



Comprehensive Transit Development Plan

Recommendations Report

July 2018



TABLE OF CONTENTS

I	Introduction.....	1
1.1	Purpose.....	2
1.2	Scope.....	2
2	System Components	3
2.1	Transit Service	3
2.1.1	Summary of Long-Term Vision	3
2.1.2	Heavy Rail Transit (HRT)	3
2.1.3	Bus Rapid Transit (BRT).....	4
2.1.4	Rapid Bus	4
2.1.5	Local Bus.....	4
2.1.6	Express Commuter Bus.....	4
2.1.7	Direct Connect.....	5
2.1.8	Flex Routes.....	5
2.1.9	Vanpool.....	5
2.1.10	Paratransit.....	5
2.2	Other System Components.....	6
2.2.1	Rapid/BRT Capital Improvements	6
2.2.2	Transit Hubs.....	6
2.2.3	Park-and-Rides and Capital Improvements	6
2.2.4	Local Bus Stop Upgrades.....	6
2.2.5	Fleet Upgrade and Expansion	7
2.2.6	Technology Upgrades.....	7
2.2.7	Bicycle and Pedestrian Access Improvements.....	7
2.2.8	Transportation Network Company (TNC) Subsidies	7
2.2.9	Contributions to Regional Transit Projects	7
2.3	Transit-supportive Policies.....	7
2.3.1	Land Use.....	7
2.3.2	Multimodal Connectivity.....	9
2.3.3	Fare Policy.....	9
2.3.4	Paratransit/Human Services Transportation.....	11
3	Existing Transit System.....	13
3.1	Local Bus.....	13

3.2	Express Commuter Bus	16
3.3	Paratransit	17
3.3.1	Gwinnett County Transit	17
3.3.2	Center for Pan Asian Community Services, Inc.	18
3.3.3	View Point Health System	18
3.3.4	Gwinnett County Health and Human Services	18
4	System Implementation Plan	21
4.1	Short-Range: FY 2019-2024	21
4.1.1	Local Bus	21
4.1.2	Express Commuter Bus	36
4.1.3	Direct Connect	43
4.1.4	Flex	47
4.1.5	Park-and-Ride Facilities and Transit Hubs	50
4.1.6	Other System Components	52
4.1.7	Summary of Proposed Services	53
4.2	Mid-Range: FY 2025-2029	55
4.2.1	Bus Rapid Transit	55
4.2.2	Local Bus	57
4.2.3	Express Commuter Bus	70
4.2.4	Direct Connect	77
4.2.5	Flex	79
4.2.6	Park-and-Ride Facilities and Transit Centers	80
4.2.7	Other System Components	82
4.2.8	Summary of Proposed Services	83
4.3	Long-Range Phase 1A: FY 2030-2039	85
4.3.1	High-Capacity Transit	85
4.3.2	Bus Rapid Transit	87
4.3.3	Rapid Routes	93
4.3.4	Local Bus	101
4.3.5	Express Bus	114
4.3.6	Direct Connect	120
4.3.7	Flex	124
4.3.8	Other Transit Capital Improvements	134
4.3.9	Park-and-Ride Facilities and Transit Centers	134

4.3.10	Other System Components	140
4.3.11	Summary of Proposed Services	141
4.4	Long-Range Phase 1B: FY 2040-2048	143
4.4.1	Other Transit Capital Improvements.....	143
4.4.2	Other System Components	143
4.5	Long-Range Phase 2: FY 2048+	144
4.5.1	Heavy Rail Transit/Light Rail Transit.....	144
4.5.2	BRT.....	147
4.5.3	Rapid Routes	150
4.5.4	Other Transit Capital Improvements.....	150
4.5.5	Summary of Proposed Services	151
5	Ridership Estimates	152
6	Cost and Financing Plan	155
6.1	System Costs.....	155
6.1.1	Operating and Maintenance Costs.....	155
6.1.2	Capital Costs.....	156
6.1.3	Operations Reserves and System State of Good Repair.....	158
6.2	Sources of Funds	158
6.2.1	Projected Sales Tax Generation.....	158
6.2.2	Farebox Revenues	158
6.2.3	Federal Funds	159
6.2.4	State Funds	159
6.2.5	Other Funds.....	159
6.3	Financing Plan	159
6.3.1	Financing Plan	160
7	Conclusion	163

I INTRODUCTION

Gwinnett County Transit began Express route service in November 2001 and Local bus service in November 2002. There have been numerous service updates over the years, but service coverage remains relatively unchanged. In the meantime, Gwinnett County demographics have changed significantly. County population has almost doubled in size growing from approximately 590,000 in 2000 to almost 900,000 in 2016. The population growth coupled with strong ethnic diversity now reflects a majority minority population. Gwinnett has grown and changed significantly since Gwinnett County Transit started service, reflecting the need for Gwinnett County Transit to update and grow service to meet the ever changing needs of Gwinnett.

This document is part of the *Connect Gwinnett: Transit Plan*, which is the Comprehensive Transit Development Plan (CTDP) for Gwinnett County. The plan stems from a recent Comprehensive Transportation Plan (CTP) update, called *Destination 2040*, that recognized the integral role that transit plays in the success of any major metropolitan area's transportation system. The CTP recommended that a deep-dive transit study be conducted to look closer at creating a transit blueprint for the future given the County's growth trajectory. The CTDP examines existing and future transit needs and offers guidance on how the County can take steps towards achieving its vision.

The Plan aims to achieve the following outcomes:

- **Short-range (0 to 5 years)** modifications that improve service, ridership, and reach key untapped markets of latent demand constrained by fleet and infrastructure that is reasonably expected to be available within the next five years;
- **Mid-range (6 to 10 years)** service enhancements that expand transit accessibility and desirability with efficient service by leveraging infrastructure that is reasonably expected to be available within the next ten years and fleet expansion;
- **Long-Range Phase 1 Plan (Years 11-30):** investments that will allow the County to enhance the lives of its residents through the provision of high-quality and sustainable transit while meeting the needs of the County's projected economic and population growth
- **Long-Range Phase 2 Plan (30+ years):** market-driven service extensions and upgrades that build on the Long-Range Phase I, including additional high-capacity transit service not constrained to the 30-year financial projections
- A countywide vision with broad-based support for a future dedicated transit funding and implementation;
- Transit as a mode of choice for work and leisure trips

In addition to identifying transit needs that need to be addressed now and into the future, it is important that the Plan be grounded in financial realities. The team considered local sales tax opportunities and projected farebox revenues as well as federal and state funding match potential in developing a series of constrained project tiers. This document describes the transit services and related improvements proposed as part of the Plan as well as a cost analysis and outlines the elements to be implemented by timeframe.

1.1 Purpose

After 15 years of operation with no significant changes, Gwinnett County Transit is looking at creating a long-range view of its transit needs and vision. Travel is a necessity for everyone and serves as the means for people to access activities, whether that is commuting to work or school, going to the grocery store or hospital for appointments, or seeing friends or family. Depending on the trip purpose, service needs shift; therefore, transit must be flexible to meet these ever-shifting needs.

The recommendations consider the collection of inputs (Existing Conditions Memorandum) analyzed through the Needs Assessment Memorandum, which included elements like the existing demographics, travel patterns, Gwinnett County Transit service performance, as well as input from stakeholders and the general public. This mix of inputs is critical, as it serves to balance regional needs for traveling with more localized needs. The purpose of the CTDTP is to exhibit details of the set of transit services required to meet the County's needs and the capital improvements necessary to support these services. The Short-Range and Mid-Range Plans are presented together in this document, as the Short-Range Plan represents a "package" of the Mid-Range improvements that could be implemented in the coming years with the resources currently available to Gwinnett County Transit or those that could become available within the 5-year horizon. The Long-Range Plan consists of more capital-intensive recommendations based on additional funding measures beyond what is currently available to Gwinnett County.

1.2 Scope

This report includes an illustrative 30+-year system plan, phasing implementation plan, patronage estimates, and financing plan for Gwinnett County Transit Service. The system plan describes general physical aspects, such as routes, service plans, and necessary acquisitions for bus service. The implementation plan is broken into 5 and 10-year increments based on the Fiscal Year (FY) schedule of regional agencies, which begins on July 1st and ends June 30th.

2 SYSTEM COMPONENTS

This section describes the planned routes by mode, anticipated service plans (Short-Range, Mid-Range, Long-Range Phase IA/IB and Long-Range Phase 2) and the infrastructure needs to expand transit service in Gwinnett County. The Plan is conceptual and it is expected that adjustments and refinements will be required when moving towards implementation.

2.1 Transit Service

2.1.1 Summary of Long-Term Vision

The Long-Term vision for the Plan looks to enhance the lives of Gwinnett residents through the provision of high-quality and sustainable transit. The proposed plan looks at ways to invest in travel time, reliability, and capacity improvements in higher-demand corridors with transit-supportive densities while growing overall transit coverage of the County through appropriate levels of investment. The Plan itself envisions a breadth of transit services within Gwinnett County, tailored to the transit needs and densities of the various communities around the County. The suite of transit services is planned to include:

- Heavy rail transit
- Bus Rapid transit
- Rapid bus
- Local bus
- Express Commuter bus
- Vanpool
- Flex service
- Paratransit

Each of these modes is introduced and described further in the sections below. Service characteristics for each of the modes below are described in Chapter 4 by implementation timeframe.

2.1.2 Heavy Rail Transit (HRT)

The Metropolitan Atlanta Rapid Transit Authority (MARTA) operates metro Atlanta's Heavy Rail Transit (HRT) system. HRT is defined by connected Heavy Rail cars on an electrified and fully grade-separated system. Stations are characterized as "substantial", including faregates, paid areas, ticketing machines, mezzanines and platforms, and may include supportive infrastructure such as bus facilities, bike parking, auto parking, and pick-up/drop-off space. Stations are commonly spaced every one to five miles.

The Long-Range Plan Phase IA includes one extension of the existing Heavy Rail system (Gold Line) from the current Doraville station into Gwinnett County. Service is projected to be consistent with current Gold Line service, which consists of 10-minute peak frequencies on weekdays and 12 to 20-minute off-peak weekday and weekend frequencies.

The extension of Heavy Rail into Gwinnett County would be paired with the construction of a new multimodal hub in western Gwinnett County to serve as the new terminus for the Gold Line. The hub would be located in the vicinity of the intersection of Jimmy Carter Boulevard and I-85 and would accommodate Heavy Rail, Bus Rapid Transit, Express, Commuter, and Local buses, and potential other modes in the future.

2.1.3 Bus Rapid Transit (BRT)

Bus Rapid Transit (BRT) is a mode that does not exist in metro Atlanta today. BRT is similar to a rail-based transit service, but uses rubber-tired vehicles to provide greater service flexibility at lower cost. It is characterized as operating in predominately, but not necessary exclusively, dedicated right-of-way along with other priority treatments to increase overall speed and reliability of service. Right-of-way may include transit-only lanes adjacent to mixed flow lanes, a dedicated transit-only corridor, or mixed flow lanes. BRT also includes stations that are spaced at every ½ to 1-mile increment with distinctive branding and off-board fare collection.

A total of three BRT corridors are proposed by Long-Range Plan Phase 1A (one of the three BRT corridors is included in the Mid-Range Plan) to connect major destinations within Gwinnett County as well as connect to the greater metro Atlanta transportation network. Two additional BRT corridors are planned (as upgrades from Rapid Corridors) in the Long-Range Phase 2 plan. Service will operate at a minimum of 15-minute frequencies on weekdays and range from 15- to 30-minute frequencies on weekends, depending on the route.

2.1.4 Rapid Bus

Rapid Bus is considered a less-intensive form of transit enhancement than BRT, but includes many of the same features. The corridors may include some segments of dedicated bus lanes with buses operating within mixed traffic for other portions of the route. Transit signal priority (TSP) is included at signalized intersections, and queue jump lanes are incorporated at critical high-volume intersections to allow the buses to get out in front of the vehicular queues. Stations are commonly spaced between 1/4 to 1/3 of a mile.

Eight Rapid Bus corridors are proposed in this Plan including some routes that provide connections to adjacent metro Atlanta counties. Six of the eight corridors include a dedicated and branded transit Rapid route. Service will operate at a minimum of 15-minute frequencies on weekdays and 20- to 30-minute frequencies on weekends. The other two corridors include similar levels of capital enhancement and will be utilized by a mixture of Local, Express, and/or Direct Connect services.

2.1.5 Local Bus

Local bus is an existing type of transit service in Gwinnett County. It uses rubber tired vehicles to serve often closely-spaced bus stops in mixed traffic. Stations are generally spaced every 500 to 1,000 feet, depending on adjacent land uses and geography.

The full implementation of this Transit Plan would result in eleven Local bus routes, providing greater coverage to the County and a high level of connectivity to the multimodal hub. In interim years, there are as many as 17 Local bus routes proposed, but some of the routes are eventually upgraded to Rapid routes in the Mid- or Long-Range Plans. Most routes will operate at 30-minute peak frequencies on weekdays (some at 15- or 20-minute frequencies) and 30- to 60-minute frequencies off-peak and on weekends.

2.1.6 Express Commuter Bus

Express Commuter bus service is an existing type of transit service in Gwinnett County. It uses rubber tired over-the-road coach vehicles to serve long-distance commute traffic. The service uses mixed flow lanes on local roadways, but most of the alignment is along the regional highway network. Where Express lanes on the highway network are available, they can be used to provide a higher speed of

service. There are limited stops for this service, primarily located at either end of the route, often at park-and-rides in the origin community.

The Express bus system is proposed to be expanded to include additional pickup points in Gwinnett County to serve existing destinations in downtown Atlanta and at Emory University. In addition, new destinations would be served at Perimeter Center, the new multimodal hub in western Gwinnett County, and Buckhead. Other capital investments include direct access ramps, in-line stops, or flyover ramps that improve connectivity between the park-and-rides and the Express lane segments, allowing for reduced travel times and increased service efficiency. Service ranges from 10- to 30-minute frequencies on weekdays only and limited to peak-direction in peak periods.

2.1.7 Direct Connect

Direct Connect service is a new type of transit service that is proposed for Gwinnett County. The proposed routes provide an all-day bi-directional connection between the metro Heavy Rail system and park-and-ride lots around the County. In addition to serving all-day transportation demand to access the regional transit network, this provides additional flexibility for Express bus users who may require access to their personal vehicles at off-peak times of day when Express Commuter service is not operating.

A total of three Direct Connect routes are proposed in the Plan. Two of the routes would serve the Gold Line, and a third route would serve the Peachtree Corners Transit Center and the MARTA Red Line stations in Sandy Springs. Proposed frequencies are 30 to 60 minutes.

2.1.8 Flex Routes

Flex Service is an on-demand transit service that carries passengers upon request within the flex route service area. Flex Service is most commonly implemented in locations where transit is desired but population or employment densities do not support fixed route transit. Service areas are typically anchored at a transit center where passengers can transfer to the fixed route system.

A total of eight flex zones are proposed in the Long-Range Plan (both Phase IA and IB) and serve some of the northern, southern, and eastern-most portions of the County.

2.1.9 Vanpool

Vanpool is typically a service in which a group of people headed to a common destination (typically a single employer) meet at a gathering location and drive together to their destination. This type of service works well for commuters with similar home and work locations and allows for employers to transport their employees to locations that otherwise could not be effectively served by transit.

The Plan proposes subsidies of private vanpool services to supplement public transit service. Vanpools require little capital investment outside of the van itself; the only other infrastructure needed is a gathering location. There is an opportunity to utilize public parking spaces, such as County parks or park-and-ride lots as these gathering locations.

2.1.10 Paratransit

Paratransit is a term used to describe transportation services that operate with more flexibility than conventional fixed-route transit but with more structure than the use of a private automobile. For the purposes of this report, Paratransit in Gwinnett County includes demand response transportation

services for individuals with disabilities, older adults, and other individuals that meet the eligibility requirements for paratransit service.

The Plan proposes better coordination between Gwinnett County Transit Paratransit services and other human service agency providers to better utilize fixed route services and more efficiently fill empty seats to stretch transportation dollars so that more people can be served with the existing resources. There is an opportunity here to also consolidate the scheduling and dispatching centers for the various providers.

2.2 Other System Components

2.2.1 Rapid/BRT Capital Improvements

Along the BRT and Rapid routes in this Plan, a number of capital improvements are proposed to support transit service. These improvements include the following:

- **Exclusive bus lanes** – dedicated lanes that may only be used by transit vehicles – will be provided along the majority of BRT routes, and along some portions of Rapid routes. These lanes could either be provided through the conversion of existing traffic lanes to exclusive lanes, the creation of a new transit corridor, or through the widening of roadways to provide an additional lane in each direction.
- **Transit Signal Priority (TSP)** will be installed at all signalized intersections utilized by Rapid or BRT routes. TSP is a system in which technology onboard transit vehicles communicates with traffic signals to reduce delay for buses at signalized intersections. The system most commonly does this by either shortening a red light or extending a green light at an intersection.
- **Queue jumps** will be installed at select locations to reduce the delay caused by queuing at signalized intersections. A queue jump is when a bus-only lane is provided at the approach of an intersection, allowing a bus to bypass other vehicles queued at the intersection. This lane is often paired with a traffic signal which has a separate bus-only phase which allows the bus to get a head start over the other queuing vehicles. Since exclusive bus lanes already allow for buses to bypass passenger vehicle traffic, queue jumps would only be installed at select intersections along Rapid route corridors without exclusive lanes or in segments of BRT corridors that are not proposed for exclusive lanes.

2.2.2 Transit Hubs

As the transit system is proposed to be expanded, there is a need to provide transit hubs which facilitate transfer activity in locations where multiple transit services converge. These transit hubs would have locations for multiple bus berths and may include other facilities, such as enhanced waiting areas, stop amenities, and customer service facilities.

2.2.3 Park-and-Rides and Capital Improvements

In conjunction with the proposed expansion of the Express bus system, new and expanded existing park-and-ride locations are included to serve new and improved routes. These park-and-ride locations would, at minimum, include parking for passenger vehicles and multiple bus berths, but may also include other facilities such as enhanced waiting areas, wayfinding and route information, and other stop amenities. In some instances, a park-and-ride can also serve as a transit hub.

2.2.4 Local Bus Stop Upgrades

Expansion of the local bus route system as part of this Plan necessitates the construction of new local bus stops. In addition, a Bus Stop Design Guidelines document has been created to guide the future creation or enhancement of local bus stops in Gwinnett County. The Bus Stop Design Guidelines

document has identified a number of existing bus stops that warrant improvement in facilities or provision of new amenities to enhance the passenger experience. New or upgraded stops may include signage, benches, shelters, trash cans, bus pads, waiting areas, and wayfinding. In addition, pedestrian access improvements to increase Americans with Disabilities Act (ADA) accessibility and increase sidewalk coverage and quality at existing stops have been identified.

2.2.5 Fleet Upgrade and Expansion

Continued operation of the existing transit system, and the expansion of the transit system in Gwinnett County as part of this Plan, necessitate a fleet of bus vehicles to meet the needs of the system. As vehicles exceed their useful life, they will be replaced with vehicles using funding allocated in the Plan. In addition to the replacement of vehicles, the Plan includes the expansion of the vehicle fleet to accommodate the demands of the transit services proposed in each phase of the Plan. The Plan accounts for vehicles to be used in the delivery of Local, Express, Direct Connect, Rapid, BRT, Flex, and Paratransit service.

2.2.6 Technology Upgrades

The Plan allocates funding to various technology upgrades to the transit system. Technology upgrades may consist of user amenities, such as the addition of Wi-Fi and power outlets to buses, or include upgrades to systems and back-end equipment, such as improving real-time information systems, performance measurement systems, and safety/communications systems.

2.2.7 Bicycle and Pedestrian Access Improvements

The Plan allocates funding for bicycle and pedestrian improvements to improve access to transit. These improvements may consist of new sidewalks, new bicycle lanes, enhanced crosswalks and signalized crossings.

2.2.8 Transportation Network Company (TNC) Subsidies

The Plan proposes an annual subsidy of Gwinnett County use of transportation network companies (TNCs), such as Uber or Lyft, specifically to access transit. Pilot programs may be implemented to identify effective programs to enhance access to transit, such as subsidized rides to certain destinations, within certain areas, or at certain times of day.

2.2.9 Contributions to Regional Transit Projects

This Plan allocates funding to be expended in contribution to regional transit projects yet to be determined. It is anticipated that these projects will include higher capacity transit infrastructure improvements that may extend into Gwinnett County or provide for improved connectivity to the regional transit network for Gwinnett County residents and employees.

2.3 Transit-supportive Policies

2.3.1 Land Use

Beyond the infrastructure and system logistics needed for a successful transit system, complementary land uses are essential for creating a sustainable transit system. Integrating land uses with transit corridors enables the system to efficiently and effectively connect the greatest number of people to the greatest number of desired destinations.

The County's CTP—Destination2040, adopted in December 2017—included policies relevant to transit investments.

The Destination2040 land use policies directly relevant to transit investments are:

- **Fortify the Link between Transportation and Land Use into the Unified Development Ordinance:** The Unified Plan and subsequent Unified Development Code (UDO) update should fortify the relationship between future land use decisions and future transportation infrastructure investments by ensuring that the policies applicable to transportation infrastructure support smart growth land use policies. In addition to providing grid-like options through an interconnected roadway network, the County should concentrate permitting and incentivizing (via non-monetary or monetary-related means) the revitalization of strategically located commercial nodes to become more complete activity nodes or town centers with a mix of uses. Additionally, the UDO, both its current iteration and the forthcoming update, as applicable, should be revised to incorporate the planning efforts reflected in Comprehensive Transit Development Plan (Connect Gwinnett), as well as the Countywide Trails Master Plan.
- **Encourage Multimodal Networks (Complete Streets):** As part of the planning and permitting process, consider the needs of people accessing sites using a variety of transportation modes beyond the use of private automobiles. Although the greatest impact is realized when deployed within an activity center, bike lanes and sidewalk improvements can reduce the number of local automobile trips. Thus, the County's regulations, investments, implemented projects, and incentives should encourage a denser network of residential and commercial developments supported by street grids and other multimodal enhancing amenities and facilities.
- **Foster Compact Mixed-Use Development:** To support projected residential growth and mitigate subsequent vehicular trips, the County should encourage a mix of uses within existing and future activity centers. Not only does this nodal approach help build economically sustainable communities, compact mixed-use development provides the opportunity to offer a variety of housing options at a range of price points as well as provide transit-supportive nodes of activity. Additionally, incorporating commercial services in proximity to residential, shorter and fewer vehicular trips are generated.
- **Consider Increased Densities in Activity Centers:** Gwinnett County should encourage denser development of mixed-use activity centers. This concentrated densification will provide a framework for multimodal transportation for people walking or biking. It can lay the physical framework to support the most likely riders of future higher capacity modes of transit.
- **Adopt Transit Supportive Overlay Districts:** Gwinnett would benefit from the creation of a limited number of overlay districts along major transportation corridors, historic districts, watersheds, and other sensitive areas. These districts would provide additional standards for architecture, lighting, signage, streetscaping, areas for walking and biking, transit, and landscaping, helping to build upon the County's most historic, scenic, or natural features.
- **Catalyze Regional Connections:** Continue to connect Gwinnett County to regional economic vitality and quality of life by supporting enhanced transportation networks along major corridors that accommodate multiple modes of access, including travel by automobile, transit, walking, and biking. Additionally, the County should look to catalyze future regional transportation investments with supportive land use policies to attract compatible jobs, housing, and services.

Gwinnett County is currently undergoing an update to its Unified Plan—the 2040 Unified Plan. While still in development, the 2040 Unified Plan is striving to articulate nodal-based development in the County while also identifying the appropriate areas for densification in the future, with a particular emphasis on responding to the projected growth in the County by 2040. In addition to other transportation policies and recommendations from the CTP, previous planning efforts, and its own public outreach, the 2040 Unified Plan will incorporate these transit-supportive land use policies to further support the Unified Plan's five main themes:

- Maintain Economic Development and Fiscal Health

- Foster Redevelopment
- Maintain Mobility and Accessibility
- Provide More Housing Choices
- Keep Gwinnett a Preferred Place

The correlation between the 2040 Unified Plan themes and the transit-relevant land use policies from Destination2040 will help lay the foundation to strengthen land use decisions and development patterns to better support transit in Gwinnett County in the future.

2.3.2 Multimodal Connectivity

Gwinnett County has an opportunity to leverage its existing transit and multimodal strengths to increase alternative transportation mode share, as well as transit system ridership, by providing better transportation connections between multiple modes. The County's CTP—Destination2040—identified projects that were specifically designed to respond to this need. However, policies also can support and further these connections. Policy and code modifications have the ability to shape urban form, encourage new behavior, and strategically position the County to create vibrant multimodal communities with realistic financial requirements.

Multimodal Connectivity policies identified in the Destination2040 plan include:

- Establish a transit-oriented development policy along major transit corridors and near activity centers, with a particular focus on the inclusion of multiple modes of transportation within these corridors. In addition, support transit corridors by providing adequate bicycle and pedestrian facilities, integrating the Gwinnett Countywide Trails Master Plan's vision, to enable transit users to access transit stations without needing a vehicle.
- Evaluate a bike share and other shared-use technologies to improve first- and last-mile connectivity from key transit stations and activity centers to residential, commercial, and office buildings. This integration of transit and bicycle/pedestrian infrastructure has the ability to reduce automobile dependency and to increase the reach of transit in specific parts of the County. Cross-jurisdictional coordination between Gwinnett County, its Cities, and the CIDs should occur to make this service successful.
- Promote non-single occupancy (SOV) travel and coordinate Transportation Demand Management (TDM)—which considers both commute-based and non-commute based travel as well as mode, time of day, route, and location choices available to individual travelers—strategies to ensure that future transportation funding can keep up with the travel needs of a growing population.
- Leverage the new TDM coordinator's position during regional coordination meetings and continue to look for ways to coordinate countywide TDM strategies with Gwinnett County Transit routes and services.
- Implement zoning requirements for new developments to provide alternative transportation programs and amenities to improve the user experience of taking transit, walking, or biking and increase alternative mode share.
- Consider future opportunities to increase or enhance connectivity (including new complete streets and other multimodal facilities) as redevelopment occurs along major transit corridors.

2.3.3 Fare Policy

Fare policy has significant impacts on ridership levels, operational revenues, and service reliability, and affects all levels of rider categories, including adults, youth, seniors, and passengers with disabilities. The fare analysis completed for the Connect Gwinnett: Transit Plan examines the current Gwinnett County Transit fare structure and identifies opportunities for proposed changes. Fare structure changes should be made with the following objectives in mind:

- Increase ridership
- Improve mobility
- Increase fare revenues
- Offer fare media that simplifies fare payment

With these objectives in mind, there are several proposed changes to Gwinnett County Transit's fare program. It is important to note that the State of Georgia recently authorized creation of the Atlanta-region Transit Link Authority (ATL). This new authority is charged with developing a regional transit plan and coordinating existing and future transit service for the 13-county metropolitan Atlanta area. Thus, fare program recommendations will need to be coordinated with the ATL Authority.

Simplification of Gwinnett County Transit's existing fare program is recommended by streamlining the number of Gwinnett County Transit fare options. Proposed changes to Gwinnett County Transit's existing fares are shown in Table 2-1 and are summarized in the following bullets. These proposed fare changes and structure are preliminary in nature and therefore will require additional vetting with the public and through the new regional governance structure established by the ATL after January 2019. Beyond this vetting, additional feasibility analysis needs to be conducted in regards to Gwinnett County Transit's fare operations system.

- **Local Fares:** No changes are proposed to Gwinnett County Transit's existing local fare (\$2.50). It is recommended that Gwinnett County Transit eliminate its 10-ride ticket book and replace it with a daily pass fare.
- **Express Fares:** It is recommended that Gwinnett County Transit modify its Express fare to \$4.00 with no zonal differentiation, for consistency with SRTA Xpress fares. It is also recommended that the Express 10-ride ticket book be eliminated. Instead, a daily Express fare is proposed at \$8.00 (twice the one-way cash fare).
- **Direct Connect Fares:** The Connect Gwinnett: Transit Plan introduces a new service – Direct Connect. It is proposed that a new one-way cash fare of \$4.00 be considered when implementing Direct Connect Services with a daily pass fare of \$8.00.
- **Paratransit Fares:** No change is recommended to Gwinnett County Transit's Paratransit fares.
- **Fare Capping:** It is recommended that Gwinnett County Transit work with its regional transit partners to investigate the introduction of monthly fare capping at the cost of a monthly fare as a means to encourage regular transit usage.
- **New Fare Programs:** Other pass programs that should be considered include UPass, Youth and Employer Programs, and a mobile app program.

It is important to note that any changes to Gwinnett County Transit's fare structure will require a Title VI evaluation to determine whether minority and/or low-income riders are disproportionately more likely to use the mode of service, the payment type or payment media that would be subject to the fare change. Gwinnett County Transit would also need to complete a detailed analysis of financial implications prior to any implementation of a fare change.

Table 2-1: Proposed Gwinnett County Transit Fare Structure

Service	Fare Type	Existing Fare	Proposed Fare
Local Service Fares	One-Way Cash	\$2.50	\$2.50
	10-Ride Ticket Book	\$22.50	Eliminate
	Day Pass	n/a	\$5.00 to \$6.00
	Monthly Pass	\$80.00	\$80.00
Express Service Fares	Zone 1 One-Way Cash	\$3.75	\$4.00
	Zone 2 One-Way Cash	\$5.00	
	Zone 1 10-Ride Ticket Book	\$32.50	Eliminate
	Zone 2 10-Ride Ticket Book	\$45.00	
	Day Pass	n/a	\$8.00
	Zone 1 Monthly Pass	\$130.00	\$125.00
	Zone 2 Monthly Pass	\$180.00	
Direct Connect Fares	One-Way Cash	n/a	\$4.00
	Day Pass	n/a	\$8.00
	Monthly Pass	n/a	\$110.00
ADA Paratransit Fares	One-way Cash	\$4.00	\$4.00
	10-Ride Ticket Book	\$40.00	\$40.00
	Personal Care Attendant	Free	Free
	Traveling Companion	\$4.00	\$4.00
Pass Programs	UPass	n/a	Recommended
	Youth Pass	n/a	Recommended
	Employer Pass	n/a	Recommended

Notes:

1. Prices for pass programs will should be determined through discussions with pass participants.
2. No changes are proposed to existing Gwinnett County Transit transfer policies at this time. Breeze transfers continue to be free and Gwinnett County Transit pass/cash riders can transfer for free within 3-hours of the start of a trip.
3. Upcharges should continue to be charged when transferring from a local route to a higher fare route.
4. Gwinnett County Transit should also continue to work with regional transit agency partners in reprogramming Breeze to register an upcharge from MARTA service to Gwinnett County Transit Express service.

2.3.4 Paratransit/Human Services Transportation

Three coordinated transportation models are potential options for offering Paratransit services in Gwinnett County moving forward.

2.3.4.1 Committee for Coordinated Transportation Services

The Committee for Coordinated Transportation Services includes the providers and other agency representation. In the case of Gwinnett County, potential members include: Gwinnett County Health and Human Services; Center for Pan Asian Community Services, Inc.; View Point Health; Gwinnett County Transit; Private Operator; the Atlanta Regional Commission; Regional Transportation Coordinating Committee (RTCC) Member. There is an opportunity here for more efficient information sharing and stronger potential to access new funding sources. This also helps to build partnerships while building the network of transportation services. Challenges include identifying a leader/chair and participants who have a vested interest.

2.3.4.2 Trip Sharing

The trip-sharing model combines passenger trips that would otherwise be provided by separate operators into a single vehicle. This could become particularly useful as some of the typical trip generators for Human Services Transportation are within or near the Gwinnett County Transit service area, such as the Norcross OneStop Human Services & Senior Center and the Lawrenceville Senior Center. Benefits include the ability to fill otherwise empty seats and improved productivity and efficiency for Gwinnett County Transit by reducing duplication. A challenge would be that Gwinnett County Transit must provide a fully allocated cost to be paid either by a funding agency or the rider through a fee. There are also adjustments in scheduling practices and the need to implement recordkeeping processes and training/education passengers and staff about new procedures and fares.

2.3.4.3 Centralized Human Services and ADA Paratransit Trip Planning and Scheduling

This model allows all types of transportation in Gwinnett County to be centralized in one source/location. Users would be able to easily identify options with one call or through a consolidated website. Scheduling trips could be online or by phone for all services. This can help to simplify the scheduling process and trip planning and increases awareness and information availability among providers. Challenges include overall cost and the need for multiple participating providers.

3 EXISTING TRANSIT SYSTEM

This section describes the existing transit system and establishes it as the baseline system that the Plan is built on.

The *Connect Gwinnett - Existing Conditions Technical Memorandum* served to document the existing system and included the following:

- A review of ridership, service levels, utilization, and demographics of the existing transit system
- A peer review of local and national transit systems similar to Gwinnett County
- An assessment of the transit markets in Gwinnett County.

Gwinnett County Transit currently operates seven Local bus routes and five Express routes. Gwinnett County Transit provides service with a fleet of 82 vehicles; 32 buses are used for Local service, 43 buses are used for Express service, and 7 vehicles are used for paratransit. Gwinnett County Transit maintains the Gwinnett Place Transit Center and three park-and-ride lots, and shares in the use of MARTA rail stations. Gwinnett County owns the Hewett Park-and-Ride facility and the Gwinnett Place Transit Center. All other park-and-ride lots are owned by the State through either the Georgia Department of Transportation or the State and Tollway Authority and leased by Gwinnett County.

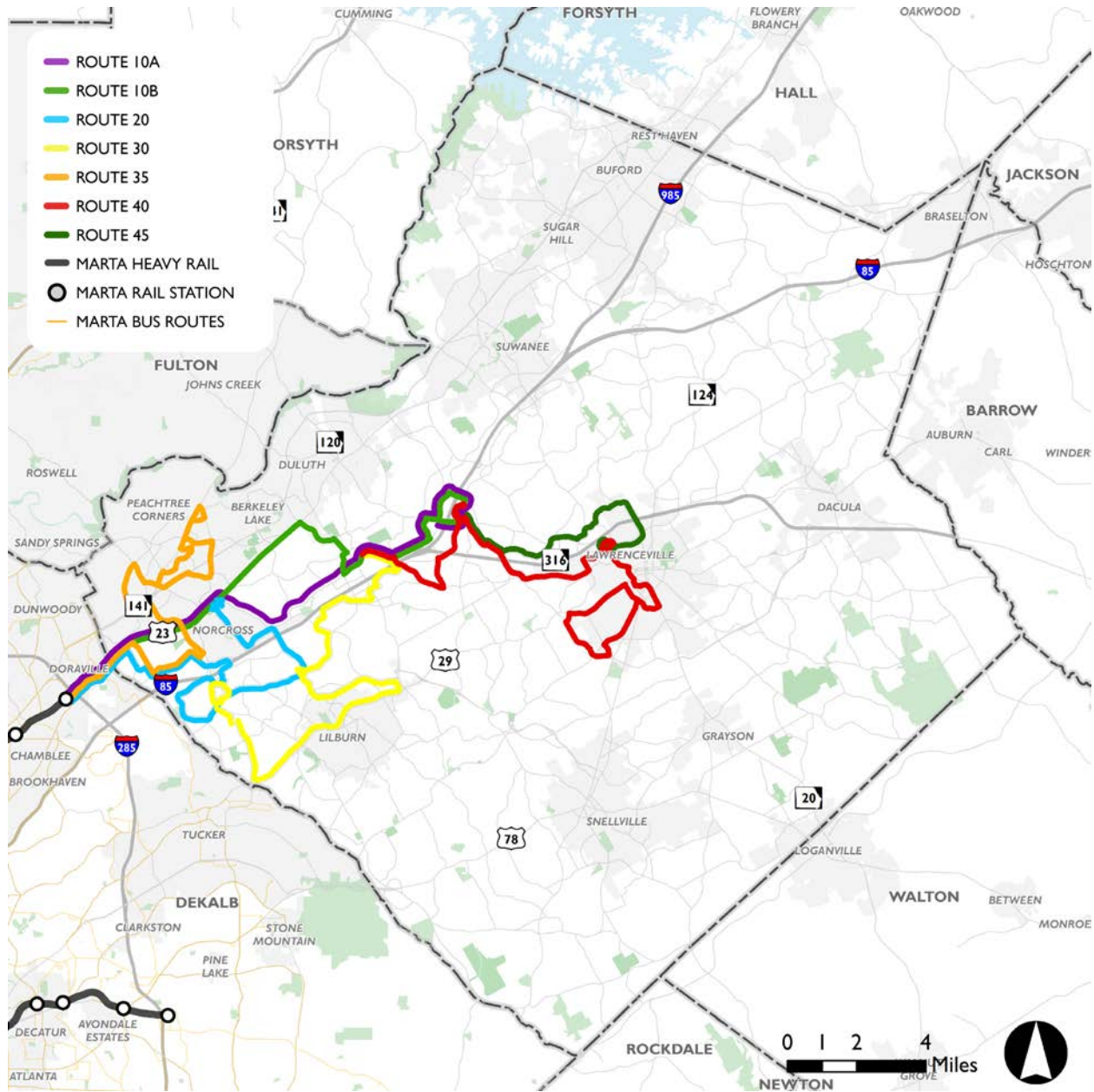
3.1 Local Bus

As shown in Table 3-1, all Local routes have peak headways of 30 minutes, with the combined frequency on the 10A/10B at 15 minutes during the weekday peak. The span of service varies for Local routes, with service starting between 5:30 a.m. and 6:15 a.m. and continuing until between 7:57 p.m. and 9:05 p.m. The exception is Route 10A, which continues until 10:30 p.m. The routes are all between 15 and 21 miles in length and peak one-way trip time is between 58 and 72 minutes.

Table 3-1: Local Bus Service Characteristics

Characteristics (Local Bus)	10A	10B	20	30	35	40	45
Weekday Peak Headway (mins)	30	30	30	30	30	30	60
Weekday Off-Peak Headway (mins)	60	120	60	60	60	60	60
Weekday Span of Service	5:30 a.m.- 10:30 p.m.	6:15 a.m.- 7:57 p.m.	5:34 a.m.- 9:05 p.m.	5:55 a.m.- 8:50 p.m.	5:50 a.m.- 8:50 p.m.	6:00 a.m.- 8:50 p.m.	5:55 a.m.- 8:55 p.m.
Saturday Headway (mins)	60	60	60	60	60	60	60
Saturday Span of Service	6:00 a.m.- 10:00 p.m.	6:30 a.m.- 9:30 p.m.	6:09 a.m.- 8:02 p.m.	6:41 a.m.- 8:34 p.m.	6:25 a.m.- 8:15 p.m.	6:44 a.m.- 8:43 p.m.	6:55 a.m.- 7:55 p.m.
Route Length – Inbound (mi)	15.8	16.9	18.1	20.5	15.1	20.2	9.1
Route Length – Outbound (mi)	15.1	16.1	17.4	20.7	15.2	19.4	9.5
Peak Hour Actual Running Time – Inbound/Outbound (mins)	58/60	60/63	62/61	72/69	62/66	62/63	54/56
Average Actual Running Time – Inbound/Outbound (mins)	52/53	53/55	56/56	63/61	52/58	58/57	54/56

Figure 3-1: Gwinnett County Transit Local Bus Service Map



3.2 Express Commuter Bus

All Express routes head into Atlanta in the morning and out of Atlanta in the evening, except for Route 103A, which acts as a reverse-commute Express route (Figure 3-2). There is greater variation in trip length and running time between Express Commuter routes than amongst Local routes.

Figure 3-2: Gwinnett County Transit Express Bus Service Map

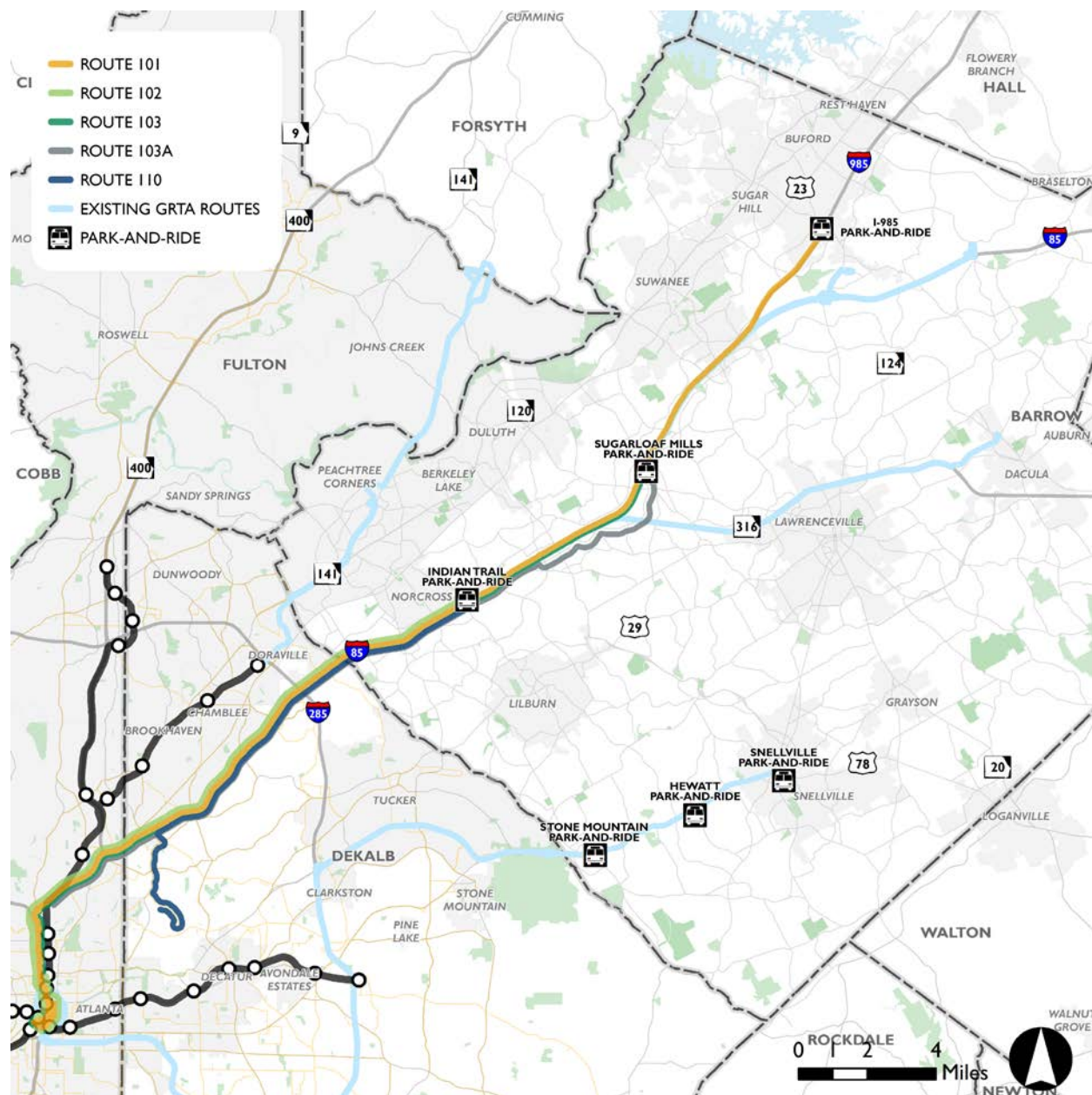


Table 3-2: Express Bus Service Characteristics

Characteristics (Express Bus)	101	102	103	103A	110
Weekday Peak Headway (mins)	15	30	10	60	30
Weekday Span of Service	5:30 a.m.-9:12 a.m.; 3:03 p.m.-7:12 p.m. ¹	6:10 a.m.-8:55 a.m.; 3:08 p.m.-6:28 p.m. ¹	5:40 a.m.-9:55 a.m.; 3:05 p.m.-7:04 p.m. ¹	7:00 a.m.-9:15 a.m.; 3:10 p.m.-6:30 p.m.	5:30 a.m.-8:39 a.m.; 3:45 p.m.-7:20 p.m.
Route Length – Inbound (mi)	36.8	21.0	28.1	27.9	15.5 - 23.7 ²
Route Length – Outbound (mi)	36.0	21.3	28.0	32.5	15.4 - 22.3 ²
Peak Hour Actual Running Time – Inbound/Outbound (mins)	78/75	53/48	62/78	59/74	39/37
Average Actual Running Time – Inbound/Outbound (mins)	74/68	51/46	58/67	59/73	38/36

1. Five daily “sweeper” buses pick up all 101/102/103 passengers in Atlanta and stop at all 3 park-and-ride lots. Two sweeper trips occur in the early afternoon with a span of service of 1:45-3:32 p.m., and three operate in the late evening with a span of service of 6:45-9:04 p.m.

2. Some Route 110 trips stop at both Sugarloaf Mills and Indian Trail Park-and-Ride lots; the route length for these trips is longer than it is for those that only stop at Indian Trail Park-and-Ride.

3.3 Paratransit

The transportation providers included the following four agencies:

- Gwinnett County Transit (ADA Paratransit operations only)
- Center for Pan Asian Community Services, Inc.
- View Point Health Systems
- Gwinnett County Health and Human Services

3.3.1 Gwinnett County Transit

Gwinnett County Transit operates locally in several municipalities in the Gwinnett County area. ADA Paratransit is a specialized transportation service of Gwinnett County Transit that provides curb-to-curb shared ride bus service for eligible persons with disabilities as a complement to the fixed-route service in accordance with the Americans with Disabilities Act of 1990. Gwinnett County Transit Paratransit service is provided by Transdev Services, Inc., a private, for profit operator of transportation services throughout the country. Transdev operates a fleet of seven 12-passenger vehicles. Each vehicle is equipped with three wheelchair positions to accommodate all types of mobility devices. All seven vehicles are owned by Gwinnett County. ADA eligible trip requests may be made by calling the day before the trip is needed.

Gwinnett County Transit charges a one-way fare of \$4.00 for ADA Paratransit passengers. Curb-to-Curb service is provided within a three-quarter-mile radius of the Gwinnett County Transit fixed route service with door-to-door service available by request.

3.3.2 Center for Pan Asian Community Services, Inc.

Center for Pan Asian Community Services, Inc. (CPACS) is a private, nonprofit organization that promotes self-sufficiency and equity for immigrants, refugees, and the underprivileged through comprehensive health and social services, capacity building, and advocacy. CPACS operates two distinct service models: the CPACS Express and the CPACS Clarkston Mobility Project. CPACS charges a one-way fare of \$2.00 for eligible passengers. Passengers 65 and older are asked to make a donation each trip.

3.3.3 View Point Health System

View Point Health Systems is one of 27 agencies created by the State of Georgia to provide care for individuals with behavioral health and developmental disabilities. View Point Health operates transportation to support its programs and several other local Georgia Department of Human Services (DHS) programs. View Point has a total of \$1.7 million allocated for transportation services annually.

3.3.4 Gwinnett County Health and Human Services

Gwinnett County Health and Human Services (HHS) offers programs and services for senior citizens, individuals, and families to improve their health and well-being. Available services include meals for seniors at home and a range of health and human services programs provided in five senior centers and support services. Two of the senior centers (Buford and Norcross) are also OneStop Human Services centers that house other, non-senior programs for Gwinnett County. The center locations are as follows:

- Buford OneStop Human Services & Senior Center
- Centerville OneStop Community & Senior Center
- Gwinnett Senior Services Center
- Norcross OneStop Human Services & Senior Center
- Lawrenceville Senior Center

Senior Services is a program within the HHS division. Gwinnett County Senior Services offers the four (4) individual transportation programs.

The service characteristics for Paratransit services are as follows in Table 3-3.

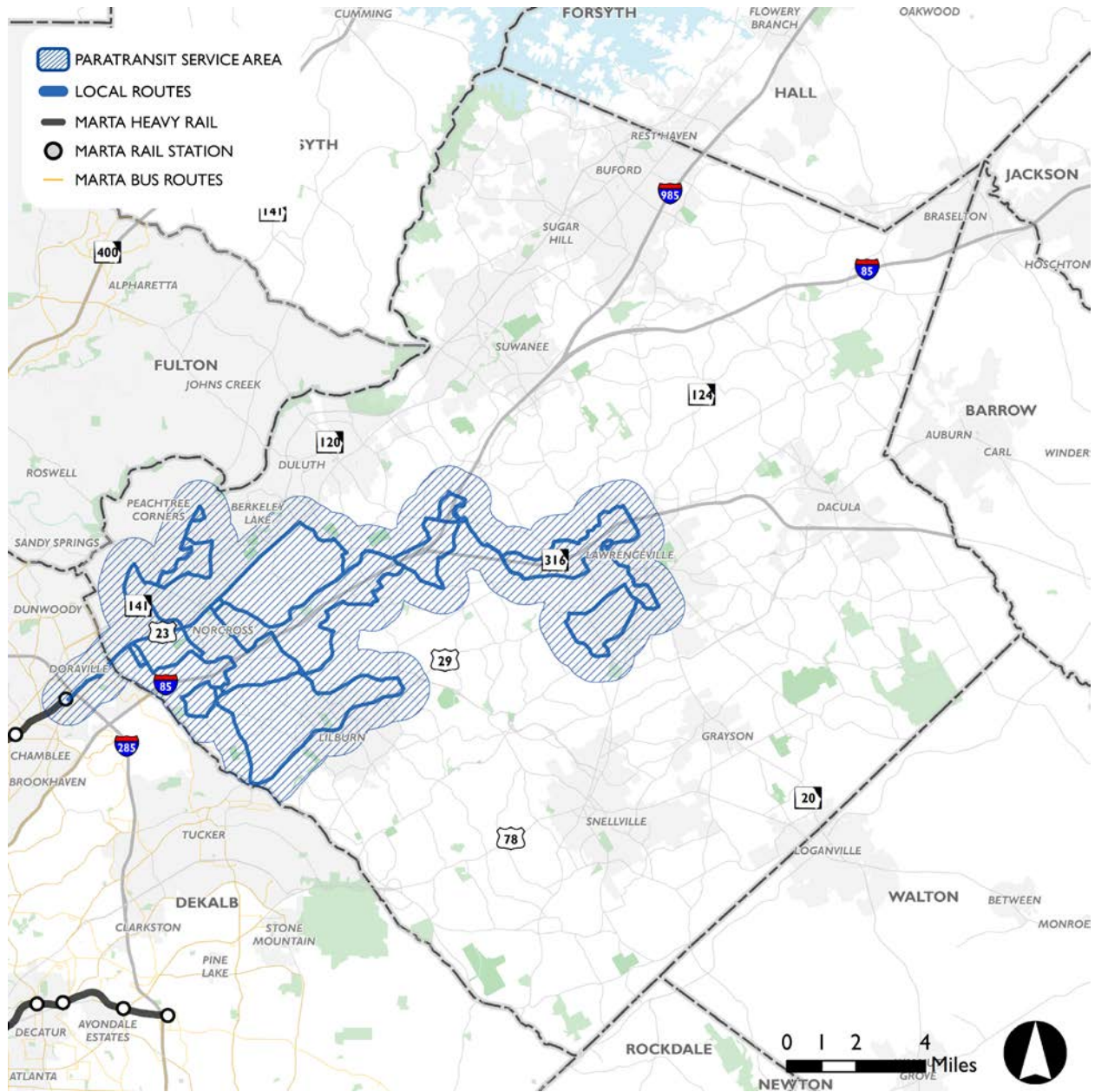
Table 3-3: Paratransit Service Characteristics

Provider		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Gwinnett County Transit	Starts	5:30 a.m.	5:30 a.m.	5:30 a.m.	5:30 a.m.	5:30 a.m.	6:00 a.m.
	Ends	9:30 p.m.	9:30 p.m.	9:30 p.m.	9:30 p.m.	9:30 p.m.	9:30 p.m.
CPACS	Starts	8:00 a.m.	8:00 a.m.	8:00 a.m.	8:00 a.m.	8:00 a.m.	No Service
	Ends	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	
View Point Health	Starts	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.
	Ends	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.
DHS Demand Response	Starts	6:00 a.m.	6:00 a.m.	6:00 a.m.	6:00 a.m.	6:00 a.m.	6:00 a.m.
	Ends	6:00 p.m.	6:00 p.m.	6:00 p.m.	6:00 p.m.	6:00 p.m.	6:00 p.m.
RideGwinnett	Starts	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.
	Ends	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.
Get-In-Gear	Starts	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.	12:00 a.m.
	Ends	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.	12:00 p.m.
Volunteer Driver	Starts	9:00 a.m.	9:00 a.m.	9:00 a.m.	9:00 a.m.	9:00 a.m.	9:00 a.m.
	Ends	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.

*View Point Health's peak hours are Monday-Friday 6:00 a.m. until 10:30 p.m. Some trips pick up as early as 4:30 a.m. On weekends, most trips are for employment and typically run 9:00 a.m. to 10:00 p.m.

*The GCSS Volunteer Driver program peak hours are between 10:00 a.m. and 3:00 p.m.

Figure 3-3: Gwinnett County Transit Paratransit Service Areas



4 SYSTEM IMPLEMENTATION PLAN

The Plan is described by the timeframe of implementation of each phase. As noted earlier, the phase of implementation is dependent on available resources, the timeframe to construct needed infrastructure, and continued growth of the County. This chapter is split into FY2019-2024, 2025-2029, 2030-2039, 2040-2048, and 2048+. In each phase, if transit services are new they will be fully introduced. If they are modifications of service from previous phases, only the changes will be described in that specific section.

For purposes of this study, route numbering for new Local and Express routes follow Gwinnett County Transit current route numbering practices, with Local route numbering in increments of 5 (e.g., 10, 15, 20, 25) and Express route numbering in the 100s. Rapid routes (proposed in the Long-Range Plan (all phases)) have been given route numbers in the 200s. Direct Connect routes have been given numbers in the 400s. Flex routes have been given numbers in the 500s, and BRT routes have been given numbers in the 700s.

It should be noted that numerous routes cross county boundaries to provide service to desired destinations. These routes will require cross-jurisdictional coordination with adjacent counties to offer these routes.

4.1 Short-Range: FY 2019-2024

The Short-Range Plan has been defined to reflect service plan proposals for the first five years of the Plan (FY 2019-2024). Short-Range recommendations are based on most immediate service needs (e.g., reduction in circuitous routing, later evening service), and take into consideration existing infrastructure/fleet constraints and the likely timeframes required to implement significant capital improvements. The proposed Short-Range Plan reflects a significant expansion of service over existing Gwinnett County Transit service—a 125 percent increase in annual bus-hours of service.

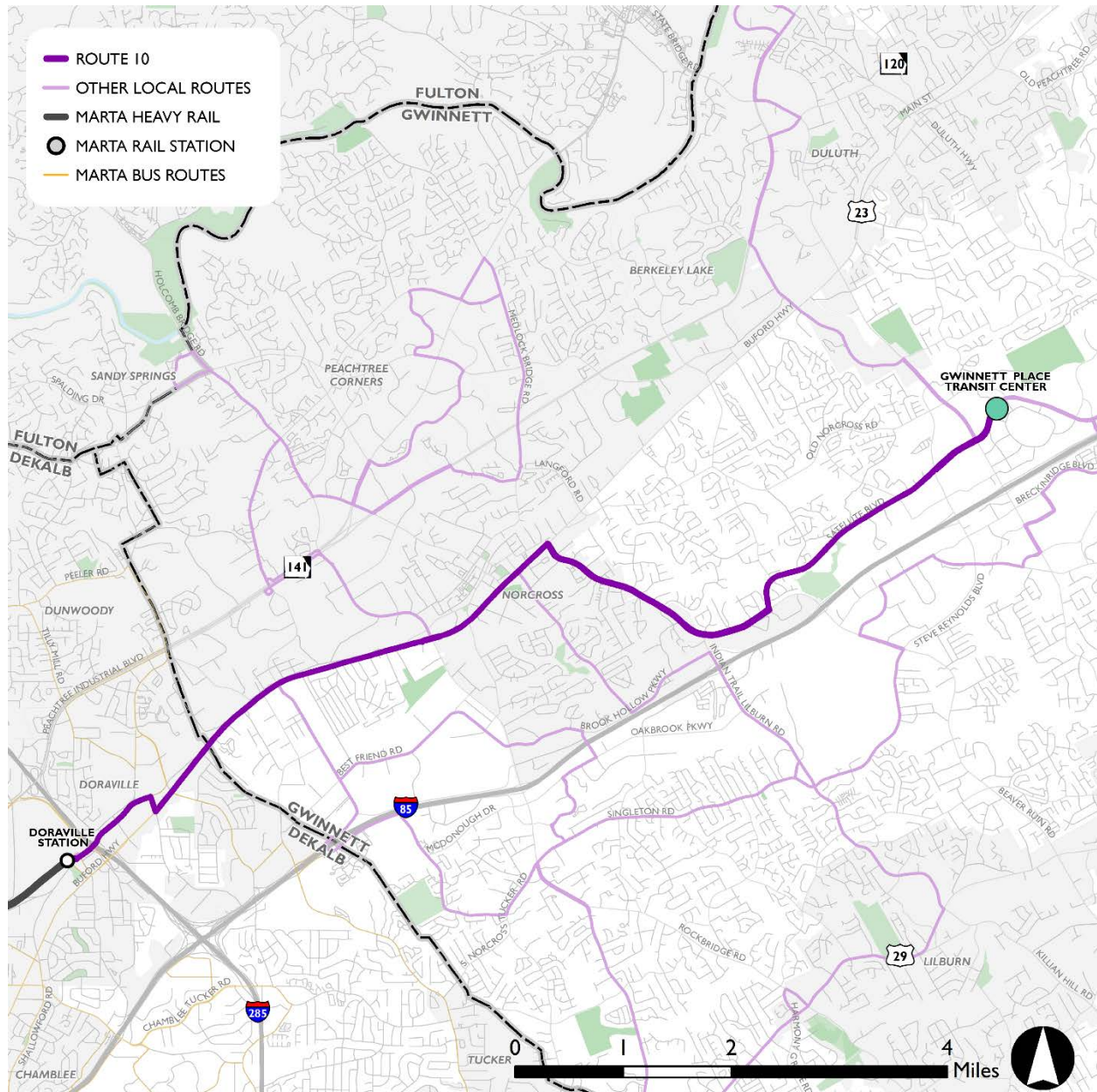
4.1.1 Local Bus

4.1.1.1 Route 10

The existing Route 10 has two route patterns (Figure 4-1). Both routes begin/end at the Doraville MARTA rail station and at the Sugarloaf Mills Park-and-Ride lot. Route 10A operates to the Gwinnett Place Transit Center via Beaver Ruin Road/Satellite Boulevard. Route 10B operates to the Gwinnett Place Transit Center via Buford Highway and South Berkeley Lake Road/Pleasant Hill Road.

The Plan proposes one route pattern that operates from Doraville Station to the Gwinnett Place Transit Center. The connection between New Peachtree Road and Buford Highway is changed from Oakcliff Road to McElroy Road (to avoid congestion at New Peachtree Road/Oakcliff Road). The route continues along Buford Highway, Beaver Ruin Road and Satellite Boulevard to the Gwinnett Place Transit Center, where connections can be made to several other proposed routes. Existing Route 10B service along Pleasant Hill Road and South Berkeley Road is covered by new Routes 25 and 75. Existing Route 10A/10B service north of the Gwinnett Place Transit Center is covered by proposed Routes 45 and 50. Proposed Route 10 frequencies in this timeframe are 15 minutes all-day on weekdays and 30 minutes on weekday evenings and Saturdays.

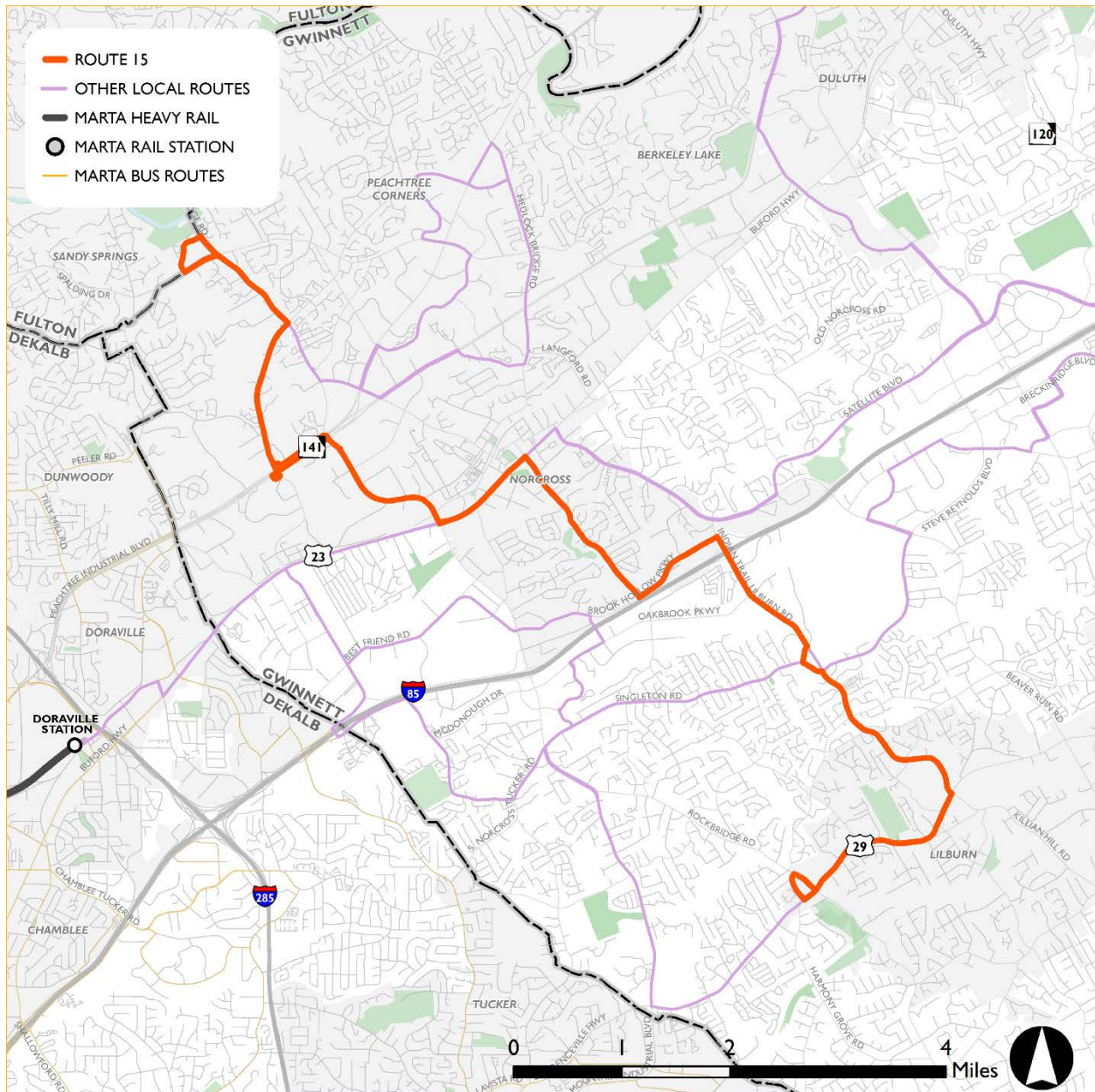
Figure 4-1: Route 10 (FY2019-24)



4.1.1.2 Route 15

This is a new route (Figure 4-2). Route 15 is proposed to provide service from Peachtree Corners to Lilburn via Norcross. The route begins at Holcomb Bridge Road and Spalding Drive, where it connects to MARTA's Route 142 that began service in December 2017. This route operates through Norcross via Mitchell Drive, picking up segments of the existing Route 20. This route is also proposed to be interlined with Route 30. Thus, Route 15 riders will have opportunities to connect to the Doraville MARTA Station by either staying on the bus as it changes to Route 30 or transferring along Buford Highway to Route 10. Proposed frequencies are 60 minutes on weekdays and Saturdays.

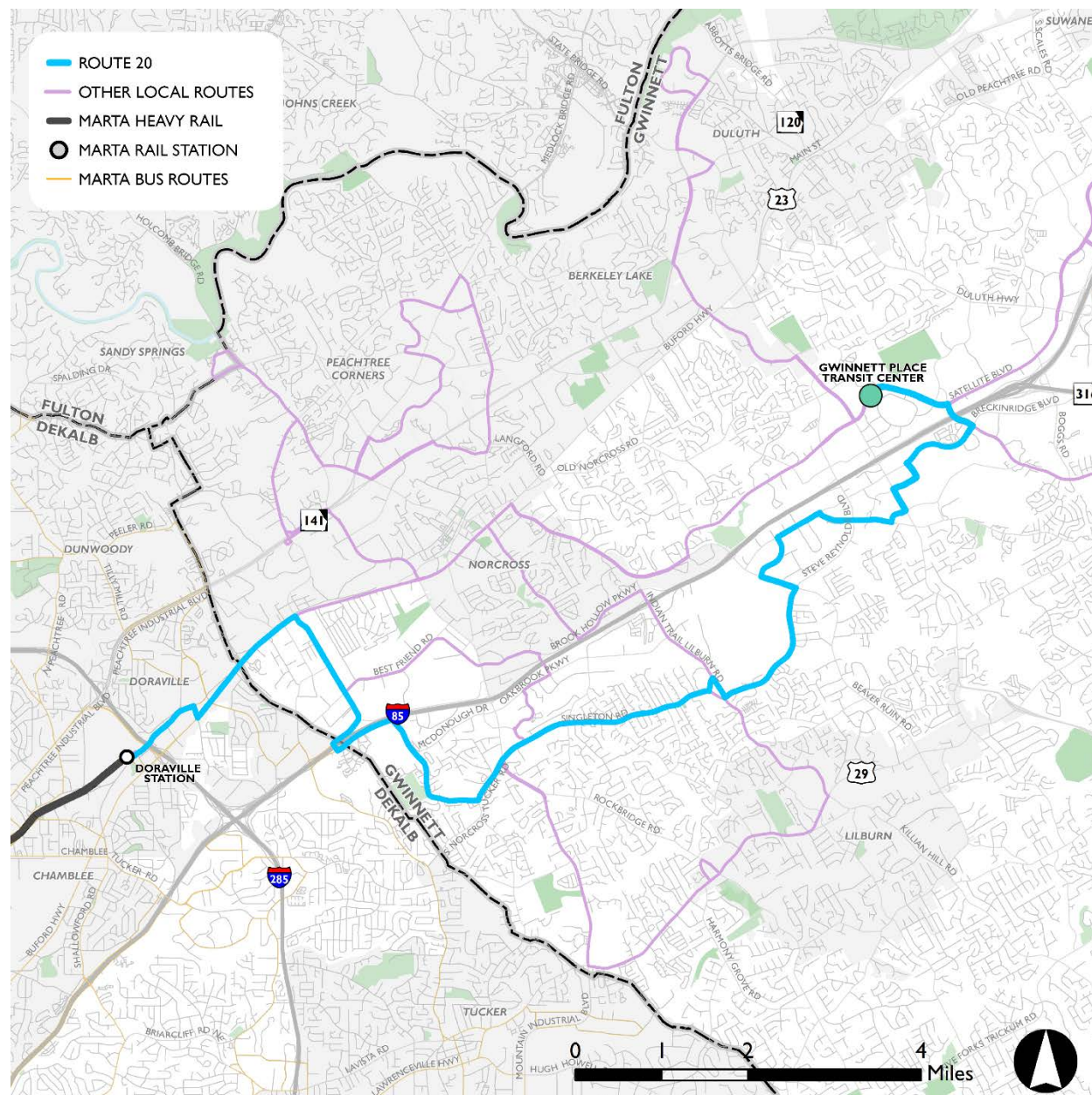
Figure 4-2: Route 15 (FY2019-24)



4.1.1.3 Route 20

Route 20's alignment would be modified from existing to provide more direct service to the Doraville MARTA station for passengers that are originating or destined to locations on the east side of I-85 (Figure 4-3). The proposed alignment heads east from Doraville MARTA Station on Buford Highway, then heads south on Button Gwinnett Drive and Graves Road. The route then heads east on Norcross Tucker Road, which turns into Singleton Road and Steve Reynolds Boulevard. The route then proceeds north onto Beaver Run Road before heading east on Shackleford Road, Club Drive, and Sweetwater Road. The route then proceeds north on Old Norcross Road to reach the Gwinnett Place Transit Center. Proposed frequencies are 30-minutes on weekdays and 60-minutes on weekday evenings and Saturdays.

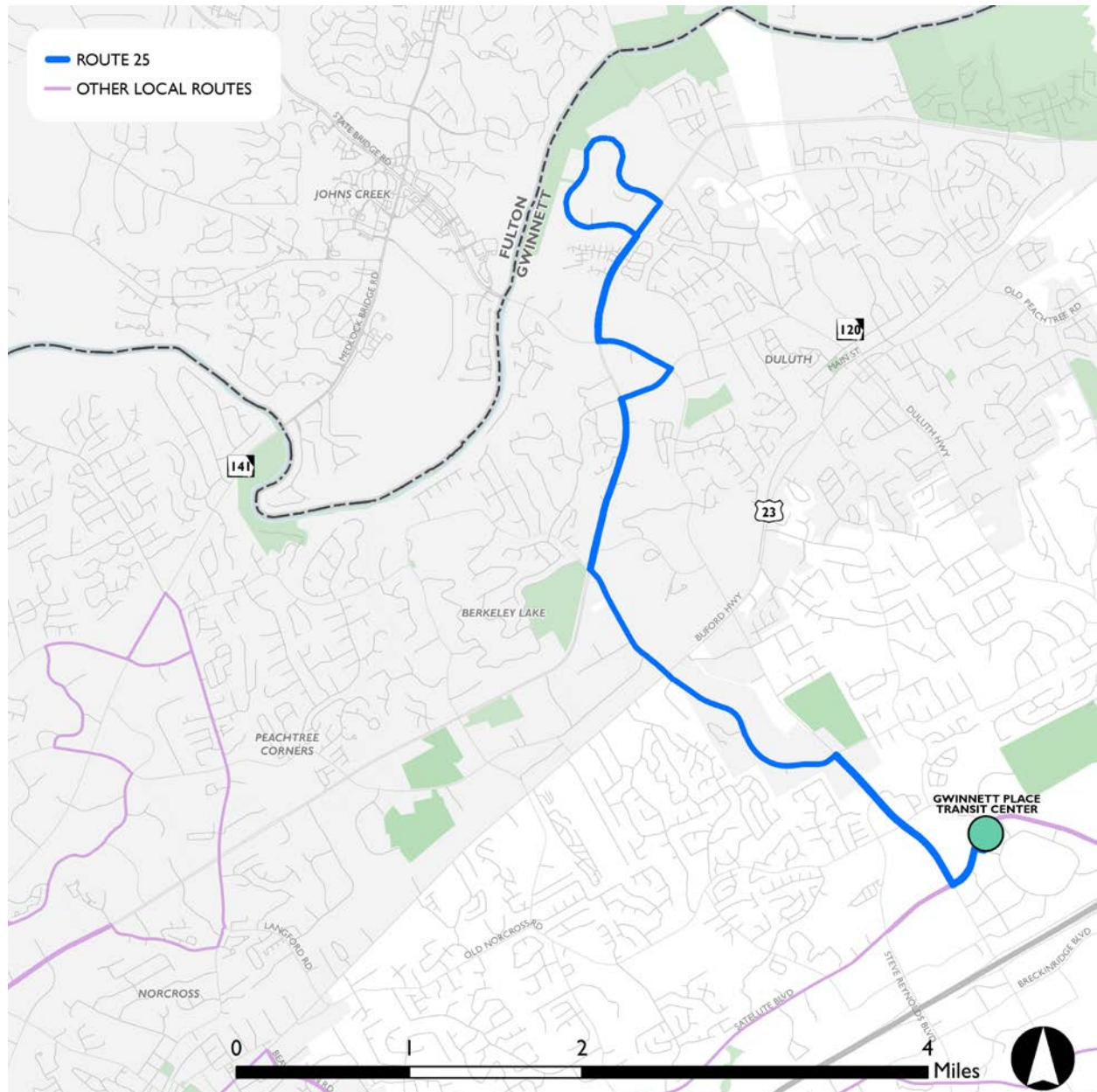
Figure 4-3: Route 20 (FY2019-24)



4.1.1.4 Route 25

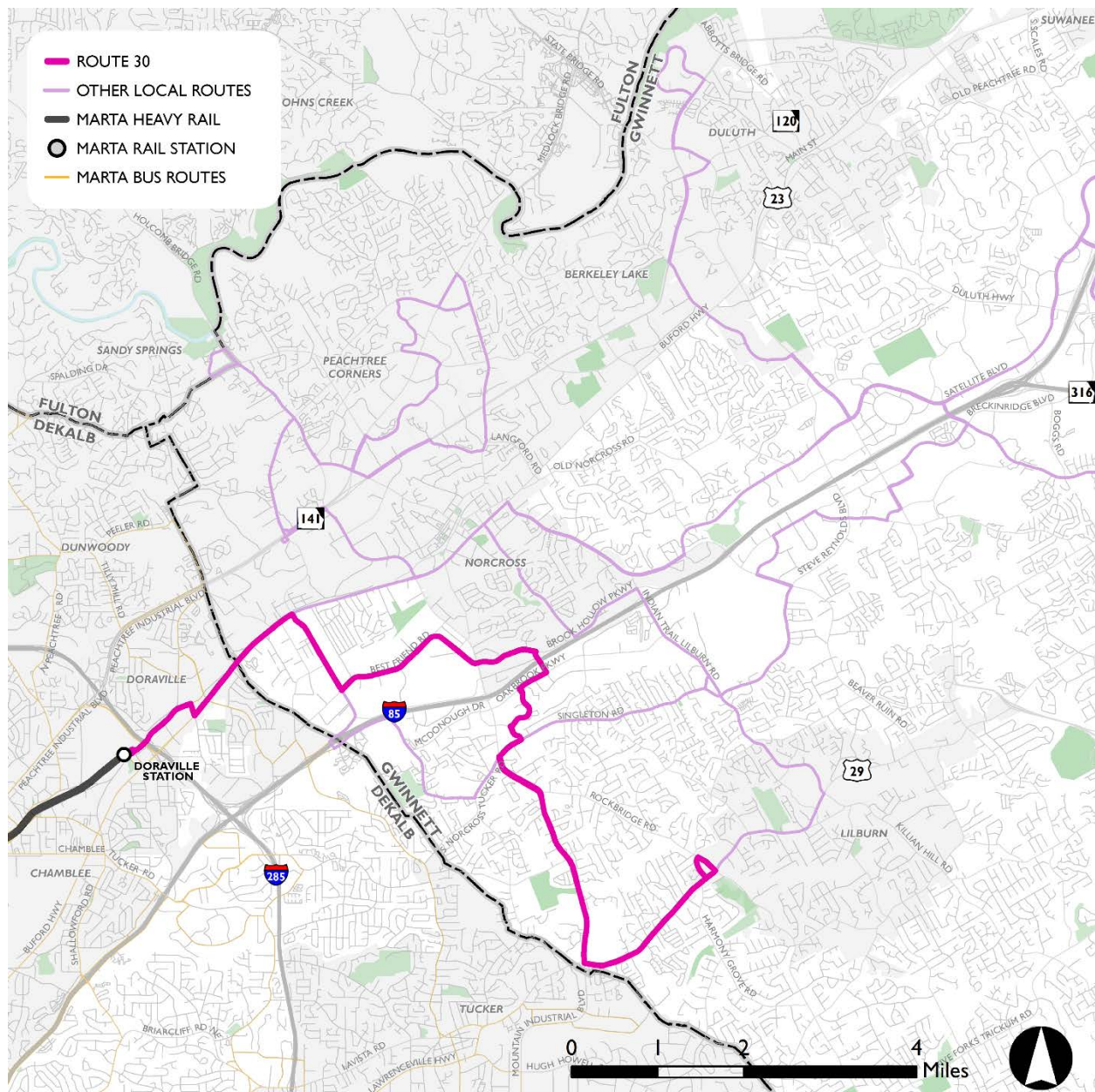
This is a new route (Figure 4-4). Route 25 is proposed to provide service between the Gwinnett Place Transit Center and Duluth. The route begins at the Gwinnett Place Transit Center and operates along Pleasant Hill Road and South Berkeley Road (adjacent to the Walmart) to Peachtree Industrial Boulevard. Route 25 continues to Duluth, serving the Georgia Medical Center – Duluth Campus. Proposed frequencies are 60-minute all-day frequency (including Saturday service).

Figure 4-4: Route 25 (FY2019-24)



Route 30 would be modified from the existing Route 30 to provide riders with a one seat ride to the Doraville MARTA station (Figure 4-5). The route begins at Doraville MARTA station and ends in Lilburn at Rockbridge Road and John Carroll Road. Starting at Doraville MARTA, the route heads east on the same alignment as Route 20 before heading east on Best Friend Road, which turns into Brook Hollow Parkway. The route then proceeds to Jimmy Carter Boulevard via Center Way, Oakbrook Parkway, Live Oak Parkway, Thompson Parkway, and Singleton Road. It then heads east on Lawrenceville Highway to its eastern terminus. This route has 60-minute frequencies on weekdays and Saturdays.

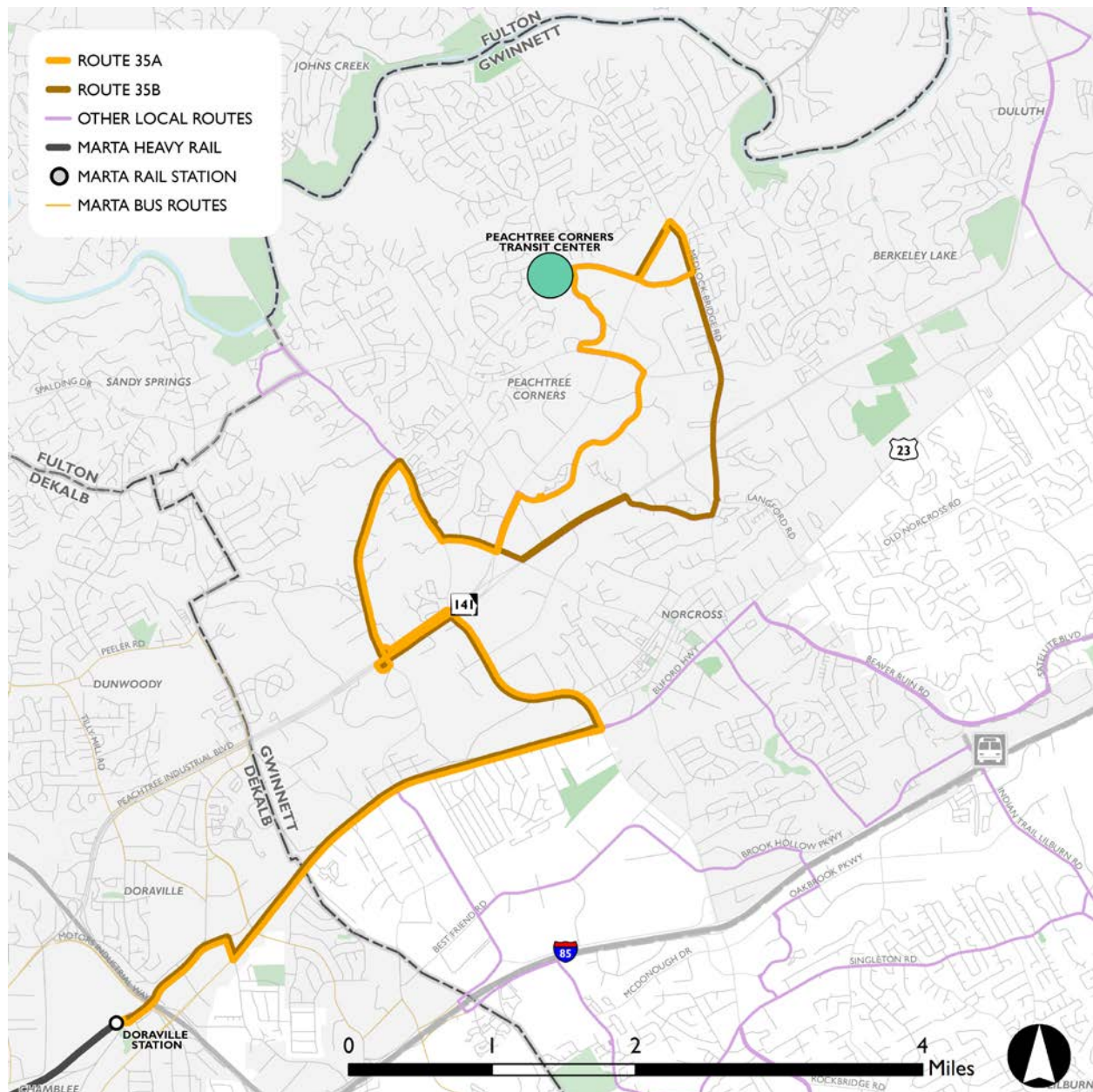
Figure 4-5: Route 30 (FY2019-24)



4.1.1.6 Route 35A/35B

Route 35 provides service between Peachtree Corners and the Doraville MARTA Station (Figure 4-6). There are some one direction service segments with the current alignment, which creates out-of-direction travel. This route's alignment also crosses Buford Highway to Best Friend Road, resulting in indirect routing to/from the Doraville MARTA Station. The proposed new alignment eliminates service south/east of Buford Highway to provide more direct routing. Two patterns are proposed to eliminate existing segments with one-direction service. Both patterns' end-of-line is at a new transit center in Peachtree Corners. Each pattern would operate at 60-minute frequencies on weekdays, providing a combined 30-minute frequency on the trunk of the route.

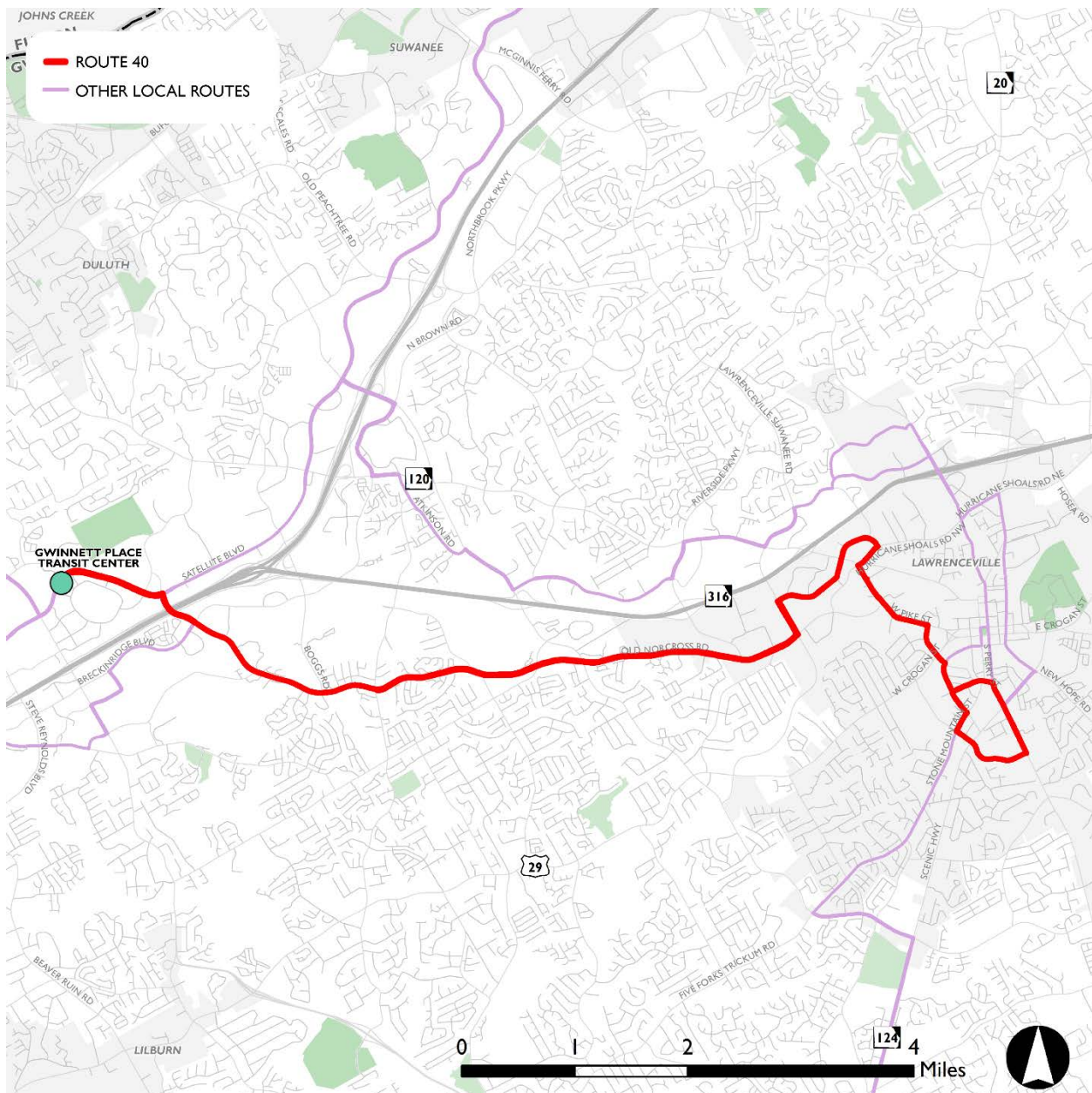
Figure 4-6: Route 35A/35B (FY2019-24)



4.1.1.7 Route 40

Route 40 presently provides service between the Gwinnett Place Transit Center and Lawrenceville via Sugarloaf Mills (Figure 4-7). The route's alignment to Sugarloaf Mills results in significant out-of-direction travel for riders traveling to/from Lawrenceville. Route 40 is restructured into Route 40 and Route 45. Route 40 is proposed to remain south of SR 316, primarily along Old Norcross Road, with service to Gwinnett Medical Center, the Gwinnett Justice and Administration Center (GJAC), and the Division of Family and Child Services. Proposed frequencies are 30-minutes on weekdays and 60-minutes on weekday evenings and Saturdays.

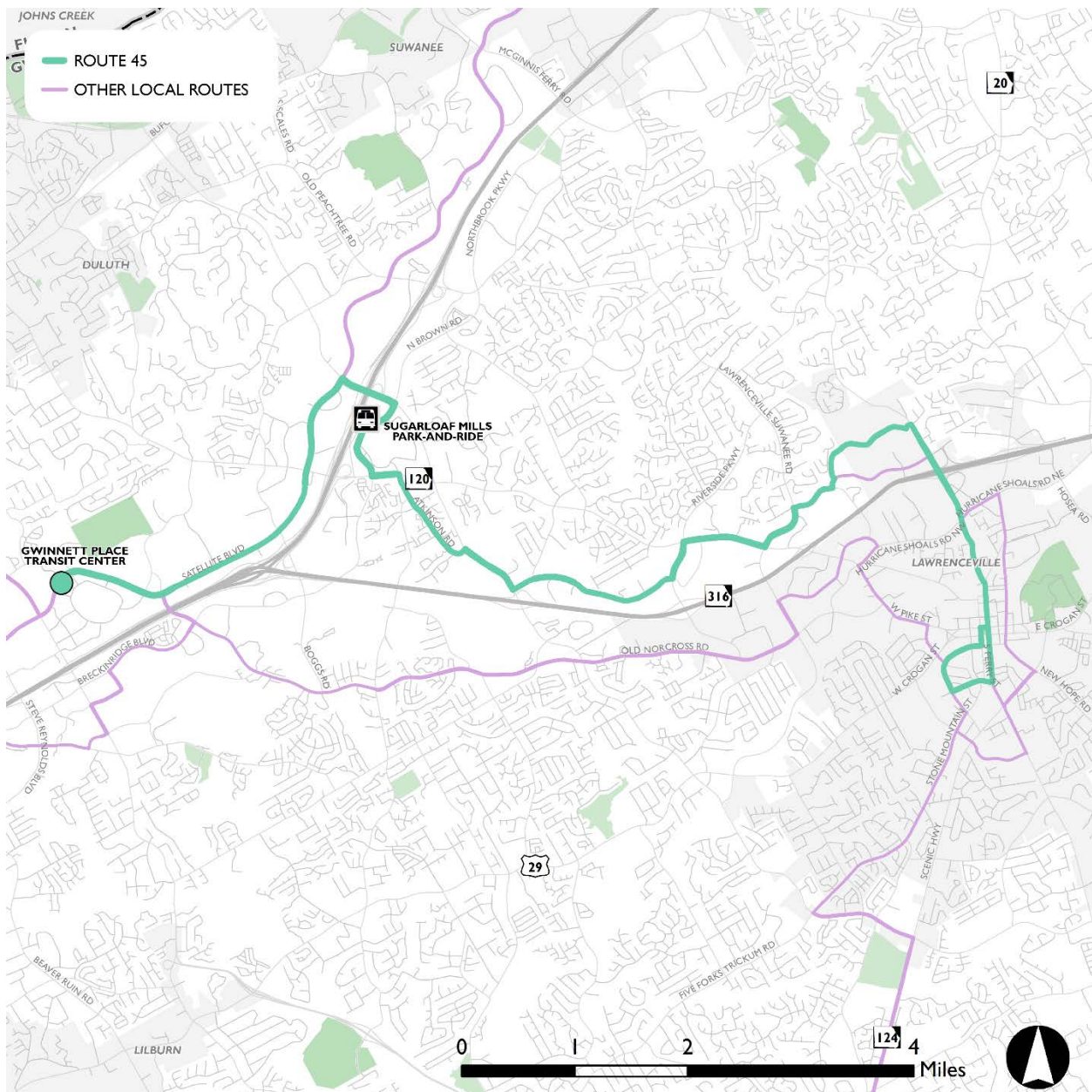
Figure 4-7: Route 40 (FY2019-24)



4.1.1.8 Route 45

Route 45 would be modified to provide service between Downtown Lawrenceville and the Gwinnett Place Transit Center. The proposed route to continue to serve Sugarloaf Mills and Georgia Gwinnett College, but would originate at the Gwinnett Place Transit Center where it would follow Satellite Boulevard to Sugarloaf Mills. From Sugarloaf, the route remain north of SR 316 to Georgia Gwinnett College, where it then would continue to Downtown Lawrenceville via Northdale Road (Figure 4-8). Proposed frequencies are 30-minutes on weekdays and 60-minutes on weekday evenings and Saturdays.

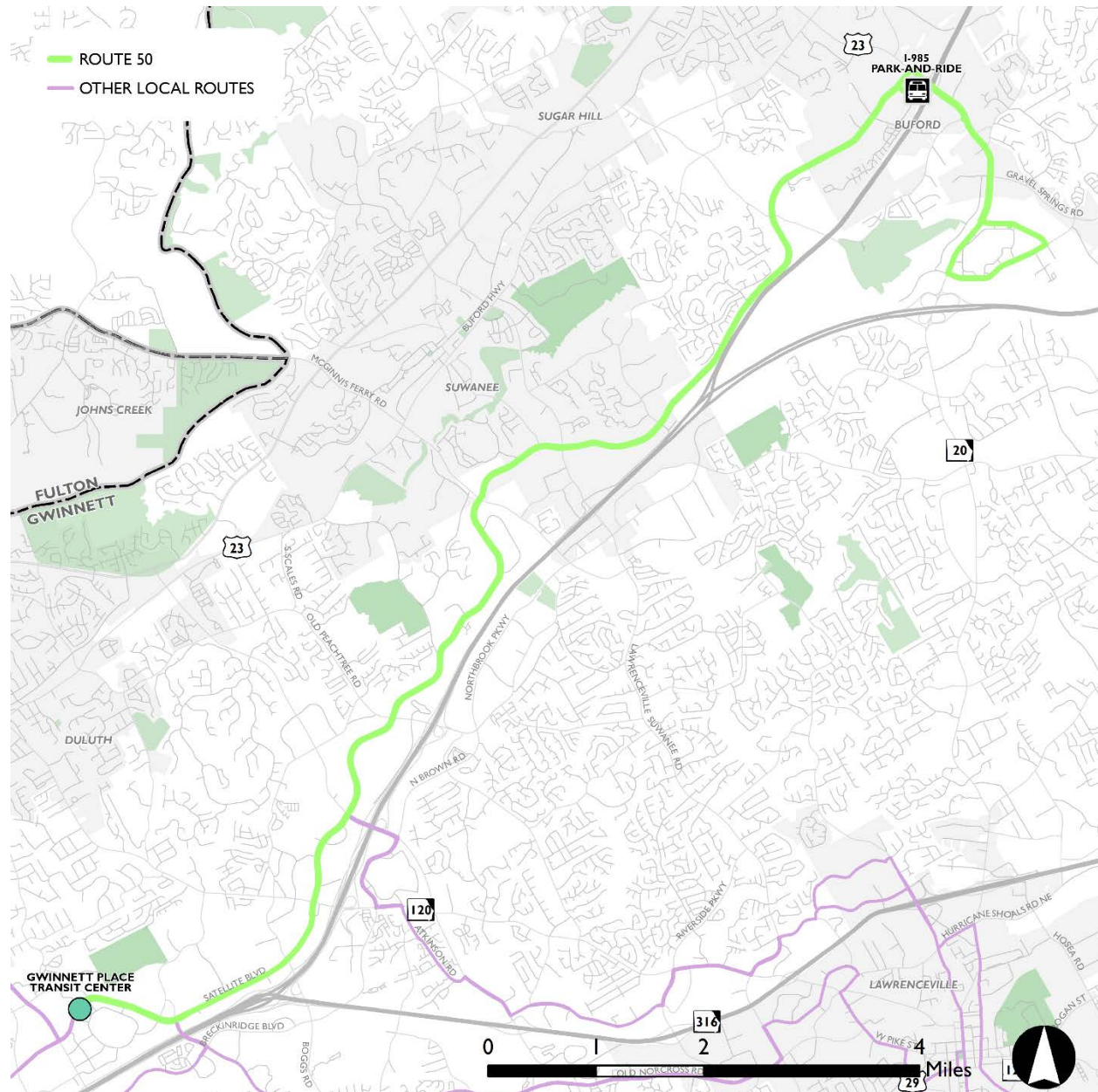
Figure 4-8: Route 45 (FY2019-24)



4.1.1.9 Route 50

Route 50 is a new route to provide service between the Gwinnett Place Transit Center and the Mall of Georgia, primarily via Satellite Boulevard (Figure 4-9). Proposed frequencies are 30-minutes on weekdays and 60-minutes on weekday evenings and Saturdays.

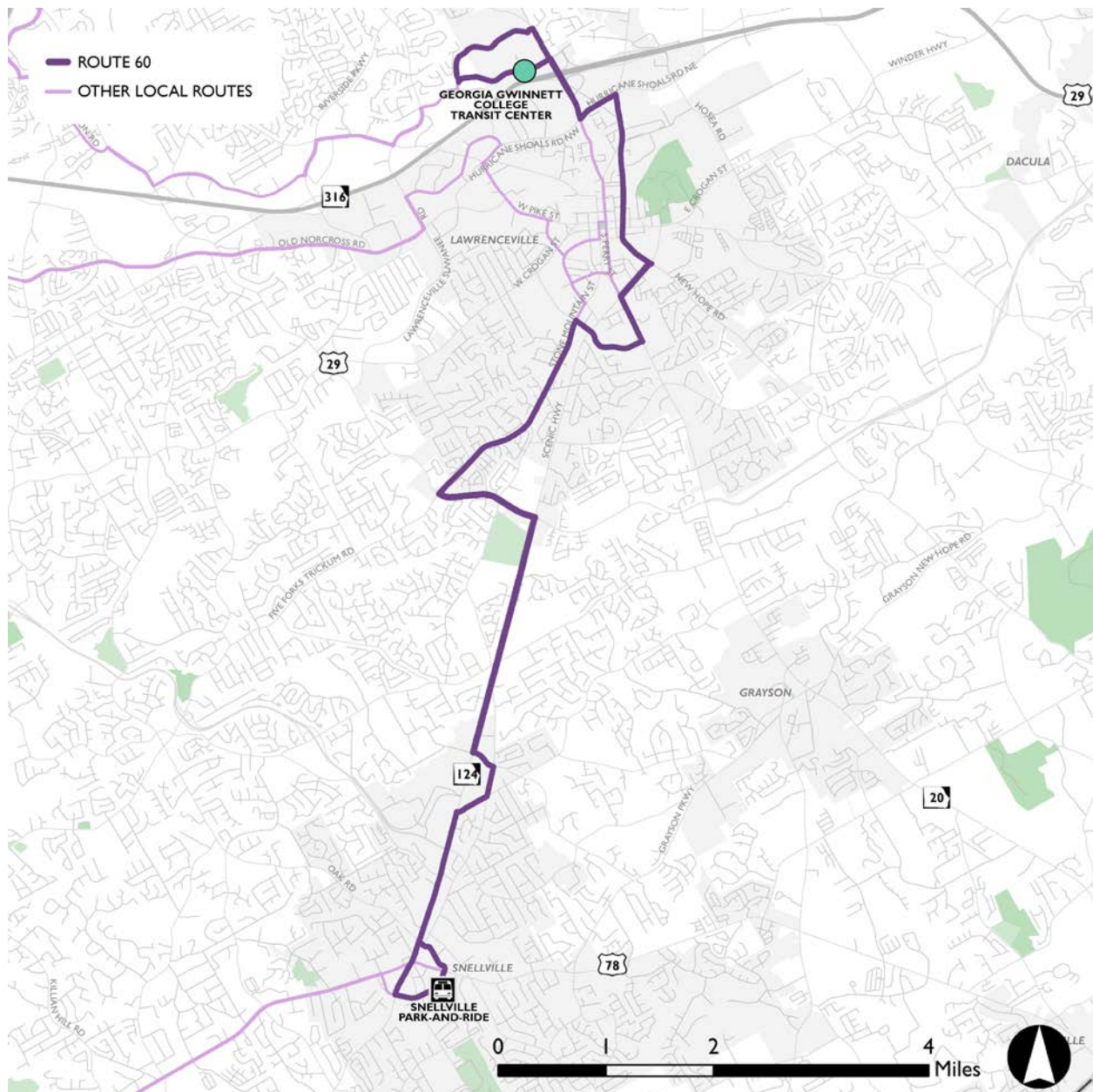
Figure 4-9: Route 50 (FY2019-24)



4.1.1.10 Route 60

Route 60 is a new route that operates between Snellville and Georgia Gwinnett College via Lawrenceville, where transfers are possible to other routes (Figure 4-10). This route operates primarily along Highway 124, with a deviation along Pharrs Road, North Road, and Ridgedale Drive to provide access to a Walmart. It is proposed extra time be built into the schedule to allow for on-demand service to the Eastside Medical Center complex at Ronald Reagan Parkway. Route 60 also maintains service coverage along a portion of existing Route 40's alignment. Proposed frequencies are 60-minutes on weekdays and Saturdays.

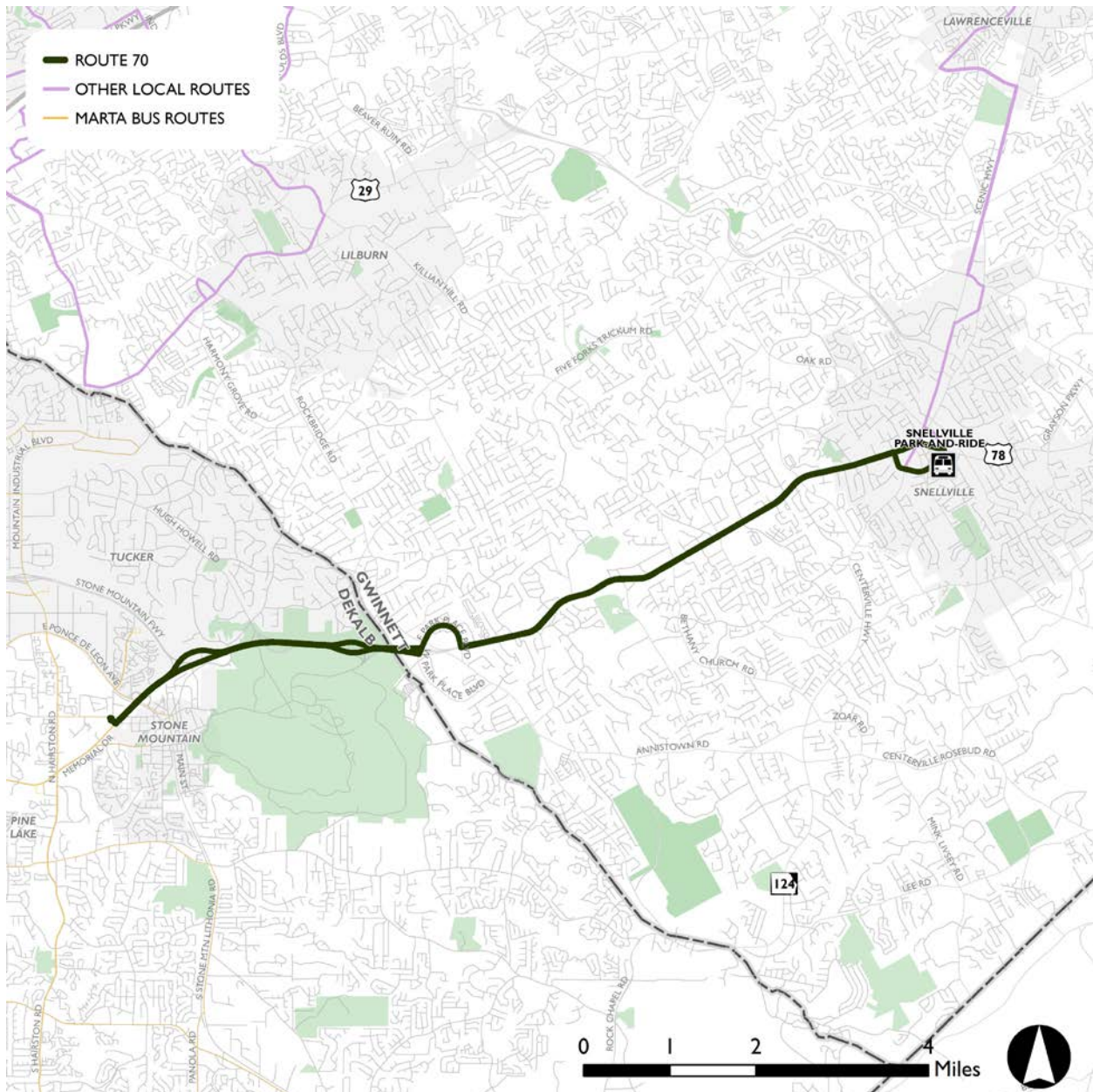
Figure 4-10: Route 60 (FY2019-24)



4.1.1.11 Route 70

Route 70 is a new route, between Snellville, where transfers are possible to the proposed Route 60, and northern DeKalb County (Figure 4-11). This route operates along US 78 to the Goldsmith Park-and-Ride lot, which is currently served by MARTA routes 119, 120, and 221. Proposed frequencies are 60 minutes on weekdays only.

Figure 4-11: Route 70 (FY2019-24)



The entire Local network for the Short-Range (FY 2019-2024) is shown in Figure 4-12 with service characteristics provided in Table 4-1.

Figure 4-12: FY2024 Local Bus Service Map

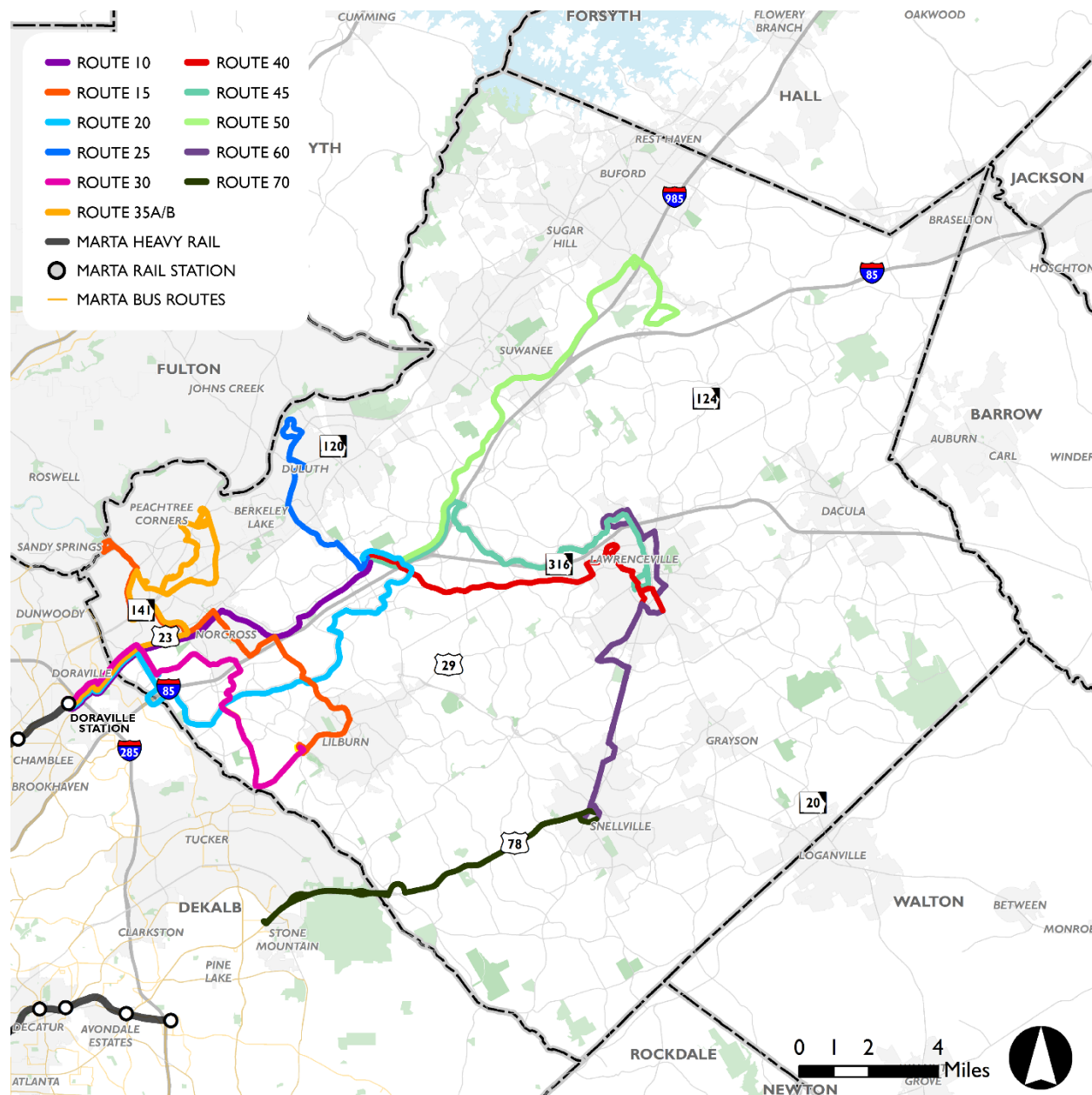


Table 4-1: FY2024 Local Bus Service Characteristics

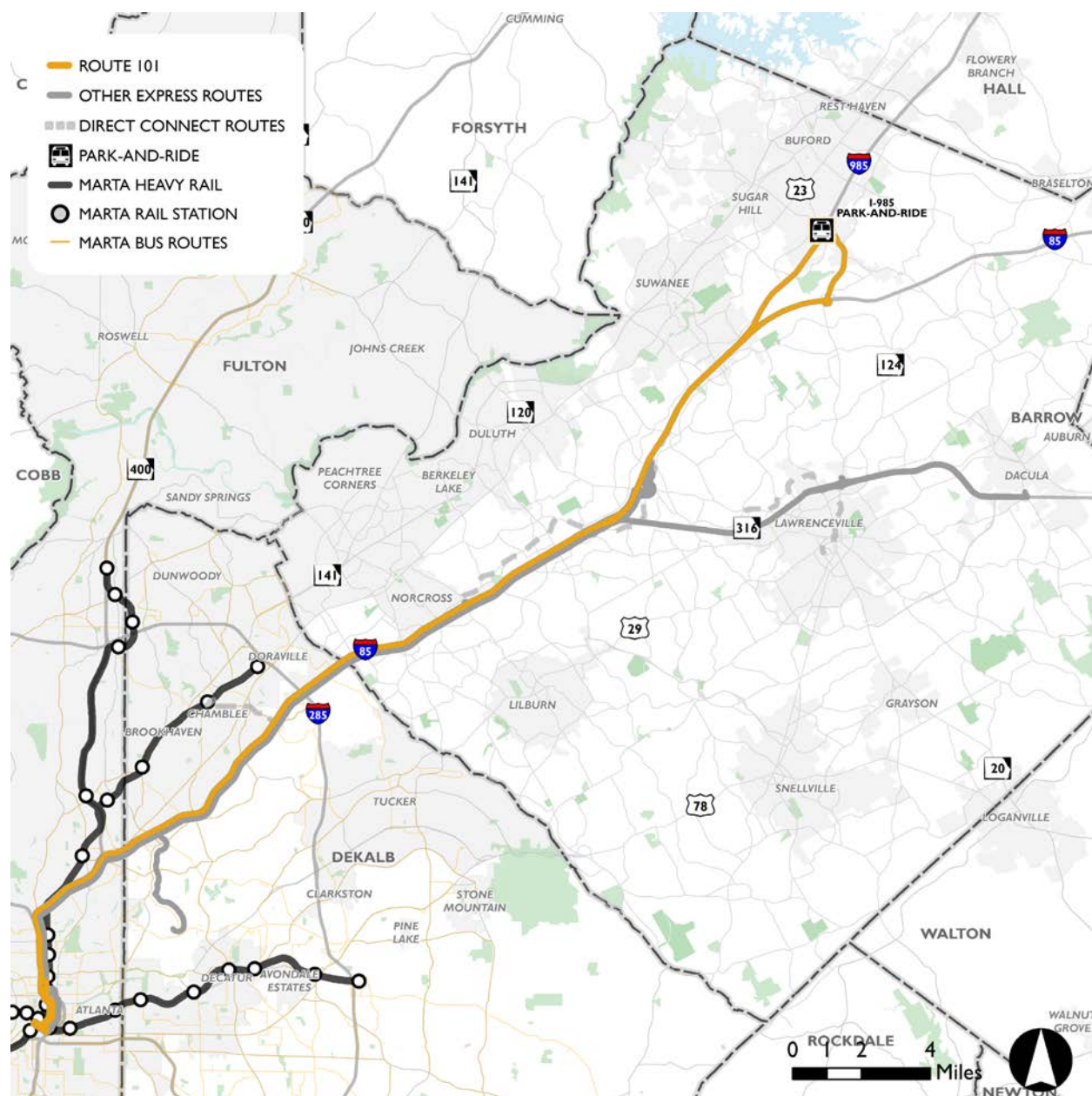
Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
10	Gwinnett Place Transit Center/Doraville via Buford Highway & Satellite Boulevard	Weekday	5:30 a.m.- 10:30 p.m.	15	15	15	30
		Saturday	6:00 a.m.- 10:30 p.m.	30	30	30	30
15	Peachtree Corners/Lilburn	Weekday	5:30 a.m.- 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m.- 8:00 p.m.	60	60	60	60
20	Gwinnett Place Transit Center/Doraville via Singleton Road/Steve Reynolds Boulevard	Weekday	5:30 a.m.- 10:30 p.m.	30	30	30	60
		Saturday	6:00 a.m.- 10:30 p.m.	60	60	60	60
25	Gwinnett Place Transit Center/Duluth	Weekday	5:30 a.m.- 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m.- 8:00 p.m.	60	60	60	60
30	Lilburn/Doraville	Weekday	5:30 a.m.- 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m.- 8:00 p.m.	60	60	60	60
35A	Peachtree Corners/Doraville via Technology Parkway	Weekday	5:30 a.m.- 10:30 p.m.	60	60	60	60
		Saturday	6:00 a.m.- 10:30 p.m.	60	60	60	60
35B	Peachtree Corners/Doraville via Medlock Bridge Road	Weekday	5:30 a.m.- 8:00 p.m.	60	60	60	60
		Saturday	N/A	n/a	n/a	n/a	n/a
40	Gwinnett Place Transit Center/Lawrenceville	Weekday	5:30 a.m.- 8:00 p.m.	30	30	30	60
		Saturday	6:00 a.m.- 8:00 p.m.	60	60	60	60
45	Gwinnett Place Transit Center/Georgia Gwinnett College via Sugarloaf Mills	Weekday	5:30 a.m.- 10:30 p.m.	30	30	30	60
		Saturday	6:00 a.m.- 10:30 p.m.	60	60	60	60
50	Gwinnett Place Transit Center/Mall of Georgia	Weekday	5:30 a.m.- 10:30 p.m.	30	30	30	60
		Saturday	6:00 a.m.- 10:30 p.m.	60	60	60	60
60	Lawrenceville/Snellville	Weekday	5:30 a.m.- 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m.- 8:00 p.m.	60	60	60	60
70	Snellville/Goldsmith	Weekday	5:30 a.m.- 8:00 p.m.	60	60	60	60
		Saturday	N/A	n/a	n/a	n/a	n/a

4.1.2 Express Commuter Bus

4.1.2.1 Route 101

Route 101 would be unchanged from the existing Route 101, which provides peak-period, peak-direction Express service between I-985 Park-and-Ride and downtown Atlanta on weekdays (Figure 4-13).

Figure 4-13: Route 101 (FY2019-24)

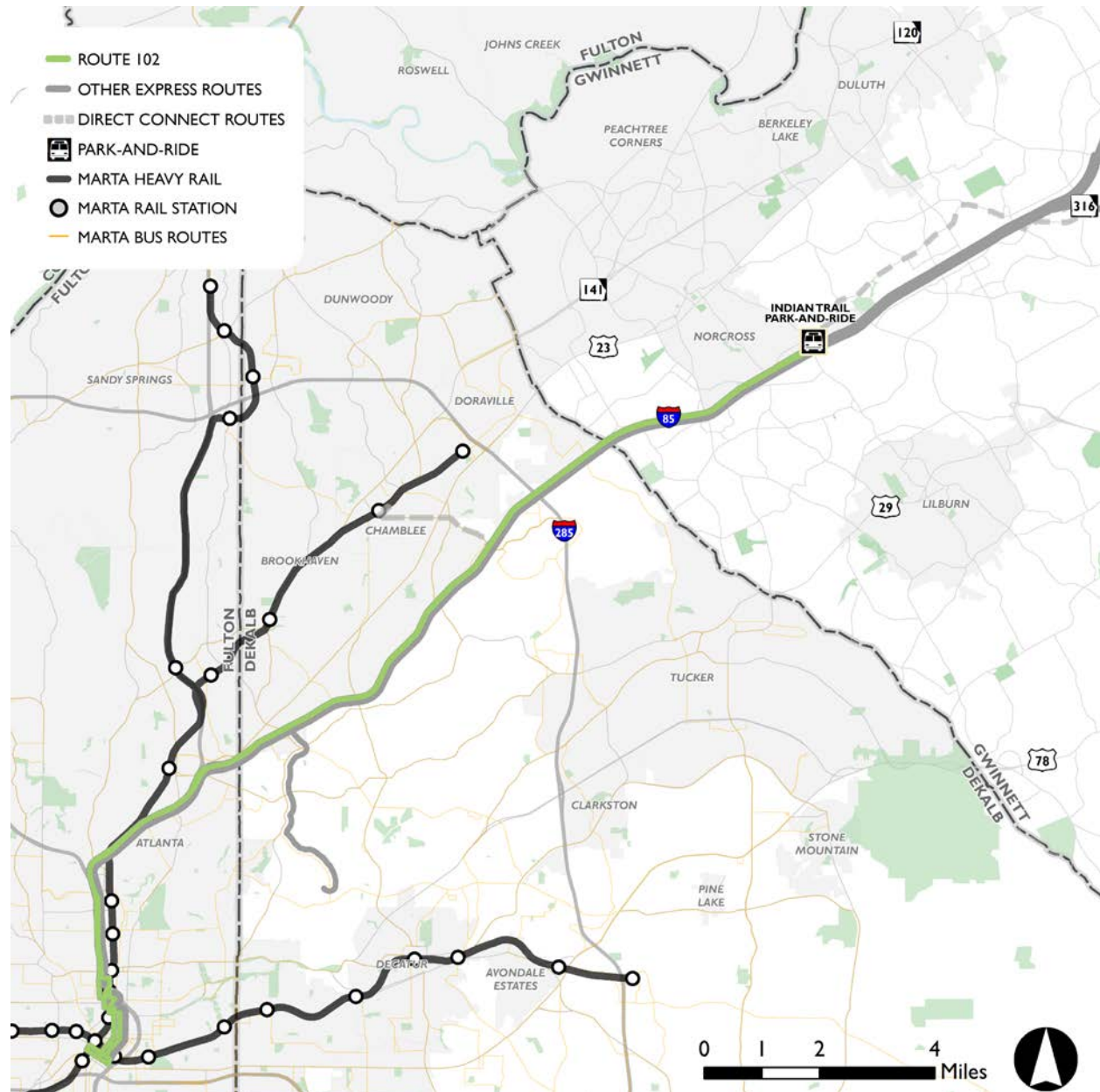


Note: Route 101 could alternatively remain on I-985 as it does today

4.1.2.2 Route 102

Route 102 would be unchanged from the existing Route 102, which provides peak-period, peak-direction Express service between Indian Trail Park-and-Ride and downtown Atlanta on weekdays (Figure 4-14).

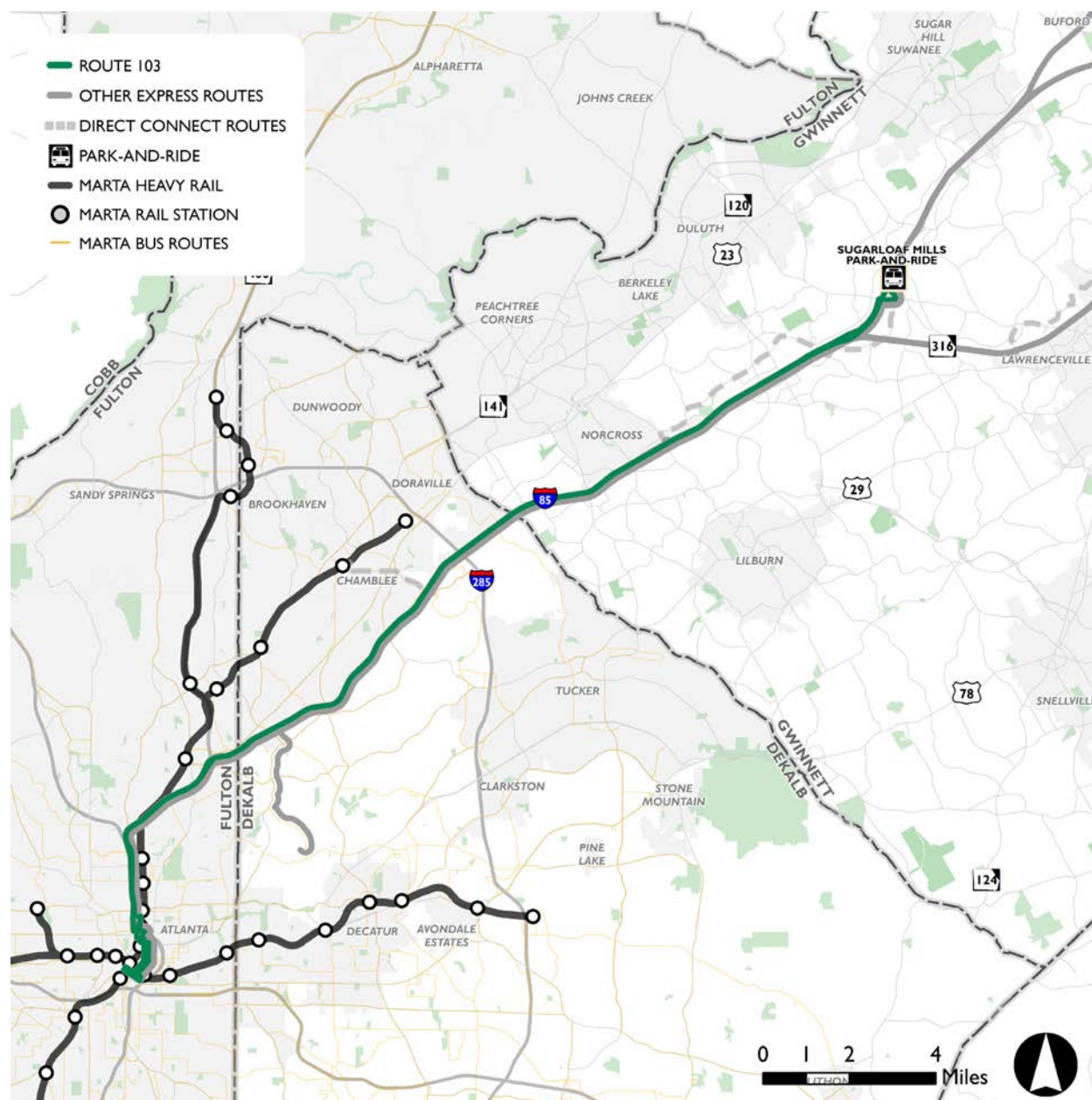
Figure 4-14: Route 102 (FY2019-24)



4.1.2.3 Route 103/103A

Route 103 would be unchanged from the existing Route 103, which provides peak-period, peak-direction Express service between Sugarloaf Mills Park-and-Ride and downtown Atlanta on weekdays (Figure 4-15). Route 103A, which provides reverse-commute service from downtown Atlanta to Sugarloaf Mills Park-and-Ride, will be discontinued after FY 2021 and replaced with the Direct Connect service, described in a later section. Additionally, the existing “sweeper” Express route, which provides service from downtown Atlanta to the park-and-rides at I-985, Indian Trail, and Sugarloaf Mills, will be discontinued after FY 2021 and replaced with the Direct Connect service.

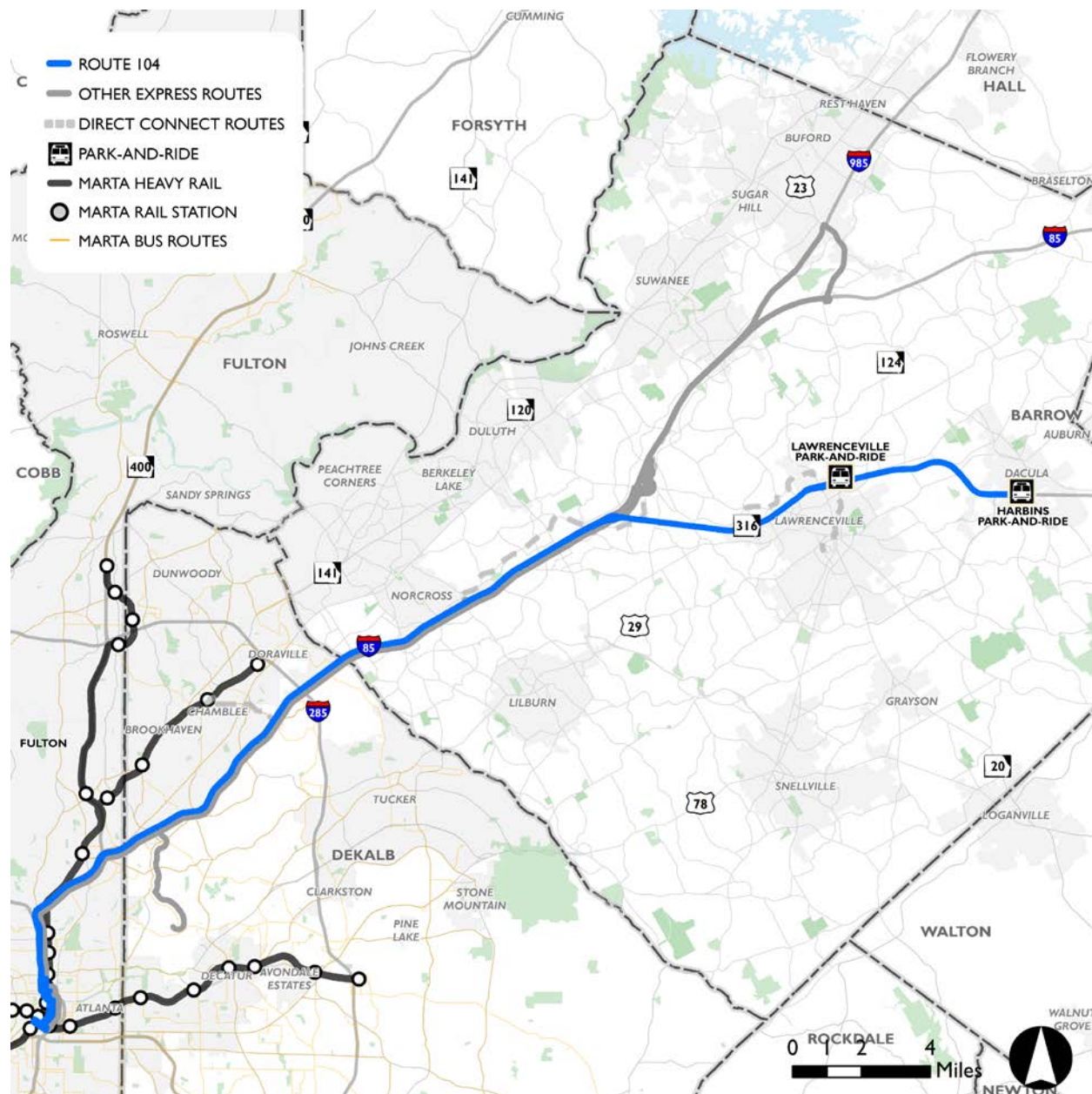
Figure 4-15: Route 103/103A (FY2019-24)



4.1.2.4 Route 104

This new Express route will provide service to downtown Atlanta from two new park-and-ride lots in the SR 316 corridor – Harbins Road and Lawrenceville. Proposed frequencies are 20 minutes in the peak periods, peak-direction only (Figure 4-16). This new route, and any other express bus service expansion, would not be feasible until FY 2022, when the fleet capacity to provide the service would be available.

Figure 4-16: Route 104 (FY2019-24)

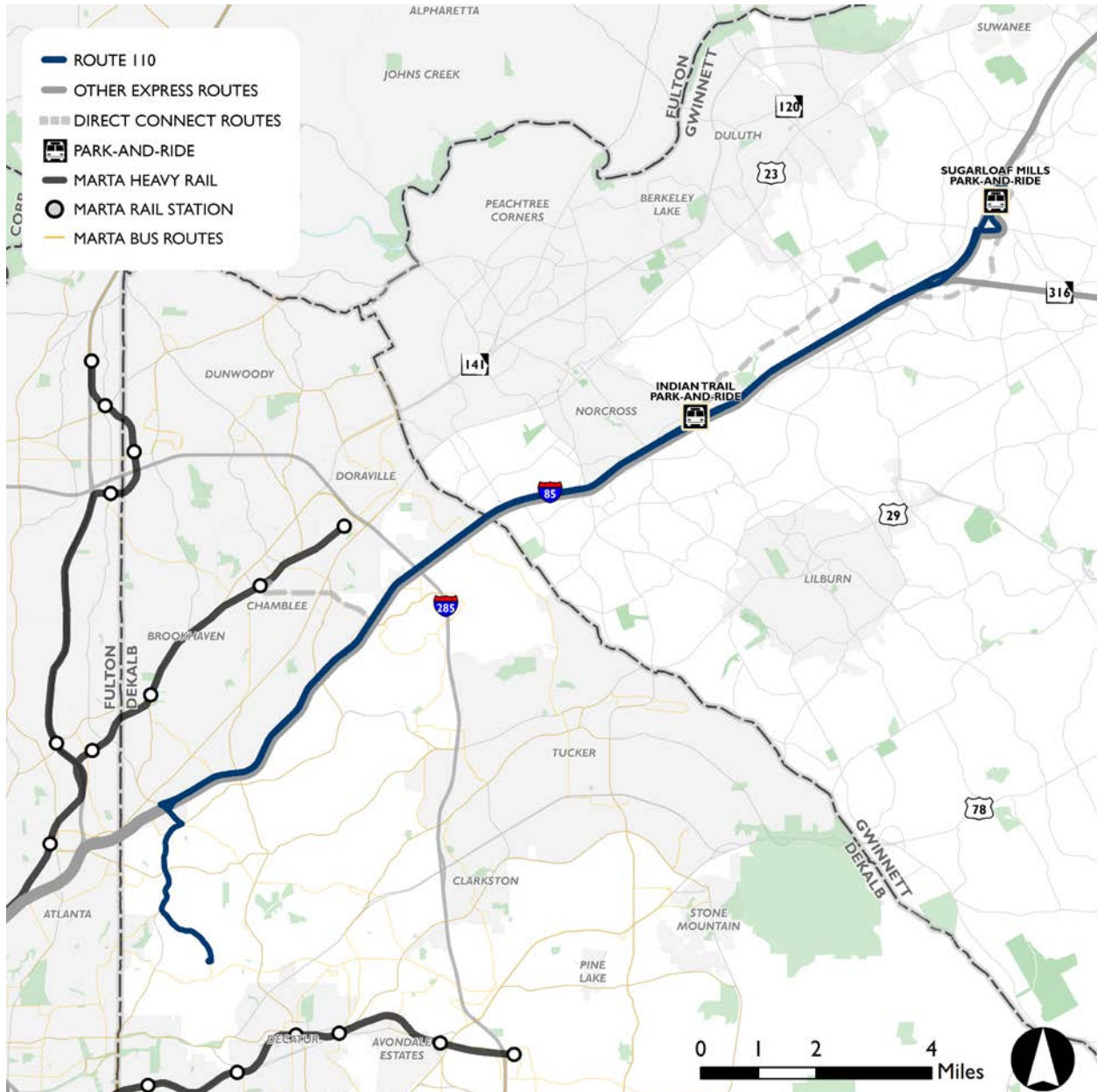


Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

4.1.2.5 Route 110

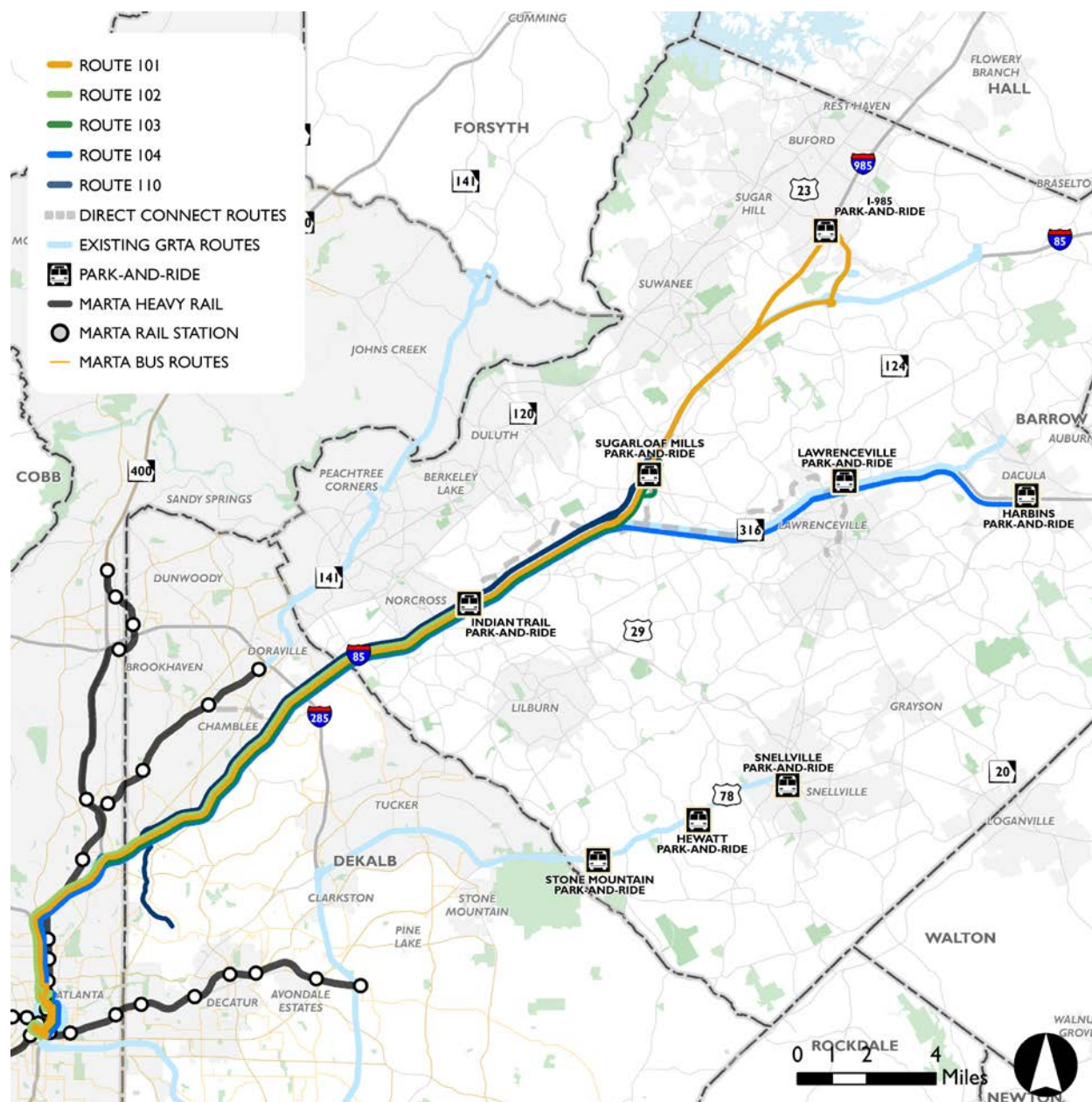
Route 110 would be unchanged from the existing Route 110, which provides peak-direction, peak-direction Express service between Indian Trail Park-and-Ride and Emory University on weekdays (Figure 4-17).

Figure 4-17: Route 110 (FY2019-24)



The entire Express network for the Short-Range (FY 2019-2024) is shown in Figure 4-18 with service characteristics provided in Table 4-2.

Figure 4-18: FY2024 Express Bus Service Map



Note: Route 101 could alternatively remain on I-985 as it does today

Table 4-2: FY2024 Express Bus Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
I01	I-985 Park-and-Ride to Downtown Atlanta	Weekday	5:30-9:12 a.m., 3:03-7:12 p.m.	20	n/a	20	n/a
I02	Indian Trail Park-and-Ride to Downtown Atlanta	Weekday	6:10-8:55 a.m., 3:08-6:28 p.m.	30	n/a	30	n/a
I03	Sugarloaf Mills Park-and-Ride to Downtown Atlanta	Weekday	5:40-9:55 a.m., 3:05-7:04 p.m.	12	n/a	12	n/a
I04	Harbins Road to Downtown	Weekday	6:00-7:40 a.m., 4:00-5:40 p.m.	20	n/a	20	n/a
I10	Sugarloaf/Indian Trail to Emory University	Weekday	5:30-8:39 a.m., 3:45-7:20 p.m.	30	n/a	30	n/a

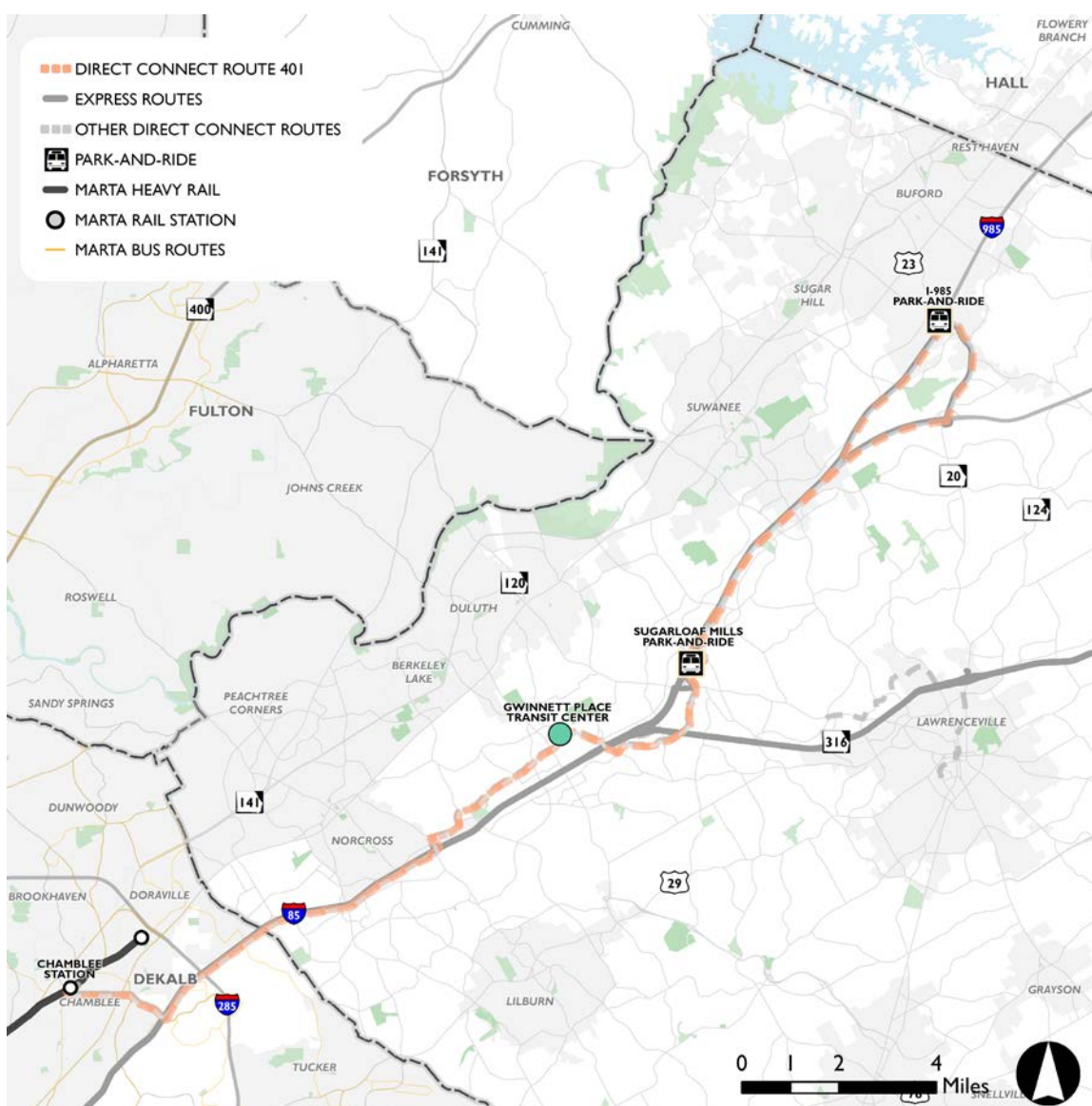
4.1.3 Direct Connect

Direct Connect services is a new type of transit service that is proposed for Gwinnett County. These proposed routes provide an all-day, bi-directional connection to MARTA rail service (specifically to the Chamblee Station in the FY2019-24 horizon). Limited stops are proposed, to achieve a competitive travel time, similar to Express Commuter service. This service would be branded as a premium service.

4.1.3.1 Route 401

Direct Connect 401 is a new route connecting the I-985 Park-and-Ride to MARTA Heavy Rail (Figure 4-19). Key stops include Indian Trail Park-and-Ride, the Gwinnett Place Transit Center, Sugarloaf Mills, and the Mall of Georgia. Proposed frequencies are 60 minutes, weekdays only.

Figure 4-19: Route 401 (FY2019-24)

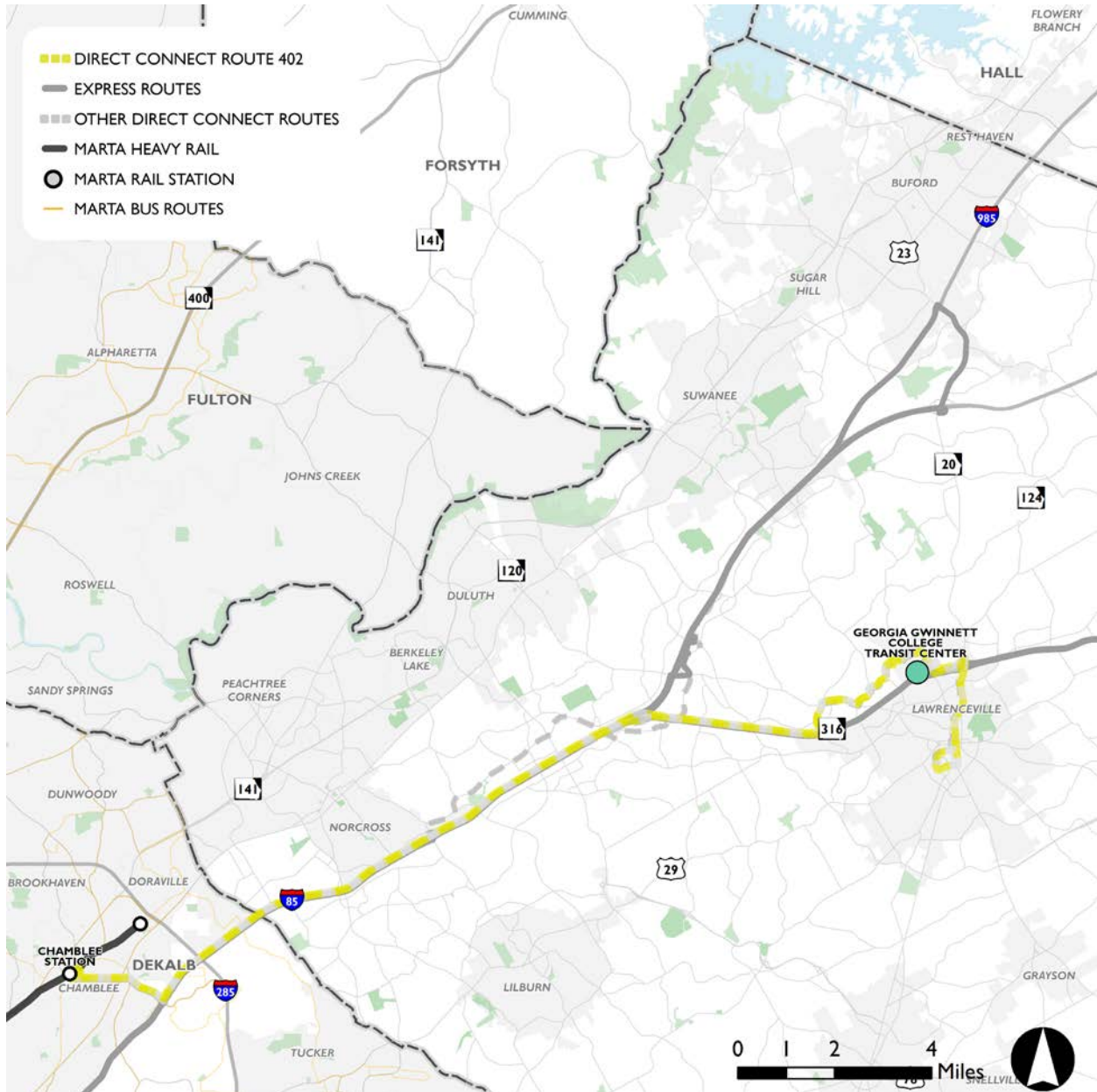


Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

Route 402

Direct Connect 402 is a new route connecting Lawrenceville with MARTA Heavy Rail (Figure 4-20). Key stops include Sugarloaf Mills, Gwinnett Medical Center, Georgia Gwinnett College, and downtown Lawrenceville. Proposed frequencies on are 60 minutes, weekdays only.

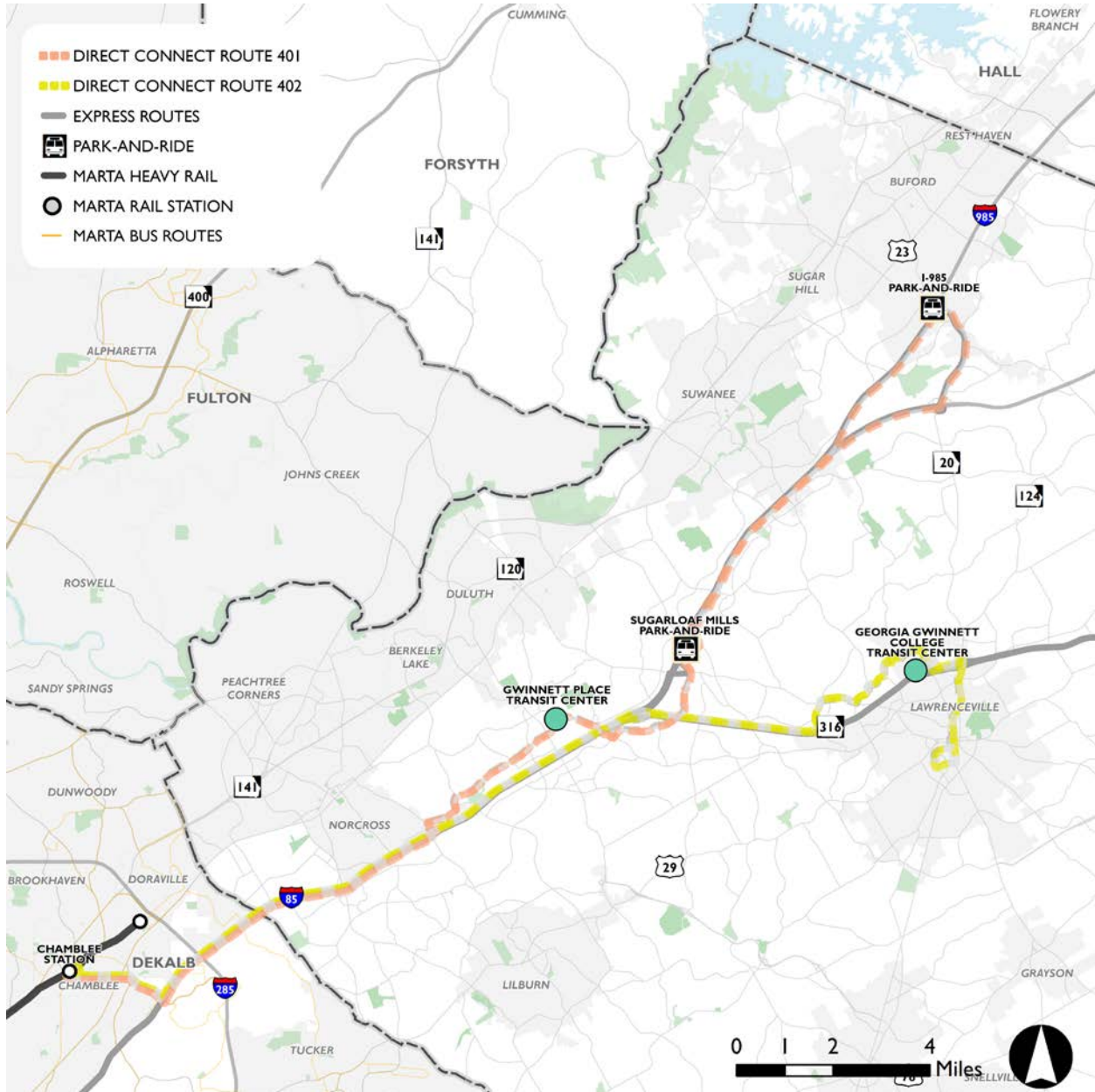
Figure 4-20: Route 402 (FY2019-24)



Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

The combined Direct Connect Map is shown in Figure 4-21 and the corresponding service statistics are included in Table 4-3.

Figure 4-21: FY2024 Direct Connect Service Map



Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

Table 4-3: FY2024 Direct Connect Service Characteristics

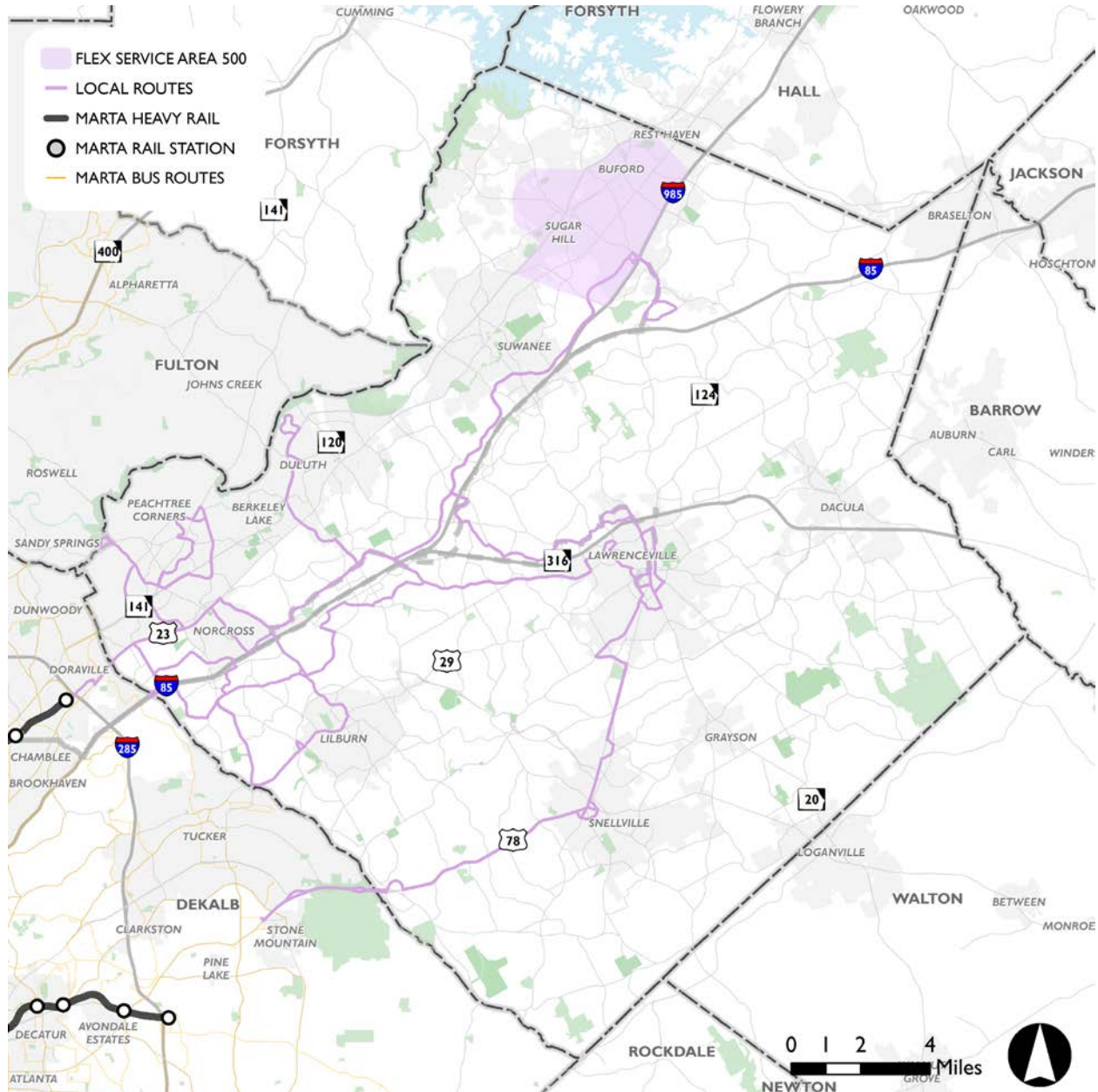
Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
401	Direct Connect #1 Mall of Georgia I-985-Sugarloaf-Gwinnett County Transit- Indian Creek to Chamblee	Weekday	6:30 a.m.- 8:30 p.m.	60	60	60	60
402	Direct Connect #2 Lawrenceville Georgia Gwinnett-Sugarloaf Park-and-Ride to Chamblee	Weekday	6:30 a.m.- 8:30 p.m.	60	60	60	60

4.1.4 Flex

4.1.4.1 Route 500

The Buford/Sugar Hill Flex 500 is a new on-demand route in the Buford/Sugar Hill area (Figure 4-22). Service is proposed to be anchored at the I-985 Park-and-Ride lot, where transfers are possible to Routes 101, 50, 80, and 85. Proposed service hours for the route are 6:00 a.m. to 8:00 p.m., weekdays only.

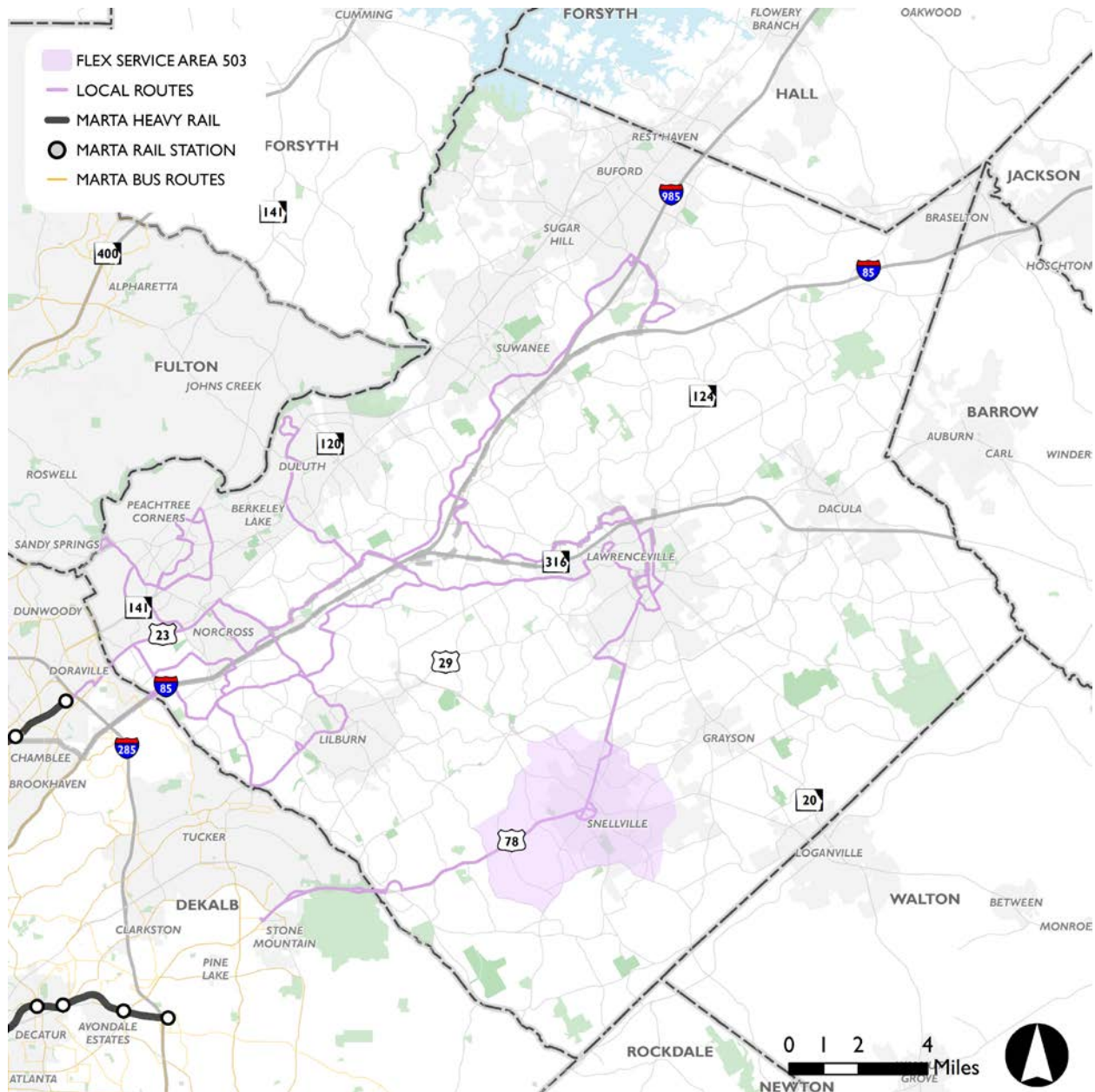
Figure 4-22: Route 500 (FY2019-24)



4.1.4.2 Route 503

The Flex 503 is a new on-demand route in the Snellville area (Figure 4-23). Service is proposed to be anchored at the existing Snellville Park-and-Ride lot, where transfers are possible to Routes 60, 70, 111, and GRTA/SRTA Xpress service. Proposed service hours for the route are 6:00 a.m. to 8:00 p.m., weekdays only.

Figure 4-23: Route 503 (FY2019-24)



The combined Flex Service Map is shown in Figure 4-24 and the corresponding service statistics are included in Table 4-4.

Figure 4-24: FY2024 Flex Service Map

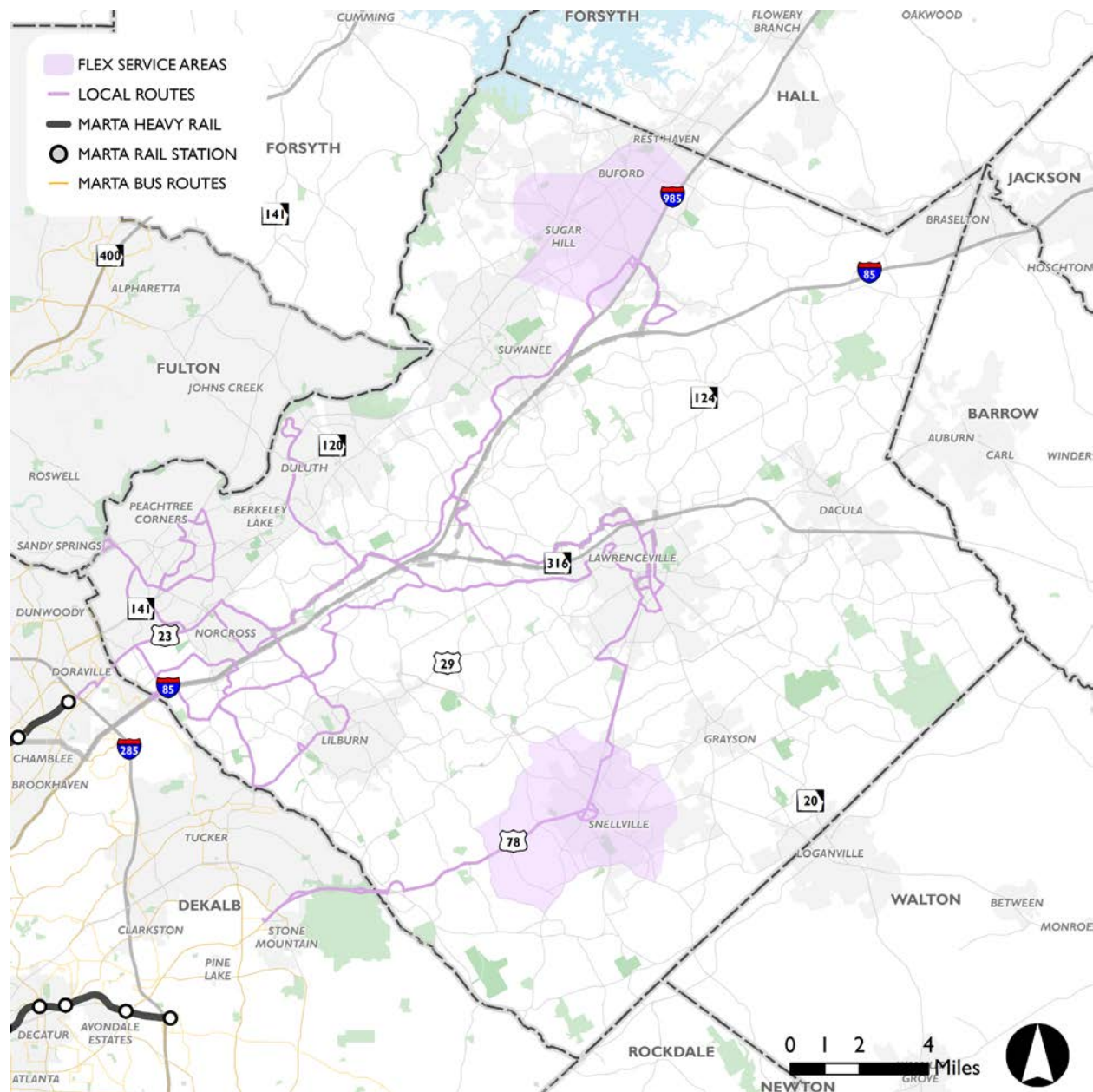


Table 4-4: FY2024 Flex Service Characteristics

Route	Name	Day	Span of Service
500	Buford/Sugar Hill Flex	Weekday	6:00 a.m.- 8:00 p.m.
503	Snellville	Weekday	6:00 a.m.- 8:00 p.m.

4.1.5 Park-and-Ride Facilities and Transit Hubs

The following park-and-ride facilities and transit hubs are proposed to be enhanced and/or constructed (Figure 4-25).

4.1.5.1 Gwinnett Place Transit Center (Upgrade)

The Gwinnett Place Transit Center will be upgraded to enhance the facilities at the existing site, construct new facilities, and expand the site to allow for increased transit services. This center will be the main hub for transfers within the system and will feature a mobility center as well as onsite customer service staff. The facility upgrades may include waiting areas, stop amenities, and customer service facilities.

4.1.5.2 I-985 Park-and-Ride (Upgrade)

Place The I-985 Park-and-Ride will be upgraded to enhance the facilities at the existing sites and allow for increased transit services. These facilities may include enhanced waiting areas, stop amenities, and customer service facilities.

4.1.5.3 Lawrenceville Park-and-Ride (New)

A new park-and-ride facility is proposed to be near SR 316 and Buford Drive, with a specific location to be determined. The facility may include enhanced waiting areas, stop amenities, and customer service facilities.

4.1.5.4 Harbins Road Park-and-Ride (New)

A new park-and-ride facility is proposed to be in the vicinity of SR 316 and Harbins Road, with a specific location to be determined. The facility may include enhanced waiting areas, stop amenities, and customer service facilities.

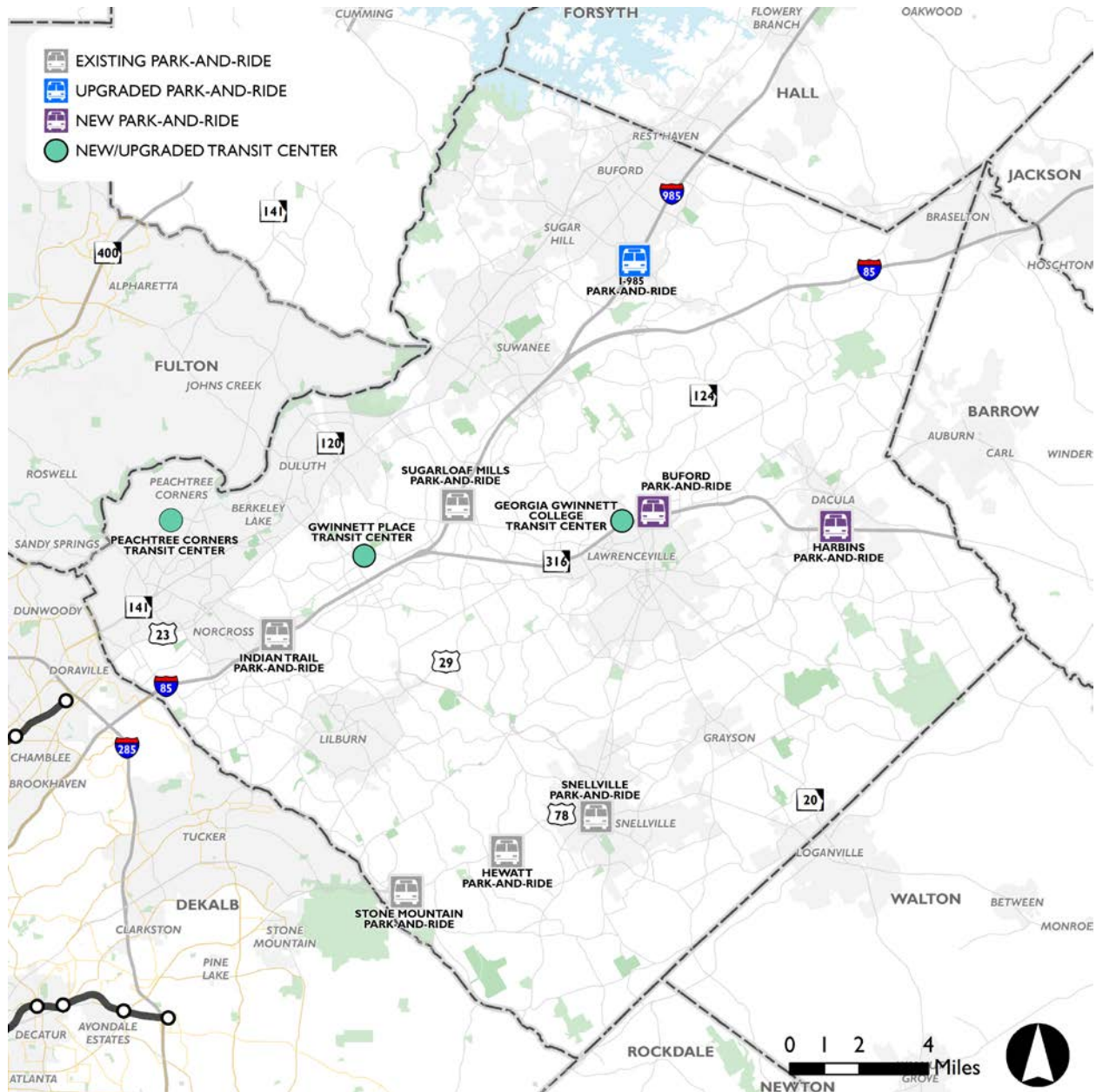
4.1.5.5 Peachtree Corners Transit Center (New)

A new transit hub is proposed to be in Peachtree Corners near the intersection of Peachtree Corners Circle and W Jones Bridge Road, with a specific location to be determined. The facility would include space for multiple bus bays, enhance waiting areas to enable transfers between multiple routes, and may also include additional stop amenities and customer service facilities.

4.1.5.6 Georgia Gwinnett College Transit Center (New)

A new transit hub is proposed at Georgia Gwinnett College. The facility would include space for multiple bus bays, enhance waiting areas to enable transfers between multiple routes, and may also include additional stop amenities and customer service facilities.

Figure 4-25: FY 2024 New/Upgraded Park-and-Rides and Transit Centers Map



4.1.6 Other System Components

4.1.6.1 Local Bus Stop Upgrades

Expansion of the Local bus route system as part of this Plan necessitates the construction of new Local bus stops or upgrades to existing stops. As part of this Plan, funding is allocated for these improvements in three phases. Thirty-three percent of the total funds allocated for Local bus stop upgrades is proposed to be spent in the Short-Range to construct upgrades to Local bus stops and construct new stops. New or upgraded stops may include signage, benches, shelters, and trash cans.

4.1.6.2 Technology Upgrades

The Plan allocates funding to various technology upgrades to the system. Technology upgrades may consist of user amenities, such as the addition of Wi-Fi and power outlets to buses, or include upgrades to systems and back-end equipment, such as improving real-time information systems, performance measurement systems, and safety/communications systems. The total funding allocated to these upgrades is an additional 2 percent of capital funds allotted. Twenty-five percent of the funds for technology upgrades would be expended in the short-range.

4.1.6.3 Vanpool Subsidy

The Plan proposes an annual subsidy of private vanpool services to supplement public transit service. The initial subsidy will be \$250,000 in FY 2020 (2018 dollars) and will escalate to an annual subsidy of \$750,000 in FY 2030 (2018 dollars).

4.1.6.4 TNC Subsidy

The Plan proposes an annual subsidy of resident use of transportation network companies (TNCs), such as Uber or Lyft, specifically to access transit. Pilot programs may be implemented to identify effective programs to enhance access to transit, such as subsidized rides to certain destinations, within certain areas, or at certain times of day. The subsidy would be \$200,000 per year starting in FY 2020 (2018 dollars).

4.1.6.5 Fleet Upgrade & Expansion

The existing fleet of Gwinnett County Transit vehicles will be utilized through the rest of their lifespan; as these vehicles exceed their useful life, they will be replaced with vehicles using funding allocated in the Plan. In addition to replacement of these vehicles, the Plan includes the expansion of the vehicle fleet to accommodate increased levels of transit service. The combined fleet will be expanded from 82 vehicles to 102 vehicles by the end of FY 2024.

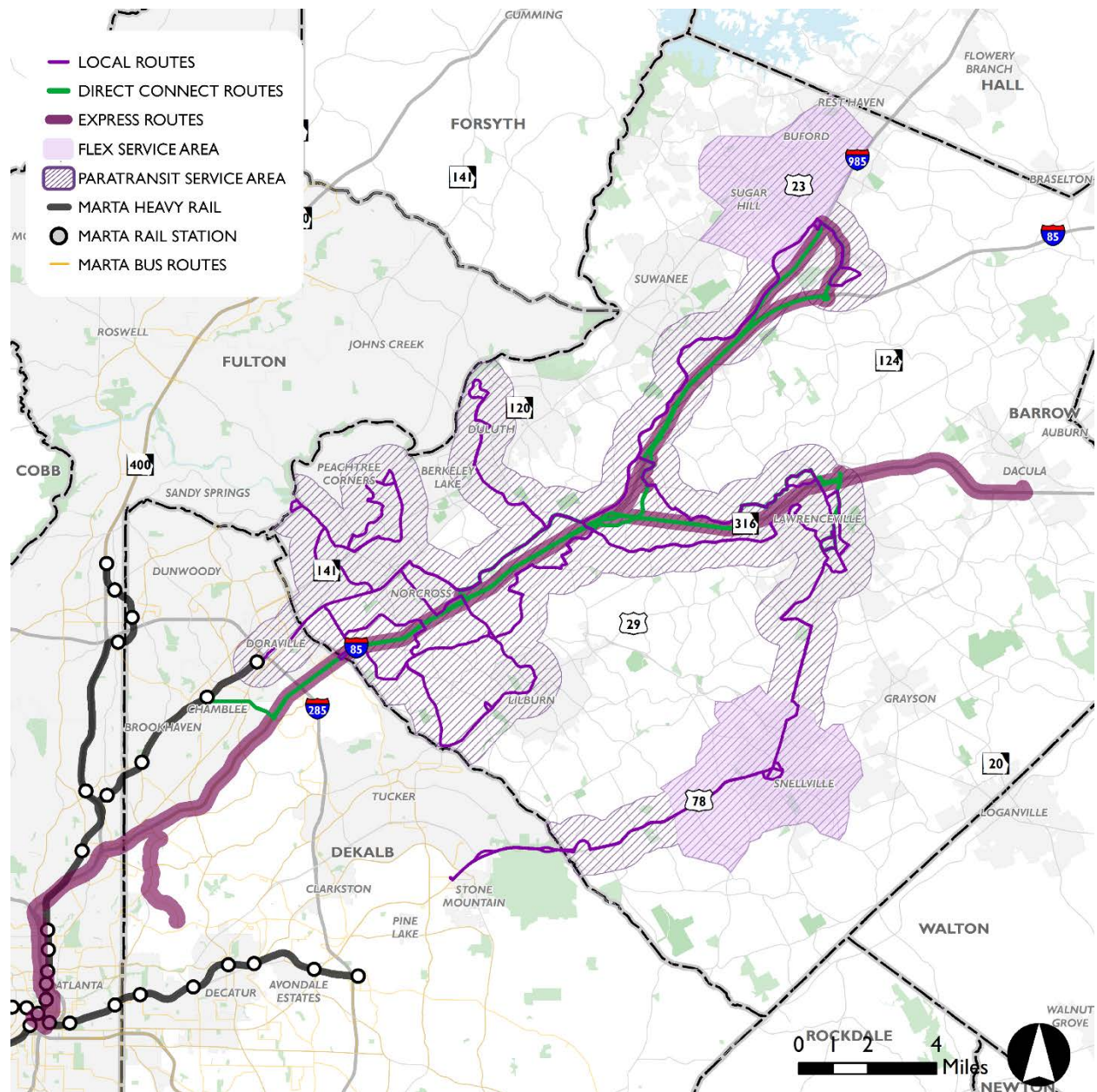
4.1.7 Summary of Proposed Services

Table 4-5 provides a summary of the bus operating statistics for FY 2024 for all bus services proposed for Gwinnett County, while Figure 4-26 shows the transit services that will be implemented in or by FY 2024, including Local, Express, Flex, and Direct Connect routes.

Table 4-5: FY2024 Estimated Operating Statistics for Transit Services by Service Type

Service Type	Fleet Requirement (including spares)	Annual Revenue Bus Miles	Annual Revenue Bus Hours
Local	43	2,176,600	152,700
Express	34	683,300	22,900
Direct Connect	6	395,800	17,800
Flex	10	170,972	23,134
Paratransit	9	225,110 (est.)	24,418 (est.)
Total	102	3,651,783	240,952

Figure 4-26: FY2024 Gwinnett County Transit Service



4.2 Mid-Range: FY 2025-2029

The Mid-Range Plan (FY 2025-2029) reflects potential service for Gwinnett County that could be implemented within the next 10 years. The transit services and capital improvements in the Mid-Range Plan include improvements that require more investment or a longer timeframe than would be allowed in the Short-Range. Following are descriptions of proposed routes in the Mid-Range Plan, starting with BRT and progressing to Flex service. The descriptions note new and altered routes, as well as, routes that remain the same from the Short-Range Plan.

4.2.1 Bus Rapid Transit

4.2.1.1 Route 700

The Mid-Range Plan includes introduction of BRT service in Gwinnett County. This proposed BRT line would begin at the Doraville MARTA station where additional bus bay capacity will be provided to accommodate the BRT service (Figure 4-27). The proposed alignment follows Buford Highway, Button Gwinnett Drive, Best Friend Road, Brook Hollow Parkway, and Satellite Boulevard to Infinite Energy Center. The alignment then crosses under I-85 via Sugarloaf Parkway to the Sugarloaf Mills Park-and-Ride. A substantial portion of the alignment is proposed to be dedicated lanes, beginning north of Jimmy Carter Boulevard. It will serve 22 stations spaced approximately every half-mile along the route. The BRT service would also include additional features beginning north of Jimmy Carter Boulevard, such as off-board fare collection, real-time bus arrival information, enhanced stations with architectural elements, and distinctive branding and vehicles. Proposed frequencies are 10 minutes in the peak periods and 15 minutes in the off-peak periods, including late evening and weekend service (Table 4-6).

Figure 4-27: FY2029 BRT Service Map

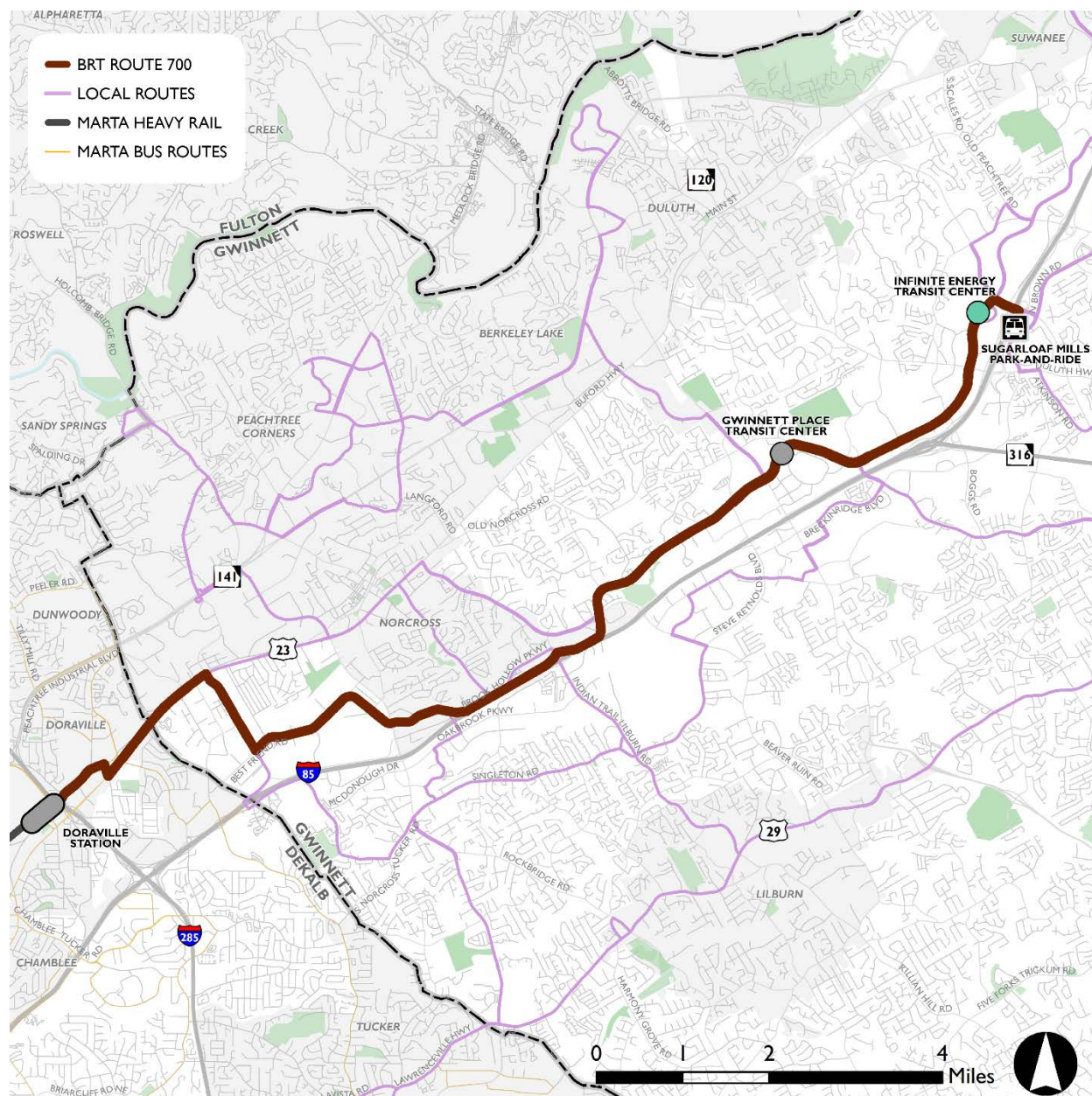


Table 4-6: FY2029 BRT Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid p.m.	Eve	
700	Doraville-Sugarloaf Mills BRT	Weekday	5:30 a.m.- 12:00 a.m.	10	15	10	15
		Saturday	6:00 a.m. - 12:00 a.m.	15	15	15	15
		Sunday	6:00 a.m. - 12:00 a.m.	15	15	15	15

4.2.2 Local Bus

4.2.2.1 Route 10

Route 10 is assumed to have the same alignment as in the previous timeframe. Frequencies shift since BRT is assumed to be in place at this point. While Route 10 operates on a somewhat different alignment than the BRT, it provides similar connections between Doraville Station and the Gwinnett Place Transit Center and Sugarloaf Mills Park-and-Ride. Route 10's frequency is reduced to 30 minutes all day on weekdays and Saturdays and 60 minutes on weekday and Saturday evenings and on Sundays. Note that service levels on this alignment will increase relative to current conditions when considering both Route 10 and the new Route 700. New Sunday service and late evening service is also proposed.

4.2.2.2 Route 15

Route 15 remains the same as in the previous timeframe.

4.2.2.3 Route 20

Route 20 remains the same as in the previous timeframe.

4.2.2.4 Route 25

Route 25 remains the same as in the previous timeframe.

4.2.2.5 Route 30

Route 30 remains the same as in the previous timeframe.

4.2.2.6 Route 35A/35B

Routes 35A/35B remain the same as in the previous timeframe.

4.2.2.7 Route 40

Route 40 remains the same as in the previous timeframe.

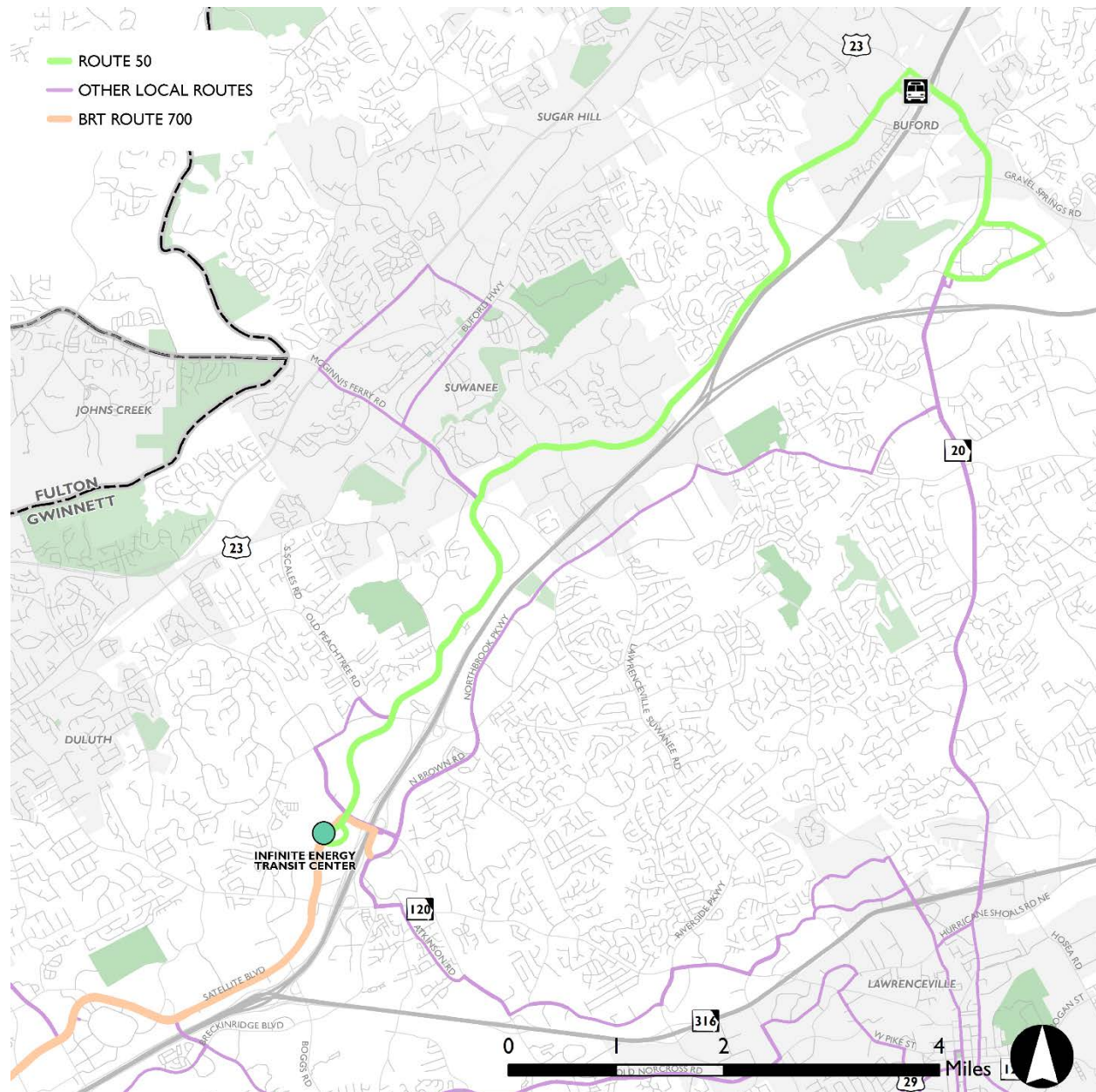
4.2.2.8 Route 45

Route 45 remains the same as the previous timeframe, except that service is added on Sundays.

4.2.2.9 Route 50

Route 50 (Figure 4-28) changes alignment in the Mid-Range, terminating at the Infinite Energy Transit Center to connect to the new BRT service. Frequencies for the service remain the same on weekdays and Saturdays. New Sunday service is proposed.

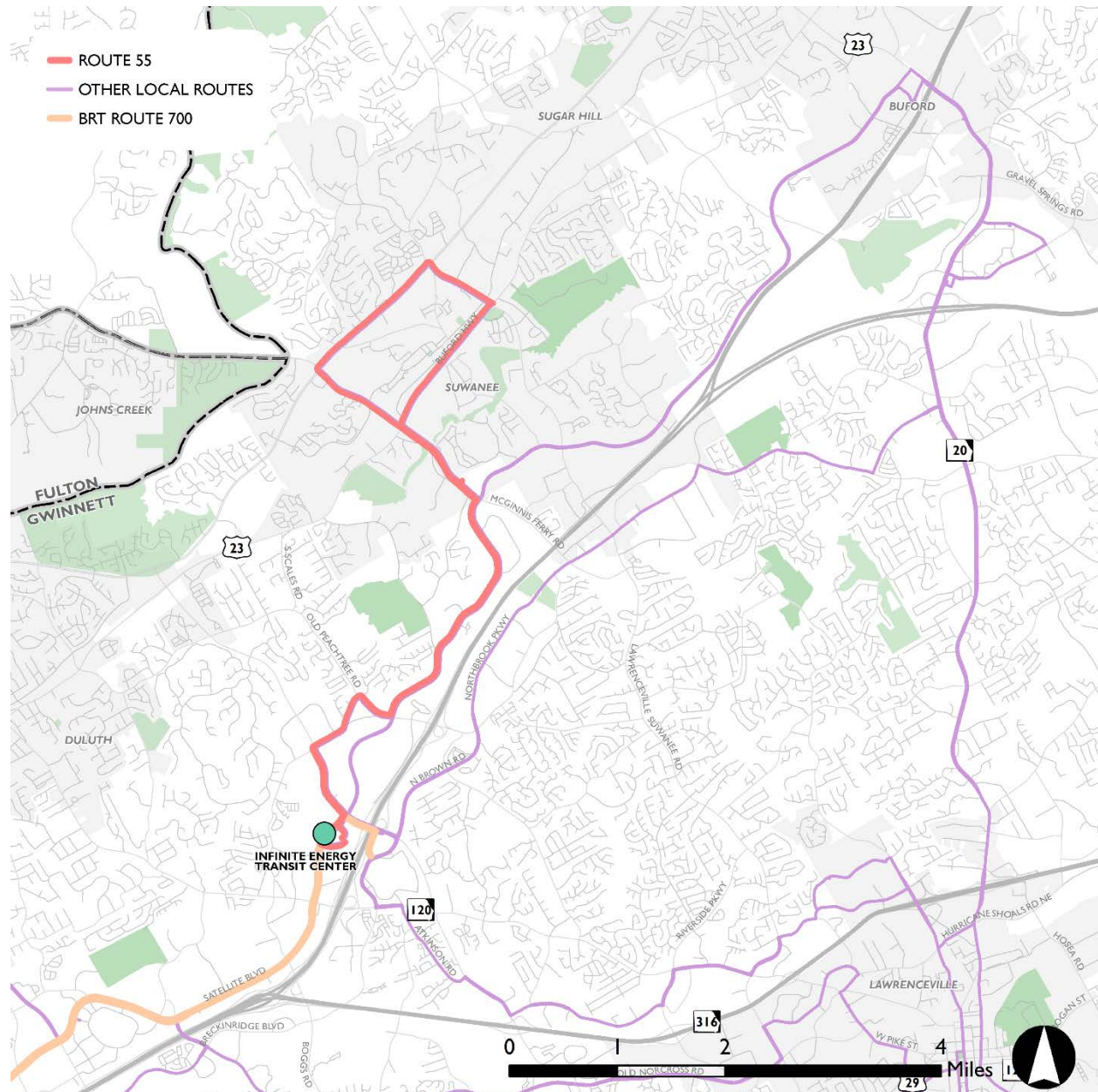
Figure 4-28: Route 50 (FY2025-29)



4.2.2.10 Route 55

Route 55 is a new Local route (Figure 4-29). The route begins at the Infinite Energy Transit Center and connects to Suwanee via Satellite Boulevard, Old Peachtree Road, McGinnis Ferry Road, and Buford Highway. Proposed frequencies are 60 minutes on weekdays only.

Figure 4-29: Route 55 (FY2025-29)



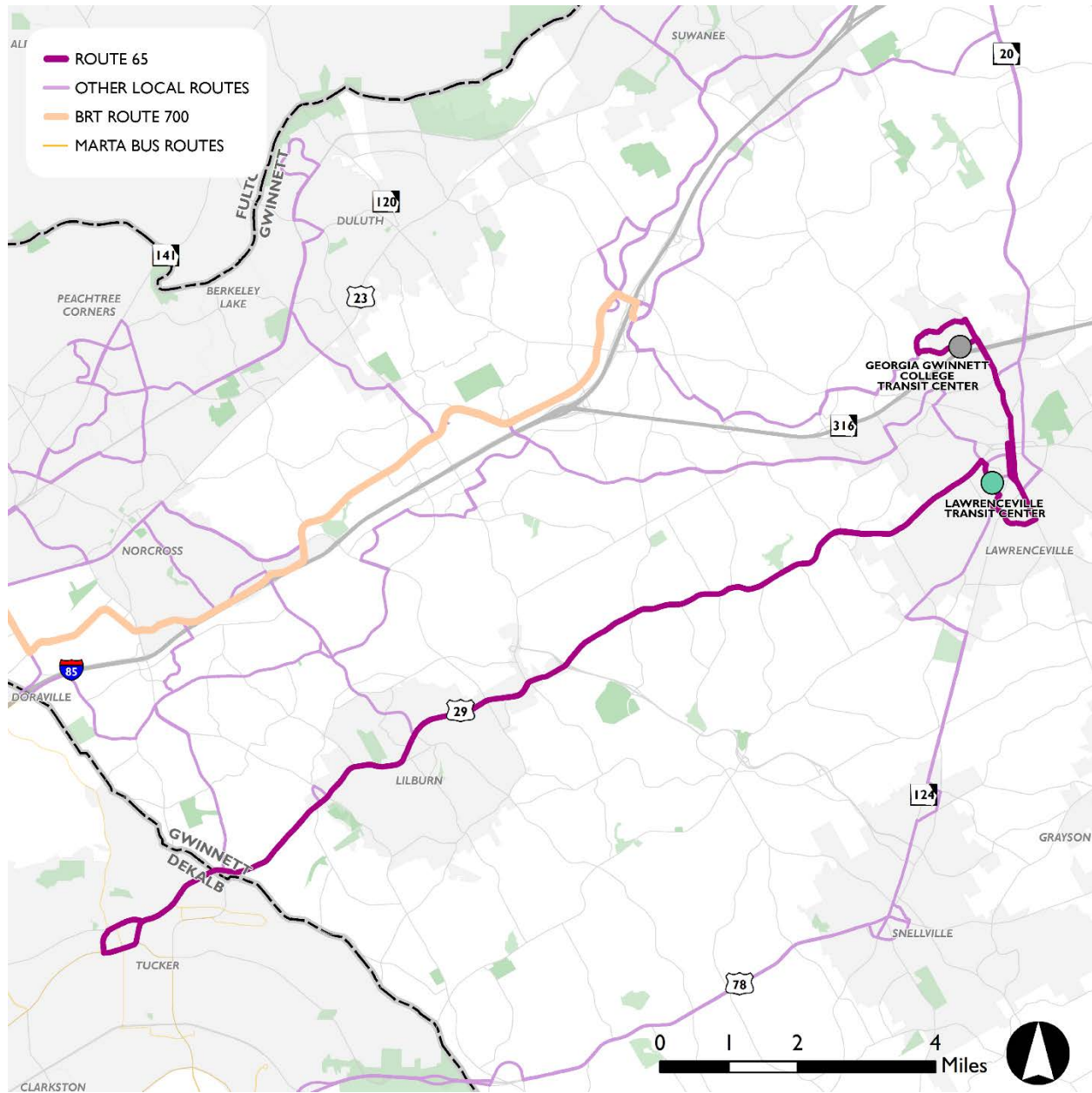
4.2.2.11 Route 60

Route 60 remains the same as in the previous timeframe.

4.2.2.12 Route 65

Route 65 operates between Georgia Gwinnett College, where transfers are possible to other Gwinnett County Transit routes, and northern DeKalb County (Figure 4-30). This route operates primarily along Lawrenceville Highway into Tucker, where transfers are possible to MARTA Routes 75, 121, and 124. Transfers are possible also with Gwinnett County Transit Routes 15 and 30 at Lawrenceville Highway/Rockbridge Road. Route 65 will also serve the new Lawrenceville Transit Center. Proposed frequencies are 60 minutes on weekdays and Saturdays.

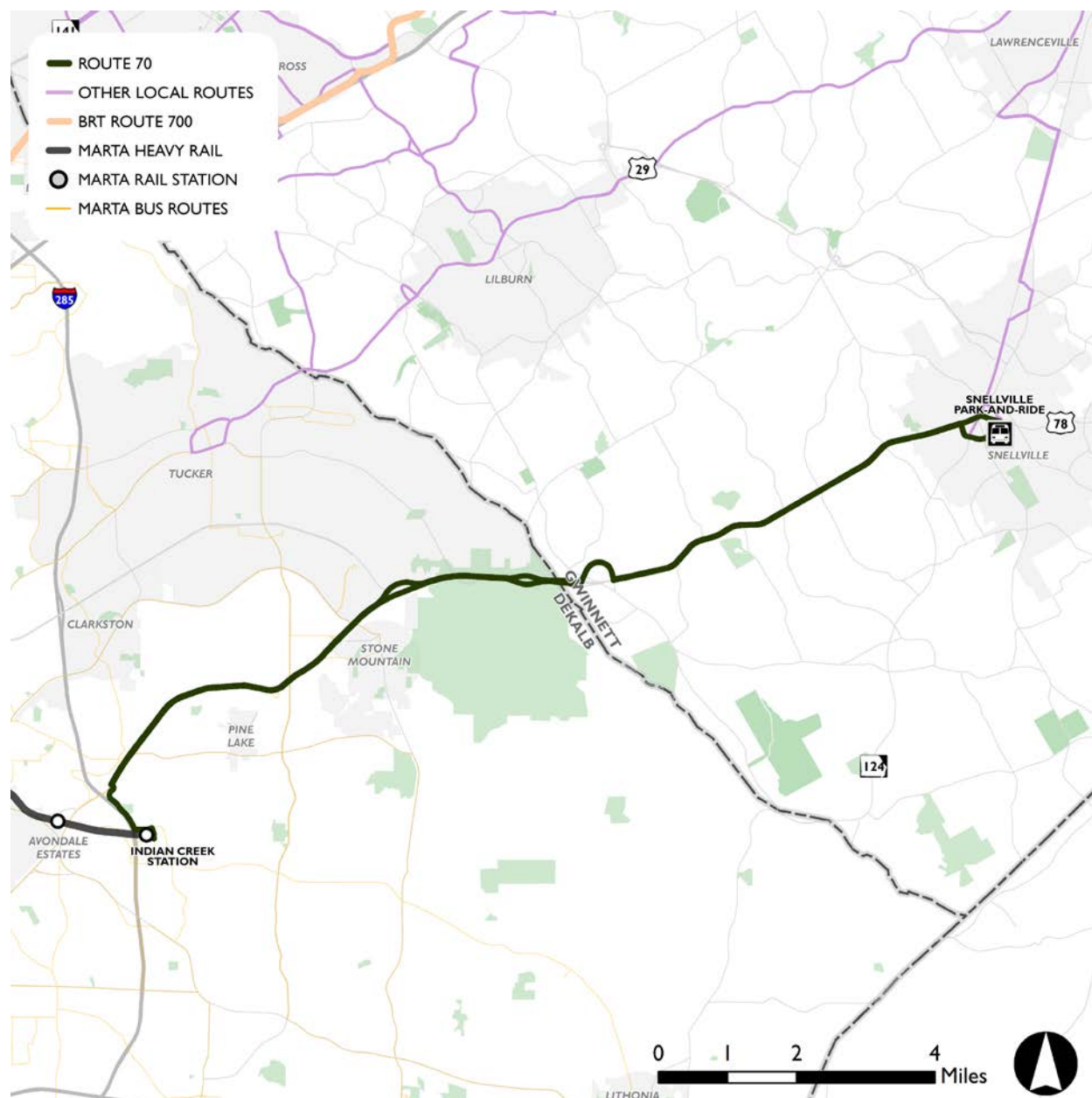
Figure 4-30: Route 65 (FY2025-29)



4.2.2.13 Route 70

Route 70 is modified from the previous timeframe with service proposed to extend further west into DeKalb County to the MARTA Blue Line's Indian Creek Station (Figure 4-31). Proposed frequencies are 60 minutes on weekdays only.

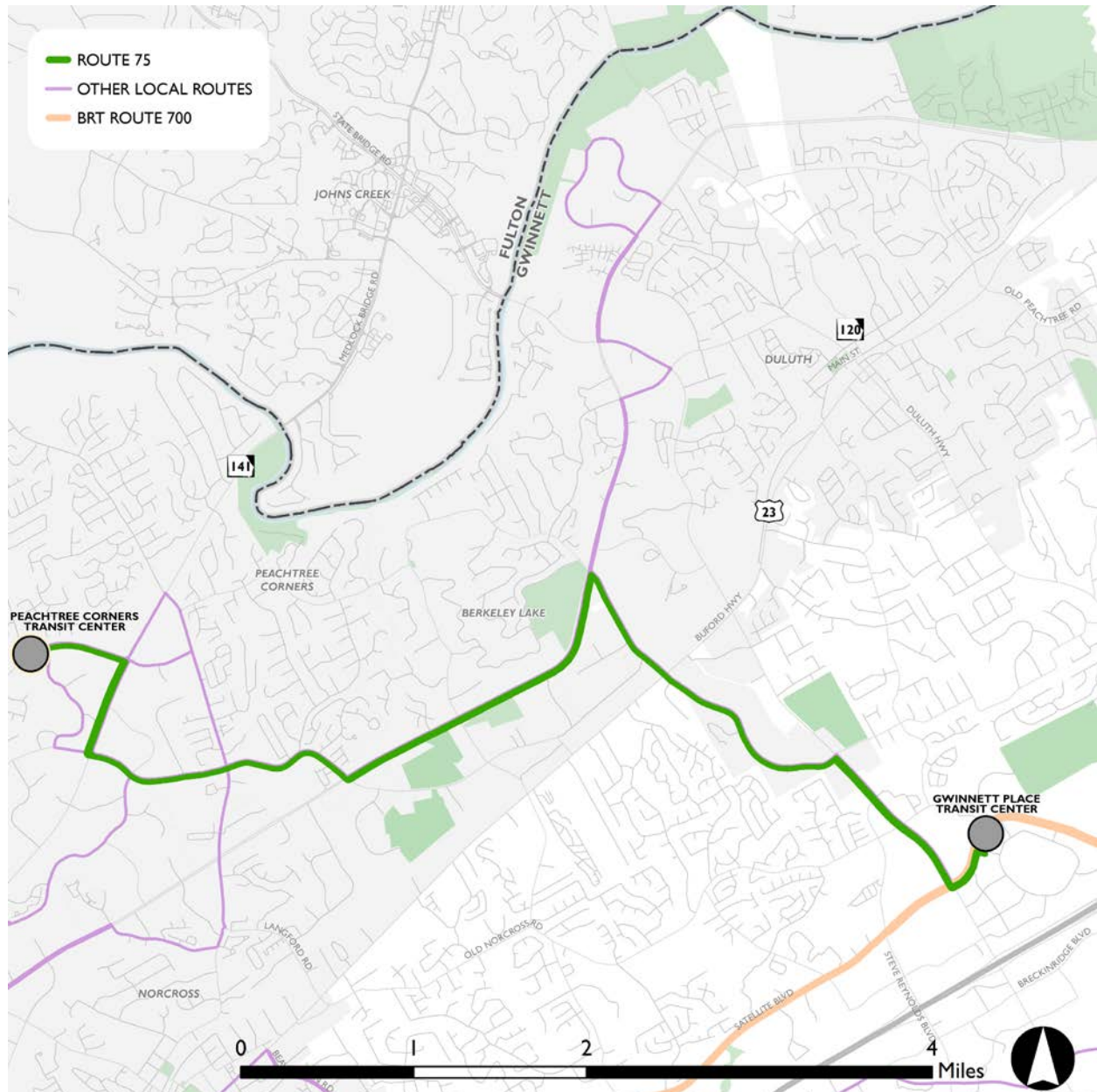
Figure 4-31: Route 70 (FY2025-29)



4.2.2.14 Route 75

Route 75 is a new Local route providing service from the Gwinnett Place Transit Center to Peachtree Corners (Figure 4-32). Starting at the Gwinnett Place Transit Center, the route heads north on Pleasant Hill Road before turning onto Berkeley Lake Road. It continues west on Peachtree Industrial Boulevard and Spalding Drive. Westbound trips will continue onto Spalding Drive before turning north on Peachtree Parkway. The route then turns left onto Peachtree Corners Circle to the terminus at the Peachtree Corners Transit Center. Eastbound trips heading out from Peachtree Corners will proceed down Peachtree Corners Circle to the east from the Peachtree Corners Transit Center and turn right onto Peachtree Parkway to rejoin the westbound alignment. Proposed frequencies are 60 minutes on weekdays and Saturdays.

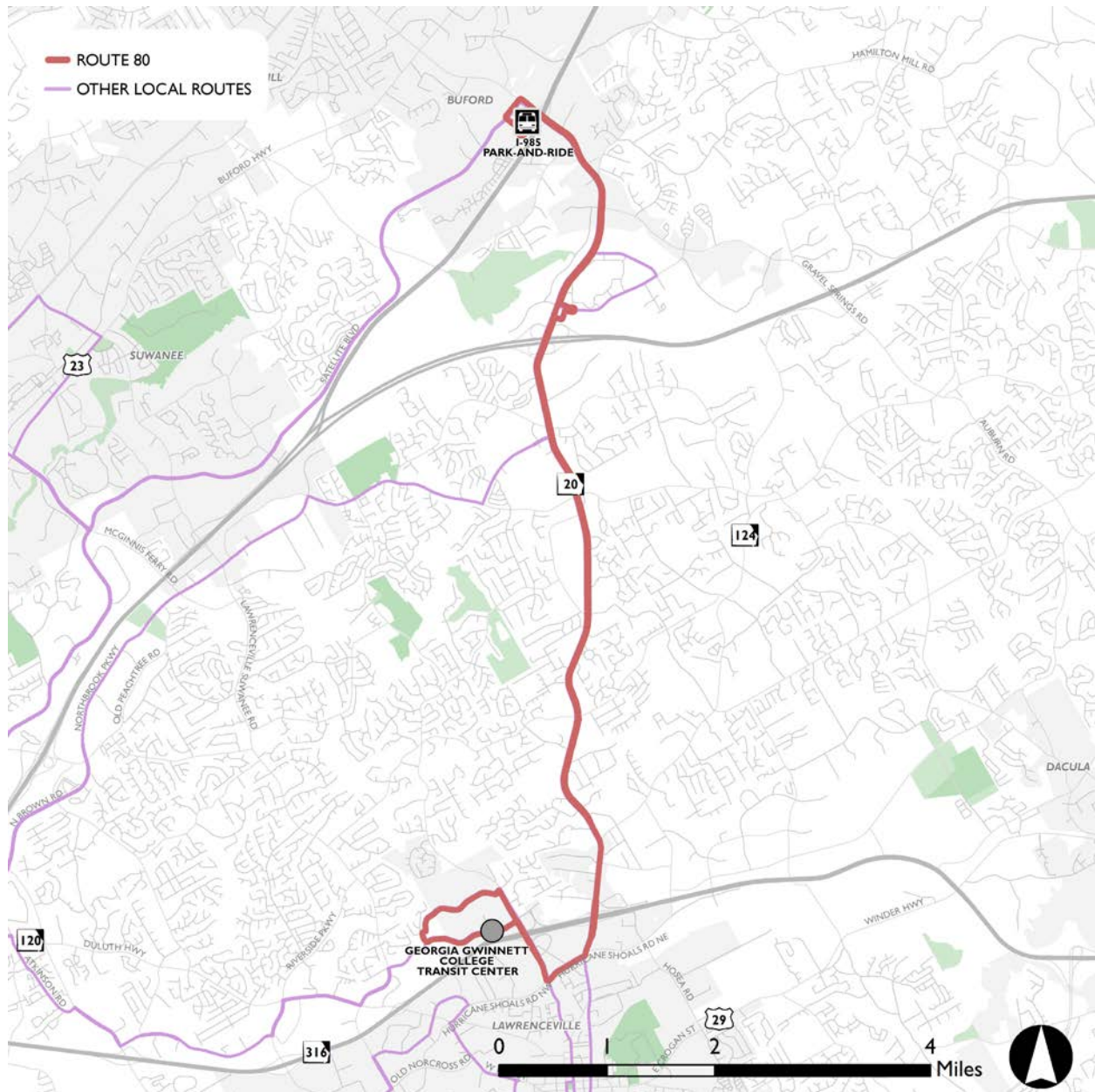
Figure 4-32: Route 75 (FY2025-29)



4.2.2.15 Route 80

Route 80 is a new route to operate between Lawrenceville and the Mall of Georgia area (Figure 4-33). The southern terminus is Lawrenceville/Georgia Gwinnett College and the northern terminus is the I-985 Park-and-Ride lot. Proposed frequencies on both routes are 60 minutes on weekdays and Saturdays.

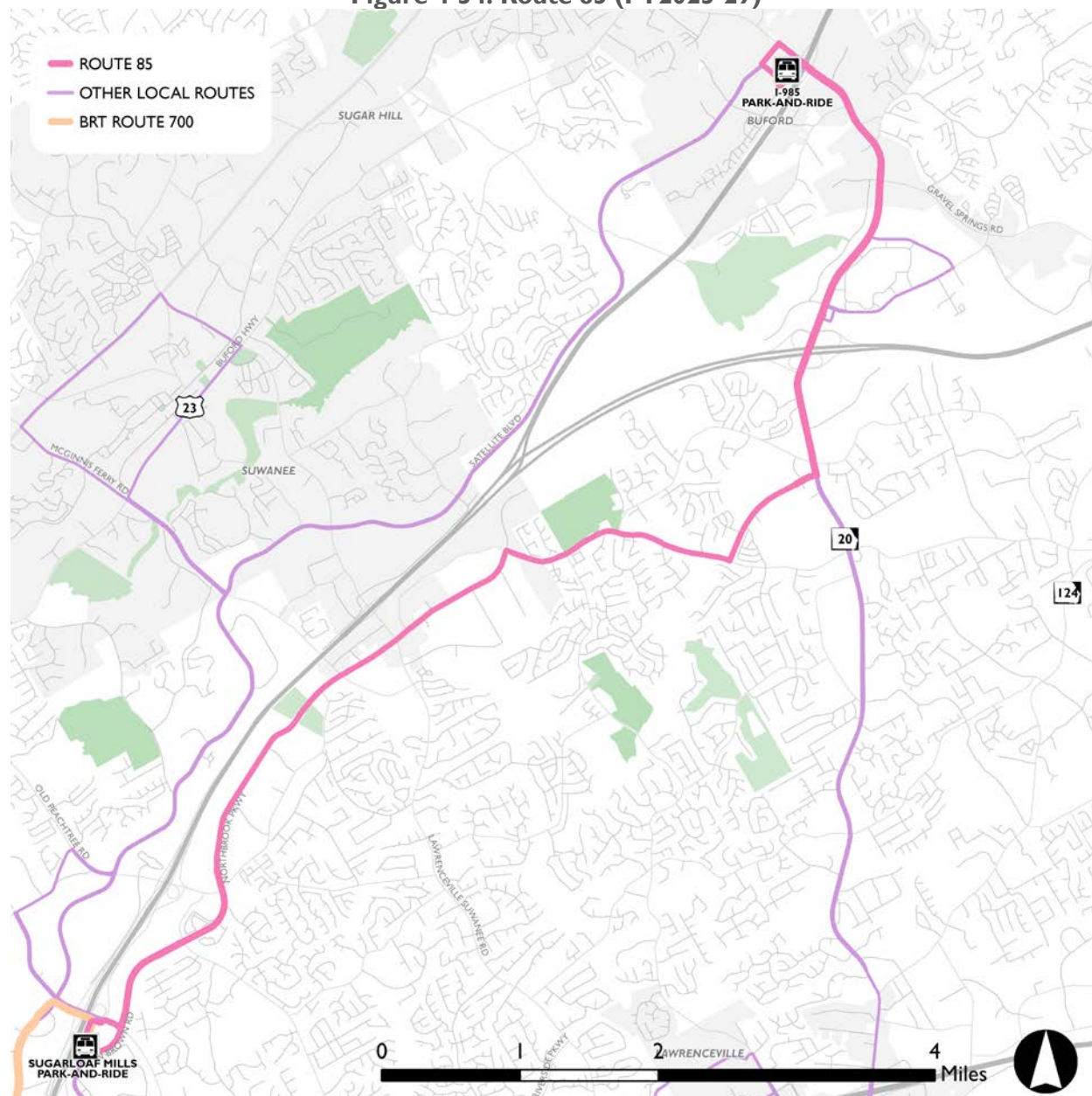
Figure 4-33: Route 80 (FY2025-29)



4.2.2.16 Route 85

Route 85 is a new route to provide service along the east side of I-85 between Sugarloaf Mills and the Mall of Georgia/I-985 Park-and-Ride (Figure 4-34). This route operates primarily along North Brown Road, Northbrook Parkway, Horizon Drive, Old Peachtree Road and Tech Center Parkway to Buford Drive and the Mall of Georgia to the I-985 Park-and-Ride lot. Proposed frequencies are 60 minutes on weekdays only.

Figure 4-34: Route 85 (FY2025-29)



The combined Local Bus map is shown in Figure 4-35 and the corresponding service statistics are included in Table 4-7.

Figure 4-35: FY2029 Local Bus Service Map

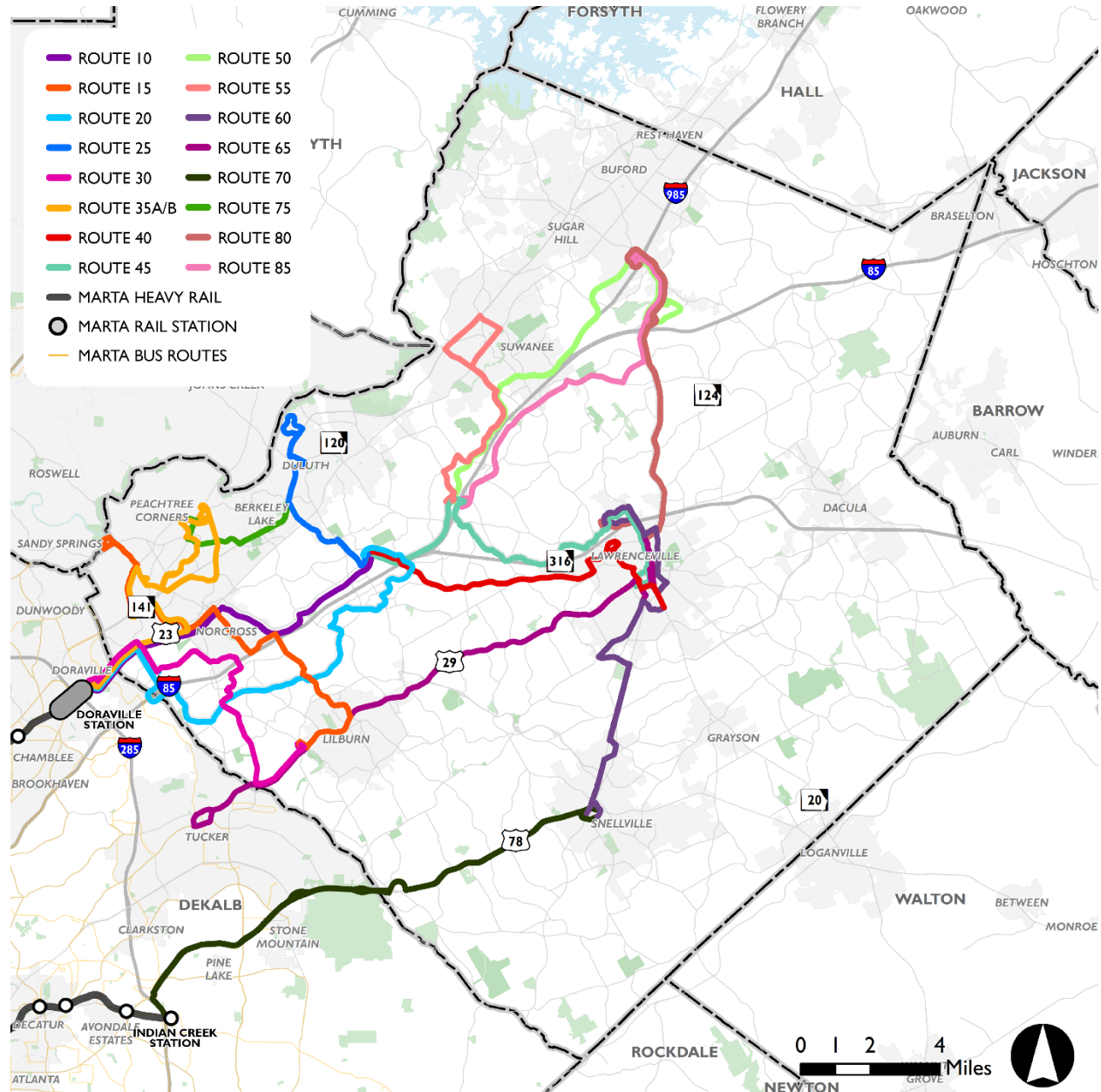


Table 4-7: FY2029 Local Bus Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
10	Gwinnett Place Transit Center/Doraville via Buford Highway & Satellite Boulevard	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	60
		Saturday	6:00 a.m. - 12:00 a.m.	30	30	30	60
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
15	Peachtree Corners/Lilburn	Weekday	5:30 a.m. - 8:00 a.m.	60	60	60	60
		Saturday	6:00 a.m. - 8:00 a.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
20	Gwinnett Place Transit Center/Doraville via Singleton Road/Steve Reynolds Boulevard	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
25	Gwinnett Place Transit Center/Duluth	Weekday	5:30 a.m. - 12:00 a.m.	60	60	60	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
30	Lilburn/Doraville	Weekday	5:30 a.m. - 12:00 a.m.	60	60	60	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
35A	Peachtree Corners/Doraville via Technology Parkway	Weekday	5:30 a.m. - 12:00 a.m.	60	60	60	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
35B	Peachtree Corners/Doraville via Medlock Bridge Road	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	N/A	n/a	n/a	n/a	n/a
		Sunday	N/A	n/a	n/a	n/a	n/a
40	Gwinnett Place Transit Center/Lawrenceville	Weekday	5:30 a.m. - 8:00 p.m.	30	30	30	60
		Saturday	6:00 a.m. - 8:00 p.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
45	Gwinnett Place Transit Center/Georgia Gwinnett College via Sugarloaf Mills	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
50	Gwinnett Place Transit Center/Mall of Georgia	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
55	Infinite Energy/Suwanee	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	N/A	n/a	n/a	n/a	n/a
		Sunday	N/A	n/a	n/a	n/a	n/a
60	Lawrenceville/Snellville	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m. - 8:00 p.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
65	Lawrenceville Highway	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m. - 8:00 p.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
70	Snellville/Goldsmith	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m. - 8:00 p.m.	n/a	n/a	n/a	n/a
		Sunday	N/A	n/a	n/a	n/a	n/a

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
75	Gwinnett Place Transit Center/Peachtree Corners	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m. - 8:00 p.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
80	Lawrenceville/Mall of Georgia	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	6:00 a.m. - 8:00 p.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
85	Brown/Horizon	Weekday	5:30 a.m. - 8:00 p.m.	60	60	60	60
		Saturday	N/A	n/a	n/a	n/a	n/a
		Sunday	N/A	n/a	n/a	n/a	n/a

4.2.3 Express Commuter Bus

4.2.3.1 Route 101

Route 101 remains the same as in the previous timeframe.

4.2.3.2 Route 102

Route 102 remains the same as in the previous timeframe.

4.2.3.3 Route 103

Route 103 remains the same as in the previous timeframe.

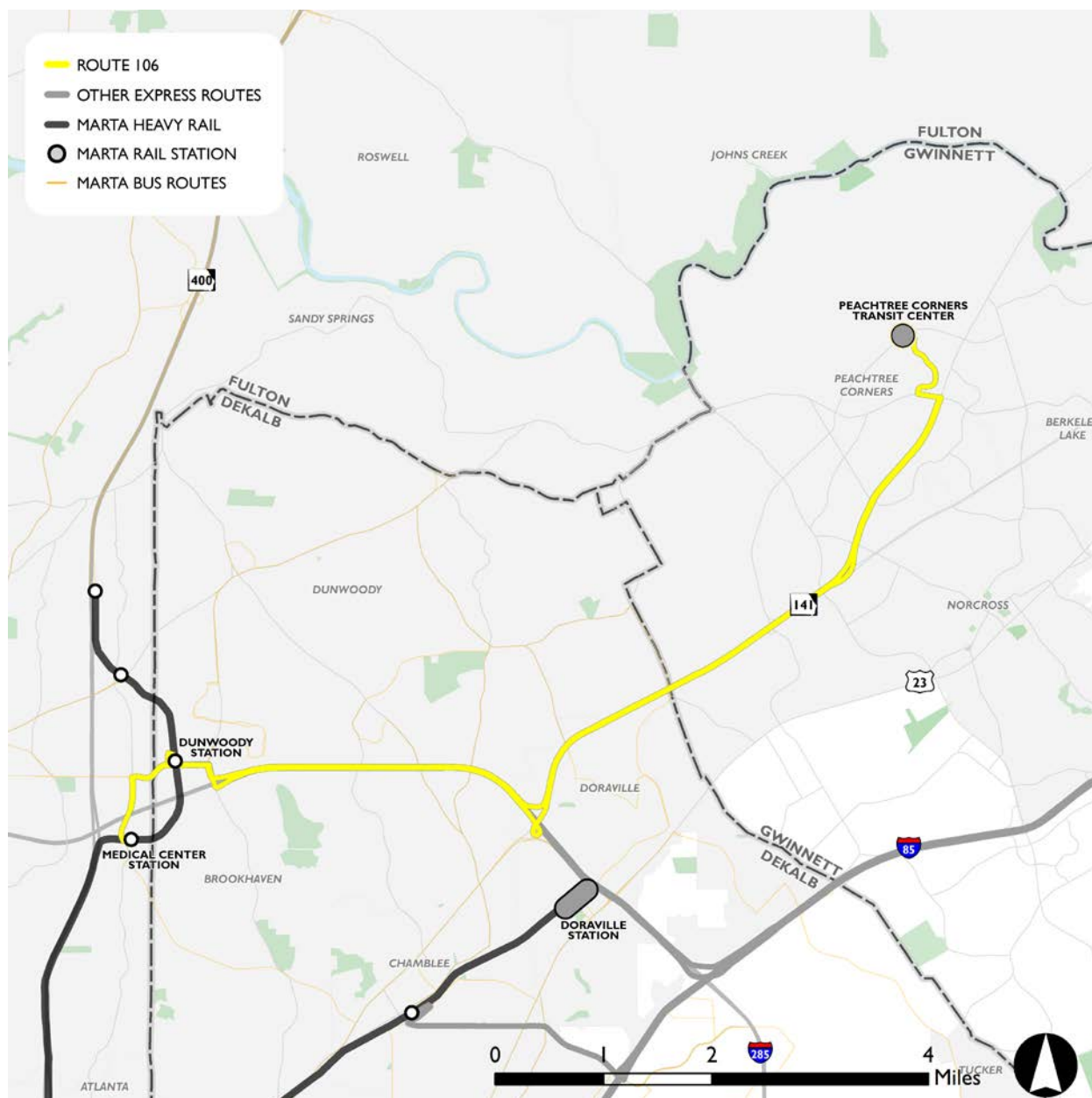
4.2.3.4 Route 104

Route 104 remains the same as in the previous timeframe.

4.2.3.5 Route 106

Route 106 is a new Express route from the Peachtree Corners area to Perimeter Center. Service is planned to begin after the opening of GDOT's planned I-285 Express lanes (Figure 4-36). Existing GRTA/SRTA Route 408 could also serve this park-and-ride lot, providing Peachtree Corner residents with a means to park and ride to the Chamblee Station. Stops in Perimeter Center would be the same as MARTA Route 417. Proposed service levels are three trips in each peak period (30-minute frequencies).

Figure 4-36: Route 106 (FY2025-29)



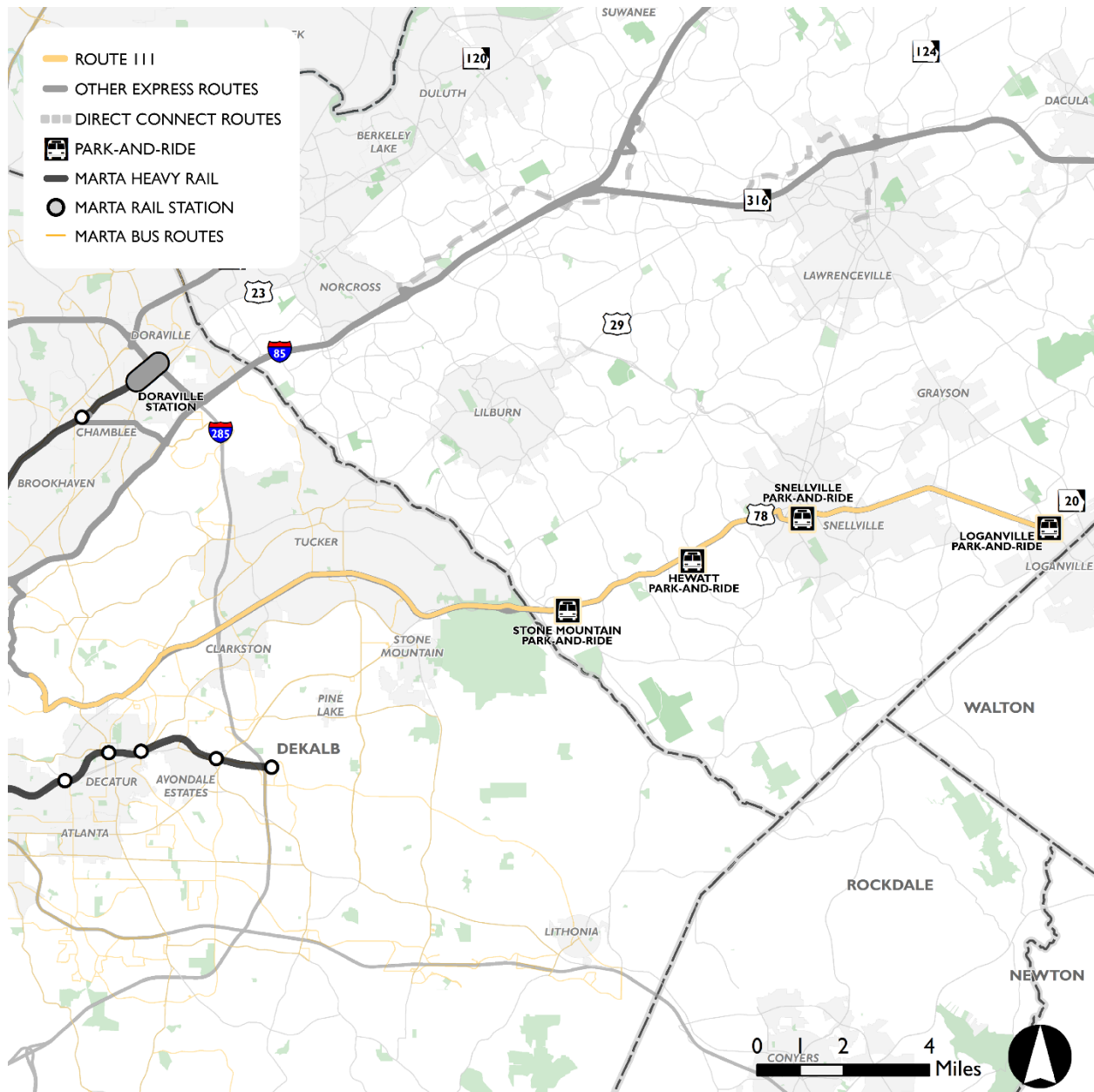
4.2.3.6 Route 110

Route 110 remains the same as in the previous timeframe.

4.2.3.7 Route 111

Route 111 is a new Express route to the Emory University area along the US 78 corridor (Figure 4-37). This route would serve all three existing GRTA/SRTA park-and-ride lots along US 78 – Snellville, Hewatt Road, and Stone Mountain and a new proposed park-and-ride lot in the Loganville area. Proposed service levels are three trips in each peak period (30-minute frequencies).

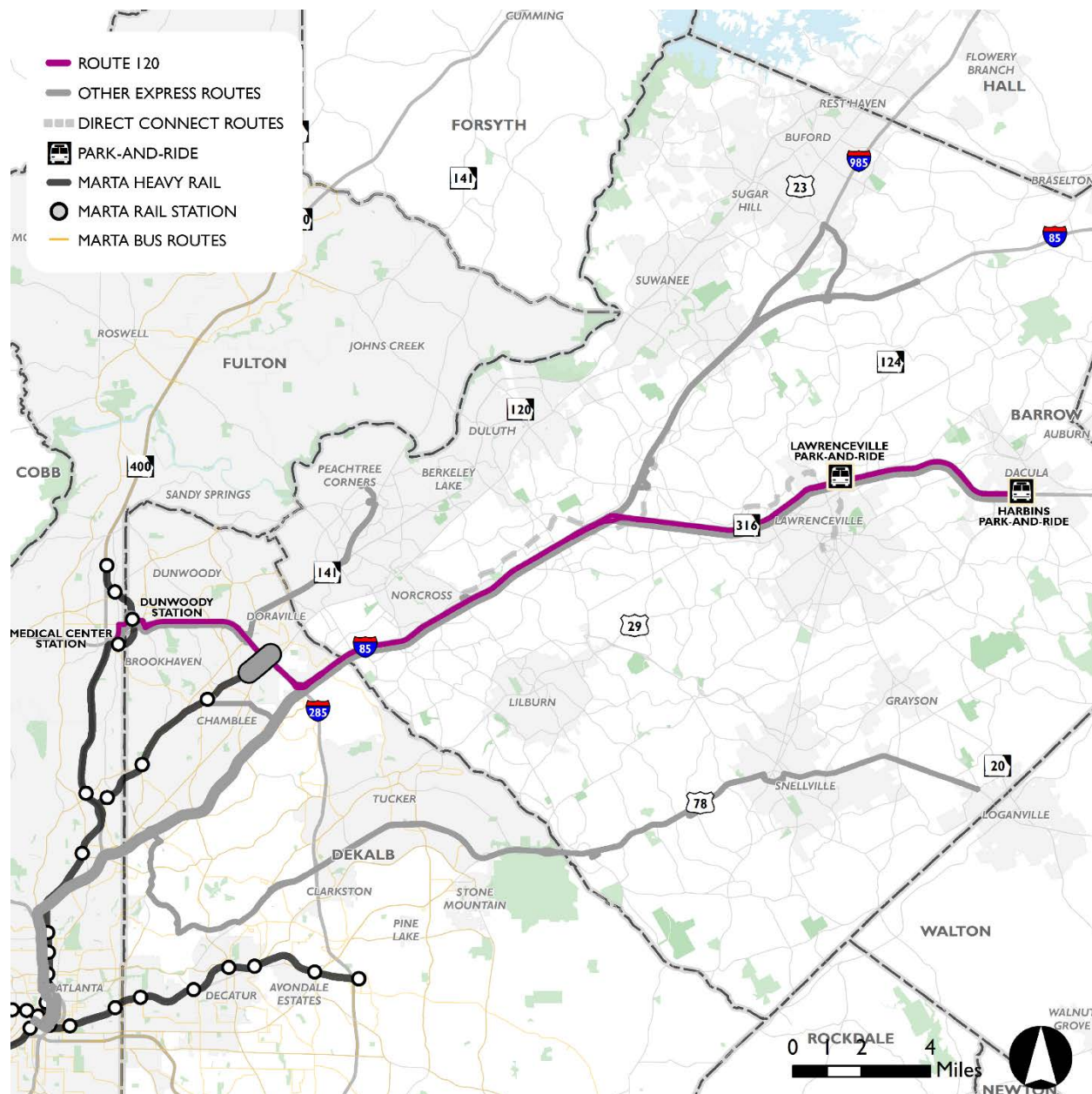
Figure 4-37: Route 111 (FY2025-29)



4.2.3.8 Route 120

Route 120 is a new Express route to provide service along the SR 316 corridor to the Perimeter Center area (Figure 4-38). Service in Gwinnett County is anchored at two new park-and-ride lots – Harbins Road and Lawrenceville. Service should be initiated in conjunction with GDOT's planned I-285 Express lanes. This route will also connect to MARTA Red Line at the Dunwoody and Medical Center MARTA stations. Proposed service levels are three trips in each peak period (30-minute frequencies).

Figure 4-38: Route 120 (FY2025-29)

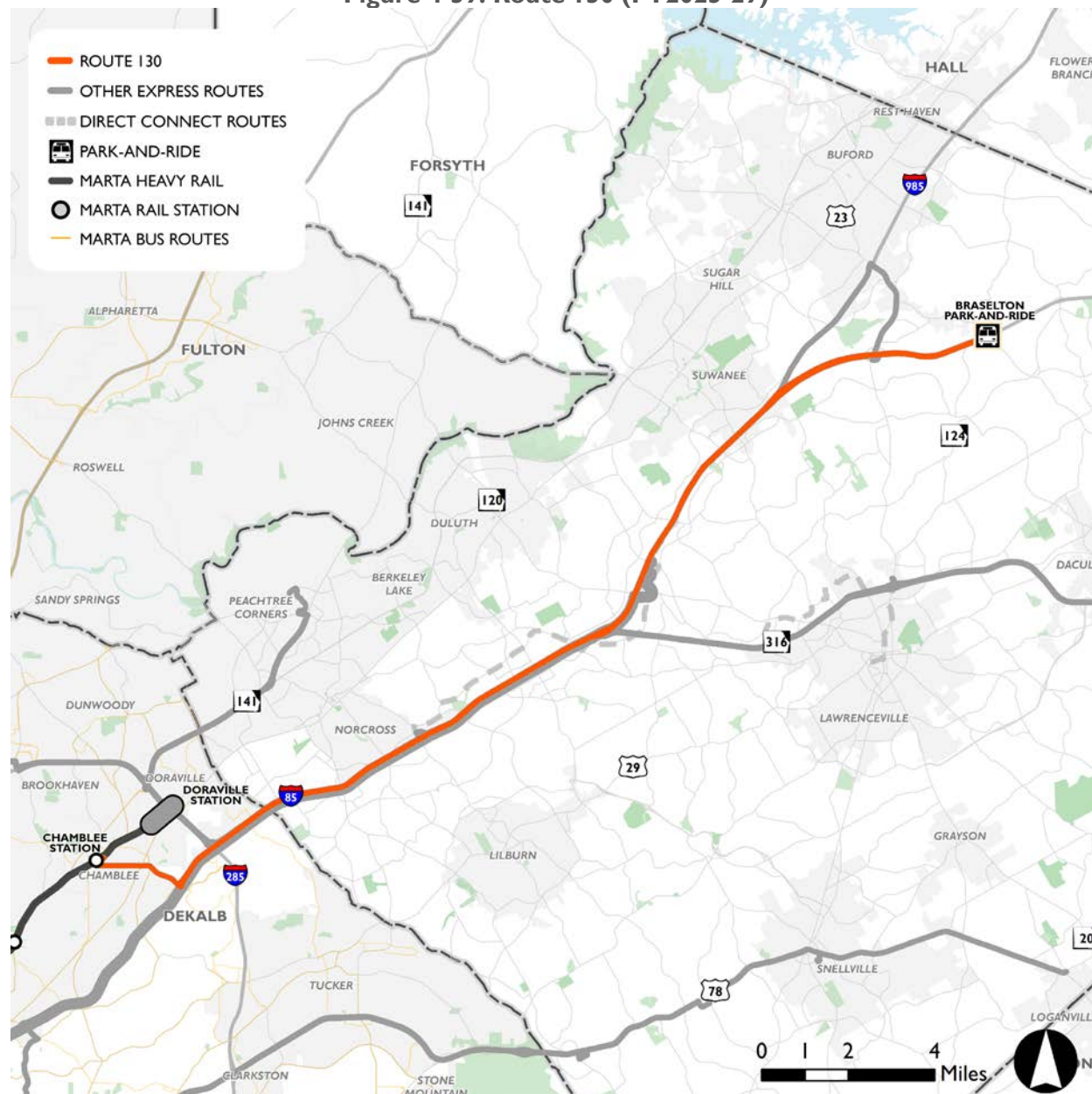


Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

4.2.3.9 Route 130

Route 130 is a new Express route to provide service from the new Braselton Park-and-Ride in the Hamilton Mill Parkway and Gravel Springs Road area of I-85 in northeastern Gwinnett County to the Chamblee MARTA station (Figure 4-39). Proposed frequencies are three trips in each peak period (30-minute frequencies).

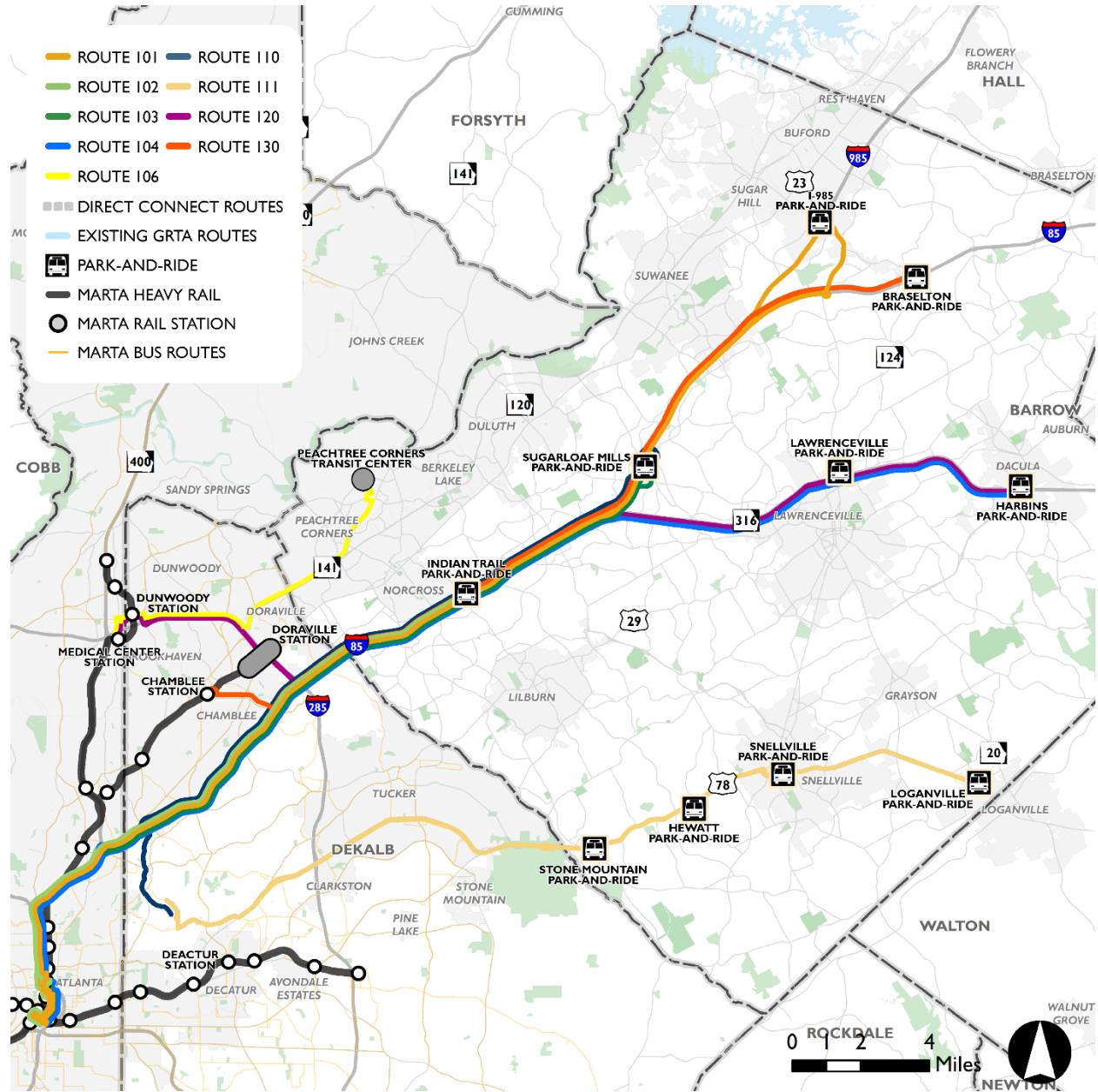
Figure 4-39: Route 130 (FY2025-29)



Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

The combined Express Bus Map is shown in Figure 4-24 and the corresponding service statistics are included in Table 4-8.

Figure 4-40: FY2029 Express Bus Service Map



Note: Route 101 could alternatively remain on I-985 as it does today

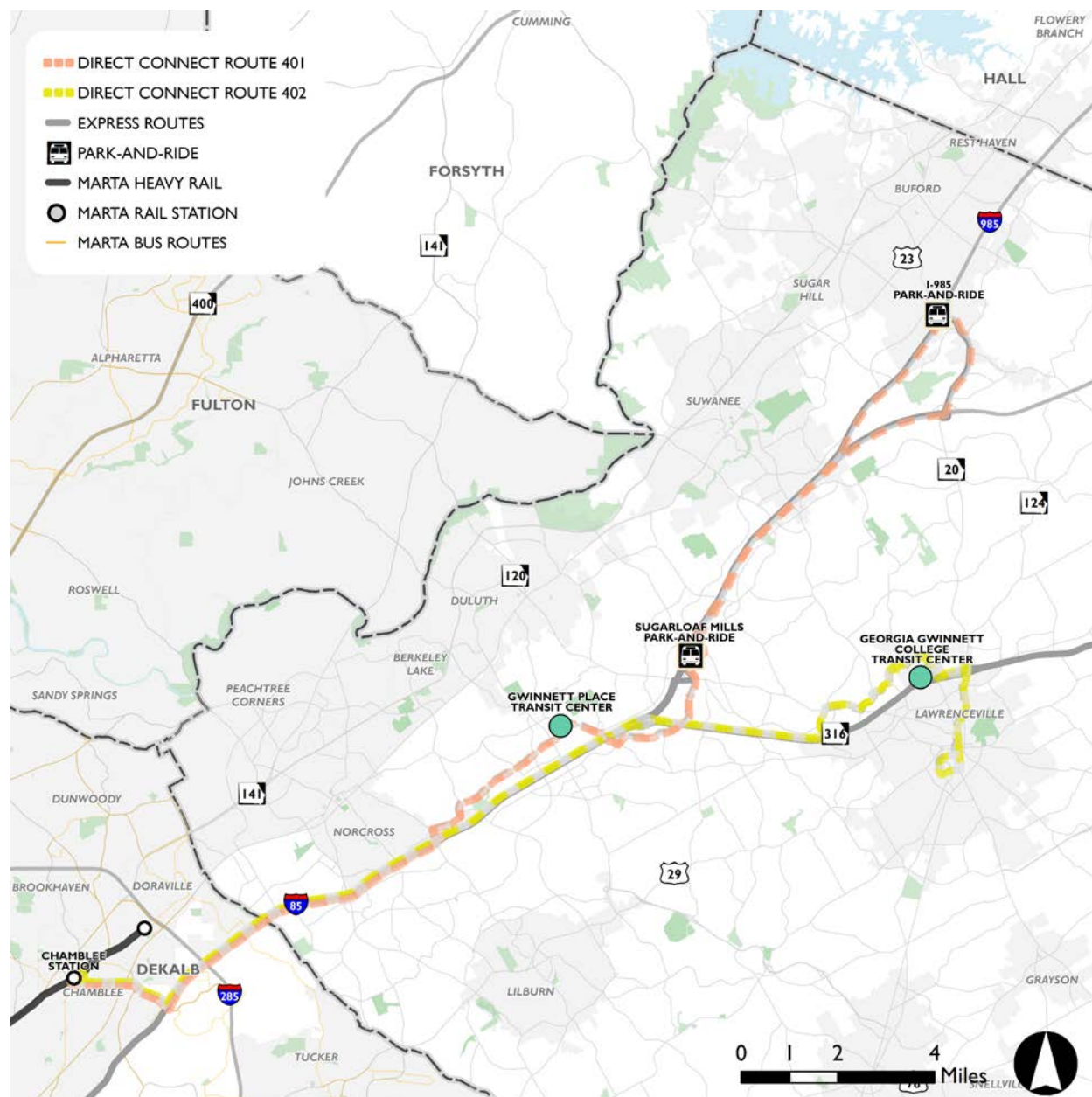
Table 4-8: FY2029 Express Bus Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
101	I-985 Park-and-Ride to Downtown Atlanta	Weekday	5:30-9:12 a.m., 3:03-7:12 p.m.	20	n/a	20	n/a
102	Indian Trail Park-and-Ride to Downtown Atlanta	Weekday	6:10-8:55 a.m., 3:08-6:28 p.m.	30	n/a	30	n/a
103	Sugarloaf Mills Park-and-Ride to Downtown Atlanta	Weekday	5:40-9:55 a.m., 3:05-7:04 p.m.	12	n/a	12	n/a
104	Harbins Road to Downtown	Weekday	6:00-7:40 a.m., 4:00-5:40 p.m.	20	n/a	20	n/a
106	Peachtree Corners to Perimeter Center	Weekday	6:00-7:30 a.m., 4:00-5:30 p.m.	30	n/a	30	n/a
110	Sugarloaf/Indian Trail to Emory University	Weekday	5:30-8:39 a.m., 3:45-7:20 p.m.	30	n/a	30	n/a
111	Loganville/Snellville to Emory University	Weekday	6:00-7:30 a.m., 4:00-5:30 p.m.	30	n/a	30	n/a
120	Harbins Road to Perimeter Center	Weekday	6:00-7:30 a.m., 4:00-5:30 p.m.	30	n/a	30	n/a
130	Braselton Area to Chamblee MARTA	Weekday	6:00-7:30 a.m., 4:00-5:30 p.m.	30	n/a	30	n/a

4.2.4 Direct Connect

Direct Connect routes experience no alignment or service changes from the previous timeframe. The combined Direct Connect routes are shown in Figure 4-24 and the corresponding service statistics are included in Table 4-9.

Figure 4-41: FY2029 Direct Connect Service Map



Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

Table 4-9: FY2029 Direct Connect Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
401	Direct Connect #1 Mall of Georgia I-985-Sugarloaf-Gwinnett County Transit- Indian Creek to Chamblee	Weekday	6:30 a.m. - 8:30 p.m.	60	60	60	60
402	Direct Connect #2 Lawrenceville Georgia Gwinnett-Sugarloaf Park-and-Ride to Chamblee	Weekday	6:30 a.m. - 8:30 p.m.	60	60	60	60

4.2.5 Flex

Flex routes experience no alignment or service changes from the previous timeframe (Figure 4-42). The service characteristics are included in Table 4-10.

Figure 4-42: FY2029 Flex Service Map

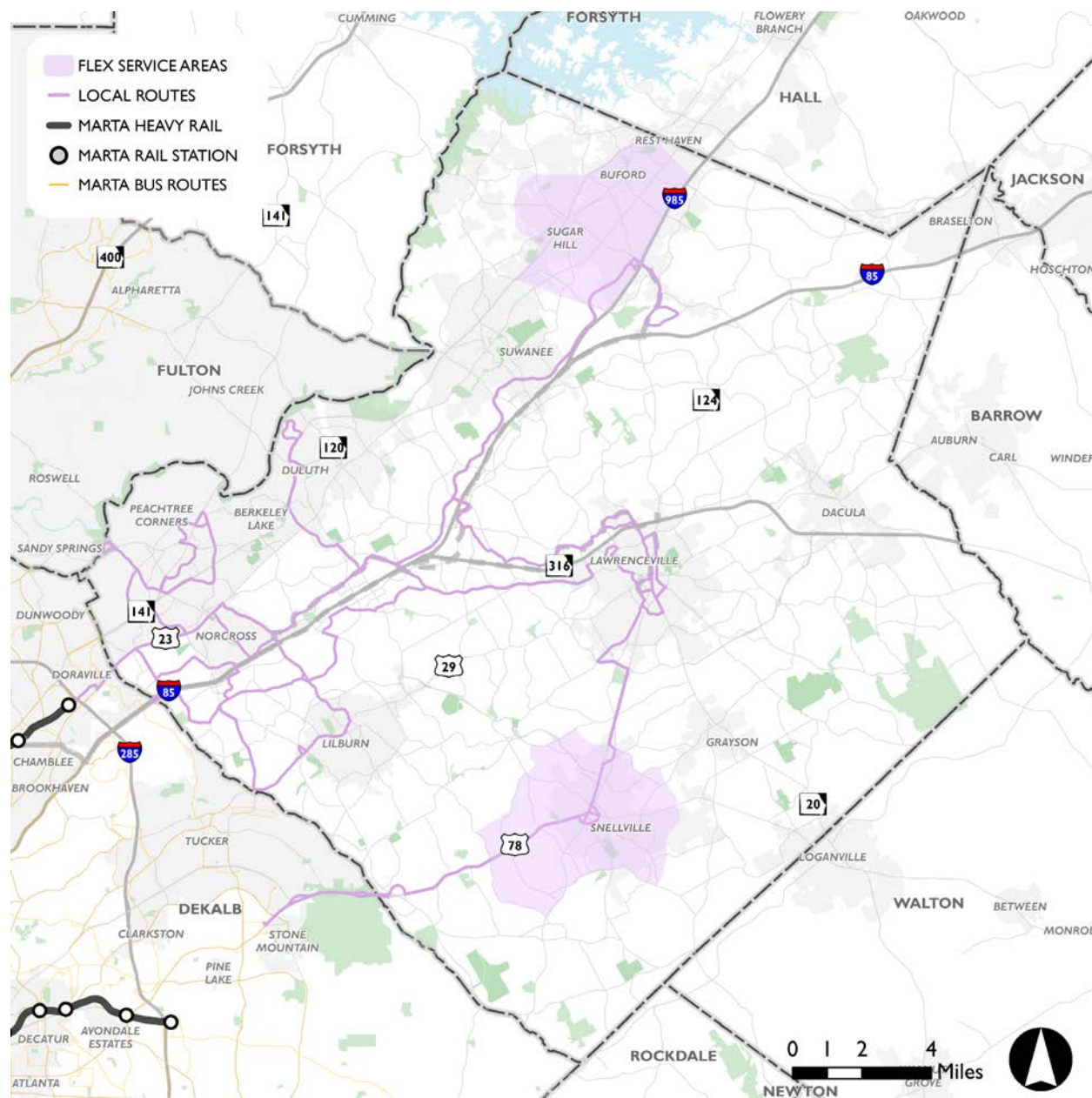


Table 4-10: FY2029 Flex Service Characteristics

Route	Name	Day	Span of Service
500	Buford/Sugar Hill Flex	Weekday	6:00 a.m. - 8:00 p.m.
503	Snellville	Weekday	6:00 a.m. - 8:00 p.m.

4.2.6 Park-and-Ride Facilities and Transit Centers

The following park-and-ride facilities and transit hubs are proposed to be enhanced and/or constructed (Figure 4-43).

4.2.6.1 Braselton Park-and-Ride (New)

A new park-and-ride facility is proposed to be located in the vicinity of Hamilton Mill Parkway and Gravel Springs Road near I-85 with a specific location to be determined. The facility may include enhanced waiting areas, stop amenities, and customer service facilities.

4.2.6.2 Loganville Park-and-Ride (New)

A new park-and-ride facility is proposed to be located in Loganville along SR 78 with a specific location to be determined. The facility may include enhanced waiting areas, stop amenities, and customer service facilities.

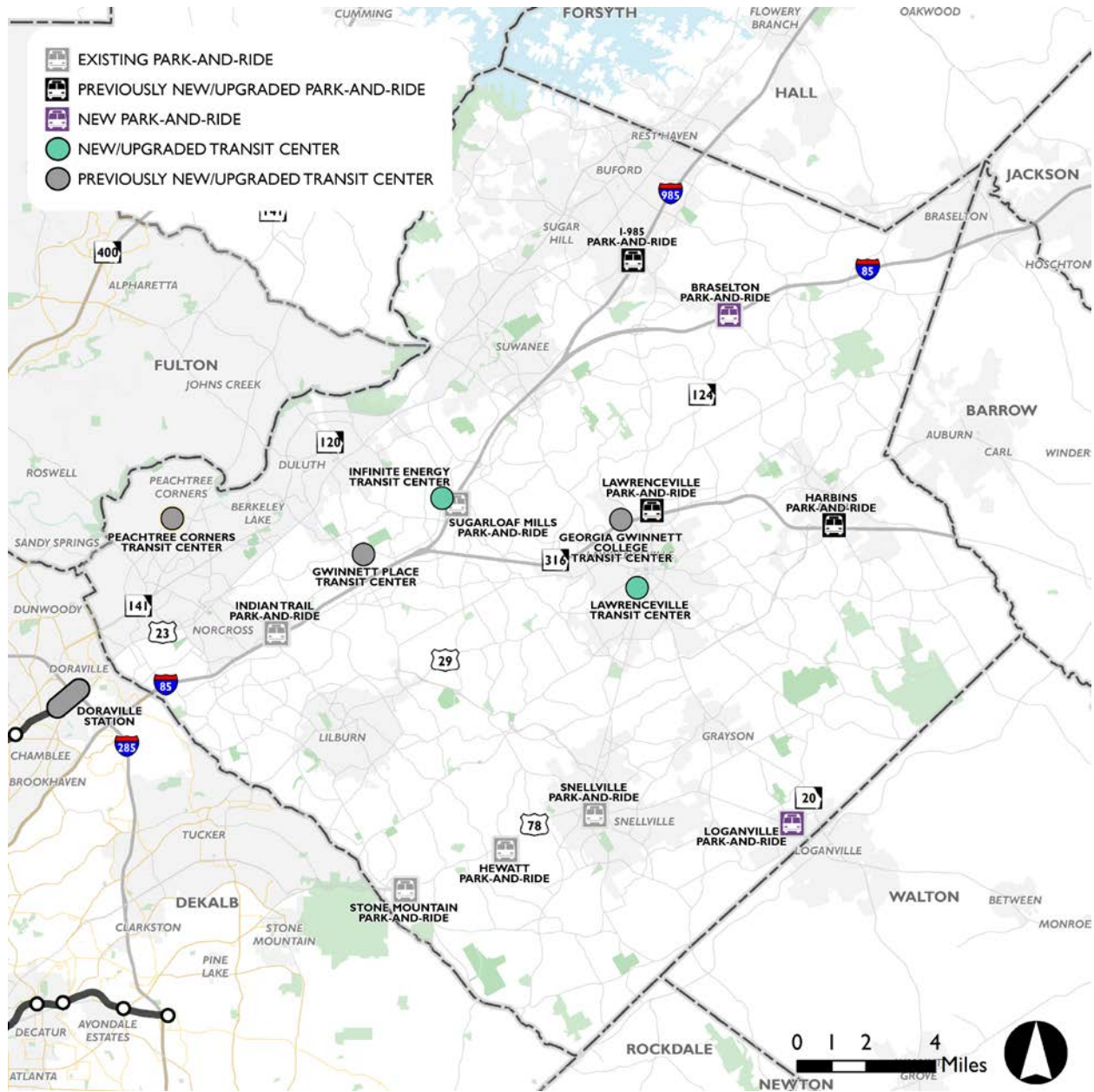
4.2.6.3 Infinite Energy Transit Center (New)

A new transit hub is proposed at the Infinite Energy Center. The facility would include space for multiple bus bays, enhanced waiting areas to enable transfers between multiple routes, and may also include additional stop amenities and customer service facilities.

4.2.6.4 Lawrenceville Transit Center (New)

A new transit hub is proposed in Lawrenceville near GJAC, with a specific location to be determined. The facility would include space for multiple bus bays, enhance waiting areas to enable transfers between multiple routes, and may also include additional stop amenities and customer service facilities.

Figure 4-43: FY 2029 New/Upgraded Park-and-Rides and Transit Centers Map



4.2.7 Other System Components

4.2.7.1 Lawrenceville Maintenance Facility

A new bus maintenance facility, in addition to the existing Gwinnett County Transit bus maintenance facility, is proposed to be constructed in Lawrenceville. A new facility is proposed in the Lawrenceville area to reduce dead-head travel time for routes based in serving the central and eastern portion of the County. It would include facilities for vehicle storage, fueling, light repair, and office space for operations staff.

4.2.7.2 Pedestrian/Bicycle Access Improvements

The Plan allocates funding for bicycle and pedestrian improvements to improve access to transit. These improvements may consist of new sidewalks, new bicycle lanes, enhanced crosswalks and signalized crossings. The total funding allocated to these upgrades is an additional 7.5 percent of capital costs for Local, Rapid, and BRT routes. Twenty percent of the total funds in the Plan would be expended in this time horizon.

4.2.7.3 Technology Upgrades

The Plan allocates funding to various technology upgrades to the system. Technology upgrades may consist of user amenities, such as the addition of Wi-Fi and power outlets to buses, or include upgrades to systems and back-end equipment, such as improving real-time information systems, performance measurement systems, and safety/communications systems. The total funding allocated to these upgrades is an additional 2 percent of capital funds. Twenty-five percent of the funds for technology upgrades would be expended in this time horizon.

4.2.7.4 Flex Service Capital Investments

The Plan allocates funding for capital improvements supporting Flex services, such as back-end operations facilities and dispatch. A total of \$2 million is allocated for these improvements throughout the Plan; twenty percent of these funds would be expended in this time horizon.

4.2.7.5 Local Bus Stop Upgrades

Expansion of the Local bus route system as part of this Plan necessitates the construction of new Local bus stops or upgrades to existing stops. As part of this Plan, funding is allocated for these improvements in three phases. Thirty-three percent of the total funds allocated for Local bus stop upgrades is proposed to be spent in the Mid-Range to construct upgrades to Local bus stops and construct new stops. New or upgraded stops may include signage, benches, shelters, and trash cans.

4.2.7.6 Fleet TSP Enhancement

The Plan allocates funding to equip the BRT bus fleet with TSP technology to enable the buses to utilize signals along the BRT route with TSP. Ten percent of the total funds allocated for TSP enhancements is proposed to be spent in this time horizon. In this phase, only vehicles serving BRT Route 700 will receive the enhancements.

4.2.7.7 Vanpool Subsidy

The Plan proposes an annual subsidy of private vanpool services to supplement public transit service. The initial subsidy will be \$250,000 in FY 2020 (2018 dollars) and will escalate to an annual subsidy of \$750,000 in FY 2030 (2018 dollars).

4.2.7.8 TNC Subsidy

The Plan proposes an annual subsidy of resident use of TNCs, such as Uber or Lyft, specifically to access transit. Pilot programs may be implemented to identify effective programs to enhance access to transit, such as subsidized rides to certain destinations, within certain areas, or at certain times of day. The subsidy would be \$200,000 per year starting in FY 2020 (2018 dollars). This investment continues in this implementation timeframe.

4.2.7.9 Fleet Upgrade & Expansion

The Plan includes the expansion of the vehicle fleet to accommodate increased levels of transit service. The combined fleet will be expanded from 102 vehicles to 141 vehicles by the end of FY 2029.

4.2.8 Summary of Proposed Services

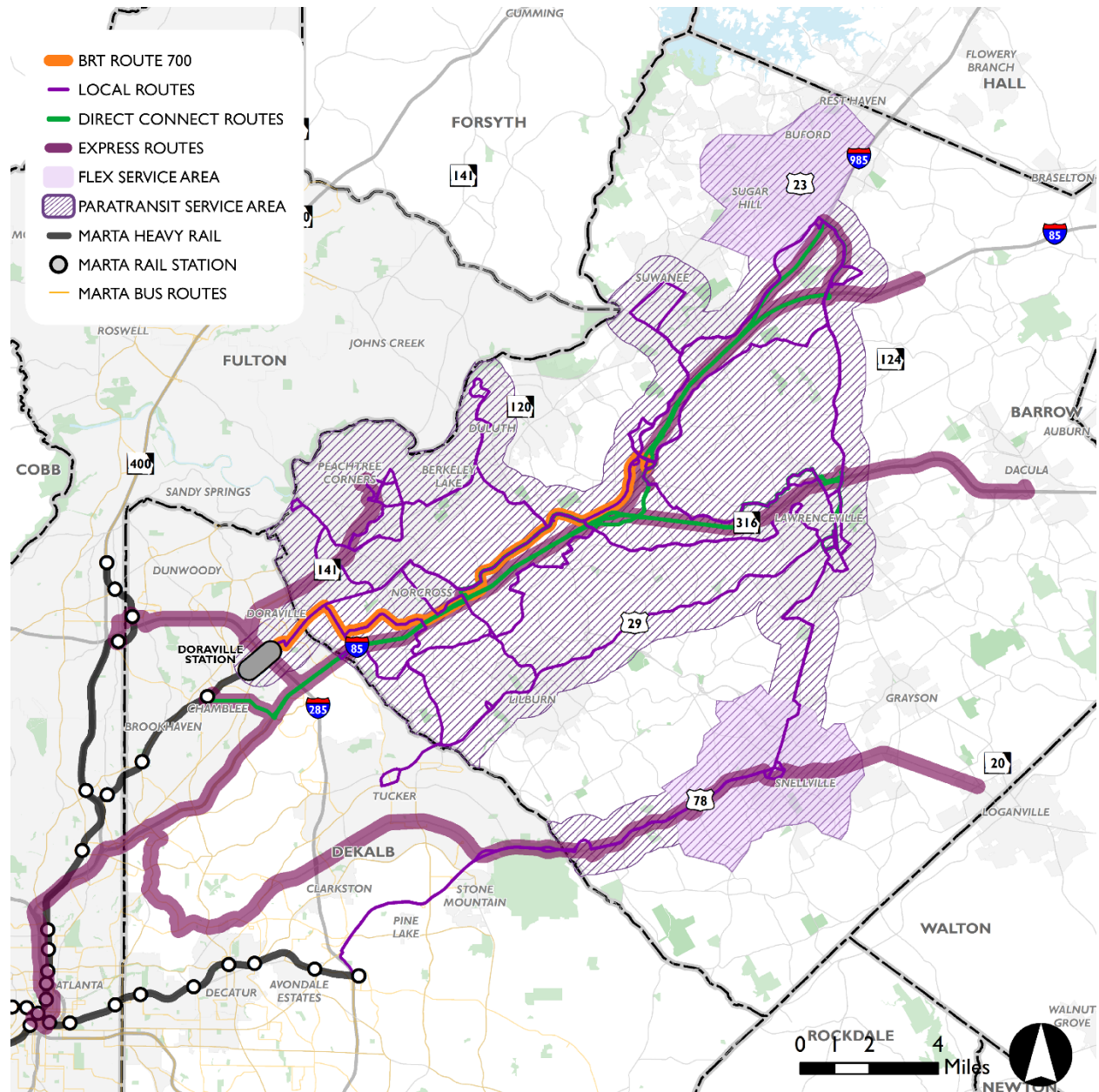
Table 4-11 provides a summary of the bus operating statistics for FY 2029 for all bus services proposed for Gwinnett County, while Figure 4-44 shows all of the transit services that will be implemented in or by FY 2029, including Local, Express, Flex, and Direct Connect routes.

It was previously noted that the Mid-Range Plan expands service connections to MARTA bus and rail services. Consideration has been given to capacity constraints at MARTA rail stations. The Chamblee Station is expected to have sufficient capacity for proposed Direct Connect routes, and the Indian Creek Station is expected to have sufficient capacity for proposed Route 70. The Mid-Range Plan includes expanded service to/from Doraville Station, including Route 700 BRT service. As previously noted, bus bay capacity expansion will be required at this station.

Table 4-11: FY 2029 Estimated Operating Statistics for Transit Services by Service Type

Service Type	Fleet Requirement (including spares)	Annual Revenue Bus Miles	Annual Revenue Bus Hours
Local	50	2,362,500	196,000
Express	47	821,300	29,200
Direct Connect	6	395,800	17,800
BRT	16	740,200	47,300
Flex	10	170,792	23,134
Paratransit	12	287,580 (est.)	31,194 (est.)
Total	141	4,778,352	344,628

Figure 4-44: FY2029 Gwinnett County Transit Service



Note: Route 101 could alternatively remain on I-985 as it does today

4.3 Long-Range Phase IA: FY 2030-2039

The Long-Range Plan Phase IA builds on the Mid-Range Plan with substantial investments in several of the higher-demand corridors. The proposed Plan looks at ways to invest in travel time, reliability, and capacity improvements in the higher-demand corridors while growing overall coverage of the County through appropriate levels of investment by area.

4.3.1 High-Capacity Transit

The Long-Range Plan Phase IA Plan proposes further upgrading the high-capacity transit corridor extending from the Doraville MARTA rail station to Infinite Energy Center and the Sugarloaf Park-and-Ride, following the I-85 corridor discussed in 2.1.2.

4.3.1.1 Gold Line Extension

In the Mid-Range Plan, BRT Route 700 would run predominately in dedicated lanes north of Jimmy Carter Boulevard. South of Jimmy Carter Boulevard, buses would run in mixed traffic. In the Long-Range, the southern portion of the corridor would be replaced by extension of the existing Heavy Rail line that terminates at the Doraville station. Since heavy rail service would not stop at the three BRT Route 700 stops between Doraville and the multimodal hub, service to those stops would be backfilled by local Route 10, which would have increased frequencies, and Route 20. The line would be extended to a new multimodal hub in the western part of Gwinnett County. The hub would accommodate Heavy Rail, Bus Rapid Transit, Express Commuter, Direct Connect, and Local buses, pick-up/drop-off, and park-and-ride activity. The BRT would be truncated at the multimodal hub, connecting that transfer facility with Infinite Energy Center and Sugarloaf Mills. Service along the BRT alignment will be extended until 2 a.m. to meet the last MARTA train.

Service would begin on the new Heavy Rail line in FY 2030. The alignment of this high-capacity corridor with the extension of rail is shown in Figure 4-45. Service characteristics are shown in Table 4-12.

Figure 4-45: FY2039 HRT Service Map

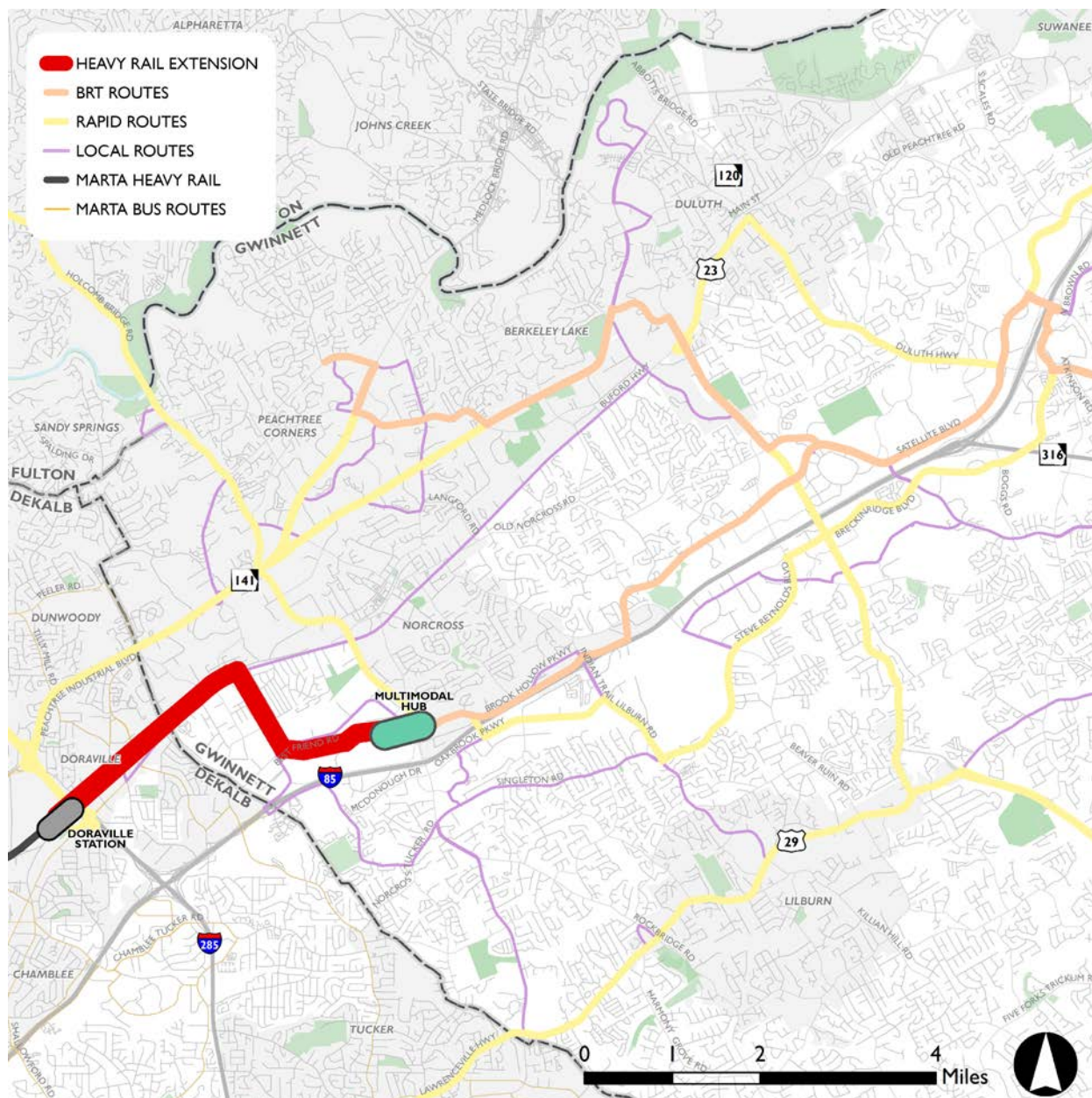


Table 4-12: FY2039 HRT Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid p.m.	Eve	
HRT	Doraville to Jimmy Carter HRT Extension	Weekday	4:45 a.m. - 1:30 a.m.	10	12	10	20
		Saturday	6:00 a.m. - 1:15 a.m.	20	20	20	20
		Sunday	6:00 a.m. - 1:15 a.m.	20	20	20	20

A long-term consideration for this Plan, outside of the 30-year horizon, is to do one of two things:

- Extend the Heavy Rail from Jimmy Carter Boulevard and the multimodal hub to Gwinnett Place Mall area and have the BRT line remain as is along the corridor, or
- Convert the northern portion of the corridor from BRT to Light Rail Transit (LRT).

4.3.2 Bus Rapid Transit

In addition to Route 700, two new BRT routes are proposed. These routes are shown in Figure 4-47 and Figure 4-48 and are described below.

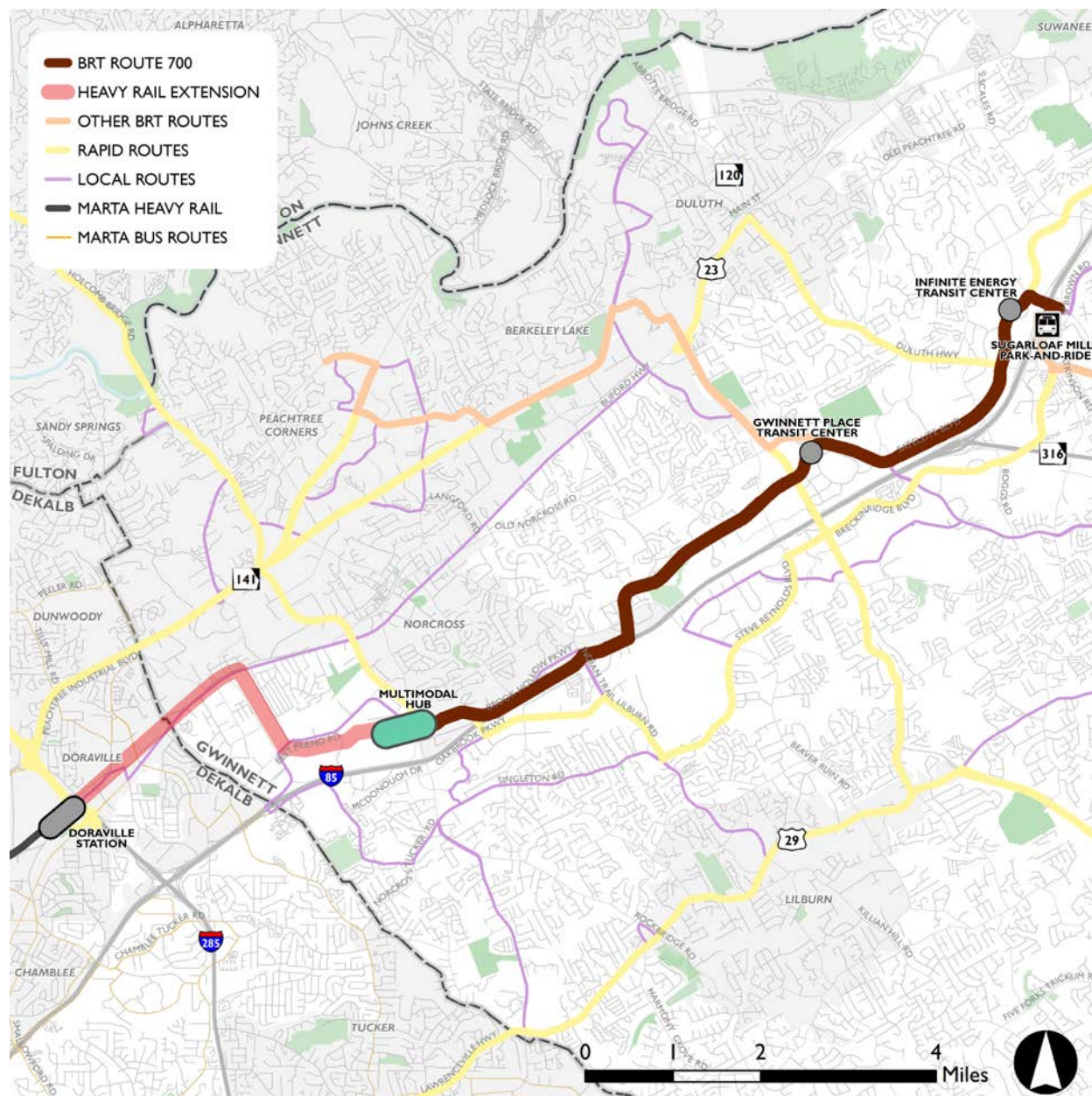
These corridors will include exclusive bus lanes along significant portions of the alignments to allow the buses to bypass congestion. TSP would be provided at intersections to allow for faster travel times. These BRTs would have similar enhanced features as noted previously for the Route 700 BRT.

4.3.2.1 Route 700

Route 700 will be modified from the previous timeframe; as stated earlier, the southern portion of the corridor would be replaced by an extension of the existing Heavy Rail line that terminates at the Doraville Station. This will start at the multimodal hub in western Gwinnett County, and will follow Brook Hollow Parkway and Satellite Boulevard to Infinite Energy Center. The alignment then crosses under I-85 via Sugarloaf Parkway to the Sugarloaf Mills Park-and-Ride. A substantial portion of the alignment will be on dedicated lanes beginning north of Jimmy Carter Boulevard.

The span of service would be extended until 2 a.m. to meet the last MARTA train.

Figure 4-46: Route 700 (FY2030-39)

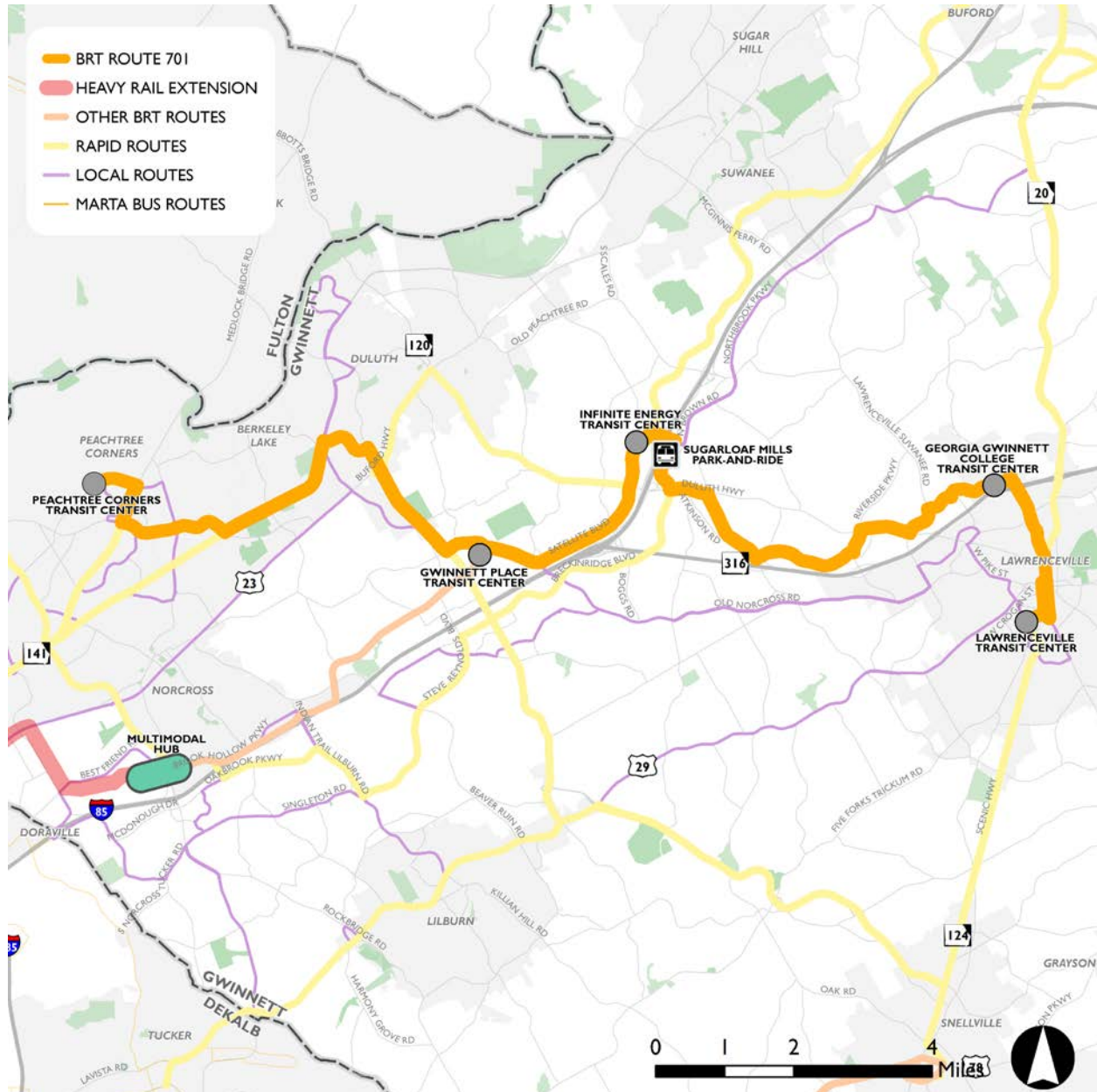


4.3.2.2 Route 701

Route 701 is a new proposed BRT route providing service between Peachtree Corners and downtown Lawrenceville (Figure 4-47). Starting from the route's western terminus at the proposed Peachtree Corners Park-and-Ride, the route heads east via Peachtree Corners Circle, Peachtree Parkway, and Spalding Drive, before continuing onto Peachtree Industrial Boulevard. The route will continue east and serve the Gwinnett Place Transit Center, Infinite Energy Center, and Sugarloaf Mills along a shared alignment with Route 700. From Sugarloaf Mills the route continues east serving Gwinnett Technical College and Georgia Gwinnett College. The route's eastern terminus will be the new Lawrenceville Transit Center.

Route 701's corridor includes exclusive bus lanes to allow the buses to bypass congestion. TSP would be provided at intersections to allow for faster travel times. Service will operate at 15-minute frequencies in weekday peak hours, 20-minute frequencies mid-day on weekdays and all-day Saturday, and 30-minute frequencies on Saturday nights. Route 701 would have similar enhanced features as noted above for the Route 700 BRT. The BRT would not operate on Sundays, with service along this alignment instead provided by the underlying Local Route 45.

Figure 4-47: Route 701 (FY2030-39)

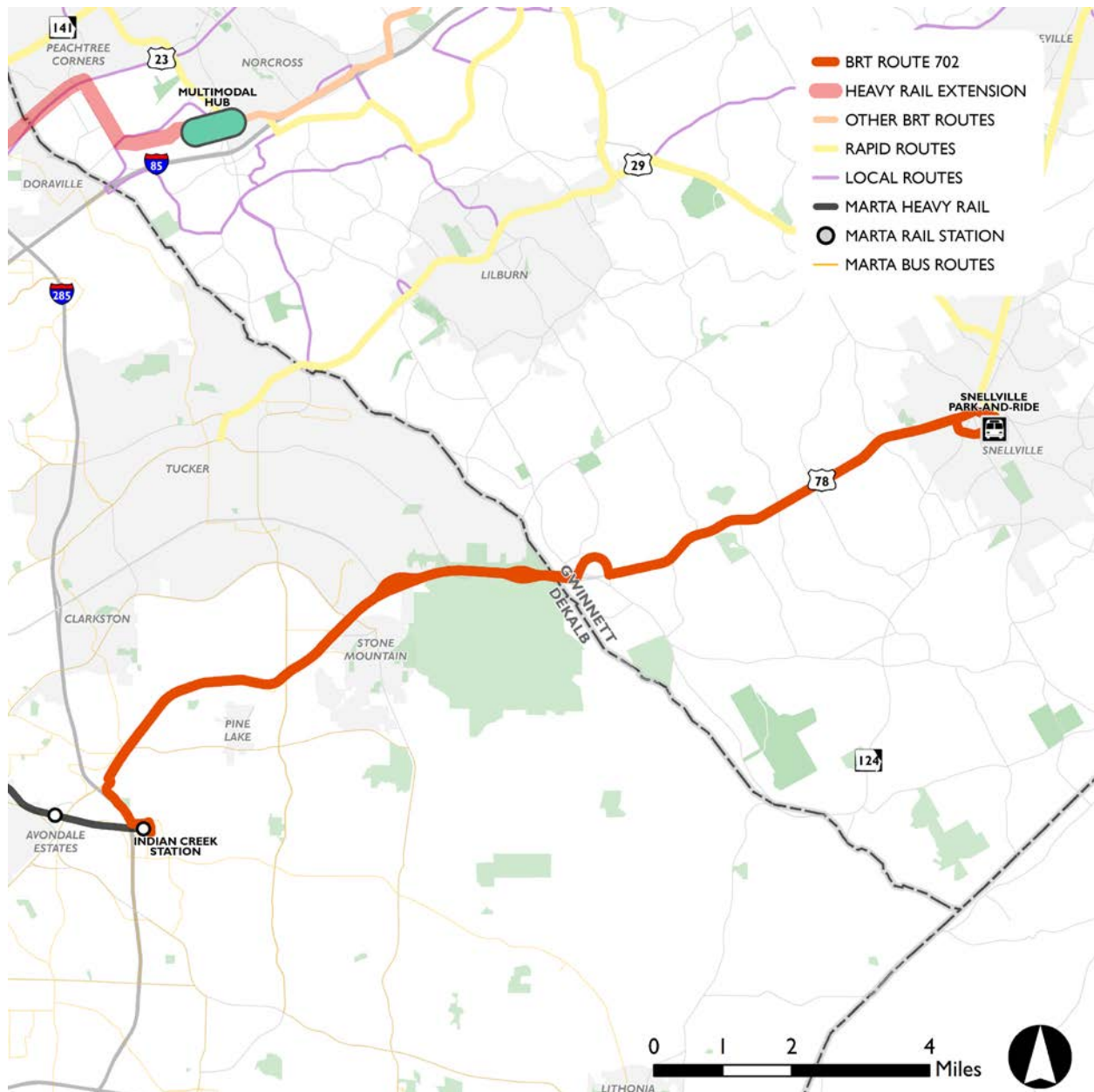


4.3.2.3 Route 702

Route 702 is a new proposed BRT route providing service between downtown Snellville and Indian Creek MARTA Station (Figure 4-48). Most of the route's alignment follows US 78/SR 10, with the eastern terminus being the GRTA/SRTA Snellville Park-and-Ride. This route will require coordination with DeKalb County.

Route 702's corridor includes exclusive bus lanes to allow the buses to bypass congestion. Lanes will follow the US 78 corridor but may be constructed along an adjacent parallel alignment or within a dedicated BRT corridor due to constraints along US 78. TSP would be provided at intersections to allow for faster travel times. Service will operate at 15-minute frequencies in weekday peak hours, 20-minute frequencies mid-day on weekdays and all-day Saturday, and 30-minute frequencies on Saturday nights and on Sundays. Route 702 would have similar enhanced features as noted above for the Route 700 BRT.

Figure 4-48: Route 702 (FY2030-39)



The combined BRT Service Map is shown in Figure 4-48 and the corresponding service statistics are included in Table 4-13.

Figure 4-49: FY2039 BRT Service Map

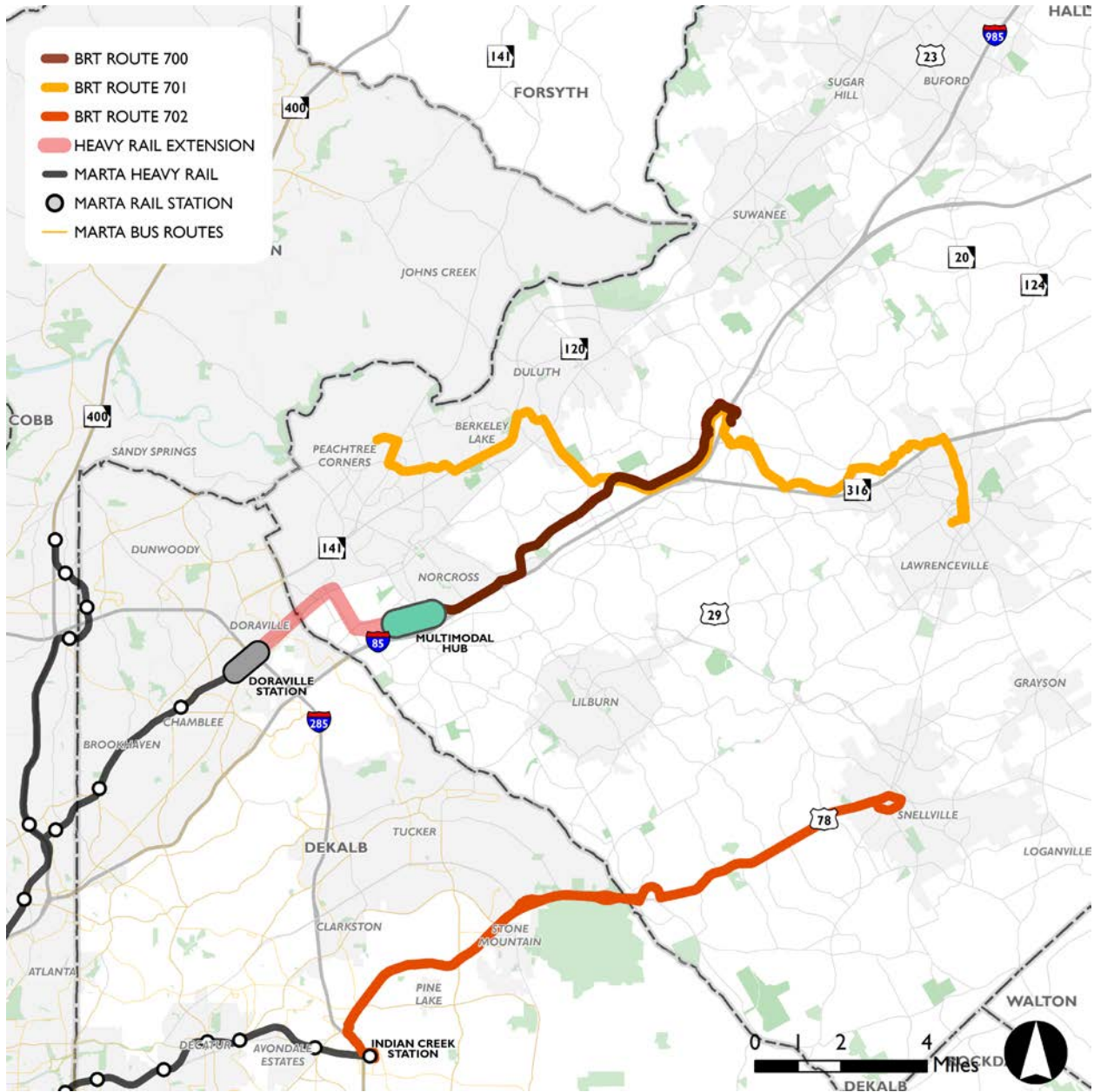


Table 4-13: FY2039 BRT Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
700	Jimmy Carter/Multimodal Hub - Sugarloaf Mills BRT	Weekday	5:30 a.m. - 2:00 a.m.	10	15	10	15
		Saturday	6:00 a.m. - 12:00 a.m.	15	15	15	15
		Sunday	6:00 a.m. - 12:00 a.m.	15	15	15	15
701	Lawrenceville-Peachtree Corners	Weekday	5:30 a.m. - 12:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	30
		Sunday	N/A	n/a	n/a	n/a	n/a
702	Snellville-Indian Creek	Weekday	5:30 a.m. - 12:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	30
		Sunday	6:00 a.m. - 10:00 p.m.	30	30	30	30

Notes:

Route 702 will require coordination with DeKalb County.

4.3.3 Rapid Routes

The Long-Range Plan Phase 1A proposes six new Rapid Bus routes. Along the alignments of these six routes, the Plan proposes similar capital improvements to those proposed for the BRT alignments, but at a lower level of investment. The Plan also proposes Rapid Bus-like capital improvements along two other corridors, but the service itself on those corridors will be a mixture of Local, Express, and/or Direct Connect routes; no new Rapid Bus routes are proposed along those two corridors.

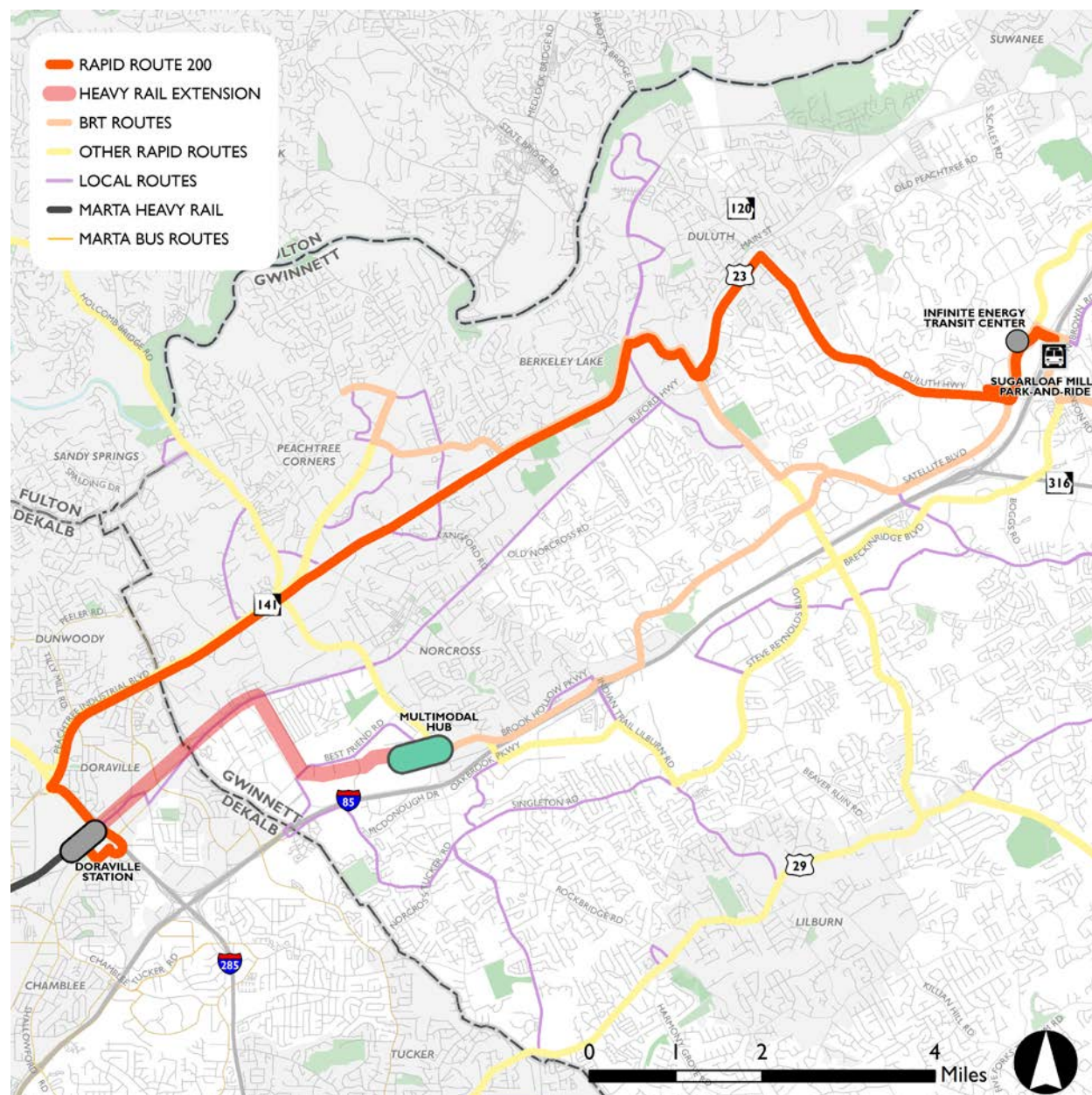
These corridors will all include limited dedicated bus lanes with buses operating within mixed traffic along much of the alignment. TSP is proposed for all signalized intersections along these corridors. Queue jump lanes are proposed at high-volume intersections. These routes may include real-time information, off-board fare collection, distinctive branding, and upgraded shelters.

All Rapid corridors will have peak service frequency of at least 15 minutes. Rapid services that will connect to MARTA rail will operate until 2 a.m. on weekdays to meet the last MARTA train, while other Rapid services will operate until midnight. All routes operate on Saturdays and Sundays unless noted.

4.3.3.1 Route 200

Route 200 is a new Rapid Bus route which provides service from Doraville MARTA rail station to Sugarloaf Mills (Figure 4-50). Starting from the Doraville MARTA station, the route utilizes I-285 to access Peachtree Industrial Boulevard. The route operates on Peachtree Industrial Boulevard through Norcross, then uses Summit Ridge Parkway and Pleasant Hill Road to access Buford Highway to reach downtown Duluth. The route then follows Duluth Highway, Satellite Boulevard, and Sugarloaf Parkway to reach Infinite Energy Center and Sugarloaf Mills.

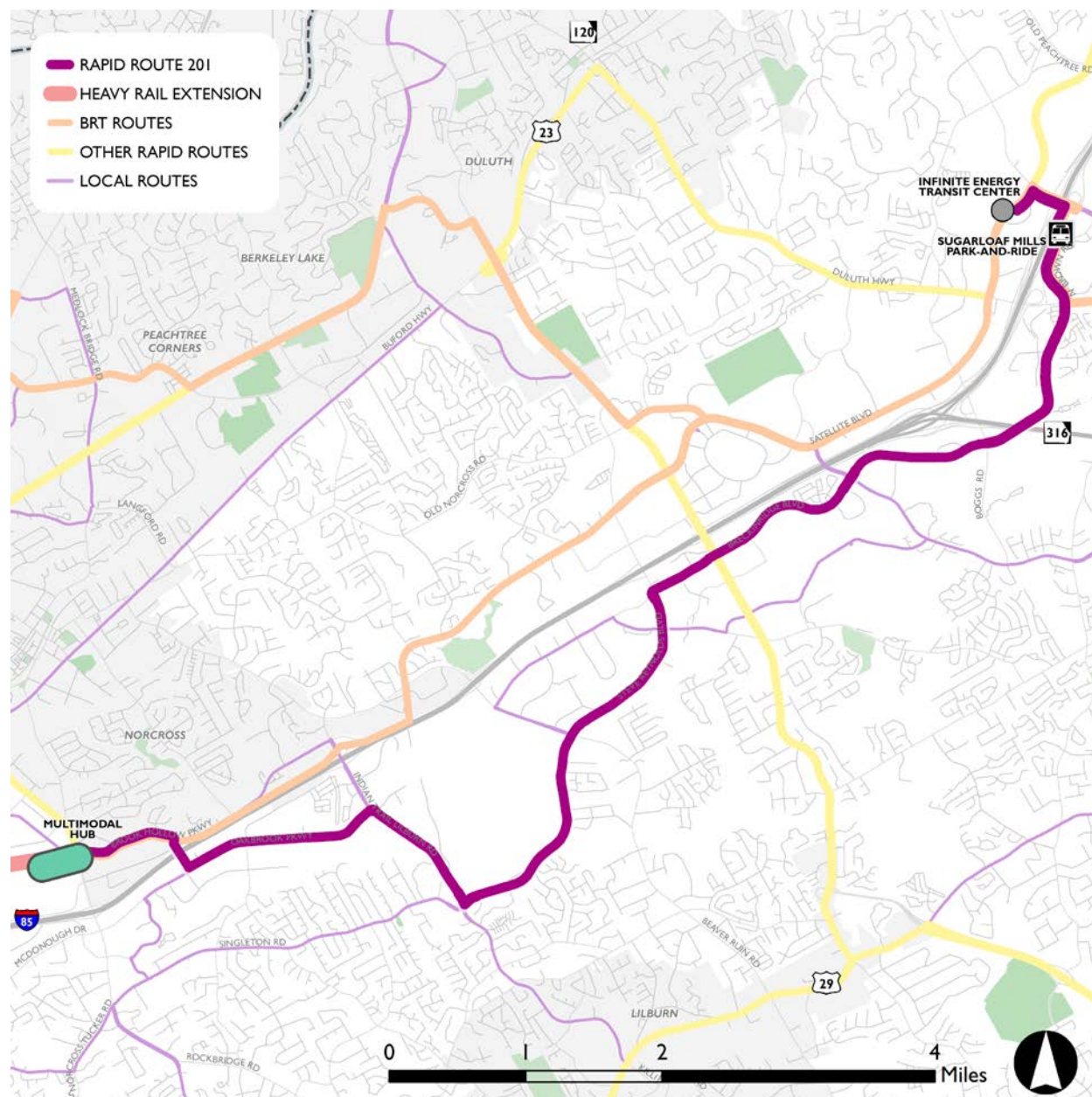
Figure 4-50: Route 200 (FY2030-39)



4.3.3.2 Route 201

Route 201 is a new Rapid Bus route which provides service from the proposed new multimodal hub in western Gwinnett County to Sugarloaf Mills and Infinite Energy Center (Figure 4-51). Starting from the multimodal hub, the route will follow Brook Hollow Parkway and Center Way to reach Indian Trail-Lilburn Road. The route then follows Steve Reynolds Boulevard and Breckinridge Boulevard to reach Sugarloaf Mills and Infinite Energy Transit Center. The route would not operate on Sundays; instead, service would be provided by underlying Local Route 21.

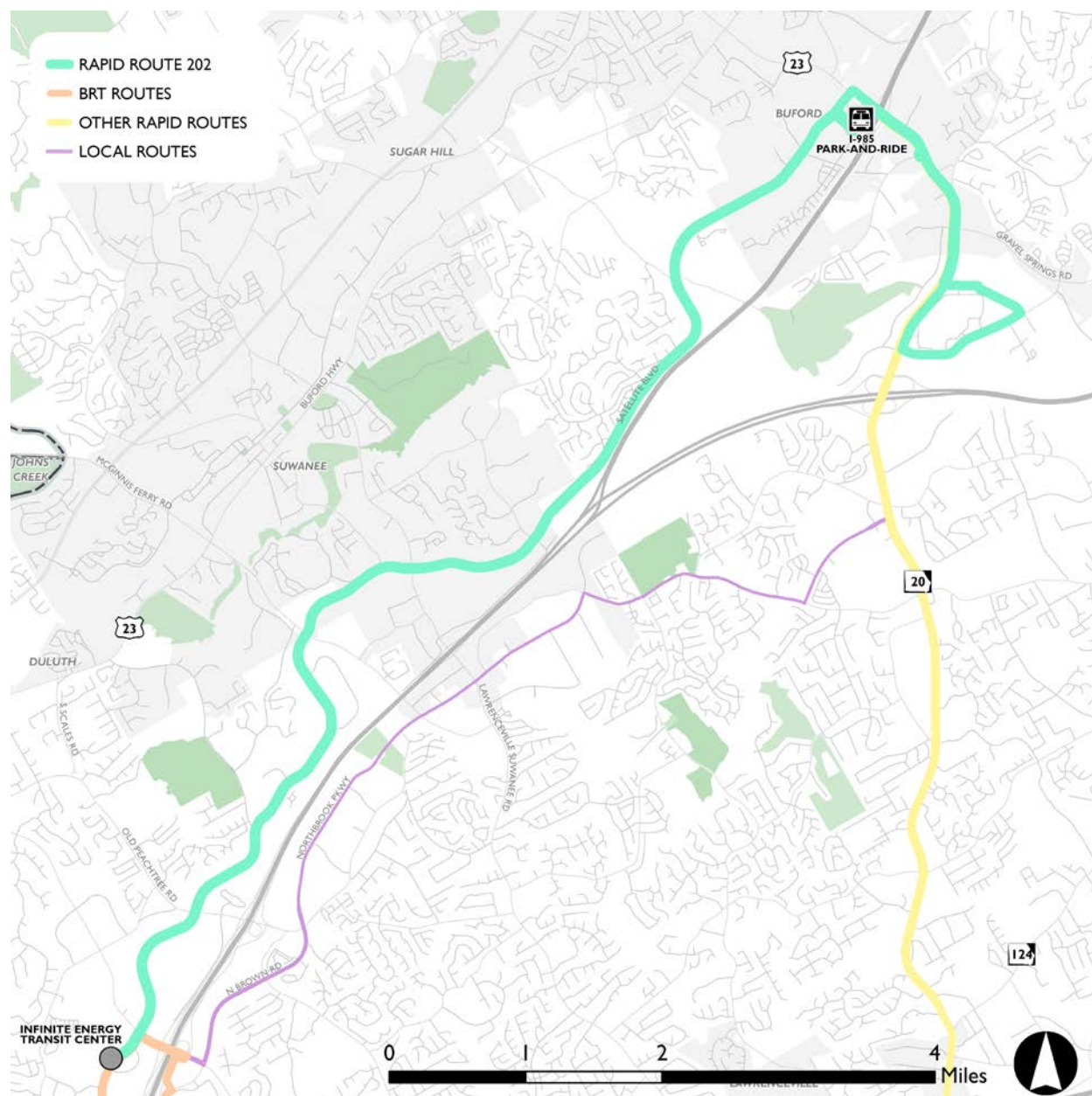
Figure 4-51: Route 201 (FY2030-39)



4.3.3.3 Route 202

Route 202 is a new Rapid Bus route which provides service from Infinite Energy Transit Center to Mall of Georgia (Figure 4-52). Starting from Infinite Energy Transit Center, most of the route's alignment is on Satellite Boulevard, then following Buford Drive to reach Mall of Georgia.

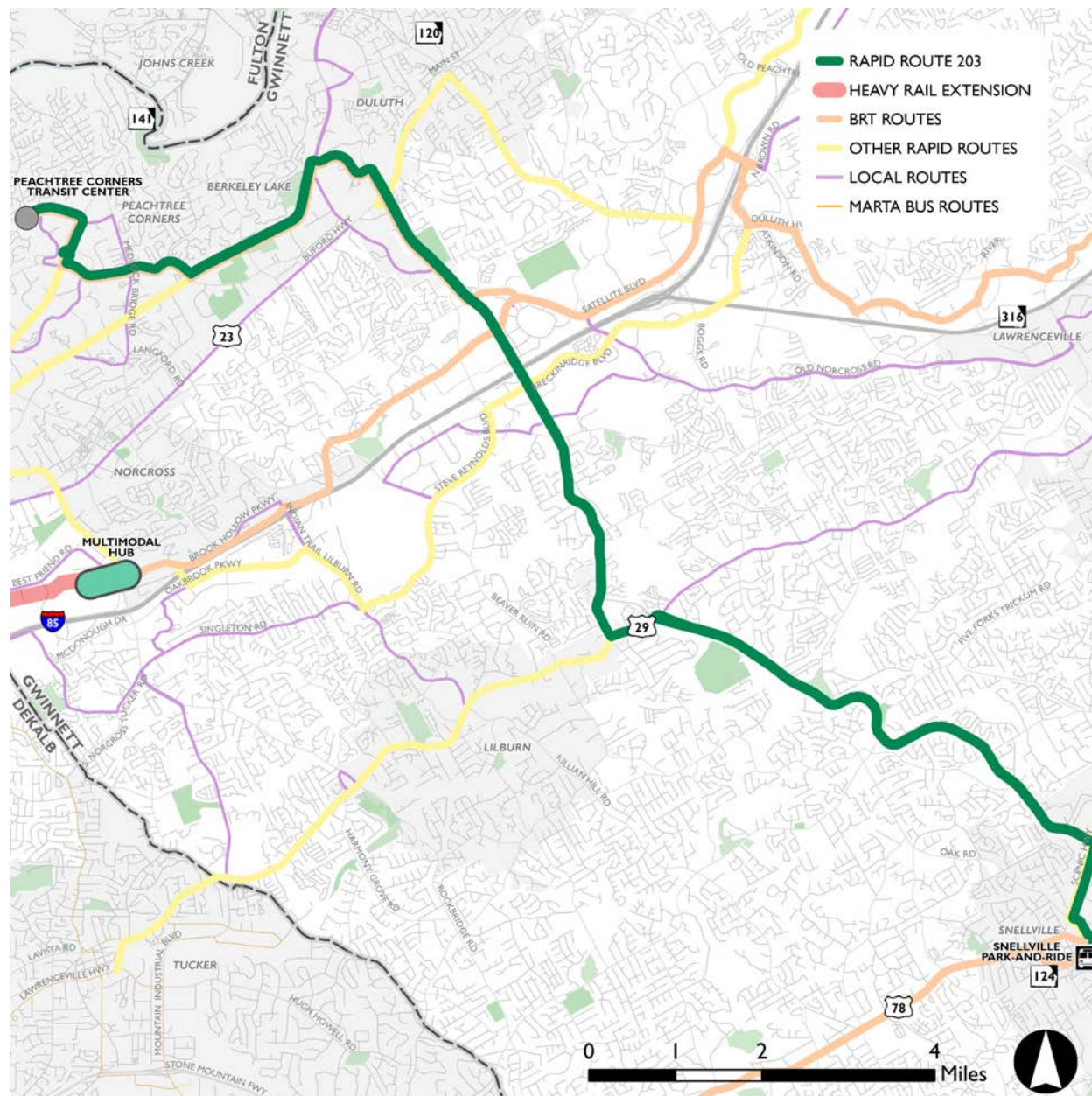
Figure 4-52: Route 202 (FY2030-39)



4.3.3.4 Route 203

Route 203 is a new Rapid Bus route which provides service from Peachtree Corners to Snellville (Figure 4-53). The route's northern terminus will be the Peachtree Corners Transit Center. It will use Peachtree Parkway, Spalding Drive, Peachtree Industrial Boulevard, Summit Ridge Parkway to reach Pleasant Hill Road. The route then follows Pleasant Hill Road and Ronald Reagan Parkway to reach SR 124 and downtown Snellville.

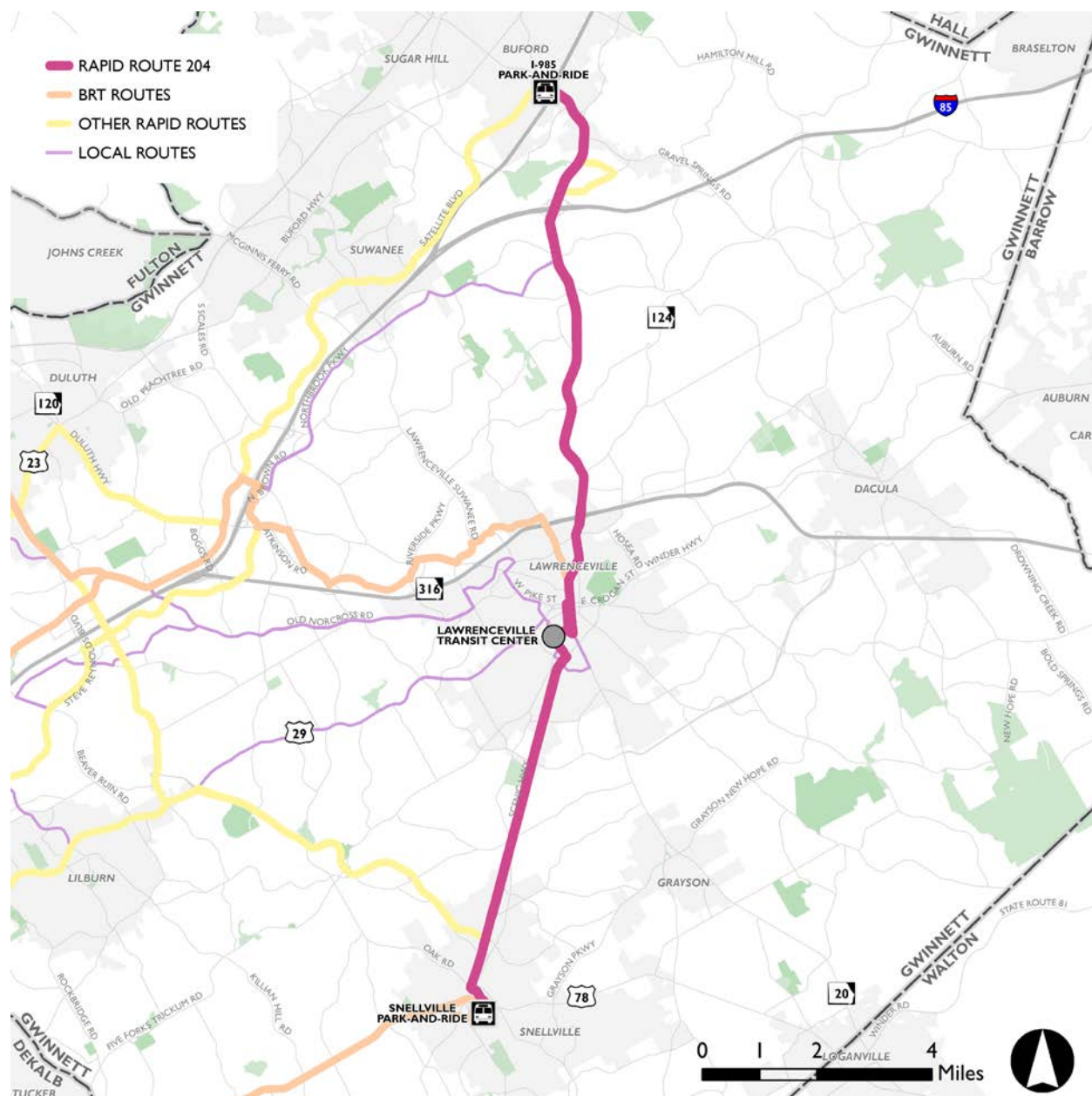
Figure 4-53: Route 203 (FY2030-39)



4.3.3.5 Route 204

Route 204 is a new Rapid Bus route which provides service from I-985 Park-and-Ride/Mall of Georgia to Snellville (Figure 4-54). The route's alignment follows Buford Drive between Mall of Georgia and downtown Lawrenceville, and it follows SR 124 between downtown Lawrenceville and Snellville. In Lawrenceville, this route will serve both the downtown area and the Lawrenceville Transit Center.

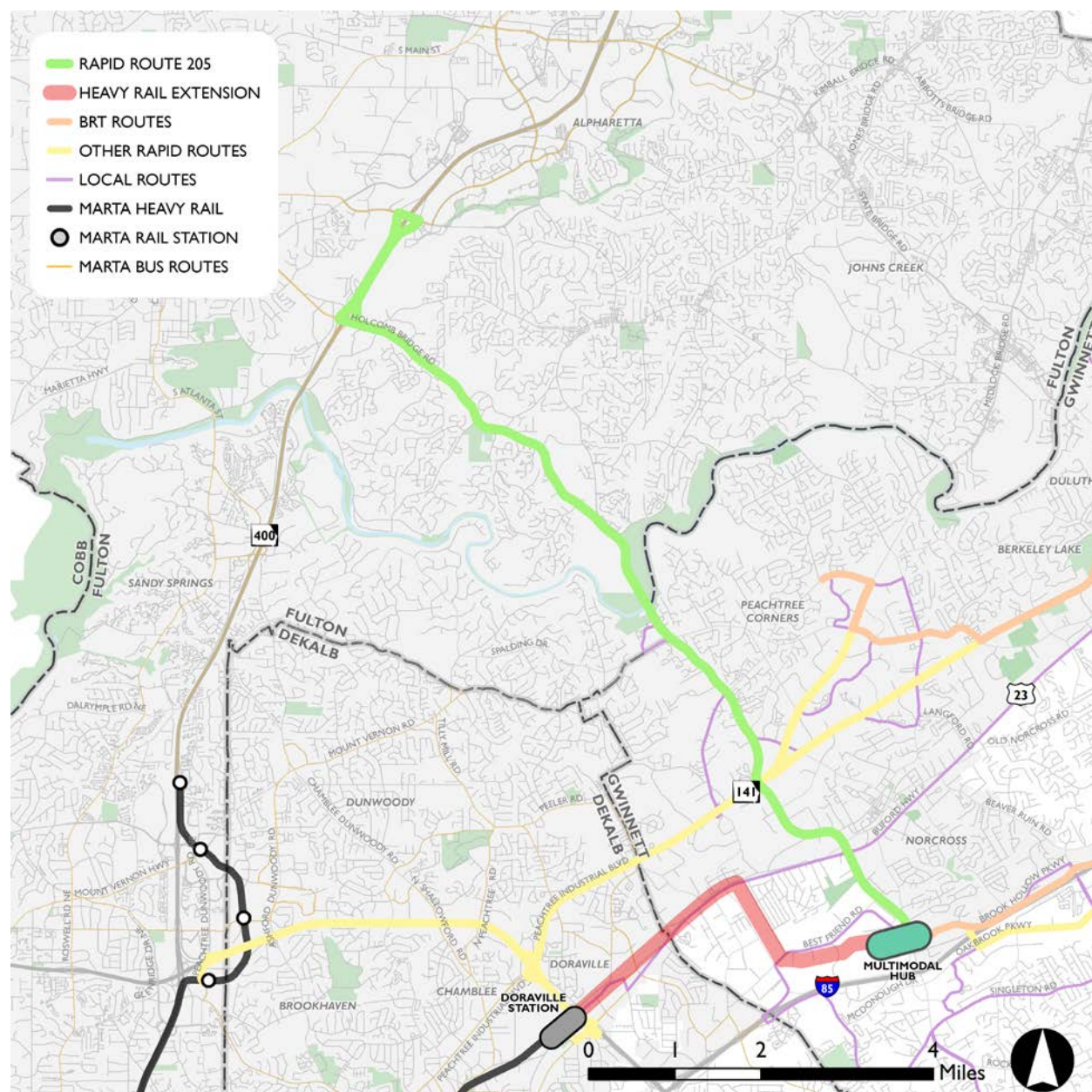
Figure 4-54: Route 204 (FY2030-39)



4.3.3.6 Route 205

Route 204 is a new Rapid Bus route which provides service from the multimodal hub in western Gwinnett County to Alpharetta in North Fulton County (Figure 4-55). Starting at the multimodal hub, this route follows Jimmy Carter Boulevard north until it becomes Holcomb Bridge Road. The alignment follows Holcomb Bridge Road, then follows SR 400 north to the Mansell Road Park-and-Ride. Route 205 works in coordination with a recommendation of Fulton County Transit Plan, a high capacity transit extension on SR 400 north of the North Springs MARTA station. Additional coordination will be required with MARTA as approximately half of the alignment lies within North Fulton County and the MARTA service area.

Figure 4-55: Route 205 (FY2030-39)



The proposed Rapid Bus corridors are shown in Figure 4-56. Rapid Bus service characteristics are shown in Table 4-14.

Figure 4-56: FY2039 Rapid Service Map

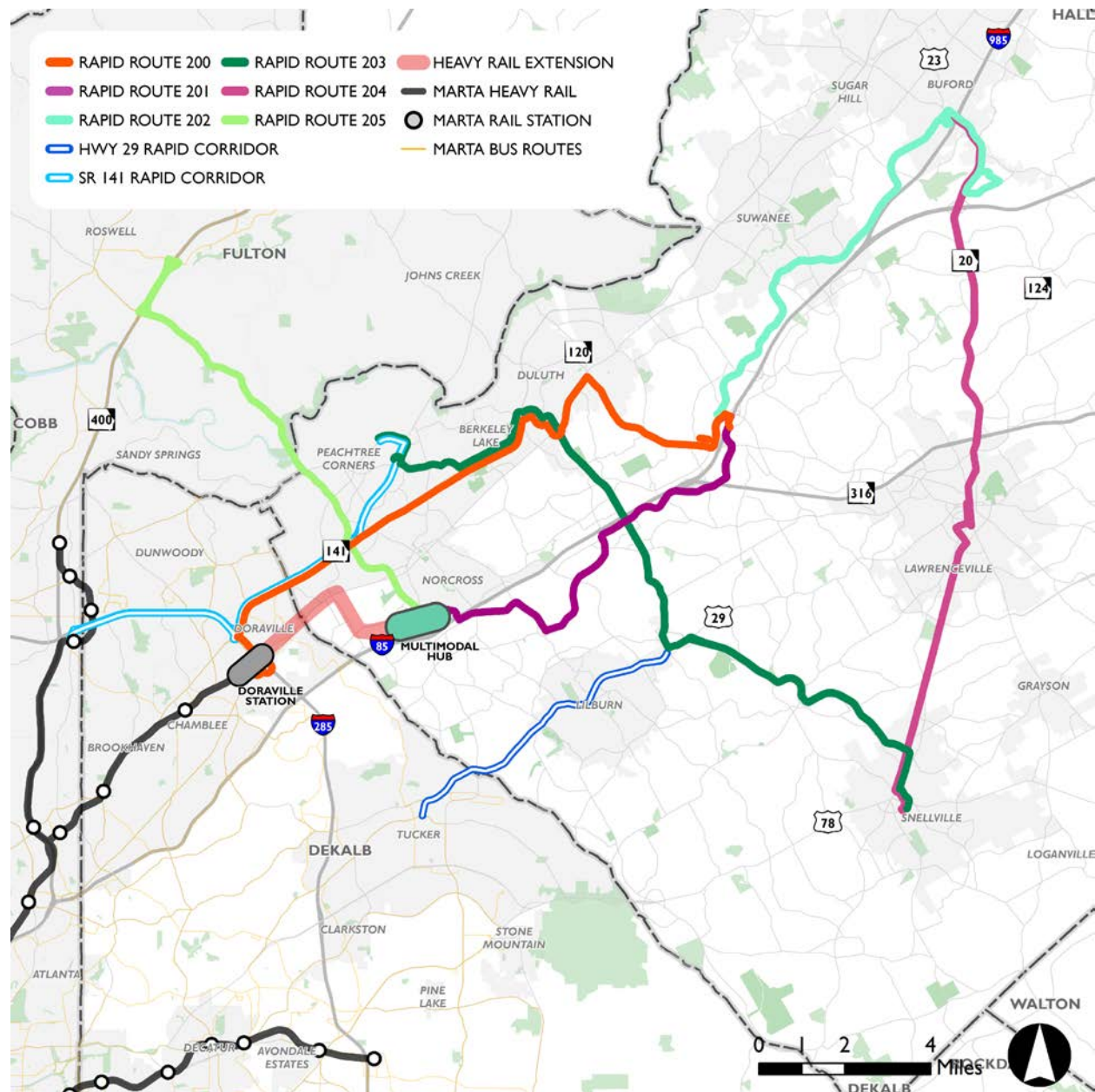


Table 4-14: FY2039 Rapid Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
200	Peachtree Industrial Boulevard Doraville/Sugarloaf	Weekday	5:30 a.m. - 2:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	30
		Sunday	6:00 a.m. - 10:00 p.m.	30	30	30	30
201	Steve Reynolds Multimodal Hub/Infinite Energy	Weekday	5:30 a.m. - 2:00 a.m.	15	30	15	60
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	30
		Sunday	N/A	n/a	n/a	n/a	n/a
202	Infinite Energy/Mall of Georgia	Weekday	5:30 a.m. - 12:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	30
		Sunday	6:00 a.m. - 10:00 p.m.	30	30	30	60
203	Pleasant Hill Peachtree Corners/Snellville	Weekday	5:30 a.m. - 12:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	60
		Sunday	6:00 a.m. - 10:00 p.m.	30	30	30	60
204	SR 124 I-985 Park-and-Ride/Snellville	Weekday	5:30 a.m. - 12:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	60
		Sunday	6:00 a.m. - 10:00 p.m.	30	30	30	60
205	Multimodal Hub/N. Fulton Multimodal Hub/Mansell Park-and-Ride	Weekday	5:30 a.m. - 2:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 12:00 a.m.	20	20	20	30
		Sunday	6:00 a.m. - 10:00 p.m.	30	30	30	30

4.3.4 Local Bus

The Long-Range Plan Phase 1A proposes an expansion of the Local bus system to eleven routes to provide greater coverage to the County and an elevated level of connectivity to the multimodal hub. Some of the Local bus routes in the Short- and Mid-Range Plans would be partially or fully upgraded to BRT or Rapid corridors in Long-Range Plan Phase 1A. Capital improvements for the Local bus system would be limited to the upgrade of existing bus stops and provision of new bus stops where there are no preexisting stops. The larger and more frequent Local bus network will require an expansion of the Local bus fleet.

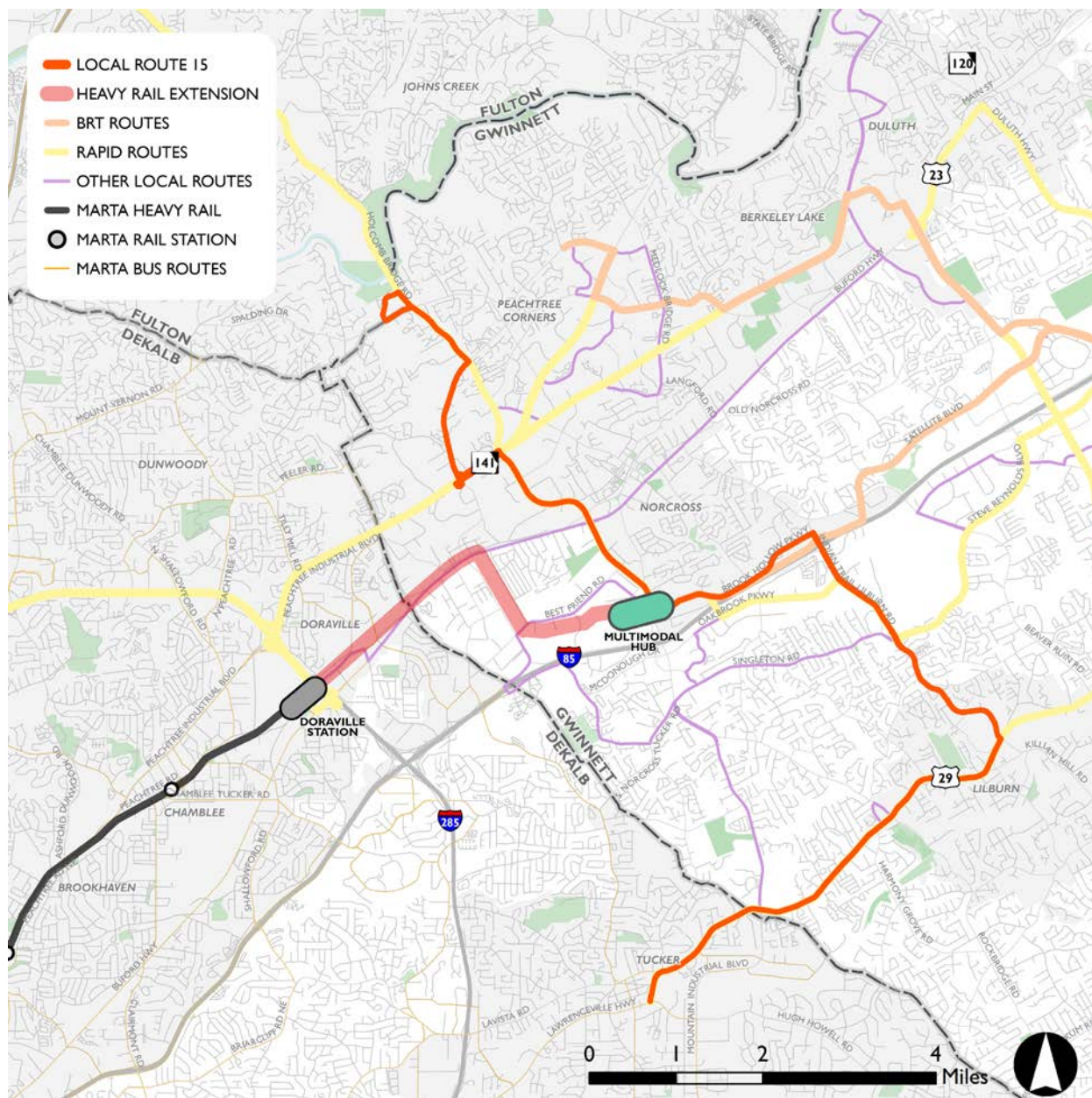
4.3.4.1 Route 10

Route 10's alignment remains the same, but service will be extended to 2 a.m. to meet the last MARTA train. Service will also be increased to 15-minute frequencies in weekday peak hours, 20-minute frequencies mid-day on weekdays, and 30-minute frequencies on Saturdays and on Sundays.

4.3.4.2 Route 15

Route 15's alignment will be modified in Long-Range Plan Phase 1A to serve the new multimodal hub in western Gwinnett County (Figure 4-57). The portion of its alignment north of Buford Highway will remain the same. South of Buford Highway, the route's alignment will continue south on Jimmy Carter Boulevard instead of heading east on Buford Highway and then south on Mitchell Road. Service will also be increased to 20-minute frequencies in weekday peak hours, 30-minute frequencies mid-day and at night on weekdays and all-day Saturday, and 60-minute frequencies on Sundays.

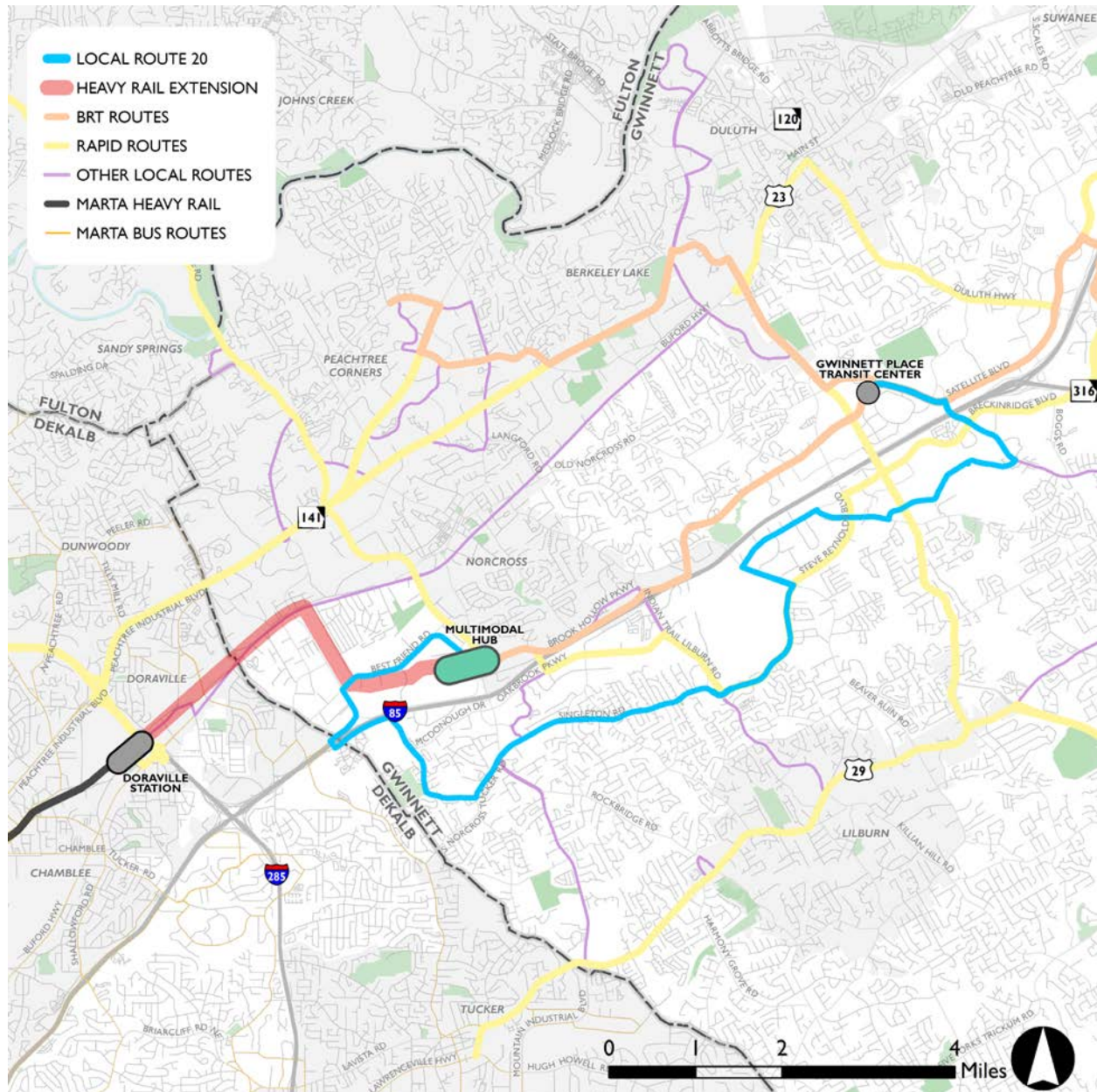
Figure 4-57: Route 15 (FY2030-39)



4.3.4.3 Route 20

Route 20's alignment will be modified in Long-Range Plan Phase 1A to serve the new multimodal hub in western Gwinnett County, replacing Doraville as the route's western terminus (Figure 4-58). At Best Friend Road and Button Gwinnett Drive, the route will head east on Best Friend Road to reach the multimodal hub. Service will also be increased on Saturdays to 30-minute frequencies.

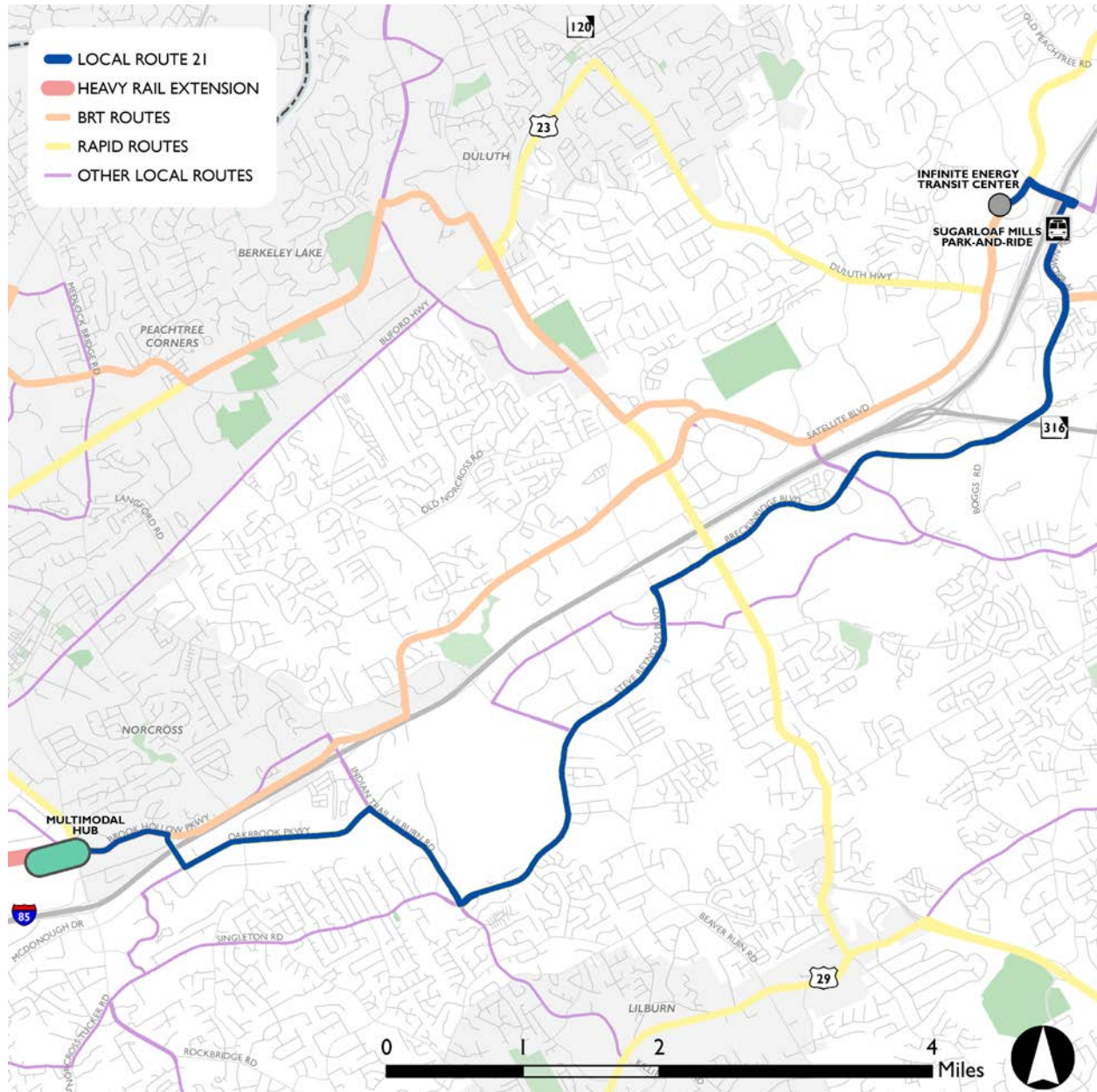
Figure 4-58: Route 20 (FY2030-39)



4.3.4.4 Route 21

Route 21 has the same alignment as Rapid Route 201 and is a new Local bus route (Figure 4-59). Route 21 will serve as an “underlying” Local route to route 201; it will have more stops along the alignment than the 201, providing “front-door” access to more riders, but it will in turn have higher travel times. Service levels on Route 21 will be 30-minute frequencies during weekday peak hours and on Sundays, and 60-minute frequencies during weekday off-peak hours and on Saturdays.

Figure 4-59: Route 21 (FY2030-39)



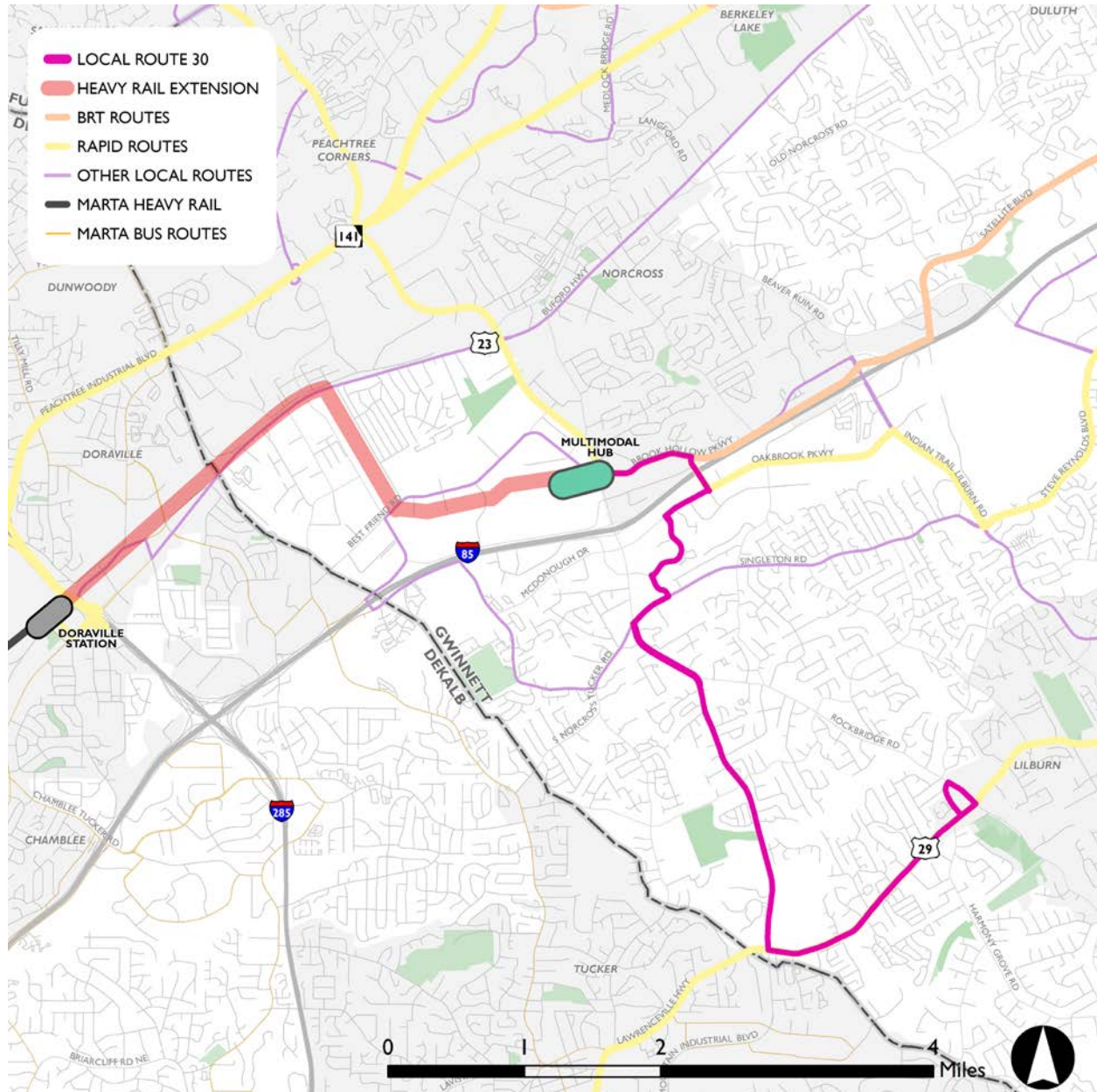
4.3.4.5 Route 25

Route 25's alignment remains the same as in the previous timeframe. Service levels will be increased to 30-minute frequencies on weekdays and Saturdays, and service will be added on Sundays at a 60-minute frequency all day.

4.3.4.6 Route 30

Route 30's alignment will be modified in Long-Range Plan Phase 1A to serve the new multimodal hub in western Gwinnett County, replacing Doraville as the route's western terminus (Figure 4-60). The route will be modified by truncating the previous alignment at the multimodal hub; the alignment will otherwise not be changed. Service levels on Route 30 will also be increased to 30-minute frequencies all day on weekdays and Saturdays; service on Sundays will be maintained at 60-minute frequencies.

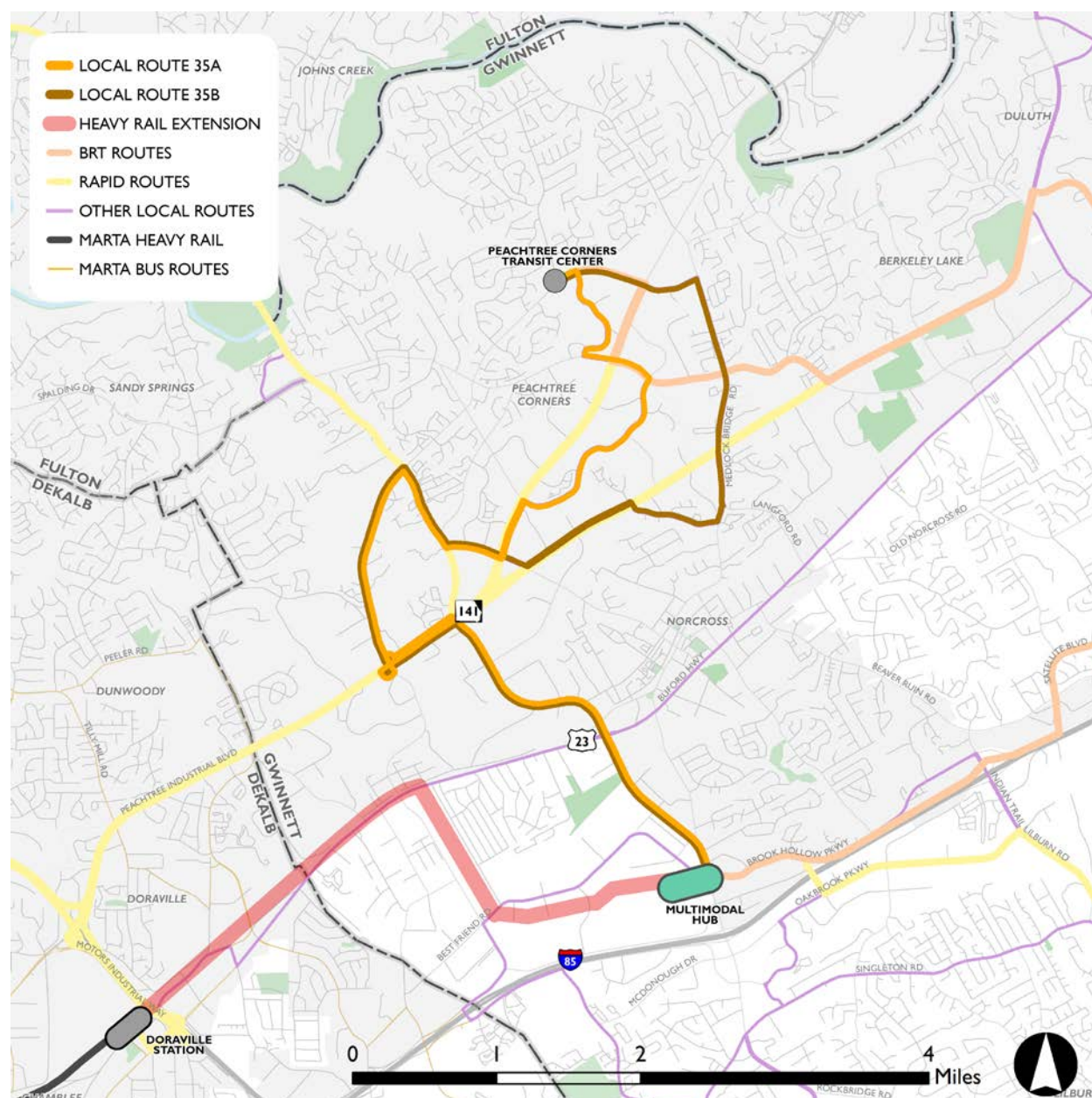
Figure 4-60: Route 30 (FY2030-39)



4.3.4.7 Route 35A/35B

The alignments of routes 35A and 35B will be modified in Long-Range Plan Phase 1A to serve the new multimodal hub in western Gwinnett County, replacing Doraville as the route's western terminus (Figure 4-61). The segment of the routes' alignments that stretch from Doraville to the intersection of Buford Highway and Jimmy Carter Boulevard will be eliminated, and instead the routes would follow Jimmy Carter Boulevard south of Buford Highway to connect to the multimodal hub. Service levels would also increase on both routes to 30-minute frequencies on weekday peak hours, 40-minute frequencies in weekday off-peaks, and 60-minute frequencies on Saturdays and Sundays.

Figure 4-61: Route 35A/35B (FY2030-39)



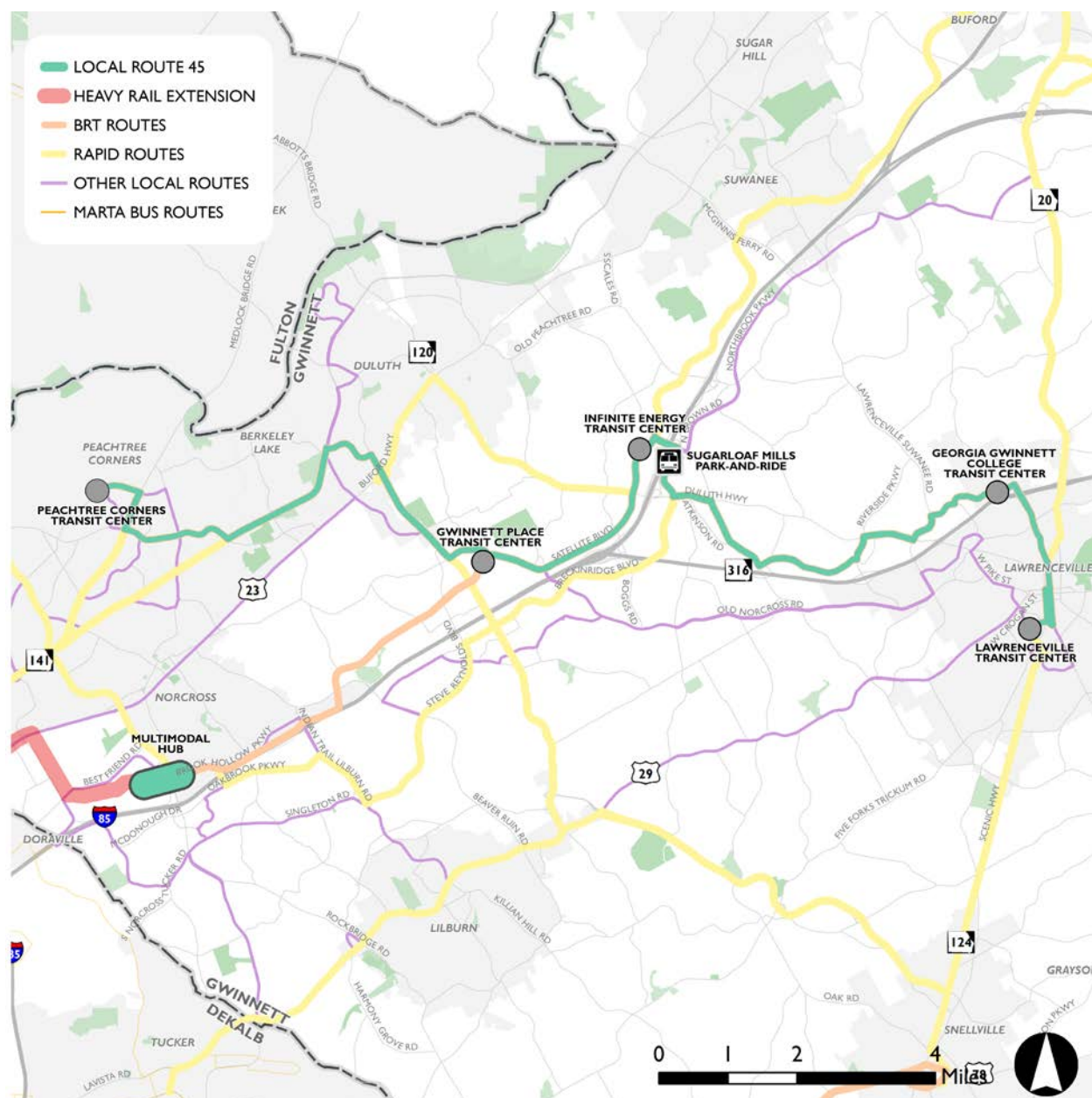
4.3.4.8 Route 40

Route 40's alignment remains the same as in the previous timeframe. Service levels will be increased to 30-minute frequencies on Saturdays and service will be added on Sundays at a 60-minute frequency all day.

4.3.4.9 Route 45

Route 45's alignment will be modified in Long-Range Plan Phase 1A so that it has the same alignment as BRT route 701. Route 45 will serve as an “underlying” Local route to Route 701; it will have more stops along the alignment than the 201, providing “front-door” access to more riders, but it will in turn have higher travel times (Figure 4-62). Service levels will be modified to have 30-minute frequencies in weekday peaks and all-day on Sundays, 60-minute frequencies in weekday off-peaks, on Saturdays, and on Sunday nights. This represents a decrease in service on Route 45, but because this route shares an alignment with Route 701, there will ultimately be an increase in overall service on this corridor.

Figure 4-62: Route 45 (FY2030-39)



4.3.4.10 Route 50

Route 50 will be eliminated; service on this corridor will be provided by Rapid Route 202.

4.3.4.11 Route 55

Route 55 will be eliminated; service on this corridor will be provided by a combination of Rapid Route 202 and Flex Route 501.

4.3.4.12 Route 60

Route 60 will be eliminated; service on this corridor will be provided by Rapid Route 204.

4.3.4.13 Route 65

Route 65's alignment remains the same as in the previous timeframe. Service levels will be increased to 20-minute frequencies in weekday peaks, 30-minute frequencies in weekday off-peaks and on Saturdays, and 60-minute frequencies on Sundays.

4.3.4.14 Route 70

Route 70 will be eliminated; service on this corridor will be provided by BRT Route 702.

4.3.4.15 Route 75

Route 75 will be eliminated; service on this corridor will be provided by BRT Route 701.

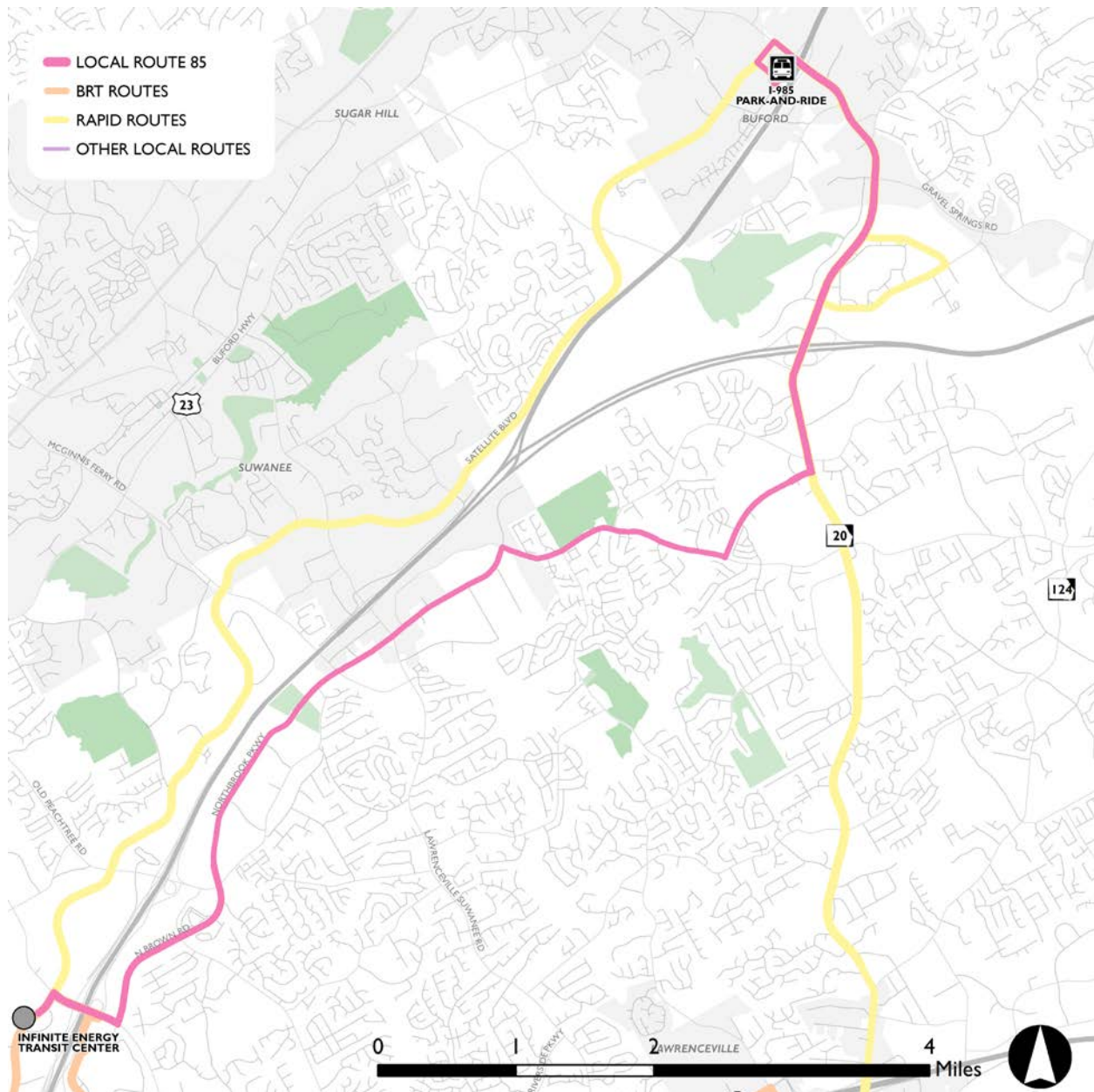
4.3.4.16 Route 80

Route 80 will be eliminated; service on this corridor will be provided by Rapid Route 204.

4.3.4.17 Route 85

Route 85's alignment remains the same as in the previous timeframe, except that its southern terminus will be changed to Infinite Energy Transit Center instead of Sugarloaf Mills (Figure 4-63). Service will be added on Saturdays and Sundays. Service levels will be increased to 30-minute frequencies all-day on weekdays and Saturdays, and 60-minute frequencies on weekday nights, Saturday nights, and on Sundays.

Figure 4-63: Route 85 (FY2030-39)



The proposed Local bus routes are shown in Figure 4-64. Service characteristics are shown in Table 4-15.

Figure 4-64: FY2039 Local Bus Service Map

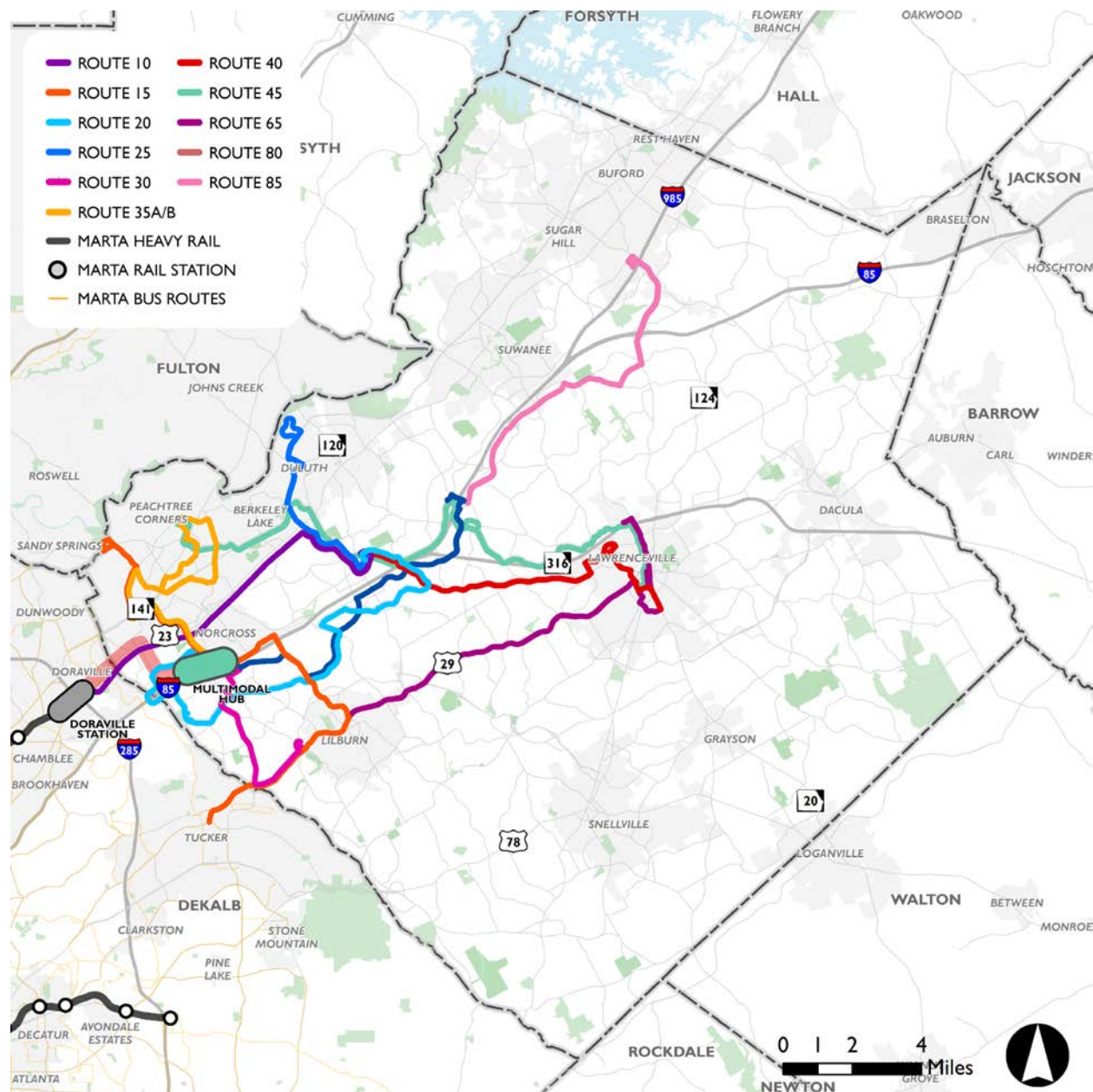


Table 4-15: FY2039 Local Bus Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
10	Gwinnett Place Transit Center/Doraville via Buford Highway & Satellite Boulevard	Weekday	5:30 a.m. - 2:00 a.m.	15	20	15	30
		Saturday	6:00 a.m. - 2:00 a.m.	30	30	30	30
		Sunday	6:00 a.m. - 12:00 a.m.	30	30	30	30
15	Peachtree Corners/Lilburn	Weekday	5:30 a.m. - 12:00 a.m.	20	30	20	30
		Saturday	6:00 a.m. - 12:00 a.m.	30	30	30	30
		Sunday	6:00 a.m. - 10:00 p.m.	60	60	60	60
20	Gwinnett Place Transit Center/Multimodal Hub via Singleton Road/Steve Reynolds Boulevard	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	30
		Saturday	6:00 a.m. - 12:00 a.m.	30	30	30	30
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
21	Steve Reynolds	Weekday	5:30 a.m. - 12:00 a.m.	30	60	30	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	30	30	30	30
25	Gwinnett Place Transit Center/Duluth	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	30
		Saturday	6:00 a.m. - 12:00 a.m.	30	30	30	30
		Sunday	6:00 a.m. - 10:00 p.m.	60	60	60	60
30	Lilburn/Multimodal Hub	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	30
		Saturday	6:00 a.m. - 12:00 a.m.	30	30	30	30
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
35A	Peachtree Corners/Multimodal Hub via Technology Parkway	Weekday	5:30 a.m. - 12:00 a.m.	30	40	30	40
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	60	60	60	60
35B	Peachtree Corners/Multimodal Hub via Medlock Bridge Road	Weekday	5:30 a.m. - 12:00 a.m.	30	40	30	40
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 10:00 p.m.	60	60	60	60
40	Gwinnett Place Transit Center/Lawrenceville	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	30
		Saturday	6:00 a.m. - 10:00 p.m.	30	30	30	30
		Sunday	6:00 a.m. - 10:00 p.m.	60	60	60	60
45	Gwinnett Place Transit Center/Georgia Gwinnett College via Sugarloaf Mills	Weekday	5:30 a.m. - 12:00 a.m.	30	60	30	60
		Saturday	6:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	6:00 a.m. - 12:00 a.m.	30	30	30	60
65	Lawrenceville Highway	Weekday	5:30 a.m. - 12:00 a.m.	20	30	20	30
		Saturday	6:00 a.m. - 10:00 p.m.	30	30	30	30
		Sunday	6:00 a.m. - 10:00 p.m.	60	60	60	60
85	Brown/Horizon	Weekday	5:30 a.m. - 12:00 a.m.	30	30	30	60
		Saturday	6:00 a.m. - 10:00 p.m.	30	30	30	60
		Sunday	6:00 a.m. - 10:00 p.m.	60	60	60	60

4.3.5 Express Bus

4.3.5.1 Route 101

Route 101's alignment remains the same as the previous timeframe, but will serve two additional park-and-ride locations in addition to the I-985 Park-and-Ride. The route will stop at in-line stops at the McGinnis Ferry and Indian Trail Park-and-Rides on I-85; these stops are discussed in more detail in a later section. Service levels will be increased to 12-minute frequencies in each peak period.

4.3.5.2 Route 102

Route 102 will be eliminated; service from Indian Trail Park-and-Ride to Atlanta will be provided by Express Routes 101 and 103 using the new in-line stop at Indian Trail as described in section 4.3.9.1.

4.3.5.3 Route 103

Route 103's alignment remains the same as the previous timeframe, but will serve the Indian Trail Park-and-Ride in addition to Sugarloaf Mills. At Indian Trail, the route will stop at a new in-line stop in the I-85 managed lanes, which is discussed in more detail in a later section. Service levels will be increased to 10-minute frequencies in each peak period.

4.3.5.4 Route 104

Route 104's alignment remains the same as the previous timeframe, but service levels will be increased to 15-minute frequencies in each peak period.

4.3.5.5 Route 106

Route 106 will be eliminated; service from Peachtree Corners to Perimeter would be provided by Direct Connect 403.

4.3.5.6 Route 110

Route 110's alignment remains the same as the previous timeframe, but will serve the Indian Trail Park-and-Ride at a new in-line stop in the I-85 managed lanes, which is discussed in more detail in a later section. Service levels will be increased to 20-minute frequencies in each peak period.

4.3.5.7 Route 111

Route 111's alignment remains the same as the previous timeframe. Service frequency will be maintained at 30 minutes, but the span of service on this route will be expanded in both the a.m. and p.m. peaks.

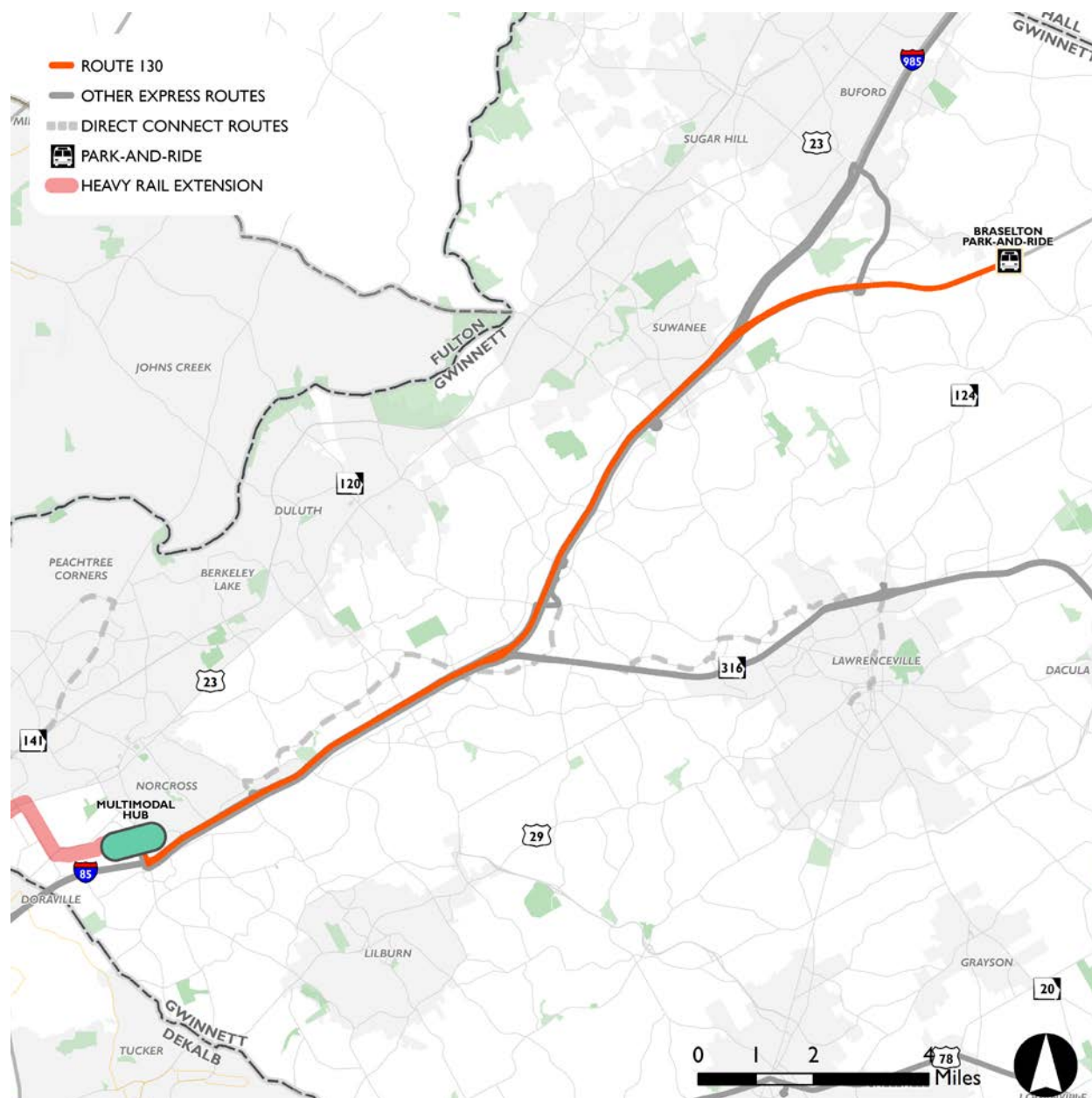
4.3.5.8 Route 120

Route 120's alignment remains the same as the previous timeframe. Service frequency will be maintained at 30 minutes, but the span of service on this route will be expanded in both the a.m. and p.m. peaks.

4.3.5.9 Route 130

Route 130's alignment will be modified from the previous timeframe (Figure 4-65). The western terminus will be moved from Chamblee MARTA to the new multimodal hub in western Gwinnett County. Service levels will also be increased to 20-minute frequencies in each peak period.

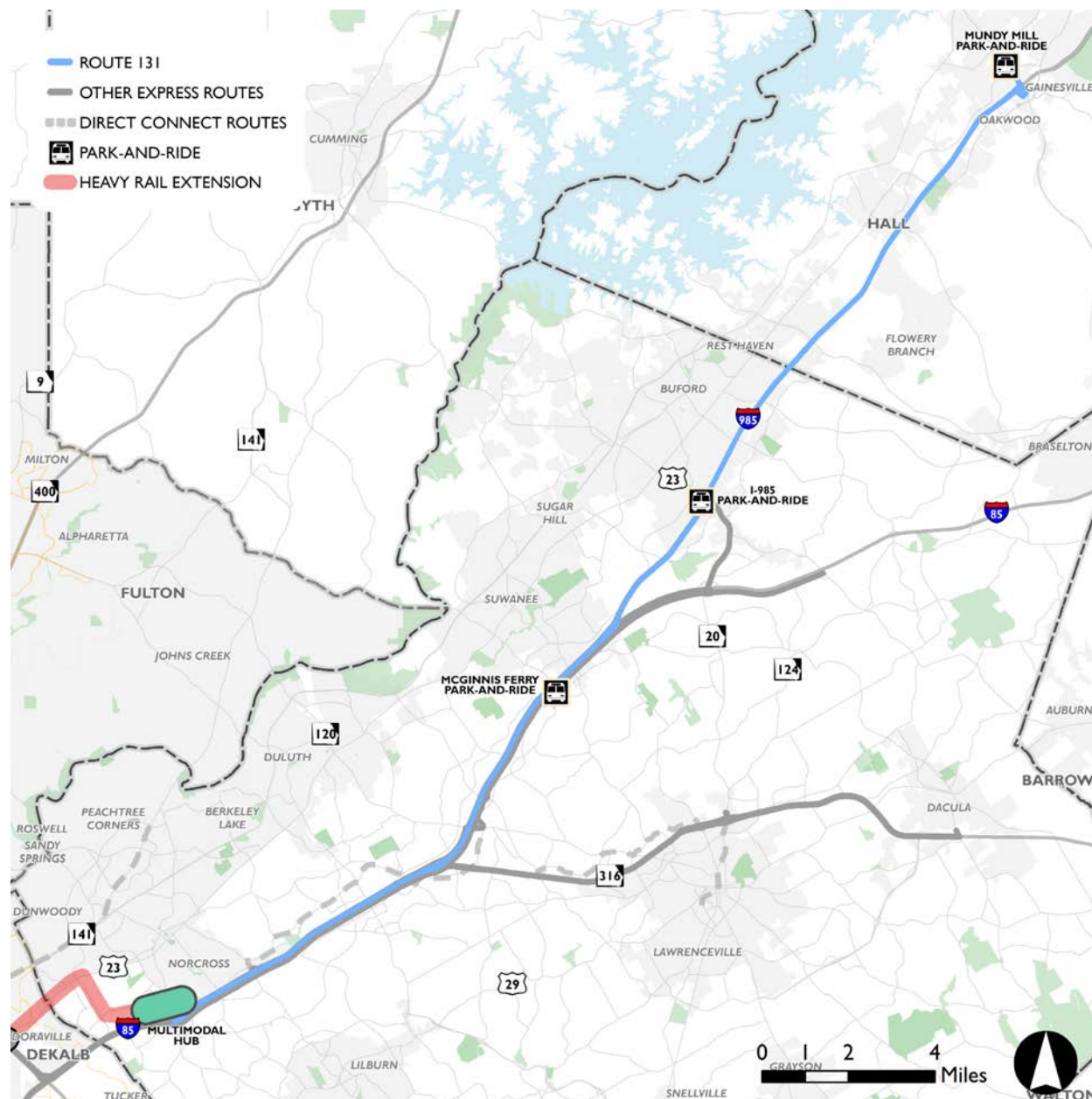
Figure 4-65: Route 130 (FY2030-39)



Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

Route 131 is proposed as a new Express route providing service from Hall County to the new multimodal hub in western Gwinnett County (Figure 4-66). The route would make intermediate stops at the I-985 and McGinnis Ferry Park-and-Rides; at McGinnis Ferry, the route would utilize a new in-line stop in the I-85 managed lanes, which is discussed in more detail in a later section. Initial proposed service levels are 30-minute frequencies in each peak period.

Figure 4-66: Route 131 (FY2030-39)

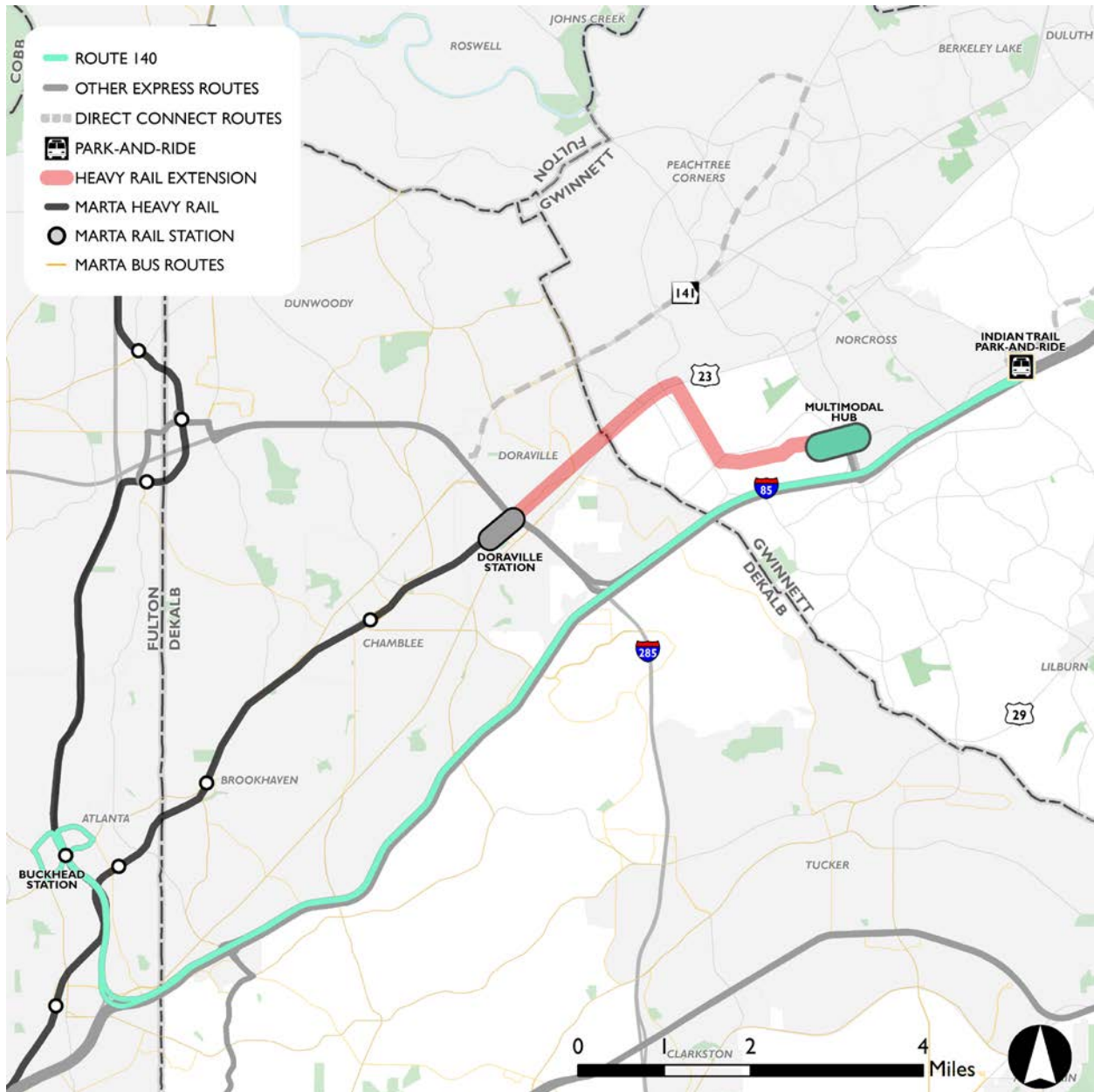


Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

4.3.5.11 Route 140

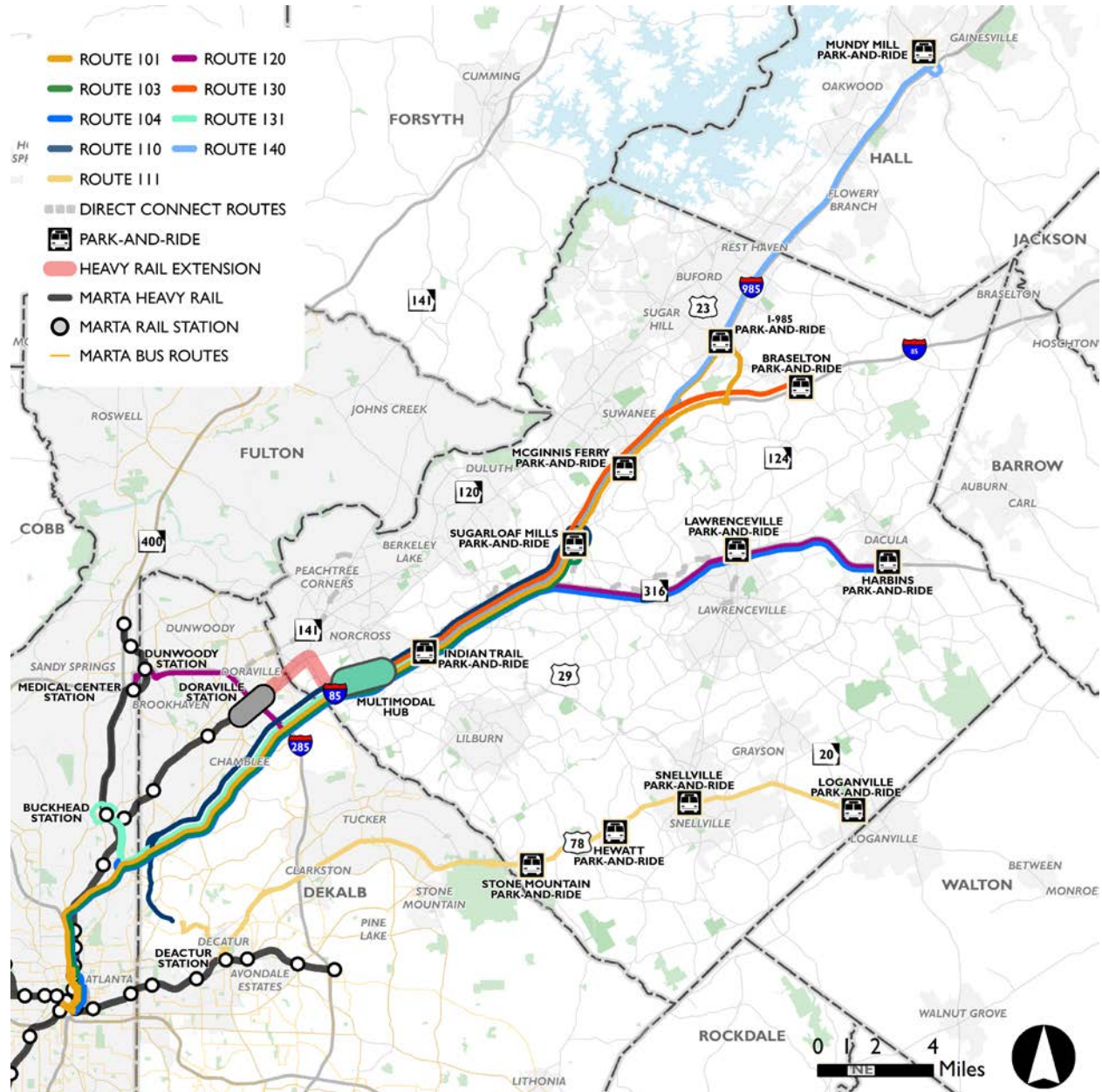
Route 140 is proposed as a new Express route providing service from Indian Trail Park-and-Ride to the Buckhead MARTA station (Figure 4-67). Initial proposed service levels are 20-minute frequencies in each peak period (Table 4-16)

Figure 4-67: Route 140 (FY2030-39)



The combined Express Bus Map is shown in Figure 4-68 and the corresponding service statistics are included in Table 4-16.

Figure 4-68: FY2039 Express Bus Service Map



Note: Route 101 could alternatively remain on I-985 as it does today

Table 4-16: FY2039 Express Bus Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
101	I-985 Park-and-Ride to Downtown Atlanta	Weekday	5:30-9:12 a.m., 3:03-7:12 p.m.	12	n/a	12	n/a
103	Sugarloaf Mills Park-and-Ride to Downtown Atlanta	Weekday	5:40-9:55 a.m., 3:05-7:04 p.m.	10	n/a	10	n/a
104	Harbins Road to Downtown Atlanta	Weekday	6:00-9:00 a.m., 3:00-6:30 p.m.	15	n/a	15	n/a
110	Sugarloaf/Indian Trail to Emory University	Weekday	5:30-8:39 a.m., 3:45-7:20 p.m.	20	n/a	20	n/a
111	Loganville/Snellville to Emory University	Weekday	6:00-9:00 a.m., 3:00-6:30 p.m.	30	n/a	30	n/a
120	Harbins Road to Perimeter Center	Weekday	6:00-9:00 a.m., 3:00-6:30 p.m.	20	n/a	20	n/a
130	SR 324/Braselton to Multimodal Hub	Weekday	6:00-9:00 a.m., 3:00-6:30 p.m.	20	n/a	20	n/a
131	Hall County to Multimodal Hub	Weekday	6:00-8:00 a.m., 3:00-6:30 p.m.	30	n/a	30	n/a
140	Indian Trail to Buckhead	Weekday	6:00-9:00 a.m., 3:00-6:30 p.m.	20	n/a	20	n/a

4.3.6 Direct Connect

4.3.6.1 Route 401

Route 401's alignment will be modified from the previous timeframe. The western terminus of the route will be moved from Chamblee MARTA to the multimodal hub in western Gwinnett County. The route's alignment will otherwise stay the same. Service levels will also be increased to 30-minute frequencies during weekday mid-day periods and remain 60-minute frequencies for the rest of the day on weekdays. Service will also be added on Saturdays with a 60-minute all-day frequency. The span of service will also be extended to be from 5:30 a.m. to 2:00 a.m. to match a larger portion of the MARTA Heavy Rail span of service.

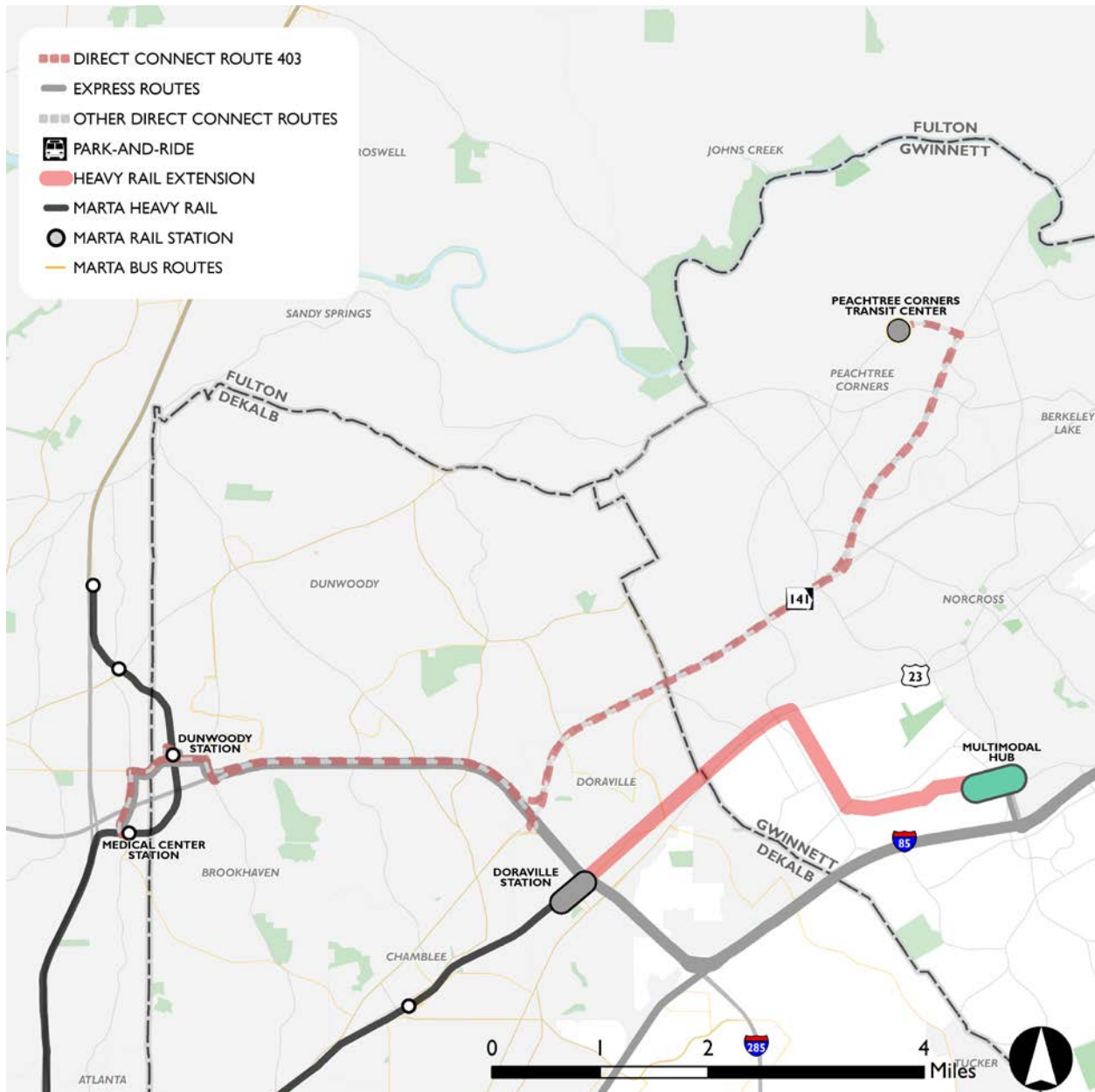
4.3.6.2 Route 402

Route 402's alignment will be modified from the previous timeframe. The western terminus of the route will be moved from Chamblee MARTA to the multimodal hub in western Gwinnett County. The route's alignment will otherwise stay the same. Service levels will also be increased to 30-minute frequencies during weekday mid-day periods and remain 60-minute frequencies for the rest of the day on weekdays. Service will also be added on Saturdays with a 60-minute all-day frequency. The span of service will also be extended to be from 5:30 a.m. to 2:00 a.m. to match a larger portion of the MARTA Heavy Rail span of service.

4.3.6.3 Route 403

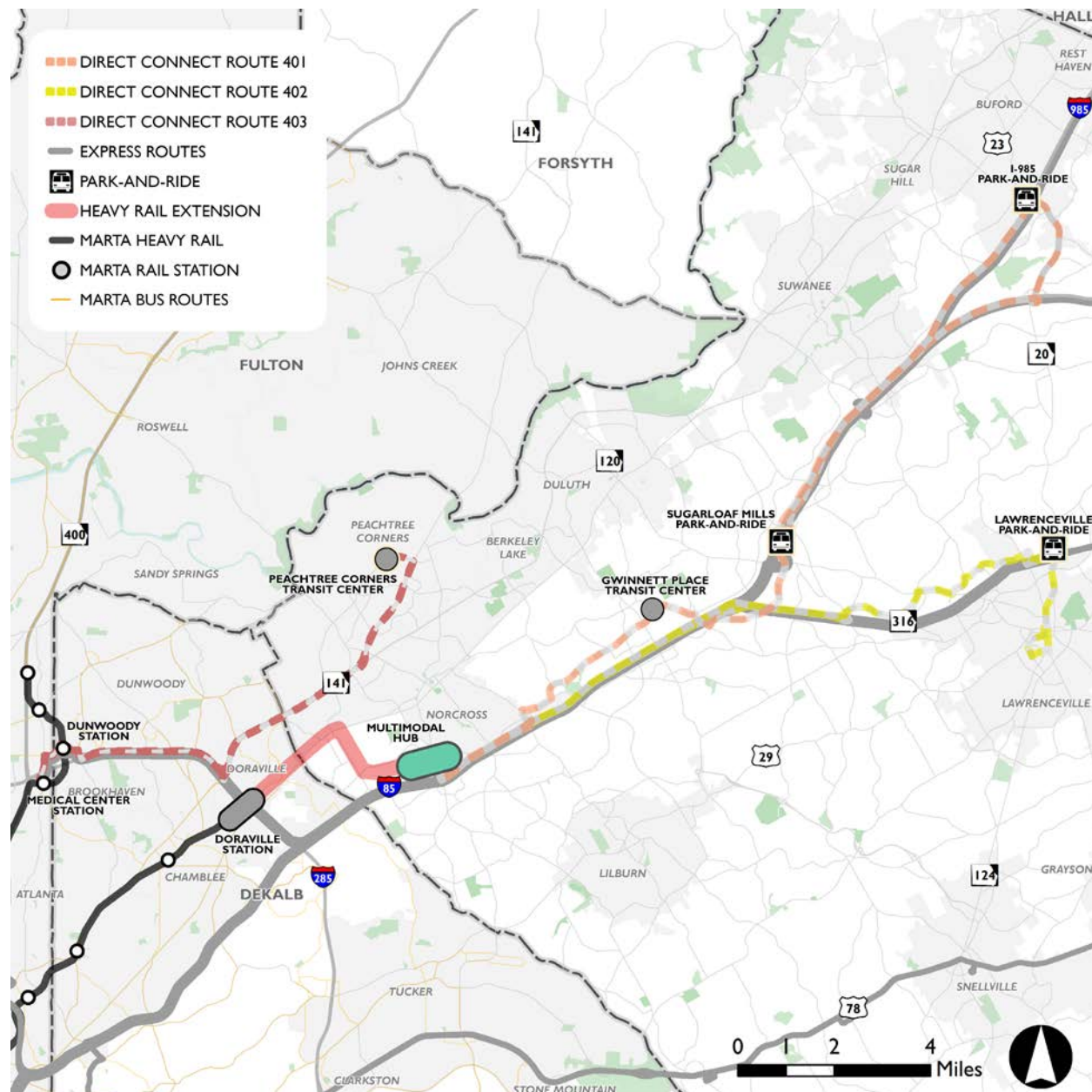
Route 403 is proposed as a new Direct Connect route providing service from Peachtree Corners to the Perimeter Center area (Figure 4-69). The route's eastern terminus would be the Peachtree Corners Transit Center; the route's alignment would follow Peachtree Corners Circle, Peachtree Parkway, and Peachtree Industrial Boulevard to reach I-285. It will utilize the planned managed lanes on I-285 as well as Rapid improvements along Peachtree Industrial Boulevard. The route's terminus in Perimeter Center will be the Medical Center MARTA Station.

Figure 4-69: Route 403 (FY2030-39)



The combined Direct Connect routes are included in Figure 4-70 and the service characteristics are included in Table 4-17.

Figure 4-70: FY2039 Direct Connect Service Map



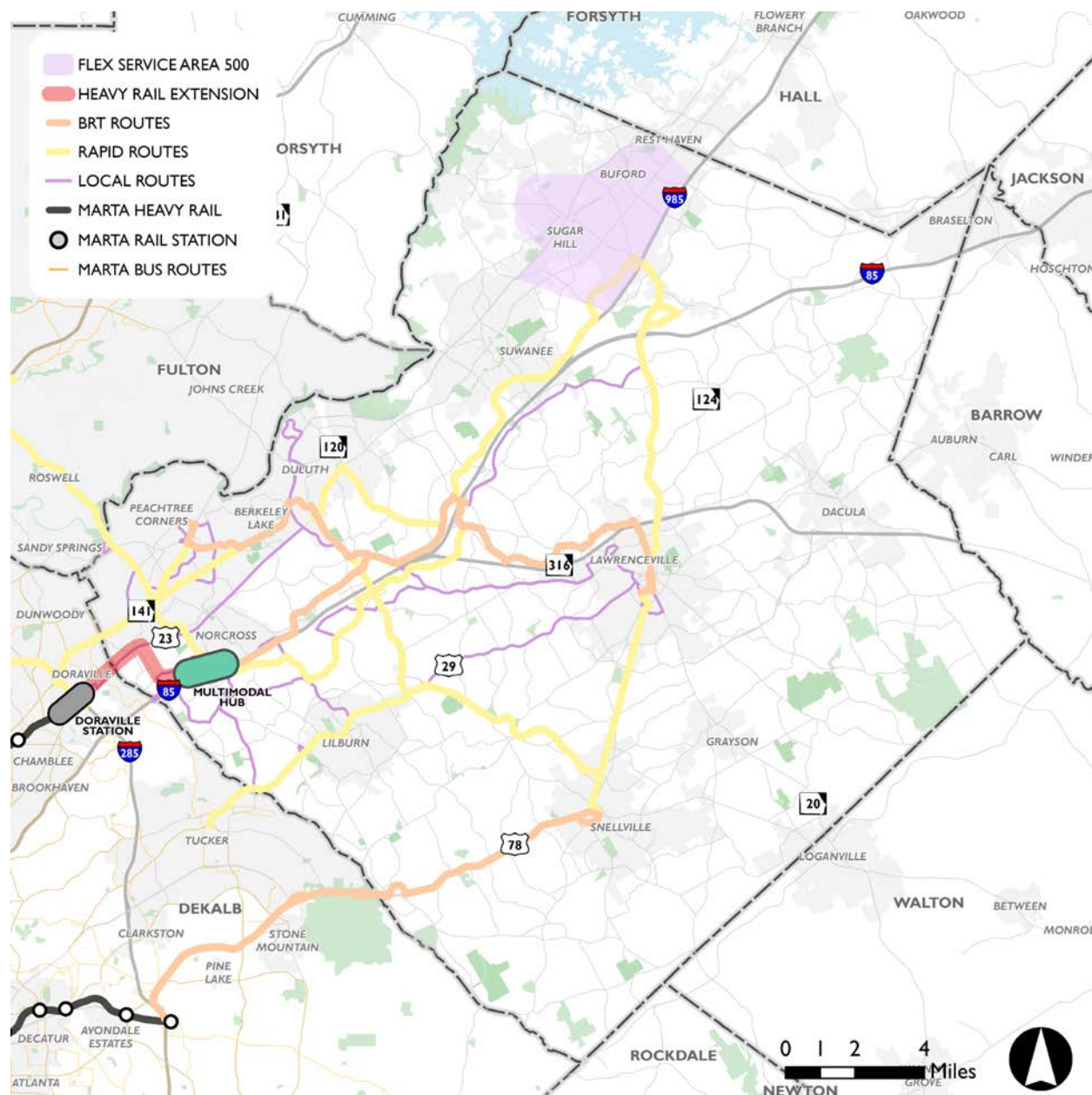
Note: Route 101 (in gray) could alternatively remain on I-985 as it does today

Table 4-17: FY2039 Direct Connect Service Characteristics

Route	Name	Day	Span of Service	Service Frequency (min)			
				a.m.	Mid	p.m.	Eve
401	I-985/Mall of Georgia to Multimodal Hub	Weekday	5:30 a.m. - 2:00 a.m.	60	30	60	60
		Saturday	8:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
402	Lawrenceville to Multimodal Hub	Weekday	6:00 a.m. - 2:00 a.m.	60	30	60	60
		Saturday	8:00 a.m. - 12:00 a.m.	60	60	60	60
		Sunday	N/A	n/a	n/a	n/a	n/a
403	Peachtree Corners to Perimeter	Weekday	5:30 a.m. - 2:00 a.m.	30	30	30	60
		Saturday	8:00 a.m. - 12:00 a.m.	30	30	30	60
		Sunday	8:00 a.m. - 10:00 p.m.	60	60	60	60

4.3.7.1 Route 500

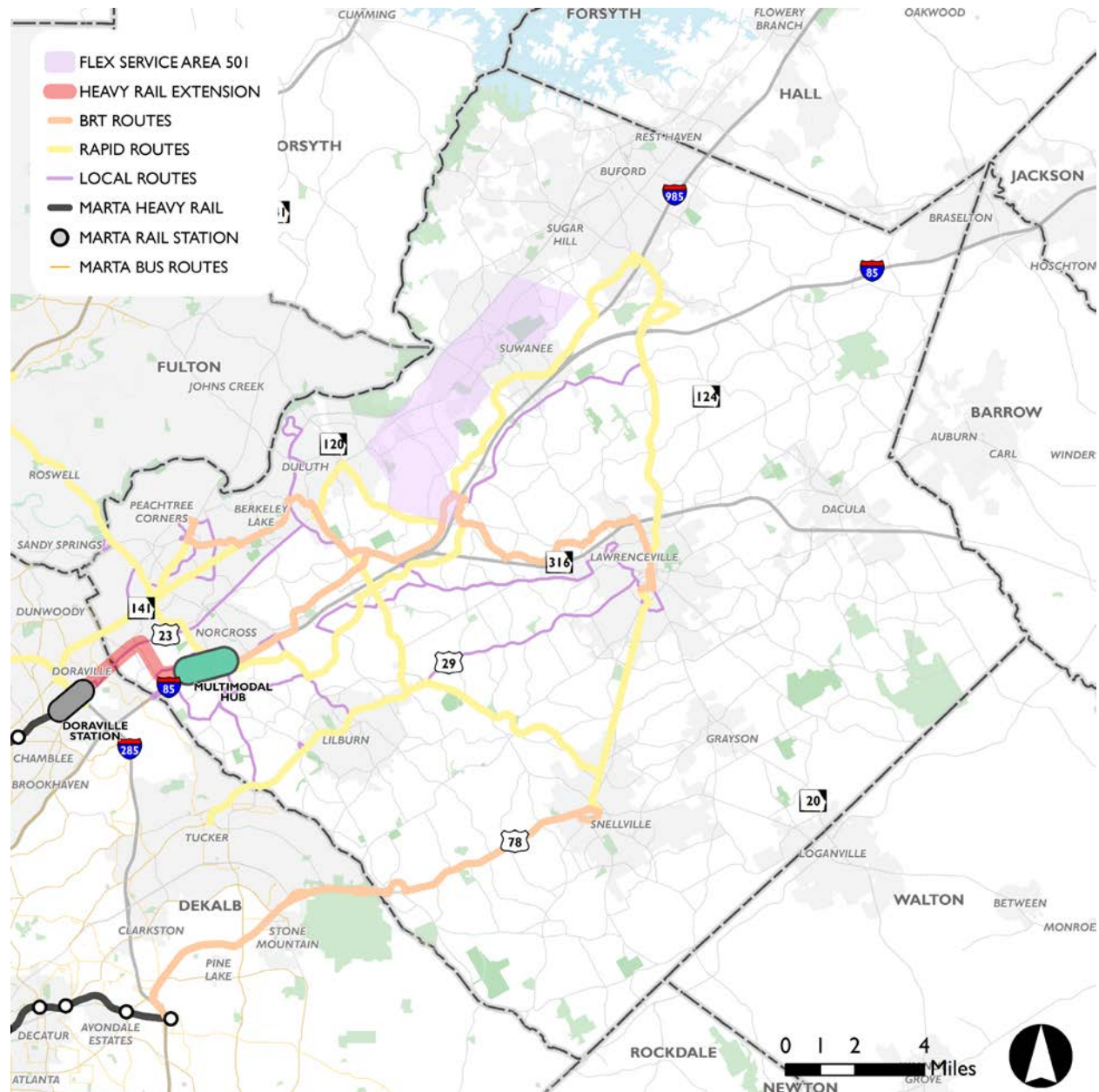
Figure 4-7I: Route 500 (FY2030-39)



4.3.7.2 Route 50I

Route 50I is a new Flex Route that is proposed in the Suwanee area (Figure 4-72). Service is proposed to be anchored at the Infinite Energy Transit Center. Proposed service hours are 6:00 a.m. to 8:00 p.m., weekdays only.

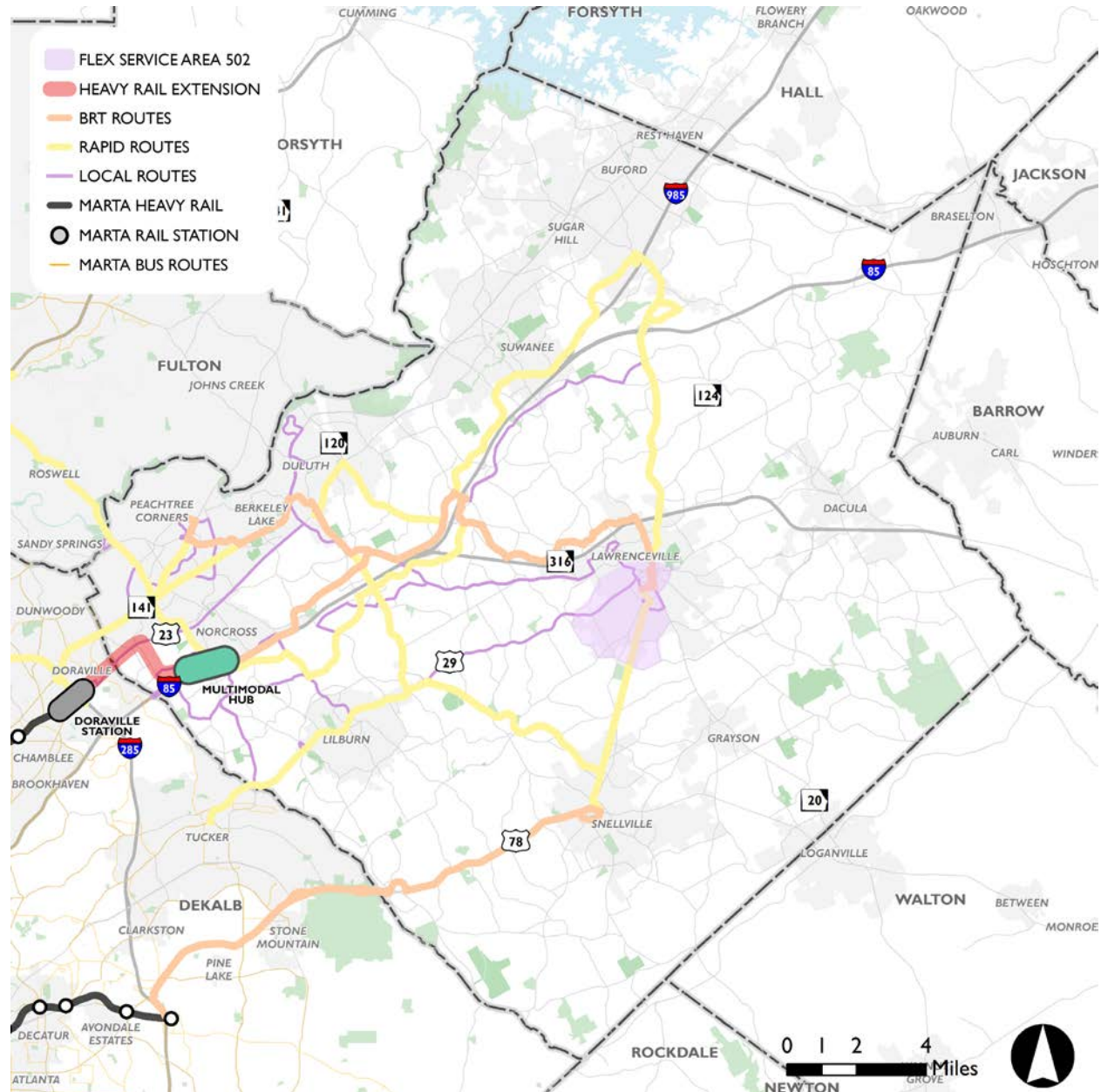
Figure 4-72: Route 50I (FY2030-39)



4.3.7.3 Route 502

Route 502 is a new Flex Route that is proposed in the Lawrenceville area (Figure 4-73). Service is proposed to be anchored at the Lawrenceville Transit Center. Proposed service hours are 6:00 a.m. to 8:00 p.m., weekdays only.

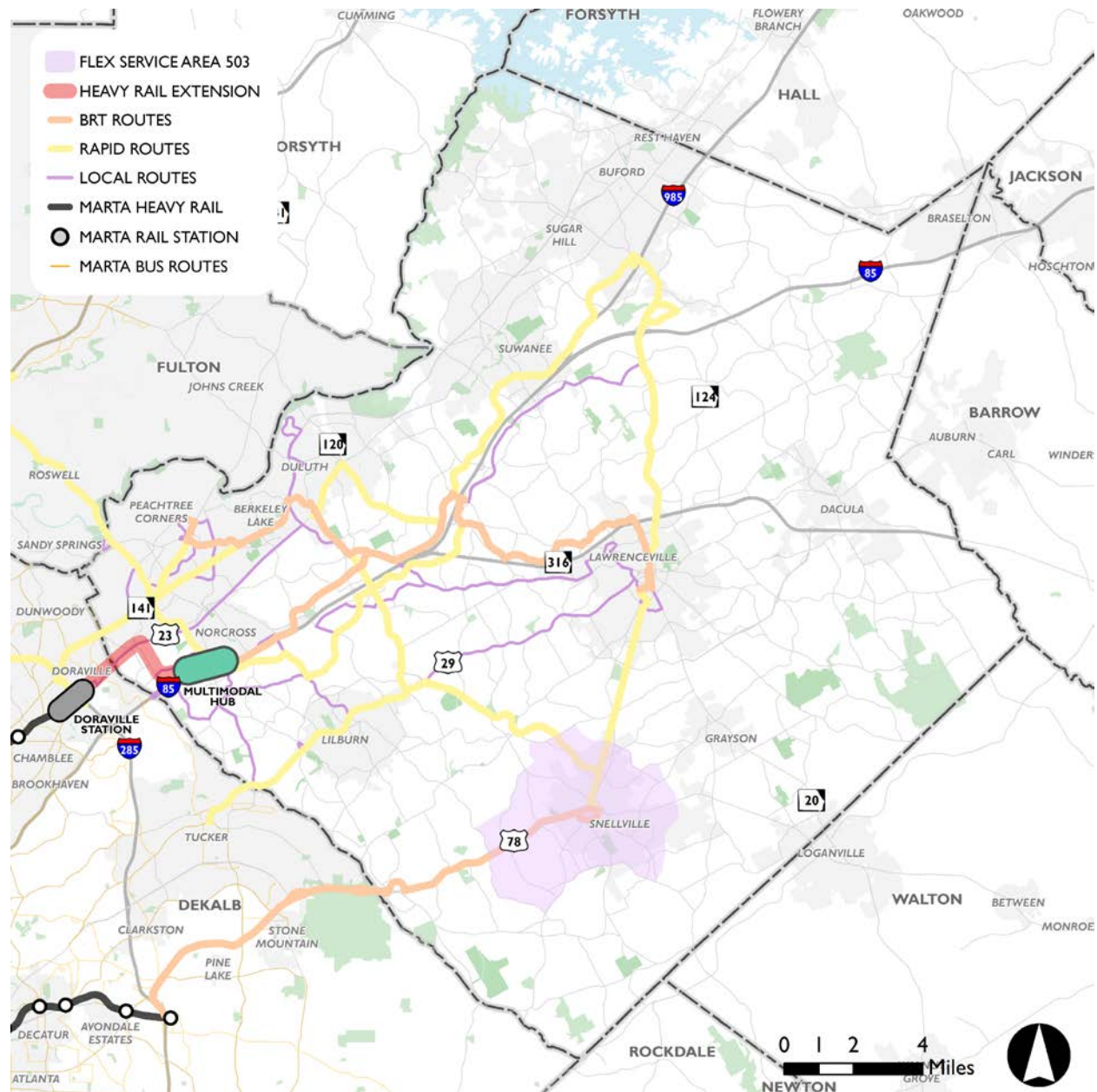
Figure 4-73: Route 502 (FY2030-39)



4.3.7.4 Route 503

Route 503 will remain the same as in the previous timeframe (Figure 4-74).

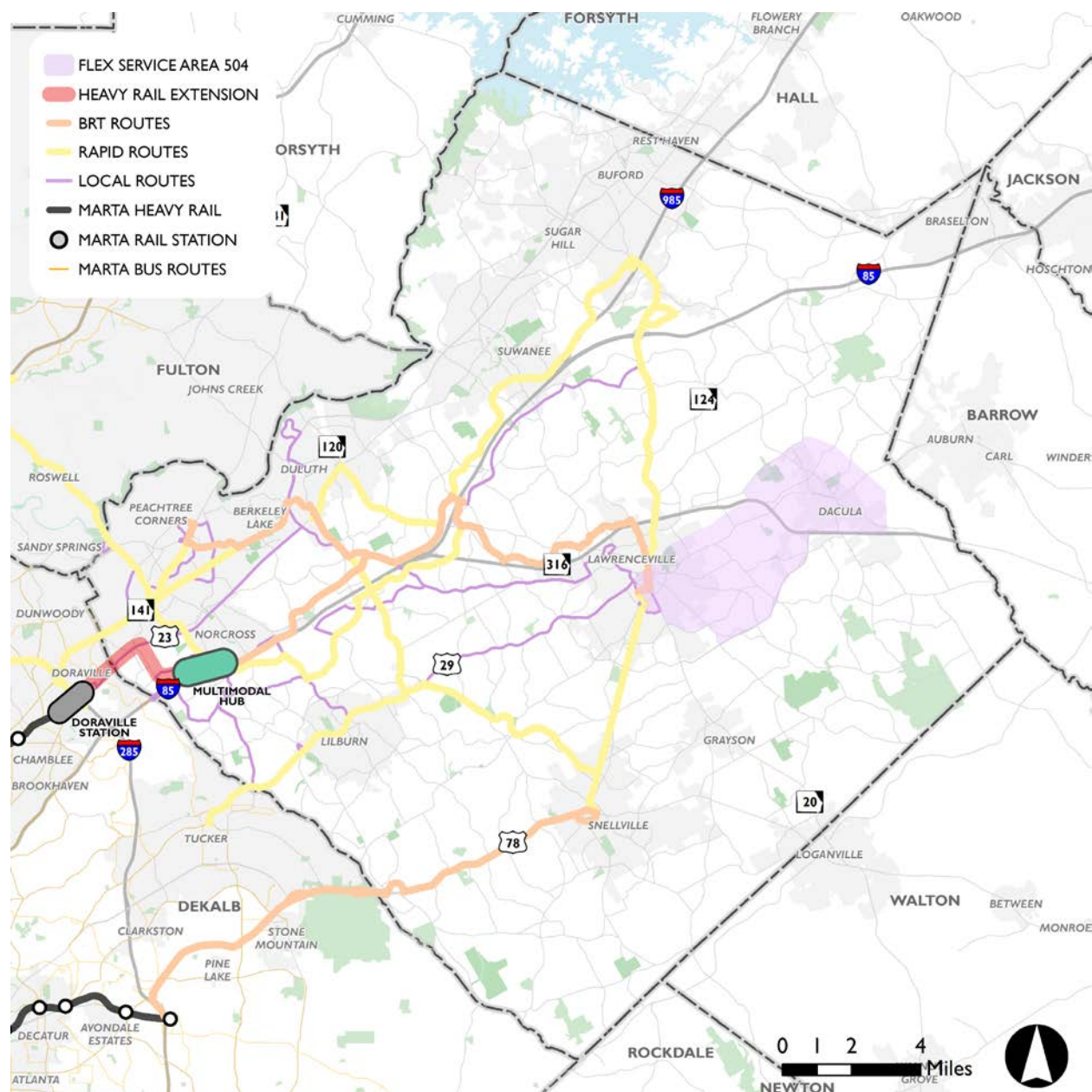
Figure 4-74: Route 503 (FY2030-39)



4.3.7.5 Route 504

Route 504 is a new Flex Route that is proposed in the Dacula area (Figure 4-75). Service is proposed to be anchored at the Lawrenceville Transit Center. Proposed service hours are 6:00 a.m. to 8:00 p.m., weekdays only.

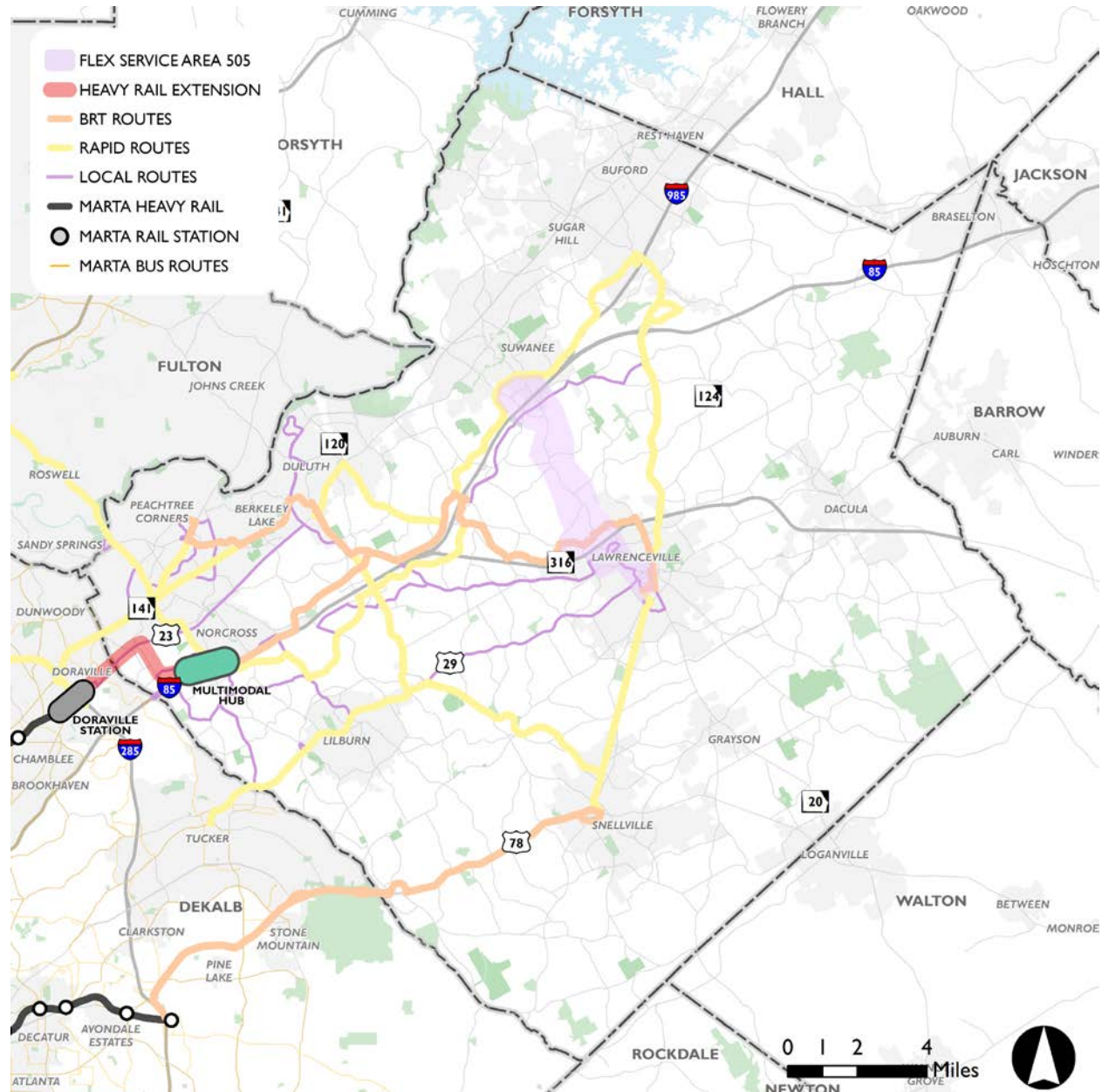
Figure 4-75: Route 504 (FY2030-39)



4.3.7.6 Route 505

Route 505 is a new proposed Flex Route centered around Lawrenceville-Suwanee Road (Figure 4-76). Service is proposed to be anchored at the Lawrenceville Transit Center. Proposed service hours are 6:00 a.m. to 8:00 p.m., weekdays only.

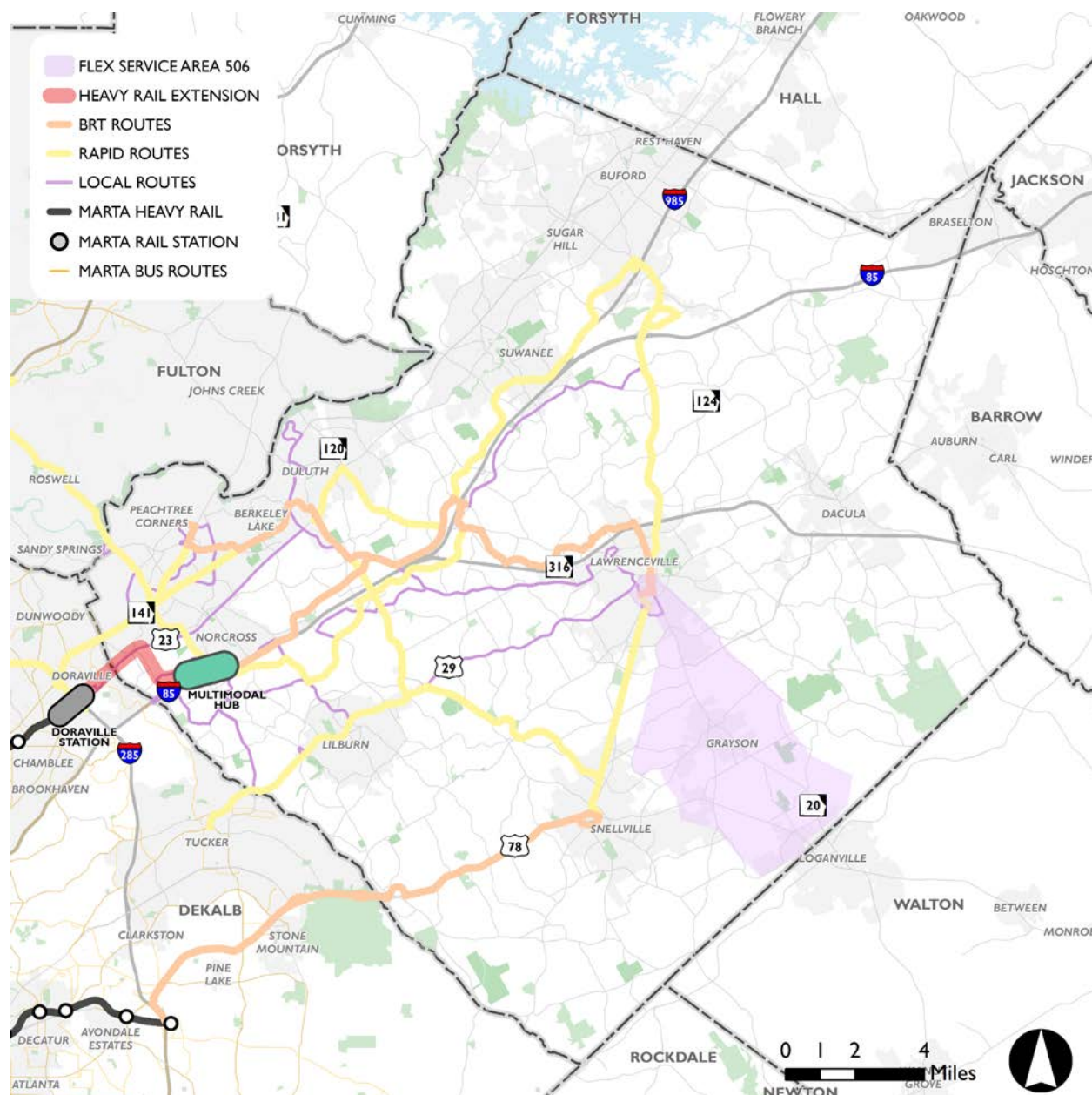
Figure 4-76: Route 505 (FY2030-39)



4.3.7.7 Route 506

Route 506 is a new Flex Route that is proposed in the Loganville area (Figure 4-77). Service is proposed to be anchored at the Lawrenceville Transit Center. Proposed service hours are 6:00 a.m. to 8:00 p.m., weekdays only.

Figure 4-77: Route 506 (FY2030-39)



Route 507 is a new Flex Route that is proposed in the Hamilton Mill area (Figure 4-78). Service is proposed to be anchored at the Lawrenceville Transit Center. Proposed service hours are 6:00 a.m. to 8:00 p.m., weekdays only.

Figure 4-78: Route 507 (FY2030-39)

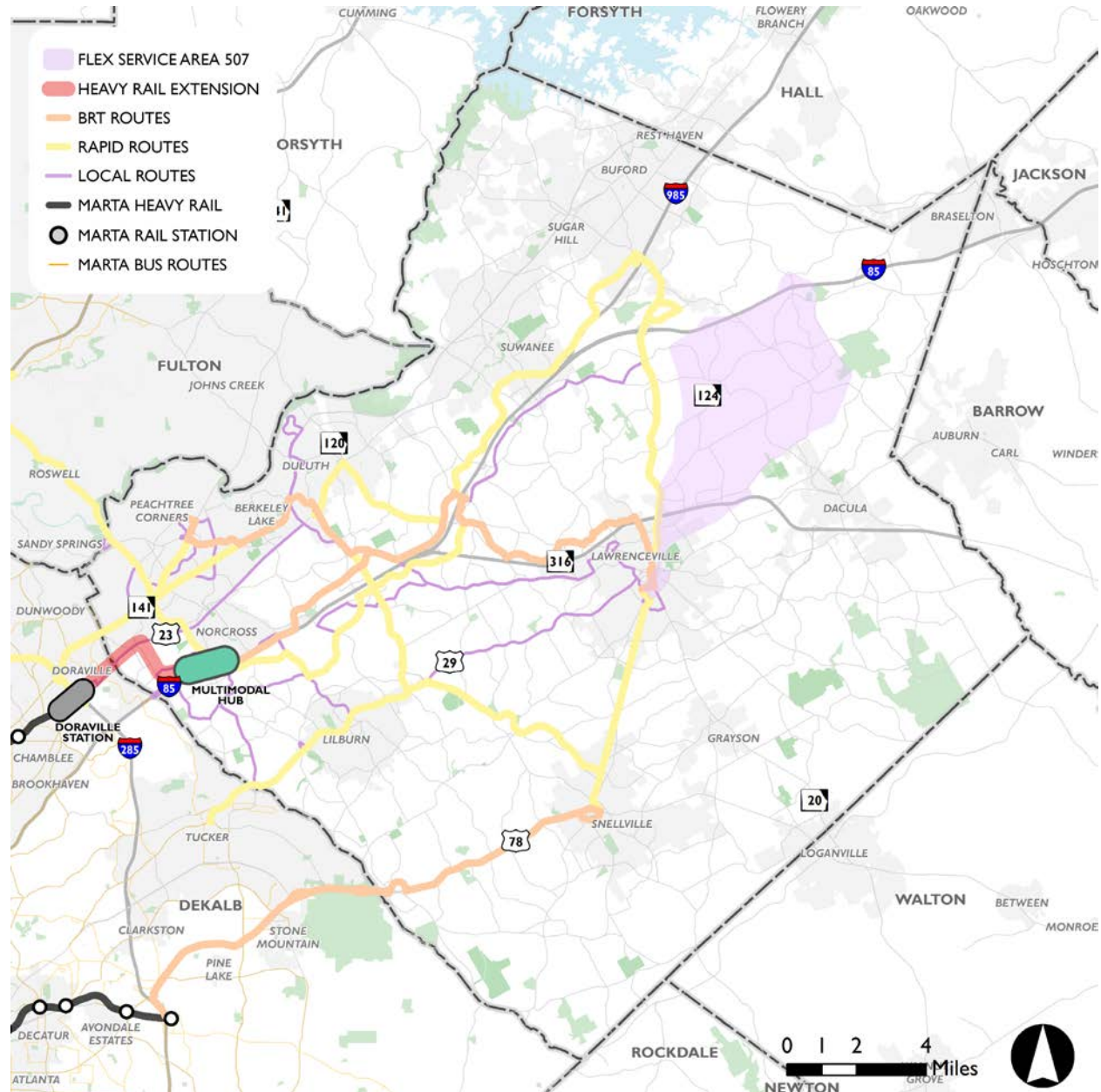


Figure 4-79: FY2039 Flex Service Map

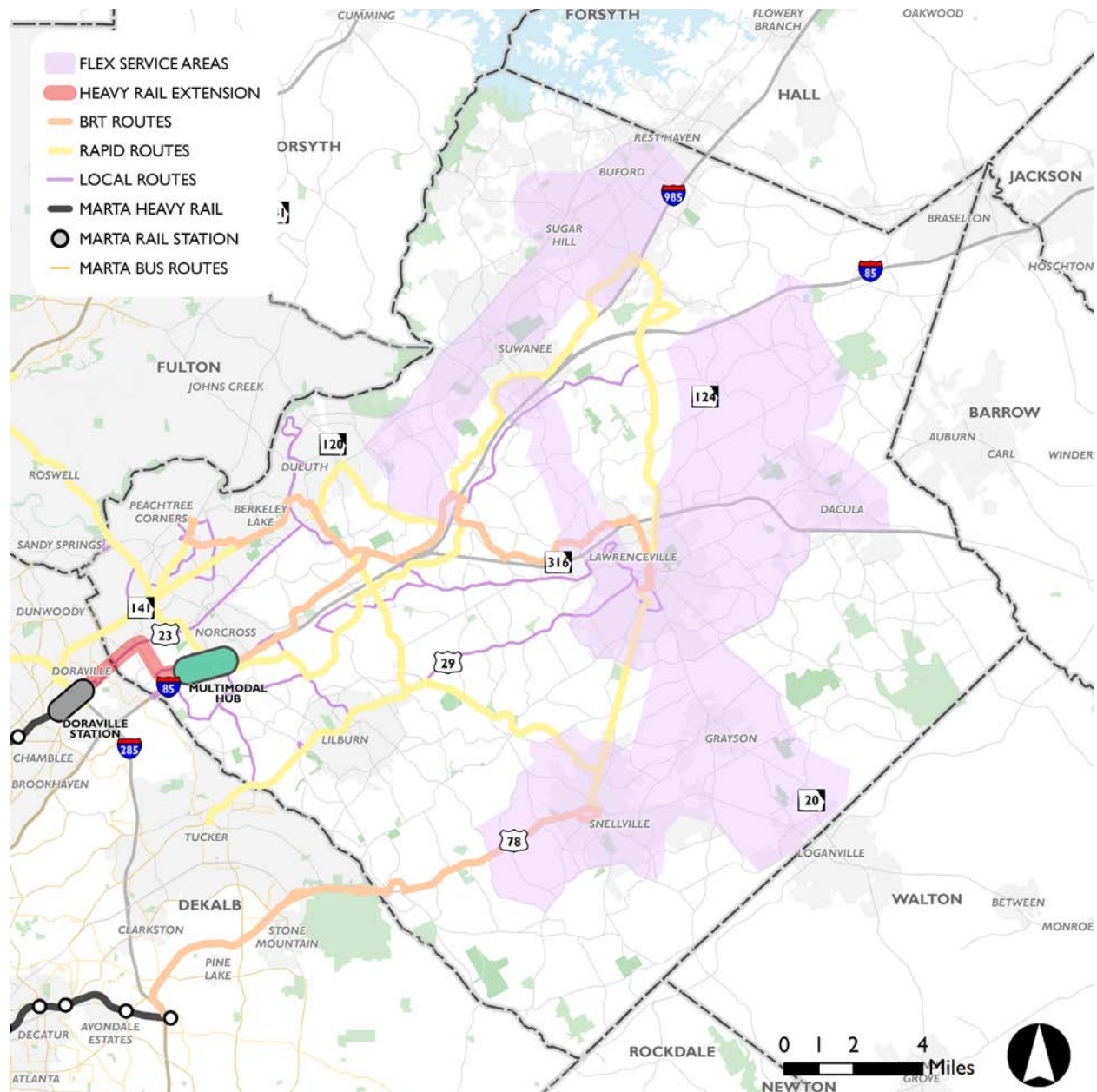


Table 4-18: FY2039 Flex Service Characteristics

Route	Name	Day	Span of Service
500	Buford/Sugar Hill	Weekday	6:00 a.m. - 8:00 p.m.
501	Suwanee-Duluth	Weekday	6:00 a.m. - 8:00 p.m.
502	Lawrenceville	Weekday	6:00 a.m. - 8:00 p.m.
503	Snellville	Weekday	6:00 a.m. - 8:00 p.m.
504	Dacula Lawrenceville	Weekday	6:00 a.m. - 8:00 p.m.
505	Lawrenceville-Suwanee	Weekday	6:00 a.m. - 8:00 p.m.
506	Loganville-Lawrenceville	Weekday	6:00 a.m. - 8:00 p.m.
507	Hamilton Mill-Lawrenceville	Weekday	6:00 a.m. - 8:00 p.m.

4.3.8 Other Transit Capital Improvements

A series of other capital improvements are proposed as part of Long-Range Plan Phase IA. These improvements supplement the proposed service network but are not directly linked to any individual service type.

4.3.8.1 Rapid 207 Capital Improvements

A set of Rapid Bus-like improvements are proposed along a corridor that is referred to as Rapid 207; however, this corridor would not receive a new Rapid Bus route. Instead, these improvements would serve to support other transit services along the corridor, including Local Routes 15, 30, and 65. Improvements include exclusive lanes in select locations, TSP at signalized intersections, and queue jumps at select intersections. The corridor follows Lawrenceville Highway from Pleasant Hill Road to Hugh Howell Road in Tucker.

4.3.8.2 Rapid 208 Capital Improvements

A set of Rapid Bus-like improvements are proposed along a corridor that is referred to as Rapid 208; however, this corridor would not receive a new Rapid Bus route. These improvements would benefit Direct Connect Route 403. The route is labeled as a Direct Connect route because it serves the Dunwoody and Medical Center MARTA Stations. Improvements include transit enhancements such as exclusive lanes, TSP, and queue jumps at select locations along Peachtree Industrial Boulevard and Peachtree Parkway.

4.3.9 Park-and-Ride Facilities and Transit Centers

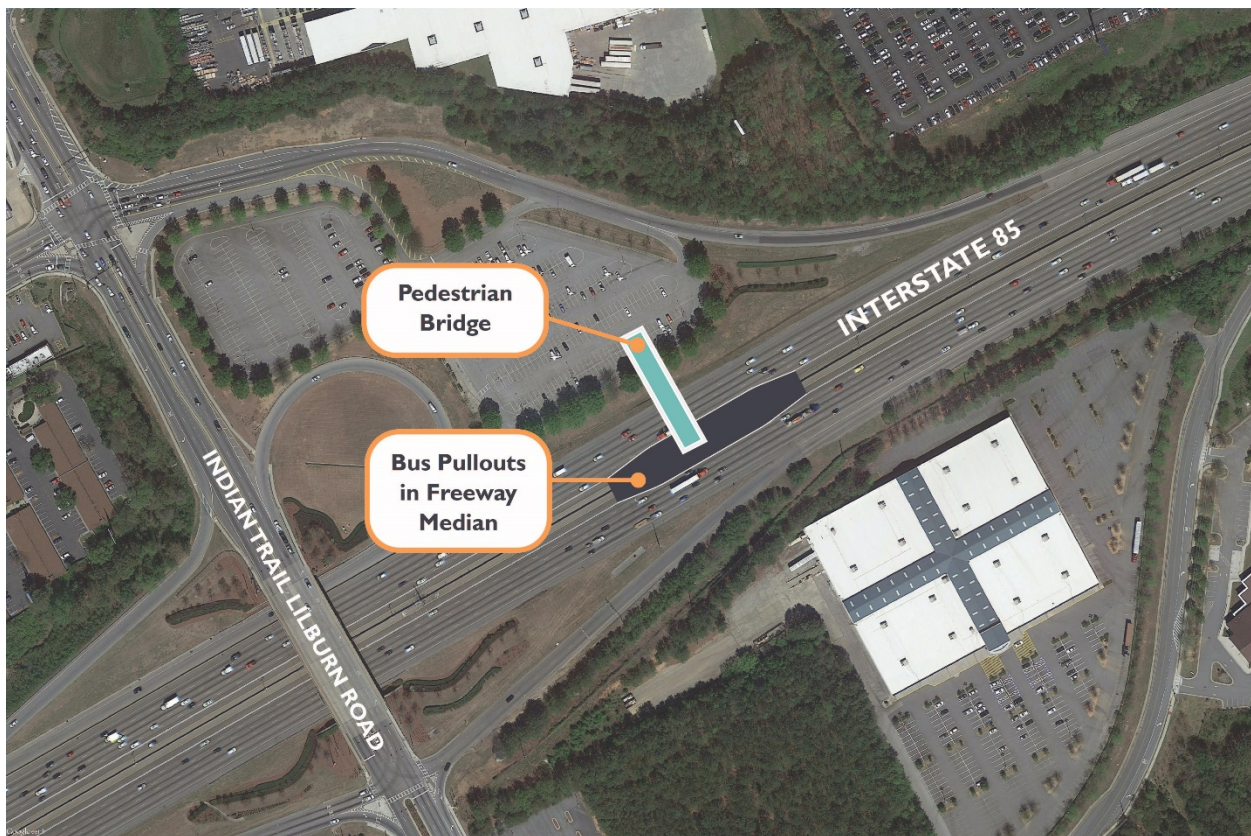
The Long-Range Plan Phase IA proposes one new park-and-ride location and several modifications/expansions of existing park-and-ride locations to support an expanded network of Express and Direct Connect routes. Park-and-ride improvements may include additional bus facilities, enhanced stop amenities, improved lighting and bike parking facilities, additional parking, or new wayfinding and transit information signage. A map of the new and upgraded park-and-ride locations is shown in Figure 4-83. Upgrades to select park-and-ride locations are proposed to enhance their connections to the managed lanes on I-85.

4.3.9.1 Indian Trail* Park-and-Ride and In-Line Express Stop

At Indian Trail Park-and-Ride, an in-line stop is proposed; this stop would be constructed in the median of the I-85 freeway as pullouts from the managed lanes. This would allow for buses to stop at Indian Trail without having to exit the freeway, reducing travel times. Additionally, the in-line stop would allow for Express buses originating at other park-and-rides to also stop at Indian Trail with minimal travel time impact. A pedestrian bridge would be constructed to connect the median stop to the parking lot next to the freeway. A diagram of this proposal is shown in Figure 4-80.

**The addition of the Steve Reynolds Park-and-Ride or the upgrades to the Indian Trail Park-and-Ride may be interchanged between the Mid-Range and Long-Range as needs and feasibility evolve*

Figure 4-80: Indian Trail Park-and-Ride and In-Line Express Stop



4.3.9.2 Sugarloaf Park-and-Ride and Flyover Ramp

At Sugarloaf Mills Park-and-Ride, a flyover ramp is proposed to provide a direct connection between the managed lanes in the median of I-85 and the park-and-ride lot at Sugarloaf Mills via an overcrossing of the northbound I-85 lanes. The direct access ramps will reduce travel times for northbound and southbound Express buses serving Sugarloaf Mills. It will also include a reconfiguration of the park-and-ride to facilitate bus access to/from this new overcrossing. A rough concept of the ramp is illustrated in Figure 4-81.

Figure 4-81: Sugarloaf Park-and-Ride and Flyover Ramp



4.3.9.3 McGinnis Ferry Road Direct Access Ramps

Direct access ramps from the I-85 managed lanes are proposed at McGinnis Ferry Road. In this location, ramps would be constructed connecting median managed lanes to the freeway overpass. The ramps would intersect with the overpassing road at a signalized intersection. Bus stops would be located on the ramps that would be connected to a new park-and-ride lot via sidewalks on the overpass structure. The direct access ramps enable Express buses to stop at these locations without having to travel on local streets, and thus reducing the travel time penalty associated with the stop. A rough concept of the proposed direct access ramps for McGinnis Ferry is illustrated in Figure 4-82.

Figure 4-82: McGinnis Ferry Road Direct Access Ramps*



*This figure is one concept to provide access to McGinnis Ferry Road; however, the County is currently developing concepts for this interchange, so the final interchange may implement a different concept to provide this access. Additional options include the flyover ramps illustrated in Figure 4-80 as well as other potential solutions.

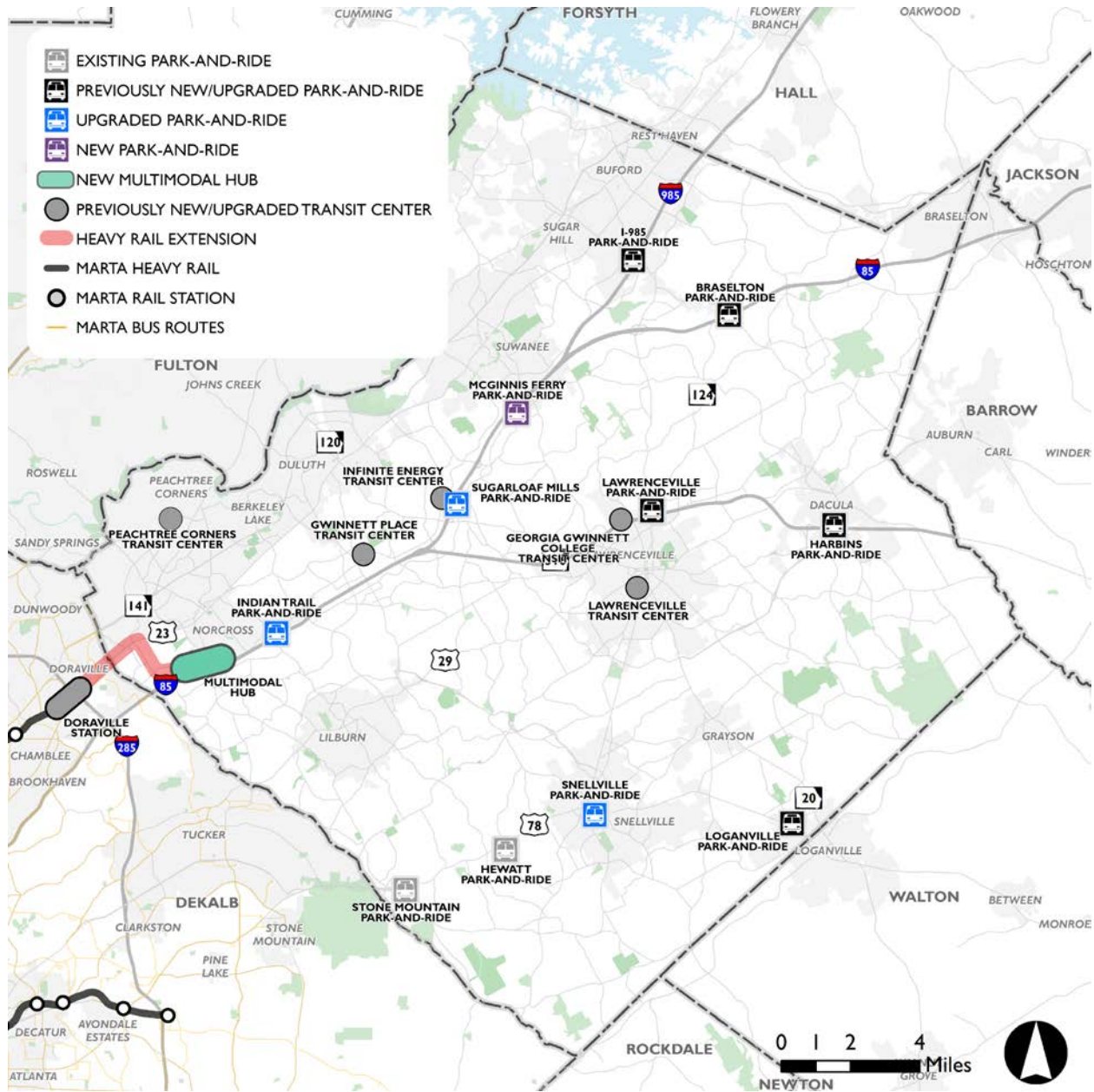
4.3.9.4 Snellville Park-and-Ride (Upgrade)

The existing Snellville Park-and-Ride will be upgraded to enhance the capacity of the facility and the amenities provided. These facility upgrades could include enhanced waiting areas, stop amenities, additional bus bays, and customer service facilities.

4.3.9.5 McGinnis Ferry Road Park-and-Ride (New)

A new park-and-ride facility is proposed to be constructed in the vicinity of the intersection of McGinnis Ferry Road and I-85, with a specific location to be determined. The facility could include parking and wayfinding and would be connected to the McGinnis Ferry Express bus stops noted above.

Figure 4-83: Park-and-Rides (FY 2039)



4.3.10 Other System Components

4.3.10.1 Pedestrian/Bicycle Access Improvements

The Plan allocates funding for bicycle and pedestrian improvements to improve access to transit. These improvements may consist of new sidewalks, new bicycle lanes, enhanced crosswalks, and signalized crossings. The total funding allocated for pedestrian and bicycle upgrades is an additional 7.5 percent of the total capital costs for local, Rapid, and BRT routes. Forty percent of the total funds in the Plan would be expended in the Long-Range Plan Phase IA FY 2030-2039 time horizon.

4.3.10.2 Technology Upgrades

The Plan allocates funding for various technology upgrades to the system. Technology upgrades may consist of user amenities, such as the addition of Wi-Fi and power outlets to buses, and upgrades to systems and back-end equipment, such as improving real-time information systems, performance measurement systems, and safety/communications systems. The total funding allocated for technology upgrades is an additional 2 percent the of total of all capital funds. Fifty percent of the funds for technology upgrades would be expended in the Long-Range Plan Phase IA FY 2030-2039 time horizon.

4.3.10.3 Flex Service Capital Investments

The Plan allocates funding for capital improvements to support Flex services, such as back-end operations facilities and dispatch system upgrades. A total of \$2 million is allocated for Flex improvements throughout the Plan. A total of 40 percent of these funds would be expended in the Long-Range Plan Phase IA FY 2030-2039 time horizon.

4.3.10.4 Local Bus Stop Upgrades

Expansion of the Local bus route system as part of this Plan necessitates the construction of new Local bus stops or upgrades to existing stops. As part of this Plan, funding is allocated for these improvements in three phases. Thirty-four percent of the total funds allocated for Local bus stop upgrades is proposed to be spent in Long-Range Plan Phase IA FY 2030-2039 time horizon to construct upgrades to Local bus stops and construct new stops. New or upgraded stops may include signage, benches, shelters, and trash cans.

4.3.10.5 Fleet TSP Enhancement

The Plan allocates funding to equip the BRT and Rapid bus fleet with TSP technology to enable the buses to utilize signals along the routes with TSP. Ninety percent of the total funds allocated for TSP enhancements is proposed to be spent in the Long-Range Plan Phase IA FY 2030-2039 time horizon.

4.3.10.6 Vanpool Subsidy

The Plan proposes an annual subsidy of private vanpool services to supplement public transit service. The plan includes an annual subsidy of \$750,000 within the Long-Range Plan Phase IA FY 2030-2039 time horizon.

4.3.10.7 TNC Subsidy

The Plan proposes an annual subsidy of resident use of TNCs, such as Uber or Lyft, specifically to access transit. Pilot programs may be implemented to identify effective programs to enhance access to transit, such as subsidized rides to certain destinations, within certain areas, or at certain times of day. The subsidy would be \$200,000 per year starting in FY 2020 (2018 dollars). This investment continues in this implementation timeframe.

4.3.10.8 Fleet Upgrade & Expansion

The Plan includes the expansion of the vehicle fleet to accommodate increased levels of transit service. The combined fleet will be expanded from 141 vehicles to 338 vehicles by the end of FY 2039.

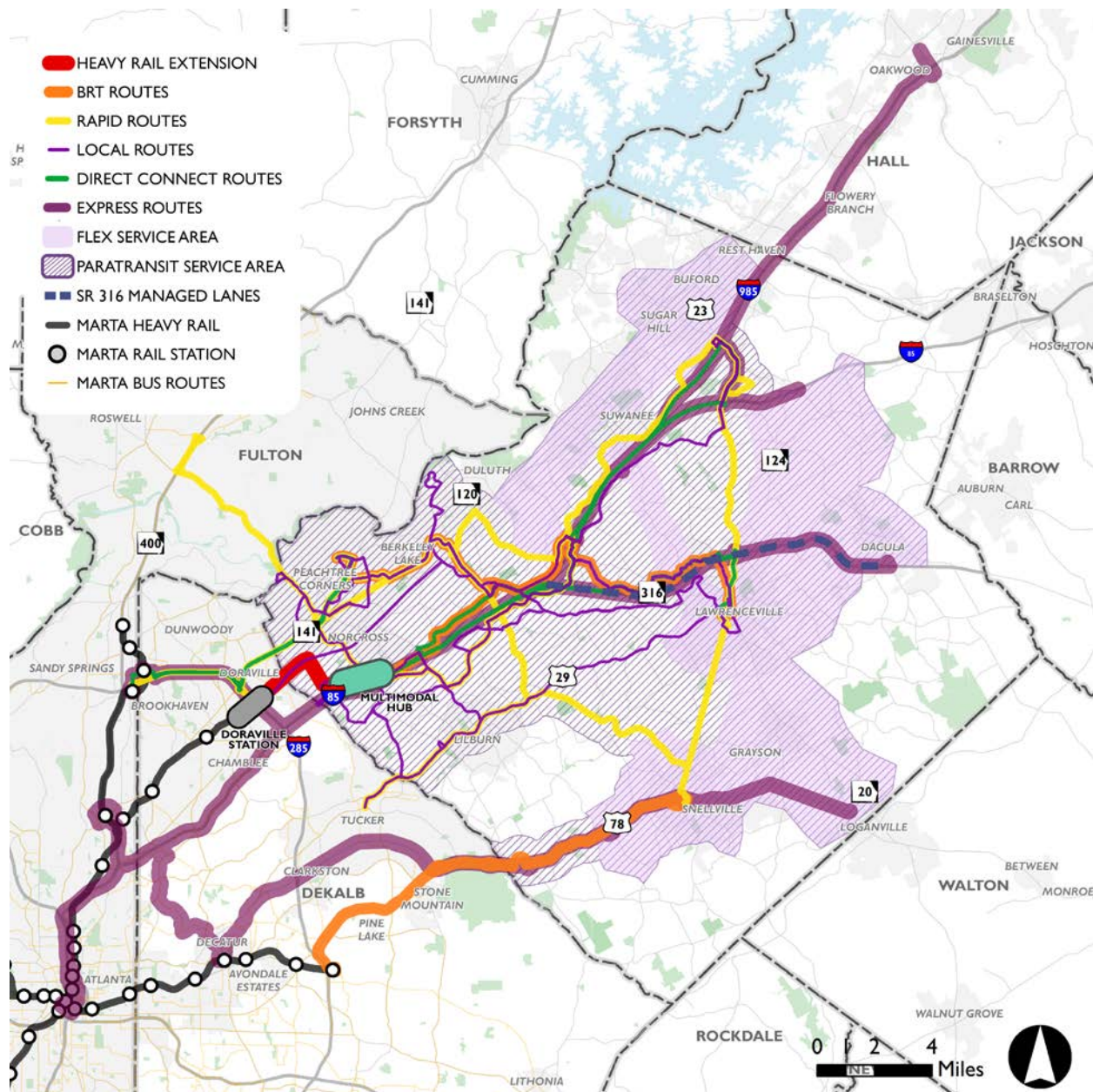
4.3.11 Summary of Proposed Services

The proposed services and capital improvements in Long-Range Plan Phase 1A are anticipated to provide many benefits to existing transit patrons and attract a number of new riders to the system. All of the proposed route alignments and service areas (and statistics) for the transit services that will be in place by the end of FY 2039 are shown in Figure 4-84 and Table 4-19.

Table 4-19: FY2039 Estimated Operating Statistics for Transit Services by Service Type

Service Type	Fleet Requirement (including spares)	Annual Revenue Bus Miles	Annual Revenue Bus Hours
Local	90	3,601,068	300,631
Express	79	1,793,990	50,997
Direct Connect	13	921,490	38,096
Rapid	73	4,808,985	298,853
BRT	32	617,398	37,261
Flex	36	684,518	93,605
Paratransit	15	358,051 (est.)	38,838 (est.)
Total	338	12,785,500	858,280

Figure 4-84: FY2039 Gwinnett County Transit Service



4.4 Long-Range Phase IB: FY 2040-2048

Fiscal years 2040 through 2048 represent the second half of the Long-Range portion of this Plan, designated as Long-Range IB. While most of the Long-Range improvements envisioned in this Plan are implemented in the previous Long-Range IA timeframe (FY 2030-2039), the improvements in the IB timeframe represent long-term investments in larger projects. There are no modifications proposed to any bus routes in Long-Range Phase IB. The bus route configuration shown in Long-Range Phase IA would carry forward through Long-Range Phase IB.

4.4.1 Other Transit Capital Improvements

4.4.1.1 BRT to Rail Transit Conversion Seed Money

This Plan allocates \$50 million to be expended in Long-Range Phase IB on conversion of the Route 700 BRT corridor to either heavy rail or light rail transit. This would not cover the entire cost of the rail conversion project; the conversion would require funding from additional sources. The completion of the conversion is anticipated to occur beyond FY 2048.

4.4.1.2 Regional Transit Projects

This Plan allocates \$50 million to be expended in Long-Range Phase IB in contribution to regional transit projects yet to be determined. Types of projects that could be funded by this allocation include high-capacity infrastructure improvements that would improve the connectivity of Gwinnett County residents to the regional transit network.

4.4.1.3 Managed Lanes on SR 316

This Plan allocates \$50 million to be expended in Long-Range Phase IB in contribution to the implementation of managed lanes on SR 316. This allocation is intended to supplement funding for the SR 316 managed lanes project to provide for benefits to transit service.

4.4.1.4 Two Additional Park-and-Rides (Location TBD)

This Plan allocates \$5 million each for the construction of two additional park-and-ride facilities to be expended in Long-Range Phase IB, for a total of \$10 million. Locations for these park-and-rides will be determined at a later date.

4.4.2 Other System Components

4.4.2.1 TNC Subsidy

The Plan proposes an annual subsidy of resident use of TNCs, such as Uber or Lyft, specifically to access transit. Pilot programs may be implemented to identify effective programs to enhance access to transit, such as subsidized rides to certain destinations, within certain areas, or at certain times of day. The subsidy would be \$200,000 per year starting in FY 2020 (2018 dollars). This investment continues in this implementation timeframe.

4.4.2.2 Flex Service Capital Investments

The Plan allocates funding for capital improvements supporting Flex services, such as back-end operations facilities and dispatch. A total of \$2 million is allocated for these improvements throughout the Plan. A total of 40 percent of these funds would be expended in this time horizon.

4.5 Long-Range Phase 2: FY 2048+

Proposed improvements in this section would be implemented after FY 2048. Since the timeframe of the projects in this section are beyond the 30-year financial scope of this Plan, this section represents a set of improvements that are desired but are not financially constrained. Further financial planning will be needed to implement the projects outlined within this section.

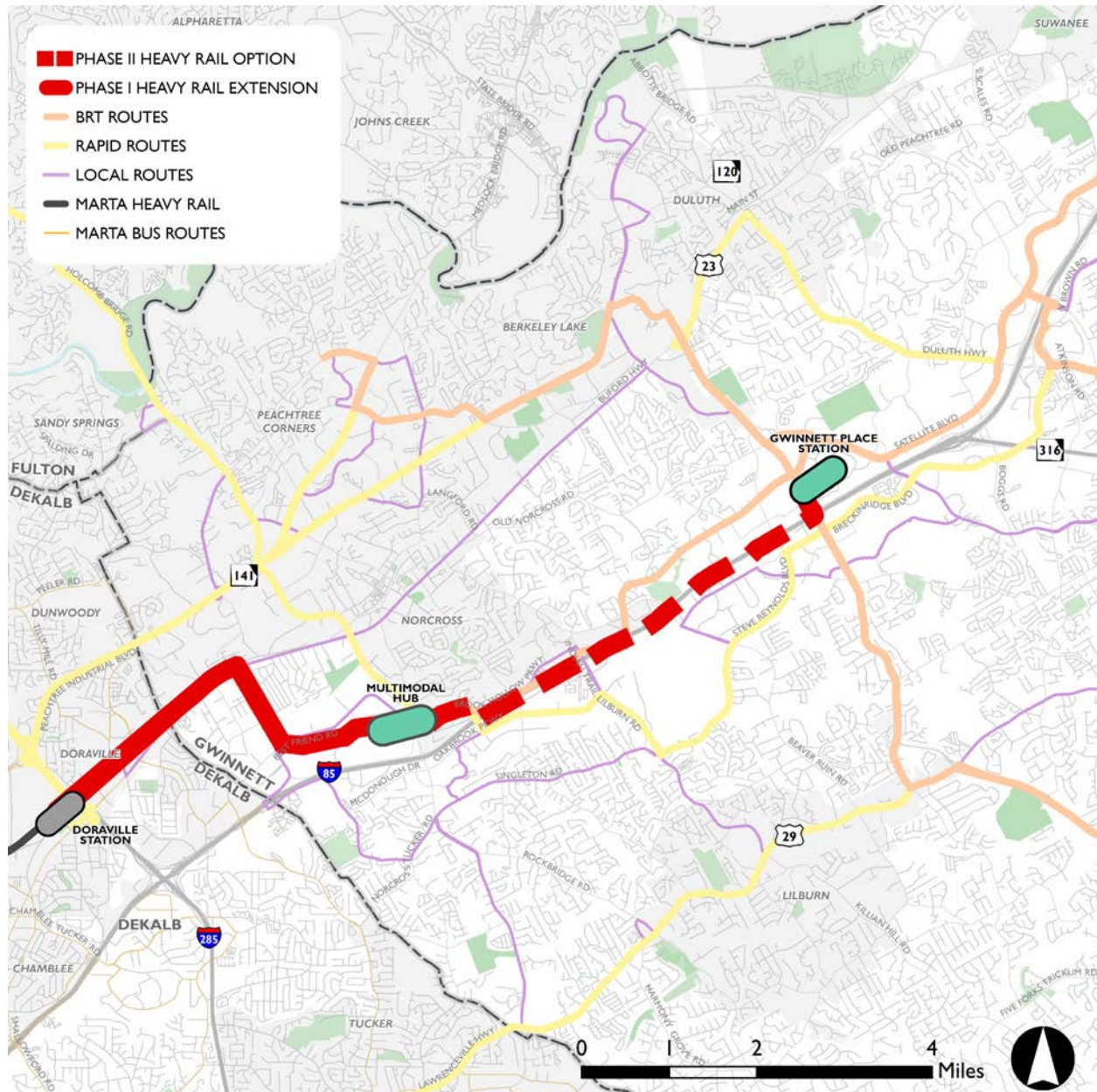
4.5.1 Heavy Rail Transit/Light Rail Transit

The Long-Range Phase 2 Plan includes two different options for the I-85 transit corridor served by BRT Route 700 in the Long-Range Plan Phase 1A/1B. These include:

- Extend Heavy Rail from the multimodal hub to the Gwinnett Place Mall area and construct a new station at the terminus in the Gwinnett Place area, or
- Convert BRT Route 700 to LRT.

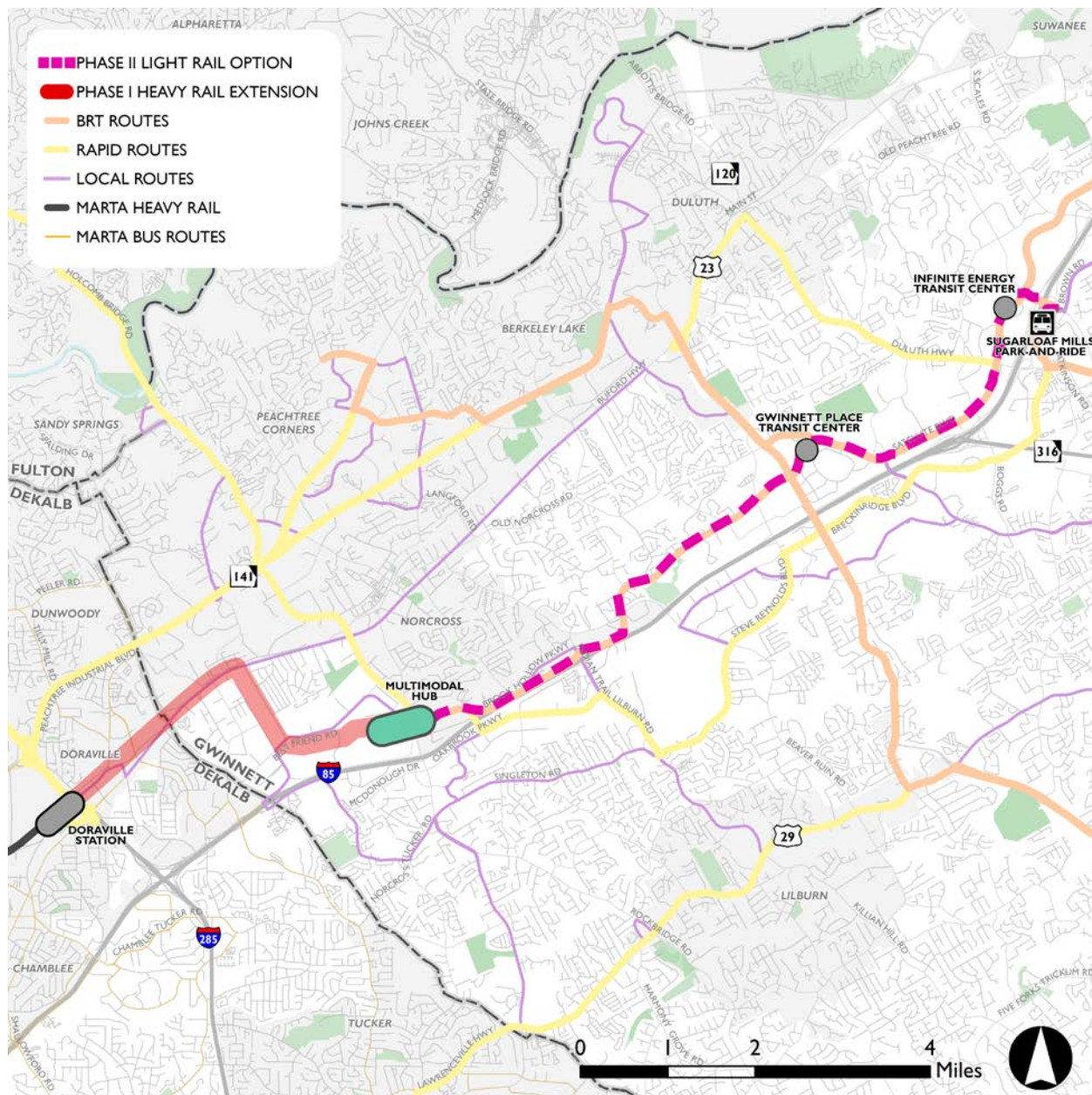
The proposed heavy rail extension is shown in Figure 4-854. With the heavy rail extension, BRT Route 700 is assumed to remain.

Figure 4-854: Heavy Rail (FY 2048+)



The proposed LRT alignment is shown in Figure 4-86.

Figure 4-86: Light Rail (FY 2048+)



4.5.2 BRT

The Long-Range Phase 2 Plan includes conversion of two Rapid routes from the Long-Range Plan 1A/1B into BRT routes. The first route to be converted is Route 202, which provides service from Infinite Energy Center to Mall of Georgia. This route is shown in Figure 4-87. The second route to be converted is Route 203, which provides service from Peachtree Corners to Snellville. This route is shown in Figure 4-88. The resulting full BRT system is summarized in Figure 4-89.

Figure 4-87: BRT Route 202 (FY 2048+)

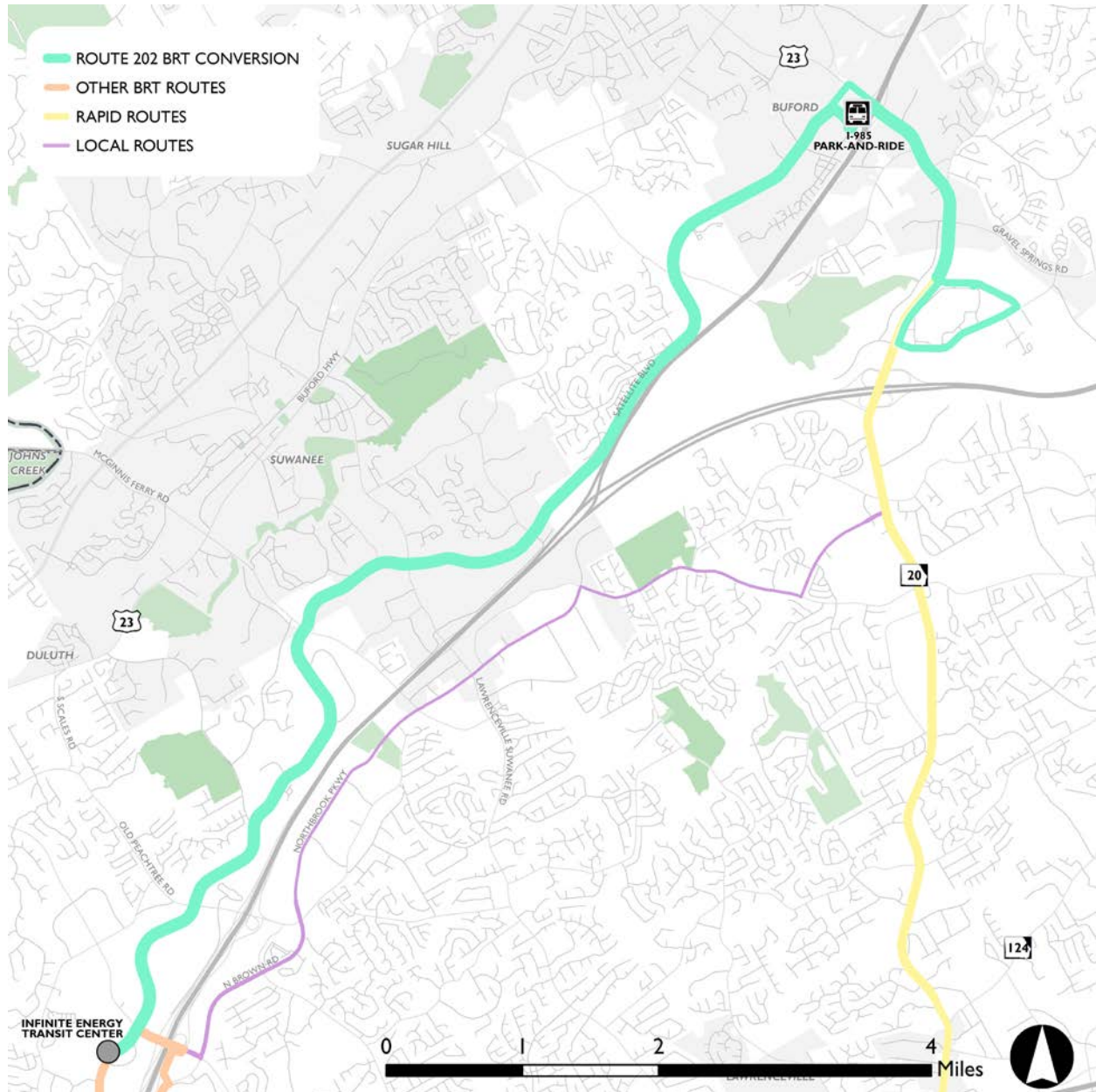


Figure 4-88: BRT Route 203 (FY 2048+)

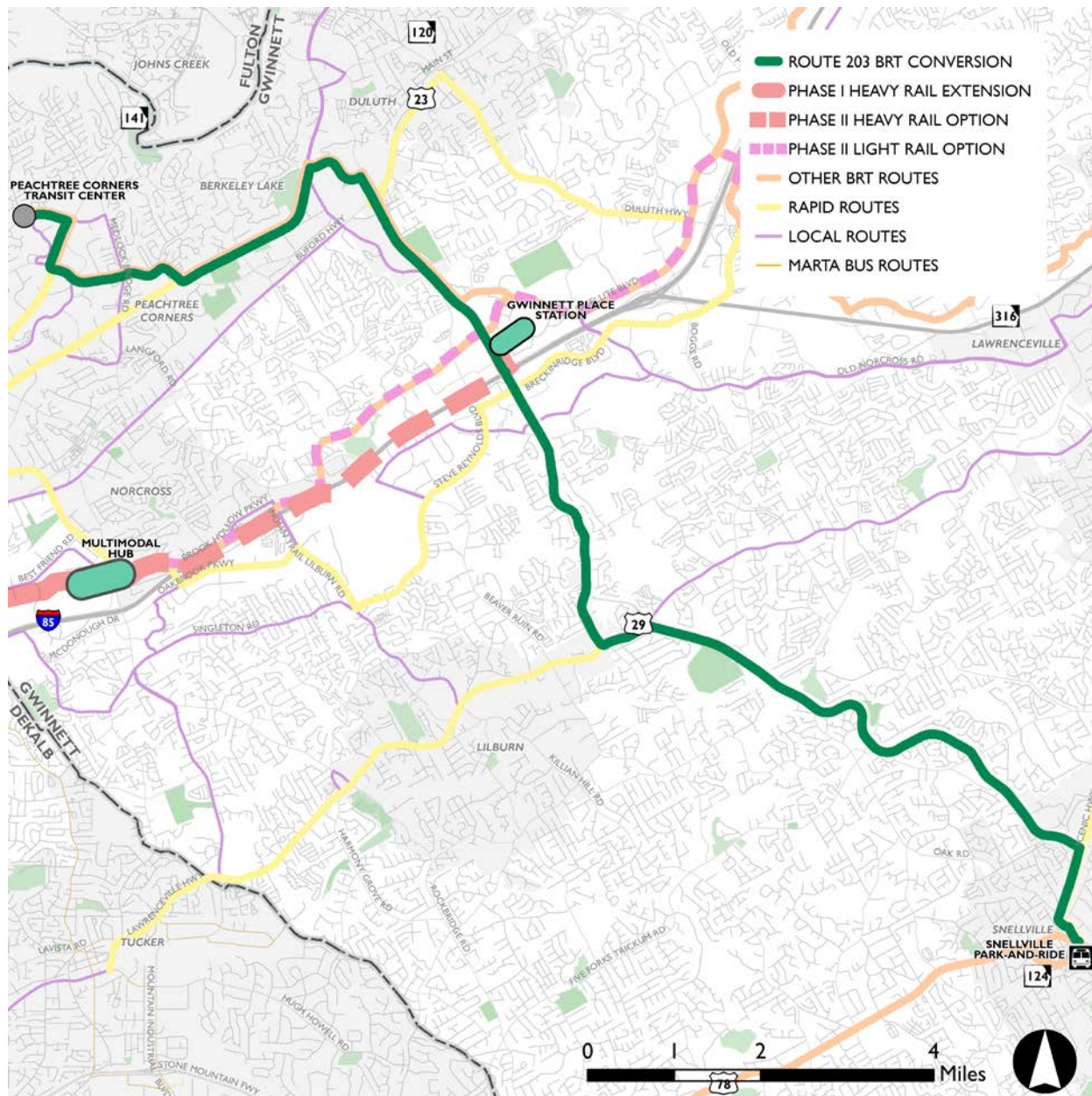
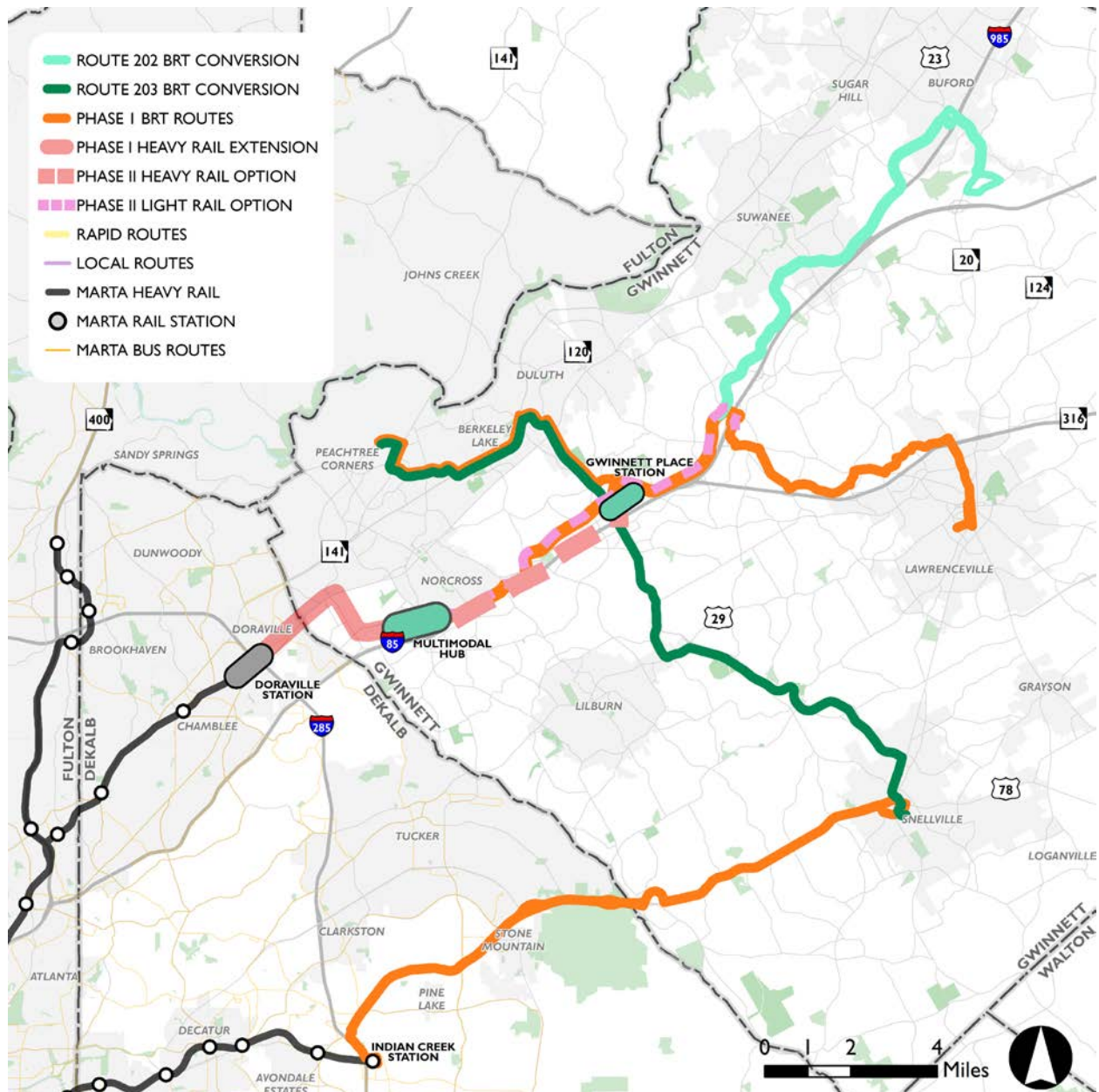


Figure 4-89: BRT Summary (FY 2048+)



4.5.3 Rapid Routes

No new Rapid routes are included in the Long-Range Phase 2 Plan; however, Rapid Routes 202 and 203 would each be upgraded to a BRT route on the same alignment.

4.5.4 Other Transit Capital Improvements

4.5.4.1 Steve Reynolds* Park-and-Ride and In-Line Express Stop

A new park-and-ride facility is proposed to be located in the vicinity of the intersection of I-85 and a future proposed overpass over I-85 connecting W Liddell Road with Club Drive. A specific location for the park-and-ride facility is to be determined. Direct access ramps from I-85 managed lanes are also proposed at this location. Ramps would be constructed connecting the managed lanes in the median of I-85 to the new Liddell Road/Club Drive overpass. The ramps would intersect with the overpassing road at a signalized intersection. The bus stops would be located near-side on the ramps. The ramps enable Express buses to stop without having to travel on local roads, and allows for this location to be an intermediate stop on other Express routes. Pedestrian connections to the park-and-ride lot would be provided via sidewalks on the overpass structure.

**The addition of the Steve Reynolds Park-and-Ride or the upgrades to the Indian Trail Park-and-Ride may be interchanged between Long-Range Phase 1 and Phase 2 as needs and feasibility evolve*

4.5.4.2 Regional HCT Projects

The Long-Range Phase 2 Plan allocates a total of \$100 million to be expended in contribution to regional high-capacity transit projects yet to be determined. Types of projects that could be funded by this allocation include high-capacity infrastructure improvements that would improve the connectivity of Gwinnett County residents to the regional transit network.

4.5.4.3 Managed Lanes on SR 316

The Long-Range Phase 2 Plan allocates \$50 million in contribution to the implementation of managed lanes on SR 316. This allocation is intended to supplement funding for the SR 316 managed lanes project to provide for benefits to transit service.

4.5.4.4 Pedestrian/Bicycle Access Improvements

The Plan allocates funding for bicycle and pedestrian improvements to improve access to transit. These improvements may consist of new sidewalks, new bicycle lanes, enhanced crosswalks and signalized crossings. The total funding allocated to these upgrades is an additional 7.5 percent of capital costs for the additional BRT routes in this phase.

4.5.4.5 Technology Upgrades

The Long-Range Phase 2 Plan allocates funding to various technology upgrades to the system. Technology upgrades may consist of user amenities, such as the addition of Wi-Fi and power outlets to buses, or include upgrades to systems and back-end equipment, such as improving real-time information systems, performance measurement systems, and safety/communications systems. The total funding allocated to these upgrades is an additional 2 percent of capital funds allotted.

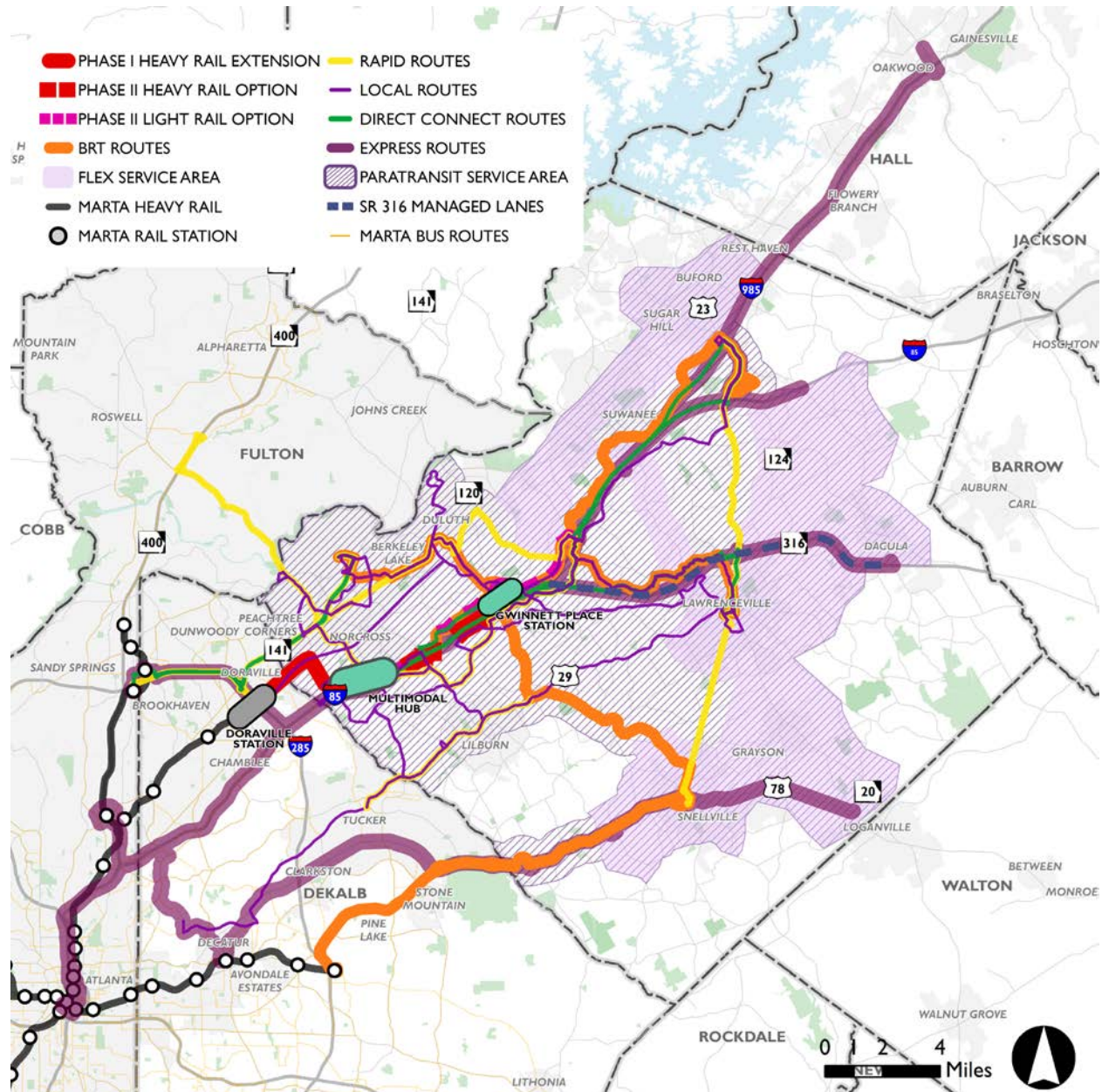
4.5.4.6 Fleet TSP Enhancement

The Long-Range Phase 2 Plan allocates funding to equip the entire bus fleet with TSP technology to enable the buses to utilize signals along the routes with TSP.

4.5.5 Summary of Proposed Services

The proposed system, including the new services proposed as part of the Long-Range Phase 2 Plan, are shown in Figure 4-90.

Figure 4-90: Summary of Proposed Services (FY 2048+)



5 RIDERSHIP ESTIMATES

Ridership forecasts for the three time periods in the Connect Gwinnett: Transit Plan were developed with the Federal Transit Administration's "Simplified Trips on Project Software" (STOPS). This software is typically used as a simplified method for developing ridership forecasts for use in FTA's Capital Investment Grant program. It has been used in this project as a means to gauge order-of-magnitude ridership potential for the Plan's service proposals.

Pertinent data used in the ridership forecasting effort are as follows:

- ARC travel demand model socioeconomic data
- Existing GTFS data for a 2015 model calibration year (MARTA, Gwinnett Transit and SRTA Xpress).
- 2009/2010 ARC on-board survey data, expanded to 2015 for model calibration efforts
- Proposed transit networks for each time period in the Connect Gwinnett: Transit Plan.

The transit networks used for this project's defined Short-Range, Mid-Range and Long-Range Phase IA/IB Plans were developed with the on-line software "Remix". Service frequencies, route speeds and schedules were developed with Remix, and then exported for use in STOPS.

The three forecast years used in this analysis are as follows:

- Short-Range Plan – 2024
- Mid-Range Plan – 2030
- Long-Range Plan Phase IA/IB - 2040

For each scenario year, the STOPS model was run with a "No-Build" (existing transit network) and a "Build" network. STOPS is calibrated to current Gwinnett Transit conditions.

Since the Gwinnett STOPS model is based on a 2015 calibration year, it does not take into account potential ridership associated with expanded late evening and weekend service. Further, the Flex routes that are proposed in the Connect Gwinnett: Transit Plan cannot be modeled with STOPS. Thus, ridership results from STOPS was adjusted to account for potential ridership associated with late evening/weekend service on fixed routes and new flex routes.

Table 5-1 presents weekday and annual ridership forecasts for each service plan scenario, with ridership broken out by service category. The numbers presented in Table 5.1 reflect unlinked trips (i.e., passenger boardings). MARTA rail ridership is reported as the incremental change in system MARTA rail boardings from a No-Build condition.

Table 5-1: Ridership Forecast (Boardings) Summary

Service Category	Existing	Short-Range	Mid-Range	Long-Range
Weekday Averages				
Local Routes	3,640	9,730	11,070	9,350
Express Routes	1,930	1,950	2,689	8,050
Rapid Routes	0	0	0	12,110
Direct Connect Routes	0	1,240	1,200	5,700
Flex Routes	0	120	170	1,690
BRT Routes	0	0	3,870	14,710
Additional MARTA Rail Ridership	0	1,010	1,210	8,580
Total Ridership	5,570	14,050	20,209	60,190
Annual Totals				
Local Routes	1,028,560	2,701,630	3,225,870	2,863,810
Express Routes	425,850	497,250	685,610	2,052,750
Rapid Routes	0	0	0	3,681,210
Direct Connect Routes	0	316,200	306,000	1,228,740
Flex Routes	0	30,600	43,350	430,950
BRT Routes	0	0	1,216,990	3,075,600
Additional MARTA Rail Ridership	0	0	348,880	2,364,000
Total Ridership	1,454,410	3,820,310	5,826,700	15,697,060

Notes:

1. Add'l. MARTA Rail reflects additional boardings over a No-Build scenario.
2. Short-Range reflects a Year 2024 forecast.
3. Mid-Range reflects a Year 2030 forecast.
4. Long-Range reflects a Year 2040 forecast.
5. Multimodal Hub Rail Station Daily Boardings in Long-Range = 10,530.

The Mid-Range transit network includes new BRT service (Route 700 - Doraville to Sugarloaf Mills). STOPS ridership results indicate a potential for approximately 3,900 average weekday boardings for this first proposed BRT route. The Long-Range Phase 1A/1B transit network includes three BRT routes and a MARTA Gold Line extension. BRT ridership forecasts range from 4,600 to 5,300 on each route. The proposed Multi-modal Hub station in the vicinity of I-85/Jimmy Carter Boulevard has approximately 10,500 average weekday boardings.

Ridership results indicate a drop in Local route ridership between the Mid and Long-Range Phase 1A/1B Plans. That is because several of the Mid-Range Plan's Local routes are replaced with new Rapid Route and BRT service. Results also reflect no growth in Direct Connect ridership between the Short and Mid-Range Plans. That is because a portion of one of the Direct Connect route alignments is served with new BRT service in the Mid-Range Plan.

Overall, service productivity is anticipated to increase in conjunction with service expansion. Current Gwinnett Transit service productivity is approximately 16.4 passenger trips per revenue bus-hour (system wide). Anticipated service productivity for the future year service plans ranges from 18.0 to 18.7 passenger trips per revenue bus-hour, depending on the service plan horizon.

In addition to determining ridership boarding activity, STOPS ridership results were reviewed to determine the increase in “linked” transit trips over a No-Build condition. Linked transit trips reflect actual passenger trips from origin to destination and does not include transfer activity. As an example, a rider that begins a trip on bus and transfers to rail to get to his/her destination would be counted as one linked transit trip. For each forecast year, a STOPS model run was completed to determine linked transit trips for the current Gwinnett transit network and for the proposed Gwinnett transit network. The difference reflects the number of person trips attracted to each forecast year’s expanded transit network. The incremental change in weekday linked transit trips for each scenario is as follows:

- Short-Range: 3,770
- Mid-Range: 6,880
- Long-Range: 25,600

6 COST AND FINANCING PLAN

A 30-year cash flow spreadsheet model was developed for the Connect Gwinnett: Transit Plan that incorporates anticipated service and facility expansion costs and potential revenue sources.

6.1 System Costs

Cost estimates over the 30-year time period were prepared for the following cost elements of the Connect Gwinnett: Transit Plan.

- Operating and Maintenance Costs
- Capital Costs
- Operations Reserves and System State of Good Repair

6.1.1 Operating and Maintenance Costs

A phased implementation has been assumed for the Connect Gwinnett: Transit Plan. Service improvements were programmed on an annual basis from 2019 through 2048, with proposed service improvements in the Short-Range Plan completed by 2024, proposed service improvements in the Mid-Range Plan completed by 2030 and proposed service improvements in the Long-Range Plan 1A/1B completed between 2030 and 2048. Peak bus requirements, annual revenue bus-hours and bus-miles of service were calculated for each proposed service improvement and programmed into the 30-year cash flow model.

Annual operating and maintenance costs were prepared by applying unit costs to revenue-hours and revenue-miles for each year in the cash flow model. Cost assumptions and results under the scenario are as follows:

- Local Bus - \$56.63 per revenue-hour + \$1.57 per revenue-mile
- Rapid - \$65.12 per revenue-hour + 1.81 per revenue-mile
- Direct Connect - \$ 70.79 per revenue-hour + \$1.96 per revenue-mile
- Express - \$99.10 per revenue-hour + \$2.75 per revenue-mile
- BRT - \$73.62 per revenue-hour + \$2.04 per revenue-mile
- Flex - \$68.16 per revenue-hour + \$1.57 per revenue-mile
- Paratransit - \$80.19 per revenue-hour + \$1.33 per revenue-mile
- MARTA Heavy Rail - \$1,135 per revenue train-hour

Unit costs for Heavy Rail are based on unit O&M costs used in recent corridor projects, with those unit costs inflated to current year dollars. In addition to the unit costs shown above, consideration was given to potential increases in non-operations related administrative costs. Those costs were assumed to be 15 percent of the cumulative marginal O&M cost.

Overall, the Connect Gwinnett: Transit Plan has an estimated cumulative O&M cost of \$2.21 billion in 2018 dollars. Figure 6-1 presents projected annual operating and maintenance costs in 2018 dollars on an annual basis. There is a significant increase in annual O&M costs in 2030 when the rail extension to I-85/Jimmy Carter Boulevard is assumed. Figure 6-2 presents the break-out of cumulative O&M costs by service type over the 30-year period.

Figure 6-1: Annual Operating and Maintenance Costs

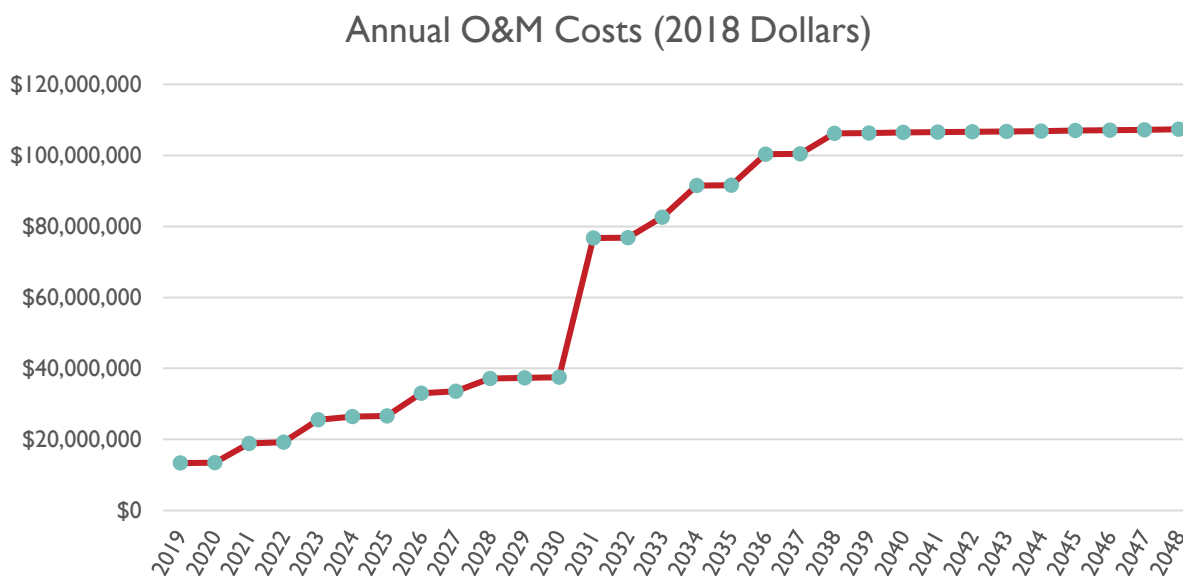
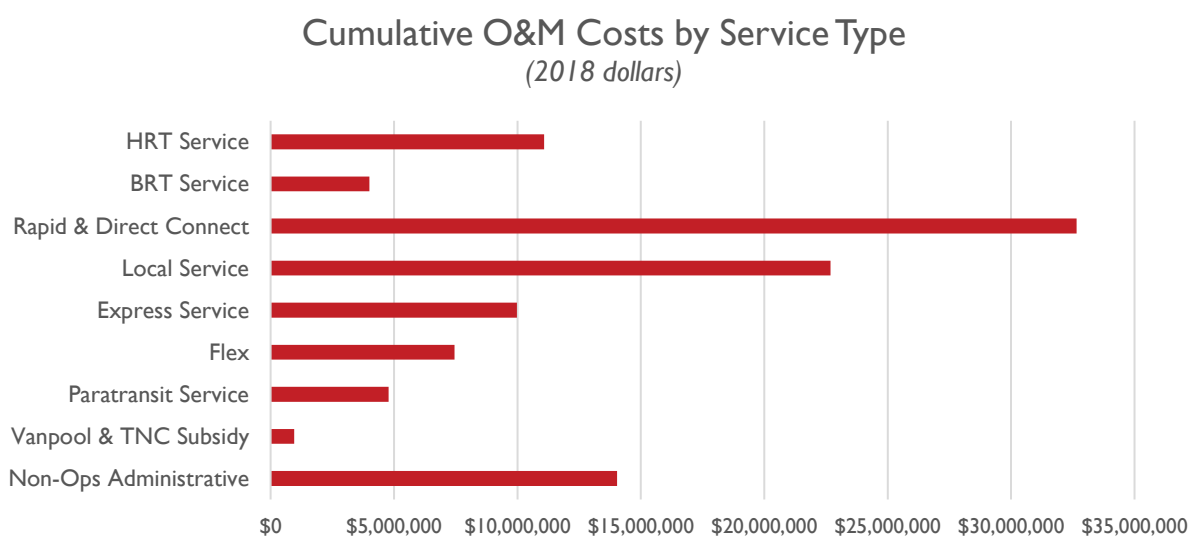


Figure 6-2: Cumulative Costs by Service Type



6.1.2 Capital Costs

Capital costs were estimated through different means depending on the service type. BRT Route 700 and Heavy rail costs were estimated based on the FTA Standard Cost Categories (SCCs) template. Cost elements for other BRTs were based on unit costs derived from BRT Route 700. Cost elements for Rapid services were estimated based on unit costs for assumed capital improvements along the Rapid alignment. Cost elements for transit facility and interchange upgrades were estimated on a rough-order-of-magnitude level based on projects of a similar nature.

The Connect Gwinnett: Transit Plan consists of approximately \$3.7 billion in capital cost projects (2018 dollars). Major elements of costs are broken down in Table 6-1.

Table 6-1: Summary of Capital Cost Projects (2018 dollars)

Capital Project	Cost (1,000s)
Rail Expansion	\$1,155,000
BRT Projects	\$960,630
Rapid Corridor Projects	\$652,050
Transit Centers/Park-and-Ride Lots	\$495,000
Bus Maintenance Facility	\$38,309
Local Stop Upgrades & Ped/Bike Access Improvements	\$160,207
Flex Service Capital	\$2,000
Technology Upgrades & Fleet TSP Enhancements	\$57,972
BRT to Higher Capacity Seed Money	\$50,000
Regional Service Connections Projects	\$50,000
SR 316 Transit Corridor Enhancements	\$50,000
Total Costs	\$3,671,168

In addition to costs shown above, money will be required for bus fleet expansion and replacement. Cost and bus useful life assumptions used to determine overall costs are as follows (all costs in 2018 dollars):

- **Local Bus:** A 12-year life has been assumed for Local buses, with an average cost of \$500,000 per bus. The Connect Gwinnett: Transit Plan is estimated to require the purchase of 192 Local route buses between 2019 and 2048 at a total cost of \$96.0 million (2018 dollars).
- **Express/Direct Connect Bus:** An 18-year life has been assumed for Express buses with a rehab of the bus in year 12. A cost of \$950,000 per bus has been assumed, with a mid-life rehab cost of \$250,000 per bus. A 12-year life has been assumed for Direct Connect buses, also with a cost of \$950,000 per bus, but with no mid-life rehab assumed. The Connect Gwinnett: Transit Plan is estimated to require the purchase of 194 Express or Direct Connect coach buses between 2019 and 2048 at a total cost of \$201.6 million (2018 dollars and including rehab costs).
- **Rapid and BRT Bus:** A 12-year life has been assumed for Rapid and BRT buses, with an average cost of \$1.1 million per bus. The Connect Gwinnett: Transit Plan is estimated to require the purchase of 190 Rapid and BRT buses between 2019 and 2048 at a total cost of \$209.0 million (2018 dollars).
- **Paratransit and Flex Bus:** A 6-year life has been assumed for Paratransit and Flex buses, with an average cost of \$100,000 per bus. The Connect Gwinnett: Transit Plan is estimated to require the purchase of 211 Paratransit and Flex buses between 2019 and 2048 at a total cost of \$21.1 million (2018 dollars).

Overall, the Connect Gwinnett: Transit Plan is estimated to need approximately \$527.7 million (2018 dollars) for bus expansion and replacement purchases.

6.1.3 Operations Reserves and System State of Good Repair

6.1.3.1 Operations Reserves

The Connect Gwinnett Finance Plan also includes costs for creating an operations reserves fund. It is recognized that revenues generated by funding sources can fluctuate from year to year. Therefore, the Plan includes an operations reserves fund as a means to minimize significant annual fluctuation in transit service levels. A 2 percent contribution of annual O&M costs has been assumed for each year, with a maximum capped amount of 5 percent of annual O&M costs. The finance plan assumes a 50 percent drawdown of this reserves fund every three years.

6.1.3.2 System State of Good Repair

A major component of the Connect Gwinnett: Transit Plan is improved connectivity to the greater Atlanta regional transit network. In addition to MARTA rail expansion into the County, the Plan includes connections to rail at Doraville and Chamblee Stations, to Red Line stations in the Perimeter Center, the Blue Line's Indian Creek Station and MARTA bus routes in the Tucker area. The Transit Plan includes expanded Express service to downtown Atlanta and the Emory area and new Express service to Perimeter Center and Buckhead. For cost purposes, it has been assumed that a system contribution will be needed for state of good repair. Member jurisdiction contributions may be based on a number of factors including ridership, miles, population density, facility needs, and other considerations. Any sales tax administration-related costs are also assumed to come from this fund.

6.2 Sources of Funds

The Connect Gwinnett: Transit Plan assumes revenue from the following sources:

- One Cent Local Sales Tax
- Farebox Revenues
- Federal and State Funds
- Other Sources

6.2.1 Projected Sales Tax Generation

Gwinnett County finance staff provided sales tax revenue projections for use in this project's 30-year cash flow analysis. Projected revenues from a one penny sales tax is estimated to be \$152.1 million in 2019. A 1.5 percent annual real increase in sales tax revenues is assumed through 2024. A 1 percent annual real increase in sales tax revenues is assumed for subsequent years. This growth rate would occur as a result of growth in Gwinnett County's population and employment base. Total potential revenues from a one cent sales tax over 30 years (2019 through 2048) is just over \$5.4 billion (2018 dollars).

6.2.2 Farebox Revenues

The Connect Gwinnett financial plan assumes farebox revenue recovery rates that cover a certain percentage of projected operating costs. Assumed farebox recovery rates are as follows:

- Local and Flex Service – 15 percent
- Rapid, Direct Connect, HRT and BRT Service – 30 percent
- Express Service – 40 percent
- Paratransit Service – 5 percent

Assumptions for Local, Paratransit, and Express service farebox recovery rates are in-line with current Gwinnett Transit farebox recovery ratios.

6.2.3 Federal Funds

The financial plan assumes different federal participation rates depending on the expenditure. Capital projects were identified as being either eligible or ineligible for federal funds. Those projects identified as having potential eligibility for federal funds are as follows:

- MARTA Rail extension
- BRT projects
- Four of the Rapid Transit Projects
- All transit center projects
- Six of the twelve park-and-ride projects
- A new maintenance facility
- Fleet TSP enhancement

For all but one project, it is assumed that federal funds will cover 45 percent of costs for projects identified as being eligible for federal funds. The one project with a different funding assumption is this Plan's initial BRT project along the Buford Highway/Satellite Drive (BRT Route 700) is assumed to be a FTA Small starts-eligible project. This project has an estimated capital cost of approximately \$300 million. The Small Starts program limits federal funds to \$100 million for a project. The assumed federal participation rate for this project is 30 percent.

Federal funds have been assumed for vehicle fleet expansion and replacement. A 60 percent federal participation rate is assumed for vehicle purchases. Federal funds have also been assumed to cover a portion of O&M costs.

6.2.4 State Funds

With the recent passage of HB 930, the State of Georgia is more actively participating in the planning and implementation of Atlanta region transit projects. The Connect Gwinnett: Transit Plan assumes 5 percent state funding contributions towards federally funded capital projects and towards annual O&M cost expenditures with a maximum annual O&M contribution cap of \$5 million per year.

6.2.5 Other Funds

Finally, it is recognized that other sources may be available for funding annual operations and maintenance costs. This may include public-private partnerships for service delivery, advertising, and other fees. It is assumed that 5 percent of annual O&M costs will be funded from other sources with a maximum annual contribution cap of \$5 million per year.

6.3 Financing Plan

Projected costs and revenue sources for the Connect Gwinnett: Transit Plan were incorporated into a 30-year cash flow analysis. Key inflation assumptions used in the cash flow analysis are as follows:

- Capital and fleet costs were inflated from 2018 dollars to year-of-expenditure dollars with a 2.5 percent annual inflation rate.
- Annual O&M costs were inflated with a 3.5 percent annual inflation rate. A higher inflation rate was used to reflect the recent trend of operating expenses growing faster than typical CPI rates, due to factors such as employee health-care program costs and fuel costs.

- Sales tax revenues were inflated from 2018 dollars to year-of-expenditure dollars with a 2 percent annual inflation rate.
- Farebox revenues were inflated with an assumed 3 percent per year inflation rate.

6.3.1 Financing Plan

Table 6-2 presents anticipated capital and O&M costs by mode of service/type of project in year-of-expenditure dollars. As shown in this table, projected costs total \$11,964 million, of which 51.1 percent is related to capital projects. As noted previously, HRT costs are assumed to be funded through revenue bonds, thus spreading capital costs for the proposed HRT extension through 2044.

Table 6-2: Summary of 30-Year Costs by Time Period
(in \$millions, Year-of-Expenditure dollars)

Cost Element	Expense Category	SR (2019-24)	MR (2025-29)	LR IA (2030-39)	LR IB (2040-48)	30-Year Total
HRT	Capital	\$51.6	\$305.9	\$870.1	\$622.5	\$1,850.2
	O&M	\$0.0	\$0.0	\$196.5	\$244.9	\$441.4
BRT	Capital	\$234.0	\$248.1	\$1,958.9	\$148.9	\$2,589.9
	O&M	\$0.0	\$34.1	\$384.3	\$710.5	\$1,128.8
Local	Capital	\$33.9	\$73.0	\$124.7	\$134.2	\$365.8
	O&M	\$69.0	\$94.8	\$430.9	\$501.2	\$1,095.9
Express/Direct Connect	Capital	\$81.6	\$292.8	\$296.5	\$307.5	\$978.3
	O&M	\$34.5	\$47.1	\$256.8	\$320.2	\$658.6
Flex/Paratransit	Capital	\$2.1	\$3.3	\$14.3	\$17.5	\$37.1
	O&M	\$21.9	\$30.5	\$178.6	\$258.8	\$489.9
TNC/Vanpool	O&M	\$4.0	\$5.9	\$16.8	\$21.0	\$47.7
Transit Facilities	Capital	\$79.0	\$46.5	\$0.0	\$0.0	\$125.5
Technology/TSP	Capital	\$16.3	\$18.6	\$46.8	\$0.0	\$81.7
Regional Projects	Capital	\$0.0	\$0.0	\$0.0	\$90.5	\$90.5
Fixed Operating	O&M	\$19.4	\$31.9	\$219.6	\$308.5	\$579.4
Total Capital		\$498.4	\$988.3	\$3,311.4	\$1,321.0	\$6,119.0
Total Operating		\$148.8	\$244.3	\$1,683.5	\$2,365.2	\$4,441.8
Operations Reserves and System State of Good Repair		\$96.10	\$153.70	\$526.60	\$626.5	\$1,403.0
Total		\$743.3	\$1,386.3	\$5,521.5	\$4,312.7	\$11,963.8

Table 6-3 presents anticipated revenues and costs in year-of-expenditure dollars. As shown in this table, projected revenues total \$12,076 million and projects costs total \$11,964 million, leaving a net margin of \$112 million.

Table 6-3: Summary of 30-Year Revenues and Costs by Time Period
(in \$millions, Year-of-Expenditure dollars)

	SR (2019-24)	MR (2025-29)	LR IA (2030-39)	LR IB (2040-48)	30-Year Total
Revenues					
Sales Tax	\$1,016.7	\$1,009.4	\$2,530.4	\$3,019.1	\$7,575.5
Federal Funds	\$192.4	\$404.7	\$1,674.0	\$865.3	\$3,136.5
State/Other Funds	\$30.6	\$71.6	\$267.1	\$152.6	\$521.9
Total Farebox	\$24.7	\$42.8	\$326.1	\$448.6	\$842.2
Total	\$1,264.3	\$1,528.5	\$4,797.6	\$4,485.7	\$12,076.1
Costs					
Total Capital	\$498.4	\$988.3	\$3,311.4	\$1,321.0	\$6,119.0
Total Operating	\$148.8	\$244.3	\$1,683.5	\$2,365.2	\$4,441.8
Operations Reserves and System State of Good Repair	\$96.10	\$153.70	\$526.60	\$626.5	\$1,403.0
TOTAL	\$743.3	\$1,386.3	\$5,521.5	\$4,312.7	\$11,963.8
Surplus/(Deficit)					\$112.3

Notes:

HRT cost distribution and federal contribution by time period reflects spreading due to financing

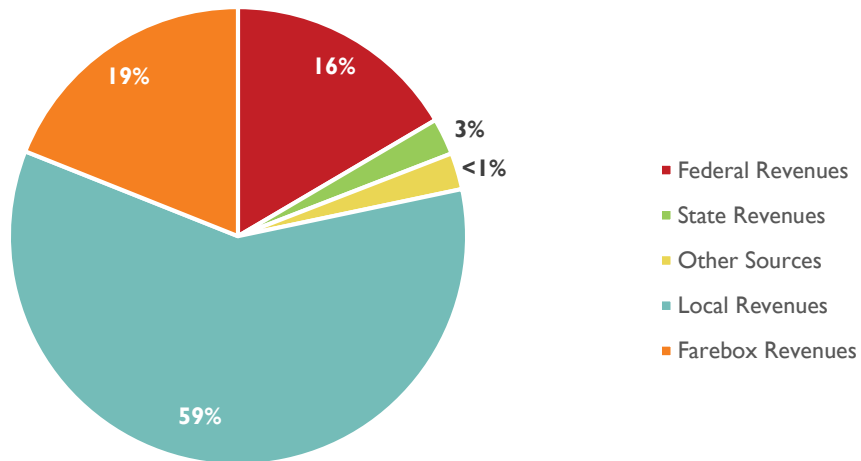
Transit facilities include transit centers and maintenance facility

Transit access (bike/ped) improvements entirely included in local capital

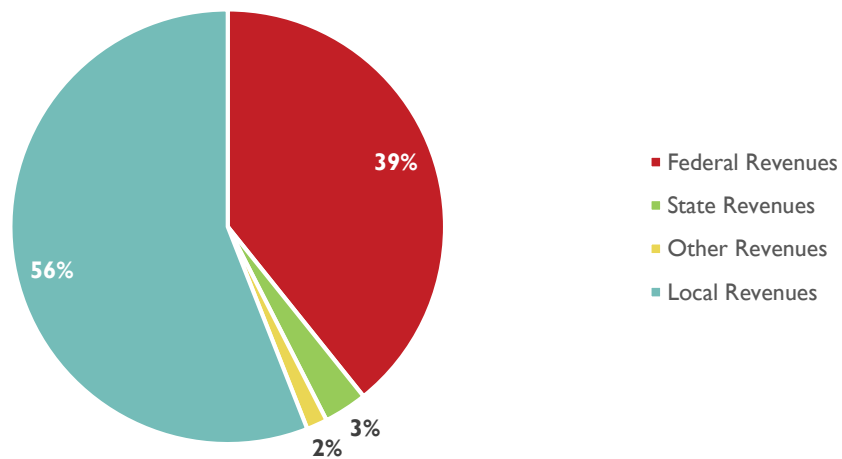
Revenue sources for operations and capital over the full 30-year horizon of the cost constrained plan were summed and graphed in Figure 6-3. As noted in these graphs, over one half of revenues for both operations and capital are coming from local revenue sources. Federal revenues account for 16 percent of operations and 39 percent of capital.

Figure 6-3: Summary Revenue Sources for Operations and Capital for 30-Year Plan

Operations Revenue Sources



Capital Projects/Buses Revenue Sources



7 CONCLUSION

The Connect Gwinnett: Transit Plan proposes a wide range of transit mode types, a vast network of new and improved routes and amenities, and a prioritized phasing strategy to support implementation. Putting these recommended investments in place will require robust coordination and partnership with the Gwinnett cities and Community Improvement Districts, adjacent counties, regional and state transit authorities and agencies, as well as the ATL, which will begin operations in January 2019. Continuing to engage with Gwinnett's citizens will also be critical to the future success of an expanded transit system in the County.

Beyond collaboration and planning efforts, implementation will rely on the County securing future funds. This essential component of making the plan a reality will include obtaining local tax revenues specifically for transit uses as well as seeking out federal, state, and other grants to support the recommendations of the Connect Gwinnett: Transit Plan. With its focus on providing increased accessibility and service to key regional and local destinations and activity centers, the Connect Gwinnett: Transit Plan lays a solid foundation for future efforts to improve mobility and access for Gwinnett County's residents and businesses.