be proactive and data-driven in decision-making
  - Commitment to enhancing equity
  - Strategy: Create a safe, well-maintained, and comfortable walking and bicycling environment
  - Strategy: Improve the transit rider experience, including access to bus stops

VISION ZERO
SAFER STREETS FOR ALEXANDRIA



Crash History

Crashes by Severity, 2017-Current



High-Crash Corridor

- Of 141 fatal and severe crashes from 2016-2020, 70% occurred on just 10% of City streets

Crash History Since 2017:

- Over 150 total crashes
- Over 100 occurred at intersections
- 42% resulted in some kind of injury
- All 14 pedestrian crashes resulted in death (2) or injury (12)
- Pedestrian crashes primarily involved drivers turning at signalized intersections
- Angle crashes are also a common crash type; 31% resulted in injury

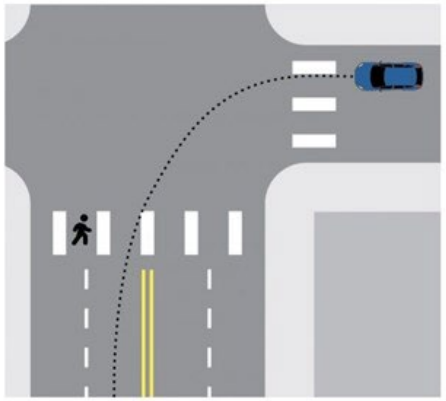
Proposal

Treatments

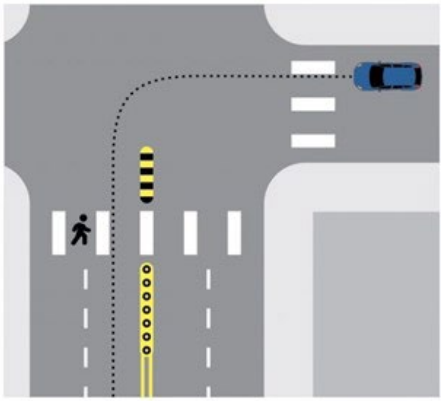
- Tactical turn calming
  - Painted curb extensions
  - Centerline hardening
- Leading pedestrian intervals (LPIs)
- No Turn on Red restrictions at Duke Street and:
  - North Ripley Street
  - South Reynolds Street
  - North Paxton Street
  - South Pickett Street
  - Shoppes of Foxchase entrance

Benefits

- Slower vehicle turns reduce risk to people walking and biking
- Reduced crossing distance
- Increased visibility of people walking and biking
- Reduced risk of angle crashes



Before centerline hardening



After centerline hardening

Outreach

Information shared via:

- ✓City eNews released on December 11, 2023
- ✓Local news coverage in December 2023
- ✓Duke Street Projects Newsletter released on January 11
- ✓Project webpage

Community Feedback:

- Support from Bicycle Pedestrian Advisory Committee
- Support for safety improvements
- Questions about crash history
- Suggestions regarding sign placement

Recommendation

That the Traffic & Parking Board recommend that the Director of T&ES implement No Turn on Red restrictions at the noted intersections on Duke Street to improve safety.

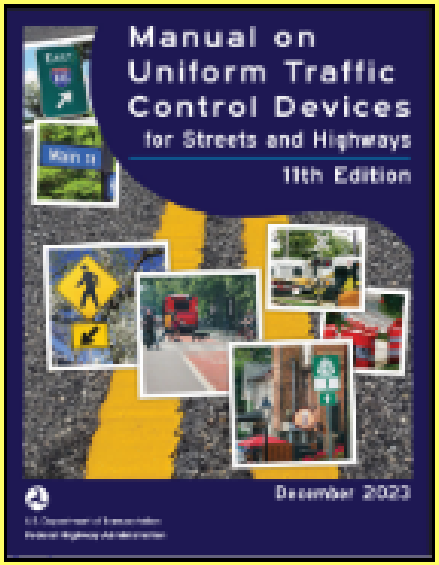
Information Items

STAFF UPDATES

- Manual on Uniform Traffic Control Devices (MUTCD) Traffic Updates
- Duke Street Updates

Manual on Uniform Traffic Control Devices (MUTCD) Traffic Updates

Current MUTCD Edition



The PDF of the 11th Edition of the MUTCD, dated December 2023, is the **current edition** of the official FHWA publication.

Meeting Purpose

Follow-up on design options from the Duke Street Transitway project concept

Get Community feedback on design options and priorities

Provide process and timeline for future discussions and decisions

DUKE STREET TIMELINE

2017

Central Alexandria Traffic Study

2018

Duke Street & West Taylor Run Intersection Application

2018 & 2020

Duke Street Transitway funded

2021

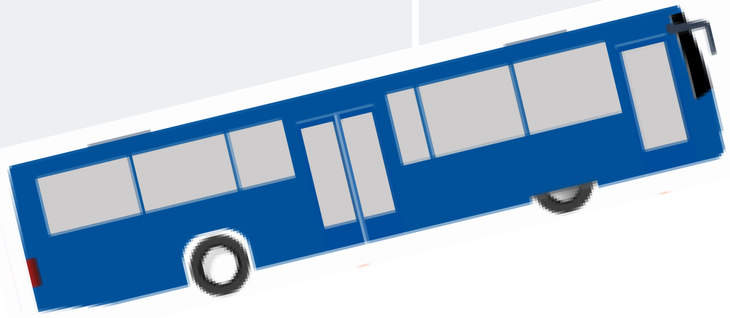
Duke Street Community Visioning

2022

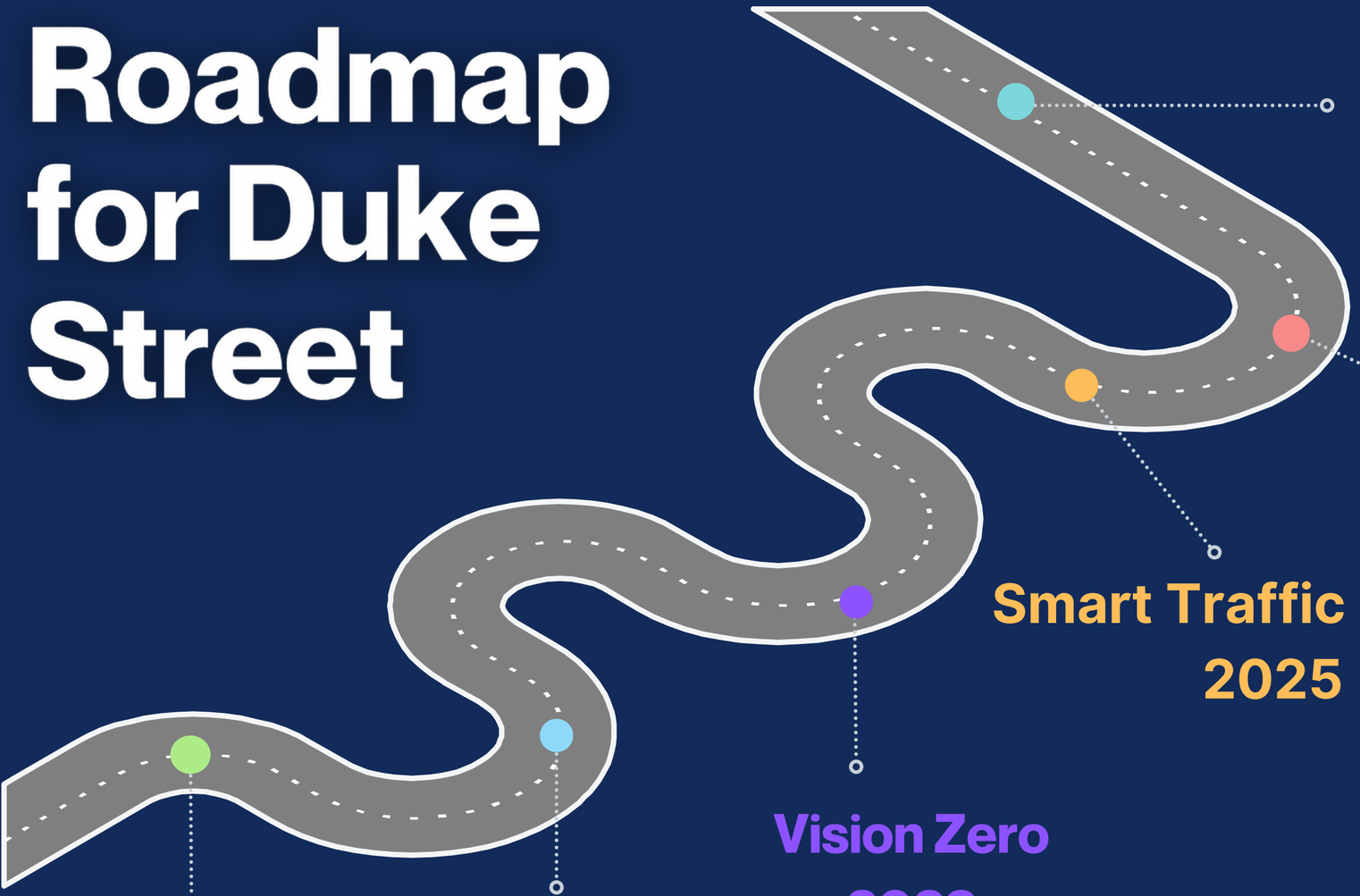
Traffic Mitigation Pilots

2023

Council approval of Transitway concept & Service Road discussions



Roadmap for Duke Street



Central Alexandria Traffic Study 2017

Traffic Mitigation Pilots 2022-2023

Vision Zero 2023

Smart Traffic Signals 2025

Duke & West Taylor Run Project 2026

Duke Street Transitway 2027

"With multimodal enhancements to the corridor, Duke Street will become a safe, efficient, and desirable community connector for people riding the bus, walking, biking, and driving."

Community Feedback

Keep Duke Street Moving

Reduce cut-through traffic on neighborhood streets

Provide safe streets for people to get around

Schedule

[redacted]

[redacted]

[redacted]

[redacted]

Community Discussions & Feedback on service road design

Community meeting 12/14

Analysis of feedback

City Council update

Recommendation to Traffic & Parking Board

Continue community and Council updates

Narrow down options

Preferred Option

Move into Design Phase

Cambridge & Roth Intersection

What is proposed and why we're talking about service roads

Community input to improve this intersection

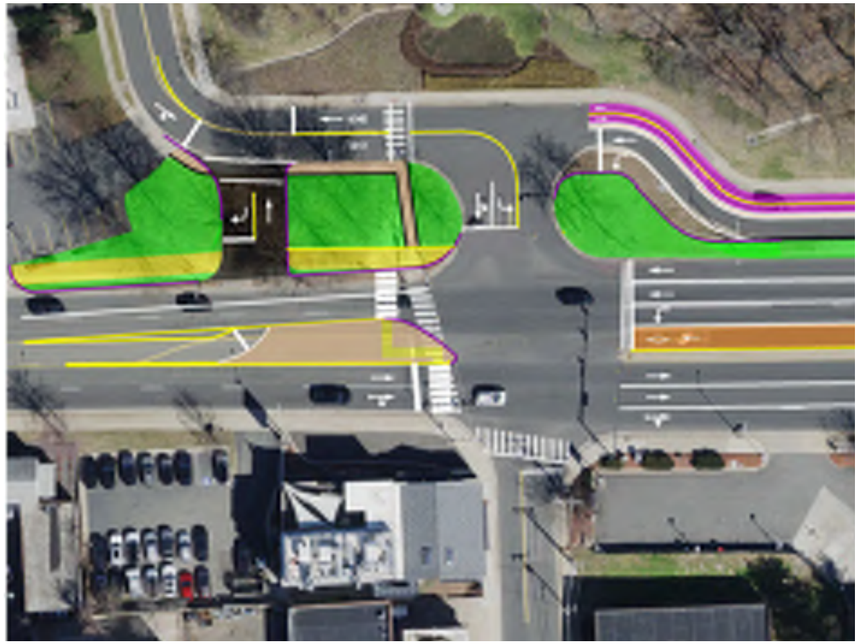
Overall Intersection Level of service F (not good)

Multiple conflict points and concerns about safety

Option 1 - No Build

- No changes to the service road
- Right turns onto Cambridge in advance of intersection

Option 2 - Separated



- One-way service road
- Eastbound left-turns and southbound right-turns relocated to new spur road connecting to Cambridge Road

Option 3 - Through-cut

- One-way service road
- No through movement north/south through movement

Full Intersection LOS	137 seconds/vehicle - F	87 seconds/veh - F	31 seconds/vehicle - C
Cambridge Rd LOS	195 seconds/vehicle - F	81 seconds/vehicle - F	72 seconds/vehicle - F
Conflict Points / Safety	32 at Duke St and Cambridge Rd 9 at Cambridge Rd and Service Rd	25 at Duke St and Cambridge Rd 6 at Cambridge Rd and Service Rd	23 at Duke St and Cambridge Rd 4 at Cambridge Rd and Service Rd

Intersection Option 1 - No Build

Intersection Description:

- Minimal changes to existing intersection
- No changes to the service road
- Right turns onto Cambridge in advance of intersection

Traffic Operations:

- Intersection Level of Service: **F**
  - **137 seconds** per vehicle
- Cambridge Road Level of Service: **F**
  - **197 seconds** per vehicle

Safety:

- Similar conflicts as existing intersection
- Modest pedestrian improvements
- Conflict Points: **32** at Duke & **9** at Cambridge

Conflict Point: Potential locations of where vehicle travel paths intersect and a collision risk occurs

Intersection Option 2 - Separated

Intersection Description:

- One-way service road
- Eastbound left-turns and southbound right-turns relocated to new road connecting to Cambridge Rd.
- Right turns onto Cambridge Rd. in advance of intersection

Traffic Operations:

- Intersection Level of Service: **F**
  - **87 seconds** per vehicle
- Cambridge Rd. Level of Service: **F**
  - **81 seconds** per vehicle

Safety:

- Pedestrian refuge with less conflicting movement
- Conflict Points: **25** at Duke & **6** at Cambridge

Conflict Point: Potential locations of where vehicle travel paths intersect and a collision risk occurs

Intersection Option 3 - The Through-cut

Intersection Description:

- Same as Option 2
- No southbound access from Cambridge to Roth (5 cars in peak)

Traffic Operations:

- Intersection Level of Service: C
  - 31 seconds per vehicle
- Cambridge Road Level of Service: F
  - 72 seconds per vehicle

Safety:

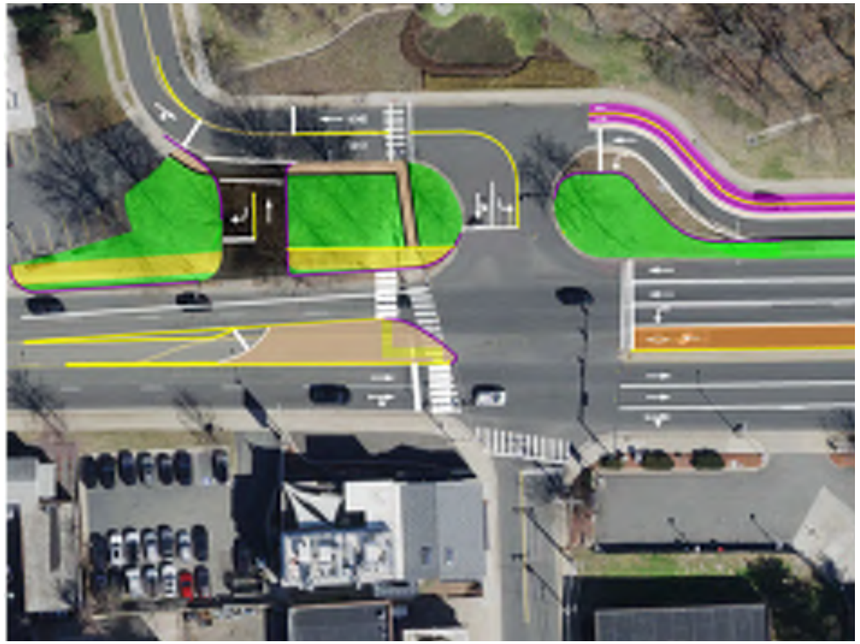
- Pedestrian refuge with less conflicting movement
- Minimal conflicts with all modes at service road
- Faster travel on Duke Street reduces cut-through traffic
- Conflict Points: **23** at Duke & **4** at Cambridge

Conflict Point: Potential locations of where vehicle travel paths intersect and a collision risk occurs

Option 1 - No Build

- No changes to the service road
- Right turns onto Cambridge in advance of intersection

Option 2 - Separated

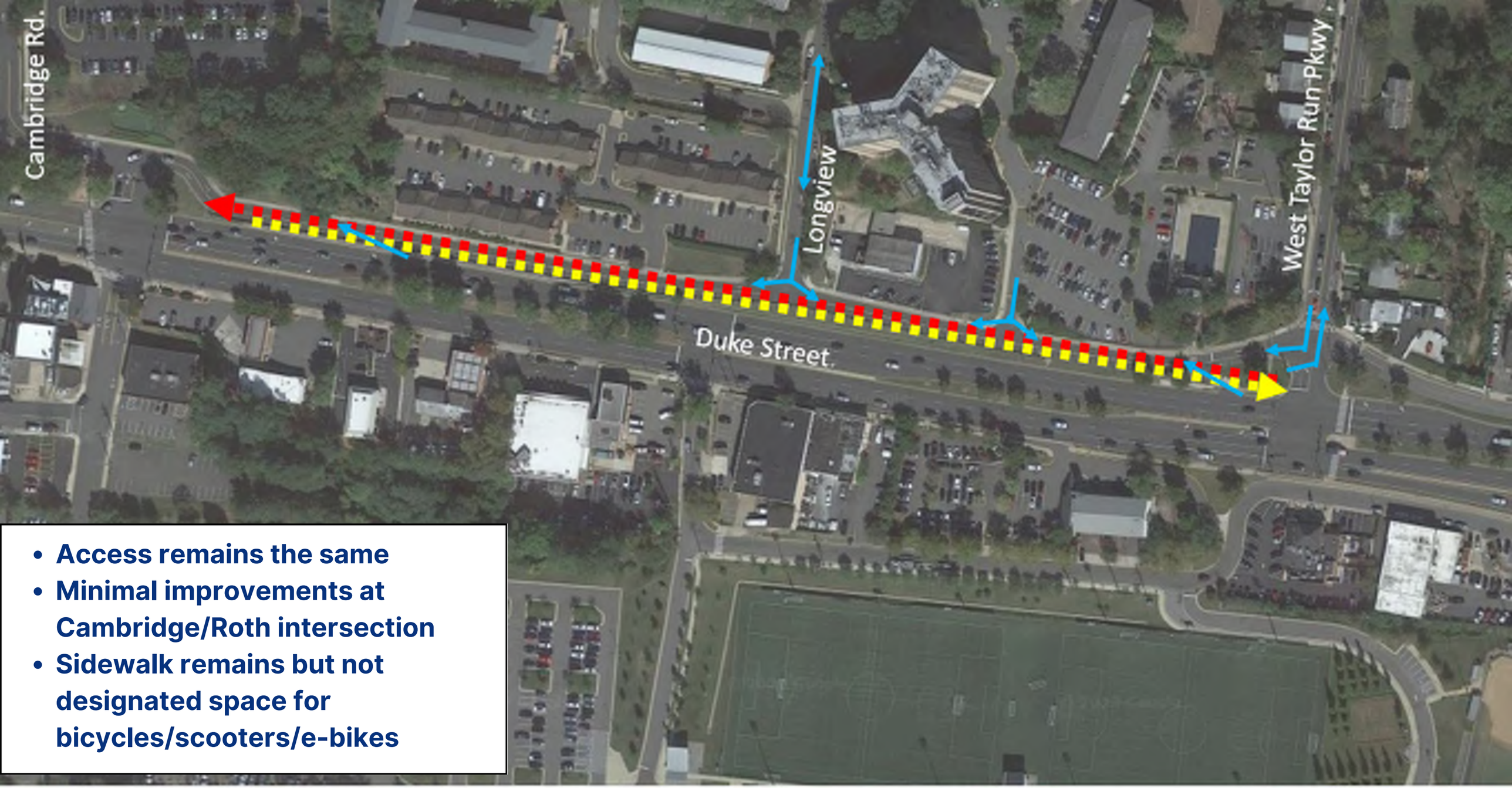


- One-way service road
- Eastbound left-turns and southbound right-turns relocated to new spur road connecting to Cambridge Road

Option 3 - Through-cut

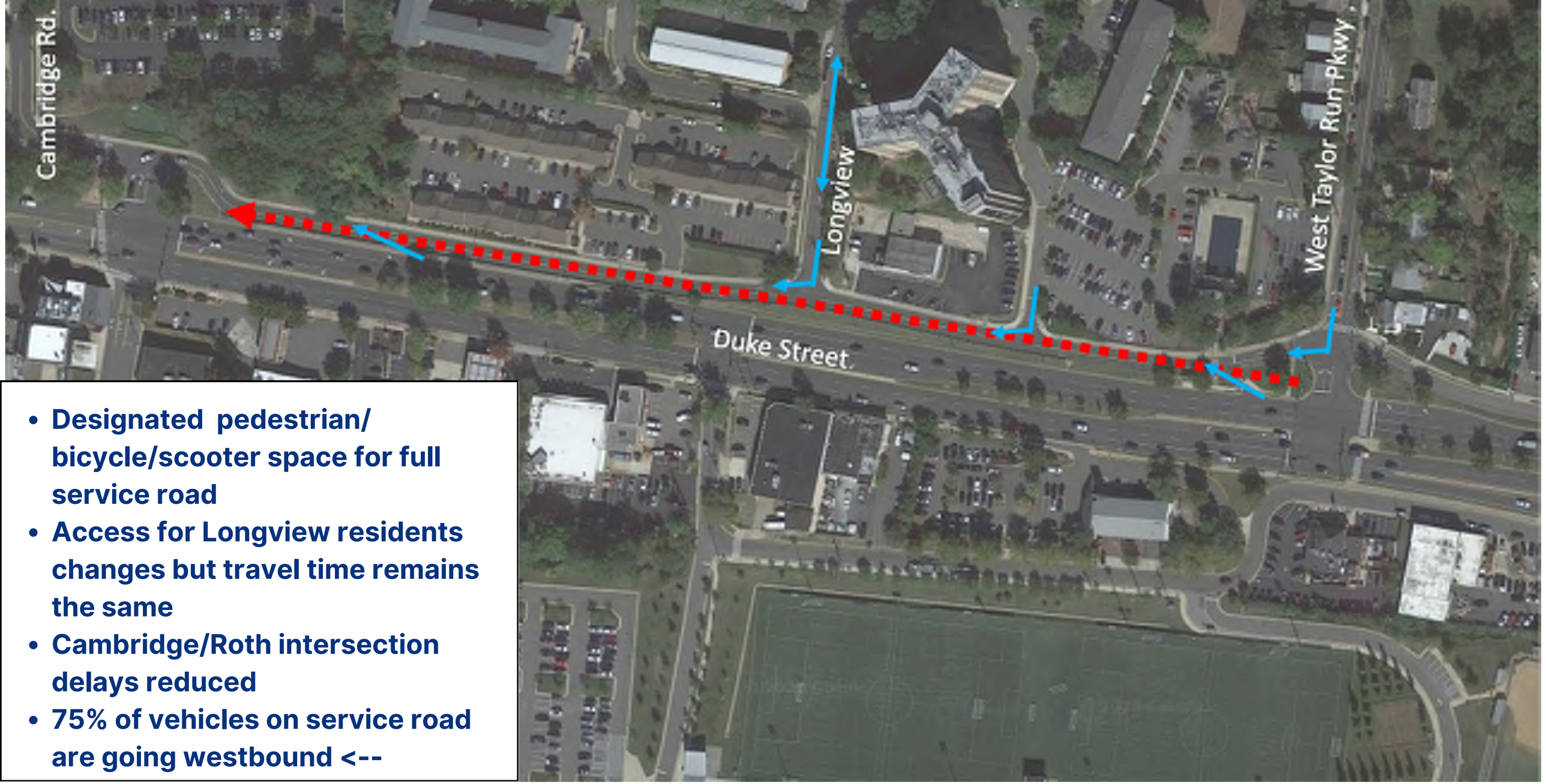
- One-way service road
- No through movement north/south through movement

Full Intersection LOS	137 seconds/vehicle - F	87 seconds/veh - F	31 seconds/vehicle - C
Cambridge Rd LOS	195 seconds/vehicle - F	81 seconds/vehicle - F	72 seconds/vehicle - F
Conflict Points / Safety	32 at Duke St and Cambridge Rd 9 at Cambridge Rd and Service Rd	25 at Duke St and Cambridge Rd 6 at Cambridge Rd and Service Rd	23 at Duke St and Cambridge Rd 4 at Cambridge Rd and Service Rd



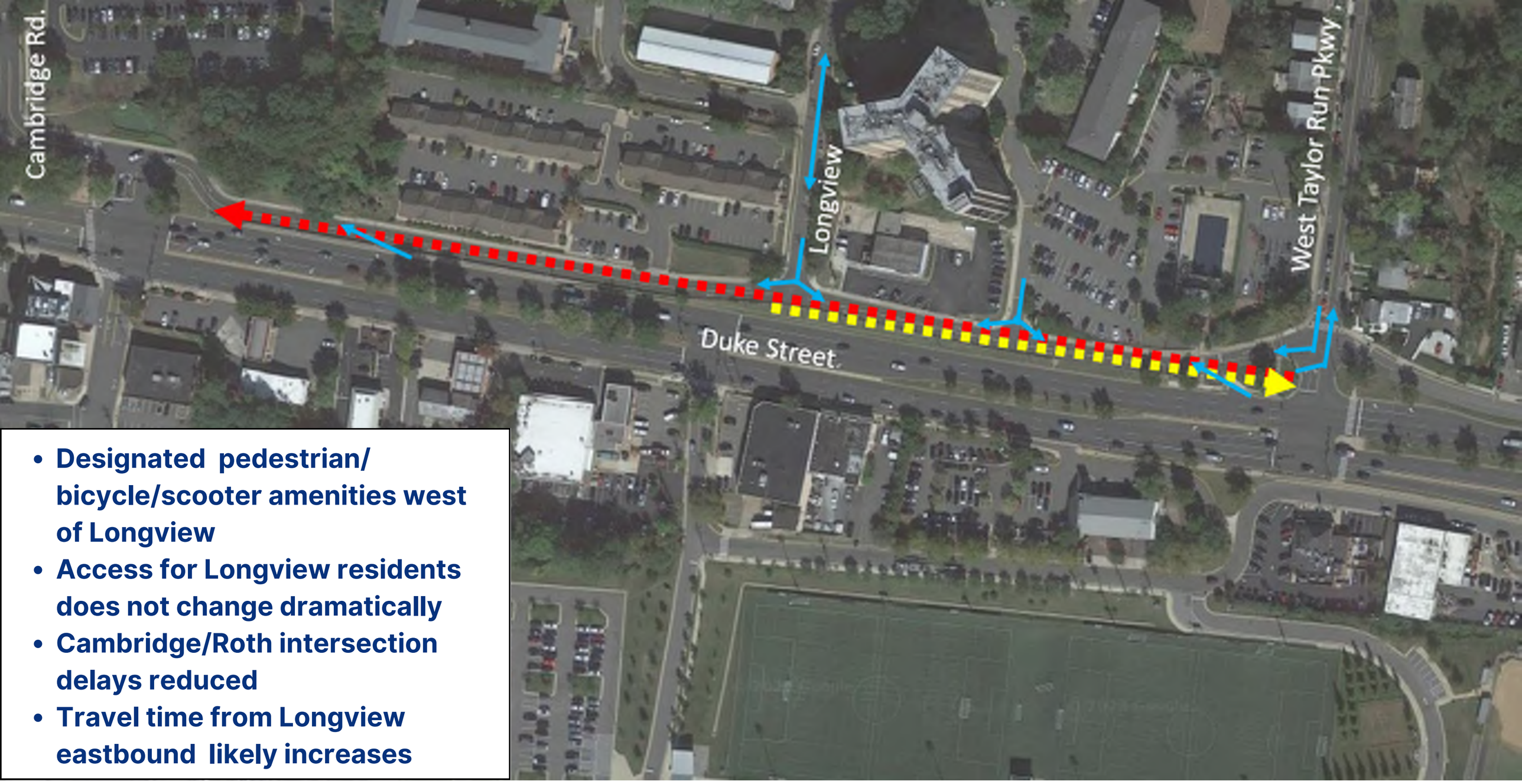
- Access remains the same
- Minimal improvements at Cambridge/Roth intersection
- Sidewalk remains but not designated space for bicycles/scooters/e-bikes

Service Road Option 1 - Two-way



- **Designated pedestrian/ bicycle/scooter space for full service road**
- **Access for Longview residents changes but travel time remains the same**
- **Cambridge/Roth intersection delays reduced**
- **75% of vehicles on service road are going westbound <--**

Service Road Option 2 - One-way westbound

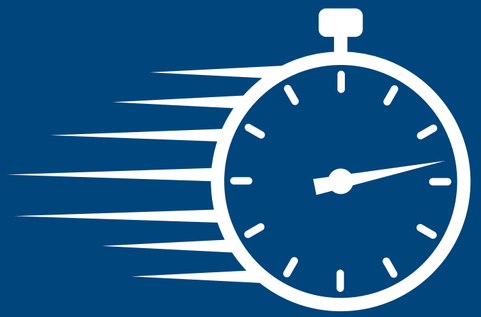


- Designated pedestrian/ bicycle/scooter amenities west of Longview
- Access for Longview residents does not change dramatically
- Cambridge/Roth intersection delays reduced
- Travel time from Longview eastbound likely increases

Service Road Option 3 - Partial One-way

Key Takeaways

For people using Longview Drive or 2727 Duke....



With Cambridge/Roth improvements, travel times do not change much with a one-way service road

One-way service road minimally impacts eastbound Duke to Longview trips (14AM& 20PM)

A partial one-way service road doesn't reduce travel time much more than a fully one-way street

Q & A

Duke Street & West Taylor Run Project

Duke at West Taylor Run Intersection

Project Goals

The project purpose is focused on enhancing safety and access for people who walk, drive, bike and take transit.

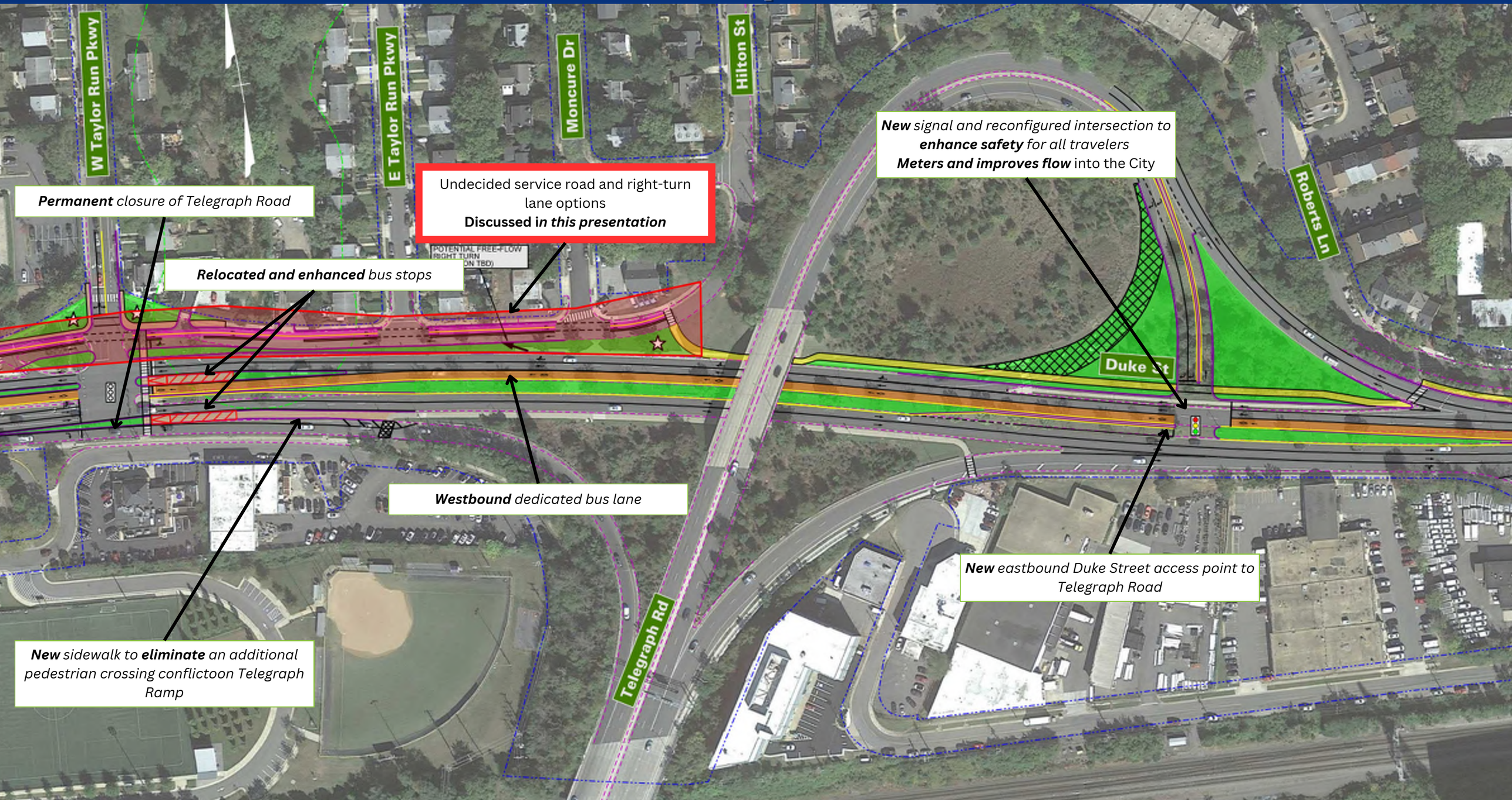
Improve safety for all people at the intersections

Reduce cut-through traffic on neighborhood streets

Reduce congestion on Duke Street

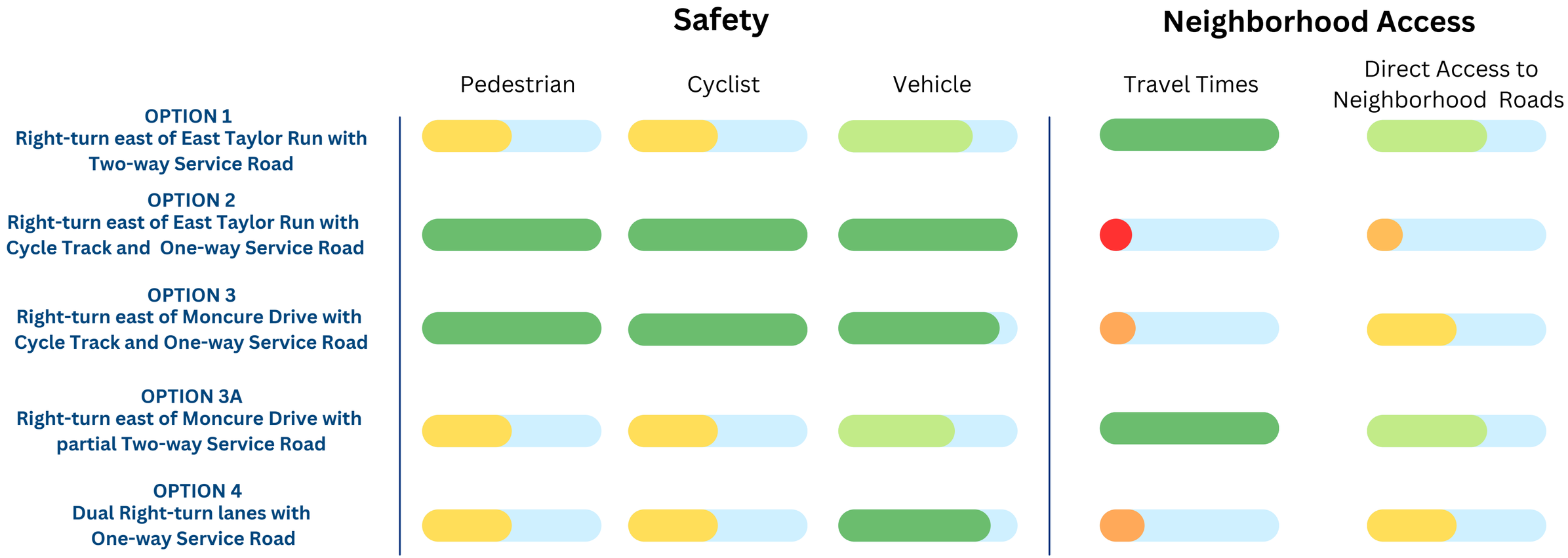
Improve the quality of life for residents

Current Proposed Plan

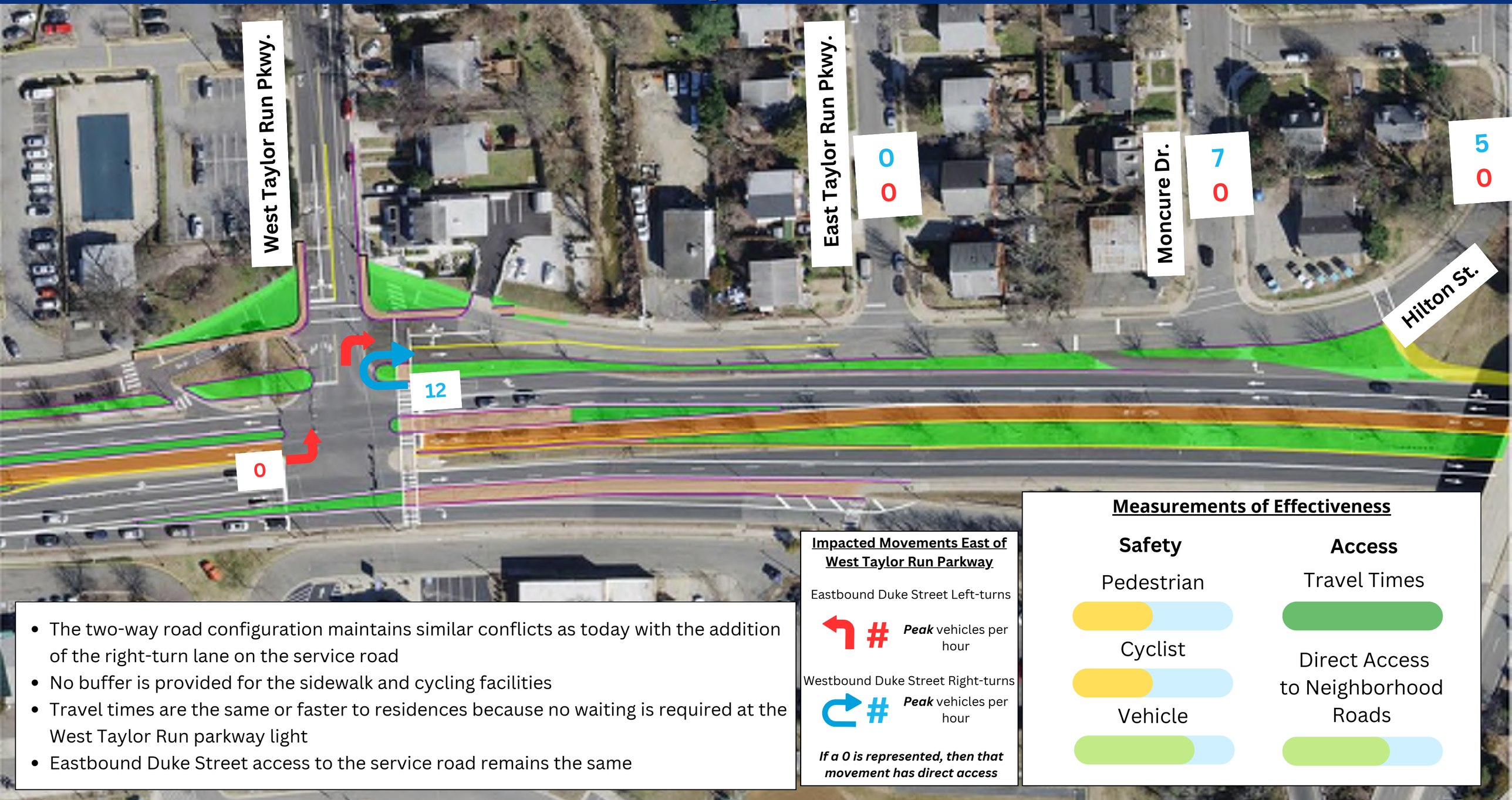


Duke at West Taylor Run Intersection

Service Road and Right-turn Lane Comparision



Option 1



- The two-way road configuration maintains similar conflicts as today with the addition of the right-turn lane on the service road
- No buffer is provided for the sidewalk and cycling facilities
- Travel times are the same or faster to residences because no waiting is required at the West Taylor Run parkway light
- Eastbound Duke Street access to the service road remains the same

Impacted Movements East of West Taylor Run Parkway

Eastbound Duke Street Left-turns

\# ***Peak*** vehicles per hour

Westbound Duke Street Right-turns

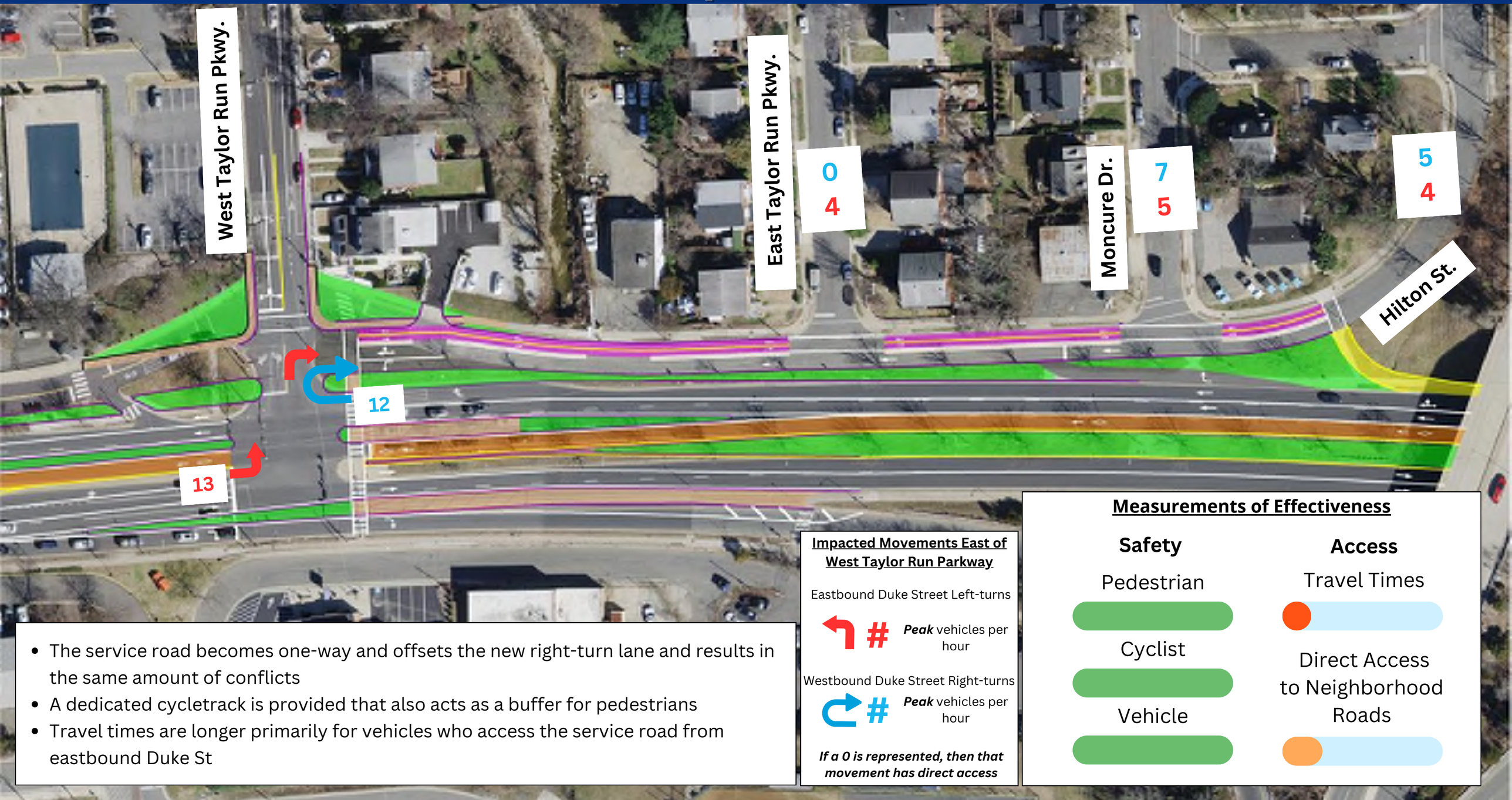
\# ***Peak*** vehicles per hour

If a 0 is represented, then that movement has direct access

Measurements of Effectiveness

Safety	**Access**
Pedestrian	Travel Times
Cyclist	Direct Access to Neighborhood Roads
Vehicle	

Option 2



- The service road becomes one-way and offsets the new right-turn lane and results in the same amount of conflicts
- A dedicated cycletrack is provided that also acts as a buffer for pedestrians
- Travel times are longer primarily for vehicles who access the service road from eastbound Duke St

Impacted Movements East of West Taylor Run Parkway

Eastbound Duke Street Left-turns

\# ***Peak*** vehicles per hour

Westbound Duke Street Right-turns

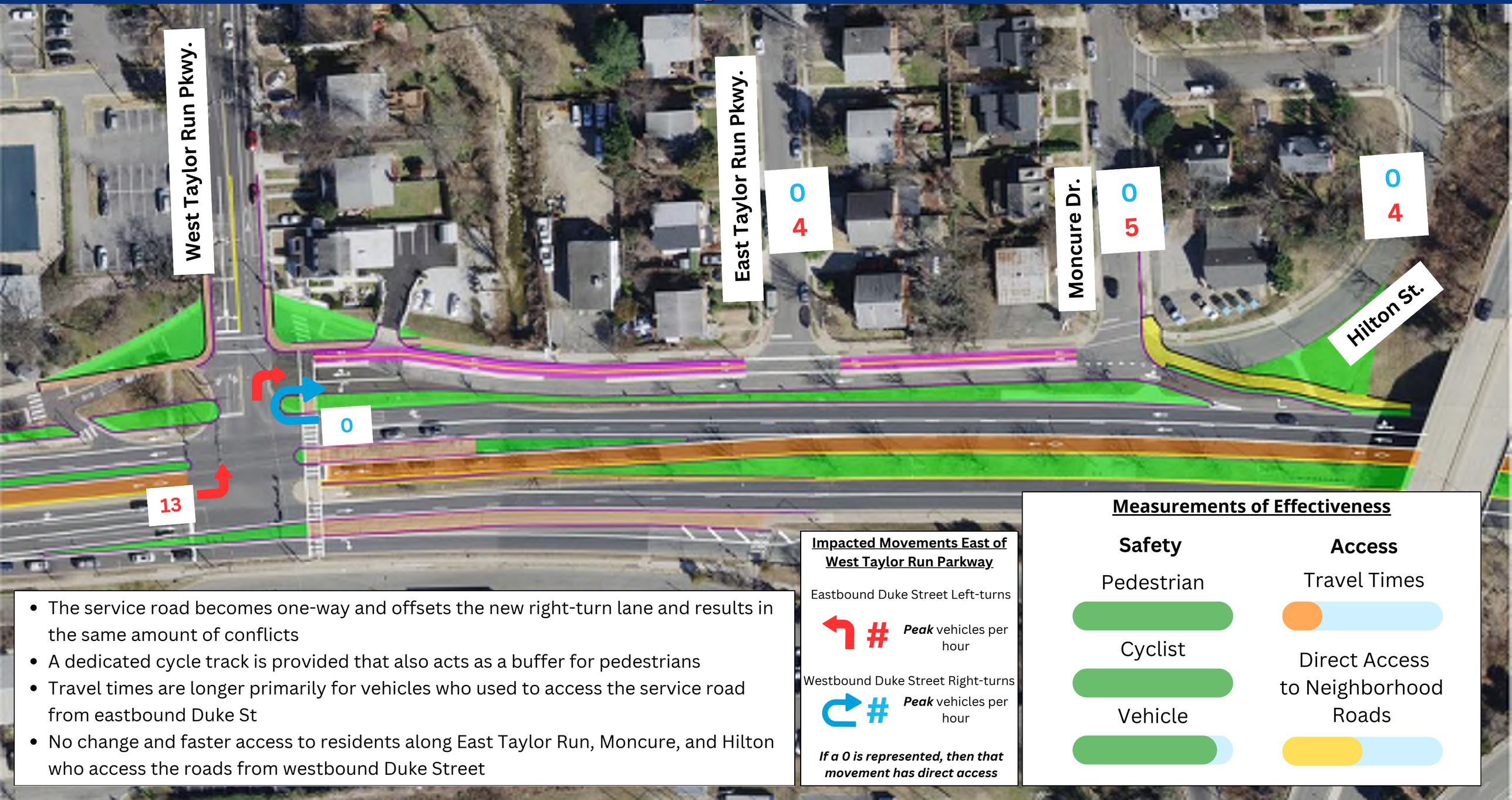
\# ***Peak*** vehicles per hour

If a 0 is represented, then that movement has direct access

Measurements of Effectiveness

Safety	**Access**
Pedestrian	Travel Times
Cyclist	Direct Access to Neighborhood Roads
Vehicle	

Option 3



- The service road becomes one-way and offsets the new right-turn lane and results in the same amount of conflicts
- A dedicated cycle track is provided that also acts as a buffer for pedestrians
- Travel times are longer primarily for vehicles who used to access the service road from eastbound Duke St
- No change and faster access to residents along East Taylor Run, Moncure, and Hilton who access the roads from westbound Duke Street

Impacted Movements East of West Taylor Run Parkway

Eastbound Duke Street Left-turns

\# ***Peak*** vehicles per hour

Westbound Duke Street Right-turns

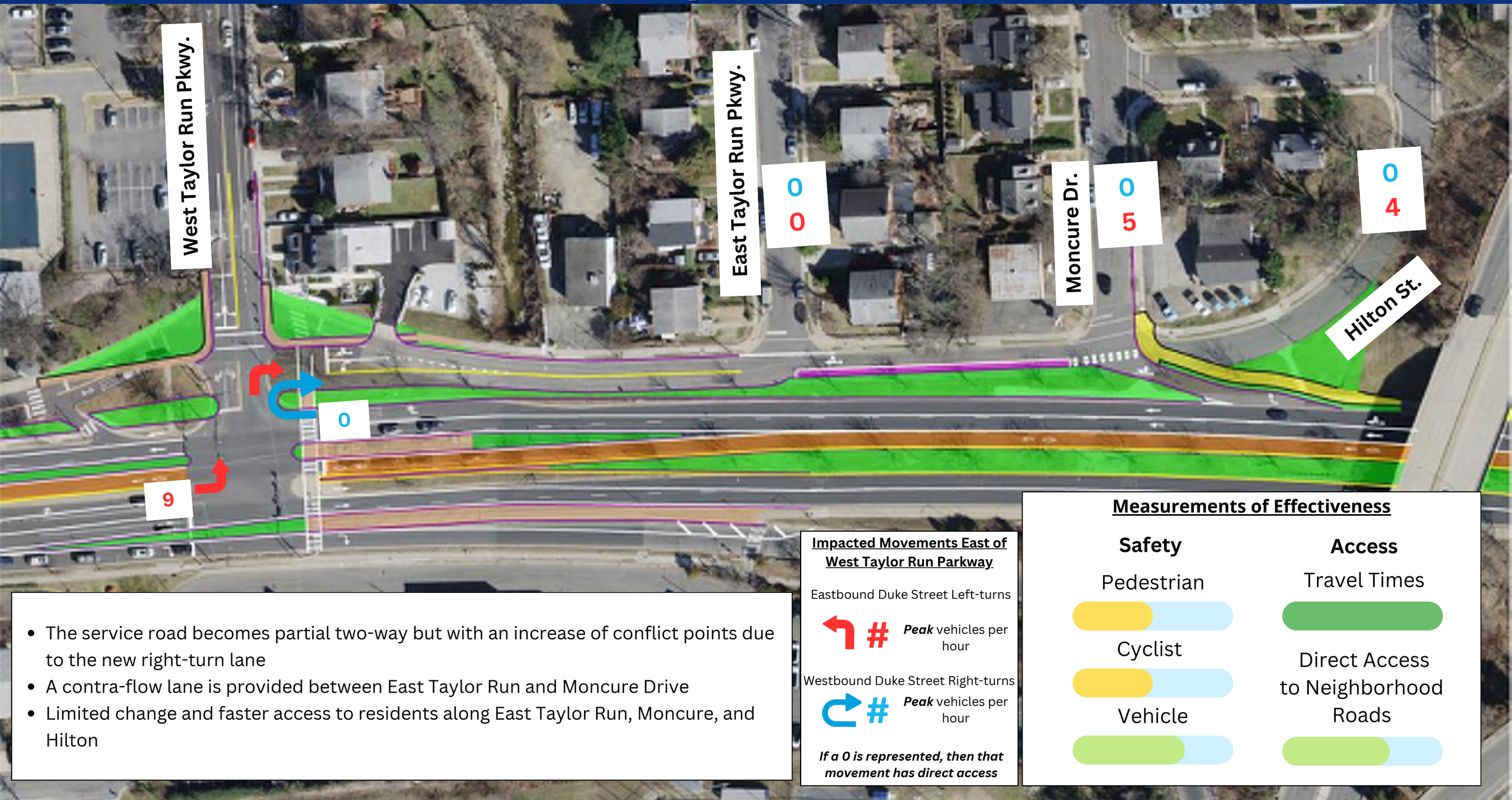
\# ***Peak*** vehicles per hour

If a 0 is represented, then that movement has direct access

Measurements of Effectiveness

Safety	**Access**
Pedestrian	Travel Times
Cyclist	Direct Access to Neighborhood Roads
Vehicle	

Option 3A



- The service road becomes partial two-way but with an increase of conflict points due to the new right-turn lane
- A contra-flow lane is provided between East Taylor Run and Moncure Drive
- Limited change and faster access to residents along East Taylor Run, Moncure, and Hilton

Impacted Movements East of West Taylor Run Parkway

Eastbound Duke Street Left-turns

\# ***Peak*** vehicles per hour

Westbound Duke Street Right-turns

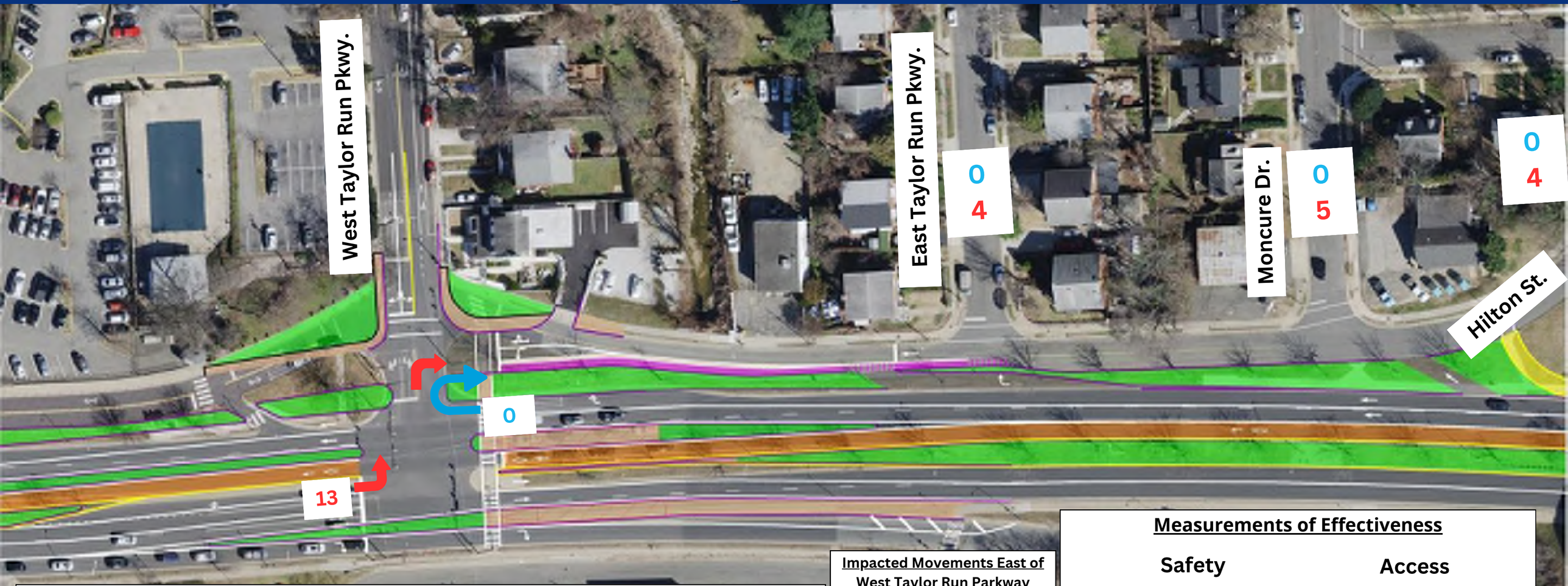
\# ***Peak*** vehicles per hour

If a 0 is represented, then that movement has direct access

Measurements of Effectiveness

Safety	**Access**
Pedestrian	Travel Times
Cyclist	Direct Access to Neighborhood Roads
Vehicle	

Option 4



- The service road becomes one-way and results in more conflicts due to both right-turn lane additions
- A partial contra flow lane is provided from West Taylor Run to East Taylor Run
  - Sharrows will be provided between East Taylor Run and Moncure Drive
- Travel times are longer primarily for vehicles who access the service road from eastbound Duke St
- No change and faster access to residents along East Taylor Run, Moncure, and Hilton who access the roads from westbound Duke Street

Impacted Movements East of West Taylor Run Parkway

Eastbound Duke Street Left-turns

\# ***Peak*** vehicles per hour

Westbound Duke Street Right-turns

\# ***Peak*** vehicles per hour

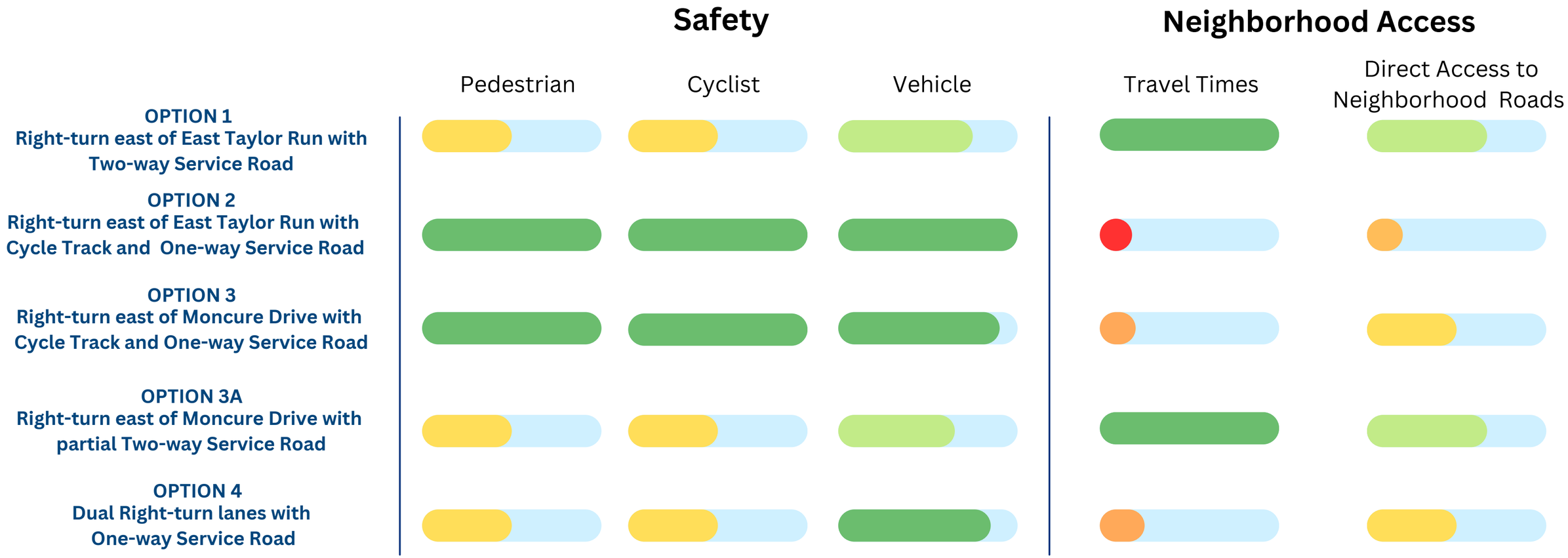
If a 0 is represented, then that movement has direct access

Measurements of Effectiveness

Safety	**Access**
Pedestrian	Travel Times
Cyclist	Direct Access to Neighborhood Roads
Vehicle	

Duke at West Taylor Run Intersection

Service Road and Right-turn Lane Comparision



Next Steps

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[redacted]

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Community Discussions & Feedback on service road design

Community meeting 12/14

Analysis of feedback

City Council update

Recommendation to Traffic & Parking Board

Continue community and Council updates

Narrow down options

Preferred Option

Move into Design Phase

Q & A

CONTACT AND PROJECT INFORMATION

DUKE STREET IN MOTION BUS RAPIT TRANSIT

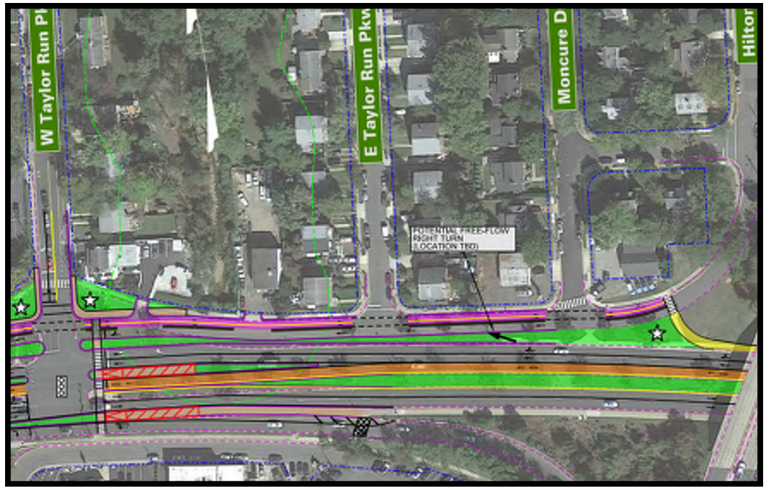
DUKE STREET IN MOTION

703.746.4017

hillary.orr@alexandriava.gov

https://www.alexandriava.gov/DukeInMotion

WEST TAYLOR RUN IMPROVEMENT PROJECT



703.746.4266

daniel.scolese@alexandriava.gov

https://www.alexandriava.gov/transportation-planning/duke-street-and-west-taylor-run-project