2015 motion RTA

NASHVILLE MTA/RTA STRATEGIC PLAN

STATE OF THE RTA SYSTEM REPORT

9/30/2015

Nashville MTA

RTA

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CAMBRIDGE SYSTEMATICS

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1. INTRODUCTION

The Middle Tennessee region is one of the fastest growing areas in Tennessee and in the United States. The entire 10-county region, which is comprised of Davidson, Cheatham, Dickson, Maury, Montgomery, Robertson, Rutherford, Sumner, Williamson, and Wilson Counties, is projected to grow by 80% from 1.7 million residents in 2010 to 3.1 million in 2040. Most of this growth will occur in the nine counties surrounding Davidson County, and the total population of those counties is projected to grow by 111% from approximately one million residents to 2.3 million.

As this growth is occurring, it is producing major changes in where people live and work, how the region is developed, how and where people will travel, and the demand for transit service. This State of the Regional Transportation Authority of Middle Tennessee (RTA) System Report addresses a number of topics and issues that provide a starting point from which to determine how to best improve and expand transit service to meet the growing needs of the region. Ultimately, nMotion 2015 will provide a blueprint for transit projects and policies that will make Middle Tennessee a better place to live and do business.

This report is a counterpart to the State of the MTA System Report and presents:

- **Overview of Existing Services.** An overview of RTA's current services and operating characteristics. A careful review of the existing transit services is one piece of understanding where transit in Middle Tennessee needs to change and will inform the vision for improving services.
- **Market Analysis.** An analysis of the underlying demand for transit throughout Middle Tennessee, at present and in 2040. Developing an understanding of future growth patterns and changes to demographics helps to inform where transit service is needed both today and in the future.
- **Assessment of the Existing System.** An assessment of the existing transit service in light of current performance, transit demand, and feedback from stakeholders and members of the community. The assessment identifies key issues that the Nashville MTA/RTA Strategic Plan will need to address through specific strategies based on the local operating environment and national best practices.

2. OVERVIEW OF EXISTING SERVICES

There are six public transportation agencies that provide service in the Middle Tennessee region:

- Nashville Metropolitan Transit Authority (MTA), which is the largest transit provider in the region, provides service throughout most of Davidson County.
- The Regional Transportation Authority of Middle Tennessee (RTA) operates regional transit services to connect communities in the nine counties that surround Davidson County with Nashville.
- The City of Murfreesboro Rover, which provides local service within Murfreesboro.
- The Clarksville Transit System (CTS), which provides local service within Clarksville.
- The Franklin Transit Authority, which provides local service within Franklin.
- The Mid-Cumberland Human Resource Agency (MCHRA), which provides human service transportation to the 12-county Mid-Cumberland region (excluding Davidson County).

This chapter provides an overview of transit service in the region, a description of key transit facilities, and a summary of RTA's transit route and system performance.

RTA OF MIDDLE TENNESSEE SERVICES

The Regional Transportation Authority of Middle Tennessee (RTA) provides transit services in Cheatham, Davidson, Dickson, Montgomery, Robertson, Rutherford, Sumner, Williamson, and Wilson counties. These services include regional bus service, the Music City Star commuter rail, carpool/rideshare, vanpool, and emergency ride home programs for the Middle Tennessee region.

COMMUTER RAIL

The Music City Star began operating in September 2006 and provides commuter rail service between Lebanon and downtown Nashville. The 32-mile route serves six stations: Riverfront Station in downtown Nashville, Donelson, Hermitage, Mt. Juliet, Martha, and Lebanon (see Figures 1 and 2). Outside of Nashville, all Music City Star stations provide free parking. Bicycles are allowed on board as long as there is room in the wheelchair section of a car.

FIGURE 1 MUSIC CITY STAR ROUTE

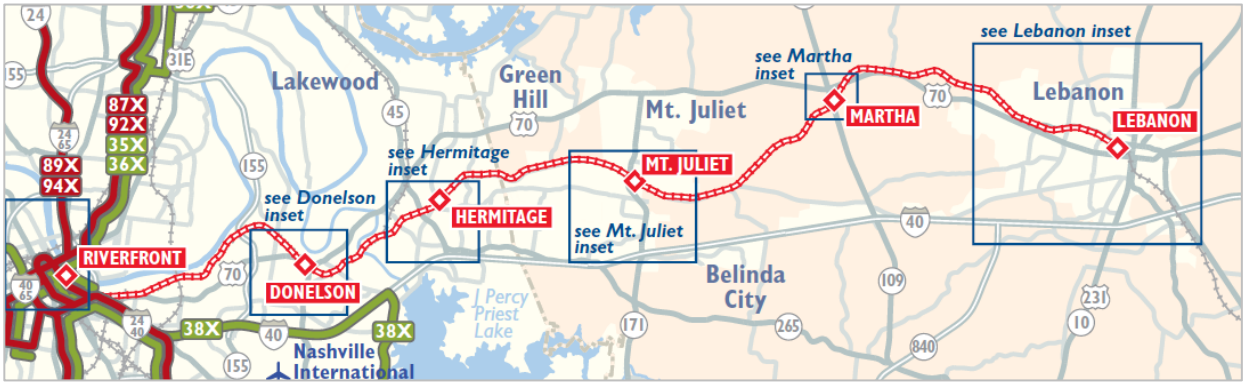


FIGURE 2 MUSIC CITY STAR

Service Levels

The Music City Star operates only during peak periods on weekdays. Monday through Thursday, there are six trips in each direction. The first trip from Lebanon to Nashville departs at 5:45 a.m. and the last trip from Nashville departs at 5:45 p.m. Two trips during each peak period travel only between Mt. Juliet and Nashville. On Friday, there is one additional trip in each direction that departs Lebanon at 6:40 p.m. and Nashville at 10:30 p.m.

TABLE 1 MUSIC CITY STAR SERVICE CHARACTERISTICS

	Monday-Thursday	Friday
Span of Service	5:45 a.m. – 5:45 p.m.	5:45 a.m. – 10:30 p.m.
AM Trips	6	6
PM Trips	6	7

Ridership

Current ridership averages approximately 1,000 passengers per weekday and 253,000 passengers per year.

Productivity

Productivity averages 111.7 passengers per train hour.

REGIONAL BUS SERVICE

RTA currently provides express bus service in five corridors—northeast, northwest, west, southwest, and southeast—that link Middle Tennessee's larger communities to downtown Nashville (see Figures 3 and 4):

- Northeast: Gallatin and Hendersonville
- Northwest: Clarksville and Springfield
- West: Dickson
- Southwest: Spring Hill, Thompson's Station, and Franklin
- Southeast: Murfreesboro, La Vergne, and Smyrna

FIGURE 3 RTA SYSTEM MAP

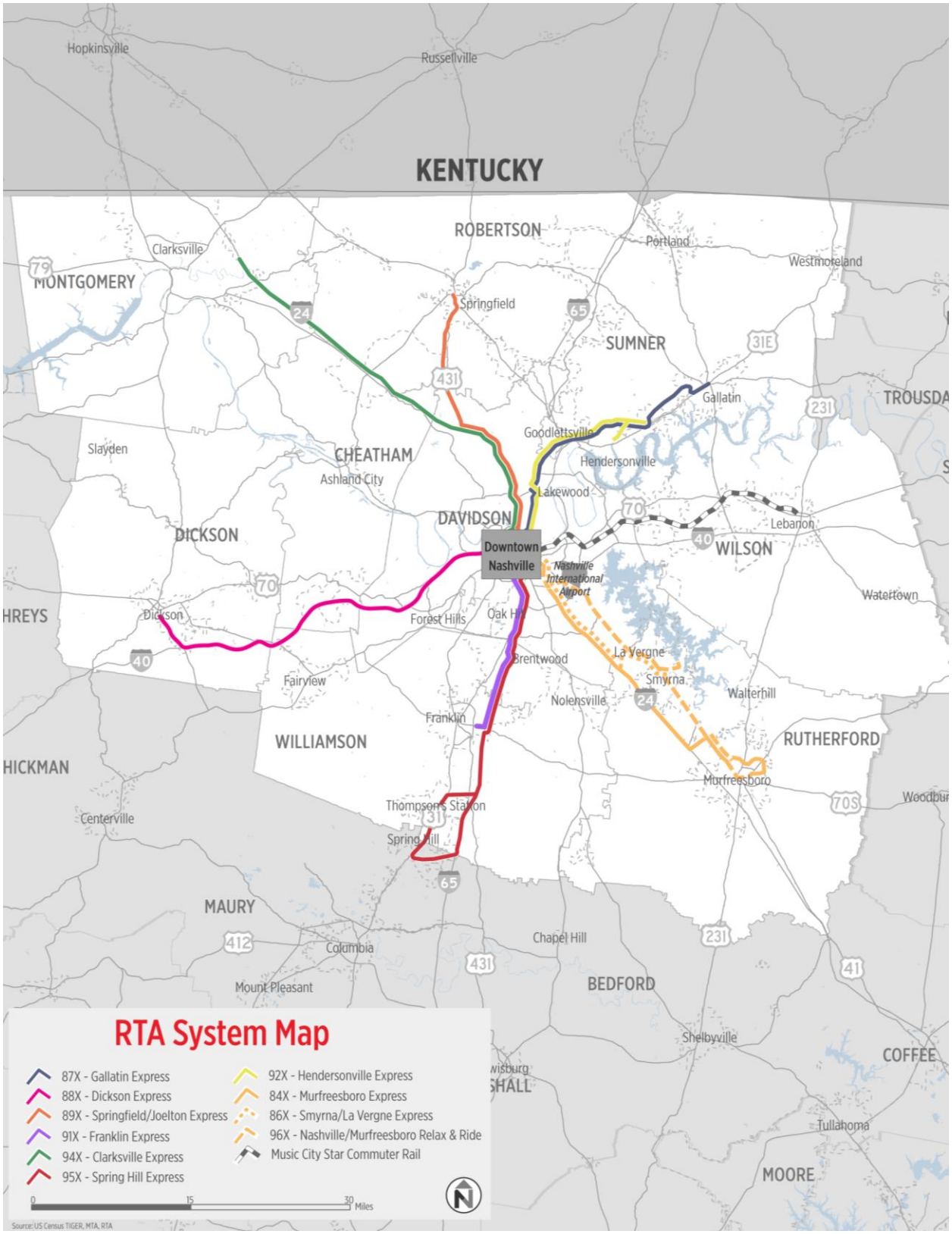


FIGURE 4 RTA EXPRESS SERVICE

RTA currently operates 10 routes in these corridors: three to the southeast; two each to the northeast, northwest, and southwest; and one to the west (see Table 2). All routes terminate at Music City Central in downtown Nashville, which serves as a major connection point to Nashville MTA routes. Four of the 10 regional routes also serve Vanderbilt Medical Center and Vanderbilt University.

TABLE 2 RTA EXPRESS SERVICE

Corridor	Communities	Routes
Northeast	Gallatin Hendersonville	87X Gallatin Express 92X Hendersonville Express
Northwest	Springfield Joelton Clarksville	89X Springfield/Joelton Express 94X Clarksville Express
West	Dickson	88X Dickson Express
Southeast	Murfreesboro La Vergne Smyrna	84X Murfreesboro Express 86X Smyrna/La Vergne Express 96X Nashville/Murfreesboro Relax & Ride
Southwest	Franklin Spring Hill	91X Franklin Express 95X Spring Hill Express

Services are generally provided based on requests from the region's communities, which then fund a percentage of the cost for the services. Service is operated by two different providers: the three southeast corridor routes are directly operated by Nashville MTA, while the other seven routes are operated by Gray Line, a private contractor.

SERVICE LEVELS

All regional routes operate only on weekdays. Nine of the 10 routes operate only during peak hours. Route 96X Nashville/Murfreesboro Relax & Ride provides midday and evening service, and operates from 5:13 a.m. to 8:30 p.m. (see Table 3).

TABLE 3 EXPRESS BUS SERVICE CHARACTERISTICS

Corridor	Route	Route Name	First Departure	Last Departure	Daily Trips
North	87X	Gallatin Express	5:46 a.m.	4:37 p.m.	5
	92X	Hendersonville Express	5:56 a.m.	4:38 p.m.	5
Northwest	89X	Springfield/Joelton Express	5:43 a.m.	4:37 p.m.	4
	94X	Clarksville Express	5:50 a.m.	5:10 p.m.	8
West	88X	Dickson Express	5:55 a.m.	4:50 p.m.	4
South	91X	Franklin Express	6:27 a.m.	4:55 p.m.	6
	95X	Spring Hill Express	5:41 a.m.	4:10 p.m.	4
Southeast	84X	Murfreesboro Express	5:33 a.m.	4:43 p.m.	6
	86X	Smyrna/La Vergne Express	5:45 a.m.	4:48 p.m.	6
	96X	Nashville/Murfreesboro Relax & Ride	5:13 a.m.	8:30 p.m.	19

Of the nine peak period-only routes, eight provide service only in the peak direction, and the 94X Clarksville Express provides reverse commute service (a single trip in each direction).

Schedules are largely designed for the early work start and end times of state employees, with service generally starting before 6:00 a.m. and ending before 5:00 p.m. As a result, more traditional 8:00 or 8:30 a.m. to 5:00 p.m. work schedules are not served, nor are less traditional work hours, such as midday or evening shifts. There is likely latent demand for service oriented toward a wider range of work times.

Ridership

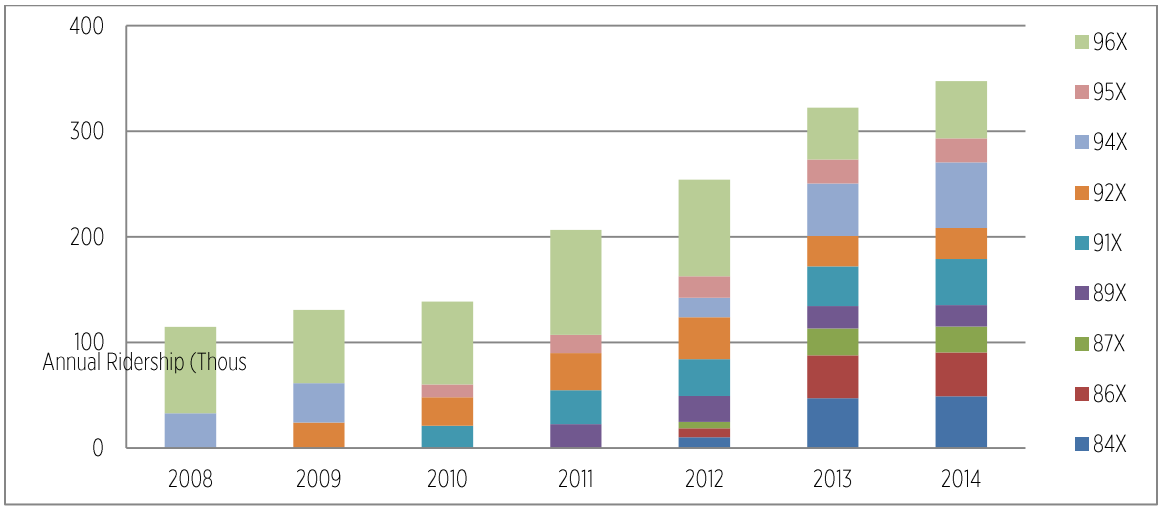
Express bus ridership has been increasing rapidly, in large part due to the development of new routes (see Figure 5). Total ridership increased 26.7% between 2012 and 2013, and by another 7.8% in 2014. Total ridership is approximately 1,400 passengers per weekday and 347,000 passengers per year.

Most routes carry over 100 riders per day, and two routes carry over 200 riders per day:

- Route 94X Clarksville Express has the highest daily ridership, at 246 passengers per day.
- Route 96X Nashville/Murfreesboro Relax & Ride carries the second-highest ridership, at 214 passengers per day.
- Routes 84X Murfreesboro Express and 86X Smyrna/La Vergne Express, both of which serve the southeast corridor along with Route 96X Nashville/Murfreesboro Relax & Ride, also have high ridership: Route 84X carries the third-highest ridership in the network at 172 daily riders, and Route 86X carries 163 daily riders.

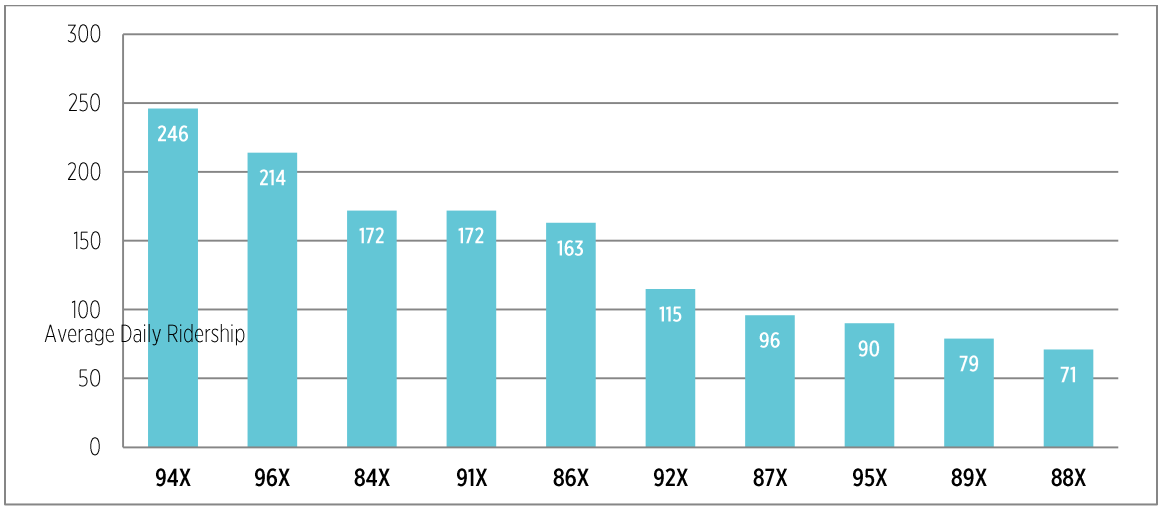
The newly implemented Route 88X Dickson Express is the only regional service to the west of Nashville. The route, which launched in January 2015, carried 1,414 riders in its first month. This translates to an average daily ridership of 71 riders.

FIGURE 5 RIDERSHIP BY YEAR, 2008-2014



Note: Route 88X is not included as service did not begin until January 2015. Route 91X includes service to Brentwood, which was discontinued in March 2015.

FIGURE 6 AVERAGE DAILY RIDERSHIP BY ROUTE

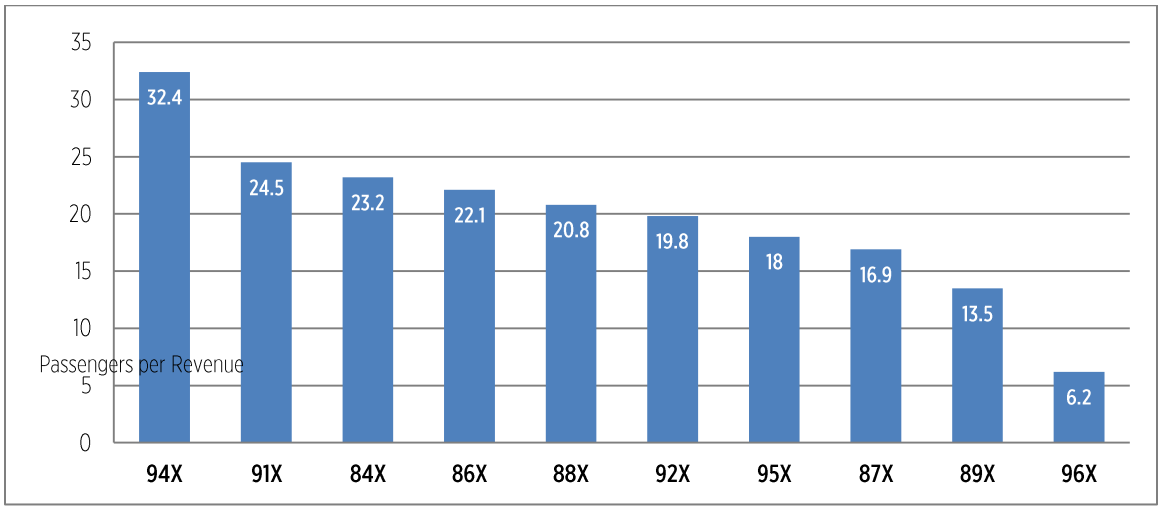


Source: RTA ridership data, February 2014 to January 2015.
Note: Route 91X includes service to Brentwood, which was discontinued in March 2015.

Productivity

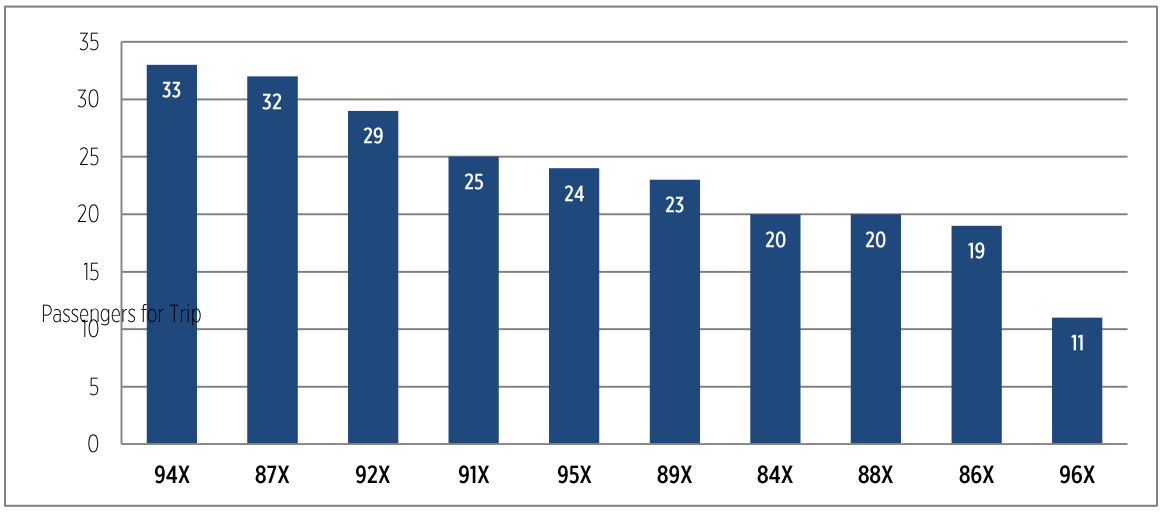
Of the 10 RTA regional bus routes, Route 94X Clarksville Express is by far the most productive, in terms of both passengers per revenue hour (32.4) and passengers per trip (33) (see Figures 7 and 8). Route 87X Gallatin Express is also strong in terms of ridership per trip, with 32 passengers per trip.

FIGURE 7 PASSENGERS PER REVENUE HOUR



Source: RTA ridership data, February 2014 to January 2015.
Note: Route 91X includes service to Brentwood, which was discontinued in March 2015.

FIGURE 8 PASSENGERS PER TRIP



Source: RTA ridership data, February 2014 to January 2015.
Note: Route 91X includes service to Brentwood, which was discontinued in March 2015.

Although Route 96X Nashville/Murfreesboro Relax & Ride has the highest overall ridership, it is the least productive route in terms of both riders per revenue hour and riders per trip. This is likely due to its midday service—as a commuter-oriented route, ridership is likely lower during the midday hours and affects the route's overall productivity, as compared to the other routes that operate only during peak periods. For example, Route 84X Murfreesboro Express, which operates in the same corridor, carries the third-highest ridership per revenue hour since it operates for fewer hours per day than Route 96X.

FARES

RTA fares have remained the same since 2011 but are scheduled to increase by 5% (to the nearest quarter) on September 28, 2015. The information below reflects RTA fares as of September 16, 2015, prior to the increase.

Music City Star

Music City Star adult cash fares range from $1.70 to $5.00. Fares vary depending upon the station and whether the fare is purchased at the station or in advance (see Table 4). Ten-ride tickets range in price from $17.00 to $45.00, and monthly passes are available for $64.00 to $168.00.

TABLE 4 MUSIC CITY STAR FARES

	Riverfront	Donelson	Hermitage	Mt. Juliet	Martha	Lebanon
One-Ride Ticket	$5.00	$2.00	$5.00	$5.00	$5.00	$5.00
Advance Purchase One-Ride Ticket	-	$1.70	$4.25	$4.50	$4.75	$5.00
10-Ride Tickets	-	$17.00	$38.00	$41.00	$43.00	$45.00
Monthly Pass	-	$64.00	$143.00	$151.00	$160.00	$168.00

Source: Music City Star website

Discount tickets are available for $2.00 for those 19 and younger and 65 and older, active and retired military personnel, people with disabilities, and Medicare cardholders.

Express Bus

Express bus adult cash fares are $4.00 per trip, and $2.00 discount tickets are available for those 19 or younger and 65 or older, active and retired military personnel, people with disabilities, and Medicare cardholders. Children under four years of age ride free. Twenty-ride tickets are available for $70.00.

Transfers

Music City Star and express bus riders can transfer to and from Nashville MTA services with a Proximity Card, which is available free of charge. However, Proximity Cards are only available for commuting purposes, and customers must provide the name and address of their school or employer. The exception to this is that all transfers to Route 93 Music City Star West End Shuttle or to any of the Music City Circuit routes are free and do not require a Proximity Card.

RTA TRANSIT FACILITIES

Major RTA transit facilities include Music City Star Stations and express bus park-and-ride lots.

MUSIC CITY STAR STATIONS

RTA uses Nashville MTA facilities to serve downtown Nashville. Regional bus routes serve the Music City Central transit terminal, and Music City Star commuter rail serves Riverfront Regional Station. RTA customers can connect to Nashville MTA transit service at both facilities.

Riverfront Regional Station

Riverfront Station is the Nashville terminal for the Music City Star (see Figure 9). It is located at the foot of Broadway in downtown Nashville, adjacent to the Flag Court and the Shelby Street Pedestrian Bridge. The station includes a station building, platforms, and bus connections.

FIGURE 9 RIVERFRONT REGIONAL STATION

Outer Stations

The Music City Star serves five outer stations: Donelson, Hermitage, Mt. Juliet, Martha, and Lebanon. All stations have platforms, shelters, and commuter parking (see Table 5). Parking is free at all stations.

TABLE 5 MUSIC CITY STAR STATIONS

Station	Photo	Commuter Spaces
Donelson		230
Hermitage		280
Mt. Juliet		220
Martha		74
Lebanon		334

RTA PARK-AND-RIDE LOTS

RTA provides free commuter parking at 20 express bus locations (see Table 6). All parking locations are privately owned, and RTA has negotiated various arrangements for their use. The lots are also available for use by vanpools and carpools. In addition, the Greensboro North Park-and-Ride in Gallatin was recently completed and will be served by Route 92X.

TABLE 6 RTA EXPRESS BUS PARK-AND-RIDE FACILITIES

Park-and-Ride	Location	Served by Route
Downtown Springfield Park & Ride	Springfield	89X
Dickson Walmart	Dickson	87X
Drakes Creek Park	Hendersonville	92X
Edge-O-Lake	Nashville	96X
Gallatin Farmers' Market	Gallatin	87X
Gallatin Walmart	Gallatin	87X
Hendersonville Kohl's	Hendersonville	92X
Joelton Park & Ride	Joelton	89X
La Vergne Kroger	La Vergne	86X, 96X
Lebanon Station	Lebanon	Music City Star
North Boulevard Church of Christ	Murfreesboro	84X, 96X
Pleasant View Park & Ride	Pleasant View	94X
Smyrna Kmart	Smyrna	86X, 96X
Springfield Walmart	Springfield	89X
Spring Hill Kroger	Spring Hill	95X
Thompson's Station Baptist Church	Thompson's Station	95X
People's Church	Franklin	91X

As the park-and-ride lot names imply, most are located in the parking lots of retail stores or other organizations such as churches or local governments that are willing to share their lots with commuters. This approach has allowed RTA to develop lots at lower cost. However, one disadvantage of this approach is that the lots are not always ideally located, which increases access and egress times, and thus total travel times. Another disadvantage is that the agreements are not permanent, and RTA occasionally must find new park-and-ride lot locations with little notice.

RTA RIDESHARE PROGRAM

RTA manages a ride-matching database of over 3,000 people to coordinate carpools based on route and commute time details. Commuters are able to rotate drivers, host a carpool, or pay one driver a monthly fee based on how many other riders use the same carpool. Rides are typically organized around park-and ride-lots throughout the region. Carpools are allowed to use high-occupancy vehicle (HOV) lanes throughout Middle Tennessee. Regular carpoolers also qualify for RTA's Emergency Ride Home program (described below).

RTA VANPOOL PROGRAM

RTA and its regional partners provide a fleet of over 110 commuter vans. Riders pay a monthly fare, and van drivers commute for free as long as they keep records of trips performed. RTA coordinates vanpools throughout the region, which riders can access at local park-and-ride lots. As with carpoolers, vanpoolers qualify for the Emergency Ride Home program.

NASHVILLE MTA/RTA EMERGENCY RIDE HOME PROGRAM

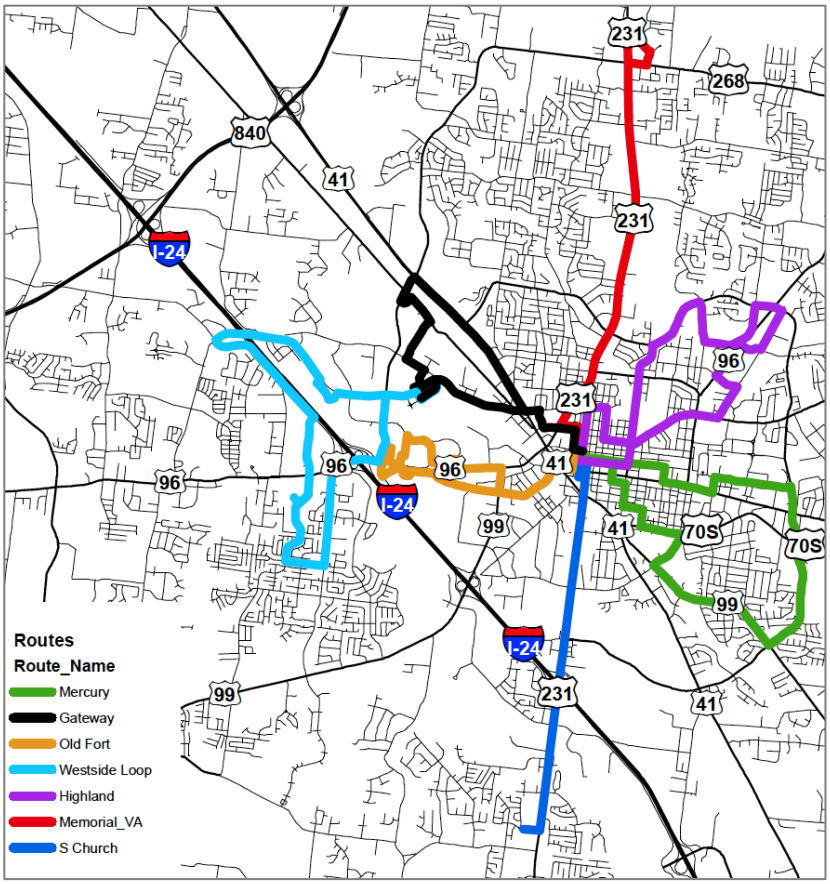
The Emergency Ride Home program is available to commuters who regularly use carpools, vanpools, Music City Star, or express bus service in the counties of Davidson, Cheatham, Dickson, Maury, Montgomery, Robertson, Rutherford, Sumner, Williamson, or Wilson. To qualify for the program, commuters must use these services at least three times a week or 15 times a month. The Emergency Ride Home service provides six taxi trips per year for any person who has a sickness in their immediate family, is asked to work late by a supervisor, or cannot make their regular rideshare due to extenuating circumstances. Rental car coverage is also available to riders over the age of 21

OTHER MIDDLE TENNESSEE TRANSIT PROVIDERS

CITY OF MURFREESBORO: ROVER

The City of Murfreesboro Transportation Department provides local fixed-route transit service within the city of Murfreesboro. The system, called Rover, consists of seven routes that operate Monday through Friday between 6:00 a.m. and 6:00 p.m. (see Figure 10). All routes originate and terminate at the Rover Transit Center in downtown Murfreesboro.

FIGURE 10 ROVER SYSTEM MAP

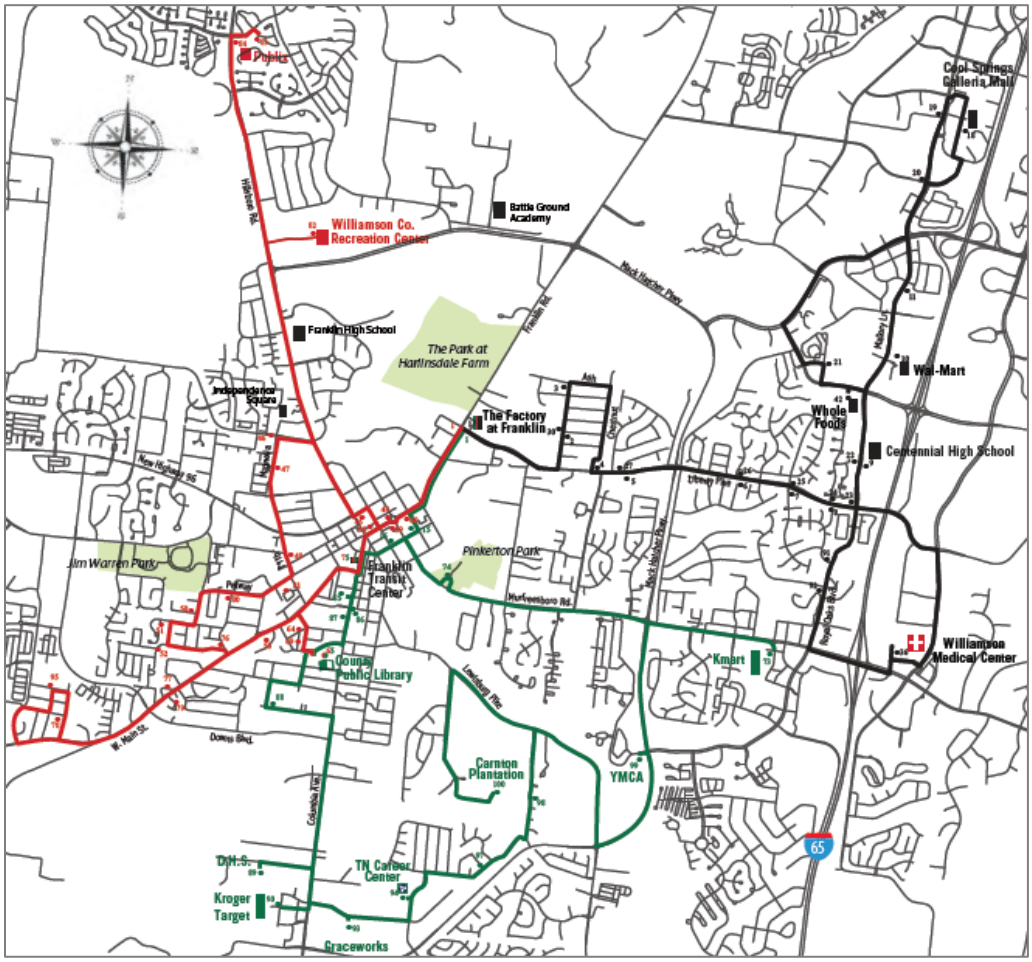


Regular adult cash fares are $1.00, and 50¢ discount fares are provided to older adults, students, and people with disabilities. Transfers at designated locations are free. Paratransit service is available through the Mid-Cumberland Human Resource Agency (MCHRA), described on page 15.

CITY OF FRANKLIN: FRANKLIN TRANSIT AUTHORITY

The Franklin Transit Authority provides fixed-route and demand-response service in Franklin and Cool Springs. There are three fixed routes that operate Monday through Saturday from 6:00 a.m. to 6:00 p.m. (see Figure 11). Each route operates every 60 minutes and connects on the hour at The Factory at Franklin, allowing for timed transfers between routes. Connections are also available with RTA's Route 91X Franklin Express for service to and from Nashville. Demand-response service, called Transit on DemanD (TODD), provides pre-arranged curb-to-curb pick-up and drop-off service as well as access to Franklin's fixed-route services.

FIGURE 11 FRANKLIN TRANSIT SERVICE



Regular adult cash fares are $1.00, and 50¢ discount fares are provided to older adults, students, and people with disabilities.

THE TMA GROUP

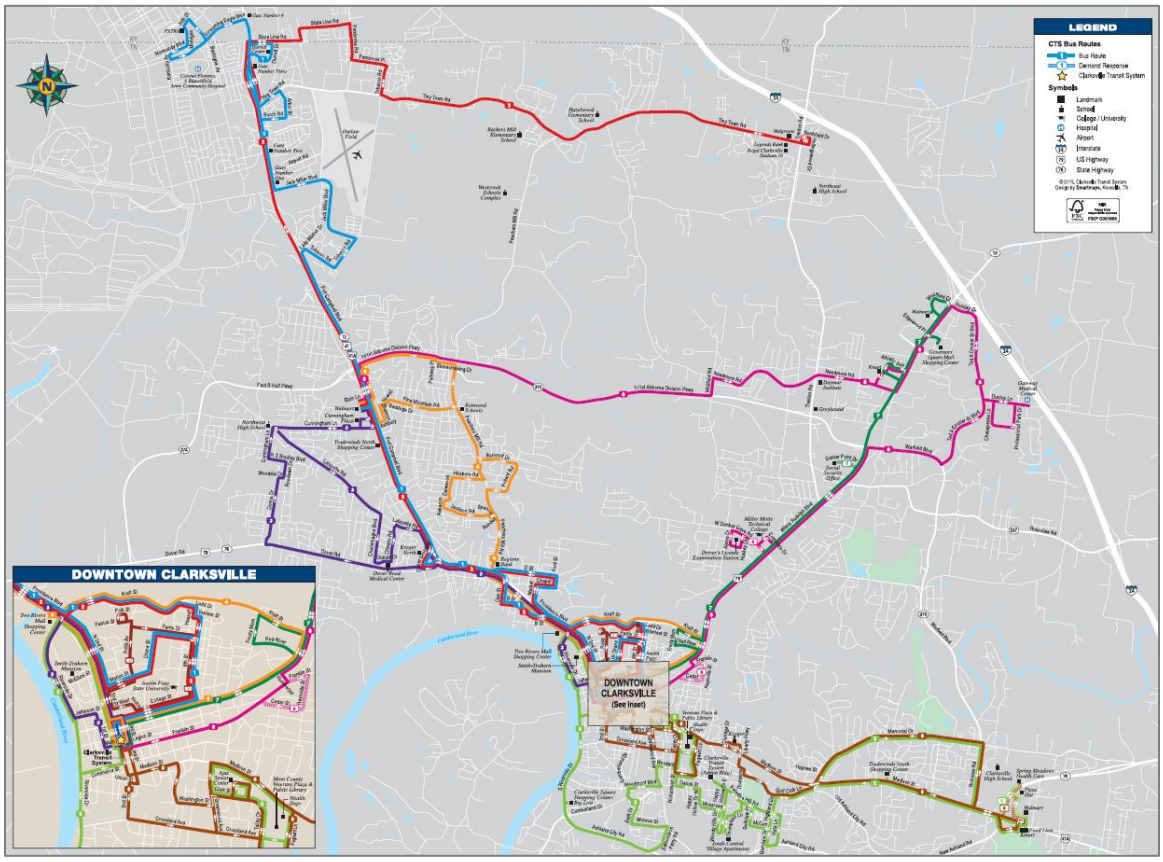
The Transportation Management Association (TMA) Group is a 501(c)(3) non-profit corporation that was established in 1988 as a public-private partnership of business, governmental, and community leaders to provide transportation and transportation-related services in parts of Middle Tennessee. At present, the TMA Group operates fixed-route and paratransit service for Franklin Transit in Franklin and Cool Springs and manages VanStar vanpool on behalf of RTA and Williamson County.

CITY OF CLARKSVILLE: CLARKSVILLE TRANSIT SYSTEM

Clarksville Transit System (CTS) provides fixed-route and demand-response service within the city of Clarksville. Service operates Monday through Saturday from 4:30 a.m. until 9:00 p.m. There are 10 routes, seven of which provide local service around Clarksville and all of which operate to and from the CTS Transit Center (see Figure 12). One of the routes—Route 812 Exit 8 to Nashville—provides timed transfers with RTA Route 94X Clarksville Express for service to and from Nashville. CTS also operates The Lift, which provides demand-response service for older adults and people with disabilities who are not able to use Clarksville Transit fixed-route service.

Regular adult cash fares are $1.50. Student cash fares are $1.00, and seniors, people with disabilities, and city employees can ride for 75¢. Various one-day, 10-ride, and 31-day passes are also available.

FIGURE 12 CLARKSVILLE TRANSIT SYSTEM

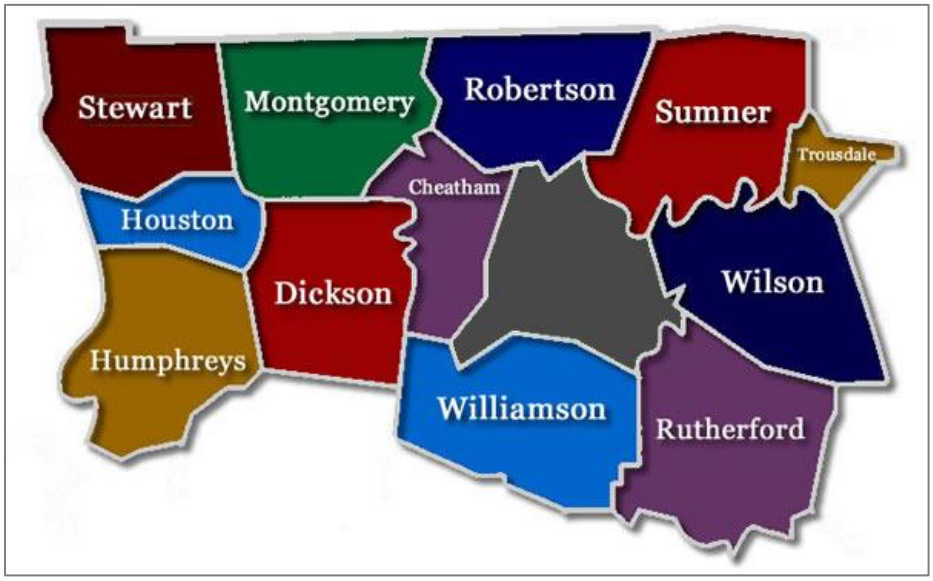


MID-CUMBERLAND HUMAN RESOURCE AGENCY

The Mid-Cumberland Human Resource Agency (MCHRA) operates MCHRA Public Transit, which provides curb-to-curb rural transportation services to the 12-county Mid-Cumberland region, excluding Davidson County (see Figure 13). All members of the public can schedule a ride on a first-call, first-served basis, although priority is given to medical trips. Although MCHRA does transport customers to destinations in Davidson County from outside counties, it does not provide service within Davidson County.

Service operates Monday through Friday from 6:00 a.m. to 6:00 p.m. Fares are $2.00 for each one-way trip within a city and $3.00 within one county; an additional $5.00 is charged for each county line that is crossed. MCHRA also charges a flat rate fare for trips to Nashville, either $10.00 or $15.00 each way depending on the origin county.

FIGURE 13 MCHRA PUBLIC TRANSIT SERVICE AREA



RELATED PLANS AND STUDIES

RTA and other agencies have conducted various planning and development efforts that have either focused directly on transit service in the Middle Tennessee region or have focused on related issues that impact regional planning for transit. This section provides an overview of some of the major plans and efforts that give context for the issues, challenges, and opportunities related to mobility in the Nashville area and Middle Tennessee region. These studies are as described below from the most recent to the oldest.

NORTHWEST CORRIDOR TRANSIT STUDY (UNDERWAY)

RTA is currently conducting the Northwest Corridor Transit Study to evaluate transit options between Clarksville and Nashville. The study builds upon previous efforts and is examining cost-effective transit improvements in the northwest corridor to connect travelers to destinations (e.g., work, school, shopping, and entertainment) and address anticipated traffic growth and congestion along Interstate 24.

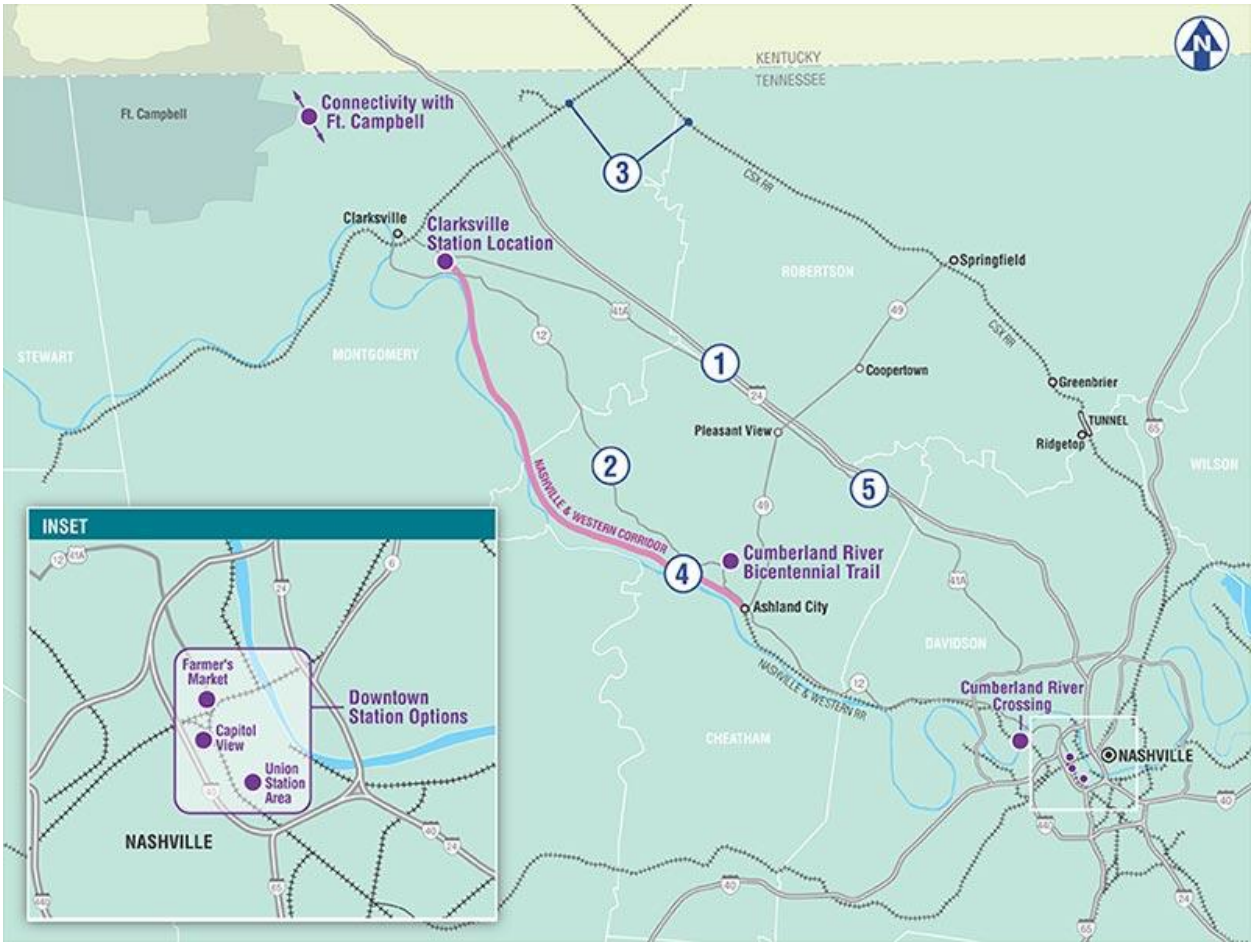
The study area consists of five corridors with potential accommodations for improved transit service between Clarksville and Nashville, including (see Figure 14):

- The existing Interstate 24 highway corridor, linking Clarksville and downtown Nashville

- The existing State Route 12 (Ashland City Highway) highway corridor, connecting downtown Clarksville and downtown Nashville via Ashland City
- The existing CSX Transportation and R.J. Corman Railroad Group railway corridor, connecting downtown Clarksville and downtown Nashville via Goodlettsville, Ridgetop, Springfield, Adams, and Guthrie, Kentucky
- The Nashville and Western railway corridor, currently operated in part by the Cheatham County Railway Authority (CCRA), between Nashville and Ashland City with former right-of-way and partially remaining infrastructure between Clarksville and Ashland City
- The existing State Route 112 (US Route 41 Alternate) highway corridor, running roughly parallel to and southwest of Interstate 24 and linking downtown Clarksville and downtown Nashville via Pleasant View with regional and national connections via the national highway system

The outcome of this study may be one or a combination of alternatives for the corridor that can be integrated and phased into an overall transit plan encompassing other corridors throughout Middle Tennessee.

FIGURE 14 STUDY AREA FOR THE NORTHWEST CORRIDOR TRANSIT STUDY



NORTHEAST CORRIDOR MOBILITY STUDY (2011)

The Northeast Corridor, which extends from downtown Nashville to Gallatin, encompasses several communities and major transportation routes. The Nashville Area Metropolitan Planning Organization (MPO) conducted the study to identify mobility challenges along the corridor and investigate multimodal solutions to increasing transportation

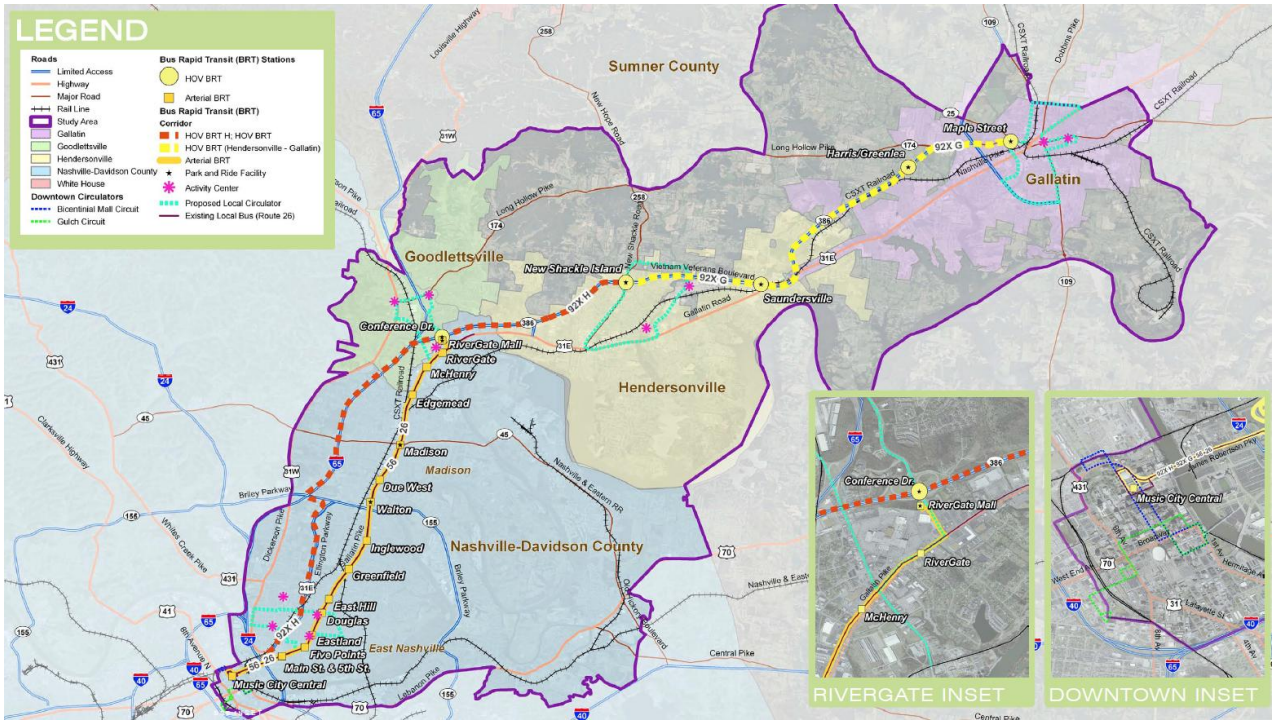
demand, which stems from locally preferred future land use patterns. The guiding principles of the study included protecting valuable resources, improving access to economic opportunities as well as goods and services, increasing housing choices, and improving aesthetics throughout the corridor.

Three alternatives included commuter rail along the CSX corridor, light rail along Ellington Parkway, and bus rapid transit (BRT) along Gallatin Pike.

Based on the findings of the study, the following actions were recommended (see Figure 15):

- **BRT/Express Buses in HOV Lanes:** Existing routes can provide express service from Nashville to Hendersonville and Gallatin. Operating in new HOV lanes with highway median stations and park-and-ride lots can provide express service designed to accommodate longer commutes.
- **Arterial BRT:** Increased frequency of service, enhanced stations, queue jumps, and dedicated bus lanes can enhance existing routes that have high ridership.
- **Local Bus:** It is important to continue providing local bus service aimed toward shorter trips and trips where convenient pedestrian access is important.
- **Circulator Bus:** Circulator service would provide transit connections to the major trip generators within each community and provide a direct connection to one or more of the high-quality services described above to accommodate longer transit trips.

FIGURE 15 NORTHEAST CORRIDOR MOBILITY STUDY RECOMMENDATIONS



NASHVILLE AREA MPO 2035 REGIONAL TRANSPORTATION PLAN (2010)

The 2035 Regional Transportation Plan (RTP), prepared by the Nashville Area MPO, provides an overarching vision and set of actions for meeting the existing and future transportation needs of the Nashville metropolitan area. The plan emphasizes four main goals: enhancing the region's livability, sustainability, prosperity, and diversity. Based on projected population growth, the plan sets forth a 25-year multimodal strategy and capital improvement program developed to guide the effective investment of public funds in transportation facilities.

The 2035 RTP outlines the following three major transportation initiatives:

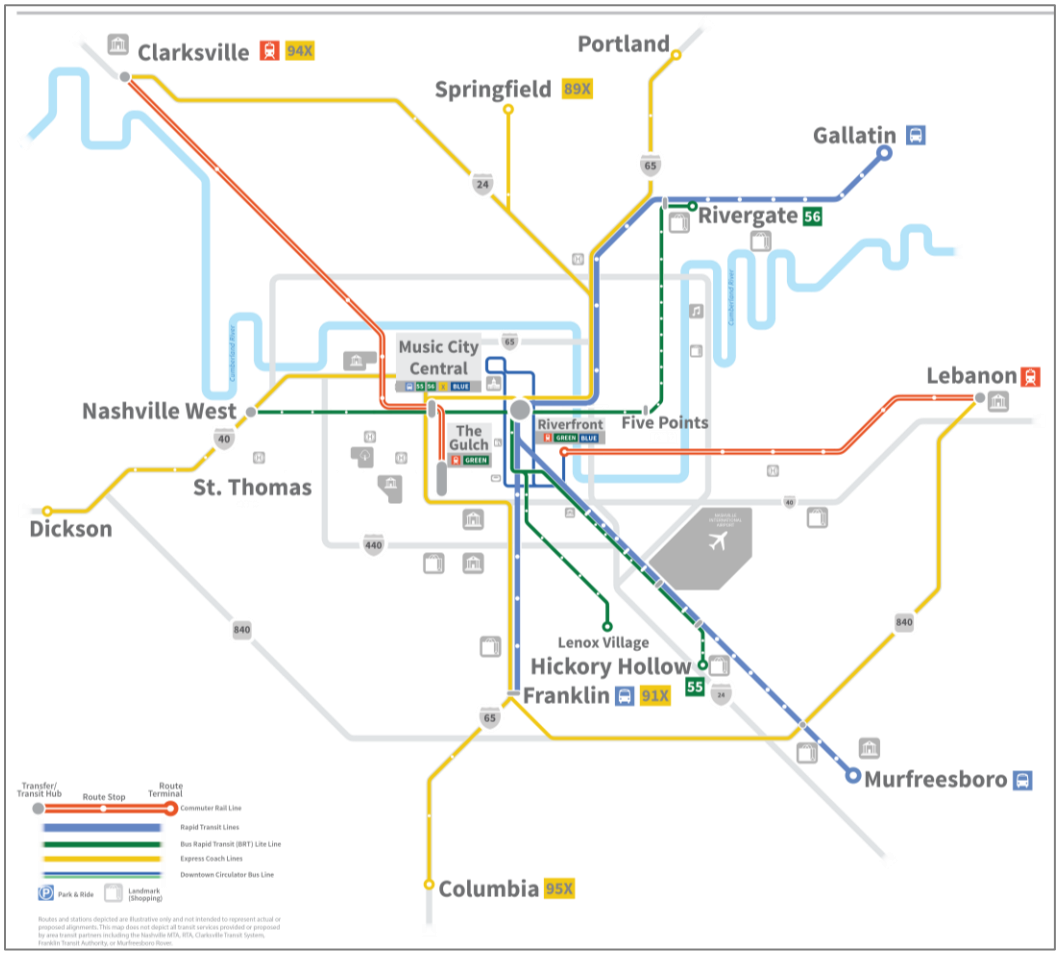
- **A Bold New Vision for Mass Transit:** This initiative focuses on expanding mass transit options, including BRT, light rail, and commuter rail.
- **Active Transportation Choices and Walkable Communities:** This initiative focuses on providing network connectivity for non-motorized modes of travel to promote safety and healthy activity in the region.
- **Preservation and Enhancement of Strategic Roadway Corridors:** This initiative prioritizes a "fix-it-first" approach to transportation investment, advocating demand management and complete streets strategies.

As stated in the RTP, the vision includes a variety of new and expanded services for regional corridors, urban centers, suburban communities, and the rural countryside. A strategic mix of transit options would range from high-frequency rapid transit service to the continued provision of rural transit services for those who do not live close to fixed-route options (see Figure 16):

- **Rapid Transit:** Three corridors are identified for future regional rapid transit service, including the region's northeast, southeast, and south corridors. These areas are the most densely populated and fastest growing within the region and have a well-established pattern of cross-county travel. The long-range vision for rapid transit in these corridors includes the development of either light rail transit or dedicated lane BRT that would operate at high levels of service throughout the day. The specific mode or technology used will be determined by future study and depend heavily on development patterns, anticipated ridership, cost of construction, and public support for funding.
- **Commuter Rail:** The long-range vision calls for continued support for the Music City Star's east corridor commuter rail service and the development of a new commuter rail line in the region's northwest corridor to connect Clarksville and Nashville, two of Tennessee's five most populous cities.
- **Express Coach Service:** In corridors with strong commuting patterns but without the land development patterns or traffic congestion to warrant dedicated-lane transit service, the vision calls for the implementation of premium express coach service. Such service will offer a comfortable and stress-free ride to and from work for commuters, providing enhanced amenities along the way including high-back seats, wireless internet access, onboard televisions, and restrooms.
- **Urban Fixed-Route Service:** By far the most critical piece of the long-range vision, the region must continue to expand the existing urban fixed-route services in Nashville, Clarksville, Franklin, and Murfreesboro. Urban services are the backbone of any regional transit system and must be optimized in order to ensure the success of investments in regional rapid transit or commuter rail. The vision calls for continued investment in existing local bus systems, the eventual introduction of fixed-route service in Springfield, Gallatin, Lebanon, Columbia, and Dickson, and the return of the urban streetcar in downtown Nashville, which serves as the central hub for the region.
- **Suburban and Commuter Circulators:** As the region begins to implement rapid transit, commuter rail, or express coach services in each of the regional corridors, the vision calls for the development of local circulators in markets where a full-fledged urban fixed-route system would not make sense. Such local circulation will be important to customers to access regional services from primary destinations within their community. Suburban circulators, which would operate throughout the day, are envisioned for places like Goodlettsville, Hendersonville, Smyrna, La Vergne, and Brentwood, while commuter circulators, which would operate during peak commuting times, are envisioned for places like Portland, Spring Hill, Kingston Springs, and Ashland City.
- **Other Regional Services:** In addition to the geographically defined train, bus, and circulator services described above, the vision also calls for the expansion of the regional vanpool program and rural paratransit services. The regional vanpool program has been a popular and cost-effective way to provide ridesharing opportunities to commuters who live too far from fixed-route lines. As the region's population continues to grow older, rural paratransit services will be needed to ensure older Middle Tennesseans have transportation to and from life-sustaining services.

A 2040 Regional Transportation Plan is currently in development, and is expected to be unveiled for public comment in December 2015 and adopted in early 2016.

FIGURE 16 2035 REGIONAL TRANSPORTATION PLAN TRANSIT VISION

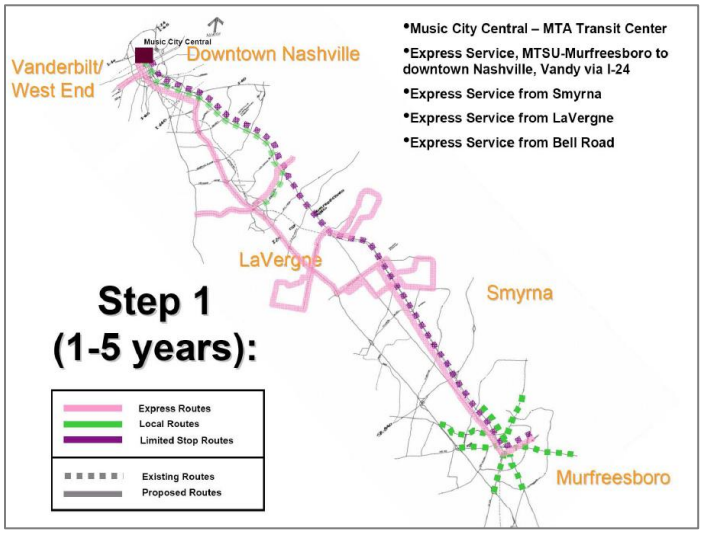


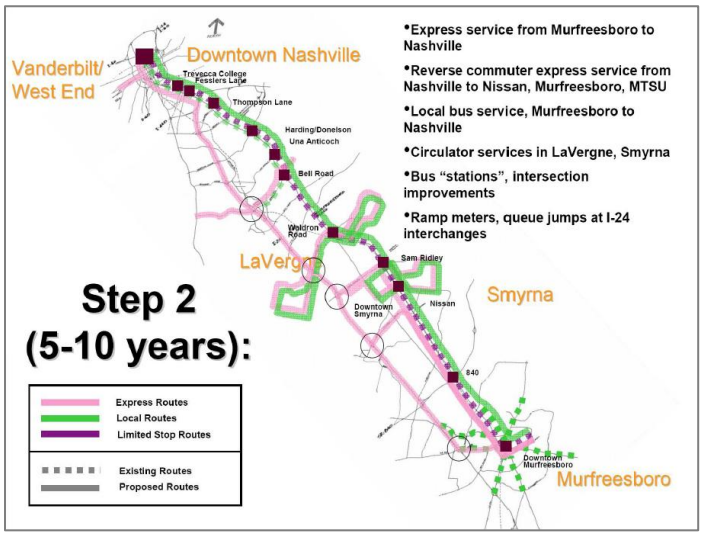
NASHVILLE SOUTHEAST CORRIDOR HIGH-PERFORMANCE TRANSIT ALTERNATIVES STUDY (2007)

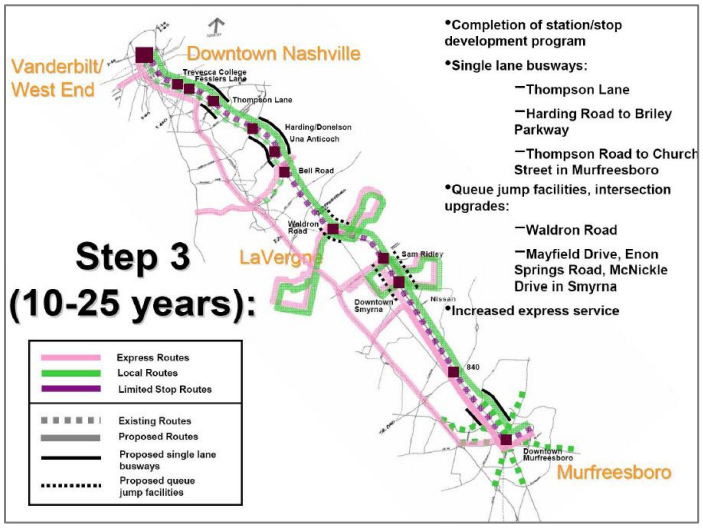
The Southeast Corridor is a 30-mile corridor connecting downtown Nashville to downtown Murfreesboro that has experienced tremendous growth in recent years. The Nashville Southeast Corridor Alternatives Analysis, prepared by the Nashville Area MPO, addressed the existing and future transportation needs of the corridor. Specifically, the study examined potential alternatives for bringing high capacity, high-quality transit service to the corridor. Key goals of the study included providing additional transportation options, improving mobility, establishing efficient land use policies, ensuring the efficient use of limited transportation funds, and addressing environmental concerns within the corridor.

Based on analysis of the many proposed alternatives, including potentially low levels of ridership, it became evident that a low-cost alternative and a phased approach would be necessary. The locally preferred alternative was a phased implementation package consisting of low-cost transit improvements, including enhanced express, limited stop, and local service in the I-24 and Murfreesboro Road corridors (see Figure 17). Many of the envisioned express bus services are in operation. However, limited stop and local services have yet to be implemented, and there are not any current plans to do so.

FIGURE 17 SOUTHEAST CORRIDOR RECOMMENDATIONS







GALLATIN TRANSIT FEASIBILITY STUDY (2005)

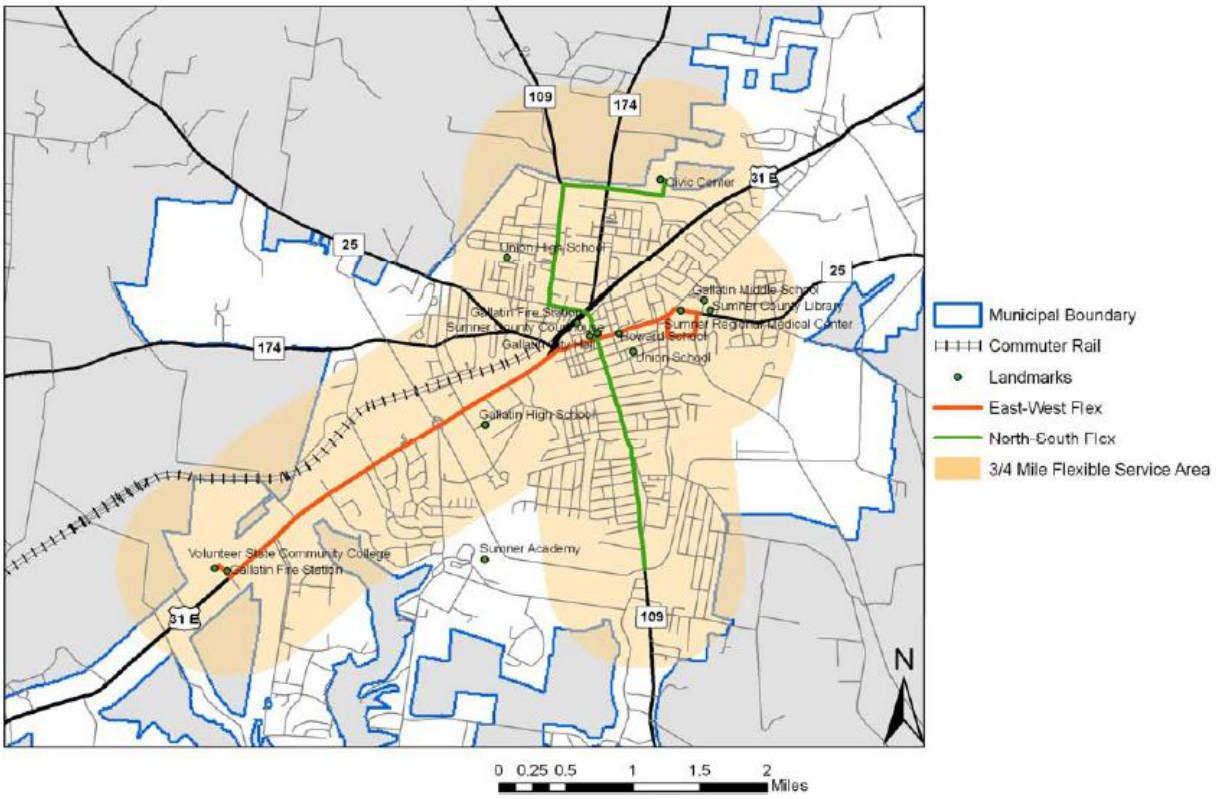
In light of recent population growth, the Tennessee Department of Transportation (TDOT) conducted a feasibility study to assess the need for transit services in Gallatin. Demographic data indicated a relatively high number of individuals with mobility needs in the Gallatin area, including people with disabilities and households that do not own vehicles. Based on this data as well as stakeholder input, it was determined that there is a mobility need in Gallatin that can be met with transit service.

Based on the study's findings, three alternatives were examined:

- **Expansion of existing demand-response service within Gallatin:** This option would require an expansion of service hours, service area, and staff. While this would provide those in need with adequate service, the high costs per passenger led to the rejection of this alternative.
- **Fixed-route bus service between Gallatin and Hendersonville:** This option would allow riders to transfer to express bus service between Hendersonville and Nashville. However, this option fails to provide service within Gallatin to those in need and, therefore, was rejected.
- **Flexible bus service within Gallatin:** This was the most favorable alternative for its ability to serve the lower-density community of Gallatin. In addition, further analysis proved that this service could also provide commuter service to Hendersonville.

The study recommended the implementation of flexible bus service within Gallatin (see Figure 18), plus feeder connections between Gallatin and Route 35X Rivergate's Shackle Island Park-and-Ride to provide connections to and from Nashville. To date, these recommendations have not been implemented. However, Mid-Cumberland Human Resources Agency does provide demand-response service in Gallatin as part of its overall service program.

FIGURE 18 GALLATIN TRANSIT FEASIBILITY STUDY RECOMMENDATIONS



MURFREESBORO TRANSIT ALTERNATIVES STUDY (2005)

The Murfreesboro Transit Alternatives Study built on a previous study of potential transit routes, providing a review and update of transit needs in the city of Murfreesboro. While demographic data indicated that the downtown area could support fixed-route transit service, there were few other areas with enough density to support service. A review of the existing transit services as well as stakeholder input highlighted a lack of transportation alternatives in the city of Murfreesboro.

Based on the study's findings, the following service alternatives were proposed:

- **Local Services:** Local flexible routes were proposed to meet the medical, shopping, educational, and recreational transportation needs of local residents. A two-route system was developed that connected housing, education, and retail destinations.
- **Vanpools:** Vanpools were suggested as a low-cost alternative for regular commuters without other transportation options.
- **Relax & Ride:** The final alternative proposed increasing the frequency of the Relax & Ride express service between Nashville and Murfreesboro. This alternative assumes latent demand that is currently unmet due to low service frequency.

The Murfreesboro Rover now provides local service within the city, express service has been expanded, and RTA operates region-wide vanpool service.

LEBANON TRANSIT FEASIBILITY STUDY (2005)

In response to continued population growth in Lebanon, TDOT conducted a feasibility study to assess the city's need for transit services. Previously, the Nashville Area Transit Development Plan recommended implementation of flexible-route transit service due to low vehicle ownership and a high number of trips within Lebanon. Analysis of the existing transportation options, in addition to stakeholder input, indicated that there is a demand for transit service to meet the mobility needs of residents.

The study evaluated the following three alternatives:

- **Expansion of existing demand-response service within Lebanon:** This option would require an expansion of service hours, service area, and staff. While this would provide those in need with adequate service, it would come with high costs per passenger.
- **Express bus service between Nashville and Lebanon:** This option would provide individuals with direct transportation to Nashville. However, this option fails to provide service within Lebanon to those in need. Additionally, the addition of Music City Star commuter rail presents the opportunity for feeder service, which this option does not provide.
- **Flexible bus service within Lebanon:** This alternative meets the service needs of Lebanon residents and is feasible in the relatively low-density community. In addition, this option can capitalize on commuter rail by providing feeder service.

3. MARKET ANALYSIS

The RTA of Middle Tennessee serves a 10-county area that consists of Cheatham, Davidson, Dickson, Maury, Montgomery, Robertson, Rutherford, Sumner, Williamson, and Wilson Counties. The focal point of the region is Nashville and Davidson County where the largest numbers of the region's residents live and work and where the largest amounts of social and economic activity take place. As Nashville and Davidson County have grown, the surrounding nine counties have also grown. Some communities that are just beyond the Davidson County line, such as Brentwood, have effectively become part of the Nashville metro area, while others that are farther away, such as Clarksville and Murfreesboro, are regional centers whose ties with Nashville have been growing significantly and will continue to grow.

With the population and employment growth that has been occurring and that will continue to occur, travel has also increased—both to and from Nashville and Davidson County and within the nine surrounding counties. This chapter presents an overview of the factors that impact travel volumes and patterns in terms of how they are increasing the demand for better transit services.

MAJOR FACTORS IMPACTING UNDERLYING TRANSIT DEMAND

The underlying demand for transit is driven primarily by four factors, which are:

- **Local Conditions:** Land use diversity, design, regional destinations, and distance to quality transit are key factors that influence transit demand. There is an extremely strong correlation between development patterns and transit ridership. In areas with denser development, mixed-use development, and a good pedestrian environment, transit can become very convenient and, thus, attractive and well used. In most cases, these factors outweigh those directly controlled by the service provider.
- **Population and Employment Densities:** Put simply, where larger numbers of people live or work in close proximity, transit can be more effective, and transit demand is higher.
- **Socio-Economic Characteristics:** Different groups have different "propensities" to use transit service, and important characteristics related to transit demand include age, disability status, income, and race/ethnicity.
- **Travel Flows:** All trips involve travel from one point to another. Where there are large concentrations of trips—for example, to and from downtown Nashville—there will be sufficient numbers of people to fill buses and trains. In areas where trip patterns are very dispersed, there will not be.

In Middle Tennessee, there are two primary types of transit demand:

1. Local service in larger communities, and
2. Service to and from Nashville, primarily for work trips.

These two types of service are very different and serve different types of riders. Demand for the two types of service is driven by the same factors, but with one important exception. Although development patterns are still important, people who use longer distance services (in particular, commuter rail and express bus services) are much more willing to drive to access transit. As a result, park-and-ride access extends the effective reach of transit, which means that lower population densities can be effectively served. Park-and-ride access also means that more people who live in areas with disconnected street networks and poor pedestrian environments—both of which are common in much of Middle Tennessee—are able to access transit.

DEVELOPMENT PATTERNS AND TRANSIT DEMAND

Transit demand is strongly related to development patterns, in particular, development density. In areas with denser development, transit can be provided in close proximity to many people. Combined with a good pedestrian environment, transit can become very convenient and, thus, attractive and well used. In most cases, these "external" factors outweigh those directly controlled by the service provider.

As Nashville has grown, the metropolitan area has grown beyond Davidson County, and the populations and economic activities in the surrounding nine counties have become increasingly linked with Nashville and Davidson County. Outlying communities such as Clarksville, Springfield, Gallatin, Lebanon, Murfreesboro, Franklin, and Spring Hill, while retaining unique identities, have also become bedroom communities to Nashville, with residents commuting to and from Nashville. Some, such as Brentwood, have become part of the Nashville metro area, and others, such as Cool Springs, are very new and representative of the region's growth.

As is the case with most areas that developed rapidly since the 1940s, Middle Tennessee has developed around the automobile, but to an even greater extent. In 2001, USA Today ranked Nashville as the nation's most sprawling metropolitan area.[1] Thirteen years later, Smart Growth America ranked the Nashville area as the second most sprawling in the country (after Atlanta).[2] The Nashville region has been sprawling for many years. This sprawl has spread the demand for better transit outward from Nashville, while at the same time making the provision of convenient and effective transit much more challenging.

LOCAL CONDITIONS

Land use diversity, design, regional destinations, and distance to quality transit are key factors that influence transit demand. Demand management (pricing, incentives, and other information-based programs) is also important. Referred to as the "6Ds," these are major factors that will influence the demand for and success of transit in Middle Tennessee (see Figure 19).

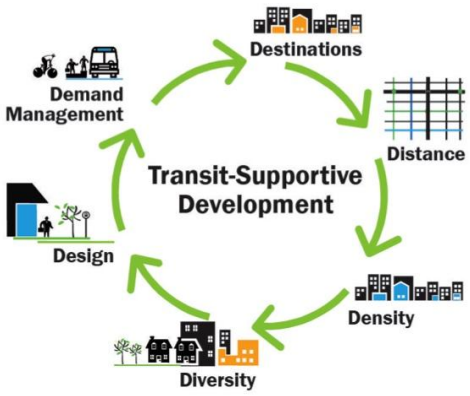
DESTINATIONS

People are more likely to choose transit when it can conveniently take them where they want to go. At present, RTA provides commuter service to Nashville, and three local transit systems provide service in Clarksville (Clarksville Transit System), Murfreesboro (Rover), and Franklin (Franklin Transit Authority). As described in the Overview of Existing Services, most RTA service is provided during peak hours and primarily in peak commute directions only (inbound to Nashville in the morning and outbound in the afternoon). Looking forward, service will need to expand to serve emerging destinations and connect more destinations across the region.

[1] *A Comprehensive Look at Sprawl in America,* USA Today, February 22, 2001.
[2] *Measuring Sprawl 2014*, Smart Growth America, April 2014.

FIGURE 19 OVERVIEW OF FACTORS INFLUENCING TRANSIT DEMAND - THE "6DS"

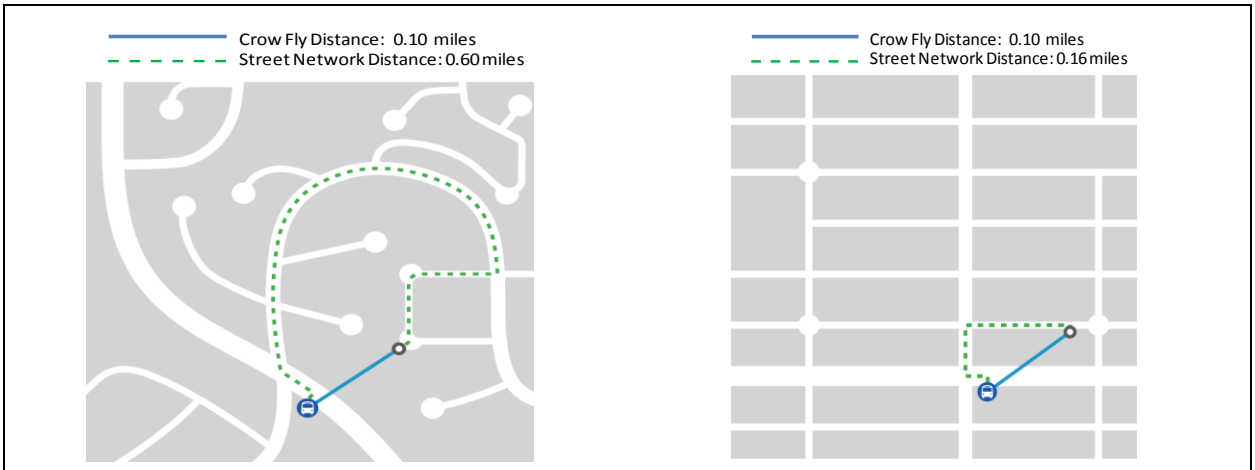
6D Factor	Principle
Destinations	Align major destinations along reasonably direct corridors served by frequent transit
Distance	Provide an interconnected system of pedestrian routes so that people can conveniently access transit
Density	Concentrate higher densities close to frequent transit stops and stations and multimodal nodes
Diversity	Provide a rich mix of pedestrian-friendly uses to support street-level activity throughout the day and night
Design	Design high-quality, pedestrian-friendly spaces that connect people seamlessly to transit
Demand Management	Provide attractive alternatives to driving by managing parking, providing incentives not to drive, and/or providing programs to help educate people about driving alternatives



DISTANCE

Both street connectivity and block length strongly influence people's likelihood of walking or biking to transit. Interconnected streets in a grid pattern tend to shorten distances between transit stops and destinations. Neighborhoods where all roads are designed to connect to arterials or collector streets allow transit customers to reach bus stops without walking out of their way and provide more efficient routing options that can support high frequency service (see Figure 20).

FIGURE 20 STREET NETWORK DESIGN AND WALK DISTANCES TO TRANSIT



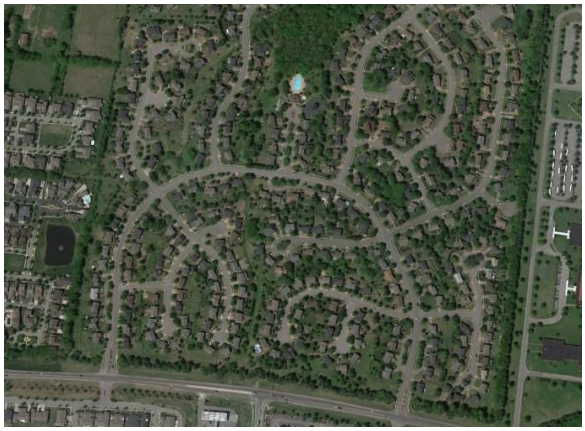
A disconnected street network (shown at left) with long blocks and indirect streets results in long walking distances and less efficient transit operations. A well-connected street network (shown at right) enables shorter more direct walking connections and is easier to serve cost effectively with transit.

Source: TransLink Transit Oriented Communities (2011)

The grid-like street patterns in older downtowns such as downtown Murfreesboro support easy and comfortable access to transit (see Figure 21). However, in many newer areas, for example, Founders Pointe in Franklin, pedestrian connections to streets that are suitable for transit are very limited (see Figure 22). Primarily for this reason, most RTA services rely on park-and-ride lots for access.

FIGURE 21 CONNECTED STREET NETWORK IN DOWNTOWN MURFREESBORO

FIGURE 22 LIMITED CONNECTIONS TO ARTERIALS IN FOUNDERS POINTE

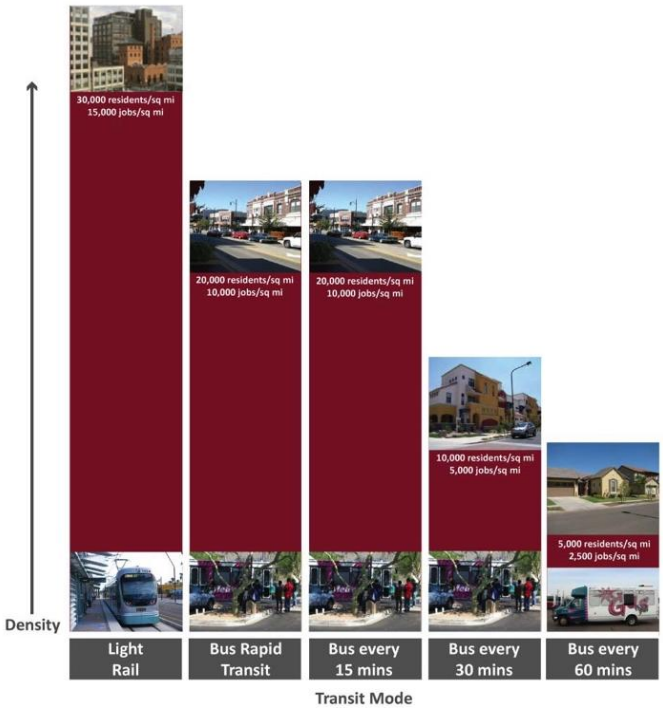


Source: Google Maps

DENSITY

Population and employment densities determine how many people will be able to access transit. By extension, they also strongly influence the amount of service that will be required (see Figure 23) and, in turn, the types of riders who will use transit. Infrequent service is inconvenient and will largely serve residents and workers who, for one reason or another, cannot drive. Conversely, frequent service is convenient and will attract many who choose to take transit rather than use other travel modes. Frequent service is clearly desirable but, because of the operating costs involved and to avoid running empty buses, transit service levels must be matched to demand. As described further in this chapter, there are densities of population and employment in Middle Tennessee's larger communities that are sufficient to support transit service; this is not the case in less developed areas.

FIGURE 23 RELATIONSHIP BETWEEN DENSITY AND TRANSIT DEMAND



Source: Composite data compiled by Nelson\Nygaard from various sources

DIVERSITY

Traditional zoning separates land uses, sets maximum densities and minimum lot sizes, and usually contains explicit regulations such as bulk and height limits and minimum parking requirements. This approach generally encourages automobile use and discourages transit use (see Figure 24). Mixed-use development, which reverses this approach, is now becoming more popular as it creates a more interesting environment. It also encourages transit, walking, and bicycling and focuses much less on automobiles and parking.

FIGURE 24 TRADITIONAL ZONING AND SPRAWLING DEVELOPMENT ALONG MEMORIAL BOULEVARD IN SPRINGFIELD, TN

Source: Google Maps

In Middle Tennessee, the land uses that are most compatible with transit are in older communities such as Clarksville, Franklin, Gallatin, and Murfreesboro. Conversely, newer areas such as Cool Springs and Spring Hill have more sprawling development patterns that make the provision of attractive transit service more difficult.

DESIGN

People will not use transit if it is difficult or dangerous to use. Safe and accessible streets are essential to ensure that people will be able to access transit easily and feel safe doing so. Transit stops and stations must be attractive and clean and include amenities like benches, trash cans, and schedule information. As RTA plans for future investments in transit, coordination with the communities it serves to prioritize safe bicycle and pedestrian access to transit will be required. A framework to invest in transit station amenities at high demand stops will also be important to build demand for transit. In a similar manner as development diversity, Middle Tennessee's older communities generally have better pedestrian and bicycling environments than more recently developed areas.

DEMAND MANAGEMENT

Demand management measures can be used to encourage transit use and discourage automobile use. RTA manages a ride-matching database to coordinate carpools and rideshares for commuters in the region. In addition, participants qualify for RTA's Emergency Ride Home program, which provides six taxi trips per year for any regular transit rider who has a sickness in their immediate family, is asked to work late by a supervisor, or cannot make their regular rideshare due to extenuating circumstances. Beyond these efforts, a comprehensive transportation demand management program that works with employers and residents to provide information and incentives related to taking transit will be a necessary step to increase transit ridership.

CURRENT AND PROJECTED DEVELOPMENT PATTERNS

Development in Middle Tennessee is centered in Nashville and generally decreases with distance from there. However, rather than decreasing uniformly, development outside of Nashville is highly focused along the region's radial highways, in and around the older communities of Clarksville, Dixon, Franklin, Brentwood, Murfreesboro, Lebanon, Gallatin, and Springfield (see Figure 25). Development has also occurred in a few areas where most growth has begun only recently, such as Cool Springs and Spring Hill. These areas are also located along Middle Tennessee's radial highways. In between those highways, most areas are still rural and development is sparse.

Looking forward to 2040, development patterns will be similar to current patterns, but with significantly higher levels of both population and employment and with more development in areas between radial highways. These future patterns indicate that demand for local transit will grow in regional centers and demand for commuter service to and from Nashville will also grow.

TRANSIT DEMAND

POPULATION AND EMPLOYMENT

For transit to be successful, it must be frequent, fast, and easy to access. More than any other factor, population and employment density will determine whether this will be possible:

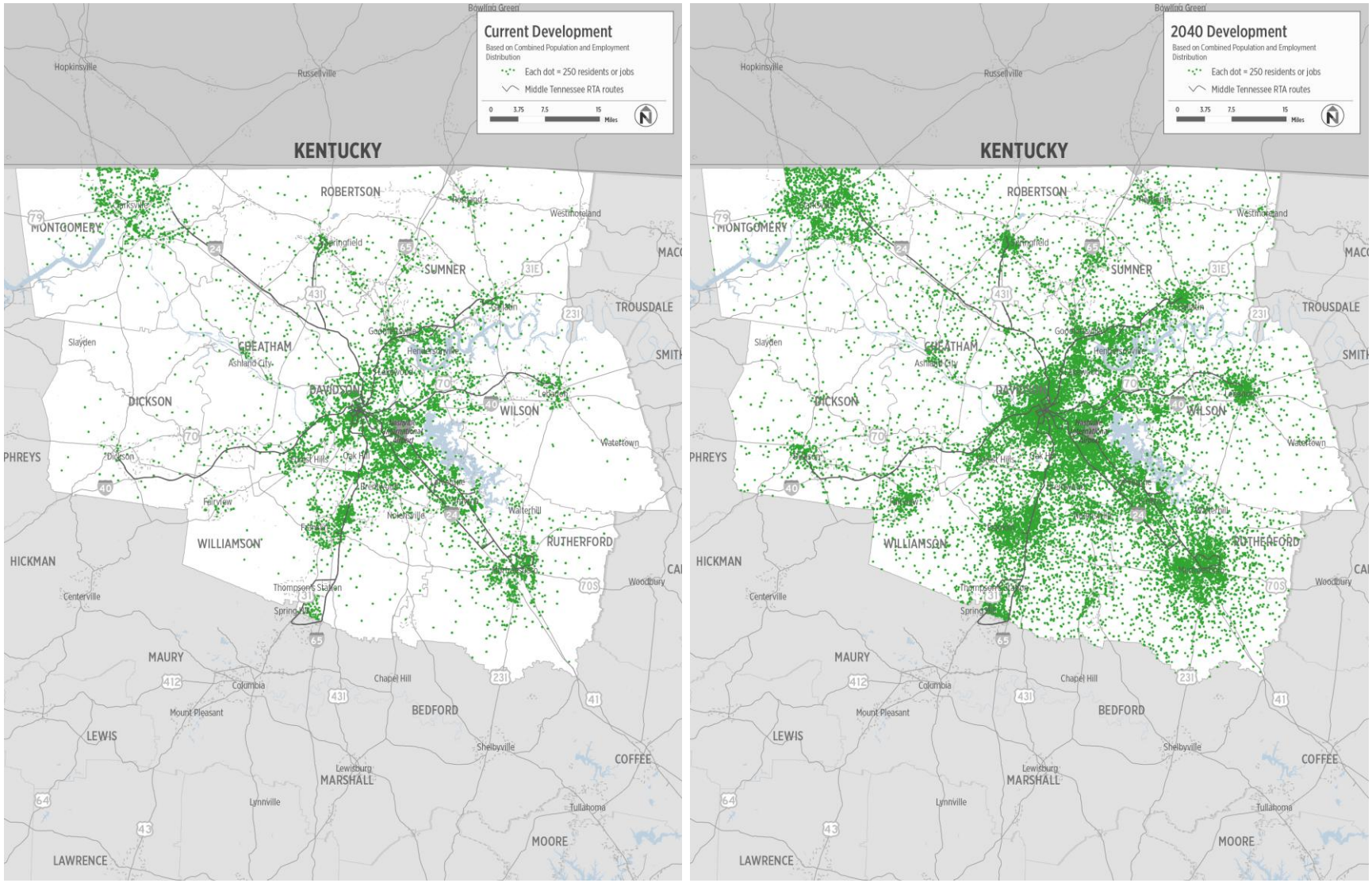
- Transit needs to serve sufficiently high volumes of travelers to be cost effective, and the density of development determines the overall size of the travel market. The reach of transit is generally limited to within one-quarter to one-half mile of the transit line or station; therefore, the size of the travel market is directly related to the density of development in the area.
- Transit service frequencies, in turn, are closely related to market size. Bigger markets support more frequent service, while smaller markets can support only less frequent service.
- To attract travelers who have other options, such as automobiles, transit must be relatively frequent—at least every 30 minutes and preferably every 10 to 15 minutes. Service less frequent than that can be expected to largely serve those who do not drive or cannot drive.

In addition, population and employment levels and densities provide an indication of the types of riders that transit will serve. In general terms, there are two types of transit riders:

- **Riders with Many Choices,** who have sufficient resources and the ability to operate private vehicles but choose to use transit for some or all trips. These riders may choose transit to avoid congestion, the high cost of long commutes, or high parking charges, among other reasons.
- **Riders with Limited Choices,** who are often referred to as "transit dependent riders," use transit services because they do not have an automobile available for their trip or are unable to operate a private vehicle. Because they have fewer travel options, they rely more on transit than riders with many choices. Riders with fewer choices are also more likely to use transit to get to appointments, shop, and visit friends and family.

Transit dependent riders are often located in densely populated areas, and the combination of discretionary and transit-dependent riders produces demand for even more frequent service that increases the attractiveness of transit for discretionary riders. However, in less densely developed areas, the overall demand is lower, and consequently service levels are lower. As a result, transit dependent riders often comprise a large majority of riders on local services in smaller communities such as those in Middle Tennessee. There are exceptions to this however; for example, fast longer distance express services, which through a combination of local access and park-and-ride access, can pool sufficient numbers of riders from lower density communities to attract many riders with other choices. In Middle

FIGURE 25 CURRENT AND PROJECTED DEVELOPMENT (BASED ON COMBINED POPULATION AND EMPLOYMENT DISTRIBUTION)



Tennessee, and as described further in this document, the major markets for transit are and will continue to be for commuter services to and from Nashville and for local services in regional centers.

2010 Population Distribution

As shown in Figure 26, outside of Davidson County, the majority of Middle Tennessee's population is concentrated in 12 regional centers. These include:

- Clarksville
- Cool Springs
- Dickson
- Gallatin
- Hendersonville
- La Vergne
- Lebanon
- Mt. Juliet
- Murfreesboro
- Smyrna
- Springfield
- Spring Hill

Three of these communities—Clarksville, Franklin, and Murfreesboro—have local bus systems. Two communities—Lebanon and Mt. Juliet—are served by the Music City Star, which provides commuter rail service to and from Nashville. All except Lebanon and Mt. Juliet are served with RTA express bus service to and from Nashville. However, as also described in more detail in the Overview of Existing Services, much of this service is very limited in terms of the hours it operates, the number of trips provided, and service frequencies.

2010 Population Density

As described above, population and employment densities are two of the strongest indicators of both where the demand for transit will be highest and where transit will work best. As such, with respect to population, population densities provide an indication of the underlying population-based demand for transit in terms of the type and frequency of service that would be most appropriate.

As shown in Table 7, there must be eight to 16 residents per acre to produce demand for hourly service, which is the lowest level of service that is generally considered acceptable. As densities grow, the demands for transit grow, particularly with respect to more frequent service. Population densities higher than around 31 residents per acre produce demand for frequent services (every 15 minutes or less) and premium services.

TABLE 7 TRANSIT-SUPPORTIVE POPULATION DENSITIES

Transit Service Level	Population/Acre
Flex Bus	0.5
Community Circulator	2
Local Bus	
60-minute frequency	8-16
30-minute frequency	16-31
15-minute frequency	31-47
10-minute frequency	47-92
5-minute frequency	>92

Source: Nelson\Nygaard compiled from various national sources

FIGURE 26 2010 POPULATION DISTRIBUTION

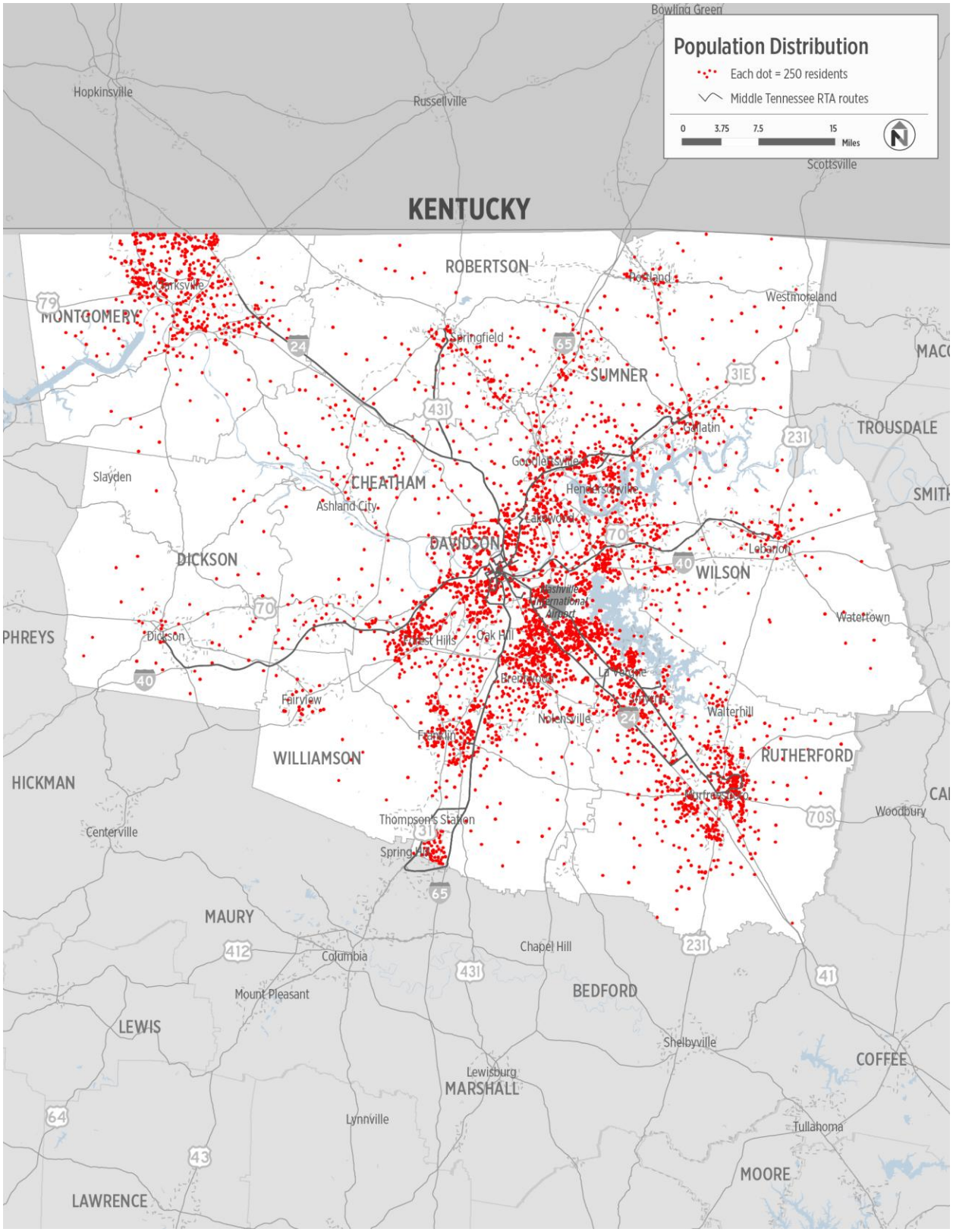
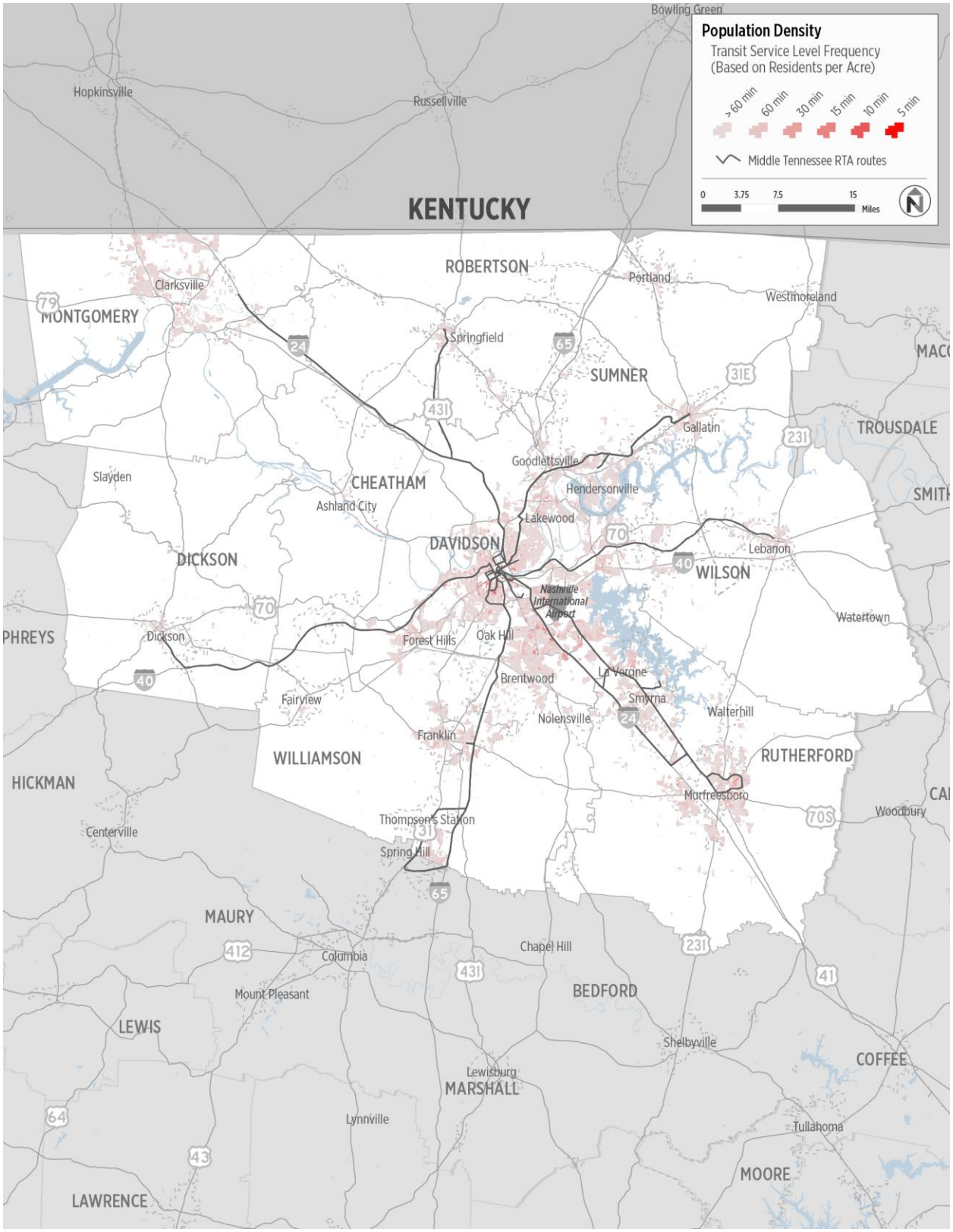


FIGURE 27 2010 POPULATION DENSITY



Based on population density alone, there are relatively few concentrations of dense residential development outside of Nashville that can support fixed-route transit service. Those that could are located in established town and city centers as well as their immediate surroundings. These are shown in Figure 27 and include:

- Clarksville, particularly the neighborhoods along the US 41 Alternate corridor from the intersection with Route 76 to Fort Campbell in Kentucky. Clarksville Transit Service provides local transit in Clarksville.
- Murfreesboro, where Rover provides local service.
- Downtown Franklin and neighborhoods to the north and southeast, where Franklin Transit provides service.
- Communities adjacent to the US 31 East corridor northeast of Nashville, especially portions of Hendersonville and downtown Gallatin. These areas do not have any local service.

Numerous other communities have pockets of residential density that could support transit service frequencies of 60 minutes or better. These areas, however, are scattered throughout the region and would be unlikely to support fixed-route transit in isolation.

2010 Employment Distribution

The distribution of employment opportunities is a second strong indicator of transit demand, as commute-based trips are the most common use of public transportation services. Employment outside of Davidson County is generally concentrated near the centers of established towns and along radial highways (see Figure 28). There are also several commercial and industrial clusters located along or at the intersections of major interstates and highways, including:

- Brentwood, located at the interchange of Interstate 65 and Old Hickory Boulevard, which is home to several corporate headquarters, including Comdata and Tractor Supply Company.
- The I-24/US-79 interchange in Clarksville, especially to the southwest of the interchange along US-79.
- La Vergne and Smyrna, particularly between Interstate 24 and Murfreesboro Pike, which includes numerous warehouse and automotive manufacturing facilities, such as plants operated by Nissan and Bridgestone.
- Cool Springs, a major retail and office center along Interstate 65 in Franklin.

Local connections are provided to many of the employment areas in Clarksville, Franklin, and Cool Springs. However, much of this service is limited. Also, while all of the above areas are served by RTA express routes, those routes are not designed to serve reverse commute trips.

2010 EMPLOYMENT DENSITY

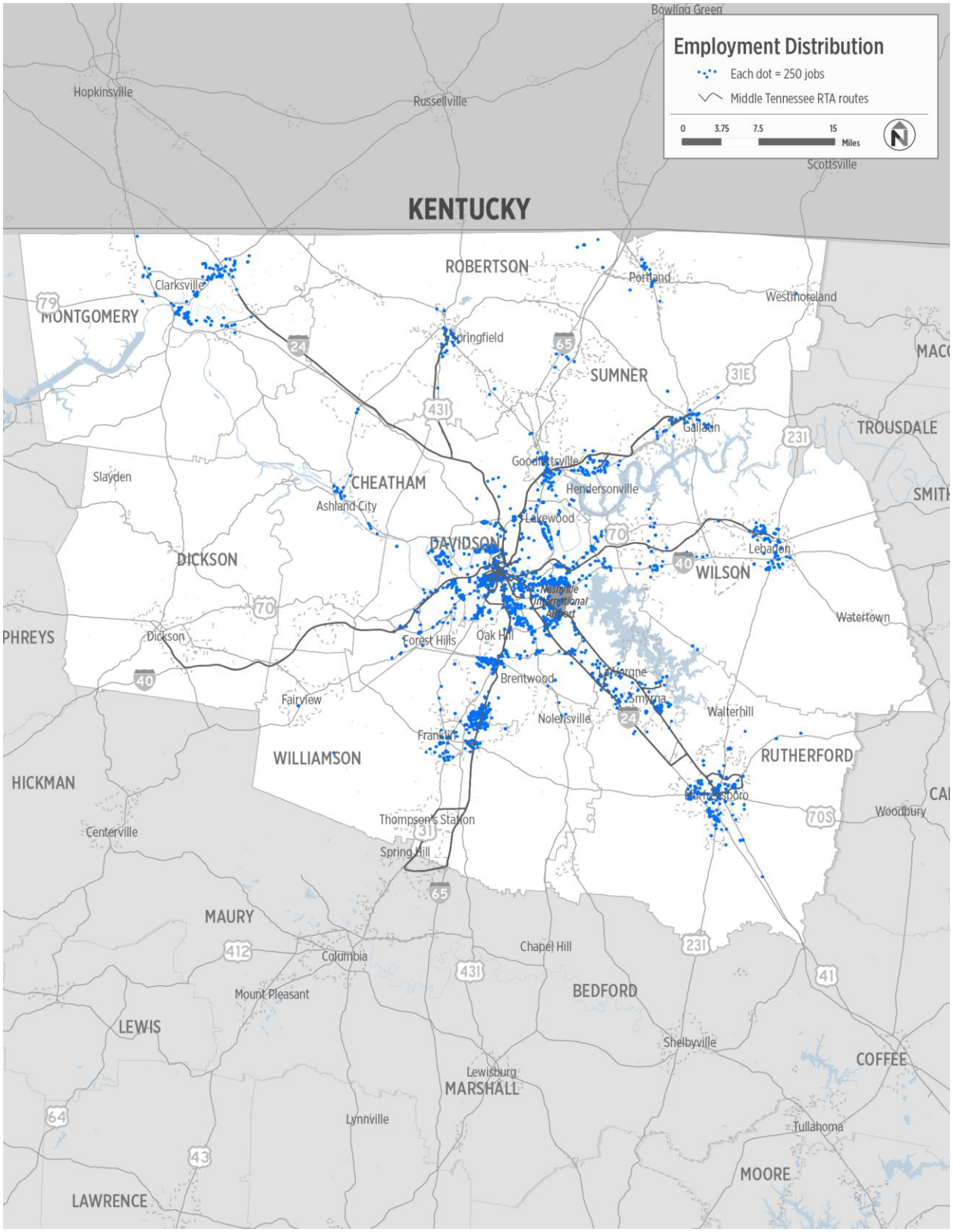
In the same manner as population densities, employment densities provide a strong indication of underlying employment-based transit demand. As shown in Table 8, four to eight jobs per acre typically produce demand for hourly bus service. As densities grow, the demands for transit grow, particularly with respect to more frequent service. Employment densities higher than around 16 jobs per acre produce demand for frequent services (every 15 minutes or less) and premium services.

TABLE 8 TRANSIT-SUPPORTIVE EMPLOYMENT DENSITIES

Transit Service Level	Population/Acre
Flex Bus	-
Community Circulator	-
Local Bus	
60-minute frequency	4-8
30-minute frequency	8-16
15-minute frequency	16-24
10-minute frequency	24-48
5-minute frequency	>48

Source: Nelson\Nygaard compiled from various national sources

FIGURE 28 2010 EMPLOYMENT DISTRIBUTION



Although there are a number of major employment centers in Middle Tennessee, only those in Brentwood and Cool Springs and parts of Murfreesboro could currently support local transit service based on employment levels alone (see Figure 29). Other areas with employment densities that could support transit service are generally located near the center of established cities and towns. These employment centers, however, are typically very small and consist primarily of retail establishments. The variable hours of most retail jobs are likely not conducive to the extremely low transit service frequencies that these employment centers could support.

2010 COMBINED POPULATION AND EMPLOYMENT-BASED DEMAND

When both population and employment densities are considered together, transit demand is often significantly higher than indicated by the individual measures. This is especially the case in mixed-use areas (see Figure 30).On this basis, there are several areas where there is demand for local bus services:

- Franklin and Cool Springs (which are served by Franklin Transit).
- Clarksville, especially the city center and points to the northwest towards Fort Campbell and to the northeast towards Interstate 64 (served by Clarksville Transit).
- Murfreesboro (which is served by Murfreesboro Rover).
- The US 31 East corridor extending from Nashville to Gallatin, including within Hendersonville and Gallatin. These communities are just beyond the limits of Nashville MTA's service area.
- Lebanon and Mt. Juliet, which are both located along RTA's Music City Star commuter rail. Both of these communities could likely support local bus services.

SOCIO-ECONOMIC CHARACTERISTICS

Many population groups have a higher propensity for transit use than the general population. These include:

- **Millennials,** who have a significantly higher interest in using many transportation options such as transit, walking, and biking and a lower interest in driving. In many cases, the availability of good transit is an important factor in where they will live.
- **Older Adults,** who as they age often become less comfortable or less able to operate a vehicle. Transit offers older adults the freedom to stay in their homes as they transition away from their vehicles and "age in place."
- **People with Disabilities,** many of whom cannot drive and or have difficulty driving.
- **Low-Income Residents,** who often use transit because it is much less expensive than owning and operating a car.
- **Minorities,** who often have lower incomes and use transit because it is much less expensive than owning a car.

An additional population that uses transit to a much greater extent than the general population is residents without automobiles. In larger cities, many residents do not have an automobile by choice because transit is more attractive, car ownership is a hassle, and there plentiful options such as taxis, car sharing, and car rentals for the times when a car is desired or needed. However, in urban areas such as Nashville that are oriented toward automobile travel and where transit options are much more limited, people without automobiles are largely those with lower incomes or people who do not drive.

FIGURE 29 2010 EMPLOYMENT DENSITY

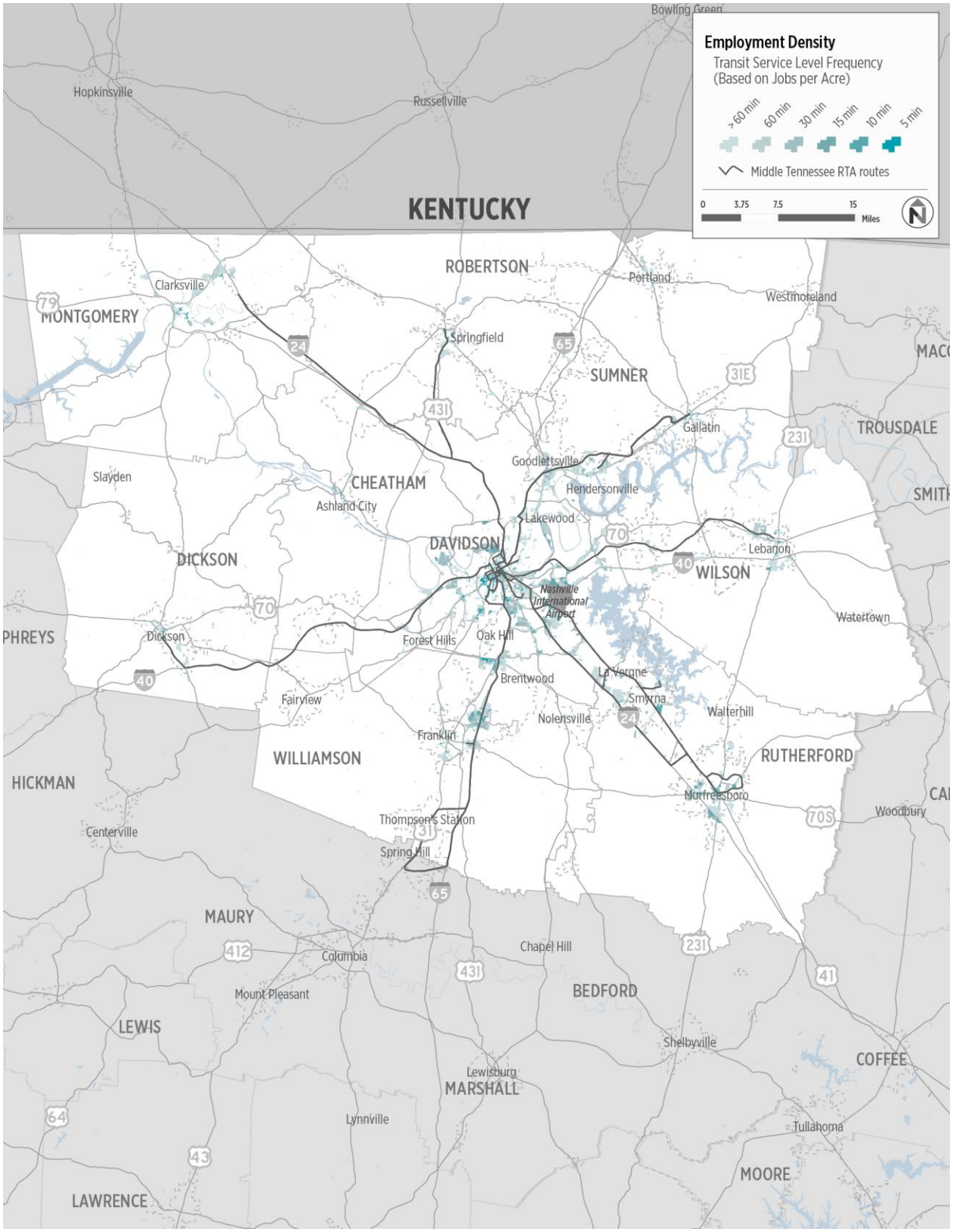
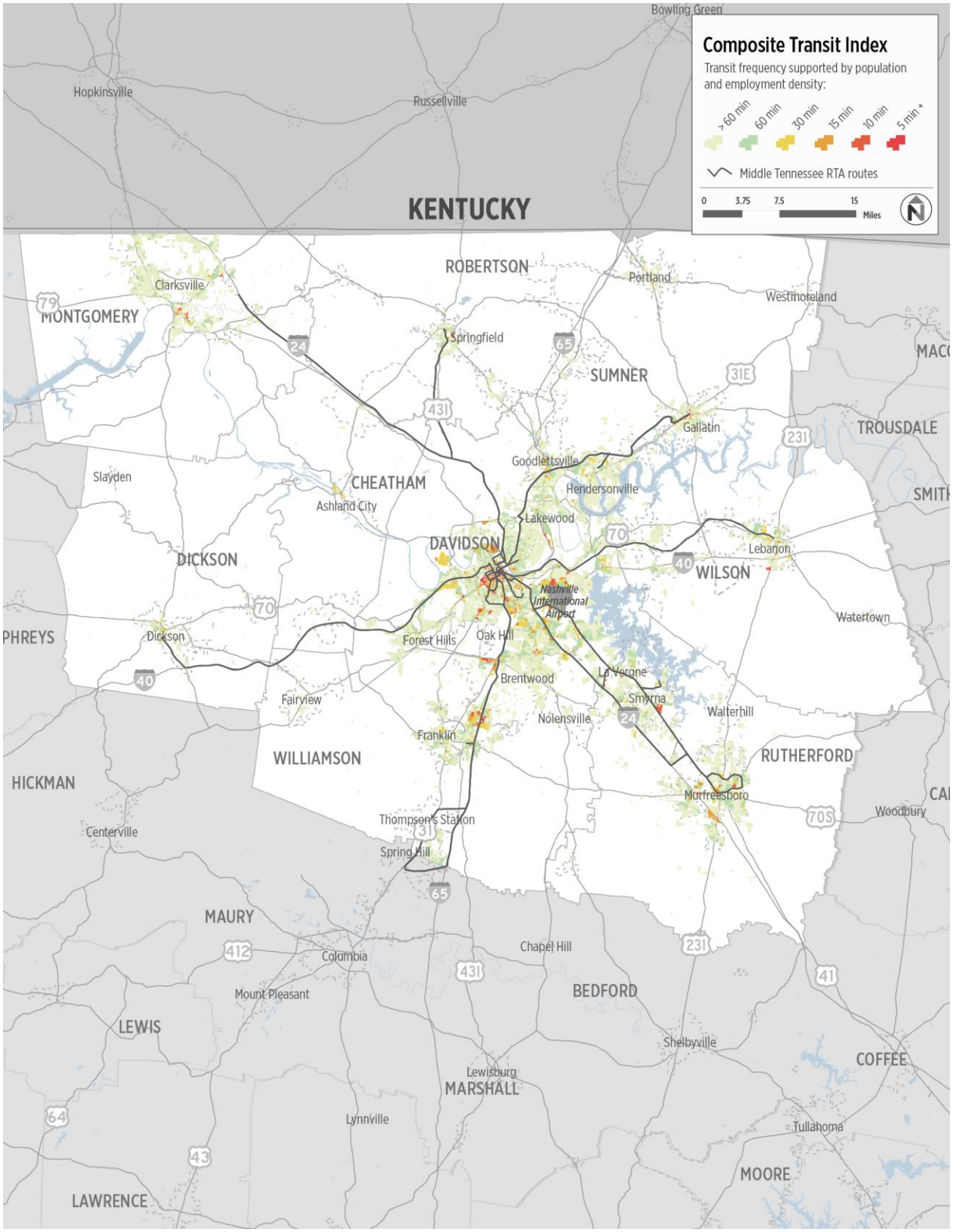


FIGURE 30 2010 COMPOSITE TRANSIT INDEX



Note that there is a large amount of overlap between these groups. For example, many elderly residents have low incomes and also have a disability; a large proportion of individuals without access to an automobile are also part of low-income households; and minority populations typically use transit to a greater extent because of low incomes and not specifically due to ethnic background. Still, the presence of each population group is an important indicator of increased demand for public transit and, therefore, is presented individually.

Millennials

The distribution of Millennials in Middle Tennessee generally reflects the distribution of the general population, as shown in Figure 31. Millennials comprise 29% of the nine-county Middle Tennessee region. However, they are more likely to live in the region's largest cities, and as a result, the largest share of Middle Tennessee's Millennials (38%) lives in Davidson County. Concentrations of Millennials outside of Davidson County include:

- Murfreesboro, especially at Middle Tennessee State University and surrounding neighborhoods
- Clarksville, particularly in the neighborhoods north of downtown approaching Fort Campbell in Kentucky
- Downtown Franklin

Each of these communities is served by local fixed-route service, as well as RTA commuter bus lines.

Older Adults

Baby Boomers, and those before them, increasingly desire to remain as active and independent as possible and to age in place. One important way for them to remain independent is through the availability of transit. There are over 101,000 adults over the age of 65, representing 10% of Middle Tennessee's population (excluding Davidson County). In the northeast suburbs, residents over the age of 65 are concentrated in communities such as Mt. Juliet, Hendersonville, and Goodlettsville (see Figure 32). These communities lack local fixed-route bus services. There is also a notable cluster of older adults in Murfreesboro, particularly in the northern part of the city. Compared to other demographic groups, older adults are much less likely to live in Clarksville, apart from a cluster of assisted living facilities located near the intersection of US 41A and Memorial Drive.

People with Disabilities

While many people with disabilities are able to drive, many cannot. As a result, public transportation, including both general fixed-route bus service and specialized paratransit services, is an essential resource to ensure people with disabilities are able to live actively and productively.

The distribution of people with disabilities generally reflects the overall population distribution within the Middle Tennessee region, and accounts for 10% of the nine-county region's population. People with disabilities are most concentrated in Nashville and its surrounding suburbs (see Figure 33). Outside of this area, people with disabilities primarily live within or in proximity to established city and town centers. The most notable concentrations include Murfreesboro and Clarksville, the two largest cities other than Nashville. Additionally, people with disabilities are also lightly dispersed throughout the more rural areas of Middle Tennessee.

Low-Income Households

People with low incomes tend to use transit to a greater extent than higher income residents because transit provides significant cost savings over automobile ownership and use. As shown in Figure 34, low-income households in the Middle Tennessee region are primarily concentrated in the area's largest urban areas: 6% of households in Davidson County are considered low-income, compared to 4% of households in the rest of Middle Tennessee. Outside of Davidson County, Murfreesboro and Clarksville have relatively large low-income populations. In Murfreesboro, low-income households are particularly concentrated in the east part of the city. In Clarksville, low-income households are less concentrated, but primarily located in neighborhoods along the US 41A corridor. Other areas with concentrations of low-income households include:

- Gallatin, particularly northeast of US 31E. This community is served by an RTA express bus, but otherwise has no access to public transit.

FIGURE 31 2010 DISTRIBUTION OF MILLENNIALS

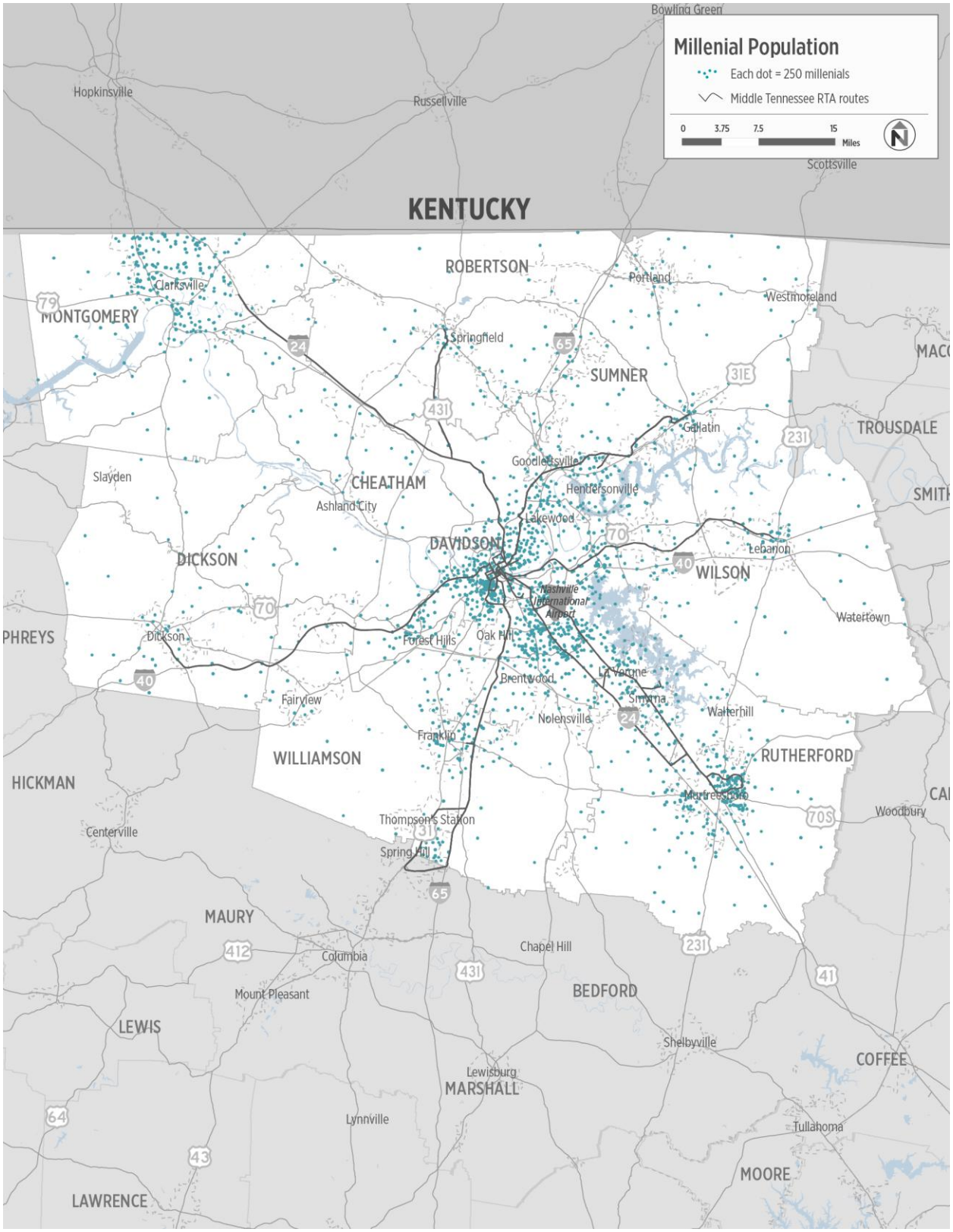


FIGURE 32 2010 DISTRIBUTION OF OLDER ADULTS (65 AND OLDER)

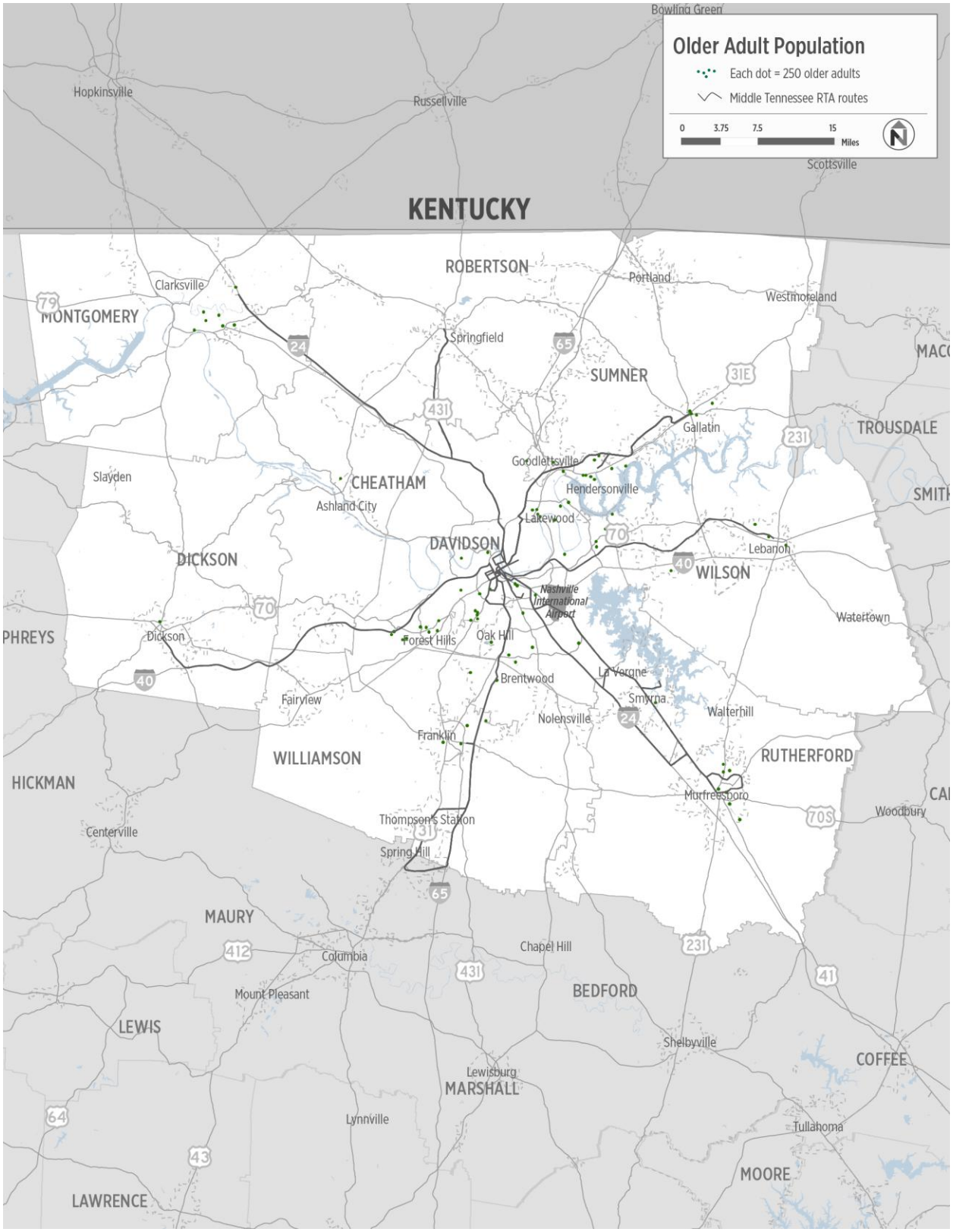


FIGURE 33 2010 DISTRIBUTION OF PEOPLE WITH DISABILITIES

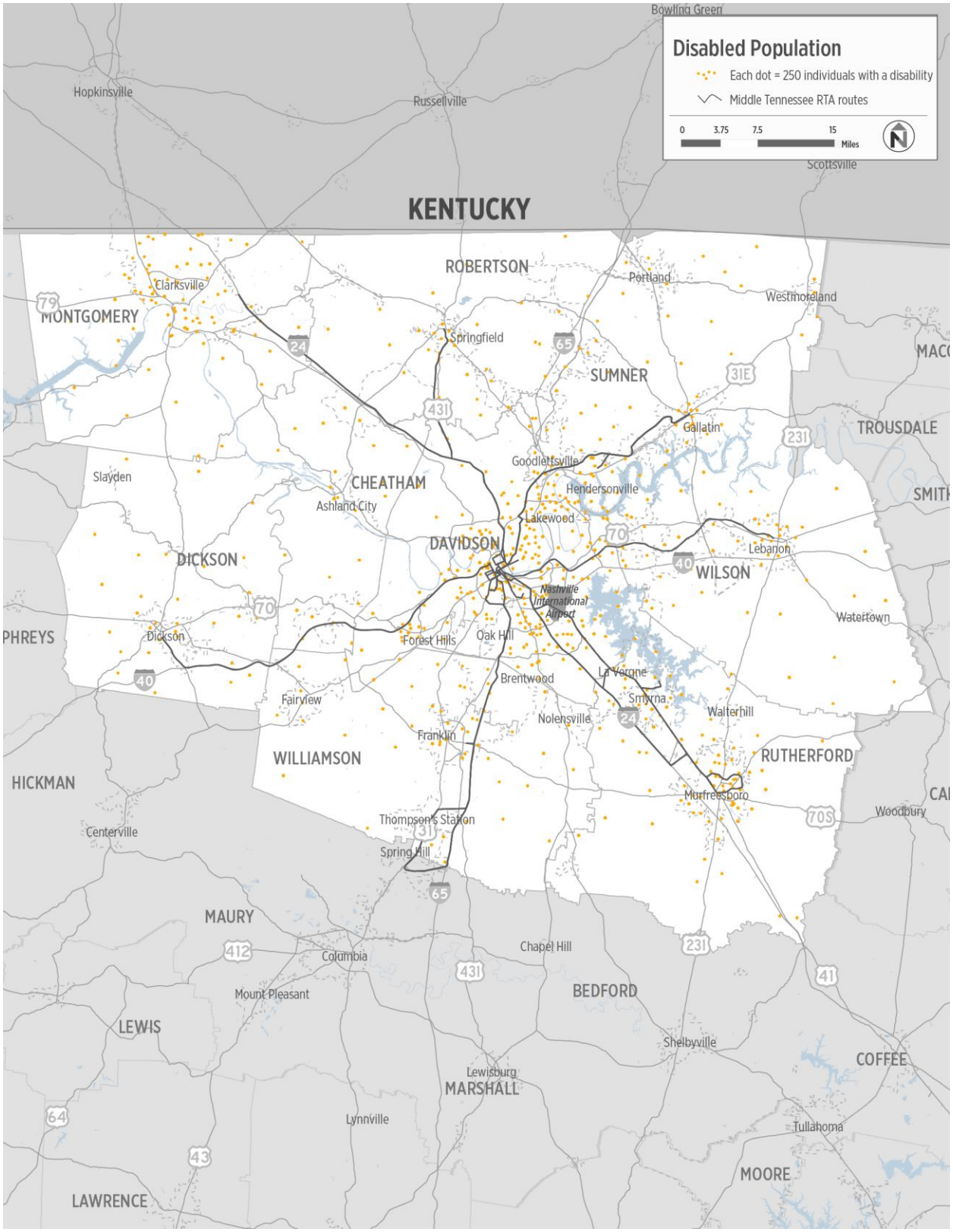
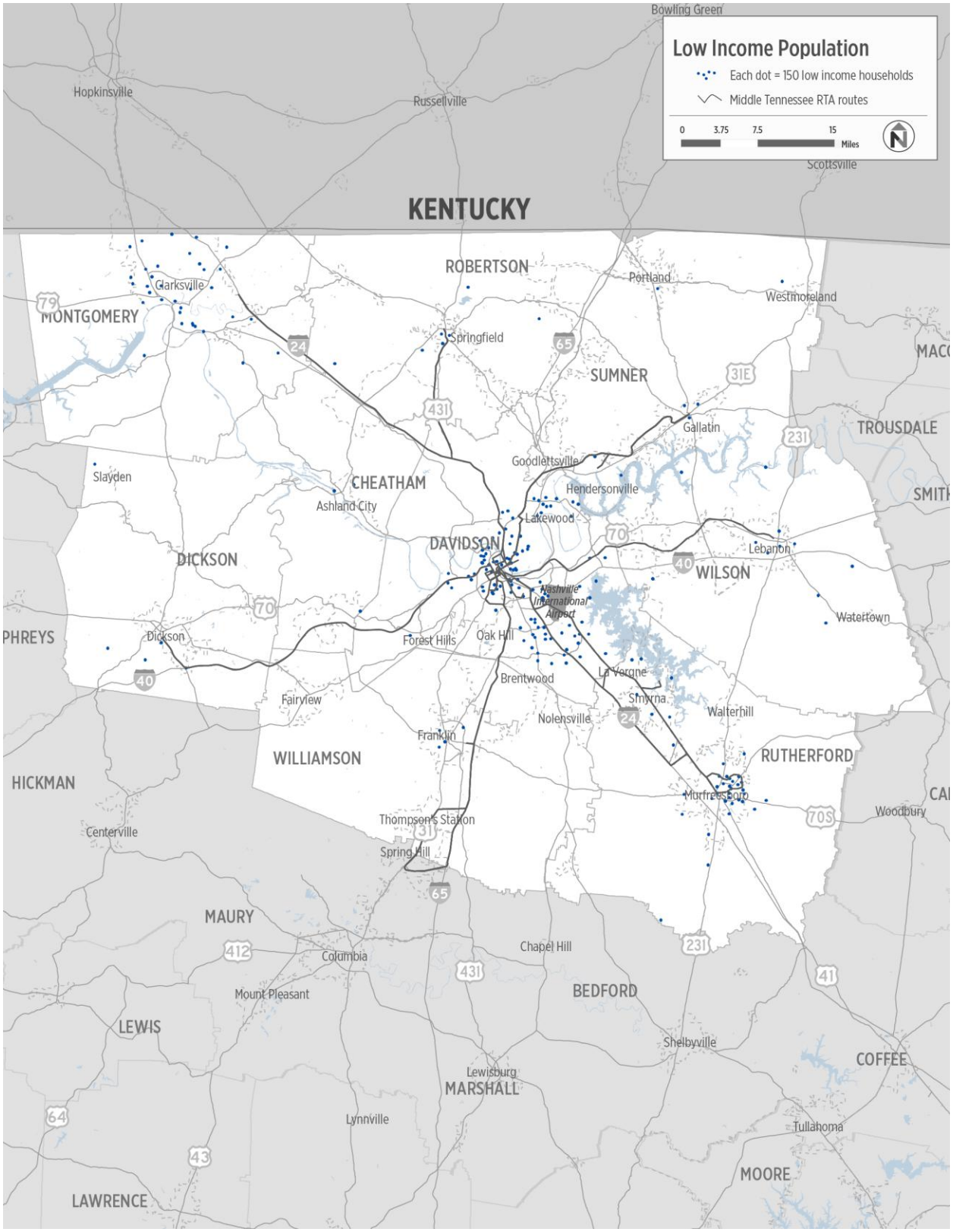


FIGURE 34 2010 DISTRIBUTION OF LOW-INCOME HOUSEHOLDS



- Established cities and towns in the southern portion of the Middle Tennessee region, including Columbia. None of these communities have access to fixed-route public transportation services.

Overall, due to their concentration primarily in dense urban areas, low-income households in the Middle Tennessee region have access to public transportation services. However, it should be noted that there are many low-income households, especially in the rural and southern portion of the region, in neighborhoods that likely cannot support fixed-route transit services.

MINORITY POPULATIONS

Minority populations use transit to a much greater extent than non-minority populations, largely because they tend to have lower incomes than non-minorities. This means that there is a large amount of overlap between minority populations and low-income households; however, the presence of high numbers of minority residents still provides an additional strong indicator of transit demand. The provision of effective transit service to minority populations is also particularly important to the Federal Transit Administration and is a requirement under Title VI of the Civil Rights Act of 1964.

The minority population of the Middle Tennessee region is almost exclusively concentrated in the region's major cities, primarily Nashville. In Davidson County, 39% of the population is considered minority, compared to 16% in the rest of Middle Tennessee. Clarksville and Murfreesboro also have significant minority populations, and the distribution of minorities generally reflects the overall population distribution (see Figure 35). Many of the smaller cities in the region also have large minority populations. Several of these cities—including Lebanon, Gallatin, Springfield, and Franklin—are served by RTA commuter rail or bus lines. While these services provide some transit access, none of these communities has local fixed-route transit other than Franklin.

FUTURE TRANSIT DEMAND

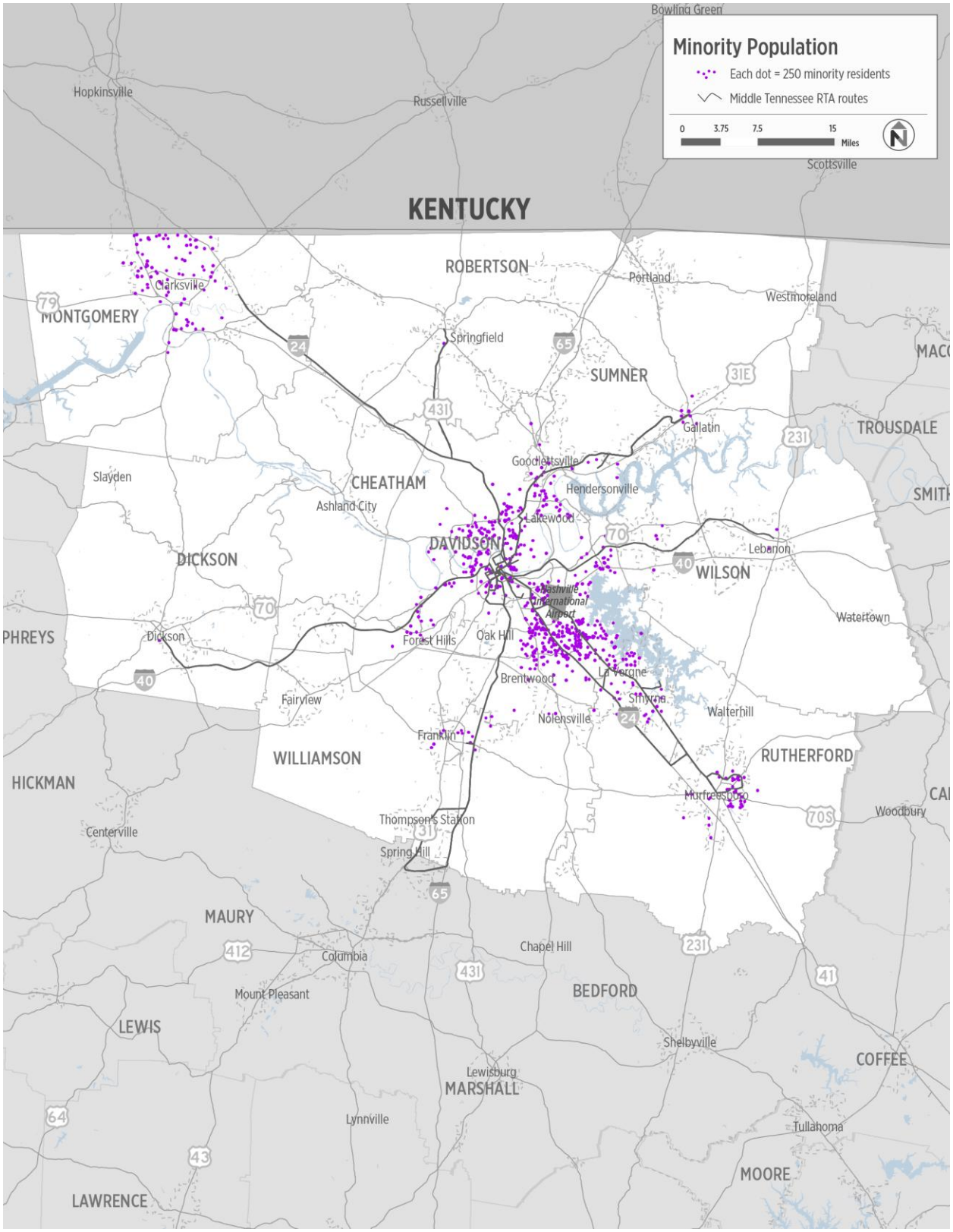
Future transit demand in the Middle Tennessee region will be driven by a number of factors, the most important of which will be the area's population and employment growth.

PROJECTED POPULATION AND EMPLOYMENT GROWTH

Between 2010 and 2040, the population of the 10-county area will grow by 80% from 1.7 million to nearly 3.1 million, and most of this population growth will occur in the nine counties surrounding Davidson County (see Figure 36).[3] The largest amount of growth, in both percentage terms and absolute terms, will be in Williamson and Robertson Counties. In Williamson County, the population is projected to increase between 2010 and 2040 by 207% from 174,000 to 536,000 residents, and in Rutherford County, it is projected to increase by 135% from 251,000 to 592,000 residents. Wilson and Montgomery Counties will also add more than 100,000 new residents. By comparison, and

[3] The Nashville Area Metropolitan Planning Organization (MPO) has developed 25-year employment and population growth projections for the central portion of the region, including all or part of Davidson, Robertson, Sumner, Wilson, Rutherford, Williamson, and Maury counties. The Clarksville Urbanized Area Metropolitan Planning Organization (Clarksville MPO) generated 25-year population and employment growth projections for Montgomery County. Projected 2040 population and employment in Cheatham and Dickson counties was generated by the Tennessee Department of Transportation (TDOT).

FIGURE 35 2010 DISTRIBUTION OF MINORITY POPULATIONS



while Davidson County will remain the center of the region and its largest county, its population is projected to increase by only 22%.

Employment in the region is projected to an even greater extent than employment, from 796,000 jobs in 2010 to over 1.8 million jobs in 2040, or by 133%. As with population growth, jobs will grow faster in the nine counties that surround Davidson County than in Davidson County (178% versus 96%). However, Nashville and Davidson County will remain the region's employment center, with over 47% of the region's jobs.

These increases in population and jobs will have profound impacts on travel within the region:

- The volumes of commuters to Nashville will increase significantly, as 111% of the region's population growth will be in the nine counties surrounding Davidson County, and 38% of the new jobs will be created within Davidson County. This will create significant new demands for commuter services to serve jobs in Nashville's core.
- By 2040, the number of jobs that will be outside of Davidson County will increase from 534,000 to more than a million, and from 50% of the total to 55%. These increases in jobs will mean that many Davidson County residents will begin commuting to jobs outside of Davidson County, which will increase the demand for reverse commute transit service.
- Increases in both population and jobs will increase the demand for local services, both to serve local trips and to connect with regional services.

FIGURE 36 MIDDLE TENNESSEE POPULATION GROWTH

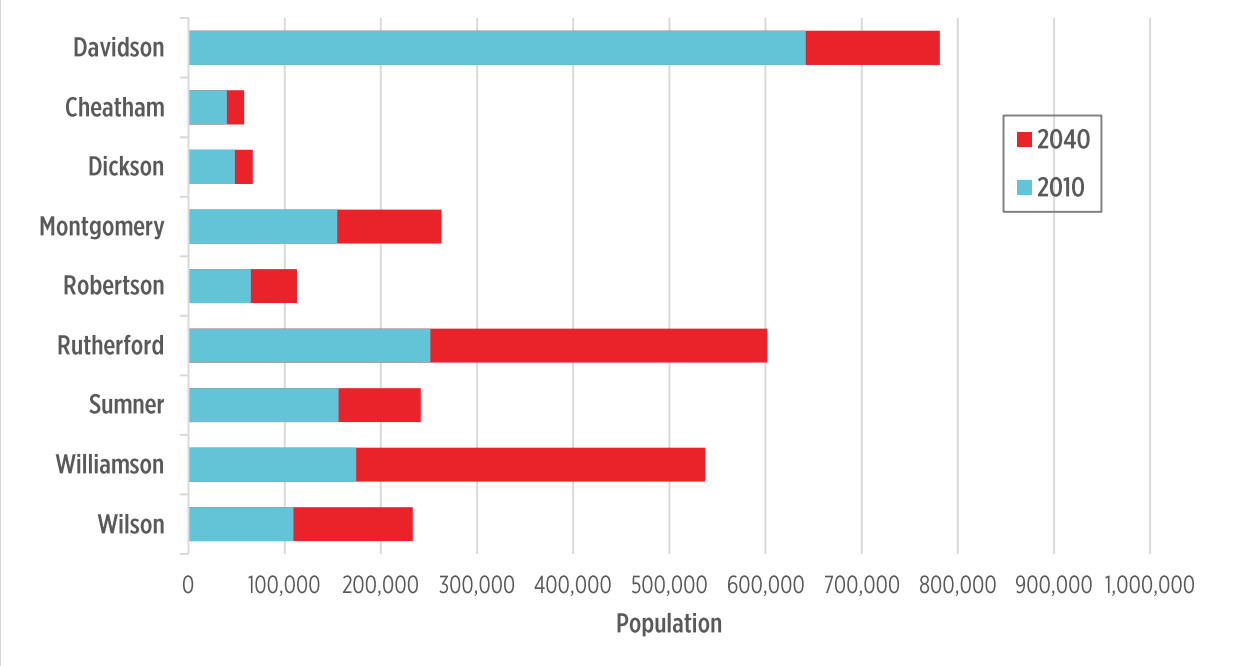
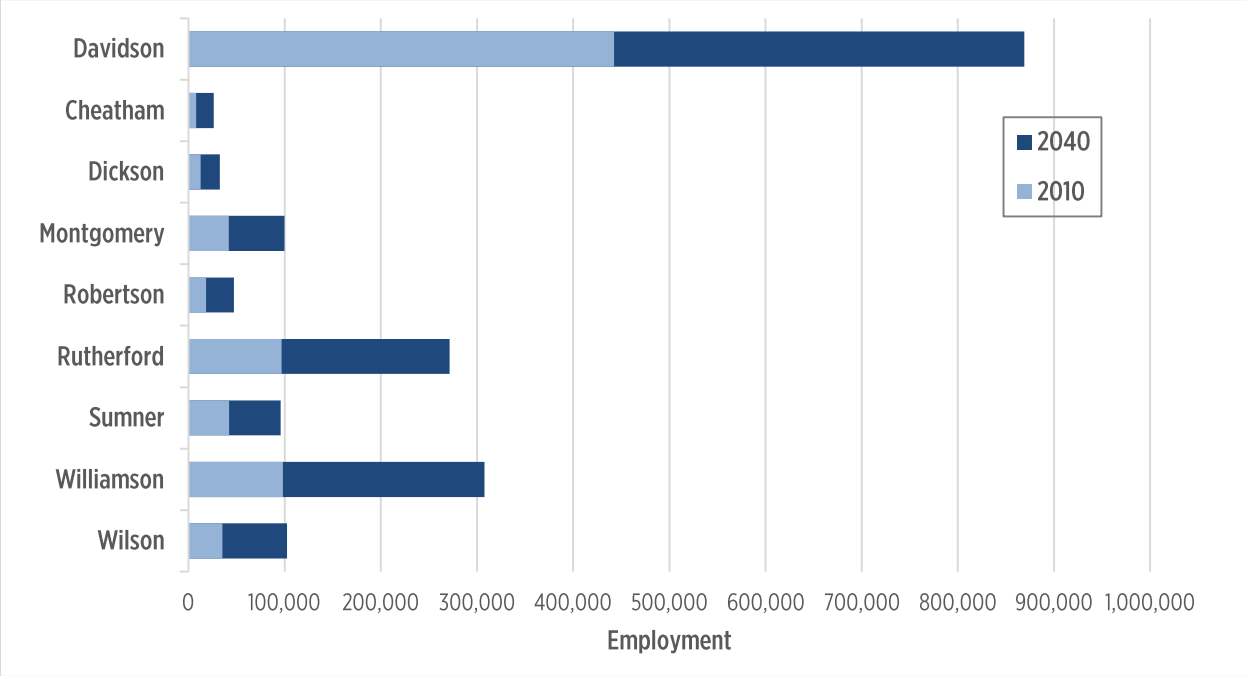


FIGURE 37 MIDDLE TENNESSEE EMPLOYMENT GROWTH



2040 Population Distribution

Between 2015 and 2040, population is expected to increase significantly in the central portion of the Middle Tennessee region. The entire region is projected to add over a million people in the next 25 years, reaching 3.1 million in 2040. Excluding Davidson County, the nine-county region's population will more than double. Population growth outside of Davidson County will be particularly concentrated to the southeast, including Murfreesboro (see Figure 38). Other areas with large projected population increases include Franklin, Mt. Juliet, and neighborhoods to the northeast of Lebanon.

Much of the population growth between 2015 and 2040 is anticipated to occur in what are currently lightly developed or greenfield neighborhoods. Furthermore, much of the growth will occur in areas that currently lack any public transit service, especially in the area between Franklin and Murfreesboro. In order for this area to support fixed-route public transportation services, new neighborhoods should have land use and roadway designs that promote and support transit use.

2040 Population Density

By 2040, increased population in many Middle Tennessee communities will result in an expanded number of neighborhoods that can support fixed-route public transit services (see Figure 39). The majority of these new neighborhoods will be located next to areas that are already served by transit. This will reduce the number of transit-supportive communities that are currently isolated from other higher-density areas. This increased demand for service will also increase the demand for express services.

Areas that are projected to be able to support fixed-route services can be seen in and include:

- The neighborhoods bordering Murfreesboro Pike in La Vergne and Smyrna. Murfreesboro Pike currently has RTA commuter bus service, but neither RTA nor Murfreesboro Rover serves the adjacent neighborhoods.
- The Interstate 65 corridor from Spring Hill to Nashville, including Franklin, Cool Springs, and Brentwood. Portions of this corridor are currently served by Franklin Transit, as well as RTA commuter bus service.
- Nolensville, which currently does not have any fixed-route transit service.

FIGURE 38 2040 POPULATION DISTRIBUTION

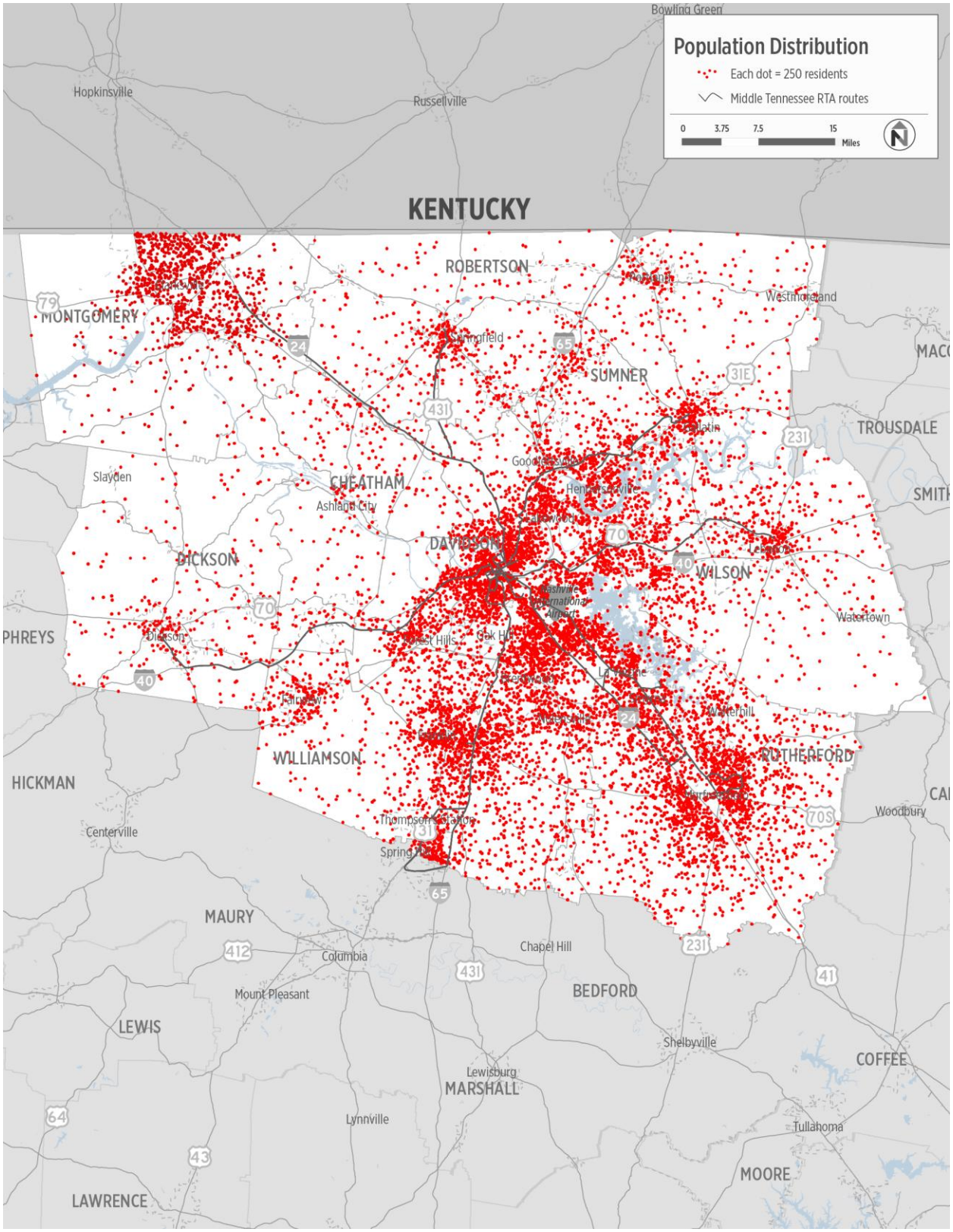
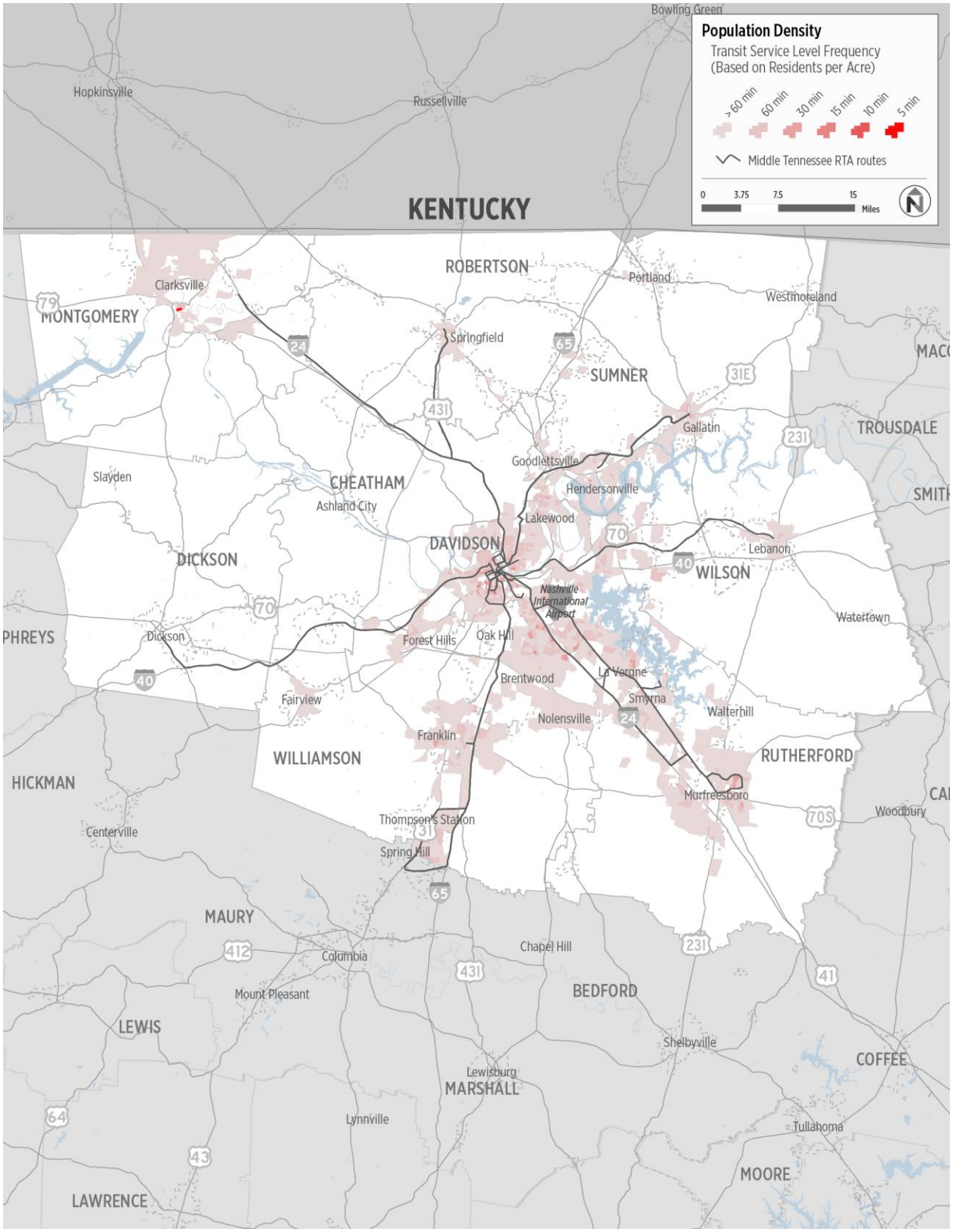


FIGURE 39 2040 POPULATION DENSITY



2040 Employment Distribution

Between 2015 and 2040, much of the growth in employment will occur in and around existing employment centers, such as Murfreesboro and Cool Springs. Growth is also expected in and around established cities and towns, such as Lebanon, Gallatin, and Columbia. The most notable employment growth, however, will be dispersed among what are currently lightly or undeveloped areas, especially in neighborhoods south of Nashville (see Figure 40). These growth areas include:

- Dickson, where RTA commuter bus service was implemented in January 2015.
- Fairview and areas to the northwest, as well as to the southwest in central Williamson County.
- The area near the split of US Alternate 31 and US 41 A, including Eagleville. This location is expected to develop a dense employment concentration.

2040 Employment Density

Much of the employment growth projected between 2015 and 2040 is anticipated to occur in neighborhoods with existing high frequency transit service or across widely dispersed areas. Therefore, the significant projected increase in employment growth will not result in a significant increase in neighborhoods where employment densities can support fixed-route transit. As shown in Figure 41, increased employment in transit-supportive neighborhoods outside of Nashville will primarily occur in two adjacent areas:

- La Vergne and the northern part of Smyrna. This area is currently served by RTA commuter bus service.
- Murfreesboro, including neighborhoods that are currently served by Rover.

Although a large share of new employment will be located outside of areas that may support fixed-route service, there will be increased demand for transit in the form of reverse-commute services that bring workers from Davidson County to jobs in the rest of the region.

2040 COMBINED POPULATION AND EMPLOYMENT-BASED DEMAND

As noted above, much of the growth in residential population and employment between 2015 and 2040 will occur in and around established cities and towns, particularly along major regional corridors radiating out from Nashville (see Figure 42). There will also be significant growth widely dispersed across currently undeveloped areas. The increase in more transit supportive development along the major corridors indicates potential demand for new or increased regional services to and from Nashville, especially all-day and reverse-commute services:

- **Southeast,** along I-24 and US 41, including the communities of Murfreesboro, La Vergne, and Smyrna. This corridor is already served by RTA Routes 84X Murfreesboro Express and 86X Smyrna/La Vergne Express during peak hours, as well as by Route 96X Murfreesboro Relax & Ride, which operates trips in both directions throughout the day.
- **South,** along I-65 south of Nashville, connecting to Brentwood, Cool Springs, and Franklin. This corridor is currently served by Routes 91X Franklin Express and 95X Spring Hill Express.
- **Northeast,** including Goodlettsville, Hendersonville, and Gallatin, which are currently served by Routes 87X Gallatin Express and 92X Hendersonville Express.

Along all three corridors, higher levels of development will likely produce demand for more all-day and reverse-commute service, such as Route 96X Murfreesboro Relax & Ride, which serves Murfreesboro, Smyrna, and La Vergne throughout the day. There will likely also be demand for all-day regional services in the northeast, east, and south corridors as well.

In some regional centers, increasing population and employment levels will create demand for new and expanded local services. At present, local transit service is provided in Clarksville, Franklin, and Murfreesboro. As these

FIGURE 40 2040 EMPLOYMENT DISTRIBUTION

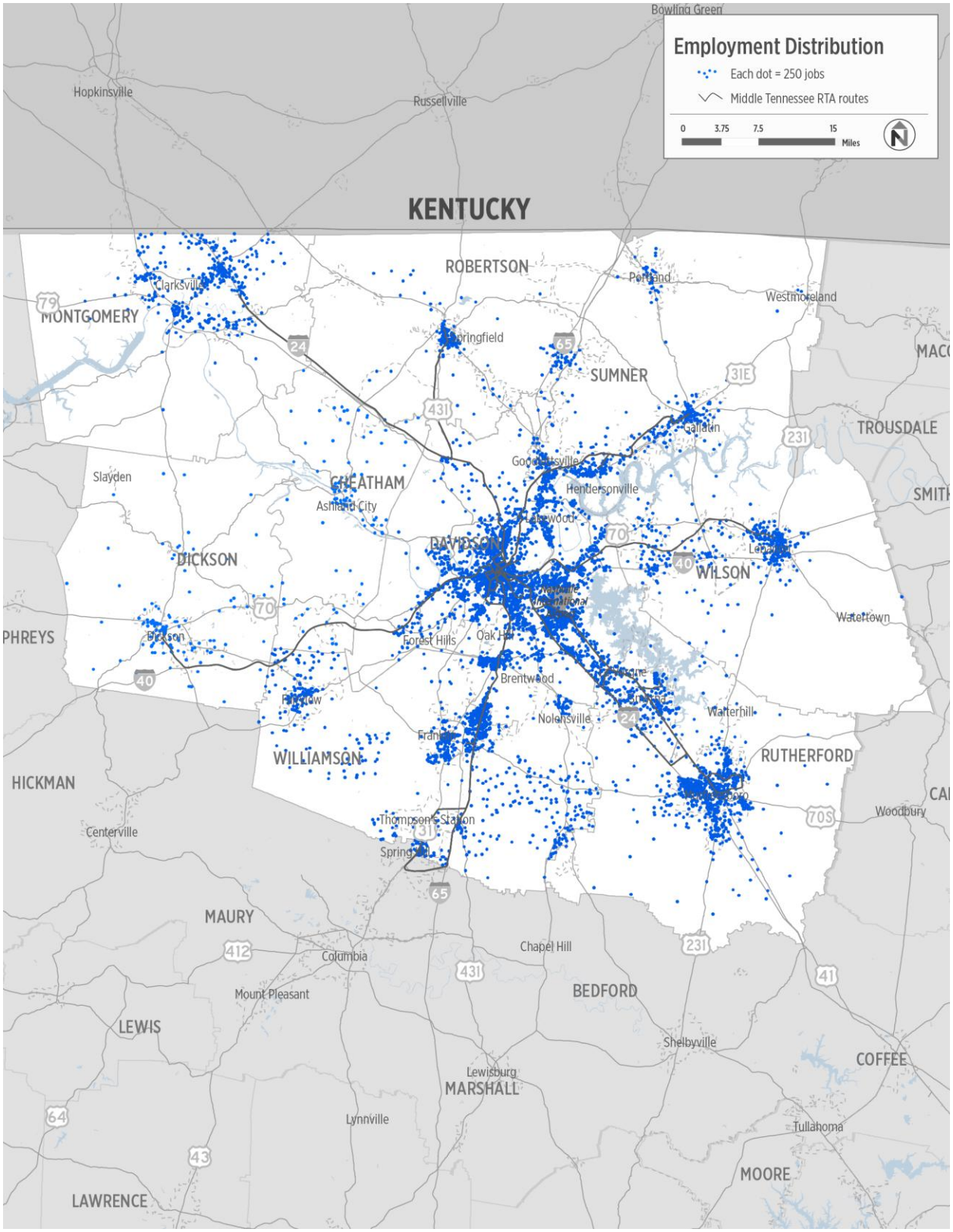


FIGURE 41 2040 EMPLOYMENT DENSITY

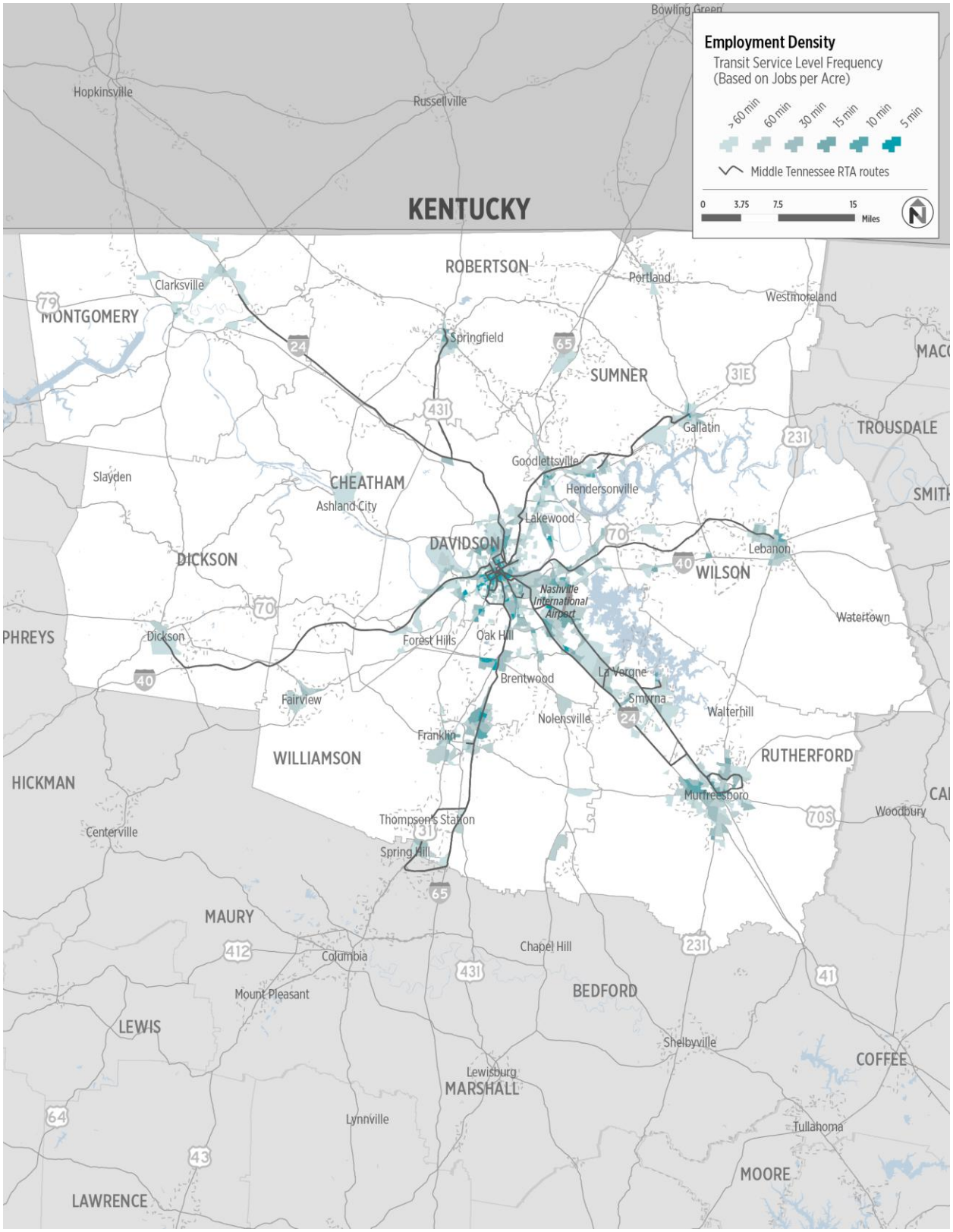
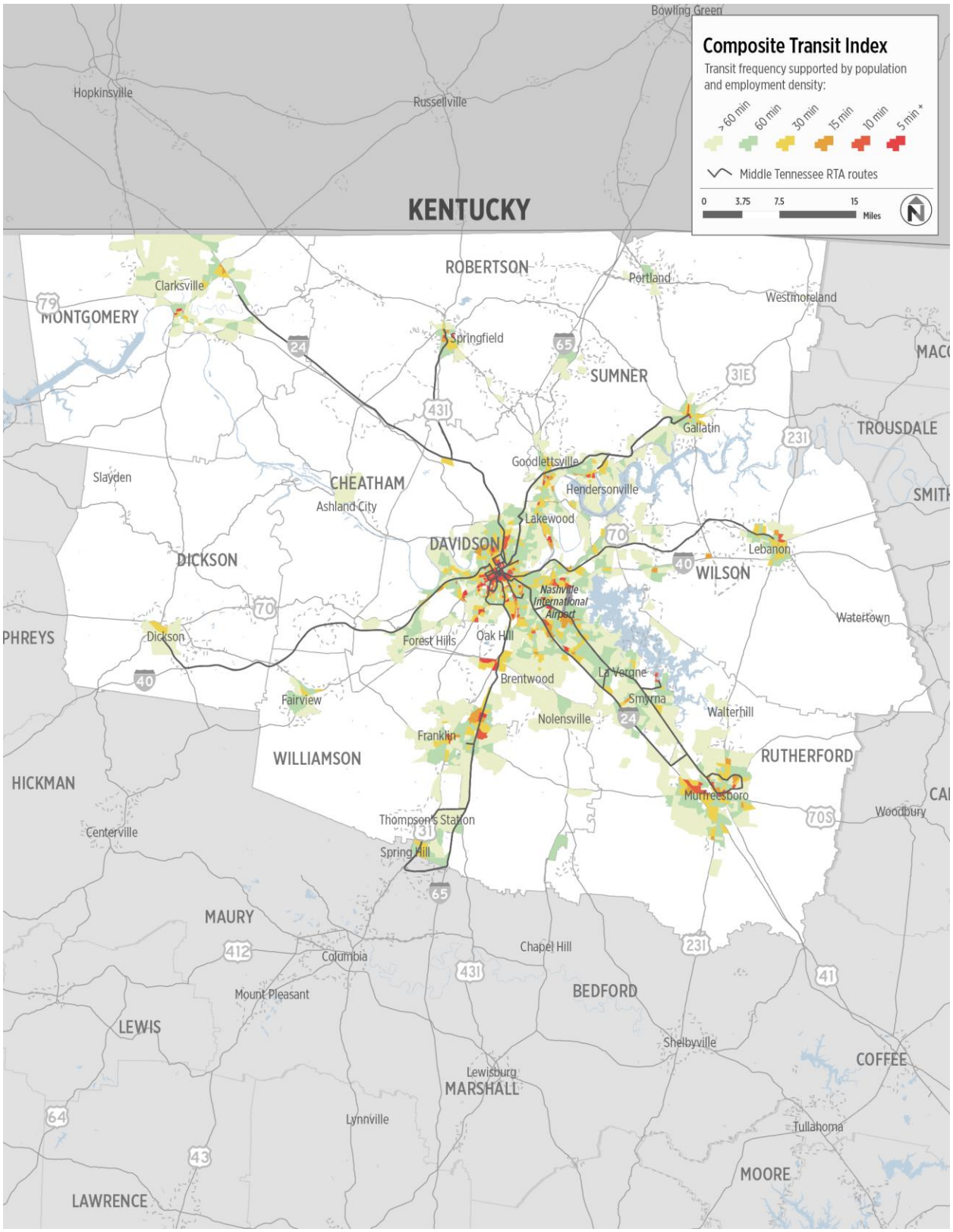


FIGURE 42 2040 COMPOSITE TRANSIT INDEX



communities grow, the demand for more local service will grow. In addition, demand for local service will emerge in many communities that are not currently served:

Northeast

- Goodlettsville
- Hendersonville
- Gallatin

East

- Lebanon

Southeast

- La Vergne
- Smyrna

South

- Brentwood
- Cool Springs

CURRENT AND FUTURE TRAVEL PATTERNS

For transit to be effective, it must take people from where they are to where they want to go. In Middle Tennessee, the largest volumes of trips have historically been to and from downtown Nashville, and this continues to be the case today. However, recent growth has been outward, and thus there is increasing demand for service to other places.

People also travel for many reasons including to and from work and school, and for shopping, medical, recreation, social, and other purposes. Transit serves all types of trips, but for all transit systems, work trips are particularly important. This is for a number of reasons, including public policy and because many work trips are concentrated around times and to places that can be very effectively served by transit (for example, peak period trips to and from downtown Nashville). Transit serves work trips throughout the day, but the highest numbers of trips are made during morning and late afternoon peak periods. Trips for other purposes typically comprise much lower volumes than work trips, between more dispersed locations, and are often more oriented toward the midday and evening.

2010 REGIONAL TRAVEL FLOWS

Even as the region has grown outward, the largest travel volumes in the nine counties that surround Davidson County continue to be to and from Nashville, and to a lesser extent to and from Murfreesboro and Lebanon.

All Trip Types

As of 2010, for all types of trips, the heaviest travel flows for the region continue to be most heavily centered on Nashville, and are in the northeast, east, and south corridors (see Figure 43). Other high travel flows are to and from Murfreesboro and between Franklin and Brentwood.

Work Trips

Home-based work trips are highest in the northeast, southeast, and south corridors:

Northeast

- Gallatin - Hendersonville
- Goodlettsville - Nashville

FIGURE 43 CURRENT REGIONAL TRAVEL FLOW, ALL TRIPS

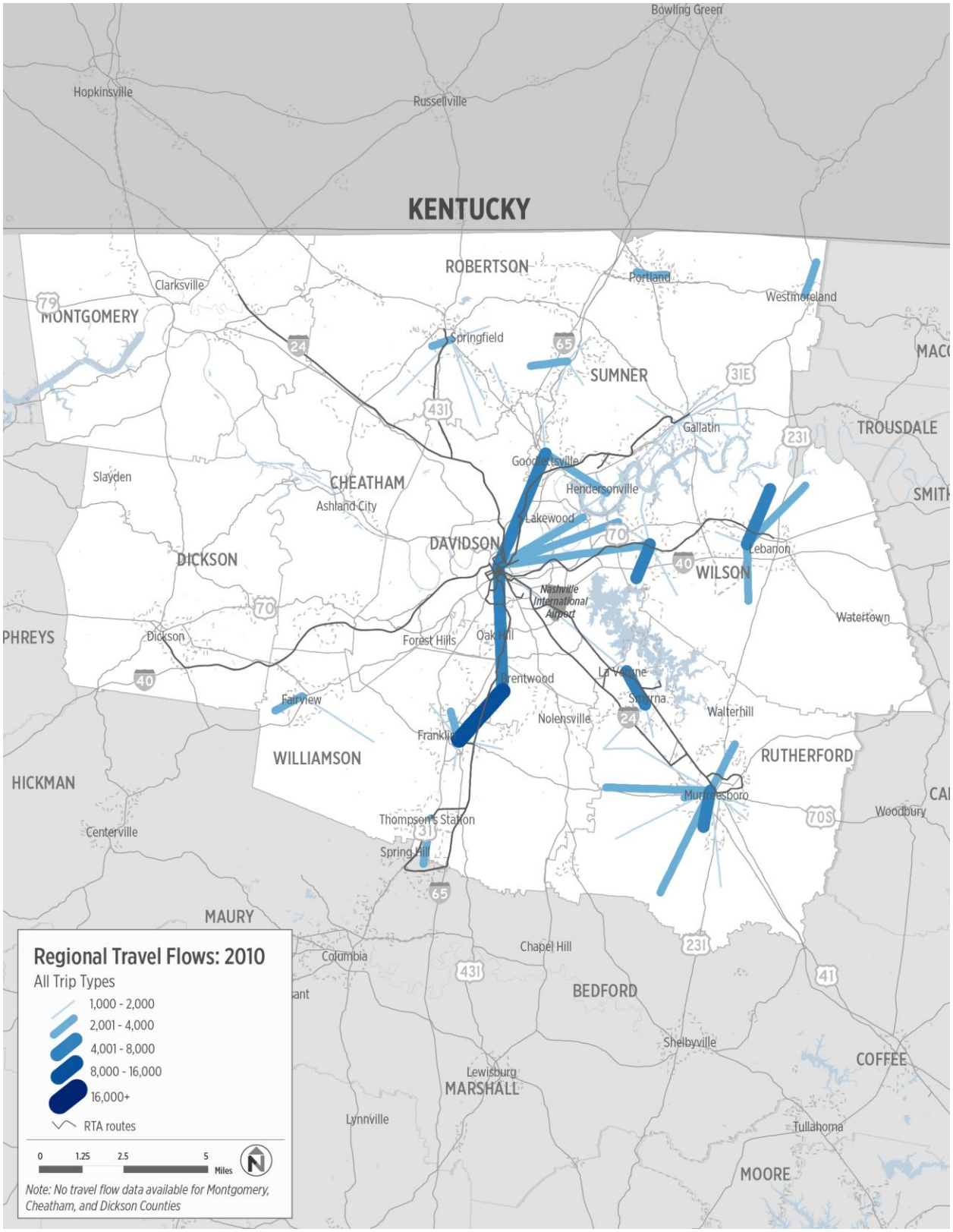
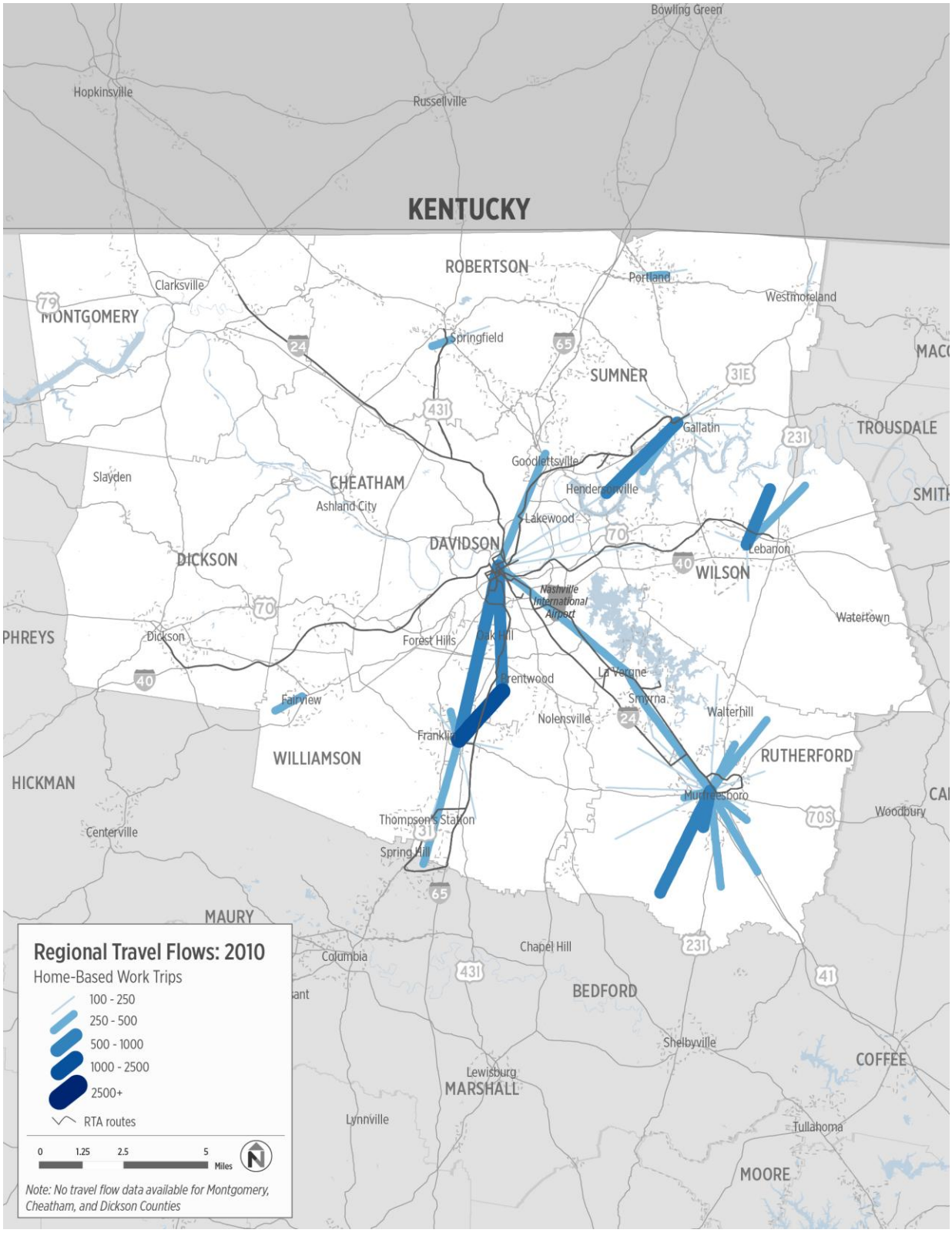


FIGURE 44 CURRENT REGIONAL TRAVEL FLOW, HOME-BASED WORK TRIPS



East

- To and from Lebanon

Southeast

- Murfreesboro – Smyrna/La Vergne
- Smyrna/La Vergne – Nashville
- To and from Murfreesboro from surrounding areas
- Smyrna

South

- Spring Hill – Franklin/Cool Springs
- Franklin/Cool Springs – Brentwood
- Franklin/Cool Spring - Nashville
- Cool Springs

Somewhat surprisingly, travel flows between communities along the east corridor and Nashville are not among the highest in the region. However, the Music City Star attracts more riders than express bus routes in the northeast, southeast, and south corridors. This is one indication of commuter rail's higher attractiveness relative to express bus service.

2040 REGIONAL TRAVEL FLOWS

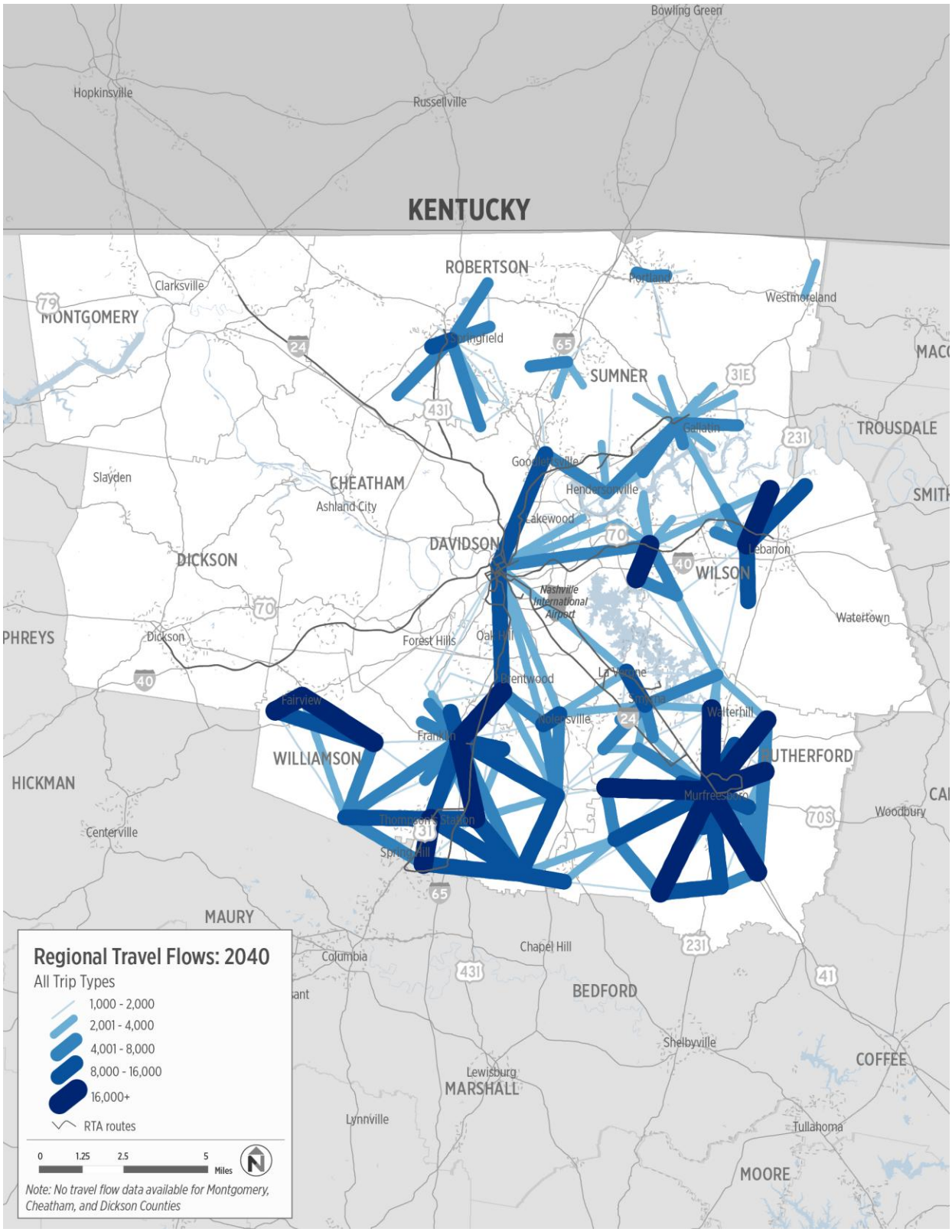
By 2040, both the population and the number of jobs in the region are projected to increase by 80%. These increases will produce very large increases on overall travel volumes and changes in travel patterns.

ALL TRIP TYPES

Through 2040, the most significant changes in travel patterns will occur in the south and southeast corridors, and particularly in Rutherford and Williamson Counties (see Figure 45):

- Travel flows in both Rutherford and Williamson Counties will grow to be larger than those to and from Nashville. The heaviest flows will be to and from Murfreesboro and Franklin/Cool Springs. This indicates that there will be demand for significant increases in local services.
- Travel flows throughout the entire South Corridor between Spring Hill and Nashville will be high, indicating the demand will develop for all day regional serves between Spring Hill and Nashville via Franklin, Cool Spring, Brentwood, and other intermediate points.
- Travel flows will also be high throughout the southeast corridor between Murfreesboro and Nashville, although not as high as in the south corridor.
- Travel volumes will increase significantly in the east corridor between Lebanon and Nashville, indicating demand for all day Music City Star service.
- Travel flows will also be high in the northeast corridor between Gallatin and Nashville, indicating demand for all day regional service between Gallatin and Nashville via Hendersonville and Goodlettsville.
- There will much higher travel flows to and from Springfield, Gallatin, Lebanon, and Mt. Juliet, indicating that demand will grow for local services in those areas.

FIGURE 45 2040 REGIONAL TRAVEL FLOW, ALL TRIPS



WORK TRIPS

In a similar manner as for all trip types, the largest growth in work trips will be in Rutherford and Williamson Counties (see Figure 46):

- Work trip flows in both Rutherford and Williamson Counties will be the largest in Middle Tennessee, and much higher than in other areas. As with all trip types, the heaviest flows will be to and from Murfreesboro and Franklin/Cool Springs. High growth in these areas indicates that there will be demand for significant increases in local services to serve work trips.
- Work trip flows throughout the entire south corridor between Spring Hill and Nashville will be high. Although travel flows to and from Nashville will be lower than flows within Williamson County, they will still grow significantly, indicating demand for stronger commuter service. Furthermore, with much higher traffic volumes on I-65, it will become increasingly important to develop services that can bypass freeway congestion.
- Work trip flows will also be high throughout the southeast corridor between Murfreesboro and Nashville. As in Williamson County, travel flows will be larger within Rutherford County than to and from Nashville; however the increases in travel to and from Nashville will be very large. As with much higher traffic volumes on I-65, it will become increasingly important to develop southeast corridor services that can bypass freeway congestion on I-24.
- Work trip volumes will not increase significantly in the east corridor between Lebanon and Nashville, although work trip volumes to and from Lebanon will grow significantly.
- Work flows in the northeast corridor will be highest to and from Gallatin, between Gallatin and Hendersonville, between Hendersonville and Goodlettsville, and between Goodlettsville and Nashville, indicating demand for increases in commuter services through the corridor.
- There will much higher work trip flows to and from Springfield, again indicating that demand will grow for local service in the Springfield area.

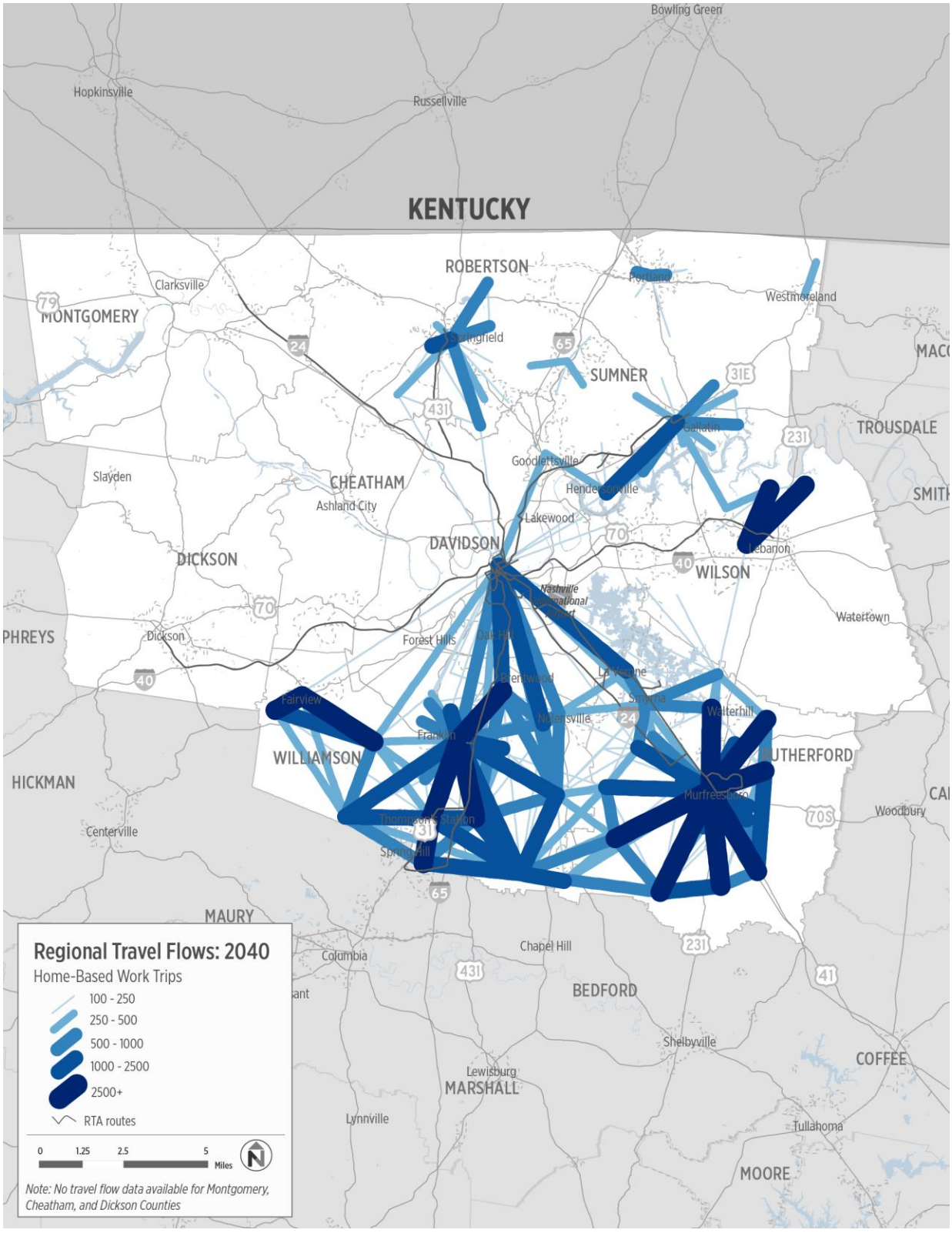
CONCLUSIONS

RTA's services connect outlying cities to downtown Nashville via express buses and commuter rail. Buses serve areas north, west, south, and southeast of Nashville, and Music City Star commuter rail serves cities to the east of Nashville. In terms of location, these services are generally well matched to the major population centers outside of Nashville and correspond to the major travel flows between Nashville and the cities to its immediate north, east, and south.

At the present time:

- The region's population is concentrated in Nashville and in several neighboring cities, particularly to the south, southeast, and northeast of Nashville, plus Clarksville to the northwest. Major population centers include Clarksville, Murfreesboro, and Franklin.
- Apart from these larger urban areas, other notable residential concentrations include Hendersonville, La Vergne, Smyrna, and Gallatin.
- Outside of Nashville, employment is generally concentrated near the centers of established cities and towns, plus Cool Springs.

FIGURE 46 2040 REGIONAL TRAVEL FLOW, HOME-BASED WORK TRIPS



- There are also notable commercial and industrial clusters located along or at the intersections of major interstates and highways, including the interchange of Interstate 65 and Old Hickory Boulevard (including several corporate headquarters), Interstate 24/US 79 in Clarksville, La Vergne and Smyrna between Interstate 24 and Murfreesboro Pike (several warehouse and manufacturing facilities), and Cool Springs along Interstate 65 in Franklin.
- When population and employment are considered together, areas where there is significant demand for service include Franklin and Cool Springs, Clarksville, Murfreesboro, and the US 31 East corridor from Nashville to Hendersonville and Gallatin.

Looking ahead to 2040, the population and number of jobs in the 10-county region will grow by approximately 80%. These increases will have profound impacts on travel within the region, including the demand for transit:

- The number of commuters to Nashville will increase significantly, as although 111% of the region's population growth will be in the nine counties surrounding Davidson County, 38% of the new jobs will be created within Davidson County. This will create significant new demands for commuter services to serve jobs in Nashville's core.
- By 2040, the number of jobs outside of Davidson County will increase from 534,000 to more than a million, and from 50% of the region's total to 55%. These increases in jobs will mean that many Davidson County residents will begin commuting to jobs outside of Davidson County, which will increase the demand for reverse commute service.
- Increases in both population and jobs will increase the demand for local services, both to serve local trips and connect with regional services. This will increase the demand for all day local and regional services (as has already occurred in the Murfreesboro – Nashville corridor.

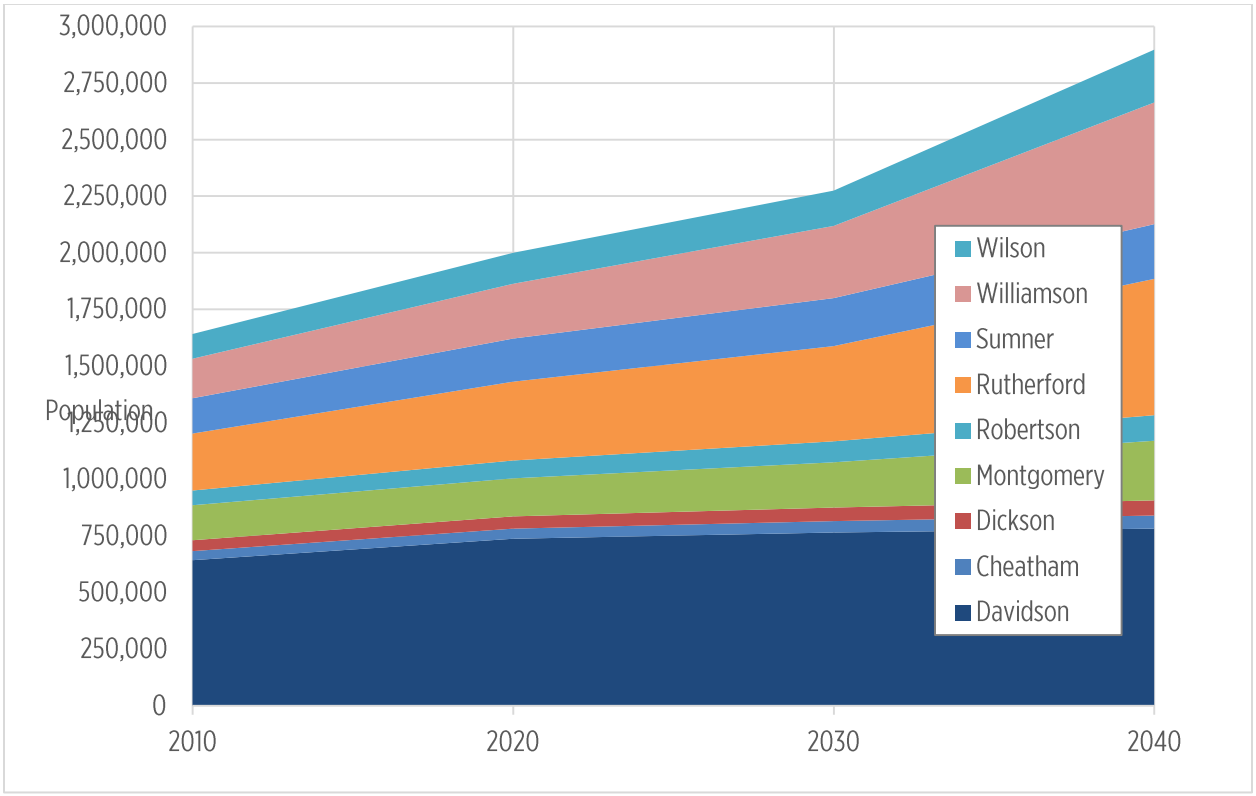
4. ASSESSMENT OF THE EXISTING SYSTEM

At the present time, transit needs outside of Davidson County are still relatively limited. The transit services that are provided are also limited:

- **Commuter service to and from downtown Nashville:** Music City Star and RTA's express bus routes to and from Nashville
- **Local service in regional centers:** Rover in Murfreesboro, Franklin Transit, and Clarksville Transit
- **Mid-Cumberland Human Resource Agency:** Provides curb-to-curb transportation services throughout the Cumberland Region, excluding Davidson County; the service is open to all, with priority for medical trips

However, transit needs are growing significantly. Since 1965, Middle Tennessee has grown from approximately 750,000 residents to over 1.7 million. Today, the Nashville area has approximately the same population as the Austin, TX and Charlotte, NC areas. Looking forward, rapid growth will continue; by 2040, the region is projected to have nearly 3.1 million residents (see Figure 47). This growth will mean that the Nashville area will become larger than either Portland, OR or Denver, CO are today and nearly as large as Seattle, WA is today. These are all cities that have developed very robust transit systems over the past few decades—transit systems that have made those cities and regions much more livable and competitive.

FIGURE 47 NASHVILLE AREA PROJECTED POPULATION GROWTH 2010 TO 2040



Importantly, most of the population growth—111%—will occur in the nine counties surrounding Davidson County, while employment growth will be split much more evenly between Nashville and the surrounding counties. This growth, and the distribution of the growth, will greatly increase the demand for transit service to and from Nashville, for reverse commute service from Nashville to outlying counties, and for new and expanded services in the outlying counties. This chapter describes issues with existing services that will need to be addressed to improve those services and to meet future needs.

MAJOR ISSUES

As described in the Overview of Existing Services and the Market Analysis, there are a number of issues with RTA's existing services that need to be addressed in the short term and many market-based demands for improvement in the longer term:

- **Service is limited.** RTA commuter services—the Music City Star and express bus routes—typically provide only two to three trips in each direction that serve a short window of work hours. Local services only operate during the daytime, and most operate only once an hour. More service, including longer spans, will be required to provide potential riders with sufficient flexibility to make service convenient.
- **Express bus services are fast, but not fast enough.** Most express routes make only one or two stops in outer areas and then express to Nashville. However, they are stuck in the same traffic as automobiles to and from Nashville, and then are slow within Nashville. Improvements are needed to make express bus service faster.
- **Express bus park-and-ride lots are often inconveniently located.** Most park-and-ride lots are located at places where a local business, church, or other organization has agreed to share use of their lots, rather than at locations that would be most convenient to users. To make service more attractive, park-and-ride lots at more convenient locations will be needed. This is especially true for MTA and RTA express bus services.
- **Most park-and-ride lots are not marked.** Many park-and-ride lots, especially those shared with local organizations, provide no indication that they are park-and-ride lots, nor do they provide any information on available services. This makes it difficult for users to learn that services are available, and for first time users to find it. Better signage and information is needed to make park-and-ride lots more visible and service easier to use.
- **Express bus schedules are not well-suited for typical work schedules.** Nearly all express routes operate with limited schedules designed for state employees who work early schedules. As a result, nearly all trips arrive in downtown Nashville before 7:30 AM and the last trips depart before 5:00 PM. Consequently, most express bus riders are state employees, as service is effectively not available for those with more typical work schedules. Longer spans of service will be needed to serve a wider range of work schedules.
- **Demand will grow for more robust transit service.** The growth that is occurring in Davidson County and the surrounding counties will create demand for all day regional services (in a similar manner as has already occurred in the Murfreesboro corridor).
- **Demand for reverse commute service will emerge.** As employment continues to grow in outer areas such as Brentwood and Cool Springs, more Davidson County residents will begin to commute outward. These numbers will be lower than commutes to Nashville, but will create demand for reverse commute service.
- **Demand for local service will grow and emerge.** At present, local transit service is provided in Clarksville, Franklin, and Murfreesboro. As these communities grow, the demand for more local service will grow. In addition, demand for local service will likely emerge in other communities, including Gallatin, Hendersonville, Goodlettsville, Cool Springs, and others.
- **First Mile/Last Mile connections will become increasingly important.** As the RTA expands regional services, new ways will need to be provided for people to access them. At present, access and egress is largely limited to park-and-ride, kiss-and-ride, and Clarksville Transit local bus service.
- **Higher quality services will be needed.** Throughout the country, there has been an increased emphasis on the development of new types of higher quality transit services. These include commuter rail, rapid transit, light rail, Bus Rapid Transit, Rapid Bus/BRT lite, streetcar, and more. The stakeholder outreach conducted for this effort has made it clear that one of the strongest desires among Middle Tennessee residents with respect to transit is for higher quality services.

SERVICE IS LIMITED

Including the Music City Star, the RTA provides 11 routes/lines that connect the nine counties surrounding Davidson County with Nashville. These routes do serve all major corridors, but service is very limited (see Table 9).

- All RTA services only operate on weekdays.
- With the exception of Route 96X Nashville/Murfreesboro Relax & Ride and a single Friday evening round trip on the Music City Star, all service operates only during peak periods.
- Most routes provide only two or three AM inbound and PM outbound trips, which does not provide sufficient flexibility for many riders.

TABLE 9 EXPRESS BUS SERVICE ONE-WAY TRIPS

		One-Way Trips		
Corridor	Route	AM Inbound	PM Outbound	Other
North	87X Gallatin Express	2	3	0
	92X Hendersonville Express	2	3	0
Northwest	89X Springfield/Joelton Express	2	2	0
	94X Clarksville Express	3	3	2
West	88X Dickson Express	2	2	0
South	91X Franklin Express	3	3	0
	95X Spring Hill Express	2	2	0
Southeast	84X Murfreesboro Express	3	3	0
	86X Smyrna/La Vergne Express	3	3	0
	96X Nashville/Murfreesboro Relax & Ride	4	4	10
East	Music City Star	3	3	*See Note*

Note: The Music City Star provides an evening trip on Fridays.

In addition, and as described further below, express bus schedules are designed to serve the work schedules of state employees, rather than a broader time span to serve both state employees and those that work more typical work schedules. This further limits service. To make commuter services available to a broader cross-section of Nashville's commuters, more service will be required to provide commuters more flexibility and that will serve a wider range of work schedules.

Local services only operate during the daytime, and most operate only once an hour. More service, including longer spans, will also be required to provide potential riders with sufficient flexibility to make service convenient.

EXPRESS BUS SERVICES ARE FAST, BUT NOT FAST ENOUGH

Most express routes make only one or two stops in outer areas and then run express to Nashville. However, they are stuck in the same traffic as automobiles to and from Nashville, and then are slow within Nashville. As part of the outreach conducted at the beginning of this study, many have stated that express bus service is not attractive, in large part, because "it is stuck in the same traffic as everyone else." The fact that transit service is too slow to be attractive has been a predominant theme of an extensive outreach program.

Express bus trips are slower than trips by private automobile for three reasons:

1. Park-and-ride lots are often inconveniently located. As a result, many people either travel out of direction, or would have to travel out of direction to access express bus service.
2. Buses are, in fact, stuck in the same traffic as regular traffic.
3. Service within Nashville is very slow, especially between downtown and the West End.

Each of these issues can be addressed to make RTA express bus service faster. First, and as described in more detail below, most park-and-ride lots are inconveniently located. Ideally, park-and-ride lots should be located along a line between where commuters work and where they are going. At the present time, too many park-and-ride lots are not. This requires commuters to drive out of their way to access them, which increases travel times.

Second, most of Middle Tennessee's freeways—especially I-24 and I-65 to the south—are very congested during peak periods, and express buses are stuck in the same traffic as regular traffic. Transit is most attractive when it can provide a travel time advantage over automobile travel, and existing express bus service does not. There are a number of ways to make express bus service faster, include allowing express buses to use freeway shoulders when regular traffic is congested (see Figure 48) to constructing stations and park-and-ride lots along freeways so that buses do not have to lose time exiting and re-entering freeways to serve intermediate stops.

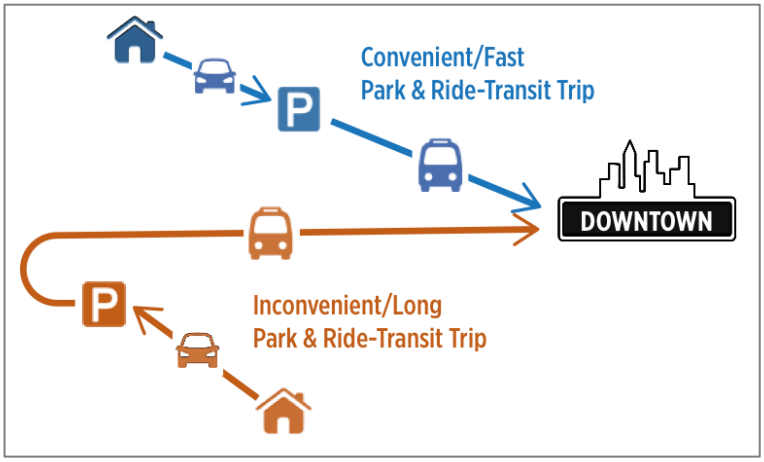
FIGURE 48 BUS ON FREEWAY SHOULDER OPERATIONS (MINNEAPOLIS AND CHICAGO AREAS)

Finally, travel times are slow once buses exit freeways and enter downtown Nashville. Many express routes serve both downtown and the West End, and travel times between downtown and the West End are as long as 20 minutes. Improvements to downtown transit operations including Transit Emphasis Corridors and transit priority, in addition to improving local transit, would also make express service faster.

PARK-AND-RIDE LOTS ARE OFTEN INCONVENIENTLY LOCATED

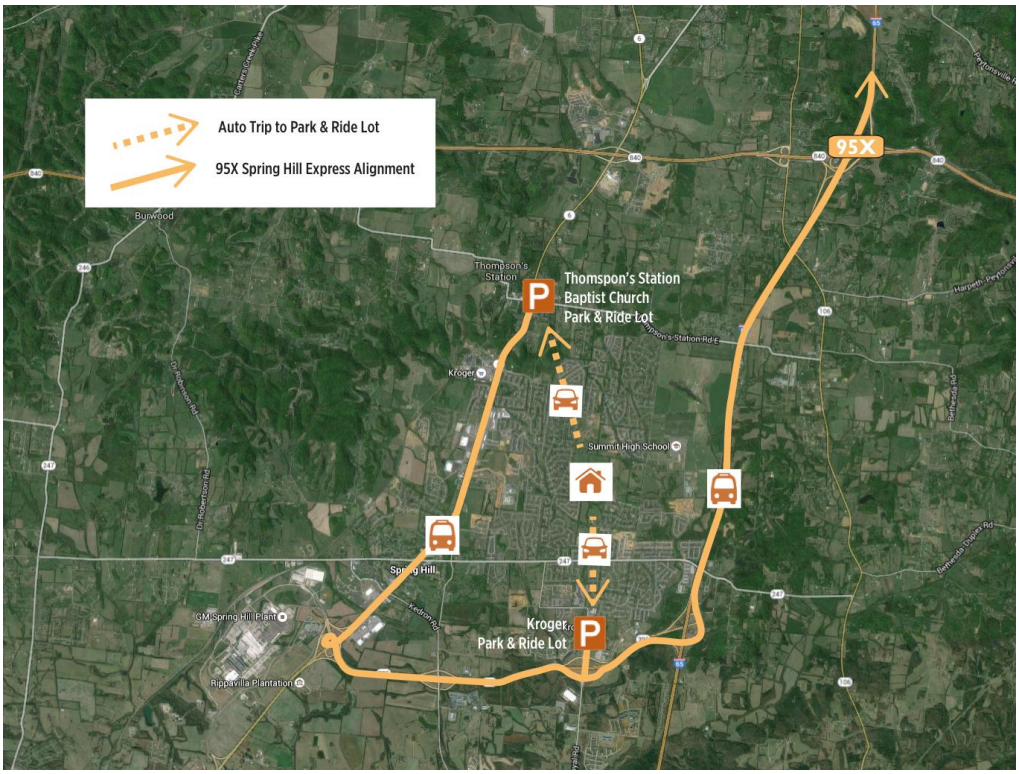
Most park-and-ride lots are located at places where a local business, church, or other organization has agreed to share use of their lots, rather than at locations that would be most convenient for users. The development of park-and-ride lots in this manner reduces costs, but often results in park-and-ride lots being located in places that are inconvenient to express bus users. Ideally, park and ride lots should be located along a line between where people live and where they are traveling to avoid out of direction travel that increases total travel times (see Figure 49).

FIGURE 49 CONVENIENT AND INCONVENIENT EXPRESS BUS TRIPS



At the present time, a large proportion of park-and-ride lots require out-of-direction travel; one example is the two park-and-ride lots that are served by Route 95X Spring Hill. In the Spring Hill area, most live in an area bounded by Thompson's Station Road to the north, Route 6 to the west, Route 396 to the south, and I-65 to the east. As a result, residents must drive west and/or north to the Thompson's Station Baptist Church Park-and-Ride Lot and then ride the bus south and east for more than 20 minutes before heading north on I-65 (see Figure 50). Alternatively, they must drive up to four miles south to the Kroger park-and-ride lot to catch a northbound bus.

FIGURE 50 ROUTE 95X CIRCULATION AND PARK AND RIDE LOTS



Source: Google Maps

Many travelers will avoid transit if it requires too much out-of-direction travel. To make service for attractive and more convenient, the RTA will need to develop more purpose built park-and-ride lots that are at or very close to intersections with major highways and along the direct paths of express routes. The park-and-ride lot at Exit 8 on I-24 in Clarksville is an example of the park-and-ride locations that will be needed (see Figure 51).

FIGURE 51 CLARKSVILLE/ROSSVIEW ROAD PARK AND RIDE LOT AT I-24 EXIT 8

Source: Google Maps

MOST PARK-AND-RIDE LOTS ARE NOT WELL MARKED

For people to be able to use transit, they need to be able to find it. At the present time, most RTA park-and-ride lots are completely unmarked, with no indication that park-and-ride spaces or express bus service is available, no designated bus stops, and no information on available services (see Figure 52). Some park-and-ride lots do have signage, but even these lots do not have designated bus stops or service information. Furthermore, many of the park-and-ride lots are not indicated on the RTA system map.

The lack of information increases uncertainty among potential riders about whether the service actually exists, and for first time riders, about whether they are at the right place. The lack of signage also makes it harder for local residents to learn about the availability of service. To make it easier for potential riders to learn about the availability of service and to prevent negative first impressions due to the inability or difficulty in finding the lots and express service, the RTA will need to improve signage and information.

FIGURE 52 UNSIGNED AND SIGNED PARK AND RIDE LOTS

UNSIGNED: PLEASANT VIEW

SIGNED: DOWNTOWN SPRINGFIELD

EXPRESS BUS SCHEDULES ARE NOT WELL-SUITED FOR TYPICAL WORK SCHEDULES

Nearly all express routes operate with limited schedules designed for state employees who work early schedules. As a result, nearly all trips arrive in downtown Nashville before 7:30 a.m. and the last trips depart before 5:00 p.m. (see Table 10). On two routes (91X Franklin Express and 95X Spring Hill Express), the last trips depart from the West End or Music City Central at 4:08 and 4:10 p.m., respectively. Consequently, most express bus riders are state employees.

State employees tend to work earlier hours than other downtown employees, many of whom start at 8:00 a.m. or later and work until 5:00 p.m. or later. To serve a broader cross-section of Nashville's workers, service spans will need to be extended to serve start times up to at least 8:30 a.m. and end times until at least 5:30 or 6:00 p.m.

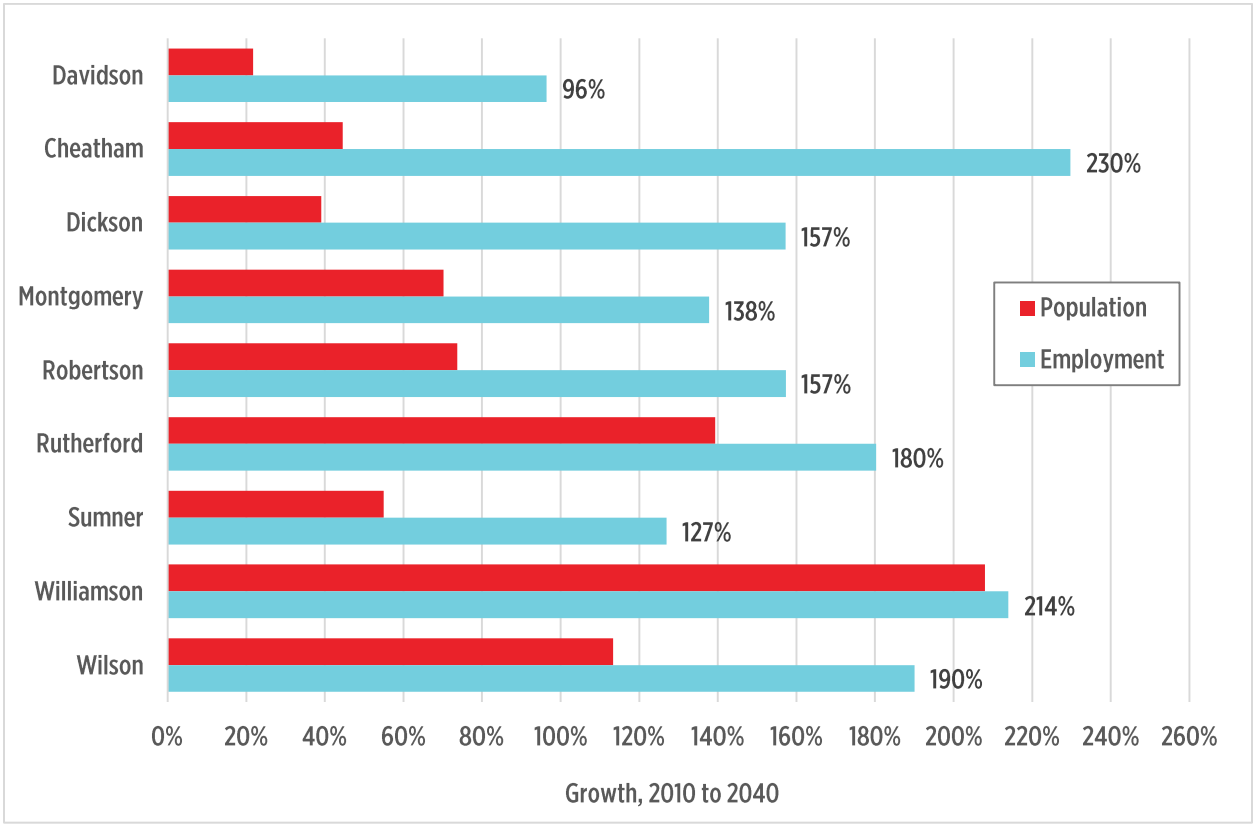
TABLE 10 EXPRESS BUS SPANS OF SERVICE

Corridor	Route	Last AM Arrival at MCC	Last Departure from MCC	Last AM Arrival at West End	Last Departure from West End
North	87X Gallatin Express	7:15 AM	5:10 PM	7:35 AM	4:37 PM
	92X Hendersonville Express	7:20 AM	5:12 PM	7:40 AM	4:38 PM
Northwest	89X Springfield/Joelton Express	7:20 AM	5:10 PM	7:44 AM	4:37 PM
	94X Clarksville Express	7:45 AM	4:50 PM	--	--
West	88X Dickson Express	7:25 AM	4:50 PM	--	--
South	91X Franklin Express	8:04 AM	4:55 PM	8:08 AM	4:08 PM
	95X Spring Hill Express	7:22 AM	4:10 PM	--	--
Southeast	84X Murfreesboro Express	7:45 AM	4:43 PM	--	--
	86X Smyrna/La Vergne Express	7:45 AM	4:48 PM	--	--
	96X Nashville/Murfreesboro Relax & Ride	All Day		--	--

DEMAND WILL GROW FOR MORE ROBUST TRANSIT SERVICE

Between 2010 and 2040, the population of the 10-county area will grow by 80% from 1.7 million to nearly 3.1 million, and the number of jobs will grow by 80% from 1.1 million to nearly 1.9 million. Most of this growth will occur outside of Davidson County, where population will increase by 111% and jobs by 100%. The largest increases will occur in Williamson, Rutherford, Wilson, and Montgomery Counties (see Figure 53).

FIGURE 53 POPULATION AND EMPLOYMENT GROWTH BY COUNTY



These increases will have profound impacts on travel within the region, including the demand for transit:

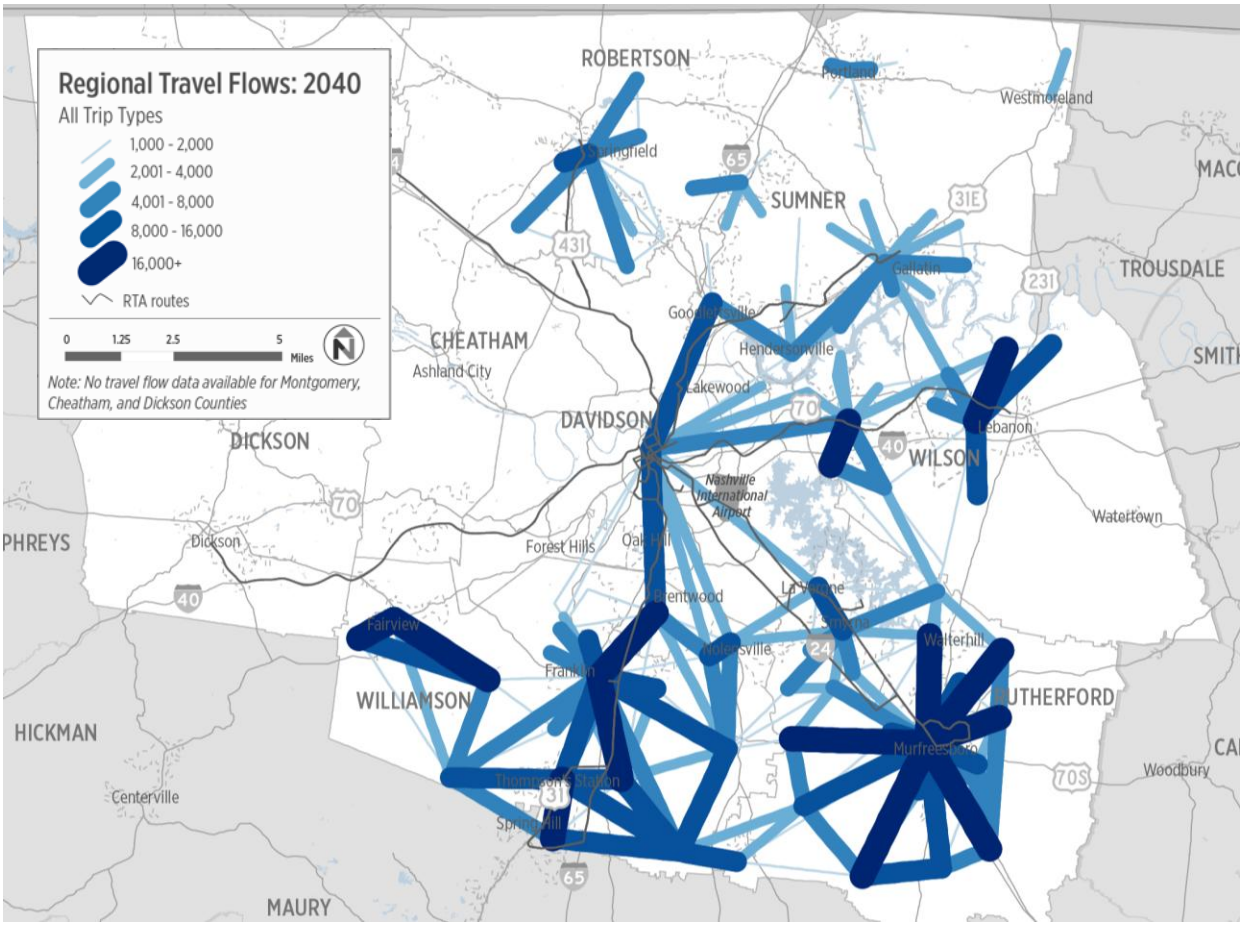
- The number of commuters to Nashville will increase significantly, as 111% of the region's population growth will be in the nine counties surrounding Davidson County, and 38% of the new jobs will be created within Davidson County. This will create significant new demands for commuter services to and from Nashville's core.
- By 2040, the number of jobs outside of Davidson County will increase from 534,000 to more than a million, and from 50% of the region's total to 55%. These increases in jobs will mean that many Davidson County residents will begin commuting to jobs outside of Davidson County, which will increase the demand for reverse commute service.
- Increases in both population and jobs will increase the demand for local services, both to serve local trips and connect with regional services. This will increase the demand for all day local and regional services (as has already occurred in the Murfreesboro – Nashville corridor).

All Day Regional Service

Through 2040, demand for all day transit service will grow from between a number of regional centers and Nashville, and for service to and from regional centers. As shown in Figure 54, there will be high levels of transit demand along four regional corridors:

- **Northeast Corridor,** between Gallatin and Nashville, including Hendersonville and Goodlettsville
- **East Corridor,** between Lebanon and Nashville, which is served by the Music City Star
- **Southeast Corridor,** between Murfreesboro and Nashville, including Smyrna and La Verge
- **South Corridor,** between Spring Hill and Nashville, including Franklin, Cool Springs, and Brentwood

FIGURE 54 2040 REGIONAL TRAVEL FLOWS – ALL TRIP TYPES



At present, only the southeast corridor is served with all day transit service (Routed 96X Murfreesboro Relax and Ride). This route currently provides 19 one-way trips that operate with irregular headways that range from 60 to 162 minutes. The other corridors are served by commuter services—the Music City Star and express bus routes—that only provide peak period, peak direction, weekday service.

For the northeast, southeast, and south corridors, the Nashville Area MPO's 2035 Regional Transportation Plan envisions "either light rail transit or dedicated lane BRT that would operate at high levels of service throughout the day. The specific mode or technology used will be determined by future study and depend heavily on development patterns, anticipated ridership, cost of construction, and public support for funding." Other options, such as Freeway BRT and BRT lite/Rapid Bus would also be potential solutions. In the East Corridor, Music City Star service could be increased to provide all day service.

Reverse Commute Service

By 2040, it is projected that the number of jobs in the nine-county area surrounding Davidson County will increase by 100% to more than one million. With these changes, more Davidson County residents will begin to commute outward. While these numbers will be lower than the number of trips to Nashville, they will still likely grow to be sufficiently

high to warrant reverse commute service. As shown in Figure 55, the areas where the largest number of jobs will be located are in the northeast, east, southeast, and south corridors:

Northeast

- Goodlettsville
- Hendersonville
- Gallatin

East

- Lebanon

Southeast

- La Vergne
- Smyrna

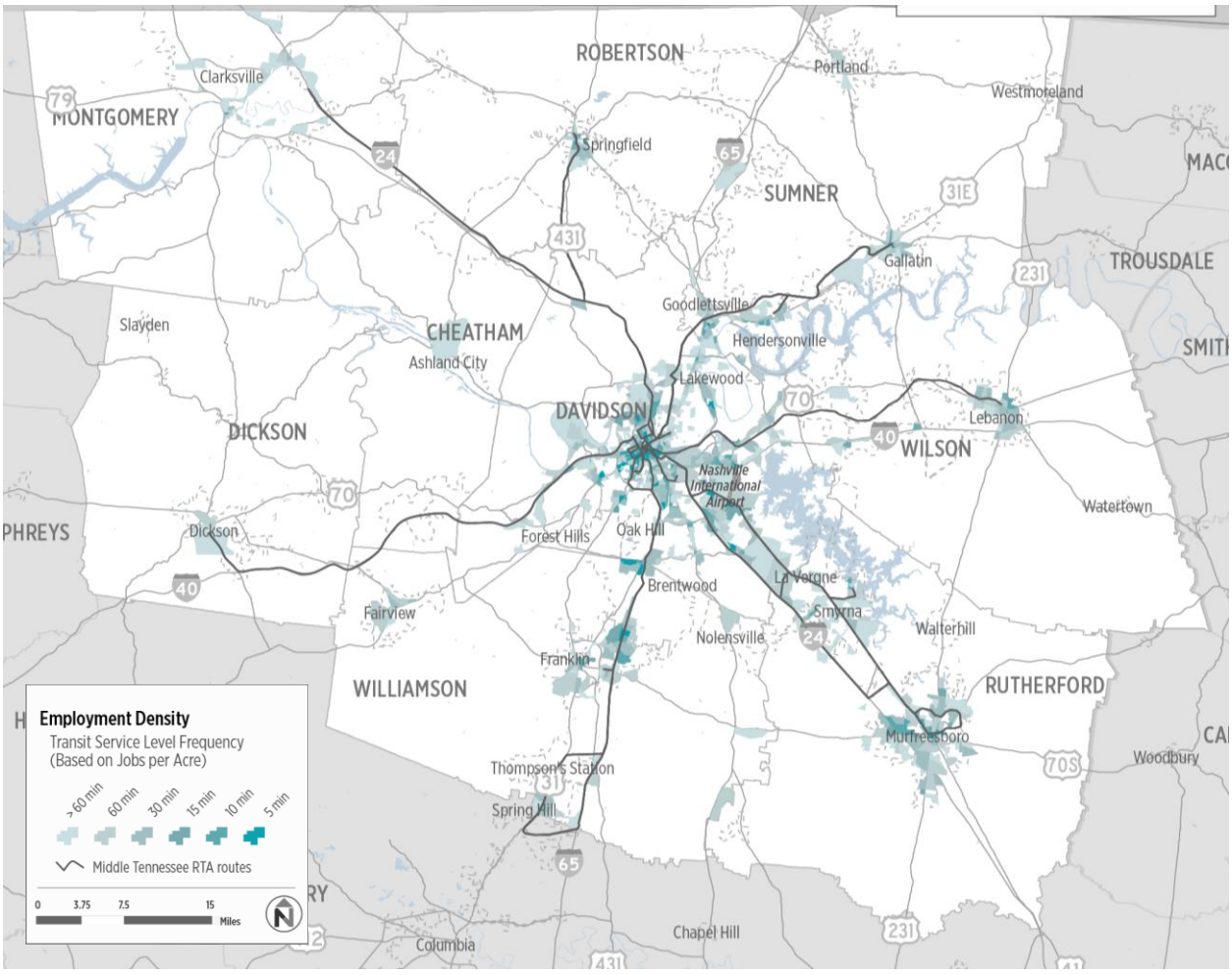
South

- Brentwood
- Cool Springs

Increases in jobs in these areas will create much more bi-directional demand than currently exists. Whereas these corridors are all currently served by express routes, those services are designed to serve those who commute to Nashville, and not those who commute from Nashville. Potential options for reverse commuter services include bi-directional service on the Music City Star and existing express routes and new reverse commute routes. In addition, the development of all day regional services, as described above, could also serve reverse commute trips.

Finally, and as described in more detail below, a particular challenge associated with the development of reverse commute trips will be last mile connections. While it will be possible to provide a variety of fixed-route services to outer areas, the final connection will still need to be made from fixed-route transit service to work sites and other areas. There are a number of different ways to develop these connections, and these will require the cooperation and involvement of local communities, local transit systems, and local businesses and other organizations.

FIGURE 55 2040 EMPLOYMENT DENSITY



Local Service

At present, local transit service is provided in Clarksville, Franklin, and Murfreesboro. As these communities grow, the demand for more local service will grow. In addition, demand for local service will emerge in many communities that are not currently served (see Figure 56). These include:

Northeast

- Goodlettsville
- Hendersonville
- Gallatin

East

- Lebanon

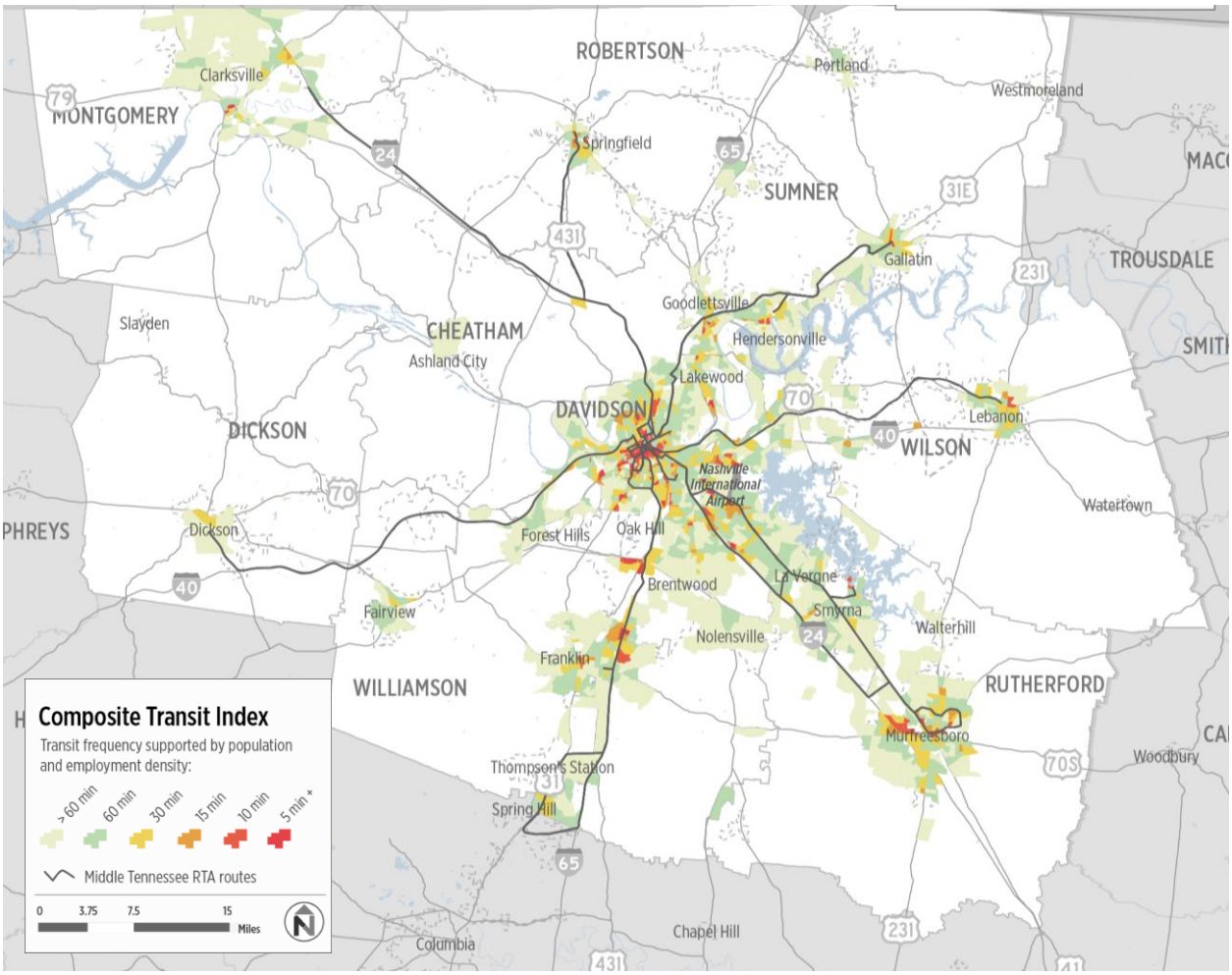
Southeast

- La Vergne
- Smyrna

South

- Brentwood
- Cool Springs

FIGURE 56 2040 TRANSIT DEMAND



The Nashville Area MPO's 2035 RTP also stresses the need for improved local transit services:

- **Urban Fixed-Route Service:** "By far the most critical piece of the long-range vision, the region must continue to expand the existing urban fixed-route services in Nashville, Clarksville, Franklin, and Murfreesboro. Urban services are the backbone of any regional transit system and must be optimized in order to ensure the success of investments in regional rapid transit or commuter rail. The vision calls for continued investment in existing local bus systems, the eventual introduction of fixed-route service in Springfield, Gallatin, Lebanon, Columbia, and Dickson, and the return of the urban streetcar in downtown Nashville, which serves as the central hub for the region."
- **Suburban and Commuter Circulators:** "As the region begins to implement rapid transit, commuter rail, or express coach services in each of the regional corridors, the vision calls for the development of local circulators in markets where a full-fledged urban fixed-route system would not make sense. Such local circulation will be important to customers to access regional services from primary destinations within their community. Suburban circulators, which would operate throughout the day, are envisioned for places like Goodlettsville, Hendersonville, Smyrna, La Vergne, and Brentwood, while commuter circulators, which would operate during peak commuting times, are envisioned for places like Portland, Spring Hill, Kingston Springs, and Ashland City."

There are a number of different ways in which local services could be expanded. In those that are located close to existing transit, those systems could expand outward. For example:

- Nashville MTA could expand northward to Goodlettsville, Hendersonville, Gallatin, La Vergne, Smyrna, and Brentwood.
- Franklin Transit could expand north and south to Cool Springs and Spring Hill.
- Murfreesboro's Rover could expand north to Smyrna and La Vergne.

A second option would be that RTA could begin providing local services in emerging areas, including those listed above and others such as Lebanon. A third option would be that local communities could develop their own systems, similar to the approaches used in Clarksville, Franklin, and Murfreesboro.

FIRST MILE/LAST MILE CONNECTIONS WILL BECOME INCREASINGLY IMPORTANT

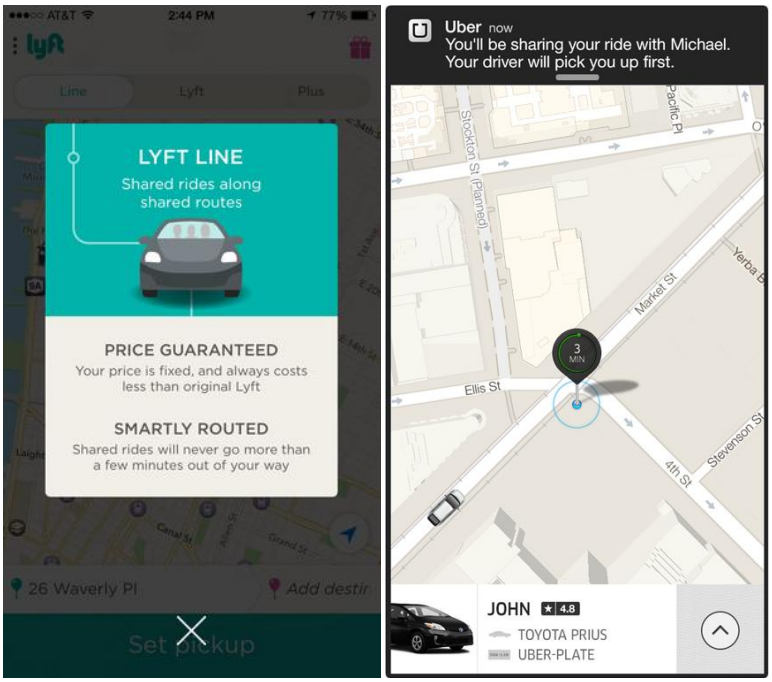
First mile/last mile connections are a particular challenge outside of Davidson County and, to a lesser extent, within Davidson County. This is due to poor pedestrian connections in many areas and the way the region sprawls. There are many different ways to provide, encourage, and enable first and last mile connections, most of which are best suited to specific situations. The implementation of most will require partnerships:

- **Pedestrian Improvements:** One of the largest barriers to transit service outside of Nashville's urban core is poor pedestrian conditions that force transit passengers to walk along major arterials that lack sidewalks and cross streets that lack pedestrian signals or crossings. Local communities will need to take action to make it easier to walk to and from transit.
- **Bicycling Improvements:** In a similar manner as pedestrian access, the region's communities will need improved bicycle facilities to make it easier for people to ride bikes to and from transit. Concurrently, Nashville MTA and RTA can improve bicycle facilities at stations and stops and on board transit vehicles, especially as the agencies develop high capacity transit services.
- **Park-and-Ride/Kiss-and-Ride:** Especially in outer areas, park-and-ride and kiss-and-ride will remain among the most important ways to connect with RTA services. At the present time, RTA and Nashville MTA's primary focus is to develop park-and-ride lots at locations where local businesses and other organizations are willing to make parking available to transit riders. This approach reduces costs but also results in many park-and-ride lots in inconvenient locations. To make service more attractive, Nashville MTA and RTA will likely need to develop more purpose-built park-and-ride lots in more convenient locations, such as the Clarksville park and-ride-lot at the Exit 8 interchange along I-34 (see Figure 57).

FIGURE 57 CLARKSVILLE, TN PARK-AND-RIDE LOT

- **Shuttles:** As service expands, especially outward in the nine counties surrounding Davidson County, it is certain that new shuttle services will be needed to provide connections between Nashville MTA and RTA services and local job sites and other local attractions. These shuttles could be provided by local organizations, transportation management associations (TMAs), and/or Nashville MTA and RTA. The TMA Group—which operates fixed-route and paratransit service for Franklin Transit and manages VanStar vanpool on behalf of RTA and Williamson County—could be a partner in these efforts. Considering the demands on Nashville MTA and RTA to provide more high-level transit services, having these services offered by private employers and other organizations, such as TMAs, would produce a more robust regional transit system. It would also ensure that shuttle services are tailored to specific local needs.
- **Private Rideshare:** Private rideshare companies and their services, and especially those like UberPool and Lyft Line (see Figure 58), provide the potential for transit systems to expand transit services to lower demand areas through partnerships rather than through the provision of direct service. While the development of these types of partnerships is still in the very early stages, they provide the potential to start service more quickly, provide service at lower costs, and better tie expenditures to utilization levels.

FIGURE 58 LYFT LINE AND UBERPOOL APPS



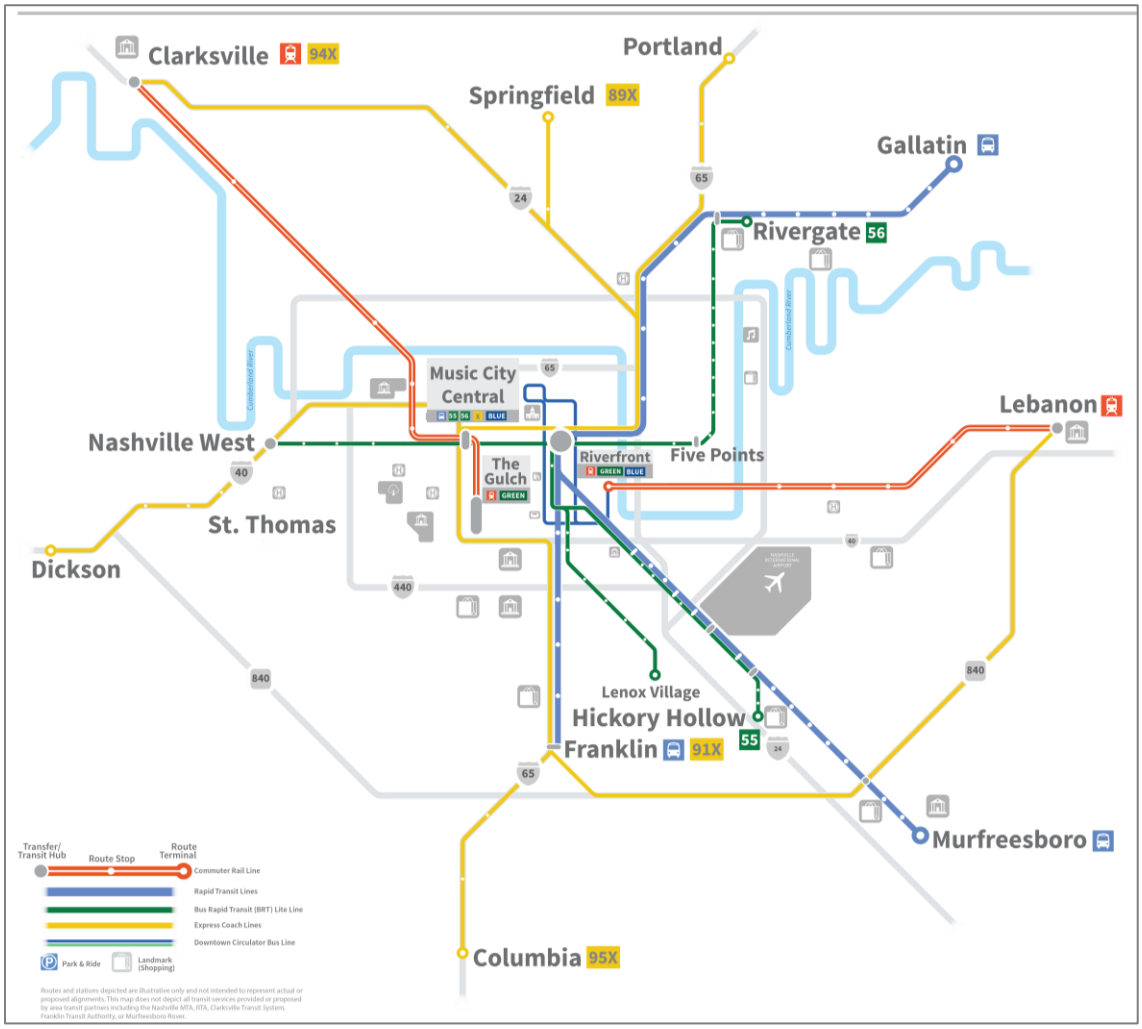
Finally, as has been the case throughout much of the rest of the United States, the development of TMAs to address specialized local transportation needs would greatly enhance first mile/last mile connections. As Davidson County and Middle Tennessee have sprawled, more of the region's residents live and work in areas that cannot be cost-effectively served by traditional fixed-route transit. In these areas, Nashville MTA and RTA will need assistance from private companies and other organizations to provide first and last mile connections.

HIGHER QUALITY SERVICES WILL BE NEEDED

Throughout the country, there has been an increased emphasis on the development of new types of higher quality transit services. These include commuter rail, rapid transit, light rail, Bus Rapid Transit, Rapid Bus/BRT lite, streetcar, and more. In addition, the stakeholder outreach conducted for this effort has made it clear that one of the strongest desires among Middle Tennessee with respect to transit is for higher quality services.

The Nashville Area MPO's 2035 RTP also emphasizes the development of higher quality services, and in particular "Rapid Transit" and commuter rail (see Figure 59):

FIGURE 59 REGIONAL TRANSPORTATION PLAN TRANSIT VISION



- **Rapid Transit:** "Three corridors are identified for future regional rapid transit service, including the region's northeast, southeast, and south corridors. These areas are the most densely populated and fastest growing within the region and have a well-established pattern of cross-county travel. The long-range vision for rapid transit in these corridors includes the development of either light rail transit or dedicated lane BRT that would operate at high levels of service throughout the day. The specific mode or technology used will be determined by future study and depend heavily on development patterns, anticipated ridership, cost of construction, and public support for funding."
- **Commuter Rail:** "The long-range vision calls for continued support for the Music City Star's east corridor commuter rail service and the development of a new commuter rail line in the region's northwest corridor to connect Clarksville and Nashville, two of Tennessee's five most populous cities."
- **Express Coach Service:** "In corridors with strong commuting patterns but without the land development patterns or traffic congestion to warrant dedicated lane transit service, the vision calls for the implementation of premium express coach service. Such service will offer a comfortable and stress-free ride

to and from work for commuters, providing enhanced amenities along the way including high-back seats, wireless internet access, onboard televisions, and restrooms."

SUMMARY

Over the past few decades, the nine counties surrounding Davidson County have grown from largely rural areas anchored by small regional centers to become part of the greater Nashville metropolitan area. By 2010, the nine counties had grown to a total population of more than one million people. Over the next 25 years, the total population of the nine counties is projected to more than double to over 2.3 million people.

Employment will grow even faster than population. In 2010, the nine-county region had a total of 534,000 jobs, or one job for every two residents. In 2040, the number of jobs in the nine-county region is expected to reach one million, or one job for every 2.1 residents. The growth in both population and employment will produce much higher volumes of travel overall, including to and from Nashville and within the nine-county region. Increasing population and employment densities in traditional regional centers and in new emerging areas will greatly increase the demand for transit, and for new types of transit:

- Much more robust commuter service to and from Nashville, including the development of higher quality services such as commuter rail, BRT, and potentially light rail.
- Reverse commute services from Nashville to growing job centers in outlying counties.
- All day regional services to connect regional centers with Nashville and each other, particularly in the northeast, east, southeast, and south corridors.
- Expanded local services in and around expanding regional centers.
- Strong integration between local and regional services.
- The development of first mile/last mile connections between fixed-route transit services and job sites.

These types of improvements will be critical to the region's success. The region's freeways, and in particular I-24 and I-65 to the south are already badly congested. Residents and businesses also desire more and better transit in increasing numbers. The *2014 Nashville Vital Signs Report,* which was produced by the Nashville Chamber of Commerce and the Nashville Area MPO, concluded that, "The ability of our residents to move around the region in their cars is quickly deteriorating and will continue to do so unless we provide better transit options." The stakeholder outreach process conducted for NashvilleNext showed that improving transit was the second highest priority for Nashville's residents, and the "preferred future" includes a much stronger transit system. The stakeholder outreach that is being conducted for this effort is also showing a very strong desire for convenient and attractive high quality transit services that will provide compelling travel options.