

Greenleaf Avenue - Lafayette Road Sidewalk and Intersection Project

August 27, 2024

Portsmouth Department of Public Works

Introductions

Peter Rice, P.E. – Director, Department of Public Works

Erich Fiedler, P.E.- City Engineer

Marc Batchelder, P.E. – Design Engineer

Dave Desfosses – Construction Manager

Tyler Reese – Associate Engineer

Eric Eby, P.E. – Transportation Engineer

Max Wiater – City Arborist



Project Goals

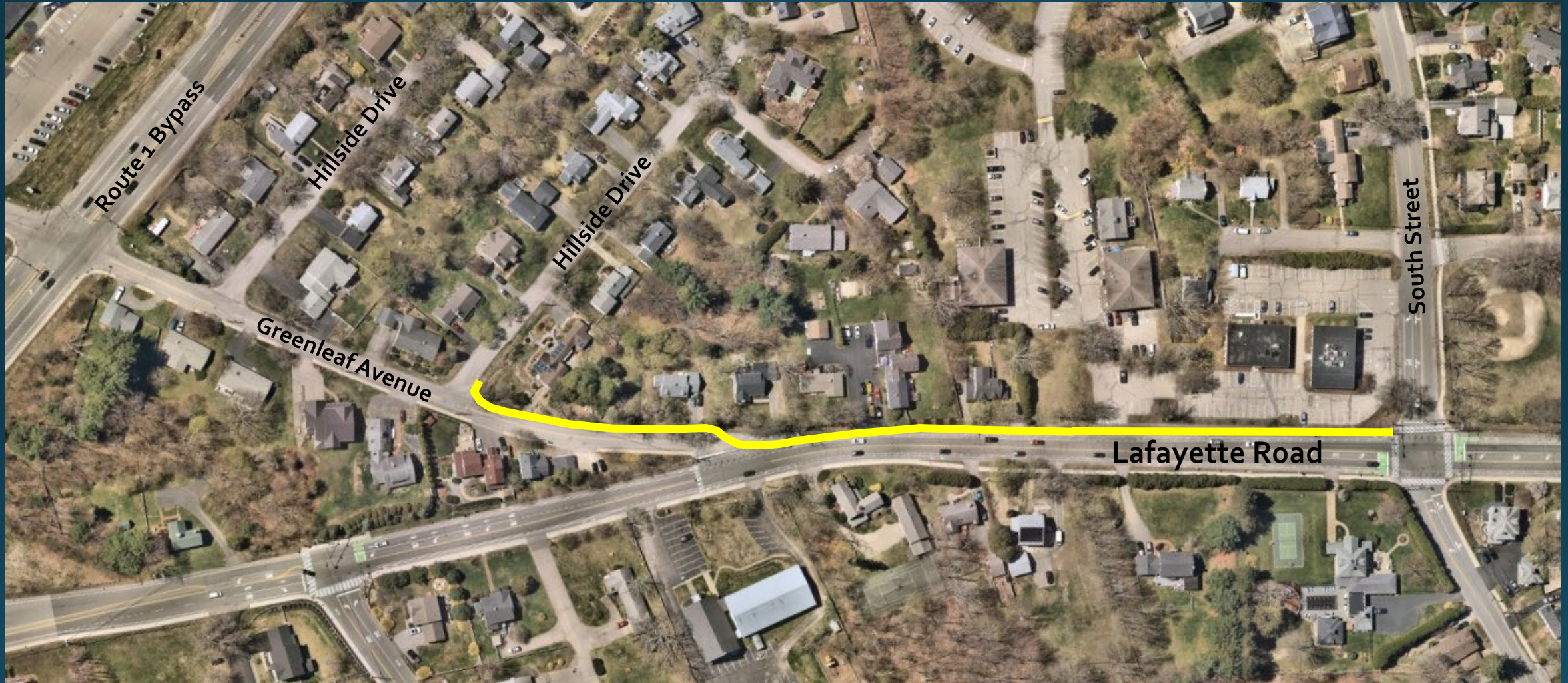
- Provide safe pedestrian route between Hillside Drive and South Street in a timely manner.
- Address difficult left turn movement from Greenleaf Avenue onto Lafayette Road.
- Calm through traffic on Greenleaf Avenue.
- Maintain access to and from the Bypass for neighborhood.

Proposed Sidewalks

- Width Varies – Min 5' wide, grass strip, curbing
- Americans with Disabilities Act (ADA) Compliant
- Concrete



Sidewalks: New Sidewalk Route



— Proposed Sidewalk

Sidewalks: Requested Additional New Sidewalks



Optional Proposed Sidewalk

Proposed Roadway Options

- Option 1 – No Change: Keep existing roadway width of 24' and 2-way traffic.
- Option 2 – Create a one-way section on Greenleaf Avenue (18' wide) and reduce width of remaining section to 22'.
 - Traffic impacts of one-way section will be discussed later in the presentation

Proposed Sidewalks – Road Option 1 (No Change)

- Sidewalk from South Street to Upper Hillside Drive
 - 1 Easement needed on Greenleaf Avenue
 - 1 Easement needed on Lafayette Road
- Sidewalk between Upper Hillside Drive to Lower Hillside Drive
 - 2 Additional Easements needed on Greenleaf Avenue
 - Substantial impacts on private property.
- Multiple trees will need to be removed
 - All tree removals must be approved by the Tree and Public Greenery Committee

Proposed Sidewalks – Road Option 2: One Way Section (18'-22'wide)

- Sidewalk from South Street to Upper Hillside Drive
 - 0 Easement needed on Greenleaf Avenue
 - 1 Easement needed on Lafayette Road
- Sidewalk from Upper Hillside Drive to Lower Hillside Drive
 - 2 Additional Easements needed on Greenleaf Avenue
 - Minor impacts on private property.
- Possibility to reduce tree removal to zero.

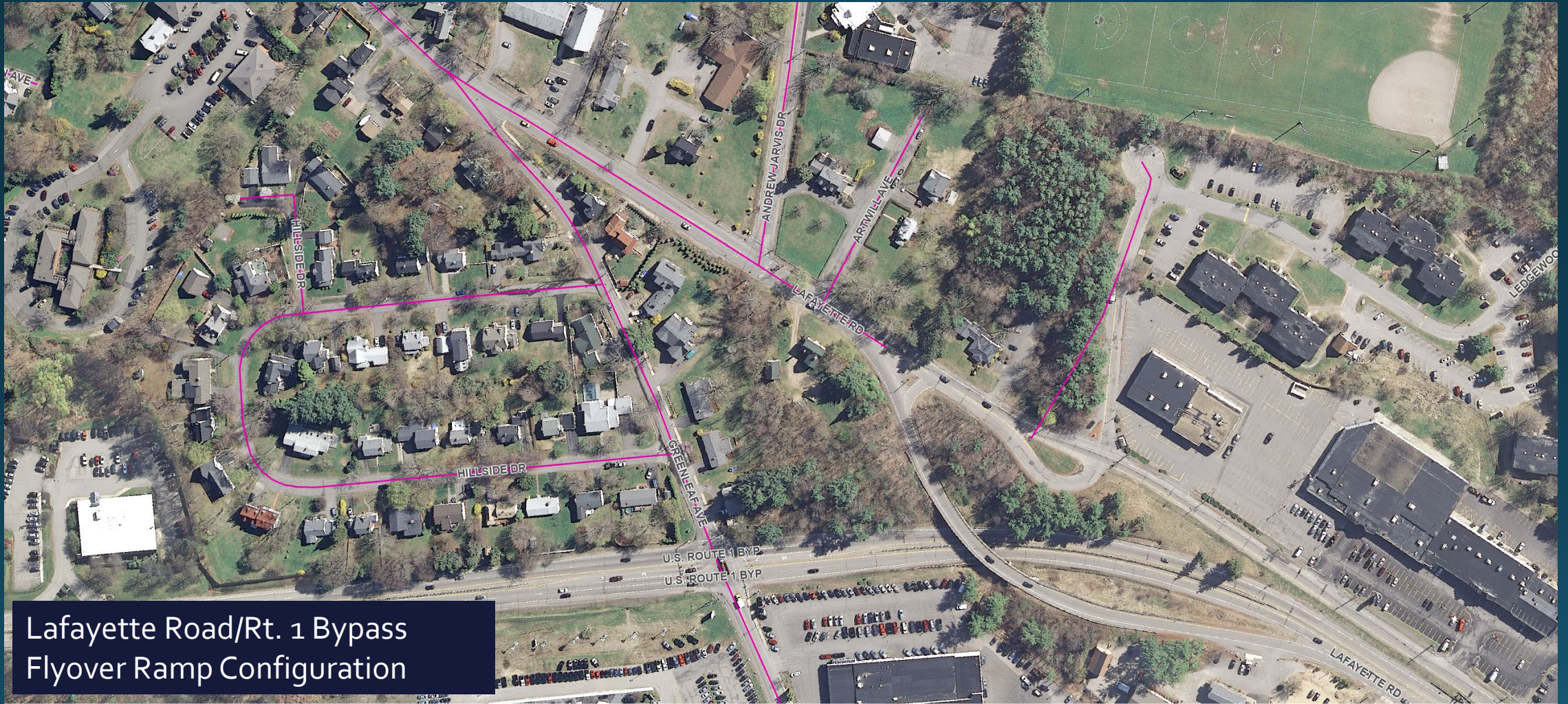
-All tree removals must be approved by the Tree and Public Greenery Committee

Resident August Survey Results

- Majority want sidewalk to end at lower Hillside Drive if no delay to project.
- Also want traffic calming measures on Greenleaf Avenue if no delay to project. Improved angle at Lafayette intersection and speed bump on Greenleaf are most desired.
- Do not support one-way traffic flow, want to maintain access to both ends of Greenleaf in both directions.
- Residents want less traffic and slower traffic on Greenleaf Avenue

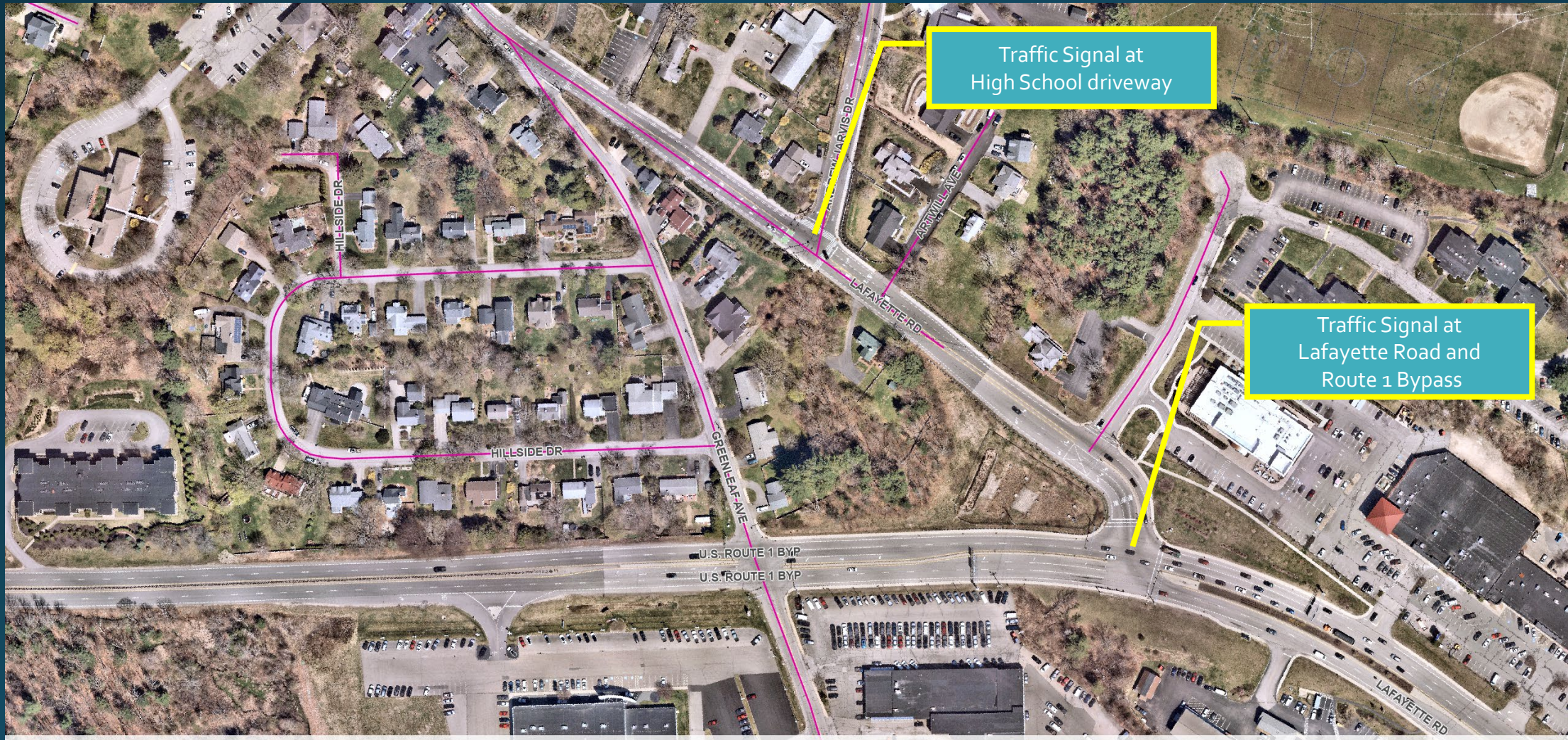
*Fire/Police departments have not supported a closure of traffic to the Bypass on Greenleaf Avenue in the past

Area Roadway Configuration - 2010



Lafayette Road/Rt. 1 Bypass
Flyover Ramp Configuration

Area Roadway Configuration - 2024



Traffic - Existing Conditions

Greenleaf Avenue

2024 Traffic Volumes: ~2,400 vehicles per day
68% to Bypass
32% to Lafayette

Hillside Drive

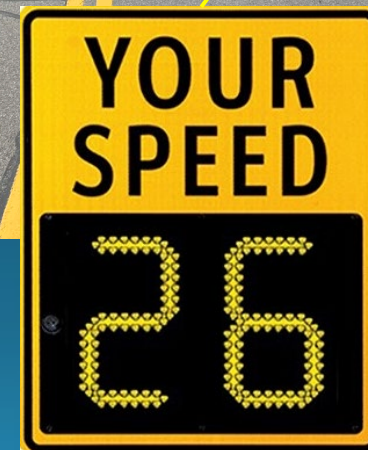
2022 Peak Hour counts: 65% to/from Bypass
35% to/from Lafayette

Average Speeds, with/without bollards: 27/29 MPH
85th Percentile Speeds, with/without bollards: 31/33 MPH

Posted Speed Limit: 20 MPH
Legal Speed Limit: 30 MPH

Previous Actions Taken By City

- Signal installation at Andrew Jarvis Drive
- Bollard installation at Greenleaf Avenue and Lafayette Road intersection to slow vehicles entering Greenleaf Avenue
- Speed feedback sign and pedestrian warning sign on Greenleaf Avenue
- Crosswalk, in-street warning sign and rectangular rapid flashing beacon (RRFB) to cross Lafayette Road
- Removal of large tree blocking sight line at Hillside Drive intersection.
- Ordinance prohibiting trucks on Greenleaf Avenue



Traffic Flow Alternative 1

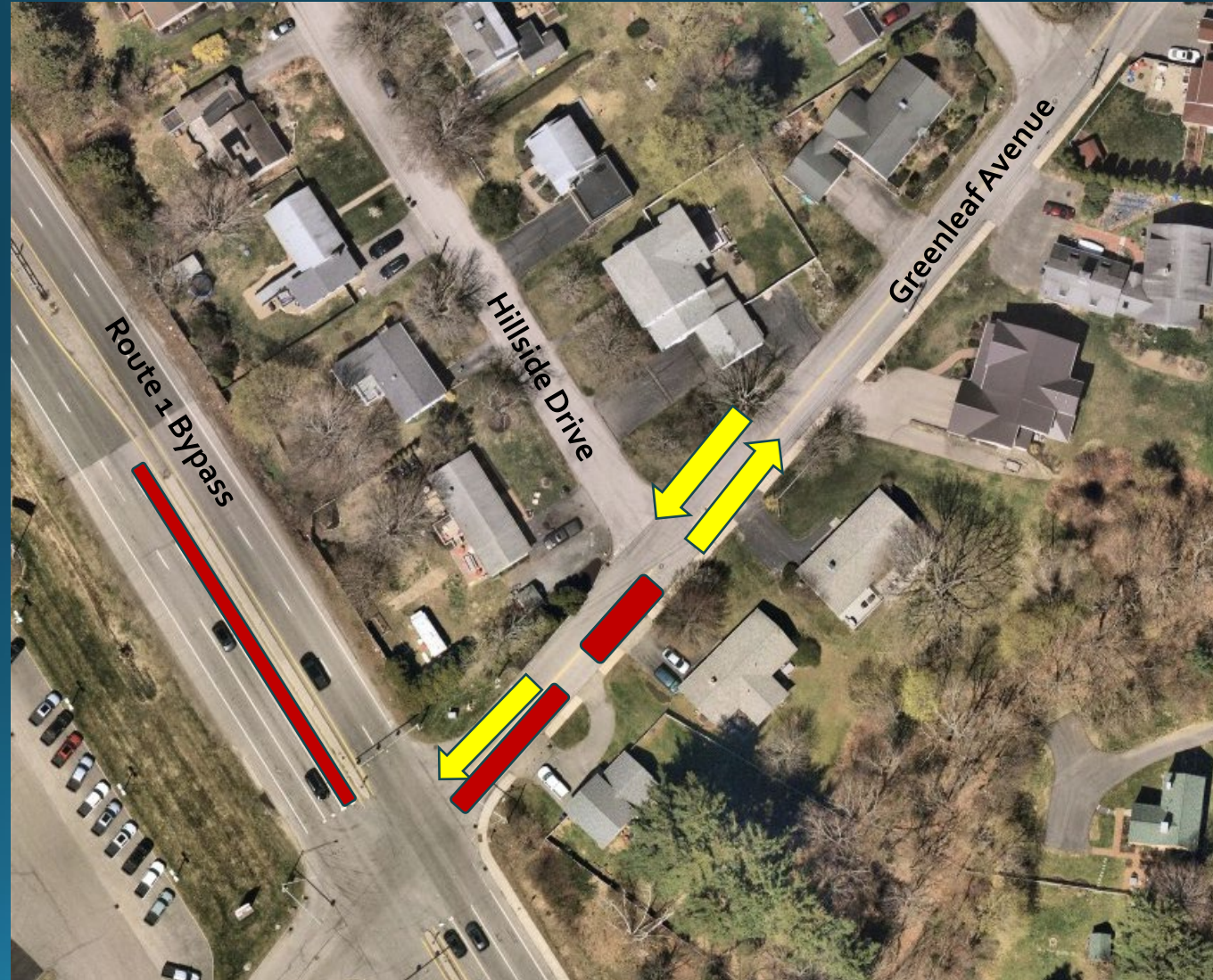
One way from Hillside Drive, Lower Leg to Route 1 Bypass

Pros:

- Moderate (35%) reduction of through traffic on Greenleaf Avenue
- Maintains access to both the Bypass and Lafayette Road for neighborhood

Cons:

- Can be easily “cheated”
- Does not address difficult left turns from Greenleaf Avenue onto Lafayette Road
- No direct access from the Bypass for residents
- Will require coordination with NHDOT for left lane changes on Route 1 Bypass



Traffic Flow Alternative 2

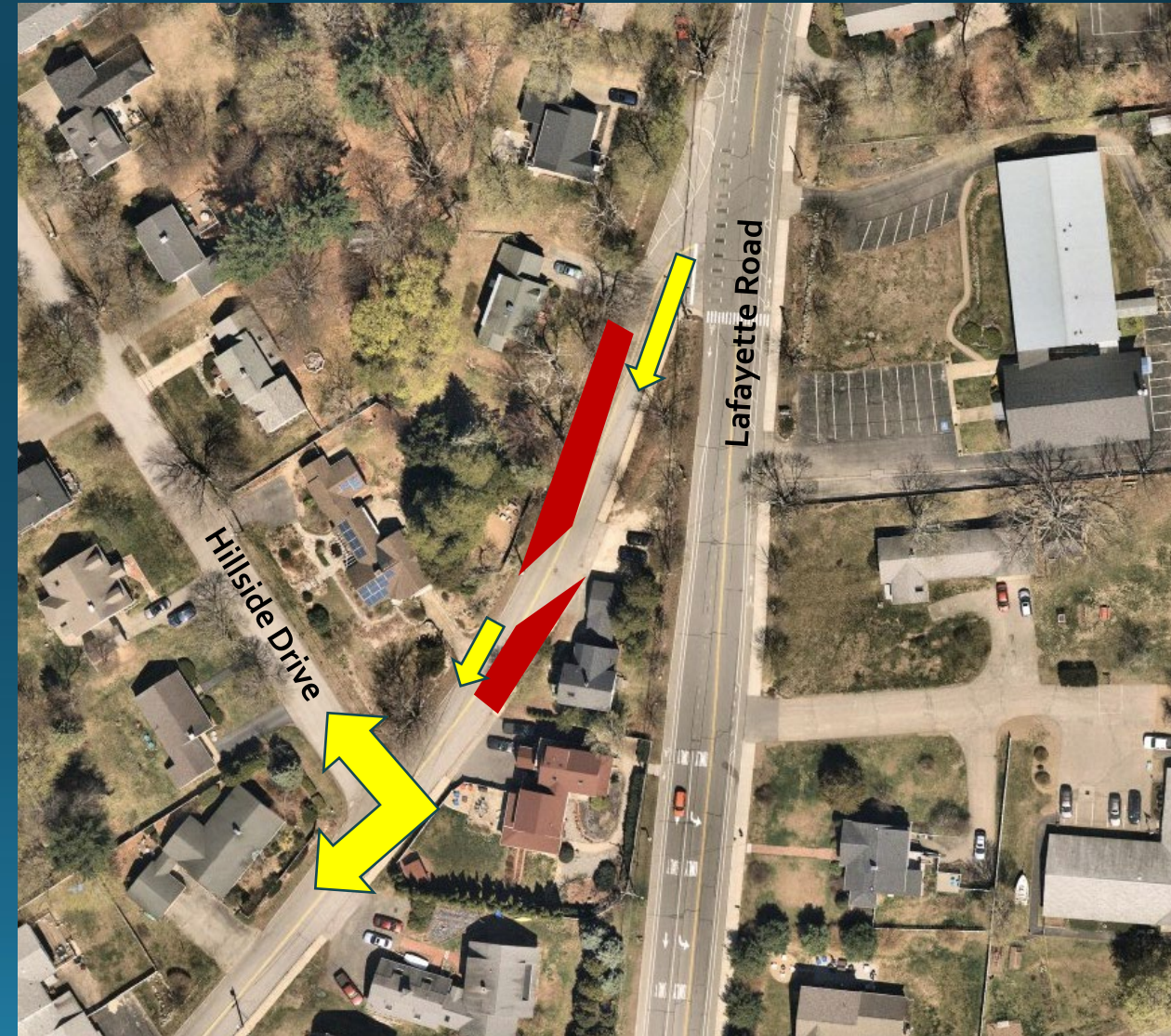
One way from Lafayette Road to Hillside Drive, Upper Leg

Pros:

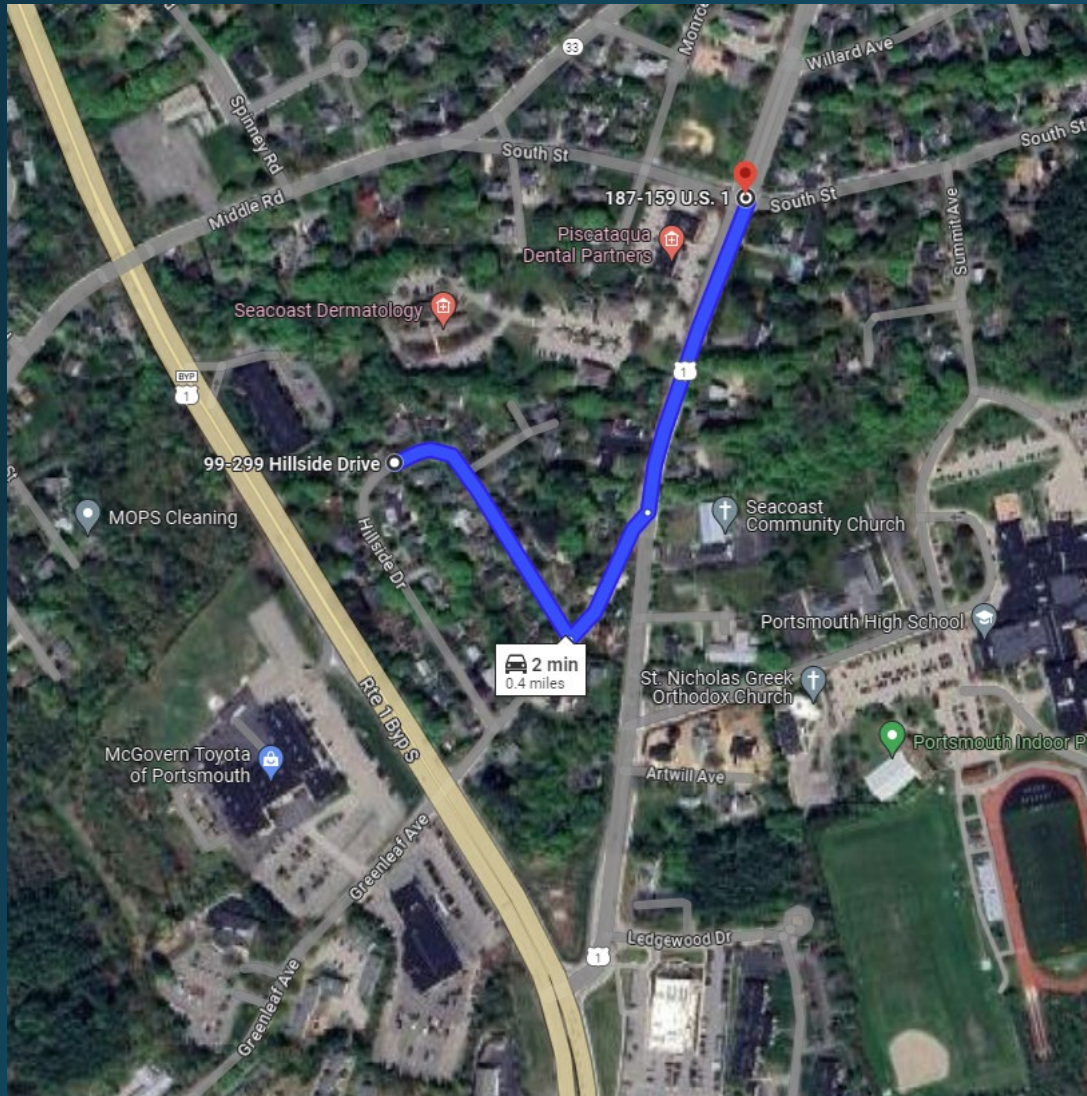
- Eliminates “challenging” left turns onto Lafayette Road
- Allows narrower Greenleaf Avenue and eliminates need for tree removals
- Allows for physical traffic calming device (i.e. chicane) to slow vehicles coming from Lafayette Road
- Improves sight line at Hillside Drive intersection
- Moderate (35%) reduction in through traffic on Greenleaf Avenue
- Maintains access to and from Bypass for neighborhood

Cons:

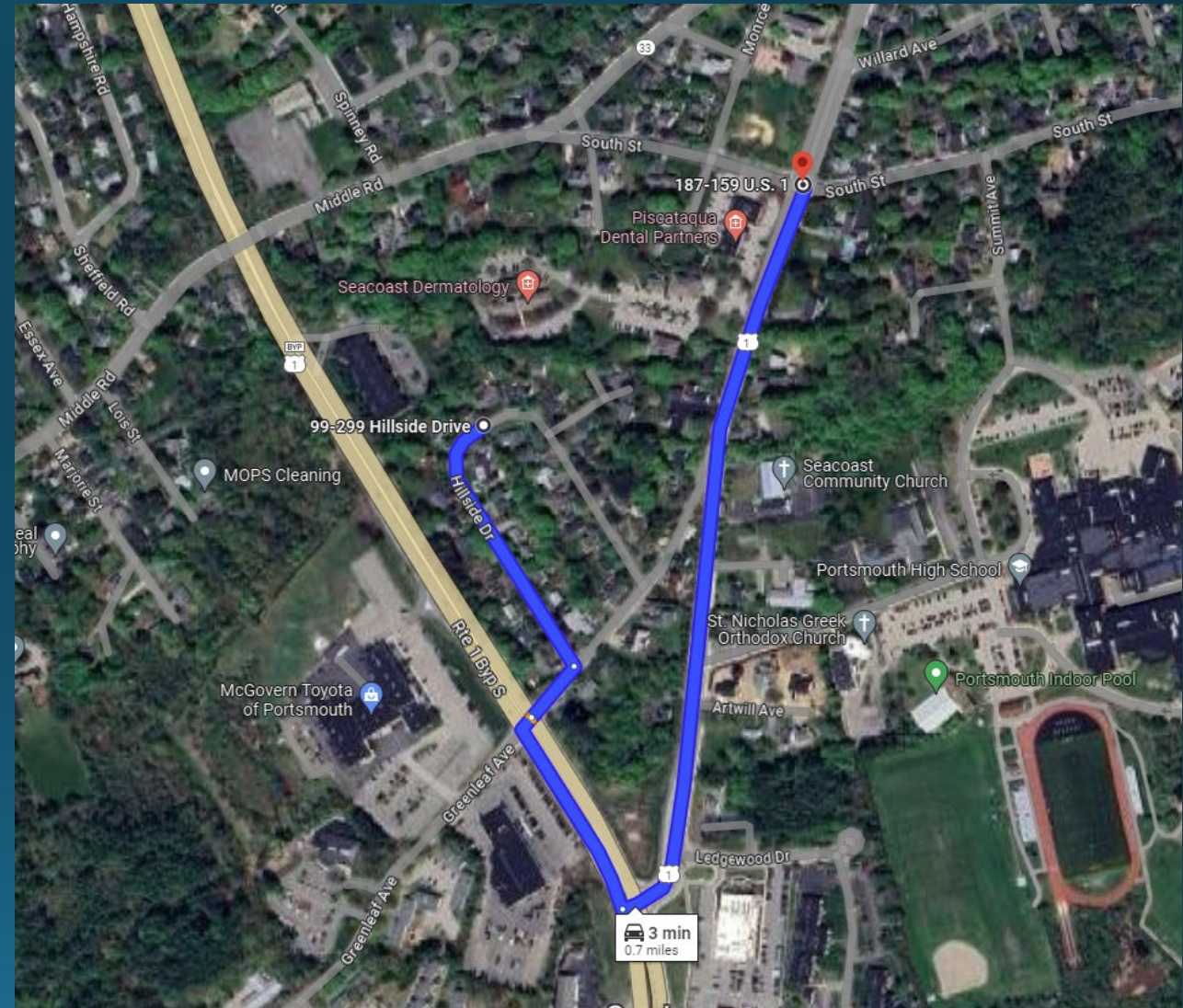
- Residents lose direct access to Lafayette Road.
- Temporary increase in traffic on Hillside Avenue until one-way section is well established.
- Will require coordination with NHDOT for possible left lane changes at signals on Route 1 Bypass



Neighborhood Travel Options

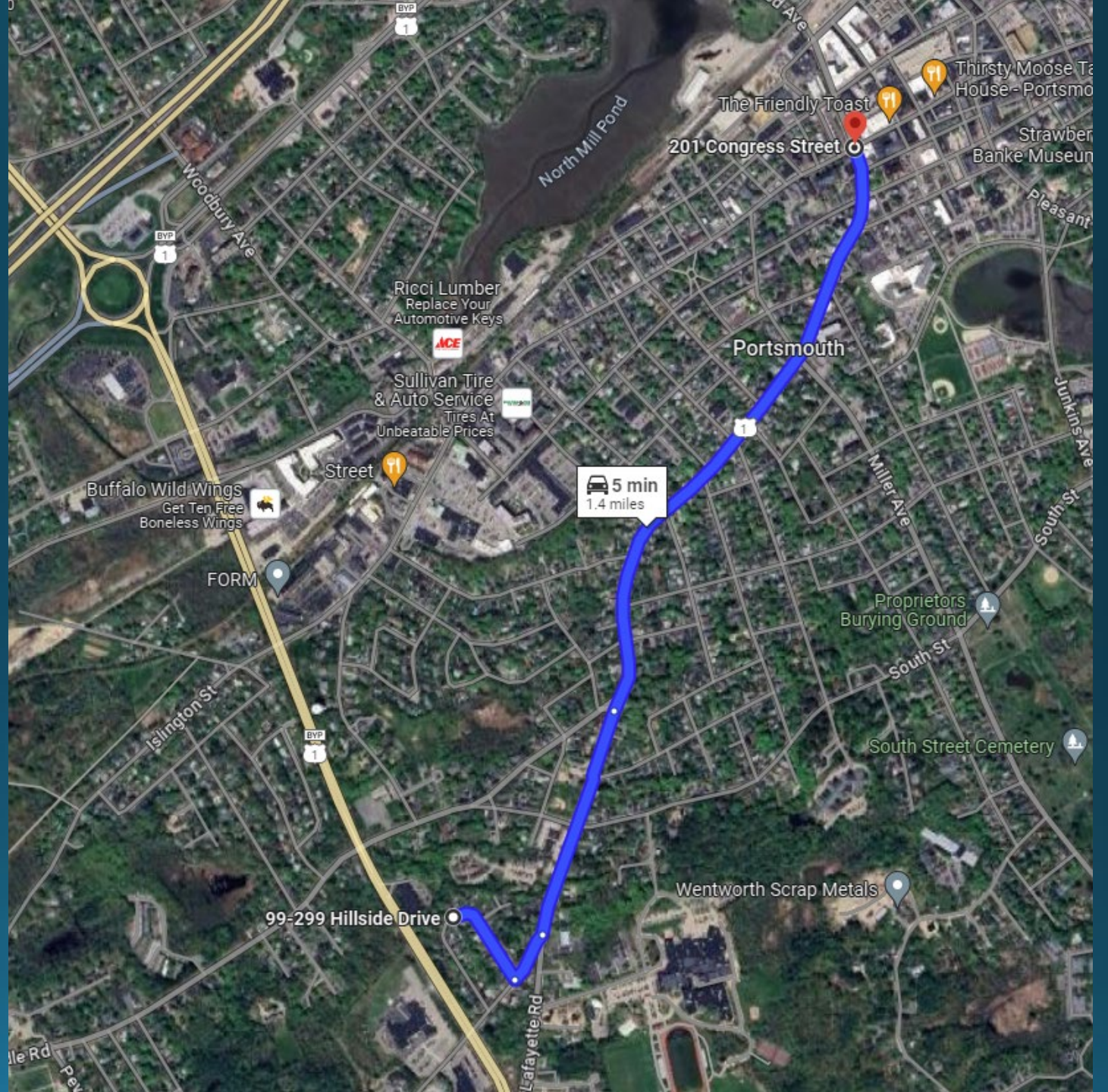


2 Minute Travel Time



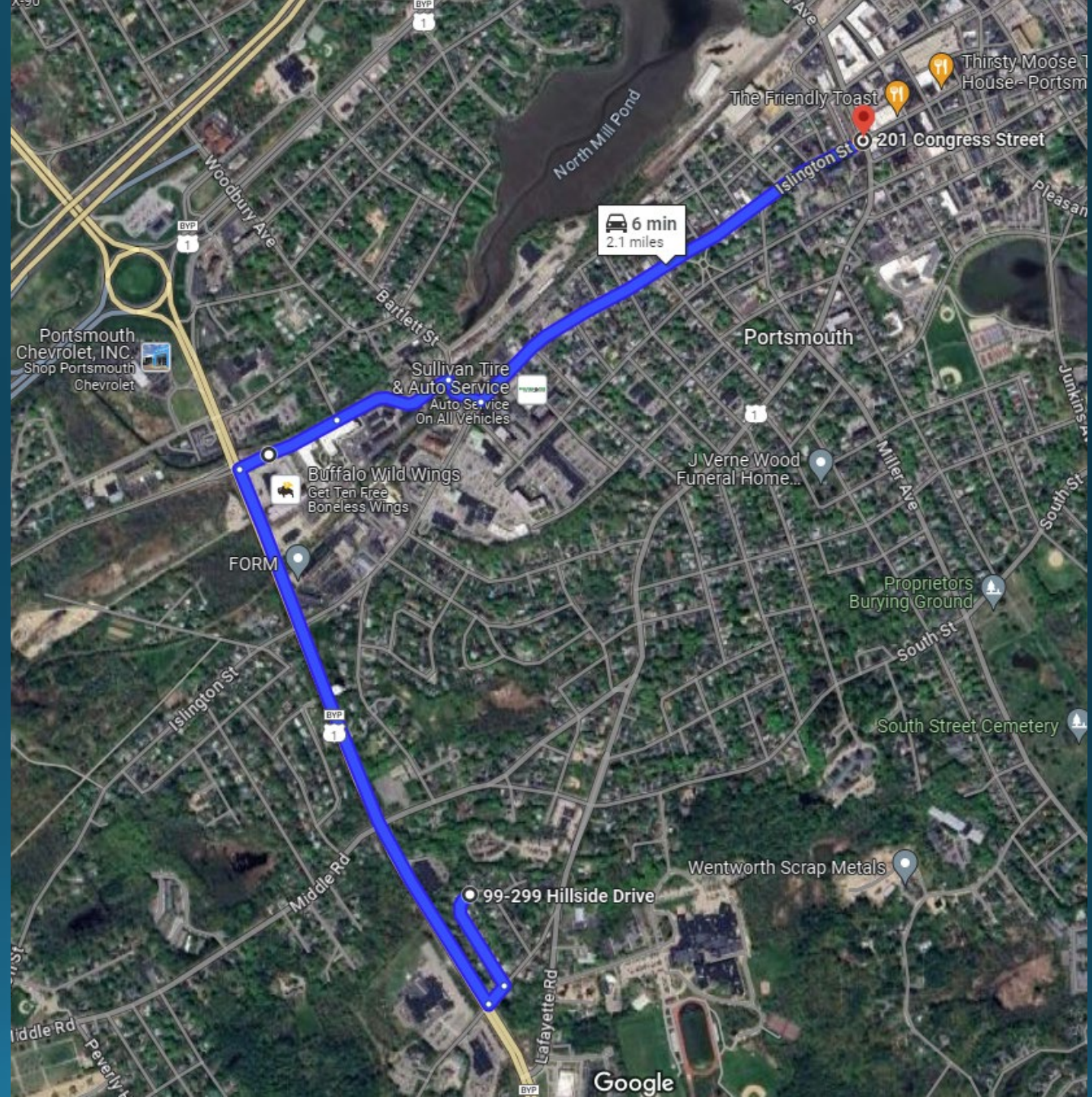
3 Minute Travel Time

Neighborhood Travel Options



5 Minute Travel Time, 1.4 Miles

Neighborhood Travel Options



6 Minute Travel Time, 2.1 Miles

Next Steps:

- Review feedback from tonight's meeting
- Attend September Trees and Public Greenery Meeting for tree removals, if necessary
- Finalize design Winter 2024
- Bid project Jan-Feb 2025
- Construction Spring 2025

Questions, Comments

