

Technical Memorandum 1

Previous and Current Studies



March 2013

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1.0 Introduction

1.1 Corridor Location and Overview

The purpose of the I-24 Multimodal Corridor Study is to examine potential multimodal transportation improvements that would address existing and emerging transportation system issues associated with this strategic corridor through central Tennessee connecting the Clarksville, Nashville and Chattanooga urban areas. The corridor extends from the Kentucky border to where it meets I-75 in Hamilton County, a distance of approximately 185 miles (refer to Figure 1.1).

The analysis of corridor needs will go through a structured process of characterizing existing and projected corridor conditions, describing the purpose and need for corridor improvements, defining a set of performance measures against which to evaluate improvement options, and evaluating potential corridor improvements against these performance measures to develop a set of recommended improvements.

1.2 Purpose of This Document in the Study Process

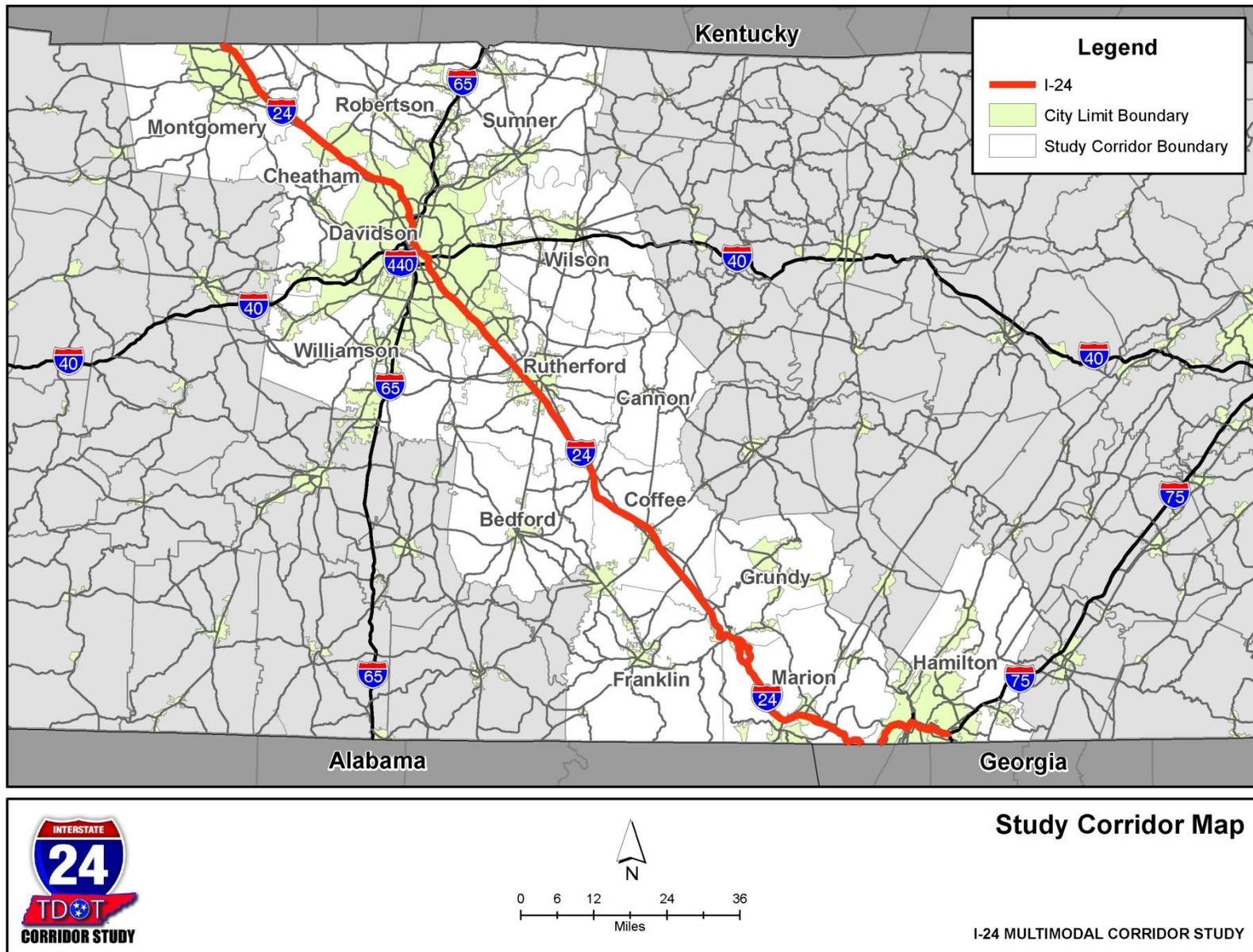
This document identifies all previous transportation plans and studies that impact all modes of travel in the I-24 corridor. The results and recommendations from these previous studies were compiled, reviewed and then included in this document if they were considered appropriate or relevant to this study. An assessment of the currently planned long range priorities for the I-24 corridor was also included in this document.

2.0 System Inventory and Data Collection

Data related to transportation planning and known projects within the corridor were inventoried based on a review of the following transportation planning documents:

- Clarksville Transportation Improvement Program (TIP)
- Clarksville 2035 Metropolitan Transportation Plan (MTP)
- Nashville TIP
- Nashville 2035 Regional Transportation Plan (RTP)
- Chattanooga TIP
- Chattanooga 2035 Long-Range Transportation Plan (LRTP)
- TDOT LRTP
- Southeast Corridor High-Performance Transit Alternatives Study (Nashville)
- Northwest Corridor Conceptual Feasibility Study (Nashville)
- Chattanooga to Nashville Maglev Feasibility Study
- TDOT Rail Plan

Figure 1.1: Study Corridor Map



- Various Project Specific TDOT Transportation Planning Reports
 - Interstate Access Requests
 - Road Safety Audit Reports (RSAR)
 - Interchange Modification Studies
 - Advance Planning Reports

2.1 Review of Transportation Planning Documents

The Statewide and Metropolitan Planning Organizations’ (MPO) Long Range Transportation Plans (LRTP) and Transportation Improvement Programs (TIP) were reviewed to identify projects and studies in the vicinity of the I-24 corridor. Projects along the I-24 corridor ranged from interstate widening projects to the construction of new roadways and the reconstruction of interchanges. Projects also included multimodal and system management elements such as corridor vicinity bicycle networks and HOV lane additions. The applicable projects as identified from the transportation planning documents are shown in Table 2.1 and graphically displayed in Figures 2.1 through 2.6.

Table 2.1: Transportation Projects Identified in Planning Reports – TIP and LRTP

Source	ID	Route and Project Limits	Improvement	Cost	Year	Lead Agency / Funding Type	LRTP# or TIP#
Clarksville 2011-2014 TIP and 20035 MTP	1	Dunbar Cave Rd/Rossvie Road from I-24 to 400' West of Keysburg Road	Widen Rossvie Road to 5 lanes from I-24 to Cardinal Lane with signal; 3 lane from Cardinal Lane to Keysburg Road - transition to 2 lane. Dunbar Cave Road realign from E of John Ross Road to Cardinal Lane; cul-de-sac N end of former Dunbar Cave Road.	\$7,800,000 Constrained	2011 - 2014	City of Clarksville L-STP	TIP# 66
	2	SR-48 (Trenton Road) from US-79 (Wilma Rudolph Blvd) to I-24	Widen from 2 to 5 lanes	\$28,877,380 Visionary	2025	NHS	MTP T-05
	3	I-24 from Kentucky/Tennessee state line to SR-374 Extension	Widen from 4 to 6 lanes	\$148,972,389 Visionary	2035	TN- IM/NHS/S- STP	MTP T-6

Table 2.1: Transportation Projects Identified in Planning Reports – TIP and LRTP (Continued)

Source	ID	Route and Project Limits	Improvement	Cost	Year	Lead Agency / Funding Type	LRTP# or TIP#
Nashville 2011-2015 TIP and RTP	4	I-40/I-24 from Fesslers Lane to Green Street	Road Widening to Construct Auxiliary Lane	Pending Review	2011	TDOT	TIP 2003-004
	5	I-65/I-24 from Trinity Lane to Dickerson Road	Road Widening from 6 to 10 Lanes with 2 being HOVL	\$33,000,000 (underway) Constrained	Design Build in 2012	TDOT IM	TIP 2004-066
	6	I-440 Eastbound Lane from I-65 to I-24	Add Eastbound Lane	\$9,400,000 Constrained	Letting Dec. 2010	TDOT IM	RTP 1012-239
	7	Joe B. Jackson Blvd from US-231 (County Farm Road) to I-24	New road (Joe B. Jackson Blvd)	\$8,700,000 Constrained	2011 - 2015	City of Murfreesboro Non Federal	RTP 1041-125
	8	Waldron Rd/Parthenon Pkwy from I-24 to Murfreesboro Road	Widen to 5 lanes with shoulders and sidewalks	\$10,303,600 Constrained	2011 - 2015	City of Laverne U-STP	RTP 1042-271
	9	Manson Pike/Fortress Blvd and Gresham Lane from I-24 to Puckett Creek Crossing	Realign to build as five-lane roadways with bike lanes, curb and gutter, and sidewalks	\$7,052,000 Constrained	2011 - 2015	City of Murfreesboro Non Federal	RTP 1042-285
	10	I-24 Westbound from I-65 to Old Hickory Blvd	Widen from 4 to 6 lanes	\$61,297,699 Constrained	2016 - 2025	TDOT NHS	RTP 1012-245
	11	I-24 Interchange at Harding Place	Construction of urban diamond interchange	\$5,920,977 Constrained	2016 - 2025	TDOT NHS	LRTP 1013-243
	12	I-24 at Shelby Avenue to and from CBD	Construction of HOV ramps	\$8,881,466 Constrained	2016 - 2025	TDOT IM	RTP 1014-210
	13	I-24/65 from I-24 junction (south of Fern Avenue) to Trinity Lane	Underpass is to be replaced to accommodate 6 lanes in each direction	\$150,000,000 Visionary	2026 - 2035	TDOT/Metro IM	RTP 1012-152
	14	I-24 from Hickory Hollow Pkwy to SR-254 (Bell Road) Exit	Modification of interchange in order to allow access to/from Cane Ridge Road	\$6,573,369 Visionary	2026 - 2035	TDOT/Metro IM	RTP 1014-216
	15	Harding Place (SR-255) from I-24 to CSX Railroad	Widen from 5 to 7 lanes	\$15,760,935 Visionary	2026 - 2035	TDOT/Metro NHS	RTP 1012-151
	16	I-40/65 from the I-65 junction (west of 2nd/4th Avenue) to the I-24 junction (east of 2nd/4th Avenue)	Realignment and segregation of traffic for safety purposes	\$31,875,000 Visionary	2026 - 2035	TDOT/Metro IM	RTP 1014-155
	17	SR-96 (Old Fort Pkwy) from I-24 to Broad (US-41)	Widen from 4 to 6 lanes	\$46,453,130 Visionary	2026 - 2035	City of Murfreesboro NHS	RTP 1042-128

Table 2.1: Transportation Projects Identified in Planning Reports – TIP and LRTP (Continued)

Source	ID	Route and Project Limits	Improvement	Cost	Year	Lead Agency / Funding Type	LRTP# or TIP#
Chattanooga-Hamilton County/North Georgia 2035 TIP and LRTP	18	I-75 interchange at I-24	Interstate, interchange feasibility/environmental study	\$1,000,000	2011	TDOT	TIP 33003
	19	US-27/I-124 from I-24 to South of Tennessee River	Widen from 4 to 8 lanes (the additional lanes are auxiliary lanes)	\$60,108,000	2011 On-going Project	TDOT	TIP 33025
	20	I-24 (Limits Not Provided)	Reconstruction	Obligated construction or complete	-	TDOT	TIP 33114
	21	Street D from I-24 to Chestnut Street	New 2-lane collector road	\$2,974,243 Constrained	2015	Private	LRTP #131
	22	I-75 Northbound to I-24 Westbound lane extension, beyond Belvoir Avenue overpass	Interchange reconstruction, from 1 to 2 lanes	\$21,635,251 Constrained	2025	NHS	LRTP #104
	23	Central Avenue from 3rd Street to I-24 (Complete Streets)	Widen from 4 to 5 lanes to include center turn lane	\$30,397,017 Constrained	2025	STP/TPO	LRTP #107
	24	I-24 from I-59 to I-124	Widen from 4 to 6 lanes	\$382,284,565 Visionary	2035	TDOT	LRTP #2
	25	I-24 from I-75 to US-27/I-124	Widen from 6/8 to 8/10 lanes (adding 1 HOV lane per direction)	\$277,845,329 Visionary	2035	TDOT	LRTP #51
	26	I-24/Market St./Broad Street exit ramps	Interchange improvements	Visionary	-	TDOT	LRTP #51
	27	US-27 from I-24 to Workman Road	Widen from 4 to 6 lanes	Visionary	-	TDOT	LRTP #26
	28	I-75 from I-24 to SR-2	Widen from 6 to 8 lanes (adding 1 HOV lane per direction)	\$122,266,304 Visionary	2035	TDOT	LRTP #49
	29	I-75 from I-24 to Bradley County Line	Widen from 4/6/8 to 8/10 lanes (adding 1 HOV lane per direction)	\$269,104,208 Visionary	2035	TDOT	LRTP #50
	30	Holtzclaw Avenue from Main Street to I-24	Widen from 2 to 4 lanes	Visionary	-	TDOT	LRTP #84
	31	I-75 from I-24 to Exit 12	Widen to 8 general purpose lanes	\$113,310,256 Visionary	2035	TDOT	LRTP
	32	Cummings Hwy from County Line to I-24	Primary Network Bike Project	-	-	-	-
	33	Cummings Hwy from I-24 to Tulip Avenue	Primary Network Bike Project	-	-	-	-
	34	Germantown Road from I-24 to Brainerd Road	Secondary Network Bike Project	-	-	-	-
	35	S Moore Road from Ringgold Road to I-24	Secondary Network Bike Project	-	-	-	-
36	S Moore Road from I-24 to Brainerd Road	Secondary Network Bike Project	-	-	-	-	
TDOT LRTP	37	SR-41 from I-24 junction to 8 miles west of junction	Bike Lane	\$3,400,000	2005 Plan	TDOT	TN LRTP
	38	SR-64/72 from I-24 to SR-11/64-McCallie Avenue	Bike Lane	\$3,600,000	2005 Plan	TDOT	TN LRTP

Figure 2.1: TIP & LRTP Projects in the Clarksville Area

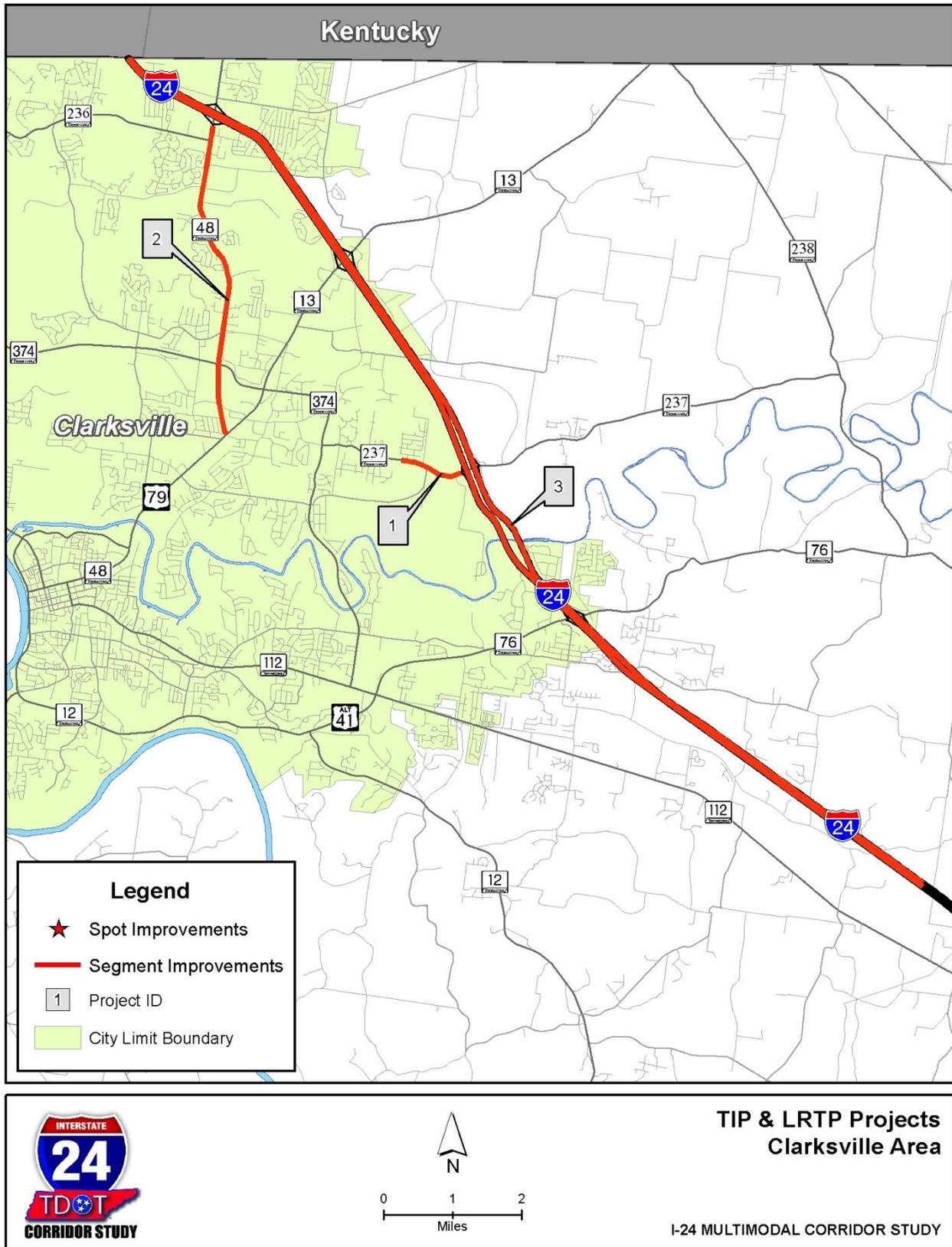


Figure 2.2: TIP & LRTP Projects in the Nashville Area



Figure 2.3: TIP & LRTP Projects in the Nashville Area

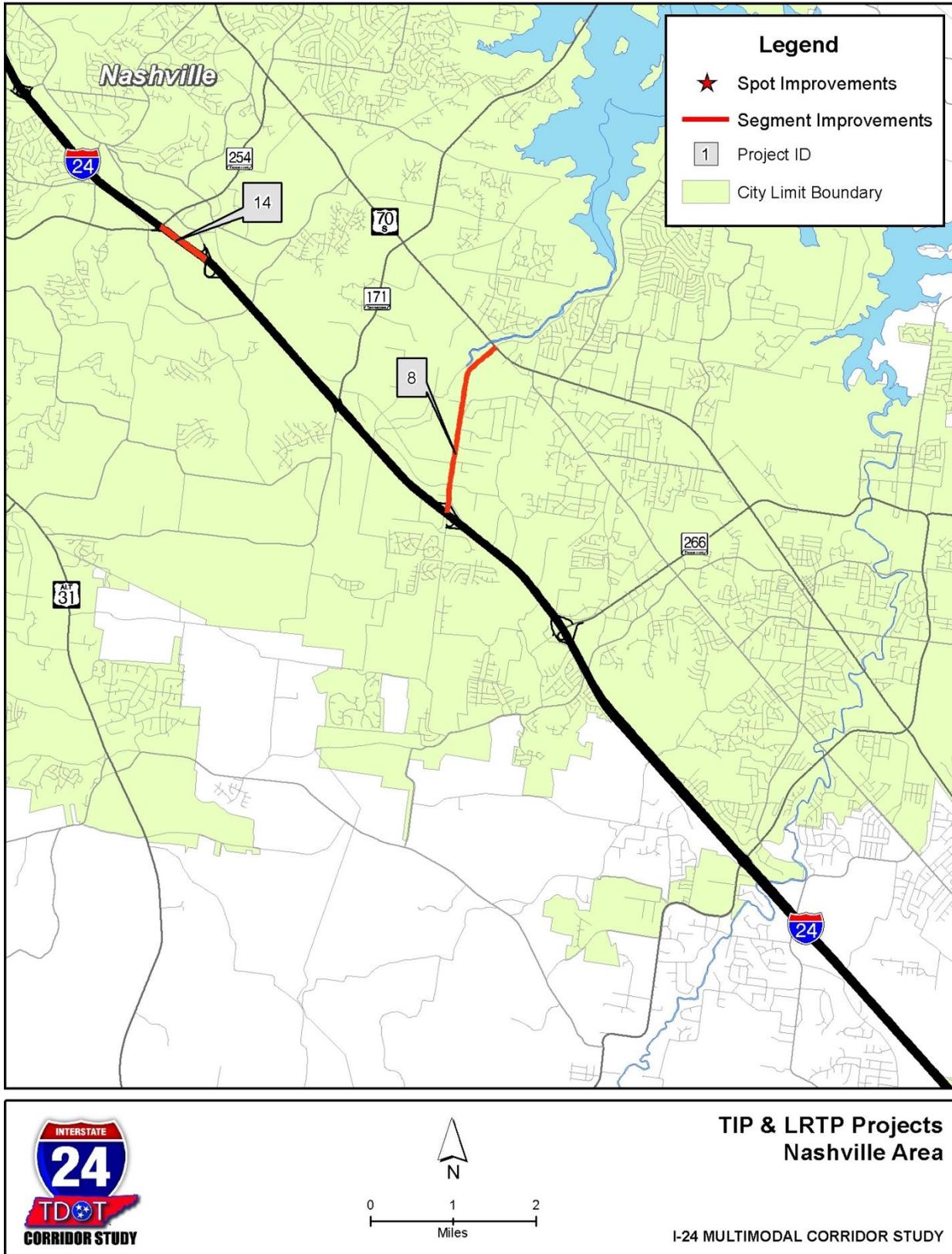


Figure 2.4: TIP & LRTP Projects in the Murfreesboro Area

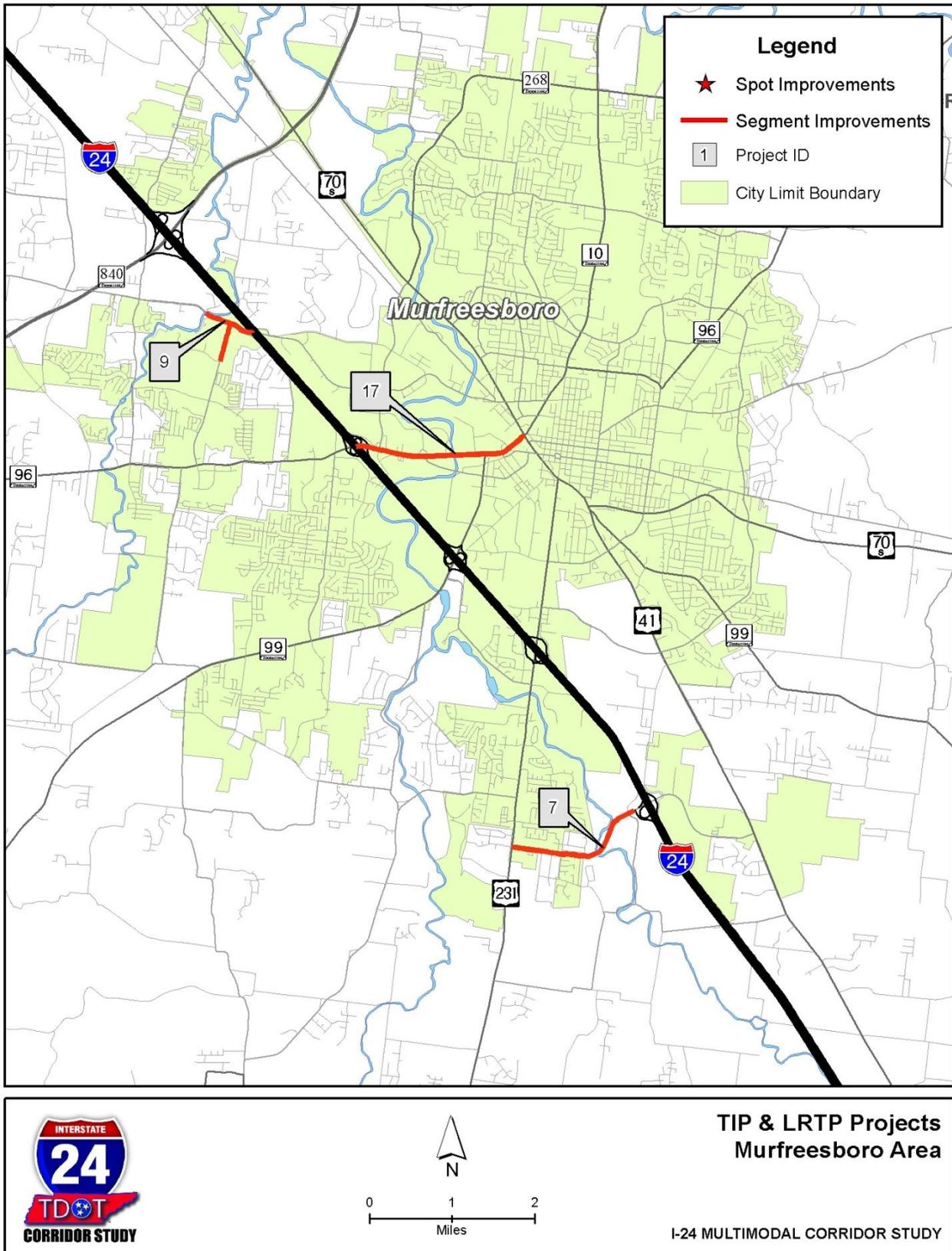


Figure 2.5: TIP & LRTP Projects in the Chattanooga Area

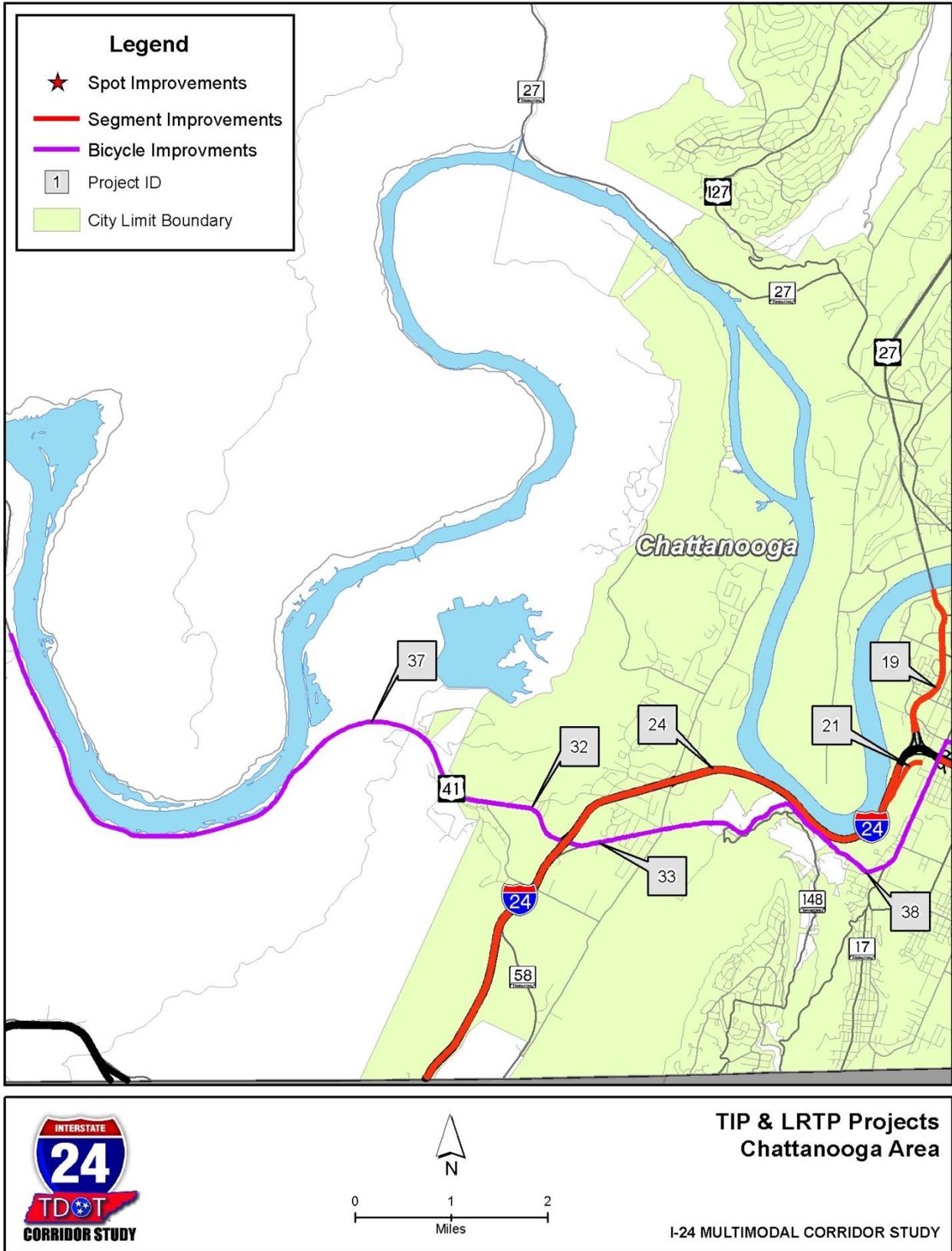


Figure 2.6: TIP & LRTP Projects in the Chattanooga Area



2.2 Projects Identified in Plans and Reports for I-24

The Long Range Transportation Plans (LRTP) for Chattanooga, Nashville, and Clarksville and the Statewide LRTP include widening projects to address congestion issues along I-24. TDOT has also identified improvements to improve operations at interchanges along the corridor with specific requests through Interchange Access reports, feasibility, modification and specialized studies that include bridges and safety analysis (i.e., Roadway Safety Audit Reports [RSARs]). Tables 2.2 and 2.3 list projects currently planned to address capacity deficiencies and interchange access/safety deficiencies, respectively. Many of these projects were also included previously in Table 2.1 with additional details.

Table 2.2: Projects to Address Deficiencies - Capacity

Route and Project Limits	Improvement	Source (Planning/ Project Year)
Dunbar Cave Rd/Rossvie Road from I-24 to 400' West of Keysburg Road	Widen Rossvie Road to 5 lanes from I-24 to Cardinal Lane with signal; 3 lane from Cardinal Lane to Keysburg Road - transition to 2 lane. Dunbar Cave Rd realign from E of John Ross Road to Cardinal Lane; cul-de-sac N end of former Dunbar Cave Road.	Clarksville TIP (2011-2013)
SR-48 (Trenton Rd) from US-79 (Wilma Rudolph Blvd) to I-24	Widen from 2 to 5 lanes	Clarksville LRTP (2025)
I-24 from Kentucky/Tennessee state line to SR-374 Extension	Widen from 4 to 6 lanes	Clarksville LRTP (2035)
I-40/I-24 from Fesslers Lane to Green Street	Road Widening to construct auxiliary lane	Nashville TIP (2011)
I-65/I-24 from Trinity Lane to Dickerson Road	Road Widening from 6 to 10 Lanes with 2 being HOV lanes	Nashville TIP (2012)
I-440 from I-65 to I-24	Add eastbound lane	Nashville RTP (2010)
Joe B. Jackson Blvd from US-231 (County Farm Road) to I-24	New road (Joe B. Jackson Blvd)	Nashville RTP (2011-2015)
Waldron Road/Parthenon Pkwy from I-24 to Murfreesboro Road	Widen to 5 lanes with shoulders and sidewalks	Nashville RTP (2011-2015)
Manson Pike/Fortress Blvd and Gresham Lane from I-24 to Puckett Creek Crossing	Realign to build as five-lane roadways with bike lanes, curb and gutter, and sidewalks	Nashville RTP (2011-2015)
I-24 Westbound from I-65 to Old Hickory Blvd	Widen from 4 to 6 lanes	Nashville RTP (2016-2025)
I-24 Interchange at Harding Place	Construction of urban diamond interchange	Nashville RTP (2016-2025)
I-24 at Shelby Avenue to and from CBD	Construction of HOV ramps	Nashville RTP (2016-2025)
I-24/65 from I-24 junction (south of Fern Avenue) to Trinity Lane	Underpass is to be replaced to accommodate 6 lanes in each direction	Nashville RTP (2026-2035)
I-24 from Hickory Hollow Pkwy to SR-254 (Bell Road) Exit	Modification of interchange in order to allow access to/from Cane Ridge Road	Nashville RTP (2026-2035)

Table 2.2: Projects to Address Deficiencies – Capacity (Continued)

Route and Project Limits	Improvement	Source (Planning/ Project Year)
Harding Place (SR-255) from I-24 to CSX Railroad	Widen from 5 to 7 lanes	Nashville RPT (2026-2035)
SR-96 (Old Fort Pkwy) from I-24 to Broad (US-41)	Widen from 4 to 6 lanes	Nashville RTP (2026-2035)
I-75 interchange at I-24	Interstate, interchange feasibility/environmental study	Chattanooga TIP (2011)
US-27/I-124 from I-24 to South of Tennessee River	Widen from 4 to 8 lanes (the additional lanes are auxiliary lanes)	Chattanooga TIP (2011)
I-24 (Limits Not Provided)	Reconstruction	Chattanooga TIP <i>Visionary Project</i>
Street D from I-24 to Chestnut Street	New 2-lane collector road	Chattanooga LRTP (2015)
I-75 Northbound to I-24 Westbound lane extension, beyond Belvoir Avenue overpass	Interchange reconstruction, from 1 to 2 lanes	Chattanooga LRTP (2025)
Central Avenue from 3rd Street to I-24 (Complete Streets)	Widen from 4 to 5 lanes to include center turn lane	Chattanooga LRTP (2025)
I-24 from I-59 to US-27/I-124	Widen from 4 to 6 lanes	Chattanooga LRTP (2035)
I-24 from I-75 to US-27	Widen from 6/8 to 8/10 lanes (adding 1 HOV lane per direction)	Chattanooga LRTP (2035)
US-27 from I-24 to Workman Road	Widen from 4 to 6 lanes	Chattanooga LRTP <i>Visionary Project</i>
I-75 from I-24 to SR-2	Widen from 6 to 8 lanes (adding 1 HOV lane per direction)	Chattanooga LRTP (2035)
I-75 from I-24 to Bradley County Line	Widen from 4/6/8 to 8/10 lanes (adding 1 HOV lane per direction)	Chattanooga LRTP (2035)
Holtzclaw Avenue from Main Street to I-24	Widen from 2 to 4 lanes	Chattanooga LRTP <i>Visionary Project</i>
I-75 from I-24 to Exit 12	Widen to 8 general purpose lanes	Chattanooga LRTP (2035)

Table 2.3: Projects to Address Deficiencies – Interchange Access/Safety

Project Limits	Improvement	Source	Study Year And Current Status	Location
I-24 interchange at SR-55	Interstate access request	TDOT	2012 (Study Approved)	Coffee Co. (Manchester, TN)
I-24 near mile marker 53	Road Safety Audit Report (RSAR)	TDOT	2008 (Built)	Davidson Co. Southwest Nashville, TN
I-24 interchange at Hickory Hollow Pkwy	Interstate access request	TDOT	1997 (Built)	Davidson Co. Southwest Nashville, TN
I-24 at US-41 (Murfreesboro Pike)	Interstate access request	TDOT	2002 (Study Approved-No Action on Project)	Davidson Co. Southwest Nashville, TN
I-24 and I-65	Road Safety Audit Report (RSAR)	TDOT	2005 (Built)	Davidson Co. Nashville, TN
I-24 interchange at Southeast Corridor	Interstate access request	TDOT	2006 (MPO Study No Action by TDOT)	Davidson Co. Nashville, TN
I-24 Bridge over Patton Creek & Elk River	Bridge Studies	TDOT	2002 (Built)	Grundy Co.
I-24 and US-27/I-124 & Market Street (2 projects)	Interstate access request / interchange modification study	TDOT	2012 (Unapproved Draft Report)	Hamilton Co. Chattanooga, TN
I-24 interchange at I-75	Interstate access request	TDOT	2012 (Unapproved Draft Report)	Hamilton Co. Chattanooga, TN
I-24 and US-64 Freeway	Road Safety Audit Report (RSAR)	TDOT	2009 (Built)	Marion Co.
I-24 interchange at US-72 & 64 (SR-27/150)	Interstate access request	TDOT	2002 (Built)	Marion Co.
Weigh station site on I-24 near KY line	Advance planning report	TDOT	2002 (No Action By TDOT)	Montgomery Co. Clarksville, TN
I-24 interchange at 840 N	Interstate access request	TDOT	Study Dropped	Montgomery Co. Clarksville, TN
I-24 interchange at US-79	Interstate access request	TDOT	Study Dropped	Montgomery Co. Clarksville, TN
I-24 interchange at Manson Pike	Interstate access request	TDOT	Complete	Rutherford Co.
I-24 interchange at US-231	Interstate access request	TDOT	Study Never Developed	Rutherford Co.
I-24 proposed interchange at Rocky Fork Road	Interchange feasibility study	TDOT	2004 (Project Not approved by FHWA)	Rutherford Co.
I-24 at SR-96	Interstate access request / interchange modification study	TDOT	Complete	Rutherford Co.

3.0 Freight

3.1 Truck Movements Summarized

Commercial truck traffic impacts roadway capacity, structural performance and resulting maintenance of pavement surfaces, and safety of a roadway system as compared to that of passenger cars. Because of their length, weight, and operating characteristics, trucks present a particular set of challenges to any corridor. However, trucks are vital to the economic vitality of the regions and states they serve. Truck activity along the I-24 corridor was summarized in the Tennessee Long Range Transportation Plan (LRTP) and the LRTPs of MPOs in the region.

The Modal Needs portion of the Tennessee LRTP pinpointed several facts and issues that relate to freight transportation and truck movements in particular. Trucks carry 74 percent of the total freight shipments in Tennessee. Tennessee's interstate highway system makes up only 1.2 percent of the state's total road mileage, but carries 80 percent of the total truck travel in the state.

The Tennessee LRTP provides a travel demand model for the interstate system and major routes throughout the state. The model projects future travel for both passenger cars and trucks, with a base year of 2003 and horizon year of 2030. In order to develop estimates of future truck activity along the corridor, a preliminary truck model run was developed for the year 2030. The model output gave the following results related to truck activity:

- Total vehicle miles traveled (VMT) is projected to increase by only 60 percent between 2003 and 2030, while truck VMT is expected to increase by 129 percent. Truck-related issues are therefore likely to have a greater impact on the transportation system.
- The interstate system's operational performance is expected to become worse. Average speeds on freeways in Tennessee are expected to drop from 66 mph to 57 mph due to increased congestion.
- Intercity travel times are expected to increase.

The following is a brief summary of the truck traffic and related issues facing each of the major urban areas in the study corridor:

3.1.1 Clarksville

The greatest portion of commodities transported in and out of the Clarksville region is moved by truck. More than 440,000 trucks transport 6.9 million tons in and out of Montgomery County and Christian County (Kentucky) each year. Trucks carry about 58% of all commodities throughout the region. Within the MPO planning area, the greatest volume of truck traffic occurs along I-24. By the year 2035 the entire portion of I-24 that runs through the MPO area is expected to carry more than 5,000 trucks per day.

3.1.2 Nashville

I-24 is one of three major interstates that intersect in Nashville. Throughout the year, Nashville's freight infrastructure carries enormous amounts of traffic—just under 300 million tons. Trucking is by far the most prominent mode of freight transport in the region; 87% of the total tonnage is carried by truck. The freight tonnage which impacts the Nashville region is expected to increase by 35% between 2007 and 2035, according to the Transearch dataset.

3.1.3 Chattanooga

The Chattanooga LRTP states the TPO will need to dedicate resources specifically to address freight issues in the region throughout the planning horizon. Chattanooga is situated at the crossroads of I-24, I-75, and I-59, and is therefore an important center for freight activity. The projected growth in freight traffic volume places greater importance on the need for funding of projects aimed at improving freight infrastructure and mobility.

3.2 Summary of Freight Issues and Studies

The following is a summary of the freight transportation issues and plans for each of the three major cities along the I-24 route. This information is based on the planning documents, TIP documents, and previous studies that were reviewed for this study.

3.2.1 Clarksville

The Clarksville area is well-suited to the transport of freight with its diverse transportation system. Trucking is by far the most widely utilized mode of freight transport and, therefore, the majority of the future improvements recommended in the Clarksville Metropolitan Transportation Plan (MTP) have a major focus in promoting truck mobility for the region.

One of the seven goals of the MTP is to “Develop an Integrated Multi-Modal Transportation System that Balances the Needs of both Passenger and Freight Traffic.” The improvements that are tentatively planned for the next 25 years aim to provide adequate capacity and connectivity for the movement of goods throughout the region. Two projects that will help accomplish these goals are the widening of I-24 and the construction of SR-374 from Dover Road to SR-149. These and other capacity and mobility improvement projects that are slated to be completed within the next 25 years are critical to the continuation of the region's economic vitality.

The Clarksville MTP also reported the findings of an analysis of commodity flows that was performed based on flow data from Transearch. The analysis gives a summary of the flows into and out of the two counties (Montgomery County, Tennessee and Christian County, Kentucky) in the MPO planning area in 2007. A few of the statistics reported are summarized below:

- From Montgomery County, a little over 4 million tons of commodities were shipped to other parts of the U.S.
- Approximately 4.9 million tons of commodities were shipped to Montgomery County from other parts of the U.S.

- From Christian County, approximately 936,000 tons of commodities were shipped to Tennessee counties
- Nearly 1 million tons of commodities were shipped to Christian County from Tennessee counties

I-24 is located in Montgomery County which, as these statistics show, is an important center for freight movement in the state. Adequate freight infrastructure and appropriate planning and policy-making are, therefore, vital to the economic vitality of the region.

3.2.2 Nashville

The Nashville area serves as a transportation hub for many industries, with highway, rail, air, and barge facilities all available for freight distribution. Three major interstate highways converge in Nashville (I-24, I-40, and I-65), and numerous freight carriers have terminal locations in the area. All of these factors provide great economic benefits for the area, but they also present the region with many issues associated with enormous amounts of freight traffic. In order to help identify these issues and plan for future freight needs, the Nashville Area MPO is currently conducting the *Freight & Goods Movement Study: Phase II*. This study intends to help regional partners with the following:

- Predict future volumes of freight traffic through 2035
- Identify areas which are at risk for future capacity constraints and infrastructure deficiencies
- Pinpoint potential traffic bottlenecks and safety concerns
- Assess the costs and benefits associated with potential improvements

The study will also be the basis for the development of specific projects and will pinpoint potential funding for those projects. It will also evaluate solutions to facilitate the expected increases in freight traffic while still prioritizing safety and mobility throughout the region. The study's recommendations will include the following:

- Identification of a freight routing system
- Coordination of industrial development and land use planning
- Development of urban design standards for freight infrastructure
- Incorporation of heavy trucks into transportation facility design

Because the I-24 corridor is an important gateway for shipments going from the Midwest into the Atlanta area, the Nashville MPO has expressed interest in performing a potential freight diversion analysis for I-24; a similar study was completed in April 2008 for the I-40 corridor.

3.2.3 Chattanooga

In 2008 the Chattanooga-Hamilton County North Georgia Transportation Planning Organization conducted a Freight Transportation Study and Plan (Phase I) with the goal of improving the region's freight planning process. The following were the objectives of the study:

- Evaluate the current state of the freight planning process and develop benchmarks for the TPO
- Gather relevant freight planning data for use in TPO planning activities
- Create a framework for proceeding with freight planning in the TPO area

The goals of Phase II (Completed in July 2011) of the study were to identify capital investments, operational improvements, and other initiatives that will improve the efficient movement of goods through the region and contribute to the region's economic development objectives.

The Chattanooga TPO has recommended the establishment of a freight subcommittee of the TPO in order to meet the region's growing freight needs. The Freight Task Force's main objective would be to ensure that the freight community's concerns and priorities are taken into account during regional transportation planning activities. Specifically, the task force should seek to provide the freight community with both general and mode-specific information about the transportation program, educate decision-makers about the freight community's concerns, and comment on transportation projects that address the needs of the freight community. The subcommittee should also participate in planning studies to address high-priority issues and provide the necessary information for transportation planning purposes.

4.0 Economic Access

Based on a review of the Long Range Transportation Plans and Transportation Improvement Programs of the urban areas in the study corridor, the need for additional or improved interchange access to I-24 was identified.

For urban areas, new interchange access or modification is generally identified through the long range planning process of the Metropolitan Planning Organizations. For rural areas, the need for new or improved interchange access is generally identified through the Statewide long range planning process. Interchange modification or justification studies can be requested by local officials.

Table 4.1 lists the proposed locations of new interchanges and existing interchanges identified for improvement. Several of these projects were also included previously in Table 2.1 with additional details.

Table 4.1: New Interchanges and/or Interchange Improvements for Economic Access

Project Limits	Improvement	Source	Year
I-24 interchange at SR-55 in Coffee Co.	Interstate access request – interchange modifications	Interstate Access Request	2012 (Study Approved)
I-24 Interchange at Harding Place	Construction of urban diamond interchange	Nashville RTP	2016 - 2025
I-24/65 from I-24 junction (south of Fern Avenue) to Trinity Lane	Underpass is to be replaced to accommodate 6 lanes in each direction	Nashville RTP	2026 - 2035
I-24 from Hickory Hollow Pkwy to SR-254 (Bell Road) Exit	Modification of interchange in order to allow access to/from Cane Ridge Rd	Nashville RTP	2026 - 2035
I-75 interchange at I-24	Interstate, interchange feasibility/environmental study	Chattanooga TIP	2011
I-75 Northbound to I-24 Westbound lane extension, beyond Belvoir Avenue overpass	Interchange reconstruction, from 1 to 2 lanes	Chattanooga LRTP	2025
I-24/Market Street/Broad Street exit ramps	Interchange improvements	Chattanooga LRTP	2026-2035

5.0 Rail and Transit

Continued increases in traffic congestion in the Chattanooga to Nashville corridor and the Nashville to Clarksville corridor present a growing need for alternative modes of transportation. The I-24 corridor has been evaluated for high-speed rail and other public transit alternatives in order to connect these urban areas. The following sections summarize the general findings of these studies.

5.1 Southeast Corridor High-Performance Transit Alternatives Study (2007)

A transit alternatives study for the Nashville southeast corridor was completed in 2007 by the Nashville MPO called the Southeast Corridor High-Performance Transit Alternatives Study. The southeast corridor is approximately 30 miles long and connects Downtown Nashville and Downtown Murfreesboro. Among the transit alternatives considered were bus rapid transit, light rail, and commuter rail. After much evaluation, a combination of phased bus service enhancements along with new bus stations, queue jump and signal improvements at intersections, and short segments of bus ways were chosen as the desired improvements. The development of express bus and skip stop bus services along I-24 was included as part of the phased bus service enhancements. The new express bus service for I-24 was slated as a short-term improvement (1-to-5 year period). The construction of queue jump facilities to allow buses to bypass traffic at key I-24 interchanges, as well as the bus station and skip stop improvements, were set as mid-term improvements (5-to-10 year period). Queue jump facilities were identified for the following locations:

- Bell Road
- Waldron Road

- Sam Ridley Parkway
- Nissan Parkway
- SR 96

Long-term improvements for the corridor focus on improvements in infrastructure which will maintain or increase the efficiency of the transit system.

5.2 Northwest Corridor Conceptual Feasibility Study (2009)

Another transit alternatives study was conducted in 2009 as the Northwest Corridor Conceptual Feasibility Study. It assessed the corridor that connects Clarksville with Nashville to determine if commuter rail is feasible for the corridor. The analysis considered preliminary alignment, cost, and elements of operations. This effort is considered a critical early step in establishing a commuter rail line between Nashville and Clarksville. The below items outline the various next steps to continue progress toward bringing commuter rail to fruition:

- Initial Notification Report to FTA for awareness that the corridor is being considered
- Additional ridership modeling is needed
- Full scale alternatives analysis
- Select a locally preferred alternative and proceed with protection of ROW as identified
- Conduct project development and construct project

5.3 Chattanooga-to-Nashville Maglev Feasibility Study (2008)

This study was developed to investigate the potential for High Speed Ground Transportation (HSGT) between Chattanooga and Nashville. This project is part of a larger transportation plan to connect Atlanta, Chattanooga, and Nashville with high-speed trains. Maglev is short for magnetic levitation which eliminates the need for wheels allowing for contact-free travel at speeds 250-300 miles per hour. Information gained through study of feasibility of high-speed ground transportation between Atlanta and Chattanooga indicated benefits to extending such a facility northwest to Nashville along the I-24 alignment. Funding is currently being pursued by state officials for the high-speed service.