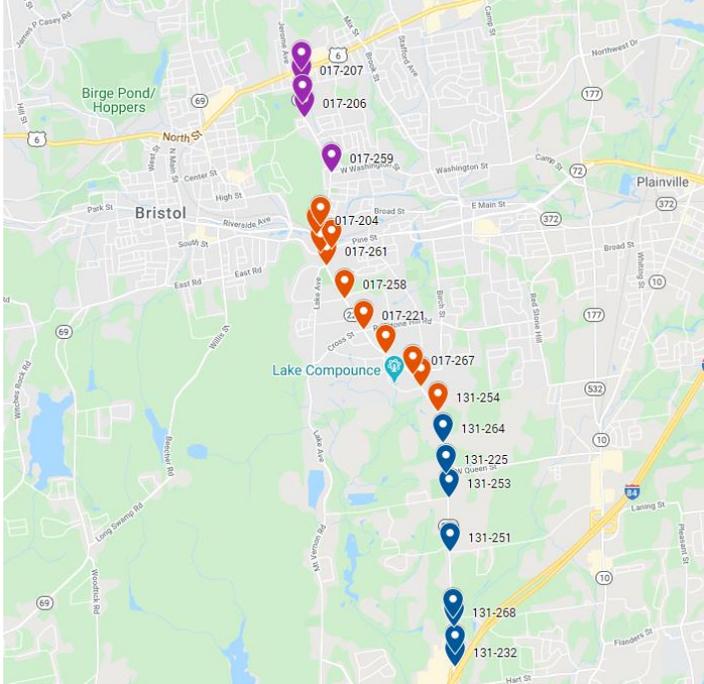




Bristol Transportation Committee Meeting
ROUTE 229 CORRIDOR STUDY



Employee owned. Client driven.

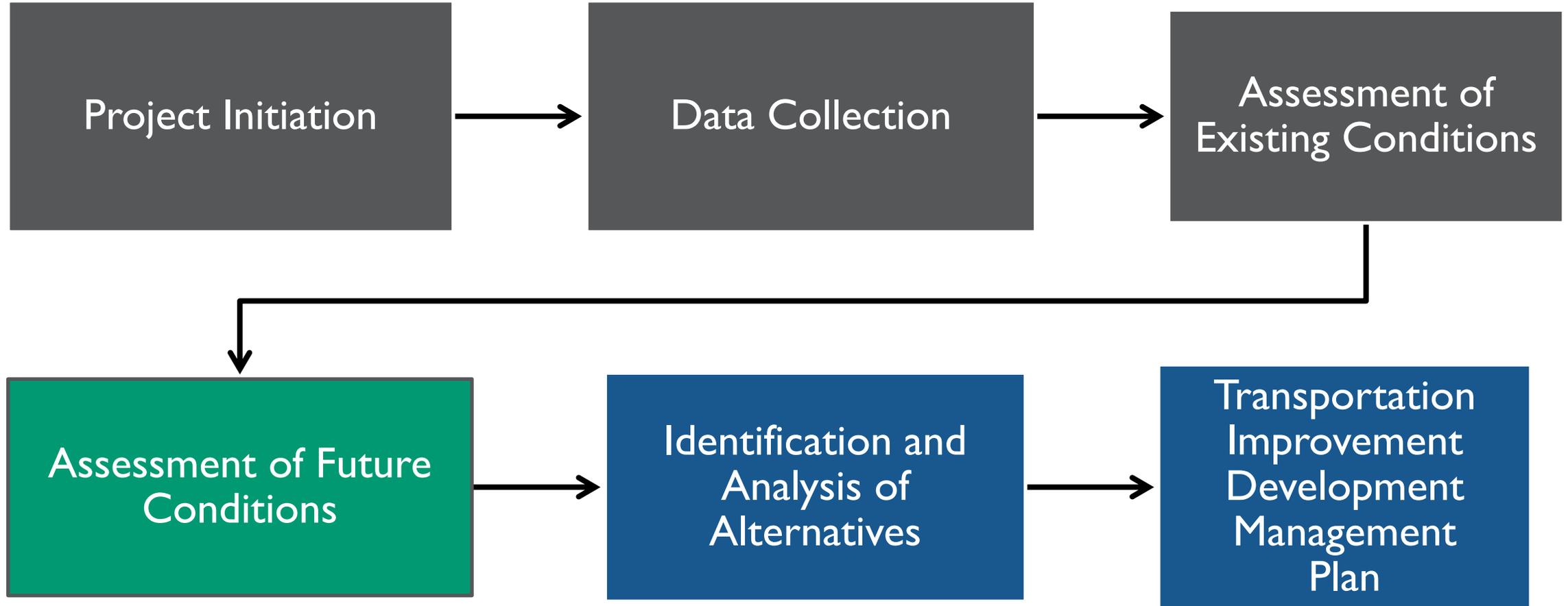
Introduction

- **Route 229 Corridor Study**
 - Evaluate safety, congestion, and transit/bike/ped mobility
 - Assess travel demand growth for a multi-modal corridor to service the future land use vision and recommendations
 - Provide spot improvements / propose countermeasures to improve safety and traffic flow



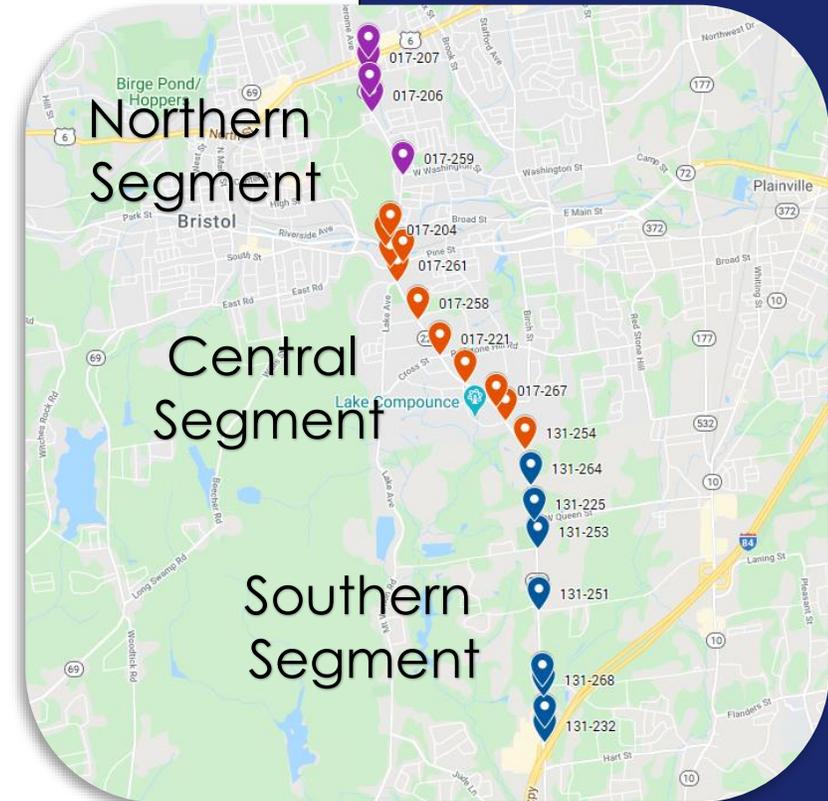
Scope / Deliverables

Planning Process

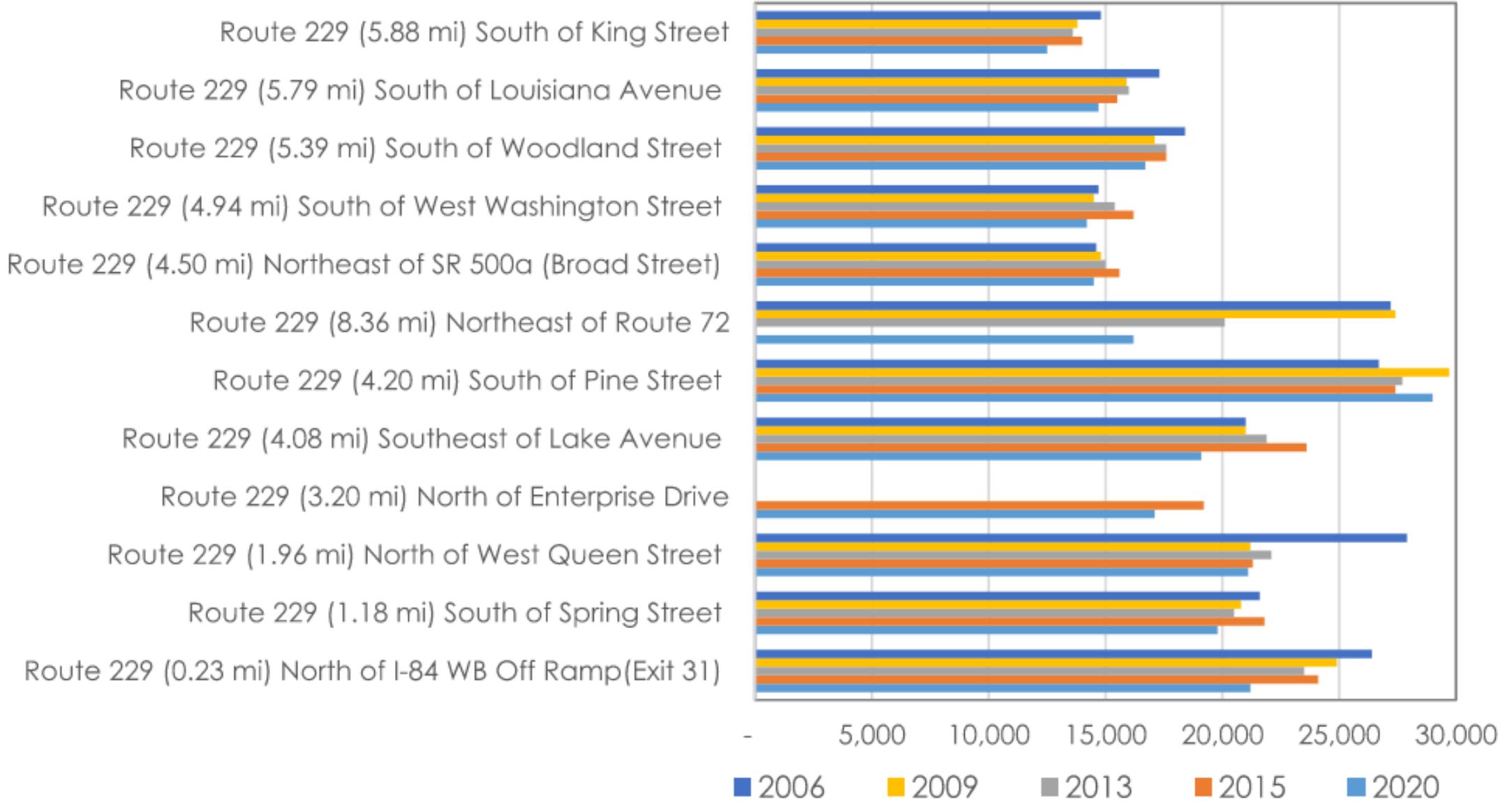


Data Collection Efforts

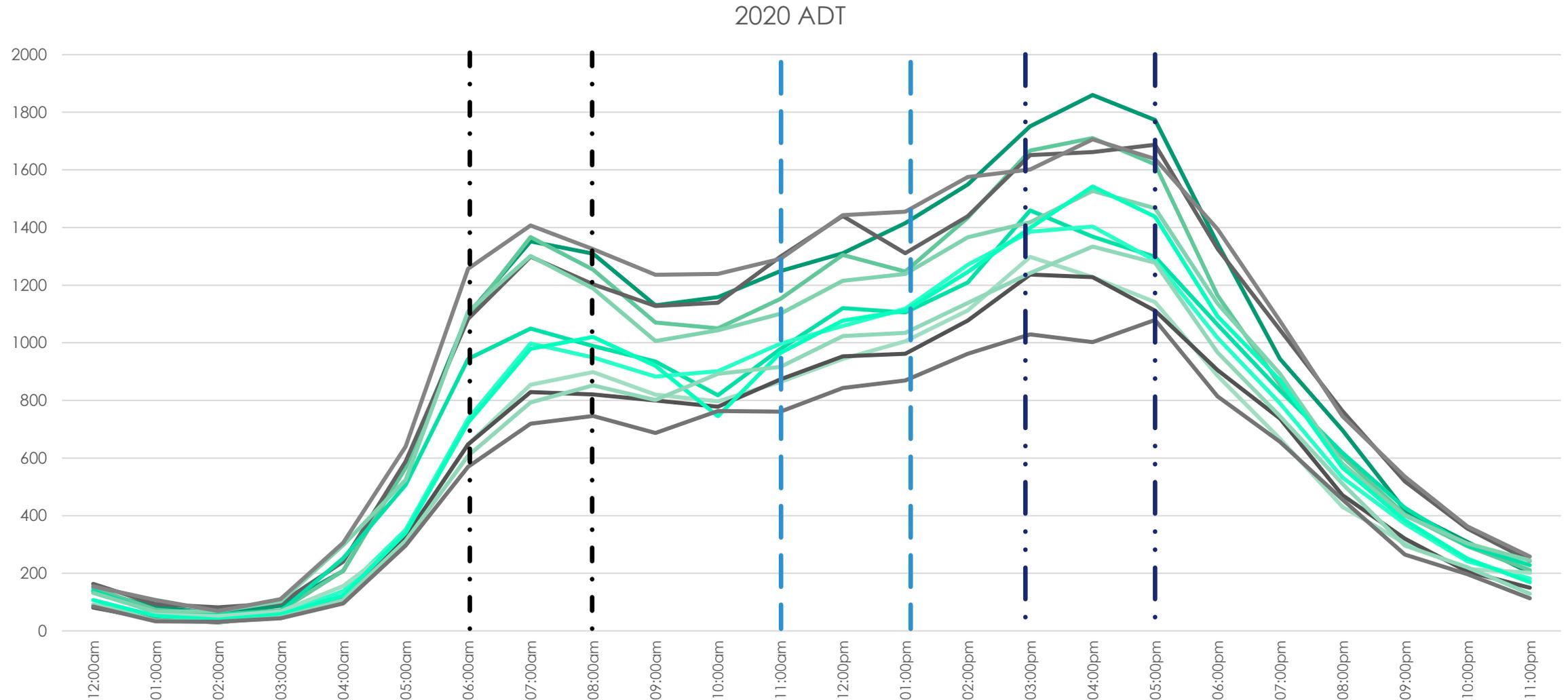
- Traffic
- Speed
- Crashes
- Transit
- Pedestrian / Bicycle Facilities
- Land Use / Zoning
- Access Management
- Culturally & Historically Significant Landmarks / Buildings



Traffic Data: Historical Counts



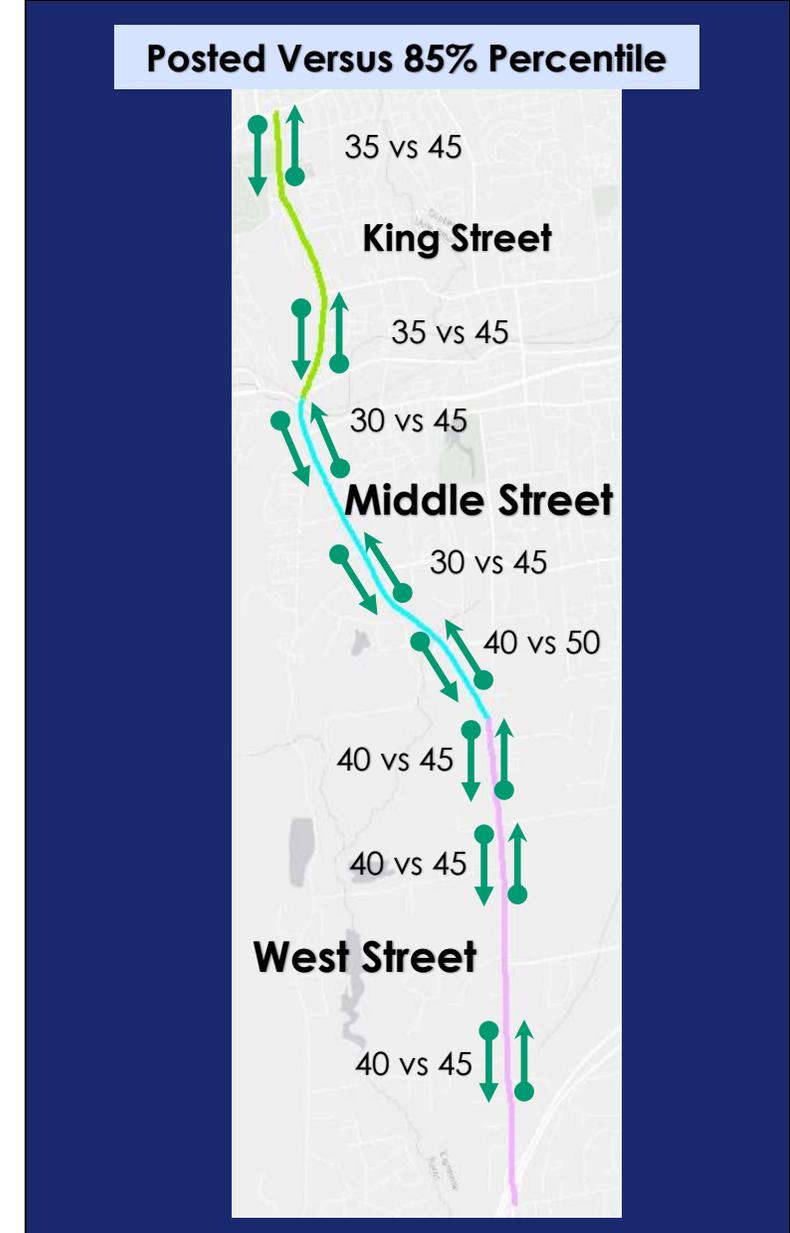
ADTs along the corridor



Source: https://portal.ct.gov/DOT/PP_SysInfo/Traffic-Count-Locator-Program-Updates

Posted Speed Limits

- **35 mph:**
 - N-End: Farmington Avenue (US6)
 - S-End: Broad Street
- **30 mph:**
 - N-End: Broad Street
 - S-End: West Gate Street (unsignalized) North of
 - Battista Road @ Business Park Road
- **40 mph:**
 - N-end: West Gate Street (unsignalized) North of
 - Battista Road @ Business Park Road
 - S-End: I-84 WB intersection



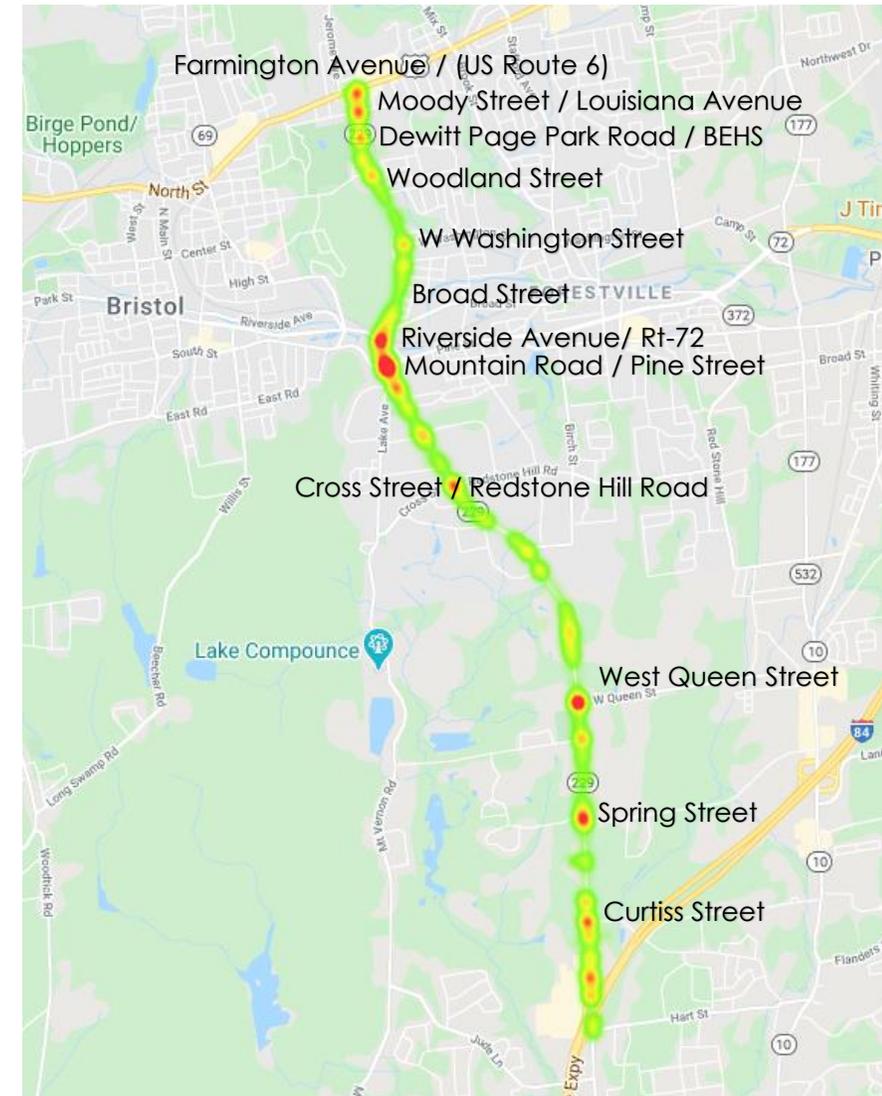
Crash Data – Hot Spots in Bristol

■ Intersections:

- Route 229 @ Moody Street/ Louisiana Avenue
- Route 229 @ Route 72 / Riverside Avenue
- Route 229 @ Pine Street / Mountain Road
- Route 229 @ West Queen Street
- Route 229 @ Curtiss Street
- Route 229 @ I-84 WB On/Off Ramps

■ Segments:

- Route 6 / Farmington Avenue & Moody Street/ Louisiana Avenue
- Moody Street/ Louisiana Avenue & High School Drive
- W. Washington Street & Broad Street
- Route 72 / Riverside Avenue & Pine Street / Mountain Road
- Executive Boulevard North & Executive Boulevard South



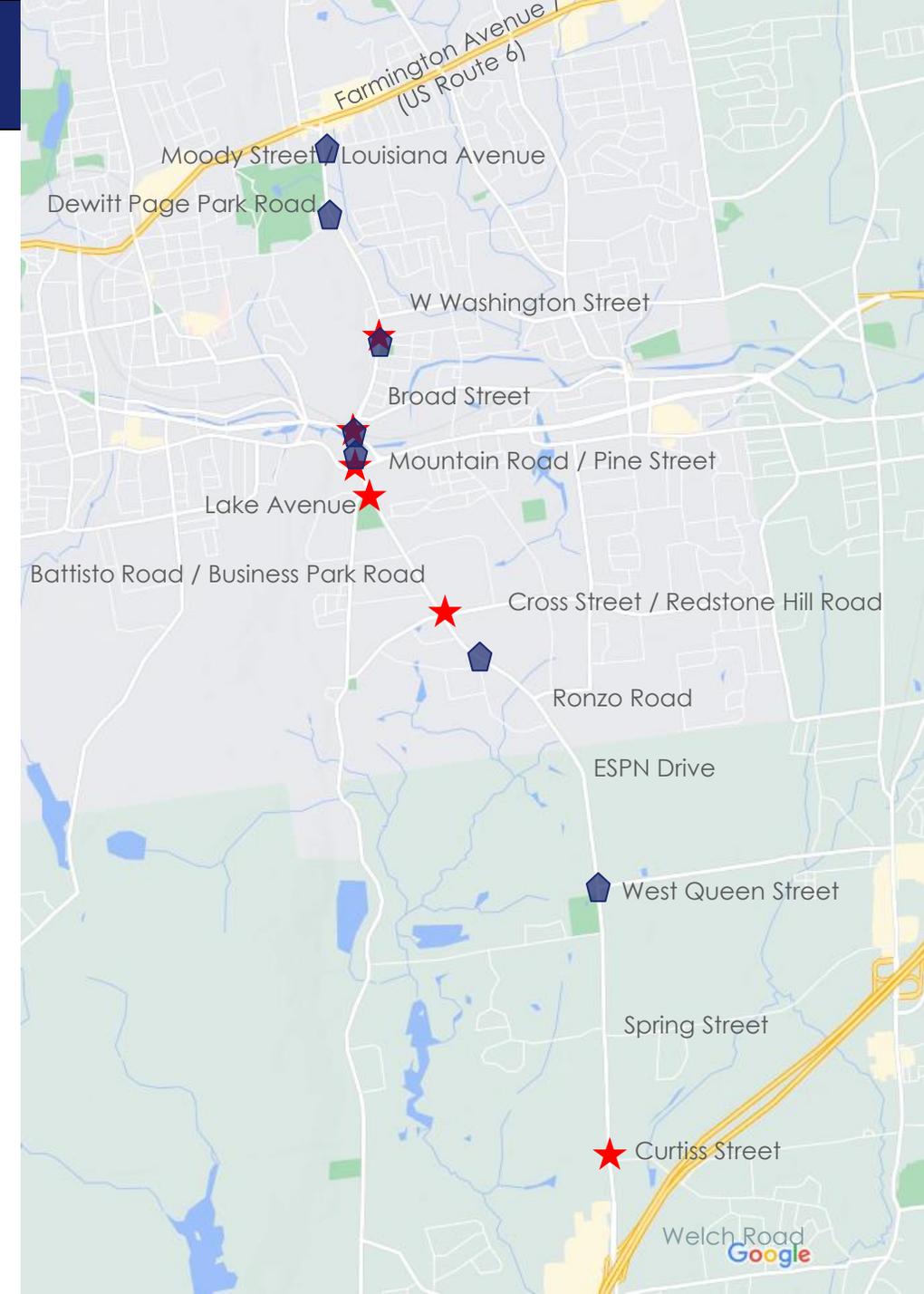
Fatal Crashes, Pedestrian & Bicycle Hot Spots

- **2015-2020: (7 Crashes)**
 - Route 229 @ Moody Street/ Louisiana Avenue
 - Route 229 @ Woodland Street
 - Route 229 @ Burnside Drive
 - Route 229 between Route 72 & Pine Street (2 crashes)
 - Route 229 @ Pine Brook Terrace
 - Route 229 @ West Queen Street

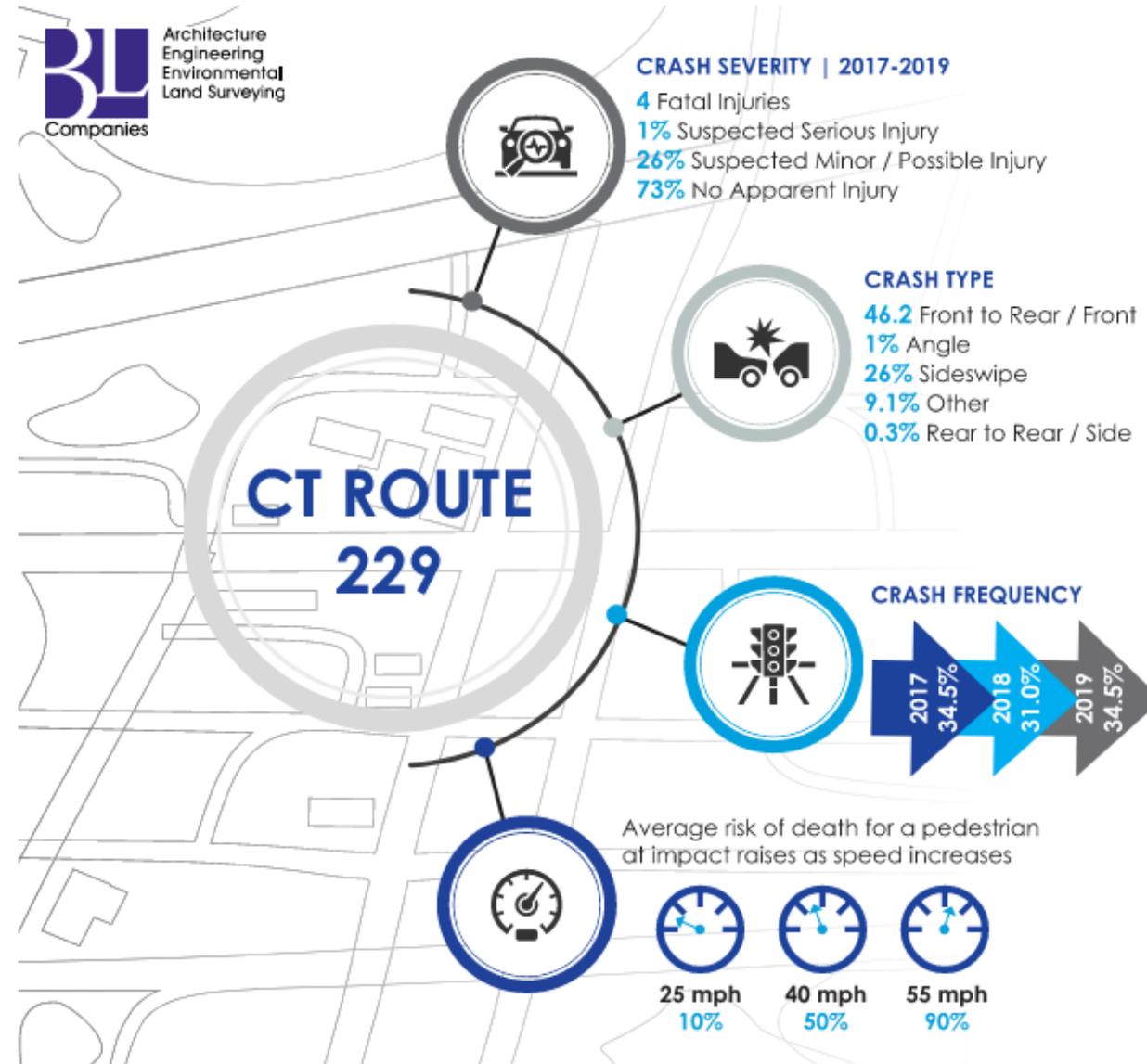


<https://ctcrash.uconn.edu/>

■ Fatal Crash
★ Pedestrian / Bicycle Crash



Crash Data – Hot Spots



Multimodal Accommodations



Preliminary Traffic Data: Transit



■ CTfastrak Route 102

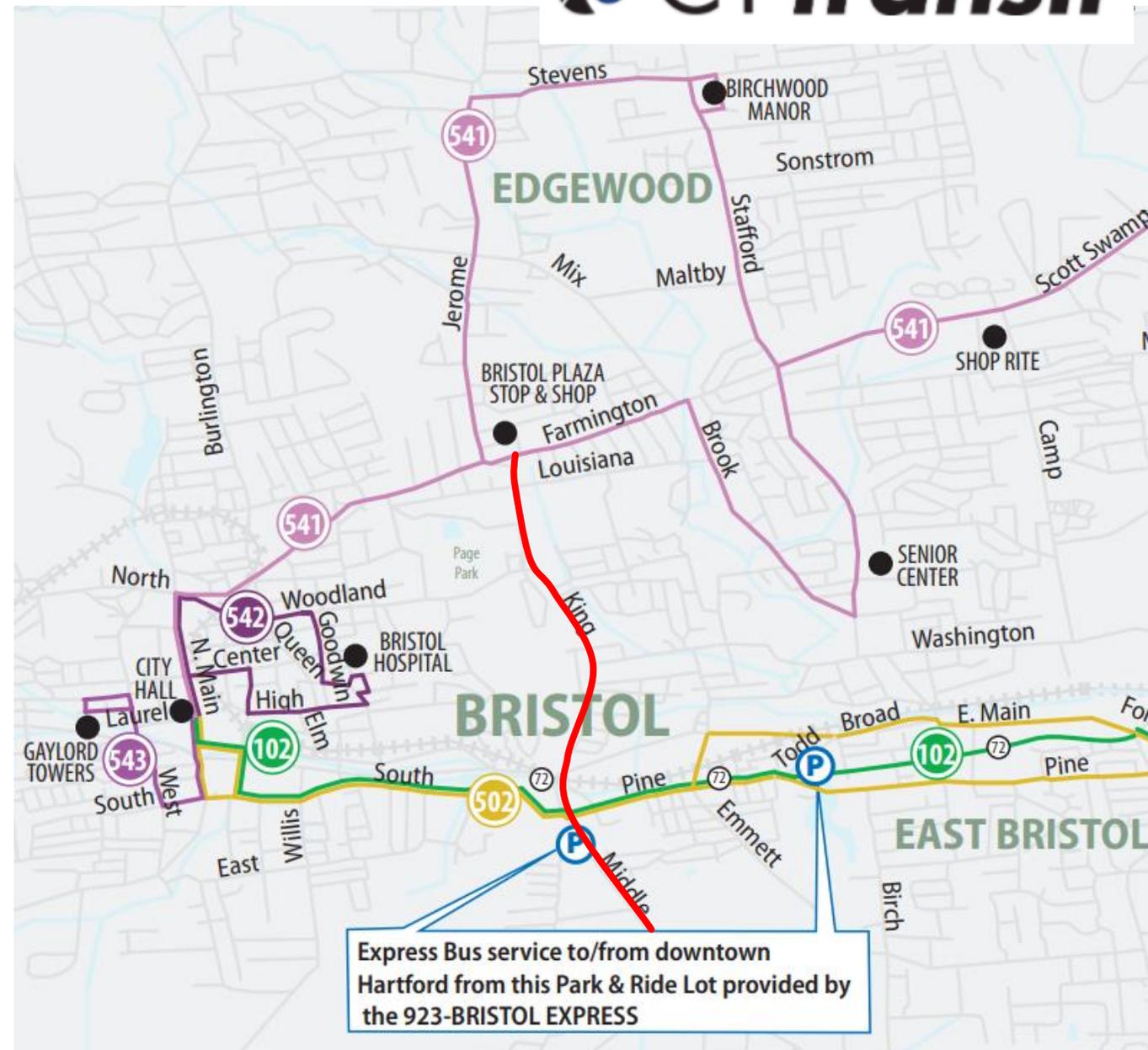
- The average weekday daily ridership in 2019 totaled 1,294 boardings and alightings.
- Three percent (3%) of daily trips board and alight within 0.5 miles of CT Route 229.

■ Express Route 502

- The average weekday daily ridership in 2019 totaled 210 boardings and alightings.
- Three percent (3%) of daily trips board and alight within 0.5 miles of CT Route 229.

■ Local 541 Bristol

- Known as “Tunxis Community College”
- The average weekday daily ridership in 2019 totaled 270 boardings and alightings.
- The nearby bus stops account for approximately twenty percent (20%) of average weekday daily bus ridership.



Transit Need Index

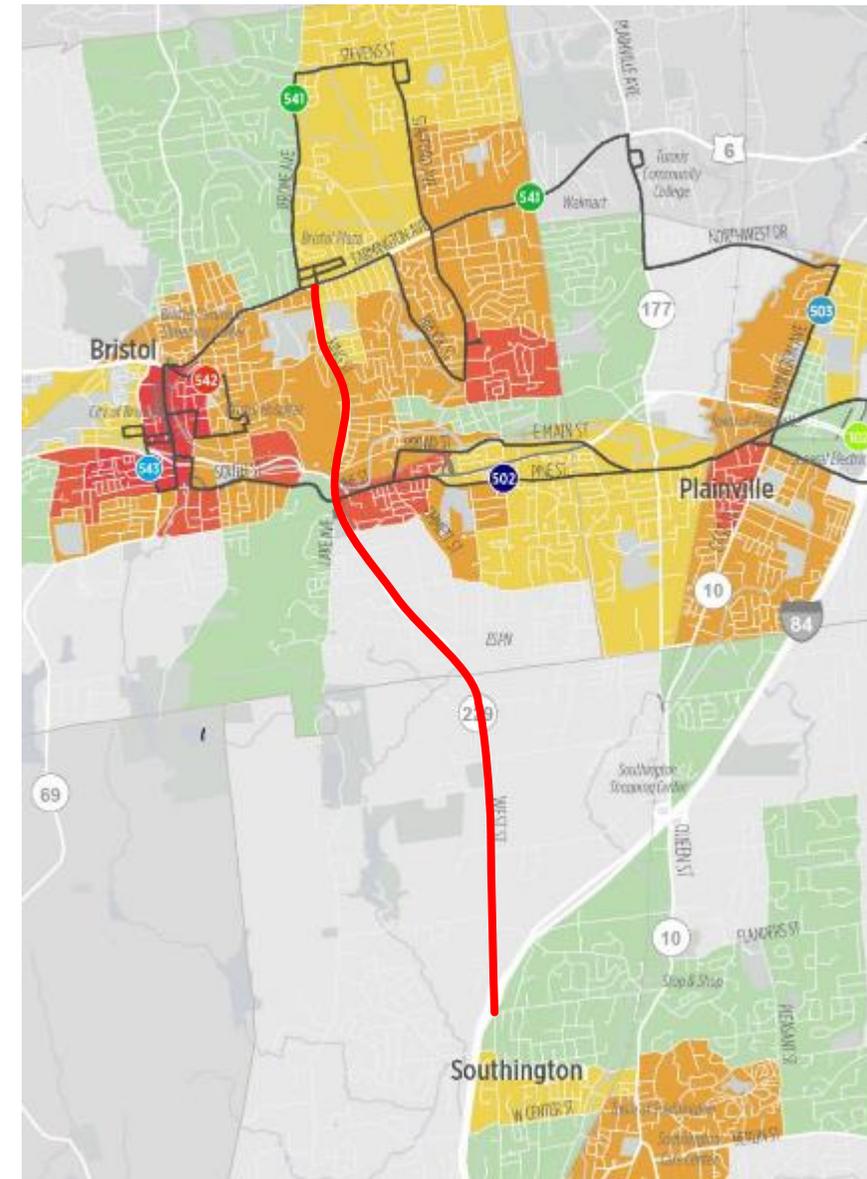
- Assessing public transit accessibility
 - Density of the existing public transit network
 - Walk access time and service frequency
 - Location of stops and ridership
- Economic and socio-demographic information
 - Population densities
 - Employment densities

Northern Segment

- Relatively high / medium high Transit Index

Central Segment

- Between Lake Avenue and Route 72 – high Transit Index

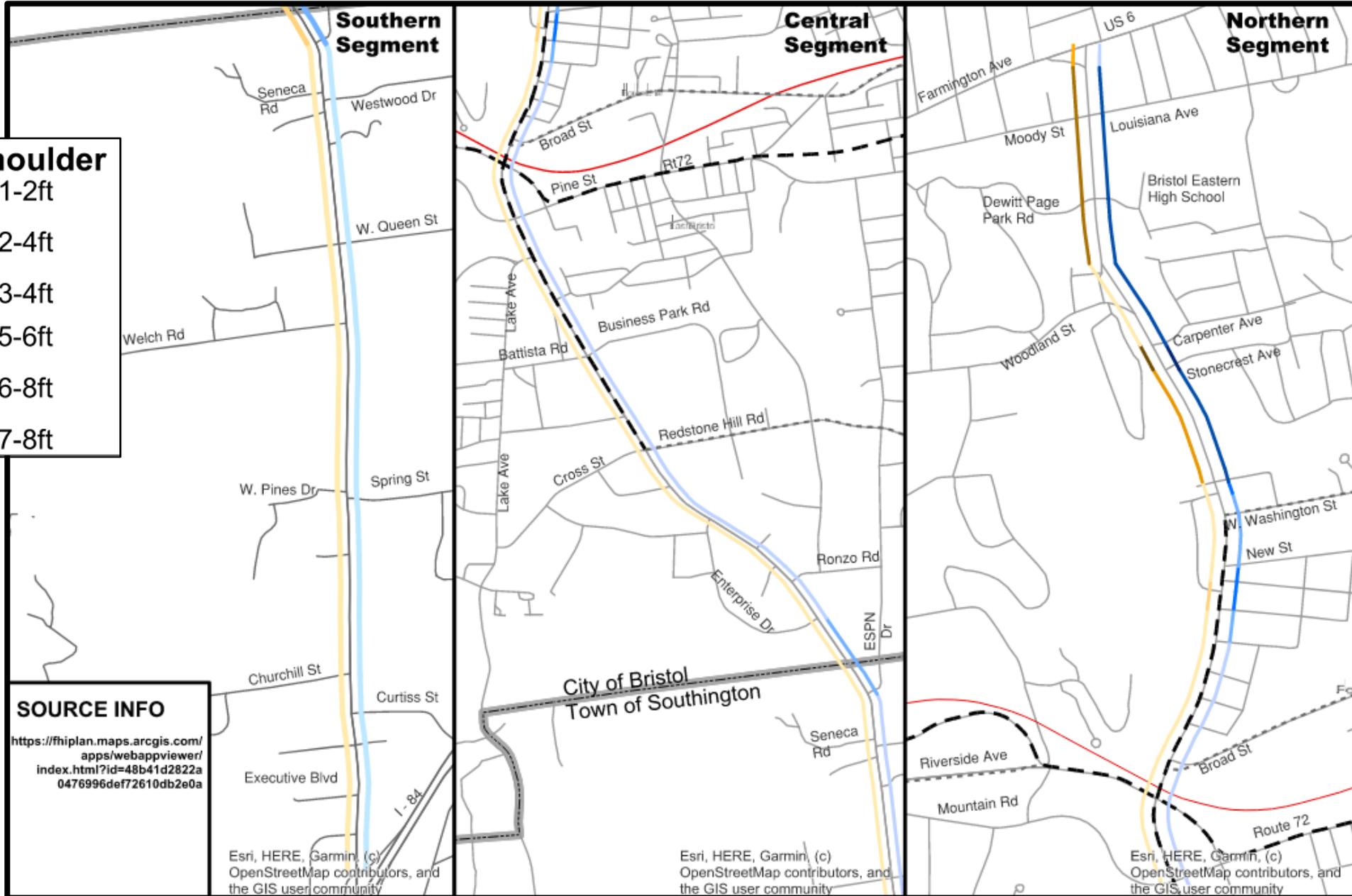


Shoulder Widths

LEGEND

Right Shoulder	Left Shoulder
 1-2ft	 1-2ft
 2-4ft	 2-4ft
 4-6ft	 3-4ft
 5-6ft	 5-6ft
 6-8ft	 6-8ft
 7-8ft	 7-8ft

Bike Lanes	
	State Road
	Town Road
	CT Rail
	CT Roads
	Town Boundary



SOURCE INFO
<https://fhiplan.maps.arcgis.com/apps/webappviewer/index.html?id=48b41d2822a0476996def72610db2e0a>
 Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

CTDOT Bicycle GIS Data

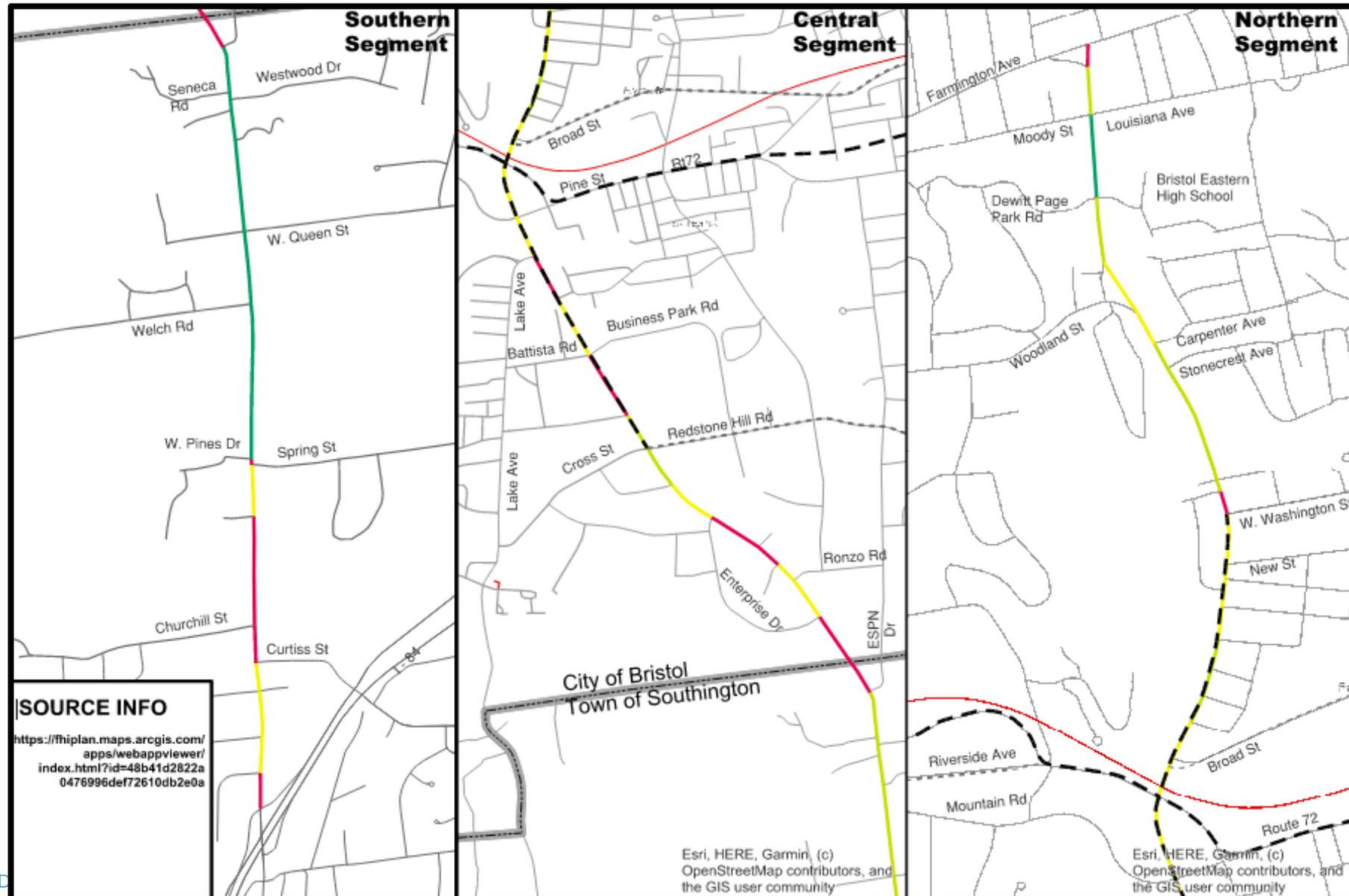
- Suitability Levels
 - Speed
 - Grade
 - Shoulder presence
- Planned Road Bike Network

LEGEND

Bike Feature

Suitability

- Least Suitable
- Less Suitable
- More Suitable
- Suitable



Source: <http://fhiplan.maps.arcgis.com/apps/webappviewer/index.html?id=48b41d2822a0476996def72610db2e0a>

ADA / PROWAG Compliance

- **Sidewalks:**
 - width and condition
 - surface type
 - curb & snow shelf presence
 - ramps and flares
 - detectable warning panels (Truncated Domes)
 - obstructions along sidewalk & continuity
- **Placement of pedestrian push buttons**
- **Slopes for pedestrian paths**



Pedestrian Accommodations

Legend

Segment

— Northern Segment

— Central Segment

— Southern Segment

— Sidewalk

— Crosswalk

— CT Rail

— CT Roads

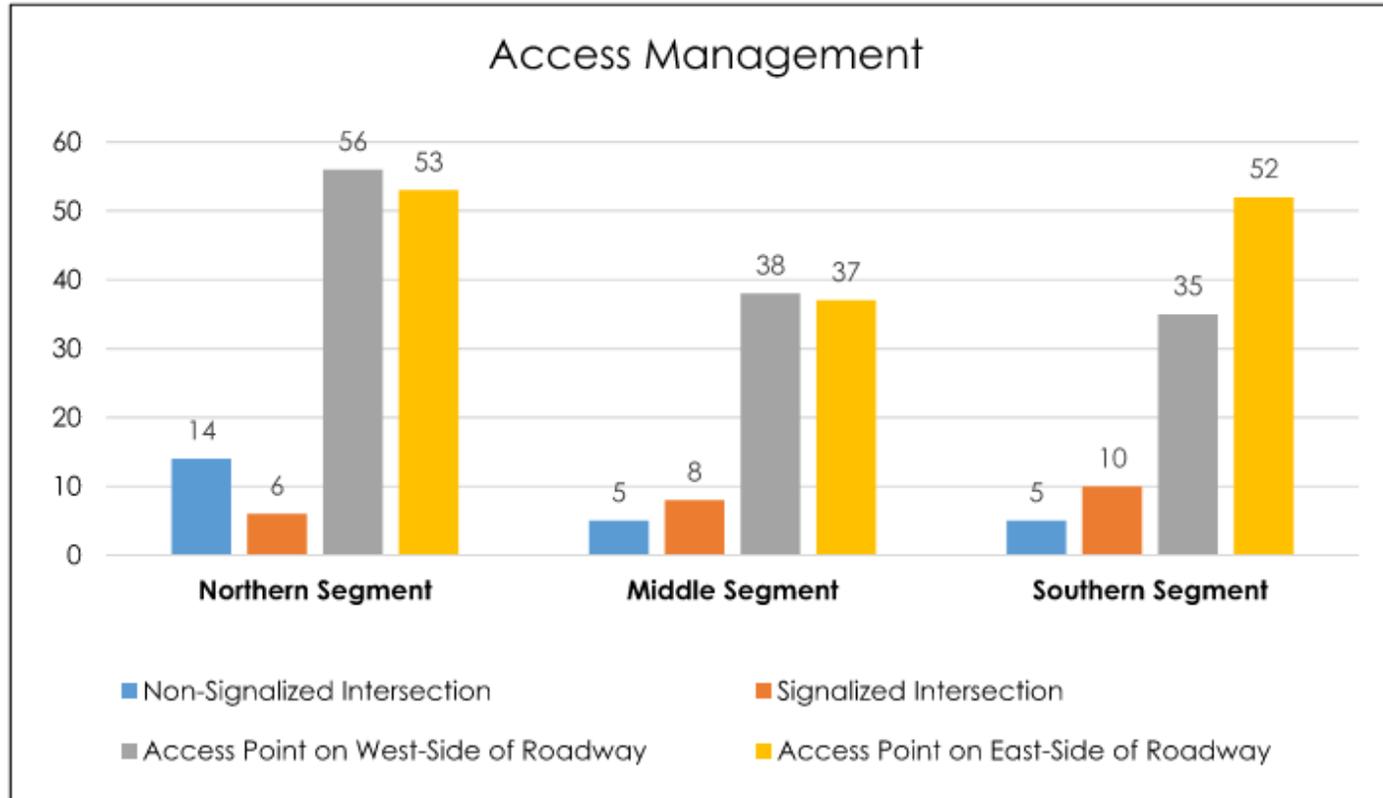
▭ Town Boundary

● Handicap Ramp

● Pedestrian Push Button



Summary of Access / Egress



Legend

Access Point Location

- East Side
- Intersection
- West Side
- Northern Segment
- Central Segment
- Southern Segment

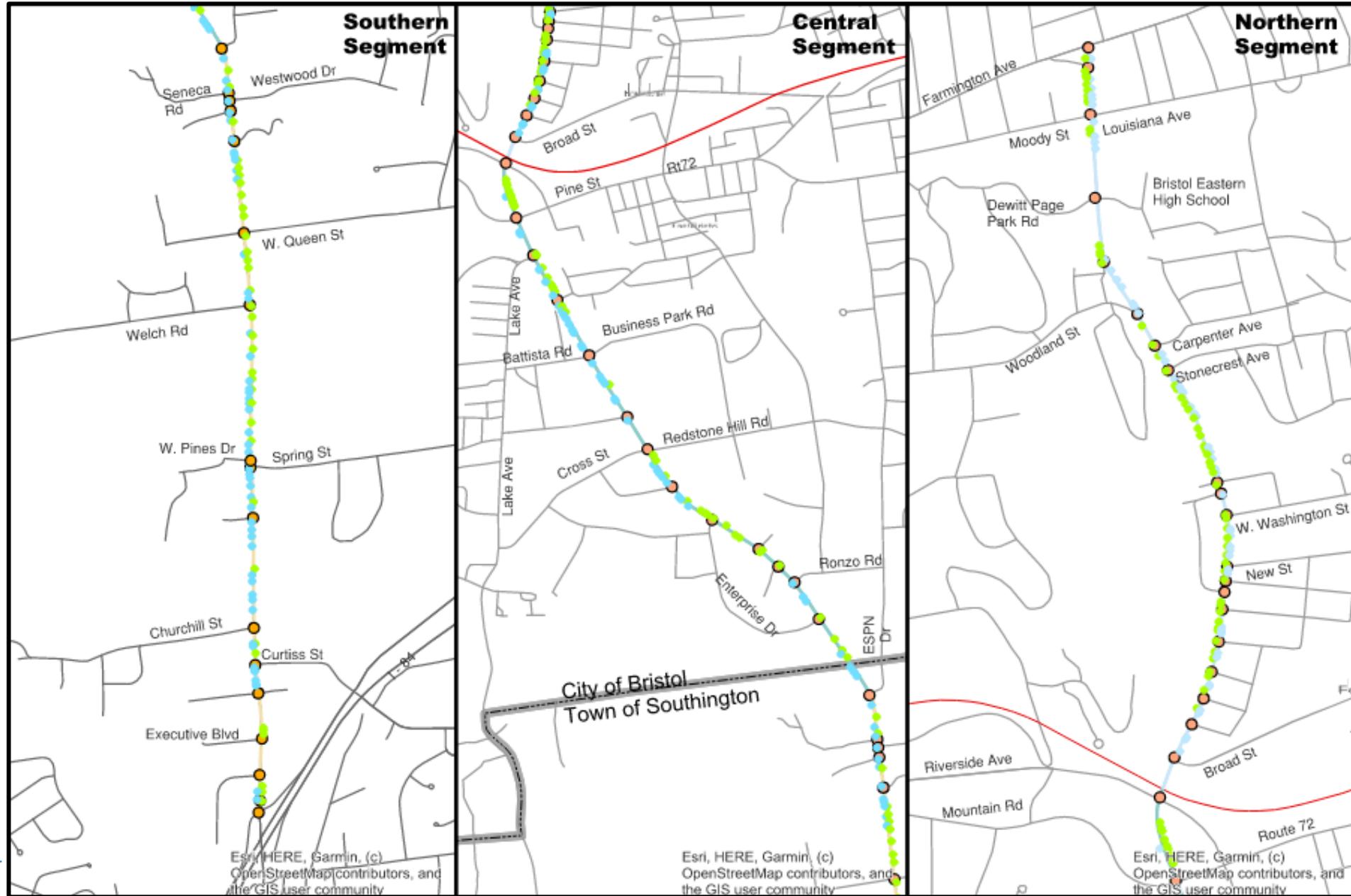
- ▭ Town Boundary
- CT Roads
- CT Rail

Summary of Access / Egress

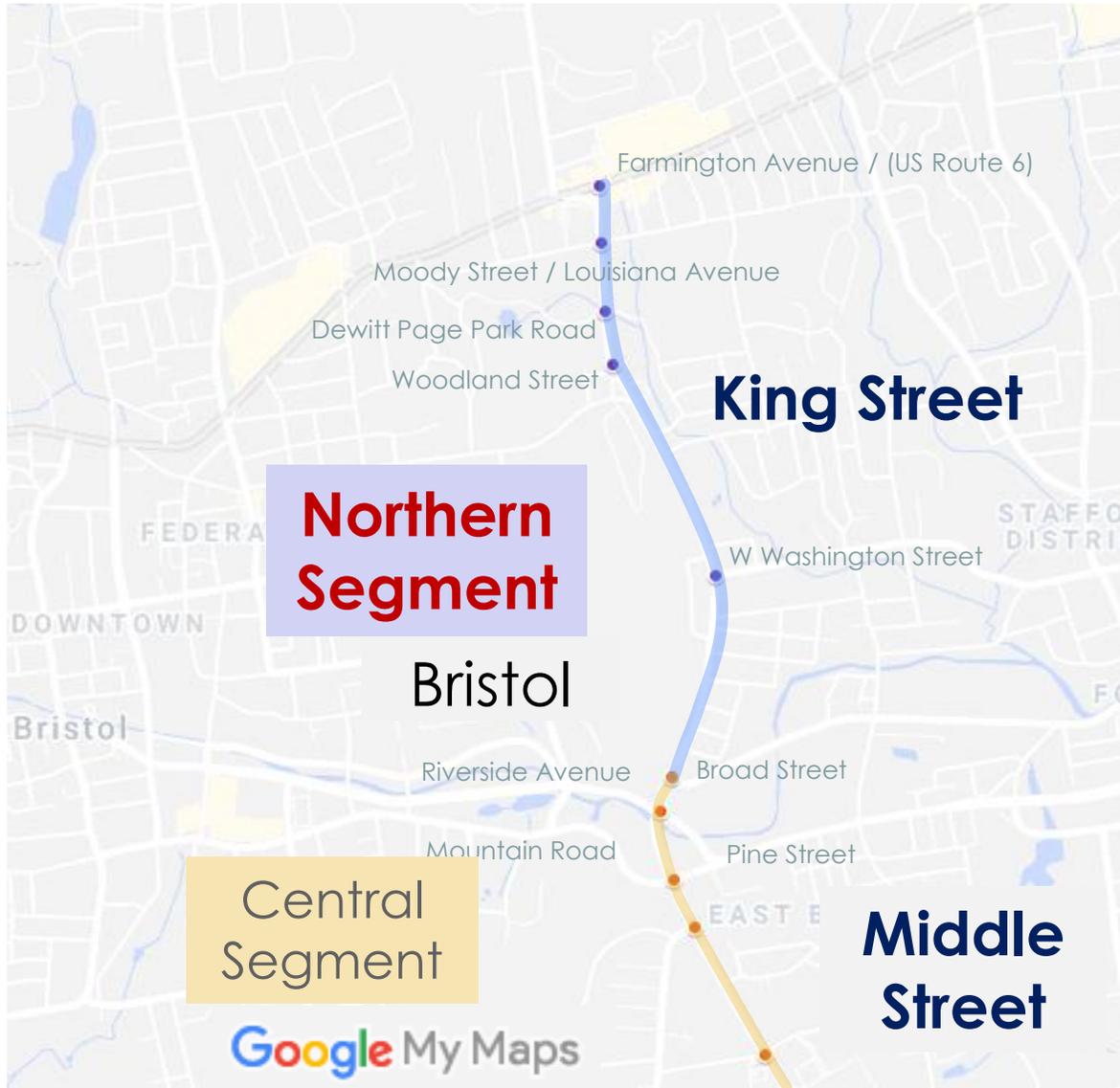
Legend

Access Point Location

- East Side
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- CT Roads
- CT Rail

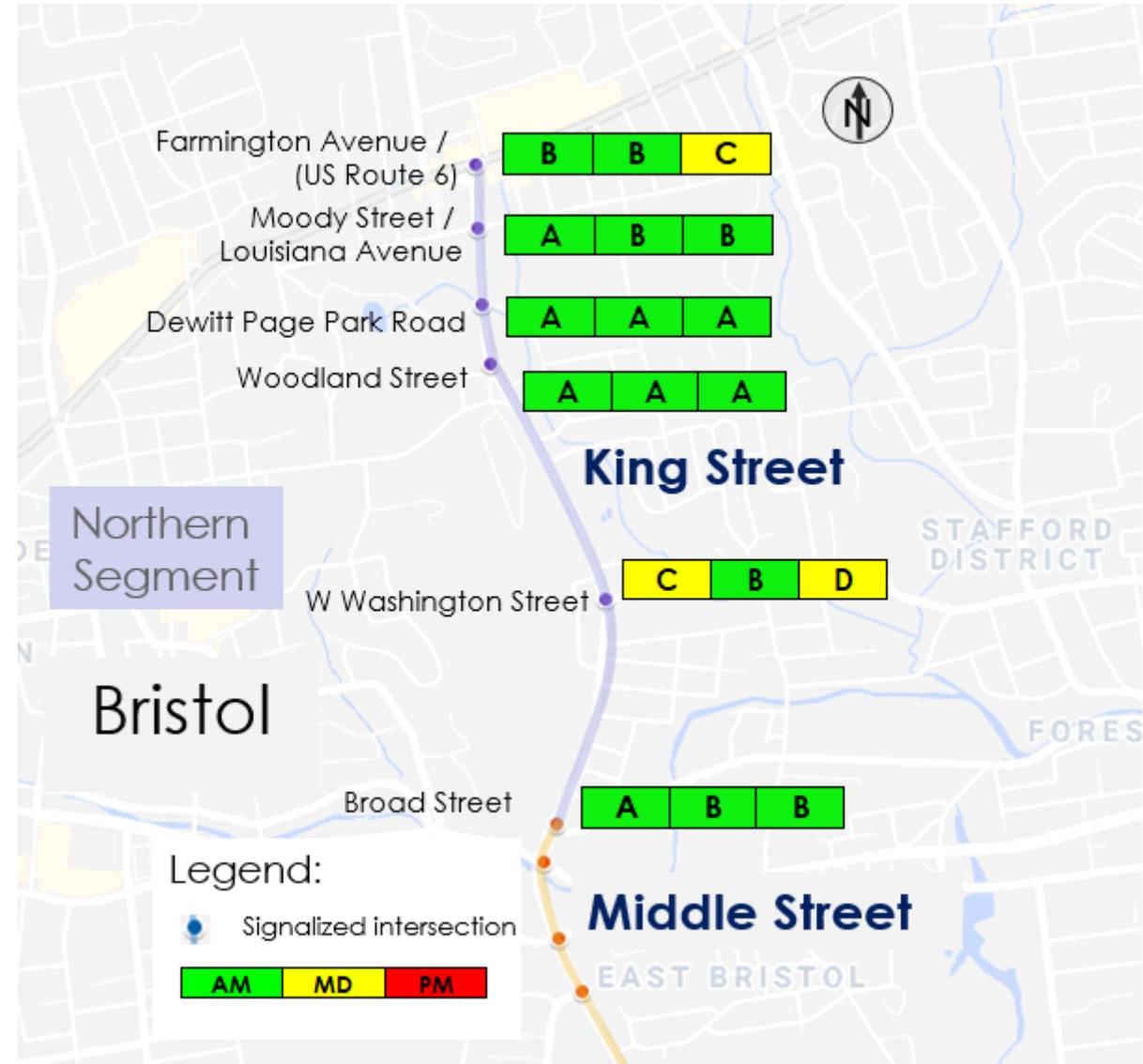


Northern Segment

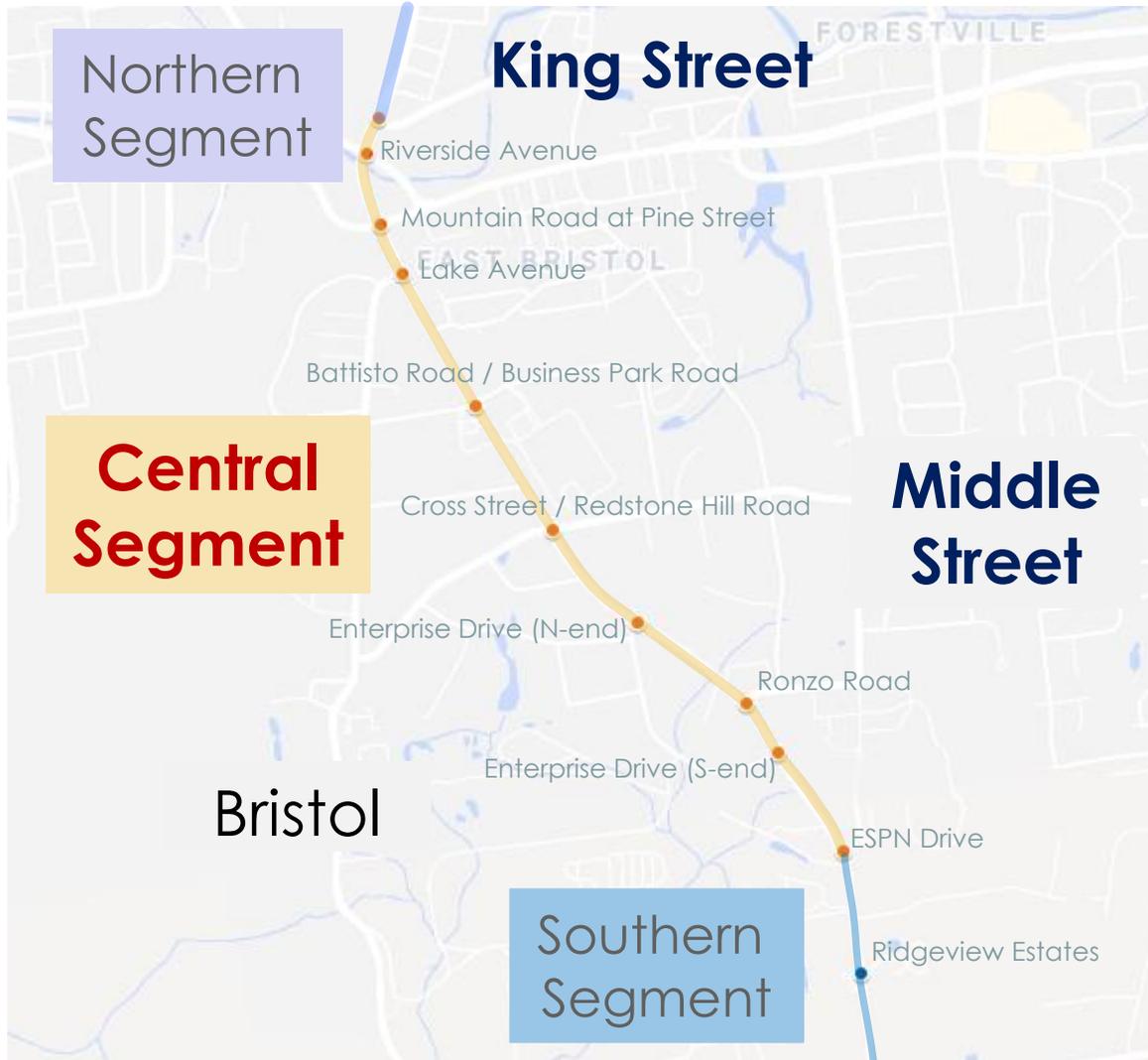


Traffic Operations Northern Segment

<u>Level of Service</u>	<u>Average Control Delay (seconds per vehicle)</u>
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

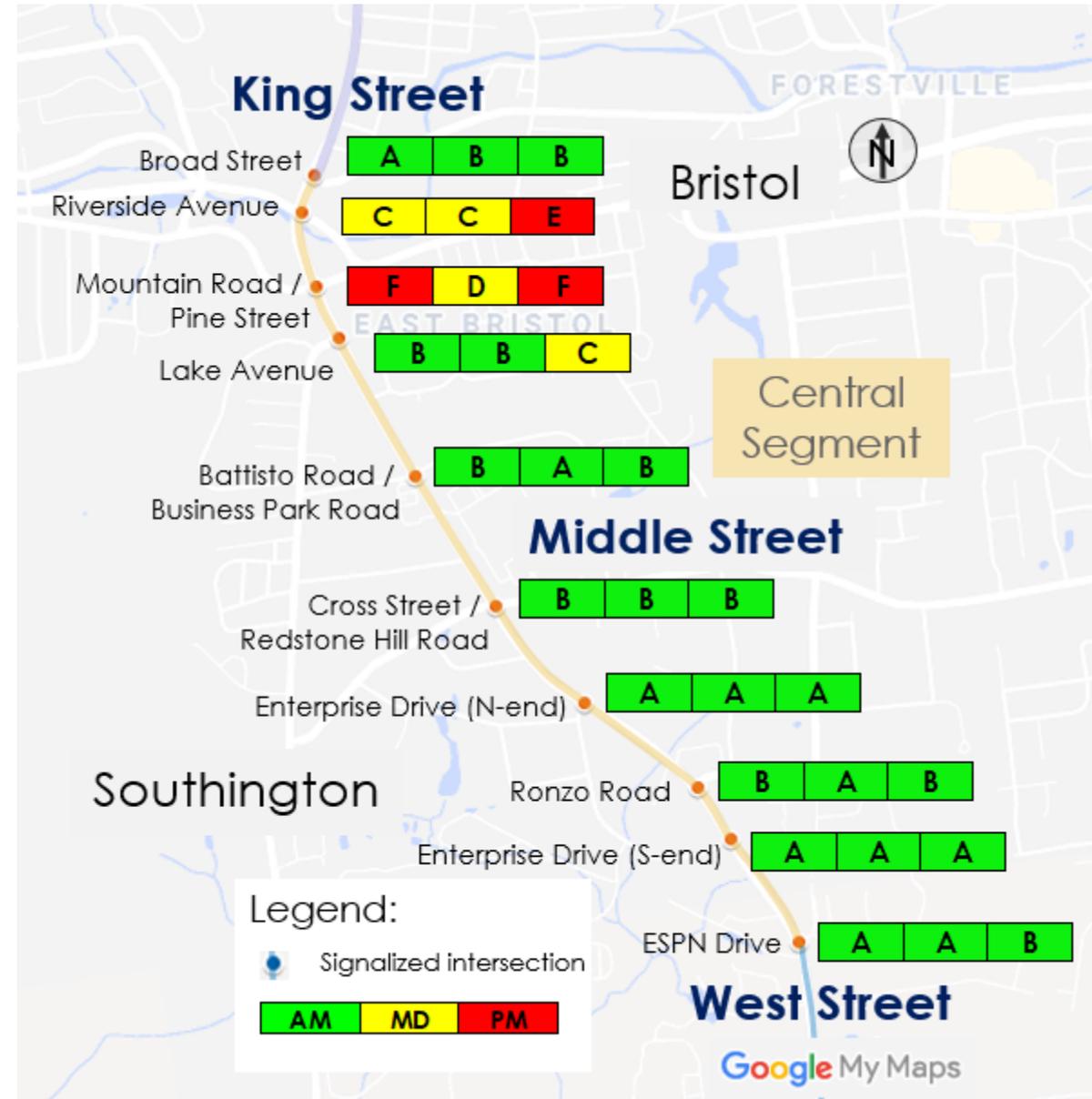


Central Segment



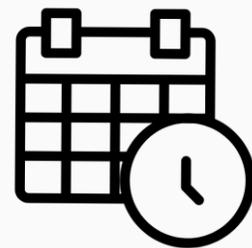
Traffic Operations Central Segment

<u>Level of Service</u>	<u>Average Control Delay (seconds per vehicle)</u>
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80



Next Steps

- Public survey and public outreach
 - Fall of 2021
- Alternative Analysis
 - (Selection of 10 locations)

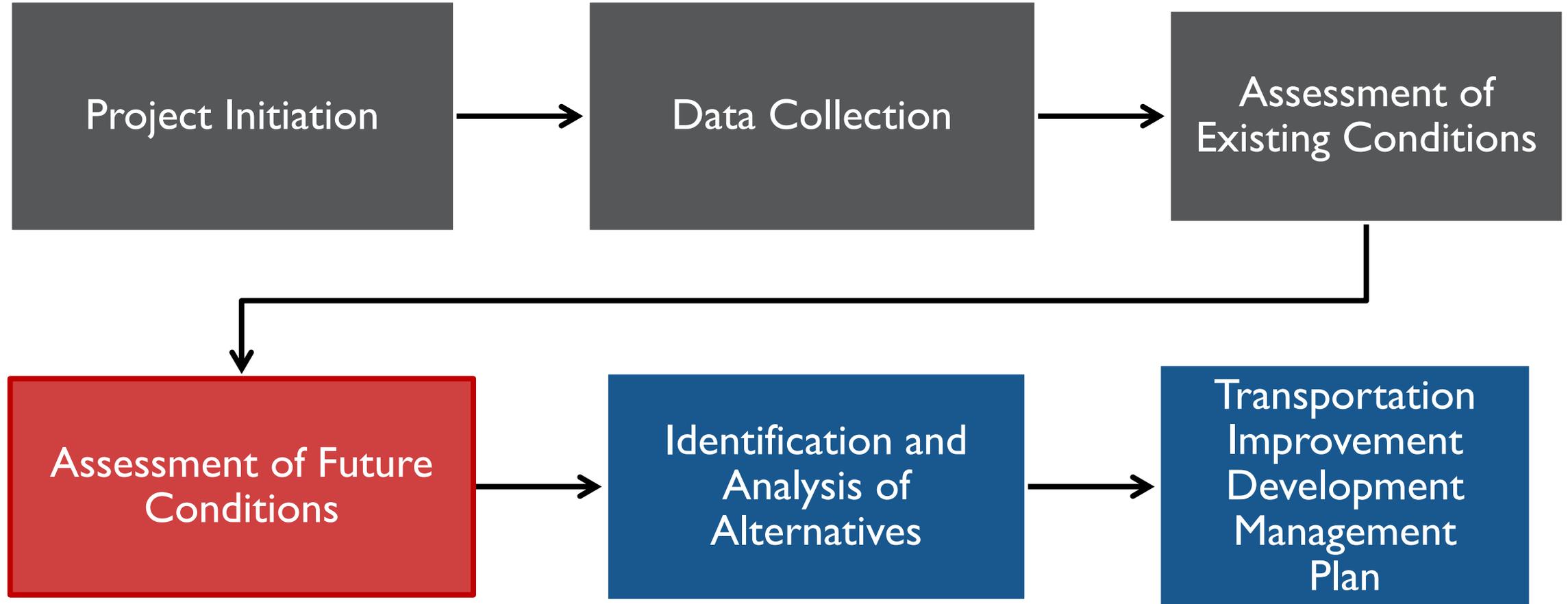


Possible Improvement Locations

- High Crash Rates and Fatality locations (next slide)
- Northern Segment: Exclusive left turn lanes
- Northern Segment: Continuous / improved pedestrian facilities
- Northern Segment: King Street @ Farmington Avenue
- Northern Segment: Bike Lane from Riverside Avenue to Lake Avenue
- Central Segment: Signal at Vincent P Kelly Road



Next Steps



Thank You for your time!



Any Questions?