CONNECT400

GA 400 TRANSIT INITIATIVE

Project Steering Committee
May 10, 2016

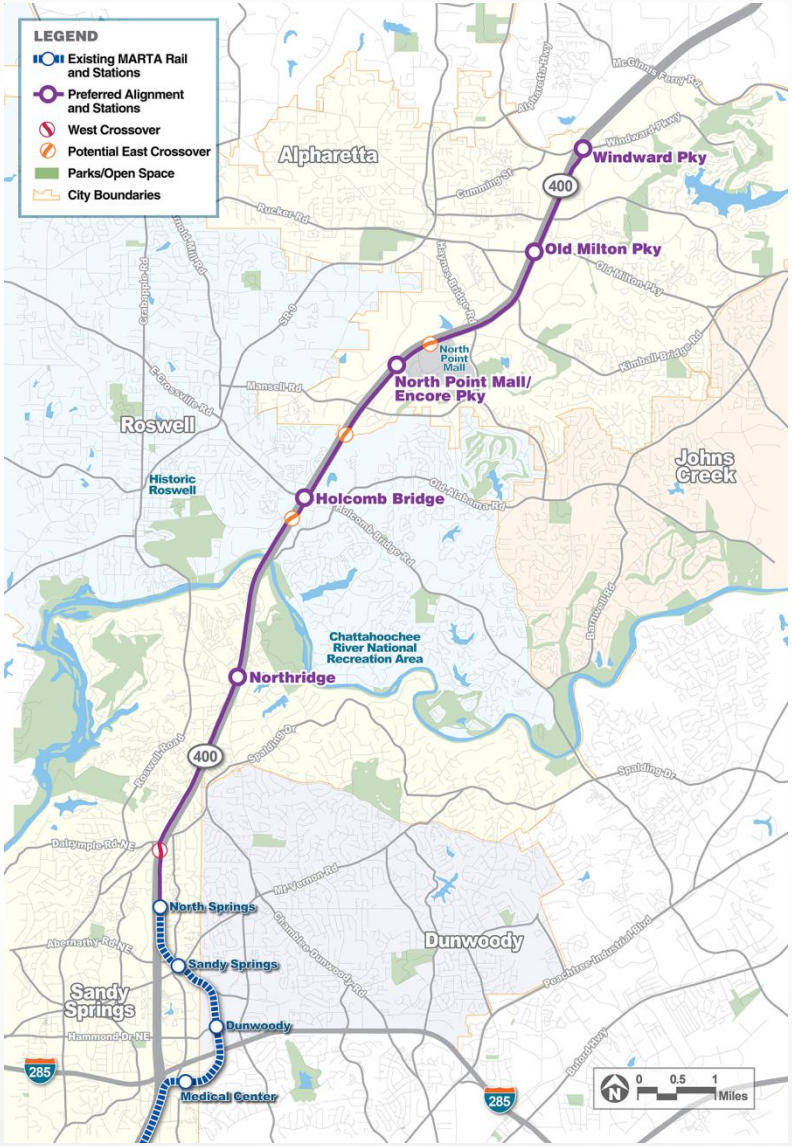
marta

Agenda

- Project Overview and Status
- Alternatives Considered
- Station Location Planning
- Environmental Studies
- Preliminary Ridership Analysis
- Preliminary Traffic Analysis
- Next Steps

CONNECT400
GA 400 TRANSIT INITIATIVE

Project Location and Background

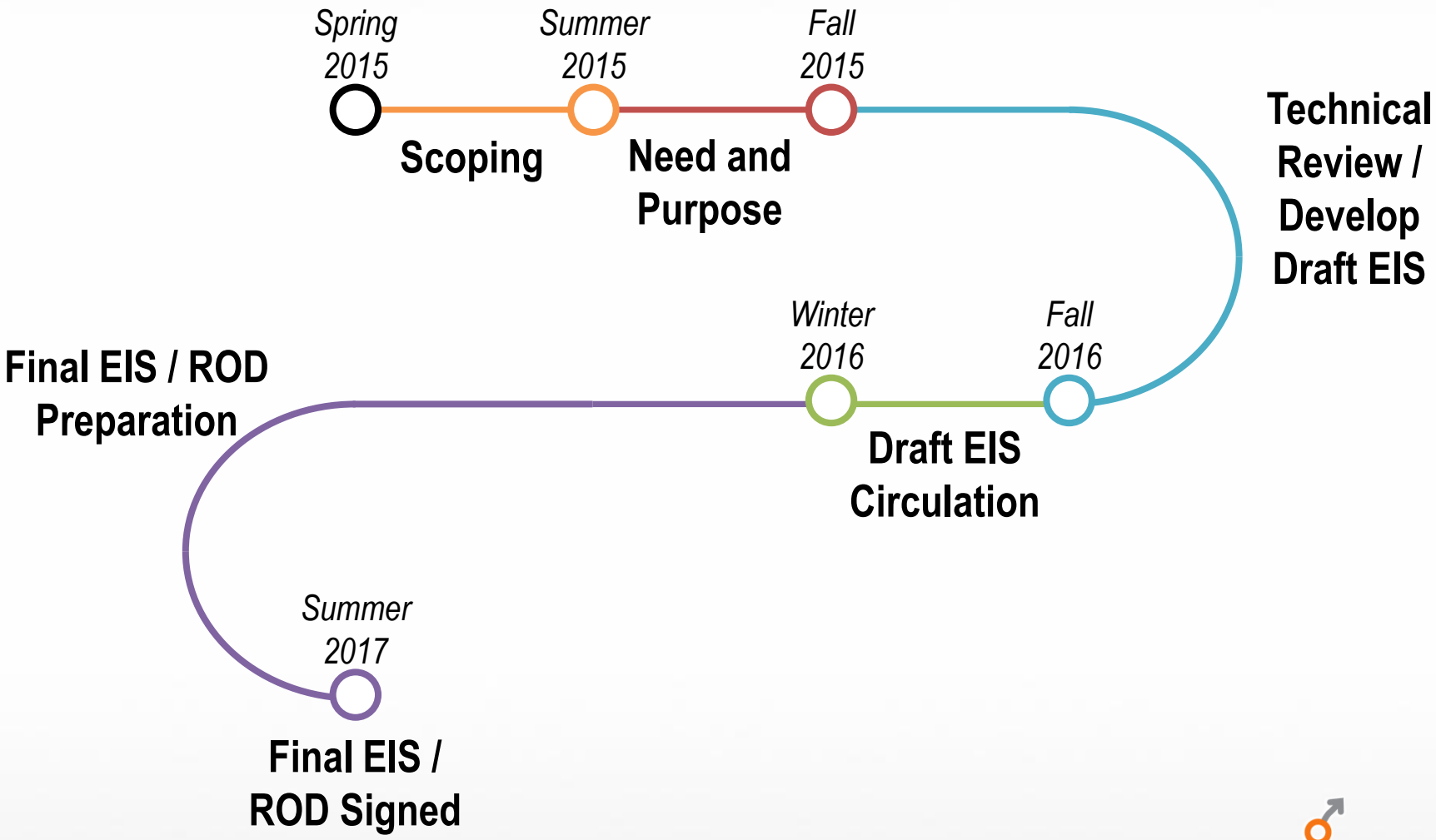


- Study Initiated in 2011
- 12 miles along GA 400
- Locally Preferred Alternative:
  - Heavy Rail Extension
  - East-West-East Alignment
  - 5 stations
    - Northridge Rd
    - Holcomb Bridge Rd
    - Encore Pkwy
    - Old Milton Pkwy
    - Windward Pkwy

CONNECT400
GA 400 TRANSIT INITIATIVE

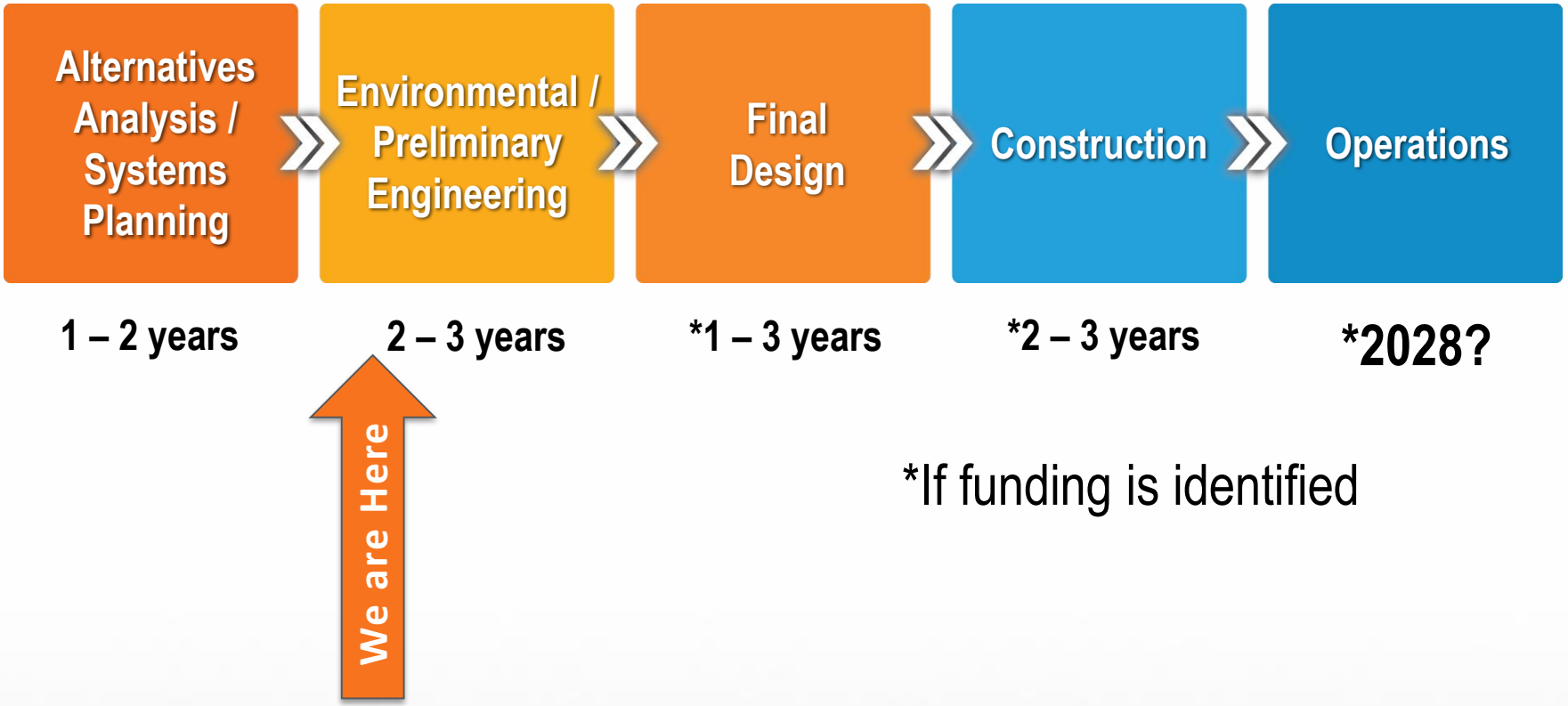
Environmental Schedule

Anticipated Milestones



Federal Project Development Process

Project Development: Typically 6 – 12 years



*If funding is identified

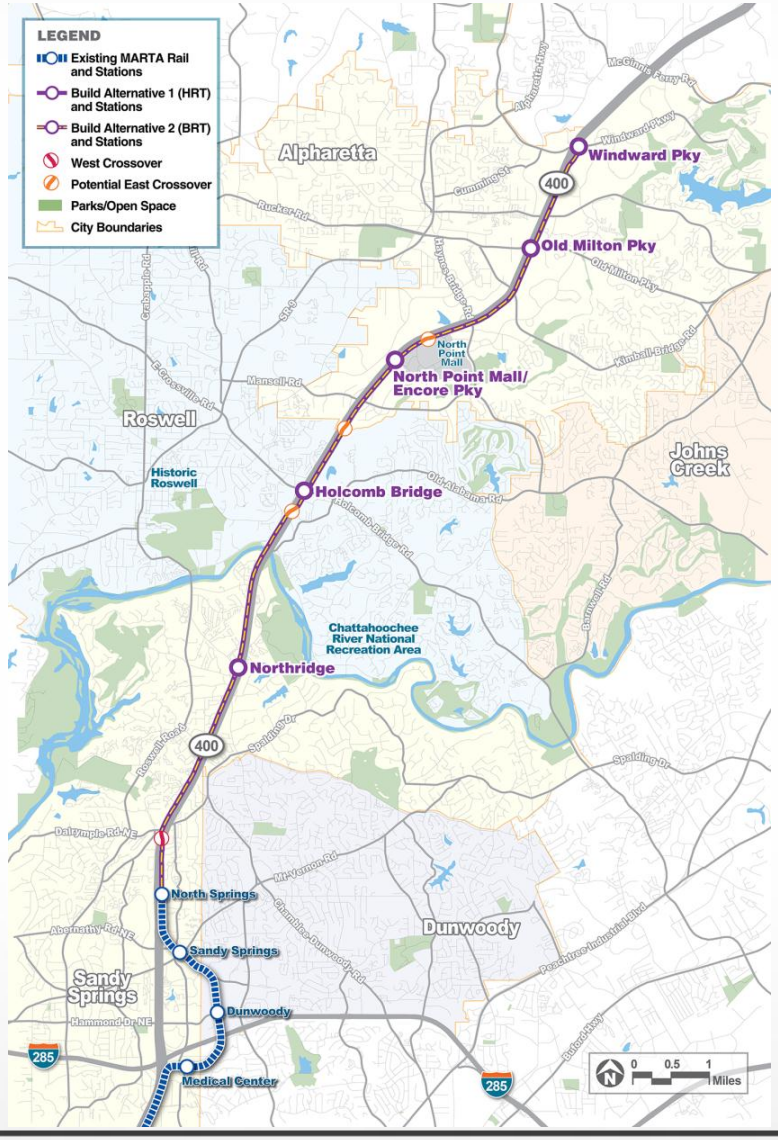
CONNECT400 GA 400 TRANSIT INITIATIVE

Project Scoping – Spring 2015

Public Meetings held to vet:

- Alternatives Under Consideration
- Purpose and Need
- Environmental Review Process

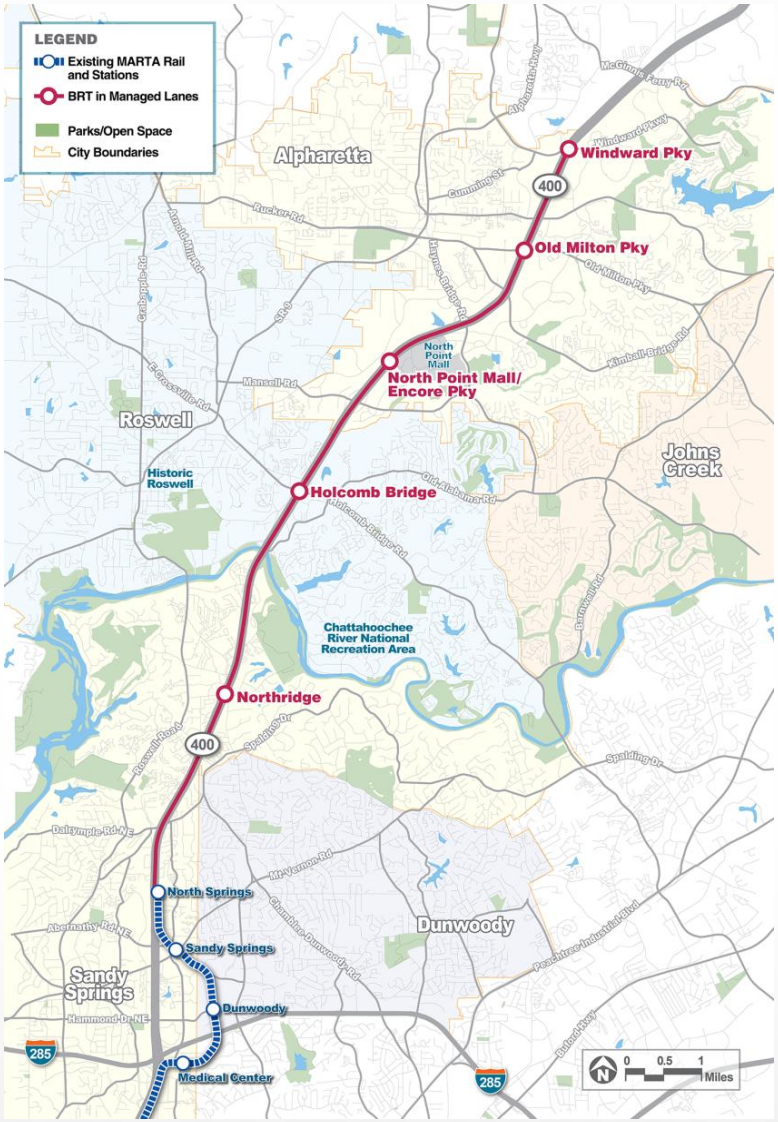
Alternatives Considered



- Build Alternative 1 – Heavy Rail (LPA)
- Build Alternative 2 – BRT in same alignment as LPA
- West crossover south of Spalding Drive
- East crossover north of Chattahoochee River
  - → Location to be determined as part of Draft EIS

CONNECT400
GA 400 TRANSIT INITIATIVE

Alternatives Considered (Continued)



- Build Alternative 3 – BRT in Future GA 400 Managed Lanes
- Enter managed lanes north of North Springs station
- Exit managed lanes near Windward Parkway

CONNECT400
GA 400 TRANSIT INITIATIVE

Project Need and Purpose

The Draft **Needs** of the Project are Based on:

- Increased Travel Demand and Congestion
- Limited Transit Mobility
- Transit Travel Times not Competitive with Auto Travel
- Congestion May Impact Future Economic Development Opportunities

The Proposed Project **Purpose** is to:

- Provide High Capacity Transit
- Expand Transit Coverage
- Improve Transit Connectivity
- Enhance Transit Accessibility
- Provide a Reliable Alternative to Automobile Travel

CONNECT400
GA 400 TRANSIT INITIATIVE

Station Location Planning

- Conducted a series of meetings with local governments and other key stakeholders in the corridor.
- Completed environmental field work and conceptual engineering revealing constraints and opportunities.
- Identified preferred station sites based on outcomes and revised preferred alignment.

CONNECT400
GA 400 TRANSIT INITIATIVE

Station Location Planning

Local Governments/ Stakeholders/Property Owners

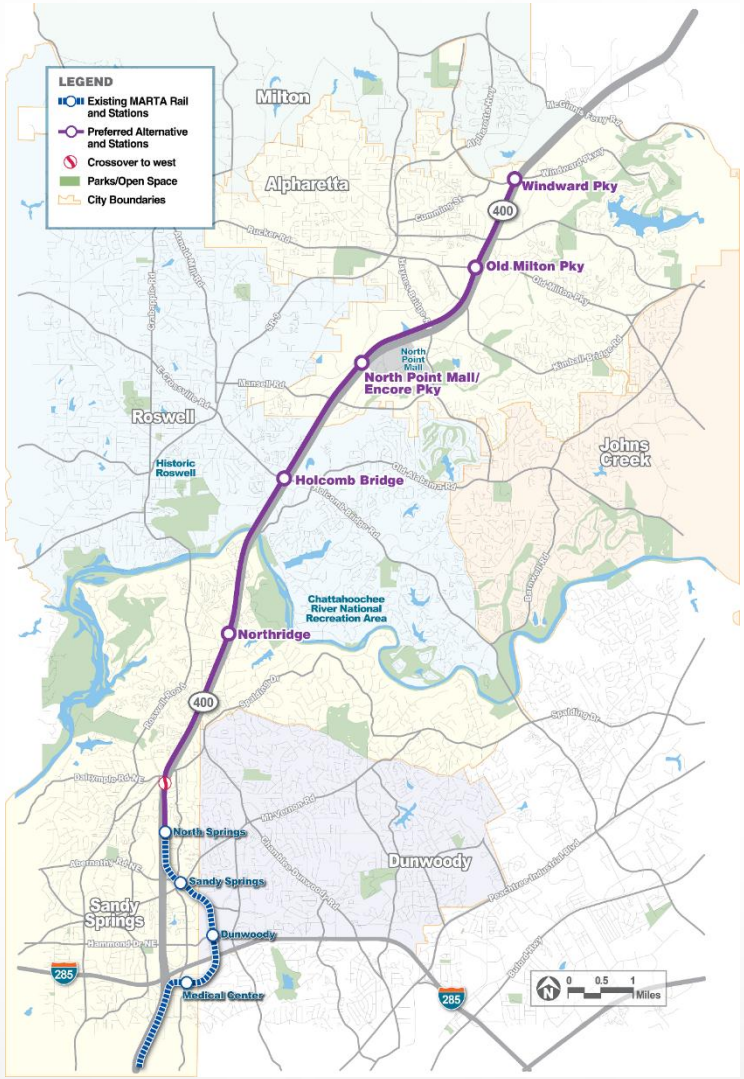
- City of Alpharetta
- City of Milton
- City of Roswell
- City of Sandy Springs
- North Fulton CID
- Duke Real Estate
- Transwestern
- North Point Mall
- Avalon
- Gwinnett Tech
- Global Venture Capital

+

Technical Analysis

- Environmental Field Assessment
  - Ecology
  - Cultural Resources
  - Traffic
  - Other
- Conceptual Engineering
  - Design Criteria

Station Location Planning



- Preferred Locations-
  - West crossover south of Spalding Drive
  - No crossover back to the East
  - 5 west side stations / some potential ped connections to the east
    - Northridge Rd
    - Holcomb Bridge Rd
    - Encore Pkwy
    - Old Milton Pkwy
    - Windward Pkwy

CONNECT400
GA 400 TRANSIT INITIATIVE

Draft Environmental Impact Statement

- Positive and negative environmental impacts of each alternative
- Mitigation strategies to address potential impacts
- Evidence of how each alternative can meet the purpose and need of the project
- Evaluation criteria to compare the performance of each alternative as they relate to goals and objectives

Resource Considerations

▪ Transportation	▪ Parks and Recreation Areas
▪ Land Use / Zoning	▪ Air Quality
▪ Neighborhoods and Communities	▪ Water Resources / Water Quality
▪ Acquisitions and Displacements	▪ Floodplains
▪ Environmental Justice	▪ Soils / Geology
▪ Economics	▪ Farmland
▪ Visual and Aesthetics	▪ Hazardous Materials
▪ Cultural Resources	▪ Energy
▪ Noise and Vibration	▪ Utilities
▪ Natural Resources	▪ Construction Impacts
▪ Safety and Security	▪ Other Impacts

Traffic Analysis Methodology

Run ARC's Activity-based model and Set up network

- Determine ridership
- Establish project-wide peak period factors
- Add transit & park-and-ride trips

Conduct intersection operations analysis

- Gather data and collect turning movement counts
- Perform SYNCHRO analysis for future No-build and Build scenarios

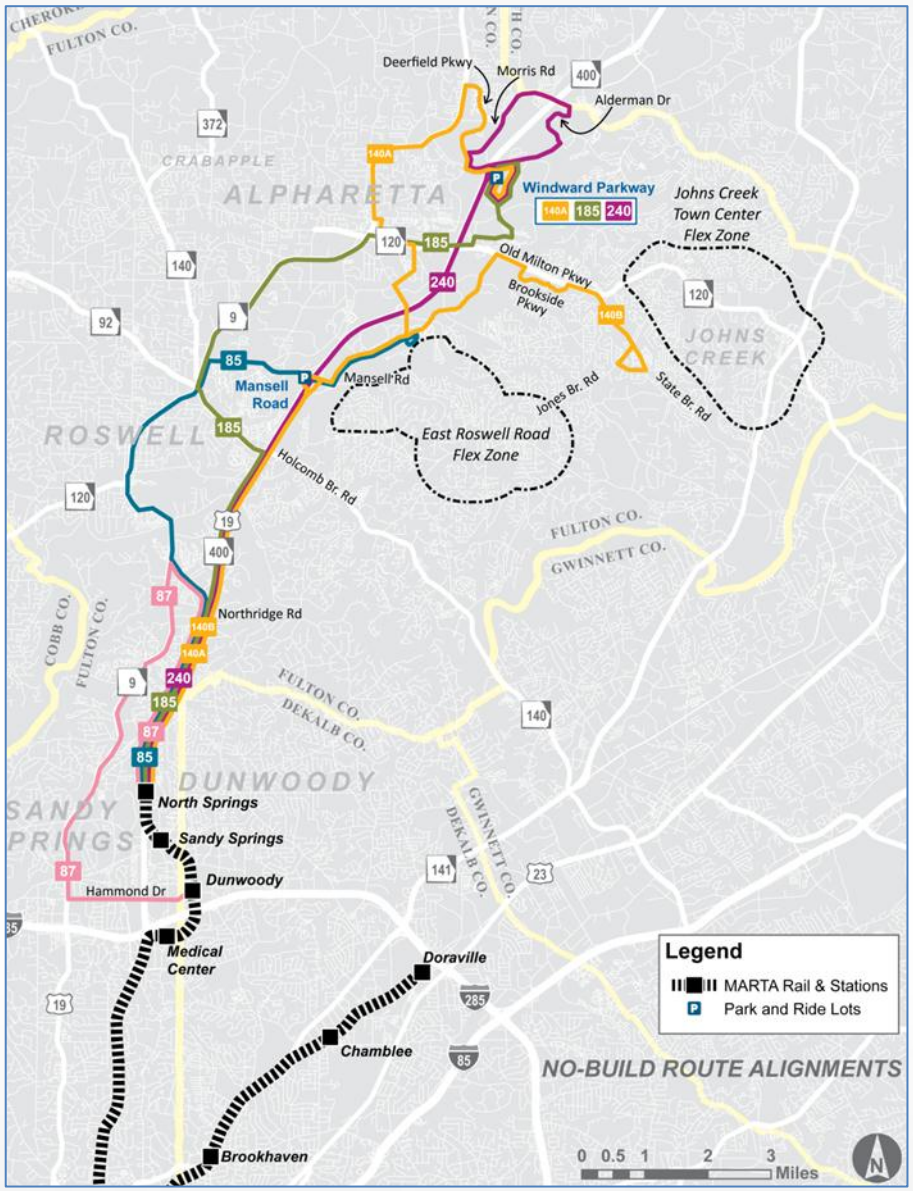
Compare scenarios and Propose mitigation options

- Compare intersection LOS and delays
- Identify preliminary planning level recommendations

Proposed Operating Plans

Alternatives	Peak Period Headway	Off-Peak Headway
HRT	10 minutes	12 minutes
BRT in Exclusive Lane	5 minutes	12 minutes
BRT in Managed Lane	5 minutes	12 minutes

2040 No Build - Local Bus Route Assumptions

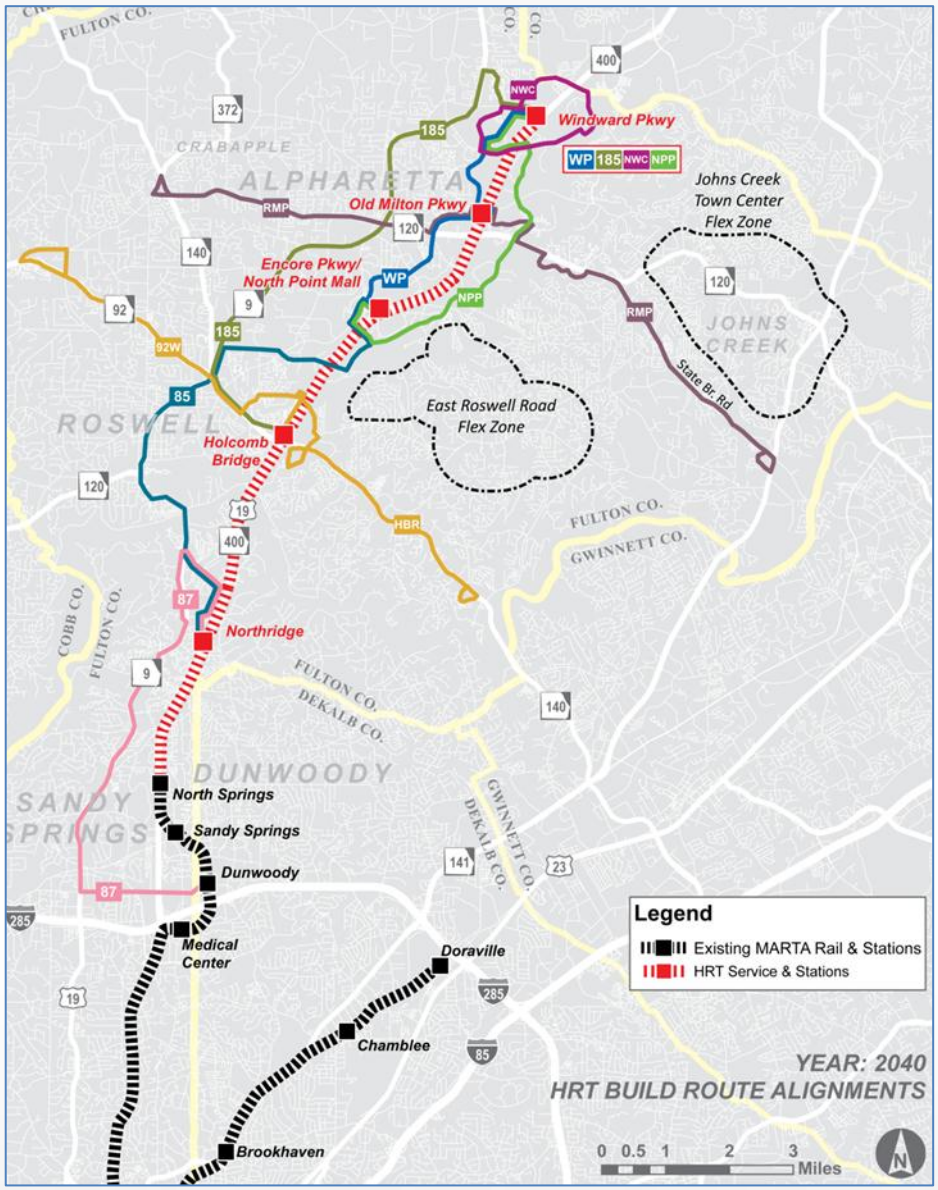


Proposed routes are based on

- MARTA Comprehensive Operations Analysis (COA)
- GRTA COA

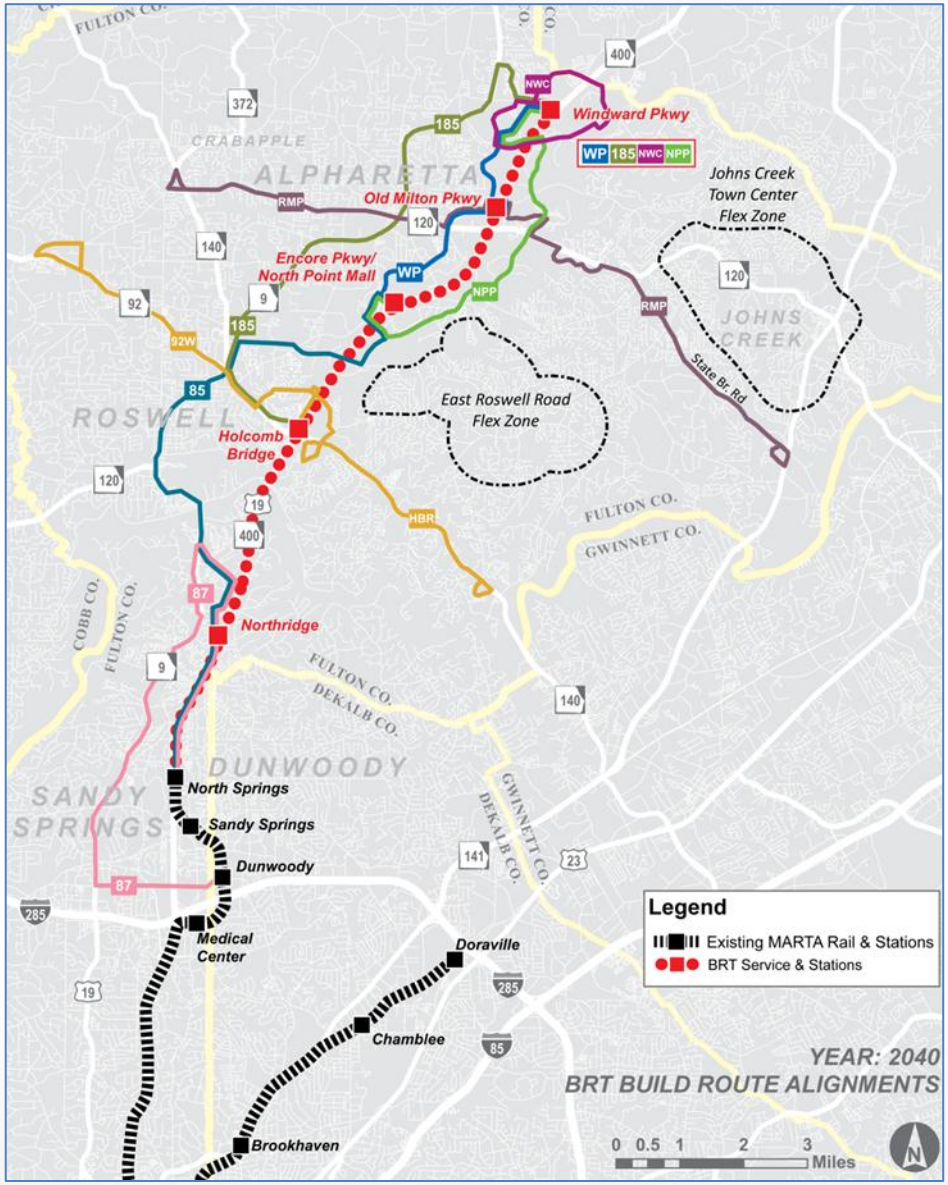
CONNECT400
GA 400 TRANSIT INITIATIVE

2040 HRT – Local Bus Route Assumptions



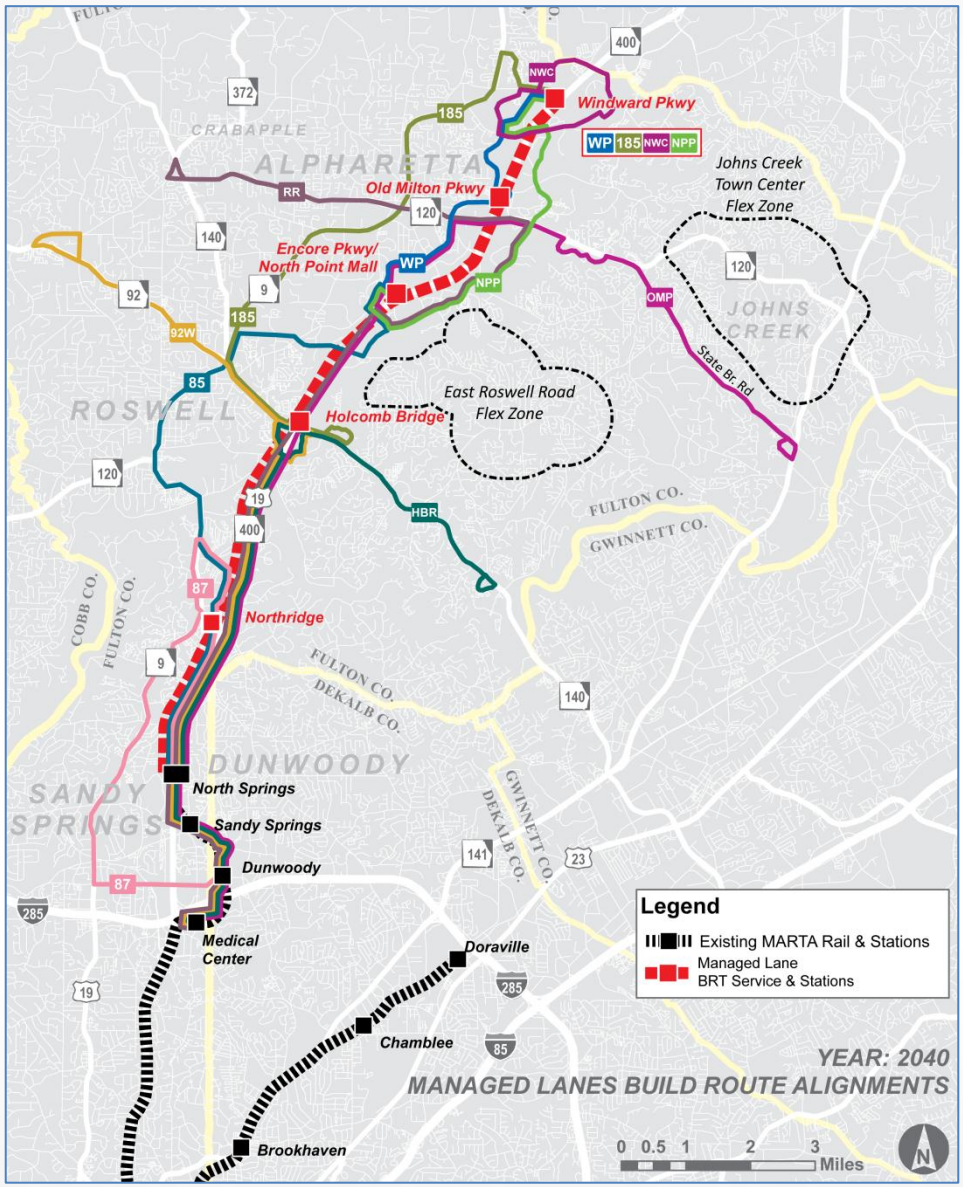
CONNECT400
GA 400 TRANSIT INITIATIVE

2040 BRT – Local Bus Route Assumptions



CONNECT400
GA 400 TRANSIT INITIATIVE

2040 BRT in Managed Lane- Local Bus Routes



CONNECT400
GA 400 TRANSIT INITIATIVE

Preliminary Daily Ridership Forecasts

Alternatives	2040 (Design Year)
HRT	40,000
BRT in Exclusive Lane	18,500
BRT in Managed Lane	17,600

Source: ARC ABM Model

CONNECT400
GA 400 TRANSIT INITIATIVE

Mode of Access Percentage (Daily Transit Trips)

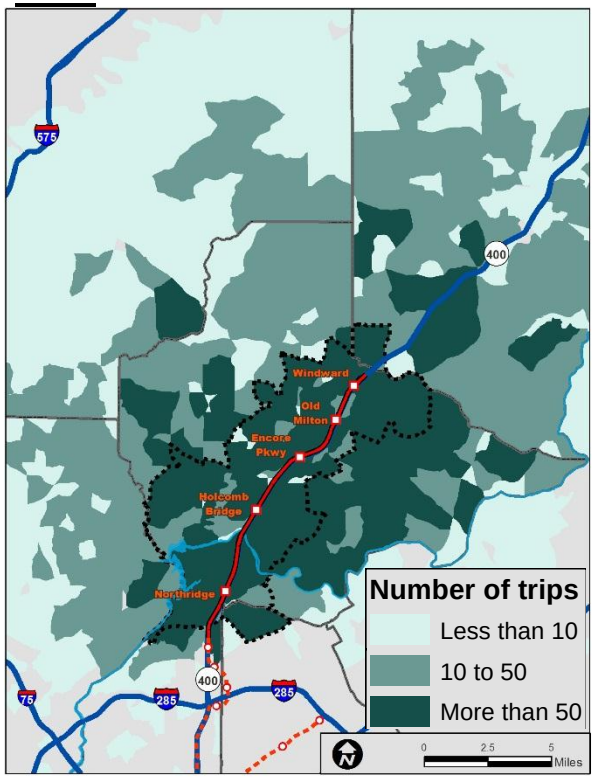
Build Alternatives	Walk	Kiss and Ride	Park and Ride	Bus Transfer
HRT - All Stations (North Springs to Windward)	18%	18%	36%	28%
BRT in Exclusive Lane All BRT Stations	10%	9%	15%	66%
BRT in Managed Lane All BRT Stations	12%	11%	13%	63%

Source: ARC ABM Model

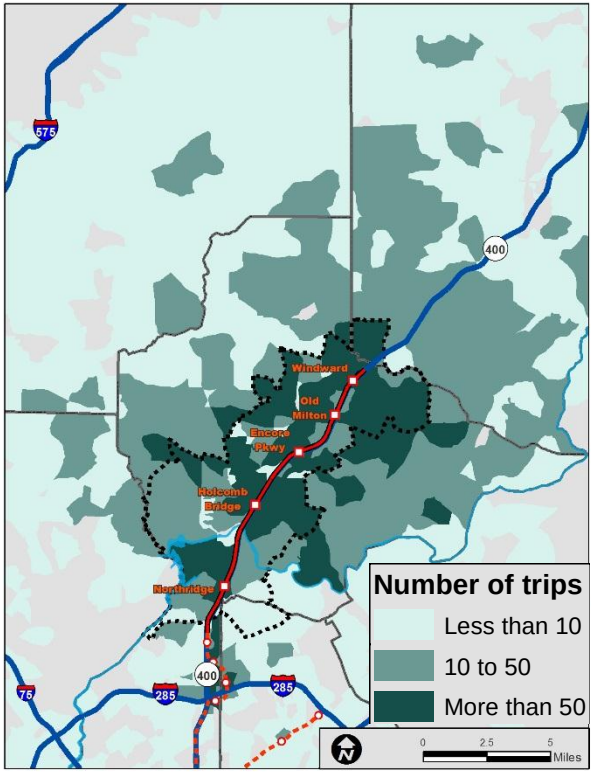
*Larger market area under HRT Alternative

Travel Market Area

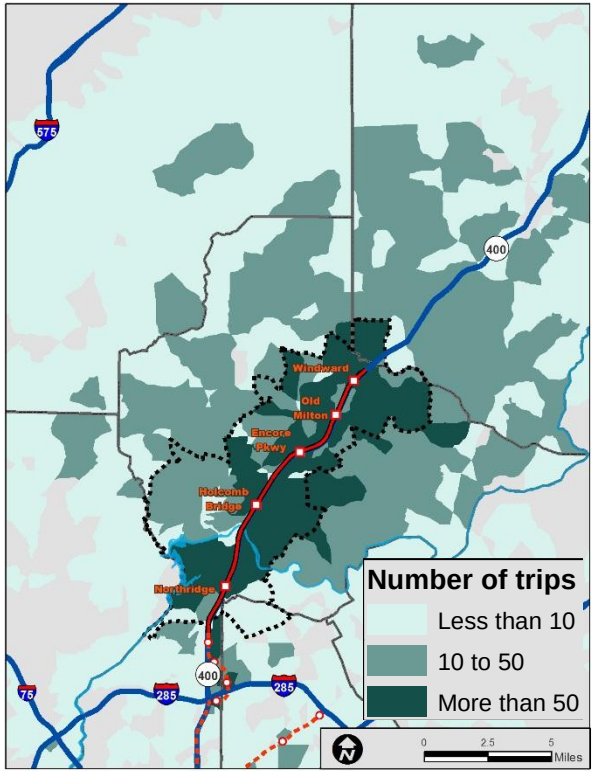
HRT



BRT in Exclusive Lane



BRT in Managed Lane

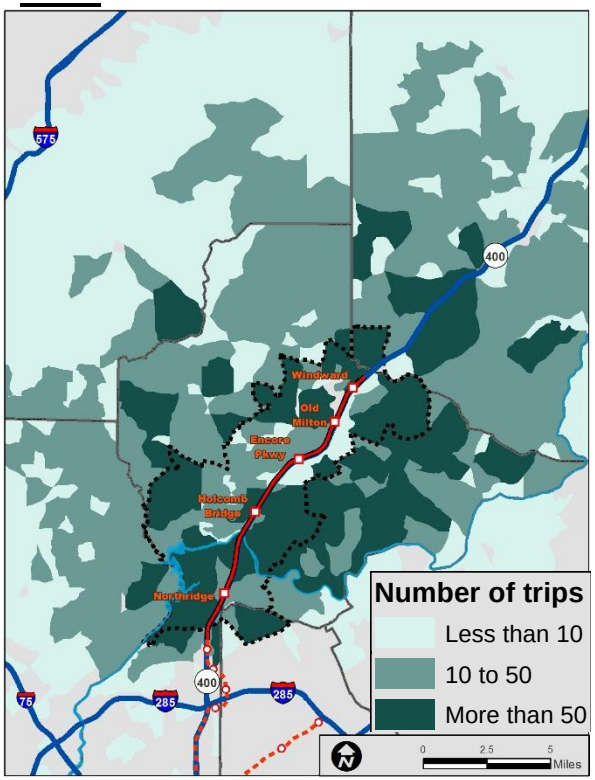


- Larger market area under HRT Alternative
- Trips were more concentrated in GA 400 under BRT Alternatives

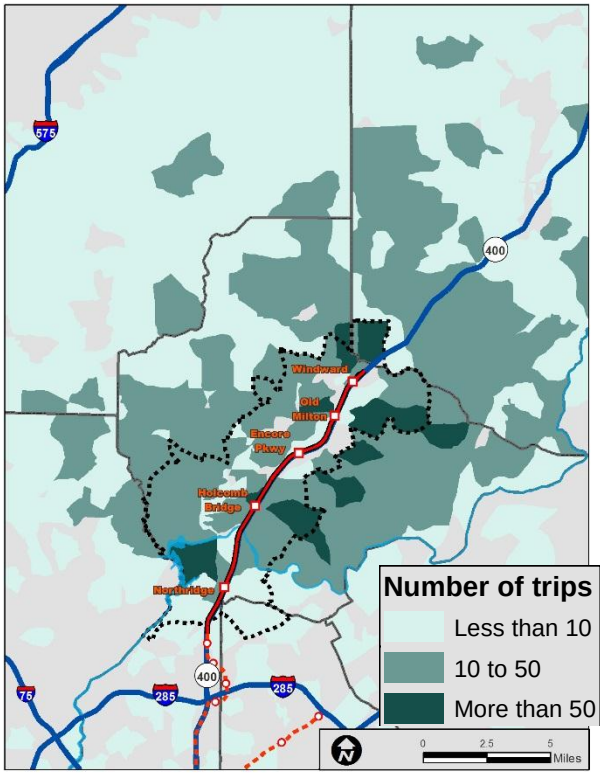
CONNECT400
GA 400 TRANSIT INITIATIVE

Drive Sheds

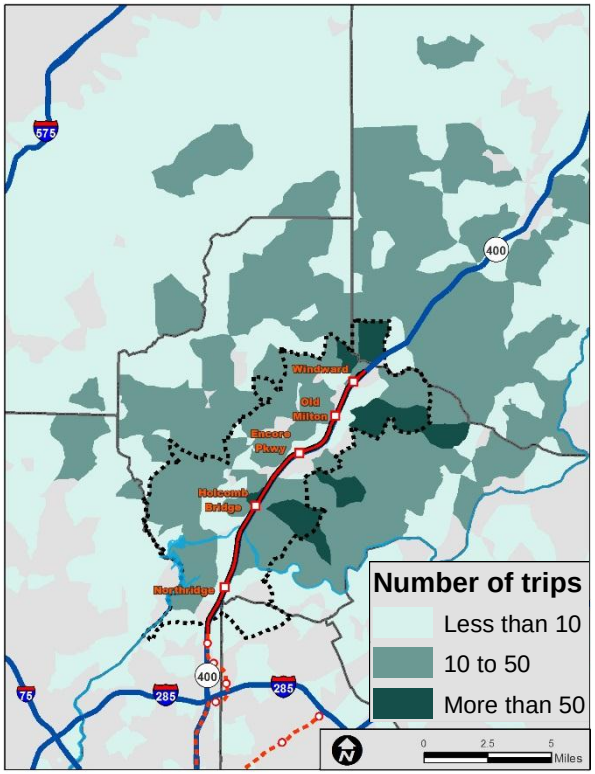
HRT



BRT in Exclusive Lane

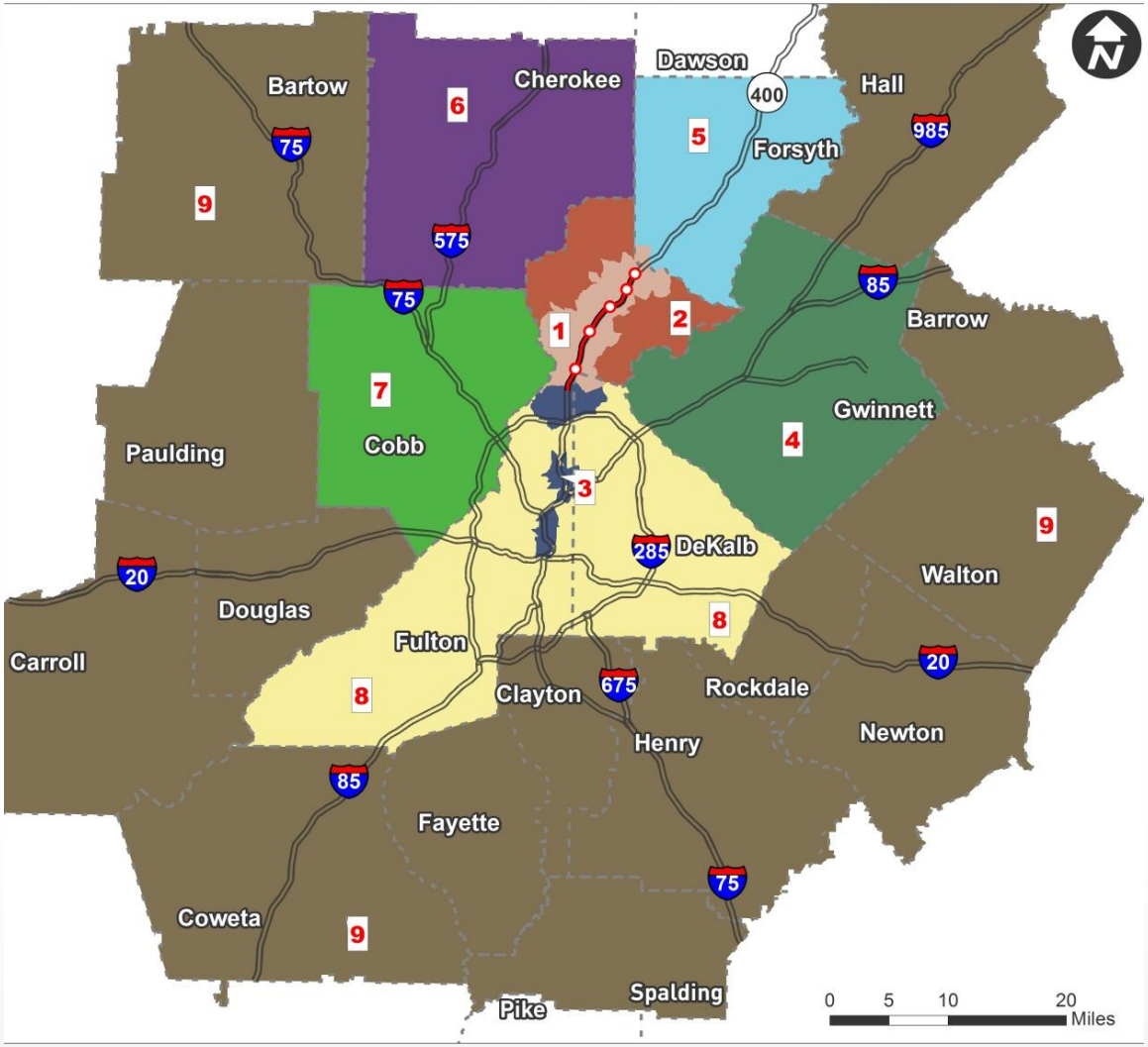


BRT in Managed Lane



CONNECT400
GA 400 TRANSIT INITIATIVE

GA 400 Districts Map



Legend

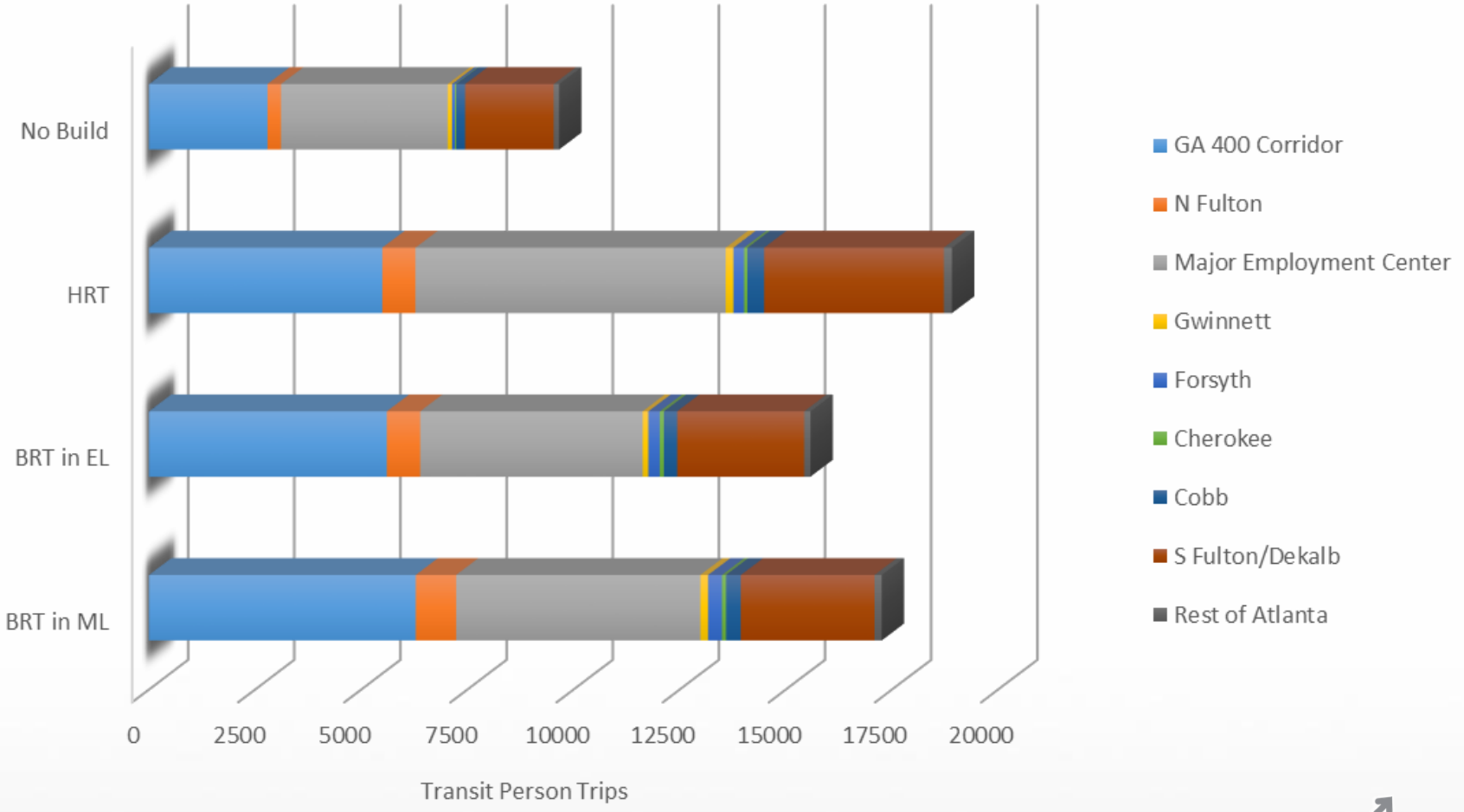
- HRT Stations
- HRT Alignment
- Expressways
- Counties

Districts

- 1: GA 400 Corridor
- 2: Rest of North Fulton
- 3: Buckhead/Midtown/Downtown
- 4: Gwinnett
- 5: Forsyth
- 6: Cherokee
- 7: Cobb
- 8: South Fulton/Dekalb
- 9: Rest of Atlanta Region

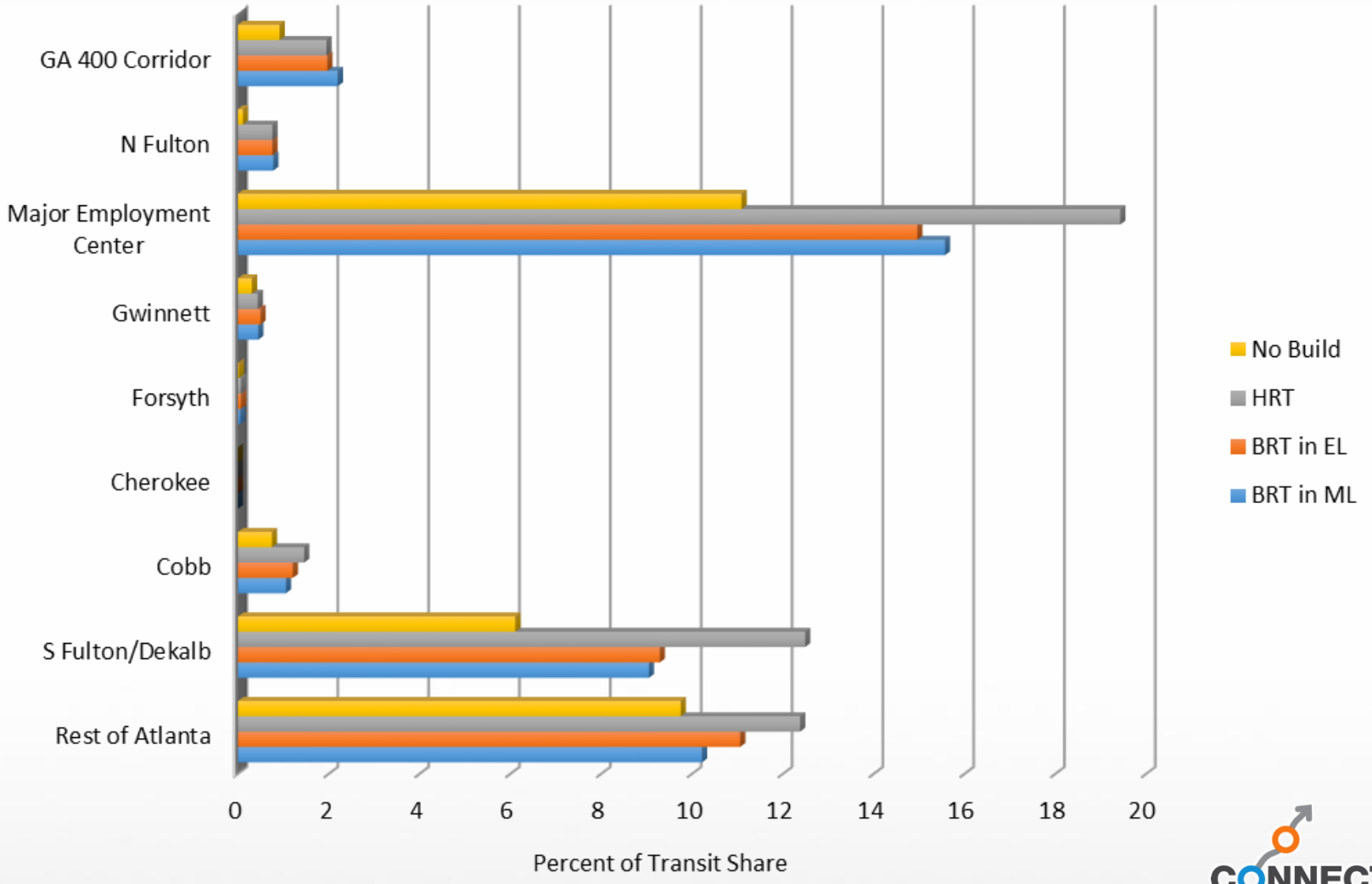
CONNECT400
GA 400 TRANSIT INITIATIVE

Distribution of Transit Person Trips Originated in GA 400 Corridor



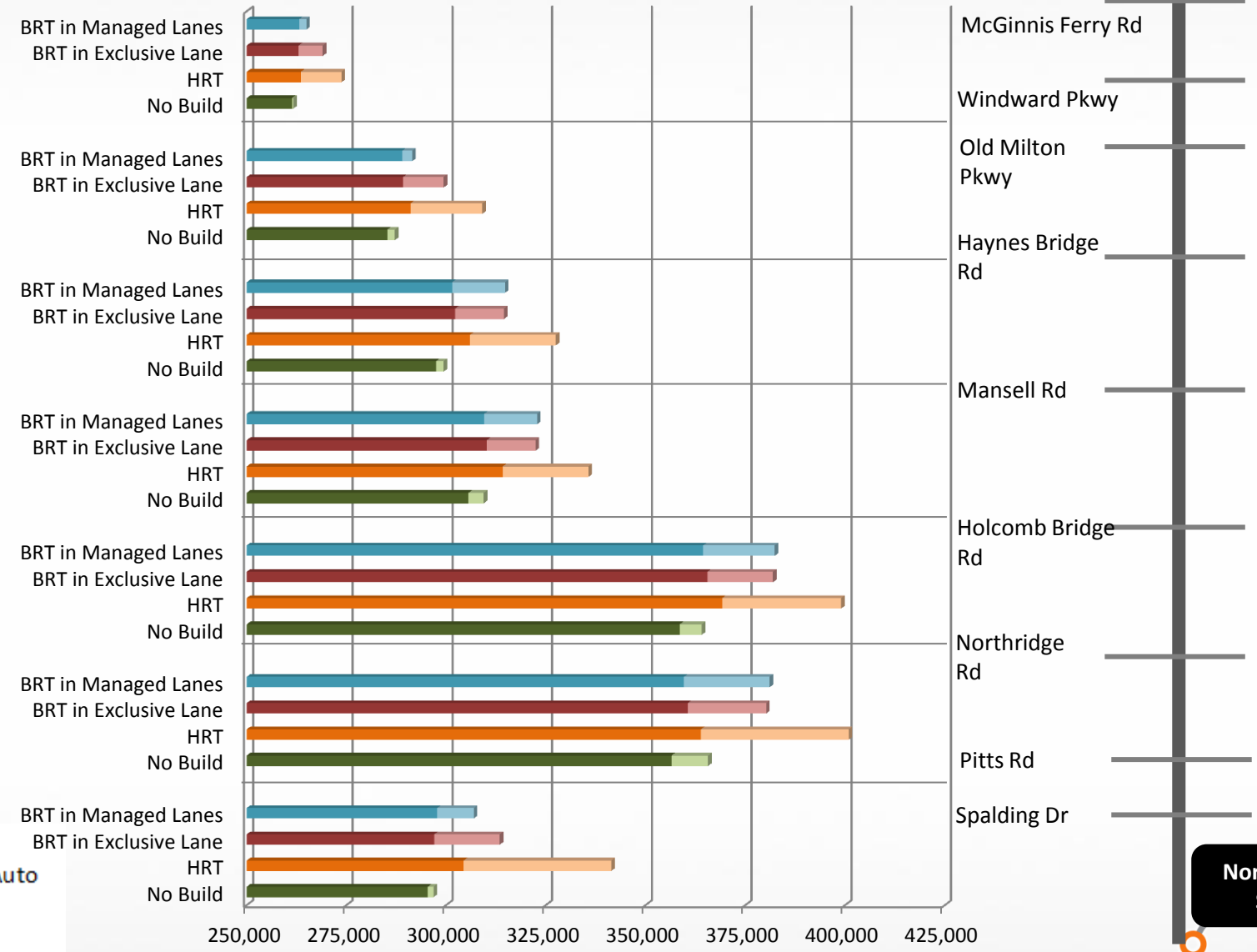
CONNECT400
GA 400 TRANSIT INITIATIVE

Transit Mode Share for Trips Originated in GA 400 Corridor



CONNECT400
GA 400 TRANSIT INITIATIVE

Person Throughput on GA 400 in 2040



Total Person Throughput in Auto Vehicles

Total Person Throughput in Transit Vehicles

North Springs Station

CONNECT400
GA 400 TRANSIT INITIATIVE

Build 2040 Daily and Peak Hour No. of Buses

Station and Routes	HRT Daily (Hourly in Peak Period)	BRT in EL Daily (Hourly in Peak Period)	BRT in ML Daily (Hourly in Peak Period)
Northridge Rd Rt 85 · Rt 87	237 (7)	237 (7)	237 (7)
Holcomb Bridge Rd Rt 185 · Hwy 92 · Holcomb Bridge Rd	148 (5)	148 (5)	206 (7)
North Point Mall/Encore Pkwy Rt 85 · North Pt. Pkwy · Westside Pkwy	294 (9)	294 (9)	294 (9)
Old Milton Pkwy Rucker/Old Milton Pkwy · North Pt. Pkwy · Westside Pkwy · Old Milton	262 (8)	262 (8)	320 (10)
Windward Pkwy Rt 185 · North Pt. Pkwy · Westside Pkwy · N. Windward Cir	364 (12)	364 (12)	364 (12)

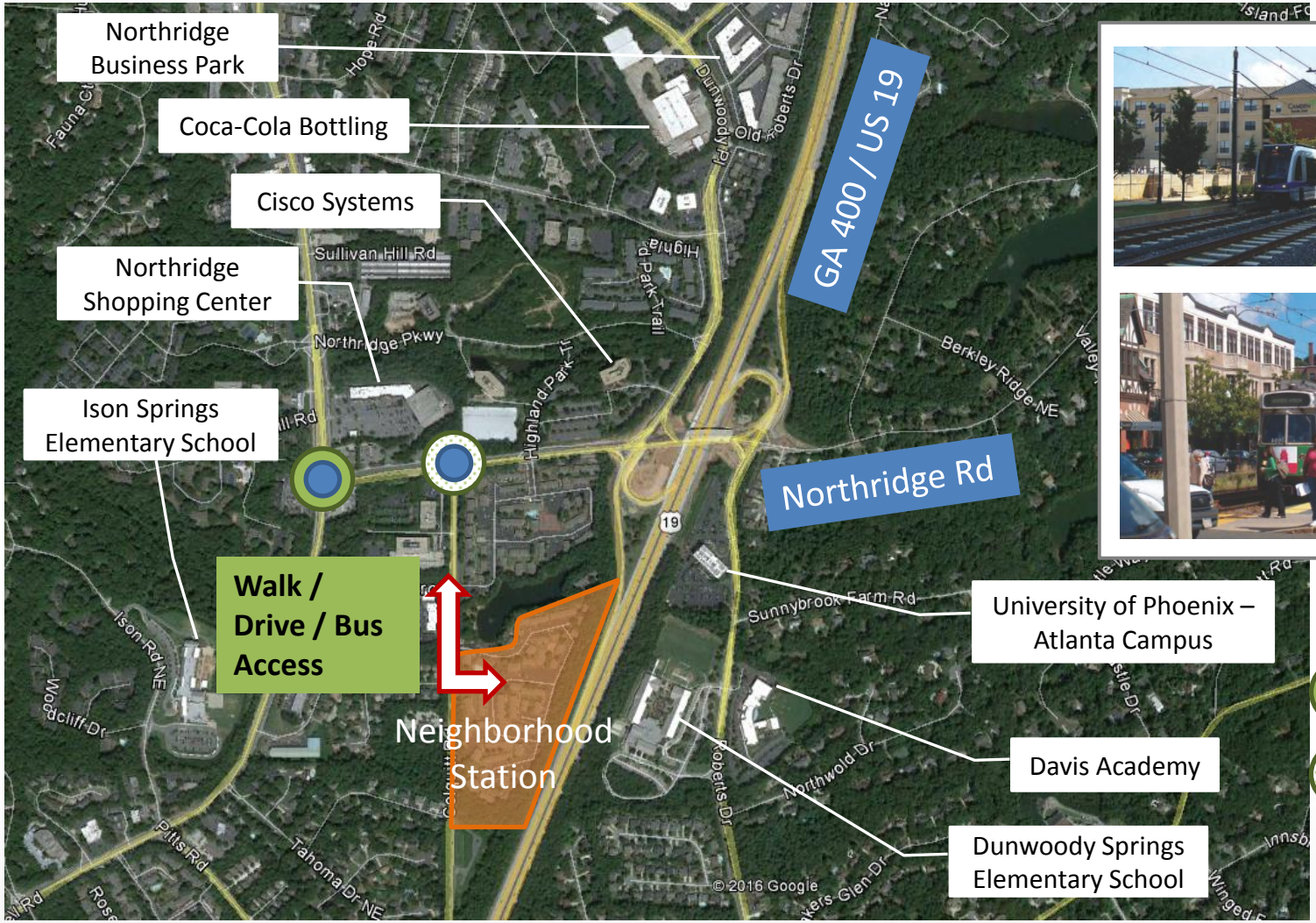
Route for BRT in ML only

*AM Peak: Before 9:00AM

*PM Peak: 3:00 - 6:30PM

CONNECT400
GA 400 TRANSIT INITIATIVE

Northridge Road Station



Existing Condition

- Bike/ped all directions
- Bike/ped partial

Source: Google Earth

CONNECT400 GA 400 TRANSIT INITIATIVE

Northridge Road Station - Layout

Source: Google Earth

Facility	HRT	BRT in Exclusive Lane	BRT in Managed Lanes
Parking Demand (Peak - Daily)	1100 - 1250	200 - 250	0 - 100
Peak Period Kiss & Ride Demand	20	5	5
# of bus bays	2	2	2

*Demand for Kiss & Ride (KNR) spaces was estimated based on number of peak period KNR trips per train as forecast by the travel demand model.

CONNECT400
GA 400 TRANSIT INITIATIVE

Northridge Road – Existing GDOT Projects

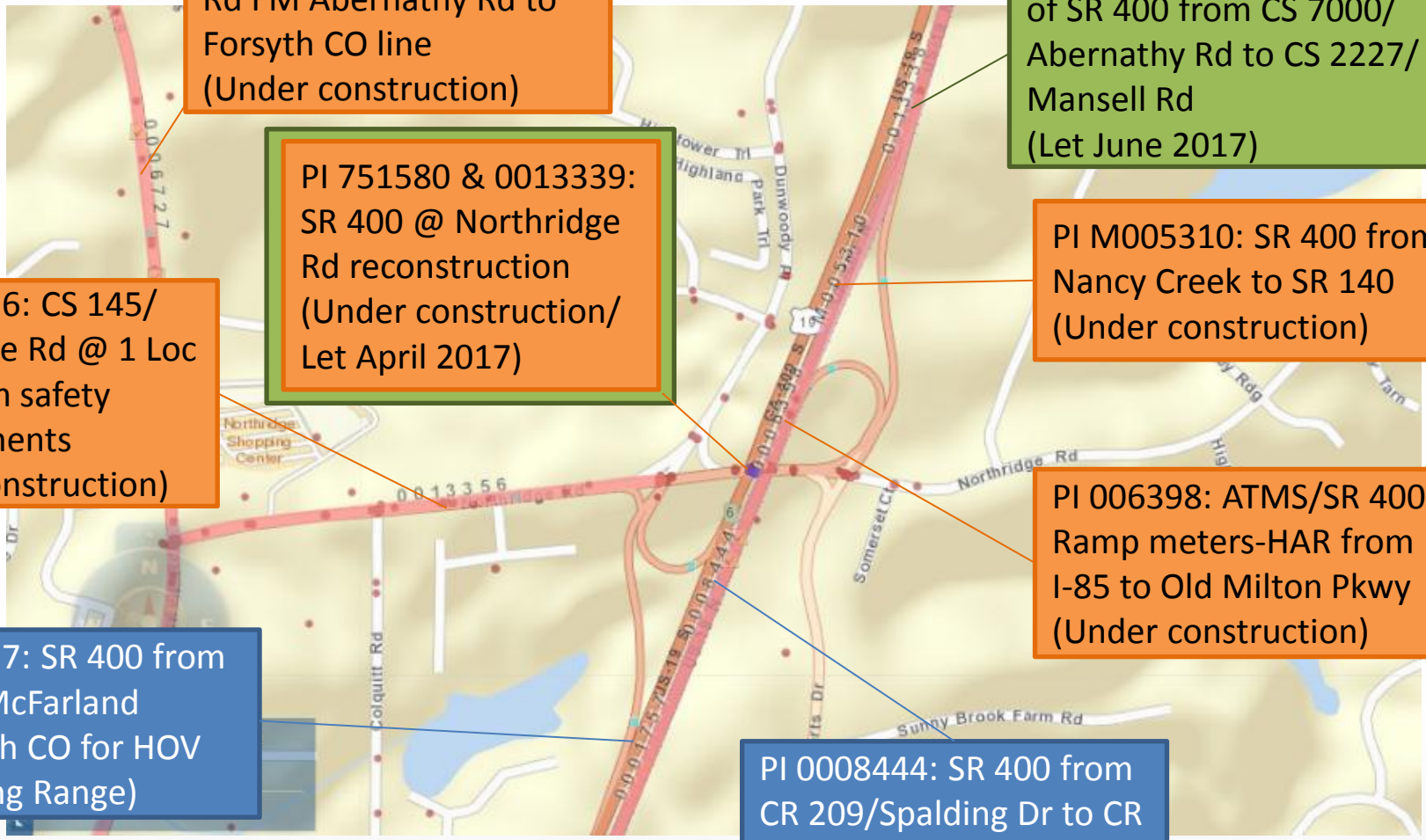
PI 0006727: SR 9/Roswell Rd FM Abernathy Rd to Forsyth CO line (Under construction)

PI 001338: Reconstruction of SR 400 from CS 7000/ Abernathy Rd to CS 2227/ Mansell Rd (Let June 2017)

PI 751580 & 0013339: SR 400 @ Northridge Rd reconstruction (Under construction/ Let April 2017)

PI M005310: SR 400 from Nancy Creek to SR 140 (Under construction)

PI 0013356: CS 145/ Northridge Rd @ 1 Loc off-system safety improvements (Under construction)



PI 006398: ATMS/SR 400 Ramp meters-HAR from I-85 to Old Milton Pkwy (Under construction)

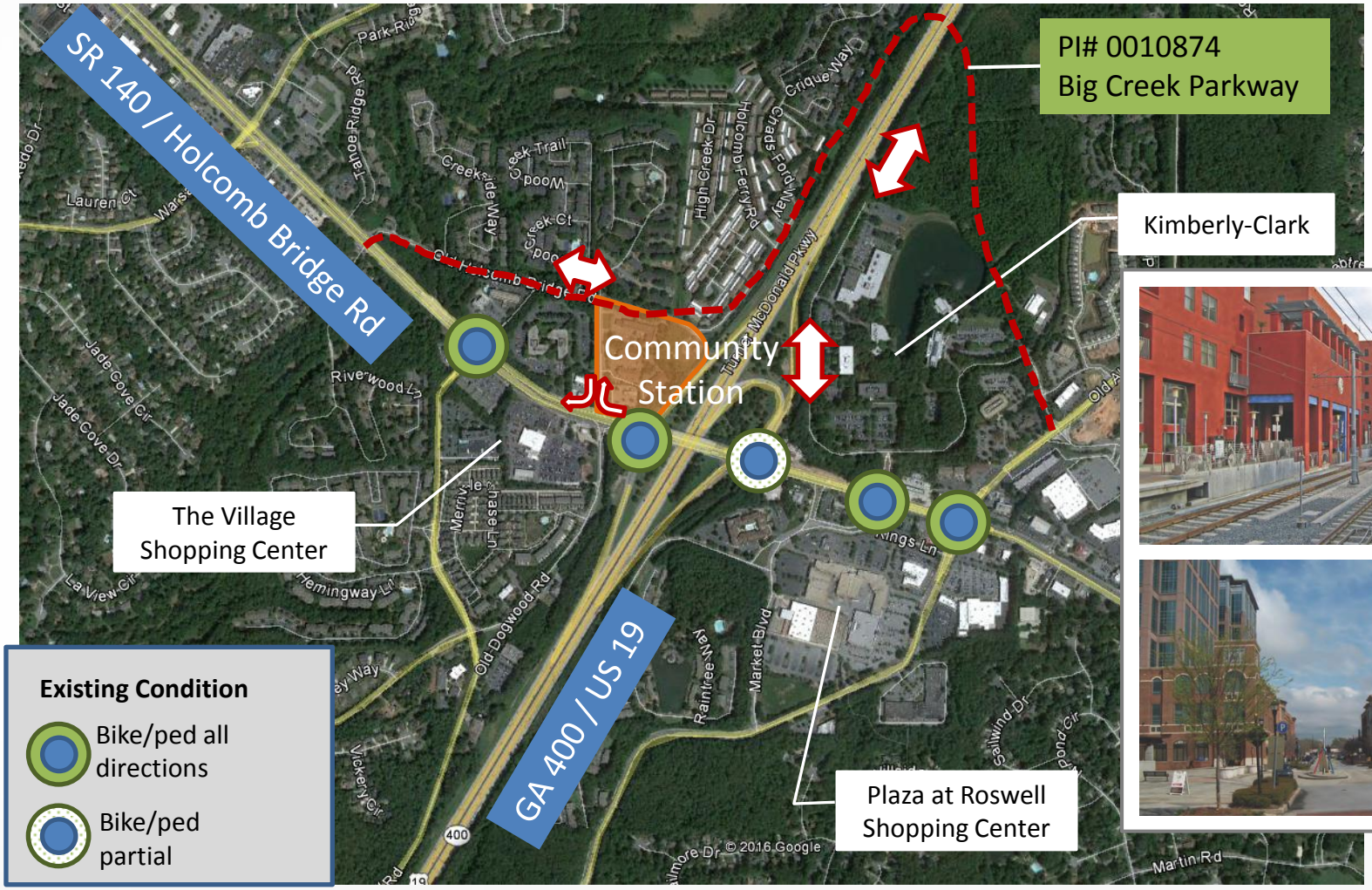
PI 0001757: SR 400 from I-285 to McFarland Rd/Forsyth CO for HOV lanes (Long Range)

PI 0008444: SR 400 from CR 209/Spalding Dr to CR 458/McFarland Rd (Long Range)

Source: GDOT GeoTRAQS (Online Mapping)

CONNECT400 GA 400 TRANSIT INITIATIVE

Holcomb Bridge Road Station



Source: Google Earth

CONNECT400
GA 400 TRANSIT INITIATIVE

Holcomb Bridge Road Station - Layout

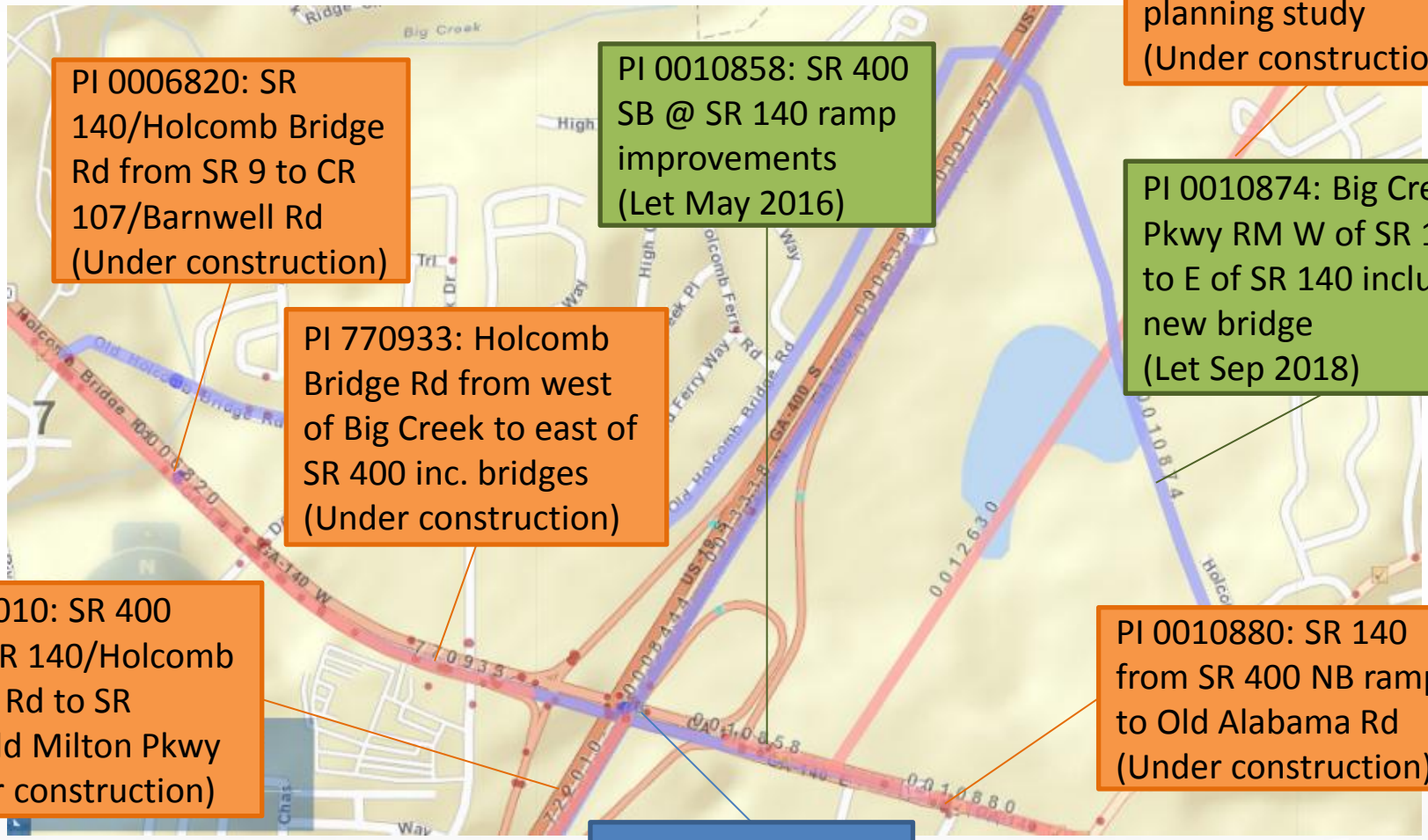
Facility	HRT	BRT in Exclusive Lane	BRT in Managed Lanes
Parking Demand (Peak - Daily)	2000 - 2300	1000 - 1100	600 - 700
Peak Period Kiss & Ride Demand	40	10	10
# of bus bays	2	2	5

Source: Google Earth

*Demand for Kiss & Ride (KNR) spaces was estimated based on number of peak period KNR trips per train as forecast by the travel demand model.

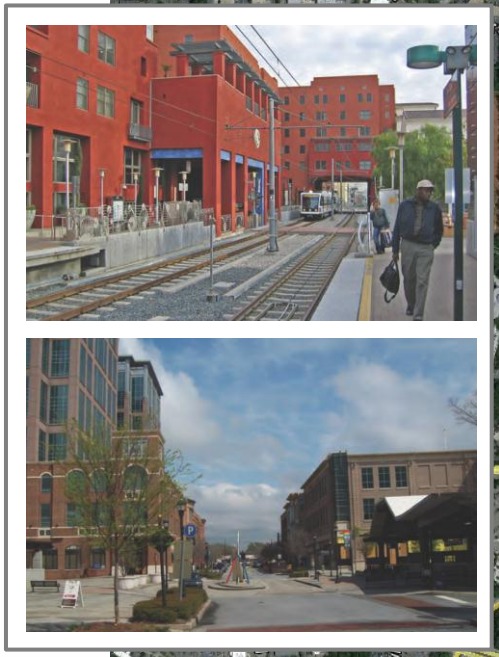
CONNECT400
GA 400 TRANSIT INITIATIVE

Holcomb Bridge Road – Existing GDOT Projects



Source: GDOT GeoTRAQS (Online Mapping)

North Point Mall / Encore Parkway Station



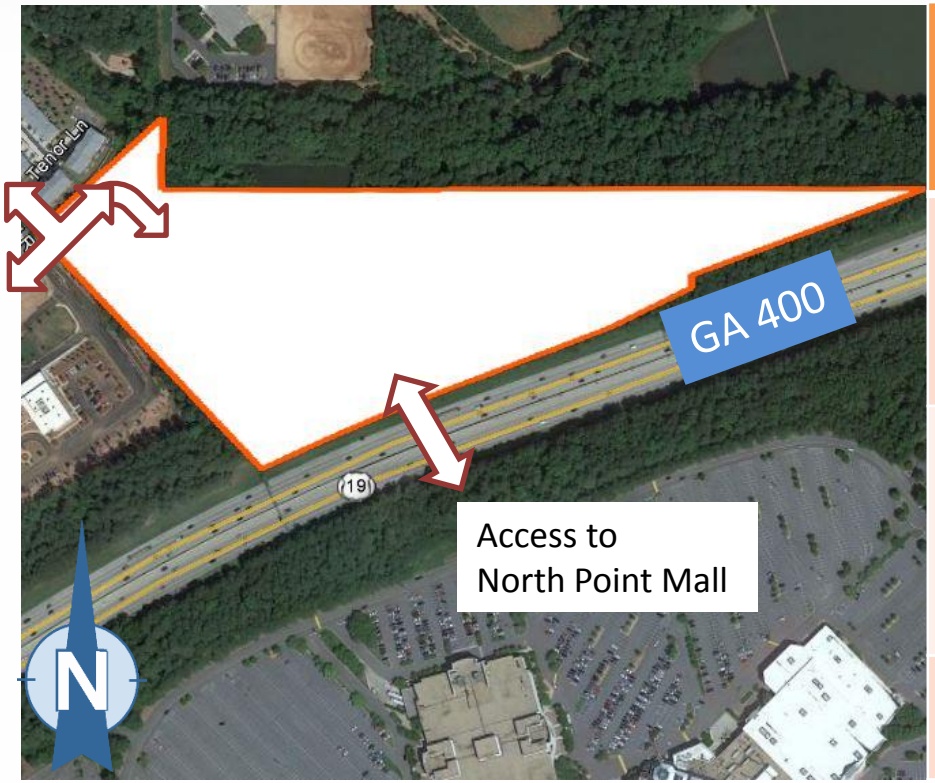
Existing Condition

- Bike/ped all directions
- Bike/ped partial

Source: Google Earth

CONNECT400
GA 400 TRANSIT INITIATIVE

North Point Mall / Encore Parkway Station - Layout



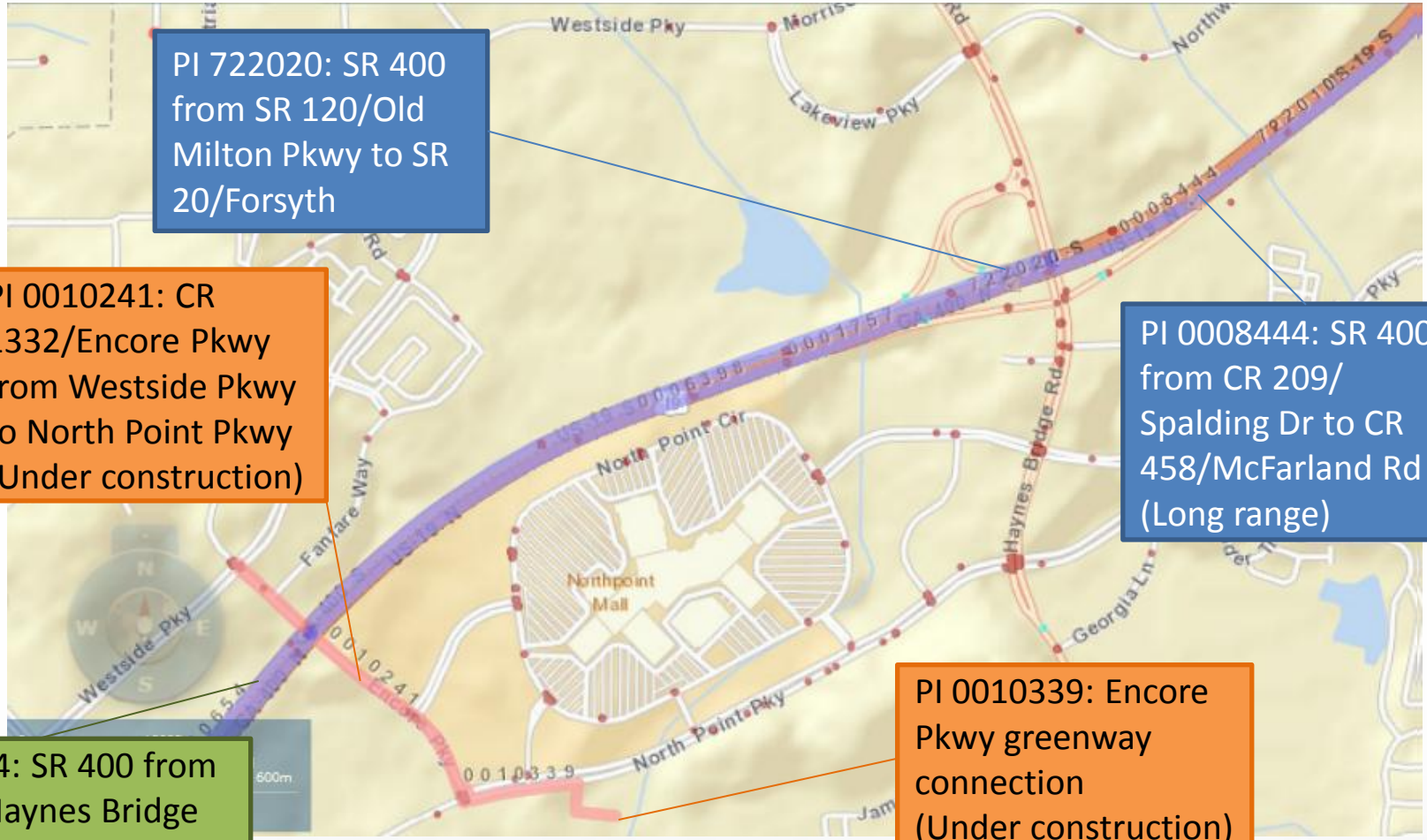
Source: Google Earth

Facility	HRT	BRT in Exclusive Lane	BRT in Managed Lanes
Parking Demand (Peak - Daily)	200 - 250	150 - 200	0 - 100
Peak Period Kiss & Ride Demand	15	5	10
# of bus bays	3	3	5

*Demand for Kiss & Ride (KNR) spaces was estimated based on number of peak period KNR trips per train as forecast by the travel demand model.

CONNECT400
GA 400 TRANSIT INITIATIVE

North Point Mall / Encore Parkway – Existing GDOT Projects



PI 722020: SR 400 from SR 120/Old Milton Pkwy to SR 20/Forsyth

PI 0010241: CR 1332/Encore Pkwy from Westside Pkwy to North Point Pkwy (Under construction)

PI 0008444: SR 400 from CR 209/ Spalding Dr to CR 458/McFarland Rd (Long range)

PI 0010339: Encore Pkwy greenway connection (Under construction)

PI 0010654: SR 400 from CR 1334/Haynes Bridge Rd to CR 2227/Mansell Rd (Let Jul 2017)

Source: GDOT GeoTRAQS (Online Mapping)

CONNECT400 GA 400 TRANSIT INITIATIVE

Old Milton Parkway Station

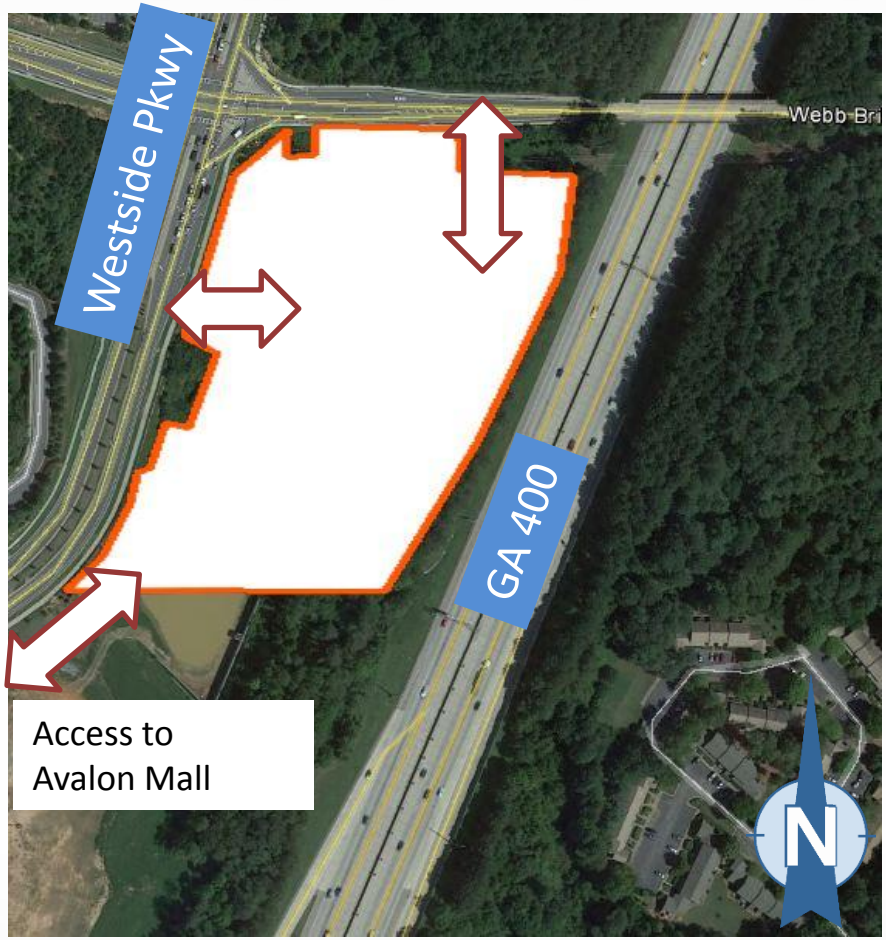
Source: Google Earth

Existing Condition

- Bike/ped all directions
- Bike/ped partial

CONNECT400
GA 400 TRANSIT INITIATIVE

Old Milton Parkway Station - Layout



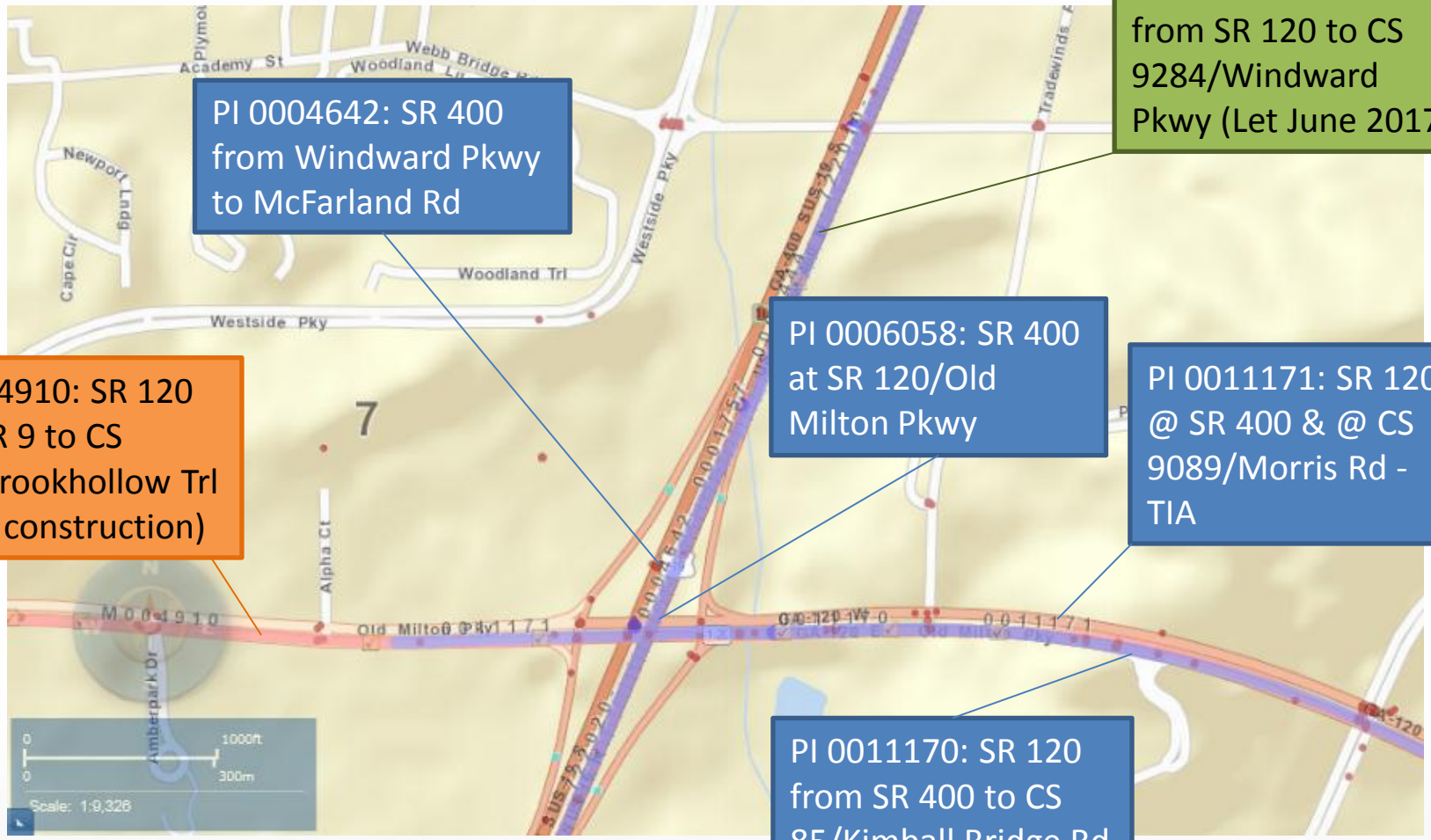
Source: Google Earth

Facility	HRT	BRT in Exclusive Lane	BRT in Managed Lanes
Parking Demand (Peak - Daily)	1750 – 1850	750 - 800	0 - 100
Peak Period Kiss & Ride Demand*	40	10	15
# of bus bays	3	3	2

*Demand for Kiss & Ride (KNR) spaces was estimated based on number of peak period KNR trips per train as forecast by the travel demand model.

CONNECT400 GA 400 TRANSIT INITIATIVE

Old Milton Parkway – Existing GDOT Projects



Source: GDOT GeoTRAQS (Online Mapping)

CONNECT400
GA 400 TRANSIT INITIATIVE

Windward Parkway Station

Existing Condition

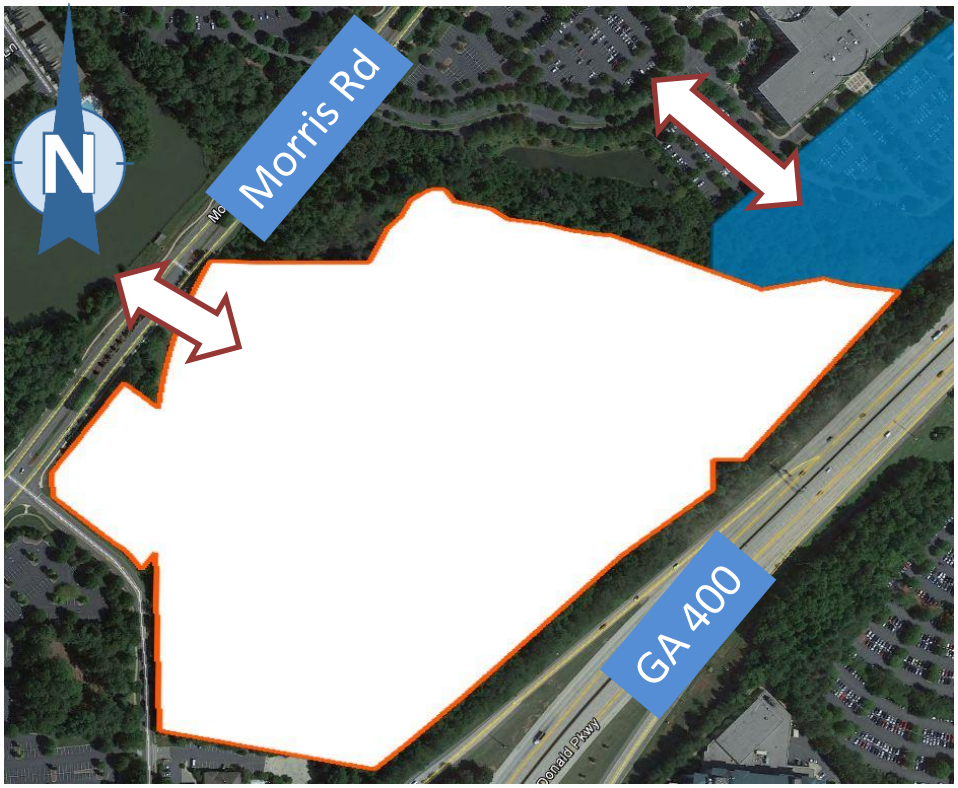
Bike/ped all directions

Bike/ped partial

Source: Google Earth

CONNECT400 GA 400 TRANSIT INITIATIVE

Windward Parkway Station - Layout



Source: Google Earth

Facility	HRT	BRT in Exclusive Lane	BRT in Managed Lanes
Parking Demand (Peak - Daily)	2300 - 2700	1100 - 1200	1500 - 1650
Peak Period Kiss & Ride Demand	40	10	10
# of bus bays	5	5	5

*Demand for Kiss & Ride (KNR) spaces was estimated based on number of peak period KNR trips per train as forecast by the travel demand model.

CONNECT400
GA 400 TRANSIT INITIATIVE

Windward Parkway – Existing GDOT Projects

PI 0000253: SR 9/Cumming Hwy at Webb Rd

PI 0010768: SR 400 @ CR 9284/ Windward Pkwy (Let Dec 2017)

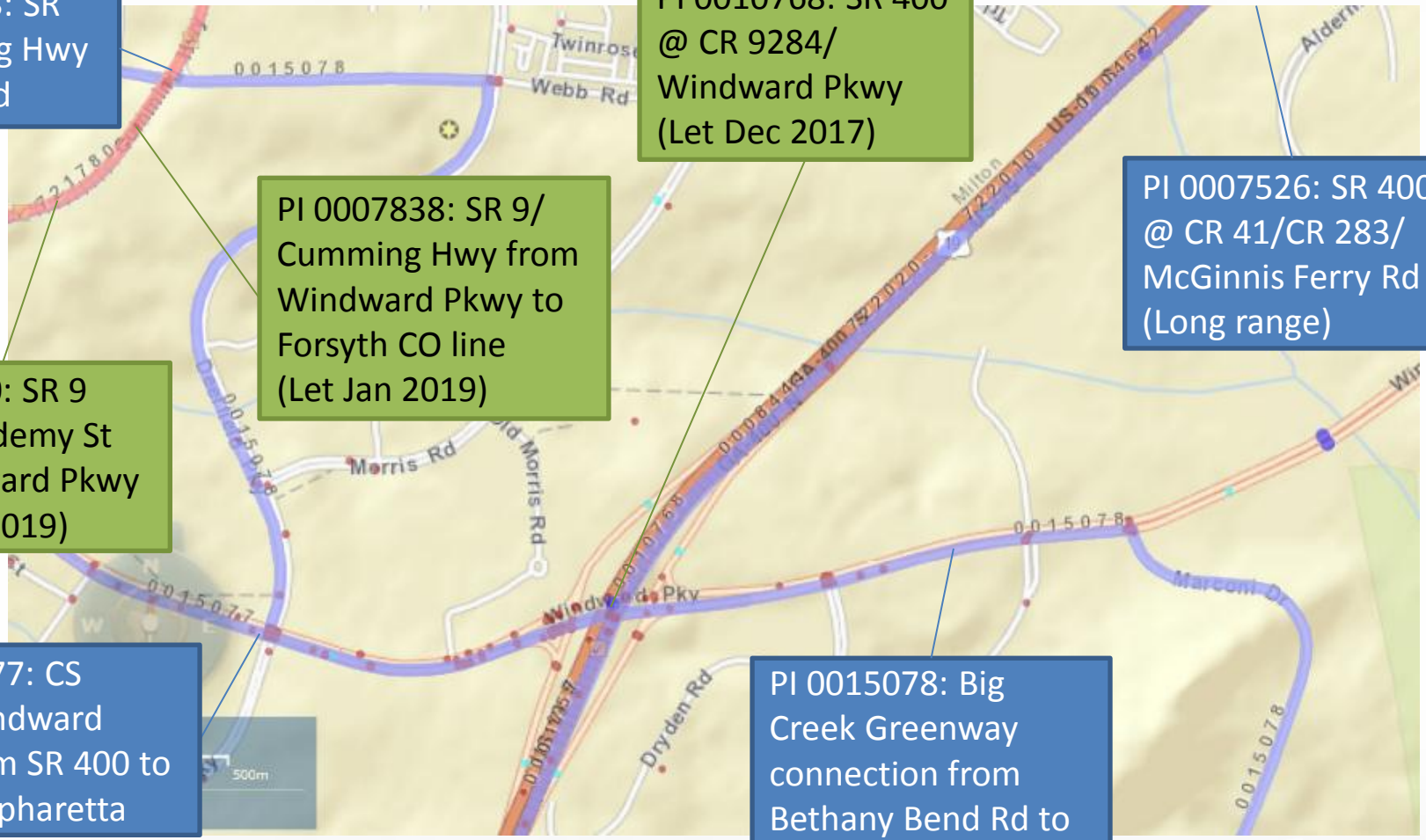
PI 0007526: SR 400 @ CR 41/CR 283/ McGinnis Ferry Rd (Long range)

PI 0007838: SR 9/ Cumming Hwy from Windward Pkwy to Forsyth CO line (Let Jan 2019)

PI 721780: SR 9 from Academy St to Windward Pkwy (Let Apr 2019)

PI 0015077: CS 9284/Windward Pkwy from SR 400 to SR 9 in Alpharetta

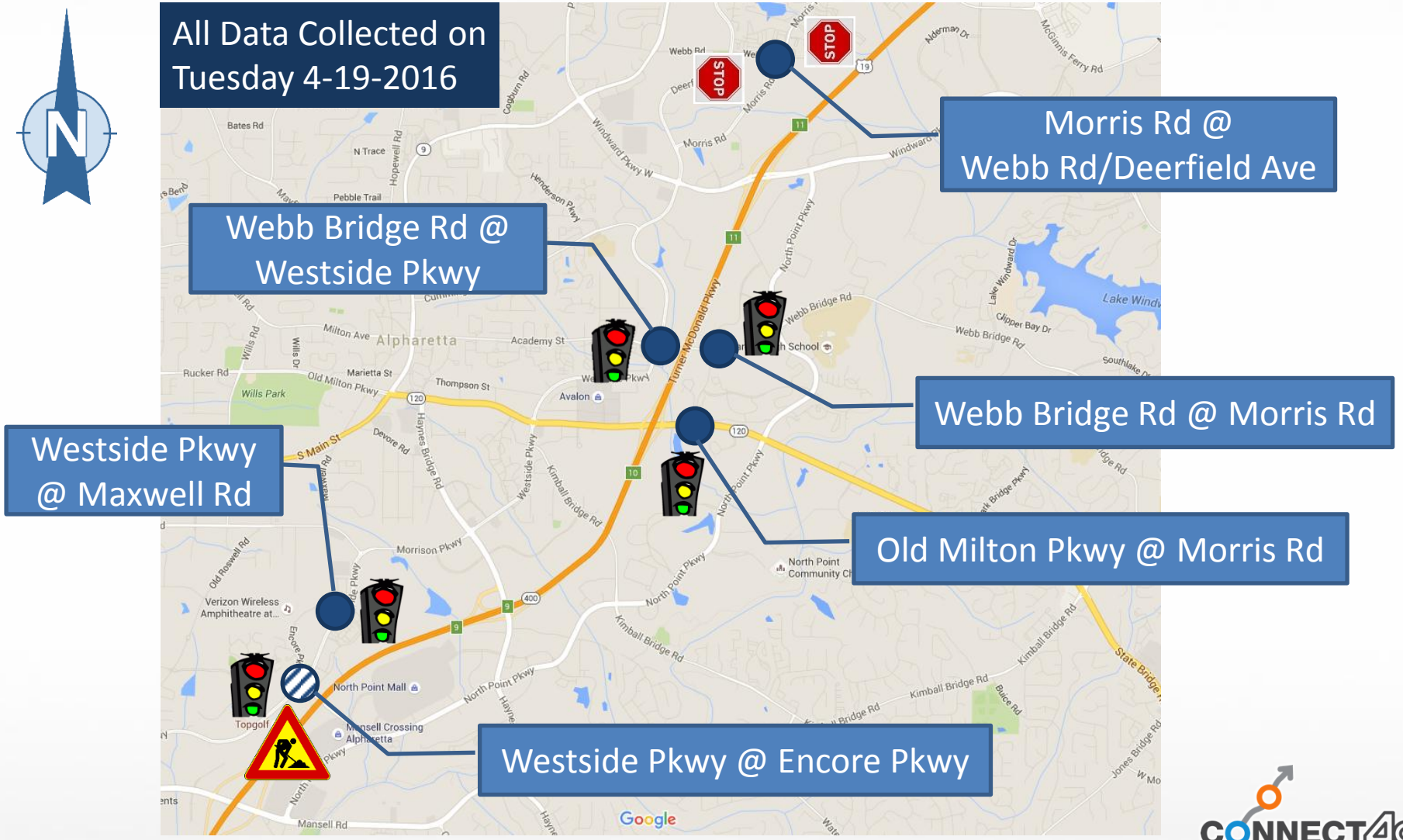
PI 0015078: Big Creek Greenway connection from Bethany Bend Rd to Big Creek Greenway



Source: GDOT GeoTRAQS (Online Mapping)

CONNECT400
GA 400 TRANSIT INITIATIVE

Locations for New Traffic Counts



Intersection LOS (AM Peak Hour) @ Holcomb Bridge Rd

Holcomb Bridge Road @	Existing	No-Build 2040	HRT 2040	BRT in EL 2040	BRT in ML 2040
Dogwood Rd	D (52.5)	F (236.2)	F (238.6)	F (207.1)	F (219.9)
GA 400 SB Ramps	F (128.4)	F (84.0)	E (75.9)	E (74.4)	F (84.7)
GA 400 NB Ramps	F (84.7)	F (129.9)	F (152.5)	F (155.5)	E (55.1)
Market Blvd	C (20.3)	F (83.8)	F (119.4)	F (102.7)	F (108.5)
Old Alabama Rd	D (41.9)	F (98.3)	F (105.6)	F (83.2)	F (98.5)

*LOS (Intersection Delay in seconds per vehicle)

Denotes improvements in either LOS or intersection delay

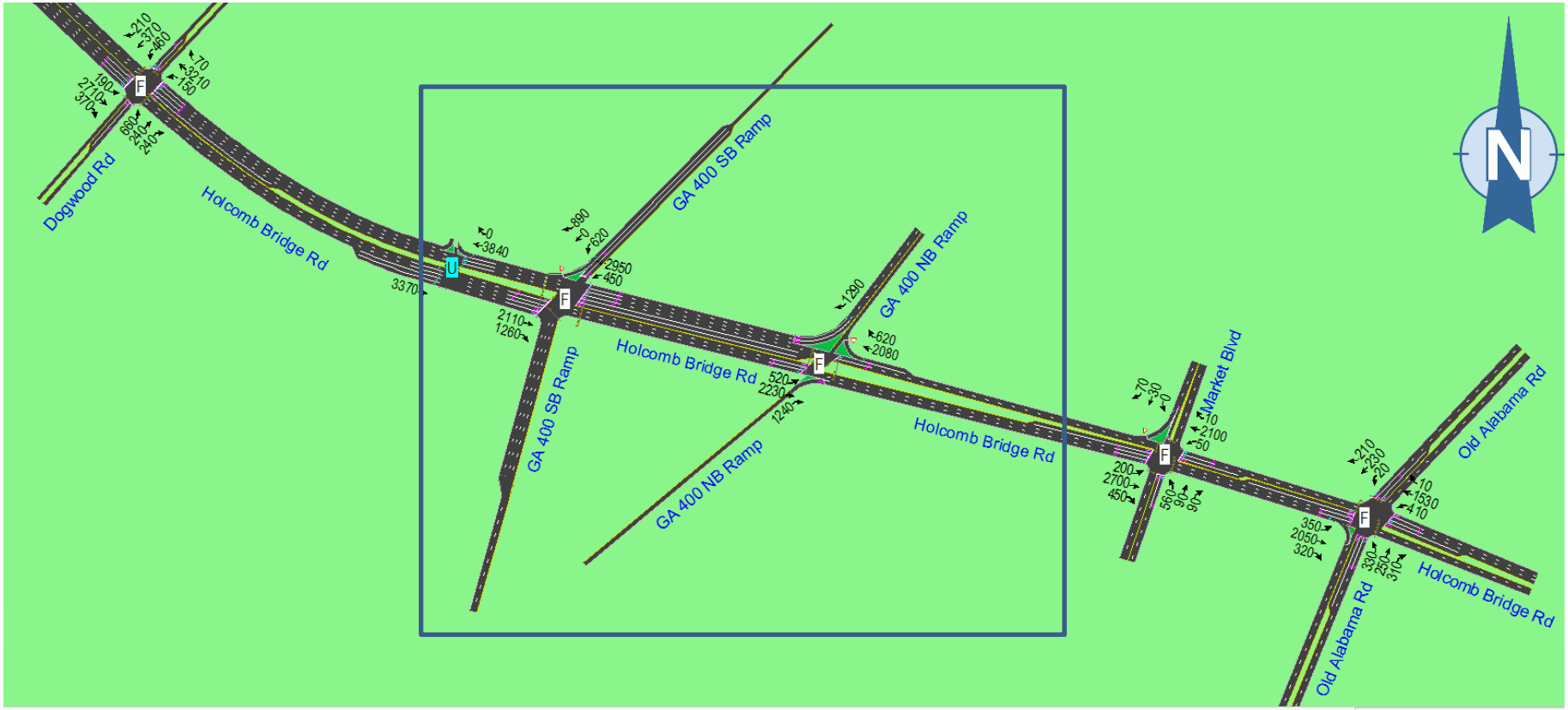
Intersection LOS (PM Peak Hour) @ Holcomb Bridge Rd

Holcomb Bridge Road @	Existing	No-Build 2040	HRT 2040	BRT in EL 2040	BRT in ML 2040
Dogwood Rd	D (52.5)	F (271.5)	F (369.8)	F (291.2)	F (279.8)
GA 400 SB Ramps	F (128.4)	F (84.6)	F (81.2)	F (83.5)	F (93.9)
GA 400 NB Ramps	F (84.7)	F (267.4)	F (269.7)	F (280.4)	F (184.1)
Market Blvd	C (20.3)	F (116.7)	F (140.9)	F (104.2)	F (131.5)
Old Alabama Rd	D (41.9)	F (148.1)	F (156.6)	F (134.2)	F (151.0)

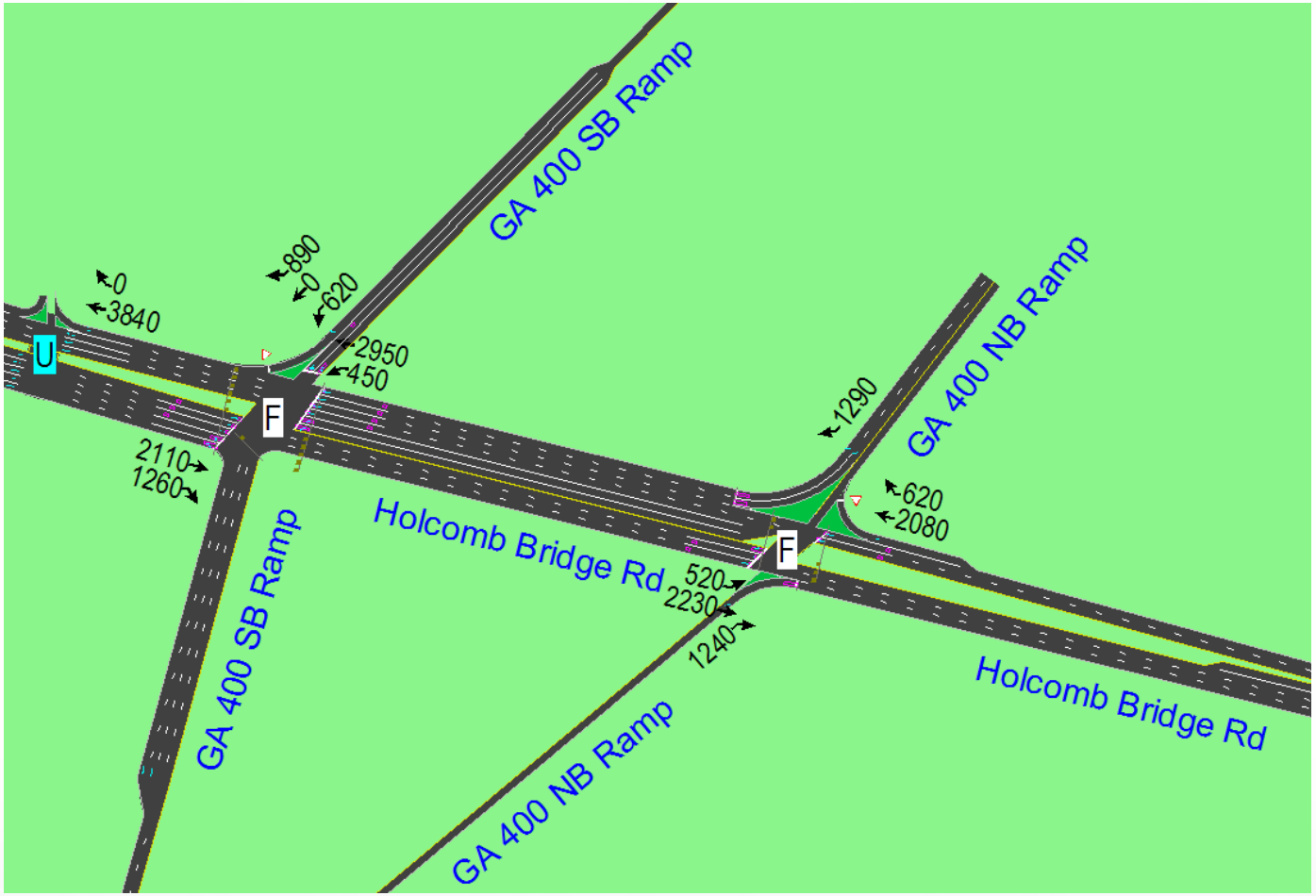
*LOS (Intersection delay in seconds per vehicle)

Denotes improvements in either LOS or intersection delay

Build 2040 PM HRT Alternative – Holcomb Bridge Rd



Build 2040 PM HRT Alternative – Holcomb Bridge Rd (GA 400 Ramps)



CONNECT400
GA 400 TRANSIT INITIATIVE

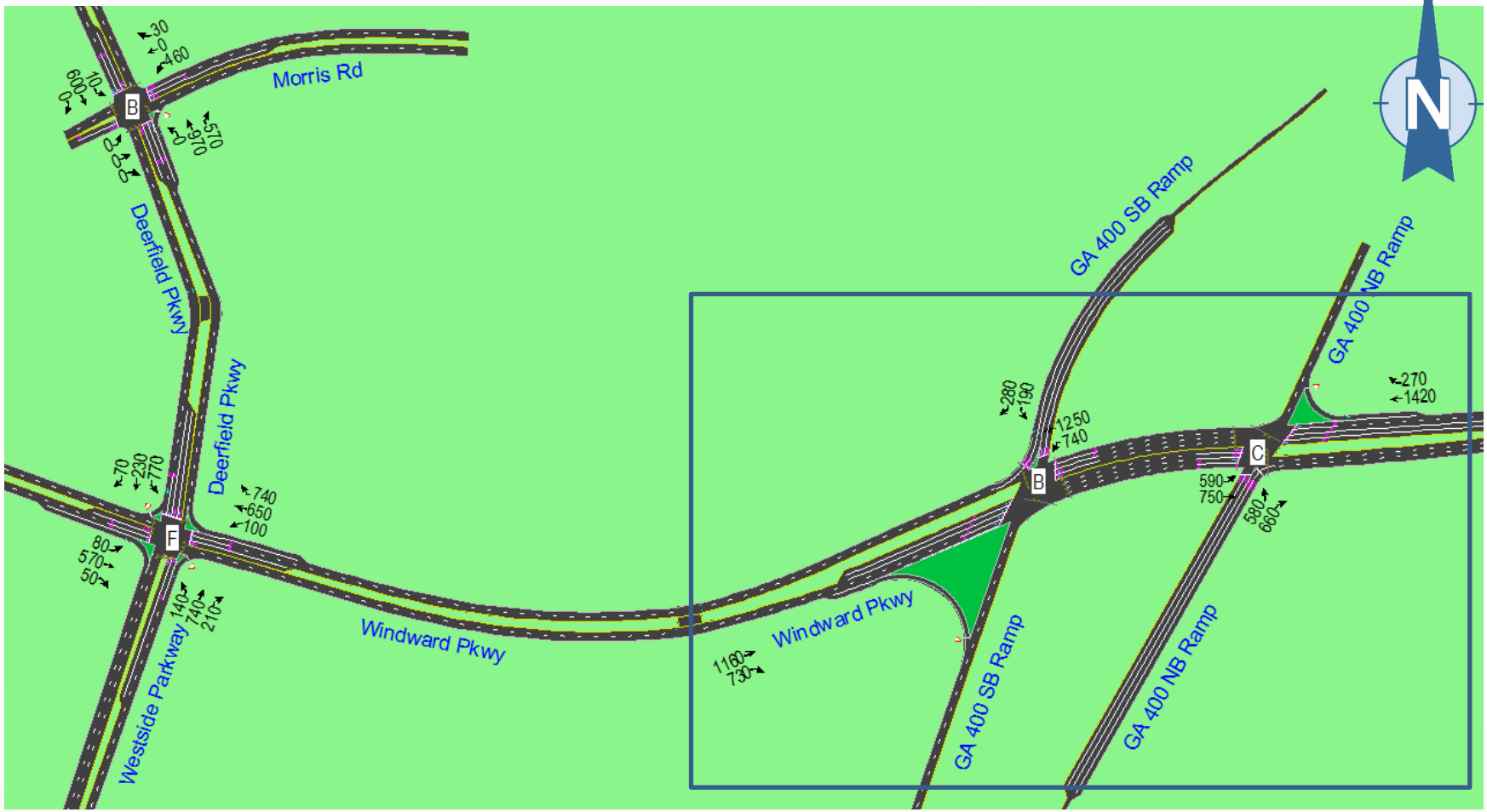
Intersection LOS (AM Peak Hour) @ Windward Pkwy

	Existing	No-Build 2040	HRT 2040	BRT in EL 2040	BRT in ML 2040
Windward Pkwy @ Westside Pkwy/Deerfield Pkwy	D (45.8)	D (37.6)	D (44.1)	D (42.2)	D (42.7)
Deerfield Pkwy @ Morris Rd	C (20.1)	C (20.6)	C (22.8)	C (25.5)	C (25.6)
Windward Pkwy @ GA 400 SB Ramps	C (21.7)	C (25.2)	C (33.9)	C (28.8)	C (28.9)
Windward Pkwy @ GA 400 NB Ramps	D (38.0)	C (31.0)	C (33.2)	C (31.3)	C (31.1)

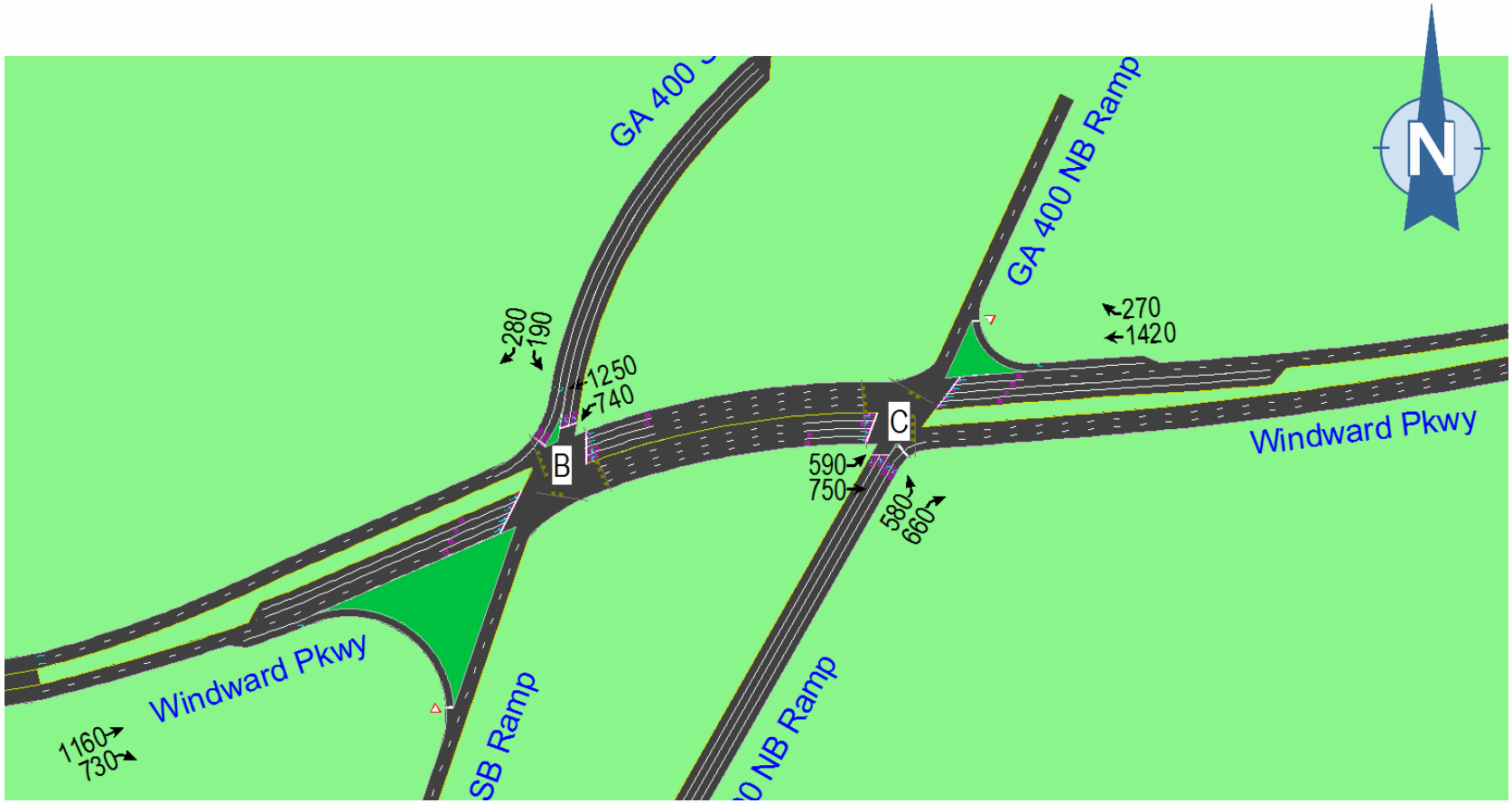
Intersection LOS (PM Peak Hour) @ Windward Pkwy

	Existing	No-Build 2040	HRT 2040	BRT in EL 2040	BRT in ML 2040
Windward Pkwy @ Westside Pkwy/Deerfield Pkwy	E (59.8)	F (105.7)	F (99.7)	F (112.5)	F (103.3)
Deerfield Pkwy @ Morris Rd	C (23.3)	B (18.7)	B (19.2)	B (19.1)	B (19.0)
Windward Pkwy @ GA 400 SB Ramps	E (58.5)	B (19.5)	B (19.4)	B (18.5)	B (19.0)
Windward Pkwy @ GA 400 NB Ramps	D (38.6)	D (36.7)	D (36.6)	D (37.3)	D (36.7)

Build 2040 PM HRT Alternative – Windward Pkwy



Build 2040 PM HRT Alternative – Windward Pkwy (GA 400 Ramps)



Public Involvement / Agency Participation

- Meetings with Resource Agencies and Stakeholders
- Other Opportunities:
  - Kiosks at Corridor Locations
  - MARTA Community Bus
  - Website Information
  - Newsletters
  - Public Meetings
  - Social Media
- Focus on Special Populations

Next Steps

- Project Steering Committee (PSC) Meeting on May 10
- Conclude Conceptual Engineering
- Complete Draft Environmental Impact Statement
- Submit for FTA Review
- Explore Funding Opportunities
- DEIS Public Hearing – Winter / Spring 2017

CONNECT400
GA 400 TRANSIT INITIATIVE

Contact Info

Janide Sidifall
MARTA Project Manager
404-848-5828

Website: www.itsmarta.com/north-line-400-corr.aspx
Email: Connect400@itsmarta.com

Like us at Connect 400 on Facebook

Follow us on Twitter @MARTAconnect400

CONNECT400
GA 400 TRANSIT INITIATIVE