



CITY OF ALEXANDRIA
Stormwater Management

Commonwealth Ashby, Glebe Flood Mitigation Project

Community Meeting #4
February 19, 2025



Agenda



- 1 Welcome**
- 2 Introductions**
- 3 Project Background**
- 4 Proposed Solution**
- 5 Construction Impacts**
- 6 Project Areas Breakdown**
- 7 Next Steps**
- 8 Questions | Contact Us**



Introductions

Jonathan Whiteleather, P.E. – Technical Project Manager, City of Alexandria

Daniel Medina, PhD, P.E. - Stormwater Program Manager

Jesse Maines, MPA – Stormwater Management Division Chief

Brian Rahal, P.E, CFM – Stormwater Management Section Lead

Ehsanullah Hayat, PhD, CFM – Stormwater Management Civil Engineer III

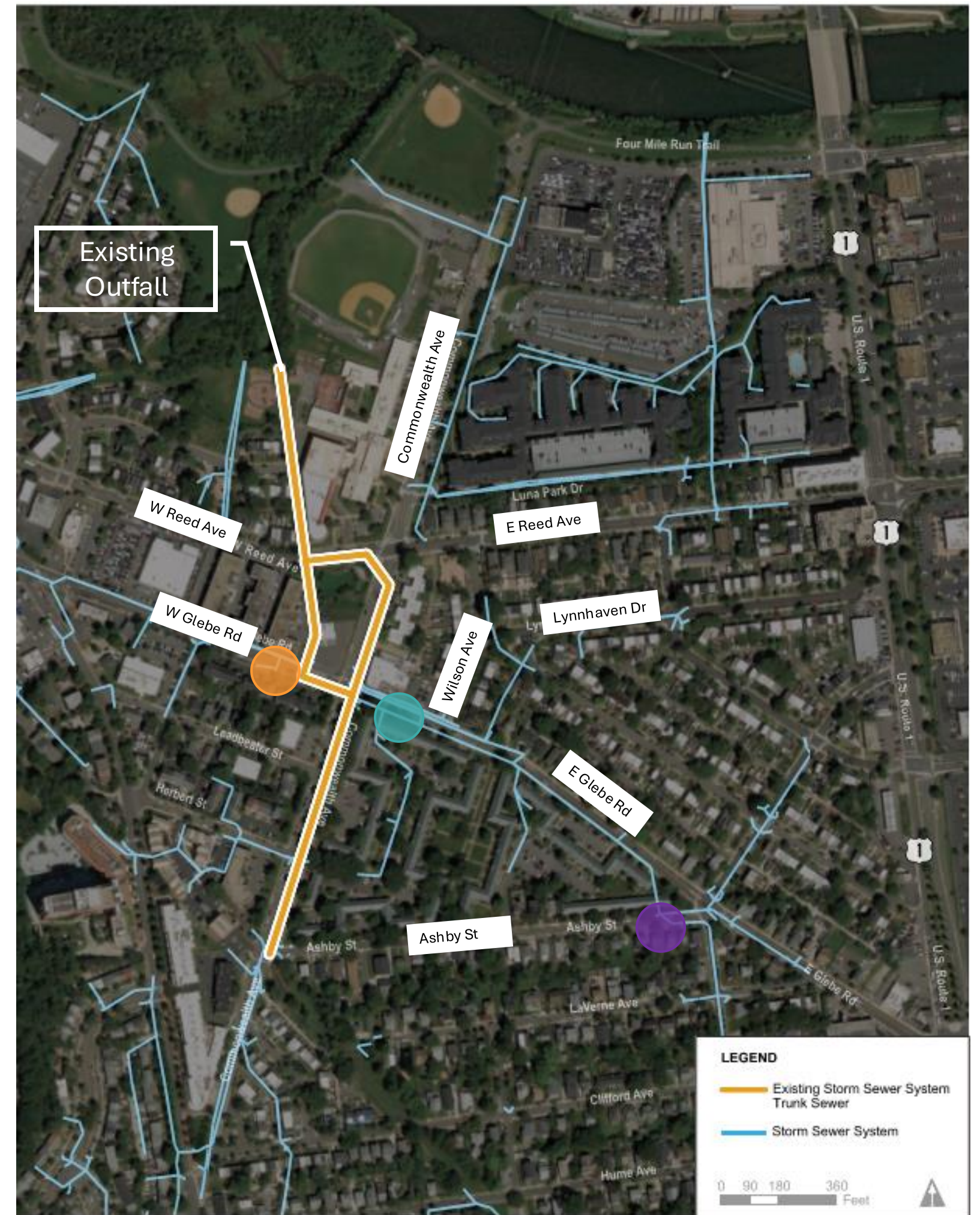
Juliana Cammarata, P.E. – Project Manager (Jacobs)



Project Background

Existing Conditions

- ▶ Undersized system causes flooding at W Glebe and Commonwealth, E Glebe and Commonwealth, and Ashby and Glebe

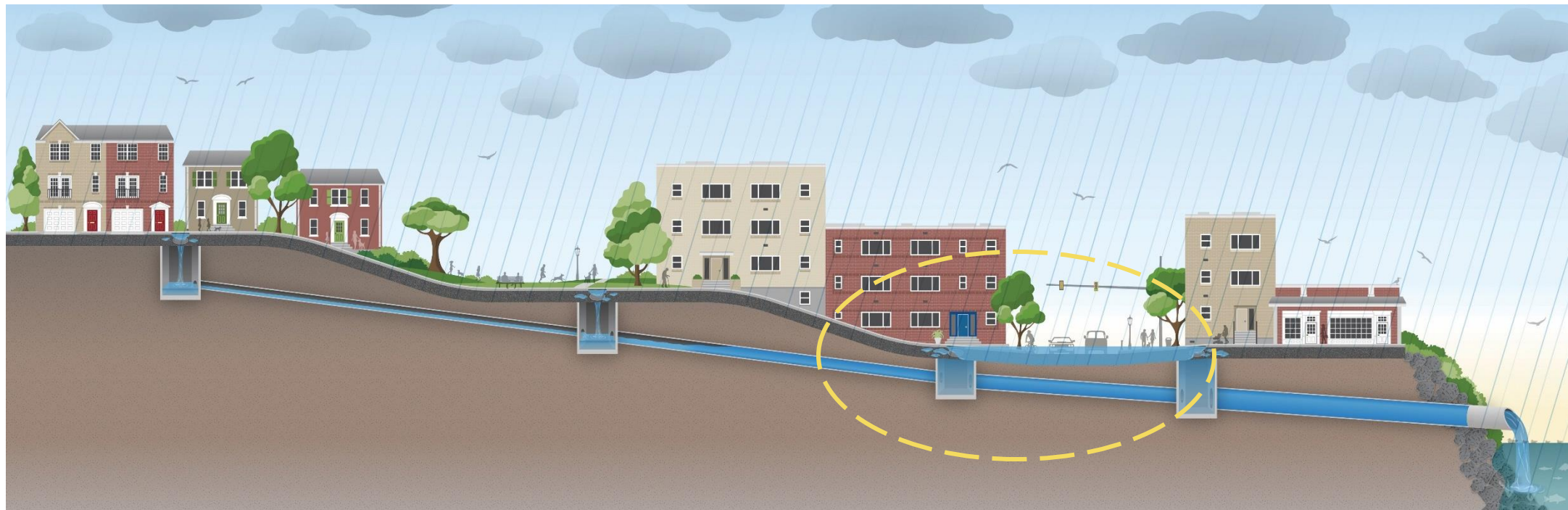




Project Background

What is the Problem?

- ▶ Increased flooding is a result of old infrastructure, design criteria at the time of construction, and climate change



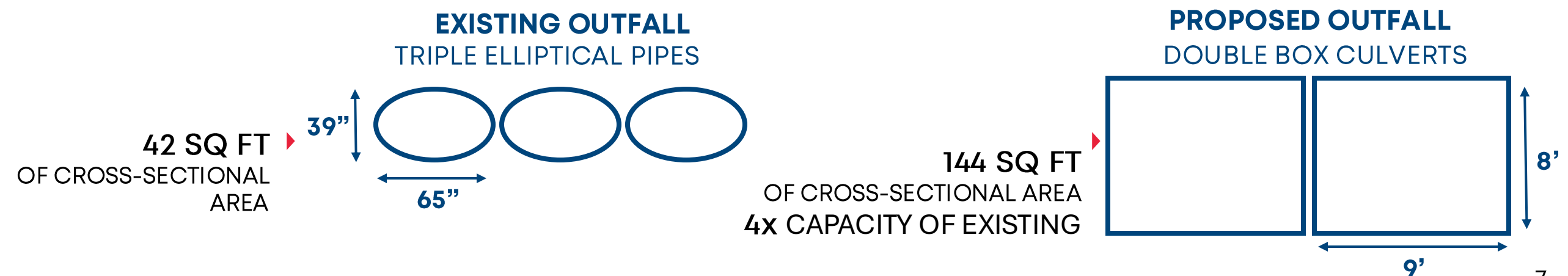
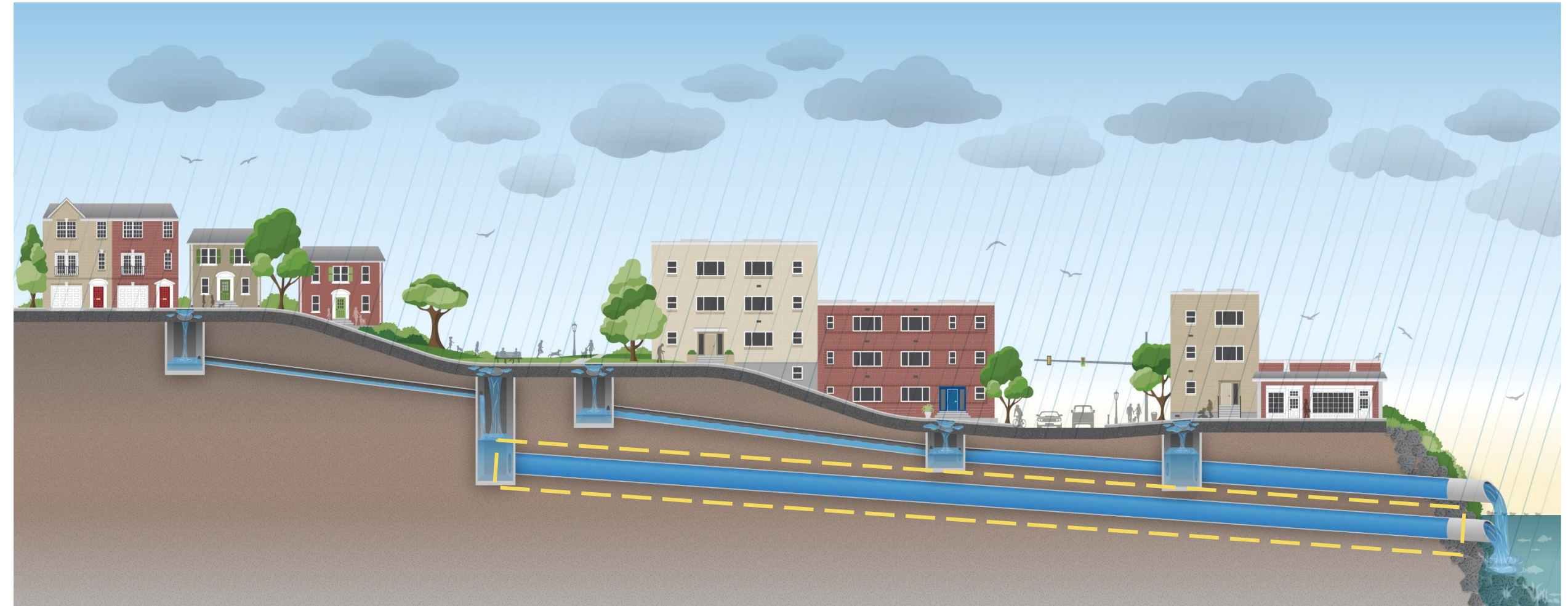
Ashby St and E Glebe, looking north



Project Background

What is the Solution?

- ▶ A new and larger-capacity storm sewer
- ▶ This will provide an additional route for stormwater to drain
- ▶ Extra capacity will relieve the existing pipe and mitigate flooding





Project Background

What is Being Built?

► **New relief storm sewers** along Commonwealth Ave, East Glebe Rd and Montrose



► **A new outfall** at Four Mile Run



► **Green infrastructure** along Commonwealth Ave median





How Might Construction Affect Me?

As with many large municipal improvement projects, construction will affect people and neighborhoods. Project plans to reduce disruption include:

- ▶ All roads will be open to emergency and local vehicle access
- ▶ Pedestrians will be able to walk in their neighborhoods
- ▶ Access to school, homes, and businesses will be maintained
- ▶ Detours for through-traffic will be clearly marked
- ▶ Construction will be done in phases to allow areas to re-open as quickly as possible
- ▶ Special construction techniques will be used where possible to reduce noise, vibration, and dust



How Might Construction Affect Me?



Residents and Businesses

- ▶ Access to residences maintained
- ▶ Street parking unavailable during construction
- ▶ Access to at least one driveway maintained for businesses



Drivers

- ▶ Lanes narrowed or closed to through-traffic
- ▶ Detours, traffic controls, and temporary traffic signals



Bicycles

- ▶ Bike lanes closed; bicyclists will share the lane with vehicles



School

- ▶ Vehicle and bus access maintained
- ▶ Pedestrian and bicycle access maintained
- ▶ Construction hours of operation coordinated to reduce noise and other disruptions to school day



Pedestrians

- ▶ Some sidewalk detours



Park/Trail Users

- ▶ Trail detours
- ▶ Four Mile Run Softball Field (North) closed for the duration of the project (3 years)
- ▶ Boat ramp access detours



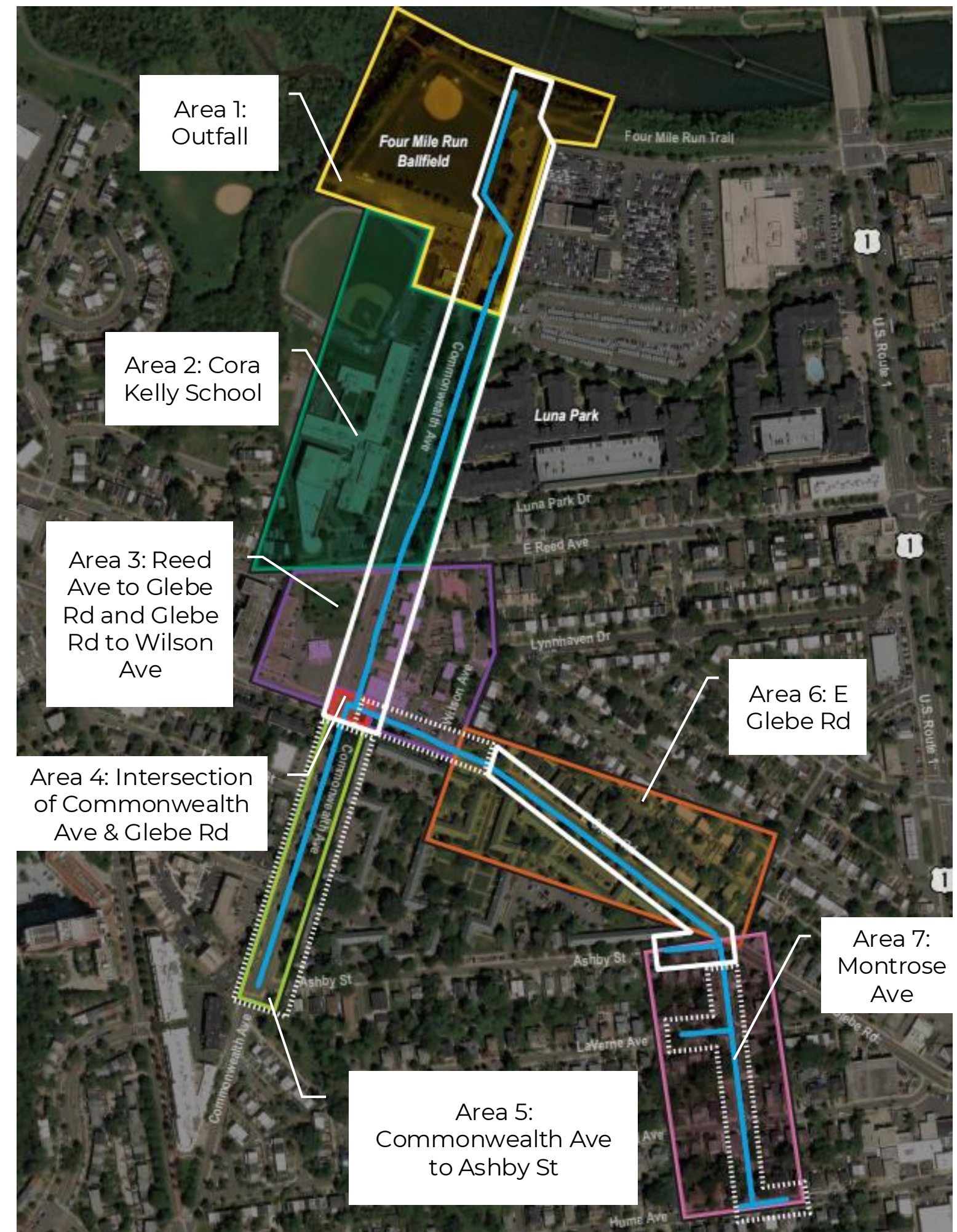
Project Area Overview

Project Areas*

Estimated Project Duration: 3 years (Summer 2026 - Summer 2029)

- ▶ Area 1: Outfall
- ▶ Area 2: Cora Kelly School
- ▶ Area 3: Reed Ave to Glebe
- ▶ Area 4: Intersection of Commonwealth and Glebe
- ▶ Area 5: Commonwealth Ave to Ashby St
- ▶ Area 6: E Glebe Rd
- ▶ Area 7: Montrose Ave

* Construction phases, durations, and dates are based on current design and are subject to change.





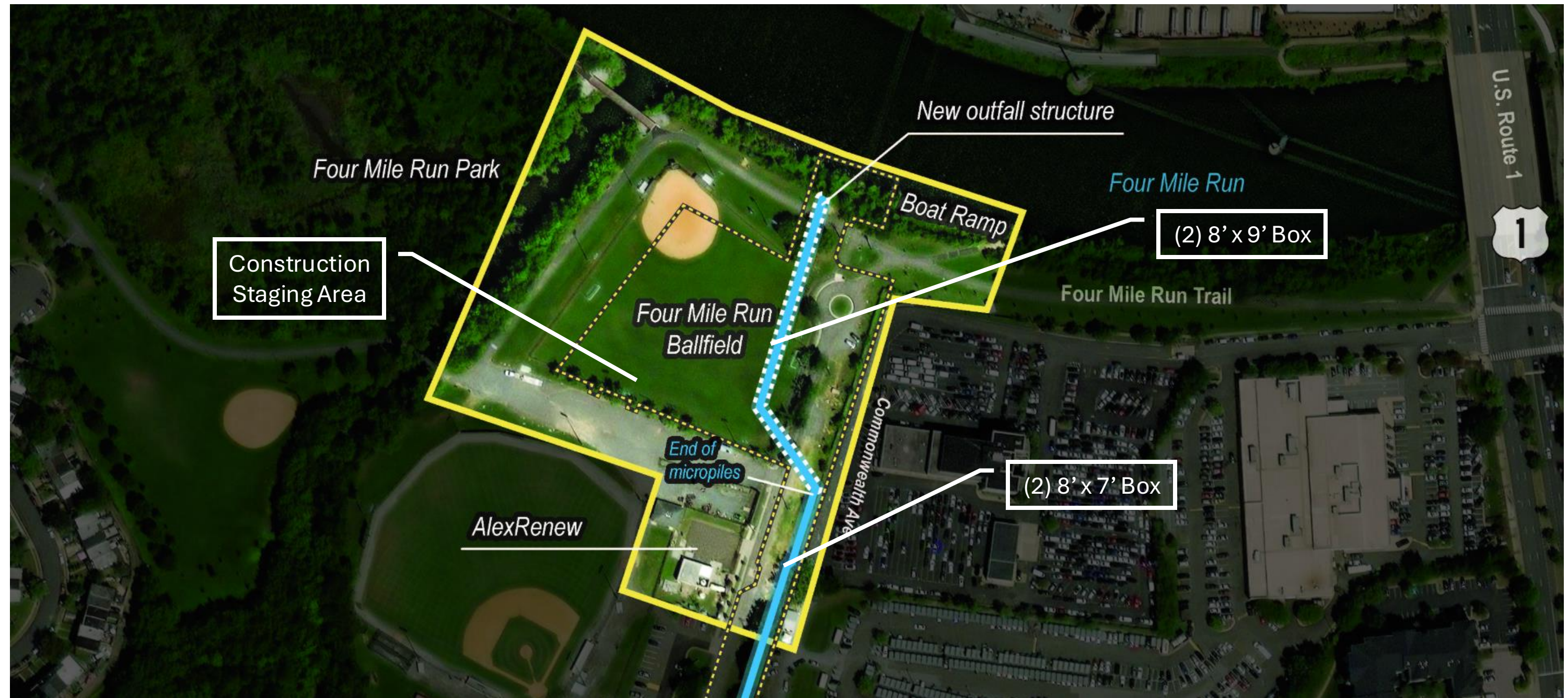
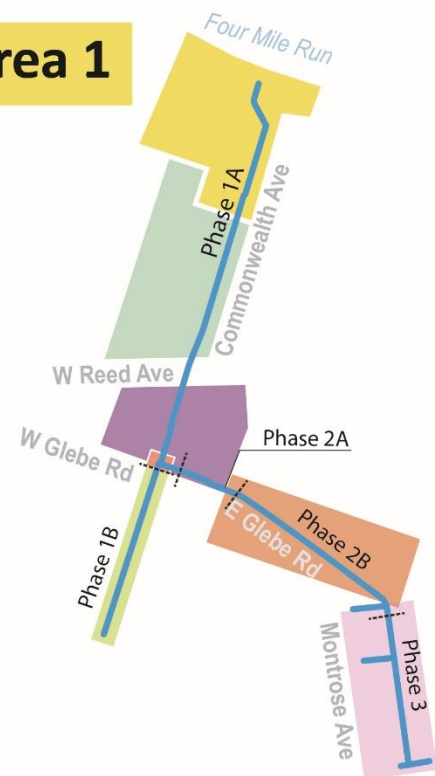
Area 1: Outfall

LEGEND

- Proposed Storm Sewer
- Area 1 Boundary
- Construction Area
- Area of Micropiles



Area 1





Area 1: Outfall

Description of Work

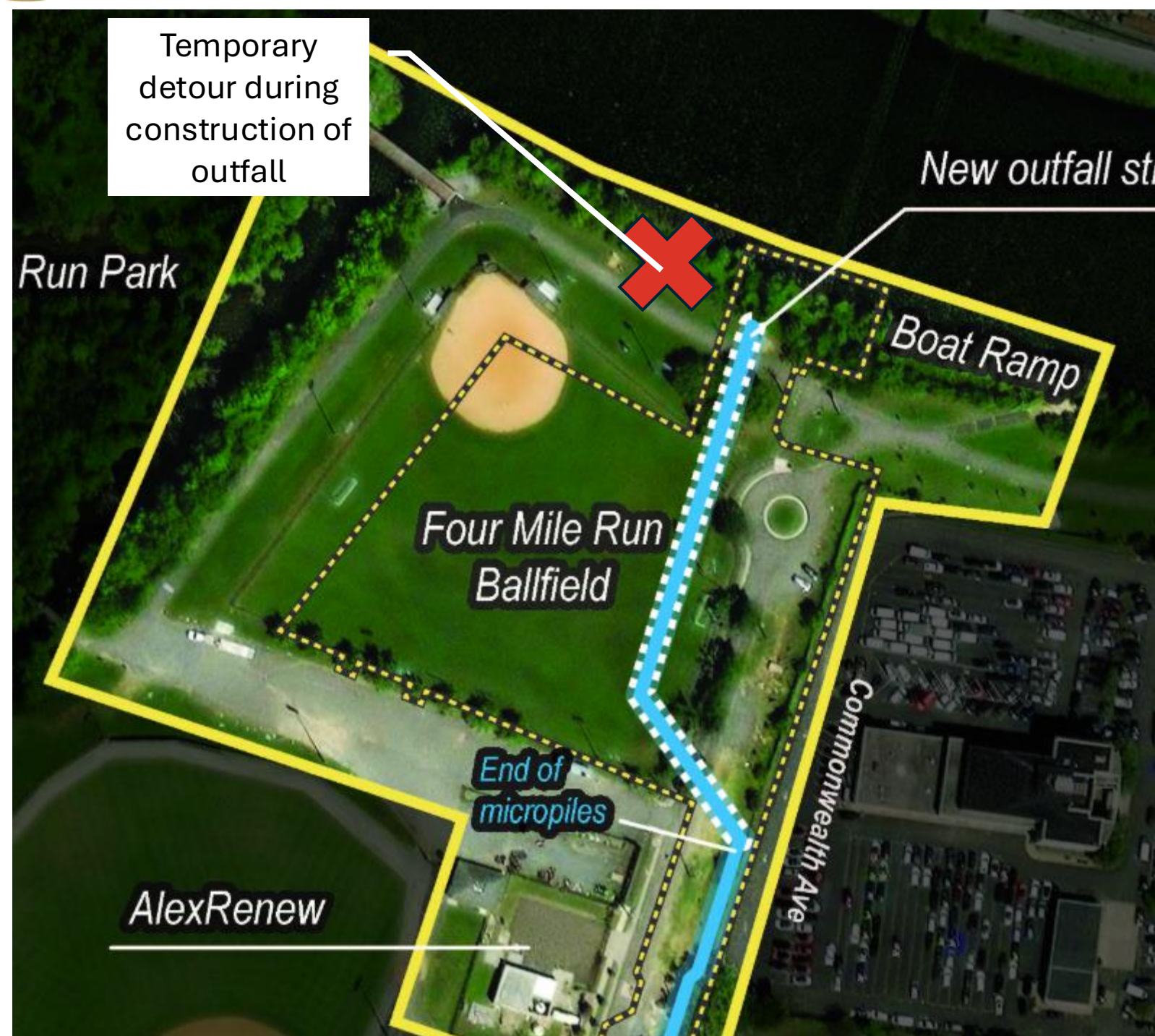
- ▶ New outfall to Four Mile Run - 20' x 40' concrete structure to be installed along the bank of Four Mile Run
- ▶ Debris rack and safety bars on outfall structure



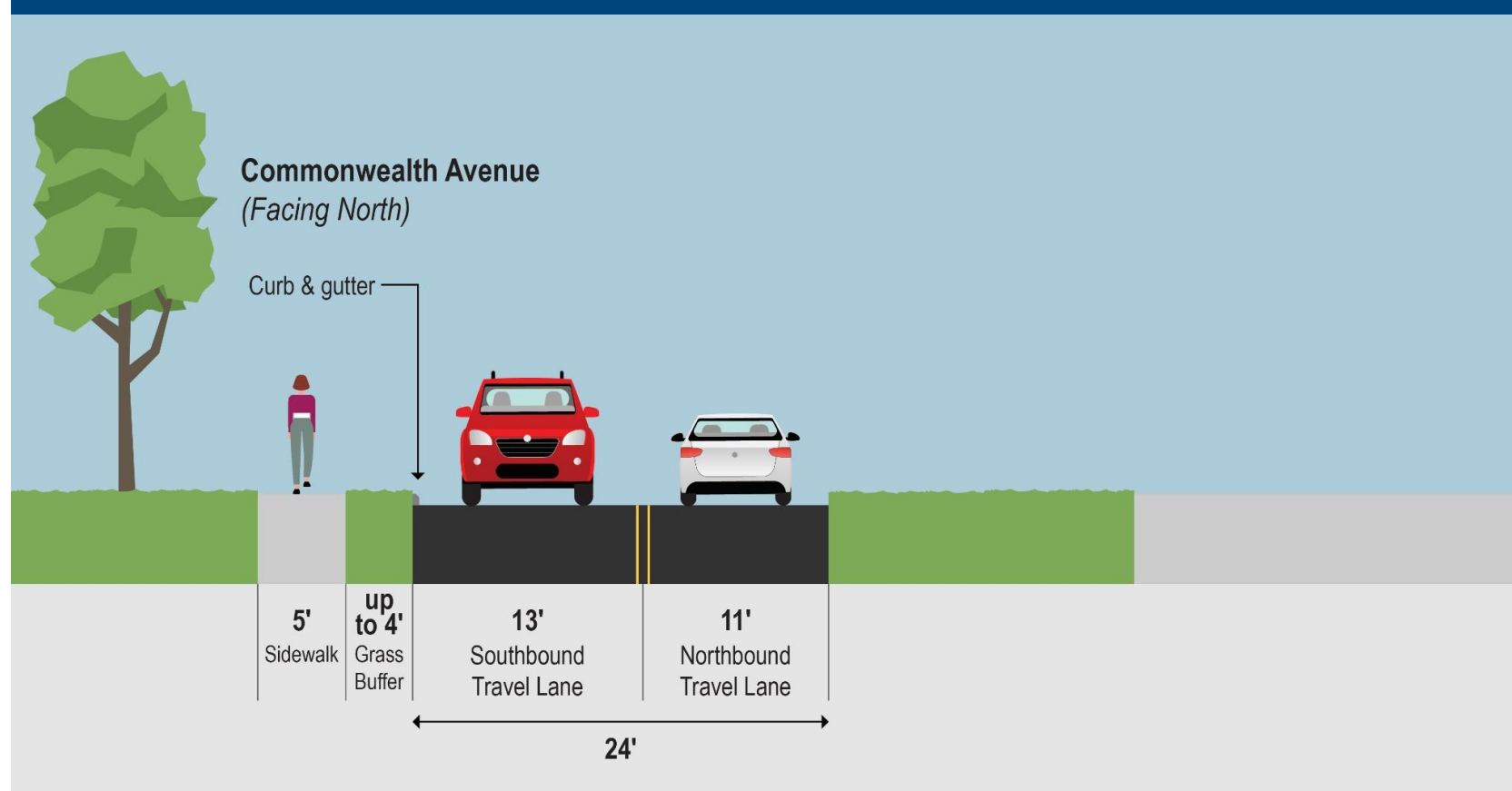
New culvert will be similar but double, not triple.



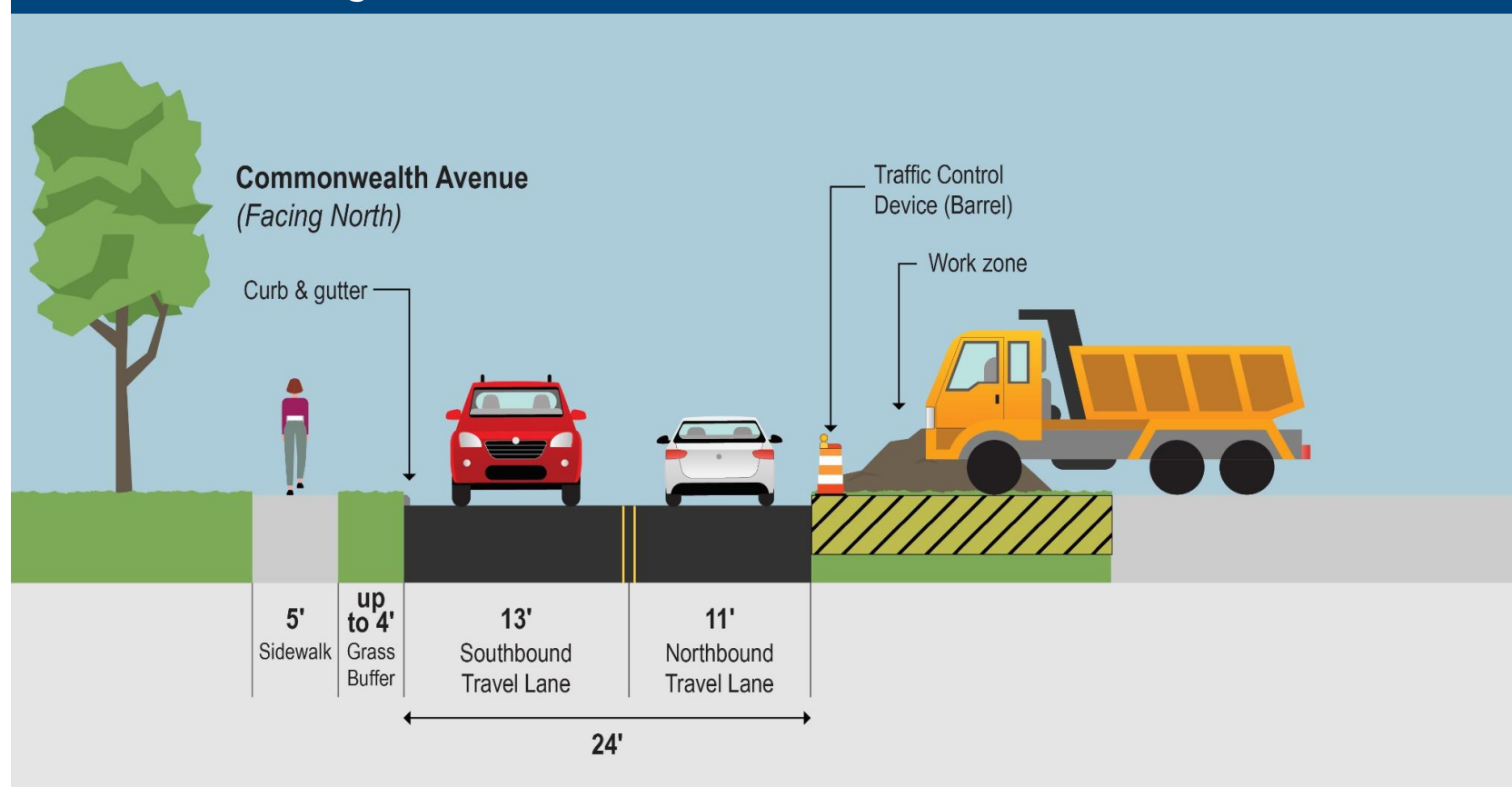
Area 1: Outfall



Travel Lanes Now



Travel Lanes During Construction



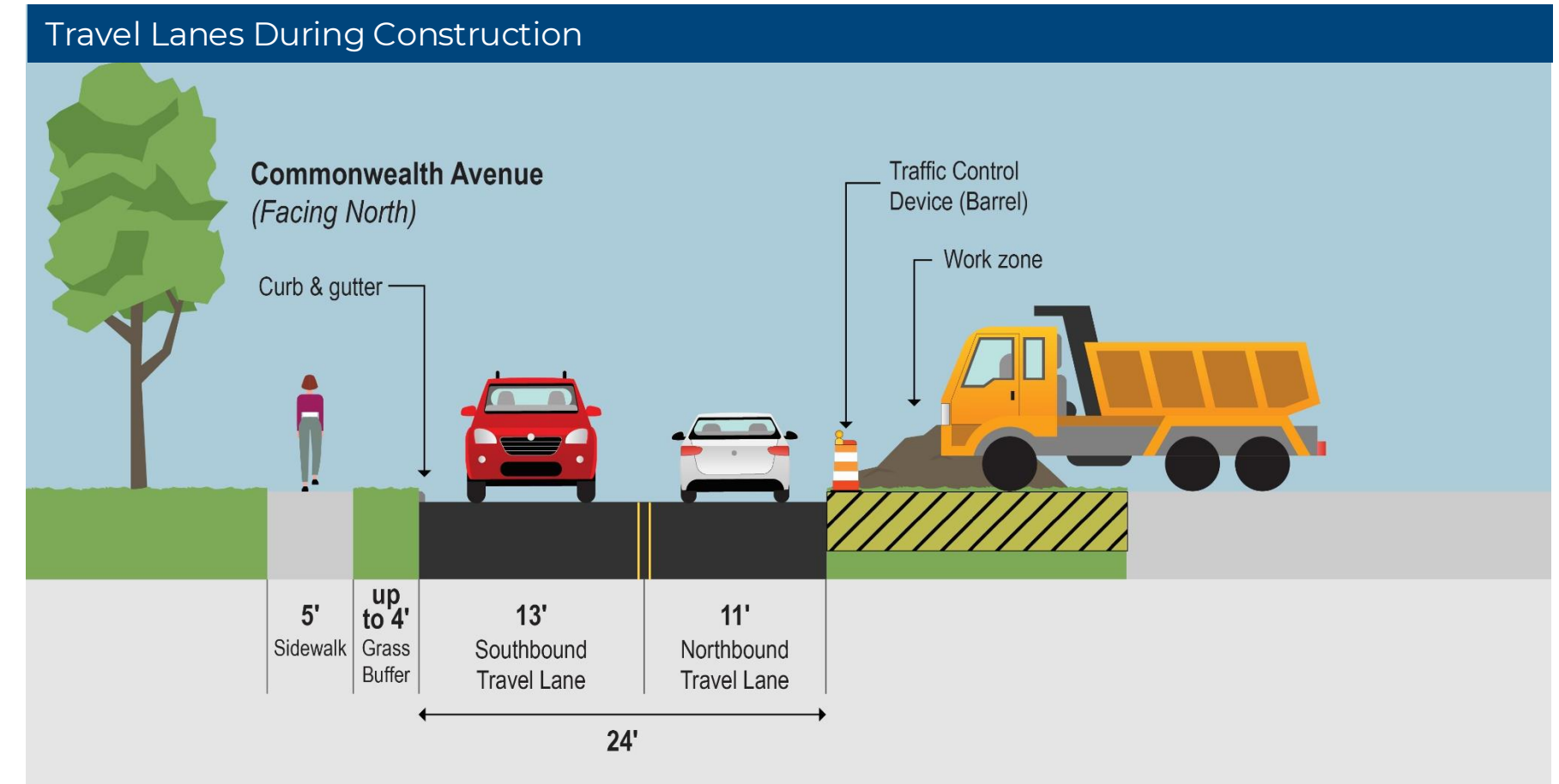
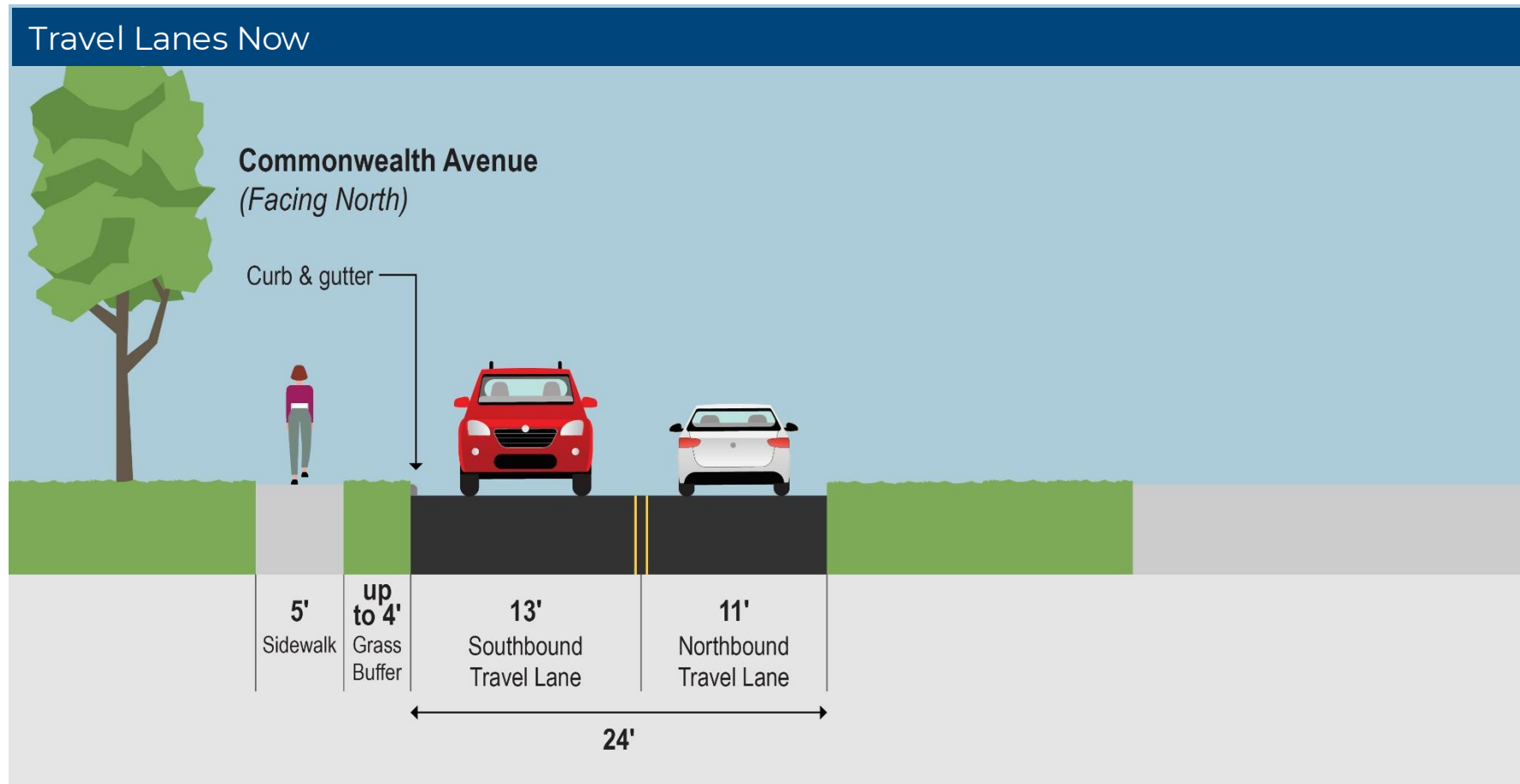


Area 1: Outfall

Traffic Management During Construction

► Two-way traffic will remain on Commonwealth Ave

► Bike traffic along Commonwealth Ave will continue to share-the-lane with vehicles; no change





Area 1: Outfall

Construction Impacts



Four Mile Run Trail –

- Detoured around softball field to north
- Estimated Duration (3-4 months)



Bicyclists –

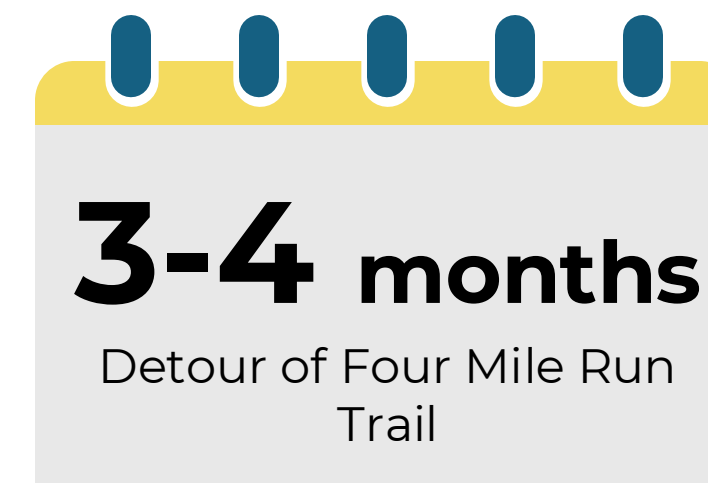
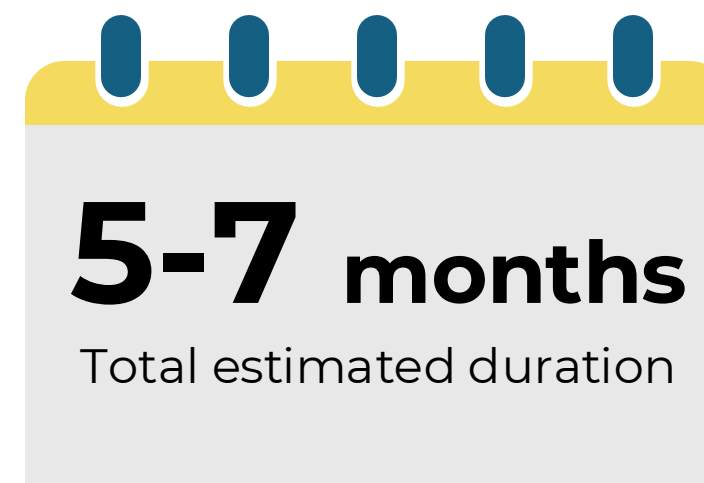
- Bicycles continue to share road with vehicles



Pedestrians –

- Sidewalk west of Commonwealth open

Estimated Duration of Construction



Boaters –

- Access to boat ramp maintained
- Detour will be provided
- No parking at cul-de-sac
- Parking at Four Mile Run Park
- Approximate detour time 3 months



Four Mile Run Park Softball Field (North) –

- Contractor staging area
- Closed 3 years (project duration)
- Equipment storage
- Material Storage
- Contractor site office/parking



Area 2: Cora Kelly School

Description of Work

- ▶ Two 8' x 7' box culverts to be installed on the east side of Commonwealth Ave

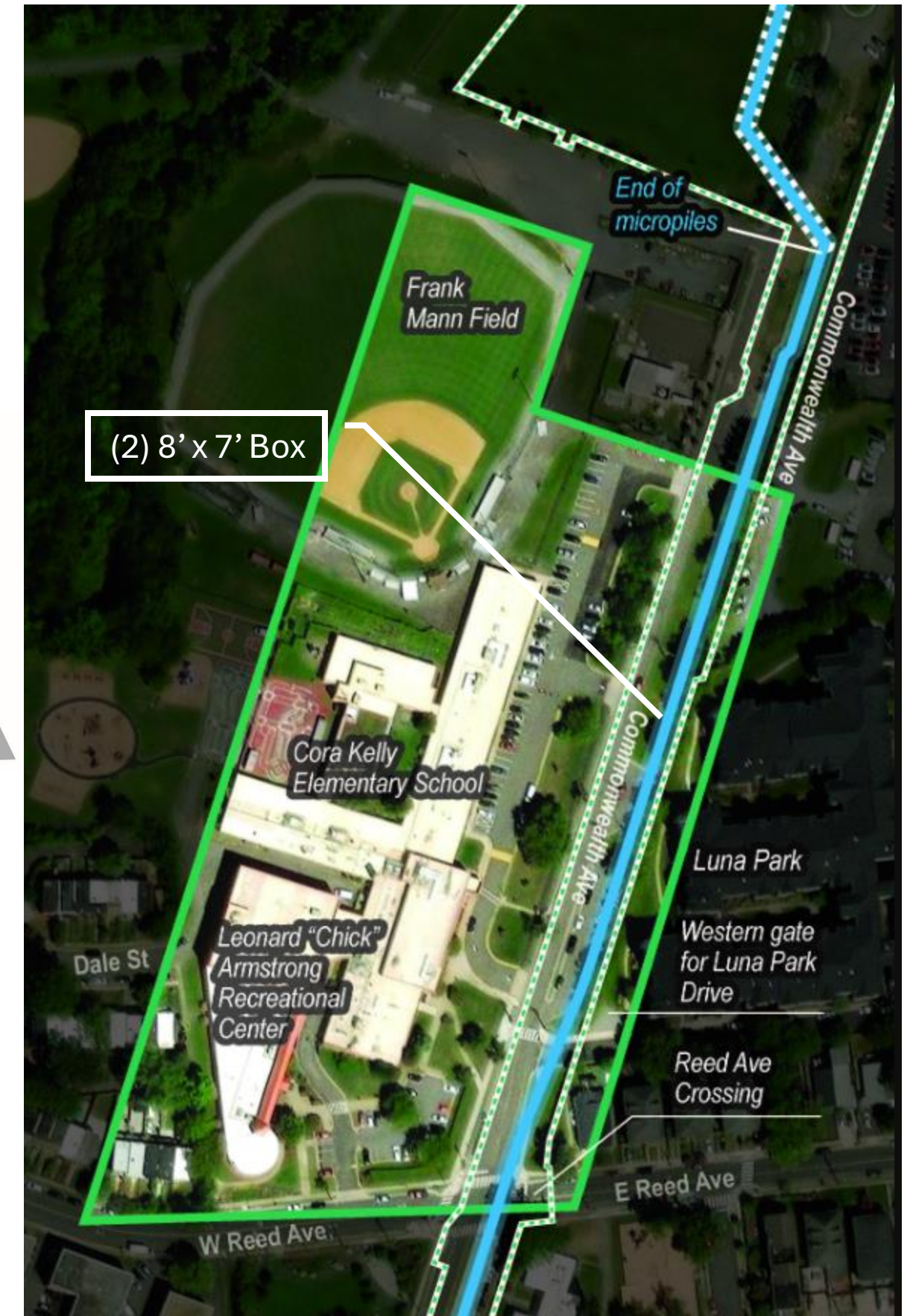


Two 8' x 7' box culverts will be installed on the east side of Commonwealth Ave

LEGEND

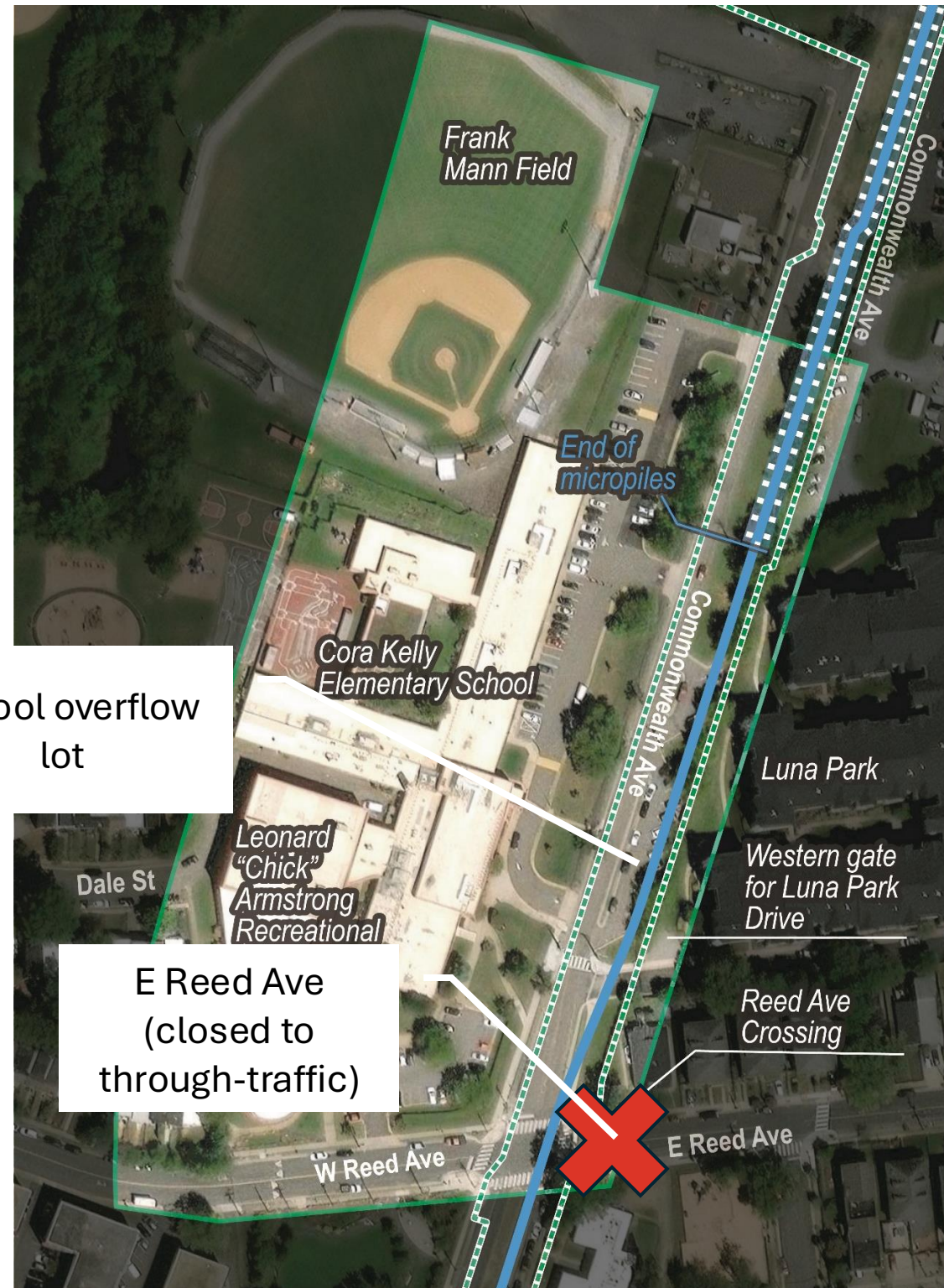
- Proposed Storm Sewer
- Area 2 Boundary
- Construction Area
- Area of Micropiles

0 62.5 125 250 Feet

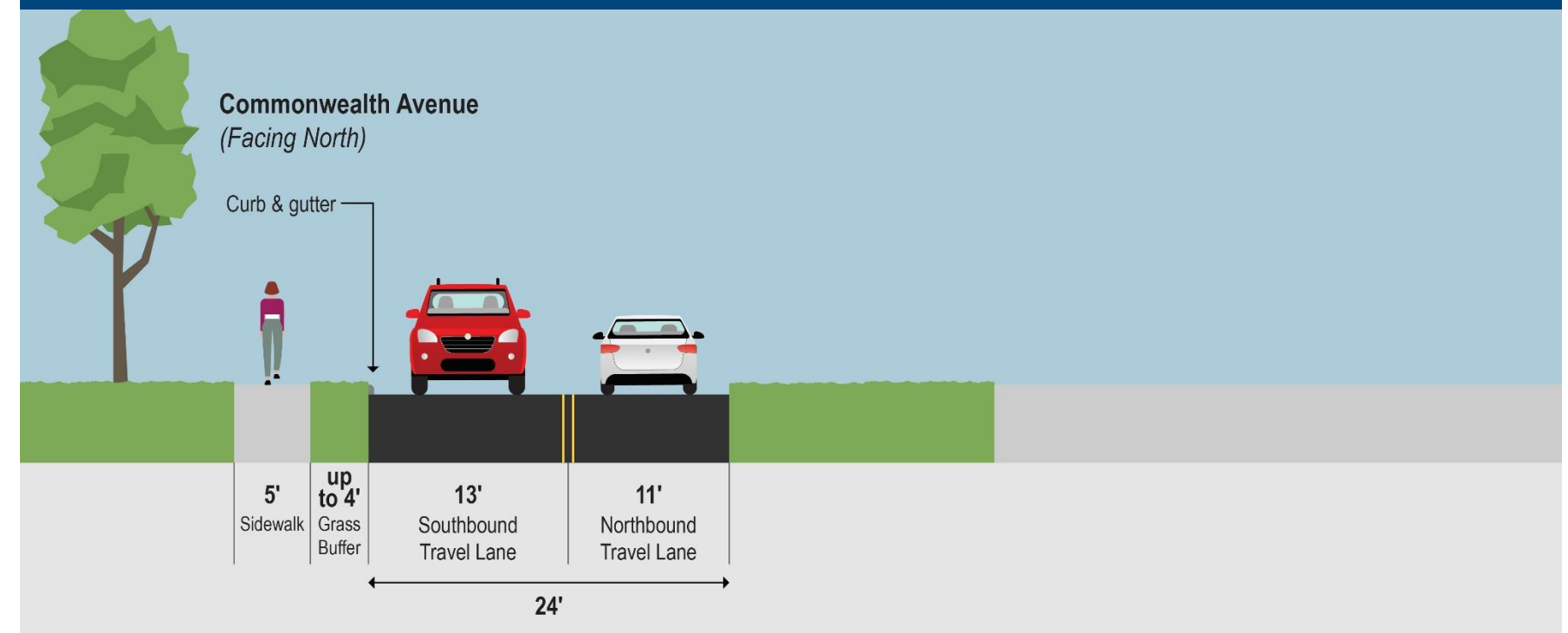




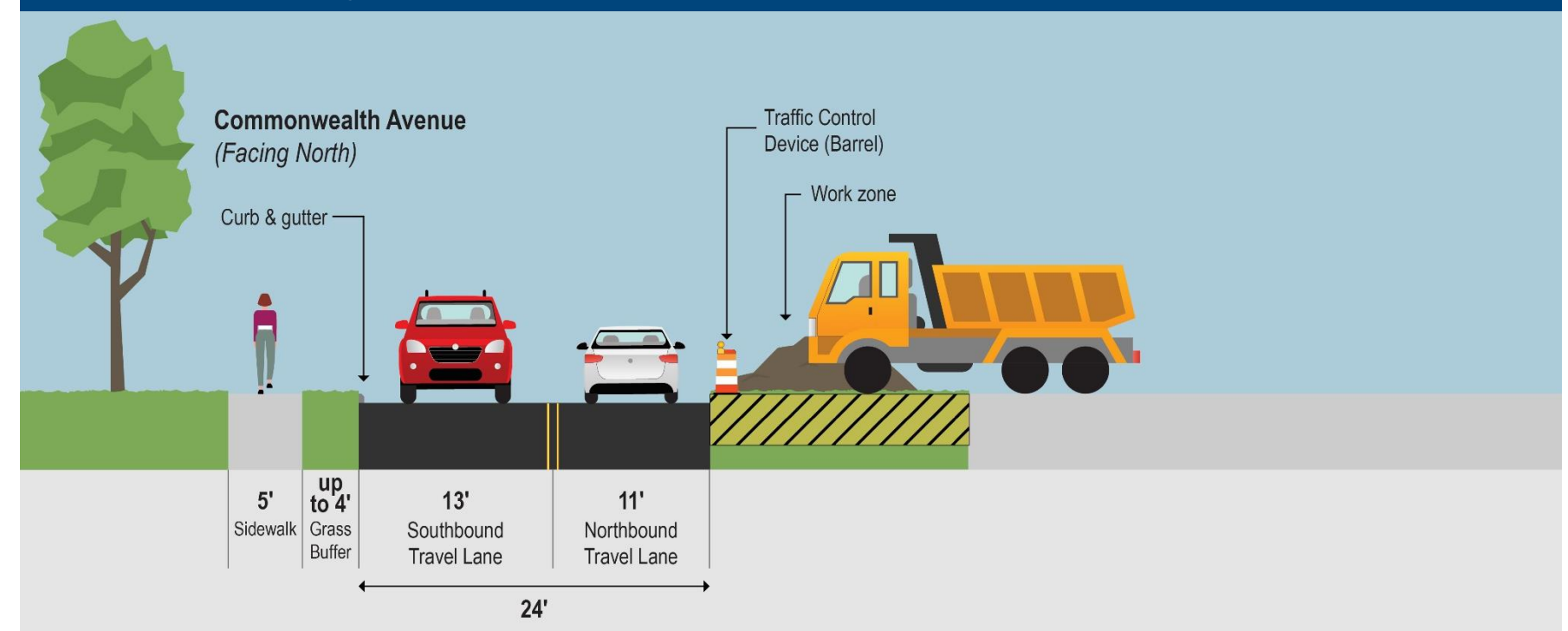
Area 2: Traffic Management



Travel Lanes Now



Travel Lanes During Construction

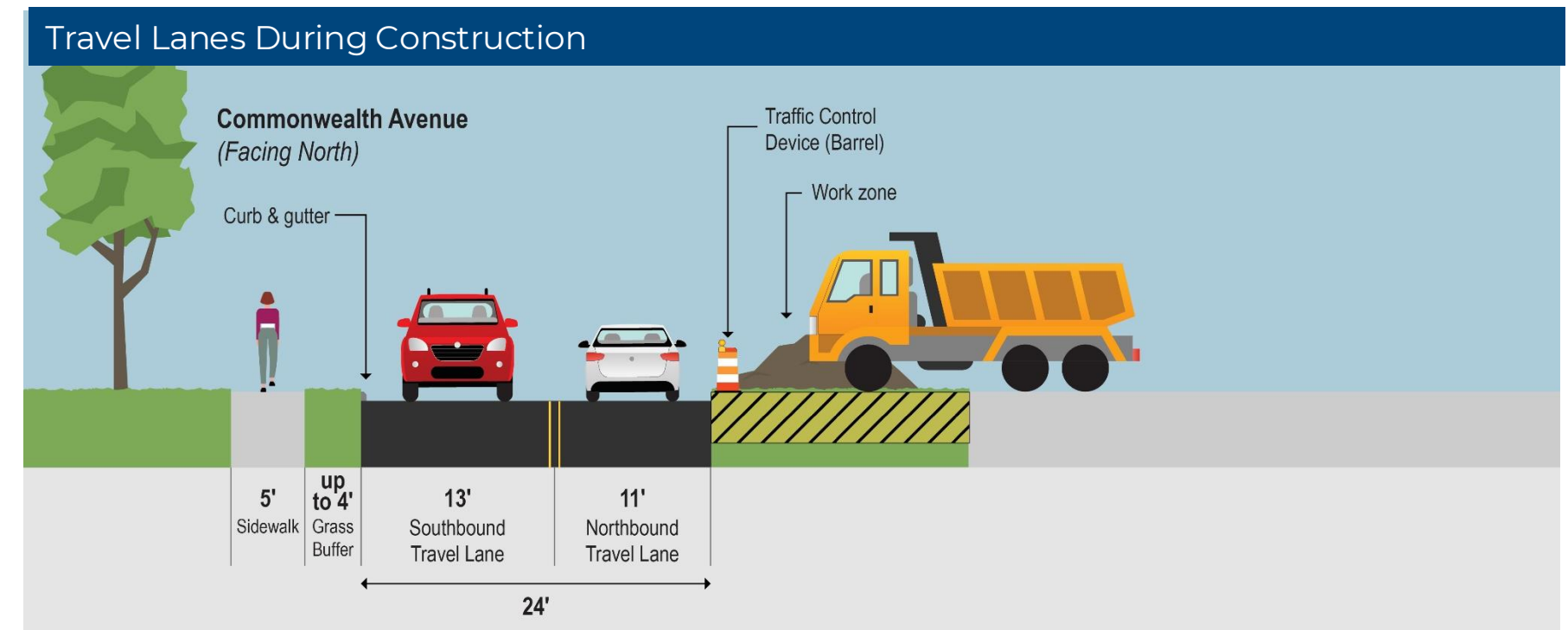
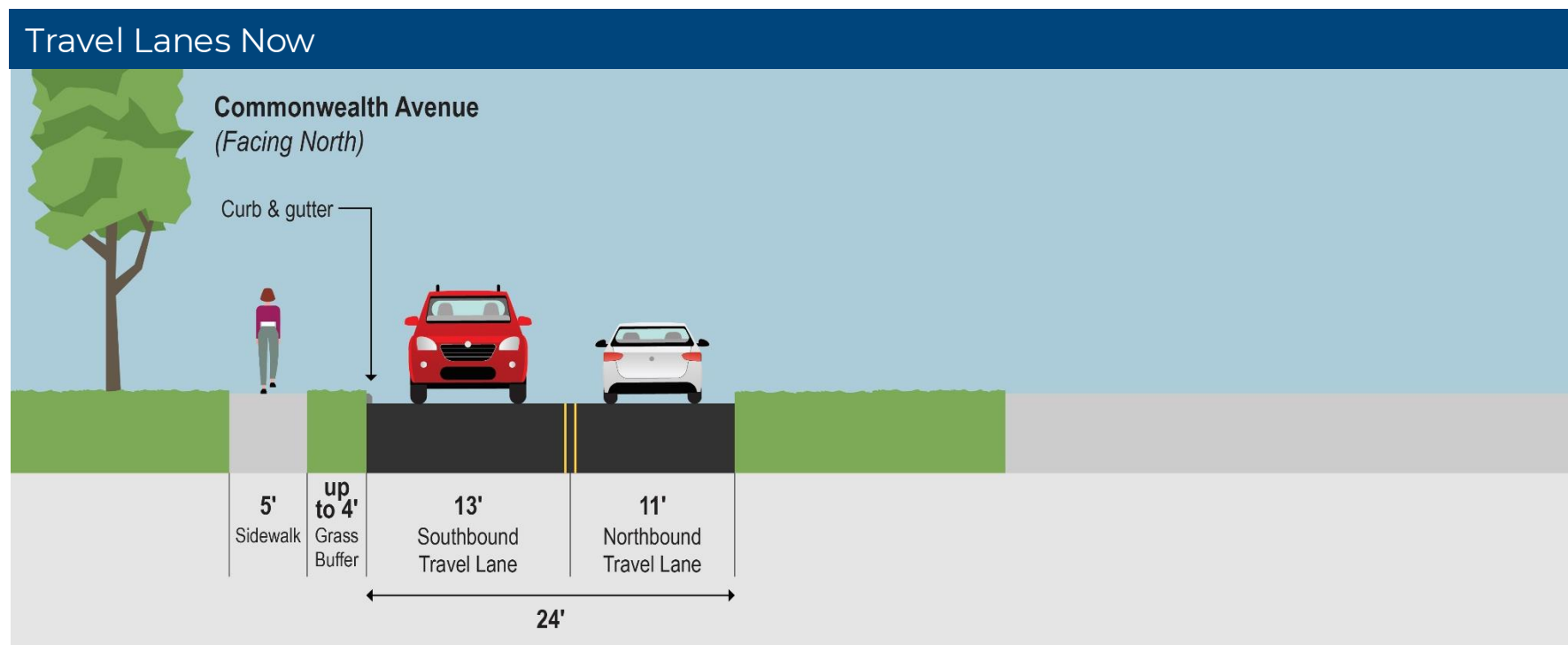




Area 2: Cora Kelly School

Traffic Management During Construction

- ▶ Two-way traffic will remain on Commonwealth Ave
- ▶ Bike traffic along Commonwealth Ave will continue to share the lane with vehicles; no change
- ▶ When construction crosses E Reed Ave, E Reed will be closed to through-traffic (90 days)





Area 2: Cora Kelly School

Construction Impacts



Vehicle Access to School

- Pick up/drop off maintained
- Bus traffic maintained



Bike and Pedestrian access to school/rec center

- maintained



Parking –

- School overflow east of Commonwealth offline
- Overflow lot directed to Four Mile Run Park lot



Pedestrians –

- Sidewalk east of Commonwealth from Reed to Luna park closed



Commuters –

- E Reed temporarily detoured for through-traffic (3-4 months)
- Local and emergency access maintained

Estimated Duration of Construction

7-9 months

Total estimated duration

3-4 months

Closure of Reed Ave east leg of intersection



Area 3: Commonwealth Ave from Reed Ave to Glebe Rd

Description of Work

Commonwealth Ave

- ▶ Two 8' x 7' box culverts will be installed from Reed Ave to Glebe Rd
- ▶ The median will be removed and replaced with green infrastructure

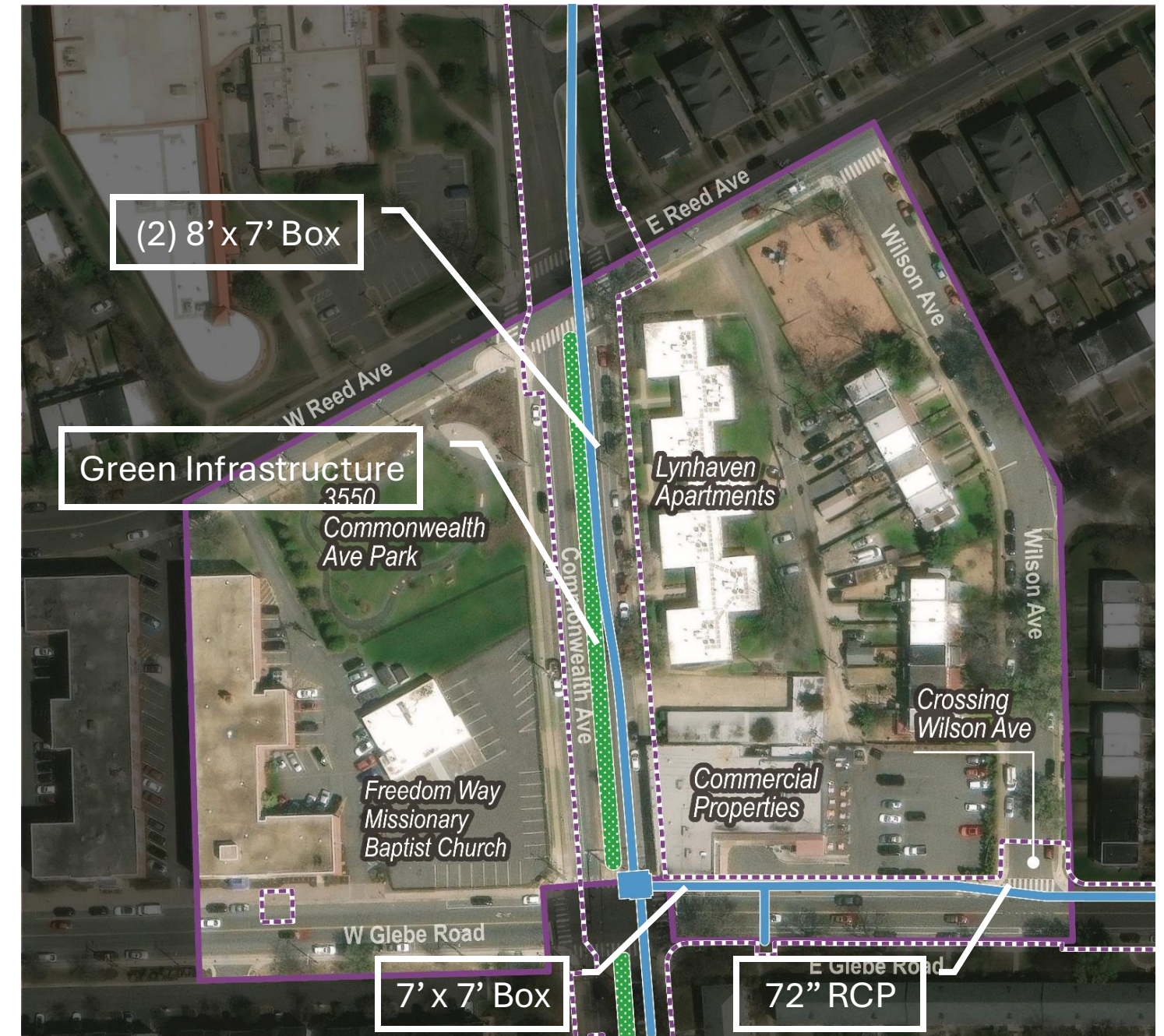
E Glebe Road

- ▶ One 7' x 7' box culvert will be installed on E Glebe Rd partially under the northern sidewalk

LEGEND

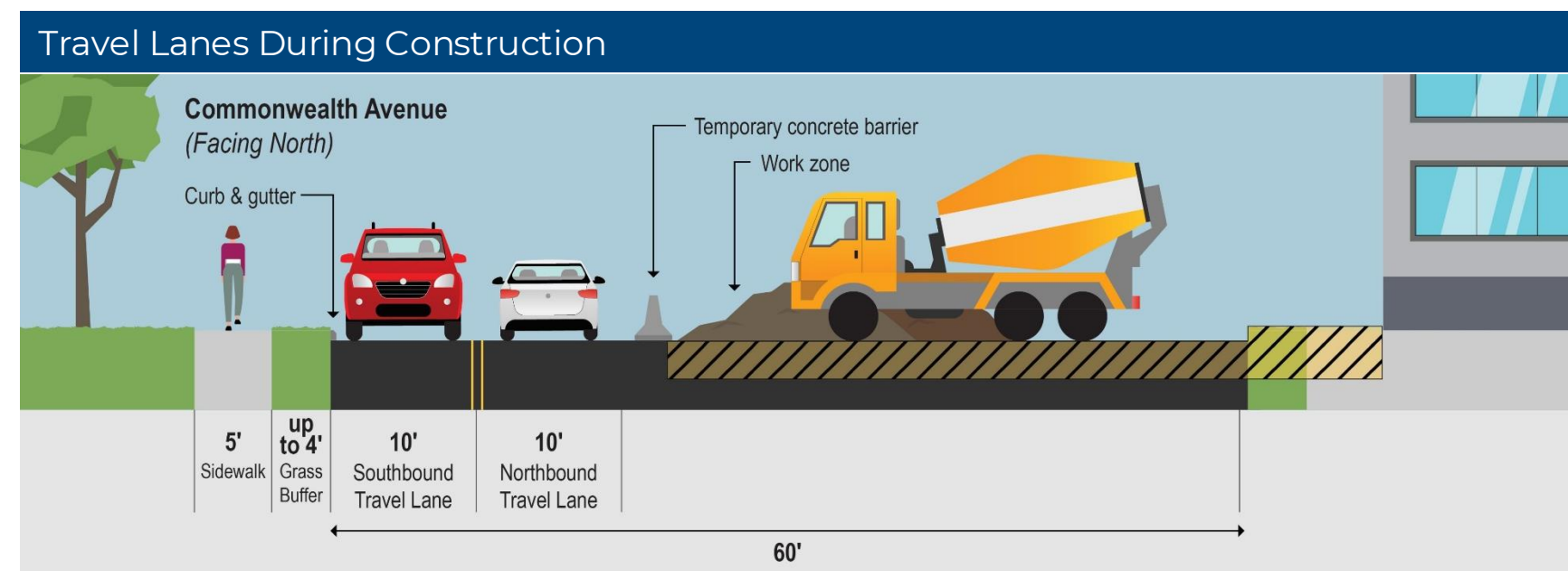
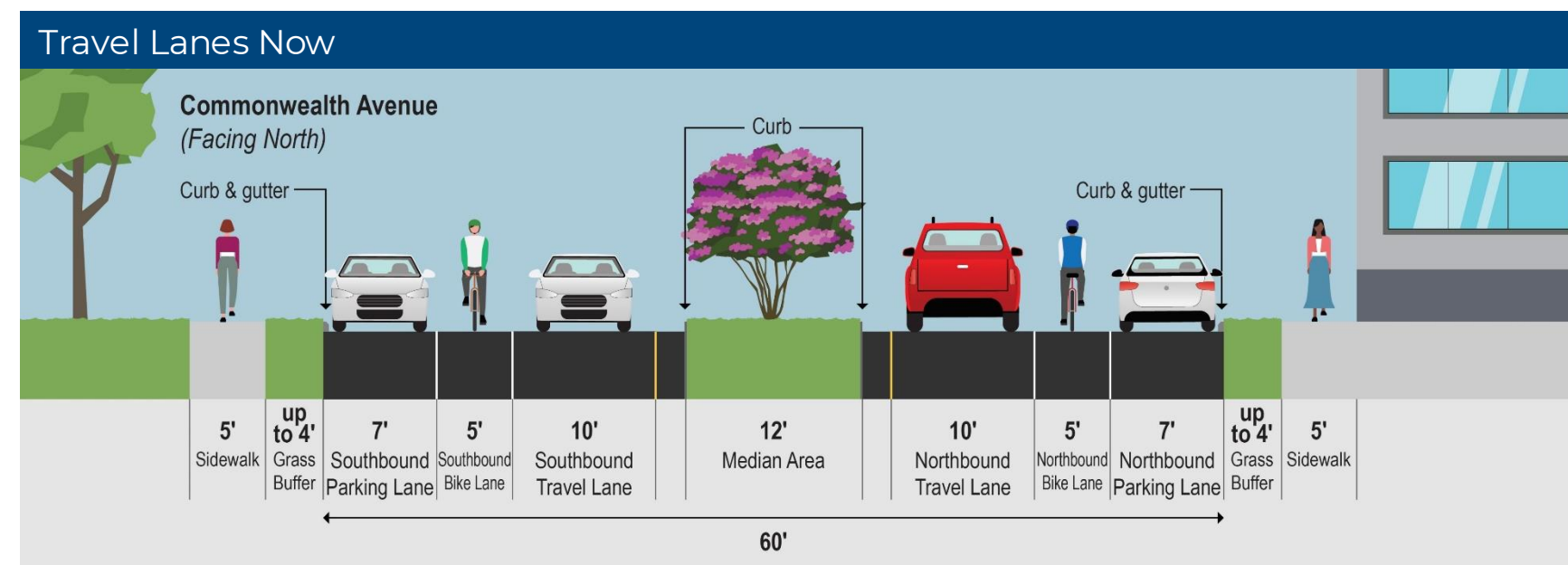
- Proposed Storm Sewer
- Area 3 Boundary
- - - Construction Area
- Green Infrastructure

0 55 110 220 Feet





Area 3: Traffic Mitigation (Commonwealth)



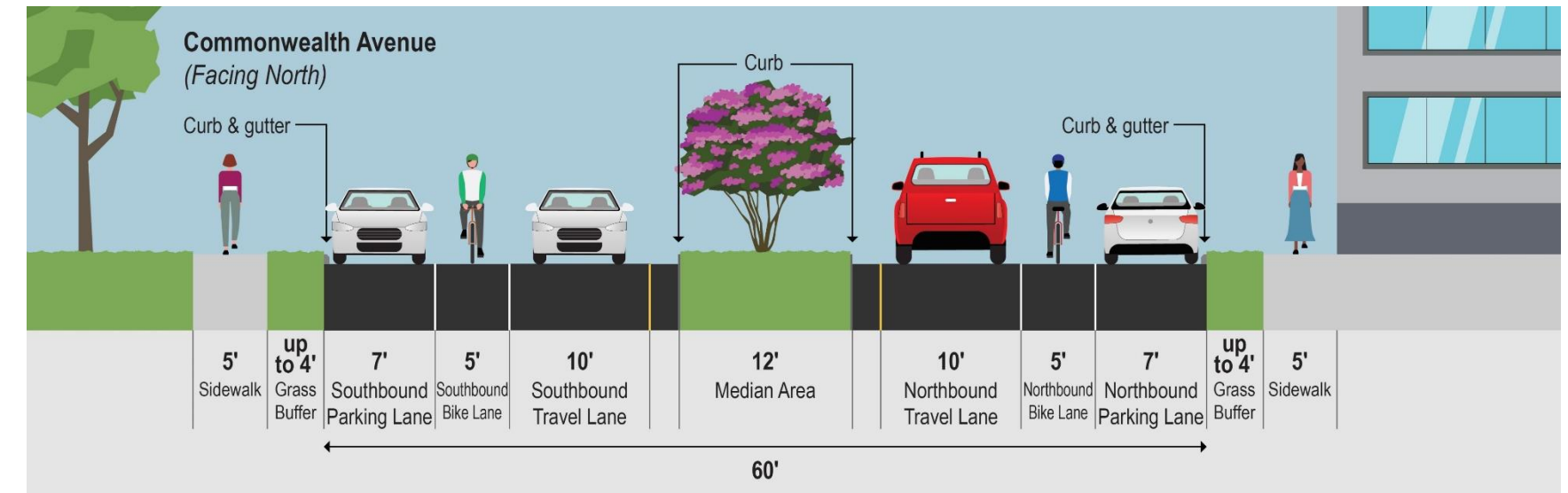


Area 3: Commonwealth Ave from Reed Ave to Glebe Rd

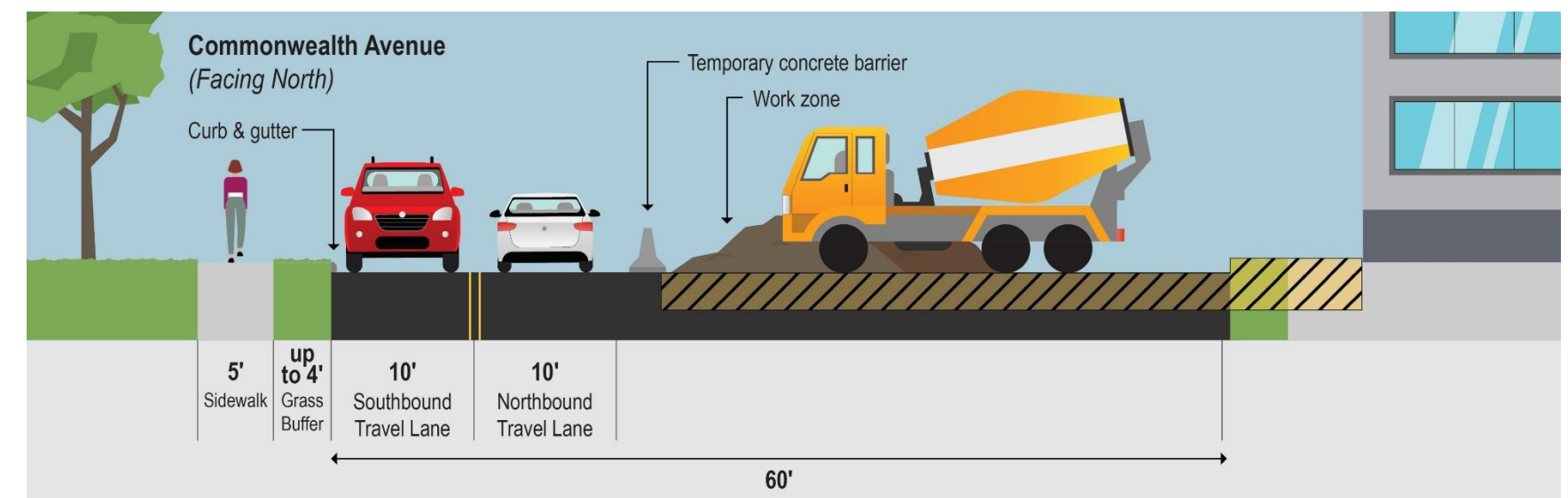
Traffic Management During Construction

Commonwealth Avenue

- ▶ Two-way traffic will remain on the west side of Commonwealth Ave
- ▶ Bike lanes will be closed; bikes and vehicles will share the lane
- ▶ No parking along Commonwealth Ave to allow for construction and two-way traffic
- ▶ Access to entrances will be maintained



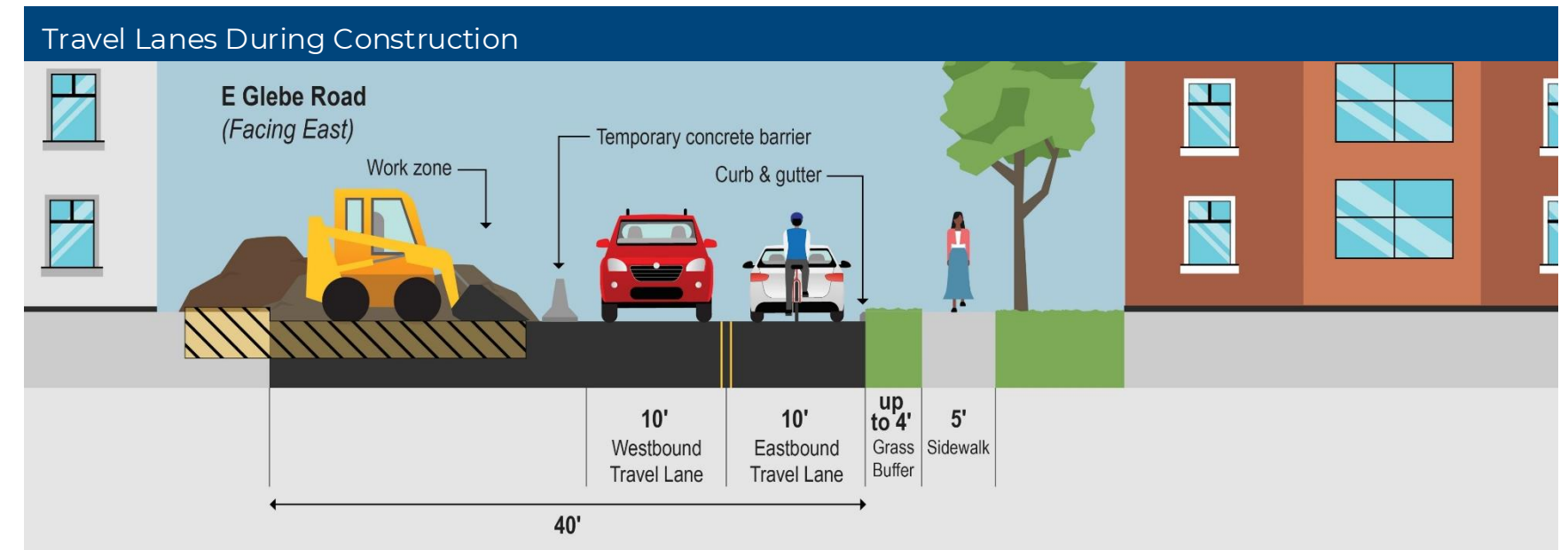
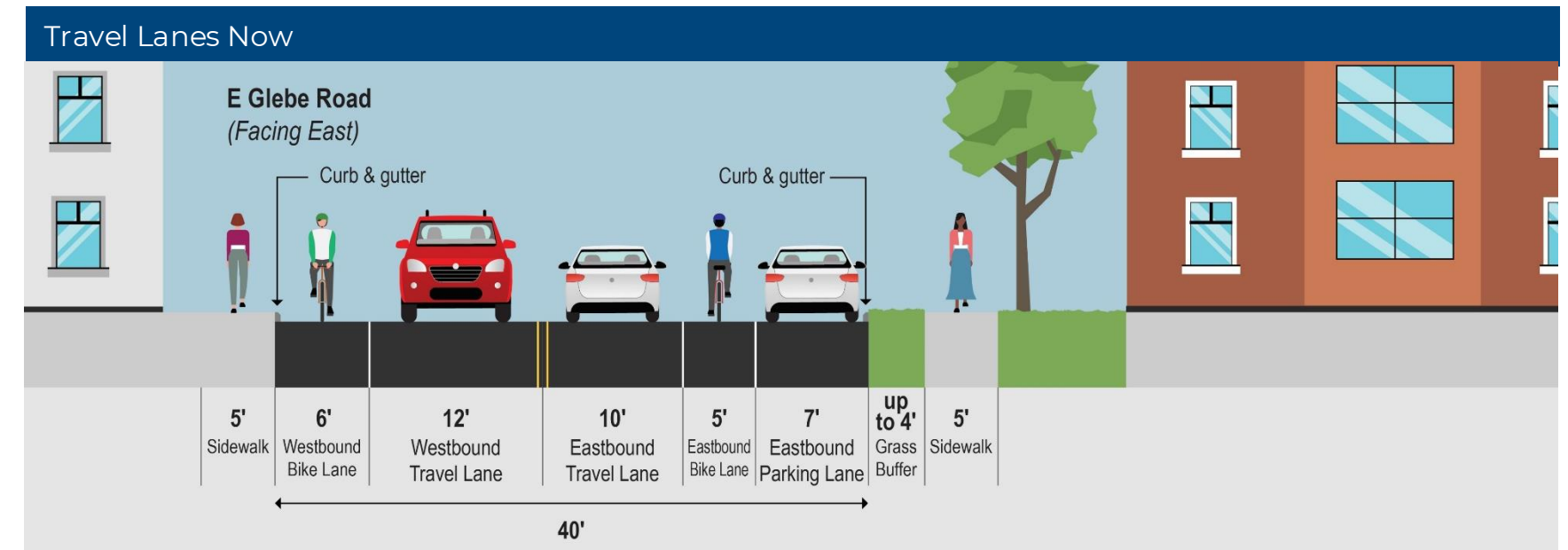
Travel Lanes Now



Travel Lanes During Construction



Area 3: Traffic Mitigation (E Glebe)



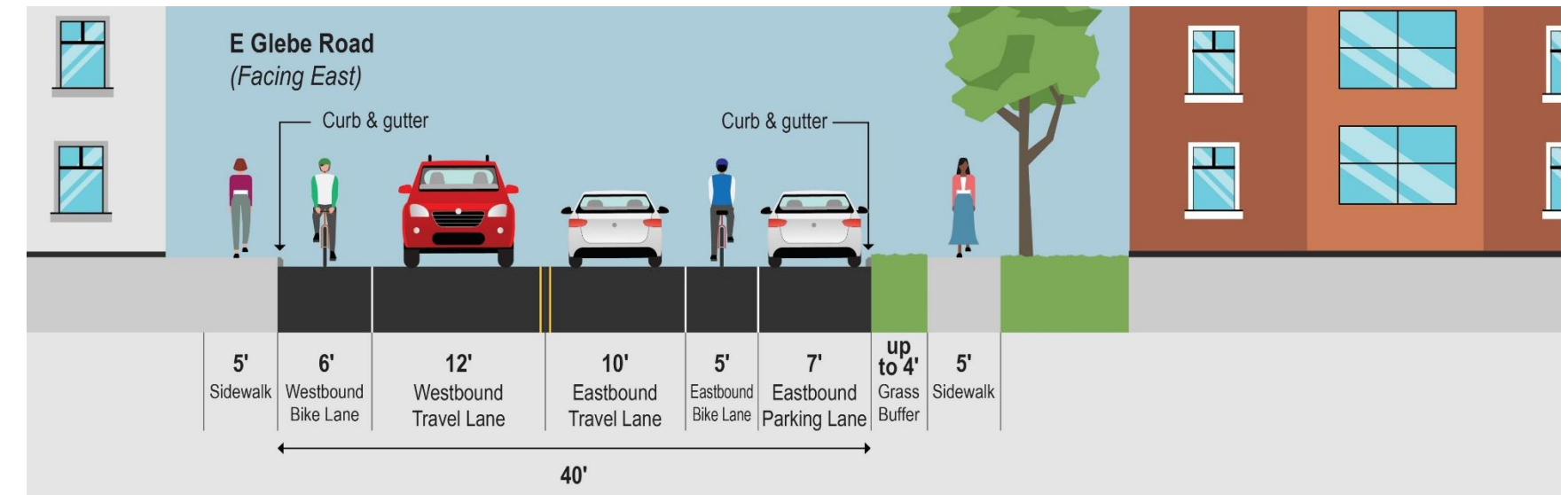


Area 3: Commonwealth Ave from Reed Ave to Glebe Rd

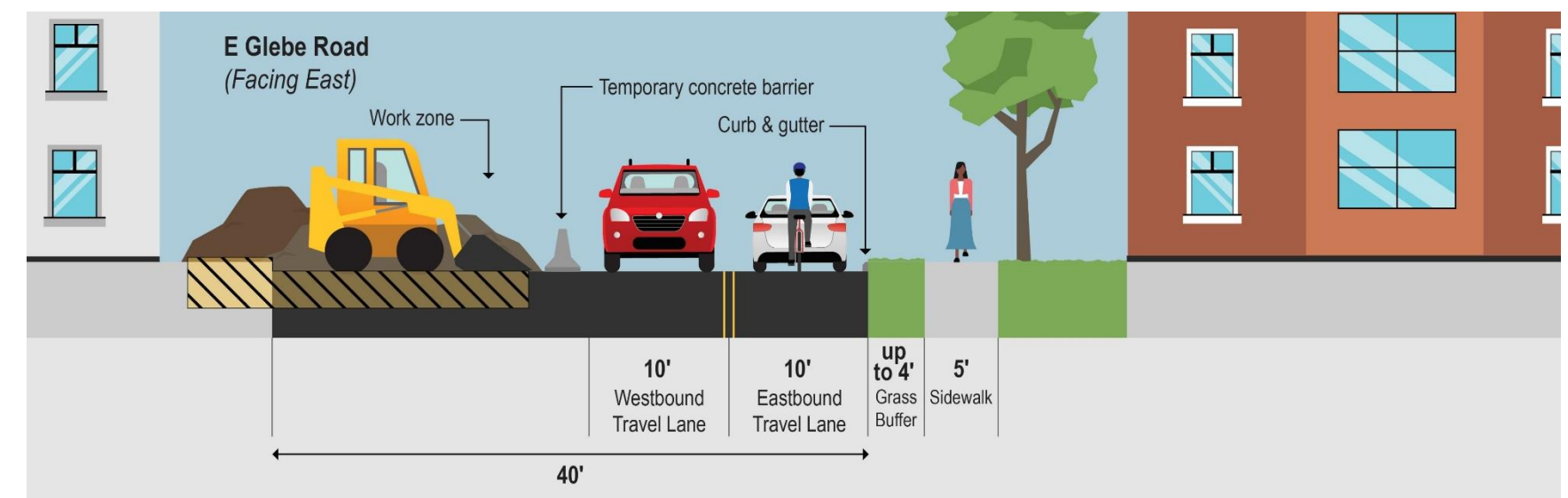
Traffic Management During Construction

E Glebe Road

- ▶ Two-way traffic will remain on the south side of E Glebe Rd
- ▶ Bike lanes will be closed; bikes and vehicles will share the lane
- ▶ Sidewalk closed on the north side of E Glebe Road. Pedestrian detours will be provided
- ▶ Vehicle access to Wilson Ave at E Glebe Rd temporarily closed during construction of the culvert across Wilson Ave.
- ▶ Access to parking lots will be maintained



Travel Lanes Now



Travel Lanes During Construction



Area 3: Commonwealth Ave from Reed Ave to Glebe Rd

Construction Impacts



Residents at Lynhaven Apts

- No street parking on Commonwealth Ave
- Public sidewalk on the east side of Commonwealth Ave closed, but sidewalks into apartments remain open



Northside 10 restaurant, Neighborhood Health, Auburn Cleaners, and Jet's Pizza

- Access to at least one driveway into parking lot will be maintained during construction
- Sidewalk in front of property closed during construction



Bicyclists –

- Bike lanes closed
- Bikes and vehicles will share the lane during construction

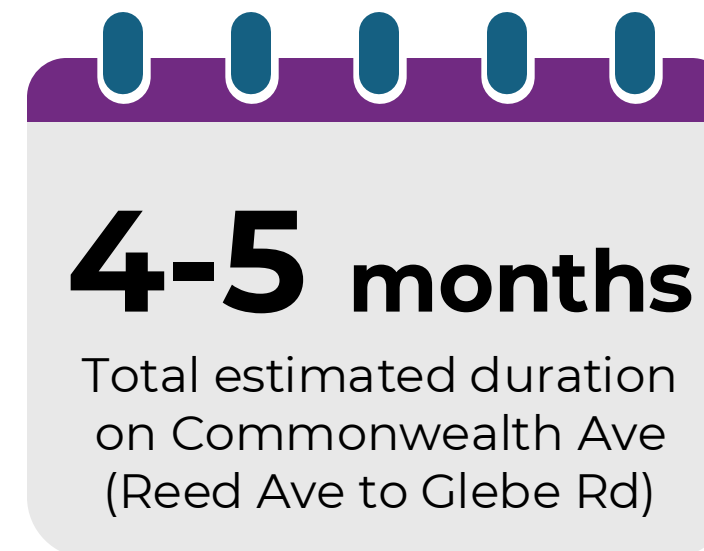


Users of 3550 Commonwealth Ave Park – Parking on E Reed Ave will remain



Freedom Way Missionary Baptist Church – Access to church parking will be maintained

Estimated Duration of Construction





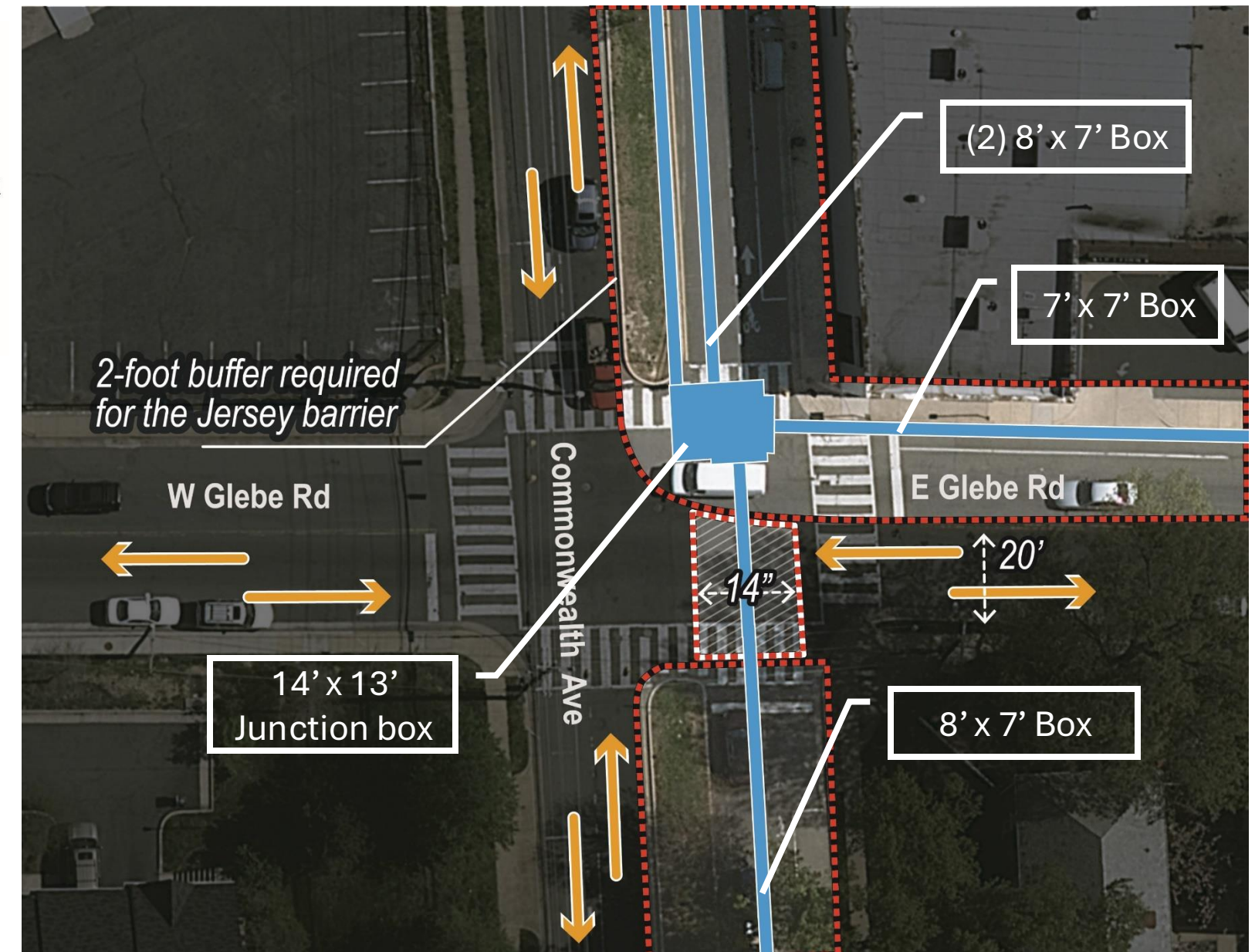
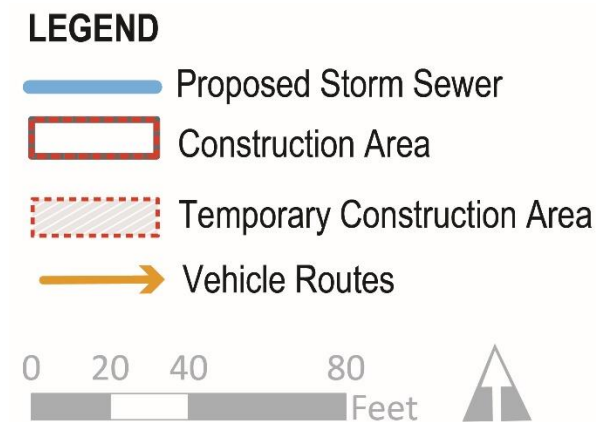
Area 4: Intersection of Commonwealth Ave and Glebe Rd

Description of Work

- ▶ Junction box installed to capture stormwater from Glebe Rd and the southern part of Commonwealth Ave and direct it north to the outfall

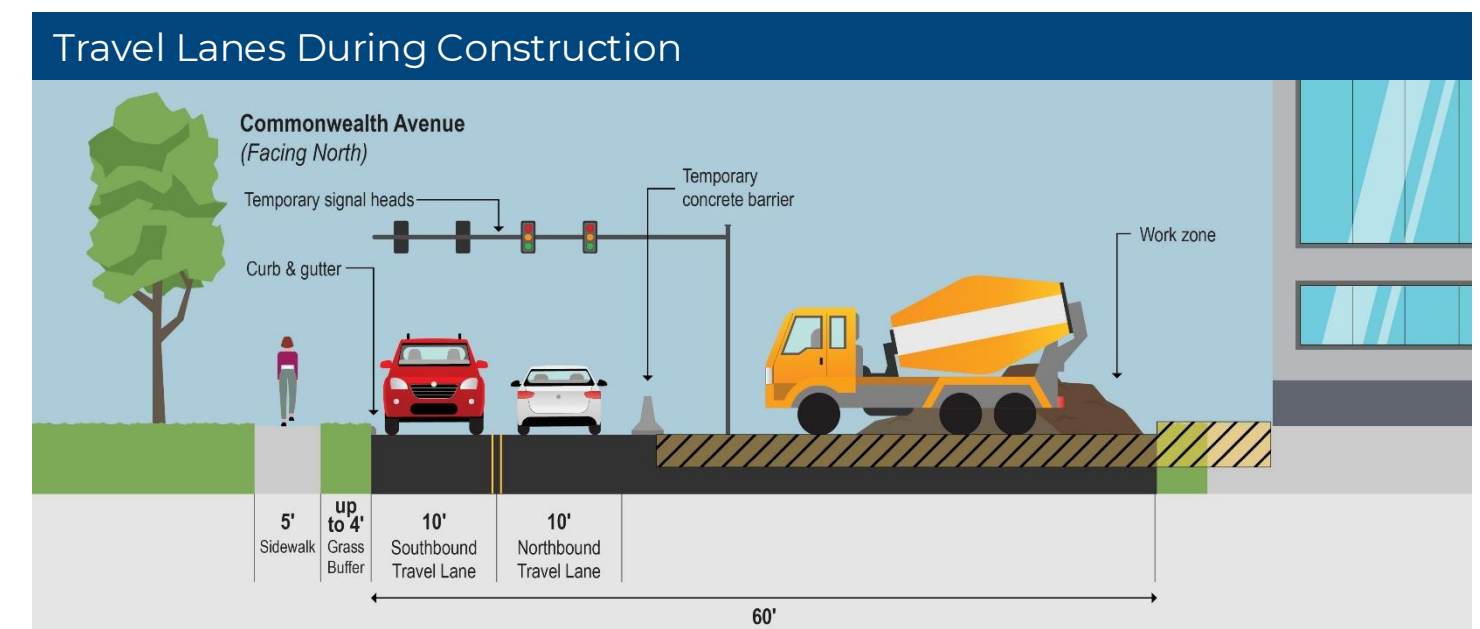
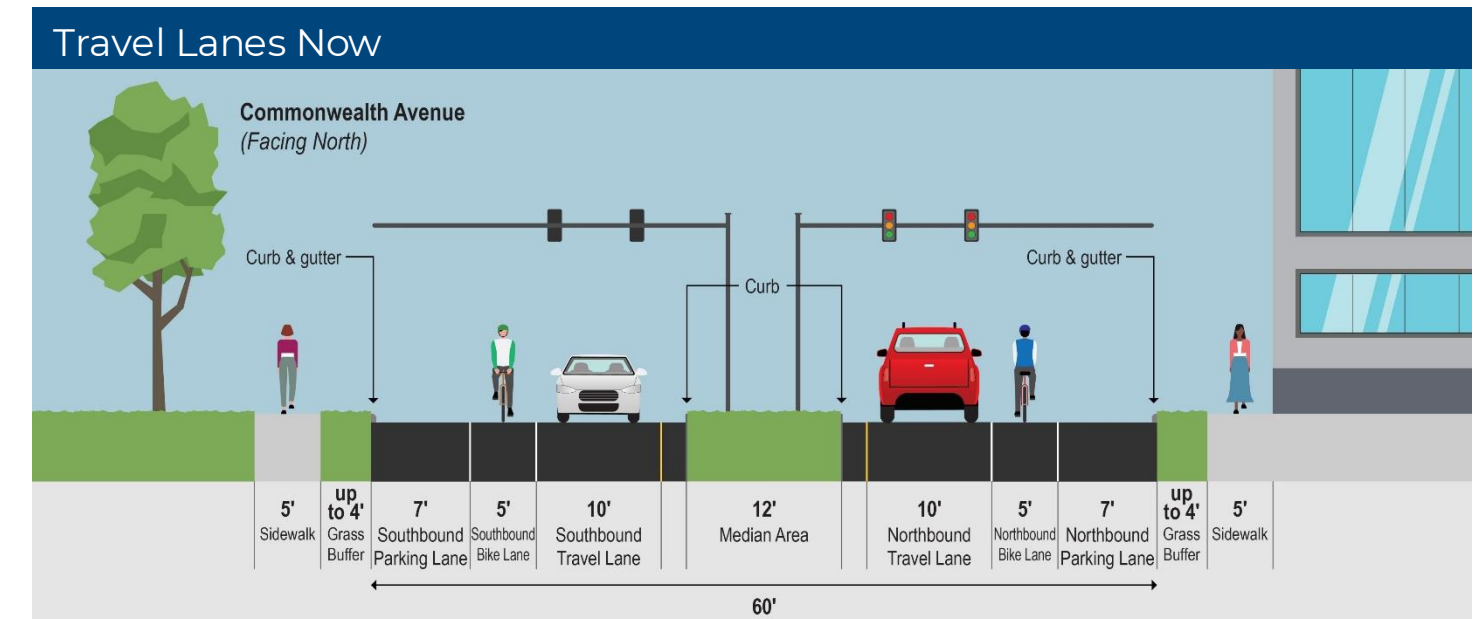
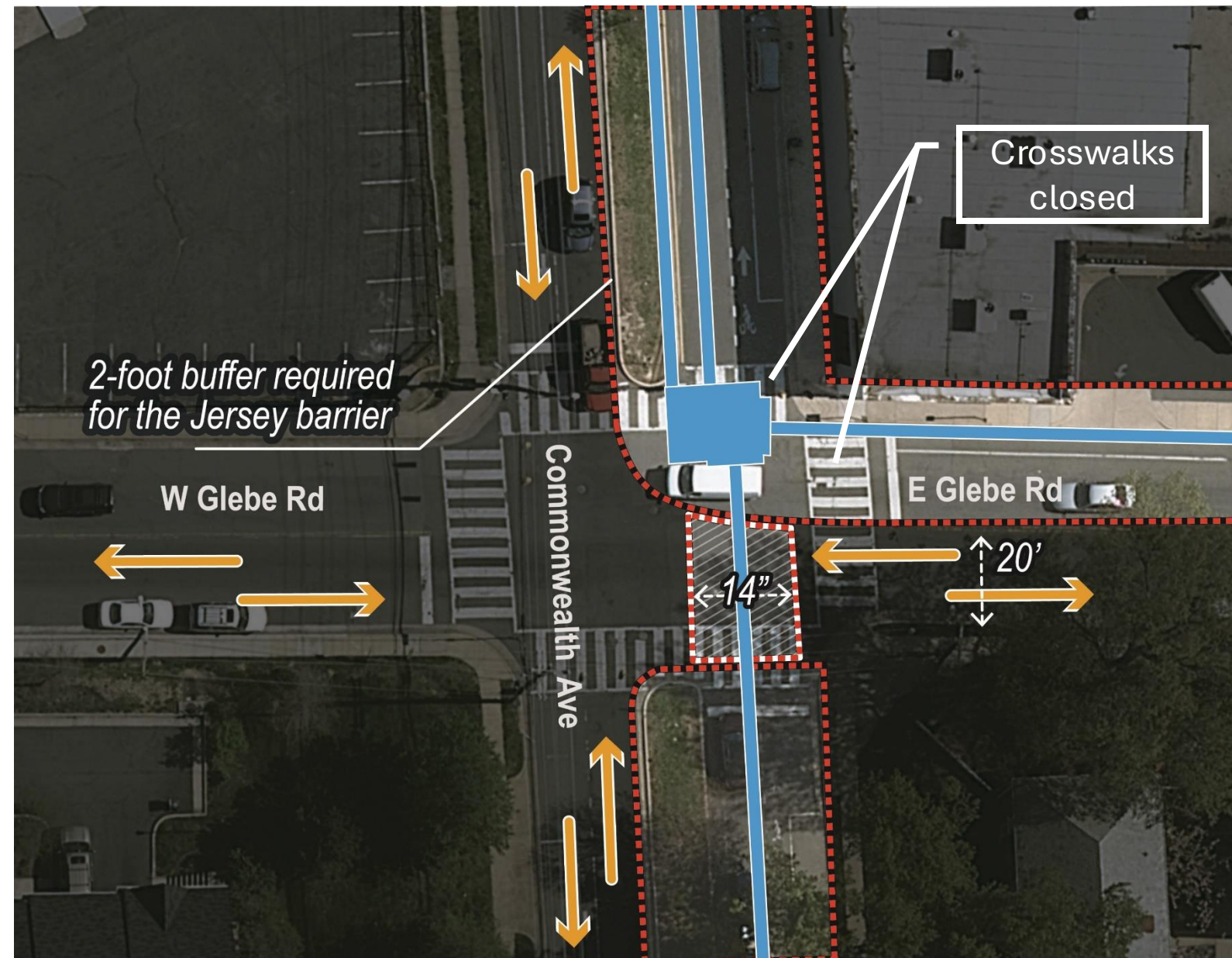
Box culverts

- ▶ Double 8' x 7' box culverts on the north side of Commonwealth Ave
- ▶ Single 7' x 8' box culvert on the south side of Commonwealth Ave
- ▶ 7' x 7' box culvert on E Glebe Rd



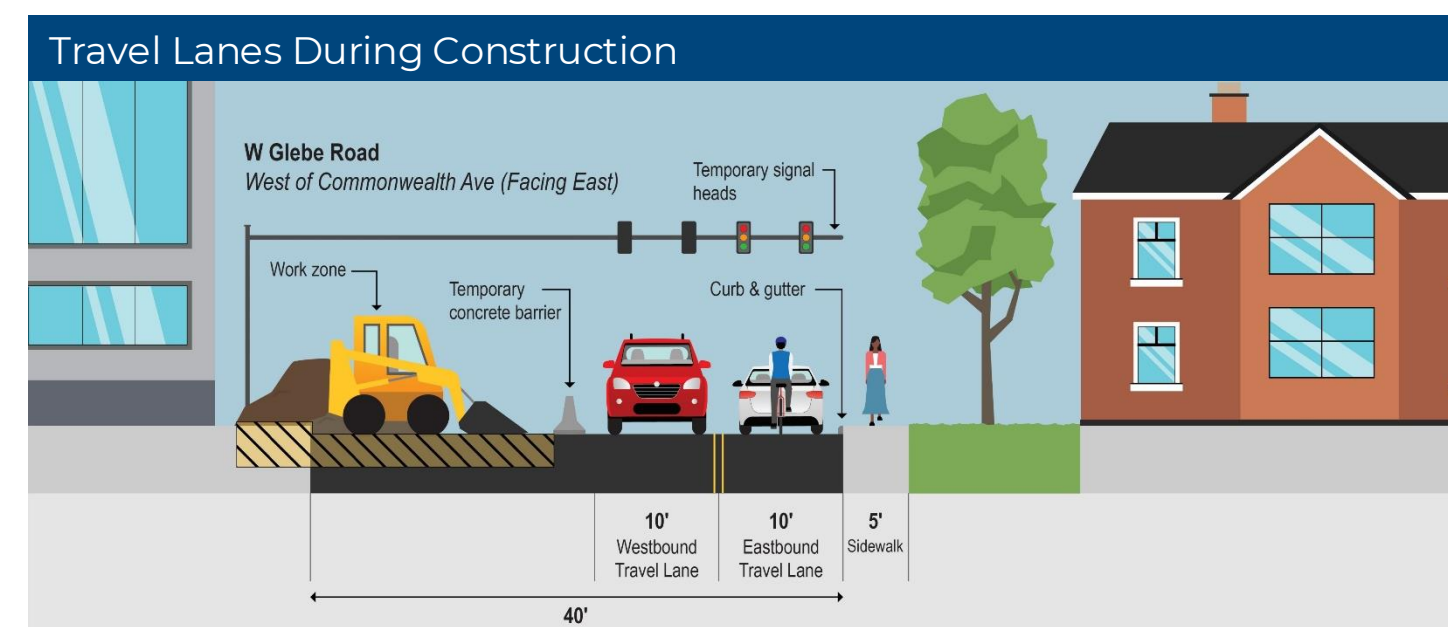
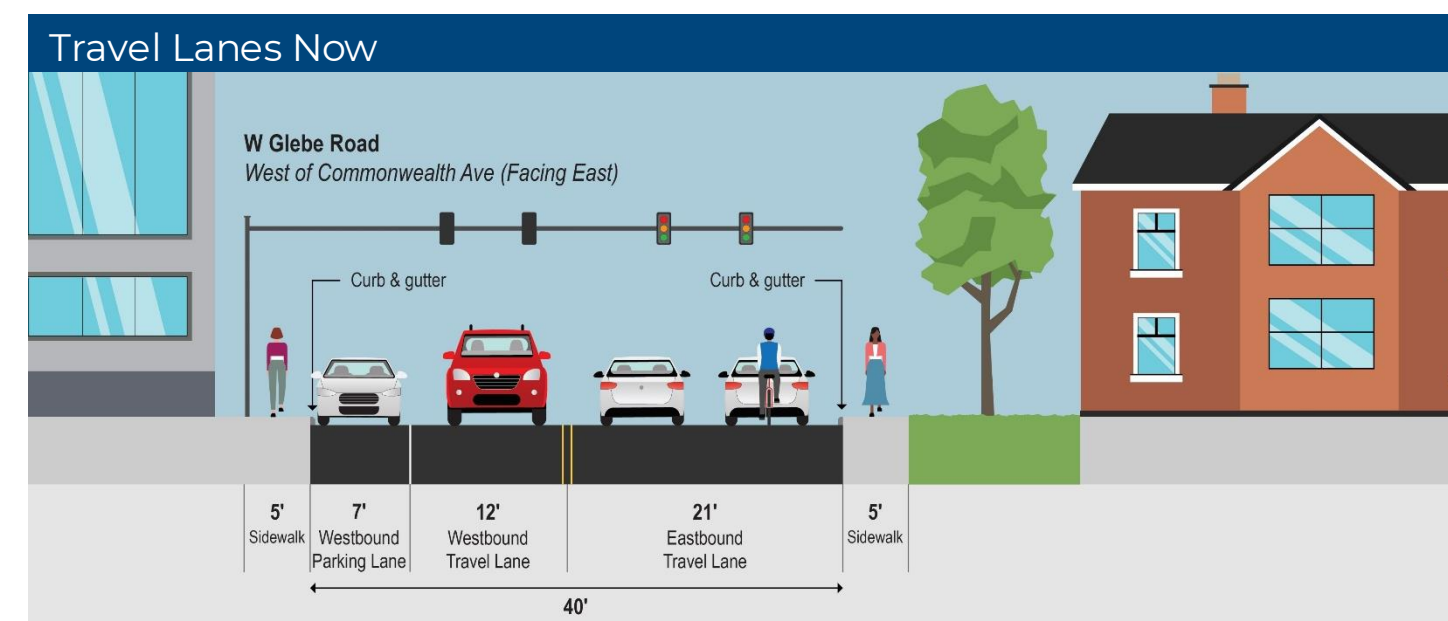
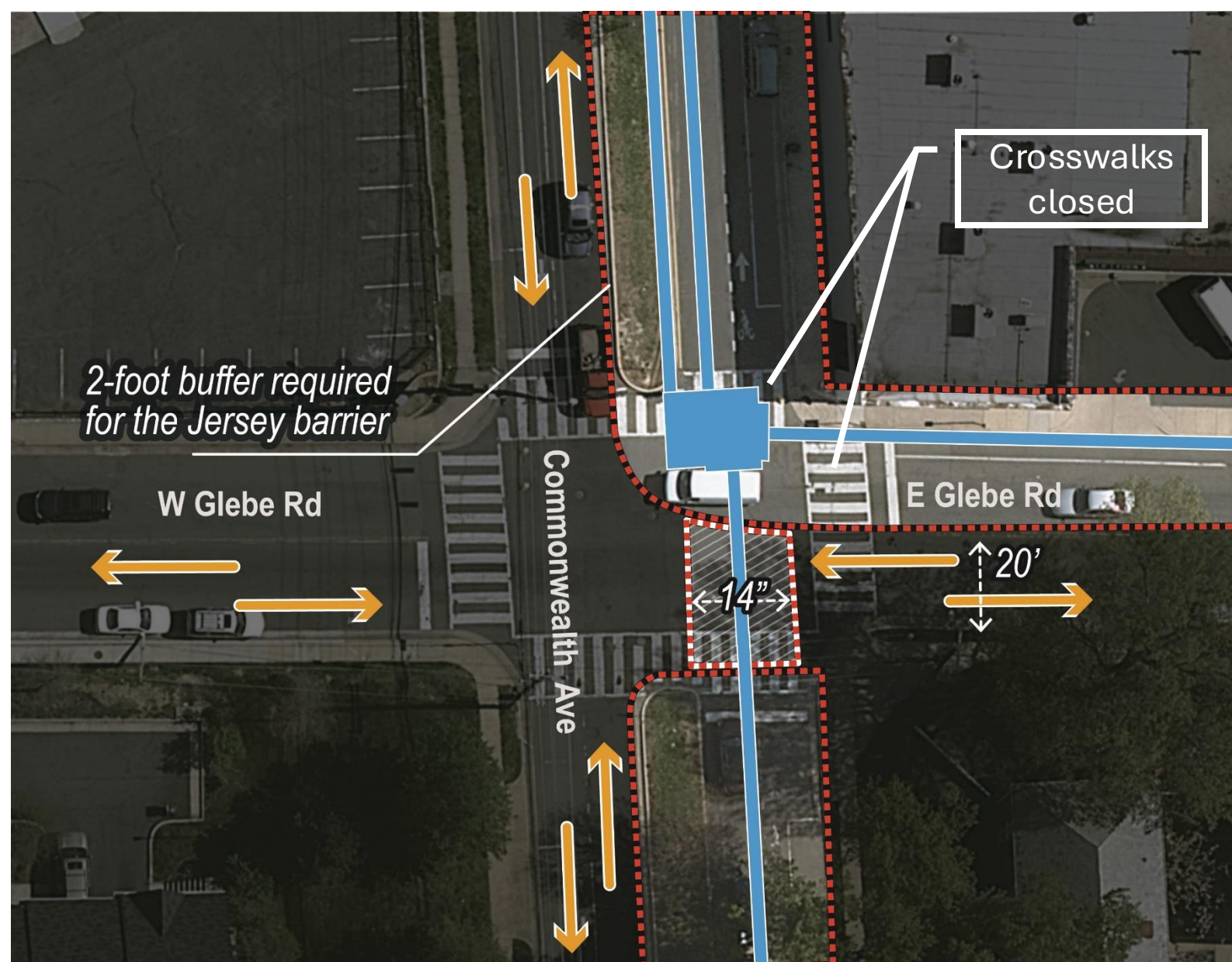


Area 4: Traffic Mitigation (Commonwealth)





Area 4: Traffic Mitigation (Glebe)





Area 4: Intersection of Commonwealth Ave and Glebe Rd

Construction Impacts



Vehicles

- Two-way traffic on Commonwealth Ave and on E. Glebe Rd
- traffic signals will be shifted



Pedestrians

- Sidewalk closed on the east side of Commonwealth Ave
- Sidewalk closed the north side of E Glebe Rd
- Pedestrian detours



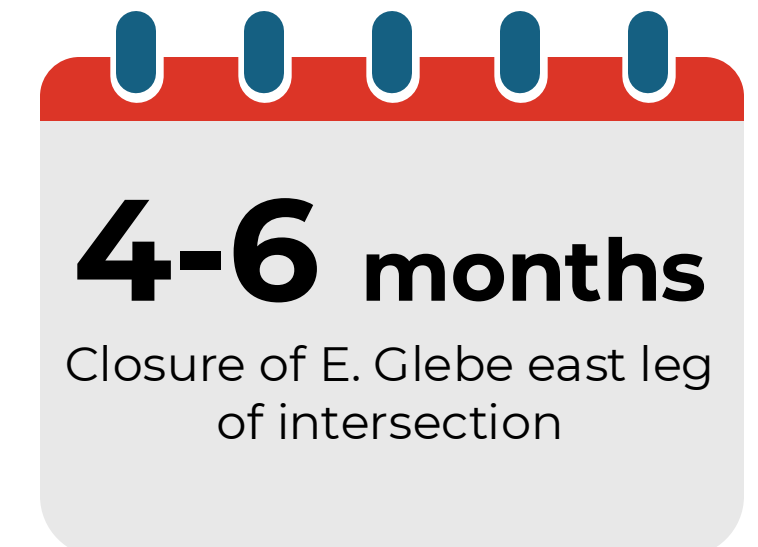
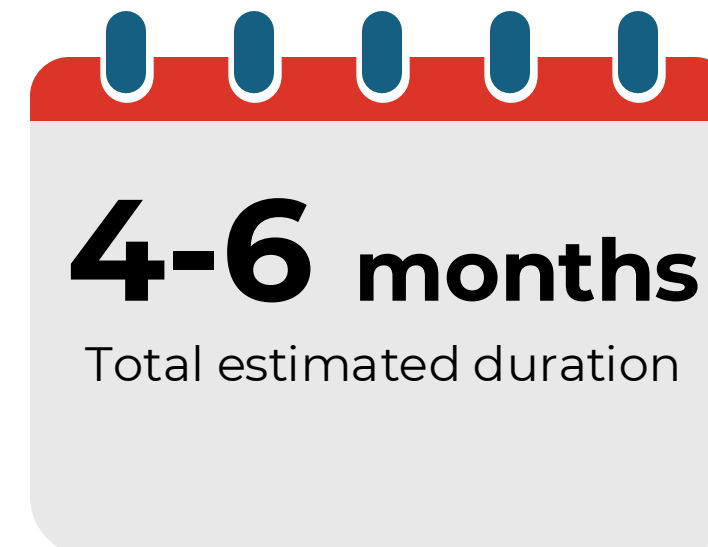
Bicycles on Road - bike lanes closed. Bicyclists will share the lane with vehicles



Parking

- ▶ No parking on Commonwealth Ave
- ▶ No parking on the south side of E Glebe Rd

Estimated Duration of Construction





Area 5: Commonwealth Ave from Glebe Rd to Ashby St

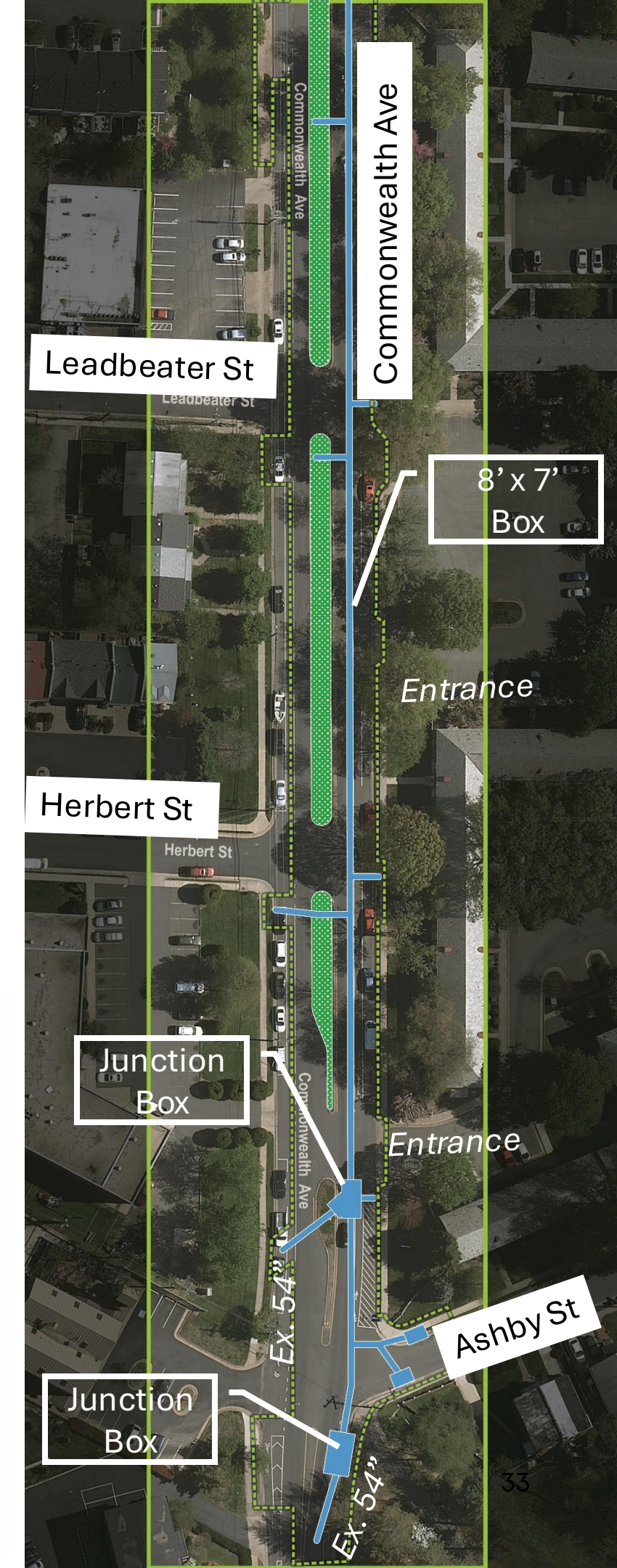
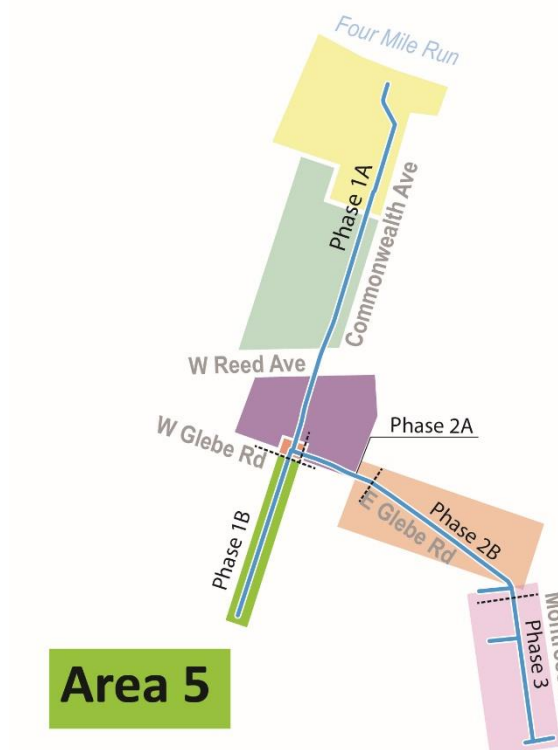
Description of Work

- ▶ A precast 7' x 8' box culvert from Glebe Rd to north of Ashby St
- ▶ Storm sewer inlets on Commonwealth Ave
- ▶ Green infrastructure in median along Commonwealth Ave

LEGEND

- Proposed Storm Sewer
- Area 5 Boundary
- Construction Area
- Green Infrastructure

0 40 80 160 Feet





Area 5: Commonwealth Ave from Glebe Rd to Ashby St

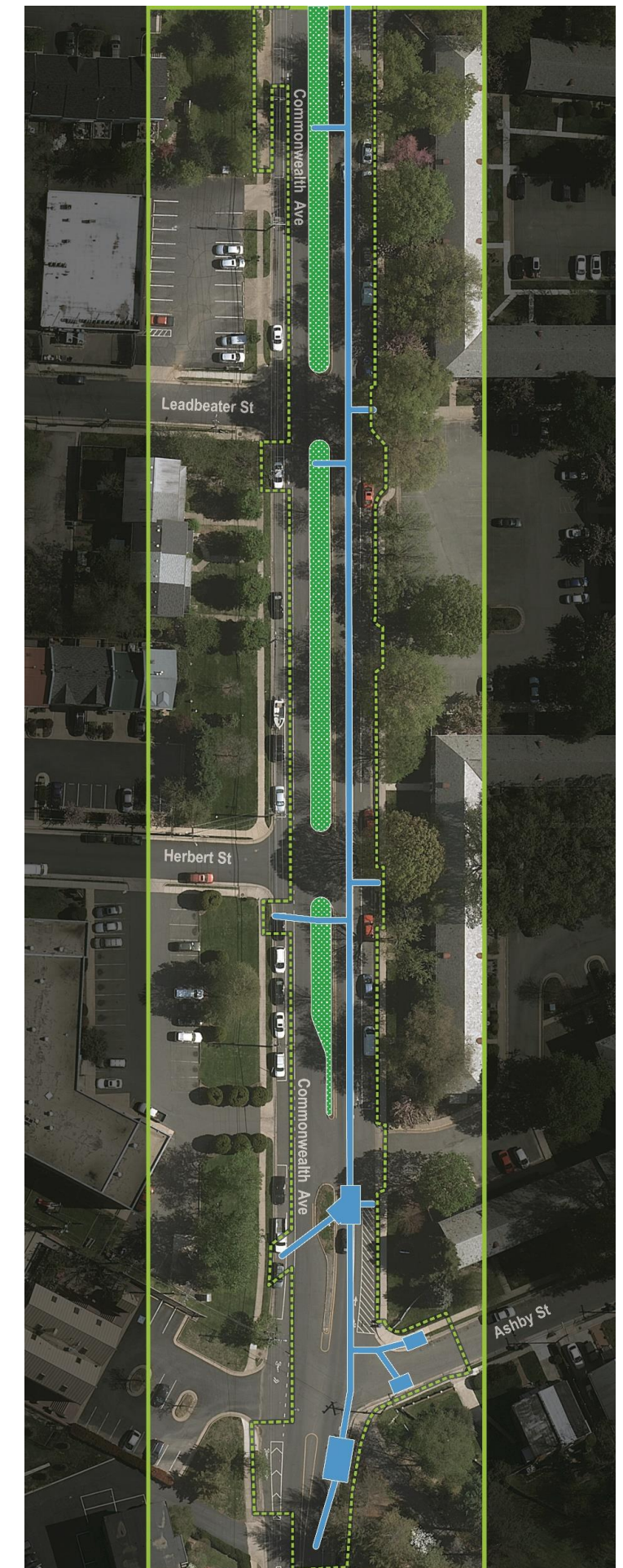
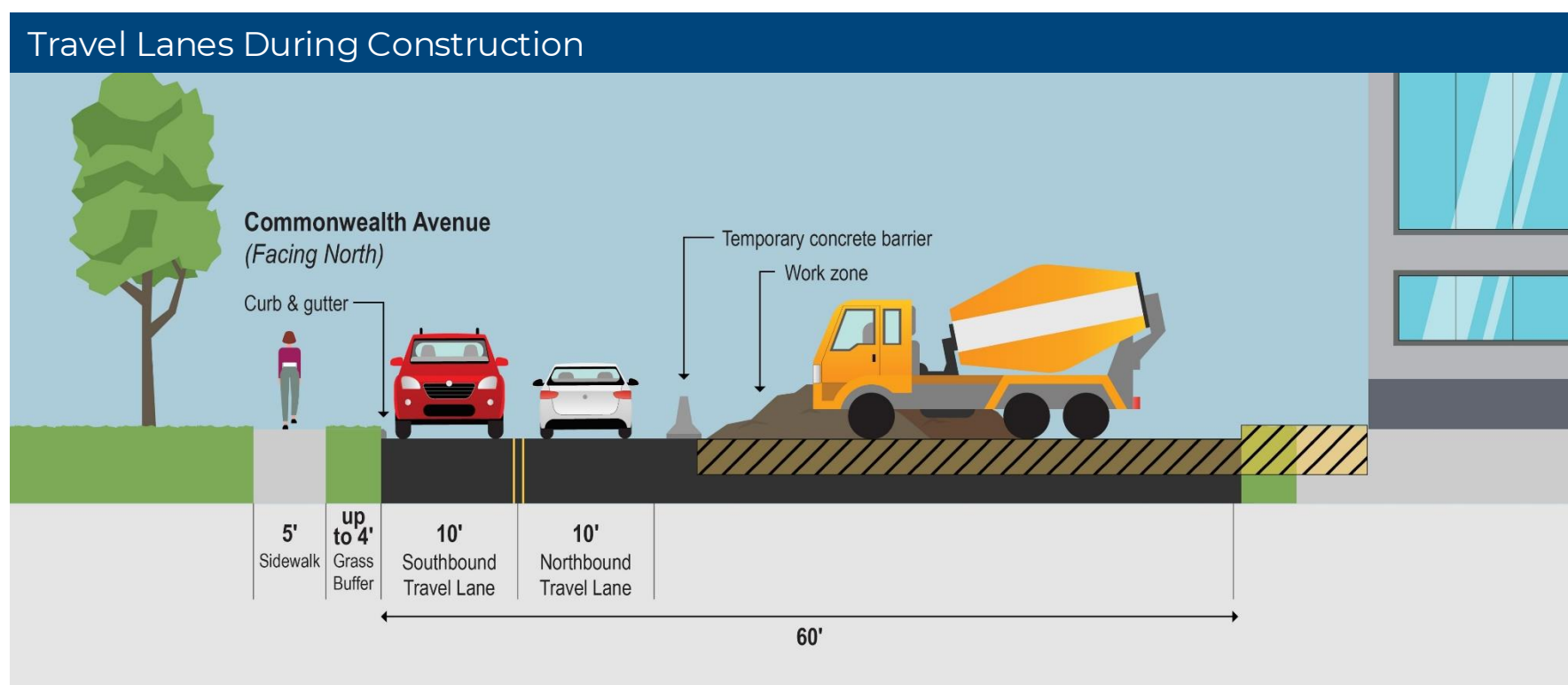
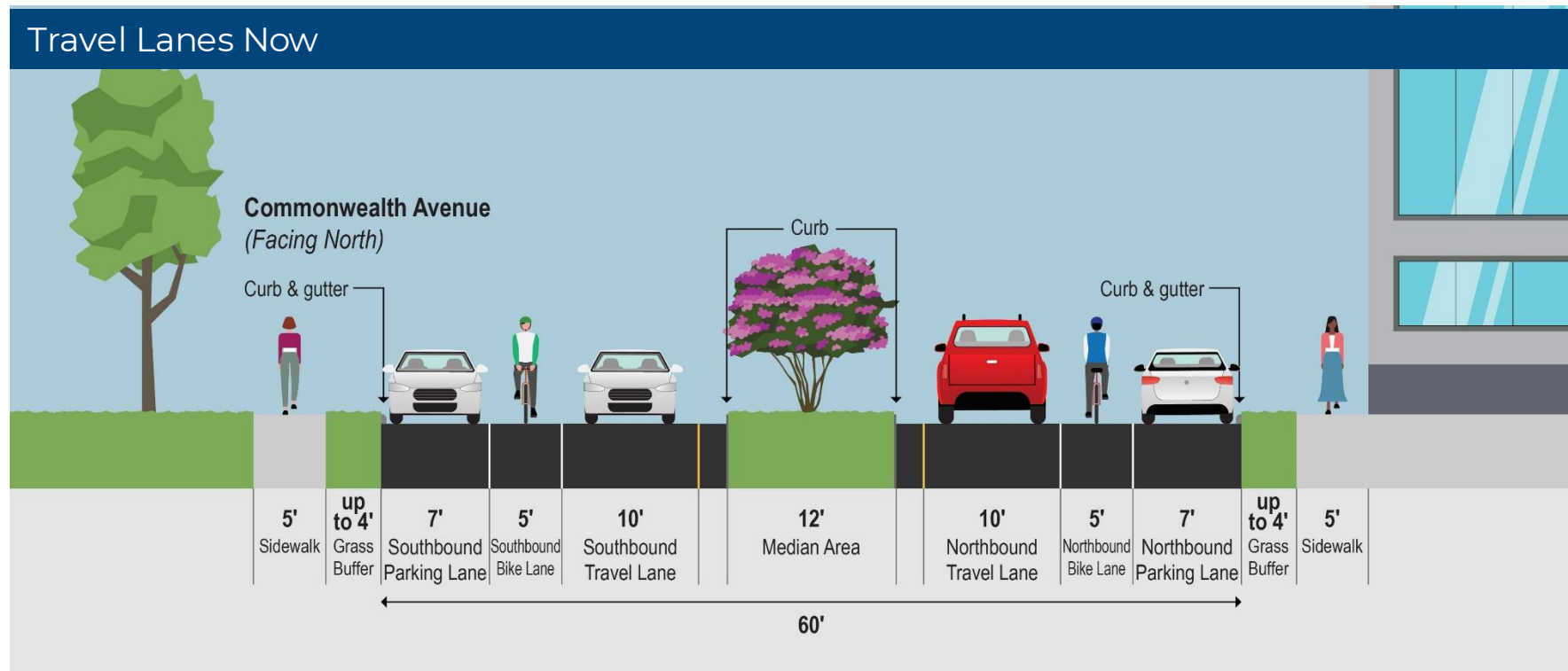
Green Infrastructure

- ▶ The existing median will be converted into a green infrastructure bioretention system to manage and improve stormwater runoff
- ▶ Curb cuts will direct flow into the bioretention cells
- ▶ These areas will be heavily landscaped and planted with native grasses, flowering perennials, and trees
- ▶ Green infrastructure improves water quality and reduce stormwater volume





Area 5: Traffic Mitigation

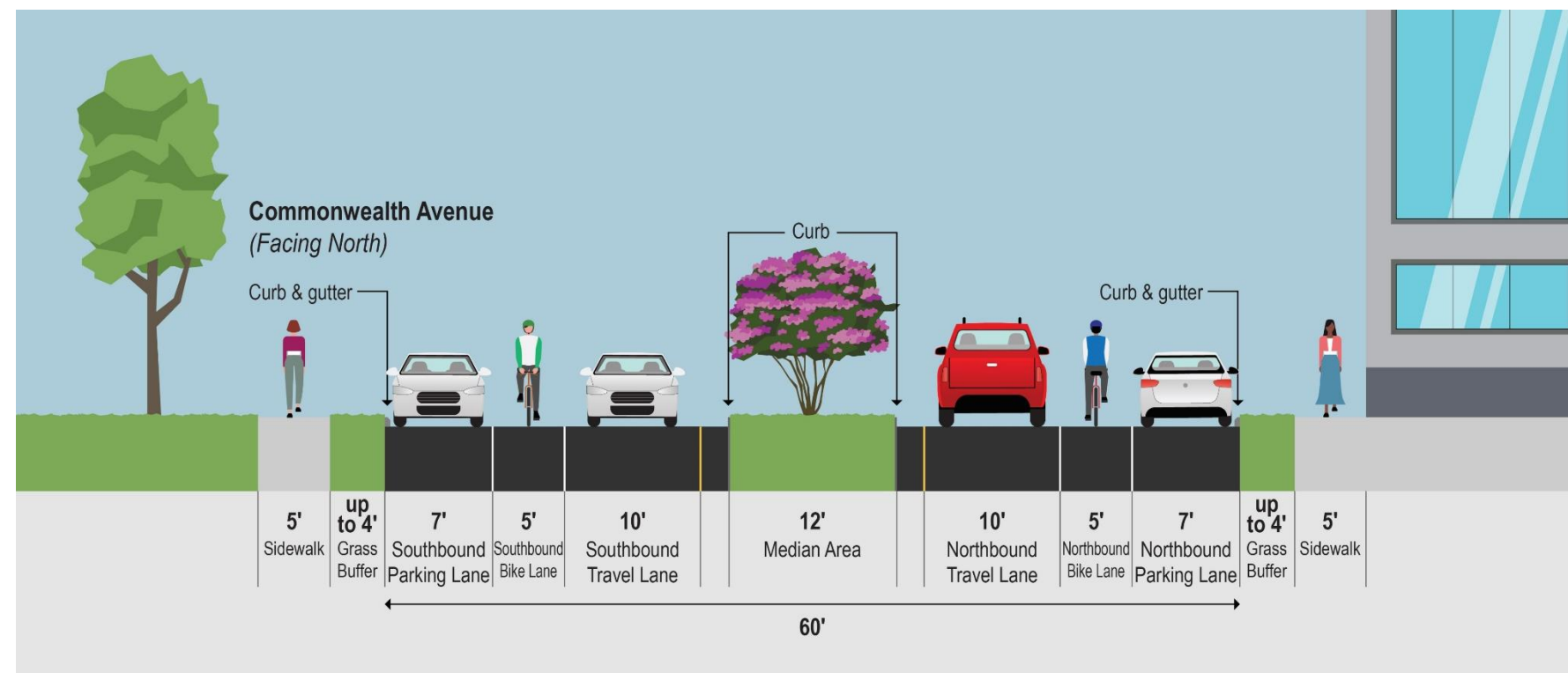




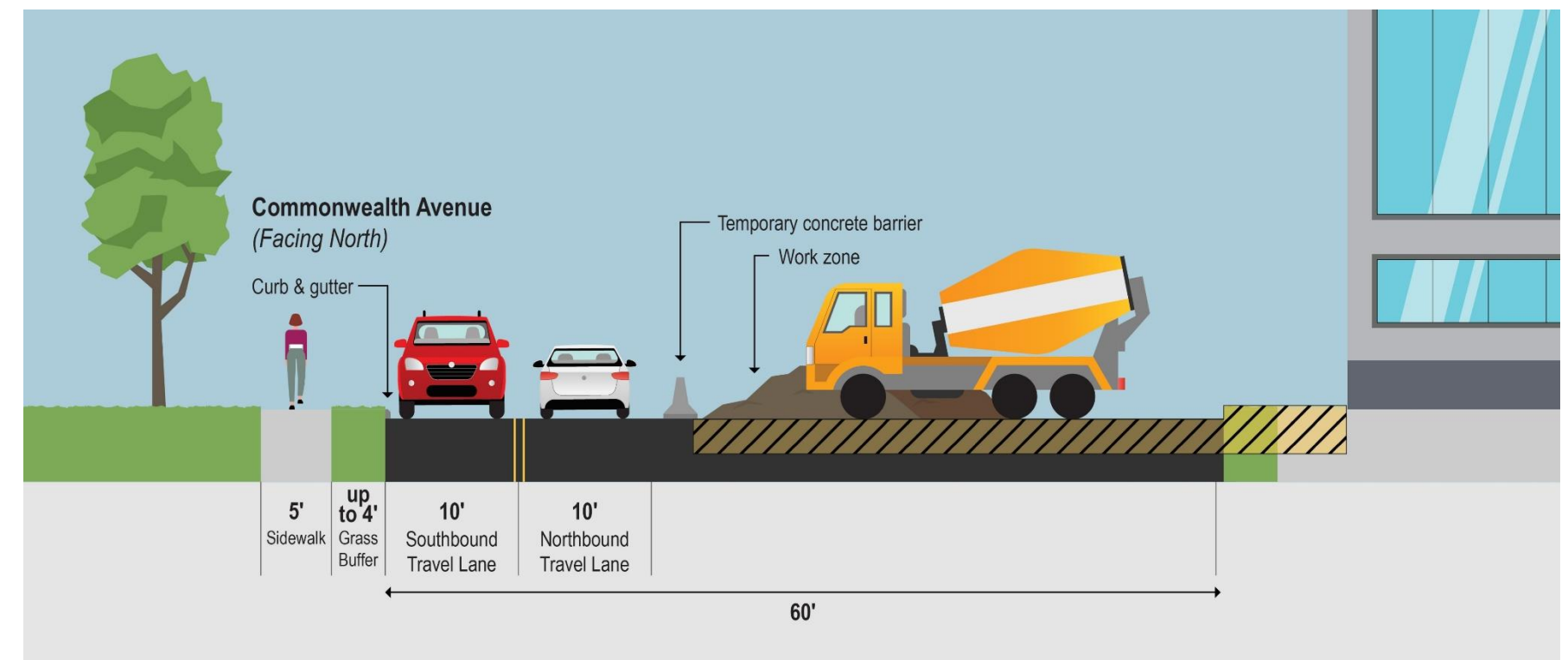
Area 5: Commonwealth Ave from Glebe Rd to Ashby St

Traffic Management During Construction

- ▶ Two-way vehicle traffic will be maintained
- ▶ Bike lanes closed; bikes and vehicles share the lane



Travel Lanes Now



Travel Lanes During Construction



Area 5: Commonwealth Ave from Glebe Rd to Ashby St

Construction Impacts



Vehicles – access to residential driveways, parking lots, and businesses will be maintained



Parking – no parking along Commonwealth Ave

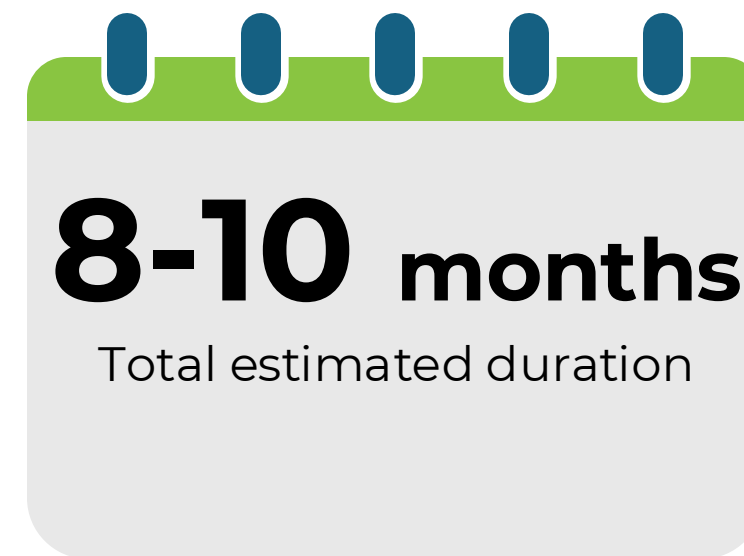


Pedestrians – sidewalk on west side of Commonwealth Ave will be open



Bicyclists on road – bicyclists will share the road with vehicles

Estimated Duration of Construction

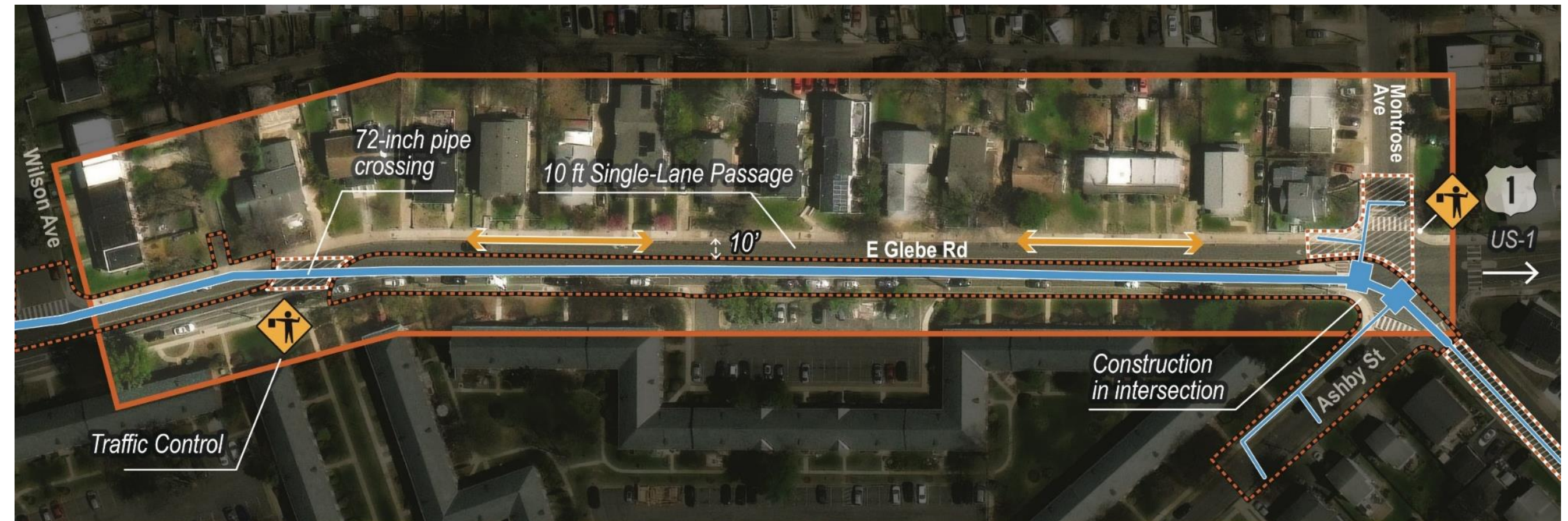




Area 6: East Glebe Rd

Description of Work

- ▶ 7' x 7' box culvert from Commonwealth Ave to Wilson Ave
- ▶ 72" reinforced concrete pipe from Wilson to Ashby
- ▶ Pipe crossing north side of Glebe to south, east of Wilson



LEGEND

- Proposed Storm Sewer
- Area 6 Boundary
- Vehicle Routes

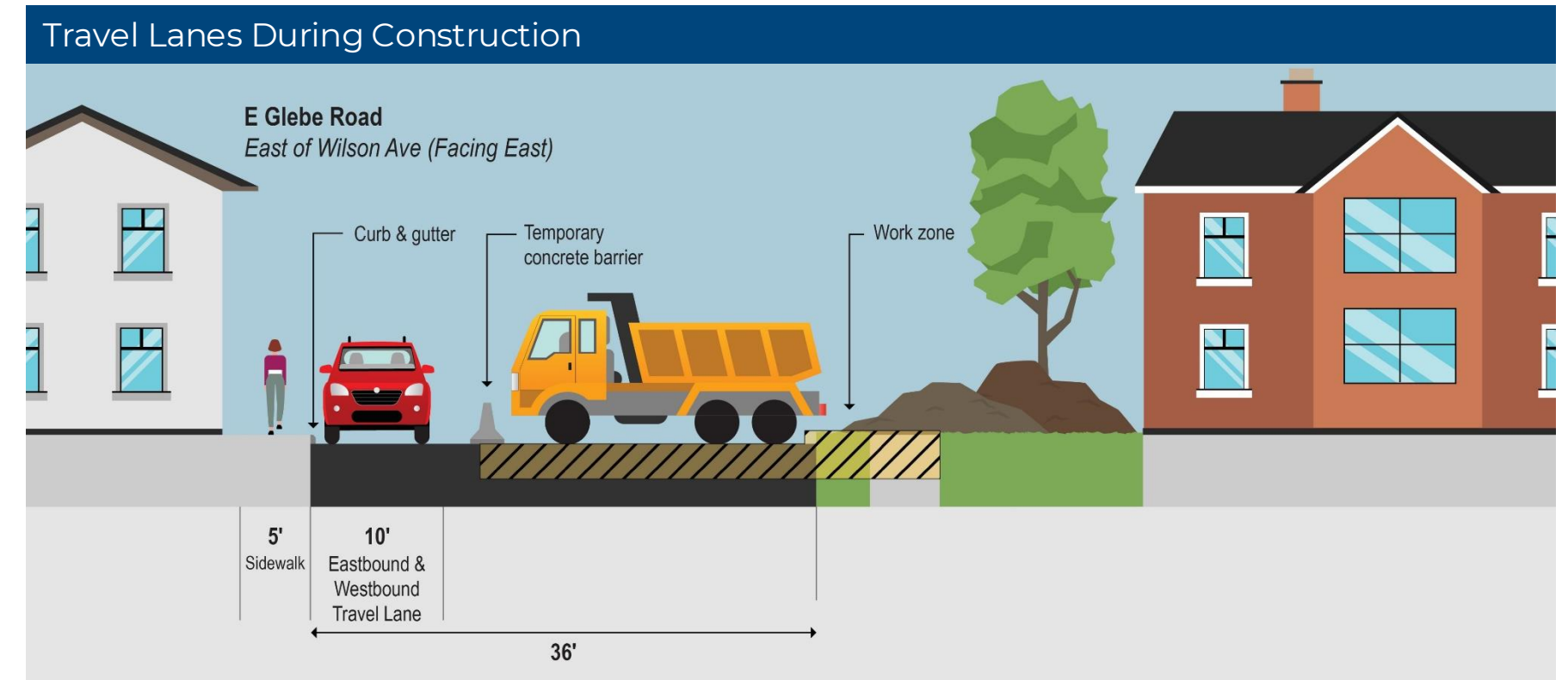
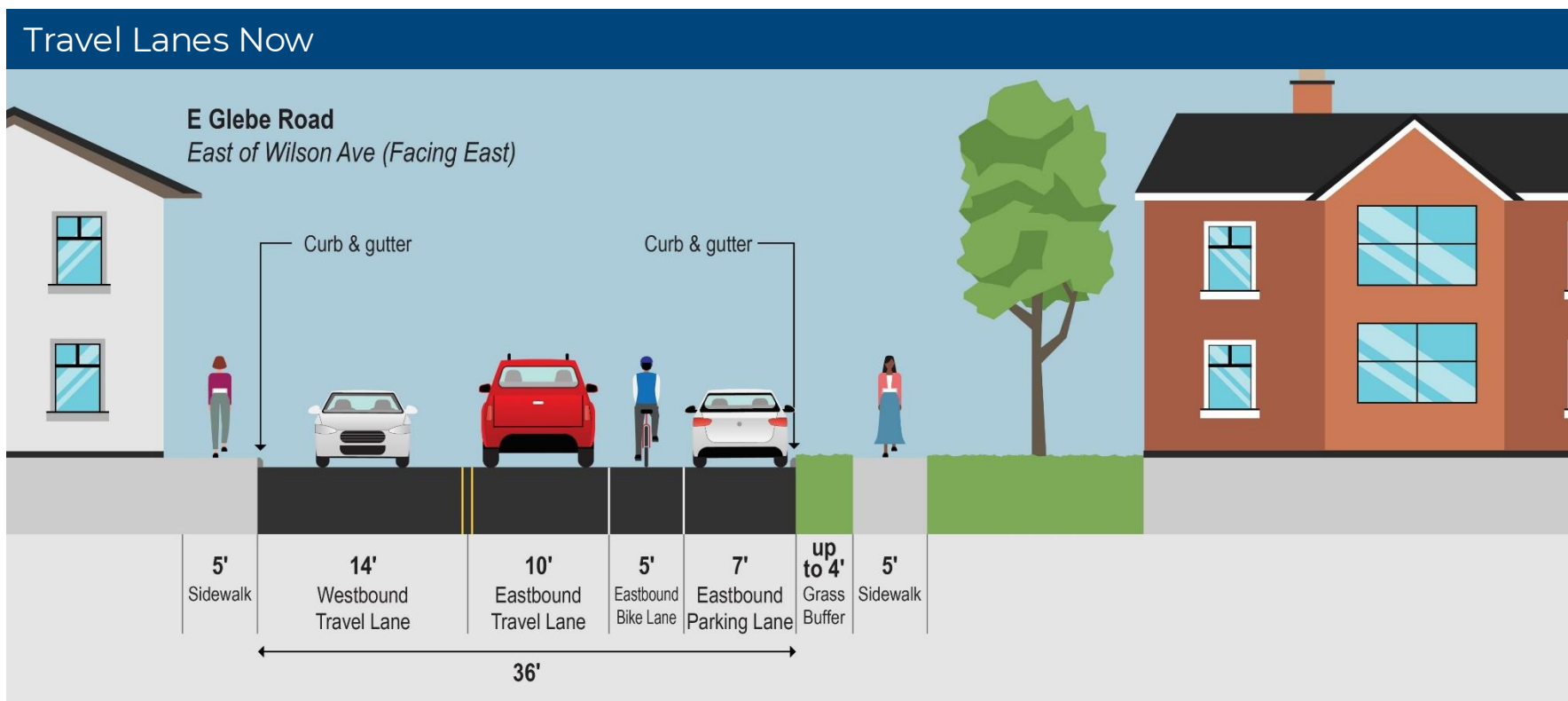
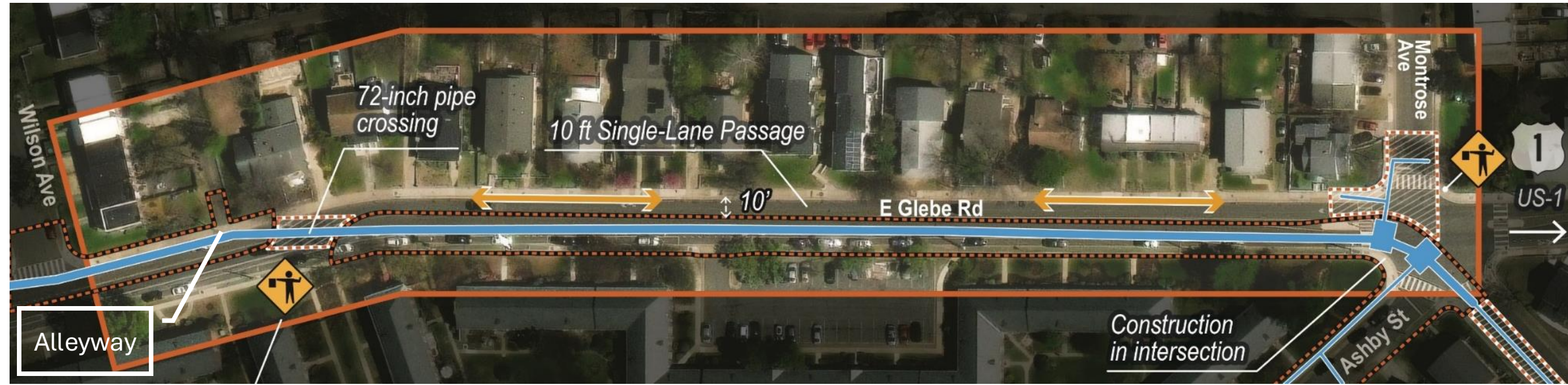
0 40 80 160 Feet

- Construction Area
- Temporary Construction Area
- Traffic Control





Area 6: Traffic Mitigation

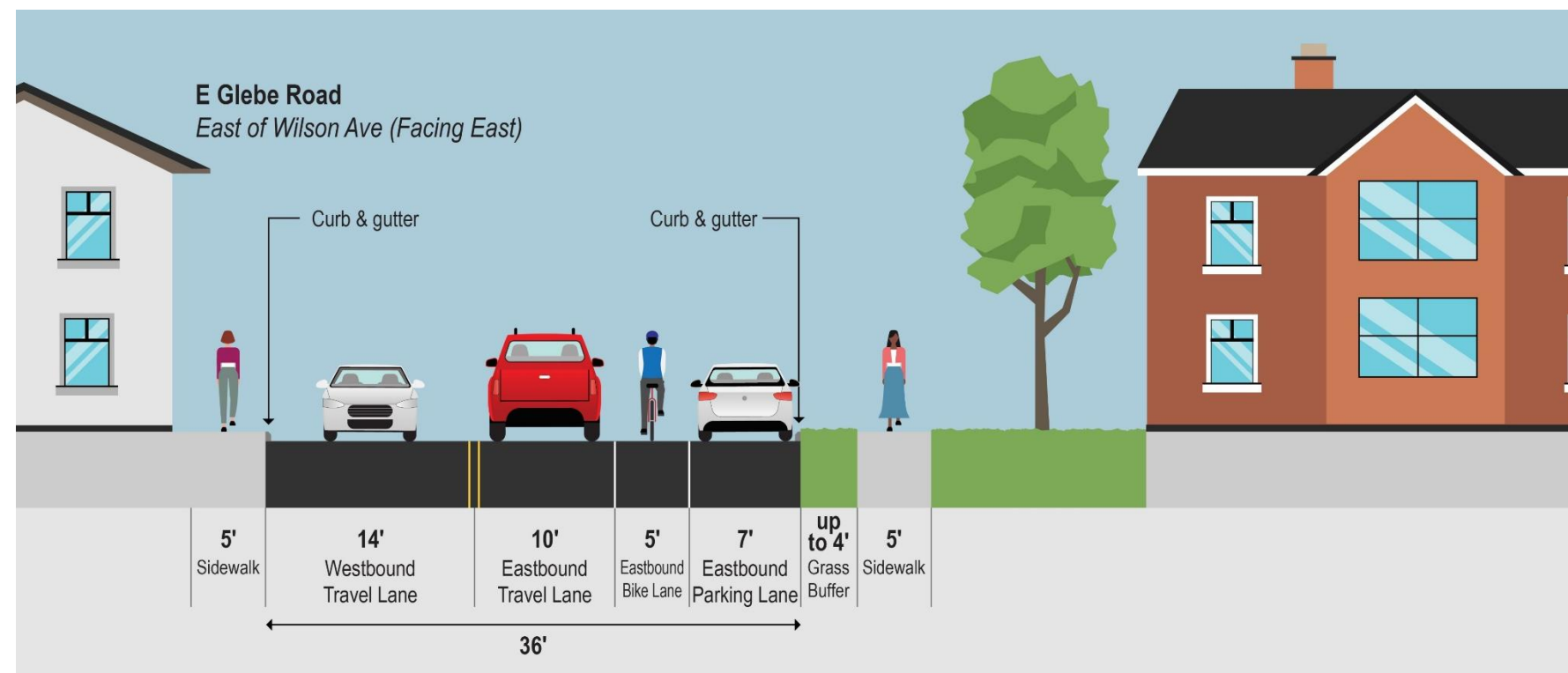




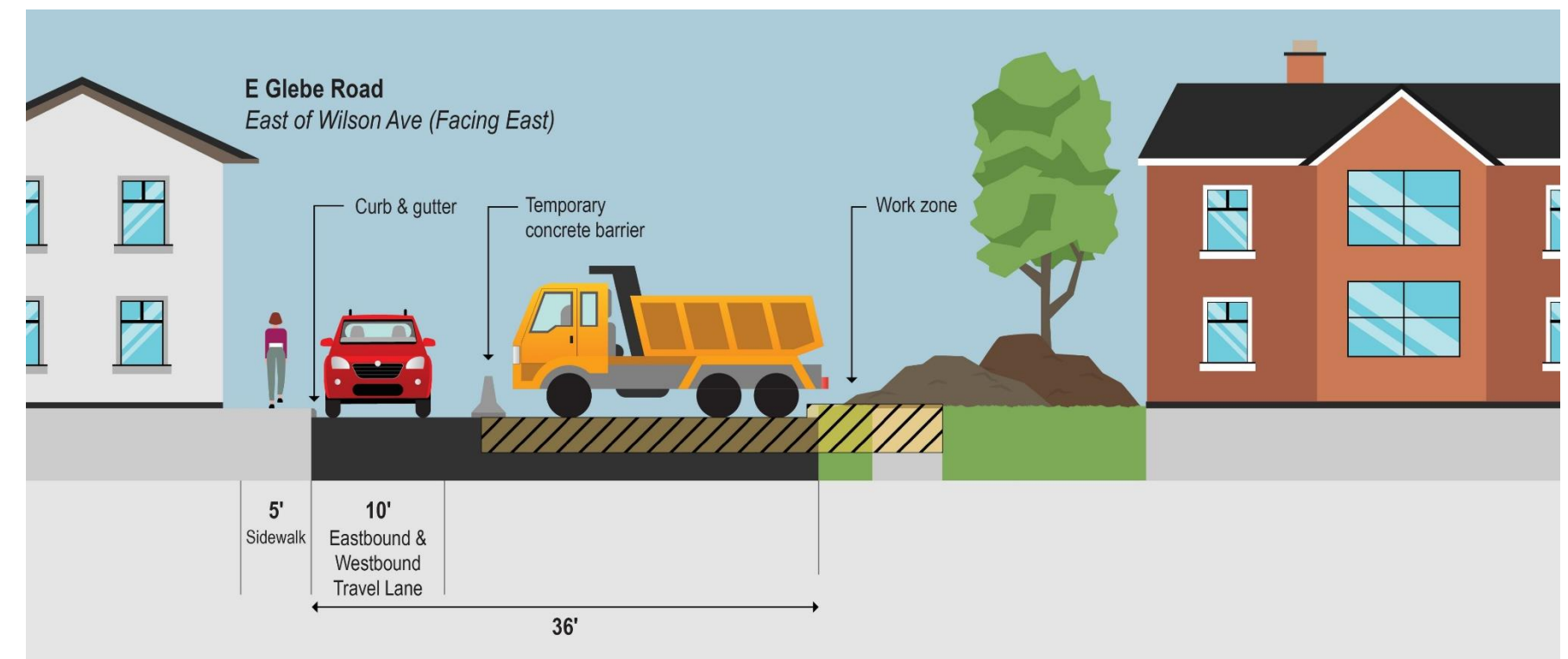
Area 6: East Glebe Rd

Traffic Management During Construction

- ▶ Single-lane alternating traffic on E Glebe Rd from Montrose Ave to Wilson Ave
- ▶ Bike lanes will be closed; bikes and vehicles will share the lane
- ▶ Traffic on E Glebe Road will be detoured while the 72" reinforced concrete pipe is installed across the road



Travel Lanes Now



Travel Lanes During Construction

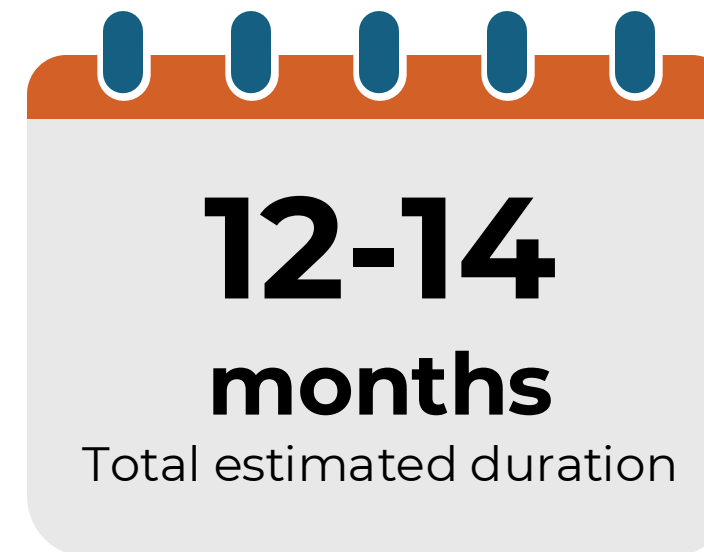


Area 6: East Glebe Rd

Construction Impacts

-  **Traffic** – single-lane alternating traffic and road closure with detour
-  **Parking** – no parking along E Glebe Rd
-  **Pedestrians** – one sidewalk will remain open
-  **Bicyclists on road** – will share the lane with vehicles
-  **Access to residential driveways** – will be maintained

Estimated Duration of Construction

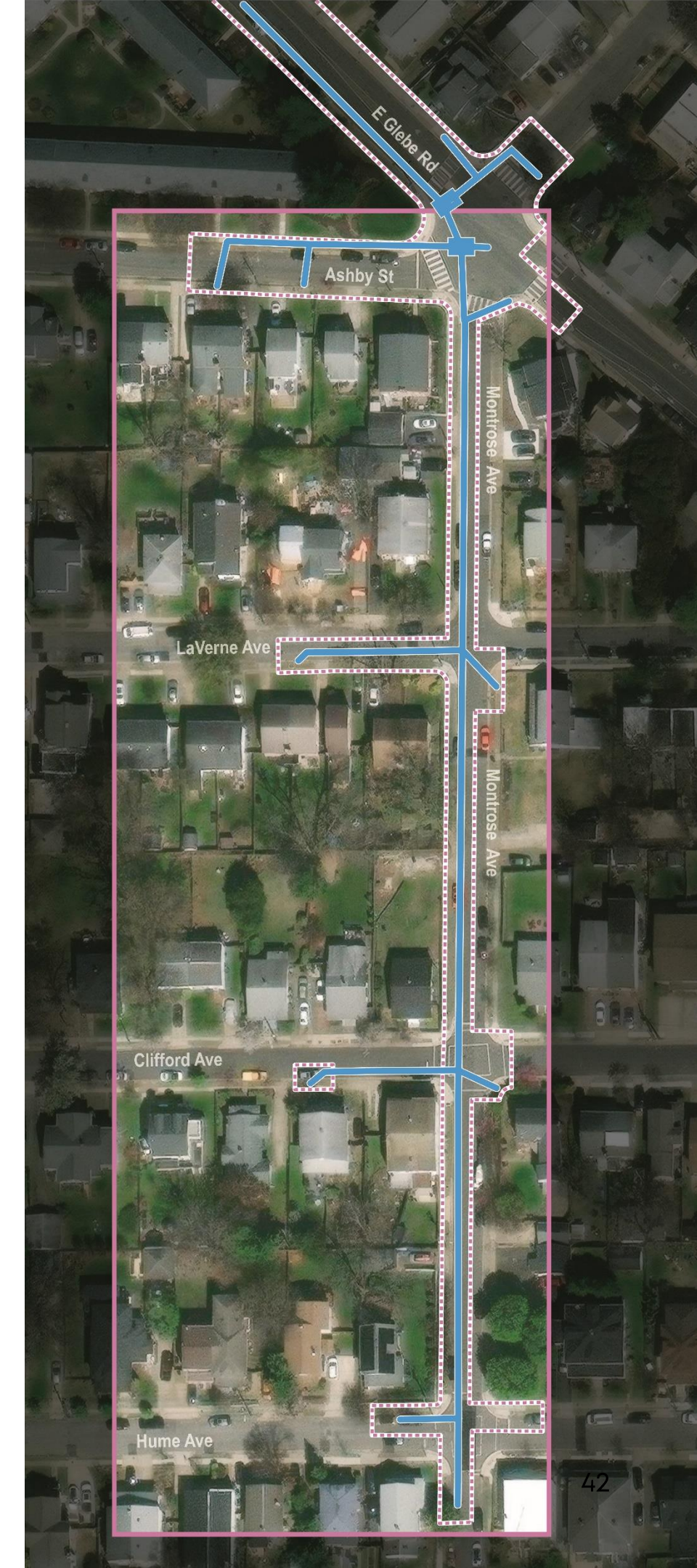
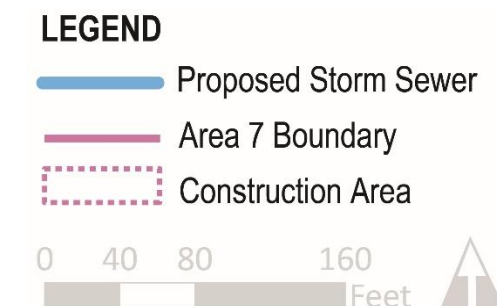




Area 7: Montrose Ave

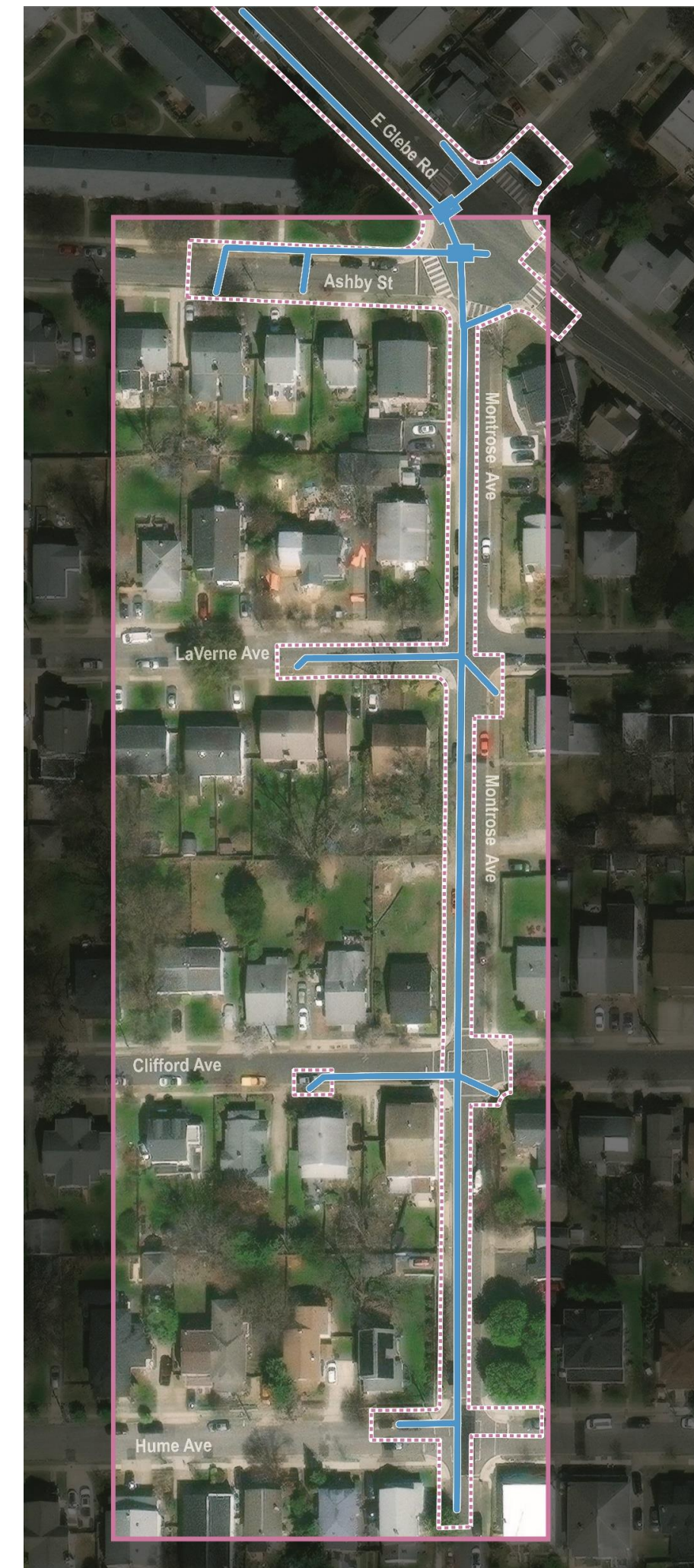
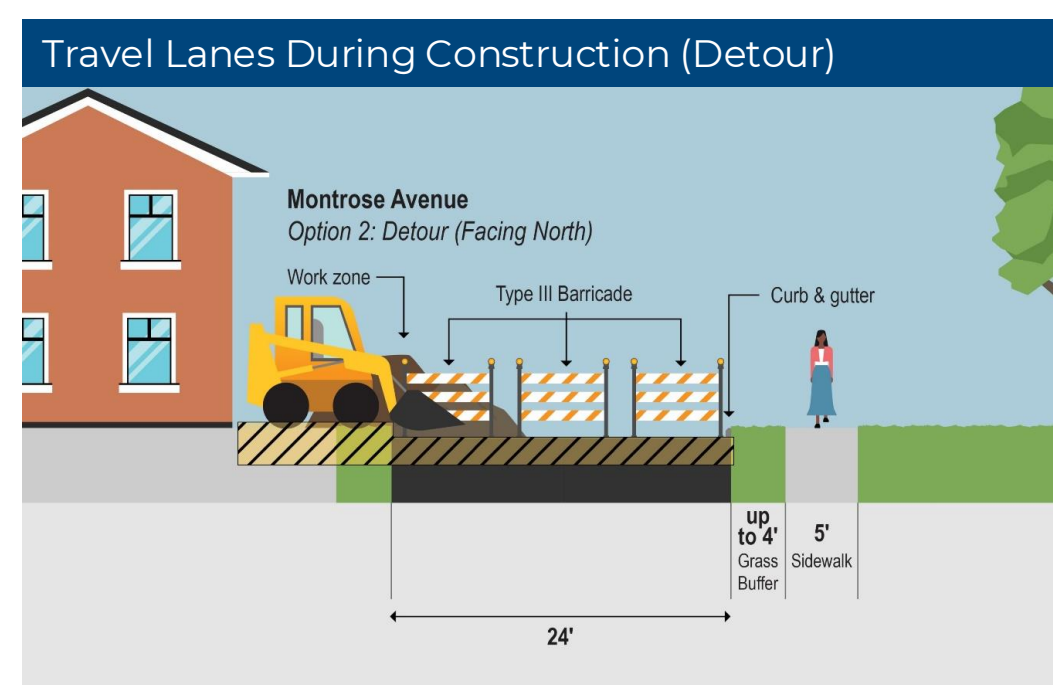
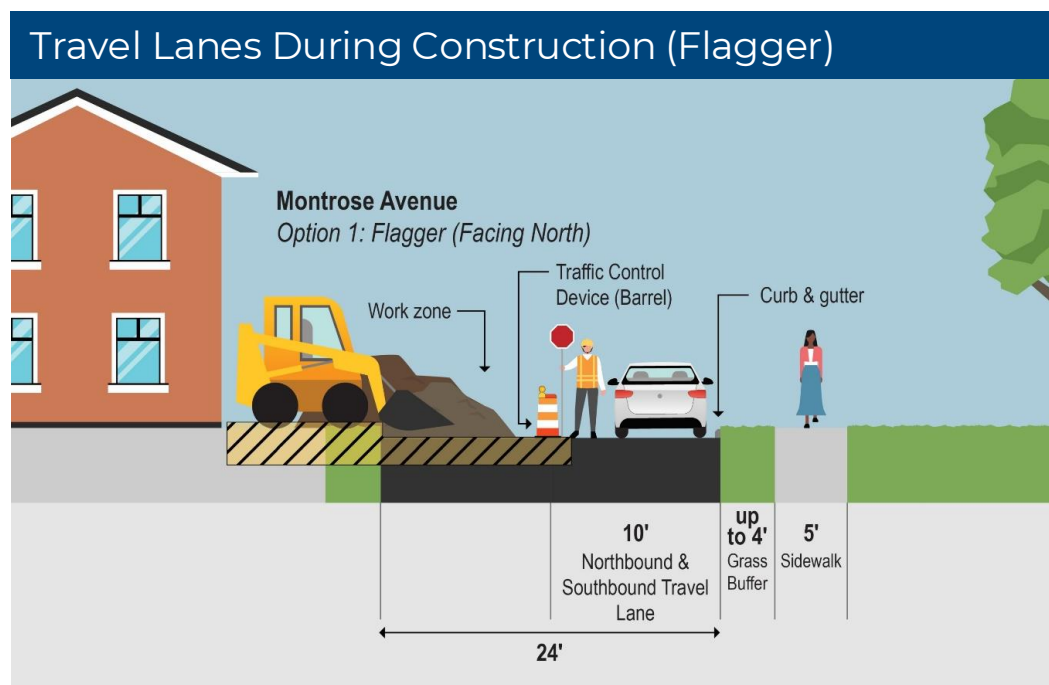
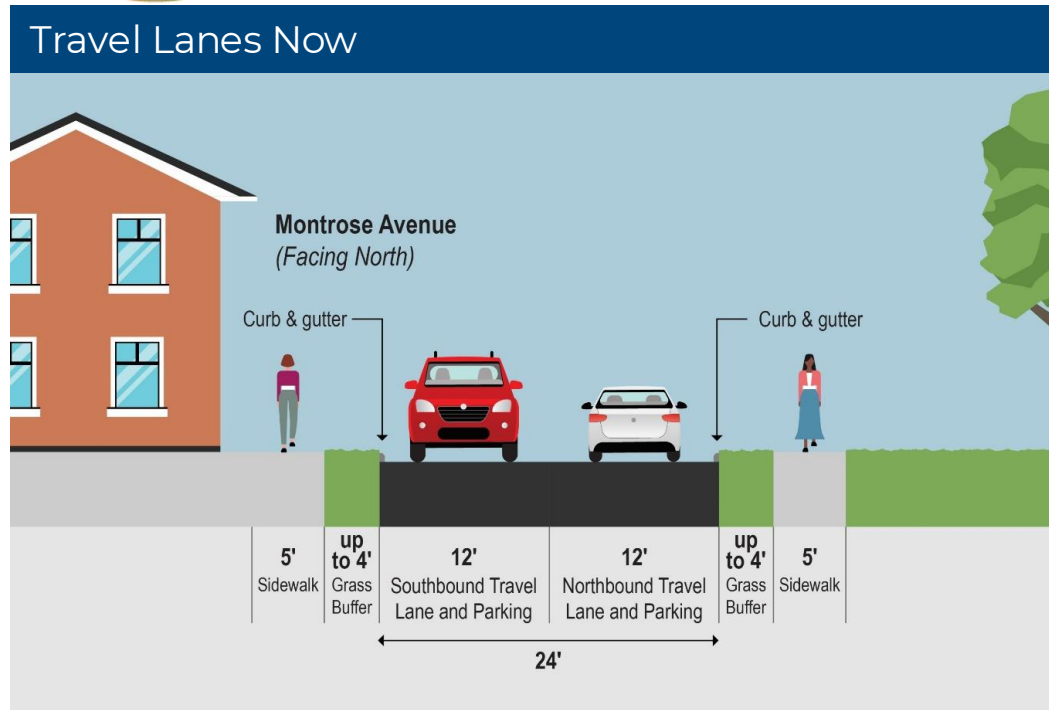
Description of Work

- ▶ Ashby St – new curb inlets and pipes (30” and 18” reinforced concrete pipes) installed to direct stormwater off the road
- ▶ Montrose Ave (east side) – a 48” reinforced concrete pipe will replace an existing 24” pipe
- ▶ LaVerne Ave (at Clifford Ave) and Hume Ave – new pipe and inlets installed to capture stormwater flows and direct them to the new 48” pipe





Area 7: Montrose Ave

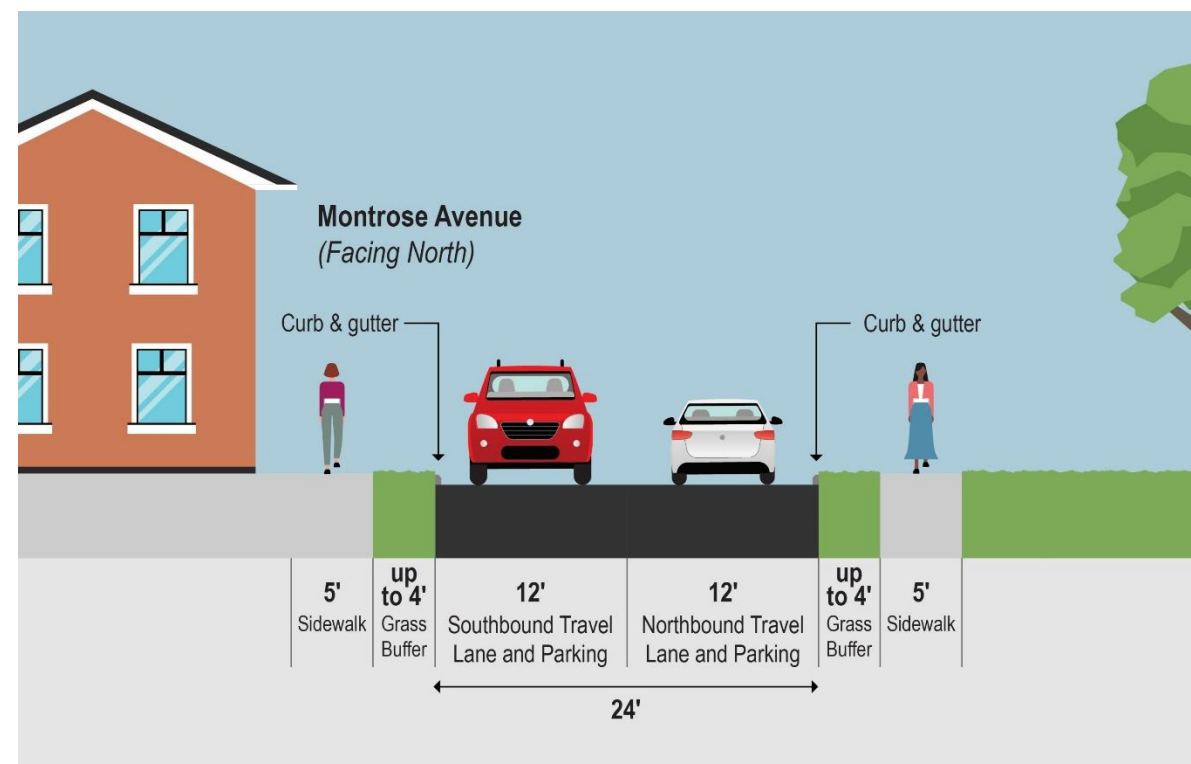




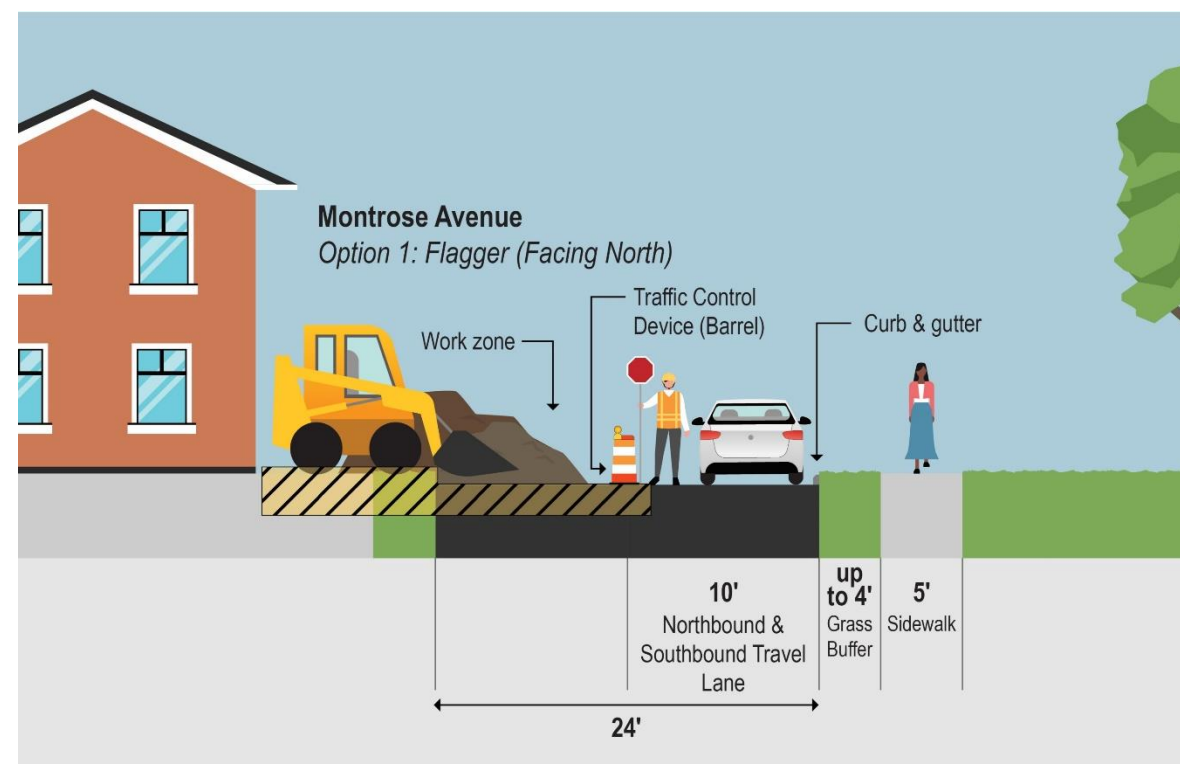
Area 7: Montrose Ave

Traffic Management During Construction

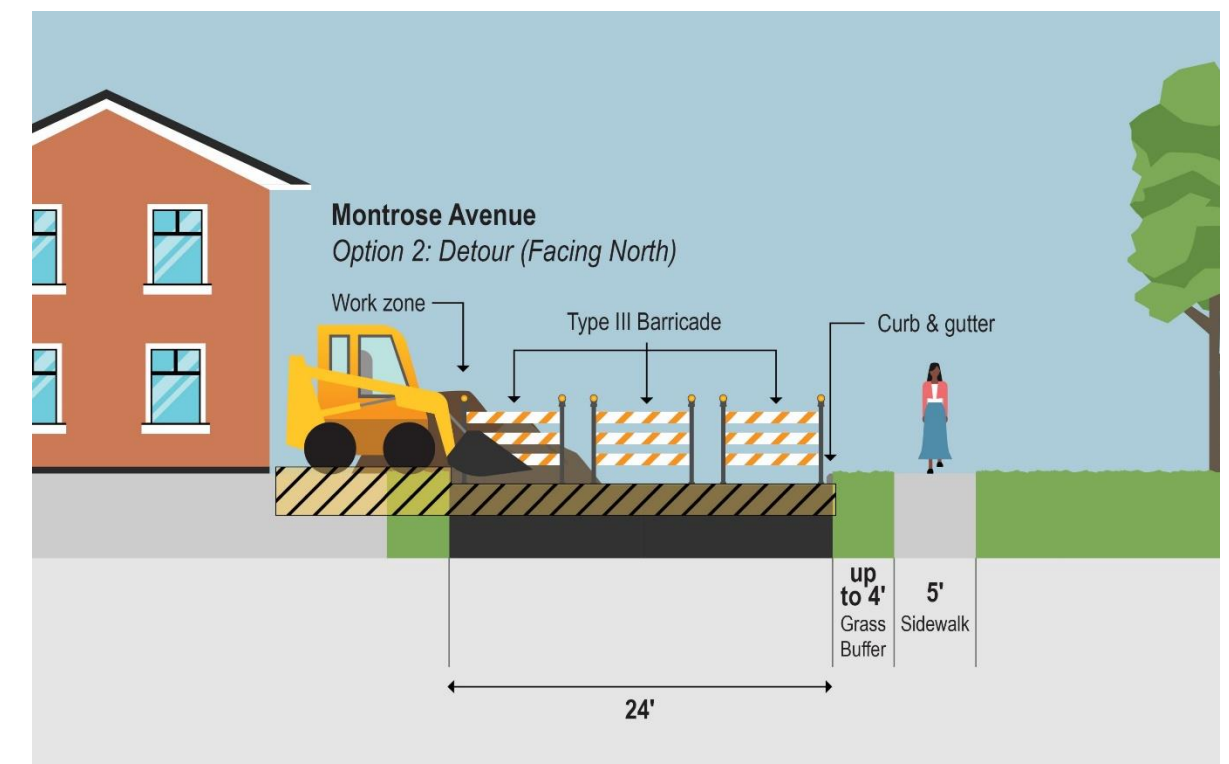
- ▶ Two-way vehicle traffic will be maintained using flaggers and construction on a block-by-block basis
- ▶ Bike lanes will be closed; bikes and vehicles will share the lane
- ▶ Optional detour for through-traffic



Travel Lanes Now



Travel Lanes During Construction (Flagger)



Travel Lanes During Construction (Detour)



Area 7: Montrose Ave

Construction Impacts



Street parking – no parking in the construction areas on Ashby St, Montrose Ave, and crossing streets



Vehicles and bicycles on road – detours one block at a time

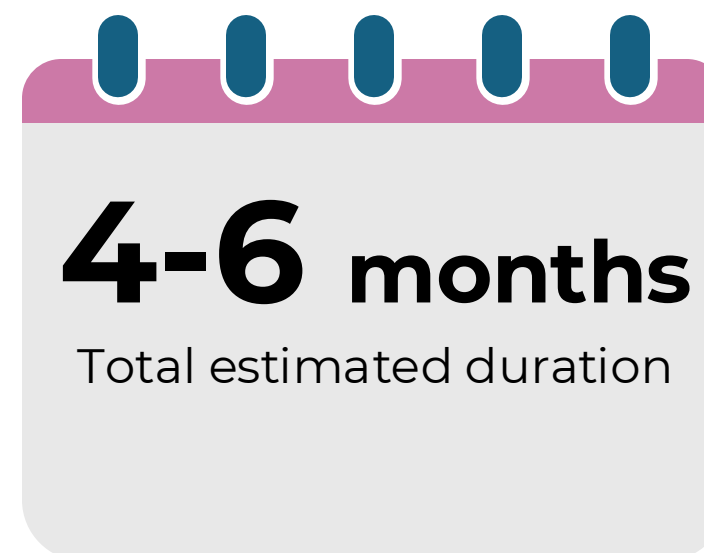


Access to residential driveways – will be maintained



Pedestrians – sidewalk will remain open on the east side of Montrose Ave

Estimated Duration of Construction





Next Steps

- Design completion expected in Summer 2025
- Construction procurement after completion of design phase
- Construction start in Summer 2026
- Project completion Summer 2029
- Utility test pitting in early March



CITY OF ALEXANDRIA
Stormwater Management

Questions?

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